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**Harold L. Ickes, Secretary**

**GEOLOGICAL SURVEY**

**W. C. Mendenhall, Director**

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**Bulletin 919**

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# **SPIRIT LEVELING IN MICHIGAN**

**1896-1938**

**J. G. STAACK**

**Chief Topographic Engineer**



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# SPIRIT LEVELING IN MICHIGAN, 1896-1938

J. G. STAACK, Chief Topographic Engineer

## INTRODUCTION

*Scope of report.*—This bulletin contains the results of all spirit leveling in Michigan done by the Geological Survey, United States Department of the Interior, including those heretofore published.<sup>1</sup> Descriptions of the points for which figures of elevation have been determined are listed according to the quadrangles in which the points occur, and the quadrangles are arranged in alphabetic order. Results of spirit leveling other than that done by the Geological Survey are not included.

As a supplement to the list of bench marks given in this bulletin, a tabulated list of approximate elevations of other points of interest in the State is appended.

*Cooperation.*—Leveling in Michigan by the Geological Survey prior to 1902 was carried on under allotments from Federal funds. In the fiscal years 1902, 1904-21, 1926, and 1927 the State, through the office of the State Geologist, contributed to the cost of mapping and control surveys. The Michigan State Highway Department, as the cooperating agency for the State, entered into an agreement with the Geological Survey in 1929 to conduct surveys for a control and mapping program, the cost to be shared equally. This agreement terminated at the close of the fiscal year 1939.

*Classification of leveling.*—Spirit leveling is classified according to the degree of refinement in the instruments and methods used and according to the closure errors.

First-order leveling<sup>2</sup> consists of leveling done with the most improved instruments, all sections being leveled twice, in opposite directions, under varying conditions. Closures are not allowed to exceed the amount in feet represented by the formula

$$0.017\sqrt{\text{length of section in miles.}}$$

<sup>1</sup> For the results of spirit leveling in Michigan previously published see Triangulation and spirit leveling—Michigan: U. S. Geol. Survey 20th Ann. Rept., pt. 1, pp. 411-412, 1899; Triangulation and spirit leveling—Michigan: U. S. Geol. Survey 21st Ann. Rept., pt. 1, p. 465, 1900; Results of spirit leveling in Michigan and Wisconsin, 1897 to 1909, inclusive: U. S. Geol. Survey Bull. 461, pp. 8-28, 1911; Results of spirit leveling in Michigan, 1911 and 1913: U. S. Geol. Survey Bull. 559, 79 pp., 1914.

<sup>2</sup> See Avers, H. G., Manual of first-order leveling: U. S. Coast and Geodetic Survey Special Pub. 140, 1929.

All corrections for rod error, temperature, and unbalanced sights are applied, as well as the orthometric corrections for convergence toward the poles of level surfaces of different elevations.

Second-order leveling, according to regulations of the Geological Survey, comprises lines leveled twice with reliable instruments, though not necessarily of the most improved type. Closures are not allowed to exceed  $0.035\sqrt{\text{length of section in miles}}$ .

Third-order leveling is made up of lines that are run, either with first-order equipment or with an engineer's wye level and rods of the New York type, in single-line circuits that are required to close within the limits, in feet, of  $0.05\sqrt{\text{length of circuit in miles}}$ . This is equivalent to  $0.071\sqrt{\text{length of section}}$  if the line is leveled twice.

All leveling done by the Geological Survey in Michigan is of third-order accuracy except as otherwise stated.

*Adjustments.*—The adjustment of a net of leveling begins with the first-order lines. Most of these lines in both the United States and Canada have already been combined in a general net, and the orthometric differences derived from the observed values by correction for the convergence of level planes toward the north have been adjusted by least squares to remove accidental closure errors. The latest adjustment of this kind was made in 1929 by the United States Coast and Geodetic Survey and is known as the "1929 general adjustment of first-order leveling." This adjustment included the first-order lines in Michigan,<sup>3</sup> and the elevations thus derived are the fundamental references for elevations determined by second- and third-order nets. The third-order leveling of the Geological Survey in Michigan has been adjusted by determining weighted mean elevations for new junction points and prorating the errors of each link. The weights are taken as the reciprocals of lengths of links. The third-order net has thus been brought into agreement with the best information available for the results of the fundamental first-order leveling, although the published figures of elevation may be changed slightly by future adjustments of the level net.

*Bench marks.*—The bench marks used by the Geological Survey (pl. 1) are of two general classes—principal and supplementary. Principal bench marks are placed at more or less regular intervals along a level line, at sites offering them protection from disturbance and affording favorable conditions for their future recovery. They are usually bronze or aluminum tablets, iron posts, or copper bolts. Supplementary or auxiliary bench marks are less formal in design and are placed between the principal bench marks. Some of the supplementary bench marks in common use are marks cut with a chisel on rock or masonry, spikes, and copper nails fitted with washers.

<sup>3</sup> See Rappleye, H. S., First-order leveling in Michigan: U. S. Coast and Geodetic Survey Special Pub. 176, pp. 2-5, 1932.

The tablets are circular in shape, measure  $3\frac{3}{8}$  inches in diameter, and taper from a thickness of three-eighths of an inch at the center to about a quarter of an inch near the rounded edge. During a short period in the earlier years of the Survey's leveling, the tablets were made of aluminum. The softness of this metal, however, made them susceptible to damage, so that aluminum as a material for tablets was soon discarded. The earliest tablets were made of bronze, and bronze is the material now specified for standard tablets. Each tablet is cast with a 3-inch shank extending from the center of its reverse side, by means of which it is cemented in place, and each bears an inscription on its face. The inscriptions on the tablets already placed differ in many details, because of changes in design at various times. The face of every tablet, however, is cast with the words "U. S. Geological Survey," a cross at the center, which indicates the fiducial point for position or elevation, and the words "Elevation above sea." On some tablets the inscription indicates that they were set in connection with a project in which a State or other organization cooperated; on some the inscription includes a triangle, which signifies a located point, enclosing the cross at the center. Tablets bearing a triangle enclosing a cross may be used not only as bench marks but also as triangulation- or traverse-station marks. The inscription on most of the tablets already set includes the warning "250 dollars fine for disturbing this mark," but the latest design omits this phrase and adds the sentence "For information write the Director, Washington, D. C."

If the tablet is set to mark a transit-traverse station the traverseman stamps upon it with steel dies letters indicating this use, such as "Prim Trav Sta," "P T S," or "T T," as well as his own identifying letter or letters, the serial number of the station, and the year. If the tablet is set as a bench mark, the levelman stamps it with his identifying letter or letters, the serial number of the bench mark, and the year. He may at the same time stamp upon it the figures of elevation to the nearest foot, or these figures may be added later. A tablet may be used both as a traverse-station mark and as a bench mark. The engineer who establishes the mark stamps it as noted above and records the stamping with the description to facilitate identification. Engineers who use the mark in subsequent surveys do not alter the original stamping nor add their own stampings with the exception of figures of elevation.

The figures of elevation that appear on a tablet are usually those determined by field computation only. It is sometimes found, therefore, that they do not represent the latest information. This has happened either because they refer to some independent datum temporarily adopted before first-order trunk lines made standard datum available or because a later adjustment made in the office has rendered necessary an appreciable change in the figures as determined in the

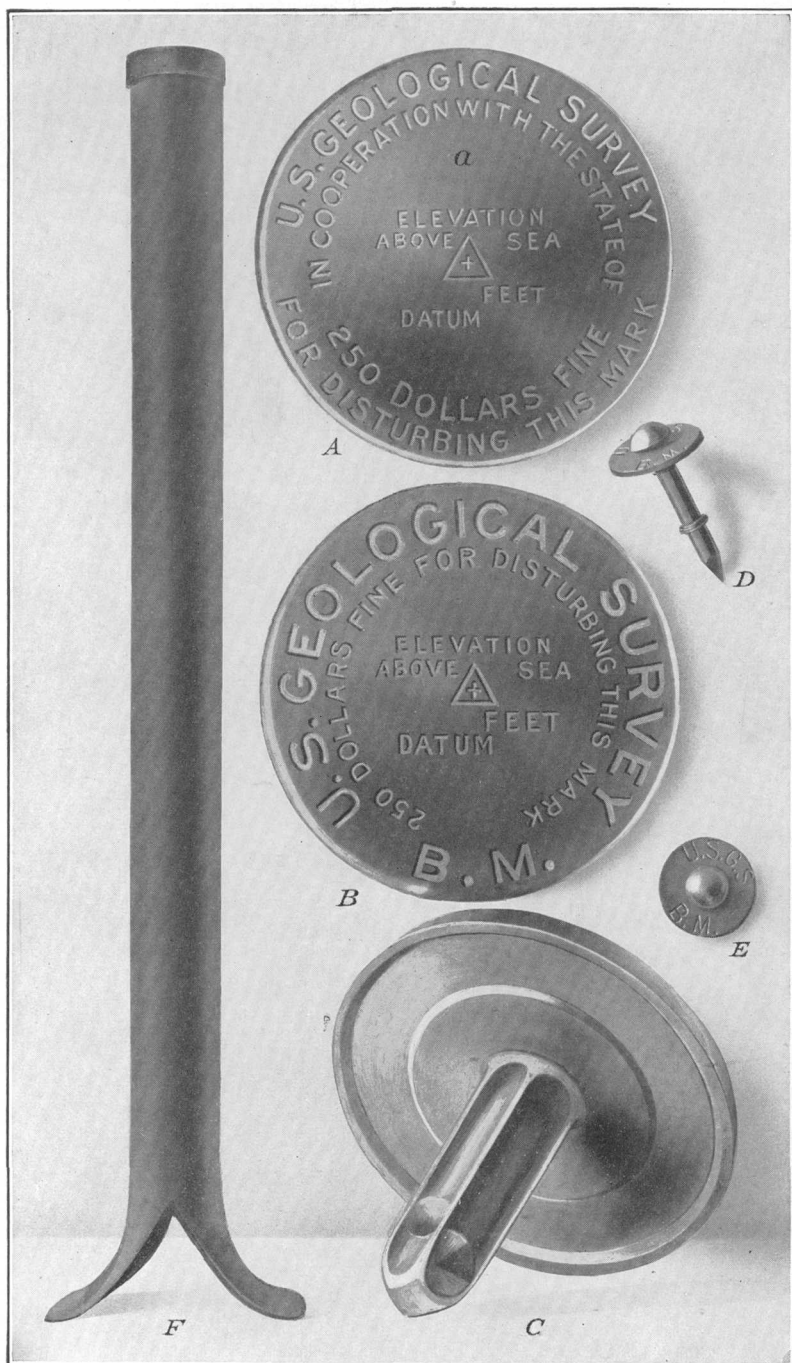
field. It is assumed that engineers and others who require accurate figures of elevation for the marks will use those printed in the bulletin, instead of accepting the stamped figures. If the appropriate bulletin is not conveniently accessible, a request for the desired information may be addressed to the Director, Geological Survey, United States Department of the Interior, Washington, D. C.

The tablet, of whatever style, is cemented into a hole drilled in solid rock or in the wall of a public building, bridge abutment, or other masonry structure. Where masonry or rock is not available, the tablet is set in the top of a reinforced concrete post, which may be either precast or mixed and molded at the selected site. The posts are about 8 inches square or 8 inches in diameter at the top and larger at the base. They are 36 to 48 inches long and generally are set so as to project about 6 inches above ground.

Antedating the concrete posts which are now constructed to hold the tablets, in places where masonry or rock is not available, are wrought-iron posts, to the tops of which are riveted bronze caps similar in design to the tablets. These iron posts measure 4 feet in length and  $3\frac{1}{2}$  inches in outer diameter and are set about 3 feet in the ground. The bottom of the post spreads out to a width of about 10 inches in order to give it a firm footing in the earth. No iron posts have been set in recent years; they have proved impracticable, as they are easily disturbed and are eventually destroyed by rust at the ground level.

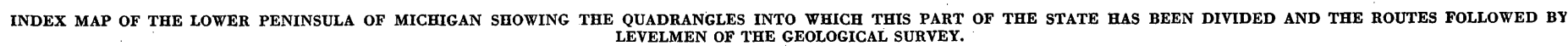
The third form of principal bench mark, set only in the early leveling, is a copper bolt, designed to be wedged into a drill hole in rock or masonry and perhaps further secured with lead or cement. This bolt measures 4 inches in length and 1 inch in diameter and has a slot at the bottom end into which fits a brass wedge. The wedge serves to expand the lower part of the bolt, so that after the bolt has been driven nearly its full length into the hole it cannot easily be removed. The exposed end of the bolt bears an appropriate inscription, stamped upon it with steel dies. This inscription is made up of the letters "U S G S," the letters indicating the datum used, the figures of elevation, and the abbreviated word "Ft."

Supplementary bench marks are of many kinds. One kind consists of a copper nail  $1\frac{1}{2}$  inches long supplied with a copper washer seven-eighths of an inch in diameter. The nail is driven into the root of a tree or cemented into rock. The designation "U S G S B M" is stamped on each washer, and on some washers the abbreviation of the name of the cooperating State is added. Another kind of supplementary bench mark is a chiseled square, used on the horizontal surface of rocks or masonry structures, or a chiseled cross, used on a vertical surface. Nails, track spikes, and small capped iron pipes also serve as supplementary bench marks, and easily described and recog-

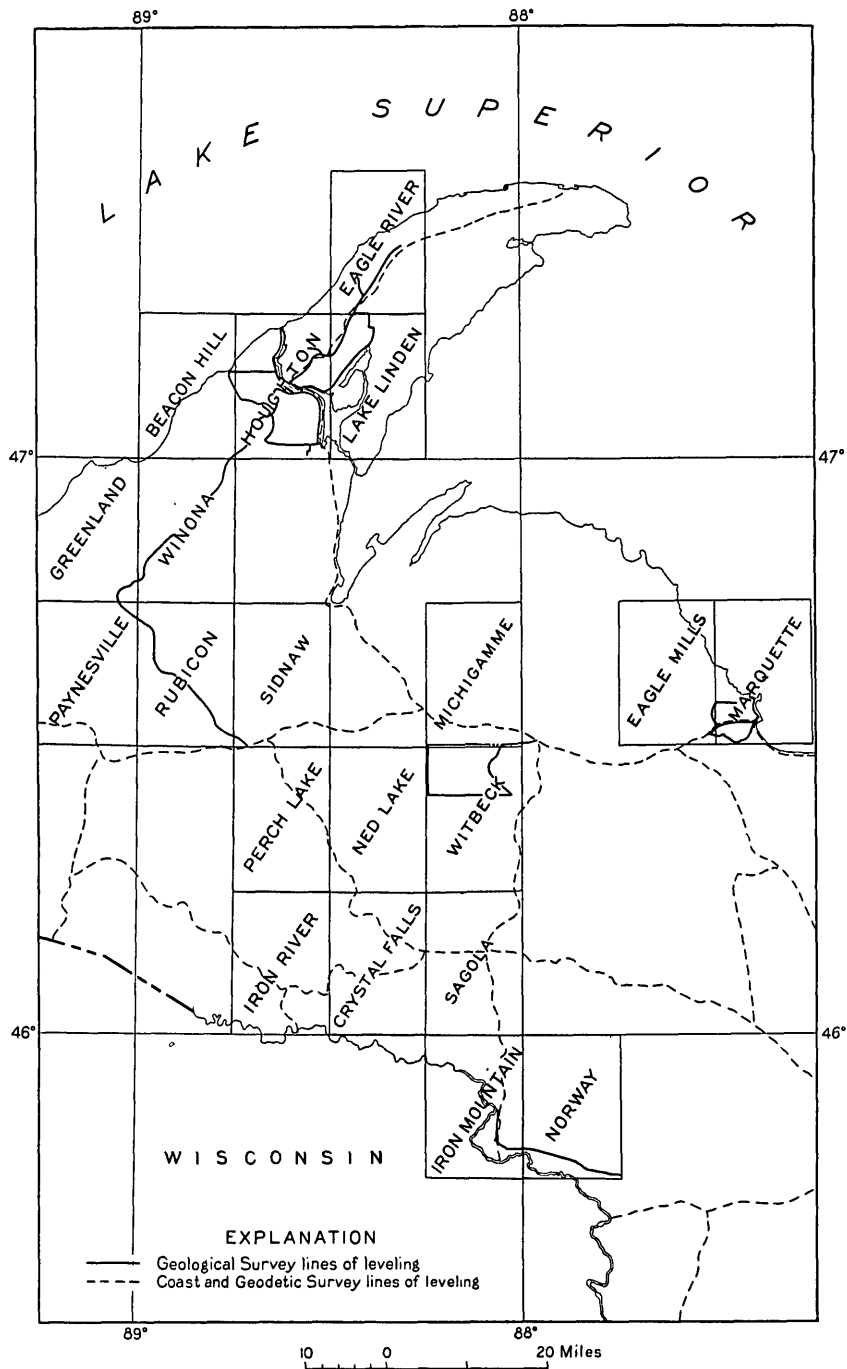


STANDARD GEOLOGICAL SURVEY BENCH MARKS.

*A* and *B*, Standard tablets, principal bench marks, used where masonry or rock is available to hold them. *A* is used in cooperating States; the State name is inserted at *a*. *C*, Under side of *A* and *B*, showing shank used to hold tablet in place. *D* and *E*, Two views of copper nail and copper washer, a supplementary bench mark, used for points lying between those marked by standard tablets. *F*, Standard iron post fitted with bronze cap similar in design to the standard tablet, formerly used where no rock or masonry was available; superseded by concrete post with tablet set in top.







INDEX MAP OF A PART OF THE UPPER PENINSULA OF MICHIGAN SHOWING THE QUAD-RANGLES INTO WHICH THIS PART OF THE STATE HAS BEEN DIVIDED AND THE ROUTES FOLLOWED BY LEVELMEN OF THE GEOLOGICAL SURVEY.

nized points, such as doorsills and tops of hydrants, are occasionally used.

*Preservation and restoration of bench marks.*—Any person who finds that a principal bench mark has been damaged, disturbed, or destroyed or that it should be reset or redescribed on account of highway or other improvements will render a public service by communicating the facts to the Director, Geological Survey, United States Department of the Interior, Washington, D. C., before taking any action affecting the location or elevation of the mark. A proper form, accompanied by a return-addressed, franked envelope, will be sent for use in reporting the action taken and in recording the revised description of the mark, if any, and the notes made in obtaining the revised elevation.

*Datum.*—All elevations determined by the Geological Survey and those determined by the Coast and Geodetic Survey for inland mapping are referred to mean sea level, which is the level that the sea would assume if the influence of winds, tides, and currents were eliminated. This level is not the elevation determined from the mean of the highest and lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. *Mean sea level is the average height of the water, all stages of the tide being considered.* It is determined from observations made by means of tidal gages placed at stations where local conditions, such as those due to long, narrow bays, rivers, and like features, will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At stations on the open coast the half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea levels determined from observations made in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.<sup>4</sup>

*Index maps.*—The accompanying index maps of Michigan (pls. 2 and 3) show the relative position of the quadrangle areas in which leveling has been done by the Geological Survey. A quadrangle is the unit adopted by the Geological Survey for dividing the topographic map of the United States into atlas sheets. All the quadrangles that appear on these index maps measure 15 minutes of latitude by 15 minutes of longitude.

Maps of quadrangles in Michigan for which surveys have been completed may be purchased from the Geological Survey at 10 cents each retail or 6 cents each in lots of 50 or more. Prepayment is required and may be made by money order, payable to the Director of

<sup>4</sup> See Jones, E. L., *Hypsometry—Use of mean sea level as the datum for elevations*: U. S. Coast and Geodetic Survey Special Pub. 41, 1917; *Manual of tide observations*: U. S. Coast and Geodetic Survey Special Pub. 196, 1935.

the Geological Survey, or in cash—the exact amount, at sender's risk. Postage stamps should not be sent.

*Personnel.*—The leveling of the Geological Survey in Michigan was done under the general supervision of the chief geographers or chief topographic engineers who were in administrative charge of the topographic branch during the years the lines were run. The name of the levelman who ran a particular line and the date when it was run immediately follow the designation of the route of that line and form part of the heading which precedes the descriptions of bench marks.

The work of preparing the bulletin included the adjustment of the third-order level net by E. W. Tibbott, computer, and the correlation and compilation of the descriptions and elevations of bench marks in the lists for the various quadrangles by R. G. Clinite, associate geodetic engineer, both under the immediate supervision of R. M. Wilson, chief of the section of computing, and the general direction of J. G. Staack, chief topographic engineer.

## DESCRIPTIONS OF BENCH MARKS

### ADRIAN QUADRANGLE

[Latitude 41°45'–42°00'; longitude 84°00'–84°15']

#### LENAWEE COUNTY

From Wauseon quadrangle at point 2.8 miles east and 3.5 miles north from Lyons along roads northwest and west by way of Ridgeville into Hudson quadrangle near North Morenci (by C. E. Mills in 1911)

Ridgeville, in NE. angle of crossroads, in SE $\frac{1}{4}$ sec. 23, T. 8 S., R. 3 E., at entrance to Fairfield Township School No. 5, on NW. corner of concrete step; chiseled square <sup>5</sup> -----	Feet 735. 72
Ridgeville, 1.9 mi. W. of, in NE. cor. sec. 28, T. 8 S., R. 3 E., near SW. corner of crossroads; standard iron post with bronze cap stamped "748" -----	747. 820
Ridgeville, 4.9 mi. W. of, 1.0 mi. S., thence 1.0 mi. W. from Weston, 2.1 mi. N., thence 5.5 mi. E. from Morenci, in SE. cor. sec. 24, T. 8 S., R. 2 E., near NW. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 33 1911 Mich 779" -----	778. 614
Morenci, 2.1 mi. N., thence 2.5 mi. E. from, in NW. cor. sec. 27, T. 8 S., R. 2 E., near SE. corner of crossroads; standard iron post with bronze cap stamped "788" -----	787. 293
Morenci, 2.1 mi. N. of, 0.8 mi. S. of North Morenci, near S $\frac{1}{4}$ cor. sec. 19, T. 8 S., R. 2 E., in NE. angle of crossroads, at Seneca Township School No. 2; standard iron post with bronze cap stamped "792" -----	791. 354
From Blissfield quadrangle at point about 3.5 miles southwest of Tecumseh west along State Highway 50 to State Highway 52, thence south and southwest along highway and other roads to Adrian, thence southeast about 1.7 miles and back into Blissfield quadrangle (by S. R. Archer in 1938)	
Tecumseh, 4.2 mi. SW. of, 7.7 mi. NE. of Adrian, near W. cor. secs. 6 and 31, Tps. 5 and 6 S., R. 4 E., at jog in E.-W. rd., 16 ft. S. and 50 ft. W. from iron disk in center of junction of rd. E., in concrete post; standard tablet stamped "T T 53 C 1938 839" -----	839. 354

<sup>5</sup> In 1938 this bench mark was reported destroyed and a new mark was set in the vestibule of the school.

Reference mark 1, 5 ft. N. and 20 ft. E. from tablet, 8 ft. S. and 20 ft. W. from junction of rd. E., in root on SW. side of 12-in. maple tree; copper nail and washer-----	Feet 839. 72
Reference mark 2, 280 ft. S. of tablet, at top of N. end of E. concrete head wall of culvert under State Highway 52, on W. side of square concrete catch basin; chiseled square-----	837. 20
Adrian, 7.3 mi. NE. of, near W $\frac{1}{4}$ cor. sec. 6, T. 6 S., R. 4 E., at SE. corner of rd. junction, on top of S. end of concrete drain under rd. E.; chiseled square-----	859. 69
Adrian, 6.7 mi. NE. of, near W. cor. secs. 6 and 7, T. 6 S., R. 4 E., 350 ft. S. of junction of T-rd. E., on top of E. concrete head wall of highway culvert; chiseled square-----	828. 60
Adrian, 5.8 mi. NE. of, near W. cor. secs. 7 and 18, T. 6 S., R. 4 E., on top of S. end of E. concrete head wall of highway culvert; chiseled square-----	792. 10
Adrian, 4.8 mi. NE. of, near W. cor. secs. 18 and 19, T. 6 S., R. 4 E., 114 ft. S. and 44 ft. E. from iron disk in center of junction of T-rd. E., 40 ft. N. of telephone pole, in concrete post; standard tablet stamped "T T 54 C 1938 793"-----	793. 168
Reference mark, 114 ft. N. and 44 ft. W. from tablet, at center of junction of rd. E., on cap covering section corner marker; top of center knob-----	793. 68
Adrian, 3.8 mi. NE. of, near W. cor. secs. 19 and 20, T. 6 S., R. 4 E., at curve to SW. in highway, on top of S. end of concrete drain pipe under private rd. W.; chiseled square-----	784. 88
Adrian, 3.2 mi. NE. of, about 800 ft. E. of quarter corner between secs. 24 and 25, T. 6 S., R. 3 E., 275 ft. NE. of junction of T-rd. SE., at SW. end of SE. side wall of concrete highway bridge, on inside, on top of SW. end of wheel guard; chiseled square-----	734. 06
Adrian, 2.4 mi. NE. of, 0.3 mi. SE. of center of sec. 25, T. 6 S., R. 3 E., at S. concrete abutment of steel highway bridge, on top of SW. end of W. wing wall; chiseled square-----	723. 02
Adrian, 1.6 mi. NE. of, 0.25 mi. E. of center of sec. 36, T. 6 S., R. 3 E., 90 ft. W. of junction of rd. N., on N. side of rd., at fence line, in root on SW. side of 30-in. oak tree; copper nail and washer-----	803. 79
Adrian, in E. part of, in NE. corner of intersection of East Maumee and North Dean Streets, 3.5 ft. N. of storm sewer opening, on top of concrete curb; chiseled square-----	805. 32
U. S. C. & G. S. standard disk stamped "Z 108"-----	799. 179
U. S. C. & G. S. standard disk stamped "A 109"-----	799. 728
U. S. C. & G. S. standard disk stamped "B 109"-----	799. 332
Adrian, 0.7 mi. SE. of, near W. cor. secs. 6 and 7, T. 7 S., R. 4 E., near NE. corner of crossroads, at bridge over New York Central R. R., on top of E. parapet wall of S. concrete abutment; chiseled square-----	817. 76
Adrian, 1.7 mi. SE. of, 0.2 mi. NW. of quarter corner between secs. 7 and 18, T. 7 S., R. 4 E., 580 ft. NW. of old interurban line crossing, on NE. side of rd., in root on S. side of 25-in. oak tree; copper nail and washer-----	776. 71
From Blissfield quadrangle at point 0.5 mile north and 0.8 mile west from Ogden along roads alternately west and south into Wauseon quadrangle near Ridgeville (by S. R. Archer in 1938)	
Ogden, 0.5 mi. N., thence 1.0 mi. W. from, near quarter corner between secs. 31 and 36, T. 7 S., Rs. 3 and 4 E., 80 ft. W. of center of crossroads, on top of E. end of concrete head wall of culvert under rd. W.; chiseled square-----	746. 89

Ogden, 1.0 mi. W. and 0.2 mi. S. from, 2.0 mi. W., thence 3.0 mi. N. from Ogden Center, 0.2 mi. S. of NW. cor. sec. 6, T. 8 S., R. 4 E., on E. side of rd., in front of barn with two tile silos, at highway bridge, on top of E. end of concrete retaining wall running E. from E. end of N. abutment; chiseled square-----	Feet 720. 79
Ogden Center, 2.0 mi. W., thence 2.5 mi. N. from, near quarter corner between secs. 1 and 6, T. 8 S., Rs. 3 and 4 E., in SW. corner of junction of T-rd. W., on top of N. concrete head wall of drain under driveway to field; chiseled square-----	717. 45
Ogden Center, 2.0 mi. W., thence 2.0 mi. N. from, 150 ft. N. and 27 ft. E. from junction of T-rd. E. at W. cor. secs. 6 and 7, T. 8 S., R. 4 E., 152 ft. S. and 27 ft. E. from center of junction of T-rd. W. at E. cor. secs. 1 and 12, T. 8 S., R. 3 E., 10 ft. N. of power line pole, in concrete post; standard tablet stamped "T T 56 C 1938 716"-----	715. 667
Ogden Center, 2.0 mi. W., thence 1.0 mi. N. from, in NE. cor. sec. 13, T. 8 S., R. 3 E., in SW. corner of junction of rd. W., on top of S. concrete head wall of culvert; chiseled square-----	717. 20
Ogden Center, 2.0 mi. W. of, in SW. cor. sec. 18, T. 8 S., R. 3 E., in NE. angle of crossroads, in root on W. side of 36-in. elm tree; copper nail and washer-----	722. 34
Ogden Center, 2.0 mi. W., thence 1.0 mi. S. from, 1.1 mi. E., thence 1.0 mi. N. from Ridgeville, in NW. cor. sec. 30, T. 8 S., R. 4 E., 25 ft. S. and 15 ft. E. from junction of T-rd. E., 160 ft. S. and 15 ft. E. from junction of T-rd. W. at E. cor. secs. 24 and 25, T. 8 S., R. 3 E.; standard iron post with bronze cap stamped "Prim Trav Sta No 34 1911 Mich 727"-----	726. 638
Reference mark, 35 ft. E. of junction of rd. E., on top of E. end of S. concrete head wall of culvert under rd. E.; chiseled square-----	725. 24
Ridgeville, in NE. angle of crossroads at, at W. entrance to Fairfield Township School No. 5, inside vestibule, on top of N. end of stone doorsill; chiseled square-----	738. 42

## ALBA QUADRANGLE

[Latitude 44°45'-45°00'; longitude 84°45'-85°00']

## ANTRIM, CRAWFORD, KALKASKA, AND OTSEGO COUNTIES

From Fletcher quadrangle near quarter corner between secs. 11 and 12, T. 27 N., R. 6 W., along road north to Cold Springs-Excelsior township line, thence generally east along roads to intersection of Michigan Central Railroad 1.5 miles south of Frederic, thence southeast along railroad into Grayling quadrangle \* (by S. R. Archer in 1927)

T. 27 N., R. 6 W., in SW. cor. sec. 1, 20 ft. N. and 30 ft. E. from junction of T-rd. E., 5 ft. E. of fence corner, in fence line, in root on NW. side of small elm tree; copper nail and washer-----	1, 195. 37
T. 27 N., R. 6 W., in NW. cor. sec. 1, 160 ft. S. of junction of township-line rd., on E. side of rd., in root on NW. side of 15-in. elm tree; copper nail and washer-----	1, 239. 18
T. 28 N., R. 6 W., 130 ft. W. of SE. cor. sec. 36, 20 ft. N. and 18 ft. E. from intersection of Antrim Iron Co. R. R. and county-line rd., in concrete post; standard tablet stamped "4 A 1927 Mich"-----	1, 209. 220
Reference mark, 170 ft. SE. of tablet, 100 ft. S. and 70 ft. W. from section corner, 100 ft. S. and 80 ft. E. from R. R. crossing, in root on NE. side of 12-in. maple tree; copper nail and washer-----	1, 209. 49

\* This line cuts the northeast corner of Fletcher quadrangle, but no bench marks were established in that quadrangle.

T. 28 N., R. 5 W., in SE. cor. sec. 31, in NW. angle of crossroads, in root on N. side of elm tree with forks 8 in. and 10 in. in diameter; copper nail and washer.....	Feet 1, 281. 46
T. 28 N., R. 5 W., 0.25 mi. W. of SE. cor. sec. 32, at top of hill, on N. side of rd., at entrance to Blue Lake School, on top of W. end of lower concrete step; chiseled square.....	1, 335. 86
Tps. 27 and 28 N., R. 5 W., 0.2 mi. W. of quarter corner between secs. 4 and 33, at Antrim Iron Co. camp No. 4, 65 ft. E. of R. R. crossing, 300 ft. W. of switch crossing, opposite and 45 ft. E. of company store, on N. side of rd., in root on SW. side of 10-in. elm tree; copper nail and washer.....	1, 232. 18
T. 28 N., R. 5 W., in SW. cor. sec. 34, 20 ft. N. and 38 ft. E. from junction of rd. N., 2 ft. S. and 18 ft. E. from fence corner, in root on SE. side of 5-in. maple tree; copper nail and washer.....	1, 272. 68
T. 28 N., R. 5 W., about 950 ft. E. of SW. cor. sec. 34, 20 ft. N. and 15 ft. E. from crossroads, about 600 ft. SW. of residence of Lewis Brown, 5 ft. NW. of 12-in. hemlock tree; standard iron post with bronze cap stamped "Prim Trav Sta No 3 R 1922 Mich".....	1, 264. 108
T. 28 N., R. 5 W., 150 ft. W. of SE. cor. sec. 34, 15 ft. N. and 30 ft. W. from crossroads, at top of hill, in root on SW. side of 5-in. maple tree; copper nail and washer.....	1, 334. 54
Tps. 27 and 28 N., R. 5 W., about 210 ft. E. of quarter corner between secs. 2 and 35, 300 ft. E. of foot of hill, 100 ft. E. of woods rd. N., on N. side of rd., in root on W. side of forked oak tree with triangular blaze directly above point; copper nail and washer.....	1, 214. 94
T. 28 N., R. 5 W., about 800 ft. W. of SE. cor. sec. 35, 20 ft. N. and 28 ft. W. from right-angle turn to N. in main rd., in root 6 in. underground on W. side of northwesternmost of three small oak trees standing together, tree having triangular blaze; copper nail and washer.....	1, 200. 85
T. 28 N., R. 5 W., about 800 ft. S. of center of SE $\frac{1}{4}$ sec. 36, 100 ft. W. of junction of T-rd. S., at point where rd. passes through narrow swamp, on S. side of rd., in root on SE. side of 10-in. poplar tree with triangular blaze; copper nail and washer.....	1, 159. 34
Tps. 27 and 28 N., Rs. 4 and 5 W., about 180 ft. E. of cor. secs. 1, 6, 31, and 36, 125 ft. E. of rd. fork, 260 ft. E. of intersection of tangents of main rd. to E. and NW., 0.25 mi. W. of highway bridge over Manistee River, 90 ft. E. of cluster of three small oak trees on N. side of rd., 13 ft. N. of rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 4 R 1922 Mich".....	1, 164. 847
Tps. 27 and 28 N., R. 4 W., 0.2 mi. W. of quarter corner between secs. 6 and 31, at highway bridge over Manistee River, at E. concrete abutment, on top of S. wing wall, 2 ft. NW. of SE. end; chiseled square.....	1, 147. 96
T. 27 N., R. 4 W., 0.25 mi. E. of NW. cor. sec. 5, 125 ft. SE. of junction of rd. S., 100 ft. NE. of gate on rd. S., in root on SW. side of lone 15-in. white-pine tree with triangular blaze; copper nail and washer.....	1, 238. 66
T. 27 N., R. 4 W., near center of sec. 5, 445 ft. E. of NW. apex and 300 ft. E. of NE. apex of triangle at junction of rd. S., 115 ft. N. of rd. NE., in root on S. side of 6-in. oak tree with triangular blaze; copper nail and washer.....	1, 217. 39
T. 27 N., R. 4 W., about 500 ft. SE. of N $\frac{1}{4}$ cor. sec. 4, 370 ft. SW. of foot of hill and turn in rd. to SW., 30 ft. NW. of rd., in root on N. side of small forked oak tree with triangular blaze; copper nail and washer.....	1, 299. 06

T. 28 N., R. 4 W., near S. cor. secs. 33 and 34, on N. side of rd., 8 ft. E. of center line of T-rd. S., 3 ft. S. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 5 R 1922 Mich"-----	Feet 1, 355. 306
Reference mark, 90 ft. SE. of standard post, 23 ft. S. and 85 ft. E. from junction of rd. S., in root on N. side of 12-in. maple tree; copper nail and washer-----	1, 356. 88
T. 27 N., R. 4 W., near center of NE $\frac{1}{4}$ sec. 3, 30 ft. N. and 150 ft. W. from junction of rd. W., in root on E. side of forked maple tree with triangular blaze on E. side of SE. fork; copper nail and washer----	1, 221. 97
T. 27 N., R. 4 W., 0.25 mi. W. of SE. cor. sec. 3, 70 ft. N. and 40 ft. W. from crossroads, 90 ft. SE. of SE. corner of Pratt School, in root on NE. side of small forked maple tree; copper nail and washer-----	1, 200. 56
T. 27 N., R. 4 W., 0.2 mi. W. of quarter corner between secs. 2 and 11, 1.5 mi. S. along R. R., thence 0.4 mi. along rd. W. from Frederic, at E. concrete abutment of highway bridge over Au Sable River, on top of N. wing wall, 1.5 ft. from NE. end; chiseled square-----	1, 172. 69
Frederic, 1.5 mi. S. of, about 800 ft. E. of quarter corner between secs. 2 and 11, T. 27 N., R. 4 W., 45 ft. S. and 120 ft. W. from junction of T-rd. W., 45 ft. S. and 40 ft. W. from R. R. crossing, 4 ft. N. and 3 ft. E. from SW. right-of-way fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 6 R 1922 Mich"-----	1, 188. 839

From Fletcher quadrangle near quarter corner between secs. 7 and 12, T. 27 N., Rs. 4 and 5 W., north along range-line road 1.6 miles (by S. R. Archer in 1927)

T. 27 N., Rs. 4 and 5 W., near quarter corner between secs. 7 and 12, in NE. angle of crossroads, 425 ft. S. of bridge over Goose Creek, 30 ft. N. of rd. SE., 40 ft. E. of rd. N., in concrete post; standard tablet stamped "3 A 1927 Mich"-----	1, 153. 938
Reference mark, 165 ft. NW. of tablet, 125 ft. NW. of crossroads, 25 ft. NE. of rd. NW., in root on SE. side of 6-in. pine tree with triangular blaze; copper nail and washer-----	1, 154. 28
Goose Creek, at bridge over; center of floor-----	1, 143. 1
T. 27 N., R. 5 W., 0.2 mi. SW. of E $\frac{1}{4}$ cor. sec. 1, about 850 ft. N. of point where rd. runs across swamp, 30 ft. E. of rd., 100 ft. W. of old R. R. grade, in root on NE. side of lone double white-pine tree with forks 5 in. and 7 in. in diameter and having triangular blaze; copper nail and washer-----	1, 150. 44

#### ALGONAC QUADRANGLE

[Latitude 42°30'-42°45'; longitude from U. S.-Canada boundary west to 82°45']

#### MACOMB AND ST. CLAIR COUNTIES

From Mount Clemens quadrangle at point in southwest part of New Baltimore along streets northeast to St. Clair-Macomb county line, thence north into Hicky quadrangle (by H. S. Senseney in 1926)

New Baltimore, at junction of Jefferson Avenue and New Baltimore Rd., 34 ft. S. of center line of Detroit United Electric Ry. <sup>7</sup> crossing, 2 ft. N. of NW. corner of stone post, in concrete post; standard tablet stamped "P T Sta No 6 Y 1925"-----	586. 713
New Baltimore, at SW. corner of Main and Washington Streets, on N. side of corner building owned by William Baker, in sill of W. window, 9 in. E. of W. end of stone, 4 in. from front edge; top of brass bolt leaded vertically (U. S. Lake Survey B. M. No. 33)-----	588. 083

<sup>7</sup> This railroad is now abandoned.

New Baltimore, in E. part of, at St. Clair-Macomb county line, 0.2 mi. S. of quarter corner between secs. 7 and 12, T. 3 N., Rs. 14 and 15 E., on E. end of N. abutment of small bridge; chiseled square	<i>Fect</i> 590. 78
New Baltimore, at NE. corner of city boundary, in NW. cor. sec. 12, T. 3 N., R. 14 E., 26 ft. S. and 30 ft. W. from crossroads, in concrete post; standard tablet stamped "P T Sta No 7 Y 1925" <sup>8</sup>	596. 122
T. 4 N., R. 15 E., in SW. cor. sec. 31, at NE. corner of crossroads, on culvert; chiseled square	609. 08
T. 4 N., R. 14 E., in SE. cor. sec. 36, 20 ft. N. and 85 ft. W. from intersection of Marine City Highway, in concrete post; metal tablet stamped "79" (Macomb County B. M.; recovered in 1935)	606. 586
T. 4 N., R. 15 E., in NW. cor. sec. 31, 0.1 mi. E., thence 4.0 mi. S. from Muttonville, in SE. angle of crossroads, in root of tree; copper nail and washer	625. 15
From intersection of Marine City Highway and St. Clair-Macomb county-line road along roads south and southwest to New Baltimore (by J. M. Lawson in 1935)	
T. 4 N., R. 15 E., in SW. cor. sec. 31, 25 ft. N. and 30 ft. E. from crossroads, on W. end of N. concrete head wall of culvert; chiseled square	607. 94
T. 3 N., Rs. 14 and 15 E., near quarter corner between secs. 1 and 6, 16 ft. S. and 25 ft. W. from junction of Hobarth Rd., on top of E. end of concrete head wall of culvert; chiseled square	601. 72
New Baltimore, at NE. corner of city boundary, in SE. cor. sec. 1, T. 3 N., R. 14 E., 21 ft. N. and 78 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 17 E 1935 596" <sup>9</sup>	595. 982
Reference mark, in NE. angle of crossroads, in root on NW. side of 15-in. maple tree; copper nail and washer	596. 38
New Baltimore, in E. part of, about 850 ft. S. of quarter corner between secs. 7 and 12, T. 3 N., Rs. 14 and 15 E., at bridge over Crapaud Creek, on top of SE. corner of S. concrete abutment; chiseled square	589. 00
New Baltimore, in E. part of, 45 ft. W. of intersection of State Highway 29 (Green Road) and county-line rd.; top of fire hydrant	590. 78
New Baltimore, on E. side of Main Street, about 1,900 ft. N. of Washington Street, at NW. corner of residence of Henry C. Schnoor, in water table, 6 in. E. of W. end; center of brass bolt leaded horizontally (U. S. Lake Survey B. M. No. 32)	599. 546
From intersection of State Highway 29 and St. Clair-Macomb county-line road in New Baltimore east and southeast along highway and Perch Road to Mayer Road, thence north into Hicky quadrangle (by J. M. Lawson in 1935)	
New Baltimore, in E. part of, 1.6 mi. W. of Anchorville, 140 ft. W. of junction of Main Street and highway, on W. end of concrete head wall of culvert; chiseled square	587. 12
Anchorville, 1.2 mi. W. of, at bridge over Marsh Creek; center of floor	584. 6
Anchorville, 0.8 mi. W. of, in NW¼ sec. 17, T. 3 N., R. 15 E., 76 ft. N. and 21 ft. W. from junction of rd. NW., 3 ft. S. and 27 ft. E. from SE. corner of brick service sta., in concrete post; standard tablet stamped "T T 16 E 1935 589"	589. 243

<sup>8</sup> In 1935 this bench mark was reported destroyed, and a new mark stamped "T T 17 E 1935 596" was set near the same location.

<sup>9</sup> This bench mark replaces the one set in 1926 and stamped "P T Sta No 7 Y 1925," which was reported destroyed.



Anchorville, 125 ft. N. and 45 ft. W. from junction of Church Rd. at, about 550 ft. S. of NE. cor. sec. 17, T. 3 N., R. 15 E., in root on E. side of 20-in. maple tree; copper nail and washer-----	<i>Feet</i> 584. 94
Anchorville, 1.1 mi. SE. of, 0.6 mi. NW. of Fair Haven, about 300 ft. S. of quarter corner between secs. 15 and 16, T. 3 N., R. 15 E., in NW. angle of junction of Meldrum Rd.; top of concrete post with rod projecting from top-----	582. 447
Fair Haven, 360 ft. W. of bridge over Swan Creek at, about 500 ft. NW. of S $\frac{1}{4}$ cor. sec. 15, T. 3 N., R. 15 E., 35 ft. S. and 45 ft. E. from center line of highway opposite Melindo's Tavern, in concrete post; standard tablet stamped "T T 15 E 1935 577"-----	576. 515
Fair Haven, 0.5 mi. SE. of crossing of Swan Creek at, at SW. corner of house of Mrs. C. Rose, in S. side of foundation, in fourth course above ground and second course below water table; center of brass bolt leaded horizontally (U. S. Lake Survey B. M. No. 31)-----	583. 276
Fair Haven, 1.6 mi. SE. of, 0.3 mi. NW. of Copeland Corner, about 800 ft. N. of quarter corner between secs. 23 and 24, T. 3 N., R. 15 E., 15 ft. S. and 5 ft. E. from junction of Palms Rd., on W. end of S. concrete head wall of culvert; chiseled square-----	580. 03
Copeland Corner, 24 ft. N. of junction of highway and Perch Rd. at, 0.3 mi. W. of center of sec. 24, T. 3 N., R. 15 E., on top of N. end of E. concrete abutment of box culvert; chiseled square-----	577. 47
Copeland Corner, 0.8 mi. E. of, near quarter corner between secs. 19 and 24, T. 3 N., Rs. 15 and 16 E., 30 ft. N. and 20 ft. E. from junction of Mayer Rd., on top of S. end of E. concrete head wall of culvert; chiseled square-----	581. 17
Copeland Corner, 0.8 mi. E., thence 0.5 mi. N. from, 1.0 mi. W. of Starville, in NE. cor. sec. 24, T. 3 N., R. 15 E., 20 ft. S. and 70 ft. W. from intersection of Shea Rd., in concrete post; standard tablet stamped "T T 6 E 1935"-----	585. 660
Reference mark, in NE. corner of crossroads, on W. end of concrete head wall of bridge; chiseled square-----	588. 63
T. 3 N., Rs. 15 and 16 E., near quarter corner between secs. 13 and 18, 10 ft. N. and 15 ft. E. from intersection of Clyde Rd., on top of N. end of W. concrete abutment of bridge; chiseled square-----	591. 06
T. 3 N., R. 15 E., in NE. cor. sec. 13, 25 ft. S. and 25 ft. W. from junction of dim T-rd. W., in NE. corner of field, in root on NE. side of 18-in. elm tree; copper nail and washer-----	595. 34
T. 3 N., Rs. 15 and 16 E., near quarter corner between secs. 7 and 12, 10 ft. S. and 33 ft. E. from intersection of Markel Rd., at E. abutment of bridge, on top of SE. concrete wing wall; chiseled square---	600. 59
T. 3 N., R. 15 E., in SE. cor. sec. 1, 20 ft. N. and 15 ft. W. from intersection of Arnold Rd., on top of concrete head wall of culvert; chiseled square-----	606. 30
T. 4 N., R. 15 E., in SE. cor. sec. 36, 14 ft. N. and 17 ft. W. from intersection of Marine City Highway, at NE. corner of concrete box culvert, on top of concrete abutment at junction of head wall; chiseled square-----	618. 35
T. 4 N., R. 15 E., in NE. cor. sec. 36, 35 ft. S. and 26 ft. W. from intersection of Springborn Rd., on top of S. end of concrete pipe culvert; chiseled square-----	618. 94

From crossroads 0.8 mile east and 0.5 mile north from Copeland Corner generally east along Shea, Marsh, and Broadbridge Roads to State Highway 29, thence south, southwest and northwest to Copeland Corner (by J. M. Lawson in 1935)

Starville, 20 ft. S. and 21 ft. W. from intersection of Shea and Starville Rds. at, in NE. cor. sec. 19, T. 3 N., R. 16 E., on top of heavy iron grate bar in drain trap; chiseled square-----	Feet 593. 38
Starville, 0.5 mi. E. of, near quarter corner between secs. 17 and 20, T. 3 N., R. 16 E., 24 ft. N. and 105 ft. W. from junction of Morrow Rd., in root on W. side of 10-in. elm tree; copper nail and washer---	593. 46
Starville, 1.0 mi. E. of, in SW. cor. sec. 16, T. 3 N., R. 16 E., 81 ft. N. and 27 ft. E. from intersection of McKinley Rd., 54 ft. N. of fence corner, in concrete post; standard tablet stamped "T T 14 E 1935 597"-----	596. 895
Reference mark, 10 ft. N. and 25 ft. W. from crossroads, on top of W. end of concrete head wall of culvert; chiseled square-----	599. 52
Starville, 2.4 mi. E. of, 0.3 mi. E. of NW. cor. sec. 22, T. 3 N., R. 16 E., 23 ft. S. and 21 ft. W. from junction of Marsh Rd., on top of concrete head wall of culvert; chiseled square-----	596. 52
Starville, 2.4 mi. E., thence 0.4 mi. N. from, 1.3 mi. N., thence 1.6 mi. NW. from Roberts Landing, in SW $\frac{1}{4}$ sec. 15, T. 3 N., R. 16 E., 15 ft. S. and 12 ft. W. from intersection of Clyde-Broadbridge and Marsh Rds., 200 ft. SW. of Britz School in NE. angle of crossroads, on top of concrete head wall of culvert; chiseled square-----	599. 66
Roberts Landing, 1.3 mi. N., thence 0.7 mi. NW. from, at concrete bridge over Marsh Drain; center of floor-----	581. 5
Roberts Landing, 1.3 mi. N. of, 3.2 mi. SW. of intersection of Main and Broad Streets in Marine City, 27 ft. S. and 45 ft. W. from crossing of Chris Craft R. R., 27 ft. W. of fence corner, in concrete post; standard tablet stamped "T T 9 E 1935 582"-----	582. 184
Reference mark, 340 ft. S. of tablet, on E. side of highway; top of iron property stake-----	581. 67
Roberts Landing, 0.5 mi. N. of, at St. Clair River, at house owned by D. B. Shier and A. S. Freeman, at NW. corner of kitchen, in sixteenth course of brick above ground, in N. face of corner brick; center of brass bolt leaded horizontally (U. S. Lake Survey B. M. No. 27)-----	584. 674
Roberts Landing, 500 ft. W. of, 20 ft. N. and 30 ft. W. from junction of Roberts Rd., on top of W. end of concrete head wall of culvert; chiseled square-----	582. 06
Roberts Landing, 0.8 mi. S. of, 1.4 mi. NE. of Algonac town hall, 20 ft. S. and 20 ft. W. from junction of T-rd. NW., on top of concrete head wall of culvert; chiseled square-----	580. 25
Algonac, at N. limits of; center line of pavement-----	579. 8
Algonac, 1.1 mi. NE. of town hall at, 15 ft. W. of highway, at bridge over Marsh Drain, on top of concrete abutment; chiseled square---	581. 36
Algonac, 0.6 mi. NE. of, at bridge over canal, in SW. concrete wing wall; top of iron pipe-----	579. 83
Algonac, at E. wall of town hall, in eighth course of brick above stone foundation, in sixth brick S. of NE. corner; center of brass bolt leaded horizontally-----	584. 625

Algonac, 0.7 mi. SW. of, in SW. angle of junction of highway and Water Street, 12 ft. W. of W. side of Water Street, 1.5 ft. N. of fence on S. side of rd., on top of 2-in. iron pipe; top of cap (U. S. Lake Survey B. M. recovered by U. S. C. & G. S. in 1917 and designated "G 23")	Feet 583. 503
Algonac, 0.7 mi. SW., thence 0.4 mi. NW. from, 2.8 mi. SE. of Pearl Beach post office, about 400 ft. E. of offices of Chris Craft R. R., 35 ft. N. and 15 ft. W. from junction of State Street, on top of W. concrete head wall of culvert; chiseled square	579. 76
Pearl Beach, 2.3 mi. SE. of, at junction of Nook Rd.; center line of pavement	583. 8
Pearl Beach, 1.4 mi. SE. of, 27 ft. N. and 35 ft. W. from crossroads (rd. S. leads to Raymonds Auto Ferry), on top of concrete head wall of culvert; chiseled square	579. 58
Pearl Beach, 0.5 mi. SE. of post office, 18 ft. N. and 30 ft. W. from junction of Ainsworth Rd., in SE. corner of yard of Pointe Aux Trembles School, 27 ft. S. and 66 ft. E. from SE. corner of school-house, in concrete post; standard tablet stamped "T T 8 E 1935"	578. 918
Reference mark, 60 ft. W. of tablet, 20 ft. E. of walk leading to school, in root of 12-in. elm tree; copper nail and washer	580. 04
Pearl Beach, 600 ft. E. of, at NW. corner of bridge over ditch, at junction of W. end of head wall, on top of concrete parapet; chiseled square	580. 62
Pearl Beach, 0.5 mi. NW. of, 0.6 mi. SE. of The Colony, at concrete bridge over canal; center of floor	584. 0
The Colony, at entrance to, 30 ft. S. of highway at curve, on top of concrete curb and base for lamppost; chiseled square	578. 78
The Colony, 1.1 mi. NW. of, 1.9 mi. SE. of Copeland Corner, 0.3 mi. NW. of center of sec. 36, T. 3 N., R. 15 E., 120 ft. S. and 25 ft. E. from junction of T-rd. E. to Colony Golf Club, in concrete post; standard tablet stamped "T T 7 E 1935"	577. 853
Copeland Corner, 1.3 mi. S. of, at junction of rd. W. to Anchor Beach; center line of pavement	578. 1
Copeland Corner, 1.0 mi. SE. of, 0.25 mi. NW. of center of sec. 25, T. 3 N., R. 15 E., 13 ft. E. of center line of highway, at SE. corner of bridge over canal, on top of concrete parapet; chiseled square	582. 53
From Marine City southwest along streets and State Highway 29 to road junction 1.3 miles north of Roberts Landing (by J. M. Lawson in 1935)	
Marine City, at NW. corner of intersection of Main and Broad Streets, near SE. corner of city hall, at window of corridor, 2.5 ft. above ground, 5 in. S. of N. jamb; top of brass bolt leaded vertically (U. S. Lake Survey B. M. No. 25)	587. 630
Marine City, at bridge over Belle River; center of floor	584. 5
Marine City, in NW. angle of intersection of Parker and Chartier Streets, on fire hydrant; highest point	585. 56
Marine City, near S. limits of, 1.5 mi. SW. of city hall, 16 ft. W. of highway, at intersection of Chris Craft R. R. and private rd. to house; top of W. rail	583. 1
Marine City, 2.3 mi. SW. of, at N. edge of Avalon Beach, 15 ft. E. of highway, at bridge over ditch, on top of NE. concrete wing wall; chiseled square	580. 46

From Muirs, on Harsens Island, southwest and northwest along State Highway 154 to Clays Landing (by J. M. Lawson in 1935; leveled twice)

Muirs, about 6.5 mi. SW. of Algonac town hall, in SE. part of Harsens Island, 15 yd. SW. of S. corner of Muir House, 10 yd. from St. Clair River, on 2-in. pipe set vertically; top of iron cap (U. S. Lake Survey B. M. recovered by U. S. C. & G. S. in 1917 and designated "J 23")	Feet 579. 579
Clays Landing, about 500 ft. E. of, 100 ft. S. and 50 ft. E. from junction of T-rd. SW. to Detroit Edison Co. warehouse, 15 ft. N. and 30 ft. E. from N. end of wooden bank wall at bend in channel, in concrete post; standard tablet stamped "T T 19 E 1935"	578. 761
Reference mark, at inlet channel to Detroit Edison Co. jetty; top of angle in wooden wall	578. 00

From junction of State Highway 29 and Water Street in Algonac across North Channel of St. Clair River to Harsens Island, thence generally southwest along roads and State Highway 154 to Muirs (by J. M. Lawson in 1936)

Algonac, 1.5 mi. SW. of town hall at, on Harsens Island, on S. side of North Channel Rd., on W. side of N.-S. rd., on 2-in. iron pipe set vertically; top of iron cap (U. S. Lake Survey B. M. recovered by U. S. C. & G. S. in 1917 and designated "H 23") <sup>10</sup>	580. 119
Algonac, 2.2 mi. SW. of, 95 ft. S. of junction of Stewart and Little Rds., in root on W. side of 15-in. cottonwood tree; copper nail and washer	579. 53
Algonac, 2.6 mi. SW. of, 105 ft. N. of junction of T-rd. SE., in root on S. side of 36-in. willow tree; copper nail and washer	577. 07
Algonac, 3.6 mi. SW. of, at NW. corner of junction of State Highway 154 and Little Rd., on top of W. end of corrugated pipe culvert; painted square	576. 40
Algonac, 4.0 mi. SW. of, in N. part of Sans Souci, 27 ft. N. and 45 ft. W. from junction of T-rd. SW., in root on W. side of 15-in. poplar tree; copper nail and washer	577. 24
Algonac, 4.9 mi. SW. of, 200 ft. N. and 30 ft. W. from curve from SW. to SE. in highway, 20 ft. E. of E. bank of canal, in concrete post; standard tablet stamped "T T 18 E 1935 578"	577. 617
Reference mark, 900 ft. SE. of tablet, at turn from SE. to SW. in highway, in S. angle of rd. junction, on top of circular concrete culvert; chiseled square	575. 98
Algonac, 6.1 mi. SW. of, 0.4 mi. NE. of Muirs, 40 ft. N. and 55 ft. E. from junction of lane E. to dwelling of William Votenz; top of iron property pipe	578. 80

## ALLEGAN QUADRANGLE

[Latitude 42°30'-42°45'; longitude 85°45'-86°00']

## ALLEGAN COUNTY

From Fennville quadrangle southeast along Bee-Line Road (State Highway 40) to crossroads 1-mile southeast of Hamilton, thence west 0.3 mile and back into Fennville quadrangle (by J. L. Buckmaster in 1928)

Hamilton, 1.0 mi. SE. of, 70 ft. NW. of crossroads, in concrete post; standard tablet stamped "P T Sta No 89 Y 1926"	642. 789
Reference mark, 7 ft. W. of tablet, 30 ft. N. of E.-W. rd., in root on S. side of 12-in. hickory tree; copper nail and washer	642. 16

<sup>10</sup> This bench mark has been disturbed and is loose in the ground.

From Gobleville quadrangle at point 0.2 mile east of center of sec. 4, T. 1 N., R. 13 W., northeast 1.3 miles along road across Kalamazoo River, thence south-east along Allegan-Otsego road and east along another road to cross road 1.5 miles south and 0.5 mile west from Kellogg, thence south and back into Gobleville quadrangle (by S. R. Archer in 1929)

T. 1 N., R. 13 W., in NE $\frac{1}{4}$ sec. 4, 1.8 mi. by rd. S. of Allegan, on S. end of steel highway bridge over Kalamazoo River, on W. steel pier 4 in. N. of point above top of steel wing wall, on top of bolt; chiseled cross-----	Feet 645. 98
Allegan, 0.8 mi. SE. of, 0.25 mi. N. of W $\frac{1}{4}$ cor. sec. 34, T. 2 N., R. 13 W., in SE. angle of junction of Allegan-Otsego rd., at foot of NE. corner of large granite monument of old tollgate marker, on top of concrete base; chiseled square-----	688. 09
Allegan, 1.5 mi. SE. of, near center of sec. 34, T. 2 N., R. 13 W., 45 ft. NW. of junction of rd. NE., in concrete post; standard tablet stamped "P T Sta No 118 Y 1926"-----	691. 924
Reference mark, 260 ft. SE. of tablet, 230 ft. NW. of junction of rd. S., on SW. side of rd., 20 ft. W. of house, in root on NE. side of 8-in. oak tree; copper nail and washer-----	692. 13
Allegan, 2.1 mi. SE. of, about 0.3 mi. S. of E $\frac{1}{4}$ cor. sec. 34, T. 2 N., R. 13 W., 45 ft. W. of junction of rd. S., on SW. side of rd., in root on SW. side of 12-in. oak tree; copper nail and washer-----	701. 73
Allegan, 3.2 mi. SE. of, 0.25 mi. N. of quarter corner between secs. 1 and 2, T. 1 N., R. 13 W., in NE. angle at five-way rd. fork, in root on S. side of 48-in. oak tree; copper nail and washer-----	741. 22
Allegan, 3.3 mi. SE. of, 0.25 mi. N. and 0.12 mi. E. from W $\frac{1}{4}$ cor. sec. 1, T. 1 N., R. 13 W., near five-way rd. fork, 530 ft. E. of junction of rd. E. and rd. SE., in triangle between rds., at W. entrance of school, on top of W. end of N. side wall of concrete steps; chiseled square-----	749. 44
Allegan, 4.3 mi. SE. of, about 800 ft. S. of N. cor. secs. 1 and 6, T. 1 N., Rs. 12 and 13 W., 830 ft. N. of junction of T-rd. W., 635 ft. S. of junction of T-rd. E., on E. side of rd., on field side of fence, in root below triangular blaze on S. side of 30-in. oak tree; copper nail and washer-----	738. 25
Allegan, 4.5 mi. by rd. SE. of, 1.5 mi. S. and 0.5 mi. W. from Kellogg, in SW. angle of intersection of N.-S. rd. and township-line rd., 50 ft. S. and 25 ft. W. from N. cor. secs. 5 and 6, T. 1 N., R. 12 W., 50 ft. S. and 110 ft. W. from S. cor. secs. 31 and 32, T. 2 N., R. 12 W., 23 ft. S. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 6 1911 Mich"-----	705. 606
Reference mark, 25 ft. S. and 25 ft. E. from junction of rd. N., 25 ft. S. and 135 ft. E. from junction of rd. S., in root on SW. side of 24-in. maple tree; copper nail and washer-----	706. 00
From point 1.5 miles south and 0.5 mile west from Kellogg alternately north and east along roads by way of Kellogg into Wayland quadrangle at point 0.8 mile north of Kellogg (by S. R. Archer in 1929)	
Kellogg, 0.5 mi. S., thence 0.5 mi. W. from, in SW. cor. sec. 29, T. 2 N., R. 12 W., 35 ft. N. of rd. junction, 55 ft. N. of New York Central R. R. crossing, 5 ft. N. of fence corner, on E. side of section-line fence N., in root on S. side of 15-in. maple tree; copper nail and washer-----	715. 96
Kellogg, 0.5 mi. S. of, near S $\frac{1}{4}$ cor. sec. 29, T. 2 N., R. 12 W., in NE. angle of junction of T-rd. N., at SW. corner of yard of farmhouse, in root on S. side of 24-in. maple tree; copper nail and washer-----	699. 55

Kellogg, near center of sec. 29, T. 2 N., R. 12 W., 60 ft. N. of tracks of electric railroad, on E. side of rd., in front of brick store building, on top of N. end of middle step of three concrete steps leading to porch; chiseled square-----	Feet 712. 39
Allegan, 0.5 mi. N. of, 400 ft. S. of crossroads at N $\frac{1}{4}$ cor. sec. 29, T. 2 N., R. 12 W., on E. side of rd. S., in root on NW. side of 10-in. hickory tree; copper nail and washer-----	713. 56
From point 0.8 mile southeast of Allegan northwest along Allegan-Otsego road to Allegan, thence north along improved road by way of Monterey and Burnips into Jenison quadrangle (by S. R. Archer in 1929):	
Allegan, at N. corner of Marshall and Bond Streets, 10 ft. SE. of fire hydrant, on top of concrete curb; chiseled square-----	676. 62
Allegan, on E. side of Chestnut Street, 165 ft. N. of Hubbard Street, at three concrete steps at main entrance to post office, on top of S. end of top step (doorsill extended); chiseled square-----	647. 75
Allegan, on W. side of Allegan County courthouse grounds, in top of large square sandstone meridian stone; standard tablet stamped "1929 Mich 658"-----	657. 751
Allegan, in NE. part of city, at NW. corner of intersection of Grand and Main Streets, 2.5 ft. SW. of center of grating of storm sewer, on top of concrete curb; chiseled square-----	634. 01
Allegan, at Main Street crossing of Pere Marquette Ry.; top of N. rail-----	694. 8
Allegan, at N. city limits of, on E. side of Main Street, on top of fire hydrant; top of square brass valve head-----	723. 75
Allegan, 1.9 mi. N. of post office, 55 ft. N. and 30 ft. W. from crossroads, 4 ft. S. and 5 ft. E. from NE. corner of Grange Hall, at N. side of porch, on top of E. end of lower concrete step; chiseled square----	760. 63
Allegan, 2.7 mi. N. of, about 0.2 mi. N. of quarter corner between secs. 15 and 16, T. 2 N., R. 13 W., 60 ft. S. of fence line, on top of E. concrete head wall of highway culvert; chiseled square-----	743. 39
Allegan, 3.2 mi. N. of, 0.25 mi. N. of SW. cor. sec. 10, T. 2 N., R. 13 W., in SE. angle of junction of T-rd. E., in root below triangular blaze on NW. side of 48-in. poplar tree; copper nail and washer-----	766. 94
Allegan, 3.9 mi. N. of, 4.2 mi. S. of Monterey, near SW. cor. sec. 3, T. 2 N., R. 13 W., 25 ft. N. and 80 ft. W. from crossroads, 40 ft. W. of fence corner, 20 ft. NW. of W. end of N. concrete head wall of culvert under E.-W. rd., 15 ft. W. of 12-in. walnut tree, in concrete post; standard tablet stamped "28 A 1929 Mich"-----	817. 671
Reference mark, 40 ft. N. and 15 ft. W. from crossroads, on top of W. concrete head wall of culvert under rd. N.; chiseled square-----	817. 27
Monterey, 3.1 mi. S. of, 0.25 mi. W. of NE. cor. sec. 4, T. 2 N., R. 13 W., 50 ft. S. of intersection of highway and township line, on E. side of rd., in root on NE. side of 24-in. elm tree; copper nail and washer--	736. 67
Monterey, 2.6 mi. S. of, 250 ft. N. and 630 ft. W. from E $\frac{1}{4}$ cor. sec. 33, T. 3 N., R. 13 W., 25 ft. S. of junction of T-rd. W., on E. side of rd., in root below triangular blaze on SE. side of 30-in. sycamore tree; copper nail and washer-----	776. 69
Monterey, 1.8 mi. S. of, 0.2 mi. E. of center of SE $\frac{1}{4}$ sec. 28, T. 3 N., R. 13 W., at SW. corner of crossroads, on top of E. end of S. concrete head wall of culvert under E.-W. rd.; chiseled square-----	850. 67
Monterey, 1.0 mi. S. of, near SE. cor. sec. 21, T. 3 N., R. 13 W., at NW. corner of crossroads, on top of W. end of concrete head wall of culvert; chiseled square-----	855. 44

Monterey, on SW. corner of crossroads, near NE. cor. sec. 21, T. 3 N., R. 13 W., on top of W. end of S. concrete head wall of culvert under E.-W. rd.; chiseled square-----	Feet 900. 06
Monterey, 1.0 mi. N. of, near SE. cor. sec. 9, T. 3 N., R. 13 W., at NW. corner of crossroads, on top of W. end of N. concrete head wall of culvert under E.-W. rd.; chiseled square-----	833. 67
Monterey, 2.0 mi. N. of, in SE. cor. sec. 3, T. 3 N., R. 13 W., 25 ft. N. and 40 ft. E. from crossroads, 15 ft. E. of fence corner, in concrete post; standard tablet stamped "29 A 1929 Mich"-----	708. 714
Reference mark, 30 ft. S. and 20 ft. E. from crossroads, in root on NW. side of 30-in. elm tree; copper nail and washer-----	709. 90
Monterey, 3.0 mi. N. of, 3.5 mi. S. of Burnips, in SW. cor. sec. 34, T. 4 N., R. 13 W., at NE. corner of crossroads, in root on SW. side of 12-in. hickory tree; copper nail and washer-----	694. 92
Burnips, 2.5 mi. S. of, in SE. cor. sec. 28, T. 4 N., R. 13 W., 70 ft. N. of crossroads, on W. side of rd. at School No. 2, in root on SE. side of 15-in. oak tree; copper nail and washer-----	666. 98
Rabbit River, at bridge over; center line of floor-----	648. 9
Burnips, 1.5 mi. S. of, in NW. cor. sec. 27, T. 4 N., R. 13 W., 20 ft. S. and 50 ft. E. from crossroads, 20 ft. E. of fence corner, in concrete post; standard tablet stamped "30 A 1929 Mich"-----	658. 819
Reference mark, 35 ft. S. and 25 ft. E. from crossroads, 13 ft. S. of fence corner, in root on W. side of 10-in. maple tree; copper nail and washer-----	658. 46
Burnips, 0.6 mi. S. of, about 500 ft. S. of cor. secs. 15, 16, 21, and 22, T. 4 N., R. 13 W., at bridge over Red River, on top of NW. end of W. wing wall of N. concrete abutment; chiseled square-----	652. 64
Burnips, 0.5 mi. S. of, in SE. cor. sec. 16, T. 4 N., R. 13 W., at NW. corner of crossroads, on top of N. concrete head wall of culvert; chiseled square-----	693. 80
Burnips, in S. part of village, 0.25 mi. S. of quarter corner between secs. 15 and 16, T. 4 N., R. 13 W., on E. side of street, at main entrance to Methodist Church, on top of N. end of second step from bottom; chiseled square-----	688. 92
Burnips, in N. part of village, near E $\frac{1}{4}$ cor. sec. 16, T. 4 N., R. 13 W., at SW. corner of junction of T-rd. W. and street E., on top of S. concrete head wall of culvert under rd. W.; chiseled square-----	682. 36
Burnips, 0.5 mi. N. of, in NW. cor. sec. 15, T. 4 N., R. 13 W., in SE. angle of crossroads, at NW. corner of cemetery, in root on NW. side of 36-in. maple tree; copper nail and washer-----	699. 09
From point 1.5 miles south of Burnips west along roads by way of Bentheim into Fennville quadrangle at point 1.2 miles south and 0.4 mile east from Overisel (by S. R. Archer in 1929)	
Burnips, 1.5 mi. S., thence 1.0 mi. W. from, 3.0 mi. E. of Bentheim, in SE. cor. sec. 20, T. 4 N., R. 13 W., in NW. angle of junction of T-rd. N., at fence corner, in root on SW. side of 10-in. hickory tree; copper nail and washer-----	639. 28
Bentheim, 2.8 mi. E. of; 0.2 mi. W. of cor. secs. 20, 21, 28, and 29, T. 4 N., R. 13 W., at bridge over Red River, on top of bridge end of S. wing wall of E. concrete abutment; chiseled square-----	638. 17
Bentheim, 2.0 mi. E. of, 340 ft. W. of crossroads at cor. secs. 19, 20, 29, and 30, T. 4 N., R. 13 W., on S. side of rd., at fence line, in root on NW. side of 24-in. elm tree; copper nail and washer-----	634. 38

Bentheim, 1.5 mi. E. of, near $N\frac{1}{4}$ cor. sec. 30, T. 4 N., R. 13 W., 45 ft. S. of crossroads, on E. side of rd. SW., in root on E. side of 15-in. ash tree; copper nail and washer-----	Feet 637. 83
Bentheim, 1.0 mi. E. of, in SE. cor. sec. 24, T. 4 N., R. 14 W., 115 ft. W. of bridge over Black Creek, 30 ft. N. of rd., on W. side of range-line fence N., 5 ft. SW. of 24-in. elm tree blazed with triangle facing post, in concrete post; standard tablet stamped "34 A 1929 Mich"-----	645. 114
Reference mark, 115 ft. E. of tablet, on S. side at W. end of bridge over Black Creek, at foot, on inside of W. end of S. steel truss, 1 ft. E. of extreme end of truss, near outside edge of circular steel cap at top of cylindrical pier; top of thread end of bolt-----	633. 61
Bentheim, at SW. corner of crossroads, at store owned by John Cook, on top of NE. corner of concrete porch floor; chiseled square-----	657. 70
Bentheim, 1.0 mi. W. of, in SW. cor. sec. 23, T. 4 N., R. 14 W., at NE. corner of crossroads, at small concrete bridge under E.-W. rd., on top of NE. end of N. wing wall of E. abutment; chiseled square-----	645. 36
Bentheim, 2.0 mi. W. of, in SE. cor. sec. 21, T. 4 N., R. 14 W., 20 ft. N. and 30 ft. W. from crossroads, 12 ft. N. and 4 ft. W. from NW. corner of concrete culvert, in concrete post; standard tablet stamped "35 A 1929 Mich"-----	648. 839
Reference mark, at NW. corner of crossroads, on top of N. wing wall of W. concrete abutment of culvert; chiseled square-----	648. 34
Bentheim, 2.5 mi. W. of, near $S\frac{1}{4}$ cor. sec. 21, T. 4 N., R. 14 W., 50 ft. N. and 25 ft. W. from crossroads, in root on S. side of 12-in. maple tree; copper nail and washer-----	660. 12
Bentheim, 3.0 mi. W. of, 25 ft. S. and 18 ft. E. from NW. cor. sec. 28, T. 4 N., R. 14 W., in SE. angle of crossroads, in root on N. side of 24-in. elm tree; copper nail and washer-----	682. 47
Bentheim, 3.5 mi. W. of, near $S\frac{1}{4}$ cor. sec. 20, T. 4 N., R. 14 W., in NE. angle of crossroads, in root on SW. side of 8-in. elm tree; copper nail and washer-----	733. 75
Bentheim, 4.0 mi. W. of, 0.5 mi. E., thence 1.2 mi. S. from Overisel; in SE. cor. sec. 19, T. 4 N., R. 14 W., 65 ft. N. and 30 ft. W. from crossroads, in root on NE. side of 24-in. elm tree; copper nail and washer-----	750. 17
From crossroads 1 mile south of Monterey west along road to State Highway 40, thence northwest to crossroads 1 mile southeast of Hamilton (by S. R. Archer in 1929)	
Monterey, 1.0 mi. S., thence 1.0 mi. W. from, in NW. cor. sec. 28, T. 3 N., R. 13 W., 21 ft. S. and 38 ft. E. from crossroads, 15 ft. E. of fence corner, in concrete post; standard tablet stamped "P T Sta No. 92 Y 1926"-----	903. 391
Reference mark, 200 ft. E. of crossroads, on top of W. end of N. concrete head wall of culvert; chiseled square-----	902. 49
T. 3 N., R. 13 W., in NE. cor. sec. 30, in SW. angle of crossroads, at NE. corner of yard of farmhouse, in root 6 in. underground on E. side of 24-in. oak tree; copper nail and washer-----	822. 25
T. 3 N., Rs. 13 and 14 W., 450 ft. W. of crossroads at cor. secs. 19, 24, 25, and 30, on N. side of rd., at fence line, in root on W. side of 30-in. pine tree; copper nail and washer-----	707. 78
T. 3 N., R. 14 W., in SE. cor. sec. 23, 15 ft. N. and 35 ft. W. from crossroads, 7 ft. NE. of end of NE. wing wall of culvert, in concrete post; standard tablet stamped "P T Sta No 91 Y 1926"-----	683. 346



Reference mark, 60 ft. N. of crossroads, on top of SE. end of E. wing wall of S. concrete abutment of bridge; chiseled square	<i>Feet</i> 684. 53
T. 3 N., R. 14 W., 0.25 mi. E. of NW. cor. sec. 26, on S. side of rd., in notch cut on S. side of small forked oak tree used as corner fence post; copper nail and washer	690. 80
T. 3 N., R. 14 W., near N $\frac{1}{4}$ cor. sec. 27, 1.0 mi. E. of Burton School, 0.5 mi. N. of Dunningville, 20 ft. S. and 35 ft. W. from crossroads, in root on E. side of 24-in. maple tree; copper nail and washer	675. 28
Pere Marquette Ry. crossing; top of E. rail	679. 6
T. 3 N., R. 14 W., near quarter corner between secs. 21 and 23, 0.5 mi. N. and 1.0 mi. W. from Dunningville, at Burton School, 30 ft. S. and 40 ft. E. from intersection of State Highway 40, in NW. corner of schoolyard, 21 ft. W. of 24-in. oak tree, in concrete post; standard tablet stamped "P T Sta No 90 Y 1926"	685. 051
Reference mark, 21 ft. E. of tablet, 25 ft. S. and 70 ft. E. from crossroads, in root on SW. side of 24-in. oak tree; copper nail and washer	685. 82
T. 3 N., R. 14 W., near cor. secs. 16, 17, 20, and 21, 3.1 mi. SE. of Hamilton, 1.0 mi. NW. of Burton School, 15 ft. N. and 30 ft. E. from crossroads, in root on S. side of 5-in. oak tree; copper nail and washer	682. 11
Hamilton, 2.0 mi. SE. of, about 800 ft. E. of N $\frac{1}{4}$ cor. sec. 17, T. 3 N., R. 14 W., 35 ft. S. and 55 ft. E. from junction of T-rd. E., in root on NW. side of 30-in. oak tree; copper nail and washer	650. 82
From point 1 mile south of Monterey east along roads to Hopkins, thence north 1 mile, thence east into Wayland quadrangle (by S. R. Archer in 1929)	
Monterey, 1.0 mi. S., thence 1.0 mi. E. from, 3.0 mi. W. of Hopkins, in SE. cor. sec. 22, T. 3 N., R. 13 W., 170 ft. W. of crossroads, on N. side of rd., in root on N. side of 12-in. ash tree; copper nail and washer	852. 00
Hopkins, 2.0 mi. W. of, in SE. cor. sec. 23, T. 3 N., R. 13 W., 26 ft. N. and 24 ft. W. from crossroads, 5 ft. SE. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 93 Y 1926"	803. 698
Reference mark, at SW. corner of crossroads, on top of W. concrete head wall of culvert under N.-S. rd.; chiseled square	802. 17
Hopkins, 1.0 mi. W. of, in SE. cor. sec. 24, T. 3 N., R. 13 W., at NW. corner of crossroads, on top of concrete head wall of culvert; chiseled square	733. 14
Hopkins, at center of, on N. side of street, at main entrance to Hopkins State Savings Bank building, on top of W. end of lower concrete step; chiseled square	706. 23
Hopkins, at S. side of W. end of bridge over Bear Creek, on top of S. end of concrete retaining wall; chiseled square	704. 95
Hopkins, near N. side of, at NW. corner of junction of T-street W., at entrance to German Methodist Church, on E. side and at foot of steps, on top of E. end of concrete base for square concrete support of stairway roof column; chiseled square	706. 28
Hopkins, 1.0 mi. N. of, 25 ft. S. and 30 ft. E. from NW. cor. sec. 20, T. 3 N., R. 12 W., in SE. angle of crossroads, in NW. corner of schoolyard; standard iron post with bronze cap stamped "Prim Trav Sta No 7 1911 Mich"	705. 209
Reference mark, at SW. corner of crossroads, in root on S. side of 12-in. walnut tree; copper nail and washer	704. 41

	<i>Feet</i>
Rabbit River, at highway bridge over; center of floor.....	699. 3
Lake Shore & Michigan Southern R. R. <sup>11</sup> crossing; top of E. rail.....	701. 8
From point 1.5 miles south of Burnips generally east along road into Wayland quadrangle at point 1 mile south and 1.2 miles west from Dorr (by S. R. Archer in 1929)	
Burnips, 1.5 mi. S., thence 1.0 mi. E. from, near cor. secs. 22, 23, 26, and 27, T. 4 N., R. 13 W., 3 ft. N. and 5 ft. W. from fence corner, in root on S. side of 36-in. maple tree; copper nail and washer.....	666. 94
T. 4 N., R. 13 W., in SE. cor. sec. 23, 3.0 mi. S. of New Salem, 200 ft. W. of crossroads, on N. side of rd., at fence, in root on SW. side of 15-in. oak tree; copper nail and washer.....	668. 15
T. 4 N., R. 13 W., in NE. cor. sec. 25, 23 ft. S. and 30 ft. W. from junction of N.-S. rd., 5 ft. N. of 12-in. oak tree, in concrete post; standard tablet stamped "32 A 1929 Mich".....	678. 447
Reference mark, 5 ft. N. and 30 ft. E. from rd. junction, 15 ft. N. of fence line E., in root on W. side of large forked oak tree; copper nail and washer.....	678. 93
T. 4 N., R. 12 W., near W¼ cor. sec. 19, 290 ft. E. of junction of T-rd. E., on S. side of rd., at fence line, in root on SE. side of 10-in. oak tree; copper nail and washer.....	674. 56
T. 4 N., R. 12 W., 0.25 mi. E. of center of sec. 19, 30 ft. W. of N.-S. fence line, on S. side of rd., at fence, in root on W. side of 12-in. oak tree; copper nail and washer.....	679. 46
T. 4 N., R. 12 W., near center of sec. 20, 0.5 mi. S. and 1.5 mi. W. from Dorr, 30 ft. S. and 45 ft. W. from junction of N.-S. rd., 10 ft. S. and 25 ft. W. from fence corner, in field, in root on SW. side of 10-in. wild-cherry tree; copper nail and washer.....	698. 40
Dorr, 1.0 mi. S. and 1.5 mi. W. from, near S¼ cor. sec. 20, T. 4 N., R. 12 W., in NE. angle of junction of E.-W. rd., at fence corner, in root on E. side of 12-in. maple tree; copper nail and washer.....	693. 62

## ALMA QUADRANGLE

(Latitude 43°15'-43°30'; longitude 84°30'-84°45')

## GRATIOT, ISABELLA, AND MIDLAND COUNTIES

From Perrinton quadrangle near northwest corner of sec. 24, T. 10 N., R. 4 W., north along roads into Shepherd quadrangle at point 1.7 miles south and 2.5 miles west from Shepherd (by E. C. Bibbee in 1915; leveled twice from starting point to Elwell)

T. 10 N., R. 4 W., in SW. cor. sec. 12, at NE. corner of crossroads, on large granite rock; chiseled square.....	767. 94
T. 10 N., R. 4 W., 0.25 mi. N. of SE. cor. sec. 2, in NW. angle of crossroads, in yard of Burlingame School, on concrete base of iron grating over culvert; chiseled square.....	764. 12
T. 11 N., R. 4 W., 0.25 mi. E. of SW. cor. sec. 36, at NW. corner of T-rd. N.; standard iron post with bronze cap stamped "Mich 778".....	777. 119
Elwell, 5.5 mi. S. of, 2.0 mi. W. of Houserville, in SW. cor. sec. 25, T. 11 N., R. 4 W., 100 ft. E. of T-rd. N., at NW. corner of bridge over ditch, on wing wall; chiseled square.....	752. 28
Elwell, 4.5 mi. S. of, 0.25 mi. E. of NW. cor. sec. 25, T. 11 N., R. 4 W., 225 ft. N. of bridge over Pine River, at NW. corner of iron bridge, on concrete abutment; chiseled square.....	746. 79
Pine River; surface of water Nov. 18, 1915.....	741. 4

<sup>11</sup> Now a part of the New York Central System.

Elwell, 3.5 mi. S. of, in NW. cor. sec. 24, T. 11 N., R. 4 W., in SE. angle of crossroads, opposite Graham School, 5 ft. S. and 2 ft. W. from corner fence post; standard iron post with bronze cap stamped "Mich 756"-----	Feet 754. 674
Elwell, 2.5 mi. S. of, in NE. cor. sec. 14, T. 11 N., R. 4 W., 10 ft. S. of SW. corner of crossroads, in fence line, in root of 18-in. maple tree; copper nail and washer-----	758. 62
Elwell, 1.5 mi. S. of, in SW. cor. sec. 1, T. 11 N., R. 4 W., 100 ft. N. of NE. corner of crossroads, near Townsend School, on N. end of E. abutment of stone arch culvert; chiseled square-----	756. 77
Elwell, 0.5 mi. S. of, in SW. cor. sec. 36, T. 12 N., R. 4 W., at NE. corner of crossroads; standard iron post with bronze cap stamped "Mich 761"-----	759. 605
Elwell, 0.5 mi. N. of, in NW. cor. sec. 36, T. 12 N., R. 4 W., 260 ft. S. of SE. corner of crossroads, in E. fence line, on large granite rock; chiseled square-----	769. 99
Elwell, 1.5 mi. N. of, in SE. cor. sec. 23, T. 12 N., R. 4 W., at NW. corner of crossroads, at NE. corner of bridge, on concrete retaining wall; chiseled square-----	771. 31
Elwell, 2.5 mi. N. of, in NW. cor. sec. 24, T. 12 N., R. 4 W., in SE. angle of crossroads, 3 ft. N. and 3 ft. E. from corner fence post; standard iron post with bronze cap stamped "Mich 797"-----	796. 357
Elwell, 3.5 mi. N. of, 0.5 mi. N. of Mallory School, in SW. cor. sec. 12, T. 12 N., R. 4 W., in NE. angle of crossroads, 5 ft. W. of corner fence post, on large granite rock; chiseled square-----	830. 74
Elwell, 4.5 mi. N. of, in NW. cor. sec. 12, T. 12 N., R. 4 W., 30 ft. S. of SE. corner of crossroads, on large granite rock; chiseled square---	816. 73
Elwell, 5.5 mi. N. of, 90 ft. W. of Irishtown School, in SE. cor. sec. 35, T. 13 N., R. 4 W., at Gratiot-Isabella county line, in NW. corner of crossroads, 8 ft. N. and 2 ft. E. from corner fence post; standard iron post with bronze cap stamped "Mich 791"-----	789. 547
Elwell, 7.5 mi. N. of, 1.0 mi. S. of Hoover School, in NE. cor. sec. 26, T. 13 N., R. 4 W., at junction of T-rd. E., at NW. corner of bridge over ditch, in SW. corner of iron girder; bolt head-----	778. 71
<p>From Shepherd quadrangle at point 1.7 mile south and 0.5 mile east from Shepherd along roads south 0.3 mile, thence east to northwest corner sec. 25, T. 13 N., R. 2 W., thence south into Perrinton quadrangle near southwest corner sec. 13, T. 10 N., R. 2 W. (by E. C. Bibbee in 1915)</p>	
T. 13 N., R. 3 W., in SE. cor. sec. 20, in NW. angle of crossroads, 5 ft. N. and 2 ft. E. from corner fence post; standard iron post with bronze cap stamped "Mich 778"-----	777. 120
T. 13 N., R. 3 W., in NW. cor. sec. 27, at SE. corner of crossroads, on large red granite rock; chiseled square-----	768. 68
T. 13 N., R. 3 W., in NW. cor. sec. 26, 1.0 mi. N. and 0.2 mi. W. from Coe, in SE. corner of crossroads, 2 ft. W. of fence corner, on rock; chiseled square (recovered in 1929)-----	760. 88
T. 13 N., R. 3 W., in SW. cor. sec. 24, in NE. corner of crossroads, 2 ft. S. and 4 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 731" (recovered in 1929)-----	730. 281
T. 13 N., R. 3 W., in SE. cor. sec. 24, at crossroads, at Isabella-Midland county line, 2.0 mi. N. of corner of Gratiot, Isabella, and Midland Counties, at N. side of iron bridge, on E. abutment; chiseled square---	714. 76
T. 13 N., R. 2 W., in NE. cor. sec. 30, at SW. corner of crossroads, on N. end of W. parapet of arch culvert; chiseled square-----	706. 23

T. 13 N., R. 2 W., in SW. cor. sec. 21, in NE. angle of crossroads, 1 ft. S. and 3 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 704" (recovered in 1929)-----	<i>Feet</i> 702. 755
T. 13 N., R. 2 W., in NW. cor. sec. 25, on E. side of rd., directly opposite rd. W., 1 ft. S. of corner fence post; standard iron post with bronze cap stamped "Mich 693" (recovered in 1929)-----	691. 796
T. 13 N., R. 2 W., in NE. cor. sec. 35, in SW. angle of crossroads, opposite Bush Creek School, on S. end of W. abutment of small bridge; chiseled square-----	699. 34
T. 13 N., R. 2 W., in SE. cor. sec. 35, in NW. corner of crossroads, at Gratiot-Midland county line, in root of 14-in. elm tree; copper nail and washer-----	701. 18
T. 12 N., R. 2 W., in SW. cor. sec. 1, in NW. corner of yard of Barnes School; standard iron post with bronze cap stamped "Mich 709"-----	707. 417
T. 12 N., R. 2 W., in NW. cor. sec. 13, in SE. angle of crossroads, at entrance to Bethany Methodist Episcopal Church, on first step from bottom; chiseled square-----	720. 50
T. 12 N., R. 2 W., in NW. cor. sec. 24, 1.5 mi. W., thence 1.0 mi. N. from Breckenridge, at SE. corner of crossroads, on SE. corner of concrete floor of bridge; chiseled square-----	718. 15
Breckenridge, 1.5 mi. W. of, in SW. cor. sec. 24, T. 12 N., R. 2 W., near Rook School, at NE. corner of crossroads; standard iron post with bronze cap stamped "Mich 731" (recovered by U. S. C. & G. S. in 1934)-----	729. 618
T. 12 N., R. 2 W., in NE. cor. sec. 35, in SW. corner of crossroads, 1 ft. E. of fence corner, on granite rock; chiseled square-----	730. 76
T. 11 N., R. 2 W., in NW. cor. sec. 12, in NW. corner of yard of Curtis School; standard iron post with bronze cap stamped "Mich 736"-----	734. 449
T. 11 N., R. 2 W., in NW. cor. sec. 13, 2.0 mi. E., thence 1.0 mi. N. from Beebe, at SE. corner of crossroads, in root of maple tree used for corner post; copper nail and washer-----	726. 75
Beebe, 2.0 mi. E. of, near Hetzman School, in SW. cor. sec. 13, T. 11 N., R. 2 W., at small concrete bridge, on S. end of E. parapet; chiseled square-----	723. 58
T. 11 N., R. 2 W., in NE. cor. sec. 26, in SW. angle of crossroads, at bridge over ditch, on N. end of W. head wall; chiseled square-----	720. 74
T. 11 N., R. 2 W., in SW. cor. sec. 25, in NE. angle of crossroads, near Dodge School; standard iron post with bronze cap stamped "Mich 724"-----	723. 296
T. 11 N., R. 2 W., 275 ft. E. of SW. cor. sec. 36, 4.9 mi. E. of Ithaca, at entrance to brick church, on NE. corner of concrete porch; chiseled square-----	724. 18
T. 10 N., R. 2 W., in SE. cor. sec. 2, in NW. corner of crossroads, 15 ft. N. and 20 ft. E. from fence corner, on W. end of 24-in. iron drain under rd.; highest point-----	710. 39
From northwest corner sec. 1, T. 11 N., R. 2 W., west along road by way of Alma to point 0.5 mile south of Elwell (by E. C. Bibbee in 1915)	
T. 11 N., R. 2 W., in NW. cor. sec. 2, 60 ft. E. of SE. corner of crossroads, on N. line of yard of Pleasant View School, in root of willow tree; copper nail and washer-----	731. 95
T. 11 N., R. 2 W., 640 ft. W. of NE. cor. sec. 4, at S. side of iron bridge, on E. abutment; chiseled square-----	735. 89

Alma, 4.8 mi. E. of sta. at, in NW. cor. sec. 4, T. 11 N., R. 2 W., in SE. corner of crossroads, 4 ft. W. of fence corner; standard iron post with bronze cap stamped "Mich 741"-----	<i>Feet</i> 740. 145-
Reference mark, in NE. cor. sec. 5, near center of crossroads, at iron bridge over ditch, on N. abutment on W. side; chiseled square-----	739. 84
Alma, 3.8 mi. E. of, in NE. cor. sec. 6, T. 11 N., R. 2 W., in SW. angle of crossroads, in open pasture field, 20 ft. S. and 12 ft. W. from fence corner, in root of ash tree; copper nail and washer-----	749. 94
Alma, 1.9 mi. E. of, in NW. cor. sec. 1, T. 11 N., R. 3 W., in SE. corner of crossroads, 2 ft. S. and 3 ft. W. from fence corner; standard iron post with bronze cap erroneously stamped "Mich 943"-----	742. 415-
Alma, 0.9 mi. E. of, at SE. corner of T-rd. S., 6.5 ft. N. of main track of Pere Marquette Ry., on NE. corner of concrete sidewalk; chiseled square-----	744. 04
Alma, at intersection of Ann Arbor R. R. and Pere Marquette Ry.; top of rail-----	735. 3
Alma, 0.2 mi. NW. of sta., at SW. corner of West Superior Street and Lincoln Avenue, at intersection of sidewalk; chiseled square-----	740. 26
Alma, 1.2 mi. W. of sta., in SW. cor. sec. 33, T. 12 N., R. 3 W., 22 ft. N. of N. cor. secs. 4 and 5, T. 11 N., R. 3 W., 3 ft. S. of N. fence line, directly N. of T-rd. S.; standard iron post with bronze cap stamped "Mich 774"-----	773. 261
Alma, 2.2 mi. W. of, in NW. cor. sec. 5, T. 11 N., R. 3 W., 70 ft. E. of T-rd. S., at SE. corner of iron bridge, on top of circular concrete abutment; bolt head-----	738. 77
From southwest corner sec. 24, T. 13 N., R. 3 W., along roads west 1 mile, thence north 0.3 mile into Shepherd quadrangle (by S. R. Archer in 1929)	
T. 13 N., R. 3 W., in SW. cor. sec. 23, 70 ft. N. and 25 ft. E. from crossroads, in root on SW. side of 24-in. maple tree; copper nail and washer-----	760. 36
From Shepherd quadrangle at point 0.7 mile south and 3 miles east from Pleasant Valley along roads south 0.3 mile, thence east 1 mile to northwest corner sec. 25, T. 13 N., R. 2 W. (by S. R. Archer in 1929)	
T. 13 N., R. 2 W., in SW. cor. sec. 23, 90 ft. N. and 200 ft. E. from crossroads, at W. entrance to barn, on E. corner at N. end of concrete doorsill, about 12 in. below top of foundation; chiseled square-----	698. 15
T. 13 N., R. 2 W., in NE. cor. sec. 26, 90 ft. S. and 85 ft. W. from crossroads, 10 ft. NE. of 24-in. beech tree, in root on NE. side of 24-in. hemlock tree; copper nail and washer <sup>12</sup> -----	690. 94
From southwest corner sec. 23, T. 13 N., R. 2 W., west along road 2 miles to southwest corner sec. 21, T. 13 N., R. 2 W. (by S. R. Archer in 1929)	
T. 13 N., R. 2 W., in NW. cor. sec. 27, 125 ft. E. of crossroads, on S. side of rd., in front of farmhouse, in root on W. side of 24-in. maple tree; copper nail and washer-----	699. 76
From northwest corner sec. 12, T. 11 N., R. 2 W., along roads north 1 mile, thence east 0.4 mile into Merrill quadrangle (by D. R. Cabaniss in 1934)	
Breckenridge, 1.5 mi. W., thence 2.0 mi. S. from, near S. cor. secs. 35 and 36, T. 12 N., R. 2 W., 155 ft. N. and 40 ft. W. from center of junction of T-rd. N., in root on E. side of elm tree; copper nail and washer-----	733. 42

<sup>12</sup> Set as a reference mark to permanent bench mark stamped "Mich 693," previously described.

## ALMONT QUADRANGLE

[Latitude 42°45'-43°00'; longitude 83°00'-83°15']

## LAPEER, MACOMB, AND OAKLAND COUNTIES

From Armada quadrangle west along Division Road to intersection of Grand Trunk Railway in Romeo (by J. M. Lawson in 1935)

	<i>Feet</i>
U. S. C. & G. S. standard disk stamped "50 B 1934"-----	780. 655
From Romeo at intersection of Grand Trunk Railway and Division Road (St. Clair Street) generally west along roads to junction of Lapeer Road (State Highway 24) and Indian Lake Road, thence south along road and southeast along Michigan Central Railroad to station at Lake Orion (by J. M. Lawson in 1938)	
Romeo, 27 ft. S. and 225 ft. E. from intersection of St. Clair and Main Streets, between curb and sidewalk, in concrete post; U. S. C. & G. S. standard disk, unstamped-----	807. 005
Romeo, 1.2 mi. W. of Ry. crossing at, 18 ft. N. and 100 ft. W. from entrance to Mountain View Orchards, on NW. corner of concrete sewer block 4 ft. square; chiseled square-----	915. 29
Romeo, 1.4 mi. W. of, 25 ft. N. and 50 ft. E. from junction of dim private rd. N. to Mountain View Orchards, 25 ft. N. and 110 ft. W. from center of rd. opposite angle in power line to S., in concrete post; U. S. C. & G. S. standard disk, unstamped-----	931. 676
Romeo, 1.7 mi. W. of, at jog in Camp Ground Rd., 30 ft. N. and 30 ft. E. from junction of rd. S., 85 ft. E. of rd. N., in root on S. side of 18-in. maple tree; copper nail and washer-----	909. 71
Romeo, 2.6 mi. W. of, 49 ft. N. and 35 ft. W. from junction of Eldred Rd. to N., 60 ft. E. of junction of Mound Rd. to S., on boulder; chiseled square-----	869. 27
Romeo, 3.0 mi. W. of, 15 ft. S. of center of rd. at E.-W. tangent to curve on W. side of Cusick Lake, 75 ft. N. and 42 ft. W. from NW. corner of farmhouse, 10 ft. N. and 8 ft. E. from telephone pole, in concrete post; U. S. C. & G. S. standard disk, unstamped-----	873. 918
Romeo, 3.6 mi. W. of, 57 ft. S. and 40 ft. E. from junction of Fisher Rd., on SE. side of 15-in. oak tree; copper nail and washer-----	879. 49
Romeo, 4.4 mi. W. of, at concrete bridge over Stony Creek, on top of NE. abutment; chiseled square-----	873. 07
Romeo, 4.9 mi. W. of, 23 ft. N. and 76 ft. E. from intersection of Bishop Rd., on E. side of Macomb-Oakland county line, in root on S. side of 14-in. elm tree; copper nail and washer-----	900. 47
Romeo, 5.0 mi. W. of, 18 ft. S. and 515 ft. W. from intersection of county-line rd., 18 ft. S. and 160 ft. W. from center of rd. at entrance to farmyard of H. Tincknell, in concrete post; U. S. C. & G. S. standard disk, unstamped-----	909. 328
Romeo, 5.9 mi. W. of, 16 ft. N. and 200 ft. W. from junction of Berger Rd., on top of concrete head wall of culvert; chiseled square-----	934. 02
Romeo, 6.6 mi. W. of, at Campbells Corners, 36 ft. N. and 42 ft. W. from intersection of Rochester Rd., 10 ft. S. of power line pole, in concrete post; standard tablet stamped "T T 16 C 1935"-----	948. 561
Romeo, 7.9 mi. W. of, 16 ft. S. and 80 ft. E. from junction of Walker Rd., in root on N. side of 27-in. white-pine tree; copper nail and washer-----	968. 45
Romeo, 8.4 mi. W. of, 15 ft. N. and 65 ft. E. from junction of Kline Rd. to S., in root on S. side of 27-in. white-ash tree; copper nail and washer-----	980. 41

Romeo, 9.0 mi. W. of, 1.0 mi. N. and 3.1 mi. E. from R. R. sta. at Lake Orion, 60 ft. N. and 25 ft. E. from junction of Lake George and Romeo Rds., 45 ft. N. of corner fence post at SW. corner of Puddle-view Farm Game Reserve, in concrete post; standard tablet stamped "T T 23 C 1935"-----	<i>Feet</i> 1, 063. 019
Lake Orion, 1.5 mi. N. and 3.1 mi. E. from, 22 ft. N. and 46 ft. W. from junction of T-rd. W., in SW. side of 25-in. oak tree; copper nail and washer-----	1, 083. 23
Lake Orion, 1.5 mi. N. and 2.2 mi. E. from, 80 ft. N. of rd. at angle to S., 40 ft. S. and 10 ft. E. from SW. corner of old farmhouse, in SW. side of 14-in. maple tree; copper nail and washer-----	1, 070. 16
Lake Orion, 1.3 mi. N. and 1.6 mi. E. from, 25 ft. N. and 22 ft. W. from junction of dim private rd. N., on top of hill on N. side of Indian Lake, in S. side of 10-in. twin oak tree; copper nail and washer-----	1, 022. 70
Lake Orion, 1.0 mi. N. and 1.2 mi. E. from, 20 ft. N. and 95 ft. W. from junction of Barr and Indian Lake Rds., in root on SE. side of 14-in. oak tree; copper nail and washer-----	1, 028. 72
Lake Orion, 1.0 mi. N. and 1.0 mi. E. from, 52 ft. S. and 26 ft. W. from junction of Conklin Rd., in root on NW. side of 10-in. hickory tree; copper nail and washer-----	1, 031. 33
Lake Orion, 1.1 mi. NW. of, 2.0 mi. SE. of Oxford, 37 ft. W. of junction of Lapeer and Indian Lake Rds., 18 ft. N. and 60 ft. W. from end of SW. wing wall of stone grade separation of R. R., 15 ft. S. and 18 ft. E. from center of gate at private rd. W., in concrete post; standard tablet stamped "T T 24 C 1935"-----	1, 002. 382
Lake Orion, near N. boundary of, 0.6 mi. NW. of M. C. R. R. sta., 50 ft. S. and 45 ft. E. from junction of Indian Wood and Lapeer Rds., 45 ft. NW. of service sta., on top of SW. corner of iron grate sewer head; chiseled square-----	1, 001. 52
U. S. C. & G. S. standard disk stamped "Z 31 1930"-----	993. 344
From Rochester quadrangle northeast and north along Lapeer Road to Michigan Central Railroad station at Lake Orion (by J. M. Lawson in 1936)	
Lake Orion, 2.2 mi. SW. of M. C. R. R. sta. at, 26 ft. S. and 35 ft. W. from intersection of Scripps Rd., on rock; chiseled square-----	995. 35
Lake Orion, 1.7 mi. SW. of, 30 ft. N. and 26 ft. W. from junction of Casemer Rd., on N. end of N. concrete head wall of culvert; chiseled square-----	991. 64
Lake Orion, 1.1 mi. S. of, 140 ft. N. of intersection of Clarkston Rd., on W. side of Lapeer Rd., on top of concrete head wall of culvert; chiseled square-----	989. 32
Lake Orion, 0.5 mi. S. of sta., 12 ft. N. of city boundary sign, on E. side of highway, opposite junction of Bellevue Avenue, on fire hydrant; highest point-----	995. 76
From Rochester quadrangle north along Rochester Road (State Highway 150) to Romeo Road (by G. N. Tex in 1936)	
Rochester, 5.0 mi. N. of, 1.4 mi. E., thence 1.5 mi. N. from Goodison, in SW. cor. sec. 14, T. 4 N., R. 11 E., 90 ft. N. and 24 ft. E. from intersection of Buell Rd., 65 ft. N. of large elm tree in fence corner, in concrete post; standard tablet stamped "T T 17 C 1935 933"-----	932. 829
Reference mark, 20 ft. N. and 48 ft. W. from tablet; 110 ft. N. and 24 ft. W. from crossroads, in root of tree; nail and washer (State Highway Dept. B. M.)-----	931. 77

Rochester, 6.0 mi. N. of, in SW. cor. sec. 11, T. 4 N., R. 11 E., 75 ft. N. and 25 ft. E. from junction of Stony Creek Rd., about 200 ft. N. of Kline School, in root of tree; copper nail and washer.....	Feet 936. 95
Rochester, 6.4 mi. N. of, about 300 ft. S. of quarter corner between secs. 10 and 11, T. 4 N., R. 11 E., 20 ft. N. and 24 ft. W. from junction of Letts Rd., in root of tree; nail and washer (State Highway Dept. B. M.).....	946. 92
Rochester, 7.0 mi. N. of, in NE. cor. sec. 10, T. 4 N., R. 11 E., 30 ft. S. and 45 ft. W. from junction of Predmore Rd., in root of tree; nail and washer (State Highway Dept. B. M.).....	946. 53
Rochester, 7.0 mi. N., thence 0.2 mi. E. from, 6.6 mi. W., thence 1.0 mi. S. from Romeo, 0.2 mi. E. of SW. cor. sec. 2, T. 4 N., R. 11 E., 20 ft. N. and 40 ft. W. from junction of Predmore Rd. and Rochester Rd. to N., in root of tree; copper nail and washer.....	940. 81

ALVORDTON QUADRANGLE<sup>13</sup>

[Latitude 41°30'–41°45'; longitude 84°15'–84°30']

## HILLSDALE AND LENAWEE COUNTIES

From Michigan-Ohio State line at point 0.7 mile south and 3 miles west from Morenci along road north into Hudson quadrangle (by C. W. Howell in 1911)

Morenci, 0.4 mi. N. and 3.0 mi. W. from, near SW. cor. sec. 35, T. 8 S., R. 1 E., at NE. corner of crossroads; standard iron post with bronze cap stamped "806".....	805. 799
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## ARMADA QUADRANGLE

[Latitude 42°45'–43°00'; longitude 82°45'–83°00']

## LAPEER, MACOMB, AND ST. CLAIR COUNTIES

From Hicky quadrangle at point on Grand Trunk Railway 0.7 mile east of Emmett station west along railway 0.1 mile (by J. M. Lawson in 1935)

Grand Trunk Railway copper bolt stamped "318½"; elevation determined by U. S. C. & G. S.....	762. 170
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From Hicky quadrangle at point in Richmond west along Division Road into Almont quadrangle near Romeo (by J. M. Lawson in 1935)

Richmond, 23 ft. S. and 45 ft. W. from intersection of Division Road and Main Street, on top of large rock embedded in corner of lot; chiseled square.....	733. 01
Richmond, at crossing of Grand Trunk Ry. at Main Street; top of rail.....	733. 2
Richmond, at junction of Grove Street and Division Road; center of pavement.....	732. 4
Richmond, 0.9 mi. W. of, in NE. cor. sec. 3, T. 4 N., R. 14 E., 27 ft. S. and 30 ft. W. from intersection of Lowe Plank Rd., on top of large rock; chiseled square.....	734. 89
Richmond, 1.8 mi. W. of, at junction of Pashalk Rd.; center of pavement.....	718. 1
Richmond, 2.0 mi. W. of, in SE. cor. sec. 33, T. 5 N., R. 14 E., 15 ft. N. and 200 ft. W. from junction of Welding Rd., on top of W. end of N. concrete head wall of culvert; chiseled square.....	715. 02
Richmond, 2.5 mi. W. of, near N¼ cor. sec. 4, T. 4 N., R. 14 E., 45 ft. S. and 25 ft. W. from junction of Richmond Rd., in root on S. side of 15-in. maple tree; copper nail and washer.....	699. 04

<sup>13</sup> The greater part of this quadrangle lies in Ohio.



Richmond, 3.0 mi. W. of, in SE. cor. sec. 32, T. 5 N., R. 14 E., 25 ft. N. and 30 ft. W. from junction of Gramer Rd., 40 ft. E. of private rd. to farmhouse, in concrete post; standard tablet stamped "T T 9 C 1935 687"	Feet 687. 205
Reference mark, 140 ft. S. and 16 ft. E. from rd. junction, in root on W. side of 15-in. elm tree; copper nail and washer	686. 03
Richmond, 4.0 mi. W. of, in SE. cor. sec. 31, T. 5 N., R. 14 E., at jog in Place Rd., 30 ft. N. and 33 ft. W. from junction of rd. N., 30 ft. N. and 210 ft. E. from junction of rd. S., in root on S. side of 12-in. hickory tree; copper nail and washer	678. 54
Richmond, 4.9 mi. W. of, 0.5 mi. E. of SW. cor. sec. 31, T. 5 N., R. 14 E., 3 ft. E. of NW. corner of concrete bridge over Highbank Creek, on rd. side of head wall, on top of concrete guardrail; chiseled square	678. 88
Richmond, 5.4 mi. W. of, in SW. cor. sec. 31, T. 5 N., R. 14 E., 19 ft. N. and 11 ft. E. from intersection of Miller Rd., on top of S. end of concrete head wall of culvert; chiseled square	691. 09
Richmond, 5.9 mi. W. of, at bridge over East Branch of Coon Creek; center of floor	679. 3
Richmond, 6.5 mi. W. of, 2.0 mi. S. of Armada, at jog in North Rd., 33 ft. S. and 65 ft. W. from junction of rd. N. at S. cor. secs. 35 and 36, T. 5 N., R. 13 E., 33 ft. S. and 60 ft. E. from junction of rd. S. at N. cor. secs. 1 and 2, T. 4 N., R. 13 E., in N. end of triangle of rd. forks, in concrete post; U. S. C. & G. S. standard disk, unstamped	698. 804
Richmond, 6.5 mi. W. of, in NW. cor. sec. 1, T. 4 N., R. 13 E., in SE. corner of crossroads, on concrete head wall of culvert; chiseled square	698. 18
Richmond, 7.5 mi. W. of, 5.3 mi. E. of Grand Trunk Ry. crossing in Romeo, in NE. cor. sec. 3, T. 4 N., R. 13 E., 15 ft. S. and 15 ft. W. from junction of Hartway Rd., on N. end of W. concrete head wall of culvert; chiseled square	707. 15
Romeo, 4.3 mi. E. of, in SE. cor. sec. 33, T. 5 N., R. 13 E., 31 ft. N. and 36 ft. W. from junction of Hicks Rd., 85 ft. S. and 52 ft. E. from SE. corner of Hicks School, in concrete post; U. S. C. & G. S. standard disk, unstamped	720. 998
Romeo, 3.3 mi. E. of, in SW. cor. sec. 33, T. 5 N., R. 13 E., 34 ft. N. and 40 ft. E. from intersection of Wolcott Rd., at fence corner, on large rock; chiseled square	737. 96
Romeo, 2.3 mi. E. of, in NE. cor. sec. 6, T. 4 N., R. 13 E., 39 ft. S. and 36 ft. W. from intersection of Romeo Plank (Zielisch) Rd., in concrete post; U. S. C. & G. S. standard disk, unstamped	739. 001
Romeo, 2.0 mi. E. of, at bridge over North Branch of Clinton River; center of floor	724. 2
Romeo, 1.3 mi. E. of, about 700 ft. S. of NE. cor. sec. 1, T. 4 N., R. 12 E., 26 ft. S. and 110 ft. W. from intersection of Powell Rd., in root on S. side of 12-in. maple tree; copper nail and washer	744. 88
From intersection of North and Division Roads 6.5 miles west of Richmond south along road into Mount Clemens quadrangle (by J. M. Lawson in 1935)	
Armada, 2.4 mi. S. of, 1.0 mi. E., thence 2.6 mi. N. from Ray Center, 0.4 mi. S. of NW. cor. sec. 1, T. 4 N., R. 13 E., on E. side of North Rd., on field side of fence, in concrete post; U. S. C. & G. S. standard disk, unstamped	690. 371
Ray Center, 1.0 mi. E., thence 2.3 mi. N. from, at bridge over Coon Creek; center of floor	676. 7

Ray Center, 1.0 mi. E., thence 2.0 mi. N. from, in SE. cor. sec. 2, T. 4 N., R. 13 E., 22 ft. N. and 16 ft. W. from intersection of Hart Rd., on top of S. end of W. concrete head wall of culvert; chiseled square.	Feet 673. 70
Ray Center, 1.0 mi. E., thence 1.0 mi. N. from, in SE. cor. sec. 11, T. 4 N., R. 13 E., 22 ft. N. and 54 ft. W. from intersection of Puttygut Rd., in root on NE. side of 6-in. elm tree; copper nail and washer.	659. 71
Ray Center, 1.0 mi. E., thence 0.5 mi. N. from, near quarter corner between secs. 13 and 14, T. 4 N., R. 13 E., 15 ft. S. and 27 ft. W. from center line of highway at E. and W. fence lines, 7 ft. S. and 5 ft. E. from large lone elm tree, in concrete post; U. S. C. & G. S. standard disk, unstamped.	652. 786
Ray Center, 1.0 mi. E. of, 3.1 mi. N. of Meade, in SW. cor. sec. 13, T. 4 N., R. 13 E., 33 ft. N. and 30 ft. E. from intersection of Lindsey Rd., in triangle of rd. forks, in concrete post; U. S. C. & G. S. standard disk, unstamped.	644. 256

## BANGOR QUADRANGLE

[Latitude 42°15'–42°30'; longitude 86°00'–86°15']

## ALLEGAN AND VAN BUREN COUNTIES

From Hartford quadrangle at point 1 mile west and 0.5 mile south from Toquin north along road to State Highway 43 at point 2.7 miles southeast of South Haven, thence west into South Haven quadrangle (by S. R. Archer in 1927)

Toquin, 1.0 mi. W. of, in NE. cor. sec. 35, T. 2 S., R. 17 W., 210 ft. S. and 50 ft. W. from crossroads, in root on E. side of 8-in. elm tree; copper nail and washer.	665. 07
T. 2 S., R. 17 W., 680 ft. N. of SW. cor. sec. 24, on E. side of rd., on E. bank of drainage ditch, in root on NW. side of 30-in. poplar tree; copper nail and washer.	659. 43
Pere Marquette Ry. crossing; top of rail.	659. 6
T. 2 S., R. 17 W., in NE. cor. sec. 23, 1.0 mi. E., thence 0.5 mi. S. from Covert, 28 ft. S. and 17 ft. W. from crossroads, in concrete post; standard tablet stamped "P T Sta No 55 Y 1926".	666. 888
Reference mark, 40 ft. N. and 40 ft. W. from crossroads, in root on SE. side of 30-in. maple tree; copper nail and washer.	670. 05
T. 2 S., R. 17 W., in SW. cor. sec. 12, 1.0 mi. E., thence 0.5 mi. N. from Covert, 15 ft. N. and 28 ft. E. from crossroads, in root on NW. side of 24-in. elm tree; copper nail and washer.	660. 42
T. 2 S., R. 17 W., near E $\frac{1}{4}$ cor. sec. 11, 1.0 mi. W. of Friendsville, 25 ft. S. and 35 ft. W. from crossroads, in root on SE. side of 18-in. maple tree; copper nail and washer.	665. 78
T. 2 S., R. 17 W., in SW. cor. sec. 1, near North Mill School, 50 ft. N. and 30 ft. E. from crossroads, in root on W. side of 30-in. poplar tree; copper nail and washer.	695. 22
T. 2 S., R. 17 W., near W $\frac{1}{4}$ cor. sec. 1, 0.5 mi. N. of North Mill School, near German Church, 130 ft. N. of crossroads, on E. side of rd., in root on SW. side of cluster of poplar trees; copper nail and washer.	722. 64
T. 2 S., R. 17 W., in NE. cor. sec. 2, 0.6 mi. N. of German Church, 1.0 mi. E., thence 2.5 mi. N. from Covert, 35 ft. S. and 22 ft. W. from crossroads, 24 ft. from NE. corner of porch of house, in concrete post; standard tablet stamped "P T Sta No 54 Y 1926".	694. 989
Reference mark, 115 ft. N. of crossroads, on W. side of rd., in root on W. side of 15-in. maple tree; copper nail and washer.	691. 87

T. 1 S., R. 17 W., in NW. cor. sec. 36, 25 ft. S. and 30 ft. E. from crossroads, in NW. corner of yard of West Gate School, in root on SE. side of 30-in. poplar tree; copper nail and washer.....	<i>Feet</i> 679. 37
T. 1 S., R. 17 W., near cor. secs. 23, 24, 25, and 26, 1.0 mi. N. of West Gate School, 1.0 mi. S. of Maple Grove School, at SW. corner of crossroads, on top of W. concrete head wall of drain under N.-S. rd., 5 in. W. of corner; chiseled square.....	678. 44
T. 1 S., R. 17 W., in NW. cor. sec. 24, 2.7 mi. SE. of South Haven, at Maple Grove School, 30 ft. S. and 55 ft. E. from six-way rd. fork at intersection of State Highway 43, in ESE. angle, in concrete post; standard tablet stamped "P T Sta No 53 Y 1926".....	686. 173
Reference mark, 75 ft. W. of rd. fork, on N. side of E.-W. rd., on top of E. end of N. concrete head wall of culvert; chiseled square.....	686. 74
From Maple Grove School on State Highway 43 east along road through center of Geneva and Columbia townships into Gobleville quadrangle at point 1 mile southwest of Berlamont (by S. R. Archer in 1927)	
Maple Grove School, 1.0 mi. E. of, 1.0 mi. W. of Riverside school, in NE. cor. sec. 24, T. 1 S., R. 17 W., 90 ft. W. of junction of T-rd. N., on S. side of rd., in trunk on SE. side of northernmost of two 12-in. poplar trees; top of head of rail spike driven horizontally....	635. 37
T. 1 S., R. 16 W., in SE. cor. sec. 18, in NW. angle of crossroads, at entrance to Riverside School, on top of S. end of bottom step of three concrete steps; chiseled square.....	624. 10
T. 1 S., R. 16 W., in NE. cor. sec. 20, 1.0 mi. E. of Riverside School, 1.0 mi. W. of Geneva Center School, 24 ft. S. and 35 ft. W. from crossroads, in concrete post; standard tablet stamped "P T Sta No 56 Y. 1926".....	631. 500
Reference mark, 18 ft. SW. of tablet, 30 ft. S. and 45 ft. W. from crossroads, in root on NE. side of 15-in. maple tree; copper nail and washer.....	632. 11
T. 1 S., R. 16 W., in NW. cor. sec. 22, diagonally opposite Geneva Center School, 40 ft. S. and 35 ft. E. from crossroads, at cluster of four elm trees, in root on NE. side; copper nail and washer.....	619. 75
T. 1 S., R. 16 W., in NE. cor. sec. 22, 1.0 mi. E. of Geneva Center School, 1.0 mi. W. of Sheldon School, 45 ft. S. and 35 ft. W. from crossroads, in root on SE. side of 15-in. ash tree; copper nail and washer.....	688. 19
T. 1 S., R. 16 W., in NE. cor. sec. 23, 2.6 mi. S. of Lacota, 2.0 mi. N., thence 3.0 mi. W. from Breedsville, opposite Sheldon School, 13 ft. S. and 45 ft. W. from crossroads, in concrete post; standard tablet stamped "P T Sta No 57 Y 1926".....	681. 645
Reference mark, 10 ft. W. of tablet, 15 ft. S. and 50 ft. W. from crossroads, in root on NE. side of 24-in. maple tree; copper nail and washer.....	681. 12
T. 1 S., R. 16 W., in NE. cor. sec. 24, 1.0 mi. E. of Sheldon School, 1.0 mi. W. of Bronson School, 150 ft. W. of crossroads, on S. side of rd., in root on N. side of 42-in. elm tree; copper nail and washer....	693. 60
T. 1 S., R. 15 W., in NE. cor. sec. 19, at SW. corner of crossroads, at entrance to Bronson School, on top of N. end of middle step of three concrete steps; chiseled square.....	689. 50
Pere Marquette Ry. crossing; top of E. rail.....	688. 7

T. 1 S., R. 15 W., in SE. cor. sec. 17, 2.0 mi. S. of Grand Junction, 2.0 mi. N. of Breedsville, 30 ft. N. and 20 ft. W. from junction of T-rd. S., 3 ft. W. of fence corner, in concrete post; standard tablet stamped "P T Sta No 58 Y 1926"-----	<i>Feet</i> 701. 274
Reference mark, 20 ft. S. and 70 ft. E. from rd. junction, in root on NW. side of 36-in. oak tree; copper nail and washer-----	703. 40
U. S. C. & G. S. standard disk stamped "R 24 1930" <sup>14</sup> -----	680. 317
T. 1 S., R. 15 W., in NW. cor. sec. 22, 2.0 mi. N., thence 1.0 mi. E. from Breedsville, 35 ft. S. and 18 ft. E. from junction of T-rd. S., in root on N. side of 48-in. beech tree; copper nail and washer-----	741. 29
Saddle Lake; surface of water May 13, 1927-----	667. 5
T. 1 S., R. 15 W., about 800 ft. N. of SE. cor. sec. 15, 20 ft. N. and 18 ft. W. from junction of rd. N., at group of four small elm trees, in root on E. side of second tree from N.; copper nail and washer----	682. 54
T. 1 S., R. 15 W., near S¼ cor. sec. 14, 90 ft. W. of junction of T-rd. S., on N. side of rd., at fence line, in root on SE. side of large forked wild-cherry tree; copper nail and washer-----	686. 87
T. 1 S., R. 15 W., near S¼ cor. sec. 13, 1.0 mi. S., thence 0.3 mi. E. from Berlamont, 30 ft. N. and 40 ft. W. from junction of T-rd. N., 18 ft. W. of fence corner, at row of maple trees, in root on N. side of 24-in. tree, second tree from E. end; copper nail and washer-----	735. 02
From Gobleville quadrangle at point 1 mile south west of Berlamont south along road 3 miles, thence west 0.5 mile along Arlington-Columbia township-line road, thence south into Hartford quadrangle at point 2 miles north and 2 miles east from Lawrence (by S. R. Archer in 1927)	
Berlamont, 2.2 mi. SW. of, near N¼ cor. sec. 25, T. 1 S., R. 15 W., 30 ft. S. and 20 ft. W. from junction of T-rd. W., at fence corner, in root on NE. side of triple-forked elm tree; copper nail and washer--	680. 63
T. 1 S., R. 15 W., 500 ft. N. of junction of T-rd. E. at quarter corner between secs. 25 and 36, 3.5 mi. E. of Breedsville, 15 ft. S. and 30 ft. E. from junction of rd. NW., 15 ft. S. of fence corner, in field, in root on NW. side of 24-in. pine tree, northernmost of two pine trees 25 ft. apart; copper nail and washer-----	688. 27
Tps. 1 and 2 S., R. 15 W., near quarter corner between secs. 1 and 36, 1.0 mi. S., thence 3.5 mi. E. from Breedsville, 26 ft. S. of rd. junction, 2 ft. N. of fence line, in concrete post; standard tablet stamped "P T Sta No 60 Y 1926"-----	694. 260
Reference mark, 180 ft. W. of rd. junction, on N. side of rd., in field, 10 ft. N. of fence, 13 ft. W. of westernmost brick post at SW. corner of yard of house, in root on SW. side of 30-in. elm tree; copper nail and washer-----	692. 32
T. 2 S., R. 15 W., in NE. cor. sec. 2, 1.0 mi. S., thence 3.0 mi. E. from Breedsville, at jog in N.-S. rd., 35 ft. S. and 25 ft. W. from junction of rd. S., at NE. corner of yard of Swamp School, in root 1 ft. from tree on S. side of 10-in. maple tree; copper nail and washer-----	678. 72
T. 2 S., R. 15 W., in NE. cor. sec. 11, 80 ft. S. of crossroads, on W. side of rd., in fence line, in root on E. side of 8-in. elm tree; copper nail and washer-----	687. 08
T. 2 S., R. 15 W., near cor. secs. 11, 12, 13, and 14, 0.8 mi. S. and 5.0 mi. E. from Bangor, at SW. corner of crossroads, at concrete highway bridge over drainage ditch, on top of bridge end of SE. wing wall; chiseled square-----	681. 84

<sup>14</sup> The tie between this mark and the bench mark stamped "P T Sta No 58 Y 1926" was made in 1961.

T. 2 S., R. 15 W., in SW. cor. sec. 13, 1.8 mi. S. and 5.0 mi. E. from Bangor, 1.0 mi. N. of Hicks School, 24 ft. N. and 24 ft. E. from crossroads, in yard of dwelling, 8 ft. E. of SW. corner, in concrete post; standard tablet stamped "P T Sta No 61 Y 1926"-----	<i>Feet</i> 691. 038
Reference mark, 105 ft. S. of tablet, 80 ft. S. of crossroads, on E. side of rd., in root on W. side of 8-in. maple tree; copper nail and washer--	692. 04
T. 2 S., R. 15 W., near W¼ cor. sec. 24, 0.5 mi. N. of Hicks School, 35 ft. S. and 60 ft. E. from crossroads, in root on NW. side of 36-in. maple tree; copper nail and washer-----	778. 37
T. 2 S., R. 15 W., in NW. cor. sec. 25, 200 ft. S. of crossroads, on E. side of rd., at entrance to Hicks School, at top of steps, on NW. corner of concrete porch floor; chiseled square-----	770. 17
T. 2 S., R. 15 W., in SW. cor. sec. 25, 1.0 mi. S. of Hicks School, 2.6 mi. N., thence 2.0 mi. E. from Lawrence, 45 ft. N. and 20 ft. E. from crossroads, in root on SW. side of 12-in. poplar tree, middle one of three poplar trees in yard; copper nail and washer-----	730. 06
From South Haven quadrangle northeast along U. S. Highway 31 to point 1.7 miles southwest of Glenn, thence generally east by way of Pullman into Gobleville quadrangle near southeast corner sec. 6, T. 1 N., R. 14 W. (by S. R. Archer in 1927)	
South Haven public library, 4.7 mi. along highway NE. of, 2.0 mi. S. of Cedar Bluff, 100 ft. N. of entrance to Mount Pleasant Lake Shore subdivision, 800 ft. N. and 500 ft. W. from E¼ cor. sec. 24, T. 1 N., R. 17 W., on top of N. end of W. concrete head wall of highway bridge; chiseled square-----	648. 52
Cedar Bluff, 1.2 mi. S. of, near quarter corner between secs. 13 and 18, T. 1 N., Rs. 16 and 17 W., 16 ft. S. and 28 ft. W. from junction of T-rd. E., in line with rd. E., in concrete post; standard tablet stamped "P T Sta No 64 Y 1926"-----	644. 484
Reference mark, 35 ft. S. and 65 ft. E. from rd. junction, in root 6 in. underground on NW. side of 24-in. maple tree; copper nail and washer-----	643. 54
Cedar Bluff, near W¼ cor. sec. 7, T. 1 N., R. 16 W., 25 ft. S. and 55 ft. E. from junction of T-rd. E., in root on W. side of 5-in. elm tree; copper nail and washer-----	700. 57
Cedar Bluff, 1.1 mi. NE. of, 1.7 mi. SW. of Glenn, near center of sec. 6, T. 1 N., R. 16 W., 35 ft. W. of junction of rd. E., in concrete post; standard tablet stamped "P T Sta No 65 Y 1926"-----	661. 621
Reference mark, 40 ft. E. of rd. junction, on top of E. end of S. concrete head wall of culvert under rd. E.; chiseled square-----	660. 63
Cedar Bluff, 1.1 mi. NE., thence 0.5 mi. E. from, near E¼ cor. sec. 6, T. 1 N., R. 16 W., 90 ft. W. of junction of T-rd. S., on S. side of rd., in root on N. side of large forked wild-cherry tree; copper nail and washer-----	692. 36
Cedar Bluff, 1.1 mi. NE., thence 1.5 mi. E. from, near E¼ cor. sec. 5, T. 1 N., R. 16 W., 30 ft. S. and 35 ft. W. from crossroads, in root on NE. side of 8-in. maple tree; copper nail and washer-----	681. 01
Cedar Bluff, 1.1 mi. NE., thence 2.5 mi. E. from, 0.5 mi. S., thence 1.0 mi. W. from Spring Grove, near W¼ cor. sec. 3, T. 1 N., R. 16 W., 27 ft. N. and 37 ft. E. from crossroads, 116 ft. SE. of SE. corner of United Brethren Church, in concrete post; standard tablet stamped "P T Sta No 66 Y 1926"-----	631. 353
Reference mark, 150 ft. E. of tablet, 25 ft. N. and 190 ft. E. from crossroads, in root on SE. side of large forked ash tree; copper nail and washer-----	629. 12

	<i>Feet</i>
North Fork of Black River, at highway bridge; center line of floor.....	618. 8
Spring Grove, 0.5 mi. S. of, 30 ft. N. and 50 ft. W. from crossroads, near E $\frac{1}{4}$ cor. sec. 3, T. 1 N., R. 16 W., in field, in root on SW. side of 15-in. maple tree; copper nail and washer.....	680. 43
Spring Grove, 0.5 mi. S., thence 1.0 mi. E. from, near W $\frac{1}{4}$ cor. sec. 1, T. 1 N., R. 16 W., 30 ft. S. and 55 ft. E. from crossroads, in root on N. side of 36-in. pine tree; copper nail and washer.....	669. 83
Spring Grove, 0.5 mi. S., thence 2.0 mi. E. from, 2.0 mi. W., thence 1.0 mi. N. from Pullman, 130 ft. N. and 24 ft. E. from W $\frac{1}{4}$ cor. sec. 6, T. 1 N., R. 15 W., 24 ft. E. of center line of range-line rd., opposite junction of T-rd. W., 130 ft. N. of center line of T-rd. E., in concrete post; standard tablet stamped "P T Sta No 67 Y 1926".....	642. 703
Reference mark, 100 ft. S. and 60 ft. E. from tablet, 85 ft. E. of junction of T-rd. E., on N. side of rd., at fence line, in root on S. side of large forked wild-cherry tree; copper nail and washer.....	643. 30
Pullman, 1.0 mi. W., thence 1.0 mi. N. from, near W $\frac{1}{4}$ cor. sec. 5, T. 1 N., R. 15 W., 10 ft. S. and 32 ft. E. from junction of N.-S. rd., 7 ft. E. of fence, in field, in root on W. side of 4-in. poplar tree; copper nail and washer.....	635. 61
Pullman, 1.0 mi. W. of, near Pullman School, near W $\frac{1}{4}$ cor. sec. 8, T. 1 N., R. 15 W., 130 ft. E. of crossroads, on S. side of rd., in root on NE. side of 30-in. wild-cherry tree; copper nail and washer.....	641. 59
Pullman, at Pere Marquette Ry. crossing; top of W. rail of main track.....	651. 2
Pullman, 38 ft. S. and 24 ft. E. from crossroads, near W $\frac{1}{4}$ cor. sec. 9, T. 1 N., R. 15 W., 7 ft. S. of E.-W. sidewalk, in NW. corner of small park, in concrete post; standard tablet stamped "P T Sta No 68 Y 1926" (recovered in 1931).....	650. 357
Reference mark, 105 ft. W. of crossroads, on S. side of Main Street, on E. side of entrance to garage, at brick column at outside edge of sidewalk, on top of NE. corner of concrete foundation; chiseled square.....	649. 94
U. S. C. & G. S. standard disk stamped "V 24 1930" <sup>15</sup> .....	654. 277
Pullman, 0.5 mi. E. of, near center of sec. 9, T. 1 N., R. 15 W., 30 ft. N. and 70 ft. E. from crossroads, in root on S. side of 10-in. poplar tree; copper nail and washer.....	664. 41
Pullman, 1.5 mi. E. of, near center of sec. 10, T. 1 N., R. 15 W., 40 ft. S. and 28 ft. E. from crossroads, 2 ft. S. and 6 ft. E. from fence corner, in root on NW. side of twin oak tree with forks 3 in. and 10 in. in diameter; copper nail and washer.....	669. 34
Pullman, 2.0 mi. E. of, near W $\frac{1}{4}$ cor. sec. 11, T. 1 N., R. 15 W., 35 ft. N. and 5 ft. E. from junction of rd. S., in root on NE. side of 12-in. oak tree; copper nail and washer.....	678. 98
Pullman, 3.0 mi. E. of, near E $\frac{1}{4}$ cor. sec. 11, T. 1 N., R. 15 W., 24 ft. S. and 31 ft. W. from crossroads, 127 ft. NW. of NW. corner of Hilton School, 6 ft. W. of fence corner, in concrete post; standard tablet stamped "P T Sta No 69 Y 1926".....	685. 821
Reference mark, 160 ft. E. of tablet, 130 ft. E. of crossroads, on S. side of rd., in front of school, in root on NW. side of 24-in. oak tree with triangular blaze on W. side; copper nail and washer.....	685. 69
Pullman, 3.5 mi. E. of, near center of sec. 12, T. 1 N., R. 15 W., 35 ft. S. and 50 ft. E. from crossroads, in root on N. side of 8-in. tree, north-westernmost of group of five oak trees; copper nail and washer.....	686. 02

<sup>15</sup> The tie between this mark and the bench mark stamped "P T Sta No 68 Y 1926" was made in 1931.

Pullman, 3.5 mi. E., thence 0.5 mi. N. from, 2.4 mi. E. of Bakersville, near N $\frac{1}{4}$ cor. sec. 12, T. 1 N., R. 15 W., 50 ft. S. and 25 ft. E. from crossroads, in root on E. side of 24-in. oak tree; copper nail and washer-----	<i>Feet</i> 688. 79
Swan Creek; floor of bridge-----	668. 0
Bakersville, 3.2 mi. E. of, about 700 ft. W. of quarter corner between secs. 6 and 7, T. 1 N., R. 14 W., opposite and 80 ft. E. from dwelling of George Kichkaylo, 470 ft. W. of dwelling of J. G. Wait, on S. side of rd., 5 ft. E. of fence corner, in root on W. side of 30-in. wild-cherry tree; copper nail and washer-----	682. 74
From crossroads 2.4 miles east of Bakersville north 0.6 mile into Fennville quadrangle (by Kostka Mudd in 1928)	
Bakersville, 2.4 mi. E., thence 0.4 mi. N. from, near center of sec. 1, T. 1 N., R. 15 W., on E. side of rd., 0.4 mi. N. of crossroads, in root on W. side of 24-in. white-oak tree; copper nail and washer-----	689. 93
<b>BATTLE CREEK QUADRANGLE</b>	
[Latitude 42°15'-42°30'; longitude 85°00'-85°15']	
<b>BARRY, CALHOUN, AND EATON COUNTIES</b>	
From Battle Creek northeast and north to crossroads 2 miles north of Assyria, thence east 5.5 miles to crossroads 3.5 miles north of Bellevue (by W. S. Gehres in 1917)	
U. S. C. & G. S. standard disk stamped "I 10 1916"-----	823. 666
Battle Creek, at NW. corner of intersection of Maple and Union Streets, on top of curb; chiseled square-----	856. 78
Battle Creek, on E. side of Maple Street, in line with S. right-of-way line of Charlotte Street, near private driveway to dwelling, on curb; chiseled square-----	877. 48
Battle Creek, 3.5 mi. NE. of Michigan Central R. R. sta., near center of sec. 29, T. 1 S., R. 7 W., in NW. angle of junction of rd. W., 25 ft. W. of end fence post; standard iron post with bronze cap stamped "847"-----	846. 602
Reference mark, on opposite side of rd. from tablet, in SW. angle of rd. junction, in base of 20-in. oak tree; copper nail-----	845. 79
Battle Creek, 4.5 mi. NE. of, at Moores Corners, 0.2 mi. W. of E $\frac{1}{4}$ cor. sec. 20, T. 1 S., R. 7 W., in NE. angle of junction of rd. E., in root of 37-in. oak tree; copper nail-----	858. 72
Battle Creek, 5.6 mi. NE. of, about 450 ft. W. of center of sec. 16, T. 1 S., R. 7 W., on W. side of rd., at junction of rd. E., on top of concrete retaining wall of culvert; chiseled square-----	889. 55
Battle Creek, 7.2 mi. NE. of, 4.0 mi. S. and 0.4 mi. E. from Assyria, near SW. cor. sec. 3, T. 1 S., R. 7 W., in NE. angle of junction of rd. E., 20 ft. E. of fence corner; standard iron post with bronze cap stamped "902"-----	901. 944
Reference mark, near tablet, in NE. angle of rd. junction, in base of 22-in. elm tree; copper nail-----	904. 30
Assyria, 3.0 mi. S. and 0.4 mi. E. from, about 500 ft. W. of S $\frac{1}{4}$ cor. sec. 34, T. 1 N., R. 7 W., at Barry-Calhoun county line, at NE. corner of crossroads, in base of 32-in. elm tree; copper nail-----	860. 40
Assyria, 2.3 mi. SE. of, in NW $\frac{1}{4}$ sec. 34, T. 1 N., R. 7 W., at bridge over Grass Lick Creek, on E. side of rd., on S. end of concrete retaining wall; chiseled square-----	849. 88

Assyria, 1.0 mi. S. of, in NW. cor. sec. 27, T. 1 N., R. 7 W., in SE. angle of crossroads, 18 ft. E. of fence corner; standard iron post with bronze cap stamped "878"-----	Feet 877. 439
Reference mark, diagonally opposite tablet, in NW. angle of crossroads, on granite boulder; chiseled square-----	879. 66
Assyria, at NE. corner of junction of T-rd. E., in SW. cor. sec. 15, T. 1 N., R. 7 W., on top of E. end of concrete retaining wall; chiseled square-----	897. 40
Assyria, 1.0 mi. N. of, in SW. cor. sec. 10, T. 1 N., R. 7 W., 80 ft. N. of crossroads, on E. side of rd., in base of 10-in. white-ash tree; copper nail-----	896. 40
Assyria, 2.0 mi. N. of, near Ellis School, in NE. cor. sec. 9, T. 1 N., R. 7 W., in SW. angle of crossroads, 75 ft. W. of fence corner; standard iron post with bronze cap stamped "930"-----	929. 762
Reference mark, near tablet, 75 ft. S. of crossroads, on W. side of rd., in base of 26-in. oak tree; copper nail-----	933. 67
Assyria, 2.0 mi. N., thence 2.0 mi. E. from, at cor. secs. 1, 2, 11, and 12, T. 1 N., R. 7 W., in center of crossroads, on top of granite rock marking section corner; chiseled square-----	917. 35
Assyria, 2.0 mi. N., thence 3.0 mi. E. from, 3.5 mi. N., thence 2.5 mi. W. from Bellevue, near SE. cor. sec. 1, T. 1 N., R. 7 W., at Barry-Eaton county line, in NW. angle of crossroads, 8 ft. N. of fence corner; standard iron post with bronze cap stamped "937"-----	936. 573
Reference mark, about 60 ft. E. of tablet, near NE. corner of crossroads, on top of concrete corner fence post; chiseled square-----	939. 11
Bellevue, 3.5 mi. N., thence 1.5 mi. W. from, in NE. cor. sec. 7, T. 1 N., R. 6 W., in SW. angle of crossroads, on field side of fence, in root of 22-in. walnut tree; copper nail-----	927. 40
Bellevue, 3.5 mi. N., thence 0.5 mi. W. from, in NW. cor. sec. 9, T. 1 N., R. 6 W., in SE. angle of crossroads, in root of 24-in. sycamore tree; copper nail-----	944. 80
Bellevue, 3.5 mi. N. of, near S¼ cor. sec. 4, T. 1 N., R. 6 W., 40 ft. N. and 25 ft. E. from crossroads, 7 ft. N. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 16 967"-----	966. 176
Reference mark, 60 ft. S. and 125 ft. W. from tablet, 100 ft. W. of crossroads, on S. side of rd., in root of 23-in. maple tree; copper nail-----	966. 22
From crossroads 3.5 miles north of Bellevue generally south along roads to intersection of Stuart and Territorial Roads; thence east into Marshall quadrangle at point 1.8 miles west of Marshall (by W. S. Gehres in 1917)	
Bellevue, 2.5 mi. N. of, about 500 ft. E. of N¼ cor. sec. 16, T. 1 N., R. 6 W., near SW. corner of crossroads, on SW. corner of concrete bridge; chiseled square-----	908. 52
Bellevue, 1.0 mi. N. of, 0.25 mi. W. of E¼ cor. sec. 21, T. 1 N., R. 6 W., in SE. angle of junction of T-rd. E., in root of 18-in. elm tree; copper nail-----	890. 84
Bellevue, at SE. corner of intersection of Main and South Streets, on top of concrete curb; chiseled square-----	866. 86
Bellevue, on N. side of South Street, 170 ft. W. of intersection of Main Street, in SE. corner of yard of Methodist Episcopal Church; standard iron post with bronze cap stamped "869"-----	868. 522
Bellevue, 0.9 mi. SE. of, 0.2 mi. N. of W¼ cor. sec. 34, T. 1 N., R. 6 W., on E. side of rd., 140 ft. NW. of junction of T-rd. SW., on granite boulder nearest white-oak tree; chiseled square-----	895. 52



	<i>Feet</i>
Bellevue, 2.2 mi. SE. of, 500 ft. N. of E $\frac{1}{4}$ cor. sec. 4, T. 1 S., R. 6 W., 0.4 mi. N. of Convis School, on W. side of rd., opposite junction of rd. SE., in root of 34-in. maple tree; copper nail.....	901. 69
Bellevue, 3.3 mi. SE. of, near E $\frac{1}{4}$ cor. sec. 9, on W. side of rd., at bridge over small creek, on NW. corner of concrete floor; chiseled square.....	889. 48
Bellevue, 4.1 mi. SE. of, 0.25 mi. S. of NE. cor. sec. 16, T. 1 S., R. 6 W., in NW. angle of junction of T-rd. W., 8 ft. W. of corner fence post; standard iron post with bronze cap stamped "903".....	902. 238
Bellevue, 5.4 mi. SE. of, 0.5 mi. N. of Austin School, near E $\frac{1}{4}$ cor. sec. 21, T. 1 S., R. 6 W., in NW. angle of crossroads, on granite boulder; chiseled square.....	918. 66
[Line jogs into Marshall quadrangle]	
Bellevue, 7.5 mi. S. and 0.5 mi. E. from, 4.3 mi. N. and 3.0 mi. E. from Ceresco, in NW. cor. sec. 3, T. 2 S., R. 6 W., on E. side of Stuart Rd., 100 ft. S. of Convis-Marshall township-line rd., in root of 20-in. wild-cherry tree; copper nail.....	946. 45
Ceresco, 3.3 mi. N. and 3.0 mi. E. from, in SW. cor. sec. 3, T. 2 S., R. 6 W., in NE. angle of crossroads, in root of 28-in. oak tree; copper nail.....	966. 97
Ceresco, 2.3 mi. N. and 3.0 mi. E. from, in SW. cor. sec. 10, T. 2 S., R. 6 W., on E. side of rd., in line with N. right-of-way line of T-rd. W.; standard iron post with bronze cap stamped "952".....	951. 369
Reference mark, diagonally opposite tablet, in SW. angle of junction of rd. W., on concrete base of iron corner post of fence; chiseled square.....	951. 07
Ceresco, 1.3 mi. N. and 3.0 mi. E. from, 1.5 mi. N. and 2.0 mi. W. from Marshall, in NW. cor. sec. 22, T. 2 S., R. 6 W., 90 ft. S. of junction of T-rd. E., on E. side of rd., in base of 21-in. oak tree; copper nail.....	937. 58
From Battle Creek northwest along Michigan Central Railroad into Galesburg quadrangle (by E. E. Harris in 1917)	
U. S. C. & G. S. standard disk stamped "H 10 1916".....	821. 504
Battle Creek, 0.8 mi. W. of corner of Washington and Hamblin Avenues, 60 ft. N. of tracks, at angle of street crossing, on E. side of rd., on top of concrete culvert; chiseled square.....	816. 56
Battle Creek, 2.2 mi. NW. of, near N $\frac{1}{4}$ cor. sec. 3, T. 2 S., R. 8 W., on N. side of tracks, at semaphore 1223, on top of concrete support of iron ladder; chiseled square.....	826. 13
From Galesburg quadrangle at point 3.5 miles west of Battle Creek east 0.5 mile to northeast corner sec. 9, T. 2 S., R. 8 W., thence south 4.7 miles into Union City quadrangle (by E. E. Harris in 1917)	
Battle Creek, 3.0 mi. W. of, 0.5 mi. S., thence 1.2 mi. E. from easternmost part of Camp Custer, 1.0 mi. N. of Youngs Corners, in NE. cor. sec. 9, T. 2 S., R. 8 W., on W. side of N.-S. rd., 40 ft. S. of rd. W., in root of 18-in. maple tree; copper nail and washer.....	926. 27
Youngs Corners, near SW. corner of intersection of Territorial Rd. at, in NE. cor. sec. 16, T. 2 S., R. 8 W.; standard iron post with bronze cap stamped "1917 Mich 929".....	928. 427
Reference mark, near tablet, in SW. angle of crossroads, in root of 24-in. maple tree; copper nail and washer.....	928. 01

Youngs Corners, 1.0 mi. S. of, near NW. cor. sec. 22, T. 2 S., R. 8 W., on E. side of rd., in line with lane W., on sandstone boulder; chiseled square-----	<i>Feet</i> 966. 55
Youngs Corners, 2.0 mi. S. of, 3.0 mi. N. and 0.5 mi. W. from Sonoma, near SW. cor. sec. 22, T. 2 S., R. 8 W., on E. side of rd., in root of 18-in. maple tree; copper nail and washer-----	958. 43
Sonoma, 2.0 mi. N. and 0.5 mi. W. from, 2.7 mi. W. of Adams, in SW. cor. sec. 27, T. 2 S., R. 8 W., at entrance to Beckley School, in W. end of top stone step; standard tablet stamped "1917 Mich 957"-----	956. 080
From Union City quadrangle north along range-line road to Ceresco (by E. E. Harris in 1917)	
Ceresco, 0.7 mi. S. of, in NE. cor. sec. 36, T. 2 S., R. 7 W., in SW. angle of junction of T-rd. W., on sandstone boulder; chiseled square-----	926. 47
U. S. C. & G. S. standard disk designated "P 10"-----	893. 440
From Galesburg quadrangle at point 1 mile west and 0.7 mile south from Urbandale east and north along roads by way of Urbandale and Bedford to road fork near Culver School, thence northwest 0.5 mile and back into Galesburg quadrangle (by E. E. Harris in 1917)	
Urbandale, 0.6 mi. in air line W. of, 0.3 mi. SW. of NE. cor. sec. 33, T. 1 S., R. 8 W., at concrete bridge over Kalamazoo River, on top of W. end of N. abutment; chiseled square-----	807. 68
Urbandale, 0.25 mi. N. of center of sec. 34, T. 1 S., R. 8 W., at store, in SE. corner of large concrete doorstep; standard tablet stamped "1917 Mich 832"-----	831. 380
Urbandale, 1.0 mi. N. of, 0.2 mi. NW. of center of sec. 27, T. 1 S., R. 8 W., on E. bank of rd., 100 ft. S. of farmhouse, in root of 18-in. maple tree; copper nail and washer-----	842. 05
Urbandale, 2.4 mi. N. of, 1.2 mi. S. of Bedford, 0.4 mi. E. of NW. cor. sec. 22, T. 1 S., R. 8 W., in SW. angle of crossroads, on sandstone boulder; chiseled square-----	871. 74
Bedford, in stone step of dwelling over A. E. Leedles Department Store; standard tablet stamped "1917 Mich 889"-----	888. 693
Bedford, 0.9 mi. NW. of, 0.2 mi. E. of SW. cor. sec. 3, T. 1 S., R. 8 W., in NW. angle of junction of rd. W., in root of 8-in. apple tree; copper nail and washer-----	893. 54
Bedford, 1.9 mi. NW. of, near S $\frac{1}{4}$ cor. sec. 34, T. 1 N., R. 8 W., on E. side of rd., 4 ft. S. of wire fence indicating Barry-Calhoun county line, in root of 10-in. maple tree; copper nail and washer-----	909. 76
Bedford, 2.9 mi. NW. of, about 500 ft. W. of N $\frac{1}{4}$ cor. sec. 34, T. 1 N., R. 8 W., on W. side of rd., on top of concrete culvert wall supporting iron railing; chiseled square-----	918. 14
Bedford, 3.7 mi. NW. of, 0.2 mi. SW. of Culver School, 0.3 mi. NW. of center of sec. 27, T. 1 N., R. 8 W., in SE. angle of crossroads, in center of W. side of concrete corner fence post; standard tablet stamped "1917 Mich 953" <sup>16</sup> -----	952. 200
From Vermontville quadrangle near center of sec. 3, T. 1 N., R. 8 W., south-east 0.6 mile to road fork, thence east 5 miles by way of Lacey to crossroads 2 miles north of Assyria (by E. E. Harris in 1917)	
Lacey, 1.0 mi. W. of, in NE. cor. sec. 11, T. 1 N., R. 8 W., in SW. angle of crossroads, on field side of wire fence, in root of 15-in. oak tree; copper nail and washer-----	990. 90

<sup>16</sup> In 1930 this bench mark was reset 0.248 foot higher than its original elevation. The figures given represent the new elevation.

Lacey, at entrance to store of C. E. Nickerson, in NE. cor. sec. 12, T. 1 N., R. 8 W., in E. end of third concrete step from ground; standard tablet stamped "1917 Mich 998"-----	Feet 997. 523
Lacey, 0.9 mi. E. of, opposite Briggs School, 500 ft. W. of SE. cor. sec. 6, T. 1 N., R. 7 W., on W. side of N.-S. rd., 100 ft. N. of E.-W. rd., in root of 18-in. maple tree; copper nail and washer....	929. 45
Lacey, 1.9 mi. E. of, 500 ft. W. of SE. cor. sec. 5, T. 1 N., R. 7 W., on N. side of rd., in root of 15-in. oak tree; copper nail and washer-----	937. 25
From crossroads 3.5 miles north of Bellevue east 0.5 mile to south corner secs. 3 and 4, T. 1 N., R. 6 W., thence north 0.25 mile and east 0.7 mile into Marshall quadrangle (by R. B. Steele in 1920)	
Bellevue, 3.8 mi. N. and 0.3 mi. E. from, 0.25 mi. N. of S. cor. secs. 3 and 4, T. 1 N., R. 6 W., at right-angle turn in rd., 50 ft. SW. of telephone pole, on stone marking sixteenth corner; chiseled square....	965. 34

## BAY CITY QUADRANGLE

[Latitude 43°30'-43°45'; longitude 83°45'-84°00']

## BAY AND SAGINAW COUNTIES

From Saginaw quadrangle at point 1.4 miles north and 2 miles east from Lawndale north along road to Midland Road, thence east to Bay City, thence along roads alternately south and west to crossroads 1.8 miles south and 0.5 mile west from Amelith (by H. S. Senseney in 1916)

Lawndale, 2.0 mi. E., thence 2.0 mi. N. from, 1.8 mi. S., thence 0.5 mi. W. from crossroads at Amelith, near NW. cor. sec. 27, T. 13 N., R. 4 E., in SE. corner of crossroads, on culvert; chiseled square-----	612. 28
Amelith, 0.8 mi. S., thence 0.5 mi. W. from, near NE. cor. sec. 21, T. 13 N., R. 4 E., in SW. corner of crossroads, on culvert; chiseled square-----	609. 61
Amelith, 0.2 mi. N. and 0.5 mi. W. from, near NE. cor. sec. 16, T. 13 N., R. 4 E., 35 ft. S. and 20 ft. W. from crossroads; standard iron post with bronze cap stamped "612"-----	611. 404
Reference mark, in NW. angle of crossroads, in root of tree; copper nail and washer-----	610. 65
Amelith, 1.2 mi. N. and 0.5 mi. W. from, in SE. cor. sec. 4, T. 13 N., R. 4 E., in NW. angle of crossroads, in root of second tree W. of fence corner; copper nail and washer-----	604. 10
Amelith, 2.2 mi. N. and 0.5 mi. W. from, in NE. cor. sec. 4, T. 13 N., R. 4 E., 60 ft. S. of fence corner, in root of tree; copper nail and washer-----	600. 71
Amelith, 3.2 mi. N. and 0.5 mi. W. from, 3.8 mi. W., thence 1.5 mi. S. from intersection of West Midland Street and South Euclid Avenue in Bay City, in NW. cor. sec. 34, T. 14 N., R. 4 E., 25 ft. S. and 20 ft. E. from crossroads; standard iron post with bronze cap stamped "605"-----	604. 275
Reference mark, in NE. angle of crossroads, in root of tree; copper nail and washer-----	603. 22
Bay City, 3.8 mi. W. of, near E $\frac{1}{4}$ cor. sec. 21, T. 14 N., R. 4 E., in SW. corner of intersection of Midland Rd., on culvert; chiseled square..	600. 63
Bay City, 2.8 mi. W. of, 60 ft. W. of E $\frac{1}{4}$ cor. sec. 22, T. 14 N., R. 4 E., on S. side of rd., in root of tree; copper nail and washer-----	599. 27
Bay City, 1.8 mi. W. of, 30 ft. S. of quarter corner between secs. 23 and 24, T. 14 N., R. 4 E., on E. side of rd., in root of tree; copper nail and washer-----	598. 51

Bay City, 0.8 mi. W. of, near E $\frac{1}{4}$ cor. sec. 24, T. 14 N., R. 4 E., opposite Hotel Joseph, 35 ft. S. and 45 ft. W. from crossroads; standard iron post with bronze cap stamped "600"-----	<i>Feet</i> 600. 055
Reference mark, in front of Hotel Joseph, on NW. corner of pavement; chiseled square-----	600. 58
Bay City, at W. limits of, at SW. corner of intersection of West Midland Street and South Euclid Avenue, on culvert; chiseled square--	601. 21
Bay City, at W. limits of, 1.0 mi. N. of Brooks, a suburb of Bay City, at SE. corner of intersection of South Euclid Avenue and Salzburg Avenue, on W. end of pavement; chiseled square-----	591. 96
Brooks, at NE. corner of intersection of South Euclid Avenue and Hotchkiss Street, on S. end of pavement; chiseled square-----	585. 79
Brooks, 0.6 mi. S. of, 0.4 mi. N. of SE. cor. sec. 6, T. 13 N., R. 5 E., at bridge over Dutch Creek, on E. end of S. abutment; chiseled square--	586. 81
Dutch Creek; surface of water Apr. 13, 1916-----	579. 5
Brooks, 0.7 mi. S. of, 0.25 mi. N. of SE. cor. sec. 6, T. 13 N., R. 5 E., 25 ft. S. and 25 ft. W. from crossroads; standard iron post with bronze cap stamped "586"-----	585. 318
Brooks, 0.7 mi. S., thence 0.9 mi. W. from, 0.25 mi. N. of SE. cor. sec. 1, T. 13 N., R. 4 E., 10 ft. N. of junction of N.-S. rd., on W. end of culvert; chiseled square-----	583. 46
Brooks, 1.0 mi. S. and 0.9 mi. W. from, near NE. cor. sec. 12, T. 13 N., R. 4 E., in SW. corner of junction of T-rd. W., on culvert; chiseled square-----	584. 38
Brooks, 2.0 mi. S. and 0.9 mi. W. from, near NE. cor. sec. 13, T. 13 N., R. 4 E., in SW. corner of crossroads, in root of tree; copper nail and washer-----	583. 10
Brooks, 3.0 mi. S. and 0.9 mi. W. from, 0.8 mi. S., thence 2.5 mi. E. from Amelith, in NE. cor. sec. 24, T. 13 N., R. 4 E., 25 ft. S. and 20 ft. W. from crossroads; standard iron post with bronze cap stamped "585"-----	584. 260
Amelith, 1.8 mi. S., thence 1.5 mi. E. from, near SW. cor. sec. 24, T. 13 N., R. 4 E., in NE. corner of crossroads, in root of second tree from corner; copper nail and washer-----	594. 15
Amelith, 1.8 mi. S., thence 0.5 mi. E. from, in SW. cor. sec. 23, T. 13 N., R. 4 E., 25 ft. N. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 12 1913 599"--	598. 735
From Brooks, at west limits of Bay City, east along streets and road to Tuscola Road, thence generally south along Tuscola Road and other roads into Saginaw quadrangle at point 1.5 miles north of Indiantown (by H. S. Senseney in 1916)	
Bay City, 0.7 mi. E. of Brooks, on N. side of Cass Avenue, about 14 ft. E. of R. R. track, 7.5 ft. E. of storm sewer grating at extreme W. end of pavement, on concrete curb; chiseled cross (U. S. C. E. B. M.)-----	586. 765
Bay City, in SW. corner of intersection of Cass and Michigan Avenues, near NE. corner of Holka grocery, on pavement; chiseled square--	595. 87
Bay City, 3.6 mi. E. of W. limits of, 0.4 mi. W. of SE. cor. sec. 35, T. 14 N., R. 5 E., 25 ft. N. and 20 ft. E. from intersection of Tuscola Rd.; standard iron post with bronze cap stamped "603"-----	602. 060
U. S. C. & G. S. standard disk stamped "T 29 1930" <sup>17</sup> -----	599. 444

<sup>17</sup> The tie between this mark and the bench mark stamped "603" was made in 1931.

Bay City, 3.6 mi. E., thence 1.1 mi. SE. from, 0.25 mi. E. of NW. cor. sec. 12, T. 13 N., R. 5 E., in SW. corner of intersection of Tuscola Rd. and E.-W. rd., on base of signpost; chiseled square.....	<i>Feet</i> 598. 55
Bay City, 3.6 mi. E., thence 2.3 mi. by rd. S. from, 4.0 mi. N. of Indiantown, in SE. cor. sec. 11, T. 13 N., R. 5 E., 20 ft. N. and 20 ft. W. from crossroads; standard iron post with bronze cap stamped "598".....	597. 241
Indiantown, 3.0 mi. N. of, near SE. cor. sec. 14, T. 13 N., R. 5 E., in NW. corner of crossroads, on culvert; chiseled square.....	592. 22
Indiantown, 2.0 mi. N. of, near SE. cor. sec. 23, T. 13 N., R. 5 E., in NW. corner of crossroads, opposite Hausbeck School, on W. end of N. abutment of culvert; chiseled square.....	586. 70
From Saginaw quadrangle at point 1.5 miles south and 1 mile east from Munger along roads north to crossroads 1.7 miles north of Farleigh, thence west to Bay City (by H. S. Senseney in 1916)	
Munger, 1.0 mi. E., thence 1.0 mi. S. from crossroads at, in SE. cor. sec. 21, T. 13 N., R. 6 E., in NW. corner of crossroads, in root of tree; copper nail and washer.....	589. 45
Munger, 1.0 mi. E. of, near NE. cor. sec. 21, T. 13 N., R. 6 E., in SW. corner of crossroads, on culvert; chiseled square.....	590. 71
Munger, 1.0 mi. E., thence 1.0 mi. N. from, in SE. cor. sec. 9, T. 13 N., R. 6 E., 20 ft. N. and 25 ft. W. from crossroads; standard iron post with bronze cap stamped "589".....	588. 205
Munger, 1.0 mi. E., thence 2.0 mi. N. from, 2.8 mi. S. of Farleigh, near SE. cor. sec. 4, T. 13 N., R. 6 E., in NW. angle of crossroads; in root of tree; copper nail and washer.....	588. 29
Farleigh, 1.8 mi. S. of, 170 ft. E. of SW. cor. sec. 34, T. 14 N., R. 6 E., on N. side of rd., in root of tree; copper nail and washer.....	586. 71
Farleigh, 0.8 mi. S. of, in SE. cor. sec. 28, T. 14 N., R. 6 E., 25 ft. N. and 20 ft. W. from crossroads; standard iron post with bronze cap stamped "587".....	586. 574
Farleigh, at R. R. crossing; top of N. rail.....	586. 2
Farleigh, 0.1 mi. N. of, about 800 ft. S. of NE. cor. sec. 28, T. 14 N., R. 6 E., near NW. corner of crossroads, on culvert; chiseled square.....	587. 59
Farleigh, 1.2 mi. N. of, near SE. cor. sec. 16, T. 14 N., R. 6 E., at NW. corner of crossroads, on culvert; chiseled square.....	586. 01
Farleigh, 1.7 mi. N. of, 3.9 mi. E. of intersection of Woodside Avenue and Pine Street in Essexville, near W $\frac{1}{4}$ cor. sec. 15, T. 14 N., R. 6 E., 30 ft. N. and 10 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 22 1915 586".....	585. 216
Essexville, 2.9 mi. E. of, near E $\frac{1}{4}$ cor. sec. 17, T. 14 N., R. 6 E., in SW. corner of crossroads, on culvert; chiseled square.....	585. 69
Essexville, 1.9 mi. E. of, near E $\frac{1}{4}$ cor. sec. 18, T. 14 N., R. 6 E., in SW. corner of crossroads, on culvert; chiseled square.....	587. 52
Essexville, 1.1 mi. E. of, near W $\frac{1}{4}$ cor. sec. 18, T. 14 N., R. 6 E., 25 ft. S. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "589".....	587. 838
Essexville, at SW. corner of intersection of Woodside Avenue and Pine Street, on E. end of curb; chiseled square.....	585. 99
Essexville, at SW. corner of intersection of Woodside Avenue and Parker Street, 2.1 mi. NE. of W. sta. of Michigan Central R. R. in Bay City, on curb; chiseled square.....	588. 97
Bay City, at SW. corner of intersection of Woodside Avenue and Seymour Street, on E. side of sewer trap, on curb; chiseled square.....	588. 19

Bay City, at SW. corner of intersection of Woodside and Washington Avenues, on E. side of sidewalk, on curb; chiseled square-----	<i>Feet</i> 587. 32
Bay City, at SE. corner of intersection of Third Street and Washington Avenue, in NW. corner of grounds of post office; standard iron post with bronze cap stamped "593"-----	592. 211
U. S. C. & G. S. standard disk stamped "S 29 1930" <sup>18</sup> -----	594. 631
Bay City, on W. side, 95 ft. W. of S. end of M. C. R. R. sta., on N. side of driveway, on curb; chiseled square-----	597. 32
U. S. C. & G. S. standard disk stamped "R 29 1930" <sup>19</sup> -----	592. 354
U. S. C. & G. S. standard disk stamped "Q 29 1930" <sup>19</sup> -----	596. 869

From point on Midland Road 4.8 miles west of west station of Michigan Central Railroad in Bay City along roads north and east to Linwood, thence south along Michigan Central Railroad to Au Sable State Road, thence southeast 0.5 mile and east along road to Detroit & Mackinac Railway, thence southeast and south along railway and roads to Bay City (by H. S. Senseney in 1916)

Bay City, 4.8 mi. W., thence 0.5 mi. N. from M. C. R. R. sta. in, near NE. cor. sec. 21, T. 14 N., R. 4 E., in SW. corner of junction of T-rd. W., on culvert; chiseled square-----	595. 47
Bay City, 4.8 mi. W., thence 1.5 mi. N. from, in NE. cor. sec. 16, T. 14 N., R. 4 E., 20 ft. S. and 20 ft. W. from junction of T-rd. W.; standard iron post with bronze cap stamped "Prim Trav Sta No 21 1915 601"-----	600. 230
Reference mark, 45 ft. N. of standard post, on W. side of rd., on culvert; chiseled square-----	600. 96
Bay City, 4.8 mi. W., thence 2.5 mi. N. from, 0.9 mi. S. and 2.4 mi. W. from Kawkawlin, near SW. cor. sec. 3, T. 14 N., R. 4 E., in NE. corner of crossroads, on culvert; chiseled square-----	599. 72
Kawkawlin, 0.1 mi. N. and 2.4 mi. W. from, near NW. cor. sec. 3, T. 14 N., R. 4 E., in SE. angle of intersection of Kawkawlin-Monitor township-line rd., in root of tree; copper nail and washer-----	600. 57
Kawkawlin, 1.1 mi. N. and 2.4 mi. W. from, 1.5 mi. W., thence 5.0 mi. S. from M. C. R. R. sta. in Linwood, in NW. cor. sec. 34, T. 15 N., R. 4 E., 20 ft. S. and 30 ft. E. from crossroads; standard iron post with bronze cap stamped "599"-----	598. 495
Linwood, 1.5 mi. W., thence 3.0 mi. S. from, in NE. cor. sec. 21, T. 15 N., R. 4 E., 30 ft. S. and 80 ft. W. from junction of T-rd. W.; standard iron post with bronze cap stamped "600"-----	599. 489
Linwood, 1.5 mi. W., thence 1.0 mi. S. from, near SE. cor. sec. 4, T. 15 N., R. 4 E., 60 ft. E. of junction of crossroads, in root of tree; copper nail and washer-----	603. 96
Linwood, 1.5 mi. W. of, in NW. cor. sec. 3, T. 15 N., R. 4 E., 25 ft. S. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 20 1915 601"-----	600. 328
Linwood, at W. limits of, 0.5 mi. W. of sta., near NW. cor. sec. 2, T. 15 N., R. 4 E., 25 ft. E. of junction of T-rd. N., on S. side of rd., on culvert; chiseled square-----	589. 00
U. S. C. & G. S. standard disk stamped "M 29 1930" <sup>20</sup> -----	587. 328
Linwood, in front of sta.; top of W. rail-----	587. 6
Linwood, 2.0 mi. S. of, 4.5 mi. N. of Kawkawlin, 0.3 mi. W. of SE. cor. sec. 11, T. 15 N., R. 4 E., 25 ft. N. and 25 ft. W. from rd. crossing; standard iron post with bronze cap stamped "585"-----	585. 044

<sup>18</sup> The tie between this mark and the bench mark stamped "593" was made in 1931.

<sup>19</sup> The tie between this mark and the bench mark with elevation 597.32 feet was made in 1931.

<sup>20</sup> The tie between this mark and the bench mark with elevation 589.00 feet was made in 1931.

Kawkawlin, 1.0 mi. N. of, near NW. cor. sec. 36, T. 15 N., R. 4 E., 75 ft. N. and 25 ft. E. from intersection of Au Sable State Rd. (Linwood Pike); standard iron post with bronze cap stamped "601"-----	Feet 600. 373
Kawkawlin, 0.6 mi. N. and 0.6 mi. E. from, near E $\frac{1}{4}$ cor. sec. 36, T. 15 N., R. 4 E., in SW. angle of crossroads, in root of tree; copper nail and washer-----	585. 89
Kawkawlin, 0.6 mi. N. and 1.5 mi. E. from, 2.0 mi. N. of Wenona, near W $\frac{1}{4}$ cor. sec. 32, T. 15 N., R. 5 E., in NE. angle of crossroads, opposite Lincoln School, in root of tree; copper nail and washer-----	587. 94
Kawkawlin River, at center of R. R. bridge over; top of W. rail-----	588. 8
Kawkawlin River, under bridge; surface of water June 5, 1916-----	580. 6
Kawkawlin, 0.6 mi. S. and 2.9 mi. E. from, 2.9 mi. NE. of W. sta. of M. C. R. R. in Bay City, 0.3 mi. N. of S $\frac{1}{4}$ cor. sec. 4, T. 14 N., R. 5 E., 65 ft. N. and 20 ft. W. from intersection of D. & M. Ry.; standard iron post with bronze cap stamped "586"-----	585. 291
Bay City, 2.6 mi. NE. of, near S $\frac{1}{4}$ cor. sec. 4, T. 14 N., R. 5 E., in NW. angle of crossroads, in root of tree; copper nail and washer-----	584. 93
Bay City, on W. side of, at NW. corner of intersection of Bangor and Smith Streets, 7 ft. N. of S. end of sidewalk, on E. edge; chiseled square-----	585. 15

**BEACON HILL QUADRANGLE**

[Latitude 47°00'-47°15'; longitude 88°45'-89°00']

**HOUGHTON COUNTY**

Near Redridge (by Howard Clark in 1911)

[A jog from Houghton quadrangle]

Redridge, at R. R. trestle over reservoir spillway, in SW. corner of W. concrete abutment; aluminum tablet stamped "Prim Trav Sta No 6 692"-----	691. 747
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**BENTON HARBOR QUADRANGLE**

[Latitude 42°00'-42°15'; longitude 86°15'-86°30']

**BERRIEN AND VAN BUREN COUNTIES**

From Hartford quadrangle at point on Berrien-Van Buren county line about 2 miles west of Rush Lake alternately west and south along roads to Lake Michigan Beach, thence southwest along Shore Road and other roads to St. Joseph, thence south into Niles quadrangle at point 1.3 miles east and 1 mile south from Stevensville (by C. E. Walker in 1926; releveled to St. Joseph by S. R. Archer in 1927)

Watervliet, 4.0 mi. N. of, near SW. cor. sec. 35, T. 2 S., R. 17 W., in NE. angle of intersection of State Highway 140 and Berrien-Van Buren county-line rd., on E. concrete head wall of culvert; chiseled square-----	666. 98
Watervliet, 4.0 mi. N. and 1.0 mi. W. from, 4.0 mi. N. and 1.5 mi. E. from Coloma, in NW. cor. sec. 3, T. 3 S., R. 17 W., in SE. angle of crossroads, in NW. corner of yard of A. Olson, in root 2 in. underground on SE. side of 10-in. hickory tree; copper nail and washer---	708. 47
Coloma, 4.0 mi. N. and 0.5 mi. E. from, 24 ft. S. and 100 ft. E. from N. cor. secs. 4 and 5, T. 3 S., R. 17 W., 24 ft. S. and 40 ft. W. from S. cor. secs. 32 and 33, T. 2 S., R. 17 W., 16 ft. E. of telephone pole, in concrete post; standard tablet stamped "P T Sta No 49 Y 1926"-----	670. 063
Reference mark, near NE. cor. sec. 5, T. 3 S., R. 17 W., 250 ft. W. of crossroads, on S. side of rd., on E. end of concrete culvert; chiseled square-----	664. 54

Coloma, 4.0 mi. N. and 0.5 mi. W. from, in SE. cor. sec. 31, T. 2 S., R. 17 W., in NW. corner of crossroads, on N. end of 12-in. tile culvert; chiseled square	Feet 648. 73
Coloma, 4.0 mi. N. and 1.5 mi. W. from, 1.2 mi. N. and 1.7 mi. E. from Lake Michigan Beach, 21 ft. S. and 51 ft. E. from center of crossroads, in NW. cor. sec. 6, T. 3 S., R. 17 W., on Berrien-Van Buren county line, in concrete post; standard tablet stamped "P T Sta No 48 Y 1926"	651. 334
Lake Michigan Beach, 1.9 mi. NE. of, in SW. cor. sec. 6, T. 3 S., R. 17 W., 250 ft. N. of Clymer School, near NE. corner of crossroads, on concrete culvert; chiseled square	671. 51
Lake Michigan Beach, 1.4 mi. NE. of, near S $\frac{1}{4}$ cor. sec. 1, T. 3 S., R. 18 W., in NE. angle of crossroads, on concrete culvert; chiseled square	643. 46
Lake Michigan Beach, 18 ft. N. and 27 ft. E. from intersection of Hagar Shore Rd. and Central Avenue, opposite entrance to Lake Michigan Beach clubhouse, in concrete post; standard tablet stamped "P T Sta No 47 Y 1926"	623. 512
Reference mark, 80 ft. SW. of entrance to clubhouse, on W. side of rd., in root on E. side of 14-in. poplar tree; copper nail and washer	624. 71
Lake Michigan Beach, 1.2 mi. SW. of, in NW. part of NE $\frac{1}{4}$ sec. 15, T. 3 S., R. 18 W., in S. angle of intersection of Hagar Shore Rd. and Cherry Avenue, on SW. concrete head wall of culvert under Cherry Avenue; chiseled square	630. 48
Lake Michigan Beach, 2.4 mi. SW. of, in NW. part of NW $\frac{1}{4}$ sec. 22, T. 3 S., R. 18 W., at service sta. on E. side of rd., in root on W. side of 14-in. cherry tree; copper nail and washer	675. 65
Lake Michigan Beach, 2.8 mi. SW. of, near E $\frac{1}{4}$ cor. sec. 21, T. 3 S., R. 18 W., near NW. corner of crossroads, on top of E. end of N. concrete head wall of culvert; chiseled square	673. 33
Lake Michigan Beach, 3.3 mi. SW. of, 4.5 mi. W. of Coloma, 0.2 mi. N. and 0.7 mi. W. from Riverside, 32 ft. N. and 25 ft. E. from crossroads, in SW. cor. sec. 22, T. 3 S., R. 18 W., in concrete post; standard tablet stamped "P T Sta No 46 Y 1926"	654. 157
Reference mark, 20 ft. N. and 30 ft. W. from crossroads, in N. side of 6-in. poplar tree; copper nail and washer	652. 97
Lake Michigan Beach, 4.0 mi. SW. of, 2.0 mi. NE. of Mizpah Park, 0.2 mi. W. of N $\frac{1}{4}$ cor. sec. 28, T. 3 S., R. 18 W., about 150 ft. SW. of turn to SW. in rd., on W. side of rd., in root on E. side of 18-in. ash tree; copper nail and washer	665. 02
Mizpah Park, 0.9 mi. E. of, near E $\frac{1}{4}$ cor. sec. 32, T. 3 S., R. 18 W., 25 ft. S. and 30 ft. W. from crossroads, in root on S. side of 20-in. maple tree; copper nail and washer	648. 85
Mizpah Park, 0.3 mi. S. of, 3.0 mi. N. and 1.0 mi. E. from Benton Harbor, at crossroads, 19 ft. S. and 18 ft. E. from S. cor. secs. 31 and 32, T. 3 S., R. 18 W., 20 ft. S. and 137 ft. E. from N. cor. secs. 5 and 6, T. 4 S., R. 18 W., in concrete post; standard tablet stamped "P T Sta No 45 Y 1926"	693. 253
Reference mark, in SW. angle of crossroads, in root on S. side of 14-in. maple tree; copper nail and washer	691. 95
Benton Harbor, 2.1 mi. N. of, at N. side NW $\frac{1}{4}$ sec. 7, T. 4 S., R. 18 W., 120 ft. S. of rd. junction, on W. side of rd., at entrance to Benton Township School No. 2, on NE. corner of concrete porch; chiseled square	639. 22



Benton Harbor, 1.0 mi. due N. of post office, in SE. cor. sec. 12, T. 4 S., R. 19 W., 30 ft. N. and 25 ft. W. from junction of North Shore Rd. and Maiden Lane, in root on E. side of 14-in. maple tree; copper nail and washer-----	<i>Feet</i> 655. 54
Benton Harbor, at NE. corner of intersection of Fifth and Park Streets, 7 ft. from inside edge of curb on Park Street, 6 ft. from inside edge of curb on Fifth Street, 5 ft. N. of light post, in concrete post; standard tablet stamped "P T Sta No 40 Y 1926"-----	590. 352
Reference mark, about 500 ft. SE. of Pere Marquette Ry. sta., in NW. angle of intersection of Fifth and Park Streets, at 36-in. concrete platform, on SE. corner of top; chiseled square-----	593. 07
Benton Harbor, 0.8 mi. W. of sta., at Ry. bridge over Pawpaw River, on top of S. end of W. concrete abutment; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	589. 963
St. Joseph, in grounds of Coast Guard sta., at right angle 38.8 ft. from N. pier sta. 13 plus 46; 52.7 ft. from SW. corner of boathouse of life-saving sta., 4 in. below surface of ground and covered with 4-by 4.5-in. iron washer; top of cap of vertical iron pipe (established by U. S. Lake Survey in 1893; recovered by U. S. C. & G. S. in 1934)-----	585. 028
St. Joseph, at Coast Guard sta.; zero mark of gage-----	579. 399
St. Joseph, 124 ft. S. of SE. corner of St. Joseph County courthouse, in SE. corner of yard, 10.4 ft. N. of inside edge of sidewalk on Ship Street, 0.7 ft. W. of inside edge of sidewalk on Wayne Street, in concrete post; standard tablet stamped "P T Sta No 41 Y 1926"-----	642. 305
Reference mark 1, 65 ft. N. of tablet, in courthouse yard, in root of boxelder tree; copper nail and washer-----	642. 19
Reference mark 2, 24 ft. SW. of tablet, near curb, in root of elm tree; copper nail and washer-----	642. 57
St. Joseph, 1.4 mi. S. of courthouse, on lake shore; 20 ft. NE. of SE. corner of Catholic cemetery, on E. side of 14-in. elm tree; copper nail and washer-----	668. 52
St. Joseph, 2.6 mi. S. of, near W $\frac{1}{4}$ cor. sec. 35, T. 4 S., R. 19 W., in NE. angle of crossroads, in front of Gard School, on SW. corner of concrete platform; chiseled square-----	681. 40
St. Joseph, 3.8 mi. S. of, near quarter corner between secs. 2 and 3, T. 5 S., R. 19 W., 700 ft. S. of junction of T-rd. W., at concrete bridge over Hickory Creek, on SW. wing wall, near anchor bolts; chiseled square-----	588. 59
St. Joseph, 4.7 mi. S. of, near E $\frac{1}{4}$ cor. sec. 10, T. 5 S., R. 19 W., 30 ft. N. and 24 ft. W. from center of crossroads, 7 ft. N. of 16-in. hard-maple tree, in concrete post; standard tablet stamped "P T Sta No 42 Y 1926"-----	629. 564
Reference mark, 20 ft. N. and 30 ft. E. from crossroads, on top of concrete culvert; chiseled square-----	629. 51
St. Joseph, 6.2 mi. S. of, 1.3 mi. E., thence 1.0 mi. N. from Stevensville, in NW. cor. sec. 23, T. 5 S., R. 19 W., 280 ft. S. of crossroads, on E. side of rd., on S. side of leaning 30-in. wild-cherry tree; copper nail and washer-----	627. 28

From Niles quadrangle at point 1 mile south and 1.3 miles east from Stevensville generally east along roads to east quarter corner sec. 29, T. 5 S., R. 17 W., thence south 0.5 mile and back into Niles quadrangle at point 1 mile north of Eau Claire (by C. E. Walker in 1926) <sup>21</sup>

T. 5 S., R. 19 W., in NE. cor. sec. 35, 0.5 mi. S. of Derby School, 36 ft. S. and 12 ft. W. from crossroads, on W. concrete head wall of culvert; chiseled square-----	Feet 661. 73
T. 5 S., R. 19 W., near quarter corner between secs. 25 and 36, 150 ft. E. of junction of T-rd. S., on culvert; chiseled square-----	650. 24
T. 5 S., R. 18 W., in SW. cor. sec. 30, 5 ft. N. and 18 ft. E. from crossroads, on concrete culvert; chiseled square-----	645. 12
T. 5 S., R. 18 W., in SE. cor. sec. 30, 2.8 mi. S. of Scottdale, 1.0 mi. S. of Tryon School, 20 ft. N. and 32 ft. W. from crossroads, 44 ft. SE. of SE. corner of house, in concrete post; standard tablet stamped "P T Sta No 57 Y 1925"-----	664. 809
T. 5 S., R. 18 W., near S. side SE $\frac{1}{4}$ sec. 28, 3.2 mi. SE. of Scottdale, 1.0 mi. NW. of Arden, 18 ft. N. and 28 ft. E. from intersection of U. S. Highway 31, at store of John Greening, on SW. corner of concrete porch floor; chiseled square-----	653. 37
T. 5 S., R. 18 W., near E $\frac{1}{4}$ cor. sec. 27, 2.5 mi. S. and 0.6 mi. W. from Sodus, at Tabor, on E. side of rd., in root on SW. side of 30-in. maple tree; copper nail and washer-----	646. 26
T. 5 S., R. 18 W., about 700 ft. E. of SW. cor. sec. 26, 1.0 mi. N. and 3.8 mi. W. from Eau Claire, 0.6 mi. SE. of Tabor, at Taylor Crossing, about 1,000 ft. W. of Tabor School, between highway and electric R. R., 27 ft. N. and 36 ft. W. from junction of rd. E., 13 ft. W. of W. rail of track, in concrete post; standard tablet stamped "P T Sta No 58 Y 1925"-----	648. 041
Reference mark, near interurban sta., 20 ft. S. and 20 ft. W. from rd. junction, inside fence, in root on N. side of 14-in. chinaberry tree; copper nail and washer-----	648. 24
T. 5 S., R. 18 W., in SE. cor. sec. 26, 1.4 mi. S. of Mount Pleasant School, 46 ft. N. and 25 ft. W. from crossroads, in root on S. side of 12-in. chestnut tree; copper nail and washer-----	688. 28
T. 5 S., R. 17 W., near S. side SW $\frac{1}{4}$ sec. 30, 1.0 mi. S. and 0.6 mi. W. from Hartman, 40 ft. N. and 45 ft. W. from crossroads, in root on N. side of 20-in. beech tree; copper nail and washer-----	683. 15
T. 5 S., R. 17 W., near cor. secs. 29, 30, 31, and 32, 1.0 mi. S. and 0.5 mi. E. from Hartman, 1.0 mi. N. and 1.0 mi. W. from Eau Claire, 135 ft. N. of rd. junction, 32 ft. W. of center line of rd. N., 56 ft. SE. of SE. corner of brick house, in concrete post; standard tablet stamped "P T Sta No 59 Y 1925"-----	684. 662
Reference mark, 75 ft. W. of junction of rd. N., on W. concrete head wall of culvert; chiseled square-----	683. 54
T. 5 S., R. 17 W., near center of sec. 29, 1.5 mi. N. and 0.5 mi. W. from Eau Claire, 20 ft. N. and 35 ft. E. from crossroads, in root on S. side of 12-in. elm tree; copper nail and washer-----	716. 73
Eau Claire, 1.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 29, T. 5 S., R. 17 W., 12 ft. N. and 25 ft. W. from crossroads, on concrete culvert; chiseled square-----	716. 85

<sup>21</sup> Descriptions of some of these bench marks appear also in Niles quadrangle.

From Hartford quadrangle at point 0.3 mile north of Rowe Lake generally north along roads by way of Watervliet and back into Hartford quadrangle near Pawpaw Lake (by C. E. Walker in 1926)

	<i>Feet</i>
Milburg, 4.3 mi. along Territorial Rd. SE., thence 3.5 mi. S. from, 0.5 mi. E., thence 1.5 mi. N. from Naomi, near E $\frac{1}{4}$ cor. sec. 3, T. 5 S., R. 17 W., 15 ft. S. and 25 ft. W. from crossroads, on S. concrete head wall of culvert; chiseled square-----	710. 67
Milburg, 4.3 mi. SE., thence 2.5 mi. S. from, near E $\frac{1}{4}$ cor. sec. 34, T. 4 S., R. 17 W., 33 ft. S. and 33 ft. W. from crossroads, 11 ft. SW. of SW. corner of concrete culvert, in concrete post; standard tablet stamped "P T Sta No 17 Y 1926"-----	732. 321
Reference mark, 30 ft. N. and 15 ft. W. from crossroads, on N. concrete head wall of culvert; chiseled square-----	734. 99
Milburg, 4.3 mi. SE., thence 1.5 mi. S. from, near W $\frac{1}{4}$ cor. sec. 26, T. 4 S., R. 17 W., 25 ft. S. and 28 ft. E. from crossroads, on concrete culvert; chiseled square-----	759. 04
Milburg, 4.3 mi. SE. of, 1.0 mi. E. of Bainbridge School, in NW. cor. sec. 23, T. 4 S., R. 17 W., 40 ft. S. and 175 ft. E. from crossroads, in root on SW. side of 16-in. walnut tree; copper nail and washer-----	778. 50
Milburg, 4.4 mi. NE., thence 0.5 mi. S. from, in SW. cor. sec. 11, T. 4 S., R. 17 W., 30 ft. N. and 36 ft. E. from iron hub at crossroads, in concrete post; standard tablet stamped "P T Sta No 18 Y 1926"-----	752. 354
Reference mark, 145 ft. S. and 18 ft. E. from junction of T-rd. E., on N. head wall of culvert; chiseled square-----	754. 65
Milburg, 4.4 mi. NE. of, 3.3 mi. S. of Watervliet, near W $\frac{1}{4}$ cor. sec. 11, T. 4 S., R. 17 W., 160 ft. N. and 15 ft. E. from crossroads, on concrete head wall of culvert; chiseled square-----	756. 90
Watervliet, 2.0 mi. S. of, in NE. cor. sec. 3, T. 4 S., R. 17 W., 20 ft. S. and 20 ft. W. from crossroads, on concrete head wall of culvert; chiseled square-----	669. 29
Watervliet, 1.0 mi. S. of, in NW. cor. sec. 35, T. 3 S., R. 17 W., 33 ft. S. and 27 ft. E. from iron hub in crossroads, in concrete post; standard tablet stamped "P T Sta No 36 Y 1926"-----	656. 756
Reference mark, 24 ft. N. and 15 ft. E. from crossroads, on concrete culvert; chiseled square-----	656. 68
Watervliet, at E. side of public school, on SE. concrete pier of water tower; chiseled square-----	663. 14
Watervliet, at bridge over Pawpaw River, on NE. concrete abutment; chiseled square-----	625. 91
Watervliet, 1.5 mi. NE. of, near center of sec. 14, T. 3 S., R. 17 W., at bridge over outlet of Pawpaw Lake, in top of S. end of E. concrete head wall; standard tablet stamped "P T Sta No 35 Y 1926"-----	638. 477
Reference mark, near tablet, at NE. corner of concrete bridge; chiseled square-----	634. 04
From Benton Harbor east along Territorial Road to Milburg, thence northeast to crossroads 3.3 miles south of Watervliet (by C. E. Walker in 1926)	
Benton Harbor, 1.6 mi. E. of, near center of sec. 17, T. 4 S., R. 18 W., in NW. angle at junction of U. S. Highway 12, at service sta., on concrete base of pump; chiseled square-----	636. 29
Benton Harbor, 2.5 mi. E. of, 3.5 mi. W. of Milburg, near center of sec. 16, T. 4 S., R. 18 W., 28 ft. S. and 40 ft. W. from center of intersection of Euclid Avenue, in concrete post; standard tablet stamped "P T Sta No 39 Y 1926"-----	631. 728

Reference mark, 25 ft. N. and 110 ft. W. from crossroads, in root on SE. side of 32-in. maple tree; copper nail and washer.....	<i>Feet</i> 633. 40
Milburg, 2.0 mi. W. of, 0.2 mi. N. of W¼ cor. sec. 14, T. 4 S., R. 18 W., diagonally opposite Johnson School, 35 ft. N. and 18 ft. E. from crossroads, on concrete culvert; chiseled square.....	650. 26
Milburg, 0.5 mi. W. of, 16 ft. N. and 23 ft. E. from intersection of electric R. R., 6 ft. N. of telephone pole, in concrete post; standard tablet stamped "P T Sta No 38-Y 1926".....	676. 155
Milburg, 1.3 mi. NE. of, 0.2 mi. N. of SE. cor. sec. 7, T. 4 S., R. 17 W., 18 ft. S. and 40 ft. W. from crossroads, on concrete head wall of culvert; chiseled square.....	692. 16
Milburg, 2.1 mi. NE. of, near center of sec. 8, T. 4 S., R. 17 W., 31 ft. N. and 26 ft. W. from junction of rd. N., 44 ft. W. of highway signpost, in concrete post; standard tablet stamped "P T Sta No 37 Y 1926".....	734. 525
Reference mark, in triangular plot at rd. junction, in root on NE. side of 10-in. hickory tree; copper nail and washer.....	733. 54
Milburg, 3.4 mi. NE. of, 3.3 mi. S. and 1.0 mi. W. from Watervliet, near W¼ cor. sec. 10, T. 4 S., R. 17 W., 40 ft. N. and 70 ft. E. from crossroads, at Evangelical Church, on SW. corner of bottom concrete step; chiseled square.....	783. 35
From St. Joseph southeast along roads 5.5 miles to proposed highway bridge over St. Joseph River 1.3 miles northwest of Scottdale (by B. H. Yoakum in 1928; spur line leveled twice)	
St. Joseph, at intersection of Wayne and Pearl Streets; top of sewer cover.....	645. 28
St. Joseph, at intersection of Wayne and Harrison Streets; top of sewer cover.....	647. 64
St. Joseph, at SW. corner of intersection of Merton and Michigan Avenues, in root of 18-in. cottonwood tree; copper nail and washer...	645. 82
St. Joseph, at center of intersection of Michigan and Langley Avenues; top of concrete pavement.....	642. 1
St. Joseph, 1.7 mi. SE. of courthouse, in NW. corner of three-way rd. fork, on top of fire hydrant; top of nut.....	654. 47
St. Joseph, 1.9 mi. SE. of, at steel bridge over St. Joseph River, on top of NW. wing wall of W. abutment; chiseled square.....	613. 07
St. Joseph, 2.4 mi. SE. of, 0.5 mi. W. of Fair Plain School, near quarter corner between secs. 25 and 36, T. 4 S., R. 19 W., 22 ft. N. of junction of T-rd. S., in root of 18-in. maple tree; copper nail and washer.....	625. 12
St. Joseph, 3.0 mi. SE. of, 42 ft. S. and 26 ft. E. from NW. cor. sec. 31, T. 4 S., R. 18 W., at NW. corner of yard of Fair Plain School, in concrete post; standard tablet stamped "43 Y 1926".....	625. 999
Reference mark 1, 54 ft. SW. of tablet, in root of 30-in. elm tree; copper nail and washer.....	626. 69
Reference mark 2, 152 ft. S. of tablet, on E. side of rd., in root of 30-in. elm tree; copper nail and washer.....	627. 65
St. Joseph, 3.7 mi. SE. of, 0.7 mi. E. of Fair Plain School, 0.25 mi. W. of NE. cor. sec. 31, T. 4 S., R. 18 W., 22 ft. S. and 37 ft. W. from crossroads, in root of 24-in. elm tree; copper nail and washer.....	627. 82
St. Joseph, 3.4 mi. SE. of, 0.5 mi. S. of Fair Plain School, near W¼ cor. sec. 31, T. 4 S., R. 18 W., 30 ft. S. and 25 ft. E. from turn to SE. in rd., at corner of yard, on granite boulder; chiseled square....	628. 11

St. Joseph, 4.2 mi. SE. of, near center of SE $\frac{1}{4}$ sec. 31, T. 4 S., R. 18 W., 140 ft. W. of junction of rd. N., on S. side of rd., in root of 20-in. cottonwood tree; copper nail and washer-----	Feet 629. 23
St. Joseph, 4.9 mi. SE. of, 0.2 mi. W. of E $\frac{1}{4}$ cor. sec. 6, T. 5 S., R. 18 W., on E. side of rd., in front of concrete block house; top of northernmost of two iron bolts holding rings in concrete stile-----	635. 25
St. Joseph, 5.4 mi. SE. of, 1.3 mi. NW. of Scottdale, near SE. cor. sec. 6, T. 5 S., R. 18 W., on N. bank of St. Joseph River, about 50 ft. E. of abandoned Pere Marquette Ry. bridge (proposed as highway bridge), 9 ft. from edge of water, in concrete post; standard tablet stamped "44 Y 1926"-----	587. 439
Reference mark 1, 9 ft. W. of tablet, at edge of river, 2 ft. above surface of ground, in maple tree; copper nail and washer-----	588. 43
Reference mark 2, 275 ft. N. of tablet, in root of easternmost of twin cottonwood trees; copper nail and washer-----	585. 42
St. Joseph River, under bridge; surface of water May 5, 1926-----	582. 5

## BIG PRAIRIE QUADRANGLE

[Latitude 43°30'-43°45'; longitude 85°30'-85°45']

## MECOSTA AND NEWAYGO COUNTIES

From Grove quadrangle at point 1.3 miles south and 3 miles west from Big Prairie along roads alternately north and east to point 0.9 mile east of Big Prairie, thence southeast and back into Grove quadrangle (by R. G. Clinite in 1916)

Big Prairie, 1.0 mi. S., thence 3.0 mi. W. from, near E $\frac{1}{4}$ cor. sec. 23, T. 13 N., R. 12 W., 30 ft. N. and 30 ft. W. from center of crossroads, opposite schoolhouse; standard iron post with bronze cap stamped "1916 Mich 896" (recovered in 1929)-----	895. 748
Big Prairie, 1.0 mi. S., thence 2.0 mi. W. from, near E $\frac{1}{4}$ cor. sec. 24, T. 13 N., R. 12 W., 30 ft. N. and 40 ft. W. from center of crossroads, in root of 12-in. oak tree; copper nail and washer-----	907. 14
Big Prairie, 1.0 mi. S., thence 1.0 mi. W. from, near W $\frac{1}{4}$ cor. sec. 20, T. 13 N., R. 11 W., in NE. angle of crossroads, at fence corner, in root of 22-in. oak tree; copper nail and washer-----	906. 26
Big Prairie, 1.0 mi. S. of, near W $\frac{1}{4}$ cor. sec. 21, T. 13 N., R. 11 W., 10 ft. N. and 25 ft. E. from center of junction of N.-S. rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 25 1916 Mich 923"-----	921. 981
Big Prairie, 25 ft. N. and 90 ft. E. from center of crossroads, near W $\frac{1}{4}$ cor. sec. 16, T. 13 N., R. 11 W., 25 ft. SE. of SE. corner of church, in root of 14-in. white-oak tree; copper nail and washer-----	946. 36
Big Prairie, 0.9 mi. E. of, 0.2 mi. N. and 0.2 mi. E. from center of sec. 16, T. 13 N., R. 11 W., 10 ft. N. and 40 ft. E. from center of rd. fork, opposite mail box, in root of 10-in. white-oak tree; copper nail and washer-----	875. 02
Muskegon River, at Whitney bridge; surface of water Nov. 4, 1916--	739. 6
From Grove quadrangle at point 0.7 mile north and 3.7 miles west from Morley along roads generally north to northeast corner sec. 8, T. 15 N., R. 10 W., thence west to point 1.7 miles north and 1.4 miles east from Hungerford (by E. C. Bibbee in 1916)	
Morley, 1.5 mi. N. and 3.7 mi. W. from, 0.25 mi. E. of SW. cor. sec. 16, T. 13 N., R. 10 W., on N. side of rd., opposite rd. S., in root on S. side of 10-in. apple tree; copper nail and washer-----	978. 78

T. 13 N., R. 10 W., in SE. cor. sec. 5, at NW. corner of junction of T-rd. W.; standard iron post with bronze cap stamped "Mich 955"-----	<i>Feet</i> 953. 902
T. 14 N., R. 10 W., 235 ft. E. of W $\frac{1}{4}$ cor. sec. 33, on W. end of N. concrete head wall of culvert over creek; chiseled square-----	873. 77
Stanwood, 0.5 mi. N. and 2.7 mi. W. from, in SE. cor. sec. 21, T. 14 N., R. 10 W., in NW. angle of crossroads, in SE. corner of yard of Davis School; standard iron post with bronze cap stamped "Mich 895"-----	894. 206

## [Line jogs into Big Rapids quadrangle]

T. 14 N., R. 10 W., near NW. cor. sec. 9, 75 ft. E. of SE. corner of crossroads, in fence line, in root on N. side of 18-in. birch tree; copper nail and washer-----	986. 04
T. 15 N., R. 10 W., near SW. cor. sec. 33, on N. side of E.-W. rd., 30 ft. E. of junction of rd. N., 1 ft. S. of fence; standard iron post with bronze cap stamped "Mich 1097"-----	1, 096. 562
Big Rapids, 1.0 mi. S. and 2.2 mi. W. from Pere Marquette Ry. sta. at, in NE. cor. sec. 20, T. 15 N., R. 10 W., in SW. angle of crossroads, in NE. corner of yard of Cobb School; standard iron post with bronze cap stamped "Mich 1048"-----	1, 047. 333
Big Rapids, 2.2 mi. W. of, 825 ft. S. of NW. cor. sec. 16, T. 15 N., R. 10 W., 100 ft. N. of Pere Marquette Ry., on E. side of rd., in fence line, in root on SW. side of 12-in. elm tree; copper nail and washer--	996. 87
Big Rapids, 1.0 mi. N. and 2.2 mi. W. from, in NE. cor. sec. 8, T. 15 N., R. 10 W., at SW. corner of junction of E.-W. rd.; standard iron post with bronze cap stamped "Mich 996"-----	994. 863
Big Rapids, 1.0 mi. N. and 3.2 mi. W. from, in SW. cor. sec. 5, T. 15 N., R. 10 W., in NE. angle of crossroads, at entrance to church, on NE. corner of concrete porch; chiseled square-----	1, 026. 57
Big Rapids, 1.0 mi. N. and 4.2 mi. W. from, 1.7 mi. N. and 2.5 mi. E. from Hungerford, in SW. cor. sec. 6, T. 15 N., R. 10 W., at Mecosta-Newaygo county line, in NE. angle of crossroads, on large granite rock; chiseled square-----	1, 089. 04
Hungerford, 1.7 mi. N. and 1.5 mi. E. from, in NE. cor. sec. 11, T. 15 N., R. 11 W., at SW. corner of crossroads; standard iron post with bronze cap stamped "Mich 1137"-----	1, 136. 067

From point 1.7 miles north and 1.5 miles east from Hungerford south along road 1.4 miles, thence southwest along Pere Marquette Railway 3.2 miles, thence south along road to Big Prairie (by E. C. Bibbee in 1916)

Hungerford, 1.4 mi. along Pere Marquette Ry. E. of sta., near center of sec. 14, T. 15 N., R. 11 W., 35 ft. NW. of rd. crossing, on large granite rock; chiseled square-----	1, 179. 10
Hungerford, in front of sta.; top of rail-----	1, 091. 7
Hungerford, 1.8 mi. along Ry. SW. of, near center of sec. 20, T. 15 N., R. 11 W., 90 ft. N. of rd. crossing, at NW. corner of junction of rd. W.; standard iron post with bronze cap stamped "Mich 1044"-----	1, 043. 015
Hungerford, 3.2 mi. S. and 1.5 mi. W. from, 8.5 mi. N. of Big Prairie, in SE. cor. sec. 32, T. 15 N., R. 11 W., 40 ft. N. and 20 ft. W. from center of crossroads; standard iron post with bronze cap stamped "Mich 1064"-----	1, 062. 909
Big Prairie, 5.5 mi. N. of, in NW. cor. sec. 21, T. 14 N., R. 11 W., at SE. corner of crossroads, 2 ft. W. of fence corner; standard iron post with bronze cap stamped "Mich 977"-----	976. 551

Big Prairie, 4.5 mi. N. of, 70 ft. N. and 20 ft. W. from SE. cor. sec. 20, T. 14 N., R. 11 W., at junction of T-rd. W., in root on E. side of 15-in. oak tree; copper nail and washer.....	Feet 1,016.90
Big Prairie, 2.5 mi. N. of, in SW. cor. sec. 33, T. 14 N., R. 11 W., in NE. angle of crossroads, 60 ft. N. of fence corner, 6 ft. W. of fence; standard iron post with bronze cap stamped "Mich 986".....	985.529
Big Prairie, 1.5 mi. N. of, in NE. cor. sec. 8, T. 13 N., R. 11 W., 20 ft. S. and 17 ft. W. from junction of T-rd. W., in root on E. side of 10-in. pine tree; copper nail and washer.....	946.52
Big Prairie, 0.5 mi. N. of, in SE. cor. sec. 8, T. 13 N., R. 11 W., on W. side of rd., 30 ft. N. of E.-W. fence line, on large granite rock; chisled square.....	967.69
From point 1 mile south and 3 miles west from Big Prairie along roads west 1 mile, thence generally north by way of Field to northeast corner sec. 2, T. 15 N., R. 12 W., thence east and southeast to point 1.7 miles north and 1.5 miles east from Hungerford (by R. G. Clinite in 1916)	
Big Prairie, 1.0 mi. S. and 4.0 mi. W. from, near quarter corner between secs. 22 and 23, T. 13 N., R. 12 W., 20 ft. S. and 25 ft. W. from center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 20 1916 Mich 888" (recovered in 1929).....	887.531
Big Prairie, 4.0 mi. W. of, 2.5 mi. S. and 2.5 mi. E. from White Cloud, near quarter corner between secs. 14 and 15, T. 13 N., R. 12 W., 10 ft. N. and 30 ft. W. from center of rd. junction, in root of double ash tree; copper nail and washer.....	889.43
White Cloud, 1.0 mi. S., thence 2.5 mi. E. from, at cor. secs. 2, 3, 10, and 11, T. 13 N., R. 12 W., at center of crossroads, on stone marking section corner; highest point.....	938.94
White Cloud, 2.5 mi. E. of, in SW. cor. sec. 35, T. 14 N., R. 12 W., 10 ft. N. and 60 ft. E. from junction of E.-W. rd., at base of 12-in. elm tree, on stone; highest point.....	899.57
White Cloud, 3.0 mi. E. of, near S $\frac{1}{4}$ cor. sec. 35, T. 14 N., R. 12 W., 120 ft. N. and 15 ft. W. from center of crossroads; standard iron post with bronze cap stamped "1916 Mich 903".....	902.513
White Cloud, 1.0 mi. N. and 3.0 mi. E. from, 3.1 mi. S. and 0.5 mi. E. from Field sta. on Pere Marquette Ry., near N $\frac{1}{4}$ cor. sec. 35, T. 14 N., R. 12 W., 140 ft. S. and 10 ft. E. from center of crossroads, in root of 30-in. maple tree; copper nail and washer.....	922.90
Field, 1.7 mi. S. of, near W $\frac{1}{4}$ cor. sec. 23, T. 14 N., R. 12 W., 25 ft. N. and 25 ft. E. from center of crossroads; standard iron post with bronze cap stamped "1916 Mich 905" (recovered by U. S. C. & G. S. in 1934).....	904.539
Field, 0.6 mi. S. of, near E $\frac{1}{4}$ cor. sec. 15, T. 14 N., R. 12 W., at two-story cement block residence, on N. end of corrugated drain pipe under private drive; highest point.....	928.43
Field, 1.6 mi. N. of, in NW. cor. sec. 2, T. 14 N., R. 12 W., 25 ft. S. and 25 ft. E. from junction of T-rd. S.; standard iron post with bronze cap stamped "Prim Trav Sta No 19 1916 Mich 922".....	920.990
Field, 1.6 mi. N. and 0.5 mi. E. from, 1.7 mi. S. and 1.5 mi. W. from Woodville, near N $\frac{1}{4}$ cor. sec. 2, T. 14 N., R. 12 W., 15 ft. S. and 10 ft. E. from junction of T-rd. N., on S. end of tile drain under E.-W. rd.; highest point.....	930.55
Woodville, 0.7 mi. S. and 1.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 35, T. 15 N., R. 12 W., 10 ft. S. and 15 ft. E. from center of turn in rd. from N. to E., on S. wall of concrete bridge; unmarked point.....	945.76

Woodville, 1.5 mi. N. and 1.0 mi. W. from, 0.3 mi. S. of E $\frac{1}{4}$ cor. sec. 14, T. 15 N., R. 12 W., 100 ft. N. and 25 ft. W. from rd. fork; standard iron post with bronze cap stamped "1916 Mich 966"-----	Feet 964. 870
Woodville, 4.2 mi. N. and 1.0 mi. W. from, in NE. cor. sec. 2, T. 15 N., R. 12 W., in SW. angle of crossroads, 20 ft. S. of entrance to small church; standard iron post with bronze cap stamped "1916 Mich 958"-----	957. 466
Woodville, 4.2 mi. N. and 1.0 mi. E. from, in NW. cor. sec. 5, T. 15 N., R. 11 W., 25 ft. S. and 30 ft. E. from junction of T-rd. S., in corner of field, in root of 16-in. pine tree; copper nail and washer-----	991. 82
Woodville, 4.2 mi. N. and 2.5 mi. E. from, 2.7 mi. N. and 1.0 mi. W. from Hungerford, near S $\frac{1}{4}$ cor. sec. 33, T. 16 N., R. 11 W., on N. side of rd., at base of sand hill, 5 ft. S. of gate; standard iron post with bronze cap stamped "1916 Mich 1056"-----	1, 055. 643

From point 1.7 miles south and 1.5 miles west from Woodville along roads alternately east and north to point 3 miles south and 2.2 miles west from Big Rapids (by E. C. Bibbee in 1916)

T. 15 N., R. 11 W., 18 ft. N. of S. cor. secs. 31 and 32, on N. side of rd., 4 ft. S. of fence directly opposite T-rd. S., on large granite rock; chiseled square-----	1, 058. 85
T. 15 N., R. 11 W., in SW. cor. sec. 34, in NE. angle of crossroads, in root on S. side of 24-in. maple tree; copper nail and washer-----	1, 134. 66
T. 15 N., R. 11 W., in SW. cor. sec. 35, 29 ft. NE. of junction of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 17 1916 Mich 1164"-----	1, 162. 638
T. 15 N., R. 11 W., near cor. secs. 26, 27, 34, and 35, at SW. corner of crossroads, at entrance to schoolhouse in SE. angle of crossroads, on W. end of step; chiseled square-----	1, 170. 78
T. 15 N., R. 11 W., in NE. cor. sec. 35, in SW. corner of junction of T-rd. S., 2 ft. N. and 9 ft. W. from fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 18 1916 Mich 1153"-----	1, 151. 671
T. 15 N., R. 10 W., 360 ft. E. of NW. cor. sec. 31, at Mecosta-Newaygo county line, on S. side of rd., 80 ft. E. of dwelling of Frank Bidell, in fence line, on large granite rock; chiseled square-----	1, 149. 14
T. 15 N., R. 10 W., near cor. secs. 29, 30, 31, and 32, on S. side of rd., in triangular grass plot, on large granite rock; chiseled square-----	1, 068. 46

From White Cloud quadrangle at point 3.3 miles south and 1.3 miles east from White Cloud east along road 1.2 miles to east quarter corner sec. 22, T. 13 N., R. 12 W. (by S. R. Archer in 1929)

T. 13 N., R. 12 W., near quarter corner between secs. 21 and 22, in NE. corner of rd. fork, in root on E. side of 15-in. maple tree; copper nail and washer-----	847. 12
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## BIG RAPIDS QUADRANGLE

[Latitude 43°30'-43°45'; longitude 85°15'-85°30']

## MECOSTA COUNTY

Generally north along roads and U. S. Highway 131 near Stanwood (by E. C. Bibbee in 1916)

[A jog from Big Prairie quadrangle]

T. 14 N., R. 10 W., about 1,000 ft. W. of NE. cor. sec. 22, at SE. corner of crossroads; opposite electric power pole 59, in root of 10-in. elm tree; copper nail and washer-----	906. 68
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T. 14 N., R. 10 W., near NW. cor. sec. 14, on circular abutment at NE. corner of Rogers Bridge over Muskegon River, on fishplate; north-easternmost bolt head.....	<i>Feet</i> 831. 52
Muskegon River, under bridge; surface of water Nov. 1, 1916.....	818. 3
T. 14 N., R. 10 W., near quarter corner between secs. 10 and 11, near SE. corner of junction of T-rd. W., 20 ft. W. of fence corner, in root on E. side of 10-in. maple tree; copper nail and washer.....	894. 80
T. 14 N., R. 10 W., near NW. cor. sec. 11, 5.0 mi. S. of Big Rapids, at SE. corner of intersection of highway and E.-W. rd.; standard iron post with bronze cap stamped "Mich 908".....	907. 577
From Big Rapids west along Pere Marquette Railway into Big Prairie quadrangle (by E. C. Bibbee in 1916; leveled twice)	
U. S. C. & G. S. standard disk designated "X 15".....	922. 797
Muskegon River, under Pere Marquette Ry. bridge; surface of water Nov. 20, 1916.....	879. 0
Big Rapids, in front of Pere Marquette Ry. sta.; top of rail.....	903. 0
Big Rapids, 0.4 mi. W. of Pere Marquette Ry. Sta., at rd. crossing, 6 ft. S. of track, 16 ft. W. of rd., at culvert 4 ft. in diameter, on large white rock embedded in S. concrete head wall; chiseled square ----	916. 85

## BLISSFIELD QUADRANGLE

[Latitude 41°45'-42°00'; longitude 83°45'-84°00']

## LENAWEE AND MONROE COUNTIES

Near Ottawa Lake (by S. R. Archer in 1938)

[A jog from Dundee quadrangle]

Ottawa Lake, 1.4 mi. N. of village of, about 500 ft. E. of center of sec. 18, T. 8 S., R. 6 E., in NW. angle of junction of T-rd. W., on top of W. end of N. concrete head wall of culvert under rd. W.; chiseled square.....	691. 36
Ottawa Lake, 1.9 mi. NW. of, near quarter corner between secs. 7 and 18, T. 8 S., R. 6 E., at S. apex of triangle at junction of U. S. Highway 223 and State Highway 151, 40 ft. N. of center line of rd. W., on top of N. end of W. concrete head wall of culvert under highway NW.; chiseled square.....	689. 79
Ottawa Lake, 2.0 mi. NW. of, in SE¼ sec. 7, T. 8 S., R. 6 E., at NE. apex of triangle at highway junction, in NW. angle of crossroads, on top of N. end of W. concrete head wall of culvert under rd. N.; chiseled square.....	688. 91
From Dundee quadrangle at point about 2.2 miles south and 0.8 mile east from Deerfield along roads west 0.8 mile, thence generally north to point 1.2 miles north of Deerfield (by S. R. Archer in 1938)	
Deerfield, 2.2 mi. by rd. S., thence 0.5 mi. E. from Lake Shore & Michigan Southern R. R. sta. at, near quarter corner between secs. 18 and 19, T. 7 S., R. 6 E., 180 ft. W. of center of crossroads, on N. side of rd., at SE. corner of cemetery, in root on SW. side of 45-in. oak tree; copper nail and washer.....	692. 37
Deerfield, 2.2 mi. S. of, near E. cor. secs. 13 and 14, T. 7 S., R. 5 E., at Lenawee-Monroe county line, at jog in E.-W. rd., 25 ft. W. of junction of rd. W., on top of N. parapet of W. concrete abutment of culvert under rd. W.; chiseled square.....	680. 96
Deerfield, 1.2 mi. S. of, in NW. cor. sec. 18, T. 7 S., R. 6 E., 240 ft. S. of junction of T-rd. E., on top of N. end of E. concrete head wall of culvert under rd. S.; chiseled square.....	676. 15

Deerfield, in S. part of, 90 ft. S. of N. end of steel highway bridge over River Raisin, on top of W. end of northernmost of two piers; chiseled square-----	Feet 673. 15
Deerfield, 230 ft. E. of E. end of sta., 19 ft. N. and 35 ft. W. from center of first street crossing E. of sta., at W. edge of sidewalk, set flush, in concrete post; standard tablet stamped "T T 45 C 1938 679"-----	678. 393
Deerfield, in E. part of, in SE. cor. sec. 1, T. 7 S., R. 5 E., 45 ft. N. of center of crossroads, on W. side of rd. N., in root on NW. side of 12-in. sycamore tree; copper nail and washer-----	675. 72
U. S. C. & G. S. standard disk stamped "N 114 1934"-----	681. 934
From Deerfield generally north along roads 8.1 miles to township-line road, thence east 1.2 miles into Dundee quadrangle (by S. R. Archer in 1938)	
Deerfield, 1.6 mi. NE. of sta., in SE. cor. sec. 36, T. 6 S., R. 5 E., at Lenawee-Monroe county line, 90 ft. N. of crossroads, on W. side of rd., at fence line, in root on E. side of 18-in. ash tree; copper nail and washer-----	675. 02
Deerfield, 2.4 mi. NE. of, 870 ft. S. of N. cor. secs. 31 and 36, T. 6 S., Rs. 5 and 6 E., 870 ft. S. of junction of E.-W. rd., at S. concrete abutment of bridge over drainage ditch, on top of SW. end of W. wing wall; chiseled square-----	675. 54
Deerfield, 3.3 mi. NE. of, 0.25 mi. W. of center of sec. 30, T. 6 S., R. 6 E., 100 ft. N. of junction of T-rd. E., on top of W. concrete head wall of culvert; chiseled square-----	675. 93
Deerfield, 3.5 mi. NE. of, near center of NW¼ sec. 30, T. 6 S., R. 6 E., at NW. corner of bridge over drainage ditch, on top of NW. end of concrete retaining wall; chiseled square-----	674. 43
Deerfield, 4.4 mi. NE. of, 0.25 mi. W. of center of sec. 19, T. 6 S., R. 6 E., 46 ft. S. and 23 ft. E. from center of junction of E.-W. rd., 15 ft. S. and 15 ft. E. from SE. corner of small steel and concrete bridge, in concrete post; standard tablet stamped "T T 44 C 1938 676"-----	676. 444
Reference mark, 30 ft. S. of rd. junction, on top of W. wing wall of S. concrete abutment of bridge on rd. S.; chiseled square-----	675. 49
Deerfield, 4.6 mi. NE. of, near quarter corner between secs. 19 and 24, T. 6 S., Rs. 5 and 6 E., 55 ft. E. of junction of T-rd. N., on top of W. end of N. concrete head wall of culvert under rd. E.; chiseled square-----	675. 57
Deerfield, 5.4 mi. NE. of, 0.2 mi. S. of quarter corner between secs. 13 and 18, T. 6 S., Rs. 5 and 6 E., 430 ft. N. of junction of T-rd. E., at steel highway bridge over drainage ditch, on top of W. wing wall of S. abutment; chiseled square-----	675. 65
Deerfield, 6.1 mi. NE. of, in SE. cor. sec. 12, T. 6 S., R. 5 E., 35 ft. N. of junction of T-rd. W., at concrete highway bridge over drainage ditch, on top of W. parapet wall of N. abutment; chiseled square---	675. 89
Deerfield, 6.8 mi. NE. of, 0.2 mi. N. of quarter corner between secs. 7 and 12, T. 6 S., Rs. 5 and 6 E., 45 ft. S. of center of crossroads, on top of N. end of W. concrete head wall of culvert under rd. S.; chiseled square-----	678. 18
Deerfield, 7.3 mi. NE. of, 0.3 mi. S. of quarter corner between secs. 1 and 6, T. 6 S., Rs. 5 and 6 E., on inside at N. end of E. side wall of concrete bridge over drainage ditch, on top of N. end of wheel guard; chiseled square-----	682. 17

Deerfield, 8.1 mi. NE. of, 0.5 mi. N., thence 3.0 mi. E. from Britton, in NE. cor. sec. 1, T. 6 S., R. 5 E., 25 ft. S. and 40 ft. W. from center of crossroads, 2 ft. E. of power line pole, in concrete post; standard tablet stamped "T T 43 C 1938 682"-----	Feet 682.492
Reference mark, in NE. angle of crossroads, at W. side at S. end of E. concrete head wall of bridge under rd. N., on top of S. end of wheel guard; chiseled square-----	683.92
Britton, 0.5 mi. N., thence 4.0 mi. E. from, in SE. cor. sec. 31, T. 5 S., R. 6 E., in NW. angle of crossroads, at SW. corner of bridge over drainage ditch on rd. N., on concrete floor, 2 ft. N. of S. end; chiseled square-----	678.72
From point on Lenawee-Monroe county line 8.1 miles northeast of Deerfield generally west along roads by way of Britton and Tecumseh into Adrian quadrangle near northeast corner of Raisin Township (by S. R. Archer in 1938)	
Britton, 0.5 mi. N., thence 1.9 mi. E. from, in SW. cor. sec. 36, T. 5 S., R. 5 E., in NE. corner of crossroads, on top of E. end of S. concrete abutment of bridge on rd. NE.; chiseled square-----	689.57
Britton, 0.5 mi. N., thence 0.6 mi. E. from, in NE $\frac{1}{4}$ sec. 3, T. 6 S., R. 5 E., 380 ft. SW. of Wabash Ry. crossing, at concrete Ry. bridge 823, on top of NE. end of SE. side wall; chiseled square-----	700.71
U. S. C. & G. S. standard disk stamped "R 108 1934"-----	702.024
Britton, 0.4 mi. NW. of Wabash Ry. sta. at, 0.25 mi. E. of center of sec. 4, T. 6 S., R. 5 E., 160 ft. W. of Lake Shore & Michigan Southern R. R. crossing, on top of W. end of S. concrete head wall of highway culvert; chiseled square-----	704.25
Britton, 1.1 mi. NW. of, 0.8 mi. SE. of Ridgeway, near quarter corner between secs. 4 and 5, T. 6 S., R. 5 E., in SW. corner of junction of rd. S., on top of W. end of concrete culvert under rd. S.; chiseled square-----	714.74
Ridgeway, at center of village, in SW. angle of crossroads, on limestone boulder with World War memorial plate attached to side; highest point-----	740.33
Ridgeway, 550 ft. W. of World War memorial, on N. side of street, at main entrance to schoolhouse, at W. side of semicircular steps, on top of building end of lower step; chiseled square-----	740.98
Ridgeway, 0.5 mi. NW. of, 3.5 mi. SE. of Tecumseh, in SE $\frac{1}{4}$ sec. 31, T. 5 S., R. 5 E., 950 ft. W. of junction of T-rd. N., on top of E. end of S. concrete head wall of highway culvert; chiseled square-----	742.38
Tecumseh, 2.8 mi. SE. of, on line between secs. 31 and 36, T. 5 S., Rs. 4 and 5 E., 25 ft. N. and 16 ft. E. from center of crossroads, 7 ft. S. and 2 ft. E. from telephone pole, in concrete post; standard tablet stamped "T T 51 C 1938 772"-----	772.061
Tecumseh, 1.6 mi. SE. of, near quarter corner between secs. 35 and 36, T. 5 S., R. 4 E., 400 ft. W. of crossroads, on top of E. end of S. concrete head wall of highway culvert; chiseled square-----	793.22
[Line jogs into Saline quadrangle]	
Tecumseh, 1.6 mi. by rd. SE. of, near quarter corner between secs. 4 and 33, Tps. 5 and 6 S., R. 4 E., in NE. angle of crossroads, 5 ft. N. of fence corner, in root on NW. side of 12-in. locust tree; copper nail and washer-----	831.10
Tecumseh, 2.1 mi. SE. of, near N. cor. secs. 4 and 5, T. 6 S., R. 4 E., in SE. angle of junction of T-rd. S., in root on W. side of 30-in. oak tree; copper nail and washer-----	817.81

Tecumseh, 3.2 mi. SE. of, near N. cor. secs. 5 and 6, T. 6 S., R. 4 E., 200 ft. W. of farmhouse on N. side of rd., on S. side of rd., at fence corner, on E. side of old rd. S.; in root on NE. side of 28-in. elm tree; copper nail and washer-----	Feet 841. 89
From Adrian quadrangle at point near Adrian along roads southeast 0.2 mile, thence south 3.5 miles, thence west and back into Adrian quadrangle (by S. R. Archer in 1938)	
Adrian, 2.2 mi. by rd. SE. of, about 7.5 mi. NW. of Blissfield, 0.2 mi. N. of center of sec. 18, T. 7 S., R. 4 E., in SW. corner of crossroads, on top of W. end of concrete head wall of drain running S.; chiseled square-----	778. 82
Blissfield, about 7 miles along U. S. Highway 223 NW. of, near quarter corner between secs. 18 and 19, T. 7 S., R. 4 E., in SW. corner of crossroads, on top of S. end of curved concrete head wall of culvert; chiseled square-----	769. 33
Blissfield, 7.0 mi. along highway and rd. NW., thence 0.5 mi. S. from, near center of sec. 19, T. 7 S., R. 4 E., in SE. corner of junction of T-rd. E., on top of S. end of E. concrete head wall of culvert under rd. S.; chiseled square-----	751. 44
Blissfield, 7.0 mi. NW., thence 1.0 mi. S. from, 2.0 mi. N. and 0.5 mi. W. from Ogden, 5.2 mi. N. and 1.5 mi. W. from Ogden Center, near quarter corner between secs. 19 and 30, T. 7 S., R. 4 E., 75 ft. N. and 27 ft. W. from center of crossroads, 47 ft. N. of fence corner, in concrete post; standard tablet stamped "T T 55 C 1938 738"---	737. 988
Ogden, 1.5 mi. N. and 0.5 mi. W. from, near center of sec. 30, T. 7 S., R. 4 E., in SE. corner of junction of T-rd. E., on top of S. end of curved concrete head wall of drain under rd. E.; chiseled square---	736. 03
Ogden, 1.0 mi. N., thence 0.5 mi. W. from, near quarter corner between secs. 30 and 31, T. 7 S., R. 4 E., in NE. corner of junction of T-rd. E., on top of N. end of E. concrete head wall of culvert under rd. N.; chiseled square-----	724. 17
Ogden, 0.5 mi. N., thence 0.5 mi. W. from, near center of sec. 31, T. 7 S., R. 4 E., in NW. corner of junction of T-rd. N., at SE. apex of W. triangle of rd. forks, on top of W. end of curved concrete head wall of culvert; chiseled square-----	720. 06
From Wellsville along roads east 1 mile, thence south by way of Blissfield into Swanton quadrangle at point 0.5 mile north and 1 mile east from Mulberry (by S. R. Archer in 1938)	
U. S. C. & G. S. standard disk stamped "K 114"-----	697. 925
Wellsville, 1.0 mi. E. of, 3.9 mi. N. of post office at Blissfield, near quarter corner between secs. 7 and 8, T. 7 S., R. 5 E., in SW. corner of crossroads; at bridge over drainage ditch, on top of center of W. wing wall of N. concrete abutment; chiseled square-----	690. 95
Blissfield, 3.1 mi. N. of, 0.3 mi. S. of NE. cor. sec. 18, T. 7 S., R. 5 E., on top of SW. end of W. concrete wing wall of S. abutment of small bridge; chiseled square-----	690. 55
Blissfield, 2.4 mi. N. of, in SW. cor. sec. 17, T. 7 S., R. 5 E., in NE. corner of crossroads, on top of E. end of N. concrete head wall of culvert under rd. E.; chiseled square-----	690. 52
Blissfield, 2.0 mi. N. of, 270 ft. N. of quarter corner between secs. 19 and 20, T. 7 S., R. 5 E., on top of NW. concrete wing wall of small bridge; chiseled square-----	688. 85

Blissfield, in N. part of, about 500 ft. N. of quarter corner between secs. 29 and 30, T. 7 S., R. 5 E., 70 ft. N. of junction of rd. N., on W. side of rd., in root on SW. side of 25-in. wild-cherry tree; copper nail and washer-----	Feet 689. 03
Blissfield, at northernmost of three bridges over River Raisin, at L. S. & M. S. R. R. bridge 184, on top of S. end of parapet of W. concrete abutment; chiseled square-----	690. 17
Blissfield, at SW. corner of intersection of South Lane and Union Streets, on N. side of main entrance on E. side of post office, at foot of N. side of first window N. of entrance, at building end of N. wall of steps, in top of stone window sill and water table; standard tablet stamped "1938 Mich 690"-----	693. 748
Blissfield, 115 ft. E. of intersection of Giles Avenue and Jefferson Street, on S. side of Jefferson Street, at N. side of high school grounds, inside of sidewalk, on W. side of walk leading to N. entrance of school, set flush, in concrete post; standard tablet stamped "1938 Mich 690"-----	690. 239
Blissfield, 0.8 mi. S. of post office, 150 ft. N. of S. cor. secs. 31 and 32, T. 7 S., R. 5 E., 140 ft. N. of end of concrete pavement, on top of NE. end of E. wing wall of N. abutment of concrete bridge; chiseled square-----	691. 98
Blissfield, 2.0 mi. S. of, in NW. cor. sec. 8, T. 8 S., R. 5 E., in SE. corner of crossroads, on top of S. end of concrete head wall of culvert; chiseled square-----	698. 70
Blissfield, 2.6 mi. S. of, near quarter corner between secs. 7 and 8, T. 8 S., R. 5 E., 15 ft. N. and 40 ft. E. from center of junction of T-rd. E., 15 ft. E. of fence corner, in concrete post; standard tablet stamped "1938 Mich 702"-----	701. 628
Reference mark, in SE. corner of rd. junction, on top of S. end of E. concrete head wall of culvert under rd. S.; chiseled square-----	702. 93
Blissfield, 3.1 mi. S. of, in NE. cor. sec. 18, T. 8 S., R. 5 E., in SW. corner of crossroads, on top of S. end of concrete head wall and retaining wall of culvert; chiseled square-----	705. 27
Blissfield, 4.0 mi. S. of, in NW. cor. sec. 20, T. 8 S., R. 5 E., in SE. corner of crossroads, on top of S. end of concrete head wall of culvert; chiseled square-----	710. 74
Blissfield, 4.2 mi. S. of, 0.25 mi. S. of NE. cor. sec. 19, T. 8 S., R. 5 E., on W. side of rd., on S. side of track of Detroit, Toledo, and Ironton R. R., at concrete R. R. bridge 55.83, on top at angle of S. head wall; chiseled square-----	710. 90
Blissfield, 5.0 mi. S. of, 1.0 mi. E., thence 1.0 mi. N. from Mulberry, in SW. cor. sec. 29, T. 8 S., R. 5 E., 20 ft. N. and 25 ft. E. from center of crossroads, 2 ft. S. and 4 ft. E. from fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 35 1911 711"-----	710. 730

## BURT QUADRANGLE

[Latitude 43°00'-43°15'; longitude 83°45'-84°00']

## GENESEE, SAGINAW, AND SHIAWASSEE COUNTIES

From Durand quadrangle at point 1 mile north and 3 miles west from Lennon north along road by way of Juddville to crossroads 2 miles north of Layton Corners, thence west 0.5 mile into Chesaning quadrangle (by E. C. Bibbee in 1915).

Lennon, 3.0 mi. W., thence 2.0 mi. N. from, 3.0 mi. S. of Juddville, 100 ft. S. of NW. cor. sec. 15, T. 7 N., R. 4 E., in fence line, on large granite rock; chiseled square-----	<i>Feet</i> 742. 98
Juddville, 2.0 mi. S. of, near SE. cor. sec. 4, T. 7 N., R. 4 E., opposite Bullerman School, in line with T-rd. E., 25 ft. NW. of corner fence post, in root of 12-in. hickory tree; copper nail and washer-----	739. 08
Juddville, in NW. angle of crossroads at, 5 ft. SE. of corner fence post; standard iron post with bronze cap stamped "Mich 728"-----	727. 966
Juddville, 1.0 mi. N. of, at cor. secs. 21, 22, 27, and 28, T. 8 N., R. 4 E., at crossroads, 17 ft. SW. of NE. corner fence post, on stone marking section corner; chiseled square-----	722. 18
Juddville, 2.0 mi. N. of, near SE. cor. sec. 16, T. 8 N., R. 4 E., at NW. corner of crossroads, opposite Center School, 1 ft. SE. of NW. corner fence post, on large granite rock; chiseled square-----	716. 79
Juddville, 3.0 mi. N. of, 1.0 mi. W., thence 1.0 mi. S. from New Lothrop, near NE. cor. sec. 16, T. 8 N., R. 4 E., 15 ft. SW. of corner fence post, in root of 14-in. elm tree; copper nail and washer (reported destroyed)-----	709. 97
New Lothrop, 1.0 mi. W. of, 30 ft. S. and 25 ft. W. from NE. cor. sec. 9, T. 8 N., R. 4 E., diagonally opposite Gillet School, in SW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 17 Mich 704"-----	703. 689
New Lothrop, 1.0 mi. W., thence 1.0 mi. N. from, 3.0 mi. S. of Layton Corners, near NW. cor. sec. 3, T. 8 N., R. 4 E., near Saginaw-Shiawassee county line, on S. end of concrete parapet over E. end of culvert; chiseled square-----	695. 07
Layton Corners, 2.0 mi. S. of, in SW. cor. sec. 27, T. 9 N., R. 4 E., at entrance to Glazier School, on SW. corner of concrete porch; chiseled square-----	689. 64
Layton Corners, 1.0 mi. S. of, in SE. cor. sec. 21, T. 9 N., R. 4 E., in NW. angle of crossroads, near St. Michael's Church, on N. end of concrete arch culvert; chiseled square-----	677. 14
Layton Corners, in SW. angle of crossroads at; standard iron post with bronze cap stamped "Mich 666"-----	665. 398
Layton Corners, 1.0 mi. N. of, in SE. cor. sec. 9, T. 9 N., R. 4 E., near NW. corner of crossroads, in center of N. end of concrete arch culvert; chiseled square-----	655. 28
Layton Corners, 2.0 mi. N. of, 120 ft. W. of NE. cor. sec. 9, T. 9 N., R. 4 E., opposite Deneen School, on SW. corner of concrete floor of iron bridge; chiseled square-----	633. 54

From crossroads 3 miles west of Birch Run west along road 0.7 mile (by H. S. Senseney in 1916)

[A jog from Saginaw quadrangle]

Birch Run, 3.0 mi. W. of, near NE. cor. sec. 27, T. 10 N., R. 5 E., 20 ft. S. and 25 ft. W. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 11 1915 Mich 627"-----	625. 694
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From Saginaw quadrangle at crossroads 1.3 miles east of Birch Run along roads generally south to crossroads 5.6 miles east of Flushing (by E. E. Harris in 1919)

Birch Run, 1.3 mi. E. of, 0.2 mi. W. of N $\frac{1}{4}$ cor. sec. 28, T. 10 N., R. 6 E., in SE. angle of crossroads, in root on W. side of 36-in. oak tree; copper nail and washer-----	Feet 641. 60
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[Line jogs into Flint quadrangle]

Birch Run, 3.0 mi. S., thence 2.2 mi. E. from, about 800 ft. E. of NW. cor. sec. 10, T. 9 N., R. 6 E., at intersection of Pere Marquette Ry.; top of W. rail-----	685. 0
Birch Run, 3.0 mi. S., thence 2.0 mi. E. from, 1.0 mi. W., thence 2.0 mi. N. from Clio, in NE. cor. sec. 9, T. 9 N., R. 6 E., in SW. angle of junction of T-rd. S., on top of concrete culvert; chiseled square-----	684. 20
Clio, 1.0 mi. W. of, near NE. cor. sec. 21, T. 9 N., R. 6 E., in SW. angle of crossroads, in top of concrete culvert; standard tablet stamped "1919 Mich 707"-----	706. 271
Clio, 1.0 mi. W., thence 2.0 mi. S. from, in SE. cor. sec. 28, T. 9 N., R. 6 E., in NW. angle of crossroads, on top of sandstone outcrop; chiseled square-----	735. 72
Clio, 1.0 mi. W., thence 4.0 mi. S. from, 3.0 mi. W. of Mount Morris, near SE. cor. sec. 4, T. 8 N., R. 6 E., in NW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 16 H 1919 Mich 750"-----	749. 895
Clio, 1.0 mi. W., thence 5.0 mi. S. from, 5.6 mi. E., thence 3.0 mi. N. from Grand Trunk Ry. in Flushing, near NE. cor. sec. 16, T. 8 N., R. 6 E., in SW. angle of crossroads, in root on N. side of 24-in. oak tree; copper nail and washer-----	745. 27
Flushing, 5.6 mi. E., thence 2.0 mi. N. from, near NE. cor. sec. 21, T. 8 N., R. 6 E., in SW. angle of intersection of Coldwater Rd., opposite Center School, on granite boulder; chiseled square-----	762. 17
Flushing, 5.6 mi. E., thence 1.0 mi. N. from, near SE. cor. sec. 21, T. 8 N., R. 6 E., in NW. angle of crossroads; standard iron post with bronze cap stamped "1919 Mich 769"-----	768. 284

From crossroads 5.6 miles east of Flushing along roads generally south about 7 miles to Corunna Road (present State Highway 21) at point 4.9 miles southwest of Flint (by E. E. Harris in 1919; leveled twice)

Flushing, 5.6 mi. E., thence 1.0 mi. S. from, 2.2 mi. N. and 3.7 mi. W. from Flint, in SW. cor. sec. 34, T. 8 N., R. 6 E., on E. side of rd., 60 ft. N. of junction of E.-W. rd., in root on W. side of 15-in. maple tree; copper nail and washer-----	762. 61
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[Line jogs into Flint quadrangle]

Flint, 1.2 mi. N. and 3.6 mi. W. from, near SW. cor. sec. 3, T. 7 N., R. 6 E., in NW. angle of junction of NW.-SE. rd., on top of granite outcrop; chiseled square-----	721. 18
Flint, 1.5 mi. N. and 4.0 mi. W. from, in SE $\frac{1}{4}$ sec. 4, T. 7 N., R. 6 E., in center of W. side of bridge over Flint River; top of iron bolt-----	698. 54
Flint, 4.9 mi. along Corunna Rd. SW., thence 2.0 mi. N. from, in NE. cor. sec. 8, T. 7 N., R. 6 E., in SW. angle of junction of T-rd. S., on concrete foundation of corner fence post; chiseled square-----	756. 51
Flint, 4.9 mi. SW., thence 0.9 mi. N. from, in NE $\frac{1}{4}$ sec. 17, T. 7 N., R. 6 E., 500 ft. S. of intersection of Calkins Rd., at concrete bridge over Pirnie Creek, in center of W. side; standard tablet stamped "1919 Mich 738"-----	737. 649

Flint, 4.9 mi. SW., thence 0.5 mi. N. from, near E $\frac{1}{4}$  cor. sec. 17, T. 7 N., R. 6 E., in center of W. side of concrete bridge; chiseled square. Feet  
749. 90

From road junction 4.9 miles southwest of Flint along Corunna Road west 8 miles to Genesee-Shiawassee county line, thence south into Durand quadrangle (by E. E. Harris in 1919)

Flint, 5.4 mi. SW. of, 4.3 mi. S., thence 4.0 mi. E. from Flushing, near S $\frac{1}{4}$  cor. sec. 17, T. 7 N., R. 6 E., at Dye School, in NE. angle of crossroads, in root on E. side of 12-in. poplar tree; copper nail and washer. 773. 60

Flushing, 4.3 mi. S., thence 2.5 mi. E. from, near SE. cor. sec. 13, T. 7 N., R. 5 E., on W. side of jog at intersection of range-line rd., in line with rd. E.; standard iron post with bronze cap stamped "1919 Mich 765" 764. 725

Flushing, 4.3 mi. S., thence 1.5 mi. E. from, near NW. cor. sec. 24, T. 7 N., R. 5 E., at Calkins School, in SE. angle of crossroads, on field side of fence, in root on W. side of 15-in. maple tree; copper nail and washer. 763. 49

Flushing, 4.3 mi. S. of, near S $\frac{1}{4}$  cor. sec. 15, T. 7 N., R. 5 E., at English School, in NW. angle of crossroads, in root on E. side of 12-in. maple tree; copper nail and washer. 762. 06

Flushing, 4.3 mi. S., thence 0.5 mi. W. from, near SW. cor. sec. 15, T. 7 N., R. 5 E., on N. side of rd., in line with T-rd. S.; standard iron post with bronze cap stamped "1919 Mich 763" 762. 088

Flushing, 4.3 mi. S., thence 1.5 mi. W. from, near SW. cor. sec. 16, T. 7 N., R. 5 E., 20 ft. N. and 24 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 19 H 1919 Mich 756" 755. 479

Reference mark, 40 ft. S. and 4 ft. W. from post, 20 ft. S. and 20 ft. E. from crossroads, on top of N. concrete head wall of culvert; chiseled square. 756. 30

Flushing, 4.3 mi. S., thence 2.5 mi. W. from, 1.0 mi. N., thence 1.0 mi. E. from Lennon, near SE. cor. sec. 18, T. 7 N., R. 5 E., in NW. angle of crossroads, on top of concrete culvert; chiseled square. 762. 24

Lennon, 1.0 mi. N., thence 0.6 mi. E. from, on line between secs. 18 and 19, T. 7 N., R. 5 E., at crossing of Grand Trunk Ry.; top of E. rail. 765. 0

Lennon, 1.0 mi. N. of, near NW. cor. sec. 19, T. 7 N., R. 5 E., in SE. corner of jog in crossroads; standard iron post with bronze cap stamped "1919 Mich 759" 757. 924

From road junction 4.9 miles southwest of Flint east 1.2 miles along Corunna Road into Flint quadrangle (by E. E. Harris in 1919)

Flint, 3.9 mi. SW. of, in NW. cor. sec. 22, T. 7 N., R. 6 E., on S. side of rd., in line with T-rd. N., in root on E. side of 12-in. maple tree; copper nail and washer. 772. 26

From Saginaw quadrangle at point 1 mile west of Birch Run south along Town Line Road to point 2.5 miles east of Flushing, thence east along road to southwest corner sec. 27, T. 8 N., R. 6 E. (by E. E. Harris in 1919)

Birch Run, 1.0 mi. W., thence 1.0 mi. S. from, near NW. cor. sec. 31, T. 10 N., R. 6 E., in SE. angle of crossroads, on S. end of W. concrete head wall of culvert; chiseled square. 636. 33

Birch Run, 1.0 mi. W., thence 2.0 mi. S. from, in NW. cor. sec. 6, T. 9 N., R. 6 E., near Genesee-Saginaw county line, 15 ft. S. and 30 ft. E. from crossroads, in root on W. side of 12-in. poplar tree; copper nail and washer. 649. 50



Birch Run, 1.0 mi. W., thence 2.7 mi. S. from, about 500 ft. S. of E $\frac{1}{4}$ cor. sec. 1, T. 9 N., R. 5 E., at bridge over Pine Run, on W. end of N. abutment; chiseled square-----	Feet 643. 80
Birch Run, 1.0 mi. W., thence 3.0 mi. S. from, 4.1 mi. E., thence 2.0 mi. N. from R. R. sta. in Montrose, near NW. cor. sec. 7, T. 9 N., R. 6 E., 20 ft. S. and 20 ft. E. from crossroads; standard iron post with bronze cap stamped "1919 Mich 664"-----	663. 895
Montrose, 4.1 mi. E., thence 1.0 mi. N. from, near NW. cor. sec. 18, T. 9 N., R. 6 E., opposite Green School, 30 ft. S. and 35 ft. E. from crossroads, in root on W. side of 8-in. maple tree; copper nail and washer-----	677. 05
N. on tree 4.1 mi. E., thence 0.5 mi. S. from, near E $\frac{1}{4}$ cor. sec. 24, T. 9 N., R. 5 E., at bridge over Brent Run; on N. end of W. abutment; chiseled square-----	669. 13
Montrose, 4.1 mi. E., thence 1.0 mi. S. from, 2.5 mi. E., thence 7.0 mi. N. from Flushing, near NE. cor. sec. 25, T. 9 N., R. 5 E., 25 ft. S. and 25 ft. W. from crossroads; standard iron post with bronze cap stamped "1919 Mich 685"-----	684. 620
Flushing, 2.5 mi. E., thence 6.0 mi. N. from, near NE. cor. sec. 36, T. 9 N., R. 5 E., 35 ft. S. and 25 ft. W. from crossroads, opposite Dyball School, in root on E. side of triple oak tree; copper nail and washer-----	705. 18
Flushing, 2.6 mi. E., thence 5.0 mi. N. from, near NW. cor. sec. 6, T. 8 N., R. 6 E., 35 ft. S. and 25 ft. E. from intersection of Saginaw-Shiawassee county-line rd., in root on S. side of 12-in. elm tree; copper nail and washer-----	713. 47
Flushing, 2.6 mi. E., thence 4.0 mi. N. from, near NE. cor. sec. 12, T. 8 N., R. 5 E., 20 ft. S. and 50 ft. W. from crossroads, in root on E. side of 15-in. oak tree; copper nail and washer-----	715. 37
Flushing, 2.6 mi. E., thence 3.0 mi. N. from, in NW. cor. sec. 18, T. 8 N., R. 6 E., near Brown School, 25 ft. S. and 30 ft. E. from crossroads; standard iron post with bronze cap stamped "1919 Mich 729"-----	728. 365
Flushing, 2.6 mi. E., thence 2.6 mi. N. from, about 400 ft. N. of W $\frac{1}{4}$ cor. sec. 18, T. 8 N., R. 6 E., on N. end of E. head wall of concrete bridge over small drain; chiseled square-----	712. 96
Flushing, 2.6 mi. E., thence 2.0 mi. N. from, near NE. cor. sec. 24, T. 8 N., R. 5 E., 25 ft. S. and 20 ft. W. from intersection of Coldwater Rd., on top of concrete head wall of culvert; chiseled square-----	716. 13
Flushing, 2.6 mi. E., thence 1.2 mi. N. from, 2.5 mi. N. of SW. cor. sec. 19, T. 8 N., R. 6 E., 15 ft. S. and 15 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square-----	727. 97
Flushing, 2.6 mi. E. of, near SW. cor. sec. 30, T. 8 N., R. 6 E., 25 ft. N. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "1919 Mich 727"-----	725. 957
Flushing, 4.6 mi. E. of, 3.2 mi. N. and 4.7 mi. W. from Flint, near SE. cor. sec. 29, T. 8 N., R. 6 E., 20 ft. N. and 20 ft. W. from crossroads, in center of NW. end of concrete floor of bridge; chiseled square-----	739. 72
From crossroads 4.3 miles south and 1.5 miles west from Flushing along roads generally north 6.3 miles, thence east 0.8 mile to intersection of Grand Trunk Railway, thence north along railway to Burt, thence along roads west 4.2 miles and south 2.3 miles to crossroads 2 miles north of Layton Corners (by E. E. Harris in 1919; section beyond Montrose leveled twice)	
Flushing, 3.3 mi. S., thence 1.5 mi. W. from, near SW. cor. sec. 9, T. 7 N., R. 5 E., 40 ft. N. and 25 ft. E. from crossroads, in root on W. side of 30-in. oak tree; copper nail and washer-----	760. 07

Flushing, 2.3 mi. S., thence 1.5 mi. W. from, near SE. cor. sec. 5, T. 7 N., R. 5 E., 40 ft. N. and 20 ft. W. from crossroads, on granite boulder; chiseled square-----	Feet 763. 16
Flushing, 1.3 mi. S., thence 1.5 mi. W. from, near NE. cor. sec. 5, T. 7 N., R. 5 E., 30 ft. S. and 30 ft. W. from junction of Potter Rd.; standard iron post with bronze cap stamped "1919 Mich 754"-----	752. 973
Flushing, 0.3 mi. S., thence 1.7 mi. W. from, 4.6 mi. E. of Juddville, 0.25 mi. W. of NE. cor. sec. 32, T. 8 N., R. 5 E., opposite Kent School; 15 ft. S. and 25 ft. W. from crossroads, on granite boulder; chiseled square-----	741. 08
Flushing, 1.2 mi. along Grand Trunk Ry. NW., thence 0.9 mi. W. from, 0.25 mi. W. of SE. cor. sec. 20, T. 8 N., R. 5 E., 50 ft. N. and 25 ft. E. from crossroads, in root on W. side of 12-in. maple tree; copper nail and washer-----	720. 66
Flushing, 2.2 mi. NW., thence 0.8 mi. W. from, 0.25 mi. W. of NE. cor. sec. 20, T. 8 N., R. 5 E., 30 ft. S. and 20 ft. W. from junction of E.-W. rd., on granite boulder; chiseled square-----	703. 49
Flushing, 2.2 mi. NW. of, 2.0 mi. S. of sta. at Brent Creek, near N $\frac{1}{4}$ cor. sec. 21, T. 8 N., R. 5 E., 530 ft. W. of intersection of Grand Trunk Ry., on S. side of rd., on E. side of private lane to farmhouse of A. Rowe, in center of top of small concrete culvert; standard tablet stamped "1919 Mich 706"-----	705. 100
Brent Creek, 1.0 mi. S. of, about 400 ft. W. of N $\frac{1}{4}$ cor. sec. 16, T. 8 N., R. 5 E., 25 ft. S. and 50 ft. E. from grade crossing, in root on W. side of 30-in. maple tree; copper nail and washer-----	690. 59
Brent Creek, in front of sta.; top of E. rail-----	684. 5
Brent Creek, 400 ft. N. of sta., 4.2 mi. E. of New Lothrop, 20 ft. N. and 35 ft. W. from grade crossing, in root on S. side of 15-in. maple tree; copper nail and washer-----	685. 50
Brent Creek, 2.0 mi. N. of, 2.0 mi. S. of Montrose, about 600 ft. E. of SW. cor. sec. 28, T. 9 N., R. 5 E., 20 ft. N. and 20 ft. E. from grade crossing; standard iron post with bronze cap stamped "1919 Mich 681"-----	679. 644
Montrose, 1.0 mi. S. of, near NE. cor. sec. 29, T. 9 N., R. 5 E., at grade crossing, in S. end of crossroad plank, between rails; copper nail and washer-----	678. 58
Montrose, in front of sta.; top of E. rail of main track-----	675. 0
Montrose, 380 ft. N. of sta., in SE. angle of rd. crossing, in NW. corner of concrete sidewalk; chiseled square-----	674. 43
Montrose, 2.0 mi. N. of, 2.1 mi. S. of Burt, 0.3 mi. W. of SE. cor. sec. 5, T. 9 N., R. 5 E., 1.0 mi. S. of Genesee-Saginaw county line, 15 ft. N. and 20 ft. E. from grade crossing; standard iron post with bronze cap stamped "1919 Mich 649"-----	648. 242
Burt, 300 ft. S. of sta., 30 ft. N. and 10 ft. E. from grade crossing, in E. end of wooden foundation of target switch; copper nail and washer--	637. 24
Burt, 1.4 mi. W. of, in NW. cor. sec. 31, T. 10 N., R. 5 E., at jog in E.-W. rd., 30 ft. S. and 40 ft. E. from junction of Sheridan Rd. and rd. E.; standard iron post with bronze cap stamped "1919 Mich 636"--	635. 195
Burt, 2.4 mi. W. of, near SE. cor. sec. 26, T. 10 N., R. 4 E., 50 ft. N. and 60 ft. W. from crossroads, in root on S. side of 15-in. oak tree; copper nail and washer-----	632. 59
Burt, 4.2 mi. W. of, 0.25 mi. E. of SW. cor. sec. 27, T. 10 N., R. 4 E., 30 ft. N. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "1919 Mich 610"-----	608. 426

Burt, 4.2 mi. W., thence 1.0 mi. S. from, 3.0 mi. N., thence 0.3 mi. E. from Layton Corners, 0.25 mi. E. of SW. cor. sec. 34, T. 10 N., R. 4 E., 25 ft. N. and 40 ft. W. from junction of E.-W. rd., in root on S. side of 18-in. cherry tree; copper nail and washer-----	Feet 621. 41
Layton Corners, 3.0 mi. N. of, about 500 ft. E. of SW. cor. sec. 34, T. 10 N., R. 4 E., at bridge over Misteguay Creek, in center of N. side of concrete floor; chiseled square-----	610. 40
Misteguay Creek; surface of water Aug. 8, 1919-----	592. 9

## CARSON CITY QUADRANGLE

[Latitude 43°00'-43°15'; longitude 84°45'-85°00']

## CLINTON, GRATIOT, IONIA, AND MONTCALM COUNTIES

From Perrinton quadrangle at point 2 miles west of Newark Store west along road to Gratiot-Montcalm county line, thence north into Vestaburg quadrangle (by E. C. Bibbee in 1916)

New Haven Center, 1.0 mi. E. of, in NW. cor. sec. 23, T. 10 N., R. 4 W., in SE. angle of junction of T-rd. S., 1 ft. NW. of corner fence post, on large granite rock; chiseled square-----	778. 21
New Haven Center, near NW. corner of crossroads at, in SE. cor. sec. 16, T. 10 N., R. 4 W., on W. abutment of stone arch culvert; chiseled square-----	781. 32
New Haven Center, 1.0 mi. W. of, in SE. cor. sec. 17, T. 10 N., R. 4 W., near NW. corner of crossroads, 2 ft. S. and 3 ft. W. from corner post; standard iron post with bronze cap stamped "Mich 773"-----	772. 170
New Haven Center, 2.0 mi. W. of, in NE. cor. sec. 19, T. 10 N., R. 4 W., in SW. angle of crossroads, in corner of garden, 5 ft. S. of corner post, in root of boxelder tree; copper nail and washer-----	766. 27
New Haven Center, 3.0 mi. W. of, 0.5 mi. E., thence 5.0 mi. N. from Carson City, in SW. cor. sec. 18, T. 10 N., R. 4 W., 15 ft. N. and 65 ft. E. from junction of Gratiot-Montcalm county-line rd., in root of 12-in. willow tree; copper nail and washer-----	761. 83
From crossroads 2 miles west of New Haven Center south along roads by way of Matherton to point 1.5 miles east of Pewamo, thence east along Grand Trunk Railway into Perrinton quadrangle (by E. C. Bibbee in 1916)	
New Haven Center, 2.0 mi. W., thence 1.0 mi. S. from, at cor. secs. 19, 20, 29, and 30, T. 10 N., R. 4 W., in center of junction of T-rd. W., on stone marking section corner; chiseled square-----	762. 57
New Haven Center, 2.0 mi. W., thence 2.0 mi. S. from, 1.5 mi. E., thence 3.0 mi. N. from Carson City, in SE. cor. sec. 30, T. 10 N., R. 4 W., 65 ft. N. of NW. corner of crossroads, in fence line, in root of 15-in. maple tree; copper nail and washer-----	781. 20
Carson City, 1.5 mi. E., thence 2.0 mi. N. from, in NW. cor. sec. 5, T. 9 N., R. 4 W., 20 ft. S. of SE. corner of junction of T-rd. S., 45 ft. S. and 100 ft. E. from S. cor. secs. 31 and 32, T. 10 N., R. 4 W.; standard iron post with bronze cap stamped "Mich 765"-----	763. 872
Carson City, 1.5 mi. E., thence 1.0 mi. N. from, in SW. cor. sec. 5, T. 9 N., R. 4 W., at entrance to school, on W. end of second step from bottom; chiseled square-----	762. 23
Carson City, 1.5 mi. E. of, in NE. cor. sec. 18, T. 9 N., R. 4 W., in SW. angle of crossroads, in root of 36-in. willow tree; copper nail and washer-----	758. 80

Carson City, 1.5 mi. E., thence 1.0 mi. S. from, in SW. cor. sec. 17, T. 9 N., R. 4 W., in NE. angle of crossroads, at SW. corner of North Shade Township School No. 5; standard iron post with bronze cap stamped "Mich 760"	Feet 758. 864
Carson City, 1.5 mi. E., thence 2.0 mi. S. from, 1.0 mi. E., thence 4.0 mi. N. from Hubbardston, 100 ft. W. of SE. cor. sec. 19, T. 9 N., R. 4 W., on wing wall at NE. corner of stone arch culvert; chiseled square	746. 00
Hubbardston, 1.0 mi. E., thence 3.0 mi. N. from, in SE. cor. sec. 30, T. 9 N., R. 4 W., in SE. corner of schoolyard, 7 ft. S. of pump, on large granite rock; chiseled square	749. 04
Hubbardston, 1.0 mi. E., thence 2.0 mi. N. from, 65 ft. N. of SE. cor. sec. 31, T. 9 N., R. 4 W., near Clinton-Gratiot county line, 2 ft. E. of W. fence line; standard iron post with bronze cap stamped "Mich 733"	731. 944
Hubbardston, 1.0 mi. E., thence 1.0 mi. N. from, in SE. cor. sec. 6, T. 8 N., R. 4 W., in NW. angle of crossroads, at entrance to tenant house of M. C. Goothrite, on concrete porch, 1 ft. W. of SE. corner; chiseled square	754. 84
Hubbardston, 1.0 mi. E., thence 0.5 mi. S. from, 35 ft. N. of E $\frac{1}{4}$ cor. sec. 18, T. 8 N., R. 4 W., on W. side of rd., over N. end of tile, on large granite rock; chiseled square	726. 70
Hubbardston, at S. limits of, 1.0 mi. N. of Matherton, near W $\frac{1}{4}$ cor. sec. 18, T. 8 N., R. 4 W., near Clinton-Ionia county line, in NE. angle of junction of N.-S. rd.; standard iron post with bronze cap stamped "Mich 711"	710. 551
Matherton, 0.5 mi. N. of, 60 ft. S. and 18 ft. E. from NW. cor. sec. 19, T. 8 N., R. 4 W., on large granite rock; chiseled square	704. 93
Matherton, 0.7 mi. S. of, 5 ft. NE. of NE. corner of bridge over Maple River, on wing wall; chiseled square	651. 22
Maple River, under bridge; surface of water May 24, 1916	644. 0
Matherton, 1.5 mi. S. of, 3.0 mi. N. and 0.5 mi. E. from Pewamo, in SW. cor. sec. 30, T. 8 N., R. 4 W., near Clinton-Ionia county line, 45 ft. N. of SW. corner of schoolyard, in fence line, in root of large elm tree; copper nail and washer	725. 34
Pewamo, 1.5 mi. E., thence 3.0 mi. N. from, in SE. cor. sec. 30, T. 8 N., R. 4 W., at NW. corner of crossroads; standard iron post with bronze cap stamped "Mich 748"	747. 397
Pewamo, 1.5 mi. E., thence 1.0 mi. N. from, in SE. cor. sec. 6, T. 7 N., R. 4 W., at S. entrance to school, on E. end of first concrete step from bottom; chiseled square	735. 59
Pewamo, 1.5 mi. E. of, 4.0 mi. W. of Fowler, in SW. cor. sec. 8, T. 7 N., R. 4 W., 50 ft. S. of Grand Trunk Ry., at NE. corner of crossroads; standard iron post with bronze cap stamped "Mich 728" (recovered by U. S. C. & G. S. in 1934)	727. 216
Fowler, 1.0 mi. W. of, in SE. cor. sec. 10, T. 7 N., R. 4 W., near NW. corner of crossroads, 20 ft. SW. of fence corner, on E. end of N. concrete head wall of culvert; chiseled square	757. 96

From Vestaburg quadrangle at point 1 mile east and 0.3 mile south from Crystal south along roads into Muir quadrangle at point near Muir (by E. C. Bibbee in 1918)

Crystal, 1.0 mi. E., thence 0.7 mi. S. from, 2.5 mi. W., thence 4.6 mi. N. from Carson City, on line between secs. 21 and 22, T. 10 N., R. 5 W., 500 ft. S. of barn on farm of A. B. Eldridge, at NW. corner of small iron bridge; extreme W. end of iron support-----	<i>Feet</i> 769. 18
Carson City, 2.5 mi. W., thence 4.0 mi. N. from, in SE. cor. sec. 21, T. 10 N., R. 5 W., in NW. angle of crossroads, 30 ft. N. and 10 ft. W. from corner fence post, in pasture, in root of 12-in. maple tree; copper nail and washer-----	781. 11
Carson City, 2.5 mi. W., thence 3.0 mi. N. from, 470 ft. N. of SW. cor. sec. 27, T. 10 N., R. 5 W., 13 ft. E. of center line of rd., on large granite rock; highest point-----	778. 80
Carson City, 2.5 mi. W., thence 2.5 mi. N. from, near quarter corner between secs. 33 and 34, T. 10 N., R. 5 W., in SE. angle of crossroads, 4 ft. S. and 1 ft. W. from corner fence post; standard iron post with bronze cap stamped "Mich 779"-----	778. 616
Carson City, 2.5 mi. W., thence 2.0 mi. N. from, at cor. secs. 3, 4, 33, and 34, Tps. 9 and 10 N., R. 5 W., in center of crossroads, on N. side of black stone marking section corner; chiseled semicircle-----	774. 52
Carson City, 2.5 mi. W., thence 1.0 mi. N. from, 0.5 mi. N., thence 1.0 mi. E. from Butternut, 600 ft. S. of NE. cor. sec. 9, T. 9 N., R. 5 W., at NW. corner of bridge over ditch, on concreté wing wall; chiseled square-----	757. 30
Carson City, 2.5 mi. W., thence 0.5 mi. N. from, 1.0 mi. E. of Butternut, at crossing of Grand Trunk Ry.; top of rail-----	767. 7
Carson City, 2.5 mi. W. of, near SW. cor. sec. 10, T. 9 N., R. 5 W., 30 ft. SE. of NE. corner of crossroads, in center of N. head wall of culvert; chiseled square-----	774. 16
Carson City, 2.5 mi. W., thence 1.0 mi. S. from, in NW. cor. sec. 22, T. 9 N., R. 5 W., in SE. angle of crossroads, 2 ft. S. and 2 ft. W. from corner fence post; standard iron post with bronze cap stamped "Mich 779"-----	778. 058
Carson City, 2.5 mi. W., thence 2.0 mi. S. from, in NE. cor. sec. 28, T. 9 N., R. 5 W., at entrance to school, on NE. corner of concrete porch; chiseled square-----	777. 42
Carson City, 2.5 mi. W., thence 3.0 mi. S. from, in SE. cor. sec. 28, T. 9 N., R. 5 W., 60 ft. N. of junction of T-rd. E., in E.-W. fence line, in root of 20-in. elm tree; copper nail and washer-----	775. 27
Carson City, 2.5 mi. W., thence 4.0 mi. S. from, 2.7 mi. W., thence 2.0 mi. N. from Hubbardston, in NE. cor. sec. 4, T. 8 N., R. 5 W., near Ionia-Montcalm county line, in SW. angle of crossroads, 4 ft. E. of corner fence post; standard iron post with bronze cap stamped "Mich 779"-----	778. 157
Hubbardston, 2.7 mi. W., thence 1.0 mi. N. from, in SW. cor. sec. 3, T. 8 N., R. 5 W., in NE. angle of crossroads, 2 ft. W. of corner fence post, on large granite rock; chiseled square-----	774. 92
Hubbardston, 2.7 mi. W. of, 250 ft. E. of SW. cor. sec. 10, T. 8 N., R. 5 W., at NE. corner of iron bridge over creek, on wing wall; chiseled square-----	734. 94
Hubbardston, 2.7 mi. W., thence 1.0 mi. S. from, 0.5 mi. N. and 3.0 mi. W. from Matherton, in NE. cor. sec. 21, T. 8 N., R. 5 W., in SW. angle of crossroads, 3 ft. E. of corner fence post; standard iron post with bronze cap stamped "Mich 780"-----	779. 527

Hubbardston, 2.7 mi. W., thence 2.0 mi. S. from, 0.5 mi. S. and 3.0 mi. W. from Matherton, in SW. cor. sec. 22, T. 8 N., R. 5 W., in NE. angle of junction of E.-W. rd., in root 1.5 ft. S. of base of 36-in. oak tree; copper nail and washer.....	Feet 796. 05
Hubbardston, 3.7 mi. W. and 2.0 mi. S. from, 4.2 mi. N. and 1.2 mi. E. from Muir, 70 ft. E. of NW. cor. sec. 28, T. 8 N., R. 5 W., in SE. angle of crossroads, 25 ft. E. of corner fence post, in root of 24-in. oak tree; copper nail and washer.....	809. 68
Muir, 3.2 mi. N. and 1.2 mi. E. from, 100 ft. S. of NW. cor. sec. 33, T. 8 N., R. 5 W., in SE. angle of crossroads, on NW. corner of concrete walk leading to dwelling of M. C. Strachn; chiseled square...	809. 71
Muir, 2.2 mi. N. and 1.2 mi. E. from, in SW. cor. sec. 33, T. 8 N., R. 5 W., in NE. angle of crossroads, 5 ft. S. and 2 ft. E. from corner fence post; standard iron post with bronze cap stamped "Mich 792".....	791. 477
Muir, 1.2 mi. N. and 1.2 mi. E. from, in NE. cor. sec. 8, T. 7 N., R. 5 W., 15 ft. W. of SW. corner of crossroads, in root of 10-in. elm tree; copper nail and washer.....	777. 93
Muir, 1.5 mi. along rd. NE. of, 180 ft. N. of W $\frac{1}{4}$ cor. sec. 9, T. 7 N., R. 5 W., on E. side of rd., on large granite rock; chiseled square...	767. 38
Muir, 0.6 mi. E. of, on S. side of sec. 8, T. 7 N., R. 5 W., in deep ravine, on W. abutment on N. side of bridge; chiseled square.....	674. 18
From Muir quadrangle northeast and east along Grand Trunk Railway and road to point 1.5 miles east of Pewamo (by E. C. Bibbee in 1916)	
Muir, 2.1 mi. E. of, 2.3 mi. W. of Pewamo, 40 ft. W. of milepost 74-115, 6 ft. N. of Grand Trunk Ry. track, on large granite rock; highest point.....	687. 65
Pewamo, 1.0 mi. W. of, 27 ft. N. and 22 ft. W. from S $\frac{1}{4}$ cor. sec. 11, T. 7 N., R. 5 W., in NW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 21 1915 Mich 734"...	733. 391
Pewamo, 0.5 mi. W. of, in SW. cor. sec. 12, T. 7 N., R. 5 W., in NE. angle of crossroads, in root on S. side of 24-in. oak tree; copper nail and washer.....	736. 98
Pewamo, near W. end of Grand Trunk Ry. sta., at street crossing; top of rail.....	740. 0
Pewamo, 0.5 mi. E. of, near Clinton-Ionia county line, 100 ft. W. of rd. crossing, at E. end of small bridge, on N. abutment; chiseled square.....	734. 76
From Vestaburg quadrangle at point near Fishville generally south along roads by way of Vickeryville and Palo to southwest corner sec. 11, T. 7 N., R. 6 W., thence east 2.7 miles and south 0.2 mile into Muir quadrangle near north limits of Muir (by E. C. Bibbee in 1916)	
Fishville, 0.5 mi. S. of, 0.7 mi. S. and 3.5 mi. W. from Crystal, 16 ft. S. and 21 ft. W. from N $\frac{1}{4}$ cor. sec. 23, T. 10 N., R. 6 W., at center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 14 1915 Mich 807".....	806. 350
Fishville, 1.5 mi. S. of, near N $\frac{1}{4}$ cor. sec. 26, T. 10 N., R. 6 W., 25 ft. E. of SE. corner of crossroads, in root of 20-in. elm tree; copper nail and washer.....	801. 12
Fishville, 2.5 mi. S. of, 850 ft. N. of S $\frac{1}{4}$ cor. sec. 26, T. 10 N., R. 6 W., at bridge over ditch, on S. end of W. concrete abutment; chiseled square.....	802. 39

Fishville, 3.5 mi. S. of, 1.0 mi. W., thence 1.0 mi. N. from Vickeryville, near S $\frac{1}{4}$ cor. sec. 35, T. 10 N., R. 6 W., 8 ft. W. of SW. corner of old store building at NW. corner of crossroads, in base of apple tree; rail spike-----	Feet 816. 79
Vickeryville, 1.0 mi. W. of, near N $\frac{1}{4}$ cor. sec. 11, T. 9 N., R. 6 W., on S. side of E.-W. rd., in line with fence on E. side of rd. N.; standard iron post with bronze cap stamped "Mich 809"-----	808. 140
Vickeryville, in NW. angle of crossroads, near S $\frac{1}{4}$ cor. sec. 1, T. 9 N., R. 6 W., 2 ft. S. of telephone pole, on large black rock; chiseled circle-----	820. 64
Vickeryville, 0.5 mi. S. of, at Vickeryville sta. on Grand Trunk Ry., at grade crossing; top of rail-----	792. 0
Vickeryville, 1.0 mi. S. of, near S $\frac{1}{4}$ cor. sec. 12, T. 9 N., R. 6 W., 80 ft. N. of NE. corner of crossroads, in fence line, in root of 18-in. maple tree; copper nail and washer-----	811. 71
Vickeryville, 2.0 mi. S. of, 200 ft. N. of S $\frac{1}{4}$ cor. sec. 13, T. 9 N., R. 6 W., in SE. corner of schoolyard; standard iron post with bronze cap stamped "Mich 802"-----	801. 479
Vickeryville, 3.0 mi. S. of, near N $\frac{1}{4}$ cor. sec. 25, T. 9 N., R. 6 W., in SE. angle of crossroads, at entrance to church, on W. end of bottom concrete step; unmarked point-----	823. 22
Vickeryville, 4.0 mi. S. of, 1.0 mi. E., thence 1.5 mi. N. from crossroads at Palo, near N $\frac{1}{4}$ cor. sec. 36, T. 9 N., R. 6 W., in SE. angle of junction of T-rd. E., 2 ft. N. of corner post, on large granite rock; chiseled circle-----	789. 80
Palo, 1.0 mi. E., thence 0.5 mi. N. from, at quarter corner between secs. 1 and 36, Tps. 8 and 9 N., R. 6 W., at Ionia-Montcalm county line, in center of rd., on black stone marking quarter corner; chiseled semicircle-----	790. 33
Palo, 1.0 mi. E. of, near center of sec. 1, T. 8 N., R. 6 W., in NE. angle of junction of E.-W. rd., 1 ft. W. of fence corner, on small granite rock; chiseled square-----	777. 14
Prairie River, 0.6 mi. E. of Palo, under bridge; surface of water June 8, 1916-----	763. 9
Palo, 25 ft. N. and 32 ft. E. from crossroads at center of sec. 2, T. 8 N., R. 6 W.; standard iron post with bronze cap stamped "Prim Trav Sta No 19 1915 Mich 789"-----	788. 197
Palo, 1.0 mi. S. of, near center of sec. 11, T. 8 N., R. 6 W., at SW. corner of small iron bridge, on concrete abutment; chiseled square--	772. 69
Palo, 2.0 mi. S. of, near center of sec. 14, T. 8 N., R. 6 W., 75 ft. W. of junction of rd. E., 4 ft. S. of N. fence line, in root of 12-in. hickory tree; copper nail and washer-----	790. 97
Palo, 2.0 mi. S., thence 0.5 mi. SW. from, 572 ft. N. of SW. cor. sec. 14, T. 8 N., R. 6 W., on E. side of rd., on large flat granite rock; chiseled square-----	818. 80
Palo, 3.5 mi. S. and 0.5 mi. W. from, 4.2 mi. N. and 2.7 mi. W. from Muir, at Literary Corners, in NE. angle of crossroads, in SW. cor. sec. 23, T. 8 N., R. 6 W., 3 ft. N. and 2 ft. W. from corner fence post; standard iron post with bronze cap stamped "Mich 786"-----	785. 216
Muir, 3.2 mi. N. and 2.7 mi. W. from, 12 ft. S. and 15 ft. E. from NW. cor. sec. 35, T. 8 N., R. 6 W., in root 4 ft. N. of 18-in. oak tree; copper nail and washer-----	778. 10

Muir, 2.2 mi. N. and 2.7 mi. W. from, in NE. cor. sec. 3, T. 7 N., R. 6 W., near center of crossroads, in center of S. head wall of culvert; chiseled square-----	<i>Feet</i> 766. 68
Muir, 1.2 mi. N. and 2.7 mi. W. from, near SE. cor. sec. 3, T. 7 N., R. 6 W., in NW. angle of crossroads, in root of 20-in. maple tree; copper nail and washer-----	792. 97
Muir, 0.2 mi. N., thence 2.7 mi. W. from, 1.0 mi. N. and 3.0 mi. E. from Ionia, in NW. cor. sec. 14, T. 7 N., R. 6 W., 30 ft. S. and 32 ft. E. from center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 22 1915 Mich 756"-----	755. 123
Muir, 0.2 mi. N., thence 1.7 mi. W. from, in NW. cor. sec. 13, T. 7 N., R. 6 W., 8 ft. E. of SE. corner of crossroads, in root on N. side of 24-in. oak tree; copper nail and washer-----	774. 08
Muir, 0.2 mi. N., thence 0.7 mi. W. from, near SE. cor. sec. 12, T. 7 N., R. 6 W., near center of junction of T-rd. N., at SW. corner of small wooden bridge, on large granite rock; chiseled circle-----	706. 00

CASSOPOLIS QUADRANGLE <sup>22</sup>

[Latitude 41°45'-42°00'; longitude 86°00'-86°15']

## BERRIEN AND CASS COUNTIES

From Niles quadrangle near Bertrand along roads east 1.7 miles, thence south 0.5 mile to Indiana-Michigan State line (by C. E. Walker in 1928)

Bertrand, 0.4 mi. S., thence 0.9 mi. E. from highway intersection at, about 450 ft. E. of quarter corner between secs. 13 and 24, T. 8 S., R. 17 W., in NE. corner of junction of private T-rd. N., in W. side of 8-in. oak tree; copper nail and washer-----	738. 25
Bertrand, 0.4 mi. S., thence 2.0 mi. E. from, near quarter corner between secs. 18 and 19, T. 8 S., R. 16 W., 65 ft. N. and 40 ft. E. from junction of T-rd. S., in S. side of 26-in. ash tree; spike-----	744. 65
Bertrand, 1.0 mi. S. and 2.0 mi. E. from, at Indiana-Michigan State line, on E. side of rd., at junction of T-rd. W., in root on NW. side of 10-in. oak tree; copper nail and washer-----	747. 15

From Niles quadrangle generally east along highway by way of Dowagiac into Jones quadrangle at point 1 mile south and 2.5 miles west from Volinia (by C. E. Walker in 1928)

Eau Claire, 1.0 mi. N., thence 3.0 mi. E. from, 0.5 mi. S. and 1.6 mi. W. from Beechwood, 6.9 mi. W. and 1.0 mi. N. from Dowagiac post office, near NE. cor. sec. 35, T. 5 S., R. 17 W., 47 ft. S. and 18 ft. W. from crossroads, in concrete post; standard tablet stamped "P T Sta No 61 Y 1925"-----	814. 145
Reference mark, 30 ft. N. and 15 ft. W. from crossroads, in root on E. side of 8-in. walnut tree; copper nail and washer-----	809. 34
Dowagiac, 6.0 mi. W., thence 1.0 mi. N. from post office, near NW. cor. sec. 31, T. 5 S., R. 16 W., on W. side of Indian Lake, at junction of N.-S. rd., in line with T-rd. W., in fence corner, in root on W. side of 6-in. hickory tree; copper nail and washer-----	786. 22
Dowagiac, 5.1 mi. W. of, 1,010 ft. W. of SE. cor. sec. 31, T. 5 S., R. 16 W., at bend in main rd. to S. and entrance to Indian Lake Resort, 12 ft. S. and 24 ft. W. from rd. fork, among a number of guy wires for telephone poles, in concrete post; standard tablet stamped "P T Sta No 15 Y 1926"-----	790. 069

<sup>22</sup> A narrow strip along the south border of this quadrangle lies in Indiana.



Reference mark, 420 ft. E. of tablet, on N. side of rd., 600 ft. W. of junction of T-rd. N., on concrete head wall; chiseled square-----	Feet 787. 61
Dowagiac, 4.0 mi. W. of, near NW. cor. sec. 4, T. 6 S., R. 16 W., 20 ft. S. and 20 ft. E. from junction of T-rd. N., in root on NW. side of 14-in. maple tree; copper nail and washer-----	741. 34
Dowagiac, 3.0 mi. W. of, near NE. cor. sec. 4, T. 6 S., R. 16 W., at bridge over Dowagiac Creek, on SW. corner, 15 ft. SW. of anchor bolts; chiseled square-----	719. 82
Dowagiac, 2.7 mi. W. of, 0.3 mi. E. of SW. cor. sec. 34, T. 5 S., R. 16 W., at concrete bridge over South Branch of Dowagiac Creek, at NE. corner, in top of abutment; standard tablet stamped "P T Sta No 14 Y 1926"-----	723. 075
Reference mark, on SE. wing wall of bridge; chiseled square-----	723. 02
Dowagiac, 1.2 mi. W. of, at highway bridge over South Branch of Dowagiac Creek, on NE. abutment; chiseled square-----	740. 31
Dowagiac, 1.0 mi. W. of, at crossroads, on E. end of concrete platform of service sta.; chiseled square-----	751. 80
Dowagiac, at post office, at SE. end of stone steps to main entrance, in top of large sandstone capstone; standard tablet stamped "P T Sta No 13 Y 1926"-----	771. 575
Reference mark, 28 ft. W. of door of post office, at W. end of steps, on curb of sidewalk below lamppost; chiseled square-----	768. 50
Dowagiac, in SE. angle of intersection of North Front and Prairie Ronde Streets, on curb; chiseled square-----	766. 64
Dowagiac, 1.0 mi. NE. of post office, in front of Rudy Furnace Factory, 100 ft. NW. of New York Central R. R. crossing, on SW. corner of curb around triangle in rd. fork; chiseled square-----	770. 51
Dowagiac, 2.4 mi. along highway NE. of post office, in NE¼ sec. 32, T. 5 S., R. 15 W., 25 ft. S. and 95 ft. E. from junction of rd. NE., in root on N. side of 22-in. maple tree; copper nail and washer-----	853. 87
Dowagiac, 1.0 mi. N. and 3.0 mi. E. from, near SE. cor. sec. 27, T. 5 S., R. 15 W., 24 ft. N. and 26 ft. E. from crossroads, 5 ft. S. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 12 Y 1926"-----	910. 370
Reference mark, 15 ft. N. and 30 ft. E. from crossroads, in root on NE. side of 12-in. walnut tree; copper nail and washer-----	909. 98
Dowagiac, 1.0 mi. N. and 4.0 mi. E. from, near SE. cor. sec. 27, T. 5 S., R. 15 W., 60 ft. N. and 25 ft. W. from crossroads, in root on S. side of 34-in. maple tree; copper nail and washer-----	886. 41
Dowagiac, 1.0 mi. N. and 5.0 mi. E. from, 1.0 mi. S. and 3.0 mi. W. from Volinia, near NW. cor. sec. 36, T. 5 S., R. 15 W., 95 ft. S. and 12 ft. E. from crossroads, on top of concrete head wall; chiseled square-----	868. 16
From Niles quadrangle near Niles northeast along State Highway 40 and north along road into Hartford quadrangle at point 0.4 mile south and 1.6 miles west from Beechwood (by C. E. Walker in 1926)	
Niles, 2.0 mi. NE. of post office, at slight curve in highway, on E. side of rd., in line with E.-W. fence, on concrete head wall; chiseled square-----	711. 22
Niles, 2.7 mi. NE. of, near Niles Waterworks and Electric Power Plant on Dowagiac Creek, 90 ft. SW. of forks of rd. W., 12.5 ft. S. of telephone pole, 25 ft. W. of W. edge of pavement, in concrete post; standard tablet stamped "P T Sta No 54 Y 1925" (recovered in 1927)-----	709. 107

Reference mark, at rd. W., near dam across Dowagiac Creek, on E. side of rd., in front of house, on N. head wall of culvert; chiseled square (recovered in 1927)-----	<i>Feet</i> 709. 66
Niles, 2.8 mi. NE. of, at Dowagiac Light and Power Dam, on NW. corner of intake flume; chiseled square-----	683. 01
Niles, 3.6 mi. N. of, in SE $\frac{1}{4}$ sec. 11, T. 7 S., R. 17 W., in front of farmhouse of A. H. Knott, on E. side of rd., in root on W. side of N. 30-in. tree of twin elms; copper nail and washer-----	737. 03
Niles, 5.0 mi. N. of, 0.25 mi. W. of quarter corner between secs. 1 and 2, T. 7 S., R. 17 W., 22 ft. S. and 52 ft. W. from center of crossroads, 7 ft. S. of telephone line W., in concrete post; standard tablet stamped "P T Sta No 53 Y 1925"-----	742. 031
Reference mark, 56 ft. NE. of tablet, 15 ft. N. and 10 ft. W. from crossroads, on concrete culvert; chiseled square-----	737. 38
Niles, 6.0 mi. N. of, 3.5 mi. S. and 2.0 mi. E. from Berrien Center, near quarter corner between secs. 35 and 36, T. 6 S., R. 17 W., at crossroads, at entrance to Methodist Church house, on NW. corner of bottom concrete step; chiseled square-----	766. 13
Berrien Center, 2.5 mi. S. and 2.0 mi. E. from, near quarter corner between secs. 25 and 26, T. 6 S., R. 17 W., 45 ft. S. and 22 ft. W. from junction of T-rd. W., in root on W. side of 4-in. elm tree; copper nail and washer-----	765. 93
Berrien Center, 2.0 mi. S. and 2.0 mi. E. from, near SW. cor. sec. 24, T. 6 S., R. 17 W., 55 ft. N. and 22 ft. E. from center of crossroads, 30 ft. N. of 30-in. maple tree, in stone post; standard tablet stamped "P T Sta No 63 Y 1925"-----	768. 872
Reference mark, 38 ft. SE. of tablet, 18 ft. N. and 30 ft. E. from crossroads, in root on SE. side of 30-in. maple tree; copper nail and washer-----	786. 00
Berrien Center, 1.0 mi. S. and 2.0 mi. E. from, near NE. cor. sec. 23, T. 6 S., R. 17 W., 75 ft. S. and 12 ft. W. from crossroads, in root on S. side of 26-in. maple tree; copper nail and washer-----	786. 63
Berrien Center, 2.0 mi. E. of, near NE. cor. sec. 14, 100 ft. S. and 25 ft. W. from junction of T-rd. W., in root on NE. side of 14-in. walnut tree; copper nail and washer-----	781. 38
Berrien Center, 2.0 mi. E. and 0.5 mi. N. from, 1.5 mi. S. and 3.0 mi. E. from Eau Claire, at quarter corner between secs. 11 and 12, T. 6 S., R. 17 W., 34 ft. W. of junction of T-rd. E., 6 ft. E. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 62 Y 1925"-----	761. 292
Reference mark, 35 ft. S. and 40 ft. E. from rd. junction, in root on W. side of double-trunked beech tree; copper nail and washer-----	751. 95
Eau Claire, 0.5 mi. S. and 3.0 mi. E. from, near quarter corner between secs. 1 and 2, T. 6 S., R. 17 W., 84 ft. S. and 18 ft. E. from crossroads, in root on W. side of 36-in. oak tree; copper nail and washer-----	752. 80
Eau Claire, 0.5 mi. N. and 3.0 mi. E. from, in SW $\frac{1}{4}$ sec. 36, T. 5 S., R. 17 W., 25 ft. S. and 35 ft. E. from junction of E.-W. rd., in root on SW. side of 40-in. elm tree; copper nail and washer-----	799. 07

From Jones quadrangle at point 3 miles south and 2.5 miles west from Volinia along roads west 0.5 mile, thence generally south by way of Cassopolis to Indiana-Michigan State line (by S. R. Archer in 1927)

Cassopolis, 4.0 mi. N. of, near cor. secs. 1, 2, 11, and 12, T. 6 S., R. 15 W., 23 ft. N. and 19 ft. E. from intersection of rd. tangents S. and E., 275 ft. N. of rd. W., in concrete post; standard tablet stamped "P T Sta No 10 Y 1926"	Feet 825. 019
Reference mark, 350 ft. S. of tablet, 75 ft. S. and 40 ft. W. from junction of T-rd. W., in root on SE. side of 36-in. maple tree; copper nail and washer	833. 14
Cassopolis, 2.9 mi. N. of, about 0.1 mi. S. and 0.2 mi. W. from NE. cor. sec. 14, T. 6 S., R. 15 W., 280 ft. S. of farmhouse on W. side of rd., on E. side of rd., about 50 ft. N. of angle in rd., on field side of fence, 5 ft. E. of fence line, in root on NW. side of 10-in. oak tree; copper nail and washer	801. 76
Cassopolis, 1.9 mi. N. of, 610 ft. S. of N. cor. secs. 23 and 24, T. 6 S., R. 15 W., 45 ft. N. and 28 ft. W. from junction of rd. W., 15 ft. N. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 9 Y 1926"	827. 523
Reference mark, 135 ft. N. of tablet, 180 ft. N. of rd. junction, on W. side of rd., in field, in root on NE. side of 24-in. walnut tree; copper nail and washer	815. 05
Cassopolis, 1.0 mi. N. of, near NW. cor. sec. 25, T. 6 S., R. 15 W., 35 ft. S. and 50 ft. E. from junction of T-rd. E., 5 ft. S. and 23 ft. E. from fence corner, in root on W. side of 36-in. elm tree; copper nail and washer	919. 41
Cassopolis, 0.6 mi. N. of courthouse, about 0.1 mi. N. of quarter corner between secs. 25 and 26, T. 6 S., R. 15 W., 30 ft. N. and 25 ft. E. from rd. E. to fair grounds, in root on NW. side of 36-in. elm tree; copper nail and washer	904. 78
Cassopolis, at center of intersection of East State and O'Keefe Streets; top of iron bolt marking center of streets	881. 80
Cassopolis, at corner of East State and O'Keefe Streets, at SW. corner of Cass County courthouse, in W. face of stone wall, 1 ft. above water table; standard tablet stamped "P T Sta No 8 Y 1926" (recovered by U. S. C. & G. S. in 1934)	901. 658
Cassopolis, in NW. corner of intersection of South O'Keefe and South Streets, 17 ft. W. of corner of sidewalk, in root on NE. side of 12-in. maple tree; copper nail and washer	870. 00
Cassopolis, just W. of sta., at Michigan Central R. R. crossing South O'Keefe Street; top of N. rail	889. 4
Cassopolis, at Grand Trunk Ry. crossing South O'Keefe Street; top of S. rail	899. 0
Cassopolis, 1.0 mi. S. of courthouse, near cor. secs. 1, 2, 35, and 36, Tps. 6 and 7 S., R. 15 W., on S. side of rd., at jog in rd. W., on W. side of private rd. SE., 13 ft. N. and 25 ft. W. from fence corner, in root on W. side of 24-in. hickory tree; copper nail and washer	900. 56
Cassopolis, 1.5 mi. S. of, at quarter corner between secs. 1 and 2, T. 7 S., R. 15 W., 25 ft. N. and 25 ft. W. from junction of T-rd. E., in root on W. side of 24-in. oak tree; copper nail and washer	897. 68
Cassopolis, 2.0 mi. S. of, near SE. cor. sec. 2, T. 7 S., R. 15 W., 30 ft. N. and 40 ft. W. from center of crossroads, 1.5 ft. S. and 5 ft. W. from fence corner, in concrete post; standard tablet stamped "P T Sta No 5 Y 1926"	891. 598

Reference mark, 50 ft. S. and 25 ft. W. from crossroads, in root on NE. side of 24-in. maple tree; copper nail and washer-----	<i>Feet</i> 891. 76
Cassopolis, 2.5 mi. S. of, near quarter corner between secs. 11 and 12, T. 7 S., R. 15 W., 25 ft. S. and 60 ft. E. from crossroads, in root on W. side of 12-in. walnut tree; copper nail and washer-----	883. 85
Cassopolis, 2.5 mi. S., thence 0.5 mi. E. from, near center of sec. 12, T. 7 S., R. 15 W., in SE. corner of junction of T-rd. S., on top of N. end of E. concrete head wall of culvert; chiseled square-----	870. 89
Cassopolis, 3.0 mi. S., thence 0.5 mi. E. from, near quarter corner between secs. 12 and 13, T. 7 S., R. 15 W., at junction of T-rd. W., on E. side of rd.; top of head wall of culvert-----	863. 01
[Line jogs into Jones quadrangle]	
Adamsville, 2.3 mi. N. and 0.3 mi. W. from, near center of sec. 36, T. 7 S., R. 15 W., 8 ft. S. and 45 ft. W. from junction of T-rd. W., in root on NE. side of 30-in. oak tree; copper nail and washer-----	806. 84
Adamsville, 1.8 mi. N. and 1.0 mi. W. from, 1,000 ft. W. of E. cor. secs. 2 and 35, Tps. 7 and 8 S., R. 15 W., 35 ft. N. of junction of T-rd. S., 2 ft. S. of fence, in concrete post; standard tablet stamped "P T Sta No 7 Y 1926"-----	823. 855
Reference mark, 50 ft. S. and 25 ft. W. from rd. junction, 20 ft. S. of fence corner, in root on E. side of 30-in. tree, northernmost of three maple trees; copper nail and washer-----	823. 09
Adamsville, 1.1 mi. N. and 1.0 mi. W. from, about 0.2 mi. SW. of quarter corner between secs. 1 and 2, T. 8 S., R. 15 W., at highway bridge over outlet to Eagle Lake, on top of NW. wing wall; chiseled square-----	799. 93
Adamsville, about 1.0 mi. NW. of, near quarter corner between secs. 11 and 12, T. 8 S., R. 15 W., 25 ft. N. and 20 ft. E. from crossroads, in SW. corner of yard of farmhouse, in root on W. side of 24-in. maple tree; copper nail and washer-----	823. 53
Adamsville, 0.2 mi. S. and 0.8 mi. W. from, near SE. cor. sec. 11, T. 8 S., R. 15 W., 40 ft. N. and 35 ft. W. from junction of E.-W. rd., 12 ft. N. and 12 ft. W. from fence corner, on field side of fence, in root on E. side of 24-in. oak tree; copper nail and washer-----	813. 80
Adamsville, 0.4 mi. SW. of, near quarter corner between secs. 12 and 13, T. 8 S., R. 15 W., at NW. corner of junction of T-rd. W., at SE. corner of cemetery, in root 8 in. underground on W. side of 10-in. maple tree; copper nail and washer-----	815. 77
Adamsville, 1.4 mi. SW. of, near quarter corner between secs. 13 and 24, T. 8 S., R. 15 W., 32 ft. N. and 40 ft. E. from center of crossroads, 11 ft. E. of fence corner, in concrete post; standard tablet stamped "P T Sta No 16 Y 1926"-----	796. 959
Reference mark, 25 ft. N. and 40 ft. W. from crossroads, in root on N. side of 24-in. maple tree; copper nail and washer-----	798. 01
Adamsville, 1.4 mi. SW., thence 1.0 mi. W. from, near quarter corner between secs. 14 and 23, T. 8 S., R. 15 W., 20 ft. S. and 35 ft. W. from junction of T-rd. S., in root on SW. side of 24-in. hickory tree; copper nail and washer-----	805. 12
From point 2 miles south of Cassopolis west along roads by way of Dailey to State Highway 40, thence southwest to point 2.7 miles northeast of Niles (by S. R. Archer in 1927)	
Grand Trunk Ry. crossing; top of E. rail of E. track-----	884. 6

Cassopolis, 2.0 mi. S., thence 1.0 mi. W. from, 0.2 mi. S., thence 3.0 mi. E. from Michigan Central R. R. sta. in Dailey, near SE. cor. sec. 3, T. 7 S., R. 15 W., on N. side of rd., 50 ft. W. of N.-S. section line, 8 ft. E. of line along W. side of Cass County Infirmary building, in root on S. side of 10-in. maple tree; copper nail and washer-----	Feet 892. 44
Dailey, 0.2 mi. S., thence 2.0 mi. E. from, near cor. secs. 3, 4, 9, and 10, T. 7 S., R. 15 W., 30 ft. N. and 35 ft. W. from junction of rd. W. at crossroads, in root on S. side of 24-in. maple tree; copper nail and washer-----	884. 17
Dailey, 0.2 mi. S., thence 1.1 mi. E. from, about 800 ft. E. of SW. cor. sec. 4, T. 7 S., R. 15 W., on N. side of rd., opposite farmhouse on S. side of rd., in root on SW. side of 48-in. oak tree; copper nail and washer-----	858. 08
Dailey, 0.2 mi. S., thence 0.5 mi. E. from, 165 ft. SW. of quarter corner between secs. 5 and 8, T. 7 S., R. 15 W., in SW. corner of five-way rd. fork, 89 ft. E. of NE. corner of Jefferson School, in SE. corner of triangle formed by rd. W., 20 ft. W. of W. edge of concrete pavement, 8 ft. SE. of 16-in. basswood tree, in concrete post; standard tablet stamped "P T Sta No 4 Y 1926"-----	838. 192
Reference mark, 60 ft. W. of tablet, 30 ft. N. of NE. corner of Jefferson School, in root 5 in. underground on W. side of 10-in. maple tree; copper nail and washer-----	837. 42
Dailey, 0.2 mi. S. of sta., near cor. secs. 5, 6, 7, and 8, T. 7 S., R. 15 W., on W. side of N.-S. rd., opposite T-rd. E., in root on N. side of 24-in. walnut tree; copper nail and washer-----	857. 25
Dailey, W. of sta., at R. R. crossing; top of S. rail-----	825. 9
Dailey, 55 ft. N. and 30 ft. W. from Michigan Central R. R. crossing, 0.2 mi. N. of SE. cor. sec. 6, T. 7 S., R. 15 W., in NW. corner of junction of T-rd. W., in root 12 in. underground on NW. side of 24-in. hickory tree; copper nail and washer-----	820. 73
Dailey, 1.0 mi. W. of, 0.2 mi. N. of SW. cor. sec. 6, T. 7 S., R. 15 W., 225 ft. E. of range line between Howard and Jefferson townships, on S. side of rd., 225 ft. E. of private rd. S., in root on NE. side of 24-in. wild-cherry tree; copper nail and washer-----	822. 08
Dailey, 1.3 mi. W. of, at center of SE $\frac{1}{4}$ sec. 1, T. 7 S., R. 16 W., 19 ft. N. and 35 ft. E. from center of junction of T-rd. N., 14 ft. E. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 3 Y 1926"-----	848. 336
Dailey, 2.0 mi. W. of, 0.2 mi. N. of SW. cor. sec. 1, T. 7 S., R. 16 W., 125 ft. S. of junction of N.-S. rd., on E. side of rd., in field, in root on W. side of 30-in. hickory tree; copper nail and washer-----	765. 97
Dailey, 2.0 mi. W., thence 0.2 mi. S. from, 2.0 mi. S., thence 2.5 mi. E. from Pokagon, near NE. cor. sec. 11, T. 7 S., R. 16 W., on S. side of rd., 100 ft. W. of junction of T-rd. W., in root on N. side of 14-in. hickory tree; copper nail and washer-----	848. 03
Pokagon, 2.0 mi. S., thence 1.7 mi. E. from, 0.2 mi. E. of NW. cor. sec. 11, T. 7 S., R. 16 W., on S. side of rd., 265 ft. W. of farmhouse, in field, in root on NW. side of 10-in. walnut tree; copper nail and washer-----	766. 96
Pokagon, 2.0 mi. S., thence 1.0 mi. E. from, near quarter corner between secs. 3 and 10, T. 7 S., R. 16 W., 20 ft. N. and 40 ft. E. from junction of T-rd. S., 8 ft. SE. of 17-in. walnut tree, in concrete post; standard tablet stamped "P T Sta No 2 Y 1926"-----	765. 713

Reference mark, 90 ft. SW. of tablet, 35 ft. S. and 30 ft. W. from junction of T-rd. S., in root on W. side of 24-in. oak tree; copper nail and washer	<i>Fed</i> 763. 22
Pokagon, 2.0 mi. S., thence 0.5 mi. E. from, near SW. cor. sec. 3, T. 7 S., R. 16 W., 55 ft. N. and 30 ft. E. from junction of T-rd. N., 25 ft. SW. of SW. corner of schoolhouse, in root on S. side of 24-in. oak tree; copper nail and washer	772. 37
Pokagon, 2.0 mi. S. of, near quarter corner between secs. 4 and 9, T. 7 S., R. 16 W., 210 ft. W. of crossroads, on N. side of rd., in root 7 in. underground on W. side of 15-in. oak tree; copper nail and washer	779. 05
Pokagon, 2.0 mi. S., thence 1.0 mi. W. from, 1.8 mi. S. and 0.5 mi. E. from Sumnerville, near quarter corner between secs. 5 and 8, T. 7 S., R. 16 W., 18 ft. N. and 41 ft. W. from crossroads, 8 ft. W. of gate-post, in concrete post; standard tablet stamped "P T Sta No 1 Y 1926"	749. 558
Reference mark, 120 ft. E. of crossroads, on N. side of rd., in fence line, 20 ft. W. of 12-in. maple tree, in root on N. side of 12-in. walnut tree; copper nail and washer	750. 64
Pokagon, 2.0 mi. SW. of, 1.8 mi. S. and 0.2 mi. E. from Sumnerville, at Michigan Central R. R. crossing; top of E. rail of E. track of main line	729. 0
Sumnerville, 1.8 mi. S. and 0.2 mi. W. from, 0.25 mi. W. of NE. cor. sec. 7, T. 7 S., R. 16 W., 45 ft. S. and 30 ft. W. from junction of T-rd. S., in field, in root on NW. side of 12-in. elm tree; copper nail and washer	713. 62
Sumnerville, 1.8 mi. S. and 1.0 mi. W. from, 4.3 mi. NE. of Niles, near cor. secs. 1, 6, 7, and 12, T. 7 S., R. 16 and 17 W.; on State Highway 40, 230 ft. S. of junction of T-rd. E., at SW. corner of concrete highway bridge over Kinzie Creek, on top of wing wall; chiseled square	696. 56
Niles, 3.1 mi. NE. of, near S $\frac{1}{4}$ cor. sec. 12, T. 7 S., R. 17 W., 85 ft. N. of junction of T-rd. E., on W. side of highway, in root on E. side of 24-in. maple tree; copper nail and washer	715. 43

## CEDAR SPRINGS QUADRANGLE

[Latitude 43°00'-43°15'; longitude 85°30'-85°45']

## KENT COUNTY

From Grand Rapids quadrangle northeast along Grand Rapids & Indiana Railroad <sup>23</sup> to road crossing 1 mile northeast of Belmont, thence north along road to Algoma-Plainfield township line, thence east by way of Rockford into Smyrna quadrangle (by R. G. Clinite in 1916)

Grand Rapids, 4.0 mi. N. of, 1.7 mi. SW. of R. R. sta. at Comstock Park, on N. side of rd. between tracks of Grand Rapids & Indiana R. R. and Pere Marquette Ry., in top of R. R. section post 28-29; copper nail and washer	619. 28
Comstock Park, 120 ft. S. of sta., at intersection of tracks of G. R. & I. R. R. and Pere Marquette Ry.; top of rail	624. 2
Comstock Park, 80 ft. E. of post office, 35 ft. W. of Pere Marquette Ry. track, on N. side of Main Street; standard iron post with bronze cap stamped "Mich 629"	628. 291
Comstock Park, 3.0 mi. NE. of, 1.0 mi. SW. of Belmont, in NE. angle of grade crossing, on top of concrete culvert; chiseled square	632. 37

<sup>23</sup> Now operated by the Pennsylvania Railroad.

Belmont, 120 ft. NE. of sta., on W. side of street, in small grove of maple trees, 2 ft. S. of R. R. right-of-way line; standard iron post with bronze cap stamped "Mich 668"-----	Feet 667. 388
Belmont, 1.5 mi. by rd. N. of, near center of NW $\frac{1}{4}$ sec. 10, T. 8 N., R. 11 W., in NE. angle of junction of T-rd. E., at corner of field, in root of 6-in. hickory tree; copper nail and washer-----	806. 41
Belmont, 2.9 mi. N. of, 2.4 mi. by rd. W. of highway bridge over Rouge River at Rockford, 0.25 mi. E. of NW. cor. sec. 3, T. 8 N., R. 11 W., in SW. angle of junction of T-rd. S., at W. end of drain, on large rock; highest point within chiseled square-----	831. 47
Rockford, 1.5 mi. W. of, 0.25 mi. E. of NW. cor. sec. 2, T. 8 N., R. 11 W., at junction of T-rd. N., on S. side of rd., 4 ft. N. of fence, on boulder; highest point within chiseled square-----	839. 33
Rouge River, at Rockford, at highway bridge, below dam; surface of water Apr. 26, 1916-----	679. 1
Rockford, at dam across Rouge River, at E. end, on top of retaining wall of first spillway, downstream end; standard tablet stamped "Mich 694"-----	693. 168
Rockford, 1.2 mi. by rd. E. of bridge at, near N $\frac{1}{4}$ cor. sec. 6, T. 8 N., R. 10 W., in SW. angle of junction of T-rd. S., in root of 36-in. oak tree; rail spike-----	815. 45
Rockford, 1.9 mi. E. of, 0.25 mi. N. of SW. cor. sec. 32, T. 9 N., R. 10 W., on S. side of rd., opposite T-rd. N., in root of small twin elm tree; copper nail and washer-----	793. 46
Rockford, 3.0 mi. E. of, at SW. cor. sec. 33, T. 9 N., R. 10 W., at turn in rd., in fence corner, in root of 15-in. oak tree; copper nail and washer-----	830. 54
Rockford, 3.7 mi. E. of, near N $\frac{1}{4}$ cor. sec. 4, T. 8 N., R. 10 W., in SE. angle of crossroads, on S. concrete head wall of culvert; chiseled square-----	867. 35
From Smyrna quadrangle at point 1.3 miles south and 3 miles east from Rockford west along road 0.2 mile to cross road, thence south to point 1 mile east of Brooklyn Corners, thence east 0.6 mile and back into Smyrna quadrangle (by R. G. Clinite in 1916)	
Rockford, 1.2 mi. S. and 2.8 mi. E. from, about 500 ft. W. of S $\frac{1}{4}$ cor. sec. 4, T. 8 N., R. 10 W., at NW. angle of crossroads, in root of 16-in. hickory tree; copper nail and washer-----	862. 35
T. 8 N., R. 10 W., near S $\frac{1}{4}$ cor. sec. 9, opposite Weller School, in NE. angle of crossroads, at fence corner, in root of 26-in. maple tree; copper nail and washer-----	859. 33
T. 8 N., R. 10 W., near N $\frac{1}{4}$ cor. sec. 21, 30 ft. S. of E.-W. fence assumed to be on section line, on E. side of rd., in root of twin maple tree; copper nail and washer-----	803. 87
T. 8 N., R. 10 W., near S $\frac{1}{4}$ cor. sec. 21, 0.3 mi. N., thence 1.5 mi. W. from Cannonsburg, 30 ft. N. and 40 ft. W. from center of junction of T-rd. N.; standard iron post with bronze cap stamped "Mich 768"-----	767. 854
T. 8 N., R. 10 W., in NW. cor. sec. 28, in SE. angle of crossroads, at fence corner, in root of 16-in. black-oak tree; copper nail and washer-----	706. 58
T. 8 N., R. 10 W., in SE. cor. sec. 29, 1.0 mi. E. of Moffitt Hill School, in NW. angle of crossroads, in root of 34-in. oak tree; copper nail and washer-----	811. 29
T. 7 N., R. 10 W., in NW. cor. sec. 4, in SE. angle of crossroads, in root of 30-in. hickory tree; copper nail and washer-----	877. 56

T. 7 N., R. 10 W., in SE. cor. sec. 5, 1.0 mi. E., thence 0.5 mi. N. from Brooklyn Corners, in NW. angle of crossroads, at schoolhouse, at W. end of bridge over Egypt Creek, on boulder; highest point-----	Feet 692. 95
From road junction 1.5 miles east of Rockford north along road to crossroads 1 mile east of Cedar Springs, thence west 4 miles, thence south to point 2.5 miles west of Rockford (by R. G. Clinite in 1916)	
Rockford, 1.9 mi. E., thence 0.8 mi. N. from highway bridge at, in SW. cor. sec. 29, T. 9 N., R. 10 W., in NE. angle of crossroads, on concrete head wall of tile drain; chiseled circle-----	842. 73
T. 9 N., R. 10 W., in SW. cor. sec. 20, 0.5 mi. W. of Shanks School, in NE. angle of crossroads, 5 ft. N. of fence corner; standard iron post with bronze cap stamped "Mich 857"-----	856. 691
T. 9 N., R. 10 W., 250 ft. E. of NW. cor. sec. 20 and junction of E.-W. rd., on S. side of rd., on top of stone head wall of culvert; chiseled circle-----	842. 27
T. 9 N., R. 10 W., near S $\frac{1}{4}$ cor. sec. 17, in NW. angle of crossroads, on concrete head wall of culvert; chiseled circle-----	874. 64
T. 9 N., R. 10 W., in NW. cor. sec. 17, on S. side of rd., opposite T-rd. N., in root of 14-in. hickory tree; copper nail and washer-----	883. 58
Cedar Springs, 1.0 mi. E., thence 2.0 mi. S. from public school at, in SE. cor. sec. 6, T. 9 N., R. 10 W., in NW. angle of crossroads, 2 ft. N. of fence corner; standard iron post with bronze cap stamped "Mich 859" (recovered in 1928)-----	858. 280
Cedar Springs, 1.0 mi. E. of, in SE. cor. sec. 30, T. 10 N., R. 10 W., in NW. angle of crossroads, in root of 18-in. white-oak tree; copper nail and washer-----	868. 36
Cedar Springs, at public school, in SE. angle of street intersection, in NW. corner of yard; standard iron post with bronze cap stamped "Mich 869"-----	868. 712
Cedar Springs, 1.0 mi. W. of, in SW. cor. sec. 25, T. 10 N., R. 11 W., in NE. angle of crossroads, on N. end of tile drain; highest point--	872. 66
Cedar Springs, 2.0 mi. W. of, in NE. cor. sec. 34, T. 10 N., R. 11 W., on S. side of rd., 300 ft. W. of two-story frame house, 70 ft. W. of drain, in root of 12-in. maple tree; copper nail and washer-----	877. 76
Cedar Springs, 3.0 mi. W. of, at SW. cor. sec. 27, T. 10 N., R. 11 W., in NE. angle of crossroads, at fence corner, in root of 18-in. maple tree; copper nail and washer-----	865. 43
Cedar Springs, 3.0 mi. W, thence 1.0 mi. S. from, 0.6 mi. N. of Foxville School, in NE. cor. sec. 4, T. 9 N., R. 11 W., at jog on township line, in SW. angle of junction of T-rd. S., in root of lone 14-in. white-oak tree; copper nail and washer-----	848. 22
T. 9 N., R. 11 W., in NW. cor. sec. 15, 1.5 mi. S. of Foxville School, in SE. angle of crossroads; standard iron post with bronze cap stamped "Mich 781" <sup>24</sup> -----	782. 410
T. 9 N., R. 11 W., in NW. cor. sec. 22, 2.3 mi. W. of Edgerton, 1.0 mi. N. of Gougeburg School, in SE. angle of crossroads, in root of 20-in. maple tree; copper nail and washer-----	820. 13
T. 9 N., R. 11 W., in NE. cor. sec. 28, in SW. angle of crossroads, in yard of Gougeburg School (District No. 3), on concrete platform of well; chiseled square-----	734. 14
Rouge River, under bridge; surface of water May 3, 1916-----	710. 4

<sup>24</sup> In 1937 this bench mark was reset about 1,200 feet north of this position and 1,535 feet higher than its original elevation. It is now on the east side of the road 3 feet east of north-south fence, in line with east-west fence. The figures given represent the new elevation.



T. 9 N., R. 11 W., at cor. secs. 27, 28, 33, and 34, in center of cross-roads, on stone marking section corner; chiseled circle-----	<i>Feet</i> 736. 11
T. 9 N., R. 11 W., in SW. cor. sec. 34, 2.8 mi. by rd. W. of Rockford, in NE. angle of rd. junction, 2 ft. S. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 5 1915 Mich 803"-----	802. 959
From road junction 2.8 miles west of Rockford west along township-line road to point 0.5 mile west of Ballards, thence south 4.5 miles, thence east 1.5 miles and south to Comstock Park (by R. G. Clinite in 1916)	
Englishville, 1.8 mi. E. of Pere Marquette Ry. sta. at, 4.8 mi. W. of Rockford, near NE. cor. sec. 6, T. 8 N., R. 11 W., on S. side of rd., 50 ft. E. of center of junction of T-rd. N., in root of 24-in. maple tree; copper nail-----	749. 62
Englishville, in front of sta.; top of rail-----	764. 5
Englishville, 0.2 mi. W. of sta., 1.0 mi. E. of Ballards, in SW. angle of crossroads, 8 ft. E. of telephone pole; standard iron post with bronze cap stamped "Mich 768"-----	767. 130
Ballards, 0.5 mi. W. of, near S $\frac{1}{4}$ cor. sec. 34, T. 9 N., R. 12 W., in NE. angle of crossroads, 4 ft. S. of fence corner, in root of 14-in. maple tree; copper nail and washer-----	904. 02
Ballards, 0.5 mi. W., thence 1.0 mi. S. from, at quarter corner between secs. 3 and 10, T. 8 N., R. 12 W., in center of crossroads, on stone marking quarter corner; chiseled square-----	803. 70
T. 8 N., R. 12 W., near N $\frac{1}{4}$ cor. sec. 15, in SW. angle of crossroads, in corner of field, in root of 24-in. elm tree; copper nail and washer--	784. 89
T. 8 N., R. 12 W., near N $\frac{1}{4}$ cor. sec. 22, 1.8 mi. W. of Alpine, in SE. angle of crossroads, diagonally opposite schoolhouse, 5 ft. N. of group of elm trees; standard iron post with bronze cap stamped "Mich 826"-----	827. 041
T. 8 N., R. 12 W., near S $\frac{1}{4}$ cor. sec. 22, in NW. angle of crossroads, 70 ft. N. of fence corner, in root of 18-in. elm tree; copper nail and washer-----	804. 67
T. 8 N., R. 12 W., near E $\frac{1}{4}$ cor. sec. 27, in SW. angle of crossroads, in farmyard, in root of 14-in. maple tree; copper nail and washer--	801. 07
T. 8 N., R. 12 W., near E $\frac{1}{4}$ cor. sec. 26, 0.3 mi. W., thence 1.5 mi. S. from Alpine, 2.1 mi. NW. of Comstock Park, 60 ft. N. of center of rd. junction, on W. side of rd. N. to Alpine, in root of 20-in. elm tree; copper nail and washer-----	751. 73
Comstock Park, 0.8 mi. NW. of, 0.3 mi. E. of N $\frac{1}{4}$ cor. sec. 36, T. 8 N., R. 12 W., on W. side of rd. at turn, 6 ft. S. of N. end of concrete wall of small reservoir; chiseled square-----	677. 66
From point 0.5 mile west of Ballards west along township-line road 1.5 miles, thence north 3 miles and east 2 miles along roads to cross road 0.3 mile west of Sparta, thence north 4 miles and east 5 miles to point 3 miles west of Cedar Springs (by R. G. Clinite in 1916)	
Ballards, 2.0 mi. W. of, at Buck School, near NE. cor. sec. 5, T. 8 N., R. 12 W., 31 ft. S. and 24 ft. E. from junction of T-rd. N., near NW. corner of schoolyard, 2 ft. N. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 4 1915 Mich 872" (recovered in 1929)-----	871. 240
Ballards, 2.0 mi. W., thence 1.1 mi. N. from, near SE. cor. sec. 29, T. 9 N., R. 12 W., 80 ft. N. of junction of T-rd. E., at SW. corner of bridge, on concrete wall; chiseled square (not recovered in 1929)---	851. 75

Ballards, 2.0 mi. W., thence 2.1 mi. N. from, 2.3 mi. W., thence 1.0 mi. S. from Pere Marquette Ry. sta. at Sparta, in NW. cor. sec. 28, T. 9 N., R. 12 W., in SE. angle of crossroads, at corner of orchard, on large granite boulder; chiseled square-----	Feet 812. 98
Sparta, 1.3 mi. W. of, in SW. cor. sec. 15, T. 9 N., R. 12 W., in NE. angle of junction of T-rd. N., at SE. corner of bridge, on concrete wall; chiseled square-----	757. 65
Sparta, 0.3 mi. W. of, in SW. angle of crossroads, 16 ft. E. of concrete culvert; standard iron post with bronze cap stamped "1916 Mich 758" <sup>25</sup> -----	757. 832
Sparta, 0.3 mi. W., thence 0.7 mi. N. from, 0.25 mi. N. of E $\frac{1}{4}$ cor. sec. 15, T. 9 N., R. 12 W., in NW. angle of junction of T-rd. W., at corner of farmyard, in root of twin elm tree; copper nail and washer-----	767. 97
Sparta, 0.3 mi. W., thence 2.0 mi. N. from, in NW. cor. sec. 11, T. 9 N., R. 12 W., 30 ft. S. and 30 ft. E. from center of junction of T-rd. W., in root of 14-in. maple tree; copper nail and washer-----	800. 99
Sparta, 0.3 mi. W., thence 4.0 mi. N. from, 8.0 mi. W. of Cedar Springs, 2.0 mi. E. of Kent City, in NE. cor. sec. 34, T. 10 N., R. 12 W., in SW. angle of crossroads; standard iron post with bronze cap stamped "Mich 812" (recovered in 1928) <sup>25a</sup> -----	811. 355
Sparta, 0.3 mi. W., thence 4.0 mi. N. from, 8.0 mi. W. of Cedar Springs, 2.0 mi. E. of Kent City, 40 ft. S. and 41 ft. W. from NE. cor. sec. 34, T. 10 N., R. 12 W., in SW. angle of junction of T-rd., in concrete post; standard tablet stamped "Reset 1940" (established in 1940)-----	811. 395
Cedar Springs, 7.0 mi. W. of, at Block Tavern School, in NW. cor. sec. 36, T. 10 N., R. 12 W., in SE. angle of junction of T-rd. S., at corner of schoolyard, on boulder; chiseled square-----	783. 52
Rouge River, under bridge; surface of water May 27, 1916-----	754. 1
Duck Creek, under bridge; surface of water May 27, 1916-----	754. 8
Cedar Springs, 5.0 mi. W. of, at Christian Hill School, in NW. cor. sec. 32, T. 10 N., R. 11 W., in SE. angle of crossroads, at entrance to schoolhouse, on NW. corner of top concrete step; chiseled square-----	840. 44
Cedar Springs, 4.5 mi. W. of, near S $\frac{1}{4}$ cor. sec. 29, T. 10 N., R. 11 W., in NW. angle of junction of T-rd. N., 7 ft. W. of corner of stump fence; standard iron post with bronze cap stamped "Mich 826"-----	825. 843
From crossroads 2 miles east of Kent City north along roads into Grove quadrangle (by R. G. Clinite in 1916)	
T. 10 N., R. 12 W., at quarter corner between secs. 15 and 22, at center of crossroads, on stone marking quarter corner; highest point-----	793. 29
From Cedar Springs northeast along Grand Rapids & Indiana Railroad into Grove quadrangle (by E. C. Bibbee in 1916)	
Cedar Springs, in front of G. R. & I. R. R. sta.; top of rail-----	849. 0
From Grove quadrangle near Solon Center south along road 2.1 miles to cross road 3 miles west of Cedar Springs (by E. C. Bibbee in 1916)	
Solon Center, in NE. cor. sec. 21, T. 10 N., R. 11 W., in SW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1915 Mich 862"-----	861. 683

<sup>25</sup> In 1929 it was reported that this bench mark had been covered with dirt.

<sup>25a</sup> In May 1940 this bench mark was destroyed and was replaced by a standard tablet stamped "Reset 1940."

T. 10 N., R. 11 W., 220 ft. N. of SW. cor. sec. 22, on E. side of rd., at NW. corner of cemetery, in root on SW. side of 20-in. pine tree; copper nail and washer-----	Feet 857.49
From Ravenna quadrangle at point 2.2 miles north of Kent City along roads alternately east and south to crossroads 2 miles east of Kent City (by J. L. Buckmaster in 1928)	
Kent City, 1.0 mi. E., thence 2.0 mi. N. from, near SE. cor. sec. 16, T. 10 N., R. 12 W., 100 ft. N. of crossroads, on top of W. concrete head wall of culvert; chiseled square-----	806.90
Kent City, 1.0 mi. E., thence 0.9 mi. N. from, near NE. cor. sec. 28, T. 10 N., R. 12 W., 500 ft. S. of crossroads, on top of W. concrete head wall of culvert; chiseled square-----	821.84
Kent City, 1.0 mi. E. of, near SW. cor. sec. 27, T. 10 N., R. 12 W., 180 ft. E. of rd. junction, on W. end of N. stone head wall of culvert; chiseled square-----	795.54
Kent City, 2.0 mi. E. of, near NW. cor. sec. 35, T. 10 N., R. 12 W., 140 ft. S. and 15 ft. E. from junction of rd. S., in root on NW. side of 18-in. oak tree; copper nail and washer <sup>26</sup> -----	811.00
From Cedar Springs southeast along Grand Trunk Railway 1.4 miles, thence south along road 1.3 miles to cross road, thence east 1.6 miles into Smyrna quadrangle (by J. L. Buckmaster in 1928)	
Cedar Springs, 1.4 mi. along Grand Trunk Ry. SE. of, 0.25 mi. S. of quarter corner between secs. 31 and 32, T. 10 N., R. 10 W., 20 ft. W. of rd., on N. end of concrete culvert under R. R. track; chiseled square-----	857.29
Cedar Springs, 2.2 mi. S., thence 1.0 mi. by direct rd. E. from, near SE. cor. sec. 6, T. 9 N., R. 10 W., 220 ft. N. and 25 ft. W. from crossroads, in E. side of oak tree; spike <sup>27</sup> -----	868.96
T. 9 N., R. 10 W., near NE. cor. sec. 9, 15 ft. S. and 30 ft. E. from crossroads, on boulder; chiseled square-----	911.88
From Ravenna quadrangle near northeast corner sec. 5, T. 8 N., R. 12 W., east and north along roads 1.1 miles to point 2.3 miles west and 2.0 miles south of Sparta (by S. R. Archer in 1929)	
Ballards, 2.0 mi. W. of, in SW. cor. sec. 33, T. 9 N., R. 12 W., near Buck School, 50 ft. E. of junction of T-rd. N., on N. side of E.-W. improved county rd., on N. concrete head wall, 2 ft. W. of E. end of culvert; chiseled square-----	870.46
Ballards, 2.0 mi. W., thence 1.1 mi. N. from, in SW. cor. sec. 28, T. 9 N., R. 12 W., 80 ft. N. of junction of T-rd. E., at N. concrete abutment of bridge, on E. end of bridge seat; chiseled square <sup>28</sup> -----	849.00
From Smyrna quadrangle near north quarter corner sec. 21, T. 10 N., R. 10 W., generally west along roads to tracks of Grand Rapids & Indiana Railroad, thence northeast along railroad into Grove quadrangle (by S. R. Archer in 1929)	
T. 10 N., R. 10 W., 0.25 mi. N. of center of sec. 21, 95 ft. S. and 25 ft. W. from N.-S. quarter line crossing rd., 65 ft. S. and 25 ft. W. from fence corner, in timber, in root below triangular blaze on NE. side of 24-in. pine tree; copper nail and washer-----	886.14
T. 10 N., R. 10 W., 0.25 mi. S. of cor. secs. 16, 17, 20, and 21, on W. side of rd., opposite T-rd. E., on N. side of gate, in root below triangular blaze on E. side of 24-in. pine tree; copper nail and washer-----	882.25

<sup>26</sup> Established as a reference mark to principal bench mark stamped "Mich 812" and previously described.

<sup>27</sup> Established as a reference mark to principal bench mark stamped "Mich 859" and previously described.

<sup>28</sup> This bench mark replaces the one with elevation 851.75 feet, established in 1916.

T. 10 N., R. 10 W., in NW. cor. sec. 20, 60 ft. E. of rd. junction, on S. side of rd., 30 ft. E. of fence corner, in fence line, in root on NW. side of 24-in. oak tree; copper nail and washer-----	Feet 899. 45
T. 10 N., R. 10 W., near quarter corner between secs. 18 and 19, 60 ft. N. of T-rd. W., on W. side of concrete highway, in root below triangular blaze on SE. side of 36-in. oak tree; copper nail and washer----	887. 83

## CHESANING QUADRANGLE

[Latitude 43°00'-43°15'; longitude 84°00'-84°15']

## SAGINAW AND SHIAWASSEE COUNTIES

From Corunna quadrangle at point 5.5 miles east of Owosso along roads north to crossroads 1 mile north and 2.7 miles east from Chesaning, thence east 2 miles and north 3.2 miles into St. Charles quadrangle at point 0.4 mile south of McDonough Corners (by E.C. Bibbee in 1913)

Owosso, 5.9 mi. by rd. NE. of intersection of West Oliver and Mulberry Streets, 40 ft. N. and 30 ft. E. from SW. cor. sec. 12, T. 7 N., R. 3 E.; standard iron post with bronze cap stamped "750"-----	749. 307
T. 7 N., R. 3 E., near SE. cor. sec. 2, 100 ft. NW. of crossroads, at entrance to Young School, on SE. corner of first step; chiseled square-----	763. 41
T. 8 N., R. 3 E., near SE. cor. sec. 35, 10 ft. E. of NW. corner of crossroads, on large granite boulder; highest point-----	754. 31
T. 8 N., R. 3 E., 125 ft. NE. of SW. cor. sec. 25, at entrance to Hart School, on SW. corner of porch; chiseled square-----	748. 53
T. 8 N., R. 3 E., 0.25 mi. W. of SE. cor. sec. 26, in NE. angle of junction of T-rd. N.; standard iron post with bronze cap stamped "747"-----	745. 968
T. 8 N., R. 3 E., 400 ft. W. of SE. cor. sec. 23, on S. side of bridge over creek, on E. abutment; chiseled square-----	735. 75
T. 8 N., R. 3 E., 300 ft. N. of SE. cor. sec. 14, on top of W. end of stone arch culvert; chiseled square-----	733. 82
T. 8 N., R. 3 E., near SW. cor. sec. 12, at NE. corner of crossroads; standard iron post with bronze cap stamped "730"-----	729. 375
T. 8 N., R. 3 E., 480 ft. S. of NE. cor. sec. 11, in center of W. end of stone arch culvert; chiseled square-----	726. 17
Tps. 8 and 9 N., R. 3 E., at cor. secs. 1, 2, 35, and 36, on Saginaw-Shiawassee county line, in center of rd., on stone marking section corner; highest point-----	702. 79
T. 9 N., R. 3 E., near NE. cor. sec. 35, 3.2 mi. E. of Parshallburg, in SW. angle of crossroads, diagonally opposite Mills School; standard iron post with bronze cap stamped "689" (recovered in 1915)-----	688. 174
T. 9 N., R. 3 E., near NW. cor. sec. 25, 12 ft. SE. of crossroads, on S. side of bridge over ditch, on W. abutment; chiseled square-----	671. 80
T. 9 N., R. 3 E., near NW. cor. sec. 24, 1.0 mi. S. and 2.7 mi. E. from Michigan Central R. R. in Chesaning, 20 ft. SE. of center of crossroads, diagonally opposite Frink School, on S. side of bridge over ditch, on W. abutment; chiseled square-----	658. 85
Chesaning, 2.7 mi. E. of, near NE. cor. sec. 14, T. 9 N., R. 3 E., in SW. angle of crossroads, opposite Ginter School; standard iron post with bronze cap stamped "634"-----	632. 937
T. 9 N., R. 3 E., near SW. cor. sec. 1, 1.0 mi. N. and 2.7 mi. E. from Chesaning, 10 ft. NE. of corner of crossroads, on granite boulder; chiseled square-----	618. 69
T. 9 N., R. 4 E., 100 ft. E. of SW. cor. sec. 6, 20 ft. N. of center line of rd., in root of 24-in. white-oak tree; copper nail-----	620. 65

T. 9 N., R. 4 E., near SW. cor. sec. 5, in NE. angle of crossroads, opposite Albert School; standard iron post with bronze cap stamped "620"-----	<i>Feet</i> 619. 749
T. 9 N., R. 4 E., 300 ft. W. of NE. cor. sec. 6, at jog in N.-S. rd., on S. side of rd., opposite rd. N., 15 ft. N. of S. fence line, in root of white-oak tree; copper nail-----	611. 27
T. 10 N., R. 4 E., 30 ft. SW. of NE. cor. sec. 31, 1.5 mi. S. of McDonough Corners, near SW. corner of crossroads, on W. end of 4-ft. steel drain; top of flange-----	600. 04
McDonough Corners, 0.5 mi. S. of, near NW. cor. sec. 29, T. 10 N., R. 4 E., near SE. corner of crossroads, on S. end of 4-ft. steel drain; top of flange-----	595. 12
From St. Charles quadrangle at point 0.3 mile south of Fergus alternately south and west along roads by way of Oakley to Owosso, thence generally east to southwest corner sec. 12, T. 7 N., R. 3 E. (by E. C. Bibbee in 1915; leveled twice east of Owosso)	
Fergus, 0.5 mi. S., thence 0.5 mi. W. from, near S $\frac{1}{4}$ cor. sec. 20, T. 10 N., R. 3 E., in NW. angle of crossroads, in center of N. end of concrete culvert; chiseled square-----	606. 40
Fergus, 0.5 mi. S., thence 1.0 mi. W. from, 1.3 mi. W., thence 4.1 mi. N. from Chesaning, in NE. cor. sec. 30, T. 10 N., R. 3 E., near SW. corner of junction of T-rd. S., on S. end of concrete culvert; chiseled square-----	608. 27
Chesaning, 1.3 mi. W., thence 3.0 mi. N. from, near NW. cor. sec. 32, T. 10 N., R. 3 E., in SE. angle of crossroads, 200 ft. S. of Pioneer School, 6 ft. NW. of corner fence post, on large rock; chiseled square-----	617. 66
Chesaning, 1.3 mi. W., thence 2.5 mi. N. from, near E $\frac{1}{4}$ cor. sec. 31, T. 10 N., R. 3 E., in SW. angle of crossroads, 2 ft. E. of corner fence post, on large rock; chiseled square-----	619. 82
Chesaning, 1.3 mi. W., thence 1.5 mi. N. from, near W $\frac{1}{4}$ cor. sec. 5, T. 9 N., R. 3 E., in SE. angle of junction of T-rd. E., 2 ft. N. of fence line; standard iron post with bronze cap stamped "Mich 628"-----	628. 128
Chesaning, 1.3 mi. W., thence 1.0 mi. N. from, near NE. cor. sec. 7, T. 9 N., R. 3 E., 10 ft. NE. of SW. corner of crossroads, 2 ft. W. of wheel track, on large granite rock; chiseled square-----	633. 46
Chesaning, 1.3 mi. W. of, 100 ft. W. of SW. cor. sec. 7, T. 9 N., R. 3 E., near Dyer School, at NE. corner of iron bridge, on wing wall; chiseled square-----	641. 10
Chesaning, 1.3 mi. W., thence 1.0 mi. S. from, near SE. cor. sec. 18, T. 9 N., R. 3 E., on N. side of Peet Rd., opposite Ward School, on N. end of E. abutment of small bridge; chiseled square-----	649. 64
Chesaning, 1.3 mi. W., thence 2.0 mi. S. from, 1.0 mi. N., thence 1.0 mi. E. from Oakley, near SW. cor. sec. 20, T. 9 N., R. 3 E., 0.2 mi. SW. of Michigan Central R. R. track, 2 ft. N. of corner fence post; standard iron post with bronze cap stamped "Mich 668"-----	667. 871
Oakley, 1.0 mi. N. of, 50 ft. N. of SW. cor. sec. 19, T. 9 N., R. 3 E., in root of 30-in. poplar tree; copper nail and washer-----	675. 86
Oakley, about 1,000 ft. NE. of M. C. R. R. sta., in SE. angle of crossroads, 5 ft. W. of corner fence post, on N. end of W. side of concrete sidewalk; chiseled square (recovered by U. S. C. & G. S. in 1934)---	679. 372

Oakley, 1.0 mi. S. of, in SW. cor. sec. 31, T. 9 N., R. 3 E., near Saginaw-Shiawassee county line, in NE. angle of crossroads, in root of 24-in. ash tree; copper nail and washer.....	Feet 689. 50
Oakley, 2.0 mi. S. of, near NE. cor. sec. 12, T. 8 N., R. 2 E., in SW. angle of junction of T-rd. W.; standard iron post with bronze cap stamped "Mich 708".....	707. 187
Oakley, 3.0 mi. S. of, 1.4 mi. E., thence 1.0 mi. N. from Henderson, near NE. cor. sec. 13, T. 8 N., R. 2 E., at T-rd. W., on S. end of steel drain; highest point.....	718. 04
Shiawassee River, under bridge; surface of water July 9, 1915.....	668. 4
Henderson, 1.4 mi. E. of, near SE. cor. sec. 13, T. 8 N., R. 2 E., at jog in E.-W. rd., 2 ft. SW. of NW. corner of rd. W., on large granite rock; chiseled square.....	722. 70
Henderson, 1.4 mi. E., thence 1.0 mi. S. from, 4.1 mi. N., thence 0.9 mi. NE. from intersection of West Oliver and Mulberry Streets in Owosso, near NW. cor. sec. 30, T. 8 N., R. 3 E., at Five Points North, in SE. angle of crossroads, 4 ft. N. of corner fence post, on large granite rock; chiseled square.....	732. 99
Owosso, 3.8 mi. N. of, near S $\frac{1}{4}$ cor. sec. 25, T. 8 N., R. 2 E., opposite junction of T-rd. E., at NE. corner of cemetery, in SE. corner of yard of Goss School; standard iron post with bronze cap stamped "Mich 739".....	739. 374
Owosso, 2.8 mi. N. of, near S $\frac{1}{4}$ cor. sec. 36, T. 8 N., R. 2 E., opposite junction of T-rd. E., in root of 24-in. elm tree; copper nail and washer.....	744. 65
Owosso, 1.7 mi. N. of, 100 ft. N. of S $\frac{1}{4}$ cor. sec. 1, T. 7 N., R. 2 E., about 300 ft. N. of Green Meadow School, in wing wall at SW. corner of iron bridge, on large granite rock; chiseled square.....	736. 10
Owosso, at NE. corner of North West and Mulberry Streets, on large granite rock; chiseled square.....	749. 60
Owosso, at NW. corner of West Oliver and Mulberry Streets, at SE. corner of schoolyard, 2 in. W. of sewer grating, on circular concrete curb; chiseled square.....	749. 98
Owosso, at NW. corner of North Gould and East Oliver Streets, 10 ft. W. of Ann Arbor R. R. track, in root of 26-in. white-oak tree; copper nail and washer.....	749. 41
Owosso, 2.0 mi. NE. of, near center of sec. 17, T. 7 N., R. 3 E., 65 ft. W. of electric tower No. 263, on S. side of rd., 2 ft. N. of S. fence line, on large rock; chiseled square.....	759. 56
Owosso, 3.4 mi. NE. of, near S $\frac{1}{4}$ cor. sec. 9, T. 7 N., R. 3 E., on State pike, at SW. corner of bridge, on S. end of concrete wing wall; chiseled square.....	746. 33
Owosso, 4.4 mi. NE. of, near S $\frac{1}{4}$ cor. sec. 10, T. 7 N., R. 3 E., opposite junction of rd. S., in root of 12-in. hickory tree; copper nail and washer.....	757. 50
Owosso, 5.4 mi. NE. of, 200 ft. W. of S $\frac{1}{4}$ cor. sec. 11, T. 7 N., R. 3 E., opposite electric tower No. 229, on N. side of rd., 3 ft. S. of fence line, on large granite rock; chiseled square.....	755. 82
From Burt quadrangle at point 2 miles north and 0.5 mile west from Layton Corners along road west 1.5 miles to southwest corner sec. 5, T. 9 N., R. 4 E. (by E. C. Bibbee in 1915)	
Layton Corners, 2.0 mi. N., thence 1.0 mi. W. from, 125 ft. E. of SW. cor. sec. 4, T. 9 N., R. 4 E., 1 ft. S. of N. fence line, on large granite rock; chiseled square.....	636. 78

From crossroads 3.2 miles east of Parshallburg along roads west 2 miles, thence south 1 mile to Saginaw-Shiawassee county line, thence west to crossroads 1 mile south and 4 miles west from Oakley (by E. C. Bibbee in 1915)

Parshallburg, 2.2 mi. E. of, near SW. cor. sec. 26, T. 9 N., R. 3 E., at crossroads, 3 ft. SW. of NE. corner fence post, on large granite rock; chiseled square-----	Feet 684. 64
Parshallburg, 1.2 mi. E. of, near NW. cor. sec. 34, T. 9 N., R. 3 E., 200 ft. E. of SE. corner fence post, on S. side of small bridge, on W. abutment; chiseled square-----	674. 62
Parshallburg, 1.2 mi. E., thence 1.0 mi. S. from, 15 ft. S. and 25 ft. E. from N. cor. secs. 3 and 4, T. 8 N., R. 3 E., 15 ft. S. and 230 ft. E. from S. cor. secs. 33 and 34, T. 9 N., R. 3 E., near Saginaw-Shiawassee county line, 7 ft. NW. of SE. corner of junction of T-rd. S.; standard iron post with bronze cap stamped "Prim Trav Sta No 10 1915 Mich 697"-----	696. 076
Parshallburg, 1.0 mi. S. of, 1.0 mi. S., thence 1.8 mi. E. from Oakley, 0.25 mi. W. of NE. cor. sec. 5, T. 8 N., R. 3 E., about 300 ft. E. of junction of T-rd. N., 15 ft. NE. of SW. corner of junction of T-rd. S., on large stone over S. end of small culvert; chiseled square-----	693. 65
Oakley, 1.0 mi. S., thence 1.0 mi. E. from, 22 ft. SE. of NW. cor. sec. 5, T. 8 N., R. 3 E., 22 ft. SE. of center of junction of T-rd. S., on large granite rock; chiseled square-----	689. 92
Shiawassee River, under bridge; surface of water July 20, 1915-----	637. 4
Oakley, 1.0 mi. S., thence 1.0 mi. W. from, near SE. cor. sec. 35, T. 9 N., R. 2 E., 15 ft. S. and 80 ft. W. from corner fence post, on large granite rock; chiseled square-----	703. 05
Oakley, 1.0 mi. S., thence 2.0 mi. W. from, near NW. cor. sec. 2, T. 8 N., R. 2 E., 15 ft. S. of SE. corner of junction of T-rd. S., in root of 14-in. maple tree; copper nail and washer-----	724. 79
Oakley, 1.0 mi. S., thence 3.0 mi. W. from, near NW. cor. sec. 4, T. 8 N., R. 2 E., at jog in N.-S. rd., 3 ft. SE. of corner fence post, at SE. corner of junction of rd. S., on large granite rock; chiseled square---	730. 11
Oakley, 1.0 mi. S., thence 4.0 mi. W. from, in SW. cor. sec. 33, T. 9 N., R. 2 E., at jog in N.-S. rd., 75 ft. E. of junction of T-rd. N., 80 ft. W. of junction of T-rd. S., near N. fence line, in root of 8-in. wild-cherry tree; copper nail and washer-----	729. 40
From southeast corner sec. 23, T. 8 N., R. 3 E., along roads west 5 miles to crossroads 1 mile south and 1.4 miles east from Henderson (by E. C. Bibbee in 1915)	
T. 8 N., R. 3 E., near SW. cor. sec. 23, at NE. corner of crossroads, 2 ft. S. of telephone pole, on large granite rock; chiseled square-----	742. 31
T. 8 N., R. 3 E., near S $\frac{1}{4}$ cor. sec. 21, at NE. corner of crossroads, on W. end of concrete parapet; chiseled square-----	743. 94
T. 8 N., R. 3 E., near N $\frac{1}{4}$ cor. sec. 29, in NW. angle of junction of T-rd. S., on large granite rock; chiseled square-----	734. 99
T. 8 N., R. 3 E., in SE. cor. sec. 19, 2.4 mi. E., thence 1.0 mi. S. from Henderson, at entrance to church, on SE. corner of concrete porch; chiseled square-----	736. 31
From Elsie quadrangle at point 0.8 mile north and 3.7 miles west from Owosso along roads east 0.2 mile, thence north into St. Charles quadrangle at point 0.6 mile south and 1 mile west from Brant (by E. C. Bibbee in 1915)	
Owosso, 0.8 mi. N. and 3.5 mi. W. from, 200 ft. W. of NE. cor. sec. 17, T. 7 N., R. 2 E., 60 ft. E. of junction of rd. SE., on large granite rock; chiseled square-----	763. 79

T. 7 N., R. 2 E., near SE. cor. sec. 5, at crossroads, 10 ft. S. of NW. corner fence post, in N. end of box culvert; copper nail and washer.	<i>Feet</i> 746. 95
T. 7 N., R. 2 E., 125 ft. W. of NE. cor. sec. 5, about 700 ft. S. of Wolf Crossing on Ann Arbor R. R., at jog in N.-S. rd., in fence on S. side of rd., on large granite rock; chiseled square.	742. 88
T. 8 N., R. 2 E., near W $\frac{1}{4}$ cor. sec. 33, near junction of T-rd. W., 8 ft. S. of SW. corner fence post; standard iron post with bronze cap stamped "Mich 739"	738. 439
T. 8 N., R. 2 E., in NW. cor. sec. 33, near SE. corner of crossroads, on NE. corner of small bridge; nail head.	738. 36
T. 8 N., R. 2 E., 100 ft. S. of NE. cor. sec. 20, 4 ft. E. of E. fence line, in root of 16-in. elm tree; copper nail and washer.	736. 98
T. 8 N., R. 2 E., in SW. cor. sec. 9, at crossroads, 10 ft. N. and 1 ft. E. from NE. corner fence post, in root of 24-in. elm tree; copper nail and washer.	739. 57
T. 8 N., R. 2 E., 25 ft. S. and 15 ft. W. from cor. secs. 4, 5, 8, and 9, at SW. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 8 1915 Mich 740"	739. 519
T. 9 N., R. 2 E., near NW. cor. sec. 28, at crossroads, 1 ft. N. and 4 ft. E. from SE. corner fence post; standard iron post with bronze cap stamped "Mich 677"	676. 760
T. 9 N., R. 2 E., near NW. cor. sec. 21, 20 ft. NW. of SE. corner fence post, at S. end of small concrete bridge, on W. end of concrete parapet; chiseled square.	663. 60
T. 9 N., R. 2 E., near NE. cor. sec. 17, at SW. corner of crossroads, 4 ft. E. of corner fence post, on granite rock used for anchor rock; chiseled square.	656. 71
T. 9 N., R. 2 E., near NE. cor. sec. 8, at crossroads, 2 ft. N. and 5 ft. W. from SE. corner fence post; standard iron post with bronze cap stamped "Mich 637"	636. 573
T. 9 N., R. 2 E., near NW. cor. sec. 4, 1.0 mi. W., thence 3.0 mi. S. from Brant, at crossroads, 3 ft. W. of SE. corner fence post, on granite rock; chiseled square.	626. 91
Brant, 1.0 mi. W., thence 1.0 mi. S. from, near SE. cor. sec. 20, T. 10 N., R. 2 E., in NW. angle of junction of rd. W., 100 ft. N. of bridge over South Fork of Bad River; standard iron post with bronze cap stamped "Prim Trav Sta No 8 1913 Mich 618"	617. 187

COLDWATER QUADRANGLE <sup>29</sup>

[Latitude 41°45'-42°00'; longitude 85°00'-85°15']

## BRANCH COUNTY

From Sturgis quadrangle at point 5 miles east of Fawn River generally east along roads into Reading quadrangle at point 1 mile southeast of Kinderhook (by R. G. Clinite in 1913)

Fawn River, 5.5 mi. E. of, 8.6 mi. by rd. W. of East Gilead, 0.25 mi. N. and 0.25 mi. E. from center of sec. 9, T. 8 S., R. 8 W., in NW. angle of junction of rd. W., 120 ft. N. of brick schoolhouse, in root of 20-in. maple tree; copper nail and washer.	914. 91
East Gilead, 7.5 mi. W. of, at center of sec. 10, T. 8 S., R. 8 W., 38 ft. SW. of center of junction of T-rd. S., in root of 18-in. maple tree; copper nail and washer.	932. 66

<sup>29</sup> A narrow strip along the south boundary of this quadrangle lies in Indiana.



East Gilead, 7.0 mi. W. of, near W $\frac{1}{4}$ cor. sec. 11, T. 8 S., R. 8 W., in NE. angle of crossroads, 7 ft. N. of corner post; standard iron post with bronze cap stamped "Mich 933" (recovered in 1938)-----	Feet 932. 461
East Gilead, 4.8 mi. W. of, in SW. cor. sec. 7, T. 8 S., R. 7 W., in NE. angle of junction of rd. E., 50 ft. E. of corner post, in root of 36-in. oak tree; copper nail and washer-----	966. 70
East Gilead, 3.8 mi. W. of, 2.0 mi. S. of Gilead, in SE. cor. sec. 7, T. 8 S., R. 7 W., in NW. angle of crossroads, 6 ft. W. of corner post; standard iron post with bronze cap stamped "Mich 993"-----	992. 928
East Gilead, 2.8 mi. W. of, in SE. cor. sec. 8, T. 8 S., R. 7 W., 200 ft. W. of center of crossroads, in SW. corner of yard of West Gilead School, in root of 20-in. maple tree; copper nail and washer-----	996. 68
East Gilead, 1.8 mi. W. of, in SE. cor. sec. 9, T. 8 S., R. 7 W., in NW. angle of crossroads, 12 ft. S. of corner post, on headstone over end of culvert; bottom of chiseled square-----	961. 68
East Gilead, 0.8 mi. W. of, in NE. cor. sec. 15, T. 8 S., R. 7 W., in SW. angle of crossroads, in NE. corner of yard, at dwelling of Ira Taylor, in root of 18-in. hickory tree; copper nail and washer-----	961. 43
East Gilead, in NE. angle of crossroads, 70 ft. N. of Carroll store; standard iron post with bronze cap stamped "Mich 981" (recovered in 1938)-----	980. 500
East Gilead, 1.0 mi. E. of, 0.2 mi. W. of NE. cor. sec. 13, T. 8 S., R. 7 W., 50 ft. SE. of center of crossroads, in root of 12-in. maple tree; copper nail and washer-----	978. 46
East Gilead, 1.7 mi. E. of, at quarter corner between secs. 7 and 18, T. 8 S., R. 6 W., at center of junction of T-rd. S., on stone marking quarter corner; highest point-----	987. 38
East Gilead, 2.2 mi. E. of, 0.9 mi. S., thence 1.6 mi. W. from Kinderhook, near NW. cor. sec. 17, T. 8 S., R. 6 W., in SE. angle of junction of T-rd. S., at fence corner, in root of 15-in. maple tree; copper nail and washer-----	1, 005. 40
Kinderhook, 0.9 mi. S. of, near W. shore of Silver Lake, in NW. angle of junction of N.-S. rd., 12 ft. N. of corner post; standard iron post with bronze cap stamped "Mich 999"-----	999. 170
Silver Lake; surface of water Oct. 31, 1913-----	991. 5

From Union City quadrangle in Sherwood south along street 0.1 mile, thence east along street and road 7.3 miles to corner secs. 26, 27, 34, and 35, T. 5 S., R. 7 W., thence north 0.1 mile and back into Union City quadrangle (by C. H. Davey in 1917)

Sherwood, on E. side of street, 200 ft. N. of intersection, in front of brick hardware store of Hagleshaw & Swain, in S. end of second step from bottom; standard tablet stamped "1917 Mich 883"-----	882. 817
Sherwood, 0.8 mi. E. of, near N $\frac{1}{4}$ cor. sec. 34, T. 5 S., R. 8 W., in SW. angle of crossroads, near fence corner, on boulder; chiseled square-----	899. 32
Sherwood, 0.5 mi. S. and 1.5 mi. E. from, 0.25 mi. W. of center of sec. 35, T. 5 S., R. 8 W., in SE. angle of junction of T-rd. S., on boulder; chiseled square-----	908. 71
Sherwood, 0.5 mi. S. and 2.8 mi. E. from, near center of sec. 36, T. 5 S., R. 8 W., in SW. angle of junction of T-rd. S., in N. side of ditch, on granite boulder; chiseled square-----	904. 67
Sherwood, 4.1 mi. by rd. E. of, 0.2 mi. W. of SW. cor. sec. 30, T. 5 S., R. 7 W., in NE. angle of crossroads, 6 ft. W. of corner fence post, on granite boulder; chiseled square-----	929. 65

Sherwood, 4.5 mi. E. of, 0.2 mi. E. of NW. cor. sec. 31, T. 5 S., R. 7 W., at concrete bridge, in E. end of S. coping; standard tablet stamped "1917 Mich 907"-----	Feet 906. 996
Sherwood, 5.3 mi. E. of, near NW. cor. sec. 32, T. 5 S., R. 7 W., 20 ft. E. of crossroads, on S. end of stone culvert; chiseled square-----	928. 85
Sherwood, 6.3 mi. E. of, in NW. cor. sec. 33, T. 5 S., R. 7 W., in SE. angle of junction of T-rd. S., at foot of iron fence post, on rock; chiseled square-----	964. 44
Sherwood, 7.3 mi. E. of, 5.0 mi. S. of Union City, in SE. cor. sec. 28, T. 5 S., R. 7 W., in NW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 8 S 1917 Mich 977"-----	976. 843
Sherwood, 8.3 mi. E. of, 1.0 mi. S. and 2.0 mi. W. from Hodunk, in NW. cor. sec. 35, T. 5 S., R. 7 W., at T-junction of N.-S. rd., on E. side of rd., opposite rd. W., 3 ft. W. of N.-S. fence, 10 ft. S. of E.-W. fence, on rock; chiseled square-----	945. 86
From Turkey Lake quadrangle (Indiana) at point near west side of Lake Pleasant west about 5 miles along roads near Indiana-Michigan State line, thence south and back into Turkey Lake quadrangle (by C. S. Wells in 1937)	
East Gilead, 1.8 mi. W. and 1.5 mi. S. from, 3.9 mi. NW. of Nevada Mills, Ind., near SE. cor. fractional sec. 22, T. 8 S., R. 7 W., on Indiana-Michigan State line, 50 ft. E. of junction of rd. N., on top of small boulder; chiseled square-----	964. 82
[Line jogs into Indiana]	
T. 8 S., R. 7 W., near SW. cor. fractional sec. 19, 2.0 mi. N. of Orland, Ind., along Indiana State Highway 327, 560 ft. E. of T-rd. N., 16 ft. NE. of Indiana-Michigan State-line marker, in concrete post; standard tablet stamped "W 38 1937 975"-----	975. 549
Reference mark, 480 ft. W. of tablet, 60 ft. SE. of junction of rd. N., in root of 24-in. oak tree; copper nail and washer-----	966. 08
T. 8 S., R. 8 W., near SE. cor. fractional sec. 23, 2.0 mi. N., thence 1.2 mi. W. from Orland, Ind., 35 ft. NW. of junction of rd. N., in root of 24-in. elm tree; copper nail and washer-----	965. 13
T. 8 S., R. 8 W., near SE. cor. fractional sec. 22, 2.0 mi. N., thence 2.3 mi. W. from Orland, Ind., 60 ft. NE. of junction of rd. S., in root of 36-in. elm tree; copper nail and washer-----	936. 54
From point near west side of Lake George west 1.5 miles along road near Indiana-Michigan State line (by C. S. Wells in 1937)	
[A jog from Turkey Lake quadrangle]	
East Gilead, 1.5 mi. S. and 1.7 mi. E. from, 2.0 mi. W., thence 1.0 mi. N. from Crooked Creek, Ind., on E. side of rd., at Indiana-Michigan State-line sign, in base of 24-in. oak tree; rail spike-----	1, 010. 05
From Indiana-Michigan State line at point 2 miles west of southeast corner of Noble Township north along road 2 miles to west quarter corner sec. 11, T. 8 S., R. 8 W. (by C. S. Wells in 1938)	
Gilead, 2.5 mi. S. and 3.0 mi. W. from, near E $\frac{1}{4}$ cor. sec. 15, T. 8 S., R. 8 W., 1.0 mi. N. of Indiana-Michigan State line, on W. side of rd., at NE. corner of woods, in root of 36-in. maple tree; rail spike-----	952. 31
From Indiana-Michigan State line near east side of Lake Pleasant northwest along road to East Gilead (by C. S. Wells in 1938)	
East Gilead, 1.3 mi. S. of, 2.3 mi. N. of Nevada Mills, Ind., 0.25 mi. N. of NE. end of Lake Pleasant, on W. side of rd., on top of concrete head wall of culvert; chiseled square-----	974. 40

## CORUNNA QUADRANGLE

[Latitude 42°45'-43°00'; longitude 84°00'-84°15']

## INGHAM, LIVINGSTON, AND SHIAWASSEE COUNTIES

From Fowlerville quadrangle at point near west quarter corner sec. 7, T. 4 N., R. 4 E., along roads north to Livingston-Shiawassee county line, thence west 1 mile, thence generally north by way of Bancroft into Chesaning quadrangle at point 5.5 miles east of Owosso (by E. C. Bibbee in 1913)

Nicholson, 4.0 mi. E., thence 1.9 mi. S. from, near W $\frac{1}{4}$ cor. sec. 7, T. 4 N., R. 4 E., at E. side of iron bridge over Conway-Cohoctah Drain, on S. abutment; chiseled square-----	875. 93
Nicholson, 4.0 mi. E., thence 0.9 mi. S. from, 20 ft. E. of W $\frac{1}{4}$ cor. sec. 6, T. 4 N., R. 4 E., 150 ft. N. of dwelling of E. H. Young, opposite T-rd. W., in root of oak tree; copper nail-----	885. 73
Nicholson, 3.0 mi. E. of, 7.4 mi. by rd. S. of schoolhouse in Bancroft, 50 ft. N. of SE. cor. sec. 35, T. 5 N., R. 3 E., about 50 ft. N. of Livingston-Shiawassee county line, on W. side of rd., at junction of T-rd. N.; standard iron post with bronze cap stamped "895" (recovered in 1926)-----	894. 064
Bancroft, 6.4 mi. S. of, near SE. cor. sec. 26, T. 5 N., R. 3 E., at NE. corner of small bridge, on rock; chiseled square-----	860. 60
Bancroft, 5.9 mi. S. of, near S $\frac{1}{4}$ cor. sec. 26, T. 5 N., R. 3 E., opposite T-rd. N., in root of 60-in. elm tree; copper nail-----	880. 56
Bancroft, 4.9 mi. S. of, near N $\frac{1}{4}$ cor. sec. 26, T. 5 N., R. 3 E., on concrete base of corner fence post; chiseled square-----	883. 61
Bancroft, 3.9 mi. S. of, near S $\frac{1}{4}$ cor. sec. 14, T. 5 N., R. 3 E., 200 ft. N. of dwelling of W. L. Scribner, on E. side of rd.; standard iron post with bronze cap stamped "876"-----	875. 081
Bancroft, 2.9 mi. S. of, 260 ft. E. of N $\frac{1}{4}$ cor. sec. 14, T. 5 N., R. 3 E., in root of 24-in. black-oak tree; copper nail-----	866. 70
Bancroft, 1.6 mi. S. of, near NW. cor. sec. 12, T. 5 N., R. 3 E., on concrete base of corner fence post; chiseled square-----	855. 82
Bancroft, 1.0 mi. S. of, near E $\frac{1}{4}$ cor. sec. 2, T. 5 N., R. 3 E., at W. side of iron bridge over ditch, on N. abutment; chiseled square----	844. 03
Bancroft, 400 ft. E. of school, at NE. corner of crossroads; standard iron post with bronze cap stamped "844" (recovered in 1926)-----	843. 851
Bancroft, 1.1 mi. N. of, 0.2 mi. W. of E $\frac{1}{4}$ cor. sec. 26, T. 6 N., R. 3 E., at SW. corner of crossroads, in center of E. end of water trough; chiseled square-----	838. 85
Bancroft, 2.4 mi. N. of, 0.1 mi. S. and 0.2 mi. W. from NE. cor. sec. 23, T. 6 N., R. 3 E., 300 ft. N. of dwelling of N. P. Harder, opposite T-rd. E., on W. side of rd., in fence line, on large boulder; chiseled square-----	836. 89
Bancroft, 3.2 mi. NW. of, 2.4 mi. SW., thence 0.8 mi. S. from Vernon, near center of sec. 14, T. 6 N., R. 3 E., 25 ft. S. of rd., in root of 24-in. white-oak tree; copper nail-----	833. 05
Vernon, 2.4 mi. SW. of, at Shiawassee town, near center of sec. 11, T. 6 N., R. 3 E., in SW. angle of junction of T-rd. W.; standard iron post with bronze cap stamped "818"-----	817. 839
Vernon, 2.3 mi. NW., thence 0.3 mi. S. from, 2.5 mi. E., thence 2.5 mi. S. from Corunna, in SE $\frac{1}{4}$ sec. 2, T. 6 N., R. 3 E., 460 ft. N. of Shiawassee River, on E. side of iron bridge over Maple River, on S. abutment; chiseled square-----	771. 03

Corunna, 2.5 mi. E., thence 2.2 mi. S. from, 0.3 mi. W. of center of sec. 2, T. 6 N., R. 3 E., at S. end of 2-ft. steel drain, in center of concrete head wall; chiseled square-----	Feet 778. 77
Corunna, 2.5 mi. E., thence 1.5 mi. S. from, 25 ft. N. of SE. cor. sec. 35, T. 7 N., R. 3 E., in root of 30-in. tree; copper nail-----	795. 17
Corunna, 2.5 mi. E., thence 0.5 mi. S. from, in SW. cor. sec. 25, T. 7 N., R. 3 E., at NE. corner of crossroads; standard iron post with bronze cap stamped "756"-----	755. 748
Corunna, 2.5 mi. E. of, near E $\frac{1}{4}$ cor. sec. 26, T. 7 N., R. 3 E., 20 ft. S. of SE. corner of bridge over Shiawassee River, on retaining wall; chiseled square-----	748. 36
Shiawassee River; surface of water July 28, 1913-----	736. 0
Corunna, 2.5 mi. E., thence 1.3 mi. N. from, 5.5 mi. E., thence 0.2 mi. S. from Owosso, 0.25 mi. S. of NE. cor. sec. 23, T. 7 N., R. 3 E., 300 ft. S. of Kincades elevator, at NW. corner of crossroads, on large sandstone rock; chiseled square-----	761. 82
Owosso, 5.5 mi. E. of, in NE. cor. sec. 23, T. 7 N., R. 3 E., at entrance to Kerby School, in NE. corner of porch; nail head (not recovered in 1926)-----	766. 53
From Chesaning quadrangle at point 5.5 miles east of Owosso along road south 0.3 mile, thence east 3.5 miles along roads and State Highway 21 into Durand quadrangle (by E. C. Bibbee in 1915)	
T. 7 N., R. 3 E., 0.25 mi. S. and 0.25 mi. W. from NE. cor. sec. 24, on N. side of rd., in fence line, in root of 20-in. maple tree; copper nail and washer-----	758. 81
T. 7 N., R. 3 E., 0.25 mi. N. of E $\frac{1}{4}$ cor. sec. 24, in NW. angle of junction of N.-S. rd., on large rock; highest point-----	764. 43
T. 7 N., R. 4 E., 520 ft. W. of SE. cor. sec. 18, 50 ft. W. of SW. corner of yard of Martin School, 4 ft. S. of N. fence line, in root of 18-in. oak tree; copper nail and washer-----	783. 19
T. 7 N., R. 4 E., near NE. cor. sec. 20, on E. end of parapet over S. end of brick arch culvert; chiseled square-----	756. 38
From Chesaning quadrangle at point in Owosso south along street 0.2 mile, thence west along State Highway 21 and road into Laingsburg quadrangle (by E. C. Bibbee in 1915) <sup>30</sup>	
Owosso, 1 ft. E. of NE. corner of public library; standard iron post with bronze cap stamped "727" (recovered in 1926)-----	726. 879
Owosso, on West Main Street, 75 ft. E. of Michigan Central R. R. crossing, 3 ft. E. of sewer basin, on N. curb; chiseled square (recovered in 1926)-----	740. 64
Owosso, 1.5 mi. W. of library, in SE. cor. sec. 15, T. 7 N., R. 2 E., at entrance to schoolhouse, on SE. corner of concrete porch; chiseled square-----	788. 58
Owosso, 2.5 mi. W. of, in SW. cor. sec. 15, T. 7 N., R. 2 E., at entrance to town hall, on SW. corner of concrete porch; chiseled square (recovered in 1921)-----	782. 15
Owosso, 3.5 mi. W. of, near SE. cor. sec. 17, T. 7 N., R. 2 E., on N. side of rd., opposite T-rd. S., 5 ft. S. of fence line; standard iron post with bronze cap stamped "Prim Trav Sta No 6 1915 Mich 770"-----	770. 904

<sup>30</sup> This line passes through the northeast corner of Laingsburg quadrangle for a distance of 300 feet. No bench marks were established along this line in either Laingsburg or Elsie quadrangle.

From Owosso along roads south to crossroads 2 miles east of Pittsburg, thence west along road and State Highway 104 into Laingsburg quadrangle (by H. S. Senseney in 1926)

Owosso, at SW. corner of Chipman and South Streets, on culvert; chiseled square-----	Feet 746. 12
Owosso, 1.7 mi. S. of West Main Street in, 0.4 mi. N. of SW. cor. sec. 25, T. 7 N., R. 2 E., 120 ft. N. of crossroads, on W. side of rd., at fence corner, in concrete post; standard tablet stamped "1 1926"-----	776. 277
Reference mark, 200 ft. S. of tablet, on culvert; chiseled square-----	774. 74
Owosso, 3.0 mi. S. of, 0.2 mi. W. of NE. cor. sec. 2, T. 6 N., R. 2 E., near S. cor. secs. 35 and 36, T. 7 N., R. 2 E., near junction of E.-W. rd., on S. side of rd., on culvert; chiseled square-----	789. 34
Owosso, 3.0 mi. S., thence 0.2 mi. E. from, 0.2 mi. E. of SW. cor. sec. 36, T. 7 N., R. 2 E., near N. cor. secs. 1 and 2, T. 6 N., R. 2 E., 40 ft. W. of junction of T-rd. S., on N. side of rd., in root of tree; copper nail and washer-----	787. 21
Owosso, 4.3 mi. by rd. S. of, 0.3 mi. E. of Bennington, diagonally opposite Bennington Township School No. 6, in NE. cor. sec. 11, T. 6 N., R. 2 E., 35 ft. S. and 30 ft. W. from crossroads, in concrete post; standard tablet stamped "2 1926"-----	807. 544
Reference mark, 120 ft. NE. of tablet, in root of tree; copper nail and washer-----	809. 50
Owosso, 5.3 mi. S. of, 2.0 mi. E., thence 2.0 mi. N. from Pittsburg, near SE. cor. sec. 11, T. 6 N., R. 2 E., 30 ft. N. of junction of T-rd. W., on W. side of rd., on culvert; chiseled square-----	811. 27
Pittsburg, 2.0 mi. E., thence 1.0 mi. N. from, in NW. cor. sec. 24, T. 6 N., R. 2 E., 300 ft. S. of junction of T-rd. W., on E. side of rd., on culvert; chiseled square-----	837. 86
Pittsburg, 2.0 mi. E., thence 0.1 mi. N. from, about 600 ft. N. of SW. cor. sec. 24, T. 6 N., R. 2 E., in SE. angle of junction of rd. NE., on culvert; chiseled square-----	864. 39
Pittsburg, 2.0 mi. E. of, in SE. cor. sec. 23, T. 6 N., R. 2 E., 25 ft. N. and 25 ft. W. from crossroads, 18 ft. W. of Michigan Electric R. R. <sup>51</sup> track; standard iron post with bronze cap stamped "Prim Trav Sta No 20 RS 1920 Mich"-----	854. 808
Pittsburg, 1.0 mi. E. of, in NE. cor. sec. 27, T. 6 N., R. 2 E., near SW. corner of crossroads, on culvert; chiseled square-----	852. 37
Pittsburg, near SW. corner of crossroads at, in NE. cor. sec. 28, T. 6 N., R. 2 E., on culvert; chiseled square-----	857. 56
Pittsburg, 1.1 mi. W. of, 430 ft. W. of SE. cor. sec. 20, T. 6 N., R. 2 E., at rd. fork, on N. side of rd., at corner of yard of farmhouse; standard iron post with bronze cap stamped "Prim Trav Sta No 19 RS 1920 Mich"-----	849. 835
Reference mark, 220 ft. E. of standard post, on N. side of rd., on culvert; chiseled square-----	847. 23

From point 2 miles east and 0.1 mile north from Pittsburg northeast and southeast along road to Bancroft (by H. S. Senseney in 1926)

Pittsburg, 3.0 mi. E., thence 0.4 mi. N. from, 5.8 mi. by rd. NW. of Bancroft, about 500 ft. S. of E¼ cor. sec. 24, T. 6 N., R. 2 E., at NW. corner of crossroads, on culvert; chiseled square-----	869. 60
Bancroft, 4.8 mi. NW. of, near E¼ cor. sec. 19, T. 6 N., R. 3 E., 50 ft. W. of junction of T-rd. N., on S. side of rd., on culvert; chiseled square-----	852. 53

<sup>51</sup> This railroad is now abandoned.

Bancroft, 3.8 mi. NW. of, near W $\frac{1}{4}$ cor. sec. 21, T. 6 N., R. 3 E., in NE. angle of rd. junction; standard iron post with bronze cap stamped "Prim Trav Sta No 21 RS 1920 Mich"-----	<i>Feet</i> 857. 061
Reference mark, 60 ft. W. of standard post, in root of tree; copper nail and washer-----	856. 68
Bancroft, 2.7 mi. NW. of, about 900 ft. N. of SW. cor. sec. 22, T. 6 N., R. 3 E., in NE. angle of junction of rd. N., on culvert; chiseled square-----	851. 04
Bancroft, 1.7 mi. NW. of, 0.2 mi. S. of NE. cor. sec. 27, T. 6 N., R. 3 E., in NW. angle of crossroads; in root of tree; copper nail and washer-----	858. 41
Bancroft, near N. limits of, in front of dwelling of Julius Furman, on N. end of sidewalk; chiseled square-----	853. 68
Bancroft, 550 ft. E. of Grand Trunk Ry. sta., on East Street, on S. side of track, 7 ft. E. of sidewalk; standard iron post with bronze cap stamped "Prim Trav Sta No 22 RS 1920 Mich"-----	854. 011
From crossroads 2 miles east of Pittsburg generally south along road by way of Morrice into Fowlerville quadrangle (by H. S. Senseney in 1928; leveled twice)	
Pittsburg, 2.0 mi. E., thence 1.0 mi. S. from, 2.7 mi. N. of Morrice, near NE. cor. sec. 35, T. 6 N., R. 2 E., at bridge over Lookingglass River, on W. end of S. abutment; chiseled square-----	833. 20
Morrice, 1.7 mi. N. of, near W. cor. secs. 1 and 36, Tps. 5 and 6 N., R. 2 E., on E. side of rd., opposite T-rd. W., on culvert; chiseled square-----	854. 28
Morrice, 0.7 mi. N. of, in NW. cor. sec. 12, T. 5 N., R. 2 E., 25 ft. S. and 80 ft. E. from crossroads, in concrete post; standard tablet stamped "3 1926"-----	877. 754
Reference mark, 16 ft. W. of tablet, in root of tree; copper nail and washer-----	877. 72
Morrice, near S. limits of, in SE. cor. sec. 11, T. 5 N., R. 2 E., in NW. angle of crossroads, in root of tree; copper nail and washer-----	888. 48
Morrice, 1.3 mi. S. of, near NW. cor. sec. 24, T. 5 N., R. 2 E., 40 ft. S. of E.-W. fence line, on E. side of rd., in root of tree; copper nail and washer-----	886. 83
Morrice, 2.3 mi. S. of, in NW. cor. sec. 25, T. 5 N., R. 2 E., 45 ft. S. and 25 ft. E. from crossroads, in concrete post; standard tablet stamped "4 1926"-----	897. 890
Reference mark, 14 ft. S. of tablet, in root of tree; copper nail and washer-----	898. 65
Morrice, 3.3 mi. S. of, in SW. cor. sec. 25, T. 5 N., R. 2 E., in NE. angle of junction of E.-W. rd., on concrete block; chiseled square-----	898. 65
Morrice, 3.3 mi. S., thence 0.2 mi. E. from, 1.0 mi. N. and 2.8 mi. W. from Nicholson, 0.2 mi. E. of NW. cor. sec. 36, T. 5 N., R. 2 E., in SE. angle of junction of T-rd. S., in root of tree; copper nail and washer-----	915. 18
Nicholson, 2.8 mi. W. of, 0.2 mi. E. of NW. cor. sec. 1, T. 4 N., R. 2 E., at Ingham-Shiawassee county line, near SE. corner of crossroads, on culvert; chiseled square-----	914. 52
Nicholson, 2.8 mi. W. and 1.3 mi. S. from, 0.2 mi. E. of NW. cor. sec. 12, T. 4 N., R. 2 E., in SW. angle of junction of T-rd. W., in concrete post; standard tablet stamped "5 1926"-----	908. 138
Reference mark, 16 ft. NE. of tablet, on culvert; chiseled square----	907. 34

From road junction 3.3 miles south and 0.2 mile east from Morrice alternately east and south along roads and Livingston-Shiawassee county-line road to road junction 3 miles east of Nicholson (by H. S. Senseney in 1926)

Morrice, 3.3 mi. S., thence 1.0 mi. E. from, 2.0 mi. W. and 1.0 mi. N. from Nicholson, in NE. cor. sec. 31, T. 5 N., R. 2 E., in SW. angle of crossroads, on boulder; chiseled square-----	<i>Feet</i> 916. 34
Nicholson, 1.0 mi. W., thence 0.8 mi. N. from, 0.2 mi. S. of NW. cor. sec. 32, T. 5 N., R. 3 E., on E. side of rd., in root of tree; copper nail and washer-----	908. 92
Nicholson, 1.0 mi. W. of, 150 ft. N. of SW. cor. sec. 32, T. 5 N., R. 3 E., on E. side of rd., in root of tree; copper nail and washer-----	924. 05
Nicholson, 9 ft. E. of SW. corner of Methodist Episcopal Church, near SW. cor. sec. 33, T. 5 N., R. 3 E., in NE. angle of crossroads, in concrete post; standard tablet stamped "6 1926"-----	897. 963
Reference mark, 29 ft. NW. of NW. corner of church, in root of tree; copper nail and washer-----	896. 35
Nicholson, 0.8 mi. E. of, 0.2 mi. W. of SE. cor. sec. 33, T. 5 N., R. 3 E., 120 ft. W. of junction of T-rd. N., on N. side of rd., in root of tree; copper nail and washer-----	901. 99
Nicholson, 1.5 mi. E. of, near S $\frac{1}{4}$ cor. sec. 34, T. 5 N., R. 3 E., 100 ft. E. of crossroads, on N. side of rd., in root of tree; copper nail and washer-----	890. 77

#### DETROIT QUADRANGLE

[Latitude 42°15'-42°30'; longitude 83°00'-83°15']

#### MACOMB, OAKLAND, AND WAYNE COUNTIES

From Plymouth quadrangle at point 0.9 mile north and 0.4 mile east from Sand Hill along roads east 0.6 mile, thence north 2 miles to Ninemile Road, thence east into Grosse Pointe quadrangle (by Fulton Pace in 1903)

Sand Hill, 1.9 mi. N., thence 1.0 mi. E. from, in SE. cor. sec. 34, T. 1 N., R. 10 E., in NW. angle of crossroads, in front yard of dwelling of William Young, in root of maple tree; nail-----	658. 80
Sand Hill, 2.9 mi. N., thence 1.0 mi. E. from, 5.4 mi. W. of intersection of Woodward Avenue in Ferndale, in NE. cor. sec. 34, T. 1 N., R. 10 E., in SW. angle of crossroads, in front of dwelling of D. Boylan; standard iron post with bronze cap stamped "Gibraltar 668" (recovered in 1936)-----	668. 214
Reference mark, in SE. angle of crossroads, in root of maple tree; nail-----	668. 46
Ferndale, 2.4 mi. W. of, in NE. cor. sec. 31, T. 1 N., R. 11 E., in SW. angle of crossroads, in root of small hickory tree; nail-----	664. 70
Ferndale, 1.9 mi. W. of, 1.8 mi. S., thence 1.5 mi. W. from Royal Oak, near S $\frac{1}{4}$ cor. sec. 29, T. 1 N., R. 11 E., in NW. angle of crossroads; standard iron post with bronze cap stamped "Gibraltar 664"-----	663. 894
Ferndale, in SE. angle of intersection of Woodward Avenue; standard iron post with bronze cap stamped "Gibraltar 650" <sup>32</sup> -----	649. 302
Ferndale, 0.6 mi. E. of, in SW. cor. sec. 26, T. 1 N., R. 11 E., 300 ft. E. of crossing of Grand Trunk Ry., in NE. angle of crossroads, in root of maple tree; nail-----	637. 33
Ferndale, 1.6 mi. E. of, in SE. cor. sec. 26, T. 1 N., R. 11 E., in NW. angle of crossroads, in root of maple tree; nail-----	636. 08

<sup>32</sup> This post is now 18 inches below the sidewalk; an 18-inch section of 6-inch iron pipe is over the top of the post, the top of the pipe being flush with the walk and covered with a cast-iron cover marked "Water."

Ferndale, 2.6 mi. E. of, 1.0 mi. S., thence 3.0 mi. W. from Centerline, in SW. cor. sec. 30, T. 1 N., R. 12 E., in NE. angle of intersection of Macomb-Oakland county-line rd.; standard iron post with bronze cap stamped "Gibraltar 632" <sup>33</sup> -----	Feet 631. 216
Centerline, 1.0 mi. S., thence 1.0 mi. W. from, in NE. cor. sec. 32, T. 1 N., R. 12 E., 0.4 mi. W. of crossing of Michigan Central R. R., in SW. angle of crossroads, in root of maple tree; nail-----	626. 59
Centerline, 1.0 mi. S., thence 0.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 28, T. 1 N., R. 12 E., in SE. angle of crossroads, in root of large elm tree; nail-----	628. 49
Centerline, 1.0 mi. S. of, 3.5 mi. W. of Halfway, in NW. cor. sec. 34, T. 1 N., R. 12 E., in SE. angle of intersection of Mount Olivet Street; standard iron post with bronze cap stamped "Gibraltar 626" <sup>34</sup> -----	625. 391
Halfway, 2.5 mi. W. of, in NE. cor. sec. 34, T. 1 N., R. 12 E., near Warren Township School No. 5, in SW. angle of crossroads, in root of maple tree; nail-----	624. 81
From Fort Wayne in Detroit northwest and west along streets to center of sec. 6, T. 2 S., R. 11 E., thence along roads north 0.5 mile, thence west 3.2 miles into Plymouth quadrangle (by Fulton Pace in 1903)	
Detroit; in SW. quarter of grounds of Fort Wayne, 20 in. E. of vertical center line of riverward side of building No. 60 (officers' quarters), 3.5 ft. above ground, in center of water table course; center of brass bolt leaded horizontally and marked "U S P B M" (U. S. Lake Survey B. M. No. 8; recovered in 1936)-----	600. 990
Detroit, at SW. corner of intersection of Livernois and Michigan Avenues, 3 ft. directly in front of front door of saloon of L. S. Field, 6 in. above sidewalk, on top of base stone; unmarked point-----	595. 58
Detroit, at intersection of Holden and Livernois Avenues; standard iron post with bronze cap stamped "Gibraltar 610"-----	609. 750
Detroit, at intersection of Holden Avenue and N.-S. rd., 3.0 mi. S. and 1.0 mi. E. from Greenfield, near quarter corner between secs. 5 and 6, T. 2 S., R. 11 E.; standard iron post with bronze cap stamped "Gibraltar 610"-----	609. 153
Greenfield, 2.5 mi. S., thence 1.0 mi. W. from, in NE. cor. sec. 2, T. 2 S., R. 10 E., in SW. corner of crossroads, at NE. corner of church, in second brick in seventh row from foundation; nail-----	617. 12
Greenfield, 2.5 mi. S., thence 2.5 mi. W. from, near S $\frac{1}{4}$ cor. sec. 34, T. 1 S., R. 10 E., on N. side of rd., in front of dwelling of Mrs. J. Neverman, in root of large oak tree; nail-----	621. 02
From Rochester quadrangle at point 1.8 miles south and 1 mile east from Warren south along Van Dyke Road to Ninemile Road, thence west to Macomb-Oakland county line, thence alternately north and east along roads and back into Rochester quadrangle at point 1.8 miles south of Warren (by H. S. Senseney in 1926)	
Warren, 2.4 mi. S., thence 1.0 mi. E. from, 1.0 mi. N. of Centerline, in NE. cor. sec. 21, T. 1 N., R. 12 E., at SW. corner of intersection of Elevenmile Rd., on W. end of curb; chiseled square-----	622. 42
Centerline, at SE. corner of intersection of Tenmile Rd., in NW. cor. sec. 27, T. 1 N., R. 12 E., on E. end of curb; chiseled square-----	627. 38

<sup>33</sup> In 1926 the elevation of this bench mark was found to be 0.619 feet lower than that originally determined. The figures given represent the new elevation.

<sup>34</sup> In 1926 this bench mark was found badly bent and was replaced by the standard tablet stamped "12: S 1926."



Centerline, 80 ft. N. and 125 ft. E. from intersection of Tenmile Rd., in SW. cor. sec. 22, T. 1 N., R. 12 E., on W. side of fence, in concrete post; metal tablet stamped "9" (Macomb County B. M.)-----	<i>Feet</i> 626. 461
Van Dyke, at SE. corner of intersection of Ninemile Rd., in NW. cor. sec. 34, T. 1 N., R. 12 E., in angle of sidewalk, set flush, in concrete post; standard tablet stamped "12 S 1926" <sup>35</sup> -----	624. 912
Reference mark, at SE. corner of intersection, on E. end of curb; chiseled square-----	624. 77
Van Dyke, 1.0 mi. W. of, in SE. cor. sec. 29, T. 1 N., R. 12 E., 440 ft. W. of crossroads, on N. side of rd. at Hartsig Drain, on culvert; chiseled square-----	625. 50
Van Dyke, 2.0 mi. W. of, in SW. cor. sec. 29, T. 1 N., R. 12 E., in NE. angle of intersection of Ryan Rd., in root of tree; copper nail and washer-----	628. 15
Van Dyke, 3.0 mi. W., thence 1.0 mi. N. from, 3.0 mi. W. of Centerline, in SE. cor. sec. 24, T. 1 N., R. 11 E., on W. side of Macomb-Oakland county line, at NW. corner of intersection of Tenmile Rd., on pavement; chiseled square-----	630. 82
Centerline, 2.0 mi. W. of, in SE. cor. sec. 19, T. 1 N., R. 12 E., at NW. corner of intersection of Ryan Rd., on W. end of N. abutment of culvert; chiseled square-----	621. 29
Centerline, 2.0 mi. W. of, in NW. cor. sec. 29, T. 1 N., R. 12 E., 115 ft. S. and 25 ft. E. from intersection of Ryan Rd., in concrete post; metal tablet stamped "10" (Macomb County B. M.)-----	621. 741
Centerline, 2.0 mi. W., thence 1.0 mi. N. from, in SE. cor. sec. 18, T. 1 N., R. 12 E., at NW. corner of intersection of Elevenmile Rd., on pavement; chiseled square-----	624. 95
Centerline, 1.0 mi. N., thence 1.0 mi. W. from, in SW. cor. sec. 16, T. 1 N., R. 12 E., 130 ft. N. of junction of T-rd. N., on E. side of rd., in root of tree; copper nail and washer-----	613. 44
Centerline, 1.0 mi. N., thence 1.0 mi. W. from, 2.3 mi. S., thence 1.0 mi. W. from Warren, in NW. cor. sec. 21, T. 1 N., R. 12 E., 100 ft. S. and 80 ft. E. from junction of T-rd. N., 2 ft. W. of N.-S. sidewalk, in concrete post; metal tablet stamped "11" (Macomb County B. M.)-----	613. 746
From Grosse Pointe quadrangle west along Tenmile Road 1.4 miles to Centerline (by H. S. Senseney in 1926)	
Centerline, 1.0 mi. E. of, in SE. cor. sec. 22, T. 1 N., R. 12 E., at NW. corner of crossroads, on culvert; chiseled square-----	621. 14
From Van Dyke south along road to Eightmile Road, thence west 2 miles to Ryan Road, thence north 1 mile to Ninemile Road (by H. S. Senseney in 1926)	
Van Dyke, 0.9 mi. S. of, in SE. cor. sec. 33, T. 1 N., R. 12 E., 660 ft. N. of intersection of Eightmile Rd., on W. side of Van Dyke Rd., 2 ft. W. of NE. corner of brick building of Thomas & Malic Hardware Co., in concrete post; metal tablet stamped "2" (Macomb County B. M.; recovered in 1936)-----	622. 246
Van Dyke, 1.0 mi. S., thence 1.0 mi. W. from, in NE. cor. sec. 5, T. 1 S., R. 12 E., at SW. corner of crossroads, on S. side of Oakland-Wayne county line, on NW. corner of culvert; chiseled square-----	626. 29

<sup>35</sup> This bench mark replaces the mark stamped "Gibraltar 626" and previously described.

Van Dyke, 1.0 mi. S., thence 2.0 mi. W. from, in SW. cor. sec. 32, T. 1 N., R. 12 E., 30 ft. N. and 40 ft. E. from intersection of Ryan Rd., in angle of sidewalks, set flush, in concrete post; metal tablet stamped "1" (Macomb County B. M.) <sup>36</sup> -----	<i>Feet</i> 628. 736
From Plymouth quadrangle east 0.6 mile along Base Line Road (Oakland-Wayne county line), thence north 3.9 miles along Evergreen Road into Rochester quadrangle (by J. M. Lawson in 1936)	
Detroit, at N. boundary of, near cor. secs. 2, 3, 34, and 35, Tps. 1 N. and 1 S., R. 10 E., 5 ft. S. and 27 ft. E. from intersection of Evergreen Rd., in center of Base Line parkway, 4 ft. S. and 2 ft. E. from rd. signpost, in concrete post; standard tablet stamped "T T 42 E 1935 658"-----	658. 263
Reference mark, 140 ft. SW. of tablet, 40 ft. S. and 51 ft. W. from crossroads, at city water gate, on top of cast-iron frame; chiseled cross-----	658. 22
Detroit, 1.0 mi. N. of N. boundary of, 2.4 mi. S., thence 1.0 mi. W. from Lathrup, in NW. cor. sec. 35, T. 1 N., R. 10 E., 36 ft. S. and 33 ft. E. from intersection of Ninemile Rd., in root on NW. side of 24-in. maple tree; copper nail and washer <sup>37</sup> -----	668. 43
Lathrup, 1.5 mi. S. and 1.0 mi. W. from, near NW. cor. sec. 26, T. 1 N., R. 10 E., 25 ft. N. and 30 ft. E. from intersection of west-bound traffic lane of Northwestern Highway, on top of NE. concrete abutment of bridge; chiseled square-----	660. 31
Lathrup, 0.9 mi. S. and 1.0 mi. W. from, at quarter corner between secs. 22 and 23, T. 1 N., R. 10 E., at junction of T-rd. W.; center line of pavement-----	676. 4
Lathrup, 0.4 mi. S., thence 1.0 mi. W. from, in SE. cor. sec. 15, T. 1 N., R. 10 E., 17 ft. N. and 25 ft. W. from intersection of Elevenmile Rd., on top of W. end of circular concrete culvert; chiseled square--	681. 59
From intersection of Base Line and Evergreen Roads east 6 miles along north boundary of Detroit to junction of Campbell Road, thence north 3.7 miles into Rochester quadrangle (by J. M. Lawson in 1936)	
Detroit, 40 ft. S. and 27 ft. W. from intersection of Southfield Rd. and east-bound traffic lane of Base Line Rd., 100 ft. S. of grating in pavement marking cor. secs. 1, 2, 35, and 36, Tps. 1 N. and 1 S., R. 10 E., in root on SW. side of 16-in. maple tree; copper nail and washer-----	668. 59
Detroit, at intersection of south-bound lane of Northwestern Highway and east-bound lane of Base Line Rd., under signal light; center line of pavement-----	666. 0
Detroit, 30 ft. S. and 40 ft. W. from intersection of Greenfield Rd. and east-bound lane of Base Line Rd., 90 ft. S. and 40 ft. W. from grating in pavement marking cor. secs. 1, 6, 31, and 36, Tps. 1 N. and 1 S., Rs. 10 and 11 E., in root on NE. side of 30-in. tree; copper nail and washer-----	668. 21
Detroit, at intersection of Freeland Rd. and east-bound lane of Base Line Rd.; center line of pavement-----	666. 3
Detroit, 3 ft. N. and 42 ft. W. from intersection of Schaefer Highway, near cor. secs. 5, 6, 31, and 32, Tps. 1 N. and 1 S., R. 11 E., 4 ft. N. and 3 ft. W. from rd. signpost, in concrete post; standard tablet stamped "T T 41 E 1935 664"-----	664. 124

<sup>36</sup> Recovered in 1936; at that time the tablet was reported to be underground.

<sup>37</sup> Set as a reference mark to the bench mark stamped "Gibraltar 668" and previously described.

Reference mark, 94 ft. N. of tablet, in NW. angle of crossroads, at SW. side of 36-in. cast-iron water main cover, on rim; chiseled cross.....	Feet 668.22
Detroit, at SW. corner of Oak Park village boundary, at intersection of Meyers Rd. and east-bound lane of Base Line Rd.; center line of pavement.....	662.4
Detroit, 12 ft. N. and 30 ft. E. from intersection of Wyoming Rd. and center line of Base Line Rd., near cor. secs. 4, 5, 32, and 33, Tps. 1 N. and 1 S., R. 11 E., in root on S. side of 14-in. twin elm tree, northernmost of two at end of boulevard; copper nail and washer.....	665.01
Detroit, 20 ft. N. and 150 ft. W. from junction of Ridge Rd. and east-bound lane of Base Line Rd., near SW. corner of Ferndale, 0.7 mi. E. of NW. cor. sec. 4, T. 1 S., R. 11 E., opposite San Juan Drive, in root on N. side of 15-in. maple tree; copper nail and washer.....	663.92
Detroit, 40 ft. S. and 51 ft. E. from intersection of Livernois Rd. and east-bound lane of Base Line Rd., near cor. secs. 3, 4, 33, and 34, Tps. 1 N. and 1 S., R. 11 E., on W. side of concrete base of police telegraph unit; chiseled square.....	651.79
Detroit, at boundary between Ferndale and, 40 ft. E. of junction of Campbell Rd. and cor. secs. 2, 3, 34, and 35, Tps. 1 N. and 1 S., R. 11 E., on base line, 1 ft. N. and 4 ft. E. from rd. signpost, in concrete post; standard tablet stamped "T T 39 E 1935 639".....	638.533
Reference mark, 30 ft. N. of tablet, in SE. corner of intersection of Campbell Rd. and west-bound lane of Base Line Rd., in root on NE. side of 14-in. elm tree; copper nail and washer.....	638.13
Ferndale, 120 ft. N. and 33 ft. E. from intersection of Ninemile Rd., in SW. cor. sec. 26, T. 1 N., R. 11 E., in root on W. side of 18-in. maple tree; copper nail and washer.....	636.99
Ferndale, 1.1 mi. N. of, near SE. corner of Royal Oak, near cor. secs. 22, 23, 26, and 27, T. 1 N., R. 11 E., 260 ft. N. and 57 ft. E. from intersection of Tenmile Rd., 20 ft. S. and 57 ft. E. from junction of Kenneth Street, in concrete post; standard tablet stamped "T T 40 E 1935 638".....	638.201
Reference mark, in SE. angle of intersection of Tenmile Rd., on SW. side of Detroit City cast-iron water gate; chiseled cross.....	637.89
Royal Oak, at intersection of Lincoln Avenue; center line of pavement.....	638.5
Royal Oak, 95 ft. N. and 30 ft. W. from intersection of Elevenmile Rd., in SE. cor. sec. 15, T. 1 N., R. 11 E., in root on NW. side of 36-in. maple tree; copper nail and washer.....	638.88
From junction of Campbell and Base Line Roads east 3 miles along north boundary of Detroit (by J. M. Lawson in 1938)	
Detroit, at N. boundary of, under overhead crossing of Grand Trunk Ry.; center line of pavement.....	624.7
Detroit, 45 ft. S. and 25 ft. E. from intersection of John R Rd. and east-bound lane of Base Line Rd., near cor. secs. 1, 2, 35, and 36, Tps. 1 N. and 1 S., R. 11 E., in concrete post 4 in. in diameter; brass plate stamped "R O T B M".....	632.687
Detroit, at junction of Oakland Avenue and east-bound lane of Base Line Rd., under signal light; center line of pavement.....	630.0
Detroit, 40 ft. S. and 25 ft. W. from intersection of Dequindre Rd. and east-bound lane of Base Line Rd., near cor. secs. 1, 6, 31, and 36, Tps. 1 N. and 1 S., Rs. 11 and 12 E., on NE. corner of concrete base of police telegraph unit; chiseled square.....	628.75

Detroit, 9 ft. N. and 30 ft. W. from intersection of Ryan Rd., near cor. secs. 5, 6, 31, and 32, Tps. 1 N. and 1 S., R. 12 E., in center of Base Line Rd., 3 ft. N. and 2 ft. W. from signpost, in concrete post; standard tablet stamped "T T 38 E 1935 628"-----	<i>Feet</i> 628. 012
From intersection of Base Line and Evergreen Roads at north boundary of Detroit along road south to Plymouth Road, thence alternately east and north to Livernois Avenue, thence south 0.2 mile and north 4.5 miles to north boundary of Detroit (by J. M. Lawson in 1936)	
Detroit, 33 ft. N. and 38 ft. E. from intersection of Sevenmile Rd., at city sewer gate, on top of E. side of concrete foundation; chiseled square-----	639. 28
Detroit, 50 ft. N. and 28 ft. W. from intersection of McNichols (Six-mile) Rd., on S. side of cast-iron city water gate; chiseled square----	634. 21
Detroit, at intersection of Grand River Avenue (U. S. Highway 16); center line of pavement-----	632. 0
Detroit, 33 ft. S. and 24 ft. E. from intersection of Fenkell Avenue (Fivemile Rd.), in concrete post; standard tablet stamped "T T 54 E 1935 630"-----	630. 285
Detroit, in SW. angle of intersection of Outer Drive, on NE. corner of concrete base of street light pole; chiseled square-----	629. 74
Detroit, 54 ft. N. and 30 ft. E. from intersection of Schoolcraft Rd., at cast-iron city water gate, on top of S. side of rim; chiseled square----	622. 27
Detroit, at Oak Junction on Pere Marquette Ry.; top of N. rail of main tracks-----	625. 7
Detroit, 48 ft. S. and 36 ft. W. from intersection of Plymouth Rd., 5 ft. S. and 2 ft. E. from signpost, in concrete post; standard tablet stamped "T T 55 E 1935 622"-----	621. 888
Detroit, at overhead crossing of Pere Marquette Ry. on Plymouth Rd., in top of W. end of N. retaining wall, leaded in concrete; metal tablet (Wayne County B. M.)-----	612. 167
Detroit, 36 ft. S. and 55 ft. E. from intersection of Southfield Rd., at cast-iron city water gate, on top of SE. edge of rim; chiseled square--	621. 15
Detroit, 34 ft. S. and 54 ft. E. from intersection of Greenfield Rd., on NW. corner of concrete base of trolley line pole; chiseled square-----	621. 39
Detroit, 65 ft. S. and 27 ft. W. from crossing of Belt Line R. R., on right-of-way, in concrete post; standard tablet stamped "4 L 1936 622"-----	622. 226
Reference mark, 40 ft. N. of tablet, on S. side of rd., on W. side of track, on NE. corner of concrete base of R. R. danger signal post; chiseled square-----	623. 53
Detroit, 36 ft. N. and 33 ft. W. from intersection of Schaefer Highway, on top of SE. side of concrete base of rd. signpost; chiseled square--	622. 21
Detroit, 77 ft. S. and 28 ft. E. from intersection of Wyoming Avenue, in root on SW. side of 15-in. elm tree; copper nail and washer-----	627. 91
Detroit, 26 ft. S. and 35 ft. W. from intersection of Buena Vista and Cherrylawn Streets, at NE. corner of playground, on NE. corner of base of steel corner fence post; chiseled square-----	641. 44
Detroit, 74 ft. N. and 50 ft. W. from intersection of Buena Vista Street and Livernois Avenue, on concrete base of street light pole; chiseled square-----	639. 72

Detroit, 90 ft. N. and 40 ft. E. from center line of NE. branch of Fullerton Avenue, 39 ft. S. and 48 ft. E. from center line of same street W., 2 ft. S. and 2 ft. E. from lamppost; in concrete post; standard tablet stamped "T T 59 E 1935 639" <sup>38</sup> -----	<i>Feet</i> 638. 154
Detroit, 30 ft. N. and 47 ft. E. from intersection of Livernois Avenue and Ewald Circle, at tall street light pole with signal light, on NW. corner of base; chiseled square-----	642. 46
Detroit, at crossing of Livernois Avenue and Belt Line R. R.; top of S. rail-----	646. 7
Detroit, 37 ft. S. and 42 ft. W. from intersection of Puritan Street, on E. side of base of tall lamppost; chiseled square-----	650. 00
Detroit, 27 ft. S. and 42 ft. W. from intersection of McNichols Rd., on NE. corner of concrete base of tall street light pole; chiseled square-----	652. 57
Detroit, 50 ft. S. and 42 ft. W. from intersection of Sevenmile Rd., on SW. corner of concrete base of police telegraph unit; chiseled square-----	657. 91
From point on Michigan Central Railroad 1.3 miles north of North Detroit station north along railroad to north boundary of Detroit, thence west along Base Line Road to intersection of Ryan Road (by J. M. Lawson in 1936)	
U. S. C. & G. S. standard disk stamped "L 32 1930"-----	622. 699
Detroit, at crossing of R. R. and Outer Drive; top of W. rail-----	622. 6
Detroit, 30 ft. S. and 27 ft. W. from intersection of Mound Rd. and east-bound lane of Base Line Rd., near cor. secs. 4, 5, 32, and 33, Tps. 1 N. and 1 S., R. 12 E., on NE. corner of base of rd. signpost; chiseled square-----	625. 61
From intersection of Michigan Central Railroad and Grand Boulevard East in Detroit alternately southwest and northwest along streets to intersection of Livernois and Fullerton Avenues (by J. M. Lawson in 1936)	
U. S. C. & G. S. standard disk stamped "Q 32 1930"-----	631. 728
Detroit, 30 ft. S. and 30 ft. E. from intersection of Grand Boulevard East and Griffin Street, at angle in Grand Boulevard East, in parking between curb and sidewalk, 2 ft. E. of railing, in concrete post; standard tablet stamped "T T 9 S 1935 630"-----	629. 513
Detroit, 50 ft. S. of center line of Clay Street, 80 ft. W. of W. rail of M. C. R. R. crossing, on top of easternmost of two rails set vertically and projecting about 3 ft. above ground; chiseled square-----	633. 13
Detroit, 40 ft. S. of Clay Street crossing of Pontiac branch of Grand Trunk Ry., 15 ft. E. of center line of main track, on NW. corner of concrete base of R. R. watch tower; chiseled square-----	631. 03
Detroit, in NE. angle of intersection of Euclid and Woodward Avenues, on SE. corner of concrete base of Cities Service signpost; chiseled square-----	632. 01
Detroit, 50 ft. E. of intersection of Third Avenue and Chicago Boulevard, in center of parking of Chicago Boulevard, in concrete post; standard tablet stamped "T T 10 S 1935 638"-----	637. 984
Detroit, in NW. angle of intersection of Fourteenth Street and Chicago Boulevard, 1.5 ft. N. of N. edge of E.-W. sidewalk, 0.8 ft. W. of curb on W. side of Fourteenth Street, on SE. side of concrete base of tall street light pole; chiseled square-----	637. 29

<sup>38</sup> In 1940 this bench mark was moved 26.39 feet north and 7.19 feet east from this position and reset 0.724 foot lower than its original elevation, at point 6 feet north and 9.7 feet east from light pole, in handhole set in sidewalk between two concrete driveways to service station. The figures given represent the new elevation.

Detroit, in NE. angle of intersection of Linwood Avenue and Chicago Boulevard, on S. side of sidewalk, on top of E. rim of cast-iron city water gate; chiseled cross.....	<i>Feet</i> 635. 55
Detroit, in NE. angle of intersection of Dexter Avenue and Chicago Boulevard, 23 ft. E. of signal light, on top of N. edge of cast-iron city water gate; chiseled cross.....	634. 59
Detroit, 57 ft. S. and 28 ft. E. from intersection of Fullerton Avenue and Holmur Street, in root on W. side of 18-in. oak tree; copper nail and washer.....	641. 58
From Plymouth quadrangle at point in Dearborn east 0.8 mile along Ford Road, thence north 3 miles along Evergreen Road (by J. M. Lawson in 1936)	
Dearborn, 60 ft. S. and 20 ft. E. from junction of Ford and Fordson Rds., at 1-in. pipe set in concrete and encased in 4-in. pipe; top of 1-in. pipe.....	612. 66
Dearborn, at bridge over Middle River Rouge; center line of bridge floor.....	600. 7
Dearborn, at Detroit boundary, on E. side of Evergreen Rd., in parking in center of Ford Rd., 2 ft. N. and 2 ft. E. from rd. signpost, in concrete post; standard tablet stamped "T T 56 E 1935 618"....	618. 341
Reference mark, 32 ft. S. and 72 ft. W. from junction of Evergreen Rd. and east-bound lane of Ford Rd., on E. side of power-line pole; top of bottom galvanized step.....	617. 38
Detroit, 28 ft. S. and 14 ft. E. from intersection of Ann Arbor Trail, on W. edge of cast-iron city water gate; chiseled cross.....	614. 75
Detroit, 37 ft. N. and 34 ft. W. from intersection of Warren Rd., on SE. corner of concrete base of street light pole; chiseled square....	618. 77
Detroit, 30 ft. S. and 45 ft. W. from intersection of Joy Rd., on top of N. edge of cast-iron city water gate; chiseled cross.....	619. 50
Detroit, at intersection of West Chicago Avenue; center line of pavement.....	618. 81
From intersection of Ford and Evergreen Roads on Dearborn-Detroit boundary east and northeast along Ford Road and McGraw Avenue to Livernois Avenue, thence northwest and north to Fullerton Avenue (by J. M. Lawson in 1936)	
Dearborn, 37 ft. S. and 56 ft. E. from signal light at intersection of south-bound lane of Southfield Rd. and west-bound lane of Ford Rd., on N. rim of cast-iron storm sewer cover; chiseled cross.....	607. 08
Dearborn, 31 ft. S. and 46 ft. W. from intersection of Greenfield Rd. and west-bound lane of Ford Rd., on NW. corner of concrete base of city water gate; chiseled square.....	595. 59
Dearborn, 28 ft. N. and 34 ft. E. from intersection of Schaefer Highway, on S. corner of concrete base of rd. signpost; chiseled square..	591. 68
Dearborn, 1,125 ft. E. of intersection of Schaefer Highway, 468 ft. W. of Pere Marquette Ry. tracks, 57 ft. N. and 144 ft. E. from junction of Jonathan Street, 27 ft. N. and 6 ft. E. from center line of sidewalk at angle, 1 ft. S. of S. fence of American Aggregates Corp., in concrete post; standard tablet stamped "T T 57 E 1935 591".....	590. 628
Reference mark, 900 ft. E. of tablet, in SE. angle of intersection of Oakman Boulevard, on top of W. edge of cast-iron city water gate; chiseled cross.....	585. 74

Detroit, about 780 ft. E. of intersection of Wyoming Rd., 57 ft. S. and 27 ft. E. from intersection of Western Avenue, at E. end of Ford Rd. and angle in McGraw Avenue to SW., 18 ft. NW. of SW. corner of Detroit Edison Co. building, in center of sidewalk, on top of W. edge of cast-iron Detroit Edison Co. manhole cover; chiseled cross	Feet 590. 68
Detroit, in S. angle of intersection of McGraw Avenue and Cecil Street, at W. angle of sidewalks, on top of E. edge of cast-iron city water gate; chiseled cross	597. 22
Detroit, on E. side of Livernois Avenue, 159 ft. N. of center line of Pittsburg Street, 81 ft. S. of SW. corner of Kelsey-Hayes Wheel Co., between sidewalk and heavy wire fence, in concrete post; standard tablet stamped "T T 58 E 1935 600"	600. 350
Detroit, at intersection of Livernois and Warren Avenues; center line of pavement	601. 2
Detroit, 88 ft. S. and 80 ft. E. from intersection of Tireman Avenue, on SW. corner of concrete base of tall street light pole; chiseled square	607. 06
Detroit, 50 ft. E. of Livernois Avenue, 93 ft. N. of junction of Joy Rd. to W., 37 ft. S. of junction of Joy Rd. to E., in concrete sidewalk, on top of S. edge of cast-iron city water gate; chiseled cross	616. 92
Detroit, 45 ft. N. of intersection of West Chicago Avenue, in safety zone, on top of E. side of concrete base of caution light stand, 1.5 ft. above pavement; chiseled square	629. 51
From Plymouth quadrangle east and southeast along Ecorse and Allen Roads and Southfield Highway to Fort Street, thence northeast to Livernois Avenue, thence southeast and southwest to northwest corner of grounds of Fort Wayne (by J. M. Lawson in 1936)	
Allen Park, 0.6 mi. W. of W. boundary of, 48 ft. S. and 32 ft. E. from junction of Mortenview Drive, on N. corner of concrete base of rd. signpost; chiseled square	606. 64
U. S. C. & G. S. standard disk stamped "6 M"	602. 853
Allen Park, at overhead crossing of Detroit, Toledo and Ironton R. R., on top of W. end of N. concrete retaining wall, at toe of slope and 4 ft. above pavement; chiseled square	590. 95
Allen Park, 85 ft. S. and 90 ft. E. from intersection of Allen Rd., in root on N. side of 36-in. willow tree, middle tree of group of three; copper nail and washer	596. 33
Allen Park, 0.6 mi. NW. of boundary of Lincoln Park, 200 ft. SW. of intersection of Allen Rd. and Southfield Highway, in SE. angle of junction of Allen Rd. and Allen Avenue, on top of rim on NE. side of Detroit city water gate; chiseled cross	594. 11
Lincoln Park, on W. side of intersection of Dix Rd., in center line of parking of Southfield Highway, on W. side of concrete base of rd. signpost; chiseled square	590. 28
Lincoln Park, at overhead crossing of Pennsylvania R. R. and west-bound lane of Southfield Highway, in top of W. end of S. concrete retaining wall, at toe of slope and 3 ft. above pavement; metal tablet stamped "2" (Wayne County B. M.)	580. 699
Lincoln Park, in SW. angle of intersection of Fort Street, 31 ft. S. of center line of east-bound lane of Southfield Highway, in angle of sidewalks, in concrete post; standard tablet stamped "6 L 1936 587"	586. 805
Reference mark, in SE. angle of intersection of Fort Street and Southfield Highway, on NW. corner of concrete base of traffic signal control box; chiseled square	586. 68

	<i>Feet</i>
Lincoln Park, at Detroit boundary, on S. side of Outer Drive, on E. side of south-bound lane of Fort Street, at small bridge over Ecorse River, on top of NE. concrete abutment; chiseled square-----	580. 86
Detroit, 40 ft. S. and 21 ft. E. from intersection of Schaefer Highway and north-bound lane of Fort Street, in sidewalk, on top of S. corner of cast-iron gas cover 12 in. square; chiseled cross-----	581. 99
Detroit, 300 ft. NE. of junction of Pleasant Street, 40 ft. S. of concrete wall and end of rd., on S. side of crossing of Wabash R. R., below viaduct, 1 ft. E. of E. curb, on top of NW. side of cast-iron Public Light Commission manhole cover; chiseled cross-----	581. 79
Detroit, at bridge over River Rouge; center line of bridge floor-----	591. 5
Detroit, 50 ft. S. of intersection of Dearborn Avenue, on top of SE. edge of 36-in. Detroit Edison Co. manhole cover; chiseled cross---	586. 63
Detroit, 50 ft. N. and 165 ft. W. from intersection of Woodmere Street, 12 ft. W. of fire hydrant, in concrete post; standard tablet stamped "T T 16 S 1935 588"-----	588. 092
Detroit, 75 ft. N. and 14 ft. W. from intersection of Green Street, on top of NW. corner of cast-iron sewer grating; chiseled cross-----	589. 26
Detroit, in SW. angle of intersection of Livernois Avenue, 1.5 ft. W. of W. curb of Livernois Avenue, 9 ft. E. of NE. corner of Ternstedt brick office building, on top of N. side of 12-in. cast-iron gas cover; chiseled cross-----	587. 17
Detroit, in SE. angle of intersection of West Jefferson Avenue and Rademacher Street, at NW. corner of grounds of Fort Wayne, at entrance to Detroit Edison Co. plant, in concrete post; metal tablet stamped "W O" (Detroit Edison Co. tablet)-----	587. 746
From intersection of Fort Street and Livernois Avenue in Detroit northwest to intersection of Pittsburg Street (by J. M. Lawson in 1938)	
Detroit, at overhead crossing of Wabash Ry. on Livernois Avenue, on N. end of E. retaining wall, at toe of slope and 3 ft. above pavement; chiseled square-----	590. 54
Detroit, 96 ft. N. and 22 ft. W. from intersection of Buchanan and Military Avenues, in root on E. side of 18-in. maple tree, second tree N. of NW. corner of street intersection; copper nail and washer--	594. 93
From Fort Wayne in Detroit northeast along Jefferson Avenue and Atwater and other streets into Grosse Pointe quadrangle (by J. M. Lawson in 1938)	
Detroit, on S. side of Jefferson Avenue, opposite junction of Clark Street, on top of S. edge of 36-in. cast-iron Detroit Edison Co. manhole cover; chiseled cross-----	580. 89
Detroit, in parking at S. end of Grand Boulevard West, 35 ft. N. of Pere Marquette Ry. crossing, in concrete post; standard tablet stamped "T T 15 S 1935 584"-----	583. 758
Detroit, in SE. angle of intersection of Twelfth Street, on top of NW. corner of steel base of Ry. trestle support; chiseled cross-----	584. 73
Detroit, in NE. angle of junction of Sixth Street, on top of NW. corner of concrete base of police telegraph unit; chiseled square-----	581. 26
Detroit, on S. side of Atwater Street, 1.5 blocks E. of Woodward Avenue, at office building of city electric-light plant, at front entrance, in W. end of door stone, 5 in. E. of W. face and 4 in. N. of S. face; top of brass bolt leaded vertically and marked "U S P B M (U. S. Lake Survey B. M. No. 9)-----	582. 492
Detroit, on N. side of Atwater Street, 130 ft. W. of Detroit Screw Works, on S. side of old brick powerhouse, at first basement window from E. corner of building, on limestone sill; chiseled cross-----	581. 19



Detroit, on N. side of Atwater Street between Dequindre Street and St. Aubin Avenue, at SE. corner of boiler shop of Detroit Dry Dock Co., on top of limestone capstone; chiseled square (U. S. Lake Survey B. M.)	Feet 581. 200
Detroit, 25 ft. S. and 25 ft. E. from intersection of Franklin and St. Aubin Avenues, 1.5 ft. S. of sidewalk, in concrete post; standard tablet stamped "T T 14 S 1935 583"	583. 076
Detroit, at NE. corner of intersection of Mount Elliott Avenue and Wight Street, at W. entrance of Ireland & Mathews Manufacturing Co., in stone doorstep, 5 in. from N. end and 4 in. from edge; top of brass bolt leaded vertically and marked "U S P B M" (U. S. Lake Survey B. M. No. 10)	592. 276
Detroit, in SW. angle of intersection of Grand Boulevard East and Jefferson Avenue, on top of W. edge of 36-in. cast-iron Public Light Commission manhole cover; chiseled cross	598. 16

From Grosse Pointe quadrangle alternately northwest and northeast along Cadillac Boulevard and other streets to Hoover Road, thence north to north boundary of Detroit, thence west 1 mile (by J. M. Lawson in 1936)

Detroit, in SE. angle of intersection of Harper Avenue and Cadillac Boulevard, 280 ft. SE. of Gratiot Avenue, at front entrance of Y. M. C. A. building, on top of N. side of concrete base of flagpole; chiseled square	617. 90
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[Line jogs into Grosse Pointe quadrangle]

Detroit, opposite city airport, 33 ft. N. of junction of Conners Avenue and Charlemagne Street, on top of N. rim of cast-iron city water gate; chiseled cross	619. 76
Detroit, near NE. corner of airport, 70 ft. N. of intersection of Conners Avenue and Portlanee Street; top of fire hydrant	624. 94
Detroit, 33 ft. N. and 63 ft. W. from junction of Hoover and McNichols Rds., at angle ENE. in McNichols Rd. and W. edge of N.-S. sidewalk, on top of NE. edge of rim of cast-iron city water gate; chiseled cross	624. 66
Detroit, 38 ft. N. and 27 ft. E. from intersection of Sevenmile Rd., on SW. corner of concrete base of police telegraph unit; chiseled square	626. 21
Detroit, at N. limits of, 35 ft. N. of center line of N. lane of Base Line Rd., 12 ft. W. of westernmost rail of crossing of Grand Trunk Ry., 230 ft. E. of junction of rd. NE., in concrete post; standard tablet stamped "T T 34 E 1935 627"	627. 425
Reference mark, 350 ft. SE. of tablet, in SW. angle of intersection of Base Line and Hoover Rds., on top of N. end of W. concrete curb of Hoover Rd.; chiseled square	628. 59

#### DE WITT QUADRANGLE

[Latitude 42°45'-43°00'; longitude 84°30'-84°45']

#### CLINTON, EATON, AND INGHAM COUNTIES

From Muir quadrangle southeast along streets in Grand Ledge into Lansing quadrangle (by L. D. Townsend in 1911)

Grand Ledge, at N. corner of intersection of Jackson and East Scott Streets, on top of fire plug; southernmost of two nuts	848. 23
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From Grand Ledge north along road into Perrinton quadrangle near Fowler (by R. G. Clinite in 1916)

Grand Ledge, at S. corner of intersection of Jefferson Avenue and East Scott Street, at base of fountain, on curb; chiseled square	838. 36
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Grand Ledge, at concrete highway bridge over Grand River, on downstream side, at first pier from SW. end, in parapet above river gage; U. S. Weather Bureau bronze tablet 4.5 in. in diameter-----	<i>Feet</i> 823. 90
Grand River, under highway bridge; surface of water June 5, 1916----	784. 1
T. 4 N., R. 4 W., in NE. cor. sec. 2, 1.1 mi. NE. of highway bridge at Grand Ledge, 30 ft. S. and 70 ft. W. from center of junction of T-rd. E., on S. side of Clinton-Eaton county line, on highest point of large boulder; chiseled square-----	834. 57
T. 5 N., R. 4 W., in NE. cor. sec. 35, 25 ft. S. and 20 ft. W. from center of junction of T-rd. W., on large flat boulder, 1 ft. from W. edge; chiseled square-----	819. 95
T. 5 N., R. 4 W., 400 ft. S. of NE. cor. sec. 26, in NW. angle of intersection of State Highway 16, 14 ft. N. of corner of hedge fence; standard iron post with bronze cap stamped "1916 Mich 838"-----	837. 381
T. 5 N., R. 4 W., in NW. cor. sec. 24, 2.0 mi. W., thence 1.0 mi. S. from Wacousta, 30 ft. S. and 10 ft. E. from center of crossroads, in root of 24-in. maple tree; copper nail and washer-----	809. 58
Lookingglass River, under bridge; surface of water June 5, 1916-----	761. 4
Wacousta, 2.0 mi. W. of, near NW. cor. sec. 13, T. 5 N., R. 4 W., 35 ft. S. and 25 ft. E. from center of crossroads; standard iron post with bronze cap stamped "Mich 800"-----	799. 479
T. 5 N., R. 4 W., in NW. cor. sec. 12, in SE. angle of crossroads, 10 ft. S. of fence corner, in root of 8-in. poplar tree; copper nail and washer-----	814. 48
T. 6 N., R. 4 W., in NE. cor. sec. 35, about 100 ft. W. of Sanford School, 30 ft. S. and 20 ft. W. from center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 1 1913 Mich 784"-----	783. 110
T. 6 N., R. 4 W., in NE. cor. sec. 26, 20 ft. N. and 60 ft. W. from crossroads, in front of farmhouse, in root of 8-in. maple tree; copper nail and washer-----	780. 93
T. 6 N., R. 4 W., at cor. secs. 13, 14, 23, and 24, on stone marking section corner; highest point-----	769. 00
T. 6 N., R. 4 W., in SW. cor. sec. 12, in NE. angle of crossroads, 5 ft. N. of fence corner; standard iron post with bronze cap stamped "Mich 765"-----	764. 420
Mud Creek, under bridge; surface of water June 12, 1916-----	732. 3
T. 7 N., R. 4 W., about 650 ft. N. of SE. cor. sec. 26, 50 ft. N. and 20 ft. W. from intersection of NW.-SE. rd.; standard iron post with bronze cap stamped "Mich 724"-----	723. 085
Stony Creek, under bridge; surface of water June 12, 1916-----	698. 0
T. 7 N., R. 4 W., in NE. cor. sec. 26, 2.0 mi. S. of Fowler, in SW. angle of crossroads, 6 ft. W. of corner fence post, on highest point of large boulder; chiseled square-----	756. 84
Fowler, 1.0 mi. S. of, in NE. cor. sec. 23, T. 7 N., R. 4 W., in SW. angle of crossroads, on concrete head wall of culvert; chiseled square-----	758. 00
From intersection of Pere Marquette Railway and State Highway 16 at point 0.5 mile north and 2 miles east from Delta southeast along highway 0.3 mile, thence along roads north 3 miles, thence east 4 miles to Gunnisonville, thence generally south to North Lansing, thence northwest 2 miles along Pere Marquette Railway (by H. P. Kilby in 1921)	
U. S. C. & G. S. standard disk designated "N 18"-----	845. 592
Delta, 0.4 mi. N. and 2.2 mi. E. from, 1.7 mi. W., thence 5.0 mi. S. from De Witt, in SE. cor. sec. 36, T. 5 N., R. 3 W., at Eaton-Ingham county line, in SW. angle of intersection of State Highway 16; standard iron post with bronze cap stamped "Prim Trav Sta No 10 RS 1920 Mich 852"-----	851. 144

De Witt, 1.7 mi. W., thence 2.0 mi. S. from, 70 ft. NE. of Allen School, in NE. cor. sec. 24, T. 5 N., R. 3 W., in SW. angle of crossroads, in root of 10-in. oak tree; copper nail and washer-----	Feet 850. 96
De Witt, 2.0 mi. S. and 0.2 mi. W. from, near N $\frac{1}{4}$ cor. sec. 20, T. 5 N., R. 2 W., in SW. angle of crossroads, in root of 30-in. oak tree; copper nail and washer-----	838. 57
De Witt, 2.2 mi. SE. of, 1.8 mi. W. of Gunnisonville, 0.25 mi. E. of NW. cor. sec. 21, T. 5 N., R. 2 W., in SE. angle of intersection of Lansing-De Witt rd., in root of poplar tree; copper nail and washer-----	847. 98
Gunnisonville, 1.0 mi. W. of, near cor. secs. 15, 16, 21, and 22, T. 5 N., R. 2 W., in SW. angle of crossroads, in base of 8-in. poplar tree; nail-----	846. 29
Gunnisonville, 210 ft. S. and 30 ft. E. from NW. cor. sec. 23, T. 5 N., R. 2 W., 82 ft. SW. of SW. corner of school, at NW. corner of cemetery; standard iron post with bronze cap stamped "Prim Trav Sta No 2 RS 1920 Mich 862"-----	861. 266
Gunnisonville, 2.7 mi. S. of, 0.9 mi. N. of Baumgras Corners, 0.25 mi. N. of SE. cor. sec. 34, T. 5 N., R. 2 W., at E. side of rd., opposite T-rd. W., in root of 14-in. elm tree; copper nail and washer-----	899. 64
Baumgras Corners, in NW. angle of intersection of Pine Lake Rd., 0.4 mi. N. of SE. cor. sec. 3, T. 4 N., R. 2 W.; standard iron post with bronze cap stamped "Prim Trav Sta No 1 RS 1920 Mich 885"-----	884. 595
North Lansing, at intersection of High Street and Pine Lake Rd., on side of hydrant; bolt-----	864. 07
North Lansing, 1.1 mi. NW. of Pere Marquette Ry. sta., in R. R. yards, on concrete foundation of semaphore 627; chiseled square---	846. 89
U. S. C. & G. S. standard disk designated "P 18"-----	849. 306
From Allen School north along range-line road 1 mile, thence west along road by way of Wacousta to northwest corner sec. 13, T. 5 N., R. 4 W. (by H. P. Kilby in 1921)	
Wacousta, 5.0 mi. E. of, in NE. cor. sec. 13, T. 5 N., R. 3 W., in SW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 9 RS 1920 Mich 820"-----	819. 288
Wacousta, 3.0 mi. E. of, in NW. cor. sec. 14, T. 5 N., R. 3 W., in SE. angle of crossroads, in front of house, in root of 30-in. maple tree; copper nail and washer-----	822. 38
Wacousta, 2.0 mi. E. of, in NW. cor. sec. 15, T. 5 N., R. 3 W., in SE. angle of crossroads, on large rock; chiseled square-----	815. 60
Wacousta, 1.0 mi. E. of, in SW. cor. sec. 9, T. 5 N., R. 3 W., in NE. angle of junction of T-rd. N., 140 ft. NE. of steel bridge over Lookingglass River, in fence line, in concrete post; standard tablet stamped "1921 786"-----	785. 086
Reference mark, on SE. end of concrete abutment of bridge; chiseled square-----	782. 68
Wacousta, in NW. angle of crossroads at, 50 ft. SE. of Masonic Hall, on concrete sidewalk; chiseled square-----	796. 53
Wacousta, 1.0 mi. W. of, near cor. secs. 7, 12, 13, and 18, T. 5 N., Rs. 3 and 4 W., at crossroads; top of N. end of iron pipe under rd.-----	798. 92
From crossroads 1 mile north of Allen School along roads north 3 miles, thence east 5 miles, thence north into Perrinton quadrangle at crossroads 2.8 miles east of St. Johns (by H. P. Kilby in 1921)	
De Witt, 1.7 mi. W. of, in SE. cor. sec. 1, T. 5 N., R. 3 W., in NW. angle of crossroads, on concrete base of corner fence post; chiseled square---	836. 18

	<i>Feet</i>
Tps. 5 and 6 N., R. 2 W., near W. cor. secs. 6 and 31, under crossroads; top of E. end of galvanized iron pipe.....	858. 97
T. 6 N., R. 3 W., in NE. cor. sec. 36, under crossroads; top of S. end of galvanized iron pipe.....	820. 14
T. 6 N., R. 2 W., near NE. cor. sec. 31, under crossroads; top of S. end of iron pipe.....	828. 59
T. 6 N., R. 2 W., near quarter corner between secs. 29 and 32, opposite Brown School, on E. concrete head wall of culvert; chiseled square....	828. 52
T. 6 N., R. 2 W., 200 ft. E. of SW. cor. sec. 28, 180 ft. E. of Michigan Electric R. R. <sup>39</sup> track, on N. side of rd., standard iron post with bronze cap stamped "Prim Trav Sta No 8 RS 1920 Mich 859".....	858. 292
T. 6 N., R. 2 W., near N¼ cor. sec. 35, in SE. angle of crossroads, opposite Lemm School, on rock; chiseled square.....	829. 96
T. 6 N., R. 2 W., in SW. cor. sec. 25, in NE. angle of crossroads, in root of 10-in. hickory tree; copper nail and washer.....	816. 12
T. 6 N., R. 2 W., near SW. cor. sec. 24, in NE. angle of junction of T-rd. E., in root of 8-in. hickory tree; copper nail and washer (not recovered in 1926).....	818. 57
T. 6 N., R. 2 W., near W¼ cor. sec. 24, 25 ft. N. and 25 ft. E. from center of crossroads, 1 ft. N. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 4 RS 1920 Mich 844".....	843. 176
T. 6 N., R. 2 W., near quarter corner between secs. 13 and 14, in NE. angle of crossroads, on concrete corner fence post; chiseled square....	813. 20
T. 6 N., R. 2 W., 850 ft. N. of SE. cor. sec. 2, in NW. angle of crossroads, in root of 30-in. maple tree; copper nail and washer.....	792. 00
T. 6 N., R. 2 W., in NW. cor. sec. 1, in SE. angle of crossroads, 2 ft. S. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 5 RS 1920 Mich 796".....	795. 369
T. 7 N., R. 2 W., in SW. cor. sec. 25, 2.8 mi. E., thence 3.0 mi. S. from St. Johns, in NE. angle of crossroads, in root of 12-in. elm tree; copper nail and washer (not recovered in 1926).....	760. 86
St. Johns, 2.8 mi. E., thence 2.0 mi. S. from, in NE. cor. sec. 26, T. 7 N., R. 2 W., in SW. angle of crossroads, 20 ft. W. of fence corner, in fence line, on large rock; chiseled square.....	749. 07
From crossroads 0.7 mile west, thence 2 miles north from De Witt north along roads into Perrinton quadrangle at point 1.2 miles west of St. Johns (by H. P. Kilby in 1921)	
T. 6 N., R. 2 W., in NW. cor. sec. 29, in SE. angle of crossroads, in fence corner, on rock; chiseled square (not recovered in 1926)....	802. 65
T. 6 N., R. 2 W., 0.25 mi. E. of NW. cor. sec. 20, in SW. angle of crossroads, on concrete base of corner fence post; chiseled square.....	796. 49
T. 6 N., R. 2 W., 0.25 mi. E. of NW. cor. sec. 17, 0.6 mi. E. of Merle Beach, in SE. angle of crossroads, near fence, in concrete post; standard tablet stamped "1921 787".....	786. 661
T. 6 N., R. 2 W., in NE. cor. sec. 7, in SW. angle of crossroads; top of 3-in. iron pipe (State Highway Dept. B. M.).....	771. 39
T. 7 N., R. 2 W., 0.2 mi. E. of SW. cor. sec. 29, in NE. angle of crossroads, at fence corner, in concrete post; standard tablet stamped "1921 Mich 739".....	738. 626
T. 7 N., R. 2 W., in NE. cor. sec. 30, 1.2 mi. W., thence 2.0 mi. S. from St. Johns, in SW. angle of crossroads, on concrete base of fence post; chiseled square.....	760. 06

<sup>39</sup> This railroad is now abandoned.

St. Johns, 1.2 mi. W., thence 1.0 mi. S. from, in NE. cor. sec. 19, T. 7 N., R. 2 W., in SW. angle of crossroads, in root of 10-in. poplar tree; copper nail and washer-----	<i>Feet</i> 781. 71
From northeast corner sec. 36, T. 6 N., R. 3 W., west along road 7 miles to crossroads at Sanford School (mostly by H. P. Kilby but partly by W. A. Shumate in 1921)	
T. 6 N., R. 3 W., in NE. cor. sec. 35, in SW. angle of crossroads, 10 ft. W. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 7 RS 1920 Mich"-----	824. 083
T. 6 N., R. 3 W., in NE. cor. sec. 32, near SW. corner of crossroads, 1 ft. N. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 6 RS 1920 Mich"-----	784. 129
T. 6 N., R. 3 W., in NW. cor. sec. 32, in SE. angle of crossroads, at Kincaid School, on SE. corner of well platform; chiseled square-----	793. 16
T. 6 N., R. 3 W., in SE. cor. sec. 25, 1.0 mi. E. of Sanford School, at junction of T-rd. N., on rock; chiseled square-----	786. 42
From crossroads at southeast corner sec. 28, T. 6 N., R. 3 W., north along road through center of Riley and Bengal townships into Perrinton quadrangle (by W. A. Shumate in 1921)	
T. 6 N., R. 3 W., in NE. cor. sec. 28, near SW. corner of crossroads, on concrete culvert; chiseled square <sup>40</sup> -----	777. 20
T. 6 N., R. 3 W., in NW. cor. sec. 22, near SE. corner of crossroads, on masonry culvert; chiseled square <sup>40</sup> -----	774. 72
T. 6 N., R. 3 W., in SW. cor. sec. 10, in NE. angle of crossroads, in concrete post; standard tablet stamped "1921 Mich 774"-----	773. 283
T. 6 N., R. 3 W., in SE. cor. sec. 4, in NW. angle of crossroads, on rock; chiseled square (reported destroyed)-----	757. 12
T. 6 N., R. 3 W., in NE. cor. sec. 4, at crossroads, in root of 24-in. poplar tree; copper nail and washer-----	749. 81
T. 7 N., R. 3 W., in NE. cor. sec. 33, at crossroads, in concrete post; standard tablet stamped "1921 Mich 724"-----	723. 260
T. 7 N., R. 3 W., in NE. cor. sec. 28, in SW. angle of crossroads, on concrete post brace; chiseled square-----	761. 82
T. 7 N., R. 3 W., in NE. cor. sec. 21, 1.0 mi. S., thence 4.0 mi. E. from Fowler, 1.0 mi. S., thence 5.2 mi. W. from St. Johns, in SW. angle of crossroads, opposite Bengal Center School, on concrete steps of building; chiseled square-----	741. 27
From southeast corner sec. 26, T. 6 N., R. 2 W., alternately south and west along roads to Gunnisonville (by W. A. Shumate in 1921)	
Gunnisonville, 3.0 mi. N., thence 1.0 mi. E. from, in SW. cor. sec. 36, T. 6 N., R. 2 W., near NE. corner of crossroads, on concrete culvert; chiseled square-----	832. 28
Gunnisonville, 2.0 mi. N., thence 1.0 mi. E. from, near N. cor. secs. 11 and 12, T. 5 N., R. 2 W., on S. side of E.-W. rd., in line with rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 3 RS 1920 Mich 848"-----	847. 133
Gunnisonville, 2.0 mi. N. of, in SW. cor. sec. 2, T. 5 N., R. 2 W., in NE. angle of crossroads, in concrete fence post, 6 in. from ground; bolt head-----	863. 14

<sup>40</sup> In 1926 it was reported that this bench mark was destroyed when a new culvert was constructed.

Gunnisonville, 1.0 mi. N. of, in NW. cor. sec. 14, T. 5 N., R. 2 W., in SE. angle of junction of T-rd. E., in root of 30-in. elm tree; copper nail and washer-----

Feet  
860. 01

## DEXTER QUADRANGLE

[Latitude 42°15'–42°30'; longitude 83°45'–84°00']

## LIVINGSTON AND WASHTENAW COUNTIES

From South Lyon quadrangle at point in Ann Arbor along roads northwest to point 1.8 miles north of Dover, thence generally east to Whitmore Lake (by R. E. Wipfler in 1901 and 1902)

Ann Arbor, 4.7 mi. NW. of intersection of Huron and Fourth Streets, 0.25 mi. SW. of NE. cor. sec. 22, T. 2 S., R. 5 E., 400 ft. W. of junction of rd. N., in NE. abutment of bridge, on masonry; mark not described----- 848. 15

Ann Arbor, 5.5 mi. NW. of, 3.5 mi. SE. of Dexter, about 900 ft. N. of W¼ cor. sec. 15, T. 2 S., R. 5 E., at crossroads; standard iron post with bronze cap stamped "912"----- 911. 711

Dexter, on highway bridge over Mill Creek, in bedplate; top of bolt... 847. 13

Dexter, on NE. corner of Michigan Central R. R. arch; top of capstone----- 863. 41

Dexter, 0.5 mi. SW. of, 3.7 mi. by rd. S., thence 0.5 mi. SW. from Hudson Mills, near E¼ cor. sec. 1, T. 2 S., R. 4 E., at junction of range-line rd.; standard iron post with bronze cap stamped "870"\_\_ 870. 112

Hudson Mills, 1.1 mi. SW. of Dover, near center of SW¼ sec. 13, T. 1 S., R. 4 E., at crossroads; standard iron post with bronze cap stamped "874"----- 873. 930

Dover, at junction of second-class rd. SE., 0.25 mi. N. of S¼ cor. sec. 12, T. 1 S., R. 4 E., at W. end of culvert, on boulder; mark not described----- 883. 03

Dover, 1.8 mi. N. of, near SE. cor. sec. 36, T. 1 N., R. 4 E., at Livingston-Washtenaw county line, 130 ft. NE. of NE. corner of dance pavilion; standard iron post with bronze cap stamped "885" "----- 885. 489

Dover, 0.8 mi. N. and 4.8 mi. E. from, 2.8 mi. W., thence 0.5 mi. S. from Whitmore Lake, about 600 ft. W. of N¼ cor. sec. 11, T. 1 S., R. 5 E., at crossroads; standard iron post with bronze cap stamped "950"----- 949. 975

Whitmore Lake, 0.7 mi. N. and 1.5 mi. W. from, near center of SE¼ sec. 36, T. 1 N., R. 5 E., 30 ft. N. and 20 ft. W. from junction of N.-S. rd.; standard iron post with bronze cap stamped "910" (recovered in 1907 and 1936)----- 909. 871

U. S. C. & G. S. standard disk stamped "U 105" 42----- 909. 609

Whitmore Lake, near center of SW¼ sec. 5, T. 1 N., R. 6 E., opposite brick hardware store, in root of large oak tree; mark not described. 908. 68

## DUNDEE QUADRANGLE

[Latitude 41°45'–42°00'; longitude 83°30'–83°45']

## MONROE COUNTY

From Monroe quadrangle west and southwest along Stearns Road into Toledo quadrangle near Liberty Corners (by W. T. Reagan in 1934)

Vienna Junction, 50 ft. S. of Michigan Central R. R. crossing at, 0.25 mi. E. of NW. cor. sec. 32, T. 8 S., R. 8 E., 6 ft. E. of E. rail of main track, on concrete foundation block; top of NE. iron bolt----- 586. 26

<sup>41</sup> In 1932 this bench mark was reported to be leaning.

<sup>42</sup> The tie between this mark and the bench mark stamped "910" was made in 1936.

[Line jogs into Toledo quadrangle]

Vienna Junction, 2.2 mi. W. of, 2.0 mi. E. of Liberty Corners, near NW. cor. sec. 36, T. 8 S., R. 7 E., 35 ft. S. and 35 ft. E. from cross-roads, 100 ft. NW. of Banner Oak School, in schoolyard, in concrete post; standard tablet stamped "T T 9 WO 1934 602" (recovered in 1936)-----	<i>Feet</i> 601. 781
Reference mark, 30 ft. S. of tablet, in root on W. side of 10-in. wild-cherry tree; copper nail and washer (recovered in 1936)-----	601. 37
Liberty Corners, 1.0 mi. E. of, in SW. cor. sec. 27, T. 8 S., R. 7 E., in NW. angle of intersection of U. S. Highway 23, on concrete culvert; chiseled square-----	614. 76
From Monroe quadrangle northwest along South Custer Road (State Highway 50) to junction of Geiger Road, thence along roads southeast 0.1 mile and alternately northeast and northwest into Ypsilanti quadrangle near Maybee (by J. M. Lawson in 1938)	
Monroe, 6.6 mi. NW. of courthouse at, 1.7 mi. NE., thence 1.3 mi. NW. from Strasburg, 0.2 mi. NW. of King School, 132 ft. W. of junction of Dixon Rd., on top of NW. corner of concrete base of storm sewer in ditch; chiseled square-----	627. 34
Monroe, 7.0 mi. NW. of, at intersection of Cherry Rd.; center line of pavement-----	631. 2
Monroe, 7.6 mi. NW. of, 5.5 mi. by rd. SW. of Maybee, 2.3 mi. NW., thence 1.6 mi. NE. from Strasburg, 25 ft. N. and 25 ft. E. from center line of Geiger Rd., in concrete post; standard tablet stamped "T T 50 C 1935 633"-----	632. 512
Reference mark, 550 ft. E. of tablet, 3 ft. N. and 27 ft. E. from junction of Sorter Rd., on top of S. end of E. concrete head wall of culvert; chiseled square-----	632. 54
Maybee, 5.0 mi. SW. of, 96 ft. S. of junction of Sorter and Dixon Rds., in root on NW. side of 40-in. oak tree; copper nail and washer-----	634. 11
Maybee, 4.3 mi. SW. of, on NE. side of Dixon Rd., at Barnaby Drain, on top of W. end of N. concrete head wall of culvert; chiseled square-----	633. 18
Maybee, 3.7 mi. SW. of, 108 ft. N. of junction of Dixon and Ida Rds., at entrance to Bridge School, on top of SE. corner of concrete slab; chiseled square-----	639. 55
Maybee, 3.4 mi. SW. of, at bridge over River Raisin, on top of NW. corner of N. concrete abutment; chiseled square-----	636. 66
Maybee, 3.2 mi. SW. of, 0.4 mi. NW. of Grape, about 2.2 mi. SE. of Raisinville, 28 ft. N. and 32 ft. E. from junction of Baldwin and North Custer (State Highway 130) Rds., on top of N. end of E. concrete head wall of culvert; chiseled square-----	635. 64
Maybee, 2.4 mi. SW. of, at bridge over Willow Run, on top of SW. corner of concrete slab of floor; chiseled square-----	638. 96
Maybee, 2.1 mi. SW. of, 23 ft. S. of intersection of Stewart Rd., on top at angle in S. concrete head wall of culvert; chiseled square-----	638. 66
Maybee, 1.7 mi. SW. of, 350 ft. N. of Fairview Farm barn, at NW. corner of small concrete bridge over North Branch of Willow Run, on top of NW. corner of N. abutment; chiseled square-----	639. 62
Maybee, 1.1 mi. SW. of, 0.5 mi. SW. of Detroit, Toledo and Ironton R. R. crossing, at NW. corner of bridge over Little Sandy Creek, on top of N. concrete abutment; chiseled square-----	639. 27

From Monroe quadrangle at point 2.5 miles west of La Salle along roads alternately west and north to Ida (by J. M. Lawson in 1936)

La Salle, 2.6 mi. W. of, 2.0 mi. N., thence 1.5 mi. E. from Yargerville, near quarter corner between secs. 17 and 20, T. 7 S., R. 8 E., 30 ft. N. and 38 ft. W. from junction of Yargerville Rd. and T-rd. N., in root on N. side of 12-in. locust tree; copper nail and washer.....	Feet 621. 99
Yargerville, 2.0 mi. N., thence 1.0 mi. E. from, 3.3 mi. SW. of Strasburg, in SE. cor. sec. 18, T. 7 S., R. 8 E., 15 ft. N. and 135 ft. W. from intersection of Strasburg Rd., on top of E. end of N. concrete head wall of culvert; chiseled square.....	625. 14
Yargerville, 2.0 mi. N. of, 4.1 mi. E., thence 1.0 mi. S. from Lulu, in SW. cor. sec. 18, T. 7 S., R. 8 E., 57 ft. N. and 25 ft. E. from intersection of Yargerville and Minx Rds., 33 ft. N. of power line pole, in concrete post; standard tablet stamped "T T 52 C 1935 629"...	628. 694
Reference mark, 20 ft. S. and 20 ft. W. from crossroads, in center of top of S. concrete head wall of culvert; chiseled square.....	629. 71
Lulu, 4.1 mi. E., thence 0.5 mi. S. from, at junction of Minx and South Otter Creek Rds.; center line of pavement.....	629. 0
Lulu, 4.1 mi. E. of, near SE. cor. sec. 12, T. 7 S., R. 7 E., 250 ft. N. and 30 ft. W. from junction of Lulu Rd., in root on E. side of 14-in. hickory tree; copper nail and washer.....	628. 48
Lulu, 4.1 mi. E., thence 0.6 mi. N. from, about 400 ft. N. of quarter corner between secs. 7 and 12, T. 7 S., Rs. 7 and 8 E., 240 ft. S. and 12 ft. W. from junction of Hubbard Rd., at bridge over North Branch of Otter Creek, on top of SW. concrete wing wall, 16 in. NE. of SW. end; chiseled square.....	627. 03
Lulu, 4.1 mi. E., thence 1.0 mi. N. from, 1.1 mi. S., thence 2.1 mi. E. from Ida, 22 ft. N. and 66 ft. E. from junction of Minx and Albain Rds., at corrugated iron culvert; top of E. end of culvert.....	626. 71
Ida, 1.1 mi. S., thence 1.8 mi. E. from, 48 ft. N. and 165 ft. E. from junction of Martel Rd., in root on S. side of 28-in. maple tree, westernmost in row of maple trees; copper nail and washer.....	631. 69
Ida, 1.1 mi. S., thence 1.1 mi. E. from, 18 ft. S. and 78 ft. W. from junction of Darby Rd., on top of W. end of N. concrete head wall of culvert; chiseled square.....	631. 29
Ida, 1.1 mi. S., thence 1.0 mi. E. from, 27 ft. S. and 150 ft. E. from intersection of Albain and Geiger Rds., in concrete post; standard tablet stamped "T T 51 C 1935 632".....	632. 301
Ida, 1.1 mi. E. of, 45 ft. N. and 15 ft. W. from junction of Geiger Rd. and rd. W. to Ida, on top of S. end of W. concrete head wall of culvert; chiseled square.....	634. 79
Ida, in N. part of, 62 ft. S. and 27 ft. W. from crossroads, in root on SE. side of 30-in. elm tree; copper nail and washer.....	640. 57
U. S. C. & G. S. standard disk stamped "S 114 1934".....	641. 551

From point 1.1 miles east of Ida northeast along Geiger Road to junction of South Custer Road (by J. M. Lawson in 1936)

Ida, 1.1 mi. E., thence 0.8 mi. NE. from, 2.3 mi. NW. of Strasburg, 42 ft. N. and 20 ft. E. from intersection of Dunbar Rd., on top of N. end of E. concrete head wall of culvert; chiseled square.....	632. 83
Strasburg, 2.3 mi. NW., thence 1.0 mi. NE. from, 12 ft. S. and 7 ft. E. from center of bridge over Plum Creek, on top of SE. concrete wing wall; chiseled square.....	630. 33



From crossroads 2 miles north of Yargerville south along Minx Road to Samaria Road (State Highway 151), thence east into Monroe quadrangle (by J. M. Lawson in 1936)

Yargerville, 1.0 mi. N. of, in NE. cor. sec. 25, T. 7 S., R. 7 E., 22 ft. S. and 17 ft. W. from crossroads, on top of W. concrete head wall of culvert; chiseled square-----	<i>Feet</i> 630. 80
Yargerville, 72 ft. N. and 16 ft. W. from crossroads at, in SE. cor. sec. 25, T. 7 S., R. 7 E., at small bridge over Muddy Creek, on top of SW. end of S. concrete abutment; chiseled square-----	633. 43
Yargerville, 0.5 mi. S. of, 2.4 mi. E., thence 1.5 mi. N. from Samaria, near quarter corner between secs. 31 and 36, T. 7 S., Rs. 7 and 8 E., 15 ft. N. and 50 ft. E. from junction of Yarger Rd., in root on SW. side of 26-in. oak tree; copper nail and washer-----	637. 21
Samaria, 2.4 mi. E., thence 1.0 mi. N. from, in SW. cor. sec. 31, T. 7 S., R. 8 E., 75 ft. N. and 24 ft. E. from intersection of Rauch Rd., 40 ft. N. of fence corner, in concrete post; standard tablet stamped "T T 53 C 1935 639"-----	639. 404
Samaria, 2.4 mi. E. of, 1.7 mi. W., thence 1.0 mi. N. from Erie, in SE. cor. sec. 6, T. 8 S., R. 8 E., 32 ft. N. and 20 ft. W. from intersection of Samaria Rd., in root on SW. side of 16-in. maple tree; copper nail and washer-----	629. 20
Erie, 1.2 mi. W., thence 1.0 mi. N. from, near quarter corner between secs. 6 and 7, T. 8 S., R. 8 E., 33 ft. N. and 52 ft. W. from intersection of Carlinghouse Rd., at entrance to church, on top of SE. corner of concrete platform; chiseled square-----	618. 25
Erie, 0.7 mi. W., thence 1.0 mi. N. from, in SW. cor. sec. 5, T. 8 S., R. 8 E., 32 ft. N. and 11 ft. E. from intersection of Strasburg Rd., on top of S. end of E. concrete head wall of culvert; chiseled square--	611. 11
From crossroads 2.4 miles east of Samaria south along Minx and Telegraph (U. S. Highway 24) Roads into Toledo quadrangle (by J. M. Lawson in 1936)	
Erie, 1.7 mi. W. of, 2.4 mi. E., thence 1.0 mi. S. from Samaria, in SW. cor. sec. 7, T. 8 S., R. 8 E., 68 ft. N. and 21 ft. E. from intersection of Erie Rd., in root on W. side of 18-in. cottonwood tree; copper nail and washer-----	616. 40
Erie, 1.7 mi. W., thence 0.5 mi. S. from, 2.0 mi. E., thence 0.5 mi. N. from Temperance, near quarter corner between secs. 13 and 18, T. 8 S., Rs. 7 and 8 E., 12 ft. N. and 90 ft. E. from junction of Kinney Rd., in root on W. side of 6-in. cherry tree; copper nail and washer-----	608. 70
Temperance, 2.0 mi. E. of, in NE. cor. sec. 24, T. 8 S., R. 7 E., 33 ft. S. and 26 ft. W. from intersection of Temperance Rd., in concrete post; standard tablet stamped "T T 1 L 1935 601"-----	601. 337
Temperance, 2.0 mi. E., thence 0.5 mi. S. from, near quarter corner between secs. 19 and 24, T. 8 S., Rs. 7 and 8 E., 140 ft. N. and 8 ft. E. from intersection of Dean Rd., at small bridge over Flat Creek, on top of S. end of E. concrete head wall; chiseled square-----	599. 67
Temperance, 2.0 mi. E., thence 1.0 mi. S. from, 1.5 mi. W., thence 1.1 mi. NE. from Vienna Junction, in SE. cor. sec. 24, T. 8 S., R. 7 E., 7 ft. N. and 15 ft. W. from intersection of Benore Rd., on top of SW. end of W. concrete head wall of culvert; chiseled square-----	597. 39
Vienna Junction, 1.5 mi. W., thence 0.5 mi. NE. from, about 500 ft. S. of quarter corner between secs. 25 and 30, T. 8 S., Rs. 7 and 8 E., 145 ft. S. of junction of Minx and Telegraph Rds., on right-of-way of highway and Pere Marquette Ry., 3 ft. NW. of telephone pole; top of concrete right-of-way post-----	595. 71

From Toledo quadrangle near Ottawa Lake generally north along roads to point 2.2 miles south and 1 mile east from Deerfield, thence west into Blissfield quadrangle (by S. R. Archer in 1938)

Ottawa Lake, 0.3 mi. SE. of Lake Shore & Michigan Southern R. R. <sup>43</sup> sta. at, 35 ft. S. and 6 ft. W. from center of junction of T-rd. E. on line between secs. 19 and 30, T. 8 S., R. 6 E., on R. R. right-of-way, in line with telegraph poles; standard iron post with bronze cap stamped "Prim Trav Sta No 36 1911 Mich 686"-----	Feet 686. 314
Reference mark, 55 ft. SE. of standard post, 75 ft. SE. of rd. junction, on top of NW. end of SW. concrete head wall of culvert under U. S. Highway 223 to SE.; chiseled square-----	683. 89
Ottawa Lake, at SE. edge of village, at concrete highway bridge over inlet to Ottawa Lake, on top of E. parapet wall of N. abutment; chiseled square-----	683. 14
Ottawa Lake, 0.7 mi. NW. of, about 800 ft. E. of quarter corner between secs. 18 and 19, T. 8 S., R. 6 E., in SE. corner of crossroads, on top of E. end of N. concrete wing and retaining wall at E. end of culvert under rd. S.; chiseled square-----	687. 50
[Line jogs into Blissfield quadrangle]	
Ottawa Lake, 2.8 mi. N. and 0.5 mi. E. from, 6.7 mi. S., thence 2.0 mi. W. from Petersburg, in NE. cor. sec. 7, T. 8 S., R. 6 E., 35 ft. S. and 25 ft. W. from center of intersection of Alcott and Cummings Rds., 17 ft. S. of fence corner, in concrete post; standard tablet stamped "T T 47 C 1938 685"-----	684. 878
Reference mark, 40 ft. N. of crossroads, on top of N. end of E. head wall of concrete culvert under rd. N.; chiseled square-----	682. 55
Petersburg, 5.5 mi. S., thence 2.0 mi. W. from, in NE. cor. sec. 6, T. 8 S., R. 6 E., at jog in N.-S. rd., at SW. corner of junction of T-rd. S., on top of NW. end of N. wing wall at W. end of culvert under rd. S.; chiseled square-----	685. 62
Petersburg, 4.5 mi. S., thence 2.0 mi. W. from, in NE. cor. sec. 31, T. 7 S., R. 6 E., 30 ft. S. of crossroads, on top of S. concrete wing wall at W. end of culvert under rd. S.; chiseled square-----	686. 11
Petersburg, 3.1 mi. S. and 2.0 mi. W. from, about 800 ft. N. of quarter corner between secs. 29 and 30, T. 7 S., R. 6 E., on top of W. wing wall of N. concrete abutment of bridge over ditch; chiseled square-----	683. 20
Petersburg, 3.5 mi. S., thence 2.0 mi. W. from, 6.0 mi. E. and 1.0 mi. N. from Blissfield, in SW. cor. sec. 20, T. 7 S., R. 6 E., 45 ft. N. and 20 ft. E. from center of crossroads, 630 ft. S. of crossing of Detroit, Toledo and Ironton R. R., in concrete post; standard tablet stamped "T T 46 C 1938 692"-----	691. 725
Reference mark, 10 ft. N. and 4 ft. W. from tablet, 55 ft. N. and 16 ft. E. from center of crossroads, in root on W. side of 30-in. oak tree; copper nail and washer-----	691. 74
Petersburg, 3.3 mi. S. and 2.0 mi. W. from, at D. T. & I. R. R. crossing; top of N. rail-----	689. 8
Petersburg, 2.5 mi. S., thence 2.0 mi. W. from, 2.2 mi. by rd. S., thence 1.0 mi. E. from Deerfield, near NW. cor. sec. 20, T. 7 S., R. 6 E., 585 ft. S. of junction of E.-W. rd., on E. side of rd., in root on W. side of 24-in. lone elm tree; copper nail and washer-----	681. 17

<sup>43</sup> Now a part of the New York Central System.

From Blissfield quadrangle at point 0.5 mile north and 4.2 miles east from Britton east along road to Maybee Road, thence northeast into Ypsilanti quadrangle (by S. R. Archer in 1938)

Britton, 0.5 mi. N., thence 4.5 mi. E. from, 2.8 mi. N., thence 4.5 mi. W. from Dundee, near quarter corner between secs. 5 and 32, Tps. 5 and 6 S., R. 6 E., at jog in N.-S. rd., in NE. angle of junction of rd. N., at SE. corner of bridge on rd. N., on top of E. end of retaining wall; chiseled square-----	Feet 675. 8 <sup>2</sup>
Dundee, 2.8 mi. N., thence 4.0 mi. W. from, in SE. cor. sec. 32, T. 5 S., R. 6 E., in NW. corner of crossroads, at W. concrete abutment of bridge, on top of NW. end of N. wing wall; chiseled square-----	673. 52
Dundee, 2.8 mi. N., thence 3.5 mi. W. from, near quarter corner between secs. 4 and 33, Tps. 5 and 6 S., R. 6 E., 15 ft. E. of junction of T-rd. S., on top of N. end of W. concrete abutment of bridge, at junction of wing wall and bridge seat; chiseled square-----	673. 40
Dundee, 2.8 mi. N., thence 3.0 mi. W. from, 6.5 mi. N. of Petersburg, in SE. cor. sec. 33, T. 5 S., R. 6 E., 24 ft. N. and 50 ft. W. from center of crossroads, 26 ft. N. and 18 ft. W. from center of bridge over drainage ditch, 5 ft. W. of corner fence post, in concrete post; standard tablet stamped "T T 42 C 1938 672"-----	672. 298
Dundee, 2.8 mi. N., thence 2.0 mi. W. from, near cor. secs. 2, 3, 34, and 35, Tps. 5 and 6 S., R. 6 E., 165 ft. E. of junction of T-rd. N., at SE. apex of triangle of rd. forks, in angle between rds., at NE. corner of bridge on rd. W., on top of NW. end of concrete retaining wall; chiseled square-----	670. 12
Dundee, 2.8 mi. N., thence 1.0 mi. W. from, in NE. cor. sec. 2, T. 6 S., R. 6 E., 30 ft. S. and 40 ft. W. from crossroads, in yard of farmhouse, in root on NE. side of 25-in. maple tree; copper nail and washer-----	672. 00
Dundee, 2.8 mi. N., thence 0.2 mi. W. from, at Ann Arbor R. R. crossing; top of W. rail-----	669. 4
Dundee, 2.8 mi. N. of, in NE. cor. sec. 1, T. 6 S., R. 6 E., 24 ft. S. and 110 ft. W. from center of crossroads, 83 ft. W. of corner fence post, in concrete post; standard tablet stamped "T T 41 C 1938 666"-----	665. 696
Dundee, 2.8 mi. N., thence 1.0 mi. E. from, in NE. cor. sec. 6, T. 6 S., R. 7 E., 105 ft. W. of crossroads, on S. side of rd., in yard of farmhouse, in root on NE. side of 24-in. maple tree; copper nail and washer-----	660. 52
Dundee, 2.8 mi. N., thence 1.5 mi. E. from, near quarter corner between secs. 5 and 32, Tps. 5 and 6 S., R. 7 E., at bridge over Saline River, on top of S. parapet wall of E. concrete abutment; chiseled square-----	648. 86
Dundee, 2.8 mi. N., thence 2.3 mi. E. from, 0.3 mi. E. of NE. cor. sec. 4, T. 6 S., R. 7 E., in SW. angle of crossroads, in root on NE. side of 48-in. elm tree; copper nail and washer-----	670. 92
Dundee, 2.8 mi. N., thence 3.0 mi. E. from, 0.4 mi. S. and 3.8 mi. W. from Maybee, in SW. cor. sec. 34, T. 5 S., R. 7 E., in NE. corner of junction of T-rd. N., on top of S. end of E. head wall of masonry culvert under rd. N.; chiseled square-----	659. 28
Maybee, 0.4 mi. S. and 3.0 mi. W. from, 30 ft. N. and 102 ft. W. from center of junction of T-rd. N. at S. cor. secs. 34 and 35, T. 5 S., R. 7 E., 30 ft. N. and 41 ft. E. from center of junction of T-rd. S. at N. cor. secs. 2 and 3, T. 6 S., R. 7 E., 14 ft. N. and 36 ft. E. from lone cottonwood tree, in concrete post; standard tablet stamped "T T 40 C 1938 648"-----	648. 112

Maybee, 0.4 mi. S. and 2.0 mi. W. from, near N. cor. secs. 1 and 2, T. 6 S., R. 7 E., 80 ft. W. of junction of T-rd. N., on S. side of rd., on field side of fence, in root on N. side of 48-in. elm tree; copper nail and washer-----	<i>Feet</i> 645. 33
Maybee, 0.4 mi. S. and 1.0 mi. W. from, near cor. secs. 1, 6, 31, and 36, Tps. 5 and 6 S., Rs. 7 and 8 E., 140 ft. NE. of junction of Maybee Rd., on E. side of rd., in root on W. side of 25-in. oak tree; copper nail and washer-----	641. 96
From point on Lake Shore & Michigan Southern R. R. 4.5 miles east of Petersburg generally south along roads into Toledo quadrangle at point 1 mile south of Lambertville (by S. R. Archer in 1938)	
U. S. C. & G. S. standard disk stamped "R 114 1934"-----	663. 519
Petersburg, 0.5 mi. S., thence 4.5 mi. E. from, 1.0 mi. S., thence 2.5 mi. W. from Ida, near quarter corner between secs. 5 and 8, T. 7 S., R. 7 E., 35 ft. W. of junction of E.-W. rd., on S. side of rd., in root on NW. side of 15-in. maple tree; copper nail and washer-----	661. 58
Petersburg, 0.5 mi. S., thence 4.0 mi. E. from, 1.0 mi. W., thence 1.0 mi. N. from Lulu, near S. cor. secs. 5 and 6, T. 7 S., R. 7 E., on N. side of rd., at junction of T-rd. S., at fence corner, in root on NW. side of 10-in. maple tree; copper nail and washer-----	663. 31
Lulu, 1.0 mi. W. of, in SW. cor. sec. 8, T. 7 S., R. 7 E., 71 ft. N. and 24 ft. E. from center of intersection of Claude West and Lulu Rds., 24 ft. N. of corner fence post, in concrete post; standard tablet stamped "T T 48 C 1938 663"-----	663. 120
Lulu, 1.0 mi. W., thence 1.0 mi. S. from, 7.0 mi. N. of Lambertville, in NE. cor. sec. 19, T. 7 S., R. 7 E., in SW. corner of crossroads, near W. end of S. concrete head wall of culvert under rd. W.; chiseled square-----	657. 89
Lambertville, 6.0 mi. N. of, in SE. cor. sec. 19, T. 7 S., R. 7 E., 55 ft. N. of crossroads, on W. side of rd., in root on SE. side of 30-in. oak tree; copper nail and washer-----	675. 21
Lambertville, 5.0 mi. N. of, 2.5 mi. W., thence 2.0 mi. N. from Samaria, in SE. cor. sec. 30, T. 7 S., R. 7 E., 136 ft. N. and 21 ft. W. from center of crossroads, 30 ft. S. and 70 ft. E. from SE. corner of Harwick School, 2 ft. S. and 2 ft. W. from power-line pole, in concrete post; standard tablet stamped "T T 49 C 1938 659"-----	659 276
Lambertville, 4.0 mi. N. of, near N. cor. secs. 5 and 6, T. 8 S., R. 7 E., at jog in N.-S. rd., 40 ft. S. of center of junction of T-rd. S., in center of rd., in root on NW. side of 40-in. oak tree; copper nail and washer-----	672. 74
Lambertville, 3.0 mi. N. of, 2.5 mi. W. of Samaria, in NE. cor. sec. 7, T. 8 S., R. 7 E., 150 ft. S. of crossroads, on W. side of rd., on N. side of driveway to farmhouse, in root on W. side of 6-in. boxelder tree; copper nail and washer-----	669 04
Lambertville, 2.6 mi. N. of, about 750 ft. N. of quarter corner between secs. 7 and 8, T. 8 S., R. 7 E., at N. abutment of concrete bridge, on top of NE. end of E. wing wall; chiseled square-----	664 96
Lambertville, 2.0 mi. N. of, in SW. cor. sec. 8, T. 8 S., R. 7 E., 46 ft. N. and 23 ft. E. from center of intersection of Secor and Erie Rds., in concrete post; standard tablet stamped "T T 50 C 1938 672"-----	671. 604
Lambertville, 1.0 mi. N. of, 3.0 mi. W. of Temperance, in NE. cor. sec. 19, T. 8 S., R. 7 E., in SW. angle of crossroads, on top of W. end of S. concrete head wall of culvert under rd. W.; chiseled square----	665 96

Lambertville, at E. side of, in NE. cor. sec. 30, T. 8 S., R. 7 E., in SW. angle of crossroads, on top of SE. corner of concrete top of catch basin; chiseled square-----	Feet 667. 40
Lambertville, 0.2 mi. S. of, about 0.3 mi. N. of quarter corner between secs. 29 and 30, T. 8 S., R. 7 E., 350 ft. S. of crossroads, on top of S. end of E. concrete head wall of culvert; chiseled square-----	649. 45

## DURAND QUADRANGLE

[Latitude 42°45'-43°00'; longitude 83°45'-84°00']

## GENESEE, LIVINGSTON, AND SHIAWASSEE COUNTIES

From Corunna quadrangle east along Corunna Road (present State Highway 21) 0.6 mile, thence along road north 0.1 mile into Burt quadrangle (by E. C. Bibbee in 1915)

Lennon, 1.0 mi. N., thence 3.0 mi. W. from, 15 ft. S. and 30 ft. W. from NE. cor. sec. 21, T. 7 N., R. 4 E., in SW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 18 1913 Mich 747" (recovered in 1919) <sup>44</sup> -----	746. 055
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From Burt quadrangle near crossroads 1 mile north and 1 mile west from Lennon south 0.1 mile, thence west 2 miles along Corunna Road (by E. E. Harris in 1919)

Lennon, 1.0 mi. N., thence 1.0 mi. W. from, in NW. cor. sec. 24, T. 7 N., R. 4 E., near SE. corner of crossroads, on top of concrete head wall of culvert; chiseled square-----	761. 70
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From Howell quadrangle at point 0.5 mile north of Sprague Corners along road north 0.6 mile, thence east 1.7 miles to road junction 0.5 mile west of Cohoctah, thence generally north along roads by way of Durand to crossroads 1 mile north and 3 miles west from Lennon (by E. E. Harris in 1919)

Cohoctah Center, 0.3 mi. N. of, 0.9 mi. N. of Sprague Corners, in NW $\frac{1}{4}$ sec. 9, T. 4 N., R. 4 E., 30 ft. N. and 50 ft. W. from junction of rd. W., in root on E. side of 40-in. oak tree; copper nail and washer----	875. 40
Cohoctah Center, 0.3 mi. N., thence 1.2 mi. E. from, 1.0 mi. W. of Cohoctah, near S $\frac{1}{4}$ cor. sec. 3, T. 4 N., R. 4 E., 25 ft. N. and 15 ft. E. from crossroads, opposite Pink School, on granite boulder; chiseled square-----	888. 08
Cohoctah, 0.5 mi. W. of, near NE. cor. sec. 10, T. 4 N., R. 4 E., on S. side of E.-W. rd., 35 ft. W. of junction of T-rd. N., in root of 15-in. elm tree; copper nail and washer-----	887. 88
Cohoctah, 0.5 mi. W., thence 1.4 mi. N. from, 1.0 mi. W., thence 3.0 mi. S. from Byron, near NW. cor. sec. 2, T. 4 N., R. 4 E., near Livingston-Shiawassee county line, 20 ft. S. and 10 ft. E. from crossroads, at bridge over ditch, in center of E. side of concrete floor; standard tablet stamped "1919 Mich 872" (recovered in 1936)-----	871. 681
U. S. C. & G. S. standard disk stamped "Y 104 1934" <sup>45</sup> -----	877. 675
Byron, 1.0 mi. W., thence 1.0 mi. S. from, near NW. cor. sec. 26, T. 5 N., R. 4 E., 20 ft. S. and 20 ft. E. from crossroads, on highest point of large granite boulder; chiseled square-----	887. 59
Byron, 1.0 mi. W. of, in NW. cor. sec. 23, T. 5 N., R. 4 E., 20 ft. S. and 20 ft. E. from crossroads, on highest point of large granite boulder; chiseled square-----	852. 23

<sup>44</sup> In 1922 this bench mark was moved 45 feet south and 40 feet east from this position and reset 0.819 foot lower than its original elevation. The figures given represent the new elevation.

<sup>45</sup> The tie between this mark and the bench mark stamped "1919 Mich 872" was made in 1936.

Byron, 1.0 mi. W., thence 0.4 mi. N. from, about 600 ft. S. of W $\frac{1}{4}$ cor. sec. 14, T. 5 N., R. 4 E., at iron bridge over Shiawassee River, in E. end of N. concrete abutment; standard tablet stamped "1919 Mich 827" (recovered in 1936)-----	<i>Feet</i> 826. 648
U. S. C. & G. S. standard disk stamped "W 104 1934" <sup>46</sup> -----	844. 122
Shiawassee River, under bridge; surface of water Aug. 13, 1919-----	814. 8
Byron, 1.0 mi. W., thence 1.0 mi. N. from, 5.4 mi. SE. of Durand, near SW. cor. sec. 11, T. 5 N., R. 4 E., 80 ft. N. of junction of rd. NW., on E. side of rd., in root on W. side of 36-in. elm tree; copper nail and washer-----	850. 21
Durand, 4.1 mi. S. of, 0.3 mi. E. of NW. cor. sec. 10, T. 5 N., R. 4 E., 40 ft. S. and 30 ft. W. from crossroads, in front of Cole School, on large granite boulder; chiseled square-----	858. 58
Durand, 2.1 mi. S. of, in SE. cor. sec. 28, T. 6 N., R. 4 E., 60 ft. N. and 80 ft. W. from crossroads, on E. side of entrance to Lovejoy School, in S. end of second stone step; standard tablet stamped "1919 Mich 816"-----	815. 641
Durand, at crossing of Oak Street and Durand-Grand Rapids branch of Grand Trunk Ry., 15 ft. E. of dirt rd., 40 ft. S. of main track, on SW. corner of concrete foundation of warning signal; chiseled square (recovered in 1936)-----	793. 73
U. S. C. & G. S. standard disk stamped "Durand 1934" <sup>47</sup> -----	797. 489
Durand, 0.9 mi. N. of, near NW. cor. sec. 15, T. 6 N., R. 4 E., on E. side of rd., in center of top of concrete arch culvert; chiseled square--	771. 89
Durand, 1.9 mi. N. of, near SW. cor. sec. 3, T. 6 N., R. 4 E., 25 ft. N. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "1919 Mich 793"-----	792. 485
Durand, 4.2 mi. N. of, near NW. cor. sec. 34, T. 7 N., R. 4 E., 50 ft. S. and 20 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square-----	773. 75
Durand, 5.2 mi. N. of, near NW. cor. sec. 27, T. 7 N., R. 4 E., 80 ft. S. and 15 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square-----	775. 88
From Howell quadrangle at point 0.5 mile west and 1.2 miles north from Deerfield Center generally north by way of Gaines into Burt quadrangle at point 1 mile east and 1 mile north from Lennon (by E. E. Harris in 1919)	
Deerfield Center, 0.5 mi. W., thence 2.5 mi. N. from, 0.5 mi. N. and 1.6 mi. E. from village of Deer Creek, 0.5 mi. N. of S $\frac{1}{4}$ cor. sec. 4, T. 4 N., R. 5 E., in NW. corner of bridge over Cranberry Creek, on concrete floor; chiseled square-----	852. 07
Deer Creek, 1.3 mi. N. and 1.3 mi. E. from, 3.5 mi. SE., thence 1.8 mi. S. from Byron, near SE. cor. sec. 32, T. 5 N., R. 5 E., 20 ft. N. and 20 ft. W. from junction of rd. N.; standard iron post with bronze cap stamped "1919 Mich 871"-----	870. 387
Byron, 3.5 mi. SE., thence 1.0 mi. S. from, near McKane Lake, 0.2 mi. S. of NW. cor. sec. 32, T. 5 N., R. 5 E., 50 ft. SE. of clubhouse, on W. side of rd., in root on S. side of 12-in. oak tree; copper nail and washer-----	851. 57
Byron, 3.5 mi. SE. of, near Myers Lake, in NW $\frac{1}{4}$ sec. 28, T. 5 N., R. 5 E., 40 ft. S. and 20 ft. E. from junction of NW.-SE. rd., in root on S. side of twin locust tree; copper nail and washer-----	847. 85

<sup>46</sup> The tie between this mark and the bench mark stamped "1919 Mich 827" was made in 1936.

<sup>47</sup> The tie between this mark and the bench mark with elevation 793.73 feet was made in 1936.

Byron, 2.8 mi. SE. of, 0.9 mi. along Grand Trunk Ry. SE., thence 3.7 mi. by rd. S. from Gaines, about 450 ft. N. of S $\frac{1}{4}$ cor. sec. 20, T. 5 N., R. 5 E., 25 ft. N. and 40 ft. W. from intersection of Grand River and Duffield Rds., in root on S. side of 36-in. oak tree; copper nail and washer-----	Feet 857. 74
Gaines, 0.9 mi. SE., thence 3.4 mi. S. from, near center of sec. 20, T. 5 N., R. 5 E., at bridge over Shiawassee River, in center of W. side; top of small iron bolt-----	840. 04
Shiawassee River, under bridge; surface of water Aug. 20, 1919.-----	830. 8
Gaines, 0.9 mi. SE., thence 1.8 mi. S. from, near S $\frac{1}{4}$ cor. sec. 8, T. 5 N., R. 5 E., 25 ft. N. and 35 ft. E. from crossroads, in concrete post; standard tablet stamped "1919 Mich 861" (recovered in 1936)-----	860. 695
Gaines, 0.9 mi. SE. of, 0.2 mi. S. of N $\frac{1}{4}$ cor. sec. 5, T. 5 N., R. 5 E., in SE. corner of crossing of Grand Trunk Ry., in base of warning signal; rail spike-----	840. 43
Gaines, at crossing of Grand Trunk Ry. and main rd. N., 20 ft. W. of rd., 40 ft. N. of main track, in base of warning signal; rail spike (recovered by U. S. C. & G. S. in 1934)-----	855. 510
Gaines, 1.8 mi. N. of, 2.1 mi. S. of Duffield, near SW. cor. sec. 20, T. 6 N., R. 5 E., 25 ft. N. and 30 ft. E. from crossroads, in concrete post; standard tablet stamped "1919 Mich 811"-----	810. 654
Duffield, 1.1 mi. S. of, near SE. cor. sec. 18, T. 6 N., R. 5 E., 40 ft. N. and 15 ft. W. from crossroads, in center of top of concrete culvert; chiseled square-----	793. 92
Duffield, 0.9 mi. N. of, near NW. cor. sec. 8, T. 6 N., R. 5 E., in SE. angle of crossroads, at front entrance of Duffield School, on NW. corner of first stone step; chiseled square (recovered in 1936)-----	795. 98
Grand Trunk Ry. copper bolt stamped "257 $\frac{1}{2}$ "; elevation determined by U. S. C. & G. S. <sup>48</sup> -----	775. 704
Duffield, 1.9 mi. N. of, 1.0 mi. E., thence 2.0 mi. S. from Lennon, near NW. cor. sec. 5, T. 6 N., R. 5 E., at jog in N.-S. rd., on S. side of E.-W. rd., in line with W. side of rd. N., on W. side of lane to farmhouse, in top of concrete culvert; standard tablet stamped "1919 Mich 808" <sup>49</sup> -----	807. 281
From Howell quadrangle at point 0.9 mile north and 5.2 miles east from Deerfield Center along roads alternately north and west by way of Linden and Swartz Creek into Burt quadrangle (by E. E. Harris in 1919; section north of Linden leveled twice)	
Deerfield Center, 5.2 mi. E., thence 1.0 mi. N. from, 5.0 mi. S., thence 1.0 mi. E. from Grand Trunk Ry. sta. in Linden, in NW. cor. sec. 16, T. 4 N., R. 6 E., 20 ft. S. and 30 ft. E. from crossroads, on granite boulder; chiseled square-----	1, 003. 40
Linden, 4.5 mi. S., thence 1.0 mi. E. from, near E $\frac{1}{4}$ cor. sec. 8, T. 4 N., R. 6 E., 20 ft. N. and 40 ft. W. from junction of T.-rd. W., between telephone pole and wire fence, in concrete post; standard tablet stamped "1919 Mich 959"-----	958. 665
Linden, 4.5 mi. S. of, near E $\frac{1}{4}$ cor. sec. 7, T. 4 N., R. 6 E., 25 ft. N. and 25 ft. W. from crossroads, on top of granite outcrop; chiseled square-----	997. 05
Linden, 4.0 mi. S. of, about 400 ft. N. of SE. cor. sec. 6, T. 4 N., R. 6 E., at concrete bridge over Runyan Creek, on SW. corner of floor; chiseled square-----	860. 29

<sup>48</sup> The tie between this mark and the bench mark with elevation 795.98 feet was made in 1936.

<sup>49</sup> In 1931 this bench mark was moved 50 feet north of this position and reset 0.450 foot higher than its original elevation. The figures given represent the new elevation.

	<i>Feet</i>
Runyan Creek, under bridge; surface of water Aug. 26, 1919.....	857. 2
Linden, 3.2 mi. S. of, 0.3 mi. S. of NE. cor. sec. 6, T. 4 N., R. 6 E., 0.3 mi. S. of Genesee-Livingston county line, 30 ft. N. and 20 ft. W. from crossroads, in root on E. side of 15-in. oak tree; copper nail and washer.....	895. 42
Linden, 1.6 mi. S. of, in SW $\frac{1}{4}$ sec. 29, T. 5 N., R. 6 E., in bridge over inlet to Byram Lake, on N. end of W. abutment; chiseled square..	876. 03
Byram Lake; surface of water Aug. 26, 1919.....	869. 1
Linden, 1.4 mi. S. of, 0.25 mi. W. of center of sec. 29, T. 5 N., R. 6 E., on W. side of N.-S. rd., on N. side of private lane W., in concrete post; standard tablet stamped "1919 Mich 902" (recovered in 1936) ..	901. 007
U. S. C. & G. S. standard disk stamped "Y 42 1934" <sup>50</sup> .....	871. 517
Linden, in front of sta., at N. side of platform; top of S. rail.....	873. 8
Linden, 0.5 mi. N. and 1.0 mi. W. from, in SW $\frac{1}{4}$ sec. 18, T. 5 N., R. 6 E., 15 ft. S. and 15 ft. W. from Grand Trunk Ry. crossing, in base of crossing signal; rail spike.....	885. 86
Linden, 1.2 mi. N. and 1.0 mi. W. from, 0.2 mi. E. of SW. cor. sec. 7, T. 5 N., R. 6 E., 25 ft. N. and 25 ft. E. from crossroads, at base of corner fence post, on top of granite outcrop; chiseled square.....	894. 92
Linden, 2.2 mi. N. and 1.0 mi. E. from, 6.8 mi. S. and 1.2 mi. E. from Swartz Creek, 0.2 mi. E. of NW. cor. sec. 7, T. 5 N., R. 6 E., in SE. angle of crossroads, at entrance to Blair School, in N. end of first stone step; standard tablet stamped "1919 Mich 879".....	877. 700
Swartz Creek, 4.8 mi. S., thence 0.5 mi. E. from, near S $\frac{1}{4}$ cor. sec. 25, T. 6 N., R. 5 E., in NW. angle of intersection of Baldwin Rd., at entrance to Beecher School, on SE. corner of top stone step; chiseled square.....	836. 35
Swartz Creek, 3.8 mi. along Morrish Rd. S. of, near NE. cor. sec. 26, T. 6 N., R. 5 E., 35 ft. S. and 25 ft. W. from crossroads, in concrete post; standard tablet stamped "1919 Mich 819".....	818. 113
Swartz Creek, at crossing of Grand Trunk Ry., 250 ft. E. of sta., 25 ft. E. of rd., 15 ft. N. of right-of-way, 46 ft. SW. of SW. corner of dwell- ing of Andrew Kulmoke, 16 ft. N. of 14-in. maple tree, in concrete post; standard tablet stamped "1919 Mich 777" (recovered by U. S. C. & G. S. in 1934).....	775. 553
Reference mark, in NE. angle of grade crossing, in SW. corner of cross- ing signal; top of iron bolt.....	778. 31
From road junction 0.5 mile west of Cohoctah generally east along road to cross- roads 1.7 miles east of Deer Creek (by E. E. Harris in 1919)	
Cohoctah, at intersection of Ann Arbor R. R. and main rd., 200 ft. N. of sta.; top of E. rail of main track.....	890. 4
Cohoctah, 0.5 mi. E. of, near NW. cor. sec. 12, T. 4 N., R. 4 E., 20 ft. S. and 20 ft. E. from crossroads, diagonally opposite Graham School, on highest point of large granite boulder; chiseled square.....	886. 38
Cohoctah, 1.5 mi. E. of, at NW. cor. sec. 7, T. 4 N., R. 5 E., on outside of turn from E. to N. in rd., in root on W. side of 30-in. elm tree; copper nail and washer.....	850. 48
Cohoctah, 2.2 mi. by rd. E. of, 0.2 mi. W. of Deer Creek, in SE $\frac{1}{4}$ sec. 6, T. 4 N., R. 5 E., at bridge over South Branch of Shiawassee River, on S. end of E. abutment; chiseled square.....	843. 22
Shiawassee River, South Branch of, under bridge; surface of water Oct. 1, 1919.....	831. 1

<sup>50</sup> The tie between this mark and the bench mark stamped "1919 Mich 902" was made in 1936.



Deer Creek, on E. side of N.-S. rd., in line with rd. W., 3 ft. W. of wire fence, on top of granite outcrop; chiseled square-----	<i>Feet</i> 885. 42
From Holly quadrangle at point 0.8 mile south and 1.6 miles east from Linden northwest along Grand Trunk Railway to point 0.9 mile southeast of Gaines (by E. E. Harris in 1919)	
Linden, 0.8 mi. SE. of, near E $\frac{1}{4}$ cor. sec. 20, T. 5 N., R. 6 E., 25 ft. S. and 30 ft. W. from grade crossing, in base of crossing signal; rail spike-----	886. 91
Linden, 2.5 mi. NW. of, near NW. cor. sec. 13, T. 5 N., R. 5 E., 60 ft. W. of intersection of Lahring Rd., in base of crossing signal; rail spike-----	869. 12
Linden, 3.6 mi. NW. of, 3.8 mi. SE. of Gaines, near E $\frac{1}{4}$ cor. sec. 10, T. 5 N., R. 5 E., 50 ft. S. and 25 ft. W. from grade crossing, in root on E. side of 15-in. hickory tree; copper nail and washer-----	857. 51
Gaines, 2.7 mi. SE. of, near NW. cor. sec. 10, T. 5 N., R. 5 E., 130 ft. SE. of grade crossing, 60 ft. S. of track, on E. side of lane to farmhouse, in angle of rail fence, in root on W. side of forked oak tree; copper nail and washer-----	837. 68
Gaines, 1.5 mi. SE. of, near E $\frac{1}{4}$ cor. sec. 5, T. 5 N., R. 5 E., at trestle over small creek, in E. end of N. guardrail; top of iron bolt-----	839. 56
From point on Grand Trunk Railway 1.1 miles southeast of Gaines northwest along railway 0.2 mile, thence south along road 1.8 miles (by J. M. Lawson in 1938; leveled twice)	
Grand Trunk Ry. copper bolt stamped "61 $\frac{1}{2}$ "; elevation determined by U. S. C. & G. S.-----	838. 535
Gaines, 0.9 mi. along Grand Trunk Ry. SE., thence 1.3 mi. by rd. S. from, near quarter corner between secs. 5 and 8, T. 5 N., R. 5 E., 28 ft. N. and 24 ft. W. from junction of T-rd. E., on top of embedded rock; chiseled square-----	854. 52

EAGLE RIVER QUADRANGLE <sup>51</sup>

[Latitude 47°15'-47°30'; longitude 88°15'-88°30']

## HOUGHTON AND KEWEENAW COUNTIES

From Lake Linden quadrangle near Albion along road by way of Allouez and Seneca Lake to Cliff (by F. H. West in 1908; leveled twice)

Centennial, at Centennial Methodist Episcopal Church, in SW. corner of stone foundation; aluminum tablet stamped "1189"-----	1, 188. 682
Allouez, 470 yd. S. of junction of T-rd. at N. end of town, 100 yd. S. of blacksmith shop, on W. side of rd., in concrete post; aluminum tablet stamped "1027"-----	1, 026. 021
Allouez, 1.1 mi. NE. of, 1.4 mi. W. of Mohawk, at SE. corner of junction of Mohawk Rd. and Calumet-Cliff pike, on top of stone; chiseled cross-----	897. 04
Allouez, 2.6 mi. NE. of, 4.7 mi. SW. of Cliff, at angle in rd. around Seneca Lake, at SW. corner of junction of rd. NW., on stone; chiseled mark-----	938. 02
Cliff, 3.2 mi. SW. of, 900 ft. SW. of roadhouse of Frank Charrier, on NW. side of rd., 300 ft. NE. of woods rd. W., at top of grade, in concrete post set flush with ground; aluminum tablet stamped "1028"-----	1, 027. 076

<sup>51</sup> A large area in the northwest portion of this quadrangle extends into Lake Superior. That portion of the south half of the quadrangle lying west of the line between Rs. 31 and 32 W. was originally surveyed and published as part of Calumet special project.

Cliff, 1.6 mi. SW. of, directly opposite Halfway House of Winford Gagnon, on NW. side of rd., on shelf of large boulder; chiseled square and letters "U S B M"-----	<i>Feet</i> 1, 131. 54
Cliff, at SE. corner of junction of T-rd. SE., 300 ft. SW. of shaft of Cliff Mine, just outside fence line of lot around large frame house on hill to E., in concrete post; aluminum tablet stamped "987" (recovered by U. S. C. & G. S. in 1934)-----	985. 608
From point near Allouez northwest along road 3 miles to point 0.25 mile north of center of sec. 24, T. 57 N., R. 33 W. (by F. H. West in 1908; leveled twice)	
Allouez, 1.0 mi. NW. of, 60 ft. S. of red house; westernmost house in Bummeltown, 162 ft. S. of junction of rd. W. to lake shore, on W. side of rd., on shelf on E. side of boulder; chiseled square-----	1, 130. 99
Allouez, 3.7 mi. NW. of, 1.25 mi. N. and W. from old Calumet & Hecla stamp mill, 30 ft. W. of rd. to mouth of Gratiot River, at rd. fork at S. edge of clearing; standard iron post with bronze cap----	810. 514

EDMORE QUADRANGLE

[Latitude 43°15'-43°30'; longitude 85°00'-85°15']

ISABELLA, MECOSTA, AND MONTCALM COUNTIES

From point west of Sidney west along road toward Gowen (by R. G. Clinite in 1918)

[A jog from Fenwick quadrangle]

Sidney, 24 ft. N. and 32 ft. W. from center of crossroads, in root of 28-in. maple tree; copper nail and washer-----	899. 32
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[Line jogs into Fenwick quadrangle]

Sidney, 4.0 mi. W. of, 4.3 mi. E. of Gowen, 20 ft. N. and 60 ft. E. from junction of T-rd. N., in SW. cor. sec. 13, T. 10 N., R. 8 W., in root of 18-in. walnut tree; copper nail and washer-----	893. 89
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ELSIE QUADRANGLE

[Latitude 43°00'-43°15'; longitude 84°15'-84°30']

CLINTON, GRATIOT, SAGINAW, AND SHIAWASSEE COUNTIES

From Chesaning quadrangle at point near southeast corner sec. 17, T. 7 N., R. 2 E., northwest along road 1.8 miles to Burton, thence south 0.4 mile into Laingsburg quadrangle (by E. C. Bibbee in 1915)

Burton, 1.0 mi. SE. of, on line between secs. 17 and 18, T. 7 N., R. 2 E., 10 ft. N. of right-of-way of Grand Trunk Ry., on S. side of rd., in root of 24-in. oak tree; copper nail and washer-----	772. 49
Burton, 180 ft. N. of Grand Trunk Ry., at store of D. Green, on SW. corner of concrete step; chiseled square-----	769. 24

From Laingsburg quadrangle at point 1.4 miles east, thence 0.5 mile south from Ovid north along road to crossroads 1 mile west of Marion Springs, thence east 5 miles into Chesaning quadrangle (by E. C. Bibbee in 1915)

T. 7 N., R. 1 E., near NW. cor. sec. 15, in SE. angle of crossroads, 4 ft. W. of fence corner, on N. end of E. concrete parapet of small bridge; chiseled square-----	774. 26
T. 7 N., R. 1 E., in NE. cor. sec. 9, in SW. angle of crossroads, in NE. corner of yard of Lake School; standard iron post with bronze cap stamped "Mich 764"-----	762. 925
T. 8 N., R. 1 E., near SW. cor. sec. 34, at S. side of bridge over ditch, on W. abutment; chiseled square-----	725. 13

T. 8 N., R. 1 E., near NE. cor. sec. 33, at junction of E.-W. rd., 10 ft. S. and 15 ft. W. from fence corner, on large granite rock; chiseled square	<i>Feet</i> 734. 59
T. 8 N., R. 1 E., in NE. cor. sec. 21, near Cox School, in SW. angle of crossroads, 4 ft. S. and 3 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 742"	740. 906
T. 8 N., R. 1 E., in NW. cor. sec. 15, near SE. corner of crossroads, on W. end of N. concrete head wall of culvert; chiseled square	729. 84
T. 8 N., R. 1 E., in NE. cor. sec. 9, in SW. angle of junction of E.-W. rd., on S. side of bridge, on W. end of steel girder; chiseled mark	720. 09
T. 8 N., R. 1 E., 10 ft. S. of E $\frac{1}{4}$ cor. sec. 4, 0.5 mi. S. of Olney Corners, in root of poplar tree; copper nail and washer	724. 19
Olney Corners, at German Brethren Church, 264 ft. S. of NE. cor. sec. 4, T. 8 N., R. 1 E. and Saginaw-Shiawassee county line, in NE. corner of churchyard; standard iron post with bronze cap stamped "Mich 717"	716. 232
Saginaw-Shiawassee county line; center line of rd	704. 5
T. 9 N., R. 1 E., near NW. cor. sec. 27, 2.0 mi. N. of Olney Corners, 1.0 mi. S. of Fenmore, at E. side of small bridge, on S. abutment; chiseled square	661. 51
Fenmore, in SW. angle of crossroads at, in NE. cor. sec. 21, T. 9 N., R. 1 E., in NE. corner of schoolyard; standard iron post with bronze cap stamped "Mich 654"	653. 039
T. 9 N., R. 1 E., in NE. cor. sec. 16, 1.0 mi. N. of Fenmore, near junction of private rd. E., on N. end of W. parapet of small culvert; chiseled square	650. 93
T. 9 N., R. 1 E., near NW. cor. sec. 10, near Christian School, at NE. corner of iron bridge, on concrete floor; chiseled square	647. 96
T. 10 N., R. 1 E., near SW. cor. sec. 34, in NE. angle of crossroads, 2 ft. N. and 2 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 653"	652. 836
T. 10 N., R. 1 E., in NE. cor. sec. 33, 1.0 mi. W., thence 1.0 mi. S. from Marion Springs, near SW. corner of crossroads, on W. end of bridge; nail head	649. 39
Marion Springs, 1.0 mi. W. of, in SW. cor. sec. 22, T. 10 N., R. 1 E., near NE. corner of crossroads, at E. side of bridge, on S. abutment; chiseled square	651. 92
Marion Springs, at NW. corner of crossroads, in SE. cor. sec. 22, T. 10 N., R. 1 E.; standard iron post with bronze cap stamped "Mich 648"	647. 827
Marion Springs, 2.0 mi. E. of, near SE. cor. sec. 24, T. 10 N., R. 1 E., at concrete bridge over Little Potato Creek, on NE. corner of floor; chiseled square	630. 15
From crossroads 1 mile west of Marion Springs west along road 1 mile to Gratiot-Saginaw county line, thence north 0.5 mile, thence west about 7 miles into Perrinton quadrangle near southwest corner sec. 13, T. 10 N., R. 2 W. (by E. C. Bibbee in 1915)	
Marion Springs, 2.0 mi. W., thence 0.5 mi. N. from, 10 ft. E. of E. cor. secs. 13 and 24, T. 10 N., R. 1 W., on E. side of Gratiot-Saginaw county-line rd., directly E. of center of junction of T.-rd. W.; standard iron post with bronze cap stamped "Prim Trav Sta No 7 1913 Mich 662" <sup>52</sup>	665. 822

<sup>52</sup> Erroneously stamped 4 feet low.

T. 10 N., R. 1 W., in NW. cor. sec. 22, in SE. angle of crossroads, 2 ft. N. and 5 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 683"-----	Feet 682. 323
T. 10 N., R. 1 W., in NW. cor. sec. 20, in SE. angle of crossroads, in root of 12-in. buckeye tree; copper nail and washer-----	699. 48
T. 10 N., R. 1 W., near SW. cor. sec. 18, in NE. angle of intersection of range-line rd., near Hamilton-North Star township line, 3 ft. S. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 6 1913 Mich 705"-----	704. 244
From crossroads at corner secs. 15, 16, 21, and 22, T. 10 N., R. 1 W., south along road to Shepardsville (by E. C. Bibbee in 1915)	
T. 10 N., R. 1 W., 0.3 mi. N. of E $\frac{1}{4}$ cor. sec. 33, 100 ft. N. of abandoned schoolhouse, on W. side of rd., in base of 10-in. oak tree; 60-penny spike-----	682. 44
T. 9 N., R. 1 W., in NW. cor. sec. 3, in SE. angle of crossroads, 4 ft. NE. of fence corner; standard iron post with bronze cap stamped "Mich 673"-----	672. 714
T. 9 N., R. 1 W., in SE. cor. sec. 9, 1.0 mi. N. of Elba Center School, near NW. corner of crossroads, at N. end of small bridge, on W. abutment; chiseled square-----	657. 43
T. 9 N., R. 1 W., in NW. cor. sec. 22, 150 ft. S. of SE. corner of crossroads, in SW. corner of yard of Elba Center School; standard iron post with bronze cap stamped "Mich 661"-----	660. 254
Maple River, under bridge; surface of water Aug. 18, 1915.-----	655. 7
T. 9 N., R. 1 W., near SE. cor. sec. 21, 1.0 mi. S. of Elba Center School, 1.0 mi. N. and 0.4 mi. W. from Bannister, 10 ft. NW. of center of crossroads, at N. end of concrete bridge, on E. abutment; chiseled square-----	662. 92
Bannister, 0.5 mi. W. of intersection of Ann Arbor R. R. and E.-W. rd. at, 750 ft. W. of SE. cor. sec. 28, T. 9 N., R. 1 W., at N. side of bridge, on E. abutment; chiseled square-----	670. 64
T. 8 N., R. 1 W., in NE. cor. sec. 4, 0.4 mi. W., thence 1.0 mi. S. from Bannister, in SW. angle of crossroads, near Clinton-Gratiot county line, 25 ft. W. of fence corner; standard iron post with bronze cap stamped "Mich 691"-----	690. 573
T. 8 N., R. 1 W., 100 ft. S. of NW. cor. sec. 10, 2.0 mi. W.; thence 1.0 mi. N. from Elsie, near Stafford School, in fence line, in root of 12-in. oak tree; 60-penny spike-----	685. 87
Elsie, 2.0 mi. W. of, in NW. cor. sec. 15, T. 8 N., R. 1 W., near SE. corner of crossroads, at S. end of culvert, on large granite rock; chiseled square-----	719. 36
T. 8 N., R. 1 W., in SE. cor. sec. 16, 2.0 mi. W., thence 1.0 mi. S. from Elsie, in NW. angle of crossroads, in SE. corner of yard of Meade School; standard iron post with bronze cap stamped "Mich 717"-----	716. 522
T. 8 N., R. 1 W., in SE. cor. sec. 21, 1.0 mi. S. of Meade School, in NW. angle of crossroads, in root of 18-in. maple tree; copper nail and washer-----	723. 99
T. 8 N., R. 1 W., near NE. cor. sec. 33, 2.8 mi. N. of Shepardsville, in SW. angle of crossroads, 1 ft. N. of fence corner, on large rock; chiseled square-----	759. 72
Shepardsville, 1.8 mi. N. of, 100 ft. W. of NE. cor. sec. 4, T. 7 N., R. 1 W., near Duplain-Ovid township line, on S. side of junction of E.-W. rd., at fence line; standard iron post with bronze cap stamped "Mich 742"-----	741. 540

Shepardsville, 0.7 mi. N. of, 400 ft. S. of NW. cor. sec. 10, T. 7 N., R. 1 W., at E. side of iron bridge over Maple River, on N. abutment; chiseled square-----	<i>Feet</i> 715. 39
Shepardsville, 45 ft. S. of post office, 0.25 mi. N. of SE. cor. sec. 9, T. 7 N., R. 1 W., in front of Alderman Bros. General Store, on SW. corner of concrete porch; chiseled square-----	756. 36
From Perrinton quadrangle at point 3 miles east of St. Johns east along roads by way of Shepardsville to Ovid, thence southeast along streets and road into Laingsburg quadrangle near south quarter corner sec. 16, T. 7 N., R. 1 E. (by E. C. Bibbee in 1915)	
St. Johns, 3.8 mi. W. of, 0.2 mi. S. and 3.0 mi. W. from Shepardsville, 60 ft. S. of NE. cor. sec. 13, T. 7 N., R. 2 W., on W. side of range-line rd., opposite N. fence line of T-rd. E., on granite rock; chiseled square-----	757. 69
Shepardsville, 0.2 mi. S. and 2.0 mi. W. from, near NW. cor. sec. 17, T. 7 N., R. 1 W., near SE. corner of crossroads, on N. end of stone arch culvert; chiseled square-----	754. 85
Shepardsville, 1.0 mi. W., thence 0.2 mi. S. from, near SW. cor. sec. 9, T. 7 N., R. 1 W., on E. side of rd., in line with center of rd. W.; standard iron post with bronze cap stamped "Mich 763"-----	763. 037
Shepardsville, 0.2 mi. S., thence 0.8 mi. E. from, on N. line of sec. 15, T. 7 N., R. 1 W., at foot of hill, on S. side of iron bridge over ditch, on E. abutment; chiseled square-----	733. 04
Shepardsville, 0.2 mi. S., thence 2.0 mi. E. from, 0.7 mi. W., thence 0.3 mi. S. from Ovid, near NW. cor. sec. 13, T. 7 N., R. 1 W., on E. side of N.-S. rd., in line with center of rd. W., 4 ft. W. of fence; standard iron post with bronze cap stamped "Prim Trav Sta No 5 1915 Mich 728"-----	727. 546
Maple River, near W. corporate limits of Ovid, under bridge; surface of water Aug. 23, 1915-----	711. 7
Ovid, at SW. corner of street intersection, directly E. of N. wall of E. C. Smith Co. Dry Goods Store, on E. edge of concrete sidewalk; chiseled square-----	734. 02
From point near west quarter corner sec. 13, T. 8 N., R. 2 W., along roads east 0.3 mile, thence south 2.5 miles to quarter corner between secs. 25 and 36, T. 8 N., R. 2 W., thence west 0.3 mile (by E. C. Bibbee in 1915)	
[A jog from Perrinton quadrangle]	
T. 8 N., R. 2 W., near quarter corner between secs. 13 and 24, 12 ft. E. of center line of rd., on large granite rock; chiseled square-----	720. 59
T. 8 N., R. 2 W., near quarter corner between secs. 24 and 25, in NE. angle of crossroads, 2 ft. N. and 4 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 720"-----	719. 914

## FENNIVILLE QUADRANGLE

[Latitude 42°30'-42°45'; longitude 86°00'-86°15']

## ALLEGAN COUNTY

From Bangor quadrangle north along U. S. Highway 31 to Glenn, thence along improved road near shore of Lake Michigan to point 0.5 mile south and 1.4 miles west from Douglas, thence east 0.8 mile to U. S. Highway 31, thence east and north along highway into Holland quadrangle (by H. P. Jones in 1928; section between Glenn and Douglas leveled twice)

Glenn, 1.0 mi. S. of, 330 ft. N. of SW. cor. sec. 32, T. 2 N., R. 16 W., on E. side of highway, on N. concrete head wall of culvert; chiseled square-----	681. 42
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Glenn, 25 ft. N. and 65 ft. E. from crossroads at, in SW. cor. sec. 29, T. 2 N., R. 16 W., at W. end of porch of Seymours General Store and Post Office, on S. end of concrete step; chiseled square-----	<i>Feet</i> 651. 14
Glenn, 1.0 mi. N. of, in NW. cor. sec. 29, T. 2 N., R. 16 W., 56 ft. S. and 22 ft. E. from crossroads, 2 ft. from telephone pole, in concrete post; standard tablet stamped "P T Sta No 73 Y 1926"-----	661. 661
Reference mark, 50 ft. N. and 20 ft. W. from crossroads, in root on E. side of 12-in. honeylocust tree; copper nail and washer-----	661. 82
Glenn, 3.0 mi. N. of, 1.6 mi. S. of Pier Cove, 150 ft. N. and 30 ft. E. from SW. cor. sec. 8, T. 2 N., R. 16 W., in NE. angle of junction of T-rd. E., in root on W. side of 22-in. maple tree; copper nail and washer-----	632. 74
Pier Cove, 1.1 mi. S. of, 0.5 mi. S., thence 1.0 mi. W. from Ganges, 26 ft. S. and 39 ft. E. from iron pipe at quarter corner between secs. 7 and 8, T. 2 N., R. 16 W., 17 ft. S. and 28 ft. W. from junction of rd. E., in concrete post; standard tablet stamped "P T Sta No 74 Y 1926"-----	622. 948
Reference mark, 150 ft. E. of tablet, 25 ft. S. and 125 ft. E. from rd. junction, in root on NW. side of 20-in. maple tree; copper nail and washer-----	626. 34
Pier Cove, at, in NW $\frac{1}{4}$ sec. 5, T. 2 N., R. 16 W., 100 ft. N. and 25 ft. W. from turn from E. to N. in rd., in root on E. side of 24-in. maple tree; copper nail and washer-----	625. 23
Pier Cove, 1.0 mi. N. of, near center of sec. 32, T. 3 N., R. 16 W., on E. side of rd., in root on W. side of 40-in. beech tree; copper nail and washer-----	636. 89
Pier Cove, 1.5 mi. N. of, 1.4 mi. W., thence 2.5 mi. S. from Douglas, 43 ft. S. and 21 ft. E. from junction of rd. E., about 500 ft. E. of E. shore of Lake Michigan, 8 ft. SW. of ash tree, in concrete post; standard tablet stamped "P T Sta No 75 Y 1926"-----	633. 428
Reference mark, at SW. corner of rd. junction, in root on W. side of 15-in. wild-cherry tree; copper nail and washer-----	633. 32
Douglas, 1.4 mi. W., thence 1.5 mi. S. from, at fence line between secs. 20 and 29, T. 3 N., R. 16 W.; top of concrete post-----	644. 57
Douglas, 1.4 mi. W., thence 0.5 mi. S. from, 13 ft. N. and 35 ft. E. from junction of T-rd. E. along line between secs. 17 and 20, T. 3 N., R. 16 W., near shore of Lake Michigan, in root on W. side of 20-in. maple tree; copper nail and washer-----	650. 30
Douglas, 0.6 mi. W., thence 0.5 mi. S. from, in NW. cor. sec. 21, T. 3 N., R. 16 W., 24 ft. S. and 26 ft. E. from intersection of U. S. Highway 31 and E.-W. rd., on line with rows of maple trees S. and E., in concrete post; standard tablet stamped "P T Sta No 76 Y 1926"-----	652. 392
Reference mark, 8 ft. E. of tablet, in E. row of maple trees, in root on SW. side of end tree; copper nail and washer-----	652. 66
Douglas, at W. end of town, near E $\frac{1}{4}$ cor. sec. 17, T. 3 N., R. 16 W., 35 ft. S. and 15 ft. W. from crossroads, 30 ft. E. of Douglas water-works pumping sta., on E. end of S. concrete retaining wall; chiseled square-----	622. 54
Douglas, in NE. part of town, at steel bridge over Kalamazoo River, on W. end of S. concrete abutment; chiseled square-----	586. 99
Saugatuck, in front of post office, at flagpole standard; top of brass screw cap-----	592. 65

Saugatuck, 1.1 mi. along highway NE. of post office, about 600 ft. N. of S. cor. secs. 3 and 4, at SW. corner of old cemetery, 15 ft. N. of driveway, in concrete post; standard tablet stamped "P T Sta No 83 Y 1926"	Feet 620. 768
Reference mark, 125 ft. N. and 40 ft. W. from driveway into cemetery, at twin pine trees, in root on E. side of northernmost tree; copper nail and washer	620. 00
Saugatuck, 1.7 mi. along highway NE. of, 0.3 mi. N. of quarter corner between secs. 3 and 10, T. 3 N., R. 16 W., 25 ft. N. and 35 ft. E. from junction of rd. N., in root on NW. side of 18-in. maple tree; copper nail and washer	622. 53
Saugatuck, 2.8 mi. NE. of, near cor. secs. 2, 3, 34, and 35, Tps. 3 and 4 N., R. 16 W., 60 ft. E. of junction of T-rd. E., on N. concrete head wall of culvert; chiseled square	636. 54
Saugatuck, 3.8 mi. NE. of, in NE. cor. sec. 34, T. 4 N., R. 16 W., 10 ft. S. and 60 ft. W. from crossroads, in root on SE. side of 22-in. oak tree; copper nail and washer	674. 15
Saugatuck, 4.8 mi. NE. of, in NE. cor. sec. 27, T. 4 N., R. 16 W., 44 ft. S. and 22 ft. W. from crossroads, in concrete post; standard tablet stamped "P T Sta No 84 Y 1926"	710. 914
Reference mark, in SE. angle of crossroads, at entrance to Gibson Grocery Store, on S. end of lower concrete step; chiseled square	710. 88
Saugatuck, 5.8 mi. NE. of, in SE. cor. sec. 15, T. 4 N., R. 16 W., 25 ft. NW. of crossroads, on top of concrete head wall of culvert; chiseled square	684. 74
Saugatuck, 6.8 mi. NE. of, 2.4 mi. S. of Virginia Park, in NW. cor. sec. 14, T. 4 N., R. 16 W., 25 ft. SE. of crossroads, on S. concrete head wall of culvert; chiseled square	642. 22
From Bangor quadrangle at point 3.5 miles east and 1.0 mile north from Pullman generally north along range-line road by way of Round Lake to northeast corner sec. 36, T. 3 N., R. 15 W., thence alternately west and northwest to U. S. Highway 31 at point 0.5 mile south and 0.6 mile west from Douglas (by Kostka Mudd in 1928)	
Pullman, 3.5 mi. E., thence 1.5 mi. N. from, near N $\frac{1}{4}$ cor. sec. 1, T. 1 N., R. 15 W., 20 ft. S. and 30 ft. W. from crossroads, in root on SE. side of 30-in. red-oak tree; copper nail and washer	681. 36
T. 2 N., R. 15 W., in SE. cor. sec. 36, 25 ft. N. and 30 ft. W. from junction of range-line rd., in root on W. side of 12-in. red-oak tree; nail and washer	685. 68
T. 2 N., R. 14 W., about 550 ft. N. of W $\frac{1}{4}$ cor. sec. 31, 0.4 mi. S. of Walker School, 40 ft. S. and 20 ft. E. from junction of T-rd. W., in root on W. side of 15-in. red-oak tree; copper nail and washer	681. 82
T. 2 N., R. 15 W., near E. cor. secs. 25 and 36, 0.4 mi. E. of Crooked Lake, 75 ft. NE. of NE. corner of Walker School, 9 ft. N. and 26 ft. W. from junction of private T-rd. E., in concrete post; standard tablet stamped "P T Sta No 82 Y 1926"	682. 382
Reference mark, 170 ft. N. and 15 ft. W. from tablet, 180 ft. N. and 40 ft. W. from junction of private rd., in root on W. side of 18-in. red-oak tree; copper nail and washer	682. 71
T. 2 N., R. 14 W., near W $\frac{1}{4}$ cor. sec. 30, 0.4 mi. N. of Walker School, on E. side of rd., 400 ft. N. of white house on W. side of rd., in root on W. side of 20-in. maple tree; copper nail and washer	680. 08

T. 2 N., R. 14 W., in SE. cor. sec. 19, 1.0 mi. S. of Round Lake, 20 ft. N. and 15 ft. E. from crossroads, in root on W. side of 15-in. white-oak tree; copper nail and washer-----	Feet 680. 24
Round Lake, at S. side of, 40 ft. N. of junction of State Highway 89, in root on S. side of 18-in. red-oak tree; copper nail and washer-----	670. 74
Round Lake, 300 ft. SW. of junction of second-class rd. N. around E. side of lake, in front of Round Lake store, on NW. corner of concrete base of gas pump; chiseled square-----	667. 84
Round Lake, on N. side of, 15 ft. S. and 15 ft. E. from junction of private rd., 350 ft. N. of dwelling of E. G. Tallburg, in root of 10-in. black-oak tree; copper nail and washer-----	670. 46
Round Lake, 0.7 mi. N. of, near W. cor. secs. 7 and 18, T. 2 N., R. 14 W., 85 ft. S. and 21 ft. E. from junction of T-rd. W., 50 ft. N. and 21 ft. E. from junction of T-rd. E., 28 ft. S. of oak tree, in concrete post; standard tablet stamped "P T Sta No 81 Y 1926"-----	660. 506
Reference mark, 100 ft. N. and 130 ft. W. from tablet, in root of 15-in. black-oak tree; copper nail and washer-----	660. 71
T. 2 N., R. 15 W., near E. side NE $\frac{1}{4}$ sec. 12, 0.7 mi. S. of Tracy School, 0.2 mi. S. of junction of T-rd. E. at W. cor. secs. 6 and 7, T. 2 N., R. 14 W., 50 ft. W. of point where rd. crosses NW.-SE. ridge, in base of 15-in. white-oak tree; copper nail and washer-----	661. 05
T. 2 N., R. 14 W., near W. cor. secs. 6 and 7, 0.5 mi. S. of Tracy School, 15 ft. N. and 30 ft. E. from junction of T-rd. E., 50 ft. S. and 30 ft. E. from junction of T-rd. W., in W. side of 10-in. pine tree; copper nail and washer-----	656. 19
Tracy School, 250 ft. N. of, near E $\frac{1}{4}$ cor. sec. 1, T. 2 N., R. 15 W., 20 ft. S. and 30 ft. W. from junction of T-rd. W., in E. side of double black-oak tree; copper nail and washer-----	654. 32
T. 2 N., R. 14 W., in NW. cor. sec. 6, 0.5 mi. N. of Tracy School, 4.4 mi. E. of Fennville, 160 ft. S. and 10 ft. E. from crossroads, 100 ft. NE. of old cabin, in S. side of 24-in. white-oak tree; copper nail and washer-----	653. 44
T. 3 N., R. 15 W., about 500 ft. N. of E $\frac{1}{4}$ cor. sec. 36, 4.4 mi. E., thence 0.6 mi. N. from Fennville, 50 ft. S. and 150 ft. E. from log cabin, on W. side of rd., in root of 9-in. wild-cherry tree; copper nail and washer-----	650. 63
T. 3 N., R. 15 W., in NE. cor. sec. 36, 4.4 mi. E., thence 1.0 mi. N. from Fennville, 18 ft. S. and 26 ft. W. from junction of E.-W. rd., in concrete post; standard tablet stamped "P T Sta No 80 Y 1926"---	647. 576
Reference mark, 30 ft. N. and 250 ft. W. from tablet, 10 ft. N. and 275 ft. W. from rd. junction, in root of 18-in. black-oak tree; copper nail and washer-----	646. 35
T. 3 N., R. 15 W., near N $\frac{1}{4}$ cor. sec. 36, 330 ft. W. of driveway NW. to Ottawa Gun Club, on S. side of rd., in root of 9-in. white-oak tree; copper nail and washer-----	647. 39
T. 3 N., R. 15 W., near cor. secs. 25, 26, 35, and 36, 90 ft. N. and 15 ft. E. from driveway NE. to Ottawa Gun Club, in root of double wild-cherry tree; copper nail and washer-----	644. 45
T. 3 N., R. 15 W., near quarter corner between secs. 26 and 35, 20 ft. S. and 100 ft. W. from corner of fence N. and W., 25 ft. W. of junction of rd. SW., in root of 12-in. black-oak tree; copper nail and washer---	642. 40



T. 3 N., R. 15 W., near cor. secs. 26, 27, 34, and 35, 2.5 mi. E., thence 1.0 mi. N. from Fennville, 26 ft. S. and 15 ft. W. from stone marking section corner at junction of dim T-rd. S., in concrete post; standard tablet stamped "P T Sta No 79 Y 1926"-----	Feet 635. 726
Reference mark, 7 ft. W. of tablet, 26 ft. S. and 22 ft. W. from stone marking section corner, in base of 10-in. white-oak tree; copper nail and washer-----	636. 41
T. 3 N., R. 15 W., near center of sec. 27, 20 ft. NE. of NW.-SE. rd., 150 ft. NW. of northernmost of two rds. SW. to lake, in base of small double white-oak tree; copper nail and washer-----	638. 54
T. 3 N., R. 15 W., 50 ft. S. and 325 ft. E. from NW. cor. sec. 27, 50 ft. S. and 60 ft. E. from crossroads, in base on W. side of 12-in. white-oak tree; copper nail and washer-----	635. 49
T. 3 N., R. 15 W., near S $\frac{1}{4}$ cor. sec. 21, 0.5 mi. E. of Gidley School, 30 ft. N. and 130 ft. W. from junction of T-rd. N., in root on N. side of 18-in. black-oak tree; copper nail and washer-----	616. 50
Pere Marquette Ry. crossing; top of E. rail-----	632. 3
Gidley School, in yard of, 0.5 mi. E., thence 2.0 mi. N. from Fennville, 1.8 mi. S. and 0.5 mi. E. from New Richmond, near S. cor. secs. 20 and 21, T. 3 N., R. 15 W., 60 ft. N. of junction of T-rd. S., on concrete base of flagpole; chiseled square <sup>53</sup> -----	701. 73
T. 3 N., R. 15 W., near S. side SW $\frac{1}{4}$ sec. 20, 0.7 mi. W. of Gidley School, at summit of hill, 200 ft. NW. of dwelling of A. L. Vickery, 30 ft. N. of rd., in base on S. side of 24-in. sugar-maple tree; copper nail and washer-----	634. 55
T. 3 N., R. 15 W., in NE. cor. sec. 30, 0.5 mi. W., thence 2.0 mi. N. from Fennville, 32 ft. S. and 40 ft. W. from stone in crossroads, in concrete post; standard tablet stamped "P T Sta No 78 Y 1926"---	629. 264
Reference mark, 75 ft. W. of tablet, 30 ft. S. and 115 ft. W. from crossroads, in root on N. side of 24-in. sugar-maple tree; copper nail and washer-----	630. 13
T. 3 N., R. 15 W., about 580 ft. W. of S $\frac{1}{4}$ cor. sec. 19, 20 ft. N. of rd., 60 ft. S. and 60 ft. W. from dwelling of Charles Sprague, in root on S. side of 36-in. sugar-maple tree; copper nail and washer-----	628. 87
T. 3 N., R. 16 W., in NE. cor. sec. 25, 20 ft. S. and 180 ft. W. from crossroads, in root of 26-in. sugar-maple tree; copper nail and washer-----	630. 35
T. 3 N., R. 16 W., in NW. cor. sec. 25, 0.7 mi. S. of Macks Landing, 20 ft. S. and 30 ft. E. from junction of N.-S. rd., in root on E. side of 48-in. cottonwood tree; copper nail and washer-----	636. 96
T. 3 N., R. 16 W., about 550 ft. N. of E $\frac{1}{4}$ cor. sec. 23, 250 ft. S. of Kalamazoo River, at Macks Landing, 200 ft. NE. of large white house, 40 ft. E. of rd. at sharp curve from S. to NW., in S. side of 24-in. elm tree; copper nail and washer-----	615. 70
T. 3 N., R. 16 W., 0.3 mi. N. of center of sec. 23, 0.5 mi. NW. of Macks Landing, 0.7 mi. S. and 2.0 mi. E. from Douglas, 24 ft. S. and 34 ft. W. from junction of T-rd. S., 6 ft. W. of ash tree, in concrete post; standard tablet stamped "P T Sta No 77 Y 1926"-----	609. 161
Douglas, 0.5 mi. S. and 1.4 mi. E. from, at 40-ft. steel truss bridge over Peach Orchard Creek, on top of NE. concrete wing wall, 2 ft. E. of base of truss; chiseled square-----	586. 95

<sup>53</sup> In 1931 this bench mark was reported destroyed, and a new one was established in its place. See page 126.

Douglas, 0.5 mi. S. and 1.0 mi. E. from, near S $\frac{1}{4}$ cor. sec. 15, T. 3 N., R. 16 W., 30 ft. N. and 150 ft. W. from junction of second-class T-rd. S., in base on S. side of double chestnut tree; copper nail and washer.....	<i>Fet</i> 616. 75
Douglas, 0.5 mi. S. and 0.5 mi. E. from, near SE. corner of corporation limits, near NW. cor. sec. 22, T. 3 N., R. 16 W., 30 ft. S. and 40 ft. E. from junction of T-rd. S., in base on W. side of 30-in. maple tree; copper nail and washer.....	622. 13
Douglas, 0.5 mi. S. of, 0.4 mi. E. of U. S. Highway 31, 30 ft. N. and 200 ft. E. from junction of T-rd. N., in base on S. side of 18-in. maple tree; copper nail and washer.....	650. 94
From Holland quadrangle at point 4.3 miles south of Zeeland south along range-line road to Bee-Line Road (State Highway 40), thence southeast into Allegan quadrangle at point near Hamilton (by J. L. Buckmaster in 1928)	
Zeeland, 5.0 mi. S. of, 0.4 mi. W., thence 0.8 mi. N. from Overisel, in SE. cor. sec. 12, T. 4 N., R. 15 W., 10 ft. N. and 50 ft. W. from junction of T-rd. W., on N. concrete abutment of culvert; chiseled square.....	670. 75
Overisel, 0.4 mi. W. of, 0.2 mi. N. of SW. cor. sec. 18, T. 4 N., R. 14 W., 25 ft. N. and 30 ft. E. from crossroads, in root on W. side of 16-in. maple tree; copper nail and washer.....	688. 87
Overisel, 0.4 mi. W., thence 1.2 mi. S. from, 1.0 mi. NW., thence 1.7 mi. N. from Hamilton, 28 ft. N. and 26 ft. E. from stone marking W. cor. secs. 19 and 30, T. 4 N., R. 14 W., 26 ft. E. of junction of T-rd. W. (jog in E.-W. rd. here), in concrete post; standard tablet stamped "P T Sta No 88 Y 1926".....	715. 355
Reference mark, 15 ft. E. of tablet, 20 ft. N. of rd. E., in root on SW. side of 16-in. elm tree; copper nail and washer.....	715. 55
Hamilton, 1.0 mi. NW., thence 0.5 mi. N. from, 0.25 mi. S. of NW. cor. sec. 31, T. 4 N., R. 14 W., about 55 ft. N. and 25 ft. E. from grade crossing of Pere Marquette Ry., at jog in rd., in root on W. side of 30-in. elm tree; copper nail and washer.....	665. 96
Hamilton, in NW. part of village, 0.25 mi. S. of N $\frac{1}{4}$ cor. sec. 6, T. 3 N., R. 14 W., 40 ft. NE. of junction of Bee-Line Rd. (State Highway 40) and rd. N. to Overisel, at store, on N. corner of concrete porch; chiseled square.....	643. 78
From Allegan quadrangle at point about 0.5 mile south of Hamilton along roads alternately west and south to northeast corner sec. 36, T. 3 N., R. 15 W. (by J. L. Buckmaster in 1928)	
Hamilton, 0.8 mi. S. and 0.7 mi. W. from, 0.25 mi. S. of NE. cor. sec. 12, T. 3 N., R. 15 W., 10 ft. N. and 10 ft. W. from junction of range-line rd. S., on boulder; chiseled square.....	645. 29
T. 3 N., R. 15 W., in NE. cor. sec. 13, 110 ft. S. and 16 ft. W. from crossroads, in root on NW. side of 6-in. white-oak tree; copper nail and washer.....	645. 89
T. 3 N., R. 14 W., in NW. cor. sec. 19, about 350 ft. S. and 150 ft. E. from junction of E.-W. rd., in root on W. side of 12-in. lone pine tree; copper nail and washer.....	651. 47
T. 3 N., R. 14 W., 0.2 mi. NW. of center of sec. 30, 30 ft. E. of E. bank of Kalamazoo River at NE. side of ox bow, 50 ft. S. of trail to river, in root on E. side of 48-in. forked maple tree; copper nail and washer.....	594. 34

From Allegan quadrangle near east corner secs. 19 and 30, T. 4 N., R. 14 W., west along road 0.8 mile to range-line road (by S. R. Archer in 1929)

Overisel, 1.3 mi. S. of, near N $\frac{1}{4}$ cor. sec. 30, T. 4 N., R. 14 W., at SE. corner of crossroads, on top of W. end of S. concrete head wall of culvert under E.-W. rd.; chiseled square-----	Feet 728. 81
From New Richmond alternately south and east along roads to Gidley School (by J. M. Lawson in 1931)	
U. S. C. & G. S. standard disk stamped "Z 24 1930"-----	600. 589
New Richmond, 0.3 mi. S. of, on summit of hill, on W. concrete head wall of culvert; chiseled square-----	667. 66
New Richmond, 1.0 mi. S., thence 0.3 mi. E. from, 0.2 mi. W., thence 0.7 mi. N. from Gidley School, in SW. angle of rd. junction, on concrete head wall of culvert, on horseshoe embedded in concrete; chiseled cross-----	688. 21
Gidley School, near S. cor. secs. 20 and 21, T. 3 N., R. 15 W., on concrete base of flagpole; chiseled square <sup>54</sup> -----	701. 56

#### FENWICK QUADRANGLE

[Latitude 43°00'-43°15'; longitude 85°00'-85°15']

#### IONIA AND MONTCALM COUNTIES

From Carson City quadrangle near southeast corner sec. 3, T. 7 N., R. 8 W., generally west along roads by way of Dildine to southwest quarter sec. 10, T. 7 N., R. 8 W. (by H. S. Senseney in 1916)

T. 7 N., R. 6 W., near SW. cor. sec. 3, in NE. angle of rd. junction, in root of tree; copper nail and washer-----	775. 92
Prairie River, floor of bridge over-----	691. 1
Ionia, 1.5 mi. N., thence 2.0 mi. E. from, near W $\frac{1}{4}$ cor. sec. 9, T. 7 N., R. 6 W., in NE. angle of crossroads, in root of tree; copper nail and washer-----	767. 10
Ionia, 1.5 mi. N., thence 1.0 mi. E. from, near W $\frac{1}{4}$ cor. sec. 8, T. 7 N., R. 6 W., 20 ft. S. and 30 ft. E. from crossroads; standard iron post with bronze cap stamped "820"-----	818. 960
Reference mark, in NE. angle of crossroads, on boulder; chiseled square-----	820. 31
Ionia, 1.5 mi. along State Highway 14 N. of, 3.0 mi. E. of Dildine, near E $\frac{1}{4}$ cor. sec. 12, T. 7 N., R. 7 W., in SW. angle of highway intersection, in root of tree; copper nail and washer-----	791. 69
Dildine, 2.2 mi. E. of, 0.5 mi. SE. of R. R. sta. at Haynor, 0.25 mi. W. of center of sec. 12, T. 7 N., R. 7 W., on E. side of cross road, on W. side of Pere Marquette Ry. tracks, in root of tree; copper nail and washer-----	829. 21
Dildine, 1.0 mi. E. of, near W $\frac{1}{4}$ cor. sec. 11, T. 7 N., R. 7 W., 18 ft. S. and 32 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 23 1915 Mich 812"-----	811. 350
Dildine, near E $\frac{1}{4}$ cor. sec. 9, T. 7 N., R. 7 W., in SW. angle of crossroads, in root of tree; copper nail and washer-----	816. 76
Dildine, 1.0 mi. W. of, near W $\frac{1}{4}$ cor. sec. 9, T. 7 N., R. 7 W., on S. side of rd. at junction of T-rd. N., in root of tree; copper nail and washer-----	802. 23
Dildine, 2.0 mi. W., thence 0.5 mi. S. from, in SE. cor. sec. 7, T. 7 N., R. 7 W., 30 ft. N. and 25 ft. W. from crossroads; standard iron post with bronze cap stamped "811"-----	810. 684
Reference mark, in SW. angle of crossroads, on boulder; chiseled square-----	810. 76

<sup>54</sup> This bench mark replaces the mark with elevation 701.73 feet which was established in 1928 and later destroyed.

T. 7 N., R. 8 W., near SE. cor. sec. 12, on N. side of rd., in front of dwelling of E. Bradford, in root of tree; copper nail and washer.....	Feet 835. 04
T. 7 N., R. 8 W., at SW. cor. sec. 12, 4.7 mi. N. of Saranac, in NE. angle of rd. junction, in root of tree; copper nail and washer.....	846. 20
T. 7 N., R. 8 W., near center of sec. 11, on S. side of rd., at junction of T-rd. N., in root of tree; copper nail and washer.....	845. 65
T. 7 N., R. 8 W., in NW $\frac{1}{4}$ sec. 10, in NE. angle of junction of highway and rd. E., near dwelling of J. D. Campbell, in root of tree; copper nail and washer.....	849. 30
Smyrna, about 4.5 mi. SE. of, 0.25 mi. E. of SW. cor. sec. 10, T. 7 N., R. 8 W., 17 ft. N. and 22 ft. W. from junction of highway and rd. E.; standard iron post with bronze cap stamped "Prim Trav Sta No 24 1915 Mich 853".....	852. 086

From Carson City quadrangle at point 4 miles north and 1 mile west from Vickeryville west along road by way of Sidney into Howard City quadrangle at point 2.2 miles east of Gowen (by R. G. Clinite in 1916)

Vickeryville, 4.0 mi. N. and 2.5 mi. W. from, 2.5 mi. N., thence 3.0 mi. E. from Sheridan, in SW. cor. sec. 15, T. 10 N., R. 6 W., at Gleaner Hall, 10 ft. N. and 60 ft. E. from center of crossroads, in root of 10-in. oak tree; copper nail and washer.....	869. 28
Sheridan, 2.5 mi. N., thence 2.0 mi. E. from, in NW. cor. sec. 21, T. 10 N., R. 6 W., 25 ft. S. and 60 ft. E. from center of crossroads, in root of 12-in. oak tree; copper nail and washer.....	843. 85
Sheridan, 2.5 mi. N., thence 1.0 mi. E. from, in NE. cor. sec. 19, T. 10 N., R. 6 W., 16 ft. S. and 21 ft. W. from center of crossroads; standard iron post with bronze cap stamped "Mich 852".....	851. 795
Sheridan, 2.5 mi. N. of, 3.1 mi. E. of Sidney, in NW. cor. sec. 19, T. 10 N., R. 6 W., 70 ft. S. and 25 ft. E. from center of junction of T-rd. E., in root of 18-in. maple tree; copper nail and washer.....	850. 50
Sidney, 2.7 mi. E. of, about 800 ft. E. of N $\frac{1}{4}$ cor. sec. 24, T. 10 N., R. 7 W., 50 ft. E. of Pere Marquette Ry. crossing, on S. side of rd., in root of 7-in. oak tree; copper nail and washer.....	850. 25
Sidney, 2.1 mi. E. of, in NW. cor. sec. 24, T. 10 N., R. 7 W., 12 ft. S. and 50 ft. E. from center of junction of T-rd. N., in root of 14-in. white-oak tree; copper nail and washer.....	859. 85
Sidney, 1.0 mi. E. of, 28 ft. S. and 17 ft. W. from NE. cor. sec. 22, T. 10 N., R. 7 W., at center of junction of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 15 1915 Mich 891".....	889. 956

[Line jogs into Edmore quadrangle]

Sidney, 2.5 mi. W. of, near N $\frac{1}{4}$ cor. sec. 19, T. 10 N., R. 7 W., 18 ft. S. and 28 ft. E. from center of crossroads; standard iron post with bronze cap stamped "1916 Mich 876".....	874. 951
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[Line jogs into Edmore quadrangle]

Sidney, 5.1 mi. W. of, 3.2 mi. E. of Gowen, in SE. cor. sec. 15, T. 10 N., R. 8 W., 25 ft. N. and 18 ft. W. from center of crossroads, in root on S. side of 18-in. oak tree; copper nail and washer (recovered in 1929).....	892. 28
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From point 2.5 miles north of Sheridan south along Pere Marquette Railway to point 0.5 mile southeast of Haynor (by R. G. Clinite in 1916)

Sheridan, in front of sta.; top of rail.....	845. 1
Sheridan, 190 ft. SE. of sta., 130 ft. E. of track, in NE. angle of intersection of Railroad and Main Streets; standard iron post with bronze cap stamped "1916 Mich 846" (recovered by U. S. C. & G. S. in same year and designated "C 17").....	844. 893

Sheridan, in NE. angle of intersection of Pere Marquette and Grand Trunk Rys., in concrete base of second signal block E.; top of bolt.....	Feet 844. 60
Sheridan, 3.6 mi. S. of, 0.7 mi. N. of Fenwick, 0.25 mi. N. and 0.3 mi. E. from center of sec. 24, T. 9 N., R. 7 W., 52 ft. W. of track, 3 ft. N. of fence corner; standard iron post with bronze cap stamped "Mich 848".....	847. 271
Fenwick, in front of sta.; top of rail.....	834. 5
Fenwick, 40 ft. W. of sta., on S. side of E.-W. street, 2.5 ft. NW. of telephone pole; highest point on rock.....	833. 40
Shiloh, in front of sta.; top of rail.....	836. 6
Shiloh, 230 ft. S. of sta., 60 ft. W. of track, in triangular grass plot at rd. forks, 12 ft. N. of 24-in. pine tree; standard iron post with bronze cap stamped "Mich 835" (recovered by U. S. C. & G. S. in same year and designated "G 17").....	834. 355
Shiloh, 4.2 mi. S. of, 2.3 mi. N. of Haynor, E. of NW. cor. sec. 36, T. 8 N., R. 7 W., 22 ft. S. and 48 ft. E. from center of crossroads; standard iron post with bronze cap stamped "Mich 842" (recovered by U. S. C. & G. S. in same year and designated "J 17").....	841. 698
Haynor, 1.7 mi. N. of, near quarter corner between secs. 35 and 36, T. 8 N., R. 7 W., in SE. angle of grade crossing, 115 ft. S. of mile-post 61, 4 ft. E. of fence corner, in root of 36-in. oak tree; rail spike (recovered by U. S. C. & G. S. in same year).....	837. 774
Haynor, 0.7 mi. N. of, near quarter corner between secs. 1 and 2, T. 7 N., R. 7 W., in NW. angle of R. R. crossing, 4 ft. S. of fence corner, on large boulder; highest point.....	827. 37
Haynor, S. of sta., at point of switch; top of rail.....	811. 9
From Greenville east and northeast along Grand Trunk Railway to Sheridan (by R. G. Clinite in 1918)	
Greenville, 1.5 mi. E. of North Lafayette Street crossing, near center of sec. 11, T. 9 N., R. 8 W., on N. side of track, 10 ft. W. of E. end of trestle over highway; top of bolt.....	857. 93
Greenville, 2.6 mi. E. of, near center of sec. 12, T. 9 N., R. 8 W., 4 ft. N. and 2 ft. W. from fence corner, in NE. angle of grade crossing; standard iron post with bronze cap stamped "1916 Mich 868" (recovered by U. S. C. & G. S. in 1934) <sup>55</sup> .....	868. 263
Greenville, 3.7 mi. E. of, 1.0 mi. W. of Millers, near E $\frac{1}{4}$ cor. sec. 7, T. 9 N., R. 7 W., in SW. angle of grade crossing, on concrete base of electric warning signal; unmarked point.....	868. 30
Millers, 320 ft. W. of sta., 18 ft. S. and 60 ft. W. from center of rd. fork, in root of 10-in. oak tree; copper nail and washer.....	865. 38
Millers, 0.9 mi. E. of, 3.2 mi. SW. of Sheridan, near E $\frac{1}{4}$ cor. sec. 9, T. 9 N., R. 7 W., 60 ft. N. and 50 ft. W. from center of crossroads, 2 ft. N. of right-of-way fence; standard iron post with bronze cap stamped "1916 Mich 840" (recovered by U. S. C. & G. S. in 1934).....	839. 096
From point on Grand Trunk Railway 1 mile west of Millers station south along road by way of Chadwick to crossroads at corner secs. 7, 8, 17, and 18, T. 7 N., R. 7 W., (by R. G. Clinite in 1918)	
Millers, 1.0 mi. W., thence 1.0 mi. S. from, 4.0 mi. E. of Greenville, near E $\frac{1}{4}$ cor. sec. 18, T. 9 N., R. 7 W., 30 ft. N. and 55 ft. W. from center of junction of T-rd. W., in schoolyard, in root of 16-in. maple tree; copper nail and washer.....	860. 30

<sup>55</sup> By comparison with adjacent bench marks, it appears that this post was lowered 0.912 foot between 1916 and 1934. The figures given represent the new elevation.

Millers, 1.0 mi. W., thence 2.6 mi. S. from, in NW. cor. sec. 29, T. 9 N., R. 7 W., 30 ft. S. and 15 ft. E. from center of crossroads; standard iron post with bronze cap stamped "1916 Mich 853"-----	Feet 852. 014
Millers, 1.0 mi. W., thence 3.6 mi. S. from, 2.8 mi. N. of Pere Marquette Ry. sta. at Chadwick, in NW. cor. sec. 32, T. 9 N., R. 7 W., 25 ft. S. and 16 ft. E. from center of crossroads, in root of 14-in. pine tree; copper nail and washer-----	792. 37
Chadwick, 1.3 mi. N. of, about 3 mi. NE. of Belding, near E $\frac{1}{4}$ cor. sec. 6, T. 8 N., R. 7 W., 42 ft. S. and 20 ft. W. from center of crossroads; standard iron post with bronze cap stamped "1916 Mich 818"-----	816. 915
Chadwick, 450 ft. S. of Ry. sta., 0.25 mi. S. of E $\frac{1}{4}$ cor. sec. 7, T. 8 N., R. 7 W., 20 ft. S. and 28 ft. W. from center of crossroads, on large rock; chiseled square-----	847. 23
Chadwick, 0.7 mi. S. of, at entrance to Green Church, at W $\frac{1}{4}$ cor. sec. 17, T. 8 N., R. 7 W., in NE. angle of highway intersection, on SW. corner of concrete porch floor; chiseled square-----	851. 86
Chadwick, 1.8 mi. S. of, 2.0 mi. W. of Orleans, near E $\frac{1}{4}$ cor. sec. 19, T. 8 N., R. 7 W., 12 ft. S. and 20 ft. W. from center of crossroads, on rock; highest point-----	866. 41
Chadwick, 2.5 mi. S. of, 0.25 mi. N. of W $\frac{1}{4}$ cor. sec. 29, T. 8 N., R. 7 W., in SE. angle of junction of T-rd. E., 6 ft. E. of corner of rail fence; standard iron post with bronze cap stamped "1916 Mich 863"-----	862. 484
Chadwick, 3.3 mi. S. of, 2.0 mi. W., thence 2.5 mi. N. from Dildine, in NE. cor. sec. 31, T. 8 N., R. 7 W., in SW. angle of junction of T-rd. W., in masonry abutment of culvert, on stone; chiseled square-----	848. 68
Dildine, 2.0 mi. W., thence 1.5 mi. N. from, in NE. cor. sec. 6, T. 7 N., R. 7 W., in SW. angle of crossroads, in field, 1 ft. S. of fence post, on rock; highest point-----	859. 85
Dildine, 2.0 mi. W., thence 0.5 mi. N. from, at NW. cor. sec. 8, T. 7 N., R. 7 W., 50 ft. S. and 12 ft. E. from center of crossroads, in root of 26-in. maple tree; copper nail and washer-----	841. 98
From point on Pere Marquette Railway 1.5 miles north of Shiloh along roads south and west 5.5 miles to crossroads at quarter corner between secs. 5 and 6, T. 8 N., R. 7 W., about 3 miles northeast of Belding (by R. G. Clinite in 1916)	
Shiloh, 1.5 mi. N., thence 1.0 mi. W. from, near center of sec. 35, T. 9 N., R. 7 W., 40 ft. N. and 25 ft. E. from center of junction of T-rd. N., in root of 20-in. oak tree; copper nail and washer-----	830. 68
Shiloh, 1.0 mi. N. and 2.0 mi. W. from, near N $\frac{1}{4}$ cor. sec. 3, T. 8 N., R. 7 W., in NE. angle of rd. junction, at turn in rd. leading to Bricker's Park on Long Lake; standard iron post with bronze cap stamped "Prim Trav Sta No 18 1915 Mich 814"-----	812. 957
Shiloh, 2.5 mi. W., thence 0.7 mi. N. from, 0.25 mi. N. of W $\frac{1}{4}$ cor. sec. 3, T. 8 N., R. 7 W., near W. shore of Long Lake, 20 ft. S. and 28 ft. W. from center of junction of T-rd. W., in root of twin oak trees; copper nail and washer-----	808. 21
Shiloh, 3.5 mi. W., thence 0.7 mi. N. from, about 4 mi. NE. of Belding, 0.25 mi. N. of W $\frac{1}{4}$ cor. sec. 4, T. 8 N., R. 7 W., 16 ft. S. and 27 ft. E. from center of crossroads, on rock; highest point-----	812. 14

From Smyrna quadrangle at point 0.6 mile east of Smyrna southeast along road 0.6 mile to crossroads, thence south 3.5 miles to southwest quarter sec. 10, T. 7 N., R. 8 W. (by R. G. Clinite in 1916)

Smyrna, 1.0 mi. by rd. SE. of, 0.25 mi. W. of center of sec. 27, T. 8 N., R. 8 W., 12 ft. N. and 8 ft. E. from center of crossroads, on large rock flush with ground; chiseled square-----	Feet 860. 08
Smyrna, 2.0 mi. SE. of, 0.25 mi. W. of center of sec. 34, T. 8 N., R. 8 W., 34 ft. S. and 20 ft. W. from center of crossroads; standard iron post with bronze cap stamped "1916 Mich 861"-----	860. 673
Smyrna, 4.0 mi. SE. of, 0.25 mi. W. of center of sec. 10, T. 7 N., R. 7 W., 50 ft. N. and 50 ft. E. from center of junction of T-rd. E., in garden, in root of 14-in. apple tree; copper nail and washer-----	849. 32
From corner secs. 14, 15, 22, and 23, T. 10 N., R. 8 W., west along road into Howard City quadrangle at point 2.2 miles east of Gowen (by S. R. Archer in 1929)	
Gowen, 3.2 mi. E. of, in NW. cor. sec. 23, T. 10 N., R. 8 W., in SE. angle of crossroads, at S. end of culvert under E.-W. rd., on S. end of curved head wall; chiseled square-----	892. 96

#### FLETCHER QUADRANGLE

[Latitude 44°30'-44°45'; longitude 84°45'-85°00']

#### CRAWFORD, KALKASKA, MISSAUKEE, AND ROSCOMMON COUNTIES

From Grayling quadrangle at point about 3.8 miles south and 2.3 miles west from Grayling along roads west 0.7 mile, thence generally north by way of Camp Grayling to Michigan Central Railroad, thence north and east along railroad to point in sec. 2, T. 26 N., R. 4 W. (by G. R. Richardson in 1924) <sup>55</sup>

Grayling, 3.8 mi. S., thence 3.0 mi. W. from, near cor. secs. 2, 3, 34, and 35, Tps. 25 and 26 N., R. 4 W., on W. side of junction of N.-S. rd., in line with fence W., 2 ft. E. of corner fence post, in top of tile filled with cement; top of iron pin-----	1, 315. 643
T. 26 N., R. 4 W., 0.25 mi. S. of cor. secs. 26, 27, 34, and 35, at SE. corner of military reservation boundary line, 6 ft. W. of rd. fork, in base of 12-in. oak tree; nail-----	1, 309. 06
T. 26 N., R. 4 W., 0.25 mi. W. of cor. secs. 26, 27, 34, and 35, on N. side of rd., in base of 12-in. oak tree; nail-----	1, 318. 47
T. 26 N., R. 4 W., 0.25 mi. S. and 0.15 mi. W. from center of sec. 27, in wye of rd. fork, in base of 6-in. oak tree; nail-----	1, 333. 79
T. 26 N., R. 4 W., about 500 ft. N. of center of NE $\frac{1}{4}$ sec. 27, about 0.4 mi. SE. of Camp Grayling headquarters, at top of hill, on W. side of Beaver Creek rd., 80 ft. NE. of rd. fork, in base of 8-in. oak tree; nail-----	1, 318. 58
Camp Grayling, about 750 ft. W. of headquarters building, on S. side of street, 4 in. W. of telephone pole, on top of 4-in. gas pipe; top of cap-----	1, 169. 80
T. 26 N., R. 4 W., in NE. cor. sec. 22, about 0.7 mi. N. of Camp Grayling headquarters, on N. side of intersection of highway and Michigan Central R. R.; top of first joint of E. rail N. of crossing-----	1, 169. 68
T. 26 N., R. 4 W., 0.3 mi. N. and 0.15 mi. W. from SE. cor. sec. 15, at N. rd. crossing at Collens Resort; top of first joint of E. rail S. of crossing-----	1, 149. 94
T. 26 N., R. 4 W., at cor. secs. 10, 11, 14, and 15, in center of rd. crossing (rd. W. leads to Danish Landing); top of joint of E. rail-----	1, 143. 44

<sup>55</sup> This line and the following are from a transcript of the original notes made in connection with a survey of Camp Grayling by the Michigan State Militia.

T. 26 N., R. 4 W., 500 ft. S. of quarter corner between secs. 10 and 11, at Camp Grayling switch crossing Grayling-Kalkaska rd.; top of first joint of E. rail N. of crossing-----	<i>Feet</i> 1, 145. 40
T. 26 N., R. 4 W., in SW. cor. sec. 2, at S. point of wye of switch to Camp Grayling; top of track at center of frog-----	1, 148. 33
U. S. C. & G. S. standard disk stamped "O 13"-----	1, 147. 248
From headquarters of Camp Grayling along roads in vicinity of military reservation (by G. R. Richardson in 1924)	
T. 26 N., R. 4 W., about 575 ft. S. of N. cor. secs. 27 and 28, on W. side of highway, 40 ft. NW. of NW. corner of pumping sta., 60 ft. SE. of SE. corner of cottage of Colonel Pearson <sup>57</sup> -----	1, 155. 806
T. 26 N., R. 4 W., 0.25 mi. N. of center of sec. 28, at SE. corner of rifle range, in NE. corner of crossroads, in concrete post; bronze oval stamped "1 1166"-----	1, 165. 074
T. 26 N., R. 4 W., just N. of quarter corner between secs. 28 and 33, about 1.2 mi. S. and 1.2 mi. W. from Camp Grayling sta., in wye of rd. forks, 35 ft. S. of point of wye, in concrete post; bronze oval stamped "2 1250"-----	1, 248. 973
T. 26 N., R. 4 W., about 260 ft. NW. of quarter corner between secs. 32 and 33, about 1.6 mi. S. and 1.7 mi. W. from Camp Grayling sta., on S. side of rd., in line with gun bases, in concrete post; bronze oval stamped "3 1308"-----	1, 307. 087
T. 26 N., R. 4 W., about 800 ft. N. of center of SE $\frac{1}{4}$ sec. 32, about 1.9 mi. S. and 1.84 mi. W. from Camp Grayling sta., on S. side of rd., in base of 20-in. Norway pine tree; nail-----	1, 299. 23
T. 26 N., R. 4 W., about 260 ft. S. of center of SW $\frac{1}{4}$ sec. 32, about 2.08 mi. S. and 2.35 mi. W. from Camp Grayling sta., on S. side of rd., in base of 16-in. oak tree; four nails-----	1, 277. 03
T. 26 N., R. 4 W., in SW. cor. sec. 32, about 2.28 mi. S. and 2.6 mi. W. from Camp Grayling sta., in wye of rd. fork, 200 ft. N. of S. boundary line of military reservation, 25 ft. S. of point of fork, in concrete post; bronze oval stamped "4 1263"-----	1, 262. 305
T. 26 N., R. 4 W., about 630 ft. W. of quarter corner between secs. 31 and 32, 1.82 mi. S. and 2.7 mi. W. from Camp Grayling sta., 230 ft. S. of rd. fork, on E. side of rd., in base of small jack-pine tree; nail-----	1, 235. 94
T. 26 N., R. 4 W., about 260 ft. S. and 950 ft. E. from quarter corner between secs. 30 and 31, about 1.4 mi. S. and 2.9 mi. W. from Camp Grayling sta., 30 ft. S. of S. end of by-pass in rd., on W. side of rd., at S. edge of thicket of jack-pine trees, in concrete post; bronze oval stamped "5 1215"-----	1, 213. 999
T. 26 N., R. 4 W., 0.1 mi. S. and 0.25 mi. W. from center of sec. 30, about 0.9 mi. S. and 3.35 mi. W. from Camp Grayling sta., on W. side of rd., in root of 12-in. Norway pine tree; nail-----	1, 191. 93
T. 26 N., R. 4 W., about 500 ft. S. of NW. cor. sec. 30, about 0.35 mi. S. and 3.63 mi. W. from Camp Grayling sta., just SE. of rd. fork, at W. boundary line of military reservation, in center of rd., in concrete post; bronze oval stamped "6 1177"-----	1, 176. 434
T. 26 N., R. 4 W., about 500 ft. S. of W $\frac{1}{4}$ cor. sec. 19, 0.32 mi. N. of summit of Bald Knob, on W. boundary line of military reservation, in root of 12-in. jack-pine tree; nail-----	1, 158. 09

<sup>57</sup> Description is incomplete; the bench mark is probably a concrete post or iron pipe.



T. 26 N., R. 4 W., 0.2 mi. S. of NW. cor. sec. 19, 0.72 mi. N. of Bald Knob, at S. edge of Bear Swamp, at point where W. boundary of military reservation enters swamp, in center of E.-W. rd., in concrete post; bronze oval stamped "7 1142"-----	Feet 1, 141. 256
T. 26 N., R. 4 W., 0.3 mi. N. of center of sec. 19, 0.45 mi. N. and 3.1 mi. W. from Camp Grayling sta., on N. side of rd., on N. side of small ridge, in base of 24-in. pine tree; nail-----	1, 149. 19
26 N., R. 4 W., 0.32 mi. S. and 0.15 mi. W. from NE. cor. sec. 19, T. about 0.37 mi. N. and 2.85 mi. W. from Camp Grayling sta., in wye of rd. fork, in concrete post; bronze oval stamped "8 1156"-----	1, 155. 030
26 N., R. 4 W., 0.3 mi. S. and 0.06 mi. E. from NW. cor. sec. 20, T. about 0.35 mi. N. and 2.6 mi. W. from Camp Grayling sta., 25 ft. E. of rd. fork, in base of 8-in. pine tree; nail-----	1, 166. 75
T. 26 N., R. 4 W., 0.25 mi. W. of center of sec. 20, about 0.22 mi. N. and 2.42 mi. W. from Camp Grayling sta., 75 ft. SE. of rd. fork, on NE. side of rd. SE., in root of 12-in. oak tree; nail-----	1, 193. 98
T. 26 N., R. 4 W., about 500 ft. S. and 500 ft. E. from center of sec. 20, about 0.1 mi. N. and 2.08 mi. W. from Camp Grayling sta., 10 ft. W. of point of wye of rd. fork, 8 ft. E. of double oak tree, in concrete post; bronze oval stamped "9 1242"-----	1, 241. 939
T. 26 N., R. 4 W., about 800 ft. N. and 260 ft. W. from SE. cor. sec. 20, about 0.12 mi. S. and 1.75 mi. W. from Camp Grayling sta., on S. side of rd., in base of quadruple-trunked oak tree; nail-----	1, 201. 03
T. 26 N., R. 4 W., 0.1 mi. N. and 0.35 mi. E. from SW. cor. sec. 21, about 0.18 mi. S. and 1.32 mi. W. from Camp Grayling sta., on W. side of rifle range, 60 ft. S. of rd., in concrete post; bronze oval stamped "10 1184"-----	1, 183. 620
From Grayling quadrangle at point about 4.3 miles south and 2.3 miles west from Grayling along roads west 0.7 mile, thence south 6.1 miles to point near northwest end of Higgins Lake, thence generally west around south end of Grassy Lake, thence north 3 miles and northwest 2.5 miles into Kalkaska quadrangle about 5 miles southeast of Sharon (by S. R. Archer in 1927)	
Grayling, 4.3 mi. S. and 2.3 mi. W. from, near quarter corner between secs. 2 and 3, T. 25 N., R. 4 W., 80 ft. S. and 31 ft. W. from junction of T-rd. W., on field side of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 1 F 1927"-----	1, 311. 849
Reference mark, 35 ft. N. and 27 ft. E. from rd. junction, in root on N. side of small triple-forked maple tree; copper nail and washer-----	1, 311. 28
T. 25 N., R. 4 W., in NE. cor. sec. 10, 220 ft. S. of junction of T-rd. E., on W. side of rd., in root on NE. side of 12-in. maple tree; copper nail and washer-----	1, 293. 10
T. 25 N., R. 4 W., near cor. sec. 10, 11, 14, and 15, 40 ft. S. of junction of private rd. E., on E. side of rd., on field side of fence, in root on NW. side of 24-in. tree, northernmost of two poplar trees standing 10 ft. apart; copper nail and washer-----	1, 265. 83
T. 25 N., R. 4 W., near quarter corner between secs. 14 and 15, in NE. angle of junction of third-class rd. SE., in root on N. side of 10-in. oak tree with triangular blaze; copper nail and washer-----	1, 252. 18
T. 25 N., R. 4 W., in SW. cor. sec. 14, 40 ft. N. and 35 ft. E. from crossroads, 13 ft. N. of corner fence post, in concrete post; standard tablet stamped "Prim Trav Sta No 2 F 1927"-----	1, 236. 794
Reference mark, 130 ft. S. of crossroads, on E. side of rd., in root 5 in. underground on SW. side of 12-in. pine tree with triangular blaze; copper nail and washer-----	1, 222. 95

T. 25 N., R. 4 W., 75 ft. S. of quarter corner between secs. 22 and 23, on E. side of rd., in root on SW. side of westernmost of two 10-in. pine trees standing together, tree having triangular blaze; copper nail and washer.....	Feet 1, 224. 94
T. 25 N., R. 4 W., in NE. cor. sec. 27, 150 ft. S. of crossroads, on W. side of rd., in root on E. side of 5-in. oak tree with triangular blaze; copper nail and washer.....	1, 210. 46
T. 25 N., R. 4 W., in NE. cor. sec. 34, 140 ft. S. of crossroads, on W. side of rd., in root on N. side of 10-in. oak tree with triangular blaze; copper nail and washer.....	1, 225. 01
T. 25 N., R. 4 W., 0.25 mi. N. of S. cor. secs. 34 and 35, 35 ft. N. and 25 ft. E. from crossroads, in root on W. side of 12-in. oak tree; copper nail and washer.....	1, 187. 13
T. 24 N., R. 4 W., about 630 ft. S. of N. cor. secs. 2 and 3, at NW. end of Higgins Lake, 20 ft. S. and 75 ft. W. from turn in rd. to SW. and junction of second-class rds. E. and S., in concrete post; standard tablet stamped "Prim Trav Sta No 3 F 1927".....	1, 169. 831
Reference mark, 10 ft. S. and 25 ft. W. from tablet, 30 ft. S. and 100 ft. W. from turn in rd. to SW. and junction of second-class rds. E. and S., in root on NW. side of 8-in. oak tree with triangular blaze on E. side; copper nail and washer.....	1, 169. 98
T. 25 N., R. 4 W., 0.25 mi. S. of center of sec. 34, 0.35 mi. N. and 0.5 mi. W. from NW. side of Higgins Lake, 0.5 mi. W. of crossroads, on N. side of rd., on W. side of N.-S. fire lane on N.-S. quarter line of sec. 34, in root on S. side of 6-in. pine tree; copper nail and washer....	1, 179. 48
T. 25 N., R. 4 W., about 500 ft. W. of center of SW $\frac{1}{4}$ sec. 34, at turn in rd. to SW., in NE. angle of junction of woods rd. NW., 30 ft. N. of rd., in root on S. side of northeasternmost of two 10-in. oak trees standing together, tree having triangular blaze; copper nail and washer.....	1, 190. 63
T. 25 N., R. 4 W., about 800 ft. E. of S $\frac{1}{4}$ cor. sec. 33, 50 ft. N. and 150 ft. E. from junction of T-rd. NE., in root on W. side of 12-in. oak tree with triangular blaze; copper nail and washer.....	1, 190. 59
T. 24 N., R. 4 W., 0.25 mi. S. of N. cor. secs. 4 and 5, 10 ft. N. and 15 ft. W. from N.-S. fire lane crossing, in concrete post; standard tablet stamped "Prim Trav Sta No 4 F 1927".....	1, 202. 187
Reference mark, 40 ft. SW. of tablet, 20 ft. S. and 40 ft. W. from fire lane crossing, in root on NW. side of 5-in. pine tree with triangular blaze; copper nail and washer.....	1, 200. 93
T. 24 N., R. 4 W., about 500 ft. W. of center of sec. 5, 13 ft. S. and 30 ft. W. from crossing of E.-W. fire lane on E.-W. quarter line of sec. 5, on N. side of rd., in root on E. side of 10-in. pine tree; copper nail and washer.....	1, 195. 16
[Line jogs into Houghton Lake quadrangle]	
T. 24 N., R. 5 W., in NW $\frac{1}{4}$ sec. 1, 280 ft. SE. of top of hill on old abandoned R. R. grade now used as rd., 0.35 mi. SE. of curve in old R. R. grade, 13 ft. NE. of rd., in root on SW. side of 3-in. oak tree with triangular blaze; copper nail and washer.....	1, 255. 52
Grassy Lake, 0.8 mi. E. and 2.0 mi. NE. of rd. fork on E. side at S. end of, 300 ft. E. of rd. fork where rd. SW. leaves old R. R. grade, 75 ft. N. of rd. following grade, in root on SW. side of 15-in. oak tree with triangular blaze; copper nail and washer.....	1, 221. 72

Grassy Lake, 0.8 mi. E. and 1.1 mi. NE. of rd. fork at, 260 ft. NE. of rd. crossing old R. R. grade, on E. side of rd., in root on W. side of 4-in. oak tree with triangular blaze; copper nail and washer----- 1, 231. 42 Feet

[Line jogs into Houghton Lake quadrangle]

Fletcher, 2.5 mi. S. of, near quarter corner between secs. 5 and 6, T. 24 N., R. 5 W., 200 ft. NW. of rd. crossing outlet of Grassy Lake, 50 ft. SE. of T-rd. W., on E. side of rd., in root on W. side of 10-in. pine tree with triangular blaze; copper nail and washer----- 1, 182. 33

Fletcher, 2.0 mi. S. of, about 70 ft. S. of NE. cor. sec. 6, T. 24 N., R. 5 W., near Kalkaska-Missaukee township line, on W. side of rd., in root on E. side of 6-in. oak tree with triangular blaze; copper nail and washer----- 1, 241. 00

Fletcher, 1.0 mi. S. of, in NE. cor. sec. 31, T. 25 N., R. 5 W., in SW. angle of crossroads, in bent trunk of small birch tree standing with two small maple trees; copper nail and washer----- 1, 233. 98

Fletcher, 50 ft. S. and 20 ft. E. from crossroads at, in NW. cor. sec. 29, T. 25 N., R. 5 W., 35 ft. S. of fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 8 F 1927"----- 1, 243. 862

Reference mark, 40 ft. W. of tablet, 50 ft. S. and 20 ft. W. from crossroads, in root on S. side of 4-in. elm tree with triangular blaze; copper nail and washer----- 1, 243. 83

Fletcher, 0.8 mi. W. of, 0.2 mi. E. of W. cor. secs. 19 and 30, T. 25 N., R. 5 W., at top of hill, on S. side of rd., in root on N. side of 15-in. elm tree with triangular blaze; copper nail and washer----- 1, 260. 87

Fletcher, 1.5 mi. W. of, 5.9 mi. SE. of Sharon, near quarter corner between secs. 24 and 25, T. 25 N., R. 6 W., near center of large clearing, 50 ft. N. and 60 ft. E. from rd. crossing top of low hogback ridge, on N. side of rd., in root on N. side of 8-in. pine tree with triangular blaze; copper nail and washer----- 1, 213. 62

Sharon, 5.1 mi. SE. of, in SE $\frac{1}{4}$  sec. 23, 55 ft. NE. of intersection of third-class rd., on W. side of rd. NE., in concrete post; standard tablet stamped "Prim Trav Sta No 9 F 1927"----- 1, 178. 935

Reference mark, 140 ft. SE. of tablet, 75 ft. S. of rd. E., on N. slope of low ridge, in root on N. side of 6-in. oak tree with triangular blaze; copper nail and washer----- 1, 185. 19

Near Anglin station on old Manistee & North Eastern Railway<sup>88</sup> (by S. R. Archer in 1927)

[A jog from Kalkaska quadrangle]

Sharon, 7.7 mi. NE. of, about 630 ft. W. of E. cor. secs. 11 and 14, T. 26 N., R. 6 W., 35 ft. N. of rd. fork, on W. side of rd. N., in root on S. side of small forked wild-cherry tree; copper nail and washer----- 1, 135. 49

Sharon, 8.7 mi. NE. of, about 2.7 mi. E. of Sigma, 0.8 mi. E. of old Anglin sta., about 500 ft. SW. of NE. cor. sec. 11, T. 26 N., R. 6 W., at junction of old M. & N. E. Ry. and old logging R. R. SE., 35 ft. S. and 30 ft. W. from intersection of highway and Ry., in root on S. side of northeasternmost of cluster of three small wild-cherry trees; copper nail and washer----- 1, 130. 66

<sup>88</sup> This line is now abandoned.

From Kalkaska quadrangle near old Anglin station along roads generally northeast and north into Alba quadrangle near quarter corner between secs. 11 and 12, T. 27 N., R. 6 W. (by S. R. Archer in 1927)

Anglin sta., 1.4 mi. E. of, 3.3 mi. E. of Sigma, near quarter corner between secs. 1 and 12, T. 26 N., R. 6 W., 25 ft. SE. and 60 ft. SW. from rd. junction, in root on NW. side of small forked wild-cherry tree; copper nail and washer-----	Feet 1, 140. 30
T. 27 N., R. 6 W., about 500 ft. W. of SE. cor. sec. 36, about 75 ft. N. of Excelsior-Oliver township line, on S. side of old E.-W. fire lane, on E. side of rd., in root on W. side of northernmost tree of cluster of three small wild-cherry trees; copper nail and washer-----	1, 150. 99
T. 27 N., R. 6 W., about 630 ft. SE. of center of NE $\frac{1}{4}$ sec. 36, 100 ft. SW. and 50 ft. SE. from junction of T-rd. S., at W. end of old concrete base of stationary engine, on top of N. corner; chiseled square-----	1, 163. 11
T. 27 N., R. 6 W., about 630 ft. SE. of center of SW $\frac{1}{4}$ sec. 25, 0.8 mi. S. of Sunset sta. on old M. & N. E. Ry., 260 ft. NW. of old rd. S., 100 ft. W. of rd., 60 ft. W. of old R. R. grade, in root on E. side of small wild-cherry tree; copper nail and washer-----	1, 159. 23
Sunset, about 800 ft. W. of quarter corner between secs. 24 and 25, T. 27 N., R. 6 W., 390 ft. NW. of junction of State Highway 76, 60 ft. E. of turn to SE. in highway, 30 ft. W. of old R. R. grade, on N. side of old rd. E., on field side of fence, 10 ft. W. of fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 15 F 1927"-----	1, 170. 189
Reference mark, 275 ft. N. of tablet, 25 ft. N. and 100 ft. W. from deserted house, in fence line on W. side of old R. R. grade, in root on E. side of 15-in. elm tree; copper nail and washer-----	1, 171. 14
T. 27 N., R. 6 W., about 500 ft. NW. of point where old R. R. grade crosses line between secs. 13 and 24, in clearing, 75 ft. E. of rd., 90 ft. E. of bank of swamp, 70 ft. W. of R. R. grade, in root on W. side of small lone poplar tree with lower limbs cut off; copper nail and washer-----	1, 181. 03
T. 27 N., R. 6 W., near cor. secs. 11, 12, 13, and 14, 25 ft. S. of junction of T-rd. W.; standard iron post with bronze cap stamped "Prim Trav Sta No 2 R 1922 Mich"-----	1, 192. 302
Reference mark, 260 ft. W. of standard post, on S. side of rd., in root on NW. side of 12-in. pine tree with triangular blaze; copper nail and washer-----	1, 191. 62

From Kalkaska quadrangle at point about 4 miles east of Sharon generally east along roads to quarter corner between secs. 2 and 3, T. 25 N., R. 4 W. (by S. R. Archer in 1927)

Sharon, 4.2 mi. E. of, about 500 ft. E. of center of SE $\frac{1}{4}$ sec. 2, T. 25 N., R. 6 W., in SE. angle of junction of T-rd. S., in root on N. side of 5-in. pine tree with triangular blaze; copper nail and washer----	1, 098. 85
Sharon, 5.3 mi. E. of, about 500 ft. NW. of E $\frac{1}{4}$ cor. sec. 1, T. 25 N., R. 6 W., 20 ft. SW. and 25 ft. NW. of crossing of old R. R. grade, in concrete post; standard tablet stamped "Prim Trav Sta No 20 F 1927"-----	1, 121. 453
Reference mark, 120 ft. SE. of tablet, 50 ft. NE. and 65 ft. SE. from crossing of old R. R. grade, in root on NW. side of 10-in. pine tree with triangular blaze; copper nail and washer-----	1, 121. 12

	<i>Feet</i>
T. 25 N., R. 5 W., 0.2 mi. S. of N $\frac{1}{4}$ cor. sec. 6, 0.3 mi. SW. of turn in rd. to E., in large clearing, 25 ft. NW. of rd., in root on SE. side of 6-in. pine tree with triangular blaze; copper nail and washer-----	1, 117. 91
Tps. 25 and 26 N., R. 5 W., about 200 ft. W. of corner of secs. 5, 6, 31, and 32, in NW. angle of junction of T-rd. N., in root on NE. side of 10-in. blazed pine tree; copper nail and washer-----	1, 121. 61
T. 26 N., R. 5 W., near center of SE $\frac{1}{4}$ sec. 32, 0.24 mi. SW. of blazed pine tree on N. side of rd. at N. side of burnt-over clearing (traverse-computed point), in timber, about 350 ft. W. of angle in rd. to NE. at edge of clearing, on S. side of rd., in root on N. side of 10-in. pine tree with triangular blaze; copper nail and washer-----	1, 125. 19
T. 26 N., R. 5 W., about 800 ft. E. of center of sec. 33, 20 ft. SE. and 15 ft. SW. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 19 F 1927"-----	1, 137. 718
Reference mark, 55 ft. SE. of crossroads, on SW. side of rd., in root on N. side of 8-in. pine tree with triangular blaze; copper nail and washer-----	1, 137. 84
Tps. 25 and 26 N., R. 5 W., about 400 ft. W. of cor. secs. 3, 4, 33, and 34, 65 ft. W. of point where rd. crosses township line, on SW. side of rd., in root on SE. side of 12-in. pine tree with triangular blaze and marked as section corner; copper nail and washer-----	1, 159. 35
T. 25 N., R. 5 W., about 800 ft. SE. of quarter corner between secs. 3 and 4, at foot of short steep hill to S., on W. side of rd., in root on S. side of 12-in. pine tree with triangular blaze (traverse-computed point); copper nail and washer-----	1, 220. 30
T. 25 N., R. 5 W., 0.2 mi. S. of N. cor. secs. 9 and 10, 6 ft. S. and 7 ft. E. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 18 F 1927"-----	1, 268. 492
Reference mark, 28 ft. N. and 14 ft. W. from crossroads, in root on N. side of 10-in. oak tree with triangular blaze; copper nail and washer-----	1, 267. 97
T. 25 N., R. 5 W., 0.2 mi. SE. of N $\frac{1}{4}$ cor. sec. 10, at W. side of clearing, just E. of point where rd. passes through narrow poplar marsh, 55 ft. S. of rd., in root on N. side of 12-in. oak tree with triangular blaze; copper nail and washer-----	1, 277. 96
T. 25 N., R. 5 W., in NE. cor. sec. 11, at W. end of N. side of large pot hole about 25 ft. deep and on S. side of rd., 30 ft. NE. of point where rd. W. leaves old R. R. grade, on SE. side of rd., in root on NW. side of 12-in. forked oak tree with triangular blaze; copper nail and washer-----	1, 288. 56
T. 25 N., Rs. 4 and 5 W., near cor. secs. 1, 6, 7, and 12, at Crawford-Kalkaska county line, 25 ft. N. and 28 ft. W. from crossroads, in woods, in concrete post; standard tablet stamped "Prim Trav Sta No 17 F 1927"-----	1, 266. 997
T. 25 N., R. 4 W., about 950 ft. W. of quarter corner between secs. 6 and 7, 90 ft. N. and 45 ft. W. from crossroads, in root on N. side of 8-in. oak tree with triangular blaze; copper nail and washer-----	1, 262. 59
T. 25 N., R. 4 W., in SE. cor. sec. 6, 30 ft. N. and 20 ft. W. from crossroads, in root on SE. side of 10-in. pine tree with triangular blaze; copper nail and washer-----	1, 261. 13
T. 25 N., R. 4 W., near quarter corner between secs. 5 and 6, 8 ft. N. and 15 ft. W. from crossroads, in root on NE. side of 8-in. pine tree with triangular blaze; copper nail and washer-----	1, 263. 30

T. 25 N., R. 4 W., near quarter corner between secs. 4 and 5, 20 ft. N. and 20 ft. W. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 16 F 1927"-----	Feet 1, 277. 796
Reference mark, 33 ft. W. of tablet, 25 ft. N. and 55 ft. W. from crossroads, in root on SW. side of 6-in. pine tree with triangular blaze; copper nail and washer-----	1, 276. 82
T. 25 N., R. 4 W., about 800 ft. W. of quarter corner between secs. 3 and 4, on N. side of rd., in line with W. side of old house, in root on S. side of westernmost of two 12-in. maple trees standing 20 ft. apart; copper nail and washer-----	1, 294. 62
T. 25 N., R. 4 W., near center of sec. 3, 25 ft. N. and 40 ft. W. from junction of T-rd. N., in root on NE. side of small maple tree standing 2 ft. W. of small double maple tree; copper nail and washer---	1, 326. 59
From sec. 33, T. 26 N., R. 5 W., generally northeast along roads by way of Riverview and Red Bridge to point in sec. 30, T. 27 N., R. 4 W., thence northwest along road to range-line road, thence north into Alba quadrangle near quarter corner between secs. 7 and 12, T. 27 N., Rs. 4 and 5 W. (by S. R. Archer in 1927)	
T. 26 N., R. 5 W., near center of SW $\frac{1}{4}$ sec. 27, at junction of T-rd. NW., 500 ft. NE. of junction of T-rd. SW., at top of small ridge, on W. side of rd., in root 6 in. underground and 10 in. from SE. side of 5-in. oak tree standing with 3-in. oak tree; copper nail and washer-----	1, 135. 26
T. 26 N., R. 5 W., about 800 ft. N. and 800 ft. W. from E $\frac{1}{4}$ cor. sec. 28, 30 ft. N. and 17 ft. W. from junction of T-rd. E., in root on NE. side of 24-in. oak tree; copper nail and washer-----	1, 106. 60
T. 26 N., R. 5 W., in SE. cor. sec. 21, 60 ft. S. of S. bank of Manistee River at point where river bends to SW., on W. side of rd. at turn from S. to NE., in concrete post; standard tablet stamped "Prim Trav Sta No 21 F 1927"-----	1, 099. 763
Reference mark, 50 ft. E. of tablet, 35 ft. E. of turn in rd. to NE., in root on W. side of 6-in. oak tree with triangular blaze; copper nail and washer-----	1, 100. 44
Portage Creek, at bridge over; center of floor-----	1, 094. 2
T. 26 N., R. 5 W., 0.2 mi. NE. of W $\frac{1}{4}$ cor. sec. 22, 600 ft. N. of bridge over Portage Creek, in clearing, on SE. side of rd., in root on NW. side of 10-in. oak tree with triangular blaze; copper nail and washer-----	1, 102. 74
T. 26 N., R. 5 W., just N. of center of SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 15, 125 ft. W. of rd., in root on E. side of 12-in. oak tree with triangular blaze (traverse-computed point); copper nail and washer-----	1, 108. 28
T. 26 N., R. 5 W., near cor. secs. 10, 11, 14, and 15, 0.2 mi. SW. of junction of T-rd. NW. to Manistee River, 65 ft. W. of junction of rd. SW., on N. side of rd. SW., in root on NW. side of 10-in. oak tree with triangular blaze; copper nail and washer-----	1, 114. 76
Manistee River, at Birchwood Lodge; surface of water Sept. 7, 1927-----	1, 101. 3
T. 26 N., R. 5 W., 500 ft. W. of E $\frac{1}{4}$ cor. sec. 10, on NW. side of rd., 90 ft. NW. of Birchwood Lodge, 30 ft. E. of E. corner of garage, in root on E. side of 24-in. oak tree; copper nail and washer-----	1, 123. 13
T. 26 N., R. 5 W., near center of NW $\frac{1}{4}$ sec. 11, 0.6 mi. SW. of old Riverview sta. on Manistee & North Eastern Ry., 65 ft. W. of rd. fork, 20 ft. S. of rd. W., 15 ft. NW. of rd. SW., in concrete post; standard tablet stamped "Prim Trav Sta No 22 F 1927"-----	1, 124. 813
Riverview, 150 ft. S. and 260 ft. W. from M. & N. E. Ry. bridge over Manistee River, 150 ft. S. of sta., at top of W. bank of river, in root on W. side of 24-in. oak tree; copper nail and washer-----	1, 126. 63

	<i>Feet</i>
U. S. C. & G. S. standard disk stamped "R 13"-----	1, 126. 244
T. 26 N., R. 5 W., 0.3 mi. E. of center of sec. 1, about 0.7 mi. S. of Red Bridge over Manistee River, at point where rd. is on E. bank of river, at bend in river to NW., 90 ft. SE. of river bank, 45 ft. SE. of rd., in root on NW. side of 12-in. oak tree with triangular blaze; copper nail and washer-----	1, 131. 10
Tps. 26 and 27 N., Rs. 4 and 5 W., at cor. secs. 1, 6, 31, and 36, 840 ft. E. of Red Bridge over Manistee River, 200 ft. S. of Kalkaska-Grayling rd., 350 ft. W. of junction of T-rd. NE. to Frederic, 100 ft. S. of intersection of fire lanes E. and S., 30 ft. N. of rd. SW., in center of N.-S. fire lane; standard iron post with bronze cap stamped "Prim Trav Sta No 10 R 1922 Mich" <sup>59</sup> -----	1, 134. 783
Red Bridge over Manistee River; center of floor-----	1, 126. 0
T. 27 N., R. 5 W., 0.2 mi. NW. of SE. cor. sec. 36, 200 ft. NW. of Red Bridge, 50 ft. SW. of junction of T-rd. NE., 175 ft. SE. of junction of rd. S. to Riverview, in root on SE. side of 4-in. oak tree; copper nail and washer-----	1, 137. 64
T. 27 N., R. 4 W., about 800 ft. SW. of quarter corner between secs. 30 and 31, about 200 ft. S. of bend to E. in Manistee River, 100 ft. W. of river bank, about 575 ft. S. of angle in rd. in draw, 15 ft. E. of rd., in root on SW. side of 5-in. pine tree with triangular blaze; copper nail and washer-----	1, 142. 00
T. 27 N., R. 4 W., near center of SE $\frac{1}{4}$ sec. 30, at right-angle turn in rd. to NW., 40 ft. W. of bank of Manistee River, 30 ft. E. of rd., 30 ft. N. of center line of rd. W., in root on SW. side of 4-in. oak tree with triangular blaze; copper nail and washer-----	1, 144. 31
T. 27 N., R. 4 W., near center of SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, 23 ft. W. of rd. fork, in concrete post; standard tablet stamped "2 A 1927 Mich"-----	1, 155. 272
Reference mark, 145 ft. SE. of tablet, 120 ft. SE. and 18 ft. E. from rd. fork, in root on NW. side of 8-in. pine tree with triangular blaze; copper nail and washer-----	1, 154. 58
T. 27 N., R. 4 W., about 800 ft. SE. of W $\frac{1}{4}$ cor. sec. 18, 0.35 mi. N. of point where rd. crosses S. line of sec. 18, 20 ft. N. and 13 ft. E. from junction of T-rd. SE., in root on NW. side of 15-in. pine tree with triangular blaze; copper nail and washer-----	1, 163. 32
T. 27 N., Rs. 4 and 5 W., near S. cor. secs. 7 and 12, 45 ft. N. and 30 ft. E. from intersection of old fire lane and range-line rd., 40 ft. W. of old R. R. grade, 30 ft. E. of rd., in root on W. side of 5-in. pine tree with triangular blaze; copper nail and washer-----	1, 166. 87
From Resort Station on old Manistee & North Eastern Railway north along road to Frederic-Grayling township line, thence west along fire lane to corner secs. 1, 6, 31, and 36, Tps. 26 and 27 N., Rs. 4 and 5 W. (by S. R. Archer in 1927)	
U. S. C. & G. S. standard disk stamped "Q 13"-----	1, 143. 810
Tps. 26 and 27 N., R. 4 W., 0.3 mi. W. of E. cor. secs. 5 and 32, at intersection of old Kalkaska-Grayling rd. and township line (N. boundary of Hanson State Military Reservation), 12 ft. S. and 14 ft. W. from intersection of E.-W. fire lane; standard iron post with bronze cap stamped "Prim Trav Sta No 9 R 1922 Mich"-----	1, 145. 091
T. 27 N., R. 4 W., 35 ft. N. and 195 ft. W. from SE. cor. sec. 31, 35 ft. N. of center of E.-W. fire lane, in root on SE. side of 5-in. pine tree; copper nail and washer-----	1, 137. 10

<sup>59</sup> The wooden post marking the township and range corner was removed by the traverse party and the iron post was set at the same location.

## FLINT QUADRANGLE

[Latitude 43°00'-43°15'; longitude 83°30'-83°45']

## GENESEE, SAGINAW, AND TUSCOLA COUNTIES

From Burt quadrangle east along Corunna Road (present State Highway 21) and streets to intersection of Court and Lapeer Streets in Flint (by E. E. Harris in 1919)

	<i>Feet</i>
Flint, on N. side of Corunna Rd., 80 ft. W. of Durant Street; standard iron post with bronze cap stamped "1919 Mich 794"-----	792. 985
Flint, at NW. corner of intersection of Durant Street, in top of concrete post nearly flush with ground; copper bolt (City of Flint B. M.)-----	793. 311
Flint, at NW. corner of Glenwood Avenue and Garden Street, on top of curb; chiseled square-----	755. 09
Flint, at SE. corner of Glenwood Avenue and Asylum Street, on top of curb; chiseled square-----	730. 16
Flint, at Court Street bridge over Swartz Creek, on S. end of W. abutment; chiseled square-----	733. 28
Flint, at SW. corner of Court and Saginaw Streets, on top of curb; chiseled square-----	754. 10
Flint, in SW. angle of junction of Court and Lapeer Streets, at SW. corner of sewer, on top of curb; chiseled square-----	759. 80
<p>From intersection of Court and Lapeer Streets in Flint generally east along Lapeer Road (present State Highway 21 A) to State Road (present State Highway 15) at point 1.1 miles south of Davison (by E. E. Harris in 1919; double-rodged line was run by R. B. Steele in 1920)</p>	
Flint, 0.9 mi. E. of, in SE. angle of intersection of Grand Trunk Ry. and Lapeer Rd.; standard iron post with bronze cap stamped "1919 Mich 762"-----	760. 991
Flint, 1.5 mi. E. of, about 500 ft. S. of W $\frac{1}{4}$ cor. sec. 16, T. 7 N., R. 7 E., near NE. corner of crossroads, in center of concrete culvert; chiseled square-----	755. 77
Flint, 2.5 mi. E. of, 1.2 mi. N. of Bilskie, about 300 ft. S. of E $\frac{1}{4}$ cor. sec. 16, T. 7 N., R. 7 E., near NW. corner of crossroads, in center of top of concrete culvert; chiseled square-----	769. 26
Flint, 3.5 mi. E. of, about 300 ft. S. of E $\frac{1}{4}$ cor. sec. 15, T. 7 N., R. 7 E., near SW. corner of intersection of Genesee Rd., in center of top of concrete culvert; chiseled square-----	768. 62
Flint, 4.5 mi. E. of, near W $\frac{1}{4}$ cor. sec. 13, T. 7 N., R. 7 E., in NE. angle of intersection of Belsay Rd., at entrance to Bentley School, in SW. corner of top step; standard tablet stamped "1919 Mich 778" <sup>60</sup> -----	777. 209
Flint, 5.5 mi. E. of, near W $\frac{1}{4}$ cor. sec. 18, T. 7 N., R. 8 E., in SE. angle of intersection of Vassar Rd., in root on W. side of 12-in. maple tree; copper nail and washer-----	773. 12
Flint, 6.5 mi. E. of, 1.1 mi. S., thence 2.0 mi. W. from Davison, near W $\frac{1}{4}$ cor. sec. 17, T. 7 N., R. 8 E., 50 ft. E. of crossroads, on S. side of rd., in root of 40-in. elm tree; copper nail and washer-----	777. 54
Davison, 1.1 mi. S., thence 1.0 mi. W. from, near W $\frac{1}{4}$ cor. sec. 16, T. 7 N., R. 8 E., on N. side of rd., 100 ft. E. of junction of T-rd. N., in root on S. side of 20-in. oak tree; copper nail and washer-----	788. 33

<sup>60</sup> Recovered in 1936; the schoolhouse had been moved but the steps were undisturbed.



Davison, 1.1 mi. S. of, about 800 ft. N. of E $\frac{1}{4}$ cor. sec. 16, T. 7 N., R. 8 E., in NW. angle of intersection of State Rd., at base of corner fence post; standard iron post with bronze cap stamped "1919 Mich 794"-----	Feet 793. 472
From intersection of Lapeer Road (present State Highway 21 A) and State Road (present State Highway 15) 1.1 miles south of Davison north along highway into Vassar quadrangle (by E. E. Harris in 1919; leveled twice)	
Davison, in front of Grand Trunk Ry. sta.; top of N. rail-----	792. 8
Davison, 2.3 mi. N. of Ry. sta., near NW. cor. sec. 34, T. 8 N., R. 8 E., in SE. corner of crossroads, diagonally opposite Cottrell School; standard iron post with bronze cap stamped "1919 Mich 797"-----	796. 666
Davison, 3.3 mi. N. of, 1.0 mi. S. of Richfield Center, in NE. cor. sec. 28, T. 8 N., R. 8 E., on W. side of rd., on field side of wire fence, in root on N. side of 12-in. maple tree; copper nail and washer-----	795. 70
Richfield Center, on N. side of rd., 80 ft. E. of intersection of Coldwater Rd., on NW. corner of concrete foundation of well; chiseled square-----	787. 59
Richfield Center, 0.2 mi. N. of, 0.25 mi. N. of SW. cor. sec. 15, T. 8 N., R. 8 E., in center of E. concrete head wall of culvert; chiseled square-----	776. 80
Richfield Center, 1.0 mi. N. of, in NE. cor. sec. 16, T. 8 N., R. 8 E., on W. side of rd., 100 ft. S. of junction of T-rd. E., on N. end of W. concrete head wall of culvert; chiseled square-----	754. 18
Richfield Center, 2.1 mi. N. of, at SW. cor. sec. 3, T. 8 N., R. 8 E., near Miller School, on E. side of rd., in line with T-rd. W.; standard iron post with bronze cap stamped "Prim Trav Sta No 12 H 1919 Mich 790"-----	788. 904
Richfield Center, 4.1 mi. N. of, 1.2 mi. S. of junction of State and Wilson Rds. in Otisville, near SW. cor. sec. 27, T. 9 N., R. 8 E., in NE. corner of crossroads, in root on W. side of 15-in. maple tree; copper nail and washer-----	839. 98
Otisville, 550 ft. E. of junction of State and Wilson Rds., in center of W. concrete head wall of culvert; standard tablet stamped "1919 Mich 802"-----	801. 245
Otisville, on S. side of Wilson Rd., in line with State Rd. N., at NW. corner of cement sidewalk; chiseled square-----	820. 42
Otisville, 0.4 mi. N. of, near E $\frac{1}{4}$ cor. sec. 21, T. 9 N., R. 8 E., at intersection of Pere Marquette Ry.; top of S. rail-----	821. 9
Otisville, 0.9 mi. N. of, near NW. cor. sec. 22, T. 9 N., R. 8 E., on E. side of rd., on S. side of private lane to farmhouse, on top of granite outcrop; chiseled square-----	832. 24
Otisville, 2.4 mi. N. of, in NW $\frac{1}{4}$ sec. 10, T. 9 N., R. 8 E., in center of S. side of wooden bridge; top of iron bolt-----	802. 86
Otisville, 2.9 mi. N. of, near SW. cor. sec. 3, T. 9 N., R. 8 E., in NE. corner of crossroads, in center of top of concrete head wall of culvert; standard tablet stamped "1919 Mich 833"-----	831. 806
From crossroads 4.5 miles east of Flint north by way of Genesee into Vassar quadrangle near northwest corner sec. 25, T. 10 N., R. 7 E. (by E. E. Harris in 1919; double-rodged line was run by R. B. Steele in 1920)	
Flint, 4.5 mi. E., thence 0.5 mi. N. from, 0.5 mi. S. of Belsay, in NE. cor. sec. 14, T. 7 N., R. 7 E., at SW. corner of crossroads, in center of top of concrete culvert; chiseled square-----	764. 51
Belsay, at Grand Trunk Ry. crossing; top of S. rail of main track-----	778. 0
T. 7 N., R. 7 E., near SW. cor. sec. 1, 0.5 mi. N. of Belsay, in NE. angle of intersection of Davison Rd., in root on W. side of 20-in. elm tree; copper nail and washer-----	777. 28

	<i>Feet</i>
Kearsley Creek; surface of water July 10, 1919-----	742. 4
T. 7 N., R. 7 E., in NW. cor. sec. 1, in SE. angle of crossroads, in root on W. side of 18-in. oak tree; copper nail and washer-----	760. 48
T. 8 N., R. 7 E., near W $\frac{1}{4}$ cor. sec. 36, in NE. angle of intersection of Richfield Rd., on top of concrete culvert; chiseled square-----	766. 19
T. 8 N., R. 7 E., in SW. cor. sec. 25, in NE. angle of junction of T-rd. E.; standard iron post with bronze cap stamped "1919 Mich 758"-----	757. 495
T. 8 N., R. 7 E., in NE. cor. sec. 23, 40 ft. S. and 40 ft. W. from intersection of Coldwater Rd., on field side of rail fence, in root on S. side of 10-in. maple tree; copper nail and washer-----	768. 17
T. 8 N., R. 7 E., in NE. cor. sec. 14, 0.4 mi. SW., thence 1.0 mi. E. from Genesee, on S. side of rd. at turn in rd. from N. to W., in root on N. side of 15-in. elm tree; copper nail and washer-----	773. 41
Genesee, 0.4 mi. SW. of, in SE. cor. sec. 10, T. 8 N., R. 7 E., at bridge over Flint River, in W. end of S. abutment; standard tablet stamped "1919 Mich 722"-----	721. 002
Genesee, 0.7 mi. N. of, in SW. cor. sec. 2, T. 8 N., R. 7 E., in NE. angle of intersection of Genesee and Mount Morris Rds., near Bodine School, in root on W. side of 18-in. maple tree; copper nail and washer-----	776. 12
T. 9 N., R. 7 E., in SE. cor. sec. 34, 1.7 mi. N. of Genesee, in NW. angle of intersection of Francis Rd., on top of granite outcrop; chiseled square-----	779. 25
T. 9 N., R. 7 E., near N $\frac{1}{4}$ cor. sec. 36, on S. side of rd., in line with T-rd. N.; standard iron post with bronze cap stamped "1919 Mich 769"-----	767. 815
T. 9 N., R. 7 E., near S $\frac{1}{4}$ cor. sec. 24, at junction of E.-W. rd., in line with W. side of rd. S., in angle of wire fence, on top of granite outcrop; chiseled square-----	780. 21
T. 9 N., R. 7 E., in SE. cor. sec. 14, near East Thetford School, 20 ft. N. and 60 ft. W. from rd. crossing, on top of small culvert; chiseled square-----	807. 94
T. 9 N., R. 7 E., in NW. cor. sec. 13, 20 ft. S. and 60 ft. E. from crossroads, in root on W. side of 14-in. maple tree; copper nail and washer-----	799. 36
T. 9 N., R. 7 E., near SE. cor. sec. 2, on W. side of rd., in line with T-rd. E., 80 ft. NE. of Jobson School; standard iron post with bronze cap stamped "1919 Mich 761"-----	759. 615
T. 9 N., R. 7 E., in NE. cor. sec. 2, on W. side of rd., 40 ft. S. of Genesee-Tuscola county-line rd., in root on E. side of 10-in. elm tree; copper nail and washer-----	749. 16
T. 10 N., R. 7 E., near NW. cor. sec. 36, 35 ft. S. and 25 ft. E. from crossroads, opposite Grunnell School, in root on W. side of 12-in. elm tree; copper nail and washer-----	754. 31

From Vassar quadrangle at point 1 mile west of Arbela south along road to Flint (by E. E. Harris in 1919; leveled twice)

Arbela, 1.0 mi. W., thence 1.0 mi. S. from, 1.8 mi. E., thence 4.0 mi. N. from Pine Run, in NW. cor. sec. 32, T. 10 N., R. 7 E., in SE. corner of crossroads, on top of granite outcrop; chiseled square-----	711. 16
Pine Run, 1.8 mi. E., thence 3.0 mi. N. from, near S. cor. secs. 31 and 32, T. 10 N., R. 7 E., at jog in N.-S. rd. at Genesee-Tuscola county line, in large grassy triangle at junction of E.-W. rd. with rd. N.; standard iron post with bronze cap stamped "1919 Mich 732"-----	732. 252

Pine Run, 1.8 mi. E., thence 2.0 mi. N. from, in SE. cor. sec. 6, T. 9 N., R. 7 E., in NW. corner of crossroads, opposite Wildcat School, on top of granite boulder; chiseled square-----	<i>Feet</i> 743. 50
Pine Run, 1.8 mi. E., thence 1.0 mi. N. from, near NE. cor. sec. 18, T. 9 N., R. 7 E., in SW. corner of crossroads, on top of granite outcrop; chiseled square-----	752. 52
Pine Run, 1.8 mi. E., thence 0.5 mi. N. from, near W $\frac{1}{4}$ cor. sec. 17, T. 9 N., R. 7 E., on E. side of rd., 40 ft. S. of junction of T-rd. W., at wooden bridge over drain, on NE. corner of S. stone abutment; chiseled square-----	748. 19
Pine Run, 1.8 mi. E. of, 2.8 mi. E. of Clio, at NW. cor. sec. 20, T. 9 N., R. 7 E., in SE. angle of intersection of Vienna Rd., opposite Boutwell School, on top of granite boulder; chiseled square-----	763. 60
Pine Run, 1.8 mi. E., thence 0.5 mi. S. from, near E $\frac{1}{4}$ cor. sec. 19, T. 9 N., R. 7 E., in SW. angle of crossroads; standard iron post with bronze cap stamped "1919 Mich 768"-----	768. 043
Pine Run, 1.8 mi. E., thence 1.0 mi. S. from, 0.9 mi. E., thence 3.0 mi. N. from Mount Morris, in NE. cor. sec. 30, T. 9 N., R. 7 E., 60 ft. S. and 25 ft. W. from crossroads, in root on E. side of 18-in. maple tree; copper nail and washer-----	759. 56
Mount Morris, 0.9 mi. E., thence 2.0 mi. N. from, in SW. cor. sec. 29, T. 9 N., R. 7 E., 80 ft. N. and 25 ft. E. from crossroads, in center of top of concrete culvert; chiseled square-----	763. 66
Mount Morris, 0.9 mi. E., thence 1.0 mi. N. from, in SW. cor. sec. 32, T. 9 N., R. 7 E., in NE. corner of crossroads, on top of granite boulder; chiseled square-----	775. 47
Mount Morris, 0.9 mi. E. of, near NE. cor. sec. 7, T. 8 N., R. 7 E., in SW. corner of crossroads; standard iron post with bronze cap stamped "1919 Mich 809"-----	808. 558
Mount Morris, 0.9 mi. E., thence 1.0 mi. S. from, 7.1 mi. N. of intersection of Court and Lapeer Streets in Flint, in SE. cor. sec. 7, T. 8 N., R. 7 E., 25 ft. N. and 40 ft. W. from crossroads, in root on N. side of 10-in. hickory tree; copper nail and washer-----	785. 63
Flint, 5.0 mi. N. of, near SE. cor. sec. 19, T. 8 N., R. 7 E., 50 ft. N. and 25 ft. W. from crossroads, in root on E. side of 20-in. maple tree; copper nail and washer-----	752. 19
Flint, 4.0 mi. N. of, at W. cor. secs. 29 and 32, T. 8 N., R. 7 E., in line with T-rd. W.; standard iron post with bronze cap stamped "1919 Mich 753" <sup>61</sup> -----	750. 414
Flint, at SE. corner of St. Johns Street and Stewart Avenue known as General Motors Park, on top of sidewalk in NW. corner; chiseled square-----	752. 18
Flint, in SW. corner of St. Johns Street and Central Avenue, on top of curb; chiseled square-----	725. 42
Flint, at SE. corner of St. Johns and Hamilton Streets, on top of curb; chiseled square-----	721. 77
Flint, at westernmost of two bridges over Flint River on St. Johns Street, in S. end of W. stone abutment; chiseled square-----	716. 77

<sup>61</sup> In 1932, when the T-road west (Pierson Road) was extended eastward, the bench mark was reset at the intersection of the south line of Pierson Road and the east line of Thetford Road and lowered 1.510 feet. The figures given represent the new elevation.

From crossroads 0.9 mile east of Mount Morris east along road 3 miles to crossroads 0.7 mile north of Genesee (by E. E. Harris in 1919)

Mount Morris, 2.9 mi. E. of, 0.7 mi. N., thence 1.0 mi. W. from Genesee, near NE. cor. sec. 9, T. 8 N., R. 7 E., in SW. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 17 H 1919 Mich 760" ----- Feet  
759. 046

Along Saginaw and Detroit Road (present U. S. Highway 23) southeast 1.4 miles, thence west along road 0.7 mile (by E. E. Harris in 1919)

[A jog from Burt quadrangle]

Birch Run, 1.3 mi. E., thence 2.3 mi. SE. from, 1.8 mi. N., thence 1.3 mi. NW. from Clio, near N. side NW $\frac{1}{4}$  sec. 3, T. 9 N., R. 6 E., at SE. corner of crossroads, in center of top of concrete culvert; standard tablet stamped "1919 Mich 671"<sup>62</sup> ----- 670. 880  
Clio, 1.8 mi. N., thence 1.3 mi. NW. from, in NW $\frac{1}{4}$  sec. 3, T. 9 N., R. 6 E., in E. head wall of new culvert; standard tablet not stamped (set in February 1933 by the State Highway Department) ----- 669. 470  
Clio, 1.8 mi. N., thence 0.2 mi. NW. from, in NE $\frac{1}{4}$  sec. 10, T. 9 N., R. 6 E., in SW. corner of crossroads, on top of concrete culvert; chiseled square ----- 695. 74

Along Flint-Mount Morris township-line road east 0.5 mile, thence along roads south 0.3 mile and southwest 0.8 mile (by E. E. Harris in 1919; leveled twice)

[A jog from Burt quadrangle]

Flint, 2.2 mi. N. and 3.0 mi. W. from intersection of Court and Lapeer Streets, 0.4 mi. W. of NE. cor. sec. 3, T. 7 N., R. 6 E., at SW. corner of junction of T-rd. S.; standard iron post with bronze cap stamped "1919 Mich 767" ----- 766. 183

From crossroads 1.1 miles south of Davison along State Road south 0.6 mile, thence along roads 0.5 mile and south 0.4 mile into Holly quadrangle (by E. E. Harris in 1919; double-rodde line was run by R. B. Steele in 1920)

Davison, 2.1 mi. S. and 0.5 mi. W. from, near center of W. side of NE $\frac{1}{4}$  sec. 21, T. 7 N., R. 8 E., at iron bridge over Kearsley Creek, in E. end of N. abutment; standard tablet stamped "1919 Mich 791" ----- 790. 342  
Kearsley Creek, under bridge; surface of water Sept. 16, 1919 ----- 783. 8

From Belsay south along road to crossroads 4.5 miles east of Flint (by J. M. Lawson in 1936; leveled twice)

U. S. C. & G. S. standard disk designated "U 41 1934" ----- 777. 272  
Belsay, 0.5 mi. S. of, 4.5 mi. E., thence 0.5 mi. N. from Flint, at cor. secs. 11, 12, 13, and 14, T. 7 N., R. 7 E., 40 ft. S. and 16 ft. E. from crossroads, on top of S. end of concrete parapet of bridge; chiseled square ----- 765. 17

## FOWLERVILLE QUADRANGLE

[Latitude 42°30'-42°45'; longitude 84°00'-84°15']

### LIVINGSTON AND INGHAM COUNTIES

From Howell quadrangle near Sprague Corners generally west along roads into Mason quadrangle at southwest corner sec. 8, T. 4 N., R. 2 E. (by F. H. West in 1908)

T. 4 N., R. 4 E., in SW. cor. sec. 8, 10 ft. N. of NE. corner of crossroads, opposite Smith Bros. House, on stone; chiseled circle ----- 882. 13

<sup>62</sup> In May 1931 this bench mark was destroyed and the State Highway Department set a standard highway marker on the north side of the road, 150 feet east of the crossroads, at an elevation of 668.831 feet.

	<i>Feet</i>
T. 4 N., R. 4 E., near SW. cor. sec. 7, at NE. corner of junction of N.-S. rd., on large stone; highest point.....	893. 20
T. 4 N., R. 4 E., near W $\frac{1}{4}$ cor. sec. 18, at NE. corner of crossroads, on large stone; highest point (not recovered in 1913).....	919. 56
T. 4 N., R. 3 E., 5 ft. S. of E $\frac{1}{4}$ cor. sec. 14, in small grass plot at junction of T-rd. S., in front of dwelling of J. B. Fuller; standard iron post with bronze cap stamped "Prim Trav Sta No 1 1908 Mich 907" (recovered in 1913).....	906. 344
T. 4 N., R. 3 E., near W $\frac{1}{4}$ cor. sec. 14, at junction of N.-S. rd., in N. abutment of small bridge across E.-W. rd., on flat stone; chiseled circle.....	885. 83
T. 4 N., R. 3 E., near NW. cor. sec. 14, 60 ft. S. of junction of E.-W. rd., at W. side of N. abutment of iron bridge over county ditch, on iron plate; unmarked point.....	882. 12
T. 4 N., R. 3 E., 0.25 mi. E. of N $\frac{1}{4}$ cor. sec. 16, in center of crossroads, on large stone; highest point.....	910. 52
T. 4 N., R. 3 E., 40 ft. NW. of NE. cor. sec. 17, in NW. angle of crossroads, 3 ft. S. of fence line, 3 ft. W. of small ditch; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1908 Mich 887".....	887. 038
T. 4 N., R. 3 E., near SE. cor. sec. 7, 30 ft. E. of corner of junction of T-rd. N., on N. side of rd., 1 ft. S. of fence line; top of large stone..	888. 51
T. 4 N., R. 2 E., 0.25 mi. N. of W $\frac{1}{4}$ cor. sec. 13, in SE. angle of junction of N.-S. rd., 0.25 mi. W. of dwelling of William Arnold, in field, just inside fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 3 1908 Mich 898" (recovered in 1926).....	897. 386
T. 4 N., R. 2 E., near N $\frac{1}{4}$ cor. sec. 14, in SW. angle of crossroads, near corner fence post, on large stone; highest point.....	905. 90
T. 4 N., R. 2 E., 0.2 mi. W. of NE. cor. sec. 15, on S. side of rd., just E. of junction of T-rd. N., on large stone; highest point.....	908. 82
T. 4 N., R. 2 E., near N $\frac{1}{4}$ cor. sec. 16, 30 ft. SW. of crossroads, just outside fence line, near telegraph pole; standard iron post with bronze cap stamped "Prim Trav Sta No 4 1908 Mich 897" (recovered in 1926).....	896. 829
T. 4 N., R. 2 E., 0.25 mi. W. of NE. cor. sec. 17, at SW. corner of junction of T-rd. S., on large stone; highest point.....	885. 84
From Mason quadrangle at point 3 miles south, thence 1.6 miles east from Williamston along roads generally east 9 miles, thence north and east to Fowlerville, thence alternately south and east into Howell quadrangle (by F. H. West in 1908)	
Williamston, 3.0 mi. S., thence 2.0 mi. E. from, 1.6 mi. S., thence 3.5 mi. W. from Webberville, at cor. secs. 17, 18, 19, and 20, T. 3 N., R. 2 E., at center of junction of T-rd. S., on stone marking section corner; top of stone.....	897. 89
Webberville, 1.6 mi. S., thence 2.5 mi. W. from, in NE. cor. sec. 20, T. 3 N., R. 2 E., in SW. angle of crossroads, just outside fence line; standard iron post with bronze cap stamped "908".....	907. 293
Webberville, 2.1 mi. S., thence 1.0 mi. E. from, near center of sec. 24, T. 3 N., R. 2 E., near Herrick School, on E. side of rd., at junction of T-rd. S., in center of small grass plot; standard iron post with bronze cap stamped "901".....	899. 908

Webberville, 2.6 mi. S. and 2.3 mi. E. from, 2.0 mi. S. and 3.0 mi. W. from Fowlerville, at cor. secs. 19, 20, 29, and 30, T. 3 N., R. 3 E., in center of crossroads, at stone marking section corner; top of stone-----	<i>Feet</i> 933. 50
Fowlerville, 2.0 mi. S. and 1.0 mi. W. from, near SE. cor. sec. 21, T. 3 N., R. 3 E., in NW. angle of junction of N.-S. rd., in fence corner; standard iron post with bronze cap stamped "893"-----	891. 692
Fowlerville, 1.0 mi. S., thence 1.0 mi. W. from, at cor. secs. 15, 16, 21, and 22, T. 3 N., R. 3 E., at center of crossroads, on stone marking section corner; top of stone-----	910. 15
Fowlerville, 0.5 mi. E. of Pere Marquette Ry. sta., at SE. corner of intersection of Ry. and Grand Ave., 30 ft. S. of track, 5 ft. E. of street; standard iron post with bronze cap stamped "898"-----	896. 928
Fowlerville, 3.0 mi. along Ry. SE. of, 0.2 mi. W. of E. cor. sec. 19, T. 3 N., R. 4 E., at NW. corner of grade crossing; standard iron post with bronze cap stamped "924"-----	923. 297
From northeast corner sec. 20, T. 3 N., R. 2 E., generally south along roads into Stockbridge quadrangle near Plainfield (by F. H. West in 1908)	
Vantown, 2.0 mi. N. of, near NE. cor. sec. 29, T. 3 N., R. 2 E., in SW. angle of crossroads, near old panel fence corner, on large stone; highest point-----	922. 78
Vantown, in SE. angle of crossroads at, near NW. cor. sec. 4, T. 2 N., R. 2 E., in NW. corner of brick Memorial Church; aluminum tablet stamped "935" (recovered by U. S. C. & G. S. in 1934)-----	934. 339
Vantown, 2.0 mi. S. of, at cor. secs. 8, 9, 16, and 17, T. 2 N., R. 2 E., in center of crossroads, at 1¼-in. iron pipe marking section corner; top of pipe-----	921. 23
Vantown, 3.2 mi. S. of, 0.25 mi. S. of NE. cor. sec. 20, T. 2 N., R. 2 E., in SW. angle of crossroads, opposite dwelling of E. M. Kimball, in field, just inside barbwire fence; standard iron post with bronze cap stamped "950"-----	949. 039
Vantown, 4.0 mi. S. of, 1.7 mi. NW., thence 0.4 mi. N. from White Oak, near NW. cor. sec. 28, T. 2 N., R. 2 E., at SE. corner of junction of T-rd. E., 15 ft. NE. of telegraph pole, on large flat stone; highest point-----	943. 86
White Oak, in SW. angle of crossroads at, about 500 ft. S. of N¼ cor. sec. 34, T. 2 N., R. 2 E., in root on E. side of 26-in. maple tree; iron staple-----	965. 30
White Oak, 0.6 mi. SE. of, near E¼ cor. sec. 34, T. 2 N., R. 2 E., at SW. corner of crossroads, in grass plot, on large boulder; highest point-----	977. 06
White Oak, 0.6 mi. SE., thence 1.0 mi. E. from, near W¼ cor. sec. 36, T. 2 N., R. 2 E., in SE. angle of crossroads, in field, just inside fence line; standard iron post with bronze cap stamped "Prim Trav Sta No 7 1908 Mich 949"-----	947. 335
White Oak, 0.9 mi. S., thence 1.5 mi. E. from, near NE. cor. sec. 2, T. 1 N., R. 2 E., in SW. angle of crossroads, at W. end of concrete walk from house of H. Reeve; N. corner-----	965. 37
From Stockbridge quadrangle near Plainfield north along road 0.3 mile to cross road, thence east 1.7 miles, thence north 3 miles, thence east into Howell quadrangle (by F. H. West in 1908)	
T. 1 N., R. 3 E., near W¼ cor. sec. 4, at NE. corner of junction of T-rd. E., on large boulder at side of rd.; highest point-----	945. 99

T. 1 N., R. 3 E., 0.2 mi. E. of center of sec. 3, at NW. corner of junction of T-rd. N., 10 ft. E. of NE. corner of old windmill frame; top of large stone-----	<i>Feet</i> 934. 70
T. 2 N., R. 3 E., in NE $\frac{1}{4}$ sec. 34, in SE. angle of junction of T-rd. SE., just outside fence line, at foot of 14-in. oak tree; standard iron post with bronze cap stamped "948"-----	946. 791
T. 2 N., R. 3 E., near E $\frac{1}{4}$ cor. sec. 27, at corner of junction of T-rd. E., in grass plot; top of large boulder-----	948. 96
T. 2 N., R. 3 E., near E $\frac{1}{4}$ cor. sec. 22, in SW. angle of crossroads, at First Methodist Episcopal Church of Iosco, on E. side of stoop; SE. corner of cement step-----	925. 66
T. 2 N., R. 3 E., near E $\frac{1}{4}$ cor. sec. 24, at junction of N.-S. rd., 180 ft. N. of junction of T-rd. E., in grass plot; standard iron post with bronze cap stamped "948" <sup>63</sup> -----	947. 327
From east quarter corner sec. 14, T. 4 N., R. 3 E., east along road 1 mile, thence north 1 mile into Corunna quadrangle (by E. C. Bibbee in 1913)	
Nicholson, 4.0 mi. E., thence 3.0 mi. S. from, 30 ft. N. of W $\frac{1}{4}$ cor. sec. 18, T. 4 N., R. 4 E., on large rock; chiseled square-----	909. 46
From Stockbridge quadrangle at point in southwest quarter sec. 6, T. 1 N., R. 4 E., along road northwest 0.3 mile, thence generally west 3 miles, thence south and back into Stockbridge quadrangle (by E. E. Harris in 1919)	
Anderson, 2.0 mi. N. and 1.6 mi. W. from, 0.3 mi. N. and 3.2 mi. E. from Plainfield, in SW $\frac{1}{4}$ sec. 1, T. 1 N., R. 3 E., inside fence, on top of sandstone outcrop; chiseled square-----	952. 73
Plainfield, 0.6 mi. N., thence 2.3 mi. E. from, 0.3 mi. W. of center of sec. 2, T. 1 N., R. 3 E., in SE. angle of junction of T-rd. S., opposite Morgan School, in root on S. side of 12-in. walnut tree; copper nail and washer-----	966. 15
Plainfield, 0.6 mi. N., thence 1.0 mi. E. from, near W $\frac{1}{4}$ cor. sec. 3, T. 1 N., R. 3 E., on sandstone boulder; chiseled square-----	950. 93
Plainfield, 0.6 mi. N. of, about 500 ft. N. of W $\frac{1}{4}$ cor. sec. 4, T. 1 N., R. 3 E., on large sandstone boulder; chiseled square-----	946. 07
From Stockbridge quadrangle near Plainfield northwest to Reeves School, thence west 1.5 miles, thence south and back into Stockbridge quadrangle near Lowe School (by E. E. Harris in 1918)	
Plainfield, 1.8 mi. NW. of, 0.9 mi. S., thence 1.5 mi. E. from White Oak, near NE. cor. sec. 2, T. 1 N., R. 2 E., in root on E. side of 18-in. maple tree; copper nail and washer-----	965. 72
White Oak, 0.9 mi. S., thence 0.5 mi. E. from, near SW. cor. sec. 35, T. 2 N., R. 2 E., on sandstone boulder; chiseled square-----	968. 03
White Oak, 0.9 mi. S. of, near S $\frac{1}{4}$ cor. sec. 34, T. 2 N., R. 2 E.; top of boulder-----	958. 96
White Oak, 1.6 mi. S. of, 0.2 mi. S. of center of sec. 3, T. 1 N., R. 2 E., opposite Lowe School, in root on N. side of 20-in. red-oak tree; copper nail and washer-----	965. 14
From Corunna quadrangle near west quarter corner sec. 12, T. 4 N., R. 2 E., south along road 0.5 mile, thence west 2.5 miles to north quarter corner sec. 18, T. 4 N., R. 2 E. (by H. S. Senseney in 1926)	
Nicholson, 2.3 mi. S. and 2.8 mi. W. from, in SE. cor. sec. 11, T. 4 N., R. 2 E., at NW. corner of junction of T-rd. W., on boulder; chiseled square-----	896. 89

<sup>63</sup> In 1922 this bench mark was reset 30 feet east of this position and 0.331 foot higher. The figures given represent the new elevation.

T. 4 N., R. 2 E., 40 ft. W. of NE. cor. sec. 15, on S. side of rd., in root of tree; copper nail and washer-----	<i>Feet</i> 904.85
T. 4 N., R. 2 E., 430 ft. E. of SW. cor. sec. 10, on N. side of rd., in root of tree; copper nail and washer-----	896.17

## FREELAND QUADRANGLE

[Latitude 43°30'–43°45'; longitude 84°00'–84°15']

## BAY, MIDLAND, AND SAGINAW COUNTIES

From Sanford quadrangle at point 0.9 mile east of Gray along roads east 0.1 mile, thence south by way of Midland to point 2 miles south of Posyville, thence west into Sanford quadrangle (by D. R. Cabaniss in 1934)

Gray, 1.0 mi. E. of, 1.5 mi. N. of Larkin, near S. cor. secs. 32 and 33, T. 16 N., R. 2 E.; 20 ft. N. and 30 ft. W. from junction of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 71 W 1919"-----	683.436
Reference mark, 135 ft. S. and 5 ft. E. from standard post, in root on W. side of poplar tree; copper nail and washer-----	681.32
Larkin, 0.5 mi. N. of, near SW. cor. sec. 4, T. 15 N., R. 2 E., 30 ft. N. and 10 ft. E. from center of crossroads, on NE. concrete wing wall of culvert; chiseled square-----	669.07
Larkin, 0.5 mi. S. of, near SE. cor. sec. 8, T. 15 N., R. 2 E., 20 ft. N. and 15 ft. W. from junction of T-rd. W., on SW. concrete wing wall of culvert; chiseled square-----	655.48
Larkin, 1.5 mi. S. of, near NE. cor. sec. 20, T. 15 N., R. 2 E., 22 ft. S. and 110 ft. W. from junction of T-rd. W., in concrete post; standard tablet stamped "5 C 1934"-----	649.139
Reference mark, 45 ft. N. and 100 ft. E. from tablet, on top of W. concrete head wall of culvert; chiseled square-----	651.13
Larkin, 2.5 mi. S. of, 2.0 mi. N. of Saundersville, near NW. cor. sec. 28, T. 15 N., R. 2 E., 25 ft. S. and 80 ft. E. from center of crossroads, in root on W. side of elm tree; copper nail and washer-----	640.74
Saundersville, 1.0 mi. N. of, near SW. cor. sec. 28, T. 15 N., R. 2 E., 4 ft. N. and 33 ft. E. from center of rd. at fence E., in root on W. side of elm tree; copper nail and washer-----	637.54
Saundersville, in village of, 2.3 mi. N. of intersection of Eastman Rd. and Second Street in Midland, near SE. cor. sec. 32, T. 15 N., R. 2 E., 210 ft. N. and 33 ft. W. from center of crossroads, in concrete post; standard tablet stamped "6 C 1934"-----	635.481
Reference mark, 105 ft. N. and 70 ft. E. from tablet, in root on N. side of maple tree; copper nail and washer-----	637.16
Midland, near N. end of Eastman Rd. at city limits of, near NE. cor. sec. 8, T. 14 N., R. 2 E., 230 ft. S. and 55 ft. W. from center of crossroads, in root on E. side of pine tree; copper nail and washer--	632.90
Midland, 20 ft. N. and 20 ft. E. from intersection of Eastman Rd. and Second (McGregor) Street; standard iron post with bronze cap stamped "Prim Trav Sta No 72 W 1919"-----	630.515
Reference mark, 2 ft. N. and 3 ft. E. from standard post, on concrete curb; chiseled square-----	627.93
Midland, at SW. cor. of Benson Street bridge over Tittabawassee River, in top of concrete abutment; brass disk stamped "U S W B B M elev 620.2" (U. S. Weather Bureau B. M.; recovered by U. S. C. and G. S. in 1934)-----	618.821



Midland, 1.9 mi. S. of Benson Street bridge in, near NE. cor. sec. 32, T. 14 N., R. 2 E., near Bullock Creek School, 135 ft. S. and 35 ft. W. from center of crossroads, in concrete post; standard tablet stamped "7 C 1934"-----	Feet 625. 440
Midland, 2.9 mi. S. of, 2.0 mi. N. of Posyville, near NW. cor. sec. 4, T. 13 N., R. 2 E., 25 ft. S. and 100 ft. E. from center of crossroads, in root on W. side of maple tree; copper nail and washer-----	625. 47
Posyville, 1.0 mi. N. of, near NW. cor. sec. 9, T. 13 N., R. 2 E., 8 ft. S. and 20 ft. E. from center of rd. at fence line E., in root on W. side of elm tree; copper nail and washer-----	636. 54
Posyville, in village of, near cor. secs. 8, 9, 16, and 17, T. 13 N., R. 2 E., 40 ft. S. and 33 ft. W. from center of crossroads, 12 ft. S. of fence corner, in concrete post; standard tablet stamped "8 C 1934"-----	638. 478
Reference mark, 21 ft. N. and 14 ft. E. from tablet, on S. end of W. concrete head wall of culvert; chiseled square-----	639. 46
Posyville, 1.0 mi. S. of, near SE. cor. sec. 17, T. 13 N., R. 2 E., 25 ft. N. and 20 ft. W. from center of crossroads, on N. end of W. concrete head wall of culvert; chiseled square-----	640. 28
Posyville, 2.0 mi. S. of, 41 ft. N. and 24 ft. W. from cor. secs. 20, 21, 28, and 29, T. 13 N., R. 2 E., in concrete post; U. S. C. & G. S. standard triangulation reference disk stamped "Reference mark 1 Sand 1932"-----	639. 240
Posyville, 2.0 mi. S. of, 20 ft. N. and 20 ft. W. from cor. secs. 20, 21, 28, and 29, T. 13 N., R. 2 E., in NW. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 14 1913 Mich"-----	640. 235

FREMONT QUADRANGLE<sup>64</sup>

[Latitude 41°30'-41°45'; longitude 84°45' and beyond to north-south boundary between Indiana and Michigan]

## HILLSDALE COUNTY

From Pioneer quadrangle at point 1.5 miles south and 0.4 mile east from Camden along roads west 2.4 miles, thence south to Michigan-Ohio State line (by C. R. French in 1911)

Camden, 1.5 mi. S. of, near N $\frac{1}{4}$ cor. sec. 34, T. 8 S., R. 4 W., in SW. angle of crossroads, 10 ft. W. of fence corner; standard iron post with bronze cap stamped "1019" (recovered in 1913)-----	1, 019. 642
Camden, 2.5 mi. S., thence 2.0 mi. W. from, near N $\frac{1}{4}$ cor. sec. 5, T. 9 S., R. 4 W., in SW. angle of junction of T-rd. W., 70 ft. W. of small black-oak tree; standard iron post with bronze cap stamped "1002"-----	1, 002. 639
Camden, 3.5 mi. S., thence 2.0 mi. W. from, near S $\frac{1}{4}$ cor. sec. 5, T. 9 S., R. 4 W., in NE. angle of crossroads, 20 ft. S. and 150 ft. E. from South Camden Church; top of rock-----	1, 087. 48

## GALESBURG QUADRANGLE

[Latitude 42°15'-42°30'; longitude 85°15'-85°30']

## BARRY, CALHOUN, AND KALAMAZOO COUNTIES

From Kalamazoo quadrangle northeast along Kalamazoo Road to east quarter corner sec. 32, T. 1 S., R. 10 W., thence north 2.5 miles to cross road 2 miles west of Richland, thence west 0.3 mile and back into Kalamazoo quadrangle (by E. C. Bibbee in 1915)

Richland, 2.0 mi. W., thence 2.0 mi. S. from, in NE. cor. sec. 32, T. 1 S., R. 10 W., in SW. angle of junction of T-rd. W., on concrete base of corner fence post; chiseled square-----	902. 89
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<sup>64</sup> The greater part of this quadrangle lies in Indiana.

Richland, 2.0 mi. W. of, in SE. cor. sec. 17, T. 1 S., R. 10 W., near NW. corner of crossroads, 2 ft. E. of corner fence post; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1915 Mich 931"-----	Feet 930. 768
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At Richland Junction (by E. C. Bibbee in 1915)

[A jog from Kalamazoo quadrangle]

Richland Junction, at crossing of Chicago, Kalamazoo & Saginaw Ry. <sup>65</sup> and Michigan Electric R. R.; <sup>66</sup> top of rail-----	923. 0
Richland Junction, 60 ft. N. of crossing, at tower that carries third rail of electric R. R. over C. K. & S. Ry., on concrete base; chiseled square-----	922. 99

From crossroads 2 miles west of Richland east along road to Richland, thence northeast along roads and Chicago, Kalamazoo & Saginaw Railway into Hastings quadrangle at point 0.8 mile east of Delton (by S. L. Parker in 1917)

Richland, in NW. angle of crossroads, near SE. cor. sec. 15, T. 1 S., R. 10 W., in SE. corner of city park, in root on S. side of 18-in. water-elm tree; copper nail and washer-----	930. 61
Richland, 1.0 mi. N. of, in SE. cor. sec. 10, T. 1 S., R. 10 W., on concrete base of fence post; chiseled square-----	935. 85
Richland, 2.0 mi. N. of, near NE. cor. sec. 10, T. 1 S., R. 10 W., in SW. angle of junction of T-rd. W., near Bissel School, 8 ft. S. of corner fence post; standard iron post with bronze cap stamped "931"-----	930. 120
Reference mark, about 160 ft. N. of tablet, 100 ft. N. of NW. corner of junction of T-rd. W., in root of maple tree; tack-----	930. 82
Richland, 3.0 mi. N. of, near NW. cor. sec. 2, T. 1 S., R. 10 W., on Barry-Kalamazoo county line, on E. side of rd., in root on W. side of 24-in. maple tree; copper nail and washer-----	941. 80
Richland, 4.0 mi. N. of, 0.3 mi. W., thence 1.5 mi. S. from Milo, near N $\frac{1}{4}$ cor. sec. 35, T. 1 N., R. 10 W., on concrete base of fence post; chiseled square-----	939. 97
Milo, 0.3 mi. E., thence 1.0 mi. S. from, near E $\frac{1}{4}$ cor. sec. 26, T. 1 N., R. 10 W., on W. side of rd., at junction of rd. E., in root on E. side of lone 20-in. red-oak tree; copper nail and washer-----	938. 96
Milo, 0.3 mi. E. of, near W $\frac{1}{4}$ cor. sec. 24, T. 1 N., R. 10 W., in NE. angle of crossroads, 5 ft. E. of SW. corner of fence around lawn of Maurice Johnson; standard iron post with bronze cap stamped "962"-----	961. 463
Reference mark, about 70 ft. SW. of tablet, 20 ft. S. of SW. corner of crossroads, in root on S. side of oak tree; nail-----	960. 56
Milo, 2.6 mi. by rds. NE. of, 1.9 mi. along R. R. SW. of Delton, at intersection of Ry. and range-line rd.; top of W. rail-----	955. 1
Delton, in S. part of, in SW $\frac{1}{4}$ sec. 6, T. 1 N., R. 9 W., in SW. corner of yard of Methodist Episcopal Church; standard iron post with bronze cap stamped "952"-----	951. 607
Reference mark, on W. end of concrete walk to church; chiseled square-----	952. 93
Delton, at NW. corner of cross streets, near E $\frac{1}{4}$ cor. sec. 6, T. 1 N., R. 9 W., on concrete walk; chiseled square-----	951. 25
Delton, 0.5 mi. E. of, near center of sec. 5, T. 1 N., R. 9 W., directly opposite T-rd. S., in root on S. side of 15-in. hickory tree; copper nail and washer-----	947. 11

<sup>65</sup> Now a part of the New York Central System.

<sup>66</sup> This railroad has been abandoned.

From Hastings quadrangle at point 2 miles east of Delton east and south to center of sec. 14, T. 1 N., R. 9 W., thence east, with 0.5 mile jog north, to crossroads 1 mile north and 1.4 miles east from Bansfield (by S. L. Parker in 1917)

Delton, 3.2 mi. in air line E. of, 0.25 mi. W. of center of sec. 2, T. 1 N., R. 9 W., at SW. corner of junction of rd. SW.; standard iron post with bronze cap stamped "919" -----	Feet 918. 576
Delton, 3.2 mi. E., thence 1.0 mi. S. from, in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 1 N., R. 9 W., 100 ft. S. of lane W., on W. side of rd., in root on E. side of 36-in. butternut tree; copper nail and washer -----	936. 54
Delton, 3.5 mi. E. and 2.0 mi. S. from, 0.5 mi. N., thence 2.5 mi. W. from Bansfield, 0.3 mi. S. of S. end of Fair Lake, near center of sec. 14, T. 1 N., R. 9 W., on N. side of rd., opposite T-rd. S., 10 ft. S. of fence, on granite boulder embedded in bank; chiseled square -----	932. 43
Bansfield, 1.0 mi. N., thence 1.5 mi. W. from, near Dunn School, at quarter corner between secs. 12 and 13, T. 1 N., R. 9 W., 20 ft. S. of SW. corner of junction of T-rd. S., in root on S. side of 15-in. water-elm tree; copper nail and washer -----	985. 59
Bansfield, 1.0 mi. N. of, 8 ft. S. of NE. cor. sec. 18, T. 1 N., R. 8 W., in SW. angle of crossroads; standard iron post with bronze cap stamped "1005" -----	1, 004. 235
Reference mark, near post, on concrete base of iron fence post; chiseled square -----	1, 003. 66
Bansfield, 1.0 mi. N., thence 1.4 mi. E. from, 0.4 mi. E. of SW. cor. sec. 9, T. 1 N., R. 8 W., in NW. angle of crossroads, 20 ft. NE. of NE. corner of Burroughs School, on SE. corner of concrete base of pump; chiseled square -----	984. 37

From Battle Creek quadrangle at point 3.3 miles west of Adams alternately west and south along roads into Leonidas quadrangle at point 0.8 mile north and 2.7 miles east from Climax (by S. L. Parker in 1917)

Renton, 1.4 mi. S. and 1.0 mi. E. from, 3.7 mi. W. of Adams, in NW. cor. sec. 33, T. 2 S., R. 8 W., in SE. angle of junction of N.-S. rd., in root on S. side of 36-in. maple tree; copper nail and washer -----	961. 16
Renton, 1.9 mi. S. and 0.5 mi. E. from, 1.4 mi. NE. along Grand Trunk Ry. to rd. crossing, thence 2.4 mi. due E. from Climax, near center of sec. 32, T. 2 S., R. 8 W., on S. side of rd., 60 ft. SE. of NE. corner of junction of T-rd. N., in root on S. side of 15-in. walnut tree; copper nail and washer -----	961. 74

From Galesburg east 1 mile along Territorial Road, thence southeast 2.3 miles, thence east 3 miles to crossroads 1 mile north of Climax (by A. O. Burkland in 1917)

U. S. C. & G. S. B. M. designated "F 10" -----	797. 892
Galesburg, 0.8 mi. E. of, at E. end of bridge over Kalamazoo River; bridge floor -----	786. 7
Galesburg, 1.3 mi. SE. of, near center of NE $\frac{1}{4}$ sec. 19, T. 2 S., R. 9 W., at junction of rd. SW., on N. end of concrete culvert; chiseled square -----	803. 81
Galesburg, 1.7 mi. SE. of, 0.3 mi. NW. of SE. cor. sec. 19, T. 2 S., R. 9 W., in NE. angle of junction of rd. SE., on rock; chiseled square -----	871. 16
Galesburg, 2.8 mi. SE. of, 0.2 mi. N. of SW. cor. sec. 29, T. 2 S., R. 9 W., 200 ft. S. of junction of rd. E., in root of tree; copper nail -----	928. 75
Galesburg, 3.5 mi. SE. of, 1.0 mi. N., thence 3.0 mi. W. from Climax, near W $\frac{1}{4}$ cor. sec. 31, T. 2 S., R. 9 W., in NW. angle of crossroads, in root of tree; copper nail -----	942. 24
Climax, 1.0 mi. N., thence 2.0 mi. W. from, between secs. 32 and 33, T. 2 S., R. 9 W., on stone marking quarter corner; chiseled square -----	959. 22

From Galesburg north along range-line road 3 miles, thence along roads north-east by way of Gull Lake to Yorkville, thence west to Richland (by R. R. Monbeck in 1917)

	Feet
U. S. C. & G. S. standard disk designated "E 10"-----	794. 536
Galesburg, 1.0 mi. N. of, 100 ft. N. of SE. cor. sec. 12, T. 2 S., R. 10 W., on W. side of rd., at summit of ridge, in base of large hickory tree; copper nail and washer-----	852. 95
Galesburg, 1.5 mi. N. of, at junction of T-rd. W.; surface of ground---	858. 3
Galesburg, 2.0 mi. N. of, 400 ft. N. of SW. cor. sec. 6, T. 2 S., R. 9 W., on E. side of rd., opposite white house, in base of large apple tree; copper nail and washer-----	905. 93
Galesburg, 3.0 mi. N. of, 0.7 mi. SW. of Howlandsburg, in SW. cor. sec. 31, T. 1 S., R. 9 W., at SW. corner of Ross Township, 30 ft. NE. of crossroads, 4 ft. N. of corner fence post; standard iron post with bronze cap stamped "914"-----	913. 158
Howlandsburg, 0.8 mi. NW. of, 0.2 mi. N. of center of sec. 31, T. 1 S., R. 9 W., 100 ft. SW. of rd. fork, on SW. corner of small concrete bridge over Gull Lake Outlet; chiseled square-----	850. 25
Howlandsburg, 2.0 mi. N. of, 1.0 mi. SW. of Gull Lake Sta. on Mich- igan Electric R.R., near NE. cor. sec. 30, T. 1 S., R. 9 W., 0.5 mi. N. of brick house, 1,000 ft. SW. of crossing of Michigan Electric R.R. track, 100 ft. S. of junction of private rd. SE., on NW. side of rd., in base of large cherry tree; copper nail and washer-----	872. 26
Gull Lake, 0.8 mi. SW. of sta., at R. R. crossing; top of rail-----	873. 4
Gull Lake, 0.2 mi. SE. of sta., at viaduct over R. R.; center of floor--	919. 8
Gull Lake, 0.2 mi. E. of sta., 1.0 mi. SE. of Yorkville, at Bay View, 500 ft. N. of center of sec. 20, T. 1 S., R. 9 W., in front of Pleasant Hill Clubhouse, 20 ft. SW. of crossroads, in E. side of large oak tree; copper nail and washer-----	895. 36
Yorkville, 300 ft. E. of post office, 50 ft. NW. of junction of T-rd. S. to interurban sta., on NE. corner of bridge over Gull Lake Outlet, on top of concrete curb, 3 ft. from end; chiseled square-----	903. 75
Yorkville, 0.7 mi. NW. of, 2.0 mi. E. of Richland, 500 ft. N. of S. cor. secs. 13 and 18, T. 1 S., Rs. 9 and 10 W., on range line, on S. side of rd. at curve, in base of large oak tree; copper nail and washer--	904. 51
Richland, 1.0 mi. E. of, 600 ft. N. of tracks of Michigan Electric R.R., near NE. cor. sec. 23, T. 1 S., R. 10 W., 50 ft. W. of T-rd. S., in center of S. end of concrete culvert; standard tablet stamped "907"--	906. 232
Richland, 0.5 mi. E. of, at R. R. crossing; top of rail-----	928. 0

From Bay View at southeast end of Gull Lake north and east along roads to  
center of sec. 14, T. 1 N., R. 9 W. (by R. R. Monbeck in 1917)

Bay View, 0.2 mi. E. of Gull Lake sta., at crossroads opposite Pleasant Hill Clubhouse, in root of large oak tree; copper nail and washer--	892. 88
Gull Lake, at Bay View; surface of water Aug. 28, 1917-----	879. 8
Bay View, 0.6 mi. NE. of, 0.9 mi. E., thence 1.3 mi. S. from Midland Park, 0.25 mi. S. of NE. cor. sec. 20, T. 1 S., R. 9 W., 15 ft. S. and 30 ft. W. from junction of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 10 1917 912" <sup>67</sup> -----	911. 681
Midland Park, 0.9 mi. E. of, near NE. cor. sec. 17, T. 1 S., R. 9 W., 150 ft. S. of crossroads, on W. side of rd., in large butt of oak tree; copper nail and washer-----	934. 77

<sup>67</sup> In 1935 this bench mark was reported in a leaning condition from having been struck by a truck.

Midland Park, 2.2 mi. E. of, 4.0 mi. N. of Augusta, 0.3 mi. E. of SW. cor. sec. 10, T. 1 S., R. 9 W., at steel and concrete bridge over Augusta Creek, in NE. corner of concrete floor; standard tablet stamped "843"-----	Feet 842. 435
Midland Park, 2.7 mi. E. of, 1.2 mi. S. of Tyler School, 0.25 mi. W. of SE. cor. sec. 10, T. 1 S., R. 9 W., 40 ft. NE. of junction of T-rd. N., in N. side of large oak tree; copper nail and washer-----	911. 97
Midland Park, 2.7 mi. E., thence 2.0 mi. N. from, 0.8 mi. NE. of Tyler School, 2.0 mi. E., thence 1.5 mi. S. from Hickory Corners, near S $\frac{1}{4}$ cor. sec. 35, T. 1 N., R. 9 W., at Barry-Kalamazoo county line, 30 ft. NW. of junction of T-rd. N., 2 ft. W. of corner fence post; standard iron post with bronze cap stamped "914"-----	914. 059
Hickory Corners, 2.0 mi. E., thence 0.3 mi. S. from, 0.2 mi. N. of S $\frac{1}{4}$ cor. sec. 26, T. 1 N., R. 9 W., 0.3 mi. S. of junction of E.-W. rd., 400 ft. NW. of unpainted house, in center line at E. end of small concrete bridge over creek; chiseled square-----	897. 95
Hickory Corners, 1.5 mi. E. of, near quarter corner between secs. 26 and 27, T. 1 N., R. 9 W., on W. side of rd., at jog of 200 ft. in E.-W. rd., 100 ft. SE. of house, at S. end of gate; standard iron post with bronze cap stamped "924"-----	923. 413
Hickory Corners, 1.0 mi. N. and 2.0 mi. E. from, 0.5 mi. S. and 2.5 mi. W. from Bansfield, at center of sec. 23, T. 1 N., R. 9 W., 50 ft. NE. of junction of T-rd. N., 80 ft. W. of unpainted house, in root of tree; copper nail and washer-----	913. 49
Bansfield, 0.5 mi. N., thence 2.5 mi. W. from, 0.5 mi. S. of S. side of Fair Lake, 500 ft. SE. of white house, on N. side of rd., in line with T-rd. S.; standard iron post with bronze cap stamped "935"-----	935. 071
From Battle Creek quadrangle at point 3.3 miles northwest of Battle Creek northwest 1 mile along Michigan Central Railroad, thence along roads south 1.7 miles and east 0.7 mile into Battle Creek quadrangle at point 3.5 miles west of Battle Creek (by E. E. Harris in 1917)	
Battle Creek, 3.7 mi. along M. C. R. R. NW. of, in sec. 33, T. 1 S., R. 8 W., 0.2 mi. NW. of grade crossing, at semaphore 1244, on top of concrete support to iron ladder; chiseled square-----	831. 80
Battle Creek, 4.3 mi. NW. of, 1.3 mi. N. of easternmost part of Camp Custer, near center of NE $\frac{1}{4}$ sec. 32, T. 1 S., R. 8 W., 250 ft. N. of M. C. R. R. main-line track, opposite junction of Michigan Electric R. R. spur track to Camp Custer, on S. side of rd., in E. end of culvert over small stream; standard tablet stamped "1917 Mich 815"-----	814. 271
Reference mark, in center of culvert; chiseled square-----	814. 24
Battle Creek, 4.3 mi. NW., thence 1.3 mi. S. from, near easternmost part of Camp Custer, 0.25 mi. W. of E $\frac{1}{4}$ cor. sec. 5, T. 2 S., R. 8 W., at bridge over small stream, in center of top of N. end of W. concrete abutment; chiseled square-----	863. 62
Battle Creek, 4.0 mi. W. of, 0.5 mi. S., thence 0.2 mi. E. from Camp Custer, 2.7 mi. NE. of Renton, at NE. cor. sec. 8, T. 2 S., R. 8 W., in SW. angle of junction of T-rd. S., on concrete foundation of corner fence post; chiseled square-----	924. 37

From Battle Creek quadrangle at point 4.5 miles northwest of Bedford northwest and north by way of Burroughs School into Hastings quadrangle near Bristol School (by E. E. Harris in 1917)

Bedford, about 5 mi. NW. of, 2.0 mi. SE. of Bansfield, 0.3 mi. SW. of NE. cor. sec. 21, T. 1 N., R. 8 W., on E. side of rd., 100 ft. S. of junction of rd. W., in root of 12-in. oak tree; copper nail and washer-----	Feet 940. 68
Bansfield, 1.5 mi. E., thence 0.7 mi. N. from, 0.4 mi. S. of Burroughs School, 0.2 mi. NW. of center of sec. 16, T. 1 N., R. 8 W., on W. side of rd., in front of farmhouse of William Hammah, in root of 15-in. maple tree; copper nail and washer-----	966. 24
Bansfield, 2.0 mi. N. and 1.5 mi. E. from, 1.0 mi. N. of Burroughs School, 0.5 mi. S. of Bristol School, near NW $\frac{1}{4}$ cor. sec. 9, T. 1 N., R. 8 W., in SW. angle of junction of rd. W., in root of 20-in. maple tree; copper nail and washer-----	1, 002. 43
Bansfield, 2.5 mi. N. and 1.5 mi. E. from, near center of sec. 4, T. 1 N., R. 8 W., in SW. angle of crossroads, at entrance to Bristol School, in E. end of concrete doorstep; standard tablet stamped "1917 Mich 997"-----	996. 021

## GOBLEVILLE QUADRANGLE

[Latitude 42°15'-42°30'; longitude 85°45'-86°00']

## ALLEGAN, KALAMAZOO, AND VAN BUREN COUNTIES

North along road near west corner of Alamo and Otsego townships (by E. C. Bibbee in 1915)

[A jog from Kalamazoo quadrangle]

Williams, 4.4 mi. NW. of, 0.3 mi. S. of Allegan-Kalamazoo county line, near center of NE $\frac{1}{4}$ sec. 6, T. 1 S., R. 12 W., on W. side of public rd., 200 ft. NW. of dwelling of Frank Ulam, in root of 20-in. oak tree; copper nail and washer-----	717. 03
Allegan-Kalamazoo county line; surface of rd-----	715. 4

From Kalamazoo quadrangle southwest along Paw Paw Road and west and south along other roads into Marcellus quadrangle near River Valley School (by C. E. Walker in 1926; releveled by S. R. Archer in 1927)

Miller, 1.0 mi. N. and 2.5 mi. W. from, about 4 mi. NE. of Almena, 600 ft. SW. of Slack School, near center of sec. 19, T. 2 S., R. 12 W., 180 ft. SW. of crossroads, on NW. concrete head wall of culvert; chiseled square-----	837. 19
Almena, 3.3 mi. NE. of, in SW. cor. sec. 19, T. 2 S., R. 12 W., 20 ft. S. and 20 ft. E. from crossroads, on N. side of 20-in. maple tree; copper nail and washer-----	830. 39
Almena, 2.1 mi. NE. of, near NE. cor. sec. 26, T. 2 S., R. 13 W., 15 ft. S. and 20 ft. W. from junction of rd. N., on E. end of S. concrete head wall of culvert; chiseled square-----	822. 41
Almena, 1.3 mi. NE. of, near center of NW $\frac{1}{4}$ sec. 26, T. 2 S., R. 13 W., 240 ft. W. of junction of rd. S., on N. side of rd., on W. concrete head wall of culvert under driveway to farmhouse; chiseled square--	806. 17
Almena, 1.1 mi. NE. of, about 0.2 mi. S. of NW. cor. sec. 26, T. 2 S., R. 13 W., in SW. corner of yard at Palmer School, 32 ft. N. and 38 ft. E. from junction of T-rd. N., 6 ft. E. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 126 Y 1926"-----	798. 853

Reference mark, 100 ft. SW. of Palmer School, on S. side of rd., at junction of rd. N., in fence corner, on W. side of 20-in. maple tree; copper nail and washer-----	Feet 796. 32
Almena, at E. edge of, in front of Baptist Church, on S. side of rd., on N. end of W. concrete head wall of culvert under driveway to churchyard; chiseled square-----	769. 86
Almena, on S. side of rd., at junction of T-rd. N., at NE. corner of store of J. W. Markillie, on SE. corner of concrete base of gasoline pump; chiseled square-----	763. 01
Almena, 1.0 mi. SW. of, near E. side SE $\frac{1}{4}$ sec. 29, T. 2 S., R. 13 W., 30 ft. N. and 60 ft. W. from crossroads, on N. side of 24-in. maple tree; copper nail and washer-----	733. 85
Almena, 2.5 mi. SW. of, 4.2 mi. along Paw Paw Rd. NE. of Paw Paw, in NW $\frac{1}{4}$ sec. 32, T. 2 S., R. 13 W., at junction of rd. SW., 33 ft. S. of center line of E.-W. rd., 28 ft. NW. of center line of rd. SW., 10 ft. W. of large stump, in concrete post; standard tablet stamped "P T Sta No 125 Y 1926"-----	728. 413
T. 2 S., R. 13 W., near center of sec. 31, 10 ft. S. and 20 ft. W. from junction of T-rd. W., in root on W. side of 24-in. maple tree; copper nail and washer-----	722. 13
T. 2 S., R. 13 W., at SW. cor. sec. 30, on E. side of rd., opposite center line of T-rd. W., on S. concrete head wall of culvert under driveway to farmhouse; chiseled square-----	711. 40
T. 2 S., R. 14 W., near N $\frac{1}{4}$ cor. sec. 36, 20 ft. S. and 40 ft. W. from crossroads, in root on N. side of 12-in. maple tree; copper nail and washer-----	704. 33
T. 2 S., R. 14 W., near quarter corner between sect. 26 and 35, 2.8 mi. N. and 1.0 mi. W. from Paw Paw, in NE. corner of yard of Riverside School, 31 ft. W. of junction of N.-S. rd., 8 ft. E. of 24-in. white-oak tree, in concrete post; standard tablet stamped "P T Sta No 124 Y 1926"-----	707. 240
Reference mark, at entrance to Riverside School, on S. end of bottom concrete step; chiseled square-----	704. 66
T. 2 S., R. 14 W., near center of NW $\frac{1}{4}$ sec. 35, 0.6 mi. SW. of Riverside School, 30 ft. S. and 35 ft. W. from junction of T-rd. S., 8 ft. W. of fence corner, in root on S. side of 10-in. oak tree; copper nail and washer-----	696. 33
T. 2 S., R. 14 W., in SW. cor. sec. 27, 0.6 mi. N. of River Valley School, 250 ft. E. of crossroads, on N. side of rd., in root on SW. side of 24-in. poplar tree; copper nail and washer-----	691. 25
T. 2 S., R. 14 W., near W $\frac{1}{4}$ cor. sec. 33, on E. side of rd., at River Valley School, on NW. corner of concrete step; chiseled square-----	693. 92
From Bangor quadrangle near north quarter corner sec. 7, T. 1 N., R. 14 W., east along roads 0.3 mile, thence south to point 1 mile south of Berlamont, thence southwest and back into Bangor quadrangle (by S. R. Archer in 1927)	
Pullman, 0.5 mi. N. and 5.0 mi. E. from, 7.0 mi. N. of Berlamont, in SW. cor. sec. 5, T. 1 N., R. 14 W., 32 ft. N. and 23 ft. E. from crossroads, 4 ft. N. and 1 ft. W. from fence corner, in concrete post; standard tablet stamped "P T Sta No 70 Y 1926"-----	726. 279
Reference mark, 100 ft. SW. of tablet, 25 ft. S. and 60 ft. W. from crossroads, 38 ft. W. of fence corner, in root on E. side of 36-in. maple tree; copper nail and washer-----	720. 12

Berlamont, 6.5 mi. N. of, near W $\frac{1}{4}$ cor. sec. 8, T. 1 N., R. 14 W., 15 ft. N. and 30 ft. E. from junction of T-rd. W., in root on NW. side of 36-in. maple tree; copper nail and washer-----	<i>Feet</i> 707. 30
Berlamont, 6.0 mi. N. of, in NE. cor. sec. 18, T. 1 N., R. 14 W., 160 ft. S. of junction of T-rd. E., on W. side of rd., in root on NE. side of 12-in. wild-cherry tree; copper nail and washer-----	685. 91
Berlamont, 5.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 18, T. 1 N., R. 14 W., 10 ft. S. and 15 ft. W. from junction of T-rd. W., in root on W. side of 12-in. elm tree; copper nail and washer-----	675. 22
Berlamont, 5.1 mi. N. of, 0.8 mi. N. and 3.0 mi. W. from Cheshire, 428 ft. N. and 43 ft. W. from crossroads, in SE. cor. sec. 18, T. 1 N., R. 14 W., 79 ft. SE. of SE. corner of school, 1 ft. N. and 5 ft. W. from SE. corner of schoolyard, in concrete post; standard tablet stamped "P T Sta No 71 Y 1926"-----	698. 763
Reference mark, 125 ft. N. of tablet, in front of schoolyard, in root on NW. side of 15-in. tree, southernmost of two maple trees standing 20 ft. apart; copper nail and washer-----	700. 45
Berlamont, 4.0 mi. N. of, in NE. cor. sec. 30, T. 1 N., R. 14 W., 240 ft. S. of junction of T-rd. W., on W. side of rd., in root 6 in. underground on N. side of 24-in. oak tree; copper nail and washer-----	738. 98
Berlamont, 3.0 mi. N. of, in NW. cor. sec. 32, T. 1 N., R. 14 W., 20 ft. S. and 50 ft. E. from crossroads, in root on NW. side of 30-in. beech tree; copper nail and washer-----	686. 26
Berlamont, 2.0 mi. N. of, 1.0 mi. N. and 4.0 mi. E. from Grand Junction, near S. cor. secs. 31 and 32, T. 1 N., R. 14 W., at Allegan-Van Buren county line, 34 ft. N. and 33 ft. W. from junction of E.-W. rd., 41 ft. SE. of SE. corner of Base Line Methodist Church, in concrete post; standard tablet stamped "P T Sta No 72 Y 1926"-----	716. 537
Reference mark, 330 ft. W. of tablet, 360 ft. W. of rd. junction, on S. side of rd., at fence, in root on NW. side of middle tree of three small elm trees growing together; copper nail and washer-----	715. 60
Berlamont, 1.0 mi. N. of, in NE. cor. sec. 12, T. 1 S., R. 15 W., 265 ft. S. of junction of T-rd. E., on W. side of rd., in root on NE. side of forked elm tree with trunks 24 in. in diameter; copper nail and washer-----	699. 28
Berlamont, 28 ft. N. of Michigan Central R. R. crossing, near cor. secs. 7, 12, 13, and 18, T. 1 S., Rs. 14 and 15 W., 210 ft. S. of junction of T-rd. W., 1.5 ft. S. of N. end of top of E. concrete head wall of culvert under N.-S. rd.; chiseled square-----	702. 44
Berlamont, 0.5 mi. S. of, near E $\frac{1}{4}$ cor. sec. 13, T. 1 S., R. 15 W., 65 ft. N. and 25 ft. W. from crossroads, in root on W. side of 15-in. maple tree; copper nail and washer-----	707. 08
Berlamont, 1.1 mi. SW. of, 2.2 mi. W. and 0.5 mi. S. from Bloomingdale, 35 ft. S. and 75 ft. E. from junction of T-rd. S., 0.2 mi. W. of E. cor. secs. 13 and 24, T. 1 S., R. 15 W., in concrete post; standard tablet stamped "P T Sta No 59 Y 1926"-----	730. 796
Reference mark, 125 ft. E. of tablet, 25 ft. S. and 20 ft. E. from junction of T-rd. N., in root on NW. side of 36-in. maple tree; copper nail and washer-----	727. 74



From northeast corner sec. 7, T. 1 N., R. 14 W., east along road to northeast quarter sec. 9, T. 1 N., R. 13 W., thence north into Allegan quadrangle at point about 2 miles south of Allegan (by S. R. Archer in 1929)

T. 1 N., R. 14 W., in NW. cor. sec. 9, 40 ft. S. and 35 ft. E. from crossroads, in root on NW. side of 24-in. elm tree; copper nail and washer	Feet 718.70
T. 1 N., R. 14 W., in NE. cor. sec. 9, 110 ft. S. and 20 ft. W. from crossroads, in root on SE. side of 28-in. elm tree; copper nail and washer	738.34
T. 1 N., R. 14 W., at quarter corner between secs. 3 and 10, 20 ft. E. of junction of T-rd. N., on S. side of rd., at E. side of easternmost of two driveways S., on top of concrete head wall of culvert; chiseled square	706.71
T. 1 N., R. 14 W., 0.2 mi. E. of cor. secs. 2, 3, 10, and 11, at bridge, on top of S. end of bridge seat of W. concrete abutment; chiseled square	703.29
T. 1 N., R. 14 W., near N $\frac{1}{4}$ cor. sec. 11, 20 ft. S. and 25 ft. W. from junction of T-rd. S., 3 ft. N. of large elm tree, in concrete post; standard tablet stamped "P T Sta No 116 Y 1926"	711.520
Reference mark, 80 ft. S. of rd. junction, on E. side of rd., in root on N. side of large forked sycamore tree; copper nail and washer	709.72
T. 1 N., R. 14 W., in NW. cor. sec. 12, at SE. corner of crossroads, near E. end of angular concrete head wall of culvert; chiseled square	704.87
T. 1 N., R. 14 W., near N $\frac{1}{4}$ cor. sec. 12, in SW. angle of crossroads, in root on NE. side of 12-in. oak tree; copper nail and washer	721.27
T. 1 N., Rs. 13 and 14 W., near cor. secs. 1, 6, 7, and 12, on S. side of rd., at fence corner, in root on NW. side of 12-in. maple tree; copper nail and washer	725.84
T. 1 N., R. 13 W., in NW. cor. sec. 8, 2.5 mi. S. and 1.5 mi. W. from Allegan, 20 ft. S. and 40 ft. E. from crossroads, in concrete post; standard tablet stamped "P T Sta No 117 Y 1926"	745.776
Reference mark, 75 ft. S. of crossroads, on W. side of rd. S., in root on NE. side of 48-in. maple tree; copper nail and washer	744.41
T. 1 N., R. 13 W., near S $\frac{1}{4}$ cor. sec. 5, 25 ft. N. and 65 ft. E. from junction of T-rd. N., in root on S. side of 24-in. elm tree; copper nail and washer	742.32
T. 1 N., R. 13 W., in SW. cor. sec. 4, 25 ft. N. and 60 ft. E. from crossroads, 30 ft. E. of fence corner, in root on SW. side of 30-in. maple tree; copper nail and washer	743.48
T. 1 N., R. 13 W., 0.2 mi. E. of N $\frac{1}{4}$ cor. sec. 9, 2.5 mi. S. of Allegan, 25 ft. S. and 25 ft. E. from junction of T-rd. N., in root on NE. side of 30-in. walnut tree; copper nail and washer	714.76
From Allegan quadrangle at point 2 miles south and 0.5 mile west from Kellogg south and southeast along roads into Kalamazoo quadrangle near Lewis School (by S. R. Archer in 1929)	
Kellogg, 2.1 mi. S. and 0.5 mi. W. from, about 500 ft. S. of quarter corner between secs. 5 and 6, T. 1 N., R. 12 W., at bridge over School Section Creek, on top of E. end of bridge seat of N. concrete abutment; chiseled square	675.01
T. 1 N., R. 12 W., near cor. secs. 5, 6, 7, and 8, at SE. corner of junction of T-rd., on top of SE. end of E. wing wall at S. end of concrete culvert; chiseled square	704.25

T. 1 N., R. 12 W., near quarter corner between secs. 7 and 8, 35 ft. S. of junction of NW.-SE. rd., on E. side of lane S., 10 ft. S. of fence corner, in root on SW. side of 24-in. wild-cherry tree; 40-penny spike and washer	Feet 771. 33 ]
From crossroads 0.5 mile south of Berlamont along roads east and southeast by way of Bloomingdale and Gobles to cross road 0.5 mile east of Kendall, thence north and east into Kalamazoo quadrangle at point 3 miles north of Williams (by S. R. Archer in 1929)	
Berlamont, 0.5 mi. S., thence 1.0 mi. E. from, 1.0 mi. W. of Bloomingdale, near W $\frac{1}{4}$ cor. sec. 17, T. 1 S., R. 14 W., 160 ft. E. of crossroads, on N. side of rd., on top of N. end of W. concrete head wall of drain under driveway; chiseled square	723. 83
Bloomingdale, 110 ft. E. of Michigan Central R. R. crossing, on N. side of street, at concrete porch in front of small store building owned by A. Holmes, at inside edge of sidewalk, on top of W. end of lower concrete step; chiseled square (recovered by U. S. C. & G. S. in 1934)	736. 331.
Bloomingdale, 475 ft. E. of R. R. crossing, on S. side of street, on N. side at NE. corner of garage of F. G. Culver, on outside corner at E. end of stone window sill; chiseled square	733. 74
Bloomingdale, 0.5 mi. E. of, near center of sec. 16, T. 1 S., R. 14 W., 85 ft. W. of junction of T-rd. S., on N. side of rd., in root on S. side of 12-in. hickory tree; copper nail and washer	759. 46
Bloomingdale, 1.0 mi. SE. of, 800 ft. S. of quarter corner between secs. 15 and 16, T. 1 S., R. 14 W., 200 ft. S. of R. R. crossing, on S. side of rd., at junction of rd. N., 4 ft. N. and 6 ft. E. from fence corner, 6 ft. W. of 24-in. hickory tree, in concrete post; standard tablet stamped "P T Sta No 119 Y 1926"	760. 151
Reference mark, 6 ft. E. of tablet, 4 ft. N. and 12 ft. E. from fence corner, on S. side of rd., at junction of rd. N., in root on N. side of 24-in. hickory tree; copper nail and washer	760. 14
Bloomingdale, 2.1 mi. SE. of, 2.0 mi. W., thence 1.0 mi. N. from Gobles, in NW. cor. sec. 23, T. 1 S., R. 14 W., 60 ft. S. and 25 ft. E. from junction of T-rd. S., in root on W. side of 30-in. maple tree; copper nail and washer	767. 66
Gobles, 1.0 mi. W. of, in NE. cor. sec. 26, T. 1 S., R. 14 W., at SW. corner of crossroads, on top of W. concrete head wall of culvert under N.-S. rd.; chiseled square	784. 53
Gobles, in SE. corner of intersection of State and Van Buren Streets, 1.5 ft. SW. of point directly above center of iron grating over storm sewer opening, on top of concrete curb; chiseled square	812. 07
Gobles, at SE. pier of city water tower, in top of SE. corner of concrete base; standard tablet stamped "P T Sta No 120 Y 1926"	814. 660
Gobles, at SW. corner of intersection of State and Exchange Streets, at main entrance to First State Bank, on top of S. end near outside corner of stone doorsill; chiseled square	814. 04
Gobles, 0.9 mi. E. of, in SW. cor. sec. 20, T. 1 N., R. 13 W., in NE. angle of crossroads, in root on SW. side of 8-in. corner maple tree; copper nail and washer	788. 41
Gobles, 1.5 mi. E. of, 1.9 mi. W. of Kendall, 0.2 mi. E. of S $\frac{1}{4}$ cor. sec. 20, T. 1 S., R. 13 W., 900 ft. E. of junction of T-rd. N., 80 ft. E. of farmhouse on S. side of rd., on N. side of rd., in root on SW. side of 24-in. oak tree; copper nail and washer	799. 01

Kendall, 1.0 mi. W. of, near N $\frac{1}{4}$ cor. sec. 28, T. 1 S., R. 13 W., 330 ft. E. of junction of T-rd. N., on top of S. concrete head wall of culvert under E.-W. rd.; chiseled square-----	<i>Feet</i> 783. 08
Kendall, 80 ft. W. of main crossroads, on S. side of street, 6 ft. N. of NW. corner of store building owned by Bert Schoolcraft, on top of NW. corner of concrete porch floor; chiseled square-----	794. 97
Kendall, 220 ft. E. of main crossroads, on N. side of street, 5 ft. SE. of SE. corner of town hall, in concrete post; standard tablet stamped "P T Sta No 121 Y 1926"-----	799. 109
Kendall, 0.5 mi. E. of, in SE. cor. sec. 22, T. 1 S., R. 13 W., 220 ft. N. of crossroads, on W. side of rd., in root on E. side of 36-in. oak tree; copper nail and washer-----	824. 43
Kendall, 0.5 mi. E., thence 1.0 mi. N. from, in SE. cor. sec. 15, T. 1 S., R. 13 W., in NW. corner of crossroads, on top of N. end of W. concrete head wall of culvert under N.-S. rd.; chiseled square-----	819. 48
Kendall, 0.5 mi. E., thence 2.0 mi. N. from, in NW. cor. sec. 14, T. 1 S., R. 13 W., in SE. angle of crossroads, 5 ft. E. of fence corner, in root on NW. side of 24-in. oak tree; copper nail and washer-----	816. 02
Kendall, 0.5 mi. E., thence 2.5 mi. N. from, near quarter corner between secs. 10 and 11, T. 1 S., R. 13 W., 25 ft. N. and 5 ft. W. from junction of E.-W. rd., in concrete post; standard tablet stamped "P T Sta No 122 Y 1926"-----	809. 217
T. 1 S., R. 13 W., 0.25 mi. W. of center of sec. 11, 100 ft. E. of junction of T-rd. N., on N. side of rd., in root on W. side of 15-in. walnut tree; copper nail and washer-----	798. 46
T. 1 S., R. 13 W., 0.25 mi. W. of center of sec. 12, in NW. angle of junction of N.-S. rd., in root on SE. side of 12-in. maple tree; copper nail and washer-----	728. 78
T. 1 S., R. 13 W., near center of NW $\frac{1}{4}$ sec. 12, in NE. angle of junction of T-rd. E., at entrance to schoolhouse, on top of NE. corner of concrete porch floor; chiseled square-----	728. 77
T. 1 S., R. 13 W., 0.25 mi. N. and 0.2 mi. W. from E $\frac{1}{4}$ cor. sec. 12, 3.0 mi. N., thence 1.2 mi. W. from Williams, 950 ft. W. of Kalamazoo-Van Buren county line, at bridge over drainage ditch, on top of N. end of N. wing wall of E. concrete abutment; chiseled square-----	713. 56

#### GRAND RAPIDS QUADRANGLE

[Latitude 42°45'-43°00'; longitude 85°30'-85°45']

#### ALLEGAN, BARRY, AND KENT COUNTIES

From point near mouth of Plaster Creek northeast along Market Street in Grand Rapids to Monument Square (by L. D. Townsend in 1911; leveled twice)

Grand Rapids, about 2 mi. SW. of post office, on S. bank of Grand River, 450 ft. SW. of mouth of Plaster Creek, 50 ft. SW. of elm tree, 6 in. below surface of ground; top of cap of 1½-in. iron pipe (U. S. C. E. B. M. designated "9")-----	596. 005
Grand Rapids, at SE. corner of Wealthy Avenue and South Division Street, on N. side of lamppost, on bolt fastening base of post to walk; top of nut-----	647. 85
Grand Rapids, at Monument Square, in front of Livingston Hotel, on E. side of monument, in top of granite stone surrounded by walk; copper bolt projecting 2 in. above stone (City of Grand Rapids B. M. designated "1"; recovered by U. S. C. & G. S. in 1934)-----	645. 297

From Grand Rapids generally east along East Fulton Street and roads into Lowell quadrangle near Ada (by L. D. Townsend in 1911)

Grand Rapids, at Park Square, in top of stone marking astronomical sta. of U. S. Lake Survey of 1874; aluminum tablet stamped "655" (recovered by U. S. C. & G. S. in 1934)-----	Feet 654. 313
Grand Rapids, at NW. corner of East Fulton and Lafayette Streets, on curb; chiseled square-----	687. 32
Grand Rapids, at NW. corner of intersection of East Fulton Street, North Union Street, and Lake Avenue, at edge of walk, on curb; chiseled square-----	720. 26
Grand Rapids, at NW. corner of East Fulton Street and Lowell Avenue, at edge of walk, on curb; chiseled square-----	742. 96
Grand Rapids, 2.5 mi. E. of Park Square, on N. side of East Fulton Street, 100 ft. W. of Lakeside Drive; standard iron post with bronze cap stamped "750"-----	749. 692
Grand Rapids, 3.6 mi. E. of, near Lappin Lake, at Y-junction of rd. SW., on N. side of rd., in fence line, in root on S. side of tree; copper nail and washer-----	789. 76
Grand Rapids, 5.4 mi. E. of, S. of center of sec. 25, T. 7 N., R. 11 W., in NE. angle of junction of T-rd. N., opposite Grand Rapids Township School No. 2; standard iron post with bronze cap stamped "804"-----	803. 456
Grand Rapids, 5.7 mi. E., thence 1.0 mi. S. from, 3.5 mi. W. of Ada, 0.25 mi. W. of E $\frac{1}{4}$ cor. sec. 36, T. 7 N., R. 11 W., near SE. corner of junction of T-rd. E., at S. end of culvert, on stone; chiseled square--	767. 64
Ada, 3.5 mi. W., thence 0.2 mi. S. from, at Wrides Corner, in SE $\frac{1}{4}$ sec. 36, T. 7 N., R. 11 W., in yard of dwelling of C. Gillette, in SE. angle of intersection of Grand Rapids-Cascade rd. and N.-S. rd., in root of third tree from corner; copper nail and washer-----	765. 38
Ada, 2.8 mi. W., thence 0.5 mi. S. from, at Van Houten Corners, near S $\frac{1}{4}$ cor. sec. 31, T. 7 N., R. 10 W., at NE. corner of crossroads; standard iron post with bronze cap stamped "755"-----	754. 973
Ada, 1.3 mi. W. of, near SW $\frac{1}{4}$ cor. sec. 33, T. 7 N., R. 10 W., in SE. angle of junction of T-rd. S., in root on N. side of tree; copper nail and washer-----	723. 24

From Lowell quadrangle near Cascade west along road 1.5 miles, thence south 3 miles to St. Mary's Church, thence west to northwest corner sec. 34, T. 6 N., R. 12 W., thence generally north by way of Ivanrest to north quarter corner sec. 28, T. 7 N., R. 12 W., thence east along Bridge Street to Monument Square in Grand Rapids (by L. D. Townsend in 1911)

Cascade, 1.0 mi. W. of, near N. side NE $\frac{1}{4}$ sec. 17, T. 6 N., R. 10 W., in front of dwelling of H. DeGood, in root on N. side of maple tree (second tree E. of gate); copper nail and washer-----	773. 14
T. 6 N., R. 10 W., near SW. cor. sec. 8, near NE. corner of crossroads, diagonally opposite Cascade Township School No. 8; standard iron post with bronze cap stamped "760"-----	759. 611
T. 6 N., R. 10 W., near NE. cor. sec. 19, 0.3 mi. E., thence 0.3 mi. N. from Fox sta. on Pere Marquette Ry., in SW. angle of junction of T-rd. W., near corner fence post, on rock; chiseled square (recovered in 1916)-----	782. 27
T. 6 N., R. 10 W., near quarter corner between secs. 29 and 30, at junction of T-rd. E., 0.5 mi. N. of St. Mary's Church, near corner fence post, on stone; chiseled square-----	804. 43

T. 6 N., R. 10 W., near NE. cor. sec. 31, in SW. angle of crossroads, at entrance to St. Mary's Church, on NW. corner of bottom concrete step; chiseled square.....	<i>Feet</i> 804. 15
T. 6 N., R. 11 W., near SE. cor. sec. 25, 1.0 mi. W. of St. Mary's Church, in NW. angle of crossroads, in root on E. side of elm tree; copper nail and washer.....	786. 26
T. 6 N., R. 11 W., near SE. cor. sec. 26, in NW. angle of crossroads, near fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 16 1911 Mich 722".....	722. 261
T. 6 N., R. 11 W., 0.2 mi. W. of NE. cor. sec. 34, in SW. angle of junction of T-rd. S., near telephone pole, on stone; chiseled square..	751. 95
T. 6 N., R. 11 W., near S $\frac{1}{4}$ cor. sec. 27, in NW. angle of junction of T-rd. N., 150 ft. from rd. junction, at SE. corner of church sheds (brick church on same corner), on large white boulder; chiseled square.....	792. 00
Fisher sta., 0.3 mi. N. and 2.5 mi. E. from, 30 ft. S. and 40 ft. W. from cor. secs. 28, 29, 32, and 33, T. 6 N., R. 11 W., at crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 17 1911 Mich 741".....	741. 102
Fisher sta., 0.5 mi. W. of, near E. side NW $\frac{1}{4}$ sec. 36, T. 6 N., R. 12 W., 25 ft. N. and 35 ft. E. from center of rd. junction, near fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 18 1911 Mich 672" (recovered by U. S. C. & G. S. in 1934)...	671. 957
T. 6 N., R. 12 W., in NW. cor. sec. 35, in SE. angle of crossroads, on top of concrete corner post in fence; chiseled square.....	728. 50
T. 6 N., R. 12 W., in NW. cor. sec. 34, 1.8 mi. S. and 0.3 mi. E. from Wentworth, in SE. angle of crossroads, at Troost farm, in fence line, in root on N. side of middle one of three oak trees; spike.....	718. 98
Wentworth, 0.8 mi. S. and 0.3 mi. E. from, near NE. cor. sec. 28, T. 6 N., R. 12 W., at SW. corner of junction of T-rd. W., in unused rd., in curve turning S., on stone; chiseled square.....	693. 00
Wentworth, 0.4 mi. NE. of sta., in NW. cor. sec. 22, T. 6 N., R. 12 W., in SE. angle of crossroads, in front of New Hall School, in root of pine tree; copper nail and washer.....	641. 57
Wentworth, 0.3 mi. NW. of, near quarter corner between secs. 16 and 21, T. 6 N., R. 12 W., at rd. junction, on W. side of NW.-SE. rd.; standard iron post with bronze cap stamped "631" (recovered in 1929).....	631. 121
Ivanrest, on Grand Rapids, Holland & Chicago Electric Ry.; top of N. rail.....	615. 6
Ivanrest, 0.5 mi. N. of, in NE. angle of turn NE. in rd., 50 ft. S. of tracks of Pere Marquette Ry., in root on S. side of oak tree; copper nail and washer.....	612. 16
Grand River, under Lake Shore & Michigan Southern R. R. <sup>88</sup> bridge; surface of water June 7, 1911.....	588. 0
Grand Rapids, about 3 mi. SW. of, 0.6 mi. N. of R. R. bridge over Grand River, at plaster quarries, W. of private rd. to plant of American Cement Co., at bridge across creek, on S. concrete abutment; chiseled square.....	613. 31
T. 7 N., R. 12 W., in SW $\frac{1}{4}$ sec. 33, at SE. corner of yard of Walker Township School No. 2, on N. side of rd., 100 ft. E. of junction of rd. SW.; standard iron post with bronze cap stamped "Prim Trav Sta No 10 1911 Mich 646" (recovered in 1928).....	645. 688

<sup>88</sup> Now a part of the New York Central System.

T. 7 N., R. 12 W., near S $\frac{1}{4}$ cor. sec. 28, at Kinney's Corners, near NE. corner of crossroads, at W. side of mail-box post, on stone; chiseled square (not recovered in 1928)-----	<i>Feet</i> 737. 82
Grand Rapids, 2.8 mi. W. of Bridge Street sta. of Grand Rapids & Indiana R. R., <sup>69</sup> near NW. corner of crossroads, at side of rd., 3 ft. NE. of telephone pole, on stone; chiseled square (not recovered in 1928)-----	753. 60
Grand Rapids, 1.8 mi. W. of Bridge Street sta., at NE. corner of "Smith's Greenhouse" Corners, opposite Walker Township School No. 7, near NW. corner between footpath and rd.; standard iron post with bronze cap stamped "758" (recovered in 1928)-----	757. 912
Grand Rapids, at Bridge Street sta., at crossing of G. R. & I. R. R. and West Bridge Street, on N. side of street, in center line of sidewalk; top of W. rail.-----	608. 1
From point 2.5 miles east of Grand Rapids, at East Fulton Street and Lakeside Drive, south along road by way of Reeds Lake to sec. 34, T. 6 N., R. 11 W. (by L. D. Townsend in 1911)	
Reeds Lake; surface of water June 10, 1911.-----	732. 0
Reeds Lake, near SW. corner of, 1.4 mi. N. of Halls Corners, in SW. angle of junction of Lake Avenue and rd. S., opposite rd. N. to Consumers Ice Co. plant, 20 ft. N. of walnut tree, 25 ft. S. of hickory tree, in root of elm tree; copper nail and washer-----	755. 19
Halls Corners, 1.0 mi. N. of, in NE. cor. sec. 4, T. 6 N., R. 11 W., in SW. angle of junction of T-rd. W., in gnarled root of maple tree; copper nail and washer-----	757. 70
Halls Corners, in NE. angle of crossroads, at Paris Township School No. 11, on top step of concrete porch; chiseled square-----	768. 66
Halls Corners, 1.0 mi. S. of, near SW. cor. sec. 10, T. 6 N., R. 11 W., in NE. angle of crossroads, at entrance to Paris Township School No. 5, on SW. corner of steps; chiseled square-----	734. 97
Halls Corners, 1.7 mi. S. of, in concrete abutment of bridge over Plaster Creek, on top of reinforcement iron set vertically (the one nearest bridge); highest point-----	679. 11
Halls Corners, 3.0 mi. S. of, 1.0 mi. E. of Bowen flag sta. on Michigan Central R. R., in NE. angle of junction of E.-W. rd., opposite residence of James W. Bowen, on S. side of rd., 7 ft. W. of two mail boxes, on stone; chiseled square-----	776. 34
From Grand Rapids south along Division Street and to township-line road to point 0.5 mile east and 0.3 mile north from Fisher station (by L. D. Townsend in 1911)	
Grand Rapids, at SW. corner of South Division and Hall Streets, on curbstone; chiseled cross-----	656. 30
Grand Rapids, at SW. corner of South Division Street and Burton Avenue, at edge of walk, on curb; chiseled square-----	687. 26
Grand Rapids, 1.0 mi. S. of Burton Avenue, 300 ft. S. of Michigan Central R. R. crossing, in SW. angle of crossroads, outside of fence, near two telephone poles; standard iron post with bronze cap stamped "656" <sup>70</sup> -----	655. 560
Grand Rapids, 3.0 mi. S. of Burton Avenue, 0.5 mi. E., thence 1.3 mi. N. from Fisher sta., in NE. angle of crossroads, in root on W. side of third maple tree from S.; copper nail and washer-----	681. 50

<sup>69</sup> Now operated by the Pennsylvania Railroad.

<sup>70</sup> In 1928 this bench mark was reset at an elevation of 657.289 feet and in June 1938 it was not recovered.

From northwest corner sec. 34, T. 6 N., R. 12 W., south along road 7 miles to Allegan-Kent county line, thence east mostly along county-line road to cross road near northeast end of Duncan Lake, thence north by way of Caledonia to St. Mary's Church (by L. D. Townsend in 1911)

Byron Center, 3.5 mi. N. of, near W $\frac{1}{4}$ cor. sec. 34, T. 6 N., R. 12 W., on E. side of rd., at junction of T-rd. W., in NW. corner of schoolyard, under maple tree; standard iron post with bronze cap stamped "730"-----	Feet 730. 254
Byron Center, 1.5 mi. N. of, near W $\frac{1}{4}$ cor. sec. 10, T. 5 N., R. 12 W., in NE. angle of crossroads, near corner fence post, on highest point of boulder; chiseled square (not recovered in 1929)-----	697. 71
Byron Center, in front of town hall, at SE. corner of street intersection, 500 ft. E. of Lake Shore & Michigan Southern R. R. sta., in NW. corner of top of concrete step; aluminum tablet stamped "757"-----	756. 932
Herps, at grade crossing at sta.; top of rail-----	692. 0
Herps, 0.2 mi. E. of R. R. sta. at, in SW. cor. sec. 34, T. 5 N., R. 12 W., near NE. corner of crossroads, 3 ft. NW. of telephone pole; standard iron post with bronze cap stamped "700" (recovered in 1913) <sup>71</sup> -----	700. 509
Tps. 4 and 5 N., R. 12 W., at cor. secs. 1, 2, 35, and 36, 1.0 mi. S., thence 1.0 mi. W. from Corinth, in center of crossroads, on stone marking section corner; chiseled square (recovered in 1913; not recovered in 1929)-----	782. 93
Corinth, 1.0 mi. S. of, at cor. secs. 1, 6, 31, and 36, Tps. 4 and 5 N., Rs. 11 and 12 W., in center of crossroads, on county line, on stone marking section corner; chiseled cross (not recovered in 1929)-----	782. 27
Corinth, in NE. angle of crossroads, between corner fence post and telephone pole; standard iron post with bronze cap stamped "806" <sup>72</sup> -----	806. 211
Corinth, 1.0 mi. E. of, at cor. secs. 29, 30, 31, and 32, T. 5 N., R. 11 W., in center of junction of T-rd. S., on stone marking section corner; chiseled square (not recovered in 1929)-----	850. 78
Corinth, 2.0 mi. E. of, near NW. cor. sec. 33, T. 5 N., R. 11 W., 300 ft. S. of SE. corner of crossroads, on top step of Gannon School, 2 ft. N. of door; chiseled square (recovered in 1929)-----	865. 73
Corinth, 2.0 mi. E., thence 1.2 mi. SE. from, near S $\frac{1}{4}$ cor. sec. 33, T. 5 N., R. 11 W., at NW. corner of crossroads, on county line, near fence; standard iron post with bronze cap stamped "Prim Trav Sta No 19 860" (recovered in 1929)-----	860. 263
T. 4 N., R. 11 W., in NE. cor. sec. 2, near SW. corner of crossroads, on stone under easternmost of two mail boxes; chiseled square-----	833. 33
T. 5 N., R. 11 W., near SE. cor. sec. 36, 1.4 mi. S., thence 1.3 mi. W. from Caledonia, at NW. corner of crossroads, near corner fence post; standard iron post with bronze cap stamped "Prim Trav Sta No 20 797"-----	797. 578
Caledonia, 1.4 mi. S. of, near S. side SW $\frac{1}{4}$ sec. 32, T. 5 N., R. 10 W., in NE. angle of crossroads, in root on W. side of wild-cherry tree; copper nail and washer-----	801. 02
Caledonia, 0.5 mi. S. of, in center of rd. at junction of T-rd. E., on large stone; chiseled square-----	813. 97
Caledonia, at junction of E.-W. street, in SW. corner of schoolyard, under maple tree, near walk; standard iron post with bronze cap stamped "844"-----	844. 095

<sup>71</sup> In 1929 this bench mark was reset 0.5 mile east of its original location and stamped "Mich 729."

<sup>72</sup> In 1929 this bench mark was found disturbed and was reset.

Caledonia, 0.3 mi. W., thence 1.6 mi. N. from, at Holy Corners, near SE. cor. sec. 18, T. 5 N., R. 10 W., in NW. angle of crossroads, 200 ft. N. of intersection, opposite schoolhouse on NE. corner and church on SW. corner and near Mennonite Church, 6 ft. SE. of corner fence post in cemetery, 4 ft. W. of telephone pole; standard iron post with bronze cap stamped "807"-----	Feet 806. 778
T. 5 N., R. 10 W., near NW. cor. sec. 8, in SE. angle of crossroads, on concrete porch of Kraft School, at N. end of W. railing; chiseled square-----	799. 80
T. 5 N., R. 10 W., near NE. cor. sec. 6, 1.0 mi. S. of St. Mary's Church, in SW. angle of crossroads, 10 ft. S. of corner fence post; standard iron post with bronze cap stamped "780"-----	779. 635
From point 2.5 miles east and 0.3 mile north from Fisher station south along road to point 2 miles east of Corinth (by L. D. Townsend in 1911)	
T. 6 N., R. 11 W., in SW. cor. sec. 33, in NE. angle of crossroads, in root on W. side of large maple tree used as corner fence post; copper nail and washer-----	763. 86
T. 5 N., R. 11 W., near SE. cor. sec. 5, 150 ft. N. of crossroads, on W. side of rd., on S. end of concrete culvert; chiseled square-----	737. 36
T. 5 N., R. 11 W., near SW. cor. sec. 9, in NE. angle of crossroads, near E.-W. fence; standard iron post with bronze cap stamped "788"-----	788. 306
T. 5 N., R. 11 W., near NW. cor. sec. 21, in SE. angle of crossroads, at SW. corner of Dodge School; point on water table-----	814. 25
T. 5 N., R. 11 W., near SW. cor. sec. 21, in NE. angle of crossroads, opposite Gaines Church on SE. corner, just outside corner post of cemetery, on large boulder; chiseled square-----	891. 86
From Jenison quadrangle east along Allegan-Kent county-line road to Herps (by L. D. Townsend in 1911)	
North Dorr, 1.0 mi. E. of, 0.8 mi. W. of R. R. sta. at Herps, in NW. angle of junction of T-rd. N., 20 ft. W. of center line of rd., on large boulder; chiseled square (not recovered in 1929)-----	755. 52
Along roads west and southeast in sec. 21, T. 7 N., R. 10 W. (by L. D. Townsend in 1911)	
[A jog from Lowell quadrangle]	
Ada, 0.8 mi. NE., thence 1.9 mi. NW. from, in NE. angle of junction of rd. from N. with rd. on NE. side of Grand River, under walnut tree; on stone; chiseled square-----	636. 57
From crossroads 0.2 mile east of Herps east along county-line road 2.4 miles, thence southeast along Grand Rapids & Indiana Railroad into Wayland quadrangle (by E. C. Bibbee in 1913)	
Herps, 2.4 mi. E. of, 2.0 mi. N. of Moline, on Allegan-Kent county line, 30 ft. E. of tracks of Grand Rapids & Indiana R. R., on S. side of abutment of bridge; chiseled square (not recovered in 1929)----	764. 83
From Grand Rapids north along Grand Rapids & Indiana Railroad into Cedar Springs quadrangle (by R. G. Clinite in 1916)	
Grand Rapids, at R. R. bridge over Grand River, on NE. side of first pier from NW. end, on stone bridge seat; chiseled square-----	611. 80
Grand Rapids, on S. side of Fourth Street NW., between tracks and Seward Avenue, at N. end of curb; highest point-----	608. 00



From Lowell quadrangle northwest along Pere Marquette Railway to road crossing 0.3 mile east of Fox, thence north along road 0.3 mile to northeast corner sec. 19, T. 6 N., R. 10 W. (by E. C. Bibbee in 1916)	
Fox, 0.3 mi. E. of sta. at, 0.3 mi. S. of NE. cor. sec. 19, T. 6 N., R. 10 W., at grade crossing, 8 ft. S. of tracks, 12 ft. W. of center-line of rd., on W. end of tile; highest point-----	Feet 788. 82
From Jenison quadrangle near southeast corner sec. 17, T. 7 N., R. 12 W., along roads alternately east and south to south quarter corner sec. 22, T. 7 N., R. 12 W. (by H. P. Jones in 1928)	
T. 7 N., R. 12 W., near cor. secs. 16, 17, 20, and 21, near rd. fork, at service sta., on concrete foundation of gas pump; chiseled square---	728. 78
T. 7 N., R. 12 W., near N $\frac{1}{4}$ cor. sec. 21, 30 ft. S. and 60 ft. W. from junction of T-rd. S., in root on N. side of 18-in. maple tree; copper nail and washer-----	764. 85
T. 7 N., R. 12 W., near S $\frac{1}{4}$ cor. sec. 21, 65 ft. N. and 25 ft. E. from crossroads, in root on W. side of 20-in. maple tree; copper nail and washer-----	752. 34
From south quarter corner sec. 21, T. 7 N., R. 12 W., along roads west and south to southwest quarter sec. 33, T. 7 N., R. 12 W. (by J. L. Buckmaster in 1928)	
T. 7 N., R. 12 W., in NE. cor. sec. 32, 25 ft. S. and 10 ft. W. from junction of E.-W. rd., in root on E. side of 18-in. oak tree; copper nail and washer-----	758. 42
From Wayland quadrangle north 2.3 miles along road to Corinth, thence east and southeast to point 2 miles east and 1.2 miles southeast from Corinth (by S. R. Archer in 1929)	
T. 4 N., R. 11 W., in SW. cor. sec. 6, near NE. corner of crossroads, on top of N. concrete head wall of culvert under E.-W. rd.; chiseled square-----	790. 31
T. 4 N., Rs. 11 and 12 W., near quarter corner between secs. 1 and 6, 125 ft. N. of junction of T-rd. E., at NE. corner of concrete highway bridge, at top of wing wall, on top of square ledge; chiseled square-----	779. 23
Corinth, 1.0 mi. S. of, in NE. cor. sec. 1, T. 4 N., R. 12 W., near SW. corner of junction of T-rd. W., on top of E. end of S. concrete head wall of culvert under rd. W.; chiseled square-----	782. 34
Corinth, 360 ft. S. of crossroads, on E. side of rd., at fence, 80 ft. S. of fence corner, 5 ft. SE. of telephone pole; standard iron post with bronze cap stamped "Mich 808"-----	807. 278
Reference mark, 170 ft. S. of crossroads, on top of N. end of W. concrete head wall of culvert under highway; chiseled square-----	803. 88
T. 5 N., R. 11 W., in NW. cor. sec. 32, 140 ft. S. of junction of T-rd. S., on E. side of rd., in root on N. side of 30-in. elm tree; copper nail and washer-----	850. 04
Corinth, 2.0 mi. E., thence 1.2 mi. SE. from, near N $\frac{1}{4}$ cor. sec. 4, T. 4 N., R. 11 W., at Allegan-Kent county line, 80 ft. E. of crossroads, on S. side of rd., in root on N. side of 12-in. maple tree (second tree from corner); copper nail and washer <sup>73</sup> -----	858. 62
From point 1 mile south of Corinth west along county-line road and highway into Jenison quadrangle near North Dorr (by S. R. Archer in 1929)	
T. 4 N., R. 12 W., in NW. cor. sec. 1, 1.0 mi. S., thence 1.0 mi. W. from Corinth, 50 ft. S. and 25 ft. E. from crossroads, in root on NE. side of 24-in. maple tree; copper nail and washer-----	785. 34

<sup>73</sup> Established as a reference mark to principal bench mark stamped "Prim Trav Sta No 19 860" and previously described.

T. 5 N., R. 12 W., in SE. cor. sec. 34, 100 ft. N. of crossroads, on W. side of rd., at fence line, in root on WSW. side of 24-in. elm tree; copper nail and washer.....	Feet 737. 24
T. 4 N., R. 12 W., near N $\frac{1}{4}$ cor. sec. 3, 40 ft. S. and 22 ft. W. from junction of T-rd. S., 20 ft. S. of fence corner; standard iron post with bronze cap stamped "Mich 729" <sup>74</sup> .....	728. 808
Reference mark, 20 ft. S. and 45 ft. W. from junction of T-rd. S., 20 ft. W. of fence corner, in root on NW. side of 36-in. maple tree; copper nail and washer.....	727. 37
Herps, 0.2 mi. E. of R. R. sta. at, in NW. cor. sec. 3, T. 4 N., R. 12 W., 60 ft. S. of crossroads, on top of N. end of E. concrete head wall of culvert under N.-S. rd.; chiseled square.....	700. 15
Herps, at crossing of Lake Shore & Michigan Southern R. R. and E.-W. county highway; top of W. rail.....	693. 0
Herps, 0.3 mi. W. of, near quarter corner between secs. 4 and 33, Tps. 4 and 5 N., R. 12 W., at highway bridge over Dorr and Byron Drain, on top of SW. end of S. wing wall of W. concrete abutment; chiseled square.....	687. 47
Tps. 4 and 5 N., R. 12 W., near cor. secs. 4, 5, 32, and 33, on S. side of highway at junction of T-rd. N., on top of W. concrete head wall of drain under driveway S.; chiseled square.....	748. 34
<p>From Jenison quadrangle near southeast corner sec. 20, T. 6 N., R. 12 W., east along road 0.8 mile to crossing of Lake Shore &amp; Michigan Southern Railroad, thence south along railroad and county highway by way of Byron Center to crossroads 0.2 mile east of Herps (by S. R. Archer in 1929)</p>	
T. 6 N., R. 12 W., in SE. cor. sec. 20, in NW. angle of crossroads, in root on NNE. side of 48-in. elm tree; copper nail and washer.....	646. 33
T. 6 N., R. 12 W., near quarter corner between secs. 21 and 28, 225 ft. W. of tracks of Lake Shore & Michigan Southern R. R., on E. bank of creek, on S. side of rd., at fence line, in root on NW. side of 24-in. sycamore tree; copper nail and washer.....	644. 57
T. 6 N., R. 12 W., about 740 ft. N. of S $\frac{1}{4}$ cor. sec. 28, 740 ft. N. of grade crossing, on W. side of R. R. right-of-way fence line, in root on E. side of southernmost of two 24-in. elm trees standing 50 ft. apart; copper nail and washer.....	683. 46
T. 6 N., R. 12 W., near center of sec. 33, 3.5 mi. N., thence 0.5 mi. W. from Byron Center, on S. side of rd., 260 ft. E. of R. R. crossing, in root on NW. side of easternmost of two 24-in. wild-cherry trees standing 30 ft. apart; copper nail and washer.....	687. 36
Byron Center, 3.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 33, T. 6 N., R. 12 W., in SW. angle of junction of T-rd. W., at corner entrance to church, at E. side of concrete porch, on top of N. end of lower step; chiseled square <sup>75</sup> .....	729. 09
Byron Center, 2.5 mi. N. of, near quarter corner between secs. 3 and 4, T. 5 N., R. 12 W., 85 ft. N. of crossroads, on top of S. end of E. concrete head wall of culvert under rd. N. (top layer of concrete chipped off); chiseled square.....	740. 96
Byron Center, 1.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 9, T. 5 N., R. 12 W., 75 ft. S. of crossroads, on W. side of rd., in root on SE. side of 36-in. beech tree; 18 in. from trunk; copper nail and washer.....	702. 71

<sup>74</sup> This bench mark was originally located 0.5 mile west and was stamped "700."

<sup>75</sup> Established as a reference mark to principal bench mark stamped "730" and previously described.

Byron Center, 1.0 mi. N. of, in SE. cor. sec. 10, T. 5 N., R. 12 W., near NE. corner of crossroads, on top of SE. end of E. head wall of culvert under highway; chiseled square-----	Feet 711. 96
Byron Center, 0.5 mi. N. of, 310 ft. S. of quarter corner between secs. 15 and 16, T. 5 N., R. 12 W., on top of S. end of E. concrete head wall of culvert under highway; chiseled square-----	731. 50
Byron Center, at E. edge of town, at SW. corner of crossroads, at entrance to Reformed Church, on top of N. corner at E. end of lower concrete step; chiseled square-----	748. 30
Byron Center, at E. edge of town, 850 ft. S. of crossroads, on E. side of street, at main entrance to public school, on top of N. end of lower concrete step; chiseled square-----	749. 20
Byron Center, 1.0 mi. S. of, near SW. cor. sec. 22, T. 5 N., R. 12 W., 140 ft. N. of crossroads, on top of N. end of E. concrete head wall of culvert under highway; chiseled square-----	714. 94
Byron Center, 2.0 mi. S. of, near cor. secs. 27, 28, 33, and 34, T. 5 N., R. 12 W., near NE. corner of crossroads, at E. concrete abutment of highway bridge under rd. E., on top of bridge end of N. wing wall; chiseled square-----	691. 96
Byron Center, 2.5 mi. S. of, 55 ft. N. of quarter corner between secs. 33 and 34, T. 5 N., R. 12 W., on E. side of highway, at bridge at driveway to field, on top of W. end of S. concrete head wall; chiseled square-----	694. 82

## GRAYLING QUADRANGLE

[Latitude 44°30'-44°45'; longitude 84°30'-84°45']

## CRAWFORD AND ROSCOMMON COUNTIES

From point on Michigan Central Railroad 2.7 miles northwest of Grayling station southeast along railroad to intersection of U. S. Highway 27 in Grayling, thence south 3.8 miles along highway and west 2.3 miles along road into Fletcher quadrangle (by S. R. Archer in 1927) <sup>76</sup>

U. S. C. & G. S. standard disk stamped "I 13"-----	1, 156. 996
Grayling, 2.2 mi. NW. of M. C. R. R. sta. at, 0.2 mi. W. of quarter corner between secs. 1 and 36, Tps. 26 and 27 N., R. 4 W., at rd. crossing, 1 ft. SE. of NW. right-of-way fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 8 R 1922 Mich"-----	1, 153. 859
U. S. C. & G. S. standard disk stamped "J 13"-----	1, 149. 650
Grayling, 0.8 mi. NW. of, at SE. end of E. leg of wye to Lewiston branch of M. C. R. R., 150 ft. NW. of milepost G-O, on S. side of Lewiston branch, on N. side of main line, at S. corner of SE. end of iron plate base on top of concrete base for wheel and lever for moving signal blocks to NW. on main line, on top (thread end) of bolt; chiseled cross-----	1, 137. 54
Grayling, 250 ft. SE. of sta., at NE. end of roundhouse, at steel column on NW. side of water tank, on top of N. corner of NE. concrete foundation; chiseled square-----	1, 135. 68
Grayling, at S. corner of grounds of Crawford County Courthouse, at E. corner of intersection of sidewalk along SE. side of grounds and street crossing walk to SE., in concrete post; standard tablet stamped "1 A 1927 Mich"-----	1, 140. 854

<sup>76</sup> Descriptions marked with an asterisk indicate bench marks originally set in 1924 by G. R. Richardson in connection with a survey of Camp Grayling by the Michigan State Militia.

Grayling, 0.5 mi. SE. of sta., 40 ft. N. and 20 ft. W. from intersection of main track and U. S. Highway 27; standard iron post with bronze cap stamped "1137"*	Feet 1, 136. 719
Grayling, 0.7 mi. S. of highway crossing, on W. side of highway, 100 ft. S. of cut through sand ridge, in root of 8-in. oak tree with triangular blaze; spike and washer*	1, 145. 22
Grayling, 1.3 mi. S. of, on W. side of highway, at top of hill, in root of 6-in. oak tree with triangular blaze; copper nail and washer*	1, 192. 16
Grayling, 2.0 mi. S. of, on W. side of highway, 65 ft. S. of junction of third-class rd. W., in root on NE. side of 10-in. pine tree with triangular blaze; copper nail and washer*	1, 220. 62
Grayling, 2.5 mi. S. of, on E. side of highway, 300 ft. S. of top of hill, in root of small double oak tree with triangular blaze; copper nail and washer*	1, 315. 55
Grayling, 3.1 mi. S. of, about 800 ft. N. of quarter corner between secs. 31 and 32, T. 26 N., R. 3 W., 40 ft. S. of old R. R. grade crossing, on E. side of highway, in root on W. side of 12-in. oak tree with triangular blaze; copper nail and washer	1, 278. 39
Grayling, 3.8 mi. S. of, in NE. cor. sec. 6, T. 25 N., R. 3 W., 28 ft. S. and 18 ft. W. from crossroads; standard iron post with bronze cap stamped "1252"*	1, 251. 156
Grayling, 3.8 mi. S., thence 0.5 mi. W. from, 170 ft. W. of quarter corner between secs. 6 and 31, Tps. 25 and 26 N., R. 3 W., on N. side of rd., in root of westernmost of two small oak trees standing 8 ft. apart, tree having triangular blaze; copper nail and washer*	1, 248. 16
Grayling, 3.8 mi. S., thence 1.0 mi. W. from, in SE. cor. sec. 36, T. 26 N., R. 4 W., 100 ft. W. of crossroads, on N. side of rd., in root of 10-in. oak tree with triangular blaze; copper nail and washer*	1, 258. 14
Grayling, 3.8 mi. S., thence 2.0 mi. W. from, in SW. corner of sec. 36, T. 26 N., R. 4 W., 55 ft. N. and 33 ft. E. from crossroads, 25 ft. N. of fence corner, in yard of farmhouse, in root on S. side of 8-in. forked poplar tree; copper nail and washer	1, 289. 11
From Alba quadrangle southeast along Michigan Central Railroad about 2 miles (by S. R. Archer in 1927)	
U. S. C. & G. S. standard disk stamped "F 13"	1, 183. 131
Frederic, 4.0 mi. S. of, 75 ft. N. of milepost 85, 4 ft. E. of W. right-of-way fence line; standard iron post with bronze cap stamped "Prim Trav Sta No 7 R 1922 Mich"	1, 177. 316
U. S. C. & G. S. standard disk stamped "G 13"	1, 177. 957

## GREENLAND QUADRANGLE

[Latitude 46°45'–47°00'; longitude 88°00'–89°15']

## ONTONAGON COUNTY

From Winona quadrangle southwest and south along Copper Range Railroad into Paynesville quadrangle (first-order leveling by E. L. McNair in 1911)

Lake Mine, 2.0 mi. NE. of, at E. end of bridge over East Branch of Fire Steel River, on N. side of track, 15 in. from NE. corner of concrete abutment; aluminum tablet stamped "967"	966. 871
Lake Mine, in front of sta.; top of rail	1, 005. 9
Lake Mine, 100 ft. NW. of residence of manager of Lake Mine, 670 ft. N. of track, 200 ft. W. of N.-S. street, in large outcrop of solid rock; aluminum tablet stamped "Prim Trav Sta No 11 1911 1037"	1, 036. 763
Peppard, at intersection of Copper Range and Mineral Range R. Rs.	1, 052. 5

## GROSSE POINTE QUADRANGLE

[Latitude from U. S.-Canada boundary north to 42°30'; longitude from U. S.-Canada boundary west to 83°00']

## MACOMB AND WAYNE COUNTIES

From Detroit quadrangle east along Ninemile Road and southeast along Lake Shore Road to Milk River Point (by Fulton Pace in 1903)

Halfway (now center of East Detroit), in NW. angle of junction of Gratiot Avenue, 0.4 mi. E. of SW. cor. sec. 30, T. 1 N., R. 13 E., 100 ft. S. of church, 75 ft. N. of Halfway House and post office, in root of maple tree; nail.....	Feet 613. 82
Halfway, in SW. angle of crossroads, at dwelling of H. Hummerick, in corner of yard; standard iron post with bronze cap stamped "ADJ 615" 77.....	614. 441
Halfway, 1.9 mi. E. of, 1.9 mi. W. of Defers, 0.3 mi. E. of NW. cor. sec. 33, T. 1 S., R. 13 E., 100 ft. S. of junction of rd. SW., 10 ft. E. of rd. SW., in root of elm tree; nail.....	590. 88
Defers, 1.1 mi. NW. of Milk River Point, on E. side of Lake Shore Rd., on prolongation of E.-W. rd., in root of maple tree; nail.....	578. 85
Defers, in NW. angle of rd. junction, on premises of Frank Streb; standard iron post with bronze cap stamped "ADJ 579" 77.....	578. 232
Milk River Point, on E. side of Lake Shore Rd., on prolongation of S. side of E.-W. rd., at stone monument of Lake St. Clair Harbor Line marked "Harbor Line Reference Point c," on SE. corner; top of knob (U. S. Lake Survey B. M. No. 38; not recovered in 1926).....	580. 570

From Mount Clemens quadrangle generally south along Jefferson Avenue to Macomb-Wayne county line (by H. S. Senseney in 1926; spur line partly leveled twice)

St. Clair Shores, at intersection of Townhall Rd., on E. side of Jefferson Avenue, on culvert; chiseled square.....	579. 82
St. Clair Shores, at SW. corner of intersection of Townhall Rd., in front of police sta., in concrete post; metal tablet stamped "13" (Macomb County B. M.).....	580. 029
St. Clair Shores, 160 ft. S. of intersection of Tenmile Rd., on W. side of Jefferson Avenue, in root of tree; copper nail and washer.....	578. 74
St. Clair Shores, 60 ft. S. of intersection of Ninemile (Defer) Rd., 160 ft. W. of Jefferson Avenue, on E. side of fence, in concrete post; standard tablet stamped "11 S 1926".....	579. 394
Reference mark, 250 ft. E. of tablet, on E. side of Jefferson Avenue, in first tree S. of Ninemile Rd.; copper nail and washer.....	579. 33
St. Clair Shores, on W. side of Jefferson Avenue at Macomb-Wayne county line, on E. side of base of signpost; chiseled square.....	582. 15
St. Clair Shores, 300 ft. N. of Macomb-Wayne county line, on E. side of Jefferson Avenue, 27 ft. E. of track of electric R. R., between hedge and small building, in concrete post; metal tablet stamped "5" (Macomb County B. M.).....	582. 044

From intersection of Tenmile Road and Jefferson Avenue in St. Clair Shores northwest 0.7 mile (by H. S. Senseney in 1926; spur line leveled twice)

St. Clair Shores, 155 ft. N. of Tenmile Rd., 33 ft. W. of center line of Harper Avenue, in concrete post; metal tablet stamped "6" (Macomb County B. M.).....	585. 633
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77 This bench mark was set in 1904 by C. E. Cooke from marks along the primary line run in 1903. In 1926 this mark was not recovered.

From Mount Clemens quadrangle at point in Roseville alternately southwest and east along Groesbeck Highway and other roads to intersection of Vernier Road and Harper Avenue, thence northeast and east to intersection of Ninemile Road and Jefferson Avenue (by H. S. Senseney in 1926)

Roseville, on W. boundary of, 50 ft. N. of S. cor. secs. 13 and 18, T. 1 N., Rs. 12 and 13 E., on W. side of fence, in concrete post; metal tablet stamped "12" (Macomb County B. M.)-----	<i>Feet</i> 620. 025
Roseville, 1.0 mi. W. of W. limits of, 1.0 mi. W. of NW. corner of boundary of East Detroit, in SW. cor. sec. 24, T. 1 N., R. 12 E., 50 ft. N. and 60 ft. E. from intersection of Tenmile and Schoenherr Rds., at N. edge of sidewalk, set flush, in concrete post; metal tablet stamped "8" (Macomb County B. M.)-----	621. 548
East Detroit, at NW. corner of, in SW. cor. sec. 19, T. 1 N., R. 13 E., at NE. corner of crossroads, on corner of sidewalk; chiseled square--	626. 39
East Detroit, 0.2 mi. E. of intersection of Tenmile Rd. and Gratiot Avenue, on W. side of entrance to Erin Township School, in concrete post; metal tablet stamped "7" (Macomb County B. M.)----	611. 471
East Detroit, at crossroads formerly known as Halfway, 8 ft. E. of entrance to St. Peter's Lutheran School, in concrete post; standard tablet stamped "14 S 1926"-----	615. 963
East Detroit, near S. boundary of, at N. boundary of Detroit, on W. side of Gratiot Avenue, on N. side of Eightmile Rd., 27 ft. W. of SE. corner of Eastwood Inn, in concrete post; metal tablet stamped "3" (Macomb County B. M.)-----	617. 507
East Detroit, 0.6 mi. W. of W. limits of St. Clair Shores, at NE. corner of intersection of Eightmile and Kelley Rds., on culvert; chiseled square-----	599. 42
St. Clair Shores, 34 ft. W. of center line of Harper Avenue, 55 ft. N. of Macomb-Wayne county line, in concrete post; metal tablet stamped "4" (Macomb County B. M.; recovered in 1936)-----	586. 275
St. Clair Shores, at SE. corner of intersection of Harper Avenue and Ninemile Rd., on NE. corner of sewer trap; chiseled square-----	586. 05

From Detroit quadrangle northeast along Jefferson Avenue in Detroit to intersection of Alter Road, thence southeast to Windmill Point (by J. M. Lawson in 1936)

Detroit, on S. side of Jefferson Avenue, opposite Fischer Avenue, on top of E. edge of cast-iron manhole cover; chiseled cross-----	596. 66
Detroit, at waterworks, on riverward side of standpipe tower, at entrance, in SW. end of door stone, 5 in. NE. of vertical face and 4 in. from edge of stone; top of brass bolt leaded vertically and marked "U S P B M" (U. S. Lake Survey B. M. No. 11)-----	587. 046
Detroit, on S. side of Jefferson Avenue, opposite Cadillac Boulevard, on E. side of E. pillar, at main entrance to Waterworks Park, on concrete base of iron railing; chiseled square-----	583. 62
Detroit, on S. side of Jefferson Avenue, on W. side of Detroit Terminal R. R. crossing, just E. of Terminal Street, 600 ft. W. of Chrysler Plant, on top of N. side of concrete base of R. R. danger sign; chiseled square-----	578. 28
Detroit, in SE. angle of intersection of Jefferson Avenue and Piper Street, at bank, on top of NE. end of step; chiseled square-----	578. 17
Detroit, in SE. angle of intersection of Jefferson Avenue and Alter Rd., 1.2 mi. NW. of Windmill Point, on top of NE. side of rim of cast-iron city water gate; chiseled cross-----	578. 61

Detroit, in SW. angle of intersection of Alter Rd. and Korte Street, 0.4 mi. NW. of Windmill Point, on top of SE. concrete abutment of bridge over canal; chiseled square-----	<i>Feet</i> 583. 23
Windmill Point, on E. side of Alter Rd., opposite center line of Klenk Avenue, in concrete post under 8-in. handhole cover set in sidewalk; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 2 1933")-----	577. 435
Windmill Point, at foot of Alter Rd., at concrete bridge over Fox Creek, at S. end of concrete base of E. guardrail, 1.9 ft. from S. end of wall and 0.3 ft. from W. face, in concrete; bronze disk set vertically (U. S. Lake Survey B. M.)-----	584. 212
From Waterworks Park in Detroit northwest along Cadillac Boulevard into Detroit quadrangle (by J. M. Lawson in 1936)	
Detroit, in SW. angle of intersection of Mack Avenue, in root on E. side of 24-in. maple tree, first tree S. of Mack Avenue; copper nail and washer-----	603. 86
Detroit, in NE. angle of intersection of Warren Avenue, at school-house playground, on top of concrete base of corner fence post; chiseled square-----	608. 13
[Line jogs into Detroit quadrangle]	
Detroit, 100 ft. S. of intersection of Gratiot Avenue and Conners Avenue, at N. corner of Conners parkway, 10 ft. S. of angle in sidewalks, in concrete post; standard tablet stamped "T T 8 S 1935 616"-----	616. 444
From intersection of Harper Avenue and Macomb-Wayne county line alternately southwest and southeast along streets to intersection of Lake Shore Drive and Lochmoor Boulevard (by J. M. Lawson in 1936; leveled twice)	
Lochmoor, 52 ft. N. and 30 ft. W. from intersection of Harper Avenue and west-bound lane of Vernier Rd., in Vernier parkway, on top of W. end of large circular concrete culvert; chiseled square-----	586. 36
Lochmoor, 95 ft. W. of center line of Mack Rd., in center of Vernier parkway, 18 ft. E. of power line pole 3136, in concrete post; standard tablet stamped "T T 5 S 1935 587"-----	587. 014
Lochmoor, 22 ft. S. and 125 ft. E. from junction of Marter Rd., 1.0 mi. NW. of Grosse Pointe Shores, at culvert over Milk River, on top of S. concrete head wall; chiseled square-----	581. 85
Grosse Pointe Shores, at NW. corner of junction of Lake Shore Drive and Vernier Rd., on top at extreme E. end of large granite boulder; top of flattened surface (U. S. Lake Survey B. M.)-----	584. 383
Grosse Pointe Shores, about 350 ft. N. of junction of Lochmoor Boulevard, at E. curb of Lake Shore Drive, in concrete post under 8-in. handhole cover in concrete slab 4 ft. square; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument b 3")-----	583. 299

## GROVE QUADRANGLE

[Latitude 43°15'-43°30'; longitude 85°30'-85°45']

## KENT, MECOSTA, MONTCALM, AND NEWAYGO COUNTIES

From Cedar Springs quadrangle northeast along Grand Rapids & Indiana Railroad <sup>79</sup> to Sand Lake, thence along roads generally north to point 4 miles west of Morley, thence alternately west and north to point 1.5 miles south and 2.2 miles east from Big Prairie (by E. C. Bibbee in 1916)

Cedar Springs, 2.3 mi. NE. of sta. at, 2.7 mi. SW. of Sand Lake sta., near center of sec. 18, T. 10 N., R. 10 W., at rd. crossing, on N. side of rd., 30 ft. E. of tracks; standard iron post with bronze cap stamped "Mich 891" (recovered in 1929)-----	Feet 890. 229
Sand Lake, in front of sta.; top of rail-----	917. 6
Sand Lake, 0.2 mi. N. of sta., 190 ft. W. of tracks, near Kent-Montcalm county line, on W. side of rd.; standard iron post with bronze cap stamped "Mich 913"-----	912. 238
Sand Lake, 1.2 mi. N. of, near quarter corner between secs. 28 and 33, T. 11 N., R. 10 W., at NE. corner of junction of T-rd. E., on N. end of iron drain under rd.; highest point-----	937. 41
Sand Lake, 2.2 mi. N. of, 0.4 mi. W. of crossroads at Pierson, near quarter corner between secs. 21 and 28, T. 11 N., R. 10 W., on N. side of rd., opposite rd. S., in root of 14-in. maple tree; copper nail and washer-----	944. 79
Pierson, 1.0 mi. W. of, near N. cor. secs. 28 and 29, T. 11 N., R. 10 W., on S. side of rd., opposite T-rd. N., 3 ft. N. of S. fence; standard iron post with bronze cap stamped "Mich 941"-----	940. 046
Pierson, 1.0 mi. W., thence 1.0 mi. N. from, in NE. cor. sec. 20, T. 11 N., R. 10 W., in NE. corner of schoolyard, in root of 10-in. oak tree; copper nail and washer-----	942. 70
Pierson, 1.0 mi. W., thence 2.0 mi. N. from, 1.0 mi. S. and 2.1 mi. W. from Maple Hill, in NE¼ sec. 17, T. 11 N., R. 10 W., 90 ft. E. of rd., 40 ft. NW. of shore of Bass Lake, in open space used for camping, in root on N. side of 24-in. oak tree; copper nail and washer-----	898. 18
Maple Hill, 2.5 mi. W. of, 2.0 mi. S. and 3.5 mi. W. from Howard City, near quarter corner between secs. 5 and 8, T. 11 N., R. 10 W., at SE. corner of crossroads, on large granite rock; chiseled square--	883. 60
Howard City, 1.0 mi. S. and 3.0 mi. W. from, in NW. cor. sec. 4, T. 11 N., R. 10 W., in SE. angle of rd. fork, 4 ft. NE. of fence corner; standard iron post with bronze cap stamped "Mich 887"-----	886. 404
Howard City, 1.0 mi. S. and 2.0 mi. W. from, in SE. cor. sec. 33, T. 12 N., R. 10 W., at entrance to Amy School, on SE. corner of concrete porch; chiseled square-----	882. 41
Howard City, 2.0 mi. W. of, in SE. cor. sec. 28, T. 12 N., R. 10 W., at bridge over Tamarack Creek, on SW. corner of concrete floor; chiseled square-----	857. 11
Howard City, 1.0 mi. N. and 2.0 mi. W. from, near SW. cor. sec. 22, T. 12 N., R. 10 W., in NE. angle of crossroads, 5 ft. NW. of fence corner; standard iron post with bronze cap stamped "Mich 891"---	890. 547
Howard City, 2.0 mi. N. and 2.0 mi. W. from, in SE. cor. sec. 16, T. 12 N., R. 10 W., on W. side of rd., 135 ft. N. of junction of T-rd. E., in fence line, in root on W. side of 10-in. poplar tree; copper nail and washer-----	889. 14

<sup>79</sup> Now operated by the Pennsylvania Railroad.



Howard City, 4.0 mi. N. and 3.0 mi. W. from, 2.5 mi. S. and 4.0 mi. W. from Morley, in SE. cor. sec. 5, T. 12 N., R. 10 W., in NW. angle of junction of T-rd. N.; standard iron post with bronze cap stamped "Mich 898"-----	Feet 897. 500
Morley, 1.5 mi. S. and 4.0 mi. W. from, in SE. cor. sec. 32, T. 13 N., R. 10 W., near Mecosta-Montcalm county line, in NW. angle of crossroads, in root of 10-in. oak tree; copper nail and washer-----	922. 10
Morley, 0.5 mi. S. and 4.0 mi. W. from, 300 ft. NW. of SE. cor. sec. 29, T. 13 N., R. 10 W., 60 ft. W. of fence, in root on E. side of 14-in. pine tree; copper nail and washer-----	924. 53
Morley, 4.0 mi. W. of, near quarter corner between secs. 28 and 29, T. 13 N., R. 10 W., 8 ft. N. of E.-W. fence, in root on NW. side of 12-in. oak tree; copper nail and washer-----	927. 78
Morley, 5.0 mi. W. of, 2.0 mi. S. and 5.0 mi. E. from Big Prairie, near W $\frac{1}{4}$ cor. sec. 29, T. 13 N., R. 10 W., 15 ft. S. of SE. corner of crossroads, in root on N. side of 10-in. oak tree; copper nail and washer-----	926. 44
Big Prairie, 1.5 mi. S. and 3.0 mi. E. from, in NE. cor. sec. 26, T. 13 N., R. 11 W., in SW. corner of junction of T-rd. S.; standard iron post with bronze cap stamped "Mich 855"-----	854. 466
Big Prairie, 3.4 mi. by rd. SE. of, 0.25 mi. E. of SW. cor. sec. 23, T. 13 N., R. 11 W., on N. side of E.-W. rd., at intersection of high-power electric line, 30 ft. NW. of pole 449, in root on S. side of 10-in. poplar tree; copper nail and washer-----	840. 26
From point 1.5 miles south and 2.2 miles east from Big Prairie along roads southwest to Croton, thence generally south into Cedar Springs quadrangle near Solon Center (by E. C. Bibbee in 1916)	
Croton, 2.7 mi. NE. of, near center of sec. 4, T. 12 N., R. 11 W., along fence on N. side of rd., opposite T-rd. S.; standard iron post with bronze cap stamped "Mich 747"-----	745. 907
Croton, 0.8 mi. NE. of, on S. side of rd., 80 ft. SW. of high-power electric line pole 670, in root on N. side of 10-in. oak tree; copper nail and washer-----	733. 97
Little Muskegon River, under bridge; surface of water Oct. 17, 1916-----	721. 0
Croton, in S. part of, 500 ft. E. of Croton Dam, at rd. fork, on W. side of N.-S. rd., 3 ft. E. of fence; standard iron post with bronze cap stamped "Mich 752"-----	751. 541
Croton, 0.9 mi. SE. of, on W. side of rd., 150 ft. N. of intersection of electric power line, on large flat rock; chiseled square-----	871. 02
Croton, 1.4 mi. SE. of, 25 ft. NW. of SW. cor. sec. 17, T. 12 N., R. 11 W., on N. side of rd., opposite rd. S., in root on SW. side of 12-in. white-oak tree; copper nail and washer-----	932. 90
Croton, 2.0 mi. S. and 1.0 mi. E. from, in SE. cor. sec. 20, T. 12 N., R. 11 W., in NW. angle of crossroads, in SE. corner of yard of Oak Grove School; standard iron post with bronze cap stamped "Mich 945"-----	944. 115
Croton, 3.0 mi. S. and 1.0 mi. E. from, in SW. cor. sec. 28, T. 12 N., R. 11 W., in NE. angle of junction of T-rd. E., in root on W. side of 24-in. maple tree; copper nail and washer-----	924. 22
Croton, 4.0 mi. S. and 1.0 mi. E. from, 3.0 mi. N. and 1.0 mi. W. from Grove, in NW. cor. sec. 4, T. 11 N., R. 11 W., on E. side of rd., 60 ft. S. of township line, on N. concrete pier of electric tower 815; highest point-----	891. 44

Grove, 2.0 mi. N. and 1.0 mi. W. from, 50 ft. SW. of NE. cor. sec. 8, T. 11 N., R. 11 W., in SW. angle of crossroads; standard iron post with bronze cap stamped "Mich 861"-----	<i>Feet</i> 860. 191
Grove, 1.0 mi. N. and 1.0 mi. W. from, in SW. cor. sec. 9, T. 11 N., R. 11 W., at NE. corner of crossroads, on S. end of concrete wing wall; highest point on white rock-----	893. 61
Grove, 1.0 mi. W. of, in SE. cor. sec. 17, T. 11 N., R. 11 W., at NW. corner of crossroads, on large granite rock; chiseled square-----	931. 52
Grove, 1.0 mi. S. and 1.0 mi. W. from, in NE. cor. sec. 29, T. 11 N., R. 11 W., 15 ft. S. of SW. corner of crossroads, in fence line; standard iron post with bronze cap stamped "Mich 930"-----	929. 173
Grove, 2.0 mi. S. and 1.0 mi. W. from, in NE. cor. sec. 32, T. 11 N., R. 11 W., at SW. corner of crossroads, on large granite rock; chiseled square-----	909. 09
Grove, 3.0 mi. S. and 0.5 mi. W. from, 3.0 mi. N. and 1.0 mi. W. from Solon Center, in NE. cor. sec. 5, T. 10 N., R. 11 W., at Kent-Newaygo county line, 15 ft. W. of T-rd. S.; standard iron post with bronze cap stamped "Mich 941"-----	940. 237
Solon Center, 2.0 mi. N. and 1.0 mi. W. from, in NW. cor. sec. 9, T. 10 N., R. 11 W., on S. side of rd., 70 ft. E. of crossroads, on large sandstone rock; chiseled square-----	888. 77
Solon Center, 2.0 mi. N. of, in NE. cor. sec. 9, T. 10 N., R. 11 W., 425 ft. S. of center of junction of N.-S. rd. and rd. W., in center of top of W. concrete head wall of culvert; chiseled square-----	920. 70
Solon Center, 1.0 mi. N. of, in NE. cor. sec. 16, T. 10 N., R. 11 W., 25 ft. S. of SW. corner of crossroads, in fence line, in root on NE. side of 12-in. oak tree; copper nail and washer-----	903. 86
From point 2.5 miles west of Maple Hill generally west along roads into Newaygo quadrangle at point 0.8 mile southeast of Hess Lake (by E. C. Bibbee in 1916)	
Maple Hill, 3.5 mi. W. of, 350 ft. E. of S $\frac{1}{4}$ cor. sec. 6, T. 11 N., R. 10 W., on N. side of rd., at fence line, in root on S. side of 14-in. maple tree; copper nail and washer-----	947. 24
T. 11 N., R. 11 W., in NE. cor. sec. 12, at Montcalm-Newaygo county line, in SW. corner of crossroads; standard iron post with bronze cap stamped "Mich 962"-----	961. 739
T. 11 N., R. 11 W., in NE. cor. sec. 11, at entrance to Ensley Township School No. 1, at NE. corner of concrete porch, on first concrete step from bottom; chiseled square-----	978. 79
T. 11 N., R. 11 W., 250 ft. W. of SE. cor. sec. 3, on N. side of rd., 30 ft. S. of house, at fence line, in root of 12-in. maple tree; copper nail and washer-----	1, 069. 60
Grove, 2.0 mi. N. of, in NW. cor. sec. 10, T. 11 N., R. 11 W., in schoolyard, on NW. corner of concrete base of pump; chiseled square-----	960. 56
T. 11 N., R. 11 W., in NW. cor. sec. 8, at NW. corner of entrance to Flowing Well School, on first step from bottom; chiseled square---	822. 10
T. 11 N., Rs. 11 and 12 W., at cor. secs. 1, 6, 7, and 12, in center of rd., on iron rod marking section corner; highest point-----	800. 62
T. 11 N., R. 12 W., 0.25 mi. E. of NW. cor. sec. 12, in SW. angle of junction of T-rd. S., opposite school; standard iron post with bronze cap stamped "Mich 804"-----	803. 277

T. 11 N., R. 12 W., near center of sec. 2, 100 ft. W. of junction of trail N. and E.-W. trail, about 800 ft. E. of old house, in root on W. side of 18-in. oak tree; copper nail and washer-----	Feet 797. 14
T. 11 N., R. 12 W., near cor. secs. 3, 4, 9, and 10, at intersection of high-power electric line and E.-W. rd., 30 ft. SE. of pole 975, in root on S. side of 16-in. oak tree; copper nail and washer-----	798. 95
From point 4 miles west of Morley northeast along road 0.7 mile into Big Prairie quadrangle (by E. C. Bibbee in 1916)	
Morley, 0.5 mi. N. and 3.7 mi. W. from, 0.25 mi. E. of SW. cor. sec. 21, T. 13 N., R. 10 W., in NW. corner of junction of E.-W. rd. and rd. N.; standard iron post with bronze cap stamped "Mich 936"---	935. 667
From Cedar Springs quadrangle at point 2 miles north and 1.5 miles east from Kent City alternately north and west into Newaygo quadrangle at point 1 mile south and 3.2 miles east from Grant (by R. G. Clinite in 1916)	
Kent City, 3.0 mi. N. and 1.5 mi. E. from, near N $\frac{1}{4}$ cor. sec. 15, T. 10 N., R. 12 W., 120 ft. S. of rd. fork, on NE. wing wall of bridge, 3 ft. E. of N. end of iron rail; highest point on stone-----	793. 15
T. 10 N., R. 12 W., near E $\frac{1}{4}$ cor. sec. 10, 12 ft. S. and 25 ft. W. from center of rd. fork; standard iron post with bronze cap stamped "1916 Mich 795"-----	794. 345
T. 10 N., R. 12 W., in NW. cor. sec. 2, at Kent-Newaygo county line, in SE. angle of rd. junction, on E. side of small bridge over ditch, on concrete girder; lower loop of "e" in date "Sept. 26, 1914"-----	792. 70
T. 11 N., R. 12 W., in SW. cor. sec. 26, in NE. angle of crossroads, in SW. corner of churchyard; standard iron post with bronze cap stamped "1916 Mich 809"-----	808. 011
From Newaygo quadrangle at point 3 miles northeast of Newaygo northeast along roads into Big Prairie quadrangle at point 1.3 miles south and 3 miles west from Big Prairie (by R. G. Clinite in 1916)	
T. 12 N., R. 12 W., 0.25 mi. N. of center of sec. 15, 12 ft. N. and 25 ft. W. from center of rd. fork, in corner of farmyard, in root of 28-in. oak tree; copper nail and washer-----	790. 56
T. 12 N., R. 12 W., in NE. cor. sec. 10, 20 ft. S. and 20 ft. W. from center of crossroads; standard iron post with bronze cap stamped "1916 Mich 801"-----	800. 150
T. 12 N., R. 12 W., in NW. cor. sec. 2, 40 ft. S. and 10 ft. E. from center of junction of T-rd. E., in root of forked cherry tree; copper nail and washer-----	812. 42
T. 13 N., R. 12 W., about 0.2 mi. E. of N $\frac{1}{4}$ cor. sec. 35, 15 ft. S. and 40 ft. W. from center of crossroads, in root of double oak tree; copper nail and washer-----	837. 58
T. 13 N., R. 12 W., about 0.2 mi. N. of W $\frac{1}{4}$ cor. sec. 25, 30 ft. N. and 20 ft. E. from center of rd. fork, in root of 14-in. pine tree; copper nail and washer-----	853. 62
From Cedar Springs quadrangle northeast along U. S. Highway 131 to sec. 18, T. 10 N., R. 10 W. (by S. R. Archer in 1929)	
Sand Lake, 2.3 mi. SW. of G. R. & I. R. R. sta. at, near center of sec. 18, T. 10 N., R. 10 W., in NW. angle of intersection of highway and E.-W. rd., on top of N. concrete head wall of culvert under rd.; chiseled square <sup>80</sup> -----	887. 31

<sup>80</sup> Established as a reference mark to principal bench mark stamped "Mich 891" and previously described.

## HART QUADRANGLE

[Latitude 43°30'-43°45'; longitude 86°15'-86°30']

## OCEANA COUNTY

East along roads near Rothbury (by S. R. Archer in 1929)

[A jog from Montague quadrangle]

Rothbury, 0.5 mi. S., thence 1.5 mi. W. from, near NW. cor. sec. 29, T. 13 N., R. 17 W., 30 ft. S. and 58 ft. E. from crossroads, 20 ft. E. of fence corner, in concrete post; standard tablet stamped "T T Sta No 61 F 1928"-----	Feet 684. 769
Rothbury, 0.5 mi. S., thence 0.5 mi. W. from, near SE. cor. sec. 20, T. 13 N., R. 17 W., on N. side of rd., 340 ft. W. of crossroads, in root on SW. side of 24-in. oak tree; copper nail and washer-----	688. 67
Rothbury, 0.5 mi. S. of, near quarter corner between secs. 21 and 28, T. 13 N., R. 17 W., 25 ft. N. and 35 ft. E. from junction of U. S. Highway 31 and T-rd. W., 23 ft. N. of fence corner, on field side of fence, in root on N. side of 12-in. oak tree; copper nail and washer-----	692. 36
U. S. C. & G. S. standard disk stamped "A 26 1930" <sup>81</sup> -----	689. 746

## HARTFORD QUADRANGLE

[Latitude 42°00'-42°15'; longitude 86°00'-86°15']

## BERRIEN, CASS, AND VAN BUREN COUNTIES

From Marcellus quadrangle west along Berrien-Van Buren county-line road into Benton Harbor quadrangle (by C. E. Walker in 1926; releveled by S. R. Archer in 1927)

Lawrence, 1.7 mi. N., thence 2.5 mi. E. from, 0.9 mi. W. of Gliddenburg School, on N. side of rd., 100 ft. E. of S $\frac{1}{4}$ cor. sec. 36, T. 2 S., R. 15 W., in S. side of 36-in. tree, easternmost of two large maple trees standing 50 ft. apart; copper nail and washer-----	695. 04
Lawrence, 1.7 mi. N., thence 2.0 mi. E. from, in NE. cor. sec. 2, T. 3 S., R. 15 W., on S. side of rd., 100 ft. W. of junction of T-rd. N., at top of bank, in root on SW. side of 12-in. walnut tree; copper nail and washer-----	690. 29
Lawrence, 1.7 mi. N., thence 1.6 mi. E. from, 50 ft. S. and 20 ft. W. from junction of T-rd. S., about 500 ft. E. of N $\frac{1}{4}$ cor. sec. 2, T. 3 S., R. 15 W., 6 ft. S. of corner telephone pole, in concrete post; standard tablet stamped "P T Sta No 30 Y 1926"-----	703. 260
Reference mark, about 480 ft. W. of tablet, on N. side of rd., in root on N. side of 14-in. elm tree; copper nail and washer-----	707. 18
Lawrence, 1.7 mi. N., thence 1.0 mi. E. from, near SW. cor. sec. 35, T. 2 S., R. 15 W., 80 ft. NE. of crossroads, at entrance to Monroe School, on SE. corner of bottom concrete step; chiseled square----	750. 09
Lawrence, 1.7 mi. N. of, in SW. cor. sec. 34, T. 2 S., R. 15 W., in NE. angle of crossroads, about 100 ft. SE. of abandoned church, in root on SE. side of 12-in. hickory tree; copper nail and washer-----	723. 40
Lawrence, 1.7 mi. N., thence 1.0 mi. W. from, in NE. cor. sec. 5, T. 3 S., R. 15 W., 23 ft. S. and 100 ft. W. from crossroads, in yard of Barnes School, 110 ft. NE. of NE. corner of schoolhouse, in concrete post; standard tablet stamped "P T Sta No 31 Y 1926"-----	723. 346
Reference mark, 60 ft. N. and 60 ft. E. from crossroads, in SW. side of 22-in. maple tree; copper nail and washer-----	719. 33

<sup>81</sup> The tie between this mark and the bench mark with elevation 692.36 feet was made in 1931.

Lawrence, 1.7 mi. N., thence 2.0 mi. W. from, near NE. cor. sec. 6, T. 3 S., R. 15 W., on S. side of rd., 10 ft. W. of N.-S. section-line fence, in root on NE. side of 36-in. maple tree; copper nail and washer-----	Feet 699. 39
Lawrence, 1.7 mi. N., thence 2.4 mi. W. from, near N $\frac{1}{4}$ cor. sec. 6, T. 3 S., R. 15 W., on S. side of rd., 150 ft. E. of double fence line, in root on SE. side of 6-in. maple tree; copper nail and washer-----	681. 73
Lawrence, 1.7 mi. N., thence 2.9 mi. W. from, 2.5 mi. N., thence 3.0 mi. E. from Hartford, at NW. cor. sec. 6, T. 3 S., R. 15 W., 200 ft. E. of crossroads, on S. side of rd., at NE. corner of yard of dwelling of Thomas Jones, in root on N. side of 24-in. maple tree; copper nail and washer-----	683. 37
Hartford, 2.5 mi. N., thence 2.25 mi. E. from, 0.25 mi. W. of N $\frac{1}{4}$ cor. sec. 1, T. 3 S., R. 16 W., 80 ft. S. of junction of T-rd. S., on E. side of rd., in W. side of 8-in. apple tree; copper nail and washer-----	738. 06
Hartford, 2.5 mi. N., thence 2.0 mi. E. from, near N. cor. secs. 1 and 2, T. 3 S., R. 16 W., 25 ft. S. of junction of second-class T-rd. N., in concrete post; standard tablet stamped "P T Sta No 32 Y 1926"---	796. 378
Reference mark, 100 ft. W. of tablet, on S. side of rd., in N. side of 14-in. hickory tree; copper nail and washer-----	792. 55
Pere Marquette Ry., at crossing; top of E. rail-----	660. 6
Hartford, 2.5 mi. N. of, in SW. cor. sec. 34, T. 2 S., R. 16 W., 20 ft. N. and 20 ft. E. from crossroads, in root on SW. side of 20-in. maple tree; copper nail and washer-----	654. 68
Hartford, 2.5 mi. N., thence 1.0 mi. W. from, 270 ft. W. of SE. cor. sec. 32, T. 2 S., R. 16 W., on N. side of rd., in root on S. side of easternmost of two 36-in. maple trees standing 100 ft. apart; copper nail and washer-----	659. 62
Hartford, 2.5 mi. N., thence 1.6 mi. W. from, at bridge over drainage ditch, on SW. concrete wing wall; chiseled square-----	645. 94
Hartford, 2.5 mi. N., thence 1.9 mi. W. from, about 800 ft. E. of NW. cor. sec. 5, T. 3 S., R. 16 W., on E. shore of Rush Lake, 18 ft. S. and 63 ft. E. from rd. junction, 5 ft. SW. of corner telephone pole, in concrete post; standard tablet stamped "P T Sta No 33 Y 1926"---	649. 524
Reference mark, 180 ft. SW. of rd. junction, in S. side of 14-in. elm tree; copper nail and washer-----	647. 10
Hartford, 4.5 mi. by rd. NW. of, near center of NE $\frac{1}{4}$ sec. 6, T. 3 S., R. 16 W., 0.2 mi. SE. of turn to W. in rd., at slight angle in rd. near W. shore of Rush Lake, on W. side of rd., in root on NW. side of 30-in. elm tree; copper nail and washer-----	679. 45
Pere Marquette Ry., at crossing; top of E. rail-----	675. 8
Hartford, 5.3 mi. by rd. NW. of, 4.2 mi. NE., thence 1.0 mi. E. from Watervliet, 0.7 mi. W. of Rush Lake, near SW. cor. sec. 31, T. 2 S., R. 16 W., 20 ft. N. and 30 ft. E. from crossroads, in root on SW. side of 30-in. maple tree; copper nail and washer-----	676. 04
Watervliet, 4.2 mi. NE. of, near S. cor. secs. 35 and 36, T. 2 S., R. 17 W., 22 ft. N. and 12 ft. E. from center of junction of T-rd. S., in concrete post; standard tablet stamped "P T Sta No 34 Y 1926"---	658. 817
Reference mark, 90 ft. W. of junction of T-rd. S., on N. side of rd., in root on S. side of 36-in. maple tree; copper nail and washer-----	657. 66

From Cassopolis quadrangle at point 0.4 mile south and 1.6 miles west from Beechwood north and northwest along roads into Benton Harbor quadrangle near Rowe Lake (by C. E. Walker in 1926)

T. 5 S., R. 17 W., in NE. cor. sec. 26, 0.6 mi. N. and 1.6 mi. W. from Beechwood, 2.0 mi. N. and 2.0 mi. E. from Eau Claire, 50 ft. S. and 20 ft. W. from junction of T-rd. W., in SE. side of double-forked ash tree; copper nail and washer-----	Feet 847. 59
T. 5 S., R. 17 W., near E $\frac{1}{4}$ cor. sec. 14, 0.5 mi. E. of Columbian School, 50 ft. S. and 20 ft. W. from crossroads, in root on E. side of double-trunked sycamore tree; copper nail and washer-----	776. 59
T. 5 S., R. 17 W., in NW. cor. sec. 13, 1.5 mi. E. of Naomi, 25 ft. S. and 23 ft. E. from junction of T-rd. W., in concrete post; standard tablet stamped "P T Sta No 16 Y 1926"-----	756. 363
Reference mark, 50 ft. N. and 20 ft. W. from rd. junction, in root on W. side of 3-in. sycamore tree; copper nail and washer-----	751. 11
T. 5 S., R. 17 W., near NE. cor. sec. 11, 0.2 mi. E. of E. end of Rowe Lake, 2 ft. S. and 30 ft. W. from junction of rd. E., at turn to NW. in rd., on concrete base of steel rail used as corner fence post; chiseled square-----	732. 23

From Benton Harbor quadrangle northeast 2.5 miles along State Highway 140 to Berrien-Van Buren county line at point 1.7 miles west of Rush Lake (by C. E. Walker in 1926)

Watervliet, 2.7 mi. NE. of, near E $\frac{1}{4}$ cor. sec. 11, T. 3 S., R. 17 W., 25 ft. S. and 45 ft. W. from junction of T-rd. W., in root on NE. side of 8-in. maple tree; copper nail and washer-----	658. 20
Watervliet, 3.2 mi. NE. of, in NW. cor. sec. 12, T. 3 S., R. 17 W., in SE. angle of crossroads, at Stickney School, on NW. corner of bottom concrete step; chiseled square-----	667. 20

From Marcellus quadrangle at point 1.5 miles south and 1.5 miles east from crossroads at Glenwood west 0.1 mile, thence generally north along roads by way of Lake of the Woods to cross road near south shore of Christie Lake, thence east 0.6 mile and back into Marcellus quadrangle (by C. E. Walker in 1926)

Glenwood, 1.5 mi. E., thence 1.0 mi. S. from, near N $\frac{1}{4}$ cor. sec. 13, T. 5 S., R. 15 W., 25 ft. S. and 33 ft. W. from junction of T-rd. W., in root on N. side of 14-in. maple tree; copper nail and washer-----	905. 13
Glenwood, 1.5 mi. E. of, near N $\frac{1}{4}$ cor. sec. 12, T. 5 S., R. 15 W., 48 ft. S. and 16 ft. W. from crossroads, 30 ft. S. of fence corner, in root inside fence line on W. side of 6-in. poplar tree; copper nail and washer-----	917. 66

[Line jogs into Marcellus quadrangle]

Glenwood, 3.0 mi. N., thence 1.3 mi. E. from, 2.0 mi. S. and 2.2 mi. E. from Fritzburg, about 500 ft. W. of Code School, 0.25 mi. E. of SW. cor. sec. 24, T. 4 S., R. 15 W., 30 ft. N. and 45 ft. W. from junction of State Highway 40 and T-rd. N., in root on E. side of 24-in. elm tree; copper nail and washer-----	758. 92
Fritzburg, 1.0 mi. S. and 2.2 mi. E. from, near W. shore of Lake of the Woods, 0.25 mi. E. of NW. cor. sec. 24, T. 4 S., R. 15 W., 65 ft. S. and 15 ft. W. from right-angle turn in rd., in root on SW. side of triple-trunked wild-cherry tree; copper nail and washer-----	761. 92
Fritzburg, 2.0 mi. E. of, 1.2 mi. N. and 2.0 mi. W. from Decatur, 915 ft. S. of NW. cor. sec. 13, T. 4 S., R. 15 W., 24 ft. S. and 33 ft. E. from intersection of Territorial Rd., 6 ft. E. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 23 Y 1926"--	779. 134

Reference mark, 25 ft. N. and 20 ft. E. from crossroads, on concrete head wall of culvert; chiseled square.....	Feet 779. 99
Fritzburg, 2.0 mi. E., thence 1.2 mi. N. from, at NE. cor. sec. 11, T. 4 S., R. 15 W., 25 ft. S. and 22 ft. W. from crossroads, in root on E. side of 26-in. oak tree; copper nail and washer.....	805. 01
Fritzburg, 2.0 mi. E., thence 2.2 mi. N. from, near NW. cor. sec. 1, T. 4 S., R. 15 W., 175 ft. S. and 15 ft. E. from crossroads, at short jog in N.-S. rd., in root on W. side of 14-in. elm tree; copper nail and washer.....	771. 50
Fritzburg, 2.0 mi. E., thence 2.7 mi. N. from, 0.5 mi. S. of S. shore of Christie Lake, near E $\frac{1}{4}$ cor. sec. 35, T. 3 S., R. 15 W., 38 ft. S. and 21 ft. W. from junction of E.-W. rd., in concrete post; standard tablet stamped "P T Sta No 27 Y 1926".....	774. 000
Reference mark, 40 ft. N. and 20 ft. E. from rd. junction, in root on S. side of 20-in. walnut tree; copper nail and washer.....	775. 35
From Marcellus quadrangle along U. S. Highway 12 west 0.6 mile, thence north along roads to Berrien-Van Buren county line (by C. E. Walker in 1928)	
Lawrence, 2.2 mi. along highway SE. of, near NE. cor. sec. 14, T. 3 S., R. 15 W., 37 ft. S. and 38 ft. W. from crossroads, 56 ft. NE. of NE. corner of yard at Allen School, in concrete post; standard tablet stamped "P T Sta No 29 Y 1926".....	774. 247
Reference mark, 28 ft. S. and 18 ft. E. from crossroads, on concrete head wall of culvert; chiseled square.....	775. 32
Lawrence, 2.4 mi. NE. of, near cor. secs. 1, 2, 11, and 12, T. 3 S., R. 15 W., on center line of T-rd. E., in root on W. side of 6-in. hickory tree; copper nail and washer.....	706. 29
From Benton Harbor quadrangle at point 3.8 miles south and 0.6 mile east from Watervliet east and south along roads to Keeler, thence northeast along Territorial Road to crossroads 2 miles east of Fritzburg (by S. R. Archer in 1927)	
Keeler, 1.0 mi. N., thence 4.0 mi. W. from, near S. cor. secs. 11 and 12, T. 4 S., R. 17 W., on N. side of rd., at SE. corner of woods, 15 ft. N. and 8 ft. W. from fence corner, in root on S. side of 12-in. elm tree; copper nail and washer.....	746. 21
Keeler, 1.0 mi. N., thence 3.0 mi. W. from, near SE. cor. sec. 12, T. 4 S., R. 17 W., near Berrien-Van Buren county line, 100 ft. N. of crossroads, on W. side of rd., in root on NW. side of 36-in. elm tree; copper nail and washer.....	723. 40
Keeler, 1.0 mi. N., thence 2.0 mi. W. from, near SE. cor. sec. 7, T. 4 S., R. 16 W., 22 ft. N. and 42 ft. W. from crossroads, 8 ft. W. of large elm tree, 15 ft. W. and 4 ft. S. from fence corner, in concrete post; standard tablet stamped "P T Sta No 19 1926".....	740. 253
Reference mark, 25 ft. N. and 30 ft. W. from crossroads, 4 ft. W. of fence corner, in root on NE. side of 30-in. elm tree; copper nail and washer.....	739. 23
Keeler, 1.0 mi. N., thence 1.5 mi. W. from, near S $\frac{1}{4}$ cor. sec. 8, T. 4 S., R. 16 W., 23 ft. N. and 45 ft. W. from crossroads, diagonally opposite South Bell School, in root on S. side of 36-in. maple tree; copper nail and washer.....	785. 77
Keeler, 1.0 mi. N., thence 1.0 mi. W. from, near SW. cor. sec. 9, T. 4 S., R. 16 W., in NE. angle of junction of T-rd. N., in root 8 in. underground on SE. side of large forked wild-cherry tree; copper nail and washer.....	773. 74

Keeler, 1.0 mi. N. of crossroads at, near NE. cor. sec. 16, T. 4 S., R. 16 W., in SW. angle of junction of N.-S. rd., on top of S. end of circular concrete head wall of culvert under rd. W.; chiseled square-----	Feet 811. 55
Keeler, 34 ft. S. and 44 ft. E. from crossroads, in NW. cor. sec. 22, T. 4 S., R. 16 W., 85 ft. NW. of NW. corner of Methodist Church, 10 ft. E. of NW. corner of churchyard, in concrete post; standard tablet stamped "P T Sta No 20 Y 1926"-----	804. 997
Reference mark, 75 ft. N. and 15 ft. W. from tablet, in NE. angle of crossroads, in root on NE. side of 30-in. maple tree; copper nail and washer-----	806. 84
Keeler, 1.0 mi. E. of, near SW. cor. sec. 14, T. 4 S., R. 16 W., 90 ft. E. of crossroads, on N. side of rd., in front of farmhouse, in root on SW. side of 48-in. oak tree; copper nail and washer-----	793. 19
Keeler, 2.0 mi. NE. of, opposite Baker School, about 0.25 mi. N. of SE. cor. sec. 13, T. 4 S., R. 16 W., 20 ft. S. and 50 ft. E. from crossroads, in root on N. side of 24-in. maple tree; copper nail and washer-----	800. 66
Keeler, 2.5 mi. NE. of, 0.2 mi. S. of center of sec. 13, T. 4 S., R. 16 W., 25 ft. S. and 35 ft. E. from junction of rd. S., in root on NW. side of 24-in. maple tree; copper nail and washer-----	800. 88
Keeler, 3.0 mi. NE. of, 3.2 mi. SW., of Fritzburg, near E $\frac{1}{4}$ cor. sec. 13, T. 4 S., R. 16 W., 29 ft. N. and 38 ft. W. from crossroads, 1.5 ft. S. and 5 ft. W. from fence corner, in concrete post; standard tablet stamped "P T Sta No 21 Y 1926"-----	796. 930
Reference mark, 100 ft. SE. of tablet, 25 ft. S. and 45 ft. E. from crossroads, in root on NW. side of 24-in. tree, northeasternmost of three oak trees forming triangle; copper nail and washer-----	793. 55
Fritzburg, 2.2 mi. SW. of, near E $\frac{1}{4}$ cor. sec. 18, T. 4 S., R. 15 W., 30 ft. S. and 20 ft. W. from crossroads, opposite Hayden School, in root on NE. side of 24-in. maple tree; copper nail and washer-----	791. 64
Fritzburg, 1.7 mi. SW. of, N. of center of sec. 17, T. 4 S., R. 15 W., 27 ft. S. and 55 ft. E. from junction of T-rd. N., in field, 7 ft. S. of fence, in root on NE. side of 24-in. walnut tree; copper nail and washer---	776. 79
Fritzburg, 1.2 mi. SW. of, 0.2 mi. N. of W $\frac{1}{4}$ cor. sec. 16, T. 4 S., R. 15 W., 30 ft. S. and 45 ft. E. from crossroads, in front of dwelling, in root on NW. side of large forked maple tree; copper nail and washer.	776. 72
Fritzburg, 0.7 mi. SW. of, 0.3 mi. N. of center of sec. 16, T. 4 S., R. 15 W., on S. side of rd., 75 ft. E. of junction of rd. N.; at E. side of entrance to cemetery, in root on N. side of 30-in. maple tree, westernmost of four trees in front of cemetery; copper nail and washer----	785. 62
Fritzburg, 0.2 mi. SW. of crossroads at, 600 ft. S. of NE. cor. sec. 16, T. 4 S., R. 15 W., 30 ft. S. and 32 ft. W. from junction of rd. S., 2 ft. N. and 6 ft. W. from fence corner, in concrete post; standard tablet stamped "P T Sta No 22 Y 1926"-----	779. 145
Fritzburg, about 550 ft. NE. of crossroads at, 0.25 mi. E. of NW. cor. sec. 15, T. 4 S., R. 15 W., in SW. angle of junction of rd. S. (rd. turns S. for about 800 ft., then E.), in root on SW. side of 36-in. oak tree; copper nail and washer-----	781. 54
Fritzburg, 0.9 mi. E. of, 0.15 mi. S. of NW. cor. sec. 14, T. 4 S., R. 15 W., 25 ft. S. and 35 ft. E. from junction of T-rd. N., 35 ft. E. of fence corner, in root on NE. side of 24-in. maple tree; copper nail and washer-----	805. 56.



## HASTINGS QUADRANGLE

[Latitude 42°30'-42°45'; longitude 85°15'-85°30']

## BARRY COUNTY

From point 1 mile east of Delton northeast along road around north side of Blachman Swamp to point 2.5 miles northeast of Delton, thence south to point 0.5 mile northeast of Learn School (by S. L. Parker in 1917)

[A jog from Galesburg quadrangle]

Delton, 1.5 mi. NE. of, near NW. cor. sec. 4, T. 1 N., R. 9 W., at lane N. to huckleberry swamp, on N. side of rd., in root on E. side of 8-in. chestnut-oak tree; copper nail and washer-----	Feet 945. 10
Delton, 2.5 mi. NE. of, near NE. cor. sec. 4, T. 1 N., R. 9 W., 50 ft. W. of SW. corner of junction of T-rd. W., in root on E. side of 18-in. hickory tree; copper nail and washer-----	956. 08

## HICKY QUADRANGLE

[Latitude 42°45'-43°00'; longitude 82°30'-82°45']

## MACOMB AND ST. CLAIR COUNTIES

From Algonac quadrangle at point 0.1 mile east and 3.1 miles south from Muttonville north 0.1 mile along St. Clair-Macomb county-line road to Meisner Road, thence southwest 0.9 mile into Mount Clemens quadrangle (by H. S. Senseney in 1926)

Muttonville, 0.2 mi. E., thence 3.0 mi. S. from St. Peters Church at, in SW. cor. sec. 19, T. 4 N., R. 15 E., 20 ft. N. and 20 ft. E. from intersection of Meisner Rd. and St. Clair-Macomb county-line rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 49 H 1919" <sup>82</sup> -----	644. 874
Reference mark, 50 ft. W. of standard post, on top of concrete drain pipe; chiseled square-----	645. 14

From Marysville quadrangle at intersection of Clinton Avenue and Henry Street in St. Clair southwest 0.4 mile to Division Road, thence west 5.7 miles to junction of Mayer Road, thence south 4 miles across country and along Mayer Road to Meisner Road, thence generally east 5.6 miles and back into Marysville quadrangle (by J. M. Lawson in 1935)

St. Clair, 27 ft. S. and 150 ft. W. from junction of Henry Street and Division Rd., 0.3 mi. W. of NE. cor. sec. 1, T. 4 N., R. 16 E., in root on NE. side of 30-in. maple tree; copper nail and washer-----	609. 10
St. Clair, at W. boundary of, 0.2 mi. E. of SW. cor. sec. 36, T. 5 N., R. 16 E., at NW. corner of concrete bridge over Pine River, 4 ft. E. of wing wall junction to bridge abutment, on top of N. concrete guard-rail; chiseled square-----	597. 23
St. Clair, 1.2 mi. W. of W. boundary of, in SE. cor. sec. 34, T. 5 N., R. 16 E., 27 ft. N. and 20 ft. W. from junction of T-rd. S. at N. cor. secs. 2 and 3, T. 4 N., R. 16 E., in root on SW. side of 18-in. maple tree; copper nail and washer-----	615. 65
St. Clair, 2.2 mi. W. of, 1.0 mi. N., thence 4.0 mi. E. from Adair, in NW. cor. sec. 3, T. 4 N., R. 16 E., 20 ft. S. and 130 ft. E. from intersection of Mitchell Rd., in concrete post; standard tablet stamped "T T 3 C 1935 622" <sup>82</sup> -----	621. 653
Reference mark, 160 ft. W. of tablet, at NW. corner of crossroads, on concrete head wall of culvert; chiseled square-----	623. 29

<sup>82</sup> In 1935 this bench mark was reported destroyed, and a new mark stamped "50 L 1935 645" was set in the southeast angle of the crossroads.

Adair, 1.0 mi. N., thence 3.0 mi. E. from, in NE. cor. sec. 5, T. 4 N., R. 16 E., 28 ft. S. and 46 ft. W. from junction of McKinley Rd., in root on NW. side of 14-in. maple tree; copper nail and washer-----	Feet 636. 45
Adair, 1.0 mi. N., thence 2.0 mi. E. from, in NE. cor. sec. 6, T. 4 N., R. 16 E., 20 ft. S. and 12 ft. W. from intersection of Arlington Rd., on top of W. concrete head wall of culvert; chiseled square-----	631. 92
Adair, 1.0 mi. N., thence 1.0 mi. E. from, in SE. cor. sec. 36, T. 5 N., R. 15 E., 19 ft. N. and 46 ft. W. from junction of Mayer Rd., 3 ft. S. of fence, in concrete post; standard tablet stamped "T T 2 E 1935 639"-----	639. 303
Reference mark, 60 ft. E. of tablet, in NE. angle of rd. junction, in root on W. side of 15-in. elm tree; copper nail and washer-----	639. 04
Adair, 1.0 mi. E., thence 0.5 mi. N. from, near quarter corner between secs. 1 and 6, T. 4 N., Rs. 15 and 16 E., at turn from E. to S. in rd., opposite rd. W., in root on W. side of 6-in. forked elm tree; copper nail and washer-----	633. 50
Adair, 1.0 mi. E. of, in SE. cor. sec. 1, T. 4 N., R. 15 E., 16 ft. N. and 20 ft. W. from intersection of Mayer and Hart Rds., on N. concrete head wall of culvert; chiseled square-----	632. 81
Adair, 1.0 mi. E., thence 1.0 mi. S. from, in NE. cor. sec. 13, T. 4 N., R. 15 E., 78 ft. S. and 15 ft. W. from intersection of Puttygut Rd., 2 ft. W. of fence, in concrete post; standard tablet stamped "T T 1 E 1935 629"-----	629. 216
Reference mark, 58 ft. N. and 26 ft. W. from tablet, 20 ft. S. and 11 ft. W. from crossroads, on W. concrete head wall of culvert; chiseled square-----	629. 79.
Adair, 1.0 mi. E., thence 2.0 mi. S. from, in NE. cor. sec. 24, T. 4 N., R. 15 E., 7 ft. S. and 25 ft. W. from intersection of Lindsey Rd., on S. concrete head wall of culvert; chiseled square-----	624. 50
Adair, 1.0 mi. E., thence 3.0 mi. S. from, 3.0 mi. E. of Casco, in NE. cor. sec. 25, T. 4 N., R. 15 E., 20 ft. S. and 20 ft. W. from intersection of Meisner Rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 48 H 1919 622"-----	622. 126
Reference mark, 160 ft. N. of standard post, in NE. angle of crossroads, in root on W. side of 15-in. maple tree; copper nail and washer-----	621. 63
T. 4 N., R. 16 E., in SE. cor. sec. 19, 24 ft. N. and 12 ft. W. from intersection of Meisner and Starville Rds., on N. end of W. concrete head wall of culvert; chiseled square-----	622. 50
T. 4 N., R. 16 E., in NE. cor. sec. 29, 26 ft. S. and 35 ft. W. from intersection of McKinley Rd., in root on N. side of 14-in. elm tree; copper nail and washer-----	620. 71
T. 4 N., R. 16 E., in SW. cor. sec. 22, 28 ft. N. and 110 ft. E. from intersection of Indian Trail Rd., in concrete post; standard tablet stamped "49 L 1935 614"-----	613. 730
Reference mark, 300 ft. W. of tablet, 15 ft. N. and 210 ft. W. from crossroads, on N. concrete head wall of culvert; chiseled square-----	615. 69
T. 4 N., R. 16 E., in SE. cor. sec. 22, 25 ft. N. and 11 ft. W. from intersection of Marsh Rd., on N. end of W. concrete head wall of culvert; chiseled square-----	599. 58
T. 4 N., R. 16 E., in NE. cor. sec. 26, 1.0 mi. E., thence 2.6 mi. N. from Marine City, 20 ft. S. and 20 ft. W. from intersection of King Rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 47 H 1919 591"-----	591. 533

Reference mark, 70 ft. N. of standard post, 40 ft. N. and 27 ft. W. from crossroads, in root on S. side of 36-in. elm tree; copper nail and washer-----	Feet 593. 39
From Mount Clemens quadrangle generally east along Meisner Road to intersection of Mayer Road (by J. M. Lawson in 1935)	
Muttonville, 0.2 mi. E., thence 3.0 mi. S. from, 3.0 mi. W. of Casco, in NW. cor. sec. 30, T. 4 N., R. 15 E., 28 ft. S. and 100 ft. E. from intersection of St. Clair-Macomb county-line rd., in concrete post; standard tablet stamped "50 L 1935 645" <sup>83</sup> -----	644. 747
Reference mark, at section corner, in concrete pavement; top of grate-----	645. 36
Casco, 2.0 mi. W. of, in SE. cor. sec. 19, T. 4 N., R. 15 E., 25 ft. N. and 12 ft. W. from intersection of Bethuy Rd., on N. end of W. concrete head wall of culvert; chiseled square-----	649. 67
Casco, 1.0 mi. W. of, in NW. cor. sec. 28, T. 4 N., R. 15 E., 25 ft. S. and 25 ft. E. from intersection of Church Rd., at NW. corner of grounds of Keller School, on concrete base of corner fence post; chiseled square-----	650. 18
Casco, 25 ft. S. and 145 ft. E. from intersection of Meldrum Rd. at in NW. cor. sec. 27, T. 4 N., R. 15 E., in concrete post; standard tablet stamped "51 L 1935 639"-----	639. 420
Reference mark, 120 ft. W. of tablet, in SE. corner of crossroads, on end of concrete pipe culvert; chiseled square-----	639. 55
Casco, 1.0 mi. E. of, in SW. cor. sec. 23, T. 4 N., R. 15 E., 30 ft. N. and 15 ft. E. from intersection of Hessen Rd., on N. end of concrete pipe culvert; chiseled square-----	633. 12
Casco, 2.0 mi. E. of, 3.0 mi. S. of Adair, in SE. cor. sec. 23, T. 4 N., R. 15 E., 25 ft. N. and 13 ft. W. from intersection of Palms Rd., on N. concrete head wall of culvert; chiseled square-----	624. 94
From intersection of Meisner Road and St. Clair-Macomb county-line road north 3.3 miles to Gratiot Road (U. S. Highway 25), thence northeast 1 mile to Division Road, thence east 5.5 miles to junction of Mayer Road 1 mile north and 1 mile east from Adair (by J. M. Lawson in 1935)	
Muttonville, 0.2 mi. E., thence 2.0 mi. S. from St. Peter's Church at, in SW. cor. sec. 18, T. 4 N., R. 15 E., 60 ft. N. and 30 ft. E. from intersection of Lindsey Rd., on E. side of county line, in root on SE. side of 18-in. elm tree; copper nail and washer-----	661. 36
Muttonville, 0.2 mi. E., thence 1.0 mi. S. from, in SE. cor. sec. 12, T. 4 N., R. 14 E., in NW. angle of intersection of Puttygut Rd., on E. end of N. concrete head wall of culvert; chiseled square-----	682. 85
Muttonville, 0.2 mi. E. of, 1.6 mi. SE. of Richmond, in SW. cor. sec. 6, T. 4 N., R. 15 E., 30 ft. N. and 25 ft. E. from intersection of Hart Rd., on N. end of concrete pipe culvert; chiseled square-----	694. 74
Muttonville, 0.2 mi. N. of, at junction of Gratiot Rd.; center of pavement-----	700. 3
Muttonville, 1.2 mi. NE. of, 1.6 mi. E. of Richmond, near N $\frac{1}{4}$ cor. sec. 6, T. 4 N., R. 15 E., 22 ft. S. and 310 ft. E. from intersection of Gratiot and Division Rds., 10 ft. E. of T-fence S., in concrete post; standard tablet stamped "T T 1 C 1935 690"-----	689. 571
Reference mark, 260 ft. W. of tablet, in SE. angle of crossroads, on concrete head wall of culvert; chiseled square-----	691. 35

<sup>83</sup> This bench mark replaces the one established in 1926 and stamped "Prim Trav Sta No 49 H 1919," which was reported destroyed.

Richmond, 2.6 mi. E. of, near quarter corner between secs. 5 and 32, Tps. 4 and 5 N., R. 15 E., at SE. corner of bridge over Jerome Creek, on E. concrete abutment at junction of wing wall; chiseled square.....	Feet 665. 65
Richmond, 3.1 mi. E. of, 1.0 mi. N., thence 3.0 mi. W. from Adair, in NE. cor. sec. 5, T. 4 N., R. 15 E., 15 ft. S. and 32 ft. W. from intersection of Church Rd., on top of W. end of concrete pipe culvert; chiseled square.....	671. 24
Adair, 1.0 mi. N., thence 2.0 mi. W. from, at jog in N.-S. (Meldrum) rd., 22 ft. S. and 190 ft. E. from junction of T-rd. N. at S. cor. secs. 33 and 34, T. 5 N., R. 15 E., 146 ft. E. of T-rd. S. at N. cor. secs. 3 and 4, T. 4 N., R. 15 E., in concrete post; standard tablet stamped "T T 2 C 1935 656".....	655. 588
Reference mark, 80 ft. W. of tablet, on S. end of concrete pipe culvert; chiseled square.....	655. 45
Adair, 1.0 mi. N., thence 1.3 mi. W. from, at junction of Bartel Rd.; center of pavement.....	651. 6
Adair, 1.0 mi. N., thence 1.0 mi. W. from, in NW. cor. sec. 2, T. 4 N., R. 15 E., 33 ft. S. and 35 ft. E. from junction of Hessen Rd., in root on N. side of 24-in. elm tree; copper nail and washer.....	643. 45
Adair, 1.0 mi. N., thence 0.5 mi. W. from, near quarter corner between secs. 2 and 35, Tps. 4 and 5 N., R. 15 E., at SE. corner of bridge over Belle River, on top of concrete wing wall near junction of abutment; chiseled square.....	625. 85
Adair, 1.0 mi. N., thence 0.3 mi. W. from, at junction of Ellsworth Rd.; center of pavement.....	644. 3
Adair, 1.0 mi. N. of, in NE. cor. sec. 2, T. 4 N., R. 15 E., 25 ft. S. and 15 ft. W. from intersection of Palms Rd., on top of S. end of concrete head wall of culvert; chiseled square.....	643. 59
From intersection of Gratiot and Division Roads along road west 1.4 miles into Armada quadrangle at point in Richmond (by J. M. Lawson in 1935)	
Richmond, 1.1 mi. E. of, in SW. cor. sec. 31, T. 5 N., R. 15 E., 26 ft. N. and 12 ft. E. from N.-S. fence on St. Clair-Macomb county line, in root on SW. side of 15-in. elm tree; copper nail and washer.....	705. 75
U. S. C. & G. S. standard disk stamped "R 107 1934".....	719. 372
From junction of Division and Mayer Roads north 5 miles to Frith Road, thence west and southwest along road and Grand Trunk Railway to Columbus, thence northwest 0.4 mile along Rattle Run Road, thence alternately west and south along roads to point on Grand Trunk Railway about 2.6 miles northeast of Richmond station (by J. M. Lawson in 1935)	
Adair, 2.0 mi. N., thence 1.0 mi. E. from, in SE. cor. sec. 25, T. 5 N., R. 15 E., 23 ft. N. and 15 ft. W. from intersection of Mayer and Trumble Rds., near St. Clair-Columbus township line, on concrete head wall of culvert; chiseled square.....	643. 82
Adair, 3.0 mi. N., thence 1.0 mi. E. from, 1.0 mi. SW., thence 1.0 mi. S. from Rattle Run, in SW. cor. sec. 19, T. 5 N., R. 16 E., 23 ft. N. and 55 ft. E. from intersection of Big Hand Rd., in root on W. side of 12-in. boxelder tree; copper nail and washer.....	640. 35
Rattle Run, 1.0 mi. SW. of, in NW. cor. sec. 19, T. 5 N., R. 16 E., 63 ft. S. and 15 ft. E. from junction of Neuman Rd., 230 ft. S. of intersection of Gratiot Rd., in concrete post; standard tablet stamped "T T 3 E 1935 638".....	637. 761
Reference mark, 310 ft. N. of tablet, 85 ft. N. and 7 ft. E. from crossroads, 2 ft. N. of SE. corner of bridge, on concrete beam; chiseled square.....	627. 78

Rattle Run, 1.1 mi. NW., thence 0.3 mi. S. from, at bridge over Rattle Run Creek; center of floor.....	Feet 624. 0
Rattle Run, 1.1 mi. NW. of, 2.2 mi. SE. of Columbus, about 350 ft. N. of SE. cor. sec. 12, T. 5 N., R. 15 E., 15 ft. S. and 20 ft. W. from intersection of Rattle Run Rd., on concrete head wall of culvert; chiseled square.....	640. 30
Columbus, 0.4 mi. along Ry. NE., thence 1.9 mi. along rd. E. from, 1.7 mi. S. and 0.8 mi. W. from village of Smiths Creek, in NE. cor. sec. 12, T. 5 N., R. 15 E., 12 ft. S. and 25 ft. W. from intersection of Frith Rd., on top of W. end of concrete head wall of culvert; chiseled square.....	641. 37
Columbus, 0.4 mi. NE., thence 0.9 mi. E. from, in SW. cor. sec. 1, T. 5 N., R. 15 E., 78 ft. N. and 18 ft. E. from intersection of Frith and Palms Rds.; standard iron post with bronze cap stamped "Prim Trav Sta No 54 H 1919".....	653. 068
Reference mark, 60 ft. S. of standard post, in NE. corner of crossroads, on SE. corner of bridge; chiseled square.....	653. 58
Columbus, 0.4 mi. NE. of, at Grand Trunk Ry. crossing; top of W. rail.....	671. 6
Columbus, 0.4 mi. NE. of, about 700 ft. E. of NW. cor. sec. 11, T. 5 N., R. 15 E., 200 ft. SW. of Ry. crossing, just outside right-of-way fence, in root on N. side of 18-in. oak tree; copper nail and washer.....	670. 80
U. S. C. & G. S. standard disk stamped "U-107 1934".....	675. 914
Columbus, 0.4 mi. NW. of, near quarter corner between secs. 3 and 10, T. 5 N., R. 15 E., 150 ft. SE. of intersection of Rattle Run and Frith Rds., on NE. side of rd., in root on W. side of 12-in. maple tree; copper nail and washer.....	673. 57
T. 5 N., R. 15 E., at cor. secs. 3, 4, 9, and 10, at turn from W. to S. in rd.; center of pavement.....	687. 7
T. 5 N., R. 15 E., near quarter corner between secs. 9 and 10, 15 ft. N. and 30 ft. W. from turn from S. to W. in rd., in root on N. side of 18-in. oak tree; copper nail and washer.....	684. 84
T. 5 N., R. 15 E., 250 ft. E. of N.-S. fences at quarter corner between secs. 8 and 9, 16 ft. N. of Weber Rd., at fence N., in SW. corner of yard of farmhouse, in root on S. side of 27-in. oak tree; copper nail and washer.....	709. 76
T. 5 N., R. 15 E., near center of sec. 8, 25 ft. N. and 110 ft. E. from intersection of Weber and Bauman Rds., on S. side of fence, in concrete post; standard tablet stamped "52 L 1935 710".....	710. 146
Reference mark, in SE. corner of crossroads, on concrete head wall of culvert; chiseled square.....	711. 46
T. 5 N., R. 15 E., near quarter corner between secs. 8 and 17, 30 ft. S. and 55 ft. E. from intersection of Bauman and Meskill Rds., in root on W. side of 30-in. oak tree; copper nail and washer.....	706. 30
T. 5 N., R. 15 E., near quarter corner between secs. 17 and 20, 16 ft. S. and 22 ft. W. from intersection of Bauman and Crawford Rds., on top of W. end of concrete head wall of culvert; chiseled square.....	691. 93
T. 5 N., R. 15 E., 0.2 mi. W. of SE. cor. sec. 18, 27 ft. N. and 50 ft. E. from junction of Crawford and Kroner Rds., 45 ft. S. and 80 ft. W. from SW. corner of East School, in concrete post; standard tablet stamped "T T 4 C 1935 702".....	701. 570
Reference mark, 60 ft. S. of tablet, in SE. angle of rd. junction, in root on N. side of maple tree; copper nail and washer.....	702. 14

T. 5 N., R. 15 E., near center of NE $\frac{1}{4}$ sec. 19, at bridge over Belle River; center of floor.....	<i>Feet</i> 666. 8
T. 5 N., R. 15 E., 0.25 mi. W. of SE. cor. sec. 19, 13 ft. N. and 45 ft. W. from intersection of Kroner and Big Hand Rds., on E. end of concrete head wall of culvert; chiseled square.....	705. 26
U. S. C. & G. S. standard disk stamped "S 107 1934".....	689. 228
From intersection of Frith and Mayer Roads 0.4 mile northeast and 1.9 miles east from Columbus alternately east and south along Frith, Mitchell, and Davis Roads into Marysville quadrangle near southwest corner of Marysville (by J. M. Lawson in 1935)	
Columbus, 0.4 mi. NE., thence 2.9 mi. E. from, 0.2 mi. NE., thence 1.8 mi. S. from village of Smiths Creek, in SE. cor. sec. 6, T. 5 N., R. 16 E., 26 ft. N. and 83 ft. W. from intersection of Frith and Richman Rds., in root on SE. side of 18-in. maple tree; copper nail and washer.....	627. 13
T. 5 N., R. 16 E., 0.3 mi. W. of SE. cor. sec. 5, at NE. corner of bridge over Smiths Creek, on wing wall; chiseled square.....	606. 15
T. 5 N., R. 16 E., 0.2 mi. E. of NW. cor. sec. 9, 30 ft. S. and 160 ft. E. from junction of Pine River Rd., in root on N. side of 18-in. elm tree; copper nail and washer.....	622. 56
T. 5 N., R. 16 E., near quarter corner between secs. 4 and 9, at NE. pier of bridge over Pine River, in steel plate; top of N. bolt.....	604. 98
T. 5 N., R. 16 E., at cor. secs. 3, 4, 9, and 10, at junction of Mitchell Rd.; center of pavement.....	629. 2
T. 5 N., R. 16 E., 0.35 mi. S. of NW. cor. sec. 10, 2.4 mi. NE. of Rattle Run, 55 ft. S. and 45 ft. E. from intersection of Gratiot and Mitchell Rds., in triangle of rd. forks, in concrete post; standard tablet stamped "53 L 1935 632".....	632. 468
Reference mark, 100 ft. N. of tablet, in NE. corner of crossroads, on concrete head wall of culvert; chiseled square.....	631. 46
T. 5 N., R. 16 E., 0.2 mi. S. of quarter corner between secs. 9 and 10, 22 ft. N. and 30 ft. E. from junction of Mitchell and Davis Rds., in root on SW. side of 6-in. hickory tree; copper nail and washer.....	632. 55
T. 5 N., R. 16 E., in SE. cor. sec. 10, 2.0 mi. W. of SW. corner of Marysville boundary, 50 ft. N. and 27 ft. W. from intersection of Davis and Crimmins Rds., in root on SE. side of 16-in. elm tree; copper nail and washer.....	630. 70
Marysville, 1.0 mi. W. of SW. corner of boundary of, in SE. cor. sec. 11, T. 5 N., R. 16 E., 20 ft. N. and 55 ft. W. from intersection of Davis and Allen Rds., about 140 ft. S. of Fasbender School, in NW. angle of crossroads, in root on S. side of 10-in. maple tree, second tree from corner; copper nail and washer.....	621. 40
From intersection of Pere Marquette Railway and Range Road 1 mile east and 0.5 mile south from Sparlingville generally south along road into Marysville quadrangle at intersection of Gratiot Road (by J. M. Lawson in 1935)	
U. S. C. & G. S. standard disk stamped "Y 107 1934".....	629. 605
Sparlingville, 1.0 mi. E., thence 0.5 mi. S. from, about 2.5 mi. W. of Grand Trunk Ry. sta. in Port Huron, near quarter corner between secs. 13 and 18, T. 6 N., R. 16 and 17 E., 50 ft. N. and 30 ft. W. from intersection of Pere Marquette Ry. and Range Rd., in concrete post; standard tablet stamped "T T 8 C 1935 625".....	625. 007
Sparlingville, 1.0 mi. E., thence 1.0 mi. S. from, in SE. cor. sec. 13, T. 6 N., R. 16 E., 47 ft. N. and 15 ft. W. from junction of Dove Rd., on top of concrete highway post; chiseled square.....	626. 66

Sparlingville, 1.0 mi. E., thence 1.5 mi. S. from, near quarter corner between secs. 19 and 24, T. 6 N., Rs. 16 and 17 E., 45 ft. N. and 13 ft. E. from junction of T-rd. W., in root on SW. side of 30-in. elm tree; copper nail and washer.....	Feet 629. 66
Sparlingville, 1.0 mi. E., thence 2.0 mi. S. from, at NW. corner of Marysville city boundary, in SW. cor. sec. 19, T. 6 N., R. 17 E., 22 ft. N. and 15 ft. E. from intersection of Ravenswood Rd., on N. end of concrete head wall of culvert; chiseled square.....	630. 89
Marysville, on W. boundary of, in SE. cor. sec. 25, T. 6 N., R. 16 E., 115 ft. N. and 26 ft. W. from intersection of Smiths Creek Rd., in concrete post; standard tablet stamped "54 L 1935 629".....	628. 682
Reference mark, 80 ft. S. of tablet, in NW. angle of crossroads, on N. end of W. concrete head wall of culvert; chiseled square.....	629. 94
Marysville, on W. boundary of, near quarter corner between secs. 31 and 36, T. 6 N., Rs. 16 and 17 E., 60 ft. N. and 25 ft. W. from junction of T-rd. E., in root on NW. side of 24-in. apple tree; copper nail and washer.....	631. 70
From intersection of Palms and Frith Roads 0.5 mile northeast and 0.8 mile east from Columbus along roads alternately north and east to point on Lapeer Road (State Highway 21) 0.9 mile northwest and 0.7 mile west from Wadhams (by J. M. Lawson in 1935)	
T. 5 N., R. 15 E., in NW. cor. sec. 1, at jog in N.-S. (Palms) rd., 16 ft. S. and 30 ft. E. from junction of rd. N., 16 ft. S. and 90 ft. E. from junction of rd. S., on top of SW. corner of concrete head wall of culvert; chiseled square.....	649. 16
U. S. C. & G. S. standard disk stamped "V 107 1934".....	651. 547
T. 5 N., R. 15 E., in NE. cor. sec. 1, 0.7 mi. S. and 0.8 mi. W. from village of Smiths Creek, 105 ft. S. and 90 ft. W. from intersection of Yager and Mayer Rds., on N. end of concrete head wall of culvert; chiseled square.....	644. 53
Smiths Creek, 1.0 mi. SW. of, at crossing of Grand Trunk Ry.; top of N. rail.....	648. 9
Smiths Creek, 0.3 mi. N., thence 0.8 mi. W. from, 1.8 mi. S., thence 0.5 mi. W. from Burns Sta., in NW. cor. sec. 31, T. 6 N., R. 16 E., 45 ft. S. and 54 ft. E. from intersection of Mayer and Smiths Creek Rds., in concrete post; standard tablet stamped "T T 4 E 1935 649".....	648. 552
Reference mark, in SW. corner of crossroads, on concrete head wall of culvert; chiseled square.....	648. 39
Burns Sta., 0.8 mi. S., thence 0.5 mi. W. from, in NE. cor. sec. 25, T. 6 N., R. 15 E., 42 ft. S. and 24 ft. W. from intersection of Ravenswood Rd., in root on E. side of 22-in. oak tree; copper nail and washer.....	656. 95
Burns Sta., 0.5 mi. along Pere Marquette Ry. W. of, at grade crossing; top of S. rail.....	660. 8
Burns Sta., 0.5 mi. W. of, 0.25 mi. S. of NE. cor. sec. 24, T. 6 N., R. 15 E., 30 ft. N. and 54 ft. W. from grade crossing, in concrete post; standard tablet stamped "T T 5 E 1935 661".....	660. 482
Burns Sta., 0.5 mi. W., thence 0.3 mi. N. from, in SE. cor. sec. 13, T. 6 N., R. 15 E., 35 ft. N. and 27 ft. W. from junction of Lamb Rd., in root on E. side of 20-in. elm tree; copper nail and washer.....	661. 98

Burns Sta., 0.5 mi. W., thence 0.8 mi. N. from, near quarter corner between secs. 13 and 18, T. 6 N., Rs. 15 and 16 E., at jog in Card Rd., 20 ft. S. and 25 ft. E. from junction of rd. E., 90 ft. S. and 25 ft. E. from junction of rd. W., in root on W. side of 24-in. beech tree; copper nail and washer-----	<i>Feet</i> 663. 36
Burns Sta., 0.5 mi. W., thence 1.8 mi. N. from, 0.3 mi. W. of Thornton, near quarter corner between secs. 7 and 12, T. 6 N., Rs. 15 and 16 E., 95 ft. S. and 16 ft. E. from junction of Sparling Rd., in root on NE. side of 32-in. elm tree; copper nail and washer-----	669. 55
Thornton, about 700 ft. W. of crossroads at, at bridge over Pine River; center of floor-----	642. 4
Thornton, in triangle of rd. forks at, 28 ft. S. of rd. fork, on top of concrete catch basin; chiseled square-----	657. 73
Thornton, 0.7 mi. E. of, near quarter corner between secs. 7 and 8, T. 6 N., R. 16 E., 36 ft. N. and 15 ft. E. from intersection of Sunny-side and Sparling Rds., in root on W. side of 34-in. elm tree; copper nail and washer-----	670. 52
U. S. C. & G. S. standard disk stamped "Y 40 1934"-----	662. 361
U. S. C. & G. S. standard disk stamped "9 K 1934"-----	666. 643
Wadhams, 1.1 mi. NW., thence 2.2 mi. W. from, at S $\frac{1}{4}$ cor. sec. 32, T. 7 N., R. 16 E., at fence N., in surface of Lapeer Rd.; top of grate bar-----	672. 87
Wadhams, 1.1 mi. NW., thence 1.7 mi. W. from, in SE. cor. sec. 32, T. 7 N., R. 16 E., 35 ft. N. and 16 ft. W. from junction of McLain Rd., on top of S. end of concrete head wall of culvert; chiseled square---	664. 60
Wadhams, 1.1 mi. NW., thence 1.3 mi. W. from, at N. cor. secs. 4 and 5, T. 6 N., R. 16 E., at junction of Barth Rd., in pavement; top of grate bar-----	673. 37
U. S. C. & G. S. standard disk stamped "9 J 1934"-----	678. 870
From crossroads at Wadhams along roads northeast, east, and south to intersection of Grand Trunk Railway and Range Road 1 mile east of Sparlingville (by J. M. Lawson in 1935)	
U. S. C. & G. S. standard disk stamped "9 D 1934"-----	672. 810
Wadhams, 1.0 mi. NE. of, in SW $\frac{1}{4}$ sec. 36, T. 7 N., R. 16 E., 660 ft. NW. of junction of Allen Rd. at N. cor. secs. 1 and 2, T. 6 N., R. 16 E., 52 ft. S. and 25 ft. W. from junction of Atkins and West Water Rds., in root on S. side of 5-in. oak tree; copper nail and washer----	652. 31
Wadhams, 1.0 mi. NE., thence 1.2 mi. E. from, 1.0 mi. E., thence 2.0 mi. N. from Sparlingville, in NW. cor. sec. 6, T. 6 N., R. 17 E., 76 ft. S. and 21 ft. E. from junction of Range Rd., in concrete post; standard tablet stamped "55 L 1935 636"-----	636. 323
Reference mark, 90 ft. N. of tablet, 13 ft. N. of rd. junction, in root on W. side of 15-in. maple tree; copper nail and washer-----	637. 93
Sparlingville, 1.0 mi. E., thence 1.1 mi. N. from, about 700 ft. N. of SW. cor. sec. 6, T. 6 N., R. 17 E., 20 ft. N. and 35 ft. E. from intersection of Lapeer Rd., on top of concrete head wall of culvert; chiseled square-----	627. 55
Sparlingville, 1.0 mi. E., thence 0.3 mi. N. from, at crossing of Pere Marquette Ry.; top of N. rail of N. track-----	630. 3
U. S. C. & G. S. standard disk stamped "W 40 1934"-----	627. 171



From intersection of Grand Trunk Railway and Ravenswood Road 2.8 miles northeast of Smiths Creek station along roads northwest and Pere Marquette Railway northeast to crossing 0.25 mile north of Kimball, thence southwest 0.4 mile along railway and alternately west and south along roads to center of sec. 19, T. 6 N., R. 16 E., thence north along road 0.3 mile to Burns Station, thence west 0.5 mile along railway to Mayer Road (by J. M. Lawson in 1935)

	<i>Feet</i>
U. S. C. & G. S. standard disk stamped "X 107 1934"-----	627. 046
Kimball, 0.4 mi. W. of junction of T-rd. N. at, at crossing of Pere Marquette Ry. and Dove Rd., on top of W. rail; chiseled square-----	635. 70
Kimball, 0.25 mi. N. of rd. junction at, 0.25 mi. N. of SW. cor. sec. 15, T. 6 N., R. 16 E., 20 ft. S. and 50 ft. E. from intersection of Ry. and Ditty Rd., in concrete post; standard tablet stamped "T T 7 C 1935 638"-----	638. 087
Kimball, 1.0 mi. W. of, in SW. cor. sec. 16, T. 6 N., R. 16 E., 33 ft. N. and 90 ft. E. from junction of Sturdevant Rd. to S. and rd. NW., in root on SW. side of 36-in. maple tree; copper nail and washer-----	641. 41
Kimball, 2.0 mi. W. of, in NW. cor. sec. 20, T. 6 N., R. 16 E., 10 ft. S. and 20 ft. E. from junction of Richman Rd., on top of S. end of concrete head wall of culvert; chiseled square-----	645. 99
Kimball, 2.0 mi. W., thence 0.2 mi. S. from, at Ry. crossing; top of N. rail-----	643. 5
Kimball, 2.0 mi. W., thence 0.5 mi. S. from, 0.3 mi. S., thence 0.5 mi. E. from Burns Sta., near quarter corner between secs. 19 and 20, T. 6 N., R. 16 E., 26 ft. S. and 16 ft. W. from junction of T-rd. W., on S. end of concrete head wall of culvert; chiseled square-----	641. 73
Burns Sta., at crossing of Ry. and Burns Rd.; top of N. rail-----	654. 8

From intersection of Bauman and Weber Roads along roads alternately north and west to junction of Boardman Road at St. Clair-Macomb county line, thence along roads generally northeast by way of Lamb to intersection of Mayer Road and Pere Marquette Railway 0.5 mile west of Burns Station (by J. M. Lawson in 1935)

T. 5 N., R. 15 E., near quarter corner between secs. 5 and 8, 13 ft. S. and 23 ft. W. from junction of Carroll Rd., on E. end of S. concrete head wall of culvert; chiseled square-----	717. 77
T. 5 N., R. 15 E., near center of sec. 5, 2.7 mi. NW. of Columbus, 20 ft. S. and 25 ft. W. from junction of Dolan Road, on top of concrete head wall of culvert; chiseled square-----	723. 65
T. 5 N., R. 15 E., near quarter corner between secs. 5 and 6, 36 ft. S. and 4 ft. E. from center line of rd. at fences N. and S., 7 ft. S. and 4 ft. E. from fence corner, in root on N. side of 30-in. elm tree; copper nail and washer-----	736. 86
T. 5 N., Rs. 14 and 15 E., near quarter corner between secs. 1 and 6, 320 ft. N. and 12 ft. W. from junction of St. Clair-Macomb county-line rd., on S. end of W. concrete head wall of culvert; chiseled square-----	733. 23
Tps. 5 and 6 N., Rs. 14 and 15 E., near cor. secs. 1, 6, 31, and 36, 1.5 mi. E. of Memphis, in center of triangle at junction of Boardman Rd., 20 ft. S. and 70 ft. W. from center line of county-line rd. at fence E., in concrete post; standard tablet stamped "T T 5 C 1935 742"-----	741. 806
Reference mark, 100 ft. E. of tablet, on E. side of rd., 2 ft. E. of corner of T-fence E., at gas drip manhole; top of iron cover-----	741. 69
T. 6 N., R. 15 E., near center of sec. 31, 41 ft. SW. of intersection of Wales Ridge and Alpin Rds., in root on SW. side of 18-in. oak tree; copper nail and washer-----	755. 48

T. 6 N., R. 15 E., 0.25 mi. W. of NE. cor. sec. 31, 32 ft. S. and 25 ft. W. from intersection of Wales Ridge and Smiths Creek Rds., in concrete post; top of bolt stamped "D E CO"-----	Feet 754. 190
T. 6 N., R. 15 E., near center of SE $\frac{1}{4}$ sec. 30, at crossing of Pere Marquette Ry.; top of NW. rail-----	749. 7
T. 6 N., R. 15 E., 0.3 mi. W. of NE. cor. sec. 30, 1.2 mi. SW. of Lamb, 18 ft. S. and 80 ft. W. from junction of Wales Ridge and Lamb Rds., on top of concrete head wall of culvert; chiseled square-----	735. 69
Lamb, 0.8 mi. SW. of, 0.2 mi. N. of SE. cor. sec. 19, T. 6 N., R. 15 E., 15 ft. S. and 72 ft. W. from junction of Lamb and Fox Rds., on top of concrete wing wall of culvert, below head wall; chiseled square-----	732. 99
Lamb, 140 ft. E. of crossroads at, near center of SE $\frac{1}{4}$ sec. 20, T. 6 N., R. 15 E., 27 ft. S. of junction of rd. S. from W. end of bridge over Smiths Creek, on top of S. end of concrete head wall of culvert; chiseled square-----	720. 12
Lamb, 0.6 mi. NE. of, 1.0 mi. SW. of Wales, 0.25 mi. W. of center of sec. 21, T. 6 N., R. 15 E., 15 ft. S. and 180 ft. E. from junction of Fitz Rd., on top of W. end of concrete head wall of box culvert; chiseled square-----	717. 86
Wales, 150 ft. S. and 13 ft. W. from crossroads at, near center of NW $\frac{1}{4}$ sec. 22, T. 6 N., R. 15 E., at bridge over creek, on top of NW. corner of concrete wing wall; chiseled square-----	701. 59
Wales, 0.2 mi. S. of crossroads at, 30 ft. S. and 210 ft. E. from intersection of Pere Marquette Ry. and Wales Center Rd., 3 ft. N. of S. right-of-way fence, in concrete post; standard tablet stamped "T T 6 C 1935 708"-----	708. 266
Wales, 0.8 mi. NE. of, near NE. cor. sec. 22, T. 6 N., R. 15 E., 30 ft. S. and 75 ft. W. from junction of Lamb and Goodells Rds., in root on S. side of 14-in. maple tree; copper nail and washer-----	696. 22
Wales, 1.3 mi. NE. of, near quarter corner between secs. 14 and 23, T. 6 N., R. 15 E., 26 ft. S. and 30 ft. W. from junction of Emerson Rd. at church and cemetery, in root on NE. side of 16-in. pine tree; copper nail and washer-----	690. 66
Wales, 1.8 mi. NE. of, in SE. cor. sec. 14, T. 6 N., R. 15 E., 20 ft. N. and 12 ft. W. from intersection of Palms Rd., in center of concrete head wall of culvert; top of cogwheel-----	674. 26
Wales, 2.8 mi. NE. of, 0.5 mi. W., thence 0.3 mi. N. from Burns Sta., in SE. cor. sec. 13, T. 6 N., R. 15 E., 35 ft. N. and 27 ft. W. from junction of Mayer Rd., in root on E. side of 20-in. elm tree; copper nail and washer-----	661. 98
From road junction 1.2 miles southwest of Lamb along roads west 0.7 mile and north 4.1 miles to Grand Trunk Railway, thence west 0.2 mile into Armada quadrangle (by J. M. Lawson in 1935)	
Lamb, 1.9 mi. SW. of, in SE. cor. sec. 24, T. 6 N., R. 14 E., 27 ft. N. and 80 ft. W. from junction of Lamb and Stapleton Rds., in root on NW. side of 24-in. oak tree; copper nail and washer-----	750. 47
T. 6 N., R. 15 E., in NW. cor. sec. 19, 76 ft. S. and 20 ft. E. from intersection of Stapleton and Masters Rds., in concrete post; standard tablet stamped "56 L 1935 749"-----	748. 906
Reference mark, 130 ft. NW. of tablet, 25 ft. N. and 60 ft. W. from crossroads, in root on NE. side of 16-in. maple tree; copper nail and washer-----	748. 91

T. 6 N., R. 14 E., in NE. cor. sec. 13, 12 ft. S. and 20 ft. W. from intersection of Hill Rd., on top of E. end of concrete head wall of culvert; chiseled square-----	Feet 760. 54
T. 6 N., Rs. 14 and 15 E., near quarter corner between secs. 7 and 12, 30 ft. N. and 18 ft. W. from intersection of Sparling Rd., on top of N. flange of concrete pipe culvert; chiseled square-----	756. 88
T. 6 N., R. 14 E., in SE. cor. sec. 1, 28 ft. N. and 29 ft. W. from intersection of Dunn Rd., in root on E. side of twin elm tree; copper nail and washer-----	765. 12
T. 6 N., Rs. 14 and 15 E., near quarter corner between secs. 1 and 6, 70 ft. N. and 25 ft. E. from junction of Webb Rd., in root on NW. side of 24-in. elm tree; copper nail and washer-----	766. 57
T. 7 N., Rs. 14 and 15 E., in SW $\frac{1}{4}$ sec. 31, 1.0 mi. SE. of Emmett sta., at crossing of Grand Trunk Ry.; top of S. rail-----	767. 1

## HIGHWOOD QUADRANGLE

[Latitude 43°45'-44°00'; longitude 84°15'-84°30']

## GLADWIN AND MIDLAND COUNTIES

From Sanford quadrangle north along State Highway 18 to point 3.2 miles north of North Bradley, thence west along road into Loomis quadrangle near south quarter corner sec. 24, T. 16 N., R. 2 W. (by S. R. Archer in 1929)

North Bradley, 3.2 mi. N. of, 5.0 mi. E. of Coleman, near E. cor. secs. 24 and 25, T. 16 N., R. 2 W., 20 ft. N. and 20 ft. W. from junction of T-rd. W.; standard iron post with bronze cap stamped "Prim Trav Sta No 74 W 1919"-----	691. 480
Reference mark 1, in NW. corner of rd. junction, on top of W. end of N. curved concrete head wall of culvert; chiseled square-----	692. 96
Reference mark 2, in SW. corner of rd. junction, on top of W. end of S. curved concrete head wall of culvert; chiseled square-----	692. 73
Reference mark 3, 720 ft. W. of rd. junction, on top of S. wing wall of W. abutment of concrete bridge; chiseled square-----	687. 13

From point on State Highway 18 3.2 miles north of North Bradley north along highway 3 miles, thence along roads alternately east and south by way of Edenville into Sanford quadrangle at point 1 mile south and 1.5 miles east from Hope (by D. R. Cabaniss in 1924)

North Bradley, 4.1 mi. N. of, in SE. cor. sec. 13, T. 16 N., R. 2 W., 75 ft. N. and 125 ft. W. from center of crossroads, in root on E. side of oak tree; copper nail and washer-----	699. 66
North Bradley, 5.2 mi. N. of, in NW. cor. sec. 18, T. 16 N., R. 1 W., 10 ft. S. and 230 ft. E. from center of crossroads, in root on W. side of elm tree; copper nail and washer-----	708. 12
North Bradley, 6.2 mi. N. of, 5.1 mi. W. of Edenville, in NW. cor. sec. 7, T. 16 N., R. 1 W., 80 ft. S. and 40 ft. E. from center of crossroads, in concrete post; standard tablet stamped "1 C 1934"-----	707. 999
Reference mark, 200 ft. S. of tablet, in root on E. side of northernmost of three elm trees; copper nail and washer-----	707. 33
Edenville, 4.0 mi. W. of, in SW. cor. sec. 5, T. 16 N., R. 1 W., 22 ft. N. and 13 ft. E. from center of crossroads, on top of S. end of E. guard-rail of concrete culvert; chiseled square-----	708. 46
Edenville, 3.2 mi. W. of, near cor. secs. 4, 5, 8, and 9, T. 16 N., R. 1 W., 55 ft. N. and 24 ft. E. from center of junction of dim rd. NE., in root on S. side of 6-in. poplar tree; copper nail and washer-----	710. 28

Edenville, 2.2 mi. W. of, 400 ft. W. of slight curve in rd., 100 ft. S. and 30 ft. W. from center of junction of dim rd. SW., at sand pit, 95 ft. N. and 120 ft. E. from lone pine tree, in concrete post; standard tablet stamped "2 C 1934"-----	Feet 710. 537
Reference mark, 95 ft. S. and 120 ft. W. from tablet, in root of pine tree; copper nail and washer.-----	709. 34
Edenville, 1.1 mi. W. of, in NW. cor. sec. 11, T. 16 N., R. 1 W., 110 ft. S. and 150 ft. E. from center of rd. at N.-S. fence, in root on W. side of 4-in. poplar tree; copper nail and washer.-----	692. 06
Edenville, 55 ft. S. and 35 ft. E. from center of crossroads at, at NW. corner of cemetery, on top of foundation of corner post; chiseled square.-----	664. 40
Edenville, 1.0 mi. E. of, near E. cor. secs. 1 and 12, T. 16 N., R. 1 W., 30 ft. N. and 70 ft. W. from junction of N.-S., rd. in concrete post; standard tablet stamped "3 C 1934"-----	696. 213
Reference mark, 60 ft. S. and 150 ft. W. from tablet, in root of apple tree; copper nail and washer.-----	695. 82
Edenville, 1.0 mi. E., thence 1.0 mi. S. from, near W. closing cor. secs. 16 and 21, T. 16 N., R. 1 E., 260 ft. N. and 35 ft. W. from junction of T-rd. E., in root on E. side of elm tree; copper nail and washer.-----	678. 38
Edenville, 1.0 mi. E., thence 2.0 mi. S. from, near E. cor. secs. 13 and 24, T. 16 N., R. 1 W., 250 ft. S. and 30 ft. W. from junction of T-rd. W., in root on E. side of cottonwood tree; copper nail and washer.-----	681. 61
Edenville, 1.0 mi. E., thence 3.0 mi. S. from, 0.5 mi. S. and 1.5 mi. W. from Hope, 22 ft. S. and 211 ft. E. from junction of T-rd. E. at W. closing cor. secs. 28 and 33, T. 16 N., R. 1 E., on State Meridian Line; standard iron post with bronze cap stamped "Prim Trav Sta No 73 W 1919"-----	666. 890
Reference mark, 102 ft. W. of tablet, 109 ft. E. of junction of T-rd. E., on S. concrete head wall of culvert; chiseled square.-----	666. 29
Hope, 0.5 mi. S. and 0.5 mi. W. from, in SE. cor. sec. 28, T. 16 N., R. 1 E., 30 ft. N. and 25 ft. W. from junction of T-rd. N., in root on S. side of ash tree; copper nail and washer.-----	664. 81
Hope, 0.5 mi. S. and 0.5 mi. E. from, in NE. cor. sec. 34, T. 16 N., R. 1 E., 18 ft. S. and 490 ft. W. from center of rd. at N.-S. fence, on S. end of W. concrete head wall of culvert; chiseled square.-----	668. 30
Hope, 0.5 mi. S. and 1.5 mi. E. from, in NE. cor. sec. 35, T. 16 N., R. 1 E., 18 ft. S. and 540 ft. W. from center of crossroads, in root on N. side of ash tree; copper nail and washer.-----	670. 52

## HILLSDALE QUADRANGLE

[Latitude 41°45'-42°00'; longitude 84°30'-84°45']

## HILLSDALE COUNTY

From Hudson quadrangle near northeast corner sec. 2, T. 6 S., R. 2 W., west along road 0.5 mile, thence north 1 mile into Spring Arbor quadrangle at point 3.7 miles south of Moscow (by H. P. Jones in 1930)

North Adams, 1.0 mi. N., thence 1.0 mi. E. from, 4.7 mi. S. of Moscow, near S¼ cor. sec. 35, T. 5 S., R. 2 W., 150 ft. N. and 30 ft. W. from junction of E.-W. rd. and rd. N., in root on E. side of 20-in. wild-cherry tree; copper nail and washer.-----	1, 165. 98
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Near southeast corner of Litchfield Township (by W. R. Broadbuss in 1930)

[Checked spur line from Spring Arbor quadrangle]

Litchfield, 3.0 mi. S., thence 1.5 mi. E. from, 1.0 mi. N. and 3.3 mi. W. from Jonesville, in SE. angle of crossroads, 42 ft. S. and 20 ft. E. from NW. cor. sec. 36, T. 5 S., R. 4 W.; standard iron post with bronze cap stamped "Prim Trav Sta No 4 1912 Mich"-----	Feet 1,068.271
Reference mark, 47 ft. N. 70° W. of post, in root on SE. side of 30-in. elm tree; copper nail and washer-----	1,067.00

## HOLLAND QUADRANGLE

[Latitude 42°45'-43°00'; longitude 86°00'-86°15']

## ALLEGAN AND OTTAWA COUNTIES

From Macatawa along road northeast to Holland, thence east into Jenison quadrangle near southeast corner sec. 30, T. 5 N., R. 14 W. (by L. D. Townsend in 1911)

Macatawa, at lightkeeper's dwelling, in top course in N. foundation wall, 2.2 ft. E. from NW. corner, 0.4 ft. below bottom of baseboard, on top of horizontal shoulder in second stone; notch (U. S. C. E. B. M.; recovered in 1928)-----	589.752
Macatawa, near lightkeeper's dwelling, at water-gaging sta. for Lake Michigan; zero of gage (U. S. C. E. elevation 581.630)-----	581.324
Macatawa, in yard of Coast Guard sta., 2.2 ft. N. of S. fence, 4.1 ft. E. of 8-in. poplar tree, 56.2 ft. SW. of SE. corner of sta., 2 in. below surface of ground and covered with two cast-iron washers; top of cap of vertical iron pipe (recovered in 1928)-----	587.021
Macatawa, at Coast Guard life-saving sta., on concrete inclined entrance to boathouse, about 6 in. from SW. corner of S. wing of sta., at extreme E. side of entrance, 7 ft. S. of double doors; aluminum tablet stamped "1911 588" <sup>81</sup> -----	585.812
Macatawa, 1.9 mi. E. of Coast Guard life-saving sta., near S. shore of Black Lake, at SE. corner of junction of T-rd. S., on S. side of rd., on large limestone block; chiseled square-----	592.32
Holland, on Sixteenth Street, 11 ft. N. of SE. corner of Holland Shoe Co. factory, in E. foundation wall, in top tier, in seventh stone from corner; aluminum tablet stamped "607" (recovered in 1928)-----	607.127
T. 5 N., R. 15 W., in SW. cor. sec. 26, in NE. angle of crossroads, near telephone pole; standard iron post with bronze cap stamped "1911 Mich 660" (recovered in 1926 by transit-traverse party)-----	660.062
T. 5 N., R. 15 W., near NE. cor. sec. 35, on W. side of T-rd. S. (rd. jogs 500 ft. N. here to avoid creek), on top of SE. abutment of bridge, 2 ft. from E. end; chiseled square-----	594.86
T. 5 N., R. 15 W., near NE. cor. sec. 36, at SW. corner of crossroads, near outside wagon track, on stone; chiseled square-----	606.34
T. 5 N., R. 14 W., near NE. cor. sec. 31, 3.1 mi. W. of Drenthe, on S. side of rd. at junction of rd. NE., on W. side of creek, at E. end of gravel pit; standard iron post with bronze cap stamped "631" (recovered in 1928)-----	630.806

<sup>81</sup> Recovered in 1926; by comparison with adjacent bench marks this tablet appears to have been reset at an elevation 1.912 feet lower than that originally determined. The figures given represent the new elevation.

From Fennville quadrangle north along U. S. Highway 31 to Allegan-Ottawa county line, thence west to Macatawa (by H. P. Jones in 1928)

Holland, 2.5 mi. S. and 3.5 mi. W. from, 1.4 mi. S. of Virginia Park, 20 ft. S. and 185 ft. W. from cor. secs. 2, 3, 10, and 11, T. 4 N., R. 16 W., in concrete post; standard tablet stamped "P T Sta No 85 Y 1926" <sup>85</sup>	Feet 629. 970
Reference mark, 40 ft. S. and 130 ft. E. from crossroads, in root on N. side of 8-in. ash tree; copper nail and washer	639. 69
Virginia Park, 0.4 mi. S. of, 1.7 mi. SE. of Macatawa, near S. cor. secs. 34 and 35, T. 5 N., R. 16 W., 27 ft. NW. of center of junction of rd. S., at jog at Allegan-Ottawa county line, at service sta., 4 ft. N. of SE. corner of concrete driveway; chiseled square	599. 13
Macatawa, 0.7 mi. SE. of, in NE. cor. sec. 4, T. 4 N., R. 16 W., 65 ft. SW. of center of junction of T-rd. S., at jog at Allegan-Ottawa county line, in root on S. side of 24-in. tamarack tree; copper nail and washer	585. 43
From Macatawa northeast 0.9 mile to southeast corner sec. 28, T. 5 N., R. 16 W., thence north along roads by way of Pigeon Lake into Muskegon quadrangle at point 0.4 mile north of west quarter corner sec. 15, T. 7 N., R. 16 W. (by H. P. Jones in 1928)	
T. 5 N., R. 16 W., about 500 ft. S. of NW. cor. sec. 34, about 200 ft. NE. of junction of rd. N., on N. side of Black Lake, in root on E. side of 24-in. pine tree; copper nail and washer	584. 68
T. 5 N., R. 16 W., in SW. cor. sec. 22, 60 ft. N. and 25 ft. E. from crossroads, in root on W. side of 20-in. maple tree; copper nail and washer	602. 30
Holland, 1.0 mi. N., thence 4.5 mi. W. from, near E $\frac{1}{4}$ cor. sec. 21, T. 5 N., R. 16 W., 38 ft. S. and 37 ft. W. from crossroads, in NE. corner of yard of Lakewood School, in concrete post; standard tablet stamped "P T Sta No 94 Y 1926"	604. 766
Reference mark, on concrete walk, 4 ft. N. and 3 ft. E. from entrance to schoolhouse; chiseled square	604. 95
T. 5 N., R. 16 W., in NW. cor. sec. 22, 20 ft. S. and 60 ft. E. from crossroads, in root on W. side of 20-in. maple tree; copper nail and washer	609. 63
T. 5 N., R. 16 W., in SW. cor. sec. 10, 300 ft. N. and 30 ft. E. from crossroads, in root on W. side of 30-in. cottonwood tree; copper nail and washer	618. 35
T. 5 N., R. 16 W., in NE. cor. sec. 9, 25 ft. S. and 20 ft. W. from crossroads, in root on SE. side of 8-in. wild-plum tree; copper nail and washer	622. 30
Tps. 5 and 6 N., R. 16 W., near cor. secs. 3, 4, 33, and 34, 6.0 mi. W. of New Holland, 28 ft. N. of junction of T-rd. S., 48 ft. from maple tree, in concrete post; standard tablet stamped "P T Sta No 95 Y 1926"	622. 657
Reference mark, 30 ft. S. and 120 ft. E. from junction of T-rd. S., in root on S. side of 22-in. maple tree; copper nail and washer	622. 71
Tps. 5 and 6 N., R. 16 W., near S $\frac{1}{4}$ cor. sec. 34, 25 ft. N. and 120 ft. E. from junction of T-rd. N., in root on W. side of 20-in. maple tree; copper nail and washer	627. 56
T. 6 N., R. 16 W., near N $\frac{1}{4}$ cor. sec. 34, 35 ft. S. and 20 ft. W. from junction of E.-W. rd., in root on NE. side of forked oak tree; copper nail and washer	619. 84

<sup>85</sup> In 1932 this bench mark was reset at an elevation 5.790 feet lower than that originally determined. The figures given represent the new elevation.

T. 6 N., R. 16 W., in SW. cor. sec. 26, near NE. corner of crossroads, on N. end of concrete culvert; chiseled square-----	Feet 621. 37
T. 6 N., R. 16 W., near cor. secs. 22, 23, 26, and 27, 10 ft. E. of junction of T-rd. W., in root on S. side of forked wild-cherry tree; copper nail and washer-----	625. 16
T. 6 N., R. 16 W., near W $\frac{1}{4}$ cor. sec. 23, 0.6 mi. S. and 1.7 mi. E. from Port Sheldon, 47 ft. N. and 15 ft. E. from junction of E.-W. rd., 159 ft. SW. of cement-block house, in line with row of trees N., in concrete post; standard tablet stamped "P T Sta No 96 Y 1926"-----	619. 093
Reference mark, 95 ft. N. and 18 ft. W. from rd. junction, in root of 14-in. beech tree; copper nail and washer-----	617. 70
T. 6 N., R. 16 W., 0.2 mi. W. of center of sec. 22, 0.6 mi. S. and 1.1 mi. E. from Port Sheldon, 0.5 mi. S. of bridge over Pigeon Lake, 100 ft. NW. of crossroads, in root on E. side of 12-in. elm tree; copper nail and washer-----	614. 66
T. 6 N., R. 16 W., in SW $\frac{1}{4}$ sec. 15, 0.3 mi. NW. of bridge over Pigeon Lake, on N. side of rd., in root on S. side of 26-in. wild-cherry tree; copper nail and washer-----	591. 30
T. 6 N., R. 16 W., near N $\frac{1}{4}$ cor. sec. 15, 2.3 mi. W., thence 0.5 mi. S. from West Olive, 62 ft. S. and 16 ft. W. from crossroads, 89 ft. NW. of lone pine tree, in concrete post; standard tablet stamped "P T Sta No 101 Y 1926"-----	607. 707
Reference mark, 150 ft. S. of crossroads, in root on N. side of lone pine tree; copper nail and washer-----	608. 08
T. 6 N., R. 16 W., 15 ft. N. and 18 ft. E. from quarter corner between secs. 3 and 10, in NE. angle of junction of T-rd. E., opposite Port Sheldon Township School No. 1, in root on W. side of 20-in. wild-cherry tree; copper nail and washer-----	619. 20
Tps. 6 and 7 N., R. 16 W., 20 ft. N. and 80 ft. E. from cor. secs. 3, 4, 33, and 34, in NE. angle of crossroads, in root on SE. side of 24-in. pine tree; copper nail and washer-----	610. 88
T. 7 N., R. 16 W., in NW. cor. sec. 34, 1.3 mi. W., thence 0.5 mi. S. from Agnew, 30 ft. S. and 35 ft. E. from crossroads, 25 ft. NW. of NW. corner of Pigeon Creek School, in concrete post; standard tablet stamped "P T Sta No 102 Y 1926"-----	607. 799
Reference mark, on SW. corner of concrete porch of school; chiseled square-----	607. 75
T. 7 N., R. 16 W., in SE. cor. sec. 21, near NW. corner of crossroads, on W. concrete head wall of culvert; chiseled square-----	609. 02
T. 7 N., R. 16 W., in SE. cor. sec. 16, 300 ft. N. and 25 ft. W. from crossroads, in root on E. side of 20-in. ash tree; copper nail and washer-----	614. 06
From Muskegon quadrangle near north quarter corner sec. 18, T. 7 N., R. 14 W., southeast along road across Bass River and east into Jenison quadrangle near center of sec. 17, T. 7 N., R. 14 W. (by H. P. Jones in 1928)	
T. 7 N., R. 14 W., in NE $\frac{1}{4}$ sec. 18, at steel bridge over Bass River, on S. end of W. concrete abutment; chiseled square-----	590. 09
From Jenison quadrangle at point 1 mile south and 0.6 mile east from Rusk south along road to point 1 mile east of Borculo, thence southeast and back into Jenison quadrangle (by J. L. Buckmaster in 1928)	
Rusk, 1.0 mi. S., thence 0.5 mi. E. from, near S. cor. secs. 31 and 32, T. 7 N., R. 14 W., 30 ft. N. and 12 ft. E. from junction of T-rd. S., in root on SE. side of 10-in. elm tree; copper nail and washer-----	629. 28

Borculo, 1.0 mi. E., thence 3.0 mi. N. from, at Eagle School, in NE. cor. sec. 7, T. 6 N., R. 14 W., 25 ft. S. and 25 ft. W. from crossroads, in NE. corner of schoolyard, in concrete post; standard tablet stamped "P T Sta No 109 Y 1926"-----	<i>Feet</i> 629. 747
Reference mark, at entrance to schoolhouse, on top concrete step; chiseled square-----	632. 34
Borculo, 1.0 mi. E., thence 2.0 mi. N. from, in NE. cor. sec. 18, T. 6 N., R. 14 W., 20 ft. S. and 10 ft. W. from crossroads, on W. end of S. abutment of bridge; chiseled square-----	627. 89
Borculo, 1.0 mi. E., thence 1.0 mi. N. from, in NE. cor. sec. 19, T. 6 N., R. 14 W., 30 ft. S. and 10 ft. W. from crossroads, in root on SE. side of 18-in. oak tree; copper nail and washer-----	640. 51
Borculo, 1.0 mi. E. of, in NE. cor. sec. 30, T. 6 N., R. 14 W., 22 ft. S. and 31 ft. W. from crossroads, 8 ft. from telephone pole, in concrete post; standard tablet stamped "P T Sta No 99 Y 1926"-----	648. 186
Reference mark, 10 ft. N. and 20 ft. E. from crossroads, in NE. corner of floor of concrete bridge; chiseled square-----	648. 96
From Jenison quadrangle at point 1.5 miles south and 1 mile east from Zeeland along roads southwest 0.5 mile and west 0.9 mile, thence south along Fillmore-Overisel township-line road into Fennville quadrangle (by J. L. Buckmaster in 1928)	
Zeeland, 2.0 mi. S. of, in SE. cor. sec. 25, T. 5 N., R. 15 W., 20 ft. N. and 170 ft. W. from crossroads, in root on N. side of 15-in. poplar tree; copper nail and washer-----	608. 91
Zeeland, 3.0 mi. S. of, near East Holland School, in SE. cor. sec. 36, T. 5 N., R. 15 W., 170 ft. N. and 29 ft. W. from crossroads, in root on E. side of 18-in. elm tree; copper nail and washer-----	637. 45
Zeeland, 4.0 mi. S. of, near SE. cor. sec. 1, T. 4 N., R. 15 W., 35 ft. N. and 33 ft. W. from W. cor. secs. 6 and 7, T. 4 N., R. 14 W., 95 ft. N. and 33 ft. W. from W. corner of crossroads, 40 ft. SE. of SE. corner of dwelling, in concrete post; standard tablet stamped "P T Sta No 87 Y 1926"-----	665. 918
Reference mark, 40 ft. N. of tablet, 20 ft. W. of rd., in front of dwelling, in root on E. side of 16-in. poplar tree; copper nail and washer-----	666. 48
From Virginia Park near junction of U. S. Highway 31 and Holland Lake Shore Drive northeast along highway to Holland (by J. L. Buckmaster in 1928) <sup>88</sup>	
Virginia Park, about 0.4 mi. N. of S. cor. secs. 34 and 35, T. 5 N., R. 16 W., in SE. angle of junction of U. S. Highway 31 and Holland Lake Shore Drive, on top of curb; chiseled square-----	593. 58
Central Park, near E $\frac{1}{4}$ cor. sec. 35, T. 5 N., R. 16 W., 25 ft. S. and 65 ft. W. from junction of T-rd. S., at Central Park grocery, on NW. corner of concrete step; chiseled square-----	597. 97
Montello Park, at W. limits of Holland, 0.3 mi. N. of E $\frac{1}{4}$ cor. sec. 36, T. 5 N., R. 16 W., 15 ft. S. of highway, 50 ft. W. of range-line rd., in root on N. side of 12-in. maple tree; copper nail and washer-----	603. 18
Holland, 10 ft. S. and 20 ft. W. from main entrance to post office, in S. face of limestone base of lamp standard; standard tablet stamped "B 1 1928" (recovered by U. S. C. & G. S. in 1930 and designated "B 1")-----	610. 602
Reference mark, 0.5 ft. S. and 1.5 ft. W. from tablet, in post office lawn coping; chiseled square-----	608. 05

<sup>88</sup> U. S. Highway 31 and Holland Lake Shore Drive follow the same route between Virginia Park and Holland.



From point 1 mile east of Borculo generally west by way of Crisp to point 0.6 mile south and 1.7 miles east from Port Sheldon (by J. L. Buckmaster in 1928)

Borculo, in village of, in SE. cor. sec. 24, T. 6 N., R. 15 W., 30 ft. N. and 30 ft. W. from junction of T-rd. W., at store, on SE. corner of concrete porch; chiseled square-----	Feet 657. 96
Borculo, 1.0 mi. W. of, near NW. cor. sec. 25, T. 6 N., R. 15 W., 10 ft. S. and 30 ft. E. from crossroads, on abutment at SE. corner of bridge; chiseled square-----	648. 58
Borculo, 2.0 mi. W. of, 1.0 mi. E. of Crisp, in NW. cor. sec. 26, T. 6 N., R. 15 W., 146 ft. S. and 28 ft. E. from crossroads, in NW. corner of yard of Greenwood School (East Crisp School), in concrete post; standard tablet stamped "P T Sta No 98 Y 1926"-----	672. 401
Reference mark, 35 ft. S. of N. fence of schoolyard, 48 ft. E. of rd., in root on N. side of 16-in. maple tree; copper nail and washer-----	672. 75
Crisp, 85 ft. N. and 30 ft. E. from crossroads, in SW. cor. sec. 22, T. 6 N., R. 15 W., 25 ft. N. of gasoline pump, in root on SW. side of 15-in. poplar tree; copper nail and washer-----	673. 29
Crisp, 1.0 mi. W. of, near NE. cor. sec. 29, T. 6 N., R. 15 W., diagonally opposite West Crisp School, 20 ft. S. and 10 ft. W. from crossroads, on top of NW. wing wall of concrete culvert, 8 in. from slab corner; chiseled square-----	639. 84
Crisp, 2.0 mi. W. of, in SW. cor. sec. 20, T. 6 N., R. 15 W., 21 ft. N. and 17 ft. E. from junction of N.-S. rd., in concrete post; standard tablet stamped "P T Sta No 97 Y 1926"-----	631. 340
Reference mark, 15 ft. N. and 80 ft. E. from rd. junction, in root on N. side of 15-in. oak tree; copper nail and washer-----	631. 35
T. 6 N., R. 15 W., near center of sec. 19, 25 ft. N. and 12 ft. W. from crossroads, on top of W. concrete head wall of culvert; chiseled square-----	631. 49
T. 6 N., Rs. 15 and 16 W., near quarter corner between secs. 19 and 24, about 300 ft. S. of Harlem Church, at small bridge, on SE. wing wall, 8 in. from slab; chiseled square-----	630. 37
T. 6 N., R. 16 W., near $W\frac{1}{4}$ cor. sec. 24, 30 ft. N. and 125 ft. E. from crossroads, in root on N. side of lone 16-in. pine tree; copper nail and washer-----	626. 68

#### HOLLY QUADRANGLE

[Latitude 42°45'-43°00'; longitude 83°30'-83°45']

#### GENESEE, LIVINGSTON, AND OAKLAND COUNTIES

From Milford quadrangle at point 0.7 mile north and 2 miles east from Tyrone  
Center along road north to Fenton (by E. E. Harris in 1919; double-rodde  
line was run by R. B. Steele in 1920)

Fenton, near S. limits of, on W. side of rd., in top of concrete arch culvert; standard tablet stamped "1919 Mich 977" <sup>87</sup> -----	975. 904
Ferton, at NE. corner of intersection of Shiawassee Avenue and Ann Arbor Rd., on concrete sidewalk; chiseled square-----	918. 00
From Fenton north 0.6 mile along road, thence northwest 1 mile along Grand Trunk Railway, thence generally north along road by way of Ainsworth Corners into Flint quadrangle (by E. E. Harris in 1919; leveled twice)	
Fenton, at NW. corner of intersection of Grand Trunk Ry. and Ann Arbor Rd., on NE. corner of concrete foundation of crossing signal; chiseled square-----	907. 22

<sup>87</sup> This tablet was covered with cement when the road was widened.

Fenton, 1.0 mi. NW., thence 0.8 mi. N. from intersection of Ry. and Ann Arbor Rd., 0.25 mi. N. of SE. cor. sec. 22, T. 5 N., R. 6 E., in NW. corner of floor of bridge over Shiawassee River; copper nail <sup>88</sup> ---	Feet 875. 80
Shiawassee River, under bridge; surface of water Sept. 3, 1919-----	866. 6
Fenton, 1.0 mi. NW., thence 0.8 mi. N. from, 0.25 mi. N. of SW. cor. sec. 23, T. 5 N., R. 6 E., about 150 ft. N. of Shiawassee River, 30 ft. N. and 20 ft. E. from junction of T-rd. E., in root on W. side of 18-in. poplar tree; copper nail and washer-----	873. 65
Fenton, 1.0 mi. NW., thence 1.5 mi. N. from, in SW. cor. sec. 14, T. 5 N., R. 6 E., 80 ft. N. of junction of T-rd. E., in center of top of E. concrete head wall of culvert; standard tablet stamped "1919 Mich 878"-----	877. 175
Long Lake; surface of water Sept. 4, 1919-----	872. 2
Fenton, 1.0 mi. NW., thence 2.5 mi. N. from, near NE. cor. sec. 15, T. 5 N., R. 6 E., in SW. angle of junction of T-rd. W., in root on E. side of 18-in. oak tree; copper nail and washer-----	876. 73
Fenton, 1.0 mi. NW., thence 3.7 mi. N. from, about 800 ft. N. of SW. cor. sec. 2, T. 5 N., R. 6 E., 15 ft. S. and 40 ft. E. from junction of T-rd. E., opposite Long Lake School, on top of W. end of concrete head wall of culvert; chiseled square-----	885. 48
Fenton, 1.0 mi. NW., thence 4.5 mi. N. from, in NW. cor. sec. 2, T. 5 N., R. 6 E., at jog in N.-S. rd., 50 ft. S. and 20 ft. E. from junction of Genesee-Oakland county-line rd. and rd. S., in root on E. side of 15-in. elm tree; copper nail and washer-----	884. 77
Fenton, 1.0 mi. NW., thence 5.5 mi. N. from, 0.9 mi. E., thence 2.0 mi. S. from Rankin, near NE. cor. sec. 34, T. 6 N., R. 6 E., in SW. angle of intersection of Baldwin Rd., at front entrance to O'Dell School, in NE. corner of top stone step; standard tablet stamped "1919 Mich 860"-----	858. 899
Rankin, 0.9 mi. E., thence 1.0 mi. S. from, near NE. cor. sec. 27, T. 6 N., R. 6 E., on W. side of rd., midway between junctions of rds. E. and W., in center of top of concrete head wall of culvert; chiseled square-----	818. 65
Rankin, 0.9 mi. E., thence 1.0 mi. N. from, 3.0 mi. S. of Ainsworth Corners, near NE. cor. sec. 15, T. 6 N., R. 6 E., 10 ft. N. and 70 ft. W. from intersection of Reid Rd., in top of W. end of concrete culvert; standard tablet stamped "1919 Mich 789"-----	787. 326
Reference mark, 10 ft. N. and 70 ft. W. from crossroads, on top of E. end of concrete culvert; chiseled square-----	787. 30
Ainsworth Corners, 1.7 mi. S. of, 0.4 mi. N. of SE. cor. sec. 3, T. 6 N., R. 6 E., on top of S. end of W. concrete head wall of culvert; chiseled square-----	783. 18
Ainsworth Corners, 1.0 mi. S. of, near SE. cor. sec. 34, T. 7 N., R. 6 E., at crossroads known as Franklin Corners, 60 ft. N. and 25 ft. W. from intersection of Maple Avenue, in root on E. side of 30-in. elm tree; copper nail and washer-----	780. 76
Ainsworth Corners, 0.4 mi. N. of, 0.4 mi. N. of SW. cor. sec. 26, T. 7 N., R. 6 E., on E. end of N. concrete abutment of bridge; chiseled square-----	745. 83
Ainsworth Corners, 0.8 mi. N. of, in NW $\frac{1}{4}$ sec. 26, T. 7 N., R. 6 E., 0.2 mi. N. of intersection of Grand Trunk Ry., in S. end of W. concrete abutment of bridge; standard tablet stamped "1919 Mich 739"-----	737. 966

<sup>88</sup> In 1928 this bench mark was reported destroyed.

Ainsworth Corners, 1.1 mi. N. of, at SW. corner of city limits of Flint, near NW. cor. sec. 26, T. 7 N., R. 6 E., at bridge over Swartz Creek, in E. end of N. abutment; chiseled square.....	<i>Feet</i> 737. 26
Flint, 0.3 mi. N. of SW. corner of, 0.3 mi. N. of SE. cor. sec. 22, T. 7 N., R. 6 E., 80 ft. S. and 30 ft. W. from crossroads, in root on E. side of 15-in. oak tree; copper nail and washer.....	781. 23
From Milford quadrangle generally north along Pere Marquette Railway to point 1.8 miles south of Holly station (by E. E. Harris in 1919; double-rodged line was run by R. B. Steele in 1920)	
Rose Center, 1.8 mi. NW. of, 2.9 mi. along Ry. S. of Holly, 0.2 mi. W. of SE. cor. sec. 9, T. 4 N., R. 7 E., 180 ft. NE. of grade crossing, 70 ft. E. of track, in center of large grass triangle formed by junction of N.-S. rd. and T.-rd. E., in concrete post; standard tablet stamped "1919 Mich 982".....	980. 980
Holly, 1.8 mi. S. of, about 500 ft. W. of NE. cor. sec. 9, T. 4 N., R. 7 E., 30 ft. S. and 30 ft. W. from grade crossing, in root on S. side of 30-in. elm tree; copper nail and washer.....	963. 87
From point 1.8 miles south of Holly north along Pere Marquette Railway to crossing of Dixie Highway (Saginaw-Detroit Road), thence north along road into Flint quadrangle at point 0.5 mile north of Bilskie (by E. E. Harris in 1919)	
Holly, in front of sta.; top of W. rail of main track.....	936. 2
Holly, at Maple Street crossing; top of E. rail.....	930. 9
Holly, 1.4 mi. N. of, 3.7 mi. S. of Newark, 0.25 mi. W. of center of sec. 27, T. 5 N., R. 7 E., 30 ft. N. and 35 ft. E. from rd. crossing, in angle of rail fence, in concrete post; standard tablet stamped "1919 Mich 923".....	922. 060
Newark, 150 ft. S. of sta., 15 ft. N. and 50 ft. E. from grade crossing, in concrete post; standard tablet stamped "1919 Mich 932".....	931. 432
Newark, in front of sta.; top of E. rail of main track.....	930. 9
Newark, 1.0 mi. N. of, in SW $\frac{1}{4}$ sec. 34, T. 6 N., R. 7 E., on W. side of track, in wooden foundation of target switch; copper nail and washer.....	932. 11
Newark, 2.0 mi. N. of, 2.7 mi. S. of Grand Blanc, near NW. cor. sec. 34, T. 6 N., R. 7 E., at crossing of overhead rd., on E. side of track, in base of 12- by 12-in. upright support of overhead bridge; rail spike.....	910. 42
Grand Blanc, 300 ft. SW. of sta., 30 ft. N. and 40 ft. E. from rd. crossing, in concrete post; standard tablet stamped "1919 Mich 840".....	839. 520
Grand Blanc, 0.5 mi. N. of, in SE $\frac{1}{4}$ sec. 9, T. 6 N., R. 7 E., 100 ft. SE. of grade crossing, in SE. angle of junction of Dixie Highway and dirt rd. NE., in center of top of concrete head wall of large culvert; chiseled square.....	828. 00
Grand Blanc, 1.3 mi. N. of, 3.3 mi. S. of Bilskie, near NW. cor. sec. 10, T. 6 N., R. 7 E., 20 ft. S. and 35 ft. E. from intersection of Hill Rd., on granite boulder; chiseled square.....	831. 00
Bilskie, 2.7 mi. S. of, near W $\frac{1}{4}$ cor. sec. 3, T. 6 N., R. 7 E., on E. end of N. abutment of bridge; chiseled square.....	808. 01
Bilskie, 2.2 mi. S. of, in NW. cor. sec. 3, T. 6 N., R. 7 E., near jog in N.-S. rd. at intersection of Maple Avenue, opposite Crapser School, 60 ft. S. and 20 ft. E. from rd. S., on top of granite outcrop; chiseled square.....	815. 42

Bilskie, 1.2 mi. S. of, in NW. cor. sec. 34, T. 7 N., R. 7 E., 25 ft. S. and 25 ft. E. from intersection of Bristol Rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 14 H 1919 Mich 784"	Feet 783. 011
Bilskie, 0.5 mi. S. of, 0.2 mi. N. of W $\frac{1}{4}$ cor. sec. 27, T. 7 N., R. 7 E., at bridge over ditch, on E. end of S. stone abutment; chiseled square	768. 07
Bilskie, 0.2 mi. S. of, in NE. cor. sec. 28, T. 7 N., R. 7 E., 25 ft. S. and 25 ft. W. from intersection of Atherton Rd., opposite Atherton School, on top of granite outcrop; chiseled square	782. 84
Bilskie, at crossing of Detroit United Electric Ry. <sup>89</sup> and stone rd., 50 ft. E. of sta.; top of S. rail	777. 2
From Flint quadrangle at point 2.1 miles south and 0.5 mile west from Davison generally south along Jordan, Vassar, and other roads to crossroads 1 mile south and 1.1 mile west from Austin Corners, thence west to crossing of Pere Marquette Railway at point 1.8 miles south of Holly (by E. E. Harris in 1919; double-rodde line was run by R. B. Steele in 1920)	
Davison, 3.8 mi. S. and 0.5 mi. W. from, 2.8 mi. by rd. NE. of Atlas, near N $\frac{1}{4}$ cor. sec. 33, T. 7 N., R. 8 E., 35 ft. S. and 55 ft. W. from crossroads, on field side of wire fence, in root on E. side of 20-in. elm tree; copper nail and washer	840. 39
Atlas, 1.3 mi. NE. of, 0.3 mi. W. of center of sec. 4, T. 6 N., R. 8 E., 80 ft. S. and 40 ft. W. from junction of T-rd. W., in root on E. side of 18-in. black-locust tree; copper nail and washer	863. 77
Atlas, at dam and bridge over headwaters of Kearsley Creek, in E. end of N. concrete head wall; standard tablet stamped "1919 Mich 847"	846. 071
Kearsley Creek; surface of water Sept. 17, 1919	841. 3
Atlas, at intersection of Detroit United Electric Ry., 100 ft. W. of sta.; top of N. rail of main track	857. 2
Atlas, 1.9 mi. S. of, near W $\frac{1}{4}$ cor. sec. 21, T. 6 N., R. 8 E., 50 ft. S. of junction of T-rd. W., on E. side of rd., on top of concrete head wall of culvert; chiseled square	865. 30
Atlas, 2.4 mi. S. of, near E. cor. secs. 20 and 29, T. 6 N., R. 8 E., on W. side of rd., in line with T-rd. E., in root on E. side of 15-in. maple tree; copper nail and washer	907. 36
Atlas, 3.3 mi. S. of, near SW. cor. sec. 28, T. 6 N., R. 8 E., 700 ft. N. of junction of Baldwin Rd., in center of top of E. concrete head wall of culvert; standard tablet stamped "1919 Mich 870"	868. 914
Atlas, 4.9 mi. S. of, near E $\frac{1}{4}$ cor. sec. 5, T. 5 N., R. 8 E., 0.5 mi. S. of Genesee-Oakland county line, 50 ft. S. and 20 ft. W. from junction of T-rd. W., in root on S. side of 20-in. elm tree; copper nail and washer	944. 31
Atlas, 5.4 mi. S., thence 0.8 mi. E. from, 5.3 mi. by rd. N. of Austin Corners, 0.2 mi. W. of SE. cor. sec. 4, T. 5 N., R. 8 E., on N. side of E.-W. rd., in line with T-rd. S., in root on E. side of 10-in. hickory tree; copper nail and washer	942. 87
Austin Corners, 4.3 mi. N. of, 0.2 mi. W. of E. cor. secs. 9 and 16, T. 5 N., R. 8 E., on E. side of rd., in line with T-rd. W., in concrete post; standard tablet stamped "1919 Mich 955"	954. 262
Austin Corners, 3.3 mi. N. of, 0.25 mi. W. of SE. cor. sec. 16, T. 5 N., R. 8 E., 25 ft. N. and 25 ft. W. from junction of E.-W. rd., on bank 4 ft. above rd., on highest point of granite outcrop; chiseled square	1, 093. 31

<sup>89</sup> This railway is now abandoned.

Austin Corners, 1.0 mi. N. of, about 450 ft. E. of NW. cor. sec. 34, T. 5 N., R. 8 E., at jog in N.-S. rd., 20 ft. S. and 40 ft. W. from junction of rds. E. and N., in front of house, on bank 4 ft. above rd., on highest point of large granite boulder; chiseled square-----	Feet 1, 054. 41
Austin Corners, in SE. angle of crossroads, in W. wall at NW. corner of Austin School, between fourth and fifth tiers of brick above stone foundation and between third and fourth bricks S. of corner; standard tablet stamped "1919 Mich 1111"-----	1, 109. 848
Austin Corners, 1.0 mi. SW. of, 0.25 mi. E. of W $\frac{1}{4}$ cor. sec. 4, T. 4 N., R. 8 E., 15 ft. N. and 15 ft. W. from junction of Pontiac Rd. (present State Highway 87), on W. end of concrete culvert; chiseled square-----	1, 087. 11
Austin Corners, 1.0 mi. S. and 2.1 mi. W. from, 1.8 mi. S. along R. R., thence 4.4 mi. E. from Holly, near SE. cor. sec. 6, T. 4 N., R. 8 E., 20 ft. N. and 40 ft. W. from junction of T-rd. N., on highest point of large granite boulder; chiseled square-----	1, 027. 19
Holly, 1.8 mi. S., thence 3.4 mi. E. from, near SW. cor. sec. 6, T. 4 N., R. 8 E., in center of grass triangle formed by junction of rd. N., in concrete post; standard tablet stamped "1919 Mich 1026" <sup>90</sup> -----	1, 024. 707
Holly, 1.8 mi. S., thence 2.8 mi. E. from, about 600 ft. W. of N $\frac{1}{4}$ cor. sec. 12, T. 4 N., R. 7 E., at Grand Trunk Ry. crossing; top of W. rail-----	939. 3
Holly, 1.8 mi. S., thence 1.4 mi. E. from, near NW. cor. sec. 11, T. 4 N., R. 7 E., at wooden bridge over Buckhorn Creek, on E. end of N. concrete head wall; chiseled square-----	928. 22
Buckhorn Creek, under bridge; surface of water Sept. 25, 1919-----	923. 8
From road junction 1 mile northwest of intersection of Ann Arbor Road and Grand Trunk Railway in Fenton northwest along railway 1.3 miles into Durand quadrangle (by E. E. Harris in 1919)	
Fenton, 2.0 mi. NW. of, near NW. cor. sec. 27, T. 5 N., R. 6 E., 3 ft. S. of track, 50 ft. N. of stone rd., on NW. corner of concrete foundation of semaphore 532; chiseled square-----	883. 49
From Seymour Lake quadrangle at point 0.4 mile east of Austin Corners generally west along Oak Hill, Holly (State Highway 87), and Tucker Roads to Weber Road, thence generally south along Weber and Eagle Roads to point on Grand Trunk Railway 3 miles southeast of Holly (by J. M. Lawson in 1936)	
Austin Corners, 0.2 mi. E. of, 0.3 mi. E. of NW. cor. sec. 3, T. 4 N., R. 8 E., 220 ft. E. of Austin School, on E. head wall of culvert; chiseled square-----	1, 095. 21
Austin Corners, 5 ft. S. and 66 ft. W. from center of intersection of U. S. Highway 10 (Dixie Highway), 3.2 mi. NW. of Springfield, near W. cor. secs. 3 and 34, Tps. 4 and 5 N., R. 8 E., 6 ft. S. of power line pole, in concrete post; standard tablet stamped "T T 35 C 1935"-----	1, 103. 747
Austin Corners, 0.8 mi. SW. of, near center of sec. 4, T. 4 N., R. 8 E., 27 ft. N. of junction of State Highway 87, on top of W. end of N. concrete head wall of culvert; chiseled square-----	1, 119. 52
Austin Corners, 0.8 mi. SW., thence 0.3 mi. W. from, 0.2 mi. E. of W $\frac{1}{4}$ cor. sec. 4, T. 4 N., R. 8 E., on W. side of highway, on top of concrete head wall of culvert; chiseled square-----	1, 093. 24
Austin Corners, 0.8 mi. SW., thence 0.5 mi. W. from, near quarter corner between secs. 4 and 5, T. 4 N., R. 8 E., 30 ft. N. and 65 ft. W. from intersection of Tindall Rd., on top of W. end of head wall of culvert; chiseled square-----	1, 096. 80

<sup>90</sup> In 1936 this bench mark was reported destroyed.

Austin Corners, 0.8 mi. SW., thence 1.5 mi. NW. from, 0.4 mi. S. and 4.0 mi. E. from Holly, near NW. cor. sec. 5, T. 4 N., R. 8 E., 70 ft. E. of rd. fork N., at top of hill, on rock; chiseled square-----	Feet 1, 098. 75
Holly, 0.3 mi. S. and 3.5 mi. E. from, near quarter corner between secs. 6 and 31, Tps. 4 and 5 N., R. 8 E., 33 ft. N. and 30 ft. E. from cross-roads, in root on SW. side of 16-in. maple tree; copper nail and washer-----	1, 011. 58
Holly, 0.3 mi. S. and 3.0 mi. E. from, 20 ft. N. and 60 ft. W. from cross-roads, in SE. cor. sec. 36, T. 5 N., R. 7 E., 45 ft. W. of corner fence post, in concrete post; standard tablet stamped "T T 36 C 1935 1003"-----	1, 002. 882
Holly, 1.3 mi. S. and 3.0 mi. E. from, near NW. cor. sec. 7, T. 4 N., R. 8 E., 25 ft. S. of junction of Rappalee Lake Rd., in root on N. side of 10-in. oak tree; copper nail and washer-----	1, 020. 03
Grand Trunk Ry. copper bolt stamped "43½"; elevation determined by U. S. C. & G. S.-----	954. 201

From Milford quadrangle generally north along Eagle Road to point on Grand Trunk Railway 3 miles southeast of Holly (by G. N. Tex in 1938)

Davisburg, 0.2 mi. N. and 1.8 mi. W. from, 2.4 mi. S. and 2.5 mi. E. from Holly, 80 ft. S. and 25 ft. W. from intersection of Davisburg Rd., near quarter corner between secs. 12 and 13, T. 4 N., R. 7 E., 50 ft. S. of corner fence post, in concrete post; standard tablet stamped "T T 37 C 1935 1006"-----	1, 005. 741
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## HOMER QUADRANGLE

[Latitude 42°00'-42°15'; longitude 84°45'-85°00']

## BRANCH, CALHOUN, AND HILLSDALE COUNTIES

From Spring Arbor quadrangle at point in Albion along streets west 0.3 mile, thence north 0.2 mile into Marshall quadrangle (by E. C. Bibbee in 1916)

Albion, 25 ft. N. of intersection of Michigan Central R. R. and North Superior Street, 6 ft. S. of SW. corner of Albion Hotel, on E. side of street, 2 ft. W. of telegraph pole, on E. side of sidewalk; chiseled square-----	946. 69
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From Marshall quadrangle at point 1.5 miles south and 1.7 miles west from Marshall east 0.5 mile, thence south and southwest along roads into Union City quadrangle at point 3.3 miles north and 0.7 mile west from Tekonsha (by C. H. Davey in 1917)

Marshall, 1.5 mi. S. and 1.7 mi. W. from, in SW¼ sec. 34, T. 2 S., R. 6 W., in SE. angle of junction of T-rd. E., on rock; chiseled square-----	903. 58
Marshall, 2.2 mi. S. and 1.2 mi. W. from, 0.25 mi. E. of center of sec. 3, T. 3 S., R. 6 W., at small concrete bridge, on NE. corner of coping; chiseled square-----	923. 17
Marshall, 2.7 mi. S. and 1.2 mi. W. from, 2.0 mi. N. of Fredonia town hall, 0.25 mi. N. of NE. cor. sec. 10, T. 3 S., R. 6 W., 50 ft. S. of junction of rd. W., on W. end of stone culvert; chiseled square-----	922. 69
Fredonia town hall, 1.3 mi. N. of, in SE¼ sec. 10, T. 3 S., R. 6 W., near junction of rd. W., in N. end of triangular grass plot, 10 ft. NE. of telephone pole; standard iron post with bronze cap stamped "1917 Mich 929"-----	928. 652

Fredonia town hall, 200 ft. N. of, 0.2 mi. W. of SE. cor. sec. 15, T. 3 S., R. 6 W., on W. side of rd., near junction of T-rd. E., at S. gatepost, on rock; chiseled square-----	Feet 949. 06
Fredonia town hall, 0.2 mi. S. of, in NE $\frac{1}{4}$ sec. 22, T. 3 S., R. 6 W., in NW. angle of junction of T-rd. W., on granite boulder; chiseled square-----	956. 48
Fredonia town hall, 1.0 mi. S. of, 0.2 mi. W. of NE. cor. sec. 27, T. 3 S., R. 6 W., in SW. angle of junction of T-rd. W., on rock; chiseled square-----	941. 32
Fredonia town hall, 2.0 mi. S. of, 0.2 mi. W. of SE. cor. sec. 27, T. 3 S., R. 6 W., in NW. angle of crossroads, 15 ft. N. of corner fence post, 2 ft. E. of N.-S. fence line; standard iron post with bronze cap stamped "1917 Mich 948"-----	947. 577
Fredonia town hall, 2.7 mi. SW. of, in S $\frac{1}{2}$ sec. 34, T. 3 S., R. 6 W., on E. side of rd. at fork of rd. W., on granite boulder; chiseled square-----	949. 29
Fredonia town hall, 3.3 mi. SW. of, in NW $\frac{1}{4}$ sec. 3, T. 4 S., R. 6 W., on E. side of rd., in root of 15-in. oak tree; copper nail and washer--	1, 008. 58

## Along roads near Tekonsha (by C. H. Davey in 1917)

## [A jog from Union City quadrangle]

Tekonsha, 1.5 mi. S. of, 3.0 mi. N., thence 0.5 mi. NE. from Girard, in NW. angle of junction of rd. N., on large boulder; chiseled square-----	979. 45
Tekonsha, 0.5 mi. S. of, at highway bridge over small creek, on W. end of N. abutment; chiseled square-----	938. 31
Tekonsha, at SE. entrance to high school, in N. end of second step from bottom; standard tablet stamped "1917 Mich 944"-----	943. 909

## From Albion south along road 3 miles to Albion town hall, thence east 0.3 mile into Spring Arbor quadrangle (by W. R. Broaddus in 1930)

U. S. C. & G. S. B. M. designated "B 11"-----	947. 035
Albion, in SW. corner of intersection of Superior and Crandall Streets, on top of curb; chiseled square-----	949. 10
Albion, 1.2 mi. S. of, 0.2 mi. S. of NE. cor. sec. 10, T. 3 S., R. 4 W., 35 ft. N. and 25 ft. W. from center of rd. fork, in root on NW. side of 15-in. maple tree; copper nail and washer-----	983. 44
Albion, 2.0 mi. S. of, near SW. cor. sec. 11, T. 3 S., R. 4 W., 30 ft. N. and 20 ft. E. from crossroads, in root on NW. side of 16-in. wild-cherry tree; copper nail and washer-----	1, 036. 78
Albion, 3.0 mi. S. of, in NE. corner of yard of Albion town hall, in SE. cor. sec. 15, T. 3 S., R. 4 W., 95 ft. N. and 38 ft. W. from crossroads, in concrete post; standard tablet stamped "B 1 1930"-----	1, 029. 701
Reference mark 1, 13 ft. N.70°E. of tablet, in root on E. side of 36-in. oak tree; copper nail and washer-----	1, 030. 61
Reference mark 2, 38 ft. S.5°E. of tablet, in root on SE. side of 36-in. oak tree; iron nail-----	1, 031. 18

HOUGHTON QUADRANGLE <sup>61</sup>

[Latitude 47°00'-47°15'; longitude 88°30'-88°45']

## HOUGHTON COUNTY

From Houghton northwest and northeast along Mineral Range Railroad by way of Hancock to Boston, thence northeast and east along roads into Lake Linden quadrangle near Highway (by F. H. West in 1908)

Houghton, 120 ft. W. of Duluth, South Shore & Atlantic Ry. sta., on W. line of Huron Street, 275 ft. N. of Shelden Street, at brick store building of L. Hennes & Co., in stone foundation, 6 in. from corner and 6 in. above sidewalk; 60-penny spike (U. S. C. E. B. M. 1; recovered by U. S. C. & G. S. in 1934)-----	Feet 607. 958
Houghton, 3 ft. W. of NE. corner of brick store building of L. Hennes & Co., in stone foundation, 4 ft. above ground; aluminum tablet stamped "612" (recovered by U. S. C. & G. S. in 1934)-----	610. 806
Hancock, at SW. corner of brick office building of Detroit & Lake Superior Smelting Works, on beveled edge of sandstone water table, about midway of bevel; small horizontal surface cut (U. S. C. E. B. M. 2; recovered by U. S. C. & G. S. in 1934)-----	609. 129
Hancock, 0.8 mi. NW. of Lake View sta. at, 1 block S. of Houghton County Electric Co. car barn, at NE. corner of crossing of dirt rd., on large stone; chiseled circle-----	816. 77
Hancock, 2.2 mi. N. of, 3.7 mi. SW. of Boston sta., 300 ft. E. of rd. crossing, on W. side of main line track and sidings into buildings, at brick magazine of Dupont Powder Co., 6 in. from NW. corner and 3 ft. above ground; aluminum tablet stamped "965" (found out of place and reset by U. S. C. & G. S. in 1934)-----	963. 817
Boston (Demmon), 3.0 mi. SW. of, 30 ft. S. of crossing of dirt rd. to Franklin, at W. side of E. rail, on joining panel between two rails; chiseled square-----	1, 007. 04
Boston, 1.9 mi. SW. of, at S. side of crossing of dirt rd., between chisel marks on rail; top of rail-----	1, 059. 3
Boston, 0.5 mi. SW. of, at overhead crossing of Houghton County Car Co. Electric Ry., on S. side of track, in concrete base of trestle, 1.5 ft. from E. end; aluminum tablet stamped "1069"-----	1, 068. 065
Boston, 300 ft. E. of sta., at rd. crossing, on 18-in. drain pipe, 8 ft. from N. end; chiseled cross-----	1, 096. 78
Boston, 1.1 mi. NE. of, 0.6 mi. W. of Highway, at turn in rd. from NE. to E. and junction of rd. NW., in wye, 5 ft. from rds., on oblique face of stone, about halfway up oblique edge; chiseled square-----	1, 159. 08
Highway, on N. side of rd., midway between T-rd. N. and R. R., on highest point of large boulder; chiseled square-----	1, 156. 08

From Lake Linden quadrangle along Copper Range Railroad southwest and northwest to Hancock (by F. H. West in 1908)

Dollar Bay, in plot back of C. R. R. R. sta., at NE. corner of junction of T-rd. about 225 ft. W. of sta., opposite saloon; standard iron post with bronze cap stamped "634"-----	633. 456
Ripley, at rd. crossing in front of NW. corner of Standard Oil Co. building, on W. side of rd. N. of Mineral Range R. R., on SE. corner of base plate of switch signal; chiseled cross-----	606. 50

<sup>61</sup> A small area in the northwest corner of this quadrangle extends into Lake Superior. That portion of the quadrangle lying north and east of Portage Lake was originally surveyed and published as part of Calumet special quadrangle.



From Boston northwest and west 2.2 miles along road to south corner secs. 1 and 2, T. 55 N., R. 34 W. (by F. H. West in 1908; leveled twice)

Boston, 0.6 mi. NW. of, at rd. fork, 60 ft. W. of house on S. side of rd., on large stone; chiseled cross	Feet 1, 090. 59
Boston, 1.7 mi. NW. of, at SE. corner of junction of T-rd. S. to Franklin, on large stone; chiseled cross	1, 043. 88
Boston, 2.2 mi. NW. of, on Franklin-Hancock township line, 10 ft. N. of rd., near line fence; standard iron post with bronze cap stamped "1025"	1, 024. 810

At Houghton (by F. H. West in 1908; leveled twice)

Houghton, at Michigan College of Mines, in lawn in front of main building, 18 ft. N. of walk leading E. from building, 54 ft. E. of walk in front of building; standard iron post with bronze cap stamped "695" (recovered by U. S. C. & G. S. in 1934)	693. 808
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From Michigan College of Mines in Houghton southeast and south along road to Chassell, thence alternately west and south along roads to point in sec. 11, T. 53 N., R. 34 W., thence generally north and northwest along roads and trails to Painesdale (by Howard Clark in 1911)

Houghton, 3.4 mi. SE. of, 4.1 mi. N. of Chassell, at N. side sec. 17, T. 54 N., R. 33 W., at junction of T-rd. W.; standard iron post with bronze cap stamped "621"	619. 842
Chassell, in SW. corner of street intersection, 0.2 mi. E. of NW. cor. sec. 5, T. 53 N., R. 33 W.; standard iron post with bronze cap stamped "625"	624. 226
Chassell, 1.7 mi. S. and 2.7 mi. W. from, 2.6 mi. S. and 4.0 mi. E. from Copper Range R. R. sta. in Painesdale, 0.25 mi. S. of center of sec. 11, T. 53 N., R. 34 W., near residence of Adolph Poisson, in rock; aluminum tablet stamped "Prim Trav Sta No 2 988" <sup>92</sup>	986. 941
Painesdale, 10 ft. E. of NE. corner of sta., in platform; copper spike	1, 203. 37

From Houghton along roads generally west and north 5.1 miles, thence west and southwest 6 miles to Redridge, thence generally southeast along Copper Range Railroad to Painesdale (by Howard Clark in 1911)

Houghton, 5.1 mi. NW. of, 6.0 mi. E. of Redridge, 1.5 mi. S. of Oskar, at N. side NE $\frac{1}{4}$ sec. 20, T. 55 N., R. 34 W., at junction of rd. W.; standard iron post with bronze cap stamped "714"	713. 291
Redridge, 2.3 mi. NE. of, in SW. cor. sec. 14, T. 55 N., R. 35 W., on N. side of rd. at rd. fork, in corner of field; standard iron post with bronze cap stamped "832"	831. 293

[Line jogs into Beacon Hill quadrangle]

Redridge, 3.3 mi. SE. of, 2.8 mi. NW. of Obenhoff, at Salmon Trout, about 600 ft. S. of NW. cor. sec. 3, T. 54 N., R. 35 W., 1,600 ft. E. of building, at base of telephone pole; standard iron post with bronze cap stamped "781"	780. 232
Obenhoff, 100 ft. E. of E. end of switch at, 2.6 mi. NW. of Mill Mine Junction, in SW $\frac{1}{4}$ sec. 1, T. 54 N., R. 35 W., on S. side of tracks, at telephone pole; standard iron post with bronze cap stamped "998"	997. 362
Mill Mine Junction, in SW $\frac{1}{4}$ sec. 8, T. 54 N., R. 34 W., 4 ft. NE. of R. R. crossing, in SW. corner of sta. platform, 1 ft. above level of track; copper spike	1, 127. 93

<sup>92</sup> In 1937 this bench mark was reset 35.73 feet N.88°35'26.54"E. of this position and at an elevation 0.624 foot lower than that originally determined. The figures given represent the new elevation.

South Range, 20 ft. SW. of SW. corner of South Range Bank building, Feet  
in yard; standard iron post with bronze cap stamped "1141"----- 1, 140. 278

From road junction 5.1 miles northwest of Houghton along road north and  
northeast by way of Oskar to Portage Lake Ship Canal entry (by Howard  
Clark in 1911; leveled twice)

Oskar, 4.0 mi. N. of, near N $\frac{1}{4}$  cor. sec. 28, T. 56 N., R. 34 W., at  
ship canal entry, in front lawn of lighthouse, at base of flagpole;  
standard iron post with bronze cap stamped "624"<sup>83</sup>----- 623. 354

From Hancock generally southwest along Copper Range Railroad into Winona  
quadrangle<sup>84</sup> (first-order leveling by E. L. McNair in 1911)

Hancock, U. S. C. E. B. M. 2 (previously described)----- 609. 129  
Houghton, at Duluth, South Shore & Atlantic Ry. sta.; top of rail--- 607. 5  
Houghton, U. S. C. E. B. M. 1 (previously described)----- 607. 958  
Houghton, at Copper Range R. R. sta.; top of rail----- 606. 8  
Houghton, 2.9 mi. W. of C. R. R. R. sta., 2.1 mi. N. of Atlantic, at  
milepost 20, 25 ft. N. of track; standard iron post with bronze cap  
stamped "823" (recovered by U. S. C. & G. S. in 1934)----- 822. 098  
Atlantic, in front of sta.; top of rail----- 995. 4  
Mill Mine Junction, at intersection of tracks; top of rail----- 1, 127. 0  
Mill Mine Junction, 35 ft. N. of main track, 45 ft. W. of track of Lake  
Shore branch of C. R. R. R.; standard iron post with bronze cap  
stamped "1128"----- 1, 126. 868  
Messner, at N. end of siding, at switch stand; top of rail----- 1, 258. 5  
Ricedale, about midway of siding, 25 ft. W. of track; standard iron  
post with bronze cap stamped "1278"----- 1, 277. 540

## HOUGHTON LAKE QUADRANGLE

[Latitude 44°15'-44°30'; longitude 84°45'-85°00']

## MISSAUKEE AND ROSCOMMON COUNTIES

Southwest and northwest along roads in secs. 1 and 6, T. 24 N., Rs. 4 and 5 W.  
(by S. R. Archer in 1927)

[A jog from Fletcher quadrangle]

T. 24 N., R. 4 W., in S $\frac{1}{2}$  sec. 6, about 625 ft. W. of intersection of  
rd. and fire lane on N.-S. quarter line of sec. 6, 110 ft. W. of lone  
15-in. white-pine tree on S. side of rd., 35 ft. N. of rd., in root on  
SE. side of 12-in. pine tree with triangular blaze; copper nail and  
washer----- 1, 220. 09  
T. 24 N., R. 5 W., in SE $\frac{1}{4}$  sec. 1, at angle in rd. NW. along abandoned  
R. R. grade, 15 ft. N. of rd. E., 30 ft. E. of center of old R. R. grade,  
in concrete post; standard tablet stamped "Prim Trav Sta No 5 F  
1927"----- 1, 228. 682  
Reference mark, 300 ft. NE. of tablet, in root on S. side of 12-in.  
white-pine tree with triangular blaze on W. side; copper nail and  
washer----- 1, 228. 97

<sup>83</sup> In 1937 this bench mark was replaced by a standard tablet set flush with the ground in a concrete post on the west side of the north entrance to Keweenaw Waterway, 299.6 feet N.16°15'E. of the northeast corner of the new service building of the lighthouse; and at an elevation of 622.127 feet.

<sup>84</sup> This line crosses the southeast corner of Beacon Hill quadrangle but no marks were established in that quadrangle.

## Near Grassy Lake (by S. R. Archer in 1927)

[A jog from Fletcher quadrangle]

Grassy Lake, 0.8 mi. E. of rd. fork on E. side at S. end of, in NE. corner of crossroads, 90 ft. E. of point where rd. enters swamp, 15 ft. N. of rd. E., 75 ft. E. of rd. NE., in concrete post; standard tablet stamped "Prim Trav Sta No 6 F 1927"-----	Feet 1, 188. 937
Reference mark, 100 ft. SW. of tablet, 25 ft. S. of rd. W., at point where rd. W. enters swamp, in root on N. side of 6-in. pine tree with triangular blaze; copper nail and washer-----	1, 186. 78
Grassy Lake, on E. side at S. end of, 4.8 mi. NE. of Moorestown, on Moorestown-Grayling rd. at junction of rd. E. to Higgins Lake, 60 ft. W. of rd. junction, on N. side of third-class rd. W., in root on SW. side of 4-in. maple tree; copper nail and washer-----	1, 192. 11
Grassy Lake, about 0.5 mi. S. of E. side of, 4.4 mi. NE. of Moorestown, 30 ft. E. of crossroads, on S. side of rd. E., in root on SW. side of 24-in. maple tree; copper nail and washer-----	1 188. 90
Grassy Lake, about 0.5 mi. S. and 0.7 mi. W. from S. end of E. side of, 3.3 mi. S. of Fletcher, at point where rd. crosses abandoned E.-W. R. R. grade used as rd. to E., 25 ft. N. and 13 ft. E. from junction of rd. E., in concrete post; standard tablet stamped "Prim Trav Sta No 7 F 1927"-----	1, 190. 141
Reference mark, 100 ft. N. of tablet, 125 ft. N. of junction of rd. E., on E. side of rd. N., in root on N. side of 5-in. oak tree with triangular blaze; copper nail and washer-----	1, 191. 38

## HOWARD CITY QUADRANGLE

[Latitude 43°15'-43°30'; longitude 85°15'-85°30']

## KENT, MECOSTA, AND MONTCALM COUNTIES

From Fenwick quadrangle west along road between secs. 15 and 22, T. 10 N., R. 8 W., into Smyrna quadrangle at point 2.2 miles east of Gowen (by R. G. Clinite in 1918)

Greenville, 5.0 mi. N. of, in SE. cor. sec. 16, T. 10 N., R. 8 W., 25 ft. N. and 24 ft. W. from center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 16 1915 Mich 887" <sup>95</sup> -----	886. 195
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From Fenwick quadrangle at point 5 miles north and 1 mile east from Greenville along roads west and north by way of Gowen to Maston Lake, thence southwest into Smyrna quadrangle near Lincoln Lake (by S. R. Archer in 1929)

Gowen, 2.2 mi. E. of, 5.0 mi. N. of Greenville, in SE. cor. sec. 16, T. 10 N., R. 8 W., 26 ft. N. and 45 ft. W. from center of crossroads, in concrete post; standard tablet stamped "24 A 1929 Mich" <sup>96</sup> -----	884. 349
Reference mark 1, 25 ft. S. and 70 ft. W. from crossroads, in root on S. side of 24-in. oak tree with triangular blaze above point; copper nail and washer-----	882. 69
Reference mark 2, 25 ft. S. and 65 ft. E. from crossroads, in root on N. side of 15-in. maple tree, first tree E. of corner; copper nail and washer-----	885. 51

<sup>95</sup> In 1929 this bench mark was reported destroyed. It was replaced by the mark stamped "24 A 1929 Mich" set 1 foot north and 21.2 feet west from this position.

<sup>96</sup> This mark replaced the bench mark stamped "Prim Trav Sta No 16 1915 Mich 887" and previously described.

## [Line jogs into Smyrna quadrangle]

Gowen, in SW. corner of intersection of main streets of, at NE. corner of store of V. Thomsen Estate, on top of S. end of middle step of three at E. end of concrete porch; chiseled square-----	Feet 849. 46
Gowen, 0.4 mi. NW. of Thomsen store, about 525 ft. S. of center of sec. 18, T. 10 N., R. 8 W., 30 ft. S. and 30 ft. E. from junction of T-rd. W., in concrete post; standard tablet stamped "18 A 1929 Mich"-----	859. 144
Reference mark, 25 ft. S. and 60 ft. W. from rd. junction, in root on N. side of 10-in. oak tree with triangular blaze above point; copper nail and washer-----	859. 05
Gowen, 0.2 mi. N. and 1.3 mi. W. from, near center of sec. 13, T. 10 N., R. 9 W., 60 ft. W. of crossroads, on S. side of rd. W., in trunk on NW. side of forked oak tree with triangular blaze above point; copper nail and washer-----	881. 86
Gowen, 0.2 mi. N. and 1.9 mi. W. from, 0.25 mi. E. of center of sec. 14, T. 10 N., R. 9 W., in SE. corner of junction of T-rd. E., at fence corner, in root on NW. side of 24-in. maple tree; copper nail and washer-----	874. 78
Gowen, 1.0 mi. N. and 1.9 mi. W. from, near center of SE $\frac{1}{4}$ sec. 11, T. 10 N., R. 9 W., 75 ft. S. of junction of T-rd. S., on E. side of rd., in root on NW. side of 12-in. maple tree with triangular blaze above point; copper nail and washer-----	863. 39
Gowen, 1.3 mi. N. and 2.3 mi. W. from, 0.75 mi. SE. and 2.5 mi. S. from Trufant, near center of sec. 11, T. 10 N., R. 9 W., 55 ft. S. and 18 ft. W. from junction of T-rd. W., in concrete post; standard tablet stamped "22 A 1929 Mich" <sup>97</sup> -----	892. 809
Reference mark, 40 ft. S. of tablet, 95 ft. S. and 20 ft. W. from rd. junction, in W. fence line, in root on NE. side of 12-in. maple tree with triangular blaze above point; copper nail and washer-----	895. 05
T. 10 N., R. 9 W., about 0.25 mi. E. of center of sec. 10, on E. side and near S. end of Maston Lake, on NW. side of rd., at right-angle turn in rd. E., on W. side of entrance to Hansens Grove, in root on N. side of 15-in. oak tree; copper nail and washer-----	859. 97
T. 10 N., R. 9 W., near center of sec. 10, in NW. corner of crossroads, in root on SE. side of 15-in. oak tree with triangular blaze above point; copper nail and washer-----	873. 11
T. 10 N., R. 9 W., in SW. cor. sec. 10, 20 ft. N. and 50 ft. E. from crossroads, 5 ft. S. and 28 ft. E. from fence corner, in root on S. side of 12-in. oak tree; copper nail and washer-----	886. 04

Along roads in and bordering sec. 18, T. 10 N., R. 9 W. (by S. R. Archer in 1929)

## [A jog from Smyrna quadrangle]

T. 10 N., R. 9 W., near center of sec. 18, 18 ft. S. and 30 ft. W. from junction of T-rd. N., at fence line, in concrete post; standard tablet stamped "21 A 1929 Mich"-----	872. 608
Reference mark, 70 ft. S. and 25 ft. E. from rd. junction, in root on NE. side of 15-in. maple tree with triangular blaze above point; copper nail and washer-----	872. 92
T. 10 N., R. 10 W., near E $\frac{1}{4}$ cor. sec. 13, 25 ft. W. of right-angle turn in rd., at fence corner, in root on SE. side of 15-in. elm tree; copper nail and washer-----	878. 38

<sup>97</sup> In May 1936 this bench mark was moved 65 feet south and 14 feet west from this position and reset 2.720 feet lower than its original elevation. The figures given represent the new elevation.

## HOWELL QUADRANGLE

[Latitude 42°30'-42°45'; longitude 83°45'-84°00']

## LIVINGSTON COUNTY

From Dexter quadrangle north and northwest along Ann Arbor Railroad to Chilson, thence generally west and northwest to point 0.25 mile east of center of sec. 20, T. 2 N., R. 4 E., thence north about 6 miles to Fourmile House, thence southeast along Grand River Road to Howell (by F. H. West in 1907)

Chilson, 20 ft. SW. of SW. corner of Ann Arbor R. R. sta., 10 ft. N. of E.-W. rd., 15 ft. W. of W. rail of track; standard iron post with bronze cap stamped "936"-----	Feet 935. 942
Chilson, 1.1 mi. W. of, near N $\frac{1}{4}$ cor. sec. 32, T. 2 N., R. 5 E., in SE. angle of crossroads, in root of 12-in. oak tree; nail-----	1, 017. 52
Chilson, 3.2 mi. W. of, 3.6 mi. SE. of Marion Center, in SE $\frac{1}{4}$ sec. 25, T. 2 N., R. 4 E., on N. side of rd., 40 ft. W. of dwelling of Frank Rozk, on rd. side of garden fence; standard iron post with bronze cap stamped "990"-----	989. 395
Marion Center, 0.25 mi. N. of SW. cor. sec. 22, T. 2 N., R. 4 E., at rd. fork, on E. side of rd. N., in SW. corner of foundation of school-house; aluminum tablet stamped "964"-----	963. 111
Marion Center, 1.3 mi. NW., thence 1.5 mi. N. from, 0.2 mi. W. of SE. cor. sec. 8, T. 2 N., R. 4 E., in NE. angle of crossroads, 300 ft. N. of Smith School, in fence corner; standard iron post with bronze cap stamped "949" (recovered in 1908)-----	948. 299
T. 2 N., R. 4 E., in NE $\frac{1}{4}$ sec. 5, on N. side of rd. at fork, on N. side of schoolhouse, in stone foundation, 4 ft. E. of W. end; aluminum tablet stamped "928"-----	927, 158
T. 3 N., R. 4 E., 800 ft. N. of crossroads at S. cor. secs. 32 and 33, on E. side of rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 18 1905 Mich 910"-----	909, 804
T. 3 N., R. 4 E., 0.2 mi. N. of SW. cor. sec. 21, 3.7 mi. NW. of Howell, in SE. angle of intersection of Grand River Rd., diagonally opposite old Fourmile House owned by H. Klechler, on W. side of house, in foundation, 2 ft. from N. end; standard tablet stamped "950"-----	948. 992
Howell, 1.5 mi. NW. of, near S $\frac{1}{4}$ cor. sec. 27, T. 3 N., R. 4 E., in SW. angle of junction of rd. S.; standard iron post with bronze cap stamped "884"-----	883. 886
Howell, in S. wall of Livingston County courthouse, E. of entrance, in second stone below cornerstone; aluminum tablet stamped "942"-----	941. 675
From Howell alternately north and east along roads to Lemens Corners, thence southeast 1.1 miles into Milford quadrangle (by F. H. West in 1907)	
Howell, 1.0 mi. N. of, near center of sec. 25, T. 3 N., R. 4 E., at bridge over county ditch, 1 ft. S. of W. steel support, on W. abutment, 3 in. W. of E. side; chiseled cross-----	901. 16
Howell, 1.1 mi. N., thence 0.5 mi. E. from, near W $\frac{1}{4}$ cor. sec. 30, T. 3 N., R. 5 E., in NE. angle of junction of range-line rd. N., in root of 12-in. oak tree; nail-----	923. 90
T. 3 N., R. 5 E., in SE. cor. sec. 20, in NW. angle of crossroads, in fence corner; standard iron post with bronze cap stamped "961"-----	960. 486
T. 3 N., R. 5 E., in SE. cor. sec. 21, near NW. corner of crossroads, on large stone projecting 3.5 ft. above surface of ground; highest point-----	980. 25
T. 3 N., R. 5 E., at cor. secs. 22, 23, 26, and 27, near SW. corner of crossroads, on stone marking section corner; top of stone-----	1, 009. 23

T. 3 N., R. 5 E., 180 ft. W. of junction of T-rd. S. at NE. cor. sec. 26, at small stone and cement bridge over drain ditch, in W. wing of S. abutment; aluminum tablet stamped "972"	Feet 971. 211
T. 3 N., R. 5 E., near N $\frac{1}{4}$ cor. sec. 25, on S. side of rd. at junction of T-rd. N., on large rock; highest point	1, 009. 32
T. 3 N., R. 6 E., in NW. cor. sec. 30, in SE. angle of crossroads, opposite Catholic Church, in root of tree; nail	1, 002. 26
T. 3 N., R. 6 E., near NE. cor. sec. 30, 1.6 mi. S., thence 1.3 mi. W. from Hartland, 1.3 mi. W. of Lemens Corners, at junction of T-rd. N., 6 ft. S. of rd.; standard iron post with bronze cap stamped "1083"	1, 082. 471
T. 3 N., R. 6 E., 0.3 mi. E. of SW. cor. sec. 28, 1.1 mi. SE. of Lemens Corners, in NW. angle of junction of rd. W., in cement step of schoolhouse; chiseled square	975. 95
From Milford quadrangle at point in northwest quarter sec. 4, T. 2 N., R. 6 E., along roads south and west to Brighton, thence west to Chilson (by F. H. West in 1907)	
T. 2 N., R. 6 E., in NW $\frac{1}{4}$ sec. 4, at bridge over drain between two small lakes, in E. side of S. abutment; aluminum tablet stamped "953"	952. 529
T. 2 N., R. 6 E., near W $\frac{1}{4}$ cor. sec. 9, in SE. angle of five-way rd. fork, opposite Bitten School, on large stone; chiseled cross	972. 77
T. 2 N., R. 6 E., 500 ft. W. of E $\frac{1}{4}$ cor. sec. 20, in NW. angle of junction of E.-W. rd.; standard iron post with bronze cap stamped "924"	923. 643
T. 2 N., R. 6 E., near SW. cor. sec. 21, about 3 mi. by rd. NE. of Brighton, at center of junction of T-rd. E., in W. side of 20-in. oak tree; nail	922. 96
Brighton, on N. side of Main Street, 0.2 mi. E. of Pere Marquette Ry. crossing, in approach to fire sta., W. of entrance; aluminum tablet stamped "924"	923. 965
T. 2 N., R. 5 E., 660 ft. N. of SW. cor. sec. 25, in SE. angle of crossroads, in root of tree; nail	917. 38
From Fourmile House along roads north to Sprague Corners, thence alternately east and south into Milford quadrangle near Tyrone Center (by F. H. West in 1907)	
T. 3 N., R. 4 E., in NE. cor. sec. 20, 0.8 mi. N. of Fourmile House, near SW. corner of crossroads, on stone; chiseled mark	941. 66
T. 3 N., R. 4 E., near E $\frac{1}{4}$ cor. sec. 8, in SW. angle of crossroads, opposite Marr School, on rd. side of fence; standard iron post with bronze cap stamped "935"	934. 101
T. 4 N., R. 4 E., 0.2 mi. N. of crossroads at SE. cor. sec. 29, on W. side of rd., 140 ft. W. of dwelling of E. D. Autcliff; standard iron post with bronze cap stamped "Prim Trav Sta No 17 1905 Mich 902"	901. 878
T. 4 N., R. 4 E., 0.25 mi. E. of W $\frac{1}{4}$ cor. sec. 28, in NW. angle of junction of T-rd. N., in notch cut in root of oak tree; wire staple	890. 44
T. 4 N., R. 4 E., 0.25 mi. E. of W $\frac{1}{4}$ cor. sec. 21, near NE. corner of crossroads, on stone; chiseled mark	884. 82
T. 4 N., R. 4 E., near center of SW $\frac{1}{4}$ sec. 16, 0.8 mi. S. of Sprague Corners, on E. side of rd., about 80 ft. N. of junction of T-rd. W., in front of house, on stone; highest point in chiseled circle	874. 50
Sprague Corners, in SE. angle of crossroads at, 0.25 mi. W. of N $\frac{1}{4}$ cor. sec. 16, T. 4 N., R. 4 E., diagonally opposite United Brethren Church, on rd. side of fence; standard iron post with bronze cap stamped "872"	871. 092

T. 4 N., R. 4 E., near S $\frac{1}{4}$ cor. sec. 14, in NW. angle of junction of T-rd. E., about 75 ft. N. of church, 510 ft. S. of dwelling of W. D. V. Cook, on rd. side of fence; standard iron post with bronze cap stamped "879" (recovered by U. S. C. & G. S. in 1934)-----	Feet 878. 474
T. 4 N., R. 4 E., 0.25 mi. S. of center of sec. 23, in NE. angle of junction of T-rd. E., in fence corner, on stone; chiseled mark-----	872. 70
T. 4 N., R. 4 E., in SW $\frac{1}{4}$ sec. 24, at bridge over Bogue Creek, on S. side, 9 in. from W. end; end of bolt-----	846. 72
T. 4 N., R. 5 E., at SW. cor. sec. 20, in NE. angle of crossroads, 240 ft. NE. of Jubb School, on rd. side of fence; standard iron post with bronze cap stamped "897"-----	896. 255
T. 4 N., R. 5 E., in NE. cor. sec. 29, 1.0 mi. W., thence 1.0 mi. S. from Deerfield Center, in SW. angle of crossroads, in small grass plot; standard iron post with bronze cap stamped "Prim Trav Sta No 16 1905 Mich 917"-----	916. 536
Deerfield Center, 1.0 mi. W. of, in SW. cor. sec. 16, T. 4 N., R. 5 E., near NE. corner of junction of T-rd. E., on stone; chiseled mark----	865. 42
Deerfield Center, in SW. angle of junction of T-rd. S. at, in NE. cor. sec. 21, T. 4 N., R. 5 E., near store; standard iron post with bronze cap stamped "897" (recovered in 1919)-----	897. 087
Deerfield Center, 1.0 mi. E. of, in SW. cor. sec. 14, T. 4 N., R. 5 E., at NE. corner of crossroads, near mail boxes, on stone; chiseled mark-----	924. 86
Deerfield Center, 2.7 mi. E. of, 0.25 mi. W. of NE. cor. sec. 24, T. 4 N., R. 5 E., on S. side of rd. at junction of T-rd. N., on rd. side of fence; standard iron post with bronze cap stamped "913"-----	912. 260
Deerfield Center, 4.1 mi. E. of, in SE. cor. sec. 18, T. 4 N., R. 6 E., in NW. angle of crossroads, 20 ft. W. of angle in fence N., 1.5 ft. S. of stone wall, on large stone; highest point in chiseled circle-----	971. 66
Deerfield Center, 5.2 mi. E. of, about 1 mi. W. of Tyrone Center, 300 ft. E. of crossroads at NW. cor. sec. 21, T. 4 N., R. 6 E., on S. side of rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 14 1905 Mich 1055" (recovered in 1919)-----	1,054. 615
From Milford quadrangle 1.4 miles northeast of Hartland southwest and south along roads to Lemens Corners (by F. H. West in 1907)	
Hartland, 0.8 mi. N. of, near center of SW $\frac{1}{4}$ sec. 9, T. 3 N., R. 6 E., at NE. corner of junction of T-rd. S., on large stone; chiseled mark--	998. 98
Hartland, on E. side of street, 210 ft. S. of T-rd. E., at brick store of G. W. Wallace, in N. wall, 9 in. from W. end; aluminum tablet stamped "949"-----	948. 338
Hartland, 0.6 mi. S. of, 1.0 mi. N. of Lemens Corners, 0.3 mi. E. of SW. cor. sec. 16, T. 3 N., R. 6 E., near NE. corner of junction of T-rd. E., on stone; chiseled mark-----	962. 03
From Milford quadrangle northwest along Grand River Road to Brighton (by F. H. West in 1907)	
Brighton, 1.3 mi. SE. of, 0.4 mi. NW. of W. end of Fonda Lake, near center of sec. 32, T. 2 N., R. 6 E., in SE. angle of crossroads, in root of 18-in. oak tree; nail-----	948. 21

## HUDSON QUADRANGLE

[Latitude 41°45'-42°00'; longitude 84°15'-84°30']

## HILLSDALE AND LENAWEE COUNTIES

From Alvordton quadrangle at point 1.9 miles north and 2.5 miles west from Morenci along road north 0.2 mile (by C. W. Howell in 1911)

Morenci, 2.1 mi. N., thence 2.5 mi. W. from, in SW. cor. sec. 23, T. 8 S., R. 1 E., in NE. corner of crossroads; standard iron post with bronze cap stamped "818"----- Feet  
817. 858

From Adrian quadrangle at point 0.8 mile south and 1.4 miles west from North Morenci along road west 1.1 miles (by C. E. Mills in 1911)

Morenci, 2.1 mi. N., thence 1.5 mi. W. from, in NW. cor. sec. 25, T. 8 S., R. 1 E., in SE. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 32 1911 Mich 798"----- 797. 043

From Alvordton quadrangle<sup>68</sup> at point 1.6 miles north and 2 miles west from Waldron along roads north 0.2 mile, thence east to crossroads 2.1 miles north and 2.5 miles west from Morenci (by Philip Flitman in 1911)

Waldron, 2.0 mi. N., thence 2.0 mi. W. from, in NE. cor. sec. 28, T. 8 S., R. 1 W., in SW. corner of crossroads; standard iron post with bronze cap stamped "896"----- 895. 227

Waldron, 2.0 mi. N., thence 1.0 mi. E. from, 2.0 mi. S. of Prattville, in NE. cor. sec. 27, T. 8 S., R. 1 W., in SW. angle of crossroads; standard iron post with bronze cap stamped "896"----- 895. 420

Waldron, 2.0 mi. N., thence 2.0 mi. E. from, in NW. cor. sec. 25, T. 8 S., R. 1 W., in SE. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 31 1911 889"----- 888. 629

Waldron, 2.0 mi. N., thence 4.6 mi. E. from, 2.5 mi. N. of Munson, in NE. cor. sec. 30, T. 8 S., R. 1 E., in SW. corner of crossroads; standard iron post with bronze cap stamped "846"----- 845. 217

From Jackson quadrangle near northwest end of Devil's Lake southwest and west along roads by way of Addison into Hillsdale quadrangle near northeast corner sec. 2, T. 6 S., R. 2 W. (by H. P. Jones in 1930)

Addison, 2.6 mi. E. of, in SW $\frac{1}{4}$  sec. 34, T. 5 S., R. 1 E., 20 ft. S. and 15 ft. W. from junction of T-rd. W., in root on W. side of 2-in. maple tree; copper nail and washer----- 1, 057. 44

Addison, 1.2 mi. E. of, in SE. cor. sec. 32, T. 5 S., R. 1 E., 20 ft. N. and 65 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 19 S 1929"----- 1, 048. 312

Addison, 20 ft. S. and 20 ft. E. from center of crossroads at, 12 ft. NW. of NW. corner of bank building, on concrete curb; chiseled square----- 1, 053. 34

Addison, 0.8 mi. W. of, in NW. cor. sec. 1, T. 6 S., R. 1 W., 20 ft. S. and 60 ft. E. from junction of T-rd. N. on Hillsdale-Lenawee county line, in root on W. side of 22-in. oak tree; copper nail and washer----- 1, 031. 40

Addison, 1.8 mi. W. of, 1.0 mi. N., thence 1.0 mi. E. from Wheatland, in SW. cor. sec. 36, T. 5 S., R. 1 W., 230 ft. E. of junction of T-rd. S., on N. side of rd., in concrete post; standard tablet stamped "T T 20 S 1929"----- 1, 038. 399

Reference mark, in SW. angle of rd. junction, in root on N. side of 11-in. ash tree; copper nail and washer----- 1, 035. 49

Addison, 3.8 mi. W. of, 1.0 mi. N., thence 1.0 mi. W. from Wheatland, in NW. cor. sec. 3, T. 6 S., R. 1 W., 65 ft. S. and 25 ft. E. from crossroads, in root on W. side of 10-in. wild-cherry tree; copper nail and washer----- 1, 179. 43

<sup>68</sup> No marks likely to endure were set in Alvordton quadrangle.



Addison, 4.8 mi. W. of, 25 ft. N. and 40 ft. W. from S. cor. secs. 32 and 33, T. 5 S., R. 1 W., 25 ft. N. and 40 ft. E. from N. cor. secs. 4 and 5, T. 6 S., R. 1 W., on N. side of rd., 40 ft. W. of T-rd. N., in concrete post; standard tablet stamped "T T 21 S 1929" -----	Feet 1, 147. 027
Addison, 5.8 mi. W. of, 2.0 mi. N. of Hoxie, in SE. cor. sec. 31, T. 5 S., R. 1 W., 60 ft. N. and 70 ft. W. from crossroads, at schoolhouse, on E. end of lower step; chiseled square -----	1, 191. 58
Addison, 6.8 mi. W. of, 1.0 mi. N., thence 2.5 mi. E. from North Adams, near N. cor. secs. 1 and 6, T. 6 S., Rs. 1 and 2 W., on S. side of rd., in root on NE. side of 22-in. elm tree; copper nail and washer -----	1, 174. 60
North Adams, 1.0 mi. N., thence 1.5 mi. E. from, in SW. cor. sec. 35, T. 5 S., R. 2 W., 25 ft. N. and 50 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 22 S 1929" -----	1, 176. 594

## IMLAY CITY QUADRANGLE

[Latitude 43°00'-43°15'; longitude 83°00'-83°15']

## LAPEER COUNTY

From Lapeer quadrangle 0.6 mile north and 3.4 miles west from North Branch along roads alternately east and south to point in sec. 1, T. 8 N., R. 11 E., thence generally west by way of Kings Mill and back into Lapeer quadrangle at point on Deerfield-Mayfield township line 0.7 mile north and 1.5 miles west from Five Lakes (by E. E. Harris in 1919)

North Branch, 0.6 mi. N., thence 3.0 mi. W. from, in NW. cor. sec. 1, T. 9 N., R. 10 E., 20 ft. S. and 20 ft. E. from junction of T-rd. S., on E. end of concrete culvert; chiseled square -----	822. 68
North Branch, 0.6 mi. N., thence 1.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 6, T. 9 N., R. 11 E., 20 ft. S. and 15 ft. W. from junction of T-rd. S., in center of top of small concrete culvert; standard tablet stamped "1919 Mich 790" -----	789. 094
Reference mark, 20 ft. S. and 15 ft. W. from rd. junction, at S. side of culvert, on granite boulder; chiseled square -----	789. 22
North Branch, 0.6 mi. N., thence 1.4 mi. W. from, near N $\frac{1}{4}$ cor. sec. 6, T. 9 N., R. 11 E., at bridge over Flint River, on S. end of E. concrete abutment; chiseled square -----	786. 67
Flint River, under bridge; surface of water Nov. 16, 1919 -----	779. 3
North Branch, 0.6 mi. N. of, in NE. cor. sec. 5, T. 9 N., R. 11 E., 40 ft. S. and 15 ft. W. from crossroads, in center of top of concrete culvert; chiseled square -----	813. 47
North Branch, at NW. corner of intersection of Huron and Jefferson Streets, 6 ft. SE. of SE. corner of brick building of Heenan and Hibbler, on NW. corner of cement block of sidewalk; chiseled square -----	816. 79
North Branch, 0.5 mi. E. of intersection of Huron and Jefferson Streets, near center of sec. 4, T. 9 N., R. 11 E., about 300 ft. N. of Grand Trunk Ry. sta., at crossing of Ry. and stone rd.; top of E. rail of main track -----	814. 85
North Branch, 1.0 mi. E. of, near E $\frac{1}{4}$ cor. sec. 4, T. 9 N., R. 11 E., 20 ft. S. and 20 ft. W. from crossroads, in center of top of concrete culvert; chiseled square -----	820. 92
North Branch, 1.0 mi. E., thence 0.5 mi. S. from, in NW. cor. sec. 10, T. 9 N., R. 11 E., 75 ft. S. and 15 ft. E. from crossroads, in center of top of concrete culvert; standard tablet stamped "1919 Mich 828" -----	827. 273
T. 9 N., R. 11 E., in SW $\frac{1}{4}$ sec. 10, at N. end of iron railing of bridge over creek; top of E. rail -----	797. 48

T. 9 N., R. 11 E., in SW. cor. sec. 10, 20 ft. N. and 20 ft. E. from cross-roads, in center of top of concrete culvert; chiseled square-----	<i>Feet</i> 799. 93
T. 9 N., R. 11 E., near E $\frac{1}{4}$ cor. sec. 16, 25 ft. N. and 20 ft. W. from junction of T-rd. W., in center of top of concrete culvert; chiseled square-----	795. 02
T. 9 N., R. 11 E., in SW. cor. sec. 15, 20 ft. N. and 20 ft. E. from cross-roads, on top of concrete culvert; chiseled square-----	849. 45
T. 9 N., R. 11 E., in NW. cor. sec. 23, 5 ft. S. and 25 ft. E. from cross-roads, on granite boulder; chiseled square-----	798. 08
T. 9 N., R. 11 E., in SW. cor. sec. 13, 5 ft. N. and 30 ft. E. from cross-roads, in top of masonry culvert; standard tablet stamped "1919 Mich 850"-----	849. 085
T. 9 N., R. 11 E., in SE. cor. sec. 13, at jog in E.-W. rd., 25 ft. N. and 25 ft. W. from junction of rd. W., on granite boulder; chiseled square-----	858. 21
T. 9 N., R. 11 E., in NE. cor. sec. 25, at jog in E.-W. rd., 60 ft. S. and 25 ft. W. from junction of rd. W., in root on N. side of 40-in. Lombardy poplar tree; copper nail and washer-----	822. 85
T. 9 N., R. 12 E., in NW. cor. sec. 31, at jog in E.-W. rd., 40 ft. S. and 10 ft. E. from junction of rd. E., on top of 12-in. drain pipe; chiseled square-----	823. 52
T. 9 N., R. 11 E., in SE. cor. sec. 36, at entrance to Clear Lake School, in SE. corner of top stone step; standard tablet stamped "1919 Mich 858"-----	857. 491
T. 8 N., R. 11 E., on E. side SE $\frac{1}{4}$ sec. 1, at outlet of Clear Lake, in E. side of bridge floor; copper nail and washer-----	831. 22
Clear Lake; surface of water Nov. 16, 1919-----	828. 1
T. 9 N., R. 11 E., in SW. cor. sec. 34, 0.5 mi. N. of Kings Mill, 20 ft. N. and 35 ft. E. from junction of N.-S. rd., in center of top of concrete culvert; chiseled square-----	851. 14
Kings Mill, 20 ft. N. and 15 ft. W. from junction of T-rd. W. at, near E $\frac{1}{4}$ cor. sec. 4, T. 8 N., R. 11 E., directly opposite post office (now discontinued), in center of concrete culvert; standard tablet stamped "1919 Mich 878"-----	877. 518
Kings Mill, 0.4 mi. W. of, near center of sec. 4, T. 8 N., R. 11 E., on W. end of S. concrete head wall of culvert; chiseled square-----	846. 24
Kings Mill, 2.7 mi. W. of, 0.5 mi. E. of Five Lakes, near center of sec. 6, T. 8 N., R. 11 E., 30 ft. N. and 10 ft. W. from crossroads, on granite boulder; chiseled square-----	864. 74
Five Lakes, near quarter corner between secs. 1 and 6, T. 8 N., Rs. 10 and 11 E., near Arcadia-Mayfield township line, at jog in E.-W. rd., 25 ft. N. and 25 ft. E. from rd. E., on flat granite boulder; chiseled square-----	853. 55
Five Lakes, 1.1 mi. W. of, near W $\frac{1}{4}$ cor. sec. 1, T. 8 N., R. 10 E., in W. side of grassy triangle at forks of rd. E.; standard iron post with bronze cap stamped "Prim Trav Sta No 29 H 1919 Mich 853"-----	852. 639
Five Lakes, 1.1 mi. E., thence 0.7 mi. N. from, in NE. cor. sec. 2, T. 8 N., R. 10 E., at Deerfield-Mayfield township line, 10 ft. S. and 10 ft. W. from crossroads, at concrete bridge over creek, on SE. corner of floor; chiseled square-----	836. 39

## IONIA QUADRANGLE

[Latitude 42°45'-43°00'; longitude 85°00'-85°15']

## BARRY, EATON, AND IONIA COUNTIES

From Lowell quadrangle at point 0.7 mile south and 3.2 miles east from Freeport east along road into Muir quadrangle at point 0.5 mile south and 0.2 mile west from Sunfield (by L. D. Townsend in 1911)

T. 4 N., R. 8 W., at NW. cor. sec. 12, in SE. angle of crossroads, 3 ft. N. and 8 ft. E. from corner fence post, opposite Cheney School, on boulder; chiseled square	Feet 861.62
T. 4 N., R. 8 W., 76 ft. N. and 490 ft. W. from SE. cor. sec. 1, in NW. angle of crossroads, 3 ft. S. of corner fence post; standard iron post with bronze cap stamped "Prim Trav Sta No 23 1911 Mich 851" <sup>99</sup>	851.757
T. 4 N., R. 7 W., in SW. cor. sec. 5, near NE. corner of crossroads, opposite church on NW. corner and Tamarack School on SW. corner, at end of culvert under E.-W. rd., on stone; chiseled square (not recovered in 1916)	821.03
T. 4 N., R. 7 W., at cor. secs. 4, 5, 8, and 9, in center of junction of T-rd. S.; on stone marking section corner; chiseled square	838.15
T. 4 N., R. 7 W., in SW. cor. sec. 3, in NE. angle of crossroads, in SE. corner of yard of North Jordan School, 3 ft. S. and 3 ft. E. from SW. corner of woodshed; standard iron post with bronze cap stamped "863"	863.065
T. 4 N., R. 7 W., in SW. cor. sec. 2, in NE. angle of crossroads, inside fence, 3 ft. from corner post, on large boulder; chiseled square	878.70
T. 4 N., R. 7 W., in SW. cor. sec. 1, 0.5 mi. S., thence 1.0 mi. W. from Woodbury, in NE. angle of crossroads, opposite Eckardt School, near dwelling of J. J. Eckardt, 3 ft. S. and 5 ft. E. from concrete corner fence post (mail box on this post and evergreen hedge ends here); standard iron post with bronze cap stamped "Prim Trav Sta No 24 1911 Mich 885"	884.355
Woodbury, 0.5 mi. S. of, in SE. cor. sec. 1, T. 4 N., R. 7 W., in NW. angle of crossroads, 20 ft. N. of corner fence post, 4 ft. from fence, on large boulder; chiseled cross in square (recovered in 1916)	877.39
Woodbury, 0.5 mi. S., thence 1.3 mi. E. from, at S. side sec. 5, T. 4 N., R. 6 W., in NE. angle of intersection of NW.-SE. rd., near SE. corner of yard of Nead School, 5 ft. S. of corner fence post; standard iron post with bronze cap stamped "841"	841.236
T. 4 N., R. 6 W., in SE. cor. sec. 5, in NW. angle of crossroads, at wire fence, 4 ft. from corner post, on stone; chiseled square	846.48
T. 4 N., R. 6 W., in NE. cor. sec. 9, in SW. angle of crossroads, in root on N. side of butternut tree; copper nail and washer	852.98
From Fenwick quadrangle near northwest corner sec. 17, T. 7 N., R. 6 W., south and west along roads and streets through Ionia to Loomis School, thence south along township-line road to crossroads 0.4 mile south of Woodbury (by H. S. Senseney in 1916)	
Ionia, 1.3 mi. NE. of courthouse, near W $\frac{1}{4}$ cor. sec. 17, T. 7 N., R. 6 W., in SE. angle of junction of T-rd. E., in root of tree; copper nail and washer	796.52
Ionia, in front of courthouse, at SE. corner of Soldiers' Monument, on base; chiseled square (recovered by U. S. C. & G. S. in same year and designated "Q 17")	658.201

<sup>99</sup> In 1928 this bench mark was reset by the State Highway Department 0.471 foot higher than its original elevation. The figures given represent the new elevation.

Ionia, at SE. corner of courthouse; standard iron post with bronze cap stamped "661" (recovered by U. S. C. & G. S. in same year and designated "R 17")	Feet 660. 209
Ionia, in front of Grand Trunk Ry. sta.; top of N. rail	643. 5
Grand River under vehicle bridge; surface of water July 1, 1916	627. 3
Ionia, 1.2 mi. SW. of, in NW¼ sec. 30, T. 7 N., R. 6 W., 0.2 mi. S. of bridge over Grand River, at NE. corner of crossroads, on stone post; chiseled square	652. 48
Ionia, 2.3 mi. SW. of, in SW. cor. sec. 30, T. 7 N., R. 6 W., in NE. angle of junction of N.-S. rd., near Loomis School, in root of tree; copper nail and washer	812. 24
Ionia, 2.8 mi. SW. of, near W¼ cor. sec. 31, T. 7 N., R. 6 E., in SE. angle of crossroads, in root of tree; copper nail and washer	806. 27
Ionia, 4.3 mi. SW. of, 2.0 mi. N. of Tremaine Corners, in NW. cor. sec. 7, T. 6 N., R. 6 W., 35 ft. S. and 30 ft. E. from crossroads; standard iron post with bronze cap stamped "810"	809. 566
Tremaine Corners, 1.0 mi. N. of, in NE. cor. sec. 13, T. 6 N., R. 7 W., on NE. corner of lower step of Methodist Episcopal Church; chiseled square	809. 78
Tremaine Corners, in NW. cor. sec. 19, T. 6 N., R. 6 W., in SE. angle of crossroads, in root of tree; copper nail and washer	841. 89
Tremaine Corners, 1.0 mi. S. of, in SW. cor. sec. 19, T. 6 N., R. 6 W., 30 ft. N. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "851"	850. 720
Tremaine Corners, 2.0 mi. S. of, in SE. cor. sec. 25, T. 6 N., R. 7 W., in NW. angle of crossroads, in root of tree; copper nail and washer	850. 37
Tremaine Corners, 3.0 mi. S. of, in SE. cor. sec. 36, T. 6 N., R. 7 W., in NW. angle of crossroads, on boulder; chiseled square	853. 97
Tremaine Corners, 4.0 mi. S. of, in NW. cor. sec. 7, T. 5 N., R. 6 W., 35 ft. S. and 30 ft. E. from crossroads; standard iron post with bronze cap stamped "853"	852. 743
Tremaine Corners, 5.0 mi. S. of, 4.6 mi. N. of Woodbury, in NE. cor. sec. 13, T. 5 N., R. 7 W., in SW. angle of crossroads, in root of tree; copper nail and washer	860. 13
Woodbury, 3.6 mi. N. of, in SE. cor. sec. 13, T. 5 N., R. 7 W., in NW. angle of crossroads, in root of tree; copper nail and washer	839. 62
Woodbury, 2.6 mi. N. of, in SW. cor. sec. 19, T. 5 N., R. 6 W., 15 ft. N. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "834"	833. 674
Woodbury, 1.6 mi. N. of, in SE. cor. sec. 25, T. 5 N., R. 7 W., in NW. angle of crossroads, in root of tree; copper nail and washer	865. 05
Woodbury, 0.6 mi. N. of, near corner of Barry, Eaton, and Ionia Counties, in SW. cor. sec. 31, T. 5 N., R. 6 W., in NE. angle of crossroads, in root of tree; copper nail and washer	871. 12
From Ionia southwest along Grand Trunk Railway about 4 miles, thence generally south along roads to crossroads 2 miles south and 1.8 miles west from Lake Odessa (by E. C. Bibbee in 1916)	
Ionia, 1.1 mi. SW. of courthouse at, 600 ft. W. of city limits, 40 ft. E. of milepost 125-64, at NW. corner of trestle over rd., on head of first driftbolt from W. end; highest point	643. 62
Michigan Reformatory sta.; top of N. rail	643. 9
Grand River, under Ry. bridge; surface of water July 11, 1916	624. 4
Ionia, 2.9 mi. SW. of, 25 ft. N. of track, 100 ft. E. of milepost 127-62, about 1,000 ft. N. of rd. fork, on large granite rock; chiseled square	640. 11

Ionia, 3.9 mi. SW. of, about 900 ft. NE. of Ionia County Infirmary, near N $\frac{1}{4}$ cor. sec. 34, T. 7 N., R. 7 W., at NW. corner of trestle, on head of first driftbolt from W. end; highest point-----	Feet 642. 26
T. 7 N., R. 7 W., 640 ft. N. of quarter corner between secs. 33 and 34, at junction of T-rd. S., in SE. corner of yard of Sessions School (Easton Township School No. 4); standard iron post with bronze cap stamped "Mich 666"-----	665. 080
T. 7 N., R. 7 W., near quarter corner between secs. 32 and 33, in triangular grass plot near center of junction of T-rd. S., in root on N. side of 24-in. oak tree; copper nail and washer-----	693. 56
T. 7 N., R. 7 W., in SE. cor. sec. 32, at crossroads, on NE. corner of concrete floor of iron bridge; chiseled square-----	665. 17
T. 6 N., R. 7 W., in SE. cor. sec. 5, 50 ft. N. of NW. corner of crossroads, in front of Hartwell School, in root of 36-in. elm tree; copper nail and washer-----	802. 29
T. 6 N., R. 7 W., in SE. cor. sec. 8, in NW. angle of crossroads, 4 ft. SE. of fence corner; standard iron post with bronze cap stamped "Mich 803"-----	802. 212
T. 6 N., R. 7 W., in NW. cor. sec. 17, near Mud School, 120 ft. E. of junction of T-rd. S., on S. end of concrete culvert; chiseled square-----	809. 47
T. 6 N., R. 7 W., in SE. cor. sec. 18, 500 ft. NW. of Peck Lake, 250 ft. N. and 10 ft. W. from crossroads, on large granite rock; chiseled square-----	831. 37
Peck Lake; surface of water July 17, 1916-----	820. 1
T. 6 N., R. 7 W., in SE. cor. sec. 19, in SE. corner of yard of Randall School; standard iron post with bronze cap stamped "Mich 840"-----	839. 186
T. 6 N., R. 7 W., in NE. cor. sec. 31, 100 ft. S. of crossroads, on NW. corner of concrete floor of bridge; chiseled square-----	829. 36
T. 6 N., R. 7 W., 17 ft. N. of S. cor. secs. 31 and 32, 6 ft. S. of fence line, in center of N.-S. rd., on large granite rock; chiseled square---	833. 05
T. 5 N., R. 7 W., in SW. cor. sec. 5, 3.5 mi. E. of Clarksville, near NE. corner of crossroads, 5 ft. NW. of corner post; standard iron post with bronze cap stamped "Mich 856"-----	855. 391
T. 5 N., R. 7 W., 200 ft. N. of SE. cor. sec. 7, at SW. corner of crossroads, on S. concrete head wall of culvert; chiseled square-----	850. 49
T. 5 N., R. 7 W., in SE. cor. sec. 18, at NW. corner of crossroads, opposite Beard School, 20 ft. SE. of fence corner, on N. concrete head wall of culvert; chiseled square-----	855. 93
T. 5 N., R. 7 W., in NW. cor. sec. 29, 1.8 mi. W., thence 1.0 mi. N. from Lake Odessa, at NW. corner of United Brethren Church; standard iron post with bronze cap stamped "Mich 874"-----	873. 690
Lake Odessa, 1.8 mi. W. of, in NE. cor. sec. 31, T. 5 N., R. 7 W., in SW. angle of crossroads, 15 ft. S. and 10 ft. E. from fence corner, on large granite rock; chiseled square-----	878. 48
Lake Odessa, 1.8 mi. W., thence 2.0 mi. S. from, in SE. cor. sec. 6, T. 4 N., R. 7 W., at entrance to United Brethren Church, on E. end of first concrete step from bottom; chiseled square-----	823. 70
From Lowell quadrangle southeast along Pere Marquette Railway to Clarksville station, thence south along roads 3.5 miles and west 0.4 mile and back into Lowell quadrangle (by E. C. Bibbee in 1916)	
Clarksville sta., 0.5 mi. S. of, 80 ft. S. of crossroads, 9 ft. E. of fence, on large granite rock; chiseled square (not recovered in 1931)-----	891. 79

Clarksville, 1.5 mi. S. of sta., near quarter corner between secs. 15 and 22, T. 5 N., R. 8 W., opposite T-rd. W., in E. fence line, on concrete base of iron post; chiseled square-----	Feet 874. 97
Clarksville, 2.5 mi. S. of sta., near quarter corner between secs. 22 and 27, T. 5 N., R. 8 W., in NW. angle of junction of T-rd. W., 12 ft. E. of W. fence line; standard iron post with bronze cap stamped "843"-----	842. 510
Clarksville, 3.5 mi. S. of sta., 1.3 mi. N. and 3.7 mi. E. from Freeport, 200 ft. N. of quarter corner between secs. 27 and 34, T. 5 N., R. 8 W., 8 ft. E. of fence line, in cultivated field, in root on W. side of 24-in. maple tree; copper nail and washer-----	867. 05

IRON MOUNTAIN QUADRANGLE<sup>1</sup>

[Latitude 45°45'–46°00'; longitude 88°00'–88°15']

## DICKINSON AND IRON COUNTIES

From point near Twin Falls on Menominee River south to Iron Mountain, thence southeast into Norway quadrangle near Quinnesec (by J. L. Holman in 1898)<sup>2</sup>

Iron Mountain, about 4 mi. NW. of, in NE¼ sec. 12, T. 40 N., R. 31 W., 300 ft. N. of E. end of bridge over Menominee River, in large trap rock; aluminum tablet stamped "I M 1108"-----	1, 106. 650
Lake Antoine; surface of water May 18, 1898-----	1, 156. 3
Iron Mountain, at NW. corner of Dickinson County courthouse, 10 ft. N. of W. entrance; aluminum tablet stamped "I M 1155"-----	1, 153. 910

## JACKSON QUADRANGLE

[Latitude 42°00'–42°15'; longitude 84°15'–84°30']

## HILLSDALE, JACKSON, AND LENAWEЕ COUNTIES

From Jackson east along Michigan Central Railroad, Michigan Electric Railroad,<sup>3</sup> and roads to crossroads 3 miles east of Michigan Center, thence north along road into Rives Junction quadrangle at point 0.4 mile north of Leoni (by E. C. Bibbee in 1916)

Jackson, at SW. corner of Pearl and Cooper Streets, on circular stone curb; chiseled square-----	932. 63
Jackson, at Michigan Central R. R. sta., on SW. corner of SW. pier; chiseled square (City of Jackson and M. C. R. R. B. M.; recovered in 1930)-----	933. 89
Jackson, 60 ft. E. of Elm Avenue crossing of M. C. R. R., 7 ft. N. of track, on iron plate holding electric signal to concrete base, on SE. bolt; highest point-----	944. 41
Jackson, 1.9 mi. SE. of M. C. R. R. sta., 2.0 mi. W. of Michigan Center, near quarter corner between secs. 1 and 6, T. 3 S., Rs. 1 E. and 1 W., 10 ft. N. and 28 ft. W. from center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 3 1915 Mich 990" (recovered in 1930 and assumed to have settled 0.34 foot)-----	988. 199

<sup>1</sup>The greater portion of this quadrangle lies in Wisconsin. The Michigan portion lying between the Menominee River on the south and the line between Tps. 40 and 41 N. on the north was originally surveyed and published, together with a portion of the Norway quadrangle, as Menominee Iron Range special project.

<sup>2</sup>The elevations in this line are based on the top of rail of the Chicago, Milwaukee, St. Paul and Pacific Railroad in front of the station at Iron Mountain, the elevation of which is tentatively accepted as 1,133.58 feet or 1.42 feet lower than the figures previously published. The figures of elevation are approximate but are very nearly in accord with the 1929 general adjustment.

<sup>3</sup>This railroad is now abandoned.

Michigan Center, 0.6 mi. W. of, 100 ft. E. of Sutton stop on Michigan Electric R. R., 100 ft. E. of junction of T-rd. N., on W. end of N. concrete head wall of culvert under wagon rd.; chiseled square-----	Feet 938. 63
Michigan Center, on W. side of rd., 200 ft. S. of Hotel Maple, 35-ft. N. of M. C. R. R. tracks; standard iron post with bronze cap stamped "Mich 946" (recovered by U. S. C. & G. S. in 1916 and designated "Q 19")-----	945. 251
Michigan Center, 0.8 mi. E. of, 0.8 mi. S., thence 2.3 mi. W. from Leoni, 35 ft. NW. of Michigan Center Junction stop on Michigan Electric R. R., on E. end of N. concrete head wall of culvert over creek; chiseled square-----	958. 50
Leoni, 0.8 mi. S. of, 1.0 mi. S. and 3.0 mi. W. from Grass Lake, in SW. cor. sec. 1, T. 3 S., R. 1 E., 28 ft. N. and 3 ft. E. from center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 4 1915 Mich 981" (recovered in 1930)-----	980. 478
Leoni, 75 ft. E. of sta., on E. side of rd., 12 ft. N. of main track, on SW. corner of concrete base of electric signal at crossing; chiseled square-----	983. 66
From Leoni generally south along roads to State Highway 50, thence southeast into Manchester quadrangle (by H. P. Jones in 1930)	
U. S. C. & G. S. standard disk designated "T 19"-----	986. 629
Leoni, 1.8 mi. S. of, 20 ft. S. and 20 ft. E. from NW. cor. sec. 13, T. 3 S., R. 1 E., near SE. corner of crossroads, on concrete head wall of culvert; chiseled square-----	1, 007. 36
Leoni, 2.3 mi. S. of, 15 ft. N. and 180 ft. W. from quarter corner between secs. 13 and 14, T. 3 S., R. 1 E., in NW. angle of crossroads, on top of concrete head wall of culvert; chiseled square-----	1, 006. 36
Leoni, 2.3 mi. S., thence 0.4 mi. W. from, 20 ft. N. and 250 ft. E. from center of sec. 14, T. 3 S., R. 1 E., and junction of T-rd. S., on top of concrete head wall of culvert; chiseled square-----	986. 68
Leoni, 2.8 mi. S. and 0.5 mi. W. from, near quarter corner between secs. 14 and 23, T. 3 S., R. 1 E., 15 ft. E. of center line of rd., on top of concrete head wall of culvert; chiseled square-----	946. 90
Leoni, 3.3 mi. S. and 0.5 mi. W. from, at center of sec. 23, T. 3 S., R. 1 E., 40 ft. N. and 25 ft. W. from junction of rds. W. and SE., in concrete post; standard tablet stamped "T T 12 S 1929"-----	956. 336
Leoni, 3.8 mi. S. and 0.2 mi. W. from, in NE $\frac{1}{4}$ sec. 26, T. 3 S., R. 1 E., on SW. side of rd., on W. concrete head wall of culvert under drive to farmhouse; chiseled square-----	952. 35
Leoni, 4.5 mi. S. and 0.2 mi. E. from, 0.9 mi. NW., thence 0.7 mi. N. from Napoleon, in SW $\frac{1}{4}$ sec. 25, T. 3 S., R. 1 E., 15 ft. S. and 15 ft. E. from junction of T-rd. E., on top of concrete head wall of culvert; chiseled square-----	958. 37
Napoleon, 0.9 mi. NW. of, 0.2 mi. NW. of center of sec. 36, T. 3 S., R. 1 E., 40 ft. N. and 20 ft. E. from crossroads, at base on S. side of 26-in. elm tree; copper nail and washer-----	969. 51
From Manchester quadrangle at point 3.3 miles west of Onsted alternately west and south along roads into Hudson quadrangle at point 2.7 miles east and 0.8 mile north from Addison (by H. P. Jones in 1930)	
T. 5 S., R. 1 E., near center of sec. 25, 40 ft. NW. of crossroads, on large rock at end of tile culvert under rd.; highest point-----	1, 070. 54
T. 5 S., R. 1 E., near center of sec. 26, 20 ft. W. of junction of N.-S. rd., in root on N. side of 18-in. elm tree; copper nail and washer-----	1, 064. 42

T. 5 S., R. 1 E., about 500 ft. N. of quarter corner between secs. 26 and 35, at NW. corner of junction of NW.-SE. rd., on top of concrete head wall of culvert; chiseled square.....	<i>Feet</i> 1, 091. 77
Devils Lake, 0.2 mi. E. of village, 42 ft. N. of center line of paved rd., 78 ft. W. of Woodstock School, in concrete post; standard tablet stamped "T T 18 S 1929".....	1, 071. 642
From Spring Arbor quadrangle at point 3 miles east of Hanover generally east along roads into Manchester quadrangle near Brooklyn (by H. P. Jones in 1930)	
Hanover, 3.1 mi. E. of, near NE. cor. sec. 26, T. 4 S., R. 2 W., 25 ft. S. and 45 ft. W. from crossroads, in root on N. side of 6-in. elm tree; copper nail and washer.....	1, 096. 99
T. 4 S., R. 2 W., near NW. cor. sec. 24, 85 ft. S. and 20 ft. E. from crossroads, in root on W. side of 22-in. basswood tree; copper nail and washer.....	1, 066. 06
T. 4 S., R. 2 W., about 800 ft. N. of SE. cor. sec. 13, 95 ft. N. and 15 ft. W. from junction of N.-S. rd., on concrete head wall of culvert; chiseled square.....	1, 044. 27
T. 4 S., R. 1 W., 210 ft. E. of SW. cor. sec. 18, 35 ft. N. and 25 ft. W. from junction of rd. E., in concrete post; standard tablet stamped "T T 23 S 1929".....	1, 038. 635
T. 4 S., R. 1 W., 0.25 mi. W. of SE. cor. sec. 18, 55 ft. N. and 40 ft. W. from crossroads, at Turkey Hall School, in SE. corner of concrete step; chiseled square.....	1, 100. 17
T. 4 S., R. 1 W., near quarter corner between secs. 17 and 20, 20 ft. S. and 40 ft. E. from crossroads, in root on N. side of 18-in. maple tree; copper nail and washer.....	1, 082. 50
T. 4 S., R. 1 W., near quarter corner between secs. 16 and 21, 15 ft. N. and 110 ft. E. from junction of T-rd. S., in root on S. side of 20-in. hickory tree; copper nail and washer.....	1, 055. 45
T. 4 S., R. 1 W., 0.2 mi. N. of quarter corner between secs. 15 and 16, 20 ft. N. and 50 ft. W. from junction of rd. N., in concrete post; standard tablet stamped "T T 24 S 1929".....	1, 046. 538
T. 4 S., R. 1 W., near center of sec. 15, 30 ft. N. and 30 ft. E. from rd. fork, in root on S. side of 8-in. oak tree; copper nail and washer.....	1, 037. 88
T. 4 S., R. 1 W., near quarter corner between secs. 14 and 15, 25 ft. S. and 175 ft. W. from junction of rd. N., in root on NE. side of 24-in. oak tree; copper nail and washer.....	1, 005. 56
T. 4 S., R. 1 W., 0.2 mi. N. of quarter corner between secs. 14 and 23, 15 ft. S. and 25 ft. W. from junction of rd. S., on top of concrete head wall of culvert; chiseled square.....	992. 40
T. 4 S., R. 1 W., about 1,000 ft. N. of SW. cor. sec. 13, 25 ft. N. and 25 ft. E. from junction of rd. N., on top of concrete head wall of culvert; chiseled square.....	982. 84
T. 4 S., R. 1 W., about 500 ft. N. of quarter corner between secs. 13 and 24, 15 ft. S. and 30 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square.....	986. 40
T. 4 S., R. 1 W., 310 ft. N. and 220 ft. W. from SE. cor. sec. 13, 0.4 mi. S., thence 1.0 mi. W. from Clarklake, near Hillsdale-Lenawee county line, 35 ft. N. and 85 ft. W. from rd. fork, in concrete post; standard tablet stamped "T T 25 S 1929".....	975. 527
Clarklake, 0.4 mi. S. of, about 1,000 ft. S. of NE. cor. sec. 19, T. 4 S., R. 1 E., 30 ft. S. and 35 ft. W. from crossroads, in root of 10-in. elm tree; copper nail and washer.....	983. 74



T. 4 S., R. 1 E., in NE $\frac{1}{4}$ sec. 20, 0.4 mi. S., thence 0.8 mi. E. from Clarklake, 30 ft. S. and 120 ft. E. from private rd. N. to Clark Lake, in root on N. side of 18-in. maple tree; copper nail and washer.....	Feet 1, 022. 85
T. 4 S., R. 1 E., near center of sec. 21, 15 ft. S. and 15 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square.....	1, 031. 61
T. 4 S., R. 1 E., 0.25 mi. E. of quarter corner between secs. 21 and 22, 35 ft. S. and 10 ft. W. from junction of T-rd. N., in root on S. side of 8-in. maple tree; copper nail and washer.....	1, 029. 38
Brooklyn, 2.6 mi. W. of, near center of sec. 22, T. 4 S., R. 1 E., 40 ft. S. and 50 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 26 S 1929".....	1, 007. 306
Brooklyn, 1.5 mi. W. of, near center of sec. 23, T. 4 S., R. 1 E., on S. concrete head wall of culvert; chiseled square.....	958. 95
Brooklyn, 0.8 mi. W. of, in SW $\frac{1}{4}$ sec. 24, T. 4 S., R. 1 E., on N. side of rd., on W. concrete head wall of culvert under field rd.; chiseled square.....	982. 65
From Jackson south along roads by way of Somerset into Hudson quadrangle at point 1 mile north and 1 mile west from Addison (by H. P. Jones in 1930)	
Jackson, at NW. corner of intersection of Page Avenue and South Elm Street, on concrete curb; chiseled square.....	955. 40
U. S. C. & G. S. standard disk designated "R 11".....	947. 157
Jackson, in S. part of, at NE. corner of intersection of Francis and East High Streets, on concrete curb; chiseled square.....	971. 73
Jackson, 2.0 mi. S. of post office, at SW. corner of Woodlawn Cemetery, 50 ft. E. of intersection of Francis Street and Pierce Avenue, in concrete post; standard tablet stamped "HPJ 1 1930".....	978. 652
Reference mark, at SW. corner of street intersection, at entrance to house, on concrete sidewalk; chiseled square.....	978. 28
Jackson, 3.1 mi. S. of post office, 0.4 mi. W., thence 0.5 mi. N. from public school at Vandercook Lake, in NW $\frac{1}{4}$ sec. 23, T. 3 S., R. 1 W., 150 ft. S. of rd. fork, on S. end of W. head wall of bridge over Sharp's Creek; chiseled square.....	944. 70
Vandercook Lake, in town of, at S. end of wing wall at steps to approach to public school building, on concrete sidewalk; chiseled square.....	970. 01
Vandercook Lake, 0.5 mi. S. of, at S. village limits, on W. side of rd., 40 ft. NW. of W. end of concrete culvert, in concrete post; standard tablet stamped "HPJ 2 1930".....	964. 791
Vandercook Lake, 1.0 mi. S. of, near center of sec. 26, T. 3 S., R. 1 W., 25 ft. N. and 25 ft. E. from junction of T-rd. E., on large boulder; chiseled square.....	954. 37
Vandercook Lake, 2.1 mi. S. of, 0.25 mi. E. of quarter corner between secs. 34 and 35, T. 3 S., R. 1 W., 20 ft. N. and 20 ft. W. from junction of T-rd. W., on top of concrete head wall of culvert; chiseled square.....	990. 99
Vandercook Lake, 2.6 mi. S. of, 0.25 mi. E. of SW. cor. sec. 35, T. 3 S., R. 1 W., 25 ft. N. and 20 ft. E. from crossroads, on concrete base of corner fence post; chiseled square.....	1, 029. 38
Vandercook Lake, 3.6 mi. S. of, 0.25 mi. E. of W. cor. secs. 2 and 11, T. 4 S., R. 1 W., in triangle at junction of T-rd. N., 27 ft. S. of 18-in. oak tree, in concrete post; standard tablet stamped "HPJ 3 1930".	1, 010. 614
Vandercook Lake, 4.5 mi. S. of, 6.2 mi. N., thence 0.9 mi. W. from Somerset, in SE $\frac{1}{4}$ sec. 11, T. 4 S., R. 1 W., on N. side of rd., in root on S. side of 22-in. oak tree; copper nail and washer.....	976. 66

Somerset, 6.2 mi. N. of, 0.2 mi. S. of center of sec. 12, T. 4 S., R. 1 W., 20 ft. S. and 35 ft. E. from junction of T-rd. S., in root on N. side of 18-in. maple tree; copper nail and washer-----	<i>Feet</i> 986. 79
Somerset, 3.8 mi. N. of, 0.25 mi. E. of NW. cor. sec. 25, T. 4 S., R. 1 W., 20 ft. S. and 35 ft. W. from crossroads, in root on E. side of 28-in. oak tree; copper nail and washer-----	1, 008. 31
Somerset, 2.8 mi. N. of, 0.25 mi. E. of NW. cor. sec. 36, T. 4 S., R. 1 W., 25 ft. S. and 30 ft. W. from crossroads; top of ¾-in. pipe driven into ground-----	1, 035. 70
Somerset, 1.8 mi. N. of, 0.25 mi. E. of SW. cor. sec. 36, T. 4 S., R. 1 W., near Hillsdale-Jackson county line, 65 ft. N. and 25 ft. E. from crossroads, in concrete post; standard tablet stamped "HPJ 4 1930"-----	1, 058. 693
Somerset, 1.3 mi. N. of, 0.3 mi. E. of quarter corner between secs. 1 and 2, T. 5 S., R. 1 W., 30 ft. N. and 30 ft. E. from crossroads, in root on W. side of 22-in. maple tree; copper nail and washer-----	1, 066. 30
Somerset, 0.6 mi. N. of, in NW¼ sec. 12, T. 5 S., R. 1 W., about 220 ft. S. of New York Central R. R., on E. side of rd., in center of S. wing wall of small bridge; chiseled square-----	1, 007. 95
Somerset, 65 ft. N. and 35 ft. W. from crossroads at, in SW¼ sec. 12, T. 5 S., R. 1 W., at entrance to Leuthuser store, on N. end of lower step; chiseled square-----	1, 065. 31
Somerset, 1.0 mi. S. of, in SW¼ sec. 13, T. 5 S., R. 1 W., 10 ft. N. and 25 ft. E. from junction of T-rd. W., in root on E. side of 15-in. maple tree; copper nail and washer-----	1, 086. 52
Somerset, 1.6 mi. S. of, in NW¼ sec. 24, T. 5 S., R. 1 W., 30 ft. W. of junction of T-rd. E., in concrete post; standard tablet stamped "HPJ 5 1930"-----	1, 121. 408
Reference mark, 100 ft. E. of rd. junction, in root on N. side of 12-in. hickory tree; copper nail and washer-----	1, 119. 22
Somerset, 2.3 mi. S. of, 0.25 mi. E. of NW. cor. sec. 25, T. 5 S., R. 1 W., 25 ft. S. and 30 ft. E. from crossroads, in root on W. side of 20-in. oak tree; copper nail and washer-----	1, 071. 38
Somerset, 3.3 mi. S. of, 1.0 mi. N. and 1.2 mi. W. from Addison, 0.3 mi. E. of SW. cor. sec. 25, T. 5 S., R. 1 W., 60 ft. N. and 30 ft. W. from right-angle turn in rd., in root on E. side of 18-in. elm tree; copper nail and washer-----	1, 041. 18 }

## JENISON QUADRANGLE

[Latitude 42°45'—43°00'; longitude 85°45'—86°00']

## ALLEGAN, KENT, AND OTTAWA COUNTIES

From Holland quadrangle near southeast corner sec. 30, T. 5 N., R. 14 W., east  
along roads by way of Drenthe and North Dorr into Grand Rapids quadrangle  
at point 1.1 miles west of Herps (by L. D. Townsend in 1911)

Drenthe, 2.0 mi. W. of, 6.0 mi. E. of Holland, in NW. cor. sec. 33, T. 5 N., R. 14 W., in SE. angle of junction of T-rd. S., in root on NW. side of sycamore tree; copper nail and washer-----	612. 53
Drenthe, on S. side of rd., 200 ft. E. of crossroads, at NE. corner of schoolyard, 3 ft. S. and 2 ft. W. from N. end of board fence between school and church; standard iron post with bronze cap stamped "665"-----	664. 640
Drenthe, 2.0 mi. E. of, in SW. cor. sec. 30, T. 5 N., R. 13 W., at NE. corner of crossroads, on N. end of 8-in. steel culvert under E.-W. rd.; chiseled cross battered in threads-----	712. 82

Drenthe, 3.0 mi. E. of, near SE. cor. sec. 30, T. 5 N., R. 13 W., near NW. corner of crossroads, 6 ft. N. of fence corner; standard iron post with bronze cap stamped "677" (recovered in 1929)-----	Feet 677. 136
Drenthe, 4.0 mi. E. of, near NW. cor. sec. 33, T. 5 N., R. 13 W., at SE. corner of crossroads, at sluiceway across E.-W. rd., on S. end at SW. corner of L-shaped concrete abutment; chiseled square (not recovered in 1929)-----	679. 88
Drenthe, 5.0 mi. E. of, 1.0 mi. N. and 4.0 mi. W. from North Dorr, at NW. corner of Gitchel crossroads, in front of general store of Speck Van Der Kolk, 1 ft. W. of SE. corner of concrete floor of porch; chiseled square (recovered in 1929)-----	705. 92
North Dorr, 1.0 mi. N. and 3.0 mi. W. from, near SW. cor. sec. 26, T. 5 N., R. 13 W., near NE. corner of crossroads, 5 ft. N. of fence corner; standard iron post with bronze cap stamped "704" <sup>4</sup> -----	703. 826
North Dorr, 2.0 mi. W. of, at cor. secs. 1, 2, 35, and 36, Tps. 4 and 5 N., R. 13 W., on Allegan-Ottawa county line, in center of crossroads, on stone marking section corner; chiseled cross in square (not recovered in 1929)-----	768. 41
North Dorr, 1.0 mi. W. of, near cor. secs. 1, 6, 31, and 36, Tps. 4 and 5 N., Rs. 12 and 13 W., near corner of Allegan, Kent, and Ottawa counties, at NW. corner of crossroads, 3 ft. W. of telephone pole; standard iron post with bronze cap stamped "786" <sup>5</sup> -----	786. 484
North Dorr, in SW. angle of crossroads, 6 ft. E. of corner post in fence around yard of Catholic Church, on highest point of large boulder; chiseled square (not recovered in 1929)-----	766. 65
From Holland quadrangle near west quarter corner sec. 17, T. 7 N., R. 14 W., east along road 8 miles to point 0.25 mile north of west quarter corner sec. 15, T. 7 N., R. 13 W., thence north 0.3 mile into Ravenna quadrangle (by H. P. Jones in 1928)	
T. 7 N., R. 14 W., near center of sec. 17, 18 ft. N. and 40 ft. W. from junction of T-rd. S., 40 ft. N. and 22 ft. E. from large cottonwood tree on S. side of rd., in concrete post; standard tablet stamped "P T Sta No 107 Y 1926"-----	616. 404
Reference mark, about 60 ft. SE. of junction of T-rd. S., in root on SW. side of 10-in. wild-cherry tree; copper nail and washer-----	614. 70
T. 7 N., R. 14 W., near center of sec. 16, 15 ft. N. and 120 ft. E. from junction of T-rd. N., in root on S. side of 40-in. beech tree; copper nail and washer-----	633. 11
T. 7 N., R. 14 W., near center of sec. 15, 1.5 mi. N. of Allendale, 85 ft. S. and 75 ft. W. from crossroads, at entrance to school, on concrete floor of porch; chiseled square-----	653. 30
T. 7 N., R. 14 W., near center of sec. 14, 1.5 mi. N., thence 1.0 mi. E. from Allendale, 53 ft. S. and 30 ft. E. from crossroads, 5 ft. N. of elm tree, in concrete post; standard tablet stamped "P T Sta No 110 Y 1926"-----	624. 152
Reference mark, 58 ft. S. and 30 ft. E. from crossroads, in root on N. side of 42-in. elm tree; copper nail and washer-----	624. 05
T. 7 N., R. 14 W., near E $\frac{1}{4}$ cor. sec. 14, 60 ft. N. and 25 ft. W. from junction of T-rd. S., 30 ft. E. of SE. corner of schoolhouse, in root on S. side of large elm tree; copper nail and washer-----	619. 70

<sup>4</sup> In 1929 this bench mark was found to have been disturbed and it was reset at the same location but 0.176 foot lower in elevation. The figures given represent the new elevation.

<sup>5</sup> In 1929 this bench mark was reset at another location nearby. For revised description and new elevation. see p. 224.

T. 7 N., R. 13 W., near W $\frac{1}{4}$ cor. sec. 18, 1.0 mi. in air line S. of Lamont, 50 ft. S. and 18 ft. E. from junction of T-rd. S., in root on W. side of 6-in. elm tree; copper nail and washer.....	<i>Feet</i> 624. 76
Lamont, 1.0 mi. SE. of, in NE $\frac{1}{4}$ sec. 17, T. 7 N., R. 13 W., 64 ft. N. 24° W. from elm tree in triangle at forks of rd. S., 25 ft. N. of E.-W. rd., at S. edge of clump of lilacs, in concrete post; standard tablet stamped "P T Sta No 111 Y 1926".....	651. 493
Reference mark, in triangle of rd. forks, in root on W. side of elm tree; copper nail and washer.....	650. 63
Lamont, 1.9 mi. SE. of, in NW $\frac{1}{4}$ sec. 16, T. 7 N., R. 13 W., on N. side of rd., 85 ft. SE. of farmhouse, in root on E. side of 22-in. maple tree; copper nail and washer.....	725. 05
From road fork near center of sec. 17, T. 7 N., R. 14 W., south 3.5 miles to Alledale-Blendon township line, thence west into Holland quadrangle at point 1 mile south and 0.8 mile east from Busk (by J. L. Buckmaster in 1928)	
T. 7 N., R. 14 W., near N $\frac{1}{4}$ cor. sec. 20, 30 ft. S. and 110 ft. E. from crossroads, in root on NW. side of 24-in. maple tree; copper nail and washer.....	643. 69
T. 7 N., R. 14 W., near S $\frac{1}{4}$ cor. sec. 20, 28 ft. N. and 38 ft. W. from crossroads, on N. concrete head wall of culvert; chiseled square....	622. 36
T. 7 N., R. 14 W., near N $\frac{1}{4}$ cor. sec. 32, 20 ft. S. and 38 ft. E. from crossroads, 5 ft. from large oak tree, in concrete post; standard tablet stamped "P T Sta No 108 Y 1926".....	640. 950
Reference mark, 5 ft. W. of tablet, 20 ft. S. and 32 ft. E. from crossroads, in root on E. side of 24-in. oak tree; copper nail and washer.....	640. 94
From Holland quadrangle at point 1 mile east of Borculo generally south along road to point 0.5 mile north and 3 miles west from Drenthe, thence south-west and back into Holland quadrangle at point 1.5 miles south and 1 mile east from Zeeland (by J. L. Buckmaster in 1928)	
Borculo, 1.0 mi. E., thence 1.0 mi. S. from, near cor. secs. 29, 30, 31, and 32, T. 6 N., R. 14 W., 84 ft. N. and 18 ft. E. from junction of T-rd. E., 10 ft. S. of farm driveway, in root on W. side of 10-in. poplar tree; copper nail and washer.....	664. 36
Borculo, 1.0 mi. E., thence 2.0 mi. S. from, 1.0 mi. E., thence 3.0 mi. N. from Zeeland, in NE. cor. sec. 6, T. 5 N., R. 14 W., 25 ft. S. and 10 ft. W. from crossroads, near SW. corner of concrete culvert, on wing wall; chiseled square.....	660. 34
Zeeland, 1.0 mi. E., thence 2.0 mi. N. from, 650 ft. N. of crossroads at cor. secs. 5, 6, 7, and 8, T. 5 N., R. 14 W., on W. concrete head wall of culvert; chiseled square.....	665. 26
Zeeland, 1.0 mi. E., thence 1.0 mi. N. from, in SW. cor. sec. 8, T. 5 N., R. 14 W., 30 ft. N. and 22 ft. E. from crossroads, 14 ft. E. of NE. corner of head wall of culvert, in concrete post; standard tablet stamped "P T Sta No 100 Y 1926" (recovered by U. S. C. & G. S. in 1934).....	657. 272
Reference mark, 25 ft. N. and 10 ft. E. from crossroads, on E. concrete head wall of culvert; chiseled square (recovered by U. S. C. & G. S. in 1934).....	657. 915
Zeeland, 1.0 mi. E. of, in NW. cor. sec. 20, T. 5 N., R. 14 W., 18 ft. S. and 30 ft. E. from crossroads, on top of S. concrete head wall of culvert; chiseled square.....	651. 03
Zeeland, 1.0 mi. E., thence 1.0 mi. S. from, 3.1 mi. W., thence 1.0 mi. N. from Drenthe, near cor. secs. 19, 20, 29, and 30, T. 5 N., R. 14 W., in center of E. side of small concrete bridge on N.-S. section-line rd., chiseled square.....	613. 49

From Allegan quadrangle at point 1 mile north of Burnips north and east along roads to point 0.5 mile east of Gitchel (by S. R. Archer in 1929)

Burnips, 1.5 mi. N. of, 2.0 mi. W. of Salem, 0.5 mi. W., thence 2.0 mi. S. from Gitchel, in NW. cor. sec. 10, T. 4 N., R. 13 W., 190 ft. S. and 30 ft. E. from crossroads, 50 ft. S. and 15 ft. W. from SW. corner of church, 10 ft. N. of SW. corner of churchyard, in concrete post; standard tablet stamped "31 A 1929 Mich"-----	Feet 712. 539
Reference mark 1, on opposite side of rd. from tablet, in SW. angle of crossroads, at entrance to school, on top of NW. corner of concrete porch floor; chiseled square-----	711. 38
Reference mark 2, near SW. corner of crossroads, on top of W. concrete head wall of culvert under N.-S. rd.; chiseled square-----	706. 83
Gitchel, 0.5 mi. W., thence 1.0 mi. S. from, near NE. cor. sec. 4, T. 4 N., R. 13 W., at Allegan-Ottawa county line, 45 ft. S. of crossroads, on W. side of N.-S. rd., on top of SW. concrete head wall of drain running diagonally NE. under crossroads; chiseled square-----	730. 50

From Grand Rapids quadrangle at point 1.1 miles west of Herps west and north along roads by way of North Dorr and Gitchel to point 2 miles west of Drenthe (by S. R. Archer in 1929)

North Dorr, 0.5 mi. E. of, near S $\frac{1}{4}$ cor. sec. 32, T. 5 N., R. 12 W., 35 ft. N. and 40 ft. E. from crossroads, 15 ft. E. of fence corner, in concrete post; standard tablet stamped "36 A 1929 Mich"-----	717. 680
Reference mark, 320 ft. E. of crossroads, at SW. corner of concrete highway bridge, on square ledge at top of wing wall; chiseled square-----	707. 70
North Dorr, 135 ft. N. of crossroads, on top of S. end of W. concrete head wall of culvert; chiseled square-----	752. 92
North Dorr, 1.0 mi. W. of, in SE. cor. sec. 36, T. 5 N., R. 13 W., 45 ft. N. and 20 ft. W. from crossroads, 23 ft. N. of fence corner; standard iron post with bronze cap stamped "Mich 787" <sup>6</sup> -----	786. 486
Reference mark, 30 ft. S. of crossroads, on top of S. end of E. concrete head wall of culvert; chiseled square-----	786. 54
North Dorr, 2.0 mi. W. of, near SE. cor. sec. 35, T. 5 N., R. 13 W., 30 ft. N. of crossroads, on top of N. end of W. concrete head wall of culvert; chiseled square-----	769. 55
North Dorr, 2.0 mi. W., thence 1.0 mi. N. from, 1.5 mi. E. of Gitchel, in NW. cor. sec. 36, T. 5 N., R. 13 W., 45 ft. S. and 25 ft. E. from crossroads, in root on W. side of 24-in. elm tree; copper nail and washer-----	743. 25
Gitchel, 0.5 mi. E. of, in SW. cor. sec. 26, T. 5 N., R. 13 W., 70 ft. N. of crossroads, on E. side of rd. at fence line, in root on W. side of northernmost of two 8-in. sycamore trees standing 15 ft. apart; copper nail and washer <sup>7</sup> -----	703. 66
Gitchel, 1.5 mi. W. of, in NW. cor. sec. 33, T. 5 N., R. 13 W., near SE. corner of crossroads, on top of S. end of SW. wall of L-shaped concrete head wall of culvert under E.-W. rd.; chiseled square-----	680. 79
Gitchel, 2.5 mi. W. of, 2.0 mi. E. of Drenthe, in SW. cor. sec. 30, T. 5 N., R. 13 W., 430 ft. E. of crossroads, on N. side of rd., in root on SW. side of 30-in. elm tree; copper nail and washer <sup>8</sup> -----	666. 77

<sup>6</sup> Originally established by L. D. Townsend in 1911 and stamped "786."

<sup>7</sup> Established as a reference mark to principal bench mark stamped "704" and previously described.

<sup>8</sup> Established as a reference mark to principal bench mark stamped "677" and previously described.

From Holland quadrangle at point 1 mile east of Borculo generally east along roads by way of South Blendon and Jenison into Grand Rapids quadrangle near south quarter corner sec. 20, T. 6 N., R. 12 W. (by S. R. Archer in 1929)

Borculo, 1.5 mi. E. of, near quarter corner between secs. 20 and 29, T. 6 N., R. 14 W., near NE. corner of crossroads, on top of N. wing wall of W. concrete abutment of bridge; chiseled square	Feet 651. 67
Boreulo, 2.0 mi. E. of, in NE. cor. sec. 29, T. 6 N., R. 14 W., 100 ft. W. of crossroads, on S. side of rd., in root on NW. side of 12-in. oak tree; copper nail and washer	653. 60
Borculo, 2.5 mi. E. of, 2.5 mi. W. of South Blendon, near quarter corner between secs. 21 and 28, T. 6 N., R. 14 W., just W. of junction of T-rd. S., at NE. corner of highway bridge, on top of bridge end of concrete wing wall; chiseled square	651. 30
South Blendon, 2.0 mi. W. of, near cor. secs. 21, 22, 27, and 28, T. 6 N., R. 14 W., 15 ft. E. of crossroads, at SW. corner of highway bridge, on top of bridge end of SW. concrete wing wall; chiseled square	654. 70
South Blendon, 1.0 mi. W. of, in SW. cor. sec. 23, T. 6 N., R. 14 W., 30 ft. N. and 20 ft. E. from crossroads, in concrete post; standard tablet stamped "P T Sta No 113 Y 1926"	658. 121
Reference mark, 50 ft. N. of crossroads, on W. side of rd., in root on SE. side of 24-in. oak tree; copper nail and washer	659. 35
South Blendon, 0.5 mi. W. of, near S $\frac{1}{4}$ cor. sec. 23, T. 6 N., R. 14 W., at NE. corner of crossroads, on top of E. end of N. concrete head wall of culvert under E.-W. rd.; chiseled square	658. 26
South Blendon, at SW. corner of crossroads, on E. end of long concrete steps in front of store, on top of third step from bottom and first step from top, 0.8 ft. lower than porch floor; chiseled square	664. 90
South Blendon, 1.0 mi. E. of, in SE. cor. sec. 24, T. 6 N., R. 14 W., in NW. angle of crossroads, at entrance to First Reformed Church, on top of E. end of lower concrete step; chiseled square	656. 21
South Blendon, 2.0 mi. E. of, in SW. cor. sec. 20, T. 6 N., R. 13 W., in NE. angle of crossroads, at fence corner, in root on SE. side of 12-in. maple tree; copper nail and washer	641. 98
South Blendon, 2.3 mi. E. of, 1.0 mi. N. and 0.7 mi. W. from Hudsonville, near S. side SW $\frac{1}{4}$ sec. 20, T. 6 N., R. 13 W., on N. side of rd., 10 ft. N. and 2 ft. W. from SE. corner of yard of Alward School, 8 ft. N. of maple tree, 3 ft. S. of iron pump, in concrete post; standard tablet stamped "P T Sta No 114 Y 1926"	641. 639
Hudsonville, 1.0 mi. N. and 0.5 mi. W. from, near S $\frac{1}{4}$ cor. sec. 20, T. 6 N., R. 13 W., 110 ft. SW. of crossroads, on top of W. end of S. concrete head wall of culvert; chiseled square	630. 32
Hudsonville, 1.2 mi. NE. of, 850 ft. N. of S $\frac{1}{4}$ cor. sec. 21, T. 6 N., R. 13 W., 30 ft. N. and 55 ft. E. from crossroads, in root on SE. side of 10-in. elm tree; copper nail and washer	625. 57
Hudsonville, 1.5 mi. NE. of, 0.2 mi. SW. of N $\frac{1}{4}$ cor. sec. 27, T. 6 N., R. 13 W., 275 ft. SW. of crossroads, 45 ft. E. of concrete highway, in root on NW. side of 12-in. elm tree; copper nail and washer	608. 88
Hudsonville, 1.8 mi. NE. of, 690 ft. E. of quarter corner between secs. 22 and 27, T. 6 N., R. 13 W., on top of N. parapet wall of W. abutment of concrete highway bridge over drainage ditch; chiseled square	610. 75
Hudsonville, 2.5 mi. NE. of, 2.1 mi. SW. of Jenison, 690 ft. S. of center of SW $\frac{1}{4}$ sec. 23, T. 6 N., R. 13 W., in SW. angle of junction of rd. S., 6 ft. S. of fence corner, in root on NW. side of 24-in. elm tree; copper nail and washer	610. 63

	<i>Feet</i>
Jenison, 1.8 mi. SW. of, in NW. part of SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 6 N., R. 13 W., 35 ft. N. and 155 ft. E. from junction of rd. N., 5 ft. N. and 2 ft. W. from SE. corner of yard at Bearsley School, in concrete post; standard tablet stamped "P T Sta No 115 Y 1926"-----	616. 972
Reference mark, 80 ft. N. and 100 ft. E. from junction of T-rd. N., in front of S. entrance to schoolhouse, on NE. corner of concrete porch; chiseled square-----	617. 10
Jenison, 1.3 mi. SW. of, 0.25 mi. S. of quarter corner between secs. 23 and 24, T. 6 N., R. 13 W., in SW. angle of junction of rd. S., in fence corner, in root on W. side of 6-in. walnut tree; copper nail and washer-----	616. 07
Jenison, 0.7 mi. S. of, near center of sec. 24, T. 6 N., R. 13 W., at S. abutment of highway bridge, on top of SE. end of E. concrete wing wall; chiseled square-----	615. 84
Jenison, near SW. edge of, 0.25 mi. E. of quarter corner between secs. 13 and 24, T. 6 N., R. 13 W., 30 ft. N. and 110 ft. E. from junction of rd. E., in field, in root on N. side of 24-in. wild-cherry tree; copper nail and washer-----	605. 09
Jenison, near SE. edge of, 20 ft. N. and 35 ft. E. from crossroads, at cor. secs. 13, 18, 19, and 24, T. 6 N., Rs. 12 and 13 W., 12 ft. E. of fence corner, in concrete post; standard tablet stamped "37 A 1929 Mich" (recovered by U. S. C. & G. S. in 1934)-----	609. 815
Reference mark, 165 ft. E. of crossroads, on N. side of rd., at fence line, in root on S. side of 15-in. elm tree; copper nail and washer (recovered by U. S. C. & G. S. in 1934)-----	608. 608
Jenison, 0.6 mi. SE. of, near N $\frac{1}{4}$ cor. sec. 19, T. 6 N., R. 12 W., 160 ft. S. and 50 ft. E. from junction of N.-S. rd., in field, in root on SW. side of 36-in. maple tree; copper nail and washer-----	612. 24
Jenison, 1.6 mi. SE. of, 1.8 mi. S., thence 0.5 mi. W. from Grandville, near N $\frac{1}{4}$ cor. sec. 30, T. 6 N., R. 12 W., in SW. angle of crossroads, in fence corner, in root on E. side of 12-in. elm tree; copper nail and washer-----	637. 35
Grandville, 1.8 mi. S. of, 89 ft. N. and 96 ft. W. from cor. secs. 19, 20, 29, and 30, T. 6 N., R. 12 W., in NW. angle of crossroads, 10 ft. W. of NW. fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 9 Mich 1911"-----	629. 500
Reference mark, 80 ft. N. and 35 ft. E. from crossroads, in root on SW. side of 10-in. elm tree; copper nail and washer-----	628. 06
From crossroads 2.5 miles east of South Blendon generally north along roads to point 1 mile southeast of Lamont (by S. R. Archer in 1929)	
Hudsonville, 0.5 mi. W., thence 2.0 mi. N. from, near N $\frac{1}{4}$ cor. sec. 20, T. 6 N., R. 13 W., 75 ft. E. of rd., on S. side of section-line fence, in root on N. side of 10-in. hickory tree; copper nail and washer-----	680. 86
Hudsonville, 0.5 mi. W., thence 2.5 mi. N. from, near center of sec. 17, T. 6 N., R. 13 W., 330 ft. S. of crossroads, on E. side of rd., in field, in root on E. side of 12-in. hickory tree; copper nail and washer-----	693. 97
Hudsonville, 0.5 mi. W., thence 3.5 mi. N. from, near center of sec. 8, T. 6 N., R. 13 W., 30 ft. N. and 40 ft. E. from crossroads, in root on NW. side of 10-in. hickory tree; copper nail and washer-----	716. 10
Hudsonville, 0.5 mi. W., thence 4.0 mi. N. from, near quarter corner between secs. 5 and 8, T. 6 N., R. 13 W., on W. side of rd., opposite T-rd. E., 4 ft. N. of fence corner, in concrete post; standard tablet stamped "38 A 1929 Mich"-----	712. 017

Reference mark, 50 ft. N. of tablet, 55 ft. N. of junction of T-rd. E., on W. side of rd., in fence line, in root on NE. side of 15-in. oak tree; copper nail and washer-----	<i>Feet</i> 711. 13
Hudsonville, 0.5 mi. W., thence 4.8 mi. N. from, 5.4 mi. S. and 1.0 mi. SE. from Lamont, about 0.3 mi. N. of center of sec. 5, T. 6 N., R. 13 W., 40 ft. E. of rd. junction, on N. side of rd., in root on SW. side of 30-in. oak tree; copper nail and washer-----	723. 62
Lamont, 5.4 mi. S. of, 0.25 mi. W. of SE. cor. sec. 31, T. 7 N., R. 13 W., in NE. angle of junction of T-rd. N., at entrance to school, on top of NW. corner of top concrete step; chiseled square-----	704. 26
Lamont, 4.9 mi. S. of, 0.25 mi. E. of center of sec. 31, T. 7 N., R. 13 W., in SW. angle of junction of T-rd. W., in root on E. side of 24-in. ash tree; copper nail and washer-----	711. 48
Lamont, 4.4 mi. S. of, 0.25 mi. W. of SE. cor. sec. 30, T. 7 N., R. 13 W., 55 ft. N. and 35 ft. W. from junction of T-rd. W., in root on W. side of 10-in. poplar tree; copper nail and washer-----	722. 32
Lamont, 3.7 mi. S. of, near center of NE $\frac{1}{4}$ sec. 30, T. 7 N., R. 13 W., on W. side of rd., opposite T-rd. E., at NE. corner of schoolyard, 4 ft. W. of fence corner, in concrete post; standard tablet stamped "39 A 1929 Mich"-----	690. 934
Reference mark, 51 ft. W. of tablet, 75 ft. W. of junction of T-rd. E., on N. side of schoolyard, 55 ft. W. of fence corner, in E.-W. fence line, in root on SE. side of 7-in. elm tree; copper nail and washer-----	691. 38
Lamont, 2.8 mi. S. of, near NW. cor. sec. 30, T. 7 N., R. 13 W., in SE. angle of crossroads, in ditch, on top of S. wall of square concrete catch basin of storm sewer; chiseled square-----	660. 76
Lamont, 0.6 mi. SE., thence 0.7 mi. SW. from, near center of sec. 18, T. 7 N., R. 13 W., 50 ft. S. and 25 ft. W. from rd. fork, in root on NE. side of 12-in. butternut tree; copper nail and washer-----	639. 40
Lamont, 0.6 mi. SE., thence 0.3 mi. SW. from, in NE $\frac{1}{4}$ sec. 18, T. 7 N., R. 13 W., on SW. bank of Grand River, 75 ft. SW. of old ferry landing, on NW. side of abandoned rd. SW., in root on SE. side of 24-in. cottonwood tree; copper nail and washer-----	589. 01

## JONES QUADRANGLE \*

[Latitude 41°45'-42°00'; longitude 85°45'-86°00']

## CASS AND ST. JOSEPH COUNTIES

Northwest and northeast along roads near Mottville (by R. G. Clinité in 1913)

[A jog from Three Rivers quadrangle]

Mottville, at covered bridge over St. Joseph River; surface of water Nov. 24, 1913-----	756. 9
Mottville, 0.8 mi. NW. of, 27 ft. E. of center of rd. fork, in root of 30-in. beech tree; copper nail-----	794. 89

From Mottville south along road to Indiana-Michigan State line (by R. G. Clinité in 1913)

Mottville, 1.1 mi. S. of, 90 ft. N. and 36 ft. E. from center of junction of T-rd. E., in field, in root on E. side of 30-in. maple tree; copper nail-----	785. 49
Mottville, 2.3 mi. S. of, in SW. angle of crossroads, 12 ft. S. of corner post, in root of lone oak tree; copper nail-----	788. 65

\* A narrow strip along the south boundary of this quadrangle lies in Indiana.



From Cassopolis quadrangle at point 5.5 miles east and 1 mile north from Dowagiac east 8.5 miles and south 1 mile along road to Wakelee, thence northeast along Grand Trunk Railway into Marcellus quadrangle (by C. E. Walker in 1926)

Dowagiac, 6.0 mi. E., thence 1.0 mi. N. from, 6.0 mi. N., thence 1.0 mi. E. from Cassopolis, 0.9 mi. S. and 2.0 mi. W. from Volinia, near NW. cor. sec. 31, T. 5 S., R. 14 W., 24 ft. S. and 38 ft. E. from crossroads, 13 ft. E. of corner fence post, in concrete post; standard tablet stamped "Prim Trav Sta No 11 Y 1926"-----	Feet 864. 520
Reference mark, 22 ft. N. and 120 ft. E. from crossroads, in root on SW. side of 34-in. wild-cherry tree; copper nail and washer-----	858. 44
Volinia, 1.2 mi. S., thence 1.0 mi. W. from, 0.25 mi. S. of NE. cor. sec. 31, T. 5 S., R. 14 W., 15 ft. N. and 12 ft. W. from crossroads, on concrete culvert; chiseled square-----	856. 45
Volinia, 1.2 mi. S. of, 0.25 mi. S. of NE. cor. sec. 32, T. 5 S., R. 14 W., 50 ft. S. and 20 ft. W. from crossroads, in root on N. side of 36-in. forked walnut tree; copper nail and washer-----	897. 81
Volinia, 1.2 mi. S., thence 1.0 mi. E. from, 0.25 mi. S. of NW. cor. sec. 34, T. 5 S., R. 14 W., 187 ft. N. of crossroads, in yard of dwelling of W. M. Cropsey, 84 ft. W. of SW. corner of house, in concrete post; standard tablet stamped "Prim Trav Sta No 131 Y 1926"-----	944. 232
Reference mark, 125 ft. N. and 12 ft. E. from crossroads, in SW. corner of yard, in NW. side of 14-in. hickory tree; copper nail and washer-----	940. 50
Volinia, 0.9 mi. S. and 3.0 mi. E. from, 1.0 mi. N., thence 1.0 mi. W. from Wakelee, near cor. secs. 25, 26, 35, and 36, T. 5 S., R. 14 W., near junction of T-rd. N., in yard at dwelling of W. M. Bradley, in root on N. side of 20-in. maple tree; copper nail and washer-----	950. 89
Wakelee, 1.0 mi. N. of, 22 ft. N. and 90 ft. W. from junction of rd. S., in SE. cor. sec. 25, T. 5 S., R. 14 W., 6 ft. S. of 12-in. mulberry tree, in concrete post; standard tablet stamped "P T Sta No 132 Y 1926"-----	939. 182
Reference mark, 20 ft. N. and 36 ft. W. from junction of rd. S., in root on NE. side of 8-in. basswood tree; copper nail and washer----	937. 83
Wakelee, in front of Grand Trunk Ry. sta., on SW. corner of concrete base of semaphore signal tower; chiseled square-----	906. 88
Wakelee, 1.2 mi. along R. R. NE. of, near cor. secs. 29, 30, 31, and 32, T. 5 S., R. 13 W., 10 ft. S. and 50 ft. E. from rd. crossing, in root on NE. side of 16-in. apple tree with triple forks; copper nail and washer-----	883. 69
From crossroads 8 miles east and 1 mile north from Dowagiac south along road 2 miles, thence west into Cassopolis quadrangle (by S. R. Archer in 1927)	
Dowagiac, 6.0 mi. E. of, near NW. cor. sec. 6, T. 6 S., R. 14 W., 85 ft. S. of crossroads, on E. side of rd., on N. side of 24-in. walnut tree, in root 10 in. underground; copper nail and washer-----	855. 65
Dowagiac, 6.0 mi. E., thence 1.0 mi. S. from, near NW. cor. sec. 7, T. 6 S., R. 14 W., 100 ft. E. of junction of E.-W. rd., on S. side of rd., in root on W. side of 6-in. hickory tree; copper nail and washer-----	928. 70

Along roads south near and along Calvin-Jefferson township line (by S. R. Archer in 1927)

[A jog from Cassopolis quadrangle]

Cassopolis, 4.0 mi. SE. of Cass County courthouse, near center of sec. 13, T. 7 S., R. 15 W., about 200 ft. SE. of turn from S. to SE. in rd., on top of W. concrete head wall of culvert; chiseled square----	<i>Feet</i> 835. 85
Cassopolis, 4.7 mi. SE. of, 4.8 mi. N. of Adamsville, 175 ft. S. and 115 ft. W. from NE. cor. sec. 24, T. 7 S., R. 15 W., on NE. side of rd., 30 ft. SE. of NW. corner of triangle formed by group of maple trees in front of farmhouse, in root on W. side of 12-in. maple tree; copper nail and washer-----	844. 62
Adamsville, 4.3 mi. N. of, near W $\frac{1}{4}$ cor. sec. 19, T. 7 S., R. 14 W., 22 ft. S. and 68 ft. E. from junction of rd. E., 95 ft. N. and 68 ft. E. from junction of rd. W., 23 ft. E. of fence corner, in concrete post; standard tablet stamped "P T Sta No 6 Y 1926"-----	842. 433
Reference mark, 50 ft. S. and 30 ft. W. from rd. E., 65 ft. N. and 30 ft. W. from rd. W., in root on SE. side of 12-in. maple tree, 2.5 ft. from tree; copper nail and washer-----	836. 50
Adamsville, 3.3 mi. N. of, near E $\frac{1}{4}$ cor. sec. 25, T. 7 S., R. 15 W., at SE. end of concrete highway bridge over Christian Creek, at foot of NE. side wall, on top of SE. end of ledge; chiseled square----	815. 63
Adamsville, 2.5 mi. N. of, in NE $\frac{1}{4}$ sec. 36, T. 7 S., R. 15 W., at SW. corner of bridge over Christian Creek, at foot of S. end of W. steel truss, at top of circular steel support, on octagon plate; chiseled square-----	798. 80

## KALAMAZOO QUADRANGLE

[Latitude 42°15'–42°30'; longitude 85°30'–85°45']

## ALLEGAN, BARRY, AND KALAMAZOO COUNTIES

From Wayland quadrangle south along Grand Rapids & Indiana Railroad <sup>10</sup> to Kalamazoo, thence south along Lake Shore & Michigan Southern Railroad <sup>11</sup> into Schoolcraft quadrangle (by E. C. Bibbee in 1913 and 1915; leveled twice)

Martin, 2.4 mi. S. of, 3.4 mi. N. of Plainwell, 330 ft. W. of track, at NE. corner of crossroads; standard iron post with bronze cap stamped "Mich 787"-----	786. 619
Plainwell, 2.6 mi. N. of, at grade crossing, at SW. corner of junction of T-rd. E., at corner of private property and R. R. right-of-way, on top of T-rail set vertically; highest point-----	732. 40
Plainwell, 2.0 mi. N. of, at iron-girder bridge over Gun River, on W. side of S. abutment; chiseled square-----	727. 26
Plainwell, 185 ft. S. of sta., 100 ft. NW. of intersection of Grand Rapids & Indiana, Lake Shore & Michigan Southern, and Michigan Electric <sup>12</sup> R. Rs., 20 ft. NE. of switch tower; standard iron post with bronze cap stamped "Mich 738" (recovered by U. S. C. & G. S. in 1934)-----	737. 817
Plainwell, 1.4 mi. SE. of, at bridge over Kalamazoo River, on E. side of S. abutment; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	734. 897
Kalamazoo River, under bridge; surface of water Sept. 10, 1913.-----	724. 2

<sup>10</sup> Now operated by the Pennsylvania Railroad.

<sup>11</sup> Now a part of the New York Central System.

<sup>12</sup> This railroad is now abandoned. In 1940 the bench mark was restamped "737.817."

Plainwell, 2.5 mi. SE. of, 2.9 mi. NW. of Cooper, at grade crossing, 44 ft. W. of W. rail of track, 21 feet N. of rd., 3 ft. E. of W. right-of-way fence, 12 ft. W. of telephone pole, 2.5 ft. below top of rail; standard iron post with bronze cap stamped "Mich 737" (recovered by U. S. C. & G. S. in 1934) <sup>12a</sup> -----	Feet 737. 203
Cooper, 120 ft. SE. of sta., 60 ft. N. of rd., 60 ft. E. of track, on R. R. right-of-way; standard iron post with bronze cap stamped "Mich 764" (recovered by U. S. C. & G. S. in 1934) <sup>13</sup> -----	763. 627
Cooper, 1.0 mi. S. of, at crossing of private rd., at E. end of 2-ft. steel drain under track, on small flange; highest point-----	772. 82
Cooper, 2.1 mi. S. of, 0.2 mi. N. of milepost R 189 M 271, 20 ft. W. of track, on large granite boulder; chiseled square (not recovered in 1915)-----	770. 09
Cooper, 2.5 mi. S. of, 2.8 mi. N. of G. R. & I. R. R. sta. at Kalamazoo, in W. side of N. abutment of concrete bridge; standard tablet stamped "Mich 766" (not recovered in 1915)-----	766. 426
Kalamazoo, 1.0 mi. N. of, 30 ft. N. of milepost R 187 M 273, on S. side of E. end of concrete arch culvert; chiseled square-----	765. 25
Kalamazoo, 0.2 mi. N. of, 25 ft. NE. of intersection of Michigan Central R. R., at SW. corner of concrete base of signal, on bolt head; highest point-----	772. 88
Kalamazoo, at M. C. R. R. sta.; top of rail-----	778. 8
Kalamazoo, at G. R. & I. R. R. sta.; top of rail-----	770. 0
Kalamazoo, at E. entrance to Kalamazoo County courthouse, in N. end of doorsill; standard tablet stamped "Mich 793" (recovered by U. S. C. & G. S. in 1916 and designated "C 10")-----	793. 319
Kalamazoo, 0.3 mi. S. of G. R. & I. R. R. sta., 30 ft. S. of intersection of L. S. & M. S. R. R., opposite signal tower, on concrete base of support for signal arm; chiseled square (recovered by U. S. C. & G. S. in 1916 and 1934 and designated "A 10")-----	761. 183
Kalamazoo, 1.4 mi. S. of G. R. & I. R. R. sta., 25 ft. E. of L. S. & M. S. R. R. track, 40 ft. W. of grocery of R. Somers, on N. side of concrete sidewalk, 1 ft. from telegraph pole; chiseled square-----	775. 24
Kalamazoo, 2.3 mi. S. of, 4.0 mi. N. of Portage, 75 ft. NE. of water tank, on SW. corner of concrete foundation of water stand; chiseled square-----	806. 24
<p>From Schoolcraft quadrangle near Oakwood Heights north and west to cross road 1.5 miles east of Oshtemo, thence north along range-line road to Allegan-Kalamazoo county line, thence west and northwest to Otsego, thence north-east to Grand Rapids &amp; Indiana Railroad at point 2 miles north of Plainwell (by E. C. Bibbee in 1915)</p>	
Oakwood Heights, in NE. part of, 0.25 mi. W. of NE. cor. sec. 32, T. 2 S., R. 11 W., at SW. corner of junction of T-rd. W., in root of maple tree; copper nail and washer-----	915. 66
Oakwood Heights, 1.8 mi. W. of, 4.4 mi. S. of Michigan Central R. R. crossing at Brownell, 1.5 mi. E. of Oshtemo, in NW. cor. sec. 31, T. 2 S., R. 11 W., at SE. corner of crossroads; standard iron post with bronze cap stamped "Mich 945" (recovered in 1926)-----	944. 664
Brownell, 3.3 mi. S. of, near SW. cor. sec. 19, T. 2 S., R. 11 W., on N. side of Territorial Rd., 60 ft. NE. of mail box of A. P. McMartin, in root of oak tree; copper nail and washer-----	891. 33

<sup>12a</sup> In 1940 it was reported that this bench mark had been restamped "737.203."

<sup>13</sup> In 1940 it was reported that the station no longer exists and that the post is very loose, although still straight. The bench mark was restamped "763.627."

Brownell, 1.9 mi. S. of, 3.3 mi. W. of Kalamazoo, at intersection of Paw Paw Rd., near E $\frac{1}{4}$ cor. sec. 13, T. 2 S., R. 12 W., in SW. angle of crossroads, 3 ft. S. and 2 ft. W. from corner fence post; standard iron post with bronze cap stamped "Mich 943"-----	Feet 942. 433
Brownell, 0.9 mi. S. of, near W $\frac{1}{4}$ cor. sec. 7, T. 2 S., R. 11 W., in NE. angle of junction of T-rd. E., 15 ft. N. and 10 ft. W. from corner fence post, in root of oak tree; copper nail and washer-----	942. 80
Brownell, about 525 ft. N. of M. C. R. R. crossing, near E $\frac{1}{4}$ cor. sec. 1, T. 2 S., R. 12 W., in SW. angle of junction of T-rd. W., 2 ft. E. of corner fence post, on large granite rock; chiseled square-----	950. 22
Brownell, 0.6 mi. N. of, 120 ft. S. and 300 ft. E. from NW. cor. sec. 6, T. 2 S., R. 11 W., on E. side of rd. at junction of Ravine Rd. SE.; standard iron post with bronze cap stamped "Mich 871"-----	870. 278
Brownell, 1.6 mi. N. of, near NW. cor. sec. 31, T. 1 S., R. 11 W., in SW. angle of crossroads, on top of concrete corner fence post; chiseled square-----	866. 05
Brownell, 2.6 mi. N. of, in NW. cor. sec. 30, T. 1 S., R. 11 W., in SE. angle of crossroads, in root of 30-in. oak tree; copper nail and washer-----	924. 13
Brownell, 3.6 mi. N. of, 2.0 mi. W. of Cooper Center, at Jug Corners, in SE. cor. sec. 13, T. 1 S., R. 12 W., in NW. angle of crossroads, 5 ft. N. and 2 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 943"-----	942. 562
Brownell, 4.6 mi. N. of, 3.5 mi. S. of Plainwell, 100 ft. N. of SE. cor. sec. 12, T. 1 N., R. 12 W., on W. end of concrete arch culvert; chiseled square-----	859. 24
Plainwell, 2.5 mi. S. of, 25 ft. W. of NE. cor. sec. 12, T. 1 N., R. 12 W., at SW. corner of crossroads, opposite Finch School, on extreme E. end of concrete retaining wall; chiseled square-----	796. 51
Plainwell, 1.5 mi. S., thence 1.0 mi. W. from, 3.8 mi. SE. of bridge over Kalamazoo River in Otsego, near S $\frac{1}{4}$ cor. sec. 36, T. 1 N., R. 12 W., about 30 ft. N. of N. cor. secs. 1 and 2, T. 1 S., R. 12 W., at Allegan-Kalamazoo county line; standard iron post with bronze cap stamped "Mich 743"-----	741. 802
Otsego, 2.5 mi. SE. of, 0.25 mi. E. of SW. cor. sec. 25, T. 1 N., R. 12 W., in NW. angle of junction of T-rd. N., in root of maple tree; copper nail and washer-----	728. 34
Otsego, 1.4 mi. SE. of, 500 ft. E. of NW. cor. sec. 25, T. 1 N., R. 12 W., 40 ft. W. of bend in rd., in fence line, in root of 24-in. maple tree; copper nail and washer-----	731. 10
Otsego, at NW. corner of Allegan and Orleans Streets, 1 ft. S. of telephone pole; on large granite rock; chiseled square (not recovered in 1929)-----	715. 95 684. 0
Kalamazoo River, under bridge; surface of water Oct. 14, 1915-----	
Otsego, at NW. corner of bridge, 4 ft. W. of sidewalk; standard iron post with bronze cap stamped "Mich 696" (recovered in 1929)-----	695. 167
Otsego, in front of L. S. & M. S. R. R. sta.; top of rail-----	710. 1
Otsego, 1.8 mi. NE. of, 0.25 mi. E. of center of sec. 13, T. 1 N., R. 12 W., 150 ft. SW. of dwelling of S. M. Shafer, on E. end of S. head wall of culvert; chiseled square-----	744. 39
Otsego, 2.2 mi. NE. of, 0.25 mi. W. of center of sec. 18, T. 1 N., R. 11 W., 200 ft. E. of junction of T-rd. N., in S. fence line, in root of 20-in. walnut tree; copper nail and washer-----	717. 62

Otsego, 3.1 mi. NE. of, near E $\frac{1}{4}$ cor. sec. 18, T. 1 N., R. 11 W., on SE. corner of sidewalk leading to dwelling of C. Stearn; chiseled square-----	Feet 725. 05
From crossroads 1.5 miles east of Oshtemo west and north along roads by way of Williams to point 1 mile north of Otsego Dam, thence east and southeast to Otsego (by E. C. Bibbee in 1915)	
Oshtemo, 0.4 mi. E. of, about 300 ft. W. of NE. cor. sec. 35, T. 2 S., R. 12 W., on S. side of rd., 1 ft. N. of fence, in root of 12-in. hickory tree; 40-penny spike-----	955. 42
Oshtemo, 0.5 mi. along Territorial Rd. SW. of, 800 ft. S. of NE. cor. sec. 34, T. 2 S., R. 12 W., in NW. angle of junction of rd. N., in root of 24-in. maple tree; copper nail and washer-----	984. 14
Oshtemo, 1.5 mi. SW. of, 1.0 mi. S. of Miller, near E $\frac{1}{4}$ cor. sec. 33, T. 2 S., R. 12 W., at NW. corner of crossroads; standard iron post with bronze cap stamped "Mich 946" (not recovered in 1926)-----	946. 004
Miller, 1.0 mi. W., thence 1.0 mi. N. from, 0.5 mi. E. of Dustin Lake, near W $\frac{1}{4}$ cor. sec. 21, T. 2 S., R. 12 W., 55 ft. S. and 20 ft. E. from crossroads, in root on SW. side of 24-in. hickory tree; copper nail and washer (recovered in 1927)-----	972. 41
Miller, 1.0 mi. N. and 2.0 mi. W. from, 5.2 mi. S. of Williams, 0.5 mi. E. of Slack School, 100 ft. N. of quarter corner between secs. 19 and 20, T. 2 S., R. 12 W., NE. of junction of T-rd. W., at dwelling of F. Winslow; standard iron post with bronze cap stamped "Prim Trav Sta No 4 1911 Mich 844" (recovered in 1926)-----	843. 469
Williams, 2.7 mi. S. of, in NW. cor. sec. 8, T. 2 S., R. 12 W., in SE. angle of crossroads, 7 ft. S. and 1 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 826"-----	825. 381
Williams, 1.0 mi. S. of, 0.25 mi. S. of NW. cor. sec. 32, T. 1 S., R. 12 W., at SE. corner of junction of T-rd. E., on E. end of S. concrete head wall of culvert; chiseled cross-----	752. 51
Williams, 0.3 mi. S. of, near E $\frac{1}{4}$ cor. sec. 30, T. 1 S., R. 12 W., at NW. corner of junction of T-rd. W., on E. end of concrete culvert over walk; chiseled square-----	750. 55
Williams, 0.4 mi. N. of, 0.25 mi. N. of SW. cor. sec. 20, T. 1 S., R. 12 W., near SE. corner of junction of T-rd. E., 3 ft. S. and 2 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 781"-----	780. 833
Williams, 1.2 mi. N. of, near NW. cor. sec. 20, T. 1 S., R. 12 W., on N. end of E. head wall of culvert; chiseled square-----	777. 32
Williams, 2.2 mi. N. of, 100 ft. E. of NW. cor. sec. 17, T. 1 S., R. 12 W., on N. fence line of yard at Hackley School, in root of 20-in. maple tree; copper nail and washer-----	752. 42
Williams, 3.0 mi. N. of, 0.2 mi. S. of NW. cor. sec. 8, T. 1 S., R. 12 W., 70 ft. S. and 25 ft. E. from rd. fork; standard iron post with bronze cap stamped "Prim Trav Sta No 5 1911 Mich 741"-----	740. 403
Williams, 3.0 mi. N. of, 0.2 mi. S. of NW. cor. sec. 8, T. 1 S., R. 12 W., 125 ft. S. of junction of T-rd. S., on W. side of rd., in root on E. side of 24-in. elm tree; copper nail and washer (established in 1929 by S. R. Archer)-----	739. 14
[Line jogs into Gobleville quadrangle]	
Williams, 4.8 mi. in air line N. of, 350 ft. S. of center of sec. 32, T. 1 N., R. 12 W., in front of dwelling of Frank Finger, on E. side of rd., 12 ft. W. of fence, in root of 22-in. white-oak tree; copper nail and washer-----	715. 17

Williams, 5.6 mi. N. of, 4.2 mi. SW. of bridge over Kalamazoo River at Otsego, 0.3 mi. W. of SE. cor. sec. 29, T. 1 N., R. 12 W., 30 ft. W. of rd. fork, on N. side of rd.; standard iron post with bronze cap stamped "Mich 713"	Feet 711. 892
Otsego, 3.0 mi. SW. of, 250 ft. E. of SW. cor. sec. 21, T. 1 N., R. 12 W., on W. side of rd., at section line crossing, at property corners, in root of large elm tree used as corner fence post; copper nail and washer--	717. 87
Otsego, 2.2 mi. W. of, near center of sec. 21, T. 1 N., R. 12 W., at NE. corner of bridge over Kalamazoo River, on E. end of N. concrete head wall; chiseled square (recovered in 1929)-----	687. 70
Kalamazoo River, under bridge; surface of water Oct. 22, 1915-----	675. 3
Otsego, 2.2 mi. SW., thence 0.6 mi. NW. from, 1.2 mi. SE. of Lewis School, near SW. cor. sec. 16, T. 1 N., R. 12 W., on Allegan Rd., in SE. angle of junction of rd. E., on N. end of E. concrete head wall of culvert; chiseled square (recovered in 1929)-----	712. 52
Otsego, 2.2 mi. SW., thence 1.8 mi. NW. from, at Lewis School, near N $\frac{1}{4}$ cor. sec. 17, T. 1 N., R. 12 W., in SE. angle of crossroads, at NW. corner of schoolyard; standard iron post with bronze cap stamped "Mich 753" (recovered in 1929)-----	751. 882
Otsego, 1.6 mi. NW., thence 0.9 mi. W. from, 1.0 mi. E. of Lewis School, near S $\frac{1}{4}$ cor. sec. 9, T. 1 N., R. 12 W., near NE. corner of junction of T-rd. N., on large granite rock; chiseled square-----	823. 36
Otsego, 1.6 mi. NW. of, on line between secs. 10 and 15, T. 1 N., R. 12 W., 30 ft. W. of L. S. & M. S. R. R. track, on S. end of 18-in. drain tile under wagon rd.; highest point-----	742. 50
From Schoolcraft quadrangle at point on range-line road near County Center School north and east by way of Comstock to Richland Road, thence north-east into Galesburg quadrangle (by E. C. Bibbee in 1915)	
Comstock, 2.5 mi. SW. of, 1.0 mi. N. of County Center School, in NW. cor. sec. 31, T. 2 S., R. 10 W., near SE. corner of crossroads, 3 ft. S. and 2 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 860"-----	859. 922
Comstock, 0.8 mi. SW. of, near center of SE $\frac{1}{4}$ sec. 19, T. 2 S., R. 10 W., at NW. corner of crossroads, on W. end of concrete head wall of culvert; chiseled square-----	773. 80
Kalamazoo River, at Comstock; surface of water Oct. 27, 1915-----	761. 0
Comstock, 450 ft. W. of Michigan Central R. R. sta., near SW. corner of junction of Territorial Rd., 20 ft. N. of Michigan Electric R. R., 60 ft. S. of M. C. R. R.; standard iron post with bronze cap stamped "Mich 785" <sup>13a</sup> -----	783. 934
Comstock, 1.0 mi. N. of, about 0.3 mi. W. of SE. cor. sec. 7, T. 2 S., R. 10 W., near SW. corner of crossroads, on concrete base of signboard; chiseled square-----	872. 69
Comstock, 2.0 mi. N. of, 0.25 mi. W. of NE. cor. sec. 7, T. 2 S., R. 10 W., 8 ft. N. and 60 ft. E. from NE. corner of junction of T-rd. S., on large granite rock set in place; chiseled square-----	873. 30
Comstock, 2.7 mi. N. of, about 0.3 mi. S. of NW. cor. sec. 5, T. 2 S., R. 10 W., on NW. side of Richland Rd., opposite rd. S., on concrete base of signboard; chiseled square-----	909. 94

<sup>13a</sup> In 1930 this bench mark was reset at its original location and lowered 0.583 foot. The figures given represent the new unchecked elevation.

Comstock, 2.7 mi. N., thence 0.5 mi. NE. from, about 100 ft. W. of quarter corner between secs. 5 and 32, Tps. 1 and 2 S., R. 10 W., in SW. angle of intersection of Richland Rd. and Comstock-Richland township-line rd.; standard iron post with bronze cap stamped "Mich 919" <sup>14</sup> -----	Feet 918. 610
From Galesburg quadrangle at point 1.7 miles south of Richland Junction west 0.2 mile, thence north along roads, Chicago, Kalamazoo & Saginaw Railway, <sup>15</sup> and Michigan Electric Railroad to north quarter corner sec. 17, T. 1 N., R. 10 W., thence west and north to point on Grand Rapids & Indiana Railroad 3.5 miles north of Plainwell (by E. C. Bibbee in 1915)	
Richland Junction, 1.6 mi. SW. of, 0.25 mi. S. of center of sec. 17, T. 1 S., R. 10 W., 20 ft. E. of NW. corner of junction of T-rd. W., on stone marking property corner; chiseled square-----	931. 17
[Line jogs into Galesburg quadrangle]	
Richland Junction, 2.1 mi. NW. of, 0.9 mi. SE. of Anson Switch, near center of sec. 32, T. 1 N., R. 10 W., 65 ft. W. of track of Michigan Electric R. R., in SW. angle of grade crossing; standard iron post with bronze cap stamped "Mich 949"-----	948. 685
Richland Junction, 3.8 mi. NW. of, 1.5 mi. E., thence 1.0 mi. S. from Doster, 0.8 mi. NE. of Anson Switch, near S¼ cor. sec. 20, T. 1 N., R. 10 W., 20 ft. N. of NW. corner of junction of T-rd. W., on large rock; chiseled square-----	993. 35
Doster, 1.5 mi. E. of, near N¼ cor. sec. 20, T. 1 N., R. 10 W., 60 ft. S. and 4 ft. W. from SE. corner of crossroads, in root of 24-in. oak tree; 60-penny spike-----	994. 79
Doster, 1.0 mi. N., thence 1.3 mi. E. from, 0.25 mi. E. of NW. cor. sec. 17, T. 1 N., R. 10 W., 4 ft. N. of S. fence line of E.-W. rd., opposite T-rd. N.; standard iron post with bronze cap stamped "Mich 929"-----	928. 160
Doster, 1.0 mi. N. of, in NW. cor. sec. 18, T. 1 N., R. 10 W., near Allegan-Barry county line, 60 ft. E. of SE. corner of crossroads, on fence line, in root of 24-in. wild-cherry tree; copper nail and washer... T. 1 N., R. 11 W., 300 ft. S. of NE. cor. sec. 11, 1.0 mi. S. of Hooper, on NW. side of Marsh Rd., 30 ft. S. of junction of rd. N., at W. fence line; standard iron post with bronze cap stamped "Mich 765"-----	906. 31
T. 1 N., R. 11 W., 15 ft. N. and 30 ft. E. from cor. secs. 2, 3, 10, and 11, on N. side of rd., in root of 8-in. maple tree; copper nail and washer-----	764. 479
T. 1 N., R. 11 W., 0.25 mi. E. of SW. cor. sec. 3, 0.7 mi. E. of Gun Plains School, near center of junction of T-rd. N., in root of 24-in. maple tree; copper nail and washer-----	729. 93
T. 1 N., R. 11 W., near S¼ cor. sec. 4, 100 ft. E. of junction of T-rd. S., on N. side of rd., opposite Gun Plains School, 6 ft. S. of N. fence line, on large granite rock; chiseled square-----	741. 75
	759. 19
From Kalamazoo generally southwest along Michigan Central and Kalamazoo, Lake Shore & Chicago <sup>16</sup> Railroads and roads to Oshtemo, thence north 1.5 miles and west 3.7 miles into Gobleville quadrangle (by C. E. Walker in 1928; releveled by S. R. Archer in 1927)	
U. S. C. & G. S. standard disk designated "B 10"-----	780. 930

<sup>14</sup> In 1933 this bench mark was reset 56 feet east of this position and lowered 0.510 foot. The figures given represent the new elevation.

<sup>15</sup> Now part of the New York Central System.

<sup>16</sup> This railroad is now abandoned.

Kalamazoo, 1.0 mi. SW. of Michigan Central R. R. sta., at SE. corner of intersection of Territorial Rd., at crossing arm gate, on NW. corner of concrete base; chiseled square-----	<i>Feet</i> 803. 60
Kalamazoo, 2.0 mi. SW. of, near S. side SE $\frac{1}{4}$ sec. 20, T. 2 S., R. 11 W., 130 ft. S. of intersection of N.-S. rd., on W. side of rd., in field, on N. side of 30-in. oak tree; bolt driven into root-----	843. 51
Kalamazoo, 3.3 mi. SW. of, 0.6 mi. N. and 2.0 mi. E. from Oshtemo, 575 ft. NE. of point where old Kalamazoo, Lake Shore & Chicago R. R. grade crosses N.-S. quarter line of sec. 30, T. 2 S., R. 11 W., on N. side of abandoned R. R. track, 3 ft. N. of right-of-way fence line, on N. side of 6-in. sassafras tree; copper nail and washer--	889. 96
Oshtemo, 1.5 mi. E. of, in NE. cor. sec. 36, T. 2 S., R. 12 W., near SW. corner of crossroads, on S. concrete head wall of culvert; chiseled square <sup>17</sup> -----	944. 53
Oshtemo, 1.0 mi. E. of, near S $\frac{1}{4}$ cor. sec. 25, T. 2 S., R. 12 W., 35 ft. W. of crossroads, on top of W. end of N. concrete head wall of culvert under E.-W. rd.; chiseled square-----	951. 44
Oshtemo, in SW. corner of crossroads at, on top of E. end of concrete curb; chiseled square-----	968. 60
Oshtemo, 1.5 mi. N. of, near center of sec. 23, T. 2 S., R. 12 W., 100 ft. SW. of junction of E.-W. rd., in root on S. side of 24-in. oak tree; copper nail and washer-----	928. 50
Oshtemo, 1.5 mi. N., thence 0.5 mi. W. from, 1.0 mi. E., thence 1.0 mi. N. from Miller, near W $\frac{1}{4}$ cor. sec. 23, T. 2 S., R. 12 W., in SE. angle of crossroads, at fence corner, in root on NE. side of 12-in. maple tree; copper nail and washer-----	934. 15
Miller, 1.0 mi. N. of, 500 ft. W. of E $\frac{1}{4}$ cor. sec. 21, T. 2 S., R. 12 W., about 150 ft. E. of junction of T-rd. S., on N. side of rd., in front of farmhouse, in root on SW. side of 24-in. tree, westernmost of row of maple trees; copper nail and washer-----	943. 81
Miller, 1.0 mi. N. and 2.0 mi. W. from, 0.5 mi. E. of Slack School, near W $\frac{1}{4}$ cor. sec. 20, T. 2 S., R. 12 W., in NE. angle of junction of rd. N., in root on SW. side of 24-in. oak tree; copper nail and washer <sup>18</sup> -----	844. 02
From Gobleville quadrangle near Lewis School southeast and east along roads to Otsego (by S. R. Archer in 1929)	
Otsego, 2.2 mi. SW., thence 1.8 mi. NW. from bridge over Kalamazoo River at, near N $\frac{1}{4}$ cor. sec. 17, T. 1 N., R. 12 W., at entrance to Lewis School, at N. end of stone porch, on top of E. end of lower stone step; chiseled square <sup>19</sup> -----	753. 55
Otsego, 2.2 mi. SW., thence 0.6 mi. NW. from, near W. cor. secs. 16 and 21, T. 1 N., R. 12 W., on W. side of rd., at junction of rd. E., at fence corner, in root on NE. side of 24-in. oak tree; copper nail and washer-----	711. 28
Otsego, 1.5 mi. SW. of, about 370 ft. N. of quarter corner between secs. 21 and 22, T. 1 N., R. 12 W., in SE. angle of junction of rd. S., at NW. corner of yard of dwelling, in root on NW. side of 30-in. maple tree; copper nail and washer-----	712. 32

<sup>17</sup> Established as a reference mark to principal bench mark stamped "Mich 945" and previously described.

<sup>18</sup> Established as a reference mark to principal bench mark stamped "Prim Trav Sta No 4 1911 Mich 844" and previously described.

<sup>19</sup> Established as a reference mark to principal bench mark stamped "Mich 753" and previously described.



Otsego, at W. limits of, at SW. corner of intersection of Allegan and Grant Streets, 2 ft. NW. of point directly over center of catch basin, on top of concrete curb; chiseled square-----	Feet 710. 88
Otsego, in SW. corner of intersection of Allegan and North Streets, on N. side of middle building of three school buildings, at arched stone entrance directly under belfry, on outside corner at E. end of stone doorsill; chiseled square-----	716. 27

## KALKASKA QUADRANGLE

[Latitude 44°30'-44°45'; longitude 85°00'-85°15']

## KALKASKA AND MISSAUKEE COUNTIES

From Fletcher quadrangle at point in sec. 23, T. 5 N., R. 6 W., along roads northwest about 4.5 miles to Sharon, thence generally east and northeast to old Anglin station on Manistee & North Eastern Railway <sup>20</sup> (by S. R. Archer in 1927)

Sharon, 4.1 mi. SE. of, near W $\frac{1}{4}$ cor. sec. 23, T. 25 N., R. 6 W., at top of hill, 15 ft. N. of rd. at abrupt descent to W., in root on N. side of 8-in. oak tree with triangular blaze; copper nail and washer-----	1, 263. 10
Sharon, 3.4 mi. SE. of, just N. of center of NW $\frac{1}{4}$ sec. 22, T. 25 N., R. 6 W., about 475 ft. SE. of crossroads, at foot of hill, 60 ft. W. of woods rd. NE., on S. side of rd., in root on SW. side of 10-in. oak tree with triangular blaze; copper nail and washer-----	1, 111. 66
Sharon, 2.7 mi. SE. of, 0.25 mi. NW. of SE. cor. sec. 16 and about 430 ft. N. of line between secs. 16 and 21, T. 25 N., R. 6 W., 35 ft. E. of junction of T-rd. NE., in concrete post; standard tablet stamped "Prim Trav Sta No 10 F 1927"-----	1, 085. 324
Reference mark, 60 ft. S. of tablet, on S. side of main rd., in root on NE. side of 10-in. pine tree with triangular blaze; copper nail and washer-----	1, 085. 52
Sharon, 2.0 mi. SE. of, near W $\frac{1}{4}$ cor. sec. 16, T. 25 N., R. 6 W., 60 ft. S. and 340 ft. W. from bridge over Big Canyon Creek, on E. side of rd. S., in root on W. side of 8-in. pine tree with triangular blaze; copper nail and washer-----	1, 075. 70
Sharon, 0.9 mi. SE. of, 0.25 mi. S. of center of sec. 8, T. 25 N., R. 6 W., near top of grade, on E. side of rd. at descent to SE., in root 6 in. underground on W. side of 15-in. oak tree with triangular blaze; copper nail and washer-----	1, 079. 33
Sharon, 125 ft. W. of bridge over Big Canyon Creek at, 15 ft. N. and 110 ft. W. from SE. cor. sec. 6, T. 25 N., R. 6 W., on N. side of rd., at junction of rd. S., 18 ft. E. of SE. corner of house, in concrete post; standard tablet stamped "Prim Trav Sta No 11 F 1927"-----	1, 058. 304
Reference mark, 250 ft. NE. of tablet, 100 ft. NE. of bridge, 40 ft. N. of rd., in root 6 in. underground on E. side of 8-in. pine tree with triangular blaze; copper nail and washer-----	1, 054. 03
Sharon, 1.0 mi. E. of, about 575 ft. NW. of SE. cor. sec. 5, T. 25 N., R. 6 W., 25 ft. E. of woods rd. NE., 20 ft. S. of rd., in root on N. side of 12-in. pine tree; copper nail and washer-----	1, 066. 54
Sharon, 1.6 mi. E. of, about 800 ft. NW. of S $\frac{1}{4}$ cor. sec. 4, T. 25 N., R. 6 W., at concrete culvert over Big Devil Creek, on top of SW. end of SE. head wall; chiseled square-----	1, 062. 13
Sharon, 1.9 mi. E. of, near center of SE $\frac{1}{4}$ sec. 4, T. 25 N., R. 6 W., 65 ft. E. of junction of rd. SE., between rds. NE. and SE., in concrete post; standard tablet stamped "Prim Trav Sta No 12 F 1927"-----	1, 071. 629

<sup>20</sup> This line is now abandoned.

Reference mark, 430 ft. NE. of tablet, on NW. side of rd. NE., in root on SE. side of four-forked oak tree with triangular blaze; copper nail and washer-----	Feet 1, 074. 35
Sharon, 2.8 mi. NE. of, about 300 ft. S. of center of N. side NW $\frac{1}{4}$ sec. 3, T. 25 N., R. 6 W., at point where rd. is on E. bank of Manistee River, at SE. end of loop in river to SE., 25 ft. SE. of river bank, on NW. side of rd., in root on NW. side of 10-in. poplar tree with triangular blaze; copper nail and washer-----	1, 066. 36
Sharon, 3.5 mi. NE. of, near center of NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 26 N., R. 6 W., at site of old bridge over Manistee River, on SE. side of main rd., 130 ft. SE. of river bank, in root on N. side of 8-in. poplar tree with triangular blaze; copper nail and washer-----	1, 067. 65
Sharon, 4.7 mi. NE. of, 0.25 mi. E. of center of sec. 27, T. 26 N., R. 6 W., 25 ft. S. and 55 ft. W. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 13 F 1927"-----	1, 102. 108
Reference mark, 160 ft. NE. of tablet, 30 ft. N. and 80 ft. E. from crossroads, on N. side of rd. NE., in crotch on S. side of triple-forked wild-cherry tree; copper nail and washer-----	1, 106. 18
Sharon, 5.7 mi. NE. of, about 500 ft. SE. of W $\frac{1}{4}$ cor. sec. 23, T. 26 N., R. 6 W., 175 ft. NE. of rd. fork, 25 ft. E. of rd. N., in root on NW. side of southernmost of two small cherry trees standing 2 ft. apart, tree having triangular blaze; copper nail and washer-----	1, 127. 08
Sharon, 6.2 mi. NE. of, about 500 ft. SE. of NW. cor. sec. 23, T. 26 N., R. 6 W., 20 ft. S. and 10 ft. E. from junction of rd. NE., at SW. corner of triangle of rd. forks, at signboard reading "Riverview 8 mi.; South Boardman 14 mi.," in concrete post; standard tablet stamped "Prim Trav Sta No 14 F 1927"-----	1, 122. 646
Sharon, 6.6 mi. NE. of, about 500 ft. NW. of S $\frac{1}{4}$ cor. sec. 14, T. 26 N., R. 6 W., 150 ft. E. of crossroads, on N. side of rd. E., in root on SW. side of small wild-cherry tree; copper nail and washer-----	1, 140. 68

[Line jogs into Fletcher quadrangle]

U. S. C. & G. S. standard disk stamped "U 13"-----	1, 099. 975
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From road fork 1.9 miles east of Sharon along road east about 2 miles into Fletcher quadrangle (by S. R. Archer in 1927)

Sharon, 2.8 mi. E. of, about 800 ft. NE. of S $\frac{1}{4}$ cor. sec. 3, T. 25 N., R. 6 W., 100 ft. N. of rd., in root on SE. side of 8-in. oak tree with triangular blaze; copper nail and washer-----	1, 086. 97
Sharon, 3.7 mi. E. of, about 500 ft. W. of center of E. side SW $\frac{1}{4}$ sec. 2, T. 25 N., R. 6 W., 80 ft. E. of small grove of white-pine trees on N. side of rd., 50 ft. E. of dim rd. SE., on S. side of main rd., in root on NE. side of 7-in. pine tree with triangular blaze; copper nail and washer-----	1, 092. 73

## LAINGSBURG QUADRANGLE

[Latitude 42°45'-43°00'; longitude 84°15'-84°30']

## CLINTON, INGHAM, AND SHIAWASSEE COUNTIES

From Elsie quadrangle at point 0.5 mile south of Burton south and west along roads to point near south quarter corner sec. 18, T. 7 N., R. 1 E., thence north 0.1 mile and back into Elsie quadrangle (by E. C. Bibbee in 1915)

Burton, 0.5 mi. S. of, in SE. cor. sec. 13, T. 7 N., R. 1 E., in NW. angle of junction of T-rd. W., 6 ft. N. of fence corner, in root of 24-in. oak tree; copper nail and washer-----	761. 11
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T. 7 N., R. 1 E., near center of NW $\frac{1}{4}$ sec. 23, on E. side of rd., opposite center of junction of State Highway 21; standard iron post with bronze cap stamped "Mich 751"-----	<i>Feet</i> 750. 120
T. 7 N., R. 1 E., 0.25 mi. S. of NW. cor. sec. 22, in NE. angle of junction of N.-S. rd., 150 ft. E. of fence corner, on concrete base of fence post; chiseled square-----	730. 86
T. 7 N., R. 1 E., near SE. cor. sec. 16, at W. side of small concrete bridge, on N. abutment; chiseled square-----	725. 79
From De Witt quadrangle at point 1.2 miles east of Gunnisonville alternately east and north along roads to Laingsburg (by H. P. Kilby in 1921)	
Gunnisonville, 1.6 mi. E. of, near quarter corner between secs. 13 and 24, T. 5 N., R. 2 W., on N. end of culvert, on concrete head wall; chiseled square (not recovered in 1926)-----	849. 40
T. 5 N., R. 1 W., in SW. cor. sec. 18, in NE. angle of crossroads, 200 ft. SW. of schoolhouse, in root of 15-in. poplar tree; copper nail and washer <sup>21</sup> -----	864. 59
T. 5 N., R. 1 W., 500 ft. W. of SE. cor. sec. 18, 0.4 mi. S., thence 0.7 mi. W. from Bath, at junction of second-class T-rd. S., 30 ft. N. of rd., 100 ft. S. of large two-story white house, in root of 40-in. maple tree; copper nail and washer-----	844. 51
Bath, at post office, in SW. corner of concrete step; standard tablet stamped "1921 Mich 857"-----	856. 674
T. 5 N., R. 1 W., near center of sec. 16, about 1 mi. E. of Bath, in NW. angle of junction of T-rd. N., in base of 20-in. elm tree; copper nail and washer-----	829. 91
T. 5 N., R. 1 W., near W $\frac{1}{4}$ cor. sec. 15, 15 ft. E. of N.-S. rd. to Park Lake, in root of 15-in. chestnut tree; copper nail and washer-----	851. 33
T. 5 N., R. 1 W., 0.25 mi. E. of NW. cor. sec. 15, in SE. angle of crossroads, in base of 40-in. elm tree; copper nail and washer-----	841. 04
T. 5 N., R. 1 W., 0.25 mi. E. of NW. cor. sec. 10, in SE. angle of junction of E.-W. rd., in root of 10-in. oak tree; copper nail and washer-----	815. 37
T. 5 N., R. 1 W., 0.25 mi. W. of NE. cor. sec. 3, in SE. angle of crossroads, 30 ft. S. of crossing of Michigan Central R. R., in concrete post; standard tablet stamped "1921 837"-----	836. 394
T. 6 N., R. 1 W., near E $\frac{1}{4}$ cor. sec. 24, 0.7 mi. W., thence 0.2 mi. N. from Laingsburg, at Clinton-Shiawassee county line, at junction of T-rd. W.; standard iron post with bronze cap stamped "Prim Trav Sta No 17 RS 1920 Mich 833"-----	833. 046
Laingsburg, at post office, on NW. corner of concrete sidewalk; chiseled square-----	816. 40
From Laingsburg northeast and east to center of sec. 24, T. 6 N., R. 1 E., thence generally south into Mason quadrangle about 4 miles north of Williamston (by H. P. Kilby in 1921)	
Laingsburg, 0.9 mi. NE., thence 0.8 mi. E. from, 0.25 mi. W. of E $\frac{1}{4}$ cor. sec. 22, T. 6 N., R. 1 E., in SW. angle of junction of T-rd. S., 20 ft. S. of rd., 30 ft. E. of fence corner, in root of 20-in. oak tree; copper nail and washer-----	832. 62
Laingsburg, 0.9 mi. NE., thence 1.3 mi. E. from, 0.25 mi. E. of W $\frac{1}{4}$ cor. sec. 23, T. 6 N., R. 1 E., in NE. angle of junction of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 18 RS 1920 Mich 832"-----	831. 425

<sup>21</sup> In 1926 it was reported that the schoolhouse had been moved and the bench mark was not recovered.

Laingsburg, 0.9 mi. NE., thence 2.0 mi. E. from, near W $\frac{1}{4}$ cor. sec. 24, T. 6 N., R. 1 E., on S. side of rd., directly opposite T-rd. N., 20 ft. E. of fence corner, in base of 20-in. oak tree; copper nail and washer.	Feet 821. 93
Laingsburg, 0.9 mi. NE., thence 2.5 mi. E. from, near center of sec. 24, T. 6 N., R. 1 E., in SW. angle of junction of T-rd. S., 6 ft. S. of rd., 70 ft. W. of fence corner, in base of 18-in. hickory tree; copper nail and washer.	843. 94
T. 6 N., R. 1 E., 0.3 mi. S. of center of sec. 25, in SW. angle of cross- roads, in root of 10-in. oak tree; copper nail and washer.	836. 52
T. 6 N., R. 1 E., near center of sec. 36, on W. side of N.-S. rd., 90 ft. N. of junction of T-rd. W., 745 ft. N. of bridge over Lookingglass River; standard iron post with bronze cap stamped "Prim Trav Sta No 13 RS 1920 Mich 843" (recovered in 1926).	842. 169
Lookingglass River; floor of bridge over.	819. 5
T. 5 N., R. 1 E., near center of sec. 1, in SE. angle of crossroads, on large rock; chiseled square.	842. 80
T. 5 N., Rs. 1 and 2 E., near quarter corner between secs. 1 and 6, at fence corner, 100 ft. N. of white house, in root of 25-in. maple tree; copper nail and washer.	849. 54
T. 5 N., R. 2 E., in SW. cor. sec. 6, in NE. angle of junction of T-rd. E., in root of 20-in. maple tree; copper nail.	836. 86
T. 5 N., R. 1 E., in SE. cor. sec. 12, 200 ft. N. of junction of E.-W. rd., on W. end of concrete head wall of culvert; chiseled square.	844. 44
T. 5 N., R. 2 E., 0.25 mi. E. of SW. cor. sec. 18, 1.2 mi. E., thence 1.0 mi. N. from Shaftsbury, in NE. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 12 RS 1920 Mich 872".	871. 872
T. 5 N., R. 2 E., 0.25 mi. E. of SW. cor. sec. 30, 1.2 mi. E., thence 1.0 mi. S. from Shaftsbury, at steel girder bridge over Vermilion Creek, on SW. end of stone abutment; chiseled square.	870. 42
T. 4 N., R. 1 E., 0.2 mi. E. of N $\frac{1}{4}$ cor. sec. 1, at Haynes School, in SW. angle of intersection of Ingham-Shiawassee county-line rd.; stand- ard iron post with bronze cap stamped "Prim Trav Sta No 11 RS 1920 Mich 901".	900. 190
T. 4 N., R. 1 E., near center of sec. 1, in SE. angle of junction of rd. E., 70 ft. S. of fence corner, in root of 20-in. hickory tree; copper nail.	896. 50
T. 4 N., R. 1 E., 0.25 mi. W. of center of sec. 12, in NW. angle of crossroads, in fence line, 60 ft. N. of corner, in root of 25-in. maple tree; copper nail.	898. 74
From Laingsburg generally south along roads into Mason quadrangle at point about 3 miles east of Haslett (mostly by H. P. Kilby but partly by W. A. Shumate in 1921)	
Laingsburg, 0.7 mi. SE. of post office at, in NE $\frac{1}{4}$ sec. 28, T. 6 N., R. 1 E., in NE. angle of crossroads, at fence corner, on rock; chiseled square.	839. 94
T. 5 N., R. 1 E., near center of sec. 4, in NE. angle of crossroads, diagonally opposite Sprague School; standard iron post with bronze cap stamped "1921 Mich 829".	828. 730
Reference mark, near standard post, in root of water-elm tree; copper nail and washer.	831. 52
T. 5 N., R. 1 E., near S $\frac{1}{4}$ cor. sec. 9, in NE. angle of crossroads, at fence corner, in base of 30-in. oak tree; copper nail and washer.	857. 32

T. 5 N., R. 1 E., 0.25 mi. W. of S $\frac{1}{4}$ cor. sec. 16, 2.8 mi. W., thence 1.0 mi. N. from Shaftsburg, in NE. angle of crossroads, on large rock; chiseled square.....	Feet 833. 21
Shaftsburg, 2.8 mi. W. of, 0.25 mi. E. of SW. cor. sec. 21, T. 5 N., R. 1 E., 600 ft. N. of Vermilion Creek, in NE. angle of junction of T-rd. E.; standard iron post with bronze cap stamped "1921 Mich 866".....	865. 716
T. 5 N., R. 1 E., near cor. secs. 28, 29, 32, and 33, on W. side of rd., directly opposite T-rd. E., at gate, in base of 10-in. poplar tree; copper nail.....	848. 99
T. 5 N., R. 1 E., near center of E. side of fractional sec. 32, in NW. angle of junction of T-rd. W., in root of 30-in. black-oak tree; copper nail and washer.....	876. 63
T. 4 N., R. 1 E., 0.35 mi. S. of NW. cor. sec. 4, 50 ft. N. of Michigan Electric R. R. <sup>22</sup> track, on E. side of N.-S. rd.; standard iron post with bronze cap stamped "1921 Mich 875".....	874. 91
T. 4 N., R. 1 E., in SW. cor. sec. 4, in NE. angle of junction of T-rd. E., on rock; chiseled square.....	880. 91
From De Witt quadrangle at point near west quarter corner sec. 24, T. 6 N., R. 2 W., east along road to Clinton-Shiawassee county line at point 0.7 mile west of Laingsburg (by W. P. Shumate in 1921)	
T. 6 N., R. 2 W., near E $\frac{1}{4}$ cor. sec. 24, in NW. angle of junction of T-rd. N., on rock; chiseled square.....	824. 25
T. 6 N., R. 1 W., 0.25 mi. E. of center of sec. 20, in SE. angle of crossroads, 4 ft. E. of fence; standard iron post with bronze cap stamped "Prim Trav Sta No 16 RS 1920 Mich 832".....	831. 781
T. 6 N., R. 1 W., near E $\frac{1}{4}$ cor. sec. 21, in SW. angle of crossroads, in root of 18-in. apple tree; copper nail and washer.....	822. 82
T. 6 N., R. 1 W., 0.25 mi. E. of center of sec. 22, 3.0 mi. W. of Laingsburg, on S. side of rd., 30 ft. E. of junction of T-rd. N., on cement abutment of mail box; chiseled square.....	821. 02
Laingsburg, 1.7 mi. W. of, near W $\frac{1}{4}$ cor. sec. 24, T. 6 N., R. 1 W., 30 ft. E. of crossroads, on N. side of rd., on rock; chiseled square.....	816. 09
From De Witt quadrangle near northwest corner sec. 1, T. 6 N., R. 2 W., east along roads to northeast corner sec. 1, T. 6 N., R. 1 E., thence south 3.5 miles and west 0.5 mile to point 0.9 mile northeast thence 2.5 miles east from Laingsburg (by W. A. Shumate in 1921)	
T. 6 N., R. 2 W., in NE. cor. sec. 1, in SW. angle of crossroads, in root of 30-in. maple tree; copper nail and washer.....	806. 24
T. 6 N., R. 1 W., in NE. cor. sec. 5, in SW. angle of crossroads; standard iron post with bronze cap stamped "1921 Mich 784".....	783. 855
T. 6 N., R. 1 W., in NE. cor. sec. 4, in SW. angle of crossroads, 40 ft. W. of intersection, on rock; chiseled square.....	787. 12
T. 7 N., R. 1 W., in SE. cor. sec. 34, in NW. angle of crossroads, on rock; chiseled square.....	810. 02
T. 6 N., R. 1 W., in NE. cor. sec. 2, in SW. angle of junction of N.-S. rd.; standard iron post with bronze cap stamped "1921 Mich 823".....	823. 143
T. 7 N., R. 1 W., in SW. cor. sec. 25, in NE. angle of crossroads, in root of 18-in. maple tree; copper nail and washer.....	794. 27
T. 7 N., R. 1 W., 0.25 mi. E. of N $\frac{1}{4}$ cor. sec. 36, 30 ft. S. of junction of N.-S. rd., on W. side of rd., on concrete abutment of culvert; chiseled square.....	776. 31

<sup>22</sup> This railroad is now abandoned.

T. 7 N., R. 1 W., 500 ft. N. of SE. cor. sec. 36, at Meridian School, in SW. angle of rd. fork, in line with junction of rd. E., on schoolhouse; chiseled square.....	Feet 783. 80
T. 6 N., R. 1 E., 0.2 mi. W. of NE. cor. sec. 4, 120 ft. E. of junction of T-rd. N., on S. side of Middlebury-Sciota township-line rd.; standard iron post with bronze cap stamped "1921 Mich 780" .....	779. 756
Reference mark, on S. side of rd., in line with T-rd. N., in root of 18-in. maple tree; copper nail and washer.....	777. 13
T. 7 N., R. 1 E., near S. cor. secs. 34 and 35, near Middlebury Church, in root of 24-in. maple tree; copper nail and washer.....	772. 25
T. 6 N., R. 1 E., 0.2 mi. W. of NE. cor. sec. 2, near S. cor. secs. 35 and 36, T. 7 N., R. 1 E., on S. side of rd., 20 ft. W. of junction of T-rd. N., in root of 18-in. tree; copper nail and washer.....	774. 59
T. 6 N., Rs. 1 and 2 E., near closing corner between secs. 1 and 6, at junction of T-rd. S., in root of 30-in. black-oak tree; copper nail and washer.....	785. 33
Bear Creek, on E. line of sec. 1, T. 6 N., R. 1 E.; surface of water June 18, 1921.....	771. 1
T. 6 N., R. 1 E., in NE. cor. sec. 12, in SW. angle of crossroads, 30 ft. S. of intersection, on W. side of rd., on culvert; chiseled square.....	792. 54
T. 6 N., R. 2 E., 330 ft. N. of SW. cor. sec. 7, 4.3 mi. along Michigan Central R. R. NE. of Laingsburg, 28 ft. N. of track, 35 ft. NE. of junction of rd. SW.; standard iron post with bronze cap stamped "Prim Trav Sta No 14 RS 1920 Mich 804".....	803. 521
T. 6 N., R. 2 E., in SW. cor. sec. 18, 1.0 mi. N. and 3.8 mi. E. from Laingsburg, in NE. angle of crossroads, on NE. corner of bridge abutment; chiseled square.....	794. 65
From northeast corner sec. 1, T. 6 N., R. 1 E., north along road into Elsie quadrangle 0.5 mile south of Burton (by W. A. Shumate in 1921)	
Burton, 2.5 mi. S. of, in NE. cor. sec. 36, T. 7 N., R. 1 E., in SW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 15 RS 1920 Mich 776".....	775. 783
Burton, 1.5 mi. S. of, in NE. cor. sec. 25, T. 7 N., R. 1 E., at junction of T-rd. W., on concrete abutment; chiseled square.....	732. 90
Burton, 1.0 mi. S. of, N. of W $\frac{1}{4}$ cor. sec. 19, T. 7 N., R. 2 E., on E. side of rd., on concrete abutment; chiseled square.....	740. 25
Burton, 0.5 mi. S. of, in NE. cor. sec. 24, T. 7 N., R. 1 E., at junction of T-rd. W., in root of 24-in. oak tree; copper nail and washer <sup>23</sup> .....	761. 86
From Corunna quadrangle at point 1.5 miles west of Pittsburg southwest along roads to center of sec. 36, T. 6 N., R. 1 E. (by H. S. Senseney in 1926)	
T. 6 N., R. 2 E., near E $\frac{1}{4}$ cor. sec. 30, on S. side of rd., 40 ft. W. of junction of rd. N., on culvert; chiseled square.....	836. 33
T. 6 N., R. 2 E., 0.2 mi. N. of SW. cor. sec. 30, on S. side of rd., at N.-S. fence line, on culvert; chiseled square.....	832. 14

<sup>23</sup> This is not the bench mark that E. C. Bibbee established in 1915 near the same location.

## LAKE HARBOR QUADRANGLE

[Latitude 43°00'-43°15'; longitude 86°15'-86°30']

## MUSKEGON AND OTTAWA COUNTIES

From Muskegon quadrangle near southeast corner sec. 19, T. 9 N., R. 16 W., west along road 0.7 mile to cross road, thence north 5 miles along township-line road to Laketon Avenue in Muskegon, thence east 0.7 mile and back into Muskegon quadrangle (by H. P. Jones in 1928)

Muskegon Heights, 3.7 mi. S. of intersection of Broadway and Henry Streets, near E. cor. secs. 24 and 25, T. 9 N., R. 17 W., 30 ft. N. and 30 ft. W. from center of junction of T-rd. W., in concrete post; standard tablet stamped "P T Sta No 12 F 1928"-----	Feet 608. 905
Reference mark, 22 ft. S. and 22 ft. E. from junction of rd. W., in root on S. side of 6-in. maple tree; copper nail and washer-----	607. 86
Muskegon Heights, 2.7 mi. S. of, in NW. cor. sec. 19, T. 9 N., R. 16 W., 120 ft. S. and 15 ft. E. from junction of T-rd. W., in root on SW. side of 18-in. basswood tree; copper nail and washer-----	602. 34
Muskegon Heights, 1.7 mi. S. of, near cor. secs. 7, 12, 13, and 18, T. 9 N., Rs. 16 and 17 W., 130 ft. S. and 35 ft. W. from S. end of bridge over Mona Lake, in root on E. side of 28-in. maple tree; copper nail and washer-----	593. 68
Muskegon Heights, 0.7 mi. S. of, near E. cor. secs. 1 and 12, T. 9 N., R. 17 W., in NE. corner of yard of Maple Grove School, 35 ft. S. and 50 ft. W. from fence line E., in concrete post; standard tablet stamped "P T Sta No 11 F 1928"-----	623. 978
Reference mark, 40 ft. S. and 22 ft. W. from intersection of fence line and street, in root on E. side of 30-in. oak tree; copper nail and washer-----	625. 36
Muskegon Heights, at NW. corner of Broadway and Henry Streets, on top of concrete curb; chiseled square-----	625. 74
Muskegon, at SE. corner of Laketon Avenue and Henry Street, in root on NW. side of 14-in. maple tree; copper nail and washer-----	621. 40
From intersection of Broadway and Henry Streets in Muskegon Heights north to Sherman Boulevard, thence west to Lakeside, thence north along Lincoln Street and north west along Lake Shore Drive to Port Sherman (by J. L. Buckmaster in 1928; leveled twice)	
Muskegon Heights, 24 ft. N. and 4 ft. E. from intersection of Sherman Boulevard and Otto Street, on top of concrete curb of Glenside Oval; chiseled square-----	613. 61
Lakeside, 33 ft. S. and 30 ft. W. from intersection of Sherman Boulevard and Lincoln Street, in concrete post; standard tablet stamped "P T Sta No 38 F 1928"-----	610. 903
Reference mark, 60 ft. N. of tablet, 27 ft. N. and 22 ft. W. from street intersection, in root on E. side of 16-in. oak tree; copper nail and washer-----	610. 98
Lakeside, 25 ft. N. and 14 ft. E. from intersection of Lincoln Street and Lake Shore Drive, on top of concrete curb; chiseled square-----	592. 86
Lakeside, 45 ft. SE. of Lake Shore Drive, 5 ft. NW. of E. corner of Austin Machinery Corp. office building, on concrete ledge of building; chiseled square-----	591. 75
Port Sherman, near harbor entrance, in yard of dwelling of lighthouse keeper, 10 ft. S. of SW. corner and 12.4 ft. from SE. corner of brick oil house, about 2 in. below surface of ground; top of vertical iron pipe (U. S. Lake Survey B. M.)-----	586. 375

Port Sherman, on N. side of dwelling of lighthouse keeper, at eastern-most cellar window, on middle of outside sill; scratched square 1 in. on each side (U. S. Lake Survey B. M.)-----

Feet  
589. 071

Alternately southeast and northeast along State Highway 20 on north side of Muskegon Lake (by S. R. Archer in 1929)

[A jog from Montague quadrangle]

T. 10 N., R. 17 W., near cor. secs. 15, 16, 21, and 22, at NW. corner of junction of rd. N., on top of N. concrete head wall of culvert; chiseled square-----	590. 55
T. 10 N., R. 17 W., near N $\frac{1}{4}$ cor. sec. 22, near Green Creek School, 300 ft. W. of turn S. in highway, at concrete bridge over creek, on top of S. parapet of E. abutment; chiseled square-----	589. 37
T. 10 N., R. 17 W., 0.3 mi. S. of NW. cor. sec. 23, 45 ft. E. of junction of rd. N., on top of S. concrete head wall of culvert; chiseled square-----	590. 63
T. 10 N., R. 17 W., 0.15 mi. W. of center of sec. 23, at E. end of concrete highway bridge over outlet of Bear Lake, on inside at foot of S. head wall, on ledge, 7 in. above pavement and 2.5 ft. W. of E. end; chiseled square-----	592. 35
T. 10 N., R. 17 W., 0.25 mi. S. of cor. secs. 13, 14, 23, and 24, about midway of point where road runs along top of bank of Muskegon Lake, 75 ft. SW. of steps leading down to lake, 130 ft. NE. of angle in pavement, 300 ft. SW. of another angle in pavement, midway between sidewalk and pavement, in root on SE. side of 24-in. oak tree; copper nail and washer-----	616. 91

#### LAKE LINDEN QUADRANGLE <sup>24</sup>

[Latitude 47°00'-47°15'; longitude 88°15'-88°30']

#### HOUGHTON AND KEWEENAW COUNTIES

From Houghton quadrangle near Highway east and northeast along roads into Eagle River quadrangle near Calumet (by F. H. West in 1908)

Highway, 1.0 mi. E. of, 2.7 mi. SW. of Osceola, at NE. corner of crossroads, inside barbwire fence line; standard iron post with bronze cap stamped "1162"-----	1, 161. 469
Osceola, at SW. corner of crossroads, in center of top of large boulder; chiseled cross-----	1, 175. 42
Osceola, in NW. corner of lot, 165 ft. N. of crossing of electric R. R., 263 ft. SW. of Mineral Range R. R. cattle guard, in concrete post; aluminum tablet stamped "Prim Trav Sta No 2 1173" (recovered by U. S. C. & G. S. in 1934)-----	1, 172. 140
Osceola, 0.3 mi. NE. of, 1.0 mi. SW. of Calumet, between Hecla and Ramey, at SE. corner of R. R. crossing, diagonally opposite large church, at E. side of old brownstone engine house of Calumet & Hecla Mining Co., at S. end of lowest N. window, on sill; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	1, 234. 817
Calumet, near center of W. side of lot with office buildings of Calumet & Hecla Mining Co., 60 ft. N. of NW. corner of president's lodge, 35 ft. NW. of flagstaff, 3 ft. from wagon shed to N., inside picket fence; standard iron post with bronze cap stamped "1241" (recovered by U. S. C. & G. S. in 1934)-----	1, 239. 669
Calumet, at SE. corner of intersection of Calumet and Pine Streets, in W. side of fireplug, 1 ft. from bottom, on $\frac{3}{4}$ -in. nut; chiseled cross (recovered by U. S. C. & G. S. in 1934)-----	1, 224. 489

<sup>24</sup> That portion of the quadrangle lying west of the Houghton-Keweenaw county line and north of latitude 47°09' was originally surveyed and published as part of the Calumet special quadrangle.



From Eagle River quadrangle south along Copper Range Railroad to point 2 miles east of Laurium, thence southeast and southwest along roads to Hubbell, thence southwest along Copper Range Railroad into Houghton quadrangle (by F. H. West in 1908)

Calumet Junction, 1.4 mi. SE. of, at SE. corner of rd. crossing, on E. side of E. rail, on joining panel; chiseled cross-----	Feet 1, 098. 49
Calumet Junction, 2.3 mi. SE. of, about 2 mi. E. of Laurium, on top of St. Louis Hill, in NE. angle of crossing of dirt rd., 30 ft. from rd. and track; standard iron post with bronze cap stamped "1008"-----	1, 007. 407
Laurium, 3.0 mi. SE. of, in NE. angle of junction of T-rd. N., 75 ft. NE. of Trap Rock School; standard iron post with bronze cap stamped "639"-----	638. 600
Lake Linden, at NE. end of town, on S. side of rd., at E. end of bridge over Trap Rock River, on base stone; chiseled cross-----	608. 27
Trap Rock River, under bridge; surface of water-----	603. 2
Torch Lake, at Lake Linden; surface of water-----	602. 4
Lake Linden, at S. end of town, about 300 ft. N. of terminal of Mineral Range R. R., on E. side of Lake Linden-Hancock pike, just N. of Copper Range R. R. crossing, in SW. corner of grounds of Calumet & Hecla Smelter Co., in concrete post; aluminum tablet stamped "623"-----	622. 109
Hubbell, 750 ft. N. of sta., 300 ft. N. of sign reading "Mills 1 mi.," 300 ft. N. of Duncan Avenue, 225 ft. NW. of NW. corner of Opal's store, opposite Schwermann brewery, at SE. corner of R. R. and street intersection, 2.5 ft. E. of E. rail of M. R. R. R., 1 ft. S. of boardwalk, on top of bolt head 1 in. square; chiseled cross-----	627. 95
Mills, in front of sta.; top of rail-----	633. 2
Quincy Stamp Mills, about 0.6 mi. NE. of, on W. side of Hancock pike, in concrete post; aluminum tablet stamped "Prim Trav Sta No 15 630"-----	629. 683
May, 0.2 mi. S. of, 300 ft. W. of M. R. R. R., on W. side of rd., at N. pillar of overhead R. R. bridge, 2 in. from sides of angles formed by S. and E. sides of concrete base; chiseled square-----	629. 49

#### LANSING QUADRANGLE

[Latitude 42°30'-42°45'; longitude 84°30'-84°45']

#### EATON AND INGHAM COUNTIES

From Mason quadrangle west 0.2 mile along Delhi-Lansing township-line road to north corner secs. 1 and 2, T. 3 N., R. 2 W., thence south along road to Holt, thence southeast along Michigan Central Railroad and back into Mason quadrangle (by F. H. West in 1908)

Holt, 2.7 mi. N. and 0.1 mi. E. from Michigan Central R. R. sta. at, in NE. cor. sec. 2, T. 3 N., R. 2 W., 60 ft. S. of center of junction of T-rd. S., on W. side of rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 13 1908 Mich 869"-----	868. 143
Holt, 1.2 mi. N. and 0.1 mi. E. from, near W $\frac{1}{4}$ cor. sec. 12, T. 3 N., R. 2 W., near SE. corner of crossroads, at side of rd., on shelf of large boulder; highest point-----	871. 99
Holt, 90 ft. N. of NE. corner of M. C. R. R. sta., 40 ft. E. of center line of main track; standard iron post with bronze cap stamped "Prim Trav Sta No 14 1908 Mich 882"-----	881. 367

From Mason quadrangle near west quarter corner sec. 13, T. 2 N., R. 2 W., along roads west 0.2 mile, thence south 2.5 miles, thence east and back into Mason quadrangle at point 1.1 miles east of Aurelius (by F. H. West in 1908)

Aurelius, 1.0 mi. E. of, 140 ft. E. of SE. corner of Barnes School, near SE. cor. sec. 26, T. 2 N., R. 2 W., in NW. angle of crossroads, in schoolyard; standard iron post with bronze cap stamped "Prim Trav Sta No 15 1908 Mich 981" (recovered in 1916)-----	Feet 980. 246
From Mason quadrangle near East Lansing east to Lansing, thence southeast along roads and Lansing & Jackson Electric Railroad to crossing 0.7 mile northwest of Holt, thence along roads south to Aurelius, thence west to Eaton Rapids (by L. D. Townsend in 1909).	
Lansing, at NE. corner of intersection of Michigan and Pennsylvania Avenues, on top of curb; chiseled square-----	864. 39
Grand River, under Kalamazoo Street bridge; surface of water Aug. 17, 1909-----	817. 0
Lansing, at South Washington Avenue concrete bridge over Grand River, in SE. corner of abutment; aluminum tablet stamped "Mich 845" <sup>25</sup> -----	843. 494
Lansing, 2.2 mi. S. of South Washington Avenue bridge over Grand River, in SE. cor. sec. 28, T. 4 N., R. 2 W., near Everett School, about 125 ft. N. of junction of T-rd. W., on W. side of rd., at concrete bridge; top of bolt set in concrete-----	839. 44
Lansing, 3.2 mi. S. of, 3.5 mi. NW. of Holt, at Town Line sta. of Lansing & Jackson Electric R. R., 0.25 mi. W. of NE. cor. sec. 4, T. 3 N., R. 2 W., in SW. angle of crossroads, inside fence; standard iron post with bronze cap stamped "1909 869"-----	868. 584
Holt, 0.5 mi. W. of, at cor. secs. 14, 15, 22, and 23, T. 3 N., R. 2 W., in center of crossroads, on stone marking section corner; top of stone-----	884. 04
Holt, 0.5 mi. W., thence 0.5 mi. S. from, near W $\frac{1}{4}$ cor. sec. 23, T. 3 N., R. 2 W., on E. side of rd., opposite T-rd. W., in line with right-of-way high-tension-wire poles between rd. and fence; standard iron post with bronze cap stamped "1909 894"-----	892. 698
Holt, 0.5 mi. W., thence 3.0 mi. S. from, 5.0 mi. N. of Aurelius, near SE. cor. sec. 34, T. 3 N., R. 2 W., in NW. angle of junction of township-line rd. W., 2 ft. E. of N.-S. fence; standard iron post with bronze cap stamped "1909 932"-----	930. 820
Aurelius, 4.0 mi. N. of, in NW. cor. sec. 11, T. 2 N., R. 2 W., in SE. angle of crossroads, 3 ft. NW. of fence corner, on stone; highest point-----	919. 96
Aurelius, 3.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 10, T. 2 N., R. 2 W., in NW. angle of junction of private T-rd. W., 33 ft. N. of E.-W. fence, 10 ft. W. of N.-S. fence, on large boulder; highest point-----	909. 55
Aurelius, 3.0 mi. N. of, in NE. cor. sec. 15, T. 2 N., R. 2 W., in SW. angle of crossroads, in marsh, on stone; chiseled square-----	900. 99
Aurelius, 2.5 mi. N. of, near W $\frac{1}{4}$ cor. sec. 14, T. 2 N., R. 2 W., at junction of T-rd. W., in right-of-way, 5 ft. W. of fence; standard iron post with bronze cap stamped "1909 924"-----	923. 726
Aurelius, 2.0 mi. N. of, in SE. cor. sec. 15, T. 2 N., R. 2 W., in NW. angle of crossroads, opposite Grettton School, in field, 3 ft. N. of corner post, on highest point of black stone; chiseled square-----	964. 24
Aurelius, 1.0 mi. N. of, in SW. cor. sec. 23, T. 2 N., R. 2 W., in NE. angle of crossroads, near house, under ash tree, on large stone; chiseled square-----	938. 01

<sup>25</sup> In 1927 this bench mark was reset at approximately the same location and lowered 0.338 foot. The figures given represent the new elevation.

Aurelius, 600 ft. W. of crossroads at, on N. side of E.-W. rd., 4 ft. S. of fence; standard iron post with bronze cap stamped "1909 963" (recovered in 1916)	Feet 962.531
Aurelius, 1.0 mi. W. of, in NW. cor. sec. 34, T. 2 N., R. 2 W., in SE. angle of crossroads, 15 ft. S. of rd., on highest point of large boulder; chiseled square	916.12
Aurelius, 2.0 mi. W. of, near SW. cor. sec. 28, T. 2 N., R. 2 W., 45 ft. NE. of crossroads, diagonally opposite Wilcox School, near fence, on stone; chiseled square (recovered in 1916)	947.07
Aurelius, 3.0 mi. W. of, at cor. secs. 29, 30, 31, and 32, T. 2 N., R. 2 W., in center of crossroads, on stone marking section corner; chiseled square (recovered in 1916)	925.00
Aurelius, 4.0 mi. W. of, 0.9 mi. NE., thence 2.1 mi. E. from Knight Street East bridge at Eaton Rapids, in SW. cor. sec. 30, T. 2 N., R. 2 W., in NE. angle of crossroads, near Eaton-Ingham county line, in field, 4 ft. NE. of fence corner; standard iron post with bronze cap stamped "1909 943" (recovered in 1916)	942.018
Eaton Rapids, 0.9 mi. NE., thence 1.1 mi. E. from, in SE. cor. sec. 26, T. 2 N., R. 3 W., in NW. angle of junction of T-rd. N., on stone; chiseled square	901.51
Eaton Rapids, 0.9 mi. NE., thence 0.6 mi. E. from, near N $\frac{1}{4}$ cor. sec. 35, T. 2 N., R. 3 W., in SE. angle of junction of T-rd. S., 30 ft. E. of rd., in fence line, in root on N. side of hickory tree; copper nail and washer	885.82
Eaton Rapids, on Knight Street East, at bridge over Grand River, on SE. abutment, 2 ft. from and level with sidewalk; aluminum tablet stamped "1909 874" (recovered in 1916)	873.218
Grand River, under Knight Street East bridge; surface of water Sept. 10, 1909	861.0
From Eaton Rapids northwest along road to South Eaton Church, thence north along range-line road 4.4 miles, thence west and north by way of Potterville to cross road 1 mile southeast of Grand Ledge, thence east to Lansing (by L. D. Townsend in 1909)	
Eaton Rapids, 1.0 mi. NW. of Knight Street East bridge, at W. city limits, on S. side of rd., opposite rd. N., on large stone; chiseled square	887.72
Eaton Rapids, 2.5 mi. NW. of, 1.1 mi. SE. of South Eaton Methodist Episcopal Church, at Brickyard School, about 700 ft. N. of SE. cor. sec. 30, T. 2 N., R. 3 W., in SW. angle of crossroads, 2 ft. N. of schoolyard fence; standard iron post with bronze cap stamped "1909 920"	919.033
South Eaton Methodist Episcopal Church, at SE. corner of, near E $\frac{1}{4}$ cor. sec. 25, T. 2 N., R. 3 W., in SW. angle of crossroads, on highest point of stone; chiseled square	949.78
South Eaton Methodist Episcopal Church, 0.4 mi. N. of, in NE. cor. sec. 25, T. 2 N., R. 4 W., on W. side of range-line rd., opposite rd. E. at jog, near fence, on large stone; highest point	949.07
South Eaton Methodist Episcopal Church, 2.4 mi. N. of, 1.0 mi. E., thence 4.0 mi. S. from Potterville, in SE. cor. sec. 12, T. 2 N., R. 4 W., 160 ft. N. of rd. crossing, on W. side of rd., at NE. corner of yard of Royston School, 10 ft. from fence; standard iron post with bronze cap stamped "1909 896"	895.751

Potterville, 2.0 mi. S. of, in NE. cor. sec. 2, T. 2 N., R. 4 W., in SW. angle of crossroads, 150 ft. from intersection, at NW. corner of yard of Fast School, in line with fence; standard iron post with bronze cap stamped "1909 921"	Feet 919. 999
Potterville, 0.5 mi. S. of, near E $\frac{1}{4}$ cor. sec. 26, T. 3 N., R. 4 W., on W. side of rd., opposite T-rd. E., in root on S. side of maple tree; copper nail and washer	889. 71
Potterville, 1.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 14, T. 3 N., R. 4 W., at SW. corner of crossroads, at S. end of culvert over ditch, on highest point of flat stone; chiseled square	882. 51
Potterville, 2.0 mi. N. of, in NW. cor. sec. 13, T. 3 N., R. 4 W., near SE. corner of crossroads, on rd. side of fence; standard iron post with bronze cap stamped "1909 881"	880. 133
Potterville, 3.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 2, T. 3 N., R. 4 W., in NW. angle of junction of T-rd. W., on highest point of largest stone in pile of stones in place; chiseled square	858. 07
Potterville, 5.0 mi. N. of, 4.0 mi. S. of Grand Ledge, in NE. cor. sec. 35, T. 4 N., R. 4 W., 150 ft. W. of junction of T-rd. W., on S. side of rd., at NW. corner of yard of Canada Settlement School; standard iron post with bronze cap stamped "1909 885"	883. 693
Grand Ledge, 3.0 mi. S. of, in NW. cor. sec. 25, T. 4 N., R. 4 W., near SE. corner of crossroads, at E. end of sluiceway, on flat stone; chiseled cross	872. 77
Grand Ledge, 2.0 mi. S. of, in SE. cor. sec. 14, T. 4 N., R. 4 W., in NW. angle of crossroads, at entrance to Centennial School, on NE. corner of bottom concrete step; chiseled square	878. 25
Grand Ledge, 1.0 mi. S. of, in NW. cor. sec. 13, T. 4 N., R. 4 W., in SE. angle of crossroads, in field, in fence corner; standard iron post with bronze cap stamped "1909 860"	859. 250
Grand Ledge, 1.0 mi. S., thence 2.0 mi. E. from, in NW. cor. sec. 17, T. 4 N., R. 3 W., in SE. angle of crossroads, E. of high tension steel tower, in root on N. side of second tree from corner; copper nail and washer	858. 29
Grand Ledge, 1.0 mi. S., thence 2.5 mi. E. from, near N $\frac{1}{4}$ cor. sec. 17, T. 4 N., R. 3 W., near N. side of triangle at junction of T-rd. S., on small stone; chiseled cross	848. 18
Grand Ledge, 1.0 mi. S., thence 4.0 mi. E. from, 0.5 mi. N., thence 5.0 mi. W. from State Capitol at Lansing, in SE. cor. sec. 9, T. 4 N., R. 3 W., in NW. angle of crossroads, at Soper School, near center of back wall of brick schoolhouse, about 3 ft. from ground; aluminum tablet stamped "1909 864"	863. 250
Lansing, 0.5 mi. N., thence 4.0 mi. W. from, in SE. cor. sec. 10, T. 4 N., R. 3 W., in NW. angle of crossroads, near S. side of corner fence post, on large boulder; chiseled square	866. 70
Lansing, 0.5 mi. N., thence 2.5 mi. W. from, in SE. cor. sec. 12, T. 4 N., R. 3 W., near Eaton-Ingham county line, in NW. angle of crossroads, inside fence; standard iron post with bronze cap stamped "1909 862"	861. 189
Lansing, at NE. corner of intersection of Saginaw and Logan Streets; top of hydrant	862. 93
Grand River, under Saginaw Street bridge; surface of water Sept. 3, 1909	814. 0

From road junction 0.5 mile west and 0.5 mile south from Holt along roads generally west by way of Dimondale and West Windsor to point 1.5 miles north of Potterville (by L. D. Townsend in 1909)

Holt, 1.5 mi. W., thence 1.0 mi. S. from, near SW. cor. sec. 22, T. 3 N., R. 2 W., N. of junction of T-rd. W., in SE. wing of abutment of bridge, on stone; chiseled cross-----	Feet 879. 27
Holt, 3.5 mi. W., thence 1.0 mi. S. from, near NE. cor. sec. 30, T. 3 N., R. 2 W., in SW. angle of crossroads, in field, in fence corner; standard iron post with bronze cap stamped "1909 868"-----	866. 999
Holt, 4.5 mi. W., thence 1.0 mi. S. from, 1.5 mi. S. and 2.3 mi. E. from Dimondale, in SW. cor. sec. 19, T. 3 N., R. 2 W., near Eaton-Ingham county line, at NE. corner of crossroads, near edge of wheel track as rd. turns N., on highest point of large stone; chiseled square-----	867. 98
Dimondale, 1.0 mi. S. and 1.5 mi. E. from, SW. of center of sec. 24, T. 3 N., R. 3 W., at junction of NE.-SW. rd., on NW. side of rd., opposite rd. SE., on large stone in place; chiseled square-----	862. 79
Dimondale, 1.5 mi. S. and 1.3 mi. E. from, at cor. secs. 23, 24, 25, and 26, T. 3 N., R. 3 W., 15 ft. W. of rd. junction, on stone marking section corner; chiseled cross-----	884. 63
Dimondale, 1.5 mi. S. and 0.5 mi. E. from, 0.25 mi. E. of SW. cor. sec. 23, T. 3 N., R. 3 W., 50 ft. E. of junction of T-rd. S., on N. side of rd., on large stone; chiseled square-----	904. 99
Dimondale, 1.5 mi. by rd. SE. of, in NW. cor. sec. 26, T. 3 N., R. 3 W., near SE. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 4 1909 Mich 913"-----	912. 371
Dimondale, at street intersection 500 ft. SW. of bridge over Grand River, at N. corner, at junction of walks, on boulder; chiseled square-----	858. 69
Grand River, under bridge; surface of water Aug. 26, 1909-----	840. 0
Dimondale, at street intersection NE. of Grand River bridge, in SW. wall of brick block on N. corner, 4.2 ft. above walk and 1.3 ft. from front of building, 12 ft. S. of town pump; aluminum tablet stamped "1909 866"-----	865. 208
Dimondale, 0.8 mi. NW. of, 1.9 mi. E. of West Windsor, near W $\frac{1}{4}$ cor. sec. 15, T. 3 N., R. 3 W., at SE. corner of crossroads, on stone; chiseled cross-----	859. 58
West Windsor, 0.4 mi. E. of, at center of sec. 17, T. 3 N., R. 3 W., 20 ft. N. of center of junction of T-rd. S., on stone marking quarter corner; chiseled square-----	908. 81
West Windsor, in NE. angle of crossroads at, near W $\frac{1}{4}$ cor. sec. 17, T. 3 N., R. 3 W., on SE. side of State Rd., 8 ft. from fence, under walnut tree; standard iron post with bronze cap stamped "1909 944"-----	942. 698
From Mason quadrangle 3.7 miles west of Eden west along road by way of Aurelius to Eaton-Ingham county line, thence south 1 mile and west along township-line road to Eaton Rapids (by E. C. Bibbee in 1918)	
Aurelius, 1.0 mi. W. of, in SE. cor. sec. 28, T. 2 N., R. 2 W., near NW. corner of crossroads, on N. concrete head wall of culvert; chiseled square-----	918. 09
Aurelius, 3.0 mi. W. of, in NE. cor. sec. 31, T. 2 N., R. 2 W., near SW. corner of crossroads, on large rock over end of culvert; chiseled square-----	924. 94

Aurelius, 4.0 mi. W., thence 1.0 mi. S. from, 0.3 mi. S., thence 2.6 mi. E. from Knight Street East bridge in Eaton Rapids, in SW. cor. sec. 31, T. 2 N., R. 2 W., near Eaton-Ingham county line, in NE. angle of crossroads, in SW. corner of yard of Plains School, on concrete enclosure around well; chiseled square	Feet 919. 06
Eaton Rapids, 0.3 mi. S., thence 1.9 mi. E. from, 250 ft. W. of NE. cor. sec. 2, T. 1 N., R. 3 W., on S. side of rd., directly in front of house, in root of boxelder tree; copper nail and washer	915. 69
Eaton Rapids, 0.3 mi. S., thence 0.9 mi. E. from, near S. cor. secs. 34 and 35, T. 2 N., R. 3 W., on concrete head wall over N. end of steel drain under rd.; chiseled square	892. 71

## LAPEER QUADRANGLE

[Latitude 43°00'-43°15'; longitude 83°15'-83°30']

## GENESEE, LAPEER, AND TUSCOLA COUNTIES

From Flint quadrangle at point 1 mile east of Otisville along roads generally east to Columbiaville, thence alternately north and east into Imlay City quadrangle about 0.6 mile north and 3.4 miles west from North Branch (by E. E. Harris in 1919)

Otisville, 2.0 mi. E. of, in NE. cor. sec. 26, T. 9 N., R. 8 E., 20 ft. S. and 20 ft. W. from crossroads, on N. end of concrete culvert; chiseled square	838. 96
Otisville, 3.1 mi. E. of, 2.7 mi. W., thence 0.5 mi. N. from Columbiaville, near NE. cor. sec. 25, T. 9 N., R. 8 E., 30 ft. N. and 25 ft. W. from junction of N.-S. rd., in concrete post; standard tablet stamped "1919 Mich 833"	832. 378
Columbiaville, 2.0 mi. W., thence 0.5 mi. N. from, near W $\frac{1}{4}$ cor. sec. 29, T. 9 N., R. 9 E., 20 ft. S. and 20 ft. E. from junction of T-rd. S., on large granite boulder; chiseled square	831. 43
Columbiaville, 1.0 mi. W., thence 0.5 mi. N. from, near E $\frac{1}{4}$ cor. sec. 29, T. 9 N., R. 9 E., 25 ft. S. and 25 ft. W. from junction of N.-S. rd., in root on E. side of 7-in. poplar tree; copper nail and washer	771. 44
Columbiaville, 1.0 mi. W. of, in SE. cor. sec. 29, T. 9 N., R. 9 E., 20 ft. N. and 20 ft. W. from crossroads, on N. end of concrete culvert; chiseled square	793. 78
Columbiaville, at westernmost of three bridges over Flint River, in SE. corner; top of iron bolt	755. 81
U. S. C. & G. S. standard disk stamped "L 31 1930" <sup>26</sup>	780. 107
Columbiaville, at easternmost of three bridges over Flint River, in E. end of N. concrete abutment; standard tablet stamped "1919 Mich 759"	758. 546
Flint River, under bridge; surface of water Oct. 29, 1919	743. 2
Columbiaville, 1.0 mi. N. of, in NW. cor. sec. 27, T. 9 N., R. 9 E., 25 ft. N. and 25 ft. E. from crossroads, on top of granite outcrop; chiseled square	801. 64
Columbiaville, 1.0 mi. N., thence 0.9 mi. E. from, in SE $\frac{1}{4}$ sec. 22, T. 9 N., R. 9 E., at bridge over creek, on E. end of N. abutment; chiseled square	759. 73
Columbiaville, 1.0 mi. N., thence 1.0 mi. E. from, in SE $\frac{1}{4}$ sec. 22, T. 9 N., R. 9 E., 20 ft. N. and 20 ft. W. from rd. junction, on granite boulder; chiseled square	773. 49

<sup>26</sup> The tie between this bench mark and the mark stamped "1919 Mich 759" was made in 1931.

T. 9 N., R. 9 E., W. of E $\frac{1}{4}$ cor. sec. 22, in SE. angle of junction of E.-W. rd., on large granite boulder; chiseled square-----	<i>Feet</i> 789. 31
T. 9 N., R. 9 E., in NW. cor. sec. 23, 15 ft. S. and 15 ft. E. from crossroads, on top of granite outcrop; chiseled square-----	814. 12
T. 9 N., R. 9 E., on N. side NW $\frac{1}{4}$ sec. 24, at bridge over Flint River, in N. end of E. concrete abutment; standard tablet stamped "1919 Mich 764"-----	763. 650
Flint River, under bridge; surface of water Nov. 5, 1919-----	753. 2
T. 9 N., R. 9 E., in NE. cor. sec. 24, 20 ft. S. and 20 ft. W. from junction of N.-S. rd., on granite boulder; chiseled square-----	785. 77
T. 9 N., R. 10 E., 0.25 mi. W. of NE. cor. sec. 19, 20 ft. S. and 20 ft. W. from junction of T-rd. S., on large granite boulder; chiseled square-----	785. 28
T. 9 N., R. 10 E., in NW. cor. sec. 21, 25 ft. S. and 50 ft. E. from crossroads, on top of granite outcrop; chiseled square-----	807. 16
T. 9 N., R. 10 E., in SW. cor. sec. 9, 25 ft. N. and 50 ft. E. from crossroads known as Corner Sixteen, in concrete post; standard tablet stamped "1919 Mich 785"-----	784. 631
T. 9 N., R. 10 E., in NE. cor. sec. 5, 20 ft. S. and 70 ft. W. from junction of E.-W. rd., in root on E. side of 36-in. poplar tree; copper nail and washer-----	795. 83
T. 10 N., R. 10 E., on S. side SW $\frac{1}{4}$ sec. 34, at bridge over Flint River, in N. end of W. abutment; standard tablet stamped "1919 Mich 778"-----	777. 178
Flint River, under bridge; surface of water Nov. 9, 1919-----	768. 3
T. 9 N., R. 10 E., near N $\frac{1}{4}$ cor. sec. 3, 15 ft. S. and 20 ft. W. from junction of T-rd. S., on W. end of concrete culvert; chiseled square--	787. 24
T. 9 N., R. 10 E., in NE. cor. sec. 3, 0.6 mi. N., thence 4.0 mi. W. from North Branch, 15 ft. S. and 25 ft. W. from junction of T-rd. S., on W. end of concrete culvert; chiseled square-----	799. 51
North Branch, 0.6 mi. N., thence 3.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 2, T. 9 N., R. 10 E., 20 ft. S. and 25 ft. W. from junction of T-rd. S., on W. end of concrete culvert; chiseled square-----	786. 43
From Imlay City quadrangle at point 0.5 mile north and 1.5 miles west from Five Lakes along roads west about 2.5 miles and north 3 miles to northwest corner sec. 21, T. 9 N., R. 10 E. (by E. E. Harris in 1919)	
Five Lakes, 0.5 mi. N., thence 2.0 mi. W. from, in SW. cor. sec. 35, T. 9 N., R. 10 E., 30 ft. N. and 15 ft. E. from crossroads, on large granite boulder; chiseled square-----	863. 78
T. 9 N., R. 10 E., 0.25 mi. E. of SW. cor. sec. 34, 25 ft. N. and 25 ft. W. from junction of T-rd. N., in root on W. side of 15-in. maple tree; copper nail and washer-----	835. 41
T. 9 N., R. 10 E., in SW. cor. sec. 33, 6.9 mi. N. of Lapeer, 30 ft. N. and 30 ft. E. from crossroads; standard iron post with bronze cap stamped "1919 Mich 831"-----	830. 664
T. 9 N., R. 10 E., 0.25 mi. N. of W $\frac{1}{4}$ cor. sec. 33, 5.0 mi. E., thence 0.2 mi. S. from Columbiaville, 50 ft. S. and 25 ft. E. from junction of T-rd. E., in root on W. side of 8-in. oak tree; copper nail and washer-----	815. 51
Columbiaville, 5.0 mi. E. of, in SE. cor. sec. 29, T. 9 N., R. 10 E., 20 ft. N. and 20 ft. W. from junction of T-rd. W., on granite boulder; chiseled square-----	799. 02
T. 9 N., R. 10 E., near W $\frac{1}{4}$ cor. sec. 28, 50 ft. N. and 25 ft. E. from junction of T-rd. E., on granite boulder; chiseled square-----	786. 07

From crossroads 5 miles east and 1 mile south from Columbiaville along road south to Lapeer, thence southwest along Grand Trunk Railway into Flint quadrangle 0.9 mile east of Davison (by E. E. Harris in 1919)

Lapeer, 4.0 mi. N. of intersection of Michigan Central Railroad and Grand Trunk Railway at, 5.0 mi. E., thence 4.0 mi. S. from Columbiaville, in SE. cor. sec. 17, T. 8 N., R. 10 E., on W. side of rd., in center of top of concrete culvert; chiseled square-----	<i>Feet</i> 815. 13
Lapeer, 2.8 mi. N. of, in NW. cor. sec. 28, T. 8 N., R. 10 E., 25 ft. S. and 40 ft. E. from junction of T-rd. E.; standard iron post with bronze cap stamped "1919 Mich 814"-----	813. 578
Lapeer, 2.2 mi. N. of, near E $\frac{1}{4}$ cor. sec. 29, T. 8 N., R. 10 E., at iron bridge over Flint River, on W. end of N. abutment; chiseled square--	807. 68
Flint River, under bridge; surface of water Nov. 21, 1919-----	800. 5
Lapeer, 1.8 mi. N. of, in NE. cor. sec. 32, T. 8 N., R. 10 E., 30 ft. S. and 30 ft. W. from junction of rd. W., in center of top of concrete culvert; chiseled square-----	838. 82
Lapeer, 30 ft. N. and 40 ft. W. from intersection of Michigan Central R. R. and Grand Trunk Ry., at platform lamppost, on SE. corner of concrete foundation; chiseled square <sup>27</sup> -----	828. 04
Lapeer, at Ry. intersection; center of intersection-----	827. 6
Lapeer, in front of Grand Trunk Ry. sta.; top of N. rail of east-bound track-----	828. 3
Lapeer, at Court Street crossing of Ry.; top of N. rail-----	829. 8
Lapeer, at Bentley Street crossing of Ry.; top of S. rail-----	834. 6
U. S. C. & G. S. standard disk stamped "R 31 1930" <sup>28</sup> -----	826. 199
Lapeer, 60 ft. S. and 40 ft. E. from Main Street crossing of Ry.; standard iron post with bronze cap stamped "1919 Mich 837"-----	836. 259
Lapeer, 1.7 mi. SW. of, in SW $\frac{1}{4}$ sec. 6, T. 7 N., R. 9 E., at overhead crossing of dirt rd., directly over E. edge of rd., 8 ft. N. of nearest rail, in top of upright support of trestle; copper nail and washer---	843. 41
Lapeer, 5.0 mi. SW. of, in NW $\frac{1}{4}$ sec. 10, T. 7 N., R. 9 E., 10 ft. N. and 30 ft. E. from crossing of dirt rd.; standard iron post with bronze cap stamped "1919 Mich 836"-----	836. 003
Lapeer, 6.1 mi. SW. of, 0.8 mi. NE. of Elba, in NE $\frac{1}{4}$ sec. 8, T. 7 N., R. 9 E., at trestle over Hasler Creek, in W. end of N. guardrail; top of iron bolt-----	833. 84
Elba, in front of sta.; top of N. rail of west-bound track-----	853. 4

## LEONIDAS QUADRANGLE

[Latitude 42°00'–42°15'; longitude 85°15'–85°30']

## BRANCH, CALHOUN, KALAMAZOO, AND ST. JOSEPH COUNTIES

From Galesburg quadrangle at point 0.8 mile north and 2.7 miles east from Climax generally west along roads and southwest along Grand Trunk Railway to Climax, thence north 0.8 mile along road and back into Galesburg quadrangle (by S. L. Parker in 1917)

Climax, 1.2 mi. NE. along R. R., thence 1.0 mi. E. along rd. from, 0.8 mi. N. of Lovell School, on E. side of range-line rd., near curve in rd., at base of small hill; standard iron post with bronze cap stamped "965"-----	964. 234
Climax, at NW. corner of public school, <sup>29</sup> at entrance, in N. end of top concrete step; standard tablet stamped "968"-----	967. 880

<sup>27</sup> In 1931 this bench mark was reported destroyed.

<sup>28</sup> The tie between this bench mark and the mark stamped "1919 Mich 837" was made in 1931.

<sup>29</sup> In August 1927 information was received that the schoolhouse was to be rebuilt.



From Schoolcraft quadrangle near north quarter corner sec. 20, T. 4 S., R. 10 W., alternately south and east by way of Mendon to Leonidas, thence south and east into Union City quadrangle at point 1 mile north and 0.5 mile west from Sherwood (by E. E. Harris in 1917)

Vicksburg, 1.5 mi. E. of, near Jenkinson School, on S. side of rd., 120 ft. E. of junction of T-rd. S., on field side of wire fence, in root of 20-in. maple tree; copper nail and washer.....	Feet 848. 63
Vicksburg, 1.5 mi. E., thence 1.0 mi. S. from, near N $\frac{1}{4}$ cor. sec. 29, T. 4 S., R. 10 W., on W. side of rd., 140 ft. S. of junction of T-rd. W., in root of 24-in. maple tree; copper nail and washer.....	860. 05
Vicksburg, 1.5 mi. E., thence 2.0 mi. S. from, near N $\frac{1}{4}$ cor. sec. 32, T. 4 S., R. 10 W., on W. side of rd., 50 ft. S. of junction of T-rd. W.; standard iron post with bronze cap stamped "1917 Mich 850".....	849. 948
Vicksburg, 1.5 mi. E., thence 2.5 mi. S. from, near center of sec. 32, T. 4 S., R. 10 W., on E. side of rd., 60 ft. N. of E.-W. rd., in root of 10-in. maple tree; copper nail and washer.....	845. 94
Vicksburg, 2.5 mi. S. and 2.7 mi. E. from, about 900 ft. E. of center of sec. 33, T. 4 S., R. 10 W., in root of 15-in. maple tree; copper nail and washer.....	850. 22
Vicksburg, 2.5 mi. S. and 3.5 mi. E. from, 0.4 mi. W., thence 5.0 mi. N. from Mendon, near center of sec. 34, T. 4 S., R. 10 W., in SW. angle of crossroads, 100 ft. W. of corner fence post; standard iron post with bronze cap stamped "1917 Mich 865".....	864. 825
Mendon, 0.4 mi. W., thence 4.0 mi. N. from, near center of sec. 3, T. 5 S., R. 10 W., on W. side of rd., 120 ft. N. of crossroads, in root of 12-in. elm tree; copper nail and washer.....	876. 40
Mendon, 0.4 mi. W., thence 3.4 mi. N. from, about 500 ft. S. of N $\frac{1}{4}$ cor. sec. 10, T. 5 S., R. 10 W., on W. side of rd., on field side of wire fence, at gate entrance, on sandstone boulder; chiseled square.....	880. 59
Mendon, 0.4 mi. W., thence 2.5 mi. N. from, near N $\frac{1}{4}$ cor. sec. 15, T. 5 S., R. 10 W., on W. side of rd., 80 ft. S. of crossroads; standard iron post with bronze cap stamped "1917 Mich 908".....	907. 308
Mendon, 0.4 mi. W., thence 1.5 mi. N. from, near N $\frac{1}{4}$ cor. sec. 22, T. 5 S., R. 10 W., on W. side of rd., 50 ft. S. of crossroads, in root of 20-in. elm tree; copper nail and washer.....	884. 31
Mendon, 0.4 mi. W., thence 0.5 mi. N. from, near N $\frac{1}{4}$ cor. sec. 27, T. 5 S., R. 10 W., on E. side of rd., in root of 10-in. oak tree; copper nail and washer.....	846. 98
Mendon, at front entrance of Public Library, in E. end of middle step of second flight of steps from sidewalk; standard tablet stamped "1917 Mich 851".....	851. 093
Mendon, 1.1 mi. E., thence 0.4 mi. N. from, 4.2 mi. by rd. W., thence 0.5 mi. S. from Leonidas, in SW. cor. sec. 24, T. 5 S., R. 10 W., on E. side of rd., 70 ft. N. of junction of T-rd. W., in root of 18-in. elm tree; copper nail and washer.....	855. 10
Leonidas, 3.7 mi. W. of, near center of sec. 24, T. 5 S., R. 10 W., at Bedlam School, in NW. angle of junction of T-rd. N., 50 ft. SE. of schoolhouse, on sandstone boulder; chiseled square.....	858. 10
Leonidas, 2.8 mi. W. of, about 500 ft. W. of center of sec. 19, T. 5 S., R. 9 W., on N. side of rd., 20 ft. E. of gate to Euclid Avenue Farm; standard iron post with bronze cap stamped "1917 Mich 859".....	858. 851
Leonidas, 2.2 mi. W. of, near Reserve School, near E $\frac{1}{4}$ cor. sec. 19, T. 5 S., R. 9 W., in SW. angle of crossroads, in root of 15-in. cedar tree; copper nail and washer.....	859. 53

Leonidas, 1.1 mi. W. of, in NE¼ sec. 20, T. 5 S., R. 9 W., at bridge over St. Joseph River, on N. end of W. abutment; chiseled square.....	<i>Feet</i> 849. 53
Leonidas, at five-way rd. fork, at front entrance to hardware store of W. H. Cleveland, in E. end of third concrete step from sidewalk; standard tablet stamped "1917 Mich 870".....	869. 347
Leonidas, 0.9 mi. S., thence 0.3 mi. F. from, 100 ft. E. of Michigan Central R. R. track, on S. side of rd., in root of 30-in. oak tree; copper nail and washer.....	866. 22

[Line jogs into Sturgis quadrangle]

Leonidas, 1.0 mi. S. and 3.0 mi. E. from, 1.0 mi. N., thence 3.0 mi. by rd. W. from Sherwood, 0.3 mi. S. of NW. cor. sec. 30, T. 5 S., R. 8 W., near Leonidas-Sherwood township line, on N. side of rd., 130 ft. E. of junction of T-rd. N., in root of 18-in. maple tree; copper nail and washer.....	867. 64
Sherwood, 1.0 mi. N., thence 1.9 mi. W. from, about 700 ft. N. of SE. cor. sec. 19, T. 5 S., R. 8 W., in SW. angle of crossroads, in fence around cemetery, on concrete foundation of iron post; chiseled square.....	874. 58
Sherwood, 1.0 mi. N., thence 0.6 mi. W. from, about 800 ft. E. of NW. cor. sec. 28, T. 5 S., R. 8 W., in NW. angle of junction of rd. N., in root of 24-in. oak tree; copper nail and washer.....	864. 82

From Schoolcraft quadrangle northeast along Grand Trunk Railway to Climax  
(by S. L. Parker in 1917)

Lemon Park (Indian Lake Sta.), 2.6 mi. NE. of Vicksburg, 2.4 mi. SW. of Pavilion, on S. side of tracks, W. of rd. crossing, 1 ft. N. of R. R. property line, 6 ft. W. of gateway to Lemon Park; standard iron post with bronze cap stamped "1917 852".....	851. 230
Indian Lake; surface of water Sept. 14, 1917.....	847. 9
Pavilion, 0.5 mi. SW. of sta., along Kalamazoo Branch of Grand Trunk Ry., 70 ft. NW. of center of rd. crossing, 6 ft. N. of concrete fence post lettered "Michigan," on top of concrete brace; chiseled square..	864. 90
Pavilion, in front of sta.; top of N. rail.....	865. 2
Pavilion, 0.4 mi. NE. of, 2.5 mi. SW. of Scotts, at rd. crossing, on NW. side of track, along R. R. right-of-way, 8 ft. NE. of fence corner; standard iron post with bronze cap stamped "1917 866".....	865. 110
Scotts, 1.2 mi. SW. of, near NE. cor. sec. 26, T. 3 S., R. 10 W., on NW. side of track, at S. end of steel drain pipe under E.-W. rd.; highest point.....	889. 51
Scotts, 1.2 mi. NE. of, 3.7 mi. SW. of Climax, 30 ft. W. of center of rd. at crossing, on NW. side of track, 4 ft. S. of R. R. property line; standard iron post with bronze cap stamped "1917 921".....	920. 041
Reference mark, near tablet, on NW. side of track, on W. side of rd., in NW. corner of R. R. company concrete tool box set deep in ground; iron bolt.....	916. 88

From north quarter corner sec. 20, T. 4 S., R. 10 W., east along Center Road to point 4 miles east of Fulton, thence south 2 miles and east 1.3 miles into Union City quadrangle near Athens (by S. L. Parker in 1917)

Vicksburg, 2.2 mi. E. of, 6.8 mi. W. of Fulton, 0.2 mi. E. of SW. cor. sec. 16, T. 4 S., R. 10 W., at concrete bridge over Portage River, in NE. abutment; standard tablet stamped "850".....	849. 736
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Fulton, 5.8 mi. W. of, 0.25 mi. E. of SW. cor. sec. 15, T. 4 S., R. 10 W., on N. side of rd., directly opposite T-rd. S., 10 ft. S. of fence line, in root on S. side of 15-in. black-oak tree; copper nail-----	Feet 853.05
Fulton, 5.0 mi. W. of, in NE. cor. sec. 22, T. 4 S., R. 10 W., on S. side of rd., 200 ft. W. of junction of T-rd. N., on E. end of top of concrete culvert; chiseled square-----	852.52
Fulton, 4.0 mi. W. of, in SW. cor. sec. 13, T. 4 S., R. 10 W., in NE. angle of junction of T-rd. N., at fence corner, in root on W. side of 20-in. cottonwood tree; copper nail-----	889.53
Fulton, 3.0 mi. W. of, near cor. secs. 13, 18, 19, and 24, T. 4 S., Rs. 9 and 10 W., at Brady-Wakeshma township line, on N. side of rd., in top of E. end of concrete railing of small concrete culvert; standard tablet stamped "900"-----	899.360
Fulton, 2.0 mi. W. of, in NE. cor. sec. 19, T. 4 S., R. 9 W., in SW. angle of crossroads, in root on E. side of lone maple tree, 24 in. in diameter; copper nail-----	916.73
Fulton, 1.0 mi. W. of, in NE. cor. sec. 20, T. 4 S., R. 9 W., 4 ft. W. of SW. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 12 S 1917 914"-----	913.876
Fulton, at NW. corner of crossroads, 10 ft. SE. of SE. corner of The Bank of Fulton, on concrete sidewalk; chiseled square-----	908.49
Fulton, 1.0 mi. E. of, in NW. cor. sec. 23, T. 4 S., R. 9 W., in SE. angle of crossroads, in root on E. side of 15-in. maple tree; copper nail-----	923.72
Fulton, 2.0 mi. E. of, in SW. cor. sec. 13, T. 4 S., R. 9 W., at iron bridge over Bear Creek, in N. end of E. abutment; standard tablet stamped "1917 896"-----	895.543
Fulton, 2.5 mi. E. of, near S $\frac{1}{4}$ cor. sec. 13, T. 4 S., R. 9 W., in NE. angle of crossroads, on white granite boulder 5 ft. in diameter; chiseled square-----	921.51
Fulton, 3.0 mi. E. of, in NE. cor. sec. 24, T. 4 S., R. 9 W., 320 ft. W. of Calhoun-Kalamazoo county line, 320 ft. W. of junction of T-rd. N., on S. side of rd., at SE. corner of small concrete bridge, on top of railing; chiseled square-----	907.62
Fulton, 4.0 mi. E. of, in NE. cor. sec. 19, T. 4 S., R. 8 W., on S. side of rd., at junction of T-rd. S., in top of W. end of concrete culvert under N.-S. rd.; standard tablet stamped "1917 918"-----	917.489
Fulton, 4.0 mi. E., thence 1.0 mi. S. from, 2.0 mi. W., thence 1.0 mi. N. from Athens, at cor. secs. 19, 20, 29, and 30, T. 4 S., R. 8 W., in center of crossroads, on top of stone set in rd. to mark section corner and projecting 6 in. above surface; chiseled square-----	904.47
Athens, 2.0 mi. W. of, in NE. cor. sec. 31, T. 4 S., R. 8 W., on S. side of T-junction of E.-W. rd., at front entrance of Carpenter School, on NE. corner of top step; chiseled square-----	883.90
Athens, 1.0 mi. W. of, 60 ft. E. of Y-junction of rd. SW., on N. side of rd., in S. side of 15-in. sugar-maple tree; copper nail-----	887.56
From point 2 miles east of Fulton alternately east and north along roads to center of sec. 6, T. 3 S., R. 8 W., thence west 2.5 miles to Climax (by S. L. Parker in 1917)	
Fulton, 2.5 mi. E., thence 0.7 mi. N. from, 0.2 mi. N. of center of sec. 13, T. 4 S., R. 9 W., on E. side of rd., in fence line, in root on W. side of 36-in. maple tree; copper nail-----	912.59
Fulton, 2.5 mi. E., thence 1.5 mi. N. from, near Lynn School, near center of sec. 12, T. 4 S., R. 9 W., in NW. angle of crossroads, in root on S. side of 36-in. water-elm tree; copper nail-----	953.94

Fulton, 2.5 mi. E., thence 2.3 mi. N. from, 0.25 mi. S. of center of sec. 1, T. 4 S., R. 9 W., in center line of T-rd. W., 15 ft. W. of center of N.-S. rd., on 4-ft. granite boulder projecting 3 in. above ground; chiseled square-----	<i>Feet</i> 927. 68
Fulton, 3.0 mi. N. and 3.0 mi. E. from, 4.0 mi. S. and 0.5 mi. W. from West Leroy, in NE. cor. sec. 1, T. 4 S., R. 9 W., 280 ft. W. of Calhoun-Kalamazoo county line, 80 ft. S. of rd., 40 ft. E. of residence of Alex Roe, at windmill, in NW. corner of concrete base of pump; standard tablet stamped "1917 941"-----	940. 703
West Leroy, 3.5 mi. S., thence 0.5 mi. W. from, near E $\frac{1}{4}$ cor. sec. 36, T. 3 S., R. 9 W., along Calhoun-Kalamazoo county line, in SW. angle of crossroads, in root on E. side of lone wild-cherry tree; copper nail-----	935. 58
West Leroy, 2.0 mi. S. of, near N $\frac{1}{4}$ cor. sec. 30, T. 3 S., R. 8 W., in SE. angle of crossroads, at front entrance of Bigelow School, in SW. corner of concrete platform; standard tablet stamped "1917 965"-----	964. 159
West Leroy, 1.0 mi. S. of, near N $\frac{1}{4}$ cor. sec. 19, T. 3 S., R. 8 W., 20 ft. S. of SE. corner of crossroads, in fence line, in root on W. side of 24-in. maple tree; copper nail-----	974. 14
West Leroy, 20 ft. N. of NW. corner of crossroads at, 2.5 mi. E., thence 1.5 mi. S. from Climax, near S $\frac{1}{4}$ cor. sec. 7, T. 3 S., R. 8 W., 2 ft. W. of fence line, in root on S. side of 24-in. maple tree; copper nail-----	980. 02
Climax, 2.5 mi. E., thence 0.25 mi. S. from, 0.25 mi. S. of center of sec. 6, T. 3 S., R. 8 W., on W. side of rd., 40 ft. W. of NE. corner of junction of T-rd. E., on 4-ft. granite boulder; chiseled square-----	965. 72
Climax, 2.0 mi. E. of, near Calhoun-Kalamazoo county line, at NW. corner of junction of T-rd. N., opposite Lovell School, in root on S. side of 36-in. white-oak tree; copper nail-----	975. 48
From Fulton south along road to Leonidas (by E. E. Harris in 1917)	
Fulton, 1.0 mi. S. of, in SE. cor. sec. 21, T. 4 S., R. 9 W., in NW. angle of crossroads, in root of 15-in. oak tree; copper nail and washer-----	902. 82
Fulton, 2.0 mi. S. of, near Leggett School, in SW. cor. sec. 27, T. 4 S., R. 9 W., in NE. angle of crossroads, 60 ft. E. of rd., in root of 18-in. walnut tree; copper nail and washer-----	929. 82
Fulton, 3.0 mi. S. of, 3.4 mi. N. of Leonidas, near Kalamazoo-St. Joseph county line, in NW. cor. sec. 3, T. 5 S., R. 9 W., on E. side of rd., 70 ft. S. of junction of T-rd. E.; standard iron post with bronze cap stamped "1917 Mich 895"-----	894. 638
Reference mark, near standard iron post, in SE. angle of junction of T-rd. E., in root of 24-in. maple tree; copper nail and washer-----	894. 35
Leonidas, 2.4 mi. N. of, in SE. cor. sec. 4, T. 5 S., R. 9 W., on W. side of rd., 140 ft. N. of crossroads, in root of 20-in. elm tree; copper nail and washer-----	891. 32
Leonidas, 1.4 mi. N. of, near Hunt School, in SW. cor. sec. 10, T. 5 S., R. 9 W., near NE. corner of crossroads, on top of small concrete culvert; chiseled square-----	886. 11
Leonidas, 0.6 mi. N. of, 0.25 mi. S. of W $\frac{1}{4}$ cor. sec. 15, T. 5 S., R. 9 W., at iron bridge over St. Joseph River, on E. end of N. abutment; chiseled square-----	856. 50

## LOOMIS QUADRANGLE

[Latitude 43°45'-44°00'; longitude 84°30'-84°45']

## CLARE, GLADWIN, ISABELLA, AND MIDLAND COUNTIES

From Highwood quadrangle near south quarter corner sec. 24, T. 16 N., R. 2 W., along roads west 6.4 miles, thence south 0.5 mile into Shepherd quadrangle at point 0.5 mile south and 2 miles west from Coleman (by S. R. Archer in 1929)

	<i>Feet</i>
Coleman, 4.0 mi. E. of corner of Fourth and Railroad Streets in, 135 ft. E. of NW. cor. sec. 25, T. 16 N., R. 2 W., on S. side of rd., on top of W. concrete head wall of drain under driveway S.; chiseled square	700. 75
Coleman, 3.7 mi. E. of, 0.2 mi. E. of quarter corner between secs. 23 and 26, T. 16 N., R. 2 W., on S. side of rd., opposite junction of rd. NE., on top of W. concrete head wall of drain under driveway S.; chiseled square	703. 21
Coleman, 3.0 mi. E. of, near SE. cor. sec. 22, T. 16 N., R. 2 W., 145 ft. W. of crossroads, on N. side of rd., in front of school, on top of W. end of top step of concrete steps; chiseled square	718. 00
Coleman, 2.4 mi. E. of, near quarter corner between secs. 22 and 27, T. 16 N., R. 2 W., at concrete bridge, on top of N. parapet of W. abutment; chiseled square	716. 64
Coleman, 2.0 mi. E. of, near NW. cor. sec. 27, T. 16 N., R. 2 W., 30 ft. S. and 25 ft. E. from crossroads, 2 ft. S. of fence corner, in concrete post; standard tablet stamped "6 A 1929 Mich"	724. 241
Reference mark, in NW. corner of crossroads, on top of W. end of curved concrete head wall of drain; chiseled square	725. 66
Coleman, 1.0 mi. E. of, near NE. cor. sec. 29, T. 16 N., R. 2 W., 20 ft. W. of crossroads, on top of E. end of S. head wall of concrete bridge under rd. W.; chiseled square	740. 30
Coleman, at E. corner of intersection of Fourth and Adams Streets, at W. corner of village park, on top of NE. corner of concrete base for cannon; chiseled square	759. 98
Coleman, at W. corner of intersection of Fourth and Washington Streets, at E. corner entrance to bank building, at foot of S. corner of square brick column, on top of stone foundation; chiseled square	758. 16
Coleman, at N. corner of intersection of Fourth and Railroad Streets, at corner entrance to State bank, on top of E. end of stone doorsill; chiseled square (recovered by U. S. C. & G. S. in 1934)	761. 012
Coleman, 1.0 mi. W. of, in NW. cor. sec. 30, T. 16 N., R. 2 W., at Isabella-Midland county line, 25 ft. S. and 30 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 82 W 1919"	768. 408
Reference mark, 60 ft. S. and 60 ft. W. from center of crossroads, 30 ft. S. and 30 ft. W. from fence corner, in field, in root on W. side of 8-in. oak tree; copper nail and washer	767. 81
Coleman, 2.0 mi. W. of, in NE. cor. sec. 26, T. 16 N., R. 3 W., in SW. corner of crossroads, on top of S. end of curved concrete head wall of culvert; chiseled square	772. 46

## LOWELL QUADRANGLE

[Latitude 42°45'-43°00'; longitude 85°15'-85°30']

## BARRY, IONIA, AND KENT COUNTIES

From Grand Rapids quadrangle southeast along Michigan Central Railroad to road crossing 0.5 mile northwest of Parmelee, thence south along road 0.4 mile, thence generally east into Ionia quadrangle near southwest corner sec. 3, T. 4 N., R. 8 W. (by L. D. Townsend in 1911)

Parmelee, 0.4 mi. W. of, in SE. angle of crossroads, near corner fence post, opposite schoolhouse on NE. corner and United Brethren Church on NW. corner; standard iron post with bronze cap stamped "Prim Trav Sta No 21 1911 Mich 789"-----	Feet 788. 741
Parmelee, at crossing of Michigan Central R. R.; top of rail-----	771. 9
Parmelee, 0.8 mi. E. of, 0.2 mi. E. of Thornapple River, on N. side of E.-W. rd., 100 ft. W. of N.-S. rd., at farmhouse of J. L. Boughton (Riverside Farm), on top of stone hitching post; chiseled cross-----	724. 87
Parmelee, 1.7 mi. E. of, near N. side sec. 12, T. 4 N., R. 10 W., in SW. angle of crossroads, on E. side of Moe School, on NE. corner of top of concrete step; chiseled square-----	783. 42
T. 4 N., R. 9 W., in SW. cor. sec. 6, in NE. angle of crossroads, about 4 ft. S. and 6 ft. E. from corner post; standard iron post with bronze cap stamped "773"-----	773. 294
T. 4 N., R. 9 W., in SW. cor. sec. 5, at NE. corner of crossroads, in line with rd. S., at edge of wagon track, on large boulder; chiseled square-----	866. 50
T. 4 N., R. 9 W., in SW. cor. sec. 4, on E. side of rd., opposite T-rd. W. (big maple tree stands in triangle of rd. forks), on NW. end of large stone; chiseled square-----	947. 98
T. 4 N., R. 9 W., near E $\frac{1}{4}$ cor. sec. 5, on W. side of rd., at junction of rd. E., 40 ft. N. of junction, 5 ft. NW. of 8-in. oak tree; standard iron post with bronze cap stamped "859"-----	858. 766
T. 4 N., R. 9 W., near center of sec. 3, in SE. angle of crossroads, at Fillmore School, at N. end of porch and close to W. wall, on top concrete step; chiseled square-----	822. 34
T. 4 N., R. 9 W., near center of sec. 2, on E. side of N.-S. rd. and slightly N. of center of rd. junction, in root on W. side of 30-in. maple tree; copper nail and washer-----	811. 26
T. 4 N., R. 9 W., near N. side sec. 12, 0.7 mi. S., thence 0.8 mi. W. from Freeport, at SW. corner of crossroads, 10 ft. NE. of fence corner, 3 ft. S. of easternmost of two mail box posts; standard iron post with bronze cap stamped "Prim Trav Sta No 22 1911 Mich 829"-----	829. 259
Freeport, 0.7 mi. S. of, at crossroads (E.-W. rd. jogs 100 ft. N.), on stone in W. wagon track; chiseled square (not recovered in 1916)-----	818. 81
Freeport, 0.7 mi. S., thence 1.0 mi. E. from, at crossroads (rd. E. jogs 50 ft. S. here), in triangular grass plot, on N. side of tree, in notch cut in root of 36-in. maple tree; copper nail and washer-----	801. 21
T. 4 N., R. 8 W., in NE. cor. sec. 9, in SW. angle of crossroads, 75 ft. W. of intersection, on grounds of Carlton Township School No. 10, in line with telephone poles and about halfway between first two to W.; standard iron post with bronze cap stamped "820"-----	819. 681

From Grand Rapids quadrangle at point near center of sec. 33, T. 7 N., R. 10 W., northeast and north along roads by way of Ada to southwest corner sec. 14, T. 7 N., R. 10 W., thence alternately west and south to Grand Rapids-Lowell road, thence southeast 1.7 miles to bridge over Grand River 0.8 mile northeast of Ada (by L. D. Townsend in 1911)

Ada, at back of schoolhouse, in top of concrete steps leading to second story; aluminum tablet stamped "684"-----	Feet 683.445
Ada, at SE. corner of crossroads, 100 ft. E. of bridge of Grand Trunk Ry. over E.-W. rd., opposite Masonic Temple on NE. corner, on outer edge of sidewalk; chiseled square-----	639.14
Grand River, at bridge 0.7 mi. NE. of Ada; surface of water June 14, 1911-----	612.0
Ada, 0.8 mi. NE., thence 1.7 mi. N. from, near W $\frac{1}{4}$ cor. sec. 23, T. 7 N., R. 10 W., 20 ft. N. of bridge over Honey Creek, in SE. angle of crossroads, on large stone; highest point (recovered in 1916)-----	714.91
T. 7 N., R. 10 W., in NW. cor. sec. 23, S. of junction of T-rd. W., on stone in bank; chiseled square <sup>30</sup> -----	831.41

[Line jogs into Grand Rapids quadrangle]

Ada, 0.8 mi. NE., thence 1.0 mi. NW. from, 100 ft. E. of junction of Grand Rapids-Lowell rd. and T-rd. NE., on large boulder; chiseled square-----	640.90
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From Ada generally south along road to Cascade, thence southwest into Grand Rapids quadrangle (by L. D. Townsend in 1911)

Thornapple River, 0.2 mi. SE. of Ada; surface of water May 26, 1911--	612.6
Ada, 2.0 mi. along rd. S. of, 1.6 mi. NE. of Cascade, in yard of dwelling of A. Antonides, on E. side of rd. at junction of T-rd. W., in root of maple tree, second tree S. of walk; copper nail and washer-----	674.80
Cascade, at SW. corner of crossroads, at general store of S. Watterson, at NE. corner of concrete steps, on stone at bottom; chiseled square-----	664.35

From Smyrna quadrangle near northwest corner sec. 15, T. 7 N., R. 9 W., southeast and northeast along roads by way of Fallassburg and back into Smyrna quadrangle near northwest corner sec. 15, T. 7 N., R. 8 W. (by E. C. Bibbee in 1918)

T. 7 N., R. 9 W., near quarter corner between secs. 15 and 22, 285 ft. N. of Pere Marquette Ry. crossing, 100 ft. W. of track, in open pasture, in root on S. side of 24-in. elm tree; copper nail and washer-----	749.17
T. 7 N., R. 9 W., in SW. cor. sec. 14, in SW. corner of schoolyard, opposite T-rd. W.; standard iron post with bronze cap stamped "Mich 764"-----	763.885
Fallassburg, 1.0 mi. W. of, N. of center of sec. 23, T. 7 N., R. 9 W., 200 ft. N. of junction of T-rd. N., on wing wall at NE. corner of bridge; chiseled square-----	709.52
Fallassburg, at covered bridge over Flat River, on N. side of W. abutment; chiseled square-----	679.84
Fallassburg, under covered bridge over Flat River; surface of water June 19, 1916-----	671.2
Fallassburg, 0.8 mi. NE. of, near W. side sec. 19, T. 7 N., R. 8 W., in NE. angle of junction of rd. N., at Ionia-Kent county line, 3 ft. W. of corner fence post, on large granite rock; chiseled square---	795.67
T. 7 N., R. 8 W., near W $\frac{1}{4}$ cor. sec. 20, in SE. angle of crossroads, 3 ft. NE. of fence corner; standard iron post with bronze cap stamped "Mich 854"-----	853.300

<sup>30</sup> In 1916 this stone was reported unstable.

T. 7 N., R. 8 W., in NW. cor. sec. 20, in SE. angle of crossroads, 12 ft. S. of fence corner, on large granite rock; chiseled square-----	<i>Feet</i> 826. 58
T. 7 N., R. 8 W., in SE. cor. sec. 17, in NW. angle of crossroads, 15 ft. S. of fence corner, in line with N.-S. fence, on rock; chiseled square-----	856. 70
From Smyrna quadrangle near northeast corner sec. 18, T. 7 N., R. 8 W., generally south along roads by way of Church Corner and Clarksville to northeast corner sec. 9, T. 4 N., R. 8 W. (by E. C. Bibbee in 1916)	
T. 7 N., R. 8 W., 0.25 mi. W. of NE. cor. sec. 21, in SW. angle of crossroads, in root of 28-in. elm tree; copper nail and washer-----	858. 62
T. 7 N., R. 8 W., 90 ft. E. of center of sec. 21, 65 ft. E. of SE. corner of junction of T-rd. S., 2 ft. N. of S. fence line, in root on S. side of 24-in. oak tree; copper nail and washer-----	878. 04
T. 7 N., R. 8 W., near center of sec. 28, in NE. angle of crossroads, 3 ft. NW. of fence corner, on large granite rock; chiseled circle-----	812. 86
T. 7 N., R. 8 W., near quarter corner between secs. 28 and 33, in NE. angle of junction of T-rd. E., 3 ft. NW. of fence corner; standard iron post with bronze cap stamped "Mich 801"-----	800. 434
Tps. 6 and 7 N., R. 8 W., near N $\frac{1}{4}$ cor. sec. 4, in SE. angle of crossroads, 10 ft. SE. of wheel track, on large granite rock; chiseled circle-----	751. 14
T. 6 N., R. 8 W., in NW $\frac{1}{4}$ sec. 9, 4.2 mi. by rd. SE. of Lowell, on N. side of rd., opposite T-rd. S., 2 ft. S. of fence; standard iron post with bronze cap stamped "Mich 650"-----	649. 883
T. 6 N., R. 8 W., 0.25 mi. W. of center of sec. 16, at junction of T-rd. E., 55 ft. S. of fence corner, in root on W. side of 24-in. black-oak tree; rail spike-----	867. 25
T. 6 N., R. 8 W., 0.25 mi. E. of SW. cor. sec. 16, near NW. corner of rd. junction, on E. end of N. concrete head wall of culvert; chiseled square-----	877. 98
T. 6 N., R. 8 W., 0.25 mi. W. of SE. cor. sec. 20, in NW. angle of rd. junction, on large black rock set in place; chiseled circle-----	849. 44
T. 6 N., R. 8 W., in NE. cor. sec. 32, at Church Corner, in SW. angle of crossroads, at E. entrance to church, on first concrete step from bottom; chiseled square-----	897. 28
Clarksville, 0.5 mi. W., thence 2.0 mi. N. from, 24 ft. N. and 20 ft. E. from cor. secs. 27, 28, 33, and 34, T. 6 N., R. 8 W.; standard iron post with bronze cap stamped "Prim Trav Sta No 27 1915 Mich 860"-----	859. 696
Clarksville, 0.5 mi. W., thence 1.0 mi. N. from, 250 ft. N. of S. cor. secs. 33 and 34, T. 6 N., R. 8 W., in center of E. head wall of culvert; chiseled square-----	805. 58
Clarksville, 0.5 mi. W. of, in SW. cor. sec. 3, T. 5 N., R. 8 W., in NE. angle of rd. junction; standard iron post with bronze cap stamped "Mich 819"-----	818. 672
[Line jogs into Ionia quadrangle]	
T. 5 N., R. 8 W., at cor. secs. 27, 28, 33, and 34, in center of junction of T-rd. S., on stone marking section corner; chiseled square-----	862. 85
T. 5 N., R. 8 W., in SW. cor. sec. 34, near NE. corner of crossroads, at Barry-Ionia county line, on N. end of E. concrete head wall; chiseled square-----	823. 24



From Ada southeast and east along Grand Trunk Railway to point 4.2 miles east of station at Lowell (by E. C. Bibbee in 1916)

Ada, at NW. corner of street intersection, opposite Masonic Temple at NE. corner of intersection, 6 ft. E. of Grand Trunk Ry. right-of-way; standard iron post with bronze cap stamped "Mich 641"-----	Feet 640. 664
Ada, 3.7 mi. SE. of, 0.3 mi. N. of S. cor. secs. 7 and 12, T. 6 N., Rs. 9 and 10 W., on N. side of rd., opposite T-rd. S.; standard iron post with bronze cap stamped "Mich 635"-----	634. 383
Ada, 5.8 mi. SE. of, 2.3 mi. W. of Grand Trunk Ry. sta. at Lowell, near quarter corner between secs. 8 and 9, T. 6 N., R. 9 W., 145 ft. S. of track, on N. side of rd., opposite T-rd. S.; standard iron post with bronze cap stamped "Mich 647"-----	646. 452
Lowell, 0.6 mi. SW. of, near center of sec. 10, T. 6 N., R. 9 W., 80 ft. E. of junction of rd. SW., on E. end of N. concrete head wall of culvert; chiseled square-----	637. 33
Lowell, 270 ft. W. of Grand Trunk Ry. sta., at SE. corner of iron vehicle bridge over Grand River, on extreme SW. corner of E. wing wall; chiseled square-----	636. 89
Lowell, at Grand Trunk Ry. sta.; top of rail-----	635. 6
Lowell, 0.6 mi. E. of sta., 60 ft. SW. of crossing of Grand Trunk and Pere Marquette Rys., in NE. corner of garden; standard iron post with bronze cap stamped "Mich 637"-----	637. 002
Lowell, at crossing of Grand Trunk and Pere Marquette Rys.; top of rail-----	635. 8
From crossroads 0.7 mile south and 0.8 mile west from Freeport east and north along roads to Freeport, thence north along Pere Marquette Railway to grade crossing about 4 miles northwest of Lowell (by E. C. Bibbee in 1916)	
Freeport, 0.7 mi. S. of, at Ionia-Kent county line, in SW. cor. sec. 6, T. 4 N., R. 8 W., 30 ft. N. of NE. corner of junction of T-rd. E. (E.-W. rd. jogs 100 ft.), on W. end of E. concrete head wall of culvert; chiseled square-----	814. 00
Freeport, at Pere Marquette Ry. sta., at SW. corner of stock scales, on SW. bolt head; highest point-----	782. 54
Freeport, in front of sta.; top of rail-----	780. 2
Freeport, 1.2 mi. N. of, in NE. cor. sec. 36, T. 5 N., R. 9 W., at grade crossing, in SW. angle of junction of T-rd. W., 12 ft. W. of track, on granite rock; chiseled square-----	779. 40
Freeport, 2.2 mi. N. of, 3.8 mi. S. of Elmdale, near NW. cor. sec. 30, T. 5 N., R. 8 W., 30 ft. E. of track, 21 ft. S. of center line of rd.; standard iron post with bronze cap stamped "Mich 808"-----	807. 662
Elmdale, 0.8 mi. S. of, in SE. angle of rd. junction, 8 ft. W. of track, 35 ft. E. of Ionia-Kent county line, on large granite rock; chiseled square-----	805. 47
Elmdale, 180 ft. E. of sta., 40 ft. N. of main-line E.-W. tracks, at angle in rd., 3 ft. E. of telephone pole; standard iron post with bronze cap stamped "Mich 831" (recovered by U. S. C. & G. S. in 1934)-----	830. 563
Elmdale, 2.3 mi. N. of, 4.3 mi. SE. of Main Street crossing in Lowell, about 600 ft. W. of SE. cor. sec. 24, T. 6 N., R. 9 W., at grade crossing, 60 ft. S. of rd., 35 ft. E. of track, on R. R. right-of-way; standard iron post with bronze cap stamped "Mich 840"-----	839. 474
Lowell, 1.8 mi. SE. of, 0.8 mi. SE. of crossing of Grand Trunk Ry., about 680 ft. E. of NW. cor. sec. 13, T. 6 N., R. 9 W., at grade crossing, 30 ft. E. of track, near center of S. abutment of concrete arch culvert; chiseled square-----	693. 16

Grand River, at Pere Marquette Ry. bridge; surface of water June 24, 1916.....	Feet 617. 1
Flat River, at Pere Marquette Ry. bridge; surface of water June 24, 1916.....	619. 6
Lowell, at S. side of Pere Marquette Ry. bridge over Lee Creek, at crossing of Main Street, on E. abutment; chiseled square.....	639. 48
Lowell, 0.9 mi. NW. of, 80 ft. N. of milepost G. R. 29, 20 ft. E. of track, at private crossing, at S. end of tile culvert under wagon rd., on tile; highest point.....	659. 62
From Elmdale west along main line of Pere Marquette Railway into Grand Rapids quadrangle (by E. C. Bibbee in 1916)	
Alto, in E. part of town, at grade crossing, 50 ft. N. of track, 25 ft. E. of rd., 2 ft. W. of fence; standard iron post with bronze cap stamped "Mich 819" (recovered by U. S. C. & G. S. in 1934).....	818. 860
Alto, at grade crossing, at sta.; top of rail.....	829. 6
Alto, 0.5 mi. NW. of, at crossroads, 15 ft. S. of E.-W. rd., 20 ft. N. of track, at SW. corner of signal foundation, on bolt head; highest point.....	845. 77
Alto, 1.5 mi. NW. of, near W $\frac{1}{4}$ cor. sec. 31, T. 6 N., R. 9 W., 30 ft. N. of track, 15 ft. W. of rd., on large granite rock; chiseled square.....	843. 13
Alto, 2.5 mi. NW. of, 0.8 mi. E. of McCord, near E. side sec. 36, T. 6 N., R. 10 W., 75 ft. W. of grade crossing, on large granite rock; chiseled square.....	807. 04
McCord, 265 ft. E. of sta., 25 ft. S. of track, 20 ft. W. of rd., in root on NE. side of 24-in. elm tree; copper nail and washer.....	773. 22
McCord, in front of sta.; top of rail.....	771. 9
Whitneyville, 300 ft. E. of R. R. section house, 60 ft. N. of track, at rd. fork, on S. concrete abutment at E. end of small bridge; chiseled square.....	738. 83
Whitneyville, 0.5 mi. N. and 0.5 mi. W. from, near quarter corner between secs. 26 and 27, T. 6 N., R. 10 W., on S. side of rd., at junction of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 15 1911 Mich 740".....	739. 759
Thornapple River, under Pere Marquette Ry. bridge; surface of water July 6, 1916.....	656. 0
From Alto west along road 1.5 miles to cross road, thence south to crossroads 3.5 miles east of Parmelee (by E. C. Bibbee in 1916)	
Alto, 1.5 mi. along rd. W. of, in NW. cor. sec. 5, T. 5 N., R. 9 W., 20 ft. S. of SE. corner of crossroads, 5 ft. W. of E. fence line, in root on W. side of twin hickory tree; copper nail and washer.....	829. 68
T. 5 N., R. 9 W., in NE. cor. sec. 7, at entrance to Stone School, on E. end of first step from bottom; chiseled square.....	839. 23
T. 5 N., R. 9 W., in NE. cor. sec. 18, in SW. angle of crossroads, 3 ft. SE. of corner post; standard iron post with bronze cap stamped "Mich 816".....	816. 178
T. 5 N., R. 9 W., in NW. cor. sec. 20, 2.0 mi. W. of Bowne Center, in SE. angle of crossroads, at entrance to Curleys School, on W. end of first concrete step; chiseled square.....	795. 48
T. 5 N., R. 9 W., 0.2 mi. N. of S. cor. secs. 29 and 30, in NW. angle of crossroads, 450 ft. N. of bridge over Coldwater River; standard iron post with bronze cap stamped "Mich 727".....	726. 788
Coldwater River, near cor. secs. 29, 30, 31, and 32, T. 5 N., R. 9 W.; surface of water under bridge July 8, 1916.....	708. 9

T. 5 N., R. 9 W., near SW. cor. sec. 32, at Barry-Kent county line, in NE. angle of crossroads, 20 ft. E. of center line of N.-S. rd., on large rock; chiseled square-----	Feet 819. 10
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From Smyrna quadrangle near northwest corner sec. 14, T. 7 N., R. 10 W., south along road 1.5 miles to bridge over Honey Creek (by E. G. Clinite in 1916)

T. 7 N., R. 10 W., near NW. cor. sec. 23, 1.3 mi. NE., thence 1.4 mi. N. from Ada, 75 ft. S. and 12 ft. E. from center of junction of T-rd. W., in root of 10-in. oak tree; copper nail and washer-----	829. 34
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### MANCHESTER QUADRANGLE

[Latitude 42°00'-42°15'; longitude 84°00'-84°15']

### JACKSON, LENAWEE, AND WASHTENAW COUNTIES

From Grass Lake along roads generally east to point 5.9 miles southwest of Chelsea, thence northeast 0.9 mile along Manchester Road into Stockbridge quadrangle (by E. E. Harris in 1919)

U. S. C. & G. S. B. M. designated "X 19"-----	995. 910
Grass Lake, 0.6 mi. E. of interurban sta. at, at highway crossing, on NW. corner of top of 12-in. drain pipe; chiseled square-----	1, 023. 47
T. 2 S., R. 2 E., near S. cor. secs. 33 and 34, on N. side of rd., 50 ft. E. of junction of T-rd. S., in root on N. side of 18-in. oak tree; copper nail and washer-----	1, 019. 38
T. 3 S., R. 2 E., 0.3 mi. N. of center of sec. 1, in grassy triangle formed by rd. forks; standard iron post with bronze cap stamped "Prim Trav Sta No 1 H 1919 Mich 1030"-----	1, 029. 922
T. 3 S., R. 3 E., near W $\frac{1}{4}$ cor. sec. 6, on S. side of rd., 50 ft. E. of junction of T-rd. N., in root on W. side of 12-in. maple tree; copper nail and washer-----	1, 036. 61
T. 3 S., R. 3 E., near W $\frac{1}{4}$ cor. sec. 5, in NW. angle of rd. fork, in root on S. side of 10-in. maple tree; copper nail and washer-----	1, 045. 99
T. 3 S., R. 3 E., in SW $\frac{1}{4}$ sec. 5, on S. head wall of masonry culvert; chiseled square-----	989. 58
T. 3 S., R. 3 E., in SE $\frac{1}{4}$ sec. 5, on N. concrete head wall of culvert; chiseled square-----	999. 16
T. 3 S., R. 3 E., on line between secs. 4 and 5, in center of grassy triangle, in root on W. side of 30-in. black-oak tree; copper nail and washer-----	1, 052. 88
T. 3 S., R. 3 E., in SW. cor. sec. 4, on N. concrete head wall of culvert; chiseled square-----	1, 018. 31
T. 3 S., R. 3 E., in NE. cor. sec. 9, at NW. corner of crossroads, on top of masonry culvert; chiseled square-----	1, 037. 60
T. 3 S., R. 3 E., about 950 ft. W. of S $\frac{1}{4}$ cor. sec. 3, on top of culvert; chiseled square-----	989. 22
T. 3 S., R. 3 E., in SE $\frac{1}{4}$ sec. 3, on N. concrete head wall of culvert; chiseled square-----	951. 65
T. 3 S., R. 3 E., in SW $\frac{1}{4}$ sec. 2, 0.9 mi. W. of Everett School, on S. side of rd., 150 ft. E. of farmhouse, in root on N. side of 18-in. black-oak tree; copper nail and washer-----	973. 85
T. 3 S., R. 3 E., in SE $\frac{1}{4}$ sec. 2, 5.9 mi. SW. of Chelsea, in S. end of large grassy triangle at rd. fork; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1919 Mich 920" <sup>31</sup> -----	919. 699

<sup>31</sup> It has been reported that this post has been surrounded by concrete, but its elevation has not been changed.

Chelsea, 5.3 mi. SW. of, in NW $\frac{1}{4}$  sec. 1, T. 3 S., R. 3 E., in SE. angle of junction of rd. E., in root on W. side of 15-in. maple tree; copper nail and washer-----

Feet  
919. 06

From Napoleon generally south along roads by way of Brooklyn to road junction 3.0 miles west and 0.5 mile north from Onsted, thence west 0.1 mile into Jackson quadrangle (by H. P. Jones in 1830; leveled twice between Napoleon and Brooklyn)

Napoleon, 250 ft. S. of crossroads at, 27 ft. E. of center line of State Highway 50, 12 ft. S. of SW. corner of barn, in concrete post; standard tablet stamped "T T 13 S 1929"-----	961. 643
Napoleon, 0.7 mi. S. of, near quarter corner between secs. 1 and 6, T. 4 S., Rs. 1 and 2 E., at NE. corner of junction of rd. NE., on top of concrete head wall of culvert; chiseled square-----	989. 98
Napoleon, 1.6 mi. S. of, 2.2 mi. N. of Brooklyn, near W $\frac{1}{4}$ cor. sec. 7, T. 4 S., R. 2 E., 125 ft. S. and 25 ft. E. from junction of T-rd. E., on top of concrete head wall of culvert; chiseled square-----	989. 84
Brooklyn, 0.5 mi. N. of, near NE. cor. sec. 24, T. 4 S., R. 1 E., on W. side of rd., 60 ft. S. of rd. junction, at fence, in concrete post; standard tablet stamped "T T 14 S 1929"-----	961. 674
Brooklyn, 24 ft. S. and 26 ft. W. from junction of T-rd. W. at Presbyterian Church, on top of concrete curb; chiseled square-----	987. 13
Brooklyn, 1.5 mi. S. of, in NW $\frac{1}{4}$ sec. 31, T. 4 S., R. 2 E., 500 ft. S. and 75 ft. E. from rd. junction, on SW. side of rd., on top of concrete head wall of culvert; chiseled square-----	982. 07
Brooklyn, 1.8 mi. S. of, 35 ft. W. of junction of T-rd. E. at quarter corner between secs. 31 and 36, T. 4 S., Rs. 1 and 2 E., in root on E. side of 14-in. elm tree; copper nail and washer-----	982. 53
Brooklyn, 2.3 mi. S. of, in SE. cor. sec. 36, T. 4 S., R. 1 E., 190 ft. N. and 20 ft. W. from junction of T-rd. W. on Jackson-Lenawee county line, in concrete post; standard tablet stamped "T T 15 S 1929"-----	996. 962
Brooklyn, 3.5 mi. S. of, in NW. cor. sec. 7, T. 5 S., R. 2 E., 150 ft. E. of rd., on N. side of U. S. Highway 112, in root on E. side of 14-in. maple tree; copper nail and washer-----	1, 003. 89
Brooklyn, 3.5 mi. S., thence 0.5 mi. E. from, 1.0 mi. SW. of Cambridge, near quarter corner between secs. 6 and 7, T. 5 S., R. 2 E., 30 ft. N. and 98 ft. W. from junction of T-rd. S., on top of concrete head wall of culvert; chiseled square-----	989. 35
Cambridge, 1.0 mi. SW., thence 1.4 mi. S. from, 2.5 mi. W. and 2.5 mi. N. from Onsted, near center of sec. 18, T. 5 S., R. 2 E., 15 ft. S. of junction of E.-W. rd., in concrete post; standard tablet stamped "T T 16 S 1929"-----	1, 021. 267
Reference mark, in NW. angle of rd. junction, in root of 12-in. maple tree; copper nail and washer-----	1, 020. 53
Onsted, 3.0 mi. W., thence 1.5 mi. N. from, near quarter corner between secs. 19 and 24, T. 5 S., Rs. 1 and 2 E., 25 ft. E. of junction of T-rd. W., in root of small elm tree; copper nail and washer-----	1, 104. 64
Onsted, 3.0 mi. W., thence 1.0 mi. N. from, near E. cor. secs. 24 and 25, T. 5 S., R. 1 E., 22 ft. N. and 50 ft. W. from junction of T-rd. E., at old church, on NE. corner of lower step; chiseled square-----	1, 090. 01
Onsted, 3.0 mi. W., thence 0.5 mi. N. from, 18 ft. E. of junction of T-rd. W. at E $\frac{1}{4}$ cor. sec. 25, T. 5 S., R. 1 E., in concrete post; standard tablet stamped "T T 17 S 1929"-----	1, 101. 764

## MARCELLUS QUADRANGLE

[Latitude 42°00'-42°15'; longitude 85°45'-86°00']

CASS, KALAMAZOO, ST. JOSEPH, AND VAN BUREN COUNTIES

South along road in sec. 7, T. 4 S., R. 12 W. (by R. B. Steele in 1920)

[A jog from Schoolcraft quadrangle]

Lawton, 1.8 mi. S. and 5.0 mi. E. from, 2.0 mi. N., thence 6.0 mi. W. from Schoolcraft, 5.3 mi. N. and 0.4 mi. W. from Chamberlain, near N. side NE¼ sec. 7, T. 4 S., R. 12 W., in SW. angle of junction of T-rd. S., 30 ft. W. of junction, in root on N. side of 7-in. walnut tree; copper nail and washer-----	Feet 951. 25
From Gobleville quadrangle near River Valley School south 0.2 mile, thence generally west into Hartford quadrangle at point 2.5 miles north and 1 mile west from Lake Cora (by C. E. Walker in 1928; releveled by S. R. Archer in 1927)	
T. 2 S., R. 14 W., in SW¼ sec. 34, 0.2 mi. S. of River Valley School, 50 ft. N. and 20 ft. E. from crossroads, in root on SW. side of 8-in. maple tree; copper nail and washer-----	692. 47
T. 2 S., R. 14 W., near S¼ cor. sec. 33, 60 ft. N. and 25 ft. W. from junction of T-rd. W., in field, in root on NW. side of 12-in. oak tree; copper nail and washer-----	691. 98
T. 3 S., R. 14 W., near NE. cor. sec. 5, 2.0 mi. N. and 3.3 mi. W. from Paw Paw, 21 ft. S. and 130 ft. W. from junction of T-rd. N., 21 ft. S. and 20 ft. W. from junction of T-rd. S., 10 ft. W. of SW. corner of concrete head wall of culvert, in concrete post; standard tablet stamped "P T Sta No 123 Y 1926"-----	693. 035
Reference mark, at SE. corner of crossroads, on top of E. head wall of culvert; chiseled square-----	695. 30
T. 3 S., R. 14 W., in NW. cor. sec. 5, 25 ft. S. of rd. E., 35 ft. W. of rd. N., 65 ft. E. of rd. S., in root on NW. side of 20-in. elm tree; copper nail and washer-----	704. 79
Tps. 2 and 3 S., R. 14 W., near quarter corner between secs. 6 and 31, on E. side of rd., at junction of T-rd. W., at Gliddenburg School, on SW. corner of bottom concrete step; chiseled square-----	751. 64
From Jones quadrangle northeast along Grand Trunk Railway to point 1.8 miles southwest of Marcellus, thence along roads generally east into Schoolcraft quadrangle near center of sec. 30, T. 5 S., R. 12 W. (by C. E. Walker in 1928)	
Wakelee, 2.8 mi. NE. of, 1.8 mi. SW. of Marcellus, at crossing of E.-W. rd., 550 ft. E. of cor. secs. 20, 21, 28, and 29, T. 5 S., R. 13 W., 48 ft. SE. of SE. rail of SE. track, 7 ft. NW. of guard fence, in concrete post; standard tablet stamped "P T Sta No 133 Y 1926"-----	896. 492
Marcellus, 1.0 mi. S. of, 0.25 mi. E. of SW. cor. sec. 22, T. 5 S., R. 13 W., 15 ft. N. and 12 ft. E. from crossroads, on concrete culvert; chiseled square-----	886. 99
Marcellus, 1.0 mi. S. and 0.75 mi. E. from, near S. side SW¼ sec. 23, 25 ft. N. and 50 ft. E. from junction of T-rd. N., in root on SE. side of 12-in. maple tree; copper nail and washer-----	870. 22
Marcellus, 1.25 mi. S. and 1.0 mi. E. from, 0.25 mi. N. of center of sec. 26, T. 5 S., R. 13 W., 22 ft. S. and 47 ft. N. from junction of rd. S., in concrete post; standard tablet stamped "P T Sta No 134 Y 1926"-----	857. 428
Reference mark, 20 ft. S. and 36 ft. E. from rd. junction, at fence line, in root on NW. side of 5-in. elm tree; copper nail and washer-----	856. 24

Marcellus, 1.25 mi. S. and 2.0 mi. E. from, 0.25 mi. N. of center of sec. 25, T. 5 S., R. 13 W., 15 ft. N. and 15 ft. W. from junction of T-rd. S., on highest point of marble rock; chiseled square-----	<i>Feet</i> 879. 57
From Jones quadrangle at point 6 miles north and 1 mile east from Cassopolis generally north along roads to State Highway 40, thence west along highway 0.6 mile into Hartford quadrangle (by C. E. Walker in 1926)	
T. 5 S., R. 15 W., near SE. cor. sec. 24, 16 ft. N. and 22 ft. W. from crossroads, on concrete head wall of culvert; chiseled square-----	919. 27
T. 5 S., R. 15 W., near E. cor. secs. 13 and 24, in line with T-rd. E., 33 ft. W. of N.-S. rd., 18 ft. W. of corner fence post, in SE. side of 14-in. twin oak tree; copper nail and washer-----	896. 80
T. 5 S., R. 15 W., 27 ft. N. and 2 ft. W. from E $\frac{1}{4}$ cor. sec. 13, 1.5 mi. S. and 2.3 mi. E. from Glenwood, at junction of E.-W. rd., 3 ft. SW. of corner fence post, at T-fence N., in concrete post; standard tablet stamped "P T Sta No 26 Y 1926"-----	909. 626
Reference mark, 30 ft. S. and 30 ft. W. from rd. junction, in root on N. side of 16-in. walnut tree; copper nail and washer-----	908. 25
[Line jogs into Hartford quadrangle]	
T. 4 N., R. 14 W., 664 ft. N. and 18 ft. E. from SW. cor. sec. 31, 2.5 mi. S. and 1.0 mi. W. from Decatur, 1.0 mi. N. and 2.0 mi. E. from Glenwood, 22 ft. N. and 18 ft. E. from crossroads, in concrete post; standard tablet stamped "P T Sta No 25 Y 1926"-----	763. 565
Reference mark, 65 ft. N. and 6 ft. E. from crossroads, in root on SW. side of 10-in. maple tree; copper nail and washer-----	762. 89
T. 4 S., R. 15 W., in NE. cor. sec. 25, 1.1 mi. SW. of Decatur, 24 ft. S. and 21 ft. W. from junction of State Highway 40, 6 ft. W. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 24 Y 1926"-----	783. 183
Reference mark, 20 ft. N. and 6 ft. E. from junction of T-rd. S., in root on W. side of 10-in. oak tree; copper nail and washer-----	783. 36
From Hartford quadrangle near center of sec. 36, T. 3 S., R. 15 W., east 0.4 mile, thence north and west and back into Hartford quadrangle at point 0.3 mile south and 2.5 miles east from Lawrence (by C. E. Walker in 1926)	
T. 3 S., R. 14 W., near W $\frac{1}{4}$ cor. sec. 31, 0.5 mi. S. of N. end of Eagle Lake, at crossroads, 63 ft. N. and 20 ft. E. from junction of rd. E., in root on SW. side of 36-in. elm tree; copper nail and washer-----	780. 24
T. 3 S., R. 14 W., 50 ft. S. and 33 ft. E. from NW. cor. sec. 30, in NW. corner of yard of Plopper School, 39 ft. NW. of NW. corner of school, in concrete post; standard tablet stamped "P T Sta No 28 Y 1926"-----	775. 531
Reference mark, at school, on N. end of bottom concrete step; chiseled square-----	777. 86
T. 3 S., R. 15 W., near E $\frac{1}{4}$ cor. sec. 13, 30 ft. S. and 45 ft. W. from junction of NE.-SW. rd., in SW. side of 26-in. maple tree; copper nail and washer-----	759. 83

## MARQUETTE QUADRANGLE

[Latitude 46°30'-46°45'; longitude 87°15'-87°30']

## MARQUETTE COUNTY

From Marquette west along east-bound track of Duluth, South Shore & Atlantic Railway into Eagle Mills quadrangle<sup>22</sup> (by J. N. Williamson in 1905)

Marquette, at city waterworks, on S. side of pump house, 10 in. from SW. corner of water table; unmarked point (U. S. Lake Survey B. M. No. 11 1896; recovered by U. S. C. & G. S. in 1917)-----	619. 766
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<sup>22</sup> No permanent bench marks were set in this quadrangle.

Marquette, at foot of Ridge Street, 100 ft. W. of city waterworks, 4 ft. 8 in. N. of base of Marquette Monument, in outcrop of gray trap rock; aluminum tablet stamped "625 ADJ" (recovered by U. S. C. & G. S. in 1917 and designated "R 21")-----	<i>Feet</i> 623. 969
Marquette, at NW. corner of intersection of Third and Washington Streets, on E. side of Federal Building, in S. end of doorsill; aluminum tablet stamped "674 ADJ"-----	672. 741
Marquette, 3.0 mi. W. of, N. of center of sec. 20, T. 48 N., R. 25 W., 300 ft. W. of milepost 158, 80 ft. N. of track, 35 ft. W. of rd., in E. end of rock outcrop; aluminum tablet stamped "991 ADJ" (recovered by U. S. C. & G. S. in 1917 and designated "U 21")-----	989. 860
Marquette, 5.0 mi. W. of, 0.4 mi. NE. of Bagdad, in SE $\frac{1}{4}$ sec. 24, T. 48 N., R. 26 W., 650 ft. S. of plate girder bridge over tracks, 13 ft. E. of track of Lake Superior & Ishpeming R. R. at S. end of rock cut, 3 ft. higher than track, in gray rock outcrop; aluminum tablet stamped "1260 ADJ" (recovered by U. S. C. & G. S. in 1917 and designated "V 21")-----	1, 259. 020
From Eagle Mills quadrangle <sup>33</sup> east and northeast along west-bound track of Duluth, South Shore & Atlantic Railway to Marquette (by J. N. Williamson in 1905)	
Marquette, about 7 miles SW. of, 200 ft. W. of Freeman's Crossing, near S. side SE $\frac{1}{4}$ sec. 25, T. 48 N., R. 26 W., 37 ft. S. of track, in large flat granite rock; aluminum tablet stamped "1218 ADJ"-----	1, 216. 297
Marquette, 2.5 mi. SW. of, in SW $\frac{1}{4}$ sec. 34, T. 48 N., R. 25 W., on hillside above Carp River, 42 ft. S. of track, in large block of pink marble; aluminum tablet stamped "863 ADJ"-----	861. 732
From Marquette northwest, west, and south along Lake Superior & Ishpeming Railroad to Bagdad (by J. N. Williamson in 1905)	
Marquette, 3.8 mi. by rail NW. of, 2.0 mi. SW. of docks at Presque Isle Harbor, 0.2 mi. N. of W $\frac{1}{4}$ cor. sec. 10, T. 48 N., R. 25 W., 45 ft. N. of center line of track, 25 ft. E. of milepost 2, in granite outcrop; aluminum tablet stamped "679 ADJ"-----	678. 282

## MARSHALL QUADRANGLE

[Latitude 42°15'-42°30'; longitude 84°45'-85°00']

## CALHOUN AND EATON COUNTIES

From Homer quadrangle at point in Albion generally north along Springport Road and other roads to crossroads 1.5 miles east of Brookfield, thence east along Onondaga Road 1 mile into Springport quadrangle (by E. C. Bibbee in 1916)

Albion, at NE. corner of intersection of North Eaton and West North Streets, at center of letter "O" in word "Eaton" stamped in concrete sidewalk for name of street; highest point-----	983. 29
T. 2 S., R. 4 W., 0.3 mi. N. of SW. cor. sec. 26, 1.0 mi. N. of Albion, 40 ft. S. and 20 ft. E. from center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1915 Mich 996"-----	995. 426
T. 2 S., R. 4 W., in SW. cor. sec. 23, 1.7 mi. N. of Albion, 20 ft. E. of NE. corner of crossroads, 3 ft. S. of fence, on large granite rock; chiseled square-----	1, 001. 86
T. 2 S., R. 4 W., in SW. cor. sec. 14, 380 ft. N. of bridge over South Branch of Rice Creek, on E. side of rd., 3 ft. W. of fence, on large granite rock; chiseled circle-----	930. 82
T. 2 S., R. 4 W., in NE. cor. sec. 15, near SW. corner of crossroads, on W. concrete head wall of culvert; chiseled square-----	971. 86

<sup>33</sup> No permanent bench marks were set in this quadrangle.

T. 2 S., R. 4 W., in SW. cor. sec. 2, in NE. angle of crossroads, 8 ft. N. and 1 ft. W. from corner fence post; standard iron post with bronze cap stamped "Mich 985"-----	<i>Feet</i> 984. 370
T. 2 S., R. 4 W., in NW. cor. sec. 2, 80 ft. S. of junction of T-rd. W., on E. concrete head wall of culvert; chiseled square-----	953. 09
T. 1 S., R. 4 W., 0.3 mi. W. of E. cor. secs. 22 and 27, 4.0 mi. W., thence 1.3 mi. S. from New York Central R. R. sta. in Springport, on on E. side of rd., opposite T-rd. W., in root on W. side of 20-in. walnut tree; copper nail and washer-----	956. 36
Springport, 4.0 mi. W. of, 0.25 mi. S. of center of sec. 15, T. 1 S., R. 4 W., 40 ft. N. and 25 ft. E. from center of junction of T-rd. E.; standard iron post with bronze cap stamped "Prim Trav Sta No 1 1912 Mich 966"-----	965. 395
T. 1 S., R. 4 W., near N $\frac{1}{4}$ cor. sec. 15, 0.4 mi. E. of Charlotte Landing on Duck Lake, on E. side of rd., 160 ft. N. of dwelling of G. S. Wagner, on E. concrete head wall of culvert; chiseled square-----	962. 93
T. 1 S., R. 4 W., near center of sec. 3, at SE. corner of crossroads; standard iron post with bronze cap stamped "Mich 931"-----	930. 543
T. 1 N., R. 4 W., 25 ft. S. of center of sec. 34, on E. side of rd., 5 ft. W. of fence, in root on W. side of 15-in. poplar tree; copper nail and washer-----	926. 15
T. 1 N., R. 4 W., at center of sec. 27, 0.5 mi. S. and 1.5 mi. E. from Brookfield, in center of rd. at right-angle turn W., on stone marking center of section; chiseled circle-----	941. 50
Brookfield, 1.5 mi. E. of, near S $\frac{1}{4}$ cor. sec. 22, T. 1 N., R. 4 W., in NW. angle of crossroads, in SE. corner of yard of Gildart School, on SW. corner of concrete base of pump; chiseled square-----	933. 74
Along roads southeast and west in secs. 27 and 34, T. 1 S., R. 6 W. (by W. S. Gehres in 1917)	
[A jog from Battle Creek quadrangle]	
Bellevue, 7.0 mi. SE. of, 5.6 mi. NW. of Marshall, near N $\frac{1}{4}$ cor. sec. 34, T. 1 S., R. 6 W., in SW. angle of crossroads, 6 ft. W. of fence corner; standard iron post with bronze cap stamped "943"-----	942. 319
Reference mark, at SW. corner of crossroads, in root of 34-in. maple tree; copper nail-----	942. 24
Marshall, 4.6 mi. NW. of, on N. side of Convis-Marshall township-line rd., 80 ft. W. of junction of E.-W. rd., in root of 10-in. oak tree; copper nail-----	960. 65
From road crossing on Michigan Central Railroad 1.8 miles southwest of Marshall south along road by way of Runyon School into Homer quadrangle (by C. H. Davey in 1917)	
U. S. C. & G. S. standard disk stamped "R 10"-----	899. 021
Marshall, 1.7 mi. W., thence 0.4 mi. S. from, in NW $\frac{1}{4}$ sec. 34, T. 2 S., R. 6 W., at NW. corner of highway bridge over Kalamazoo River, on masonry abutment; chiseled square-----	880. 53
Marshall, 1.7 mi. W., thence 1.0 mi. S. from, 0.2 mi. N. of Runyon School, 0.25 mi. W. of center of sec. 34, T. 2 S., R. 6 W., on E. side of rd., at junction of T-rd. W.; standard iron post with bronze cap stamped "Prim Trav Sta No 4 S 1917 Mich 903"-----	902. 535



From point on Michigan Central Railroad 2 miles southeast of Marshall east 0.8 mile, thence generally north along roads to Olivet Station on Grand Trunk Railway, thence northeast 1.2 miles along railway (by R. B. Steele in 1920; double-rodged line)

	<i>Feet</i>
U. S. C. & G. S. standard disk stamped "T 10"-----	915. 444
Marshall, 3.0 mi. E. of, in NE. cor. sec. 29, T. 2 S., R. 5 W., in SW. angle of intersection of Territorial Rd., in root on E. side of 24-in. maple tree; copper nail and washer-----	939. 44
Marshall, 3.0 mi. E. and 1.2 mi. N. from, 900 ft. N. of SW. cor. sec. 16, T. 2 S., R. 5 W.; center line of concrete bridge over Rice Creek-----	908. 8
Marshall, 3.0 mi. E. and 1.8 mi. N. from, near W $\frac{1}{4}$ cor. sec. 16, T. 2 S., R. 5 W., in SE. angle of crossroads, in concrete post; standard tablet stamped "1920 Mich 929"-----	928. 542
Marshall, 2.0 mi. E. and 1.8 mi. N. from, near E $\frac{1}{4}$ cor. sec. 18, T. 2 S., R. 5 W., in NW. angle of crossroads, opposite Raesley School, on granite boulder in place; chiseled square-----	950. 15
Marshall, 2.0 mi. E. and 2.8 mi. N. from, near W $\frac{1}{4}$ cor. sec. 8, T. 2 S., R. 5 W., in NE. angle of crossroads, on granite boulder in place; chiseled square-----	963. 58
Marshall, 2.0 mi. E. and 4.3 mi. N. from, in NE. cor. sec. 6, T. 2 S., R. 5 W., in SW. angle of junction of Lee-Marengo township-line rd., 150 ft. W. of junction of T-rd. N., in concrete post; standard tablet stamped "1920 Mich 930"-----	929. 085
Marshall, 2.0 mi. E. and 4.8 mi. N. from, near W $\frac{1}{4}$ cor. sec. 32, T. 1 S., R. 5 W., in NE. angle of junction of private T-rd. E., at S. end of granite boulder; highest point-----	932. 85
Marshall, 2.0 mi. E. and 5.3 mi. N. from, in SW. cor. sec. 29, T. 1 S., R. 5 W., in NE. angle of crossroads, on top at center of E. end of concrete culvert; chiseled square-----	927. 38
Marshall, 2.5 mi. E. and 7.0 mi. N. from, 4.8 mi. S. and 0.3 mi. E. from Olivet, 0.3 mi. S. of N $\frac{1}{4}$ cor. sec. 20, T. 1 S., R. 5 W., at concrete bridge over drainage ditch; center of bridge floor-----	918. 8
Olivet, 4.5 mi. S. and 0.4 mi. E. from, 500 ft. E. of S $\frac{1}{4}$ cor. sec. 17, T. 1 S., R. 5 W., on N. side of E.-W. rd., in line with rd. SW., 2 ft. S. of fence line; standard iron post with bronze cap stamped "1920 Mich 919"-----	918. 633
Olivet, 3.5 mi. S. and 0.3 mi. E. from, near S $\frac{1}{4}$ cor. sec. 8, T. 1 S., R. 5 W., on N. side of E.-W. rd., in line with rd. S., on large granite boulder; chiseled square-----	940. 77
Olivet, 3.0 mi. S. and 0.8 mi. E. from, near quarter corner between secs. 8 and 9, T. 1 S., R. 5 W., at right-angle turn in rd., in root on N. side of 40-in. oak tree; copper nail and washer-----	946. 18
Olivet, 2.5 mi. S. and 0.8 mi. E. from, in NW. cor. sec. 9, T. 1 S., R. 5 W., in SE. angle of crossroads, in root on N. side of 24-in. maple tree; copper nail and washer-----	959. 77
Olivet, 1.5 mi. S. and 0.8 mi. E. from, at N. cor. secs. 4 and 5, T. 1 S., R. 5 W., on top of stone marking section corner; chiseled square-----	909. 78
Olivet, 1.5 mi. S. and 0.4 mi. E. from, near Calhoun-Eaton county line, about 900 ft. E. of N $\frac{1}{4}$ cor. sec. 5, T. 1 S., R. 5 W., on S. side of E.-W. rd., in line with T-rd. N., 3 ft. N. of fence line; standard iron post with bronze cap stamped "1920 Mich 915"-----	914. 711
Olivet, 1.0 mi. S. and 0.4 mi. E. from, near quarter corner between secs. 32 and 33, T. 1 N., R. 5 W., at concrete bridge over Indian Creek; center of bridge floor-----	889. 7
Indian Creek, under bridge; surface of water Aug. 20, 1920-----	879. 8

Olivet, 0.5 mi. S. and 0.4 mi. E. from, near NE. cor. sec. 32, T. 1 N., R. 5 W., in SW. angle of junction of E.-W. rd., in root on N. side of 15-in. hickory tree; copper nail and washer	<i>Feet</i> 913. 53
Olivet, in NE. part of town, NE. of center of sec. 29, T. 1 N., R. 5 W., at SE. corner of concrete highway bridge over Indian Creek, 15 in. E. of S. end of guardrail, on top of concrete abutment; chiseled square	883. 12
Olivet, 1.0 mi. N. and 0.2 mi. W. from, 1.7 mi. SE. of Olivet Sta., about 600 ft. W. of center of sec. 20, T. 1 N., R. 5 W., on E. side of NW.-SE. rd., in line with T-rd. W.; standard iron post with bronze cap erroneously stamped "1920 Mich 877"	886. 549
Olivet Sta., 0.6 mi. S. of, near quarter corner between secs. 17 and 18, T. 1 N., R. 5 W., at steel bridge over Battle Creek; center of bridge floor	863. 6
Battle Creek, under bridge; surface of water Aug. 23, 1920	854. 4
Olivet Sta. on Grand Trunk Ry., opposite operator's window; top of S. rail of N. track	883. 9
Olivet Sta., 0.5 mi. NE. of, 0.2 mi. W. of center of sec. 8, T. 1 N., R. 5 W., near SW. corner of grade crossing, on top of NW. corner of concrete culvert; chiseled square	882. 72
Olivet Sta., 1.2 mi. NE. of, about 550 ft. W. of SE. cor. sec. 5, T. 1 N., R. 5 W., in NE. angle of crossing of Grand Trunk Ry., 3 ft. E. of crossing signpost; standard iron post with bronze cap stamped "1920 Mich 903"	903. 069
From point on Michigan Central Railroad near Marengo east 0.5 mile, thence generally north along roads by way of Partello to crossroads 3 miles north and 2 miles west from Brookfield (by R. B. Steele in 1920; double-rod-d line)	
U. S. C. & G. S. standard disk stamped "X 10 1916"	937. 623
Marengo, 1.9 mi. N. and 1.0 mi. E. from, near quarter corner between secs. 13 and 18, T. 2 S., Rs. 4 and 5 W., at bridge over South Branch of Rice Creek; center of bridge floor	919. 7
Rice Creek, South Branch of, under bridge; surface of water Aug. 24, 1920	914. 9
Marengo, 2.4 mi. N. and 1.0 mi. E. from, in NE. cor. sec. 13, T. 2 S., R. 5 W., on W. side of rd., 50 ft. S. of junction of E.-W. rd., 2 ft. E. of fence line; standard iron post with bronze cap stamped "1920 Mich 928"	927. 841
Marengo, 2.4 mi. N. of, 550 ft. E. of NW. cor. sec. 13, T. 2 S., R. 5 W., at concrete bridge over North Branch of Rice Creek, on top of NW. corner; chiseled square	915. 97
Marengo, 2.4 mi. N. and 0.2 mi. W. from, 0.25 mi. W. of NE. cor. sec. 14, T. 2 S., R. 5 W., on S. side of E.-W. rd., in line with T-rd. N., in base of 16-in. maple tree; rail spike	928. 37
Marengo, 3.4 mi. N. of, 5.8 mi. S. of Partello, in NW. cor. sec. 12, T. 2 S., R. 5 W., in SE. angle of crossroads, in base of 10-in. elm tree; rail spike	953. 24
Partello, 4.8 mi. S. of, in SE. cor. sec. 35, T. 1 S., R. 5 W., near Lee-Marengo township line, in NW. angle of crossroads; standard iron post with bronze cap stamped "1920 Mich 965"	964. 541
Partello, 3.8 mi. S. of, in SW. cor. sec. 25, T. 1 S., R. 5 W., on E. side of rd., 70 ft. N. of junction of T-rd. E., on large granite boulder; chiseled square	940. 64

Partello, 2.8 mi. S. of, 80 ft. N. of SE. cor. sec. 23, T. 1 S., R. 5 W., on W. side of rd., in root of 15-in. maple tree; copper nail and washer.	Feet 948. 98
Partello, 1.8 mi. S. of, in SW. cor. sec. 13, T. 1 S., R. 5 W., in NE. angle of crossroads, opposite Striped School; standard iron post with bronze cap stamped "1920 Mich 959"-----	959. 035
Partello, 1.3 mi. S. of, near W $\frac{1}{4}$ cor. sec. 13, T. 1 S., R. 5 W., near NE. corner of junction of T-rd. E., in center of top of N. end of concrete culvert; unmarked point-----	959. 57
Partello, 0.8 mi. S. of, in SW. cor. sec. 12, T. 1 S., R. 5 W., near NE. corner of crossroads, in center of top of N. end of concrete culvert; chiseled square-----	948. 84
Partello, 0.2 mi. N. of, in NW. cor. sec. 12, T. 1 S., R. 5 W., near SE. corner of junction of E.-W. rd., in center of top of E. end of concrete culvert; chiseled square-----	931. 28
Partello, 1.2 mi. N. and 0.5 mi. E. from, near N $\frac{1}{4}$ cor. sec. 1, T. 1 S., R. 5 W., in SW. angle of junction of Calhoun-Eaton county-line rd., 3 ft. S. of fence corner; standard iron post with bronze cap stamped "1920 Mich 959"-----	959. 128
Partello, 2.2 mi. N. and 0.6 mi. E. from, 2.0 mi. W., thence 1.0 mi. S. from Brookfield, near SE. cor. sec. 25, T. 1 N., R. 5 W., 100 ft. N. of crossroads, on W. side of range-line rd., on large granite boulder; chiseled square-----	953. 32
Brookfield, 2.0 mi. W., thence 0.5 mi. S. from, 300 ft. S. of W $\frac{1}{4}$ cor. sec. 30, T. 1 N., R. 4 W., on E. side of concrete bridge over East Page Ditch; center of bridge floor-----	903. 9
Brookfield, 2.0 mi. W. of, in SE. cor. sec. 24, T. 1 N., R. 5 W., in NW. angle of intersection of Onondaga Rd., in root on S. side of 15-in. hickory tree; copper nail and washer-----	910. 76
Brookfield, 2.0 mi. W., thence 1.0 mi. N. from, near E. cor. secs. 13 and 24, T. 1 N., R. 5 W., near Mahan School, on W. side of rd., in line with T-rd. E.; standard iron post with bronze cap stamped "1920 Mich 938"-----	937. 764
Brookfield, 2.0 mi. W., thence 2.0 mi. N. from, in NE. cor. sec. 13, T. 1 N., R. 5 W., at entrance to Town Line Church, at bottom concrete step; center of E. top edge-----	945. 47
Brookfield, 2.0 mi. W., thence 3.0 mi. N. from, in SW. cor. sec. 6, T. 1 N., R. 4 W., in NE. angle of crossroads, in center of top of N. end of concrete culvert; chiseled square-----	951. 26
From Battle Creek quadrangle in southeast quarter sec. 3, T. 1 N., R. 6 W., generally east along road by way of Bradley and Fox Schools into Springport quadrangle at point 3 miles north and 2.4 miles east from Brookfield (by E. B. Steele in 1920; double-rodged to Brookfield-Walton township line)	
Bellevue, 3.8 mi. N. and 1.3 mi. E. from, 0.25 mi. N. of S. cor. secs. 2 and 3, T. 1 N., R. 6 W., at center of N.-S. rd., in line with rd. W., on top of stone marking sixteenth corner; chiseled square-----	922. 40
T. 1 N., R. 6 W., near W $\frac{1}{4}$ cor. sec. 11, in NE. angle of crossroads, opposite Youngs School, at N. end of box culvert, on granite boulder; chiseled square-----	953. 68
T. 1 N., R. 6 W., near E $\frac{1}{4}$ cor. sec. 11, 40 ft. N. of junction of N.-S. rd., on W. side of rd., on granite boulder in place; chiseled square--	951. 42
T. 1 N., R. 6 W., near E. cor. secs. 2 and 11, on W. side of rd., in line with T-rd. E.; standard iron post with bronze cap stamped "1920 Mich 942"-----	941. 076

T. 1 N., R. 5 W., about 100 ft. E. of SW. cor. sec. 6, 0.8 mi. N., thence 1.0 mi. W. from Olivet Sta. on Grand Trunk Ry., at concrete bridge over creek, in center of top of S. side; chiseled square-----	<i>Feet</i> 887. 03
Olivet Sta., 0.8 mi. N. of, in NW. cor. sec. 8, T. 1 N., R. 5 W., opposite Bradley School, in SE. angle of crossroads, on large granite boulder; chiseled square-----	908. 26
T. 1 N., R. 5 W., near NE. cor. sec. 9, 0.8 mi. N., thence 2.0 mi. E. from Olivet Sta., in SW. angle of crossroads, in base of 36-in. elm tree; rail spike-----	917. 35
T. 1 N., R. 5 W., 0.25 mi. E. of quarter corner between secs. 3 and 10, at center of E.-W. rd., in line with T-rd. N.; top of stone in place--	878. 79
T. 1 N., R. 5 W., near NE. cor. sec. 11, in SW. angle of crossroads, at intersection of Lansing Rd. (present U. S. Highway 27), 10 ft. E. of concrete culvert; standard iron post with bronze cap stamped "1920 Mich 908"-----	907. 920
T. 1 N., R. 4 W., 150 ft. W. of quarter corner between secs. 6 and 7; center line of rd. over concrete culvert-----	927. 3
T. 1 N., R. 4 W., in SW. cor. sec. 5, near NE. corner of crossroads, diagonally opposite Sherman School, on top of SE. corner of concrete culvert; chiseled square-----	910. 17
T. 1 N., R. 4 W., 240 ft. E. of quarter corner between secs. 5 and 8, at bridge over Battle Creek; center of bridge floor-----	903. 6
T. 1 N., R. 4 W., in SE. cor. sec. 5, in NW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 5 1909 Mich 914"-----	913. 517
T. 1 N., R. 4 W., 60 ft. W. of quarter corner between secs. 4 and 9; center line of rd. over concrete culvert-----	934. 3
T. 1 N., R. 4 W., in SW. cor. sec. 3, in NE. angle of crossroads, opposite Fox School, in center of top of N. end of concrete culvert; chiseled square-----	938. 49

## MARYSVILLE QUADRANGLE

[Latitude 42°46'-43°00'; longitude from U. S.-Canada boundary west to 82°30']

## ST. CLAIR COUNTY

From point on State Highway 29 in St. Clair south along highway to Clinton Street, thence west into Hicky quadrangle (by J. M. Lawson in 1935)

St. Clair, on W. side of Front Street, on top of N. hill, at residence of Mark Hopkins, at foundation on E. side, in top course of masonry, in second stone S. of NE. corner; center of brass bolt leaded horizontally (U. S. Lake Survey B. M. No. 20)-----	626. 764
St. Clair, at city waterworks, at main entrance, 5.6 ft. S. of S. end of stone doorsill, in water table; top of brass bolt leaded vertically (U. S. Lake Survey B. M. No. 21) <sup>34</sup> -----	588. 273
St. Clair, at intersection of Clinton Avenue and Riverside Street; center of pavement-----	587. 5
St. Clair, at SE. corner of intersection of Clinton Avenue and Eighth Street; top of large embedded rock-----	588. 67
St. Clair, at intersection of Clinton Avenue and Henry Street, at 36-in. manhole cover set in concrete pavement, on W. side of top of rim of frame; top of letter "V"-----	604. 16

<sup>34</sup> It was reported that the waterworks had been moved, but the water table stone was preserved in place and undisturbed.

From Hicky quadrangle generally east and northeast along Meisner and other roads to East China town hall, thence generally north along State Highway 29 to St. Clair (by J. M. Lawson in 1935)

East China town hall, 1.2 mi. SW. of, at intersection of Meisner Rd. and Port Huron & Detroit R. R.; top of W. rail-----	Feet 589. 4
East China town hall, 1.0 mi. SW. of, at W. corner of bridge over Belle River, on top of W. concrete abutment at junction of wing wall; chiseled square-----	584. 51
East China town hall, 0.6 mi. SW. of, at junction of Edna Lane and Park Rd.; center of pavement-----	587. 1
East China town hall, 0.6 mi. SW. of, 160 ft. N. and 28 ft. W. from junction of Edna Lane and Park Rd., in root on S. side of 15-in. elm tree; copper nail and washer-----	583. 28
East China town hall, across rd. from, 2.8 mi. NE. of Marine City, 57 ft. S. and 60 ft. E. from intersection of Recor Rd. and State Highway 29, 30 ft. E. of fence corner, in concrete post; standard tablet stamped "T T 10 E 1935 586"-----	586. 536
Reference mark, 210 ft. N. of tablet, 150 ft. N. of intersection, on E. side of highway, on E. concrete head wall of culvert; chiseled square-----	586. 83
East China town hall, 0.6 mi. NW. of, about 0.5 mi. N. of Recor Dock, at Rankin residence, in S. side of foundation, between kitchen and cellar doors; center of brass bolt leaded horizontally (U. S. Lake Survey B. M. No. 23) <sup>35</sup> -----	590. 314
East China town hall, 1.2 mi. NW. of, 3.4 mi. SE. of intersection of Clinton Avenue and Riverside Street in St. Clair, 25 ft. N. and 20 ft. E. from intersection of Remer Rd., on N. end of E. concrete head wall of culvert; chiseled square-----	591. 12
St. Clair, 2.4 mi. SE. of, 25 ft. S. and 230 ft. E. from intersection of Puttygut Rd., in root on N. side of 20-in. elm tree; copper nail and washer-----	600. 51
St. Clair, 1.9 mi. SE. of, at concrete bridge over creek; center of floor--	587. 0
St. Clair, 1.3 mi. SE. of, 16 ft. S. and 24 ft. E. from junction of Bree Rd., on S. concrete head wall of culvert; chiseled square-----	591. 65
St. Clair, 500 ft. S. of S. limits of, 30 ft. S. and 51 ft. W. from junction of Hart Rd., in concrete post; standard tablet stamped "T T 11 E 1935 588"-----	588. 376
St. Clair, on river front, at coalyard of John Schlinkert, on W. side of brick wall of old storehouse, in twenty-first course below woodwork of gable, 4 ft. above ground and 7 in. N. of SW. corner; center of brass bolt leaded horizontally (U. S. Lake Survey B. M. 22)-----	599. 142

From Hicky quadrangle near southwest corner of Marysville city boundary east along Davis Road to State Highway 29, thence south and southwest to St. Clair (by J. M. Lawson in 1935)

Marysville, at SW. corner of city boundary, in NW. cor. sec. 18, T. 5 N., R. 17 E., 20 ft. S. and 20 ft. E. from intersection of Range and Davis Rds.; standard iron post with bronze cap stamped "Prim Trav Sta No 46 H 1919 622"-----	621. 513
Reference mark, 80 ft. NW. of standard post, in NW. angle of cross-roads, in root on S. side of 15-in. wild-cherry tree; copper nail and washer-----	621. 58

<sup>35</sup> It was reported that the walls of the house were cracked and falling apart and the bench mark might have been slightly disturbed from its original position.

Marysville, on S. boundary of, at crossing of Port Huron & Detroit R. R.; top of W. rail-----	<i>Feet</i> 630. 4
Marysville, at SE. corner of boundary, 4.0 mi. NE. of intersection of Clinton Avenue and Riverside Street in St. Clair, at NW. corner of junction of State Highway 29, on top of N. end of concrete pipe culvert; chiseled square-----	590. 22
St. Clair, 3.4 mi. NE. of, 0.1 mi. E. and 0.4 mi. N. from SW. cor. sec. 17, T. 5 N., R. 17 E., opposite Cargill resort, 66 ft. S. and 60 ft. W. from center line of highway at fence W., in concrete post; standard tablet stamped "T T 12 E 1935 612"-----	611. 568
Reference mark, 180 ft. E. of tablet, in root on W. side of 24-in. oak tree; copper nail and washer-----	613. 34
St. Clair, 3.0 mi. NE. of, about 550 ft. E. of SW. cor. sec. 17, T. 5 N., R. 17 E., 40 ft. E. of junction of Neuman Rd., on S. side of woven wire fence, in root on N. side of 18-in. cottonwood tree; copper nail and washer-----	623. 96
St. Clair, 2.0 mi. NE. of, about 400 ft. E. of SW. cor. sec. 20, T. 5 N., R. 17 E., 30 ft. N. and 16 ft. W. from junction of Yankee Rd., on N. end of concrete head wall of culvert; chiseled square-----	612. 96
From Hicky quadrangle generally south along Range Road (west boundary of Marysville) to Davis Road (by J. M. Lawson in 1935)	
Marysville, on W. boundary of, at intersection of Gratiot Rd. (U. S. Highway 25); center of pavement-----	628. 6
Marysville, on W. boundary of, 0.4 mi. S. of NE. cor. sec. 1, T. 5 N., R. 16 E., 68 ft. S. and 35 ft. W. from junction of T-rd. E., 2 ft. N. and 14 ft. W. from corner of T-fence W., in root on SE. side of 5-in. cherry tree; copper nail and washer-----	627. 98
Marysville, on W. boundary of, 0.25 mi. S. of quarter corner between secs. 1 and 6, T. 6 N., R. 17 E., 20 ft. S. and 12 ft. W. from intersection of Cuttle Rd., on top of S. end of concrete head wall of culvert; chiseled square-----	628. 71
From junction of Davis Road and State Highway 29 at southeast corner of Marysville along highways northeast to Twenty-Fourth Street (State Highway 148) in Port Huron, thence north to Lapeer Avenue (by J. M. Lawson in 1935)	
Marysville, 1.3 mi. SW. of junction of Huron Boulevard and State Highway 29 in, 30 ft. S. and 20 ft. W. from junction of second class T-rd. W., on N. end of concrete head wall of culvert; chiseled square-----	596. 32
Marysville, 0.9 mi. SW. of, 45 ft. S. and 25 ft. W. from junction of Cuttle Rd., on top of S. end of concrete head wall of culvert; chiseled square-----	583. 58
Marysville, at NW. corner of junction of Huron Boulevard, in SE. corner of park, 1 ft. N. of E. end of sidewalk, in concrete post; top of bolt (U. S. Lake Survey B. M.)-----	587. 143
Marysville, 0.8 mi. NE. of, at crossing of Port Huron & Detroit R. R.; top of W. rail-----	595. 8
Marysville, 1.4 mi. NE. of, 40 ft. S. and 50 ft. E. from junction of State Highway 29 and U. S. Highway 25, at Detroit Edison Co. plant, at concrete trap over pipe line crossing highway, on top of SE. corner of concrete platform; chiseled square-----	598. 65
Marysville, 1.6 mi. NE. of, on E. side of U. S. Highway 25, in concrete post; top of bolt (U. S. Lake Survey B. M.)-----	598. 597

Marysville, 2.3 mi. NE. of, at NE. corner of boundary, at SE. corner of boundary of Port Huron, at junction of Ravenswood Rd., in SE. angle of junction of lane E. to river, in top of N. end of concrete head wall of culvert; top of bolt (U. S. Lake Survey B. M.)-----	<i>Feet</i> 595. 546
Port Huron, in SW. angle of intersection of Twenty-Fourth and Dove Streets, on fire hydrant; highest point-----	613. 12
U. S. C. & G. S. standard disk stamped "V 40 1934"-----	613. 116
Port Huron, at intersection of Twenty-Fourth and Griswold Streets; center of pavement-----	602. 7
Port Huron, on W. boundary of, 720 ft. W. of Twenty-Fourth Street, on N. side of Griswold Street, in yard of Edison School, 24 ft. S. of front step at schoolhouse door, 15 ft. N. of center line of pavement, in concrete post; standard tablet stamped "T T 13 E 1935 610"-----	609. 615
U. S. C. & G. S. standard disk stamped "9 A 1934"-----	605. 911

From Hicky quadrangle at point 2 miles north and 1.2 miles east from Sparlingville east, southeast, and southwest along West Water Road and streets to junction of Lapeer Avenue and Twenty-fourth Street in Port Huron (by J. M. Lawson in 1935)

Sparlingville, 2.0 mi. N., thence 1.8 mi. E. from, 1.1 mi. NW., thence 1.5 mi. W. from intersection of Grand Trunk Ry. and Water Street in Port Huron, in SE. cor. sec. 31, T. 7 N., R. 17 E., 36 ft. N. and 27 ft. E. from junction of T-rd. S., 36 ft. N. and 42 ft. W. from junction of T-rd. N., in SE. corner of yard of Beach School, in root on S. side of 12-in. maple tree; copper nail and washer-----	632. 55
Port Huron, 1.1 mi. NW., thence 0.4 mi. W. from, about 500 ft. W. of S $\frac{1}{4}$ cor. sec. 33, T. 7 N., R. 17 E., 27 ft. N. and 37 ft. E. from junction of dim T-rd. N., 80 ft. W. of line of power poles N., in root on SW. side of 20-in. twin elm tree; copper nail and washer-----	613. 85
Port Huron, 1.1 mi. NW. of, 0.3 mi. E. of S $\frac{1}{4}$ cor. sec. 33, T. 7 N., R. 17 E., 21 ft. N. and 70 ft. W. from junction of Water Street, on W. end of concrete pipe culvert; chiseled square-----	609. 20
Port Huron, 0.5 mi. NW. of, 0.3 mi. NW. of city limits, 33 ft. S. of street junction at Campau School, in NE. corner of schoolyard, on W. end of concrete pipe culvert; chiseled square-----	603. 09
Port Huron, between 2400 and 2500 blocks along first street N. of Taylor Street from Water Street, 26 ft. N. of junction of T-street NW., on top of concrete head wall of culvert; chiseled square-----	607. 53

#### MASON QUADRANGLE

[Latitude 42°30'-42°45'; longitude 84°15'-84°30']

#### INGHAM COUNTY

From Fowlerville quadrangle near northwest corner sec. 17, T. 4 N., R. 2 E., along roads west 2 miles, thence south 7 miles by way of Williamston, thence east 1.6 miles and back into Fowlerville quadrangle near south quarter corner sec. 18, T. 3 N., R. 2 W. (by F. H. West in 1908)

Williamston, 3.8 mi. N., thence 2.0 mi. E. from, in SW. cor. sec. 8, T. 4 N., R. 2 E., on N. side of rd., opposite junction of T-rd. S.; top of stone-----	912. 05
Williamston, 3.8 mi. N., thence 1.0 mi. E. from, in NW. cor. sec. 18, T. 4 N., R. 2 E., at SE. corner of crossroads; top of large stone-----	925. 31
Williamston, 3.8 mi. N. of, in SW. cor. sec. 12, T. 4 N., R. 1 E., on N. side of rd., 150 ft. E. of junction of T-rd. S., 340 ft. W. of junction of rd. NE.; standard iron post with bronze cap stamped "Prim Trav Sta No 9 1908 Mich 890"-----	889. 244

Williamston, 2.8 mi. N. of, in NE. cor. sec. 23, T. 4 N., R. 1 E., in SW. angle of junction of T-rd. W., on side of rd.; top of stone-----	<i>Feet</i> 910. 41
Williamston, 1.8 mi. N. of, in NW. cor. sec. 25, T. 4 N., R. 1 E., in SE. angle of crossroads; top of large stone-----	893. 14
Williamston, 30 ft. S. of center of Grand Street, 40 ft. E. of center of Cedar Street, across street from Glaser blacksmith shop; standard iron post with bronze cap stamped "Prim Trav Sta No 5 1908 Mich 868"-----	867. 663
Williamston, 1.2 mi. S. of, in SW. cor. sec. 1, T. 3 N., R. 1 E., at NE. corner of crossroads; top of large stone-----	887. 41
Williamston, 3.0 mi. S. of, in SE. cor. sec. 14, T. 3 N., R. 1 E., 44 ft. NW. of center of crossroads, on field side of fence; standard iron post with bronze cap stamped "Prim Trav Sta No 6 1908 Mich 908"-----	906. 685
From road junction 3.8 miles north of Williamston west along roads to Haslett, thence west and southwest along roads and Lansing & Pine Lake Electric Railroad to East Lansing, thence south to Delphi-Lansing township-line road, thence west into Lansing quadrangle (by F. H. West in 1908)	
Williamston, 3.8 mi. N., thence 0.5 mi. W. from, 5.5 mi. in air line E. of Haslett, near N $\frac{1}{4}$ cor. sec. 14, T. 4 N., R. 1 E., on S. side of rd., opposite junction of T-rd. W., in fence line between telegraph pole and corner fence post; top of stone-----	910. 23
Haslett, 3.0 mi. in air line E. of, near SW. cor. sec. 9, T. 4 N., R. 1 E., in grass plot at junction of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 10 1908 Mich 881"-----	879. 983
Haslett, 0.25 mi. W. of, 0.3 mi. W. of E $\frac{1}{4}$ cor. sec. 10, T. 4 N., R. 1 W., in grass plot at junction of N.-S. rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 11 1908 Mich 862"-----	860. 819
Haslett, 2.3 mi. along Lansing & Pine Lake Electric R. R. SW. of, 2.5 mi. NE. of Michigan State College in East Lansing, 0.25 mi. W. of NE. cor. sec. 17, T. 4 N., R. 1 W., in SW. angle of grade crossing, on field side of fence; standard iron post with bronze cap stamped "851"-----	850. 740
East Lansing, at NW. corner of grounds of Michigan State College Agricultural Experiment Station, near center of sec. 13, T. 4 N., R. 2 W., on N. side of rd., 45 ft. NW. of junction of rd. S., 72 ft. SW. of SW. corner of Greary dwelling, in field; standard iron post with bronze cap stamped "Prim Trav Sta No 12 1908 Mich 837"-----	836. 651
From Lansing quadrangle southeast along Michigan Central Railroad to road crossing 2.5 miles northwest of Mason, thence along roads alternately east and north to crossroads 1 mile south of Williamston (by F. H. West in 1908)	
Mason, 2.5 mi. NW. of, in NE. cor. sec. 31, T. 3 N., R. 1 W., near SW. corner of crossing of Michigan Central R. R. and E.-W. rd., just inside fence corners of right-of-way and of private lot; standard iron post with bronze cap stamped "874"-----	873. 547
T. 3 N., R. 1 W., 0.25 mi. E. of SW. cor. sec. 29, near center of crossroads, in root on E. side of 16-in. maple tree; nail-----	890. 27
T. 3 N., R. 1 W., near N $\frac{1}{4}$ cor. sec. 28, in SE. angle of crossroads, 75 ft. from NW. corner of deserted cabin, in fence corner; standard iron post with bronze cap stamped "894"-----	893. 476
T. 3 N., R. 1 W., in SE. cor. sec. 14, in NW. angle of crossroads, in fence corner; standard iron post with bronze cap stamped "911"-----	910. 138



Williamston, 1.0 mi. S., thence 3.0 mi. W. from, in SW. cor. sec. 4, T. 3 N., R. 1 E., in NE. angle of crossroads, diagonally opposite Caswell School, on field side of fence; standard iron post with bronze cap stamped "895"-----	Feet 893. 930
From road crossing of Michigan Central Railroad 2.5 miles northwest of Mason southeast along railroad to Mason, thence southwest along road by way of Kipp School into Lansing quadrangle (by F. H. West in 1908)	
Mason, 600 ft. S. and 300 ft. E. from sta., across rd., 150 ft. N. of Phoenix Roller Mills, in E. end of E. abutment of concrete bridge over Sycamore Creek; aluminum tablet stamped "895" (recovered by U. S. C. & G. S. in 1916 and designated "A 19")-----	893. 515
Mason, 3.0 mi. along rds. SW. of, diagonally opposite Kipp School, near E $\frac{1}{4}$ cor. sec. 13, T. 2 N., R. 2 W., in SW. angle of intersection of range-line rd. and E.-W. rd., in field, at fence corner; standard iron post with bronze cap stamped "912"-----	911. 526
From Lansing quadrangle at point 1.1 miles east of Aurelius east along road to Eden, thence along roads alternately east and south into Rives Junction quadrangle near southeast corner sec. 5, T. 1 N., R. 1 E. (by F. H. West in 1908)	
Eden, 360 ft. N. of Michigan Central R. R. sta., 45 ft. E. of tracks, 24 ft. S. of rd., diagonally opposite general store; standard iron post with bronze cap stamped "971" (recovered in 1916)-----	969. 970
Eden, 1.2 mi. E. of, near Hubbard School, at cor. secs. 26, 27, 34, and 35, T. 2 N., R. 1 W., at center of crossroads, at stone marking section corner; top of stone-----	940. 74
Eden, 3.2 mi. E., thence 1.0 mi. S. from, in SE. cor. sec. 36, T. 2 N., R. 1 W., in NW. angle of crossroads, opposite house of Morse Blakely, at fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 16 1908 975"-----	973. 943
From Rives Junction quadrangle near southwest corner sec. 3, T. 1 N., R. 1 E., along roads generally north to Dansville, thence east 2.7 miles into Fowlerville quadrangle (by F. H. West in 1908)	
Dansville, 2.9 mi. S. of, near S $\frac{1}{4}$ cor. sec. 34, T. 2 N., R. 1 E., 700 ft. N. of Bunker Hill-Ingham township line, 500 ft. S. of dwelling of H. V. Wemple, in field, in fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 17 1908 Mich 981" (recovered in 1916)-----	979. 261
Dansville, 0.3 mi. E. of center of, at NW. corner of Fairview Cemetery, at corner of cement walk around cemetery; standard iron post with bronze cap stamped "951"-----	949. 301
From point 2.9 miles south of Dansville along roads alternately south and east into Rives Junction quadrangle near southwest corner sec. 2, T. 1 N., R. 1 E. (by E. C. Bibbee in 1916)	
Dansville, 3.2 mi. S., thence 0.5 mi. E. from, about 650 ft. S. of NW. cor. sec. 2, T. 1 N., R. 1 E., 60 ft. N. and 23 ft. E. from center of junction of T-rd. W., 3 ft. E. of fence line, in root on E. side of 12-in. maple tree; copper nail and washer-----	957. 66
From east corner of Leslie and Vevay townships east along road 0.4 mile, thence south 0.6 mile into Rives Junction quadrangle (by E. C. Bibbee in 1916)	
Eden, 1.6 mi. S. and 3.7 mi. E. from, near W $\frac{1}{4}$ cor. sec. 5, T. 1 N., R. 1 E., in SE. angle of junction of T-rd. E., on large granite rock; chiseled square-----	958. 96

From Eden west along road into Lansing quadrangle at point 1.1 miles east of  
Aurelius (by E. C. Bibbee in 1916)

Eden, 1.8 mi. W. of, in NE. cor. sec. 31, T. 2 N., R. 1 W., in SW. angle of crossroads, in root on S. side of 18-in. elm tree; copper nail and washer-----	Feet 987. 29
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Eden, 2.8 mi. W. of, in NW. cor. sec. 31, T. 2 N., R. 1 W., 80 ft. E. of junction of T-rd. N., on S. side of rd., on large boulder; chiseled circle-----	964. 18
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At Williamston (by U. S. Weather Bureau in 1919; leveled twice)

Williamston, on S. side of High Street near street leading to bridge over Cedar River, in top of pipe; Geological Survey standard tablet not stamped-----	868. 685
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Williamston, on left bank and upstream from Bridge Street bridge over Cedar River, in top of stone river wall; 3/8-in. copper bolt-----	868. 454
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At Williamston (by State Highway Department in 1932)

Williamston, on Putnam Street (State Highway 47), at E. corner of S. abutment wall of two-span bridge over Cedar River; Geological Survey standard tablet-----	865. 925
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#### MAUMEE BAY QUADRANGLE <sup>36</sup>

[Latitude 41°30'-41°45'; longitude 83°15'-83°30']

#### MONROE COUNTY

From Michigan-Ohio State line north along Suder Avenue into Monroe quad-  
rangle (by W. T. Reagan in 1934)

Vienna Junction, 0.8 mi. E., thence 1.2 mi. S. from, at intersection of Suder Avenue and Michigan-Ohio State line, on E. side of highway, 1 ft. S. of State line, 11 in. S. of State-line monument 68; Lucas County B. M. No. 9 (recovered in 1936)-----	579. 726
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Vienna Junction, 0.8 mi. E., thence 0.9 mi. S. from, near SE. cor. sec. 32, T. 8 S., R. 8 E., at iron bridge over Halfway Creek, on W. end of N. head wall; chiseled square (recovered in 1936)-----	579. 39
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#### MERRILL QUADRANGLE

[Latitude 43°15'-43°30'; longitude 84°15'-84°30']

#### GRATIOT, MIDLAND, AND SAGINAW COUNTIES

From Alma quadrangle at point 1 mile west of Breckenridge east along road by  
way of Merrill into St. Charles quadrangle at point 1 mile west of Hemlock  
(by E. C. Bibbee in 1915)

Breckenridge, 0.5 mi. E. of main crossroads at, at E. limits of town, in NW. cor. sec. 29, T. 12 N., R. 1 W., in SE. corner of crossroads, on retaining wall; chiseled square-----	725. 21
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Breckenridge, 1.5 mi. E. of, 0.2 mi. S., thence 0.5 mi. W. from Pere Marquette Ry. sta. in Wheeler, in NW. cor. sec. 28, T. 12 N., R. 1 W., in SE. angle of crossroads; standard iron post with bronze cap stamped "Mich 721"-----	719. 776
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Wheeler, 0.2 mi. S., thence 0.5 mi. E. from, 5.0 mi. W. of Merrill, in SW. cor. sec. 22, T. 12 N., R. 1 W., in NE. corner of crossroads, on wing wall; chiseled square-----	710. 80
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Merrill, 4.0 mi. W. of, in NE. cor. sec. 27, T. 12 N., R. 1 W., 50 ft. W. of SW. corner of crossroads, at drive to Lutherische Immanuel Kirche, on W. end of S. abutment of bridge; chiseled square-----	702. 15
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<sup>36</sup> The greater part of this quadrangle lies in Ohio.

Merrill, 3.0 mi. W. of, in NW. cor. sec. 25, T. 12 N., R. 1 W., at SW. corner of crossroads; standard iron post with bronze cap stamped "Mich 698"-----	Feet 696. 620
Merrill, 2.0 mi. W. of, in NE. cor. sec. 25, T. 12 N., R. 1 W., near Gratiot-Saginaw county line, at crossroads, on N. abutment at W. side of bridge over E.-W. ditch; chiseled square-----	685. 14
Merrill, 25 ft. W. of Pere Marquette Ry. sta., 700 ft. N. of main crossroads, 40 ft. N. of tracks, 2 ft. E. of E. fence line; standard iron post with bronze cap stamped "Mich 672" (recovered by U. S. C. & G. S. in 1934)-----	670. 947
Merrill, 3.0 mi. E. of, 2.0 mi. W. of Hemlock, near W $\frac{1}{4}$ cor. sec. 29, T. 12 N., R. 2 E., 150 ft. N. of Smith School, 20 ft. S. and 2 ft. W. from fence post at SE. corner of crossroads; standard iron post with bronze cap stamped "Mich 660" (recovered in 1934)-----	658. 922
From Alma quadrangle at point 2 miles south and 1 mile west from Breckenridge east along road into St. Charles quadrangle at point 2.5 miles south and 1 mile west from Hemlock (by D. R. Cabaniss in 1934)	
Breckenridge, 0.5 mi. W., thence 2.0 mi. S. from, near NW. cor. sec. 6, T. 11 N., R. 1 W., 25 ft. S. and 60 ft. E. from center of crossroads, in concrete post; standard tablet stamped "P T Sta No 25 F 1927"-----	730. 170
Reference mark, 50 ft. N. and 50 ft. W. from tablet, on NE. concrete wing wall of culvert; chiseled square-----	730. 31
Breckenridge, 0.5 mi. E., thence 2.0 mi. S. from, near S. cor. secs. 31 and 32, T. 12 N., R. 1 W., at jog in N.-S. rd., 15 ft. N. and 15 ft. W. from junction of T-rd. N., on S. end of W. concrete guardrail of culvert; chiseled square-----	724. 66
Breckenridge, 1.5 mi. E., thence 2.0 mi. S. from, 2.2 mi. S., thence 0.5 mi. W. from Wheeler, near S. cor. secs. 32 and 33, T. 12 N., R. 1 W., at jog in N.-S. rd., 25 ft. N. and 22 ft. W. from junction of T-rd. N., on W. end of S. abutment; chiseled square-----	713. 23
Wheeler, 2.2 mi. S., thence 0.5 mi. E. from, 25 ft. S. and 160 ft. W. from junction of T-rd. S. at N. cor. secs. 3 and 4, T. 11 N., R. 1 W., 25 ft. S. and 280 ft. W. from junction of T-rd. N. at S. cor. secs. 33 and 34, T. 12 N., R. 1 W., in concrete post; standard tablet stamped "P T Sta No 26 F 1927"-----	704. 662
Reference mark, 45 ft. N. and 250 ft. E. from tablet, on W. end of S. concrete abutment of culvert; chiseled square-----	703. 73
Wheeler, 2.2 mi. S., thence 1.5 mi. E. from, in SE. cor. sec. 34, T. 12 N., R. 1 W., near N. cor. secs. 2 and 3, T. 11 N., R. 1 W., at jog in N.-S. rd., 18 ft. N. and 10 ft. W. from junction of T-rd. N., at W. end of iron bridge, on SW. concrete wing wall of culvert; chiseled square-----	700. 13
Wheeler, 2.2 mi. S., thence 2.5 mi. E. from, 2.3 mi. S. and 3.0 mi. W. from Pere Marquette Ry. sta. in Merrill, near N. cor. secs. 1 and 2, T. 11 N., R. 1 W., at jog in N.-S. rd., 15 ft. S. and 10 ft. W. from junction of T-rd. S., on NW. corner of concrete culvert; top of iron pipe-----	694. 23
Merrill, 2.3 mi. S. and 2.0 mi. W. from, at junction of Gratiot-Saginaw county-line rd., 25 ft. E. of center line of rd. W. at E. cor. secs. 1 and 36, Tps. 11 and 12 N., R. 1 W., 2 ft. W. of fence post, in concrete post; standard tablet stamped "P T Sta No 27 F 1927"-----	690. 630
Reference mark, 40 ft. N. and 75 ft. W. from tablet, in root on E. side of pine tree; copper nail and washer-----	692. 27

Merrill, 2.5 mi. S., thence 1.0 mi. W. from, near SE. cor. sec. 4, T. 11 N., R. 1 E., opposite Burns School, 20 ft. N. and 33 ft. W. from crossroads, on large boulder; highest point of sharp point.....	Feet 686. 11
Merrill, 2.5 mi. S. of, near NW. cor. sec. 11, T. 11 N., R. 1 E., 30 ft. S. and 15 ft. E. from crossroads, on S. end of E. concrete head wall of culvert; chiseled square.....	675. 49
Merrill, 2.5 mi. S., thence 1.0 mi. E. from, in SW. cor. sec. 1, T. 11 N., R. 1 E., at Kain School, 27 ft. N. and 110 ft. E. from crossroads, in root on S. side of maple tree; copper nail and washer.....	666. 95
Merrill, 2.5 mi. S., thence 2.0 mi. E. from, in SE. cor. sec. 1, T. 11 N., R. 1 E., at jog in E.-W. rd., 90 ft. N. and 25 ft. E. from junction of rd. W., in root on S. side of elm tree; copper nail and washer.....	660. 91
Merrill, 2.5 mi. S., thence 3.0 mi. E. from, 2.5 mi. S., thence 2.0 mi. W. from Hemlock, near SE. cor. sec. 6, T. 11 N., R. 2 E., 70 ft. N. and 55 ft. W. from crossroads, in root on S. side of oak tree; copper nail and washer.....	653. 38

## MICHIGAMME QUADRANGLE

[Latitude 46°30'–46°45'; longitude 88°00'–88°15']

## BARAGA AND MARQUETTE COUNTIES

On line between Tps. 47 and 48 N. (by E. C. Bebb in 1896)<sup>87</sup>

T. 47 N., R. 30 W., 3 ft. S. and 12 ft. W. from post at NE. cor. sec. 1, in large granite boulder; copper bolt.....	1, 701. 28
Tps. 47 and 48 N., Rs. 29 and 30 W., at cor. secs. 1, 6, 31, and 36, at post marking section corner; top of post.....	1, 704. 23
T. 47 N., R. 31 W., 20 ft. S. of NE. cor. sec. 1, in rock; copper plug.....	1, 698. 07

## MILFORD QUADRANGLE

[Latitude 42°30'–42°45'; longitude 83°30'–83°45']

## LIVINGSTON AND OAKLAND COUNTIES

From Pontiac quadrangle near Commerce generally south 4.3 miles along road around west side of Commerce Lake, thence east and back into Pontiac quadrangle near Walled Lake (by H. W. Peabody in 1905)

T. 2 N., R. 8 E., 0.25 mi. E. of quarter corner between secs. 16 and 21, 2.8 mi. by rd. SW. of Commerce, near SW. end of Commerce Lake, on W. side of rd., at junction of rd. E., on stone; chiseled mark.....	931. 20
T. 2 N., R. 8 E., 0.25 mi. E. of center of sec. 21, near SE. corner of crossroads, on stone; chiseled mark.....	930. 17
T. 2 N., R. 8 E., 0.25 mi. E. of center of sec. 28, near SE. corner of junction of T-rd. E., opposite schoolhouse on W. side of rd., on large rock; chiseled mark.....	927. 34
T. 2 N., R. 8 E., 0.25 mi. E. of center of sec. 33, 1.0 mi. W. of village of Walled Lake, in NE. angle of junction of E.-W. rd., in root on W. side of black-cherry tree; nail.....	950. 36

<sup>87</sup> These figures of elevation are based upon an elevation of 1,598.5 feet for the top of rail opposite the Duluth, South Shore & Atlantic Railway station at Champion. They have not been tied to first-order leveling and 1929 general adjustment values are not available for them. They should not, therefore, be used as points of origin.

From Howell quadrangle at point 1.1 miles southeast of Lemens Corners along road southeast and southwest 1.2 miles and back into Howell quadrangle at point in northwest quarter sec. 4, T. 2 N., R. 6 E. (by F. H. West in 1907)

Lemens Corners, 1.8 mi. SE. of, 0.5 mi. W. of S. end of Long Lake, in SW $\frac{1}{4}$ sec. 33, T. 3 N., R. 6 E., on E. side of rd., 250 ft. SE. of Bueck dwelling, 100 ft. SW. of large red barn; standard <sup>1</sup> iron post with bronze cap stamped "Prim Trav Sta No 13 1905 Mich 967" -----	Feet 966. 694
From Howell quadrangle near Tyrone Center along roads east 0.3 mile, thence south and southwest and back into Howell quadrangle at point 1.4 miles northeast of Hartland (by F. H. West in 1907)	
Tyrone Center, 0.2 mi. S. of, in NE. cor. sec. 21, T. 4 N., R. 6 E., at SW. corner of crossroads, on large stone; chiseled square -----	960. 52
Tyrone Center, 1.2 mi. S. of, in NE. cor. sec. 28, T. 4 N., R. 6 E., at SW. corner of junction of T-rd. W., on stone; chiseled mark -----	987. 78
Tyrone Center, 1.8 mi. S. of, 450 ft. S. of E $\frac{1}{4}$ cor. sec. 28, T. 4 N., R. 6 E., on W. side of rd., on W. side of Methodist Episcopal Church, in brick chimney; aluminum tablet stamped "985" (not recovered in 1929) -----	984. 172
Tyrone Center, 2.2 mi. S. of, in SE. cor. sec. 28, T. 4 N., R. 6 E., in NW. angle of crossroads, opposite schoolhouse; on stone; chiseled mark --	987. 99
Tyrone Center, 3.2 mi. S. of, 2.8 mi. NE. of Hartland, in SW. cor. sec. 34, T. 4 N., R. 6 E., near NE. corner of crossroads, on large stone; chiseled mark -----	1, 039. 83
Hartland, 1.5 mi. NE. of, near S $\frac{1}{4}$ cor. sec. 4, T. 3 N., R. 6 E., at NW. corner of crossroads, on stone; chiseled mark -----	1, 041. 54
From Pontiac quadrangle southwest along Jackson branch of Grand Trunk Railway to Wixom, thence west and southwest along road to New Hudson, thence generally northwest along Grand River Road into Howell quadrangle (by F. H. West in 1907)	
U. S. C. & G. S. standard disk stamped "N 106 1934" <sup>38</sup> -----	930. 871
Wixom, 800 ft. E. of sta., at intersection of rds. and Pere Marquette Ry., in small grass plot; standard iron post with bronze cap stamped "933" (recovered in 1936) -----	932. 341
Wixom, 1.1 mi. W. of, in SE. cor. sec. 36, T. 2 N., R. 7 E., 660 ft. W. of Milford-Commerce township line, 60 ft. W. of dwelling of George Carpenter, on N. side of rd., in root of 18-in. butternut tree; nail -----	946. 03
Wixom, 2.0 mi. W. of, 1.1 mi. NE., thence 1.1 mi. E. from crossroads at New Hudson, in SW. cor. sec. 36, T. 2 N., R. 7 E., in NE. corner of crossroads, opposite Town Line School, on stone; chiseled mark -----	956. 69
New Hudson, 1.2 mi. NE. of, in NW. cor. sec. 2, T. 1 N., R. 7 E., on S. side of rd., in line with E. side of T-rd. N., near SW. corner of junction of private rd. S. to barn, on stone; chiseled mark -----	947. 90
Grand Trunk Ry. copper bolt stamped "55 $\frac{1}{2}$ "; elevation determined by U. S. C. & G. S. <sup>39</sup> -----	929. 978
New Hudson, 0.2 mi. SE. of crossroads at, 450 ft. E. of Grand Trunk Ry. sta., 20 ft. NW. of grade crossing, on N. side of rd.; standard iron post with bronze cap stamped "931" (recovered in 1936) -----	930. 782
New Hudson, 1.3 mi. NW. of, near center of NE $\frac{1}{4}$ sec. 5, T. 1 N., R. 7 E., in NE. angle of crossroads, on large stone; chiseled mark -----	982. 04

<sup>38</sup> The tie between this bench mark and the bench mark stamped "933" was made in 1936.

<sup>39</sup> The tie between this bench mark and the bench mark stamped "931" was made in 1936.

New Hudson, 2.4 mi. NW. of, in NE $\frac{1}{4}$ sec. 6, T. 1 N., R. 7 E., 300 ft. W. of junction of T-rd. S., at steel and cement bridge over Huron River, in N. wing wall of W. abutment; aluminum tablet stamped "883"-----	Feet 882. 614
New Hudson, 5.3 mi. NW. of, 3.4 mi. SE. of Brighton, 500 ft. S. of N $\frac{1}{4}$ cor. sec. 3, T. 1 N., R. 6 E., near SE. corner of crossroads; standard iron post with bronze cap stamped "898"-----	897. 701
From Wixom north west and north along Pere Marquette Railway to Rose Center, thence generally northwest and west along White Lake and other roads to Tyrone Center (by F. H. West in 1907)	
Wixom, 2.5 mi. NW. of, 3.3 mi. SE. of Milford, near S $\frac{1}{4}$ cor. sec. 24, T. 2 N., R. 7 E., 540 ft. E. of junction of T-rd. S., 30 ft. N. and 55 ft. W. from grade crossing, on N. side of rd., near brick house; standard iron post with bronze cap stamped "941"-----	940. 195
Milford, at N. end of Main Street, 300 ft. E. of Milford Roller Mills, in small grass plot; standard iron post with bronze cap stamped "946"-----	945. 444
Highland, directly E. of sta., 50 ft. E. of track, 15 ft. S. of E.-W. rd.; standard iron post with bronze cap stamped "1010"-----	1, 009. 599
Clyde, 600 ft. N. of sta., 36 ft. S. and 33 ft. E. from center of grade crossing; standard iron post with bronze cap stamped "1029" (recovered in 1936)-----	1, 028. 683
Rose Center, 300 ft. along White Lake Rd. NW. of tracks, at junction of street SW., in grass plot; standard iron post with bronze cap stamped "980"-----	979. 211
Rose Center, 0.4 mi. NW. of, near E $\frac{1}{4}$ cor. sec. 21, T. 4 N., R. 7 E., near NE. corner of crossroads, diagonally opposite schoolhouse, at E. side of culvert across N.-S. rd., on large stone; chiseled cross-----	988. 80
Rose Center, 1.4 mi. NW. of, 1.0 mi. SE. of Rose Corners, in NE. cor. sec. 20, T. 4 N., R. 7 E., 210 ft. W. of crossroads, on N. side of cemetery, on S. side of rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 15 1905 Mich 1011"-----	1, 010. 656
Rose Corners, in NE. angle of crossroads at, in SW. cor. sec. 17, T. 4 N., R. 7 E., in fence corner; standard iron post with bronze cap stamped "1023"-----	1, 022. 333
Rose Corners, 0.5 mi. W., thence 0.6 mi. NW. from, about 3.5 mi. by rd. E. of Tyrone Center, near W $\frac{1}{4}$ cor. sec. 18, T. 4 N., R. 7 E., at NE. corner of crossroads, on large stone; highest point-----	1, 016. 82
Tyrone Center, 0.2 mi. S., thence 1.0 mi. E. from, in NE. cor. sec. 22, T. 4 N., R. 6 E., at SW. corner of crossroads, near mail boxes; standard iron post with bronze cap stamped "1050"-----	1, 049. 490
From Clyde northeast and east along roads by way of village of White Lake into Pontiac quadrangle at point near center of sec. 3, T. 3 N., R. 8 E. (by F. H. West in 1907)	
Clyde, 1.6 mi. NE. of, about 550 ft. S. of E $\frac{1}{4}$ cor. sec. 2, T. 3 N., R. 7 E., in SW. angle of junction of rd. S., on large boulder; highest point of natural square-----	1, 052. 34
Clyde, 2.2 mi. NE. of, 1.3 mi. W. of Presbyterian Church at White Lake, near center of sec. 1, T. 3 N., R. 7 E., in S. angle of junction of White Lake Rd., in root of large oak tree; nail-----	1, 045. 86
White Lake, 0.8 mi. W. of, near E $\frac{1}{4}$ cor. sec. 1, T. 3 N., R. 7 E., in NW. angle of crossroads, 2 ft. N. of SE. corner of old storehouse, on bottom stone; point 2 in. from sides of angle formed by N. and E. edges-----	1, 048. 64

White Lake, 60 ft. NE. of Presbyterian Church, on S. side of rd., in line with E. side of T-rd. N., in fence corner; standard iron post with bronze cap stamped "1041" (recovered in 1936)----- *Feet* 1, 040. 346

From northeast corner sec. 22, T. 4 N., R. 6 E., along roads north 0.5 mile, thence east 1 mile, thence north 0.3 mile into Holly quadrangle (by E. E. Harris in 1919; double-rodde line was run by R. B. Steele in 1920)

Tyrone Center, 0.3 mi. N., thence 1.0 mi. E. from, near W $\frac{1}{4}$  cor. sec. 14, T. 4 N., R. 6 E., on S. side of E.-W. rd., midway of jog in N.-S. rd., on top of granite outcrop; chiseled square----- 1, 116. 86

Tyrone Center, 0.3 mi. N., thence 2.0 mi. E. from, 3.5 mi. S. of Fenton, 2.2 mi. by rd. NW. of Rose Corners, near E $\frac{1}{4}$  cor. sec. 14, T. 4 N., R. 6 E., 20 ft. N. and 50 ft. W. from crossroads, on top of granite outcrop; chiseled square----- 1, 094. 90

From Rose Center northwest along Pere Marquette Railway into Holly quadrangle (by E. E. Harris in 1919; double-rodde line was run by R. B. Steele in 1920)

Rose Center, 0.7 mi. N. of, near N. side NW $\frac{1}{4}$  sec. 22, T. 4 N., R. 7 E., 100 ft. S. of grade crossing, on E. side of rd., in center of top of concrete head wall of culvert; chiseled square----- 980. 73

From Pontiac quadrangle alternately west and south along Crosby Lake, Cuthbert, and White Lake Roads to point 0.9 mile west of village of White Lake, thence generally north along Eagle Road into Holly quadrangle (by G. N. Tex in 1936)

White Lake, 1.8 mi. E. and 0.5 mi. N. from, about 700 ft. E. of S $\frac{1}{4}$  cor. sec. 33, T. 4 N., R. 8 E., 35 ft. N. and 27 ft. E. from junction of Hillsboro Rd., in root on W. side of maple tree; copper nail and washer----- 1, 029. 11

White Lake, 1.7 mi. E., thence 0.5 mi. N. from, near N $\frac{1}{4}$  cor. sec. 4, T. 3 N., R. 8 E., 24 ft. S. and 115 ft. W. from junction of Cuthbert Rd., in root on SE. side of wild-cherry tree; copper nail and washer. 1, 061. 53

White Lake, 1.7 mi. E. of, near center of sec. 4, T. 3 N., R. 8 E., 33 ft. N. and 180 ft. W. from center of intersection of White Lake Rd., 3 ft. N. and 75 ft. E. from elm tree, in concrete post; standard tablet stamped "T T 40 C 1935 1054"----- 1, 054. 088

White Lake, 1.2 mi. E. of, near W $\frac{1}{4}$  cor. sec. 4, T. 3 N., R. 8 E., 27 ft. N. and 60 ft. E. from junction of T-rd. S., in root on N. side of oak tree; copper nail and washer----- 1, 025. 98

White Lake, 0.7 mi. E. of, near center of sec. 5, T. 3 N., R. 8 E., 27 ft. N. and 280 ft. W. from junction of McKeatchie Rd., near N. end of concrete head wall of sewer; chiseled square----- 1, 079. 24

White Lake, 0.3 mi. W. of Presbyterian Church at, 0.25 mi. W. of E $\frac{1}{4}$  cor. sec. 6, T. 3 N., R. 8 E., 85 ft. S. and 18 ft. E. from junction of Ormond Rd., on E. concrete head wall of culvert; chiseled square. 1, 037. 08

White Lake, 0.9 mi. W. of, 60 ft. S. and 27 ft. W. from intersection of Eagle Rd., near E $\frac{1}{4}$  cor. sec. 1, T. 3 N., R. 7 E., 27 ft. S. of corner fence post, in concrete post; standard tablet stamped "T T 39 C 1935 1049"----- 1, 048. 946

T. 4 N., R. 8 E., near W $\frac{1}{4}$  cor. sec. 31, 135 ft. N. and 40 ft. E. from junction of Neal Rd., in root on S. side of twin wild-cherry tree; copper nail and washer----- 1, 037. 78

T. 4 N., R. 7 E., 0.2 mi. W. of SE. cor. sec. 25, 20 ft. N. and 18 ft. E. from center of rd. in line with E.-W. fence, in root on SW. side of 24-in. elm tree; copper nail and washer----- 1, 012. 80

T. 4 N., R. 7 E., near center of sec. 25, 1.1 mi. SE., thence 1.4 mi. E. from Rose Center, 45 ft. S. and 110 ft. E. from center of junction of rd. N., 10 ft. S. and 110 ft. E. from fence S., in concrete post; standard tablet stamped "T T 38 C 1935 1049"-----	Feet 1, 048. 932
T. 4 N., R. 7 E., near S $\frac{1}{4}$ cor. sec. 24, 70 ft. N. and 18 ft. W. from junction of Pool Rd., in root on E. side of 20-in. oak tree; copper nail and washer-----	1, 006. 18
T. 4 N., R. 7 E., near N $\frac{1}{4}$ cor. sec. 24, 70 ft. S. and 15 ft. E. from intersection of Parker Rd., in root on W. side of white-oak tree; copper nail and washer-----	1, 001. 34
From point 0.9 mile west of Presbyterian Church in White Lake along Eagle and Duck Lake Roads generally south to Cooley Lake Road, thence east into Pontiac quadrangle (by G. N. Tex in 1938)	
Lester Park, near N. shore of White Lake, about 1,000 ft. SW. of E. cor. between secs. 1 and 12, T. 3 N., R. 7 E., 175 ft. NE. of intersection of Lester Drive, in root on W. side of elm tree; copper nail and washer-----	1, 020. 47
T. 3 N., R. 7 E., 0.2 mi. S. of N $\frac{1}{4}$ cor. sec. 12, 20 ft. N. and 35 ft. E. from intersection of Jackson Rd., in root on E. side of maple tree; copper nail and washer-----	1, 031. 59
T. 3 N., R. 7 E., near center of sec. 12, about 750 ft. N. of junction of T-rd. E. to Seven Harbors, 65 ft. N. and 45 ft. W. from center of junction of T-rd. W., at store of Fred Hawn, in concrete step, 1 ft. E. of E. side of door; chiseled square-----	1, 024. 55
T. 3 N., R. 7 E., about 600 ft. S. of N $\frac{1}{4}$ cor. sec. 12, near White Oak Beach, 24 ft. S. and 18 ft. E. from junction of rd. E., in root on NW. side of maple tree; copper nail and washer-----	1, 021. 61
T. 3 N., R. 7 E., near center of sec. 13, 140 ft. N. and 25 ft. W. from junction of Wardlow Rd., in root on W. side of red-oak tree; copper nail and washer-----	1, 030. 20
T. 3 N., R. 7 E., near N $\frac{1}{4}$ cor. sec. 24, 2.2 mi. E., thence 1.0 mi. N. from Highland, 1.0 mi. N. of Grubb School, 95 ft. S. and 25 ft. W. from center of intersection of Highland Rd., 60 ft. S. of corner fence post; standard tablet stamped "T T 45 C 1935 1039"-----	1, 038. 908
Highland, 2.2 mi. E. of, about 200 ft. E. of Grubb School, near S $\frac{1}{4}$ cor. sec. 24, T. 3 N., R. 7 E., 35 ft. N. and 20 ft. W. from intersection of Grubb Rd., in root on W. side of 30-in. white-oak tree; copper nail and washer-----	1, 008. 62
T. 3 N., R. 7 E., 0.7 mi. S. of Grubb School, about 1,000 ft. S. of center of sec. 25, T. 3 N., R. 7 E., 120 ft. N. and 22 ft. W. from junction of Teeple Lake Rd., in root on SE. side of elm tree; copper nail and washer-----	970. 89
T. 3 N., R. 7 E., near S $\frac{1}{4}$ cor. sec. 36, 1.5 mi. N. and 1.3 mi. E. from Milford, 24 ft. N. and 48 ft. W. from junction of Cooley Lake Rd., in root on E. side of elm tree; copper nail and washer-----	988. 85
Milford, 1.5 mi. N. and 1.5 mi. E. from, 1,100 ft. W. of fence N. from S. cor. secs. 31 and 36, T. 3 N., Rs. 7 and 8 E., 25 ft. S. and 220 ft. E. from center of junction of T-rd. S., 40 ft. E. of telephone pole, in concrete post; standard tablet stamped "T T 46 C 1935 951"-----	951. 070
T. 3 N., R. 8 E., about 400 ft. E. of SW. cor. sec. 31, at bridge over small stream, in NE. concrete wing wall; chiseled square-----	939. 65



T. 3 N., R. 8 E., about 1,000 ft. W. of S $\frac{1}{4}$ cor. sec. 31, T. 2 N., R. 8 E., 40 ft. N. and 27 ft. W. from junction of Ford Rd., in root on SE. side of maple tree; copper nail and washer-----	Feet 987. 21
T. 2 N., R. 8 E., near N $\frac{1}{4}$ cor. sec. 6, 25 ft. S. and 145 ft. W. from junction of Ford Rd., in root on N. side of leaning oak tree; copper nail and washer-----	993. 94
T. 3 N., R. 8 E., about 0.3 mi. E. of SW. cor. sec. 32, about 400 ft. E. of dwelling of H. W. Spicer, 30 ft. N. of rd., in root on S. side of 15-in. maple tree; copper nail and washer-----	961. 88
T. 2 N., R. 8 E., about 700 ft. W. of NE. cor. sec. 5, 18 ft. S. and 15 ft. W. from junction of T-rd. N., in root on N. side of 20-in. maple tree; copper nail and washer-----	970. 09
T. 3 N., R. 8 E., in SE $\frac{1}{4}$ sec. 33, about 500 ft. S. of S. shore of Bogie Lake, 45 ft. N. and 15 ft. W. from W. apex of grassy triangle at junction of Bogie Lake Rd., in root on W. side of red-oak tree; copper nail and washer-----	970. 36
T. 2 N., R. 8 E., about 300 ft. E. of NW. cor. sec. 3, near S. cor. secs. 33 and 34, T. 3 N., R. 8 E., 6 ft. S. and 60 ft. E. from junction of rd. N., in root on N. side of hard-maple tree; copper nail and washer-----	964. 59

From point 0.9 mile west of village of White Lake generally southwest along road to Clyde (by G. N. Tex in 1938; leveled twice)

Clyde, 2.4 mi. NE. of, about 500 ft. N. of center of sec. 1, T. 3 N., R. 7 E., 210 ft. SE. of junction of rd. SW., 25 ft. NW. of rd., in root on E. side of 36-in. elm tree; copper nail and washer-----	1, 044. 14
Clyde, 1.7 mi. NE. of, about 600 ft. S. of E $\frac{1}{4}$ cor. sec. 2, T. 3 N., R. 7 E., 270 ft. SW. of junction of rd. S., on top of NW. concrete head wall of culvert; chiseled square-----	1, 052. 27
Clyde, 0.6 mi. E. of, in SW. cor. sec. 2, T. 3 N., R. 7 E., 25 ft. N. and 140 ft. E. from crossroads, about 150 ft. S. of Clyde School, in root on N. side of 24-in. maple tree; copper nail and washer-----	1, 031. 42

From point 1.5 miles north and 1.5 miles east from Milford south along Duck Lake Road 3.8 miles, thence east along Glengary Road into Pontiac quadrangle (by G. N. Tex in 1938)

Milford, 0.5 mi. N. and 1.5 mi. E. from, 0.25 mi. W. of SE. cor. sec. 1, T. 2 N., R. 7 E., 16 ft. N. and 40 ft. W. from junction of Commerce Rd., on W. concrete head wall of culvert; chiseled square-----	963. 55
T. 2 N., R. 8 E., in NW. cor. sec. 7, 45 ft. S. and 120 ft. E. from junction of T-rd. S., in root on N. side of 30-in. elm tree; copper nail and washer-----	940. 99
T. 2 N., R. 7 E., in NE. cor. sec. 13, 100 ft. S. and 25 ft. W. from crossroads, in root on E. side of red-oak tree; copper nail and washer-----	934. 17
T. 2 N., R. 8 E., near W $\frac{1}{4}$ cor. sec. 18, 20 ft. S. and 12 ft. W. from center of bridge over Huron River, on top of SW. concrete abutment; chiseled square-----	908. 56
T. 2 N., R. 7 E., 0.25 mi. N. of SE. cor. sec. 13, 125 ft. N. and 27 ft. W. from junction of Garden Rd., in root on NE. side of hard-maple tree; copper nail and washer-----	927. 62
T. 2 N., R. 7 E., near E $\frac{1}{4}$ cor. sec. 24, 2.5 mi. N., thence 1.0 mi. W. from Wixom, 6 ft. N. and 36 ft. W. from junction of Glengary Rd., 55 ft. S. of center line of private rd. W., 2 ft. E. of fence, in concrete post; standard tablet stamped "T T 31 E 1935 920"-----	920. 288

Reference mark, 18 ft. S. and 156 ft. E. from tablet, 12 ft. S. and 120 ft. E. from junction of rd. E., in root on N. side of elm tree; copper nail and washer	Feet 921. 26
Wixom, 2.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 19, T. 2 N., R. 8 E., 20 ft. S. and 170 ft. W. from junction of rd. S., in root on N. side of red-oak tree; copper nail and washer	977. 88
T. 2 N., R. 8 E., near E $\frac{1}{4}$ cor. sec. 20, 15 ft. N. and 275 ft. W. from junction of private drive N., in root on S. side of 30-in. red-oak tree; copper nail and washer	928. 52
T. 2 N., R. 8 E., 0.25 mi. E. of center of sec. 21, 0.5 mi. S. of SW. end of Commerce Lake, 28 ft. S. and 48 ft. E. from center of crossroads, 24 ft. E. of corner fence post; standard tablet stamped "T T 30 E 1935 931"	930. 666
From point 2.5 miles north and 1 mile west from Wixom along roads alternately south and west to Grand River Road, thence southeast 0.6 mile into South Lyon quadrangle (by G. N. Tex in 1938)	
T. 2 N., R. 8 E., in SW. cor. sec. 19, 70 ft. N. and 10 ft. E. from junction of Buno Rd., in root on N. side of 10-in. white-oak tree; copper nail and washer	953. 83
T. 2 N., R. 7 E., near S $\frac{1}{4}$ cor. sec. 25, 20 ft. N. and 140 ft. W. from junction of West Maple Rd., in root on S. side of 24-in. maple tree; copper nail and washer	944. 40
T. 2 N., R. 7 E., in SE. cor. sec. 26, 20 ft. N. and 45 ft. W. from intersection of Old Plank Rd., in root on SW. side of 18-in. white-ash tree; copper nail and washer	966. 18
T. 2 N., R. 7 E., near E $\frac{1}{4}$ cor. sec. 35, 2.0 mi. W., thence 0.5 mi. N. from Wixom, 80 ft. N. and 18 ft. W. from junction of T-rd. W., 57 ft. N. of corner fence post, 2 ft. E. of fence line, in concrete post; standard tablet stamped "T T 32 E 1935 934"	934. 089
Reference mark, 60 ft. S. and 6 ft. W. from tablet, 20 ft. N. and 24 ft. W. from rd. junction, at base of corner fence post, on top of concrete slab; chiseled square	934. 00
U. S. C. & G. S. standard disk stamped "L 106 1934"	931. 688
Wixom, 2.0 mi. W. of, 1.1 mi. NE., thence 1.1 mi. E. from New Hudson, in SE. cor. sec. 35, T. 2 N., R. 7 E., 20 ft. N. and 27 ft. W. from intersection of Fourteenmile Rd., in root on SE. side of 20-in. elm tree; copper nail and washer	957. 46
New Hudson, 2.0 mi. SE. of, 0.25 mi. S. of NW. cor. sec. 12, T. 1 N., R. 7 E., 240 ft. N. and 21 ft. E. from junction of Grand River Rd. (present U. S. Highway 16), in root on W. side of 30-in. white-oak tree; copper nail and washer	946. 13
New Hudson, 2.4 mi. SE. of, NW. of center of sec. 12, T. 1 N., R. 7 E., 35 ft. S. of center line of rd., in root on NE. side of 30-in. twin maple tree; copper nail and washer	932. 52
From Pontiac quadrangle near southwest end of Commerce Lake west along Oakley Park Road 0.2 mile, thence south along Benstein Road to Grand Trunk Railway, thence northeast along railway and back into Pontiac quadrangle (by J. M. Lawson in 1938; leveled twice)	
T. 2 N., R. 8 E., 0.2 mi. W. of NE. cor. sec. 21, 21 ft. S. and 24 ft. E. from junction of Benstein Rd., on top of square concrete block pillar, 5 ft. above ground; chiseled square	928. 50

T. 2 N., R. 8 E., 0.25 mi. E. of center of sec. 21, 55 ft. S. and 25 ft. W. from crossroads, in root on E. side of forked apple tree; copper nail and washer <sup>40</sup> -----	Feet 930. 00
T. 2 N., R. 8 E., 0.2 mi. W. of E $\frac{1}{4}$ cor. sec. 28, 17 ft. S. and 20 ft. E. from junction of McCoy Rd., on top of S. concrete head wall of culvert; chiseled square-----	926. 29
T. 2 N., R. 8 E., about 700 ft. N. of S. side SE $\frac{1}{4}$ sec. 28, at junction of Loon Lake Rd.; surface of rd.-----	947. 3
T. 2 N., R. 8 E., in NE $\frac{1}{4}$ sec. 33, at Grand Trunk Ry. crossing, 1.9 mi. NE. of sta. at Wixom; top of S. rail-----	937. 5
From Pontiac quadrangle southwest and west along West Lake Drive to Beck Road, thence east 0.3 mile along West Lake Drive, thence southeast along Pere Marquette Railway into South Lyon quadrangle (by J. M. Lawson in 1938)	
Wixom, 1.0 mi. S., thence 1.6 mi. E. from, near N $\frac{1}{4}$ cor. sec. 9, T. 1 N., R. 8 E., 30 ft. S. and 5 ft. E. from turn from SW. to W. in rd., in root on NW. side of 48-in. elm tree; copper nail and washer-----	938. 21
Wixom, 1.0 mi. S., thence 1.0 mi. E. from, 2.0 mi. W., thence 2.0 mi. N. from Novi, in NW. cor. sec. 9, T. 1 N., R. 8 E., 60 ft. S. and 30 ft. E. from intersection of Beck Rd., 33 ft. S. of corner fence post, 1 ft. W. of fence, in concrete post; standard tablet stamped "T T 51 E 1935 960"-----	960. 106

## MONROE QUADRANGLE

[Latitude 41°45'-42°00'; longitude from shore of Lake Erie west to 83°30']

## MONROE COUNTY

From Maumee Bay quadrangle north along Suder Avenue to Stearns Road, thence west into Dundee quadrangle (by W. T. Reagan in 1934)

Vienna Junction, 0.8 mi. E. of, 0.3 mi. E., thence 3.0 mi. S. from Erie, in SW. cor. sec. 28, T. 8 S., R. 8 E., in yard of Moran School, 17 ft. N. and 37 ft. E. from intersection of Stearns Rd., 66 ft. SW. of schoolhouse, in concrete post; standard tablet stamped "T T 8 WO 1934 577" (recovered in 1936)-----	577. 351
Reference mark, 60 ft. W. of tablet, in NW. angle of crossroads, on top of concrete culvert; chiseled square (recovered in 1936)-----	577. 37
At junction of Blue Bush and Sumpter Roads (by G. N. Tex in 1936)	
[A jog from Romulus quadrangle]	
Maybee, 2.0 mi. SE. of, 1.6 mi. S. of Scofield, 18 ft. S. and 27 ft. E. from rd. junction, in root on W. side of 20-in. hickory tree; copper nail and washer-----	630. 12

Near Oldport (by J. M. Lawson in 1936)

[A jog from Romulus quadrangle]

Oldport, 0.3 mi. NE. of, on NW. side of Dixie Highway, on top of W. end of concrete head wall of culvert; chiseled square-----	586. 95
Oldport, in SW. angle of junction of Oldport Rd., 1 ft. N. and 9 ft. W. from NE. corner of yard of St. Charles Catholic Church, in concrete post; standard tablet stamped "T T 13 L 1935 579"-----	579. 487
Oldport, on SW. side of Swan Creek, 400 ft. W. of highway, on N. side of St. Charles School, in concrete foundation, 3 ft. above sidewalk and 11 in. from NE. corner; bronze disk (U. S. Lake Survey B. M. designated "D 62 1932")-----	586. 553

<sup>40</sup> Established as a reference mark to principal bench mark stamped "T T 30 E 1935 931" and previously described.

From Romulus quadrangle south along Steffas Road and northwest along Blue Bush Road to junction of Sumpter Road (by J. M. Lawson in 1936)

Scofield, 1.2 mi. E., thence 2.1 mi. S. from, 3.4 mi. SE. of Maybee, near W. apex of triangle at junction of Blue Bush and Steffas Rds., 27 ft. N. and 10 ft. W. from junction of dim T-rd. N., in root on W. side of 14-in. hickory tree; copper nail and washer.....	Feet 626. 20
Maybee, 2.3 mi. SE. of, about 0.3 mi. SE. of junction of Sumpter Rd., 30 ft. S. and 6 ft. E. from junction of dim T-rd. N., in concrete post; standard tablet stamped "T T 20 L 1935 634".....	633. 862

From Oldport southwest along State Highway 56 to junction of North Stony Creek Road, thence northwest to New York Central Railroad, thence southwest along railroad 0.3 mile, thence west and north along Nadeau, Monroe (U. S. Highway 25), and Grafton Roads into Romulus quadrangle (by J. M. Lawson in 1936)

Oldport, 1.0 mi. S. of St. Charles Catholic Church at, 150 ft. S. of junction of Swan Creek Rd., 230 ft. N. of intersection of Post Rd., on top of W. concrete head wall of culvert; chiseled square.....	587. 11
Oldport, 1.1 mi. S. of, in SE. angle of intersection of Post Rd., 12 ft. E. of NW. corner of farmhouse of Harold Laboe, in stone foundation, 2 ft. above ground; bronze disk set horizontally (U. S. Lake Survey B. M. designated "D 63 1932").....	590. 005
Oldport, 1.6 mi. S. of, 15 ft. E. of center line of highway, opposite dim T-rd. W., on top of E. concrete head wall of culvert; chiseled square.....	588. 54
Oldport, 2.3 mi. SW. of, 128 ft. N. and 21 ft. E. from junction of Leroux Rd., in root on S. side of 18-in. maple tree; copper nail and washer.....	594. 74
Oldport, 2.9 mi. SW. of, 20 ft. N. and 25 ft. W. from junction of Pointe aux Peaux Rd., on SW. side of highway signpost, in concrete post; standard tablet stamped "T T 12 L 1935 588".....	587. 590
Reference mark, in SW. angle of rd. junction, 50 ft. S. of tablet, on top of S. end of concrete L-shaped head wall of culvert; chiseled square...	588. 07
Oldport, 3.3 mi. SW. of, at junction of Williams Rd.; center line of pavement.....	589. 9
Oldport, 3.5 mi. SW. of, 4.7 mi. NE. of Michigan Central R. R. bridge over River Raisin in Monroe, on E. side of highway, at NE. corner of concrete bridge over Stony Creek, on top of NE. abutment; chiseled square.....	581. 86
Monroe, 4.7 mi. NE. of, 2.0 mi. SE. of Stony Creek sta. on New York Central R. R., on W. side of highway, at SW. corner of concrete bridge over Stony Creek, on top of S. abutment; chiseled square (U. S. Lake Survey B. M. designated "Stony Creek 1932").....	581. 853
Stony Creek, 1.1 mi. SE. of, 3.2 mi. SW. of Newport, 5 ft. S. and 45 ft. E. from junction of North Stony Creek and Newport South Rds., on top of circular concrete culvert; chiseled square.....	589. 12
U. S. C. & G. S. standard disk stamped "B 115 X 1934".....	591. 463
Stony Creek, in village of, 3.0 mi. along New York Central R. R. SW. of Newport, 56 ft. W. of R. R. crossing, on right-of-way, 4 ft. N. of fence corner, in concrete post; standard tablet stamped "T T 18 L 1935 595".....	595. 473
Stony Creek, 0.2 mi. SW. of, 900 ft. SW. of North Stony Creek Rd., 950 ft. NE. of Nadeau Rd., at bridge over Stony Creek; center of floor...	594. 5
Stony Creek, 0.3 mi. SW. of, at intersection of Nadeau Rd. and N. Y. C. R. R.; top of W. rail.....	595. 7

Stony Creek, 0.6 mi. by route SW. of, near quarter corner between secs. 15 and 22, T. 6 S., R. 9 E., 37 ft. S. and 95 ft. E. from junction of Nadeau and South Stony Creek Rds., in root on NW. side of 30-in. oak tree; copper nail and washer.....	<i>Feet</i> 594. 94
Stony Creek, 1.1 mi. SW. of, in NW. cor. sec. 22, T. 6 S., R. 9 E., 24 ft. S. and 200 ft. E. from junction of Vivian Rd., in root on N. side of 16-in. walnut tree; copper nail and washer.....	597. 29
Stony Creek, 1.6 mi. SW. of, 3.6 mi. NE. along U. S. Highway 25, thence 0.3 mi. E. from highway bridge over River Raisin in Monroe, near quarter corner between secs. 16 and 21, T. 6 S., R. 9 E., 31 ft. S. and 22 ft. E. from intersection of War Rd., in root on SW. side of 8-in. oak tree; copper nail and washer.....	602. 72
Monroe, 3.6 mi. NE. of, 25 ft. N. and 45 ft. W. from junction of highway and Nadeau Rd., 480 ft. NE. of junction of Heiss Rd., on top of bank, 7 ft. W. of power pole, in concrete post; standard tablet stamped "T T 17 L 1935 607".....	607. 317
Monroe, 3.9 mi. NE. of, at Webb and Reisdorf Drain, on E. side of highway, on top of S. end of concrete head wall of culvert; chiseled square.....	603. 64
Monroe, 4.7 mi. NE. of, on NE. concrete abutment of bridge over Stony Creek, on top of 1-in. reinforcing rod; chiseled cross.....	598. 89
Monroe, 5.0 mi. NE. of, 10 ft. S. and 40 ft. W. from junction of Grafton Rd., on top of W. end of S. concrete head wall of culvert; chiseled square.....	604. 17
Monroe, 5.5 mi. NE. of, at junction of Buhl and Grafton Rds.; center line of pavement.....	606. 4
Monroe, 5.9 mi. NE. of, 0.5 mi. E., thence 4.5 mi. S. from Carleton, 0.2 mi. N. of cor. secs. 4, 5, 8, and 9, T. 6 S., R. 9 E., 22 ft. S. and 21 ft. E. from junction of Maxwell Rd. at turn to N. in Grafton Rd., on top of NE. corner of concrete foundation of storm sewer gate in ditch; chiseled cross.....	607. 40
From junction of North Stony Creek Road and State Highway 56 generally south-west along highway to junction of U. S. Highway 25 in Monroe, thence northeast to junction of Nadeau Road (by J. M. Lawson in 1938)	
Monroe, 4.2 mi. NE. of, 24 ft. S. and 20 ft. E. from junction of Nadeau Rd., on top of end of tile culvert; chiseled square.....	583. 48
Monroe, 3.8 mi. NE. of, 15 ft. N. and 83 ft. E. from junction of T-rd. SE., on top of W. end of N. concrete head wall of culvert; chiseled square.....	586. 26
Monroe, 3.4 mi. NE. of, 27 ft. S. and 6 ft. E. from NE. junction of rd. to Detroit Beach, on top of N. corner of concrete base of lamppost; chiseled square.....	589. 73
Monroe, 2.7 mi. NE. of, 80 ft. N. and 100 ft. E. from junction of Hurd Rd., about 200 ft. NE. of junction of Sandy Creek Rd., in fence corner, in concrete post; standard tablet stamped "T T 11 L 1935 582".....	581. 864
Monroe, 2.7 mi. NE. of, at SW. corner of bridge over Sandy Creek, on top of concrete retaining wall; chiseled square (U. S. Lake Survey B. M.).....	580. 493
Monroe, 2.4 mi. NE. of, 33 ft. S. and 70 ft. E. from junction of rd. to Monroe State Park, at SE. apex of triangle of rd. forks, on top of E. concrete curb; chiseled square.....	590. 95
Monroe, 1.4 mi. NE. of, 300 ft. NE. of junction of rd. NE., on top of E. end of N. concrete head wall of culvert; chiseled square.....	589. 31

Monroe, 1.0 mi. NE. of, on E. side of M. C. R. R. crossing, 77 ft. N. of highway, on NW. corner of concrete foundation of semaphore D 342; bronze disk (U. S. Lake Survey B. M. designated "D 70 1932")----	<i>Feet</i> 592. 267
Monroe, on SW. side of River Raisin, at M. C. R. R. bridge, on top of W. end of S. retaining wall; chiseled square-----	588. 35
Monroe, 0.2 mi. NE. of post office, 33 ft. N. and 90 ft. W. from intersection of Elm Avenue and Monroe Street, on top of W. edge of cast-iron rim of Postal Telegraph and Cable Co. manhole cover; chiseled cross-----	596. 11
Monroe, 0.7 mi. NE. of post office, 36 ft. E. of intersection of East Grove and North Monroe Streets, on top of S. edge of cast-iron rim of 24-in. manhole cover; chiseled cross-----	595. 09
Monroe, 1.5 mi. NE. of, at N. city limits, 48 ft. N. and 60 ft. W. from junction of Cole Rd.; top of 1-in. iron pipe encased in 4-in. pipe-----	600. 50
Monroe, 2.2 mi. NE. of, on W. side of highway, at Golden School, 8 ft. SE. of entrance; top of 3-in. pipe-----	601. 38
Monroe, 2.9 mi. NE. of, 21 ft. N. and 35 ft. E. from junction of La Salle Rd., on top of N. end of circular concrete culvert; chiseled square-----	602. 99
Monroe, 3.4 mi. NE. of, at junction of Hurd Rd. to SE.; center line of pavement-----	598. 8
From Michigan Central Railroad bridge over River Raisin in Monroe northwest along South Custer Road (State Highway 50) into Dundee quadrangle (by J. M. Lawson in 1938)	
U. S. C. & G. S. standard disk stamped "Z 114 1934"-----	588. 710
Monroe, on N. side of Front Street, on SW. wall of city filtration plant, 11.7 ft. SE. of center of main entrance door, 3.7 ft. below top of sill of office window, in concrete water table; bronze disk (U. S. Lake Survey B. M. stamped "D 71 1932")-----	89. 218
Monroe, on SW. wall of city filtration plant, 6 in. E. of SW. corner, 30 in. above ground, in concrete foundation; metal tablet stamped "3" (City of Monroe B. M.)-----	589. 007
Monroe, on N. side of Front Street, in S. wall of Dickman Bottling Works building, 10 in. W. of SE. corner of building, between fifth and sixth course of brick above ground; metal tablet stamped "6" (City of Monroe B. M.)-----	586. 113
Monroe, on N. side of Front Street, in S. wall of steam laundry building, 1 ft. E. of SW. corner of building, between fourth and fifth course of brick above concrete foundation; metal tablet stamped "7" (City of Monroe B. M.)-----	593. 172
U. S. C. & G. S. standard disk stamped "Y 114 1934"-----	599. 230
Monroe, in N. wall of Monroe County courthouse, 9 in. E. of NE. corner, 14 in. above sidewalk; metal tablet stamped "8" (City of Monroe B. M.)-----	595. 558
Monroe, on N. side of West Front Street, in S. wall of Fire Hall, 1 ft. W. of SE. corner, 5 in. above sidewalk, in cornerstone; metal tablet stamped "9" (City of Monroe B. M.)-----	595. 686
Monroe, on N. side of West Front Street, 7 in. W. of SE. corner of St. Michael's School, 1.5 ft. above ground, in third course of limestone foundation stone; metal tablet stamped "11" (City of Monroe B. M.)-----	598. 170
Monroe, 430 ft. W. of Pere Marquette Ry. crossing, 30 ft. S. and 50 ft. W. from intersection of Front Street and unimproved street S. to Davey's coalyard, 70 ft. E. of Economy Garage, in concrete post; standard tablet stamped "T T 10 L 1935 599"-----	599. 163

	<i>Feet</i>
U. S. C. & G. S. standard disk stamped "W 114 1934"-----	599. 493
Monroe, about 500 ft. N. of intersection of East Front Street and Telegraph Rd., at SW. corner of concrete bridge over millrace to River Raisin, 1 ft. N. of S. corner of W. head wall of bridge, 10 in. above floor, in inside wall of corner concrete pillar; metal tablet stamped "14" (City of Monroe B. M.)-----	606. 077
Monroe, 2.0 mi. NW. of courthouse, 12 ft. S. and 20 ft. W. from junction of rd. SW. to nursery farm, on top of red granite boulder; chiseled square-----	606. 49
Monroe, 2.3 mi. NW. of, 6 ft. S. and 84 ft. W. from junction of Herr Rd., on top of W. end of S. concrete head wall of culvert; chiseled square-----	604. 79
Monroe, 3.2 mi. NW. of, in line with rd. angle, in root on NE. side of 24-in. elm tree; copper nail and washer-----	613. 35
Monroe, 3.8 mi. NW. of, 54 ft. N. and 90 ft. W. from junction of Raisinville Rd., on top of W. concrete head wall of culvert; chiseled square-----	611. 56
Monroe, 4.8 mi. NW. of, 18 ft. S. and 28 ft. W. from junction of T-lane SW., 400 ft. E. of Monroe Stock Farm, on S. side of highway, on top of W. end of tile culvert; chiseled square-----	619. 32
Monroe, 5.3 mi. NW. of, 1.7 mi. NE. of Strasburg, 30 ft. S. and 10 ft. W. from junction of Strasburg Rd., on top of S. end of E. concrete head wall of culvert; chiseled square-----	622. 66
Strasburg, 1.7 mi. NE., thence 0.5 mi. NW. from, 5.8 mi. NW. of Monroe, 30 ft. S. and 120 ft. E. from center line of highway at Roseland Farm Store, 30 ft. S. and 90 ft. W. from junction of private T-rd. SW., in concrete post; standard tablet stamped "T T 49 C 1935 625"-----	624. 590

From point 3.8 miles northwest of Monroe southwest along Raisinville Road to Dunbar Road, thence northwest to intersection of New York Central Railroad (by J. M. Lawson in 1936)

Monroe triangulation sta., in cemetery of Monroe County Infirmary, 1.1 mi. SW. of State Highway 50, 114 ft. E. of center line of Raisinville Rd.; top of stone post (surface mark for U. S. Lake Survey sta. 3 ft. below ground)-----	623. 171
Strasburg, 1.4 mi. SE., thence 0.4 mi. NE. from, 340 ft. S. of junction of T-rd. NW., on W. side of rd., at small bridge over Plum Creek, on top of SW. concrete wing wall; chiseled square-----	612. 70
Strasburg, 1.4 mi. SE., thence 0.2 mi. NE. from, at N.Y.C. R.R. crossing; top of N. rail-----	619. 6
Strasburg, 1.4 mi. SE. of, 5 ft. N. and 165 ft. E. from junction of Dunbar Rd., at entrance to church, on top of NW. corner of concrete platform; chiseled square-----	619. 08
U.S.C. & G.S. standard disk stamped "U 114 1934"-----	623. 506

From junction of Raisinville and Dunbar Roads along roads east 0.5 mile, thence generally southwest to Yargerville Road, thence generally east to road junction 0.3 mile southwest of La Salle, thence along roads alternately southeast and northeast to La Plaisance Road, thence north to Monroe (by J. M. Lawson in 1936)

Strasburg, 1.9 mi. SE. of, 2.0 mi. NW. along North Otter Creek Rd., thence 2.2 mi. NE. from La Salle, 20 ft. S. and 42 ft. W. from junction of Keegan and Dunbar Rds., on top of E. end of S. concrete head wall of culvert; chiseled square-----	612. 52
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La Salle, 2.0 mi. NW., thence 1.7 mi. NE. from, on W. side of Keegan Rd., on top of S. end of W. concrete head wall of culvert; chiseled square-----	<i>Feet</i> 615. 43
La Salle, 2.0 mi. NW., thence 1.2 mi. NE. from, 40 ft. N. and 18 ft. W. from junction of Albain Rd., at fence corner, on top of SE. corner of large granite boulder; chiseled square-----	616. 30
La Salle, 2.0 mi. NW., thence 1.0 mi. NE. from, 102 ft. S. and 50 ft. E. from junction of Albain and Goutz Rds., in root on W. side of 14-in. maple tree; copper nail and washer-----	617. 46
La Salle, 2.0 mi. NW., thence 0.3 mi. NE. from, at Goutz, 220 ft. S. and 16 ft. E. from junction of Hubbard Rd., in root on W. side of 36-in. twin oak tree; copper nail and washer-----	625. 65
La Salle, 2.0 mi. NW. of, 240 ft. N. and 27 ft. E. from junction of North Otter Creek Rd., in root on W. side of 15-in. maple tree; copper nail and washer-----	620. 21
La Salle, 2.0 mi. along South Otter Creek Rd. NW. of, 300 ft. NE. of junction of Goutz and South Otter Creek Rds., 15 ft. NW. of center line of Goutz Rd., at steel bridge over Otter Creek, on top of SW. end of S. concrete wing wall; chiseled square-----	615. 76
La Salle, 2.1 mi. W. of, in NE. cor. sec. 20, T. 7 S., R. 8 E., 15 ft. S. and 36 ft. W. from intersection of Yargerville Rd., on top of E. end of S. concrete head wall of culvert; chiseled square-----	620. 20
La Salle, 1.6 mi. W. of, near quarter corner between secs. 16 and 21, T. 7 S., R. 8 E., 26 ft. S. and 115 ft. E. from junction of T-rd. S., in concrete post; standard tablet stamped "T T 6 L 1935 615"-----	614. 722
La Salle, 0.8 mi. W. of, 0.45 mi. W. of Telegraph Rd. (U. S. Highway 24), on S. side of rd., on top of W. end of S. concrete head wall of culvert; chiseled square-----	605. 58
La Salle, 0.4 mi. W. of, 16 ft. S. and 105 ft. W. from intersection of Telegraph and South Otter Creek Rds., on top of W. end of S. concrete head wall of culvert; chiseled square-----	599. 16
La Salle, 0.1 mi. SW. of crossroads at, near junction of U. S. Highway 25, at SE. corner of large concrete bridge over Otter Creek, on SE. corner of concrete walk; chiseled square-----	588. 87
La Salle, 0.3 mi. SW. of, on W. side of U. S. Highway 25, 12 ft. S. and 55 ft. W. from junction of South Otter Creek Rd. to SE., on top of NE. end of concrete head wall of culvert; chiseled square---	587. 33
La Salle, 1.2 mi. along South Otter Creek Rd. SE. of, 0.5 mi. NW. of La Salle sta. on New York Central R. R., on top of W. end of S. concrete head wall of culvert; chiseled square-----	585. 31
La Salle sta., 160 ft. W. of Detroit & Toledo Shore Line R. R. crossing, 45 ft. S. of N.Y.C. R.R. crossing, in concrete post; standard tablet stamped "T T 5 L 1935 591"-----	591. 407
Reference mark, on N. side of rd., on E. side of M.C.R.R., on top of concrete foundation of semaphore D 402; chiseled square-----	590. 24
La Salle sta., 0.2 mi. SE. of, 240 ft. NE. of junction of rd. NE., at steel bridge over Otter Creek, on top at center of SW. concrete wing wall; chiseled square-----	581. 92
La Salle sta., 0.2 mi. SE., thence 0.2 mi. NE. from, 36 ft. N. and 63 ft. W. from intersection of North Otter Creek Rd., at angle in concrete highway NE., in triangle of rd. forks, in root on SE. side of 24-in. oak tree; copper nail and washer-----	587. 70



La Salle sta., 1.4 mi. by rd. NE. of, 24 ft. S. and 51 ft. W. from junction of Motor Creek Rd., in root on E. side of 36-in. willow tree; copper nail and washer-----	<i>Feet</i> 585. 44
La Salle sta., 1.9 mi. by rd. NE. of, 4.6 mi. S., thence 0.5 mi. NW. from courthouse in Monroe, 20 ft. N. and 48 ft. W. from junction of rd. NE., on top of SE. end of NE. concrete head wall of culvert; chiseled square-----	579. 85
Monroe, 4.6 mi. S. of, about 900 ft. W. of shore of Lake Erie, at turn from SE. to NE. in concrete highway, in root on NE. side of 18-in. elm tree; copper nail and washer-----	575. 77
Monroe, 4.2 mi. S. of, 160 ft. NE. of crossing of Woodchuck Creek, opposite private rd. E. to Avalon Beach, in concrete post; standard tablet stamped "T T 8 L 1935 577"-----	577. 380
Monroe, 3.2 mi. S. of, about 250 ft. W. of rd. junction at turn in rd. from N. to W., at bridge over creek, on top of NW. corner of SW. concrete abutment; chiseled square-----	576. 32
Monroe, 2.9 mi. S. of, 300 ft. N. of junction of Albain Rd., on W. side of La Plaisance Rd., at concrete bridge over La Plaisance Creek, on top of SW. corner of inner concrete guardrail; chiseled square-----	577. 29
Monroe, 2.2 mi. S. of, on W. side of rd., 48 ft. S. and 12 ft. W. from crossroads, on top of E. end of S. concrete head wall of culvert; chiseled square-----	580. 75
Monroe, 1.6 mi. S. of, at crossing of D. & T. S. L. R. R.; top of SE. rail.-----	589. 7
Monroe, 1.6 mi. S. of, at Greenings Sta., 120 ft. N. and 60 ft. E. from D. & T. S. L. R. R. crossing, 74 ft. E. of M. C. R. R. crossing, 35 ft. S. of intersection of Knapp Rd., on N. side of spur track to greenhouse, in concrete post; standard tablet stamped "T T 9 L 1935 589"-----	589. 386
Monroe, 1.3 mi. S. of, 120 ft. N. of N. Y. C. R. R. crossing, on W. side of rd., 30 ft. N. and 40 ft. W. from intersection of Kentucky Avenue, on top of N. end of W. concrete head wall of culvert; metal tablet (City of Monroe B. M.)-----	584. 64
Monroe, in NW. angle of intersection of Sixth Street and La Plaisance Rd., at intersection of sidewalks, in concrete post under handhole cover; bronze tablet stamped "49"-----	598. 085
From Dundee quadrangle east along Samaria Road to Victory Road, thence north, northeast, and northwest along roads to point 0.2 mile southeast of La Salle station (by J. M. Lawson in 1936)	
Erie, 1.0 mi. in air line N. of, about 600 ft. E. of quarter corner between secs. 5 and 8, T. 8 S., R. 8 E., 23 ft. S. and 62 ft. E. from intersection of Telegraph Rd., on Pere Marquette Ry. right-of-way line, on top of N. end of E. concrete head wall of culvert; chiseled square-----	605. 26
Erie, 1.2 mi. NE. of, on line between secs. 4 and 9, T. 8 S., R. 8 E., 25 ft. S. and 80 ft. E. from intersection of U. S. Highway 25, in concrete post; standard tablet stamped "T T 3 L 1935 595"-----	594. 855
Reference mark, 22 ft. S. and 72 ft. W. from crossroads, on top of W. end of S. concrete head wall of culvert; chiseled square-----	605. 27
Erie, 1.2 mi. NE., thence 0.8 mi. E. from, near S. cor. secs. 3 and 4, T. 8 S., R. 8 E., 150 ft. N. and 40 ft. W. from junction of Reau Rd., in field, in root on S. side of 10-in. lone elm tree; copper nail and washer-----	583. 26

Erie, 1.2 mi. NE., thence 1.3 mi. E. from, near quarter corner between secs. 3 and 10, T. 8 S., R. 8 E., 15 ft. N. and 72 ft. E. from D. & T. S. L. R. R. crossing, on N. side of rd., on top at angle in concrete head wall of culvert; chiseled square-----	Feet 581. 21
Erie, 1.2 mi. NE., thence 1.8 mi. E. from, in NE. cor. sec. 10, T. 8 S., R. 8 E., 20 ft. S. and 5 ft. W. from junction of Victory Rd., on top of S. end of W. concrete head wall of culvert; chiseled square-----	577. 18
Erie, 4.0 mi. by rd. NE. of, 0.8 mi. SE., thence 2.3 mi. SW. from La Salle sta., near NW. cor. sec. 2, T. 8 S., R. 8 E., 140 ft. N. and 35 ft. E. from D. & T. S. L. R. R. crossing, 200 ft. S. and 35 ft. E. from NW. track of N. Y. C. R. R. crossing, at end of short fence, in concrete post; standard tablet stamped "T T 4 L 1935 586"-----	585. 758
Reference mark, 160 ft. N. of tablet, on E. side of rd., on E. side of M. C. R. R., on top of NE. corner of concrete base of semaphore D 442; chiseled square-----	588. 94
La Salle sta., 0.8 mi. SE., thence 1.8 mi. SW. from, 33 ft. S. and 171 ft. E. from junction of Cousino and Kelly Rds., in field, in root on NW. side of 36-in. oak tree; copper nail and washer-----	583. 00
La Salle sta., 0.8 mi. SE., thence 1.0 mi. SW. from, at sharp angle in highway, on top of NE. concrete abutment of bridge over creek; chiseled square-----	578. 87
La Salle sta., 0.8 mi. SE., thence 0.6 mi. SW. from, at junction of rd. NW. to Cousino Farm, 38 ft. N. and 30 ft. E. from junction of T-rd. NW., on top of concrete head wall of culvert; chiseled square-----	578. 30
La Salle sta., 0.8 mi. SE. of, 30 ft. S. and 32 ft. W. from junction of South Otter Creek Rd., on top of S. end of W. concrete head wall of culvert; chiseled square-----	575. 59
From point 1.6 miles west of La Salle generally south along roads 5.1 miles to intersection of Samaria and Telegraph Roads (by J. M. Lawson in 1936)	
La Salle, 0.5 mi. SW., thence 1.3 mi. W. from, near center of sec. 21, T. 7 S., R. 8 E., 70 ft. W. of junction of T-rd. E., in root on SE. side of 20-in. white-oak tree; copper nail and washer-----	613. 68
T. 7 S., R. 8 E., near quarter corner between secs. 21 and 28, 38 ft. N. and 50 ft. W. from junction of Stein Rd., in farmyard, in root on S. side of 20-in. maple tree; copper nail and washer-----	611. 49
T. 7 S., R. 8 E., in NE. cor. sec. 29, 200 ft. S. and 12 ft. W. from cross-roads, in root on NE. side of 32-in. twin basswood tree; copper nail and washer-----	618. 44
T. 7 S., R. 8 E., in SW. cor. sec. 28, 24 ft. N. and 114 ft. E. from junction of Wood Rd., in concrete post; standard tablet stamped "T T 7 L 1935 618"-----	616. 874
T. 7 S., R. 8 E., near quarter corner between secs. 28 and 33, 100 ft. N. and 50 ft. E. from intersection of Telegraph Rd., on W. side of highway, on top of S. end of W. concrete head wall of culvert; chiseled square-----	607. 23
T. 8 S., R. 8 E., in NW. cor. sec. 4, 20 ft. S. and 70 ft. W. from intersection of Cousino Rd., on top of E. end of S. concrete head wall of culvert; chiseled square-----	607. 62

From road junction 1.2 miles northeast and 0.8 mile east from Erie generally south along Reau Road and Detroit & Toledo Shore Line Railroad to point near east quarter corner sec. 21, T. 8 S., R. 8 E., thence west along Dean Road and south along Suder Avenue to Stearns Road (by J. M. Lawson in 1936)

Erie, 1.3 mi. E., thence 0.5 mi. N. from, near quarter corner between secs. 9 and 10, T. 8 S., R. 8 E., 16 ft. N. and 17 ft. W. from junction of Jacobs Rd., on top of N. end of tile culvert; chiseled square-----	Feet 579. 01
Erie, 1.3 mi. E. of, in SE. cor. sec. 9, T. 8 S., R. 8 E., at jog in N.-S. rd., 20 ft. N. and 25 ft. W. from rd. N., opposite rd. S., on top of W. end of concrete head wall of culvert; chiseled square-----	579. 76
Erie, 1.3 mi. along rd. E., thence 0.5 mi. SW. along D. & T. S. L. R. R. from, in NE $\frac{1}{4}$ sec. 16, T. 8 S., R. 8 E., 300 ft. NE. of rd. crossing, 35 ft. W. of W. track, on N. side of short fence, 13 ft. W. of SW. corner of toolhouse, in concrete post; standard tablet stamped "T T 2 L 1935 583"-----	582. 554
Reference mark, 300 ft. SW. of tablet, 60 ft. N. of rd. crossing M. C. R. R., on E. side of track, on top of SE. corner of concrete base of semaphore D 452; chiseled square-----	585. 83
Erie, 1.3 mi. E., thence 0.5 mi. S. from, near quarter corner between secs. 15 and 16, T. 8 S., R. 8 E., 20 ft. W. of junction of T-rd. E., 18 ft. S. and 20 ft. W. from junction of T-rd. W., on top of E. end of S. concrete head wall of culvert; chiseled square-----	577. 40
Erie, 1.3 mi. E., thence 1.4 mi. S. from, 0.4 mi. S. of NE. cor. sec. 21, T. 8 S., R. 8 E., 22 ft. N. and 45 ft. W. from intersection of Dean Rd., in SE. side of telephone pole; rail spike-----	580. 79
Erie, 0.5 mi. E. and 1.5 mi. S. from, 0.2 mi. E. of quarter corner between secs. 20 and 21, T. 8 S., R. 8 E., 40 ft. N. of M. C. R. R. crossing, 8 ft. E. of center line of track, at bridge over Little Lake Creek, on top of E. end of S. concrete abutment; chiseled cross----	582. 48
Erie, 0.3 mi. E., thence 1.5 mi. S. from, near quarter corner between secs. 20 and 21, T. 8 S., R. 8 E., 16 ft. S. and 30 ft. W. from intersection of Suder Avenue, on top of E. end of S. concrete head wall of culvert; chiseled square-----	581. 60
Erie, 0.3 mi. E., thence 2.0 mi. S. from, 0.8 mi. E., thence 1.0 mi. N. from Vienna Junction, in NE. cor. sec. 29, T. 8 S., R. 8 E., 15 ft. S. and 45 ft. W. from intersection of Benore Rd., on top of W. end of S. concrete head wall of culvert; chiseled square-----	580. 75
From point 3.2 miles southwest of Oldport northeast along State Highway 56 to junction of Pointe aux Peaux Road, thence southeast to village of Stony Point (by J. M. Lawson in 1936)	
Oldport, 3.2 mi. SW. of, 325 ft. SE. of highway, on NE. side of Williams Rd., in W. wall of dwelling of C. E. Marshall, 17.5 ft. from SW. corner and 1.5 ft. above ground; bronze disk (U. S. Lake Survey B. M. designated "D 65 1932")-----	592. 226
Oldport, 2.9 mi. SW. of, 2.0 mi. NW. of village of Stony Point, in S. angle of junction of Pointe Aux Peaux Rd., on top of S. end of concrete L-shaped head wall of culvert; chiseled square-----	588. 09
Stony Point, 1.1 mi. NW. of, 15 ft. S. and 17 ft. W. from junction of T-rd. S., 950 ft. NW. of Stony Point School, on N. end of concrete head wall of culvert; chiseled square-----	580. 72
Stony Point, 0.3 mi. NW. of, 48 ft. E. of junction of Superior Avenue, on N. side of rd., on top of W. end of N. concrete head wall of culvert; chiseled square-----	577. 52
Stony Point, 140 ft. E. of junction of Dewey Rd., on top of W. end of flange of culvert; chiseled square (U. S. Lake Survey B. M.)-----	575. 477

## MONTAGUE QUADRANGLE

[Latitude 43°15'-43°30'; longitude 86°15'-86°30']

## MUSKEGON AND OCEANA COUNTIES

From Twin Lake quadrangle near North Muskegon along roads west and north to point near Fox Lake, thence east and back into Twin Lake quadrangle (by S. R. Archer in 1929)

Muskegon, 1.9 mi. along U. S. Highway 31 NW. of, at junction of State Highway 20, on N. side of highway, in front of Delong Bros. store, at SE. corner of concrete platform, on top of E. end of lower concrete step; chiseled square	Feet 593. 90
North Muskegon, 0.8 mi. NE. of city hall at, 25 ft. NE. and 35 ft. NW. from center of crossroads, in concrete post; standard tablet stamped "T T Sta No 40 F 1928"	624. 086
Reference mark, at E. corner of crossroads, on NW. side at W. corner of brick store building, on concrete sidewalk; chiseled square	624. 63
North Muskegon, 0.8 mi. NE., thence 0.4 mi. N. from city hall at, 0.2 mi. S. of quarter corner between secs. 7 and 12, T. 10 N., Rs. 16 and 17 W., at concrete highway bridge over Bear Creek, on top of E. wing wall of N. abutment; chiseled square	586. 63
North Muskegon, 0.8 mi. NE., thence 0.6 mi. N. from city hall, near W $\frac{1}{4}$ cor. sec. 7, T. 10 N., R. 16 W., on E. side of highway, at T-rd. W., at culvert under driveway to farmhouse, on top of E. end of N. concrete head wall; chiseled square	588. 23
North Muskegon, 0.8 mi. NE., thence 1.1 mi. N. from city hall, near SW. cor. sec. 6, T. 10 N., R. 16 W., on E. side of highway, 100 ft. N. of crossroads, in root on SW. side of 24-in. maple tree; copper nail and washer	622. 01
North Muskegon, 0.8 mi. NE., thence 2.4 mi. N. from city hall, 1.5 mi. S. of Dalton, 0.2 mi. W. of SE. cor. sec. 31, T. 11 N., R. 16 W., near N. cor. secs. 1 and 6, T. 10 N., Rs. 16 and 17 W., 45 ft. N. and 30 ft. E. from crossroads, in concrete post; standard tablet stamped "T T Sta No 50 F 1928"	642. 527
Reference mark, 80 ft. S. of tablet, 45 ft. S. and 35 ft. E. from crossroads, in root on SW. side of southernmost of two 36-in. oak trees standing 25 ft. apart; copper nail and washer	643. 21
Dalton, 1.0 mi. S. of, 0.25 mi. E. of center of sec. 31, T. 11 N., R. 16 W., 75 ft. N. of crossroads, on E. side of highway, in field, 40 ft. N. and 5 ft. E. from fence corner, in root on NE. side of 10-in. oak tree; copper nail and washer	648. 86
Dalton, 0.5 mi. S. of, 0.25 mi. E. of N $\frac{1}{4}$ cor. sec. 31, T. 11 N., R. 16 W., 100 ft. S. of crossroads, on E. side of highway, at fence line, in root on W. side of northernmost of two 8-in. oak trees standing 7 ft. apart; copper nail and washer	653. 32
Dalton, 40 ft. N. of crossroads, 0.25 mi. E. of center of sec. 30, T. 11 N., R. 16 W., on top of W. concrete head wall of culvert under highway N.; chiseled square	659. 10
Dalton, at Pere Marquette Ry. crossing; top of E. rail	662. 0
Dalton, 0.2 mi. E., thence 0.5 mi. N. from, in NE. cor. sec. 30, T. 11 N., R. 16 W., at SW. corner of crossroads, at NE. corner of yard of farmhouse, in root on NW. side of 12-in. cottonwood tree; copper nail and washer	663. 66

Dalton, 0.2 mi. E., thence 1.5 mi. N. from, 2.5 mi. S. of Lakewood, in SW. cor. sec. 17, T. 11 N., R. 16 W., 30 ft. N. and 28 ft. E. from center of crossroads, in concrete post; standard tablet stamped "T T Sta No 51 F 1928"	Feet 665.896
Reference mark, at NE. corner of crossroads, at fence corner, in root on NW. side of 10-in. maple tree; copper nail and washer	666.18
Lakewood, 1.5 mi. S. of, in NE. cor. sec. 18, T. 11 N., R. 16 W., 30 ft. S. and 65 ft. W. from crossroads, in root on N. side of triple-forked oak tree; copper nail and washer	679.74
Lakewood, 0.5 mi. S. of, near SW. cor. sec. 5, T. 11 N., R. 16 W., at NE. corner of crossroads, in root on SW. side of 6-in. pine tree; copper nail and washer	676.83
From Lake Harbor quadrangle alternately northeast and southeast along State Highway 20 to North Muskegon (by S. R. Archer in 1929)	
North Muskegon, 3.5 mi. W. of city hall, near S $\frac{1}{4}$ cor. sec. 16, T. 10 N., R. 17 W., 150 ft. W. of junction of State Highway and rd. N., 235 ft. E. of right angle in rd. N., 25 ft. E. of fence corner at S. entrance to Dune's Trail Riding Academy, 25 ft. N. of center of highway, in concrete post; standard tablet stamped "T T Sta No 39 F 1928"	590.100
Reference mark, 175 ft. W. of tablet, 60 ft. E. of right angle in rd. N., on top of S. concrete head wall of culvert under Scenic Drive; chiseled square	589.60
[Line jogs into Lake Harbor quadrangle]	
North Muskegon, opposite and 35 ft. NE. of city hall, on SE. side of Ruddiman Avenue, 250 ft. NE. of intersection of Second Street, at entrance to Walker store, on outside corner at NE. side of concrete floor; chiseled square	620.70
From point 3.5 miles west of North Muskegon on State Highway 20, generally northwest along Scenic Drive and roads to sec. 26, T. 13 N., R. 18 W., thence alternately east and south into Twin Lake quadrangle at point 1 mile north and 2 miles west from west end of Big Blue Lake (by S. R. Archer in 1929)	
North Muskegon, 3.5 mi. W. and 1.0 mi. N. from city hall, near quarter corner between secs. 9 and 16, T. 10 N., R. 17 W., 45 ft. S. and 25 ft. W. from crossroads, in root on N. side of 24-in. oak tree next to 10-in. oak tree; copper nail and washer	622.19
T. 10 N., R. 17 W., near SE. cor. sec. 8, 45 ft. N. and 20 ft. E. from crossroads, in root on W. side of 15-in. oak tree with triangular blaze on S. side; copper nail and washer	622.00
T. 10 N., R. 17 W., about 0.25 mi. E. of N $\frac{1}{4}$ cor. sec. 8, 25 ft. S. and 35 ft. W. from junction of E.-W. rd. and rd. S., on edge of S. bank of ditch along S. side of gravel rd., in root on N. side of 24-in. oak tree; copper nail and washer	622.04
T. 10 N., R. 17 W., in NE. cor. sec. 7, at Northland Country Club, 40 ft. S. and 30 ft. W. from intersection of Scenic Drive and E.-W. rd., at NE. corner of yard, 8 ft. S. of fence corner, in concrete post; standard tablet stamped "T T Sta No 49 F 1928"	615.025
Reference mark, 75 ft. N. of tablet, 30 ft. N. and 30 ft. W. from crossroads, at fence corner, in root on E. side of 24-in. pine tree; copper nail and washer	615.07
T. 10 N., R. 17 W., in SE $\frac{1}{4}$ sec. 6, 205 ft. SE. of rd. E., on top of NE. concrete head wall of culvert under highway; chiseled square	602.74

T. 10 N., R. 17 W., 0.2 mi. E. of NW. cor. sec. 6, at SW. corner of intersection of Scenic Drive and rds. leading E., W., and N., in root on NE. side of twin oak tree having forks 5 and 8 in. in diameter with triangular blaze on NE. side of 8-in. fork; copper nail and washer.....	Feet 621. 92
T. 11 N., R. 17 W., near center sec. 31, on W. side of Scenic Drive, in front of brick store and dwelling, 8 ft. S. of NE. corner of building, at N. end of flight of three concrete steps to entrance of store, on top of W. end of lower step; chiseled square.....	624. 70
T. 11 N., R. 17 W., 0.2 mi. W. of N $\frac{1}{4}$ cor. sec. 31, 30 ft. S. and 30 ft. W. from center of crossroads, 35 ft. W. of Scenic Drive, 50 ft. N. and 75 ft. W. from Texaco service sta., 2 ft. S. of fence corner, in concrete post; standard tablet stamped "T T Sta No 48 F 1928".....	628. 002
Reference mark, 6 ft. S. of tablet, in notch cut in root on NE. side of 8-in. beech tree; copper nail and washer.....	628. 48
T. 11 N., R. 17 W., near W $\frac{1}{4}$ cor. sec. 30, 145 ft. S. of cross road, on top of W. concrete head wall of culvert under Scenic Drive; chiseled square.....	607. 65
T. 11 N., R. 18 W., in N $\frac{1}{2}$ fractional sec. 24, on W. side of Scenic Drive, near top of hill, on S. side of Duck Lake, opposite center line of T-rd. E., on top of concrete curb; chiseled square.....	615. 87
T. 11 N., R. 18 W., in NW. part of fractional sec. 24, on E. side of Scenic Drive, at N. end of concrete bridge over outlet to Duck Lake, at foot on S. side of N. concrete end post of railing; chiseled square..	588. 95
T. 11 N., R. 18 W., near center of sec. 13, at junction of T-rd. E.; center line of pavement.....	622. 9
Wabanningo, 1.2 mi. SE. of post office, 0.2 mi. W. of quarter corner between secs. 12 and 13, T. 11 N., R. 18 W., 25 ft. S. and 110 ft. W. from intersection of center lines of Scenic Drive and rd. E., on S. side of rd., at NW. corner of triangle of rd. forks, in N. side of W. fork of double willow tree, in notch cut in trunk; copper nail and washer.....	613. 79
Wabanningo, 0.9 mi. SE. of post office, near center of SW $\frac{1}{4}$ sec. 12, T. 11 N., R. 18 W., 80 ft. S. and 20 ft. W. from crossroads, in notch cut in W. root of 24-in. maple tree; copper nail and washer.....	612. 98
Wabanningo, 100 ft. N. of post office, on W. side of highway, at foot of hill, 75 ft. N. of entrance to Goodrich Steamship dock and wharf, 25 ft. N. of S. end of concrete curb, on top of curb; chiseled square..	584. 57
Wabanningo, 0.2 mi. NW. of post office, on W. side of highway, on hill between White Lake and Lake Michigan, on NE. corner of iron plate at top of square concrete base at foot of NE. steel support of water tank; top of figure "2" of markings "Aeromotor Co. Chicago, Ill. K 128".....	635. 38
Wabanningo, 0.5 mi. NW. of post office, at channel entrance to White Lake, on line with N. wall of lighthouse, 10.6 ft. E. of NE. corner of lighthouse, 9.2 ft. S. of hard-maple tree, 11.28 ft. N. of hard-maple tree, 3 in. below surface of sod and covered with 4- by $\frac{1}{2}$ -in. iron washer; top of cap of vertical iron pipe (U. S. Lake Survey B. M.)..	598. 152
Wabanningo, 0.7 mi. NW. of post office, on N. side at E. end of channel entrance to White Lake, 110 ft. N. of edge of water at ferry landing, on E. side of rd., at S. end of lower one of two steps leading to gate, level with concrete curb; chiseled square.....	585. 30
T. 11 N., R. 18 W., about 0.2 mi. N. and 0.15 mi. E. of center of sec. 2, on N. side of E.-W. rd., opposite and 5 ft. W. of junction of rd. S., in crotch of small twin oak tree; copper nail and washer.....	646. 36

T. 11 N., R. 18 W., about 0.3 mi. S. of N. cor. of secs. 1 and 2, 45 ft. N. and 30 ft. W. from crossroads, in root on NW. side of 12-in. oak tree; copper nail and washer-----	<i>Feet</i> 639. 85
Montague, 3.0 mi. W., thence 2.0 mi. S. from, in SE. cor. sec. 35, T. 12 N., R. 18 W., 30 ft. N. and 30 ft. W. from crossroads, in concrete post; standard tablet stamped "T T Sta No 57 F 1928"-----	641. 399
Reference mark, 65 ft. N. and 20 ft. W. from tablet, 95 ft. N. and 50 ft. W. from crossroads, at entrance to school, at SE. corner of concrete floor of porch; chiseled square-----	644. 87
T. 12 N., R. 18 W., near quarter corner between secs. 35 and 36, 25 ft. S. and 25 ft. W. from crossroads, in root 5 in. underground on N. side of 12-in. oak tree; copper nail and washer-----	645. 78
T. 12 N., R. 18 W., in SE. corner of sec. 26, 40 ft. N. and 17 ft. W. from crossroads, in root on W. side of 12-in. oak tree; copper nail and washer-----	658. 12
T. 12 N., R. 18 W., in NE. cor. sec. 26, 70 ft. W. of crossroads, on S. side of E.-W. rd., 8 ft. N. of fence, in root on NW. side of 30-in. pine tree; copper nail and washer-----	650. 81
T. 12 N., R. 18 W., near quarter corner between secs. 23 and 26, at NE. corner of junction of T-rd. N., in center of top of W. wall of concrete catch basin; chiseled square-----	651. 03
T. 12 N., R. 18 W., near center of sec. 23, 45 ft. N. of junction of T-rd. E., on top of N. end of E. concrete head wall of culvert under N.-S. rd.; chiseled square-----	652. 41
Montague, 3.5 mi. W., thence 1.0 mi. N. from, near quarter corner between secs. 14 and 23, T. 12 N., R. 18 W., 30 ft. S. and 30 ft. E. from center of crossroads, in concrete post; standard tablet stamped "T T Sta No 58 F 1928"-----	655. 510
T. 12 N., R. 18 W., near quarter corner between secs. 11 and 14, on E. side of rd., 65 ft. S. of crossroads, in root on NW. side of 30-in. maple tree; copper nail and washer-----	690. 27
T. 12 N., R. 18 W., near quarter corner between secs. 2 and 11, at SE. corner of crossroads, at entrance to school, on top of E. end of lower step at N. side of concrete steps; chiseled square-----	697. 85
Montague, 4.0 mi. W. and 3.0 mi. N. from, near NW. cor. sec. 11, T. 12 N., R. 18 W., 28 ft. S. and 20 ft. E. from junction of T-rd. N., 30 ft. E. of fence corner, in concrete post; standard tablet stamped "T T Sta No 59 F 1928"-----	646. 330
Reference mark, 110 ft. N. of rd. junction, on W. side of rd. N., 60 ft. N. of fence corner, in field, in root on SE. side of 6-in. maple tree; copper nail and washer-----	642. 51
T. 13 N., R. 18 W., in SE. cor. sec. 34, at Muskegon-Oceana county line, 125 ft. W. of crossroads, on N. side of E.-W. rd., on field side of fence, in root on E. side of double elm tree; copper nail and washer-----	639. 06
T. 13 N., R. 18 W., near quarter corner between secs. 34 and 35, on E. side of rd., 275 ft. N. of junction of T-rd. E., 55 ft. S. of junction of T-rd. W., in front of farmhouse, in root on NW. side of 24-in. locust tree; copper nail and washer-----	653. 47
T. 13 N., R. 18 W., in NW. cor. sec. 35, at SE. corner of crossroads, on top of E. concrete head wall of culvert under N.-S. rd.; chiseled square-----	595. 10

Rothbury, 1.0 mi. S., thence 4.5 mi. W. from, near quarter corner between secs. 26 and 27, T. 13 N., R. 18 W., 30 ft. S. and 40 ft. E. from center of crossroads, in concrete post; standard tablet stamped "T T Sta No 60 F 1928"-----	Feet 610. 682
Reference mark, 190 ft. S. of crossroads, on W. side of N.-S. rd., at fence line, in root on N. side of 15-in. elm tree; copper nail and washer-----	609. 37
Rothbury, 1.0 mi. S., thence 3.5 mi. W. from, near quarter corner between secs. 25 and 26, T. 13 N., R. 18 W., 50 ft. N. and 35 ft. W. from crossroads, in root on SW. side of 24-in. maple tree; copper nail and washer-----	681. 01
Rothbury 1.0 mi. S., thence 2.5 mi. W. from, near E $\frac{1}{4}$ cor. sec. 25, T. 13 N., R. 18 W., 100 ft. N. of crossroads, on W. side of N.-S. rd., in root 6 in. underground on NE. side of 24-in. elm tree; copper nail and washer-----	714. 20
Rothbury, 1.0 mi. S., thence 1.5 mi. W. from, near quarter corner between secs. 29 and 30, T. 13 N., R. 17 W., at SE. corner of crossroads, at NW. corner of farmhouse, on E. corner at N. end of concrete floor of porch; chiseled square-----	687. 96
[Line jogs into Hart quadrangle]	
Rothbury, 1.0 mi. S. of, near center of sec. 28, T. 13 N., R. 17 W., 20 ft. S. and 35 ft. W. from intersection of U. S. Highway 31 and E.-W. rd., 7 ft. N. of fence corner, in root on S. side of 30-in. oak tree; copper nail and washer-----	685. 95
Pere Marquette Ry. crossing; top of E. rail-----	689. 2
Rothbury, 1.0 mi. S., thence 1.0 mi. E. from, near center of sec. 27, T. 13 N., R. 17 W., in NW. corner of crossroads, in concrete post; standard tablet stamped "T T Sta No 62 F 1928"-----	689. 357
Reference mark, 13 ft. E. of tablet, 30 ft. N. and 20 ft. W. from crossroads, in root on NE. side of 30-in. oak tree; copper nail and washer-----	689. 59
Rothbury, 1.5 mi. S. and 0.8 mi. E. from, 0.2 mi. W. of quarter corner between secs. 27 and 34, T. 13 N., R. 17 W., 50 ft. S. of dim crossroads in woods, on W. side of rd. S., in root on NE. side of 15-in. oak tree with triangular blazes on N. and S. sides; copper nail and washer-----	683. 10
Rothbury, 2.5 mi. S. and 0.5 mi. E. from, in SE. cor. sec. 33, T. 13 N., R. 17 W., on N. side of Muskegon-Oceana county-line rd., 35 ft. W. of center line of T-rd. N., at SW. corner of triangle of rd. forks, in root on N. side of 12-in. oak tree; copper nail and washer-----	679. 18
Rothbury, 2.5 mi. S. and 1.5 mi. E. from, near SE. cor. sec. 34, T. 13 N., R. 17 W., 190 ft. W. of junction of rd. S., 10 ft. N. and 25 ft. E. from junction of rd. N., in root on SW. side of 24-in. oak tree; copper nail and washer-----	655. 83
Rothbury, 2.5 mi. S. and 2.5 mi. E. from, near SE. cor. sec. 35, T. 13 N., R. 17 W., 30 ft. N. and 220 ft. W. from junction of T-rd. S., 70 ft. W. of top of hill, in concrete post; standard tablet stamped "T T Sta No 63 F 1928"-----	635. 010
Reference mark, 220 ft. S. of tablet, on N. side of Maple Lodge, at N. entrance to building, on SW. corner of top concrete step; chiseled square-----	634. 95



T. 13 N., R. 17 W., near SW. cor. sec. 36, 25 ft. N. and 45 ft. E. from junction of T-rd. S., in root 6 in. underground on SE. side of 10-in. oak tree, 3 ft. E. of 6-in. oak tree; copper nail and washer...	<i>Feet</i> 644. 83
T. 12 N., R. 16 W., near N $\frac{1}{4}$ cor. sec. 6, 25 ft. S. and 25 ft. E. from junction of T-rd. N., in root on NE. side of 6-in. oak tree with triangular blaze above point; copper nail and washer.....	635. 29
Big Blue Lake, 1.0 mi. N. and 2.0 mi. W. from W. end of, 0.75 mi. N. of Rochdale Inn, in NW. cor. sec. 5, T. 12 N., R. 16 W., 25 ft. S. and 25 ft. E. from center of crossroads, 3 ft. SW. of fence corner, in concrete post; standard tablet stamped "T T Sta No 64 F 1928"...	630. 349
Reference mark, 155 ft. W. of crossroads, on N. side of E.-W. rd., in root on S. side of 15-in. oak tree; copper nail and washer.....	630. 88
From point on Scenic Drive 1.2 miles SE. of Wabaningo along roads northeast to point 1.7 miles south of Whitehall, thence southeast and east into Twin Lake quadrangle near Fox Lake (by S. R. Archer in 1929)	
Wabaningo, 1.2 mi. SE., thence 0.7 mi. E. from post office at, in NW. cor. sec. 18, T. 11 N., R. 17 W., 25 ft. S. and 25 ft. E. from crossroads, in root on NW. side of 24-in. oak tree; copper nail and washer...	631. 38
Wabaningo, 1.2 mi. SE., thence 1.7 mi. E. from, 3.5 mi. S. and 1.5 mi. W. from Whitehall, near NW. cor. sec. 17, T. 11 N., R. 17 W., 30 ft. S. and 33 ft. E. from center of crossroads, in concrete post; standard tablet stamped "T T Sta No 47 F 1928".....	628. 779
Reference mark, 40 ft. N. and 100 ft. W. from crossroads, 2.5 ft. S. and 37 ft. W. from SW. corner of farmhouse, in root on W. side of 8-in. oak tree; copper nail and washer.....	628. 05
Whitehall, 2.5 mi. S. and 1.5 mi. W. from, near cor. secs. 5, 6, 7, and 8, T. 11 N., R. 17 W., in center of crossroads; top of iron bolt in center of iron pipe filled with concrete.....	624. 92
Whitehall, 2.5 mi. S. and 0.7 mi. W. from, 0.2 mi. W. of SE. cor. sec. 5, T. 11 N., R. 17 W., 410 ft. W. of stream crossing, on N. side of rd., 15 ft. S. of fence, in root on SW. side of forked elm tree; copper nail and washer.....	625. 38
Whitehall, 2.5 mi. S. of, near N $\frac{1}{4}$ cor. sec. 9, T. 11 N., R. 17 W., 50 ft. W. of intersection of Zellar Rd., on E. end of S. concrete head wall of culvert under E.-W. rd.; chiseled square.....	630. 41
Whitehall, 1.7 mi. S. of, 0.25 mi. N. of center of sec. 4, T. 11 N., R. 17 W., 110 ft. S. of junction of T-rd. E., on N. end of E. concrete head wall of culvert under N.-S. rd.; chiseled square.....	618. 76
Whitehall, 1.3 mi. S. of Pere Marquette Ry. sta. at, 50 ft. S. and 45 ft. W. from center of sec. 33, T. 12 N., R. 17 W., 660 ft. S. and 45 ft. W. from cross streets, 770 ft. S. of Pere Marquette Ry. crossing, 150 ft. N. of ravine, in concrete post; standard tablet stamped "T T Sta No 46 F 1928".....	631. 297
Reference mark, 15 ft. N. of tablet, on E. side of street, in root on SW. side of 48-in. pine tree; copper nail and washer.....	631. 13
U. S. C. & G. S. standard disk stamped "Y 25 1930" "1".....	593. 335
Whitehall, 1.9 mi. along Pere Marquette Ry. SE. of, about 0.25 mi. S. of quarter corner between secs. 33 and 34, T. 12 N., R. 17 W., 70 ft. S. of crossing of N.-S. rd., on E. side of rd., in root on NW. side of 30-in. oak tree; copper nail and washer.....	647. 41

"The tie between this mark and the bench mark stamped "T T Sta No 46 F 1928" was made in 1931.

Whitehall, 2.6 mi. along Ry. SE. of, near S $\frac{1}{4}$ cor. sec. 34, T. 12 N., R. 17 W., 65 ft. E. of junction of T-rd. S., 105 ft. E. of Ry. crossing, on N. side of rd., on field side of fence, in root on N. side of 24-in. maple tree; copper nail and washer-----	Feet 661. 15
Whitehall, 2.6 mi. along Ry. SE., thence 0.8 mi. along township-line rd. E. from, 3.2 mi. W. of Fox Lake, 0.25 mi. E. of SW. cor. sec. 35, T. 12 N., R. 17 W., 20 ft. N. and 25 ft. E. from intersection of U. S. Highway 31, in root 8 in. underground on NW. side of 24-in. oak tree; copper nail and washer-----	677. 49
Fox Lake, 2.4 mi. W. of, near SW. cor. sec. 36, T. 12 N., R. 17 W., on N. side of township-line rd., at old fence corner, on E. side of dim woods rd. N., in root on SW. side of 15-in. oak tree with triangular blaze; copper nail and washer-----	671. 41
Fox Lake, 2.0 mi. W. of, near S $\frac{1}{4}$ cor. sec. 36, T. 12 N., R. 17 W., 30 ft. N. and 50 ft. W. from junction of T-rd. N., 23 ft. W. of fence corner, 30 ft. W. of 48-in. oak tree, in concrete post; standard tablet stamped "T T Sta No 45 F 1928"-----	679. 659
Reference mark, 30 ft. E. of tablet, 10 ft. SE. of fence corner, at NW. corner of junction of T-rd. N., in root on SE. side of 48-in. oak tree; copper nail and washer-----	678. 65
Fox Lake, 1.5 mi. W. of, near NE. cor. sec. 1, T. 11 N., R. 17 W., 85 ft. W. of probable section corner, on S. side of rd., in root on NW. side of 36-in. oak tree with triangular blaze; copper nail and washer-----	679. 02
Fox Lake, 0.5 mi. NW. of W. end of, in NW. cor. sec. 5, T. 11 N., R. 16 W., 35 ft. E. of crossroads, on S. side of township-line rd., in root 6 in. underground on N. side of 24-in. oak tree, 10 ft. NW. of 18-in. pine tree; copper nail and washer-----	681. 44

## MOUNT CLEMENS QUADRANGLE

[Latitude 42°30'-42°45'; longitude 82°45'-83°00']

## MACOMB COUNTY

From Rochester quadrangle at point 1.7 miles east of Utica east along Hall Road (present State Highway 59) 8.3 miles, thence alternately southwest and southeast along roads by way of Mount Clemens to L'Anse Creuse (by H. S. Senseney in 1928)

Utica, 2.0 mi. E. of, 2.0 mi. S., thence 2.9 mi. W. from Waldenburg, in NW. cor. sec. 1, T. 2 N., R. 12 E., 25 ft. S. and 26 ft. E. from intersection of Schoenherr Rd., 7 ft. N. of 13-in. maple tree, in concrete post; standard tablet stamped "P T Sta No 10 Y 1925"-----	611. 686
Reference mark, 600 ft. E. of tablet, on S. edge of pavement; chiseled square-----	609. 80
Waldenburg, 2.0 mi. S., thence 1.9 mi. W. from, in SW. cor. sec. 31, T. 3 N., R. 13 E., 90 ft. N. and 30 ft. E. from intersection of range-line rd., in concrete post; metal tablet stamped "54" (Macomb County B. M.)-----	601. 988
Waldenburg, 2.0 mi. S., thence 1.9 mi. W. from, in NW. cor. sec. 6, T. 2 N., R. 13 E., at SE. corner of crossroads, on culvert; chiseled square-----	604. 01
Waldenburg, 2.0 mi. S., thence 0.9 mi. W. from, in NE. cor. sec. 6, T. 2 N., R. 13 E., in SW. corner of junction of Garfield Rd. to S., on culvert; chiseled square-----	590. 89

Waldenburg, 2.0 mi. S. of, 4.2 mi. along Romeo Plank Rd. NW. of Mount Clemens, about 600 ft. W. of NE. cor. sec. 5, T. 2 N., R. 13 E., 30 ft. S. and 33 ft. W. from center of crossroads, 7 ft. W. of highway signpost, in concrete post; standard tablet stamped "P T Sta No 9 Y 1925"	Feet 597. 996
Reference mark, 400 ft. W. of tablet, on S. edge of pavement; chiseled square	597. 83
Waldenburg, 2.0 mi. S., thence 1.0 mi. E. from, about 500 ft. W. of NE. cor. sec. 4, T. 2 N., R. 13 E., 45 ft. S. and 170 ft. E. from junction of T-rd. N. at S. cor. secs. 33 and 34, T. 3 N., R. 13 E., 15 ft. S. of NW. corner of front yard of residence of E. M. Clore, in concrete post; metal tablet stamped "53" (Macomb County B. M.)	598. 461
Waldenburg, 2.0 mi. S., thence 1.0 mi. E. from, in SW. cor. sec. 34, T. 3 N., R. 13 E., 65 ft. E. of junction of T-rd. N., on N. side of rd., in root of tree; copper nail and washer	598. 28
Waldenburg, 2.0 mi. S., thence 2.0 mi. E. from, 2.4 mi. by rd. NW., thence 0.4 mi. W. from Mount Clemens, in SW. cor. sec. 35, T. 3 N., R. 13 E., 110 ft. N. of junction of T-rd. N., on E. side of rd., in root of tree; copper nail and washer	598. 09
Mount Clemens, 2.4 mi. by rd. NW. of, 0.3 mi. E. of NW. cor. sec. 2, T. 2 N., R. 13 E., 77 ft. E. of E. end of steel bridge over North Branch of Clinton River, 40 ft. E. of junction of rd. S., in concrete post; standard tablet stamped "P T Sta No 8 Y 1925"	596. 924
Mount Clemens, 2.3 mi. by rd. N. of, in SW. cor. sec. 36, T. 3 N., R. 13 E., in NE. angle of intersection of North Avenue, in root of tree; copper nail and washer	621. 27
Mount Clemens, 2.3 mi. along Gratiot Avenue (U. S. Highway 25) NE. of, 0.3 mi. W. of SE. cor. sec. 36, T. 3 N., R. 13 E., 240 ft. W. of intersection of Gratiot Avenue, on N. side of Hall Rd., in concrete post; metal tablet stamped "52" (Macomb County B. M.)	610. 355
Mount Clemens, 2.3 mi. NE. of, 0.25 mi. W. of SE. cor. sec. 36, T. 3 N., R. 13 E., 35 ft. W. of intersection, on N. side of rd., in root of tree; copper nail and washer	609. 53
Mount Clemens, 3.6 mi. by rd. NE. of, 22 ft. S. and 33 ft. E. from junction of Hall Rd. and Sugar Bush Rd. to NE., 10 ft. NE. of large maple tree, in concrete post; standard tablet stamped "P T Sta No 4 Y 1925"	584. 037
Reference mark, 300 ft. W. of tablet, on N. side of rd., on culvert; chiseled square	584. 56
Mount Clemens, 2.5 mi. NE. of, in NE. angle of junction of Sugar Bush and Forest Rds., 200 ft. SW. of residence of F. Biewski, in root of tree; copper nail and washer	584. 57
Mount Clemens, 1.9 mi. NE. of, in SE. angle of intersection of Sugar Bush Rd. and Joy Boulevard, on concrete base of corner fence post; chiseled square	582. 41
Mount Clemens, 0.9 mi. NE. of, on W. side of Gratiot Avenue, 210 ft. S. of Joy Boulevard, 4 ft. E. of SW. corner of Canfield substation, in concrete post; metal tablet stamped "47" (Macomb County B. M.)	609. 614
Mount Clemens, 0.9 mi. E. of, on W. side of Gratiot Avenue, 210 ft. S. of Joy Boulevard, at SE. corner of Canfield substation, in root of tree; copper nail and washer	608. 03
Mount Clemens, at NW. corner of post office, in concrete post; standard tablet stamped "13 S 1926"	604. 723

	<i>Feet</i>
Mount Clemens, 13 ft. N. of N. curb of Broadway, on E. curb of Market Street, 1.5 ft. S. of sewer trap; chiseled square-----	594. 69
Mount Clemens, 1.3 mi. SE. of, on S. bank of Clinton River, on N. side of South River Drive near junction of T-rd. S., on W. side of brick residence of J. Reimold, 2 ft. N. of bay window, 3 ft. above ground, in sandstone water table; center of $\frac{1}{4}$ -in. brass bolt cemented horizontally (U. S. Lake Survey B. M. No. 41)-----	590. 652
Mount Clemens, 2.1 mi. along Crocker Boulevard SE. of, 0.8 mi. NW. of Lakeside, on W. edge of Crocker Boulevard, 22 ft. S. of mail boxes; chiseled square-----	585. 65
Mount Clemens, 2.9 mi. SE. of, in Lakeside, at NE. corner of intersection of Jefferson Avenue and Crocker Boulevard, on culvert; chiseled square-----	580. 61
Mount Clemens, 2.9 mi. SE. of, 80 ft. SE. of intersection of Jefferson Avenue and Crocker Boulevard, on W. side of rd. to lake, inside fence, 14 ft. SE. of gate, in concrete post; metal tablet stamped "34" (Macomb County B. M.)-----	580. 291
Mount Clemens, 2.9 mi. SE., thence 1.0 mi. SW. from, in N. angle of junction of NW.-SE. rd., in root of tree; copper nail and washer---	582. 15
Mount Clemens, 2.9 mi. SE., thence 1.2 mi. SW. from, 22 ft. S. and 25 ft. E. from sharp curve from SE. to SW. in Jefferson Avenue, 2 ft. W. of hedge fence, in concrete post; standard tablet stamped "P T Sta No 2 Y 1925"-----	578. 177
Mount Clemens, 2.9 mi. SE., thence 2.2 mi. SW. from, in NE. corner of St. Clair Shores, on W. end of S. abutment of large culvert; chiseled square-----	579. 57
Mount Clemens, 2.9 mi. SE., thence 3.3 mi. SW. from, in SW. corner of junction of Jefferson Avenue and Masonic Rd., on culvert; chiseled square-----	578. 82
Mount Clemens, 2.9 mi. SE., thence 3.3 mi. SW. from, 90 ft. E. of Jefferson Avenue entrance to Masonic Country Club, on N. side of fence, in concrete post; metal tablet stamped "20" (Macomb County B. M.)-----	577. 542
Mount Clemens, 2.9 mi. SE., thence 4.4 mi. SW. from, 0.6 mi. NE. of L'Anse Creuse, 60 ft. NW. of intersection of Jefferson Avenue and Twelvemile (Champaign) Rd., 6 ft. W. of corner fence post, 1 ft. S. of fence, in concrete post; standard tablet stamped "P T Sta No 1 Y 1925"-----	578. 816
L'Anse Creuse, at N. buttress of tower of Catholic Church, in foundation stone 1 ft. above ground and 8 in. from corner; center of $\frac{1}{4}$ -in. brass bolt cemented horizontally (U. S. Lake Survey B. M. No. 39)-----	580. 504
<b>From intersection of Jefferson Avenue and Twelvemile Road west 6 miles into Rochester quadrangle (by H. S. Senseney in 1928; leveled twice)</b>	
T. 1 N., R. 13 E., near quarter corner between secs. 10 and 15, in St. Clair Shores, 100 ft. N. and 70 ft. E. from intersection of Harper Avenue, 22 ft. N. of SW. corner of residence of A. O. Surprenant, in concrete post; metal tablet stamped "14" (Macomb County B. M.)-----	588. 979
T. 1 N., R. 13 E., near quarter corner between secs. 10 and 15, in SW. angle of intersection of Harper Avenue, in root of tree; copper nail and washer-----	588. 37
T. 1 N., R. 13 E., in SE. cor. sec. 9, in NW. angle of intersection of Little Mack Rd., in root of tree; copper nail and washer-----	591. 79

T. 1 N., R. 13 E., near quarter corner between secs. 9 and 16, at corner of boundary between St. Clair Shores and Roseville, at NW. corner of junction of T-rd. N., on culvert; chiseled square-----	Feet 599. 50
Roseville, near cor. secs. 8, 9, 16, and 17, T. 1 N., R. 13 E., at SW. corner of intersection of Gratiot Avenue, on culvert; chiseled square-----	612. 56
Roseville, near quarter corner between secs. 8 and 17, T. 1 N., R. 13 E., in SW. angle of intersection of Utica Rd., 3.5 ft. W. of NE. corner of small building, in concrete post; standard tablet stamped "1 S 1926"-----	618. 433
Reference mark, 80 ft. N. of tablet, on culvert; chiseled square-----	618. 88
Roseville, near quarter corner between secs. 7 and 18, T. 1 N., R. 13 E., 70 ft. W. of junction of T-rd. S., about 500 ft. E. of track of Grand Trunk Ry., on N. side of rd., in concrete post; metal tablet stamped "15" (Macomb County B. M.)-----	617. 493
Roseville, near quarter corner between secs. 7 and 18, T. 1 N., R. 13 E., 460 ft. W. of junction of T-rd. S., on E. side of Ry. track, on N. side of rd., in root of tree; copper nail and washer-----	617. 80
T. 1 N., R. 12 E., near quarter corner between secs. 12 and 13, 145 ft. SW. of junction of T-rd. S., in root of tree; copper nail and washer-----	616. 91
T. 1 N., R. 12 E., in NW. cor. sec. 13, 1.4 mi. S., thence 3.0 mi. E. from Warren, at SE. corner of intersection of Schoenherr Rd., on culvert; chiseled square-----	616. 09
From intersection of Utica and Twelvemile Roads in Roseville along roads northwest to Cady, thence northeast and north to road junction 2 miles south and 0.9 mile west from Waldenburg (by H. S. Senseney in 1926)	
Roseville, 1.1 mi. NW. of, at S. limits of Fraser, 0.25 mi. E. of SW. cor. sec. 5, T. 1 N., R. 13 E., at NW. corner of intersection of Thirteen-mile Rd., on culvert; chiseled square-----	616. 58
Fraser, 55 ft. S. and 115 ft. W. from intersection of Fourteenmile Rd. at, 10 ft. W. of gate, in concrete post; standard tablet stamped "3 S 1926"-----	613. 691
Reference mark, 100 ft. NE. of tablet, at NW. corner of crossroads, on curb; chiseled square-----	613. 86
Fraser, 1.1 mi. NW. of, 0.5 mi. SE. of Cady, near quarter corner between secs. 30 and 31, T. 2 N., R. 13 E., at NW. corner of intersection of Wolf (Fifteenmile) Rd., on culvert; chiseled square-----	612. 38
Cady, in W. angle of intersection of Moravian Drive, on concrete base of gas pump; chiseled square-----	616. 92
Cady, 0.8 mi. NE. of, 0.25 mi. S. of N. cor. secs. 29 and 30, T. 2 N., R. 13 E., at intersection of Moravian Drive and Garfield Rd., on N. edge of pavement; chiseled square-----	608. 78
Cady, 1.5 mi. NE. of, near quarter corner between secs. 19 and 20, T. 2 N., R. 13 E., on W. side of Garfield Rd., at bridge over Clinton River, on W. end of S. abutment; chiseled square-----	596. 31
Clinton River; surface of water June 11, 1926-----	582. 1
Cady, 2.1 mi. NE. of, 5.0 mi. S. and 0.9 mi. W. from Waldenburg, in SE. cor. sec. 18, T. 2 N., R. 13 E., 20 ft. N. and 45 ft. W. from crossroads, in concrete post; standard tablet stamped "4 S 1926"-----	603. 828
Reference mark, 60 ft. E. of tablet, in root of tree; copper nail and washer-----	600. 29
Waldenburg, 3.5 mi. S. and 0.9 mi. W. from, near quarter corner between secs. 7 and 8, T. 2 N., R. 13 E., at SW. corner of intersection of Canal Rd., on culvert; chiseled square-----	604. 71

Waldenburg, 3.5 mi. S. and 0.9 mi. W. from, near quarter corner between secs. 7 and 8, T. 2 N., R. 13 E., 20 ft. N. and 90 ft. W. from intersection of Canal Rd., in concrete post; metal tablet stamped "49" (Macomb County B. M.)-----	<i>Feet</i> 604. 453
Waldenburg, 3.0 mi. S. and 0.9 mi. W. from, in SE. cor. sec. 6, T. 2 N., R. 13 E., in NW. angle of crossroads, at Clinton Township School No. 4 (Garfield School), on SE. corner of lower step; chiseled square-----	601. 14
From crossroads 2 miles south of Waldenburg generally northwest along Romeo Plank Road to crossroads 1 mile north of Davis, thence west 2.1 miles along Gass Road into Rochester quadrangle (by H. S. Senseney in 1926)	
Waldenburg, 1.0 mi. S. of, in SE. cor. sec. 29, T. 3 N., R. 13 E., at NW. corner of intersection of Shoemaker Rd., on culvert; chiseled square-----	600. 59
Waldenburg, in NE. angle of crossroads at, in SW. cor. sec. 21, T. 3 N., R. 13 E., in root of tree; copper nail and washer-----	604. 27
Waldenburg, 60 ft. N. and 55 ft. E. from crossroads, 7 ft. E. of NW. corner of residence of R. W. Trapp, in concrete post; metal tablet stamped "60" (Macomb County B. M.)-----	604. 503
Waldenburg, 1.1 mi. NW. of, about 850 ft. W. of NE. cor. sec. 20, T. 3 N., R. 13 E., 40 ft. S. and 20 ft. W. from crossroads, in concrete post; standard tablet stamped "5 S 1926"-----	609. 119
Reference mark, 140 ft. N. of tablet, on E. side of rd., on culvert; chiseled square-----	608. 90
Waldenburg, 2.2 mi. NW. of, 0.3 mi. E., thence 1.0 mi. S. from Macomb, 0.2 mi. W. of quarter corner between secs. 8 and 17, T. 3 N., R. 13 E., at NW. corner of crossroads, diagonally opposite St. Peter's Church, on culvert; chiseled square-----	613. 31
Macomb, in SW. angle of crossroads at, in NW. cor. sec. 8, T. 3 N., R. 13 E., in root of tree; copper nail and washer-----	627. 94
Macomb, 55 ft. N. and 50 ft. E. from crossroads at, in SW. cor. sec. 5, T. 3 N., R. 13 E., 8 ft. E. of SW. corner of church, in concrete post; metal tablet stamped "75" (Macomb County B. M.)-----	628. 312
Macomb, 1.0 mi. N. of, 1.0 mi. S. of Davis, in NE. cor. sec. 6, T. 3 N., R. 13 E., 30 ft. S. and 80 ft. W. from intersection of Town Line Rd. (present Marine City Highway), in concrete post; standard tablet stamped "6 S 1926"-----	639. 812
Reference mark, 65 ft. NE. of post, at NW. corner of crossroads, on culvert; chiseled square-----	640. 09
Davis, in SE. angle of crossroads at, in NW. cor. sec. 32, T. 4 N., R. 13 E., in root of tree; copper nail and washer-----	651. 52
Davis, 50 ft. N. and 45 ft. E. from crossroads at, in SW. cor. sec. 29, T. 4 N., R. 13 E., at SW. corner of church, in concrete post; metal tablet stamped "87" (Macomb County B. M.)-----	651. 314
Davis, 1.0 mi. N. of, in SE. cor. sec. 19, T. 4 N., R. 13 E., at NW. corner of intersection of Gass Rd., on culvert; chiseled square-----	666. 02
Davis, 1.0 mi. N., thence 0.9 mi. W. from, 1.3 mi. N., thence 3.0 mi. E. from Washington, in NE. cor. sec. 25, T. 4 N., R. 12 E., near Ray-Washington township line, 150 ft. S. of junction of range-line rd. S., on W. side of rd., in root of tree; copper nail and washer----	671. 36
Washington, 1.3 mi. N., thence 2.0 mi. E. from, in SW. cor. sec. 24, T. 4 N., R. 12 E., 45 ft. N. and 25 ft. E. from intersection of Schoenherr Rd., in concrete post; standard tablet stamped "7 S 1926"-----	683. 991
Reference mark, 95 ft. S. of tablet, on E. side of rd., in root of tree; copper nail and washer-----	683. 28

From intersection of Sugar Bush and Hall Roads 3.6 miles northeast of Mount Clemens generally northeast along roads into Algonac quadrangle at point in southwestern part of New Baltimore (by H. S. Senseney in 1926)

Mount Clemens, 4.7 mi. NE. of, in SW. angle of junction of Sugar Bush and Shoemaker Rds., in root of tree; copper nail and washer-----	Feet 590. 86
Mount Clemens, 5.2 mi. NE. of, on E. side of Sugar Bush Rd., 520 ft. NE. of junction of Furton Rd., 25 ft. E. of SW. corner of yard of Green School, in concrete post; metal tablet stamped "58" (Macomb County B. M.)-----	586. 878
Mount Clemens, 5.6 mi. NE. of, 2.1 mi. SE. of Chesterfield, at S. corner of intersection of Sugar Bush and Cotton Rds., on culvert; chiseled square-----	586. 44
Mount Clemens, 7.2 mi. NE. of, 2.9 mi. SW., thence 1.0 mi. NW. from intersection of Main and Washington Streets in New Baltimore, 51 ft. E. of rd. fork, 14 ft. NE. of highway signpost, 6 ft. NW. of fence, in concrete post; standard tablet stamped "P T Sta No 5 Y 1925" --	587. 706
Reference mark, 560 ft. SE. of tablet, on SE. corner of culvert; chiseled square-----	584. 74
New Baltimore, 2.9 mi. SW. of, on S. side of rd. at rd. forks, on culvert; chiseled square-----	577. 51
New Baltimore, 2.9 mi. SW. of, 150 ft. E. of rd. forks, 6 ft. S. of fence corner, in concrete post; metal tablet stamped "59" (Macomb County B. M.)-----	578. 705
New Baltimore, 1.4 mi. SW. of, on N. side of rd., at city limits, on culvert; chiseled square-----	584. 30

From Hicky quadrangle generally west along roads to intersection of Romeo Plank Road 1 mile north of Davis (by H. S. Senseney in 1926)

T. 4 N., R. 14 E., in NE. cor. sec. 26, on S. side of rd., 50 ft. W. of fence line S., in root of elm tree; copper nail and washer <sup>42</sup> -----	635. 10
T. 4 N., R. 14 E., near S. cor. secs. 22 and 23, 1.2 mi. N., thence 1.5 mi. E. from New Haven, in NE. angle of intersection of Gratiot Avenue, at SW. corner of Lenox School, in concrete post; standard tablet stamped "10 S 1926" <sup>43</sup> -----	634. 385
Reference mark, 165 ft. SW. of tablet, at NE. corner of crossroads, on culvert; chiseled square-----	635. 66
New Haven, 1.2 mi. N. of, 200 ft. E. of quarter corner between secs. 21 and 28, T. 4 N., R. 14 E., on N. end of W. abutment of culvert; chiseled square-----	651. 65
New Haven, 1.2 mi. N. of, in NE. angle of crossroads at quarter corner between secs. 21 and 28, T. 4 N., R. 14 E., 6 ft. W. of SE. corner of farmhouse of Charles Donner, in concrete post; metal tablet stamped "88" (Macomb County B. M.)-----	654. 074
T. 4 N., R. 14 E., near quarter corner between secs. 20 and 29, 20 ft. N. and 35 ft. W. from crossroads, in concrete post; standard tablet stamped "9 S 1926"-----	653. 546
Reference mark, 80 ft. E. of tablet, in root of tree; nail-----	651. 78
T. 4 N., R. 14 E., 0.4 mi. W. of cor. secs. 19, 20, 29, and 30, at SE. corner of junction of NW.-SE. rd., on culvert; chiseled square-----	638. 11
T. 4 N., R. 14 E., 0.4 mi. W. of cor. secs. 19, 20, 29, and 30, at SE. corner of residence of C. W. Pergande, in concrete post; metal tablet stamped "89" (Macomb County B. M.)-----	637. 951

<sup>42</sup> In 1935 it was reported that this bench mark had rotted out and a new one was established in the same tree.

<sup>43</sup> When this bench mark was recovered in 1935 it was found that the schoolhouse had been moved back but the mark was undisturbed.

T. 4 N., R. 14 E., in NW $\frac{1}{4}$ sec. 30, 0.5 mi. E., thence 1.8 mi. NE. from Meade, on W. side of rd., at junction of N.-S. rd., in root of tree; nail.	Feet 630. 66
Meade, 2.0 mi. N. of, 1.0 mi. E., thence 1.0 mi. S. from Ray Center, 21 ft. S. and 550 ft. E. from T-fence S. and abandoned rd. N. at cor. secs. 23, 24, 25, and 26, T. 4 N., R. 13 E., 21 ft. S. and 120 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 52 H 1919" "	635. 977
Reference mark, at NE. corner of junction of private rd. to farmhouse, on concrete head wall of culvert; chiseled square (recovered in 1935)	631. 50
T. 4 N., R. 13 E., 180 ft. E. of NW. cor. sec. 26, on S. side of rd., in root of boxelder tree; copper nail and washer <sup>45</sup>	638. 92
T. 4 N., R. 13 E., about 500 ft. W. of quarter corner between secs. 22 and 27, on N. side of rd., 12 ft. S. of NW. corner of residence of J. McInnis, in concrete post; metal tablet stamped "90" (Macomb County B. M.; recovered in 1935)	639. 909
T. 4 N., R. 13 E., 460 ft. E. of NW. cor. sec. 27, 1.0 mi. N., thence 2.1 mi. E. from Davis, on SE. corner of culvert; chiseled square	641. 37
Davis, 1.0 mi. N., thence 1.0 mi. E. from, in SE. cor. sec. 20, T. 4 N., R. 13 E., 40 ft. N. and 25 ft. W. from crossroads, in concrete post; standard tablet stamped "8 S 1926"	658. 352
Reference mark, 60 ft. E. of tablet, in NE. angle of crossroads, in root of tree; copper nail and washer	658. 54
From intersection of Sugar Bush Road and Joy Boulevard along roads east 1.4 miles to Selfridge Field, thence generally south 1.3 miles to South River Drive, thence west 1.6 miles (by H. S. Senseney in 1928)	
Mt. Clemens, 0.9 mi. NE., thence 2.4 mi. E. from, on S. side of entrance to Selfridge Field, on top of concrete wall; chiseled square	581. 24
Selfridge Field, 45 ft. S. and 80 ft. W. from entrance, in concrete post; metal tablet stamped "48" (Macomb County B. M.)	576. 881
Selfridge Field, at SW. corner of, at junction of North River Drive, 19 ft. N. of corner fence post, 2 ft. W. of fence, in concrete post; standard tablet stamped "P T Sta No 3 Y 1925"	580. 191
Reference mark, 160 ft. SW. of tablet, on N. bank of Clinton River, in root of tree; copper nail and washer	575. 57
Mount Clemens, about 3 miles along South River Drive E. of, on S. side of Clinton River, on N. side of Reimold Rd., 440 ft. W. of residence of F. G. Allor, in root of tree; copper nail and washer	580. 22
Mount Clemens, about 3 miles E. of, in front of residence of F. G. Allor, at W. end of brick wall, in concrete post; metal tablet stamped "36" (Macomb County B. M.)	580. 345
From point on South River Drive 3 miles east of Mount Clemens along roads east, south, and southwest by way of St. Clair Haven to Lakeside (by H. S. Senseney in 1928)	
St. Clair Haven, 0.8 mi. NE. of, on W. side of rd., 150 ft. N. of curve from S. to SW., 17 ft. N. of oak tree, in concrete post; metal tablet stamped "35" (Macomb County B. M.)	578. 974

<sup>44</sup> This bench mark was originally set 15 feet north and 30 feet west from junction of T-road south, in front of residence of Corvin Belat, 4 feet east of mail box. When it was recovered in 1935 it was found to have been moved and reset at an elevation 1.261 feet higher than that originally determined. The figures given represent the new elevation.

<sup>45</sup> In 1935 it was reported that this bench mark had rotted out and a new one was established in the same tree.



St. Clair Haven, 1.3 miles NE. of intersection of Crocker Boulevard and Jefferson Avenue in Lakeside, on NE. corner of concrete bridge; chiseled square-----	Feet 580. 63
From point on Hall Road 2 miles south and 2 miles east from Waldenburg along road north 6.1 miles to Town Line Road, thence east 5.2 miles to Gratiot Avenue, thence northeast 2.4 miles (by H. S. Senseney in 1926)	
Waldenburg, 2.0 mi. E., thence 1.0 mi. S. from, in SE. cor. sec. 27, T. 3 N., R. 13 E., 60 ft. N. and 25 ft. W. from intersection of Shoemaker Rd., in concrete post; metal tablet stamped "56" (Macomb County B. M.)-----	599. 810
Waldenburg, 2.0 mi. E. of, in NW. cor. sec. 26, T. 3 N., R. 13 E., on E. side of rd., 95 ft. S. of junction of T-rd. W., in root of tree; copper nail and washer-----	601. 62
Waldenburg, 2.0 mi. E., thence 1.0 mi. N. from, in NE. cor. sec. 22, T. 3 N., R. 13 E., 30 ft. S. and 65 ft. W. from crossroads, in concrete post; metal tablet stamped "66" (Macomb County B. M.)-----	602. 122
Waldenburg, 2.0 mi. E., thence 2.0 mi. N. from, 1.3 mi. W., thence 2.1 mi. S. from Meade, in SW. cor. sec. 11, T. 3 N., R. 13 E., in NE. angle of crossroads, in root of tree; copper nail and washer-----	622. 09
Meade, 1.3 mi. W., thence 1.0 mi. S. from, in NW. cor. sec. 11, T. 3 N., R. 13 E., 70 ft. SE. of junction of rd. W., on E. side of rd., in concrete post; metal tablet stamped "76" (Macomb County B. M.)-----	610. 603
Meade, 1.3 mi. W. of, 45 ft. E. of N. cor. secs. 2 and 3, T. 3 N., R. 13 E., on S. side of Town Line Rd., on culvert; chiseled square-----	619. 70
Meade, 25 ft. S. and 95 ft. E. from crossroads at, 0.25 ft. E. of NW. cor. sec. 1, T. 3 N., R. 13 E., in concrete post; metal tablet stamped "82" (Macomb County B. M.)-----	632. 870
Meade, 1.4 mi. E. of, near N $\frac{1}{4}$ cor. sec. 6, T. 3 N., R. 14 E., at bridge over Deer Creek, on N. end of E. abutment; chiseled square-----	621. 33
Meade, 2.2 mi. E. of, in SW. cor. sec. 32, T. 4 N., R. 14 E., 25 ft. N. and 70 ft. E. from junction of T-rd. N., in concrete post; metal tablet stamped "81" (Macomb County B. M.)-----	646. 740
Meade, 3.3 mi. E. of, 0.8 mi. S. and 0.5 mi. W. from New Haven, in SW. cor. sec. 33, T. 4 N., R. 14 E., at NE. corner of junction of T-rd. N., on culvert; chiseled square-----	623. 54
New Haven, 0.6 mi. SE. of, near center of SE $\frac{1}{4}$ sec. 33, T. 4 N., R. 14 E., on SW. side of New Haven Rd., 150 ft. NW. of Gratiot Avenue, in concrete post; metal tablet stamped "80" (Macomb County B. M.)-----	615. 057
New Haven, 0.2 mi. N., thence 0.9 mi. E. from, 0.4 mi. E. of SW. cor. sec. 27, T. 4 N., R. 14 E., at NE. corner of crossroads, on culvert; chiseled square-----	624. 31
From crossroads 1.3 miles west of Meade west along Town Line Road 1 mile (by H. S. Senseney in 1926; spur line leveled twice)	
Meade, 2.3 mi. W. of, 2.0 mi. E., thence 1.0 mi. N. from Macomb, in NW. cor. sec. 3, T. 3 N., R. 13 E., at jog in N.-S. rd., 110 ft. S. and 50 ft. E. from junction of rd. S., in concrete post; metal tablet stamped "83" (Macomb County B. M.)-----	624. 545
From crossroads 2 miles east and 2 miles north from Waldenburg along road west 2.7 miles to Romeo Plank Road (by H. S. Senseney in 1926)	
Macomb, 1.0 mi. S., thence 2.0 mi. E. from, 65 ft. E. of N. cor. secs. 15 and 16, T. 3 N., R. 13 E., on S. side of rd., in concrete post; metal tablet stamped "71" (Macomb County B. M.)-----	609. 640

Macomb, 1.0 mi. S., thence 1.0 mi. E. from, 30 ft. E. of S. cor. secs. 8 and 9, T. 3 N., R. 13 E., on N. side of rd., in root of tree; copper nail and washer-----	<i>Feet</i> 614. 64
From Waldenburg along road west 2.9 miles to Schoenherr Road, thence north 4 miles to Town Line Road, thence east 1.9 miles to Romeo Plank Road (by H. S. Senseney in 1926)	
Waldenburg, 1.0 mi. W. of, near S. cor. secs. 19 and 20, T. 3 N., R. 13 E., on N. side of rd., at junction of T-rd. S., on culvert; chiseled square-----	604. 57
Waldenburg, 1.9 mi. W. of, in SW. cor. sec. 19, T. 3 N., R. 13 E., near Macomb-Shelby township line, 75 ft. N. and 20 ft. E. from intersection of range-line rd., in concrete post; metal tablet stamped "61" (Macomb County B. M.)-----	608. 632
Waldenburg, 2.9 mi. W. of, 3.0 mi. S. of Preston Corners, in SW. cor. sec. 24, T. 3 N., R. 12 E., in NE. angle of intersection of Schoenherr Rd., in root of tree; copper nail and washer-----	627. 02
Preston Corners, 2.0 mi. S. of, in NW. cor. sec. 24, T. 3 N., R. 12 E., 85 ft. S. and 20 ft. E. from crossroads, in concrete post; metal tablet stamped "65" (Macomb County B. M.)-----	627. 480
Preston Corners, 1.0 mi. S. of, in SW. cor. sec. 12, T. 3 N., R. 12 E., in NE. corner of crossroads; top of rock over drain pipe-----	635. 96
Preston Corners, 100 ft. N. and 30 ft. W. from crossroads at, 1.0 mi. N., thence 2.0 mi. E. from Disco, in SE. cor. sec. 2, T. 3 N., R. 12 E., in concrete post; metal tablet stamped "74" (Macomb County B. M.)-----	646. 281
Preston Corners, 1.0 mi. N. of, 1.0 mi. N., thence 1.9 mi. W. from Macomb, in NE. cor. sec. 2, T. 3 N., R. 12 E., 90 ft. S. and 30 ft. W. from intersection of Town Line Rd., in concrete post; metal tablet stamped "84" (Macomb County B. M.)-----	663. 214
Macomb, 1.0 mi. N., thence 0.9 mi. W. from, 1.0 mi. S., thence 0.9 mi. W. from Davis, in SW. cor. sec. 31, T. 4 N., R. 13 E., at NE. corner of crossroads, on culvert; chiseled square-----	638. 04
From junction of Gratiot Avenue and Hall Road 2.3 miles northeast of Mount Clemens west 0.1 mile, thence generally north along road to Meade (by H. S. Senseney in 1926)	
Chesterfield Sta. on Grand Trunk Ry., 0.6 mi. W., thence 1.0 mi. SW. from, about 550 ft. E. of quarter corner between secs. 25 and 36, T. 3 N., R. 13 E., 90 ft. N. and 25 ft. E. from intersection of Shoemaker Rd., in concrete post; metal tablet stamped "57" (Macomb County B. M.)-----	616. 806
Chesterfield Sta., 0.6 mi. W. of, 0.2 mi. W. of NE. cor. sec. 25, T. 3 N., R. 13 E., 130 ft. S. of junction of rd. E., on W. side of rd., in root of tree; copper nail and washer-----	625. 58
Chesterfield Sta., 0.6 mi. W., thence 1.1 mi. NE. from, 3.4 mi. SE. of Meade, 0.25 mi. E. of NW. cor. sec. 19, T. 3 N., R. 14 E., 210 ft. S. of crossroads, on E. side of road, in concrete post; metal tablet stamped "67" (Macomb County B. M.)-----	629. 769
Meade, 1.7 mi. SE. of, 0.25 mi. E. of center of sec. 12, T. 3 N., R. 13 E., 70 ft. W. of junction of rd. W., on N. side of rd., in concrete post; metal tablet stamped "70" (Macomb County B. M.)-----	614. 249

From crossroads 3.4 miles southeast of Meade along road east 1 mile to Gratiot Avenue, thence northeast to crossroads 0.6 mile southeast of New Haven (by H. S. Senseney in 1926)

Mount Clemens, 5.8 mi. NE. of, 1.2 mi. SW. of Milton, 0.25 mi. E. of NW. cor. sec. 20, T. 3 N., R. 14 E., 220 ft. S. of Telegraph (now Whisky) Rd., 80 ft. E. of Gratiot Avenue, at Orrs substation, at NE. corner of wire fence, in concrete post; metal tablet stamped "68" (Macomb County B. M.)	Feet 604. 110
Milton, at SW. corner of crossroads at, 0.2 mi. W. of NE. cor. sec. 17, T. 3 N., R. 14 E., on culvert; chiseled square	610. 12
Milton, 1.2 mi. NE. of, 0.6 mi. SE., thence 1.5 mi. SW. from New Haven, near quarter corner between secs. 4 and 9, T. 3 N., R. 14 E., 120 ft. W. of Gratiot Avenue, on S. side of Guick (now Arnold) Rd., in concrete post; metal tablet stamped "77" (Macomb County B. M.)	610. 015
From crossroads 1.2 miles northeast of Milton along roads east 2 miles and southeast 0.5 mile, thence alternately south and west to point 7.2 miles northeast of Mount Clemens (by H. S. Senseney in 1926)	
Milton, 1.2 mi. NE., thence 1.0 mi. E. from, about 500 ft. W. of quarter corner between secs. 3 and 10, T. 3 N., R. 14 E., on S. side of rd., 90 ft. E. of residence of William Essenburg, in root of tree; copper nail and washer	605. 38
Milton, 1.2 mi. NE., thence 2.0 mi. E. from, 2.3 mi. SE. of New Haven, 0.4 mi. E. of SW. cor. sec. 2, T. 3 N., R. 14 E., on N. side of junction of New Haven Rd., 190 ft. E. of rd., in concrete post; metal tablet stamped "78" (Macomb County B. M.)	600. 809
Milton, 2.8 mi. E. of, near quarter corner between secs. 11 and 14, T. 3 N., R. 14 E., at SE. corner of bridge over Salt River, on wing wall; chiseled square	585. 94
Milton, 1.8 mi. E. of, 9.0 mi. NE. of Mount Clemens, near quarter corner between secs. 10 and 15, T. 3 N., R. 14 E., on S. side of rd., 80 ft. W. of junction of T-rd. S., in concrete post; metal tablet stamped "69" (Macomb County B. M.)	594. 841
From intersection of Sugar Bush and Hall Roads 3.6 miles northeast of Mount Clemens east along road 1 mile to Lake St. Clair (by H. S. Senseney in 1926; spur line leveled twice)	
Anchor Bay Shores, 40 ft. W. of Schmidt store, at SW. corner of garage, in concrete post; metal tablet stamped "51" (Macomb County B. M.)	577. 381
Lake St. Clair; surface of water Aug. 10, 1926	573. 7
From point 2.9 miles southeast and 1 mile southwest from Mount Clemens along roads generally west to Moravian Drive, thence southwest to Schoenherr Road, thence south to Fourteenmile Road, thence west into Rochester quadrangle (by H. S. Senseney in 1926)	
T. 2 N., R. 13 E., near NE. cor. sec. 35, on E. side of Harper Avenue, at junction of Wolf Rd., at NW. corner of schoolhouse, in concrete post; metal tablet stamped "24" (Macomb County B. M.)	588. 677
T. 2 N., R. 13 E., near quarter corner between secs. 27 and 34, in NE. angle of intersection of Gratiot Avenue, on W. side of entrance to Wolf Road School, in concrete post; metal tablet stamped "25" (Macomb County B. M.)	602. 324
T. 2 N., R. 13 E., near quarter corner between secs. 28 and 33, 80 ft. S. of rd., 70 ft. W. of residence of Arthur Tucker, on E. side of fence, in concrete post; metal tablet stamped "26" (Macomb County B. M.)	614. 041

T. 2 N., R. 13 E., in SW. cor. sec. 29, 0.2 mi. E., thence 1.0 mi. N. from Fraser, 0.5 mi. SE., thence 0.5 mi. E. from Cady, 35 ft. N. and 50 ft. E. from crossroads, in concrete post; metal tablet stamped "27" (Macomb County B. M.)-----	Feet 604. 862
Cady, 0.9 mi. SW. of, near quarter corner between secs. 25 and 36, T. 2 N., R. 12 E., 115 ft. W. of Moravian Drive, 60 ft. N. of dirt rd., on W. side of fence, in concrete post; metal tablet stamped "28" (Macomb County B. M.)-----	611. 885
Cady, 2.2 mi. SW. of, 0.7 mi. N., thence 3.0 mi. E. from Warren, in SE. cor. sec. 35, T. 2 N., R. 12 E., 80 ft. N. and 60 ft. W. from intersection of Schoenherr and Fourteenmile Rds., in concrete post; metal tablet stamped "23" (Macomb County B. M.)-----	610. 881
From Cady along roads generally north west and north to crossroads 2 miles east of Utica (by H. S. Senseney in 1928)	
Cady, 1.5 mi. along Utica Rd. NW. of, about 800 ft. W. of center of sec. 24, T. 2 N., R. 12 E., 20 ft. S. and 55 ft. W. from junction of rd. W., in concrete post; metal tablet stamped "38" (Macomb County B. M.)-----	605. 442
Cady, 2.4 mi. NW. of, 3.6 mi. SE. of Utica, in SE $\frac{1}{4}$ sec. 14, T. 2 N., R. 12 E., 5 ft. N. of SW. corner of Sterling Township School No. 3 (Maple Grove School), in concrete post; metal tablet stamped "39" (Macomb County B. M.)-----	606. 717
Utica, 2.0 mi. E., thence 1.6 mi. S. from, 60 ft. N. of quarter corner between secs. 11 and 12, T. 2 N., R. 12 E., on E. side of rd., in concrete post; metal tablet stamped "50" (Macomb County B. M.)-----	610. 257
From quarter corner between secs. 7 and 8, T. 2 N., R. 13 E., along roads south 0.5 mile and west 1 mile (by H. S. Senseney in 1928; spur line leveled twice)	
Cady, 2.7 mi. NW. of, 3.0 mi. E., thence 2.0 mi. S. from Utica, in SW. cor. sec. 7, T. 2 N., R. 13 E., 55 ft. N. and 30 ft. E. from junction of range-line rd. and rd. E., in concrete post; metal tablet stamped "42" (Macomb County B. M.)-----	606. 035
From Mount Clemens along roads west 1.6 miles, northeast 1.2 miles, east 0.7 mile, and north 0.8 mile to junction of Hall Road 2.4 miles northwest of Mount Clemens (by H. S. Senseney in 1928)	
Mount Clemens, 0.9 mi. W. of post office, 31 ft. N. of N. curb of Cass Avenue, 10 ft. E. of E. rail of main-line track of Grand Trunk Ry., at sidewalk leading to sta., on curb; chiseled square-----	614. 95
Mount Clemens, 1.5 mi. W. of, at SW. corner of chapel of Clinton Grove Cemetery, in concrete post; metal tablet stamped "41" (Macomb County B. M.)-----	612. 818
Mount Clemens, 1.6 mi. W., thence 1.2 mi. NE. from, 55 ft. E. of rd., 32 ft. SW. of residence of Walter Zoelling, on S. side of fence, in concrete post; metal tablet stamped "46" (Macomb County B. M.)-----	597. 102
From Grand Trunk Railway station in Mount Clemens generally south along railway and roads to intersection of Gratiot Avenue and Wolf Road, thence southwest along Gratiot Avenue to Twelvemile Road (by H. S. Senseney in 1928)	
Mount Clemens, 0.9 mi. along Ry. SW., thence 0.2 mi. along rd. E. from sta., 40 ft. N. and 25 ft. W. from crossroads, on farm No. 16 of Detroit Creamery Co., in concrete post; metal tablet stamped "37" (Macomb County B. M.)-----	611. 324

Mount Clemens, 2.1 mi. SW., thence 1.0 mi. W. from post office, in SW. cor. sec. 22, T. 2 N., R. 13 E., 20 ft. N. and 60 ft. E. from crossroads, in concrete post; metal tablet stamped "33" (Macomb County B. M.)	Feet 615. 206
Mount Clemens, 4.9 mi. SW. of, 0.25 mi. E. of center of sec. 4, T. 1 N., R. 13 E., 130 ft. N. of Masonic Rd., on E. side of Gratiot Rd., 9 ft. N. of fence corner, in concrete post; metal tablet stamped "19" (Macomb County B. M.) <sup>46</sup>	614. 350
From Mount Clemens post office southwest 1.2 miles along Gratiot Avenue, thence northwest 0.7 mile along road (by H. S. Senseney in 1926)	
Mount Clemens, 155 ft. S. of Butler Street, 25 ft. E. of S. Broadway, 30 ft. S. and 12 ft. W. from NW. corner of waterworks, in concrete post; metal tablet stamped "40" (Macomb County B. M.)	588. 932
From point on Gratiot Avenue 1.2 miles north and 1.5 miles east from New Haven along road east 1.1 miles into Hicky quadrangle (by J. M. Lawson in 1935)	
New Haven, 1.2 mi. N., thence 2.3 mi. E. from, at culvert with iron handrail; center of floor	626. 2
T. 4 N., R. 14 E., in NE. cor. sec. 26, on S. side of rd., 50 ft. W. of fence line S., in root on N. side of 18-in. elm tree; copper nail and washer <sup>47</sup>	635. 35
From Armada quadrangle at point 2.2 miles north and 0.3 mile west from Meade along roads south 0.2 mile, thence east 0.2 mile, thence west 1.8 miles (by J. M. Lawson in 1935)	
Meade, 2.0 mi. N., thence 0.6 mi. W. from, near quarter corner between secs. 23 and 26, T. 4 N., R. 13 E., 24 ft. S. and 6 ft. W. from crossroads, on top of concrete base of corner fence post; chiseled square	637. 50
Meade, 2.0 mi. N., thence 1.2 mi. W. from, 180 ft. E. of NW. cor. sec. 26, T. 4 N., R. 13 E., on S. side of rd., in root on NW. side of 24-in. boxelder tree; copper nail and washer <sup>47</sup>	639. 10

## MOUNT PLEASANT QUADRANGLE

[Latitude 43°30'-43°45'; longitude 84°45'-85°00']

## ISABELLA COUNTY

From Shepherd quadrangle at point 1 mile south and 2.6 miles west from Shepherd along roads west through center of Lincoln Township to southeast corner sec. 18, T. 13 N., R. 4 W., thence generally north to east quarter corner sec. 30, T. 16 N., R. 4 W., thence alternately east and south and back into Shepherd quadrangle at point 3 miles north and 0.9 mile east from Rosebush (by E. C. Bibbee in 1916)

Shepherd, 1.0 mi. S. and 3.5 mi. W. from, 6.5 mi. S. and 0.5 mi. E. from Mount Pleasant, 22 ft. S. and 20 ft. W. from NE. cor. sec. 22, T. 13 N., R. 4 W., in SW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 1 1915 Mich 794"	793. 563
T. 13 N., R. 4 W., in NW. cor. sec. 22, 1.0 mi. S. of Crawford, near Lincoln Center School, in SE. corner of crossroads, 10 ft. S. of fence corner, in root of 20-in. elm tree; copper nail and washer	803. 65
T. 13 N., R. 4 W., in NW. cor. sec. 21, in SE. corner of crossroads, 4.4 ft. N. of fence corner, on granite rock; chiseled square	837. 21

<sup>46</sup> In 1937 this bench mark was reported destroyed.<sup>47</sup> This bench mark replaces the one established in the same tree in 1926, which had rotted out.

T. 13 N., R. 4 W., in NW. cor. sec. 20, in SE. corner of crossroads, 2 ft. N. of fence corner; standard iron post with bronze cap stamped "Mich 840"-----	Feet 839. 415
T. 13 N., R. 4 W., in SE. cor. sec. 6, in NW. corner of crossroads, 2 ft. S. of fence corner, on large granite rock; chiseled square-----	907. 77
T. 13 N., R. 4 W., in NW. cor. sec. 5, near Gulick Church, in SE. corner of crossroads, on E. end of iron culvert; highest point-----	850. 43
Mount Pleasant, 2.5 mi. S. and 2.5 mi. W. from, in SW. cor. sec. 29, T. 14 N., R. 4 W., in NE. angle of crossroads; standard iron post with bronze cap stamped "Mich 819"-----	817. 891
Mount Pleasant, 1.5 mi. S. and 2.5 mi. W. from, 30 ft. N. and 20 ft. W. from SE. cor. sec. 19, T. 14 N., R. 4 W., at right-angle turn in rd. from N. to E., 5 ft. E. of W. fence line, on large granite rock; chiseled square-----	789. 51
Mount Pleasant, 1.5 mi. S. and 1.5 mi. W. from, in SE. cor. sec. 20, T. 14 N., R. 4 W., in NW. angle of crossroads, 3 ft. S. and 60 ft. W. from fence corner, in root of 12-in. elm tree; 60-penny spike-----	782. 58
Chippewa River, on line between secs. 20 and 21, T. 14 N., R. 4 W., under bridge; surface of water Apr. 7, 1916-----	762. 0
Mount Pleasant, 0.5 mi. S. and 1.5 mi. W. from, in NE. cor. sec. 20, T. 14 N., R. 4 W., near SW. corner of crossroads, at center of concrete head wall over S. end of culvert; chiseled square-----	784. 46
Mount Pleasant, 0.5 mi. N. and 1.5 mi. W. from, in NW. cor. sec. 16, T. 14 N., R. 4 W., in SE. corner of crossroads, opposite McDonald School, 4 ft. S. and 2 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 804" (recovered in 1929)-----	802. 936
Mount Pleasant, 0.5 mi. N. and 2.5 mi. W. from, in NW. cor. sec. 17, T. 14 N., R. 4 W., on S. side of rd., 100 ft. E. of junction of T-rd. N., in fence line, in root of 15-in. maple tree; 60-penny spike-----	819. 26
Mount Pleasant, 1.5 mi. N. and 2.5 mi. W. from, in NW. cor. sec. 8, T. 14 N., R. 4 W., at SE. corner of crossroads, in root of 20-in. oak tree; copper nail and washer-----	808. 21
T. 14 N., R. 4 W., 300 ft. S. of NW. cor. sec. 5, on NE. corner of concrete floor of bridge; chiseled square-----	796. 23
T. 15 N., R. 4 W., in SE. cor. sec. 30, 0.7 mi. W. of Whiteville School, in NW. corner of crossroads, 3 ft. N. and 2 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 802"-----	801. 268
T. 15 N., R. 4 W., at cor. secs. 19, 20, 29, and 30, in center of crossroads, on stone marking section corner; chiseled square-----	808. 88
T. 15 N., R. 4 W., in SE. cor. sec. 18, in NW. corner of crossroads, on W. end of concrete tile drain under rd.; highest point-----	823. 51
T. 15 N., R. 4 W., in SE. cor. sec. 7, opposite Walton School, in NW. angle of crossroads, 5 ft. N. and 2 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 862" (recovered in 1929)-----	860. 728
T. 15 N., R. 4 W., in NW. cor. sec. 5, at SW. corner of iron bridge over ditch, on wing wall; chiseled square <sup>48</sup> -----	843. 32
T. 16 N., R. 4 W., in SE. cor. sec. 30, 0.5 mi. S. and 2.5 mi. W. from Doherty sta., in NW. angle of crossroads, 2 ft. N. and 2 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 863" (recovered in 1929)-----	862. 306

<sup>48</sup> In 1929 this bench mark was reported destroyed.

Doherty sta., 2.5 mi. W. of, near quarter corner between secs. 29 and 30, T. 16 N., R. 4 W., 6 ft. E. of SE. corner of iron bridge over ditch, on wing wall; chiseled square (recovered in 1929)-----	Feet 852. 15
Doherty sta., 0.5 mi. W. of, near quarter corner between secs. 27 and 28, T. 16 N., R. 4 W., at SW. corner of crossroads, on concrete base of corner fence post; chiseled square <sup>50</sup> -----	829. 40
Doherty sta., 0.5 mi. S. and 0.5 mi. E. from, 3.0 mi. N. of Rosebush, 22 ft. S. and 20 ft. E. from NW. cor. sec. 35, T. 16 N., R. 4 W., at junction of rd. E.; standard iron post with bronze cap stamped "Prim Trav Sta No 3 1915 Mich 801" <sup>51</sup> -----	800. 352
From crossroads 2 miles west of Lincoln Center School along roads west and north by way of Winn and Deerfield Center to crossroads 5 miles north of Beal City, thence east to point 0.5 mile south and 2.5 miles west from Doherty Station (by E. C. Bibbee in 1916; leveled twice from starting point to crossroads 1 mile north of Deerfield Center)	
Winn, 0.9 mi. S. and 2.8 mi. E. from, at cor. secs. 13, 18, 19, and 24, T. 13 N., Rs. 4 and 5 W., in center of crossroads, on stone marking section corner; chiseled square-----	882. 11
Winn, 0.9 mi. S. and 1.8 mi. E. from, in SW. cor. sec. 13, T. 13 N., R. 5 W., in NE. corner of crossroads, in SW. corner of field, 2 ft. E. of fence corner, on large rock; chiseled square-----	851. 07
Winn, 0.9 mi. S. and 0.8 mi. E. from, in NW. cor. sec. 23, T. 13 N., R. 5 W., at SE. corner of crossroads, 5 ft. NW. of mail box, on granite rock; chiseled square-----	903. 68
Winn, 0.9 mi. S. and 0.3 mi. E. from, near quarter corner between secs. 15 and 22, T. 13 N., R. 5 W., 32 ft. S. and 28 ft. E. from center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 9 1915 Mich 880"-----	881. 264
Winn, 0.9 mi. S. and 0.2 mi. W. from, in NE. cor. sec. 21, T. 13 N., R. 5 W., 15 ft. SW. of junction of N.-S. rd., on W. end of iron drain under rd.; highest point-----	844. 86
Winn, 0.2 mi. NW. of, in NW. cor. sec. 15, T. 13 N., R. 5 W., in SE. angle of junction of E.-W. rd., 40 ft. S. of junction, on large granite rock; chiseled square-----	854. 42
Winn, 1.1 mi. N. and 0.7 mi. W. from, near quarter corner between secs. 4 and 9, T. 13 N., R. 5 W., on E. side of rd., opposite NW. corner of T-rd. W.; standard iron post with bronze cap stamped "Mich 876"-----	877. 537
Winn, 2.0 mi. N. and 0.7 mi. W. from, near N¼ cor. sec. 4, T. 13 N., R. 5 W., 40 ft. E. of junction of E.-W. rd., 4 ft. N. of large stump, on large granite rock; chiseled square-----	902. 61
Winn, 3.0 mi. N. of, 2.0 mi. S. of Deerfield Center, at cor. secs. 27, 28, 33, and 34, T. 14 N., R. 5 W., at center of junction of T-rd. E., on stone marking section corner; chiseled square-----	814. 19
Chippewa River, under bridge; surface of water Apr. 22, 1916-----	805. 6
Deerfield Center, 1.5 mi. S. of, near quarter corner between secs. 27 and 28, T. 14 N., R. 5 W., on E. side of rd., opposite SW. right-of-way line of T-rd. W.; standard iron post with bronze cap stamped "Mich 817"-----	818. 253
Deerfield Center, 1.0 mi. S. of, in SE. cor. sec. 21, T. 14 N., R. 5 W., at NE. corner of new concrete arch culvert, on wing wall; chiseled square-----	819. 04

<sup>50</sup> In 1929 this bench mark was reported destroyed.

<sup>51</sup> In 1930 this bench mark was moved 5 feet south and 29 feet east from this position and reset 0.952 foot higher than its original elevation. The figures given represent the new elevation.

Deerfield Center, in NW. corner of crossroads at, in SE. cor. sec. 16, T. 14 N., R. 5 W., in SE. corner of schoolyard, on E. end of N. head wall of culvert; chiseled square-----	<i>Feet</i> 901. 32
Deerfield Center, 1.0 mi. N. of, in SW. cor. sec. 10, T. 14 N., R. 5 W., at NE. corner of crossroads, in root of apple tree; copper nail and washer-----	877. 52
Deerfield Center, 2.0 mi. N. of, 3.0 mi. S. of Beal City, in NW. cor. sec. 10, T. 14 N., R. 5 W., in SE. angle of crossroads; standard iron post with bronze cap stamped "Mich 857"-----	858. 439
Beal City, 1.0 mi. S. of, in SW. cor. sec. 27, T. 15 N., R. 5 W., at NE. corner of crossroads, on large granite rock, 1 ft. E. of wheel track; chiseled square-----	858. 33
Beal City, in NE. corner of crossroads, in SW. cor. sec. 22, T. 15 N., R. 5 W., 2 ft. S. and 8 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 864"-----	865. 405
Beal City, 1.0 mi. N. of, in SE. cor. sec. 16, T. 15 N., R. 5 W., in NW. angle of crossroads, at entrance to Nottawa town hall, on SE. corner of concrete porch; chiseled square-----	886. 63
Beal City, 3.0 mi. N. of, in NW. cor. sec. 10, T. 15 N., R. 5 W., in SE. angle of crossroads; standard iron post with bronze cap stamped "Mich 903"-----	904. 314
Beal City, 4.0 mi. N. of, 12 ft. S. and 125 ft. W. from NE. cor. sec. 4, T. 15 N., R. 5 W., 2 ft. N. of S. fence line, on large granite rock; chiseled square-----	919. 86
Beal City, 4.0 mi. N. of, at cor. secs. 27, 28, 33, and 34, T. 16 N., R. 5 W., in center of crossroads, on stone marking section corner; chiseled square-----	934. 53
Beal City, 5.0 mi. N., thence 0.5 mi. E. from, near quarter corner between secs. 27 and 34, T. 16 N., R. 5 W., in SE. angle of crossroads; standard iron post with bronze cap stamped "Mich 955"-----	953. 878
T. 16 N., R. 5 W., 400 ft. E. of NW. cor. sec. 35, 12 ft. N. of S. right-of-way line of rd., on large granite rock; chiseled square-----	885. 28
T. 16 N., R. 5 W., at cor. secs. 25, 26, 35, and 36, in center of crossroads, on stone marking section corner; chiseled square-----	895. 14
T. 16 N., Rs. 4 and 5 W., at cor. secs. 25, 30, 31, and 36, in center of crossroads, on stone marking section corner; chiseled square-----	857. 95
From crossroads 0.7 mile west of Winn along roads south 1 mile, thence west 3.5 miles to southeast corner sec. 14, T. 13 N., R. 6 W., thence north to Pere Marquette Railway, thence northeast along railway and north along road to cross road 3.7 miles north of Weidman, thence east to crossroads 5 miles north of Beal City (by E. C. Bibbee in 1916)	
Winn, 0.9 mi. S. and 0.7 mi. W. from, at quarter corner between secs. 16 and 21, T. 13 N., R. 5 W., in center of rd., on stone marking quarter corner; chiseled square-----	851. 71
Winn, 0.9 mi. S. and 2.2 mi. W. from, in SW. cor. sec. 17, T. 13 N., R. 5 W., in NE. angle of crossroads, at entrance to church, on SW. corner of concrete porch; chiseled square-----	914. 16
Winn, 0.9 mi. S. and 4.2 mi. W. from, 0.5 mi. E. of Hoovertown, in SE. cor. sec. 14, T. 13 N., R. 6 W., in NW. angle of junction of T-rd. N., 8 ft. W. of fence corner; standard iron post with bronze cap stamped "Mich 915"-----	913. 914
Winn, 4.2 mi. W. of, in NW. cor. sec. 13, T. 13 N., R. 6 W., diagonally opposite Oberlin School, in SE. corner of crossroads, 25 ft. E. of fence corner, at fence line, in root of second poplar tree from W. end of row; rail spike-----	931. 81



Winn, 2.0 mi. N. and 4.2 mi. W. from, 1.0 mi. E., thence 2.0 mi. S. from Broomfield, in NW. cor. sec. 1, T. 13 N., R. 6 W., at entrance to Trinity Church, on NW. corner of first concrete step; chiseled square-----	<i>Feet</i> 940. 66
Broomfield, 1.0 mi. E., thence 1.0 mi. S. from, 125 ft. E. of NW. cor. sec. 36, T. 14 N., R. 6 W., in SW. angle of crossroads, diagonally opposite Pony Creek School; standard iron post with bronze cap stamped "Mich 936"-----	934. 886
Broomfield, 1.0 mi. E., thence 1.0 mi. N. from, 4.0 mi. W. of Deerfield Center, in NW. cor. sec. 24, T. 14 N., R. 6 W., at Fritz School, 1 ft. NW. of NW. corner of brick schoolhouse, on second concrete step from bottom; chiseled square-----	930. 31
Broomfield, 1.0 mi. E., thence 2.0 mi. N. from, in SE. cor. sec. 11, T. 14 N., R. 6 W., in NW. corner of crossroads, near church, 10 ft. SE. of fence corner, on large granite rock; chiseled circle-----	971. 11
Broomfield, 1.0 mi. E., thence 3.0 mi. N. from, 2.0 mi. W. of Caldwell, in NW. cor. sec. 12, T. 14 N., R. 6 W., 31 ft. S. and 24 ft. E. from center of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 6 1915 Mich 921"-----	919. 856
Caldwell, 2.0 mi. W., thence 1.0 mi. N. from, 3.3 mi. S. and 1.0 mi. W. from Pere Marquette Ry. sta. at Weidman, at N. cor. secs. 1 and 2, T. 14 N., R. 6 W., in center of E.-W. rd., 25 ft. W. of S. cor. secs. 35 and 36, T. 15 N., R. 6 W., on stone marking section corner; chiseled square-----	881. 56
Chippewa River, under bridge; surface of water May 13, 1916-----	865. 1
Weidman, 2.3 mi. S. and 1.0 mi. W. from, in SW. cor. sec. 25, T. 15 N., R. 6 W., in NE. corner of junction of T-rd. E., in front of schoolhouse, on SW. corner of large conglomerate rock used as step; chiseled square-----	905. 26
Weidman, 2.1 mi. along Pere Marquette Ry. SW. of, near quarter corner between secs. 25 and 26, T. 15 N., R. 6 W., in SE. corner of rd. fork, 12 ft. S. of fence corner, 150 ft. E. of Ry. crossing; standard iron post with bronze cap stamped "Mich 907"-----	905. 844
Weidman, in front of Pere Marquette Ry. sta.; top of W. rail-----	894. 7
Weidman, 0.2 mi. NE. of sta., near W $\frac{1}{4}$ cor. sec. 18, T. 15 N., R. 4 W., on E. side of rd., directly opposite N. fence line of T-rd. W.; standard iron post with bronze cap stamped "Mich 893"-----	891. 864
Weidman, 1.6 mi. N. of, 715 ft. S. of NE. cor. sec. 12, T. 15 N., R. 6 W., at NW. corner of bridge over Coldwater River, at NW. corner of fishplate over concrete cylindrical abutment; bolt head-----	890. 13
Coldwater River, under bridge; surface of water May 15, 1916-----	886. 4
Weidman, 3.7 mi. N. of, in NW. cor. sec. 31, T. 16 N., R. 5 W., in SE. corner of crossroads, 5 ft. E. of fence corner; standard iron post with bronze cap stamped "Mich 942"-----	940. 785
Coldwater River, under bridge; surface of water May 15, 1916-----	898. 9
Weidman, 3.7 mi. N., thence 1.0 mi. E. from, in NW. cor. sec. 32, T. 16 N., R. 5 W., at SE. corner of T-rd. S., 3 ft. S. of fence corner, on large granite rock; chiseled square-----	914. 73

From point 0.9 mile south and 4.2 miles west from Winn along roads alternately west and south into Remus quadrangle near northwest corner sec. 23, T. 13 N., R. 6 W. (by E. C. Bibbee in 1916)

Pine River, at point 0.2 mi. SE. of N $\frac{1}{4}$ cor. sec. 23, T. 13 N., R. 6 W.; surface of water May 4, 1916-----	879. 7
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From southeast corner sec. 7, T. 15 N., R. 4 W., along roads north and east to point 3 miles north of Rosebush (by S. R. Archer in 1929)

T. 15 N., R. 4 W., in SE. cor. sec. 7, opposite Walton School, 25 ft. N. and 105 ft. W. from crossroads, 75 ft. W. of fence corner, in root on NE. side of 24-in. elm tree with triangular blaze above point; copper nail and washer <sup>52</sup> -----	<i>Feet</i> 858. 27
T. 15 N., R. 4 W., in SW. cor. sec. 5, 150 ft. E. of crossroads, on N. side of rd., in root on SW. side of 10-in. oak tree; copper nail and washer-----	881. 69
Tps. 15 and 16 N., R. 4 W., near cor. secs. 5, 6, 31, and 32, in SE. corner of crossroads, on top of W. end of S. concrete head wall of culvert under rd. E.; chiseled square-----	844. 29
T. 16 N., R. 4 W., in NW. cor. sec. 32, 50 ft. S. and 20 ft. E. from crossroads, 25 ft. S. and 10 ft. W. from fence corner, in root on NW. side of 12-in. oak tree with triangular blaze above point; copper nail and washer <sup>53</sup> -----	862. 59
T. 16 N., R. 4 W., in SW. cor. sec. 29, 25 ft. N. and 80 ft. E. from crossroads, in root on W. side of 12-in. maple tree with triangular blaze above point; copper nail and washer <sup>54</sup> -----	862. 15
Doherty sta., 1.5 mi. W. of, 0.5 mi. N. of Gleaner Hall, near quarter corner between secs. 28 and 29, T. 16 N., R. 4 W., 40 ft. S. and 30 ft. E. from junction of T-rd. S., 16 ft. S. of fence corner, in root on E. side of 12-in. ash tree; copper nail and washer-----	854. 54
Doherty sta., 0.5 mi. W. of, near quarter corner between secs. 27 and 28, T. 16 N., R. 4 W., 150 ft. W. of crossroads, on N. side of rd., on field side of fence, in root on S. side of 10-in. elm tree with triangular blaze above point; copper nail and washer-----	841. 42
Doherty sta., at Ann Arbor R. R. crossing; top of rail-----	827. 8
Doherty sta., 0.5 mi. E. of, 3.5 mi. N. of Rosebush, near quarter corner between secs. 26 and 27, T. 16 N., R. 4 W., in NW. corner of junction of N-S. rd., on top of W. end of N. curved concrete head wall of drain under rd. W.; chiseled square-----	824. 77
Rosebush, 3.0 mi. N. of, in SW. cor. sec. 26, T. 16 N., R. 4 W., 90 ft. N. of T-rd. E., on E. side of rd., in field, in root on E. side of 24-in. oak tree; copper nail and washer <sup>55</sup> -----	798. 80

From Shepherd quadrangle near east quarter corner sec. 2, T. 14 N., R. 4 W., alternately west and south along roads to northwest corner sec. 16, T. 4 N., R. 4 W. (by S. R. Archer in 1929)

Mount Pleasant, 2.0 mi. N. and 0.5 mi. E. from, near quarter corner between secs. 2 and 3, T. 14 N., R. 4 W., 15 ft. S. and 25 ft. W. from junction of N-S. rd., in W. fence line, in root on N. side of 15-in. elm tree; copper nail and washer-----	766. 36
Mount Pleasant, 1.6 mi. N. and 0.4 mi. E. from, about 500 ft. NW. of SE. cor. sec. 3, T. 14 N., R. 4 W., 1,100 ft. NW. of bridge over Chippewa River, on NE. side of rd. fork, at junction of rd. SW.; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1915"-----	744. 227

<sup>52</sup> Set as a reference mark to principal bench mark stamped "Mich 862" and previously described.

<sup>53</sup> Set as reference mark 1 to principal bench mark stamped "Mich 863" and previously described.

<sup>54</sup> Set as reference mark 2 to principal bench mark stamped "Mich 863" and previously described.

<sup>55</sup> Set as a reference mark to principal bench mark stamped "Prim Trav Sta No 3 1915 Mich 801" and previously described.

Mount Pleasant, 1.5 mi. N. and 0.5 mi. W. from, in NE. cor. sec. 9, T. 14 N., R. 4 W., 320 ft. W. of crossroads, on S. side of rd., 5 ft. N. of fence line, in root on SW. side of 24-in. oak tree; copper nail and washer.....	Feet 777.77
Mount Pleasant, 1.5 mi. N. and 1.5 mi. W. from, near NW. cor. sec. 9, T. 14 N., R. 4 W., 15 ft. S. and 35 ft. E. from crossroads, on top of 4-ft. sewer tile, on lid of iron meter box set in concrete; top of lock bolt.....	791.90

## MUIR QUADRANGLE

[Latitude 42°45'-43°00'; longitude 84°45'-85°00']

## CLINTON, EATON, AND IONIA COUNTIES

From Ionia quadrangle near Sunfield east along road into De Witt quadrangle near Grand Ledge (by L. D. Townsend in 1911)

Sunfield, 0.5 mi. S. of Pere Marquette Ry. sta. at, in NE. cor. sec. 10, T. 4 N., R. 6 W., near SW. corner of crossroads; 3 ft. N. and 3.5 ft. W. from corner fence post, 4 ft. W. of sidewalk; standard iron post with bronze cap stamped "Prim Trav Sta No 25 1911 858" <sup>56</sup> .....	856.916
Sunfield, 0.5 mi. S., thence 1.0 mi. E. from, in SE. cor. sec. 2, T. 4 N., R. 6 W., in NW. angle of crossroads, at schoolhouse, on SE. corner of concrete porch; chiseled square.....	865.84
Sunfield, 0.5 mi. S., thence 1.8 mi. E. from, 0.2 mi. W. of NE. cor. sec. 12, T. 4 N., R. 6 W., at SW. corner of crossroads, at bridge across N.-S. rd., on highest point of W. concrete abutment; chiseled square.....	827.11
Sunfield, 0.5 mi. S., thence 3.0 mi. E. from, 0.5 mi. S., thence 2.0 mi. W. from R. R. sta. in Mulliken, in SW. cor. sec. 5, T. 4 N., R. 5 W., near NE. corner of crossroads, 10 ft. E. of corner fence post, 4 ft. S. of fence; standard iron post with bronze cap stamped "1911 848".....	847.753
Mulliken, 0.5 mi. S., thence 1.0 mi. W. from, in SW. cor. sec. 4, T. 4 N., R. 5 W., near NE. corner of junction of T-rd. N., on N. side of rd., 20 ft. S. of 8-in. elm tree, on stone in place; chiseled square....	865.27
Mulliken, 0.5 mi. S. of, in SE. angle of crossroads, in NW. corner of yard of Roxana School, 2 ft. NE. of 6-in. poplar tree, 15 ft. E. of concrete sidewalk; standard iron post with bronze cap stamped "Prim Trav Sta No 26 1911 870".....	870.167
Mulliken, 0.5 mi. S., thence 1.0 mi. E. from, in SE. cor. sec. 3, T. 4 N., R. 5 W., near NW. corner of crossroads, at W. end of row of stones over culvert across N.-S. rd., on highest point of large stone; chiseled square.....	871.00
Mulliken, 0.5 mi. S., thence 2.0 mi. E. from, in SW. cor. sec. 1, T. 4 N., R. 5 W., at outside of curve at NE. corner of crossroads, at highest point on southernmost of four boulders; chiseled square.....	872.09
Mulliken, 0.5 mi. S., thence 3.0 mi. E. from, in SW. cor. sec. 6, T. 4 N., R. 4 W., in NE. angle of crossroads, 6 ft. N. of ditch; standard iron post with bronze cap stamped "1911 854".....	853.992
Mulliken, 0.5 mi. S., thence 4.0 mi. E. from, 4.0 mi. W. of intersection of Jackson and East Scott Streets in Grand Ledge, in NE. cor. sec. 7, T. 4 N., R. 4 W., in SW. angle of crossroads, in NE. corner of yard of Free Methodist Church, 4 ft. E. of telephone pole; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1909 Mich 875".....	874.809

<sup>56</sup> In 1933 this bench mark was moved 8.75 feet east and 64 feet south from this position and reset 0.792 foot lower than its original elevation. The figures given represent the new elevation.

Grand Ledge, 2.9 mi. W. of, 60 ft. E. of NW. cor. sec. 9, T. 4 N., R. 4 W., on S. side of rd., at end of unused culvert, on large stone; chiseled square-----	Feet 879. 11
Grand Ledge, 1.9 mi. W. of, in NW. cor. sec. 10, T. 4 N., R. 4 W., in SE. angle of crossroads, on highest point of large flat boulder; chiseled square-----	867. 46
Grand Ledge, 0.9 mi. W. of, on Jefferson Avenue, at W. city limits, in SE. angle of intersection, 4 ft. NW. of telephone and power line poles standing side by side, on highest point of large stone; chiseled cross-----	850. 05
From Carson City quadrangle at point 1.5 miles east of Pewamo generally south along Clinton-Ionia county-line road and other roads to crossroads 0.5 mile south and 3 miles east from Mulliken (by R. G. Clinite in 1916)	
Pewamo, 1.5 mi. E., thence 1.0 mi. S. from, in SE. cor. sec. 18, T. 7 N., R. 4 W., near NW. corner of crossroads, on concrete head wall of culvert; chiseled square-----	719. 47
Stony Creek; surface of water June 13, 1916-----	684. 7
T. 7 N., R. 4 W., 0.25 mi. S. of NW. cor. sec. 29, in SE. angle of crossroads, in schoolyard, in root of 36-in. elm tree; copper nail and washer-----	735. 85
T. 7 N., R. 5 W., 0.25 mi. S. of NE. cor. sec. 25, 70 ft. S. and 20 ft. W. from center of crossroads, in root of 24-in. maple tree; copper nail and washer-----	739. 21
T. 7 N., R. 5 W., in SE. cor. sec. 25, in NW. angle of crossroads, 4 ft. N. of fence corner; standard iron post with bronze cap stamped "1916 Mich 743"-----	741. 998
Tps. 6 and 7 N., Rs. 4 and 5 W., at cor. secs. 1, 6, 31, and 36, 2.0 mi. W., thence 1.0 mi. N. from Westphalia, 15 ft. S. of center of crossroads, on rock presumed to be at township corner; highest point..	755. 81
Westphalia, 2.0 mi. W. of, in SW. cor. sec. 6, T. 6 N., R. 4 W., in NE. angle of crossroads, at corner of garden, on concrete base of fence post; highest point-----	770. 96
T. 6 N., R. 5 W., in SE. cor. sec. 12, 2.0 mi. W., thence 1.0 mi. S. from Westphalia, 3.5 mi. E., thence 3.0 mi. N. from Portland, in NW. angle of crossroads, 3 ft. N. of corner fence post; standard iron post with bronze cap stamped "1916 Mich 782"-----	781. 295
Portland, 3.5 mi. E. of, in NW. cor. sec. 31, T. 6 N., R. 4 W., near SE. corner of crossroads, on S. end of corrugated drain pipe; highest point-----	757. 24
T. 6 N., R. 4 W., in SW. cor. sec. 31, 3.5 mi. E., thence 1.0 mi. S. from Portland, in NE. angle of junction of E.-W. rd., at SW. corner of entrance to school, on top step; chiseled square-----	771. 31
Lookingglass River, under bridge; surface of water June 15, 1916-----	726. 4
T. 5 N., R. 5 W., in NE. cor. sec. 12, in SW. angle of rd. junction, 2 ft. S. and 2 ft. E. from fence corner; standard iron post with bronze cap stamped "1916 Mich 759"-----	758. 526
T. 5 N., R. 4 W., in SW. cor. sec. 7, 20 ft. N. and 50 ft. E. from center of crossroads, on highest point of boulder; chiseled square-----	830. 43
T. 5 N., R. 4 W., 0.2 mi. N. of W $\frac{1}{4}$ cor. sec. 18, 60 ft. N. of Pere Marquette Ry. track, on E. side of rd., in fence line, in root of 12-in. hickory tree; rail spike (recovered by U.S.C. & G.S. in same year)...	821. 501
T. 5 N., R. 5 W., in NE. cor. sec. 24, 60 ft. S. and 20 ft. W. from center of junction of T-rd. W., in root of 28-in. elm tree; copper nail and washer-----	823. 77

T. 5 N., R. 5 W., about 800 ft. N. and 120 ft. W. from SE. cor. sec. 24, on N. bank of Grand River, at base of bluff, on NW. side of rd., 2 ft. NE. of fence corner; standard iron post with bronze cap stamped "Mich 777"-----	Feet 776. 339
Grand River, at Clinton-Ionia county line; surface of water June 16, 1916-----	759. 2
T. 5 N., R. 5 W., in NE. cor. sec. 36, 30 ft. S. and 20 ft. W. from center of crossroads, on highest point of large boulder; chiseled square-----	850. 35
T. 4 N., R. 4 W., in NW. cor. sec. 6, near corner of Clinton, Eaton, and Ionia Counties, 20 ft. S. and 35 ft. E. from center of crossroads, in root of westernmost of two large elm trees; copper nail and washer-----	844. 64
From crossroads 0.5 mile south of Sunfield along road north to southwest corner of sec. 26, T. 7 N., R. 6 W., thence northeast by way of Lyons to Muir (by R. G. Clinite in 1916)	
Sunfield, 1.5 mi. N. of Pere Marquette Ry. sta. at, in NW. cor. sec. 35, T. 5 N., R. 6 W., near SE. corner of crossroads, on N. end of concrete head wall of culvert; chiseled square-----	835. 89
Sunfield, 2.5 mi. N. of, 2.0 mi. W. of Sebewa, in NE. cor. sec. 27, T. 5 N., R. 6 W., 33 ft. S. and 20 ft. W. from center of crossroads; standard iron post with bronze cap stamped "Mich 834"-----	833. 807
Sunfield, 3.5 mi. N. of, in NW. cor. sec. 23, T. 5 N., R. 6 W., in SE. angle of crossroads, 4 ft. N. and 8 ft. W. from fence corner, in root of 38-in. maple tree; copper nail and washer-----	825. 68
Sunfield, 5.0 mi. N. of, near E $\frac{1}{4}$ cor. sec. 10, T. 5 N., R. 6 W., in NW. angle of crossroads, 8 ft. N. of fence corner; standard iron post with bronze cap stamped "Mich 832"-----	831. 458
Sunfield, 5.5 mi. N. of, in NW. cor. sec. 11, T. 5 N., R. 6 W., in SE. angle of crossroads, at W. entrance on N. side of school, on bottom concrete step; chiseled square-----	836. 88
Sunfield, 7.5 mi. N. of, 4.5 mi. W. of Portland, in NW. cor. sec. 35, T. 6 N., R. 6 W., in SE. angle of crossroads, 1 ft. W. of corner post; standard iron post with bronze cap stamped "Prim Trav Sta No 29 1915 Mich 800"-----	799. 627
Sunfield, 8.5 mi. N. of, in NW. cor. sec. 26, T. 6 N., R. 6 W., in SE. angle of crossroads, in corner of schoolyard, in root of 10-in. maple tree; copper nail and washer-----	808. 33
Sunfield, 9.5 mi. N. of, 5.5 mi. S. and 2.4 mi. W. from bridge over Grand River at Lyons, at cor. secs. 14, 15, 22, and 23, T. 6 N., R. 6 W., at center of crossroads, on stone marking section corner; highest point-----	785. 25
Lyons, 4.5 mi. S. and 2.4 mi. W. from, in NE. cor. sec. 15, T. 6 N., R. 6 W., in SW. angle of crossroads, 4 ft. S. and 1 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 780"-----	779. 464
Lyons, 3.5 mi. S. and 2.4 mi. W. from, 2.5 mi. W. of Collins, in NW. cor. sec. 11, T. 6 N., R. 6 W., in SE. angle of crossroads, 6 ft. E. of fence corner, in root of 36-in. elm tree; copper nail and washer-----	786. 32
Lyons, 2.5 mi. S. and 2.4 mi. W. from, 1.0 mi. S. of Gorham School, in SE. cor. sec. 34, T. 7 N., R. 6 W., 7 ft. N. and 35 ft. W. from center of junction of T-rd. E., in root of 27-in. elm tree; copper nail and washer-----	784. 51
Lyons, 1.5 mi. S. and 2.4 mi. W. from, NE. of Gorham School, in SW. cor. sec. 26, T. 7 N., R. 6 W., 27 ft. N. and 2 ft. E. from center of junction of E.-W. rd.; standard iron post with bronze cap stamped "Mich 787"-----	786. 826

Lyons, 1.5 mi. S. and 1.7 mi. W. from, 0.7 mi. E. of Gorham School, 0.25 mi. E. of S $\frac{1}{4}$ cor. sec. 26, T. 7 N., R. 6 W., 130 ft. N. and 25 ft. E. from center of junction of N.-S. rd., in base of 26-in. oak tree; copper nail and washer-----	Feet 778. 85
Lyons, 1.7 mi. SW. of, in SE $\frac{1}{4}$ sec. 23, T. 7 N., R. 6 W., in E. angle of junction of Ionia-Lyons rd., 600 ft. SW. of crossing of Pere Marquette Ry., on concrete head wall of culvert; chiseled square--	685. 88
Lyons, 0.3 mi. W. of bridge, in W. part of town, near E $\frac{1}{4}$ cor. sec. 24, T. 7 N., R. 6 W., in NW. angle of junction of N.-S. rd., 2 ft. E. of fence corner, on boulder; highest point-----	695. 42
Lyons, 350 ft. W. of bridge, in SE. angle of junction of Main Street and rd. to Portland; SE. corner of concrete cross walk-----	691. 17
Grand River, under vehicle bridge; surface of water June 21, 1916---	635. 6
From Lyons southeast along roads to Portland, thence south to crossroads 0.5 mile south of Mulliken (by R. G. Clinite in 1916)	
Lyons, 0.8 mi. SE. of bridge, near S $\frac{1}{4}$ cor. sec. 19, T. 7 N., R. 5 W., 70 ft. SE. of center of rd. fork, on NE. side of rd., in root of 20-in. white-oak tree; copper nail and washer-----	764. 76
Lyons, 2.2 mi. SE. of, near S $\frac{1}{4}$ cor. sec. 29, T. 7 N., R. 5 W., 120 ft. N. of Crane School, 65 ft. NW. of center of junction of E.-W. rd.; standard iron post with bronze cap stamped "Mich 723"-----	722. 894
Lyons, 3.2 mi. SE. of, 1.0 mi. E., thence 1.0 mi. N. from Collins, near S $\frac{1}{4}$ cor. sec. 32, T. 7 N., R. 5 W., 10 ft. N. and 20 ft. E. from center of junction of T-rd. W., on E. end of tile drain; top of convex surface--	750. 94
Collins, 1.0 mi. E. of, near S $\frac{1}{4}$ cor. sec. 5, T. 6 N., R. 5 W., in NW. angle of junction of E.-W. rd., at fence corner, in root of 36-in. black-oak tree; copper nail and washer-----	769. 27
Collins, 0.8 mi. by direct rd. SE. of, in SE $\frac{1}{4}$ sec. 7, T. 6 N., R. 5 W., in SE. angle of junction of rd. E., 4 ft. S. of fence corner, in root of 24-in. oak tree; copper nail and washer-----	762. 27
Grand River, under Goodwin Bridge; surface of water June 24, 1916--	684. 3
Collins, 1.1 mi. SE., thence 1.1 mi. E. from, 3.7 mi. NW. of Portland, in SE. cor. sec. 8, T. 6 N., R. 5 W., 27 ft. N. and 15 ft. W. from center of junction of T-rd. S.; standard iron post with bronze cap stamped "Mich 753"-----	752. 237
Portland, 2.7 mi. NW. of, in NE. cor. sec. 20, T. 6 N., R. 5 W., in SW. angle of crossroads, on base of concrete corner post; unmarked point--	777. 55
Portland, 0.2 mi. E. and 1.0 mi. N. from Pere Marquette Ry. sta. at, 0.25 mi. E. of N $\frac{1}{4}$ cor. sec. 28, T. 6 N., R. 5 W., in SE. angle of junction of rd. E., in root of 10-in. elm tree; copper nail and washer--	754. 64
Portland, 0.3 mi. SE. of sta., 900 ft. NE. of junction of Lookingglass and Grand Rivers, 150 ft. N. of Ry. crossing, 45 ft. S. of street corner, in line with trees E.; standard iron post with bronze cap stamped "Mich 719" (recovered by U. S. C. & G. S. in same year and designated "C 18")-----	718. 716
Lookingglass River, at Portland, above dam; surface of water June 27, 1916-----	709. 3
Portland, at S. edge of town:	
Base of stand pipe-----	788. 4
Top of stand pipe-----	888. 4
Portland, 1.8 mi. S. of, in SE $\frac{1}{4}$ sec. 4, T. 5 N., R. 5 W., on NE. side of rd., 270 ft. S. of two-story frame house, 6 ft. S. of fence line, in root of 12-in. hickory tree; copper nail and washer-----	728. 04

Portland, 3.4 mi. S. of, just S. of center of sec. 9, T. 5 N., R. 5 W., 16 ft. E. of center of junction of rd. NW., 6 ft. N. of telephone pole; standard iron post with bronze cap stamped "Mich 792"-----	Feet 791. 895
Portland, 4.0 mi. S., thence 0.7 mi. E. from, 4.0 mi. N. of Pere Marquette Ry. sta. in Mulliken, 0.2 mi. E. of W $\frac{1}{4}$ cor. sec. 15, T. 5 N., R. 5 W., 60 ft. W. of center of crossroads, in root of 34-in. basswood tree; copper nail and washer-----	806. 00
Grand River, at Center Line Bridge; surface of water June 27, 1916--	741. 9
Mulliken, 2.5 mi. N., thence 0.3 mi. W. from, 0.3 mi. W. of SE. cor. sec. 21, T. 5 N., R. 5 W., 60 ft. NW. of center of rd. fork, 85 ft. NW. of NW. corner of Danby Cemetery; standard iron post with bronze cap stamped "Mich 809"-----	808. 312
Mulliken, 1.5 mi. N. of, at Danby, in NW. cor. sec. 34, T. 5 N., R. 5 W., 80 ft. S. and 25 ft. E. from center of crossroads, 200 ft. N. of Compton Church, in root of 34-in. maple tree; copper nail and washer-----	822. 49
Mulliken, 0.5 mi. N. of sta., in NW. cor. sec. 3, T. 4 N., R. 5 W., in SE. angle of crossroads, 2 ft. S. and 5 ft. W. from fence corner, on large border; highest point-----	838. 63
From Clinton-Ionia county line at northwest corner sec. 31, T. 7 N., R. 4 W., west along road 3.2 miles to Portland (by R. G. Clinite in 1916)	
Portland, 2.2 mi. E. of, at SW. cor. sec. 25, T. 6 N., R. 5 W., in NE. angle of junction of T-rd. N., 2 ft. W. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 30 1915 Mich 764"-----	762. 911
Portland, 1.1 mi. E. of, 10 ft. S. and 300 ft. W. from NE. cor. sec. 34, T. 6 N., R. 5 W., at S. side of rd., 200 ft. NE. of barn on farm of W. Fredewas, in root of 16-in. walnut tree; copper nail and washer--	777. 26
From Carson City quadrangle near northeast corner sec. 13, T. 7 N., R. 6 W., south along road 0.3 mile, thence east and northeast along Grand Trunk Railway and back into Carson City quadrangle (by E. C. Bibbee in 1916)	
Muir, 0.5 mi. W. of Grand Trunk Ry. sta. at, 150 ft. E. of junction of Grand and Maple Rivers, at E. end of concrete arch culvert over creek, on N. abutment; chiseled square-----	645. 12
Muir, 50 ft. W. of sta., on E. side of rd., at NW. corner of small park; standard iron post with bronze cap stamped "Mich 655" (recovered by U. S. C. & G. S. in 1934)-----	654. 582
Muir, 0.7 mi. E. of sta., at Ry. bridge over Maple River, on N. side of W. abutment, 6.2 ft. N. of N. rail; chiseled square-----	651. 83
Maple River, under Ry. bridge; surface of water June 5, 1916-----	635. 0
Muir, 1.6 mi. E. of, at iron bridge, 60 ft. W. of milepost 73-116, on S. side of E. abutment; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	662. 233

## MUSKEGON QUADRANGLE

[Latitude 43°00'-43°15'; longitude 86°00'-86°15']

## MUSKEGON AND OTTAWA COUNTIES

From Holland quadrangle at point 0.4 mile north of west quarter corner of sec. 15, T. 7 N., R. 16 W., north along road 0.1 mile to cross road, thence east to junction of River Road near north quarter corner sec. 18, T. 7 N., R. 14 W., thence south 0.1 mile and back into Holland quadrangle (by H. P. Jones in 1928)	
Agnew, 1.25 mi. W., thence 2.5 mi. N. from, 820 ft. E. of SW. cor. sec. 10, T. 7 N., R. 16 W., on right-of-way of Pere Marquette Ry., 51 ft. NE. of crossing, 67 ft. NW. of crossroads, in concrete post; standard tablet stamped "P T Sta No 103 Y 1926"-----	606. 803

Reference mark, 45 ft. S. of crossroads, on W. concrete head wall of culvert; chiseled square (not recovered in 1931)-----	<i>Feet</i> 608. 37
U. S. C. & G. S. standard disk stamped "J 25 1930"-----	603. 286
T. 7 N., R. 16 W., in SW. cor. sec. 11, 25 ft. N. and 20 ft. E. from junction of T-rd. E., in root on S. side of 17-in. maple tree; copper nail and washer-----	608. 45
T. 7 N., R. 16 W., in NE. cor. sec. 14, 20 ft. S. and 32 ft. W. from crossroads, in root on NW. side of 30-in. beech tree; copper nail and washer-----	613. 00
T. 7 N., R. 16 W., in NE. cor. sec. 13, 34 ft. S. and 28 ft. W. from crossroads, 6 ft. W. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 104 Y 1926"-----	613. 719
Reference mark, 50 ft. S. and 20 ft. W. from crossroads, in root of small forked wild-cherry tree; copper nail and washer-----	614. 04
T. 7 N., R. 15 W., in NE. cor. sec. 18, 0.5 mi. N. of Knight School, 25 ft. S. and 25 ft. W. from crossroads, in root on N. side of 30-in. maple tree; copper nail and washer-----	614. 28
T. 7 N., R. 15 W., in NW. cor. sec. 16, 20 ft. S. and 45 ft. E. from crossroads, in root on E. side of 11-in. ash tree; copper nail and washer-----	618. 94
T. 7 N., R. 15 W., in NE. cor. sec. 16, 32 ft. S. and 28 ft. W. from crossroads, 8 ft. from tree, in concrete post; standard tablet stamped "P T Sta No 105 Y 1926"-----	617. 916
Reference mark, 40 ft. S. of crossroads, in root on NW. side of 10-in. oak tree; copper nail and washer-----	618. 29
T. 7 N., R. 15 W., in SE. cor. sec. 10, 50 ft. N. and 45 ft. W. from junction of N.-S. rd., 20 ft. W. of N.-S. fence line, in root on W. side of forked maple tree; copper nail and washer-----	619. 98
T. 7 N., R. 15 W., 0.25 mi. N. of cor. secs. 11, 12, 13, and 14, 19 ft. S. and 35 ft. E. from crossroads, in concrete post; standard tablet stamped "P T Sta No 106 Y 1926"-----	610. 494
Reference mark, 20 ft. S. and 70 ft. W. from crossroads, in root on SE. side of 18-in. maple tree; copper nail and washer-----	609. 58
T. 7 N., Rs. 14 and 15 W., 0.25 mi. W. of cor. secs. 7, 12, 13, and 18, 30 ft. S. and 25 ft. E. from right-angle turn from S. to E. in rd., in root on S. side of 12-in. elm tree; copper nail and washer-----	626. 15
From point 0.2 mile east of southwest corner of sec. 10, T. 7 N., R. 16 W., north along U. S. Highway 31 to point 1 mile north of Muskegon-Ottawa county line, thence west along improved road 1.35 miles, thence north 1 mile to cross road, thence west 0.25 mile into Lake Harbor quadrangle (by H. P. Jones in 1928)	
T. 7 N., R. 16 W., in NE. cor. sec. 9, 11 ft. S. and 22 ft. W. from junction of T-rd. E., in root on E. side of 38-in. beech tree; copper nail and washer-----	596. 37
T. 7 N., R. 16 W., in NW. cor. sec. 3, 90 ft. S. and 20 ft. E. from crossroads, in root on W. side of 22-in. elm tree; copper nail and washer-----	596. 36
T. 8 N., R. 16 W., in SE. cor. sec. 28, 0.8 mi. E., thence 1.2 mi. S. from Grand Haven, 35 ft. N. and 30 ft. W. from center of crossroads, in concrete post; standard tablet stamped "P T Sta No 15 F 1928"-----	602. 506
Reference mark, 20 ft. S. and 30 ft. W. from crossroads, in root on E. side of 12-in. maple tree; copper nail and washer-----	601. 97
Grand Haven, 50 ft. N. and 15 ft. E. from intersection of South Beech Tree Street and Pennoyer Avenue, on top of concrete curb, 4 ft. N. of S. end; chiseled square-----	602. 45



	<i>Feet</i>
U. S. C. & G. S. standard disk stamped "K 25 1930"-----	611. 583
Grand Haven, at NW. corner of intersection of Fulton and North Seventh Streets, on top of concrete curb; chiseled square-----	596. 80
Grand Haven, at S. end of W. side of approach to highway bridge over Grand River, on SW. corner of concrete walk; chiseled square-----	598. 03
Ferrysburg, 0.5 mi. NW. of, near center of NW $\frac{1}{4}$ sec. 16, T. 8 N., R. 16 W., 100 ft. N. and 30 ft. W. from junction of T-rd. W., in concrete post; standard tablet stamped "P T Sta No 14 F 1928"-----	594. 325
T. 8 N., R. 16 W., near S. side SW $\frac{1}{4}$ sec. 9, 140 ft. SE. of rd. fork, on W. concrete head wall of culvert; chiseled square-----	592. 85
T. 8 N., R. 16 W., 0.3 mi. E. of NW. cor. sec. 9, 35 ft. S. and 35 ft. E. from crossroads, in root on NW. side of 14-in. elm tree; copper nail and washer-----	604. 32
T. 8 N., R. 16 W., 0.3 mi. E. of NW. cor. sec. 4, 55 ft. S. and 15 ft. W. from crossroads, on Ottawa-Muskegon county line, on W. concrete head wall of culvert; chiseled square-----	612. 37
T. 9 N., R. 16 W., near N. side NW $\frac{1}{4}$ sec. 33, 0.75 mi. E. of Black Lake School, 50 ft. S. and 50 ft. W. from intersection of highway and E.-W. rd., in concrete post; standard tablet stamped "P T Sta No 13 F 1928"-----	610. 978
Reference mark, 40 ft. S. of crossroads, on W. concrete head wall of culvert; chiseled square-----	612. 47
T. 9 N., R. 16 W., about 300 ft. E. of S $\frac{1}{4}$ cor. sec. 29, at entrance to Black Lake School, on SW. corner of concrete porch; chiseled square-----	611. 97
T. 9 N., R. 16 W., in NW. cor. sec. 29, 5.0 mi. S. of Muskegon, 0.5 mi. W., thence 1.0 mi. N. from Black Lake School, 10 ft. S. and 28 ft. E. from center of crossroads, on top of concrete head wall of culvert; chiseled square-----	617. 21
From Lake Harbor quadrangle east along Laketon Avenue and north along Wood Street to Marquette Avenue in city of Muskegon, thence generally east along roads to corner secs. 17, 18, 19, and 20, T. 10 N., R. 14 W. (by J. L. Buck- master in 1928)	
Muskegon, at NE. corner of Peck Street and Laketon Avenue, on top of concrete curb; chiseled square-----	626. 64
Muskegon, 35 ft. W. of center line of Wood Street, 30 ft. N. of Grand Trunk Ry. tracks, on N. edge of right-of-way, in concrete post; standard tablet stamped "P T Sta No 10 F 1928" (recovered in 1931)-----	627. 709
Reference mark, on Wood Street, 30 ft. N. of tracks, on top of W. curb; chiseled square-----	627. 94
Muskegon, at SE. corner of intersection of Wood Street and Apple Avenue, on top of concrete curb; chiseled square (recovered in 1931)-----	621. 46
Muskegon, 30 ft. N. and 30 ft. W. from intersection of Wood Street and Marquette Avenue, in SE. corner of schoolyard, in concrete post; standard tablet stamped "P T Sta No 9 F 1928"-----	624. 347
Reference mark, at NW. corner of intersection, on top of concrete curb; chiseled square-----	623. 81
Muskegon, at E. limits of, at SW. corner of intersection of Getty Ave- nue and Jackson Street, on top of concrete curb; chiseled square-----	625. 98
T. 10 N., R. 16 W., 0.25 mi. S. of NW. cor. sec. 22, 27 ft. N. and 18 ft. E. from crossroads, in root on W. side of 7-in. wild-cherry tree; copper nail and washer-----	632. 10

T. 10 N., R. 16 W., in NE. cor. sec. 22, 30 ft. S. and 33 ft. W. from center of junction of T-rd. E., in concrete post; standard tablet stamped "P T Sta No 8 F 1928"-----	<i>Feet</i> 638. 994
Reference mark, 35 ft. S. and 65 ft. E. from rd. junction, in root on N. side of 14-in. oak tree; copper nail and washer-----	639. 63
T. 10 N., R. 16 W., in NW. cor. sec. 24, 30 ft. S. and 25 ft. E. from crossroads, in root on NE. side of 12-in. oak tree; copper nail and washer-----	651. 40
T. 10 N., R. 16 W., in SE. cor. sec. 13, 25 ft. N. and 27 ft. W. from crossroads, in root on S. side of 9-in. oak tree; copper nail and washer-----	660. 90
T. 10 N., R. 15 W., 30 ft. N. and 160 ft. W. from cor. secs. 17, 18, 19, and 20, 1.0 mi. W. of crossroads at southernmost part of village of Wolf Lake, 30 ft. N. and 40 ft. W. from junction of T-rd. S., 2 ft. S. of fence, in concrete post; standard tablet stamped "P T Sta No 7 F 1928"-----	668. 662
Reference mark, 28 ft. S. and 45 ft. W. from rd. junction, in root of 7-in. forked oak tree; copper nail and washer-----	668. 30
Wolf Lake, at southernmost part of village, in SW. cor. sec. 16, T. 10 N., R. 15 W., 30 ft. N. and 115 ft. E. from crossroads, in root on SE. side of 24-in. oak tree; copper nail and washer-----	672. 39
T. 10 N., R. 15 W., in SW. cor. sec. 15, 1.0 mi. E. of Wolf Lake, 1.0 mi. W. of Bates School, 21 ft. N. and 70 ft. E. from crossroads, in root on S. side of 12-in. pine tree; copper nail and washer-----	674. 98
T. 10 N., R. 15 W., in NE. cor. sec. 22, at Bates School, 30 ft. S. and 40 ft. W. from center of crossroads, in concrete post; standard tablet stamped "P T Sta No 6 F 1928"-----	675. 673
Reference mark, at school, in N. end of upper concrete step; chiseled square-----	677. 28
T. 10 N., R. 16 W., in NW. cor. sec. 24, 30 ft. S. and 140 ft. E. from crossroads, in root on N. side of 12-in. forked elm tree; copper nail and washer-----	679. 16
T. 10 N., R. 15 W., in NE. cor. sec. 24, in SW. angle of crossroads, 5 ft. S. and 1 ft. E. from corner fence post, in top of iron pipe; copper nail and washer-----	679. 06
T. 10 N., R. 14 W., in NE. cor. sec. 19, 1.0 mi. N. of Swanson School, 30 ft. S. and 50 ft. W. from center of crossroads, in concrete post; standard tablet stamped "P T Sta No 5 F 1928"-----	682. 683
Reference mark, on E. side of crossroads, near SW. corner of concrete bridge, on slab; chiseled square-----	684. 56
From corner secs. 17, 18, 19, and 20, T. 10 N., R. 14 W., south along roads 3 miles and west 1 mile to corner of Tps. 9 and 10 N., Rs. 14 and 15 W., thence south to Muskegon-Ottawa county line (by J. L. Buckmaster in 1928; leveled twice)	
T. 10 N., R. 14 W., near cor. secs. 19, 20, 29, and 30, at Swanson School, at N. side of crossroads, on N. end of W. concrete head wall of culvert; chiseled square-----	687. 82
T. 10 N., R. 14 W., near cor. secs. 29, 30, 31, and 32, 0.5 mi. S., thence 1.0 mi. W. from Moorland, at S. side of crossroads, on top of E. concrete head wall of culvert; chiseled square-----	683. 08
T. 4 N., R. 14 W., in SW. cor. sec. 32, 3.5 mi. W., thence 1.0 mi. N. from Ravenna, at McGhan School, 60 ft. N. and 25 ft. E. from center of crossroads, in concrete post; standard tablet stamped "P T Sta No 31 F 1928"-----	695. 342

Reference mark, in schoolyard, 54 ft. N. and 60 ft. W. from crossroads, on SW. corner of base of flagpole; chiseled square	<i>Feet</i> 697. 21
T. 10 N., R. 15 W., in SE. cor. sec. 36, 100 ft. NW. of crossroads, on top of NE. concrete head wall of culvert; chiseled square	679. 83
T. 9 N., Rs. 14 and 15 W., at cor. secs. 1, 6, 7, and 12, 1.3 mi. E., thence 0.5 mi. N. from Sullivan, at crossroads, in root on E. side of 36-in. elm tree; copper nail and washer	660. 66
T. 9 N., R. 15 W., in NE. cor. sec. 13, 1.3 mi. E., thence 0.5 mi. S. from Sullivan, 28 ft. S. and 22 ft. W. from crossroads, 5 ft. S. and 1 ft. E. from corner fence post; top of iron pipe	656. 63
T. 9 N., R. 15 W., in SE. cor. sec. 13, 4.5 mi. W., thence 2.0 mi. S. from Ravenna, 30 ft. N. and 35 ft. W. from center of crossroads, in concrete post; standard tablet stamped "P T Sta No 32 F 1928"	657. 185
Reference mark, 25 ft. N. and 60 ft. E. from crossroads, in S. side of 12-in. maple tree; copper nail and washer	657. 88
T. 9 N., R. 14 W., in NW. cor. sec. 30, 1.0 mi. N. of Hensley School, 120 ft. S. and 28 ft. E. from junction of T-rd. W., in root on N. side of 6-in. jack-pine tree; copper nail and washer	649. 76
T. 9 N., R. 15 W., in SE. cor. sec. 25, diagonally opposite Hensley School, 20 ft. N. and 52 ft. W. from crossroads, in root on W. side of 12-in. elm tree; copper nail and washer	648. 86
T. 8 N., R. 15 W., in NE. cor. sec. 1, 0.5 mi. S., thence 6.5 mi. E. from Fruitport, 1.0 mi. S. of Hensley School, at Muskegon-Ottawa county line, 35 ft. S. and 30 ft. W. from center of junction of T-rd. E., in concrete post; standard tablet stamped "P T Sta No 18 F 1928"	641. 800
Reference mark, 18 ft. N. and 15 ft. E. from junction of T-rd. E., in root on S. side of 18-in. elm tree; copper nail and washer	642. 53
From Muskegon-Ottawa county line at corner of Tps. 8 and 9 N., Rs. 14 and 15 W., south along road to U. S. Highway 18, thence east along highway 1 mile, thence south along road to South Evergreen School, thence southeast into Ravenna quadrangle (by J. L. Buckmaster in 1928)	
T. 8 N., Rs. 14 and 15 W., about 625 ft. S. of N. cor. secs. 7 and 12, 1.1 mi. SW. of Jericho School, at bridge, on W. end of S. abutment; chiseled square	623. 18
T. 8 N., R. 15 W., 0.25 mi. S. of NE. cor. sec. 13, 1.1 mi. NW. of St. Michael's Church, 25 ft. S. and 66 ft. W. from crossroads, in root on E. side of 18-in. elm tree; copper nail and washer	628. 80
T. 8 N., R. 14 W., in NW. cor. sec. 20, 0.6 mi. S. of St. Michael's Church, 1.0 mi. W. of Dennison, 235 ft. S. and 50 ft. E. from center of crossroads, 33 ft. directly in front of Hancher School, in concrete post; standard tablet stamped "P T Sta No 33 F 1928"	629. 203
Reference mark, 30 ft. N. of tablet, in schoolyard, on concrete base of pump; chiseled square	629. 49
T. 8 N., R. 14 W., in NE. cor. sec. 30, 22 ft. S. and 34 ft. W. from crossroads, in root on E. side of 18-in. maple tree; copper nail and washer	646. 49
T. 8 N., R. 14 W., in SW. cor. sec. 29, 1.5 mi. N. of South Evergreen School, 24 ft. N. and 84 ft. E. from crossroads, in root on E. side of 8-in. elm tree; copper nail and washer	645. 35
T. 7 N., R. 14 W., near W $\frac{1}{4}$ cor. sec. 5, 2.9 mi. by rd. NW. of Eastmanville, in NW. corner of yard of South Evergreen School, 50 ft. S. of center line of rd., 5 ft. E. of fence, in concrete post; standard tablet stamped "P T Sta No 34 F 1928"	642. 920
Reference mark, 12 ft. S. of tablet, in schoolyard, 3 ft. from W. fence, in root on E. side of 20-in. oak tree; copper nail and washer	643. 36

From U. S. Highway 31 at point about 5 miles north of Grand Haven alternately east and south along roads by way of Fruitport to corner of Tps. 8 and 9 N., Rs. 14 and 15 W. (by J. L. Buckmaster in 1928)

Fruitport, 0.5 mi. N., thence 2.5 mi. W. from, 25 ft. S. and 140 ft. E. from NW. cor. sec. 34, T. 9 N., R. 16 W., near crossroads, on N. side of 5-in. maple tree; head of spike-----	Feet 625. 04
Fruitport, 0.5 mi. N., thence 1.5 mi. W. from, in SW. cor. sec. 26, T. 9 N., R. 16 W., 55 ft. N. and 10 ft. E. from junction of T-rd. N., in root on W. side of 10-in. forked oak tree; copper nail and washer--	613. 49
Fruitport, 0.5 mi. N., thence 1.0 mi. W. from, near N $\frac{1}{4}$ cor. sec. 35, T. 9 N., R. 16 W., 30 ft. S. and 55 ft. W. from junction of T-rd. S., 20 ft. E. of junction of T-rd. N., in root on N. side of 20-in. oak tree; copper nail and washer-----	629. 51
Fruitport, 0.5 mi. N., thence 0.3 mi. W. from, 30 ft. N. of line between secs. 25 and 36, T. 9 N., R. 16 W., 30 ft. N. and 30 ft. E. from intersection of Grand Rapids, Grand Haven, and Muskegon Electric R. R. <sup>47</sup> in concrete post; standard tablet stamped "P T Sta No 16 F 1928"-----	629. 501
Reference mark, 16 ft. SE. of tablet, 20 ft. N. and 40 ft. E. from R. R. crossing, in root on SW. side of 18-in. poplar tree; copper nail and washer-----	629. 82
Fruitport, 0.2 mi. S. of, 22 ft. N. and 20 ft. E. from junction of East Fruitport rd. and N.-S. concrete highway called "Third Street," on top of head wall of culvert; chiseled square-----	592. 18
Fruitport, 0.2 mi. S., thence 1.2 mi. E. from, 0.25 mi. N. and 0.25 mi. W. from SE. cor. sec. 31, T. 9 N., R. 15 W., 20 ft. N. and 15 ft. W. from junction of T-rd. N., on W. concrete head wall of culvert; chiseled square-----	633. 51
Fruitport, 0.2 mi. S., thence 2.0 mi. E. from, 0.25 mi. S. of center of sec. 32, T. 9 N., R. 15 W., 16 ft. S. and 175 ft. E. from junction of T-rd. N., on S. concrete head wall of culvert; chiseled square-----	628. 96
Fruitport, 2.7 mi. along rds. SE. of, 0.25 mi. W. of NE. cor. sec. 5, T. 8 N., R. 15 W., on Muskegon-Ottawa county line, 25 ft. S. and 65 ft. E. from center of junction of T-rd. E., in concrete post; standard tablet stamped "P T Sta No 17 F 1928"-----	632. 515
Reference mark, 20 ft. S. and 20 ft. E. from rd. junction, on S. concrete head wall of culvert; chiseled square-----	631. 86
Fruitport, 4.0 mi. SE. of, 1.0 mi. W. of Cooper School, in SE. cor. sec. 33, T. 9 N., R. 15 W., 25 ft. N. and 140 ft. W. from crossroads, in root on SE. side of 12-in. maple tree; copper nail and washer-----	647. 64
Fruitport, 5.0 mi. SE. of, in SE. cor. sec. 34, T. 9 N., R. 15 W., opposite Cooper School, 50 ft. N. and 12 ft. W. from crossroads, on W. concrete head wall of culvert; chiseled square-----	650. 40
Fruitport, 6.0 mi. SE. of, 1.0 mi. S., thence 1.0 mi. W. from Hensley School, 1.0 mi. S. of Holland Church, in SE. cor. sec. 35, T. 9 N., R. 15 W., 35 ft. N. and 25 ft. W. from crossroads, in root on W. side of 5-in. wild-cherry tree; copper nail and washer-----	651. 25
From corner of Tps. 8 and 9 N., Rs. 14 and 15 W., east along Muskegon-Ottawa county-line road 1.4 miles into Ravenna quadrangle (by S. R. Archer in 1928)	
T. 9 N., R. 14 W., in SE. cor. sec. 31, 2.8 mi. N., thence 1.0 mi. W. from Dennison, 1.0 mi. S., thence 1.0 mi. E. from Hensley School, 270 ft. W. of junction of T-rd. S., on N. side of rd. W., in root on S. side of 30-in. elm tree; copper nail and washer-----	666. 28

<sup>47</sup> This railroad is now abandoned.

From Wood Street crossing of Grand Trunk Railway in Muskegon along streets by way of Erwin Avenue School and Pere Marquette Railway station to Muskegon post office (by J. M. Lawson in 1931; leveled twice)

Muskegon, at Erwin Avenue School, at junction of public sidewalk and sidewalk leading to entrance to school; chiseled square-----	<i>Feet</i> 625. 02
U. S. C. & G. S. standard disk stamped "S 25 1930"-----	594. 192
U. S. C. & G. S. standard disk stamped "T 25 1930"-----	612. 581

#### NEWAYGO QUADRANGLE

[Latitude 43°15'-43°30'; longitude 85°45'-86°00']

#### KENT, MUSKEGON, AND NEWAYGO COUNTIES

From Grove quadrangle at point 1 mile south and 3.2 miles east from Grant along roads alternately west and north to Newaygo, thence northeast along Pere Marquette Railway and roads and back into Grove quadrangle at point about 4 miles west of Croton (by R. G. Clinite in 1916)

Grant, 3.0 mi. E. of, near N¼ cor. sec. 21, T. 11 N., R. 12 W., 20 ft. S. and 27 ft. E. from center of crossroads; standard iron post with bronze cap stamped "1916 Mich 813"-----	812. 629
Grant, 1.0 mi. N. and 2.5 mi. E. from, about 650 ft. S. of NW. cor. sec. 16, T. 11 N., R. 12 W., and junction of T-rd. W., on E. side of N.-S. rd., in root of 14-in. elm tree; copper nail and washer-----	816. 89
Grant, 2.0 mi. N. and 2.5 mi. E. from, 3.6 mi. S. and 2.0 mi. E. from Newaygo, in SW. cor. sec. 4, T. 11 N., R. 12 W., 30 ft. N. and 25 ft. E. from center of crossroads; standard iron post with bronze cap stamped "1916 Mich 802"-----	800. 855
Newaygo, 3.6 mi. S. and 1.0 mi. E. from, in SW. cor. sec. 5, T. 11 N., R. 12 W., 25 ft. N. and 10 ft. E. from center of crossroads, in root of 7-in. maple tree; copper nail and washer-----	830. 55
Newaygo, 2.6 mi. S. and 1.0 mi. E. from, in SE. cor. sec. 31, T. 12 N., R. 12 W., 20 ft. N. and 70 ft. W. from center of junction of E.-W. rd. and rd. S., in root of 9-in. oak tree; copper nail and washer-----	807. 42
Newaygo, 2.6 mi. S. of, in SW. cor. sec. 31, T. 12 N., R. 12 W., 70 ft. N. and 25 ft. E. from center of rd. fork, in root of 14-in. elm tree; copper nail and washer <sup>58</sup> -----	841. 62
Newaygo, 1.6 mi. S. of, in SW. cor. sec. 30, T. 12 N., R. 12 W., 25 ft. N. and 30 ft. E. from center of junction of T-rd. E.; standard iron post with bronze cap stamped "Mich 773" (recovered in 1929)-----	771. 989
Newaygo, 0.6 mi. S. of Pere Marquette Ry. sta. at, 200 ft. S. of corporation limits, 0.2 mi. W. of NE. cor. sec. 25, T. 12 N., R. 13 W., on W. side of rd., in root of 40-in. elm tree; copper nail and washer-----	762. 10
Newaygo, in front of Pere Marquette Ry. sta.; top of rail-----	661. 9
Muskegon River, at Newaygo, below dam; surface of water Nov. 1, 1916-----	633. 4
Newaygo, 1.4 mi. along Ry. NE. of, on S. side of track, 6 ft. N. of fence, in base of 16-in. oak tree; rail spike-----	718. 10
Newaygo, 2.1 mi. NE. of, on Newaygo-Croton Rd., 25 ft. N. and 30 ft. W. from rd. fork; standard iron post with bronze cap stamped "Mich 724"-----	722. 947
Newaygo, 3.1 mi. NE. of, S. of center of sec. 16, T. 12 N., R. 12 W., on N. side of Newaygo-Croton Rd., 250 ft. NW. of farmhouse, at power line tower 48, in root of 10-in. oak tree; copper nail and washer-----	739. 27

<sup>58</sup> In 1929 this bench mark was not recovered and a new mark was set in the same tree.

East along road between secs. 15 and 22, T. 10 N., R. 14 W. (by J. L. Buckmaster in 1928)

[A jog from Ravenna quadrangle]

Moorland, 1.5 mi. N. and 1.0 mi. E. from, in SE. cor. sec. 16, T. 10 N., R. 14 W., 40 ft. N. and 30 ft. W. from center of crossroads, in concrete post; standard tablet stamped "P T Sta No 4 F 1928"-----	Feet 696. 804
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From quarter corner between secs. 14 and 23, T. 10 N., R. 14 W., east along road 2 miles (by J. L. Buckmaster in 1928)

[A jog from Ravenna quadrangle]

Moorland, 1.5 mi. N. and 3.5 mi. E. from, 1.0 mi. S. and 2.0 mi. W. from Trent, near quarter corner between secs. 13 and 24, T. 10 N., R. 14 W., 15 ft. S. and 35 ft. E. from center of crossroads, in concrete post; standard tablet stamped "P T Sta No 3 F 1928"-----	711. 930
Reference mark, 20 ft. N. and 85 ft. W. from crossroads, in root on S. side of 8-in. cedar tree; copper nail and washer-----	708. 94
Trent, 1.0 mi. S. and 1.0 mi. W. from, near quarter corner between secs. 18 and 19, T. 10 N., R. 13 W., 40 ft. N. of fence and 25 ft. from NW. bank of Crockery Creek, in root on N. side of 16-in. beech tree; copper nail and washer-----	699. 81

From Twin Lake quadrangle at point 3.2 miles west of Fremont along roads east 0.2 mile and south 4 miles, thence west 0.2 mile and back into Twin Lake quadrangle (by S. R. Archer in 1929)

Fremont, 3.0 mi. W. of, in SW. cor. sec. 33, T. 13 N., R. 14 W., 25 ft. N. and 30 ft. E. from center of junction of rd. N., in concrete post; standard tablet stamped "T T Sta No 25 F 1928"-----	810. 176
Reference mark, in NW. corner of rd. junction, on top of N. concrete head wall of culvert under E.-W. rd.; chiseled square-----	812. 29
Fremont, 1.0 mi. S. and 3.0 mi. W. from, 0.5 mi. N. and 0.5 mi. E. from Reeman, in NW. cor. sec. 9, T. 12 N., R. 14 W., in SE. corner of junction of T-rd. E., near E. end of S. concrete head wall of culvert under rd. E.; chiseled square-----	768. 28
Pere Marquette Ry. crossing; top of N. rail-----	768. 1
Reeman, 0.5 mi. E. of, near quarter corner between secs. 8 and 9, T. 12 N., R. 14 W., 90 ft. E. of crossroads, on S. side of E.-W. rd., in root on W. side of 12-in. oak tree; copper nail and washer-----	769. 18
Reeman, 0.5 mi. S. and 0.5 mi. E. from, in NW. cor. sec. 16, T. 12 N., R. 14 W., 65 ft. S. and 30 ft. E. from crossroads, 35 ft. S. and 12 ft. E. from fence corner, in field, in root on SW. side of 30-in. cottonwood tree; copper nail and washer-----	761. 63
Reeman, 1.5 mi. S. and 0.5 mi. E. from, in SE. cor. sec. 17, T. 12 N., R. 14 W., 40 ft. N. and 30 ft. W. from center of crossroads, 7 ft. N. and 4 ft. W. from corner tree, in concrete post; standard tablet stamped "T T Sta No 26 F 1928"-----	752. 061
Reference mark, in NE. corner of crossroads, on top of E. concrete head wall of culvert under N.-S. rd.; chiseled square-----	753. 05
Reeman, 2.5 mi. S. and 0.5 mi. E. from, in SE. cor. sec. 20, T. 12 N., R. 14 W., 25 ft. N. and 25 ft. W. from junction of T-rd. N., in root on N. side of 36-in. cottonwood tree; copper nail and washer-----	740. 46

From Twin Lake quadrangle at point 2 miles south and 0.7 mile east from Sitka along roads east and northeast by way of Bridgeton to point 1.8 miles south of Newaygo (by S. R. Archer in 1929)

Sitka, 2.0 mi. S., thence 1.5 mi. E. from, 3.0 mi. NW. of Bridgeton, near quarter corner between secs. 9 and 16, T. 11 N., R. 14 W., 40 ft. S. and 85 ft. E. from crossroads, in root on N. side of 8-in. maple tree; copper nail and washer-----	Feet 715. 60
Bridgeton, 2.5 mi. NW. of, in NW. cor. sec. 15, T. 11 N., R. 14 W., 95 ft. S. and 100 ft. E. from crossroads, 45 ft. S. and 55 ft. E. from SE. corner of old store building, in root on W. side of 24-in. beech tree with triangular blaze directly above point; copper nail and washer--	709. 10
Bridgeton, 1.5 mi. NW. of, near cor. secs. 10, 11, 14, and 15, T. 11 N., R. 14 W., 30 ft. N. and 65 ft. W. from center of rd. at junction of T-lane N., 2 ft. S. and 55 ft. W. from fence corner, in concrete post; standard tablet stamped "T T Sta No 35 F 1928"-----	714. 693
Reference mark, 65 ft. S. and 70 ft. E. from tablet, on S. side of rd., in field, 10 ft. S. and 20 ft. E. from fence corner, in root on N. side of 24-in. oak tree; copper nail and washer-----	713. 09
Bridgeton, 0.5 mi. NW. of, 630 ft. W. of NE. cor. sec. 14, T. 11 N., R. 14 W., 100 ft. S. of rd. fork, on NE. side of rd., in fence line, in root on SW. side of 36-in. ash tree; copper nail and washer-----	699. 03
Bridgeton, at S. end of highway bridge over Muskegon River, on E. end of S. stone abutment, at outside corner of junction of parapet and wing walls, on gray granite rock; chiseled square-----	620. 27
Bridgeton, 0.2 mi. SE. of highway bridge over Muskegon River, on S. side of rd. E., 7 ft. N. and 4 ft. E. from NE. corner of store of W. F. Scott, on top of NE. corner of porch; chiseled square-----	663. 57
Bridgeton, 0.6 mi. NE. of, near center of NE $\frac{1}{4}$ sec. 13, T. 11 N., R. 14 W., 40 ft. E. of junction of T-rd. S., on SE. side of rd. NE., in root on N. side of 4-in. oak tree; copper nail and washer-----	730. 55
Bridgeton, 1.4 mi. NE. of, near quarter corner between secs. 7 and 18, T. 11 N., R. 13 W., 28 ft. S. and 10 ft. E. from junction of T-rd. N., 3 ft. S. and 10 ft. E. from fence corner, in field, in root on N. side of 24-in. maple tree; copper nail and washer-----	734. 74
Bridgeton, 2.4 mi. NE. of, near quarter corner between secs. 8 and 17, T. 11 N., R. 13 W., in NW. corner of junction of T-rd. N., on top of S. end of W. concrete head wall of culvert under N.-S. rd.; chiseled square-----	748. 50
Bridgeton, 2.9 mi. NE. of, 1.5 mi. N. and 4.0 mi. W. from Grant, near center of sec. 8, T. 11 N., R. 13 W., 30 ft. N. and 30 ft. E. from center of crossroads, in concrete post; standard tablet stamped "T T Sta No 36 F 1928"-----	741. 248
Reference mark, in NE. corner of crossroads, on top of N. end of W. wing wall of concrete culvert under rd. E.; chiseled square-----	741. 18
Grant, 1.5 mi. N. and 3.0 mi. W. from, near center of sec. 9, T. 11 N., R. 13 W., 60 ft. N. of rd. fork, on E. side of rd., in garden, 6 ft. E. of fence, in root on W. side of 24-in. maple tree; copper nail and washer--	786. 40
Grant, 2.0 mi. N. and 3.0 mi. W. from, near quarter corner between secs. 4 and 9, T. 11 N., R. 13 W., 40 ft. S. and 20 ft. E. from crossroads, in root on S. side of 6-in. oak tree; copper nail and washer---	750. 58
Grant, 2.0 mi. N. and 2.5 mi. W. from, 280 ft. E. of NW. cor. sec. 10, T. 11 N., R. 13 W., on top of E. end of S. concrete head wall of culvert; chiseled square-----	754. 15

Grant, 2.0 mi. N. and 2.0 mi. W. from, near quarter corner between secs. 3 and 10, T. 11 N., R. 13 W., on S. side of rd., 55 ft. E. of crossroads, 30 ft. E. of fence corner, in root 6 in underground on NE. side of 15-in. maple tree; copper nail and washer.....	<i>Feet</i> 829. 12
Grant, 2.0 mi. N. and 1.5 mi. W. from, in NE. cor. sec. 10, T. 11 N., R. 13 W., 70 ft. S. of E.-W. rd., on W. side of rd., in root on NE. side of 36-in. oak tree; copper nail and washer.....	895. 36
Grant, 2.0 mi. N. and 1.0 mi. W. from, near quarter corner between secs. 2 and 11, T. 11 N., R. 13 W., in NW. angle of junction of T-rd. N., in root on W. side of 15-in. pine tree; copper nail and washer....	879. 32
Grant, 3.0 mi. N. and 1.0 mi. W. from, 2.6 mi. S. and 1.5 mi. W. from Newaygo, near S $\frac{1}{4}$ cor. sec. 35, T. 12 N., R. 13 W., 20 ft. N. and 35 ft. W. from center of junction of T-rd. W., in concrete post; standard tablet stamped "T T Sta No 37 F 1928".....	795. 962
Newaygo, 2.6 mi. S. and 1.0 mi. W. from, 530 ft. E. of SW. cor. sec. 36, T. 12 N., R. 13 W., on N. side of rd., in line with E. end of barn of George Wildhy, in root on S. side of easternmost of two 12-in. hickory trees standing 24 ft. apart; copper nail and washer.....	811. 97
Pere Marquette Ry. crossing; top of W. rail.....	821. 8
Newaygo, 2.6 mi. S. of, in SW. cor. sec. 31, T. 12 N., R. 12 W., 70 ft. N. and 25 ft. E. from center of five-way rd. fork, in root on NE. side of 14-in. elm tree with triangular blaze directly above point; copper nail and washer <sup>59</sup> .....	841. 77
Newaygo, 1.6 mi. S. of, in NW. cor. sec. 31, T. 12 N., R. 12 W., 425 ft. S. of junction of T-rd. E., on top of N. end of E. concrete head wall of highway culvert; chiseled square.....	772. 82
From point 1.5 miles north and 3 miles west from Grant south along roads into Ravenna quadrangle at point 1 mile south of Trent (by S. R. Archer in 1929)	
T. 11 N., R. 13 W., near quarter corner between secs. 9 and 16, 100 ft. S. and 45 ft. W. from crossroads, on concrete steps at E. end of school, on top of N. end of lower step; chiseled square.....	798. 90
T. 11 N., R. 13 W., near quarter corner between secs. 16 and 21, 3.0 mi. W. of Grant, 50 ft. N. of junction of T-rd. E., on top of and near N. end of W. head wall of culvert under N.-S. rd.; chiseled square...	752. 34
T. 11 N., R. 13 W., near center of sec. 21, 25 ft. S. and 35 ft. E. from crossroads, 10 ft. E. of fence corner, in concrete post; standard tablet stamped "15 A 1929 Mich".....	786. 996
Reference mark, 50 ft. N. and 20 ft. E. from crossroads, in root on NW. side of large forked elm tree; copper nail and washer.....	788. 82
T. 11 N., R. 13 W., 160 ft. S. of N $\frac{1}{4}$ cor. sec. 28, on W. side of rd., in SE. corner of schoolyard, 60 ft. S. and 35 ft. E. from SE. corner of schoolhouse, in root on E. side of 24-in. tree, southernmost of two maple trees standing 20 ft. apart; copper nail and washer.....	782. 02
T. 11 N., R. 13 W., near quarter corner between secs. 28 and 33, in SE. corner of crossroads, on top of N. end of E. concrete head wall of culvert under N.-S. rd.; chiseled square.....	765. 94
T. 11 N., R. 13 W., near center of sec. 33, 25 ft. N. and 30 ft. W. from crossroads, on field side of fence, in root on SE. side of 24-in. elm tree; copper nail and washer.....	758. 31

<sup>59</sup> This mark replaces the bench mark with elevation 841. 62 feet set in 1916 in the same tree.



Trent, 2.0 mi. N., thence 0.5 mi. E. from, near S $\frac{1}{4}$ cor. sec. 33, T. 11 N., R. 13 W., at Newaygo-Muskegon county line, at crossroads, on N. side of E.-W. rd., 115 ft. W. of N.-S. rd., in yard in front of brick residence, in root on S. side of 15-in. maple tree; copper nail and washer-----	Feet 759. 43
Trent, 2.0 mi. N. of, near N $\frac{1}{4}$ cor. sec. 5, T. 10 N., R. 13 W., 25 ft. S. and 30 ft. W. from junction of T-rd. S., 5 ft. W. of fence corner, in concrete post; standard tablet stamped "16 A 1929 Mich"-----	734. 219
Reference mark, 30 ft. E. of T-rd. S., on top of N. concrete head wall of culvert under E.-W. rd.; chiseled square-----	737. 30
Trent, 1.0 mi. N. of, near quarter corner between secs. 5 and 8, T. 10 N., R. 13 W., in SW. corner of crossroads, on top of S. end of W. curved concrete head wall of culvert; chiseled square-----	771. 51
Trent, at E. limits of, 65 ft. NE. of junction of rd. W., on SE. side of rd. NE., in root on W. side of 24-in. cottonwood tree; copper nail and washer-----	719. 74
Trent, 0.8 mi. S. of, 0.3 mi. S. of center of sec. 17, T. 10 N., R. 13 W., on top of S. end of E. guard wall of concrete bridge; chiseled square--	729. 44
From point 3 miles west of Fremont east and north along State Highway 20 to northwest corner sec. 28, T. 13 N., R. 13 W., thence along roads alternately east and south to point 4.2 miles north and 2 miles east from Newaygo, thence north into White Cloud quadrangle at point 3.7 miles south and 0.5 mile east from White Cloud (by S. R. Archer in 1929)	
Fremont, 1.6 mi. W. of Pere Marquette Ry. sta. at, 530 ft. E. of S $\frac{1}{4}$ cor. sec. 33, T. 13 N., R. 14 W., on top of N. concrete head wall of highway culvert; chiseled square-----	797. 03
Fremont, 1.3 mi. W. of, near NE. cor. sec. 4, T. 12 N., R. 14 W., in SW. corner of crossroads, in root on NW. side of 12-in. elm tree; copper nail and washer-----	802. 29
Fremont, 0.3 mi. W. of, near SE. cor. sec. 34, T. 13 N., R. 14 W., on S. side of highway, 210 ft. W. of junction of T-rd. N., in root on NE. side of 36-in. elm tree; copper nail and washer-----	787. 38
Fremont, at Main Street crossing of Pere Marquette Ry., at main track SW. of sta.; top of E. rail-----	791. 6
Fremont, on S. side of Main Street, 770 ft. E. of Pere Marquette Ry. crossing, in front of city waterworks pumping sta., on E. side at top of concrete steps leading down to N. entrance, 3 in. S. of foot of N. post of iron railing, on top of side wall of steps; chiseled square----	783. 84
Fremont, at SW. corner of intersection of Main and Division Streets, in front of Old State Bank building, near NE. corner, 2.9 ft. above sidewalk, in top of NE. corner of base of E. stone column; standard tablet stamped "1929 Mich 811" (recovered by U. S. C. & G. S. in 1934)-----	810. 399
Fremont, on S. side of Main Street, in NE. corner of yard of public school, 10 in. S. of Main Street sidewalk and E. side of walk leading to NE. entrance to school, in concrete post; standard tablet stamped "P T Sta No 24 F 1928" (recovered by U. S. C. & G. S. in 1934)----	822. 846
Fremont, 1.7 mi. E. of sta., in NW. cor. sec. 6, T. 12 N., R. 13 W., on S. side of highway, 80 ft. E. of crossroads, in root on N. side of 30-in. elm tree; copper nail and washer-----	869. 54
Fremont, 2.7 mi. E. of, in SE. cor. sec. 31, T. 13 N., R. 13 W., in NW. corner of crossroads, at fence corner, in root on S. side of 24-in. elm tree; copper nail and washer-----	866. 20

Fremont, 3.7 mi. E. of, in SW. cor. sec. 33, T. 13 N., R. 13 W., at turn in highway from E. to N., 80 ft. N. and 30 ft. E. from center of crossroads, 35 ft. N. of SW. corner of schoolyard, in concrete post; standard tablet stamped "T T Sta No 23 F 1928"-----	<i>Feet</i> 866. 015
Reference mark, in NE. corner of crossroads, at concrete steps in front of schoolhouse, on top of W. end of lower step; chiseled square-----	866. 81
Fremont, 3.7 mi. E., thence 1.0 mi. N. from, about 600 ft. E. of SW. cor. sec. 28, T. 13 N., R. 13 W., 45 ft. N. of T-rd. E. leading to Long Lake, on top of E. concrete head wall of culvert; chiseled square-----	858. 87
Fremont, 3.7 mi. E., thence 2.0 mi. N. from, 1.0 mi. S., thence 0.5 mi. W. from Wooster, in SW. cor. sec. 21, T. 13 N., R. 13 W., 30 ft. N. and 25 ft. E. from junction of rd. E.; standard iron post with bronze cap stamped "Prim Trav Sta No 31 1916 Mich"-----	877. 966
Reference mark, on W. side of highway, opposite rd. E., on top of N. concrete head wall of culvert under driveway to farmhouse; chiseled square-----	878. 18
Wooster, 1.0 mi. S. of, near S $\frac{1}{4}$ cor. sec. 21, T. 13 N., R. 13 W., 30 ft. N. and 65 ft. E. from junction of T-rd. N., in root on S. side of 30-in. oak tree; copper nail and washer-----	864. 83
Wooster, 1.0 mi. S., thence 0.6 mi. E. from, about 260 ft. E. of NW. cor. sec. 27, T. 13 N., R. 13 W., on top of E. end of S. concrete head wall of culvert; chiseled square-----	834. 75
Wooster, 1.0 mi. S., thence 1.5 mi. E. from, near S. cor. secs. 22 and 23, T. 13 N., R. 13 W., 40 ft. N. of junction of T-rd. S., 17 ft. N. of fence corner, on E. side of fence line N., in root on S. side of 12-in. maple tree; copper nail and washer-----	876. 75
Wooster, 1.0 mi. S., thence 2.5 mi. E. from, in NE. cor. sec. 26, T. 13 N., R. 13 W., 20 ft. S. and 25 ft. W. from junction of T-rd. W., 1 ft. N. and 10 ft. W. from fence corner, in concrete post; standard tablet stamped "14 A 1929 Mich"-----	910. 151
Reference mark, 7 ft. N. and 6 ft. E. from rd. junction, in crotch on SW. side of small forked oak tree; copper nail and washer-----	907. 14
Wooster, 2.0 mi. S. and 2.5 mi. E. from, 4.2 mi. N. and 1.0 mi. W. from Newaygo, in SE. cor. sec. 26, T. 13 N., R. 13 W., on N. side of rd., 80 ft. W. of crossroads, in root on SW. side of 6-in. oak tree; copper nail and washer-----	881. 24
Newaygo, 4.2 mi. N. of, about 500 ft. E. of NW. cor. sec. 31, T. 13 N., R. 12 W., in SE. corner of crossroads (rd. W. abandoned), in NW. corner of triangle at junction of rd. S., in root on W. side of 6-in. oak tree with triangular blaze directly above point; copper nail and washer-----	913. 69
Newaygo, 4.2 mi. N. and 1.0 mi. E. from, 4.8 mi. S. and 0.5 mi. W. from White Cloud, about 800 ft. W. of SE. cor. sec. 30, T. 13 N., R. 12 W., 0.4 mi. W. of Pere Marquette Ry. crossing, on N. side of rd., in root on N. side of 12-in. oak tree with triangular blaze directly above point; copper nail and washer-----	849. 20
White Cloud, 4.8 mi. S. of, about 500 ft. W. of quarter corner between secs. 29 and 32, T. 13 N., R. 12 W., 175 ft. E. of intersection of State Highway 37, on N. side of E.-W. rd., 35 ft. N. and 50 ft. E. from Pere Marquette Ry. crossing, 5 ft. N. and 1 ft. W. from NE. right-of-way fence corner, in concrete post; standard tablet stamped "13 A 1929 Mich" (recovered by U. S. C. & G. S. in 1934)-----	828. 922

Reference mark, 55 ft. S. of tablet, 20 ft. S. and 55 ft. E. from Ry. crossing, 20 ft. N. and 4 ft. E. from SE. right-of-way fence corner, in root on NE. side of twin oak tree; copper nail and washer	Feet 829. 09
White Cloud, 4.8 mi. S. and 0.3 mi. E. from, about 0.2 mi. E. of quarter corner between secs. 29 and 32, T. 13 N., R. 12 W., 25 ft. S. and 20 ft. W. from rd. fork, in root on SW. side of 15-in. oak tree; copper nail and washer	820. 37
White Cloud, 4.3 mi. S. and 0.5 mi. E. from, near quarter corner between secs. 28 and 29, T. 13 N., R. 12 W., 40 ft. N. and 35 ft. E. from junction of T-rd. E., in root on W. side of 24-in. oak tree with triangular blaze above point; copper nail and washer	824. 88
White Cloud, 3.8 mi. S. and 0.5 mi. E. from, about 630 ft. N. of SW. cor. sec. 21, T. 13 N., R. 12 W., at bridge over Bigelow Creek, on top of E. concrete head wall; chiseled square	814. 37

NILES QUADRANGLE <sup>60</sup>

[Latitude 41°45'-42°00'; longitude 86°15'-86°30']

## BERRIEN COUNTY

From Benton Harbor quadrangle at point 1 mile south and 1.3 miles east from Stevensville along roads south to crossroads 2.5 miles south of Galien, thence generally east by way of Bertrand into Cassopolis quadrangle (by C. E. Walker in 1926)

Stevensville, 1.3 mi. E., thence 1.0 mi. S. from, 0.5 mi. W., thence 3.0 mi. N. from Baroda, 21 ft. N. and 29 ft. E. from crossroads, near cor. secs. 26, 27, 34, and 35, T. 5 S., R. 19 W., 13 ft. NE. of NE. corner of concrete abutment of culvert, in concrete post; standard tablet stamped "P T Sta No 46 Y 1925"	636. 482
Reference mark, in SW. corner of crossroads, at angle on top of concrete head wall of culvert; chiseled square	636. 74
Baroda, 0.5 mi. W., thence 1.9 mi. N. from, at NE. cor. sec. 3, T. 6 S., R. 19 W., 15 ft. S. and 18 ft. W. from center of crossroads, on concrete culvert; chiseled square	641. 21
Baroda, 0.5 mi. W., thence 1.3 mi. N. from, about 600 ft. S. of E $\frac{1}{4}$ cor. sec. 3, T. 6 S., R. 19 W., 100 ft. W. of crossroads, in front yard of Wm. Rhimer, in root on E. side of 30-in. cedar tree; copper nail and washer	635. 56
Baroda, 0.5 mi. W., thence 1.2 mi. N. from, in SW $\frac{1}{4}$ sec. 3, T. 6 S., R. 19 W., at bridge over Hickory Creek, on SW. wing wall; chiseled square	623. 60
Baroda, 0.5 mi. W., thence 1.0 mi. N. from, near SE. cor. sec. 3, T. 6 S., R. 19 W., 20 ft. N. and 20 ft. W. from center of crossroads, on concrete culvert; chiseled square	639. 72
Baroda, 0.5 mi. W. of, near NE. cor. sec. 15, T. 6 S., R. 19 W., 32 ft. S. and 26 ft. W. from center of crossroads, 7 ft. SE. of 30-in. broken maple tree, in concrete post; standard tablet stamped "P T Sta No 47 Y 1925"	641. 111
Reference mark, 30 ft. S. and 25 ft. W. from crossroads, in root on SE. side of 30-in. maple tree; copper nail and washer	641. 38
Baroda, 0.5 mi. W., thence 1.0 mi. S. from, at SE. cor. sec. 15, T. 6 S., R. 19 W., in NW. corner of crossroads, on concrete head wall of culvert; chiseled square	643. 23

<sup>60</sup> A narrow strip along the south border of this quadrangle lies in Indiana.

Baroda, 0.5 mi. W., thence 2.0 mi. S. from, 0.5 mi. SW., thence 0.5 mi. N. from Snow, near NW. cor. sec. 26, T. 6 S., R. 19 W., 60 ft. S. and 20 ft. E. from junction of T-rd. W., in NW. side of 14-in. hickory tree; copper nail and washer-----	Feet 649. 62
Snow, 0.5 mi. SW. of, 0.3 mi. W., thence 2.5 mi. N. from Glendora, 200 ft. N. of quarter corner between secs. 26 and 27, T. 6 S., R. 19 W., 23 ft. S. and 25 ft. E. from center of crossroads, 11 ft. S. of junction of telephone lines, in concrete post; standard tablet stamped "P T Sta No 48 Y 1925"-----	643. 351
Reference mark, 30 ft. S. and 20 ft. W. from center of crossroads, at angle on top of concrete head wall of culvert; chiseled square-----	645. 67
Glendora, 0.3 mi. W., thence 1.0 mi. N. from, near SW. cor. sec. 35, T. 6 S., R. 19 W., 10 ft. N. and 35 ft. E. from crossroads, on NW. corner of bridge, on steel floor plate; painted square-----	642. 91
Glendora, 0.3 mi. W. of, near NE. cor. sec. 10, T. 7 S., R. 19 W., 47 ft. S. and 26 ft. W. from center of crossroads, 6.5 ft. SE. of 24-in. hickory tree, 4.5 ft. SW. of 36-in. walnut tree, in concrete post; standard tablet stamped "P T Sta No 39 Y 1925"-----	675. 746
Reference mark, 40 ft. N. and 30 ft. E. from crossroads, at store of Charles P. Smith, on S. end of concrete base of service sta.; chiseled square-----	669. 59
Glendora, 0.3 mi. W., thence 1.0 mi. S. from, 4.6 mi. N. of Galien public school, near NE. cor. sec. 15, T. 7 S., R. 19 W., at highway bridge over East Branch of Galien River, on NW. wing wall; chiseled square-----	656. 88
Galien, 4.1 mi. N. of, near E $\frac{1}{4}$ cor. sec. 15, T. 7 S., R. 19 W., in NW. angle of crossroads, at entrance to Painter School, on SE. corner of concrete platform; chiseled square-----	671. 10
Galien, 3.6 mi. N. of, near SE. cor. sec. 15, T. 7 S., R. 19 W., 15 ft. N. and 15 ft. W. from junction of T-rd. W., on concrete head wall of culvert; chiseled square-----	668. 29
Galien, 2.5 mi. N. of, near NW. cor. sec. 26, T. 7 S., R. 19 W., 29 ft. S. and 27 ft. E. from center of crossroads, 5 ft. S. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 40 Y 1925"-----	681. 335
Reference mark, 20 ft. N. and 15 ft. E. from center of crossroads, on concrete culvert; chiseled square-----	677. 68
Galien, 1.5 mi. N. of, near SE. cor. sec. 27, T. 7 S., R. 19 W., 15 ft. N. and 20 ft. W. from center of crossroads, on concrete culvert; chiseled square-----	673. 27
Galien, 0.5 mi. N. of, near NE. cor. sec. 3, T. 8 S., R. 19 W., 80 ft. S. and 15 ft. W. from crossroads, on concrete culvert; chiseled square-----	667. 06
Galien, in NW. corner of yard of public school, 85 ft. NE. of NE. corner of school building, 67 ft. N. of concrete walk of main entrance, 4 ft. W. of W. edge of street sidewalk, in concrete post; standard tablet stamped "P T Sta No 41 Y 1925"-----	684. 259
Reference mark, on W. side of highway, at entrance of schoolhouse, on S. end of lower concrete step; chiseled square-----	685. 78
Galien, 0.5 mi. S. of public school, 20 ft. N. and 20 ft. E. from center of crossroads, on NE. end of wing wall of bridge; chiseled square---	680. 13
Galien, 1.5 mi. S. of, 0.25 mi. W. of SE. cor. sec. 10, T. 8 S., R. 19 W., 20 ft. N. and 15 ft. E. from center of crossroads, on concrete head wall of culvert; chiseled square-----	750. 66

Galien, 2.5 mi. S. of, 0.25 mi. W. of SE. cor. sec. 15, T. 8 S., R. 19 W., 32 ft. N. and 33 ft. W. from center of crossroads, 24 ft. SE. of SE. corner of Gleaner's Hall, 4 ft. SW. of large sycamore tree; in concrete post; standard tablet stamped "P T Sta No 26 Y 1925"-----	Feet 746. 987
Reference mark, 27 ft. N. and 10 ft. E. from center of crossroads, on concrete head wall of culvert; chiseled square-----	747. 31
Galien, 2.5 mi. S., thence 0.8 mi. E. from, near quarter corner between secs. 14 and 23, T. 8 S., R. 19 W., at junction of private T-rd. S., opposite small lake, on E. end of concrete head wall of culvert; chiseled square-----	751. 08
Galien, 2.5 mi. S., thence 1.2 mi. E. from, near SW. cor. sec. 13, T. 8 S., R. 19 W., 45 ft. N. and 60 ft. E. from junction of T-rd. N., 670 ft. W. of Michigan Central R. R., on NE. side of leaning 10-in. cherry tree, in knot at base: copper nail and washer-----	754. 41
Michigan Central R. R., at crossing; top of E. rail-----	751. 5
Galien, 2.5 mi. S., thence 2.6 mi. E. from, 0.3 mi. E. of SW. cor. sec. 18, T. 8 S., R. 18 W., about 1.2 mi. E. of R. R. crossing, 20 ft. N. of rd., in S. side of 36-in. maple tree; copper nail and washer-----	759. 51
Galien, 2.5 mi. S., thence 3.1 mi. E. from, 2.0 mi. S. of Dayton, 0.2 mi. W. of SE. cor. sec. 18, T. 8 S., R. 18 W., 23 ft. N. and 24 ft. W. from junction of improved rd. NE.-SW., 6 ft. W. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 25 Y 1925"-----	743. 063
Reference mark, 425 ft. S. of rd. junction, on E. concrete head wall of culvert; chiseled square-----	742. 36
[Line jogs into Indiana]	
Bertrand, 6.9 mi. SW. of highway intersection at, near center of sec. 22, T. 8 S., R. 18 W., 0.4 mi. NE. of State line crossing highway, 30 ft. S. and 50 ft. W. from junction of rd. N., in root on SW. side of 10-in. apple tree; copper nail and washer-----	809. 92
Bertrand, 6.0 mi. SW. of, in NW $\frac{1}{4}$ sec. 23, T. 8 S., R. 18 W., in NW. corner of rd. fork, 6 ft. N. of E.-W. rd., on concrete head wall of culvert; chiseled square-----	818. 46
Bertrand, 5.3 mi. SW. of, 4.0 mi. S. of Buchanan, 450 ft. S. of NW. cor. sec. 24, T. 8 S., R. 18 W., 28 ft. S. and 35 ft. E. from crossroads, 13 ft. E. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 23 Y 1925"-----	808. 175
Reference mark, 30 ft. S. and 20 ft. E. from crossroads, in N. side of 30-in. oak tree; copper nail and washer-----	808. 32
Bertrand, 4.4 mi. W. of highway intersection, near SW. cor. sec. 18, T. 8 S., R. 17 W., 100 ft. N. and 20 ft. E. from crossroads, in root on S. side of 6-in. walnut tree; copper nail and washer-----	809. 73
Bertrand, 3.5 mi. W. of, about 700 ft. N. of SW. cor. sec. 17, T. 8 S., R. 17 W., 30 ft. S. and 30 ft. E. from center of crossroads, on concrete base of corner fence post; chiseled square-----	804. 81
Bertrand, 2.5 mi. W. of, 0.3 mi. N. of SE. cor. sec. 17, T. 8 S., R. 17 W., in SE. corner of yard of Dutch Corners School, 45 ft. N. and 36 ft. W. from center of crossroads, 40 ft. SE. from SE. corner of school building, in concrete post; standard tablet stamped "P T Sta No 22 Y 1925"-----	783. 475
Reference mark, at entrance to schoolhouse, on SE. corner of lower concrete step; chiseled square-----	785. 51

Bertrand, 1.5 mi. W. of, 0.2 mi. S. of E $\frac{1}{4}$ cor. sec. 16, T. 8 S., R. 17 W., 75 ft. N. and 15 ft. W. from junction of T-rd. N., in root 2 in. underground on SE. side of 8-in. maple tree; copper nail and washer.	Feet 785. 33
Bertrand, 0.7 mi. W. of highway intersection at, in SE $\frac{1}{4}$ sec. 15, T. 8 S., R. 17 W., at SW. corner of bridge over St. Joseph River, 2 ft. S. of SW. anchor plate, on capstone; chiseled square-----	669. 06
St. Joseph River, under bridge; surface of water Sept. 2, 1926-----	654. 4
Bertrand, 0.4 mi. S. of intersection of U. S. Highway 31 and improved E.-W. rd., near quarter corner between secs. 14 and 23, T. 8 S., R. 17 W., 0.6 mi. N. of Indiana-Michigan State line, 32 ft. W. of highway, 25 ft. N. of rd., 6 ft. W. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 21 Y 1925"-----	723. 983
Reference mark, in NW. corner of intersection of highway and rd., on concrete head wall; chiseled square-----	723. 00

From Bertrand north along U. S. Highway 31 to Niles, thence northeast along State Highway 40 into Cassopolis quadrangle (by C. E. Walker in 1926)

Bertrand, 1.6 mi. N. of intersection of highway and improved rd. at, 2.3 mi. S. of post office at Niles, near Bell School, 28 ft. S. and 24 ft. W. from intersection of highway and E.-W. rd., in root on E. side of 12-in. maple tree; copper nail and washer-----	719. 60
Niles, 1.2 mi. S. of, 550 ft. N. of Cleveland, Cincinnati, Chicago & St. Louis Ry., on W. side at curve in highway, in fence line, in root 2 in. underground on SE. side of double-trunked haw tree; copper nail and washer-----	695. 53
Niles, in N. end of bottom step at Fourth Street entrance to post office; standard tablet stamped "P T Sta No 55 Y 1925" (recovered by U.S.C. & G.S. in 1930)-----	688. 443
Reference mark, 20 ft. N. and 20 ft. E. from E. door to post office, on curb; chiseled square-----	688. 31
Niles, 1.1 mi. N. of post office, about 150 ft. W. of highway, at city water tower, on E. side of standpipe, 4 ft. SW. of manhole, on top of first tier of rock base, on edge of rock; chiseled square-----	717. 79

From crossroads 0.3 mile west of Glendora generally east along roads into Cassopolis quadrangle at point 4.3 miles north of Niles (by C. E. Walker in 1926)

Glendora, 0.7 mi. E. of, near SW. cor. sec. 1, T. 7 S., R. 19 W., 20 ft. N. and 20 ft. E. from crossroads; on concrete culvert; chiseled square-----	706. 73
Glendora, 1.7 mi. E. of, near SE. cor. sec. 1, T. 7 S., R. 19 W., 15 ft. N. and 18 ft. W. from junction of T-rd. N., on concrete culvert; chiseled square-----	740. 03
Glendora, 3.0 mi. E. of, 0.25 mi. E. of SW. cor. sec. 5, T. 7 S., R. 18 W., at jog in N.-S. rd., in SW. corner of yard of Coveney School, 23 ft. N. and 57 ft. E. from junction of T-rd. N., 60 ft. SW. of SW. corner of schoolhouse, in concrete post; standard tablet stamped "P T Sta No 49 Y 1925"-----	735. 609
Reference mark, 180 ft. SW. of tablet, 12 ft. S. and 18 ft. W. from junction of T-rd. S., on concrete head wall; chiseled square-----	733. 32
Glendora, 3.7 mi. E. of, near NE. cor. sec. 8, T. 7 S., R. 18 W., 18 ft. S. and 20 ft. W. from crossroads, on concrete head wall; chiseled square-----	717. 58

Glendora, 5.0 mi. E. of, 4.3 mi. NW. of Buchanan, 0.25 mi. E. of SW. cor. sec. 3, T. 7 S., R. 18 W., in SW. corner of yard of Colvin School, 39 ft. N. and 34 ft. E. from junction of rd. N., 57 ft. W. of SW. corner of school, 6 ft. S. of 18-in. maple tree, in concrete post; standard tablet stamped "P T Sta No 50 Y 1925"-----	Feet 762.036
Reference mark, at entrance to school, on SW. corner of concrete platform; chiseled square-----	763.54
Buchanan, 3.8 mi. N. and 0.5 mi. W. from, in NW $\frac{1}{4}$ sec. 11, T. 7 S., R. 18 W., 0.3 mi. N. and 0.5 mi. W. from Kelsey School, 30 ft. S. of center line of rd., 100 ft. W. of N.-S. fence line, in root on NE. side of 14-in. maple tree, easternmost in row; copper nail and washer-----	768.74
St. Joseph River, near NW. cor. sec. 12, T. 7 S., R. 18 W.; surface of water Nov. 2, 1926-----	622.8
Buchanan, 4.1 mi. N. and 1.0 mi. E. from, 4.2 mi. S. of Berrien Springs, near SW. cor. sec. 6, T. 7 S., R. 17 W., on N. side of rd., opposite De Mott School, 82 ft. N. and 42 ft. E. from junction of N.-S. rd., 12 ft. E. of electric power-line pole, in concrete post; standard tablet stamped "P T Sta No 51 Y 1925"-----	769.413
Reference mark, in SE. angle of crossroads, at entrance to school, on NW. corner of concrete platform; chiseled square-----	769.75
Buchanan, 4.1 mi. N. and 2.0 mi. E. from, 3.8 mi. N. and 3.5 mi. W. from post office in Niles, near NW. cor. sec. 8, T. 7 S., R. 17 W., on S. side of rd., in fence line, 75 ft. E. of N.-S. fence line, in root on N. side of 10-in. hedge tree; copper nail and washer-----	755.60
Niles, 3.8 mi. N. and 2.3 mi. W. from, 945 ft. E. of NW. cor. sec. 9, T. 7 S., R. 17 W., in NW. corner of yard of St. Joseph Valley School, 137 ft. NW. of schoolhouse, 73 ft. SE. of intersection of U. S. Highway 31, in concrete post; standard tablet stamped "P T Sta No 52 Y 1925" <sup>61</sup> -----	748.954
Reference mark, in SE. angle of intersection of highway and E.-W. rd., at NW. corner of schoolyard, on concrete culvert; chiseled square-----	747.25
Niles, 4.3 mi. N. and 0.7 mi. W. from, 0.25 mi. E. of center of sec. 3, T. 7 S., R. 17 W., in SW. angle of intersection of highway and E.-W. rd., on concrete culvert; chiseled square-----	774.74
From point 1 mile south and 1.3 miles east from Stevensville east along road to U. S. Highway 31, thence across St. Joseph River near Tabor, thence along road into Cassopolis quadrangle at point 1 mile north and 2.5 miles east from Eau Claire <sup>62</sup> (by C. E. Walker in 1928)	
T. 5 S., R. 19 W., in NE. cor. sec. 35, 0.5 mi. S. of Derby School, 36 ft. S. and 12 ft. W. from crossroads, on W. concrete head wall of culvert; chiseled square-----	661.73
T. 5 S., R. 19 W., near quarter corner between secs. 25 and 36, 150 ft. E. of junction of T-rd. S., on culvert; chiseled square-----	650.24

<sup>61</sup> In 1933 this bench mark was moved 19.97 feet due east of this position and reset 0.650 foot lower than its original elevation. The figures given represent the new elevation.

<sup>62</sup> Descriptions of some of these bench marks appear also in Benton Harbor quadrangle.

T. 5 S., R. 18 W., in SW. cor. sec. 30, 5 ft. N. and 18 ft. E. from crossroads, on concrete culvert; chiseled square-----	<i>Feet</i> 645. 12
T. 5 S., R. 18 W., in SE. cor. sec. 30, 2.8 mi. S. of Scottdale, 1.0 mi. S. of Tryon School, 20 ft. N. and 32 ft. W. from crossroads, 44 ft. SE. of SE. corner of house, in concrete post; standard tablet stamped "P T Sta No 57 Y 1925"-----	664. 809
T. 5 S., R. 18 W., near S. side SE $\frac{1}{4}$ sec. 28, 3.2 mi. SE. of Scottdale, 1.0 mi. NW. of Arden, 18 ft. N. and 28 ft. E. from intersection of U. S. Highway 31, at store of John Greening, on SW. corner of concrete porch floor; chiseled square-----	653. 37
[Line jogs into Benton Harbor quadrangle]	
T. 5 S., R. 18 W., about 700 ft. E. of SW. cor. sec. 26, 1.0 mi. N. and 3.8 mi. W. from Eau Claire, 0.6 mi. SE. of Tabor, at Taylor Crossing, 1,000 ft. W. of Tabor School, between highway and electric R. R., 27 ft. N. and 36 ft. W. from junction of rd. E., 13 ft. W. of W. rail of track, in concrete post; standard tablet stamped "P T Sta No 58 Y 1925"-----	648. 041
Reference mark, near interurban sta., 20 ft. S. and 20 ft. W. from rd. junction, on field side of fence, in root on N. side of 14-in. chinaberry tree; copper nail and washer-----	648. 24
Eau Claire, 1.0 mi. N. and 3.0 mi. W. from, in SE. cor. sec. 26, T. 5 S., R. 18 W., 1.4 mi. S. of Mount Pleasant School, 46 ft. N. and 25 ft. W. from crossroads, in root on S. side of 12-in. chestnut tree; copper nail and washer-----	688. 28
Eau Claire, 1.0 mi. N. and 1.8 mi. W. from, 1.0 mi. S. and 0.5 mi. W. from Hartman, near S. side SW $\frac{1}{4}$ sec. 30, T. 5 S., R. 17 W., 40 ft. N. and 45 ft. W. from crossroads, in root on N. side of 20-in. beech tree; copper nail and washer-----	683. 15
Eau Claire, 1.0 mi. N. and 1.0 mi. W. from, 1.0 mi. S. and 0.3 mi. E. from Hartman, near cor. secs. 29, 30, 31, and 32, T. 5 S., R. 17 W., 135 ft. N. of rd. junction, 32 ft. W. of center line of rd. N., 56 ft. SE. of SE. corner of brick house, in concrete post; standard tablet stamped "P T Sta No 59 Y 1925"-----	684. 662
Reference mark, 75 ft. W. of rd. junction, on concrete head wall of culvert; chiseled square-----	683. 54
[Line jogs into Benton Harbor quadrangle]	
Eau Claire, 1.0 mi. N. of, near cor. secs. 28, 29, 32, and 33, T. 5 S., R. 17 W., on center line of T-rd. E., on concrete culvert; chiseled square-----	687. 64
Eau Claire, 1.0 mi. N., thence 1.0 mi. E. from, near SE. cor. sec. 28, T. 5 S., R. 17 W., 22 ft. N. and 31 ft. W. from crossroads, 7 ft. W. of 12-in. oak tree, in concrete post; standard tablet stamped "P T Sta No 60 Y 1925"-----	747. 868
Reference mark, 30 ft. N. and 20 ft. E. from crossroads, in root on N. side of 6-in. maple tree; copper nail and washer-----	743. 55
Eau Claire, 1.0 mi. N., thence 1.8 mi. E. from, near S. side SE $\frac{1}{4}$ sec. 27, T. 5 S., R. 17 W., at junction of T-rd. S., at entrance to Ferry School, on SW. corner of concrete platform; chiseled square-----	780. 89



NORWAY QUADRANGLE <sup>63</sup>

[Latitude 45°45'-46°00'; longitude 87°45'-88°00']

## DICKINSON COUNTY

From Iron Mountain quadrangle near Quinnesec southeast to Waucedah (by J. L. Holman in 1898) <sup>64</sup>

Quinnesec, in NE¼ sec. 3, T. 39 N., R. 30 W., 500 ft. N. of Chicago and North Western Ry. sta., in SW. corner of large brick building owned by Captain John Buell; aluminum tablet stamped "I M 1040"-----	Feet 1, 038. 350
Norway, in NE¼ sec. 8, T. 39 N., R. 29 W., in NE. corner of foundation of schoolhouse; aluminum tablet stamped "I M 946"-----	944. 190
Waucedah, in NE¼ sec. 22, T. 39 N., R. 28 W., 500 ft. W. of C. and N. W. Ry. sta., in NW. corner of foundation of schoolhouse; aluminum tablet stamped "I M 904"-----	903. 020

## PAYNESVILLE QUADRANGLE

[Latitude 46°30'-46°45'; longitude 89°00'-89°15']

## ONTONAGON COUNTY

From Greenland quadrangle south along Copper Range Railroad to McKeever, thence southeast along Chicago, Milwaukee, St. Paul and Pacific Railroad into Rubicon quadrangle (first-order leveling by E. L. McNair in 1911)

McKeever, 55 ft. W. of quarter corner between secs. 9 and 10, T. 5 N., R. 38 W., near S. end of wye, 135 ft. E. of track, in line with rd. W., on top of bank; standard iron post with bronze cap stamped "1057"-----	1, 057. 068
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## PERRINTON QUADRANGLE

[Latitude 43°00'-43°15'; longitude 84°30'-84°45']

## CLINTON AND GRATIOT COUNTIES

From Elsie quadrangle near southwest corner sec. 13, T. 10 N., R. 2 W., south along roads to crossroads 2.8 miles east of St. Johns, thence east 0.25 mile and back into Elsie quadrangle (by E. C. Bibbee in 1915)

T. 10 N., R. 2 W., near SW. cor. sec. 13, near NE. corner of crossroads, in center of E. parapet of culvert; chiseled square-----	701. 05
T. 10 N., R. 2 W., at cor. secs. 23, 24, 25, and 26, at center of crossroads, on stone marking section corner; chiseled square-----	689. 65
T. 10 N., R. 2 W., in SW. cor. sec. 25, near Woodman School, in NE. angle of crossroads, 2 ft. N. of corner fence post; standard iron post with bronze cap stamped "Mich 684"-----	683. 686
T. 9 N., R. 2 W., near NW. cor. sec. 1, in SE. angle of crossroads, 15 ft. NW. of corner fence post, on large granite rock; chiseled square-----	682. 23
T. 9 N., R. 2 W., in SW. cor. sec. 1, at Cement School, in NE. angle of crossroads, 40 ft. N. of corner fence post, in root of 12-in. maple tree; copper nail and washer-----	679. 25
T. 9 N., R. 2 W., near SW. cor. sec. 12, in NE. angle of crossroads, 4 ft. N. and 1 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 671"-----	670. 431
T. 9 N., R. 2 W., near SE. cor. sec. 14, near NW. corner of crossroads, on W. end of N. concrete head wall of culvert; chiseled square-----	659. 83

<sup>63</sup> A small portion of this quadrangle lies in Wisconsin. An area in the Michigan portion about 6 miles in width and extending southeastward across the quadrangle was surveyed and originally published, together with a portion of the Iron Mountain quadrangle, as Menominee Iron Range special project.

<sup>64</sup> The elevations in this line are based on the top of rail of the Chicago, Milwaukee, St. Paul and Pacific Railroad in front of the station at Iron Mountain, the elevation of which is tentatively accepted as 1,133.58 feet or 1.42 feet lower than the figures previously published. The figures of elevation are approximate but are very nearly in accord with the 1929 general adjustment.

T. 9 N., R. 2 W., about 400 ft. S. of NE. cor. sec. 26, at SW. corner of iron bridge over Maple River, on fishplate; chiseled mark-----	<i>Feet</i> 658. 55
T. 9 N., R. 2 W., in SE. cor. sec. 26, near NW. corner of crossroads, at NE. corner of concrete bridge, on wing wall; chiseled square----	661. 41
T. 8 N., R. 2 W., in NE. cor. sec. 2, 1.0 mi. N., thence 0.5 mi. E. from Eureka, near Clinton-Gratiot county line, in SW. angle of crossroads, 13 ft. NE. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 3 1915 Mich 679"-----	678. 200
Eureka, 0.5 mi. E. of, in NE. cor. sec. 11, T. 8 N., R. 2 W., near SW. corner of crossroads, at SW. corner of small wooden bridge, on W. end of S. abutment; chiseled square-----	687. 78
T. 8 N., R. 2 W., near E $\frac{1}{4}$ cor. sec. 11, 0.5 mi. S., thence 0.5 mi. E. from Eureka, in NW. angle of crossroads, opposite Eagle School, in root of 12-in. hickory tree; copper nail and washer-----	707. 20
T. 8 N., R. 2 W., near E $\frac{1}{4}$ cor. sec. 14, 20 ft. S. of SW. corner of junction of E.-W. rd., at N. end of bridge, on granite rock; chiseled square-----	729. 25

[Line jogs into Elsie quadrangle]

T. 8 N., R. 2 W., near NW. cor. sec. 36, at junction of T-rd. S., at S. side of bridge over ditch, on E. abutment; chiseled square-----	718. 68
T. 8 N., R. 2 W., near SW. cor. sec. 36, 80 ft. N. of Bingham-Greenbush township line, on E. side of rd., in open field, 10 ft. E. of E. fence line, in root of 12-in. maple tree; copper nail and washer----	727. 48
T. 7 N., R. 2 W., at cor. secs. 1, 2, 11, and 12, near Parker School, in center of crossroads, on granite rock; chiseled square-----	756. 94
T. 7 N., R. 2 W., in SW. cor. sec. 12, 2.8 mi. E. of Clinton County courthouse at St. Johns, in NE. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 2 Mich 756" (recovered in 1921)-----	755. 571

From southwest corner sec. 13, T. 10 N., R. 2 W., west along road to crossroads 2 miles west of North Star, thence south to crossroads 1.2 miles west of St. Johns (by E. C. Bibbee in 1915)

North Star sta. on Ann Arbor R. R., 300 ft. S. of; top of rail-----	718. 5
North Star, 420 ft. W. of crossroads at, near N. side NE $\frac{1}{4}$ sec. 21, T. 10 N., R. 2 W., in N. side of yard and directly in front of school-house; standard iron post with bronze cap stamped "Mich 720"----	719. 273
North Star, 1.0 mi. W. of, in SW. cor. sec. 16, T. 10 N., R. 2 W., near NE. corner of crossroads, on S. end of E. parapet over culvert; chiseled square-----	725. 13
North Star, 2.0 mi. W., thence 1.0 mi. S. from, near NE. cor. sec. 30, T. 10 N., R. 2 W., 40 ft. S. of center of crossroads, at W. side of small bridge, on N. abutment; chiseled square-----	731. 53
North Star, 2.0 mi. W., thence 2.0 mi. S. from, near Levering School, 100 ft. N. of SE. cor. sec. 30, T. 10 N., R. 2 W., on S. end of W. concrete head wall of culvert; chiseled square-----	727. 04
North Star, 2.0 mi. W., thence 3.0 mi. S. from, 1.5 mi. N., thence 1.0 mi. E. from Pompeii, near NE. cor. sec. 6, T. 9 N., R. 2 W., 30 ft. S. and 30 ft. W. from center of crossroads; standard iron post with bronze cap stamped "Mich 717"-----	716. 521
Pompeii, 0.5 mi. N., thence 1.0 mi. E. from, near SE. cor. sec. 6, T. 9 N., R. 2 W., in NW. angle of crossroads, at W. end of culvert, on granite rock; chiseled square-----	712. 29

Pompeii, 0.5 mi. S., thence 1.0 mi. E. from, near SW. cor. sec. 8, T. 9 N., R. 2 W., in NE. angle of crossroads, 20 ft. S. of corner fence post, on large granite rock; chiseled square-----	Feet 697. 56
Pompeii, 1.5 mi. S., thence 1.0 mi. E. from, 1.8 mi. N., thence 1.0 mi. E. from Bridgeville, near SW. cor. sec. 17, T. 9 N., R. 2 W., in NE. angle of crossroads, 4 ft. N. and 1 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 684"-----	683. 726
Bridgeville, 0.8 mi. N., thence 1.0 mi. E. from, near SW. cor. sec. 20, T. 9 N., R. 2 W., 10 ft. N. and 2 ft. W. from post on section line, directly E. of right-angle turn in rd. from S. to W., on large granite rock; chiseled square-----	660. 98
Maple River, on line between secs. 29 and 30, T. 9 N., R. 2 W.; surface of water Sept. 16, 1915-----	645. 6
Bridgeville, 0.9 mi. E., thence 0.2 mi. S. from, 35 ft. N. of SE. cor. sec. 30, T. 9 N., R. 2 W., on W. side of rd., 2 ft. E. of W. fence line, on large flat granite rock; chiseled square-----	655. 41
Bridgeville, 0.9 mi. E., thence 1.2 mi. S. from, near NW. cor. sec. 5, T. 8 N., R. 2 W., in SE. angle of crossroads, near Clinton-Gratiot county line, 4 ft. W. of fence corner; standard iron post with bronze cap stamped "Mich 696"-----	695. 604
Bridgeville, 0.9 mi. E., thence 2.2 mi. S. from, about 900 ft. N. of Union Home School, 120 ft. N. of SE. cor. sec. 6, T. 8 N., R. 2 W., in NW. angle of crossroads, 95 ft. N. and 10 ft. E. from fence corner, on large granite rock; chiseled square-----	736. 12
Bridgeville, 0.9 mi. E., thence 4.2 mi. S. from, 1.0 mi. W., thence 1.0 mi. N. from French's Corners, near NW. cor. sec. 20, T. 8 N., R. 2 W., in SE. angle of crossroads, 4 ft. W. of fence corner; standard iron post with bronze cap stamped "Mich 731"-----	730. 275
French's Corners, 1.0 mi. W. of, 1.5 mi. N. of Greenwood School, near SE. cor. sec. 19, T. 8 N., R. 2 W., in NW. angle of crossroads, 20 ft. N. and 10 ft. E. from fence corner, in root of 18-in. maple tree; copper nail and washer-----	714. 38
French's Corners, 1.0 mi. W., thence 2.0 mi. S. from, 1.2 mi. W., thence 2.0 mi. N. from St. Johns, 0.5 mi. S. of Greenwood School, in NW. cor. sec. 5, T. 7 N., R. 2 W., in SE. angle of crossroads, 6 ft. NW. of fence corner; standard iron post with bronze cap stamped "Mich 753"-----	752. 986
St. Johns, 1.2 mi. W., thence 1.0 mi. N. from, in NE. cor. sec. 7, T. 7 N., R. 2 W., in SW. angle of crossroads, 2 ft. N. and 15 ft. E. from fence corner, on large granite rock used for wheel guard; chiseled square-----	749. 86
St. Johns, 1.2 mi. W. of courthouse, near NE. cor. sec. 18, T. 7 N., R. 2 W., near crossroads, at NW. corner of small wooden bridge, on wing wall; chiseled square (recovered in 1921)-----	759. 32
From northeast corner sec. 19, T. 10 N., R. 2 W., along road west 4 miles to cross road, thence generally south by way of Maple Rapids to crossroads 4 miles east of Fowler (by E. C. Bibbee in 1915)	
T. 10 N., R. 2 W., in NW. cor. sec. 19, in SE. angle of crossroads, 5 ft. N. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 5 1913 Mich 751"-----	749. 890
T. 10 N., R. 3 W., in NW. cor. sec. 24, in SE. angle of crossroads, 15 ft. S. of fence corner, in fence line, in root of buckeye tree; copper nail and washer-----	763. 59

	<i>Feet</i>
T. 10 N., R. 3 W., 60 ft. S. and 15 ft. W. from NE. cor. sec. 22, on W. bank of small ditch, on large granite rock; chiseled square-----	762. 83
T. 10 N., R. 3 W., near NW. cor. sec. 22, 2.5 mi. E. of Newark Store, near Grange Hall, near SE. corner of crossroads, at E. side of bridge, on N. abutment; chiseled square-----	741. 00
T. 10 N., R. 3 W., near SW. cor. sec. 22, in NE. angle of crossroads, 16 ft. W. of fence corner on granite rock; chiseled square-----	754. 66
T. 10 N., R. 3 W., in NW. cor. sec. 34, in SE. angle of crossroads, in NW. corner of yard of Allen School; standard iron post with bronze cap stamped "Mich 749"-----	748. 315
T. 9 N., R. 3 W., at N. cor. secs. 3 and 4, at intersection of Fulton-Newark township-line rd., on stone marking section corner; chiseled square-----	763. 31
T. 9 N., R. 3 W., near SW. cor. sec. 3, in NE. angle of crossroads, 7 ft. SW. of fence corner, on granite rock; chiseled square-----	753. 56
T. 9 N., R. 3 W., in NW. cor. sec. 15, 0.5 mi. S., thence 1.0 mi. E. from Grand Trunk Ry. sta. at Perrinton, in SE. angle of crossroads; standard iron post with bronze cap stamped "Mich 740"-----	739. 411
T. 9 N., R. 3 W., at N $\frac{1}{4}$ cor. sec. 16, 0.5 mi. S., thence 0.5 mi. E. from Perrinton, 10 ft. NE. of SW. corner of junction of T-rd. S., on granite rock; chiseled square-----	729. 92
T. 9 N., R. 3 W., near center of sec. 21, in SE. angle of crossroads, 30 ft. S. of fence corner, on large granite rock; chiseled square-----	751. 48
T. 9 N., R. 3 W., near center of sec. 28, in SE. angle of junction of T-rd. E.; standard iron post with bronze cap stamped "Mich 721"-----	720. 062
T. 9 N., R. 3 W., near center of sec. 33, at junction of E.-W. rd., on E. end of N. concrete head wall of culvert; chiseled square-----	662. 83
Maple Rapids, 1.2 mi. N. of, 0.25 mi. S. of center of sec. 32, T. 9 N., R. 3 W., 0.25 mi. N. of Clinton-Gratiot county line, 60 ft. E. of SE. corner of junction of N.-S. rd., in root of 16-in. oak tree; copper nail and washer-----	670. 51
Clinton-Gratiot county line, near quarter corner between secs. 5 and 32, Tps. 8 and 9 N., R. 3 W.; surface of rd-----	654. 1
Maple Rapids, 0.3 mi. N. of, in SW $\frac{1}{4}$ sec. 5, T. 8 N., R. 3 W., at SW. corner of iron bridge over Maple River, on fishplate; chiseled mark-----	655. 46
Maple Rapids, 0.5 mi. S. of, about 600 ft. W. of center of sec. 8, T. 8 N., R. 3 W., near SE. corner of crossroads; standard iron post with bronze cap stamped "Mich 696"-----	694. 978
T. 8 N., R. 3 W., 100 ft. E. of SW. cor. sec. 9, 1.0 mi. S., thence 0.6 mi. E. from Maple Rapids, in NE. angle of crossroads, in N. fence line, in root of 24-in. elm tree; copper nail and washer-----	705. 99
T. 8 N., R. 3 W., in SE. cor. sec. 9, 1.0 mi. N. of Essex Center school, in NW. angle of crossroads, on concrete base of corner fence post; chiseled square-----	727. 33
T. 8 N., R. 3 W., in NW. cor. sec. 22, in SE. angle of crossroads, diagonally opposite Essex Center School, 4 ft. E. of fence corner; standard iron post with bronze cap stamped "Mich 726"-----	725. 943
T. 8 N., R. 3 W., in NW. cor. sec. 27, 1.0 mi. S. of Essex Center School, on S. end of E. parapet of concrete arch culvert; chiseled square--	715. 95
T. 8 N., R. 3 W., 170 ft. S. of NE. cor. sec. 33, at NW. corner of iron bridge over South Fork of Hayworth Creek, on fishplate; unmarked point-----	692. 70

T. 7 N., R. 3 W., in NW. cor. sec. 3, near Bengal-Essex township line, in SE. angle of junction of T-rd. S., 2 ft. W. of fence corner; standard iron post with bronze cap stamped "Mich 724"-----	Feet 723. 192
T. 7 N., R. 3 W., 80 ft. N. of SE. cor. sec. 4, 4.0 mi. E., thence 1.0 mi. N. from Fowler, at SW. corner of iron bridge over North Swargart Drain, on wing wall; chiseled square-----	712. 07
Fowler, 4.0 mi. E. of, 5.2 mi. W. of St. Johns, 250 ft. W. of NE. cor. sec. 16, T. 7 N., R. 3 W., near SW. corner of crossroads, at SW. corner of iron bridge, on wing wall; chiseled square-----	718. 08
From crossroads at corner secs. 15, 16, 21, and 22, T. 10 N., R. 3 W., west along road 4 miles to crossroads 1.5 miles west of Newark Store, thence generally south to Fowler (by E. C. Bibbee in 1915)	
Newark Store, 2.0 mi. E. of, near S $\frac{1}{4}$ cor. sec. 16, T. 10 N., R. 3 W., in NW. angle of junction of T-rd. N., 4 ft. S. of fence corner; standard iron post with bronze cap stamped "Mich 742"-----	740. 927
Newark Store, in SE. angle of crossroads at, 200 ft. E. of N $\frac{1}{4}$ cor. sec. 19, T. 10 N., R. 3 W., in fence line, in root of elm tree; copper nail and washer-----	752. 11
Newark Store, 1.0 mi. W. of, near S $\frac{1}{4}$ cor. sec. 13, T. 10 N., R. 4 W., 34 ft. E. of NE. corner of crossroads, on N. side of rd., in ditch, on large granite rock; chiseled square-----	754. 83
Newark Store, 1.5 mi. W. of, near NW. cor. sec. 24, T. 10 N., R. 4 W., in SE. angle of crossroads, 2 ft. N. and 2 ft. W. from fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 4 1913 Mich 762"-----	761. 165
T. 10 N., R. 4 W., in SE. cor. sec. 26, near Culy School, in NW. angle of crossroads, 6 ft. NE. of fence corner, on large granite rock; chiseled square-----	753. 34
T. 10 N., R. 4 W., in SE. cor. sec. 35, 1.0 mi. N. of Salisbury School, at Fulton-Newark township line, in NW. angle of crossroads, 2 ft. S. and 10 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 748"-----	747. 011
T. 9 N., R. 4 W., in NE. cor. sec. 11, about 200 ft. W. of Salisbury School, near SW. corner of crossroads, on E. end of S. concrete head wall of culvert; chiseled square-----	748. 92
T. 9 N., R. 4 W., in SE. cor. sec. 11, 1.0 mi. N. of Dobson School, on S. end of W. concrete head wall of culvert; chiseled square-----	747. 07
T. 9 N., R. 4 W., in NW. cor. sec. 24, 120 ft. SW. of Dobson School, in SE. angle of crossroads, 10 ft. S. and 4 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 745"-----	744. 644
T. 9 N., R. 4 W., in NE. cor. sec. 26, 1.0 mi. N. of Johnson School, in SW. angle of crossroads, at entrance to United Brethren Church, on bottom step; chiseled square-----	746. 02
T. 9 N., R. 4 W., in SW. cor. sec. 25, in NE. angle of crossroads, 4 ft. N. and 25 ft. E. from SW. corner of yard of Johnson School, on large granite rock; chiseled square-----	737. 26
T. 8 N., R. 4 W., 30 ft. S. and 25 ft. E. from NW. cor. sec. 1, near Clinton-Gratiot county line, in SE. angle of crossroads, 3 ft. NW. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 3 1913 Mich 736"-----	735. 111
T. 8 N., R. 4 W., 20 ft. W. of NE. cor. sec. 11, at turn from S. to W. in rd., on large granite rock; chiseled square-----	731. 42

T. 8 N., R. 4 W., 0.25 mi. NE. of center of sec. 11, at turn from S. to SW. in rd., 4 ft. S. of S. fence line, in root of wild-cherry tree; copper nail and washer-----	<i>Feet</i> 678. 00
Maple River, in SE $\frac{1}{4}$ sec. 11, T. 8 N., R. 4 W.; surface of water Sept. 4, 1915-----	641. 4
T. 8 N., R. 4 W., near NW. cor. sec. 13, in SE. angle of junction of T-rd. S., 3 ft. NW. of fence corner; standard iron post with bronze cap stamped "Mich 714"-----	713. 321
T. 8 N., R. 4 W., in SE. cor. sec. 14, on W. side of rd., opposite T-rd. E., 2 ft. E. of corner fence post, on large rock; chiseled square-----	727. 13
T. 8 N., R. 4 W., in SW. cor. sec. 25, 3.0 mi. N. of Fowler, in NE. angle of crossroads, in SW. corner of yard of Strickland School; standard iron post with bronze cap stamped "Mich 739"-----	737. 818
Fowler, 1.0 mi. N. of, near Knowland School, in SE. cor. sec. 2, T. 7 N., R. 4 W., near NW. corner of crossroads, on E. end of N. head wall of culvert; chiseled square-----	736. 22
Fowler, on W. side of N.-S. street, 575 ft. N. of SE. cor. sec. 11, T. 7 N., R. 4 W., at SW. corner of first E.-W. street N. of Grand Trunk Ry. track, 12 ft. N. of entrance of barber shop of Albert Gaddy; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1913 Mich 742"-----	741. 811

From Fowler east along road to crossroads 2.8 miles east of St. Johns (by E. C. Bibbee in 1915)

Fowler, 1.0 mi. E. of, near SE. cor. sec. 12, T. 7 N., R. 4 W., at crossroads, at NE. corner of iron bridge, on wing wall; chiseled square----	740. 56
Fowler, 3.0 mi. E. of, near NE. cor. sec. 17, T. 7 N., R. 3 W., on S. side of rd., at junction of T-rd. N., 4 ft. N. of S. fence line, directly opposite W. fence line of rd. N., on granite rock; chiseled square----	722. 17
Fowler, 5.0 mi. E. of, 4.2 mi. W. of St. Johns, near NE. cor. sec. 15, T. 7 N., R. 3 W., in SW. angle of crossroads, 5 ft. N. and 2 ft. W. from fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 1 1915 Mich 747"-----	746. 910
St. Johns, 3.1 mi. W. of, 550 ft. E. of NW. cor. sec. 13, T. 7 N., R. 3 W., at SE. corner of iron bridge, on wing wall; chiseled square----	735. 75
St. Johns, 2.2 mi. W. of, near SE. cor. sec. 12, T. 7 N., R. 3 W., in NW. angle of crossroads, 10 ft. SE. of fence corner, on large granite rock; chiseled square-----	756. 04
St. Johns, at Clinton County courthouse, in NW. corner of yard; standard iron post with bronze cap stamped "Mich 794" (recovered by U. S. C. & G. S. in 1934) <sup>65</sup> -----	793. 548
St. Johns, 0.8 mi. E. of courthouse, in SE. cor. sec. 9, T. 7 N., R. 2 W., near NW. corner of crossroads, on NE. corner of sidewalk; chiseled square-----	763. 64

From De Witt quadrangle at point 0.8 mile north of Bengal Center School north 0.2 mile to cross road, thence east 1 mile to northeast corner sec. 15, T. 7 N., R. 3 W. (by W. A. Shumate in 1921)

Bengal Center School, 1.0 mi. N. of, near SW. cor. sec. 10, T. 7 N., R. 3 W., in NE. angle of crossroads, in root of 18-in. elm tree; copper nail and washer (State Highway Dept. B. M.)-----	725. 36
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<sup>65</sup> In 1938 information was received that this bench mark was to be reset by the State Highway Dept.

PIONEER QUADRANGLE <sup>66</sup>

[Latitude 41°30'-41°45'; longitude 84°30'-84°45']

## HILLSDALE COUNTY

From Michigan-Ohio State line at point 4.2 miles south and 2 miles east from Camden along roads generally north to crossroads 0.8 mile west of Whitetown, thence west into Fremont quadrangle (by C. R. French in 1911)

Camden, 3.5 mi. S., thence 2.0 mi. E. from, near N $\frac{1}{4}$ cor. sec. 12, T. 8 S., R. 4 W., in SW. corner of crossroads, at edge of rd.; stone	Feet 1, 028. 01
Camden, 215 mi. S., thence 2.0 mi. E. from, near N $\frac{1}{4}$ cor. sec. 1, T. 8 S., R. 4 W., in SE. angle of junction of E.-W. rd., 10 ft. E. of rd., 70 ft. W. of 15-in. hickory tree; standard iron post with bronze cap stamped "993"	994. 003
Camden, 2.5 mi. S., thence 2.5 mi. E. from, near cor. secs. 1, 6, 31, and 36, Tps. 8 and 9 S., Rs. 3 and 4 W., at junction of T-rd. N., at bridge over West Fork of West Branch of St. Joseph River, in E. end of N. truss; top of nut on connecting pin	954. 64
St. Joseph River; surface of water Aug. 4, 1911	943. 0
Camden, 1.5 mi. S., thence 2.5 mi. E. from, 0.8 mi. W. of Whitetown, near SE. cor. sec. 25, T. 8 S., R. 4 W., in NW. corner of crossroads, at side of rd.; rock	1, 012. 83
Camden, 1.5 mi. S., thence 1.6 mi. E. from, near NW. cor. sec. 36, T. 8 S., R. 4 W., at bridge over West Fork of West Branch of St. Joseph River, at W. end of S. truss, in end post; bolt head	970. 64
From Michigan-Ohio State line at point 1.5 miles north and 2 miles east from Pioneer along roads north 2.5 miles, thence generally west to crossroads 1.5 miles south and 2.5 miles east from Camden (by C. W. Howell in 1911)	
Pioneer, 2.0 mi. N., thence 2.0 mi. E. from, 4.5 mi. S., thence 1.0 mi. E. from Ransom, near SE. cor. sec. 3, T. 9 S., R. 2 W., in NW. angle of crossroads; standard iron post with bronze cap stamped "887"	886. 037
Ransom, 2.5 mi. S., thence 1.0 mi. E. from, near W. cor. secs. 26 and 35, T. 8 S., R. 2 W., at head of T-rd. W.; standard iron post with bronze cap stamped "916"	915. 404
Ransom, 2.5 mi. S., thence 2.0 mi. W. from, near SW. cor. sec. 29, T. 8 S., R. 2 W., in NE. angle of junction of N.-S. rd.; standard iron post with bronze cap stamped "967"	966. 418
Ransom, 2.0 mi. S. and 3.0 mi. W. from, 0.7 mi. E., thence 2.5 mi. S. from Frontier, near quarter corner between secs. 25 and 30, T. 8 S., Rs. 2 and 3 W., at jog in N.-S. rd., at center of junction of T-rd. S., on large stone; chiseled square	1, 017. 57
Frontier, 1.3 mi. W., thence 3.0 mi. S. from, 3.0 mi. S., thence 1.0 mi. E. from Woodbridge, near NE. cor. sec. 34, T. 8 S., R. 3 W., at SW. corner of crossroads; standard iron post with bronze cap stamped "982"	981. 477
Woodbridge, 2.5 mi. S. of, near W $\frac{1}{4}$ cor. sec. 27, T. 8 S., R. 3 W., at head of T-rd. W., on stone; chiseled square	1, 006. 92
Woodbridge, 2.5 mi. S., thence 1.0 mi. W. from, 1.2 mi. E., thence 0.5 mi. N. from Whitetown, near W $\frac{1}{4}$ cor. sec. 28, T. 8 S., R. 3 W., at NE. corner of junction of N.-S. rd., on large granite boulder; chiseled square	1, 007. 92
Whitetown, at SE. corner of junction of T-rd. S., 1.5 mi. S., thence 3.3 mi. E. from Camden; standard iron post with bronze cap stamped "991"	990. 328

<sup>66</sup> The greater part of this quadrangle lies in Ohio.

## PLYMOUTH QUADRANGLE

[Latitude 42°15'-42°30'; longitude 83°15'-83°30']

## OAKLAND AND WAYNE COUNTIES

From Detroit quadrangle near north west corner of sec. 3, T. 3 S., R. 10 E., along roads west 3 miles, thence north 4 miles, thence west into South Lyon quadrangle at point 1.6 miles south and 2 miles west from Plymouth (by Fulton Pace in 1903)

Hand Sta., 1.0 mi. N., thence 1.0 mi. E. from, about 2.5 mi. in air line S. of Dearborn, in NE. cor. sec. 4, T. 3 S., R. 10 E., 80 ft. W. of schoolhouse, in SW. corner of crossroads; standard iron post with bronze cap stamped "Gibraltar 616"-----	<i>Feet</i> 615. 397
Reference mark, 20 ft. W. of post, 100 ft. W. of schoolhouse, in SW. corner of crossroads, in root of maple tree; nail-----	614. 96
Hand Sta., 1.0 mi. N., thence 2.0 mi. W. from, 1.6 mi. S. of Inkster, in NE. cor. sec. 1, T. 3 S., R. 9 E., in SW. corner of crossroads; standard iron post with bronze cap stamped "Gibraltar 626"-----	625. 594
Reference mark, in SW. corner of crossroads, in root of maple tree; nail-----	625. 74
Inkster, in front of post office, 60 ft. N. of Michigan Central R. R. crossing, on E. side of rd.; standard iron post with bronze cap stamped "Gibraltar 636" (recovered by U. S. C. & G. S. in 1916 and designated "L 21")-----	636. 058
Reference mark, 30 ft. S. of post, in root of large maple tree; nail-----	635. 54
Inkster, 2.4 mi. N. of, in SW. cor. sec. 7, T. 2 S., R. 10 E., in NE. corner of crossroads, 60 ft. S. of church, in root of large maple tree; nail-----	630. 66
Inkster, 4.4 mi. N. of, 0.2 mi. N., thence 3.0 mi. E. from Pikes Peak, in NE. cor. sec. 1, T. 2 S., R. 9 E., in SW. angle of crossroads, 60 ft. from intersection; standard iron post with bronze cap stamped "Gibraltar 639"-----	639. 028
Reference mark, in NW. angle of crossroads, 100 ft. from intersection, in root of large maple tree; nail-----	639. 25
Pikes Peak, 0.2 mi. N., thence 1.0 mi. W. from, 1.6 mi. S., thence 3.7 mi. E. from Plymouth, in SW. cor. sec. 33, T. 1 S., R. 9 E., 50 ft. N. of rd., in root of small oak tree; nail-----	665. 60
Plymouth, 1.6 mi. S., thence 0.7 mi. E. from, in NW. cor. sec. 1, T. 2 S., R. 8 E., 80 ft. W. of Pere Marquette Ry. crossing, on S. side of rd.; standard iron post with bronze cap stamped "697"-----	697. 182
Reference mark, 100 ft. W. of crossing, on N. side of rd., in root of maple tree; nail-----	697. 23
From South Lyon quadrangle near Northville east along Base Line Road to Clarenceville, thence along roads southeast and east to crossroads 0.8 mile north of Sand Hill, thence generally south 5.3 miles and west 2.5 miles to point 4.4 miles north of Inkster (by Fulton Pace in 1903)	
Northville, at NE. corner of intersection of Center Street and Base Line Rd.; standard iron post with bronze cap stamped "Gibraltar 853"-----	853. 136
Northville, 0.5 mi. E. of, in NE. corner of Pere Marquette Ry. bridge; top of bolt-----	818. 29
Northville, 2.6 mi. E. of, in SE. cor. sec. 36, T. 1 N., R. 8 E., on N. side of rd., in front of walnut ranch, in root of maple tree; nail-----	833. 17
Northville, 2.3 mi. E. of, 1.7 mi. S., thence 3.2 mi. W. from Farmington, 0.25 mi. W. of NE. cor. sec. 1, T. 1 S., R. 8 E., on S. side of rd., in front of walnut ranch; standard iron post with bronze cap stamped "832"-----	832. 066



Farmington, 1.7 mi. S., thence 0.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 4, T. 1 S., R. 9 E., in SE. angle of crossroads; standard iron post with bronze cap stamped "Gibraltar 701" (recovered in 1936)-----	Feet 702. 580
Clarenceville, 300 ft. S. of post office, 500 ft. NW. of junction of Grand River Rd.; standard iron post with bronze cap stamped "Gibraltar 656" <sup>67</sup> -----	655. 754
Sand Hill, 0.8 mi. N. of, in SE. cor. sec. 4, T. 1 S., R. 10 E., in NW. corner of crossroads; standard iron post with bronze cap stamped "Gibraltar 633"-----	632. 583
Reference mark, in SE. angle of crossroads, in root of locust tree; nail-----	634. 03
Sand Hill, 4.5 mi. S. of, near N $\frac{1}{4}$ cor. sec. 4, T. 2 S., R. 10 E., in SW. angle of crossroads, in root of large oak tree; nail-----	619. 48
From Clarenceville along roads east 0.4 mile, thence north 4 miles into Pontiac quadrangle at point 1.8 miles south and 0.8 mile west from Franklin (by H. W. Peabody in 1905).	
Clarenceville, 0.5 mi. E., thence 2.8 mi. N. from, 0.3 mi. N. and 2.0 mi. W. from Southfield, 0.25 mi. S. of NW. cor. sec. 19, T. 1 N., R. 10 E., 50 ft. E. of rd., 500 ft. N. of house, on rock; chiseled mark-----	681. 54
Clarenceville, 0.5 mi. E., thence 4.0 mi. N. from, in SE. cor. sec. 12, T. 1 N., R. 9 E., 1.8 mi. S. and 0.8 mi. W. from Franklin, near NW. corner of crossroads, on rock; chiseled mark-----	739. 88
From Pontiac quadrangle at point 2 miles east and 2 miles south from North Farmington south along road to Detroit & Orchard Lake Electric Railroad, <sup>68</sup> thence southeast to Clarenceville (by H. W. Peabody in 1905)	
North Farmington, 2.0 mi. E., thence 2.0 mi. S. from, 0.6 mi. W., thence 4.0 mi. N. from Clarenceville, in NW. cor. sec. 13, T. 1 N., R. 9 E., at SE. corner of crossroads, on stone; chiseled mark-----	787. 91
From Pontiac quadrangle at point 1.9 miles south of North Farmington south along Farmington Road to Twelvemile Road, thence northeast and back into Pontiac quadrangle (by J. M. Lawson in 1936)	
North Farmington, 2.0 mi. S. of, 2.3 mi. N. of Farmington, in NW. cor. sec. 15, T. 1 N., R. 9 E., near SE. corner of intersection of Twelvemile Rd., in concrete post; standard tablet stamped "T T 46 E 1935 855"-----	854. 621
Farmington, 2.3 mi. N. and 0.3 mi. E. from, 0.3 mi. E. of NW. cor. sec. 15, T. 1 N., R. 9 E., at bridge over Minnow Pond Drain, on top of E. end of S. concrete guardrail; chiseled square-----	839. 79
Farmington, 2.3 mi. N. and 0.5 mi. E. from, near N $\frac{1}{4}$ cor. sec. 15, T. 1 N., R. 9 E., 39 ft. S. and 27 ft. W. from junction of Powers Rd., in root on NW. side of 20-in. maple tree; copper nail and washer-----	852. 87
Farmington, 2.4 mi. N. and 1.0 mi. E. from, about 4 mi. N. and 1.5 mi. W. from Clarenceville, near NW. cor. sec. 14, T. 1 N., R. 9 E., 300 ft. E. of intersection of Orchard Lake Rd., on S. concrete head wall of culvert; chiseled square-----	843. 80
Clarenceville, 4.0 mi. N. and 0.5 mi. W. from, 1.9 mi. S., thence 1.6 mi. W. from Franklin, in NE. cor. sec. 14, T. 1 N., R. 9 E., 25 ft. S. and 35 ft. W. from intersection of Middle Belt Rd., on S. concrete head wall of culvert; chiseled square-----	788. 24

<sup>67</sup> In 1936 this bench mark was reported destroyed.<sup>68</sup> This railroad is now abandoned.

From South Lyon quadrangle southeast along Pere Marquette Railway to  
Twelvemile Road, thence east to intersection of Farmington Road (by J. M.  
Lawson in 1936)

Novi, 1.0 mi. N., thence 1.0 mi. W. from, in SW. cor. sec. 10, T. 1 N., R. 8 E., 25 ft. N. and 36 ft. E. from intersection of Pere Marquette Ry. and Twelvemile Rd., 38 ft. E. of junction of Taft Rd., on W. end of N. concrete head wall of culvert; chiseled square-----	Feet 933. 92
Novi, 1.0 mi. N., thence 0.5 mi. W. from, near S $\frac{1}{4}$ cor. sec. 10, T. 1 N., R. 8 E., 18 ft. N. and 15 ft. W. from junction of Dixon Rd., on W. concrete head wall of culvert; chiseled square-----	952. 62
Novi, 1.0 mi. N. of, in NW. cor. sec. 14, T. 1 N., R. 8 E., 230 ft. S. and 22 ft. E. from center of crossroads, 100 ft. N. and 22 ft. E. from private drive W., 1 ft. W. of fence, in concrete post; standard tablet stamped "T T 52 E 1935 954"-----	953. 621
Reference mark, 33 ft. S. and 18 ft. E. from crossroads, on top of iron grating catch basin cover; chiseled cross-----	949. 91
Novi, 1.0 mi. N., thence 1.0 mi. E. from, in NW. cor. sec. 13, T. 1 N., R. 8 E., 20 ft. S. and 140 ft. E. from intersection of Meadow Brook Rd., at farm driveway, on top of W. concrete head wall of culvert; chiseled square-----	923. 82
Novi, 1.0 mi. N., thence 2.0 mi. E. from, in NE. cor. sec. 13, T. 1 N., R. 8 E., 38 ft. S. and 25 ft. W. from intersection of Haggerty Highway, on top of W. concrete head wall of culvert; chiseled square-----	901. 34
Novi, 1.0 mi. N., thence 2.6 mi. E. from, 2.3 mi. N. and 2.4 mi. W. from Farmington, about 700 ft. E. of S $\frac{1}{4}$ cor. sec. 7, T. 1 N., R. 9 E., 25 ft. N. of Twelvemile Rd., at bridge over Upper River Rouge, on top of E. end of NE. concrete wing wall; chiseled square-----	863. 30
Farmington, 2.3 mi. N. and 2.0 mi. W. from, in NW. cor. sec. 17, T. 1 N., R. 9 E., 25 ft. S. and 30 ft. E. from intersection of Halstead Rd., on top of concrete base of NW. corner post of cemetery; chiseled square-----	873. 52
Farmington, 2.3 mi. N. and 1.0 mi. W. from, 2.0 mi. S. and 1.0 mi. W. from North Farmington, in NW. cor. sec. 16, T. 1 N., R. 9 E., 42 ft. S. and 40 ft. E. from intersection of Drake Rd., in NW. corner of orchard, on top of embedded rock; chiseled square-----	871. 10
From crossroads 2.3 miles north and 1 mile west from Farmington alternately south and east along Drake Road, U. S. Highway 16, Farmington Road, and Base Line Road into Detroit quadrangle (by J. M. Lawson in 1936)	
Farmington, 1.7 mi. N. and 1.2 mi. W. from, 0.2 mi. SW. of E $\frac{1}{4}$ cor. sec. 17, T. 1 N., R. 9 E., 90 ft. S. of junction of Howard Rd., at bridge over Upper River Rouge, on top of E. concrete head wall; chiseled square-----	800. 45
Farmington, 1.3 mi. N. and 1.2 mi. W. from, at junction of Eleven-mile Rd.; center line of pavement-----	832. 6
Farmington, 1.3 mi. N. and 1.0 mi. W. from, in NE. cor. sec. 20, T. 1 N., R. 9 E., 110 ft. S. and 35 ft. W. from turn in rd. from E. to S., in root on S. side of 24-in. maple tree; copper nail and washer-----	824. 69
Farmington, 0.7 mi. N. and 1.0 mi. W. from, about 800 ft. S. of W $\frac{1}{4}$ cor. sec. 21, T. 1 N., R. 9 E., 95 ft. N. of T-fence E., 2 ft. W. of fence, on top of hill, on E. side of rd., on embedded rock; chiseled square--	829. 14
Sorson triangulation sta.; U. S. C. & G. S. standard triangulation disk stamped "Sorson"-----	848. 227

Sorson triangulation sta. reference mark 2, on S. side of sta., in fence line on E. side of lane leading to Sorson farm buildings, in concrete post; U. S. C. & G. S. standard reference disk-----	Feet 831. 618
Farmington, 1.1 mi. by rd. NW. of, in SE. cor. sec. 20, T. 1 N., R. 9 E., 28 ft. N. and 15 ft. W. from intersection of Tenmile Rd., on top of W. concrete head wall of culvert; chiseled square-----	818. 95
Farmington, 0.6 mi. S., thence 1.0 mi. NW. from, about 800 ft. S. of W $\frac{1}{4}$ cor. sec. 28, T. 1 N., R. 9 E., 30 ft. N. and 20 ft. E. from intersection of U. S. Highway 16, on S. end of E. concrete head wall of culvert; chiseled square-----	779. 61
Farmington, 0.6 mi. S., thence 0.5 mi. NW. from, 0.25 mi. N. of S $\frac{1}{4}$ cor. sec. 28, T. 1 N., R. 9 E., 30 ft. N. and 18 ft. W. from intersection of Gill Rd., in root on S. side of 36-in. elm tree; copper nail and washer-----	750. 17
Farmington, 0.6 mi. S. of, near SE. cor. sec. 28, T. 1 N., R. 9 E., 550 ft. N. and 150 ft. W. from intersection of Farmington and Ninemile Rds., 15 ft. S. and 150 ft. W. from intersection of U. S. Highway 16, on top of S. concrete head wall of culvert; chiseled square-----	721. 65
U. S. C. & G. S. standard disk stamped "2 V"-----	705. 225
Farmington, 1.7 mi. S. of, in SE. cor. sec. 33, T. 1 N., R. 9 E., near NE. corner of intersection of Base Line Rd., on top of NE. concrete head wall of culvert; chiseled square-----	703. 93
Farmington, 1.7 mi. S., thence 1.1 mi. E. from, 1.2 mi. W. of Clarenceville, 400 ft. E. of SW. cor. sec. 35, T. 1 N., R. 9 E., 40 ft. N. of center line of Base Line Rd., 100 ft. W. of farm driveway, in root on SE. side of 18-in. maple tree; copper nail and washer-----	674. 72
Clarenceville, 0.8 mi. W. of, near S $\frac{1}{4}$ cor. sec. 35, T. 1 N., R. 9 E., 37 ft. S. and 17 ft. W. from junction of Tuck Rd. to S., 80 ft. W. of junction of rd. N., on top of W. concrete head wall of culvert; chiseled square-----	671. 02
U. S. C. & G. S. standard disk stamped "3 K"-----	657. 910
U. S. C. & G. S. standard disk stamped "3 L"-----	661. 835
Clarenceville, 0.5 mi. E. of school, under signal light over center line of west-bound traffic lane of U. S. Highway 16 (Grand River Avenue) and east-bound lane of Base Line Rd.; center of pavement-----	649. 9
Clarenceville, 0.8 mi. E. of, in NE. cor. sec. 1, T. 1 S., R. 9 E., 30 ft. S. and 30 ft. W. from intersection of Inkster Rd. and east-bound lane of Base Line Rd., on top of NE. corner of cast-iron frame of Detroit City water gate; chiseled cross-----	650. 31
Clarenceville, 1.2 mi. E. of, at intersection of Delaware Rd. and east-bound lane of Base Line Rd.; center line of pavement-----	653. 6
Clarenceville, 1.8 mi. E. of, near cor. secs. 5, 6, 31, and 32, Tps. 1 N. and 1 S., R. 10 E., 65 ft. N. and 55 ft. E. from intersection of Beech Rd. and east-bound lane of Base Line Rd., in root on SW. side of 26-in. oak tree; copper nail and washer-----	647. 64
Clarenceville, 2.2 mi. E. of, at NW. corner of Detroit boundary, near quarter corner between secs. 5 and 32, Tps. 1 N. and 1 S., R. 10 E., 6 ft. N. and 22 ft. W. from junction of Five Points Avenue, in Base Line parkway, 3 ft. N. and 7 ft. W. from rd. signpost, in concrete post; standard tablet stamped "T T 45 E 1935 639"-----	638. 988

Detroit, 770 ft. W. of NE. cor. sec. 5, T. 1 S., R. 10 E., on S. side of east-bound lane of Base Line Rd., at bridge over River Rouge, on W. end of concrete curb, 4 ft. W. of E. end of bridge; chiseled square	Feet 625. 26
Detroit, at intersection of Telegraph Rd. and east-bound lane of Base Line Rd., under center of concrete overhead bridge; center line of pavement	639. 5
Detroit, in SE. angle of intersection of Berg Rd., near N $\frac{1}{4}$ cor. sec. 4, T. 1 S., R. 10 E.; top of fire hydrant	639. 50
Detroit, 30 ft. S. and 30 ft. E. from intersection of Lahser Rd. and east-bound lane of Base Line Rd., in NE. cor. sec. 3, T. 1 S., R. 10 E., on top of S. corner of cast-iron frame of storm sewer cover; chiseled square	644. 09
From point 1 mile north of Novi south along road to Northville, thence east along Base Line Road to intersection of Farmington Road (by J. M. Lawson in 1939)	
Novi, in village of, at cor. secs. 14, 15, 22, and 23, T. 1 N., R. 8 E., 90 ft. N. of intersection of Grand River Avenue, in center line of pavement, at iron pipe, marking section corner; top of pipe	911. 51
Novi, 0.3 mi. S. of, on line between secs. 22 and 23, T. 1 N., R. 8 E., 60 ft. S. and 22 ft. W. from Pere Marquette Ry. crossing, at bridge over Walled Lake Branch, on top of N. end of steel I-beam; chiseled cross	891. 51
Novi, 1.0 mi. S. of, 2.3 mi. N. and 0.5 mi. E. from Northville, in SE. cor. sec. 22, T. 1 N., R. 8 E., 65 ft. N. and 25 ft. W. from intersection of Tenmile Rd., 33 ft. N. and 1 ft. E. from fence corner, in concrete post; standard tablet stamped "T T 53 E 1935 902"	902. 058
Reference mark, 140 ft. SE. of tablet, 36 ft. S. and 24 ft. E. from cross-roads, in root on NE. side of 36-in. oak tree; copper nail and washer	902. 10
Northville, 1.3 mi. N. and 0.5 mi. E. from, in SE. cor. sec. 27, T. 1 N., R. 8 E., 200 ft. N. and 18 ft. W. from intersection of Ninemile Rd., at bridge over Thornton Creek, on NW. concrete abutment; chiseled square	850. 99
Northville, 0.4 mi. N. and 0.5 mi. E. from, about 700 ft. N. of SE. cor. sec. 34, T. 1 N., R. 8 E., 330 ft. N. of junction of Base Line Rd., at entrance to field on W. side of Novi Rd., on top of S. concrete head wall of culvert; chiseled square	821. 17
Northville, 0.3 mi. N., thence 0.6 mi. E. from, about 800 ft. E. of N. cor. secs. 2 and 3, T. 1 N., R. 8 E., 33 ft. S. and 15 ft. E. from intersection of Base Line Rd. and south-bound lane of Griswold Street, 15 ft. SW. of rd. sign, in root on NW. side of 30-in. locust tree, northernmost tree in parkway; nail (State Highway B. M.)	839. 69
U. S. C. & G. S. standard disk stamped "2 R"	863. 450
U. S. C. & G. S. standard disk stamped "2 S"	868. 955
Northville, 0.3 mi. N., thence 2.0 mi. E. from, at junction of Cambridge Drive; center line of pavement	833. 9
Northville, 0.3 mi. N., thence 2.5 mi. E. from, in NE. cor. sec. 1, T. 1 S., R. 8 E., 30 ft. S. and 18 ft. W. from intersection of Base Line Rd. and Haggerty Highway, on top of NE. side of circular base of rd. signpost; chiseled cross	789. 04
U. S. C. & G. S. standard disk stamped "2 T"	788. 970
U. S. C. & G. S. standard disk stamped "2 U"	751. 737

Northville, 0.3 mi. N., thence 3.5 mi. E. from, 1.7 mi. S., thence 2.0 mi. W. from Farmington, near NW. cor. sec. 5, T. 1 S., R. 9 E., 15 ft. S. and 229 ft. E. from junction of Newburg Rd., at farm entrance, on W. concrete head wall of culvert; chiseled square-----	Feet 758.74
Farmington, 1.7 mi. S., thence 1.3 mi. W. from, 0.2 mi. E. of S $\frac{1}{4}$ cor. sec. 32, T. 1 N., R. 9 E., about 1,400 ft. W. of T-fence S., on W. end of N. concrete head wall of bridge over small creek; chiseled square..	726.38
From Detroit quadrangle in city of Detroit west along Schoolcraft Avenue to Farmington Road, thence north to Base Line Road (by J. M. Lawson in 1938)	
Detroit, 12 ft. N. and 21 ft. E. from intersection of west-bound lane of Schoolcraft Avenue and north-bound lane of Outer Drive, near SW. cor. sec. 22, T. 1 S., R. 10 E., on W. side of concrete base of street light pole; chiseled square-----	623.28
Detroit, at bridge over River Rouge and west-bound lane of Schoolcraft Avenue, near quarter corner between secs. 21 and 28, T. 1 S., R. 10 E., on top of SE. concrete abutment; chiseled square-----	609.09
Detroit, just W. of W. boundary of, in SW. cor. sec. 21, T. 1 S., R. 10 E., 55 ft. N. and 52 ft. E. from intersection of Telegraph Rd. and west-bound lane of Schoolcraft Avenue, in concrete post; standard tablet stamped "4 L 1936 627"-----	627.846
Reference mark, 40 ft. S. and 60 ft. W. from intersection, on top of W. side of cast-iron city water gate; chiseled cross-----	627.27
Detroit, 1.0 mi. W. of W. limits of, near SW. cor. sec. 20, T. 1 S., R. 10 E., 21 ft. S. and 60 ft. E. from intersection of Beech Rd. and west-bound lane of Schoolcraft Avenue; top of fire hydrant-----	621.67
Detroit, 2.0 mi. W. of W. limits of, in SW. cor. sec. 19, T. 1 S., R. 10 E., 51 ft. N. and 24 ft. E. from intersection of north-bound lane of Inkster Rd. and west-bound lane of Schoolcraft Avenue, on top of S. side of 8-in. cast-iron water gate; chiseled cross-----	631.55
U. S. C. & G. S. standard disk stamped "3 F"-----	635.024
Detroit, 3.0 mi. W. of W. limits of, in SW. cor. sec. 24, T. 1 S., R. 9 E., in NE. angle of intersection of Middle Belt Rd. and east-bound lane of Schoolcraft Avenue, in parkway, in root on NW. side of 24-in. maple tree; copper nail and washer-----	634.96
Detroit, 4.0 mi. W. of W. limits of, 1.0 mi. S., thence 1.0 mi. E. from Livonia, in SE. cor. sec. 22, T. 1 S., R. 9 E., 21 ft. N. and 52 ft. W. from intersection of Merriman Rd. and west-bound lane of Schoolcraft Avenue, on top of S. edge of Detroit City cast-iron water gate; chiseled cross-----	638.86
Livonia, 1.0 mi. S. of, near SE. cor. sec. 21, T. 1 S., R. 9 E., 35 ft. S. and 80 ft. W. from intersection of Farmington Rd. and west-bound lane of Schoolcraft Avenue, on N. side of parkway, in root on NW. side of 12-in. wild-cherry tree; copper nail and washer-----	653.40
Livonia, 0.5 mi. S. of, at junction of Stark Rd.; center line of pavement-----	658.2
Livonia, in SW. cor. sec. 15, T. 1 S., R. 9 E., 33 ft. N. and 30 ft. E. from intersection of Fenkell (Fivemile) and Farmington Rds., in root on W. side of 40-in. maple tree; copper nail and washer-----	663.43
Livonia, 0.5 mi. N. of, near quarter corner between secs. 15 and 16, T. 1 S., R. 9 E., at SE. corner of concrete bridge over Bell Branch of River Rouge, on top of concrete parapet; chiseled square-----	646.85
U. S. C. & G. S. standard disk stamped "2 X"-----	667.169

Livonia, 1.0 mi. N. of, in NE. cor. sec. 16, T. 1 S., R. 9 E., 52 ft. S. and 27 ft. W. from intersection of Sixmile Rd., in root on NE. side of 20-in. elm tree; copper nail and washer-----	Feet 668. 79
Livonia, 2.0 mi. N. of, 2.7 mi. S. of Farmington, in Westmore subdivision, in SW. cor. sec. 3, T. 1 S., R. 9 E., 50 ft. N. and 30 ft. E. from intersection of Sevenmile Rd., in root on W. side of 20-in. ash tree; copper nail and washer-----	682. 93
Farmington, 2.3 mi. S. of, at bridge over River Rouge; center line of floor-----	681. 4
From Wayne generally north along Wayne and other roads to crossroads 1 mile south of Livonia (by J. M. Lawson in 1936)	
U. S. C. & G. S. standard disk stamped "K 21 1916"-----	657. 643
Wayne, at municipal water tank, on top of S. concrete foundation of SW. steel corner support; chiseled square-----	663. 29
Wayne, at intersection of Michigan Avenue (U. S. Highway 112) and Washington Street, under signal light; center line of pavement----	661. 2
Wayne, 0.5 mi. N. of, 23 ft. S. and 42 ft. E. from intersection of Glenwood and Wayne Rds., on top of E. side of Consumers Power Co. manhole cover; chiseled cross-----	660. 46
Wayne, 1.0 mi. N. of, in SE. cor. sec. 20, T. 2 S., R. 9 E., 27 ft. N. and 20 ft. W. from intersection of Palmer Rd., on top of SE. corner of concrete block; chiseled square-----	670. 23
U. S. C. & G. S. standard disk stamped "2 G I 670"-----	669. 431
Wayne, 2.0 mi. N. of, in SE. cor. sec. 17, T. 2 S., R. 9 E., in NW. angle of intersection of Cherry Hill Rd., near Cady School, in root on E. side of 24-in. elm tree, through which iron railing passes; copper nail and washer-----	670. 22
Wayne, 3.0 mi. N. of, in SW. cor. sec. 9, T. 2 S., R. 9 E., 43 ft. N. and 30 ft. E. from intersection of Ford Rd., on E. side of cast-iron storm sewer frame; chiseled cross-----	668. 55
Niemshack triangulation sta.; U. S. C. & G. S. standard triangulation disk stamped "Niemshack"-----	669. 377
Niemshack triangulation sta. reference mark 1, 145 ft. N. of sta., in fence line, on S. side of Warren Rd., in concrete post; U. S. C. & G. S. standard reference disk-----	669. 624
Niemshack triangulation sta. reference mark 2, 153 ft. S. and 36 ft. E. from intersection of Wayne and Warren Rds., in concrete post; U. S. C. & G. S. standard reference disk-----	667. 756
U. S. C. & G. S. standard disk stamped "2 E I"-----	667. 715
U. S. C. & G. S. standard disk stamped "2 D I"-----	666. 570
Wayne, 4.9 mi. N. of, in NW¼ sec. 4, T. 2 S., R. 9 E., at bridge over Tonquish Creek; center line of floor-----	642. 9
Wayne, 5.0 mi. N. of, 3.0 mi. S. and 0.8 mi. W. from Livonia, about 800 ft. E. of SW. cor. sec. 33, T. 1 S., R. 9 E., 31 ft. N. and 35 ft. W. from junction of Joy Rd., on top of E. side of concrete base of rd. signpost; chiseled square-----	661. 80
Livonia, 2.8 mi. S. and 0.8 mi. W. from, about 900 ft. N. and 800 ft. E. from SW. cor. sec. 33, T. 1 S., R. 9 E., 35 ft. N. and 30 ft. E. from intersection of Ann Arbor Trail, in root on SW. side of 15-in. elm tree; copper nail and washer-----	665. 96
Livonia, 2.7 mi. S. and 0.5 mi. W. from, about 1,000 ft. S. of center of sec. 33, T. 1 S., R. 9 E., 700 ft. N. along Stark Rd. from Ann Arbor Trail, on E. side of Stark Rd., at steel bridge over Middle River Rouge, on top of NE. concrete wing wall; chiseled square-----	643. 07

Livonia, 2.0 mi. S., thence 0.5 mi. W. from, 0.5 mi. S. of Stark, near S $\frac{1}{4}$ cor. sec. 28, T. 1 S., R. 9 E., 46 ft. N. and 22 ft. E. from intersection of Plymouth (U. S. Highway 12) and Stark Rds., on top of S. side of base of rd. signpost; chiseled square-----	Feet 658. 58
Livonia, 2.0 mi. S. of, in SW. cor. sec. 27, T. 1 S., R. 9 E., 50 ft. N. and 55 ft. E. from intersection of Farmington and Plymouth Rds., in concrete post; standard tablet stamped "T T 1 S 1935 645"---	645. 089
Livonia, 1.5 mi. S. of, near quarter corner between secs. 27 and 28, T. 1 S., R. 9 E., at Pere Marquette Ry. crossing; top of N. rail.-----	662. 49
From crossroads 1 mile south of Livonia west and northwest along Schoolcraft Avenue to Phoenix Lake, thence along road generally north to crossroads 0.3 mile north and 0.6 mile east from Northville (by J. M. Lawson in 1938)	
Livonia, 1.0 mi. S., thence 1.0 mi. W. from, 3.5 mi. E. of Pere Marquette Ry. sta. in Plymouth, 70 ft. W. of cor. secs. 20, 21, 28, and 29, T. 1 S., R. 9 E., in parkway in Schoolcraft Avenue, 30 ft. S. of west-bound traffic lane, at N.-S. timber line, in root on N. side of 18-in. hickory tree; copper nail and washer.-----	666. 16
Plymouth, 3.0 mi. E. of, near quarter corner between secs. 20 and 29, T. 1 S., R. 9 E., 35 ft. W. of intersection of Levan Rd., on top of 1-in. pipe set in concrete and encased in 3-in. pipe projecting 6 in. above ground; chiseled cross-----	670. 18
Plymouth, 2.5 mi. E. of, in SW. cor. sec. 20, T. 1 S., R. 9 E., in NE. angle of intersection of Newburg Rd. and west-bound lane of Schoolcraft Avenue; top of fire hydrant.-----	679. 51
Plymouth, 1.5 mi. E. of, near SW. cor. sec. 19, T. 1 S., R. 9 E., 116 ft. E. of center of intersection of Eckles Rd., in center of parkway of Schoolcraft Avenue, in concrete post; standard tablet stamped "T T 17 S 1935 712"-----	711. 464
Plymouth, 1.0 mi. by rd. NE. of, in SW $\frac{1}{4}$ sec. 24, T. 1 S., R. 8 E., 180 ft. SE. of intersection of Haggerty Highway, 20 ft. N. of center of parkway, in root on NW. side of 42-in. oak tree; copper nail and washer.-----	734. 66
Plymouth, 0.9 mi. NE. of, in SW $\frac{1}{4}$ sec. 24, T. 1 S., R. 8 E., at junction of Wilcox Rd. and Schoolcraft Avenue, about 100 ft. E. of W. end of parkway, 4 ft. N. and 4 ft. W. from rd. signpost, on top of NW. corner of square cast-iron storm sewer gate; chiseled cross-----	733. 74
Plymouth, 0.8 mi. NW., thence 0.3 mi. E. from, 0.25 mi. N. of center of sec. 23, T. 1 S., R. 8 E., 80 ft. S. and 50 ft. E. from junction of Bradner Rd., in root on N. side of 26-in. maple tree; copper nail and washer.-----	766. 80
Plymouth, 0.8 mi. NW. of, near center of NW $\frac{1}{4}$ sec. 23, T. 1 S., R. 8 E., at junction of Northville and Fivemile Rds., 55 ft. N. of rd. fork, 6 ft. E. of rd. signpost, on top of N. edge of cast-iron man-hole cover; chiseled cross-----	744. 33
Plymouth, 1.2 mi. NW. of, 0.6 mi. S. of Waterford, in SW $\frac{1}{4}$ sec. 14, T. 1 S., R. 8 E., 300 ft. S. of junction of Phoenix Rd., at Pere Marquette Ry. overhead crossing, on top of N. end of W. concrete retaining wall, about 5 ft. above pavement; chiseled square-----	740. 84
Plymouth, 2.2 mi. NW. of, 1.9 mi. by rd. SE. of Northville, near S. side SW $\frac{1}{4}$ sec. 11, T. 1 S., R. 8 E., 35 ft. S. and 132 ft. E. from intersection of Sixmile Rd., at Pere Marquette Ry. overhead crossing, on top of W. end of S. concrete retaining wall at junction of wing wall, 8.5 ft. above ground; chiseled square-----	757. 74
U. S. C. & G. S. standard disk stamped "2 P"-----	791. 208

Feet

U. S. C. & G. S. standard disk stamped "2 Q"-----	807. 076
From Wayne south 2.6 miles along Wayne Road, thence west and southwest along Ecorse Road (State Highway 17) into Romulus quadrangle (by J. M. Lawson in 1936)	
Wayne, at S. boundary of, about 600 ft. W. of SE. cor. sec. 32, T. 2 S., R. 9 E., 36 ft. N. and 33 ft. E. from crossroads, on top of W. corner of concrete base of rd. signpost; chiseled square-----	668. 20
Wayne, 1.6 mi. S. of intersection of Michigan Avenue and Wayne Rd., at intersection of Beverly Rd.; center line of pavement-----	664. 1
Wayne 1.9 mi. S. of, near center of SE $\frac{1}{4}$ sec. 5, T. 3 S., R. 9 E., 75 ft. S. and 12 ft. W. from rd. fork, on top of N. corner of concrete base of rd. signpost; chiseled square-----	663. 21
Wayne, 2.2 mi. S. of, 207 ft. W. of SE. cor. sec. 5, T. 3 S., R. 9 E., 30 ft. N. and 40 ft. E. from intersection of Ecorse Rd., in concrete post; standard tablet stamped "T T 2 S 1935 665"-----	665. 232
Wayne, 2.2 mi. by rd. SW. of, 0.3 mi W. of SE. cor. sec. 5, T. 3 S., R. 9 E., at junction of Wayne Rd. to NE. and Ecorse Rd., 30 ft. N. and 100 ft. E. from rd. fork, on top of S. corner of base of rd. signpost; chiseled square-----	664. 94
Wayne, 2.2 mi. SW., thence 0.1 mi. W. from, at Pere Marquette Ry. crossing; top of W. rail-----	667. 9
Wayne, 2.2 mi. SW., thence 1.2 mi. W. from, 2.0 mi. N. and 1.0 mi. W. from Romulus, near quarter corner between secs. 6 and 7, T. 3 S., R. 9 E., 25 ft. S. and 43 ft. W. from intersection of Cogswell Rd., on top of N. end of W. concrete head wall of culvert; chiseled square--	668. 20
From Romulus quadrangle at point 3.6 miles north of Belleville generally north along roads by way of Plymouth to junction of Wilcox and Schoolcraft Roads (by J. M. Lawson in 1936)	
U. S. C. & G. S. standard disk stamped "7 A I"-----	697. 570
Belleville, 4.2 mi. by rd. N. of, 0.6 mi. SW., thence 0.9 mi. S. from Sheldon, 2.0 mi. E. of Denton, 0.35 mi. S. of NW. cor. sec. 3, T. 3 S., R. 8 E., 62 ft. N. and 30 ft. E. from junction of Belleville Rd. and T-rd. NE., on top of W. corner of concrete base of rd. signpost; chiseled square-----	691. 19
Sheldon, 0.6 mi. SW., thence 0.5 mi. S. from, at junction of Yost Rd.; center line of pavement-----	688. 6
Sheldon, 0.5 mi. SW. of, near quarter corner between secs. 33 and 34, T. 2 S., R. 8 E., 39 ft. N. and 33 ft. W. from junction of Canton Center Rd. and east-bound lane of Michigan Rd. (U. S. Highway 112), 500 ft. NE. of junction of Belleville Rd. to S., on top of W. edge of cast-iron sewer cover gate; chiseled cross-----	682. 56
Sheldon, 0.5 mi. NW. of, about 700 ft. S. of NW. cor. sec. 34, T. 2 S., R. 8 E., 32 ft. S. and 28 ft. E. from intersection of Geddes Rd., on top of W. corner of base of rd. signpost; chiseled square-----	683. 64
Sheldon, 0.5 mi. NW., thence 0.8 mi. N. from, at concrete bridge over Lower River Rouge; center of bridge floor-----	679. 6
Sheldon, 0.5 mi. NW., thence 1.1 mi. N. from, in NW. cor. sec. 27, T. 2 S., R. 8 E., 23 ft. S. and 22 ft. E. from junction of Palmer Rd., on top of SW. side of concrete base of rd. signpost; chiseled square---	683. 61
Sheldon, 0.5 mi. NW., thence 1.6 mi. N. from, 5.5 mi. S. and 1.5 mi. W. from Pere Marquette Ry. sta. in Plymouth, near quarter corner between secs. 21 and 22, T. 2 S., R. 8 E., 27 ft. S. and 29 ft. W. from junction of Proctor Rd., in root on SE. side of 18-in. maple tree; copper nail and washer-----	688. 00



Plymouth, 5.0 mi. S. and 1.5 mi. W. from, in SW. cor. sec. 15, T. 2 S., R. 8 E., 30 ft. N. and 29 ft. E. from intersection of Cherry Hill Rd., on W. corner of concrete base of rd. signpost; chiseled square-----	<i>Feet</i> 684. 24
Plymouth, 4.5 mi. S. and 1.5 mi. W. from, at junction of Saltz Rd.; center line of pavement-----	692. 3
Plymouth, 4.0 mi. S. and 1.5 mi. W. from, 0.4 mi. E. of Fellows, in SW. cor. sec. 10, T. 2 S., R. 8 E., 100 ft. N. and 30 ft. E. from intersection of Ford Rd., in concrete post; standard tablet stamped "T T 4 S 1935 689"-----	689. 114
Reference mark, 65 ft. S. and 28 ft. E. from crossroads, in root on NE. side of 16-in. walnut tree; copper nail and washer-----	688. 70
Plymouth, 3.0 mi. S. and 1.5 mi. W. from, in NE. cor. sec. 9, T. 2 S., R. 8 E., 36 ft. S. and 23 ft. W. from intersection of Warren Rd., on top of E. corner of concrete base of rd. signpost; chiseled square----	696. 37
Plymouth, 2.0 mi. S. and 1.5 mi. W. from, in SE. cor. sec. 33, T. 1 S., R. 8 E., at jog in Canton Center Rd., 20 ft. N. and 13 ft. W. from junction of rd. S., 118 ft. W. of junction of rd. N., 2 ft. above ground, on top of W. side of 40-in. round concrete block; chiseled square----	717. 00
Plymouth, 1.5 mi. S., thence 1.5 mi. W. from, near quarter corner between secs. 33 and 34, T. 1 S., R. 8 E., 27 ft. S. and 53 ft. E. from junction of Ann Arbor Rd., in root on NW. side of 16-in. walnut tree; copper nail and washer-----	738. 18
Plymouth, at SW. corner of boundary of, 1.5 mi. S., thence 1.0 mi. W. from Pere Marquette Ry. sta., near center of sec. 34, T. 1 S., R. 8 E., 31 ft. S. and 80 ft. W. from intersection of Sheldon Rd., in root on NE. side of 27-in. maple tree; copper nail and washer-----	715. 13
Plymouth, 46 ft. N. and 36 ft. W. from intersection of Ann Arbor Rd. (U. S. Highway 12) and Main Street; top of fire hydrant-----	711. 97
Plymouth, 20 ft. S. and 42 ft. W. from intersection of Ann Arbor and Lilley Rds., on top of N. concrete head wall of culvert; chiseled square-----	708. 27
Plymouth, 67 ft. N. and 15 ft. W. from intersection of Ann Arbor Trail and Lilley Rd., on top of center of cast-iron dome of storm sewer gate; chiseled cross-----	716. 44
Plymouth, 32 ft. S. and 42 ft. W. from intersection of Plymouth and Lilley Rds., on top of E. side of concrete base of street light pole; chiseled square-----	733. 23
Plymouth, opposite window of Pere Marquette Ry. sta.; top of S. rail of E.-W. track-----	741. 3
Plymouth, at intersection of Wilcox and Lilley Rds., in W. side of small grassy triangle at rd. forks, on S. side of base of rd. signpost; chiseled square-----	734. 67
From crossroads 2.2 miles south of Wayne east 6 miles along Ecorse Road to Telegraph Road, thence north 5 miles to Ford Road, thence west 11 miles to crossroads 4 miles south and 1.5 miles west from Plymouth (by J. M. Lawson in 1936)	
Wayne, 2.2 mi. S., thence 1.2 mi. E. from, 2.6 mi. S., thence 2.8 mi. W. from Inkster, about 1,000 ft. E. of NW. cor. sec. 10, T. 3 S., R. 9 E., 63 ft. S. and 80 ft. W. from junction of Henry Ruff Rd. to SW., in root on SW. side of 24-in. maple tree; copper nail and washer-----	648. 50
Inkster, 2.6 mi. S., thence 2.7 mi. W. from, at intersection of Vining Rd.; center line of pavement-----	648. 3
Inkster, 2.6 mi. S., thence 2.0 mi. W. from, in NE. cor. sec. 10, T. 3 S., R. 9 E., 36 ft. S. and 26 ft. W. from intersection of Merriman Rd., in root on NW. side of 14-in. elm tree; copper nail and washer-----	637. 17

Feet

U. S. C. & G. S. standard disk stamped "1 V" .....	630. 254
Inkster, 2.6 mi. S., thence 1.0 mi. W. from, in SE. cor. sec. 2, T. 3 S., R. 9 E., 25 ft. N. and 45 ft. W. from intersection of Middle Belt Rd., on top of W. side of cast-iron Detroit City manhole cover; chiseled cross .....	630. 59
Inkster, 2.6 mi. S. of, in SW. cor. sec. 6, T. 3 S., R. 10 E., 35 ft. N. and 34 ft. E. from intersection of Inkster Rd., on W. side of 24-in. cast- iron storm sewer gate; chiseled cross .....	629. 97
Inkster, 2.6 mi. S., thence 0.7 mi. E. from, at junction of Holland Rd.; center line of pavement .....	626. 5
Inkster, 2.6 mi. S., thence 1.0 mi. E. from, in SW. cor. sec. 5, T. 3 S., R. 10 E., 43 ft. N. and 57 ft. E. from intersection of Jim Daly Rd., on E. side of 36-in. cast-iron Dearborn City water gate; chiseled cross .....	622. 86
Inkster, 2.6 mi. S., thence 1.6 mi. E. from, at junction of Winston Avenue; center line of pavement .....	625. 5
U. S. C. & G. S. standard disk stamped "1 D" .....	618. 231
Inkster, 2.5 mi. S. and 2.0 mi. W. from, about 900 ft. N. of SW. cor. sec. 4, T. 3 S., R. 10 E., 120 ft. N. and 33 ft. E. from junction of Winston Avenue and Telegraph Rd., on top of S. end of E. concrete head wall of culvert; chiseled square .....	618. 77
Inkster, 2.1 mi. S., thence 2.0 mi. E. from, at intersection of Beverly Rd.; center line of pavement .....	619. 9
Inkster, 1.6 mi. S., thence 2.0 mi. E. from, 1.0 mi. S. of S. boundary of Dearborn, in NW. cor. sec. 4, T. 3 S., R. 10 E., 74 ft. S. and 36 ft. E. from intersection of Van Born Rd., on W. side of iron flange of Detroit City Gas Co. outlet; chiseled cross .....	615. 24
U. S. C. & G. S. standard disk stamped "1 A" .....	621. 397
Dearborn, at Michigan Central R. R. overhead crossing, near N. cor. secs. 28 and 29, T. 2 S., R. 10 E., on top of N. end of W. concrete re- taining wall, set in concrete; metal tablet stamped "8" (Wayne County B. M.) .....	606. 915
Dearborn, at NE. corner of steel bridge over Lower River Rouge, 3 ft. above floor of bridge, on top of concrete pillar of head wall; chiseled square .....	605. 89
Dearborn, 23 ft. S. and 33 ft. E. from intersection of Cherry Hill Rd., in NW. cor. sec. 21, T. 2 S., R. 10 E., on top of S. end of E. concrete head wall of culvert; chiseled square .....	619. 27
U. S. C. & G. S. standard disk stamped "3 W" .....	617. 339
Dearborn, 45 ft. S. and 33 ft. E. from intersection of Ford Rd., in NW. cor. sec. 16, T. 2 S., R. 10 E., on top of W. edge of cast-iron water- supply gate; chiseled cross .....	616. 55
Dearborn, at NW. corner of boundary of, 2.2 mi. E. of intersection of Middle Belt Rd. in Garden City, 0.2 mi. E. of SW. cor. sec. 8, T. 2 S., R. 10 E., 34 ft. N. and 25 ft. W. from intersection of Gulley Rd., on top of S. side of concrete base of rd. signpost; chiseled square .....	622. 18
Garden City, 1.0 mi. E. of, 2.4 mi. N. of Inkster, in NE. cor. sec. 13, T. 2 S., R. 9 E., 55 ft. S. and 41 ft. W. from intersection of Inkster Rd., on top of W. edge of 36-in. Detroit City water gate; chiseled cross .....	631. 01
U. S. C. & G. S. standard disk stamped "3 C" .....	636. 181
Garden City, 0.5 mi. W. of, at junction of Henry Ruff Rd.; center line of pavement .....	635. 6
Garden City, 1.0 mi. W. of, in SW. cor. sec. 11, T. 2 S., R. 9 E., 36 ft. N. and 33 ft. E. from intersection of Merriman Rd., on top of S. corner of concrete base of rd. signpost; chiseled square .....	642. 46

Garden City, 1.7 mi. W. of, at intersection of Venoy Rd.; center line of pavement-----	<i>Feet</i> 644. 6
Garden City, 2.2 mi. W. of, 3.0 mi. N., thence 0.8 mi. E. from Wayne, 0.25 mi. W. of SE. cor. sec. 9, T. 2 S., R. 9 E., 28 ft. N. and 21 ft. E. from junction of Phyllis Avenue, in root on N. side of 10-in. maple tree; copper nail and washer-----	647. 84
Wayne, 3.0 mi. N., thence 1.0 mi. W. from, in NE. cor. sec. 18, T. 2 S., R. 9 E., 26 ft. S. and 28 ft. W. from intersection of Newburg Rd., on top of N. corner of concrete base of rd. signpost; chiseled square----	664. 63
Wayne, 3.0 mi. N., thence 1.5 mi. W. from, 4.0 mi. S., thence 2.1 mi. E. from Plymouth, near quarter corner between secs. 7 and 8, T. 2 S., R. 9 E., 29 ft. N. and 33 ft. E. from intersection of Hix Rd., in root on S. side of 30-in. maple tree; copper nail and washer-----	668. 27
Canton Sta., on Pere Marquette Ry.; top of E. rail-----	674. 4
Plymouth, 4.0 mi. S., thence 1.3 mi. E. from, 0.25 mi. W. of SE. cor. sec. 12, T. 2 S., R. 8 E., 34 ft. N. and 38 ft. E. from intersection of Lotz Rd., on top of S. corner of concrete base of rd. signpost; chiseled square-----	675. 65
Plymouth, 4.0 mi. S., thence 0.5 mi. E. from, in NE. cor. sec. 14, T. 2 S., R. 8 E., 21 ft. S. and 70 ft. W. from intersection of Haggerty Highway, in concrete post; standard tablet stamped "T T 6 S 1935 673"-----	672. 814
Reference mark, 18 ft. N. and 25 ft. W. from intersection of Haggerty Highway, on top of N. concrete head wall of culvert; chiseled square-----	676. 44
Plymouth, 4.0 mi. S. of, near quarter corner between secs. 11 and 14, T. 2 S., R. 8 E., 22 ft. S. and 31 ft. E. from intersection of Lilley Rd., in root on N. side of 27-in. maple tree; copper nail and washer-----	676. 51
Plymouth, 4.0 mi. S., thence 1.0 mi. W. from, near quarter corner between secs. 10 and 15, T. 2 S., R. 8 E., 27 ft. S. and 15 ft. W. from intersection of Sheldon Rd., on top of W. end of circular concrete culvert; chiseled square-----	685. 06
From point on north boundary of Dearborn east along Ford Road into Detroit quadrangle (by J. M. Lawson in 1936)	
U. S. C. & G. S. standard disk stamped "3 X"-----	618. 483
Dearborn, at intersection of Ford Rd. and Outer Drive; center line of pavement-----	620. 6
From crossroads 2.6 miles south and 2 miles east from Inkster east along Ecorse Road (State Highway 17) into Detroit quadrangle (by J. M. Lawson in 1936)	
Inkster, 2.6 mi. S., thence 2.5 mi. E. from, near quarter corner between secs. 4 and 9, T. 3 S., R. 10 E., 50 ft. S. and 33 ft. E. from intersection of Pardee Rd., on N. corner of concrete base of rd. signpost; chiseled square-----	610. 88
Inkster, 2.6 mi. S., thence 3.0 mi. E. from, 1.0 mi. W. of W. boundary of Allen Park, in SE. cor. sec. 4, T. 3 S., R. 10 E., 36 ft. N. and 21 ft. W. from junction of Monroe Rd., on culvert, 10 ft. S. of N. end; chiseled square-----	607. 08
From South Lyon quadrangle generally east along Base Line and other roads to crossroads 0.3 mile north and 0.6 mile east from Northville (by G. N. Tex in 1936)	
Northville, near NW. corner of, in SE. cor. sec. 33, T. 1 N., R. 8 E., 30 ft. N. and 87 ft. W. from junction of Taft Rd., 62 ft. W. of rd. signpost, 1 ft. S. of fence, in concrete post; standard tablet stamped "T T 48 E 1935 876"-----	876. 132

Reference mark, 55 ft. S. and 54 ft. E. from tablet, 25 ft. S. and 33 ft. W. from rd. junction, in root on E. side of 36-in. elm tree; copper nail and washer.....	<i>Feet</i> 875. 13
Northville, 50 ft. S. and 60 ft. E. from junction of Randolph and Linden Streets, 1 ft. S. of sidewalk, in root on NE. side of 18-in. maple tree; copper nail and washer.....	848. 90
Northville, 30 ft. S. and 24 ft. W. from junction of Randolph and Center Streets, on top of first concrete step of sidewalk, 4 in. E. of W. concrete side wall; chiseled square.....	828. 59
Northville, near NE. corner of, 15 ft. N. and 27 ft. E. from Pere Marquette Ry. crossing, on top of SE. corner of concrete base of Ry. signal light; chiseled square.....	817. 99

From Plymouth generally southwest along Main Street and Ann Arbor Trail into South Lyon quadrangle (by G. N. Tex in 1936)

Plymouth, at crossing of Pere Marquette Ry. and North Main Street; top of E. rail.....	735. 5
Plymouth, 6 ft. N. of intersection of Penniman Avenue and South Main Street, 8 in. below surface of street, in iron handhole box trap; top of iron bolt.....	726. 15
Plymouth, at W. boundary of, near center of sec. 27, T. 1 S., R. 8 E., at intersection of Sheldon Rd., 4 in. below rd. surface, under 8- by 8-in. handhole box trap, in top of concrete post; top of ½-in. pipe.....	744. 68
Plymouth, 1.8 mi. SW. of crossing of Pere Marquette Ry. and North Main Street, 27 ft. N. and 15 ft. W. from intersection of private drive N. to farmhouse, in root on SE. side of 36-in. elm tree; copper nail and washer.....	780. 94
Plymouth, 2.0 mi. SW. of, 35 ft. S. and 65 ft. W. from junction of McClumpha Rd., in root on N. side of 20-in. maple tree; copper nail and washer.....	763. 09

From South Lyon quadrangle east along Ford Road to crossroads 4 miles south and 1.5 miles west from Plymouth (by G. N. Tex in 1936)

Plymouth, 4.0 mi. S., thence 1.9 mi. W. from, at Fellows, 0.4 mi. W. of E. cor. secs. 9 and 16, T. 2 S., R. 8 E., 33 ft. S. and 100 ft. W. from intersection of Garden Rd., on top of SW. corner of concrete base of sewer catch basin; chiseled square.....	692. 97
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## PONTIAC QUADRANGLE

[Latitude 42°30'–42°45'; longitude 83°15'–83°30']

## OAKLAND COUNTY

From Plymouth quadrangle at point 0.4 mile east and 4 miles north from Clarenceville along roads north and east by way of Franklin to Pontiac, thence west and southwest by way of Four Towns and Commerce into Milford quadrangle (by H. W. Peabody in 1905)

Clarenceville, 0.4 mi. E., thence 5.0 mi. N. from, 0.8 mi. S., thence 0.8 mi. W. from Franklin, in NW. cor. sec. 7, T. 1 N., R. 10 E., near SE. corner of crossroads, on stone; chiseled mark.....	821. 26
Franklin, 0.2 mi. N., thence 0.8 mi. W. from, 3.0 mi. E. of North Farmington, about 700 ft. S. of NW. cor. sec. 6, T. 1 N., R. 10 E., near SE. corner of rd. junction, on rock over end of culvert; chiseled square.....	848. 45
Franklin, 0.2 mi. S. of crossroads, near center of NE¼ sec. 6, T. 1 N., R. 10 E., on E. side of rd., near SW. corner of brick store building of George Bingham, in W. wall; aluminum tablet stamped "1905 787 ADJ".....	786. 789

Franklin, 1.2 mi. N. of, in NE. cor. sec. 31, T. 2 N., R. 10 E., near SW. corner of crossroads, on rock; chiseled mark-----	Feet 863. 31
Franklin, 2.2 mi. N. of, in SW. cor. sec. 20, T. 2 N., R. 10 E., near NE. corner of crossroads, on rock; chiseled mark-----	896. 36
Franklin, 2.7 mi. N. of, near W $\frac{1}{4}$ cor. sec. 20, T. 2 N., R. 10 E., near SE. corner of crossroads, on rock; chiseled mark-----	996. 41
Franklin, 3.7 mi. N. of, near W $\frac{1}{4}$ cor. sec. 17, T. 2 N., R. 10 E., at SE. corner of junction of E.-W. rd., on rock; chiseled mark-----	927. 90
Franklin, 3.7 mi. N., thence 0.7 mi. E. from, 4.0 mi. S., thence 0.3 mi. W. from Oakland County courthouse at Pontiac, 0.2 mi. E. of center of sec. 17, T. 2 N., R. 10 E., near S. end of Lower Long Lake, at SE. corner of junction of T-rd. S., on rock; chiseled mark-----	933. 73
Pontiac, 3.3 mi. S. of, 0.2 mi. N. of SW. cor. sec. 9, T. 2 N., R. 10 E., on E. side of rd., 0.5 mi. W. of Orange Lake, at NW. corner of brick farmhouse of W. H. Williams, in W. wall; aluminum tablet stamped "1905 937 ADJ"-----	936. 604
Pontiac, near S. limits of, 10 ft. S. of SE. corner of intersection of Franklin Rd. and Foote Street, on cement sidewalk; chiseled square-----	955. 12
Pontiac, at SE. corner of crossing of Grand Trunk Ry. and Huron Street, on concrete walk; chiseled mark-----	930. 22
Pontiac, 65 ft. S. and 75 ft. W. from intersection of Saginaw and Huron Streets, at NE. corner of courthouse, in N. wall; aluminum tablet stamped "1905 944 ADJ" (recovered by U. S. C. & G. S. in 1934)-----	943. 486
Pontiac, at SW. corner of intersection of Elizabeth Lake Rd. and Johnson Avenue, opposite State Asylum, on cement walk; chiseled mark-----	952. 61
Pontiac, 2.7 mi. W. of courthouse, 0.3 mi. W. of center of sec. 25, T. 3 N., R. 9 E., near SW. corner of junction of T-rd. S., on rock; chiseled mark-----	992. 63
Pontiac, 3.5 mi. W. of, near center of sec. 26, T. 3 N., R. 9 E., in SW. angle of crossroads, on E. side of Waterford School, in center of foundation; aluminum tablet stamped "1905 944 ADJ" <sup>69</sup> -----	943. 777
Pontiac, 4.8 mi. W. of, 2.5 mi. NE. of Four Towns, 0.3 mi. W. of center of sec. 27, T. 3 N., R. 9 E., 50 ft. E. of rd. fork near SE. end of Crescent Lake, on S. side of rd., on rock; chiseled mark-----	938. 16
Four Towns, 1.2 mi. NE. of, 0.2 mi. S. of N $\frac{1}{4}$ cor. sec. 33, T. 3 N., R. 9 E., at center of rd. fork, on rock; chiseled mark-----	943. 91
Four Towns, 0.8 mi. NE. of, SW. of center of sec. 33, T. 3 N., R. 9 E., near NE. corner of rd. fork, on stone; chiseled mark-----	946. 78
Four Towns, about 400 ft. NE. of crossroads at, near NW. corner of schoolhouse, in W. wall; aluminum tablet stamped "1905 955 ADJ"-----	954. 436
Four Towns, 1.8 mi. W. of, 0.3 mi. W. of NE. cor. sec. 1, T. 2 N., R. 8 E., near SE. corner of Cooley Lake, at SE. corner of crossroads, on rock; chiseled mark-----	944. 92
Four Towns, 2.9 mi. W. of, 1.4 mi. N. and 1.1 mi. E. from town hall in Commerce, in SE $\frac{1}{4}$ sec. 35, T. 3 N., R. 8 E., near NW. corner of junction of T-rd. N., on rock; chiseled mark-----	945. 19

<sup>69</sup> In 1936 additional leveling in this vicinity disclosed that this bench mark had been destroyed and a new mark was set near the same location.

Commerce, 0.2 mi. W., thence 1.4 mi. N. from, near N $\frac{1}{4}$ cor. sec. 3, T. 2 N., R. 8 E., in SW. corner of crossroads, near NE. corner of Sugden School, on large stone; chiseled mark-----	<i>Feet</i> 945. 66
Commerce, 0.2 mi. W., thence 1.1 mi. N. from, 0.3 mi. S. of N $\frac{1}{4}$ cor. sec. 3, T. 2 N., R. 8 E., on W. side of rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 12 1905 Mich 948 ADJ" (recovered in 1936)-----	947. 318
Commerce, 0.2 mi. W., thence 0.4 mi. N. from, near S $\frac{1}{4}$ cor. sec. 3, T. 2 N., R. 8 E., at NW. corner of crossroads, on rock; chiseled mark-----	955. 49
Commerce, on E. side near NE. corner of town hall, in cornerstone; aluminum tablet stamped "1905 942 ADJ" (recovered in 1936)-----	941. 272
From road junction 3 miles east of North Farmington along roads west 1 mile, thence south 2 miles into Plymouth quadrangle (by H. W. Peabody in 1905)	
North Farmington, 2.0 mi. E. of, 0.2 mi. N., thence 1.8 mi. W. from Franklin, in NE. cor. sec. 2, T. 1 N., R. 9 E., near SW. corner of crossroads, on large boulder; chiseled mark-----	867. 99
North Farmington, 2.0 mi. E., thence 1.0 mi. S. from, in SE. cor. sec. 2, T. 1 N., R. 9 E., near NW. corner of crossroads, on stone; chiseled mark-----	841. 26
From Milford quadrangle near east quarter corner sec. 33, T. 2 N., R. 8 E., along road generally east by way of Walled Lake to crossroads 2 miles east of North Farmington (by H. W. Peabody in 1905)	
Walled Lake, 0.5 mi. W. of center of town, 0.2 mi. E. of W $\frac{1}{4}$ cor. sec. 34, T. 2 N., R. 8 E., at NW. corner of crossroads, on stone; chiseled mark-----	946. 90
Walled Lake, at NW. corner of junction of T-rd. N., near SE. corner of brick store building of C. F. Rose, in E. wall; aluminum tablet stamped "1905 944 ADJ" <sup>70</sup> -----	943. 280
Walled Lake, 0.8 mi. SE. of, 4.9 mi. W. of North Farmington, 0.4 mi. W. of S $\frac{1}{4}$ cor. sec. 35, T. 2 N., R. 8 E., in center of junction of rd. E., on rock; chiseled mark-----	937. 23
North Farmington, 4.5 mi. W. of, near S $\frac{1}{4}$ cor. sec. 35, T. 2 N., R. 8 E., at NE. corner of junction of T-rd. N., on large rock; chiseled mark-----	952. 31
North Farmington, 2.2 mi. W. of, 800 ft. W. of crossroads, near NE. cor. sec. 6, T. 1 N., R. 9 E., 10 ft. W. of NE. corner of schoolhouse, in N. wall; aluminum tablet stamped "1905 896 ADJ"-----	895. 026
North Farmington, 1.0 mi. W. of, in SW. cor. sec. 33, T. 2 N., R. 9 E., at NE. corner of crossroads, on stone; chiseled mark-----	926. 49
North Farmington, in center of crossroads at, on rock; chiseled mark-----	923. 54
North Farmington, 1.0 mi. E. of, in SE. cor. sec. 34, T. 2 N., R. 9 E., near sta. of Detroit & Orchard Lake Electric R.R., <sup>71</sup> in NW. angle of crossroads, on E. side near NE. corner of house, in foundation; aluminum tablet stamped "1905 891 ADJ" <sup>72</sup> -----	890. 787

<sup>70</sup> In 1936 it was reported that the top of this tablet had been destroyed. The figures given represent the elevation of the stem.

<sup>71</sup> This railroad is now abandoned.

<sup>72</sup> In 1936 additional leveling in this vicinity disclosed that this bench mark had been destroyed, and a new mark was established near the same location.

From point 1.4 miles north of Commerce along roads north 6.7 miles, thence east and northeast to Clarkston, thence alternately east and south to Pontiac, Oxford & Northern R. R.,<sup>1</sup> thence south along railroad 3.5 miles to Pontiac (by H. W. Peabody in 1906)

Commerce, 3.9 mi. by rd. N. of, 0.3 mi. W. of Oxbow Lake, near N $\frac{1}{4}$ cor. sec. 27, T. 3 N., R. 8 E., at farmhouse of O. F. Stockwell, in N. wall, 5 ft. from NW. corner; aluminum tablet stamped "1905 998 ADJ" <sup>2</sup> -----	Feet 997. 368
Commerce, 5.8 mi. N. of, near center of NE $\frac{1}{4}$ sec. 15, T. 3 N., R. 8 E., at SW. corner of crossroads, on rock; chiseled mark -----	975. 59
Commerce, 7.1 mi. N. of, 0.25 mi. W. of NE. cor. sec. 10, T. 3 N., R. 8 E., at junction of T-rd. E., at E. side of rd., on rock; chiseled mark -----	1, 037. 58
Commerce, 7.6 mi. N. of, 0.25 mi. W. of E $\frac{1}{4}$ cor. sec. 3, T. 3 N., R. 8 E., in SW. corner of crossroads, near schoolhouse, on rock; chiseled mark -----	1, 006. 90
Commerce, 8.1 mi. N. of, 0.4 mi. S. and 2.5 mi. W. from Clarkston Sta. on Grand Trunk Ry., 0.2 mi. W. of NE. cor. sec. 3, T. 3 N., R. 8 E., 220 ft. E. of junction of E.-W. rd., at Huron Valley Farm owned by A. R. Hubbard, near NE. corner of barn, in foundation of N. wall; aluminum tablet stamped "1905 1025 ADJ" (recovered in 1936) -----	1, 024. 178
Clarkston Sta., 0.5 mi. SW., thence 0.6 mi. NW. from, 0.3 mi. N. of S $\frac{1}{4}$ cor. sec. 36, T. 4 N., R. 8 E., at junction of NW.-SE. rd., at fence corner, on large rock; chiseled mark -----	1, 028. 54
Clarkston Sta., 0.5 mi. SW. of, in NW. cor. sec. 6, T. 3 N., R. 9 E., in SE. angle of junction of rd. SW., near schoolhouse, under apple tree, on rock; chiseled mark -----	1, 030. 90
Clarkston Sta., at SE. corner of platform, in top of beam; spike -----	1, 005. 88
Clarkston Sta., 0.3 mi. NE. of, 1.8 mi. SW. of Clarkston, NW. of center of sec. 31, T. 4 N., R. 9 E., at SW. corner of crossroads, on rock; chiseled mark -----	998. 32
Clarkston, 1.0 mi. SW. of, near E $\frac{1}{4}$ cor. sec. 30, T. 4 N., R. 9 E., on W. side of rd., opposite T-rd. SE., on rock; chiseled mark -----	1, 011. 93
Clarkston, in SE. part of, at Methodist Episcopal Church, in W. wall near SW. corner; aluminum tablet stamped "1905 1015 ADJ" (recovered in 1936) -----	1, 014. 401
Clarkston, 1.5 mi. E. of, near N. cor. secs. 27 and 28, T. 4 N., R. 9 E., on S. side of rd., opposite junction of T-rd. N., on large rock; chiseled mark -----	1, 031. 04
Clarkston, 2.0 mi. E. of, near N $\frac{1}{4}$ cor. sec. 27, T. 4 N., R. 9 E., near SW. corner of crossroads, on large rock; chiseled mark -----	1, 045. 14
Clarkston, 2.0 mi. E., thence 1.0 mi. S. from, near N $\frac{1}{4}$ cor. sec. 34, T. 4 N., R. 9 E., at SE. corner of crossroads, on rock; chiseled mark -----	993. 98
Clarkston, 2.9 mi. E. and 1.0 mi. S. from, 2.5 mi. by rd. N. of Clintonville, 800 ft. W. of N $\frac{1}{4}$ cor. sec. 35, T. 4 N., R. 9 E., 800 ft. W. of crossroads, on S. side of rd., at Sashabaw Church, in E. wall near NE. corner; aluminum tablet stamped "1905 991 ADJ" (recovered in 1936) -----	990. 124
Clintonville, 1.0 mi. N. of, in NE. cor. sec. 2, T. 3 N., R. 9 E., on W. side of rd., opposite T-rd. E., on rock; chiseled mark -----	928. 07
Clintonville, 1.0 mi. N., thence 1.0 mi. E. from, near W. cor. secs. 6 and 31, Tps. 3 and 4 N., R. 10 E., at junction of N.-S. rd., on rock; chiseled mark -----	1, 022. 65

<sup>1</sup> Now operated by the Grand Trunk Ry.

<sup>2</sup> In 1936 it was reported that this bench mark had been destroyed.

Clintonville, 1.5 mi. NE. of, 0.3 mi. S. of NE. cor. sec. 1, T. 3 N., R. 9 E., on W. side of rd. fork 0.3 mi. N. of Lake Angelus, on rock; chiseled mark.....	Feet 995. 06
Clintonville, 2.6 mi. NE. of, 4.5 mi. by rd. N. of courthouse at Pontiac, 0.25 mi. E. of W $\frac{1}{4}$ cor. sec. 5, T. 3 N., R. 10 E., at NE. corner of crossroads, on rock; chiseled mark.....	1, 028. 84
Pontiac, 4.0 mi. N. of, 0.25 mi. E. of SW. cor. sec. 5, T. 3 N., R. 10 E., in NE. angle of junction of rd. E., near schoolhouse, on large rock; chiseled mark.....	968. 29
Pontiac, 3.5 mi. N. along R. R., thence 0.3 mi. along rd. NW. from, near N $\frac{1}{4}$ cor. sec. 8, T. 3 N., R. 10 E., on S. side of rd., at 20- by 20-ft. concrete building, in N. wall near NW. corner; aluminum tablet stamped "1905 965 ADJ".....	964. 407
From point about 3.7 miles north of Pontiac southeast 0.3 mile along road, thence northeast 1.5 miles along Pontiac, Oxford & Northern R. R., thence east 1.8 miles along road into Rochester quadrangle at point 2 miles north and 6 miles west from Rochester (by C. K. Alexander in 1908)	
Pontiac, 2.7 mi. NE., thence 2.8 mi. N. from courthouse, 6.5 mi. W., thence 2.0 mi. N. from Rochester, near S $\frac{1}{4}$ cor. sec. 34, T. 4 N., R. 10 E., near NE. corner of crossroads, on granite rock; chiseled mark.....	1, 052. 64
From Rochester quadrangle at point 1.8 miles west and 1 mile south from Birmingham west along road to Franklin (by C. K. Alexander in 1906; leveled twice)	
Birmingham, 1.0 mi. S. and 3.2 mi. W. from intersection of Maple Avenue and Saginaw Street, 0.2 mi. N., thence 1.4 mi. E. from Franklin, 0.2 mi. E. of SW. cor. sec. 33, T. 2 N., R. 10 E., at S. wall of stone house of Mrs. Buell, in doorsill; aluminum tablet stamped "774".....	773. 046
Franklin, 0.2 mi. N., thence 1.2 mi. E. from, in NE. cor. sec. 5, T. 1 N., R. 10 E., in SW. angle of crossroads, on rock; chiseled mark.....	774. 56
From Seymour Lake quadrangle at Springfield southwest along Bridge Lake Road to Andersonville, thence south 0.3 mile along gravel road to intersection of Grand Trunk Railway (by J. M. Lawson in 1936)	
Springfield, 70 ft. S. and 54 ft. E. from junction of U. S. Highway 10 and rd. SW. to Andersonville, 50 ft. E. of fence corner, in concrete post; standard tablet stamped "1 L 1936 1035".....	1, 034. 889
Reference mark, 18 ft. N. and 54 ft. W. from tablet, 52 ft. S. of rd. junction, on top of concrete foundation of corner fence post; chiseled square.....	1, 034. 99
Springfield, 0.7 mi. SW. of, 1.1 mi. NE. of Andersonville, near center of NW $\frac{1}{4}$ sec. 23, T. 4 N., R. 8 E., 42 ft. N. of junction of rd. W., in root on W. side of 11-in. triple oak tree; copper nail and washer....	1, 076. 39
Andersonville, 0.3 mi. E. of, in SW. cor. sec. 23, T. 4 N., R. 8 E., 115 ft. N. and 30 ft. E. from junction of E.-W. rd., on E. side of cemetery, in root on W. side of 14-in. walnut tree; copper nail and washer	1, 051. 26
U. S. C. & G. S. standard disk stamped "F 43 1934".....	1, 020. 093
From Springfield generally southeast and east along U. S. Highway 10 and other roads by way of Clarkston to intersection of Sashabaw Road, thence north into Seymour Lake quadrangle near Flemings Lake (by J. M. Lawson in 1936)	
Springfield, 1.4 mi. SE. of, 0.2 mi. NW. of E $\frac{1}{4}$ cor. sec. 24, T. 4 N., R. 8 E., 38 ft. W. of junction of rd. SW., on top of N. end of round concrete culvert; chiseled square.....	1, 048. 56



Springfield, 2.4 mi. SE. of, 1.2 mi. SW. of Clarkston, in NW $\frac{1}{4}$ sec. 30, T. 4 N., R. 9 E., 60 ft. E. of junction of Deer Lake Rd., in W. angle of junction of Foster Rd., in root on E. side of 28-in. elm tree; copper nail and washer.....	<i>Feet</i> 1, 021. 12
Clarkston, at intersection of Main and Church Streets, under signal light; center of pavement.....	999. 2
Clarkston, 1,080 ft. E. along Church Street from intersection of Main Street, on top of SE. concrete abutment of bridge over Clinton River; chiseled square.....	986. 22
Clarkston, 1.5 mi. E. of, in NW. cor. sec. 27, T. 4 N., R. 9 E., 100 ft. E. of junction of T-rd. N., on S. side of Waldon Rd., in root on N. side of 12-in. hickory tree; copper nail and washer.....	1, 035. 98
Clarkston, 2.0 mi. E. of, near S $\frac{1}{4}$ cor. sec. 22, T. 4 N., R. 9 E., 215 ft. N. and 25 ft. E. from center of intersection of Sashabaw Rd., 190 ft. S. and 25 ft. E. from center of rd. opposite house No. 6571, in concrete post; standard tablet stamped "T T 29 C 1935 1048"....	1, 047. 468
Clarkston, 2.0 mi. E., thence 0.5 mi. N. from, near center of sec. 22, T. 4 N., R. 9 E., 18 ft. S. and 34 ft. W. from junction of T-rd. W., on top of S. concrete head wall of culvert; chiseled square.....	1, 069. 41
From point on Grand Trunk Railway 0.6 mile southeast of Drayton Plains Station northwest along railway to Drayton Plains, thence generally north along Sashabaw Road to Waldon Road (by J. M. Lawson in 1936)	
Grand Trunk Ry. copper bolt stamped "30 $\frac{1}{2}$ "; elevation determined by U. S. C. & G. S.....	959. 923
Drayton Plains; opposite Grand Trunk Ry. sta.; top of N. rail of main track.....	967. 1
Drayton Plains, on U. S. Highway 10, at concrete bridge over Clinton River, on NE. abutment; chiseled square.....	952. 02
Drayton Plains, 0.7 mi. N. of bridge, near S. side SE $\frac{1}{4}$ sec. 3, T. 3 N., R. 9 E., 120 ft. N. and 35 ft. W. from intersection of Sashabaw Rd. and Walton Boulevard, in concrete post; standard tablet stamped "T T 30 C 1935 978".....	977. 671
Drayton Plains, 1.3 mi. N. of, about 550 ft. W. of E $\frac{1}{4}$ cor. sec. 3, T. 3 N., R. 9 E., 76 ft. N. and 25 ft. E. from junction of T-rd. E., 380 ft. S. of Woodland Drive, in root on W. side of twin oak tree; copper nail and washer.....	983. 06
Drayton Plains, 2.1 mi. N. of, near N $\frac{1}{4}$ cor. sec. 3, T. 3 N., R. 9 E., at channel between Woodhull Lake and Lake Oakland (formerly Pond Lake), on SE. end of bridge; chiseled square.....	968. 93
Drayton Plains, 2.5 mi. N. of, near center of sec. 34, T. 4 N., R. 9 E., 16 ft. N. and 32 ft. W. from junction of Pelton Rd., on N. concrete head wall of culvert; chiseled square.....	991. 58
Drayton Plains, 3.0 mi. N. of, near S $\frac{1}{4}$ cor. sec. 27, T. 4 N., R. 9 E., 17 ft. N. and 35 ft. W. from crossroads, on N. concrete head wall of culvert; chiseled square.....	993. 41
Drayton Plains, 3.5 mi. N. of, 2.0 mi. E., thence 0.5 mi. S. from Clarkston, near center of sec. 27, T. 4 N., R. 9 E., 52 ft. N. and 22 ft. E. from junction of T-rd. W., 16 ft. N. of T-rd. E., on N. concrete head wall of culvert; chiseled square.....	997. 11
From Sashabaw Church east along Maybee Road to Sashabaw School, thence north 1 mile along Pine Knob Road, thence east along Waldon Road into Rochester quadrangle (by J. M. Lawson in 1936)	
Clarkston, 3.0 mi. E. of, 1.0 mi. N. of Sashabaw School, near S $\frac{1}{4}$ cor. sec. 23, T. 4 N., R. 9 E., 22 ft. N. and 120 ft. W. from crossroads, in root on S. side of 14-in. oak tree; copper nail and washer.....	1, 012. 95

Clarkston, 3.5 mi. E. of, in SE. cor. sec. 23, T. 4 N., R. 9 E., 11 ft. N. and 96 ft. W. from crossroads, at NE. abutment of small iron bridge, on top of channel-iron cross beam; chiseled cross-----	<i>Feet</i> 983. 16
Clarkston, 4.5 mi. E. of, in SW. cor. sec. 19, T. 4 N., R. 10 E., 320 ft. N. of E. cor. secs. 24 and 25, T. 4 N., R. 9 E., 34 ft. N. and 12 ft. E. from turn from N. to E. in rd., in root on W. side of 15-in. maple tree; copper nail and washer-----	982. 45
Clarkston, 5.6 mi. E. of, 6.0 mi. N. of courthouse at Pontiac, 0.25 mi. E. of SW. cor. sec. 20, T. 4 N., R. 10 E., 95 ft. N. and 28 ft. W. from intersection of Baldwin Rd., in line with row of maple trees, in concrete post; standard tablet stamped "2 L 1936 994"-----	993. 661
Reference mark, 59 ft. S. and 52 ft. E. from tablet, 36 ft. N. and 24 ft. E. from crossroads, in root on W. side of 16-in. maple tree; copper nail and washer-----	994. 31
Clarkston, 6.6 mi. E. of, 0.25 mi. W. of S $\frac{1}{4}$ cor. sec. 21, T. 4 N., R. 10 E., 40 ft. N. and 50 ft. W. from junction of Joslyn Rd., in root on S. side of 12-in. elm tree; copper nail and washer-----	1, 004. 98
Clarkston, 6.9 mi. E. of, 250 ft. SE. of N $\frac{1}{4}$ cor. sec. 28, T. 4 N., R. 10 E., at crossing of Grand Trunk Ry.; top of E. rail-----	1, 019. 1
Clarkston, 7.9 mi. E. of, 0.2 mi. N. of center of sec. 27, T. 4 N., R. 10 E., 18 ft. N. and 55 ft. W. from junction of Giddings Rd., on N. end of round concrete culvert; chiseled square-----	976. 64
From point 0.7 mile north of Clinton River bridge at Drayton Plains alternately east and southeast along Walton Boulevard into Rochester quadrangle (by J. M. Lawson in 1938)	
Drayton Plains, 0.7 mi. N., thence 0.3 mi. E. from bridge at, 0.6 mi. W. of Clintonville, at cor. secs. 2, 3, 10, and 11, T. 3 N., R. 9 E., in pavement; bronze tablet (Oakland County B. M.)-----	972. 536
Clintonville, 25 ft. S. and 130 ft. E. from rd. fork at, near N $\frac{1}{4}$ cor. sec. 11, T. 3 N., R. 9 E., at angle in concrete highway to SE., on W. end of round concrete culvert; chiseled square-----	966. 47
Clintonville, in NE $\frac{1}{4}$ sec. 11, T. 3 N., R. 9 E., at concrete bridge over channel between Lake Oakland and Loon Lake; center line of Walton Boulevard-----	955. 3
Clintonville, 0.6 mi. SE. of, 4.7 mi. NW. of courthouse at Pontiac, in NW $\frac{1}{4}$ sec. 12, T. 3 N., R. 9 E., at channel between Wormer and Schoolhouse Lakes, on E. end of concrete bridge; chiseled square-----	956. 84
U. S. C. & G. S. standard disk designated "8 G 1"-----	955. 820
Pontiac, 0.8 mi. W. of intersection of Baldwin Rd., 27 ft. S. and 5 ft. W. from junction of T-rd. N., in root on NW. side of 16-in. twin wild-cherry tree; copper nail and washer-----	984. 13
U. S. C. & G. S. standard disk designated "8 L"-----	978. 151
U. S. C. & G. S. standard disk designated "8 K"-----	985. 990
Pontiac, 45 ft. S. and 22 ft. E. from intersection of Joslyn Avenue, in root on SW. side of 15-in. oak tree; copper nail and washer-----	979. 52
U. S. C. & G. S. standard disk designated "8 J"-----	922. 385
Pontiac, 15 ft. N. and 25 ft. E. from intersection of Giddings Rd., on E. end of round concrete culvert; chiseled square-----	932. 78
Pontiac, 1 ft. S. of intersection of Giddings Rd., in pavement; bronze tablet (Oakland County B. M.)-----	933. 260
U. S. C. & G. S. standard disk designated "8 H"-----	973. 079

Pontiac, 3.5 mi. NE. of courthouse, at intersection of State Highway 24, under signal light; center of intersection-----	<i>Feet</i> 977. 6
From point on Grand Trunk Railway 0.6 mile southeast of Drayton Plains northwest along railway to Hatchery Road, thence southwest and west along road 0.9 mile to Drayton Plains Road, thence south to junction of Elizabeth Lake Road near east side of Crescent Lake, thence southeast and east along Elizabeth Lake and Auburn (State Highway 59) Roads into Rochester quadrangle (by J. M. Lawson in 1936)	
Drayton Plains, 0.2 mi. SW. of, at fish hatchery, at steel bridge over Clinton River, on top of SE. concrete abutment; chiseled square----	951. 66
T. 3 N., R. 9 E., in NW. cor. sec. 15, 25 ft. S. and 25 ft. E. from junction of Drayton Plains Rd., in root on W. side of 28-in. oak tree; copper nail and washer-----	966. 27
T. 3 N., R. 9 E., at quarter corner between secs. 15 and 16, at junction of Tubbs Rd.; center line of rd.-----	972. 2
T. 3 N., R. 9 E., 1,130 ft. S. of E $\frac{1}{4}$ cor. sec. 16, at steel truss bridge over Clinton River, on SW. concrete abutment; chiseled square----	946. 17
T. 3 N., R. 9 E., in NE. cor. sec. 21, 150 ft. S. and 25 ft. W. from crossroads, 40 ft. S. of entrance to farmyard, in concrete post; standard tablet stamped "T T 43 C 1935 966"-----	965. 504
T. 3 N., R. 9 E., at quarter corner between secs. 21 and 22, at intersection of Pontiac Lake Rd.; center of crossroads-----	964. 6
T. 3 N., R. 9 E., about 600 ft. SE. of NW. cor. sec. 27, 48 ft. N. and 30 ft. W. from junction of Elizabeth Lake Rd., on top of NW. concrete head wall of culvert; chiseled square-----	934. 05
T. 3 N., R. 9 E., 0.3 mi. W. of center of sec. 27, 4.7 mi. W. of courthouse at Pontiac, 26 ft. N. and 37 ft. W. from junction of Cooley Lake Rd., on top of N. concrete head wall of culvert; chiseled square-----	936. 10
Pontiac, 3.8 mi. E. of, about 200 ft. E. of W $\frac{1}{4}$ cor. sec. 26, T. 3 N., R. 9 E., 22 ft. S. and 20 ft. W. from junction of Ascot Rd., on W. end of round concrete culvert; chiseled square-----	971. 22
Pontiac, 3.5 mi. W. of, near center of sec. 26, T. 3 N., R. 9 E., 35 ft. S. and 420 ft. W. from intersection of Cass Lake Rd., 110 ft. E. of gate to farm, in concrete post; standard tablet stamped "T T 44 C 1935 942"-----	941. 806
Pontiac, 2.9 mi. W. of, near W $\frac{1}{4}$ cor. sec. 25, T. 3 N., R. 9 E., 35 ft. N. and 97 ft. E. from junction of Scott Lake Rd., in root on S. side of 26-in. oak tree; iron nail and washer (State Highway Dept. B. M.)-----	974. 70
Pontiac, 2.2 mi. W. of, 30 ft. N. and 150 ft. E. from junction of Beacon Avenue, in root on S. side of 32-in. maple tree; copper nail and washer-----	977. 84
Pontiac, 1.9 mi. W. of courthouse, at W. city limits, 13 ft. N. and 70 ft. W. from intersection of Telegraph Rd. (State Highway 58), on top of concrete base of signal light stand; chiseled square-----	971. 13
Pontiac, at intersection of Elizabeth Lake Rd., State Street, and North Johnson Avenue, at 9-in. steel cover plate set in pavement, on top of letter "M"; chiseled cross-----	952. 43
U. S. C. & G. S. standard disk stamped "K 43 1934"-----	936. 356
U. S. C. & G. S. standard disk stamped "M 43 1934"-----	939. 867
U. S. C. & G. S. standard disk designated "8 Q"-----	946. 728
U. S. C. & G. S. standard disk designated "8 R"-----	879. 310

From center of sec. 28, T. 3 N., R. 9 E., generally south along Cass Lake and Orchard Lake Roads to Fourteenmile Road, thence west 1 mile to North Farmington, thence south 1.9 miles along Farmington Road into Plymouth quadrangle (by J. M. Lawson in 1936)

Pontiac, 3.5 mi. W., thence 1.0 mi. S. from courthouse, 1.6 mi. NW. of Keego Harbor, near center of sec. 35, T. 3 N., R. 9 E., 320 ft. N. and 24 ft. W. from junction of T-rd. W., on W. side of Cass Lake Rd., on top of W. concrete head wall of culvert; chiseled square-----	Feet 946. 09
Keego Harbor, 1.0 mi. NW. of, 208 ft. NW. of Otter Avenue, at bridge over river at NE. end of Cass Lake, on E. side of rd., on top of N. concrete abutment; chiseled square-----	934. 92
Keego Harbor, 60 ft. N. and 30 ft. E. from junction of Orchard Lake Rd., in root on W. side of 26-in. oak tree; copper nail and washer-----	944. 61
Keego Harbor, 0.6 mi. SW. of, 0.9 mi. NE. of Grand Trunk Ry. sta. at Orchard Lake, 90 ft. N. and 10 ft. W. from junction of Commerce Rd., 65 ft. N. of fence corner, in concrete post; standard tablet stamped "T T 45 C 1935 943"-----	942. 723
Orchard Lake, 0.7 mi. NE. of sta., at Ry. crossing; top of S. rail-----	943. 3
U. S. C. & G. S. standard disk stamped "T 106 1934"-----	938. 555
Orchard Lake, about 625 ft. SW. of sta., at Ry. crossing; top of W. rail-----	937. 7
Orchard Lake, 0.4 mi. SW. of, in NW $\frac{1}{4}$ sec. 14, T. 2 N., R. 9 E., 20 ft. N. and 12 ft. W. from junction of West Long Lake Rd., on concrete base of American Automobile Association danger sign (road end); chiseled square-----	960. 60
Orchard Lake, 0.8 mi. SW. of, near E $\frac{1}{4}$ cor. sec. 14, T. 2 N., R. 9 E., 55 ft. S. and 25 ft. W. from junction of Walled Lake Rd. (State Highway 218), on NW. end of concrete head wall of culvert; chiseled square-----	928. 44
Orchard Lake, 0.9 mi. SW. of, at Ry. crossing; top of N. rail-----	930. 1
Orchard Lake, 1.2 mi. SW. of, 575 ft. N. of SW. cor. sec. 14, T. 2 N., R. 9 E., 110 ft. N. and 22 ft. E. from junction of T-rd. E., 380 ft. N. of West Bloomfield town hall, in root on W. side of 24-in. oak tree; copper nail and washer-----	925. 24
Orchard Lake, 1.8 mi. SW. of, near quarter corner between secs. 22 and 23, T. 2 N., R. 9 E., at junction of T-rd. W.; center line of rd-----	927. 4
Orchard Lake, 2.1 mi. SW. of, at concrete bridge over branch of River Rouge; center line of floor-----	900. 4
Orchard Lake, 2.5 mi. SW. of, 1.0 mi. E., thence 2.0 mi. N. from North Farmington, in SW. cor. sec. 23, T. 2 N., R. 9 E., 25 ft. N. and 114 ft. E. from intersection of Walnut Lake Rd., 22 ft. W. of 10-in. hickory tree, 2 ft. S. of fence, in concrete post; standard tablet stamped "T T 27 E 1935 918"-----	917. 758
North Farmington, 1.0 mi. E., thence 1.0 mi. N. from, on line between secs. 34 and 35, T. 2 N., R. 9 E., at intersection of West Maple Rd., under signal light; center line of pavement-----	913. 1
North Farmington, 1.0 mi. E., thence 0.9 mi. N. from, 570 ft. S. of NE. cor. sec. 34, T. 2 N., R. 9 E., on NW. concrete abutment of bridge; chiseled square-----	901. 39
North Farmington, 1.0 mi. E. of, in NE. cor. sec. 3, T. 1 N., R. 9 E., 21 ft. S. and 73 ft. W. from intersection of Fourteenmile Rd., in root on NW. side of 8-in. elm tree; copper nail and washer-----	883. 53

North Farmington, 90 ft. N. and 33 ft. E. from crossroads at, in SW. cor. sec. 34, T. 2 N., R. 9 E., 2 ft. W. of fence, in concrete post; standard tablet stamped "T T 47 E 1935 925"-----	<i>Feet</i> 925. 116
Reference mark, 570 ft. S. of tablet, on W. concrete head wall of culvert; chiseled square-----	916. 16
North Farmington, 1.0 mi. S. of, in NW. cor. sec. 10, T. 1 N., R. 9 E., 40 ft. S. and 15 ft. E. from intersection of Farmington and Thirteen-mile Rds., on top of concrete head wall of culvert; chiseled square--	868. 80
From point 1 mile west and 0.2 mile south from west end of Pleasant Lake northeast along Grand Trunk Railway to Walnut Lake Road, thence generally east to Telegraph Road, thence north 0.5 mile to Quarton (Sixteenmile) Road, thence east into Rochester quadrangle (by J. M. Lawson in 1938)	
U. S. C. & G. S. standard disk stamped "R 106 1934"-----	956. 182
North Farmington, 2.0 mi. N., and 2.8 mi. W. from, 800 ft. E. of SW. cor. sec. 19, T. 2 N., R. 9 E., at crossing of Grand Trunk Ry. and Walnut Grove Rd.; top of NW. rail-----	954. 1
North Farmington, 2.0 mi. N. and 2.0 mi. W. from, in SW. cor. sec. 20, T. 2 N., R. 9 E., near W. end of Pleasant Lake, 10 ft. N. and 14 ft. E. from junction of Halstead Rd., 15 ft. N. of private drive E., 30 ft. N. and 4 ft. W. from 30-in. oak tree, in concrete post; standard tablet stamped "T T 28 E 1925 953"-----	952. 922
North Farmington, 2.2 mi. N. and 1.5 mi. W. from, 0.3 mi. S. of center of sec. 20, T. 2 N., R. 9 E., 28 ft. S. and 45 ft. W. from junction of T-rd. N., in root on NE. side of 26-in. elm tree; copper nail and washer-----	963. 31
North Farmington, 2.0 mi. N. and 1.0 mi. W. from, in NE. cor. sec. 29, T. 2 N., R. 9 E., 35 ft. S. and 40 ft. W. from junction of Drake Rd., in root on N. side of 30-in. elm tree; copper nail and washer---	977. 18
North Farmington, 2.0 mi. N. and 0.2 mi. W. from, 0.2 mi. W. of NE. cor. sec. 28, T. 2 N., R. 9 E., 18 ft. S. of rd., on top of S. concrete head wall of culvert over drainage ditch; chiseled square-----	958. 33
North Farmington, 2.1 mi. NE. of, 0.25 mi. E. of NW. cor. sec. 27, T. 2 N., R. 9 E., 28 ft. S. and 30 ft. W. from junction of T-rd. S., on top of concrete base of corner fence post; chiseled square-----	964. 36
North Farmington, 2.1 mi. NE., thence 0.5 mi. E. from, 2.5 mi. SW., thence 0.3 mi. W. from village of Orchard Lake, 0.3 mi. W. of SE. cor. sec. 22, T. 2 N., R. 9 E., 30 ft. N. and 118 ft. W. from junction of T-rd. N., in root on S. side of 14-in. hickory tree; copper nail and washer-----	949. 32
Orchard Lake, 2.5 mi. SW., thence 0.8 mi. E. from, 0.3 mi. W. of W. shore of Walnut Lake, 0.2 mi. W. of SE. cor. sec. 23, T. 2 N., R. 9 E., on N. side of rd., on top of W. end of N. concrete head wall of culvert; chiseled square-----	882. 78
Orchard Lake, 2.5 mi. SW., thence 1.0 mi. E. from, 2.0 mi. by rd. W., thence 1.9 mi. N. from Franklin, about 500 ft. S. of NW. cor. sec. 25, T. 2 N., R. 9 E., 23 ft. N. and 25 ft. E. from intersection of Middle Belt Rd., in root on SW. side of 20-in. ash tree; copper nail and washer-----	906. 18
Franklin, 1.1 mi. by rd. W., thence 1.7 mi. N. from, about 500 ft. NW. of E $\frac{1}{4}$ cor. sec. 25, T. 2 N., R. 9 E., 57 ft. N. and 27 ft. E. from NE. corner of Walnut Lake School, in concrete post; standard tablet stamped "T T 26 E 1935 892"-----	892. 251
Franklin, 1.1 mi. W., thence 1.7 mi. N. from, near E $\frac{1}{4}$ cor. sec. 25, T. 2 N., R. 9 E., 43 ft. N. and 50 ft. W. from intersection of Town Line Rd., in root on W. side of 22-in. elm tree; copper nail and washer---	866. 84

Franklin, 1.1 mi. W., thence 2.2 mi. N. from, in SW. cor. sec. 19, T. 2 N., R. 10 E., 22 ft. N. and 70 ft. E. from junction of Quarton Rd., in root on S. side of 46-in. elm tree; copper nail and washer-----	<i>Feet</i> 911. 47
Franklin, 2.2 mi. NE. of, in SW. cor. sec. 20, T. 2 N., R. 10 E., 36 ft. N. and 36 ft. E. from intersection of Franklin Rd., in root on SW. side of 25-in. elm tree; copper nail and washer-----	896. 19
Franklin, 2.2 mi. NE., thence 0.4 mi. E. from, near N $\frac{1}{4}$ cor. sec. 29, T. 2 N., R. 10 E., 13 ft. S. and 30 ft. W. from intersection of Wing Lake Rd., in root on NE. side of 18-in. hickory tree; copper nail and washer-----	894. 50
Franklin, 2.2 mi. NE., thence 0.9 mi. E. from, 3.6 mi. W., thence 1.0 mi. N. from intersection of Maple Rd. and Woodward Avenue in Birmingham, 0.3 mi. W. of Gilbert Lake, in NE. cor. sec. 29, T. 2 N., R. 10 E., 55 ft. S. and 20 ft. W. from intersection of Telegraph Rd., 3 ft. E. of fence, in concrete post; standard tablet stamped "T T 25 E 1935 875"-----	875. 255
Birmingham, 3.6 mi. W., thence 0.7 mi. N. from, 0.3 mi. S. of NW. cor. sec. 28, T. 2 N., R. 10 E., 27 ft. N. and 70 ft. E. from junction of rd. E., in root on SW. side of 18-in. oak tree; copper nail and washer--	868. 42
Birmingham, 3.2 mi. W., thence 0.7 mi. NE. from, 0.2 mi. N. of center of sec. 28, T. 2 N., R. 10 E., 32 ft. N. and 60 ft. W. from junction of Miller Rd., in root on S. side of 34-in. oak tree; iron nail (State Highway Dept. B. M.)-----	845. 89
Birmingham, 2.6 mi. W., thence 1.0 mi. N. from, in SE. cor. sec. 21, T. 2 N., R. 10 E., 36 ft. N. and 18 ft. W. from intersection of Redford Rd., on top of iron grating over storm sewer; chiseled cross.---	826. 47
Birmingham, 1.1 mi. along Woodward Avenue NW., thence 1.3 mi. W. from, 0.2 mi. E. of S $\frac{1}{4}$ cor. sec. 22, T. 2 N., R. 10 E., 30 ft. N. and 18 ft. W. from junction of T-rd. N., 180 ft. E. of junction of rd. SW., on top of iron grating over storm sewer; chiseled cross-----	812. 88
From Plymouth quadrangle near intersection of Inkster and Twelvemile Roads east along Twelvemile Road into Rochester quadrangle (by J. M. Lawson in 1936)	
Franklin, 1.9 mi. S., thence 0.6 mi. W. from, near SE. cor. sec. 12, T. 1 N., R. 9 E., 500 ft. W. of crossroads at bridge over Pebble Creek, on NW. concrete wing wall; chiseled square-----	722. 45
Franklin, 1.9 mi. S. of, near S $\frac{1}{4}$ cor. sec. 7, T. 1 N., R. 10 E., 45 ft. N. and 50 ft. W. from intersection of Northwestern Highway, 12 ft. N. and 12 ft. W. from power-line pole, in center of boulevard, in concrete post; standard tablet stamped "3 L 1936 726"-----	725. 757
Reference mark, 5 ft. N. of tablet, on top of concrete head wall of culvert; chiseled square-----	724. 93
Franklin, 1.9 mi. S., thence 1.3 mi. E. from, 0.25 mi. W. of NE. cor. sec. 17, T. 1 N., R. 10 E., 38 ft. S. and 115 ft. E. from intersection of Telegraph Rd. (U. S. Highway 24), in root on W. side of 24-in. poplar tree; copper nail and washer-----	694. 23
Franklin, 1.9 mi. S., thence 1.6 mi. E. from, 500 ft. E. of NW. cor. sec. 16, T. 1 N., R. 10 E., at concrete bridge over branch of River Rouge, on top of SW. guardrail; chiseled square-----	667. 60
Franklin, 1.9 mi. S., thence 1.8 mi. E. from, 700 ft. W. of N $\frac{1}{4}$ cor. sec. 16, T. 1 N., R. 10 E., 500 ft. W. of junction of Bell Rd., at bridge over branch of River Rouge, on top of SW. concrete abutment; chiseled square-----	659. 74

Franklin, 1.9 mi. S., thence 2.4 mi. E. from, in SW. cor. sec. 10, T. 1 N., R. 10 E., 40 ft. N. and 36 ft. E. from intersection of Redford Rd., at storm sewer inlet, on top of center of cast-iron dome grating; chiseled cross	Feet 704. 48
From point 1 mile west and 0.2 mile south from west end of Pleasant Lake north 1.2 miles along Haggerty Road, thence west 3.1 miles along Oakley Park Road into Milford quadrangle (by J. M. Lawson in 1936)	
T. 2 N., R. 8 E., near NE. cor. sec. 25, 1.0 mi. W. of W. end of Pleasant Lake, 11 ft. S. and 15 ft. W. from junction of Walnut Lake Rd., 370 ft. S. of T-rd. W., in root on W. side of 15-in. oak tree; copper nail and washer	964. 06
T. 2 N., R. 8 E., 0.3 mi. N. of SE. cor. sec. 24, 190 ft. N. and 28 ft. W. from intersection of Walled Lake Rd. (State Highway 218), in root on SW. side of 36-in. oak tree; copper nail and washer	944. 85
T. 2 N., R. 8 E., near NE. cor. sec. 24, 100 ft. S. and 23 ft. W. from junction of T-rd. E., 460 ft. S. of junction of Oakley Park Rd., in root on SE. side of 26-in. elm tree; copper nail and washer	958. 10
T. 2 N., R. 8 E., near N $\frac{1}{4}$ cor. sec. 24, 21 ft. S. and 20 ft. E. from junction of T-rd. N., in root on NE. side of 18-in. maple tree; copper nail and washer	943. 36
T. 2 N., R. 8 E., in NE. cor. sec. 23, 1.3 mi. E. and 1.5 mi. S. from Commerce, 30 ft. S. and 75 ft. W. from junction of Welch Rd., 54 ft. W. of fence corner, in concrete post; standard tablet stamped "T T 29 E 1935 938"	937. 586
Reference mark, 66 ft. NW. of tablet, 20 ft. N. and 130 ft. W. from rd. junction, in root on SE. side of 30-in. oak tree; copper nail and washer	937. 10
Commerce, 0.8 mi. E., thence 1.5 mi. S. from, near quarter corner between secs. 14 and 23, T. 2 N., R. 8 E., at junction of Newton Rd.; center line of pavement	922. 6
Commerce, 0.6 mi. E., and 1.5 mi. S. from, 0.25 mi. E. of NW. cor. sec. 23, T. 2 N., R. 8 E., 23 ft. S. and 36 ft. W. from junction of T-rd. S., in triangle of rd. forks, in root on N. side of 24-in. maple tree; copper nail and washer	937. 28
Commerce, 0.3 mi. E., thence 1.5 mi. S. from, in SE. cor. sec. 15, T. 2 N., R. 8 E., 23 ft. N. and 40 ft. W. from junction of T-rd. N., in root on E. side of 15-in. oak tree; copper nail and washer	936. 26
From Grand Trunk Railway station at Walled Lake southwest along West Lake Drive into Milford quadrangle (by J. M. Lawson in 1936)	
Walled Lake, about 150 ft. W. of Grand Trunk Ry. sta., 14 ft. N. and 30 ft. W. from center line of Ry. crossing, on right-of-way, 4 ft. W. of corner fence post, 1 ft. S. of fence, in concrete post; standard tablet stamped "T T 50 E 1935 939"	938. 885
Walled Lake, 1.4 mi. SW. of sta., near S. side SW $\frac{1}{4}$ sec. 34, T. 2 N., R. 8 E., 50 ft. N. and 30 ft. W. from junction of Virginia Street, 360 ft. N. of junction of Fourteenmile Rd. (State Highway 218), on large rock; chiseled square	959. 30
Walled Lake, 1.9 mi. SW. of, 30 ft. S. and 10 ft. E. from junction of South Lake Drive, in root on NE. side of 40-in. elm tree; copper nail and washer	944. 65

From Waterford Station on Grand Trunk Railway generally south and west along Airport, Williams Lake, and Gale Roads to Teggerdine Road, thence north to Crosby Lake Road, thence west into Milford quadrangle (by G. N. Tex in 1836)

Grand Trunk Ry. copper bolt stamped "33½"; elevation determined by U. S. C. & G. S.-----	Feet 986.858
Waterford Sta., 300 ft. E. of, 36 ft. S. and 12 ft. E. from Ry. crossing, at base of signal light; top of SW. bolt-----	987.58
Waterford Sta., 0.4 mi. S. of, in NE. cor. sec. 8, T. 3 N., R. 9 E., 27 ft. S. and 120 ft. W. from intersection of Williams Lake Rd., on W. wing wall of concrete head wall of culvert; chiseled square-----	983.13
T. 3 N., R. 9 E., about 0.3 mi. W. of NE. cor. sec. 8, 50 ft. S. and 200 ft. W. from rd. fork, on top of S. concrete wing wall of culvert; chiseled square-----	983.01
T. 3 N., R. 9 E., in NW¼ sec. 8, near N. end of Williams Lake, 57 ft. N. and 120 ft. E. from intersection of Pine Grove Drive, on W. concrete wing wall of culvert; chiseled square-----	979.09
T. 3 N., R. 9 E., 0.3 mi. W. of E¼ cor. sec. 7, near S. end of Mace Day Lake, 55 ft. S. and 27 ft. W. from junction of T-rd. E., 55 ft. S. from corner fence post, in concrete post; standard tablet stamped "T T 42 C 1935 984"-----	984.044
T. 3 N., R. 9 E., near S¼ cor. sec. 7, 20 ft. N. and 190 ft. E. from junction of Williams Lake and Gale Rds., 4 ft. below rd. grade, on N. concrete head wall of culvert; chiseled square-----	973.06
T. 3 N., R. 8 E., 45 ft. S. and 100 ft. W. from NE. cor. sec. 13, 160 ft. S. and 100 ft. W. from junction of field rd. S., in root on NE. side of apple tree; copper nail and washer-----	973.64
T. 3 N., R. 8 E., in SW¼ sec. 12, 20 ft. N. and 40 ft. W. from junction of Spencer Rd., about 40 ft. N. of Pontiac Lake, in root on N. side of wild-cherry tree; copper nail and washer-----	970.95
T. 3 N., R. 8 E., near center of SE¼ sec. 11, 20 ft. S. and 15 ft. E. from junction of private drive S., 2 ft. SE. of E. gatepost, in small concrete post; top of iron stob-----	982.77
T. 3 N., R. 8 E., near center of SE¼ sec. 10, 6.2 mi. by rd. N. of Commerce, 63 ft. S. and 21 ft. W. from junction of Teggerdine Rd., 96 ft. S. of fence W., in concrete post; standard tablet stamped "T T 41 C 1935 980"-----	979.418
T. 3 N., R. 8 E., 0.25 mi. W. of NE. cor. sec. 10, 6 ft. S. and 30 ft. E. from junction of Mace Day Rd., in root on N. side of twin oak tree; copper nail and washer-----	1,019.44
T. 3 N., R. 8 E., 0.25 mi. W. of E¼ cor. sec. 3, 20 ft. N. and 35 ft. W. from intersection of White Lake Rd., in root on NW. side of oak tree; copper nail and washer-----	1,006.14
T. 4 N., R. 8 E., about 0.3 mi. E. of SW. cor. sec. 34, 0.5 mi. N. and 2.4 mi. E. from Presbyterian Church at White Lake, 9 ft. N. and 10 ft. E. from center of bridge over Huron River, on NE. concrete wing wall; chiseled square-----	992.24
From Milford quadrangle near Sugden Lake east 0.5 mile along Cooley Lake Road, thence north along Oxbow Lake Road to junction of Gale Road in southeast quarter sec. 10, T. 3 N., R. 8 E. (by G. N. Tex in 1936)	
Commerce, 1.4 mi. N. of, near N¼ cor. sec. 3, T. 3 N., R. 8 E., 30 ft. S. and 160 ft. E. from junction of Cooley Lake Rd., 30 ft. S. and 100 ft. W. from center line of Oxbow Lake Rd., in root on SW. side of 24-in. oak tree; copper nail and washer-----	947.90



Commerce, 1.8 mi. N. of, 0.3 mi. N. of S $\frac{1}{4}$ cor. sec. 34, T. 3 N., R. 8 E., 40 ft. N. and 18 ft. W. from southernmost of three rd. forks, in root on W. side of twin maple tree; copper nail and washer-----	<i>Feet</i> 936. 00
Commerce, 2.4 mi. N. of, near N $\frac{1}{4}$ cor. sec. 34, T. 3 N., R. 8 E., 120 ft. S. and 30 ft. W. from intersection of Cedar Island Rd., in root on S. side of easternmost of three oak trees; copper nail and washer-----	954. 18
Commerce, 3.0 mi. by rd. N. of, 0.25 mi. E. of center of sec. 27, T. 3 N., R. 8 E., at bridge over Cedar Creek; on NW. steel guardrail; top of N. end-----	938. 68
Commerce, 3.5 mi. N. of, in NE $\frac{1}{4}$ sec. 27, T. 3 N., R. 8 E., near SW. side of Oxbow Lake, 65 ft. N. and 75 ft. W. from junction of Elizabeth Lake Rd., in root on NE. side of 12-in. elm tree; copper nail and washer-----	970. 64
Commerce, 3.9 mi. N. of, near N $\frac{1}{4}$ cor. sec. 27, T. 3 N., R. 8 E., 25 ft. S. and 225 ft. E. from junction of Elizabeth Lake Rd., 6 ft. E. of corner fence post, in concrete post; standard tablet stamped "3 T 1936 992"-----	991. 582
Reference mark, 45 ft. N. and 125 ft. W. from tablet, in root on NE. side of 15-in. hickory tree; copper nail and washer-----	988. 70
Commerce, 4.4 mi. N. of, near center of sec. 22, T. 3 N., R. 8 E., 30 ft. S. and 16 ft. W. from intersection of Highland Rd. (State Highway 59), 30 ft. N. and 16 ft. W. from junction of rd. N., on top of SW. concrete wing wall of culvert; chiseled square-----	955. 84
Commerce, 5.2 mi. N. of, in SE $\frac{1}{4}$ sec. 15, T. 3 N., R. 8 E., 100 ft. S. and 20 ft. E. from center of rd. opposite farmhouse No. 1750, at W. end of yard fence, in root on SW. side of elm tree; copper nail and washer-----	974. 20
Commerce, 5.8 mi. N. of, near center of NE $\frac{1}{4}$ sec. 15, T. 3 N., R. 8 E., 60 ft. S. and 18 ft. E. from intersection of Pontiac Lake Rd., in root on NW. side of 24-in. oak tree; copper nail and washer-----	977. 02
From point 0.3 mile east and 1.5 miles south from Commerce generally north along roads by way of Commerce to Cooley Lake Road, thence east and north-east 6.8 miles to junction of Elizabeth Lake Road (by G. N. Tex in 1936)	
Commerce, 0.3 mi. E., thence 1.0 mi. S. from, near E $\frac{1}{4}$ cor. sec. 15, T. 2 N., R. 8 E., 50 ft. S. and 30 ft. W. from junction of T-rd. W., in root on E. side of 15-in. leaning red-oak tree; copper nail and washer-----	930. 97
Commerce, 0.3 mi. E., thence 0.5 mi. S. from, in NE. cor. sec. 15, T. 2 N., R. 8 E., 50 ft. N. and 35 ft. W. from junction of Robin Rd., in root on N. side of 36-in. poplar tree; copper nail and washer-----	933. 76
Commerce, 0.3 mi. E. of, near E $\frac{1}{4}$ cor. sec. 10, T. 2 N., R. 8 E., 35 ft. S. and 40 ft. W. from crossroads, at Gulf service sta., on NW. end of concrete base of pumps; chiseled square-----	915. 46
Commerce, in NW. part of, 85 ft. N. and 25 ft. W. from intersection of Andrews and Burt Streets, in root on E. side of maple tree; copper nail and washer-----	959. 00
Commerce, 0.4 mi. N. of, near N $\frac{1}{4}$ cor. sec. 10, T. 2 N., R. 8 E., 25 ft. S. and 10 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square-----	958. 53
Commerce, 1.4 mi. N., thence 0.5 mi. E. from, 3.9 mi. by rd. W. of Four Towns, in NE. cor. sec. 3, T. 2 N., R. 8 E., 40 ft. S. and 25 ft. W. from junction of Carroll Lake Rd., in root on N. side of 15-in. oak tree; copper nail and washer-----	945. 15

Four Towns, 3.2 mi. W. of, 0.25 mi. N. of S $\frac{1}{4}$ cor. sec. 35, T. 3 N., R. 8 E., about 150 ft. S. of S. shore of Round Lake, 25 ft. S. and 15 ft. W. from rd. junction, in root on N. side of 18-in. maple tree; copper nail and washer-----	Feet 935. 35
Four Towns, 3.0 mi. W. of, near center of SE $\frac{1}{4}$ sec. 35, T. 3 N., R. 8 E., 22 ft. S. and 60 ft. E. from junction of T-rd. N., just S. of Six Lakes Grocery, in root on S. side of twin maple tree; copper nail and washer-----	946. 71
Four Towns, 1.9 mi. W. of, 0.3 mi. E. of N $\frac{1}{4}$ cor. sec. 1, T. 2 N., R. 8 E., 160 ft. S. and 30 ft. E. from intersection of Union Lake Rd., in root on W. side of 36-in. wild-cherry tree; copper nail and washer-----	949. 95
Four Towns, 1.5 mi. W. of, 205 ft. N. and 210 ft. E. from rd. angle near W. cor. secs. 6 and 31, Tps. 2 and 3 N., R. 9 E., 25 ft. N. and 210 ft. E. from center of junction of Williams Lake Rd., 150 ft. E. of Hatfield Grocery, in concrete post; standard tablet stamped "T T 47 C 1935 957"-----	956. 530
Four Towns, 0.9 mi. W. of, 0.25 mi. E. of S $\frac{1}{4}$ cor. sec. 31, T. 3 N., R. 9 E., 24 ft. N. and 75 ft. E. from junction of T-rd. S., 24 ft. N. and 155 ft. E. from junction of T-rd. N. to State Tuberculosis Sanitarium, in root on N. side of 30-in. red-oak tree; copper nail and washer-----	957. 28
Four Towns, 0.6 mi. W. of, in SE. cor. sec. 31, T. 3 N., R. 9 E., 15 ft. N. and 30 ft. W. from crossroads, on top of W. concrete head wall of culvert; chiseled square-----	947. 29
Four Towns, 700 ft. S. of crossroads at, near N $\frac{1}{4}$ cor. sec. 5, T. 2 N., R. 9 E., 12 ft. S. and 40 ft. W. from junction of Lochaven Rd., in root on NE. side of 15-in. maple tree; copper nail and washer-----	954. 34
Four Towns, 35 ft. N. and 27 ft. W. from crossroads at, about 650 ft. N. of S $\frac{1}{4}$ cor. sec. 32, T. 3 N., R. 9 E., in root on SE. side of 24-in. locust tree; copper nail and washer-----	951. 51
Four Towns, 0.8 mi. NE. of, 0.3 mi. SW. of center of sec. 33, T. 3 N., R. 9 E., 25 ft. N. and 135 ft. E. from center of junction of Hiller Rd., 60 ft. E. of power-line pole, in concrete post; standard tablet stamped "T T 48 C 1935 947"-----	947. 208
Reference mark, 65 ft. S. and 175 ft. W. from tablet, 40 ft. S. and 40 ft. W. from rd. junction, in root on E. side of 20-in. white-oak tree; copper nail and washer-----	947. 94
Four Towns, 1.2 mi. NE. of, 0.25 mi. S. of N $\frac{1}{4}$ cor. sec. 33, T. 3 N., R. 9 E., 250 ft. SW. of junction of rd. E. along S. side of Elizabeth Lake, 30 ft. S. of center of concrete bridge over Clinton River, on top of S. abutment 1 ft. E. of extreme S. point of concrete guardrail; chiseled square-----	937. 70
Four Towns, 1.9 mi. NE. of, 0.3 mi. SE. of center of sec. 28, T. 3 N., R. 9 E., near NW. end of Elizabeth Lake, 18 ft. N. and 65 ft. W. from junction of T-rd. N., in root on W. side of 30-in. elm tree; copper nail and washer-----	936. 82
From village of Orchard Lake northeast along Grand Trunk Railway and streets to railway station at Pontiac (by G. N. Tex in 1936; leveled twice)	
Orchard Lake, 0.3 mi. NE. of Grand Trunk Ry. sta. at, near center of sec. 11, T. 2 N., R. 9 E., 40 ft. S. and 15 ft. E. from crossing of gravel rd., in root on W. side of jackpine tree; copper nail and washer-----	940. 03

Orchard Lake, 0.7 mi. NE. of, 400 ft. S. of center of NE $\frac{1}{4}$ sec. 11, T. 2 N. R. 9 E., 10 ft. S. and 30 ft. E. from intersection of Orchard Lake Rd. (State Highway 218), in root on N. side of 24-in. maple tree; copper nail and washer-----	Feet 941. 84
Orchard Lake, 1.9 mi. NE. of, near center of sec. 1, T. 2 N., R. 9 E., 22 ft. N. and 80 ft. W. from intersection of Orchard Lake Rd., in root on SE. side of 36-in. maple tree; copper nail and washer-----	940. 60
Orchard Lake, 2.2 mi. NE. of, 2.8 mi. SW. of Ry. sta. at Pontiac, near center of NE $\frac{1}{4}$ sec. 1, T. 2 N., R. 9 E., 90 ft. N. and 20 ft. W. from intersection of Iverness Rd., in root on SE. side of 30-in. elm tree; copper nail and washer-----	935. 39
Pontiac, near SW. corner of city boundary, near E. limits of village of Sylvan Lake, at center of intersection of Pontiac Rd.; top of SE. rail-----	936. 2
U. S. C. & G. S. standard disk stamped "U 106 1934"-----	945. 621
Pontiac, about 100 ft. E. of intersection of Orchard Lake Rd. and Ottawa Drive, 12 ft. N. and 36 ft. E. from center of grassy triangle, in concrete post; bronze tablet stamped "No 36" (City of Pontiac B. M.)-----	942. 344
Pontiac, 0.8 mi. W. of Ry. sta., at NE. corner of intersection of Huron and Thorpe Streets and Ottawa Drive, at Shell service sta., on SE. end of concrete base of three pumps; chiseled square---	962. 00

## RAVENNA QUADRANGLE

[Latitude 43°00'-43°15'; longitude 85°45'-86°00']

## KENT, OTTAWA, AND MUSKEGON COUNTIES

From Jenison quadrangle at point about 2 miles southeast of Lamont north along road to corner secs. 9, 10, 15, and 16, T. 7 N., R. 13 W., thence east to cross road near Walker, thence southeast and back into Jenison quadrangle (by H. P. Jones in 1928)

Lamont, 2.7 mi. E. of, in SE. cor. sec. 9, T. 7 N., R. 13 W., 50 ft. N. and 30 ft. W. from junction of T-rd. E., in root on N. side of 20-in. maple tree; copper nail and washer-----	734. 44
Lamont, 3.8 mi. E. of, 3.0 mi. W. of Walker, near cor. secs. 10, 11, 14, and 15, T. 7 N., R. 13 W., at steel bridge over Sand Creek, in SW. corner of plank floor; copper nail and washer-----	642. 57
Walker, 2.5 mi. W. of, 2.5 mi. S. and 0.5 mi. E. from Marne, near S $\frac{1}{4}$ cor. sec. 11, T. 7 N., R. 13 W., 25 ft. N. and 50 ft. E. from junction of T-rd. N., in concrete post; standard tablet stamped "P T Sta No 112 Y 1926"-----	684. 632
Reference mark, 60 ft. N. and 20 ft. W. from junction of T-rd. N., in root on N. side of 36-in. cottonwood tree; copper nail and washer---	684. 39
Walker, 2.0 mi. W. of, in NW. cor. sec. 13, T. 7 N., R. 13 W., 120 ft. S. and 60 ft. E. from crossroads, on SW. corner of concrete porch of schoolhouse; chiseled square-----	705. 54
Walker, 1.0 mi. W. of, in NW. cor. sec. 18, T. 7 N., R. 12 W., at Ottawa-Kent county line, 25 ft. S. and 35 ft. E. from crossroads, in root on NE. side of 20-in. maple tree; copper nail and washer-----	740. 06
Walker, 30 ft. S. and 30 ft. W. from cor. secs. 7, 8, 17, and 18, T. 7 N., R. 12 W., near crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 11 Mich 1911"-----	742. 485
Reference mark, 150 ft. S. of crossroads, at store building, on NE. corner of concrete porch; chiseled square-----	743. 62

From Muskegon quadrangle near South Evergreen School southeast and east along roads to Eastmanville, thence south 1.2 miles into Jenison quadrangle (by J. L. Buckmaster in 1928)

Eastmanville, 2.1 mi. W. of, near S $\frac{1}{4}$ cor. sec. 5, T. 7 N., R. 14 W., 10 ft. N. and 36 ft. E. from crossroads, in root on W. side of 30-in. oak tree; copper nail and washer-----	Feet 646. 94
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Eastmanville, 0.8 mi. SW. of, 0.25 mi. W. of E. cor. secs. 4 and 9, T. 7 N., R. 14 W., 12 ft. S. and 40 ft. E. from junction of rd. N., in root on W. side of 28-in. elm tree; copper nail and washer-----	611. 69
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Eastmanville, in village of, near S $\frac{1}{4}$ cor. sec. 3, T. 7 N., R. 14 W., 30 ft. N. and 28 ft. W. from crossroads, in root on S. side of 24-in. maple tree; copper nail and washer-----	605. 11
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From Muskegon quadrangle near north quarter corner sec. 20, T. 10 N., R. 14 W., east along road into Cedar Springs quadrangle at point 2.2 miles north of Kent City (by J. L. Buckmaster in 1928)

T. 10 N., R. 14 W., in SW. cor. sec. 16, 6.0 mi. E. of Wolf Lake, 20 ft. N. and 10 ft. E. from crossroads, on top of E. concrete head wall of culvert; chiseled square-----	691. 90
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T. 10 N., R. 14 W., 0.2 mi. W. of NE. cor. sec. 21, 25 ft. S. of rd., in root on N. side of 18-in. lone elm tree; copper nail and washer-----	696. 38
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[Line jogs into Newaygo quadrangle]

T. 10 N., R. 14 W., in SE. cor. sec. 15, 20 ft. N. and 55 ft. W. from crossroads, in root on S. side of 24-in. elm tree; copper nail and washer-----	706. 43
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T. 10 N., R. 14 W., near quarter corner between secs. 14 and 23, 20 ft. S. and 15 ft. W. from intersection of fence line and rd., on N. side of 8-in. hickory tree; spike-----	707. 72
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[Line jogs into Newaygo quadrangle]

T. 10 N., R. 13 W., near N $\frac{1}{4}$ cor. sec. 20, 40 ft. S. and 25 ft. E. from junction of T-rd. E., in root on NE. side of 12-in. elm tree; copper nail and washer-----	735. 93
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T. 10 N., R. 13 W., 25 ft. S. and 33 ft. E. from cor. secs. 16, 17, 20, and 21, 2 ft. N. of fence, in concrete post; standard tablet stamped "P T Sta No 2 F 1928" (recovered in 1929)-----	755. 681
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Reference mark, 20 ft. N. and 100 ft. E. from crossroads, in S. side of 12-in. elm tree; bolt head-----	756. 96
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T. 10 N., R. 13 W., 210 ft. W. of crossroads at cor. secs. 15, 16, 21, and 22, on top of S. concrete head wall of culvert; chiseled square-----	815. 96
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T. 10 N., R. 13 W., 570 ft. W. of crossroads at cor. secs. 14, 15, 22, and 23, on top of N. concrete head wall of culvert; chiseled square-----	904. 70
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T. 10 N., R. 13 W., 65 ft. N. and 100 ft. W. from cor. secs. 13, 14, 23, and 24, 1.0 mi. N., thence 1.0 mi. W. from Casnovia, 48 ft. W. of center line of State Highway 37, 65 ft. N. of E.-W. rd., 2 ft. E. of fence, in concrete post; standard tablet stamped "P T Sta No 1 F 1928" <sup>75</sup> -----	864. 510
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Reference mark, 130 ft. E. of tablet, 25 ft. N. of crossroads, on E. concrete head wall of culvert; chiseled square-----	867. 08
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Casnovia, 1.0 mi. N. of, in SE. cor. sec. 13, T. 10 N., R. 13 W., 25 ft. N. and 25 ft. W. from crossroads, in root on SE. side of 30-in. beech tree; copper nail and washer-----	903. 73
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<sup>75</sup> In December 1938 this bench mark was reset 109.5 feet northwest of its former position and 2.063 feet lower than its original elevation. The figures given represent the new elevation.

Casnovia, 1.0 mi. N., thence 1.0 mi. E. from, 2.2 mi. N., thence 1.0 mi. W. from Kent City, in NE. cor. sec. 19, T. 10 N., R. 12 W., 90 ft. S. and 20 ft. W. from crossroads, in schoolyard, in root on SW. side of 20-in. forked box-maple tree; copper nail and washer-----	Feet 936. 19
Kent City, 2.2 mi. N. of, 34 ft. S. and 24 ft. W. from cor. secs. 16, 17, 20, and 21, T. 10 N., R. 12 W., at crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 3 Mich 1915"-----	879. 625
Reference mark, 35 ft. E. of crossroads, on S. end of concrete culvert; chiseled square-----	878. 61
From Muskegon quadrangle at point on Muskegon-Ottawa county line 2.8 miles north and 0.4 mile west from Dennison east along road into Cedar Springs quadrangle at point 2 miles west of Ballards (by S. R. Archer in 1929)	
Dennison, 2.8 mi. N. of, in NW. cor. sec. 4, T. 8 N., R. 14 W., 60 ft. E. of crossroads, on S. side of rd., at fence line, in root 2 ft. from base on NE. side of 24-in. elm tree; copper nail and washer-----	680. 93
Dennison, 2.8 mi. N., thence 1.0 mi. E. from, 5.0 mi. S. and 2.0 mi. W. from Ravenna, in NE. cor. sec. 4, T. 8 N., R. 14 W., 25 ft. S. and 45 ft. W. from junction of T-rd. N., 6 ft. W. of power-line pole, 2 ft. N. of fence line, in concrete post; standard tablet stamped "P T Sta No 19 F 1928"-----	668. 442
Tps. 8 and 9 N., R. 14 W., near quarter corner between secs. 3 and 34, at SW. corner of crossroads, on top of S. concrete head wall of culvert under E.-W. rd.; chiseled square-----	662. 18
Tps. 8 and 9 N., R. 14 W., in NE. cor. sec. 3, 50 ft. S. and 20 ft. W. from crossroads, in root on NW. side of 15-in. elm tree; copper nail and washer-----	667. 96
T. 9 N., R. 14 W., in SW. cor. sec. 36, near NE. corner of crossroads, on top of E. end of E. curved concrete head wall of culvert under rd. N.; chiseled square-----	689. 95
Conklin, 0.5 mi. S., thence 1.5 mi. W. from, in NW. cor. sec. 6, T. 8 N., R. 13 W., 25 ft. S. and 35 ft. E. from center of crossroads, 5 ft. E. of fence corner, in concrete post; standard tablet stamped "P T Sta No 20 F 1928"-----	713. 577
Reference mark, at NW. corner of crossroads, at culvert running diagonally under crossroads, on top of N. end of NW. curved concrete head wall; chiseled square-----	714. 37
Conklin, 0.5 mi. S. and 0.8 mi. W. from, near N $\frac{1}{4}$ cor. sec. 6, T. 8 N., R. 13 W., near SW. corner of junction of rd. SE., on top of W. concrete head wall of drain under rd. SE.; chiseled square-----	708. 34
Conklin, 0.3 mi. W., thence 0.5 mi. S. from, in NE. cor. sec. 6, T. 8 N., R. 13 W., 80 ft. S. and 35 ft. W. from junction of rd. S., in root on E. side of 10-in. hickory tree; copper nail and washer-----	712. 15
Conklin, 0.5 mi. SE. of, at crossing of Grand Trunk Ry.; top of W. rail-----	712. 6
Conklin, 0.7 mi. E., thence 0.5 mi. S. from, in SE. cor. sec. 32, T. 9 N., R. 13 W., 75 ft. N. of junction of T-rd. N., on W. side of rd., at fence line, in root on E. side of 24-in. elm tree; copper nail and washer-----	726. 36
Conklin, 0.5 mi. S. and 1.7 mi. E. from, in SE. cor. sec. 33, T. 9 N., R. 13 W., 30 ft. N. and 25 ft. W. from center of junction of rd. N., 30 ft. N. and 65 ft. W. from center of junction of rd. S., in SE. corner of schoolyard, in concrete post; standard tablet stamped "P T Sta No 21 F 1928"-----	761. 559

Reference mark, 130 ft. W. of crossroads, on top of S. end of E. concrete abutment of highway bridge, at junction of retaining wall and bridge seat; chiseled square.....	<i>Feet</i> 760. 04
Tps. 8 and 9 N., R. 13 W., 0.25 mi. E. of quarter corner between secs. 3 and 34, 0.25 mi. W. of T-rd. N., 360 ft. E. of dwelling of Edward Umlor, on top of W. end of N. concrete head wall of highway culvert; chiseled square.....	856. 27
T. 8 N., R. 13 W., in NW. cor. sec. 1; 2.0 mi. S., thence 1.0 mi. W. from Lisbon, near jog in N.-S. rd., 40 ft. S. and 25 ft. E. from junction of rd. S., 10 ft. S. of fence corner, in root on NW. side of 15-in. elm tree; copper nail and washer.....	893. 37
Lisbon, 2.0 mi. S. of, 4.0 mi. W. of Ballards, in SW. cor. sec. 31, T. 9 N., R. 12 W., 25 ft. N. and 80 ft. E. from center of crossroads, 10 ft. N. and 12 ft. E. from E. end of N. concrete head wall of culvert, in concrete post; standard tablet stamped "P T Sta No 22 F 1928".....	913. 287
Reference mark, 65 ft. S. of crossroads, on E. side of rd. S., on top of S. end of concrete head wall of culvert; chiseled square.....	913. 42
Ballards, 3.0 mi. W. of, in NE. cor. sec. 6, T. 8 N., R. 12 W., at SW. corner of crossroads, opposite SE. corner of triangle at rd. N., at culvert running diagonally under rds., on top of NW. end of SW. concrete head wall; chiseled square.....	873. 79

READING QUADRANGLE <sup>76</sup>

[Latitude 41°45'-42°00'; longitude 84°45'-85°00']

BRANCH AND HILLSDALE COUNTIES

From Coldwater quadrangle at point 1 mile southeast of Kinderhook east and south along roads by way of Montgomery into Fremont quadrangle at point in Camden (by R. G. Clinite in 1913)

Kinderhook, 0.5 mi. S., thence 2.3 mi. SE. from, 7.7 mi. W., thence 0.4 mi. NW. from Montgomery, about 780 ft. N. of W $\frac{1}{4}$ cor. sec. 13, T. 8 S., R. 6 W., 55 ft. SE. of junction of rd. S., at corner of rail fence; standard iron post with bronze cap stamped "Mich 1021".....	1, 020. 431
Montgomery, 6.7 mi. W. of, 3.0 mi. N. of Fremont, Ind., at center of sec. 18, T. 8 S., R. 5 W., at center of crossroads, on section stone; chiseled circle.....	1, 047. 67
Montgomery, 5.2 mi. W. of, near E $\frac{1}{4}$ cor. sec. 17, T. 8 S., R. 5 W., in NW. angle of crossroads, 12 ft. W. of corner post; standard iron post with bronze cap stamped "Mich 1061".....	1, 061. 134
Montgomery, 4.2 mi. W. of, near E $\frac{1}{4}$ cor. sec. 16, T. 8 S., R. 5 W., in NW. angle of crossroads, in root of lone 48-in. oak tree; copper nail and washer.....	1, 070. 76
Montgomery, 3.1 mi. W. of, near W $\frac{1}{4}$ cor. sec. 14, T. 8 S., R. 5 W., in NE. angle of T-rd. N., 30 ft. E. of corner, in root of 12-in. elm tree; copper nail and washer.....	1, 089. 01
Montgomery, 2.2 mi. W. of, near E $\frac{1}{4}$ cor. sec. 14, T. 8 S., R. 5 W., in SW. angle of crossroads, in NE. corner of schoolyard; standard iron post with bronze cap stamped "Mich 1085".....	1, 084. 554
Montgomery, opposite public school, 80 ft. NE. of center of crossroads, in root of 14-in. oak tree; copper nail.....	1, 046. 48
Montgomery, 0.8 mi. E. of, near E $\frac{1}{4}$ cor. sec. 17, T. 8 S., R. 4 W., in NW. angle of junction of T-rd. W., 5 ft. W. of corner post, 2.7 ft. E. of 6-in. white-oak tree, in limestone rock, 6 in. below surface of ground; standard tablet stamped "Mich 1039".....	1, 038. 610

<sup>76</sup> A narrow strip along the south boundary of this quadrangle lies in Indiana.

Montgomery, 1.3 mi. E. and 0.5 mi. S. from, 0.5 mi. N. and 1.0 mi. W. from Camden, near S $\frac{1}{4}$ cor. sec. 16, T. 8 S., R. 4 W., 8 ft. N. of center of turn in rd., 20 ft. SW. of fence corner, on rock; highest point--	Feet 1, 066. 44
Camden, at N. limits of, 150 ft. S. of rd. fork, at creek crossing on main N.-S. street, on W. end of top course of stone abutment; bottom of chiseled square-----	985. 81
From Fremont quadrangle at point near northeast corner of Steuben County, Indiana, west along roads near Indiana-Michigan State line to point 2.3 miles south and 1.7 miles east from Kinderhook, thence southwest about 1 mile and back into Fremont quadrangle (by C. S. Wells in 1938)	
Montgomery, 1.3 mi. S. and 1.0 mi. W. from, 2.2 mi. along State-line rd. E. of Ray, Ind., 65 ft. NE. of rd. fork, in open field, in root of 36-in. maple tree; copper nail and washer-----	1, 046. 61
Ray, Ind., 0.7 mi. E. of, 80 ft. SW. of junction of T-rd. N., in fence line, in root of 24-in. elm tree; copper nail and washer-----	1, 071. 08
U. S. C. & G. S. standard disk stamped "L 112 1934"-----	1, 077. 078
Ray, Ind., 0.8 mi. W. of, 90 ft. SW. of crossroads, in root of 24-in. oak tree; copper nail and washer-----	1, 068. 84
Ray, Ind., 1.8 mi. W. of, 55 ft. SW. of crossroads, in root of 20-in. hickory tree; copper nail and washer-----	1, 081. 81
Ray, Ind., 3.3 mi. W. of, 2.0 mi. N. of Fremont, Ind., 24 ft. W. of probable N. sixteenth cor. sec. 16, T. 38 N., R. 14 E., near junction of N.-S. rd. at Indiana-Michigan State line, 1 ft. N. and 4 ft. E. from corner post of fence line W., in concrete post; standard tablet stamped "T T 24 T 1937 1054"-----	1, 054. 019
Reference mark, 80 ft. NE. of tablet, 50 ft. NE. of rd. fork, in root of 24-in. walnut tree; copper nail and washer-----	1, 054. 20
Ray, Ind., 0.2 mi. N. and 5.2 mi. W. from, 2.3 mi. S. and 1.7 mi. E. from Kinderhook, about 0.2 mi. N. of Indiana-Michigan State line, 55 ft. SE. of rd. fork, at entrance to Stokes School, on NW. corner of concrete walk; chiseled square-----	1, 032. 30

## REMUS QUADRANGLE

[Latitude 43°30'-43°45'; longitude 85°00'-85°15']

## ISABELLA AND MECOSTA COUNTIES

From Mount Pleasant quadrangle near northwest corner sec. 23, T. 13 N., R. 6 W., west along road and northwest along Pere Marquette Railway to Blanchard (by E. C. Bibbee in 1916; leveled twice)

Blanchard, 0.7 mi. S. and 2.7 mi. E. from, in NE. cor. sec. 21, T. 13 N., R. 6 W., 32 ft. S. and 26 ft. W. from center of crossroads, opposite Rolland town hall; standard iron post with bronze cap stamped "Prim Trav Sta No 8 1915 Mich 890"-----	889. 222
Reference mark, 80 ft. E. of standard post, in SE. angle of crossroads, at entrance to town hall, on NW. corner of concrete porch; chiseled square-----	890. 42
Blanchard, 0.7 mi. S. and 1.7 mi. E. from, in NW. cor. sec. 21, T. 13 N., R. 6 W., in SE. angle of junction of T-rd. S., 5 ft. NW. of fence corner, on large granite rock; chiseled square-----	897. 67
Blanchard, directly N. of W. end of Pere Marquette Ry. sta., 30 ft. N. of center of main track; standard iron post with bronze cap stamped "Mich 952" (recovered in same year by U. S. C. & G. S. and designated "M 16")-----	950. 792

## RIVES JUNCTION QUADRANGLE

[Latitude 42°15'-42°30'; longitude 84°15'-84°30']

## INGHAM AND JACKSON COUNTIES

From Mason quadrangle near southwest corner sec. 2, T. 1 N., R. 1 E., generally south along roads by way of Fitchburg to crossroads 1.7 miles north of Leoni (by E. C. Bibbee in 1916)

Dansville, 4.1 mi. S. and 0.5 mi. E. from, 1.0 mi. E., thence 1.6 mi. N. from Bunker Hill Center, about 500 ft. E. of SW. cor. sec. 2, T. 1 N., R. 1 E., on section line, in root of 24-in. oak tree; copper nail and washer-----	Feet 949. 55
Bunker Hill Center, 1.0 mi. E., thence 1.0 mi. N. from, 0.5 mi. E. of Bunker Hill Chapel, near W $\frac{1}{4}$ cor. sec. 11, T. 1 N., R. 1 E., near SE. corner of junction of T-rd. S., on S. concrete head wall of culvert; chiseled square-----	946. 45
Bunker Hill Center, 1.0 mi. E. of, 1.0 mi. W., thence 2.5 mi. N. from Fitchburg, near E $\frac{1}{4}$ cor. sec. 15, T. 1 N., R. 1 E., in NW. angle of junction of T-rd. W.; standard iron post with bronze cap stamped "Mich 952"-----	950. 930
Fitchburg, 2.0 mi. N. of, 20 ft. NE. of SW. cor. sec. 13, T. 1 N., R. 1 E., on outside of turn from E. to S. in rd., on large sandstone boulder; chiseled square (recovered in 1919)-----	939. 69
Fitchburg, 1.0 mi. N. of, in SW. cor. sec. 24, T. 1 N., R. 1 E., 20 ft. W. of NE. corner of junction of T-rd. E., on large granite rock; chiseled square (not recovered in 1919)-----	947. 05
Fitchburg, at SW. corner of crossroads, 2 ft. E. of telephone pole, on large granite boulder; chiseled square-----	944. 12
Fitchburg, 1.0 mi. S. of, 125 ft. N. of SW. cor. sec. 36, T. 1 N., R. 1 E., 125 ft. N. of Ingham-Jackson county line, on E. side of rd.; standard iron post with bronze cap stamped "Mich 933"-----	931. 419
Fitchburg, 1.5 mi. S. and 0.4 mi. E. from, near E $\frac{1}{4}$ cor. sec. 2, T. 1 S., R. 1 E., 100 ft. S. of SW. corner of junction of N.-S. rd., in front of dwelling of J. S. Leece, in root on E. side of 20-in. oak tree; copper nail and washer-----	947. 84
Fitchburg, 2.2 mi. S. and 0.4 mi. E. from, 1.2 mi. N. and 1.0 mi. W. from Munith, about 500 ft. S. of NW. cor. sec. 12, T. 1 S., R. 1 E., in NE. angle of crossroads, on large granite rock set in place; chiseled square-----	934. 73
Munith, 0.2 mi. N., thence 1.0 mi. W. from, 35 ft. SE. of NW. cor. sec. 13, T. 1 S., R. 1 E., on S. side of rd., opposite rd. N., in root of 18-in. elm tree; copper nail and washer-----	924. 75
Munith, 0.2 mi. N., thence 1.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 14, T. 1 S., R. 1 E., at SE. corner of junction of T-rd. S., on E. end of tile under rd.; highest point-----	925. 91
Munith, 0.8 mi. S., thence 1.5 mi. W. from, 3.5 mi. E. of Henrietta, near N $\frac{1}{4}$ cor. sec. 23, T. 1 S., R. 1 E., at SW. corner of crossroads, opposite Kennedy School, on large granite rock; chiseled circle-----	938. 75
Munith, 0.8 mi. S., thence 0.8 mi. W. from, 1.4 mi. NE. of Henrietta Sta., 0.2 mi. E. of SW. cor. sec. 13, T. 1 S., R. 1 E., 6 ft. N. and 42 ft. W. from crossing of Grand Trunk Ry.; standard iron post with bronze cap stamped "Prim Trav Sta No 5 1915 Mich 919"-----	918. 397
Henrietta Sta., 0.3 mi. E. of, 150 ft. N. of S $\frac{1}{4}$ cor. sec. 23, T. 1 S., R. 1 E., on W. side of rd., directly in front of house, on bank, on large sandstone rock; chiseled square-----	932. 91



Henrietta Sta., 0.8 mi. E., thence 0.2 mi. S. from, 0.2 mi. S. of NW. cor. sec. 25, T. 1 S., R. 1 E., on E. side of rd., 100 ft. N. of swamp, on bank, on large granite rock; chiseled square-----	<i>Feet</i> 932. 52
Henrietta Sta., 2.0 mi. by rd. SE. of, 0.4 mi. E. of SW. cor. sec. 25, T. 1 S., R. 1 E., at SE. corner of bridge over Portage River, 1 ft. S. of bridge, on concrete wing wall; chiseled square-----	917. 28
Portage River, under bridge; surface of water Aug. 16, 1916-----	912. 6
Henrietta Sta., 3.3 mi. SE. of, 100 ft. S. of NW. cor. sec. 6, T. 2 S., R. 2 E., on E. side of rd., at fence line, in root on W. side of 24-in. elm tree; copper nail and washer-----	932. 18
Henrietta Sta., 4.3 mi. SE. of, 5.4 mi. N., thence 1.0 mi. E. from Leoni, in SE. cor. sec. 1, T. 2 S., R. 1 E., opposite Mount Pleasant School, at entrance to church, on E. end of third concrete step from bottom; chiseled square-----	989. 74
Leoni, 5.4 mi. N. of, in NE. cor. sec. 11, T. 2 S., R. 1 E., in SW. angle of junction of T-rd. S., 2 ft. S. of fence corner; standard iron post with bronze cap stamped "Mich 943" -----	942. 253
Leoni, 4.3 mi. N. of, in SE. cor. sec. 11, T. 2 S., R. 1 E., at NW. corner of junction of T-rd. W., 1 ft. N. of wheel track, on large rock; chiseled square-----	994. 11
Leoni, 3.4 mi. N. of, in SE. cor. sec. 14, T. 2 S., R. 1 E., on E. side of rd., on top of hill just S. of marsh, at N. end of large rock pile, in root of 28-in. black-oak tree; 60-penny spike-----	1, 016. 22
Leoni, 3.0 mi. N. of, in NE $\frac{1}{4}$ sec. 23, T. 2 S., R. 1 E., 15 ft. S. of SW. corner of junction of T-rd. S.; standard iron post with bronze cap stamped "Mich 1025" -----	1, 024. 404
Leoni, 1.7 mi. N. of, about 500 ft. S. of E $\frac{1}{4}$ cor. sec. 26, T. 2 S., R. 1 E., in SW. angle of crossroads, in large granite rock; top of ringbolt----	1, 020. 78
From Mason quadrangle at point 1.6 miles south and 3.7 miles east from Eden generally south along roads by way of Henrietta into Jackson quadrangle at point 3.5 miles east of Jackson (by E. C. Bibbee in 1916)	
Eden, 3.7 mi. E., thence 2.3 mi. S. from, 8.0 mi. by rd. N. of Henrietta, 500 ft. N. of Felt Plain School, near W $\frac{1}{4}$ cor. sec. 8, T. 1 N., R. 1 E., 60 ft. N. and 4 ft. W. from NE. corner of T-rd. E., in root of 12-in. oak tree; 60-penny spike-----	978. 02
Henrietta, 6.5 mi. N. of, in SW. cor. sec. 17, T. 1 N., R. 1 E., in NE. angle of junction of E.-W. rd., 3 ft. NE. of corner post; standard iron post with bronze cap stamped "Mich 947" -----	945. 381
Henrietta, 5.3 mi. N. of, 600 ft. NE. of SW. cor. sec. 20, T. 1 N., R. 1 E., on N. abutment of bridge over ditch; chiseled square-----	945. 66
Henrietta, 4.9 mi. N. of, 550 ft. N. of E $\frac{1}{4}$ cor. sec. 30, T. 1 N., R. 1 E., in NW. angle of junction of T-rd. W., on large granite rock; chiseled square-----	948. 04
Henrietta, 3.8 mi. N. of, near W $\frac{1}{4}$ cor. sec. 32, T. 1 N., R. 1 E., 0.5 mi. N. of Ingham-Jackson county line, 20 ft. E. of NE. corner of junction of T-rd. E.; standard iron post with bronze cap stamped "Mich 950" -----	949. 090
Henrietta, 2.6 mi. N. of, just E. of center of sec. 6, T. 1 S., R. 1 E., 0.5 mi. S. of Ingham-Jackson county line, 100 ft. N. of junction of T-rd. E., on W. side of rd., 4 ft. S. of private drive, 8 ft. E. of fence, on large granite rock; chiseled square-----	972. 07

<sup>77</sup> In 1927 this bench mark was reported removed.

Henrietta, 1.5 mi. NW. of, about 500 ft. E. of center of sec. 7, T. 1 S., R. 1 E., 0.2 mi. NW. of Pleasant Lake, in NE. angle of junction of T-rd. E., 4 ft. NE. of wheel track, on large granite rock; chiseled square.....	<i>Feet</i> 955. 98
Pleasant Lake; surface of water Aug. 4, 1916.....	921. 6
Henrietta, 0.6 mi. N. of, near E $\frac{1}{4}$ cor. sec. 18, T. 1 S., R. 1 E., 100 ft. NW. of S. entrance to Pleasant Lake Resort, on W. side of rd., in root on E. side of 30-in. hickory tree; copper nail and washer.....	946. 63
Henrietta, at entrance to Masonic Temple, in NW. angle of crossroads, on S. end of first concrete step from bottom; chiseled square.....	958. 79
Henrietta, 1.0 mi. S. of, about 100 ft. N. of S. cor. secs. 19 and 20, T. 1 S., R. 1 E., on large flat black rock; chiseled square.....	948. 33
White Lake; surface of water Aug. 4, 1916.....	930. 9
Henrietta, 2.0 mi. S. of, 180 ft. N. of SE. cor. sec. 30, T. 1 S., R. 1 E., on W. side of rd., on edge of bank, 12 ft. SE. of 24-in. hickory tree, in large root; 60-penny spike.....	957. 15
Henrietta, 3.1 mi. S. of, 0.2 mi. W. of SE. cor. sec. 31, T. 1 S., R. 1 E., at NE. corner of junction of rd. E., in triangular grass plot; standard iron post with bronze cap stamped "Mich 929".....	928. 221
Henrietta, 4.4 mi. by rd. S. of, 300 ft. W. of E $\frac{1}{4}$ cor. sec. 6, T. 2 S., R. 1 E., on S. side of rd., at yard of dwelling of Fred Adams, in fence line, in root of 24-in. maple tree; rail spike.....	921. 84
Henrietta, 5.2 mi. S. of, 4.0 mi. along Grand Trunk Ry. SW. of Henrietta Sta., about 400 ft. N. of S $\frac{1}{4}$ cor. sec. 5, T. 2 S., R. 1 E., at NW. corner of iron vehicle bridge over Portage River, in NW. corner of fishplate; bolt head.....	914. 68
Portage River, under bridge; surface of water Aug. 5, 1916.....	910. 9
Henrietta, 5.7 mi. S. of, 3.6 mi. along Detroit-Chicago Rd. NE., thence 4.5 mi. by rd. N. from Michigan Central R. R. sta. at Jackson, in center of sec. 8, T. 2 S., R. 1 E., 60 ft. N. of NW. corner of junction of T-rd. W., in root of 24-in. elm tree; rail spike.....	920. 72
Jackson, 3.6 mi. NE., thence 3.5 mi. N. from, near center of sec. 17, T. 2 S., R. 1 E., in NW. angle of crossroads, in root on W. side of 18-in. elm tree; copper nail and washer.....	925. 42
Jackson, 3.6 mi. NE., thence 2.5 mi. N. from, near center of sec. 20, T. 2 S., R. 1 E., near Marson School, 15 ft. S. and 5 ft. E. from SW. corner of crossroads; standard iron post with bronze cap stamped "Mich 970".....	969. 002
Jackson, 3.6 mi. NE., thence 0.8 mi. N. from, 0.7 mi. W. of Gillett Lake, in SE $\frac{1}{4}$ sec. 29, T. 2 S., R. 1 E., on W. side of rd., at entrance to yard of dwelling of A. J. King, on N. end of concrete step; chiseled square.....	975. 25
Jackson, 3.6 mi. NE. of, near center of sec. 32, T. 2 S., R. 1 E., in SW. angle of crossroads, in notch cut in root on N. side of 48-in. elm tree; bolt head.....	980. 21
From Mason quadrangle south along Michigan Central Railroad to grade crossing 2.8 miles southwest of Leslie, thence east along road 0.8 mile, thence south along road and Michigan Central Railroad into Jackson quadrangle in city of Jackson (by E. C. Bibbee in 1916)	
Eden, 3.0 mi. S. of, 2.0 mi. N. of Leslie, 0.25 mi. W. of SE. cor. sec. 9, T. 1 N., R. 1 W., on N. side of rd., 30 ft. E. of track; standard iron post with bronze cap stamped "Mich 971" (recovered by U. S. C. & G. S. in 1916).....	969. 903

Leslie, at S. end of sta. platform, on SE. corner of concrete sidewalk, 2 ft. W. of W. rail of main track; chiseled square-----	Feet 934. 82
Leslie, 1.0 mi. S. of, about 500 ft. W. of S $\frac{1}{4}$ cor. sec. 28, T. 1 N., R. 1 W., on N. side of rd., 30 ft. E. of track; standard iron post with bronze cap stamped "Mich 914"-----	913. 269
Leslie, 2.0 mi. S. of, about 600 ft. E. of NW. cor. sec. 4, T. 1 S., R. 1 W., near Ingham-Jackson county line, 25 ft. S. of rd., on NE. corner of small bridge; top of head of first driftbolt (recovered by U. S. C. & G. S. in 1916)-----	907. 009
Huntoon Creek, under bridge; surface of water July 31, 1916-----	901. 0
Leslie, 2.7 mi. by rd. S. of, 0.8 mi. E. of Michigan Central R. R., 0.25 mi. N. and 0.25 mi. W. from SE. cor. sec. 4, T. 1 S., R. 1 W., 0.6 mi. N. of bridge over Grand River, in NE. angle of crossroads, on large granite rock; chiseled square-----	992. 14
Leslie, 3.3 mi. S. of, 0.1 mi. N. and 0.25 mi. W. from E $\frac{1}{4}$ cor. sec. 9, T. 1 S., R. 1 W., at NE. corner of bridge over Grand River, on bolt holding fishplate to concrete abutment; highest point-----	906. 41
Grand River, under bridge; surface of water Aug. 1, 1916-----	897. 0
Leslie, 4.0 mi. S. of, 0.25 mi. W. of NE. cor. sec. 16, T. 1 S., R. 1 W., in SW. angle of crossroads, 2 ft. SW. of wheel track, on large granite rock; chiseled square-----	977. 10
Leslie, 5.0 mi. S. of, 0.25 mi. W. of NE. cor. sec. 21, T. 1 S., R. 1 W., in SW. angle of crossroads, in NE. corner of yard of Cole School; standard iron post with bronze cap stamped "Mich 1001"-----	999. 845
Leslie, 5.8 mi. S. of, 8.4 mi. by rd. N. of Michigan Central R. R. sta. in Jackson, 0.3 mi. N. and 0.3 mi. W. from SE. cor. sec. 21, T. 1 S., R. 1 W., on SW. side of Old Plank Rd., directly opposite rd. N., in root on N. side of 48-in. elm tree; 60-penny spike-----	960. 58
Jackson, about 8 mi. N. of, 625 ft. E. of SW. cor. sec. 22, T. 1 S., R. 1 W., on SW. side of Old Plank Rd., at Y-junction of Wayne Highway, 25 ft. N. of two oak trees 1 ft. apart, on large granite rock; chiseled square-----	947. 97
Jackson, 7.0 mi. N. of, near N $\frac{1}{4}$ cor. sec. 34, T. 1 S., R. 1 W., in SW. angle of junction of rd. W., at entrance to Wilbur School, on NE. corner of concrete porch; chiseled square-----	954. 48
Jackson, 6.5 mi. N. of, near center of sec. 34, T. 1 S., R. 1 W., in SE. angle of junction of T-rd. E.; standard iron post with bronze cap stamped "Mich 934"-----	933. 276
Jackson, 5.5 mi. N. of, near center of sec. 3, T. 2 S., R. 1 W., in NW. angle of junction of T-rd. W., in root on SE. side of 36-in. elm tree; copper nail and washer-----	954. 95
Jackson, 5.0 mi. N. of, near N $\frac{1}{4}$ cor. sec. 10, T. 2 S., R. 1 W., on W. side of rd., at entrance to Blackman Township School No. 2, on N. end of second step from bottom; chiseled square-----	947. 63
Jackson, 4.3 mi. N. of, at Bentley Corners, 0.2 mi. S. of center of sec. 10, T. 2 S., R. 1 W., in SW. angle of junction of T-rd. W., on large granite rock; chiseled square-----	953. 27
Jackson, 3.8 mi. N. of, at Fifields Corners, 0.2 mi. N. of center of sec. 15, T. 2 S., R. 1 W., in SW. angle of junction of T-rd. W., on large granite rock; chiseled square-----	962. 35
Jackson, 3.0 mi. N. of, near N $\frac{1}{4}$ cor. sec. 22, T. 2 S., R. 1 W., 2 ft. N. and 15 ft. E. from SE. corner of crossroads; standard iron post with bronze cap stamped "Mich 953"-----	952. 134

Jackson, 2.4 mi. N. of, about 600 ft. S. of center of sec. 22, T. 2 S., R. 1 W., 50 ft. S. of intersection of Michigan Central R. R., 20 ft. W. of track, 15 ft. E. of rd., on large granite rock; chiseled square (recovered by U. S. C. & G. S. in 1916)-----	Feet 926. 871
Grand River, under R. R. bridge; surface of water Aug. 22, 1916----	920. 6
Michigan Central R. R., at crossing of Grand Trunk Ry.; top of rail--	923. 3
Jackson, 1.2 mi. N. of, 75 ft. S. of crossing of Grand Trunk Ry., 4 ft. E. of main track, at NW. corner of concrete derail pillar; chiseled square-----	922. 37
Jackson, at North Street crossing, in line with N. wall of Sparks-Withington Mfg. Co. building, on outer edge of sidewalk; chiseled square-----	926. 63

From crossroads 5 miles south of Leslie east along road to Henrietta (by E. C. Bibbee in 1916)

Leslie, 5.0 mi. S., thence 0.8 mi. E. from, 3.3 mi. W. of Henrietta, 0.8 mi. E. of Cole School, 0.3 mi. W. of Berry Bridge over Grand River, near N¼ cor. sec. 22, T. 1 S., R. 1 W., 25 ft. E. of SE. corner of intersection of Wayne Highway, on large white rock; chiseled square-----	947. 74
Grand River, under Berry Bridge; surface of water Aug. 2, 1916-----	900. 0
Henrietta, 1.3 mi. W. of, 1.7 mi. E. of Berry Bridge, 29 ft. S. and 35 ft. E. from N¼ cor. sec. 24, T. 1 S., R. 1 W., in SE. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 6 1915 Mich 947" 78-----	945. 471

From grade crossing on Michigan Central Railroad 2 miles north of Leslie along roads west 3.8 miles, thence generally south by way of Berryville to Woodville, thence east along Michigan Electric Railroad 79 and streets to Jackson (by E. C. Bibbee in 1916)

Leslie, 2.0 mi. N., thence 1.5 mi. W. from, 1.0 mi. W. of North Leslie, 340 ft. E. of junction of T-rd. N. at SW. cor. sec. 8, T. 1 N., R. 1 W., 80 ft. W. of junction of T-rd. S., in field, 15 ft. N. of N. fence line, in root on S. side of 14-in. maple tree; 60-penny spike-----	984. 10
Leslie, 2.0 mi. N., thence 2.5 mi. W. from, in NE. cor. sec. 13, T. 1 N., R. 2 W., in SW. angle of junction of T-rd. S., in root on N. side of 15-in. walnut tree; 60-penny spike-----	973. 43

[Line jogs into Springport quadrangle]

Leslie, 3.5 mi. W., thence 1.0 mi. S. from, 0.6 mi. NW., thence 1.8 mi. N. from Berryville, 0.25 mi. E. of NW. cor. sec. 36, T. 1 N., R. 2 W., in SE. angle of crossroads, 5 ft. S. and 3 ft. W. from corner post; standard iron post with bronze cap stamped "Mich-969"-----	967. 469
Berryville, 0.6 mi. NW., thence 0.8 mi. N. from, 0.25 mi. W. of N¼ cor. sec. 1, T. 1 S., R. 2 W., on Ingham-Jackson county line, in SE. angle of crossroads, 4 ft. W. of corner post, on large granite rock; chiseled square-----	962. 20
Berryville, 0.6 mi. NW. of, 0.2 mi. N. and 0.25 mi. E. from SW. cor. sec. 1, T. 1 S., R. 2 W., at junction of Old Plank Rd., on large granite rock; chiseled square-----	929. 02
Berryville, about 700 ft. SE. of junction of rd. NE. at, 1.5 mi. W., thence 1.5 mi. by rd. NE. from Rives Junction, in NE¼ sec. 12, T. 1 S., R. 2 W., at SE. corner of iron bridge over Grand River, in fishplate; head of southeasternmost bolt-----	904. 00

<sup>78</sup> In May 1923 permission was granted to reset this bench mark. No information is available showing that it was moved. Engineers and others are cautioned against using the coordinates or figures of elevation published for this mark unless they first check them with adjacent marks.

<sup>79</sup> This railroad is now abandoned.

	<i>Feet</i>
Grand River, under bridge; surface of water Aug. 25, 1916.....	892. 0
Rives Junction, 1.5 mi. W. of, 21 ft. S. and 23 ft. W. from center of sec. 13, T. 1 S., R. 2 W., in line with T-rd. E.; standard iron post with bronze cap stamped "Prim Trav Sta No 7 1915 Mich 919".....	918. 011
Rives Junction, 1.5 mi. W., thence 1.0 mi. S. from, near center of sec. 24, T. 1 S., R. 2 W., in NW. angle of crossroads, in SE. corner of yard of Smith School, on large rock; chiseled square.....	950. 57
Rives Junction, 1.5 mi. W., thence 1.6 mi. S. from, 7.4 mi. N., thence 0.5 mi. W. from Woodville, about 500 ft. S. of N $\frac{1}{4}$ cor. sec. 25, T. 1 S., R. 2 W., on E. side of rd., 30 ft. N. of lane E., on large granite rock; chiseled square.....	990. 10
Woodville, 7.0 mi. N. of, 600 ft. S. of W $\frac{1}{4}$ cor. sec. 30, T. 1 S., R. 1 W., at E. fence line of range-line rd., diagonally opposite residence of B. L. Mann, in root on N. side of 24-in. basswood tree; 60-penny spike.....	1, 013. 76
Woodville, 6.4 mi. N. of, 680 ft. S. of NE. cor. sec. 36, T. 1 S., R. 2 W., 5 ft. S. and 12 ft. W. from SW. corner of junction of T-rd. W., in yard, in root on E. side of 20-in. maple tree; copper nail and washer.....	1, 018. 03
Woodville, 5.2 mi. N. of, 0.3 mi. S. of NW. cor. sec. 6, T. 2 S., R. 1 W., in NE. angle of intersection of Old Clinton Rd.; standard iron post with bronze cap stamped "Mich 975".....	973. 770
Woodville, 4.1 mi. N. of, 500 ft. N. of W $\frac{1}{4}$ cor. sec. 7, T. 2 S., R. 1 W., on E. side of rd., in front of residence of Homer Sturdivant, in root on NW. side of 48-in. maple tree; copper nail and washer.....	978. 49
Woodville, 3.2 mi. N. of, near Crawford School, 0.3 mi. S. of NE. cor. sec. 13, T. 2 S., R. 2 W., on W. side of rd., 50 ft. S. of junction of T-rd. E., on large black granite rock; chiseled square.....	985. 40
Woodville, 2.7 mi. N. of, 0.2 mi. N. of SE. cor. sec. 13, T. 2 S., R. 2 W., in NW. angle of intersection of Springport Rd., on large granite rock; chiseled square.....	981. 48
Woodville, 2.1 mi. N. of, about 700 ft. N. of E $\frac{1}{4}$ cor. sec. 24, T. 2 S., R. 2 W., on W. side of rd., near junction of lane W., 5 ft. N. of wheel track, 20 ft. W. of N.-S. fence, in pasture, in root on E. side of 12-in. ash tree; copper nail and washer.....	965. 32
Woodville, 1.5 mi. N. of, in SW. cor. sec. 19, T. 2 S., R. 1 W., at Magoon Corners, 15 ft. N. of NE. corner of crossroads; standard iron post with bronze cap stamped "Mich 1014" <sup>80</sup> .....	1, 013. 628
Woodville, 250 ft. N. of Michigan Electric R. R., near W $\frac{1}{4}$ cor. sec. 31, T. 2 S., R. 1 W., on E. concrete head wall of arch culvert over creek; chiseled square.....	957. 70
Jackson, in W. part of, on Main Street, in NE. corner of yard of Sarah Bloomfield School, 2 ft. N. of E.-W. sidewalk; standard iron post with bronze cap stamped "Mich 981" (recovered in 1930).....	979. 508
Jackson, on N. side of West Main Street, directly in front of Soldiers Monument, on curb; chiseled square (recovered in 1930).....	986. 26
<p style="text-align: center;">From Stockbridge quadrangle near center of sec. 30, T. 1 N., R. 2 E., alternately west and north along roads to point 2 miles north of Fitchburg (by E. E. Harris in 1919)</p>	
Fitchburg, 1.0 mi. E., thence 0.7 mi. N. from, 0.3 mi. S. of NW. cor. sec. 30, T. 1 N., R. 2 E., in SE. angle of junction of N.-S. rd., in root on N. side of 30-in. oak tree; copper nail and washer.....	943. 25

<sup>80</sup> In 1927 this bench mark was moved 95 feet S.37°W. from this position and reset 1.499 feet lower than its original elevation. The figures given represent the new elevation.

Fitchburg, 1.0 mi. N. of, near E. cor. secs. 23 and 26, T. 1 N., R. 1 E.,  
on W. side of rd., in line with rd. E., in root on E. side of 36-in. ash  
tree; copper nail and washer

Feet  
946. 99

ROCHESTER QUADRANGLE

[Latitude 42°30'–42°45'; longitude 83°00'–83°15']

MACOMB AND OAKLAND COUNTIES

From Pontiac quadrangle at point 2 miles north and 5.9 miles west from  
Rochester along roads east 0.4 mile, thence generally south by way of Auburn  
Heights (formerly Amy) to Birmingham (by C. K. Alexander in 1906)

Rochester, 5.5 mi. W. and 2.0 mi. N. from, near N $\frac{1}{4}$ cor. sec. 2, T. 3 N., R. 10 E., on E. side of N.-S. rd., 25 ft. S. of junction of rd. W., on large boulder; chiseled mark	1, 055. 67
Rochester, 5.5 mi. W., thence 0.5 mi. N. from, near center of sec. 11, T. 3 N., R. 10 E., at junction of NE.-SW. rd., on NW. side of rd., opposite rd. S., at SE. corner of old building, on rock; chiseled mark	982. 84
Rochester, 5.7 mi. W., thence 0.5 mi. S. from, 0.3 mi. W. of center of sec. 14, T. 3 N., R. 10 E., at SE. corner of crossroads, on rock; chiseled mark	940. 20
Rochester, 5.7 mi. W., thence 0.7 mi. S. from, 3.3 mi. by rd. NW. of Free Methodist Church at Auburn Heights, near center of SW $\frac{1}{4}$ sec. 14, T. 3 N., R. 10 E., on N. side near NW. corner of Phillips School, in foundation stone; aluminum tablet stamped "Michigan 948"	948. 336
Auburn Heights, 2.7 mi. NW. of, near center of NW $\frac{1}{4}$ sec. 23, T. 3 N., R. 10 E.; in center of rd. fork, in root of tree; nail	929. 95
Auburn Heights, 1.2 mi. NW. of, about 600 ft. S. of center of sec. 26, T. 3 N., R. 10 E., at SE. corner of rd. fork, on rock; chiseled mark	923. 55
Auburn Heights, about 5 ft. E. of NW. corner of Free Methodist Church, in foundation stone; aluminum tablet stamped "Michigan 873" (recovered in 1935)	873. 414
Auburn Heights, 1.0 mi. SE. of, 0.2 mi. N. of SW. cor. sec. 31, T. 3 N., R. 11 E., at junction of range-line rd., opposite rd. NW., on rock; chiseled mark	876. 57
Auburn Heights, 1.0 mi. SE., thence 1.2 mi. S. from, in SE. cor. sec. 1, T. 2 N., R. 10 E., at NW. corner of crossroads, on stone; chiseled mark	893. 60
Auburn Heights, 1.0 mi. SE., thence 1.3 mi. S. from, near NW. cor. sec. 7, T. 2 N., R. 11 E., about 500 ft. S. of crossroads, on E. side of rd., 10 ft. from fence; standard iron post with bronze cap stamped "Prim Trav Sta No 1 1903" (recovered by U. S. C. & G. S. in 1935)	903. 190
Auburn Heights, 1.0 mi. SE., thence 2.2 mi. S. from, 0.5 mi. E., thence 3.0 mi. N. from intersection of Maple Avenue and Saginaw Street in Birmingham, in NW. cor. sec. 18, T. 2 N., R. 11 E., at SE. corner of junction of T-rd. E., on rock; chiseled mark	862. 24
Birmingham, 0.5 mi. E., thence 1.9 mi. N. from, about 550 ft. S. of NE. cor. sec. 24, T. 2 N., R. 10 E., at iron bridge over River Rouge, in top of W. side of S. abutment; aluminum tablet stamped "Michigan 764" (not recovered in 1935)	763. 929
Birmingham, 0.5 mi. E., thence 1.0 mi. N. from, in NW. cor. sec. 30, T. 2 N., R. 11 E., at SE. corner of crossroads, on rock; chiseled mark	792. 80

Birmingham, on Maple Avenue, 200 ft. W. of Saginaw Street, in front wall of brick store building owned by Whitehead and Mitchell, in stone water table; aluminum tablet stamped "Michigan 784" <sup>81</sup> -----	Feet 783. 555
From Birmingham along road southwest 2.5 miles into Pontiac quadrangle at point about 3 miles east of Franklin (by C. K. Alexander in 1908; leveled twice)	
Birmingham, at corner of Maple and Southfield Avenues, on concrete curb; chiseled mark-----	776. 19
Birmingham, 1.2 mi. SW. of intersection of Maple Avenue and Saginaw Street, at SW. corner of bridge over River Rouge, on S. side of rd., on rock; chiseled mark-----	713. 56
From Birmingham along roads southeast 1.3 miles, thence generally east by way of Clawson to Warren (by C. K. Alexander in 1908)	
Birmingham, 1.3 mi. SE., thence 2.5 mi. E. from, 0.3 mi. W. of Clawson, near S. side SE $\frac{1}{4}$ sec. 33, T. 2 N., R. 11 E., 500 ft. E. of residence of A. R. Ried, on N. side of rd., on large rock; chiseled mark-----	673. 52
Clawson, 35 ft. N. of Clawson Rd., near NE. corner of village hall, in E. wall; aluminum tablet stamped "668" <sup>82</sup> (recovered in 1935)-----	667. 403
Clawson, 1.3 mi. E. of, near S. side SW $\frac{1}{4}$ sec. 35, T. 2 N., R. 12 E., on N. side of rd., on E. side of driveway to residence of W. M. Parker, on granite rock; chiseled mark-----	643. 21
Clawson, 2.0 mi. E. of, near SW. cor. sec. 36, T. 2 N., R. 11 E., at crossroads, at E. end of small bridge over county ditch, in S. abutment; aluminum tablet stamped "636"-----	635. 751
Clawson, 3.0 mi. E. of, 0.6 mi. N., thence 2.0 mi. W. from Warren, in SE. cor. sec. 35, T. 2 N., R. 11 E., 30 ft. N. of crossroads, on W. end of tile drain; chiseled mark-----	628. 70
Warren, 0.6 mi. N. of, in SE. cor. sec. 32, T. 2 N., R. 12 E., in NW. angle of crossroads, in root of maple tree; spike-----	620. 83
Warren, at NW. corner of Warren Savings Bank, in cornerstone; aluminum tablet stamped "617" (recovered in 1931)-----	616. 692
From road junction 2 miles north and 5.5 miles west from Rochester along roads north 1 mile, thence east 4.3 miles to Michigan Central Railroad, thence southeast along railroad to Rochester, thence northeast and east along roads to point 0.7 mile south of Washington, thence generally south along roads and Michigan Central Railroad by way of Utica to crossroads 0.6 mile north of Warren (by C. K. Alexander in 1908)	
Rochester, 3.1 mi. along R. R. NW., thence 4.3 mi. along rd. W. from intersection of Main and Fifth Streets, near S $\frac{1}{4}$ cor. sec. 26, T. 4 N., R. 10 E., in NE. angle of crossroads, on rock; chiseled mark-----	1, 051. 15
Rochester, 3.1 mi. NW., thence 3.9 mi. W. from, in NE. cor. sec. 35, T. 4 N., R. 10 E., near center of N. side of Howarth School, in granite rock foundation; aluminum tablet stamped "1069" (recovered in 1936)-----	1, 069. 031
Rochester, 3.1 mi. NW., thence 3.1 mi. W. from, near N. side NE $\frac{1}{4}$ sec. 36, T. 4 N., R. 10 E., at SW. corner of junction of rd. S., on granite rock; chiseled mark-----	994. 87
Rochester, 3.1 mi. NW., thence 2.9 mi. W. from, in SE. cor. sec. 25, T. 4 N., R. 10 E., 1.0 mi. E. of Howarth School, at NW. corner of junction of rd. N., on granite rock; chiseled mark-----	988. 96

<sup>81</sup> In 1920 it was reported that this bench mark had been destroyed.

<sup>82</sup> This mark was originally placed in the wall of a house near the northwest corner of the crossroads. In 1928 it was moved to its present location and reset 0.008 foot higher than its original elevation. The figures given represent the new elevation.

Rochester, 3.1 mi. NW., thence 1.9 mi. W. from, in NE. cor. sec. 31, T. 4 N., R. 11 E., near SW. corner of crossroads, on granite rock; chiseled mark.....	Feet 951. 69
Rochester, 3.1 mi. NW., thence 1.4 mi. W. from, near N $\frac{1}{4}$ cor. sec. 32, T. 4 N., R. 11 E., at SE. corner of junction of rd. S., on rock; chiseled mark.....	963. 10
Rochester, 3.1 mi. NW., thence 1.8 mi. W. from, near S. side SE $\frac{1}{4}$ sec. 29, T. 4 N., R. 11 E., in front of residence of O. Perry, in large granite rock; aluminum tablet stamped "999".....	998. 205
Rochester, 3.1 mi. NW., thence 0.6 mi. W. from, near S. side SW $\frac{1}{4}$ sec. 28, T. 4 N., R. 11 E., in center of junction of T-rd. N., on rock; chiseled mark.....	949. 24
Rochester, 1.2 mi. NW. of, near line between secs. 3 and 10, T. 3 N., R. 11 E., 15 ft. W. of grade crossing, on granite rock; chiseled mark.....	786. 52
Rochester, at grade crossing, on Main Street, on S. side of track, on W. side of street, on cement sidewalk; chiseled mark.....	748. 73
Rochester, 45 ft. S. and 60 ft. E. from center of intersection of Main and Fifth Streets, at NW. corner of building owned by J. W. Smith, in foundation cornerstone; aluminum tablet stamped "756" (recovered by U. S. C. & G. S. in 1930).....	755. 596
Rochester, near corner of Main and Romeo Streets, on rock; chiseled mark.....	772. 48
Rochester, 0.7 mi. NE. of, 0.5 mi. SW. of village of Stony Creek, near center of sec. 11, T. 3 N., R. 11 E., at N. side of rd., on boulder; chiseled mark.....	790. 79
Stony Creek, at SE. corner of rd. fork, on rock; chiseled mark.....	751. 68
Stony Creek, 1.1 mi. NE. of, 2.7 mi. SW. of Mount Vernon, 0.7 mi. SW. of Butts, in NE $\frac{1}{4}$ sec. 1, T. 3 N., R. 11 E., 100 ft. SW. of junction of rd. NW., at SE. side of rd., on granite rock; chiseled mark.....	808. 63
Butts, 1.1 mi. E. of, 0.7 mi. S., thence 1.8 mi. W. from Washington, near N. side NW $\frac{1}{4}$ sec. 5, T. 3 N., R. 12 E., on S. side of rd., 50 ft. E. of junction of rd. S., on large rock; chiseled mark.....	840. 26
Washington, 0.7 mi. S., thence 1.0 mi. W. from, in SW. cor. sec. 33, T. 4 N., R. 12 E., on N. side of rd., opposite rd. S., on rock; chiseled mark.....	738. 69
Washington, 0.9 mi. S. of, 1.8 mi. N. of Disco, 0.2 mi. S. of NE. cor. sec. 4, T. 3 N., R. 12 E., in W. side of S. abutment of small bridge; aluminum tablet stamped "671" (not recovered in 1935).....	670. 674
Disco, 1.1 mi. N. of, near SW. cor. sec. 3, T. 3 N., R. 12 E., about 600 ft. N. of crossroads, on E. side of S. abutment of small bridge; chiseled square.....	659. 73
Disco, 100 ft. SW. of crossroads at, on E. side 5 ft. from NE. corner of schoolhouse, in foundation; aluminum tablet stamped "686" (recovered in 1935).....	685. 897
Utica, in E. part of, at front wall near NW. corner of Lutheran Church, in water table; aluminum tablet stamped "658" (recovered in 1935).....	657. 311
Utica, near center of, at NW. corner of street crossing, on cement walk; chiseled mark.....	657. 25
Utica, 300 ft. E. of M. C. R. R. sta., near NW. corner of crossroads, on rock; chiseled mark.....	638. 02



Utica, 2.0 mi. S. of R. R. sta., 800 ft. W. of S $\frac{1}{4}$ cor. sec. 9, T. 2 N., R. 12 E., 800 ft. W. of grade crossing, at bridge over Plum Brook, in N. end of E. abutment; aluminum tablet stamped "620" (recovered in 1926)-----	Feet 619. 616
From Utica along roads northwest 1.5 miles, thence west to Auburn Heights (by C. K. Alexander in 1906)	
Utica, 1.5 mi. NW. of M. C. R. R. sta., near S $\frac{1}{4}$ cor. sec. 29, T. 3 N., R. 12 E., at NW. corner of rd. fork, near tree, on rock; chiseled mark-----	679. 48
Utica, 1.5 mi. NW., thence 0.9 mi. W. from, 3.0 mi. S., thence 2.8 mi. E. from intersection of Main and Fifth Streets in Rochester, 0.2 mi. W. of SE. cor. sec. 30, T. 3 N., R. 12 E., 0.3 mi. W. of crossroads, 7 ft. E. of SW. corner of Plain School, in brick wall; aluminum tablet stamped "710" (recovered in 1935)-----	709. 572
Rochester, 3.0 mi. S., thence 2.0 mi. E. from, in SE. cor. sec. 25, T. 3 N., R. 11 E., near NW. corner of crossroads, on rock; chiseled mark-----	708. 66
Rochester, 3.0 mi. S., thence 1.0 mi. E. from, in NE. cor. sec. 35, T. 3 N., R. 11 E., in SW. angle of crossroads, in root of oak tree; nail-----	713. 70
Rochester, 3.0 mi. S. of, in NE. angle of crossroads at village of Stone Shop, in SW. cor. sec. 26, T. 3 N., R. 11 E., on rock; chiseled mark-----	755. 20
Rochester, 2.7 mi. S. of, near E. side SE $\frac{1}{4}$ sec. 27, T. 3 N., R. 11 E., 5 ft. N. of SE. corner of house of H. K. McCotter, in front wall; aluminum tablet stamped "766" (recovered in 1936)-----	766. 579
Rochester, 3.0 mi. S., thence 1.0 mi. W. from, 3.5 mi. E. of Auburn Heights (formerly Amy), near NE. cor. sec. 33, T. 3 N., R. 11 E., on S. side of rd., 75 ft. W. of crossroads, on rock; chiseled mark-----	840. 22
Auburn Heights, 2.5 mi. E. of, at cor. secs. 28, 29, 32, and 33, T. 3 N., R. 11 E., in center of crossroads, on stone marking section corner; chiseled mark-----	809. 17
Auburn Heights, 1.7 mi. E. of, near S. side SW $\frac{1}{4}$ sec. 29, T. 3 N., R. 11 E., at junction of T-rd. S., on large rock; chiseled mark-----	830. 27
From Utica east 1.7 miles along Hall Road into Mount Clemens quadrangle (by H. S. Senseney in 1926)	
Utica, 1.1 mi. E. of Lutheran Church at, near SW. cor. sec. 35, T. 3 N., R. 12 E., on N. side of rd., in front of residence of J. A. Miller, in root of tree; copper nail and washer-----	625. 86
From Mount Clemens quadrangle west along Twelvemile Road 2.4 miles, thence north along road to Warren (by H. S. Senseney in 1926; leveled twice)	
Warren, 1.4 mi. S., thence 2.0 mi. E. from, in NW. cor. sec. 14, T. 1 N., R. 12 E., 40 ft. S. and 20 ft. E. from crossroads, in concrete post; standard tablet stamped "2 S 1926"-----	623. 352
Reference mark, 29 ft. E. of tablet, in root of tree; copper nail and washer-----	623. 83
Warren, 1.4 mi. S., thence 1.0 mi. E. from, in SE. cor. sec. 9, T. 1 N., R. 12 E., at NW. corner of crossroads, on W. end of curb; chiseled square-----	615. 86
Warren, 1.4 mi. S., thence 1.0 mi. E. from, in NE. cor. sec. 16, T. 1 N., R. 12 E., 60 ft. S. and 55 ft. W. from crossroads, 2.5 ft. S. of E.-W. sidewalk, 0.8 ft. W. of N.-S. sidewalk, in concrete post; metal tablet stamped "16" (Macomb County B. M.)-----	615. 863

Warren, 1.4 mi. S. of, in NW. cor. sec. 16, T. 1 N., R. 12 E., in SE. angle of crossroads, on concrete base of corner fence post; chiseled square-----	<i>Feet</i> 620. 69
Warren, 0.4 mi. S. of, near W. cor. secs. 4 and 9, T. 1 N., R. 12 E., 45 ft. E. of junction of T-rd. W., in root of tree; copper nail and washer (recovered in 1936)-----	618. 33
From Mount Clemens quadrangle west along Gass Road 2 miles, thence south along Camp Ground Road and State Highway 53 to Disco (by H. S. Senseney in 1926)	
Washington, 1.3 mi. N., thence 1.0 mi. E. from high school at, in NE. cor. sec. 27, T. 4 N., R. 12 E., near SW. corner of crossroads, on culvert; chiseled square-----	704. 28
Washington, 1.3 mi. N. of, 2.5 mi. E. of Mount Vernon, in SE. cor. sec. 21, T. 4 N., R. 12 E., 30 ft. N. and 25 ft. W. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 3 1905"-----	761. 263
Reference mark, 400 ft. S. of post, 75 ft. W. of rd., in root of tree; copper nail and washer-----	756. 14
Washington, 0.3 mi. N. of, in NW. cor. sec. 34, T. 4 N., R. 12 E., in SE. angle of junction of T-rd. E., in root of tree; copper nail and washer-----	712. 26
Washington, on E. side of rd., in front of high school, in root of tree; copper nail and washer-----	698. 82
Washington, on S. side of entrance to high school, 1 ft. W. of W. wall of building, in concrete post; metal tablet stamped "86" (Macomb County B. M.)-----	699. 881
Washington, 0.7 mi. S. of, in NW. cor. sec. 3, T. 3 N., R. 12 E., in SE. angle of crossroads, in root of tree; copper nail and washer-----	677. 42
Washington, 1.7 mi. S. of, 1.0 mi. N. of Disco, in SW. cor. sec. 3, T. 3 N., R. 12 E., 30 ft. N. and 25 ft. E. from crossroads, in concrete post; metal tablet stamped "73" (Macomb County B. M.)-----	659. 638
Reference mark, 145 ft. S. of tablet, 270 ft. S. of crossroads, on E. side of rd., in root of tree; copper nail and washer-----	657. 79
From Utica alternately north and west along State Highway 53 and other roads to intersection of Grand Trunk Railway and Macomb-Oakland county-line road, thence northeast 1.8 miles along railway, thence along roads west, north, and northeast to Mount Vernon, thence east 2.5 miles to point 1.3 miles north of Washington (by H. S. Senseney in 1926)	
Utica, 0.9 mi. N. of Lutheran Church at, in SW. cor. sec. 27, T. 3 N., R. 12 E., at NE. corner of crossroads, on culvert; chiseled square (not recovered in 1935)-----	673. 36
Utica, 1.9 mi. N. of, in NW. cor. sec. 27, T. 3 N., R. 12 E., 120 ft. S. and 25 ft. E. from crossroads, in concrete post; metal tablet stamped "62" (Macomb County B. M.; recovered in 1935)-----	683. 660
Utica, 2.9 mi. N. of, in SE. cor. sec. 16, T. 3 N., R. 12 E., at NW. corner of crossroads, on culvert; chiseled square-----	681. 92
Utica, 2.9 mi. N., thence 1.0 mi. W. from, in NW. cor. sec. 20, T. 3 N., R. 12 E., 25 ft. S. and 70 ft. E. from crossroads, in concrete post; metal tablet stamped "64" (Macomb County B. M.; recovered in 1936)-----	691. 363
Utica, 2.9 mi. N., thence 2.0 mi. W. from, 0.4 mi. S. and 1.0 mi. E. from Yates, in SE. cor. sec. 18, T. 3 N., R. 12 E., 80 ft. W. of junction of T-rd. S., on N. side of rd., in root of tree; copper nail and washer-----	703. 36

Yates, 70 ft. E. of junction of Macomb-Oakland county-line rd. at, near $W\frac{1}{4}$ cor. sec. 18, T. 3 N., R. 12 E., on N. side of rd., in concrete post; metal tablet stamped "63" (Macomb County B. M.)-----	Feet 709.452
Yates, 1.6 mi. N., thence 1.3 mi. E. from, 0.3 mi. E. of SW. cor. sec. 5, T. 3 N., R. 12 E., on W. side of Grand Trunk Ry. track, 65 ft. N. and 20 ft. E. from crossroads, in concrete post; metal tablet stamped "72" (Macomb County B. M.; recovered in 1935)-----	746.603
Yates, 1.7 mi. N. of, 3.0 mi. SW. of Mount Vernon, in SW. cor. sec. 6, T. 3 N., R. 12 E., 255 ft. N. of crossroads, on E. side of rd., in root of tree; copper nail and washer-----	759.08
Mount Vernon, 1.5 mi. SW. of, 0.25 mi. E. of $W\frac{1}{4}$ cor. sec. 31, T. 4 N., R. 12 E., 90 ft. S. and 25 ft. E. from junction of Washington Rd., in concrete post; metal tablet stamped "85" (Macomb County B. M.)-----	793.339
Mount Vernon, 80 ft. E. of crossroads at, 11 ft. W. of gate to cemetery, in concrete post; metal tablet stamped "92" (Macomb County B. M.)-----	839.935
Mount Vernon, 1.5 mi. E. of, 1.3 mi. N., thence 1.0 mi. W. from Washington, in SW. cor. sec. 21, T. 4 N., R. 12 E., 50 ft. N. and 25 ft. E. from crossroads, in concrete post; metal tablet stamped "91" (Macomb County B. M.)-----	851.584
From Mount Clemens quadrangle alternately west and south along Fourteen-mile, Van Dyke (State Highway 53), and Chicago Roads by way of Warren to Ryan Road, thence north 4.6 miles to East Long Lake (Eighteenmile) Road, thence east 2 miles to Van Dyke Road, thence south 4 miles to point 0.6 mile north and 0.9 mile east from Warren (by H. S. Senseney in 1928)	
Warren, 0.6 mi. N., thence 2.3 mi. E. from, 0.3 mi. E. of SW. cor. sec. 35, T. 2 N., R. 12 E., 60 ft. N. and 100 ft. E. from junction of Maple Lane, in concrete post; metal tablet stamped "22" (Macomb County B. M.)-----	608.893
Warren, 0.6 mi. N., thence 0.9 mi. E. from, in SE. cor. sec. 33, T. 2 N., R. 12 E., at NW. corner of intersection of Van Dyke Rd., on N. end of curb; chiseled square-----	612.07
Warren, 0.9 mi. E. of, 0.2 mi. N. of SE. cor. sec. 4, T. 1 N., R. 12 E., 40 ft. N. and 40 ft. W. from intersection of Chicago Rd., in concrete post; metal tablet stamped "18" (Macomb County B. M.)-----	611.376
U. S. C. & G. S. standard disk stamped "J 32 1930" <sup>83</sup> -----	614.582
Warren, 1.0 mi. W. of, near $W\frac{1}{4}$ cor. sec. 5, T. 1 N., R. 12 E., 110 ft. E. of intersection of Ryan Rd., on N. side of rd., in concrete post; metal tablet stamped "21" (Macomb County B. M.)-----	622.515
Warren, 1.0 mi. W., thence 1.6 mi. N. from, in SW. cor. sec. 29, T. 2 N., R. 12 E., 115 ft. E. of intersection of East Maple (Fifteenmile) Rd., on N. side of rd., in concrete post; metal tablet stamped "30" (Macomb County B. M.)-----	626.352
Warren, 1.0 mi. W., thence 2.6 mi. N. from, in SW. cor. sec. 20, T. 2 N., R. 12 E., 25 ft. N. and 85 ft. E. from intersection of Big Beaver (Sixteenmile) Rd., 15 ft. E. of 24-in. elm tree, in concrete post; metal tablet stamped "31" (Macomb County B. M.; recovered in 1935)---	629.978
Warren, 1.0 mi. W., thence 3.6 mi. N. from, in SE. cor. sec. 18, T. 2 N., R. 12 E., at NW. corner of intersection of Wattles (Seventeen-mile) Rd., on culvert; chiseled square-----	633.96

<sup>83</sup> The tie between this mark and the bench mark stamped "617" was made in 1936.

Warren, 1.0 mi. W., thence 4.6 mi. N. from, in NW. cor. sec. 17, T. 2 N., R. 12 E., 25 ft. S. and 95 ft. E. from intersection of East Long Lake Rd., in concrete post; metal tablet stamped "44" (Macomb County B. M.)-----	Feet 640. 745
Warren, 4.6 mi. N. from, in NE. cor. sec. 17, T. 2 N., R. 12 E., 260 ft. W. of intersection of Mound Rd., on S. side of rd., on culvert; chiseled square-----	630. 40
Warren, 4.6 mi. N., thence 1.0 mi. E. from, 2.2 mi. S. of Lutheran Church in Utica, in SW. cor. sec. 10, T. 2 N., R. 12 E., 25 ft. N. and 80 ft. E. from intersection of Van Dyke Rd., in concrete post; metal tablet stamped "43" (Macomb County B. M.)-----	621. 237
Warren, 3.6 mi. N., thence 1.0 mi. E. from, in NE. cor. sec. 21, T. 2 N., R. 12 E., 180 ft. S. of junction of Wattles Rd., on W. end of S. abutment of small bridge; chiseled square-----	612. 04
Warren, 2.6 mi. N., thence 1.0 mi. E. from, in NE. cor. sec. 28, T. 2 N., R. 12 E., 25 ft. S. and 75 ft. W. from intersection of Big Beaver Rd., 2 ft. S. and 5 ft. W. from highway "Stop" sign, in concrete post; metal tablet stamped "32" (Macomb County B. M.; recovered in 1936)-----	613. 617
Warren, 1.6 mi. N., thence 1.0 mi. E. from, in SE. cor. sec. 28, T. 2 N., R. 12 E., 70 ft. N. and 30 ft. W. from intersection of East Maple Rd., in concrete post; metal tablet stamped "29" (Macomb County B. M.)-----	611. 960
From crossroads 4.6 miles north of Warren along roads alternately north and east to Utica (by H. S. Senseney in 1926)	
Warren, 5.6 mi. N., thence 0.3 mi. E. from, 1.2 mi. S. and 0.7 mi. W. from Lutheran Church in Utica, 0.3 mi. E. of SW. cor. sec. 4, T. 2 N., R. 12 E., 100 ft. N. of junction of Merrill Rd., on E. side of rd., in concrete post; metal tablet stamped "45" (Macomb County B. M.)-----	633. 372
Utica, 0.7 mi. S. and 0.3 mi. W. from, 0.2 mi. E. of center of sec. 4, T. 2 N., R. 12 E., at NW. corner of junction of Utica Rd., on culvert; chiseled square-----	632. 78
From crossroads 1 mile west and 2.6 miles north from Warren east along Big Beaver (Sixteenmile) Road to intersection of State Highway 53 (by H. S. Senseney in 1926)	
Warren, 2.6 mi. N. of, in SW. cor. sec. 21, T. 2 N., R. 12 E., near NE. corner of intersection of Mound Rd., on culvert; chiseled square---	626. 33
U. S. C. & G. S. standard disk stamped "H 32 1930" <sup>84</sup> -----	622. 732
From Plain School east 0.2 mile along Auburn Road (State Highway 59), thence north 2 miles along Ryan Road (by H. S. Senseney in 1926)	
Utica, 1.5 mi. NW., thence 0.7 mi. W. from Michigan Central R. R. sta. at, 2.4 mi. S., and 1.0 mi. E. from Yates, in NW. cor. sec. 32, T. 3 N., R. 12 E., 85 ft. S. and 30 ft. E. from intersection of Ryan Rd., in concrete post; metal tablet stamped "55" (Macomb County B. M.)-----	703. 866
Yates, 1.6 mi. S. and 1.0 mi. E. from, 0.25 mi. S. of NE. cor. sec. 30, T. 3 N., R. 12 E., in SW. angle of intersection of Hamlin Rd., in root of tree; copper nail and washer-----	706. 77
U. S. C. & G. S. standard disk stamped "F 32 1930" <sup>85</sup> -----	688. 447

<sup>84</sup> The tie between this mark and Macomb County B. M. stamped "32" was made in 1936.

<sup>85</sup> The tie between this mark and the bench mark with elevation 703.36 feet was made in 1936.

From Mount Clemens quadrangle northwest along Utica Road to intersection of East Long Lake (Eighteenmile) Road, thence west 0.7 mile to crossroads 2.2 miles south of Utica (by H. S. Senseney in 1926)	
Utica, 2.2 mi. S., thence 0.7 mi. E. from, 0.2 mi. E. of quarter corner between secs. 10 and 15, T. 2 N., R. 12 E., at W. side of Utica Rd., on center line of East Long Lake Rd.; chiseled square	616.38
From crossroads 1.4 miles south of Warren west 1 mile along Oakwood Boulevard (Twelvemile Road), thence south 0.4 mile along Ryan Road into Detroit quadrangle (by H. S. Senseney in 1926)	
Warren, 1.4 mi. S., thence 1.0 mi. W. from, in NE. cor. sec. 18, T. 1 N., R. 12 E., 60 ft. S. and 115 ft. W. from crossroads, on S. side of sidewalk, set flush, in concrete post; metal tablet stamped "17" (Macomb County B. M.; recovered in 1935)	624.232
From Rochester south and southwest along Rochester Road to Fourteenmile Road, thence west to intersection of Main Street in Clawson (by H. S. Senseney in 1935; section between Rochester and Big Beaver releveled by G. N. Tex in 1938)	
U. S. C. & G. S. standard disk stamped "Z 106 1934"	727.807
U. S. C. & G. S. standard disk stamped "D 32 1932"	760.166
U. S. C. & G. S. standard disk designated "8 C 1"	844.938
Rochester, 1.0 mi. S. of, at cor. secs. 14, 15, 22, and 23, T. 3 N., R. 11 E., at intersection of Avon Rd.; surface of rd.	842.5
U. S. C. & G. S. standard disk designated "8 D 1" <sup>88</sup>	828.391
Rochester, 2.0 mi. S. of, in NW. cor. sec. 26, T. 3 N., R. 11 E., 30 ft. S. and 65 ft. E. from intersection of Hamlin Rd., on base of concrete corner fence post; chiseled square	799.25
U. S. C. & G. S. standard disk designated "8 X"	763.295
U. S. C. & G. S. standard disk designated "8 W"	756.218
Rochester, 4.0 mi. S. of, in SE. cor. sec. 34, T. 3 N., R. 11 E., at NW. corner of intersection of South Boulevard, on concrete culvert; chiseled square	717.00
Rochester, 5.0 mi. S. of, 1.0 mi. E. of Troy, at Union Corners, near cor. secs. 2, 3, 10, and 11, T. 2 N., R. 11 E., at intersection of Square Lake (Nineteenmile) Rd., in center of pavement; chiseled square	688.31
U. S. C. & G. S. standard disk designated "8 R 1"	671.851
Rochester, 7.0 mi. S. of, 1.0 mi. N. of crossroads at Big Beaver, in NE. cor. sec. 22, T. 2 N., R. 11 E., 12 ft. S. and 35 ft. W. from intersection of Wattles Rd., in root of large elm tree; copper nail and washer	666.24
Big Beaver, at NE. corner of intersection of Big Beaver Rd., at service sta., on SE. end of foundation of pumps; chiseled square	663.49
Big Beaver, 1,090 ft. E. of crossroads at, on N. side of Big Beaver Rd., about 500 ft. S. and 300 ft. E. from Big Beaver School, 15 ft. N. of N. edge of pavement, 1 ft. S. and 4 ft. W. from fence post at SE. corner of berry field, in concrete post; standard tablet stamped "T T 21 E 1935"	657.232
U. S. C. & G. S. standard disk designated "8 N 2"	657.950
Clawson, at S. limits of, near S $\frac{1}{4}$ cor. sec. 34, T. 2 N., R. 11 E., 48 ft. N. and 20 ft. W. from center of intersection of Fourteenmile Rd., 2 ft. S. of S. edge of sidewalk, 3 ft. W. of W. curb, in concrete post; standard tablet stamped "T T 37 E 1935"	656.916

<sup>88</sup> In 1936 this bench mark was reported destroyed.

From crossroads 1 mile west and 2.6 miles north from Warren west 7 miles along Big Beaver (Sixteenmile) Road to Adams Road, thence south to junction of Woodward Avenue in Birmingham, thence southeast and east to intersection of Main Street in Clawson (by H. S. Senseney in 1935)

Big Beaver, 2.0 mi. E. of, in SE. cor. sec. 24, T. 2 N., R. 11 E., 15 ft. N. and 30 ft. W. from intersection of Dequindre Rd.; on concrete culvert; chiseled square-----	Feet 637. 07
Big Beaver, 1.0 mi. E. of, in SW. cor. sec. 24, T. 2 N., R. 11 E., 18 ft. N. and 50 ft. E. from intersection of John R Rd., on concrete culvert; chiseled square-----	643. 18
Big Beaver, 1.0 mi. W. of, in NE. cor. sec. 28, T. 2 N., R. 11 E., 30 ft. S. and 25 ft. W. from intersection of Livernois Rd., in root of pine tree; copper nail and washer-----	677. 29
Big Beaver, 2.0 mi. W. of, 300 ft. W. of SE. cor. sec. 20, T. 2 N., R. 11 E., 48 ft. N. and 24 ft. E. from junction of E. driveway of Troy Township School No. 8, in SE. corner of schoolyard, 3 ft. W. of S. end of steel fence, in concrete post; standard tablet stamped "T T 22 E 1935"-----	709. 563
Reference mark, 160 ft. W. of tablet, at front of school, on SE. corner of step; chiseled square-----	717. 32
Big Beaver, 3.0 mi. W. of, in NE. cor. sec. 30, T. 2 N., R. 11 E., 12 ft. S. and 18 ft. W. from intersection of Monnier Rd., on concrete culvert; chiseled square-----	756. 30
Big Beaver, 4.0 mi. W. of, 0.5 mi. E., thence 1.0 mi. N. from intersection of Maple Avenue and Saginaw Street in Birmingham, in NW. cor. sec. 30, T. 2 N., R. 11 E., 25 ft. S. and 98 ft. E. from center of intersection of Adams Rd., 18 ft. E. of first walnut tree from corner, 2 ft. N. of fence, in concrete post; standard tablet stamped "T T 23 E 1935"-----	791. 716
Reference mark, 100 ft. W. of tablet, at center of crossroads, at plate marking section corner; top of plate-----	790. 96
Birmingham, at SW. corner of intersection of Adams and East Maple Rds., at fire hydrant, on curb; chiseled square-----	764. 81
Birmingham, 85 ft. S. of junction of Woodward Avenue, 25 ft. E. of center of south-bound traffic lane, on large circular concrete block; chiseled square-----	753. 92
Birmingham, at S. city limits, 2.7 mi. W. of Clawson, 40 ft. N. of intersection of Fourteenmile Rd., at sewer, on curb; chiseled square-----	738. 51
Clawson, 2.0 mi. W. of, in SE. cor. sec. 31, T. 2 N., R. 11 E., at NW. corner of junction of T-rd. N., on concrete culvert; chiseled square-----	713. 28
Clawson, 1.0 mi. W. of, in NW. cor. sec. 4, T. 1 N., R. 11 E., 18 ft. S. and 105 ft. E. from intersection of Crooks Rd., on curb; chiseled square-----	681. 13
From Plain School west along Auburn Road (State Highway 59) to Auburn Heights (by H. S. Senseney in 1935)	
U. S. C. & G. S. standard disk designated "8 Y"-----	708. 905
Rochester, 3.0 mi. S., thence 1.5 mi. E. from, at quarter corner between secs. 25 and 36, T. 3 N., R. 11 E., at center of crossroads, on pipe marking quarter corner; top of pipe-----	716. 08
Rochester, 3.0 mi. S., thence 1.0 mi. E. from, in SE. cor. sec. 26, T. 3 N., R. 11 E., 20 ft. N. and 40 ft. W. from intersection of John R Rd., on concrete culvert; chiseled square-----	714. 57.

Rochester, 3.0 mi. S., thence 1.0 mi. W. from, 3.5 mi. E. of Auburn Heights, at cor. secs. 27, 28, 33, and 34, T. 3 N., R. 11 E., at intersection of Livernois Rd., on iron pipe marking section corner; top of pipe-----	Feet 836. 74
U. S. C. & G. S. standard disk designated "8 U"-----	809. 509
Auburn Heights, 1.6 mi. E. of, 1,200 ft. E. of W. cor. secs. 29 and 32, T. 3 N., R. 11 E., in line with W. end of house No. 2794, in center line of rd.; top of iron pipe-----	841. 45
Auburn Heights, 1.4 mi. E. of, at cor. secs. 29, 30, 31, and 32, T. 3 N., R. 11 E., in center of highway, on iron pipe marking section corner; top of pipe-----	836. 05
U. S. C. & G. S. standard disk designated "8 S"-----	875. 064
U. S. C. & G. S. standard disk stamped "X 106 1934"-----	872. 150
U. S. C. & G. S. standard disk designated "8 L 1"-----	856. 903
From Clawson south 2 miles along Livernois Road in Royal Oak, thence east along Oakwood Boulevard (Twelvemile Road) to crossroads 1.4 miles south and 1 mile west from Warren (by H. S. Senseney in 1935)	
Royal Oak, 25 ft. N. and 20 ft. W. from intersection of North Main Street and Thirteenmile Rd., on corner of sidewalk; chiseled square-----	660. 40
U. S. C. & G. S. standard disk designated "8 A 3"-----	659. 445
U. S. C. & G. S. standard disk designated "8 Z 2"-----	644. 565
Royal Oak, in NE. part of, diagonally opposite City Disposal Plant, 22 ft. N. and 54 ft. W. from intersection of Oakwood Boulevard and North Campbell Rd., 2 ft. N. of curb, 2 ft. W. of W. edge of sidewalk, in concrete post; standard tablet stamped "T T 36 E 1935"-----	636. 885
U. S. C. & G. S. standard disk designated "8 Y 2"-----	636. 142
Royal Oak, 2.0 mi. E. of, in SW. cor. sec. 12, T. 1 N., R. 11 E., 20 ft. N. and 50 ft. E. from intersection of Twelvemile and John R Rds., on concrete culvert; chiseled square-----	633. 61
U. S. C. & G. S. standard disk designated "8 X 2"-----	631. 353
U. S. C. & G. S. standard disk designated "8 W 2"-----	630. 333
From Royal Oak west 5 miles along Oakwood Boulevard (Twelvemile Road), thence north 4 miles along Evergreen Road, thence east along roads to intersection of Big Beaver and Adams Roads, thence north to crossroads 0.5 mile east of Auburn Heights (by H. S. Senseney in 1935)	
U. S. C. & G. S. standard disk designated "8 C 3"-----	667. 615
U. S. C. & G. S. standard disk designated "8 D 3"-----	683. 954
U. S. C. & G. S. standard disk designated "8 E 3"-----	709. 068
U. S. C. & G. S. standard disk designated "8 F 3"-----	711. 067
U. S. C. & G. S. standard disk designated "8 G 3"-----	705. 356
Reference mark, 55 ft. NE. of disk, at NW. corner of crossroads, on concrete culvert; chiseled square-----	706. 52
Birmingham, 2.0 mi. S., thence 1.5 mi. W. from intersection of Maple Avenue and Saginaw Street, at cor. secs. 2, 3, 10, and 11, T. 1 N., R. 10 E., at center of crossroads, on iron pipe marking section corner; top of pipe-----	717. 89
Birmingham, 1.5 mi. S., thence 1.5 mi. W. from, near W $\frac{1}{4}$ cor. sec. 2, T. 1 N., R. 10 E., 7 ft. S. and 58 ft. E. from junction of Beverly Rd., 13 ft. N. and 25 ft. W. from SW. corner of Erity School, 3 ft. S. of flagpole, in concrete post; standard tablet stamped "T T 44 E 1935"-----	722. 140
Reference mark, 80 ft. N. of tablet, 8 ft. S. of tree, in small concrete post (probably property corner); top of nail-----	721. 00

Birmingham, 0.5 mi. S., thence 1.6 mi. W. from, at NE. corner of junction of Lincoln Rd., at signpost, on curb; chiseled square.....	Feet 738. 12
U. S. C. & G. S. standard disk designated "8 G 2".....	757. 887
Birmingham, 1.1 mi. NW., thence 0.9 mi. W. from, 0.25 mi. W. of S $\frac{1}{4}$ cor. sec. 23, T. 2 N., R. 10 E., 21 ft. N. and 60 ft. E. from center of intersection of Quarton (Sixteenmile) and Cranbrook Rds., 4 ft. S. and 27 ft. E. from rd. signpost, in concrete post; standard tablet stamped "T T 24 E 1935".....	799. 833
Reference mark, 110 ft. SW. of tablet; top of fire hydrant.....	800. 69
Birmingham, 1.1 mi. NW. of, at center of parking at intersection of Woodward Avenue, 4 ft. S. of power-line pole, on curb; chiseled square.....	767. 51
Birmingham, 0.5 mi. E., thence 2.0 mi. N. from, 0.5 mi. E., thence 4.0 mi. S. from Auburn Heights, at cor. secs. 13, 18, 19, and 24, T. 2 N., Rs. 10 and 11 E., at intersection of Wattles (Seventeenmile) Rd.; top of section corner marker.....	777. 21
U. S. C. & G. S. standard disk designated "8 W 1".....	861. 590
Auburn Heights, 0.5 mi. E., thence 2.0 mi. S. from, at cor. secs. 1, 6, 7, and 12, T. 2 N., Rs. 10 and 11 E., at intersection of Square Lake (Nineteenmile) Rd.; top of section corner marker.....	893. 27
Auburn Heights, 0.5 mi. E., thence 1.0 mi. S. from, at cor. secs. 1, 6, 31, and 36, Tps. 2 and 3 N., Rs. 10 and 11 E., at intersection of South Boulevard; top of township corner marker.....	860. 32
From Utica north along State Highway 53 to crossroads 1 mile north of Disco, thence east 1.8 miles along Runyon Road into Mount Clemens quadrangle (by H. S. Senseney in 1935)	
Utica, 0.9 mi. N. of, at cor. secs. 27, 28, 33, and 34, T. 3 N., R. 12 E., at intersection of Shoemaker Rd., on iron pipe marking section corner; top of pipe.....	672. 50
Utica, 2.9 mi. N. of, 1.0 mi. S. of Disco, in NE. cor. sec. 21, T. 3 N., R. 12 E., 180 ft. S. and 30 ft. W. from center of crossroads, 55 ft. S. of power-line pole, in concrete post; standard tablet stamped "T T 33 C 1935".....	681. 438
Disco, 1.0 mi. N., thence 1.0 mi. E. from, 2.9 mi. W. of Macomb, in NW. cor. sec. 11, T. 3 N., R. 12 E., 1.7 mi. S., thence 1.0 mi. E. from Washington, 27 ft. S. and 140 ft. E. from center of intersection of Jewell Rd., in concrete post; standard tablet stamped "T T 20 C 1935".....	668. 534
Along Grand Trunk Railway near intersection of Runyon Road (by H. S. Senseney in 1935)	
Washington, 1.7 mi. S., thence 1.8 mi. W. from, 5.3 mi. NW. of Utica, 0.3 mi. E. of NW. cor. sec. 8, T. 3 N., R. 12 E., 27 ft. S. and 80 ft. W. from Grand Trunk Ry. crossing, 27 ft. S. and 80 ft. E. from center of crossroads, in concrete post; standard tablet stamped "T T 19 C 1935".....	744. 277
U. S. C. & G. S. standard disk stamped "F 107 1934".....	743. 281
From Rochester north along Rochester Road into Almont quadrangle (by G. N. Tex in 1936)	
Rochester, in N. part of, 15 ft. W. of intersection of Drace Street W.; center of manhole cover.....	780. 73
Rochester, 1.0 mi. N. of, at cor. secs. 2, 3, 10, and 11, T. 3 N., R. 11 E., near junction of Orion Rd., in center of intersection of Tienken Rd.; iron stob.....	796. 94



Rochester, 2.0 mi. N. of, in NE. cor. sec. 3, T. 3 N., R. 11 E., 25 ft. S. and 30 ft. W. from center of junction of Dutton Rd., 25 ft. S. and 9 ft. E. from corner fence post, in concrete post; standard tablet stamped "T T 18 C 1935"-----	Feet 853.574
Reference mark, 52 ft. N. and 90 ft. E. from tablet, 27 ft. N. and 60 ft. E. from center line of rd. E., in root of black-oak tree; copper nail and washer-----	847.52
Rochester, 3.0 mi. N. of, in SW. cor. sec. 26, T. 4 N., R. 11 E., 35 ft. N. and 25 ft. E. from center of intersection of rd. and E.-W. fence line, in root of tree; nail and washer (State Highway Dept. B. M.)-----	900.21
Rochester, 3.5 mi. N. of, 1.4 mi. E. of Goodison, near E $\frac{1}{4}$ cor. sec. 27, T. 4 N., R. 11 E., opposite Snell School, 28 ft. N. and 33 ft. W. from crossroads, in root of 36-in. oak tree; copper nail and washer-----	968.58
Rochester, 4.0 mi. N. of, in NE. cor. sec. 27, T. 4 N., R. 11 E., 18 ft. S. and 86 ft. W. from intersection of Gunn Rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 4 1905 Mich 975"---	974.895
Reference mark, 2 ft. S. and 128 ft. E. from post, 20 ft. S. and 42 ft. E. from crossroads, in root of tree; copper nail and washer-----	970.50
From crossroads 3.5 miles north of Rochester west and northwest along Snell and Orion Roads and Michigan Central Railroad by way of Goodison to Gunn Road, thence generally west to Lapeer Road, thence generally south to Auburn Heights (by G. N. Tex in 1938)	
Goodison, 0.2 mi. SE. of, in SE $\frac{1}{4}$ sec. 28, T. 4 N., R. 11 E., 36 ft. NW. of junction of Snell and Orion Rds., on top of concrete wing wall of bridge; chiseled square-----	833.57
U. S. C. & G. S. standard disk stamped "B 32 1930"-----	841.678
Goodison, 0.9 mi. NW. of, in NW. cor. sec. 28, T. 4 N., R. 11 E., 9 ft. S. and 60 ft. W. from center of overhead crossing of Gunn Rd. and M. C. R. R., on concrete abutment; chiseled square-----	886.42
T. 4 N., R. 11 E., at cor. secs. 19, 20, 29, and 30, 2 ft. N. of center of intersection of Adams Rd., in center of pavement; bronze tablet marking section corner (Oakland County B. M.)-----	986.95
T. 4 N., R. 10 E., near E. cor. secs. 24 and 25, 90 ft. S. and 60 ft. W. from junction of Kern Rd., at NE. corner of Bigler School, in rock foundation, 8 in. above ground; standard tablet stamped "2 T 1936 954"-----	954.018
T. 4 N., R. 10 E., 0.4 mi. N. of SE. cor. sec. 24, 10 ft. S. and 100 ft. W. from junction of Greenshield Rd., on SE. wing wall of small bridge; chiseled square-----	901.43
T. 4 N., R. 10 E., about 800 ft. S. of E $\frac{1}{4}$ cor. sec. 23, 30 ft. N. and 27 ft. W. from intersection of Bald Mountain Rd., in root of 5-in. white-oak tree; copper nail and washer-----	974.76
T. 4 N., R. 10 E., about 900 ft. N. of S $\frac{1}{4}$ cor. sec. 23, at intersection of Lapeer Rd., in center of pavement; chiseled square-----	960.26
T. 4 N., R. 10 E., about 600 ft. S. of N $\frac{1}{4}$ cor. sec. 26, 8.9 mi. E. of Clarkston, 18 ft. N. and 30 ft. W. from center of junction of Waldon Rd., on concrete head wall of culvert; chiseled square-----	975.76
T. 4 N., R. 10 E., 0.4 mi. W. of E. cor. secs. 26 and 35, at center of intersection of Silver Bell Rd., in pavement; chiseled square-----	1,053.10
Tps. 3 and 4 N., R. 10 E., near quarter corner between secs. 2 and 35, at junction of Brown Rd., in center of pavement; chiseled square--	1,059.67
T. 3 N., R. 10 E., at center of sec. 2, 2 ft. E. of center of rd., at junction of T-rd. W., on pavement; chiseled square-----	1,003.85

T. 3 N., R. 10 E., 0.2 mi. S. of N $\frac{1}{4}$ cor. sec. 11, at Bald Mountain School, 18 ft. N. and 27 ft. E. from junction of Bald Mountain Rd., on concrete wing wall of culvert; chiseled square-----	Feet 962.60
T. 3 N., R. 10 E., near center of sec. 11, 60 ft. N. and 70 ft. W. from junction of gravel rd., on top of old concrete silo foundation; chiseled square-----	975.68
T. 3 N., R. 10 E., near center of SW $\frac{1}{4}$ sec. 11, 65 ft. W. of rd. fork, on concrete wing wall of culvert; chiseled square-----	977.37
T. 3 N., R. 10 E., 0.3 mi. W. of center of sec. 14, 24 ft. S. and 27 ft. E. from center of intersection of Pontiac Rd., on concrete wing wall of culvert; chiseled square-----	943.42
T. 3 N., R. 10 E., near center of SW $\frac{1}{4}$ sec. 14, at front entrance of Willis School, in top of first step; standard tablet stamped "1 T 1936 950"-----	949.902
T. 3 N., R. 10 E., near center of NW $\frac{1}{4}$ sec. 23, 50 ft. S. of center of junction of Doris Rd., in root on E. side of 24-in. elm tree; copper nail and washer-----	929.04
T. 3 N., R. 10 E., about 800 ft. E. of S $\frac{1}{4}$ cor. sec. 23, 1.7 mi. NE. of Auburn Heights, 50 ft. N. and 20 ft. W. from intersection of Featherston Rd., in root on E. side of elm tree; copper nail and washer---	922.32
Auburn Heights, 1.0 mi. NE. of, near center of sec. 26, T. 3 N., R. 10 E., 15 ft. N. and 25 ft. W. from center of junction of Churchill Rd., in root on NE. side of 27-in. elm tree; copper nail and washer-----	924.86
From crossroads 1 mile north of Rochester alternately west and south along Tienken Road to center of sec. 11, T. 3 N., R. 10 E. (by G. N. Tex in 1936)	
Rochester, 1.0 mi. N., thence 0.7 mi. W. from, 0.2 mi. W. of S $\frac{1}{4}$ cor. sec. 3, T. 3 N., R. 11 E., 12 ft. N. and 5 ft. W. from center of Michigan Central R. R. crossing; base of rail-----	782.1
T. 3 N., R. 11 E., in SE. cor. sec. 4, 33 ft. N. and 70 ft. W. from center of intersection of Livernois Rd., 10 ft. W. of telephone pole, in concrete post; standard tablet stamped "T T 32 C 1935 855"-----	854.960
T. 3 N., R. 11 E., about 800 ft. E. of cor. secs. 4, 5, 8, and 9, 12 ft. N. and 12 ft. W. from center of bridge over Sargent Creek, on NW. concrete abutment; chiseled square-----	870.14
T. 3 N., R. 11 E., near N $\frac{1}{4}$ cor. sec. 8, 18 ft. S. and 50 ft. W. from center of intersection of Brewster Rd., in root on S. side of black-oak tree; copper nail and washer-----	955.02
T. 3 N., R. 11 E., in NW. cor. sec. 8, 20 ft. S. and 60 ft. E. from intersection of Adams Rd., in root on E. side of black walnut tree; copper nail and washer-----	968.41
T. 3 N., R. 11 E., about 400 ft. E. of W. cor. secs. 6 and 7, 20 ft. N. and 395 ft. E. from center of intersection of rd. and N.-S. fence line, 20 ft. N. and 10 ft. E. from center of rd. at entrance to abandoned farmyard, 12 ft. W. of telephone pole, in concrete post; standard tablet stamped "T T 31 C 1935"-----	1,000.338
T. 3 N., R. 10 E., near N $\frac{1}{4}$ cor. sec. 12, 25 ft. S. and 230 ft. E. from junction of Squirrel Rd., in root on N. side of 24-in. elm tree; copper nail and washer-----	974.50
T. 3 N., R. 10 E., about 1,200 ft. S. of N $\frac{1}{4}$ cor. sec. 12, 15 ft. S. and 36 ft. E. from junction of T-rd., in root on NE. side of 24-in. maple tree; copper nail and washer-----	992.85

T. 3 N., R. 10 E., about 600 ft. N. of E $\frac{1}{4}$ cor. sec. 12, 15 ft. S. and 3 ft. E. from intersection of rd. tangents N. and W., 10 ft. E. of center line of private rd., in root on W. side of elm tree; copper nail and washer-----	Feet 991. 80
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From Pontiac quadrangle east 0.5 mile along Auburn Road, thence north 0.4 mile along Doris Road (by J. M. Lawson in 1936)

Auburn Heights, 1.4 mi. W. of, about 700 ft. E. of SW. cor. sec. 26, T. 3 N., R. 10 E., 135 ft. W. of T-rd. N., at bridge over Clinton River, on NE. concrete abutment; chiseled square-----	862. 42
Auburn Heights, 1.0 mi. W. of, near S $\frac{1}{4}$ cor. sec. 26, T. 3 N., R. 10 E., 30 ft. S. and 55 ft. W. from junction of Doris Rd., in root on NW. side of 24-in. oak tree; copper nail and washer-----	887. 41

### ROMULUS QUADRANGLE

[Latitude 42°00'-42°15'; longitude 83°15'-83°30']

### MONROE AND WAYNE COUNTIES

From Wyandotte quadrangle at point 2.3 miles east of Flat Rock along roads generally west and northwest by way of New Boston into Ypsilanti quadrangle (by R. E. Wipfler in 1901)

Flat Rock, in front of residence of Doctor Turner, in root of large maple tree; nail-----	602. 21
Flat Rock, in front of office of Doctor Lobdell; standard iron post with bronze cap stamped "Gibraltar 602" <sup>87</sup> -----	601. 774
Flat Rock, 3.7 mi. NW. of, 4.7 mi. SE. of New Boston, near N $\frac{1}{4}$ cor. sec. 27, T. 4 S., R. 9 E., at NE. corner of bridge over Huron River, in bedplate; top of bolt-----	604. 65
New Boston, 0.5 mi. S. of Pere Marquette Ry. sta. at, near center of sec. 8, T. 4 S., R. 9 E., at NW. corner of Ry. bridge over Huron River, in bedplate; top of bolt-----	624. 78

From Ypsilanti quadrangle at point about 2 miles south and 1 mile west from Belleville generally east along roads into Wyandotte quadrangle at point 7.7 miles east of New Boston (by R. E. Wipfler in 1901)

New Boston, in NE. pier of highway bridge over Huron River; top of rivet-----	620. 15
New Boston, 300 ft. N. of highway bridge over Huron River, on E. side of rd. N.; standard iron post with bronze cap stamped "Gibraltar 628" <sup>88</sup> -----	627. 207
New Boston, 0.2 mi. N., thence 2.0 mi. E. from, in SW. cor. sec. 3, T. 4 S., R. 9 E., 400 ft. E. of crossroads, on N. side of rd., in root of tree; nail-----	630. 59

From Huron River bridge 3.7 miles northwest of Flat Rock generally south along roads to Monroe-Wayne county-line road, thence west 3 miles to range-line road, thence south 0.5 mile to northeast corner sec. 1, T. 5 S., R. 8 E. (by Fulton Pace in 1903; spur line leveled twice)

Flat Rock, 3.6 mi. W. of, 0.4 mi. S.; thence 1.5 mi. E. from Waltz, in NE. cor. sec. 4, T. 5 S., R. 9 E., 300 ft. W. of junction of N.-S. rd., on S. side of rd., in front of dwelling of Fred Reid; standard iron post with bronze cap stamped "Gibraltar 616" <sup>89</sup> -----	614. 967
Reference mark, on N. side of Gibraltar Rd., in front of dwelling of Fred Reid, in root of cherry tree; nail-----	615. 92

<sup>87</sup> This bench mark was set in 1903 by Fulton Pace from marks along the primary line run in 1901.

<sup>88</sup> This bench mark was set in 1903 by Fulton Pace from marks along the primary line run in 1901. In 1936 it was reported that the top of the post was rusted off.

<sup>89</sup> In 1936 it was reported that the top of the post was broken off. The figures given represent the elevation of the rim.

- Waltz, 0.4 mi. S. of, near N $\frac{1}{4}$  cor. sec. 5, T. 5 S., R. 9 E., in SW. corner of crossing of Pere Marquette Ry., in root of small oak tree; nail ----- Feet  
624. 87
- Waltz, 0.4 mi. S., thence 1.5 mi. W. from, about 500 ft. S. of E $\frac{1}{4}$  cor. sec. 36, T. 4 S., R. 8 E., on W. side of rd.; standard iron post with bronze cap stamped "Gibraltar 625" ----- 624. 746
- Waltz, 0.8 mi. S. and 1.5 mi. W. from, in SE. cor. sec. 36, T. 4 S., R. 8 E., in NW. corner of junction of T-rd. W.; standard iron post with bronze cap stamped "Gibraltar 626" (recovered in 1936) ----- 625. 322
- From Wyandotte quadrangle at point about 3 miles south of Rockwood along roads west 1.7 miles, thence north to Flat Rock (by Fulton Pace in 1903)
- Flat Rock, 5.2 mi. S. and 0.5 mi. E. from, in NW. cor. sec. 32, T. 5 S., R. 10 E., in SE. angle of crossroads, in root of elm tree; nail ----- 590. 91
- From Ypsilanti quadrangle east along Willow Road to Elwell Road, thence north and back into Ypsilanti quadrangle near intersection of Judd Road (by G. N. Tex in 1938)
- West Sumpter, 0.5 mi. S., thence 0.5 mi. E. from, 6.0 mi. S., thence 1.0 mi. W. from Belleville, 5.5 mi. W. of Willow, in NE. cor. sec. 29, T. 4 S., R. 8 E., 30 ft. S. and 23 ft. W. from intersection of Willow and Elwell Rds., in root on N. side of 42-in. oak tree; copper nail and washer ----- 662. 77
- Belleville, 5.5 mi. S., thence 1.0 mi. W. from, near quarter corner between secs. 20 and 21, T. 4 S., R. 8 E., 50 ft. S. and 80 ft. E. from intersection of Wear Rd., in root on W. side of 10-in. apple tree; copper nail and washer ----- 662. 04
- Belleville, 5.0 mi. S. and 1.0 mi. W. from, in NW. cor. sec. 21, T. 4 S., R. 8 E., 135 ft. S. and 18 ft. E. from center line of Elwell Rd. at E.-W. fence, in root on NW. side of 30-in. maple tree; copper nail and washer ----- 667. 36
- Belleville, 4.6 mi. S. and 1.0 mi. W. from, about 700 ft. S. of quarter corner between secs. 16 and 17, T. 4 S., R. 8 E., at small bridge over Disbrow Drain, on top of SW. concrete wing wall; chiseled square ----- 667. 57
- From intersection of Willow and Elwell Roads along roads generally south to intersection of South Stony Creek Road, thence northwest into Ypsilanti quadrangle (by G. N. Tex in 1938)
- West Sumpter, 1.5 mi. S., thence 0.5 mi. E. from, 1.3 mi. NE. and 4.0 mi. E. from Oakville, in NW. cor. sec. 33, T. 4 S., R. 8 E., 22 ft. S. and 40 ft. E. from intersection of Arkona Rd., in root on W. side of 12-in. oak tree; copper nail and washer ----- 644. 61
- Oakville, 0.3 mi. NE., thence 4.0 mi. E. from, 5.0 mi. by rd. NW. of Scofield, 390 ft. E. of junction of Oakville-Waltz Rd. and Capernall Rd. to S. at N. cor. secs. 4 and 5, T. 5 S., R. 8 E., 30 ft. S. and 2 ft. W. from junction of rd. N. at S. cor. secs. 32 and 33, T. 4 S., R. 8 E., on Monroe-Wayne county line, in concrete post; standard tablet stamped "T T 34 L 1935 640" ----- 640. 301
- Reference mark, 57 ft. N. and 83 ft. W. from tablet, 27 ft. N. and 85 ft. W. from junction of rd. N., in root on S. side of 30-in. white-oak tree; copper nail and washer ----- 640. 33
- Scofield, 4.4 mi. NW. of, at quarter corner between secs. 4 and 5, T. 5 S., R. 8 E., 420 ft. S. and 10 ft. E. from intersection of Newberg Rd., in root on E. side of 30-in. cottonwood tree; copper nail and washer ----- 639. 09
- Scofield, 4.0 mi. NW. of, in SW. cor. sec. 4, T. 5 S., R. 8 E., 30 ft. N. and 15 ft. E. from intersection of Colf Rd., in root on W. side of 18-in. maple tree; copper nail and washer ----- 641. 69

Scofield, 3.5 mi. NW. of, near quarter corner between secs. 8 and 9, T. 5 S., R. 8 E., 45 ft. S. and 25 ft. E. from junction of Hivon Rd., in root on E. side of 24-in. oak tree; copper nail and washer-----	Feet 643. 77
Scofield, 3.3 mi. NW. of, 0.25 mi. S. of quarter corner between secs. 8 and 9, T. 5 S., R. 8 E., at small bridge, on W. concrete side wall, 3 ft. N. of S. end; top of 1½-in. iron pipe-----	637. 29
Scofield, 2.7 mi. NW. of, 0.4 mi. S. of NE. cor. sec. 17, T. 5 S., R. 8 E., 30 ft. N. and 20 ft. W. from intersection of Stout Rd., in root on E. side of 24-in. elm tree; copper nail and washer-----	634. 96
Scofield, 2.4 mi. NW. of, 0.25 mi. E. of W¼ cor. sec. 16, T. 5 S., R. 8 E., 51 ft. N. and 25 ft. W. from junction of Stout Rd., in concrete post; standard tablet stamped "T T 32 L 1935 634"-----	634. 334
Reference mark, 48 ft. S. and 15 ft. W. from tablet, 3 ft. N. and 40 ft. W. from rd. junction, in root on NE. side of twin elm tree; copper nail and washer-----	634. 80
Scofield, 2.0 mi. NW. of, 0.3 mi. NE. of SW. cor. sec. 16, T. 5 S., R. 8 E., 45 ft. S. and 25 ft. E. from junction of Stony Creek Rd., in root on SW. side of 30-in. elm tree; copper nail and washer-----	633. 29
From Ypsilanti quadrangle generally southeast along Blue Bush Road to Sumpter Road, thence north to Stony Creek Road, thence northwest 1 mile (by G. N. Tex in 1938)	
Maybee, 1.2 mi. SE. of, 2.3 mi. by rd. SW. of Scofield, 70 ft. S. and 16 ft. W. from intersection of Doty Rd., on top of W. concrete head wall of culvert; chiseled square-----	633. 56
[Line jogs into Monroe quadrangle]	
Scofield, 0.8 mi. S. of, 0.35 mi. S. of NE. cor. sec. 33, T. 5 S., R. 8 E., at bridge over Robert Drain, on W. concrete side wall 18 in. S. of N. end; chiseled square-----	630. 75
Scofield, 0.5 mi. S. of, in NW. cor. sec. 34, T. 5 S., R. 8 E., 160 ft. S. and 20 ft. E. from intersection of Ziuk Rd., in root on W. side of 30-in. maple tree; copper nail and washer-----	629. 60
Scofield, at E. limits of, near quarter corner between secs. 27 and 28, T. 5 S., R. 8 E., N. of crossing of Detroit, Toledo and Ironston R. R., 80 ft. S. and 18 ft. W. from intersection of Scofield Rd., in root on E. side of 24-in. maple tree; copper nail and washer-----	628. 52
Scofield, 0.3 mi. N. of, 0.2 mi. S. of NW. cor. sec. 27, T. 5 S., R. 8 E., on top of E. concrete side wall of small bridge, 15 in. S. of N. end; chiseled square-----	630. 75
Scofield, 0.9 mi. N. of, 0.4 mi. N. of SW. cor. sec. 22, T. 5 S., R. 8 E., 35 ft. S. and 20 ft. E. from junction of T-rd. E., in root on SW. side of 10-in. dead maple tree; copper nail and washer-----	630. 51
Scofield, 1.1 mi. N. of, N. of quarter corner between secs. 21 and 22, T. 5 S., R. 8 E., 70 ft. N. and 70 ft. W. from junction of South Stony Creek Rd., in root on S. side of 18-in. oak tree; copper nail and washer-----	628. 02
From Plymouth quadrangle southwest and west along Ecorse Road (State Highway 17) to crossroads 3.5 miles by road north of Belleville, thence north along Belleville Road (State Highway 56) and back into Plymouth quadrangle (by J. M. Lawson in 1936)	
Wayne, 2.2 mi. SW., thence 1.7 mi. W. from, 1.5 mi. W., thence 2.0 mi. N. from junction of Wabash and Pere Marquette Rys. in Romulus, near E. cor. secs. 1 and 12, T. 3 S., R. 8 E., 35 ft. N. and 20 ft. E. from intersection of Hannan Rd., on top of W. end of concrete head wall of culvert; chiseled square-----	666. 84

Romulus, 2.5 mi. W. and 2.0 mi. N. from, in NE. cor. sec. 11, T. 3 S., R. 8 E., 30 ft. S. and 50 ft. W. from intersection of Haggerty Highway, in concrete post; standard tablet stamped "T T 3 S 1935 670"	Feet 669. 939
Reference mark, in SE. angle of crossroads, on top of N. end of long concrete head wall of culvert; chiseled square	670. 46
Romulus, 3.5 mi. W. and 2.0 mi. N. from, 3.5 mi. by rd. N., thence 1.0 mi. E. from Belleville, in NW. cor. sec. 11, T. 3 S., R. 8 E., 28 ft. S. and 26 ft. E. from intersection of Taylor Rd., in root on NE. side of 36-in. maple tree; copper nail and washer	683. 30
Belleville, 3.5 mi. by rd. N., thence 0.5 mi. E. from, near quarter corner between secs. 3 and 10; T. 3 S., R. 8 E., 27 ft. N. and 30 ft. W. from junction of Sheldon Rd., on top of S. corner of base of rd. signpost; chiseled square	687. 38
Belleville, 3.5 mi. by rd. N. of, in NE. cor. sec. 9, T. 3 S., R. 9 E., 38 ft. S. and 30 ft. W. from intersection of Belleville Rd., on top of W. corner of concrete base of rd. signpost; chiseled square	700. 05
From Plymouth quadrangle south and southeast along Wayne Road to Pennsylvania Road; thence west 2.3 miles to junction of Hannan Road, thence across country to junction of Bemis and Savage Roads, thence west and north by way of Belleville to intersection of Ecorse Road (by J. M. Lawson in 1936)	
Romulus, 0.5 mi. E., thence 1.4 mi. N. from junction of Wabash and Pere Marquette Rys. at, at junction of Henry Ruff Rd.; center line of pavement	664. 4
Romulus, 0.5 mi. E., thence 1.0 mi. N. from, in SW. cor. sec. 9, T. 3 S., R. 9 E., 25 ft. N. and 35 ft. E. from intersection of Wick Rd., on top of W. corner of concrete base of rd. signpost; chiseled square	660. 59
Romulus, 0.5 mi. E., thence 0.5 mi. N. from, at junction of McBride Rd.; center line of pavement	651. 1
Romulus, 0.5 mi. E., thence 0.2 mi. N. from, at crossing of Wabash Ry.; top of rail	650. 2
Romulus, 0.5 mi. E. of, in NW. cor. sec. 21, T. 3 S., R. 9 E., 30 ft. S. and 30 ft. E. from intersection of Goddard Rd., on top of W. corner of iron frame of sewer catch basin; chiseled cross	645. 96
Romulus, 0.5 mi. S., thence 0.7 mi. E. from, about 850 ft. E. of W $\frac{1}{4}$ cor. sec. 21, T. 3 S., R. 9 E., 80 ft. S. and 40 ft. E. from intersection of Grant Rd., in concrete post; standard tablet stamped "T T 28 L 1935 650"	649. 828
Romulus, 1.0 mi. S. and 0.8 mi. E. from, 0.3 mi. E. of SW. cor. sec. 21, T. 3 S., R. 9 E., 36 ft. N. and 31 ft. E. from intersection of North Line Rd.; top of 1-in. pipe set in concrete and encased in 3-in. pipe (Wayne County B. M.)	643. 351
Romulus, 2.0 mi. S. and 0.9 mi. E. from, about 400 ft. W. of S $\frac{1}{4}$ cor. sec. 28, T. 3 S., R. 9 E., 41 ft. N. and 25 ft. E. from intersection of Eureka Rd., in SW. corner of schoolyard, in root on NW. side of 20-in. oak tree; copper nail and washer	640. 84
Romulus, 3.0 mi. S. and 1.2 mi. E. from, 1.2 mi. N., thence 1.7 mi. E. from New Boston, 0.3 mi. W. of SE. cor. sec. 33, T. 3 S., R. 9 E., 32 ft. N. and 30 ft. E. from intersection of Pennsylvania Rd., in concrete post; standard tablet stamped "T T 27 L 1935 634"	633. 697
Reference mark, 1,000 ft. W. of tablet, on top of N. concrete head wall of culvert; chiseled square	632. 31
New Boston, 1.2 mi. N., thence 1.0 mi. E. from, in NW. cor. sec. 4, T. 4 S., R. 9 E., 30 ft. S. and 200 ft. E. from intersection of Wahrman Rd., in root on N. side of 30-in. maple tree; copper nail and washer	634. 09

New Boston, 1.1 mi. N. of Pere Marquette Ry. sta., near quarter corner between secs. 5 and 32, Tps. 3 and 4 S., R. 9 E., 10 ft. N. and 80 ft. W. from Ry. crossing, at bridge over creek, on top of NW. corner of W. concrete wing wall; chiseled square-----	Feet 635. 94
New Boston, 1.2 mi. N. of, in NW. cor. sec. 5, T. 4 S., R. 9 E., 48 ft. S. and 30 ft. E. from center of intersection of Huron River Drive, in root on N. side of 30-in. oak tree; copper nail and washer-----	642. 22
New Boston, 1.2 mi. N., thence 0.7 mi. W. from, 0.3 mi. E. of W. cor. secs. 6 and 31, Tps. 3 and 4 S., R. 9 E., 44 ft. W. of junction of Hannan Rd., in fence line, in root on S. side of 48-in. oak tree; copper nail and washer-----	654. 08
New Boston, 1.4 mi. in air line NW. of, 2.0 mi. S., thence 3.0 mi. E. from Belleville, near E. cor. secs. 1 and 36, Tps. 3 and 4 S., R. 8 E., 55 ft. E. of E. bank of Huron River, in E.-W. fence line, in root on SE. side of 15-in. maple tree; copper nail and washer-----	619. 65
Belleville, 2.0 mi. S., thence 2.5 mi. E. from, near quarter corner between secs. 1 and 36, Tps. 3 and 4 S., R. 8 E., 700 ft. E. of intersection of Bemis and Savage Rds., 6 ft. NE. of 48-in. oak tree, in fence line; top of 1-in. pipe set in concrete and encased in 3-in. pipe-----	658. 95
Belleville, 2.0 mi. S., thence 2.4 mi. E. from, near quarter corner between secs. 1 and 36, Tps. 3 and 4 S., R. 8 E., 7 ft. N. and 24 ft. E. from junction of Bemis and Savage Rds., in concrete post; standard tablet stamped "T T 42 L 1935 662"-----	661. 551
Belleville, 2.0 mi. S., thence 2.0 mi. E. from, near NE. cor. sec. 2, T. 4 S., R. 8 E., 30 ft. S. and 31 ft. E. from junction of Renton Rd., in root on N. side of 10-in. cherry tree; copper nail and washer-----	668. 45
Belleville, 2.0 mi. S., thence 1.0 mi. E. from, in NE. cor. sec. 3, T. 4 S., R. 8 E., 50 ft. S. and 26 ft. W. from junction of Martinsville Rd. to S., in root on SE. side of 15-in. maple tree; copper nail and washer--	673. 25
U. S. C. & G. S. standard disk stamped "7 U"-----	672. 484
Belleville, 2.0 mi. S., thence 0.5 mi. W. from, near quarter corner between secs. 4 and 33, Tps. 3 and 4 S., R. 8 E., 25 ft. S. and 10 ft. E. from junction of Bak Rd., in concrete post; standard tablet stamped "T T 39 L 1935 678"-----	677. 861
Belleville, 1.0 mi. S., thence 0.5 mi. W. from, near quarter corner between secs. 28 and 33, T. 3 S., R. 8 E., 42 ft. S. and 24 ft. W. from junction of Bak and Hull Rds., in root on NW. side of 30-in. cottonwood tree; copper nail and washer-----	677. 85
Belleville, 1.0 mi. S. of, in NE. cor. sec. 33, T. 3 S., R. 8 E., 18 ft. S. and 32 ft. W. from intersection of Sumpter and Hull Rds., on top of N. corner of concrete base of signpost; chiseled square-----	676. 31
U. S. C. & G. S. standard disk stamped "7 W 677"-----	677. 107
Belleville, 0.2 mi. S. of, at crossing of Wabash Ry. and Sumpter Rd.; top of N. rail-----	679. 9
U. S. C. & G. S. standard disk stamped "7 X 675"-----	675. 248
Belleville, at NW. limits of, on NW. corner of bridge over Huron River, 22 ft. W. of rd., 3 ft. E. of extreme NW. corner of bridge, on N. side of head wall, on top of concrete slab under name plate; chiseled square-----	662. 70
Belleville, 0.8 mi. NW. of, on N. side of Huron River, about 900 ft. N. of center line of Huron River bridge, 190 ft. N. of S. apex of triangle at junction of Quirk and Belleville Rds., 140 ft. SW. of NE. corner of triangle, in concrete post; standard tablet stamped "T T 40 L 1935 674"-----	673. 472

Belleville, 1.5 mi. by rd. N. of, in NW. cor. sec. 22, T. 3 S., R. 8 E., 98 ft. S. and 33 ft. E. from intersection of Belleville and Chase Rds., in root on W. side of 40-in. maple tree; copper nail and washer-----	Feet 682.85
Belleville, 2.5 mi. N. of, in NW. cor. sec. 15, T. 3 S., R. 8 E., 160 ft. S. and 22 ft. E. from intersection of Tyler Rd., in root on SW. side of 36-in. maple tree; copper nail and washer-----	703. 87
Belleville, 3.0 mi. N. of, at junction of Robson Rd.; center line of pavement-----	704. 6
From Plymouth quadrangle south along Telegraph Road (U. S. Highway 24) to intersection of Pennsylvania Road, thence west to point 1.2 miles north and 1.7 miles east from New Boston (by J. M. Lawson in 1936; leveled twice along Telegraph Road)	
Inkster, 3.4 mi. S., thence 2.0 mi. E. from, 1.0 mi. N. of Taylor Center, in SE. cor. sec. 8, T. 3 S., R. 10 E., 17 ft. N. and 35 ft. W. from intersection of Wick Rd., on N. end of circular concrete culvert; chiseled square-----	614. 16
U. S. C. & G. S. standard disk stamped "1 E"-----	614. 343
Taylor Center, in SE. cor. sec. 17, T. 3 S., R. 10 E., on W. side of Telegraph Rd., 320 ft. N. of Goddard Rd., on top of S. corner of W. concrete wall of bridge over Ecorse River, on roadway side of head wall; chiseled square-----	614. 09
Taylor Center, 1.0 mi. S. of, 1.0 mi. N. of Telekra, in NE. cor. sec. 29, T. 3 S., R. 10 E., 36 ft. S. and 30 ft. W. from intersection of North Line rd., on top of N. end of W. concrete head wall of culvert; chiseled square-----	610. 45
U. S. C. & G. S. standard disk stamped "1 G"-----	610. 095
Telekra, 0.7 mi. S. of, at junction of Pardee Rd.; center line of pavement-----	617. 5
Telekra, 1.0 mi. S. of, in SE. cor. sec. 32, T. 3 S., R. 10 E., 30 ft. N. and 32 ft. W. from intersection of Pennsylvania Rd., on top of NW. side of concrete base of rd. signpost; chiseled square-----	617. 66
Telekra, 1.0 mi. S., thence 1.0 mi. W. from, in SE. cor. sec. 31, T. 3 S., R. 10 E., 22 ft. N. and 25 ft. W. from intersection of Jim Daly Rd., on N. end of large circular concrete culvert; chiseled square-----	610. 98
Telekra, 1.0 mi. S., thence 1.8 mi. W. from, 1.2 mi. N., thence 5.2 mi. E. from New Boston, about 1,000 ft. E. of SW. cor. sec. 31, T. 3 S., R. 10 E., at concrete bridge over Whitaker Marsh Creek, on NE. corner of junction of concrete wing wall and abutment; chiseled square-----	614. 57
New Boston, 1.2 mi. N., thence 5.0 mi. E. from, in SE. cor. sec. 36, T. 3 S., R. 9 E., 32 ft. N. and 26 ft. W. from intersection of Inkster Rd., in concrete post; standard tablet stamped "T T 29 L 1935 618"-----	617. 898
New Boston, 1.2 mi. N., thence 4.0 mi. E. from, in SW. cor. sec. 36, T. 3 S., R. 9 E., 29 ft. N. and 27 ft. E. from intersection of Middle Belt Rd., in root on W. side of 14-in. sycamore tree; copper nail and washer-----	622. 99
New Boston, 1.2 mi. N., thence 3.0 mi. E. from, in SW. cor. sec. 35, T. 3 S., R. 9 E., 22 ft. N. and 36 ft. E. from intersection of Merriman Rd., in root on SW. side of 18-in. cottonwood tree; copper nail and washer-----	625. 93
New Boston, 1.2 mi. N., thence 2.0 mi. E. from, 1.5 mi. E., thence 3.0 mi. S. from Romulus, in NE. cor. sec. 4, T. 4 S., R. 9 E., 20 ft. S. and 20 ft. W. from intersection of Vining Rd., on top of circular concrete culvert; chiseled square-----	629. 93



From crossroads 1.2 miles north and 2 miles east from New Boston south and southeast along State Highway 56 to intersection of Van Horn Road, thence east to intersection of Telegraph Road (U. S. Highway 24-25), thence northeast and north to crossroads 1 mile south of Telekra (by J. M. Lawson in 1938)

New Boston, 0.7 mi. N. and 2.0 mi. E. from, near quarter corner between secs. 3 and 4, T. 4 S., R. 9 E., 33 ft. N. and 15 ft. W. from intersection of Prescott Rd., on top of flange on W. end of circular concrete culvert; chiseled square-----	<i>Feet</i> 627. 81
New Boston, 0.2 mi. N., thence 2.0 mi. E. from, in SE. cor. sec. 4, T. 4 S., R. 9 E., 27 ft. N. and 24 ft. W. from intersection of Sibley Rd., on top of flange on N. end of circular concrete culvert; chiseled square-----	628. 50
New Boston, 2.4 mi. by rd. SE. of, in NE. cor. sec. 16, T. 4 S., R. 9 E., 90 ft. S. and 30 ft. W. from intersection of Huron River Drive, at angle in highway to S. and W., in concrete post; standard tablet stamped "T T 26 L 1935 627"-----	626. 890
New Boston, 3.0 mi. SE. of, near E $\frac{1}{4}$ cor. sec. 15, T. 4 S., R. 9 E., on E. side of highway, at entrance to Vining School, on top of N. end of lower concrete step; chiseled square-----	623. 78
New Boston, 3.5 mi. SE. of, in SW. cor. sec. 15, T. 4 S., R. 9 E., 36 ft. N. and 27 ft. E. from junction of West Rd., on top of S. corner of concrete base of rd. signpost; chiseled square-----	623. 61
New Boston, 4.7 mi. SE. of, 3.7 mi. NW. of highway intersection in Flat Rock, near quarter corner between secs. 22 and 27, T. 4 S., R. 9 E., 140 ft. E. of junction of Huron River Drive and Willow Rd., 27 ft. N. of center line of rd. E., opposite Michigan Memorial Park Cemetery, in concrete post; standard tablet stamped "T T 25 L 1935 616"-----	616. 205
Reference mark, 110 ft. SW. of tablet, 45 ft. S. and 60 ft. E. from signal light at rd. junction, on NW. corner of ninth section of concrete sidewalk N. of W. entrance of cemetery; chiseled square-----	615. 10
Flat Rock, 3.3 mi. NW. of, in SE. cor. sec. 22, T. 4 S., R. 9 E., 24 ft. N. and 32 ft. W. from junction of Merriman Rd., on top of S. corner of concrete base of rd. signpost; chiseled square-----	613. 12
Flat Rock, 3.1 mi. NW. of, 0.25 mi. E. of NW. cor. sec. 26, T. 4 S., R. 9 E., 21 ft. S. and 20 ft. E. from junction of Van Horn Rd., at turn to S. in Huron River Drive, in root on S. side of 14-in. maple tree; copper nail and washer-----	614. 46
Flat Rock, 2.6 mi. NW., thence 0.3 mi. along R. R. NE. of, at crossing of Pennsylvania R. R.; top of W. rail of main track-----	614. 4
Flat Rock, 2.1 mi. NW., thence 0.4 mi. N. from, in NE. cor. sec. 26, T. 4 S., R. 9 E., 30 ft. S. and 30 ft. W. from intersection of Middle Belt Rd., on top of N. corner of concrete base of rd. signpost; chiseled square-----	613. 04
Flat Rock, 1.9 mi. NW., thence 0.6 mi. N. from, at junction of Odette Rd.; center line of pavement-----	609. 0
Flat Rock, 1.0 mi. NW., thence 1.1 mi. N. from, in SE. cor. sec. 24, T. 4 S., R. 9 E., 24 ft. N. and 90 ft. W. from intersection of Inkster Rd., in concrete post; standard tablet stamped "T T 30 L 1935 607"---	606. 935
Flat Rock, 1.9 mi. N. of, 0.25 mi. W. of NE. cor. sec. 30, T. 4 S., R. 10 E., 35 ft. S. and 15 ft. W. from intersection of Arsenal Rd., on top of W. end of circular concrete culvert; chiseled square-----	601. 46

Flat Rock, 2.1 mi. NE. of, near quarter corner between secs. 20 and 29, T. 4 S., R. 10 E., 33 ft. S. and 17 ft. E. from intersection of Telegraph Rd., at NW. corner of yard of Maple Grove School, on top of W. corner of concrete base of rd. signpost; chiseled square-----	<i>Feet</i> 604. 99
Flat Rock, 2.7 mi. NE. of, at W. corner of Oak Ridge Cemetery, at junction of Struin Rd.; center line of pavement-----	613. 0
Flat Rock, 3.2 mi. NE. of, near NE. cor. sec. 20, T. 4 S., R. 10 E., 126 ft. SW. of intersection of West Rd. at junction of U. S. Highways 24 and 25, on E. side of Telegraph Rd. (U. S. Highway 24-25) in root on NW. side of 14-in. walnut tree, northernmost in row; copper nail and washer-----	610. 09
Flat Rock, 3.5 mi. NW. of, near quarter corner between secs. 16 and 17, T. 4 S., R. 10 E., 40 ft. S. and 40 ft. E. from junction of Carter Rd., on top of W. side of concrete base of sewer trap; chiseled square-----	610. 19
Flat Rock, 4.5 mi. NW. of, 3.0 mi. S. of Telekra, in SW. cor. sec. 9, T. 4 S., R. 10 E., 18 ft. N. and 35 ft. E. from intersection of King Rd., on top of S. side of concrete base of sewer trap; chiseled square-----	606. 52
U. S. C. & G. S. standard disk stamped "5 F 616"-----	615. 587
Telekra, 2.0 mi. S. of, in SW. cor. sec. 4, T. 4 S., R. 10 E., 25 ft. N. and 35 ft. E. from intersection of Sibley Rd., on top of S. corner of concrete base of rd. signpost; chiseled square-----	606. 51
Telekra, 1.5 mi. S. of, near quarter corner between secs. 4 and 5, T. 4 S., R. 10 E., on E. side of rd., 60 ft. N. and 33 ft. E. from junction of second-class T-rd. W., in fence line E., in root on W. side of 36-in. maple tree; copper nail and washer-----	618. 13
From road junction 3.7 miles northwest of Flat Rock southwest and west along Willow Road to intersection of Elwell Road (by J. M. Lawson in 1938)	
Flat Rock, 4.0 mi. along South Huron Rd. NW. of, 1.8 mi. E. of Willow, 0.25 mi. E. of W $\frac{1}{4}$ cor. sec. 27, T. 4 S., R. 9 E., on N. side of highway, at SW. end of long concrete bridge over Huron River, inside of bridge head wall, on top of SW. corner of N. concrete guardrail; chiseled square-----	614. 06
Willow, 1.5 mi. E. of, near quarter corner between secs. 27 and 28, T. 4 S., R. 9 E., 27 ft. S. and 36 ft. W. from junction of Romine Rd., on top of E. side of concrete base of rd. signpost; chiseled square-----	616. 835
Willow, 0.5 mi. E. of, near quarter corner between secs. 28 and 29, T. 4 S., R. 9 E., 30 ft. S. and 18 ft. E. from intersection of Bell Rd., on top of W. end of S. concrete head wall of culvert; chiseled square--	621. 72
Willow, in village of, 3.6 mi. S. of New Boston, 1.0 mi. N. of Waltz, near center of sec. 29, T. 4 S., R. 9 E., 103 ft. W. of junction of Rust Rd., 13 ft. S. and 15 ft. W. from Pere Marquette Ry. crossing, on top of NE. corner of concrete base of danger signal; chiseled square-----	629. 47
Willow, 0.5 mi. W. of, near quarter corner between secs. 29 and 30, T. 4 S., R. 9 E., 30 ft. S. and 16 ft. E. from intersection of Waltz Rd., on top of S. end of SE. concrete head wall of culvert; chiseled square-----	623. 64
Willow, 1.0 mi. W. of, near center of sec. 30, T. 4 S., R. 9 E., 15 ft. S. and 70 ft. W. from junction of Otter Rd., on field side of fence, in root on N. side of 8-in. elm tree; copper nail and washer-----	624. 60
Willow, 1.5 mi. W. of, near E. cor. secs. 24 and 25, T. 4 S., R. 8 E., 32 ft. N. and 125 ft. E. from intersection of Clark Rd., in concrete post; standard tablet stamped "T T 36 L 1935 627"-----	627. 015

Willow, 2.0 mi. W. of, near quarter corner between secs. 24 and 25, T. 4 S., R. 8 E., 36 ft. S. and 24 ft. W. from intersection of Carleton-West Rd., in root on N. side of 36-in. elm tree; copper nail and washer-----	Feet 633. 27
U. S. C. & G. S. standard disk stamped "7 N 631"-----	631. 34
Willow, 3.5 mi. W. of, in SW. cor. sec. 23, T. 4 S., R. 8 E., 28 ft. N. and 24 ft. E. from intersection of Martinsville Rd., on top of S. side of concrete base of rd. signpost; chiseled square-----	636. 51
Willow, 4.5 mi. W. of, 6.0 mi. S. of Belleville, in SE. cor. sec. 21, T. 4 S., R. 8 E., 27 ft. N. and 50 ft. W. from intersection of Sumpter Rd., in concrete post; standard tablet stamped "T T 35 L 1935 645"----	644. 448
From Wyandotte quadrangle west along Van Horn Road to intersection of U. S. Highway 24-25 (by J. M. Lawson in 1936)	
Flat Rock, 2.1 mi. NE., thence 0.5 mi. E. from, in NE. cor. sec. 28, T. 4 S., R. 10 E., 18 ft. S. and 15 ft. W. from junction of Peters Rd., on W. end of circular concrete culvert; chiseled square-----	598. 52
Flat Rock, 2.1 mi. NE., thence 0.3 mi. E. from, at junction of Struin Rd.; center line of pavement-----	602. 7
From crossroads 2.1 miles northeast of Flat Rock generally south along U. S. Highway 24-25 and State Highway 56 to Oldport, thence along roads northwest and west by way of Newport to sec. 31, T. 5 S., R. 9 E., thence along roads alternately south and west into Monroe quadrangle at point 1.2 miles east and 1.5 miles south from Scofield (by J. M. Lawson in 1936)	
U. S. C. & G. S. standard disk stamped "5 K 605"-----	605. 030
Flat Rock, 1.0 mi. NE. of highway intersection at, in SE. cor. sec. 30, T. 4 S., R. 10 E., 25 ft. N. and 48 ft. E. from center of junction of Vreeland Rd., on top of W. corner of concrete base of rd. signpost; chiseled square-----	599. 43
Flat Rock, 0.5 mi. NE. of, 250 ft. SW. of Detroit, Toledo, and Ironton R. R. sta., at E. end of concrete overpass over Telegraph Rd., on top of E. concrete retaining wall, 6 in. above level of rails and 7 ft. SE. of S. rail; chiseled square-----	603. 37
U. S. C. & G. S. standard disk stamped "5 M 600"-----	600. 168
Flat Rock, 1.2 mi. SE. of, 1.9 mi. NW. of New York Central R. R. sta. at Rockwood, in SW $\frac{1}{4}$ sec. 5, T. 5 S., R. 10 E., in E. angle of intersection of Woodruff Rd., on top of S. corner of base of rd. signpost; chiseled square-----	587. 90
U. S. C. & G. S. standard disk stamped "5 P 595"-----	594. 876
Rockwood, 0.4 mi. NW. of sta., near center of sec. 9, T. 5 S., R. 10 E., on NE. side of highway, 200 ft. SE. of junction of Olmstead Rd., 55 ft. NW. of junction of Short Rd., in root on W. side of 18-in. elm tree; copper nail and washer-----	587. 65
[Line jogs into Wyandotte quadrangle]	
South Rockwood, 220 ft. S. of intersection of highway and South Huron River Drive, 220 ft. S. and 105 ft. E. from New York Central R. R. crossing, 16 ft. E. of center line of highway, on top of N. end of E. concrete head wall of culvert; chiseled square-----	582. 21
South Rockwood, 0.8 mi. SW. of, in NW. cor. sec. 21, T. 5 S., R. 10 E., 55 ft. S. and 17 ft. E. from intersection of Ready Rd., at turn to NE. in highway, 55 ft. S. and 150 ft. E. from N. Y. C. R. R. crossing, on top of N. end of concrete head wall of culvert; chiseled square--	587. 18
U. S. C. & G. S. standard disk stamped "E 115 X 1934"-----	589. 998

South Rockwood, 1.5 mi. SW. of, 0.3 mi. N. of SW. cor. sec. 21, T. 5 S., R. 10 E., 20 ft. E. of Detroit and Toledo Shore Line R. R. crossing, on top of center of E. concrete head wall of culvert; chiseled square.....	Feet 592. 54
South Rockwood, 1.8 mi. SW. of, in SW. cor. sec. 21, T. 5 S., R. 10 E., 18 ft. N. and 15 ft. E. from intersection of Sigler Rd., on top of concrete head wall of culvert; chiseled square.....	591. 76
South Rockwood, 2.8 mi. SW. of, in SE. cor. sec. 29, T. 5 S., R. 10 E., 16 ft. N. and 27 ft. W. from intersection of Labo Rd., on N. end of circular concrete culvert; chiseled square.....	588. 63
South Rockwood, 3.8 mi. SW. of, 0.4 mi. NE., thence 2.1 mi. E. from Newport, 1.8 mi. NE. of Oldport, in SE. cor. sec. 32, T. 5 S., R. 10 E., 33 ft. N. and 34 ft. W. from junction of Newport Rd., in concrete post; standard tablet stamped "T T 14 L 1935 593".....	592. 820
Oldport, 1.3 mi. NE. of, at Freys Corners, near quarter corner between secs. 4 and 5, T. 6 S., R. 10 E., on E. side of River Rd., on N. side of brick house of John Frey, 2.2 ft. from NW. corner, 3.5 ft. above ground, in water table; bronze disk set horizontally (U. S. Lake Survey B. M. designated "D 61 - 1932").....	589. 662
Oldport, 1.3 mi. NE. of, 45 ft. N. and 83 ft. E. from crossroads, 100 ft. N. of house, in root on NW. side of 12-in. maple tree; copper nail and washer.....	592. 93
[Line jogs into Monroe quadrangle]	
Oldport, 0.9 mi. NW. of, 0.5 mi. SE. of New York Central R. R. crossing in Newport, 45 ft. NE. of intersection of Michigan Central R. R. and Oldport Rd., on E. side of track, at semaphore D-274, on top of W. corner of concrete base; chiseled square.....	594. 63
Newport, 50 ft. NE. of intersection of New York Central R. R. and Newport South Rd., on W. side of track, at semaphore D-273, on top of S. corner of concrete base; chiseled square.....	591. 17
Newport, 0.5 mi. NW. of, 0.35 mi. E. of SW. cor. sec. 36, T. 5 S., R. 9 E., 80 ft. N. and 20 ft. W. from triangle of rd. forks, on S. bank of creek, in concrete post; standard tablet stamped "T T 15 L 1935 586".....	586. 219
Newport, 1.3 mi. NW. of, near S $\frac{1}{4}$ cor. sec. 35, T. 5 S., R. 9 E., 34 ft. N. and 70 ft. E. from N.-S. fence line, in S. side of 16-in. elm. tree; rail spike.....	596. 93
Newport, 1.9 mi. NW. of, about 400 ft. W. of SE. cor. sec. 34, T. 5 S., R. 9 E., on N. side of Newport Rd., just S. of small pond at lane N., in center of E. concrete head wall of culvert; chiseled square....	606. 54
Newport, 2.5 mi. NW. of, 0.3 mi. E. of SW. cor. sec. 34, T. 5 S., R. 9 E., 25 ft. N. and 60 ft. E. from intersection of Telegraph Rd., on top of SE. end of concrete head wall of culvert; chiseled square.....	606. 93
Newport, 2.8 mi. NW. of, 3.5 mi. along Pere Marquette Ry. S., thence 1.5 mi. E. from Carleton, on section line near S. cor. secs. 33 and 34, T. 5 S., R. 9 E., 54 ft. N. and 10 ft. W. from junction of T-lane N., in root on S. side of 14-in. oak tree; copper nail and washer.....	606. 17
Carleton, 3.5 mi. S., thence 0.5 mi. E. from, 22 ft. S. and 38 ft. W. from NE. cor. sec. 5, T. 6 S., R. 9 E., in SW. angle of intersection of Grafton Rd., in NE. corner of yard of Town Line School, in concrete post; standard tablet stamped "T T 16 L 1935 610".....	609. 940
Reference mark, 70 ft. E. of tablet, in SE. angle of crossroads, on top of S. end of E. concrete head wall of culvert; chiseled square.....	610. 07

Carleton, 3.5 mi. S. of, about 500 ft. N. of S $\frac{1}{4}$ cor. sec. 32, T. 5 S., R. 9 E., 100 ft. S. of Pere Marquette Ry. crossing, 12 ft. E. of tracks, at base of signal box, in cast-iron signal unit; top of NE. bolt.....	Feet 615. 23
Carleton, 0.5 mi. W., thence 3.1 mi. S. from, near quarter corner between secs. 31 and 32, T. 5 S., R. 9 E., 8 ft. S. and 150 ft. W. from junction of Maxwell Rd., on top of W. end of S. concrete head wall of bridge; chiseled square.....	611. 73
Stony Creek, at steel bridge over; center of floor.....	610. 2
T. 5 S., R. 9 E., near center of sec. 31, 36 ft. S. and 85 ft. E. from junction of Stony Creek Rd., in S. side of 10-in. walnut tree; rail spike..	616. 66
T. 5 S., R. 8 E., 0.4 mi. S. of NE. cor. sec. 36, 100 ft. S. and 44 ft. W. from junction of Corkins and Exeter Rds., in root on SE. side of 30-in. oak tree; copper nail and washer.....	615. 82
T. 6 S., R. 9 E., about 800 ft. S. of NW. cor. sec. 6, 6 ft. S. and 25 ft. E. from junction of Exeter and Kane Rds., in concrete post; standard tablet stamped "T T 19 L 1935 621".....	621. 027
T. 5 S., R. 8 E., 0.25 mi. N. of SE. cor. sec. 35, 48 ft. N. and 15 ft. W. from junction of Kane and Finzel Rds., on top of S. end of W. concrete head wall of culvert; chiseled square.....	619. 80
T. 5 S., R. 8 E., in SE. cor. sec. 35, 2.0 mi. E. and 1.5 mi. S. from Scofield, 40 ft. N. and 25 ft. W. from intersection of Heiss and Finzel Rds., in root on NW. side of 30-in. oak tree; copper nail and washer.....	621. 93
Scofield, 1.2 mi. E., thence 1.5 mi. S. from, 0.25 mi. E. of SW. cor. sec. 35, T. 5 S., R. 8 E., 84 ft. N. and 22 ft. W. from intersection of Steffas and Heiss Rds., in root on NE. side of 24-in. maple tree; copper nail and washer.....	621. 12
From South Rockwood west along Egypt Road to Grafton Road, thence alternately north and east along Grafton, Will Carleton, and Romine Roads to Willow Road (by J. M. Lawson in 1936)	
South Rockwood, at W. limits of, 180 ft. SW. of junction of South Huron River Drive and Egypt Rd., on E. side of Egypt Rd., at NE. corner of concrete bridge over small creek, on top of inner guard-rail; chiseled square.....	583. 30
South Rockwood, 0.5 mi. W. of, 0.25 mi. S. of NE. cor. sec. 17, T. 5 S., R. 10 E., 24 ft. N. and 12 ft. W. from intersection of Brandon Rd., on top of SW. corner of SW. concrete wing wall of bridge; chiseled square.....	585. 14
South Rockwood, 1.6 mi. W. of, near SW. cor. sec. 8, T. 5 S., R. 10 E., on N. side of Egypt Rd., 170 ft. E. of intersection of Armstrong Rd., near root on W. side of 14-in. hickory tree; rail spike.....	595. 34
South Rockwood, 2.6 mi. W. of, in NW. cor. sec. 18, T. 5 S., R. 10 E., 27 ft. S. and 48 ft. E. from junction of Berlin Rd., 170 ft. N. of junction of T-rd. W., in root on N. side of 26-in. maple tree; copper nail and washer.....	599. 02
South Rockwood, 3.2 mi. W. of, 500 ft. W. of quarter corner between secs. 12 and 13, T. 5 S., R. 9 E., 36 ft. N. and 60 ft. E. from intersection of Telegraph Rd., in concrete post; standard tablet stamped "T T 43 L 1935 603".....	603. 191
South Rockwood, 3.6 mi. W. of, near S. cor. secs. 11 and 12, T. 5 S., R. 9 E., at N.-S. fence, 24 ft. N. of center line of rd., on top of E. end of N. concrete head wall of culvert; chiseled square.....	603. 63

South Rockwood, 4.5 mi. W. of, 400 ft. E. of SW. cor. sec. 11, T. 5 S., R. 9 E., 18 ft. N. of center line of rd., at SW. corner of yard of farmhouse, on top of S. end of concrete head wall of culvert; chiseled square-----	<i>Feet</i> 604. 50
South Rockwood, 4.8 mi. W. of, at junction of Sweitzer Rd.; center line of pavement-----	607. 3
South Rockwood, 5.2 mi. W. of, 0.35 mi. E. of SW. cor. sec. 10, T. 5 S., R. 9 E., 25 ft. N. and 57 ft. W. from junction of Briar Hill Rd., in root on N. side of 20-in. walnut tree; copper nail and washer-----	600. 47
South Rockwood, 5.3 mi. W. of, at bridge over Swan Creek; center of floor-----	601. 1
South Rockwood, 5.6 mi. W. of, 1.5 mi. E. and 0.3 mi. N. from R. R. sta. at Carleton, in NE. cor. sec. 16, T. 5 S., R. 9 E., 29 ft. S. and 24 ft. W. from junction of Calkins Rd., in root on N. side of 18-in. maple tree; copper nail and washer-----	604. 98
Carleton, 1.0 mi. E. and 0.3 mi. N. from, near quarter corner between secs. 9 and 16, T. 5 S., R. 9 E., 21 ft. S. and 39 ft. W. from junction of Fessner Rd., on top of W. end of S. concrete head wall of culvert; chiseled square-----	608. 78
Carleton, 0.5 mi. E., thence 0.3 mi. N. from, near cor. secs. 8, 9, 16, and 17, T. 5 S., R. 9 E., 45 ft. W. of junction of Grafton Rd., 350 ft. N. of Detroit, Toledo, and Ironton R. R. crossing, in concrete post; standard tablet stamped "T T 23 L 1935 614"-----	613. 753
Carleton, 0.5 mi. E., thence 0.8 mi. N. from, at junction of Matlin Rd.; center line of pavement-----	610. 3
Carleton, 0.5 mi. E., thence 1.0 mi. N. from, on line between secs. 8 and 9, T. 5 S., R. 9 E., at Pennsylvania R. R. crossing; top of N. rail-----	612. 5
Carleton, 0.5 mi. E., thence 1.3 mi. N. from, in NW. cor. sec. 9, T. 5 S., R. 9 E., 60 ft. S. and 18 ft. E. from intersection of Newberg Rd., on top of S. end of E. concrete head wall of culvert; chiseled square-----	614. 63
Carleton, 0.5 mi. E., thence 2.0 mi. N. from, at concrete bridge over North Branch of Swan Creek; center line of floor-----	613. 4
Carleton, 0.5 mi. E., thence 2.3 mi. N. from, 4.6 mi. W. of Flat Rock, 0.9 mi. SE. of Waltz, in NW. cor. sec. 4, T. 5 S., R. 9 E., near Monroe-Wayne county line, 260 ft. S. of junction of Will Carleton Rd., 32 ft. E. of Grafton Rd., opposite S. apex of triangle of rd. forks, on top of N. end of E. concrete head wall of culvert; chiseled square--	613. 76
Flat Rock, 3.6 mi. W. of, in SW. cor. sec. 34, T. 4 S., R. 9 E., 40 ft. N. and 70 ft. E. from junction of Romine Rd., in concrete post; standard tablet stamped "T T 24 L 1935 614"-----	614. 018
Flat Rock, 3.6 mi. W., thence 1.0 mi. N. from, 1.5 mi. E., thence 0.5 mi. S. from Willow, in SE. cor. sec. 28, T. 4 S., R. 9 E., 30 ft. N. and 27 ft. W. from junction of Ash Rd., in W. side of tall telephone pole; rail spike-----	619. 89
From junction of Egypt and Grafton Roads along roads south 0.3 mile, thence alternately west and north along roads to crossroads 1.5 miles west of Willow (by J. M. Lawson in 1936)	
Carleton, 0.5 mi. E., thence 0.3 mi. N. from R. R. sta. at, at crossing of Detroit, Toledo and Ironton R. R. and Grafton Rd.; top of S. rail-----	617. 4
Carleton, at E. limits of, 290 ft. N. and 22 ft. W. from junction of Grafton Rd. and Monroe Street, on top of SW. corner of concrete abutment of small bridge; chiseled square-----	608. 33

Carleton, 90 ft. NW. of intersection of Pere Marquette Ry. and Detroit, Toledo and Ironton R. R., opposite sta., on top of SW. corner of concrete base of semaphore; chiseled square.....	<i>Feet</i> 618. 52
Carleton, 0.5 mi. W., thence 0.1 mi. N. from sta., 18 ft. N. and 24 ft. W. from intersection of Maxwell and Ash Rds., on top of NE. concrete abutment of small bridge; chiseled square.....	616. 80
Carleton, 1.3 mi. by rd. NW. of, near quarter corner between secs. 7 and 18, T. 5 S., R. 9 E., 220 ft. S. and 28 ft. W. from junction of Burns Rd. and Ash Rd. to W., in root on E. side of lone 24-in. elm tree; copper nail and washer.....	619. 39
Carleton, 2.0 mi. NW. of, near E $\frac{1}{4}$ cor. sec. 12, T. 5 S., R. 8 E., 660 ft. N. of SW. cor. sec. 7, T. 5 S., R. 9 E., 35 ft. N. and 13 ft. E. from junction of Fay and Exeter Rds., on top of NE. concrete wing wall junction of box culvert; chiseled square.....	623. 32
Carleton, 2.6 mi. NW. of, at small bridge over Swan Creek; center line of floor.....	617. 4
Carleton, 2.9 mi. NW. of, at junction of Newberg Rd.; center line of pavement.....	623. 8
Carleton, 3.0 mi. NW. of, 0.9 mi. S. and 1.5 mi. W. from Waltz, near E $\frac{1}{4}$ cor. sec. 1, T. 5 S., R. 8 E., 890 ft. N. of junction of Newberg Rd. to E., 24 ft. N. and 130 ft. W. from junction of Newberg Rd. to W., in root on W. side of 24-in. maple tree; copper nail and washer.....	625. 11
Waltz, 0.5 mi. S., thence 1.5 mi. W. from, near W. cor. secs. 6 and 31, Tps. 4 and 5 S., R. 9 E., 110 ft. S. and 24 ft. W. from junction of Will Carleton Rd., in root on NE. side of 15-in. ash tree; copper nail and washer.....	623. 29
Waltz, 0.1 mi. N. and 1.5 mi. W. from, 1.0 mi. S. and 1.5 mi. W. from Willow, in SE. cor. sec. 25, T. 4 S., R. 8 E., 15 ft. N. and 30 ft. W. from junction of Arkona Rd., on top of W. end of N. concrete head wall of culvert; chiseled square.....	627. 46
Willow, 0.5 mi. S. and 1.5 mi. W. from, at junction of Ash Rd.; center line of pavement.....	625. 8
From northeast corner sec. 5, T. 6 S., R. 9 E., north along Grafton Road to Carleton (by J. M. Lawson in 1936)	
Carleton, 0.5 mi. E., thence 2.6 mi. S. from R. R. sta. at, in NW. cor. sec. 33, T. 5 S., R. 9 E., 31 ft. S. and 27 ft. E. from intersection of Labo Rd., on top of S. end of W. concrete head wall of culvert; chiseled square.....	611. 18
Carleton, 0.5 mi. E., thence 1.6 mi. S. from, 0.3 mi. S. of Grafton School, near cor. secs. 20, 21, 28, and 29, T. 5 S., R. 9 E., 73 ft. N. and 30 ft. E. from intersection of Indian Trail, in concrete post; standard tablet stamped "T T 22 L 1935 609".....	608. 885
Reference mark, 290 ft. N. of tablet, on E. side of rd., on top of SE. concrete wing wall of bridge; chiseled square.....	605. 37
Carleton, 0.5 mi. E., thence 1.1 mi. S. from, at junction of Fessner Rd.; center line of pavement.....	611. 5
Carleton, 0.5 mi. E., thence 0.7 mi. S. from, in NE. cor. sec. 20, T. 5 S., R. 9 E., 80 ft. S. and 21 ft. W. from junction of Ready Rd., on top of N. end of W. concrete head wall of culvert; chiseled square.....	614. 44
From road junction 2 miles northwest of Carleton alternately west and south along Fay, Sumpster, and Stout Roads to road junction 2 miles north and 0.8 mile west from Scofield (by J. M. Lawson in 1936)	
Carleton, 2.5 mi. by rd. NW. of, near center of sec. 12, T. 5 S., R. 8 E., 36 ft. S. of junction of Vasher Rd., on top of S. end of E. concrete head wall of small bridge; chiseled square.....	628. 83

## SAGINAW QUADRANGLE

411

Carleton, 3.2 mi. by rd. W. of, in NE. cor. sec. 14, T. 5 S., R. 13 E., 22 ft. S. and 80 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 31 L 1935"-----	Feet 627. 574
Carleton, 4.2 mi. W. of, in SW. cor. sec. 11, T. 5 S., R. 8 E., 12 ft. N. and 90 ft. E. from intersection of Fay and Martinsville Rds. and junction of Watson Rd., on W. end of N. concrete head wall of bridge; chiseled square-----	628. 32
Carleton, 5.2 mi. W. of, 2.5 mi. N. of Scofield, in NW. cor. sec. 15, T. 5 S., R. 8 E., 56 ft. S. and 20 ft. E. from intersection of Sumpter Rd., on top of center of E. concrete head wall of culvert; chiseled square--	632. 17
Scofield, 2.0 mi. N. of, near quarter corner between secs. 15 and 16, T. 5 S., R. 8 E., 26 ft. S. and 120 ft. E. from junction of Stout Rd., 70 ft. NE. of NE. corner of McGowan School, in root on NW. side of 24-in. maple tree; copper nail and washer-----	633. 63

## RUBICON QUADRANGLE

[Latitude 46°30'–46°45'; longitude 88°45'–89°00']

## HOUGHTON AND ONTONAGON COUNTIES

From Paynesville quadrangle southeast along Chicago, Milwaukee, St. Paul and Pacific Railroad into Sidnaw quadrangle (first-order leveling by E. L. McNair in 1911)

Rubicon, 920 ft. N. of sta., 85 ft. S. of rd. crossing, 12 ft. E. of track; standard iron post with bronze cap stamped "1092" (recovered by U. S. C. & G. S. in 1940)-----	1, 092. 091
Rubicon, in front of Hubbell's Mill sta.; top of rail-----	1, 104. 1
Pori (Plato), 600 ft. S. of water tank, 500 ft. S. of township line, 40 ft. W. of track; standard iron post with bronze cap stamped "Prim Trav Sta No 13 1911 1165" (recovered by U. S. C. & G. S. in 1940)-----	1, 164. 653
Pori, 4.8 mi. SE. of, 2.8 mi. NW. of Frost Junction, 10 poles NW. of milepost 376, 18 ft. N. of track, on outside of curve; standard iron post with bronze cap stamped "Prim Trav Sta No 14 1911 1301" (recovered by U. S. C. & G. S. in 1940)-----	1, 300. 588
Frost Junction, at N. end of siding, 510 ft. S. of switch stand, 26 ft. W. of track; standard iron post with bronze cap stamped "Prim Trav Sta No 15 1911 1397" (reset by U. S. C. & G. S. and stamped "Reset 1940")-----	1, 397. 284
Frost Junction, at S. end of siding; top of rail-----	1, 406. 7
Frost Junction, 7.2 mi. SE. of, 4.2 mi. NW. of Sidnaw, about 100 ft. NW. of rd. crossing, 15 ft. NE. of track; standard iron post with bronze cap stamped "Prim Trav Sta No 16 1911 1333" (recovered by U. S. C. & G. S. in 1940)-----	1, 332. 540

## SAGINAW QUADRANGLE

[Latitude 43°15'–43°30'; longitude 83°45'–84°00']

## BAY AND SAGINAW COUNTIES

From St. Charles quadrangle at point 1.6 miles east of McDonough Corners alternately east and north along roads to crossroads 7.7 miles south of Saginaw (by E. C. Bibbee in 1913)

McDonough Corners, 2.0 mi. E. of, near E¼ cor. sec. 21, T. 10 N., R. 4 E., 25 ft. SW. of center of crossroads, at SW. corner of bridge over ditch, on top of T-rail of abutment; highest point-----	593. 41
McDonough Corners, 3.0 mi. E. of, near E¼ cor. sec. 22, T. 10 N., R. 4 E., 30 ft. S. and 30 ft. W. from junction of N.-S. rd.; standard iron post with bronze cap stamped "600"-----	599. 253



McDonough Corners; 4.0 mi. E. and 0.5 mi. N. from, 9.6 mi. S. of intersection of Center Street and Washington Avenue in Saginaw, near SW. cor. sec. 14, T. 10 N., R. 4 E., near Barnum School, 20 ft. E. of NW. corner of crossroads, in center of W. end of concrete box culvert; chiseled square-----	Feet 597. 88
Saginaw, 8.5 mi. S. of, 1,000 ft. N. of SE. cor. sec. 11, T. 10 N., R. 4 E.; on W. side of rd., in root of water-maple tree; copper nail-----	601. 38
Saginaw, 7.7 mi. S. of, near SE. cor. sec. 2, T. 10 N., R. 4 E., at NW. corner of crossroads; standard iron post with bronze cap stamped "595" (recovered in 1916)-----	594. 704
From crossroads 7.7 miles south of Saginaw generally north along road and streets to Genesee Street bridge in Saginaw (by E. C. Bibbee in 1913 and H. S. Senseney in 1916)	
Saginaw, 7.0 mi. S. of intersection of Center Street and Washington Avenue in, about 0.4 mi. S. of NE. cor. sec. 2, T. 10 N., R. 4 E., on W. side of N. abutment of iron bridge over ditch; chiseled square (recovered in 1916)-----	595. 09
Flint River; surface of water Aug. 4, 1913-----	586. 5
Saginaw, 6.1 mi. S. of, near E $\frac{1}{4}$ cor. sec. 35, T. 11 N., R. 4 E., in SW. corner of crossroads, in root of 14-in. maple tree; copper nail (recovered in 1916)-----	596. 40
Saginaw, 4.6 mi. S. of, 35 ft. S. and 30 ft. W. from NE. cor. sec. 26, T. 11 N., R. 4 E., at SW. corner of crossroads; standard iron post with bronze cap stamped "596" (recovered in 1916)-----	595. 720
Saginaw, 3.6 mi. S. of, 20 ft. S. and 20 ft. W. from NE. cor. sec. 23, T. 11 N., R. 4 E., on W. end of steel drain under rd.; highest point (recovered in 1916)-----	591. 22
Cass River; surface of water Aug. 5, 1913-----	581. 0
Saginaw, 2.6 mi. S. of, near NW. cor. sec. 13, T. 11 N., R. 4 E., at NE. corner of bridge over Cass River, on top of piling, in top of 12- by 20-in. stringer; copper nail (not recovered in 1916)-----	588. 37
Saginaw, 2.6 mi. S. of, near NE. cor. sec. 14, T. 11 N., R. 4 E., at bridge over Cass River, on W. end of N. abutment; chiseled square (established in 1916)-----	590. 58
Saginaw, 1.2 mi. S. of, near E $\frac{1}{4}$ cor. sec. 2, T. 11 N., R. 4 E., near Forest Lawn Cemetery, on W. side of N. abutment of bridge over ditch; chiseled square (not recovered in 1916)-----	585. 80
Saginaw, 1.2 mi. S. of, near W $\frac{1}{4}$ cor. sec. 1, T. 11 N., R. 4 E., near Forest Lawn Cemetery, on E. end of N. abutment of bridge over ditch; chiseled square (established in 1916)-----	588. 12
Saginaw, in angle of junction of East Street and Washington Avenue; standard iron post with bronze cap stamped "600" (recovered in 1916)-----	599. 106
Saginaw, at intersection of Washington Avenue and Hess Street; surface of street-----	593. 2
Saginaw, at intersection of Center Street and Washington Avenue, in front of Moeller Drug Store, 3 ft. E. of fireplug and 3 ft. W. of pump, on curb; chiseled square (recovered in 1916)-----	598. 41
Saginaw, at intersection of Washington Avenue and Webber Street; surface of street-----	594. 6
Saginaw, at SW. corner of Washington Avenue and Bristol Street, 1 ft. E. of hitching post, 200 ft. NE. of city hall, on curb; chiseled square (recovered in 1916)-----	601. 17

Saginaw, on S. side of E. approach of Genesee Street bridge, at head of stairs, in cement walk; circular copper plate (U. S. C. E. B. M.; recovered in 1916)-----	<i>Feet</i> 598. 667
From intersection of Center Street and Washington Avenue in Saginaw generally west along streets and road into St. Charles quadrangle at point 0.5 mile east of Vogt Corners (by E. C. Bibbee in 1913 and H. S. Senseney in 1916)	
Saginaw, at Center Street bridge over Saginaw River, on N. end of E. abutment; chiseled square (established in 1916)-----	601. 24
From St. Charles quadrangle at point 1.7 miles east of Lawndale along roads east 0.3 mile, thence north 1.4 miles into Bay City quadrangle (by H. S. Senseney in 1916)	
Lawndale, 2.0 mi. E., thence 1.0 mi. N. from, in SW. cor. sec. 27, T. 13 N., R. 4 E., near NE. corner of crossroads, opposite Jewett School, on culvert; chiseled square-----	617. 43
From Bay City quadrangle at point 1.5 miles north of Indiantown alternately south and west along roads and Michigan Central Railroad to Saginaw (by H. S. Senseney in 1916)	
Indiantown, 1.0 mi. N. of, near SW. cor. sec. 25, T. 13 N., R. 5 E., 20 ft. N. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 24 1915 585"-----	584. 790
Indiantown, 25 ft. S. of junction of T-rd. E., near Bay-Saginaw county line, at bridge over ditch, on E. end of S. abutment; chiseled square-----	585. 94
Indiantown, 2.0 mi. S. of, 0.5 mi. N. of Creen, near SW. cor. sec. 12, T. 12 N., R. 5 E., 30 ft. N. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "590"-----	589. 165
Creen, near quarter corner between secs. 13 and 14, T. 12 N., R. 5 E., 15 ft. E. of Pere Marquette Ry. crossing, on N. side of track, on W. end of culvert; chiseled square-----	594. 26
Creen, 0.5 mi. S. of, in SE. cor. sec. 14, T. 12 N., R. 5 E., near NW. corner of crossroads, on culvert; chiseled square-----	597. 75
Creen, 0.5 mi. S., thence 1.0 mi. W. from, 0.2 mi. N. and 4.2 mi. E. from Genesee Street bridge in Saginaw, in SE. cor. sec. 15, T. 12 N., R. 5 E., at NW. corner of crossroads, on culvert; chiseled square-----	596. 51
Saginaw, 0.2 mi. N. and 3.2 mi. E. from, in NE. cor. sec. 21, T. 12 N., R. 5 E., near SW. corner of crossroads, on culvert; chiseled square-----	598. 99
Saginaw, 0.8 mi. S. and 3.2 mi. E. from, in NE. cor. sec. 28, T. 12 N., R. 5 E., 45 ft. S. and 25 ft. W. from Michigan Central R. R. crossing; standard iron post with bronze cap stamped "609"-----	608. 345
Saginaw, at NW. corner of East Genesee and Hartsuff streets, 11 ft. N. of R. R. track, on curb; chiseled square-----	604. 92
From point on Michigan Central Railroad 0.8 mile south and 3.2 miles east from Saginaw south along road 3 miles to crossroads 1.5 miles northeast of Bridgeport (by H. S. Senseney in 1916; leveled twice)	
Saginaw, 2.3 mi. S. and 3.2 mi. E. from Genesee Street bridge in, 2.9 mi. NE. of Bridgeport, near E $\frac{1}{4}$ cor. sec. 33, T. 12 N., R. 5 E., in NW. corner of crossroads, in root of tree; copper nail and washer-----	614. 52
Bridgeport, 1.5 mi. NE. of, in NE. cor. sec. 9, T. 1 N., R. 5 E., 25 ft. S. and 20 ft. W. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 14 1915 625"-----	624. 371

From crossroads 1.5 miles northeast of Bridgeport east along roads 6 miles, thence generally north along roads and Tuscola Road to southeast quarter sec. 29, T. 13 N., R. 6 E., thence west to crossroads 1 mile north of Indiantown (by H. S. Senseney in 1916)

Bridgeport, 1.5 mi. NE., thence 1.0 mi. S. from, in SE. cor. sec. 3, T. 11 N., R. 5 E., in NW. angle of crossroads, 50 ft. W. of fence corner, in root of tree; copper nail and washer-----	<i>Feet</i> 629. 12
T. 11 N., R. 5 E., in SW. cor. sec. 1, near NE. corner of crossroads, on culvert; chiseled square-----	630. 27
T. 11 N., R. 5 E., near NE. cor. sec. 12, 25 ft. S. and 25 ft. W. from crossroads; standard iron post with bronze cap stamped "630"-----	629. 586
T. 11 N., R. 6 E., near NE. cor. sec. 7, in SW. angle of crossroads, in root of tree; copper nail and washer-----	628. 67
T. 11 N., R. 6 E., near NW. cor. sec. 9, at SE. corner of crossroads, on culvert; chiseled square-----	628. 00
T. 11 N., R. 6 E., in NE. cor. sec. 9, 20 ft. S. and 20 ft. W. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 13 1915 635"-----	634. 302
T. 12 N., R. 6 E., at SE. cor. sec. 33, at jog in N.-S. rd., in NW. angle of junction of E.-W. rd., in root of tree; copper nail and washer-----	629. 68
T. 12 N., R. 6 E., in NW. cor. sec. 34, 60 ft. E. of SE. corner of crossroads, in root of tree; copper nail and washer-----	628. 65
T. 12 N., R. 6 E., in NW. cor. sec. 27, 40 ft. S. and 20 ft. E. from Michigan Central R. R. crossing; standard iron post with bronze cap stamped "617"-----	615. 791
T. 12 N., R. 6 E., in SE. cor. sec. 16, 0.3 mi. SE., thence 0.5 mi. SW. from Arthur, on N. side of T-rd. W., 20 ft. W. of junction of rd. NE., in root of tree; copper nail and washer-----	608. 00
Arthur, at Pere Marquette Ry. crossing; top of S. rail-----	615. 9
T. 12 N., R. 6 E., 0.2 mi. E. of NW. corner of sec. 15, 0.5 mi. NW. of Arthur, 25 ft. S. and 20 ft. W. from crossroads; standard iron post with bronze cap stamped "606"-----	605. 138
T. 12 N., R. 6 E., 0.2 mi. W. of NE. cor. sec. 9, at SW. corner of crossroads, on S. side of ditch, in beam of bridge; copper nail and washer (reported destroyed)-----	599. 30
T. 12 N., R. 6 E., 0.4 mi. E. of NW. cor. sec. 4, in SE. angle of intersection of Bay-Saginaw county-line rd., on culvert; chiseled square-----	595. 37
T. 13 N., R. 6 E., about 700 ft. W. of SE. cor. sec. 29, in NE. angle of crossroads, in root of tree; copper nail and washer-----	599. 04
T. 13 N., R. 6 E., near SW. cor. sec. 29, at NE. corner of crossroads, on culvert; chiseled square-----	592. 04

From point on Tuscola Road about 700 feet west of southeast corner sec. 29, T. 13 N., R. 6 E., along roads east 1.1 miles, thence north into Bay City quadrangle at point 1.5 miles south and 1 mile east from Munger (by H. S. Senseney in 1916)

Munger, 1.0 mi. E., thence 2.0 mi. S. from, in SE. cor. sec. 28, T. 13 N., R. 6 E., 15 ft. N. and 15 ft. W. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 23 1915 593"-----	592. 335
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From crossroads 1.5 miles northeast of Bridgeport south and southwest along road to Bridgeport, thence southeast along Michigan Electric Railway<sup>90</sup> to Curtis, thence west along road 2.2 miles, thence southeast along Pere Marquette Railway 1.1 miles, thence south 1 mile and west 6 miles along roads to crossroads 7.7 miles south of Saginaw (by H. S. Senseney in 1916; leveled twice)

Bridgeport, 0.4 mi. NE. of, about 600 ft. S. of NW. cor. sec. 15, T. 11 N., R. 5 E., in NE. angle of rd. fork, on culvert; chiseled square--	603. 13
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<sup>90</sup> This railway is now abandoned.

	<i>Feet</i>
Bridgeport, at crossroads, at Michigan Electric Ry.; top of S. rail----	600. 8
Bridgeport, 1.9 mi. SE. of, 0.2 mi. W. of center of sec. 23, T. 11 N., R. 5 E., 20 ft. S. and 60 ft. E. from rd. crossing; standard iron post with bronze cap stamped "611"-----	610. 294
Cass River, under bridge; surface of water May 23, 1916-----	587. 4
Bridgeport, 4.0 mi. SE. of, at Curtis, 0.3 mi. W. of NE. cor. sec. 36, T. 11 N., R. 5 E., at SW. corner of crossroads, on culvert; chiseled square-----	610. 01
Bridgeport, 2.9 mi. along Pere Marquette Ry. SE., thence 1.0 mi. E. from, near S $\frac{1}{4}$ cor. sec. 26, T. 11 N., R. 5 E., in NE. angle of crossroads, in root of tree; copper nail and washer-----	618. 84
Bridgeport, 2.9 mi. SE. of, near S $\frac{1}{4}$ cor. sec. 27, T. 11 N., R. 5 E., at NE. corner of crossroads, in root of tree; copper nail and washer--	614. 71
Bridgeport, 4.0 mi. SE. of, in SW. cor. sec. 35, T. 11 N., R. 5 E., 60 ft. N. and 45 ft. E. from rd. crossing; standard iron post with bronze cap stamped "615"-----	613. 880
Bridgeport, 4.0 mi. SE., thence 0.9 mi. S. from, 0.2 mi. S., thence 3.0 mi. E. from Fosters, in SW. cor. sec. 2, T. 10 N., R. 5 E., near NE. corner of crossroads, on wing wall of bridge; chiseled square-----	603. 40
Fosters, 0.2 mi. S., thence 1.0 mi. E. from, in SE. cor. sec. 5, T. 10 N., R. 5 E., 20 ft. N. and 30 ft. W. from crossroads; standard iron post with bronze cap stamped "613"-----	611. 955
Fosters, 0.2 mi. S. of, near SE. cor. sec. 6, T. 10 N., R. 5 E., at NW. corner of rd. fork, in root of tree; copper nail and washer-----	601. 30
Fosters, 1.1 mi. by rd. NW. of, 0.3 mi. S. of NE. cor. sec. 1, T. 10 N., R. 4 E., 30 ft. W. of junction of N.-S. rd., in root of tree; copper nail and washer-----	594. 59
Flint River, under bridge; surface of water May 25, 1916-----	591. 6
From northeast corner sec. 9, T. 11 N., R. 6 E., along roads south to crossroads 1.9 miles east of Birch Run, thence west 5.8 miles, thence alternately north and northwest to crossroads 0.2 mile south and 1 mile east from Fosters (by H. S. Senseney in 1916)	
T. 11 N., R. 6 E., in SW. cor. sec. 10, near NE. corner of crossroads, on culvert; chiseled square-----	644. 29
T. 11 N., R. 6 E., in SW. cor. sec. 15, near NE. corner of crossroads, on culvert; chiseled square-----	654. 38
T. 11 N., R. 6 E., in NE. cor. sec. 28, 30 ft. S. and 25 ft. W. from crossroads; standard iron post with bronze cap stamped "641"----	640. 679
Cass River, under bridge; surface of water June 1, 1916-----	594. 2
T. 11 N., R. 6 E., in SE. cor. sec. 33, in NW. angle of crossroads, in root of tree; copper nail and washer-----	623. 57
T. 10 N., R. 6 E., in NW. cor. sec. 10, 25 ft. S. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "639"----	637. 982
T. 10 N., R. 6 E., near E $\frac{1}{4}$ cor. sec. 16, 1.9 mi. E., thence 1.5 mi. N. from Birch Run, in SW. angle of junction of T-rd. W., in root of tree; copper nail and washer-----	640. 59
Birch Run, 1.9 mi. E. of, in SE. cor. sec. 21, T. 10 N., R. 6 E., 25 ft. N. and 25 ft. W. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 12 1915 648" (recovered in 1919)-	646. 986
Birch Run, 0.9 mi. E. of, near NW. cor. sec. 28, T. 10 N., R. 6 E., in SE. angle of junction of T-rd. S., on culvert; chiseled square----	639. 21
Birch Run, at NW. corner of post office, in root of tree; copper nail and washer-----	634. 23

Birch Run, 1.0 mi. W. of, near NW. cor. sec. 30, T. 10 N., R. 6 E., 25 ft. S. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "631" (recovered in 1919)-----	<i>Feet</i> 630. 262
Birch Run, 2.0 mi. W. of, in SE. cor. sec. 23, T. 10 N., R. 5 E., 200 ft. W. of crossroads, in root of tree; copper nail and washer-----	626. 25

[Line jogs into Burt quadrangle]

Birch Run, 3.8 mi. W., thence 0.8 mi. NW. from, 2.6 mi. S. and 1.9 mi. E. from Fosters, in NE $\frac{1}{4}$ sec. 21, T. 10 N., R. 5 E., in front of Taymouth town hall, on E. side of rd., in root of tree; copper nail and washer-----	613. 87
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#### ST. CHARLES QUADRANGLE

[Latitude 43°15'-43°30'; longitude 84°00'-84°15']

#### MIDLAND AND SAGINAW COUNTIES

From Chesaning quadrangle near southwest corner sec. 20, T. 10 N., R. 4 E.,  
along roads north 0.4 mile to McDonough Corners, thence east 1.5 miles into  
Saginaw quadrangle (by E. C. Bibbee in 1913)

McDonough Corners, in SW. angle of crossroads at, 1.0 mi. S. of Alicia; standard iron post with bronze cap stamped "595"-----	594. 346
McDonough Corners, 0.8 mi. E. of, 0.25 mi. E. of center of sec. 20, T. 10 N., R. 4 E., 60 ft. N. of rd., in root of 20-in. white-oak tree; copper nail-----	597. 04

From Saginaw quadrangle at point 0.5 mile east of Vogt Corners along roads  
west 0.7 mile, thence north to Midland-Saginaw county-line road, thence  
west 1 mile to Lawndale (by E. C. Bibbee in 1913 and H. S. Senseney in 1916)

Vogt Corners, 0.3 mi. W. of center of sec. 33, T. 12 N., R. 4 E., 12 ft. NE. of SW. corner of junction of T-rd. S., in root of 36-in. elm tree; copper nail-----	595. 56
Vogt Corners, 0.2 mi. W., thence 1.0 mi. N. from, near E $\frac{1}{4}$ cor. sec. 29, T. 12 N., R. 4 E., in NW. angle of crossroads, in SE. corner of yard of Otto School; standard iron post with bronze cap stamped "604"-----	603. 758
Vogt Corners, 0.2 mi. W., thence 2.0 mi. N. from, near W $\frac{1}{4}$ cor. sec. 21, T. 12 N., R. 4 E., in SE. angle of crossroads, in root of poplar tree; copper nail-----	620. 32
Vogt Corners, 0.2 mi. W., thence 3.5 mi. N. from, 1.0 mi. E., thence 2.0 mi. S. from Lawndale, near SE. cor. sec. 8, T. 12 N., R. 4 E., at W. abutment of concrete box culvert, on W. side of N. end of wing wall; chiseled square-----	626. 07
Lawndale, 1.0 mi. E., thence 1.0 mi. S. from, 20 ft. S. and 20 ft. W. from NE. cor. sec. 8, T. 12 N., R. 4 E., on W. end of concrete box culvert; chiseled square-----	627. 12
Lawndale, 1.0 mi. E. of, 25 ft. N. and 25 ft. W. from SE. cor. sec. 32, T. 13 N., R. 4 E.; standard iron post with bronze cap stamped "627"-----	626. 022
Lawndale, 70 ft. W. of Pere Marquette Ry. sta., 165 ft. W. of SE. cor. sec. 31, T. 13 N., R. 4 E., in NE. corner of foundation of scales; head of driftbolt-----	636. 53

From Lawndale west along Midland-Saginaw county-line road 10.8 miles,  
thence south along road to crossroads 2.5 miles south of Hemlock (by E. C.  
Bibbee in 1913)

Lawndale, 0.9 mi. W. of, 30 ft. N. and 30 ft. E. from SW. cor. sec. 31, T. 13 N., R. 4 E., in base of sugar-maple tree; 40-penny spike-----	627. 46
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Lawndale, 1.9 mi. W. of, 30 ft. S. and 30 ft. W. from NE. cor. sec. 2, T. 12 N., R. 3 E., in SW. angle of crossroads; standard iron post with bronze cap stamped "627"-----	<i>Feet</i> 627. 038
Lawndale, 2.9 mi. W. of, 25 ft. N. and 25 ft. E. from SW. cor. sec. 35, T. 13 N., R. 3 E., about 200 ft. E. of Tittabawassee River, in root of maple tree; copper nail-----	614. 69
Lawndale, 4.4 mi. W. of, 2.0 mi. N. of Frost, near S $\frac{1}{4}$ cor. sec. 33, T. 13 N., R. 3 E., in yard opposite T-rd. S., in root of poplar tree; copper nail-----	620. 62
Frost, 2.0 mi. N., thence 0.5 mi. W. from, 25 ft. N. and 25 ft. W. from SE. cor. sec. 32, T. 13 N., R. 3 E., in NW. angle of crossroads; standard iron post with bronze cap stamped "617"-----	616. 608
Frost, 2.0 mi. N., thence 1.5 mi. W. from, 1.0 mi. S., thence 2.0 mi. E. from Laporte, near NE. cor. sec. 6, T. 12 N., R. 3 E., at entrance to Wiltse School, on S. end of doorsill; chiseled square <sup>91</sup> -----	621. 92
Laporte, 1.0 mi. S., thence 1.0 mi. E. from, 25 ft. N. and 30 ft. W. from SE. cor. sec. 36, T. 13 N., R. 2 E., at NW. corner of crossroads; standard iron post with bronze cap stamped "625"-----	624. 132
Laporte, 1.0 mi. S. of, 4.6 mi. N., thence 2.0 mi. E. from Hemlock, 200 ft. E. of SW. cor. sec. 36, T. 13 N., R. 2 E., at iron bridge over South Branch of Swan Creek, on N. side of W. abutment; chiseled square-----	618. 96
Hemlock, 4.6 mi. N. of, 40 ft. S. and 30 ft. E. from NW. cor. sec. 3, T. 12 N., R. 2 E., opposite John C. Nafe School, on E. side of rd.; standard iron post with bronze cap stamped "637" <sup>92</sup> -----	635. 755
Hemlock, 3.5 mi. N. of, 30 ft. N. and 25 ft. W. from SE. cor. sec. 4, T. 12 N., R. 2 E., in root of elm tree; rail spike-----	638. 03
Hemlock, 2.5 mi. N. of, 200 ft. N. and 16 ft. W. from SE. cor. sec. 9, T. 12 N., R. 2 E., at iron bridge over South Branch of Swan Creek, on wing wall at SW. corner; chiseled square-----	636. 09
Hemlock, 2.0 mi. N. of, 140 ft. S. and 30 ft. E. from W $\frac{1}{4}$ cor. sec. 15, T. 12 N., R. 2 E., in SW. corner of yard of Lunney School; standard iron post with bronze cap stamped "643"-----	642. 827
Hemlock, 1.0 mi. N. of, 20 ft. N. and 20 ft. W. from E $\frac{1}{4}$ cor. sec. 21, T. 12 N., R. 2 E., at NW. corner of crossroads, on W. end of tile drain; highest point-----	643. 63
Hemlock, 0.5 mi. S. of, 320 ft. S. of NE. cor. sec. 33, T. 12 N., R. 2 E., at concrete bridge over McClellan Run, at W. side, on N. abutment; chiseled square (recovered in 1915)-----	645. 74
Hemlock, 1.5 mi. S. of, 35 ft. S. and 20 ft. W. from NE. cor. sec. 4, T. 11 N., R. 2 E.; standard iron post with bronze cap stamped "641"-----	640. 202
Hemlock, 2.5 mi. S. of, 150 ft. SW. of NE. cor. sec. 9, T. 11 N., R. 2 E., at entrance to Cleveland School, on NW. corner of porch; chiseled square-----	639. 92

From Midland-Saginaw county-line road at point 2 miles north of Frost generally south along roads to crossroads 0.9 mile west of Swan Creek (by E. C. Bibbee in 1913)

Frost, 1.0 mi. N. of, 0.5 mi. W. of Dice, 20 ft. N. and 60 ft. W. from S $\frac{1}{4}$ cor. sec. 4, T. 12 N., R. 3 E., at NE. corner of bridge over Hatch Run, on T-rail used to support wing wall; highest point-----	603. 12
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<sup>91</sup> In July 1915 this mark was reported destroyed.

<sup>92</sup> In 1915 this bench mark was moved 2 feet south and 55 feet west from this position and lowered 1.000 foot. The figures given represent the new elevation.

Frost, 0.25 mi. N. of, 0.25 mi. S. of center of sec. 9, T. 12 N., R. 3 E., at iron bridge over Swan Creek, on NW. wing wall; chiseled square-	<i>Feet</i> 597. 80
Frost, 80 ft. N. of S $\frac{1}{4}$ cor. sec. 9, T. 12 N., R. 3 E., opposite general store, on SE. corner of scales; top of bolt head-----	606. 85
Frost, 1.0 mi. S. of, 300 ft. S. of N $\frac{1}{4}$ cor. sec. 21, T. 12 N., R. 3 E., at NW. corner of bridge over McClellan Run, on sixth rivet head from bottom of truss; highest point-----	599. 49
Frost, 1.5 mi. S., thence 0.5 mi. E. from, 2.0 mi. N. of Sand Ridge, near E $\frac{1}{4}$ cor. sec. 21, T. 12 N., R. 3 E.; standard iron post with bronze cap stamped "599"-----	598. 410
Sand Ridge, 1.5 mi. S. of, 0.9 mi. W. of Swan Creek, 25 ft. N. and 20 ft. W. from SE. cor. sec. 4, T. 11 N., R. 3 E.; standard iron post with bronze cap stamped "Prim Trav Sta No 16 1913 Mich 594"-----	593. 097

From crossroads 2.5 miles south of Hemlock along roads east 11 miles to Lincoln Corners, thence north 1.6 miles to Vogt Corners (by E. C. Bibbee in 1913)

Hemlock, 2.5 mi. S., thence 2.0 mi. E. from, 1.0 mi. W. of Orr, 700 ft. E. of SW. cor. sec. 1, T. 11 N., R. 2 E., 4 ft. NE. of NE. corner of small bridge, on T-rail support of wing wall; highest point-----	621. 20
Orr, in SW. angle of crossroads, 3.9 mi. W. of Swan Creek, 25 ft. S. and 25 ft. W. from NE. cor. sec. 12, T. 11 N., R. 2 E.; standard iron post with bronze cap stamped "609"-----	608. 433
Swan Creek, opposite post office, 500 ft. W. of NE. cor. sec. 10, T. 11 N., R. 3 E., on Michigan Central R. R. right-of-way, on S. side of rd.; standard iron post with bronze cap stamped "595"-----	594. 136
Swan Creek, 2.1 mi. E. of, 50 ft. N. and 50 ft. W. from SE. cor. sec. 1, T. 11 N., R. 3 E., diagonally opposite Jordan School, in cultivated field, in root of ash tree; copper nail-----	594. 53
Swan Creek, 3.0 mi. E. of, 1.0 mi. W. of Lincoln Corners, 12 ft. S. and 15 ft. W. from NE. cor. sec. 7, T. 11 N., R. 4 E., diagonally opposite Pokagon School, on SE. corner of concrete box culvert; chiseled square-----	592. 60
Lincoln Corners, 0.5 mi. W. of, 1.6 mi. by rd. S., thence 0.5 mi. W. from Vogt Corners, 20 ft. S. and 25 ft. W. from N $\frac{1}{4}$ cor. sec. 8, T. 11 N., R. 4 E., 50 ft. W. of R. R. switch to mine; standard iron post with bronze cap stamped "592"-----	591. 563

From crossroads 2.5 miles south of Hemlock along roads south to Brant, thence generally east to McDonough Corners (by E. C. Bibbee in 1913)

Hemlock, 3.6 mi. S. of, 2.0 mi. N. of Nelson, 50 ft. S. and 20 ft. W. from NE. cor. sec. 16, T. 11 N., R. 2 E., in root of elm tree, 2 ft. E. of base; copper nail-----	631. 54
Nelson, 1.5 mi. N. of, 30 ft. S. and 27 ft. W. from E $\frac{1}{4}$ cor. sec. 16, T. 11 N., R. 2 E., in SW. angle of junction of T-rd. W.; standard iron post with bronze cap stamped "629"-----	627. 957
Nelson, 1.0 mi. N. of, 20 ft. S. and 15 ft. W. from NE. cor. sec. 21, T. 11 N., R. 2 E., on W. end of concrete arch culvert; chiseled square--	627. 29
Nelson, 30 ft. N. and 30 ft. E. from SW. cor. sec. 22, T. 11 N., R. 2 E., at S. entrance to store of E. S. Winchel, on W. end of second step from bottom; chiseled square-----	628. 43
Nelson, 1.0 mi. S. of, 50 ft. N. and 10 ft. W. from SE. cor. sec. 28, T. 11 N., R. 2 E., in center of W. end of concrete arch culvert; chiseled square-----	621. 53

Nelson, 2.0 mi. S. of, 3.1 mi. N. of crossroads in Brant, 25 ft. S. of SW. cor. sec. 34, T. 11 N., R. 2 E., in NE. cor. sec. 3, T. 10 N., R. 2 E., opposite T-rd. N.; standard iron post with bronze cap stamped "617"-----	<i>Feet</i> 616. 807
Brant, 1.0 mi. N. of, 15 ft. N. and 15 ft. W. from SE. cor. sec. 9, T. 10 N., R. 2 E., on N. end of concrete culvert; chiseled square-----	615. 00
Brant, 0.2 mi. N. of SW. cor. sec. 15, T. 10 N., R. 2 E., in SW. corner of schoolyard; standard iron post with bronze cap stamped "612" (recovered in 1915)-----	611. 776
Brant, 2.0 mi. E. of, 100 ft. NW. of SE. cor. sec. 14, T. 10 N., R. 2 E., at entrance to Ring School, on SE. corner of concrete porch; chiseled square-----	606. 50
Brant, 0.5 mi. N., thence 2.0 mi. E. from, at quarter corner between secs. 13 and 14, T. 10 N., R. 2 E., in center of junction of E.-W. rd., on stone marking quarter corner; highest point-----	609. 40
Brant, 0.5 mi. N., thence 3.0 mi. E. from, 2.0 mi. W., thence 1.0 mi. N. from Fergus, 30 ft. S. and 25 ft. E. from W $\frac{1}{4}$ cor. sec. 18, T. 10 N., R. 3 E.; standard iron post with bronze cap stamped "605"-----	604. 575
Fergus, 1.3 mi. W., thence 1.0 mi. N. from, in E $\frac{1}{2}$ sec. 18, T. 10 N., R. 3 E., 50 ft. S. of junction of N.-S. rd., on E. side of rd., in root of 15-in. oak tree; copper nail-----	600. 42
Fergus, 1.3 mi. W., thence 0.5 mi. N. from, 0.3 mi. W. of NE. cor. sec. 19, T. 10 N., R. 3 E., at NE. corner of small bridge, on granite rock in wing wall; chiseled mark-----	599. 83
Fergus, 0.5 mi. W., thence 0.5 mi. N. from, 20 ft. S. and 20 ft. W. from N $\frac{1}{4}$ cor. sec. 20, T. 10 N., R. 3 E., on W. end of concrete arch culvert; chiseled square-----	600. 85
Fergus, opposite post office, 50 ft. E. of R. R. track, on N. side of rd.; standard iron post with bronze cap stamped "602" (recovered by U. S. C. & G. S. in 1934)-----	601. 498
Fergus, 1.2 mi. E. of, 0.2 mi. E. of W $\frac{1}{4}$ cor. sec. 22, T. 10 N., R. 3 E., at iron bridge over Shiawassee River, on N. side of W. abutment; chiseled square-----	603. 43
Fergus, 2.0 mi. E. of, 15 ft. N. and 15 ft. W. from E $\frac{1}{4}$ cor. sec. 22, T. 10 N., R. 3 E., on W. end of concrete arch culvert; chiseled square-----	594. 19
Fergus, 3.0 mi. E. of, 1.9 mi. W. of McDonough Corners, 20 ft. S. and 10 ft. E. from W $\frac{1}{4}$ cor. sec. 24, on NE. corner of small bridge; top of bolt head-----	594. 49
From Swan Creek southwest and south along Michigan Central Railroad to Fergus (by E. C. Bibbee in 1913)	
Swan Creek, 2.1 mi. SW. of, 0.8 mi. NE. of Garfield, in NW $\frac{1}{4}$ sec. 16, T. 11 N., R. 3 E., 60 ft. S. of track, on W. side of rd., in root of maple tree; rail spike-----	596. 32
Garfield, 40 ft. S. of sta., 3.5 mi. N. of St. Charles, 55 ft. N. and 30 ft. W. from SE. cor. sec. 17, T. 11 N., R. 3 E., 1 ft. E. of R. R. right-of-way; standard iron post with bronze cap stamped "600" (recovered by U. S. C. & G. S. in 1934)-----	599. 136
St. Charles, 300 ft. N. of St. Charles Electric Light and Power Co. building, at bridge over Bad River, at E. side, on N. abutment; chiseled square-----	594. 42
St. Charles, in NE. corner of schoolyard; standard iron post with bronze cap stamped "596" (recovered by U. S. C. & G. S. in 1934)-----	595. 540



St. Charles, 1.3 mi. S. of, 2.0 mi. N. of Fergus, in SE $\frac{1}{4}$ sec. 8, T. 10 N., R. 3 E., 70 ft. W. of grade crossing, 50 ft. S. of rd., in cultivated field, in root of oak tree; rail spike-----	Feet 596. 22
From Merrill quadrangle east along Gratiot Road (present State Highway 48) 1 mile, thence south along road 0.5 mile to crossroads 0.5 mile south of Hemlock (by E. C. Bibbee in 1915)	
Hemlock, 1.0 mi. W. of, near W $\frac{1}{4}$ cor. sec. 28, T. 12 N., R. 2 E., 1 ft. S. of fence post at NE. corner of crossroads, on sandstone rock; chiseled square-----	656. 41
From Chesaning quadrangle at point near west quarter corner sec. 21, T. 10 N., R. 2 E., along roads north 0.6 mile, thence east 1 mile to Brant (by E. C. Bibbee in 1915)	
Brant, 1.0 mi. W. of, 75 ft. S. of NW. cor. sec. 21, T. 10 N., R. 2 E., at E. side of bridge over Potato Creek, on N. abutment; chiseled square-----	611. 37
From Merrill quadrangle near southeast corner sec. 5, T. 11 N., R. 2 E., along roads east 0.1 mile, thence north 2.5 miles to crossroads 1 mile west of Hemlock, thence west and back into Merrill quadrangle (by D. R. Cabaniss in 1934)	
Hemlock, 1.0 mi. W., thence 2.5 mi. S. from, 20 ft. N. and 20 ft. W. from SE. cor. sec. 5, T. 11 N., R. 2 E., in NW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 15 1913 Mich"-----	652. 152
Hemlock, 1.0 mi. W., thence 1.5 mi. S. from, near N. cor. secs. 4 and 5, T. 11 N., R. 2 E., at jog in N.-S. rd., 21 ft. S. and 27 ft. W. from junction of rd. S., 3 ft. N. of corner fence post; top of iron stake-----	654. 36
Hemlock, 1.0 mi. W., thence 0.5 mi. S. from, near SE. cor. sec. 29, T. 12 N., R. 2 E., 40 ft. N. and 15 ft. W. from center of crossroads, in root on E. side of elm tree; copper nail and washer-----	657. 34
Hemlock, 1.0 mi. W. of, at quarter corner between secs. 28 and 29, T. 12 N., R. 2 E., at center of crossroads, in concrete highway; top of iron disk-----	657. 17

## SALINE QUADRANGLE

[Latitude 42°00'-42°15'; longitude 83°45'-84°00']

## LENAWEE, MONROE, AND WASHTENAW COUNTIES

From South Lyon quadrangle<sup>93</sup> near Ann Arbor along roads southwest to line between Rs. 5 and 6 E., thence generally south to Saline, thence east 1.7 miles into Ypsilanti quadrangle (by R. E. Wipfler in 1901)

Saline, 4.4 mi. by rd. N. of, 1,000 ft. S. of NE. cor. sec. 13, T. 3 S., R. 6 E., on W. side of rd.; standard iron post with bronze cap stamped "880"-----	880. 190
Saline, at Saline Bank, in cornerstone; standard tablet stamped "825"-----	824. 702
From Saline along roads southwest and west to road junction 0.5 mile east of Bridgewater, thence north 0.5 mile to township line, thence alternately south and west to Lenawee-Washtenaw county line, thence east along county-line road into Ypsilanti quadrangle at point 3.5 miles west of Milan (by R. E. Wipfler in 1902)	
Saline, 2.3 mi. W. of, 4.0 mi. E. of Bridgewater, near center of sec. 3, T. 4 S., R. 5 E., at crossroads, in root of tree; nail-----	860. 77
Bridgewater, 0.5 mi. E., thence 0.5 mi. N. from, in SE. cor. sec. 36, T. 3 S., R. 4 E., on W. side of range-line rd.; standard iron post with bronze cap stamped "901" <sup>94</sup> -----	901. 022

<sup>93</sup> This line cuts across the southeast corner of Dexter quadrangle but no marks were set in that quadrangle.<sup>94</sup> In 1932 it was reported that the top of this post had rusted off.

Bridgewater, 2.6 mi. by rd. SW. of, 0.25 mi. W. of NE. cor. sec. 14, T. 4 S., R. 4 E., at junction of T-rd. S.; standard iron post with bronze cap stamped "882"-----	Feet 882. 485
Bridgewater, 6.6 mi. by rd. SW. of, 3.3 mi. E., thence 0.5 mi. N. from Clinton, near NW. cor. sec. 1, T. 5 S., R. 4 E., at junction of county-line rd. E.; standard iron post with bronze cap stamped "879"-----	879. 270
Clinton, 4.3 mi. E. and 0.5 mi. N. from, 1.0 mi. N. and 1.0 mi. W. from Macon, in NE. cor. sec. 1, T. 5 S., R. 4 E., at junction of range-line rd. S., in root of hickory tree; nail-----	869. 30
Macon, 1.3 mi. NE., thence 1.7 mi. E. from, 7.3 mi. W. of Milan, near N $\frac{1}{4}$ cor. sec. 3, T. 5 S., R. 5 E., at junction of T-rd. N.; standard iron post with bronze cap stamped "775"-----	775. 188

At Tecumseh (by S. R. Archer in 1938)

[A jog from Blissfield quadrangle]

Tecumseh, 0.7 mi. E. of, 0.2 mi. N. of quarter corner between secs. 34 and 35, T. 5 S., R. 4 E., 360 ft. E. of junction of rd. S., on N. side of State Highway 50, on top of W. concrete head wall of culvert under driveway to farm; chiseled square-----	797. 65
Tecumseh, at E. edge of, at SW. corner of concrete highway bridge over River Raisin, at E. end of side wall of approach, on W. side of pedestal at W. end of S. concrete arched truss, on ledge; chiseled square-----	756. 33
Tecumseh, in NE. corner of Adams Park, 48 ft. S. and 48 ft. W. from center of intersection of East Chicago Boulevard and South Maumee Street, inside corner of sidewalk, set flush, in concrete post; standard tablet stamped "T T 52 C 1938 794"-----	794. 319
Tecumseh, in SW. part of, in NE. corner of intersection of Kilbuck Street and rd. to Adrian, directly N. of fire hydrant, on S. edge of concrete sidewalk; chiseled square-----	819. 39

## SANTFORD QUADRANGLE

[Latitude 43°30'-43°45'; longitude 84°15'-84°30']

## MIDLAND COUNTY

From Shepherd quadrangle along roads east 0.6 mile, thence generally north 1.1 miles to junction of U. S. Highway 10 and State Highway 18 at North Bradley, thence north along State highway into Highwood quadrangle (by S. R. Archer in 1929)

North Bradley, 0.8 mi. S. of, near NW. cor. sec. 18, T. 15 N., R. 1 W., 250 ft. S. of crossroads, on E. side of rd., on field side of fence, in root on W. side of 10-in. maple tree; copper nail and washer-----	664. 34
North Bradley, 0.3 mi. S. of, near quarter corner between secs. 7 and 12, T. 15 N., Rs. 1 and 2 W., at steel bridge over Salt River, on top of W. end of concrete pier in middle of river; chiseled square-----	635. 97
North Bradley, 0.1 mi. SW. of main part of village, 120 ft. NE. and 95 ft. NW. from junction of NE.-SW. rd., at main entrance to school, on top of SW. end of concrete doorsill; chiseled square-----	668. 25
North Bradley, 300 ft. SE. of Pere Marquette Ry. sta., at street crossing main track; top of S. rail-----	669. 3
North Bradley, 600 ft. SE. of sta., 300 ft. SE. of rd. crossing, 40 ft. NE. of center of track, 25 ft. SW. of junction of U. S. Highway 10 and State Highway 18, in line with center of highway NE., in concrete post; standard tablet stamped "1 A 1929 Mich" (recovered by U. S. C. & G. S. in 1934)-----	666. 760

North Bradley, 1.2 mi. N. of, near SE. cor. sec. 36, T. 16 N., R. 2 W., 30 ft. N. of crossroads, at concrete highway bridge, on top of W. parapet of N. abutment; chiseled square-----	<i>Feet</i> 678. 90
North Bradley, 2.2 mi. N. of, near cor. secs. 25, 30, 31, and 36, T. 16 N., Rs. 1 and 2 W., at concrete highway bridge over Bluff Creek, on top of E. head wall, 4 ft. N. of S. end and 4 ft. above floor; chiseled square-----	670. 45
From Highwood quadrangle at point 1 mile south and 1.5 miles east from Hope along roads south 0.5 mile, thence east by way of Gray into Freeland quadrangle (by D. R. Cabaniss in 1934)	
Hope, 1.5 mi. S. and 1.5 mi. E. from, 2.1 mi. W. of Gray, in SW. cor. sec. 36, T. 16 N., R. 1 E., in SW. corner of yard of Clark School, 36 ft. N. and 210 ft. E. from crossroads, in concrete post; standard tablet stamped "4 C 1934"-----	657. 025
Reference mark, 18 ft. S. and 225 ft. W. from tablet, on S. end of W. concrete head wall of culvert; chiseled square-----	658. 34
Gray, 1.0 mi. W. of, in NW. cor. sec. 6, T. 15 N., R. 2 E., 20 ft. S. and 680 ft. E. from junction of T-rd. S., on top of W. end of S. concrete head wall of culvert; chiseled square-----	660. 64
Gray, in village of, near NE. cor. sec. 6, T. 15 N., R. 2 E., 60 ft. S. and 350 ft. W. from junction of T-rd. S., in root on N. side of birch tree; copper nail and washer-----	671. 96
From Freeland quadrangle at Midland generally west along State Highway 20 and other roads to Olson, thence along roads south to road junction 1 mile west of Floyd, thence west into Shepherd quadrangle at point 0.8 mile west of Greendale-Lee township line (by D. R. Cabaniss in 1934)	
Midland, at Isabella State Rd. (present State Highway 20) bridge over Tittabawassee River, on NW. corner at end of guardrail; bolt head-----	615. 57
Midland, at W. limits of, 0.7 mi. W. of bridge over Tittabawassee River, 150 ft. E. of entrance to Midland County Highway Commission Garage, in root on S. side of maple tree; copper nail and washer-----	606. 87
Midland, 2.3 mi. W. of Midland County courthouse at, in SW. cor. sec. 18, T. 14 N., R. 2 E., 25 ft. N. and 18 ft. E. from crossroads, at Glasgow School, in root on S. side of elm tree; copper nail and washer-----	620. 28
Midland, 3.3 mi. W. of, near NE. cor. sec. 23, T. 14 N., R. 1 E., 30 ft. S. and 66 ft. W. from crossroads, in concrete post; standard tablet stamped "12 C 1934"-----	630. 146
Reference mark, 30 ft. N. and 85 ft. E. from tablet, on NE. corner of concrete culvert; chiseled square-----	631. 93
Midland, 4.3 mi. W. of, near SW. cor. sec. 14, T. 14 N., R. 1 E., near Windover School, 25 ft. N. and 18 ft. E. from crossroads, on NE. corner of concrete culvert; chiseled square-----	625. 42
Midland, 5.3 mi. W. of, 1.0 mi. E. of Dice Corners, near NE. cor. sec. 21, T. 14 N., R. 1 E., 25 ft. S. and 18 ft. W. from crossroads, on S. end of W. concrete head wall of culvert; chiseled square-----	638. 89
Midland, 5.3 mi. W., thence 1.0 mi. N. from, 4.0 mi. E. of Olson, near NW. cor. sec. 15, T. 14 N., R. 1 E., 20 ft. S. and 20 ft. E. from junction of E.-W. rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 80 1919"-----	631. 283
Reference mark, 50 ft. N. and 70 ft. W. from tablet, in root on S. side of elm tree; copper nail and washer-----	628. 79

Olson, 3.0 mi. E. of, near W. cor. secs. 9 and 16, T. 14 N., R. 1 E., at jog in E.-W. rd., 50 ft. N. and 20 ft. E. from junction of State Highway 30 and T-rd. E., on N. end of E. concrete head wall of culvert; chiseled square-----	<i>Feet</i> 637. 12
Olson, 2.0 mi. E. of, near NW. cor. sec. 12, T. 14 N., R. 1 W., 27 ft. S. and 365 ft. E. from center of dim crossroads, at fence S., in root on E. side of pine tree; copper nail and washer-----	647. 64
Olson, 1.0 mi. E. of, near NE. cor. sec. 10, T. 14 N., R. 1 W., 30 ft. S. and 57 ft. W. from center of crossroads, 27 ft. W. of corner fence post, in concrete post; standard tablet stamped "13 C 1934"-----	648. 884
Reference mark, 70 ft. N. and 105 ft. E. from tablet, in root on W. side of pine tree; copper nail and washer-----	650. 16
Olson, 33 ft. N. and 80 ft. W. from center of crossroads at, near SE. cor. sec. 4, T. 14 N., R. 1 W., in schoolyard, in root on S. side of cottonwood tree; copper nail and washer-----	648. 80
Olson, 1.0 mi. S. of, near NW. cor. sec. 15, T. 14 N., R. 1 W., 40 ft. S. and 27 ft. E. from center of crossroads, on S. concrete head wall of culvert; chiseled square-----	654. 03
Olson, 2.0 mi. S. of, 1.0 mi. W., thence 0.6 mi. N. from Floyd, near Lee town hall, near NW. cor. sec. 22, T. 14 N., R. 1 W., 65 ft. S. and 33 ft. E. from center of crossroads, 30 ft. S. of corner fence post, in concrete post; standard tablet stamped "14 C 1934"-----	650. 403
Floyd, 1.0 mi. W. of, about 800 ft. S. of quarter corner between secs. 21 and 22, T. 14 N., R. 1 W., 20 ft. S. and 35 ft. E. from center of crossroads, in root on N. side of elm tree; copper nail and washer--	647. 09
Floyd, 2.0 mi. W. of, 0.2 mi. N. of SE. cor. sec. 20, T. 14 N., R. 1 W., 25 ft. S. and 300 ft. W. from center of rd. at N.-S. fence, in root on N. side of poplar tree; copper nail and washer-----	657. 24
Floyd, 3.0 mi. W. of, near SW. cor. sec. 20, T. 14 N., R. 1 W., 33 ft. N. and 220 ft. E. from junction of T-rd. N., 25 ft. E. of fence corner, in concrete post; standard tablet stamped "15 C 1934"-----	661. 322
Reference mark, 20 ft. N. and 150 ft. W. from tablet, on SW. corner of foundation of salt well; chiseled square-----	663. 77
Floyd, 4.0 mi. W. of, about 740 ft. N. and 210 ft. W. from SE. cor. sec. 24, T. 14 N., R. 2 W., 45 ft. S. and 210 ft. W. from junction of T-rd. N., in root on N. side of poplar tree; copper nail and washer-----	666. 77
From Freeland quadrangle at point 2 miles south of Posyville along roads west into Shepherd quadrangle at point 0.6 mile south and 1.7 miles west from Porter (by D. R. Cabaniss in 1934)	
Posyville, 2.0 mi. S., thence 1.0 mi. W. from, near NE. cor. sec. 29, T. 13 N., R. 2 E., 20 ft. S. and 33 ft. E. from center of crossroads, in root on W. side of maple tree; copper nail and washer-----	644. 67
Posyville, 2.0 mi. S., thence 2.0 mi. W. from, near SW. cor. sec. 19, T. 13 N., R. 2 E., 12 ft. N. and 27 ft. E. from center of crossroads, on SE. corner of concrete head wall of culvert; chiseled square-----	657. 29
Posyville, 2.0 mi. S., thence 3.0 mi. W. from, near NW. cor. sec. 25, T. 13 N., R. 1 E., 40 ft. S. and 40 ft. E. from center of crossroads, on S. bank of drainage ditch, in concrete post; standard tablet stamped "9 C 1934"-----	662. 017
Posyville, 2.0 mi. S., thence 4.0 mi. W. from, 4.0 mi. S., thence 2.0 mi. E. from Gordonville, near SE. cor. sec. 22, T. 13 N., R. 1 E., 15 ft. N. and 20 ft. W. from center of crossroads, on top of concrete head wall of culvert; chiseled square-----	666. 30

Gordonville, 4.0 mi. S., thence 1.0 mi. E. from, near SW. cor. sec. 21, T. 13 N., R. 1 E., 33 ft. N. and 21 ft. E. from center of crossroads, on highest point of large boulder; chiseled square-----	Feet 671. 05
Gordonville, 4.1 mi. S. of, in NW. cor. sec. 28, T. 13 N., R. 1 E., at jog in E.-W. rd., 15 ft. S. and 20 ft. E. from junction of T-rd. W. at E. cor. secs. 13 and 24, T. 13 N., R. 1 W.; standard iron post with bronze cap stamped "Prim Trav Sta No 77 W 1919"-----	672. 831
Reference mark, 25 ft. N. and 420 ft. W. from standard post, on highest point of large boulder; chiseled square-----	672. 82
Gordonville, 4.1 mi. S., thence 1.0 mi. W. from, near NW. cor. sec. 24, T. 13 N., R. 1 W., at Howley School, 25 ft. S. and 15 ft. E. from center of crossroads, on N. end of E. hub guardrail of concrete culvert; top of iron pipe-----	675. 82
Gordonville, 4.1 mi. S., thence 2.0 mi. W. from, 1.0 mi. E. of Porter Center, near NW. cor. sec. 23, T. 13 N., R. 1 W., 18 ft. S. and 43 ft. E. from center of crossroads, in root on S. side of elm tree; copper nail and washer-----	674. 44
Porter Center, 33 ft. N. and 445 ft. W. from center of crossroads in village of, near SE. cor. sec. 16, T. 13 N., R. 1 W., 5 ft. N. of corner post of fence line N., in concrete post; standard tablet stamped "10 C 1934"-----	678. 476
Reference mark, 12 ft. S. and 410 ft. E. from tablet, on NW. concrete wing wall of culvert; chiseled square-----	680. 21
Porter Center, 1.0 mi. W. of, 0.6 mi. S. and 0.9 mi. E. from Porter, near SW. cor. sec. 16, T. 13 N., R. 1 W., 100 ft. N. and 126 ft. E. from center of crossroads, in root on S. side of maple tree; copper nail and washer-----	681. 91
Porter, 0.7 mi. SW. of, in SE $\frac{1}{4}$ sec. 18, T. 13 N., R. 1 W., 75 ft. N. and 45 ft. W. from center of rd. fork W. at curve, 30 ft. W. from SE. corner of garden fence, in concrete post; standard tablet stamped "11 C 1934"-----	682. 423
Reference mark, 100 ft. S. and 55 ft. E. from tablet, on top of NE. end of wing wall of bridge; chiseled square-----	681. 53
Porter, 0.9 mi. SW., thence 0.6 mi. W. from, in SW. cor. sec. 18, T. 13 N., R. 1 W., 90 ft. N. and 260 ft. E. from center of rd. at fence S., in root on S. side of lone pine tree; copper nail and washer-----	687. 66

#### SCHOOLCRAFT QUADRANGLE

[Latitude 42°00'-42°15'; longitude 85°30'-85°45']

#### KALAMAZOO AND ST. JOSEPH COUNTIES

From Kalamazoo quadrangle south along Lake Shore & Michigan Southern Railroad <sup>95</sup> into Three Rivers quadrangle (by E. C. Bibbee in 1913)

Portage, 3.2 mi. NE. of, 3.1 mi. S. of sta. at Kalamazoo, about 300 ft. SW. of park, 3 ft. N. of Kalamazoo-Portage township-line rd., 25 ft. W. of track; standard iron post with bronze cap stamped "822" (recovered by U. S. C. & G. S. in 1916 and designated "Z 9")-----	822. 406
Portage, 2.2 mi. NE. of, 60 ft. S. of rd. crossing, at S. end of rack for spare rails; highest point of section of rail set vertically (recovered by U. S. C. & G. S. in 1916 and designated "Y 9")-----	851. 819
Portage, 1.2 mi. N. of, at S. end of rack for spare rails, at sign marked "W P 31, G R 64"; highest point of section of rail set vertically-----	846. 90

<sup>95</sup> Now a part of the New York Central System.

Portage, at SE. corner of crossroads, 100 ft. NE. of sta., 300 ft. W. of post office, 15 ft. W. of track; standard iron post with bronze cap stamped "866" (recovered by U. S. C. & G. S. in 1916 and designated "X 9")-----	Feet 866. 252
Portage, 2.1 mi. SW. of, 2 ft. W. of R. R. property line, along rd., in root of 20-in. hickory tree; rail spike-----	884. 77
Portage, 3.2 mi. SW. of, 3.4 mi. NE. of Lake Shore & Michigan Southern R. R. sta. in Schoolcraft, 200 ft. N. of rd. crossing, on E. side of rd., at W. right-of-way fence, opposite dwelling of Frank Van Hoesen; standard iron post with bronze cap stamped "882" (recovered by U. S. C. & G. S. in 1916 and designated "W 9")-----	882. 127
Schoolcraft, 80 ft. N. of R. R. sta., 2 ft. E. of W. property line, 2 ft. N. of rd., on R. R. right-of-way; standard iron post with bronze cap stamped "879" (recovered by U. S. C. & G. S. in 1916 and designated "T 9") <sup>95a</sup> -----	879. 053
Schoolcraft, 3.5 mi. S. of, 3.5 mi. N. of Moorepark, 400 ft. S. of Flowerfield sta., on E. side of rd., opposite T-rd. W.; standard iron post with bronze cap stamped "855" <sup>96</sup> -----	854. 512
Moorepark sta., 500 ft. S. of R. R. sta., about 300 ft. E. of S $\frac{1}{4}$ cor. sec. 19, T. 5 S., R. 11 W., on N. side of rd., 2 ft. W. of R. R. right-of-way fence; standard iron post with bronze cap stamped "833" (recovered by U. S. C. & G. S. in 1916 and designated "P 9")-----	832. 180
From point on Lake Shore & Michigan Southern Railroad 3.2 miles northeast of Portage along roads west 1.9 miles, thence north into Kalamazoo quadrangle (by E. C. Bibbee in 1915)	
Portage, 3.0 mi. N. of, in SE. cor. sec. 33, T. 2 S., R. 11 W., 25 ft. N. of NW. corner of junction of T-rd. W., in root of 24-in. oak tree; copper nail and washer-----	855. 24
Portage, 3.0 mi. N., thence 1.0 mi. W. from, in NW. cor. sec. 4, T. 3 S., R. 11 W., on concrete base of corner fence post; chiseled square (reported destroyed)-----	901. 64
From point on Lake Shore & Michigan Southern Railroad 3.2 miles north of Portage along roads east 2.4 miles, thence north 0.4 mile into Kalamazoo quadrangle (by E. C. Bibbee in 1915)	
T. 3 S., R. 11 W., near N $\frac{1}{4}$ cor. sec. 2, 1.0 mi. N. of Indian Field Corners, near SW. corner of crossroads, on concrete base of sign marked "Kalamazoo 3 $\frac{1}{2}$ miles"; chiseled square-----	865. 82
T. 2 S., R. 11 W., about 400 ft. W. of S $\frac{1}{4}$ cor. sec. 36, 0.6 mi. W. of County Center School, 800 ft. E. of crossing of Grand Rapids & Indiana R. R., on N. side of rd., in fence line, 3 ft. N. of mail box of John Lacy, in root of maple tree; copper nail and washer-----	847. 92
T. 2 S., R. 10 W., near SW. cor. sec. 31, in NE. angle of crossroads, opposite County Center School, in root of hickory tree used for corner fence post; rail spike-----	848. 89
From Schoolcraft east along highway by way of Vicksburg into Leonidas quadrangle (by E. E. Harris in 1917)	
Schoolcraft, 1.3 mi. E. of Lake Shore & Michigan Southern R. R. sta. at, at Lost Island School, in NW. angle of crossroads, in root of 15-in. maple tree; copper nail and washer-----	863. 03

<sup>95a</sup> In 1940 it was reported that the station is no longer there and that the mark should be described as being 0.5 mile north of crossing of Grand Trunk Railway, in northwest angle of crossing of East Cass Street, opposite waterworks, just north of sidewalk, 1 foot east of west right-of-way fence. The bench mark has been restamped "879.053."

<sup>96</sup> In 1932 this bench mark was moved 32.7 feet S.85° E. from this position and reset 0.130 foot higher than its original elevation. The figures given represent the new elevation.

Schoolcraft, 2.3 mi. E. of, 0.2 mi. S. and 3.0 mi. W. from Vicksburg, in SW. angle of crossroads, on S. side of rd., 20 ft. W. of N.-S. rd.; standard iron post with bronze cap stamped "1917 Mich 866"-----	Feet 865. 928
Reference mark, in SW. angle of crossroads, at fence post, on sandstone boulder; chiseled square-----	866. 85
Vicksburg, 0.2 mi. S. and 2.0 mi. W. from, near SW. corner of crossroads, on top of small concrete culvert; chiseled square-----	860. 35
Vicksburg, at high school, at front entrance, in center of top of concrete banister of stone steps; standard tablet stamped "1917 Mich 860"-----	859. 833
From Vicksburg northeast along Grand Trunk Railway into Leonidas quadrangle (by S. L. Parker in 1917)	
Vicksburg, in front of sta.; top of N. rail-----	851. 3
From Vicksburg along roads generally north to north quarter corner sec. 24, T. 3 S., R. 11 W., thence west to Portage (by E. E. Harris in 1919)	
Vicksburg, 1.0 mi. by rd. N. of high school, 0.25 mi. E. of NW. cor. sec. 18, T. 4 S., R. 10 W., on S. side of E.-W. rd., 90 ft. E. of junction of T-rd. N., in root on N. side of 14-in. maple tree; copper nail and washer-----	856. 92
Vicksburg, 1.7 mi. N. of, in NW $\frac{1}{4}$ sec. 7, T. 4 S., R. 10 W., on W. side of rd., in line with rd. E., in root on E. side of 12-in. maple tree; copper nail and washer-----	863. 79
Vicksburg, 2.6 mi. N. of, in NW $\frac{1}{4}$ sec. 6, T. 4 S., R. 10 W., near NE. corner of crossroads, opposite Tiffany School, on top of small concrete culvert; chiseled square-----	866. 32
Vicksburg, 3.0 mi. N. of, on line between Brady and Pavilion Townships, 0.2 mi. E. of SW. cor. sec. 31, T. 3 S., R. 10 W., in NE. angle of junction of rd. E.; standard iron post with bronze cap stamped "1919 Mich 864"-----	863. 953
Vicksburg, 4.1 mi. N. of, in SW. cor. sec. 30, T. 3 S., R. 10 W., in root on W. side of 20-in. maple tree; copper nail and washer-----	861. 85
Vicksburg, 4.8 mi. N. of, 2.6 mi. E., thence 1.6 mi. SE. from Lake Shore & Michigan Southern R. R. sta. in Portage, 0.2 mi. N. of W $\frac{1}{4}$ cor. sec. 30, T. 3 S., R. 10 W., in SE. angle of junction of rd. E., in root on W. side of 20-in. hickory tree; copper nail and washer-----	863. 96
Portage, 2.6 mi. E., thence 1.2 mi. S. from, near S. part of Ramona Park, in NE $\frac{1}{4}$ sec. 25, T. 3 S., R. 11 W., at outlet of Long Lake, in center of N. concrete head wall of culvert; chiseled square-----	860. 14
Long Lake; surface of water June 3, 1919-----	856. 9
Portage, 2.6 mi. E., thence 0.5 mi. S. from, 0.2 mi. E. of Austin Lake sta., near center of sec. 24, T. 3 S., R. 11 W., on E. side of rd., in line with T-rd. W., in root on W. side of 18-in. oak tree; copper nail and washer-----	865. 99
Portage, 2.6 mi. E. of, near N $\frac{1}{4}$ cor. sec. 24, T. 3 S., R. 11 W., 30 ft. W. of crossroads, in center of S. concrete head wall of culvert over small drain; standard tablet stamped "1919 Mich 866"-----	865. 441
Portage, 2.0 mi. E. of, 0.2 mi. W. of Cox School, 0.2 mi. W. of SE. cor. sec. 14, T. 3 S., R. 11 W., on N. concrete head wall of culvert; chiseled square-----	862. 81
Portage, 1.6 mi. E. of, near N $\frac{1}{4}$ cor. sec. 23, T. 3 S., R. 11 W., in SE. angle of crossroads, in root on W. side of 36-in. oak tree; copper nail and washer-----	862. 98
Portage, 0.9 mi. E. of, in NE $\frac{1}{4}$ sec. 22, T. 3 S., R. 11 W., in SE. angle of junction of N.-S. rd., in root on N. side of 15-in. oak tree; copper nail and washer-----	876. 85

From Portage west along road 8 miles, thence south to point 2.8 miles south of Chamberlain, thence east to point on Lake Shore & Michigan Southern Railroad 1 mile north of station at Moorepark (by E. E. Harris in 1919; double-rod-ded line was run by R. B. Steele in 1920)

Portage, 0.4 mi. W. of, near N $\frac{1}{4}$ cor. sec. 21, T. 3 S., R. 11 W., in center of S. concrete head wall of culvert; chiseled square-----	Feet 851. 52
Portage, 1.1 mi. W. of, 0.25 mi. W. of SE. cor. sec. 17, T. 3 S., R. 11 W., on N. side of rd., 100 ft. E. of crossroads, at SW. corner of farmhouse, in root on S. side of 36-in. maple tree; copper nail and washer-----	874. 08
Portage, 1.9 mi. W. of, in NE. cor. sec. 19, T. 3 S., R. 11 W., on W. side of rd., 80 ft. S. of junction of N.-S. rd., in root on E. side of 40-in. elm tree; copper nail and washer-----	897. 68
Portage, 3.3 mi. by rd. W. of, 2.0 mi. E. of Texas Corners, near cor. secs. 13, 18, 19, and 24, T. 3 S., Rs. 11 and 12 W., in center of grass triangle formed by junction of T-rd. W.; standard iron post with bronze cap stamped "1919 Mich 904"-----	903. 149
Texas Corners, 1.0 mi. E. of, 0.2 mi. W. of McElroy School, in SW. cor. sec. 13, T. 3 S., R. 12 W., in NE. angle of crossroads, in root on S. side of 12-in. maple tree; copper nail and washer-----	908. 17
Texas Corners, in NW. angle of crossroads at, on top of small concrete culvert; chiseled square-----	906. 09
Texas Corners, 1.3 mi. W. of, 0.25 mi. W. of NE. cor. sec. 21, T. 3 S., R. 12 W., on S. side of rd., 130 ft. E. of junction of T-rd. S., in top of small concrete culvert; standard tablet stamped "1919 Mich 917"-----	916. 274
Texas Corners, 2.5 mi. W. of, 0.2 mi. W. of Pine Island School, near N $\frac{1}{4}$ cor. sec. 20, T. 3 S., R. 12 W., on S. side of rd., in line with T-rd. N., in root on E. side of 10-in. maple tree; copper nail and washer-----	919. 70
Texas Corners, 3.0 mi. W., thence 0.25 mi. S. from, 0.25 mi. S. of NE. cor. sec. 19, T. 3 S., R. 12 W., in SW. angle of junction of T-rd. W. to Mattewan, in root on E. side of 6-in. poplar tree; copper nail and washer-----	915. 06
Texas Corners, 3.0 mi. W., thence 1.1 mi. by rd. S. from, 0.25 mi. W. of S $\frac{1}{4}$ cor. sec. 20, T. 3 S., R. 12 W., in NE. angle of crossroads, in root on W. side of 16-in. pine tree; copper nail and washer-----	926. 80
Texas Corners, 3.0 mi. W., thence 1.6 mi. S. from, 0.25 mi. W. of center of sec. 29, T. 3 S., R. 12 W., in center of crossroads; standard iron post with bronze cap stamped "1919 Mich 982"-----	981. 273
Texas Corners, 3.0 mi. W., thence 2.1 mi. S. from, 0.25 mi. W. of N $\frac{1}{4}$ cor. sec. 32, T. 3 S., R. 12 W., 50 ft. S. of crossroads, on W. side of rd., on field side of wire fence, in root on S. side of 15-in. maple tree; copper nail and washer-----	940. 64
Texas Corners, 3.0 mi. W., thence 3.0 mi. S. from, 0.2 mi. SW. of center of sec. 32, T. 3 S., R. 12 W., in NE. corner of rd. fork, on highest point of sandstone outcrop; chiseled square-----	924. 62
Texas Corners, 3.0 mi. W., thence 4.6 mi. by rd. SE. from, 2.0 mi. N., thence 4.5 mi. W. from Schoolcraft, in NW. cor. sec. 9, T. 4 S., R. 12 W., 25 ft. S. of crossroads, 5 ft. W. of wire fence; standard iron post with bronze cap stamped "1919 Mich 918"-----	916. 786
[Line jogs into Marcellus quadrangle]	
Schoolcraft, 5.5 mi. W., thence 1.0 mi. N. from, 23 ft. N. of S. cor. secs. 7 and 8, T. 4 S., R. 12 W., on N. side of rd., in line with T-rd. S.; standard iron post with bronze cap stamped "Prim Trav Sta No 3 1911 Mich 905"-----	905. 005



Schoolcraft, 5.5 mi. W. of, 3.2 mi. N. of Chamberlain, near cor. secs. 17, 18, 19, and 20, T. 4 S., R. 12 W., at crossroads; standard iron post with bronze cap stamped "1919 Mich 877"-----	<i>Feet</i> 875. 906
Chamberlain, 1.7 mi. N. of, near W $\frac{1}{4}$ cor. sec. 29, T. 4 S., R. 12 W., in SE. angle of crossroads, in root on SW. side of 24-in. elm tree; copper nail and washer-----	897. 12
Chamberlain, 1.2 mi. N. of, in NE. cor. sec. 31, T. 4 S., R. 12 W., in SW. angle of crossroads, in root on NE. side of 20-in. maple tree; copper nail and washer-----	901. 97
Chamberlain, in NE. angle of crossing of Grand Trunk Ry., 35 ft. N. of tracks, 30 ft. E. of rd.; standard iron post with bronze cap stamped "1919 Mich 891"-----	889. 642
Chamberlain, 0.7 mi. S. of, at Edwards Corners, in NE. cor. sec. 7, T. 5 S., R. 12 W., in SW. angle of crossroads, on sandstone boulder; chiseled square-----	880. 76
Chamberlain, 2.8 mi. S. of, 1.3 mi. W. of Howardsville, about 600 ft. S. of NW. cor. sec. 20, T. 5 S., R. 12 W., on S. side of E.-W. rd., in line with rd. N.; standard iron post with bronze cap stamped "1919 Mich 863"-----	862. 236
Howardsville, 0.3 mi. W. of, about 900 ft. S. of NW. cor. sec. 21, T. 5 S., R. 12 W., in NE. angle of junction of T-rd. N., near school, on SE. corner of concrete pump base of well; chiseled square-----	863. 22
Howardsville, in SW. angle of junction of rd. S. at, on sandstone boulder; chiseled square-----	853. 36
Howardsville, 0.2 mi. NE., thence 0.6 mi. E. from, in NE. cor. sec. 21, T. 5 S., R. 12 W., in SW. angle of junction of T-rd. S., on sandstone boulder; chiseled square-----	895. 25
Howardsville, 0.2 mi. NE., thence 1.6 mi. E. from, 1.0 mi. N., thence 2.5 mi. W. from Moorepark, near S. cor. secs. 14 and 15, T. 5 S., R. 12 W., on N. side of rd., in line with T-rd. S., in base on S. side of 12- by 12-in. concrete post, set vertically; standard tablet stamped "1919 Mich 861"-----	860. 329
Moorepark, 1.0 mi. N., thence 1.0 mi. W. from, about 600 ft. E. of N $\frac{1}{4}$ cor. sec. 24, T. 5 S., R. 12 W., at concrete bridge over Flowerfield Creek, on W. end of S. coping; chiseled square-----	820. 24
Flowerfield Creek, under bridge; surface of water June 11, 1919-----	816. 7
From point near south shore of Crooked Lake 1.3 miles west of Texas Corners generally north along road into Kalamazoo quadrangle at point 1.2 miles south of Miller (by R. B. Steele in 1920; double-rodged line)	
Crooked Lake, on N. side of; surface of water Aug. 9, 1920-----	893. 5
Texas Corners, 1.0 mi. W. and 0.5 mi. N. from, on N. side of Crooked Lake, near W $\frac{1}{4}$ cor. sec. 15, T. 3 S., R. 12 W., at right-angle turn from E. to N. in rd., in root on N. side of 14-in. oak tree; copper nail and washer-----	907. 11
Texas Corners, 1.0 mi. W. and 1.5 mi. N. from, 3.0 mi. S. of Miller, near E $\frac{1}{4}$ cor. sec. 9, T. 3 S., R. 12 W., on E. side of N.-S. rd., in line with T-rd. W., on granite boulder in place; chiseled square-----	956. 52
Miller, 2.5 mi. S. of, near S. cor. secs. 3 and 4, T. 3 S., R. 12 W., 30 ft. N. of center of crossroads, in root on W. side of 40-in. oak tree; copper nail and washer-----	953. 75
Miller, 1.5 mi. S. of, at S. cor. secs. 33 and 34, T. 2 S., R. 12 W., in NE. angle of junction of T-rd. E., in base of 4-in. oak tree; copper nail and washer-----	966. 99

From Schoolcraft west along road 5.5 miles to crossroads 3.2 miles north of Chamberlain (by R. B. Steele in 1920; double-rod-ded line)

Schoolcraft, 0.5 mi. W. of, in SE. cor. sec. 13, T. 4 S., R. 12 W., 15 ft. W. of N.-S. fence line, on N. side of E.-W. rd., on E. side of 48-in. elm tree; copper nail and washer-----	Feet 883. 16
Schoolcraft, 1.5 mi. W. of, in NW. cor. sec. 24, T. 4 S., R. 12 W., in SE. angle of crossroads, on top of E. concrete head wall of culvert; chiseled square-----	875. 38
Schoolcraft, 2.5 mi. W. of, in SW. cor. sec. 14, T. 4 S., R. 12 W., in NE. angle of crossroads, in concrete post; standard tablet stamped "1920 Mich 888"-----	887. 838
Schoolcraft, 3.8 mi. W. of, 0.25 mi. W. of NE. cor. sec. 21, T. 4 S., R. 12 W., on S. side of E.-W. rd., on W. side of T-rd. S., in root on N. side of 36-in. maple tree; copper nail and washer-----	895. 21
Schoolcraft, 4.5 mi. W. of, 3.2 mi. N., thence 1.0 mi. E. from Chamberlain, about 100 ft. W. of NE. cor. sec. 20, T. 4 S., R. 12 W., on S. side of E.-W. rd., 100 ft. W. of T-rd. S., in root on N. side of 14-in. hickory tree; copper nail and washer-----	884. 25

From point on Lake Shore & Michigan Southern Railroad 1 mile north of Moorepark along roads east and north to Vicksburg (by R. B. Steele in 1920; double-rod-ded line)

Moorepark, 1.0 mi. N., thence 2.0 mi. E. from, about 500 ft. E. of $S\frac{1}{4}$ cor. sec. 16, T. 5 S., R. 11 W., at concrete bridge over drainage ditch, on top of NW. corner; chiseled square-----	831. 03
Moorepark, 1.0 mi. N., thence 2.5 mi. E. from, in SW. cor. sec. 15, T. 5 S., R. 11 W., in NE. angle of crossroads, in concrete post; standard tablet stamped "1920 Mich 842"-----	841. 726
Moorepark, 1.0 mi. N., thence 4.5 mi. E. from, 0.7 mi. N. of Parkville, at cor. secs. 13, 14, 23, and 24, T. 5 S., R. 11 W., at center of crossroads, at stone marking section corner; top of stone-----	845. 79
Moorepark, 1.0 mi. N., thence 5.5 mi. E. from, 6.2 mi. S. of Vicksburg, in NE. cor. sec. 24, T. 5 S., R. 11 W., on S. side of E.-W. rd., 80 ft. W. of junction of old T-rd. N., 2 ft. W. of corner fence post, in concrete post; standard tablet stamped "1920 Mich 836"-----	835. 066
Vicksburg, 5.9 mi. S. and 0.6 mi. E. from, 0.2 mi. S. of center of sec. 18, T. 5 S., R. 10 W., at NW. corner of bridge over Portage River, on W. end of N. concrete abutment; chiseled square-----	832. 76
Portage River, under bridge; surface of water Aug. 3, 1920-----	826. 6
Vicksburg, 5.4 mi. S., thence 0.6 mi. E. from, 0.25 mi. S. of $N\frac{1}{4}$ cor. sec. 18, T. 5 S., R. 10 W., on N. side of E.-W. rd., 50 ft. E. of rd. S., in root on S. side of 15-in. ash tree; copper nail and washer-----	831. 47
Vicksburg, 5.4 mi. S. of, 0.25 mi. S. of N. cor. secs. 13 and 18, T. 5 S., Rs. 10 and 11 W., at right-angle turn from W. to N. in rd., at stone marking sixteenth corner; top of stone-----	845. 66
Vicksburg, 4.2 mi. S. of, near W. cor. secs. 6 and 7, T. 5 S., R. 10 W., on E. side of N.-S. rd., in line with T-rd. W., in concrete post; standard tablet stamped "1920 Mich 846"-----	845. 365
Vicksburg, 3.2 mi. S. of, 0.2 mi. N. of Bell School, in SE. cor. sec. 36, T. 4 S., R. 11 W., in NW. angle of crossroads, in base of 40-in. elm tree; rail spike-----	848. 17
Vicksburg, 2.2 mi. S. of, in NE. cor. sec. 36, T. 4 S., R. 11 W., in SW. angle of crossroads, in base of 40-in. oak tree; rail spike-----	849. 06

From Three Rivers quadrangle near southeast corner sec. 30, T. 5 S., R. 12 W., along roads north and northeast to Howardsville (by R. B. Steele in 1920; double-rodged line)

Howardsville, 2.1 mi. by rd. SW. of, 0.25 mi. S. of NW. cor. sec. 29, T. 5 S., R. 12 W., in NE. angle of crossroads, on granite boulder; chiseled square-----	Feet 885. 30
Howardsville, 1.8 mi. SW. of, at cor. secs. 19, 20, 29, and 30, T. 5 S., R. 12 W., in center of N.-S. rd., at stone marking section corner; top of stone-----	892. 32
Howardsville, 1.6 mi. SW. of, 0.25 mi. N. of SW. cor. sec. 20, T. 5 S., R. 12 W., near turn in rd. from S. to E., on S. side of rd. E., W. of rd. S., in root on S. side of 30-in. oak tree; iron bolt and washer-----	860. 65
Howardsville, at millpond; surface of water Aug. 6, 1920-----	837. 2

From Three Rivers quadrangle near south quarter corner sec. 25, T. 5 S., R. 12 W., alternately north and east along roads to Moorepark (by C. E. Walker in 1928)

Moorepark, 0.5 mi. S. and 1.0 mi. W. from, near center of sec. 25, T. 5 S., R. 12 W., 25 ft. S. and 30 ft. W. from junction of E.-W. rd., in root on E. side of 12-in. wild-cherry tree; copper nail and washer-----	836. 32
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#### SEYMOUR LAKE QUADRANGLE

[Latitude 42°45'-43°00'; longitude 83°15'-83°30']

#### GENESEE, LAPEER, AND OAKLAND COUNTIES

From Almont quadrangle at point near Lake Orion west along Indianwood Road to Dartmouth Road, thence north 0.6 mile, thence generally west along Oak Hill Road and other roads into Holly quadrangle (by J. M. Lawson in 1938)

Lake Orion, 0.6 mi. NW., thence 1.0 mi. W. from Michigan Central R. R. sta. at, near center of sec. 3, T. 4 N., R. 10 E., 20 ft. N. and 10 ft. W. from junction of private rd. N., on W. end of round concrete culvert; chiseled square-----	1, 013. 71
Lake Orion, 0.6 mi. NW., thence 1.6 mi. W. from, near quarter corner between secs. 3 and 4, T. 4 N., R. 10 E., 1 ft. N. of center of intersection of Joslyn Rd., in pavement; bronze disk (Oakland County B. M.)-----	1, 011. 928
Lake Orion, 0.6 mi. NW., thence 1.9 mi. W. from, at crossing of Pontiac, Oxford & Northern R. R.; center of crossing-----	1, 003. 8
Lake Orion, 0.6 mi. NW., thence 2.5 mi. W. from, 0.3 mi. W. of center of sec. 4, T. 4 N., R. 10 E., 27 ft. N. and 60 ft. W. from intersection of Newman Rd., 27 ft. N. and 180 ft. E. from junction of rd. to farmyard at house No. 2340, 27 ft. W. of corner fence post, in concrete post; standard tablet stamped "T T 25 C 1935 1041"-----	1, 041. 177
Lake Orion, 0.6 mi. NW., thence 3.5 mi. W. from, near center of SW¼ sec. 5, T. 4 N., R. 10 E., 23 ft. N. and 62 ft. W. from fence and dim rd. S., 40 ft. E. of E. end of guardrail on N. side of rd., on E. end of round concrete culvert; chiseled square-----	1, 030. 66
Lake Orion, 0.6 mi. NW., thence 4.0 mi. W. from, 47 ft. N. and 30 ft. W. from crossroads (Baldwin Rd. to S., Coats Rd. to N.), on S. side of 14-in. twin oak tree; copper nail and washer-----	1, 019. 23
Lake Orion, 0.6 mi. NW., thence 4.6 mi. W. from, near E¼ cor. sec. 1, T. 4 N., R. 9 E., 35 ft. N. and 22 ft. W. from junction of Baldwin Rd. to N., 130 ft. W. of Block School, in root on E. side of 14-in. elm tree; copper nail and washer-----	1, 028. 18

Lake Orion, 0.6 mi. NW., thence 5.1 mi. W. from, near center of sec. 1, T. 4 N., R. 9 E., 15 ft. S. and 75 ft. E. from junction of Eston Rd., 60 ft. E. of corner fence post, in concrete post; standard tablet stamped "T T 26 C 1935 1048"-----	<i>Feet</i> 1, 047. 694
Lake Orion, 0.6 mi. NW., thence 5.6 mi. W. from, 3.4 mi. N. and 3.5 mi. E. from Clarkston, near quarter corner between secs. 1 and 2, T. 4 N., R. 9 E., 35 ft. S. and 23 ft. E. from junction of Dartmouth Rd., in root on NW. side of 26-in. white-oak tree; copper nail and washer-----	1, 080. 06
Clarkston, 4.0 mi. N., thence 3.5 mi. E. from, near N. cor. secs. 1 and 2, T. 4 N., R. 9 E., at jog in Dartmouth Rd., 64 ft. E. of rd. N., 14 ft. E. of rd. S., opposite Oak Hill Rd., on boulder; chiseled square-----	1, 042. 16
Clarkston, 4.0 mi. N., thence 2.5 mi. E. from, in SE. cor. sec. 34, T. 5 N., R. 9 E., 21 ft. N. and 90 ft. W. from intersection of Pine Knob Rd., on concrete foundation of SW. gatepost; chiseled square-----	1, 049. 86
Clarkston, 4.0 mi. N., thence 1.5 mi. E. from, in SW. cor. sec. 34, T. 5 N., R. 9 E., at jog in Perry Lake Rd., 25 ft. N. and 60 ft. E. from junction of rd. S., 25 ft. N. and 185 ft. E. from junction of rd. N., in concrete post; standard tablet stamped "T T 27 C 1935 1051"-----	1, 050. 680
Clarkston, 4.0 mi. N., thence 0.5 mi. E. from, in NE. cor. sec. 5, T. 4 N., R. 9 E., at jog in Hadley Rd., 20 ft. S. and 90 ft. W. from junction of rd. S., 20 ft. S. and 26 ft. E. from junction of rd. N., in root on NW. side of 36-in. oak tree; copper nail and washer-----	1, 071. 55
Clarkston, 4.0 mi. N. of, near S $\frac{1}{4}$ cor. sec. 32, T. 5 N., R. 9 E., 53 ft. N. and 40 ft. E. from intersection of Ortonville Rd., in NW. side of 32-in. oak tree; iron spike-----	1, 053. 30
Clarkston, 4.0 mi. N., thence 0.5 mi. W. from, in NW. cor. sec. 5, T. 4 N., R. 9 E., 30 ft. S. and 85 ft. E. from intersection of Allen Rd., in root on NE. side of 30-in. maple tree; copper nail and washer-----	1, 077. 98
Clarkston, 4.0 mi. N., thence 1.0 mi. W. from, 4.0 mi. S., thence 0.5 mi. E. from Ortonville, near N $\frac{1}{4}$ cor. sec. 6, T. 4 N., R. 9 E., at jog in Reese Rd., 20 ft. S. and 26 ft. E. from junction of rd. S., 20 ft. S. and 165 ft. E. from junction of rd. N., on top of concrete head wall of culvert; chiseled square-----	1, 116. 96
Ortonville, 4.0 mi. S. of, near W. cor. secs. 6 and 31, Tps. 4 and 5 N., R. 9 E., 5 ft. N. and 25 ft. W. from junction of Oak Hill and Ellis Rds., 40 ft. S. of power-line pole, in concrete post; standard tablet stamped "T T 34 C 1935 1153"-----	1, 152. 712
Ortonville, 4.2 mi. S. of, 3.0 mi. E. of Austin Corners, near E. cor. secs. 1 and 36, Tps. 4 and 5 N., R. 8 E., 21 ft. N. and 60 ft. W. from junction of Ellis and Kier Rds., in root on SW. side of 8-in. oak tree; copper nail and washer-----	1, 149. 50
Austin Corners, 2.2 mi. E. of, 3.0 mi. NE. of Springfield, 0.25 mi. E. of NW. cor. sec. 1, T. 4 N., R. 8 E., 13 ft. S. and 75 ft. W. from junction of Kier and Bridge Lake Rds., in root on S. side of 15-in. maple tree; copper nail and washer-----	1, 095. 99
Austin Corners, 2.0 mi. E. of, in NW. cor. sec. 1, T. 4 N., R. 8 E., 46 ft. S. and 19 ft. E. from junction of Bird Rd., on rock; chiseled square-----	1, 102. 02
Austin Corners, 1.0 mi. E. of, in NE. cor. sec. 3, T. 4 N., R. 8 E., 22 ft. S. and 76 ft. W. from junction of Jussman Rd., on S. side of rock; chiseled square-----	1, 100. 87

From Holly quadrangle southeast along Dixie Highway (U. S. Highway 10) into Pontiac quadrangle at Springfield (by J. M. Lawson in 1936)

Austin Corners, 0.7 mi. SE. of, 2.5 mi. NW. of Springfield, near center of sec. 3, T. 4 N., R. 8 E., 120 ft. N. of junction of rd. W., on NE. side of highway, in root on W. side of 18-in. elm tree; copper nail and washer-----	<i>Feet</i> 1, 047. 53
Springfield, 1.9 mi. NW. of, 0.25 mi. W. of SE. cor. sec. 3, T. 4 N., R. 8 E., 32 ft. N. and 48 ft. W. from intersection of Rappalee Lake Rd., on N. end of round concrete culvert; chiseled square-----	1, 054. 42
Springfield, 0.8 mi. NW. of, 0.3 mi. E. of SW. cor. sec. 11, T. 4 N., R. 8 E., 150 ft. N. and 5 ft. W. from intersection of Galligan Rd., on NE. side of highway, on NW. end of round concrete culvert; chiseled square-----	1, 025. 00

From Pontiac quadrangle north along Sashabaw Road to west side of Whipple Lake, thence northwest along Hoyt Road to Oak Hill Road (by J. M. Lawson in 1936)

Clarkston, 2.0 mi. E., thence 1.2 mi. N. from, 0.25 mi. N. of S $\frac{1}{4}$ cor. sec. 15, T. 4 N., R. 9 E., 25 ft. N. and 90 ft. E. from intersection of Clarkston Rd., on rock; chiseled square-----	1, 071. 93
Clarkston, 2.0 mi. E., thence 1.9 mi. N. from, about 500 ft. S. of N $\frac{1}{4}$ cor. sec. 15, T. 4 N., R. 9 E., 45 ft. S. and 30 ft. W. from center of rd. at fence W., 5 ft. S. of fence E., in concrete post; standard tablet stamped "T T 28 C 1935 1049"-----	1, 048. 761
Clarkston, 2.0 mi. E., thence 2.2 mi. N. from, 0.25 mi. N. of S $\frac{1}{4}$ cor. sec. 10, T. 4 N., R. 9 E., 28 ft. N. and 25 ft. E. from junction of Stickney Rd., 10 ft. SW. of center of gate to field, on concrete base of old corner fence post; chiseled square-----	1, 045. 53
Clarkston, 2.0 mi. E., thence 3.0 mi. N. from, near quarter corner between secs. 3 and 10, T. 4 N., R. 9 E., near W. side of Whipple Lake, 15 ft. S. and 18 ft. E. from junction of Hoyt Rd., on N. concrete head wall of culvert; chiseled square-----	1, 046. 44
Clarkston, 1.5 mi. E. and 3.2 mi. N. from, in SW $\frac{1}{4}$ sec. 3, T. 4 N., R. 9 E., near NE. shore of Crooked Lake, 45 ft. S. of junction of Hoyt and Perry Lake Rds., on concrete base of E. gatepost; chiseled square-----	1, 038. 43
Clarkston, 1.5 mi. E. and 3.5 mi. N. from, about 400 ft. S. of quarter corner between secs. 3 and 4, T. 4 N., R. 9 E., 28 ft. S. and 36 ft. W. from junction of Hoyt and Shappie Rds., on concrete base of NW. gatepost; chiseled square-----	1, 051. 87

#### SHEPHERD QUADRANGLE

[Latitude 43°30'-43°45'; longitude 84°30'-84°45']

#### ISABELLA AND MIDLAND COUNTIES

From Alma quadrangle at point 1.7 miles south and 2.5 miles west from Shepherd along roads north 0.7 mile, thence east 3 miles, thence south and back into Alma quadrangle (by E. C. Bibbee in 1915)

Shepherd, 1.0 mi. S. and 2.5 mi. W. from, in NE. cor. sec. 23, T. 13 N., R. 4 W., in SW. corner of crossroads, opposite Hoover School, 2 ft. E. of fence corner; standard iron post with bronze cap stamped "Mich 796"-----	794. 678
Shepherd, 1.0 mi. S. and 0.5 mi. W. from, in SE. cor. sec. 18, T. 13 N., R. 3 W., diagonally opposite Childs School, 20 ft. W. of NW. corner of crossroads, in fence line, in root of 14-in. maple tree; copper nail and washer-----	781. 38

From Mount Pleasant quadrangle at point 3 miles north and 0.9 mile east from Rosebush along roads east 0.2 mile, thence directly south to point 1 mile south and 2.5 miles west from Shepherd (by E. C. Bibbee in 1918; see subsequent list for releveing of 9.5 miles of this line)

Rosebush, 1.0 mi. E., thence 3.0 mi. N. from, in NW. cor. sec. 36, T. 16 N., R. 4 W., in SE. corner of crossroads, 4 ft. S. and 2 ft. W. from fence corner; standard iron post with bronze cap stamped "Mich 790" (recovered in 1929)-----	<i>Feet</i> 789. 049
Rosebush, 1.0 mi. E. of, in NE. cor. sec. 14, T. 15 N., R. 4 W., in SW. corner of crossroads, 7 ft. S. and 2 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 765" (recovered in 1929) ..	764. 173
Rosebush, 1.0 mi. E., thence 3.0 mi. S. from, 1.5 mi. E., thence 3.5 mi. N. from Mount Pleasant, in NE. cor. sec. 35, T. 15 N., R. 4 W., in SW. corner of crossroads, 2 ft. N. and 4 ft. W. from fence corner; standard iron post stamped "Mich 752" (recovered in 1929)-----	750. 427
Mount Pleasant, 1.5 mi. E. of, near quarter corner between secs. 13 and 14, T. 14 N., R. 4 W., 40 ft. S. and 25 ft. E. from crossroads, 8 ft. S. and 4 ft. E. from fence corner; standard iron post with bronze cap stamped "Mich 764" (recovered in 1929)-----	762. 942
Mount Pleasant, 1.5 mi. E., thence 0.5 mi. S. from, in NE. cor. sec. 23, T. 14 N., R. 4 W., at crossroads, at NW. corner of small wooden bridge, in E. end of concrete retaining wall, on 7-in. boulder; highest point-----	765. 66
Mount Pleasant, 1.5 mi. E., thence 1.5 mi. S. from, in SW. cor. sec. 24, T. 14 N., R. 4 W., on retaining wall, at NE. corner of stone arch culvert; chiseled square-----	777. 48
Mount Pleasant, 1.5 mi. E., thence 3.5 mi. S. from, 2.5 mi. W., thence 2.0 mi. N. from Shepherd, in NW. cor. sec. 1, T. 13 N., R. 4 E., in NW. corner of yard of Root School; standard iron post with bronze cap stamped "Mich 793"-----	792. 338
Shepherd, 2.5 mi. W., thence 1.0 mi. N. from, at cor. secs. 1, 2, 11, and 12, T. 13 N., R. 4 W., in center of crossroads, on stone marking section corner; chiseled square-----	804. 66
From Loomis quadrangle at point 0.5 mile south and 2 miles west from Coleman along roads south 0.5 mile, thence west 6 miles to northwest corner sec. 36, T. 16 N., R. 4 W., thence directly south to point 1.5 miles east of Mount Pleasant (by S. R. Archer in 1929; last 4 miles leveled twice)	
Coleman, 1.0 mi. S. and 2.0 mi. W. from, in SW. cor. sec. 25, T. 16 N., R. 3 W., 30 ft. N. and 25 ft. E. from crossroads, 2.5 ft. N. of fence corner, in concrete post; standard tablet stamped "3 A 1929 Mich" ..	766. 896
Reference mark, 40 ft. N. and 25 ft. W. from crossroads, in root on E. side of 24-in. maple tree; copper nail and washer-----	767. 83
Coleman, 1.0 mi. S. and 3.0 mi. W. from, in SW. cor. sec. 26, T. 16 N., R. 3 W., in NE. corner of crossroads, at S. abutment of concrete bridge, on top of bridge end of E. wing wall; chiseled square-----	761. 88
Coleman, 1.0 mi. S. and 3.9 mi. W. from, about 700 ft. E. of SW. cor. sec. 27, T. 16 N., R. 3 W., at bridge over North Fork of Salt River, on top of N. end of bridge seat of E. concrete abutment; chiseled square-----	736. 53
Coleman, 1.0 mi. S. and 4.0 mi. W. from, in NW. cor. sec. 34, T. 16 N., R. 3 W., 125 ft. S. of crossroads, on E. side of rd., in root on NE. side of 10-in. hickory tree; copper nail and washer-----	749. 20

T. 16 N., R. 3 W., near quarter corner between secs. 28 and 33, 3.0 mi. N. of Delwin, 35 ft. S. of junction of T-rd. S., on E. side of rd., 25 ft. S. of fence corner, in root 4 in. underground on NE. side of northeasternmost of two small elm trees standing together; copper nail and washer	Feet 757.40
T. 16 N., R. 3 W., in SE. cor. sec. 29, 25 ft. N. and 40 ft. W. from crossroads, 13 ft. W. of fence corner, in concrete post; standard tablet stamped "1929 Mich"	761.672
Reference mark, opposite and 190 ft. W. of tablet, 230 ft. W. of crossroads, on S. side of rd., at fence line, in root on NW. side of 30-in. cottonwood tree; copper nail and washer	761.69
T. 16 N., R. 3 W., in NW. cor. sec. 32, 350 ft. S. of crossroads, at bridge over Sharps Drain, near center of top of E. wing wall of S. concrete abutment; chiseled square	762.08
T. 16 N., R. 4 W., in SE. cor. sec. 25, 50 ft. N. of crossroads, on W. side of rd., in fence line, in root on SE. side of 24-in. elm tree; copper nail and washer	777.37
T. 16 N., R. 4 W., 0.25 mi. W. of SE. cor. sec. 25, 70 ft. W. of junction of T-rd. S., on N. side of rd., 4 ft. S. of fence, in root on N. side of 24-in. maple tree; copper nail and washer	778.40
T. 16 N., R. 4 W., in NW. cor. sec. 36, 55 ft. S. and 25 ft. E. from crossroads, in root on NW. side of 24-in. maple tree; copper nail and washer <sup>97</sup>	788.89
T. 16 N., R. 4 W., in SW. cor. sec. 36, 375 ft. E. of crossroads, at concrete bridge over Killenback Drain, on top of bridge end of N. wing wall of W. abutment; chiseled square	776.99
T. 15 N., R. 4 W., in SE. cor. sec. 2, in NW. corner of crossroads, in fence corner, in root on NW. side of 10-in. maple tree; copper nail and washer	778.10
T. 15 N., R. 4 W., in NE. cor. sec. 14, 1.0 mi. E. of Rosebush, 25 ft. S. and 120 ft. W. from crossroads, in root on N. side of triple-forked elm tree; copper nail and washer <sup>98</sup>	764.91
T. 15 N., R. 4 W., in SE. cor. sec. 14, 300 ft. N. of crossroads, on W. side of rd., in field, 8 ft. W. of fence, in root on E. side of 30-in. oak tree; copper nail and washer	746.24
T. 15 N., R. 4 W., in NE. cor. sec. 26, 2.0 mi. W. of Leaton, 105 ft. S. of crossroads, on W. side of rd., at fence line, 70 ft. S. of fence corner, in root on NE. side of 30-in. oak tree; copper nail and washer	757.22
T. 15 N., R. 4 W., in NE. cor. sec. 35, 125 ft. W. of crossroads, at bridge, on top of S. wing wall of E. concrete abutment; chiseled square <sup>99</sup>	747.15
T. 14 N., R. 4 W., in NW. cor. sec. 1, 50 ft. S. and 30 ft. E. from crossroads, SE. of crossing of Pere Marquette Ry., in yard of farmhouse, 15 ft. S. and 5 ft. E. from NW. corner, in root on NW. side of 12-in. maple tree; copper nail and washer	760.52
T. 14 N., R. 4 W., near quarter corner between secs. 1 and 2, 35 ft. S. and 90 ft. W. from crossroads, on N. bank of Chippewa River, in field, in root on NE. side of 24-in. oak tree; copper nail and washer	758.96
T. 14 N., R. 4 W., near quarter corner between secs. 1 and 2, 100 ft. S. of crossroads, at concrete bridge over Chippewa River, 4.5 ft. S. of N. end of W. concrete head wall; chiseled square	747.44

<sup>97</sup> Set as a reference mark to principal bench mark stamped "Mich 790" and previously described.

<sup>98</sup> Set as a reference mark to principal bench mark stamped "Mich 765" and previously described.

<sup>99</sup> Set as a reference mark to principal bench mark stamped "Mich 752" and previously described.

T. 14 N., R. 4 W., in SW. cor. sec. 1, 20 ft. N. and 40 ft. E. from crossroads, 2.5 ft. S. and 15 ft. E. from fence corner, in root on W. side of 10-in. elm tree; copper nail and washer.....	<i>Feet</i> 752. 36
T. 14 N., R. 4 W., near quarter corner between secs. 11 and 12, in NE. corner of junction of T-rd. E., on top of N. concrete head wall of culvert under rd. E.; chiseled square.....	755. 43
T. 14 N., R. 4 W., in SW. cor. sec. 12, 55 ft. N. and 30 ft. E. from crossroads, in root 10 in. underground on SW. side of 8-in. pine tree; copper nail and washer.....	761. 01
T. 14 N., R. 4 W., near W $\frac{1}{4}$ cor. sec. 13, 1.5 mi. E. of Mount Pleasant, in SE. angle of crossroads, 10 ft. N. of standard iron post, in root on W. side of 12-in. maple tree; copper nail and washer <sup>1</sup> .....	762. 79
T. 14 N., R. 4 W., near E $\frac{1}{4}$ cor. sec. 14, 1.5 mi. E. of Mount Pleasant, in NW. corner of crossroads, on top of N. end of W. concrete head wall of drain under rd. N.; chiseled square <sup>2</sup> .....	762. 77
From point near west quarter corner sec. 1, T. 14 N., R. 4 W., generally east along roads and State Highway 20 to northwest corner sec. 13, T. 14 N., R. 2 W., thence generally south into Alma quadrangle at point 0.7 mile south and 3 miles east from Pleasant Valley (by S. R. Archer in 1929)	
T. 14 N., R. 4 W., near E $\frac{1}{4}$ cor. sec. 1, 300 ft. S. of rd. W., 100 ft. N. of right-angle turn in rd. from S. to E., on W. side of N.-S. rd., in root on E. side of 5-in. oak tree standing 5 ft. S. of another small oak; copper nail and washer.....	758. 77
T. 14 N., R. 3 W., near quarter corner between secs. 5 and 6, 2.5 mi. S. of Leaton, 50 ft. S. and 50 ft. W. from junction of N.-S. rd., 25 ft. S. and 20 ft. W. from fence corner, in field, in root on E. side of 24-in. oak tree; copper nail and washer.....	747. 25
T. 14 N., R. 3 W., about 550 ft. N. of SW. cor. sec. 5, on E. side of rd., at SW. corner of yard of Milloy School, 1 ft. N. of fence corner, in concrete post; standard tablet stamped "5 A 1929 Mich".....	740. 259
T. 14 N., R. 3 W., in SW. cor. sec. 5, 90 ft. NE. of NE. end of steel bridge over Chippewa River, 45 ft. NW. of rd. fork, on NE. side of rd., on top of N. concrete head wall of culvert under rd. NW.; chiseled square.....	733. 20
T. 14 N., R. 3 W., in NE. cor. sec. 8, in SW. corner of crossroads, on top of S. end of curved concrete head wall of drain under rd. W.; chiseled square.....	739. 52
T. 14 N., R. 3 W., in NE. cor. sec. 9, in SW. angle of crossroads, at front entrance to White School, on top of NW. corner of concrete platform; chiseled square.....	735. 07
T. 14 N., R. 3 W., 0.2 mi. N. of S. cor. secs. 2 and 3, 65 ft. S. of junction of T-rd. N., on top of high bank on N. side of Chippewa River, in line with center of rd. N., in concrete post; standard tablet stamped "7 A 1929 Mich".....	725. 547
Reference mark, about 450 ft. W. of tablet and T-rd. N., on top of N. parapet of E. abutment of concrete bridge; chiseled square.....	724. 12
T. 14 N., R. 3 W., in SW $\frac{1}{4}$ sec. 1, near Cement School, 410 ft. E. of crossroads, on N. side of rd., in root 6 in. underground on N. side of 15-in. wild-cherry tree; copper nail and washer.....	712. 66

<sup>1</sup> Established as reference mark 1 to principal bench mark stamped "Mich 764" and previously described.

<sup>2</sup> Established as reference mark 2 to principal bench mark stamped "Mich 764" and previously described.



T. 14 N., R. 2 W., near NW. cor. sec. 7, at Isabella-Midland county line, 85 ft. S. of rd. fork, on E. bank of creek, on top of concrete base of NE. leg of derrick of chemical well; chiseled square-----	Feet 710. 08
T. 14 N., R. 2 W., near quarter corner between secs. 7 and 8, 1.0 mi. N. of Oil City, near Kelly School, 20 ft. W. of junction of rd. E., at fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 81 W 1919"-----	703. 245
Reference mark, 85 ft. N. and 130 ft. E. from rd. junction, 7 ft. W. of SE. corner of school, at entrance, on top of NE. corner of concrete porch floor; chiseled square-----	703. 05
T. 14 N., R. 2 W., near quarter corner between secs. 8 and 9, 130 ft. S. and 60 ft. E. from junction of N.-S. rd., in field, 30 ft. E. of fence, in root on SW. side of 8-in. oak tree; copper nail and washer-----	694. 90
T. 14 N., R. 2 W., 0.2 mi. W. of quarter corner between secs. 9 and 16, on N. side of State Highway 20, at top of hill, opposite driveway to farmhouse on S. side of rd., on E. concrete head wall of drain under driveway to field; chiseled square-----	691. 22
T. 14 N., R. 2 W., in SW. cor. sec. 10, 30 ft. N. and 25 ft. E. from crossroads, in concrete post; standard tablet stamped "8 A 1929 Mich" <sup>3</sup> -----	688. 707
Reference mark, in NE. corner of crossroads, on top of E. end of E. curved concrete head wall of drain under rd. N.; chiseled square----	688. 44
T. 14 N., R. 2 W., near cor. secs. 10, 11, 14, and 15, on top of S. concrete head wall of highway culvert; chiseled square-----	681. 90
T. 14 N., R. 2 W., in NW. cor. sec. 13, 25 ft. S. and 30 ft. E. from crossroads, in concrete post; standard tablet stamped "9 A 1929 Mich"-----	675. 732
Reference mark, in NW. corner of crossroads, on top of N. end of N. curved concrete head wall of highway culvert; chiseled square-----	675. 40
T. 14 N., R. 2 W., in SW. cor. sec. 13, 30 ft. N. of crossroads, on top of N. end of E. concrete head wall of culvert under rd. N.; chiseled square-----	674. 93
T. 14 N., R. 2 W., 0.25 mi. N. of SW. cor. sec. 24, 14 ft. N. and 25 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 75 W 1919"-----	672. 197
Reference mark, 75 ft. S. of crossroads, at steel bridge over Chippewa River, on top of W. parapet of N. concrete abutment; chiseled square-----	663. 40
T. 14 N., R. 2 W., near quarter corner between secs. 25 and 26, 80 ft. N. of right-angle turn in rd. from S. to W., 55 ft. N. of fence corner, on W. side of rd. N., on field side of fence, in root on W. side of 24-in. elm tree; copper nail and washer-----	660. 90
T. 14 N., R. 2 W., near quarter corner between secs. 26 and 27, 75 ft. S. of junction of N.-S. rd. and rd. E., at steel bridge over Salt River, on top of bridge end of W. wing wall of N. concrete abutment; chiseled square-----	669. 40
T. 14 N., R. 2 W., about 0.25 mi. N. of quarter corner between secs. 27 and 28, 0.25 mi. S. of Greendale town hall, 45 ft. N. and 25 ft. W. from crossroads, 14 ft. N. of fence corner, in concrete post; standard tablet stamped "2 A 1929 Mich"-----	678. 789
Reference mark, 600 ft. S. of crossroads, at steel bridge over Salt River, on top of N. end of W. wing wall of N. concrete abutment; chiseled square-----	678. 44

<sup>3</sup> In 1932 this bench mark was moved 60 feet north of this position and reset 0.169 foot higher than its original elevation. The figures given represent the new elevation.

T. 14 N., R. 2 W., in NE. cor. sec. 33, 45 ft. S. and 70 ft. W. from crossroads, 20 ft. S. and 40 ft. W. from fence corner, in field, in root on NE. side of 6-in. oak tree; copper nail and washer.....	<i>Flet</i> 678. 13
T. 14 N., R. 2 W., in SW. cor. sec. 34, 75 ft. N. and 50 ft. E. from junction of T-rd. N., in root on NW. side of 6-in. poplar tree; copper nail and washer.....	688. 11
T. 14 N., R. 2 W., near S. cor. secs. 34 and 35, 20 ft. N. and 60 ft. E. from junction of T-rd. S., 20 ft. E. of fence corner, in concrete post; standard tablet stamped "4 A 1929 Mich".....	678. 788
Reference mark, 20 ft. S. of rd. junction, at bridge over drainage ditch, 1.5 ft. S. of N. end of E. concrete guard wall at foot of E. railing; chiseled square.....	679. 17
T. 13 N., R. 2 W., about 600 ft. S. of quarter corner between secs. 2 and 3, 600 ft. S. of T-rd. E., on E. side of rd., 10 ft. E. of fence, in field, in root on SE. side of 12-in. elm tree; copper nail and washer.....	681. 65
T. 13 N., R. 2 W., 370 ft. S. of quarter corner between secs. 10 and 11, at steel bridge over Little Salt River, on top of W. end of bridge seat of S. concrete abutment; chiseled square.....	680. 01
T. 13 N., R. 2 W., in SE. cor. sec. 10, 110 ft. N. and 35 ft. W. from crossroads, in root on N. side of small forked poplar tree with triangular blaze; copper nail and washer.....	684. 93
T. 13 N., R. 2 W., 750 ft. S. of N. cor. secs. 14 and 15, 750 ft. S. of crossroads, at bridge over creek, on top of S. end of concrete guard wall at foot of S. end of W. railing; chiseled square.....	684. 39
Pleasant Valley, 3.0 mi. E. of, in SW. cor. sec. 14, T. 13 N., R. 2 W., 20 ft. N. and 20 ft. E. from crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 76 W 1919" (recovered in 1934).....	693. 684
Reference mark, 20 ft. S. of crossroads, at bridge over ditch, on top of bridge end of W. wing wall of S. concrete abutment; chiseled square (recovered in 1934).....	691. 96
From Alma quadrangle at point 1.3 miles north and 0.2 mile west from Coe north along road 0.7 mile to crossroads 3 miles west of Pleasant Valley (by S. R. Archer in 1929; spur line leveled twice)	
Shepherd, 1.0 mi. S. and 2.5 mi. E. from, 3.0 mi. W. of Pleasant Valley, in SE. cor. sec. 15, T. 13 N., R. 3 W., 20 ft. N. and 30 ft. W. from crossroads, 2.5 ft. W. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 78 W 1919".....	733. 894
Reference mark, in SE. corner of crossroads, at bridge over ditch, on top of E. end of S. concrete abutment; chiseled square.....	733. 50
From northwest corner sec. 13, T. 14 N., R. 2 W., along roads north 6 miles and east 0.4 mile into Sanford quadrangle at point 0.8 mile south and 0.6 mile west from North Bradley (by S. R. Archer in 1929)	
T. 14 N., R. 2 W., about 550 ft. N. of quarter corner between secs. 11 and 12, at bridge over South Fork of Carl Creek, on top of bridge end of W. wing wall of N. concrete abutment; chiseled square.....	670. 28
T. 14 N., R. 2 W., about 500 ft. S. of quarter corner between secs. 1 and 2, at bridge over creek, on top of bridge end of W. wing wall of S. concrete abutment; chiseled square.....	669. 26
T. 15 N., R. 2 W., about 780 ft. S. of quarter corner between secs. 35 and 36, on top of first sand ridge at S. side of marsh, 300 ft. N. of junction of rd. SE., 18 ft. N. and 18 ft. E. from junction of rd. W., in concrete post; standard tablet stamped "11 A 1929 Mich".....	676. 944

T. 15 N., R. 2 W., about 850 ft. N. of S. cor. secs. 25 and 26, at bridge over North Fork of Carl Creek, on NE. end of E. wing wall of N. concrete abutment; chiseled square-----	Feet 665. 01
T. 15 N., R. 2 W., in SE. cor. sec. 23, in NW. corner of crossroads, on top of NW. end of W. wing wall at N. end of concrete culvert under rd. W.; chiseled square-----	670. 14
T. 15 N., R. 2 W., in NE. cor. sec. 23, diagonally opposite Griswold School, 25 ft. S. and 45 ft. W. from crossroads, 10 ft. W. of fence corner, in concrete post; standard tablet stamped "12 A 1929 Mich"-----	670. 403
Reference mark, in NW. corner of crossroads, on top of W. end of N. concrete head wall of drain under rd. W.; chiseled square-----	670. 22
T. 15 N., R. 2 W., near NW. cor. sec. 13, 70 ft. E. of turn in rd. from NE. to E., on S. side of rd. E., in root 6 in. underground on NW. side of 24-in. ash tree; copper nail and washer-----	666. 94

From Sanford quadrangle at point 0.6 mile south and 1.7 miles west from Porter west along road to crossroads 3 miles east of Pleasant Valley (by D. R. Cabaniss in 1934)

Porter, 0.9 mi. SW., thence 1.7 mi. W. from, 4.0 mi. E. of Pleasant Valley, in NE. cor. sec. 23, T. 13 N., R. 2 W., 33 ft. S. and 14 ft. W. from center of crossroads, on SW. concrete wing wall of culvert; copper nail and washer-----	688. 35
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#### SIDNAW QUADRANGLE

[Latitude 46°30'-46°45'; longitude 88°30'-88°45']

#### BARAGA AND HOUGHTON COUNTIES

From Rubicon quadrangle southeast along Chicago, Milwaukee, St. Paul and Pacific Railroad to Sidnaw (first-order leveling by E. L. McNair in 1911)

Sidnaw, 1.3 mi. NW. of sta., 0.5 mi. W. of milepost 363, 40 ft. S. of track; standard iron post with bronze cap stamped "1368" (recovered by U. S. C. & G. S. in 1940)-----	1, 369. 344
Sidnaw, 200 ft. W. of sta., at intersection of Duluth, South Shore & Atlantic Ry.; top of rail-----	1, 375. 4
Sidnaw, opposite E. end of sta., on N. side of track, 40 ft. E. of Northern Hotel, near entrance to Roycroft Farm; standard iron post with bronze cap stamped "Prim Trav Sta No 17 1911 1381" (recovered by U. S. C. & G. S. in 1940)-----	1, 381. 815

#### SMYRNA QUADRANGLE

[Latitude 43°00'-43°15'; longitude 85°15'-85°30']

#### IONIA, KENT, AND MONTCALM COUNTIES

From Cedar Springs quadrangle at point 3 miles east of Rockford east along township-line road 1.4 miles and back into Cedar Springs quadrangle (by R. G. Clinite in 1916)

Rockford, 5.1 mi. E. of highway bridge over Rouge River at, 25 ft. S. and 150 ft. W. from N. cor. secs. 2 and 3, T. 8 N., R. 10 W. and junction of T-rd. S., 25 ft. S. and 23 ft. W. from junction of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 6 1916 Mich 927" <sup>4</sup> -----	926. 368
T. 8 N., R. 10 W., in NE. cor. sec. 10, 90 ft. S. and 30 ft. W. from center of crossroads, in root on E. side of 16-in. walnut tree; copper nail and washer-----	885. 44

<sup>4</sup> In 1929 this bench mark was reset at a site 10.5 feet south and 23 feet west from its original position and 1.509 feet higher. The figures given represent the new elevation.

From Cedar Springs quadrangle at point 1.5 miles east of Brooklyn Corners alternately east and south along roads into Lowell quadrangle at point 3.8 miles south of Cannonsburg (by R. G. Clinite in 1918)

T. 7 N., R. 10 W., 0.25 mi. E. of center of sec. 10, opposite T-rd. W., in schoolyard, in root of 12-in. elm tree; copper nail.....	Feet 867. 36
Cannonsburg, 3.7 mi. S. of, 3.7 mi. NE. of Ada, about 350 ft. S. of NE. cor. sec. 15, T. 7 N., R. 10 W., 60 ft. N. of center of rd. fork, 6 ft. S. of fence post; standard iron post with bronze cap stamped "Prim Trav Sta No 14 1911 Mich 862".....	861. 741

From Howard City quadrangle at point 2.2 miles east of Gowen south along road through Greenville to Smyrna, thence east 0.8 mile into Fenwick quadrangle (by R. G. Clinite in 1918)

Greenville, 3.0 mi. N. of, near SE. cor. sec. 28, T. 10 N., R. 8 W., on W. side of rd., 37 ft. N. of E.-W. fence (probably along section line), in root of 30-in. oak tree; copper nail and washer <sup>5</sup> .....	884. 07
Greenville, 2.0 mi. N. of, near NW. cor. sec. 3, T. 9 N., R. 8 W., 35 ft. S. and 20 ft. E. from center of junction of T-rd. W.; standard iron post with bronze cap stamped "1916 Mich 880" <sup>6</sup> .....	879. 529
Greenville, on North Lafayette Street, in NE. angle of crossing of Grand Trunk Ry., 5 ft. W. of telephone pole, on curb; chiseled square (recovered in 1929).....	824. 12
Greenville, at SW. corner of intersection of South Lafayette and West Union Streets, on S. end of curved section of concrete curb; chiseled square <sup>6</sup> .....	847. 36
Greenville, 1.5 mi. S. of, slightly E. of center of sec. 21, T. 9 N., R. 8 W., 18 ft. S. and 22 ft. W. from center of junction of T-rd. W.; standard iron post with bronze cap stamped "1916 Mich 846" (recovered in 1928).....	845. 146
Greenville, 2.1 mi. S. of, near N $\frac{1}{4}$ cor. sec. 28, T. 9 N., R. 8 W., on W. side of rd., 140 ft. S. of rd. fork, in root of 38-in. maple tree; copper nail and washer.....	856. 35
Greenville, 3.2 mi. S. of, near S $\frac{1}{4}$ cor. sec. 28, T. 9 N., R. 8 W., 8 ft. S. of SE. corner of bridge over small creek, on concrete retaining wall; chiseled square.....	784. 58
Greenville, 4.2 mi. S. of, 4.3 mi. N. of Smyrna, 2.0 mi. W., thence 1.0 mi. N. from Belding, at Ionia-Montcalm county line, near N $\frac{1}{4}$ cor. sec. 4, T. 8 N., R. 8 W., 25 ft. S. of E.-W. rd., 31 ft. E. of T-rd. S., 114 ft. E. of junction of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 17 1915 Mich 851" (recovered in 1929).....	850. 572
Smyrna, 3.2 mi. N. of, 2.0 mi. W. of Belding, near N $\frac{1}{4}$ cor. sec. 9, T. 8 N., R. 8 W., in SW. angle of crossroads, 3 ft. N. of fence corner, on highest point of large boulder; chiseled square (recovered in 1929).....	828. 08
Smyrna, 2.2 mi. N. of, at Cooks Corners, near N $\frac{1}{4}$ cor. sec. 16, T. 8 N., R. 8 W., in SW. angle of crossroads, 1 ft. E. of NE. corner of Kimberly store, on rock; highest point <sup>6</sup> .....	826. 22
Smyrna, 1.4 mi. N. of, 0.25 mi. S. of center of sec. 16, T. 8 N., R. 8 W., 47 ft. N. and 33 ft. W. from center of junction of T-rd. W.; standard iron post with bronze cap stamped "1916 Mich 826" (recovered in 1929).....	825. 214

<sup>5</sup> In 1929 this bench mark was not recovered and another mark was established in a root of the same tree.

<sup>6</sup> In 1929 this bench mark was reported destroyed.

Smyrna, 0.4 mi. E. of, 380 ft. E. of bridge over Flat River, 15 ft. N. and 55 ft. W. from center of rd. fork, on large rock; highest point within chiseled square-----	Feet 748. 37
From point 3.7 miles south of Cannonsburg east along road 5 miles to point 1.4 miles north and 2.4 miles west from Fallassburg, thence south into Lowell quadrangle (by E. C. Bibbee in 1916)	
T. 7 N., R. 10 W., 110 ft. W. of cor. secs. 11, 12, 13, and 14, 20 ft. S. of center line of rd., on large granite rock; chiseled square-----	838. 17
T. 7 N., R. 9 W., in NE. cor. sec. 18, 3.0 mi. S. of Parnell, in SW. angle of crossroads, in root on E. side of 24-in. hickory tree; copper nail and washer-----	867. 98
Parnell, 3.0 mi. S., thence 1.0 mi. E. from, 1.0 mi. S. and 2.0 mi. W. from Vergennes, 27 ft. S. and 14 ft. E. from cor. secs. 8, 9, 16, and 17, T. 7 N., R. 9 W., at center of T-rd. N.; standard iron post with bronze cap stamped "Prim Trav Sta No 25 1915 Mich 879" °-----	878. 544
Along roads north, east, and south in north half of sec. 16, T. 7 N., R. 8 W., about 4 miles south of Smyrna (by E. C. Bibbee in 1916)	
[A jog from Lowell quadrangle]	
T. 7 N., R. 8 W., in NW. cor. sec. 16, 100 ft. S. of SE. corner of crossroads, on E. side of rd., directly in line with S. boundary of cemetery, on large flat granite rock; chiseled circle-----	839. 95
T. 7 N., R. 8 W., 0.25 mi. W. of NE. cor. sec. 16, at SW. corner of crossroads, on easternmost corner of concrete foundation of scales; chiseled square-----	857. 15
From Cedar Springs quadrangle east along Grand Trunk Railway to Greenville (by J. L. Buckmaster in 1928)	
Evans, 0.8 mi. W. of, 1.0 mi. E. of Sheffield, 0.25 mi. N. of cor. secs. 2, 3, 10, and 11, T. 9 N., R. 10 W., 50 ft. N. and 40 ft. E. from grade crossing, 1 ft. W. of fence, in concrete post; standard tablet stamped "B 2 1928" (recovered by U. S. C. & G. S. in 1934)-----	903. 893
Reference mark, 50 ft. N. and 25 ft. E. from grade crossing, in root on SW. side of 10-in. elm tree; copper nail and washer-----	904. 70
Evans, in village of, in sec. 2, T. 9 N., R. 10 W., 150 ft. N. and 35 ft. E. from street crossing, at SW. corner of store, on concrete base of gas pump; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	911. 478
Evans, 1.2 mi. E. of, 0.7 mi. W. of Harvard, 0.25 mi. N. of SE. cor. sec. 1, T. 9 N., R. 10 W., 125 ft. S. and 30 ft. W. from grade crossing, in N. side of 18-in. maple tree; spike-----	893. 09
Harvard, in village of, 0.2 mi. N. and 0.2 mi. W. from SE. cor. sec. 6, T. 9 N., R. 9 W., 45 ft. N. of Grand Trunk Ry. tracks, 60 ft. E. of rd., 12 ft. W. of warehouse, 1 ft. N. of right-of-way fence, in concrete post; standard tablet stamped "B 3 1928" (recovered by U. S. C. & G. S. in 1934)-----	865. 297
Harvard, 1.2 mi. E. of, 1.8 mi. W. of Lincoln Lake sta., 0.25 mi. N. of SE. cor. sec. 5, T. 9 N., R. 9 W., 160 yd. E. of bridge 47.81, 15 ft. N. and 15 ft. W. from grade crossing, in base on S. side of crossing signpost; spike (recovered by U. S. C. & G. S. in 1934)-----	858. 115
Lincoln Lake, 0.3 mi. E. of sta., 200 ft. E. of quarter corner between secs. 2 and 3, T. 9 N., R. 9 W., 24 ft. N. of N. rail, 40 ft. N. and 200 ft. E. from crossroads, in SE. corner of yard of Oakfield Township School No. 2, in concrete post; standard tablet stamped "B 4 1928" (recovered by U. S. C. & G. S. in 1934)-----	858. 673

° In 1930 this post was reset 122 feet north and 41 feet west from this position and at an elevation 0.348 foot lower than its original elevation. The figures given represent the new elevation.

Reference mark, 55 ft. N. and 20 ft. E. from crossroads, in root on NW. side of 12-in. poplar tree; copper nail and washer-----	Feet 861. 41
Lincoln Lake, 2.3 mi. E. of, 3.1 mi. NW. of Grand Trunk Ry. sta. at Greenville, 0.2 mi. S. of NW. cor. sec. 6, T. 9 N., R. 8 W., 50 ft. N. and 15 ft. E. from grade crossing, in root on S. side of 18-in. oak tree; copper nail and washer-----	843. 88
Greenville, 1.5 mi. NW. of, 0.2 mi. S. of center of sec. 5, T. 9 N., R. 8 W., 55 ft. N. and 20 ft. W. from grade crossing, in concrete post; standard tablet stamped "B 5 1928" (recovered by U. S. C. & G. S. in 1934)-----	836. 383
Reference mark, 35 ft. N. of tracks, 500 ft. E. of rd., in root on S. side of 16-in. maple tree; rail spike-----	839. 16
Greenville, 0.5 mi. N. of Grand Trunk Ry. sta., at Haskins Highway bridge over Flat River, on top of SW. wing wall, about 2 ft. from corner; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	818. 948
Greenville, 30 ft. N. of bridge over Flat River; 2 ft. W. of W. curb of North Lafayette Street, in front of Consumers Power Co. powerhouse, in top of iron pipe; standard tablet stamped "B 6 1928 Mich"-----	813. 861
Greenville, at SW. corner of intersection of South and South Lafayette Streets, on top of curb at S. end of curved section; chiseled square-----	850. 90
From corner secs. 15, 16, 21, and 22, T. 10 N., R. 8 W., west along road 2.3 miles (by S. R. Archer in 1929)	
[A jog from Howard City quadrangle]	
Gowen, 1.2 mi. E. of village, 270 ft. W. of cor. secs. 16, 17, 20, and 21, T. 10 N., R. 8 W., on S. side of rd., on top of S. end of W. concrete head wall of drain under driveway to farmhouse; chiseled square-----	885. 49
Gowen, 1.0 mi. E. of, 0.25 mi. E. of quarter corner between secs. 17 and 20, T. 10 N., R. 8 W., 70 ft. S. of junction of T-rd. S., on top of N. end of W. concrete head wall of culvert; chiseled square-----	846. 25
Gowen, at S. edge of village, 0.25 mi. E. of quarter corner between secs. 18 and 19, 55 ft. S. of junction of T-rd. S., on W. side of rd., in root on SE. side of 10-in. maple tree; copper nail and washer-----	846. 30
From Howard City quadrangle near southeast corner sec. 15, T. 10 N., R. 9 W., along roads south 0.2 mile, thence west to point near north quarter corner sec. 21, T. 10 N., R. 10 W. (by S. R. Archer in 1929)	
T. 10 N., R. 9 W., near NW. cor. sec. 22, 170 ft. S. and 45 ft. E. from junction of T-rd. W., at NW. corner of Spencer town hall, in concrete post; standard tablet stamped "23 A 1929 Mich" <sup>10</sup> -----	851. 013
Reference mark, 30 ft. N. and 20 ft. W. from junction of T-rd. W., in root below triangular blaze on SE. side of northeasternmost of two 24-in. pine trees standing 5 ft. apart; copper nail and washer-----	854. 95
T. 10 N., R. 9 W., 75 ft. W. of N $\frac{1}{4}$ cor. sec. 21, on S. side of rd., at fence, in root on NW. side of easternmost of two small elm trees standing 10 ft. apart; copper nail and washer-----	859. 78
T. 10 N., R. 9 W., 0.25 mi. W. of cor. secs. 16, 17, 20, and 21, 55 ft. E. of junction of T-rd. S., on N. side of rd., on top of W. concrete head wall of culvert under driveway N.; chiseled square-----	858. 33
T. 10 N., R. 9 W., near cor. secs. 17, 18, 19, and 20, 60 ft. W. of right angle in rd. S., in E.-W. fence line, in root on E. side of 4-in. elm tree; copper nail and washer-----	863. 42

<sup>10</sup> The standard iron post with bronze cap stamped "Prim Trav Sta No 29 Mich 1916" in this immediate vicinity was not recovered.

## [Line jogs into Howard City quadrangle]

T. 10 N., Rs. 9 and 10 W., near cor. secs. 13, 18, 19, and 24, 55 ft. S. of junction of T-rd. W., on E. side of rd., 13 ft. W. of fence line, in root below triangular blaze on SW. side of 5-in. elm tree; copper nail and washer-----	Feet 875. 23
T. 10 N., R. 10 W., near cor. secs. 13, 14, 23, and 24, 20 ft. S. and 40 ft. W. from crossroads, in root 1 ft. below triangular blaze on NE. side of 24-in. elm tree; copper nail and washer-----	917. 93
Cedar Springs, 2.0 mi. N., thence 4.0 mi. E. from, 30 ft. S. and 30 ft. W. from crossroads and cor. secs. 14, 15, 22, and 23, T. 10 N., R. 10 W.; standard iron post with bronze cap stamped "Prim Trav Sta No 1 1915 Mich" <sup>11</sup> -----	967. 408
Reference mark, 20 ft. S. and 70 ft. W. from crossroads, in root below blaze on NE. side of 24-in. oak tree; copper nail and washer-----	964. 51
Cedar Springs, 2.0 mi. N., thence 3.0 mi. E. from, at cor. secs. 15, 16, 21, and 22, T. 10 N., R. 10 W., in SE. angle of junction of T-rd. E., in NW. corner of yard of farmhouse, in root on E. side of 30-in. oak tree; copper nail and washer-----	897. 72
From point 1.3 miles north of Smyrna north along road to Ionia-Montcalm county line at point about 4 miles south of Greenville (by S. R. Archer in 1929)	
Smyrna, 2.2 mi. N. of, at Cooks Corners, near N $\frac{1}{4}$ cor. sec. 16, T. 8 N., R. 8 W., in SW. angle of crossroads, 5 ft. N. of NE. corner of Kimberly store, on top of NE. corner of concrete platform; chiseled square-----	827. 57
Smyrna, 3.4 mi. N. of, 790 ft. N. of S $\frac{1}{4}$ cor. sec. 4, T. 8 N., R. 8 W., on W. concrete head wall of highway culvert; chiseled square-----	838. 40
From Cooks Corners west along State Highway 44 to Grattan, thence north and west along roads by way of Muskrat and Brower Lakes into Cedar Springs quadrangle at point about 3 miles east of Rockford (by S. R. Archer in 1929)	
Cooks Corners, 1.0 mi. W. of, near N $\frac{1}{4}$ cor. sec. 17, T. 8 N., R. 8 W., 35 ft. W. of junction of T-rd. N., at E. concrete abutment of highway bridge, on E. end of S. wing wall; chiseled square-----	837. 79
Cooks Corners, 1.5 mi. W. of, near cor. secs. 7, 8, 17, and 18, T. 8 N., R. 8 W., on N. side of highway, opposite T-rd. S., at fence corner, in root below triangular blaze on SW. side of 30-in. oak tree; copper nail and washer-----	866. 14
Cooks Corners, 2.5 mi. W. of, 3.3 mi. E. of Grattan, at Ionia-Kent county line, near cor. secs. 7, 12, 13, and 18, T. 8 N., Rs. 8 and 9 W., 200 ft. S. and 30 ft. W. from crossroads, 2 ft. S. of SE. corner of schoolyard, in concrete post; standard tablet stamped "17 A 1929 Mich"-----	870. 052
Reference mark, near SE. corner of crossroads, on top of N. end of E. concrete head wall of culvert under N.-S. rd.; chiseled square-----	863. 10
Grattan, 2.2 mi. E. of, 0.2 mi. S. of cor. secs. 11, 12, 13, and 14, T. 8 N., R. 9 W., 40 ft. W. of crossroads, on top of N. concrete head wall of culvert under E.-W. rd.; chiseled square-----	863. 48
Grattan, 1.2 mi. E. of, 0.2 mi. S. of cor. secs. 10, 11, 14, and 15, T. 8 N., R. 9 W., 50 ft. E. of crossroads, on top of W. end of S. concrete head wall of culvert under E.-W. rd.; chiseled square-----	845. 28

<sup>11</sup> In 1929 this post was moved 15.2 feet west and 1 foot north from its original position and reset at the same elevation.

Grattan, at E. edge of village, about 800 ft. S. of cor. secs. 9, 10, 15, and 16, T. 8 N., R. 9 W., 35 ft. S. and 200 ft. E. from junction of T-rd. S., 10 ft. S. of NE. corner of yard at Grange Hall, in concrete post; standard tablet stamped "19 A 1929 Mich"-----	<i>Feet</i> 860. 761
Reference mark, 18 ft. N. and 20 ft. W. from junction of T-rd. S., 20 ft. W. of SW. corner of schoolyard, on top of W. concrete head wall of culvert under driveway N.; chiseled square-----	859. 24
Grattan, in E. part of village, 50 ft. N. of junction of T-rd. N., on E. side of rd., on top of SE. end of curved concrete head wall of culvert; chiseled square-----	829. 01
Grattan, 1.1 mi. N. of, 0.25 mi. W. of cor. secs. 3, 4, 9, and 10, T. 8 N., R. 9 W., at channel connecting Muskrat and Pine Island Lakes, on top of N. end of W. concrete head wall of culvert; chiseled square-----	838. 10
Grattan, 1.5 mi. N. of, about 500 ft. N. of center of SE $\frac{1}{4}$ sec. 4, T. 8 N., R. 9 W., 200 ft. S. of top of hill, on E. side of rd., in yard of farmhouse, in root on NW. side of 15-in. buckeye tree; copper nail and washer-----	878. 96
Grattan, 2.0 mi. N. of, near center of NE $\frac{1}{4}$ sec. 4, T. 8 N., R. 9 W., 65 ft. N. of T-rd. E., on E. side of rd., in root below triangular blaze on W. side of three-forked elm tree; copper nail and washer---	838. 43
Grattan, 2.3 mi. N. of, on line between Tps. 8 and 9 N., R. 9 W., 0.25 mi. W. of cor. secs. 3, 4, 33, and 34, 6 ft. N. and 18 ft. E. from junction of T-rd. W., 3 ft. N. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 30 1916 Mich"-----	881. 052
Reference mark, in NW. angle of junction of T-rd. W., 2 ft. SE. of fence corner, in root on NW. side of 24-in. hickory tree; copper nail and washer-----	880. 30
Grattan, 2.3 mi. N., thence 0.8 mi. W. from, about 500 ft. W. of cor. secs. 4, 5, 32, and 33, Tps. 8 and 9 N., R. 9 W., 45 ft. E. of junction of T-rd. S., on S. side of rd., in root on NE. side of 15-in. hickory tree; copper nail and washer-----	890. 83
Grattan, 2.3 mi. N., thence 1.8 mi. W. from, near cor. secs. 5, 6, 31, and 32, Tps. 8 and 9 N., R. 9 W., 150 ft. W. of junction of T-rd. W., on N. side of rd., in field, 12 ft. N. of fence, in root on S. side of 12-in. oak tree; copper nail and washer-----	882. 67
Grattan, 2.3 mi. N., thence 2.8 mi. W. from, 6.5 mi. E. of Rockford, near cor. secs. 1, 6, 31, and 36, Tps. 8 and 9 N., Rs. 9 and 10 W., 25 ft. N. and 25 ft. E. from junction of T-rd. S., 26 ft. E. of fence corner, in concrete post; standard tablet stamped "20 A 1929 Mich"-----	879. 897
Reference mark, 25 ft. S. and 80 ft. E. from junction of T-rd. S., in root on NW. side of 24-in. hickory tree; copper nail and washer---	880. 09
Rockford, 6.0 mi. E. of, near N $\frac{1}{4}$ cor. sec. 1, T. 8 N., R. 10 W., 35 ft. S. and 25 ft. W. from crossroads, in root on SE. side of 24-in. oak tree; copper nail and washer-----	935. 21
Rockford, 5.2 mi. E. of, 0.25 mi. W. of cor. secs. 1, 2, 35, and 36, Tps. 8 and 9 N., R. 10 W., on S. side of rd., opposite junction of T-rd. N., in root on NW. side of 36-in. oak tree; copper nail and washer-----	946. 11
Rockford, 3.8 mi. E. of, 400 ft. W. of entrance to camps at Brower Lake, 0.2 mi. W. of S $\frac{1}{4}$ cor. sec. 34, T. 9 N., R. 10 W., 40 ft. N. of E.-W. rd., on E. side of junction of T-rd. N., in root on SE. side of 10-in. oak tree; copper nail and washer-----	945. 68



From Howard City quadrangle south along State Highway 66 to Greenville (by  
S. R. Archer in 1929)

Greenville, 4.0 mi. N. of, near cor. secs. 21, 22, 27, and 28, T. 10 N., R. 8 W., 33 ft. N. of crossroads, on top of E. concrete head wall of highway culvert; chiseled square	Feet 879. 18
Greenville, 3.0 mi. N. of, in SE. cor. sec. 28, T. 10 N., R. 8 W., 37 ft. N. of section-line fence, on W. side of rd.; in root on E. side of 30-in. oak tree; copper nail and washer	883. 99
Greenville, 2.5 mi. N. of, near W $\frac{1}{4}$ cor. sec. 34, T. 10 N., R. 8 W., 50 ft. S. and 20 ft. E. from center of crossroads, in root on SW. side of 36-in. oak tree; copper nail and washer	883. 31
Greenville, 2.0 mi. N. of, near cor. secs. 3, 4, 33, and 34, Tps. 9 and 10 N., R. 8 W., 25 ft. N. and 45 ft. W. from junction of T-rd. W., 23 ft. W. of fence corner, in concrete post; standard tablet stamped "25 A 1929 Mich"	878. 699
Reference mark, 90 ft. W. of junction of T-rd. W., on N. side of rd., in root on SW. side of 24-in. oak tree; copper nail and washer	878. 31
Pere Marquette Ry. crossing; top of N. rail	867. 5
Greenville, 1.2 mi. N. of, 0.25 mi. N. of cor. secs. 3, 4, 9, and 10, T. 9 N., R. 8 W., 5 ft. N. of E.-W. fence line, on top of N. end of W. concrete head wall of highway culvert; chiseled square	851. 59
Greenville, 9 ft. S. of intersection of curb line tangents at SE. corner of intersection of North Lafayette and East Van Deinse Streets, on top of concrete curb; chiseled square	850. 23

#### SOUTH HAVEN QUADRANGLE

[Latitude 42°15'-42°30'; longitude 86°15'-86°30']

#### ALLEGAN AND VAN BUREN COUNTIES

From Bangor quadrangle at point 2 miles south and 1 mile east from South Haven alternately west and south along roads into Benton Harbor quadrangle at point 4.3 miles north of Coloma (by S. R. Archer in 1927)

South Haven, 2.0 mi. S., thence 1.0 mi. E. from, near N $\frac{1}{4}$ cor. sec. 23, T. 1 S., R. 17 W., 20 ft. S. and 25 ft. E. from junction of T-rd. S., in root on NE. side of 24-in. elm tree; copper nail and washer	658. 23
South Haven, 2.0 mi. S. of, 0.25 mi. W. of NE. cor. sec. 22, T. 1 S., R. 17 W., in SE. angle of intersection of State Highway 140, on top of concrete head wall of culvert, 1 ft. S. of corner; chiseled square	637. 06
Pere Marquette Ry., at crossing; top of W. rail	631. 8
South Haven, 2.0 mi. S., thence 0.5 mi. W. from, in NW. cor. sec. 22, T. 1 S., R. 17 W., 18 ft. S. and 20 ft. E. from junction of N.-S. rd., near Deerlick School, in root on SE. side of 30-in. sycamore tree; copper nail and washer	621. 92
T. 1 S., R. 17 W., near W $\frac{1}{4}$ cor. sec. 22, 2.5 mi. S., thence 0.7 mi. W. from South Haven, 55 ft. S. and 25 ft. E. from crossroads, in root on NW. side of 24-in. elm tree; copper nail and washer	624. 39
T. 1 S., R. 17 W., near center of sec. 21, 2.5 mi. S., thence 1.2 mi. W. from South Haven, 8 ft. S. and 31 ft. W. from junction of T-rd. S., in yard of "Wildwood," 2.5 ft. S. and 4.5 ft. W. from NE. corner of fence, in concrete post; standard tablet stamped "P T Sta No 52 Y 1926"	619. 729
Reference mark, 20 ft. S. and 20 ft. W. from rd. junction, in root on E. side of 30-in. beech tree; copper nail and washer	619. 50

T. 1 S., R. 17 W., near N $\frac{1}{4}$ cor. sec. 28, in SE. angle of junction of T-rd. E., at fence corner, in root on W. side of 24-in. maple tree; copper nail and washer-----	Feet 622. 09
T. 1 S., R. 17 W., near S $\frac{1}{4}$ cor. sec. 28, 0.5 mi. E. of Van Buren State Park, 260 ft. N. and 80 ft. W. from crossroads, in field, in root on N. side of lone 24-in. pine tree; copper nail and washer-----	621. 64
T. 1 S., R. 17 W., near S $\frac{1}{4}$ cor. sec. 33, 160 ft. N. of crossroads, on E. side of rd., at fence line, in root on W. side of 6-in. maple tree; copper nail and washer-----	613. 31
T. 2 S., R. 17 W., near quarter corner between secs. 4 and 9, 1.5 mi. N., thence 1.5 mi. W. from Covert, 31 ft. N. and 27 ft. E. from junction of E.-W. rd., in concrete post; standard tablet stamped "P T Sta No 51 Y 1926"-----	609. 790
Covert, 1.0 mi. N., thence 1.75 mi. W. from, 1.5 mi. E. of Palisades Park, 0.25 mi. W. of center of sec. 9, T. 2 S., R. 17 W., 40 ft. N. and 20 ft. W. from crossroads, in root on SE. side of 8-in. ash tree; copper nail and washer-----	610. 37
Covert, 0.5 mi. N., thence 1.75 mi. W. from, 1.5 mi. E. of Linden Hills, 0.25 mi. E. of SW. cor. sec. 9, T. 2 S., R. 17 W., 100 ft. N. of crossroads, on W. side of rd., on top of N. end of W. concrete head wall of culvert; chiseled square-----	617. 14
Covert, 2.0 mi. W. of, near W $\frac{1}{4}$ cor. sec. 16, T. 2 S., R. 17 W., 40 ft. N. and 18 ft. E. from junction of T-rd. S., 10 ft. N. and 18 ft. E. from fence corner, at group of four small wild-cherry trees, on S. side, in crotch between two trees; copper nail and washer-----	621. 04
Covert, 1.0 mi. S., thence 2.0 mi. W. from, near E $\frac{1}{4}$ cor. sec. 20, T. 2 S., R. 17 W., 31 ft. N. and 20 ft. W. from crossroads, 13 ft. N. and 1 ft. E. from fence corner, in concrete post; standard tablet stamped "P T Sta No 50 Y 1926"-----	628. 299
Covert, 1.5 mi. S. and 2.0 mi. W. from, in SW. cor. sec. 21, T. 2 S., R. 17 W., 180 ft. N. of junction of private rd. W., on E. side of rd., in yard of dwelling, 20 ft. W. of northernmost of two large pine trees, in root on SW. side of 30-in. maple tree; copper nail and washer----	628. 13
Covert, 2.5 mi. S., thence 2.0 mi. W. from, near Fish School, in SW. cor. sec. 28, T. 2 S., R. 17 W., 40 ft. N. and 40 ft. E. from crossroads, in root on SW. side of 24-in. maple tree; copper nail and washer----	658. 54

From road junction 2 miles south and 0.5 mile west from South Haven along U. S. Highway 31 north and northeast into Bangor quadrangle (by S. R. Archer in 1927)

South Haven, at S. limits of, at Indian Grove, in NW. cor. sec. 15, T. 1 S., R. 17 W., 25 ft. S. and 25 ft. E. from junction of E.-W. rd., in root on N. side of 12-in. maple tree, 6 in. underground; copper nail and washer-----	630. 68
South Haven, on E. side of city pumping sta., on N. side of entrance to boiler room, on top of N. end of stone window sill; chiseled square <sup>12</sup> -----	590. 623
South Haven, at NE. corner of Michigan Avenue and Maple Street, under SW. corner of Liberty Hall, at tenth course above course under W. and S. cellar window frames; top of brick foundation (U. S. Lake Survey B. M.)-----	622. 671

<sup>12</sup> On part of original building; believed to be U. S. Lake Survey B. M., marked by square and letters "B M" in 1927.

South Haven, at NW. corner of Center and Phoenix Streets, at S. entrance to First State Bank, at W. end of stone doorsill; top of S. corner.....	<i>Feet</i> 617. 96
South Haven, 51 ft. SE. of signal tower at Broadway and Phoenix Streets, 29.6 ft. NW. of NW. corner of Public Library, 13 ft. S. and 7 ft. E. from corner of curb, in concrete post; standard tablet stamped "P T Sta No 62 Y 1926".....	617. 042
Reference mark, 29.6 ft. SE. of tablet, at NW. corner of public library, 2 ft. above ground; top of outside corner of projecting water table...	619. 57
South Haven, 70 ft. N. of intersection of Dyckman Avenue and Lake Shore Drive, on W. side of Lake Shore Drive, midway between sidewalk and curb, on top of rim on E. side of manhole opening to underground meter; chiseled square.....	607. 07
South Haven, 1.3 mi. NE. of, on line between secs. 3 and 35, Tps. 1 N. and 1 S., R. 17 W., at Allegan-Van Buren county line, on W. side of highway at turn to E., at junction of rd. NE., in root on E. side of 30-in. maple tree; copper nail and washer.....	619. 07
South Haven, 1.9 mi. NE. of, near W $\frac{1}{4}$ cor. sec. 36, T. 1 N., R. 17 W., 175 ft. E. of junction of N.-S. rd., on N. side of rd., at driveway to house, on top of W. concrete head wall of culvert; chiseled square...	643. 38
South Haven, 2.4 mi. NE. of, near center of sec. 36, T. 1 N., R. 17 W., 20 ft. N. and 25 ft. W. from junction of U. S. Highway 31, in triangle formed by highway and old rds., in root on N. side of 30-in. maple tree; copper nail and washer.....	656. 60
South Haven, 2.7 mi. NE. of, 1.4 mi. S. of South Haven Highlands, 0.25 mi. N. of center of sec. 36, T. 1 N., R. 17 W., 25 ft. S. and 24 ft. W. from crossroads, 6 ft. S. of tree, in concrete post; standard tablet stamped "P T Sta No 63 Y 1926" <sup>13</sup> .....	674. 390
Reference mark, 55 ft. N. and 25 ft. E. from crossroads, 25 ft. N. of of fence corner, in root on NW. side of 15-in. ash tree; copper nail and washer.....	675. 12
South Haven Highlands, 0.5 mi. S. of, 320 ft. N. and 900 ft. E. from center of sec. 25, T. 1 N., R. 17 W., on top of W. concrete head wall of highway culvert; chiseled square.....	655. 93

## SOUTH LYON QUADRANGLE

[Latitude 42°15'-42°30'; longitude 83°30'-83°45']

## LIVINGSTON, OAKLAND, WASHTENAW, AND WAYNE COUNTIES

From Ypsilanti quadrangle northwest along road to Ann Arbor (by R. E. Wipfler in 1901)

Ann Arbor, 3.4 mi. SE. of intersection of Huron and Fourth Streets, 0.2 mi. S. of N $\frac{1}{4}$ cor. sec. 2, T. 3 S., R. 6 E., on N. side of rd.; standard iron post with bronze cap stamped "804" <sup>14</sup> .....	804. 568
Ann Arbor, in S. wall of University of Michigan Library; standard tablet stamped "882".....	882. 021
Ann Arbor, at University Mechanics Building, in masonry 8 ft. N. of S. door, 3 ft. below first floor; mark not described.....	875. 14
Ann Arbor, in SE. corner of Washtenaw County courthouse; standard tablet stamped "843" (recovered by U. S. C. & G. S. in 1916 and designated "W 20").....	842. 964

<sup>13</sup> The elevation of this bench mark as reset in 1937 is 1.430 feet lower than its original elevation. The figures given represent the new elevation.<sup>14</sup> In 1932 this bench mark was not found.

Ann Arbor, at NW. corner of intersection of Huron and Fourth Streets;  
City Engineers B. M.-----

Feet  
838. 574

From Ann Arbor along roads generally north to Whitmore Lake, thence south-east 2 miles and north 1 mile to Livingston-Washtenaw county line, thence east 9 miles to corner of Oakland, Washtenaw, and Wayne Counties, thence south 6 miles, thence southwest by way of Dixboro to Ann Arbor (by R. E. Wipfler in 1901 and 1902)

Ann Arbor, 1.5 mi. N. of intersection of Huron and Fourth Streets,  
0.25 mi. W. of SE. cor. sec. 17, T. 2 S., R. 6 E., at bridge over Huron  
River, on NW. corner, in bedplate; top of bolt-----

779. 35

[Line jogs into Dexter quadrangle]

Whitmore Lake, 2.0 mi. by rd. SE. of, 3.2 mi. S. and 3.9 mi. W. from  
South Lyon, 0.25 mi. S. of NE. cor. sec. 9, T. 1 S., R. 6 E., 65 ft.  
N. and 22 ft. W. from crossroads; standard iron post with bronze  
cap stamped "926" (recovered in 1936)-----

925. 952

South Lyon, 2.0 mi. S., thence 0.8 mi. W. from, near SE. cor. sec. 36,  
T. 1 N., R. 6 E., at crossroads; standard iron post with bronze cap  
stamped "918"-----

918. 488

South Lyon, 2.0 mi. S., thence 1.8 mi. E. from, 0.25 mi. W. of SE.  
cor. sec. 33, T. 1 N., R. 7 E., at Pere Marquette Ry. bridge, on top  
of NW. abutment; mark not described-----

963. 51

South Lyon, 2.0 mi. S., thence 5.0 mi. E. from, 1.5 mi. E., thence 2.0  
mi. N. from Salem, near SE. cor. sec. 36, T. 1 N., R. 7 E., at cross-  
roads, at corner of Oakland, Washtenaw, and Wayne Counties;  
standard iron post with bronze cap stamped "975" (recovered in  
1903)<sup>15</sup>-----

975. 672

Salem, 1.5 mi. E. of, near SW. cor. sec. 7, T. 1 S., R. 8 E., on SW.  
corner of brick schoolhouse; mark not described-----

965. 62

Salem, 1.5 mi. E., thence 4.0 mi. S. from, 6.5 mi. NE. of Dixboro,  
near SE. cor. sec. 36, T. 1 S., R. 7 E., 20 ft. N. and 15 ft. W. from  
crossroads; standard iron post with bronze cap stamped "850"  
(recovered in 1936)-----

850. 562

Dixboro, 2.6 mi. NE. of, in NW $\frac{1}{4}$  sec. 9, T. 2 S., R. 7 E., 300 ft. E.  
of schoolhouse at Frain Lakes, on SE. abutment of culvert; mark  
not described-----

827. 86

Dixboro, 0.7 mi. NE. of, about 800 ft. W. of SE. cor. sec. 7, T. 2 S.,  
R. 7 E., at junction of T-rd. E., on large boulder; mark not described-----

832. 96

Dixboro, in front of brick schoolhouse; standard iron post with bronze  
cap stamped "819"-----

819. 241

From corner of Oakland, Washtenaw, and Wayne Counties east along road into  
Plymouth quadrangle at point 0.9 mile west of Northville (by Fulton Pace in  
1903)

Northville, 2.5 mi. W. of, in NE. cor. sec. 6, T. 1 S., R. 8 E., on S.  
side of rd., in root of tree; nail-----

972. 60

From Milford quadrangle southeast along Grand River Road (U. S. Highway  
18) to Napier Road, thence south 0.4 mile and east along Twelvemile Road  
into Plymouth quadrangle (by G. N. Tex in 1936)

West Novi, 0.8 mi. NW. of, about 400 ft. S. of W $\frac{1}{4}$  cor. sec. 7, T. 1  
N., R. 8 E., 50 ft. S. and 23 ft. E. from intersection of Napier Rd.,  
in root on S. side of 24-in. maple tree; copper nail and washer-----

958. 26

<sup>15</sup> In 1936 this mark was reported destroyed.

West Novi, 0.1 mi. S., thence 0.7 mi. W. from, in SE. cor. sec. 12, T. 1 N., R. 7 E., at jog in Twelvemile Rd., 15 ft. S. and 21 ft. W. from junction of T-rd. E., 96 ft. N. and 21 ft. W. from junction of T-rd. W., 1 ft. E. of fence, in concrete post; standard tablet stamped "T T 33 E 1935 947"-----	<i>Feet</i> 947. 360
Reference mark, 45 ft. S. and 41 ft. E. from tablet, 60 ft. S. and 20 ft. E. from junction of T-rd. E., 50 ft. N. and 20 ft. E. from junction of T-rd. W., in root on W. side of 18-in. elm tree; copper nail and washer-----	948. 36
West Novi, 33 ft. S. and 24 ft. W. from junction of Grand River Avenue, in SE $\frac{1}{4}$ sec. 7, T. 1 N., R. 8 E., in root on S. side of 20-in. maple tree; copper nail and washer-----	972. 73
West Novi, 0.3 mi. E. of, about 300 ft. N. of SE. cor. sec. 8, T. 1 N., R. 8 E., 36 ft. S. and 55 ft. E. from intersection of Wixom Rd., in root between twin willow trees; copper nail and washer-----	968. 41
West Novi, 1.3 mi. E. of, near NE. cor. sec. 17, T. 1 N., R. 8 E., 20 ft. S. and 270 ft. W. from intersection of Beck Rd., on top of concrete head wall of culvert; chiseled square-----	958. 19
West Novi, 1.8 mi. E. of, near S $\frac{1}{4}$ cor. sec. 9, T. 1 N., R. 8 E., 20 ft. N. and 78 ft. E. from center line of rd., at fence N., in root on N. side of 12-in. elm tree; copper nail and washer-----	963. 42
From intersection of Napier and Twelvemile Roads along road south to Base Line Road, thence east into Plymouth quadrangle (by G. N. Tex in 1936)	
West Novi, 1.1 mi. S. and 0.7 mi. W. from, near SE. cor. sec. 13, T. 1 N., R. 7 E., 20 ft. N. and 50 ft. W. from junction of Elevenmile Rd., in root on NE. side of 30-in. wild-cherry tree; copper nail and washer-----	956. 62
West Novi, 2.1 mi. S. and 0.7 mi. W. from, 5.0 mi. E. of South Lyon, near SW. cor. sec. 19, T. 1 N., R. 8 E., 100 ft. N. and 24 ft. E. from intersection of Tenmile Rd., in root on NE. side of 20-in. elm tree; copper nail and washer-----	973. 26
West Novi, 3.1 mi. S. and 0.7 mi. W. from, near NW. cor. sec. 31, T. 1 N., R. 8 E., at jog in Ninemile Rd., 90 ft. S. and 24 ft. E. from junction of T-rd. E., 150 ft. S. and 24 ft. E. from junction of T-rd. W., in root on S. side of 15-in. elm tree; copper nail and washer----	991. 33
West Novi, 4.1 mi. S. and 0.7 mi. W. from, 3.5 mi. W. of Northville, near NW. cor. sec. 6, T. 1 S., R. 8 E., 56 ft. S. and 28 ft. E. from intersection of Base Line Rd., 26 ft. S. of corner fence post, 2 ft. W. of fence, in concrete post; standard tablet stamped "T T 49 E 1935 972"-----	972. 120
Reference mark, 76 ft. N. and 12 ft. E. from tablet, 20 ft. N. and 40 ft. E. from crossroads, on top of N. concrete head wall of culvert; chiseled square-----	973. 33
Northville, 2.5 mi. W. of, near NW. cor. sec. 5, T. 1 S., R. 8 E., 30 ft. S. and 30 ft. E. from junction of T-rd. N., in root on NW. side of 30-in. maple tree; copper nail and washer-----	970. 64
Northville, 1.5 mi. W. of, near SE. cor. sec. 32, T. 1 N., R. 8 E., 27 ft. N. and 40 ft. W. from intersection of Beck Rd., in root on SE. side of 24-in. maple tree; copper nail and washer-----	943. 90
From crossroads 5 miles east of South Lyon east along Tenmile Road 0.4 mile, thence south 0.3 mile to Hamilton triangulation station (by G. N. Tex in 1936; leveled twice)	
South Lyon, 5.4 mi. E. of, 0.4 mi. E. of NW. cor. sec. 30, T. 1 N., R. 8 E., 27 ft. S. of center line of rd., 260 ft. E. of private T-rd. N., in root on N. side of 20-in. elm tree; copper nail and washer-----	1, 013. 40

Hamilton triangulation sta.; U. S. C. & G. S. standard triangulation disk stamped "Hamilton" <sup>16</sup> -----	Feet (16)
Hamilton triangulation sta. reference mark 1, 80 ft. S.46°44'E. of sta., in concrete post; U. S. C. & G. S. standard reference disk-----	1, 036. 244
Hamilton triangulation sta. reference mark 2, 86 ft. W.0°47'N. of sta., in concrete post; U. S. C. & G. S. standard reference disk-----	1, 037. 612

From Plymouth quadrangle southwest along Ann Arbor Trail to Powell Road, thence alternately west and north along roads to intersection of Napier and Base Line Roads (by G. N. Tex in 1936)

Plymouth, 2.0 mi. along Ann Arbor Trail W. of, 0.2 mi. E. of NW. cor. sec. 33, T. 1 S., R. 8 E., 40 ft. S. and 15 ft. W. from junction of Powell Rd., in root on N. side of 36-in. maple tree; copper nail and washer-----	793. 70
T. 1 S., R. 8 E., near SW. cor. sec. 28, 20 ft. N. and 33 ft. E. from intersection of Beck Rd.; top of 4-in. iron pipe filled with concrete-----	806. 19
T. 1 S., R. 8 E., about 700 ft. S. of NE. cor. sec. 29, 30 ft. N. and 48 ft. W. from intersection of North Territorial Rd., in concrete post; standard tablet stamped "T T 12 S 1935 839"-----	838. 553
Reference mark, 58 ft. S. and 22 ft. W. from tablet, 28 ft. S. and 70 ft. W. from crossroads, in root on N. side of 18-in. maple tree; copper nail and washer-----	840. 44
T. 1 S., R. 8 E., 0.2 mi. S. of quarter corner between secs. 20 and 29, 20 ft. S. and 310 ft. E. from junction of T-rd. N., in root on N. side of 36-in. elm tree; copper nail and washer-----	859. 26
T. 1 S., R. 8 E., 0.2 mi. S. of NW. cor. sec. 29, 27 ft. S. and 30 ft. E. from intersection of Ridge Rd., on granite boulder; chiseled cross-----	859. 32
T. 1 S., R. 8 E., near quarter corner between secs. 19 and 20, 30 ft. N. and 15 ft. E. from center line of rd., at E.-W. fence, 8 ft. W. of large granite boulder, on top of NE. end of quartzite boulder; chiseled square-----	848. 02
T. 1 S., R. 8 E., near SE. cor. sec. 18, 30 ft. N. and 165 ft. W. from intersection of Phoenix Rd., in root on N. side of 36-in. elm tree; copper nail and washer-----	840. 62
T. 1 S., R. 3 E., about 850 ft. W. of E. cor. secs. 18 and 19, at crossing of Pere Marquette Ry.; top of E. rail-----	842. 4
T. 1 S., R. 8 E., near NW. cor. sec. 19, 30 ft. S. and 60 ft. E. from intersection of Napier Rd., in concrete post; standard tablet stamped "T T 11 S 1935 872"-----	872. 187
T. 1 S., Rs. 7 and 8 E., 0.3 mi. N. of cor. secs. 13, 18, 19, and 24, 110 ft. N. and 20 ft. W. from grade crossing, on top of W. concrete head wall of culvert; chiseled square-----	882. 30
T. 1 S., R. 8 E., near NW. cor. sec. 18, 1.5 mi. E. of Salem, 90 ft. S. and 30 ft. E. from intersection of Sixmile Rd., in root on S. side of 18-in. walnut tree; copper nail and washer-----	957. 48
T. 1 S., R. 8 E., near SE. cor. sec. 6, 65 ft. N. and 28 ft. E. from intersection of Fishery Rd., in root on W. side of 18-in. maple tree; copper nail and washer-----	945. 80,

From intersection of North Territorial and Ridge Roads west along road 1 mile to Washtenaw-Wayne county line, thence south along Napier Road to Ford Road, thence east into Plymouth quadrangle (by G. N. Tex in 1936)

T. 1 S., R. 8 E., 0.2 mi. S. of quarter corner between secs. 19 and 30, 65 ft. N. and 12 ft. E. from junction of T-rd. N., in root on SW. side of 20-in. elm tree; copper nail and washer-----	856. 52
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<sup>16</sup> No elevation has been determined for this station. It was not found in 1936.

T. 1 S., Rs. 7 and 8 E., 0.25 mi. S. of cor. secs. 19, 24, 25, and 30, 27 ft. S. and 90 ft. E. from junction of Napier Rd., in root on S. side of 15-in. elm tree; copper nail and washer	Feet 859. 75
T. 1 S., R. 8 E., near NW. cor. sec. 31, 16 ft. S. and 55 ft. E. from junction of Powell Rd., in root on S. side of 8-in. elm tree; copper nail and washer	863. 00
T. 2 S., R. 7 E., near NE. cor. sec. 1, 90 ft. S. and 20 ft. W. from intersection of Ann Arbor Rd. (U. S. Highway 12), in root on NE. side of 18-in. hickory tree; copper nail and washer <sup>17</sup>	846. 28
T. 2 S., R. 8 E., near NW. cor. sec. 7, 20 ft. S. and 65 ft. E. from intersection of Warren Rd., in root on NE. side of 20-in. red-oak tree; copper nail and washer	814. 06
T. 2 S., R. 8 E., near W $\frac{1}{4}$ cor. sec. 7, 25 ft. N. and 40 ft. E. from junction of Hanford Rd., in root on N. side of 20-in. elm tree; copper nail and washer	788. 75
T. 2 S., R. 7 E., near SE. cor. sec. 12, 0.5 mi. W., thence 1.0 mi. N. from Cherry Hill, 55 ft. N. and 40 ft. W. from intersection of Ford Rd., in concrete post; standard tablet stamped "T T 7 S 1935 768"	767. 999
Reference mark, 31 ft. S. and 200 ft. E. from tablet, 24 ft. N. and 160 ft. E. from crossroads, in root on N. side of 12-in. maple tree; copper nail and washer	765. 95
T. 2 S., R. 8 E., near NE. cor. sec. 18, 60 ft. S. and 30 ft. W. from intersection of Ridge Rd., in root on N. side of 36-in. elm tree; copper nail and washer	734. 41
T. 2 S., R. 8 E., near NW. cor. sec. 16, 20 ft. S. and 25 ft. E. from intersection of Beck Rd., in root on N. side of 30-in. maple tree; copper nail and washer	706. 11

From crossroads 1 mile north and 0.5 mile west from Cherry Hill generally south along roads into Ypsilanti quadrangle (by G. N. Tex in 1936)

Cherry Hill, 0.5 mi. W. of, near SE. cor. sec. 13, T. 2 S., R. 7 E., 18 ft. N. and 27 ft. W. from junction of Napier and Cherry Hill Rds., in root on SE. side of 20-in. maple tree; copper nail and washer	742. 77
Cherry Hill, near W. limits of, 0.4 mi. E. of NW. cor. sec. 19, T. 2 S., R. 8 E., 65 ft. S. and 12 ft. W. from junction of Ridge Rd., on top of E. concrete head wall of culvert; chiseled square	734. 26
Cherry Hill, 0.8 mi. along Ridge Rd. SW. of, 200 ft. SW. of rd. fork, at concrete bridge over Lower River Rouge, on top of N. abutment, 6 in. W. of NW. concrete side wall; chiseled square	716. 97
Cherry Hill, 1.0 mi. SW. of, about 400 ft. N. of SW. cor. sec. 19, T. 2 S., R. 8 E., near Washtenaw-Wayne county line, 20 ft. E. of center line of rd., on top of SW. corner of concrete base of county-line signpost; chiseled square	738. 56
Cherry Hill, 1.6 mi. SW. of, 0.25 mi. E. of center of sec. 25, T. 2 S., R. 7 E., 180 ft. SW. of center line of rd. at E.-W. fence, 15 ft. E. of center line of rd., in root on W. side of sycamore tree; copper nail and washer	734. 40
Cherry Hill, 2.3 mi. SW. of, 1.1 mi. N., thence 1.5 mi. W. from intersection of Denton Rd. and U. S. Highway 112 in Denton, near quarter corner between secs. 25 and 36, T. 2 S., R. 7 E., 65 ft. S. and 30 ft. W. from intersection of Geddes Rd., in concrete post; standard tablet stamped "4 T 1936 728"	728. 414

<sup>17</sup> Established as a reference mark to standard iron post with bronze cap stamped "850" and previously described.

Reference mark, 83 ft. N. and 5 ft. W. from tablet, 18 ft. N. and 35 ft. W. from crossroads, on top of N. concrete head wall of culvert; chiseled square-----	Feet 732. 41
Denton, 0.1 mi. N., thence 1.5 mi. W. from, near S $\frac{1}{4}$ cor. sec. 36, T. 2 S., R. 7 E., 65 ft. N. and 42 ft. E. from junction of Mott Rd., in route on SW. side of 18-in. maple tree; copper nail and washer--	725. 69
Denton, 1.4 mi. SW., thence 0.2 mi. W. from, near center of sec. 1, T. 3 S., R. 7 E., 45 ft. S. and 18 ft. W. from junction of Holmes Rd., in root on E. side of 20-in. cottonwood tree; copper nail and washer--	723. 54
Denton, 1.4 mi. SW. of, 0.2 mi. E. of center of sec. 1, T. 3 S., R. 7 E., 20 ft. N. and 100 ft. W. from junction of Holmes Rd. and N. traffic lane of U. S. Highway 112, 20 ft. E. of corner fence post, in root on S. side of 24-in. maple tree, second of three trees; copper nail and washer-----	720. 77
Denton, 1.1 mi. SW. of, near E $\frac{1}{4}$ cor. sec. 1, T. 3 S., R. 7 E., 75 ft. S. and 42 ft. W. from intersection of Rawsonville Rd. and E.-W. rd., on concrete base of gasoline pump, near N. corner; chiseled square---	717. 27
Denton, 1.1 mi. SW., thence 0.3 mi. S. from, 0.25 mi. S. of E $\frac{1}{4}$ cor. sec. 1, T. 3 S., R. 7 E., at intersection of Michigan Central R. R.; top of southernmost of four rails-----	723. 4
From point on Ann Arbor Railroad 3 miles southeast of Whitmore Lake north-west along railroad 1 mile, thence alternately east and north along Sixmile, Nollar, and Sevenmile roads to crossroads 0.25 mile south of northeast corner sec. 9, T. 1 S., R. 6 E. (by G. N. Tex in 1938; leveled twice)	
U. S. C. & G. S. standard disk stamped "W 105 1934"-----	915. 722
Whitmore Lake, 2.0 mi. along R. R. SE. of, near NW. cor. sec. 16, T. 1 S., R. 6 E., 18 ft. S. and 190 ft. E. from crossing of Sixmile Rd., in root on N. side of 18-in. elm tree; copper and nail washer-----	909. 15
Whitmore Lake, 1.5 mi. by rd. SE., thence 0.8 mi. S. from, about 400 ft. W. of quarter corner between secs. 9 and 16, T. 1 S., R. 6 E., 36 ft. S. and 35 ft. E. from junction of Nollar Rd., in root on W. side of 20-in. elm tree; copper nail and washer-----	912. 56
Whitmore Lake, 1.5 mi. SE. of 0.25 mi. S. of quarter corner between secs. 4 and 9, T. 1 S., R. 6 E., 30 ft. S. and 24 ft. W. from junction of Sevenmile Rd., in root on E. side of 27-in. white-oak tree; copper nail and washer-----	932. 61

## SPRING ARBOR QUADRANGLE

[Latitude 42°00'-42°15'; longitude 84°30'-84°45']

## CALHOUN, HILLSDALE, AND JACKSON COUNTIES

From Springport quadrangle at point 1.1 miles southwest of Parma along roads south 0.2 mile to Concord-Parma township-line road, thence west into Homer quadrangle at Albion (by E. C. Bibbee in 1916)

Parma, 1.3 mi. SW. of, 21 ft. N. and 35 ft. E. from SW. cor. sec. 36, T. 2 S., R. 3 W., in NE. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 1 1915 Mich 994"-----	993. 701
Parma, 1.3 mi. SW., thence 0.7 mi. W. from, 0.3 mi. E. of SW. cor. sec. 35, T. 2 S., R. 3 W., directly in front of large red barn, on large flat rock over N. end of culvert; chiseled square-----	976. 98
Parma, 1.3 mi. SW., thence 3.0 mi. W. from, 0.5 mi. S., thence 4.0 mi. E. from intersection of North Eaton and West North Streets in Albion, near SW. cor. sec. 33, T. 2 S., R. 3 W., at NE. corner of crossroads, opposite Riceville School; standard iron post with bronze cap stamped "1020 Mich" (recovered in 1930)-----	1, 019. 214



Albion, 0.5 mi. S., thence 2.5 mi. E. from, near N $\frac{1}{4}$ cor. sec. 6, T. 3 S., R. 3 W., on S. side of rd., 60 ft. W. of junction of T-rd. N., on large granite rock; chiseled square-----	Feet 982. 40
Albion, 0.5 mi. S., thence 1.5 mi. E. from, on Michigan Central R. R., near quarter corner between secs. 1 and 36, Tps. 2 and 3 S., R. 3 W., 100 ft. S. of SE. corner of crossroads, 15 ft. S. of R. R. track, 4 ft. N. of crossing sign, on sandstone rock; chiseled square-----	950. 08
Albion, at SE. corner of intersection of East Erie and South Shannon Streets, 12 ft. N. of M. C. R. R. track, on SW. corner at S. end of sidewalk; chiseled square-----	957. 09
From Hillsdale quadrangle at point 1.8 miles north and 1 mile east from North Adams north along roads by way of Horton into Springport quadrangle near Sandstone (by H. P. Jones in 1930)	
North Adams, 2.0 mi. N. and 1.0 mi. E. from, 3.6 mi. S. of Moscow, 375 ft. S. of quarter corner between secs. 26 and 35, T. 5 S., R. 2 W., on W. side of rd., in root on E. side of twin walnut tree; copper nail and washer-----	1, 183. 28
Moscow, 2.5 mi. S. of, near quarter corner between secs. 23 and 26, T. 5 S., R. 2 W., 30 ft. S. and 35 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 5 S 1929"-----	1, 181. 999
Reference mark, 25 ft. S. and 20 ft. E. from crossroads, in root of 18-in. maple tree; copper nail and washer-----	1, 180. 78
Moscow, 1.5 mi. S. of, near quarter corner between secs. 14 and 23, T. 5 S., R. 2 W., 80 ft. N. and 25 ft. W. from crossroads, on top of concrete head wall of culvert; chiseled square-----	1, 126. 63
Moscow, 0.5 mi. S. of, near quarter corner between secs. 11 and 14, T. 5 S., R. 2 W., 100 ft. N. and 40 ft. E. from junction of T-rd. W., in root on W. side of 20-in. maple tree; copper nail and washer-----	1, 095. 90
Moscow, in town of, at SE. corner of crossroads, at "Old Moscow Tavern"; top of iron grating over sewerage inlet-----	1, 100. 80
Moscow, 0.7 mi. NW. of, 7 ft. S. and 120 ft. E. from NW. cor. sec. 11, T. 5 S., R. 2 W., on W. side of rd., 8 ft. S. of fence corner, in concrete post; standard tablet stamped "T T 4 S 1929"-----	1, 094. 066
Moscow, 1.2 mi. NW. of, near quarter corner between secs. 2 and 3, T. 5 S., R. 2 W., 15 ft. N. and 50 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square-----	1, 083. 44
Moscow, 1.6 mi. NW. of, 25 ft. N. and 25 ft. E. from SW. cor. sec. 35, T. 4 S., R. 2 W., at entrance to Townline Cemetery, on S. concrete head wall of culvert; chiseled square-----	1, 113. 73
Moscow, 2.0 mi. NW. of, about 700 ft. S. of quarter corner between secs. 34 and 35, T. 4 S., R. 2 W., 25 ft. N. and 80 ft. E. from junction of T-rd. E., on concrete head wall of culvert; chiseled square-----	1, 096. 22
Moscow, 2.6 mi. NW. of, 4.0 mi. S. of Horton, near NE. cor. sec. 34, T. 4 S., R. 2 W., 35 ft. S. and 90 ft. W. from crossroads, at school-house, on E. end of lower concrete step; chiseled square-----	1, 126. 34
Horton, 3.0 mi. S. of, 1.7 mi. E. of Hanover, near NE. cor. sec. 27, T. 4 S., R. 2 W., 30 ft. S. and 45 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 3 S 1929"-----	1, 067. 764
Reference mark, 20 ft. S. and 40 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square-----	1, 069. 37
Horton, 2.0 mi. S. of, near SE. cor. sec. 14, T. 4 S., R. 2 W., 95 ft. N. and 30 ft. E. from crossroads, in root on W. side of 16-in. wild-cherry tree; copper nail and washer-----	1, 080. 76

Horton, 1.0 mi. S. of, near cor. secs. 10, 11, 14, and 15, T. 4 S., R. 2 W., on W. side of rd., at junction of field rd., on top of N. concrete head wall of culvert; chiseled square-----	Feet 1, 034. 99
Horton, 0.5 mi. S. of, near quarter corner between secs. 10 and 11, T. 4 S., R. 2 W., 50 ft. S. and 40 ft. W. from junction of T-rd. W., in root on N. side of 20-in. maple tree; copper nail and washer-----	1, 039. 02
Horton, 55 ft. N. and 25 ft. E. from junction of T-rd. E. at, near cor. secs. 2, 3, 10, and 11, T. 4 S., R. 2 W., in concrete post; standard tablet stamped "T T 2 S 1929"-----	1, 019. 191
Horton, 20 ft. N. and 20 ft. W. from junction of T-rd. W., at corner opposite Methodist Church, at N. side of concrete sidewalk, on E. end; chiseled square-----	1, 039. 85
Horton, 1.6 mi. N. of, near quarter corner between secs. 34 and 35, T. 3 S., R. 2 W., 90 ft. N. and 15 ft. W. from crossroads, in top of concrete head wall of culvert; chiseled square-----	1, 032. 67
Horton, 2.3 mi. N. of, 0.2 mi. S. of quarter corner between secs. 26 and 27, T. 3 S., R. 2 W., 60 ft. S. and 30 ft. E. from crossroads, in root on E. side of 24-in. maple tree; copper nail and washer-----	1, 021. 70
Horton, 3.0 mi. N. of, near SW. cor. sec. 23, T. 3 S., R. 2 W., 25 ft. N. and 20 ft. E. from junction of T-rd. E., in concrete post; standard tablet stamped "T T 1 S 1929"-----	1, 005. 693
Horton, 3.8 mi. N. of, 3.4 mi. S. of Sandstone, 0.25 mi. S. of N. cor. secs. 22 and 23, T. 3 S., R. 2 W., on W. side of rd., 35 ft. N. of fork of rd. W., on top of concrete head wall of culvert; chiseled square---	976. 39
Sandstone, 2.5 mi. S. of, about 2 mi. NE. of Spring Arbor, 0.25 mi. S. of N. cor. secs. 14 and 15, T. 3 S., R. 2 W., 20 ft. S. and 30 ft. W. from junction of State Highway 60, on top of concrete head wall of culvert; chiseled square-----	1, 012. 94
Sandstone, 1.8 mi. S. and 0.7 mi. E. from, about 6 mi. SW. of Jackson, 0.25 mi. N. of SW. cor. sec. 12, T. 3 S., R. 2 W., 20 ft. N. and 15 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square-----	972. 52
Sandstone, 1.2 mi. S. and 0.7 mi. E. from, 1.0 mi. S. and 4.8 mi. W. from Jackson, in SE. angle of junction of E.-W. rd., 26 ft. S. and 25 ft. E. from NW. cor. sec. 12, T. 3 S., R. 2 W.; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1915 Mich"-----	1, 010. 404
Sandstone, 1.2 mi. S. of, 0.25 mi. E. of SW. cor. sec. 2, T. 3 S., R. 2 W., 20 ft. N. and 30 ft. W. from crossroads, in root on E. side of 11-in. walnut tree; copper nail and washer-----	977. 70
Sandstone, 0.7 mi S. of, 0.25 mi. W. of center of sec. 2, T. 3 S., R. 2 W., 25 ft. S. and 20 ft. E. from junction of T-rd. E., in root on N. side of 24-in. oak tree; copper nail and washer-----	968. 01
From Homer quadrangle at point 3 miles south of Albion along roads east 0.8 mile, thence south to point 2 miles south and 1.5 miles east from Litchfield, thence east to point 2.5 miles south of Moscow (by W. R. Broadus in 1930)	
Albion, 3.0 mi. S., thence 1.0 mi. E. from, near SE. cor. sec. 14, T. 3 S., R. 4 W., 35 ft. N. and 40 ft. W. from crossroads, in root on S. side of 36-in. elm tree; copper nail and washer-----	982. 24
T. 3 S., R. 4 W., near SW. cor. sec. 24, 45 ft. N. and 30 ft. E. from crossroads, in root on E. side of 24-in. maple tree; copper nail and washer-----	1, 031. 06
T. 3 S., R. 4 W., near SE. cor. sec. 26, 38 ft. N. and 33 ft. W. from crossroads, in concrete post; standard tablet stamped "B 2 1930"-----	1, 014. 177

Reference mark, 75 ft. S. of tablet, in root on E. side of 30-in. oak tree; copper nail and washer.....	Feet 1, 014. 89
T. 3 S., R. 4 W., 900 ft. N. of S. cor. secs. 35 and 36, 160 ft. S. and 20 ft. E. from crossroads, in root on N. side of 15-in. ash tree; copper nail and washer.....	1, 022. 86
T. 4 S., R. 4 W., near SE. cor. sec. 2, 1.0 mi. N. of Grover, 4.0 mi. E. of Homer, 50 ft. N. and 30 ft. W. from crossroads, in concrete post; standard tablet stamped "B 3 1930".....	1, 000. 180
Reference mark, 60 ft. N.2°E. of tablet, in root on E. side of 48-in. oak tree; copper nail and washer.....	1, 000. 35
South Branch of Kalamazoo River, under bridge; surface of water Oct. 20, 1930.....	981. 6
New York Central R. R., at crossing of N.-S. rd.; top of rail.....	986. 7
Grover, 100 ft. S. and 25 ft. W. from junction of T-rd. W., 4.0 mi. E., thence 1.0 mi. S. from Homer, near NE. cor. sec. 14, T. 4 S., R. 4 W., in root on W. side of 20-in. white-oak tree; copper nail and washer.....	989. 20
Grover, 1.0 mi. S. of, 4.0 mi. E., thence 2.0 mi. S. from Homer, 50 ft. S. and 27 ft. E. from NW. cor. sec. 24, T. 4 S., R. 4 W., 100 ft. NW. of NW. corner of Fisher School; standard iron post with bronze cap stamped "Prim Trav Sta No 3 Mich 1912".....	1, 043. 596
Reference mark, 74 ft. S. of tablet, in root on SW. side of 16-in. post-oak tree; copper nail and washer.....	1, 043. 23
T. 4 S., R. 4 W., near SW. cor. sec. 24, 35 ft. N. and 10 ft. E. from junction of T-rd. W., on top of E. concrete head wall of culvert under rd.; chiseled square.....	1, 014. 99
T. 4 S., R. 4 W., near SE. cor. sec. 26, 23 ft. N. and 40 ft. W. from junction of T-rd. W., in root on E. side of 20-in. elm tree; copper nail and washer.....	1, 037. 73
T. 5 S., R. 4 W., in NW. cor. sec. 1, near Calhoun-Hillsdale county line, 22 ft. S. and 24 ft. E. from junction of T-rd. W., in schoolyard, in concrete post; standard tablet stamped "B 4 1930".....	1, 033. 068
Reference mark 1, 18 ft. N.55°E. of tablet, in root on NW. side of 18-in. oak tree; copper nail and washer.....	1, 033. 29
Reference mark 2, 45 ft. S.15°E. of tablet, on top of concrete porch of school; chiseled square.....	1, 036. 74
T. 5 S., R. 4 W., near SE. cor. sec. 2, 1.4 mi. E., thence 1.0 mi. N. from Litchfield, 85 ft. N. and 30 ft. W. from crossroads, in root on E. side of 16-in. red-oak tree; copper nail and washer.....	1, 034. 25
Litchfield, 1.4 mi. E. of, near SE. cor. sec. 11, T. 5 S., R. 4 W., 110 ft. N. and 25 ft. W. from crossroads, in root on E. side of 36-in. elm tree; copper nail and washer.....	1, 021. 52
Litchfield, 1.5 mi. along State Highway 9 SE. of, near NW. cor. sec. 24, T. 5 S., R. 4 W., 32 ft. S. and 37 ft. E. from crossroads and curve in highway, in concrete post; standard tablet stamped "B 5 1930".....	1, 031. 559
Reference mark 1, 70 ft. N.45°E. of tablet, on top of N. concrete head wall of culvert under highway; chiseled square.....	1, 031. 85
Reference mark 2, 65 ft. S.60°W. of tablet, in root on E. side of 30-in. elm tree; copper nail and washer.....	1, 030. 33
T. 5 S., R. 4 W., near NE. cor. sec. 26, 35 ft. S. and 145 ft. W. from crossroads, in root on E. side of 36-in. walnut tree; copper nail and washer.....	1, 050. 39

[Line jogs into Hillsdale quadrangle]

T. 5 S., R. 4 W., near SE. cor. sec. 24, 2.5 mi. NW., thence 1.0 mi. W. from Jonesville, 30 ft. N. and 25 ft. W. from crossroads, in root on E. side of 20-in. elm tree; copper nail and washer-----	Feet 1, 059. 26
Jonesville, 2.5 mi. along State Highway 9 NW. of, near SE. cor. sec. 19, T. 5 S., R. 3 W., 70 ft. N. and 80 ft. W. from highway intersection, on top of W. concrete head wall of culvert under highway; chiseled square-----	1, 096. 05
Jonesville, 2.0 mi. N. and 0.4 mi. W. from, near SE. cor. sec. 20, T. 5 S., R. 3 W., 20 ft. N. and 40 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 8 S 1929"-----	1, 122. 147
Reference mark, 145 ft. S.70°E. of tablet, on S. side of rd., in root on NW. side of 18-in. maple tree; copper nail and washer-----	1, 123. 49
Jonesville, 2.0 mi. N. and 0.6 mi. E. from, near NW. cor. sec. 27, T. 5 S., R. 3 W., 27 ft. S. and 25 ft. E. from crossroads, in root on N. side of 18-in. maple tree; copper nail and washer-----	1, 087. 41
Jonesville, 2.0 mi. N. and 1.6 mi. E. from, near SW. cor. sec. 23, T. 5 S., R. 3 W., 25 ft. N. and 165 ft. E. from center of rd. in line with fence N., 100 ft. S. and 230 ft. W. from farmhouse of Earl Spencer, in root on SW. side of 30-in. oak tree; copper nail and washer----	1, 078. 85
Jonesville, 2.0 mi. N. and 2.6 mi. E. from, 3.0 mi. S. and 0.8 mi. E. from Mosherville Sta., near NW. cor. sec. 25, T. 5 S., R. 3 W., 25 ft. S. and 15 ft. E. from junction of T-rd. N., in concrete post; standard tablet stamped "T T 7 S 1929"-----	1, 103. 168
Reference mark, 58 ft. S. of tablet, in root on S. side of 20-in. cherry tree; copper nail and washer-----	1, 101. 90
Jonesville, 4.0 mi. along U. S. Highway 112 NE. of, 2.5 mi. S., thence 4.5 mi. W. from Moscow, near cor. secs. 19, 24, 25, and 30, T. 5 S., Rs. 2 and 3 W., near crossroads, 60 ft. N. and 30 ft. E. from junction of T-rd. E. and highway, in root on S. side of 24-in. white-oak tree; copper nail and washer-----	1, 135. 02
Moscow, 2.5 mi. S., thence 3.5 mi. W. from, near SE. cor. sec. 19, T. 5 S., R. 2 W., 25 ft. N. and 30 ft. W. from crossroads, in root on W. side of 18-in. maple tree; copper nail and washer-----	1, 156. 37
Moscow, 2.5 mi. S., thence 2.5 mi. W. from, near SW. cor. sec. 21, T. 5 S., R. 2 W., 35 ft. N. and 70 ft. E. from crossroads, in concrete post; standard tablet stamped "T T 6 S 1929"-----	1, 206. 445
Reference mark, 68 ft. S.55°W. of tablet, in root on NW. side of 30-in. oak tree; copper nail and washer-----	1, 209. 15
Moscow, 2.5 mi. S., thence 1.5 mi. W. from, near NE. cor. sec. 28, T. 5 S., R. 2 W., 15 ft. S. and 65 ft. W. from crossroads, in root on SE. side of 18-in. apple tree; copper nail and washer-----	1, 179. 87
Moscow, 2.5 mi. S., thence 0.5 mi. W. from, near SW. cor. sec. 23, T. 5 S., R. 2 W., 25 ft. N. and 50 ft. E. from junction of T-rd. S., in root on SW. side of 24-in. white-oak tree; copper nail and washer----	1, 173. 71
From point 3 miles south and 0.8 mile east from Mosherville Station generally north along roads to point on Michigan Central Railroad 2.8 miles southwest of Parma (by W. R. Broadus in 1930)	
T. 5 S., R. 3 W., near SE. cor. sec. 14, 30 ft. N. and 70 ft. W. from crossroads, in root on SE. side of 24-in. white-oak tree; copper nail and washer-----	1, 145. 88
T. 5 S., R. 3 W., near NW. cor. sec. 13, 30 ft. S. and 12 ft. E. from crossroads, in root on SE. side of 36-in. white-oak tree; copper nail and washer-----	1, 148. 72

T. 5 S., R. 3 W., near quarter corner between secs. 11 and 12, 55 ft. S. and 28 ft. E. from crossroads, in NW. corner of yard of Scipio School, in concrete post; standard tablet stamped "B 6 1930"-----	Feet 1, 106. 873
Reference mark, 45 ft. N.70°E. of tablet, in root on W. side of 18-in. red-oak tree; copper nail and washer-----	1, 107. 25
Mosherville Sta., 0.8 mi. NE. of, near quarter corner between secs. 1 and 2, T. 5 S., R. 3 W., near rd. junctions, 140 ft. N. and 20 ft. E. from Michigan Central R. R. crossing, in root on SE. side of 15-in. cherry tree; copper nail and washer-----	1, 049. 87
T. 4 S., R. 3 W., near SE. cor. sec. 35, near Hillsdale-Jackson county line, 20 ft. N. and 30 ft. W. from crossroads, in root on SE. side of 30-in. hickory tree; copper nail and washer-----	1, 141. 28
T. 4 S., R. 3 W., near NW. cor. sec. 36, 58 ft. S. and 23 ft. E. from crossroads, in concrete post; standard tablet stamped "B 7 1930"-----	1, 108. 80
Reference mark, 136 ft. N.45°E. of tablet, in root on SW. side of 30-in. oak tree; copper nail and washer-----	1, 108. 53
T. 4 S., R. 3 W., near SW. cor. sec. 24, 3.3 mi. W. of Hanover, 30 ft. N. and 28 ft. E. from crossroads, in SW. corner of yard of McNair School, in root on NW. side of 28-in. maple tree; copper nail and washer-----	1, 118. 86
Pulaski, 1.5 mi. E. of, near NE. cor. sec. 23, T. 4 S., R. 3 W., 25 ft. S. and 50 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 10 S 1929"-----	1, 115. 463
Reference mark, 75 ft. S.80°E. of tablet, on top of S. concrete head wall of culvert; chiseled square-----	1, 115. 65
T. 4 S., R. 3 W., near NW. cor. sec. 13, 60 ft. S. and 25 ft. E. from junction of T-rd. E., in root on NW. side of 10-in. hickory tree; copper nail and washer-----	1, 073. 62
T. 4 S., R. 3 W., near NE. cor. sec. 11, 25 ft. S. and 20 ft. W. from junction of T-rd. W., in top of S. concrete head wall of culvert; chiseled square-----	1, 077. 86
T. 4 S., R. 3 W., near quarter corner between secs. 1 and 2, 20 ft. S. and 50 ft. E. from junction of T-rd. E., in root on S. side of 36-in. white-oak tree; copper nail and washer-----	1, 084. 83
T. 3 S., R. 3 W., near quarter corner between secs. 35 and 36, 28 ft. N. and 30 ft. W. from rd. junction and curve in county rd., in concrete post; standard tablet stamped "B 8 1930"-----	1, 048. 632
Reference mark, 30 ft. S.50°W. of tablet, on top of N. concrete head wall of culvert; chiseled square-----	1, 052. 99
Concord, about 2 mi. E. of, 0.25 mi. S. of center of sec. 25, T. 3 S., R. 3 W., 70 ft. N. and 30 ft. W. from crossroads, in root on S. side of 14-in. elm tree; copper nail and washer-----	1, 001. 71
Concord, 2.2 mi. along State Highway 60 NE. of, 0.25 mi. S. of center of sec. 24, T. 3 S., R. 3 W., 110 ft. S. and 20 ft. W. from highway intersection, in root on N. side of 12-in. walnut tree; copper nail and washer-----	1, 010. 93
T. 3 S., R. 3 W., 0.25 mi. E. of center of sec. 23, 22 ft. S. and 22 ft. E. from junction of T-rd. N., in concrete post; standard tablet stamped "B 9 1930"-----	1, 037. 839
Reference mark, 67 ft. N.45°W. of tablet, in root on E. side of 30-in. white-oak tree; copper nail and washer-----	1, 038. 60
T. 3 S., R. 3 W., near center of SE¼ sec. 14, 35 ft. E. of rd., 28 ft. W. of SW. corner of farmhouse of George Little, in root on W. side of 24-in. pine tree; copper nail and washer-----	1, 029. 85

T. 3 S., R. 3 W., 0.25 mi. W. of SE. cor. sec. 11, 12 ft. N. and 140 ft. W. from crossroads, on top of N. concrete head wall of culvert; chiseled square-----	<i>Fect</i> 976. 85
T. 3 S., R. 3 W., near SE. cor. sec. 10, 90 ft. N. and 150 ft. W. from crossroads; at schoolhouse, on top of E. edge of concrete floor of porch; chiseled square-----	1, 000. 51
U. S. C. & G. S. standard disk designated "J 11"-----	974. 480
Parma, 2.8 mi. SW. of, in NE $\frac{1}{4}$ sec. 10, T. 3 S., R. 3 W., 22 ft. S. and 33 ft. E. from intersection of Michigan Central R. R. and county highway, 5 ft. NE. of fence corner, in concrete post; standard tablet stamped "B 10 1930"-----	973. 377

From crossroads 1 mile south of Grover east along road 6 miles to crossroads 1.5 miles east of Pulaski (by W. R. Broadus in 1930)

Grover, 1.0 mi. S., thence 1.0 mi. E. from, 3.5 mi. W. of Pulaski, at Calhoun-Jackson county line, near SE. cor. sec. 13, T. 4 S., R. 4 W., 35 ft. N. and 35 ft. W. from crossroads, in root on SE. side of 30-in. oak tree; iron nail-----	1, 012. 90
Pulaski, 2.5 mi. W. of, near SE. cor. sec. 18, T. 4 S., R. 3 W., 10 ft. N. and 420 ft. W. from junction of T-rd. N., at concrete bridge over Kalamazoo River, on top of E. end of base of N. guard wall; chiseled square-----	996. 41
Pulaski, 1.5 mi. W. of, near NE. cor. sec. 20, T. 4 S., R. 3 W., 30 ft. S. and 50 ft. W. from crossroads, in concrete post; standard tablet stamped "T T 11 S. 1929"-----	1, 014. 188
Reference mark, 58 ft. W. of tablet, in root on E. side of 18-in. maple tree; copper nail and washer-----	1, 013. 83
Pulaski, 0.5 mi. W. of, near NE. cor. sec. 21, T. 4 S., R. 3 W., 12 ft. S. and 15 ft. W. from junction of T-rd. S., on top of W. concrete head wall of culvert; chiseled square-----	1, 060. 12
Pulaski, 20 ft. S. and 20 ft. W. from crossroads at, near quarter corner between secs. 15 and 22, T. 4 S., R. 3 W., on top of concrete head wall of culvert; chiseled square-----	1, 089. 79
Pulaski, 0.7 mi. E. of, 0.25 mi. E. of NW. cor. sec. 23, T. 4 S., R. 3 W., 15 ft. S. and 85 ft. W. from junction of T-rd. N., in root on N. side of 36-in. oak tree; copper nail and washer-----	1, 090. 59

SPRINGPORT QUADRANGLE

[Latitude 42°15'-42°30'; longitude 84°30'-84°45']

CALHOUN, EATON, INGHAM, AND JACKSON COUNTIES

Along roads near west boundaries of secs. 13 and 24, T. 1 N., R. 2 W. (by E. C. Bibbee in 1916)

[A jog from Rives Junction quadrangle]

North Leslie, 3.0 mi. W. of, 210 ft. N. of SW. cor. sec. 12, T. 1 N., R. 2 W., in NW. corner of yard at Onondaga Township School No. 6, 4 ft. S. of corner fence post; standard iron post with bronze cap stamped "Mich 966"-----	965. 314
North Leslie, 3.0 mi. W., thence 1.0 mi. S. from, 3.8 mi. W., thence 1.0 mi. N. from Leslie, 3.5 mi. E. of Kinneville, 75 ft. N. of SE. cor. sec. 14, T. 1 N., R. 2 W., 40 ft. N. of NW. corner of crossroads, at fence line, in notch cut in root on E. side of 20-in. oak tree; 60-penny spike-----	939. 51
Leslie, 3.8 mi. W. of, 0.5 mi. N., thence 3.0 mi. E. from Onondaga, in SW. cor. sec. 24, T. 1 N., R. 2 W., at entrance to Annis School, on W. end of second concrete step from bottom; chiseled square-----	954. 17

From Rives Junction quadrangle 0.9 mile east of Sandstone west along Michigan Electric Railroad <sup>18</sup> to Parma (by E. C. Bibbee in 1918; leveled twice)

Sandstone, at SW. corner of crossroads, in root on N. side of 36-in. oak tree; copper nail and washer <sup>19</sup> -----	Feet 968. 64
Sandstone, 1.0 mi. W. of, at Dearing Rd., 0.2 mi. S. and 0.2 mi. E. from W $\frac{1}{4}$ cor. sec. 34, T. 2 S., R. 2 W., in SW. angle of crossroads, at base of steps leading to sta. platform, on sandstone rock; chiseled square-----	983. 91
Sandstone, 2.0 mi. W. of, 2.3 mi. SE. of Parma, 0.2 mi. S. and 0.2 mi. E. from W $\frac{1}{4}$ cor. sec. 33, T. 2 S., R. 2 W., in SE. angle of junction of T-rd. S.; standard iron post with bronze cap stamped "Mich 1011" <sup>20</sup> -----	1, 008. 344
Parma, 1.0 mi. SE. of, at Hendershot Rd., 0.3 mi. S. of NE. cor. sec. 31, T. 2 S., R. 2 W., at NW. corner of junction of T-rd. N., 2 ft. W. of wheel track, on large flat sandstone rock; chiseled square-----	993. 73
Parma, at NE. corner of Main Street and range-line rd., 15 ft. S. of SW. corner of Methodist Episcopal Church, at outer corner of sidewalk, on concrete curb; chiseled square-----	994. 56

From Parma southwest along Michigan Central Railroad into Spring Arbor quadrangle (by E. C. Bibbee in 1916)

Parma, 0.8 mi. SW. of, 200 ft. SE. of Michigan Central R. R. milepost C 198, on NW. side of Michigan Electric R. R., 5 ft. SE. of R. R. right-of-way, on large granite rock; chiseled square-----	984. 06
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From Parma generally north along range-line and other roads into Lansing quadrangle at point 2.8 miles east and 0.6 mile south from Eaton Rapids (by E. C. Bibbee in 1916)

Parma, 0.3 mi. N. of, about 300 ft. N. of SW. cor. sec. 30, T. 2 S., R. 2 W., at NE. corner of junction of T-rd. E., 2 ft. S. of corner post, on N. edge of concrete sidewalk; chiseled square-----	982. 62
Parma, 1.3 mi. N. of, 450 ft. N. of SE. cor. sec. 24, T. 2 S., R. 3 W., 15 ft. W. of center line of rd., 2 ft. W. of 10-in. black-oak tree, on sandstone ledge; chiseled square-----	973. 60
Parma, 2.7 mi. N. of, near W $\frac{1}{4}$ cor. sec. 18, T. 2 S., R. 2 W., near NE. corner of crossroads; standard iron post with bronze cap stamped "Mich 1027"-----	1, 025. 440
Parma, 3.7 mi. N. of, at Dean School, near E $\frac{1}{4}$ cor. sec. 12, T. 2 S., R. 3 W., in NW. angle of crossroads, on SE. corner of concrete walk leading to school; chiseled square.-----	1, 025. 40
Parma, 5.2 mi. N. of, near corner of Parma, Sandstone, Springport, and Tomkins townships, 60 ft. SE. of NW. cor. sec. 6, T. 2 S., R. 2 W., 4 ft. W. of fence line, in root on NW. side of butternut tree; copper nail and washer-----	1, 013. 19
Parma, 6.2 mi. N. of, 0.5 mi. E. of Salisbury School, in NE. cor. sec. 36, T. 1 S., R. 3 W., 8 ft. S. of SW. corner of crossroads; standard iron post with bronze cap erroneously stamped "Mich 918"-----	1, 016. 684
Parma, 7.2 mi. N. of, 5.1 mi. by rd. E., thence 1.0 mi. S. from Lake Shore & Michigan Southern R. R. <sup>21</sup> sta. at Springport, 350 ft. N. of SW. cor. sec. 19, T. 1 S., R. 2 W., on E. side of rd., 6 ft. E. of wheel track, on large granite rock; chiseled square-----	952. 41

<sup>18</sup> This railroad is now abandoned.

<sup>19</sup> In 1919 this bench mark was reported destroyed.

<sup>20</sup> In 1931 this bench mark was reset at an elevation 1.505 feet lower than that originally determined. The figures given represent the new elevation.

<sup>21</sup> Now a part of the New York Central System.

Springport, 5.1 mi. by rd. E. of, near NW. cor. sec. 19, T. 1 S., R. 2 W., 50 ft. E. of SE. corner of crossroads, 6 ft. N. of fence line, on large granite rock; chiseled square-----	Feet 1,000. 75
Springport, 5.1 mi. E., thence 1.0 mi. N. from, 3.5 mi. S. and 2.0 mi. W. from Onondaga, in SE. cor. sec. 12, T. 1 S., R. 3 W., near NW. corner of junction of T-rd. W., 2 ft. E. of corner post, on large granite rock flush with ground; chiseled square-----	985. 54
Onondaga, 2.5 mi. S. and 2.2 mi. W. from, 0.2 mi. W. of SE. cor. sec. 1, T. 1 S., R. 3 W., in NE. angle of junction of T-rd. E.; standard iron post with bronze cap stamped "Mich 964"-----	962. 091
Onondaga, 2.0 mi. S. and 2.5 mi. W. from, near center of sec. 1, T. 1 S., R. 3 W., 40 ft. E. of NE. corner of junction of T-rd. N., 4 ft. S. of fence, in root on SW. side of 18-in. maple tree; copper nail and washer-----	942. 82
Onondaga, 1.5 mi. S. and 2.5 mi. W. from, 0.5 mi. W. of corner of Eaton, Ingham, and Jackson counties, near N $\frac{1}{4}$ cor. sec. 1, T. 1 S., R. 3 W., on S. side of Eaton-Jackson county line, 50 ft. S. of center line of T-rd. W., 2 ft. W. of fence, in pasture, in root on E. side of 24-in. oak tree; copper nail and washer-----	942. 66
Onondaga, 0.5 mi. S. and 2.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 36, T. 1 N., R. 3 W., near SE. corner of junction of E.-W. rd., 1 ft. SE. of wheel track, on large granite rock; chiseled square-----	955. 67
Onondaga, 2.0 mi. W., thence 0.5 mi. S. from, 100 ft. N. of SW. cor. sec. 30, T. 1 N., R. 2 W., on E. side of Eaton-Ingham county-line rd., at SW. corner of yard of Walcott School, on large granite rock; chiseled square-----	978. 41
Onondaga, 2.0 mi. W., thence 0.5 mi. N. from, 1.5 mi. W., thence 1.0 mi. S. from Kinneville, in SE. cor. sec. 24, T. 1 N., R. 3 W., 6 ft. W. of NW. corner of crossroads, on large granite rock; chiseled square--	971. 58
Kinneville, 1.5 mi. W. of, in NW. cor. sec. 19, T. 1 N., R. 2 W., in SE. angle of crossroads; standard iron post with bronze cap stamped "Mich 929"-----	928. 042
Kinneville, 1.5 mi. W., thence 1.0 mi. N. from, 2.8 mi. E., thence 2.0 mi. S. from Eaton Rapids, 300 ft. N. of SE. cor. sec. 12, T. 1 N., R. 3 W., on S. end of W. concrete head wall of 5-ft. steel drain pipe under rd.; chiseled square-----	904. 48
Grand River, at Eaton-Ingham county line, under bridge; surface of water Sept. 6, 1916-----	879. 0
Eaton Rapids, 2.8 mi. E., thence 1.0 mi. S. from, in SW. cor. sec. 6, T. 1 N., R. 2 W., near NE. corner of crossroads, in root 4 ft. W. of base of 12-in. hickory tree used as corner post; copper nail and washer-----	906. 16
From Lansing <sup>4</sup> quadrangle 0.6 mile south of Eaton Rapids south along Old Plank Road 0.4 mile, thence west 1 mile to Lake Shore & Michigan Southern Railroad, thence south along railroad to Springport, thence along roads east 0.7 mile, thence south into Spring Arbor quadrangle (by E. C. Bibbee in 1916)	
Eaton Rapids, 1.0 mi. S. of, 0.2 mi. E. of NW. cor. sec. 10, T. 1 N., R. 3 W., in SW. angle of junction of rd. W., 25 ft. S. and 20 ft. W. from rd. junction; standard iron post with bronze cap stamped "Prim Trav Sta No 6 1909 Mich 892"-----	891 832



Eaton Rapids, 1.0 mi. S., thence 1.0 mi. W. from, 3.0 mi. NE. of Charlesworth, 0.2 mi. E. of SW. cor. sec. 4, T. 1 N., R. 3 W., in NE. angle of junction of rd. NE., 90 ft. E. of R. R. track, on fence line, in root on SW. side of 20-in. elm tree; copper nail and washer-----	Feet 885. 43
Charlesworth, 300 ft. N. of sta., 30 ft. W. of track, on N. side of rd., 100 ft. E. of junction of T-rd. N., 2 ft. S. of fence line; standard iron post with bronze cap stamped "Mich 929"-----	928. 430
Charlesworth, 1.2 mi. S. of, in NE $\frac{1}{4}$ sec. 32, T. 1 N., R. 3 W., at grade crossing, 40 ft. W. of track, on S. side of rd., on large granite rock; chiseled square-----	925. 42
Charlesworth, 2.0 mi. S. of, 3.0 mi. N. of Springport, about 500 ft. E. of N $\frac{1}{4}$ cor. sec. 5, T. 1 S., R. 3 W., 50 ft. S. of Eaton-Jackson county line, 15 ft. E. of track, on large granite rock; chiseled square-----	931. 83
Springport, 2.0 mi. N. of, near N $\frac{1}{4}$ cor. sec. 8, T. 1 S., R. 3 W., 35 ft. W. of track, on S. side of rd.; standard iron post with bronze cap stamped "Mich 956"-----	956. 161
Springport, 1.0 mi. N. of, near N $\frac{1}{4}$ cor. sec. 17, T. 1 S., R. 3 W., 30 ft. S. and 8 ft. E. from intersection of center line of track and section line, in embankment, on large granite rock; chiseled square-----	979. 49
Springport, in front of sta.; top of rail-----	995. 6
Springport, 430 ft. S. of sta., 5 ft. E. of tracks, on S. side of Main Street, on N. edge of concrete sidewalk; chiseled square-----	992. 41
Springport, 0.7 mi. E. of, near NW. cor. sec. 21, T. 1 S., R. 3 W., 25 ft. S. of SE. corner of crossroads, on concrete head wall of culvert; chiseled square-----	989. 97
Springport, 0.7 mi. E., thence 1.0 mi. S. from, near SW. cor. sec. 21, T. 1 S., R. 3 W., in NE. angle of junction of T-rd. E.; standard iron post with bronze cap stamped "Mich 972"-----	971. 490
Springport, 0.7 mi. E., thence 2.0 mi. S. from, in SW. cor. sec. 28, T. 1 S., R. 3 W., 100 ft. N. of crossroads, 10 ft. W. of fence, in root on NW. side of 24-in. oak tree; copper nail and washer-----	980. 69
Springport, 0.7 mi. E., thence 3.0 mi. S. from, in NW. cor. sec. 4, T. 2 S., R. 3 W., near SE. corner of junction of T-rd. E., 2 ft. E. of wheel track, on large granite rock; chiseled square-----	990. 02
Springport, 0.7 mi. E., thence 4.0 mi. S. from, in SE. cor. sec. 5, T. 2 S., R. 3 W., 1 ft. N. of NE. corner of yard of Quaker School, on large granite rock in fence; chiseled square-----	1, 005. 96
Springport, 0.7 mi. E., thence 4.7 mi. S. from, 0.25 mi. S. of W $\frac{1}{4}$ cor. sec. 9, T. 2 S., R. 3 W., 12 ft. S. of SE. corner of junction of T-rd. E.; standard iron post with bronze cap stamped "Mich 995"-----	994. 799
Springport, 0.7 mi. E., thence 5.5 mi. S. from, at quarter corner between secs. 16 and 17, T. 2 S., R. 3 W., in center of junction of T-rd. W., on stone marking quarter corner; chiseled square-----	990. 81
Springport, 0.7 mi. E., thence 6.5 mi. S. from, 2.5 mi. N. and 3.7 mi. E. from Albion, 100 ft. S. of W $\frac{1}{4}$ cor. sec. 21, T. 2 S., R. 3 W., 5 ft. E. of wheel track, 25 ft. S. of ledge of rock extending E.-W. across rd., on sandstone rock; chiseled square-----	959. 94
Albion, 1.3 mi. N. and 3.7 mi. E. from, 0.2 mi. S. of W $\frac{1}{4}$ cor. sec. 28, T. 2 S., R. 3 W., in SE. angle of intersection of Chicago and Detroit Rd. (present U. S. Highway 12), on large black rock; chiseled square-----	1, 013. 68
Albion, 0.4 mi. N. and 3.7 mi. E. from, near W $\frac{1}{4}$ cor. sec. 33, T. 2 S., R. 3 W., on E. side of rd., 3 ft. S. of fence corner, on large granite rock; chiseled square-----	1, 003. 53

From crossroads 0.7 mile east of Springport east along roads through center of Springport township to east boundary of township near northeast corner sec. 24, T. 1 S., R. 3 W. (by E. C. Bibbee in 1916)

Springport, 1.7 mi. E. of, near SE. cor. sec. 16, T. 1 S., R. 3 W., 40 ft. W. of NW. corner of junction of N.-S. rd., 4 ft. S. of fence, on granite rock; chiseled square-----	<i>Feet</i> 980. 81
Springport, 2.5 mi. by rd. E. of, about 600 ft. S. of N $\frac{1}{4}$ cor. sec. 22, T. 1 S., R. 3 W., on N. side of rd., 100 ft. E. of right-angle turn from N. to E., on large sandstone rock; chiseled square-----	958. 38
Springport, 4.1 mi. by rd. E. of, 25 ft. S. and 29 ft. E. from NW. cor. sec. 24, T. 1 S., R. 3 W., in SE. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 8 1915 Mich 963"-----	962. 323
From Marshall quadrangle at point on Onondaga Road 2.4 miles east of Brookfield along roads east 0.1 mile, thence north 3 miles to north quarter corner sec. 11, T. 1 N., R. 4 W., thence east to crossing on Lake Shore & Michigan Southern Railroad 1.4 miles southwest of Eaton Rapids (by E. C. Bibbee in 1916)	
Brookfield, 2.5 mi. E. of, near S $\frac{1}{4}$ cor. sec. 23, T. 1 N., R. 4 W., 6 ft. N. of NW. corner of junction of N.-S. rd.; standard iron post with bronze cap stamped "Mich 936"-----	936. 049
T. 1 N., R. 4 W., 0.25 mi. N. of S $\frac{1}{4}$ cor. sec. 14, near SE. corner of crossroads, on large granite rock; chiseled square-----	941. 23
T. 1 N., R. 4 W., near N $\frac{1}{4}$ cor. sec. 11, 12 ft. S. of SE. corner of junction of E.-W. rd.; standard iron post with bronze cap stamped "Mich 926"-----	926. 213
T. 1 N., R. 4 W., 0.25 mi. E. of NW. cor. sec. 12, 145 ft. E. of junction of T.-rd. S., on S. side of rd., on large granite rock over S. end of culvert; chiseled square-----	911. 15
T. 1 N., R. 3 W., about 700 ft. S. and 500 ft. W. from N $\frac{1}{4}$ cor. sec. 8, in NE. angle of junction of rd. N., 8 ft. E. of corner post, on large granite rock; chiseled circle-----	893. 99
From Spring Arbor quadrangle at point 0.2 mile south of Sandstone north along road 0.2 mile, thence east along Michigan Central Railroad 0.3 mile (by H. P. Jones in 1930)	
U. S. C. & G. S. standard disk designated "N 11"-----	955. 868

## STOCKBRIDGE QUADRANGLE

[Latitude 42°15'-42°30'; longitude 84°00'-84°15']

## INGHAM, JACKSON, LIVINGSTON, AND WASHTENAW COUNTIES

From Fowlerville quadrangle near southeast corner sec. 6, T. 1 N., R. 3 E., southeast and east along road to Plainfield, thence north 0.3 mile and back into Fowlerville quadrangle (by F. H. West in 1908)

Plainfield, in SW. corner of foundation of Presbyterian Church; aluminum tablet stamped "Prim Trav Sta No 8 1908 Mich 958"-----	957. 117
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From Manchester quadrangle north along Manchester Road to Chelsea, thence generally north by way of Unadilla into Fowlerville quadrangle at point near west quarter corner sec. 6, T. 1 N., R. 4 E. (by E. E. Harris in 1919)

Chelsea, 5.0 mi. S. of Michigan Central R. R. sta. at, near SW. cor. sec. 36, T. 2 S., R. 3 E., on S. end of E. concrete head wall of culvert; chiseled square-----	915. 67
Chelsea, 3.9 mi. S. of, 600 ft. N. of SE. cor. sec. 26, T. 2 S., R. 3 E., in SW. angle of junction of T.-rd. W., in front of Vermont School, on large sandstone boulder; chiseled square-----	959. 70

Chelsea, 3.0 mi. S. of, 700 ft. E. of W. cor. secs. 24 and 25, T. 2 S., R. 3 E., at junction of T-rd. E., in center of grass triangle; standard iron post with bronze cap stamped "1919 Mich"-----	Feet 974. 042
Chelsea, 1.9 mi. S. of, 500 ft. W. of S $\frac{1}{4}$ cor. sec. 13, T. 2 S., R. 3 E., on E. side of rd., opposite farmhouse, in root on W. side of 30-in. black-oak tree; copper nail and washer-----	954. 36
Chelsea, 1.0 mi. S. of, in NE $\frac{1}{4}$ sec. 13, T. 2 S., R. 3 E., on S. side of Detroit and Chicago Rd., in line with W. side of rd. N., on field side of wire fence, in root on N. side of 20-in. black-oak tree; copper nail and washer-----	936. 73
Chelsea, at Michigan Central R. R. crossing; top of S. rail of east-bound track-----	924. 0
U. S. C. & G. S. standard disk designated "F 20"-----	921. 983
Chelsea, 0.4 mi. N. of, at N. side NE $\frac{1}{4}$ sec. 12, T. 2 S., R. 3 E., on W. side of rd., on N. end of concrete culvert; chiseled square-----	902. 51
Chelsea, 0.4 mi. N., thence 0.5 mi. W. from, on N. side NW $\frac{1}{4}$ sec. 12, T. 2 S., R. 3 E., on S. side of rd., in line with W. side of T-rd. N., in root on E. side of 15-in. red-oak tree; copper nail and washer-----	918. 72
Chelsea, 2.2 mi. NW. of, 0.2 mi. S. of center of sec. 36, T. 1 S., R. 3 E., on W. concrete head wall of culvert; chiseled square-----	926. 80
Chelsea, 2.5 mi. N. of, near center of sec. 36, T. 1 S., R. 3 E., at SW. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 3 H 1919 Mich 958"-----	957. 725
Chelsea, 3.5 mi. N. of, near center of sec. 25, T. 1 S., R. 3 E., on W. side of rd., 20 ft. S. of gate to pasture, in root on S. side of 8-in. oak tree; copper nail and washer-----	944. 29
Chelsea, 4.4 mi. N. of, about 500 ft. S. of N. cor. secs. 25 and 30, T. 1 S., Rs. 3 and 4 E., on S. side of rd., in line with rd. N., in center of S. head wall of culvert; chiseled square-----	999. 22
Chelsea, 5.5 mi. N. of, about 300 ft. S. of NE. cor. sec. 24, T. 1 S., R. 3 E., in SW. angle of crossroads, in root on S. side of 30-in. oak tree; copper nail and washer-----	1, 016. 17
North Lake; surface of water Apr. 30, 1919-----	937. 6
Chelsea, 6.3 mi. N. of, 3.5 mi. SE. of Unadilla, 0.2 mi. E. of center of sec. 13, T. 1 S., R. 3 E., on SW. side of rd., in line with rd. N., in concrete culvert; standard tablet stamped "1919 Mich 935"-----	934. 370
Unadilla, 2.7 mi. SE. of, near E. side NE $\frac{1}{4}$ sec. 14, T. 1 S., R. 3 E., 300 ft. S. of Heatley School, on SW. side of rd., in root on E. side of 20-in. oak tree; copper nail and washer-----	924. 13
Unadilla, 1.4 mi. SE. of, near S $\frac{1}{4}$ cor. sec. 2, T. 1 S., R. 3 E., at NW. corner of crossroads, on top of 12-in. drain pipe; chiseled square-----	928. 34
Unadilla, near center of SW $\frac{1}{4}$ sec. 35, T. 1 N., R. 3 E., at junction of E.-W. rd., in center of grass triangle; standard iron post with bronze cap stamped "1919 Mich 902"-----	901. 053
Unadilla, 1.2 mi. N. of, in SE. angle of rd. junction, 50 ft. S. of E.-W. rd., in root on W. side of 15-in. maple tree; copper nail and washer--	915. 51
Unadilla, 1.2 mi. N., thence 0.6 mi. E. from, near S. side NE $\frac{1}{4}$ sec. 26, T. 1 N., R. 3 E., in NW. angle of junction of rd. N., in root of large oak tree; copper nail and washer-----	909. 81
Unadilla, 2.7 mi. NE. of, about 2 mi. E. of Gregory, near E. side SE $\frac{1}{4}$ sec. 23, T. 1 N., R. 3 E., on SE. side of rd., in line with rd. NW., in root on W. side of 24-in. oak tree; copper nail and washer-----	909. 28

Unadilla, 3.6 mi. NE. of, 1.2 mi. SW. of Anderson, near $S\frac{1}{4}$ cor. sec. 13, T. 1 N., R. 3 E., 100 ft. N. of Grand Trunk Ry. track, at junction of rd. W., in center of large grass triangle; standard iron post with bronze cap stamped "1919 Mich 914"-----	<i>Feet</i> 913. 218
Anderson, 0.3 mi. W. of rd. junction at, 0.2 mi. S. of center of sec. 18, T. 1 N., R. 4 E., in NE. angle of junction of T-rd. N., in root on S. side of 12-in. cedar tree; copper nail and washer-----	909. 93
Anderson, 0.3 mi. W., thence 0.7 mi. N. from, near $N\frac{1}{4}$ cor. sec. 18, T. 1 N., R. 4 E., in SW. angle of crossroads, in front of Eaman School, in root on W. side of 20-in. maple tree; copper nail and washer-----	924. 08
Anderson, 0.3 mi. W., thence 1.7 mi. N. from, near $N\frac{1}{4}$ cor. sec. 7, T. 1 N., R. 4 E., in SE. angle of junction of T-rd. E.; standard iron post with bronze cap stamped "Prim Trav Sta No 19 1905 Mich 922"---	921. 262
From Fowlerville quadrangle generally south along roads by way of Stockbridge to point 2.3 miles northeast of Grass Lake, thence southwest 0.9 mile along Michigan Central Railroad (by E. E. Harris in 1919; leveled twice)	
Stockbridge, 0.6 mi. NW., thence 1.5 mi. N. from, near center of sec. 10, T. 1 N., R. 2 E., in NE. angle of crossroads; standard iron post with bronze cap stamped "1919 Mich 955"-----	953. 739
Stockbridge, 0.6 mi. NW., thence 1.0 mi. N. from, near $S\frac{1}{4}$ cor. sec. 15, T. 1 N., R. 2 E., on sandstone boulder; chiseled square-----	962. 00
Stockbridge, 0.6 mi. NW. of, near $S\frac{1}{4}$ cor. sec. 22, T. 1 N., R. 2 E., in root on E. side of 12-in. maple tree; copper nail and washer-----	945. 29
Stockbridge, at SW. corner of intersection of main streets, on corner of curbstone; chiseled square-----	940. 44
Stockbridge, at Grand Trunk Ry. crossing; top of rail-----	943. 2
Stockbridge, 0.6 mi. S. of intersection of main streets, on E. side of rd., in center of head wall of culvert; standard tablet stamped "1919 Mich 931" <sup>22</sup> -----	930. 183
Stockbridge, 0.8 mi. S., thence 0.4 mi. E. from, about 550 ft. W. of $N\frac{1}{4}$ cor. sec. 35, T. 1 N., R. 2 E., in SW. angle of junction of T-rd. S., in root on W. side of 12-in. oak tree; copper nail and washer-----	932. 94
T. 1 S., R. 2 E., about 500 ft. W. of N. cor. secs. 2 and 3, on E. side of rd., 30 ft. S. of lane E., in root on W. side of 12-in. oak tree; copper nail and washer-----	958. 50
T. 1 S., R. 2 E., in SW. cor. sec. 3, just W. of church, on NW. side of rd., near fence; standard iron post with bronze cap stamped "1919 Mich 955" <sup>23</sup> -----	953. 581
T. 1 S., R. 2 E., near $W\frac{1}{4}$ cor. sec. 10, in SE. angle of junction of T-rd. E., on sandstone boulder; chiseled square-----	942. 94
T. 1 S., R. 2 E., in SW. cor. sec. 15, about 3.5 mi. NW. of Waterloo, in root on NW. side of 12-in. oak tree; copper nail and washer-----	927. 48
T. 1 S., R. 2 E., about 500 ft. N. of center of sec. 21, in center of W. side of concrete bridge over Portage River; standard tablet stamped "1919 Mich 919"-----	917. 500
T. 1 S., R. 2 E., about 800 ft. W. of center of sec. 28, 25 ft. N. of junction of rd. W., on E. side of rd., in root on SW. side of 12-in. oak tree; copper nail and washer-----	923. 31
T. 1 S., R. 2 E., 500 ft. W. of $E\frac{1}{4}$ cor. sec. 33, near Stroble School, in S. angle of crossroads, on large sandstone boulder; chiseled square---	945. 80

<sup>22</sup> In 1935 this bench mark was reported destroyed.

<sup>23</sup> The elevation of this bench mark is in doubt as insufficient information was furnished when the tablet was reset in 1935.

T. 2 S., R. 3 E., near N $\frac{1}{4}$ cor. sec. 3, 500 ft. SW. of crossroads, on NW. side of Wildcat Rd., at concrete bridge over mill creek, in N. wall of N. concrete girder; standard tablet stamped "1919 Mich 936" <sup>24</sup> -----	Feet 934. 993
T. 2 S., R. 2 E., near S $\frac{1}{4}$ cor. sec. 3, 100 ft. N. of junction of T-rd. E., in corner of orchard, in root on W. side of 15-in. apple tree; copper nail and washer-----	965. 62
T. 2 S., R. 2 E., near center of SE $\frac{1}{4}$ sec. 10, in grass triangle at rd. junction, on large sandstone boulder; chiseled square-----	982. 20
T. 2 S., R. 2 E., 0.2 mi. E. of center of sec. 15, 0.5 mi. N. of Maute School, in triangle on S. side of rd., in line with T-rd. S.; standard iron post with bronze cap stamped "1919 Mich 1009"-----	1, 007. 431
T. 2 S., R. 2 E., near center of NE $\frac{1}{4}$ sec. 22, 0.2 mi. S. of Maute School, on W. side of rd., 40 ft. S. of junction of rd. SE., in root on E. side of 20-in. willow tree; copper nail and washer-----	981. 32
T. 2 S., R. 2 E., near S. side SE $\frac{1}{4}$ sec. 22, 2.3 mi. NE., thence 0.8 mi. N. from Grass Lake, on W. side of rd., 120 ft. N. of crossroads, in root on E. side of 15-in. oak tree; copper nail and washer-----	1, 003. 20
U. S. C. & G. S. standard disk designated "Z 19"-----	1, 003. 190

From Plainfield generally south along roads to Sylvan Station on Michigan Central Railroad, thence 1.4 miles northeast along railroad to Guthrie (by E. E. Harris in 1919)

Plainfield, 0.5 mi. W., thence 1.0 mi. S. from, near N. side NW $\frac{1}{4}$ sec. 17, T. 1 N., R. 3 E., in SW. angle of crossroads, on large sandstone boulder; chiseled square-----	970. 98
T. 1 N., R. 3 E., near S. side SW $\frac{1}{4}$ sec. 17, 0.6 mi. N., thence 1.7 mi. W. from Gregory, in NE. angle of crossroads, 150 ft. SW. of Fulmer School, on large sandstone boulder; chiseled square-----	958. 45
Grand Trunk Ry., at crossing; top of rail-----	946. 8
T. 1 N., R. 3 E., near N. side NW $\frac{1}{4}$ sec. 29, 15 ft. W. of junction of rd. N., on S. side of rd.; standard iron post with bronze cap stamped "1919 Mich 971"-----	969. 991
T. 1 N., R. 3 E., near center of sec. 29, in NE. angle of crossroads, in root on W. side of 24-in. elm tree; copper nail and washer-----	949. 25
T. 1 S., R. 3 E., near NW. cor. sec. 5, on S. side of Livingston-Washenaw county-line rd., 60 ft. W. of junction of rd. N., in root on W. side of 10-in. maple tree; copper nail and washer-----	940. 26
T. 1 S., R. 3 E., 700 ft. S. of center of sec. 6, near SE. corner of Avery Lake, at junction of E.-W. rd., in large grassy triangle; standard iron post with bronze cap stamped "1919 Mich 960" <sup>25</sup> -----	959. 308
Reference mark, near tablet, on S. side of rd., in line with rd. N., in root on SW. side of 24-in. elm tree; copper nail and washer-----	959. 82
T. 1 S., R. 3 E., in NE $\frac{1}{4}$ sec. 8, 0.3 mi. SE. of Boyce Lake, on NE. side of rd., 75 ft. NE. of junction of NE.-SW. rd., in root on SW. side of 20-in. oak tree; copper nail and washer-----	908. 37
T. 1 S., R. 3 E., near S. side SW $\frac{1}{4}$ sec. 8, 100 ft. W. of crossroads, in root on E. side of 20-in. maple tree; copper nail and washer-----	930. 62
T. 1 S., R. 3 E., near W $\frac{1}{4}$ cor. sec. 16, on S. concrete head wall of culvert; chiseled square-----	934. 41
T. 1 S., R. 3 E., near NE $\frac{1}{4}$ cor. sec. 21, 0.3 mi. NW. of Lyndon Center, on S. side of rd., in line with rd. N.; standard iron post with bronze cap stamped "1919 Mich 1009"-----	1, 007. 869

<sup>24</sup> The elevation of this bench mark is in doubt as insufficient information was furnished when the tablet was reset in 1935.

<sup>25</sup> In May 1935 it was reported that this post had been disturbed.

T. 1 S., R. 3 E., 0.3 mi. W. of center of sec. 19, on W. side of junction of N.-S. rd., in front of McIntee School, in root on E. side of 15-in. maple tree; copper nail and washer-----	Feet 951. 70
T. 1 S., R. 2 E., near E. cor. secs. 24 and 25, 0.8 mi. E., thence 0.8 mi. N. from Waterloo, on W. side of rd., in line with rd. E., in root on N. side of 30-in. maple tree; copper nail and washer-----	963. 44
Waterloo, 0.3 mi. E. of, near E. side SE $\frac{1}{4}$ sec. 25, T. 1 S., R. 2 E., 200 ft. SW. of rd. junction, on S. side of rd.; standard iron post with bronze cap stamped "Prim Trav Sta No 4 H 1919 Mich 906" <sup>26</sup> -----	955. 457
T. 1 S., R. 3 E., near S. side SE $\frac{1}{4}$ sec. 30, 1.0 mi. E., thence 0.2 mi. S. from Waterloo, on inside of turn from S. to E. in rd., opposite lane to ruins of house, on top of sandstone outcrop; chiseled square-----	1, 004. 26
T. 1 S., R. 3 E., near W. side NW $\frac{1}{4}$ sec. 32, near Sugarloaf Lake, on N. head wall of culvert; chiseled square-----	955. 06
T. 1 S., R. 3 E., near E $\frac{1}{4}$ cor. sec. 32, 0.3 mi. W. of Martin Howe School, at junction of T-rd. S., on field side of wire fence, in root on N. side of 20-in. oak tree; copper nail and washer-----	1, 048. 28
T. 2 S., R. 3 E., near center of NW $\frac{1}{4}$ sec. 4, at junction of E.-W. rd., about 600 ft. N. of Mill Lake, in center of grass triangle; standard iron post with bronze cap stamped "1919 Mich 985"-----	984. 155
T. 2 S., R. 3 E., 0.2 mi. N. of center of sec. 5, on S. side of rd., 60 ft. W. of rd. S., in root on E. side of 14-in. oak tree; copper nail and washer-----	1, 036. 59
T. 2 S., R. 3 E., near N $\frac{1}{4}$ cor. sec. 8, 60 ft. N. of shore line of Cavanaugh Lake, in root on N. side of 10-in. maple tree; copper nail and washer-----	991. 29
T. 2 S., R. 3 E., about 600 ft. N. of SE. cor. sec. 7, 1.4 mi. NW., thence 1.0 mi. N. from Sylvan Sta., at crossroads; standard iron post with bronze cap stamped "1919 Mich 1017"-----	1, 016. 385
Sylvan Sta., 1.4 mi. NW. of, about 750 ft. N. of SW. cor. sec. 17, T. 2 S., R. 3 E., in NE. angle of junction of E.-W. rd., in root on N. side of 20-in. hickory tree; copper nail and washer-----	1, 000. 40
U. S. C. & G. S. standard disk designated "C 20"-----	981. 556
Sylvan, 1.0 mi. along Michigan Central R. R. NE. of, on N. side of track, in framework of semaphore 571; copper nail and washer-----	953. 90
U. S. C. & G. S. standard disk designated "E 20"-----	949. 020

From crossroads 0.6 mile northwest of Stockbridge west 1.8 miles, thence south 0.5 mile, thence west into Rives Junction quadrangle at point 0.6 mile north and 1.4 miles east from Fitchburg (by E. E. Harris in 1919)

Stockbridge, 1.4 mi. W. of, 0.25 mi. W. of SE. cor. sec. 21, T. 1 N., R. 2 E., near NW. corner of junction of T-rd. N., on sandstone boulder; chiseled square-----	943. 43
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From northeast corner sec. 25, T. 1 S., R. 3 E., generally northwest along road to Lyndon Center (by E. E. Harris in 1919)

T. 1 S., R. 3 E., near W. side SW $\frac{1}{4}$ sec. 24, at junction of second-class rd. S., on top of sandstone outcrop; chiseled square-----	993. 94
T. 1 S., R. 3 E., near center of NE $\frac{1}{4}$ sec. 23, on W. side of rd., 30 ft. S. of junction of rd. E., in root on E. side of 18-in. elm tree; copper nail and washer-----	992. 72
T. 1 S., R. 3 E., in NW $\frac{1}{4}$ sec. 22, 260 ft. W. of large mineral spring, on N. concrete head wall of culvert; chiseled square-----	924. 71

<sup>26</sup> In 1926 this bench mark was reset 15 feet south of this position and at the same elevation.

From Unadilla generally northwest along roads to crossroads near center of sec.  
29, T. 1 N., R. 3 E. (by E. E. Harris in 1919)

Unadilla, 1.1 mi. NW. of, 1.3 mi. SE. of Williamsville, 0.2 mi. W. of center of sec. 34, T. 1 N., R. 3 E., near NW. corner of junction of T-rd. N., on sandstone boulder; chiseled square-----	Feet 911. 15
Williamsville, 0.3 mi. SE. of, in NW $\frac{1}{4}$ sec. 33, T. 1 N., R. 3 E., at bridge over Portage Creek, on N. end of W. concrete abutment; chiseled square-----	899. 59
Williamsville, 0.6 mi. NW. of, diagonally opposite McCleer School, near W $\frac{1}{4}$ cor. sec. 28, T. 1 N., R. 3 E., at junction of E.-W. rd., on top of concrete culvert; chiseled square-----	920. 33

#### STURGIS QUADRANGLE <sup>27</sup>

[Latitude 41°45'-42°00'; longitude 85°15'-85°30']

#### BRANCH AND ST. JOSEPH COUNTIES

From Three Rivers quadrangle at point near Klinger Lake station east along Lake Shore & Michigan Southern Railroad <sup>28</sup> to Sturgis, thence south and east along roads into Coldwater quadrangle at point 5 miles east of Fawn River (by R. G. Clinite in 1913)

Klinger Lake sta., 3.1 mi. E. of, 2.5 mi. W. of Sturgis, in SE. angle of rd. crossing, 52 ft. S. of center of track, 2 ft. W. of fence; standard iron post with bronze cap stamped "Mich 893" (recovered by U. S. C. & G. S. in 1934)-----	892. 738
Sturgis, 450 ft. W. of L. S. & M. S. R. R. sta., 11 ft. N. of lone maple tree in sta. park; standard iron post with bronze cap stamped "Mich 921"-----	920. 474
Sturgis, in front of sta.; top of rail-----	922. 0
Sturgis, at E. limits of, in NW. angle of intersection of East Chicago Street and Lake View Avenue, in root of 18-in. maple tree; spike-----	929. 91
Sturgis, 0.5 mi. E., thence 1.3 mi. S. from, 3.3 mi. W. of village of Fawn River, at cor. secs. 7, 12, 13, and 18, T. 8 S., Rs. 9 and 10 W., on stone marking section corner; highest point-----	898. 08
Fawn River, 2.3 mi. W. of, in NE. cor. sec. 18, T. 8 S., R. 9 W., in SW. angle 90 ft. W. of center of crossroads, 65 ft. NW. of Narbor School, in root of 16-in. maple tree; rail spike-----	905. 03
Fawn River, 0.8 mi. W. of, near N $\frac{1}{4}$ cor. sec. 16, T. 8 S., R. 9 W., in SE. angle of junction of T-rd. S., 8 ft. W. of corner post, on large granite boulder; highest point-----	907. 15
Fawn River, at W. edge of village, on N. side of E.-W. street, at Fawn River Union Church, at E. end of concrete steps, on first step; bottom of chiseled square-----	889. 72
Fawn River, 0.6 mi. NE. of, near center of sec. 10, T. 8 S., R. 9 W., 250 ft. S. of red brick barn, at rd. fork, in center of triangular grass plot; standard iron post with bronze cap stamped "Mich 905"-----	905. 225
Fawn River, 0.6 mi. NE., thence 1.0 mi. E. from, near center of sec. 11, T. 8 S., R. 9 W., opposite T-rd. N., 36 ft. S. of center of rd. junction, in root on N. side of buckeye tree; copper nail-----	910. 67
Fawn River, 0.6 mi. NE., thence 2.0 mi. E. from, near center of sec. 12, T. 8 S., R. 9 W., opposite rd. W., 48 ft. E. of center of junction of N.-S. rd., in root on W. side of 26-in. oak tree; rail spike-----	922. 70

<sup>27</sup> A narrow strip along the south boundary of this quadrangle lies in Indiana.

<sup>28</sup> Now a part of the New York Central System.

Fawn River, 3.6 mi. by rd. E. of, near cor. secs. 7, 12, 13, and 18, T. 8 S., Rs. 8 and 9 W., at St. Joseph-Branch county line, in line with T-rd. N., in root of 24-in. oak tree; copper nail-----	Feet 922. 26
Fawn River, 4.6 mi. E. of, in NE. cor. sec. 18, T. 8 S., R. 8 W., in SW. angle of junction of T-rd. S., 15 ft. S. of corner post; standard iron post with bronze cap stamped "Mich 917"-----	917. 287

Along roads east and northeast in secs. 26 and 25, T. 5 S., R. 9 W. (by E. E. Harris in 1917)

[A jog from Leonidas quadrangle]

Leonidas, 1.7 mi. S., thence 1.0 mi. E. from, near SW. cor. sec. 26, T. 5 S., R. 9 W., in NE. angle of crossroads, on top of concrete culvert; chiseled square-----	869. 99
Leonidas, 1.7 mi. S., thence 2.3 mi. E. from, 3.0 mi. N. and 1.0 mi. E. from Colon, about 650 ft. W. of quarter corner between secs. 25 and 36, T. 5 N., R. 9 W., in corner of crossroads, 2 ft. N. of telephone pole; standard iron post with bronze cap stamped "1917 Mich 865"-----	864. 805

### SWANTON QUADRANGLE "

[Latitude 41°30'-41°45'; longitude 83°45'-84°00']

### LENAAWEE AND MONROE COUNTIES

From Michigan-Ohio State line north along Lenawee-Monroe county-line road 1.5 miles, thence west along road into Adrian quadrangle (by F. Mabrey in 1911) <sup>20</sup>

Southland, 1.0 mi. N. of, 5.0 mi. E. of Mulberry, near SE. cor. sec. 26, T. 8 S., R. 5 E., 25 ft. N. and 35 ft. W. from crossroads; standard iron post with bronze cap stamped "699" (recovered in 1935)-----	699. 019
Mulberry, 2.0 mi. E. of, in SE. cor. sec. 29, T. 8 S., R. 5 E., 20 ft. N. and 40 ft. W. from crossroads; standard iron post with bronze cap stamped "710" (recovered in 1935)-----	709. 452
Mulberry, 1.0 mi. W. of, in SW. cor. sec. 25, T. 8 S., R. 4 E., in NE. corner of crossroads; standard iron post with bronze cap stamped "720"-----	719. 532
Mulberry, 4.0 mi. W. of, near NW. cor. sec. 33, T. 8 S., R. 4 E., in SE. angle of crossroads; standard iron post with bronze cap stamped "724"-----	724. 510

From Toledo quadrangle along Stearns-Mulberry Road west to Mulberry, thence south along road to Michigan-Ohio State line (by L. D. Hottel in 1935)

Sylvania, 1.9 mi. N. and 2.6 mi. W. from, 1.0 mi. N., thence 1.5 mi. E. from Southland, near quarter corner between secs. 30 and 31, T. 8 S., R. 6 E., on N. head wall of culvert over N.-S. ditch; chiseled square (recovered in 1938)-----	693. 70
Southland, 1.0 mi. N., thence 1.0 mi. E. from, near cor. secs. 25, 30, 31, and 36, T. 8 S., Rs. 5 and 6 E., at crossroads, at S. end of culvert, on E. wing wall; chiseled square (recovered in 1938)-----	697. 94
Southland, 1.0 mi. N., thence 0.5 mi. E. from, near quarter corner between secs. 25 and 36, T. 8 S., R. 5 E., on S. head wall of culvert over N.-S. ditch; chiseled square-----	698. 19

<sup>19</sup> The greater part of this quadrangle lies in Ohio.

<sup>20</sup> This line runs northwest 0.7 mile across the northeast corner of Wauseon quadrangle.



Southland, 1.0 mi. N., thence 0.5 mi. W. from, 4.5 mi. E. of Mulberry, near quarter corner between secs. 26 and 35, T. 8 S., R. 5 E., on N. side of rd., directly in front of large white house, in root of apple tree; copper nail and washer-----	Feet 701. 10
Mulberry, 4.0 mi. E. of, in NW. cor. sec. 35, T. 8 S., R. 5 E., 35 ft. S. and 35 ft. W. from intersection of Gibbs Rd., in concrete post; standard tablet stamped "T T 1 HO 1935 703"-----	702. 558
Reference mark, 690 ft. W. of crossroads, on S. side of rd., on top of E. head wall of small culvert over ditch parallel with rd.; chiseled square-----	704. 25.
Mulberry, 2.4 mi. E. of, near S $\frac{1}{4}$ cor. sec. 27, T. 8 S., R. 5 E., 260 ft. W. of barn of Clarence Betz on S. side of rd., in root of 30-in. elm tree; copper nail and washer-----	705. 90
Mulberry, 3.0 mi. E. of, near SE. cor. sec. 28, T. 8 S., R. 5 E., 10 ft. N. and 25 ft. W. from crossroads, on N. head wall of culvert; chiseled square-----	707. 62
Mulberry, 2.5 mi. E. of, near quarter corner between secs. 28 and 33, T. 8 S., R. 5 E., 25 ft. N. of center line of rd., 175 ft. W. of N.-S. fence, in root of 30-in. poplar tree; copper nail and washer-----	707. 04
Mulberry, 1.5 mi. E. of, 20 ft. N. of approximate quarter corner between secs. 29 and 32, T. 8 S., R. 5 E., on N. side of rd., in root of 18-in. ash tree; copper nail and washer-----	709. 97
Mulberry, 1.0 mi. E. of, near NE. cor. sec. 31, T. 8 S., R. 5 E., on E. wing wall at S. end of culvert; chiseled square-----	712. 71
Mulberry, 0.5 mi. E. of, near N $\frac{1}{4}$ cor. sec. 31, T. 8 S., R. 5 E., 1,200 ft. W. of barn on Fatchett farm, on S. side of rd., at field lane S., on W. head wall of small culvert; chiseled square-----	713. 85
Mulberry, at intersection of Mulberry Rd. and range-line rd., in NW. cor. sec. 31, T. 8 S., R. 5 E., 35 ft. S. and 32 ft. E. from crossroads, in concrete post; standard tablet stamped "T T 2 HO 1935 716"-----	715. 549
Reference mark, 125 ft. S. of tablet, on E. side of rd., in root of 30-in. maple tree; copper nail and washer-----	715. 72
Mulberry, 0.5 mi. S. of, near W $\frac{1}{4}$ cor. sec. 31, T. 8 S., R. 5 E., 25 ft. E. of center line of rd., in root of 24-in. oak tree; copper nail and washer-----	717. 62
Mulberry, 1.0 mi. S. of, near SE. cor. sec. 36, T. 8 S., R. 4 E., near NW. corner of crossroads, on N. head wall of culvert; chiseled square--	717. 06
Mulberry, 1.5 mi. S. of, near E $\frac{1}{4}$ cor. sec. 1, T. 9 S., R. 4 E., 22 ft. W. of Fulton-Lucas county-line rd., on top of Michigan-Ohio State-line monument 46; chiseled square-----	717. 833

From point 4 miles east of Mulberry south along Gibbs Road to Michigan-Ohio State line (by L. D. Hottel in 1935)

Mulberry, 4.0 mi. E., thence 0.5 mi. S. from; 1.0 mi. W., thence 0.5 mi. N. from Southland, near E $\frac{1}{4}$ cor. sec. 34, T. 8 S., R. 5 E., 40 ft. W. of center line of rd., in first fence post W. of corner post in fence line W.; rail spike-----	702. 41
Southland, 1.0 mi. W. of, near SW. cor. sec. 35, T. 8 S., R. 5 E., in center of E. head wall of culvert at crossroads; chiseled square-----	701. 54
Southland, 1.0 mi. W., thence 0.5 mi. S. from, near W $\frac{1}{4}$ cor. sec. 2, T. 9 S., R. 5 E., on E. side of rd., on top of Michigan-Ohio State-line monument 50; chiseled square-----	696. 32

THREE OAKS QUADRANGLE <sup>21</sup>

[Latitude 41°45'-42°00'; longitude 86°30' and beyond to shore of Lake Michigan]

## BERRIEN COUNTY

From Niles quadrangle at point 0.6 mile southwest of Glendora generally west along roads to U. S. Highway 12 at point 1 mile west of Sawyer, thence alternately north and east along roads and northeast along Pere Marquette Railway to northern border of quadrangle, thence east along road into Niles quadrangle at point 1 mile south and 1 mile east from Stevensville (by C. E. Walker in 1926)

Glendora, 1.3 mi. SW. of, 1.9 mi. NE. of New Troy, 0.3 mi. S. of NW. cor. sec. 10, T. 7 S., R. 19 W., 75 ft. E. of crossroads, on S. side of rd., in N. side of 36-in. elm tree; copper nail and washer.....	Feet 647. 72
New Troy, 0.9 mi. E. of, about 900 ft. S. of W¼ cor. sec. 9, T. 7 S., R. 19 W., 40 ft. NE. of crossroads, on concrete head wall of culvert; chiseled square.....	633. 01
New Troy, 0.9 mi. E. of, at SW. corner of bridge over East Branch of Galien River, on floor of bridge; chiseled square.....	631. 00
New Troy, 0.8 mi. N. and 0.1 mi. W. from, 2.0 mi. E. of crossroads at Sawyer, in NW. cor. sec. 8, T. 7 S., R. 19 W., 22 ft. S. and 39 ft. E. from crossroads, 11 ft. E. from pole at junction of telephone lines, in concrete post; standard tablet stamped "P T Sta No 38 Y 1925".....	651. 373
Reference mark, 120 ft. from tablet, at bend in State Highway 11, at service sta., on NW. corner of concrete base of pump; chiseled square.....	653. 54
Sawyer, 30 ft. S. and 60 ft. W. from crossroads, at entrance to church, on concrete step; chiseled square.....	652. 90
Sawyer, 1.0 mi. W. of crossroads at, near NE. cor. sec. 10, T. 7 S., R. 20 W., 28 ft. S. and 23 ft. W. from center of intersection of U. S. Highway 12, 4 ft. S. of corner fence post, 2 ft. E. of fence, in concrete post; standard tablet stamped "P T Sta No 37 Y 1925".....	630. 409
Reference mark, 80 ft. NE. of tablet, 20 ft. S. and 60 ft. E. from crossroads, in E. side of 26-in. sycamore tree; copper nail and washer.....	630. 29
Sawyer, 1.0 mi. W., thence 1.0 mi. N. from, at entrance to Tower Hill Beach House, near NE. cor. sec. 3, T. 7 S., R. 20 W., in line with center of rd. E., on end of concrete walk and retaining wall; chiseled square.....	615. 11
Sawyer, 1.0 mi. N. of, in NW. corner of yard of Browntown School, near NW. cor. sec. 1, T. 7 S., R. 20 W., 25 ft. S. and 35 ft. E. from junction of T-rd. S., in root on W. side of 8-in. poplar tree; copper nail and washer.....	640. 28
Sawyer, 2.5 mi. N. and 0.3 mi. E. from, about 800 ft. W. of center of sec. 25, T. 6 S., R. 20 W., 1.5 mi. S. and 1.5 mi. W. from Pere Marquette Ry. sta. at Bridgman, along foot of sand dunes along Lake Michigan, 50 ft. W. of junction of private rd., 21 ft. from triple elm tree, in concrete post; standard tablet stamped "P T Sta No 42 Y 1925".....	637. 089
Reference mark, 20 ft. from tablet, in SW. angle of junction of private rd., in root on W. side of 5-in. maple tree; copper nail and washer...	635. 30
Bridgman, 1.5 mi. S. and 0.4 mi. W. from, near center of sec. 30, T. 6 S., R. 19 W., 40 ft. N. and 15 ft. W. from crossroads, on concrete head wall of culvert; chiseled square.....	653. 02

<sup>21</sup> A narrow strip along the south boundary of this quadrangle lies in Indiana.

Bridgman, 0.4 mi. W. of Pere Marquette Ry. sta. at, near N $\frac{1}{4}$ cor. sec. 19, T. 6 S., R. 19 W., at turn in paved rd. from N. to E., 30 ft. S. and 36 ft. E. from junction of rd. W., 5 ft. E. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 43 Y 1925"-----	Feet 629. 187
Reference mark, 5 ft. N. and 66 ft. W. from tablet, 25 ft. S. and 30 ft. W. from rd. junction, in root on W. side of 10-in. maple tree; copper nail and washer-----	628. 92
Bridgman, at NW. corner of John Ivaski's store, on lower concrete step; chiseled square-----	641. 86
Bridgman, 0.1 mi. E., thence 1.0 mi. N. from, near NW. cor. sec. 17, T. 6 S., R. 19 W., 25 ft. S. and 70 ft. E. from junction of T-rd. E., in root on SE. side of 36-in. beech tree; copper nail and washer----	639. 91
Bridgman, 1.8 mi. NE. of, along Pere Marquette Ry., at Livingston flag sta., 29 ft. S. and 33 ft. E. from center of E.-W. rd. crossing, in line with telegraph poles, in concrete post; standard tablet stamped "P T Sta No 44 Y 1925" (recovered by U.S.C. & G.S. in 1934)-----	656. 108
Reference mark, 14 ft. N. and 23 ft. W. from tablet, 15 ft. S. and 10 ft. E. from crossroads, on N. corner of concrete base of flag sta. post; chiseled square-----	655. 42
Livingston, 1.3 mi. NE. of, near SE. cor. sec. 32, T. 5 S., R. 19 W., 30 ft. N. and 60 ft. W. from rd. crossing, in fence line, 30 ft. W. of corner, in root on W. side of 6-in. maple tree; copper nail and washer (recovered by U.S.C. & G.S. in 1934)-----	661. 275
Livingston, 2.3 mi. NE. of, 1.1 mi. SW. of Stevensville, 0.2 mi. W. of quarter corner between secs. 28 and 33, T. 5 S., R. 19 W., 29 ft. S. and 35 ft. E. from crossing of E.-W. rd., in line with telegraph poles, in concrete post; standard tablet stamped "P T Sta No 45 Y 1925" (recovered by U.S.C. & G.S. in 1934)-----	643. 962
From Miles quadrangle at point 2.8 miles south of Galien southwest to Indiana-Michigan State line, thence west 1.2 miles, thence south into Indiana portion of quadrangle (by C. E. Walker in 1926)	
T. 8 S., R. 19 W., 0.4 mi. W. of SE. cor. fractional sec. 22, at Y-junction of rds. at Indiana-Michigan State line, in root on NW. side of 20-in. elm tree; copper nail and washer-----	736. 03
T. 8 S., R. 19 W., about 600 ft. E. of SW. cor. fractional sec. 22, on N. side of rd. at Indiana-Michigan State line, at junction of old T-rd. N., in front of dwelling of L. Bayunruh, in root on SE. side of 20-in. maple tree; copper nail and washer-----	771. 55
From Indiana-Michigan State line at point 2 miles south and 1.5 miles west from New Buffalo generally northeast along roads, Pere Marquette Railway and U. S. Highway 12 to crossroads 1 mile west of Sawyer (by C. E. Walker in 1926)	
New Buffalo, 1.3 mi. S. and 1.5 mi. W. from, near SE. cor. sec. 17, T. 8 S., R. 21 W., 15 ft. N. and 20 ft. W. from junction of E.-W. rd., on E. end of N. concrete head wall; chiseled square-----	631. 28
New Buffalo, 0.7 mi. SW. of Pere Marquette Ry. sta. at, 0.4 mi. SW. of R. R. roundhouse, about 800 ft. S. of NE. cor. sec. 16, T. 8 S., R. 21 W., in S. angle of crossroads, 12 ft. SE. and 20 ft. SW. from crossroads, on large rock; chiseled square-----	657. 44

New Buffalo, 167 ft. S. of SE. corner of Pere Marquette Ry. sta., 100 ft. SE. of crossing, 27 ft. SE. of 20-in. oak tree, 5 ft. NW. of corner fence post, in concrete post; standard tablet stamped "P T Sta No 33 Y 1925" (recovered by U.S.C. & G.S. in 1934)-----	Feet 661. 403
Reference mark, about 400 ft. SE. of tablet, on S. side of rd., 260 ft. NW. of junction of rd. SW., on concrete culvert under highway; chiseled square-----	658. 40
New Buffalo, 1.0 mi. NE. of Pere Marquette Ry. sta. at, in NW $\frac{1}{4}$ sec. 11, T. 8 S., R. 21 W., at crossroads, 120 ft. NW. of Ry. crossing, at entrance to Light House dancing pavilion, on SE. corner of concrete platform; chiseled square-----	652. 26
New Buffalo, 1.7 mi. NE. of, 2.0 mi. SW. of Union Pier, in SE $\frac{1}{4}$ sec. 2, T. 8 S., R. 21 W., at overhead crossing over Michigan Central R. R., on SW. concrete retaining wall; chiseled square-----	658. 22
Union Pier, 0.7 mi. SW. of, 0.2 mi. S. of center of sec. 36, T. 8 S., R. 21 W., at SW. corner of Pere Marquette Ry. bridge over Galien River, in guardrail; copper nail and washer-----	627. 03
Union Pier, 125 ft. SW. of SE. corner of sta., 61 ft. NW. of rd. crossing, 75 ft. NE. of rd. intersection, in concrete post; standard tablet stamped "P T Sta No 34 Y 1925"-----	627. 904
Reference mark, 70 ft. SE. of tablet, in NF. angle of rd. crossing, 8 ft. E. of center of main track, 10 ft. N. of rd., on SW. corner of concrete base of R. R. warning signal; chiseled square-----	630. 44
Union Pier, 1.0 mi. NE. of, 0.9 mi. SW. of Lakeside sta. along Pere Marquette Ry. on N.-S. rd., in NW $\frac{1}{4}$ sec. 30, T. 7 S., R. 20 W., 450 ft. NW. of rd. crossing, 35 ft. N. and 12 ft. E. from junction of rd. W., on concrete culvert; chiseled square-----	663. 06
Lakeside, 0.2 mi. N. of sta., 610 ft. N. of E $\frac{1}{4}$ cor. sec. 19, T. 7 S., R. 20 W., 80 ft. SW. of crossroads, 4.5 ft. S. of 36-in. wild-cherry tree, in concrete post; standard tablet stamped "P T Sta No 35 Y 1925"-----	630. 734
Reference mark, in SW. angle of crossroads, on concrete head wall of culvert; chiseled square-----	627. 63
Lakeside, 0.7 mi. NE. of sta., about 700 ft. E. of S $\frac{1}{4}$ cor. sec. 17, T. 7 S., R. 20 W., 40 ft. W. of rd. crossing, in root on NE. side of 8-in. oak tree; copper nail and washer-----	638. 27
Lakeside, 1.7 mi. NE. of sta., 0.9 mi. SW. of Harbert, 150 ft. SW. of rd. crossing, on SE. corner of concrete base of switch box; chiseled square-----	631. 77
Harbert, 27 ft. N. and 26 ft. E. from crossroads, in SW. cor. sec. 10, T. 7 S., R. 20 W., in SW. corner of schoolyard, 5 ft. NE of fence corner, in concrete post; standard tablet stamped "P T Sta No 36 Y 1925"-----	633. 246
Reference mark, in SE. corner of schoolyard, 150 ft. N. of Pere Marquette Ry. sta., in root on S. side of 14-in. maple tree; copper nail and washer-----	633. 42
Harbert, 1.1 mi. along highway NE. of, near quarter corner between secs. 10 and 11, T. 7 S., R. 20 W., at junction of U. S. Highway 12 and improved rd. S., about 900 ft. N. of Pere Marquette Ry. crossing, on E. side of highway, in root on NW. side of 14-in. sycamore tree; copper nail and washer-----	640. 34

THREE RIVERS QUADRANGLE <sup>32</sup>

[Latitude 41°45'-42°00'; longitude 85°30'-85°45']

## ST. JOSEPH COUNTY

From Schoolcraft quadrangle south along Lake Shore & Michigan Southern Railroad <sup>33</sup> to Three Rivers, thence east along road to Centerville, thence south along road to point near east side of Klinger Lake (by E. C. Bibbee in 1913)

Three Rivers, 2.0 mi. N. of Lake Shore & Michigan Southern R. R. sta. at, near N $\frac{1}{4}$ cor. sec. 7, T. 6 S., R. 11 W., in SE. angle of cross-roads, in root of 24-in. maple tree; rail spike.....	Feet 820. 77
Three Rivers, at N. side of Lafayette Park on Main Street, opposite schoolhouse; standard iron post with bronze cap stamped "820".....	820. 042
Three Rivers, 400 ft. S. of R. R. sta., at iron bridge over St. Joseph River, on W. side of S. abutment; chiseled square (recovered by U. S. C. & G. S. in 1916 and designated "M 9") <sup>34</sup> .....	797. 984
St. Joseph River, below dam at R. R. bridge; surface of water Sept. 29, 1913.....	785. 2
Three Rivers, at intersection of L. S. & M. S. and Michigan Central R. Rs.; top of rail.....	800. 4
Three Rivers at wagon bridge over St. Joseph River, on E. side of S. abutment; chiseled square.....	801. 47
St. Joseph River, at Three Rivers, above dam; surface of water Oct. 1, 1913.....	793. 2
Three Rivers, 0.4 mi. S. and 1.6 mi. E. from, 150 ft. W. of dwelling of C. Rammelic, on S. end of tile 5 ft. N. of S. rd. line; highest point....	812. 11
Three Rivers, 0.4 mi. S. and 2.8 mi. E. from, on S. side of rd., 700 ft. W. of residence of D. O. Young, in root of oak tree; nail.....	824. 78
Three Rivers, 0.4 mi. S. and 3.5 mi. E. from, 1.2 mi. N., thence 2.0 mi. W. from St. Joseph County courthouse at Centerville, near SE. cor. sec. 15, T. 6 S., R. 11 W.; standard iron post with bronze cap stamped "825".....	825. 169
Centerville, 0.7 mi. N., thence 2.0 mi. W. from, 120 ft. S. of R. R., at SE. corner of junction of T-rd. E., on large granite boulder; highest point.....	825. 86
Centerville, 0.7 mi. N., thence 1.0 mi. W. from, near quarter corner between secs. 23 and 24, T. 6 S., R. 11 W., on N. side of rd., on concrete base of post; chiseled square.....	833. 30
Prairie River; surface of water Oct. 1, 1913.....	799. 8
Centerville, 4 ft. E. of N. entrance to courthouse; standard iron post with bronze cap stamped "826".....	825. 871
Centerville, 0.8 mi. S. of courthouse, at NE. cor. sec. 36, T. 6 S., R. 11 W., on large granite boulder, 4 ft. N. of S. fence line; chiseled square.....	854. 15
Centerville, 1.8 mi. S. of, at SW. cor. sec. 31, T. 6 S., R. 10 W., on E. side of rd., opposite T-rd. W., on large granite rock; chiseled square.....	867. 80
Centerville, 3.8 mi. S. and 0.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 13, T. 7 S., R. 11 W., 3 ft. W. of S. end of culvert, on large granite boulder; chiseled square.....	892. 11
Centerville, 4.8 mi. S. and 0.5 mi. W. from, 4.2 mi. NW. of Klinger Lake sta. on L. S. & M. S. R. R., 30 ft. S. and 23 ft. W. from N $\frac{1}{4}$ cor. sec. 24, T. 5 S., R. 11 W.; standard iron post with bronze cap stamped "838".....	837. 806

<sup>32</sup> A narrow strip along the south boundary of this quadrangle lies in Indiana.

<sup>33</sup> Now a part of the New York Central System.

<sup>34</sup> In 1931 this bench mark was reported destroyed.

Klinger Lake sta., 1.7 mi. NW. of, about 900 ft. S. of center of sec. 36, T. 7 S., R. 11 W., 100 ft. N. of cottage of Charles Miller, at iron bridge over inlet to Klinger Lake, on W. side of S. abutment; chiseled square-----	Feet 809. 31
Klinger Lake; surface of water Oct. 4, 1913-----	806. 6
Klinger Lake sta., 0.7 mi. N. of, near W $\frac{1}{4}$ cor. sec. 6, T. 8 S., R. 10 W., on S. side of E. abutment of concrete culvert opposite rd. NW.; chiseled square-----	846. 91
From point near east side of Klinger Lake south along road to Klinger Lake station on Lake Shore & Michigan Southern Railroad, thence east along railroad into Sturgis quadrangle (by R. G. Clinite in 1913)	
Klinger Lake sta., 600 ft. NE. of, about 600 ft. S. of NE. cor. sec. 12, T. 8 S., R. 11 W., in SW. angle of crossroads, 2 ft. S. of corner post; standard iron post with bronze cap stamped "Mich 858"-----	858. 185
From Klinger Lake station west along Lake Shore & Michigan Southern Railroad and Chicago Road (present U. S. Highway 112) to Mottville, thence along roads north and northeast to point 3.5 miles northeast of Constantine, thence east to crossroads 2.8 miles south and 0.5 mile west from Centerville (by R. G. Clinite in 1913)	
Klinger Lake sta., 1.0 mi. W. of, 180 ft. SE. of Oakwood Crossing sta., 40 ft. S. of center of track, in root of chestnut tree; copper nail and washer-----	853. 14
Klinger Lake sta., 2.9 mi. W. along R. R., thence 0.3 mi. N. along rd. from, 3.3 mi. E. along Chicago Rd. from White Pigeon, 0.25 mi. W. of S $\frac{1}{4}$ cor. sec. 3, T. 8 S., R. 11 W., in NW. angle of crossroads, in SW. corner of yard of Crooked Creek School, 3 ft. N. of corner post; standard iron post with bronze cap stamped "Mich 822"-----	821. 879
White Pigeon, 2.0 mi. E. of, 0.25 mi. S. of W $\frac{1}{4}$ cor. sec. 4, T. 8 S., R. 11 W., in SE. angle of crossroads, 12 ft. E. of corner post, in root of 12-in. maple tree; copper nail-----	825. 64
White Pigeon, 1.0 mi. E. of, about 900 ft. S. of W $\frac{1}{4}$ cor. sec. 5, T. 8 S., R. 11 W., in NE. angle of junction of T-rd. N., 18 ft. S. of corner post; top of E. end of 8-in. tile drain-----	815. 65
White Pigeon, in SE. corner of schoolyard, 2 ft. N. of corner post; standard iron post with bronze cap stamped "Mich 819" (recovered by U. S. C. & G. S. in 1916 and designated "J 9")-----	818. 824
White Pigeon, 2.0 mi. W. of, about 500 ft. N. of SE. cor. sec. 3, T. 8 S., R. 12 W., in NW. angle of crossroads, opposite Blue School, 60 ft. W. of corner post, 4 ft. S. of fence, in root of 16-in. maple tree; rail spike-----	812. 42
White Pigeon, 3.0 mi. W. of, 2.7 mi. E. of Mottville, just N. of SW. cor. sec. 3, T. 8 S., R. 12 W., in NE. angle of crossroads, 12 ft. E. of corner post; standard iron post with bronze cap stamped "Mich 808"-----	807. 683
Mottville 1.7 mi. E. of, about 750 ft. N. of SW. cor. sec. 4, T. 8 S., R. 12 W., in SE. angle of crossroads, in NW. corner of farmyard, in root of 20-in. maple tree; copper nail-----	791. 23
Mottville, near E. limits of, in NW. angle of crossroads, in SE. corner of schoolyard; standard iron post with bronze cap stamped "Mich 783"-----	783. 115
[Line jogs into Jones quadrangle]	
Mottville Reservoir; surface of water Nov. 25, 1913-----	785. 3

Mottville, 3.0 mi. NE. of, 2.0 mi. SW. of Constantine, 0.4 mi. E. of center of sec. 28, T. 7 S., R. 12 W., on Mottville-Constantine rd., 30 ft. E. of center line of junction of rd. W., in root of 16-in. elm tree; copper nail-----	Feet 793. 14
Constantine, on NW. side of St. Joseph River, at SW. corner of junction of North Washington Street and rd. SW. to Mottville, 2 ft. S. of corner post; standard iron post with bronze cap stamped "Mich 781"-----	781. 343
Constantine, at S. side of power house, below dam on St. Joseph River, at foot of race; surface of water Nov. 26, 1913-----	770. 1
Constantine, in front of sta., in base of semaphore post; rail spike (L. S. & M. S. R. R. B. M.) <sup>34a</sup> -----	797. 07
Constantine, 2.5 mi. NE. of, 0.25 mi. W. of N $\frac{1}{4}$ cor. sec. 18, T. 7 S., R. 11 W., in SE. angle of junction of rd. E., 40 ft. S. of corner post, in root of 20-in. sycamore tree; copper nail and washer-----	801. 74
Constantine, 3.5 mi. NE. of, 2.8 mi. S., thence 5.8 mi. W. from Centerville, 0.25 mi. W. of quarter corner between secs. 6 and 7, T. 7 S., R. 11 W., 30 ft. W. of center of junction of T-rd. E., in root of 6-in. elm tree; copper nail and washer-----	800. 26
Centerville, 2.8 mi. S., thence 5.0 mi. W. from, in SW. cor. sec. 5, T. 7 S., R. 11 W., in NE. angle of crossroads, in yard of Roys School, 4 ft. N. of telephone pole; standard iron post with bronze cap stamped "Mich 807"-----	806. 435
Centerville, 2.8 mi. S., thence 4.0 mi. W. from, in NW. cor. sec. 9, T. 7 S., R. 11 W., in SE. angle of crossroads, 5 ft. N. of corner post, in root of 16-in. oak tree; copper nail and washer-----	811. 31
Centerville, 2.8 mi. S., thence 3.0 mi. W. from, 20 ft. S. and 50 ft. W. from NE. cor. sec. 9, T. 7 S., R. 11 W., in SW. angle of crossroads, in root of 18-in. oak tree; copper nail and washer-----	815. 25
Centerville, 2.8 mi. S., thence 2.0 mi. W. from, 20 ft. N. and 35 ft. W. from SE. cor. sec. 3, T. 7 S., R. 11 W., in NW. angle of crossroads, 6 ft. W. of corner post; standard iron post with bronze cap stamped "Mich 825"-----	824. 557
Centerville, 2.8 mi. S., thence 1.0 mi. W. from, in SE. cor. sec. 2, T. 7 S., R. 11 W., in NW. angle of junction of T-rd. N., at fence corner, in base of 24-in. oak tree; copper nail and washer-----	900. 40
From Three Rivers along roads alternately north and west to northwest corner sec. 32, T. 5 S., R. 12 W., thence south and southeast along meandering roads to Constantine (by R. G. Clinite in 1913)	
Three Rivers, 1.9 mi. N. and 1.5 mi. W. from Lafayette Park in, near E $\frac{1}{4}$ cor. sec. 2, T. 6 S., R. 12 W., in SW. angle of crossroads, in root of 14-in. lone elm tree; copper nail and washer-----	828. 84
T. 5 S., R. 12 W., near W $\frac{1}{4}$ cor. sec. 36, in NE. angle of crossroads, 7 ft. N. of corner post; standard iron post with bronze cap stamped "Mich 835" (recovered in 1926)-----	834. 330
T. 5 S., R. 12 W., near W $\frac{1}{4}$ cor. sec. 35, 27 ft. N. and 35 ft. E. from center of junction T-rd. N., in root of 30-in. oak tree; copper nail and washer-----	871. 21
T. 5 S., R. 12 W., near E $\frac{1}{4}$ cor. sec. 33, in NW. angle of junction of T-rd. N., in SE. corner of yard of Mount Zion School, in root of 10-in. maple tree; copper nail and washer-----	929. 65

<sup>34a</sup> The elevation determined by the railroad, based on Lake Erie datum, is 224.65 feet.

T. 5 S., R. 12 W., near E $\frac{1}{4}$ cor. sec. 31, 12 ft. S. and 30 ft. W. from center of junction of T-rd. E., in root of 5-in. oak tree; copper nail and washer	Feet 921. 96
T. 5 S., R. 12 W., near NW. cor. sec. 32, in SE. angle of crossroads, 10 ft. E. of corner post; standard iron post with bronze cap stamped "Mich 926" (recovered in 1926)	925. 500
Tps. 5 and 6 S., R. 12 W., at cor. secs. 5, 6, 31, and 32, on stone marking section corner; highest point	912. 29
T. 6 S., R. 12 W., in SW $\frac{1}{4}$ sec. 8, 27 ft. S. and 60 ft. W. from center of junction of T-rd. E., 600 ft. N. of N. shore of Clear Lake, in root of 10-in. white-oak tree; copper nail and washer	897. 29
T. 6 S., R. 12 W., 0.2 mi. SE. of E $\frac{1}{4}$ cor. sec. 18, about 400 ft. N. of N. shore of Corey Lake, in NW. angle of rd. fork, 25 ft. N. and 15 ft. W. from center of rd. junction; standard iron post with bronze cap stamped "Mich 883"	882. 668
T. 6 S., R. 12 W., 0.4 mi. N. of center of sec. 20, 800 ft. W. of S. end of Clear Lake, 100 ft. NW. of silo in farmyard, on S. side of turn from SE. to E. in rd., in root of 14-in. hickory tree; copper nail and washer	906. 30
T. 6 S., R. 12 W., near center of sec. 21, 1.5 mi. N. of Fabius sta. on Michigan Central R. R., in center of junction of T-rd. S., in root of 38-in. oak tree; rail spike	912. 75
Fabius, 0.7 mi. N. of, 0.2 mi. N. of center of sec. 28, T. 6 S., R. 12 W., in NW. angle of rd. fork, in NE. corner of yard of Field School, 3 ft. N. of corner post; standard iron post with bronze cap stamped "Mich 913"	912. 584
Fabius, in front of sta.; top of rail	900. 5
Fabius, 0.25 mi. E. of, 0.25 mi. W. of NE. cor. sec. 33, T. 6 S., R. 12 W., in SW. angle of junction of T-rd. S., 5 ft. E. of corner post, in root of 20-in. elm tree; copper nail and washer	903. 68
Fabius, 2.9 mi. SE. of, 2.9 mi. NW. of Constantine, 300 ft. N. of E $\frac{1}{4}$ cor. sec. 9, T. 7 S., R. 12 W., in NW. angle of rd. fork, 400 ft. NW. of Brick Chapel School, 3 ft. N. of corner post; standard iron post with bronze cap stamped "Mich 885"	885. 132
Constantine, 2.2 mi. NW. of, near S $\frac{1}{4}$ cor. sec. 10, T. 7 S., R. 12 W., in NE. angle of junction of rd. E., at S. end of row of maple trees, in root of 13-in. tree; copper nail and washer	818. 18
From Centerville northeast and north to south quarter corner sec. 30, T. 5 S., R. 10 W., thence west to Fishers Lake, thence south to point 3.5 miles east of Three Rivers (by R. G. Clinite in 1913)	
Centerville, 0.7 mi. N., thence 1.5 mi. NE. from courthouse, near W $\frac{1}{4}$ cor. sec. 17, T. 6 S., R. 10 W., in NE. angle of rd. fork, in SW. corner of yard of Wilcox School, in root of 30-in. oak tree; copper nail and washer	836. 04
T. 6 S., R. 10 W., 900 ft. S. of NE. cor. sec. 7, in NW. angle of junction of T-rd. W., 10 ft. N. of corner post; standard iron post with bronze cap stamped "Mich 870"	870. 160
T. 6 S., R. 10 W., near SE. cor. sec. 6, at bridge over St. Joseph River, on E. side of N. span, on concrete girder; unmarked point	831. 73
St. Joseph River, under bridge; surface of water Dec. 11, 1913	825. 2
T. 6 S., R. 10 W., at center of sec. 6, in NE. angle of rd. junction, 5 ft. W. of corner of rail fence, in root of twin oak tree; copper nail	838. 43
T. 5 S., R. 10 W., near S $\frac{1}{4}$ cor. sec. 30, in NE. angle of crossroads, on top of concrete base of corner post; raised part of letter "D"	845. 96



T. 5 S., R. 11 W., near N $\frac{1}{4}$ cor. sec. 36, in SE. angle of junction of T-rd. S., 30 ft. E. of corner post, in root of 16-in. maple tree; copper nail and washer-----	Feet 832. 06
T. 5 S., R. 11 W., in SW. cor. sec. 25, 27 ft. N. and 30 ft. E. from center of crossroads, in yard of South Park School; standard iron post with bronze cap stamped "Mich 832" <sup>35</sup> -----	832. 426
T. 5 S., R. 11 W., at SE. cor. sec. 27, 35 ft. N. and 16 ft. W. from center of crossroads, in root of 20-in. oak tree; copper nail and washer. ....	826. 52
T. 6 S., R. 11 W., 0.25 mi. N. of E $\frac{1}{4}$ cor. sec. 3, 45 ft. S. and 25 ft. W. from center of junction of T-rd. E., in root of 16-in. white-oak tree; copper nail and washer-----	831. 91
T. 6 S., R. 11 W., 0.25 mi. N. and 0.25 mi. E. from center of sec. 10, at N. end of Davis Bridge over St. Joseph River, on E. side; at N. end of steel girder; head of rivet-----	808. 48
St. Joseph River, under bridge; surface of water Dec. 12, 1913-----	795. 0
T. 6 S., R. 11 W., near SE. cor. sec. 10, 3.5 mi. E., thence 1.0 mi. N. from Three Rivers, 27 ft. N. and 30 ft. W. from center of junction of rd. E., in root of 18-in. maple tree; copper nail and washer-----	827. 66
From Indiana-Michigan State line north to Klinger Lake station on Lake Shore & Michigan Southern Railroad (by R. G. Clinite in 1913)	
Klinger Lake sta., 1.8 mi. S. and 0.9 mi. W. from, near SW. cor. sec. 13, T. 8 S., R. 11 W., at channel between Pickerel and Aldrich Lakes, on W. side of stone bridge; unmarked point-----	818. 85
Aldrich Lake outlet, under bridge; surface of water Dec. 19, 1913-----	815. 8
Klinger Lake sta., 0.8 mi. S., thence 0.8 mi. W. from, 0.25 mi. W. of N $\frac{1}{4}$ cor. sec. 13, T. 8 S., R. 11 W., in SE. angle of junction of E.-W. rd., 50 ft. E. of fence corner, in root of 13-in. elm tree; copper nail and washer-----	854. 37
From Schoolcraft quadrangle near southeast corner sec. 30, T. 5 S., R. 12 W., south 0.6 mile, thence east to center of sec. 36, T. 5 S., R. 12 W., thence north 0.6 mile and back into Schoolcraft quadrangle (by C. E. Walker in 1926)	
Howardsville, 1.8 mi. S. and 1.2 mi. W. from, 33 ft. N. and 25 ft. E. from SW. cor. sec. 29, T. 5 S., R. 12 W., in NE. angle of crossroads, near schoolhouse; standard iron post with bronze cap stamped "Prim Trav Sta No 2 1911 Mich"-----	926. 641
T. 5 S., R. 12 W., at quarter corner between secs. 31 and 32, at center line of T-rd. E., on N. side of gate, in root on E. side of 12-in. oak tree; copper nail and washer-----	921. 81
T. 5 S., R. 12 W., near E $\frac{1}{4}$ cor. sec. 32, 40 ft. N. and 20 ft. W. from crossroads, in root on E. side of 14-in. oak tree; copper nail and washer-----	966. 57
T. 5 S., R. 12 W., near E $\frac{1}{4}$ cor. sec. 33, 15 ft. N. and 60 ft. W. from junction of rd. N., on large rock; chiseled square-----	933. 04
T. 5 S., R. 12 W., near W $\frac{1}{4}$ cor. sec. 35, 50 ft. N. and 35 ft. E. from junction of rd. N., in root on SE. side of 5-in. hickory tree; copper nail and washer-----	870. 80
T. 5 S., R. 12 W., near W $\frac{1}{4}$ cor. sec. 36, 1.5 mi. S. and 1.6 mi. W. from Moorepark, 20 ft. S. and 20 ft. E. from crossroads, in root on N. side of 12-in. maple tree; copper nail and washer-----	834. 41

<sup>35</sup> In 1926 this bench mark was moved 77 feet N.10°E. from this position and reset 0.5 foot lower than its original elevation. The figures given represent the new elevation.

TOLEDO QUADRANGLE <sup>36</sup>

[Latitude 41°30'-41°45'; longitude 83°30'-83°45']

## MONROE COUNTY

From Michigan-Ohio State line at point 0.7 mile north and 0.8 mile east from Sylvania, Ohio, along roads generally east to Bedford-Erie township line, thence southwest to State line (by Dean Halford in 1899)

Tps. 8 and 9 S., R. 6 E., near E. cor. secs. 3 and 34, 135 ft. W. of rd. junction, in front of McCluskey dwelling, at bridge over North Branch of Tenmile Creek, on SW. corner of pier; chiseled cross----	Feet 658. 43
T. 8 S., R. 6 E., near center of sec. 36, about 1,400 ft. E. of crossroads, on N. side of rd., on stone; chiseled cross-----	666. 96
Tps. 8 and 9 S., R. 7 E., near cor. secs. 4, 5, 32, and 33, 0.5 mi. E. of dwelling of I. J. Jackman, at bridge over Halfway Creek, in top course of S. abutment; standard tablet stamped "607 Toledo" <sup>37</sup> ---	607. 269
Tps. 8 and 9 S., R. 7 E., near cor. secs. 1, 2, 35, and 36, 0.4 mi. W. of Ann Arbor R. R. track, at NE. corner of crossroads, on stone; chiseled cross-----	595. 89

Along Stearns Road between U. S. Highways 25 and 24 (by W. T. Reagan in 1934)

[A jog from Dundee quadrangle]

Vienna Junction, 0.8 mi. W. of, about 550 ft. W. of N $\frac{1}{4}$ cor. sec. 31, T. 8 S., R. 8 E., 40 ft. S. and 50 ft. W. from intersection of U. S. Highway 25, on abandoned R. R. right-of-way, on concrete block; top of NW. anchor bolt-----	590. 24
Vienna Junction, 1.4 mi. W. of, near center of N. side of NE $\frac{1}{4}$ sec. 36, T. 8 S., R. 7 E., in SW. angle of intersection of U. S. Highway 24, on W. end of S. concrete head wall of culvert; chiseled square (recovered in 1936)-----	595. 18

From Dundee quadrangle south along Crabbe Road and U. S. Highway 24 to Michigan-Ohio State line (by W. T. Reagan in 1934)

T. 8 S., R. 7 E., near SW. cor. sec. 36, 550 ft. NE. of intersection of Smith Rd. at junction of Crabbe Rd. and U. S. Highway 24, 20 ft. E. of highway, at concrete bridge over stream, in center of E. head wall; chiseled square-----	593. 75
T. 9 S., R. 7 E., near quarter corner between secs. 1 and 2, 10 ft. S. of crossroads, 5 ft. W. of highway, on top of State-line Monument 64; chiseled square-----	594. 27

From Dundee quadrangle at point 0.2 mile east of Liberty Corners west along Stearns Road to crossroads 1.9 miles north of Trilby, thence south along Secor Road to Michigan-Ohio State line (by W. T. Reagan in 1934)

Liberty Corners, in SE. angle of crossroads at, near NE. cor. sec. 33, T. 8 S., R. 7 E., 100 ft. NW. of Liberty School, in root on W. side of 30-in. maple tree; copper nail and washer-----	630. 64
Liberty Corners, 0.5 mi. W. of, 1.9 mi. N., thence 1.5 mi. E. from intersection of Secor and Sylvania Rds. in Trilby, near N $\frac{1}{4}$ cor. sec. 33, T. 8 S., R. 7 E., 15 ft. S. and 15 ft. W. from junction of Maplewood Drive, in N. side of power pole 222203, 4 in. above ground; iron spike-----	629. 95
Trilby, 1.9 mi. N., thence 1.0 mi. E. from, near NW. cor. sec. 33, T. 8 S., R. 7 E., in SE. angle of crossroads, in root on E. side of 30-in. maple tree; copper nail and washer-----	637. 07

<sup>36</sup> The greater part of this quadrangle lies in Ohio.

<sup>37</sup> In 1934 this bench mark was reported destroyed.

Trilby, 1.9 mi. N. of, near NW. cor. sec. 32, T. 8 S., R. 7 E., 50 ft. S. and 34 ft. E. from crossroads, in concrete post; standard tablet stamped "T T 10 WO 1934 647" (recovered in 1938)-----	Feet 646. 932
Reference mark, 180 ft. S. of tablet, 20 ft. E. of rd., in root on W. side of 40-in. white-oak tree; copper nail and washer (recovered in 1938)---	647. 09
Trilby, 1.4 mi. N. of, near W $\frac{1}{4}$ cor. sec. 32, T. 8 S., R. 7 E., 540 ft. N. of junction of T-rd. W., at bridge over Halfway Creek, on top of concrete head wall; chiseled square-----	618. 98
Trilby, 1.0 mi. N. of, near NW. cor. sec. 5, T. 9 S., R. 7 E., 0.5 mi. N. of State line, in SE. angle of intersection of Smith Rd., on W. concrete head wall of culvert; chiseled square-----	638. 94
Trilby, 0.5 mi. N. of, near W $\frac{1}{4}$ cor. sec. 5, T. 9 S., R. 7 E., 30 ft. E. of center line of rd., 3 ft. W. of State-line Monument 60; bronze tablet stamped "11 639.301" (Lucas County B. M.)-----	636. 445
From crossroads 1.9 miles north of Trilby west along Stearns Road to Centennial Road, thence south to Michigan-Ohio State line (by L. D. Hotel in 1934)	
Trilby, 1.9 mi. N., thence 1.1 mi. W. from, near SE. cor. sec. 25, T. 8 S., R. 6 E., 25 ft. N. and 50 ft. W. from junction of T-rd. N., in root of 8-in. maple tree; copper nail and washer-----	661. 02
Trilby, 1.9 mi. N., thence 1.4 mi. W. from, about 1,600 ft. W. of SE. cor. sec. 25, T. 8 S., R. 6 E., 35 ft. N. and 10 ft. E. from intersection of Ann Arbor Rd., on top of SE. corner of culvert; chiseled square-----	665. 14
Trilby, 1.9 mi. N., thence 1.8 mi. W. from, 1.9 mi. N. and 2.2 mi. E. from intersection of Lansing and Metamora Rds. in Sylvania, about 900 ft. E. of NW. cor. sec. 36, T. 8 S., R. 6 E., 30 ft. S. and 85 ft. E. from junction of T-rd. S., in root of 26-in. maple tree; copper nail and washer-----	677. 42
Sylvania, 1.9 mi. N. and 1.8 mi. E. from, about 800 ft. E. of SE. cor. sec. 26, T. 8 S., R. 6 E., 18 ft. N. and 22 ft. E. from junction of T-rd. N. to house, in N. side of telephone pole; iron spike-----	677. 19
Sylvania, 1.9 mi. N. and 1.4 mi. E. from, near S $\frac{1}{4}$ cor. sec. 26, T. 8 S., R. 6 E., 27 ft. N. of rd., in N. side of telephone pole; iron spike-----	670. 83
Sylvania, 1.9 mi. N. and 1.0 mi. E. from, near NW. cor. sec. 35, T. 8 S., R. 6 E., 24 ft. S. and 35 ft. E. from crossroads, in concrete post; standard tablet stamped "T T HO 1 1934 670"-----	670. 246
Reference mark, 280 ft. S. and 12 ft. W. from crossroads, on top of culvert; chiseled square-----	669. 60
Sylvania, 1.9 mi. N. and 0.5 mi. E. from, near N $\frac{1}{4}$ cor. sec. 34, T. 8 S., R. 6 E., 40 ft. S. and 20 ft. E. from junction of T-rd. N., in root of 18-in. elm tree; copper nail and washer-----	670. 56
Sylvania, 1.9 mi. N. of, near SW. cor. sec. 27, T. 8 S., R. 6 E., 6 ft. N. and 20 ft. W. from junction of T-rd. N., on top of culvert; chiseled square-----	671. 86
Sylvania, 1.9 mi. N. and 0.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 33, T. 8 S., R. 6 E., 20 ft. S. and 60 ft. W. from junction of rd. S., in root of 10-in. maple tree; copper nail and washer-----	678. 88
Sylvania, 1.9 mi. N. and 1.3 mi. W. from, 2.0 mi. N., thence 0.6 mi. E. from Centennial, 0.3 mi. W. of NE. cor. sec. 32, T. 8 S., R. 6 E., 10 ft. S. and 23 ft. W. from intersection of U. S. Highway 223, on top of culvert; chiseled square-----	683. 69

Centennial, 2.0 mi. N. of, near NW. cor. sec. 32, T. 8 S., R. 6 E., 26 ft. S. and 33 ft. E. from intersection of Centennial Rd., in concrete post; standard tablet stamped "T T 2 HO 1934 692" (recovered in 1938)-----	Feet 691. 896
Reference mark, 50 ft. W. of tablet, 25 ft. S. of Stearns Rd., in root of 26-in. maple tree; copper nail and washer-----	692. 06
Centennial, 1.4 mi. N. of, about 600 ft. W. of E $\frac{1}{4}$ cor. sec. 31, T. 8 S., R. 6 E., 210 ft. S. and 15 ft. E. from rd. junction, in root of 14-in. maple tree; copper nail and washer-----	691. 18
Centennial, 1.0 mi. N. of, about 600 ft. W. of SE. cor. sec. 31, T. 8 S., R. 6 E., 15 ft. N. and 16 ft. W. from intersection of Southland Rd., on top of culvert; chiseled square-----	684. 76
Centennial, 0.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 6, T. 9 S., R. 6 E., on Michigan-Ohio State line, 29 ft. W. of rd., 5 ft. W. of State-line Monument 53, in concrete post; bronze tablet stamped "19 682.076" (Lucas County B. M.)-----	681, 476

From crossroads 1.9 miles north and 1 mile east from Sylvania generally south along road to Michigan-Ohio State line (by L. D. Hottel in 1934)

Sylvania, 1.4 mi. N. and 1.0 mi. E. from, near E $\frac{1}{4}$ cor. sec. 34, T. 8 S., R. 6 E., 50 ft. N. and 20 ft. W. from junction of Foredale Rd., in W. side of telephone pole; iron spike-----	669. 30.
Sylvania, 1.4 mi. N. and 0.8 mi. E. from, 0.2 mi. W. of E $\frac{1}{4}$ cor. sec. 34, T. 8 S., R. 6 E., 20 ft. S. and 20 ft. E. from junction of T-rd. S., in S. side of telephone pole; iron spike-----	669. 38
Sylvania, 0.9 mi. N. and 0.8 mi. E. from, 0.2 mi. W. of SE. cor. sec. 34, T. 8 S., R. 6 E., 145 ft. N. and 12 ft. E. from junction of Southland Rd., at bridge over North Branch of Tenmile Creek, on top of SE. wing wall; chiseled square-----	659. 80
Sylvania, 0.9 mi. N. and 1.0 mi. E. from, near NE. cor. sec. 3, T. 9 S., R. 6 E., about 300 ft. S. and 9 ft. W. from right-angle turn in rd. from E. to S., on top of W. head wall of culvert; chiseled square-----	662. 16
Sylvania, 0.4 mi. N. and 1.0 mi. E. from, near W $\frac{1}{4}$ cor. sec. 2, T. 9 S., R. 6 E., at Michigan-Ohio State line, 26 ft. E. of rd., 6 ft. SE. of State-line Monument 57, in concrete post; bronze tablet stamped "16 660.034" (Lucas County B. M.)-----	659. 409

## TWIN LAKE QUADRANGLE

[Latitude 43°15'-43°30'; longitude 86°00'-86°15']

## MUSKEGON, NEWAYGO, AND OCEANA COUNTIES

From Montague quadrangle at point 0.7 mile south of Fox Lake along roads generally east to Sitka, thence south into Muskegon quadrangle at point 1.5 miles north and 1 mile west from Moorland (by S. R. Archer in 1929)

Fox Lake, 0.7 mi. SE. of, in SE. cor. sec. 5, T. 11 N., R. 16 W., 35 ft. N. and 15 ft. W. from crossroads, in SE. corner of triangular plot between rds., in root on W. side of forked oak tree; copper nail and washer-----	680. 87
Fox Lake, 0.2 mi. NE. of, at Three Lakes Tavern, near SE. cor. sec. 32, T. 12 N., R. 16 W., 25 ft. N. and 145 ft. E. from junction of rd. N., 25 ft. N. and 20 ft. W. from junction of rd. S., in concrete post; standard tablet stamped "T T Sta No 44 F 1928"-----	670. 014
Reference mark, 45 ft. E. of tablet, on N. side of rd., 25 ft. E. of center line of rd. S., in N. fence line, in root on E. side of 10-in. oak tree; copper nail and washer-----	670. 67

T. 11 N., R. 16 W., in NW. cor. sec. 3, 100 ft. E. of crossroads, on S. side of rd., in root on SW. side of easternmost of two 12-in. oak trees standing 25 ft. apart; copper nail and washer-----	Feet 684. 03
T. 11 N., R. 16 W., in NE. cor. sec. 3, 105 ft. S. and 50 ft. W. from junction of T-rd. S., in root on E. side of 12-in. oak tree; copper nail and washer-----	683. 18
Twin Lake, 0.7 mi. N. and 1.6 mi. W. from village of, 20 ft. N. and 30 ft. W. from crossroads at quarter corner between secs. 2 and 3, T. 11 N., R. 16 W., in concrete post; standard tablet stamped "T T Sta No 43 F 1928"-----	684. 05
Reference mark, 75 ft. E. of tablet, on W. side of triangular plot between roads, in root on S. side of 10-in. oak tree with triangular blaze on W. side; copper nail and washer-----	684. 63
Twin Lake, 1.4 mi. along rd. NW. of, about 0.25 mi. S. of center of sec. 2, T. 11 N., R. 16 W., at concrete highway bridge over channel between Twin Lakes, on top of E. parapet of N. abutment; chiseled square-----	683. 10
Twin Lake, 0.8 mi. NW. of, about 630 ft. S. and 800 ft. W. from NE. cor. sec. 11, T. 11 N., R. 16 W., 35 ft. N. and 40 ft. E. from junction of T-rd. E., at NE. side of triangular plot between rds., in root on NE. side of 15-in. oak tree; copper nail and washer-----	688. 45
Twin Lake, 60 ft. E. of crossroads at, 210 ft. E. of Pere Marquette Ry., on S. side of street, at NW. corner of brick store building of George Pitcher, on top of SW. corner of concrete platform; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	688. 197
Twin Lake, 0.3 mi. along rd. E. of, 0.25 mi. S. of NW. cor. sec. 7, T. 11 N., R. 15 W., 25 ft. S. and 25 ft. E. from crossroads, 5 ft. N. of fence corner, in root on NW. side of 24-in. oak tree; copper nail and washer-----	691. 94
Twin Lake, 1.2 mi. E. of, in NE $\frac{1}{4}$ sec. 7, T. 11 N., R. 15 W., 30 ft. N. and 30 ft. W. from junction of rd. NE., 2 ft. S. and 5 ft. W. from fence corner, in concrete post; standard tablet stamped "T T Sta No 42 F 1928"-----	664. 446
Reference mark, 25 ft. E. of tablet, 30 ft. N. and 10 ft. W. from junction of rd. NE., in root on S. side of 36-in. oak tree with triangular blaze on W. side; copper nail and washer-----	663. 21
Twin Lake, 1.8 mi. E. of, 0.2 mi. N. of center of sec. 8, T. 11 N., R. 15 W., at highway bridge over Cedar Creek, on NW. wing wall, on top of angle-iron brace connecting tops of upright I-beams, in front of middle I-beam; filed square-----	627. 32
Twin Lake, 2.5 mi. NE. of, about 0.2 mi. E. of W. cor. secs. 4 and 9, T. 11 N., R. 15 W., at W. end of curve in rd., 90 ft. W. of drain crossing, 65 ft. W. of W. end of guardrail, on N. side of rd., in root on NW. side of 24-in. oak tree; copper nail and washer-----	690. 40
Twin Lake, 3.3 mi. NE. of, in NW. cor. sec. 10, T. 11 N., R. 15 W., 30 ft. S. and 45 ft. E. from crossroads, in root on NW. side of 30-in. oak tree; copper nail and washer-----	701. 01
Twin Lake, 4.3 mi. NE. of, 1.0 mi. S. and 3.0 mi. W. from Sitka, in SE. cor. sec. 3, T. 11 N., R. 15 W., 125 ft. N. of crossroads, on W. side of N.-S. rd., in root on SE. side of 12-in. oak tree; copper nail and washer-----	685. 86
Sitka, 3.0 mi. W. of, in SW. cor. sec. 35, T. 12 N., R. 15 W., in NE. angle of crossroads, 30 ft. N. and 60 ft. E. from junction of N.-S. rd., 28 ft. E. of fence corner, in concrete post; standard tablet stamped "T T Sta No 41 F 1928"-----	720. 192

	<i>Feet</i>
Reference mark, 60 ft. W. of crossroads, on N. side of E.-W. rd., in root on SW. side of 36-in. oak tree; copper nail and washer.....	719. 43
Sitka, 2.0 mi. W. of, near SW. cor. sec. 36, T. 12 N., R. 15 W., 30 ft. E. of crossroads, on top of W. end of N. concrete head wall of culvert under E.-W. rd.; chiseled square.....	730. 89
Sitka, 1.0 mi. W. of, at Muskegon-Newaygo county line, in SW. cor. sec. 31, T. 12 N., R. 14 W., in NE. corner of crossroads, on top of S. end of E. concrete head wall of culvert under N.-S. rd.; chiseled square.....	751. 82
Sitka, in NW. cor. sec. 5, T. 11 N., R. 14 W., 30 ft. S. and 30 ft. E. from crossroads, in concrete post; standard stablet stamped "T T Sta No 27 F 1928".....	742. 955
Reference mark, 20 ft. N. and 25 ft. W. from crossroads, 5 ft. S. and 3 ft. E. from SE. corner of store, on S. side, 5 in. above lower step at E. end of porch, on top of NE. corner of concrete base of gasoline pump; chiseled square.....	744. 05
Sitka, 1.0 mi. S. of, in NW. cor. sec. 8, T. 11 N., R. 14 W., 55 ft. S. and 30 ft. E. from junction of rd. W., in root on SW. side of 30-in. elm tree; copper nail and washer.....	744. 86
Sitka, 1.0 mi. S. and 1.0 mi. W. from, at Muskegon-Newaygo county line, in NW. cor. sec. 7, T. 11 N., R. 14 W., 80 ft. S. of crossroads, on top of E. concrete head wall of culvert under N.-S. rd.; chiseled square.....	742. 29
Sitka, 2.0 mi. S. and 1.0 mi. W. from, in NE. cor. sec. 13, T. 11 N., R. 15 W., in SW. angle of crossroads, in NE. side of trunk of 24-in. elm tree, near ground level; rail spike.....	711. 41
Sitka, 3.0 mi. S. and 1.0 mi. W. from, in SE. cor. sec. 13, T. 11 N., R. 15 W., 45 ft. N. of junction of rd. W., 20 ft. W. of rd. NE., in concrete post; standard tablet stamped "P T Sta No 28 F 1928".....	714. 965
Reference mark, 55 ft. SW. of tablet, 40 ft. W. of junction and in center line of E.-W. rd., in root on SW. side of 24-in. oak tree with triangular blaze on NE. side; copper nail and washer.....	713. 68
T. 11 N., R. 15 W., near center of SE $\frac{1}{4}$ sec. 24, on W. side of rd., at top of hill, at entrance to St. Joseph's Catholic Church, on outside corner at S. end of concrete doorsill; chiseled square.....	695. 50
T. 11 N., R. 14 W., in NW. cor. sec. 30, 75 ft. S. of E.-W. rd., on E. side of county-line rd., in root on W. side of 24-in. oak tree; copper nail and washer.....	609. 51
T. 11 N., Rs. 14 and 15 W., about 0.2 mi. N. of quarter corner between secs. 25 and 30, at steel highway bridge over Muskegon River, on top of W. parapet of N. concrete abutment; chiseled square.....	615. 43
T. 11 N., Rs. 14 and 15 W., about 0.2 mi. N. of quarter corner between secs. 25 and 30, at steel highway bridge over Muskegon River, at W. side at S. end of main span, on N. end of S. approach span, on top of bolt head extending up through expansion plate on outside end at foot of main truss, directly over steel cylinder piers in middle of river; filed cross (U. S. C. E. B. M.).....	615. 04
T. 11 N., R. 14 W., in NW. cor. sec. 29, 400 ft. E. of section line, on S. side of rd., in barn lot of William Drake, 10 ft. N. of forked elm tree, 20 ft. NE. of 24-in. elm tree, in root on NE. side of forked maple tree; copper nail and washer.....	614. 28
T. 11 N., R. 14 W., near center of sec. 29, 50 ft. S. and 100 ft. E. from Anscomb School, 330 ft. N. of rd. fork, on E. side of rd., at top of hill, in concrete post; standard tablet stamped "P T Sta No 29 F 1928".....	706. 865

Reference mark, 55 ft. W. of tablet, on W. side of rd., in schoolyard, 40 ft. E. of SE. corner of school, in root on S. side of 24-in. oak tree; copper nail and washer-----	<i>Feet</i> 706. 80
T. 11 N., R. 14 W., about 0.2 mi. NE. of center of sec. 32, at point where rd. crosses small draw, on E. side of rd., about halfway up S. bank of drain, in root on S. side of 6-in. oak tree; copper nail and washer-----	699. 40
T. 10 N., R. 14 W., about 260 ft. S. of Muskegon-Newaygo county line and N. cor. secs. 5 and 6, at highway bridge over Mosquito Creek, on bridge end of E. wing wall of S. concrete abutment; chiseled square--	669. 02
Moorland, 3.5 mi. N. and 1.0 mi. W. from, in SE. cor. sec. 6, T. 10 N., R. 14 W., 25 ft. N. and 35 ft. W. from crossroads, in concrete post; standard tablet stamped "P T Sta No 30 F 1928"-----	693. 806
Reference mark, in SW. corner of crossroads, on N. end of W. concrete head wall of drain; chiseled square-----	694. 04
Moorland, 2.5 mi. N. and 1.0 mi. W. from, in SW. cor. sec. 8, T. 10 N., R. 14 W., 40 ft. N. and 60 ft. E. from crossroads, in root on NE. side of lone 8-in. pine tree; copper nail and washer-----	689. 16
From Muskegon quadrangle northwest along U. S. Highway 31 into Montague quadrangle (by S. R. Archer in 1929)	
Muskegon, 0.9 mi. N. of, at highway bridge over Muskegon River, on bridge end of E. concrete wing wall of S. abutment; chiseled square--	586. 46
Muskegon, 0.9 mi. N. of, at highway bridge over Muskegon River, on bridge end of W. concrete wing wall of N. abutment; chiseled square (U. S. C. E. B. M.)-----	586. 31
Muskegon, 1.5 mi. NW. of, at SE. abutment of highway bridge over Cedar Creek, on top of SE. end of NE. concrete wing wall; chiseled square-----	584. 95
From point near Fox Lake northeast along roads to Muskegon-Oceana county line near Big Blue Lake, thence east along county-line road and State Highway 20 into Newaygo quadrangle (by S. R. Archer in 1929)	
T. 12 N., R. 16 W., in SE. cor. sec. 29, 25 ft. N. and 55 ft. W. from crossroads, in root on SW. side of 15-in. oak tree; copper nail and washer-----	687. 86
T. 12 N., R. 16 W., near cor. secs. 20, 21, 28, and 29, 60 ft. W. of crossroads, on N. side of dim rd. W., in root on W. side of 30-in. oak tree; copper nail and washer-----	671. 02
T. 12 N., R. 16 W., in NW. cor. sec. 21, 1.0 mi. S. and 0.3 mi. W. from Blue Lake town hall, 30 ft. S. and 30 ft. E. from junction of T-rd. E., in concrete post; standard tablet stamped "T T Sta No 52 F 1928"--	687. 321
Reference mark, 40 ft. N. and 10 ft. W. from tablet, 10 ft. N. of section line, on E. side of N.-S. rd., in root on W. side of 15-in. oak tree with triangular blaze on S. side; copper nail and washer-----	687. 16
Blue Lake town hall, 0.4 mi. SW. of, 0.25 mi. N. of quarter corner between secs. 16 and 17, T. 12 N., R. 16 W., 105 ft. E. of junction of T-rd. S., on S. side of rd., in root on NW. side of 24-in. oak tree; copper nail and washer-----	688. 92
Blue Lake town hall, in front of entrance, 0.3 mi. W. of quarter corner between secs. 9 and 16, T. 12 N., R. 16 W., 300 ft. SW. of bridge over Cleveland Creek, on W. side of rd., on top of NW. corner of concrete platform; chiseled square-----	608. 33
Cleveland Creek, at bridge over; SW. corner of concrete floor-----	601. 8
Blue Lake town hall, 0.8 mi. NE. of, near E¼ cor. sec. 9, T. 12 N., R. 16 W., at T-rd. forks, near center of SE. side of triangular plot between rds., in root on SW. side of 30-in. pine tree; copper nail and washer--	638. 33

Blue Lake town hall, 1.5 mi. NE. of, at W. end of Big Blue Lake, in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 12 N., R. 16 W., on W. side of rd., 15 ft. S. of NE. corner of yard around fire tower No. 1, 3 ft. N. of gate, on road side of fence, in concrete post; standard tablet stamped "T T Sta No 53 F 1928"-----	Feet 683. 804
Reference mark, 40 ft. SW. of tablet, on top of N. corner of concrete base of SW. leg of fire tower; chiseled square-----	682. 96
Blue Lake town hall, 2.3 mi. NE. of, near center of sec. 3, T. 12 N., R. 16 W., in S. angle of crossroads, at fence line, in root on N. side of 12-in. oak tree with triangular blaze directly above point; copper nail and washer-----	684. 50
Blue Lake town hall, 2.9 mi. NE. of, at Muskegon-Oceana county line, at quarter corner between secs. 3 and 34, Tps. 12 and 13 N., R. 16 W., on N. side of rd., opposite center line of rd. S., 18 ft. S. of fence corner, on top of 5- by 5-in. concrete post marking quarter corner; chiseled square-----	675. 97
T. 12 N., R. 16 W., 0.25 mi. E. of NW. cor. sec. 2, 25 ft. S. and 20 ft. E. from junction of T-rd. S., in root on N. side of 8-in. pine tree; copper nail and washer-----	682. 46
Tps. 12 and 13 N., R. 16 W., at quarter corner between secs. 2 and 35, in center of rd., on 5- by 5-in. concrete post marking quarter corner; top of post-----	681. 75
T. 12 N., R. 16 W., in NE. cor. sec. 2, 20 ft. S. and 25 ft. W. from junction of T-rd. S., in root on NE. side of 15-in. oak tree standing with two small 5-in. pine trees; copper nail and washer-----	690. 14
T. 13 N., R. 15 W., in SW. cor. sec. 31, along Muskegon-Oceana county-line rd., 25 ft. N. and 50 ft. E. from center of crossroads, in concrete post; standard tablet stamped "T T Sta No 54 F 1928"-----	701. 189
Reference mark, 6 ft. N. and 20 ft. E. from tablet, 25 ft. N. and 70 ft. E. from crossroads, in root on E. side of 24-in. oak tree with triangular blaze on W. side; copper nail and washer-----	700. 88
T. 12 N., R. 15 W., in NW. cor. sec. 5, in SE. corner of crossroads, 3 ft. S. and 15 ft. W. from fence corner, in root on N. side of 30-in. oak tree; copper nail and washer-----	705. 30
Tps. 12 and 13 N., R. 15 W., in NE. cor. sec. 5, 75 ft. W. of T-rd. S., on S. side of county-line rd., 6 ft. N. of fence, in root on S. side of 30-in. oak tree; copper nail and washer-----	702. 57
T. 13 N., R. 15 W., near S $\frac{1}{4}$ cor. sec. 33, 85 ft. N. and 90 ft. E. from junction of T-rd. N., 25 ft. S. and 14 ft. W. from SW. corner of school, in root on NW. side of 15-in. maple tree; copper nail and washer-----	713. 87
T. 12 N., R. 15 W., in NE. cor. sec. 4, at crossroads, 27 ft. S. and 25 ft. W. from center of junction of rd. N., 2 ft. N. and 8 ft. W. from fence corner, in concrete post; standard tablet stamped "T T Sta No 55 F 1928"-----	741. 632
Reference mark, 340 ft. E. of tablet, 310 ft. E. of crossroads, on top of W. end of N. concrete head wall of culvert; chiseled square-----	741. 00
T. 13 N., R. 15 W., in SW. cor. sec. 35, 3.8 mi. N. of Holton, in NE. angle of crossroads, at fence corner, in root on SE. side of 12-in. elm tree; copper nail and washer-----	753. 63
T. 12 N., R. 15 W., 210 ft. S. of N. cor. secs. 1 and 2, 60 ft. S. and 35 ft. E. from crossroads, in root on N. side of 12-in. elm tree; copper nail and washer-----	752. 07



Fremont, 4.7 mi. W. of Pere Marquette Ry. sta. at, 25 ft. N. of S $\frac{1}{4}$ cor. sec. 36, T. 13 N., R. 15 W., on N. side of rd., 4 ft. S. of corner of fence, in concrete post; standard tablet stamped "T T Sta No 56 F 1928"-----	Feet 750. 806
Fremont, 4.2 mi. W. of, near corner of Muskegon, Newaygo, and Oceana Counties, near SE. cor. sec. 36, T. 13 N., R. 15 W., at junction of State Highways 20 and 82, in NW. angle of crossroads, in fence corner, in root on SW. side of 24-in. hickory tree; copper nail and washer-----	751. 20
Fremont, 3.2 mi. W. of, in NW. cor. sec. 5, T. 12 N., R. 14 W., in SE. corner of crossroads, on top of E. concrete head wall of culvert under N.-S. rd.; chiseled square-----	775. 35
From Montague quadrangle at point on Muskegon-Oceana county line near north quarter corner sec. 5, T. 12 N., R. 16 W., southeast along roads to west end of Big Blue Lake (by S. R. Archer in 1929)	
T. 13 N., R. 16 W., in SE. cor. sec. 32, 160 ft. N. and 85 ft. W. from junction of rd. N., 30 ft. S. and 10 ft. E. from SW. corner of building, in root on E. side of forked oak tree; copper nail and washer-----	626. 60
Tps. 12 and 13 N., R. 16 W., at cor. secs. 4, 5, 32, and 33, at junction of rd. N., on 5- by 5-in. concrete post marking section corner; top of post-----	626. 32
T. 12 N., R. 16 W., near W $\frac{1}{4}$ cor. sec. 4, at highway bridge over White River, on concrete floor, 38 ft. E. of SW. corner; chiseled square-----	607. 38
T. 12 N., R. 16 W., near center of sec. 4, 0.5 mi. NW. of Blue Lake fire tower, at top of hill, 20 ft. SW. of four-way rd. junction, in root on N. side of 15-in. oak tree with triangular blaze above point; copper nail and washer-----	683. 42
From Newaygo quadrangle at point 1.6 miles south and 1.5 miles east from Brunswick west and south along roads to Sitka (by S. R. Archer in 1929)	
Brunswick, 1.6 mi. S. and 1.5 mi. E. from, 2.0 mi. N. and 0.5 mi. E. from Sitka, near quarter corner between secs. 20 and 29, T. 12 N., R. 14 W., 25 ft. S. of junction of T-rd. N., at fence corner, in root on NW. side of 24-in. cottonwood tree; copper nail and washer----	741. 92
Sitka, 2.0 mi. N. of, 560 ft. S. of NE. cor. sec. 30 and rd. fork, T. 12 N., R. 14 W., on top of W. concrete head wall of culvert; chiseled square-----	735. 30
Sitka, 1.0 mi. N. of, in NE. cor. sec. 31, T. 12 N., R. 14 W., 60 ft. S. of T-rd. W., on top of W. concrete head wall of culvert under N.-S. rd.; chiseled square-----	743. 85
Sitka, 0.5 mi. N. of, near W $\frac{1}{4}$ cor. sec. 32, T. 12 N., R. 14 W., 80 ft. N. of T-rd. E., on E. side of rd., 50 ft. N. of fence corner, on field side of fence, in root on W. side of 15-in. elm tree; copper nail and washer-----	763. 78
From point 1 mile south of Sitka along roads south 1 mile, thence east into Newaygo quadrangle at point 0.6 mile north and 3.5 mile west from Bridge-ton (by S. R. Archer in 1929)	
Sitka, 1.5 mi. S. of, near W $\frac{1}{4}$ cor. sec. 8, T. 11 N., R. 14 W., in SE. corner of junction of third-class T-rd. E., on top of S. concrete head wall of culvert under rd. E.; chiseled square-----	734. 74
Sitka, 2.0 mi. S., thence 0.2 mi. E. from, about 0.3 mi. W. of quarter corner between secs. 8 and 17, T. 11 N., R. 14 W., 50 ft. E. of bridge over Brooks Creek, on N. side of rd., on S. bank of creek, in root on E. side of 24-in. maple tree; copper nail and washer-----	628. 86

Sitka, 2.0 mi. S., thence 0.5 mi. E. from, near  $S\frac{1}{4}$  cor. sec. 8, T. 11 N., R. 14 W., 235 ft. E. of junction of T-rd. S., on N. side of rd., in root on S. side of 24-in. pine tree; copper nail and washer-----

Feet

709. 63

## UNION CITY QUADRANGLE

[Latitude  $42^{\circ}00' - 42^{\circ}15'$ ; longitude  $85^{\circ}00' - 85^{\circ}15'$ ]

## BRANCH AND CALHOUN COUNTIES

From Battle Creek quadrangle at point 3.7 miles south of Youngs Corners along roads alternately south and east 1.8 miles to Sonoma, thence east to Fredonia-Newton township line, thence north and back into Battle Creek quadrangle (by E. E. Harris in 1917)

Youngs Corners, 3.0 mi. S. of, 1.0 mi. N., thence 0.5 mi. W. from Sonoma, near SE. cor. sec. 33, T. 2 S., R. 8 W., on W. side of rd., 180 ft. N. of junction of rd. E., in root of 18-in. maple tree; copper nail and washer----- 942. 16

Sonoma, 1.0 mi. N. of, near  $S\frac{1}{4}$  cor. sec. 34, T. 2 S., R. 8 W., in NW. angle of junction of N.-S. rd., in root of 15-in. maple tree; copper nail and washer----- 945. 92

Sonoma, about 500 ft. N. of rd. junction, at store of C. Van Tuyle, at side door, in NW. corner of concrete step; standard tablet stamped "1917 Mich 955"----- 954. 303

Sonoma, 1.0 mi. E. of, near  $S\frac{1}{4}$  cor. sec. 2, T. 3 S., R. 8 W., on N. side of rd., in front of Morgan School, in root of 12-in. maple tree; copper nail and washer----- 957. 31

Sonoma, 1.5 mi. E. of, near NW. cor. sec. 12, T. 3 S., R. 8 W., on S. side of rd., 200 ft. E. of junction of T-rd. N., in root of 24-in. maple tree; copper nail and washer----- 942. 42

Sonoma, 2.5 mi. E. of, about 550 ft. W. of Graham School, near NW. cor. sec. 7, T. 3 S., R. 7 W., in SE. angle of crossroads; standard iron post with bronze cap stamped "1917 Mich 941"----- 940. 990

Reference mark, about 60 ft. SW. of tablet, on W. side of rd. N., 80 ft. S. of E.-W. rd., on field side of wire fence, in root of 12-in. maple tree; copper nail and washer----- 937. 74

Sonoma, 3.4 mi. E. of, about 550 ft. W. of SE. cor. sec. 6, T. 3 S., R. 7 W., on N. side of rd., at dwelling of O. H. Fales, on SW. corner of large concrete doorstep; chiseled square----- 934. 60

Sonoma, 4.5 mi. E. of, near NW. cor. sec. 9, T. 3 S., R. 7 W., in SE. angle of crossroads, in root of 18-in. maple tree; copper nail and washer----- 949. 27

Sonoma, 5.6 mi. E. of, about 300 ft. E. of SW. cor. sec. 3, T. 3 S., R. 7 W., on N. side of rd., on E. side of private driveway, in top of small culvert; standard tablet stamped "1917 Mich 955"----- 955. 022

Sonoma, 6.5 mi. E. of, 0.4 mi. E. of Dodge School, about 200 ft. E. of SW. cor. sec. 2, T. 3 S., R. 7 W., on N. side of rd., at entrance to pasture, on field side of fence, in root of 15-in. maple tree; copper nail and washer----- 923. 60

Sonoma, 7.5 mi. E. of, near NW. cor. sec. 12, T. 3 S., R. 7 W., in SE. angle of crossroads, on sandstone boulder; chiseled square----- 934. 19

Sonoma, 8.5 mi. E. of, 2.7 mi. S. of Ceresco, near SE. cor. sec. 1, T. 3 S., R. 7 W., in NW. angle of crossroads; standard iron post with bronze cap stamped "1917 Mich 942"----- 941. 182

Ceresco, 1.7 mi. S. of, in NE. cor. sec. 1, T. 3 S., R. 7 W., on W. side of rd., in root of 15-in. maple tree; copper nail and washer----- 941. 65

From Homer quadrangle near southeast corner sec. 4, T. 4 S., R. 6 W., south-west and west along roads by way of Burlington to crossroads 3 miles north-east of Athens, thence generally north to Sonoma (by C. H. Davey in 1917)

Burlington, 2.4 mi. by rd. E., thence 2.9 mi. NE. from post office at, 0.25 mi. NE. of center of sec. 9, T. 4 S., R. 6 W., on SE. side of rd., in root of 30-in. oak tree; copper nail and washer	Feet 973. 35
Burlington, 2.4 mi. E., thence 2.3 mi. NE. from, near N $\frac{1}{4}$ cor. sec. 16, T. 4 S., R. 6 W., in SW. angle of crossroads, 20 ft. S. of corner fence post, 1 ft. E. of N.-S. fence line; standard iron post with bronze cap stamped "1917 Mich 964"	963. 850
Burlington, 2.4 mi. E., thence 1.2 mi. NE. from, 0.2 mi. E. of SW. cor. sec. 16, T. 4 S., R. 6 E., in NE. angle of junction of rd. E., on granite boulder; chiseled square	961. 26
Burlington, 2.4 mi. E. of, 0.2 mi. NW. of S $\frac{1}{4}$ cor. sec. 20, T. 4 S., R. 6 W., near junction of rd. N., at dwelling of B. C. Olney, in E. end of second step from bottom; standard tablet stamped "1917 Mich 933"	932. 728
Burlington, 2.0 mi. E. of, 700 ft. N. of SW. cor. sec. 20, T. 4 S., R. 6 W., near junction of rd. S., on N. side of rd., near fence corner, in 36-in. maple tree; copper nail and washer	944. 01
Burlington, 1.0 mi. E. of, 0.2 mi. N. of SW. cor. sec. 19, T. 4 S., R. 6 W., at bridge across St. Joseph's River, on NW. corner of concrete coping; chiseled square	922. 56
Burlington, at NE. corner of post office, in concrete platform; standard tablet stamped "1917 Mich 923"	922. 478
Burlington, 1.0 mi. NW. of, near center of NW $\frac{1}{4}$ sec. 23, T. 4 S., R. 7 W., 150 ft. W. of junction of rd. S., on N. side of rd., in root of 8-in. elm tree; copper nail and washer	935. 37
Burlington, 1.4 mi. NW., thence 0.5 mi. W. from, near S $\frac{1}{4}$ cor. sec. 15, T. 4 S., R. 7 W., in NW. angle of junction of T-rd. N., in root of 18-in. hickory tree; copper nail and washer	936. 42
Burlington, 1.4 mi. NW., thence 0.7 mi. W. from, 0.3 mi. E. of SW. cor. sec. 15, T. 4 S., R. 7 W., in front of Meserole School, on W. end of concrete platform; chiseled square	932. 65
Burlington, 1.4 mi. NW., thence 1.5 mi. W. from, near S $\frac{1}{4}$ cor. sec. 16, T. 4 S., R. 7 W., in NE. angle of junction of T-rd. N., in root of 12-in. oak tree; copper nail and washer	918. 22
Burlington, 1.4 mi. NW., thence 2.3 mi. W. from, 3.5 mi. NW. of Union City, 0.25 mi. W. of NE. cor. sec. 20, T. 4 S., R. 7 W., in SW. angle of crossroads, 10 ft. S. of iron post at fence corner, 1 ft. E. of fence; standard iron post with bronze cap stamped "1917 Mich 911"	910. 481
Burlington, 1.4 mi. NW., thence 3.0 mi. W. from, diagonally opposite Tadmore School, in SW. cor. sec. 17, T. 4 S., R. 7 W., in NE. angle of crossroads, in root of 24-in. hickory tree; copper nail and washer	908. 45
Burlington, 1.4 mi. NW., thence 3.5 mi. by rd. W. from, near center of NE $\frac{1}{4}$ sec. 19, T. 4 S., R. 7 W., 50 ft. S. of junction of T-rd. W., on E. end of concrete culvert; chiseled square	903. 49
Burlington, 1.4 mi. NW., thence 4.2 mi. W. from, 0.25 mi. S. of NW. cor. sec. 19, T. 4 S., R. 7 W., in SE. angle of junction of N.-S. rd., at fence corner, on boulder; chiseled square	903. 52
Burlington, 1.4 mi. NW., thence 4.5 mi. W. from, 4.8 mi. by rd. SE., thence 1.5 mi. E. from East Leroy, about 150 ft. S. of NE. cor. sec. 24, T. 4 S., R. 8 W., at bridge across Nottawa Creek, on W. end of N. concrete abutment; chiseled square	893. 60

East Leroy, 4.8 mi. SE., thence 0.5 mi. E. from, near NW. cor. sec. 24, T. 4 S., R. 8 W., in SE. angle of junction of T-rd. S., on concrete footing of iron post at fence corner; chiseled square-----	Feet 903. 82
East Leroy, 4.8 mi. SE. of, near S $\frac{1}{4}$ cor. sec. 14, T. 4 S., R. 8 W., at junction of T-rd. E., on NW. corner of concrete abutment of small bridge; chiseled square-----	901. 69
East Leroy, 3.4 mi. by rd. S., thence 0.6 mi. E. from, 0.25 mi. S. of N $\frac{1}{4}$ cor. sec. 14, T. 4 S., R. 8 W., in SW. angle of junction of rd. S., in root of 24-in. maple tree; copper nail and washer-----	910. 33
East Leroy, 3.4 mi. S. of, 3.0 mi. NE. of Athens, 0.25 mi. S. and 0.1 mi. W. of NE. cor. sec. 15, T. 4 S., R. 8 W., at crossroads, in triangular grass plot NE. of rd. intersection, 5 ft. NW. of 15-in. elm tree; standard iron post with bronze cap stamped "1917 Mich 896"-----	895. 615
Reference mark, 135 ft. NW. of standard post, 150 ft. N. of crossroads, on W. end of concrete culvert; chiseled square-----	896. 59
East Leroy, 2.4 mi. SE. of, near center of sec. 11, T. 4 S., R. 8 W., on W. side of rd., 100 ft. N. of junction of rd. E., in root of 15-in. wild-cherry tree; copper nail and washer-----	905. 73
East Leroy, 1.0 mi. S., thence 0.5 mi. E. from, near center of sec. 2, T. 4 S., R. 8 W., 275 ft. S. of junction of rd. W., on E. end of concrete culvert; chiseled square-----	899. 77
East Leroy, 1.0 mi. S. of, near W $\frac{1}{4}$ cor. sec. 2, T. 4 S., R. 8 W., on S. side of rd., 150 ft. E. of junction of rd. N., in root of 24-in. maple tree; copper nail and washer-----	884. 58
East Leroy, at SW. corner of post office at store of E. G. Houston, in concrete platform; standard tablet stamped "1917 Mich 922"-----	921. 369
East Leroy, 0.5 mi. W. of, near center of sec. 34, T. 3 S., R. 8 W., on S. side of rd., at junction of T-rd. N., in root of 18-in. maple tree; copper nail and washer-----	924. 51
East Leroy, 1.5 mi. W. of, near center of sec. 33, T. 3 S., R. 8 W., in NW. angle of junction of T-rd. N., in root of 8-in. elm tree; copper nail and washer-----	939. 60
East Leroy, 1.5 mi. W., thence 1.5 mi. N. from, near N $\frac{1}{4}$ cor. sec. 28, T. 3 S., R. 8 W., in SE. angle of crossroads, at Burrell School, midway between first two trees N. along W. boundary of schoolyard; standard iron post with bronze cap stamped "1917 Mich 963"-----	962. 714
East Leroy, 1.5 mi. W., thence 2.4 mi. N. from, 3.1 mi. by rd. SW. of Sonoma, about 450 ft. S. of N $\frac{1}{4}$ cor. sec. 21, T. 3 S., R. 8 W., on E. wall of concrete culvert; chiseled square-----	944. 19
Sonoma, 2.5 mi. SW. of, near center of sec. 16, T. 3 S., R. 8 W., 0.25 mi. S. of Paradise School, in SW. angle of junction of T-rd. W., in exposed root 8 ft. NE. of 14-in. hickory tree; copper nail and washer-----	950. 96
Sonoma, 2.0 mi. SW. of, near N $\frac{1}{4}$ cor. sec. 16, T. 3 S., R. 8 W., 0.25 mi. N. of Paradise School, in SW. angle of junction of T-rd. S., in root of 7-in. oak tree; copper nail and washer-----	942. 80
Sonoma, 1.0 mi. SW. of, near E $\frac{1}{4}$ cor. sec. 9, T. 3 S., R. 8 W., in corner formed by right-angle bend in rd. from N. to E., on rock; chiseled square-----	940. 19
From crossroads 3.4 miles by road south of East Leroy southwest and south along roads by way of Athens into Coldwater quadrangle near Sherwood (by C. H. Davey in 1917)	
Athens, 2.3 mi. NE. of high school at, about 300 ft. SW. of N $\frac{1}{4}$ cor. sec. 22, T. 4 S., R. 8 W., on W. side of rd., N. of farm rd. W., in root of 24-in. maple tree; copper nail and washer-----	909. 41

Athens, 1.5 mi. N. of, near quarter corner between secs. 21 and 22, T. 4 S., R. 8 W., on N. side of rd., at junction of rd. S., in root of 30-in. oak tree; copper nail and washer.....	<i>Feet</i> 903. 01
Athens, at W. entrance to high school, in S. end of concrete step; standard tablet stamped "1917 Mich 896".....	895. 963
Athens, at S. limits of, near W $\frac{1}{4}$ cor. sec. 34, T. 4 S., R. 8 W., in NE. angle of crossroads, on rock; chiseled square.....	890. 28
Athens, 1.8 mi. S. of, 0.25 mi. N. of SW. cor. sec. 3, T. 5 S., R. 8 W., in NE. angle of crossroads, in front of Brick School, on S. end of bottom concrete step; chiseled square.....	880. 36
Athens, 3.4 mi. S. of, 2.6 mi. NE. of Sherwood, near W $\frac{1}{4}$ cor. sec. 15, T. 5 S., R. 8 W., in NE. angle of crossroads, 16 ft. E. of corner fence post, 1 ft. S. of E-W. fence line; standard iron post with bronze cap stamped "1917 Mich 886".....	885. 384
Sherwood, 1.9 mi. NE. of, about 500 ft. S. of NW. cor. sec. 22, T. 5 S., R. 8 W., at NE. corner of Little Bridge over St. Joseph River, on masonry abutment; chiseled square.....	858. 52
Sherwood, 1.0 mi. NE. of, 20 ft. N. and 60 ft. W. from SE. cor. sec. 21, T. 5 S., R. 8 W., at four corners, in W. end of triangular grass plot; standard iron post with bronze cap stamped "Prim Trav Sta No 9 S 1917 Mich 878".....	877. 483
Sherwood, at crossing of Michigan Central R. R.; top of rail of main track.....	881. 5
From Coldwater quadrangle near south corner secs. 28 and 27, T. 5 S., R. 7 W., along roads alternately north and east by way of Hodunk to point 1 mile south of Girard, thence north to Branch-Calhoun county line, thence northeast and northwest to point 2.4 miles east of Burlington (by C. H. Davey in 1917)	
Hodunk, 0.5 mi. S., thence 2.0 mi. W. from, near E $\frac{1}{4}$ cor. sec. 27, T. 5 S., R. 7 W., 100 ft. N. of Sullivan School, near junction of T-rd. E., on base of large square concrete post at fence corner; chiseled square.....	956. 54
Hodunk, 0.5 mi. S., thence 1.4 mi. W. from, 0.3 mi. W. of E $\frac{1}{4}$ cor. sec. 26, T. 5 S., R. 7 W., on S. coping of concrete culvert; chiseled square.....	950. 55
Hodunk, 0.5 mi. S. of, near W $\frac{1}{4}$ cor. sec. 30, T. 5 S., R. 6 W., 200 ft. N. of junction of N.-S. rd., on E. side of rd., on large granite boulder; chiseled square.....	948. 34
Hodunk, in N. end of concrete dam across Coldwater River, 12 ft. N. of spillway and 10 ft. S. of small bridge over raceway; standard tablet stamped "1917 Mich 925".....	924. 847
Hodunk, 1.0 mi. E. of, in NE. cor. sec. 30, T. 5 S., R. 6 W., in SW. angle of crossroads, on rock; chiseled square.....	937. 30
Hodunk, 2.0 mi. E. of, 1.0 mi. S., thence 1.0 mi. W. from Girard, 520 ft. S. of NW. cor. sec. 28, T. 5 S., R. 6 W., near junction of rd. W., at S. end of gate, on base of 15- by 15-in. concrete post; chiseled square.....	942. 26
Girard, 1.0 mi. S. of, near NE. cor. sec. 28, T. 5 S., R. 6 W., in SW. angle of crossroads, 12 ft. N. of large walnut tree; standard iron post with bronze cap stamped "Prim Trav Sta No 7 S 1917 Mich 952".....	951. 341
Girard, at crossroads, at SW. corner of pump curb, on exposed rock; chiseled square.....	954. 07
Girard, 0.4 mi. N. of, near E $\frac{1}{4}$ cor. sec. 16, T. 5 S., R. 6 W., at bridge over Hog Creek, on W. end of N. abutment; chiseled square.....	943. 86

Girard, 1.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 9, T. 5 S., R. 6 W., in SW. angle of junction of T-rd. W., at foot of first maple tree, on large boulder; chiseled square.....	Feet 958. 08
Girard, 2.0 mi. N. of, 2.8 mi. SW. of Tekonsha, in NW. cor. sec. 10, T. 5 S., R. 6 W., at NE. corner of Cobblestone School, in concrete platform; standard tablet stamped "1917 Mich 965".....	964. 785

[Line jogs into Homer quadrangle]

Tekonsha, 1.0 mi. W. of, 4.1 mi. SE. of Burlington, near center of SE $\frac{1}{4}$ sec. 28, T. 4 S., R. 6 W., on S. side of rd., near junction of rd. N., in root of 6-in. elm tree; copper nail and washer.....	932. 42
Burlington, 3.1 mi. SE. of, 0.2 mi. NW. of E $\frac{1}{4}$ cor. sec. 29, T. 4 S., R. 6 W., at grade crossing of Michigan Central R. R.; top of N. rail.....	933. 8

## VASSAR QUADRANGLE

[Latitude 43°15'-43°30'; longitude 83°30'-83°45']

## BAY, SAGINAW, AND TUSCOLA COUNTIES

From Flint quadrangle along State Road (present State Highway 15) north 0.1 mile, thence west along road into Saginaw quadrangle (by E. E. Harris in 1919; leveled twice)

T. 10 N., R. 8 E., near N $\frac{1}{4}$ cor. sec. 28, in SE. corner of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 11 H 1919 Mich 780".....	778. 951
T. 10 N., R. 8 E., in NW. cor. sec. 28, near SE. corner of crossroads, in center of top of concrete head wall of culvert; chiseled square....	769. 65
T. 10 N., R. 8 E., in SW. cor. sec. 20, in NE. corner of crossroads, on top of concrete culvert; chiseled square.....	756. 28
T. 10 N., R. 8 E., at SW. cor. sec. 19, in NE. corner of jog in crossroads; standard iron post with bronze cap stamped "1919 Mich 757".....	756. 292
T. 10 N., R. 7 E., in SW. cor. sec. 24, near NE. corner of crossroads, on top of rock culvert; chiseled square.....	746. 36
T. 10 N., R. 7 E., near SE. cor. sec. 21, 1.0 mi. E. of Arbela, in NW. angle of crossroads; standard iron post with bronze cap stamped "Prim Trav Sta No 10 H 1919 Mich 709".....	707. 873
T. 10 N., R. 7 E., near SW. cor. sec. 20, 1.0 mi. W. of Arbela, on N. side of rd., 80 ft. E. of crossroads, in root on S. side of 18-in. maple tree; copper nail and washer.....	687. 20
T. 10 N., R. 6 E., near SE. cor. sec. 24, at jog in E.-W. rd., on W. side of rd., in line with rd. E., 190 ft. N. of junction of rd. W.; standard iron post with bronze cap stamped "1919 Mich 682".....	680. 806
T. 10 N., R. 6 E., in NW. cor. sec. 26, near SE. corner of crossroads, on top of granite outcrop; chiseled square.....	651. 24

## VERMONTVILLE QUADRANGLE

[Latitude 42°30'-42°45'; longitude 85°00'-85°15']

## BARRY AND EATON COUNTIES

From Hastings quadrangle near east quarter corner sec. 4, T. 1 N., R. 8 W., east along road 0.7 mile, thence southeast into Battle Creek quadrangle (by E. E. Harris in 1917)

Bristol School, 1.2 mi. E. of, 2.5 mi. W., thence 0.6 mi. NW. from Lacey, on NE. end of NW. abutment of wooden bridge over High-bank Creek; chiseled square.....	912. 27
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## VESTABURG QUADRANGLE

[Latitude 43°15'-43°30'; longitude 84°45'-85°00']

## GRATIOT, ISABELLA, AND MONTCALM COUNTIES

From Carson City quadrangle near southwest corner sec. 18, T. 10 N., R. 4 W., north along township-line road 0.5 mile, thence along roads west 7 miles and south 0.3 mile and back into Carson City quadrangle near southwest corner sec. 13, T. 10 N., R. 6 W. (by E. C. Bibbee in 1916)

Crystal, 0.3 mi. S. and 3.0 mi. E. from, near quarter corner between secs. 13 and 14, T. 10 N., R. 5 W., in NE. corner of crossroads, 25 ft. N. of fence corner, on E. end of iron drain under rd.; highest point.....	Feet 790. 14
Crystal, 0.3 mi. S. and 2.0 mi. E. from, near quarter corner between secs. 14 and 15, T. 10 N., R. 5 W., in SW. corner of junction of T-rd. S., 1.5 ft. N. of fence corner; standard iron post with bronze cap stamped "Prim Trav Sta No 13 1915 Mich 787".....	786. 641
Crystal, 0.3 mi. S. and 1.0 mi. E. from, near quarter corner between secs. 15 and 16, T. 10 N., R. 5 W., in SW. corner of crossroads, on circular stone head wall, on white stone directly over culvert; highest point in chiseled circle.....	784. 96
Crystal Lake; surface of water May 29, 1916.....	800. 2
Crystal, 0.5 mi. S. and 1.0 mi. W. from, about 1,500 ft. N. of S. cor. secs. 17 and 18, T. 10 N., R. 5 W., 100 ft. S. of S. shore of Crystal Lake, at right-angle turn in rd., 4 ft. E. of W. fence line, directly in front of Steal Inn Cottage; standard iron post with bronze cap stamped "Mich 807".....	806. 433
Crystal, 0.5 mi. S. and 2.0 mi. W. from, 0.25 mi. N. of SE. cor. sec. 13, T. 10 N., R. 6 W., in NW. angle of crossroads, on southernmost part of steel frame of scales; unmarked point.....	805. 78
Crystal, 0.5 mi. S. and 3.0 mi. W. from, 970 ft. N. of S. cor. secs. 13 and 14, T. 10 N., R. 6 W., 10 ft. E. of center line of rd., 300 ft. S. of junction of rd. E., in root of 15-in. pine tree; copper nail and washer.....	799. 26

WAUSEON QUADRANGLE <sup>38</sup>

[Latitude 41°30'-41°45'; longitude 84°00'-84°15']

## LENAWEE COUNTY

From Michigan-Ohio State line at point 1.2 miles north and 2.7 miles east from Lyons, Ohio, north along road into Adrian quadrangle near Ridgeville (by C. E. Mills in 1911)

Lyons, 2.7 mi. E., thence 3.0 mi. N. from, 1.0 mi. S. of Ridgeville, near NW. cor. sec. 36, T. 8 S., R. 3 E., in SE. angle of crossroads; standard iron post with bronze cap stamped "737" (recovered in 1938) ..	736. 302
From Adrian quadrangle along road south 0.5 mile to crossroads 1 mile south of Ridgeville (by S. R. Archer in 1938)	
Ridgeville, 1.0 mi. S. of, near SE. cor. sec. 26, T. 8 S., R. 3 E., near NW. corner of crossroads, on top of W. end of N. curved concrete head wall of drain under rd. W.; chiseled square <sup>39</sup> .....	737. 25

<sup>38</sup> The greater part of this quadrangle lies in Ohio.

<sup>39</sup> Established as a reference mark to bench mark stamped "737" and previously described.

## WAYLAND QUADRANGLE

[Latitude 42°30'-42°45'; longitude 85°30'-85°45']

## ALLEGAN AND BARRY COUNTIES

From Grand Rapids quadrangle south along Grand Rapids & Indiana Railroad <sup>40</sup> into Kalamazoo quadrangle (by E. C. Bibbee in 1913)

Moline, in SW. corner of yard of public school; standard iron post with bronze cap stamped "Mich 805" <sup>41</sup> -----	<i>Feet</i> 805. 582
Moline, in front of sta.; top of rail.-----	806. 9
Moline, 2.2 mi. S. of, 2.6 mi. N. of Wayland, 45 ft. W. of track, 20 ft. N. of rd., about 0.5 mi. N. of milepost M 245; standard iron post with bronze cap stamped "Mich 756" <sup>42</sup> -----	756. 592
Wayland, 1.5 mi. N. of, 150 ft. E. of track of G.R. & I. R.R., 10 ft. W. of track of Michigan Electric R. R., <sup>43</sup> on N. side of rd., in center of W. end of concrete culvert under electric R. R.; chiseled square (recovered in 1929)-----	739. 70
Wayland, 1.0 mi. N. of, 20 ft. N. of milepost R 214 M 246, at SE. corner of trestle; highest point of head of first driftbolt-----	743. 61
Wayland, about 200 ft. SW. of sta., on N. side of rd., 5 ft. W. of R. R. right-of-way; standard iron post with bronze cap stamped "Mich 746"-----	746. 060
Bradley, 100 ft. S. of sta., on S. side of public rd., 45 ft. E. of track; standard iron post with bronze cap stamped "Mich 784" (recovered by U. S. C. & G. S. in 1934)-----	784. 467
Bradley, 0.7 mi. S. of, at grade crossing, 60 ft. E. of track, on right-of-way, 25 ft. N. of rd., in root of elm tree; copper nail-----	805. 87
G. R. & I. R. R., at overhead crossing of old electric R. R.; top of rail-----	844. 8
Bradley, 1.6 mi. S. of, 1.2 mi. N. of Shelbyville, at overhead rd. crossing, on top of SW. concrete pier; chiseled square-----	851. 12
Shelbyville, 0.8 mi. N. of, at grade crossing, 50 ft. E. of track, 20 ft. N. of rd., in root of maple tree; rail spike-----	839. 22
Shelbyville, 150 ft. E. of sta., on S. side of rd., 100 ft. E. of track, 13 ft. N. of concrete sidewalk, 150 ft. W. of post office; standard iron post with bronze cap stamped "Mich 831" (recovered by U. S. C. & G. S. in 1934)-----	831. 216
Shelbyville, 1.9 mi. S. of, 2.0 mi. N. of Martin, at grade crossing, on E. side of track, at corner of R. R. property line and S. line of rd., on T-rail used as corner post; highest point-----	822. 25
Martin, 150 ft. E. of sta., 7 ft. S. of S. property line of public rd., on R. R. right-of-way; standard iron post with bronze cap stamped "Mich 832" <sup>44</sup> -----	832. 443

<sup>40</sup> Now operated by the Pennsylvania Railroad.<sup>41</sup> In 1929 this bench mark was reset. For the new location and elevation see p. 494.<sup>42</sup> In 1929 this bench mark was recovered and the elevation determined at that time indicated that it had been raised 0.572 foot, probably by frost action. It was reset and restamped and the new location and elevation are given on p. 494.<sup>43</sup> This railroad is now abandoned.<sup>44</sup> In 1934 the U. S. Coast and Geodetic Survey reported an elevation of 832.118 feet for this bench mark. This change was probably due to settling.



Martin, 1.0 mi. S. of, 0.2 mi. N. of Monteith, 30 ft. E. of track, on N. rd. line and E. property line of R. R., on vertical T-rail; highest point.....	Feet 822. 44
Michigan Central R. R. crossing; top of rail.....	821. 7
Monteith, 0.8 mi. S. of, at grade crossing, 50 ft. W. of track, 15 ft. S. of rd., on large granite boulder; chiseled square.....	813. 16
From Allegan quadrangle at point 0.6 mile north of Kellogg east along road to Martin (by S. R. Archer in 1929)	
Kellogg, 0.6 mi. N., thence 0.5 mi. E. from, near cor. secs. 20, 21, 28, and 29, T. 2 N., R. 12 W., 30 ft. S. of junction of T-rd. N., 3 ft. S. of NE. corner of schoolyard, in concrete post; standard tablet stamped "26 A 1929 Mich".....	726. 689
Reference mark, 75 ft. S. of tablet, 105 ft. S. of rd. junction, 3 ft. S. and 35 ft. E. from SE. corner of school, in root on W. side of 24-in. elm tree; copper nail and washer.....	727. 71
Kellogg, 0.6 mi. N., thence 1.0 mi. E. from, 1.5 mi. W. of Watson, near N $\frac{1}{4}$ cor. sec. 28, T. 2 N., R. 12 W., 190 ft. E. of junction of T-rd. S., on S. side of rd., on field side of fence, in root on NW. side of 10-in. wild-cherry tree; copper nail and washer.....	734. 54
Watson, 1.0 mi. W. of, in NE. cor. sec. 28, T. 2 N., R. 12 W., 35 ft. W. of section-line fence, on S. side of rd., in root on NW. side of 24-in. ash tree; copper nail and washer.....	768. 32
Watson, at SE. corner of crossroads, in NW. cor. sec. 26, T. 2 N., R. 12 W., in front of store, on top of NW. corner of concrete porch floor; chiseled square.....	815. 53
Watson, 1.0 mi. E. of, near cor. secs. 23, 24, 25, and 26, T. 2 N., R. 12 W., 24 ft. E. of junction of N.-S. rd., at W. end of Witheral Lake, 1 ft. SW. of fence corner, in concrete post; standard tablet stamped "27 A 1929 Mich".....	837. 603
Reference mark, 30 ft. S. and 55 ft. W. from rd. junction, 30 ft. W. of fence corner, in root on W. side of 24-in. maple tree; copper nail and washer.....	837. 55
Watson, 1.4 mi. E. of, 1.6 mi. W. of Martin, about 500 ft. W. of quarter corner between secs. 24 and 25, T. 2 N., R. 12 W., 160 ft. E. of right-angle turn in rd., on N. side of rd., in root on S. side of 24-in. hickory tree; copper nail and washer.....	833. 32
Martin, 1.3 mi. W. of, 0.25 mi. E. of quarter corner between secs. 24 and 25, T. 2 N., R. 12 W., 60 ft. E. of fence corner, 60 ft. E. of summit of hill, on S. side of rd., in root on N. side of 36-in. oak tree; copper nail and washer.....	837. 35
Martin, 0.8 mi. W. of, 0.25 mi. W. of S $\frac{1}{4}$ cor. sec. 19, T. 2 N., R. 11 W., 65 ft. N. of junction of T-rd. N., on W. side of rd., in root on NE. side of 24-in. maple tree; copper nail and washer.....	834. 50
Martin, 150 ft. W. of intersection of main streets, on N. side of street, at entrance to double brick store building, near S. corner, at W. side of concrete floor; chiseled square.....	836. 00
Martin, at SE. corner of intersection of main streets, on N. side at NW. corner of Haveman Department Store, on top of W. end of stone window sill; chiseled square.....	834. 14
Martin, at G. R. & I. R. R. sta., 55 ft. N. and 90 ft. W. from main track crossing E.-W. street, on N. side of street, at E. end of concrete loading platform in front of Farmers Cooperative Mill & Elevator, on top of S. end of second step; chiseled square.....	834. 83

Martin, 55 ft. S. and 145 ft. E. from main track crossing E.-W. street, 20 ft. S. and 45 ft. E. from iron post, at N. end near NE. corner of brick cold-storage celery plant, on outside corner at E. end of concrete window sill; chiseled square.....	<i>Feet</i> 834. 65
From Allegan quadrangle at point 1.7 miles northeast of Hopkins generally east along highways to Bradley (by S. R. Archer in 1929)	
Hopkins, 1.0 mi. N., thence 1.0 mi. E. from, in SW. cor. sec. 16, T. 3 N., R. 12 W., 160 ft. E. of junction of T-rd. N., on N. side of rd., in root on SE. side of 10-in. elm tree; copper nail and washer.....	708. 30
Hopkins, 1.0 mi. N., thence 2.0 mi. E. from, in SW. cor. sec. 15, T. 3 N., R. 12 W., in NE. angle of crossroads, in root on S. side of 12-in. maple tree; copper nail and washer.....	715. 56
Hopkins, 1.0 mi. N., thence 3.0 mi. E. from, 0.5 mi. N., thence 3.0 mi. W. from Bradley, in SE. cor. sec. 15, T. 3 N., R. 12 W., 30 ft. N. and 75 ft. W. from crossroads, 45 ft. W. of fence corner, in concrete post; standard tablet stamped "P T Sta No 41 F 1927".....	737. 444
Reference mark, 85 ft. E. of crossroads, on top of S. concrete head wall of culvert under E.-W. rd.; chiseled square.....	741. 02
Bradley, 0.5 mi. N., thence 2.2 mi. W. from, 0.3 mi. E. of S $\frac{1}{4}$ cor. sec. 14, T. 3 N., R. 12 W., 75 ft. W. of junction of lane N., on top of NE. end of N. wing wall of E. concrete abutment of culvert; chiseled square.....	732. 23
Bradley, 0.5 mi. N., thence 1.5 mi. W. from, near N $\frac{1}{4}$ cor. sec. 24, T. 3 N., R. 12 W., 220 ft. W. of crossroads, on S. side of rd., in field, in small root W. of large root on N. side on 36-in. elm tree; copper nail and washer.....	736. 12
Bradley, 1.5 mi. W. of, near center of sec. 24, T. 3 N., R. 12 W., 110 ft. N. of center line of T-rd. E., at N. corner of triangle in rds., on top of S. end of E. concrete head wall of culvert under N.-S. rd.; chiseled square.....	752. 39
Bradley, 1.0 mi. W. of, at quarter corner between secs. 19 and 24, T. 3 N., Rs. 11 and 12 W., at NE. corner of crossroads, on top of NW. end of NE. concrete head wall of culvert running diagonally under crossroads; chiseled square.....	757. 19
Bradley, 100 ft. E. of tracks of G. R. & I. R. R., at N. concrete head wall of highway culvert, on top of W. end of junction of head wall and wing wall; chiseled square <sup>45</sup> .....	786. 64
Bradley, at SE. corner of schoolyard, 40 ft. N. and 190 ft. W. from crossroads, at probable quarter corner between secs. 19 and 20, T. 3 N., R. 11 W., in concrete post; standard tablet stamped "P T Sta No 42 F 1927".....	823. 856
Reference mark, at entrance to school, on top of E. end of concrete doorsill; chiseled square.....	823. 32
From Allegan quadrangle at point 1 mile south and 1.3 miles west from Dorr east along road to Grand Rapids & Indiana Railroad, thence south to point 1.5 miles north of Wayland (by S. R. Archer in 1929)	
Dorr, 1.0 mi. S., thence 0.7 mi. W. from, 0.25 mi. E. of NW. cor. sec. 28, T. 4 N., R. 12 W., 60 ft. S. of rd., on E. side of lane S., on W. side of N.-S. fence, in root on W. side of 36-in. oak tree; copper nail and washer.....	754. 09

<sup>45</sup> Established as a reference mark to principal bench mark stamped "Mich 784" and previously described.

Dorr, 1.0 mi. S., thence 0.3 mi. W. from, 0.3 mi. W. of NE. cor. sec. 28, T. 4 N., R. 12 W., on top of E. end of S. concrete head wall of culvert; chiseled square.....	<i>Feet</i> 709. 37
Dorr, 1.0 mi. S. of, in NE. cor. sec. 28, T. 4 N., R. 12 W., 30 ft. S. and 85 ft. W. from crossroads, 30 ft. S. and 45 ft. E. from R. R. crossing, 4 ft. W. of SE. R. R. right-of-way fence corner, in concrete post; standard tablet stamped "33 A 1929 Mich".....	704. 328
Reference mark, at NE. corner of crossroads, on top of E. end of N. concrete head wall of culvert under E.-W. rd.; chiseled square.....	703. 64
Dorr, 1.0 mi. S., thence 1.0 mi. E. from, in NW. cor. sec. 26, T. 4 N., R. 12 W., 215 ft. E. of crossroads, on S. side of rd., at fence line, in root on NW. side of 24-in. elm tree; copper nail and washer.....	733. 42
Dorr, 1.0 mi. S., thence 2.0 mi. E. from, 2.2 mi. S., thence 1.0 mi. W. from Moline, in NE. cor. sec. 26, T. 4 N., R. 12 W., in SW. angle of crossroads, at fence corner, in root on NW. side of 24-in. wild-cherry tree; copper nail and washer.....	777. 36
Moline, 2.2 mi. S. of, 2.6 mi. N. of Wayland, about 0.5 mi. N. of milepost M 245, 50 ft. W. of track of G. R. & I. R. R., 35 ft. S. of rd., at W. right-of-way fence line; standard iron post with bronze cap stamped "Mich 759" <sup>47</sup> .....	757. 987
Wayland, 2.3 mi. N. of, 0.3 mi. S. of intersection of E.-W. rd. and old electric R. R., at bridge of electric R. R. over North Branch of Rabbit River, on top of E. parapet wall of S. concrete abutment; chiseled square.....	749. 36
From point 2 miles south of Moline north along abandoned Michigan Electric Railroad to Moline, thence along road 0.8 mile into Grand Rapids quadrangle (by S. R. Archer in 1929)	
Moline, 1.25 mi. S. of, at rd. crossing, 270 ft. E. of track, on S. side of rd., at fence line, in root on NW. side of 10-in. basswood tree; copper nail and washer.....	765. 34
Moline, 0.8 mi. S. of, at rd. crossing, 150 ft. E. of track, at angle in highway to N., 25 ft. S. of SE. right-of-way fence corner, on E. side of N.-S. fence line, in field, in root on S. side of 30-in. elm tree; copper nail and washer.....	786. 95
Moline, in SE. part of town, 90 ft. W. of intersection of rd. and E.-W. highway, 100 ft. E. of track, on top of S. concrete head wall of highway culvert; chiseled square.....	796. 95
Moline, in SW. corner of schoolyard, 20 ft. S. and 39 ft. W. from SW. corner of schoolhouse, 30 ft. E. of center line of N.-S. street, on inside edge of sidewalk along S. side of schoolyard, set level with sidewalk; standard iron post with bronze cap stamped "Mich 805" <sup>47</sup> .....	804. 382
Reference mark, at entrance to school, on top of NE. corner of concrete porch floor; chiseled square.....	806. 18

<sup>47</sup> For location and elevation of this bench mark as it was originally set in 1913, see p. 491.

## WHITE CLOUD QUADRANGLE

[Latitude 43°30'-43°45'; longitude 85°45'-86°00']

## NEWAYGO COUNTY

From Newaygo quadrangle at point 3.7 miles south and 0.5 mile east from  
White Cloud along roads north 0.2 mile to west quarter corner sec. 21, T. 13  
N., R. 12 W., thence east into Big Prairie quadrangle (by S. R. Archer in 1929)

White Cloud, 3.5 mi. S. and 0.5 mi. E. from, near quarter corner between secs. 20 and 21, T. 13 N., R. 12 W., 45 ft. S. and 20 ft. E. from junction of T-rd. E., in root on SE. side of 10-in. oak tree; copper nail and washer.....	Feet 827. 07
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## WINONA QUADRANGLE

[Latitude 46°45'-47°00'; longitude 88°45'-88°00']

## HOUGHTON AND ONTONAGON COUNTIES

From Houghton quadrangle <sup>48</sup> southwest along Copper Range Railroad into  
Greenland quadrangle (first-order leveling by E. L. McNair in 1911)

Toivola, 112 ft. N. of office window of C. R. R. R. sta., 40 ft. S. of section house, 19 ft. E. of center of track, near fence around house; standard iron post with bronze cap stamped "Prim Trav Sta No 7 1911 1276".....	1, 275. 119
Toivola, in front of sta.; top of rail.....	1, 275. 4
Stonington siding, at sign; top of rail.....	1, 305. 2
Elm River, 430 ft. S. of section house, 46 ft. W. of center of track, on top of bank, about 8 ft. above track; standard iron post with bronze cap stamped "Prim Trav Sta No 8 1911 1270".....	1, 269. 151
Twin Lakes, in front of sta.; top of rail.....	1, 208. 4
Fåleston, in front of sta.; top of rail.....	1, 204. 9
Fåleston, 1,090 ft. S. of sta., at bridge over Misery River, 6 ft. E. of center of track, in top of concrete abutment; aluminum tablet stamped "1200".....	1, 199. 151
Winona, in front of sta.; top of rail.....	1, 244. 2
Winona, 760 ft. W. of sta., 31 ft. N. of track, on bank 3 ft. above track; standard iron post with bronze cap stamped "Prim Trav Sta No 9 1911 1247".....	1, 246. 395
Seager, 75 ft. S. of section house, 31 ft. E. of track; standard iron post with bronze cap stamped "Prim Trav Sta No 10 1911 1220".....	1, 220. 424
Senecal flag sta., at rd. crossing; top of rail.....	1, 062. 5

## WITBECK QUADRANGLE

[Latitude 46°15'-46°30'; longitude 88°00'-88°15']

## BARAGA, IRON, AND MARQUETTE COUNTIES

On line between Tps. 46 and 47 N. (by E. C. Bebb in 1898) <sup>49</sup>

T. 46 N., R. 32 W., 15 ft. SW. of NE. cor. sec. 1, at Baraga-Iron county line, in rock projecting 1 ft. above surface of ground; copper bolt.....	1, 770. 59
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<sup>48</sup> This line crosses the southeast corner of Beacon Hill quadrangle but no marks were established in that quadrangle.

<sup>49</sup> These figures of elevation are based upon an elevation of 1,598.5 feet for the top of rail opposite the Duluth, South Shore & Atlantic Railway station at Champion. They have not been tied to first-order leveling and 1929 general adjustment values are not available for them. They should not, therefore, be used as points of origin.

T. 46 N., R. 30 W., in NW. cor. sec. 6, on W. side of rd., 14 ft. S. of township line, in rock; copper bolt.....	Feet 1, 672. 10
T. 46 N., R. 30 W., 26 ft. S. and 700 ft. W. from NE. cor. sec. 2, 176 ft. W. of Michigamme River, on W. side of and level with old R. R. grade, in center of rock with flat top 6 ft. wide; copper bolt.....	1, 497. 56
Michigamme River, on township line; surface of water.....	1, 491. 4

#### WYANDOTTE QUADRANGLE

[Latitude 42°00'-42°15'; longitude from U. S.-Canada boundary west to 83°15']

#### MONROE AND WAYNE COUNTIES

From Gibraltar west along road into Romulus quadrangle at point 2.3 miles east of Flat Rock (by R. E. Wipfler in 1901)

Gibraltar, on lake front at, in rear of dock and boathouse of Edward Hall, 75 ft. SW. of house, 8 in. S. of NE. corner of stone milk house, in wall, 4 ft. above ground; brass bolt leaded horizontally (U. S. Lake Survey B. M. No. 1; recovered in 1936).....	587. 105
T. 4 S., R. 10 E., near SW. cor. sec. 36, 40 ft. E. of crossroads, on NW. abutment of bridge; mark not described.....	574. 81
T. 4 S., R. 10 E., near SW. cor. sec. 35, 90 ft. S. of crossroads, on large boulder; highest point.....	590. 03

From Romulus quadrangle at point 7.7 miles east of New Boston east along road to Sibley, thence southwest by way of Trenton to Gibraltar (by R. E. Wipfler in 1901)

Sibley, 0.5 mi. N. and 2.9 mi. W. from, near NW. cor. sec. 11, T. 4 S., R. 10 E., 400 ft. E. of crossroads, in NW. corner of culvert; top of bolt.....	596. 17
Sibley, 2.9 mi. W. of, in SW. cor. sec. 2, T. 4 S., R. 10 E., in NE. corner of crossroads; standard iron post with bronze cap stamped "Gibraltar 599" <sup>50</sup> .....	598. 450
Sibley, at R. R. sta., at junction of River and Mud Rds.; top of stone post marked "U S H L 38 A" (U. S. Lake Survey B. M.).....	587. 766
Trenton, at corner of Washington and Pine Streets; top of hydrant...	602. 56

From Gibraltar west along road 0.8 mile, thence south and southwest along River Road to corner secs. 26, 27, 34, and 35, T. 5 S., R. 10 E., thence west along road into Romulus quadrangle (by Fulton Pace in 1903)

Rockwood, 2.0 mi. E., thence 1.1 mi. N. from, in SE. cor. sec. 2, T. 5 S., R. 10 E., 300 ft. N. of rd. fork, on E. side of rd. N., in root of elm tree; nail.....	583. 24
Rockwood, 2.0 mi. E., thence 1.8 mi. S. from, in SE. cor. sec. 23, T. 5 S., R. 10 E., in NE. corner of highway bridge over Huron River; top of bolt.....	581. 32
Rockwood, 2.0 mi. E., thence 4.0 mi. S. from, in SW. cor. sec. 26, T. 5 S., R. 10 E., in NE. corner of highway bridge over Mouille Creek; top of bolt.....	578. 50

From Ecorse northwest 1.6 miles along road into Detroit quadrangle (by Fulton Pace in 1903)

Ecorse, on E. side of River Rd., at foot of Labadie Street, at dwelling of W. B. Smith, 10 in. N. of SE. corner of brick foundation, in seventh course of brick below baseboard; brass bolt leaded horizontally (U. S. Lake Survey B. M. No. 5).....	584. 267
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<sup>50</sup> This bench mark was set in 1903 by Fulton Pace from marks along the primary line run in 1901.

At Rockwood (by J. M. Lawson in 1936)

[A jog from Romulus quadrangle]

Feet

U. S. C. & G. S. standard disk stamped "5 Q 586"----- 585. 706

Rockwood, 260 ft. SW. of New York Central R. R. sta., 43 ft. N. and 54 ft. W. from R. R. crossing on Huron River Drive, on right-of-way, in root on E. side of 22-in. maple tree; copper nail and washer... 586. 78

From Ecorse northwest 1.6 miles along Southfield Road into Detroit quadrangle (by J. M. Lawson in 1936)

Ecorse, on E. side of Jefferson Avenue, at foot of Southfield Rd., at NE. corner of Ecorse City dock, in concrete post under 8-in. hand-hole cover in concrete slab 4 ft. square; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 72 1932")----- 577. 112

Ecorse, 1,000 ft. W. of Jefferson Avenue, at R. R. crossing, on top of E. end of N. concrete retaining wall, at toe of slope and 2.5 ft. above ground; chiseled square----- 571. 68

Ecorse, 0.9 mi. NW. of, at SW. corner of concrete bridge over Ecorse River, 18 in. from W. end of bridge, 9 in. N. of head wall, under name tablet, in concrete walkway; metal tablet (Wayne County B. M. No. 1)----- 582. 012

From Riverview northeast along Biddle Avenue to Wyandotte, thence west along Pennsylvania Road into Romulus quadrangle (by J. M. Lawson in 1936)

Riverview, on N. side of curve in Biddle Avenue, at NE. corner of bridge over Manguagon Creek, 7 in. from E. end of bridge, 6 in. from curb, in concrete; bronze disk set vertically (U. S. Lake Survey B. M. designated "D 47")----- 580. 368

Wyandotte, at S. boundary of, on E. side of Biddle Avenue, almost in line with S. side of Negaunee Street, at drum shop of Pennsylvania Salt Company, 10 in. N. of SW. corner of W. foundation wall, 3 ft. above ground; bronze disk (U. S. Lake Survey B. M. designated "D 46")----- 581. 437

Wyandotte, 47 ft. S. and 64 ft. W. from intersection of Biddle Avenue and Pennsylvania Rd., on top of N. corner of concrete base of rd. signpost; chiseled square----- 578. 61

Wyandotte, 34 ft. N. and 15 ft. W. from junction of Seventeenth Street, on top of curb, 3 ft. N. of S. end; chiseled square----- 587. 18

Wyandotte, near SW. corner of boundary of, 30 ft. S. and 33 ft. W. from intersection of Fort Rd.; top of capped iron post projecting about 1 ft. above ground (City of Wyandotte B. M.)----- 597. 46

Wyandotte, 0.5 mi. W. of W. boundary of, in NW. corner of Riverview, in NW. cor. sec. 6, T. 4 S., R. 11 E., 24 ft. S. and 43 ft. E. from junction of Strong Rd., on NW. side of fire hydrant; top of letter "O" in word "Open"----- 593. 98

T. 4 S., R. 10 E., in NE. cor. sec. 2, 22 ft. S. and 33 ft. W. from junction of McCann Rd., in N. side of telephone pole; rail spike----- 598. 34

T. 3 S., R. 10 E., 0.2 mi. W. of SE. cor. sec. 35, 30 ft. N. and 47 ft. E. from junction of Grange Rd., in concrete post; standard tablet stamped "T T 46 L 1935 593"----- 592. 989

Tps. 3 and 4 S., R. 10 E., near cor. secs. 2, 3, 34, and 35, 4 ft. N. and 32 ft. W. from intersection of Pennsylvania, Allen, and Toledo Rds., in parking in center of rd. forks, on top of S. corner of concrete base of signal light post; chiseled square----- 600. 87

Tps. 3 and 4 S., R. 10 E., on line between secs. 3 and 34, 1.0 mi. S., thence 2.0 mi. E. from Telekra, at crossing of Detroit, Toledo, and Ironton R. R.; top of W. rail-----	Feet 603. 1
Telekra, 1.0 mi. S., thence 1.0 mi. E. from, in NE. cor. sec. 4, T. 4 S., R. 10 E., 27 ft. S. and 20 ft. W. from intersection of Racho Rd., in root on N. side of 14-in. maple tree; copper nail and washer-----	604. 56
From point on River Road 0.3 mile north of Huron River Drive south to intersection, thence west to Rockwood (by J. M. Lawson in 1936)	
U. S. C. & G. S. standard disk stamped "5 T"-----	585. 267
U. S. C. & G. S. standard disk stamped "5 S"-----	581. 716
Rockwood, 2.0 mi. E. of intersection of Fort Street and Huron River Drive, at NW. corner of intersection of River Rd., in SE. corner of foundation of concrete signpost; bronze disk set vertically (U. S. Lake Survey B. M. designated "D 56")-----	581. 050
Rockwood, 1.2 mi. E. of, on N. side of Huron River Drive, opposite NW. corner of St. Marys Cemetery, on top of E. end of N. concrete head wall of culvert; chiseled square-----	579. 16
Rockwood, 0.9 mi. E. of, 18 ft. N. and 190 ft. E. from junction of Streicher Rd., on W. end of N. concrete head wall of culvert; chiseled square-----	578. 55
Rockwood, 0.4 mi. E. of, at crossing of Michigan Central R. R.; top of W. rail-----	587. 5
U. S. C. & G. S. standard disk stamped "F 115 X 1934"-----	586. 855
From point 1.6 miles north of intersection of Labo and River Roads south to intersection (by J. M. Lawson in 1936; leveled twice)	
T. 5 S., R. 10 E., near SE. cor. sec. 27, 200 ft. S. of bridge over Mouille Creek, on W. side of River Rd., 16 ft. W. of NE. corner of farmhouse of Chauncey Roberts, in foundation stone 1.3 ft. above ground; bronze disk (U. S. Lake Survey B. M. designated "D 59")-----	580. 296
T. 5 S., R. 10 E., near SE. cor. sec. 27, 52 ft. N. and 31 ft. W. from intersection of Labo Rd., in concrete post; standard tablet stamped "T T 44 L 1935 575"-----	575. 440
From Trenton west along Van Horn Road into Romulus quadrangle (by J. M. Lawson in 1936)	
Trenton, in S. part of, at S. end of property of Detroit Edison Co., on E. side of River Rd., 18 ft. from E. edge of concrete pavement, in concrete post 9 in. square and extending 3 ft. above ground; bronze disk (U. S. Lake Survey B. M. designated "Detroit Edison M 16")-----	582. 651
Trenton, 560 ft. N. of S. end of property of Detroit Edison Co., on W. property line, on E. side of River Rd., in concrete post; bronze disk (U. S. Lake Survey B. M. designated "Detroit Edison M 17")-----	582. 323
Trenton, about 500 ft. N. of S. property line of Detroit Edison Co., on E. side of River Rd., 400 ft. S. of junction of Van Horn Rd., 24 ft. from edge of concrete pavement, in concrete post; bronze disk (U. S. Lake Survey B. M. designated "Detroit Edison M 18")-----	583. 137
Trenton, on property line of Detroit Edison Co., 29 ft. E. of intersection of Van Horn and River Rds., in concrete post; bronze disk (U. S. Lake Survey B. M. designated "Detroit Edison M 19")-----	588. 319
Trenton, at crossing of Michigan Central R. R. and Van Horn Rd.; top of W. rail-----	587. 3
Trenton, 12 ft. S. and 18 ft. E. from junction of Lathrop Rd., near New York Central R. R. crossing, on top of N. edge of cast-iron water gate cover; chiseled cross-----	587. 17

Trenton, 25 ft. N. and 105 ft. E. from intersection of Fort Rd., in root on S. side of 10-in. basswood tree; copper nail and washer.....	Feet 588. 34
Trenton, 0.3 mi. W. of W. boundary of, at bridge over Whitaker Marsh Creek, on top of NW. corner of inner concrete guardrail; chiseled square.....	588. 82
Trenton, 0.5 mi. W. of W. boundary of, 30 ft. N. and 40 ft. E. from intersection of Allen Rd., in concrete post; standard tablet stamped "T T 45 L 1935 595".....	595. 477
Trenton, 1.0 mi. W. of W. boundary of, 2.1 mi. NE., thence 2.0 mi. E. from Flat Rock, at crossing of Detroit, Toledo and Ironton R. R.; top of W. rail of W. track.....	597. 9
Flat Rock, 2.1 mi. NE., thence 1.5 mi. E. from, 15 ft. N. and 17 ft. E. from intersection of Hall Rd., on top of E. end of small circular concrete culvert; chiseled square.....	595. 87
From Elizabeth Park in Trenton east to Grosse Ile, thence along roads south, east, and northeast to old Stony Island Railroad bridge (by J. M. Lawson in 1936)	
Trenton, in S. part of, at E. side of Elizabeth Park, at first pier from mainland end of Trenton-Grosse Ile public bridge, in center of pavement, in concrete post under 8-in. handhole cover; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 115 1932").....	592. 804
Trenton, at E. end of bridge, in center of pavement, in concrete post under 8-in. handhole cover; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 14 1932").....	592. 756
Grosse Ile, on W. shore line, on N. side of Van Horn Rd. (Grosse Ile Parkway), 370 ft. E. of E. end of bridge, in NW. corner of bridge over lower level roadway, on top of bridge head wall, in second tier of concrete base of light post, 5 in. SE. of SE. corner; top of ¾-in. brass bolt set vertically (Wayne County Road Commission B. M. designated "West Channel 1932").....	597. 679
Grosse Ile, 1.0 mi. S. of Van Horn Rd., 25 ft. W. of center line of West River Rd., in root on E. side of 12-in. boxelder tree; copper nail and washer.....	575. 94
Grosse Ile, at SW. corner of junction of South Pointe and Groh Rds., in concrete post under 8-in. handhole cover set in concrete slab 4 ft. square; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 16 G I 1932").....	587. 865
Grosse Ile, 45 ft. S. and 20 ft. W. from junction of Groh and Meridian Rds., in NW. corner of U. S. Naval Reserve Aviation Field, in concrete post; standard tablet stamped "T T 48 L 1935 590".....	590. 449
Grosse Ile, 33 ft. S. and 25 ft. W. from junction of Groh and East River Rds., in root on SW. side of 10-in. walnut tree; copper nail and washer.....	578. 52
Grosse Ile, 12 ft. N. and 9 ft. E. from junction of Manchester Rd., at turn to E. in East River Rd., in root on NW. side of 14-in. elm tree; copper nail and washer.....	593. 94
Grosse Ile, 22 ft. N. and 48 ft. W. from junction of Bellevue Rd., in root on NE. side of 24-in. locust tree; copper nail and washer.....	594. 20
Grosse Ile, 412 ft. S. of junction of Van Horn Rd. (Grosse Ile Parkway), 20 ft. E. of East River Rd., in concrete post under 8-in. handhole cover in concrete slab 4 ft. square; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 24 G I 1932").....	594. 890



Grosse Ile, at E. end of Van Horn Rd., at W. abutment of old Stony Island R. R. bridge, in upper course of masonry of W. abutment, 1 ft. from N. face and 16 ft. from W. edge; top of $\frac{3}{4}$ -in. brass bolt set vertically (U. S. Lake Survey B. M. designated "East Channel 1932")-----	Feet 585. 226
From point near center of east side of Grosse Ile along roads north, west, and southwest to Trenton-Grosse Ile bridge (by J. M. Lawson in 1936)	
Grosse Ile, on E. side of East River Rd., 500 ft. S. of junction of Ferry Rd., in concrete post under 8-in. handhole cover in concrete slab 4 ft. square; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 26 G I 1932")-----	593. 224
Grosse Ile, on E. side of East River Rd., 425 ft. N. of Ferry Rd., in concrete post under 8-in. handhole cover in concrete slab 4 ft. square; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 27 G I 1932")-----	582. 649
Grosse Ile, on E. side of East River Rd., 0.7 mi. N. of junction of Ferry Rd., on property owned by Dr. Zinger, about midway between third and fourth trees N. of boardwalk leading to boathouse; top of 1-in. iron bar about 4 ft. long with lower end in block of concrete (U. S. Lake Survey B. M. designated "Swales 1932")-----	577. 660
Grosse Ile, on W. side of East River Rd., about 12 ft. SW. of junction of Church Rd., in concrete post under 8-in. handhole cover in pavement; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 28 G I 1932")-----	577. 670
Grosse Ile, 15 ft. S. and 60 ft. W. from junction of Parke Avenue and Horse Mill Rd., on top of concrete head wall of culvert; chiseled square-----	587. 99
Grosse Ile, 0.3 mi. SE. of junction of Bridge Rd., 0.4 mi. NW. of junction of Horse Mill Rd., on SW. side of Parke Avenue, at SW. corner of concrete bridge over Thorofare Canal, at SW. corner of head wall, on top of concrete abutment; chiseled square-----	582. 44
Grosse Ile, 95 ft. S. and 40 ft. E. from junction of Bridge Rd. and Parke Avenue, in root on W. side of 30-in. oak tree; copper nail and washer-----	585. 27
Grosse Ile, 40 ft. S. and 25 ft. E. from junction of Bridge and Meridian Rds., about 0.5 mi. E. of toll bridge between mainland and island, in concrete post; standard tablet stamped "T T 47 L 1935 585"-----	584. 676
Grosse Ile, 30 ft. N. and 30 ft. W. from intersection of Horse Mill Rd. and south-bound traffic lane of Meridian Rd., in root on W. side of 14-in. elm tree; copper nail and washer-----	593. 29
Grosse Ile, 36 ft. S. and 25 ft. E. from junction of Church and West River Rds., in root on SW. side of 12-in. maple tree; copper nail and washer-----	592. 90
Grosse Ile, on W. side of West River Rd., 900 ft. S. of junction of Church Rd., in concrete post under 8-in. handhole cover in concrete slab 4 ft. square; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 8 G I 1932")-----	589. 083
Grosse Ile, 45 ft. N. and 20 ft. W. from junction of Ferry and West River Rds., on top of rim on E. side of manhole cover; chiseled cross-----	581. 70
Grosse Ile, on W. side of West River Rd., 830 ft. S. of junction of Ferry Rd., in concrete post under 8-in. handhole cover in concrete slab 4 ft. square; bronze disk (U. S. Lake Survey B. M. designated "Harbor Line Monument 12 G I 1932")-----	587. 459

At Gibraltar (by J. M. Lawson in 1936; leveled twice)

Gibraltar, at S. wall of old lighthouse building, now owned by W. S. Hunt, 3.7 ft. from SE. corner, 2.9 ft. above ground, in water table sill; bronze disk set horizontally (U. S. Lake Survey B. M. designated "D 54 1932")-----	Feet 584. 104
U. S. C. & G. S. standard disk stamped "H 115 X 1934"-----	582. 174

## YPSILANTI QUADRANGLE

[Latitude 42°00'-42°15'; longitude 83°30'-83°45']

## MONROE, WASHTENAW, AND WAYNE COUNTIES

From Romulus quadrangle west and northwest along road by way of Ypsilanti into South Lyon quadrangle (by R. E. Wipfler in 1901)

Ypsilanti, at corner of Summit and Cross Streets, on N. side of stand-pipe; standard tablet stamped "797"-----	797. 158
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From Saline quadrangle east along township-line road into Romulus quadrangle (by R. E. Wipfler in 1901)

T. 4 S., R. 6 E., 250 ft. E. of NW. cor. sec. 3, in root of hickory tree; nail-----	823. 88
T. 4 S., R. 6 E., near N $\frac{1}{4}$ cor. sec. 2; standard iron post with bronze cap stamped "829" <sup>51</sup> -----	829. 614
Reference mark, near S $\frac{1}{4}$ cor. sec. 35, T. 3 S., R. 6 E., in root of hickory tree; nail-----	828. 80
T. 4 S., R. 7 E., near NE. cor. sec. 1, 21 ft. S. and 33 ft. W. from crossroads; standard iron post with bronze cap stamped "692" (recovered in 1936)-----	691. 933
T. 4 S., R. 8 E., near NE. cor. sec. 5, on S. side of rd., in root of tree; nail-----	686. 64
T. 4 S., R. 8 E., near NE. cor. sec. 5, on S. side of rd.; standard iron post with bronze cap stamped "Gibraltar 688" <sup>52</sup> -----	687. 670

From Saline quadrangle generally east along Monroe-Washtenaw county-line road and other roads to Washtenaw-Wayne county line, thence north 6 miles to crossroads 2.5 miles south of Lawsonville (by R. E. Wipfler in 1901)

Milan, 2.7 mi. W. of, near SW. cor. sec. 33, T. 4 S., R. 6 E., at crossroads, in root of maple tree; nail-----	717. 98
Milan, 0.6 mi. SW., thence 0.5 mi. W. from, 0.2 mi. S. and 5.9 mi. W. from Oakville, near W $\frac{1}{4}$ cor. sec. 2, T. 5 S., R. 6 E., at crossroads; standard iron post with bronze cap stamped "701"-----	701. 394
Oakville, 0.7 mi. SW. of, about 700 ft. E. of N $\frac{1}{4}$ cor. sec. 10, T. 5 S., R. 7 E., at crossroads; standard iron post with bronze cap stamped "671"-----	671. 267

From South Lyon quadrangle at point 0.8 mile south and 1 mile west from Denton south along Rawsonville Road to Ecorse Road, thence east into Romulus quadrangle (by G. N. Tex in 1936)

Denton, 1.1 mi. SW., thence 0.6 mi. S. from, 3.5 mi. E. of Ypsilanti, near NE. cor. sec. 12, T. 3 S., R. 7 E., 35 ft. S. and 90 ft. W. from intersection of Ecorse Rd., in concrete post; standard tablet stamped "T T 13 S 1935 715"-----	715. 349
Reference mark, 1 ft. S. and 75 ft. E. from tablet, 36 ft. S. and 15 ft. W. from crossroads, on top of W. concrete head-wall of culvert; chiseled square-----	715. 39

<sup>51</sup> In 1932 it was reported that the top had rusted off.

<sup>52</sup> Established by Fulton Pace in 1903 from marks along the primary line run in 1901.

Ypsilanti, 4.5 mi. E. of, near SE. cor. sec. 6, T. 3 S., R. 8 E., 80 ft. N. and 28 ft. W. from intersection of Denton Rd., in root on W. side of 24-in. maple tree; copper nail and washer.....	<i>Feet</i> 706. 16
Ypsilanti, 5.5 mi. E. of, near SE. cor. sec. 5, T. 3 S., R. 8 E., 24 ft. N. and 45 ft. W. from intersection of Beck Rd., in root on SW. side of 27-in. maple tree; copper nail and washer.....	697. 97
From intersection of Ecorse and Rawsonville Roads along roads generally south to Bemis Road, thence east into Romulus quadrangle (by G. N. Tex in 1938)	
Rawsonville, 1.6 mi. N. of, near NW. cor. sec. 18, T. 3 S., R. 8 E., 25 ft. S. and 65 ft. E. from intersection of Tyler Rd., in root on W. side of 30-in. oak tree; copper nail and washer.....	715. 48
Rawsonville, 0.6 mi. N. of, about 400 ft. NE. of SW. cor. sec. 18, T. 3 S., R. 8 E., 210 ft. N. and 18 ft. W. from junction of Chase Rd., in root on SE. side of 20-in. hickory tree; copper nail and washer...	707. 41
Rawsonville, 0.2 mi. N. of, about 1,500 ft. S. of NW. cor. sec. 19, T. 3 S., R. 8 E., 280 ft. N. and 30 ft. E. from junction of Ford Dam Rd., in root on SW. side of 24-in. maple tree; copper nail and washer...	706. 63
Rawsonville, 0.2 mi. N., thence 0.3 mi. W. from, near center of NE $\frac{1}{4}$ sec. 24, T. 3 S., R. 7 E., 18 ft. N. and 60 ft. E. from center line of Y-rd. SE., on S. side of 27-in. oak tree; copper nail and washer...	707. 85
Rawsonville, 0.2 mi. N., thence 0.8 mi. W. from, near center of NW $\frac{1}{4}$ sec. 24, T. 3 S., R. 7 E., 18 ft. S. and 50 ft. E. from intersection of Ford Dam and Bridge Rds., on top of S. concrete head wall of culvert; chiseled square.....	713. 51
Rawsonville, about 1 mi. SW. of, in SW $\frac{1}{4}$ sec. 24, T. 3 S., R. 7 E., at N. end of Ford Dam over Huron River, 20 ft. W. of center line of rd., 3 ft. N. of N. end of side rail, in top of concrete side wall; standard tablet stamped "5 T 1936 696".....	695. 632
Rawsonville, 0.5 mi. S., thence 0.8 mi. W. from, 0.2 mi. E. of W. cor. secs. 24 and 25, T. 3 S., R. 7 E., 25 ft. N. and 24 ft. E. from junction of Bridge Rd. and Huron River Drive, on top of E. concrete head wall of culvert; chiseled square.....	709. 15
Rawsonville, 0.5 mi. S., thence 0.5 mi. W. from, near quarter corner between secs. 24 and 25, T. 3 S., R. 7 E., 20 ft. S. and 135 ft. E. from junction of Huron River Drive and McKean Rd., in root on W. side of 20-in. oak tree; copper nail and washer.....	708. 39
Rawsonville, 0.5 mi. S. of, near NE. cor. sec. 25, T. 3 S., R. 7 E., 110 ft. S. and 27 ft. W. from intersection of Huron River Drive and Rawsonville Rd., in root on E. side of 30-in. white-oak tree; copper nail and washer.....	689. 52
Rawsonville, 0.9 mi. S. of, 0.4 mi. S. of NW. cor. sec. 30, T. 3 S., R. 8 E., 170 ft. S. and 25 ft. E. from junction of Bog Rd., in root on E. side of oak tree; copper nail and washer.....	699. 82
Rawsonville, 2.0 mi. S. of, near W $\frac{1}{4}$ cor. sec. 31, T. 3 S., R. 8 E., at jog in Martz Rd., 42 ft. N. and 24 ft. E. from junction of T-rd. E., 65 ft. N. and 24 ft. E. from junction of T-rd. W., in root on S. side of 24-in. wild-cherry tree; copper nail and washer.....	698. 51
Rawsonville, 2.5 mi. S. of, near SW. cor. sec. 31, T. 3 S., R. 8 E., 100 ft. N. and 24 ft. E. from intersection of Bemis Rd., in concrete post; standard tablet stamped "T T 41 L 1935 692".....	691. 532

Rawsonville, 2.5 mi. S., thence 0.5 mi. E. from, about 0.4 mi. W. of NE. cor. sec. 6, T. 4 N., R. 8 E., 20 ft. S. and 340 ft. W. from intersection of Wabash Ry., in root on N. side of 24-in. elm tree; copper nail and washer-----	Feet 689. 24
Rawsonville, 2.5 mi. S., thence 1.0 mi. E. from, 2.0 mi. S., thence 1.8 mi. W. from Belleville, 0.2 mi. E. of S. cor. secs. 31 and 32, T. 3 S., R. 8 E., 20 ft. N. and 55 ft. W. from junction of Lohr Rd. to N., in root on SE. side of 30-in. oak tree; copper nail and washer-----	687. 30
Belleville, 2.0 mi. S., thence 0.9 mi. W. from, in SW. cor. sec. 33, T. 3 S., R. 8 E., near N. cor. secs. 4 and 5, T. 4 S., R. 8 E., at jog in Elwell Rd., 33 ft. N. and 3 ft. W. from junction of T-rd. S., in root on W. side of 30-in. boxelder tree; copper nail and washer-----	686. 50
From intersection of Bemis and Rawsonville Roads south along road 4 miles, thence east along Willow Road into Romulus quadrangle (by G. N. Tex in 1936; leveled twice)	
Rawsonville, 3.0 mi. S. of, 0.8 mi. E., thence 0.5 mi. N. from Willis, near quarter corner between secs. 1 and 6, T. 4 S., Rs. 7 and 8 E., 135 ft. S. and 36 ft. W. from crossing of Wabash Ry., in root on E. side of 30-in. elm tree; copper nail and washer-----	688. 32
Willis, 0.8 mi. E. of, near NW. cor. sec. 7, T. 4 S., R. 8 E., 90 ft. S. and 20 ft. E. from intersection of Willis Rd., in root on W. side of 24-in. boxelder tree; copper nail and washer-----	688. 48
Willis, 0.8 mi. E., thence 1.0 mi. S. from, 1.6 mi. W., thence 1.5 mi. N. from West Sumpter, near NW. cor. sec. 18, T. 4 S., R. 8 E., 22 ft. S. and 25 ft. E. from intersection of Judd Rd., in root on E. side of 30-in. elm tree; copper nail and washer-----	677. 47
West Sumpter, 1.6 mi. W., thence 0.5 mi. N. from, in SW. cor. sec. 18, T. 4 S., R. 8 E., near E. cor. secs. 13 and 24, T. 4 S., R. 7 E., 190 ft. N. and 12 ft. E. from junction of Talladay Rd., at small bridge, on top of SE. concrete wing wall; chiseled square-----	669. 42
West Sumpter, 1.6 mi. W. of, near W $\frac{1}{4}$ cor. sec. 19, T. 4 S., R. 8 E., 18 ft. N. and 60 ft. E. from junction of Wear Rd., in root on W. side of 18-in. elm tree; copper nail and washer-----	667. 01
West Sumpter, 0.5 mi. S., thence 1.6 mi. W. from, in NE. cor. sec. 25, T. 4 S., R. 7 E., near W. cor. secs. 19 and 30, T. 4 S., R. 8 E., at jog in Willow Rd., 90 ft. S. and 25 ft. W. from junction of T-rd. E., 160 ft. S. of T-rd. W., near Washtenaw-Wayne county line, in concrete post; standard tablet stamped "T T 37 L 1935 667"-----	667. 204
Reference mark, 110 ft. S. and 205 ft. E. from tablet, 20 ft. N. and 180 ft. E. from junction of T-rd. E., in root on S. side of 30-in. maple tree; copper nail and washer-----	666. 71
West Sumpter, 0.5 mi. S., thence 0.5 mi. W. from, near SW. cor. sec. 20, T. 4 S., R. 8 E., 38 ft. N. and 180 ft. E. from intersection of Sherwood Rd., in root on S. side of 40-in. elm tree; copper nail and washer-----	655. 93
West Sumpter, 0.5 mi. S. of, near quarter corner between secs. 20 and 29, T. 4 S., R. 8 E., 20 ft. S. and 35 ft. E. from intersection of Karr Rd., in root on N. side of 30-in. oak tree; copper nail and washer--	658. 61
From Romulus quadrangle north along Elwell Road to Bemis Road (by G. N. Tex in 1936; leveled twice)	
T. 4 S., R. 8 E., about 550 ft. S. of N. cor. secs. 16 and 17, 10 ft. S. and 25 ft. W. from center line of private drive W., in root on E. side of 30-in. maple tree; copper nail and washer-----	678. 66

T. 4 S., R. 8 E., near NE. cor. sec. 17, 140 ft. S. and 24 ft. W. from intersection of Judd Rd., in concrete post; standard tablet stamped "T T 38 L 1935 677"-----	<i>Feet</i> 677. 413
T. 4 S., R. 8 E., near SW. cor. sec. 4, 35 ft. N. and 20 ft. E. from intersection of Willis Rd., in root on W. side of 20-in. maple tree; copper nail and washer-----	678. 57
T. 4 S., R. 8 E., near quarter corner between secs. 4 and 5, 180 ft. N. and 20 ft. W. from intersection of Harris Rd., in root on SE. side of 12-in. elm tree; copper nail and washer-----	680. 94
From Romulus quadrangle northwest along South Stony Creek Road to Wash- tenaw-Wayne county line, thence north along Rawsonville Road to Willow Road (by G. N. Tex in 1936)	
T. 5 S., R. 8 E., 0.25 mi. N. of SE. cor. sec. 17, 370 ft. W. of junction of Doty Rd., 22 ft. S. of rd., in root on N. side of 30-in. walnut tree; copper nail and washer-----	636. 77
T. 5 S., R. 8 E., 0.3 mi. N. of quarter corner between secs. 17 and 20, 12 ft. S. and 35 ft. W. from junction of Timbers Rd., in root on N. side of 30-in. elm tree; copper nail and washer-----	635. 35
T. 5 S., R. 8 E., about 500 ft. S. of quarter corner between secs. 17 and 18, 25 ft. N. and 5 ft. W. from center of small bridge, in root on S. side of 18-in. white-ash tree; copper nail and washer-----	633. 19
T. 5 S., R. 8 E., 0.25 mi. SE. of NW. cor. sec. 18, at small bridge, at extreme NW. end of side wall, on top of NE. concrete sidewalk; chiseled square-----	639. 75
T. 5 S., R. 8 E., near NW. cor. sec. 18, 0.9 mi. N. of Exeter, 190 ft. N. and 34 ft. E. from intersection of range-line rd., in NW. corner of grounds of Palmer School, 75 ft. NW. of NW. corner of schoolhouse, in concrete post; standard tablet stamped "T T 33 L 1935 643"-----	642. 674
T. 5 S., R. 8 E., near W $\frac{1}{4}$ cor. sec. 7, 415 ft. S. and 10 ft. E. from junction of Hivon Rd., 135 ft. S. and 10 ft. E. from bridge over Stony Creek, on top of NE. concrete wing wall of bridge; chiseled square-----	640. 60
T. 5 S., R. 7 E., near NE. cor. sec. 12, 120 ft. S. and 22 ft. W. from junction of Colf Rd., in root on SE. side of 8-in. oak tree; copper nail and washer-----	642. 51
T. 5 S., R. 8 E., near W $\frac{1}{4}$ cor. sec. 6, 45 ft. S. and 35 ft. E. from junction of Newberg Rd., in root on S. side of 30-in. oak tree; copper nail and washer-----	645. 69
T. 4 S., R. 8 E., near SW. cor. sec. 31, 20 ft. N. and 55 ft. E. from intersection of Oakville-Waltz Rd., near corner of Monroe, Wash- tenaw, and Wayne counties, on top of N. concrete head wall of culvert; chiseled square-----	650. 60
T. 4 S., R. 8 E., 0.2 mi. N. of SW. cor. sec. 31, 300 ft. N. and 25 ft. E. from junction of T-rd. W., 30 ft. N. and 25 ft. E. from junction of private drive NE., in root on SW. side of 30-in. maple tree; copper nail and washer-----	659. 75
T. 4 S., R. 8 E., 0.25 mi. S. of NW. cor. sec. 31, 15 ft. N. and 25 ft. E. from junction of Liss Rd., in root on SW. side of 30-in. oak tree; cop- per nail and washer-----	664. 92
T. 4 S., R. 7 E., near SE. cor. sec. 25, 30 ft. N. and 25 ft. W. from junction of Arkona Rd., in root on E. side of 10-in. oak tree; copper nail and washer-----	664. 12

From crossroads 0.9 mile north of Exeter south and southeast along Oakville-Maybee Road to Maybee, thence southeast and south along Blue Bush Road into Romulus quadrangle (by G. N. Tex in 1938)

Exeter, 0.5 mi. N. of, near E $\frac{1}{4}$ cor. sec. 13, T. 5 S., R. 7 E., 65 ft. S. and 24 ft. W. from center line of rd., opposite field rd. W., in root on E. side of 36-in. maple tree; copper nail and washer-----	Feet 646. 70
Exeter, 180 ft. N. and 25 ft. E. from junction of Allison Rd., 1.6 mi. NW., thence 1.7 mi. N. from Detroit, Toledo and Ironton R. R. sta. in Maybee, near SE. cor. sec. 18, T. 5 S., R. 8 E., in root on SE. side of 15-in. walnut tree; copper nail and washer-----	642. 83
Maybee, 1.6 mi. NW., thence 1.1 mi. N. from, near W $\frac{1}{4}$ cor. sec. 19, T. 5 S., R. 8 E., 30 ft. S. and 12 ft. W. from junction of Geirman Rd., on top of W. concrete head wall of culvert; chiseled square-----	641. 95
Maybee, 1.6 mi. NW., thence 0.9 mi. N. from, 0.3 mi. N. of SW. cor. sec. 19, T. 5 S., R. 7 E., 200 ft. N. and 20 ft. E. from junction of Leidel Rd., in root on NW. side of 15-in. hickory tree; copper nail and washer-----	642. 10
Maybee, 1.6 mi. NW. of, 0.3 mi. N. of SE. cor. sec. 25, T. 5 S., R. 7 E., 12 ft. S. and 3 ft. W. from junction of Hoffman Rd., on top of S. concrete head wall of culvert; chiseled square-----	642. 22
Maybee, 1.1 mi. NW. of, 0.25 mi. E. of NW. cor. sec. 31, T. 5 S., R. 8 E., 15 ft. S. and 18 ft. W. from junction of Ostrander Rd., on SW. wing wall of concrete culvert; chiseled square-----	640. 79
Maybee, 0.9 mi. NW. of, 0.25 mi. SW. of N $\frac{1}{4}$ cor. sec. 31, T. 5 S., R. 8 E., 140 ft. SE. of junction of Ferder Rd., 12 ft. E. of rd., on top of NE. side wall of concrete culvert; chiseled square-----	640. 00
Maybee, 0.6 mi. along county rd. 340 W. of, 20 ft. N. and 85 ft. W. from intersection of county rd. 421, on E. side of fence, in concrete post; standard-tablet stamped "T T 21 L 1935 639" (recovered in 1938)-----	638. 862
Maybee, 0.4 mi. W. of, 16 ft. S. and 20 ft. W. from junction of Baldwin Rd., on top of SW. concrete wing wall of culvert; chiseled square (recovered in 1938)-----	637. 78
Maybee, about 800 ft. SW. of sta., at R. R. crossing, 18 ft. S. and 45 ft. W. from center of westernmost track, on top of S. concrete head wall of culvert; chiseled square-----	635. 84
Maybee, near E. limits of, 25 ft. N. and 6 ft. W. from junction of Blazer Rd., in root on N. side of 24-in. walnut tree; copper nail and washer-----	636. 38
Maybee, 0.7 mi. SE. of, on top of SE. wing wall of concrete bridge; chiseled square-----	634. 64

### SUPPLEMENTAL ELEVATIONS

The table following shows altitudes of well-known features in Michigan, such as summits and water surfaces, as assembled from records and topographic maps of the Geological Survey and other sources.<sup>53</sup>

Most of these altitudes were obtained by barometric and vertical-angle measurements. The figures given are in accord with the latest information, but they are only approximate and should not be used for accurate work.

<sup>53</sup> Survey of northern and northwestern lakes: U. S. Lake Survey Bull. 47, April 1938.

*Supplemental elevations in Michigan*

Location	Quadrangle	County	Elevation (feet)
Ackerson Lake.....	Jackson.....	Jackson.....	959
Aginaw Lakes.....	Corunna.....	Shiawassee.....	842
Angelus Lake.....	Pontiac.....	Oakland.....	950
Appleton Lake.....	Howell.....	Livingston.....	877
Austin Lake.....	Schoolcraft.....	Kalamazoo.....	855
Bald Mtn.....	Rochester.....	Oakland.....	1,193
Barton Lake.....	Schoolcraft.....	Kalamazoo.....	831
Base Line Lake.....	Dexter.....	Livingston-Washtenaw.....	851
Bass Lake.....	Dexter.....	Livingston.....	855
Batteese Lake.....	Rives Junction.....	Jackson.....	918
Beach Lake.....	Milford.....	Livingston.....	949
Beadle Lake.....	Battle Creek.....	Calhoun.....	889
Bear Lake.....	Battle Creek.....	Calhoun.....	889
Bear Lake.....	Houghton.....	Houghton.....	623
Bennett Lake.....	Durand.....	Livingston.....	856
Big Lake.....	Milford.....	Oakland.....	1,017
Black Lake.....	Holland.....	Ottawa.....	582
Boston Pond.....	Houghton.....	Houghton.....	1,067
Brier Hill.....	Iron Mountain.....	Dickinson.....	1,285
Brill Lake.....	Rives Junction.....	Jackson.....	947
Bristol Lake.....	Battle Creek-Galesburg.....	Barry.....	909
Brophy Lake.....	Howell.....	Livingston.....	945
Brown Lake.....	Jackson.....	Jackson.....	946
Bruin Lake.....	Stockbridge.....	Washtenaw.....	882
Buckhorn Lakes.....	Milford.....	Oakland.....	972
Buell Lake.....	Flint.....	Genesee.....	742
Bundy $\Delta$ , Bundy Hill.....	Jackson.....	Hillsdale.....	1,282
Bush Lake.....	Holly.....	Oakland.....	913
Byram Lake.....	Durand.....	Genesee.....	870
Camp Lake.....	Cedar Springs.....	Kent.....	765
Campau Lake.....	Lowell.....	Kent.....	752
Cass Lake.....	Pontiac.....	Oakland.....	931
Cavanaugh Lake.....	Stockbridge.....	Washtenaw.....	974
Cedar Island Lake.....	Pontiac.....	Oakland.....	934
Cedar Lake.....	Howell.....	Livingston.....	934
Cedar Lake.....	Three Rivers.....	St. Joseph.....	875
Center Lake.....	Jackson.....	Jackson.....	938
Cheney Hills.....	Cedar Springs-Grove-Smyrna.....	Kent.....	904
Christie Lake.....	Hartford-Marcellus.....	Van Buren.....	756
Clark Lake.....	Jackson.....	Jackson.....	967
Clear Lake.....	Battle Creek.....	Calhoun.....	858
Clear Lake.....	Niles.....	Berrien.....	727
Clear Lake.....	Twin Lake.....	Newaygo.....	642
Cliff, The.....	Eagle River.....	Keweenaw.....	1,500
Coldwater Lake.....	Mount Pleasant.....	Isabella.....	865
Columbia Lake.....	Saline.....	Washtenaw.....	867
Commerce Lake.....	Milford-Pontiac.....	Oakland.....	908
Coon Lake.....	Howell.....	Livingston.....	936
Copneconic Lake.....	Holly.....	Genesee-Oakland.....	842
Corey Lake.....	Jones-Three Rivers.....	St. Joseph.....	875
Cranberry Lake.....	Jackson.....	Jackson.....	964
Crispell Lake.....	Jackson.....	Jackson.....	1,036
Crooked Lake.....	Galesburg-Hastings.....	Barry.....	924
Crooked Lake.....	Hartford.....	Cass-Van Buren.....	764
Crooked Lake.....	Howell.....	Livingston.....	939
Crooked or Dean Lake.....	Cedar Springs.....	Kent.....	704
Crystal Lake.....	Jackson.....	Hillsdale.....	1,041

*Supplemental elevations in Michigan—Continued*

Location	Quadrangle	County	Elevation (feet)
Dayton Lake	Niles	Berrien	715
Dead Lake	Dexter	Washtenaw	902
Deer Lake	Bangor	Van Buren	654
Deer Lake	Pontiac	Oakland	969
Devils Lake	Hudson-Jackson	Lenawee	1,042
Dewey Lake	Hartford	Cass	764
Duck Lake	Marshall	Calhoun	930
Duck Lake	Milford	Oakland	1,014
Duck Lake	Montague	Muskegon	750
Duck Lake	Twin Lake	Newaygo	641
Duncan Lake	Grand Rapids-Wayland	Barry	771
Dunham Lake	Milford	Livingston-Oakland	1,001
Eagle Lake	Galesburg	Kalamazoo	803
Eagle Lake	Schoolcraft	Kalamazoo	898
East Lake	Leonidas	Kalamazoo	859
Elevenmile Lake	Houghton	Houghton	1,335
Eliza Lake	Holly	Oakland	1,012
Elizabeth Lake	Pontiac	Oakland	933
Emmons Lake	Grand Rapids	Kent	762
Fagan Lake	Holly	Oakland	912
Fair Lake	Galesburg	Barry	917
Farewell Lake	Jackson	Jackson	1,042
Fence Lake	Witbeck	Baraga	1,700
Fine Lake	Galesburg	Barry	918
Fish Lake	Milford	Oakland	1,035
Fish Lake	Three Rivers	Indiana-Michigan State line.	812
Fishers Lake	Three Rivers	St. Joseph	816
Fourmile Lake	Dexter	Washtenaw	885
Fox Lake	Twin Lake	Muskegon	668
Geer Lake	Hartford	Cass-Van Buren	756
Gilkey Lake	Galesburg	Barry	911
Gillett Lake	Rives Junction	Jackson	956
Gilligan Lake	Fennville	Allegan	621
Goguac Lake	Battle Creek	Calhoun	911
Goose Lake	Jackson	Hillsdale	1,085
Goose Lake	Jackson	Lenawee	997
Goose Lake	Rives Junction-Stockbridge	Jackson	984
Goshorn Lake	Fennville	Allegan	616
Gourdneck Lake	Schoolcraft	Kalamazoo	851
Graham Lake	Union City	Calhoun	916
Grand Marais Lakes	Benton Harbor-Niles	Berrien	583
Grass Lake	Cedar Springs	Kent	823
Grass Lake	Milford	Oakland	1,015
Grass Lake	Stockbridge	Jackson	982
Green Lake	Grand Rapids-Wayland	Allegan	789
Greenoak Lake	South Lyon	Livingston	877
Halfmoon Lake	Dexter-Stockbridge	Livingston-Washtenaw	882
Hamburg Lake	Dexter	Livingston	884
Harrison Lake	Schoolcraft	Kalamazoo	885
Harts Lake	Galesburg	Calhoun	882
Hogback Mtn.	Marquette	Marquette	1,237
Holsington Lake	Durand	Livingston	857
Horseshoe Lake	Dexter	Washtenaw	808
Hutchins Lake	Fennville	Allegan	636



*Supplemental elevations in Michigan—Continued*

Location	Quadrangle	County	Elevation (feet)
Inchwagh Lake.....	South Lyon.....	Livingston.....	886
Independence Lake.....	Dexter.....	Washtenaw.....	888
Indian Lake.....	Cassopolis-Hartford.....	Cass.....	752
Indian Lake.....	Durand-Howell.....	Livingston.....	848
Iron Hill.....	Norway.....	Dickinson.....	1,170
Island Lake.....	Dexter.....	Livingston.....	853
Island Lake.....	Pontiac.....	Oakland.....	913
Jordan Lake.....	Ionia.....	Barry-Ionia.....	812
Joslin Lake.....	Stockbridge.....	Washtenaw.....	899
Judah Lake.....	Pontiac.....	Oakland.....	990
Keeler Lake.....	Hartford.....	Van Buren.....	778
Kellogg Lake.....	Milford.....	Oakland.....	1,017
Kelly Lake.....	Fennville.....	Allegan.....	601
Kent Lake.....	Milford.....	Oakland.....	871
Kings Ponds.....	Fletcher.....	Kalkaska.....	1,152-
			1,153
Knickerbocker Lake.....	Hartford.....	Van Buren.....	770
Krafts Lake.....	Grand Rapids.....	Kent.....	754
Lake Annie.....	Houghton.....	Houghton.....	967
Lake Chemung.....	Howell.....	Livingston.....	960
Lake Eleven.....	Bangor.....	Van Buren.....	670
Lake Erie.....			<sup>54</sup> 571.87
Lake Fourteen.....	Bangor.....	Van Buren.....	671
Lake Huron.....			<sup>54</sup> 579.82
Lake Michigan.....			<sup>54</sup> 579.76
Lake of the Woods.....	Hartford-Marcellus.....	Van Buren.....	750
Lake St. Clair.....			<sup>54</sup> 574.67
Lake Superior.....			<sup>54</sup> 602.11
Lamoreaux Lake.....	Fowlerville.....	Livingston.....	930
Lansing Lake.....	Laingsburg-Mason.....	Ingham.....	852
Lester Lake.....	Bangor.....	Allegan.....	662
Little Bear Lake.....	Bangor.....	Van Buren.....	661
Little Pawpaw Lake.....	Benton Harbor.....	Berrien.....	625
Little Portage Lake.....	Stockbridge.....	Jackson.....	914
Lobdell Lake.....	Durand.....	Genesee-Livingston.....	856
Long Lake.....	Battle Creek.....	Barry.....	911
Long Lake.....	Cedar Springs.....	Kent.....	770
Long Lake.....	Galesburg.....	Kalamazoo.....	832
Long Lake.....	Holly.....	Oakland.....	932
Long Lake.....	Milford.....	Livingston.....	952
Long Lake.....	Milford.....	Oakland.....	1,015
Long Lake.....	Three Rivers.....	St. Joseph.....	888
Loon Lake.....	Durand-Holly.....	Genesee.....	870
Loon Lake.....	Pontiac.....	Oakland.....	949
Lotus Lake.....	Pontiac.....	Oakland.....	968
Louis Lake.....	Durand-Howell.....	Livingston.....	858
Lowe Lake.....	Fowlerville-Stockbridge.....	Ingham.....	936
Lower Jephtha Lake.....	Bangor.....	Van Buren.....	674
Lower Long Lake.....	Pontiac.....	Oakland.....	912
Lower Pettibone Lake.....	Milford.....	Oakland.....	955
Lower Scott Lake.....	Bangor.....	Allegan.....	653
Lower Straits Lake.....	Pontiac.....	Oakland.....	930

<sup>54</sup> Survey of northern and northwestern lakes: U. S. Lake Survey Bull. 47, April 1938. These elevations are referred to mean tide at New York and expressed in terms of the adjusted levels of 1935. The figures given represent the mean stages of water for the period 1900-1937.

*Supplemental elevations in Michigan—Continued*

Location	Quadrangle	County	Elevation (feet)
McCaslin Lake.....	Durand.....	Genesee.....	842
Mace Day Lake.....	Pontiac.....	Oakland.....	968
Madison Lake.....	Alma.....	Gratiot.....	774
Magician Lake.....	Hartford.....	Cass.....	764
Michigamme Lake.....	Witbeck.....	Marquette.....	1,554
Middle Straits Lake.....	Pontiac.....	Oakland.....	932
Mill Lake.....	Galesburg.....	Barry.....	914
Millpond.....	Mount Pleasant.....	Isabella.....	885
Morrison Lake.....	Ionia.....	Ionia.....	806
Mount Mesnard.....	Marquette.....	Marquette.....	1,123
Mud Lake.....	Battle Creek.....	Calhoun-Eaton.....	838
Mud Lake.....	Durand-Holly.....	Genesee.....	869
Muskegon Lake.....	Lake Harbor.....	Muskegon.....	581
Narrow Lake.....	Marshall.....	Eaton.....	918
North Lake.....	Bangor.....	Van Buren.....	682
Orchard Lake.....	Pontiac.....	Oakland.....	932
Ore Lake.....	Dexter.....	Livingston.....	856
Osterhout Lake.....	Bangor.....	Allegan.....	654
Oxbow Lake.....	Pontiac.....	Oakland.....	942
Pardee Lake.....	Howell.....	Livingston.....	937
Park Lake.....	Laingsburg.....	Clinton.....	845
Patterson Lake.....	Stockbridge.....	Livingston.....	882
Pawpaw Lake.....	Benton Harbor-Hartford.....	Berrien.....	623
Perch Lake.....	Fennville.....	Allegan.....	626
Perch Lake.....	Perch Lake.....	Iron.....	1,435
Pickere Lake.....	Cedar Springs.....	Kent.....	719
Pickere Lake.....	Leonidas.....	Kalamazoo.....	855
Pickere Lake.....	Marquette.....	Marquette.....	618
Pine Island Lake.....	Cedar Springs.....	Kent.....	746
Pine Lake.....	Durand.....	Genesee.....	884
Pine Lake.....	Kalamazoo-Wayland.....	Barry.....	894
Pine Lake.....	Marshall.....	Eaton.....	893
Pine Lake.....	Pontiac.....	Oakland.....	932
Pipestone Lake.....	Hartford.....	Berrien.....	709
Pleasant Lake.....	Galesburg.....	Barry.....	928
Pleasant Lake.....	Howell.....	Livingston.....	947
Pleasant Lake.....	Saline.....	Washtenaw.....	953
Pleasant Lake.....	Three Rivers.....	St. Joseph.....	851
Pond Lake.....	Pontiac.....	Oakland.....	957
Porcupine Mtns. (highest point thus far determined):	Little Iron River.....	Ontonagon.....	2,023
Portage Lake.....	Dexter.....	Livingston-Washtenaw.....	851
Portage Lake.....	Galesburg.....	Kalamazoo.....	930
Portage Lake.....	Houghton-Lake Linden.....	Houghton.....	602
Portage Lake.....	Leonidas-Schoolcraft.....	St. Joseph.....	827
Portage Lake.....	Rives Junction-Stock-bridge.....	Jackson.....	913
Pratt Lake.....	Lowell.....	Kent.....	817
Pretty Lake.....	Schoolcraft.....	Kalamazoo.....	901
Prospect Hill.....	Jackson.....	Jackson.....	1,168
Prospect Hill.....	Jackson.....	Lenawee.....	1,228
Prospect Hill.....	Stockbridge.....	Jackson.....	1,164
Prospect Hill.....	Stockbridge.....	Washtenaw.....	1,053
Rappalee Lake.....	Holly.....	Oakland.....	924
Reynolds Lake.....	Hartford-Marcellus.....	Van Buren.....	756

*Supplemental elevations in Michigan—Continued*

Location	Quadrangle	County	Elevation (feet)
Riley Hill	Stockbridge	Washtenaw	1,050
Round Lake	Fennville	Allegan	650
Round Lake	Hartford	Van Buren	764
Round Lake	Jackson	Jackson	1,042
Runyan Lake	Durand-Holly	Livingston	893
Rush Lake	Dexter	Livingston	870
Rush Lake	Hartford	Van Buren	645
Ryan Lake	Durand	Livingston	851
St. Mary's Lake	Battle Creek	Calhoun	874
Sanford Lake	Sanford	Midland	631
Scott Lakes	Bangor-Gobleville	Van Buren	680
Shafer Lake	Hartford	Van Buren	739
Shaw Lake	Durand	Shiawassee	826
Sherman Lake	Galesburg	Kalamazoo	852
Silver Lake	Bangor	Van Buren	675
Silver Lake	Dexter	Livingston-Washtenaw	873
Silver Lake	Durand-Holly	Genesee	870
Silver Lake	Jackson	Lenawee	1,009
Silver Lake	Kalamazoo	Barry	882
Slack Lake	Holly	Genesee-Oakland	925
South Lake	Stockbridge	Washtenaw	904
Spring Lake	Muskegon	Ottawa	581
Spruce Lake	Witbeck	Baraga	1,708
Stofer Hill	Stockbridge	Washtenaw	1,100
Stony Lake	Galesburg	Kalamazoo	852
Stony Lake	Jackson	Jackson	964
Strawberry Lake	Dexter	Livingston	853
Sugarloaf Hill	Stockbridge	Washtenaw	1,108
Sugarloaf Lake	Schoolcraft	Kalamazoo	857
Sugarloaf Lake	Stockbridge	Washtenaw	951
Sugarloaf Mtn	Marquette	Marquette	1,079
Sullivan Lake	Holly	Livingston	975
Sylvan Lake	Pontiac	Oakland	930
Tamarack Lake	Three Rivers	St. Joseph	808
Taylor Lake	Holly	Oakland	996
Teaspoon Hill	Rives Junction	Ingham	1,103
Teeple Hill	Milford	Oakland	1,120
Thompson Lake	Howell	Livingston	905
Thread Lake	Flint-Holly	Genesee	747
Thunder Mtn	South Haven	Van Buren	821
Tupper Lake	Ionia	Ionia	812
Twin Lake	Kalamazoo	Kalamazoo	847
Twin Lake	Twin Lake	Newaygo	681
Twin Lakes	Hartford	Cass	770-781
Union Lake	Pontiac	Oakland	928
Upper Jephtha Lake	Bangor	Van Buren	674
Upper Long Lake	Pontiac	Oakland	914
Upper Millpond	Battle Creek	Calhoun	834
Upper Pettibone Lake	Milford	Oakland	998
Upper Scott Lake	Bangor	Allegan	659
Upper Straits Lake	Pontiac	Oakland	933
Van Auken Lake	Bangor-Hartford	Van Buren	650
Van Riper Hill	Durand	Genesee	934
Vandercook Lake	Jackson	Jackson	947
Voorheis Lake	Pontiac	Oakland	983
Wabascon Lake	Battle Creek	Calhoun	877
Walker Lake	Dexter-Howell	Livingston	893

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Walnut Lake.....	Pontiac.....	Oakland.....	881
Warner Lake.....	Kalamazoo.....	Barry.....	889
Watkins Lake.....	Pontiac.....	Oakland.....	951
West Lake.....	Schoolcraft.....	Kalamazoo.....	855
West Lake.....	Stockbridge.....	Washtenaw.....	935
Wheal KateΔ.....	Houghton.....	Houghton.....	1,500
White Lake.....	Milford.....	Oakland.....	1,016
Whitmore Lake.....	Dexter-South Lyon.....	Livingston-Washtenaw.....	894
Winans Lake.....	Dexter.....	Livingston.....	858
Wolf Lake.....	Jackson-Manchester.....	Jackson.....	939
Wolf Lake.....	Twin Lake.....	Newaygo.....	643
Woodruff Lake.....	Milford.....	Oakland.....	1,015
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