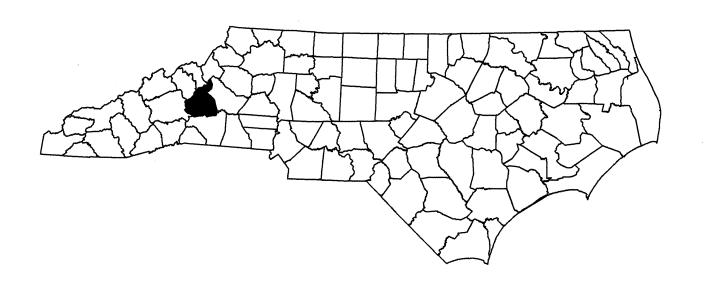
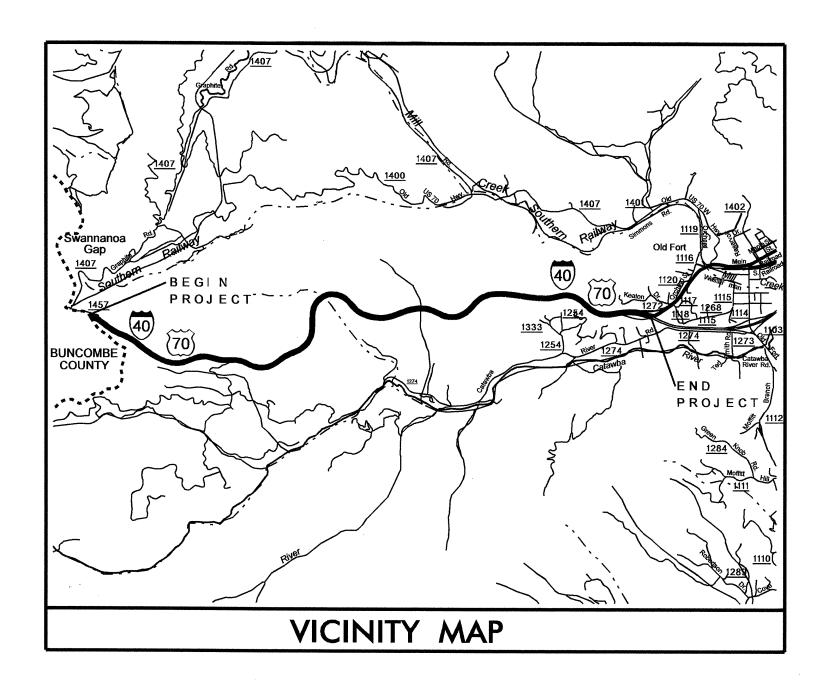
# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

# TRANSPORTATION MANAGEMENT PLAN

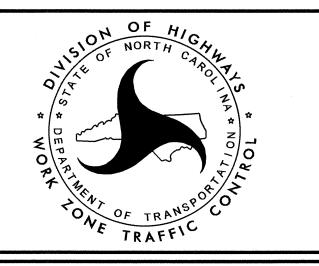
# MCDOWELL COUNTY





LOCATION: I-40 FROM THE BUNCOMBE COUNTY LINE TO US 70

## N.C.DOT. WORK ZONE TRAFFIC CONTROL 1020 BIRCH RIDGE DRIVE, RALEIGH, NC 27610 PHONE: (919) 250-4094 FAX: (919) 250-4098 J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER G. L. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER JESSE GILSTRAP TRAFFIC CONTROL PROJECT DESIGN ENGINEER SHEENA GREEN TRAFFIC CONTROL DESIGN ENGINEER



# INDEX OF SHEETS

SHEET NO.

TMP-1A

TITLE

TMP - 1

INDEX OF SHEETS

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING SCHEDULE

TMP-1B THRU

TRANSPORTATION OPERATIONS AND PROJECT NOTES: GENERAL NOTES AND LOCAL NOTES

TMP-1C

TMP-2A

ADVANCED WORK ZONE WARNING SIGNS FOR FREEWAYS (4 LANES OR GREATER)

TMP-2B

SPECIAL SIGN DESIGNS

PHASING

TMP-3

TMP-4

WORK AREA WITH PORTABLE CONCRETE BARRIER

TMP-5

WORK ZONE VEHICLE ACCESS TYPICAL DETAIL

TMP-1

APPROVED:\_ DATE:\_

# 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 JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	<u>TITLE</u>
1101.02	TEMPORARY LANE 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
1130.01	DRUMS
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
1261.01	GUARDRAIL AND BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATOR TYPES

# **LEGEND**

TEMPORARY/FINAL PAVEMENT MARKING

SEE SHEET TMP-1C, PAVEMENT MARKINGS

AND MARKERS

#### **GENERAL**

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

----- EXIST. PVMT.

NORTH ARROW

— PROPOSED PVMT.

**WORK AREA** 

REMOVAL

USER DEFINED (IF NEEDED)

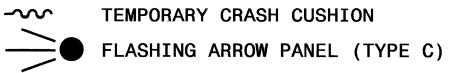
USER DEFINED (IF NEEDED)

#### TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)



DRUM SKINNY DRUM O TUBULAR MARKER



**FLAGGER** 

LAW ENFORCEMENT

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

CHANGEABLE MESSAGE SIGN

#### TEMPORARY SIGNING

PORTABLE SIGN

STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

#### SIGNALS









#### PAVEMENT MARKINGS

**EXISTING LINES** ----TEMPORARY LINES

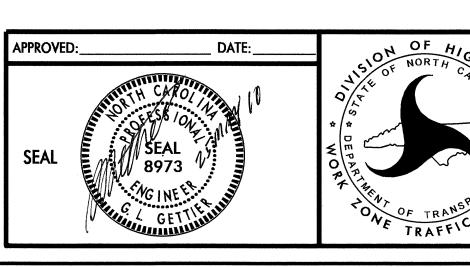
#### PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED ◆ YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS



ROADWAY STANDARD DRAWINGS & LEGEND

## TRANSPORTATION OPERATIONS

#### CONSTRUCTION

REMOVE AND REPLACE EXISTING MEDIAN CONCRETE BARRIER AND MEDIAN PAVEMENT AS SHOWN IN THE CONSTRUCTION PLANS.

#### TMP DESIGN PARAMETERS

PROJECT IS DIVIDED INTO THREE (3) AREAS. CONTRACTOR MAY WORK IN ANY AREA OF HIS/HER CHOICE, BUT SHALL ONLY WORK IN ONE AREA AT A TIME.

WORK AREAS WILL REQUIRE THAT BOTH INSIDE LANES OF I-40 BE CLOSED UTILIZING PORTABLE CONCRETE BARRIER, TEMPORARY CRASH CUSHIONS. FLASHING ARROW PANELS, DRUMS, CONSTRUCTION SIGNS, AND CHANGEABLE MESSAGE SIGNS. (SEE SHEET TMP-4)

NO LANE CLOSURES WILL BE ALLOWED DURING HOLIDAYS. (SEE SHEET TMP-1B, TIME RESTRICTIONS)

THE "WORK ZONE VEHICLE ACCESS TYPICAL DETAIL" SHALL BE UTILIZED FOR ALL CONSTRUCTION VEHICLES ENTERING & EXITING THE WORK AREA. (SEE SHEET TMP-5)

# 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 AS DIRECTED BY THE ENGINEER.

#### TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

#### ROAD NAME

1. I-40

#### HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATE UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 9:00 A.M. DECEMBER 31st TO 4:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY. SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 4:00 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 9:00 A.M. THURSDAY AND 4:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 9:00 A.M. FRIDAY TO 4:00 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 9:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 4:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN BETWEEN THE HOURS OF 9:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 4:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 9:00 A.M. FRIDAY AND 4:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 9:00 A.M. TUESDAY TO 4:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 9:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 4:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- 9. FOR FALL LEAF COLORS, BETWEEN THE HOURS OF 9:00 A.M. THE THURSDAY BEFORE EACH WEEKEND AND 4:00 P.M. THE MONDAY AFTER EACH WEEKEND IN THE MONTH OF OCTOBER.
- B) DO NOT STOP TRAFFIC AS FOLLOWS:

DAY AND TIME DURATION AND ROAD NAME RESTRICTIONS OPERATION ANYTIME 1. I-40 N/A

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

#### LANE AND SHOULDER CLOSURE REQUIREMENTS

- D) 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.
- E) 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 ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

PROJ. REFERENCE NO.

W-5117

SHEET NO.

TMP-1B

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT 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.

- F) 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.
- G) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON I-40.

#### PAVEMENT EDGE DROP OFF REQUIREMENTS

H) 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 ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

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

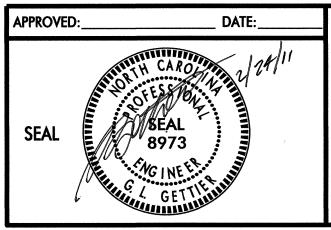
BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

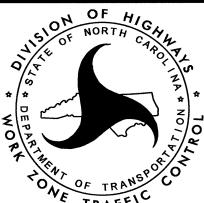
#### TRAFFIC PATTERN ALTERATIONS

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

#### SIGNING

- J) 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.
- K) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.





TRANSPORTATION OPERATIONS AND PROJECT NOTES

# GENERAL NOTES (CONT.)

#### TRAFFIC BARRIER

L) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION, PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO(2) MONTHS, REMOVE/RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW, BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW, BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

#### TRAFFIC BARRIER

M) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED IMPACT ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS:

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45-50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

#### TRAFFIC CONTROL DEVICES

N) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT.

NOTE: SKINNY DRUMS ARE NOT TO BE UTILIZED ON THIS PROJECT.

O) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

#### PAVEMENT MARKINGS AND MARKERS

- P) REPLACE PAVEMENT MARKINGS REMOVED DURING CONSTRUCTION WITH 6" WIDE THERMOPLASTIC WHEN ALL CONSTRUCTION HAS BEEN COMPLETED IN THAT AREA.
- Q) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS AS FOLLOWS:

ROAD NAME	MARKING	MARKER
1. I-40	PAINT (6") AND COLD APPLIED PLASTIC TYPE IV (6" REMOVABLE TAPE	NONE

- R) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- S) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

#### MISCELLANEOUS

T) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS, AS DIRECTED BY THE ENGINEER.

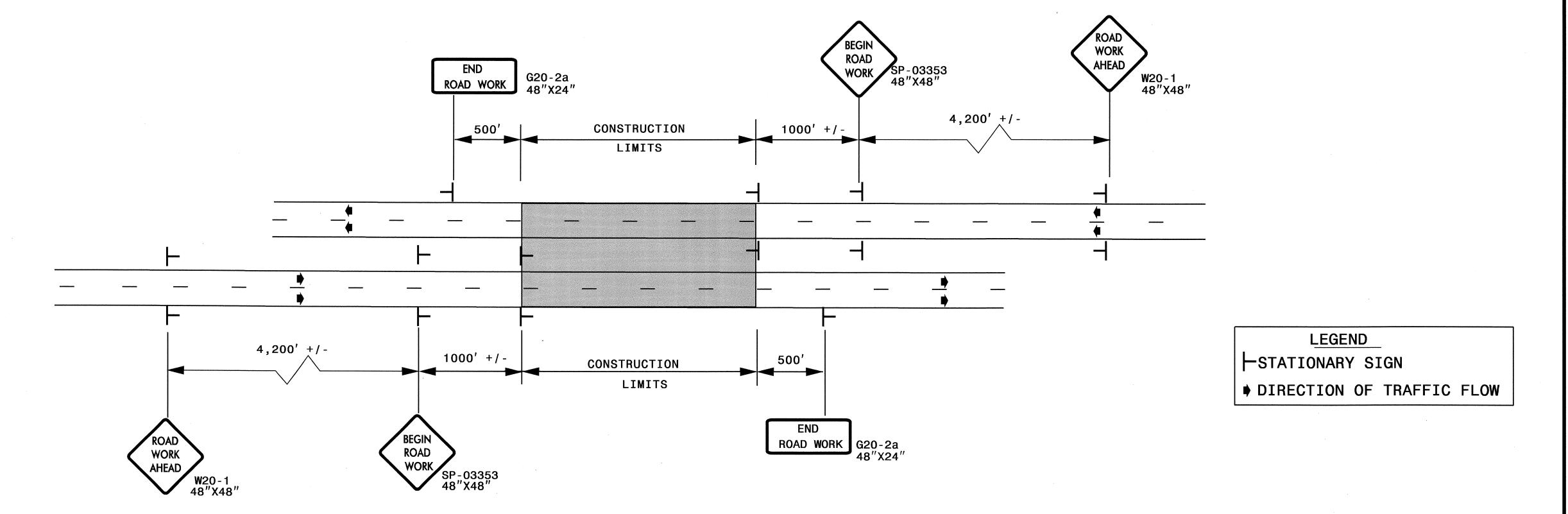


TRANSPORTATION
OPERATIONS AND
PROJECT NOTES
(CONT.)

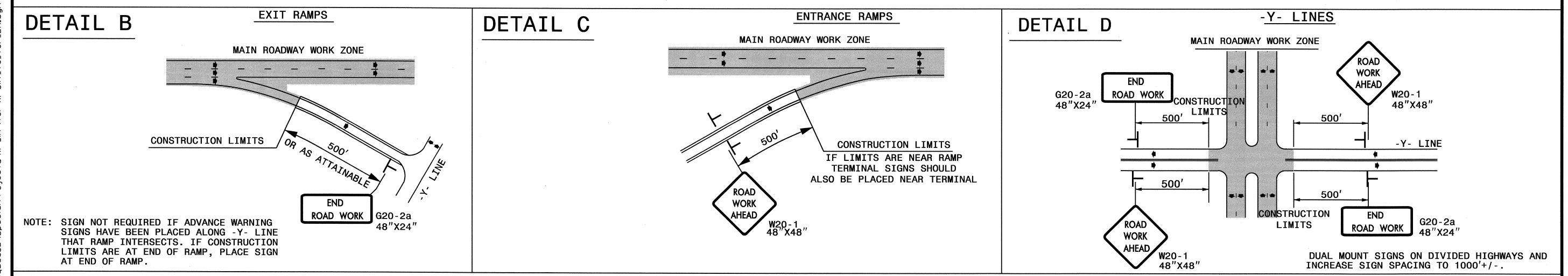
# ADVANCED WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

W-5117
TMP-2A

# DETAIL A

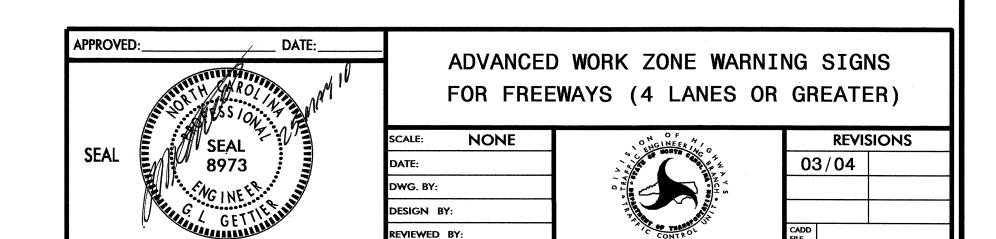


USE THE "\$250 SPEEDING PENALTY" SIGN, SPEED LIMIT SIGN, AND ORANGE PANEL; ONLY WHEN A "\$250 SPEEDING PENALTY" ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.



#### GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- 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 OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB 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 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB 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.



OJ. REFERENCE NO.	SHEET NO.
M	TUD OD
W-5117	TMP-2B

# SP 03353

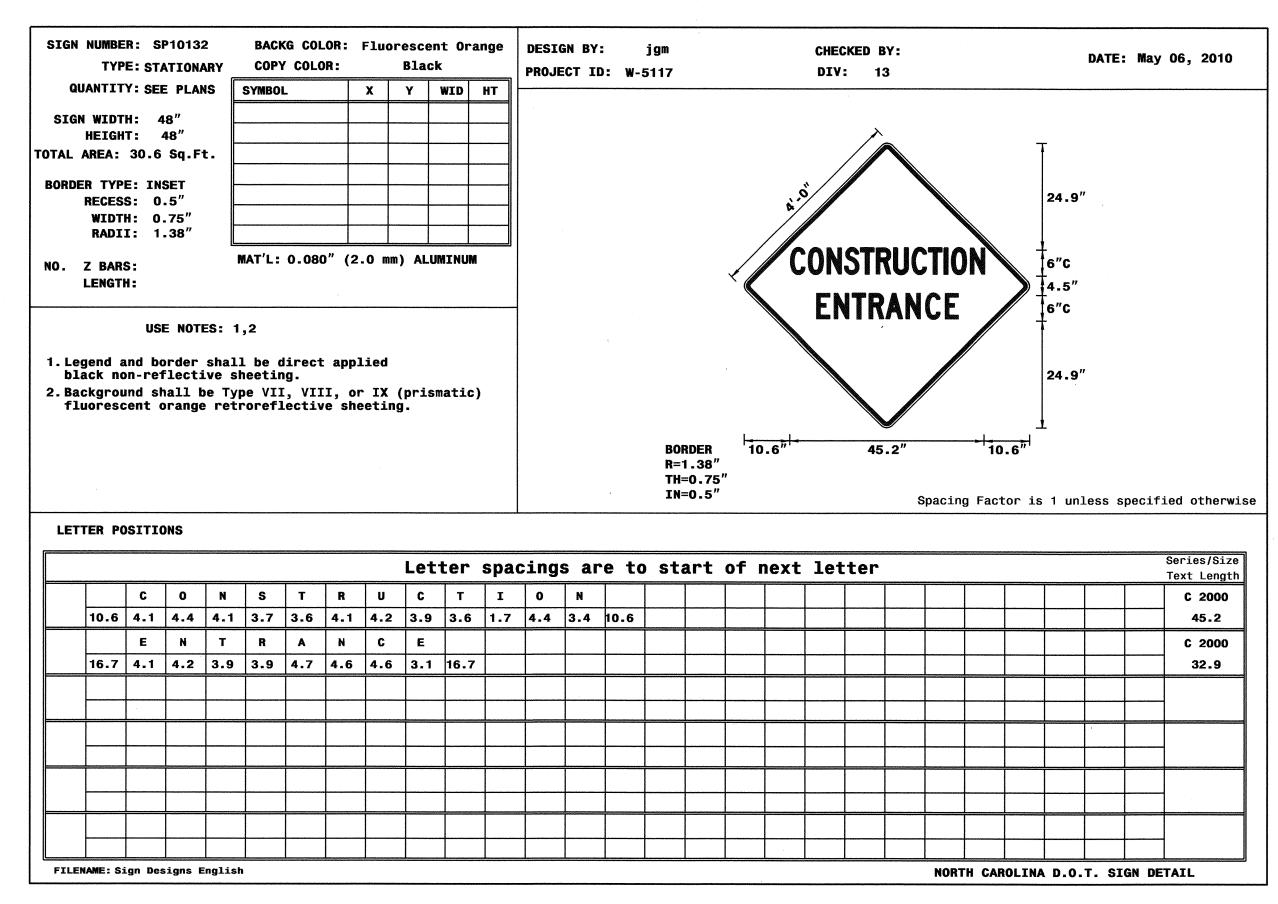
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# GENERAL NOTES FOR THE "BEGIN ROAD WORK" SIGN

-SIGN SP-03353 "BEGIN ROAD WORK" ONLY APPLIES TO FULL CONTROL AND PARTIAL CONTROL OF ACCESS ROADWAYS

-WHEN USED, INSTALL SIGN SP-03353 "BEGIN ROAD WORK" ACCORDING TO DETAIL A ON SHEET TCP-2A.

# SP 10132



# GENERAL NOTES FOR THE "CONSTRUCTION ENTRANCE" SIGN

-WHEN USED, INSTALL SIGN SP-10132 "CONSTRUCTION ENTRANCE" ACCORDING TO SHEET TCP-5.

SEAL

SPECIAL SIGN DESIGNS

# PHASE I

NOTE: THE PROJECT IS DIVIDED INTO THREE (3) AREAS AS STATED BELOW. CONTRACTOR MAY WORK IN ANY AREA OF HIS CHOICE, BUT SHALL ONLY WORK IN ONE AREA AT A TIME. CONTRACTOR SHALL COMPLETE ALL REQUIRED WORK IN THE AREA PRIOR TO PROCEEDING TO THE NEXT AREA. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY ELECT TO PLACE THE FINAL PAVEMENT MARKINGS (THERMOPLASTIC) AFTER ALL AREAS HAVE BEEN COMPLETED.

Area I: Sta. 627+75.89 +/- EBL to Sta. 147+51.28 +/- -LREV-

Area II: Sta. 244+54.19 +/- -LREV- to Sta. 288+71.09 +/- -LREV-

Area III: Sta. 357+29.35 +/- -LREV- to Sta. 380+97.29 +/- -LREV-

STEP 1: - CONTRACTOR SHALL PLACE ADVANCE WORK ZONE WARNING SIGNS ALONG I-40 AND ALL ON/OFF-RAMPS (SEE SHEET TMP-2).

STEP 2: - CONTRACTOR SHALL, USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 & 5 OF 9:

-- IN THE AREA OF CHOICE PLACE PORTABLE CONCRETE BARRIER, STATIONARY SIGNS AND TEMPORARY PAVEMENT MARKINGS (COLD APPLIED PLASTIC TYPE IV/REMOVABLE TAPE) AS SHOWN ON SHEET TMP-4.

STEP 3: - CONTRACTOR SHALL CONSTRUCT PROPOSED MEDIAN BARRIER/
BARRIER GATE AND PROPOSED MEDIAN PAVEMENT AS SHOWN IN
THE CONSTRUCTION PLANS.

NOTE: DURING CONSTRUCTION THE CONTRACTOR SHALL INSTALL ADDITIONAL CHANGEABLE MESSAGE SIGNS, DRUMS AND WORK ZONE CONSTRUCTION SIGNS UPSTREAM & DOWNSTREAM OF THE PORTABLE CONCRETE BARRIER TO ALLOW CONSTRUCTION VEHICLES TO ENTER & EXIT THE WORK AREA AND TO MERGE INTO EXISTING TRAFFIC (SEE SHEET TMP-5).

NOTE: DURING PERIODS OF CONSTRUCTION INACTIVITY THE CONTRACTOR SHALL ENSURE THAT THE WORK AREA IS SETUP AS SHOWN ON SHEET TMP-4.

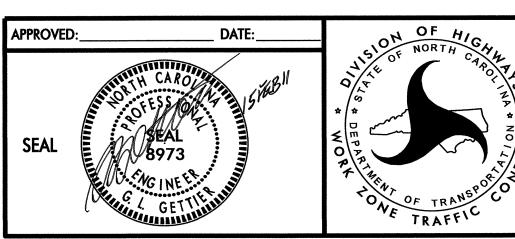
- STEP 4: CONTRACTOR SHALL, USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 & 5 OF 9:
  - -- REMOVE PORTABLE CONCRETE BARRIER AND STATIONARY SIGNS.
  - -- REPLACE EXISTING PAVEMENT MARKINGS WITH THERMOPLASTIC (6") AND OPEN AREA TO TRAFFIC.

NOTE: WITH APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY REPLACE EXISTING PAVEMENT MARKINGS WITH TEMPORARY PAINT (6") AND OPEN TO TRAFFIC.

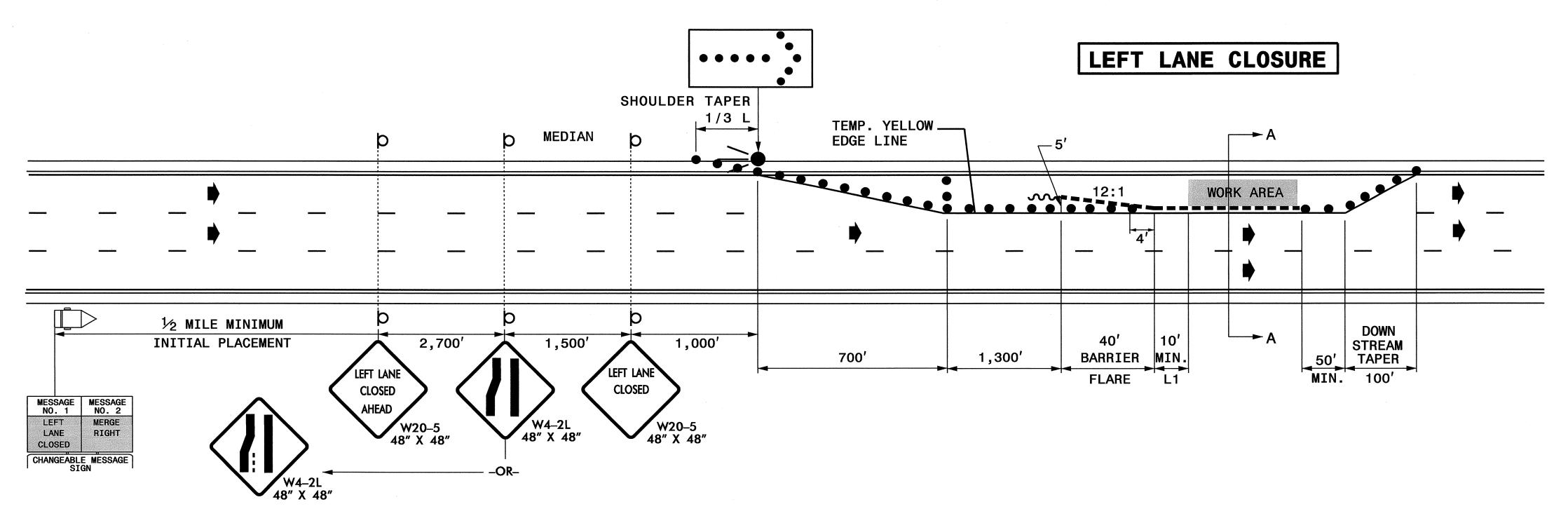
UPON COMPLETION OF ALL THREE (3) AREAS THE CONTRACTOR SHALL, USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 & 5 OF 9, PLACE THE FINAL PAVEMENT MARKINGS THERMOPLASTIC (6") IN ALL AREAS.

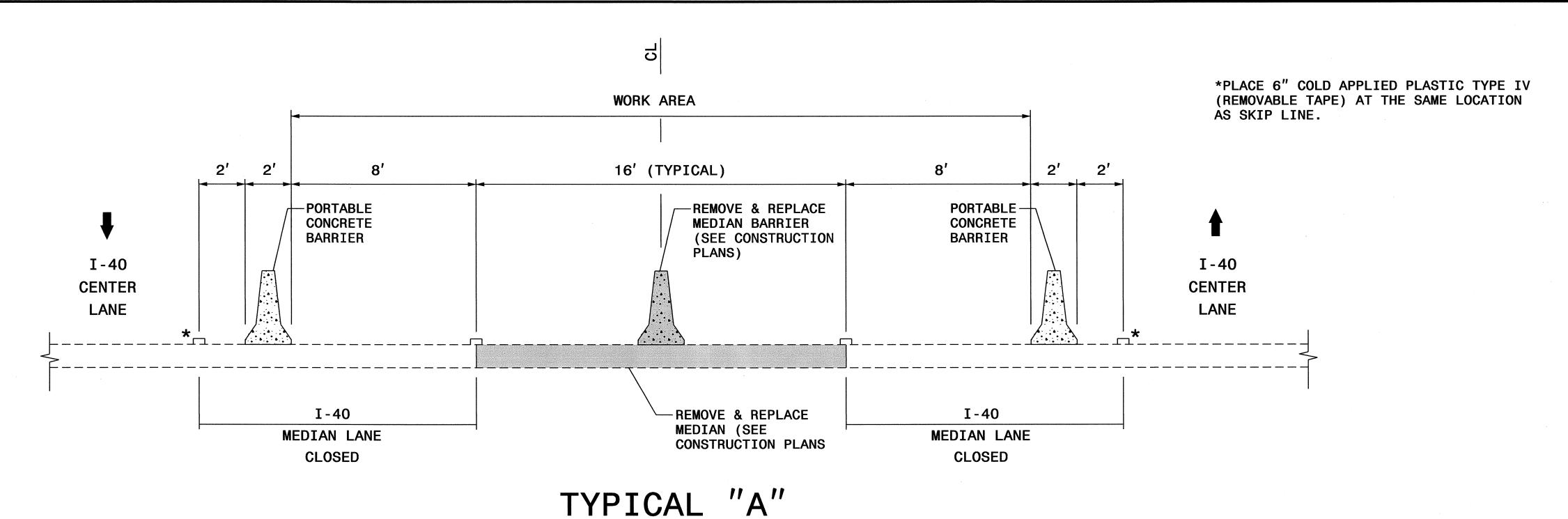
NOTE: REPEAT PHASE I, STEPS 2 THRU STEP 4 UNTIL ALL AREAS HAVE BE CONSTRUCTED (SEE CONSTRUCTION PLANS).

STEP 5: - UPON COMPLETION OF ALL CONSTRUCTION OPERATIONS THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES FROM THE PROJECT.



PHASING

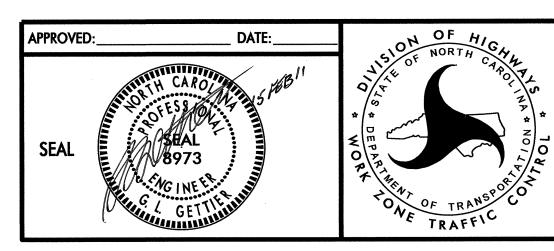




#### **LEGEND**

- --- PORTABLE CONCRETE BARRIER
- ✓ CRASH CUSHION
- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
  - DRUM
  - STATIONARY OR PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- **▶** DIRECTION OF TRAFFIC FLOW

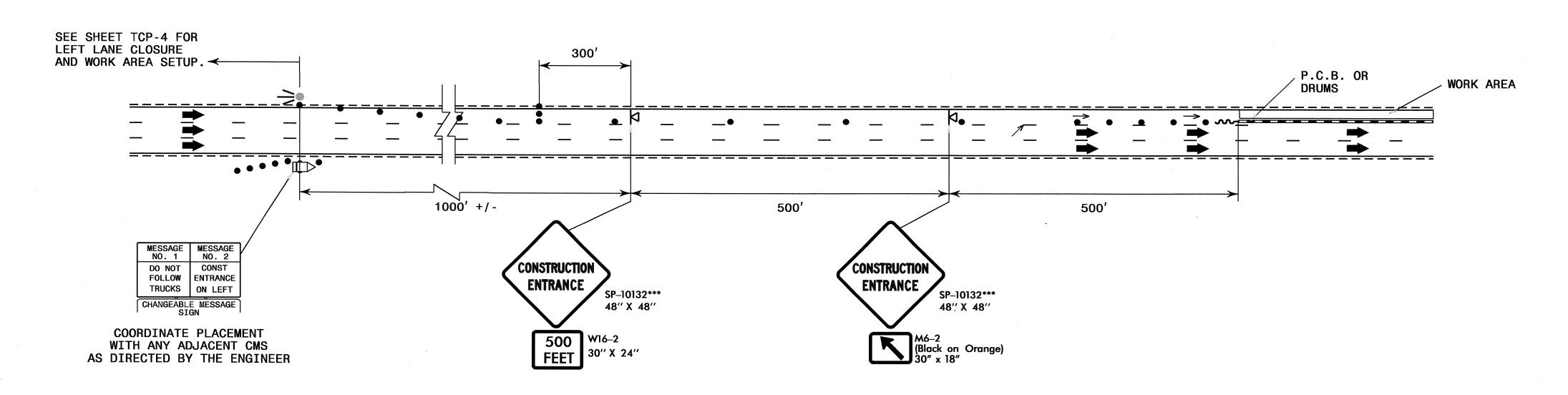
- 1-IF THE BOUNDARIES OF THE WORK AREA ARE CONFINED TO THE LANE BEING CLOSED, L1 IS EQUAL TO 10 FEET UNLESS EXTRA ROOM IS NEEDED FOR STAGING AND STORAGE OF EQUIPMENT. IF THE BOUNDARIES OF THE WORK AREA ARE NOT CONFINED TO THE LANE BEING CLOSED, REFER TO THE "AASHTO ROADSIDE DESIGN GUIDE" FOR APPLICABLE VALUES FOR L1.
- 2-PORTABLE SIGNS MAY BE USED IN LIEU OF STATIONARY SIGNS FOR SHORT TERM LANE CLOSURES (3 DAYS OR LESS).
- 3-REFER TO NOTES ON STD. 1101.02 SHEET 3 FOR ADDITIONAL REQUIREMENTS.
- 4-PLACE CHANGEABLE MESSAGE SIGN (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. PLACE CMS APPROXIMATELY ½ MILE IN ADVANCE OF THE W20-5 SIGNS. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS ½ MILE FROM ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC, MOVE CMS APPROXIMATELY ½ MILE IN CONJUCTION WITH ANTICIPATED BACKUP.



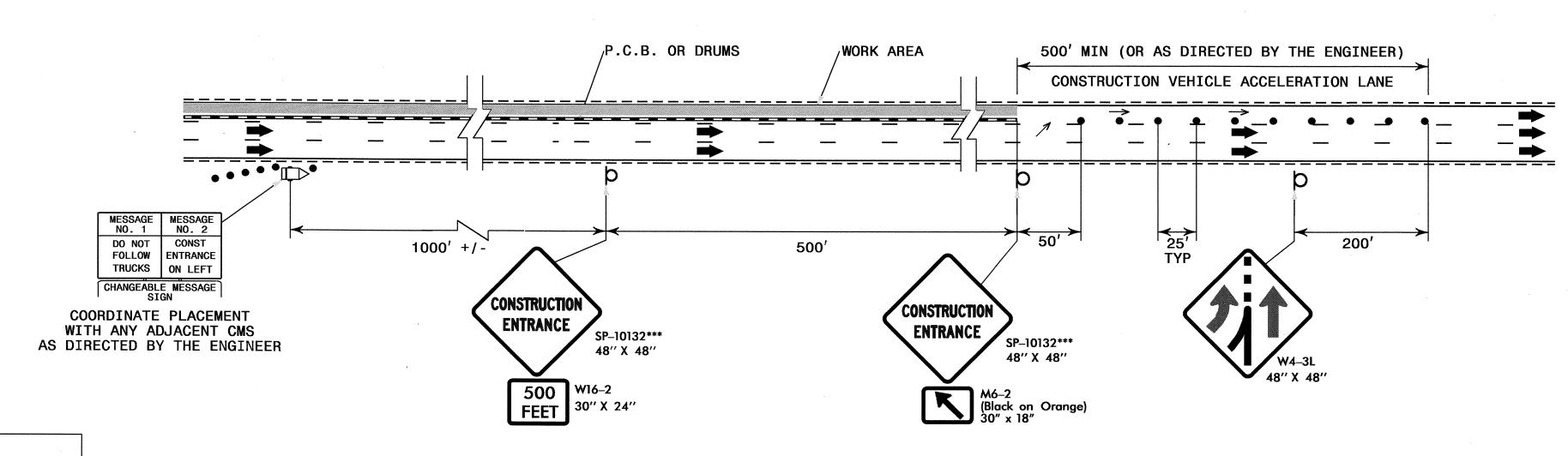
WORK AREA WITH
PORTABLE
CONCRETE BARRIER

# WORK ZONE VEHICLE ACCESS TYPICAL DETAIL

FOR USE WHILE I-40 IS REDUCED TO TWO LANES.



**UPSTREAM OF WORK AREA\*** 

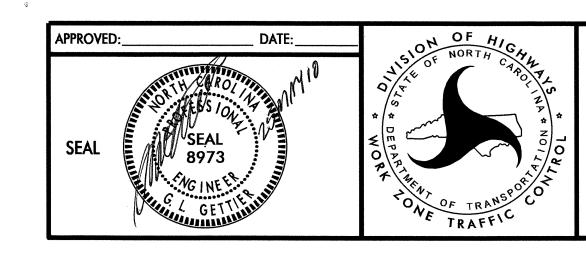


# LEGEND Proposed Construction Changeable Message Sign (CMS) Portable Sign Stationary or Portable Sign Crash Cushion Traffic Flow Construction Vehicles Drum

## DOWNSTREAM OF WORK AREA\*\*

#### NOTES:

- \*1. UPSTREAM SETUP SHALL ONLY BE UTILIZED FOR WORK VEHICLES ENTERING WORK AREA.
- \*\*2. DOWNSTREAM SETUP MAY BE UTILIZED FOR BOTH WORK VEHICLES ENTERING AND EXITING WORK AREA.
- 3. DURING CONSTRUCTION INACTIVITY REMOVE WORK AREA SIGNS, AND RETURN WORK AREA SETUP AS SHOWN ON SHEET TMP-4. CMS SHALL BE TURNED AWAY FROM TRAFFIC OR AS DIRECTED BY THE ENGINEER.
- \*\*\*4. SEE SHEET TMP-2B FOR SIGN DESIGN.



WORK ZONE VEHICLE ACCESS TYPICAL DETAIL