



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

P.O. BOX 25201, RALEIGH, N.C. 27611-5201

LYNDO TIPPETT  
SECRETARY

September 14, 2006

Mr. Craig Glass  
Windjam 23, LLC  
1130 Situs Court, Suite 250  
Raleigh, NC 27606

**SUBJECT: ENCROACHMENT AGREEMENT (19-3311)**  
**Widening for left turn lane & right turn taper**  
**SR 1700**  
**Chatham County**

Dear Mr. Glass

Attached is a properly executed copy of a Right of Way Encroachment Agreement which covers the following:

Widening for left turn lane & right turn taper for The Hamptons Subdivision Phase II on SR 1700 in Chatham Co.

This agreement is approved subject to the Special Provisions that are attached to and made a part of the Encroachment Agreement. This encroachment agreement accompanies driveway permit # 19-678.

Sincerely

  
Timothy Johnson, R.E.  
Division Engineer

TJ:jek

Attachments

Cc: Robert Memory, State Utility Agent, Utility Coordination Unit (w/orig.)  
R. E. Blakley, P.E., District Engineer (19-3311)

ROUTE SR 1700 PROJECT The Hamptons Subd. COUNTY OF STATE OF NORTH CAROLINA  
Chatham

DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY ENCROACHMENT AGREEMENT FOR  
CURB AND GUTTER, PAVEMENT WIDENING AND  
STORM DRAINAGE

-AND-

Windjam 23, LLC

1130 Situs Court, Suite 250, Raleigh, NC 27606

THIS AGREEMENT, made and entered into this the 14<sup>th</sup> day of Sept, 20 06, by and between the Department of Transportation, party of the first part; and Windjam 23, LLC

party of the second part,

WITNESSETH

THAT WHEREAS, the party of the second part desires to encroach on the right of way of the public road designated as Route(s) SR 1700 (Mt. Gilead Church Rd.), located approximately one-half mile north of its intersection with SR 1711 (Bynum Ridge Road)

with the construction and/or erection of: approximately 1005 linear feet of pavement widening (approximately 850 square yards of new paving) to facilitate auxiliary turn lane for the Hamptons Phase II subdivision.

WHEREAS, it is to the material advantage of the party of the second part to effect this encroachment, and the party of the first part in the exercise of authority conferred upon it by statute, is willing to permit the encroachment within the limits of the right of way as indicated, subject to the conditions of this agreement;

NOW, THEREFORE, IT IS AGREED that the party of the first part hereby grants to the party of the second part the right and privilege to make this encroachment as shown on attached plan sheet(s), specifications and special provisions which are made a part hereof upon the following conditions, to wit:

That the said party of the second part binds and obligates himself to install the encroaching facility in such safe and proper condition that it will not interfere with or endanger travel upon said highway.

That the party of the second part agrees to provide during construction proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.

That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for damage that may arise by reason of the installation and maintenance of this encroachment.

It is clearly understood by the party of the second part that the party of the first part will assume no responsibility for any damage that may be caused to such facilities, within the highway rights of way limits, in carrying out its construction.

That the party of the second part agrees to restore all areas disturbed during construction to the satisfaction of the Division Engineer of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities and other official agencies relating to pollution prevention and control. When any construction operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Division Engineer of the party of the first part.

That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Division Engineer of the party of the first part.

That the party of the second part agrees to have available at the encroaching site, at all times during construction, a copy of this agreement showing evidence of approval by the party of the first part. The party of the first part reserves the right to stop all work unless evidence of approval can be shown.

Provided the work contained in this agreement is being performed on a completed highway open to traffic; the party of the second part agrees to give written notice to the Division Engineer of the party of the first part when all work contained herein has been completed. Unless specifically requested by the party of the first part, written notice of completion of work on highway projects under construction will not be required.

That in the case of noncompliance with the terms of this agreement by the party of the second part, the party of the first part reserves the right to stop all work until the facility has been brought into compliance or removed from the right of way at no cost to the party of the first part.

That it is agreed by both parties that this agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the party of the first part unless written waiver is secured by the party of the second part from the party of the first part.

R/W (161B) : Party of the Second Part certifies that this agreement is true and accurate copy of the form R/W (161B) incorporating all revisions to date.

IN WITNESS WHEREOF, each of the parties to this agreement has caused the same to be executed the day and year first above written.

DEPARTMENT OF TRANSPORTATION

BY: [Signature]  
Asst. Manager of Right of Way

ATTEST OR WITNESS:

[Signature]  
111 Mad Kenan Drive Cary, NC 27511

x [Signature]  
Craig Glass, Manager, Windjam 23, LLC  
1130 Situs Court, Suite 250, Raleigh, NC 27606  
Second Party

### INSTRUCTIONS

When the applicant is a corporation or a municipality, this agreement must have the corporate seal and be attested by the corporation secretary or by the empowered city official, unless a waiver of corporate seal and attestation by the secretary or by the empowered City official is on file in the Raleigh office of the Manager of Right of Way. In the space provided in this agreement for execution, the name of the corporation or municipality shall be typed above the name, and title of all persons signing the agreement should be typed directly below their signature.

When the applicant is not a corporation, then his signature must be witnessed by one person. The address should be included in this agreement and the names of all persons signing the agreement should be typed directly below their signature.

This agreement must be accompanied, in the form of an attachment, by plans or drawings showing the following applicable information:

1. All roadways and ramps.
2. Right of way lines and where applicable, the control of access lines.
3. Location of the proposed encroachment.
4. Length and type of encroachment.
5. Location by highway survey station number. If station number cannot be obtained, location should be shown by distance from some identifiable point, such as a bridge, road, intersection, etc. (To assist in preparation of the encroachment plan, the Department's roadway plans may be seen at the various Highway Division Offices, or at the Raleigh office.)
6. Drainage structures or bridges if affected by encroachment.
7. Typical section indicating the pavement design and width, and the slopes, widths and details for either a curb and gutter or a shoulder and ditch section, whichever is applicable.
8. Horizontal alignment indicating general curve data, where applicable.
9. Vertical alignment indicated by percent grade, P.I. station and vertical curve length, where applicable.
10. Amount of material to be removed and/or placed on NCDOT right of way, if applicable.
11. Cross-sections of all grading operations, indicating slope ratio and reference by station where applicable.
12. All pertinent drainage structures proposed. Include all hydraulic data, pipe sizes, structure details and other related information.
13. Erosion and sediment control.
14. Any special provisions or specifications as to the performance of the work or the method of construction that may be required by the Department must be shown on a separate sheet attached to encroachment agreement provided that such information cannot be shown on plans or drawings.
15. The Department's Division Engineer should be given notice by the applicant prior to actual starting of installation included in this agreement.
16. Method of handling traffic during construction where applicable.
17. Scale of plans, north arrow, etc.

**ENCROACHMENT SPECIAL PROVISIONS**  
**WINDJAM 23, LLC**  
**19-3311 (CHATHAM)**

*Approval of the encroachment agreement is made subject to the following Special Provisions:*

1. Changes noted in red on the plans shall be incorporated into and made a part of the encroachment agreement. An executed copy of the encroachment agreement shall be available at the construction site at all times. NCDOT reserves the rights to stop all work unless evidence of approval can be shown.
2. Notify the following prior to beginning work:
  - *B.F. Sloan, County Maintenance Engineer*  
1404 E. Raleigh St.  
Siler City, N.C. 27344  
(919) 742-3431
3. **The encroaching party shall comply with all applicable federal, state and local environmental regulations, and shall obtain all necessary federal, state and local environmental permits, including but not limited to, those related to sediment control, stormwater, wetland, streams, endangered species, and historical sites.**
4. All materials and construction shall be in accordance with NCDOT standards and specifications, including but not limited to the **NCDOT Standard Specifications for Roads and Structures 2006**, the **NCDOT Roadway Standards Drawings**, and **NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way**.
5. It shall be the responsibility of the Encroacher to determine the location of other utilities within the encroachment area in accordance with General Statute 87-102. The Encroacher shall be responsible for notifying other utility owners and providing protection and safeguards to prevent damage or interruption to existing facilities and to maintain accessibility to existing utilities. Costs to repair, restore, or relocate existing utilities due to this encroachment shall be the responsibility of the encroaching party.
6. NCDOT does not guarantee the Right of Way on this road, nor will it be responsible for any claim for damages brought by any property owner by reason of this encroachment. All Right of Way and easements necessary for construction and maintenance shall be dedicated to NCDOT with the proof of dedication furnished to the District Engineer prior to beginning work. Encroachment within the Right of Way does not imply approval for encroachment onto adjacent property. The Encroacher shall be responsible for securing any easement, permit, permission, or approval for encroachment or other use of property outside the state maintained right of way. Right of Way monuments disturbed during construction shall be referenced by a Professional Land Surveyor and reset immediately after construction.
7. The encroaching Party shall take whatever measures are necessary to minimize soil erosion and siltation, water pollution, and air pollution. It shall be the responsibility of the Encroaching Party to keep fully informed to comply with the applicable regulations of all legally constituted authorities relating to pollution prevention and control. In the event of conflict between regulations, specifications, or requirements, the more restrictive requirement shall apply. All erosion and pollution control devices and measures shall be constructed, installed, maintained and removed by the encroaching party in accordance with all applicable Federal, State and Local laws, regulations, ordinances, and policies. No construction shall begin until all erosion control devices have been installed to the satisfaction of the District Engineer. Failure to comply with this provision shall be grounds for immediate suspension of all activities within the Right of Way.
8. A \$ 150,000.00 Performance and Indemnity Bond shall be executed and posted with the District Engineer prior to beginning any work on the Right of Way. The required bond may be executed in any of the following methods.

- Cash bond in the form of a certified check payable to the North Carolina Department of Transportation.
  - Performance and indemnity bond underwritten by a surety company legally authorized to do business in North Carolina.
  - Continuing bond for the performance of work within the NCDOT Right of Ways.
  - Cashiers check or bank letter of credit (2 copies with original signature) in the amount of the bond.
  - The Bond shall be submitted to the District Engineer, North Carolina Department of Transportation, P.O. Box 1164, Asheboro, N.C. 27204. Please identify the Encroachment Agreement by including File # 19-3311 on the Bond.
9. Bonds shall remain in effect for a period of one (1) year following completion of the job. The encroaching party shall notify the District Engineer in writing when all work within the Right of Way has been completed. Upon receipt of written notification, the District Engineer will inspect the project and provide certification that the project has been completed. When the project has been satisfactorily completed for one (1) year, the bonding company shall submit a written request along with a copy of the encroachment authorization to the District Engineer for release of the Bond. The District Engineer will release the Bond upon satisfactory final inspection, review, and approval.
  10. In the event this encroachment is constructed under multiple contracts and the bond requirement is delegated to the contractor or contractors, separate bonds may be posted. The amount of the bond secured by each contractor shall be proportional to the length and size of the contract. The bond will be held for a period of one (1) year following completion of the contract.
  11. No work shall commence until all Bond requirements have been satisfied.
  12. Storage of materials or equipment within the Right of Way is prohibited. During non-working hours, equipment shall be parked as close to the right of way line as possible and shall be properly barricaded so that no equipment obstruction shall be within the Clear Recovery Area.
  13. Construction equipment or vehicles shall not be parked on the pavement or roadway shoulder.
  14. Construction is authorized to perform on Monday through Friday during the hours between sunrise and sunset.
  15. The encroaching party may delegate the performance of certain provisions of this agreement to contractors or other parties. However, this shall not in any way release the encroaching party from its obligations to the terms and provisions of the encroachment.
  16. Written notification shall be provided to the District Engineer upon completion of the work proposed under this agreement. Materials test frequencies and methods shall be in conformance with the NCDOT Materials and Tests guidelines, or as directed by NCDOT. A letter of approval, or recommendations for compliance, will be provided upon receipt and review of test reports.
  17. The encroaching party or the contractor(s) for the encroaching party may request a written letter stating that the encroachment has been satisfactorily completed by making a request in writing to the appropriate County Maintenance Engineer. The letter of completion does not relieve the encroaching party from any obligations or responsibilities under the terms and provisions of the encroachment or from obligations or responsibilities for making repairs needed for a reasonable time period.
  18. The traveling public shall be warned of construction with complete and proper signing and traffic control devices in accordance with the current **Manual on Uniform Traffic Control Devices (MUTCD)**. No work shall be performed in the Right of Way unless this requirement is satisfied. NCDOT reserves the right to require a written traffic control plan for encroachment operations. Traffic control devices and operations shall include, but are not limited to the following:
    - Adequate and appropriate advance warning signs for any and all work zones, closed or obstructed areas.

- “End Construction” signage beyond the end of all work zones.
  - Adequate and appropriate delineation and control devices for all work zone areas including but not limited to lane closures, disturbed areas, and active work sites.
  - Properly trained and equipped flagmen.
  - Proper maintenance of all traffic control devices, including but not limited to proper signage and controls during periods of inactivity and removal of inappropriate traffic control signage and/or devices.
19. Traffic shall not be detoured or rerouted. Two way traffic shall be maintained at all times.
  20. The Traffic Services Supervisor shall be notified at (910) 947-3930 in Carthage, NC, prior to beginning work on the Right of Way if there are existing NCDOT signs, traffic signals, or signal equipment in or near the proposed work zone. Costs to relocate, replace, or repair NCDOT signs, signals, or associated equipment shall be the responsibility of the Encroacher.
  21. All temporary and final pavement markings, reflective pavement markers, traffic control devices, and signage are the responsibility of the encroaching party and shall be installed in accordance with current NCDOT standards. **Final pavement marking plans shall be submitted to and approved by the Division Traffic Engineer at (910) 944-2344, at 902 Sandhills Boulevard, Aberdeen, NC 28315.** Plans should be submitted as soon as possible to allow adequate time for review. **Pavement markings shall be pre-marked and the Division Traffic Services Supervisor shall be notified at (910) 947-3930 for inspection of pre-marking before permanent pavement markings are placed.** The encroaching party shall provide at least two working days notification for the inspection. Pavement markings and reflective pavement markers that are damaged, obscured, or obliterated during construction shall be replaced in conformance with current NCDOT standards. Thermoplastic pavement markings shall be installed at locations where the adjacent pavement are thermoplastic or as directed by the Division Traffic Engineer.
  22. All pavement markings shall be thermoplastic and shall conform to the requirements of the **NCDOT Standard Specifications for Roads and Structures 2006**.
  23. Curb cuts and ramps for handicapped persons shall be constructed in accordance with the current NCDOT “Standard for Wheelchair Ramp Curb Cuts” and the Americans with Disabilities (ADA) Accessibility Guidelines for Buildings and Facilities.
  24. Ingress and egress shall be maintained to businesses and dwellings. Driveways altered during construction shall be restored to a condition equal to that prior to beginning construction.
  25. Excavated material shall not be placed on the paved roadway surface at any time unless specifically approved by the District Engineer. Drainage structures shall not be blocked with excavated material at any time.
  26. Trenches/excavations shall not remain open longer than a 24-hour period. No trench/excavation/bore pit shall be left open overnight except in the event of emergency, in which case the encroacher shall notify the District Engineer and inform him as to the nature and anticipated duration of the emergency. Any excavation left open overnight due to emergency shall be protected and delineated with complete, adequate and appropriate safety and traffic control devices.
  27. All backfill shall meet the Statewide Borrow Criteria and shall be placed in accordance with section 300-6 of **NCDOT Standard Specifications for Roads and Structures 2006**. Backfill material shall be free from rocks and debris placed in six-inch loose layers and compacted to at least 95% of standard density as determined by AASHTO Method T-99 as modified by NCDOT. Backfill material placed within eight (8) inches of the pavement subgrade shall be compacted to 100% of standard density. (Copies of these testing procedures are available on request from the NCDOT Materials and Tests Unit.) Each layer must be fully compacted by an approved mechanical tamp before the next layer is placed.
  28. Excavated areas adjacent to pavement having more than a 2 inch drop shall be backfilled and made safe with a 6:1 or flatter slope and shall be designated by appropriate delineation during periods of construction inactivity including, but not limited to, night and weekend hours.

29. When burying around the end of a pipe, culvert, or bridge, the utility shall be located a minimum of five (5) feet from the nearest part of the pipe, culvert, or bridge, and buried to a minimum depth of five (5) feet below the stream-bed. At points where the utility is placed under existing storm drains by trenching, the trench shall be backfilled with Class M concrete up to the outside diameter of the existing pipe.
30. Drainage structures and systems shall be preserved and protected. Any structure that is disturbed or damaged during construction shall be immediately restored to its original condition at no expense to the Department of Transportation. All utility installations shall be designed and constructed so as not to hinder, disrupt or interfere with existing storm drainage. All facilities shall pass over or under highway drainage facilities.
31. All vaults, manholes and other appurtenances within the NCDOT right of way shall be located behind the ditch and at the right of way line. Manholes and/or vaults shall not be placed in the ditch line, side slopes of ditches or in the pavement.
32. Manholes/Valves should not be located in the pavement or shoulders of any State road. Exceptions may be made on roads at those locations where manholes/valves are essential parts of existing lines that are permitted to remain in place under existing and proposed roadways. Every effort should be made to minimize such installations and to avoid their locations in wheel paths or street intersections, insofar as practicable. Manholes should be designed and located in such a manner that will cause the least interference with roadway users, other utilities, and future highway expansion.
33. The encroaching party shall contact: Benny F. Sloan, Chatham County Maintenance Engineer @ (919) 742-3431 for inspection of forms or grade line prior to placing concrete for curb and gutter. A minimum of 24 hours notice is required for inspections.
34. A ¼ inch per foot pavement slope based on the existing centerline in tangent sections is required. In addition, a smooth transition must be maintained along areas of superelevation. The proposed widening may necessitate wedging or resurfacing one half of the existing roadway to accomplish this requirement. Widened areas less than 6 feet in width shall utilize a full depth asphalt pavement design. The minimum pavement design shall be:

3 inches Asphalt Surface Course – S9.5B  
 4 inches Asphalt Intermediate Course – I19.OB  
 5 inches Asphalt Base Course-B25.OB  
 8 inches Aggregate Base Course

or

3 inches Asphalt Surface Course – S9.5B  
 4 inches Asphalt Intermediate Course – I19.OB  
 10 inches Asphalt Base Course - B25.OB (2 Lifts)

35. All disturbed soil areas shall be promptly seeded and mulched. The encroaching party shall obtain the District Engineer's approval of ditch and shoulder grading prior to seeding and mulching.
36. All earth areas shall be regraded, seeded and mulched in accordance with Section 1660 of the **NCDOT Standard Specifications for Roads and Structures 2006**. The Engineer shall make final determination of soil type. The following rates in pounds per acre apply:
  - *YEAR ROUND MIXTURE (Sandy Soils)*
    - KY 31 Tall Fescue or Alta Tall Fescue – 50 pounds
    - Pensacola Bahiagrass – 50 pounds
    - Centipede – 5 pounds
    - Fertilizer (10-20-20 analysis) – 500 pounds
    - Limestone – 4000 pounds
  - *YEAR ROUND MIXTURE (Clay Soils)*
    - KY 31 Tall Fescue or Alta Tall Fescue – 100 pounds
    - Kenblue Bluegrass – 15 pounds

Fertilizer (10-20-20 analysis) – 500 pounds

Limestone – 4000 pounds

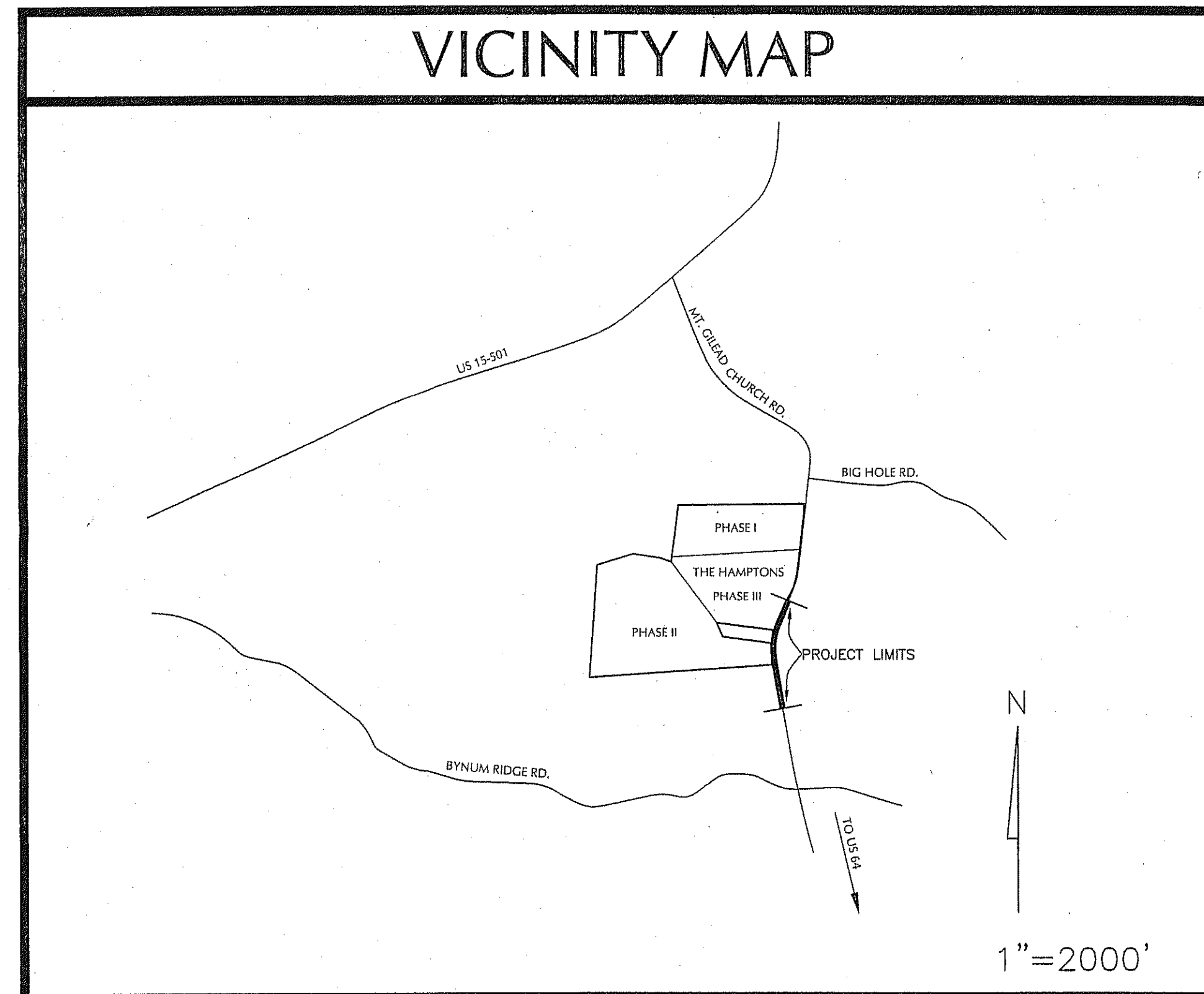
- Add 10 pounds of Kobe or Korean Lespedeza and 10 pounds of Millet to the above mixture from May 1 to August 31.
  - On cut and fill slopes 2:1 or steeper, add 30# Sericea Lespedeza from January 1 to December 31.
  - Fertilizer shall be 10-20-20 analysis. Upon written approval of the Engineer, a different analysis may be used provided the 1-2-2 ratio is maintained and the rate of application is adjusted to provide the same amount of plant food as a 10-20-20 analysis.
37. Notify the County Maintenance Engineer's office (919) 742-3431, 1404 E. Raleigh St. Siler City, N.C. 27344, prior to beginning work. The encroaching party shall provide the County Maintenance Engineer with the following information at least 3 working days prior to commencing operations:
- Proposed schedule of operations
  - The name(s) and phone number(s) of project contact person(s). (See Special Provision 16)



# CONSTRUCTION PLANS FOR SR 1700 AUXILIARY LANE WIDENING FOR THE HAMPTONS - PHASE II CHATHAM COUNTY, NORTH CAROLINA

AUGUST 18, 2006  
REVISED SEPTEMBER 5, 2006

CONSTRUCTION PLANS FOR:  
SR 1700 AUXILIARY LANE WIDENING  
FOR THE HAMPTONS - PHASE II  
W&R PROJECT NO.: 050592.00



INDEX OF SHEETS	
ROAD WIDENING PLAN & PROFILE	SHT RW-1
PAVEMENT MARKING PLAN	SHT RW-2
ROAD WIDENING DETAILS	SHT RW-3

LEGEND		
DESCRIPTION	EXISTING	PROPOSED
1' CONTOUR INTERVAL		
5' CONTOUR INTERVAL		
PROPERTY LINE		
ROADWAY CENTERLINE		
RIGHT OF WAY LIMITS		
EASEMENT LINE		
CURB & GUTTER		
SANITARY SEWER FACILITIES		
STORM SEWER FACILITIES		
WATERLINE		
FIRE HYDRANT ASSEMBLY		
FENCING STRUCTURE		
WOODSLINE		N/A
WATERWAYS		N/A
TREE PROTECTION FENCE	N/A	
SILT FENCE	N/A	
SPOT ELEVATION		
CHECK DAM	N/A	

PREPARED BY:

**WITHERS & RAVENEL**  
ENGINEERS | PLANNERS | SURVEYORS

111 MacKenan Drive Cary, North Carolina 27511 tel: 919-469-3340 fax: 919-467-6008 www.wITHERSRAVENEL.com

DEVELOPER/OWNER

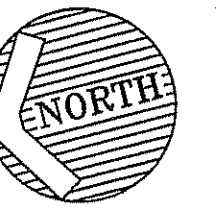
WINDJAM 23, LLC  
1130 SITUS COURT, SUITE 250  
RALEIGH, NC 27606  
TELEPHONE: OFFICE (919) 868-7610  
FAX (919) 534-1753

ATTN: CRAIG GLASS

*Bradley D. Hart*  
 9/05/06

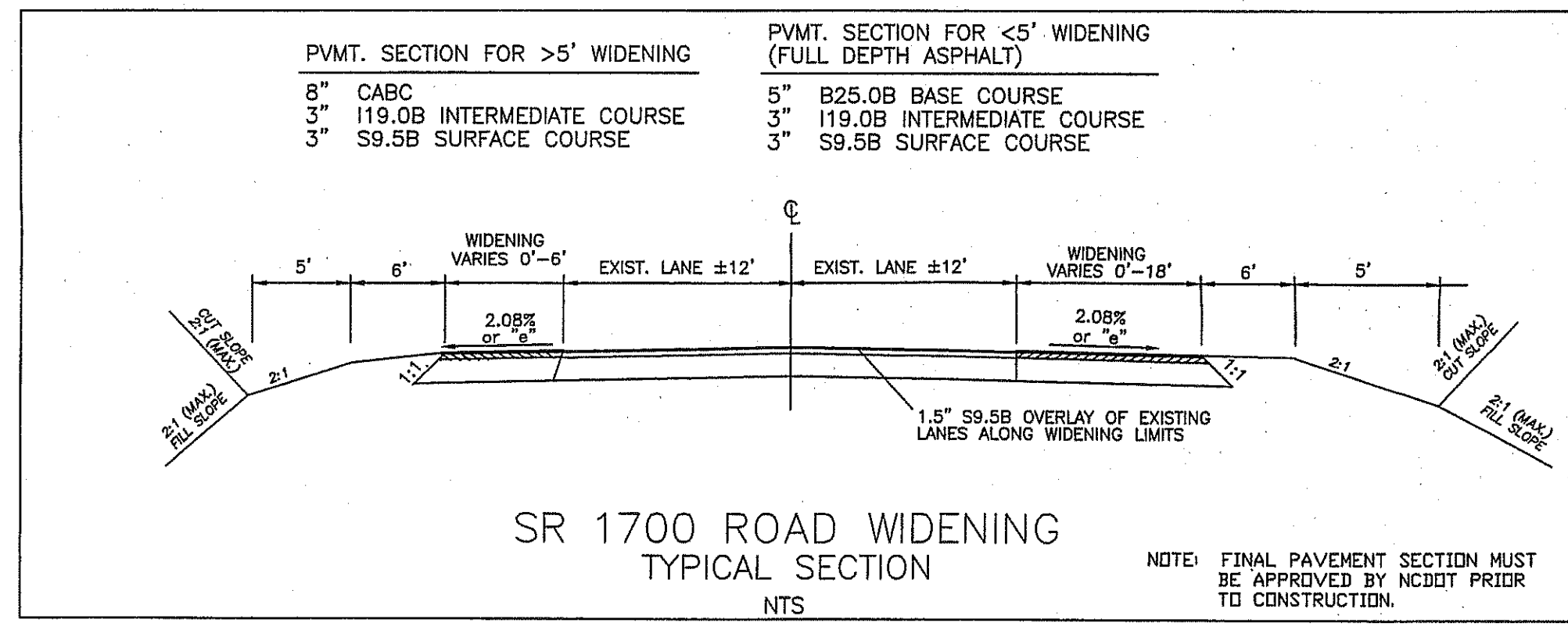
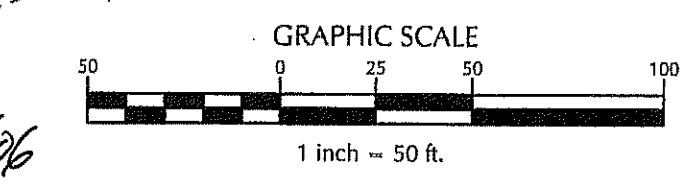
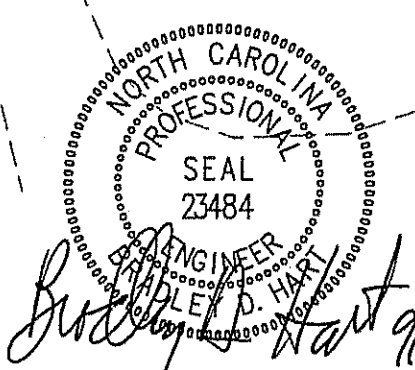
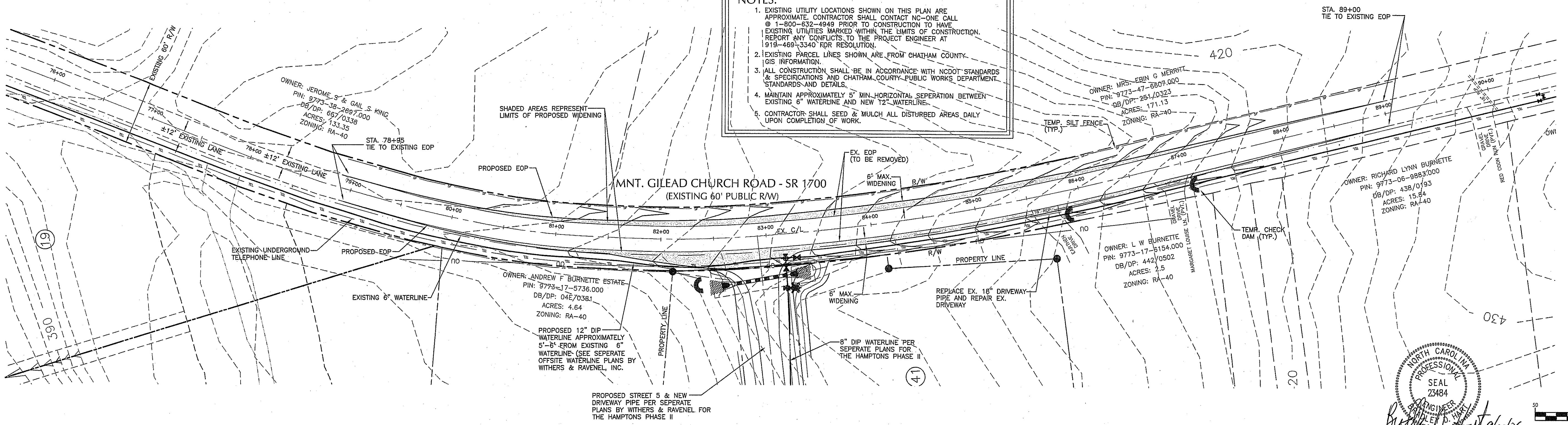
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 DIVISION 8 DISTRICT 1  
 DEPT. OF TRANSPORTATION



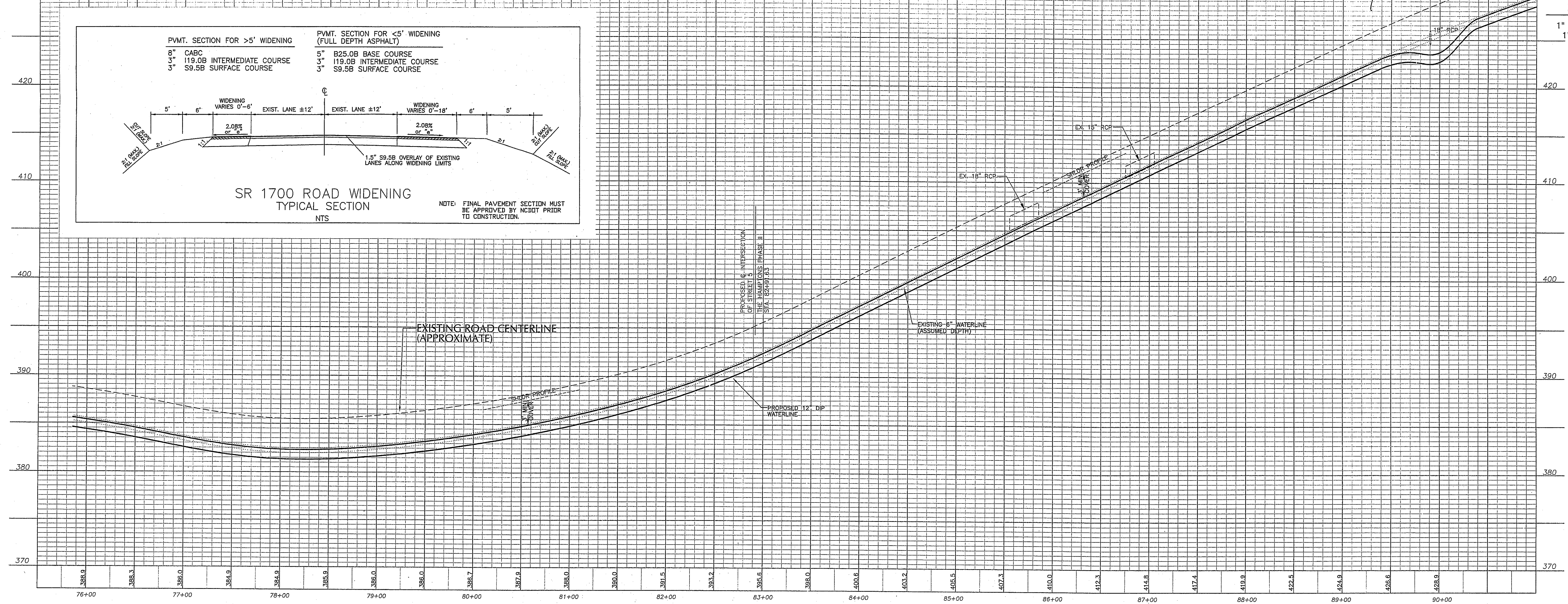


**NOTES:**

- EXISTING UTILITY LOCATIONS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL CONTACT NC-ONE CALL @ 1-800-632-4949 PRIOR TO CONSTRUCTION. EXISTING UTILITIES MARKED WITHIN THE LIMITS OF CONSTRUCTION, REPORT ANY CONFLICTS TO THE PROJECT ENGINEER AT 919-469-3340 FOR RESOLUTION.
- EXISTING PARCEL LINES SHOWN ARE FROM CHATHAM COUNTY GIS INFORMATION.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NCDOT STANDARDS & SPECIFICATIONS AND CHATHAM COUNTY PUBLIC WORKS DEPARTMENT STANDARDS AND DETAILS.
- MAINTAIN APPROXIMATELY 5' MIN. HORIZONTAL SEPARATION BETWEEN EXISTING 6" WATERLINE AND NEW 12" WATERLINE.
- CONTRACTOR SHALL SEED & MULCH ALL DISTURBED AREAS DAILY UPON COMPLETION OF WORK.



**SCALE:**  
1" = 50' HORIZ.  
1" = 5' VERT.



No.	Revision	Date	By
1	PER NCDOT REVIEW	09/05/06	BDH

Designer	W&R	Scale	1" = 50'
Drawn By	RKL	Date	8-18-06
Checked By	BDH	Job No.	2050592.00

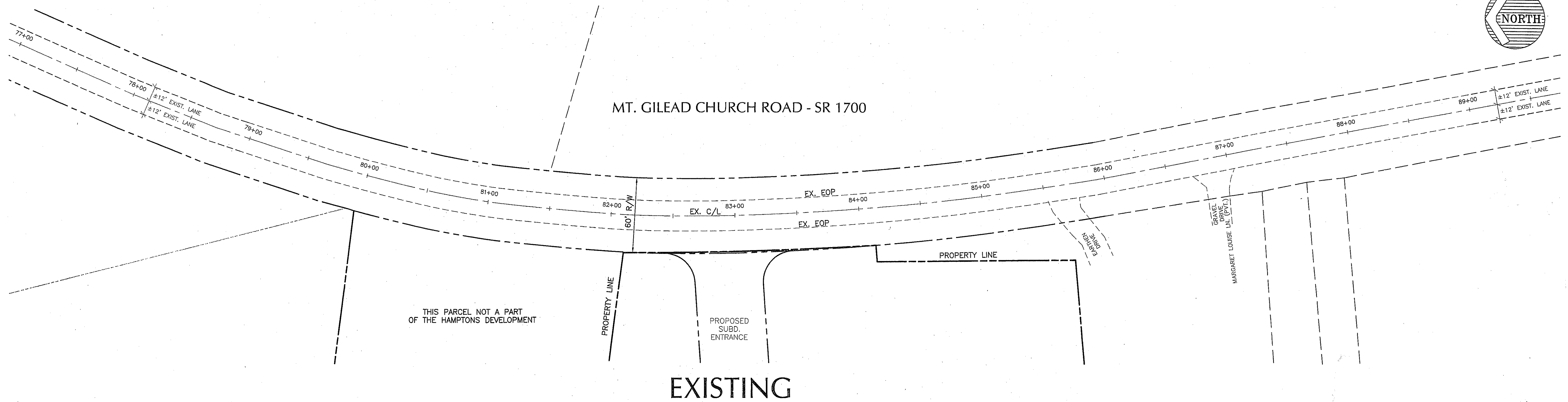
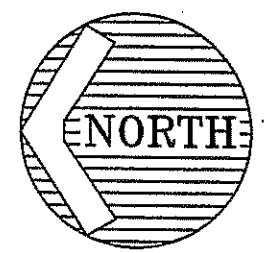
**SR 1700 AUXILIARY LANE WIDENING  
FOR THE HAMPTONS SUBDIVISION**  
CHATHAM COUNTY  
NORTH CAROLINA

**AUXILIARY LANE WIDENING**

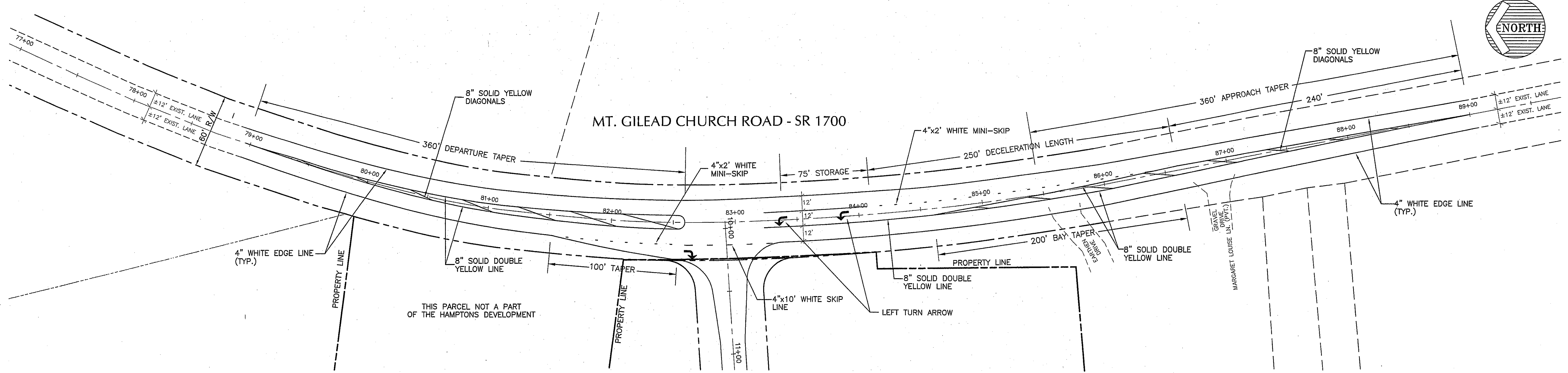
**WITHERS & RAVENEL**  
ENGINEERS | PLANNERS | SURVEYORS  
111 MacKenan Drive Cary, North Carolina 27511 tel: 919-469-3340 fax: 919-467-6008 www.wITHERSRAVENEL.COM

Sheet No.  
**RW-1**





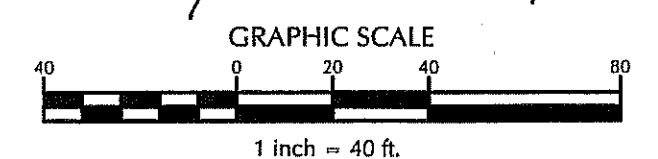
EXISTING



PROPOSED

NOTES:

1. ALL MARKINGS SHALL BE IN CONFORMANCE WITH NCDOT STANDARDS.
2. THE CONTRACTOR SHALL PREMARK THIS PROJECT AND HAVE NCDOT APPROVAL PRIOR TO COMPLETING FINAL PAVEMENT MARKINGS.
3. ALL MARKINGS SHALL BE THERMOPLASTIC.



No.	Revision	Date	By	Designer	W&R	Scale
1	PER NCDOT REVIEW	09/05/06	BDH	BDH	W&R	1" = 40'
				Drawn By	RKL	Date August 18, 2008
				Checked By	BDH	Job No. 205592.0

SR 1700 AUXILIARY LANE WIDENING  
FOR THE HAMPTONS SUBDIVISION  
Chatham County North Carolina

PAVEMENT MARKING PLAN

**WITHERS & RAVENEL**  
ENGINEERS | PLANNERS | SURVEYORS  
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Sheet No.  
**RW-2**

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
**WORK ZONE ADVANCE WARNING SIGNS**

SHEET 1 OF 1  
1101.01

FOR WORK ZONE ADVANCE WARNING SIGNS CONTACT THE TRAFFIC CONTROL SECTION AT CENTURY CENTER BUILDING B, 1020 BIRCH RIDGE DR., RALEIGH, N.C., 27610, (919)-250-4151.

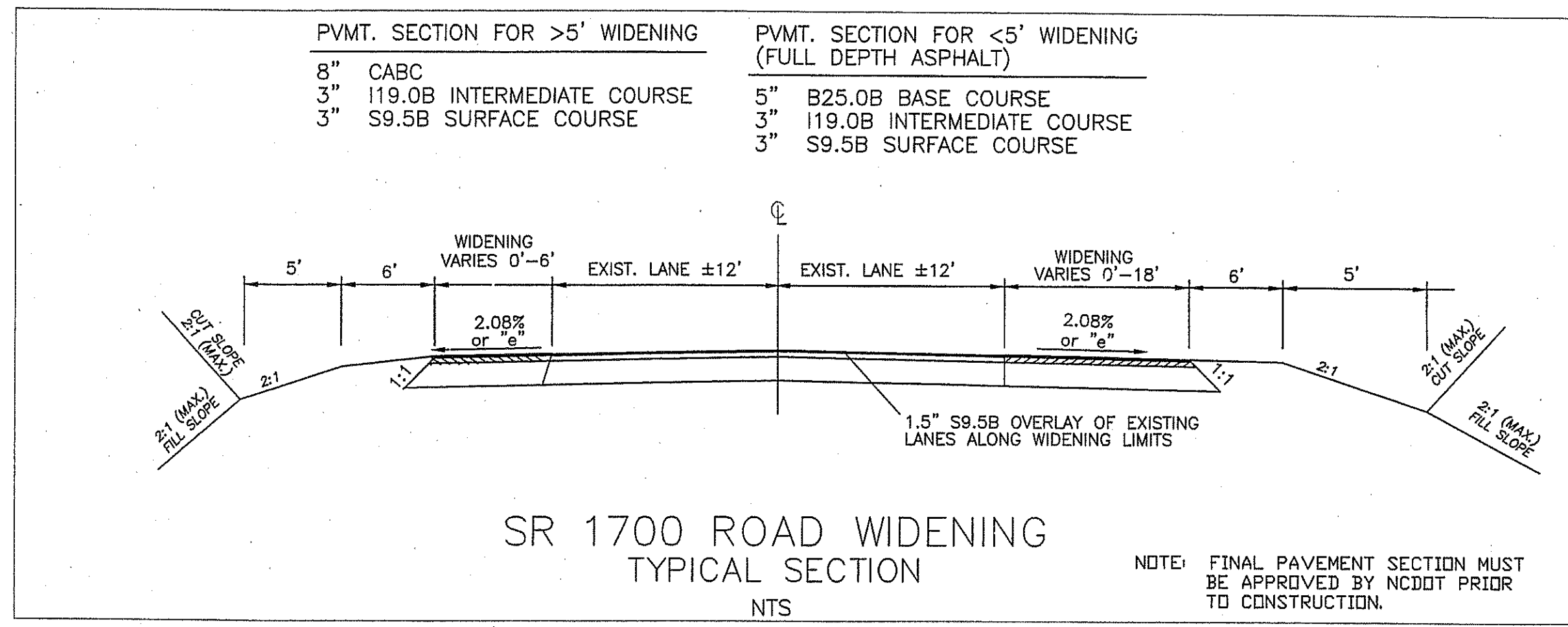
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**

SHEET 1 OF 7  
1205.08

**GENERAL NOTES**

- USE THE COLOR WHITE FOR ALL PAVEMENT MARKING SYMBOLS.
- DO NOT LOCATE PAVEMENT MARKING SYMBOLS AS TO ENCRONCH INTO INTERSECTION AREAS.
- DO NOT PLACE PAVEMENT MARKING SYMBOLS ACROSS TRANSVERSE EXPANSION JOINTS ON PORTLAND CEMENT CONCRETE PAVEMENTS, UNLESS APPROVED BY THE ENGINEER.
- CONFORM ALL SYMBOLS TO THE FHWA "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" (REFER TO SHEETS 4 THRU 7). SYMBOL DIMENSIONS CAN VARY AMONG MANUFACTURERS, THEREFORE SLIGHT VARIANCES ARE ACCEPTABLE. HOWEVER, ALL SYMBOLS ARE REQUIRED TO BE APPROVED BY THE DEPARTMENT.



STATE OF NORTH CAROLINA  
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ENGLISH STANDARD DRAWING FOR  
**TEMPORARY LANE CLOSURES**

2-LANE, 2-WAY ROADWAY - 1-LANE CLOSED

SHEET 1 OF 7  
1101.02

**GENERAL NOTES**

- REFER TO STD. Dwg. 1101.11-SHEET 4, FOR SIGN SPACING.
- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.
- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- PLACE CONES FROM THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 3 TIMES THE POSTED SPEED LIMIT.
- EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER.
- (REFER TO STD. Dwg. 1101.11-SHEET 2)
- DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 8 MINUTES AT A TIME.
- USE FLIGHT CASES WHEN DIRECTED BY THE ENGINEER.
- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE. ACCORDING FLAGGERS UTILIZED AT INTERSECTIONS WITH FLAGGER HEAD SIGNALS (RED-FLA) PLACED APPROXIMATELY 200 FT. IN ADVANCE OF THE FLAGGER. WHERE INTERSECTIONS ARE SIGNALIZED, PLACE SIGNALS IN THE FLASH MODE.

**LEGEND**

- ▲ WARNING FLAG
- ▲ CONE
- PORTABLE SIGN
- ▲ FLAGGER
- TYPE B WARNING LIGHT (FOR NIGHT USE)
- ▲ DIRECTION OF TRAFFIC FLOW

STATE OF NORTH CAROLINA  
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ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**

LINE TYPES

SHEET 1 OF 2  
1205.01

**CONTINUOUS LINES**

- EDGE LINE: YELLOW OR WHITE, 4" - 6"
- TURN LANE LINE: WHITE, 4" - 6"
- CENTER LINE: YELLOW, 4" - 6"
- GORE LINE: WHITE, 8" - 12"
- DIAGONAL LINE: YELLOW OR WHITE, 8"
- CROSSWALK LINE: WHITE, 8" - 24"
- STOP OR TRANSVERSE BAR: WHITE, 24"

**SKIP LINES**

- 10' SKIP LINES: YELLOW OR WHITE, 10' - 4" - 6"
- BLACK - WHITE COMBINATION 10' SKIP LINES: FOR USE ON CONCRETE PAVEMENTS TO PROVIDE CONTRAST FOR THE WHITE LANE LINE, ALONG TURN LANES AND RAMP LANES.

**MINI-SKIP LINES**

- 2' MINI-SKIP LINES: YELLOW OR WHITE, 2' - 4" - 6"

**LEGEND**

- W = WIDTH OF TRAVEL LANE
- ▲ DIRECTION OF TRAFFIC FLOW

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ENGLISH STANDARD DRAWING FOR  
**TEMPORARY ROCK SILT CHECK TYPE 'B'**

SHEET 1 OF 1  
1633.02

**NOTES:**

- USE CLASS "B" STONE FOR STRUCTURAL STONE FOR EROSION CONTROL AND PAY FOR AT THE CONTRACT UNIT PRICE PER TON "STONE FOR EROSION CONTROL CLASS "B".
- THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%. PAY FOR AT UNIT PRICE PER TON "STONE FOR EROSION CONTROL CLASS "A".

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ENGLISH STANDARD DRAWING FOR  
**TEMPORARY DIVERSION**

SHEET 1 OF 1  
1630.05

**CROSS SECTIONAL VIEW**

- 2' MINIMUM
- 1'-6" MINIMUM
- 6' TYPICAL

No.	Revision	Date	By	Designer	Scale
1	PER NCDOT REVIEW	08/05/08	BDH	W&R	NOT TO SCALE
				Drawn By: RKL	Date: AUGUST 18, 2008
				Checked By: BDH	Job No. 205592.0

**SR 1700 AUXILIARY LANE WIDENING FOR THE HAMPTONS SUBDIVISION**

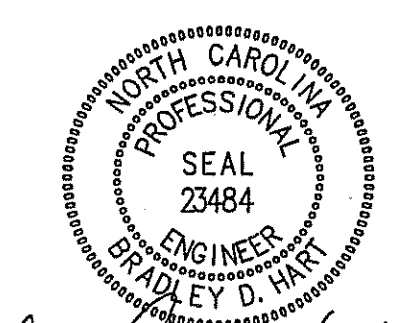
Chatham County North Carolina

**ROAD WIDENING DETAILS**

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Sheet No. **RW-3**



*Bradley D. Hart 9/05/08*