# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS



STATE PROJECT REFERENCE NO. SHEET N

U-2306 A TCP-1

# PLAN FOR PROPOSED TRAFFIC CONTROL, MARKING & DELINEATION

# CATAWBA COUNTY

# ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS"-ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION-RALEIGH, N.C., DATED JANUARY 2002 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

OTD NO	TTT1 C
STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW PANELS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - INTERCHANGES
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - THRU LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS (TEMPORARY & PERMANENT)
1253.01	SNOWPLOWABLE RAISED PAVEMENT MARKERS

# INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, INDEX OF SHEETS AND TEMPORARY PAVEMENT MARKING SCHEDULE
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TCP-3	PHASING
TCP-4	DETOUR ROUTE
TCP-5	SIGN DESIGN
TCP-6	PHASE II DETAIL
TCP-7	DRUM DRAWING
TCP-8	WORK ZONE WARNING SIGNS
PM-1	PAVEMENT MARKING SCHEDULE
PM-2 THRU 4	FINAL PAVEMENT MARKING

# **LEGEND**

### **GENERAL**

DIRECTION OF TRAFFIC FLOW

NORTH ARROW

WORK AREA

REMOVAL OF EXISTING PAVEMENT

## TRAFFIC CONTROL DEVICES

T TYPE I BARRICADE

TYPE III BARRICADE

▲ CONE

DRUM

FLASHING ARROW PANEL (TYPE C)

TYPE 'B' WARNING LIGHT

├ STATIONARY SIGN

PORTABLE SIGN

STATIONARY OR PORTABLE SIGN

WARNING FLAGS

\_√ CRASH CUSHION

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

POLICE

**FLAGGER** 

## PAVEMENT MARKINGS

CRYSTAL/CRYSTAL PAVEMENT MARKER

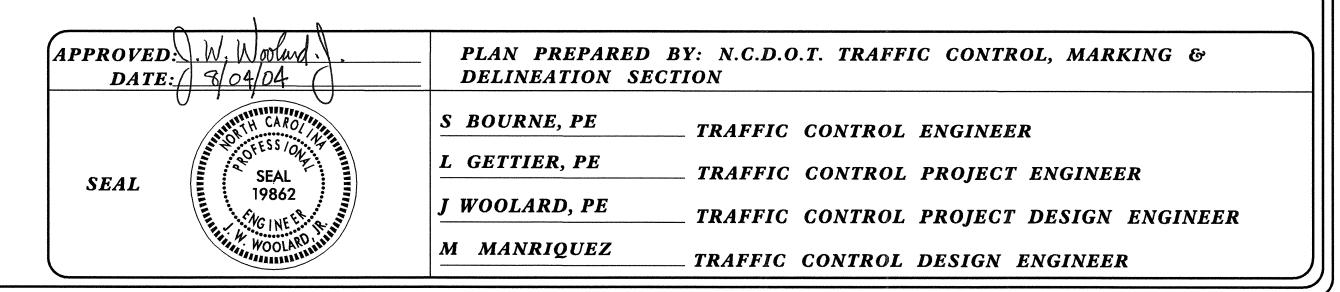
◆ YELLOW/YELLOW PAVEMENT MARKER

CRYSTAL/RED PAVEMENT MARKER

PAVEMENT MARKING SYMBOLS

SYMBOL	DESCRIPTION	PAT ITEM QUANTITY BREAKDOWN	TOTAL	QUANTI	TY
	PAVEMENT MARKINGS				
TI	EMPORARY PAVEMENT MARKINGS PAINT (100MM)				
PD	0.5 M. WHITE MINISKIP (1X)	2 M	TOTAL	0	84
P/	AINT MARKING CHARACTERS		TOTAL	2	IVI
QI	ALPHANUMERIC CHAR. (1X)	8 EA	TOTAL	8	EA
P/	AINT MARKING SYMBOLS		IOTAL	0	EA
QB	RIGHT TURN ARROW (1X)	4 EA	TOTAL	4	EA

TEMPORARY PAVEMENT MARKING SCHEDULE



# PROJECT NOTES

# GENERAL NOTES

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

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) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR OTHERWISE DIRECTED BY THE ENGINEER.

#### 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 WITHIN 40 FT (12m) OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT (1.5m) OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT (3m) OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- E) 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.
- F) DO NOT WORK SIMULTANEOUSLY, ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION, ON A TWO-LANE, TWO-WAY ROAD.
- G) DO NOT PERFORM WORK INVOLVING HEAVY EQUIPMENT WITHIN 15 FT (5m) OF THE EDGE OF TRAVELWAY WHEN WORK IS BEING PERFORMED BEHIND A LANE CLOSURE ON THE OPPOSITE SIDE OF THE TRAVELWAY.
- H) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

## PAVEMENT EDGE DROP OFF REQUIREMENTS

I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS A

#### DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES (50mm) ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES (75mm) ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

J) DO NOT EXCEED A DIFFERENCE OF 1.5 inches (40mm) IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT (150m) IN ADVANCE AND A MINIMUM OF ONCE EVERY MILE THROUGHOUT THE UNEVEN AREA.

#### TRAFFIC PATTERN ALTERATIONS

K) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

#### SIGNING

- L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 100 FT (31m) FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

  WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE WARNING SIGNS, AS DIRECTED BY THE ENGINEER, AT NO COST TO THE DEPARTMENT.
- M) PROVIDE PERMANENT SIGNING.
- N) PROVIDE DETOUR SIGNING WITHIN AND OFF THE PROJECT LIMITS.
- O) COVER OR REMOVE ALL DETOUR SIGNS WITHIN AND OFF THE PROJECT LIMITS WHEN A DETOUR IS NOT IN OPERATION.
- P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- Q) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) 500 FT (150m) IN ADVANCE OF THE UNEVEN AREA.
- R) INSTALL BLACK ON ORANGE "BUMP" SIGNS (W8-1) 500 FT (150m) IN ADVANCE OF THE UNEVEN AREA.

#### TRAFFIC CONTROL DEVICES

- S) WHEN USING ROADWAY STANDARD NO. 1101.02, DRUMS MAY BE USED IN LIEU OF CONES ON LENGIR-RHYNE BLVD.
- T) SPACE CHANNELIZING DEVICES IN WORK AREAS EQUAL IN METERS TO 2/3 rds
  THE POSTED SPEED LIMIT (MPH), EXCEPT 3m ON-CENTER IN RADII, AND 1m
  OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN
  EFFECT.
- U) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2
  ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY. STAGGER OR
  OVERLAP BARRICADES TO ALLOW FOR INGRESS OR EGRESS.



PROJ. REFERENCE NO.	SHEET NO.
U-2306A	TCP-2
	105-2

# LOCAL NOTES

V) PLACE SETS OF THREE DRUMS PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 500 FT (150m) CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC. THESE DRUMS SHALL BE IN ADDITION TO CHANNELIZING DEVICES.

#### PAVEMENT MARKINGS AND MARKERS

3. ALL Y-LINES

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

AO I OLLONO.		
ROAD NAME	MARKING	MARKER
1. LENOIR-RHYNE BLVD (-L-)	THERMOPLASTIC	SNOWPLOWABLE
2. TATE BLVD	THERMOPLASTIC	-

THERMOPLASTIC

X) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
1. LENOIR-RHYNE BLVD	PAINT	NONE
2. TATE BLVD	PAINT	NONE

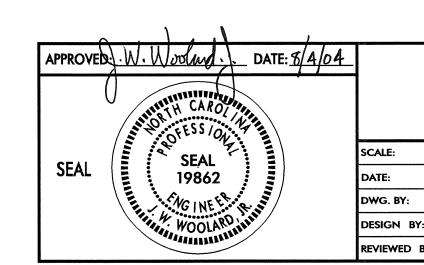
- Y) PLACE AT LEAST TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE ON NEW ASPHALT PAVEMENT. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.
- Z) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- AA) REPLACE ANY PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.
- BB) TRACE THE EDGE OF PROPOSED MONOLITHIC ISLANDS WITH THE PROPER COLOR PAVEMENT MARKING PRIOR TO INSTALLATION OF A PROPOSED MONOLITHIC ISLAND.
- CC) PLACE AT LEAST TWO APPLICATIONS OF PAINT ON NEW ASPHALT WITH TEMPORARY TRAFFIC PATTERNS WHICH WILL REMAIN IN PLACE OVER THREE (3) MONTHS. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.

#### TEMPORARY/FINAL SIGNALS

- DD) NOTIFY THE ENGINEER TWO (2) MONTHS BEFORE A TRAFFIC SIGNAL INSTALLATION BY OTHERS IS REQUIRED.
- EE) SHIFT AND REVISE ALL SIGNAL HEADS AS SHOWN ON THE SIGNAL PLANS.

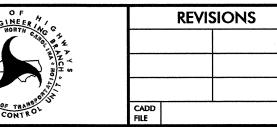
#### MISCELLANEOUS

- FF) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH INTERSECTIONS.
- GG) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAYS TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION, AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 500 FT (150m) AND 1000 FT (300m) RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.
- HH) PLACE DRUMS TO DELINEATE PROPOSED ISLANDS BEFORE INSTALLATION.



# PROJECT NOTES

1	NONE	, EHG
20	04 AUG 2	2 W 64
	MRM	0 L & 0 E
r:	MRM	7
BY:	JWW	*10



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# PROJECT PHASING



PROJ. REFERENCE NO. SHEET NO.

U-2306A

TCP-3

**REVISIONS** 

## PHASE I

- NOTE: MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE LIFE OF THE PROJECT UNLESS OTHERWISE DIRECTED BY THE ENGINEER
- STEP 1: PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, INSTALL ADVANCE WARNING SIGNS ON -L- & ALL -Y- LINES. (SEE SHEET TCP-8)
- STEP 2: AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF THE RAILROAD DETOUR EMBANKMENT (-RRDET-) IN THE FOLLOWING LOCATIONS (SEE ROADWAY PLANS FOR CONSTRUCTION LOCATION):
  - -- STA. 12+10 +/- -RRDET- TO STA. 14+20 +/- -RRDET--- STA. 14+80 +/- -RRDET- TO STA. 17+00 +/- -RRDET-
  - -- USE FLAGGING OPERATIONS TO MAKE IMPROVEMENTS TO THE AT-GRADE RAILROAD CROSSING ON 8TH AVE. NE. (SEE SHEET TCP-4 FOR LOCATION).
  - -- USE FLAGGING OPERATIONS TO INSTALL PROPOSED TRAFFIC SIGNAL AT THE INTERSECTION OF 9TH ST. LN SE AND C AVE. SE. (SEE SIGNAL PLANS FOR STOP BARS LOCATION).
- STEP 3: USING RSD 1101.03 SHEETS 1 & 2 OF 9 AND TCP-4 PERFORM THE FOLLOWING:
  - -- INSTALL DETOUR SIGNS FOR CLOSURE OF -L- LINE LENOIR-RHYNE BLVD AS SHOWN ON SHEET TCP-4.
  - -- CLOSE -Y6- 'F' AVE DR SE, -Y10- HIGHLAND AVE AND -Y9- 'D' AVE SE, AS SHOWN ON SHEET TCP-6.
  - -- ADJUST SIGNAL TIMING AT ALL SIGNALIZED INTERSECTIONS AND MAKE OPERATIONAL. ACTIVATE PROPOSED TRAFFIC SIGNAL AT THE INTERSECTION OF 9TH ST. LN SE AND C AVE.,
  - -- INSTALL TEMPORARY PAVEMENT MARKING SYMBOL ( RIGHT TURN ARROW) AND CHARACTERS (ONLY) AT INTERSECTION OF LENOIR-RHYNE BLVD. AND TATE AVE. (SEE TCP-6 FOR LOCATION)

# PHASE II

- STEP 1: CLOSE LENOIR-RHYNE BLVD BETWEEN TATE BLVD AND 7TH ST NE AND SHIFT TRAFFIC ONTO THE OFF-SITE DETOUR. (SEE SIGNAL PLANS AND SHEET TCP-4)
- NOTE: USE DRUMS AND OTHER TRAFFIC CONTROL DEVICES AS NECESSARY TO CLOSE ANY TURN LANES AT INTERSECTIONS THAT TRAFFIC WOULD USE TO ACCESS THE CLOSED PORTION OF LENOIR-RHYNE BLVD (-L-). (SEE TCP-6 FOR LANE CLOSURE LOCATION)
- STEP 2: AWAY FROM TRAFFIC, COMPLETE THE CONSTRUCTION OF THE RAILROAD DETOUR EMBANKMENT (-RRDET-) AND SHIFT ALL RAIL TRAFFIC ONTO THE DETOUR. (SEE ROADWAY PLAN).
- NOTE: THE WORK REQUIRED IN PHASE II, STEPS 3 THROUGH 5 MAY BE PERFORMED CONCURRENTLY.
- STEP 3: AWAY FROM TRAFFIC, CONSTRUCT UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE IN THE FOLLOWING LOCATIONS: LENOIR-RHYNE BLVD. (-L-). (THIS WILL ALSO INCLUDE THE PROPOSED CONSTRUCTION OF -Y6-, -Y9-, -Y10- AND THE RAILROAD STRUCTURE) (SEE ROADWAY PLAN AND SHEET TCP-6):
  - -- STA. 12+25 +/- -L- TO STA. 12+96 +/- -L-
  - -- STA. 13+04 +/- -L- TO STA. 14+91 +/- -L-
  - -- STA. 15+02 +/- -L- TO STA. 19+20 +/- -L-

# PHASE II (CON'T)

-- USE FLAGGING OPERATIONS TO CONSTRUCT THE FOLLOWING -Y- LINES UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AT THE FOLLOWING LOCATIONS (SEE ROADWAY PLAN AND SHEET TCP-6):

-- STA. 10+40 +/- -Y5- TO STA. 12+00 +/- -Y5--- STA. 10+80 +/- -Y7- TO STA. 11+75 +/- -Y7--- STA. 12+96 +/- -L- TO STA. 13+04 +/- -L--- STA. 14+91 +/- -L- TO STA. 15+02 +/- -L-

NOTE: DUE TO THE SIGNIFICANT DIFFERENCE BETWEEN THE PROPOSED AND THE EXISTING GRADE, MAINTAIN ACCESS TO PARCELS EAST OF L-R BLVD.(-Y- 5 F AVE. SE), AS DIRECTED BY THE ENGINEER, USING AGGREGATE BASE COURSE, INCIDENTAL STONE, OR AGGREGATE BASE COURSE AND BINDER COURSE.

STEP 4: OBLITERATE AND REMOVE EXISTING D AVE. SE (-Y9-) AND HIGHLAND AVE. (-Y10-)

- STEP 5: SHIFT ALL RAIL TRAFFIC BACK TO THE ORIGINAL ALIGNMENT ON THE NEW RAILROAD STRUCTURE AND APPROACHES.
  - -- REMOVE THE RAILROAD EMBANKMENT DETOUR (-RRDET-).

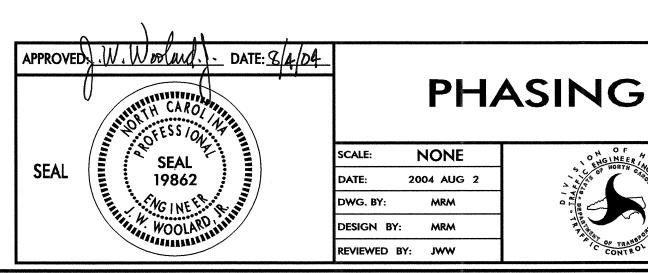
THE WORK REQUIRED IN PHASE II, STEPS 6 AND 7 MAY BE PERFORMED CONCURRENTLY.

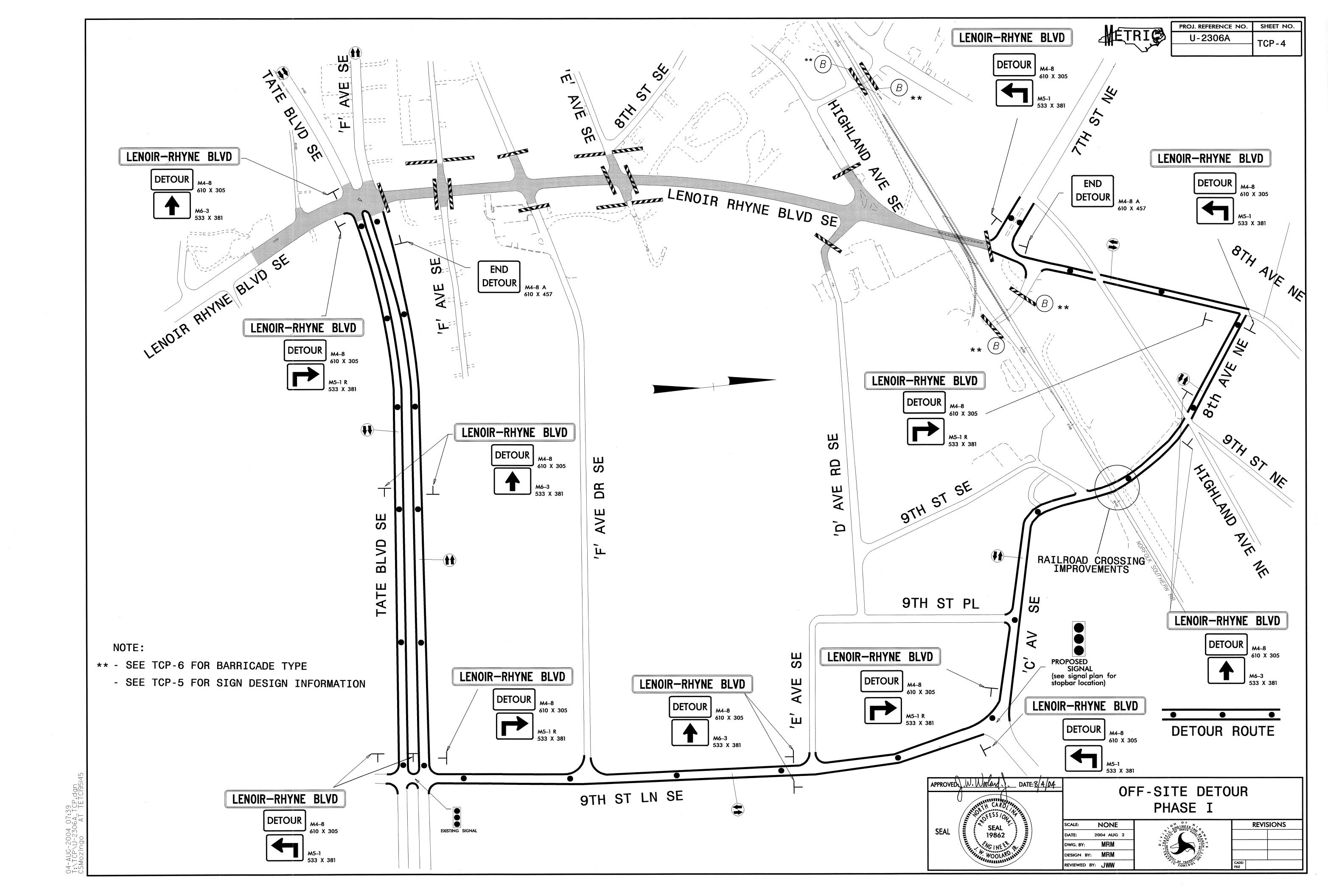
- STEP 6: AWAY FROM TRAFFIC, COMPLETE THE CONSTRUCTION OF L-R BLVD. (-L-) FROM STA.

  12+25 +/- -L- TO STA. 19+20 +/- -L- UP TO BUT NOT INCLUDING THE FINAL LAYER

  OF SURFACE COURSE AND INTERMEDIATE PAVEMENT MARKINGS (SEE ROADWAY

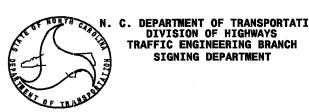
  PLAN AND SHEET TCP-6):
- STEP 7: USE RSD 1101.02, SHEET 1 AND 3 OF 7 TO CONSTRUCT THE PROPOSED WIDENING AT L-R BLVD. (-L-) AND 2ND AVE SE / TATE BLVD. (-Y2-) UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE IN THE FOLLOWING LOCATIONS (SEE ROADWAY PLAN AND SHEET TCP-6):
  - -- STA. 10+74 +/- -L- TO STA. 12+25 +/- -L--- STA. 11+21 +/- -Y2- TO STA. 12+66 +/- Y2-
- STEP 8: USING FLAGGING OPERATIONS WHERE NECESSARY, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKING (THERMOPLASTIC) AND FINAL PAVEMENT MARKERS (RAISED) ON -L- & ALL -Y- LINES. SEE PAVEMENT MARKING PLAN SHEET PM-1 THRU PM-4.
- STEP 9: UNCOVER/ACTIVATE PROPOSED SIGNALS AT ALL SIGNALIZED INTERSECTIONS PER ENGINEER. SEE SIGNALS PLAN FOR LOCATION.
- STEP 10: REMOVE ALL DETOUR SIGNS, ADVANCE WORK ZONE SIGNS, TRAFFIC CONTROL DEVICES AND OPEN THE ENTIRE PROJECT TO THE FINAL TRAFFIC PATTERN.







PROJ. REFERENCE NO. SHEET NO. U-2306A TCP-5



SIGN NUMBER: SP04065 BACKG COLOR: Orange DESIGN BY: **BSESSOMS** CHECKED BY: COPY COLOR: Black TYPE: D DIV: 5 PROJECT ID: ID QUANTITY: 1 SYMBOL X Y WID HT SIGN WIDTH: 2000mm HEIGHT: 300mm TOTAL AREA: 0.6 Sq.m **BORDER TYPE:** RECESS: 10mm WIDTH: 15mm 2000mm RADII: 40mm MAT'L: 0.125" (3.2 mm) ALUMINUM NO. Z BARS: LENOIR-RHYNE BLVD LENGTH: USE NOTES: 1, 4 BORDER 138 R=40mm Legend and border shall be direct applied Type III reflective sheeting. 1724 2. Legend and border shall be direct applied W=15mm non-reflective sheeting. IN=1Ømm 3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable. 4- Background shall be Type III reflective sheeting. 5. Background shall be Type I reflective sheeting. 6.Center arrow(s) vertically on sign. 7. Bottom panel shall be yellow Type III sheeting.
Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

									Leti	ter	spac	ings	ar	e to	st	art	of r	next	letter			Series/Si Text Lenç
		L	E	N	0	I	R	-	R	Н	Υ	N	E		В	L	V	D				C150
1	138	94	94	106	110	44	106	135	106	101	113	106	77	150	106	82	111	83	138			1724
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FILENAME: BSESS\_M.M

NORTH CAROLINA D.O.T. SIGN DETAIL

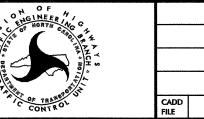
STD #:

DATE: Feb 19,2004

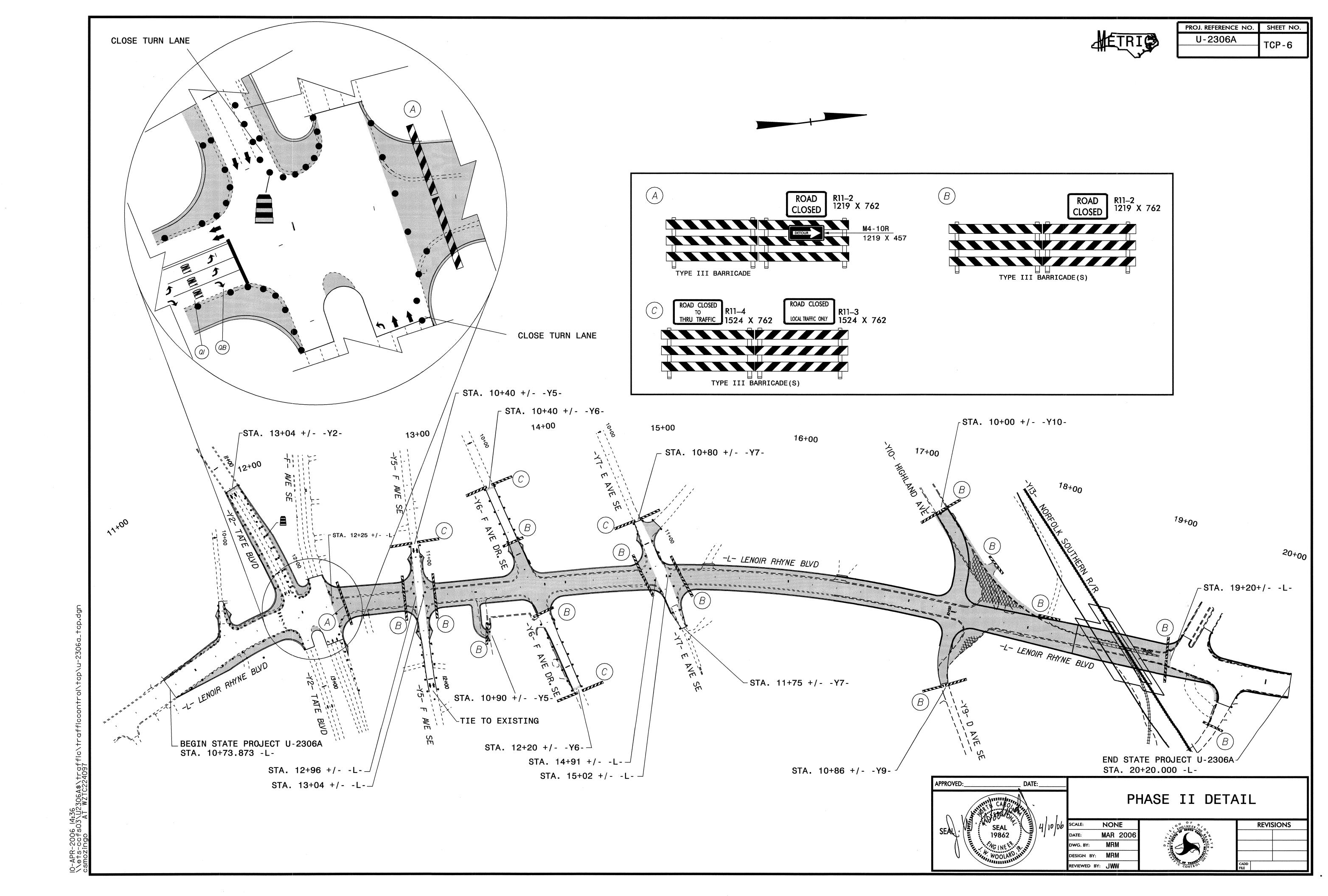
APPROVED: J.W. Worland. DATE: 8/4/04

SIGN DESIGN

NONE FEB 2004



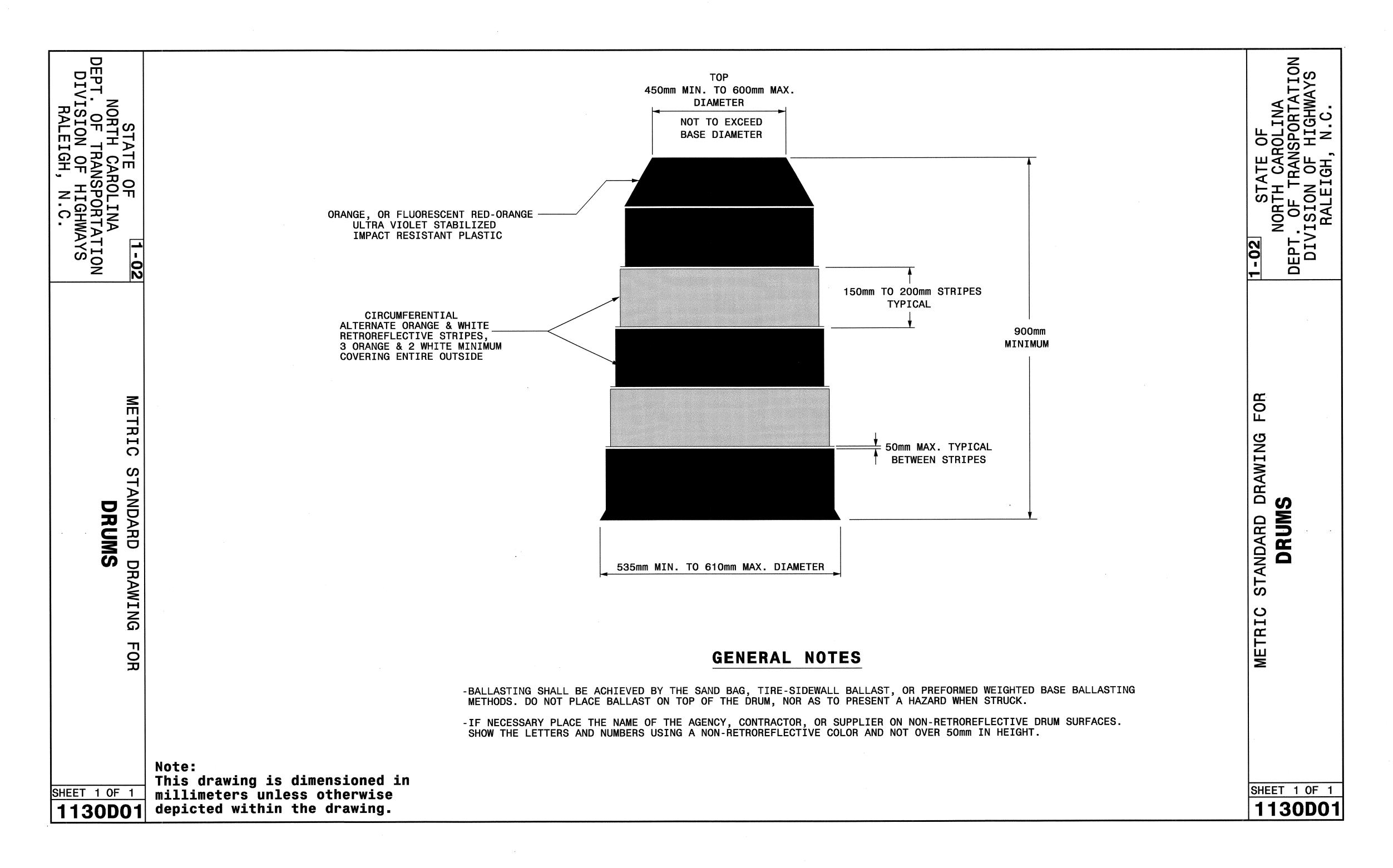
**REVISIONS** 





PROJ. REFERENCE NO. SHEET NO.

U-2306A TCP-7



APPROVED: DATE: 8/4/04

REPLACEMENT DETAIL FOR

RSD 1130.01

SCALE: NONE

DATE: 8/02

DWG. BY: MMM

DESIGN BY: MMM

REVIEWED BY: MMM

REVIEWED BY: MMM

TCP/U-2306A\_TCP.dgn SMozingo AT TETC19514

PROJ. REFERENCE NO. SHEET NO. U-2306 A TCP-8

TRANSPORTATION

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DEPT

HIGHWAYS

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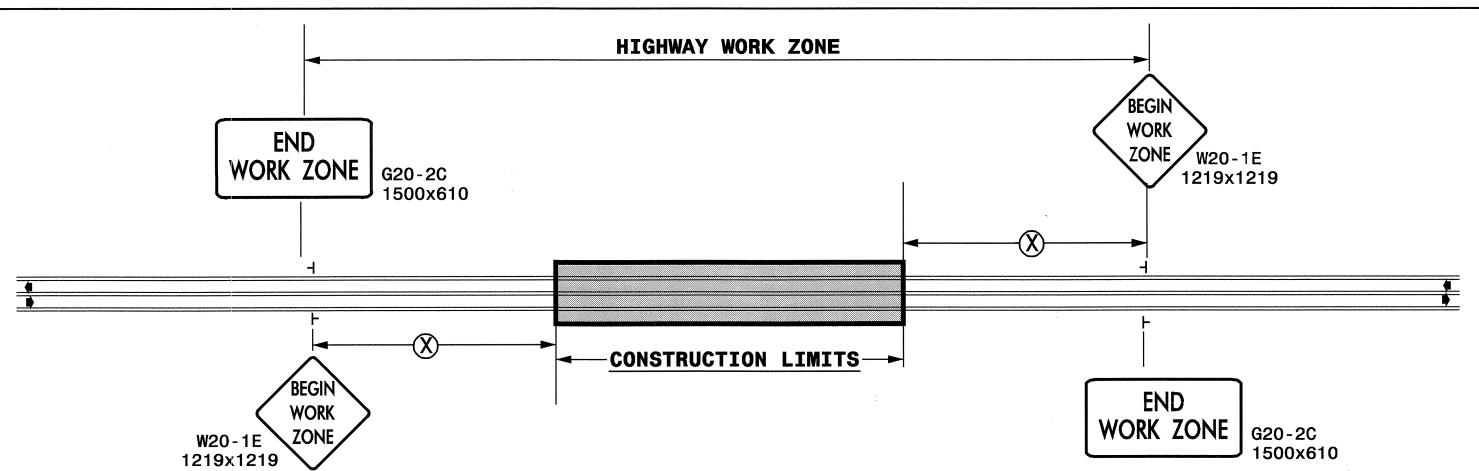
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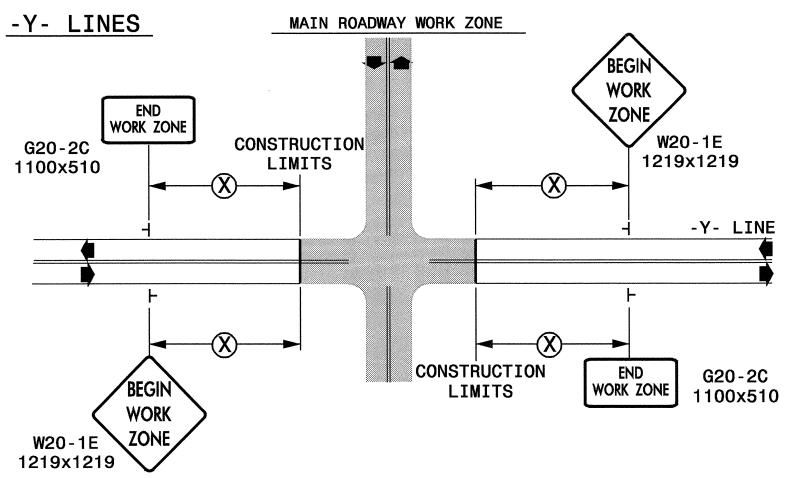
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# TWO-WAY UNDIVIDED & URBAN FREEWAYS (L-LINES)

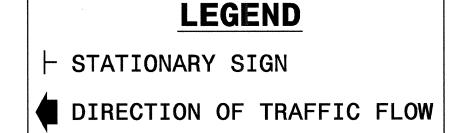


	RECOMMENDED MINIMUM SIGN SPACING
POSTED SPEED LIMIT (M.P.H.)	⊗
≤ 50	107m
≥ 55	152m

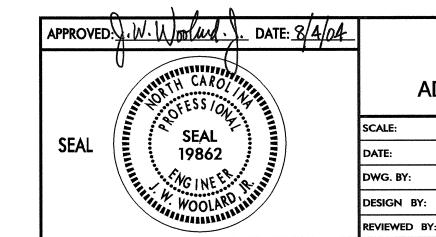
## ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



- USE TYPE I AND TYPE II SHEETING FOR ALL WORK ZONE WARNING SIGNS UNTIL THE EXISTING TYPE I AND TYPE II SHEETING INVENTORIES ARE EXHAUSTED, OTHERWISE USE TYPE VII SHEETING OR HIGHER. (STANDARD PRACTICE FOR SIGN SHEETING, S-68)
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- USE 1.4Kg STEEL U-CHANNEL POST OR 90mm X 90mm WOOD POST FOR ALL WORK ZONE SIGNS. 1.4Kg STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 1.4Kg STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 1.4Kg STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.



SHEET 1 OF 1



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- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.

**GENERAL NOTES**