

Jim  
? 92-10

State of North Carolina

Department of Natural Resources and Community Development

Office of Administrative Hearings

Notice of Administrative Hearing

Parties: Wake Stone Corporation / Mr. James M. Kimzey  
POB 190 POB 150  
Knightsdale, NC 27545 Raleigh, NC 27602

Department of Natural Resources  
and Community Development  
POB 27687  
Raleigh, NC 27611

Issue: Whether denial of the Respondent's permit application  
was justified. (NCGS 74-61)

Dates, Times,

Places: 9:00 a.m., December 16, 1980 / 9:00 a.m., December 17, 1980

Governor's Press Room	Hearing Room
First Floor	Ground Floor
Administration Building	Archdale Building
116 West Jones Street	512 North Salisbury Street
Raleigh, North Carolina	Raleigh, North Carolina

Information: Additional information concerning the hearing may be obtained  
by writing:

Mrs. Carol Wester Bryson  
Hearing Clerk  
Office of Administrative Hearings  
Department of Natural Resources  
and Community Development  
POB 27687  
Raleigh, NC 27611

919/733-2020



Henry B. Smith, Chairman  
North Carolina Mining Commission

Date: November 26, 1980

cb

Jim

State of North Carolina  
Department of Natural Resources and Community Development  
Division of Land Resources  
Land Quality Section

Application for a Mining Permit

G. S. 74-50 of the General Statutes of North Carolina, "The Mining Act of 1971"...  
After July 1, 1972, no operator shall engage in mining without having first  
obtained from the Department an operating permit which covers the affected land  
and which has not terminated, been revoked, been suspended for the period in  
question, or otherwise become invalid.

- 1. Name of Mine Cary Quarry County Wake
- 2. Name of Company Wake Stone Corporation
- 3. Home Office Address Box 190  
Knightsdale, North Carolina 27545
- 4. Permanent address for receipt of official mail Same  
Telephone 919/266-9266
- 5. Mine Office Address N/A  
Telephone
- 6. Mine Manager N/A

We hereby certify that all details  
contained in this Permit Applica-  
tion are true and correct to the best  
of our knowledge. We fully understand  
that any willful misrepresentation of  
facts will be cause for permit revocation.

\*Signature John Bratton, Jr.  
Title President  
Date March 21, 1980

\*Signature of company officer required.

APPLICATION FOR A MINING PERMIT

A. General Characteristics of Mine.

1. Total acreage at site for which permit is requested:

Acres owned 195. Acres leased \_\_\_\_\_.

2. Materials mined: Gneiss

3. Mining method: Hydraulic Dredge  Underground

Shovel and Truck  Dragline and Truck  Self-loading Scraper

Other \_\_\_\_\_.

4. Present depth of mine No depth at present (new mine)

5. Expected maximum depth of mine Unknown

6. Area of previous activity: (Identify these areas on your mine map.)

a. Area of previously affected land at present site that is inactive and has not been reclaimed: None

b. Acres previously reclaimed at present site None

B. Determination of Affected Acreage and Bond.

1. Number of years for which permit is requested 10 (10 years maximum).

2. Total affected acreage:

a. Area used for tailing ponds 4 acres

b. Area used for stockpiles 5 acres

c. Area used for waste piles 2 acres

d. Area used for processing plants 2 acres

e. Area of active mine excavation. 3\* acres

f. Estimate annual acreage of new land disturbed by mining 1.5.

g. Estimate total land disturbed by mining that is subject to reclamation by multiplying Item 2f by 3= 4.5 acres

TOTAL OF 2a through 2g 20.5 acres

\* New mine - will require stripping approximately 3 acres to begin operations.

APPLICATION FOR A MINING PERMIT

3. Check acreage to be bonded: Total affected acreage figure from B, 2 equals acreage to be bonded.

- 0 - 4.99 acres (\$ 2,500 bond)
- 5 - 9.99 acres (\$ 5,000 bond)
- 10 - 24.99 acres (\$12,500 bond)
- 25+ acres (\$25,000 bond)

4. Will your company file a blanket bond covering all of its mining operations in North Carolina? Yes \* No \*Bond already in effect  
*Blanket*

Check the amount of blanket bond:

- \$2,500  \$12,500
- \$5,000  \$25,000

C. Protection of Natural Resources

1. What precautions will be taken during mining operations to prevent significant adverse effects on wildlife, or freshwater, estuarine or marine fisheries?

(Over)

2. Is there a waste water discharge from your plant or mine?

Yes  No

If yes, indicate the approval document number issued by the Division of Environmental Management, Department of Natural Resources and Community Development.

Registration in process Expiration Date

3. Is there an air contaminant emission from your mine or plant?

Yes  No

If yes, indicate the approval document number issued by the Division of Environmental Management, Department of Natural Resources and Community Development.

Expiration Date

C. 1. Mining activities at this site will be conducted in such a manner as to prevent significant adverse effects on wildlife and freshwater fisheries. Specifically, siltation and/or erosion will be held to a minimum during mining by methods such as rapid stabilization and vegetation and no water flowing by or out of the mine area will be made unfit for wildlife or fish by virtue of the mining operation. Slopes in unconsolidated material will be kept at a stable angle during active mining and provisions will be made to prevent excess water from accumulating in unconsolidated materials where this would have an effect on their stability. Noise and dust controls will be used to minimize effect on wildlife.

## APPLICATION FOR A MINING PERMIT

4. Describe methods being taken during mining to prevent physical hazard to any neighboring dwelling house, public road, public, commercial or industrial building from any mine excavation.

The pit will be located on the property such that a buffer will exist around it. All blasting operations will be conducted in such a manner as to provide acceptable ground vibration levels and airblast overpressure, and precaution will be taken to control fly rock. Trees will be maintained around the mining operation to control noise, and a conscious and continuous effort will be made to keep dust generation to a minimum.

5. Describe measures to be taken during mining to insure against
  - (1) substantial erosion and offsite deposits of sediment (include specific plans for erosion control for mine excavation, waste piles, and process areas), (2) landslides, (3) acid water pollution.
    - (1) Establishment of stable slope angle in unconsolidated materials and vegetation cover will proceed as rapidly as feasible. Diversion channels or terraces will be used where required to control surface runoff, and these will also be stabilized and vegetated as soon as they are constructed. Rainwater runoff from the site will be diverted into a sump in the pit area for settling prior to release to natural drainage. Likewise, the plant and stockpile area runoff will be diverted to a settling basin for removal of silt and to control storm surges. See pages 4A-4E for elaboration on erosion control plans.
    - (2) The geologic structure, nature of the material, and groundwater conditions prevailing at the site that might have bearing on the stability of our excavation will be evaluated and their potential effects on slope stability considered in mining operations. Slopes in unconsolidated materials will be kept at a stable angle during active mining, and provisions will be made to prevent excess water from accumulating in unconsolidated materials where this would have an effect on their stability.
    - (3) This operation does not yield acid water pollution.

EROSION, RUNOFF, AND SEDIMENT CONTROL PLANS  
FOR THE  
CARY STONE QUARRY

Plans to protect the environment from the effects of rainfall and runoff at the Cary quarry site are presented in two parts; (1) erosion and runoff control during initial site preparation, and (2) erosion and runoff control during quarrying operations. Whether during initial construction or during later quarrying, all activities will be conducted with environmental protection being a prime consideration. Guiding principles will include removal of natural vegetation only in areas where absolutely necessary, providing well-designed, temporary erosion and sediment control measures in areas where vegetation is removed, providing for natural drainage from undisturbed areas to bypass disturbed areas, and proper land shaping with reestablishment of suitable vegetative cover as soon as individual construction and mining phases are completed.

Initial Site Preparation

An existing road extends approximately 600 feet into the property from a service road, and this will be extended to give access to pit, plant, and stockpile areas. It is anticipated that less than one-half mile of new site roads will be required. Brush barriers will be placed along the downhill side of roads prior to construction to help protect the downhill areas by filtering the runoff and reducing runoff velocity. Vegetation cleared for road construction (and possibly some vegetation cleared from other areas) will be used to make the brush barriers. The lateral grade of the roads will dip slightly into the hill-sides or roadcuts to minimize runoff that would cross the roads and to confine water to a drainage ditch. A drainage ditch will be constructed along the upslope side of roads to intercept and channel runoff, and culverts will be placed at intervals to divert water under roads. Roads will be graveled, and vegetation will be quickly established where feasible alongside roads and on roadcuts. Erosion control measures here discussed are shown typically applied in Figure 1.

Basins will be constructed prior to land disturbing activities in the stockpile-plant area (see site plan), and one basin will be placed between the stockpile and pit to collect sediment eroded from portions of the stockpile, plant, and road areas disturbed by construction and mining. A second basin will be placed on the northeast side of the plant-stockpile area to trap sediment eroded from that portion of the site. The basins will be designed according to good engineering practice (as for example that shown in Figure 2), having sufficient capacities to handle eroded material and 10-year, 24-hour storm runoff from these portions of the site. It is anticipated that these basins could require occasional sediment removal to maintain satisfactory storage capacities.

Capacities will be determined and drawings will be prepared for review prior to their construction. Vegetation will be quickly established where feasible around basins and on dams to aid in erosion control.

Initial site preparation for the pit area will include the removal of vegetation and the stripping of overburden on approximately three acres. Vegetation will be removed and a portion will be used in the construction of brush barriers placed downslope from the cleared area to filter runoff and reduce its velocity. A diversion, stabilized with vegetation and riprap where required, will be provided upslope from the pit to divert water from undisturbed areas around the planned active mining area and will channel water around the pit, through a culvert placed under the road, and into an existing natural drainageway, which will be stabilized if required. The objective is to divert natural drainage from undisturbed areas to bypass the pit area. Overburden removed from the pit area will be used in landshaping the plant-stockpile area and thus will not be left in a manner that would cause erosion and siltation problems. Initial stripping will begin by development of a temporary sediment basin in the pit area. Later a sump for water collection will be maintained as part of the mining plan.

Site preparation for the plant-stockpile area will begin with the removal of vegetation, a portion of which will be used in the construction of brush barriers to be placed around the southern, eastern, and northern perimeter to filter runoff and reduce its velocity (see site plan). The western edge of the plant-stockpile area will be adjacent to a road with its protective drainage ditch leading to a sediment basin. The northern side of the stockpile area will also be protected by a sediment basin as referred to above. Also to be constructed in this area are a settling pond and a reservoir, which will be part of the closed circuit process water system. The reservoir will be located in the upper end of a small watershed and will have a capacity of approximately eight acre-feet. After plant details have been finalized, capacities and designs for these structures, including details for a dam, will be prepared and submitted for review prior to their construction. Surface runoff will be diverted around the reservoir to an existing natural drainageway, and this diversion will be stabilized where necessary using riprap. Vegetation will be quickly established where feasible around settling pond, sediment basin, reservoir, and dam.

#### Quarry Operations

During quarrying operations to be conducted at this site, plans will provide for the minimum practical area of land to be disturbed at any one time, and maintenance of erosion, runoff, and sediment control systems will be part of the planned activities. Vegetative cover will be maintained and/or replaced as necessary alongside roads and roadcuts, on and around sediment basin and reservoir dams,



along diversions, and at other places on the site where vegetation will be used as part of erosion control measures and for pleasing appearance. Roads will be maintained in good shape. Settling pond and sediment basins will be cleaned out periodically and the sediment placed such that it will not become a sediment source. Some fines will likely be used to mix with the crushed stone and thus become part of the final product.

As the pit is enlarged, it will be necessary to remove some vegetation and to perform further stripping of overburden. A portion of the vegetation will be used to construct brush barriers around the new pit area. It is anticipated that overburden will be desired by persons in the area to be used for various construction projects, as is the case in other similar operations, and that long-term storage of this material will not be necessary. Thus, overburden that is removed will be temporarily stored in the stockpile area prior to its removal by individuals, and sediment derived from this material will be diverted to the sediment basins. Water that may be pumped from the pit will be sent to the reservoir rather than being released to drainageways. It is anticipated, based on previous experience, that water will be required to be constantly added to the closed circuit process water system. This water will be supplied from that which accumulates in the pit area and, if necessary, from an existing pond on the property.

#### Reference

Simons, James D., 1974, Temporary Mechanical Erosion Control for Surface Mining Operations, State of North Carolina Department of Natural and Economic Resources.

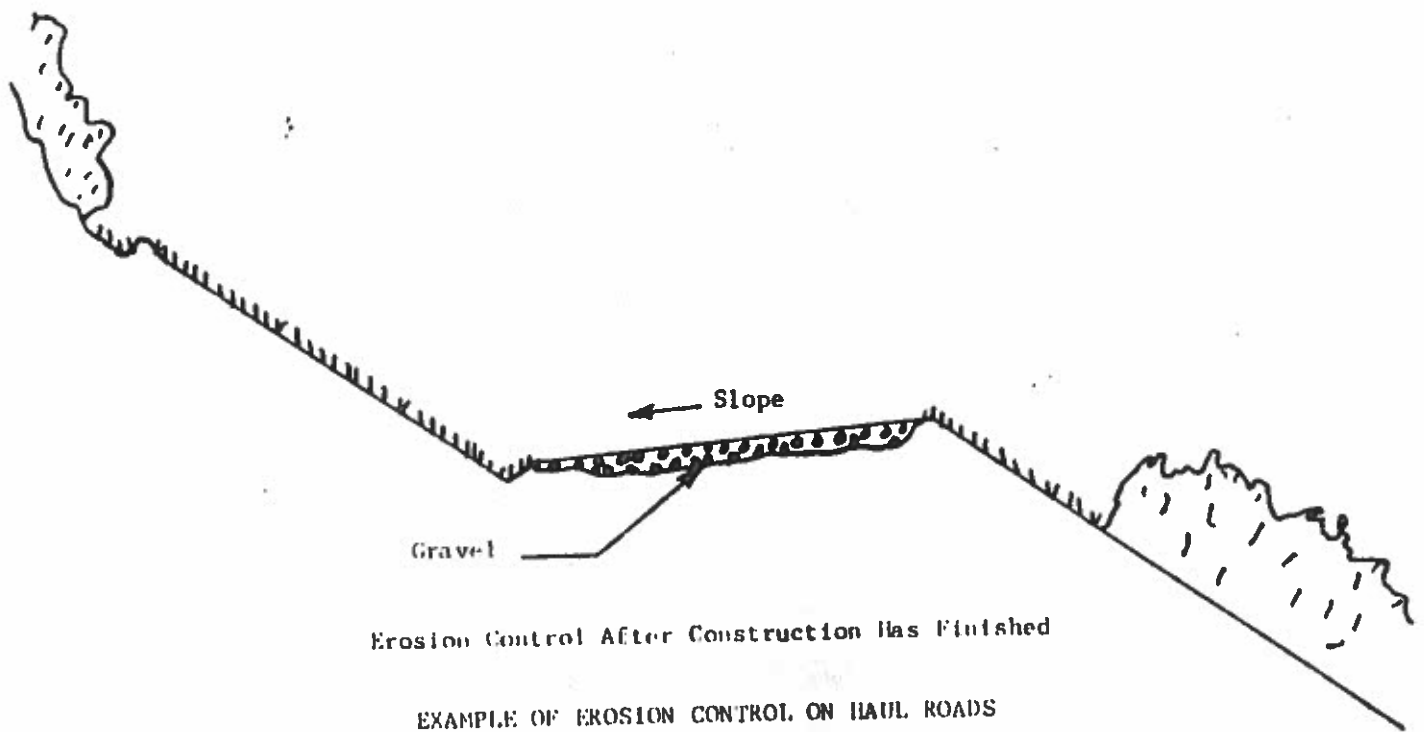
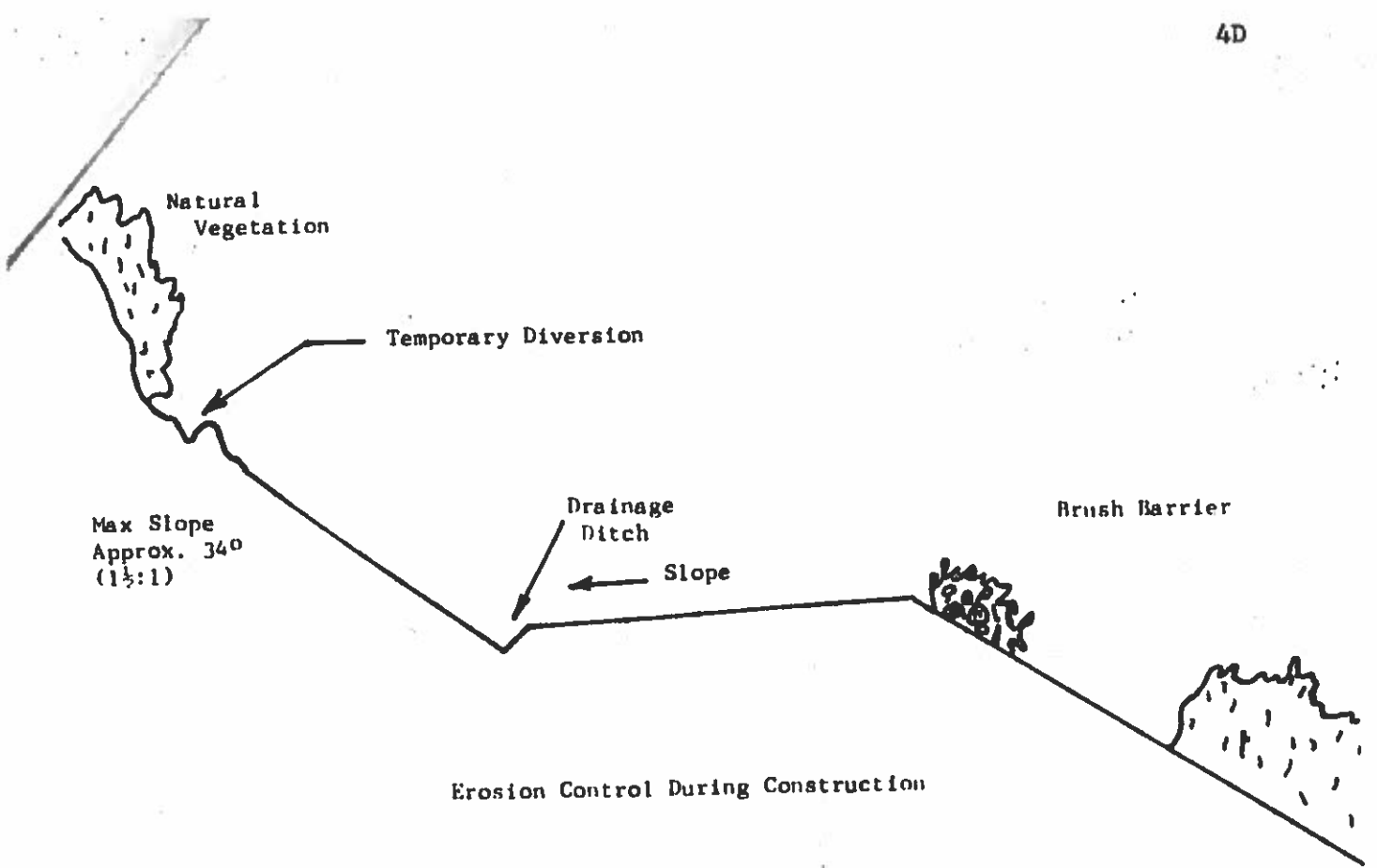
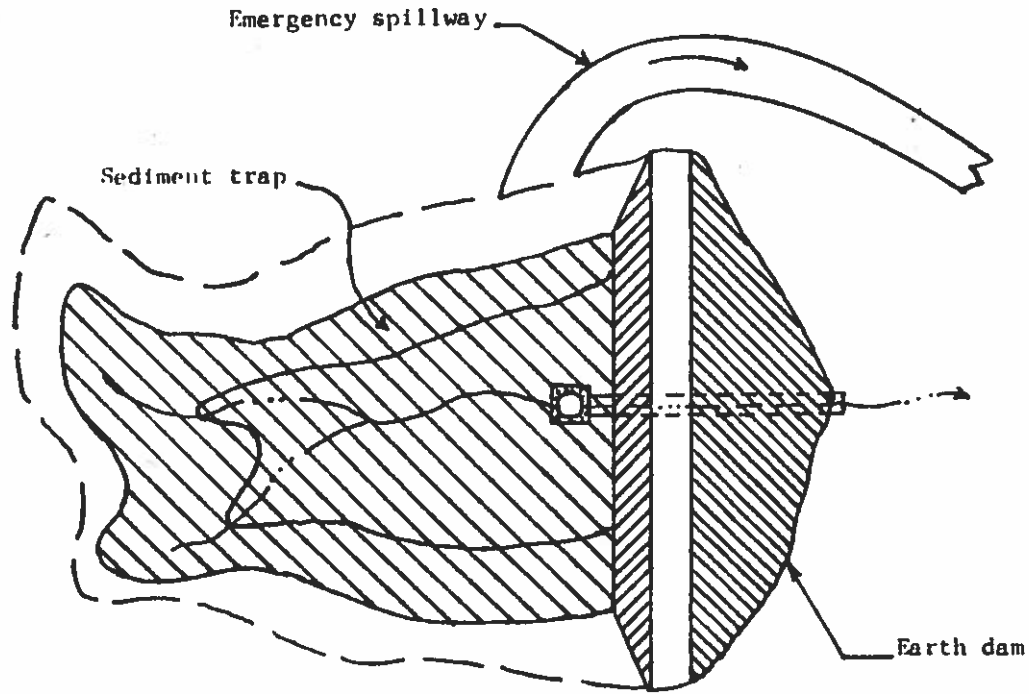
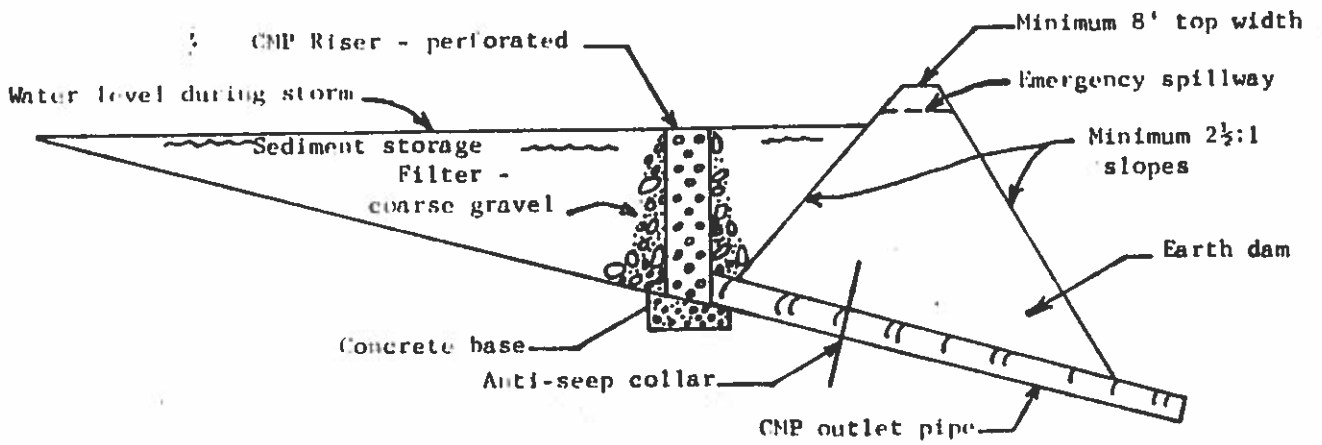


Figure 1  
(After Simons, 1974)



PLAN VIEW



CROSS SECTION

SEDIMENT (DEBRIS) BASIN

Figure 2

Drawing courtesy of SCS,  
Raleigh, North Carolina

(After Simons, 1974)

**APPLICATION FOR A MINING PERMIT**

6. If explosives will be used, describe what precaution will be used to prevent physical hazard to persons or neighboring property by flying rocks or excessive air blasts or ground vibrations.

Precautions will be taken in handling explosives and during blasting operations to prevent physical hazard to persons or neighboring property by flying rocks or excessive air blasts or ground vibrations. In all blasting operations the maximum peak particle velocity of any component of ground motion will not exceed 1 inch per second at the immediate location of any building regularly occupied by human beings such as dwelling house, church, school, public building, or commercial or institutional building. Airblast overpressure will not exceed 128 decibels "caution" and 136 decibels "maximum" as measured at the immediate location of any regularly occupied building such as dwelling, church, school, public building, or commercial or institutional building. Precautions will be taken to insure that fly rock is not thrown off the property under control of the mine operator, and in any event, fly rock will not be thrown beyond the area where the access is temporarily or permanently guarded.

## Reclamation Plan

1. Describe your intended plan for the reclamation and subsequent use of all affected lands and indicate the general methods to be used in reclaiming this land:

Mining activities and reclamation procedures at this site will be directed to achieve a land surface that would be suitable, with no further work, for wildlife indigenous to this area, and/or limited recreation such as hiking, picnicking, or primitive camping, and/or growing trees. One specific plan for this site is the donation, upon cessation of mining activities, of approximately 75 acres of land to the State of North Carolina for annexation to adjacent Umstead Park, and a legally binding commitment to this effect is being prepared.

The goals of this reclamation plan are to establish soil stability, vegetation, clean water, and safety conditions appropriate to the area and to its intended use. Planned activities to accomplish these goals include the following:

- (1) Establishment of vegetation that will include both cover and food for wildlife as well as trees and ground cover to minimize erosion.
- (2) Establishment of one or more ponds suitable for aquatic life.
- (3) Stabilization of an access road.

## Reclamation Plan

2. In excavation of unconsolidated materials, describe what measures will be taken to insure protection of adjacent resources such as width of buffer zone and grade of slope, etc.

(Over)

3. Describe provisions for safety to persons and to adjoining property in all completed excavations in rock.

During mining activities suitable benches will be left to aid in wall support where rock weaknesses may lead to collapse of high walls, and rock faces will not be left in unstable condition. Suitable barriers will be provided along tops of rock cuts.

4. Indicate method of reclamation of overburden, refuse, spoil banks or other such mine waste areas.

Overburden will be used for berms and/or land shaping, and some overburden will be available for area construction projects. Any other mine waste will be adequately drained and stabilized with vegetation to prevent any future erosion or instability problems.

5. State what precautions will be taken in reclamation to insure that the reclaimed site is not detrimental to animal or fish life.

Vegetation, including some to provide food and cover for wildlife, will be established on all areas where feasible to minimize erosion and the resulting silting of streams and ponds. Water in ponds that may remain on the property will be accessible to and suitable for wildlife use. Ramps and access roads into the pit will be stabilized and left, and suitable barriers along tops of rock cuts will be provided. Any streams on the property that were adversely affected by the mining activities will be reclaimed to a hydraulic configuration and bank stability normal for streams found in the area.

2. The property is bounded on the south and southwest by Interstate 40, on the north and east by Umstead Park, and on the west by undeveloped forest land owned by the Raleigh-Durham Airport Authority. A 500-foot zone along Interstate 40 will be controlled by county site plan (zoning) regulations. Undisturbed buffer zones (see site plan) will be left along the park boundary. Along other property boundaries, excavations will be designed such that no stability, erosion, or sedimentation problems will occur. In all cases, final slopes in excavations in unconsolidated materials will be left at such an angle as to minimize the possibility of slides, and slope stability will be enhanced through the establishment of vegetation.

## Reclamation Plan

6. Describe plans, if any, for screening operations from public view.

Plans for screening operations from public view at this site include locating the pit and plant areas in the interior of the property and using existing and newly planted trees and natural hills as view screens.

7. State the method of rehabilitation of settling ponds.

Settling ponds will be adequately drained and stabilized to prevent erosion of the material and will be established in vegetation suitable to the area and local situation to control sediment runoff.

8. State the method of control of contaminants and disposal of mining refuse

(Note definition of refuse in The Mining Act of 1971):

Overburden will be used for berms and/or land shaping. Other mine waste will be adequately drained and stabilized with vegetation. Oil, grease, scrap metal, wood, and other debris will be removed from the surface and delivered to scrap dealers or landfilled in a proper place using proper methods.

9. Indicate the method of restoration or establishment of any drainage channels to a condition minimizing erosion, siltation and other pollution:

Drainage channels will be established (or re-established) to a condition (gradient, width, depth) as near possible like that existing prior to mining (like that of other comparable drainages in the area). Banks will be stabilized with vegetation and/or rip-rap to minimize erosion.



## Reclamation Plan

10. Describe provisions for prevention of noxious, odious or foul water collecting or remaining in mined areas.

The land area where ponds are not planned as part of the overall reclamation will be graded and filled so as to eliminate small basins of depressions into which surface water will accumulate and stagnate. In the event grading or filling is not feasible to eliminate these areas, suitable drainage ditches or conduits will be constructed or installed to specifically prevent such conditions.

11. Describe how the surface gradient in unconsolidated materials will be restored to a condition suitable for the proposed subsequent use of the land after reclamation is completed and proposed method of accomplishment:

A surface gradient will be established by grading and/or backfilling wherein all slopes in unconsolidated materials will be at such an angle as to minimize the possibility of slides, and slopes will be stabilized with vegetation to aid in prevention of future erosion or instability.

12. Describe your plan for revegetation or other surface treatment of the affected areas: NOTE: Revegetation Plan must be approved by one of the following:

- (a) Authorized representatives of the local Soil and Water Conservation District having jurisdiction over lands in question;
- (b) Authorized representatives of the Office of Forest Resources, Department of Natural Resources and Community Development;
- (c) County Agricultural Extension chairmen or Research and Extension personnel headquartered at North Carolina State University in the School of Agriculture and Life Sciences;
- (d) North Carolina licensed landscape architects;
- (e) Private consulting foresters referred by the Office of Forest Resources, Department of Natural Resources and Community Development;
- (f) Others as may be approved by the Department.

12. (Continued)

Site Preparation - The ground will be graded and/or shaped where necessary keeping in mind the ultimate use of the site, but in no case will any slope greater than <sup>2:1</sup> 26 degrees in unconsolidated material be left. Loose rock, woody material, and other obstruction that will interfere with the establishment of vegetation planned for the site will be removed and/or buried. Surface runoff that might concentrate to cause undesirable erosion will be controlled by terraces or diversions diverting water to protected outlets.

Lime and Fertilizer - Liming and/or fertilization will be conducted in accordance with soil test results and as ~~are~~ required for vegetation planned for the site.

Seedbed Preparation - Lime and fertilizer will be mixed with the soil to a depth of 3 to 4 inches where conventional equipment can be used. On slopes steeper than about 2:1, soils will be grooved or scarified along the contour to provide for retention of seeds and nutrients on the slope until germination and growth is started. On steep slopes not accessible to machinery, seed and nutrients will be applied by hand.

Vegetation - Sericea Lespedeza and/or Weeping Lovegrass will be established on the site to provide ground cover and erosion control. When using Sericea Lespedeza scarified seed will be applied when reclamation is conducted during spring months and unscarified seed used during the fall. Application will be in a uniform manner either by machine or hand at the rate of about 50 pounds Lovegrass, Lespedeza, or combination per acre. Seed will be covered to a depth of 1/8 to 1/4 inch and the soil then firmed with a cultipacker or similar equipment. Mulch consisting of dry, unchopped small grain straw or similar type material will be spread evenly over the surface at the rate of 1 to 2 tons per acre or until about 75 percent of the soil is hidden. Loblolly pine seedlings will be planted at selected sites to provide a view screen and to provide revegetation. Spacing will be about 4' x 4' for revegetation purposes.

Maintenance - Plant replacement and other maintenance that may be required to establish vegetative cover appropriate to the reclamation plan for this site will be carried out until vegetation is properly established.

Revegetation and/or reforestation plan

*Tentatively approved by:*

Signature *Guland H. Hendricks*

Title *Chairman*

Agency *Wake Soil and Water Conservation District*

Date *21 March 1980*

Tentative approval subject to approval by Wake County Department of Natural Resources and Soil Conservation Service Technicians (In accordance with memorandum of understanding between Wake Soil & Water Conservation District, Wake County and U. S. Dept. of Agriculture)

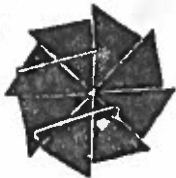
## Reclamation Plan

13. Provide a time schedule that meets the requirements of G.S. 74-53.

Some reclamation activities, particularly those relating to control of erosion, will be conducted simultaneously with mining activities. Diversion channels or terraces that may be required to control surface runoff on the property will be stabilized and vegetated as soon as they are constructed, and as portions of berms <sup>will be re-vegetated as completed</sup> are completed ~~they will be established in vegetation~~. Final reclamation activities will be initiated at the earliest practicable time after completion or termination of mining on any segment of the permit area, and in all instances reclamation activities will be completed within two years after completion or termination of mining.

## Return to:

Land Quality Section  
Department of Natural Resources  
and Community Development  
P. O. Box 27687  
Raleigh, North Carolina 27611



North Carolina Department of Natural  
Resources & Community Development

James B. Hunt, Jr., Governor

Howard N. Lee, Secretary

DIVISION OF  
LAND RESOURCES

Stephen G. Conrad, Director

Box 27687, Raleigh 27611  
Telephone 919 733-3833

April 10, 1980

Mr. John Bratton, Jr.  
President  
Wake Stone Corporation  
Box 190  
Knightdale, North Carolina 27545

RE: Proposed Cary Quarry

Dear Mr. Bratton:

Thank you for your assistance in showing us the proposed site.

In our review of your application, there are several points which need further clarification. Some of these points have been raised in our conversation with you but are repeated here for documentation. These points and questions include:

1. P. 2, No. B (2) E & F: You indicate that three acres will be stripped initially for the mine excavation with 1.5 acres to be disturbed annually. The site plan shows approximately 8 acres of quarry excavation. Since quarry excavation cannot be incrementally reclaimed, a short explanation is needed giving the initial disturbance and estimating total foreseeable quarry excavation disturbance.
2. P. 5, No. C (G): Although the vibration and airblast levels given are within our guidelines, some explanation is needed explaining how these levels will be maintained. It is realized that stemming, spacing, burden, and amount of explosives will vary. However, some explanation of your proposed general blasting practices is needed.
3. Reclamation Plan p. 6, No. 1: Identify the location or approximate location for the ponds described. Does this include the pre-existing ponds? Will the final quarry excavation be ponded or dry? If unknown, describe alternative.

Mr. John Bratton, Jr.  
April 10, 1980  
Page 2

4. Reclamation Plan, p. 7, No. 3: A better description of "suitable barriers" along the highwalls is needed. The purpose of such barriers is to prevent inadvertent public entry and to prevent hazard to larger forms of wildlife. Consideration should be given to substantial "hurricane" type fencing placed prior to beginning rock excavation.
5. Reclamation Plan, p. 7, No. 2: Describe gradient of final slopes in unconsolidated material. Generally a 3 horizontal to 1 vertical gradient is needed, if vegetation will be used for groundcover, for proper maintenance.
6. P. 4, No. 5: One of the main concerns is erosion control and slope stability, particularly at the quarry excavation. Please revise your erosion control plan to include measures discussed with you at the site on April 4, 1980. These measures include:
  - a) the location of the freshwater pond below the quarry with additional sediment control measures located closer to the quarry,
  - b) review of erosion control plans by this office as the mining operation develops and the timely implementation of these measures.You may of course develop alternative erosion control plans subject to our approval. Clarification is needed that runoff from disturbed plant and stockpile areas will be diverted into either a sediment control measure or into the plant waste water ponds.
7. Another main concern is the width of the buffer to be maintained along Crabtree Creek. A hundred foot width buffer is shown along the park boundary. Is this buffer expected to be wider than 100 feet?

Additionally, we are concerned about where the quarry excavation will cross the ridge and break into the slope leading into Crabtree Creek. Assurance must be given that the quarry excavation will maintain adequate buffer--laterally and vertically--so that no impact will be made upon Crabtree Creek from the excavation.

8. P. 8, No. 8: Clarification is needed that oil, grease, or other potentially hazardous contaminants will be properly disposed and not landfilled.

Mr. John Bratton, Jr.

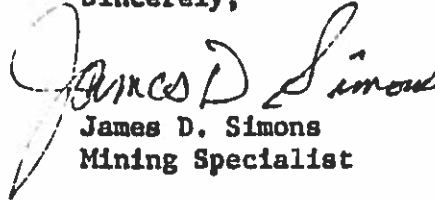
Page 3

April 10, 1980

We have mentioned some of these concerns with you previously and feel that these questions are reasonable. Prompt attention will be given to your reply.

Please advise if we can further explain our questions.

Sincerely,

  
James D. Simons  
Mining Specialist

cc: Jim Stevens  
Frank Barick  
John Holley  
Charles Gardner  
Steve Conrad

# Wake Stone Corporation

Locations at  
U. S. 64 East, Raleigh, N. C.  
U. S. 1 at Deep River, Moncure, N. C.

Phone:  
919/266-9266 - Knightdale  
919/775-4349 - Moncure

Home Office Address.  
P. O. Box 190  
Knightdale, N. C. 27545

APR 18 1980  
LAND QUALITY SECTION

April 17, 1980

Mr. James D. Simons, Mining Specialist  
N. C. Dept. of Natural Resources & Community Development  
P O Box 27687  
Raleigh, North Carolina 27611

REFERENCE: Mining Permit for Proposed Cary Quarry

Dear Mr. Simons:

Following are replies to the points and questions raised in your letter of April 10, 1980:

1. The portion of the site plan marked "pit area" indicates only the area in which the initial stripping and excavation of about three acres will occur. The clear area on the map is not intended to convey an actual size of the initial operation. The dashed lines with arrows indicate that from the initial workings the pit will be expanded by about one and a half acres per year in a general north-south direction. Likewise, the erosion control measures shown will be expanded as the disturbed area is expanded. It is anticipated that the estimated total foreseeable quarry excavation disturbance will be approximately eighteen acres.

2. In addition to the prior reply regarding precautions to be used when blasting, we wish to add the following explanation. A seismograph will be utilized to determine a desirable limit of explosives to be used in blasting. The seismograph, which we are presently using, measures ground movement in three directions plus air blast. By comparing the seismograph readings and blast records we will have excellent control in staying within guideline limits. Consulting services by a professional seismologist will provide further safeguards.

3. The location of the ponds described in the reclamation plan would be approximately where the pit area is indicated on the site plan. The pre-existing ponds would also be suitable for aquatic life. The final quarry excavation would be ponded.

4. Suitable barriers along tops of rock cuts could be very large boulders placed adjacent to each other to prevent inadvertent public entry and to prevent hazard to larger wild life.

# Wake Stone Corporation

Locations at  
U. S. 64 East, Raleigh, N. C.  
U. S. 1 at Deep River, Moncure, N. C.

Phone:  
919/266-9266 – Knightdale  
919/775-4349 – Moncure

Home Office Address:  
P. O. Box 190  
Knightdale, N. C. 27545

5. The gradient of the final slopes in unconsolidated material will be no steeper than  $1\frac{1}{2}$  to 1, and will be planted with vegetation that would not require maintenance. ?

6. We would like to revise our erosion control plan to include: a) the location of a fresh water pond below the quarry with additional sediment control measures located closer to the quarry; b) we would request a review of erosion control plans by the Division of Land Resources, DNRCD, as the mining operation develops; c) runoff from disturbed plant and stockpile areas will be diverted into one or more sediment control measures before being released to either the reservoir, existing ponds, or the proposed pond below the pit area.

7. The park buffer zone will be based on a contour about 20' above the creek level. This will provide a varying lateral width but will approximate 100-150 feet. The quarry excavation will maintain adequate buffer, 50' to 75' laterally and 20' minimum vertically, so that no impact will be made upon Crabtree Creek. ?

8. All potentially hazardous contaminants such as oil and grease will be properly disposed and not landfilled.

Please advise, or call me at 266-9266, if further information is desired. Thank you for your assistance in this matter.

Sincerely,

WAKE STONE CORPORATION

  
John Bratton, Jr., P.E.

JB, JR/pw



# Wake Stone Corporation

Locations at  
U. S. 64 East, Raleigh, N. C.  
U. S. 1 at Deep River, Moncure, N. C.

Phone:  
919/266-9266 - Knightdale  
919/775-4349 - Moncure

Home Office Address:  
P. O. Box 190  
Knightdale, N. C. 27545

June 26, 1980

Mr. James D. Simons, Mining Specialist  
N. C. Dept. of Natural Resources & Community Development  
P O Box 27687  
Raleigh, North Carolina 27611

REFERENCE: Mining Permit for Proposed Cary Quarry

Dear Mr. Simons:

The following information is provided in reply to the questions raised in your letter of May 19, 1980:

- A. Dr. Henry S. Brown, Geological Resources, Inc., is familiar with the topography and geology surrounding the proposed Cary Quarry site. We have asked him to comment on "What impact on Crabtree Creek and neighboring active wells is pit dewatering likely to have?". His reply is attached as Appendix A.
- B. The subject of ground vibration at the proposed site has been studied by Mr. Phillip R. Berger, an outstanding consultant to the quarrying industry on blasting. Mr. Berger has addressed your questions "B" and his reply is attached as our Appendix B.
- C. Since the possible noise impact on the park is of concern, a consulting firm, Kimley, Horn and Associates, was engaged to make tests on traffic noise at the proposed site and to comment on plant noise levels. Their report is attached as Appendix C and their values are consistent with those measured by the North Carolina Dept. of Natural Resources and Community Development.
- D. The following measures will be taken to prevent an adverse off-site effect from fugitive dust at the pit area, haul road, access road, and road leading to Harrison Avenue.
  1. Dust control will be maintained at the drills by inducing water into the bore holes while drilling.
  2. Dust from trucks in the pit area, on haul roads, and access roads will be controlled by the use of a water wagon to wet the roads and, where feasible, by paving.

5-13-81  
changes p. 2, 4, & 6

DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

DIVISION OF LAND RESOURCES

LAND QUALITY SECTION

P E R M I T

for the operation of a mining activity

In accordance with the provisions of G. S. 74-46 through 68, "The Mining Act of 1971", Mining Permitting Regulation 15 N.C.A.C. 5B, and other applicable laws, rules and regulations

Permission is hereby granted to:

WAKE STONE CORPORATION, permittee

for the operation of a CRUSHED STONE QUARRY  
entitled, CARY QUARRY, permit no. 92-10  
and located in WAKE County, which shall provide  
that the usefulness, productivity and scenic values of all lands  
and waters affected by this mining operation will receive the  
greatest practical degree of protection and restoration.

In accordance with the application for this mining permit, which is hereby approved by the Department of Natural Resources and Community Development, hereinafter referred to as the Department, and in conformity with the approved Reclamation Plan attached to and incorporated as part of this permit, provisions must be made for the protection of the surrounding environment and for reclamation of the land and water affected by the permitted mining operation. This permit is expressly conditioned upon compliance with all the requirements of the approved Reclamation Plan. However, completed performance of the approved Reclamation Plan is a separable obligation, secured by the bond or other securities on file with the Department, and may survive the expiration, revocation or suspension of this permit.

This permit is not transferable by the permittee with the following exception: If another operator succeeds to the interest of the permittee in the permitted mining operation, by virtue of a sale, lease, assignment or otherwise, the Department may release the permittee from the duties imposed upon him by the conditions of his permit and by the Mining Act with reference to the permitted operation, and transfer the permit to the successor operator, provided that both operators have complied with the requirements of the Mining Act and that the successor operator agrees to assume the duties of the permittee with reference to reclamation of the affected land and posts a suitable bond or other security.

In the event that the Department determines that the permittee or permittee's successor is not complying with the Reclamation Plan or other terms and conditions of this permit, or is failing to achieve the purposes and requirements of the Mining Act, the Department may give the operator written notice of its intent to modify, revoke or suspend the permit, or its intent to modify the Reclamation Plan as incorporated in the permit. The operator shall have right to a hearing at a designated time and place on any proposed modification, revocation or suspension by the Department. Alternatively and in addition to the above, the Department may institute other enforcement procedures authorized by law.

#### Definitions

Wherever used or referred to in this permit, unless the context clearly indicates otherwise, terms shall have the same meaning as supplied by the Mining Act, N.C.G.S. 74-49.

#### Site Plan

The site plan referred to in this permit shall indicate the topographic site plan of the Wake Stone Corporation revised March 10, 1981, with the following exception:

→ The berm and associated disturbances located along the northern boundary shall not be constructed unless approved by the Department.

Park

Whenever used or referred to in this permit, the term "park" shall mean the William B. Umstead State Park.

Conditions

The permitted mining operation shall not violate standards of air quality, surface water quality, or ground water quality promulgated by the Environmental Management Commission.

This permit shall be effective from the date of its issuance until May 13, 1991 and shall be subject to the provisions of the Mining Act, N.C.G.S. 74-46, et. seq., and to the following conditions and limitations:

1. Wastewater Control

Any wastewater processing shall be in accordance with permit requirements and regulations promulgated by the Division of Environmental Management.

2. Dust Control

Any mining process producing air contaminant emissions shall be subject to the permitting requirements and regulations promulgated by the Division of Environmental Management. The operator will take whatever reasonable precautions necessary to prevent or minimize the fugitive dust from going offsite. Such measures include but are not limited to:

- A. The access road to the quarry, from the scale house to SR 1790, shall be paved. Wake Stone Corporation shall cooperate with the Department of Transportation in paving SR 1790 from the entrance to the quarry to the intersection with SR 1654.
- B. The provisions of the air quality permit #4386 shall be followed.
- C. A water wagon with sprays shall be used for wetting roads to prevent dust.
- D. Sprays shall be used throughout the plant at transfer points to control dust.
- E. Drill hole dust shall be controlled by wetting or other means.
- F. Dust control at the crushers and screens shall be maintained by the use of water sprays.
- G. A water spray shall be provided for highway haul trucks.
- H. Washed stone shall be stockpiled within the part of the designated plant area which is closest to the park.

### 3. Buffer Zones

The dotted line labelled as buffer along the northern boundary and along the eastern boundary is the permanent buffer as designated by the Mining Commission. (Site plan dated March 10, 1981)

An undisturbed buffer of existing natural vegetation shall be maintained between the mining disturbance and Park property as indicated by the "10 year buffer" shown on the site plan dated March 10, 1981.

An undisturbed buffer zone of existing natural vegetation shall also be maintained between the top edge of the bank of Crabtree Creek and any mining disturbance within the 10 year permit area. The buffer zone shall be of sufficient width to prevent offsite sedimentation and to preserve the integrity of the natural watercourse. In any event, the buffer will meet U.S. Corps of Engineers requirements for Crabtree Creek Watershed.

The only exceptions to these undisturbed buffers of natural vegetation are:

- A. The construction of berms as approved by the Department for visual and noise screening.
- B. The installation of drainage and sedimentation controls to protect the Crabtree Creek.
- C. Such crossings as may be necessary in future years to accommodate the installation of utilities.

### 4. Erosion and Sediment Control

- A. Adequate mechanical barriers including but not limited to diversions, earthen dikes, brush barriers, silt check dams, silt retarding structures, rip rap pits, or ditches shall be provided in the initial stages of any land disturbance to prevent sediment from discharging onto adjacent surface areas or into any lake or natural watercourse in proximity to the affected land.
- B. The existing lakes shall be used to trap sediment from initial mining disturbances. The spillways of the existing lakes shall be further stabilized as necessary to prevent erosion of the spillway from runoff from the affected lands. The embankments of the existing lakes shall be improved if necessary to insure the stability of the embankments.

- C. The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control measures, structure, or device. In any event, exposed slopes or any excavated channels, the erosion of which may cause offsite damage due to siltation, shall be planted or otherwise provided with ground cover, devices or structures sufficient to restrain such erosion.
- D. Drainage shall be provided either through or around any berms that would otherwise obstruct natural drainage.

#### 5. Noise Abatement

All reasonable precautions shall be taken to minimize the impact of operational noise upon Umstead Park. Such measures shall include but not be limited to:

- A. Noise barriers between the park boundary and the crushers and screening towers to minimize noise levels at the park shall be provided from the outset of the operation. Noise barriers may be enclosures, walls, bins, structures, stockpiles, or natural terrain. In the event there is disagreement over the required noise control measures, the final design and emplacement of noise barriers shall be determined by qualified noise and engineering consultants mutually agreed upon by both parties.
- B. The plant shall be located at the lowest feasible elevation.
- C. The plant shall be designed so that the primary crusher can be relocated in the pit at the earliest possible date.
- D. The chutes used in processing shall be rubberized.
- E. Compressors with noise abatement enclosures (currently called whisperized compressors) shall be used with track drills to open the quarry. Once the quarry is opened, either hydraulic or down-in-the-hole drills shall be used to further reduce noise.
- F. Pit haul trucks shall be equipped to exhaust through the beds of the trucks to muffle engine noise.
- G. Conveyors rather than trucks shall be used for stockpiling material.
- H. The quarry and stone process operations shall be operated only on Monday through Friday and shall not be operated on the following recognized holidays: New Year's Day, Easter Monday, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day. A reasonable amount of hauling of processed

stone from the stockpile areas is permitted until 1:00 P.M. on Saturdays, but hauling shall not be done at any other time on weekends or on holidays without prior approval by the Department.

6. Processing Plant Location

- A. The processing and stockpiling facilities shall be located as indicated on the Wake Stone Corporation site plan dated March 10, 1981.
- B. The plant shall be located to place the processing and stockpiling facilities at the lowest possible elevation to reduce visibility and noise impact on the park.
- C. The location of the pit shall be such that, once the overburden is removed, the quarry excavating equipment-i.e. compressor and drill, shovels, and trucks-can be placed at an elevation lower than the surrounding natural ground in the initial phases of quarrying.

7. Prevention of Stagnant Pools

The affected land shall be graded so as to prevent collection of pools of water that are, or are likely to become, noxious or foul. Necessary structures such as drainage ditches or conduits shall be constructed or installed when required to prevent such conditions.

8. Blasting

The following blasting conditions shall be observed by the operator to prevent hazard to persons and adjacent property from thrown rock or vibrations:

- A. In all blasting operations, except as hereinafter otherwise provided, the maximum peak particle velocity of any component of ground motion shall not exceed 1 inch per second at the immediate location of any building regularly occupied by human beings such as dwelling house, church, school, public building, or commercial or institutional building. A smaller peak particle velocity may be required to protect neighboring structures or equipment vulnerable to vibrations less than 1 inch/second peak particle velocity.
- B. Airblast overpressure shall not exceed 128 decibels linear (dBL)-"warning," 132 dBL "caution," and 135 dBL "maximum" as measured at the immediate location of any dwelling house, church, school, public building, or commercial or institutional building.

- C. The operator shall take all reasonable precautions to insure that flyrock is not thrown beyond areas where the access is temporarily or permanently guarded by the operator. Should flyrock occur beyond the guarded area, it shall be reported to the Department immediately. The Department will conduct a thorough investigation to determine the cause. Failure to take corrective measures to prevent flyrock and repeated instances of flyrock shall be considered a violation of the permit.
- D. Operator shall maintain records on each individual blast describing: the total number of holes; pattern of holes; depth of holes; total pounds of explosives; maximum pounds per delay interval; amount of stemming and burden for each hole; and blast location. Records shall be maintained at the permittee's mine office and copies shall be provided to the Department upon request.

## 9. Visual Screening

The operation shall be situated to optimize natural screening of the operation from public view from Interstate 40 and the Park property. The visual screening plan shall include maintaining undisturbed buffer areas of natural vegetation as shown on the site plan dated March 10, 1981. Additionally, a vegetated earthen berm shall be constructed east of the processing plant and stock-pile area as shown on the revised site plan. Visual screening such as vegetated earthen berms and/or evergreen trees shall be placed as necessary to supplement natural screening.

### Construction of Berms

- A. A vegetated earthen berm shall be constructed between the Wake Stone Corporation plant and the western boundary of the Park as shown on Wake Stone Corporation's site plan dated March 10, 1981.
- B. Berm dimensions shall be no less than indicated on Wake Stone Corporation's site plan dated March 10, 1981 and may be higher and longer than shown.
- C. The side slopes of the berm shall be graded to a stable grade or 2 horizontal to 1 vertical grade or flatter and revegetated on the sides and top with grasses and evergreen trees. The toe of the berm shall not encroach on the park property boundary and shall be at least 50 feet from the boundary. The alignment of the berm may vary from the approved site plan as is necessary to provide the 50 feet of undisturbed land between the park boundary and the toe of the berm and assuring an acceptable angle of repose for the slope of the berm.
- D. Other berms may be required as mining progresses to reduce the noise and visual impact upon the park.



10. Highwall Barrier

A physical barrier consisting of a fence or boulder barriers, etc. shall be maintained around the perimeter of any quarry highwall.

11. Annual Report

An Annual Reclamation Report shall be submitted on a form supplied by the Department on February 1 of each year until reclamation is completed and approved.

12. Surety Bond

The security which was posted pursuant to N.C.G.S. 74-54 in the form of \$25,000.00 Blanket Bond is sufficient to cover the crushed stone operation as indicated on the approved application. This security must remain in force for this permit to be valid. The total affected land shall not exceed the bonded acreage.

APPROVED RECLAMATION PLAN

The Mining Permit incorporates this Reclamation Plan, the performance of which is a condition on the continuing validity of that Mining Permit. Additionally, the Reclamation Plan is a separable obligation of the permittee, which continues beyond the term of the Mining Permit.

The approved plan provides:

Minimum Standards As Provided By G. S. 74-53

1. The final slopes in all excavations in soil, sand, gravel and other unconsolidated materials shall be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land.
2. Provisions for safety to persons and to adjoining property must be provided in all excavations in rock.
3. All overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land.
4. No small pools of water shall be allowed to collect or remain on the mined area that are, or are likely to become noxious, odious or foul.
5. The revegetation plan shall conform to accepted and recommended agronomic and reforestation practices as established by the N.C. Agricultural Experiment Station and the N.C. Forest Service.
6. Permittee shall conduct reclamation activities pursuant to the Reclamation Plan herein incorporated. These activities shall be conducted according to the time schedule included in the plan, which shall to the extent feasible provide reclamation simultaneous with mining operations and in any event, initiation of reclamation at the earliest practicable time after completion or termination of mining on any segment of the permit area and shall be completed within two years after completion or termination of mining.

RECLAMATION CONDITIONS

1. Provided further, and subject to the Reclamation Schedule, the reclamation shall be to restore the affected lands to a condition suitable for wildlife and recreation.
2. Specifications for reclamation shall be as follows:
  - A. The process plant area shall be graded and smoothed.
  - B. Any sideslopes in unconsolidated material shall be graded to a 2 horizontal to 1 vertical grade or flatter.

- C. Suitable benches shall be left in the rock excavation to provide support where rock weakness could lead to collapse of high walls.
  - D. Overburden shall be used for site grading or berm construction at approved locations.
  - E. Settling ponds shall be drained and stabilized to prevent erosion.
  - F. Oil, grease, scrap metal, wood and other debris shall be removed from the surface and delivered to scrap dealers or landfilled in an approved manner.
  - G. Any diverted or re-established drainage channels shall be restored to a stable condition.
  - H. The affected land shall be graded to prevent the collection of noxious or foul water.
3. Revegetation Plan

All reclaimed areas in unconsolidated material shall be revegetated utilizing the following provisions:

Site Preparation: The ground will be graded and/or shaped where necessary keeping in mind the ultimate use of the site, but in no case will any slope greater than 26 degrees in unconsolidated material be left. Loose rock, woody material, and other obstruction that will interfere with the establishment of vegetation planned for the site will be removed and/or buried. Surface runoff that might concentrate to cause undesirable erosion will be controlled by terraces or diversions diverting water to protect outlets.

Lime and Fertilizer: Liming and/or fertilizer will be conducted in accordance with soil test results and as required for vegetation planned for the site.

Seedbed Preparation: Lime and fertilizer will be mixed with the soil to a depth of 3 to 4 inches where conventional equipment can be used. On slopes steeper than about 2:1, soils will be grooved or scarified along the contour to provide for retention of seeds and nutrients on the slope until germination and growth is started. On steep slopes not accessible to machinery, seed and nutrients will be applied by hand.

Vegetation: Sericea Lespedeza and/or Weeping lovegrass will be established on the site to provide ground cover and erosion control. When using Sericea Lespedeza, scarified seed will be applied when reclamation is conducted during spring months and unscarified seed will be used during the fall.

Application will be in a uniform manner either by machine or hand at the rate of 50 pounds of lovegrass, Lespedeza, or combination per acre. Seed will be covered to a depth of 1/8 to 1/4 inch and the soil then firmed with a cultipacker or similar equipment. Mulch consisting of dry, unchopped small grain straw or similar type material will be spread evenly over the surface at the rate of 1 to 2 tons per acre or until about 75 percent of the soil is hidden. Loblolly pine seedlings will be planted at selected sites to provide a view screen to provide revegetation. Spacing will be about 4' X 4' for revegetation purposes.

Maintenance: Plant replacement and other maintenance that may be required to establish vegetative cover appropriate to the reclamation plan for this site will be carried out until vegetation is properly established.

#### 4. Reclamation Schedule

Some reclamation activities, particularly those relating to control of erosion, will be conducted simultaneously with mining activities. Diversion channels or terraces that may be required to control surface runoff on the property will be established and revegetated as soon as they are constructed. Portions of berms will be revegetated as completed. Final reclamation activities will be initiated at the earliest practicable time after completion or termination of mining on any segment of the permit area, and in all instances reclamation activities will be completed within two years after completion or termination of mining.

#### 5. Donation to State

This provision is pursuant to Wake Stone Corporation's offer to donate the quarry site to the State as part of its reclamation plan.

The term, "quarry site," shall include the entire pit as it exists after quarrying has been completed, a strip extending at least 50 feet back from the top of the slope of the pit on all sides and a reasonable area to connect the pit and surrounding strip to the Park, constituting a total area of at least 75 acres.

During the option period, Wake Stone Corporation shall have the right to encumber all of its remaining property from time to time by mortgage, deed of trust or other security agreement then in common use for the purpose of securing one or more bona fide obligations of Wake Stone Corporation, such as the payment of money or the providing of any goods or services. The option to the State shall be subordinate to each such encumbrance in the same manner and to the same extent as if such option had been recorded after the recordation of each such encumbrance.

The right of the State to exercise its option shall be subject to:

- A. Wake Stone Corporation not being prohibited by the U.S. Government, State of North Carolina, Wake County, any municipality having jurisdiction, or by any court from removing Wake Stone Corporation's property all quarryable stone which is outside the buffer zone referred to in condition 3, page 4. The requirements by the State that Wake Stone Corporation comply with laws and rules and regulations generally applicable to stone quarries shall not be deemed a prohibition of quarrying for the purpose of the option agreement.
- B. The operation of a quarry on Wake Stone Corporation's property for a minimum period of five years.

The conveyance of the quarry site, if approved by the State, shall be by deed containing the usual covenants of warranty and conveying the quarry site free and clear of all encumbrances except those existing at the time of Wake Stone Corporation's purchase, ad valorem taxes at the time of conveyance (which shall be prorated), and such drainage and utility easements as shall have been installed in connection with the development of the property.

The option may include such other terms as are mutually acceptable to the State and Wake Stone Corporation.

The method by which the quarry site may be donated to the State is as follows: Upon acquisition of the land by Wake Stone Corporation (by the exercise of its options to purchase), Wake Stone Corporation will grant to the State an option which, if exercised by the State, will require that Wake Stone Corporation convey a fee simple title to the quarry site to the State. The State shall have no obligation to exercise its option to accept a conveyance of the quarry site.

The terms and conditions of the option shall be as follows:

- A. When all quarryable stone has been removed from all of the land belonging to or under the control of Wake Stone Corporation during the period of its quarrying operations and which lies between the Park and Interstate Highway 40, it shall be the duty of Wake Stone Corporation to notify the State of this fact. Upon receipt of such notice, the State shall have six months within which it may elect to have Wake Stone Corporation convey the quarry site to the State. If the State elects to have Wake Stone Corporation convey the quarry site to the State, it shall notify Wake Stone Corporation of such election within said six month period. All notices shall be by certified mail with return receipt requested. If the State fails to make an election within said six month period or shall elect not to accept a conveyance of the quarry site, the option shall thereupon terminate and Wake Stone Corporation shall have no further obligation to convey the quarry site to the State.
- B. If all quarryable stone is not removed, the right of the State to acquire the quarry site shall accrue at the end of 50 years from the date quarrying commences or 10 years after quarrying operations have ceased without having been resumed, whichever is sooner, and notices shall be exchanged at that time in the same manner and with the same time limitations as set forth in paragraph A above.
- C. Until the option has expired Wake Stone Corporation will not encumber by mortgage or deed of trust any of the area designated "BUFFER AREA" on Wake Stone Corporation's site plan dated February 17, 1981, revised March 10, 1981, except for purchase money security interests.

The terms and conditions relating to the donation are placed herein to prescribe generally the boundaries of the Wake Stone Corporation offer. The acceptance by the State is subject to approval by the Department of Administration and the Council of State and the ascertaining that the offer is in accord with the laws of the State and lawfully adopted rules and regulations. Further, the Department's analysis of the condition of the land to be transferred will be in accordance with the criteria identified in the "Principles Governing the Establishment, Extension and Development of State Parks, State Recreation Areas and State Natural Areas."

Permit issued this the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_.

BY: \_\_\_\_\_

Stephen G. Conrad, Director  
 Division of Land Resources  
 By Authority of the Secretary  
 Of the Department of Natural Resources and Community Development.

DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

DIVISION OF LAND RESOURCES

LAND QUALITY SECTION

~~A M E N D E D~~

P E R M I T

for the operation of a mining activity

In accordance with the provisions of G.S. 74-46 through 68,  
"The Mining Act of 1971," Mining Permit Regulation 15 NCAC  
5 B, and other applicable laws, rules and regulations

Permission is hereby granted to:

Wake Stone Corporation

Triangle Quarry

Wake County - Permit No. 92-10

for the operation of a

Crushed Stone Quarry

which shall provide that the usefulness, productivity and scenic  
values of all lands and waters affected by this mining operation  
will receive the greatest practical degree of protection and  
restoration.

In accordance with the application for this mining permit, which is hereby approved by the Department of Natural Resources and Community Development, hereinafter referred to as the Department, and in conformity with the approved Reclamation Plan attached to and incorporated as part of this permit, provisions must be made for the protection of the surrounding environment and for reclamation of the land and water affected by the permitted mining operation. This permit is expressly conditioned upon compliance with all the requirements of the approved Reclamation Plan. However, completed performance of the approved Reclamation Plan is a separable obligation, secured by the bond or other securities on file with the Department, and may survive the expiration, revocation or suspension of this permit.

This permit is not transferable by the permittee with the following exception: If another operator succeeds to the interest of the permittee in the permitted mining operation, by virtue of a sale, lease, assignment or otherwise, the Department may release the permittee from the duties imposed upon him by the conditions of his permit and by the Mining Act with reference to the permitted operation, and transfer the permit to the successor operator, provided that both operators have complied with the requirements of the Mining Act and that the successor operator agrees to assume the duties of the permittee with reference to reclamation of the affected land and posts a suitable bond or other security.

In the event that the Department determines that the permittee or permittee's successor is not complying with the Reclamation Plan or other terms and conditions of this permit, or is failing to achieve the purposes and requirements of the Mining Act, the Department may give the operator written notice of its intent to modify, revoke or suspend the permit, or its intent to modify the Reclamation Plan as incorporated in the permit. The operator shall have right to a hearing at a designated time and place on any proposed modification, revocation or suspension by the Department. Alternatively and in addition to the above, the Department may institute other enforcement procedures authorized by law.

### Definitions

Wherever used or referred to in this permit, unless the context clearly indicates otherwise, terms shall have the same meaning as supplied by the Mining Act, N.C.G.S. 74-49.

### Site Plan

The site plan referred to in this permit shall indicate the topographic site plan of the Wake Stone Corporation revised March 10, 1981, with the following exception:

The berm and associated disturbances located along the northern boundary shall not be constructed unless approved by the Department.



## Park

Whenever used or referred to in this permit, the term "park" shall mean the William B. Umstead State Park.

## Conditions

The permitted mining operation shall not violate standards of air quality, surface water quality, or ground water quality promulgated by the Environmental Management Commission.

This permit shall be effective from the date of its issuance until May 13, 1991 and shall be subject to the provisions of the Mining Act, N.C.G.S. 74-46, et. seq., and to the following conditions and limitations:

### 1. Wastewater Control

Any wastewater processing shall be in accordance with permit requirements and regulations promulgated by the Division of Environmental Management.

### 2. Dust Control

Any mining process producing air contaminant emissions shall be subject to the permitting requirements and regulations promulgated by the Division of Environmental Management. The operator will take whatever reasonable precautions necessary to prevent or minimize the fugitive dust from going offsite. Such measures include but are not limited to:

- A. The access road to the quarry, from the scale house to SR 1790, shall be paved. Wake Stone Corporation shall cooperate with the Department of Transportation in paving SR 1790 from the entrance to the quarry to the intersection with SR 1654.
- B. The provisions of the air quality permit #4386 shall be followed.
- C. A water wagon with sprays shall be used for wetting roads to prevent dust.
- D. Sprays shall be used throughout the plant at transfer points to control dust.
- E. Drill hole dust shall be controlled by wetting or other means.
- F. Dust control at the crushers and screens shall be maintained by the use of water sprays.
- G. A water spray shall be provided for highway haul trucks.
- H. Washed stone shall be stockpiled within the part of the designated plant area which is closest to the park.

3. Buffer Zones

- C. The dotted line labelled as buffer along the northern boundary and along the eastern boundary is the permanent buffer as designated by the Mining Commission. (Site plan dated March 10, 1981).
- D. An undisturbed buffer of existing natural vegetation shall be maintained between the mining disturbance and Park property as indicated by the "10 year buffer" shown on the site plan dated March 10, 1981 <sup>two (2)</sup> with the exception of <sup>both Crabtree Creek and the Vantage</sup> the installation of the <sup>earthen</sup> vegetated berms as specified by the revised Site Plan dated February 14, 1981.
- E. An undisturbed buffer zone of existing natural vegetation shall also be maintained between the top edge of the bank of Crabtree Creek and any mining disturbance within the 10 year permit area. The buffer zone shall be of sufficient width to prevent offsite sedimentation and to preserve the integrity of the natural watercourse. In any event, the buffer will meet U.S. Corps of Engineers requirements for Crabtree Creek Watershed. <sup>still</sup>
- F. The only exceptions to these undisturbed buffers of natural vegetation are:
- The construction of berms as approved by the Department for visual and noise screening.
  - The installation of drainage and sedimentation controls <sup>as approved by the Department</sup> to protect the Crabtree Creek.
  - ~~Such crossings as may be necessary in future years to accommodate the installation of utilities.~~
  - ~~The construction of a water supply dam as shown on drawings submitted in a permit modification request dated September 30, 1986~~ <sup>approved by the Department.</sup>

4. Erosion and Sediment Control

- Adequate mechanical barriers including but not limited to diversions, earthen dikes, brush barriers, silt check dams, silt retarding structures, rip rap pits, or ditches shall be provided in the initial stages of any land disturbance to prevent sediment from discharging onto adjacent surface areas or into any lake or natural watercourse in proximity to the affected land.
- The existing lakes shall be used to trap sediment from initial mining disturbances. The spillways of the existing lakes shall be further stabilized as necessary to prevent erosion of the spillway from runoff from the affected lands. The embankments of the existing lakes shall be improved if necessary to insure the stability of the embankments.

- C. The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control measures, structure, or device. In any event, exposed slopes or any excavated channels, the erosion of which may cause offsite damage due to siltation, shall be planted or otherwise provided with ground cover, devices or structures sufficient to restrain such erosion.
- D. Drainage shall be provided either through or around any berms that would otherwise obstruct natural drainage.

5. Noise Abatement

All reasonable precautions shall be taken to minimize the impact of operational noise upon Umstead Park. Such measures shall include but not be limited to:

- A. Noise barriers between the park boundary and the crushers and screening towers to minimize noise levels at the park shall be provided from the outset of the operation. Noise barriers may be enclosures, walls, bins, structures, stockpiles, or natural terrain. In the event there is disagreement over the required noise control measures, the final design and placement of noise barriers shall be determined by qualified noise and engineering consultants mutually agreed upon by both parties.
- B. The plant shall be located at the lowest feasible elevation.
- C. The plant shall be designed so that the primary crusher can be relocated in the pit at the earliest possible date.
- D. The chutes used in processing shall be rubberized.
- E. Compressors with noise abatement enclosures (currently called whisperized compressors) shall be used with track drills to open the quarry. Once the quarry is opened, either hydraulic or down-in-the-hole drills shall be used to further reduce noise.
- F. Pit haul trucks shall be equipped to exhaust through the beds of the trucks to muffle engine noise.
- G. Conveyors rather than trucks shall be used for stockpiling material.
- H. The quarry and stone process operations shall be operated only on Monday through Friday and shall not be operated on the following recognized holidays: New Year's Day, Easter Monday, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day. A reasonable amount of hauling of processed

stone from the stockpile areas is permitted until 1:00 P.M. on Saturdays, but hauling shall not be done at any other time on weekends or on holidays without prior approval by the Department.

#### 6. Processing Plant Location

- A. The processing and stockpiling facilities shall be located as indicated on the Wake Stone Corporation site plan dated March 10, 1981.
- B. The plant shall be located to place the processing and stockpiling facilities at the lowest possible elevation to reduce visibility and noise impact on the park.
- C. The location of the pit shall be such that, once the overburden is removed, the quarry excavating equipment (i.e. compressor and drill, shovels, and trucks) can be placed at an elevation lower than the surrounding natural ground in the initial phases of quarrying.

#### 7. Prevention of Stagnant Pools

The affected land shall be graded so as to prevent collection of pools of water that are, or are likely to become, noxious or foul. Necessary structures such as drainage ditches or conduits shall be constructed or installed when required to prevent such conditions.

#### 8. Blasting

The following blasting conditions shall be observed by the operator to prevent hazard to persons and adjacent property from thrown rock or vibrations:

- A. In all blasting operations, except as hereinafter otherwise provided, the maximum peak particle velocity of any component of ground motion shall not exceed 1 inch per second at the immediate location of any building regularly occupied by human beings such as dwelling house, church, school, public building, or commercial or institutional building. A smaller peak particle velocity may be required to protect neighboring structures or equipment vulnerable to vibrations less than 1 inch/second peak particle velocity.
- B. Airblast overpressure shall not exceed 128 decibels linear (dBL)-"warning," 132 dBL "caution," and 135 dBL "maximum" as measured at the immediate location of any dwelling house, church, school, public building, or commercial or institutional building.

C. The operator shall take all reasonable precautions to insure that flyrock is not thrown beyond areas where the access is temporarily or permanently guarded by the operator. Should flyrock occur beyond the guarded area, it shall be reported to the Department immediately. The Department will conduct a thorough investigation to determine the cause. Failure to take corrective measures to prevent flyrock and repeated instances of flyrock shall be considered a violation of the permit.

D. Operator shall maintain records on each individual blast describing: the total number of holes; pattern of holes; depth of holes; total pounds of explosives; maximum pounds per delay interval; amount of stemming and burden for each hole; and blast location. Records shall be maintained at the permittee's mine office and copies shall be provided to the Department upon request.

#### 9. Visual Screening

C. The operation shall be situated to optimize natural screening of the operation from public view from Interstate 40 and the Park property. The visual screening plan shall include maintaining undisturbed buffer areas of natural vegetation as shown on the site plan dated March 10, 1981. Additionally, a vegetated earthen berm shall be constructed east of the processing plant and stock-pile area as shown on the revised site plan. Visual screening such as vegetated earthen berms and/or evergreen trees shall be placed as necessary to supplement natural screening.

#### Construction of Berms

*dated March 10, 1981 and February 14, 1991.*

- A. A vegetated earthen berm shall be constructed between the Wake Stone Corporation plant and the western boundary of the Park as shown on Wake Stone Corporation's site plan dated March 10, 1981 *and February 14, 1991.*
- B. Berm dimensions shall be no less than indicated on Wake Stone Corporation's site plan *dated March 10, 1981, and may be higher and longer than shown.* *and February 14, 1991*
- C. The side slopes of <sup>all</sup> the berms shall be graded to a ~~stable grade~~ <sup>of 2 horizontal to 1 vertical</sup> grade or flatter and revegetated on the sides and top with grasses and evergreen trees. The toe of the berm shall not encroach on the park property boundary and shall be at least 50 feet from the boundary. The alignment of the berm may vary from the approved site plan as is necessary to provide the 50 feet of undisturbed land between the park boundary and the toe of the berm and assuring an acceptable ~~angle of repose~~ for the slope of the berm.
- D. Other berms may be required as mining progresses to reduce the noise and visual impact upon the park.

10. Highwall Barrier

A physical barrier consisting of a fence or boulder barriers, etc. shall be maintained around the perimeter of any quarry highwall.

11. Annual Report

An Annual Reclamation Report shall be submitted on a form supplied by the Department on February 1 of each year until reclamation is completed and approved.

12. Surety Bond

The security which was posted pursuant to N.C.G.S. 74-54 in the form of \$25,000.00 Blanket Bond is sufficient to cover the crushed stone operation as indicated on the approved application. This security must remain in force for this permit to be valid. The total affected land shall not exceed the bonded acreage.

APPROVED RECLAMATION PLAN

The Mining Permit incorporates this Reclamation Plan, the performance of which is a condition on the continuing validity of that Mining Permit. Additionally, the Reclamation Plan is a separable obligation of the permittee, which continues beyond the term of the Mining Permit.

The approved plan provides:

Minimum Standards As Provided By G. S. 74-53

1. The final slopes in all excavations in soil, sand, gravel and other unconsolidated materials shall be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land.
2. Provisions for safety to persons and to adjoining property must be provided in all excavations in rock.
3. All overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land.
4. No small pools of water shall be allowed to collect or remain on the mined area that are, or are likely to become noxious, odious or foul.
5. The revegetation plan shall conform to accepted and recommended agronomic and reforestation practices as established by the N.C. Agricultural Experiment Station and the N.C. Forest Service.
6. Permittee shall conduct reclamation activities pursuant to the Reclamation Plan herein incorporated. These activities shall be conducted according to the time schedule included in the plan, which shall to the extent feasible provide reclamation simultaneous with mining operations and in any event, initiation of reclamation at the earliest practicable time after completion or termination of mining on any segment of the permit area and shall be completed within two years after completion or termination of mining.

RECLAMATION CONDITIONS

1. Provided further, and subject to the Reclamation Schedule, the reclamation shall be to restore the affected lands to a condition suitable for wildlife and recreation.
2. Specifications for reclamation shall be as follows:
  - A. The process plant area shall be graded and smoothed.
  - B. Any sideslopes in unconsolidated material shall be graded to a 2 horizontal to 1 vertical grade or flatter.

- C. Suitable benches shall be left in the rock excavation to provide support where rock weakness could lead to collapse of high walls.
- D. Overburden shall be used for site grading or berm construction at approved locations.
- E. Settling ponds shall be drained and stabilized to prevent erosion.
- F. Oil, grease, scrap metal, wood and other debris shall be removed from the surface and delivered to scrap dealers or landfilled in an approved manner.
- G. Any diverted or re-established drainage channels shall be restored to a stable condition.
- H. The affected land shall be graded to prevent the collection of noxious or foul water.

3. Revegetation Plan

All <sup>disturbed</sup> reclaimed areas in unconsolidated material shall be <sup>permanently</sup> re-vegetated utilizing the following provisions:

Site Preparation: <sup>land surface shall</sup> The ~~ground~~ <sup>will</sup> be graded <sup>to create grades applicable to the</sup> and/or shaped <sup>subsequent</sup> where necessary ~~keeping in mind the ultimate~~ use of the site, but in no case will any slope greater than 26 degrees in unconsolidated material be left. Loose rock, woody material, and other obstruction that <sup>will</sup> interfere with the establishment of vegetation planned for the site ~~will~~ be removed and ~~or~~ buried. Surface runoff ~~that might concentrate to cause undesirable erosion~~ will be controlled by terraces or diversions <sup>diverting water to</sup> ~~protect~~ outlets.

*to allow discharge through protected*

Lime and Fertilizer: <sup>lime</sup> Liming and ~~100%~~ <sup>shall be applied</sup> fertilizer ~~will be~~ conducted <sup>in proper</sup> in accordance with soil test results, ~~and as required for vegetation~~ <sup>disposed of</sup> planned ~~for the site.~~   
*at a rate of 1,000 lbs./ac. of 10-20-20 fertilizer.*

Seedbed Preparation: Lime and fertilizer <sup>shall</sup> ~~will~~ be mixed with the soil to a depth of 3 to 4 inches where conventional equipment can be used. On slopes steeper than about 2:1, soils ~~will be~~ <sup>shall</sup> grooved or scarified along the contour to provide for retention of seeds and nutrients on the slope until germination and growth is started. On steep slopes not accessible to machinery, seed, ~~and~~ <sup>seed</sup> nutrients ~~will~~ be applied by hand.   
*seed and nutrients shall*

*seedling equipment,*



Revegetation:

*More on Revegetation Species section attached!*

Vegetation: Sericea Lespedeza and/or Weeping lovegrass will be established on the site to provide ground cover and erosion control. When using Sericea Lespedeza, scarified seed will be applied when reclamation is conducted during spring months and unscarified seed will be used during the fall.

Application will be in a uniform manner either by machine or hand at the rate of 50 pounds of lovegrass, Lespedeza, or combination per acre. Seed will be covered to a depth of 1/8 to 1/4 inch and the soil then firmed with a cultipacker or similar equipment. Mulch consisting of dry, unchopped small grain straw or similar type material will be spread evenly over the surface at the rate of 1 to 2 tons per acre or until about 75 percent of the soil is hidden. Loblolly pine seedlings will be planted at selected sites to provide a view screen to provide revegetation. Spacing will be about 4' X 4' for revegetation purposes.

\* Maintenance: Plant replacement and other maintenance that may be required to establish vegetative cover appropriate to the reclamation plan for this site will be carried out until vegetation is properly established. *shall*

#### 4. Reclamation Schedule

Some reclamation activities, particularly those relating to control of erosion, will be conducted simultaneously with mining activities. Diversion channels or terraces that may be required to control surface runoff on the property will be established and revegetated as soon as they are constructed. Portions of berms will be revegetated as completed. Final reclamation activities will be initiated at the earliest practicable time after completion or termination of mining on any segment of the permit area, and in all instances reclamation activities will be completed within two years after completion or termination of mining.

*See 25*

#### 5. Donation to State

This provision is pursuant to Wake Stone Corporation's offer to donate the quarry site to the State as part of its reclamation plan.

The term, "quarry site," shall include the entire pit as it exists after quarrying has been completed, a strip extending at least 50 feet back from the top of the slope of the pit on all sides and a reasonable area to connect the pit and surrounding strip to the Park, constituting a total area of at least 75 acres.

During the option period, Wake Stone Corporation shall have the right to encumber all of its remaining property from time to time by mortgage, deed of trust or other security agreement then in common use for the purpose of securing one or more bona fide obligations of Wake Stone Corporation, such as the payment of money or the providing of any goods or services. The option to the State shall be subordinate to each such encumbrance in the same manner and to the same extent as if such option had been recorded after the recordation of each such encumbrance.

The right of the State to exercise its option shall be subject to:

- A. Wake Stone Corporation not being prohibited by the U.S. Government, State of North Carolina, Wake County, any municipality having jurisdiction, or by any court from removing Wake Stone Corporation's property all quarryable stone which is outside the buffer zone referred to in condition 3, page 4. The requirements by the State that Wake Stone Corporation comply with laws and rules and regulations generally applicable to stone quarries shall not be deemed a prohibition of quarrying for the purpose of the option agreement.
- B. The operation of a quarry on Wake Stone Corporation's property for a minimum period of five years.

The conveyance of the quarry site, if approved by the State, shall be by deed containing the usual covenants of warranty and conveying the quarry site free and clear of all encumbrances except those existing at the time of Wake Stone Corporation's purchase, ad valorem taxes at the time of conveyance (which shall be prorated), and such drainage and utility easements as shall have been installed in connection with the development of the property.

The option may include such other terms as are mutually acceptable to the State and Wake Stone Corporation.

The method by which the quarry site may be donated to the State is as follows: Upon acquisition of the land by Wake Stone Corporation (by the exercise of its options to purchase), Wake Stone Corporation will grant to the State an option which, if exercised by the State, will require that Wake Stone Corporation convey a fee simple title to the quarry site to the State. The State shall have no obligation to exercise its option to accept a conveyance of the quarry site.

The terms and conditions of the option shall be as follows:

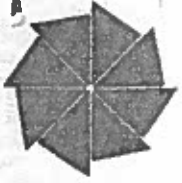
- A. When all quarryable stone has been removed from all of the land belonging to or under the control of Wake Stone Corporation during the period of its quarrying operations and which lies between the Park and Interstate Highway 40, it shall be the duty of Wake Stone Corporation to notify the State of this fact. Upon receipt of such notice, the State shall have six months within which it may elect to have Wake Stone Corporation convey the quarry site to the State. If the State elects to have Wake Stone Corporation convey the quarry site to the State, it shall notify Wake Stone Corporation of such election within said six month period. All notices shall be by certified mail and return receipt requested. If the State fails to make an election within said six month period or shall elect not to accept a conveyance of the quarry site, the option shall thereupon terminate and Wake Stone Corporation shall have no further obligation to convey the quarry site to the State.
- B. If all quarryable stone is not removed, the right of the State to acquire the quarry site shall accrue at the end of 50 years from the date quarrying commences or 10 years after quarrying operations have ceased without having been resumed, whichever is sooner, and notices shall be exchanged at that time in the same manner and with the same time limitations as set forth in paragraph A above.
- C. Until the option has expired Wake Stone Corporation will not encumber by mortgage or deed of trust of any of the area designated "BUFFER AREA" on Wake Stone Corporation's site plan dated February 17, 1981, revised March 10, 1981, except for purchase money security interests.

The terms and conditions relating to the donation are placed herein to prescribe generally the boundaries of the Wake Stone Corporation offer. The acceptance by the State is subject to approval by the Department of Administration and the Council of State and the ascertaining that the offer is in accord with the laws of the State and lawfully adopted rules and regulations. Further, the Department's analysis of the condition of the land to be transferred will be in accordance with the criteria identified in the "Principles Governing the Establishment Extension and Development of State Parks, State Recreation Areas and State Natural Areas."

Permit issued this the 15<sup>th</sup> day of April, 1986.

By: Stephen G. Conrad

Stephen G. Conrad, Director  
Division of Land Resources  
By Authority of the Secretary  
Of the Department of Natural Resources and Community Development



North Carolina Department of Natural  
Resources & Community Development

James B. Hunt, Jr., Governor

Howard N. Lee, Secretary

DIVISION OF  
LAND RESOURCES

Stephen G. Conrad, Director

Box 27687, Raleigh 27611  
Telephone 919 733-3833

May 13, 1981

Mr. John Bratton, Jr.  
Wake Stone Corporation  
P. O. Box 190  
Knightdale, North Carolina 27545

RE: Cary Quarry  
Wake County

Dear Mr. Bratton:

The application for a mining permit for the Cary Quarry in Wake County has been found to meet the requirements of G.S. 74-51 of The Mining Act of 1971. Since your company already has a blanket bond on file sufficient to cover this application, I am enclosing the mining permit.

The conditions of the mining permit were based primarily upon information supplied in the application with conditions added as directed by the North Carolina Mining Commission necessary to insure compliance with The Mining Act of 1971 and to provide maximum possible protection to William B. Umstead State Park.

Please review the permit and notify this office of any objection or question concerning the terms of the permit.

Very truly yours,

Stephen G. Conrad, Director

SGC:pg

cc: ✓ John Holley

DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

DIVISION OF LAND RESOURCES

LAND QUALITY SECTION

P E R M I T

for the operation of a mining activity

In accordance with the provisions of G. S. 74-46 through 68, "The Mining Act of 1971", Mining Permitting Regulation 15 N.C.A.C. 5B, and other applicable laws, rules and regulations

Permission is hereby granted to:

WAKE STONE CORPORATION , permittee

for the operation of a CRUSHED STONE QUARRY  
entitled, CARY QUARRY , permit no. 92-10  
and located in WAKE County, which shall provide  
that the usefulness, productivity and scenic values of all lands  
and waters affected by this mining operation will receive the  
greatest practical degree of protection and restoration.

In accordance with the application for this mining permit, which is hereby approved by the Department of Natural Resources and Community Development, hereinafter referred to as the Department, and in conformity with the approved Reclamation Plan attached to and incorporated as part of this permit, provisions must be made for the protection of the surrounding environment and for reclamation of the land and water affected by the permitted mining operation. This permit is expressly conditioned upon compliance with all the requirements of the approved Reclamation Plan. However, completed performance of the approved Reclamation Plan is a separable obligation, secured by the bond or other securities on file with the Department, and may survive the expiration, revocation or suspension of this permit.

This permit is not transferable by the permittee with the following exception: If another operator succeeds to the interest of the permittee in the permitted mining operation, by virtue of a sale, lease, assignment or otherwise, the Department may release the permittee from the duties imposed upon him by the conditions of his permit and by the Mining Act with reference to the permitted operation, and transfer the permit to the successor operator, provided that both operators have complied with the requirements of the Mining Act and that the successor operator agrees to assume the duties of the permittee with reference to reclamation of the affected land and posts a suitable bond or other security.

In the event that the Department determines that the permittee or permittee's successor is not complying with the Reclamation Plan or other terms and conditions of this permit, or is failing to achieve the purposes and requirements of the Mining Act, the Department may give the operator written notice of its intent to modify, revoke or suspend the permit, or its intent to modify the Reclamation Plan as incorporated in the permit. The operator shall have right to a hearing at a designated time and place on any proposed modification, revocation or suspension by the Department. Alternatively and in addition to the above, the Department may institute other enforcement procedures authorized by law.

#### Definitions

Wherever used or referred to in this permit, unless the context clearly indicates otherwise, terms shall have the same meaning as supplied by the Mining Act, N.C.G.S. 74-49.

#### Site Plan

The site plan referred to in this permit shall indicate the topographic site plan of the Wake Stone Corporation revised March 10, 1981, with the following exception:

The berm and associated disturbances located along the northern boundary shall not be constructed unless approved by the Department.

## Park

Whenever used or referred to in this permit, the term "park" shall mean the William B. Umstead State Park.

## Conditions

The permitted mining operation shall not violate standards of air quality, surface water quality, or ground water quality promulgated by the Environmental Management Commission.

This permit shall be effective from the date of its issuance until May 13, 1991 and shall be subject to the provisions of the Mining Act, N.C.G.S. 74-46, et. seq., and to the following conditions and limitations:

### 1. Wastewater Control

Any wastewater processing shall be in accordance with permit requirements and regulations promulgated by the Division of Environmental Management.

### 2. Dust Control

Any mining process producing air contaminant emissions shall be subject to the permitting requirements and regulations promulgated by the Division of Environmental Management. The operator will take whatever reasonable precautions necessary to prevent or minimize the fugitive dust from going offsite. Such measures include but are not limited to:

- A. The access road to the quarry, from the scale house to SR 1790, shall be paved. Wake Stone Corporation shall cooperate with the Department of Transportation in paving SR 1790 from the entrance to the quarry to the intersection with SR 1654.
- B. The provisions of the air quality permit #4386 shall be followed.
- C. A water wagon with sprays shall be used for wetting roads to prevent dust.
- D. Sprays shall be used throughout the plant at transfer points to control dust.
- E. Drill hole dust shall be controlled by wetting or other means.
- F. Dust control at the crushers and screens shall be maintained by the use of water sprays.
- G. A water spray shall be provided for highway haul trucks.
- H. Washed stone shall be stockpiled within the part of the designated plant area which is closest to the park.

### 3. Buffer Zones

The dotted line labelled as buffer along the northern boundary and along the eastern boundary is the permanent buffer as designated by the Mining Commission. (Site plan dated March 10, 1981)

An undisturbed buffer of existing natural vegetation shall be maintained between the mining disturbance and Park property as indicated by the "10 year buffer" shown on the site plan dated March 10, 1981.

An undisturbed buffer zone of existing natural vegetation shall also be maintained between the top edge of the bank of Crabtree Creek and any mining disturbance within the 10 year permit area. The buffer zone shall be of sufficient width to prevent offsite sedimentation and to preserve the integrity of the natural watercourse. In any event, the buffer will meet U.S. Corps of Engineers requirements for Crabtree Creek Watershed.

The only exceptions to these undisturbed buffers of natural vegetation are:

- A. The construction of berms as approved by the Department for visual and noise screening.
- B. The installation of drainage and sedimentation controls to protect the Crabtree Creek.
- C. Such crossings as may be necessary in future years to accommodate the installation of utilities.

### 4. Erosion and Sediment Control

- A. Adequate mechanical barriers including but not limited to diversions, earthen dikes, brush barriers, silt check dams, silt retarding structures, rip rap pits, or ditches shall be provided in the initial stages of any land disturbance to prevent sediment from discharging onto adjacent surface areas or into any lake or natural watercourse in proximity to the affected land.
- B. The existing lakes shall be used to trap sediment from initial mining disturbances. The spillways of the existing lakes shall be further stabilized as necessary to prevent erosion of the spillway from runoff from the affected lands. The embankments of the existing lakes shall be improved if necessary to insure the stability of the embankments.



- C. The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control measures, structure, or device. In any event, exposed slopes or any excavated channels, the erosion of which may cause offsite damage due to siltation, shall be planted or otherwise provided with ground cover, devices or structures sufficient to restrain such erosion.
- D. Drainage shall be provided either through or around any berms that would otherwise obstruct natural drainage.

## 5. Noise Abatement

All reasonable precautions shall be taken to minimize the impact of operational noise upon Umstead Park. Such measures shall include but not be limited to:

- A. Noise barriers between the park boundary and the crushers and screening towers to minimize noise levels at the park shall be provided from the outset of the operation. Noise barriers may be enclosures, walls, bins, structures, stockpiles, or natural terrain. In the event there is disagreement over the required noise control measures, the final design and emplacement of noise barriers shall be determined by qualified noise and engineering consultants mutually agreed upon by both parties.
- B. The plant shall be located at the lowest feasible elevation.
- C. The plant shall be designed so that the primary crusher can be relocated in the pit at the earliest possible date.
- D. The chutes used in processing shall be rubberized.
- E. Compressors with noise abatement enclosures (currently called whisperized compressors) shall be used with track drills to open the quarry. Once the quarry is opened, either hydraulic or down-in-the-hole drills shall be used to further reduce noise.
- F. Pit haul trucks shall be equipped to exhaust through the beds of the trucks to muffle engine noise.
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- H. The quarry and stone process operations shall be operated only on Monday through Friday and shall not be operated on the following recognized holidays: New Year's Day, Easter Monday, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day. A reasonable amount of hauling of processed

stone from the stockpile areas is permitted until 1:00 P.M. on Saturdays, but hauling shall not be done at any other time on weekends or on holidays without prior approval by the Department.

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The affected land shall be graded so as to prevent collection of pools of water that are, or are likely to become, noxious or foul. Necessary structures such as drainage ditches or conduits shall be constructed or installed when required to prevent such conditions.

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The operation shall be situated to optimize natural screening of the operation from public view from Interstate 40 and the Park property. The visual screening plan shall include maintaining undisturbed buffer areas of natural vegetation as shown on the site plan dated March 10, 1981. Additionally, a vegetated earthen berm shall be constructed east of the processing plant and stockpile area as shown on the revised site plan. Visual screening such as vegetated earthen berms and/or evergreen trees shall be placed as necessary to supplement natural screening.

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3. All overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land.
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  - B. Any sideslopes in unconsolidated material shall be graded to a 2 horizontal to 1 vertical grade or flatter.

- C. Suitable benches shall be left in the rock excavation to provide support where rock weakness could lead to collapse of high walls.
- D. Overburden shall be used for site grading or berm construction at approved locations.
- E. Settling ponds shall be drained and stabilized to prevent erosion.
- F. Oil, grease, scrap metal, wood and other debris shall be removed from the surface and delivered to scrap dealers or landfilled in an approved manner.
- G. Any diverted or re-established drainage channels shall be restored to a stable condition.
- H. The affected land shall be graded to prevent the collection of noxious or foul water.

### 3. Revegetation Plan

All reclaimed areas in unconsolidated material shall be re-vegetated utilizing the following provisions:

Site Preparation: The ground will be graded and/or shaped where necessary keeping in mind the ultimate use of the site, but in no case will any slope greater than 26 degrees in unconsolidated material be left. Loose rock, woody material, and other obstruction that will interfere with the establishment of vegetation planned for the site will be removed and/or buried. Surface runoff that might concentrate to cause undesirable erosion will be controlled by terraces or diversions diverting water to protect outlets.

Lime and Fertilizer: Liming and/or fertilizer will be conducted in accordance with soil test results and as required for vegetation planned for the site.

Seedbed Preparation: Lime and fertilizer will be mixed with the soil to a depth of 3 to 4 inches where conventional equipment can be used. On slopes steeper than about 2:1, soils will be grooved or scarified along the contour to provide for retention of seeds and nutrients on the slope until germination and growth is started. On steep slopes not accessible to machinery, seed and nutrients will be applied by hand.

Vegetation: Sericea Lespedeza and/or Weeping lovegrass will be established on the site to provide ground cover and erosion control. When using Sericea Lespedeza, scarified seed will be applied when reclamation is conducted during spring months and unscarified seed will be used during the fall.

Application will be in a uniform manner either by machine or hand at the rate of 50 pounds of lovegrass, Lespedeza, or combination per acre. Seed will be covered to a depth of 1/8 to 1/4 inch and the soil then firmed with a cultipacker or similar equipment. Mulch consisting of dry, unchopped small grain straw or similar type material will be spread evenly over the surface at the rate of 1 to 2 tons per acre or until about 75 percent of the soil is hidden. Loblolly pine seedlings will be planted at selected sites to provide a view screen to provide revegetation. Spacing will be about 4' X 4' for revegetation purposes.

Maintenance: Plant replacement and other maintenance that may be required to establish vegetative cover appropriate to the reclamation plan for this site will be carried out until vegetation is properly established.

#### 4. Reclamation Schedule

Some reclamation activities, particularly those relating to control of erosion, will be conducted simultaneously with mining activities. Diversion channels or terraces that may be required to control surface runoff on the property will be established and revegetated as soon as they are constructed. Portions of berms will be revegetated as completed. Final reclamation activities will be initiated at the earliest practicable time after completion or termination of mining on any segment of the permit area, and in all instances reclamation activities will be completed within two years after completion or termination of mining.

#### 5. Donation to State

This provision is pursuant to Wake Stone Corporation's offer to donate the quarry site to the State as part of its reclamation plan.

The term, "quarry site," shall include the entire pit as it exists after quarrying has been completed, a strip extending at least 50 feet back from the top of the slope of the pit on all sides and a reasonable area to connect the pit and surrounding strip to the Park, constituting a total area of at least 75 acres.

During the option period, Wake Stone Corporation shall have the right to encumber all of its remaining property from time to time by mortgage, deed of trust or other security agreement then in common use for the purpose of securing one or more bona fide obligations of Wake Stone Corporation, such as the payment of money or the providing of any goods or services. The option to the State shall be subordinate to each such encumbrance in the same manner and to the same extent as if such option had been recorded after the recordation of each such encumbrance.

The right of the State to exercise its option shall be subject to:

- A. Wake Stone Corporation not being prohibited by the U.S. Government, State of North Carolina, Wake County, any municipality having jurisdiction, or by any court from removing Wake Stone Corporation's property all quarryable stone which is outside the buffer zone referred to in condition 3, page 4. The requirements by the State that Wake Stone Corporation comply with laws and rules and regulations generally applicable to stone quarries shall not be deemed a prohibition of quarrying for the purpose of the option agreement.
- B. The operation of a quarry on Wake Stone Corporation's property for a minimum period of five years.

The conveyance of the quarry site, if approved by the State, shall be by deed containing the usual covenants of warranty and conveying the quarry site free and clear of all encumbrances except those existing at the time of Wake Stone Corporation's purchase, ad valorem taxes at the time of conveyance (which shall be prorated), and such drainage and utility easements as shall have been installed in connection with the development of the property.

The option may include such other terms as are mutually acceptable to the State and Wake Stone Corporation.

The method by which the quarry site may be donated to the State is as follows: Upon acquisition of the land by Wake Stone Corporation (by the exercise of its options to purchase), Wake Stone Corporation will grant to the State an option which, if exercised by the State, will require that Wake Stone Corporation convey a fee simple title to the quarry site to the State. The State shall have no obligation to exercise its option to accept a conveyance of the quarry site.



The terms and conditions of the option shall be as follows:

- A. When all quarryable stone has been removed from all of the land belonging to or under the control of Wake Stone Corporation during the period of its quarrying operations and which lies between the Park and Interstate Highway 40, it shall be the duty of Wake Stone Corporation to notify the State of this fact. Upon receipt of such notice, the State shall have six months within which it may elect to have Wake Stone Corporation convey the quarry site to the State. If the State elects to have Wake Stone Corporation convey the quarry site to the State, it shall notify Wake Stone Corporation of such election within said six month period. All notices shall be by certified mail with return receipt requested. If the State fails to make an election within said six month period or shall elect not to accept a conveyance of the quarry site, the option shall thereupon terminate and Wake Stone Corporation shall have no further obligation to convey the quarry site to the State.
- B. If all quarryable stone is not removed, the right of the State to acquire the quarry site shall accrue at the end of 50 years from the date quarrying commences or 10 years after quarrying operations have ceased without having been resumed, whichever is sooner, and notices shall be exchanged at that time in the same manner and with the same time limitations as set forth in paragraph A above.
- C. Until the option has expired Wake Stone Corporation will not encumber by mortgage or deed of trust any of the area designated "BUFFER AREA" on Wake Stone Corporation's site plan dated February 17, 1981, revised March 10, 1981, except for purchase money security interests.

The terms and conditions relating to the donation are placed herein to prescribe generally the boundaries of the Wake Stone Corporation offer. The acceptance by the State is subject to approval by the Department of Administration and the Council of State and the ascertaining that the offer is in accord with the laws of the State and the adopted rules and regulations. Further, the Department's analysis of the condition of the land to be transferred will be in accordance with the criteria identified in the "Principles Governing the Establishment, Extension and Development of State Parks, State Recreation Areas and State Natural Areas."

Permit issued this the 13<sup>th</sup> day of May, 1981.

BY: Stephen G. Conrad

Stephen G. Conrad, Director  
Division of Land Resources  
By Authority of the Secretary

Of the Department of Natural Resources and Community Development