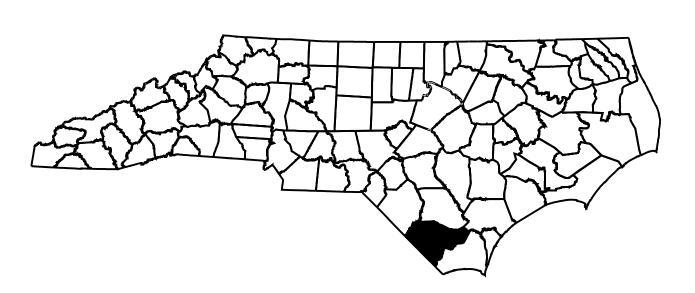
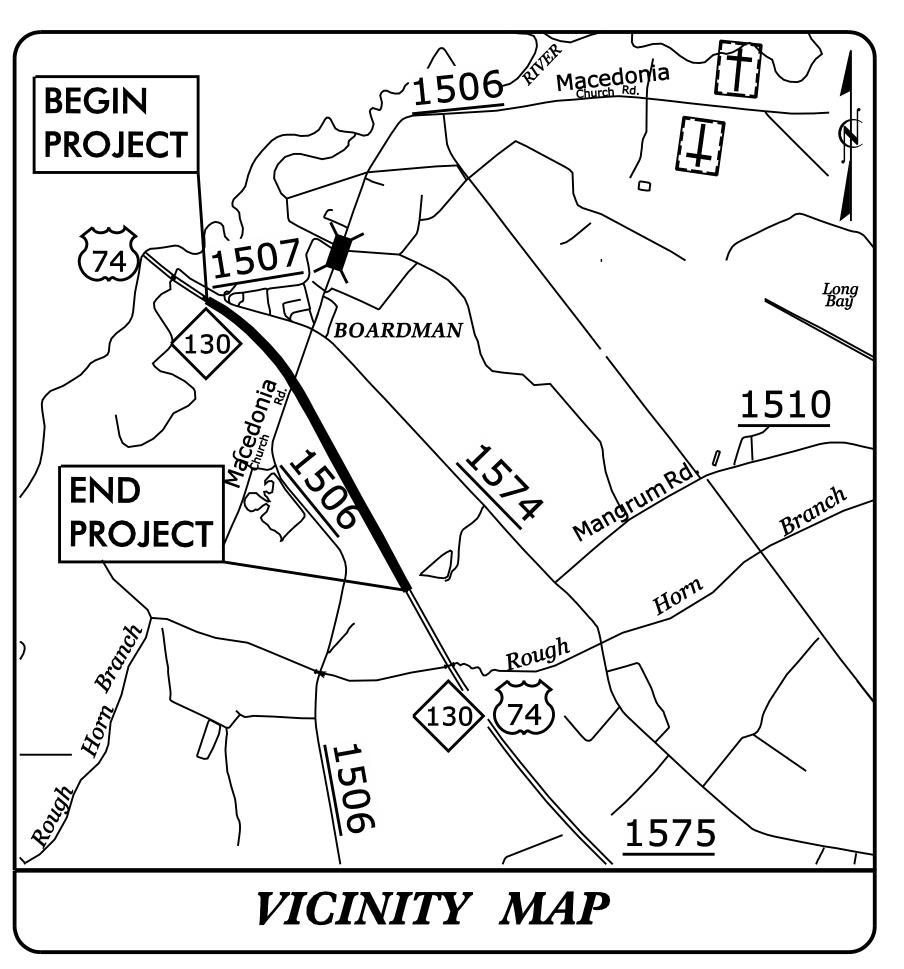
# TRANSPORTATION MANAGEMENT PLAN

# COLUMBUS COUNTY





LOCATION: US 74 AT SR 1506 (OLD BOARDMAN RD/MACEDONIA CHURCH RD)

WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"



ENGINEERS • CONSULTANTS

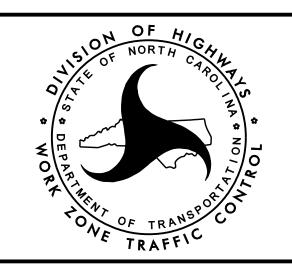
NCDOT CONTACTS:

KENNETH C. THORNEWELL, P.E.

PROJECT ENGINEER

SPENCER B. JENNINGS

PROJECT DESIGN ENGINEER



# INDEX OF SHEETS

SHEET NO.

TITLE

TMP-1 TITLE SHEET, VICINITY MAP AND INDEX OF SHEETS

TMP-1A LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, TEMPORARY PAVEMENT MARKING SCHEDULE AND LEGEND

TMP-2 THRU TMP-2B MANAGEMENT STRATEGIES & GENERAL NOTES

TMP-2C THRU TMP-2D OFFSITE DETOUR ROUTES

TMP-2E PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING

LOCATIONS

TMP-2F TEMPORARY SHORING DATA

TMP-2G WORK ZONE VARIABLE SPEED LIMIT REDUCTION

TMP-3 PHASING

TMP-4 PHASE IA OVERVIEW

TMP-5 THRU TMP-7 PHASE IB OVERVIEW

TMP-8 THRU TMP-12 PHASE II DETAILS

TMP-13 PHASE III OVERVIEW

TMP-14 THRU TMP-18 PHASE IIIA DETAILS

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APPROVED:

DATE:

01/25/21

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R-5797

SHEET NO.

TMP-1

IP PROJECT

OJ. REFERENCE NO.	SHEET NO.
R-5797	TMP-1A

# 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 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

#### TITLE STD. NO.

1101.01	WORK ZONE ADVANCE WARNING SIGNS
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 BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXIT AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

# **LEGEND**

#### **GENERAL**

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

----- EXIST. PVMT.

NORTH ARROW

— PROPOSED PVMT.

TEMP. SHORING (LOCATION PURPOSES ONLY)

**WORK AREA** 

ONGOING CONSTRUCTION

PAVEMENT WEDGING

REMOVAL

### **SIGNALS**







## PAVEMENT MARKINGS

——EXISTING LINES ——TEMPORARY LINES

#### TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III) PEDESTRIAN BARRICADE

TEMPORARY CRASH CUSHION 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

## TEMPORARY PAVEMENT MARKINGS

SEE SPECIAL PROVISIONS FOR MORE INFORMATION ON WORK ZONE PERFORMANCE PAVEMENT MARKINGS

#### 4" WORK ZONE PERFORMANCE

P1 WHITE EDGELINE

P5 2FT.-6FT./WHITE MINI-SKIP

P10 YELLOW EDGELINE

P13 YELLOW DOUBLE CENTER

#### 6" WORK ZONE PERFORMANCE

P20 WHITE EDGELINE

P21 WHITE SOLID LANE LINE

P22 10' WHITE SKIP

P23 3FT.-9FT./WHITE MINI-SKIP

P34 2FT.-6FT./WHITE MINI-SKIP

P30 YELLOW EDGELINE

# 12" WORK ZONE PERFORMANCE

P50 WHITE GORELINE

P55 3FT.-3FT./WHITE MINI-SKIP

24" PAINT

P61 WHITE STOP-BAR

#### PAINT PAVEMENT MARKING SYMBOLS

P70 LEFT TURN ARROW

P71 RIGHT TURN ARROW P72 STRAIGHT ARROW

P77 U-TURN ARROW

P79 MERGE ARROW

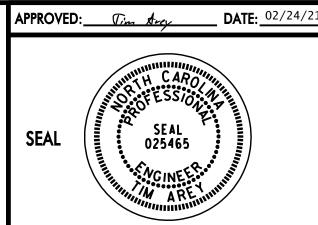
P103 24" YIELD LINE TRIANGLE

P117 FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW

P118 FISH-HOOK W/CIRCLE LEFT/RIGHT/STRAIGHT ARROW

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ROADWAY STANDARD DRAWINGS, TEMPORARY PAVEMENT MARKING SCHEDULE & LEGEND

# PROJ. REFERENCE NO. SHEET NO. TMP-2

# MANAGEMENT STRATEGIES

#### GENERAL SEQUENCE OF CONSTRUCTION

#### SEQUENCE I:

- BEGIN CONSTRUCTION ON PROPOSED BOARDMAN ROAD/MACEDONIA CHURCH ROAD AS MUCH AS POSSIBLE AWAY FROM TRAFFIC TO INCLUDE PROPOSED ROUNDABOUTS, PROPOSED RAMPS AND RETAINING WALLS UTILIZING TEMPORARY 2:1 SLOPES AND/OR TEMPORARY SHORING.
- CONSTRUCT THE RCI IMPROVEMENTS ON US 74 AT -L1- STA. 10+00+/- AND -L- STA. 81+00+/-.
- PLACE BOARDMAN ROAD/MACEDONIA CHURCH ROAD INTO SUPERSTREET TRAFFIC PATTERN.
- WEDGE US 74 UP TO THE PROPOSED ELEVATION USING ALTERNATING LANE CLOSURES AND CONSTRUCT 4' TEMPORARY MEDIAN WIDENING ALONG US 74.

#### SEQUENCE II:

- SHIFT US 74 TRAFFIC INTO MEDIAN, INSTALL PORTABLE CONCRETE BARRIER ALONG US 74 AND CONSTRUCT BRIDGE OVER US 74.

#### SEQUENCE III:

#### UNDER 120 DAY INTERMEDIATE CONTRACT TIME:

- UTILIZING AN OFF-SITE DETOUR AND CONSTRUCT PROPOSED TIE-INS OF NORTH & SOUTH ENDS OF BOARDMAN ROAD/MACEDONIA CHURCH ROAD, REMAINDER OF PROPOSED RAMP "C" & PROPOSED DRIVEWAY (-DR1-) AND OPEN ENTIRE PROJECT TO TRAFFIC EXCEPT -RPB-.
- NOTE: TRAFFIC WILL BE MAINTAINED TO THE SUN-DO KWIK SHOPS/GAS STATION VIA THE EXISTING US 74 INTERSECTION DURING THE OFF SITE DETOUR AND VIA -DR1- AFTER INTERCHANGE OPENING.
- REMAINING SECTION OF -RPB- IS CONSTRUCTED AND OPENED TO TRAFFIC DURING THE LAST STEPS OF THE 120 DAY INTERMEDIATE CONTRACT TIME.

#### SEQUENCE IV:

- PAVE THE FINAL LAYER OF SURFACE COURSE, PLACE FINAL PAVEMENT MARKINGS AND MARKERS AND OPEN TO FINAL TRAFFIC PATTERN.

# GENERAL NOTES / LOCAL 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:

ROAD NAME

US 74

#### DAY AND TIME RESTRICTIONS

6:00AM EVERY FRIDAY TO 10:00PM THE FOLLOWING SUNDAY FROM THE WEEK OF EASTER TO OCTOBER 1

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AS FOLLOWS:

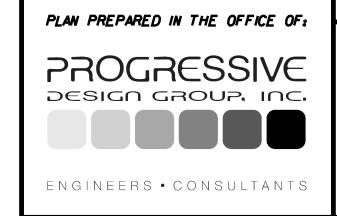
#### ROAD NAME

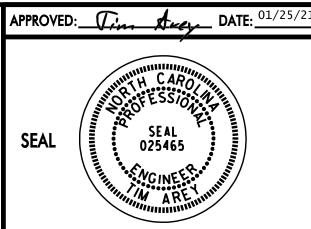
US 74

#### 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 6:00AM DECEMBER 31st TO 10:00PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 10:00PM THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00AM THURSDAY AND 10:00PM MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY TO 10:00PM TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00AM THE DAY BEFORE INDEPENDENCE DAY AND 10:00PM THE DAY AFTER INDEPENDENCE DAY.
  - IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN BETWEEN THE HOURS OF 6:00AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 10:00PM THE TUESDAY AFTER INDEPENDENCE DAY.
- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY AND 10:00PM TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00AM TUESDAY TO 10:00PM MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 10:00PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

# DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





TRANSPORTATION
MANAGEMENT PLAN
MANAGEMENT STRATEGIES
AND GENERAL NOTES

OJ. REFERENCE NO.	SHEET NO.
R-5797	TMP-2A

# GENERAL NOTES / LOCAL NOTES (CONT)

C) DO NOT STOP TRAFFIC ON US 74 AS FOLLOWS:

OPERATION DURATION DAY AND TIME RESTRICTIONS

PLACING -Y1B- 30 MINUTES MONDAY-SUNDAY 6:00AM TO 10:00PM

GIRDERS OVER US 74

TRAFFIC OPERATIONS 15 MINUTES MONDAY-SUNDAY 6:00AM TO 10:00PM

D) 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

- E) 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.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT 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 OR A LANE CLOSURE IS INSTALLED.
- G) 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.

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.

- H) 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.
- I) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- J) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

#### PAVEMENT EDGE DROP OFF REQUIREMENTS

K) 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.

L) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500FT IN ADVANCE AND A MINIMUM OF ONCE EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

#### TRAFFIC PATTERN ALTERATIONS

M) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

IN ORDER TO HAVE TIME TO ADEQUATELY REROUTE SCHOOL BUSES, COLUMBUS COUNTY SCHOOLS SHALL BE CONTACTED AT LEAST ONE MONTH PRIOR TO THE MACEDONIA CHURCH ROAD CLOSURE AT (910)-642-5168.

COLUMBUS COUNTY EMERGENCY SERVICES SHALL BE CONTACTED AT LEAST ONE MONTH PRIOR TO THE MACEDONIA CHURCH ROAD CLOSURE TO MAKE THE NECESSARY TEMPORARY REASSIGNMENTS TO PRIMARY RESPONSE UNITS AT (910)-640-6610.

#### SIGNING

- N) 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.
- O) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

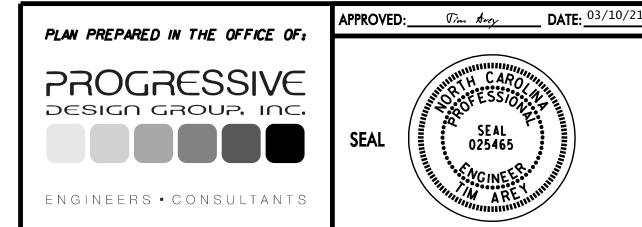
PROVIDE AND INSTALL SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

P) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

- Q) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- R) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

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TRANSPORTATION
MANAGEMENT PLAN
GENERAL NOTES

PROJ. REFERENCE NO. SHEET NO. R-5797 TMP-2B

# GENERAL NOTES / LOCAL NOTES (CONT)

#### TRAFFIC BARRIER

S) 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.

T) 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 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 OFFSE
40 OD LEGG	15 ET
40 OR LESS	15 FT
45-50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

#### TRAFFIC CONTROL DEVICES

- U) WHEN LANE CLOSURES ARE NOT IN EFFECT 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. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- V) PLACE TYPE III BARRICADES WITH "ROAD CLOSED" SIGN R11-2 ATTACHED OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- W) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS, CONES OR SKINNY DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

#### PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME MARKING MARKER

1. ALL ROADS/BRIDGES PAINT

TEMPORARY RAISED

NOTE: WIDE MARKINGS ON US 74 AND RAMPS, 4" ON -Y- LINES

- Y) 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.
- Z) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- AA) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- BB) TRACE THE EXISTING AND/OR PROPOSED MONOLITHIC ISLAND LOCATIONS WITH THE PROPER COLOR PAVEMENT MARKING PRIOR TO REMOVAL AND/OR INSTALLATION. PLACE DRUMS TO DELINEATE ANY EXISTING AND/OR PROPOSED MONOLITHIC ISLANDS AFTER REMOVAL AND/OR BEFORE INSTALLATION.

#### **MISCELLANEOUS**

- CC) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- DD) CONSTRUCT ALL PAVEMENT (TEMPORARY AND/OR PROPOSED) TO MAINTAIN DRAINAGE AND NOT POND WATER IN THE TRAFFIC LANES.
- EE) PLACE TRAFFIC BACK INTO EXISTING PATTERN AT THE END OF EACH WORK PERIOD.
- FF) FLEXIBLE DELINEATORS ARE NOT REQUIRED FOR THE PROJECT.
- GG) THE DIVISION WILL NOT FURNISH ANY EQUIPMENT TO THE CONTRACTOR DURING CONSTRUCTION.
- HH) THE CONSTRACTOR SHALL INSTALL ONE CMS IN EACH DIRECTION OF US 74 TO INFORM AND ALERT THE TRAVELLING PUBLIC TO TRAFFIC CONDITIONS. THESE CMS SHALL NOT BE UTILIZED FOR TRAFFIC CONTROL OPERATIONS DURING CONSTRUCTION.

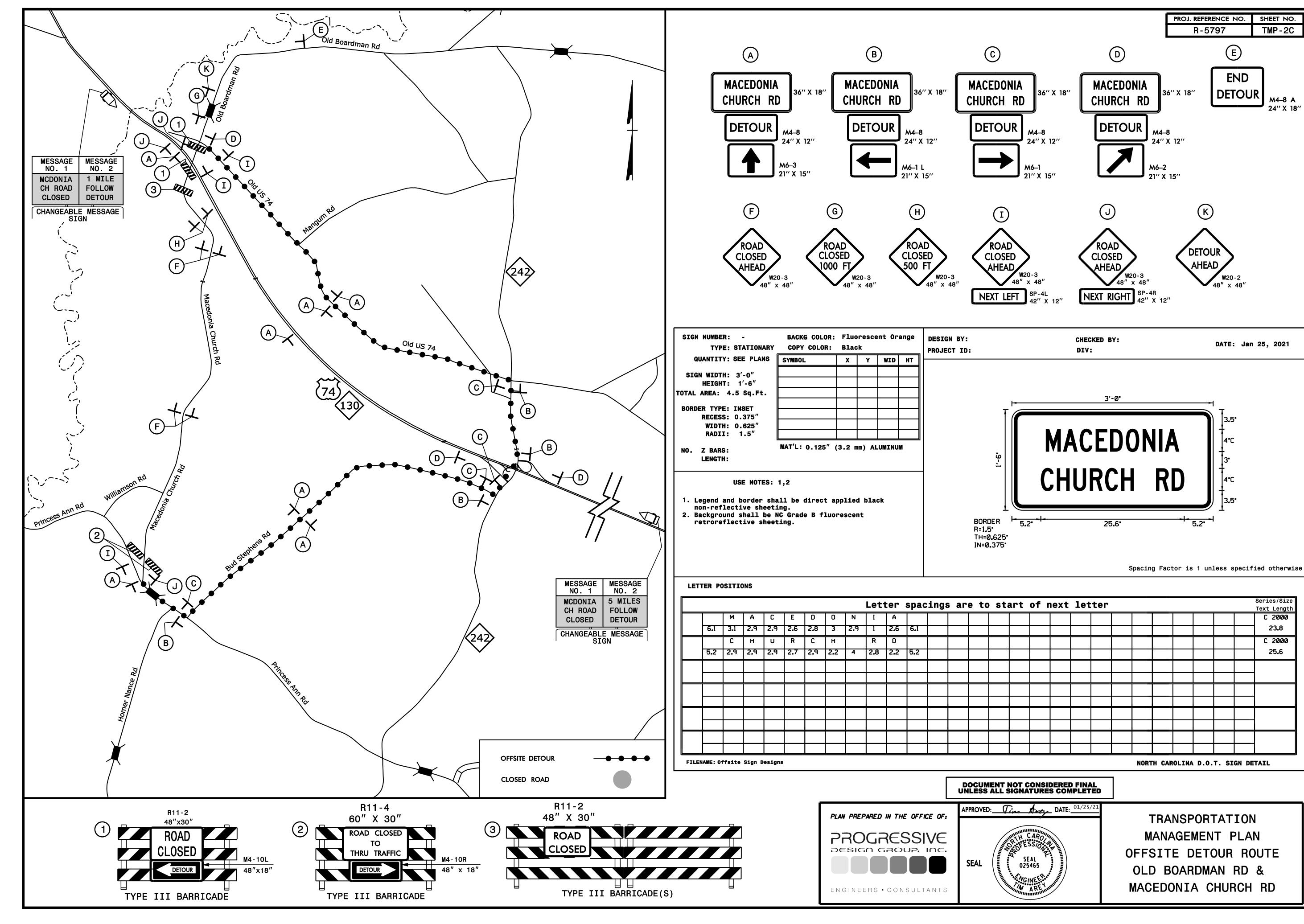
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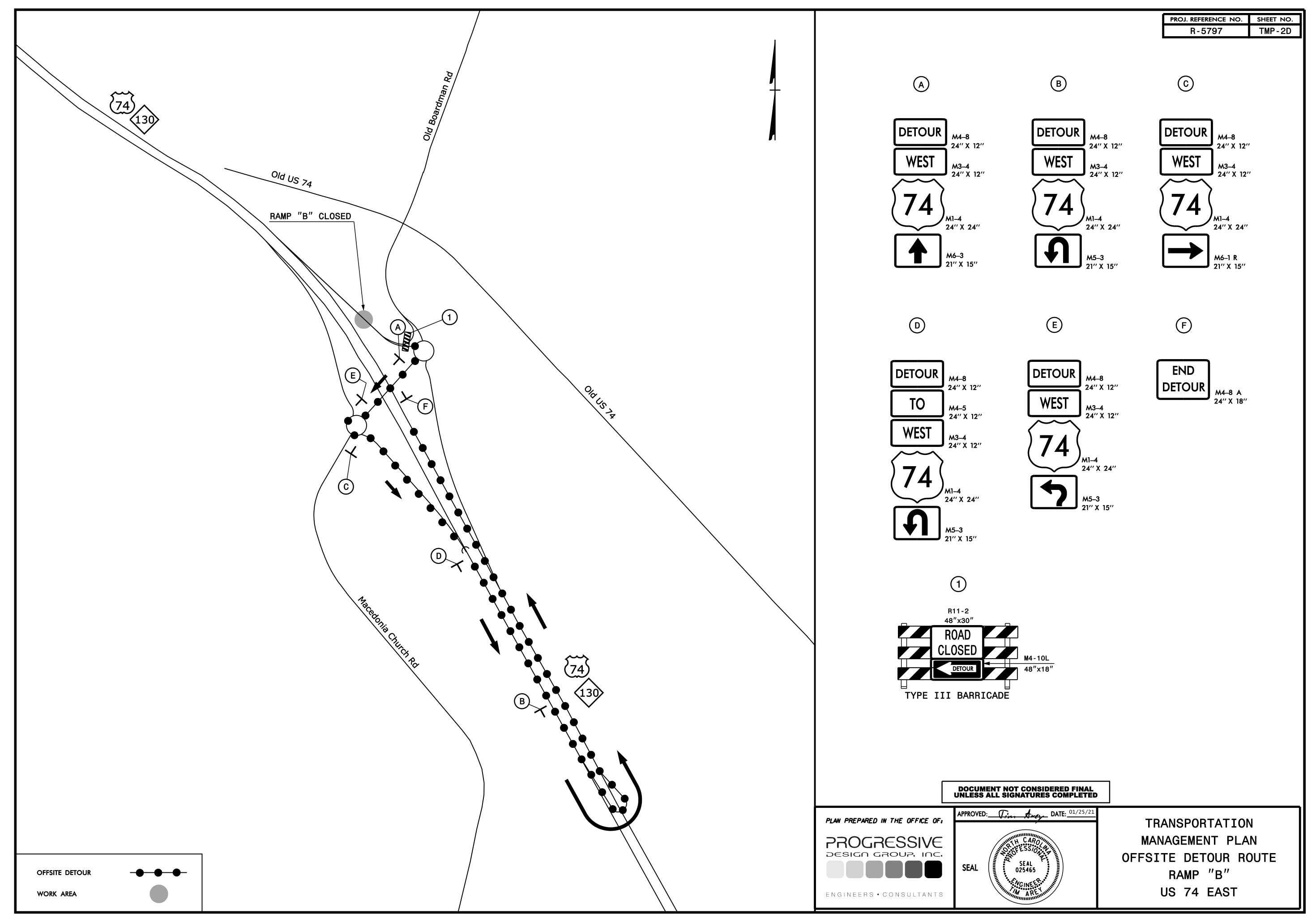
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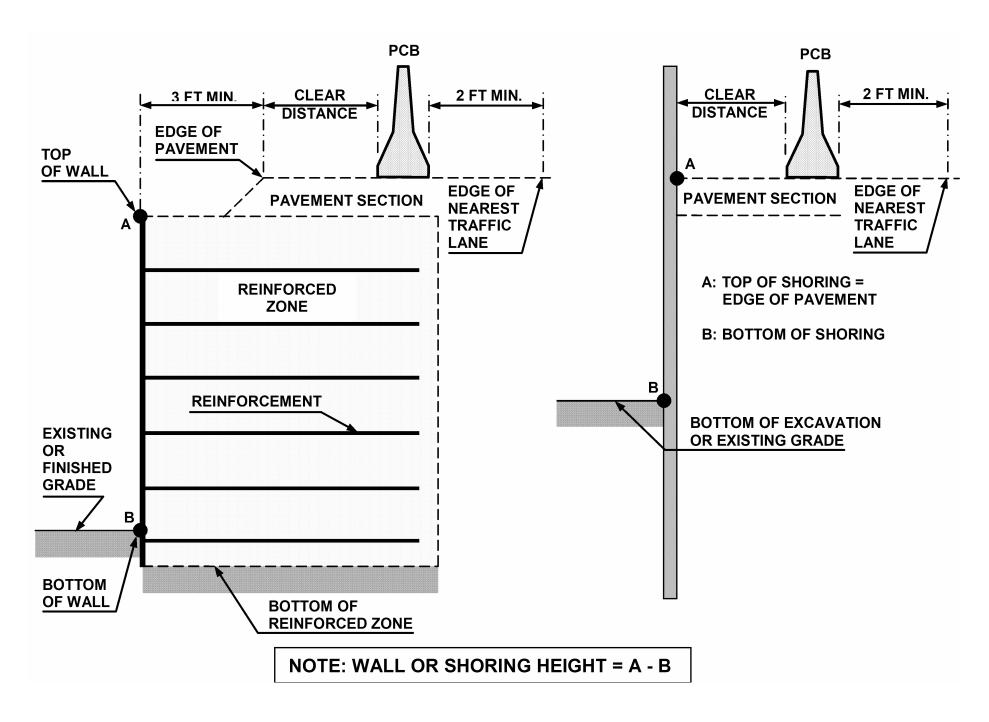
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TRANSPORTATION
MANAGEMENT PLAN
GENERAL NOTES







# FIGURE A

# **NOTES**

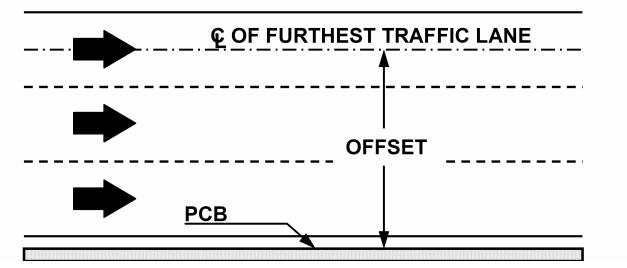
- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- 2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- PCB IS REQUIRED IF TEMPORARY SHORING IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

  (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).
- 4- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.
- 5- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- 6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- 7- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- 8- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS AND OR AS APPROVED BY THE ENGINEER.
- 9- FOR PCB ABOVE AND BEHIND TEMPORARY WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.
- 10- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200 FT IN LENGTH AND WET OR DRY PAVEMENT.

## MINIMUM REQUIRED CLEAR DISTANCE, inches

Barrier	Pavement	Offset *	Design Speed, mph					
Type	Type	ft	<30	31-40	41-50	51-60	61-70	71-80
		<8	24	26	29	32	36	40
	Asphalt	8-14	26	28	31	35	38	42
		14-20	27	29	34	36	39	43
		20-26	28	31	35	38	40	44
		26-32	29	32	36	39	42	45
		32-38	30	34	38	41	43	46
<u> </u>		38-44	31	34	41	43	45	48
PCB		44-50	31	35	41	43	46	49
		50-56	32	36	42	44	47	50
Unanchored		>56	32	36	42	45	47	51
<b>                                   </b>		<8	17	18	21	22	25	26
l on		8-14	19	20	23	25	26	29
n a	Concrete	14-20	22	22	24	26	28	31
<b>)</b>		20-26	23	24	26	27	30	34
		26-32	24	25	27	28	32	35
		32-38	24	26	27	30	33	36
		38-44	25	26	28	30	34	37
		44-50	26	26	28	32	35	37
		50-56	26	26	28	32	35	38
		>56	26	27	29	32	36	38
Anchored PCB	Asphalt	All Offsets	24 for All Design Speeds  12 for All Design Speeds					
Anchored PCB	Concrete (including bridge approach slabs)	All Offsets						

<sup>\*</sup> See Figure Below



# FIGURE B

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# SEAL SEAL O25465 SEAL O25465

# TRANSPORTATION MANAGEMENT PLAN

PORTABLE CONCRETE BARRIER
AT TEMPORARY SHORING LOCATIONS

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PROJ. REFERENCE NO. SHEET NO. R-5797 TMP-2F

#### Temporary Shoring No. 1

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -RPB- 20+00+/-, 42.4' LT, TO STATION -RPB- 20+28+/-, 31.4' RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

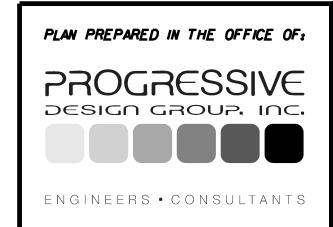
UNIT WEIGHT  $(\gamma)$  = 120 LB/CF FRICTION ANGLE  $(\phi)$  = 30 DEGREES COHESION (c) = 0 LB/SF GROUNDWATER ELEVATION = 85.0 FT +/-

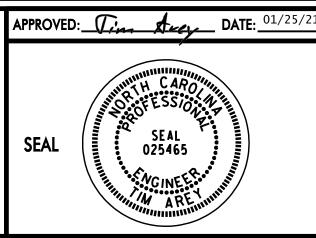
DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -RPB- 20+00+/-, 42.4' LT, TO STATION -RPB- 20+28+/-, 31.4' RT.

AT THE CONTRACTOR'S OPTION AND WHEN APPLICABLE, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -RPB- 20+00+/-, 42.4' LT, TO STATION -RPB- 20+28+/-, 31.4' RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR RETAINING WALLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR RETAINING WALLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

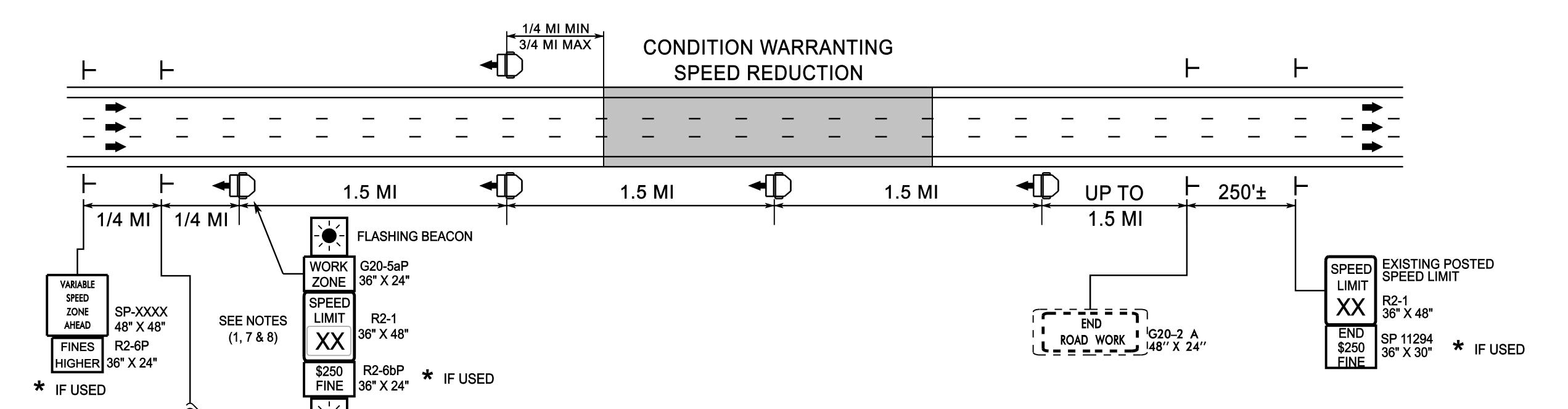
# DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





TRANSPORTATION
MANAGEMENT PLAN
TEMPORARY SHORING DATA

PROJ. REFERENCE NO. SHEET NO. R-5797 TMP-2G



#### **NOTES**

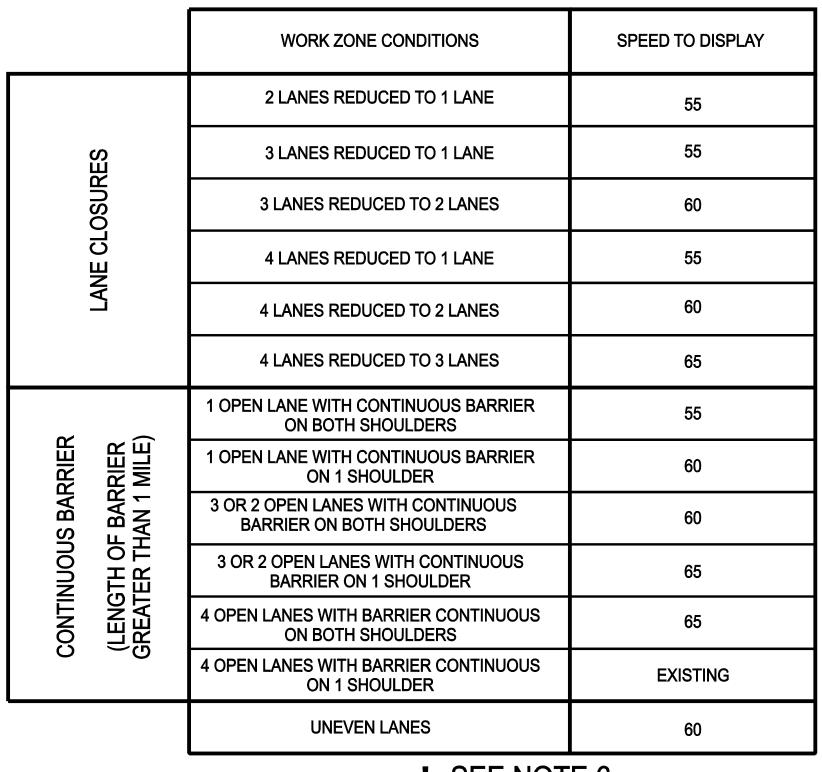
DIGITAL SPEED LIMIT SIGN (TYP)

ROAD

1. WITHIN ¼ TO ¾ MILE UPSTREAM OF CONDITION WARRANTING A SPEED REDUCTION, PLACE A DIGITAL SPEED LIMIT SIGN ON BOTH THE INSIDE AND OUTSIDE SHOULDERS, UNLESS DIRECTED OTHERWISE BY THE ENGINEER. AT ALL OTHER LOCATIONS DOWNSTREAM, PLACE A SINGLE DIGITAL SPEED LIMIT SIGN ON THE OUTSIDE SHOULDER.

IF SIGNS ARE NOT HIGHLY VISIBLE TO ALL MOTORISTS, SUPPLEMENTAL DIGITAL SPEED LIMIT SIGNS ARE PERMITTED TO BE INSTALLED ON THE MEDIAN SHOULDER.

- 2. THE DIGITAL SPEED LIMIT SIGNS TAKE PRECEDENCE OVER EXISTING SPEED LIMIT SIGNS AND REMAIN UPRIGHT AND VISIBLE AT ALL TIMES. ALL EXISTING SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED FOR DURATION OF THE PROJECT.
- 3. THE DIGITAL SPEED LIMITS SIGNS WILL BE INSTALLED (TRAILER MOUNTED OR STATIONARY MOUNTED) IN ADVANCE AND SPACED APPROXIMATELY 1.5 MILES THROUGHOUT THE ACTIVE WORK AREA, UNLESS DIRECTED OTHERWISE.
- 4. NCDOT HAS SOLE AUTHORITY OF THE SPEED LIMITS DISPLAYED ON THE DIGITAL SPEED LIMIT SIGNS.
- 5. THE WORK ZONE VARIABLE SPEED LIMIT AND THE \$250 SPEEDING PENALTY ARE SEPARATE ORDINANCES THAT MUST BE SIGNED BY THE STATE TRAFFIC ENGINEER TO BE VALID AND ENFORCEABLE. WITHOUT A SIGNED ORDINANCE, THE SPEED LIMIT ON A FACILITY SHALL REMAIN UNCHANGED.
- 6. THE SPEED DISPLAYED SHALL BE THE LOWER OF THE EXISTING SPEED LIMIT OR THE SPEED IN THE WORK ZONE CONDITION CHART.
- 7. THE SPEED LIMIT SHALL ONLY BE REDUCED IN AREAS MEETING WORK ZONE CONDITION WARRANTS. THE EXISTING SPEED LIMIT SHALL BE DISPLAYED ON ALL OTHER DIGITAL SPEED LIMIT SIGNS.
- 8. THE BEACONS ON THE DIGITAL SPEED LIMIT SIGNS SHALL ONLY FLASH DURING TIMES THE SPEED IS REDUCED, AND REMAIN OFF AT ALL OTHER TIMES.



\* SEE NOTE 6

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SEAL

SEAL

O25465

SEAL

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TRANSPORTATION
MANAGEMENT PLAN
WORK ZONE VARIABLE
SPEED LIMIT REDUCTION

**PHASING** 

PROJ. REFERENCE NO. SHEET NO. R-5797 TMP-3

NOTE: BEFORE BEGINNING CONSTRUCTION THE CONTRACTOR SHALL:

- PLACE ADVANCE WORK ZONE WARNING SIGNS ALONG US 74 (-L-) AND ALL -Y- LINES (SEE ROADWAY STANDARD DRAWINGS NO. 1101.01, SHEETS 1 & 3 OF 3).
- INSTALL ONE (1) CHANGEABLE MESSAGE SIGN (CMS) IN EACH DIRECTION OF US 74 (-L-) AS DIRECTED BY THE ENGINEER. THESE CHANGEABLE MESSAGES SIGNS ARE TO BE UTILIZED TO INFORM & ALERT THE TRAVELING PUBLIC TO TRAFFIC CONDITIONS AND MAY BE UTILIZED FOR TRAFFIC CONTROL OPERATIONS DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.

#### PHASE I

- STEP 1: BEGIN CONSTRUCTION ON THE FOLLOWING USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEETS 1 AND 3 OF 14 (WHEN REQUIRED BY GENERAL NOTES 'G' AND 'H' ON SHEET TMP-2A OF THIS PLAN SET):
  - -L-: BASIC CLEARING/GRUBBING & GRADING OPERATIONS AND INSTALLATION OF PROPOSED DRAINAGE ALONG & ACROSS -L- IN THE LOCATIONS SHOWN ON THE ROADWAY DESIGN PLANS.
  - -Y1A-: IN THE LOCATIONS SHOWN ON SHEET TMP-6.
  - -Y1B-: IN THE LOCATIONS SHOWN ON SHEET TMP-6.
  - -Y1C-: IN THE LOCATIONS SHOWN ON SHEET TMP-6.
  - - RPA-: IN THE LOCATIONS SHOWN ON SHEET TMP-6.
  - -RPB-: IN THE LOCATIONS SHOWN ON SHEET TMP-6. PLACE PORTABLE CONCRETE BARRIER ALONG OLD BOARDMAN ROAD IN THE LOCATIONS SHOWN ON SHEET TMP-5 PRIOR TO BEGINNING CONSTRUCTION ON -RPB-. UTILIZE TEMPORARY SHORING DURING THE CONSTRUCTION OF -RPB- AS SHOWN ON SHEET TMP-6 AND TMP-6A.
  - -RPC-: IN THE LOCATIONS SHOWN ON SHEET TMP-6.
  - - RPD-: IN THE LOCATIONS SHOWN ON SHEET TMP-6.
  - -Y2-: IN THE LOCATIONS SHOWN ON SHEET TMP-6.
  - - DR1-: IN THE LOCATIONS SHOWN ON SHEET TMP-6.
  - CONSTRUCT THE FOLLOWING USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 14:
    - -L-: PROPOSED UTURN STORAGE AND WIDENING IMPROVEMENTS IN THE LOCATIONS SHOWN ON SHEET TMP-4.
    - -L1-: PROPOSED UTURN STORAGE AND WIDENING IMPROVEMENTS IN THE LOCATIONS SHOWN ON SHEET TMP-4.

INSTALL AND COVER THE TEMPORARY SIGNS AND THE PORTABLE FLASHING BEACONS AND DETECTION SYSTEM SHOWN ON SHEETS TMP-5, TMP-6 AND TMP-7 FOR THE UPCOMING SUPERSTREET TRAFFIC PATTERN.

- STEP 2: USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEETS 1 AND 3 OF 14 INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS FOR THE SUPERSTREET TRAFFIC PATTERN WITHIN THE UTURN MOVEMENTS ALONG US 74 AS SHOWN ON SHEETS TMP-5 AND TMP-7. INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS FOR THE RIGHT IN/RIGHT OUT TRAFFIC PATTERNS ALONG OLD BOARDMAN ROAD AND MACEDONIA CHURCH ROAD AS SHOWN ON SHEET TMP-10, UNCOVER THE TEMPORARY SIGNS AND ACTIVATE THE PORTABLE FLASHING BEACONS AND DETECTION SYSTEM INSTALLED IN PHASE I, STEP 1 AND PLACE OLD BOARDMAN ROAD AND MACEDONIA CHURCH ROAD INTO THE SUPERSTREET TRAFFIC PATTERN SHOWN ON SHEET TMP-10.
- STEP 3: CONSTRUCT THE FOLLOWING USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 14:
  - -L-: WEDGING OPERATIONS DESCRIBED AND SHOWN ON SHEETS TMP-4, TMP-5 AND TMP-6. THE GUIDANCE FOR DROP OFFS AND ELEVATION DIFFERENCES BETWEEN OPEN LANES OF TRAFFIC (DESCRIBED IN GENERAL NOTES 'K' AND 'L' ON SHEET TMP-2A OF THIS PLAN SET) SHOULD BE FOLLOWED. REPLACE EXISTING PAVEMENT MARKINGS THAT HAVE BEEN COVERED UP BY THE WEDGING OPERATIONS PRIOR TO OPENING US 74 TO TWO LANES PER DIRECTION.
  - -L-: 4' TEMPORARY PAVEMENT MEDIAN WIDENING IN THE FOLLOWING LOCATIONS AS SHOWN ON SHEETS TMP-4, TMP-5, TMP-5A AND TMP-6: -L- (LEFT SIDE): STA. 18+70+/- TO STA. 37+00+/- AND FROM
    - STA. 43+60+/- TO STA. 73+00+/-.
       -L- (RIGHT SIDE): STA. 14+90+/- TO STA. 32+20+/- AND FROM
      STA. 38+25+/- TO STA. 71+05+/-.

#### PHASE II

- STEP 1: USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 14, SHIFT US 74 TRAFFIC INTO THE US 74 MEDIAN BY INSTALLING TEMPORARY PAVEMENT MARKINGS AND MARKERS ALONG US 74 IN THE LOCATIONS AND PATTERNS SHOWN ON SHEETS TMP-8 THROUGH TMP-12.
- STEP 2: USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 14, INSTALL PORTABLE CONCRETE BARRIER AND TEMPORARY CRASH CUSHIONS ALONG US 74 IN THE LOCATIONS SHOWN ON SHEETS TMP-8 THROUGH TMP-12.

- STEP 3: BEGIN CONSTRUCTION ON THE FOLLOWING:
  - -L-: PROPOSED OUTSIDE WIDENING IN THE LOCATIONS SHOWN ON SHEETS TMP-8 THROUGH TMP-12.
  - -Y1B-: BRIDGE OVER -L- AND APPROACHES IN THE LOCATIONS SHOWN ON SHEET TMP-10.
  - - RPA-: IN THE LOCATIONS SHOWN ON SHEET TMP-11.
  - - RPB-: IN THE LOCATIONS SHOWN ON SHEET TMP-10.
  - - RPC-: IN THE LOCATIONS SHOWN ON SHEET TMP-10.
  - - RPD-: IN THE LOCATIONS SHOWN ON SHEET TMP-11.

#### PHASE III

- STEP 1: COMPLETE CONSTRUCTION ON THE PROPOSED -Y1B- BRIDGE OVER -L- AND ALL ROADWAY SECTIONS SHOWN ON SHEETS TMP-8 THROUGH TMP-12 UP THROUGH ONE LAYER OF SURFACE COURSE.
- STEP 2: USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 14, REMOVE ALL PORTABLE CONCRETE BARRIER AND TEMPORARY CRASH CUSHIONS ALONG US 74 AND REPLACE THE PORTABLE CONCRETE BARRIER WITH DRUMS.

INSTALL AND COVER THE ROAD CLOSURE SIGNS SHOWN ON SHEET TMP-2C FOR THE UPCOMING CLOSURE OF MACEDONIA CHURCH ROAD AND OLD BOARDMAN ROAD.

INTERMEDIATE CONTRACT TIME: CONTRACTOR SHALL COMPLETE THE WORK DESCRIBED IN PHASE III, STEP 3 THROUGH STEP 7 IN 120 CONSECUTIVE DAYS (SEE INTERMEDIATE CONTRACT TIME AND SPECIAL PROVISIONS)

- STEP 3: UNCOVER THE ROAD CLOSURE SIGNS FOR MACEDONIA CHURCH ROAD AND OLD BOARDMAN ROAD AND CLOSE THESE ROADS TO THRU TRAFFIC AS SHOWN ON SHEETS TMP-2C AND TMP-13.
- STEP 4: CONSTRUCT THE FOLLOWING UP THROUGH ONE LAYER OF SURFACE COURSE:
  - -Y1A-: IN THE LOCATIONS SHOWN ON SHEET TMP-13.
  - -Y1C-: IN THE LOCATIONS SHOWN ON SHEET TMP-13.
  - - RPC-: IN THE LOCATIONS SHOWN ON SHEET TMP-13.
- STEP 5: AWAY FROM TRAFFIC, INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS ALONG -Y1A-, -Y1B-, -Y1C-, -RPA-, -RPC- AND -RPD- IN THE LOCATIONS SHOWN ON SHEETS TMP-15, TMP-16 AND TMP-18.

INSTALL AND COVER THE ROAD CLOSURE SIGNS SHOWN ON SHEET TMP-2D FOR THE UPCOMING CLOSURE OF -RPB-.

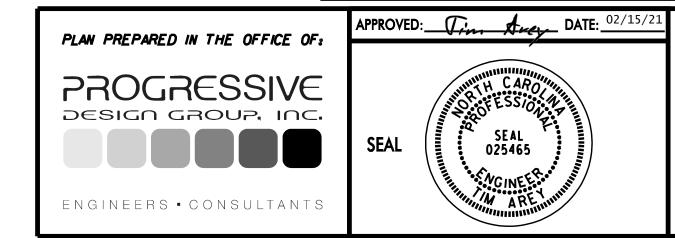
- STEP 6: USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEETS 1 AND 3 OF 14 INSTALL THE REMAINING TEMPORARY PAVEMENT MARKINGS AND MARKERS ALONG -L-, -Y1A-, -Y1B-, -Y1C-, -RPA-, -RPC- AND -RPD- IN THE LOCATIONS SHOWN ON SHEETS TMP-14 THROUGH TMP-18. UNCOVER THE ROAD CLOSURE DETOUR SIGNS FOR -RPB- AND PLACE -L-, -Y1A-, -Y1B-, -Y1C-, -RPA-, -RPC- AND -RPD- TRAFFIC IN THE PATTERNS SHOWN ON SHEETS TMP-14 THROUGH TMP-18. KEEP -RPB- CLOSED TO TRAFFIC.
- STEP 7: CONSTRUCT THE REMAINING SECTION OF PROPOSED -RPB- IN THE LOCATION SHOWN ON SHEET TMP-15.

INSTALL TEMPORARY PAVEMENT MARKINGS ON -RPB- IN THE FINAL PATTERN AND OPEN -RPB- TO TRAFFIC.

#### PHASE IV

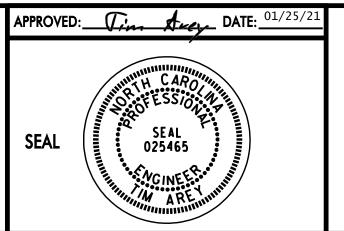
- STEP 1: USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEETS 1 AND 3 OF 14, PLACE THE FINAL LAYER OF SURFACE COURSE, FINAL MARKINGS AND MARKERS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS AND PLACE ALL TRAFFIC IN THE FINAL TRAFFIC PATTERN.
- STEP 2: REMOVE ALL TRAFFIC CONTROL DEVICES FROM THE PROJECT LIMITS.

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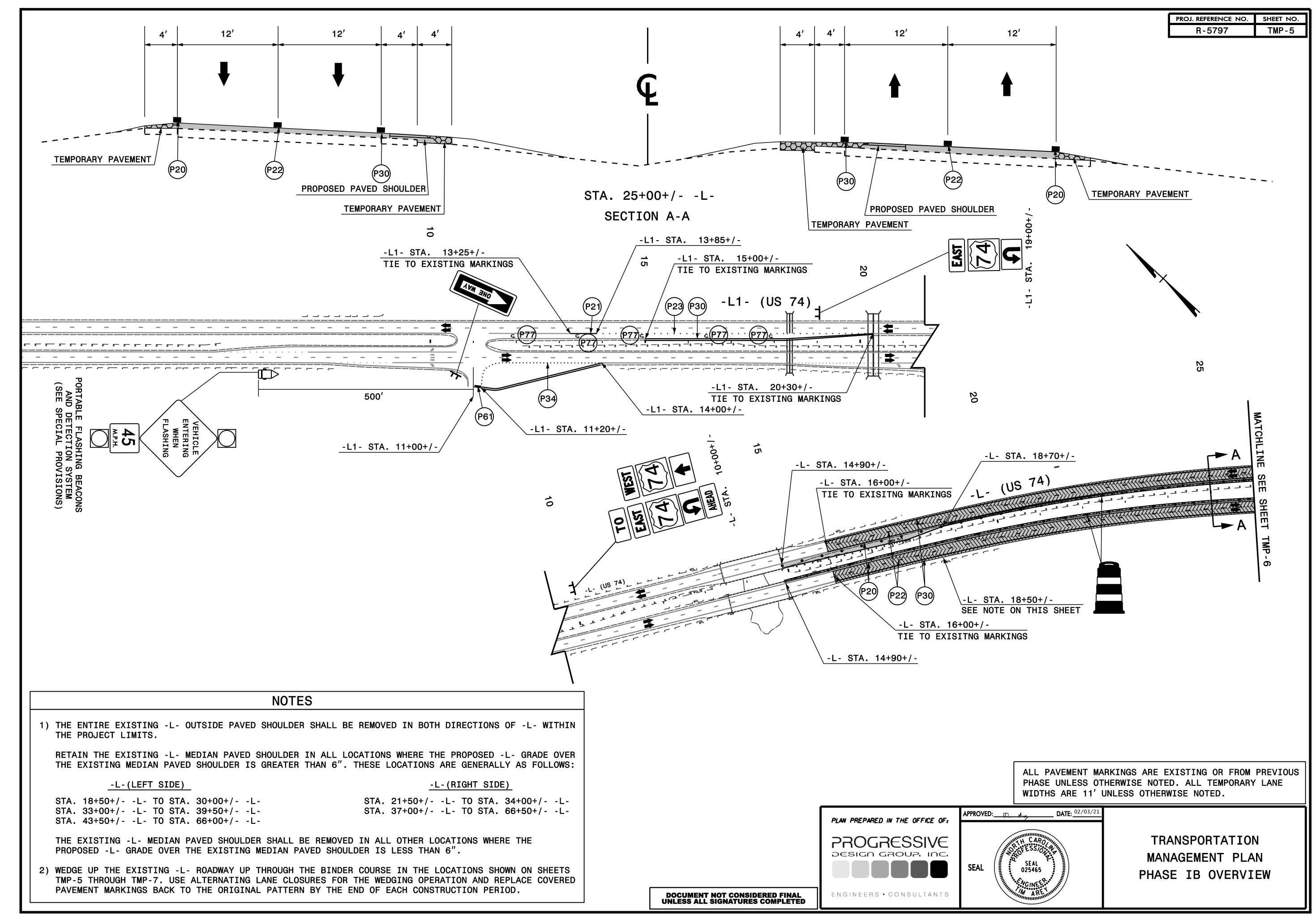
TRANSPORTATION
MANAGEMENT PLAN
PHASING

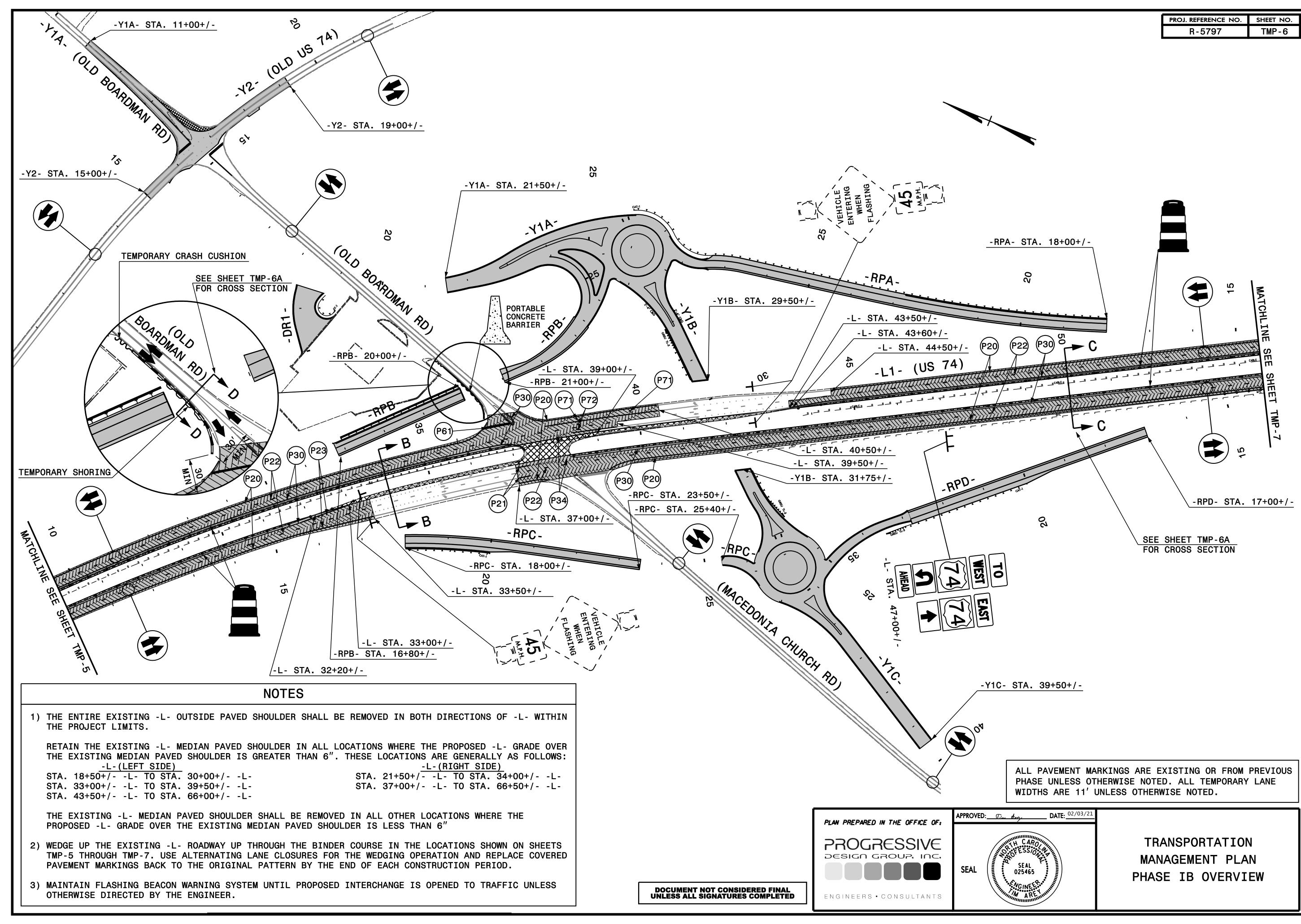


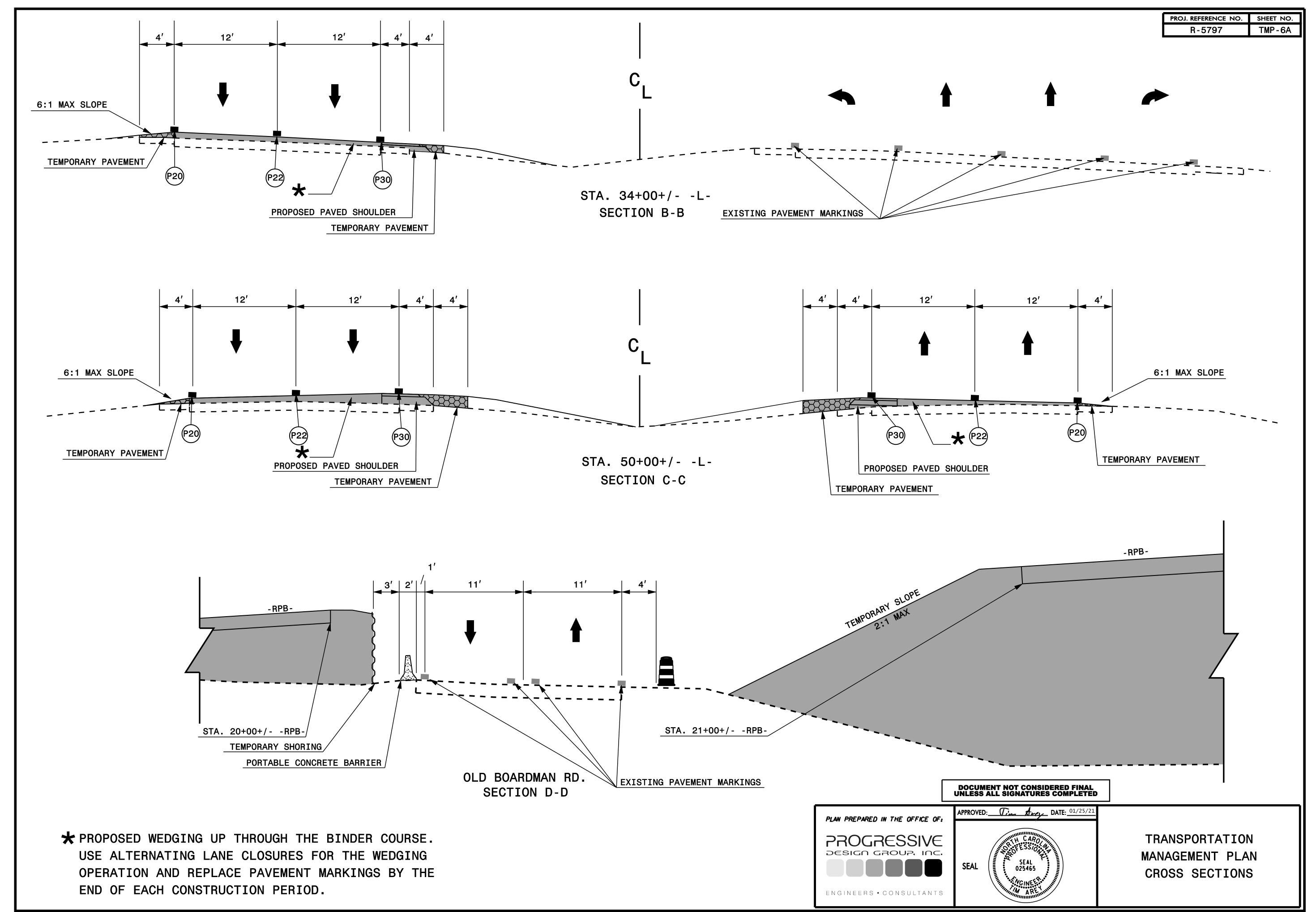


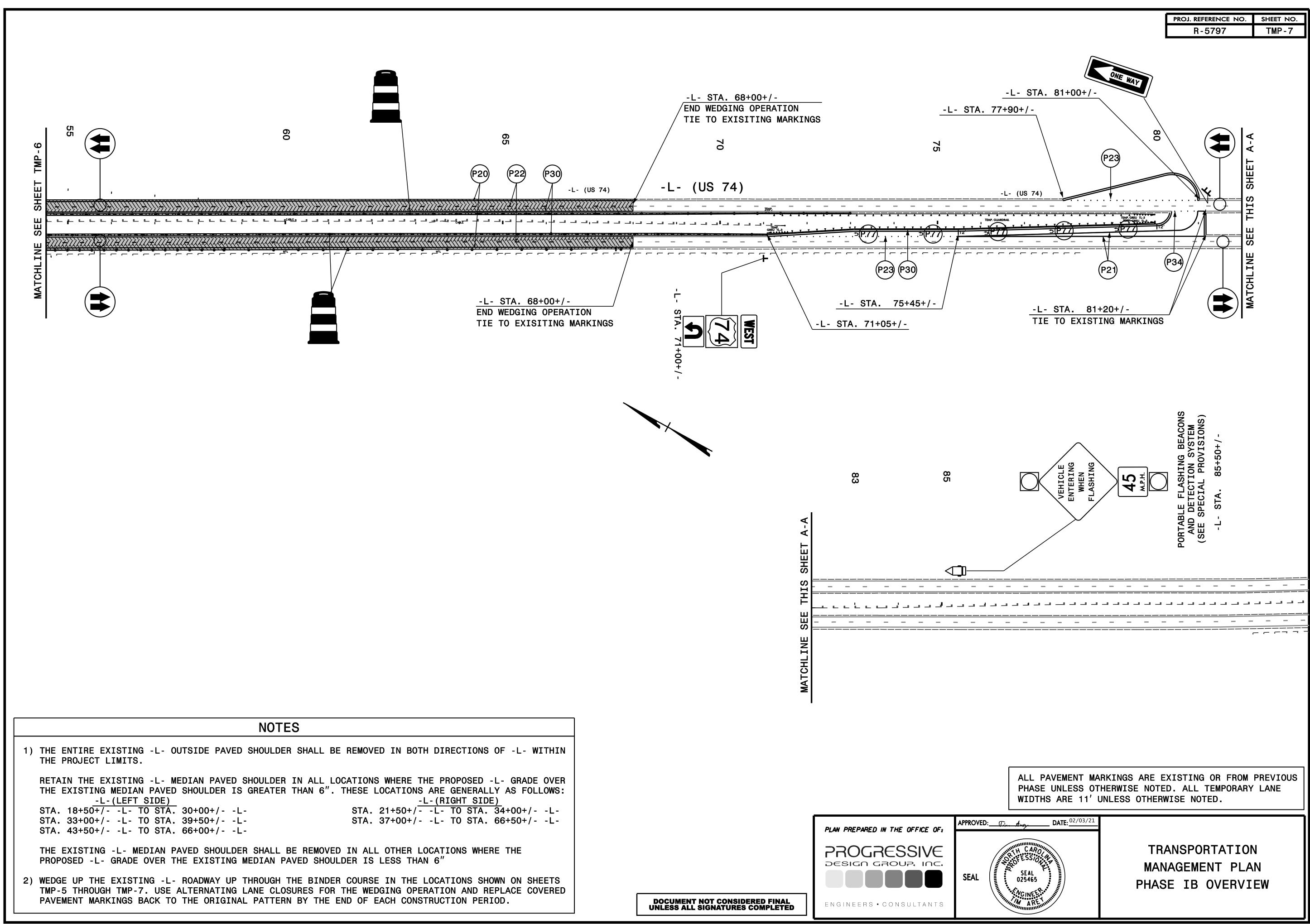
TRANSPORTATION
MANAGEMENT PLAN
PHASE IA OVERVIEW

ALL PAVEMENT MARKINGS ARE EXISTING OR FROM PREVIOUS PHASE UNLESS OTHERWISE NOTED. ALL TEMPORARY LANE WIDTHS ARE 11' UNLESS OTHERWISE NOTED.

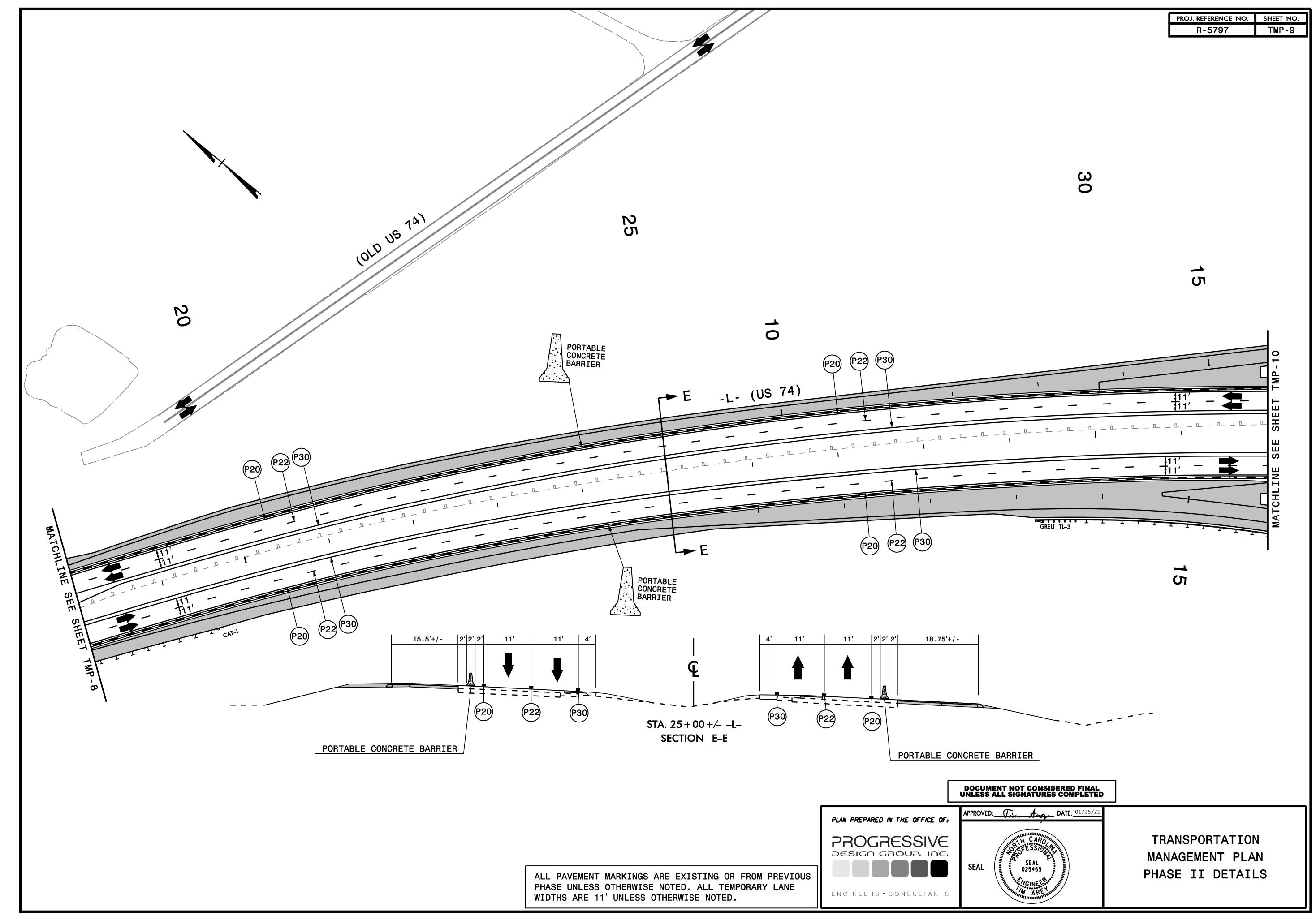


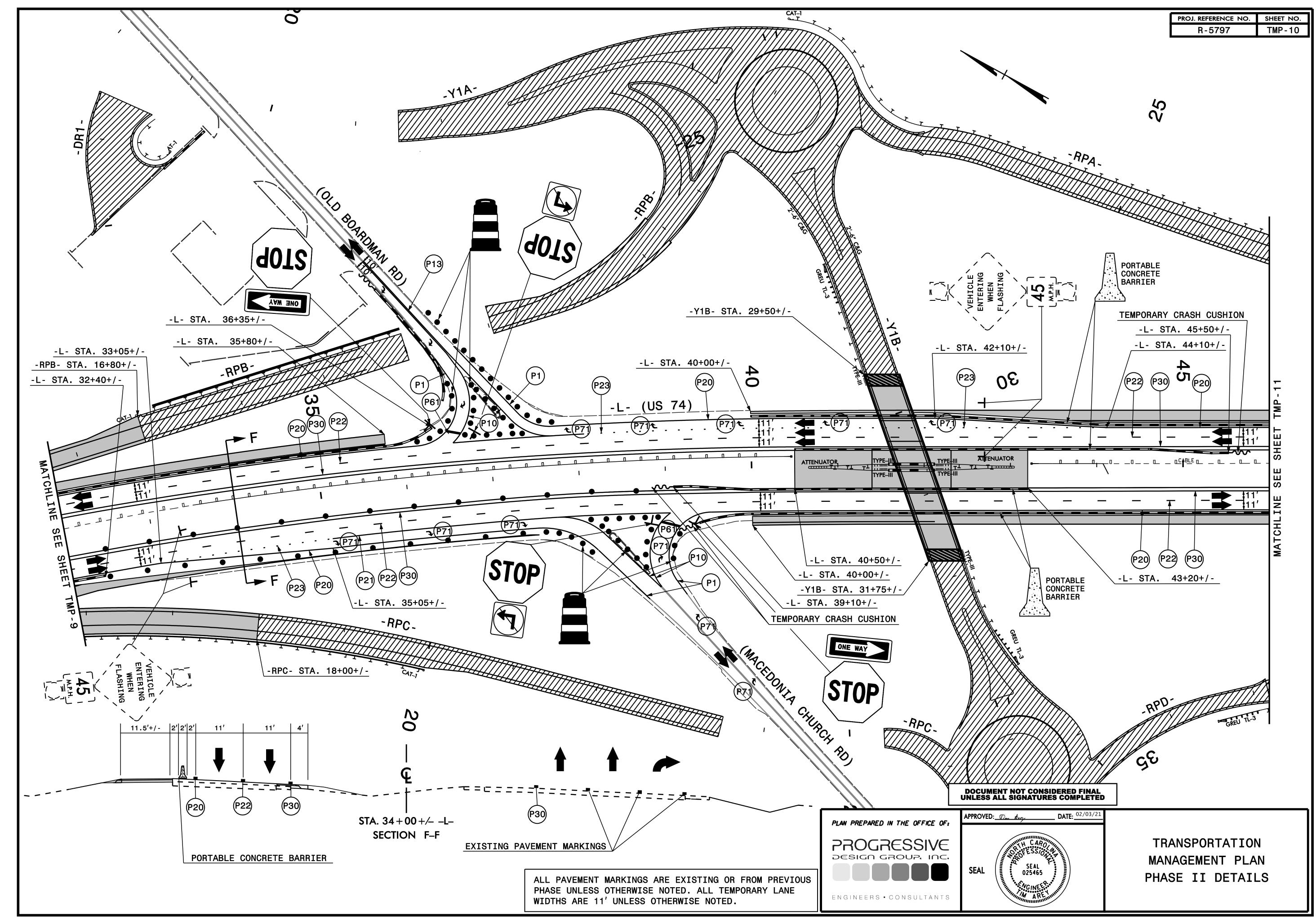


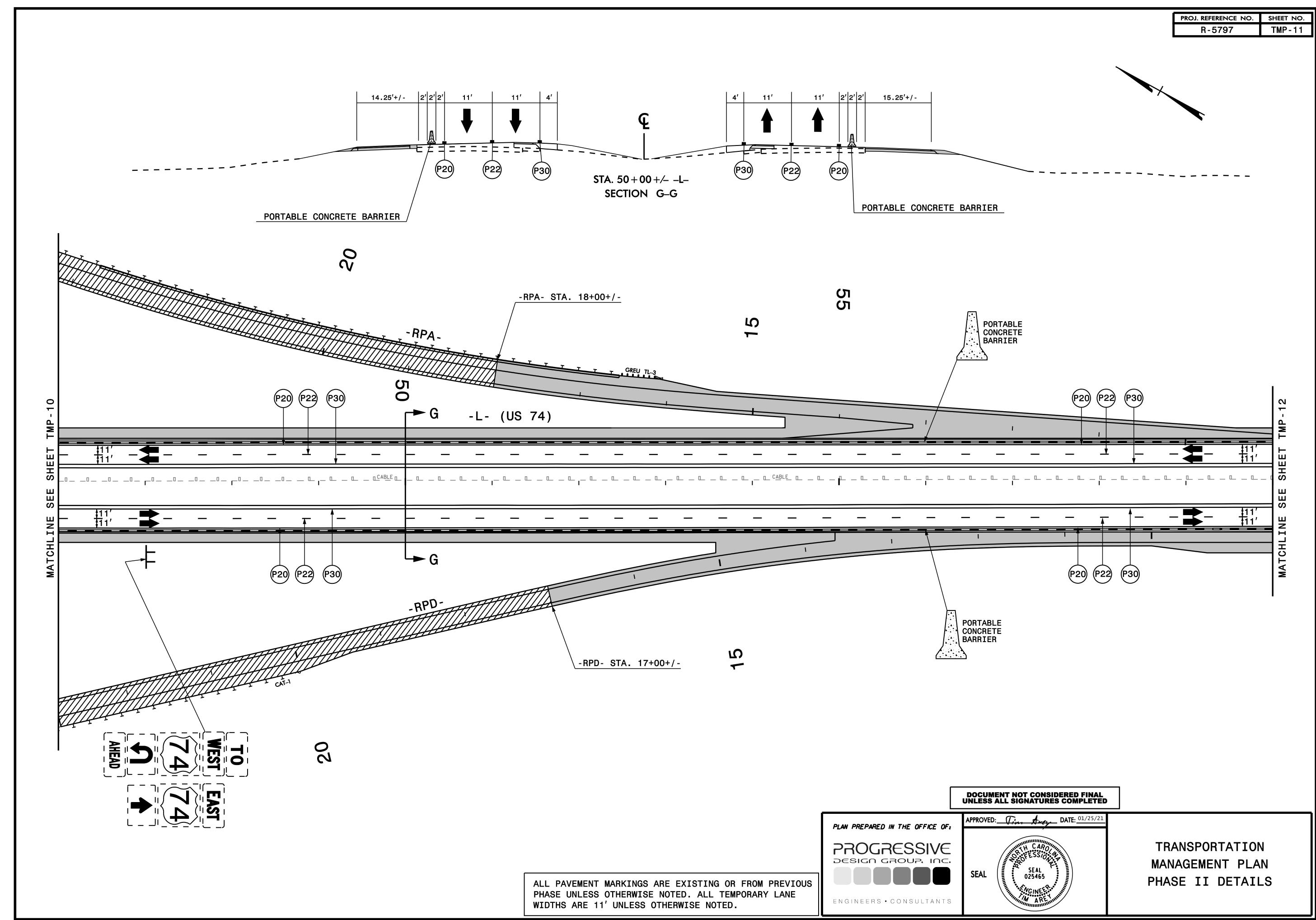


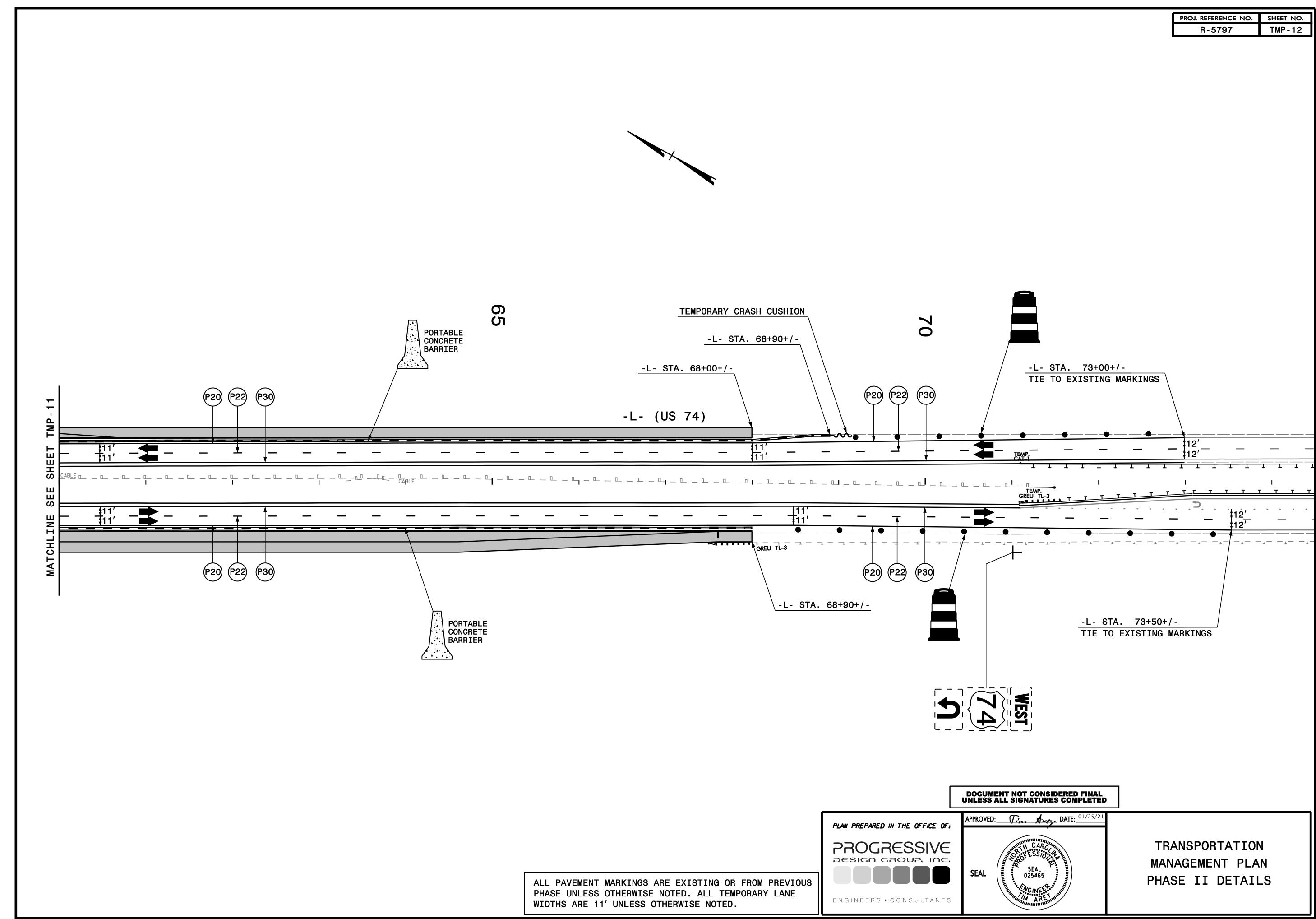


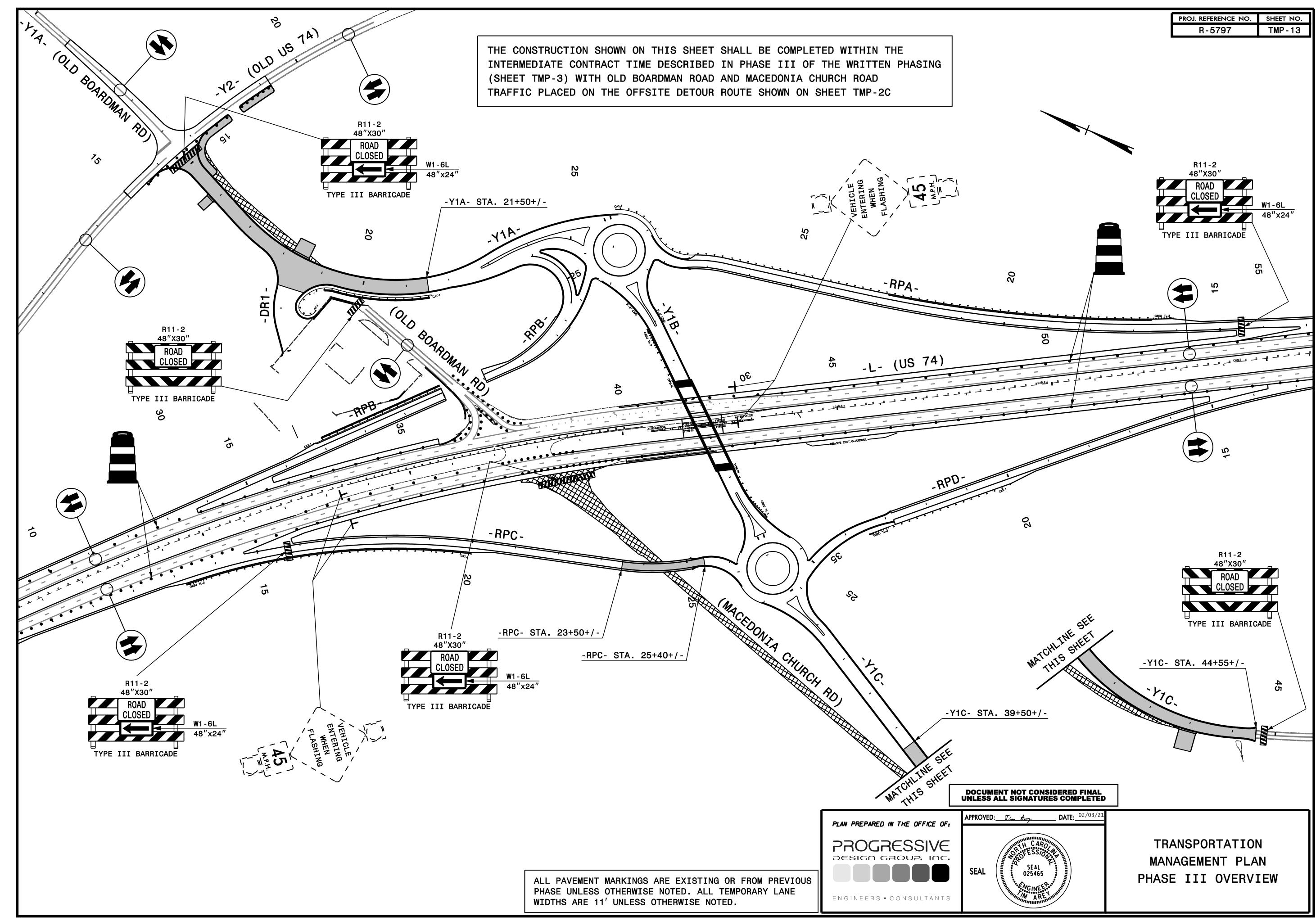
WIDTHS ARE 11' UNLESS OTHERWISE NOTED.

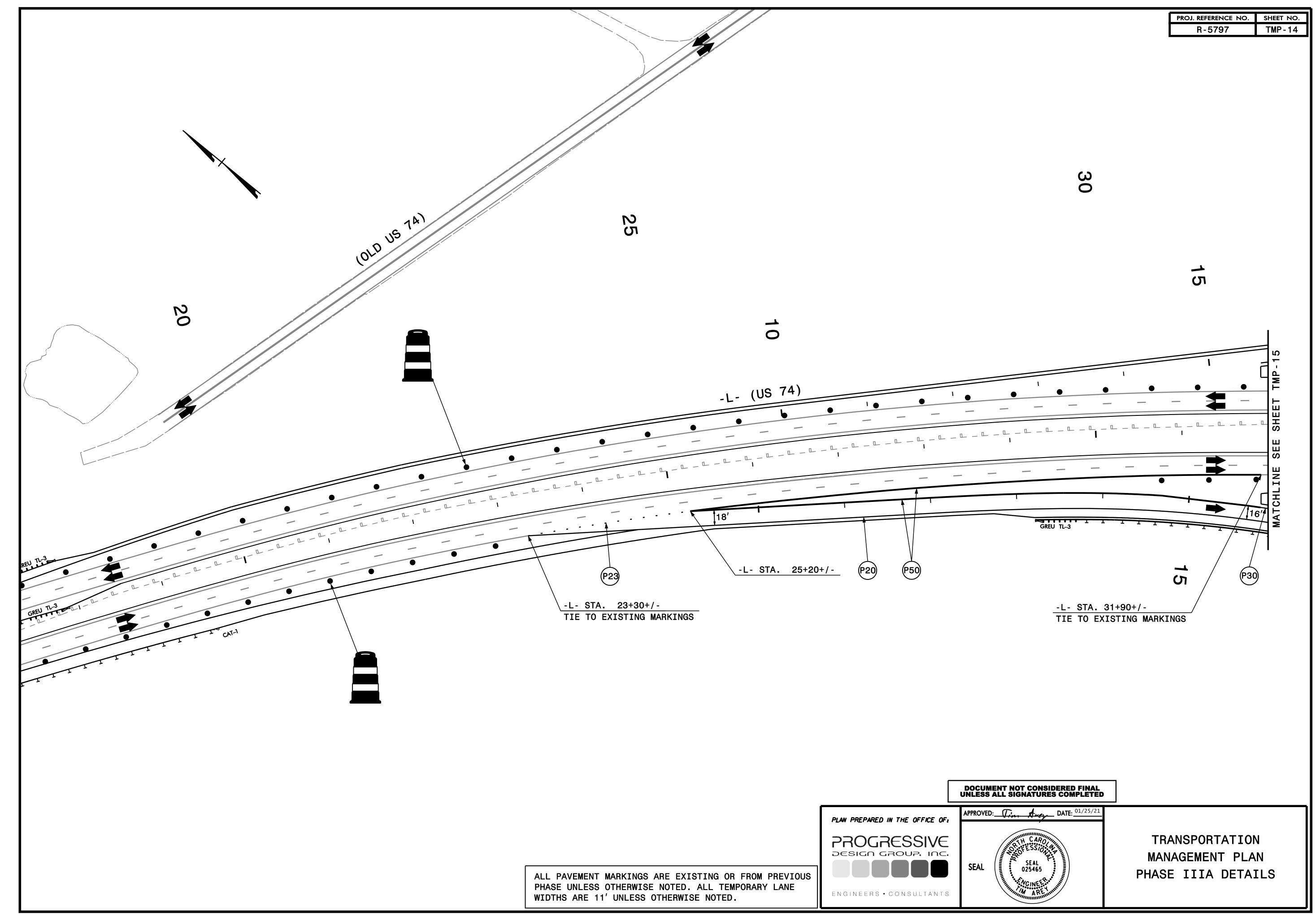


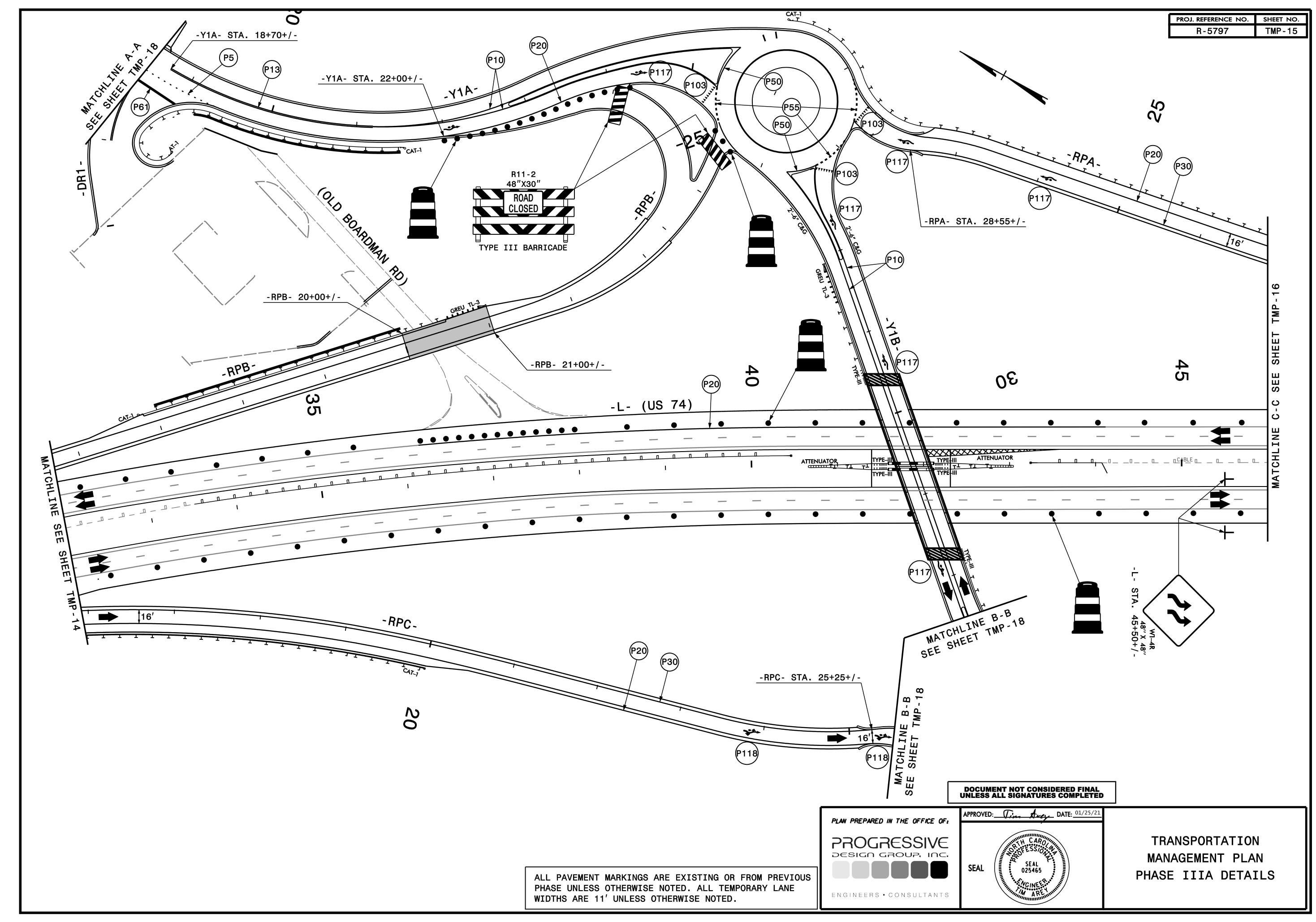


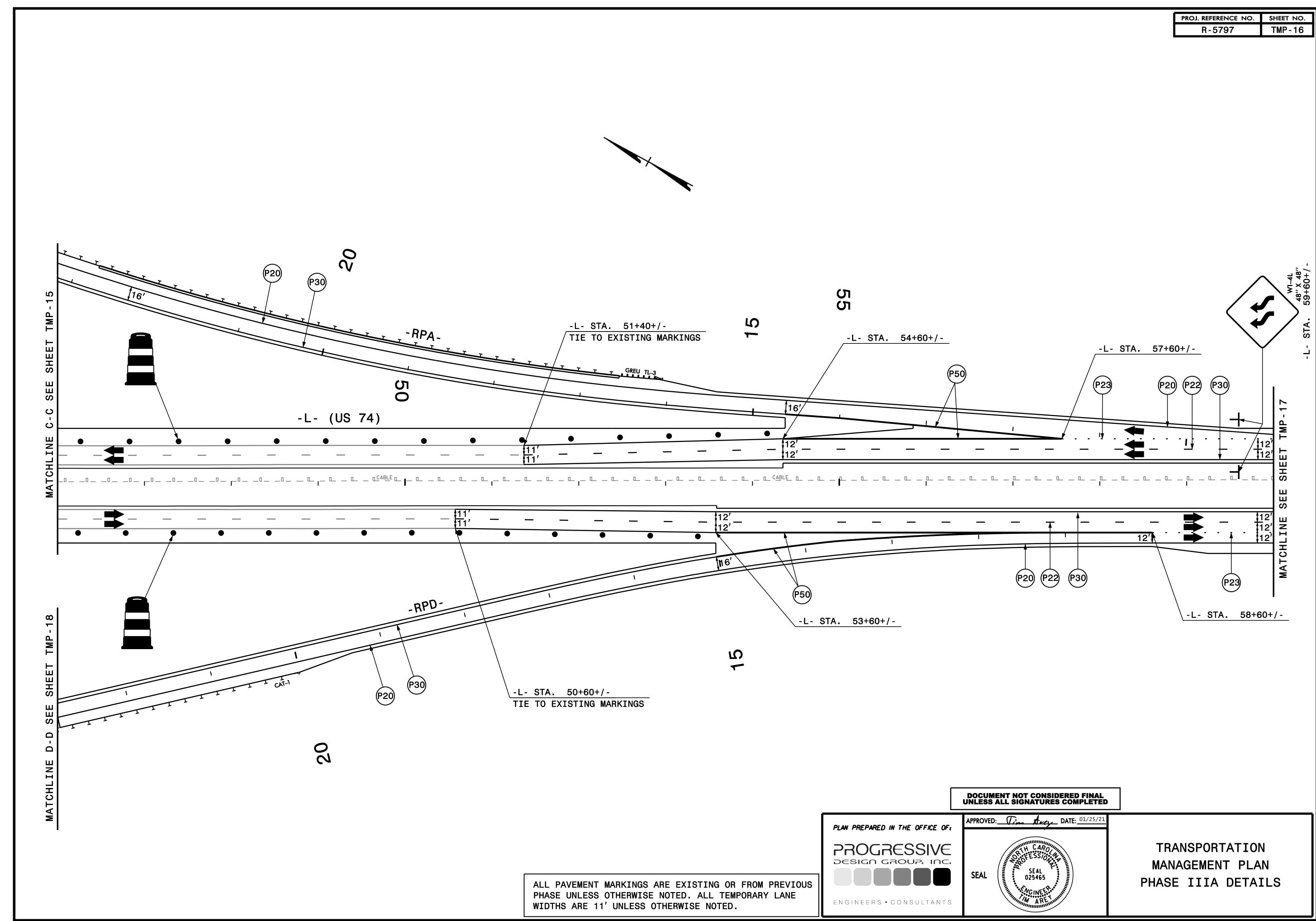












PHASE UNLESS OTHERWISE NOTED. ALL TEMPORARY LANE

WIDTHS ARE 11' UNLESS OTHERWISE NOTED.

ENGINEERS • CONSULTANTS

