

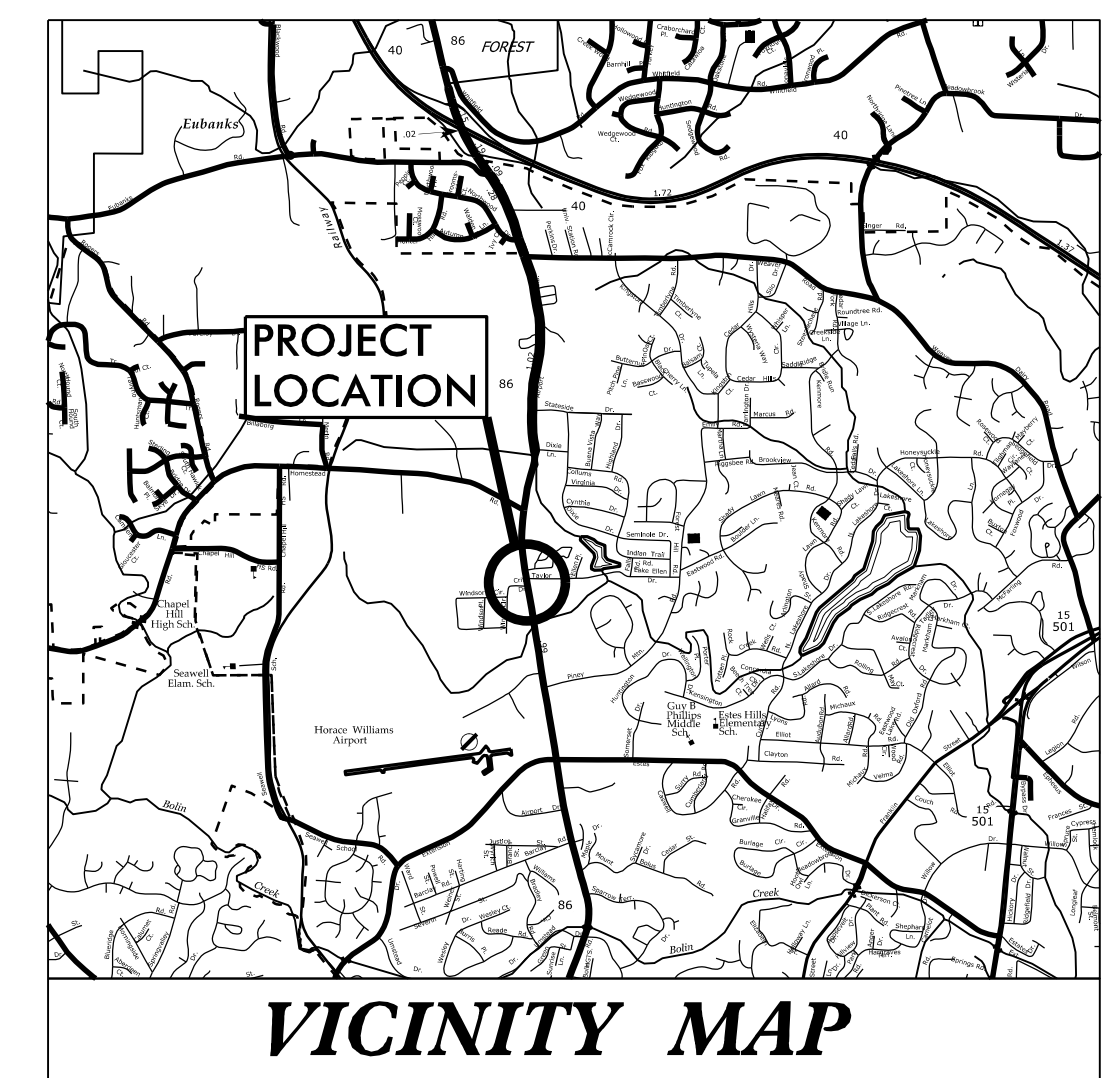
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and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

TIP PROJECT: HS-2007J

CONTRACT: DG00652



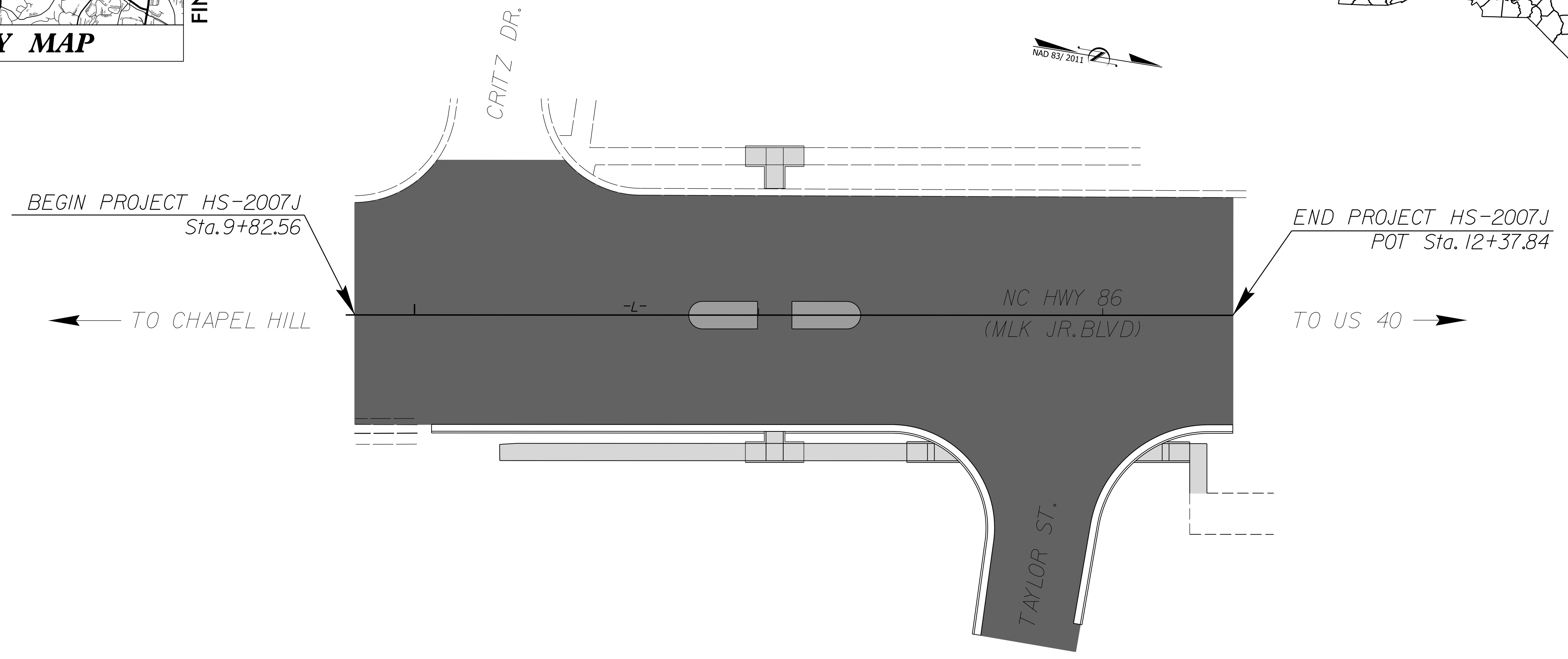
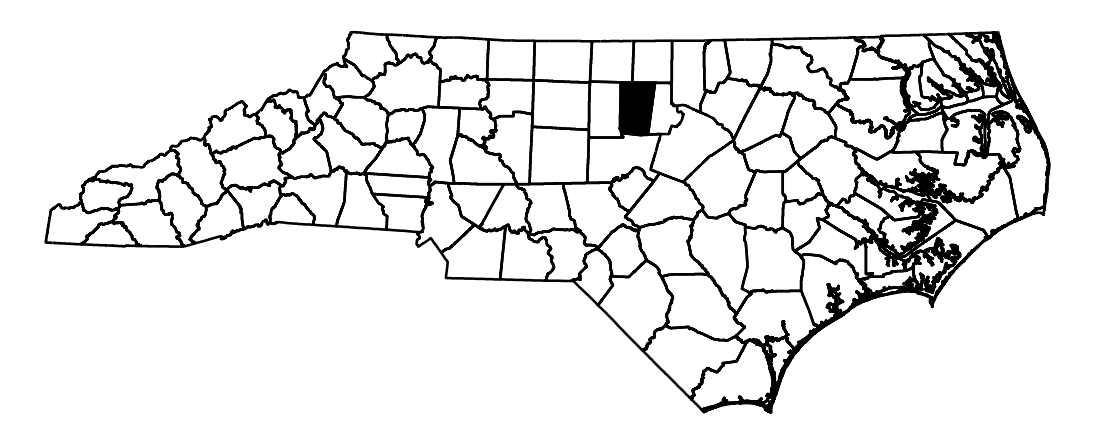
FINAL PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ORANGE COUNTY

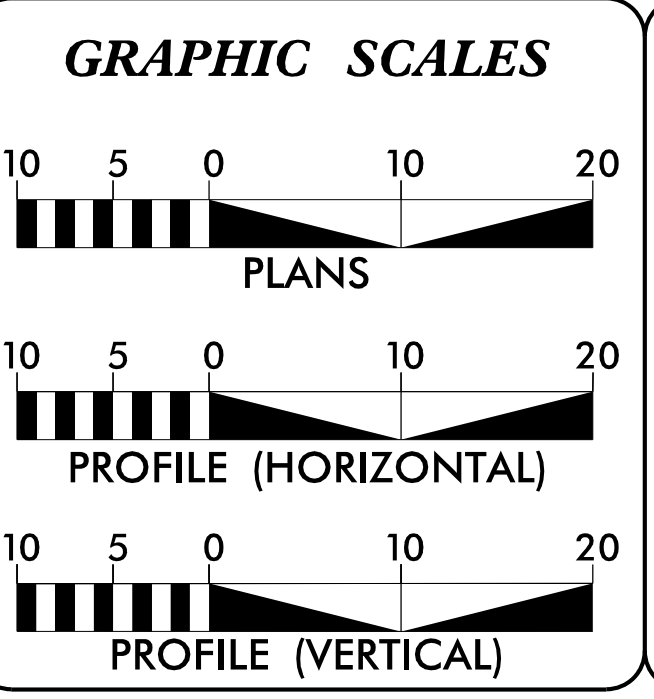
LOCATION: ADD MID-BLOCK PEDESTRIAN CROSSING ON NC-86
AND CRITZ DR IN CHAPEL HILL

TYPE OF WORK: GRADING, DRAINAGE, AND PAVING,

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2007J	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
49317.1.11	FA# 4931711	PE	
49317.2.12	NA	ROW	
49317.2.13	NA	UTIL	
49317.3.11	NA	CONST	



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2025 =	N/A
ADT 2025 =	N/A
K =	N/A %
D =	N/A %
T =	N/A % *
V =	40 MPH
* (TTST = N/A DUAL N/A)	
FUNC CLASS =	
SUB-REGIONAL TIER	

PROJECT LENGTH

TOTAL LENGTH TIP PROJECT HS-2007J = .048 MILES

Prepared in the Office of:

Dewberry
FOR
DIVISION OF HIGHWAYS

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: N/A

LETTING DATE: JANUARY 16, 2025

TODD BROOKS, PE
PROJECT ENGINEER
BRYAN LAMBETH, PE
PROJECT DESIGN ENGINEER
SUZANA MATTA, PE
NC DOT CONTACT

HYDRAULICS ENGINEER

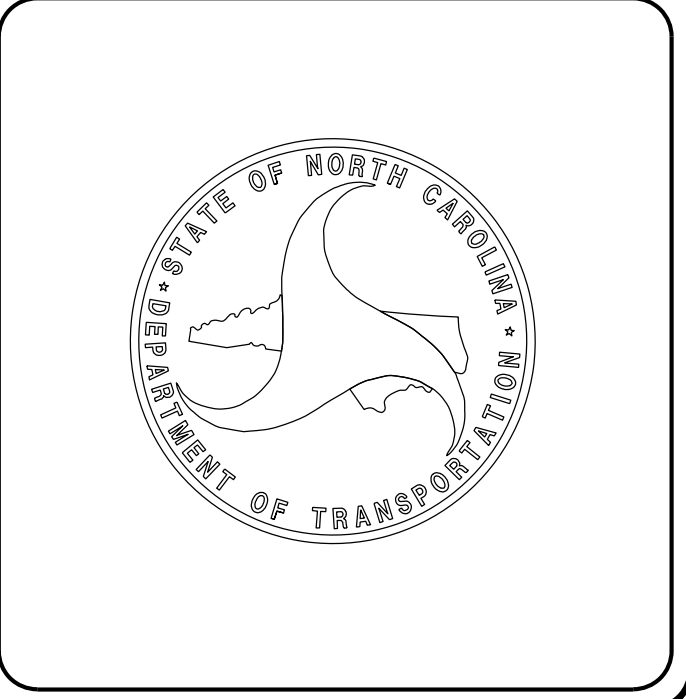
Signed by: *Andra Hayden*

Signature: *Andra Hayden*

ROADWAY DESIGN ENGINEER

DocuSigned by: *Bryan Lambeth*

Signature: *Bryan Lambeth*



5/14/24

Dewberry
2610 WYCLIFF ROAD
 SUITE 410
 RALEIGH, NC 27607
 PHONE: 919.881.9939
 NC CCR No. F-0289

PROJECT REFERENCE NO. <i>HS-2007J</i>	SHEET NO. <i>1A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER <i>[Signature]</i> 038648 11/14/2024	HYDRAULICS ENGINEER <i>[Signature]</i> 028933 11/14/2024
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

TIP: HS-2007J

SHEET NUMBER	INDEX OF SHEETS SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
3B-1	SUMMARY OF ROADWAY QUANTITIES
4 THRU 5	PLAN SHEETS
TMP-1 THRU TMP-6	TRANSPORTATION MANAGEMENT PLANS
SPM-1 THRU SPM-6	SIGNING & PAVEMENT MARKING PLANS
X-0 THRU X-3	CROSS-SECTIONS

2024 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit – N. C. Department of Transportation – Raleigh, N. C., Dated January 16, 2024 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 – EARTHWORK	
200.03	Method of Clearing – Method III
225.02	Guide for Grading Subgrade – Secondary and Local
DIVISION 3 – PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 8 – INCIDENTALS	
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin – 12" thru 54" Pipe
840.02	Concrete Catch Basin – 12" thru 54" Pipe
840.03	Frame, Grates and Hood – for Use on Standard Catch Basin
840.14	Concrete Drop Inlet – 12" thru 30" Pipe
840.15	Brick Drop Inlet – 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates – for use with Std. Dwg 840.14 and 840.15
840.25	Anchorage for Frames – Brick or Concrete or Precast
840.51	Brick Manhole – 12" thru 36" Pipe
840.52	Precast Manhole – 4', 5' and 6' Diameter 12" thru 48" Pipe
840.55	Manhole Frame and Cover (Flush with Slab for Open Throat Catch Basin)
840.66	Drainage Structure Steps
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.06	Curb Ramp
852.01	Concrete Islands

EFF. 01-16-2024
REV.

GENERAL NOTES: 2024 SPECIFICATIONS EFFECTIVE: 01-16-2024
REVISED:

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE OWASA (Water and Sewer) and Duke Progress Energy (Electric)

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

CURB RAMPS

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.06.

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

 Dewberry <small>2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC CCA No. P-9929</small>	PROJECT REFERENCE NO. HS-2007J	SHEET NO. 1B
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------	-----------------

Note: Not to Scale

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin (EIP)	○
Computed Property Corner	×
Existing Concrete Monument (ECM)	□
Parcel/Sequence Number	(123)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	MLB
Proposed Wetland Boundary	MLB
Existing Endangered Animal Boundary	EAB
Existing Endangered Plant Boundary	EPB
Existing Historic Property Boundary	HPB
Known Contamination Area: Soil	⊗-s-⊗-s-
Potential Contamination Area: Soil	⊗-s-⊗-s-
Known Contamination Area: Water	⊗-w-⊗-w-
Potential Contamination Area: Water	⊗-w-⊗-w-
Contaminated Site: Known or Potential	☠ ☒

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○
Small Mine	⊗
Foundation	□
Area Outline	□
Cemetery	⊕
Building	□
School	□
Church	⊕
Dam	—

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	JS
Buffer Zone 1	BZ 1
Buffer Zone 2	BZ 2
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	MLB
Proposed Lateral, Tail, Head Ditch	← FLOW
False Sump	▽

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	□
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY & PROJECT CONTROL:

Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	●
Secondary Horiz and Vert Control Point	◆
Vertical Benchmark	⊕
Existing Right of Way Monument	△
Proposed Right of Way Monument (Rebar and Cap)	▲
Proposed Right of Way Monument (Concrete)	▲
Existing Permanent Easement Monument	◇
Proposed Permanent Easement Monument (Rebar and Cap)	◆
Existing C/A Monument	△
Proposed C/A Monument (Rebar and Cap)	▲
Proposed C/A Monument (Concrete)	▲
Existing Right of Way Line	—
Proposed Right of Way Line	—
Existing Control of Access Line	—
Proposed Control of Access Line	—
Proposed ROW and CA Line	—
Existing Easement Line	—
Proposed Temporary Construction Easement	—
Proposed Temporary Drainage Easement	—
Proposed Permanent Drainage Easement	—
Proposed Permanent Drainage/Utility Easement	—
Proposed Permanent Utility Easement	—
Proposed Temporary Utility Easement	—
Proposed Aerial Utility Easement	—

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	—
Proposed Slope Stakes Fill	—
Proposed Curb Ramp	—
Existing Metal Guardrail	—
Proposed Guardrail	—
Existing Cable Guiderail	—
Proposed Cable Guiderail	—
Equality Symbol	⊕
Pavement Removal	⊗
VEGETATION:	
Single Tree	○
Single Shrub	○
Hedge	-----

Woods Line	-----
Orchard	-----
Vineyard	-----

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	—
Bridge Wing Wall, Head Wall and End Wall	—
MINOR:	
Head and End Wall	—
Pipe Culvert	—
Footbridge	—
Drainage Box: Catch Basin, DI or JB	—
Paved Ditch Gutter	-----
Storm Sewer Manhole	○
Storm Sewer	—

UTILITIES:

* SUE - Subsurface Utility Engineering
LOS - Level of Service - A,B,C or D (Accuracy)

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	○
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	⊕
H-Frame Pole	●
U/G Power Line Test Hole (SUE - LOS A)*	⊕
U/G Power Line (SUE - LOS B)*	—
U/G Power Line (SUE - LOS C)*	—
U/G Power Line (SUE - LOS D)*	—
TELEPHONE:	
Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	○
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	⊕
U/G Telephone Test Hole (SUE - LOS A)*	⊕
U/G Telephone Cable (SUE - LOS B)*	—
U/G Telephone Cable (SUE - LOS C)*	—
U/G Telephone Cable (SUE - LOS D)*	—
U/G Telephone Conduit (SUE - LOS B)*	—
U/G Telephone Conduit (SUE - LOS C)*	—
U/G Telephone Conduit (SUE - LOS D)*	—
U/G Fiber Optics Cable (SUE - LOS B)*	—
U/G Fiber Optics Cable (SUE - LOS C)*	—
U/G Fiber Optics Cable (SUE - LOS D)*	—

WATER:

Water Manhole	○
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line Test Hole (SUE - LOS A)*	⊕
U/G Water Line (SUE - LOS B)*	—
U/G Water Line (SUE - LOS C)*	—
U/G Water Line (SUE - LOS D)*	—
Above Ground Water Line	A/G Water
TV:	
TV Pedestal	⊕
TV Tower	⊗
U/G TV Cable Hand Hole	⊕
U/G TV Test Hole (SUE - LOS A)*	⊕
U/G TV Cable (SUE - LOS B)*	—
U/G TV Cable (SUE - LOS C)*	—
U/G TV Cable (SUE - LOS D)*	—
U/G Fiber Optic Cable (SUE - LOS B)*	—
U/G Fiber Optic Cable (SUE - LOS C)*	—
U/G Fiber Optic Cable (SUE - LOS D)*	—

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line Test Hole (SUE - LOS A)*	⊕
U/G Gas Line (SUE - LOS B)*	—
U/G Gas Line (SUE - LOS C)*	—
U/G Gas Line (SUE - LOS D)*	—
Above Ground Gas Line	A/G Gas

SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	SS
Above Ground Sanitary Sewer	A/G Sanitary Sewer
SS Force Main Line Test Hole (SUE - LOS A)*	⊕
SS Force Main Line (SUE - LOS B)*	—
SS Force Main Line (SUE - LOS C)*	—
SS Force Main Line (SUE - LOS D)*	—

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line (SUE - LOS B)*	—
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

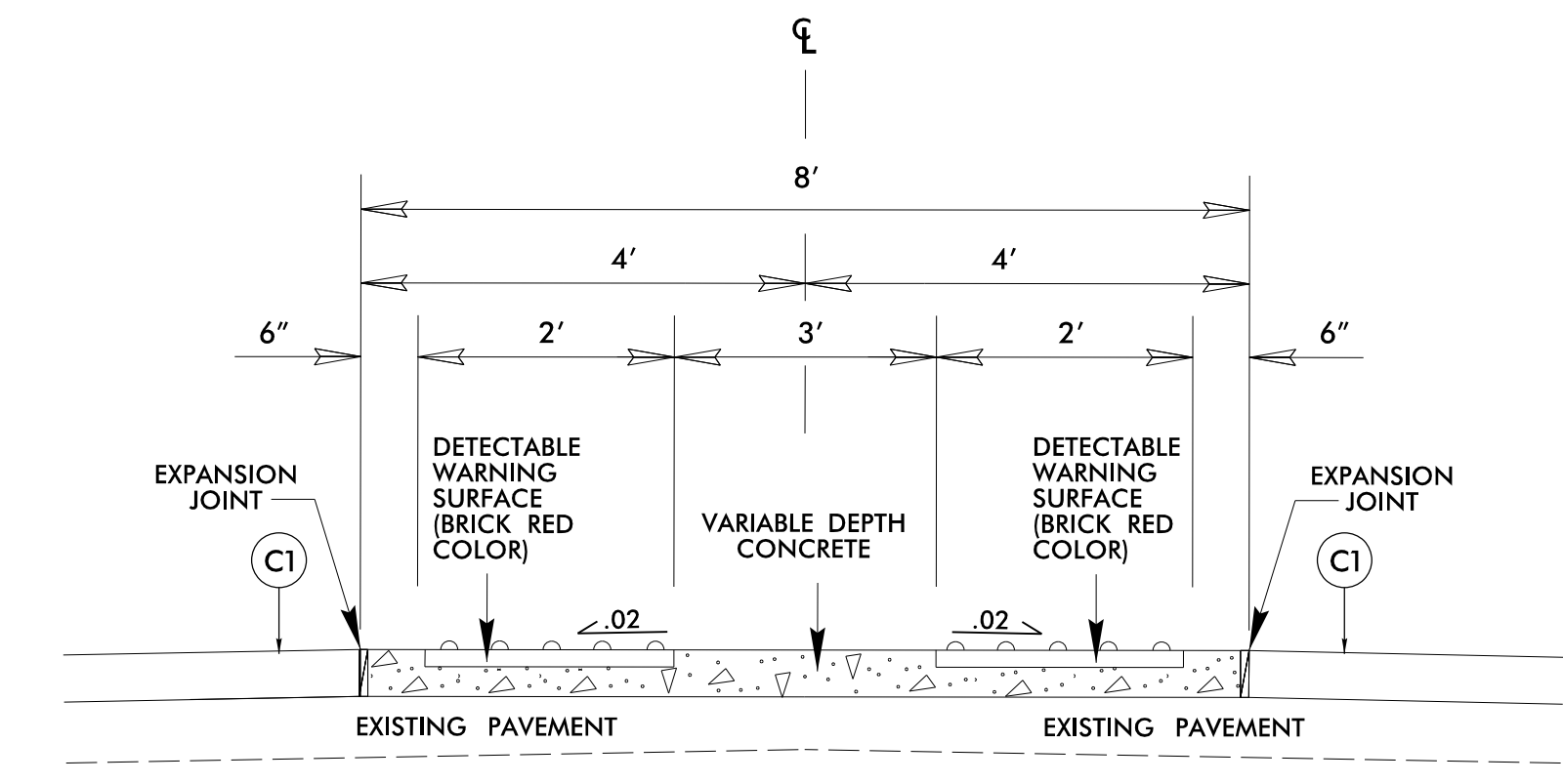
6/2/2019



PROJECT REFERENCE NO. HS-2007J		SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

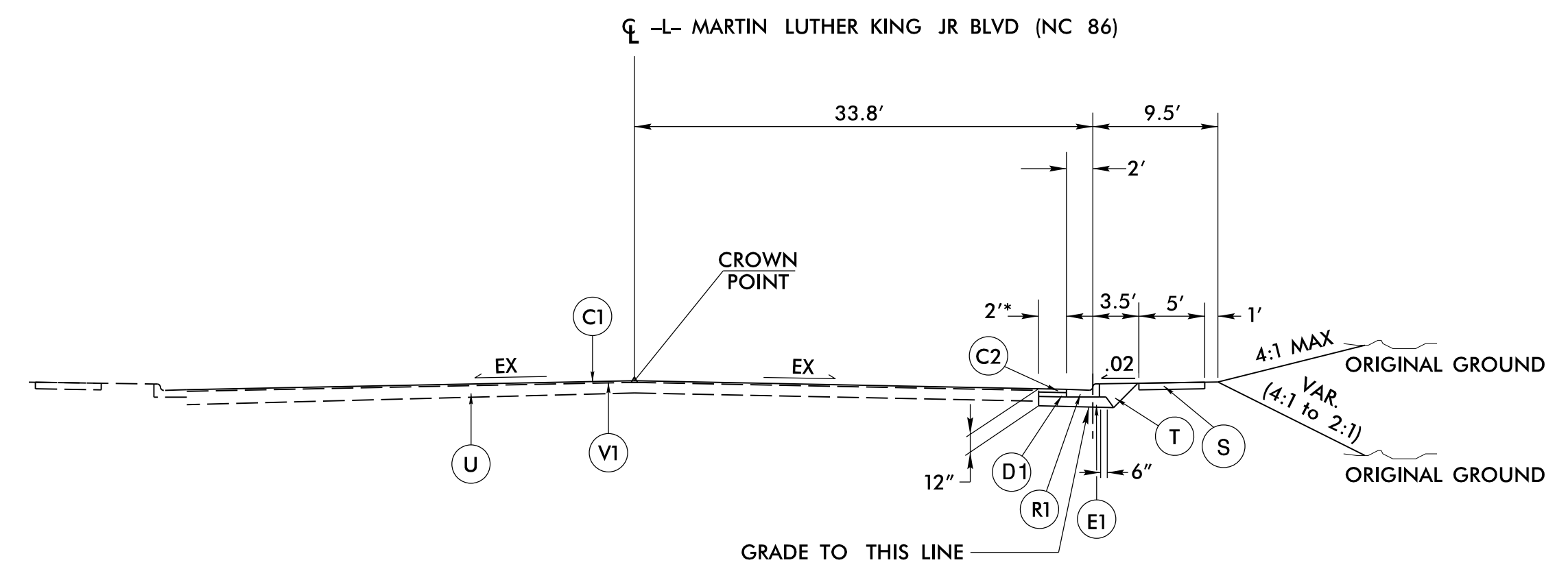
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN TWO 1.5" LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" OR GREATER THAN 4" IN DEPTH
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 3" IN OR GREATER THAN 5 1/2" IN DEPTH
R1	2'-6" CONCRETE CURB AND GUTTER
S	4" CONC. SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	MILLING 1.5"

NOTE: PAVEMENT DESIGN IS REUSED FROM PREVIOUS CHAPEL HILL MID-BLOCK PROJECTS. NO OFFICIAL PAVEMENT DESIGN PROVIDED FOR PROJECT



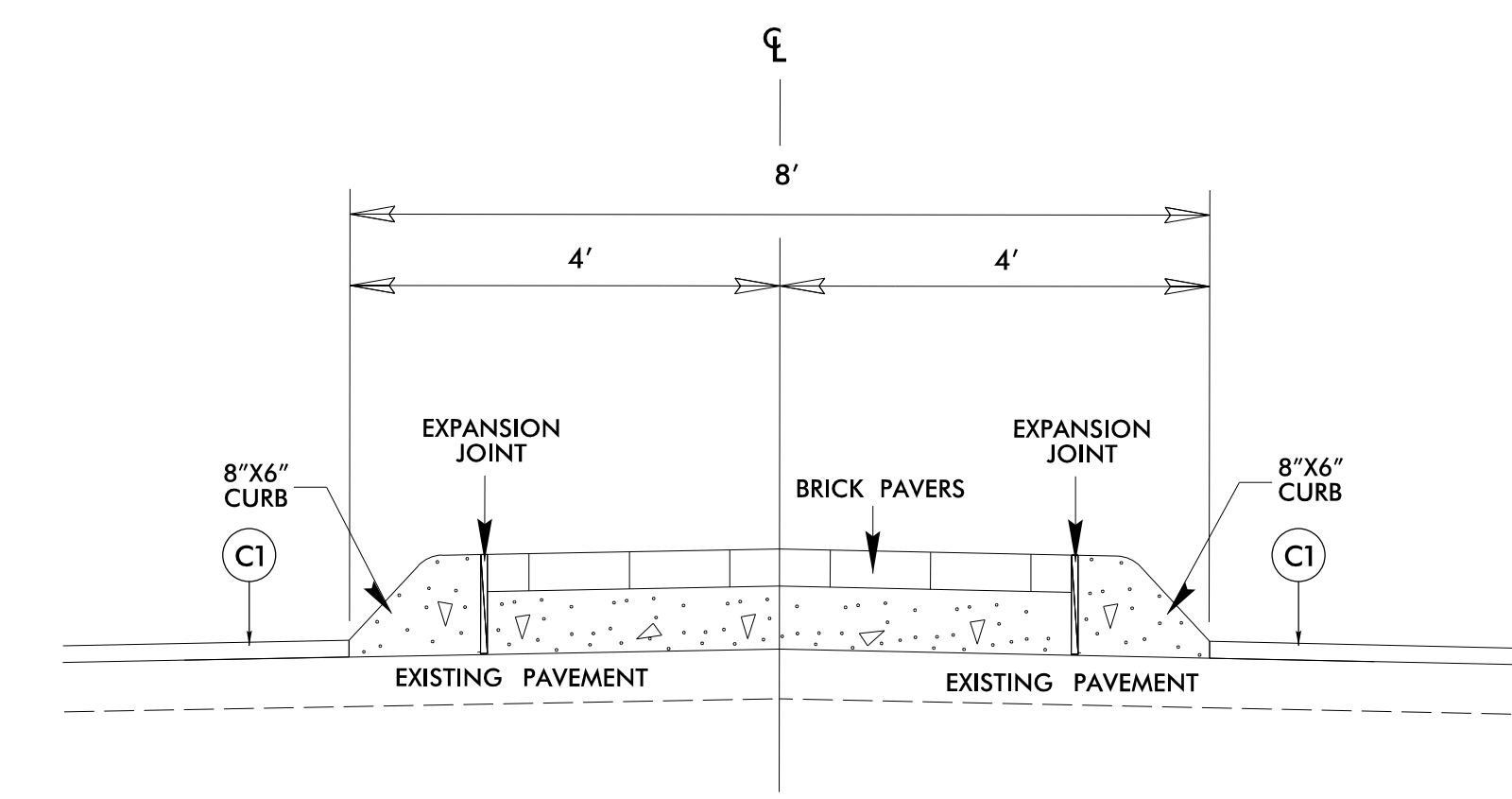
VIEW A
MIDBLOCK PEDESTRIAN REFUGE TYPICAL SECTION
NOT TO SCALE

REFER TO RSD 848.06 SHEET 12 OF 13 TYPE 7 FOR MORE DETAILS



TYPICAL SECTION NO. 1

Sta. 9+82.56 to Sta. 12+37.84
* SAWCUT EXISTING PAVEMENT A MINIMUM OF 2' FROM PLACEMENT OF NEW CURB AND GUTTER



VIEW B
BRICK MEDIAN TYPICAL SECTION
NOT TO SCALE

I:\y\104\104104\104104_104104_TYP.dgn

12/06/07

COMPUTED BY:	WAT	DATE:	10/9/24
CHECKED BY:	BSL	DATE:	10/9/24

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

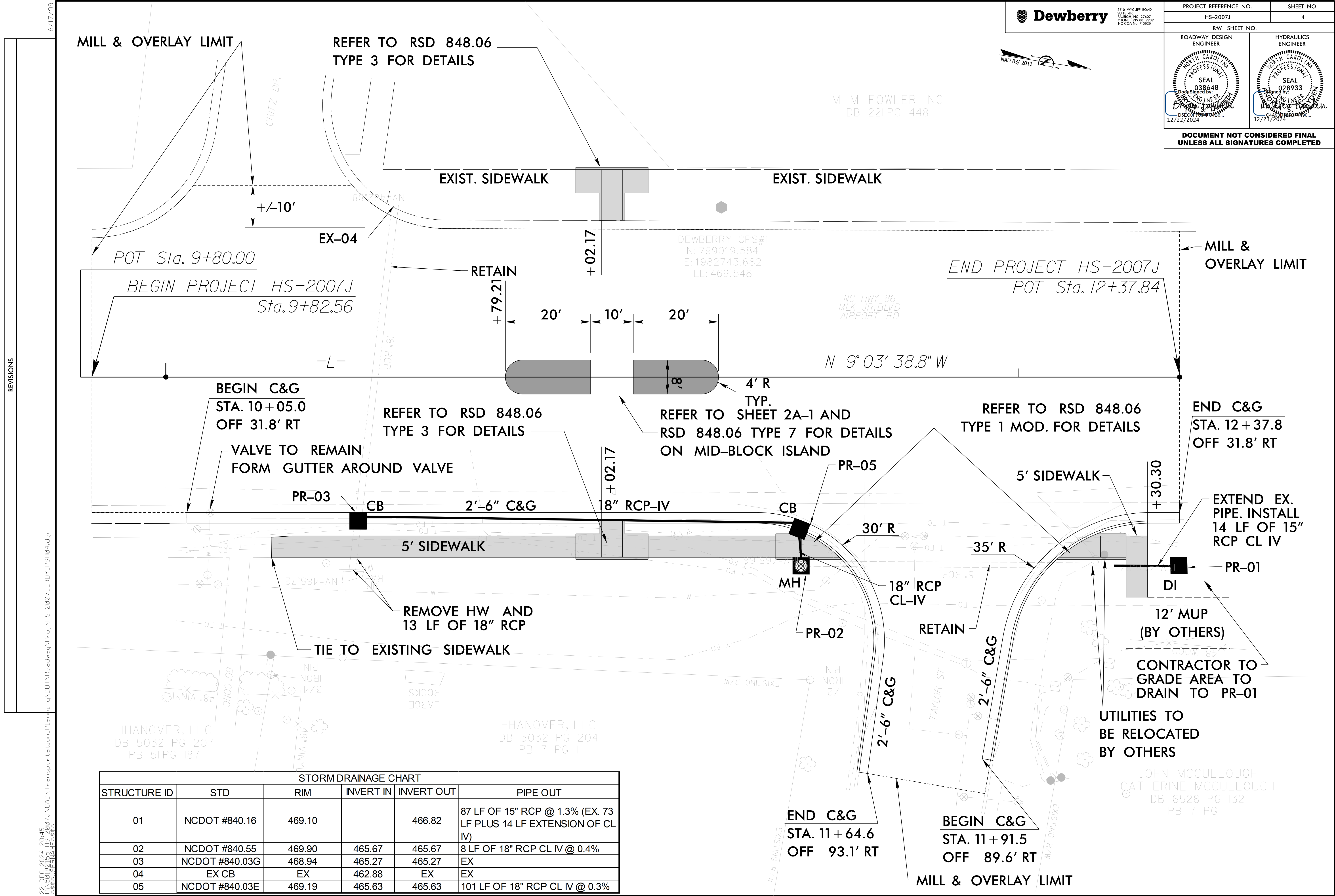


PROJECT REFERENCE NO.	SHEET NO.
HS-2007J	3B-1

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. +20%	BORROW	WASTE
9+82.56	12+37.84	31	146	115	0
SUBTOTALS:		31	146	115	0
SUBTOTALS:					
SUBTOTALS:					
SUBTOTALS:					
PROJECT TOTALS:		31	146	115	0
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				6	
GRAND TOTALS:		31	146	121	0
SAY:				125	

In:\gtd\NCHD\2007\RDY_PSH3B-1.dgn
 USER: shauden



REVISIONS

22-DEC-2024 2:05 PM J:\CAD\Transportation-Planning\DOT\Roadway\Proj\NHS-2007J\RDY_PSH04.dgn

STORM DRAINAGE CHART					
STRUCTURE ID	STD	RIM	INVERT IN	INVERT OUT	PIPE OUT
01	NCDOT #840.16	469.10		466.82	87 LF OF 15" RCP @ 1.3% (EX. 73 LF PLUS 14 LF EXTENSION OF CL IV)
02	NCDOT #840.55	469.90	465.67	465.67	8 LF OF 18" RCP CL IV @ 0.4%
03	NCDOT #840.03G	468.94	465.27	465.27	EX
04	EX CB	EX	462.88	EX	EX
05	NCDOT #840.03E	469.19	465.63	465.63	101 LF OF 18" RCP CL IV @ 0.3%

HHANOVER, LLC
 DB 5032 PG 207
 PB 51 PG 187

HHANOVER, LLC
 DB 5032 PG 204
 PB 7 PG 1

JOHN MCCULLOUGH
 CATHERINE MCCULLOUGH
 DB 6528 PG 132
 PB 7 PG 1



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.



R/W SHEET NO.

ROADWAY DESIGN ENGINEER: [Signature] 038648

HYDRAULICS ENGINEER: [Signature] 028933

12/23/2024

LEGEND

- INLET PROTECTION
- RUN-OFF FLOW ARROW
- LIMITS OF DISTURBANCE

DISTURBED AREA: 0.14 ACRES

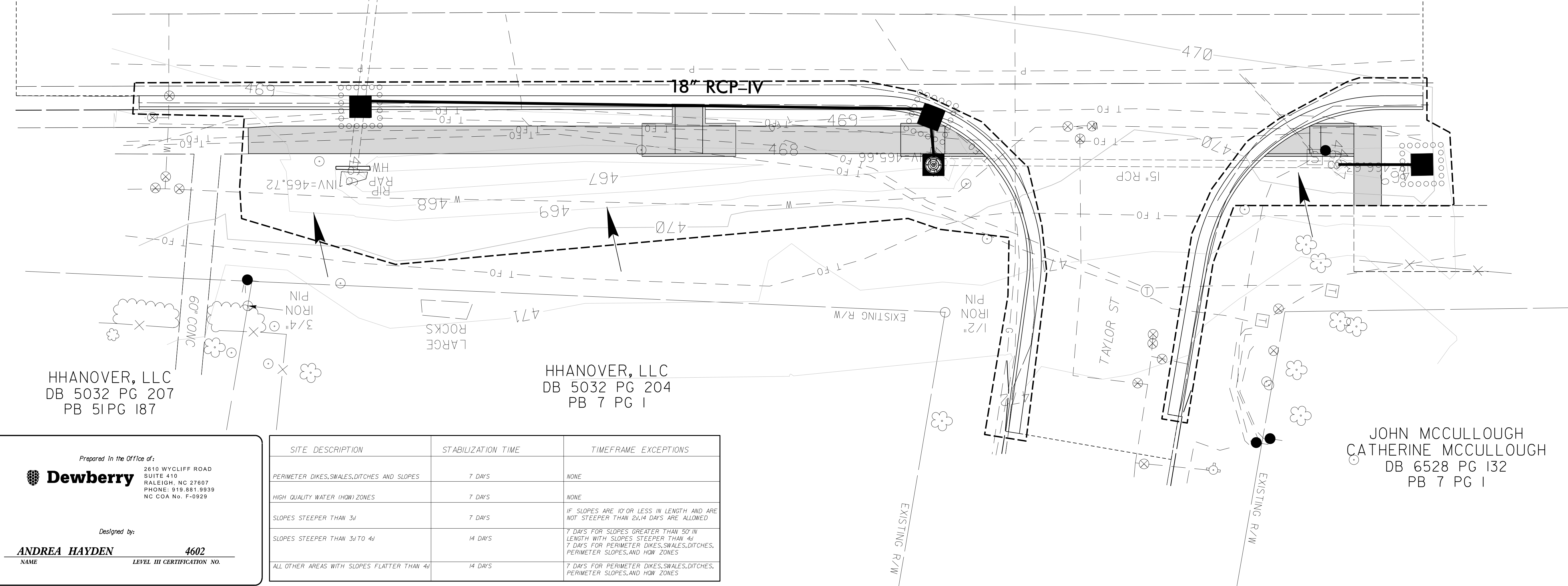
M M FOWLER INC
DB 221PG 448

POT Sta. 9+80.00
BEGIN PROJECT HS-2007J
Sta. 9+82.56

END PROJECT HS-2007J
POT Sta. 12+37.84

NC HWY 86
MLK JR. BLVD
AIRPORT RD

N 9° 03' 38.8" W



REVISIONS

23-DB-2024-140-2007J-CAD-Transportation-Planning\DOT-Roadway-Proj\NHS-2007J-RDY_PSH05.dgn

Prepared in the Office of:

Dewberry 2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929

Designed by:

ANDREA HAYDEN 4602
NAME LEVEL III CERTIFICATION NO.

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1.4 DAYS ARE ALLOWED.
SLOPES STEEPER THAN 3:1 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND HOW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND HOW ZONES

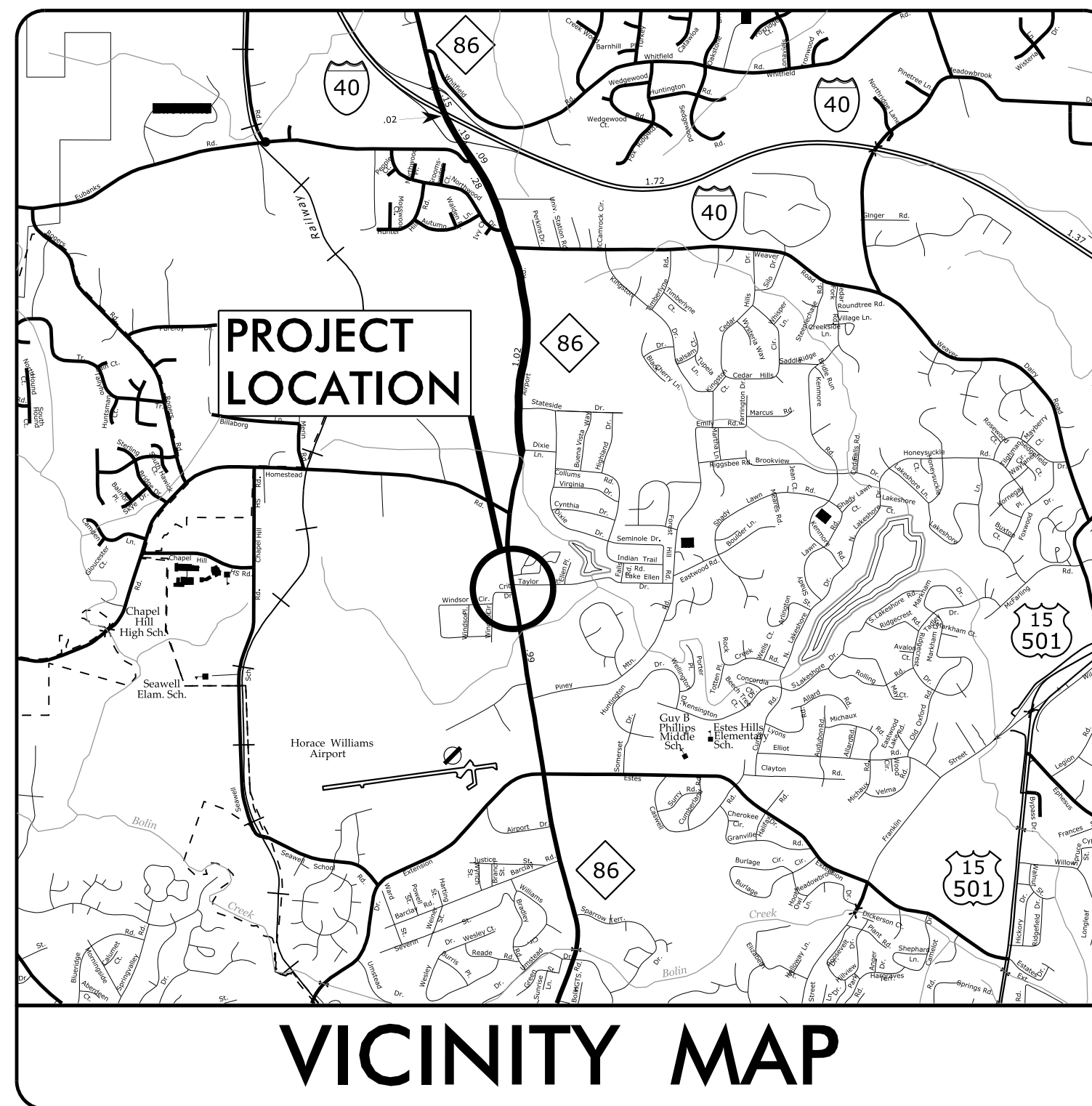
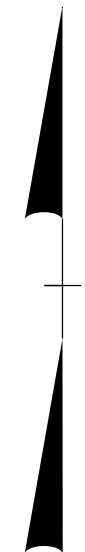
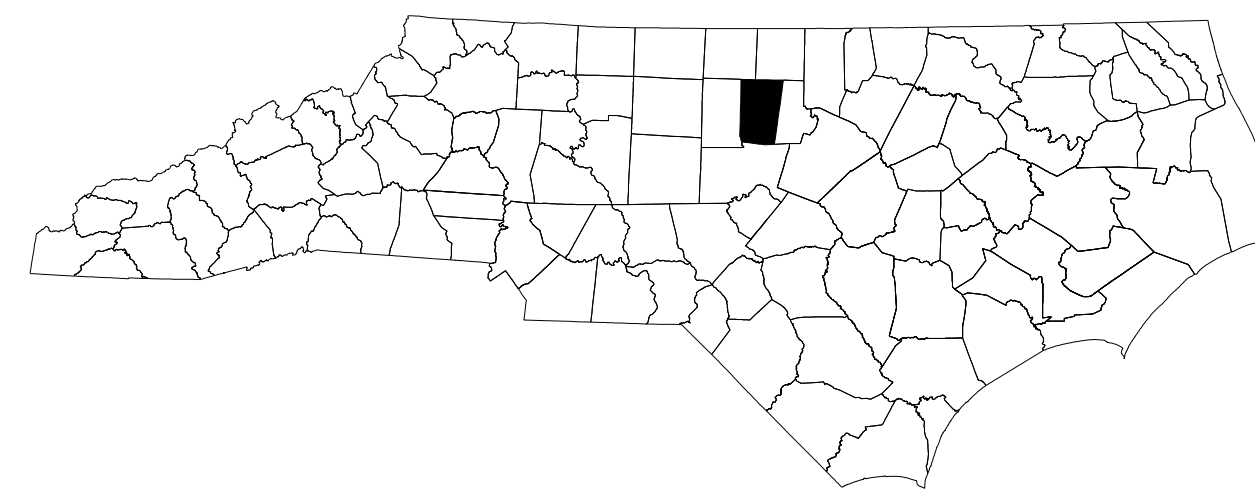
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

ORANGE COUNTY

**LOCATION: ADD MID-BLOCK PEDESTRIAN CROSSING ON NC-86
AND CRITZ DR IN CHAPEL HILL**

TYPE OF WORK: GRADING, DRAINAGE, AND PAVING



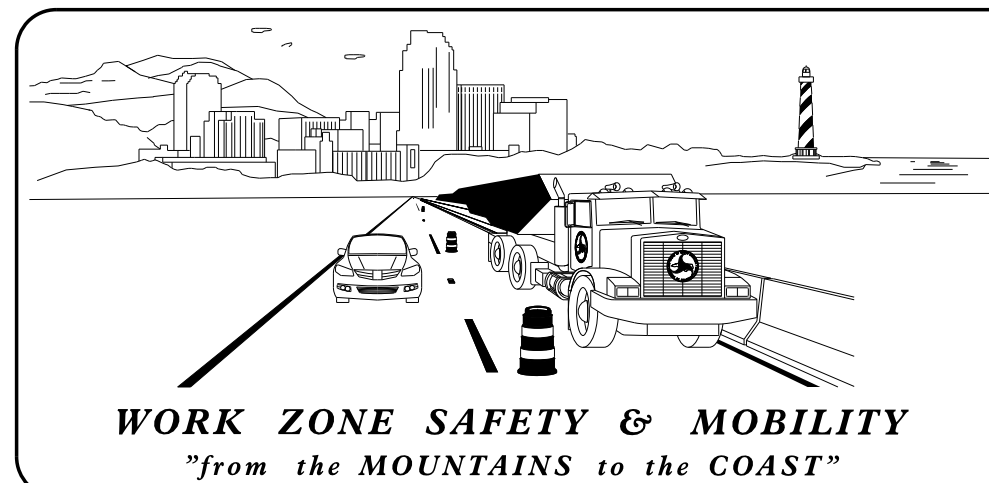
VICINITY MAP

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-2 & TMP-2A	TRANSPORTATION OPERATIONS PLAN
TMP-3	PHASING
TMP-4	PHASE I DETAIL
TMP-5	PHASE II DETAIL
TMP-6	PHASE III DETAIL

SHEET NO.
TMP-1

22-OCT-2024 13:40
PA 5018255 HS-2007J\CAD\Transportation_Planning\DOT\Work_Zone_Traffic_Control\Plans\200_001_HS2007J_TC_TCP_01.dgn
Wiles AT PW0A007L



PLANS PREPARED BY:

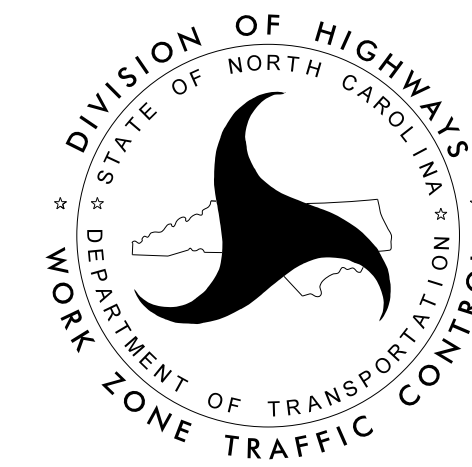
J. TODD BROOKS, PE
PROJECT ENGINEER

J. ABRAHAM WILES
PROJECT DESIGN ENGINEER

NCDOT CONTACTS:

SUZANA MATTA, PE
PROJECT ENGINEER

PAT WILSON, PE
PROJECT DESIGN ENGINEER



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

PLAN PREPARED FOR N.C.D.O.T. BY:

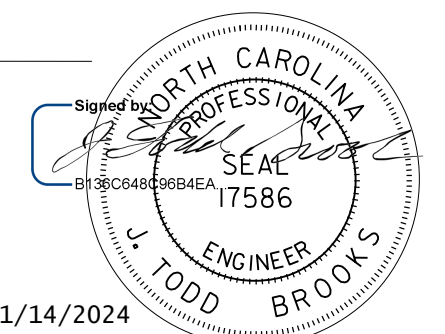
Dewberry

2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. F-0929

APPROVED: _____

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11/14/2024

PROJECT: HS-2007J

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES - TYPE III
1150.01	FLAGGERS
1180.01	SKINNY DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)

WORK AREA

REMOVAL

TEMPORARY PAVEMENT

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- PORTABLE CONCRETE BARRIER (P.C.B.)
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL / CRYSTAL
- CRYSTAL / RED
- YELLOW / YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING LINES

P5 WHITE 2 FT. - 6 FT. / SP MINISKIP PAINT (4")

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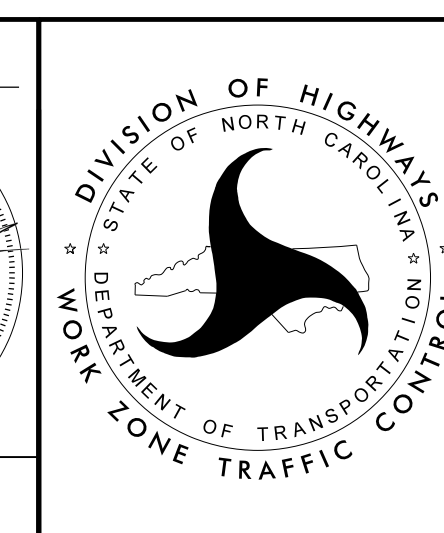
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ROADWAY STANDARD
DRAWINGS & LEGEND

MANAGEMENT STRATEGIES

THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A MID-BLOCK PEDESTRIAN CROSSING WITH CORRESPONDING CURB RAMPS ON THE EAST AND WEST SIDES OF NC 86 (MARTIN LUTHER KING, JR. BLVD.) IN CHAPEL HILL IN THE VICINITY OF CRITZ DRIVE AND TAYLOR STREET ALONG WITH CURB & GUTTER AND SIDEWALK ALONG THE EAST SIDE OF NC 86 SOUTH OF TAYLOR STREET. TRAFFIC WILL BE MAINTAINED ON NC 86 WHILE UTILIZING LANE CLOSURES WHEN NEEDED. PEDESTRIAN TRAFFIC WILL BE MAINTAINED ALONG THE EAST SIDE OF NC 86 DURING CONSTRUCTION OF PROPOSED SIDEWALK BY DETOURING PEDESTRIAN TRAFFIC TO THE CLOSED NB OUTSIDE THROUGH LANE. THAT PEDESTRIAN TRAFFIC WILL BE PROTECTED BY WATER-FILLED BARRIER AND PEDESTRIAN CHANNELIZING DEVICES.

PHASE I OF THIS TRANSPORTATION MANAGEMENT PLAN CONSISTS OF:

CONSTRUCTION OF PROPOSED CURB & GUTTER, ACCESSIBLE CURB RAMP, PROPOSED DRAINAGE, SIDEWALK AND SIDEWALK CONNECTOR ON THE EAST SIDE OF NC 86 AT THE TAYLOR STREET INTERSECTION.

PHASE II OF THIS TRANSPORTATION MANAGEMENT PLAN CONSISTS OF:

CONSTRUCTION OF PROPOSED PEDESTRIAN REFUGE ISLAND.

PHASE III OF THIS TRANSPORTATION MANAGEMENT PLAN CONSISTS OF:

CONSTRUCTION OF PROPOSED ACCESSIBLE CURB RAMP ON THE WEST SIDE OF NC 86 FOLLOWED BY MILLING & RESURFACING OF NC 86.

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER. 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.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS

<u>ROAD NAME</u>	<u>DAY AND TIME RESTRICTIONS</u>
MARTIN LUTHER KING JR. BLVD (NC 86)	MONDAY THRU FRIDAY 7:00 AM TO 9:00 AM 4:00 PM TO 9:00 PM SUNDAY ANYTIME

HOLIDAY AND HOLIDAY WEEKEND

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 AM DECEMBER 31ST TO 6:00 PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 PM THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 AM THURSDAY AND 6:00 PM MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY TO 6:00 PM TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 AM THE DAY BEFORE INDEPENDENCE DAY AND 6:00 PM THE DAY AFTER INDEPENDENCE DAY.
- IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 PM THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY AND 6:00 PM TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 AM TUESDAY TO 6:00 PM MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

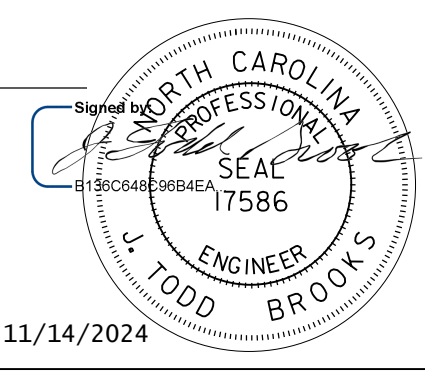
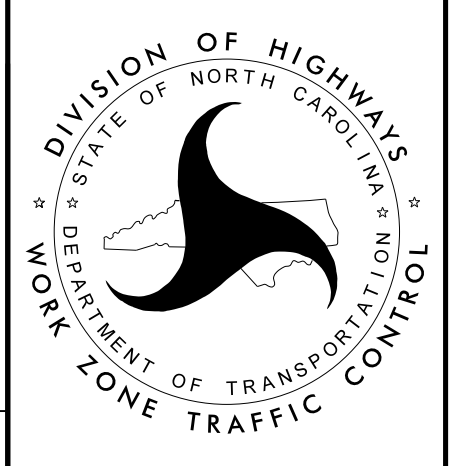
SPECIAL EVENTS

- FOR UNIVERSITY OF NORTH CAROLINA HOME BASKETBALL GAMES OCCURRING AT THE DEAN E. SMITH CENTER BETWEEN TWO (2) HOURS BEFORE THE START OF THE BASKETBALL GAME AND TWO (2) HOURS AFTER THE END OF THE BASKETBALL GAME.
- FOR UNIVERSITY OF NORTH CAROLINA HOME FOOTBALL GAMES OCCURRING AT KENAN STADIUM BETWEEN THREE (3) HOURS BEFORE THE START OF THE FOOTBALL GAME AND THREE (3) HOURS AFTER THE END OF THE FOOTBALL GAME.

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GENERAL NOTES – CONT.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- B) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING NCDOT ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- E) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY WITHIN THE SAME LOCATION.

TRAFFIC PATTERN ALTERATIONS

- F) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO THE TRAFFIC PATTERN ALTERATION.

SIGNING

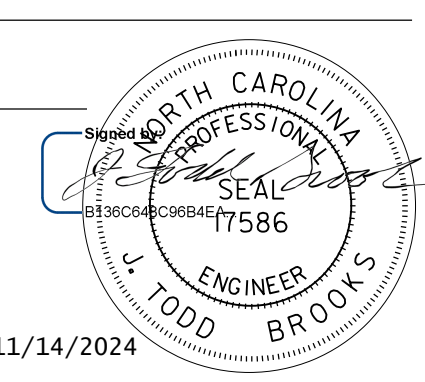
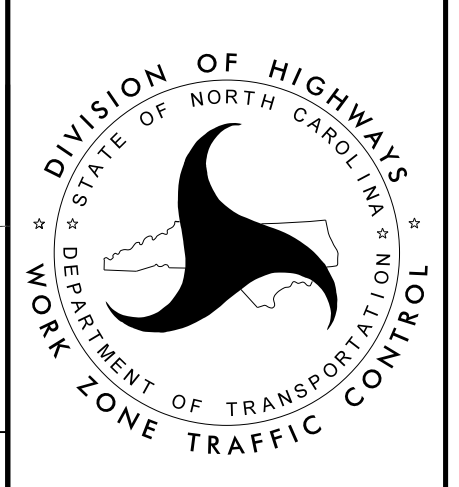
- G) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

TRAFFIC CONTROL DEVICES

- H) WHEN LANE CLOSURES ARE NOT IN EFFECT, MOVE CHANNELIZING DEVICES TO EDGE OF TRAVEL WAY AND/OR STOCKPILE CHANNELIZING DEVICES AS APPROVED BY THE ENGINEER. DO NOT BLOCK ANY SIDEWALKS WITH CHANNELIZING DEVICES WHEN EITHER REMOVING OR INSTALLING THEM.
- I) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING.

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PHASING

PHASE I

OBJECTIVE: CONSTRUCT PROPOSED CURB & GUTTER, CURB RAMP, PROPOSED DRAINAGE, SIDEWALK AND SIDEWALK CONNECTOR ON THE EAST SIDE OF NC 86 AT THE TAYLOR STREET INTERSECTION.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN PHASE I, STEPS 1 THROUGH 3 WITHIN FOURTEEN (14) CALENDAR DAYS.

SEE SHEET TMP-4

STEP 1: CLOSE THE NORTHBOUND OUTSIDE THROUGH LANE AS PER RSD 1101.02, SHEET 3 OF 19 AS SHOWN ON SHEET TMP-4.

INSTALL TEMPORARY CURB RAMP AND TEMPORARY ASPHALT CONNECTOR BETWEEN THE EXISTING SIDEWALK AND BACK OF CURB AT THAT RAMP AS SHOWN ON SHEET TMP-4. USING WATER-FILLED BARRIER AND PEDESTRIAN CHANNELIZING DEVICES, CREATE A TEMPORARY PEDESTRIAN DETOUR IN THE CLOSED NORTHBOUND OUTSIDE TRAVEL LANE AS SHOWN ON SHEET TMP-4. DETOUR PEDESTRIAN TRAFFIC AS SHOWN ON SHEET TMP-4.

STEP 2: ONCE PEDESTRIAN TRAFFIC IS DETOURED, CONSTRUCT THE FOLLOWING:

- PROPOSED CURB & GUTTER, CURB RAMP, PROPOSED DRAINAGE AND SIDEWALK CONNECTOR IN THE NE CORNER OF THE TAYLOR STREET INTERSECTION AS SHOWN ON SHEET TMP-4. USE FLAGGERS AND ALTERNATING LANE CLOSURES AS PER RSD 1101.02, SHEET 1 OF 19 TO CONTROL TRAFFIC ON TAYLOR STREET DURING PERIODS OF ACTIVE CONSTRUCTION.
- PROPOSED CURB & GUTTER, PROPOSED DRAINAGE AND SIDEWALK CONNECTOR IN THE SE CORNER OF THE TAYLOR STREET INTERSECTION AND ALONG THE EAST SIDE OF NC 86 AS SHOWN ON SHEET TMP-4. USE FLAGGERS AND ALTERNATING LANE CLOSURES AS PER RSD 1101.02, SHEET 1 OF 19 TO CONTROL TRAFFIC ON TAYLOR STREET DURING PERIODS OF ACTIVE CONSTRUCTION.

STEP 3: UPON COMPLETION OF THE ABOVE CONSTRUCTION, REOPEN SIDEWALKS TO PEDESTRIAN TRAFFIC AND REMOVE THE TEMPORARY PEDESTRIAN DETOUR. REMOVE TEMPORARY CURB RAMP AND TEMPORARY ASPHALT CONNECTION TO THAT RAMP THEN REMOVE THE WATER-FILLED BARRIER AND DRUMS AND REOPEN THE RIGHT NORTHBOUND LANE ON NC 86 TO VEHICULAR TRAFFIC. DO NOT ALLOW PEDESTRIANS TO ACCESS THE MIDBLOCK CROSSING AS SHOWN ON SHEET TMP-5.

PHASE II

OBJECTIVE: CONSTRUCT PROPOSED PEDESTRIAN REFUGE ISLAND.

SEE SHEET TMP-5

TEMPORARILY CLOSE THE LEFT LANES IN BOTH DIRECTIONS ON NC 86 AND THE CENTER TURN LANE ON NC 86 AS SHOWN ON SHEET TMP-5 DURING NON-PEAK HOURS AND CONSTRUCT THE PEDESTRIAN REFUGE ISLAND IN THE CENTER TURN LANE. REOPEN ALL LANES DURING PERIODS OF CONSTRUCTION INACTIVITY AS SHOWN IN INSET 'A' ON SHEET TMP-5.

PHASE III

OBJECTIVE: CONSTRUCT THE PROPOSED CURB RAMP IN THE EXISTING SIDEWALK ON THE WEST SIDE OF NC 86, THEN MILL AND RESURFACE NC 86 AND PLACE FINAL PAVEMENT MARKINGS AND INSTALL FINAL SIGNING AND DELINEATION.

STEP 1: SEE SHEET TMP-6. CLOSE THE EXISTING SIDEWALK ON THE WEST SIDE OF NC 86 AS SHOWN ON TMP-6 AND DETOUR PEDESTRIAN TRAFFIC AS SHOWN ON THAT SHEET.

STEP 2: SEE SHEET TMP-6. USING LANE CLOSURES AS PER RSD 1101.02, SHEET 3 OF 19 DURING NON-PEAK HOURS, CONSTRUCT THE PROPOSED ACCESSIBLE CURB RAMP IN THE EXISTING SIDEWALK ON THE WEST SIDE OF NC 86. REOPEN ALL LANES DURING PERIODS OF CONSTRUCTION INACTIVITY AS SHOWN IN INSET 'A' ON SHEET TMP-6.

STEP 3: REOPEN PORTIONS OF THE SIDEWALK ON THE WEST SIDE OF NC 86 CLOSED DURING PHASE III, STEP 1. MAINTAIN CLOSURE OF THE ACCESSIBLE CURB RAMPS ON BOTH SIDES OF NC 86.

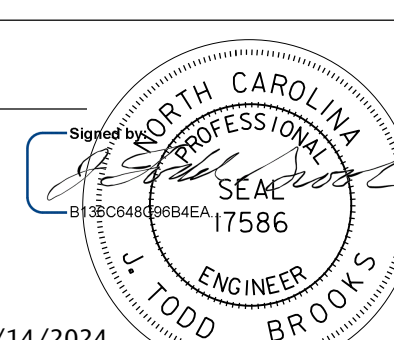
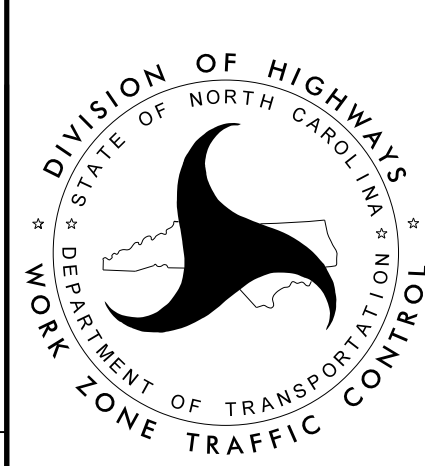
STEP 4: USING RSD 1101.02, SHEET 3 OF 19 DURING NON-PEAK HOURS, MILL AND RESURFACE NC 86 WITHIN THE LIMITS SHOWN ON THE ROADWAY PLANS AND PLACE FINAL PAVEMENT MARKINGS, PAVEMENT MARKERS AND DELINEATION OF THE FINAL PAVEMENT LAYER AS SHOWN ON THE PAVEMENT MARKING PLAN. INSTALL RRFB ASSEMBLIES AND PROPOSED SIGNING IN ACCORDANCE WITH THE SIGNING PLAN.

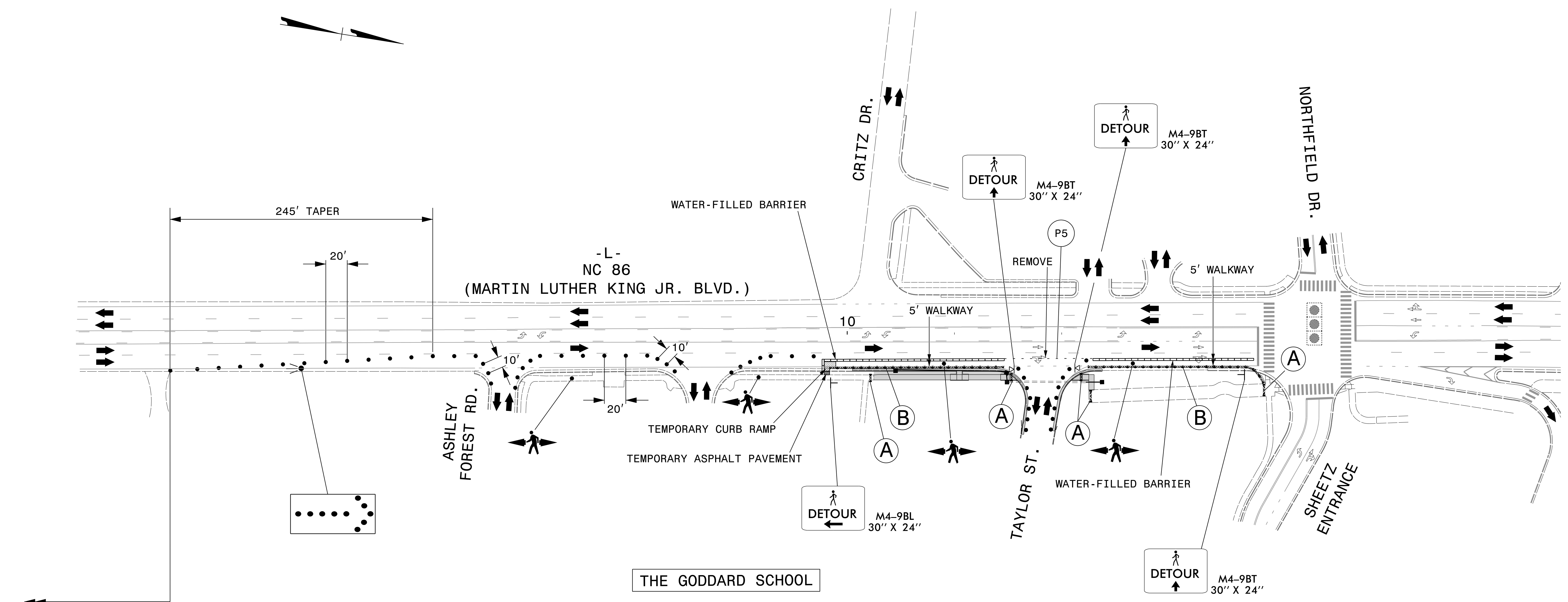
STEP 5: UPON COMPLETION OF ALL SIGNING AND PAVEMENT MARKING AND INSTALLATION OF THE RRFB ASSEMBLIES, REMOVE THE PEDESTRIAN BARRICADES FROM THE CURB RAMPS AT EACH END OF THE NEW CROSSWALK AND OPEN THE CROSSWALK TO PEDESTRIANS.

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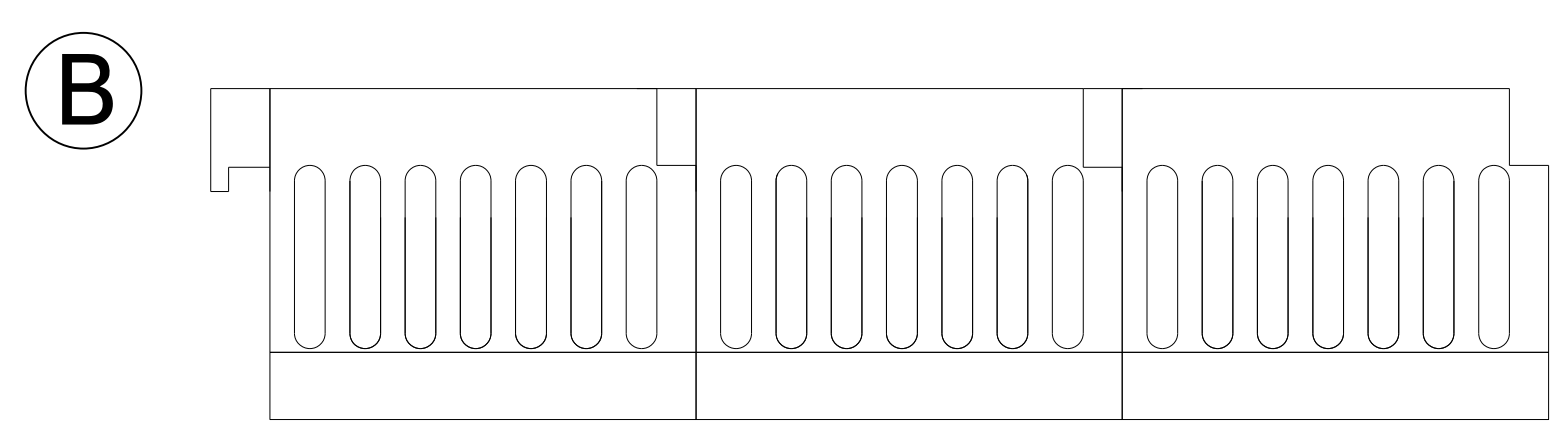
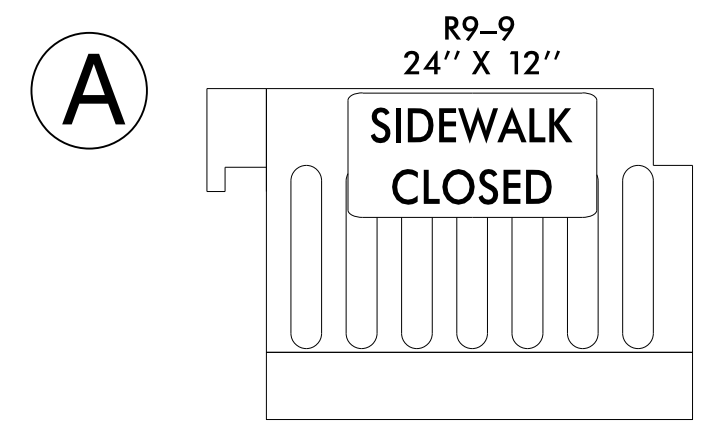


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REFER TO NCDOT RSD 1101.02,
SHEET 3 OF 19, FOR LANE
CLOSURE DEVICES AND SIGNING



PEDESTRIAN CHANNELIZING DEVICES

ALTERNATELY CONSTRUCT THE PROPOSED CURB & GUTTER, DRAINAGE AND CURB IN THE SE AND NE CORNERS OF NC 86 AND TAYLOR STREET. USE FLAGGERS TO CONTROL TRAFFIC DURING PERIODS OF ACTIVE CONSTRUCTION ON TAYLOR STREET. REOPEN TO TWO-WAY / TWO-LANE PATTERN DURING PERIODS OF INACTIVITY.

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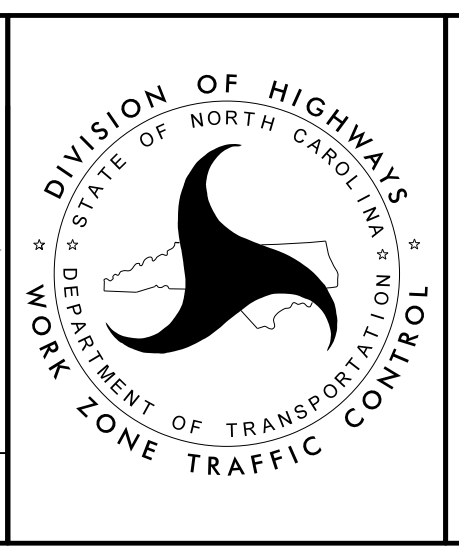
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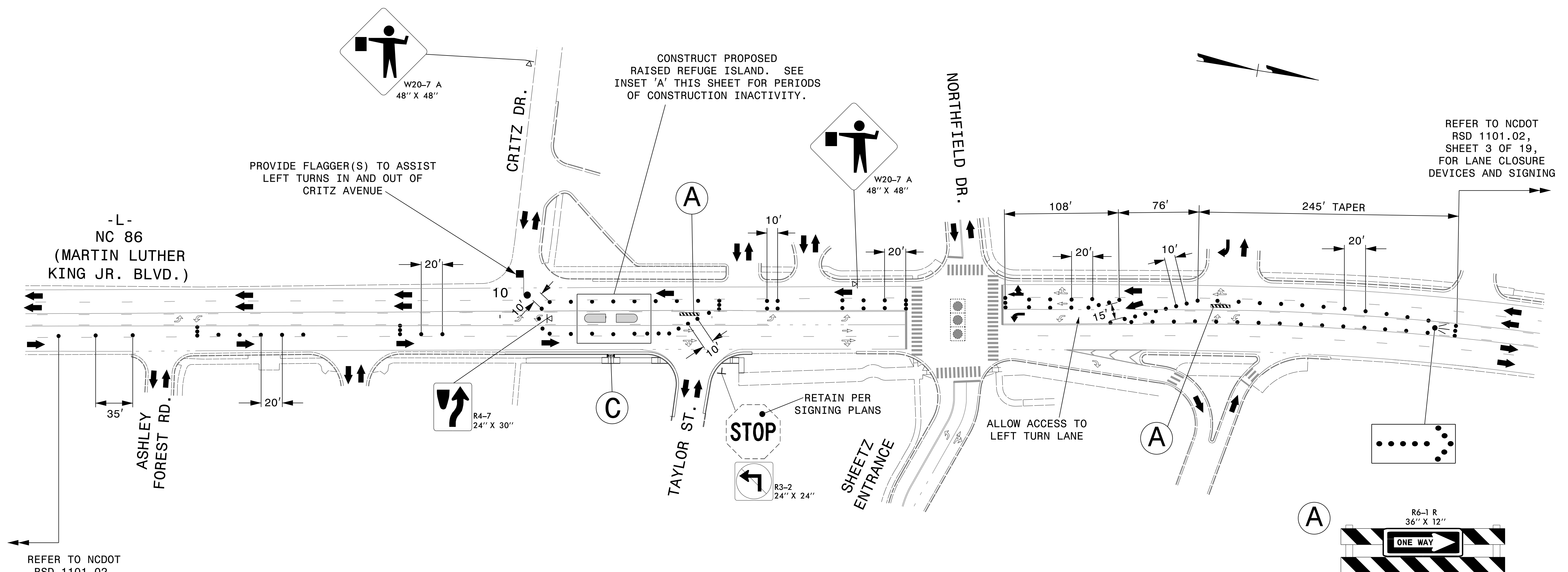
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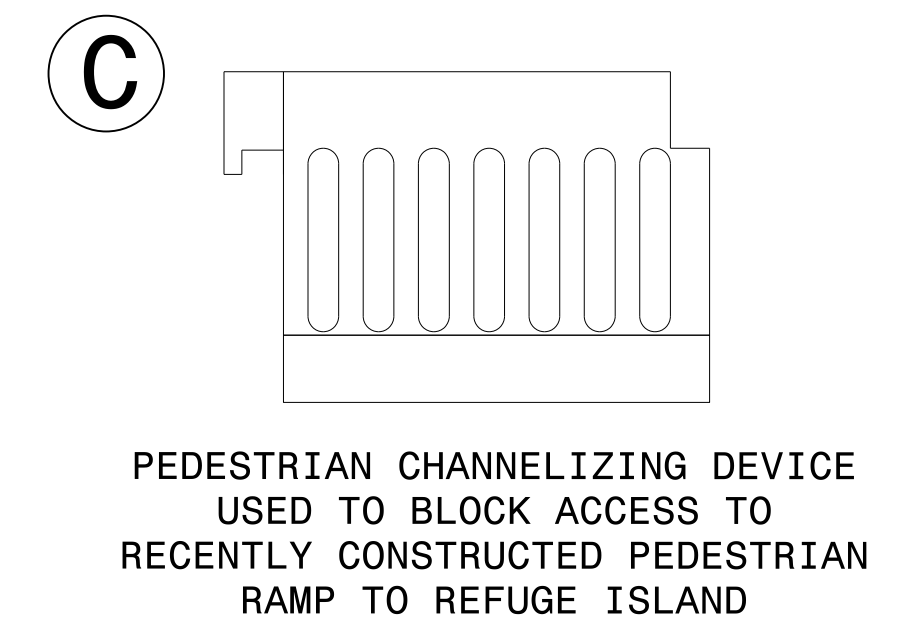
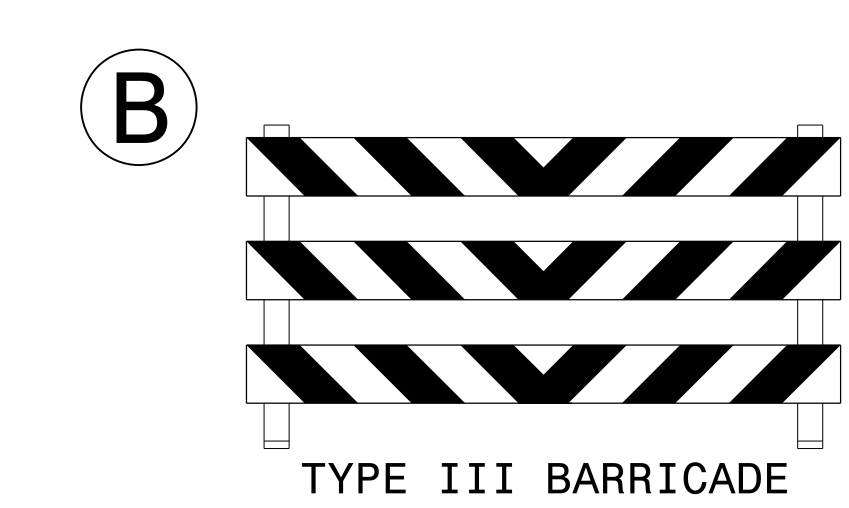
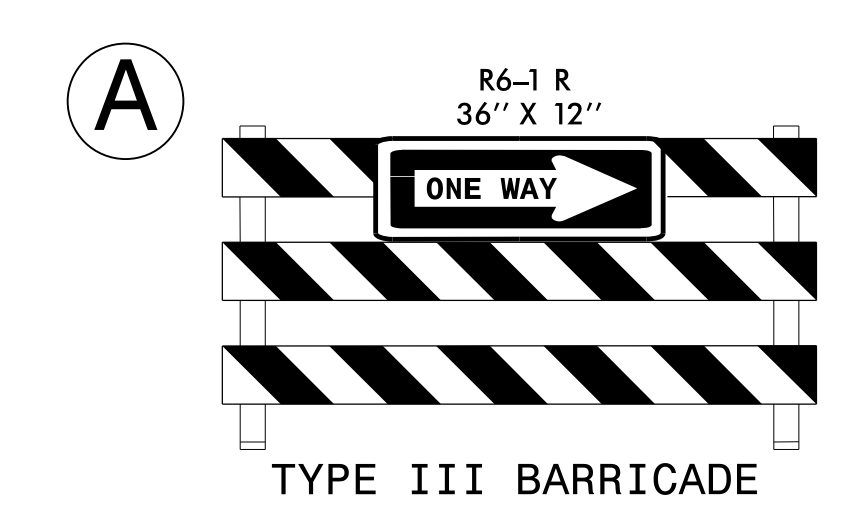
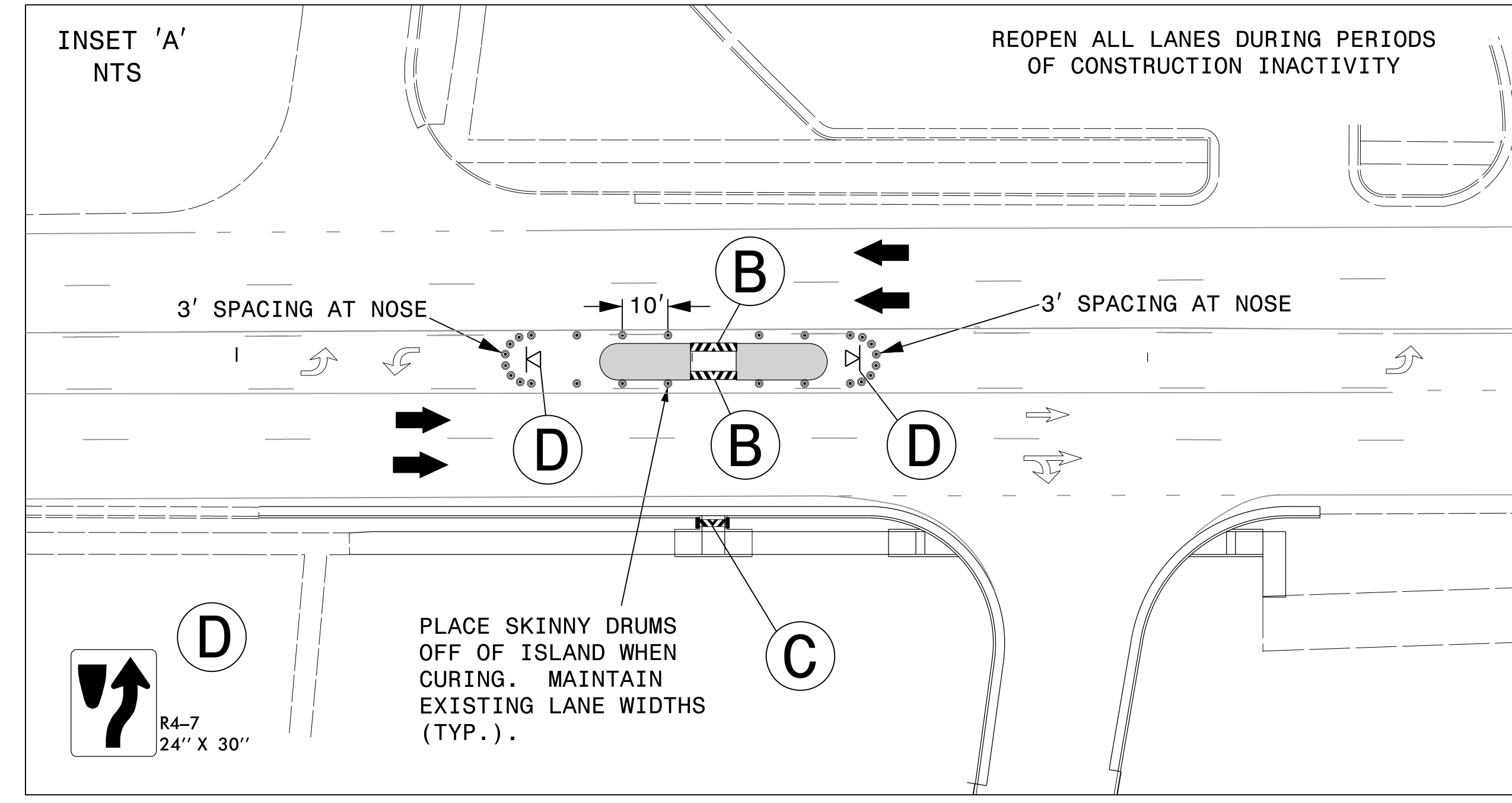
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**PHASE I
DETAIL**



REFER TO NCDOT RSD 1101.02, SHEET 3 OF 19, FOR LANE CLOSURE DEVICES AND SIGNING

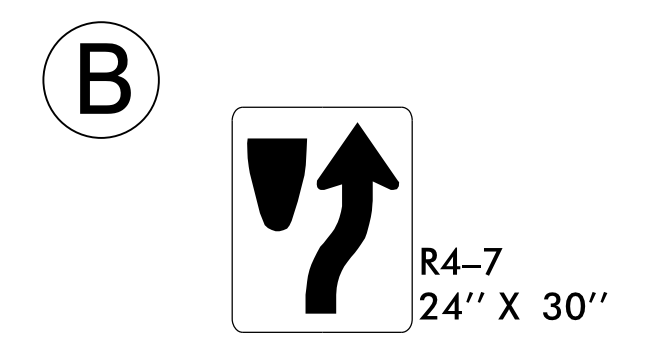
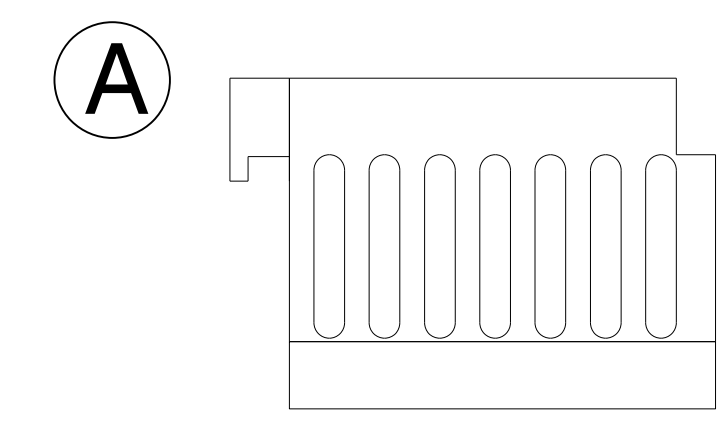
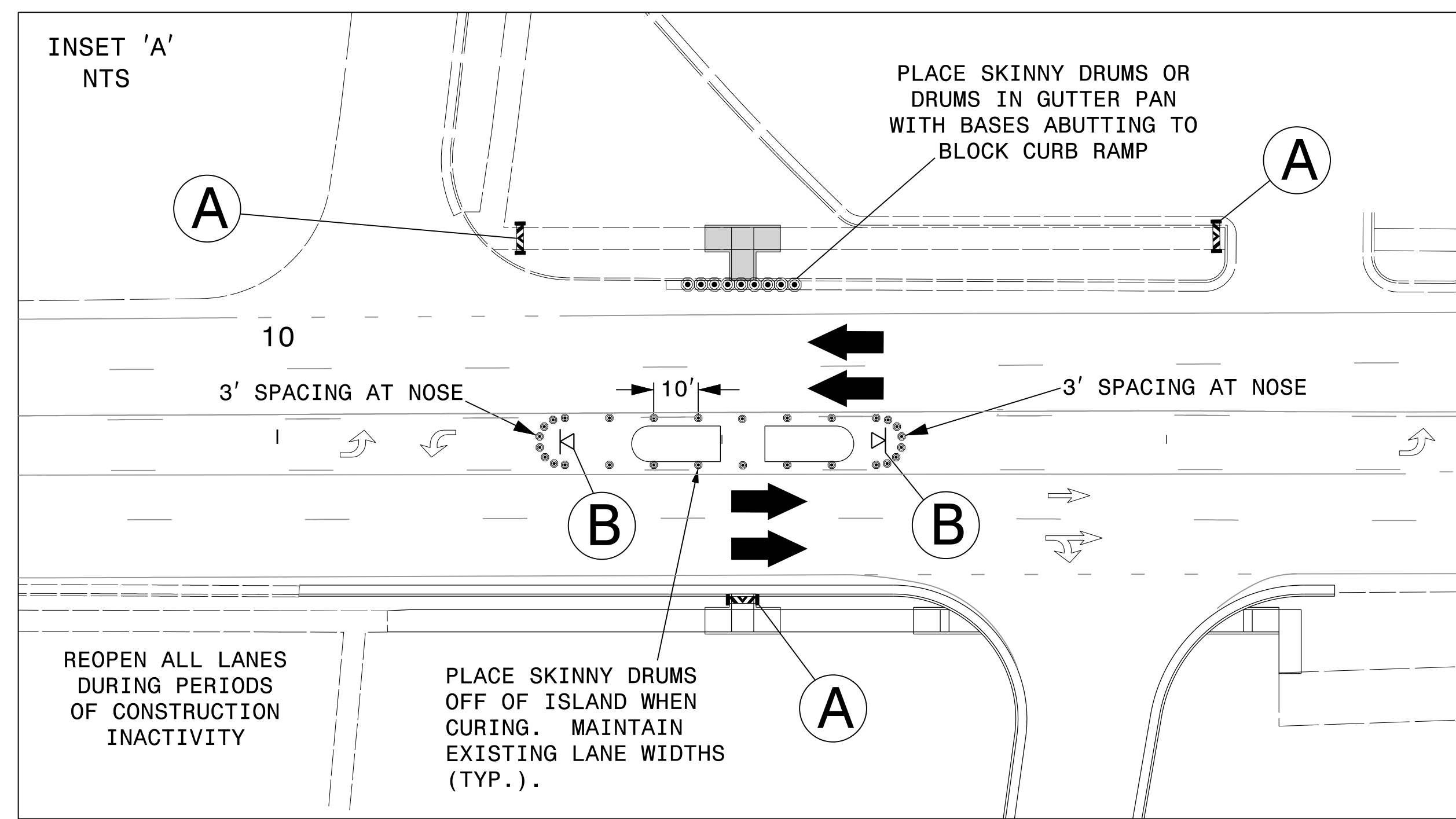
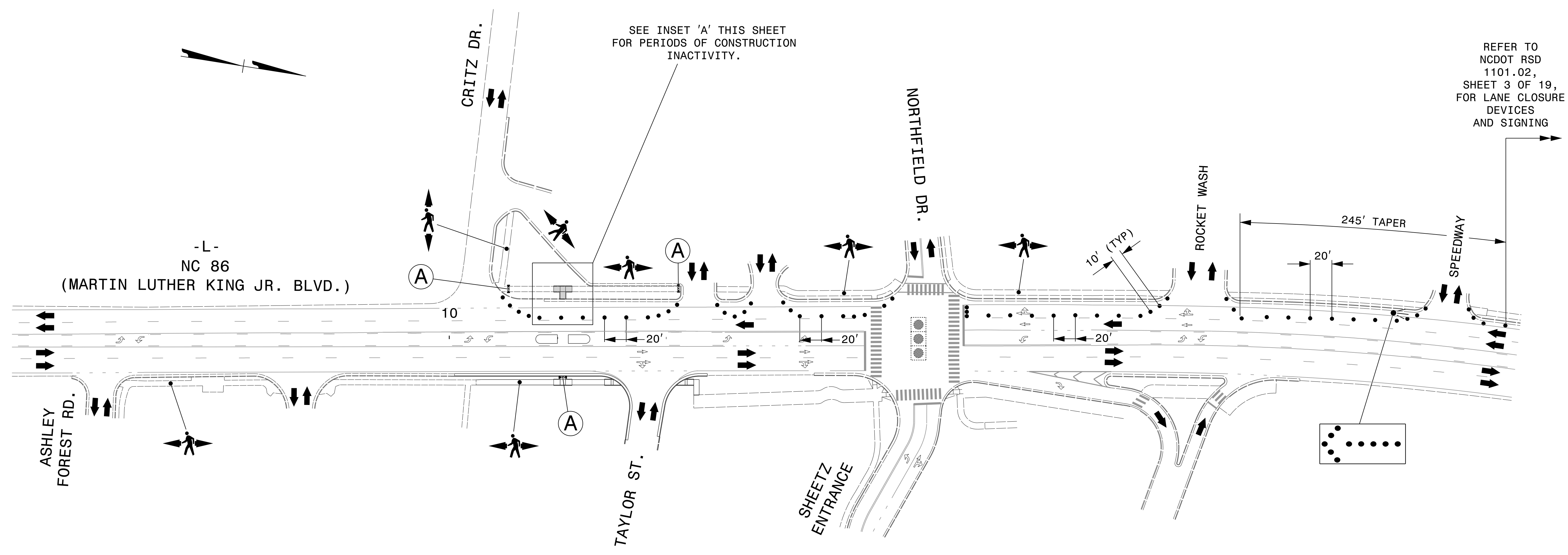


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PEDESTRIAN CHANNELIZING DEVICE USED TO BLOCK ACCESS TO RECENTLY CONSTRUCTED PEDESTRIAN RAMP TO REFUGE ISLAND

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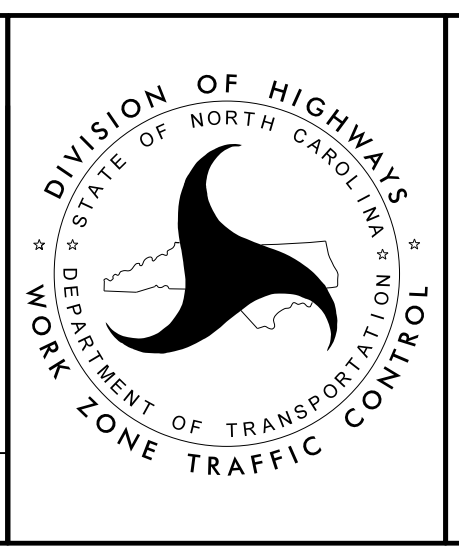
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**PHASE III
 DETAIL**

PROJECT NOTES

1. DIMENTIONS AND LOCATIONS OF EXISTING FEATURES ARE APPROXIMATE.
2. ALL PAVEMENT MARKINGS ON ASPHALT SURFACES SHALL BE THERMOPLASTIC AND SHALL COMPLY WITH NCDOT SPECIFICATIONS AND STANDARDS, UNLESS OTHERWISE NOTED IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.
3. TIE THE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
4. REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS.
5. ORANGE FLAGS MAY BE REMOVED AFTER 30 DAYS AT THE DISCRETION OF THE DEPARTMENT.
6. CONTACT N.C. ONE CALL TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
7. PROVIDE 2-INCH-WIDE VERTICAL REFLECTIVE STRIP ON THE FACE OF ALL SIGN POSTS INSTALLED UNDER THIS PROJECT. SEE PROJECT SPECIAL PROVISIONS.
8. 24" CROSSWALK MARKINGS AND 8" CROSSWALK LINES ARE TO BE PRE-FORMED, HEATED IN PLACE THERMOPLASTIC MARKINGS WITH HIGH SKID RESISTANCE.
9. WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.

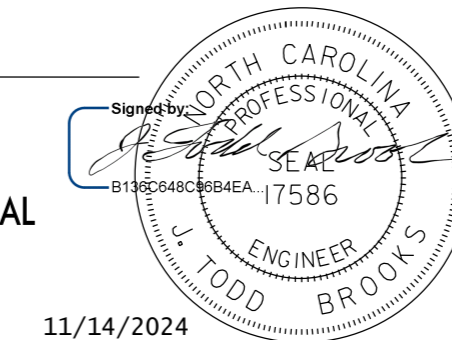
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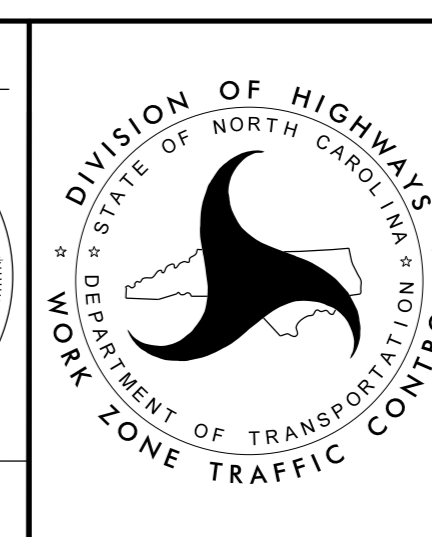
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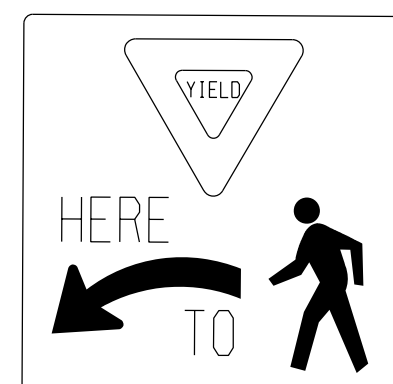
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SIGNING &
PAVEMENT MARKING
GENERAL NOTES

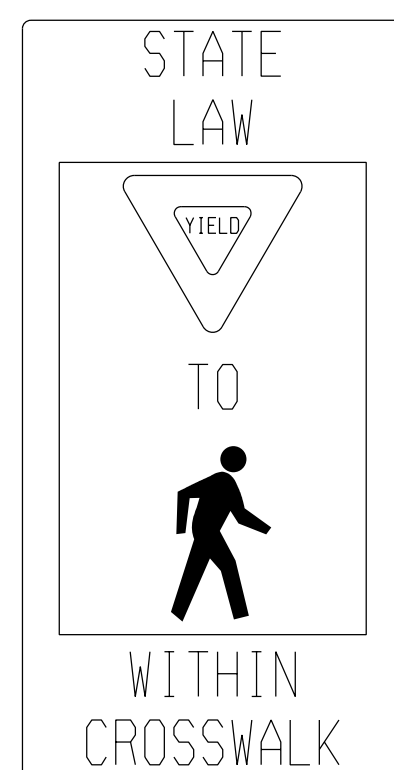
401 QUANTITY REQ'D 2



24 X 24
R1-5L

ONE "U" POST PER SIGN

402 QUANTITY REQ'D 2



12 X 36
R1-6

FLUORESCENT YELLOW/GREEN
IN-STREET SIGN SURFACE-MOUNTED TO PAVEMENT

403 QUANTITY REQ'D 5



36 X 36
W11-2

FLUORESCENT YELLOW/GREEN
ONE SQUARE TUBE POST PER SIGN IN 3 INSTALLATIONS
ONE U-POST PER SIGN IN 1 INSTALLATION
2 SIGNS MOUNTED BACK-TO-BACK IN ONE INSTALLATION

404 QUANTITY REQ'D 1

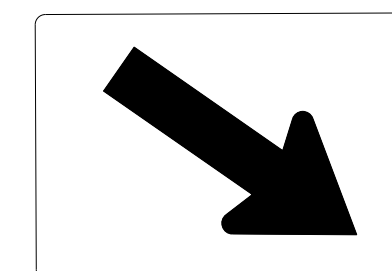


24 X 12
W16-9P

FLUORESCENT YELLOW/GREEN

MOUNTED BELOW SIGN NO. 403 IN 1 INSTALLATION

405 QUANTITY REQ'D 2

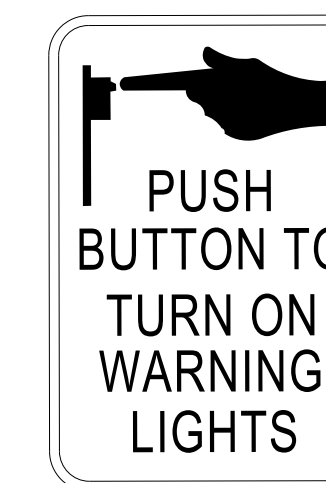


24 X 12
W16-7pR

FLUORESCENT YELLOW/GREEN

MOUNTED BELOW SIGN NO. 403 IN 2 INSTALLATIONS

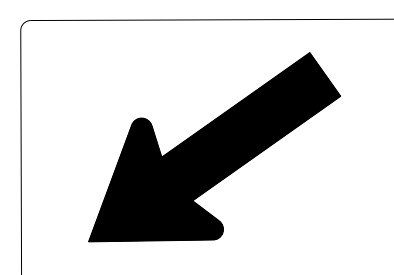
406 QUANTITY REQ'D 2



9 X 12
R10-25

MOUNTED BACK TO BACK
BELOW SIGN 403 IN 1 INSTALLATION

407 QUANTITY REQ'D 2



24 X 12
W16-7pL

FLUORESCENT YELLOW/GREEN

MOUNTED BELOW SIGN NO. 403 IN 2 INSTALLATIONS

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sthillson AT PF40GKGB



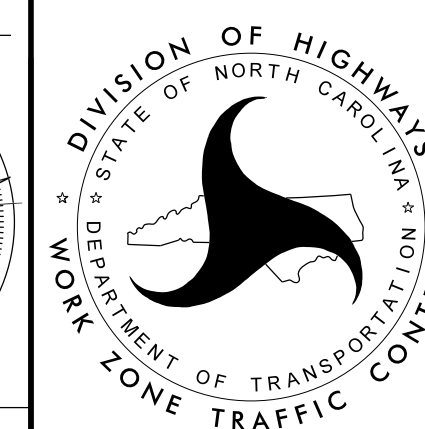
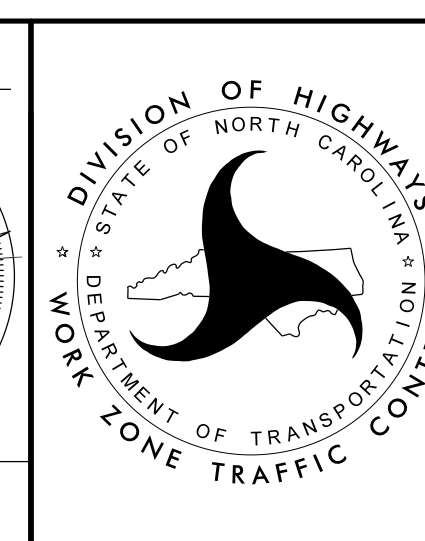
2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. F-0929
PROJECT: 50104524

APPROVED: _____
DATE: _____

SEAL

11/14/2024

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

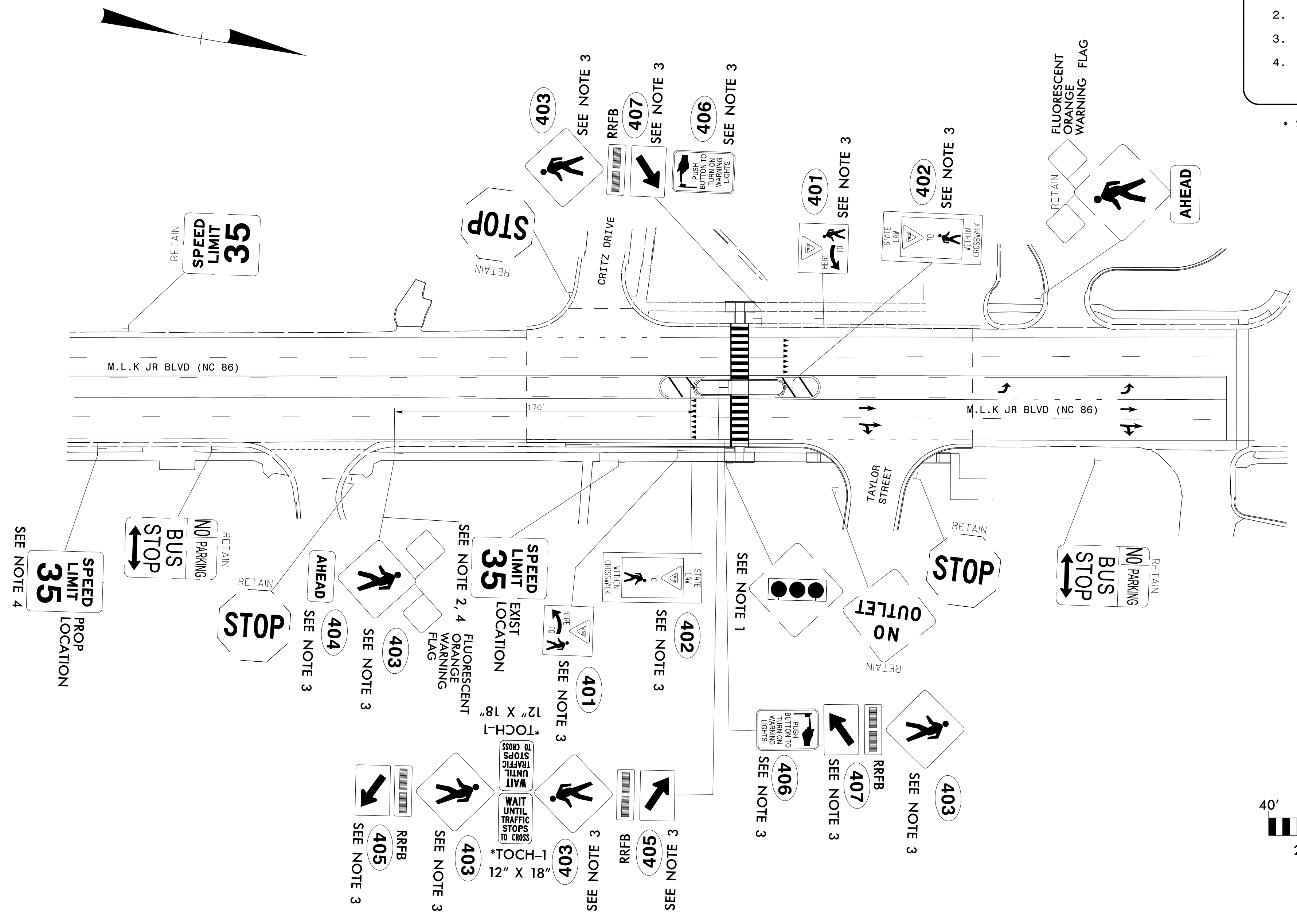


TYPE E SIGNS

PROJECT NOTES

- DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- DISPOSAL OF SUPPORT, U-CHANNEL
- SIGN ERECTION, TYPE D, E, AND F
- SIGN ERECTION, RELOCATE TYPE E (GROUND MOUNTED)

* See Sheet SPM-5 for TOCH-1 sign detail



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 s\hilton AT PF406KGB



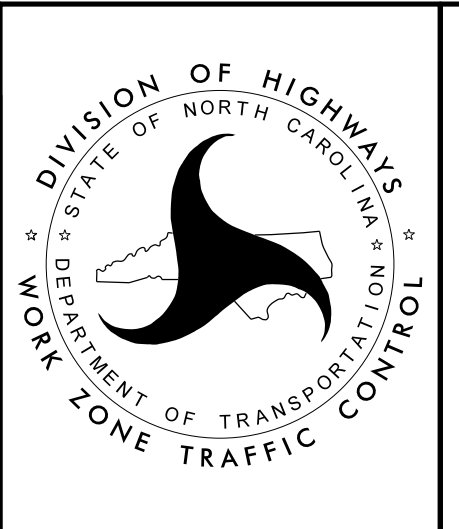
2610 WYCLIFF ROAD
 SUITE 410
 RALEIGH, NC 27607
 PHONE: 919.881.9939
 NC COA No. F-0929
 PROJECT: 50104524

APPROVED: _____
 DATE: _____

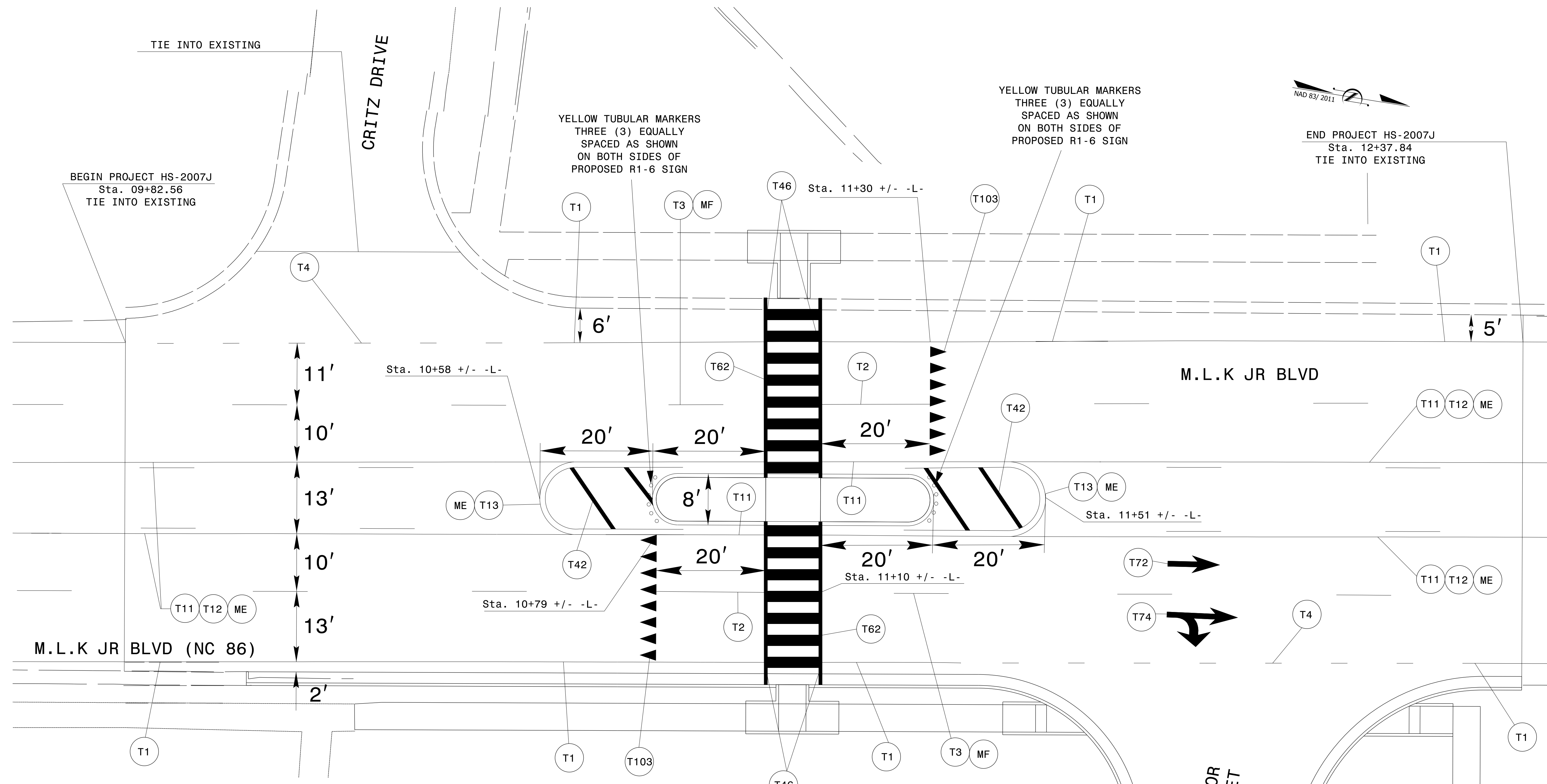
SEAL

11/14/2024

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**



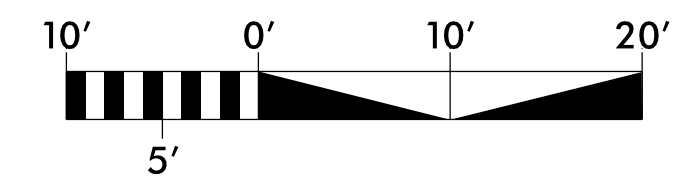
**SIGNING &
 PAVEMENT MARKING
 PLAN**



SYMBOL AND PAVEMENT MARKING LEGEND

THERMOPLASTIC			
(T1)	WHITE EDGELINE (4")	(T13)	YELLOW DOUBLE CENTER (4")
(T2)	WHITE SOLID LANE LINE (4")	(T21)	WHITE SOLID LANE LINE (6")
(T3)	10 FT. WHITE SKIP (4")	(T42)	YELLOW DIAGONAL (8")
(T4)	3 FT. -9FT./SP WHITE MINISKIP (4")	(T46)	WHITE CROSSWALK LINE (8")*
(T11)	YELLOW SINGLE CENTER (4")	(T62)	WHITE CROSSWALK LINE (24")*
(T12)	10 FT. YELLOW SKIP (4")	(T72)	STRAIGHT ARROW
(ME)	SNOWPLOWABLE MARKER (YELLOW & YELLOW)	(T74)	COMBO RIGHT/STRAIGHT ARROW
(MF)	SNOWPLOWABLE MARKER (CRYSTAL & RED)	(T103)	24" YIELD LINE TRIANGLE

* SEE NOTE #8 ON GENERAL NOTES SHEET

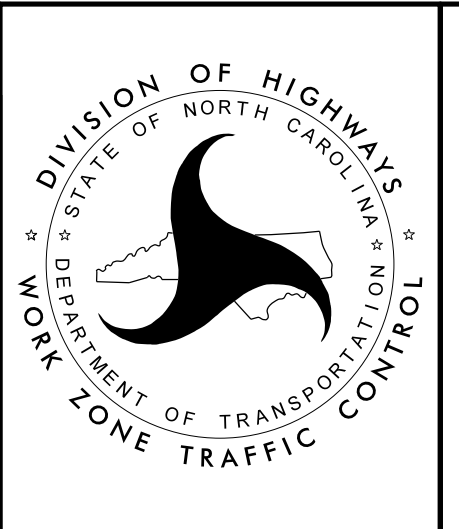


2610 WYCLIFF ROAD
 SUITE 410
 RALEIGH, NC 27607
 PHONE: 919.881.9939
 NC COA No. F-0929
 PROJECT: 50104524

APPROVED: _____
 DATE: _____

Signed by: *[Signature]*
 SEAL: [Professional Engineer Seal]
 12/23/2024

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**



SIGNING & PAVEMENT MARKING PLAN

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 sthilton AT PF-RGKGB

<p>SIGN NUMBER: TOCH-1 TYPE: E QUANTITY: 1 SIGN WIDTH: 1'-0" HEIGHT: 1'-6" TOTAL AREA: 1.5 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0.25" WIDTH: 0.25" RADII: 1.5" NO. Z BARS: LENGTH:</p>	<p>BACKG COLOR: Yellow COPY COLOR: Black</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> <p>MAT'L: 0.063" (1.6 mm) ALUMINUM</p>	SYMBOL	X	Y	WID	HT																																														<p>DESIGN BY: A. Beshears PROJECT ID: ID</p>	<p>CHECKED BY: J. T. Brooks LOCATION: DATE: April 16, 2021 DIV: 7</p>
SYMBOL	X	Y	WID	HT																																																	

BORDER
R=1.5"
TH=0.25"
IN=0.25"

Panel Style: CH.ssi
M.U.T.C.D.: 2009 Edition
Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																	Series/Size	
																	Text Length	
		W	A	I	T													C 2000
	2.4	2.5	2.3	0.8	1.5	2.4												7.2
		U	N	T	I	L												C 2000
	1.5	2.3	2.1	1.9	1.1	1.5	1.5											9
		T	R	A	F	F	I	C										C 2000
	1.1	1.5	1.5	1.8	1.5	1.5	0.8	1.3	1.1									9.8
		S	T	O	P	S												D 2000
	1.6	1.7	1.7	2.1	1.7	1.6	1.5											8.9
		B	E	F	O	R	E	C	R	O	S	S	I	N	G			B 2000
	1	0.7	0.6	0.6	0.7	0.7	0.6	1.1	0.7	0.7	0.7	0.7	0.3	0.7	0.6	1		10

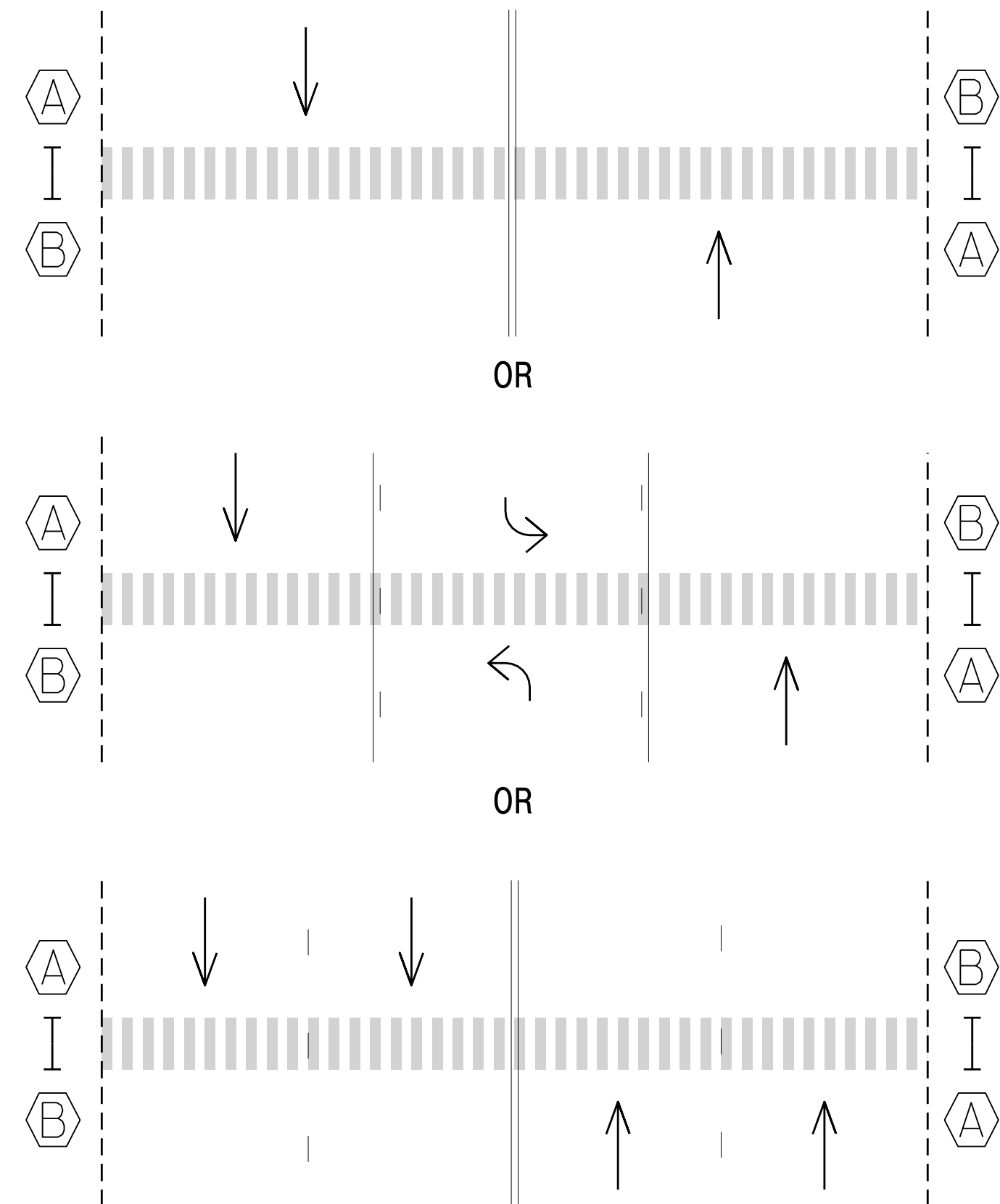
FILENAME: CH Signing
NORTH CAROLINA D.O.T. SIGN DETAIL

2-AUG-2024 13:50
P:\01062155\15-SPM-5\15-SPM-5.dgn
A:\P\01062155\15-SPM-5.dgn

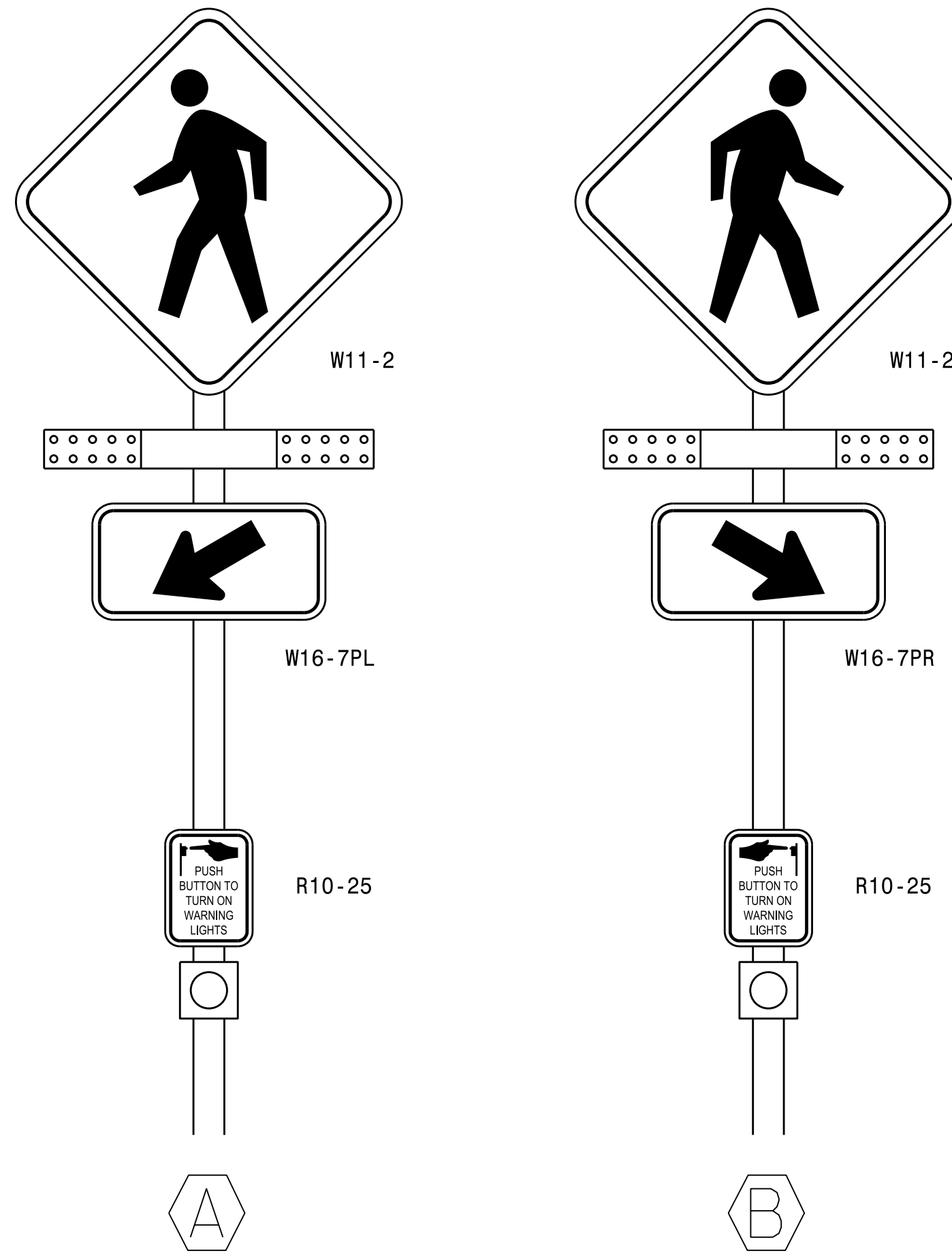


<p>APPROVED: _____</p> <p>DATE: _____</p> <p style="text-align: center;">SEAL</p> <p style="text-align: center;">11/14/2024</p> <p style="text-align: center;">DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>			<h2 style="margin: 0;">SIGNING & PAVEMENT MARKING PLAN</h2>
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Two to Four Lanes, Undivided



RRFB Sign Detail



Notes

1. Design the RRFB in accordance with the 2009 MUTCD Interim Approval 21 -- Rectangular Rapid-Flashing Beacons at Crosswalks. The RRFB unit associated with a post-mounted sign and plaque should be located between the pedestrian crossing warning (W11-2) sign and the supplemental downward diagonal arrow plaque (W16-7p).
2. If sight distance approaching the crosswalk is deemed insufficient, a supplemental RRFB with an "AHEAD" (W16-9P) plaque may be installed on that approach in advance of the crosswalk.
3. When practical, the RRFB and mounting post on the right side of the road shall be mounted on the approach side of the crosswalk closest to approaching traffic.
4. When practical, the RRFB and mounting post on the left side of the road may be mounted on the back of the post for the opposing approach.
5. A RRFB on the left side of the roadway or in the median may be individually mounted on the approach side of the crosswalk closest to approaching traffic, or, when practical, may be mounted back to back on the same post and mounted on either side of the crosswalk in the median.
6. Locate push button sign (R10-25) and push button to face crosswalk, even if it is mounted on the back side of the sign.
7. All RRFB units associated with a given crosswalk (including those with an advance crossing sign) shall, when actuated, simultaneously commence operation of their rapid-flashing indications and shall cease operation simultaneously.

Timing of RRFBs

When actuated, the two yellow indications in each RRFB unit shall flash in a rapidly flashing sequence.

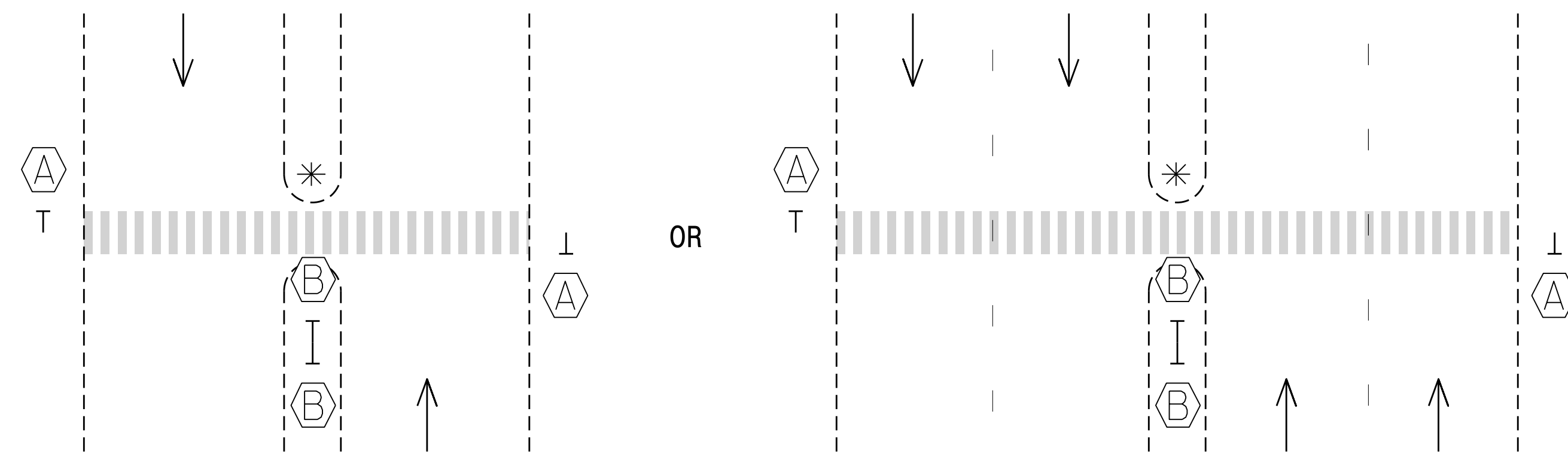
The RRFB shall flashing sequence shall provide enough time for pedestrians to cross from curb to curb. It is recommended to be a minimum of 7 seconds plus the crossing distance (D) divided by 3.5 feet/per sec., rounded up to the next whole second:

$$\text{Flash Time (sec.)} = 7 + D/3.5$$

RRFBs shall provide 75 flashing sequences per minute. During each 800-millisecond flashing sequence, the left and right RRFB indications shall operate using the following sequence:

- The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- Both RRFB indications shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- Both RRFB indications shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 250 milliseconds.

Two or Multi-Lanes, Divided



* See Note 5

* See Note 5

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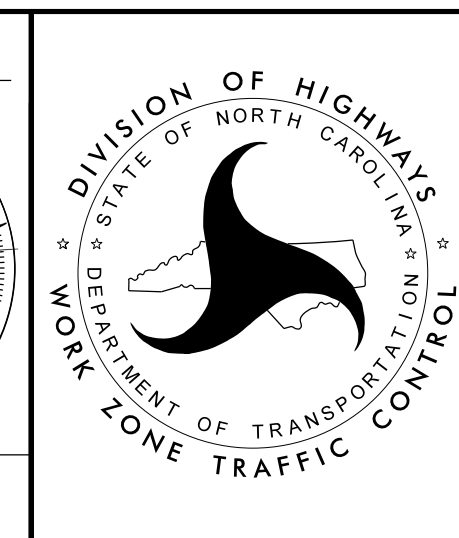
2610 WYCLIFF ROAD
 SUITE 410
 RALEIGH, NC 27607
 PHONE: 919.881.9939
 NC COA No. F-0929
 PROJECT: 50104524

APPROVED: _____
 DATE: _____

SEAL

11/14/2024

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**SIGNING &
 PAVEMENT MARKING
 PLAN**