DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. DMEA 2997

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

Exploration Assistance

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

One copy to USGS., to USBM. and to Region VII.

Routing Slip

To:	Code 700-Rm.4640	Date	4/27/53
To:	Gen Corr	Date	5-11-53
To:		Date	
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CONTROLLED DOCUMENT

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

Mr. J. L. Northcott, Manager
Grove Stone & Sand Company
Swannanoa, North Carolina

MAY 1 2 1953

Re: Docket No. DMA-2997
(Columbite, rutile, monazite)
Buncombe County, North Carolina

Dear Mr. Northcott:

Your application for aid in an exploration project, docketed as per the above captioned number, has been thoroughly reviewed by this Agency.

It is noted in your application you state "The heavy minerals and rare earth ores are dispensed through the deposit." This would indicate that the minerals are known to exist throughout the deposit and that you are seeking Government aid for the installation of a processing plant. Such an installation is not within the province of this Agency's activities. We believe the Defense Materials Procurement Agency, whose address is 14th and F Streets, N. W., Washington 25, D. C., might be interested in considering an application for Government aid for the production of columbite and possibly monazite. If our understanding is correct that you have full knowledge of what the sands contain and you propose to install a concentration plant, then it is suggested you contact the Defense Materials Procurement Agency. On the other hand, if only some of the gravel is known to contain strategic minerals, we could, upon the proper presentation of a definite proposal, consider an application to explore the gravels by churn drilling. However, as stated before, we could not furnish financial aid with which to install a processing plant.

Accordingly, we regret that under these circumstances your application in its present form does not fall within our authority and therefore must be denied.

We are enclosing information on the exploration program. After reading this material, should you desire to file an exploration application on ground not presently known to contain appreciable amounts of columbite, rutile and monazite but which, by digging a few pits, indicates the presence of said minerals, we will be glad to consider such an application. If such is filed, kindly send a 10-pound sample of the sand

taken from the pits and a 2-pound sample of heavy concentrate also taken from the pits.

Should you desire additional information through this office, please feel free to call upon us.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

Enclosures 2

cc to: Adm. Reading File
Operating Committee
Docket ✓
Messrs. D. F. Larrabee, Rm. G-232 GSA
W. F. Kline, Rm. 3641-B
Mr. Ellis
AEC Field Team, Region VII

J. C. 5/12/53

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

May 7, 1953

Memorandum

SUMMARY OF PROPOSED PROJECT

Docket No. DMEA-2997
Applicant: Grove Stone & Sand Company
Swannanoa, North Carolina

Subject: Denial of application

Commodity: Columbite, rutile, monzite (kyanite, ilmenite, zircon, garnet)
Location of property: Buncombe County, N. C. Region VII
Amount of application: Approx. $41,520
Date of application: May 23, 1953

Outline of project: Installation of plant for production of minerals shown above.

Field Team Report: None deemed necessary

Recommendations: Denial in its present form.

Commodity Members' comments:

Bureau of Mines: M. H. Kline - comments dated 4/29/53

Discussed with Mr. Kline and he agrees with letter as written.

Geological Survey: D. M. Larrabee - comments dated 4/28/53

Discussed with Mr. Larrabee and he also approves of our decision.

Rare & Misc. Metals Division Engineer: Ernest Wm. Ellis

Comments: None. Denial letter written.

Ernest Wm. Ellis

Ernest Wm. Ellis

4/30/53 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 30 1953

April 29, 1953

Memorandum

To: Ernest Wm. Ellis, Chief, Rare and Miscellaneous Metals Division, DMEA, Room 4640

From: M. H. Kline, Chief, Rare and Precious Metals Branch

Subject: Docket No. DMEA 2997, Grove Stone and Sand Co., Swannoa, North Carolina

Re: Columbite, rutile, monazite, zircon

The subject docket has been reviewed by E. J. Carlson and R. F. Griffith of this branch. Although the application does not contain enough data on which to base a final opinion, the following comments are submitted for your consideration.

The establishment and successful operation of a heavy-mineral buying and separation plant in the southeast could be an important contribution in the domestic production of short-supply minerals, particularly monazite. However, it is believed that a separation plant in the vicinity of Shelby, N. C., would be more centrally-located with respect to heavy-mineral stream placer deposits.

The Bureau of Mines has been conducting an investigation of monazite deposits for the AEC during the past two years. This program has included beneficiation studies at Tuscaloosa, Alabama, and Raleigh, North Carolina. It would be advantageous for personnel of the subject company to discuss recent developments with B. H. Clemmons, U. S. Bureau of Mines, Box L, University, Alabama.

The application asks for $3,460. per month to investigate the recovery of byproduct heavy minerals from a currently-operating sand and gravel plant. No estimate has been made as to the duration of these studies, nor of the total amount of money needed to complete such tests.

This plant was sampled recently by the Bureau. The results, which will soon be available, can be used to calculate the potential

production from the applicant's property. The columbium analyses attached to the application are meaningless, since no data are given relative to the weight or volume represented by the sample, nor any information as to the type and character of the material sampled.

However, in view of the potential production of strategic heavy minerals from southeastern placer deposits, this office believes that legitimate operations should be encouraged to investigate the recovery of byproduct heavy minerals, such as that outlined in the general plan of this application. Further, such operators should acquaint themselves with previous heavy mineral studies conducted by the Bureau of Mines.

M. H. Kline

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

Defense Minerals Administration
RECEIVED
APR 30 1953

April 29, 1953

Memorandum

To: Ernest Wm. Ellis, Chief, Rare and Miscellaneous Metals Division, DMEA, Room 1640

From: M. H. Klinc, [illegible], Rare and Precious Metals Branch

Subject: Docket No. [illegible]27, Grove Stone and Sand Co., Swannoa, North Carolina

Re: Columbite, rutile, monazite, zircon

The [illegible] docket has been reviewed by E. J. Carlson and R. F. Griffit[illegible] [illegible]s branch. Although the application does not contain enough data [illegible]ch to base a final [illegible]ion, the following comments are submitted for your consideration.

The establishment and successf[illegible] [illegible] of heavy-mineral buying and separation plant in the [illegible]est could be an important [illegible]ribution in the domestic production of short-supply minera[illegible] particularly monazite. However, it is believed that a separation plant in the vicinity of Shelby, N. C., would be more [illegible]rally-located with respect to heavy-mineral stream placer deposits.

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The application asks for $3,460. per month to investigate the recovery of byproduct heavy minerals from a currently-operating sand and gravel plant. No estimate has been made as to the duration of these studies, nor of the total amount of money needed to complete such tests.

This plant was sampled recently by the Bureau. The results, which will soon be available, can be used to calculate the potential

production from the applicant's property. The columbium analyses attached to the application are meaningless, since no data are given relative to the weight or volume represented by the sample, nor any information as to the type and character of the material sampled.

However, in view of the potential production of strategic heavy minerals from southeastern placer deposits, this office believes that legitimate operations should be encouraged to investigate the recovery of byproduct heavy minerals, such as that outlined in the general plan of this application. Further, such operators should acquaint themselves with previous heavy mineral studies conducted by the Bureau of Mines.

M. H. Kline

4/30/53 gla

IN REPLY REFER TO:
G-MD-CNM

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

April 28, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 29 1953

Memorandum

REVIEW OF APPLICATION DMEA-2997 (columbite and monazite).

E. W. Ellis

To: ~~L. G. Houk~~, Defense Minerals Exploration Administration.
From: D. M. Larrabee, U. S. Geological Survey.
Applicant's name and address: Grove Stone and Sand Co., Swannanoa, North Carolina.
Name of property: Grovestone sand and gravel deposit.
Location of property: On North fork of Swannanoa River, Black Mountain Township, Buncombe County, North Carolina.
Summary of applicant's proposal:
To test and explore feasibility of recovering heavy minerals.

Sources of information on applicant's property:
None.

Comments:

(1) No plan for testing the deposit.
(2) No details of proposed methods of separation.
(3) Applicant states capacity 400 T. sand daily, yielding 8 % heavy minerals. This seems high for an average content.
(4) Request applicant furnish a 2-lb sample of pit-run sand (gravel excluded) as nearly representative as possible, with description of how sample was taken and what it represents.
(5) Request applicant furnish a 2-lb sample of heavy concentrates.

RECOMMENDATION:

Applicant should cover the above 5 points. The Survey will run these two samples.

D. M. Larrabee

D. M. Larrabee

IN REPLY REFER TO: G-PD-LM

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

April 28, 1953

Defense Minerals Administration
RECEIVED
APR 28 1953

Memorandum

REVIEW OF APPLICATION DMEA-2997 (columbite and monazite).

To: ~~L. C. Houk,~~ E. W. Ellis Defense Minerals Exploration Administration.
From: D. M. Larrabee, U. S. Geological Survey.
Applicant's name and address: Grove Stone and Sand Co., Swannanoa, North Carolina.
Name of property: Grovestone sand and gravel deposit.
Location of property: On North fork of Swannanoa River, Black Mountain Township, Buncombe County, North Carolina.
Summary of applicant's proposal:
To test and explore feasibility of recovering heavy minerals.

Sources of information on applicant's property:
None.

Comments:

(1) No plan for testing the deposit.
(2) No details of proposed methods of separation.
(3) Applicant states capacity 400 T. sand daily, yielding 8 % heavy minerals. This seems high for an average content.
(4) Request applicant furnish a 2-lb sample of pit-run sand (gravel excluded) as nearly representative as possible, with description of how sample was taken and what it represents.
(5) Request applicant furnish a 2-lb sample of heavy concentrates.

RECOMMENDATION:
Applicant should cover the above 5 points. The Survey will run these two samples.

Copy to DMEA(3)

D. M. Larrabee

IN REPLY REFER TO:
G-D-NM

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

April 28, 1953

Memorandum

REVIEW OF APPLICATION DMEA-2997 (columbite and monazite).

To: L. G. Houk, Defense Minerals Exploration Administration.
From: D. M. Larrabee, U. S. Geological Survey.
Applicant's name and address: Grove Stone and Sand Co., Swannanoa, North Carolina.
Name of property: Grovestone sand and gravel deposit.
Location of property: On North fork of Swannanoa River, Black Mountain Township, Buncombe County, North Carolina.
Summary of applicant's proposal:
To test and explore feasibility of recovering heavy minerals.

Sources of information on applicant's property:
None.

Comments:
(1) No plan for testing the deposit.
(2) No details of proposed methods of separation.
(3) Applicant states capacity 400 T. sand daily, yielding 8 % heavy minerals. This seems high for an average content.
(4) Request applicant furnish a 5-lb sample of pit-run sand (gravel excluded) as nearly representative as possible, with description of how sample was taken and what it represents.
(5) Request applicant furnish a 2-lb sample of heavy concentrates.

RECOMMENDATION:
Applicant should cover the above 5 points. The Survey will run these two samples.

Copy to DMEA(3)

D. M. Larrabee

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R103512.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 23 1953

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMCA-2997
Metal or Mineral
Date Received 4-23-53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Grove Stone & Sand Company, Swannanoa, North Carolina - North Carolina Corporation. Mrs. B. V. Hedrick, 204 Confederate Avenue, Salisbury, N. C. - President. Mr. Charles E. Brady, Vice-President, Salisbury, N. C. Mr. J. G. Northcott, Secretary, Black Mountain, N. C. Mr. E. A. Goodman, Jr., Treasurer, Salisbury, N. C.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Approximately 300 of Alluvial deposit lying along the North Fork of Swannanoa River, Black Mountain Township, Buncombe County, North Carolina.

(*b*) State any mine name by which the property is known. Grovestone

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Approximately owner 300 Acres - Lessee 150 Acres until 1974.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Will be furnished if it is decided to explore that property.

(*e*) If you own the land, describe any liens or encumbrances on it None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(a) State the mineral or minerals for which you [illegible] to explore _____

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 10 days and be completed within 12 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

☐ Money ☒ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated April 22, 1953

Grove Stone and Sand Company
(Applicant)

By J. L. Northlatt

Title: Manager and Secretary

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

GROVE STONE & SAND COMPANY
SWANNANOA, NORTH CAROLINA

Question 4.

(a) Surface mining sand and gravel from 1924 to date. Production facilities consist of a complete sand and gravel plant in operation. Also conducting experiment on heavy minerals with Sutton, Steele & Steele Air Table, one Carpco Electro-static Separator and one Carpco Electro-magnetic Separator. Operation owned by Grove Stone and Sand Company. Mine workings are easily accessible for examination purposes.

(b) Sand and gravel production 500,000 tons per year. 1 Shift. Approximately 100,000 tons being sand. Sand runs 8% heavy minerals. Reserve over 7,000,000 tons sand and gravel.

(c) Deposit placed by flood stage, varies 6' to 25 feet in depth. The heavy minerals and rare earth ores are dispensed through the deposit. Exhibit 2 and 3. The reason we wish to explore is to recover the rare earth ores.

(d) Deposit is located on US 70. Railroad siding connecting with Southern Railway. Housing available within 15 mile radius.

(e) All presently available and in use.

Question 5.

(a) Columbite, Rutile, Monozite, Kyanite, Ilmenite, Zircon and Garnet.

(b) The proposed work is to test and explore the feasibility of recovering the heavy minerals from the present production of sand of approximately 400 tons per day.

(d) This company has been mining sand and gravel since 1924 and is the largest producer in Western North Carolina. The person who will supervise this work is Robert T. Wall, Geologist.

Question 6.

(a) None

(b) Robert T. Wall, Geologist	$500.00	Per	Month
Walter Burgess, Asst. Geologist	400.00	"	"
2 Laborers	500.00	"	"
1 Loading Machine Operator	300.00	"	"
Supervisor	300.00	"	"
(c) Power, Water and Fuel	50.00	"	"
Filters, Containers, Etc.	20.00	"	"

Question 6.

	Per Month
(d) 1 Model HM Hough Payloader - Owned ($9,653.61)	$500.00
1 Carpco Electro-Magnetic Separator (Purchase invoice 1 " Electro-Static Separator (attached)	200.00
1 Portable Belt Conveyor - Rented	100.00
1 Sutton, Steele Air Table - Rented	300.00
(e) Rehabilitation of Building completed at a cost of $1,000.00	100.00
(f) To be determined by DMEA.	
(g) Employment Security 3.00 Workmans Compensation 2.351 Social Security 1.50 Comprehensive General .455 per $100.00	140.00
(h) Laboratory Test	50.00
	$3,460.00

Question 7.

(a) Yes.

(b) Use of equipment owned by us listed under 6 (d), and necessary excavating and hauling equipment and one building already rehabilated.

copy 4/17/53 rc

[redacted]INERAL CONCENTRATES, INC. - GR[redacted]STONE

ESTIMATED PROFIT & LOSS STATEMENT

250 Working Day Year - 400 Tons a Day Input

ESTIMATED SALES*: (1 Shift)	Tons Per Day	Value Per Day	
Garnet @ $20 per ton	22.4	$ 448.00	
Ilmenite @ $15 per ton	1.8	27.00	
Rutile & Zircon @ $40 per ton	4.7	188.00	
Columbite @ $2.20 per lb.	30 (lbs)	66.00	
Silica Sand @ $1.00 per ton	4.9	5.00	
	33.8	734.00	$184,500.00
SERVICE WORK:			
Assume minimum of 80 tons of concentrate per day. Same return prices per day but much of this concentrate will contain 2 - 4% monazite selling at about $400 per ton. Service charge will be $4 a ton plus 5% of sales price. Using Golden Valley ratios, yield would be:			
Garnet @ $20 per ton	13.3	266.00	
Ilmenite, Rutile, Zircon, Kyanite, Sillimanite, Mica @ $30 per ton	28.0	840.00	
Monazite @ $400 per ton	2.7	1,080.00	
Silica Sand Fines @ $1.00 per ton	36.0	36.00	
	80.0	$2,222.00	
$4 per ton + 5% of selling price =	$320.00	$ 111.00	107,750.00
GROSS SALES			$292,250.00
LESS COST OF SALES:			
Sand @ $ .75 a ton x 8,450 Tons		$6,338.00	
Labor and Wages:			
1 shift-includ. Humphreys Concentrators	$27,000.00		
2 shifts-Separating plant only	47,000.00	74,000.00	
Power - 3 shifts		7,500.00	
Depreciation		17,500.00	
Repairs and Maintenance		17,500.00	
Service cost on equipment, 6% on est. installed cost $175,000		10,500.00	133,338.00
GROSS PROFIT			$158,912.00
LESS SELLING COSTS: Commission, 10% on all except Columbite sales. No commission on service work as this paid by supplier of the heavy minerals.			16,700.00
NET PROFIT before administration costs, taxes**, and royalty on pulverizer (to be determined)			$142,212.00

* No value shown for sale of mica recovery from sand. If recovery is successful new type micronizer could produce to $155/ton mica flour.

** Can probably get U.S. Government permission to write off plant in 5 years.

copy 4/17/53 r

INVOICE

CARPCO ENGINEERING AND MANUFACTURING

P. O. Box 3272

JACKSONVILLE 6, FLORIDA

INVOICE NO. 2289

DATE February 27, 1953

YOUR P.O. NO. 1146

TERMS 30-1-10

SHIP VIA SOUTHERN RR

TO: GROVE STONE & SAND COMPANY
SWANNANOA, NORTH CAROLINA

SHIP TO: SAME

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	Carpco High Tension Separator Model HS-118 Serial #111	$1,600.00	
1	Carpco Industrial High Voltage Rectifier Model RI, Serial #RI-152	1,075.00	
1	Carpco High Intensity Induced Roll Magnetic Separator Model M1-118, Serial #116	2,750.00	
1	Carpco Model M12R Electronic Rectifier incorporated in M1-118	133.00	
	Price differential for Reeves Variable Speed Drive, 1 h.p. for M1-118	103.00	
		$5,661.00	
	Less Customer Deposit	1,887.00	
			$3,774.00

copy 4/17/53

October 6, 1952

Carpco Engineering Corporation
Post Office Box 3272
Jacksonville, Florida

SUBJECT: Assay of Minerals Submitted September 6, 1952.

ANALYSIS:

Sample #	Columbium
302-17	0.016%
302-15	0.82%

ROWLAND CHEMICAL LABORATORIES

O. Lee Gordon
Technical Director

OLG/mc

April 27, 1953

Mr. J. G. Northcott, Secretary
Grove Stone & Sand Company
Swannanoa, North Carolina

Subject: Exploration Assistance
Re: DMEA 2997

My dear Mr. Northcott:

The receipt of your application dated April 22, 1953 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 2997 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA 2997 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS
Robert E. Adams
Chief, Operations Control
and Statistics Division

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved. Budget Bureau No. 42-R1085.2.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 23 1953

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-2997
Metal or Mineral
Date Received 4-23-53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Grove Stone & Sand Company, Swannanoa, North Carolina - North Carolina Corporation. Mrs. B. V. Hedrick, 204 Confederate Avenue, Salisbury, N. C. - President. Mr. Charles E. Brady, Vice-President, Salisbury, N. C. Mr. J. G. Northcott, Secretary, Black Mountain, N. C. Mr. E. A. Goodman, Jr., Treasurer, Salisbury, N. C.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Approximately 300 of Alluvial deposit lying along the North Fork of Swannanoa River, Black Mountain Township, Buncombe County, North Carolina.

(*b*) State any mine name by which the property is known. Grovestone

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Approximately owner 300 Acres - Lessee 150 Acres until 1974.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Will be furnished if it is decided to explore that property.

(*e*) If you own the land, describe any liens or encumbrances on it None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore .....

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 10 days and be completed within 12 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

☐ Money ☒ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated April 22, 1953

Grove Stone and Sand Company
(Applicant)

By J. G. Northcott

Title: Manager and Secretary

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

Mrs. B.V. HEDRICK
PRESIDENT

CHARLES E. BRADY
VICE PRESIDENT

E.A. GOODMAN JR.
TREASURER

J. G. NORTHCOTT
MANAGER & SECRETARY

GROVE STONE & SAND COMPANY

CRUSHED STONE · WASHED SAND

PLANT AND
SHIPPING POINT
GROVESTONE, N.C.

P. O. BOX 499
SWANNANOA, N.C.

TELEPHONES
BLACK MOUNTAIN 3711-2731
NIGHT 3841

Question 4.

(a) Surface mining sand and gravel from 1924 to date. Production facilities consist of a complete sand and gravel plant in operation. Also conducting experiment on heavy minerals with Sutton, Steele & Steele Air Table, one Carpco Electro-static Separator and one Carpco Electro-magnetic Separator. Operation owned by Grove Stone and Sand Company. Mine workings are easily accessible for examination purposes.

(b) Sand and gravel production 500,000 tons per year. 1 Shift. Approximately 100,000 tons being sand. Sand runs 8% heavy minerals. Reserve over 7,000,000 tons sand and gravel.

(c) Deposit placed by flood stage, varies 6' to 25 feet in depth. The heavy minerals and rare earth ores are dispensed through the deposit. Exhibit 2 and 3. The reason we wish to explore is to recover the rare earth ores.

(d) Deposit is located on US 70. Railroad siding connecting with Southern Railway. Housing available within 15 mile radius.

(c) All presently available and in use.

Question 5.

(a) Columbite, Rutile, Monazite, Kyanite, Ilmenite, Zircon and Garnet.

(b) The proposed work is to test and explore the feasibility of recovering the heavy minerals from the present production of sand of approximately 400 tons per day.

(d) This company has been mining sand and gravel since 1924 and is the largest producer in Western North Carolina. The person who will supervise this work is Robert T. Wall, Geologist.

Question 6.

(a) None

(b) Robert T. Wall, Geologist	$500.00	Per	Month
Walter Burgess, Asst. Geologist	400.00	"	"
2 Laborers	500.00	"	"
1 Loading Machine Operator	300.00	"	"
Supervisor	300.00	"	"
(c) Power, Water and Fuel	50.00	"	"
Filters, Containers, Etc.	20.00	"	"

Mrs. B.V. HEDRICK
PRESIDENT

CHARLES E. BRADY
VICE PRESIDENT

E.A. GO[illegible]AN JR.
TREASURER

J. G. NORTHCOTT
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	Per Month
Question 6.	
(d) 1 Model HM Hough Payloader - Owned ($9,653.61)	$500.00
1 Carpco Electro-Magnetic Separator (Purchase invoice 1 " Electro-Static Separator (attached)	200.00
1 Portable Belt Conveyor - Rented	100.00
1 Sutton, Steele Air Table - Rented	300.00
(e) Rehabilitation of Building completed at a cost of $1,000.00	100.00
(f) To be determined by DMEA.	
(g) Employment Security 3.00 Workmans Compensation 2.351 Social Security 1.50 Comprehensive General .455 per $100.00	140.00
(h) Laboratory Test	50.00
	$3,460.00 X 12 =
	$41,520

Question 7.

(a) Yes.

(b) Use of equipment owned by us listed under 6 (d), and necessary excavating and hauling equipment and one building already rehabilated.

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MINERAL CONCENTRATES, INC. - COVESTONE

ESTIMATED PROFIT & LOSS STATEMENT

250 Working Day Year - 400 Tons a Day Input

ESTIMATED SALES*: (1 Shift)	Tons Per Day	Value Per Day	
Garnet @ $20 per ton	22.4	$ 448.00	
Ilmenite @ $15 per ton	1.8	27.00	
Rutile & Zircon @ $40 per ton	4.7	188.00	
Columbite @ $2.20 per lb.	30 (lbs)	66.00	
Silica Sand @ $1.00 per ton	4.9	5.00	
	33.8	734.00	$184,500.00
SERVICE WORK:			
Assume minimum of 80 tons of concentrate per day. Same return prices per day but much of this concentrate will contain 2 - 4% monazite selling at about $400 per ton. Service charge will be $4 a ton plus 5% of sales price. Using Golden Valley ratios, yield would be:			
Garnet @ $20 per ton	13.3	266.00	
Ilmenite, Rutile, Zircon, Kyanite, Sillimanite, Mica @ $30 per ton	28.0	840.00	
Monazite @ $400 per ton	2.7	1,080.00	
Silica Sand Fines @ $1.00 per ton	36.0	36.00	
	80.0	$2,222.00	
$4 per ton + 5% of selling price =	$320.00	$ 111.00	107,750.00
GROSS SALES			$292,250.00
LESS COST OF SALES:			
Sand @ $ .75 a ton x 8,450 Tons		$6,338.00	
Labor and Wages:			
1 shift-includ. Humphreys Concentrators	$27,000.00		
2 shifts-Separating plant only	47,000.00	74,000.00	
Power - 3 shifts		7,500.00	
Depreciation		17,500.00	
Repairs and Maintenance		17,500.00	
Service cost on equipment, 6% on est. installed cost $175,000		10,500.00	133,338.00
GROSS PROFIT			$158,912.00
LESS SELLING COSTS:			
Commission, 10% on all except Columbite sales. No commission on service work as this paid by supplier of the heavy minerals.			16,700.00
NET PROFIT before administration costs, taxes**, and royalty on pulverizer (to be determined)			$142,212.00

* No value shown for sale of mica recovery from sand. If recovery is successful new type micronizer could produce to $155/ton mica flour.

** Can probably get U.S. Government permission to write off plant in 5 years.

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INVOICE

CARPCO ENGINEERING AND MANUFACTURING

P. O. Box 3272

JACKSONVILLE 6, FLORIDA

INVOICE NO. 2289

DATE February 27, 1953

YOUR P.O. NO. 1146

TERMS 30-1-10

SHIP VIA SOUTHERN RR

TO: GROVE STONE & SAND COMPANY
SWANNANOA, NORTH CAROLINA

SHIP TO: SAME

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	Carpco High Tension Separator Model HS-118 Serial #111	$1,600.00	
1	Carpco Industrial High Voltage Rectifier Model RI, Serial #RI-152	1,075.00	
1	Carpco High Intensity Induced Roll Magnetic Separator Model M1-118, Serial #116	2,750.00	
1	Carpco Model M12R Electronic Rectifier incorporated in M1-118	133.00	
	Price differential for Reeves Variable Speed Drive, 1 h.p. for M1-118	103.00	
		$5,661.00	
	Less Customer Deposit	1,887.00	
			$3,774.00

copy 4/17/53

October 6, 1952

Carpco Engineering Corporation
Post Office Box 3272
Jacksonville, Florida

SUBJECT: Assay of Minerals Submitted September 6, 1952.

ANALYSIS:

Sample #	Columbium
302-17	0.016%
302-15	0.82%

ROWLAND CHEMICAL LABORATORIES

O. Lee Gordon
Technical Director

OLG/mc

Mrs. B.V. HEDRICK
PRESIDENT

CHARLES E. BRADY
VICE PRESIDENT

E.A. GORMAN JR.
TREASURER

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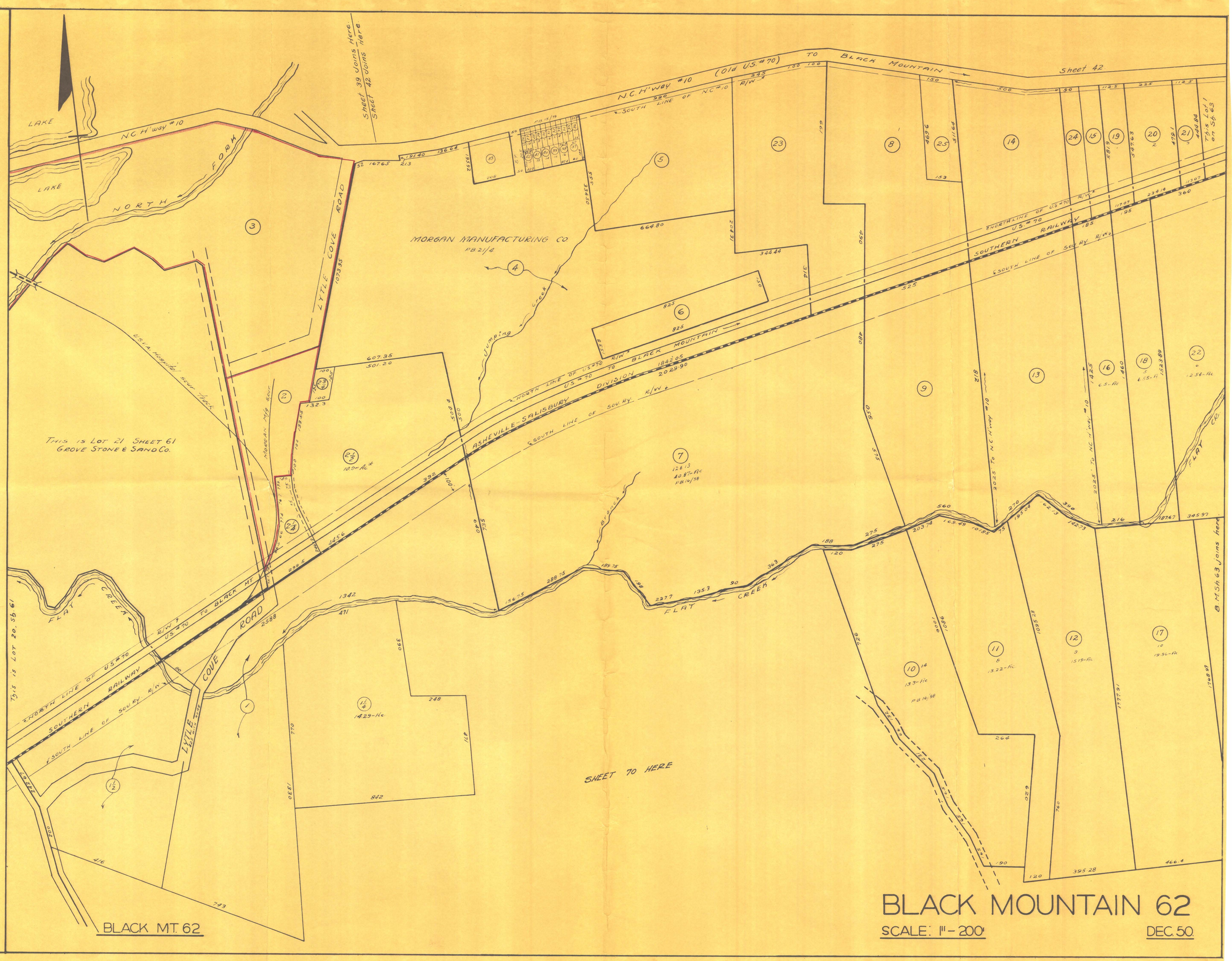
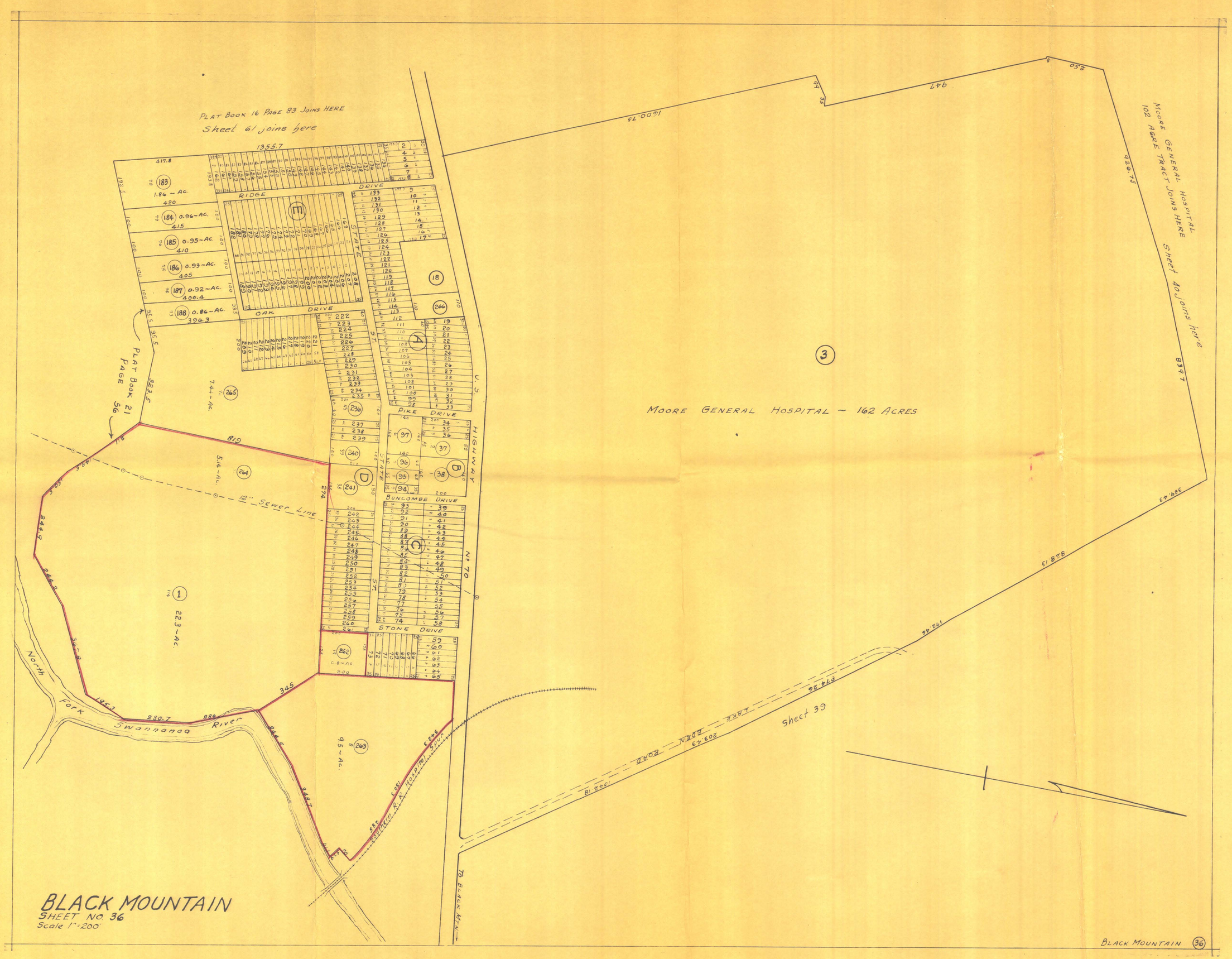
SWANNANOA, N.C.

TELEPHONES
BLACK MOUNTAIN 3711-2731
NIGHT 3841

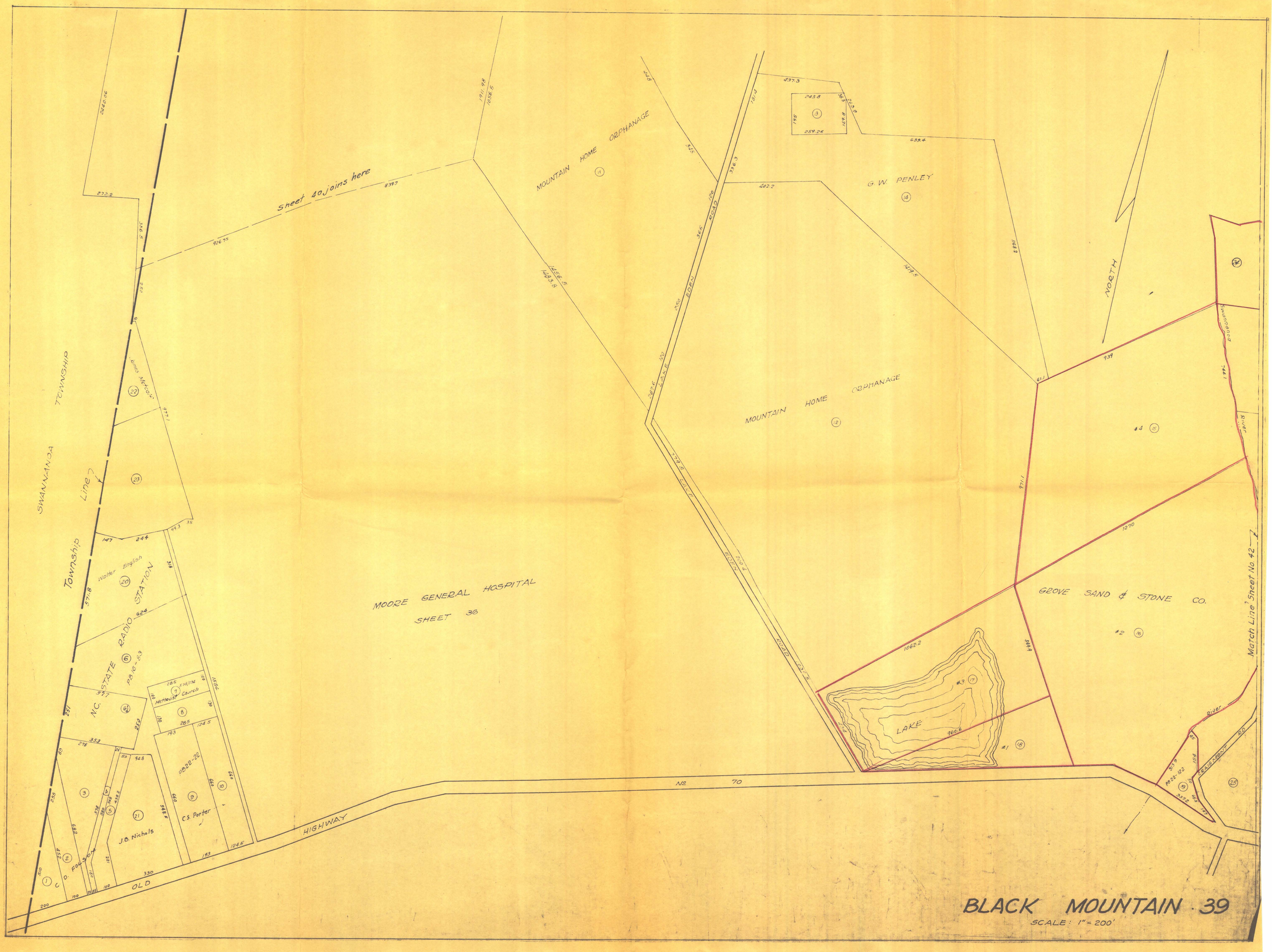
Note: These tax maps of Buncombe County, N. C. show property <u>owned</u> by this company outlined in red. When no longer of use we would appreciate their return.


Sheet 39 Joins Here
Sheet 42 Joins Here
N.C. H'way #10 (Old U.S. #70) TO BLACK MOUNTAIN
Sheet 42
LAKE
NC H'way #10
NORTH FORK
LYTLE COVE ROAD
MORGAN MANUFACTURING CO
PB 21/4
Jumping Creek
U.S.A. Hospital Sewer Track
THIS IS LOT 21 SHEET 61
GROVE STONE & SAND CO.
NORTH LINE OF US #70 R/W TO BLACK MOUNTAIN
ASHEVILLE-SALISBURY DIVISION
SOUTH LINE OF SOU RY R/W
NORTHLINE OF US #70 R/W
US #70
SOUTHERN RAILWAY
SOUTH LINE OF SOU RY R/W
FLAT CREEK
Branch
THIS IS LOT 20, SB 61
B.M. Sh 63 Joins here
SHEET 70 HERE
BLACK MT. 62
BLACK MOUNTAIN 62
SCALE: 1" - 200'
DEC. 50

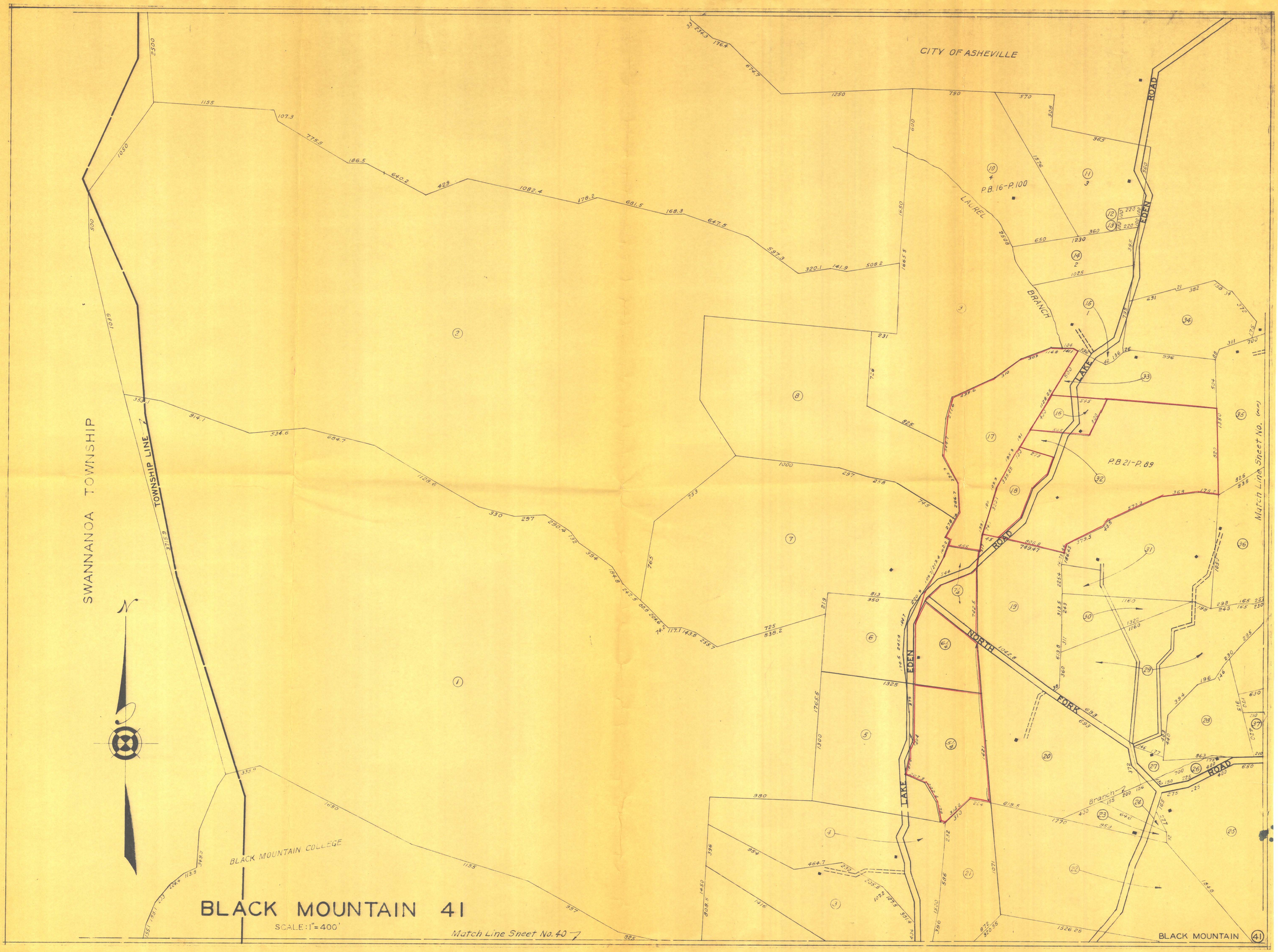
DMEA 2997


Plat Book 16 Page 83 Joins Here
Sheet 61 joins here
Moore General Hospital
102 Acre Tract Joins Here
Sheet 40 Joins Here
Moore General Hospital ~ 162 Acres
Ridge Drive
Oak Drive
State St.
Pike Drive
Buncombe Drive
Stone Drive
U.S. Highway No. 70
Plat Book 21 Page 56
12" Sewer Line
North Fork Swannanoa River
Lake Eden Road
Sheet 39
To Black Mtn.
Black Mountain
Sheet No. 36
Scale 1"=200'
Black Mountain 36

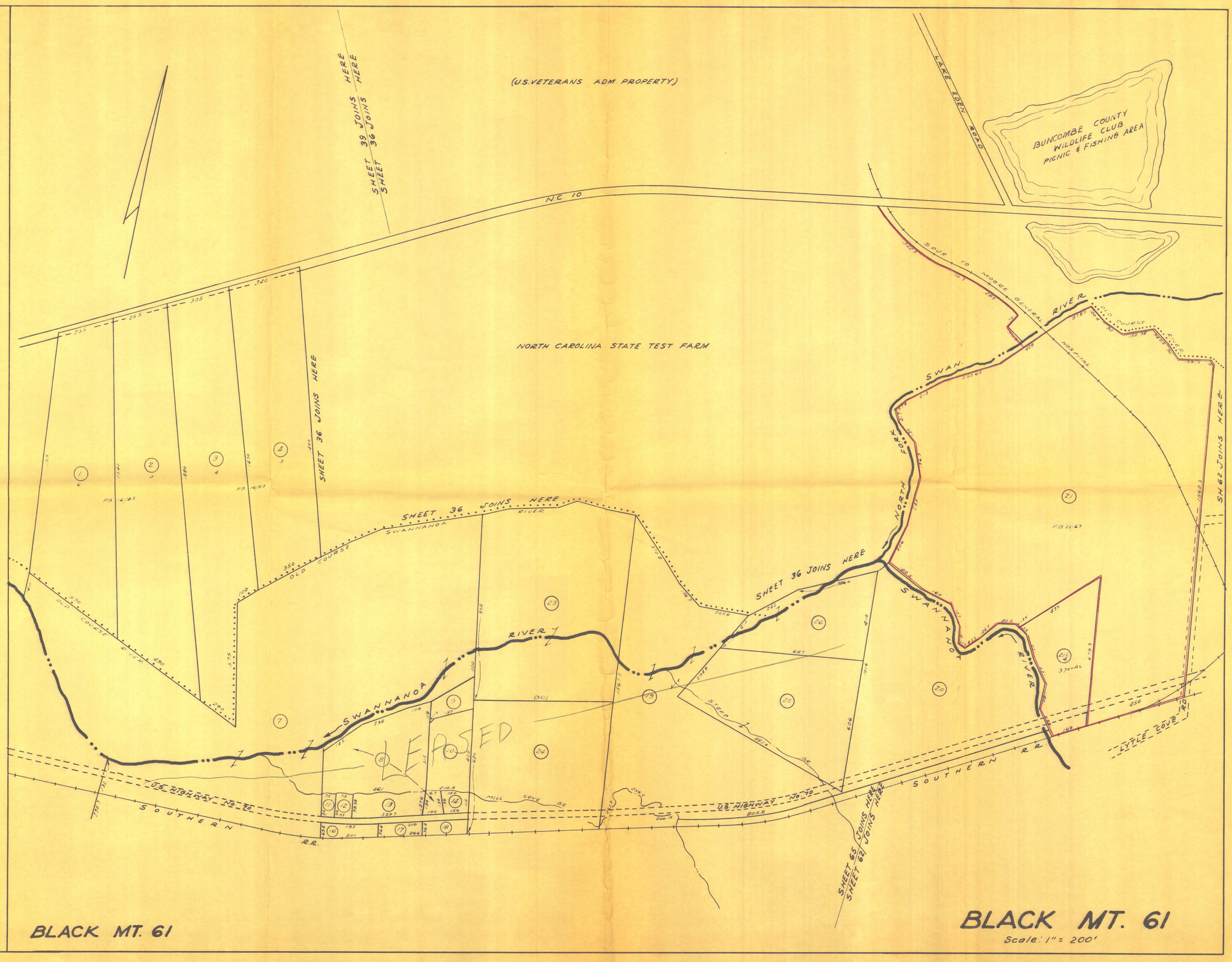
DMEA 2997


Sheet 40 joins here
MOUNTAIN HOME ORPHANAGE
G.W. PENLEY
MOUNTAIN HOME ORPHANAGE
NORTH
SWANNANOA TOWNSHIP
Township Line
James McKoy
Walter English
N.C. STATE RADIO STATION
PB 16-63
Methodist Church
PB 22-22
J.B. Nichols
C.S. Porter
C.D. Fowler
MOORE GENERAL HOSPITAL
SHEET 36
OLD HIGHWAY No 70
EDEN LAKE ROAD
LAKE
GROVE SAND & STONE CO.
Swannanoa River
Craig Branch
Match Line Sheet No 42
PB 22-122
BLACK MOUNTAIN · 39
SCALE: 1" = 200'

DMEA 2997

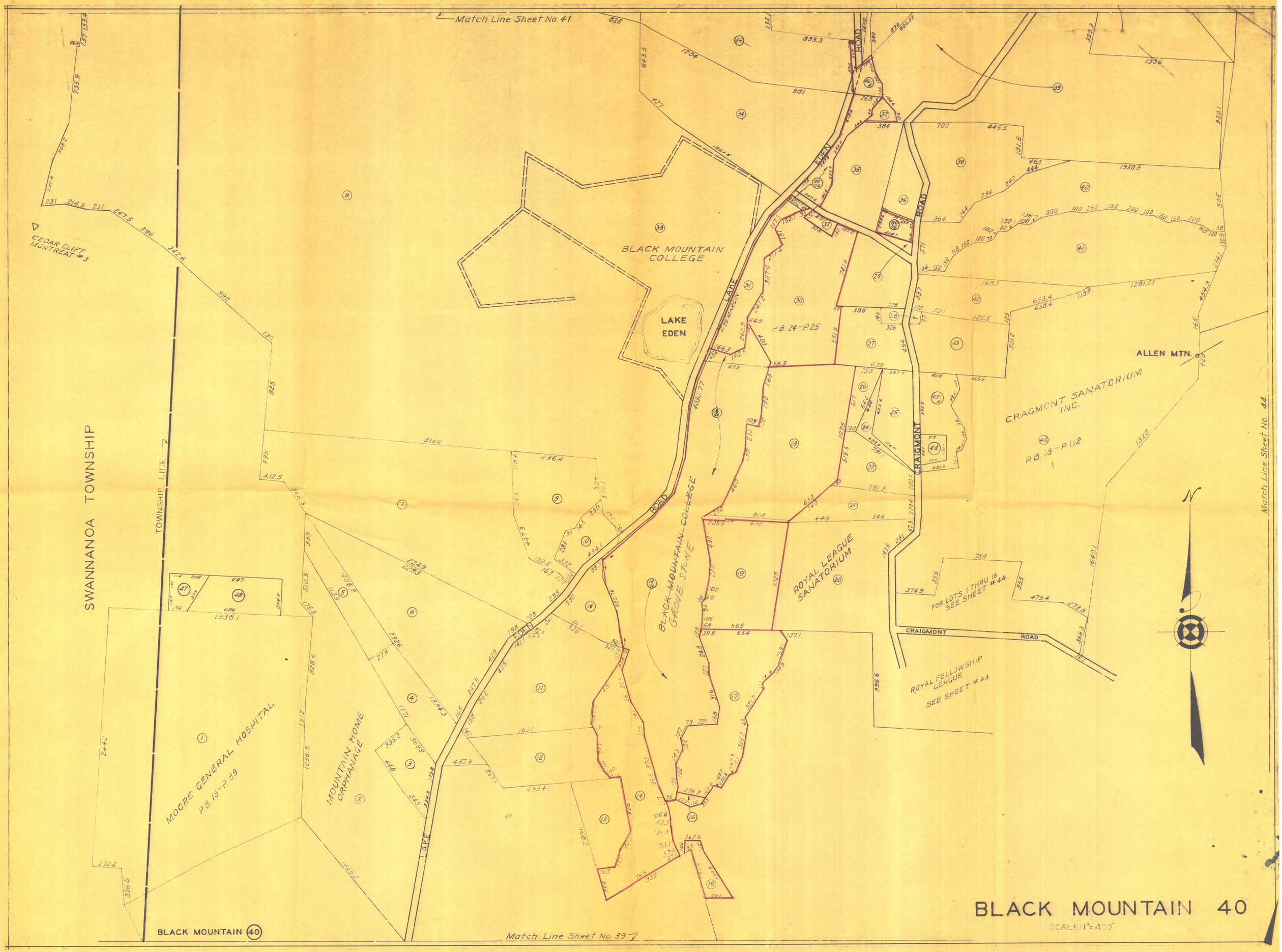

CITY OF ASHEVILLE
SWANNANOA TOWNSHIP
TOWNSHIP LINE
BLACK MOUNTAIN COLLEGE
P.B. 16-P. 100
P.B 21-P. 89
LAUREL BRANCH
EDEN ROAD
LAKE EDEN
NORTH FORK
Branch
Match Line Sheet No. 40
Match Line Sheet No. (41)
BLACK MOUNTAIN 41
SCALE: 1" = 400'
BLACK MOUNTAIN 41

DMEA 2997



BLACK MT. 61

DMEA 2997



BLACK MOUNTAIN 40

SCALE: 1" = 400'

DMEA 2997