

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

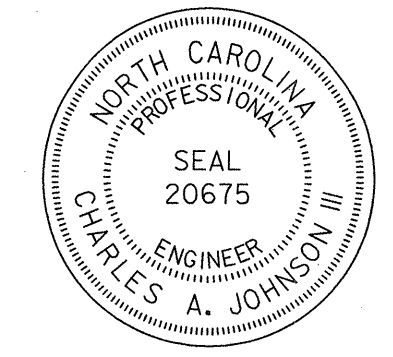


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|--------------------|------------------------|
| TIP NO. U-4716B | SHEET NO. SIGN/PM-1 |
|--------------------|------------------------|

APPROVED: *W. A. Johnson, III*

DATE: 7-31-2012

SEAL



SIGNING & PAVEMENT MARKING PLAN DURHAM & WAKE COUNTIES

LOCATION: HOPSON RD & CHURCH STREET EXTENSION IN DURHAM

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| STD. NO. | TITLE |
|----------|--|
| 904.10 | ORIENTATION OF GROUND MOUNTED SIGNS |
| 904.50 | MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS |
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES AND OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - 2 LANE AND MULTI LANE ROADWAYS |
| 1205.04 | PAVEMENT MARKINGS - INTERSECTIONS |
| 1205.05 | PAVEMENT MARKINGS - TURN LANES |
| 1205.06 | PAVEMENT MARKINGS - LANE DROPS |
| 1205.08 | PAVEMENT MARKINGS - SYMBOL AND WORD MESSAGES |
| 1205.09 | PAVEMENT MARKINGS - PAINTED ISLANDS |
| 1205.12 | PAVEMENT MARKINGS - BRIDGES |
| 1250.01 | RAISED PAVEMENT MARKERS - INSTALLATION SPACING |
| 1251.01 | RAISED PAVEMENT MARKERS - PERMANENT & TEMPORARY |
| 1261.01 | GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING |
| 1261.02 | GUARDRAIL AND BARRIER DELINEATORS - TYPES & MOUNTING |
| 1262.01 | GUARDRAIL END DELINEATION |

PAVEMENT MARKING GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

| ROAD NAME | MARKING | MARKER |
|-----------|---------------|--------------|
| ALL ROADS | THERMOPLASTIC | SNOWPLOWABLE |

- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- F) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.
- G) PASSING ZONE(S) WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.
- H) MARKERS SHALL BE INSTALLED ACCORDING TO THE NCDOT ROADWAY STANDARD DRAWING 1250.01.
- I) STOPBARS AT NON-SIGNALIZED INTERSECTIONS ARE TO BE LOCATED A MIN OF 6' FROM THE EDGE OF TRAVEL LANE AND MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

INDEX

| SHEET NO. | DESCRIPTION |
|-----------------------------|---|
| SIGN/PM-1 | SIGNING & PAVEMENT MARKING PLAN COVER SHEET |
| SIGN/PM-1A | SIGNING NOTES, PAVEMENT MARKING LEGEND & SCHEDULE |
| SIGN/PM-2 | SIGNING REMOVAL PLAN |
| SIGN/PM-3 THRU SIGN/PM-4 | SIGNING & PAVEMENT MARKING DETAILS |
| SIGN-1 | SIGN DETAILS |
| SIGN-2 | TYPE 'E' SIGNS |

SIGNING GENERAL NOTES

- . SIGNS FURNISHED BY STATE
- . ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . SIGNING PLANS DO NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING, SEE TRAFFIC CONTROL PLANS. SEE PAVEMENT MARKING PLAN FOR PAVEMENT MARKING DESIGN.
- . WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.
- . WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE GRADE C REFLECTIVE SHEETING.
- . SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
C-1554

PLAN REVIEWED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

| | |
|-------------------|---|
| <u>S. Kunz</u> | SIGNING & DELINEATION REGIONAL ENGINEER |
| <u>S. Coleman</u> | SIGNING & DELINEATION PROJECT DESIGN ENGINEER |

PLAN PREPARED BY: HNTB NORTH CAROLINA

| | |
|-------------------------------|------------------|
| <u>C. A. Johnson, III, PE</u> | PROJECT ENGINEER |
| <u>A. D. Klinksiek, EI</u> | PROJECT DESIGNER |



FINAL PAVEMENT MARKING SCHEDULE

| MATERIAL | SYMBOL | DESCRIPTION |
|--------------------------------|--------|---------------------------|
| PAVEMENT MARKING | | |
| THERMOPLASTIC (4", 90 MILS) | | |
| | TA | WHITE EDGELINE |
| THERMOPLASTIC (4", 120 MILS) | | |
| | TD | WHITE MINISKIP |
| | TE | WHITE SOLID LANE LINE |
| | TF | YELLOW SKIP |
| | TH | YELLOW SOLID LANE LINE |
| | TI | YELLOW DOUBLE CENTER LINE |
| THERMOPLASTIC (8", 90 MILS) | | |
| | TT | YELLOW DIAGONAL |
| THERMOPLASTIC (24", 120 MILS) | | |
| | T2 | WHITE STOP BAR |
| THERMOPLASTIC SYMBOL (90 MILS) | | |
| | UA | LEFT TURN ARROW |
| | UB | RIGHT TURN ARROW |

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- NORTH ARROW
- PROPOSED PVMT. EXIST. PVMT.

PAVEMENT MARKINGS

PAVEMENT MARKING SYMBOLS

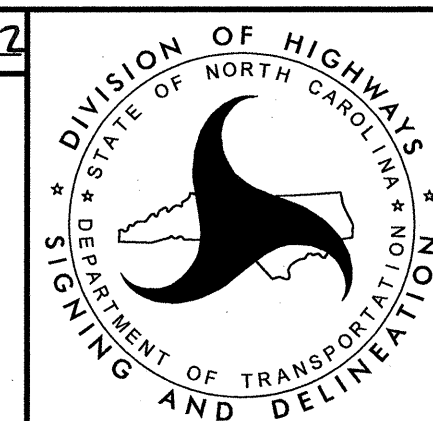
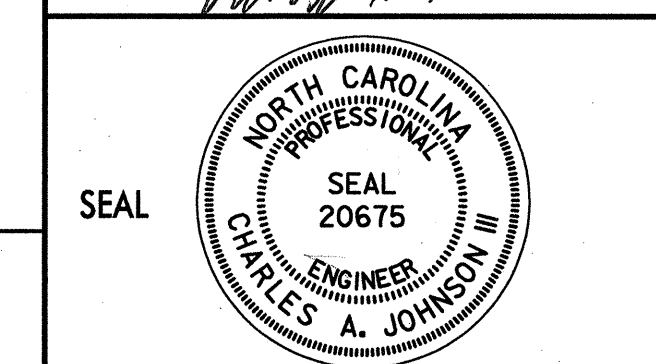
SIGNING PAY ITEM NOTES

- 1 DISPOSAL OF SIGN, D,E OR F
- 2 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- 3 SIGN ERECTION, TYPE D, E, AND F

SIGNING SUMMARY OF QUANTITIES

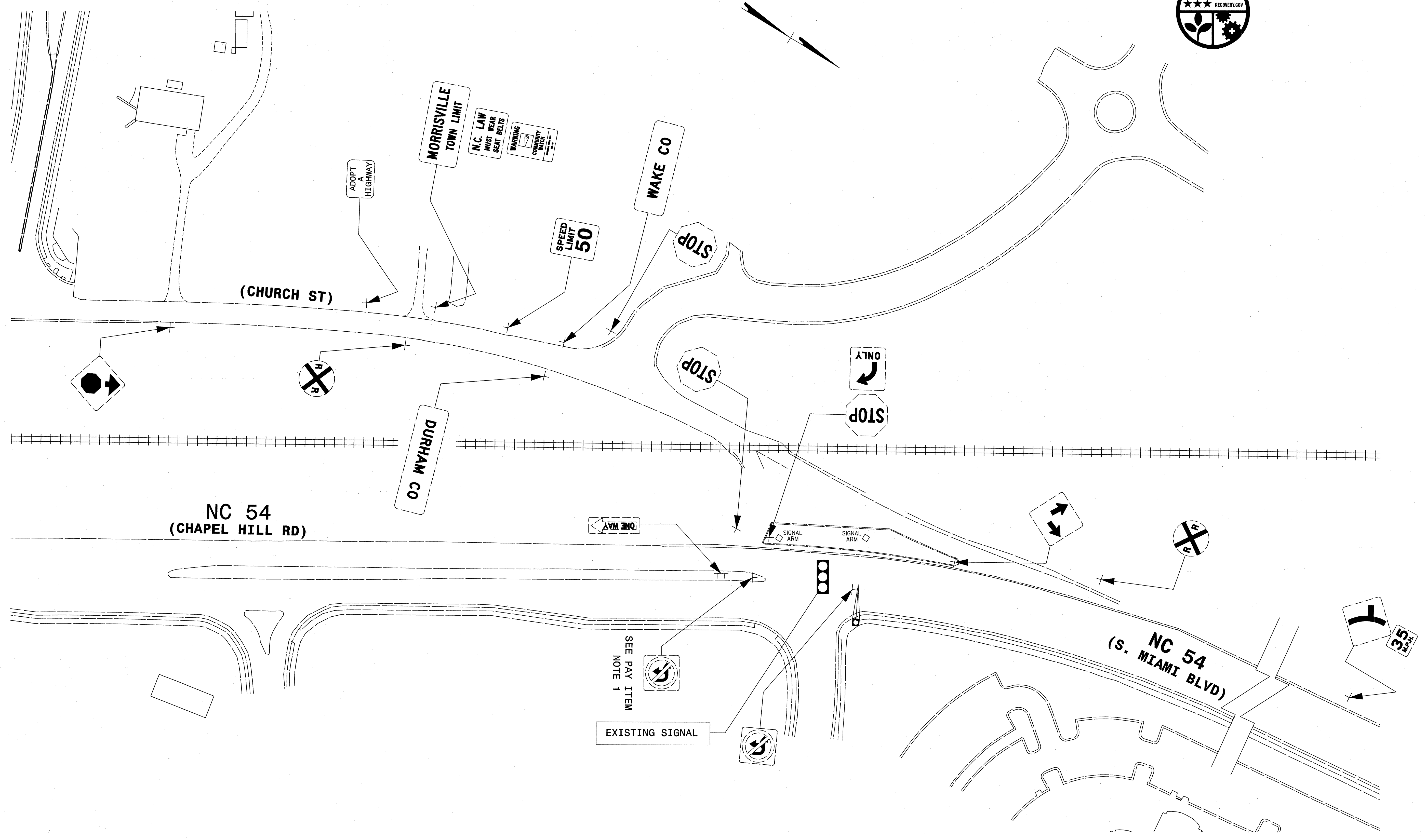
| ITEM NO. | | ITEM DESCRIPTION | QUANTITY | UNIT |
|------------|-----------|------------------------------------|----------|------|
| DESC. NO. | SECT. NO. | | | |
| 4072000000 | 903 | SUPPORTS, 3 LB STEEL U-CHANNEL | 225 | L.F. |
| 4096000000 | 904 | SIGN ERECTION, TYPE D | 3 | EA. |
| 4102000000 | 904 | SIGN ERECTION, TYPE E | 17 | EA. |
| 4155000000 | 907 | DISPOSAL OF SIGN SYSTEM, U-CHANNEL | 19 | EA. |
| 4238000000 | 907 | DISPOSAL OF SIGN, D, E, OR F | 1 | EA. |

APPROVED: DATE: 7-31-17



SIGNING AND DELINEATION

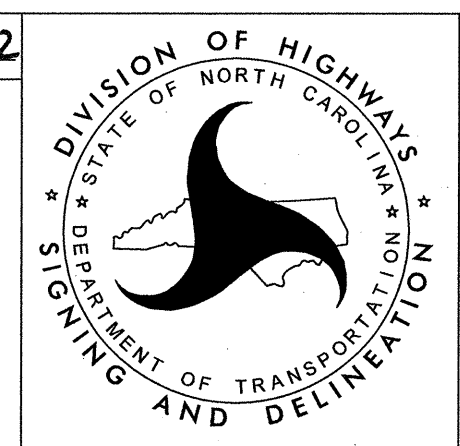
SIGNING AND FINAL PAVEMENT MARKING PLANS



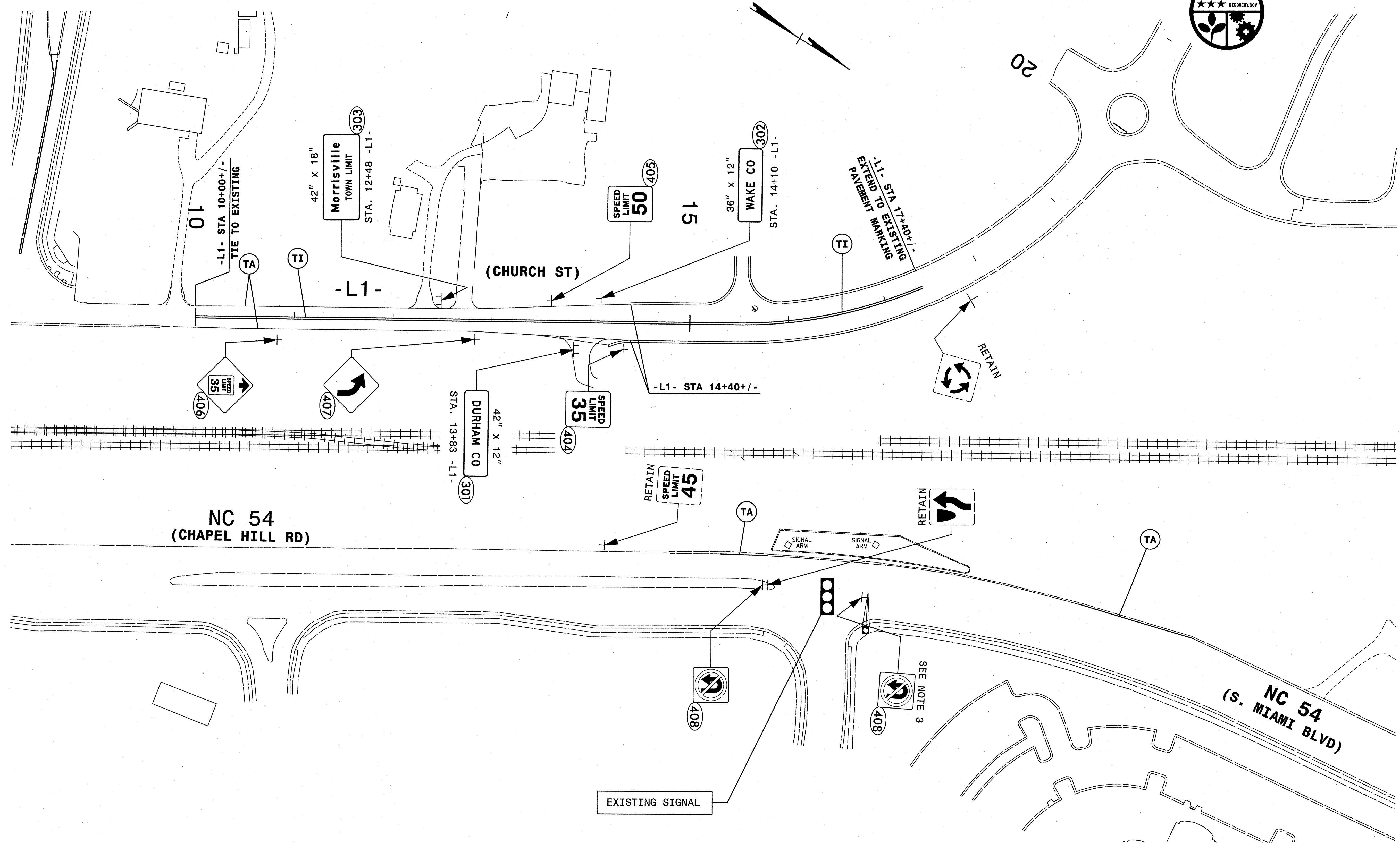
1. ALL EXISTING SIGNS SHOWN ON THIS SHEET SEE PAY ITEM NOTE 2 UNLESS OTHERWISE NOTED.

HNTB HNTB NORTH CAROLINA, P.C.
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 NC License No: C-1554

APPROVED: *[Signature]* DATE: 7-31-12
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 CHARLES A. JOHNSON III
 SEAL 20675



SIGNING AND DELINEATION
SIGN REMOVAL PLAN

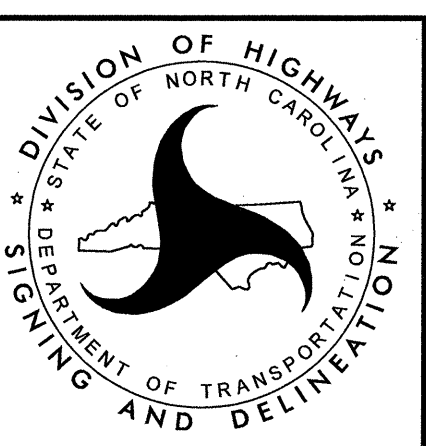


1. RETAIN ALL EXISTING SIGNS AS SHOWN. SEE SHEET PMP-05A FOR SIGN REMOVALS.
2. ALL PROPOSED SIGNS SEE NOTE 3 EXCEPT AS NOTED.
3. ERECT E SIGN ON EXISTING SIGNAL MAST ARM.

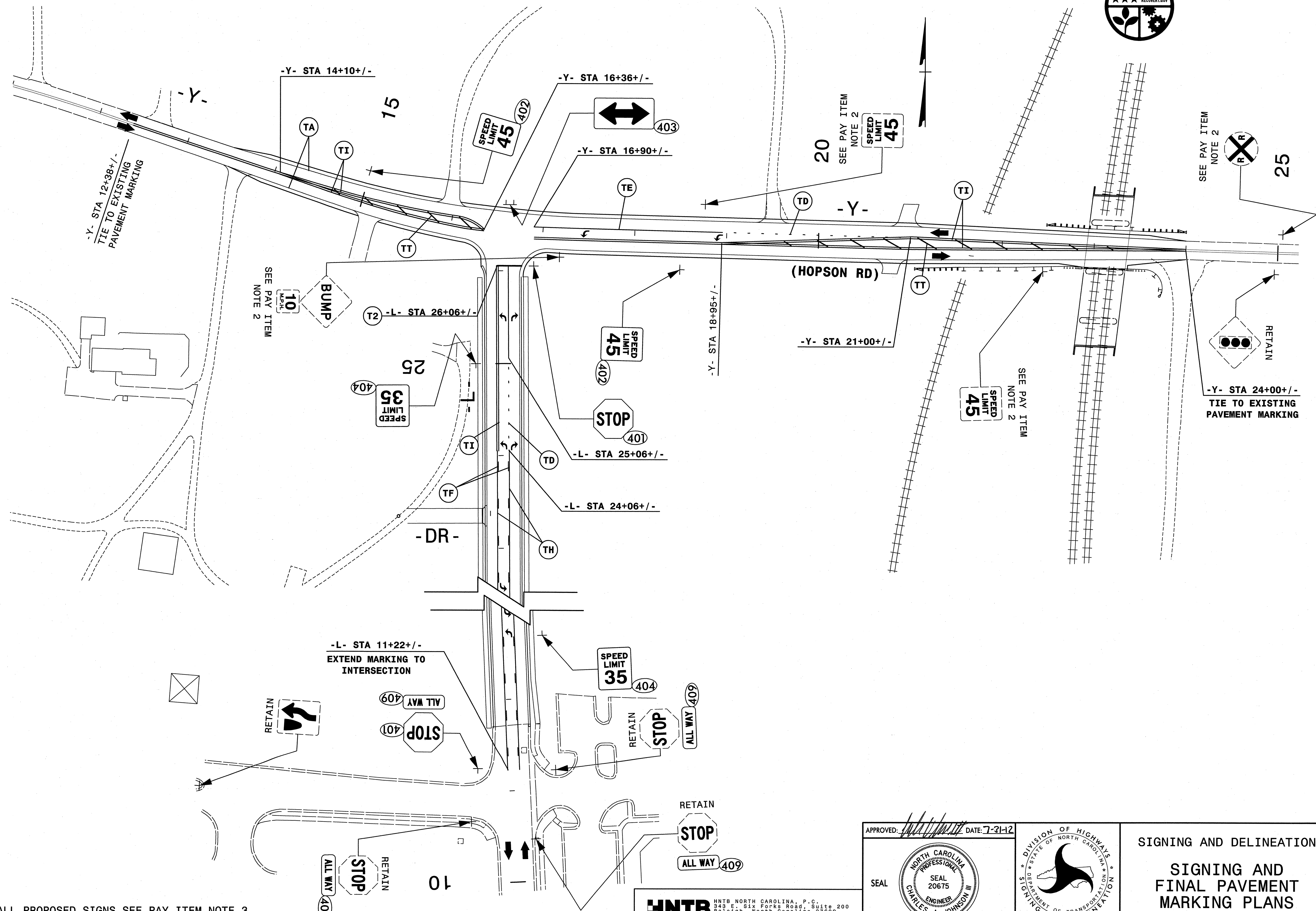
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APPROVED: *[Signature]* DATE: 7-31-12

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 20675
 CHARLES A. JOHNSON III



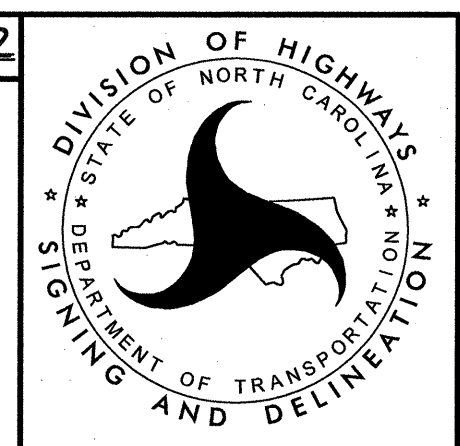
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 SIGNING AND FINAL PAVEMENT MARKING PLANS



1. ALL PROPOSED SIGNS SEE PAY ITEM NOTE 3.

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SIGNING AND DELINEATION
 SIGNING AND FINAL PAVEMENT MARKING PLANS