

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
U-4006	TCP-1

**PLAN FOR PROPOSED  
TRAFFIC CONTROL, MARKING & DELINEATION  
GUILFORD COUNTY**

U-4006

**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.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD 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
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
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
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - (TEMPORARY & PERMANENT)

**INDEX OF SHEETS**

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TCP-1A	TEMPORARY PAVEMENT MARKING SCHEDULE
TCP-2 THRU 2A	PROJECT NOTES
TCP-3 THRU 3A	PHASING
TCP-3B	TEMPORARY SHORING DATA
TCP-3C	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TCP-4	AREA OVERVIEW
TCP-5 THRU 6A	AREA 1 DETAIL
TCP-7 THRU 9A	AREA 2 DETAIL
TCP-10 THRU 12	AREA 3 DETAIL
TCP-13 THRU 15	AREA 4 DETAIL
TCP-16 THRU 17A	AREA 5 DETAIL
SD-1	SPECIAL SIGN DESIGN

**LEGEND**

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
  - NORTH ARROW
  - PROPOSED PVMT. EXIST. PVMT.
  - WORK AREA
  - REMOVAL OF EXISTING PAVEMENT

- TRAFFIC CONTROL DEVICES**
- TYPE III BARRICADE
  - CONE
  - DRUM SKINNY DRUM
  - FLASHING ARROW PANEL (TYPE C)
  - STATIONARY SIGN
  - PORTABLE SIGN
  - STATIONARY OR PORTABLE SIGN
  - CRASH CUSHION
  - CHANGEABLE MESSAGE SIGN
  - TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
  - POLICE
  - FLAGGER

- PAVEMENT MARKINGS**
- PAVEMENT MARKING SYMBOLS

TIP PROJECT:

APPROVED:	PLAN PREPARED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL UNIT
DATE: 06/09/09	
SEAL	J. S. BOURNE, P.E. TRAFFIC CONTROL ENGINEER
	G. L. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER
	J. W. WOOLARD, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER
	D. A. HAYES, E.I. TRAFFIC CONTROL DESIGN ENGINEER / TECHNICIAN

TEMPORARY PAVEMENT MARKING SCHEDULE

PAINT(24")

P4 WHITE STOPBAR (2X)

COLD APPLIED PLASTIC (4") Type4 - Removable Tape

CB YELLOW EDGELINE

PAINT(4")

PA WHITE EDGELINE (2X)

PC 10 FT. WHITE SKIP (2X)

PD 2 FT. WHITE MINISKIP (2X)

PE WHITE SOLID LANE LINE (2X)

PF 10 FT. YELLOW SKIP (2X)

PH YELLOW SINGLE CENTER (2X)

PI YELLOW DOUBLE CENTER (2X)

PAINT(8")

PX WHITE CROSSWALK LINE (2X)

PAINTMARKING SYMBOLS

QA LEFT TURN ARROW (2X)

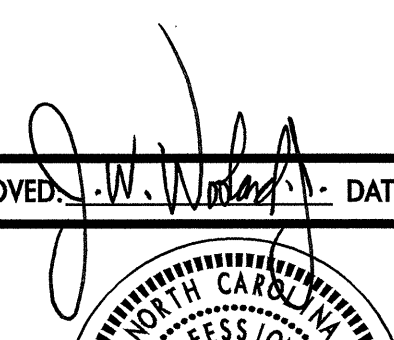
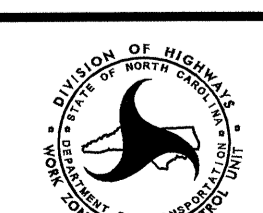
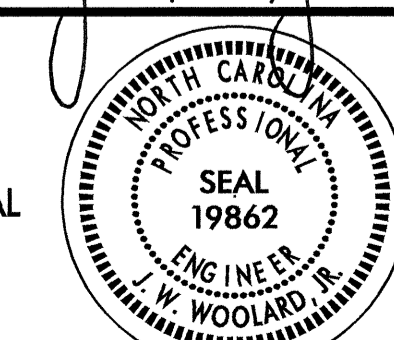
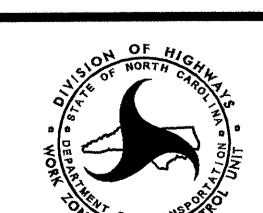
QB RIGHT TURN ARROW (2X)

TEMPORARY RAISED PAVEMENT MARKERS

MH YELLOW & YELLOW

MI CRYSTAL & RED

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 jwoolard AT WZTC244740

APPROVED: 	DATE: 06/09/09		
			
<b>TEMPORARY PAVEMENT MARKING SCHEDULE</b>		SCALE: NONE	REVISIONS
DATE: 06/09			
DWG. BY: JWW			
DESIGN BY: JWW			
REVIEWED BY:		CADD FILE	

## 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 UNDESIRE 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	DAY AND TIME RESTRICTIONS
1. -Y3- (SR 1546 GUILFORD COLLEGE RD)	MONDAY-FRIDAY 6:00 A.M. - 9:00 A.M. 4:00 P.M. - 7:00 P.M.
2. -Y4- (SR 1609 SWING RD)	MONDAY-FRIDAY 6:00 A.M. - 9:00 A.M. 4:00 P.M. - 7:00 P.M.

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

ROAD NAME	DAY AND TIME RESTRICTIONS
1. -Y1- (I-40) HOLIDAY	<p>1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.</p> <p>2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 10:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 10:00 P.M. THE FOLLOWING TUESDAY.</p> <p>3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 10:00 P.M. MONDAY.</p> <p>4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 10:00 P.M. TUESDAY.</p> <p>5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 10:00 P.M. THE DAY AFTER INDEPENDENCE DAY.</p> <p>IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 10:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.</p> <p>6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 10:00 P.M. TUESDAY.</p> <p>7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 10:00 P.M. MONDAY.</p> <p>8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 10:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.</p> <p>9. FOR THE FURNITURE MARKET, HELD IN THE CITY OF HIGH POINT BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF THE FURNITURE MARKET AND 7:00 P.M. THE TUESDAY AFTER THE WEEK OF THE FURNITURE MARKET.</p> <p>FOR THE GOLF TOURNAMENT, HELD IN THE CITY OF GREENSBORO BETWEEN THE HOURS OF 6:00 A.M. THE TUESDAY BEFORE THE WEEK OF THE GOLF TOURNAMENT AND 7:00 P.M. THE TUESDAY AFTER THE WEEK OF THE GOLF TOURNAMENT.</p> <p>FOR ANY SPECIAL EVENTS OCCURRING AT GREENSBORO COLISEUM COMPLEX, FROM FOUR (4) HOURS BEFORE THE START OF THE EVENT UNTIL TWO (2) HOURS AFTER THE END OF THE EVENT.</p>

C) DO NOT CONDUCT SINGLE VEHICLE HAULING AS FOLLOWS; INGRESS AND EGRESS FROM RAMPS BE ALLOWED:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. ALL -Y- LINES	MONDAY-FRIDAY 6:00 A.M. - 9:00 A.M. 4:00 P.M. - 7:00 P.M.

D) DO NOT CONDUCT MULTI-VEHICLE HAULING AS FOLLOWS; INGRESS AND EGRESS FROM RAMPS BE ALLOWED:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. ALL -Y- LINES	MONDAY-FRIDAY 6:00 A.M. - 9:00 A.M. 4:00 P.M. - 7:00 P.M.

E) 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

F) 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.

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) DO NOT INSTALL MORE THAN ONE LANE CLOSURE ON MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

K) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON -L- AND ALL -Y- LINES.

L) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

### PAVEMENT EDGE DROP OFF REQUIREMENTS

M) 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 AN EDGE OF PAVEMENT 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.

N) 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) 350 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

### TRAFFIC PATTERN ALTERATIONS

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

### SIGNING

P) 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.

Q) PROVIDE PERMANENT SIGNING.

R) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS AND PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

S) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION AND COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

T) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

U) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 350 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

### TRAFFIC BARRIER

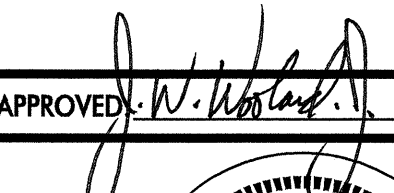
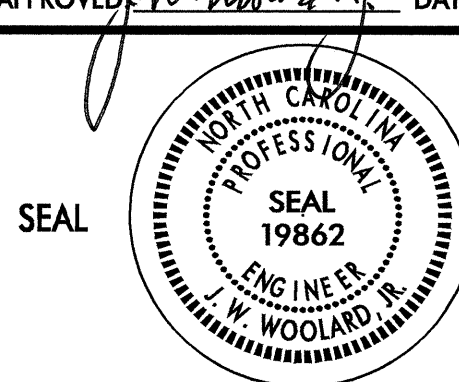

V) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION, PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRAFFIC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

APPROVED: 	DATE: 7/1/09	<b>PROJECT NOTES</b>	
SEAL 	SCALE: NONE		REVISIONS
	DATE: 01/09		
	DESIGN BY: DAH		
	REVIEWED BY: JWW		

### GENERAL NOTES

- W) 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:
- II) ALL WHEEL CHAIR RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.
- JJ) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

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

- X) 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. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- Y) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- Z) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

#### PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
1. -Y1- (I-40)		REMOVABLE TAPE RAISED
2. -L-, -Y-, -Y2-, -Y3-, -Y4-, -Y5-		

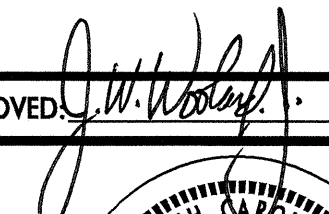
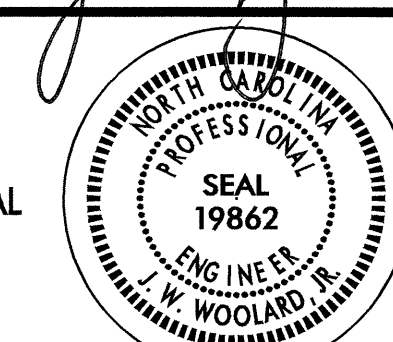
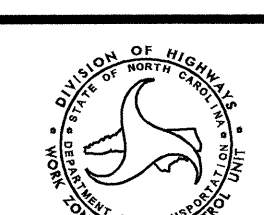
- BB) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- CC) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- DD) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- EE) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

#### FINAL SIGNALS

- FF) NOTIFY THE ENGINEER TWO (2) MONTHS BEFORE A TRAFFIC SIGNAL INSTALLATION BY OTHERS IS REQUIRED.

#### MISCELLANEOUS

- GG) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS, AS DIRECTED BY THE ENGINEER.
- HH) 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) X FT AND X FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

APPROVED:  DATE: 7/1/09	<b>PROJECT NOTES</b>					
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	DATE: 01/09					
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## AREA 1

### PHASE I

STEP 1) INSTALL ALL ADVANCE WARNING SIGNING ON -L- (BRIDFORD PKWY), -Y- (HORNADAY RD), BANK ENTRANCE, SR 1541 (W WENDOVER AVE), TARGET ENTRANCE, WALMART ENTRANCE, SHEETZ ENTRANCE, MACY'S ENTRANCE, AND DICK'S SPORTING GOOD'S ENTRANCE. IF WORK DOES NOT BEGIN WITHIN THREE (3) DAYS OF SIGN INSTALLATION, COVER OR REMOVE ADVANCE WARNING SIGNING (SEE SHEET TCP-5B).

INSTALL AND COVER -L- AND -Y- LANE CLOSURE SIGNING AND INSTALL CHANGEABLE MESSAGE SIGNS (CMS) AS SHOWN IN INSETS 1 AND 2 ON SHEET TCP-5A NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION.

STEP 2) UNCOVER LANE CLOSURE SIGNING AND USING INSET 1 AS SHOWN ON SHEET TCP-5A, INSTALL TEMPORARY MARKINGS ON NORTHBOUND (NB) -L- AND WESTBOUND (WB) -Y1-. USING INSET 2 AS SHOWN ON SHEET TCP-5A, INSTALL TEMPORARY MARKINGS ON EASTBOUND (EB) -Y-.

BEHIND DRUMS AND BARRICADES, BEGIN CONSTRUCTION OF -L- FROM -Y- TO STA. 19+00 -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE.

CONSTRUCT PARKING LOT REALIGNMENT AT THE CORNER OF -L- AND GMC DEALERSHIP DRIVEWAY.

BEGIN FINAL SIGNAL INSTALLATION.

### PHASE II

STEP 1) USING INSETS 1 AND 2 AS SHOWN ON TCP-5A, CONSTRUCT -Y- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE AND THE MONOLITHIC ISLAND (SEE TCP-6).

USING INSETS 1 AND 2 AS SHOWN ON TCP-5A, MILL 1.5" OF EXISTING SURFACE COURSE ON -L- AND -Y- (SEE TCP-6A).

STEP 2) USING INSETS 1 AND 2 AS SHOWN ON SHEET TCP-5A, INSTALL TEMPORARY MARKINGS USING THE FINAL PATTERN (SEE FINAL PAVEMENT MARKING PLAN).

COMPLETE FINAL SIGNAL INSTALLATION. BAG ALL NB APPROACH SIGNAL HEADS AND ACTIVATE SIGNALS. PLACE DRUMS IN UNUSED LANES UNDER TRAFFIC.

### PHASE III

STEP 1) USING INSETS 1 AND 2 AS SHOWN ON SHEET TCP-5A, INSTALL THE FINAL LIFT OF SURFACE COURSE AND RESURFACING USING THE STATION LIMITS USED FOR MILLING ON SHEET TCP-6A, THE FINAL PAVEMENT MARKINGS AND MARKERS (SEE FINAL PAVEMENT MARKING PLAN), REMOVE TRAFFIC CONTROL DEVICES AND SIGNING FROM -L- AND -Y-, RESET DRUMS AND TYPE III BARRICADES FROM STA. 15+60 +/- -L- TO STA. 16+00 -L-, AND OPEN -L- AND -Y- TO TRAFFIC.

STEP 2) UPON COMPLETION OF AREA 2, AREA 3, AND AREA 4, REMOVE DRUMS, TYPE III BARRICADES, UNCOVER NB APPROACH SIGNAL HEADS, AND OPEN -L- TO TRAFFIC.

## AREA 2

### PHASE I

STEP 1) INSTALL ALL ADVANCE WARNING SIGNING ON -Y1- WB (I-40 BUS), I-40 EB, SR 1556 (GALLIMORE DAIRY RD) ON-RAMP TO I-40 EB, -Y3- (SR 1546 GUILFORD COLLEGE RD) OFF-RAMP FROM -Y1- EB, -Y3- ON-RAMP TO -Y1- EB, NC 6 (PATTERSON ST) ON-RAMP TO -Y1- WB, SR 1541 (W WENDOVER AVE) OFF-RAMP FROM -Y1- WB, SR 1541 ON-RAMP TO -Y1- WB, AND THE -Y3- OFF-RAMP FROM -Y1- WB. IF WORK DOES NOT BEGIN WITHIN THREE (3) DAYS OF SIGN INSTALLATION, COVER OR REMOVE ADVANCE WARNING SIGNING (SEE SHEET TCP-8A).

INSTALL AND COVER -Y1- EB AND WB LANE CLOSURE SIGNING AND INSTALL CHANGEABLE MESSAGE SIGNS (CMS) AS SHOWN IN INSETS 1 AND 2 ON SHEETS TCP-7A AND 8 NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION.

STEP 2) UNCOVER LANE CLOSURE SIGNING AND USING INSETS 1 AND 2 INSTALL TEMPORARY PAVEMENT MARKINGS (REMOVABLE TAPE) AND ANCHORED PORTABLE CONCRETE BARRIER (PCB) ON THE MEDIAN LANES OF -Y1- (SEE TCP-7 THRU 8).

USING ROADWAY STANDARD DRAWING (RSD) 1101.02, SHEET 6 OF 9, INSTALL ANCHORED PCB ON THE -Y1- ON/OFF RAMP TO -Y3- (SR 1546 GUILFORD COLLEGE RD) (SEE TCP-7).

STEP 3) USING INSETS 1 AND 2 AS SHOWN ON SHEETS TCP-7A AND 8 AND BEHIND PCB, CONSTRUCT END BENTS, BRIDGE ABUTMENT WALLS, AND CENTER COLUMN BENT (SEE TCP-7).

AWAY FROM TRAFFIC BEGIN CONSTRUCTION OF -L- FROM STA. 19+00 -L- TO STA. 20+00 +/- -L- AND FROM STA. 22+00 +/- -L- TO STA. 23+00 -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE.

### PHASE II

NOTE: PHASE II, STEPS 1 THRU 2 CAN BE PERFORMED AFTER PHASE II, STEPS 3 THRU 4, AT THE DIRECTION OF THE ENGINEER.

STEP 1) INSTALL AND COVER -Y1- WB OFFSITE DETOUR SIGNING AND ROAD CLOSURE SIGNING, AND INSTALL CHANGABLE MESSAGE SIGNS (CMS) AS SHOWN ON SHEET TCP-9A1, 9A2, AND 9B NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION.

NOTE: AREA 2, PHASE II, STEP 2 SHALL BE CONSTRUCTED FROM 6:00 A.M. SATURDAY TO 6:00 A.M. MONDAY. SEE SPECIAL PROVISIONS FOR LIQUIDATED DAMAGES.

STEP 2) COVER PHASE I -Y1- WB LANE CLOSURE SIGNING AND UNCOVER OFFSITE DETOUR AND ROAD CLOSURE SIGNING. ACTIVATE CMS AND DYNAMIC MESSAGE SIGNS (DMS), DETOUR -Y1- WB, -Y2-, SR 1541 TRAFFIC OFFSITE, CLOSE -Y1- WB, -Y1- OFF RAMP TO -Y2-, AND THE -Y1- ON RAMP FROM SR 1541 (W WENDOVER AVE). INSTALL -L- GIRDERS OVER -Y1- WB. AT THE END OF THE WORK PERIOD, UNCOVER PHASE I LANE CLOSURE SIGNING, REMOVE PHASE II OFFSITE DETOUR AND ROAD CLOSURE SIGNING, AND RETURN TRAFFIC TO THE EXISTING PHASE I PATTERN. (REFER TO SHEETS TCP-9A1, 9A2, AND 9B).

STEP 3) INSTALL AND COVER -Y1- EB OFFSITE DETOUR SIGNING AND ROAD CLOSURE SIGNING, AND INSTALL CHANGABLE MESSAGE SIGNS (CMS) AS SHOWN ON SHEETS TCP-9B, 9B1, 9B2, AND 9B3 NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION.

NOTE: AREA 2, PHASE II, STEP 4 SHALL BE CONSTRUCTED FROM 6:00 A.M. SATURDAY TO 6:00 A.M. MONDAY. SEE SPECIAL PROVISIONS FOR LIQUIDATED DAMAGES.

STEP 4) COVER PHASE I -Y1- EB LANE CLOSURE SIGNING AND UNCOVER OFFSITE DETOUR AND ROAD CLOSURE SIGNING. ACTIVATE CMS AND (DMS), DETOUR -Y1- EB AND -Y2- EB TRAFFIC OFFSITE, CLOSE -Y1- EB, -Y1- OFF RAMP FROM -Y2-. INSTALL -L- GIRDERS OVER -Y1- EB. AT THE END OF THE WORK PERIOD, UNCOVER PHASE I LANE CLOSURE SIGNING, REMOVE PHASE II OFFSITE DETOUR AND ROAD CLOSURE SIGNING, AND RETURN TRAFFIC TO THE EXISTING PHASE I PATTERN. (REFER TO SHEETS TCP-9B, 9B1, 9B2, AND 9B3).

STEP 5) AWAY FROM TRAFFIC COMPLETE CONSTRUCTION OF -L- FROM STA. 19+00 -L- TO STA. 20+00 +/- -L- AND FROM STA. 22+00 +/- -L- TO STA. 23+00 -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE.

STEP 6) UPON COMPLETION OF AREA 2, PHASE II, STEP 2 AND 4, REMOVE ALL TRAFFIC CONTROL DEVICES, SIGNING, TEMPORARY MARKINGS, AND RETURN -Y1- TRAFFIC TO EXISTING PATTERN.

### PHASE III

STEP 1) AWAY FROM TRAFFIC COMPLETE CONSTRUCTION OF THE BRIDGE DECKS, INSTALL THE FINAL LIFT OF SURFACE COURSE ON -L- FROM STA. 19+00 -L- TO STA. 20+00 +/- -L- AND FROM STA. 22+00 +/- -L- TO STA. 23+00 -L- INCLUDING THE FINAL PAVEMENT MARKINGS AND MARKERS FROM STA. 19+00 -L- TO STA. 23+00 -L- (SEE FINAL PAVEMENT MARKING PLAN).

STEP 2) UPON COMPLETION OF AREA 1, AREA 3, AND AREA 4, OPEN -L- TO TRAFFIC.

## AREA 3

### PHASE I

STEP 1) INSTALL ALL ADVANCE WARNING SIGNING ON -Y2- (BIG TREE WAY) AND -SR1- (MCCALLUM ST). IF WORK DOES NOT BEGIN WITHIN THREE (3) DAYS OF SIGN INSTALLATION, COVER OR REMOVE ADVANCE WARNING SIGNING (SEE SHEET TCP-10A).

UPON INSTALLATION OF THE NEW UTILITY POLE LINES (INSTALLED BY OTHERS) ON -L- FROM STA. 37+55 -L- TO STA. 46+50 -L- AND -Y2- FROM STA. 10+00 -Y2- TO STA. 17+60 -Y2-. THE CONTRACTOR IS TO BEGIN WORK ASSOCIATED WITH THE ITS AND SIGNALS, COMMUNICATIONS CABLE ROUTING PLANS IDENTIFIED AS "TCP PHASE I" AS SHOWN ON SHEETS SIG 19 & 20.

STEP 2) AWAY FROM TRAFFIC BEGIN CONSTRUCTION OF -L- FROM STA. 23+00 -L- TO STA. 35+00 -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE (SEE SHEET TCP-10).

BEHIND DRUMS, CONSTRUCT -SR1- FROM MCCALLUM ST TO -Y2- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE (SEE TCP-10).

BEGIN FINAL SIGNAL INSTALLATION.

### PHASE II

NOTE: AREA 3, PHASE II, STEPS 1 THRU 3 SHALL BE COMPLETED IN A CONTINUOUS MANNER, EITHER PRIOR TO AREA 2, PHASE II, STEP 1, OR AFTER AREA 2, PHASE II, STEP 4.

STEP 1) INSTALL AND COVER OFFSITE DETOUR SIGNING AS SHOWN ON SHEET TCP-11A NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION.

STEP 2) USING RSD 1101.02, SHEET 1 OF 9 ON -Y2-, AND UNDER -SR1- TRAFFIC, COMPLETE CONSTRUCTION OF -SR1-. REMOVE THE LANE CLOSURE AND OPEN -SR1- TO TRAFFIC.

STEP 3) COVER -Y2- ADVANCE WARNING SIGNS, CLOSE -SR1- AT -L-, AND USING SHEET TCP-11A UNCOVER OFFSITE DETOUR SIGNING, DETOUR -Y2- TRAFFIC, CLOSE -Y2-, AND CONSTRUCT -L- FROM STA. 35+00 -L- TO STA. 45+66 -L- AND -Y2- FROM -L- TO STA. 16+50 -Y2- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, TEMPORARY PAVEMENT MARKINGS, AND CONSTRUCT TURNAROUND ON -SR1- UP TO AND INCLUDING THE FINAL LIFT OF SURFACE COURSE (SEE TCP-11 AND 12).

### PHASE III

NOTE: UPON COMPLETION OF AREA 4, PHASE III, STEP 1, COMPLETE AREA 3, PHASE III, STEP 1.

STEP 1) INSTALL TRAFFIC CONTROL DEVICES SHOWN ON TCP-12, REMOVE OFFSITE DETOUR TRAFFIC CONTROL DEVICES, OPEN -Y2- AND -L- FROM -Y2- TO -Y3- (SR 1546 GUILFORD COLLEGE RD), AND COVER ALL OFFSITE DETOUR SIGNING (SEE TCP-12).

STEP 2) AWAY FROM TRAFFIC COMPLETE CONSTRUCTION OF -L- FROM STA. 23+00 -L- TO STA. 35+00 -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE (SEE TCP-10).

STEP 3) AWAY FROM TRAFFIC INSTALL THE FINAL LIFT OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS (SEE FINAL PAVEMENT MARKING PLANS) ON THE FOLLOWING:

- -L- FROM STA. 23+00 -L- TO -Y2-
- -L- EB FROM -Y2- TO STA. 45+66 -L-
- -Y2- EB FROM -L- TO STA. 12+50 +/- -Y2-

NOTE: AREA 3, PHASE III, STEP 4 SHALL BE PERFORMED SIMULTANEOUSLY WITH AREA 4, PHASE IV, STEP 1.

STEP 4) UNCOVER OFFSITE DETOUR SIGNS, DETOUR AREA 3 TRAFFIC OFFSITE, (SEE SHEET TCP-11A) AND CLOSE -L- AND -Y2- USING DRUMS AND TYPE III BARRICADES. AWAY FROM TRAFFIC INSTALL THE FINAL LIFT OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS (SEE FINAL PAVEMENT MARKING PLAN) ON THE FOLLOWING:

- -L- WB FROM -Y2- TO STA. 45+66 -L-
- -Y2- WB FROM -L- TO STA. 12+48 +/- -Y2-
- -Y2- FROM STA. 12+48 +/- -Y2- TO STA. 16+50 -Y2-

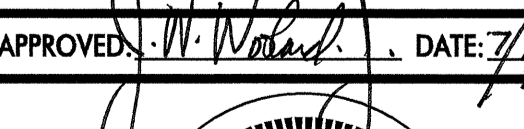

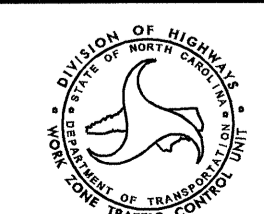
DETOUR PEDESTRIANS FROM -Y3- ALONG -L- WB SIDEWALK, ACROSS -L- AT STA. 37+00 -L- AND ALONG -Y2- WB SIDEWALK.

NOTE: UPON COMPLETION OF AREA 4, PHASE IV, STEP 1, COMPLETE AREA 3, PHASE III, STEP 5.

STEP 5) INSTALL TYPE III BARRICADES AND DRUMS ACROSS -L- AT STA. 37+00 -L-, REMOVE OFFSITE DETOUR TRAFFIC CONTROL DEVICES, OPEN -Y2- AND -L- FROM -Y2- TO -Y3- TO THE FINAL TRAFFIC PATTERN, AND REMOVE OFFSITE DETOUR SIGNING (SEE FINAL PAVEMENT MARKING PLAN).

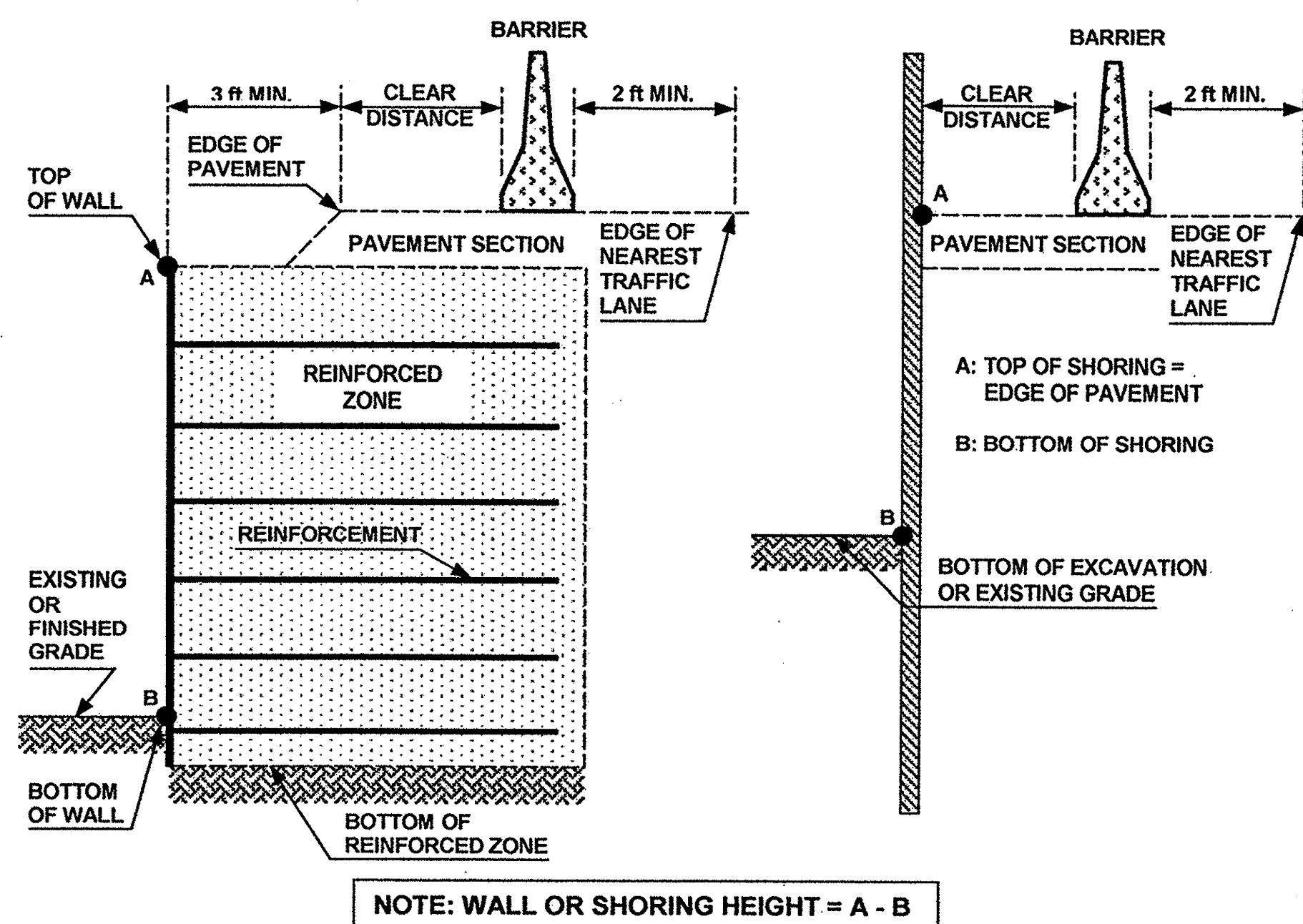
COMPLETE FINAL SIGNAL INSTALLATION. BAG ALL -L- SB APPROACH SIGNAL HEADS AND ACTIVATE SIGNALS. PLACE DRUMS IN UNUSED LANES UNDER TRAFFIC.

STEP 6) UPON COMPLETION OF AREA 1 AND AREA 2, UNBAG SIGNAL HEADS, REMOVE TYPE III BARRICADES AND DRUMS ACROSS -L- AT STA. 37+00 -L-, AND OPEN -L- FROM STA. 23+00 -L- TO -Y2- TO THE FINAL TRAFFIC PATTERN (SEE FINAL PAVEMENT MARKING PLAN).

APPROVED: 	DATE: 7/1/09	<b>PHASING</b>	
	SCALE: NONE		REVISIONS
	DATE: 01/09		
	DWG. BY: DAH		
	DESIGN BY: DAH		
	REVIEWED BY: JWW		CADD FILE







**FIGURE A**

**NOTES**

- REFER TO THE TRAFFIC CONTROL PLANS FOR SHORING LOCATIONS AND SOIL PARAMETERS.
- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR MORE INFORMATION ABOUT TEMPORARY SHORING, MEASUREMENT AND PAYMENT.
- PROVIDE PORTABLE CONCRETE BARRIER TO PROTECT TEMPORARY SHORING IF SHORING IS LOCATED WITHIN THE CLEAR ZONE AS DEFINED IN THE AASHTO ROADSIDE DESIGN GUIDE.
- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED PCB, ANCHORED PCB OR AN OREGON BARRIER FROM THE TABLE SHOWN IN FIGURE B. FOR TRAFFIC LANES AND PORTABLE CONCRETE BARRIER LOCATED ABOVE AND BEHIND TEMPORARY SHORING, THE FOLLOWING ARE DEFINED AS:
 

CLEAR DISTANCE - HORIZONTAL DISTANCE FROM THE BACK FACE OF THE BARRIER TO THE EDGE OF PAVEMENT FOR TEMPORARY MSE WALL OR TO THE FACE OF NON-ANCHORED TEMPORARY SHORING AS SHOWN IN FIGURE A.

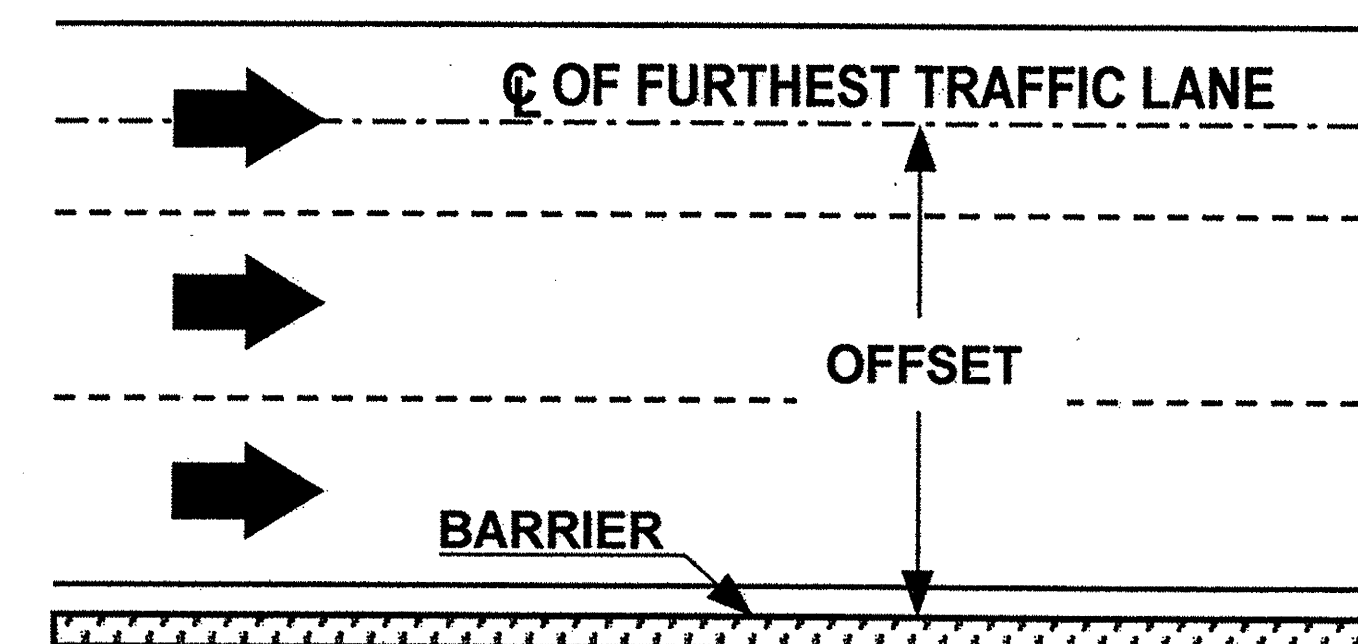
OFFSET - HORIZONTAL DISTANCE FROM THE FRONT FACE OF THE BARRIER TO CENTERLINE OF THE FURTHEST TRAFFIC LANE AS SHOWN IN FIGURE B FOR 3 TRAFFIC LANES.
- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET AN UNANCHORED PCB AGAINST THE TRAFFIC SIDE OF THE SHORING AND DESIGN SHORING FOR TRAFFIC IMPACT OR USE THE "SURCHARGE CASE WITH TRAFFIC IMPACT" FOR THE STANDARD TEMPORARY SHORING.
- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- USE OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH DETAIL DRAWING AND SPECIAL PROVISION OBTAINED FROM: [HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/WZTC/DESRES/ENGLISH/DESRESENG.HTML](http://www.ncdot.org/DOH/PRECONSTRUCT/WZTC/DESRES/ENGLISH/DESRESENG.HTML)
- UNLESS NOTED OTHERWISE ON THE PLANS, SET PORTABLE CONCRETE BARRIER WITH A MINIMUM DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A.
- FOR PORTABLE CONCRETE BARRIER ABOVE AND BEHIND TEMPORARY MSE 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.
- 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' IN LENGTH AND WET OR DRY PAVEMENT.

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**MINIMUM REQUIRED CLEAR DISTANCE, inches**

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

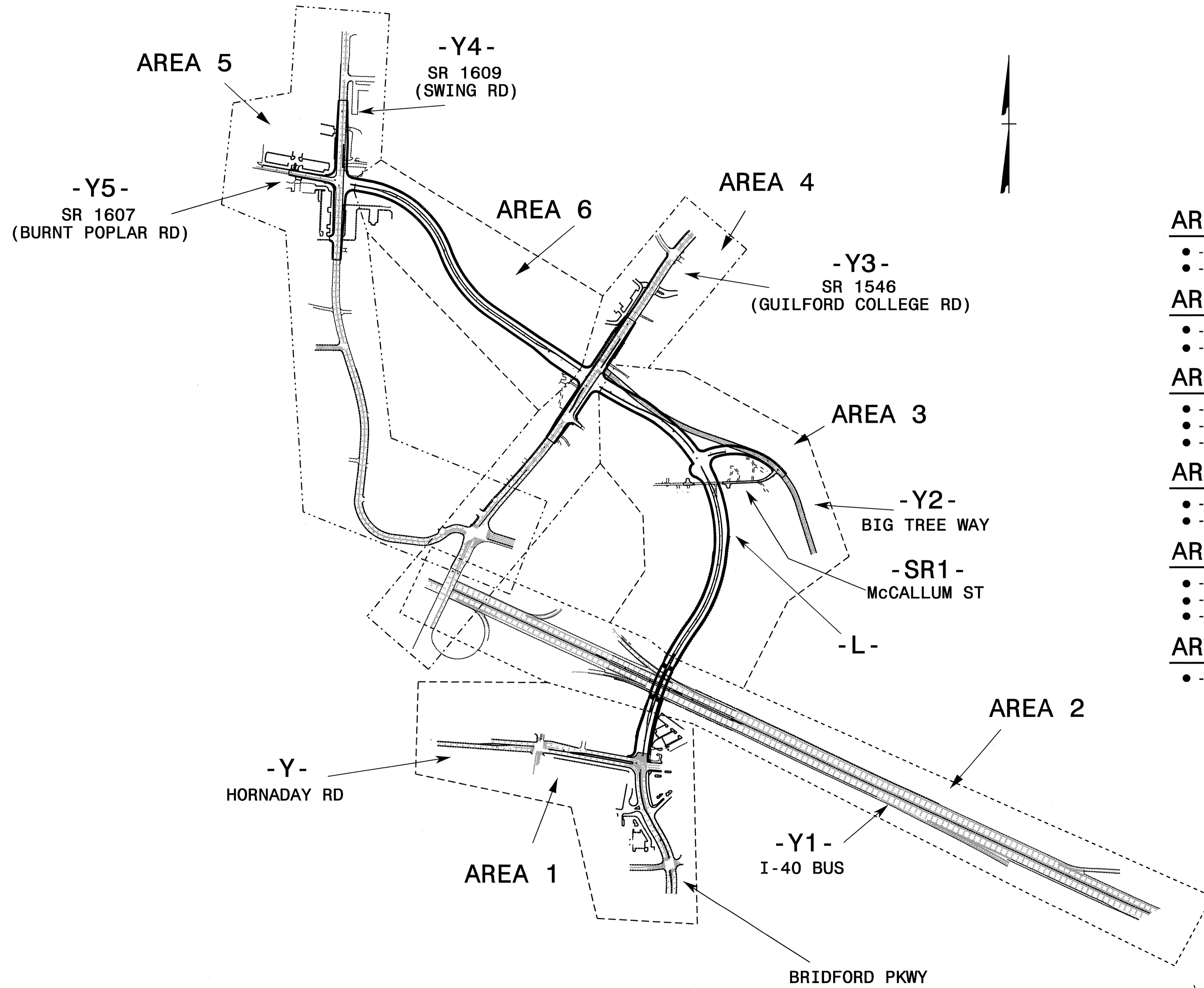
\* See Figure Below



**FIGURE B**

APPROVED: _____ DATE: _____	<b>PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS</b>	
	SCALE: NONE	
	DATE: 3/07	
	DWG. BY: JI	
	DESIGN BY: JI	
REVIEWED BY: JI	REVISIONS	





**AREA 1**

- -L-: STA. 10+00 TO STA. 19+00 (BRIDFORD PKWY)
- -Y- (HORNADAY RD)

**AREA 2**

- -L-: STA. 19+00 TO STA. 23+00
- -Y1- (I-40 BUS)

**AREA 3**

- -L-: STA. 23+00 TO STA. 45+66
- -Y2- (BIG TREE WAY)
- -SR1- (McCALLUM ST)

**AREA 4**

- -L-: STA. 45+66 TO STA. 47+54
- -Y3- (SR 1546 GUILFORD COLLEGE RD)

**AREA 5**

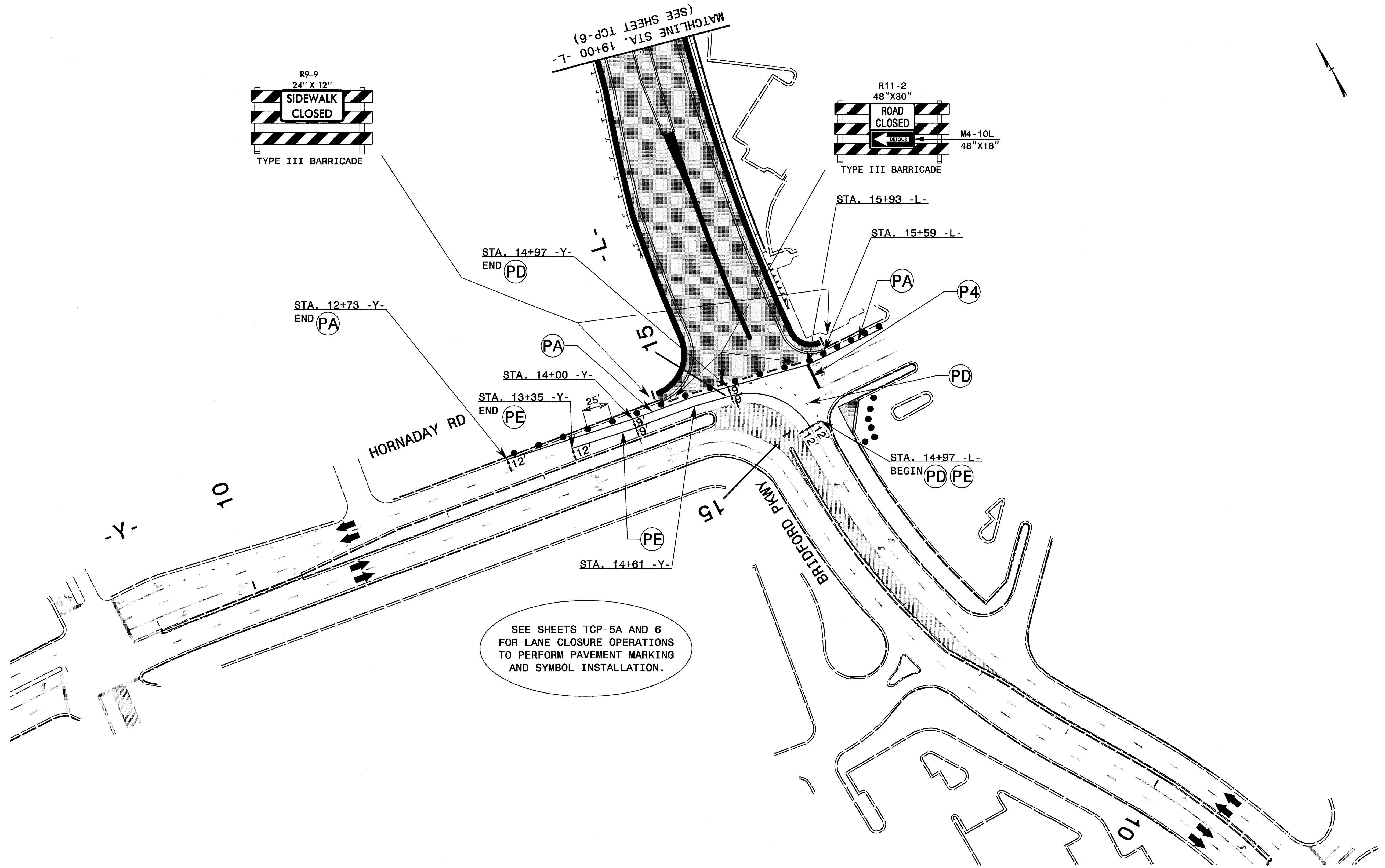
- -L-: STA. 67+91 TO STA. 68+99
- -Y4- (SR 1609 SWING RD)
- -Y5- (SR 1607 BURNT POPLAR RD)

**AREA 6**

- -L-: STA. 47+54 TO STA. 67+91

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APPROVED: <i>J.W. Woodard</i>	DATE: 5/5/09	<b>AREA OVERVIEW</b>							
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	DATE: 03/09								
	DWG. BY: DAH								
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SEE SHEETS TCP-5A AND 6 FOR LANE CLOSURE OPERATIONS TO PERFORM PAVEMENT MARKING AND SYMBOL INSTALLATION.

— : PROPOSED PAVEMENT MARKING LINE  
 - - - : EXISTING PAVEMENT MARKING LINE

- FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-1A
- TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.05 AND 1251.01

APPROVED: *[Signature]* DATE: 5/5/09

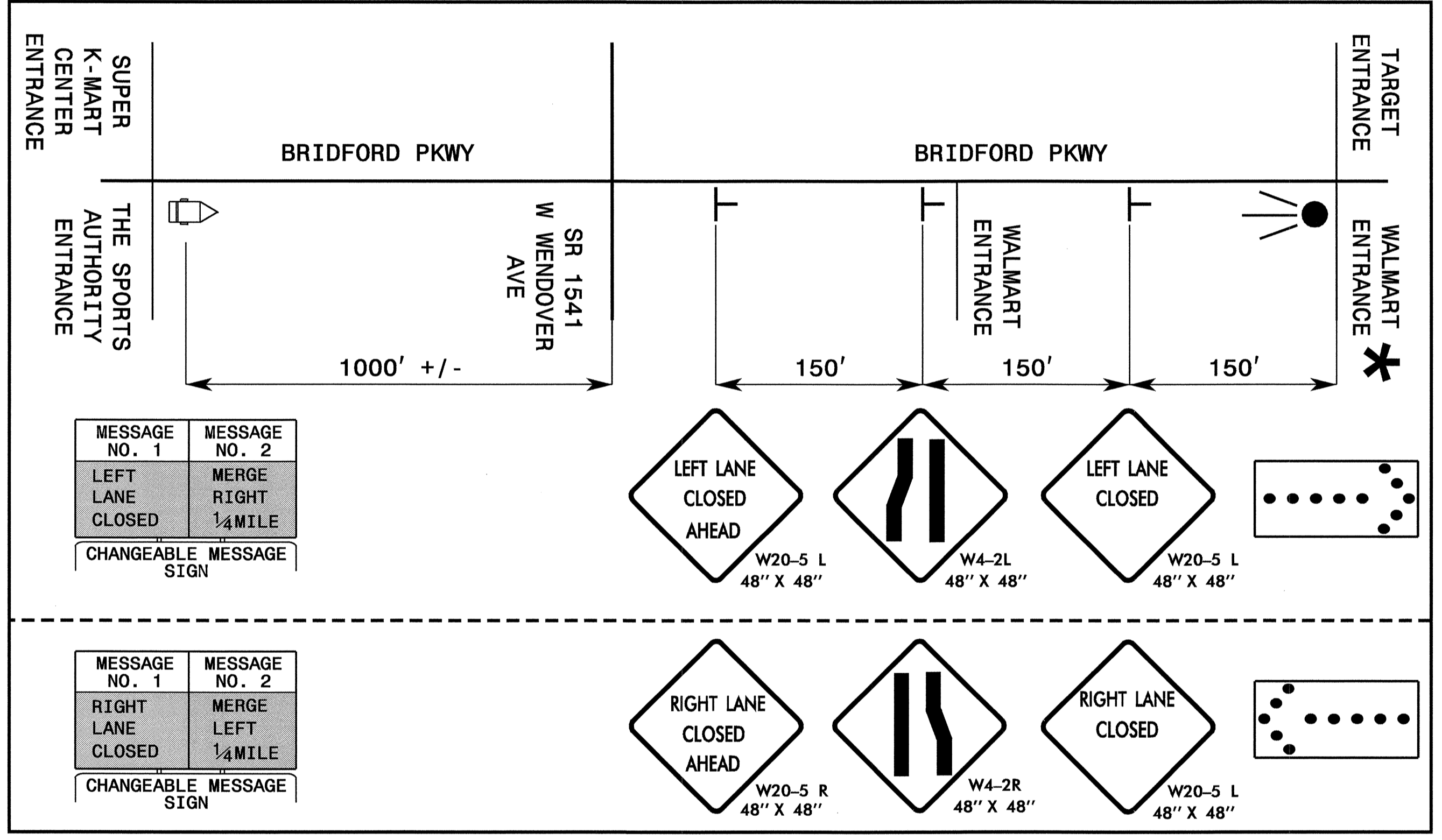
SEAL

AREA 1, PHASE I DETAIL

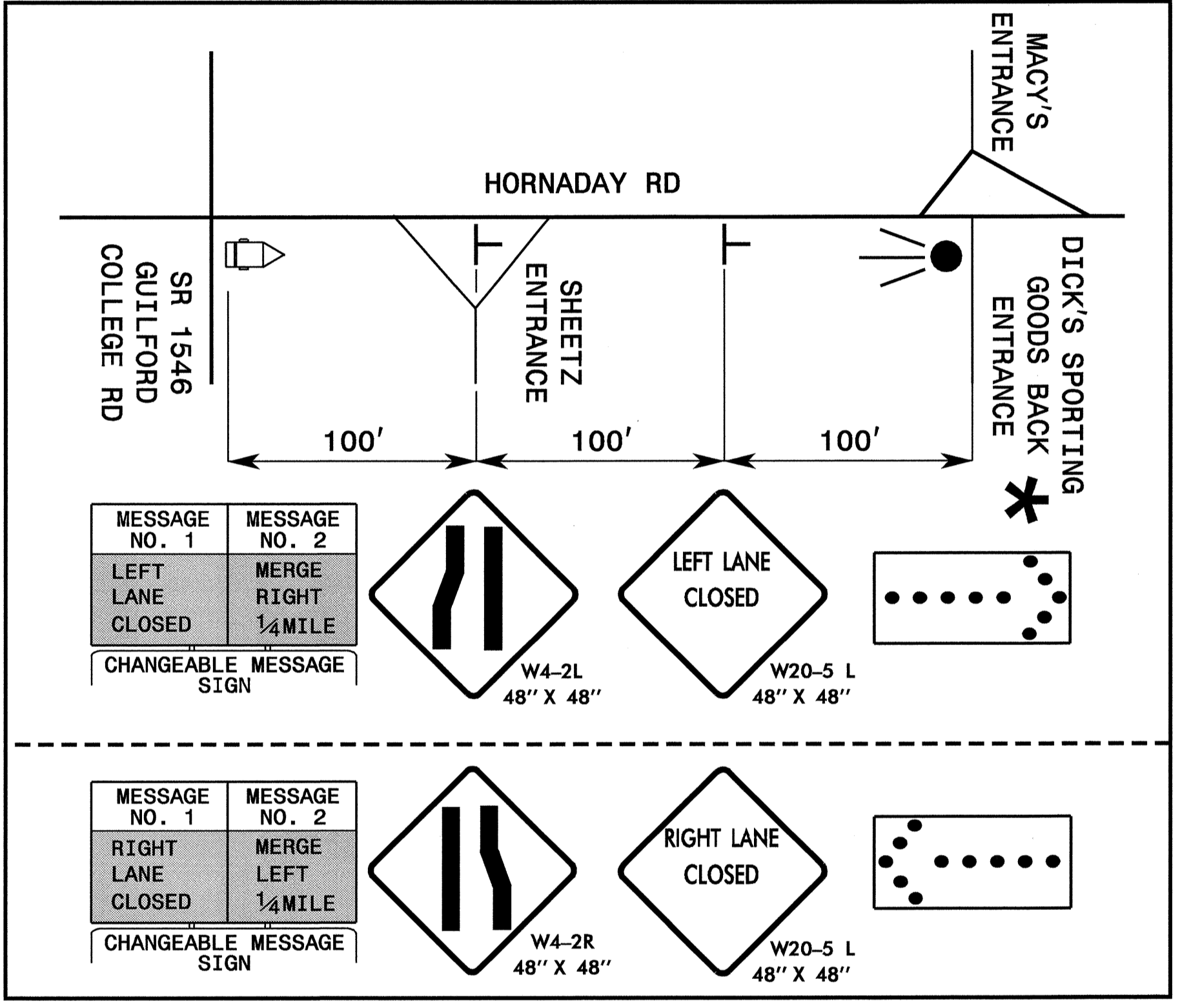
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DESIGN BY: DAH		
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INSET 1

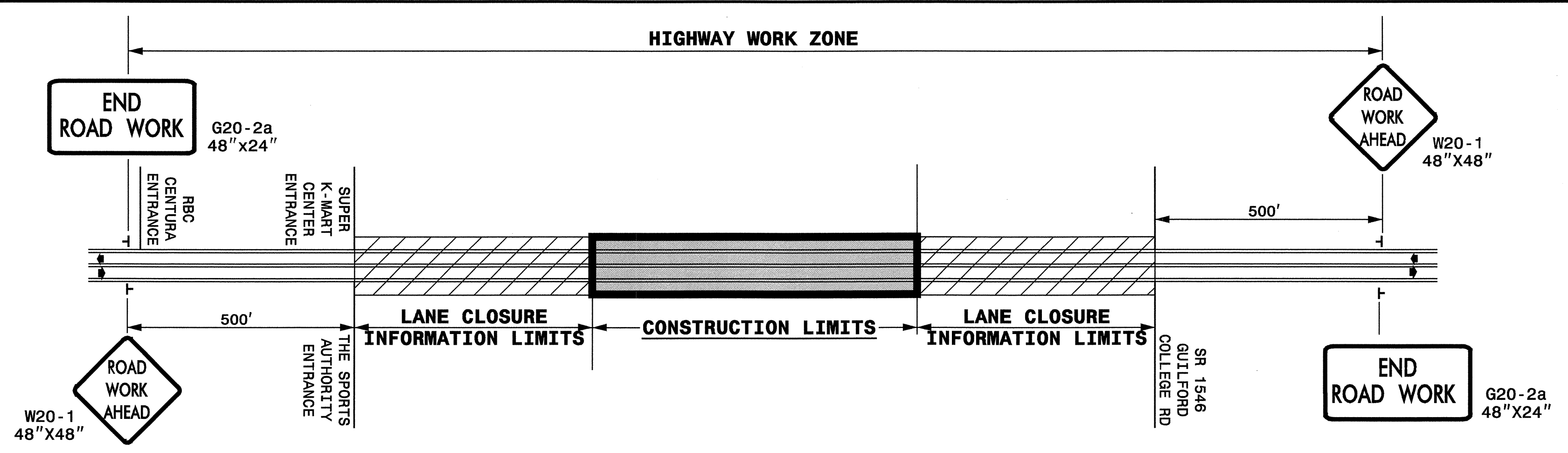


INSET 2

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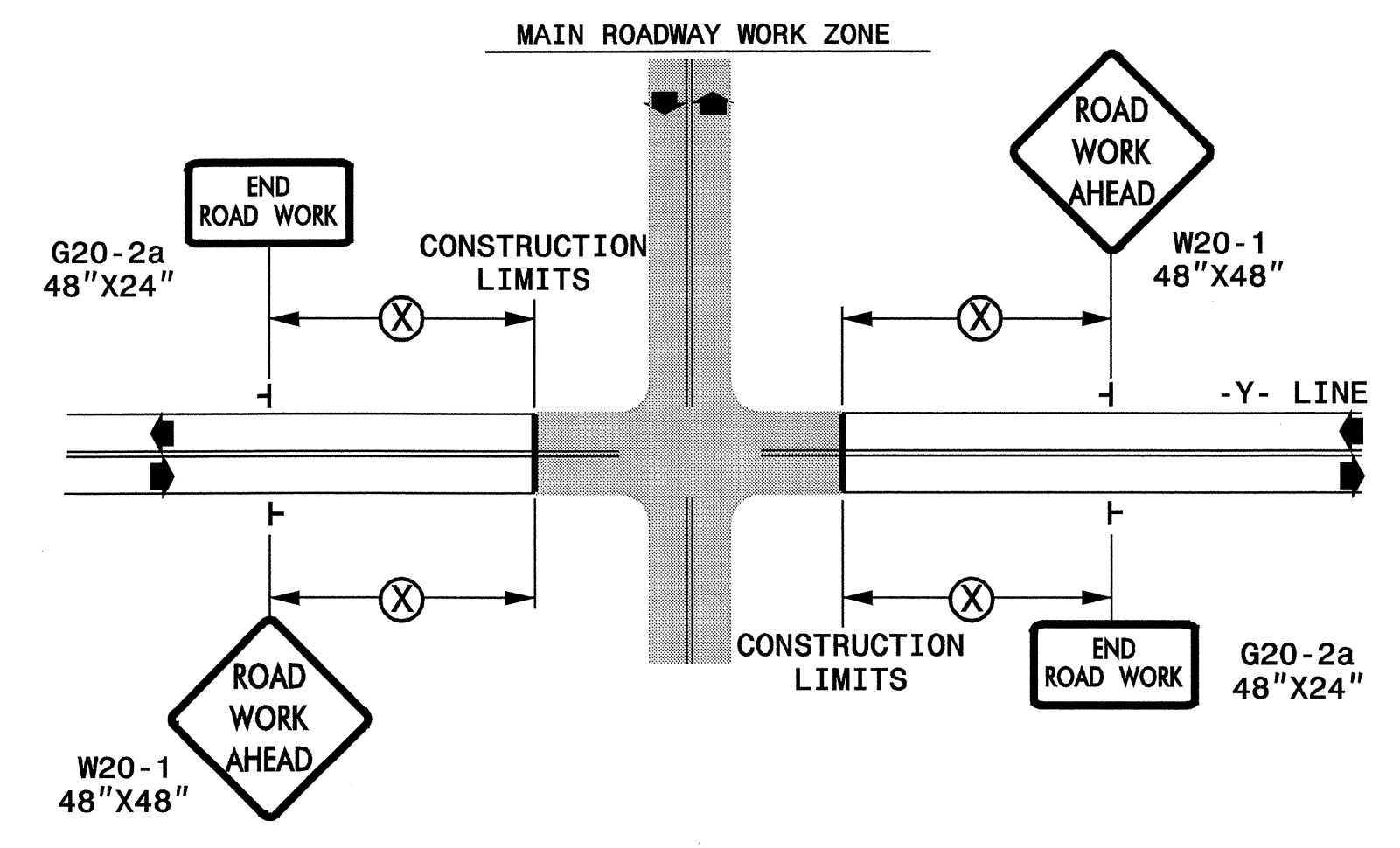
APPROVED: <i>J.W. Woolard</i>	DATE: 5/5/09	<b>AREA 1, PHASE I DETAIL</b>		
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**TWO-WAY UNDIVIDED \*\* (-L- AND -Y-)**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

**ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (ROADWAYS AND DRIVEWAY ENTRANCES)**



	RECOMMENDED MINIMUM SIGN SPACING (X)
ROADWAYS	500'
DRIVEWAY ENTRANCE	25'

- DRIVEWAY ENTRANCE**
- RBC CENTURA ENTRANCE
  - SUPER K-MART CENTER
  - THE SPORTS AUTHORITY
  - WALMART (2)
  - TARGET
  - MACY'S
  - DICK'S SPORTING GOODS
  - SHEETZ
- ROADWAYS**
- SR 1541 (W WENDOVER AVE)

**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.
- \*\* TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

**LEGEND**

┆ STATIONARY SIGN

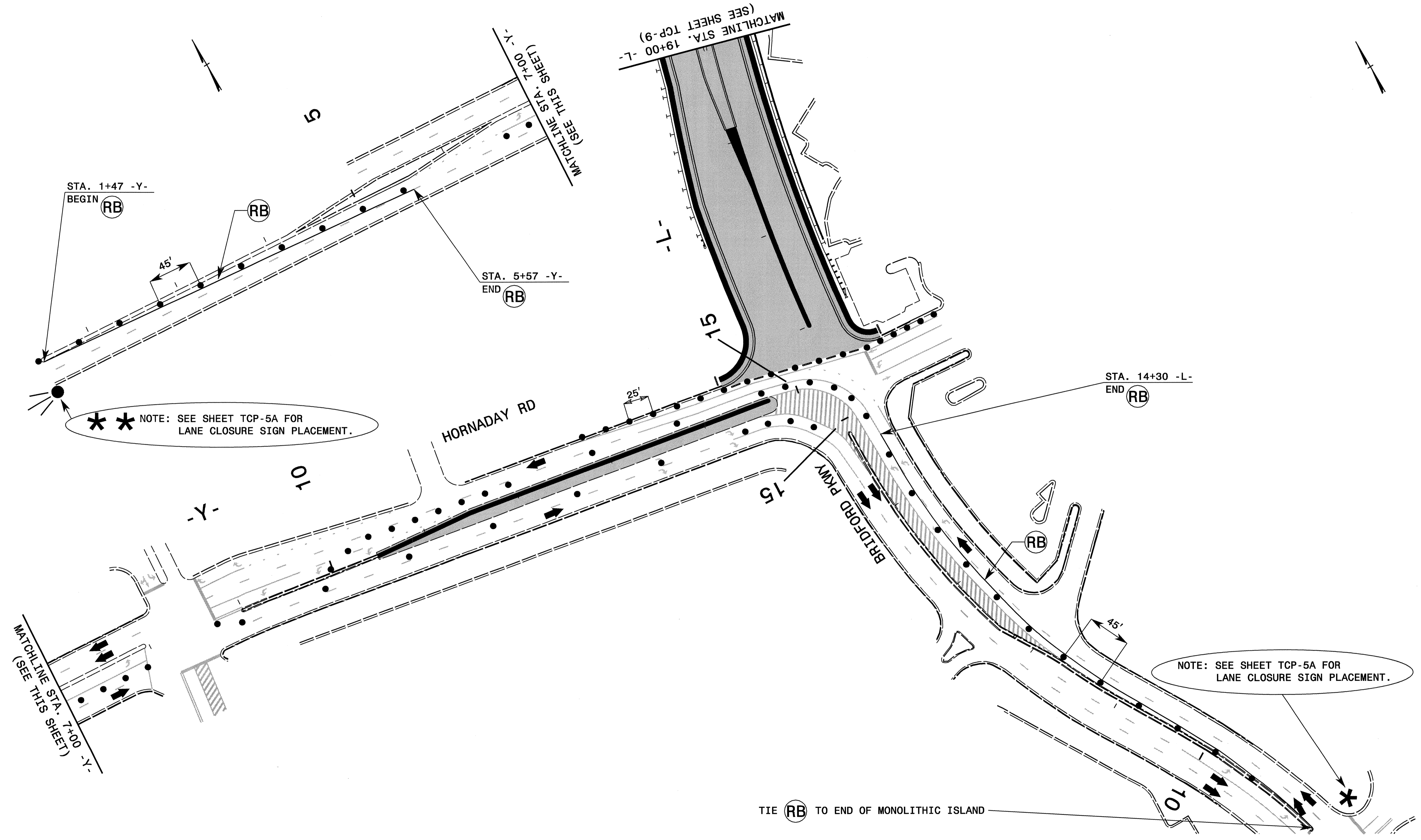
◄ DIRECTION OF TRAFFIC FLOW

**AREA 1  
DETAIL DRAWING FOR  
TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS**

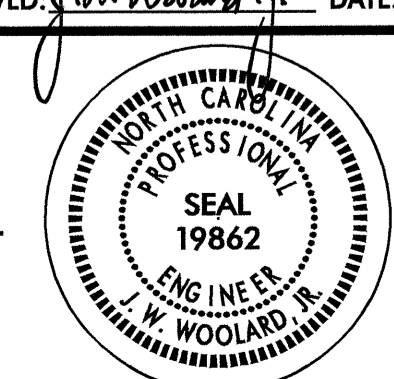
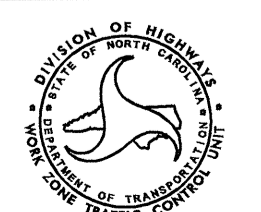
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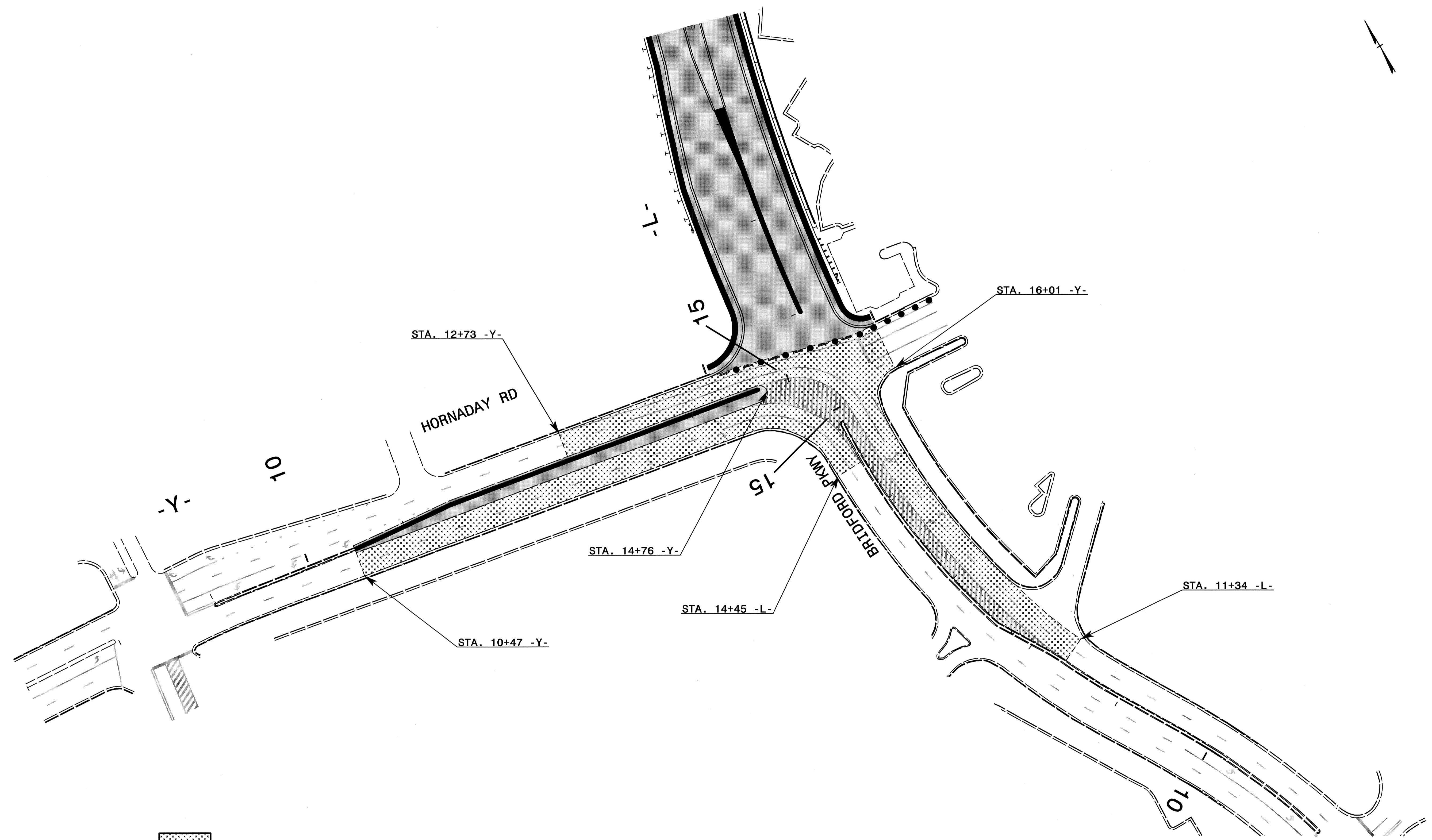
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 ahayes AT WZTC24738

APPROVED: <i>J.W. Woolard</i> DATE: 5/5/09 	<b>AREA 1, PHASE II DETAIL</b>							
SCALE: NONE DATE: 03/09 DWG. BY: DAH DESIGN BY: DAH REVIEWED BY: JWW		REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						

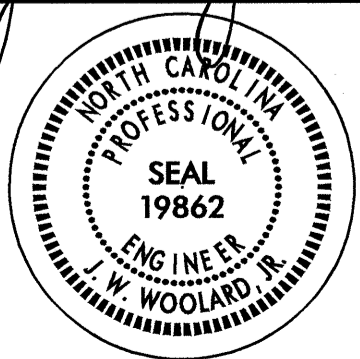


 MILLING

04-MAY-2009 16:36  
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 AT WZTC24738

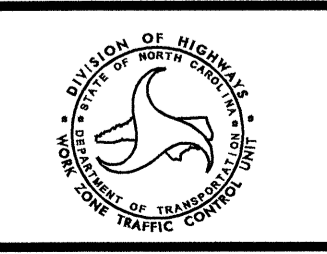
APPROVED: *J. Woolard* DATE: 5/5/09

SEAL

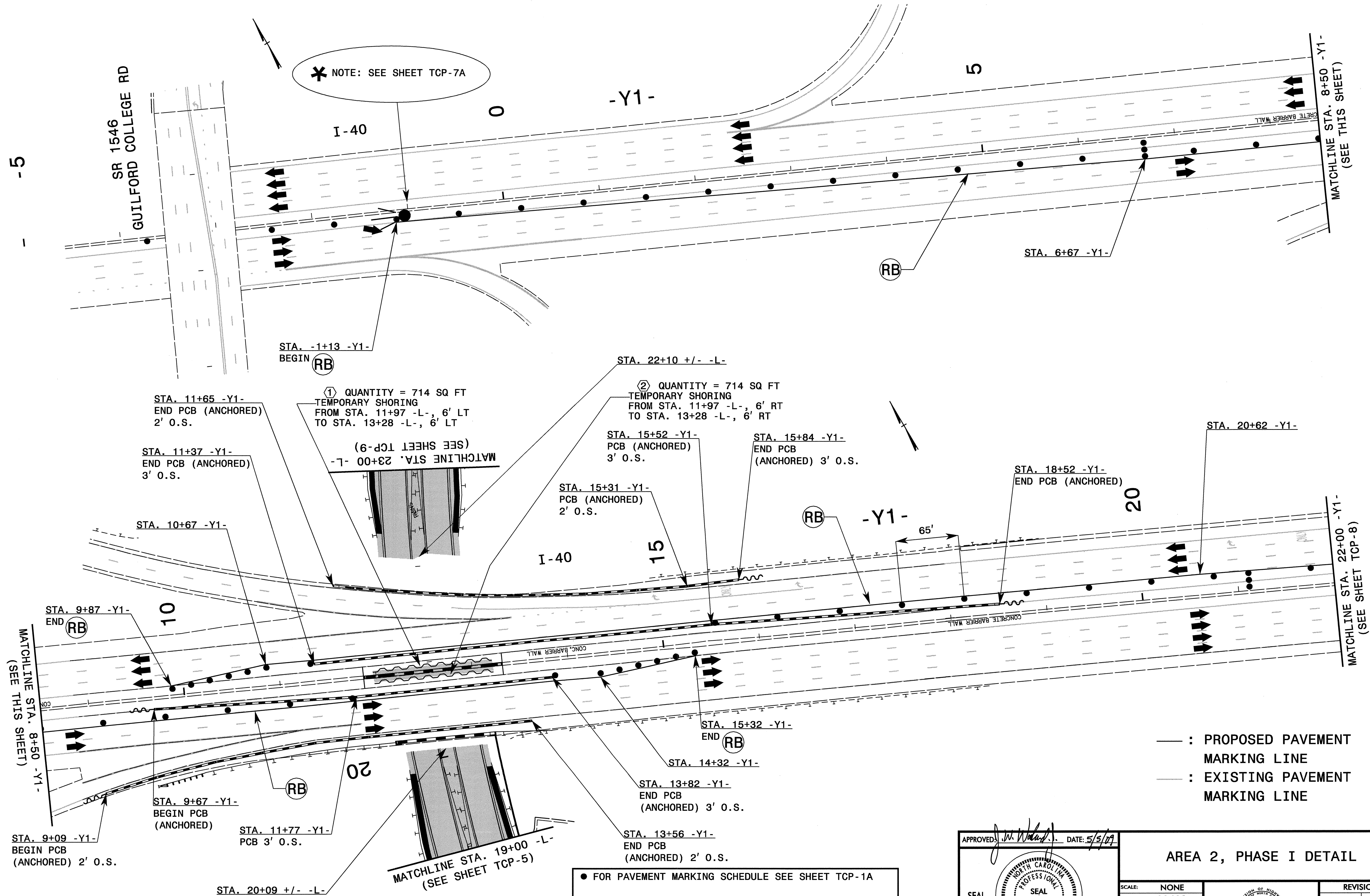


**AREA 1, PHASE II MILLING DETAIL**

SCALE: NONE  
 DATE: 03/09  
 DWG. BY: DAH  
 DESIGN BY: DAH  
 REVIEWED BY: JWW



REVISIONS	



\* NOTE: SEE SHEET TCP-7A

STA. -1+13 -Y1-  
BEGIN (RB)

STA. 11+65 -Y1-  
END PCB (ANCHORED)  
2' O.S.

STA. 11+37 -Y1-  
END PCB (ANCHORED)  
3' O.S.

STA. 10+67 -Y1-

STA. 9+87 -Y1-  
END (RB)

STA. 9+09 -Y1-  
BEGIN PCB  
(ANCHORED) 2' O.S.

STA. 9+67 -Y1-  
BEGIN PCB  
(ANCHORED)

STA. 11+77 -Y1-  
PCB 3' O.S.

STA. 20+09 +/- -L-

① QUANTITY = 714 SQ FT  
TEMPORARY SHORING  
FROM STA. 11+97 -L-, 6' LT  
TO STA. 13+28 -L-, 6' LT

(SEE SHEET TCP-9)  
MATCHLINE STA. 23+00 -L-



STA. 15+31 -Y1-  
PCB (ANCHORED)  
2' O.S.

STA. 22+10 +/- -L-

② QUANTITY = 714 SQ FT  
TEMPORARY SHORING  
FROM STA. 11+97 -L-, 6' RT  
TO STA. 13+28 -L-, 6' RT

STA. 15+52 -Y1-  
PCB (ANCHORED)  
3' O.S.

STA. 15+84 -Y1-  
END PCB  
(ANCHORED) 3' O.S.

STA. 20+62 -Y1-

STA. 18+52 -Y1-  
END PCB (ANCHORED)

STA. 15+32 -Y1-  
END (RB)

STA. 14+32 -Y1-

STA. 13+82 -Y1-  
END PCB  
(ANCHORED) 3' O.S.

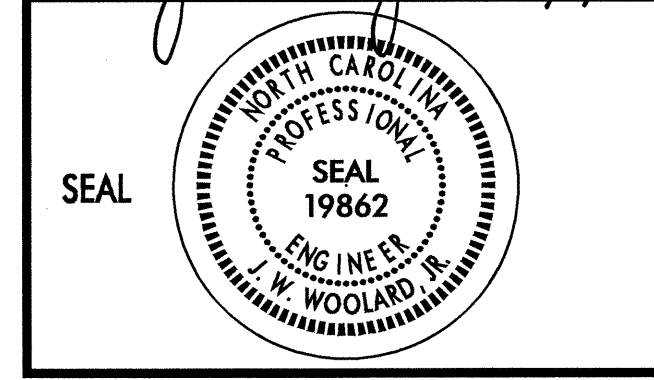
STA. 13+56 -Y1-  
END PCB  
(ANCHORED) 2' O.S.

MATCHLINE STA. 19+00 -L-  
(SEE SHEET TCP-5)

- FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-1A
- TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.05 AND 1251.01

— : PROPOSED PAVEMENT MARKING LINE  
- - - : EXISTING PAVEMENT MARKING LINE

APPROVED: *J.W. Woolard* DATE: 5/5/07



AREA 2, PHASE I DETAIL

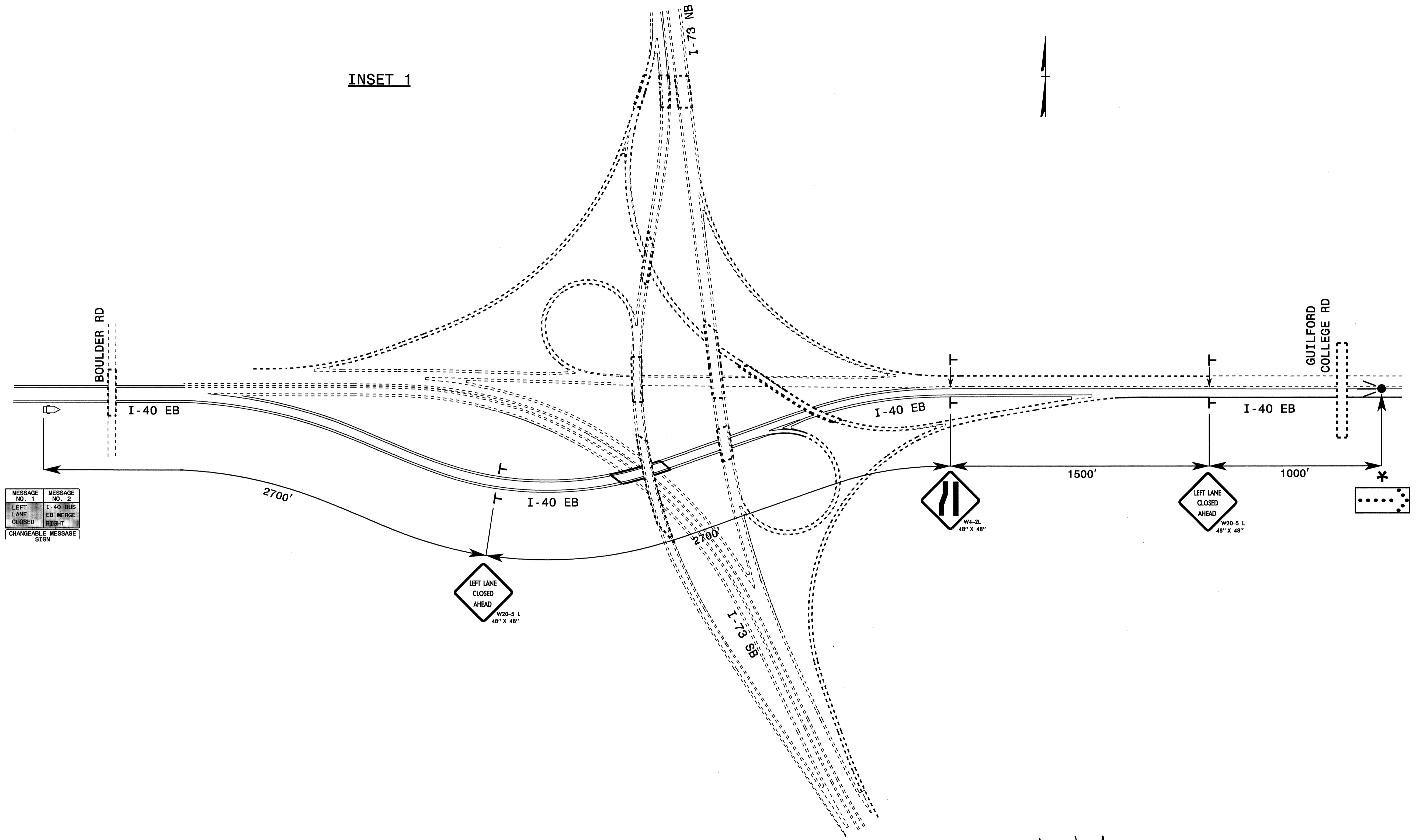
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DATE: 03/09  
DWG. BY: DAH  
DESIGN BY: DAH  
REVIEWED BY: JWW



REVISIONS	

04-MAY-2009 16:35  
 \\dot\office\projects-U4006\Traffic\TrafficControl\top\Area 2\Phase I\U-4006\_TC\_TCP\_A2\_PHL\_TCP\_07.dgn  
 AT WZTC244738

INSET 1



MESSAGE NO. 1	MESSAGE NO. 2
LEFT LANE CLOSED	I-40 BUS EB MERGE RIGHT
CHANGEABLE MESSAGE SIGN	

APPROVED: *J.W. Woolard* DATE: 5/5/09

SEAL

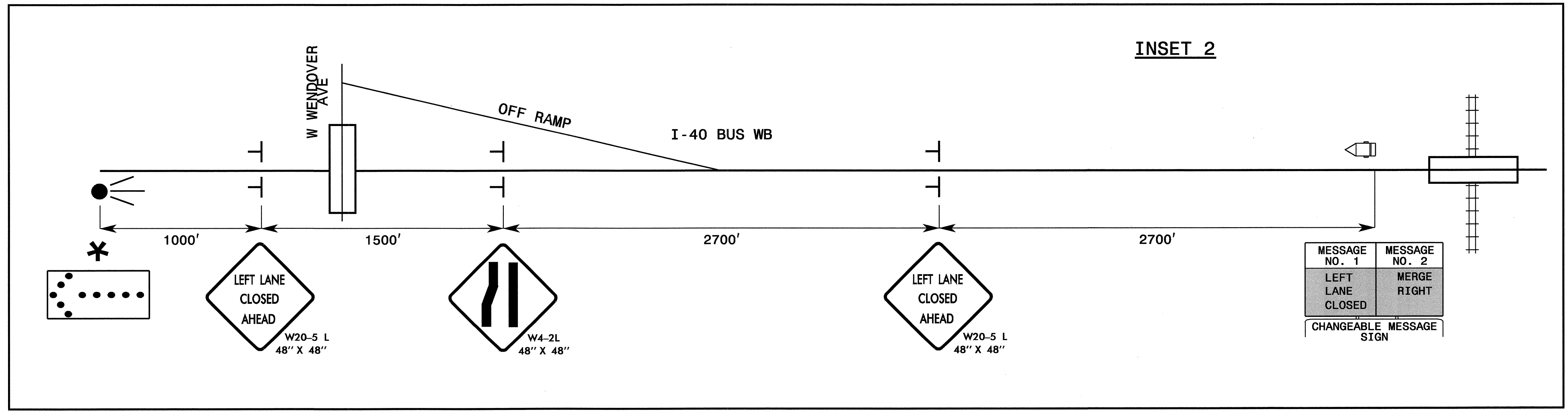
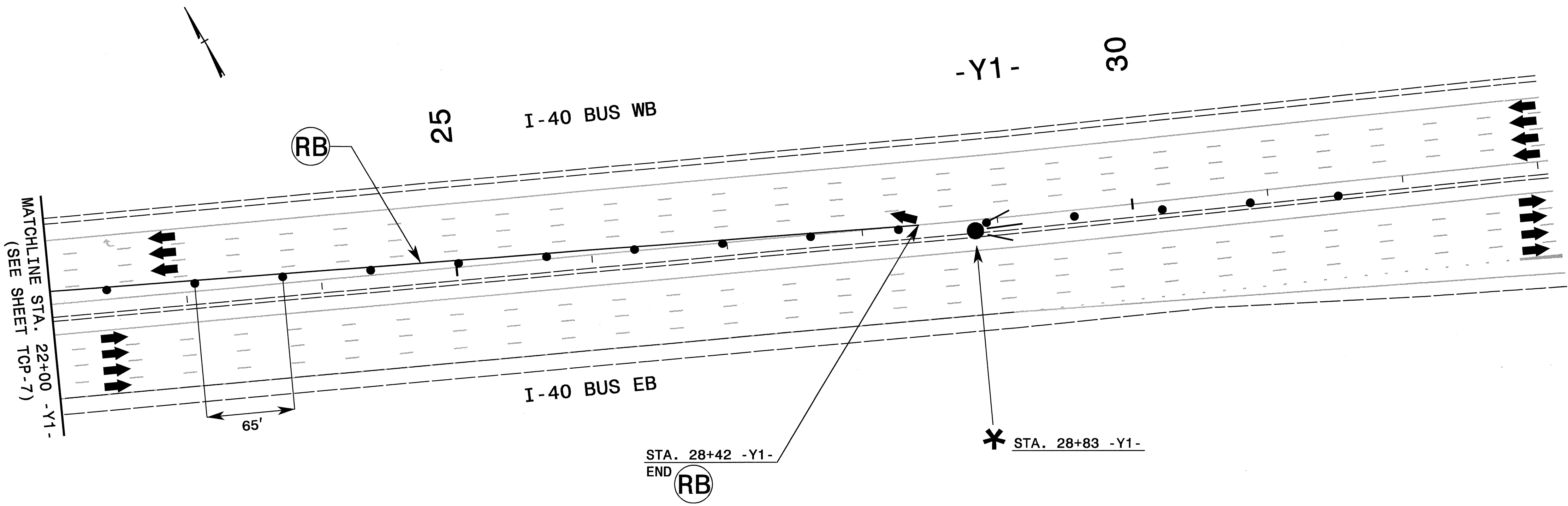
AREA 2, PHASE I DETAIL

SCALE:	NONE
DATE:	03/09
DWG. BY:	DAH
DESIGN BY:	DAH
REVIEWED BY:	JWW

REVISIONS

04-MAY-2009 16:35  
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 ahayes AT WZTC24738

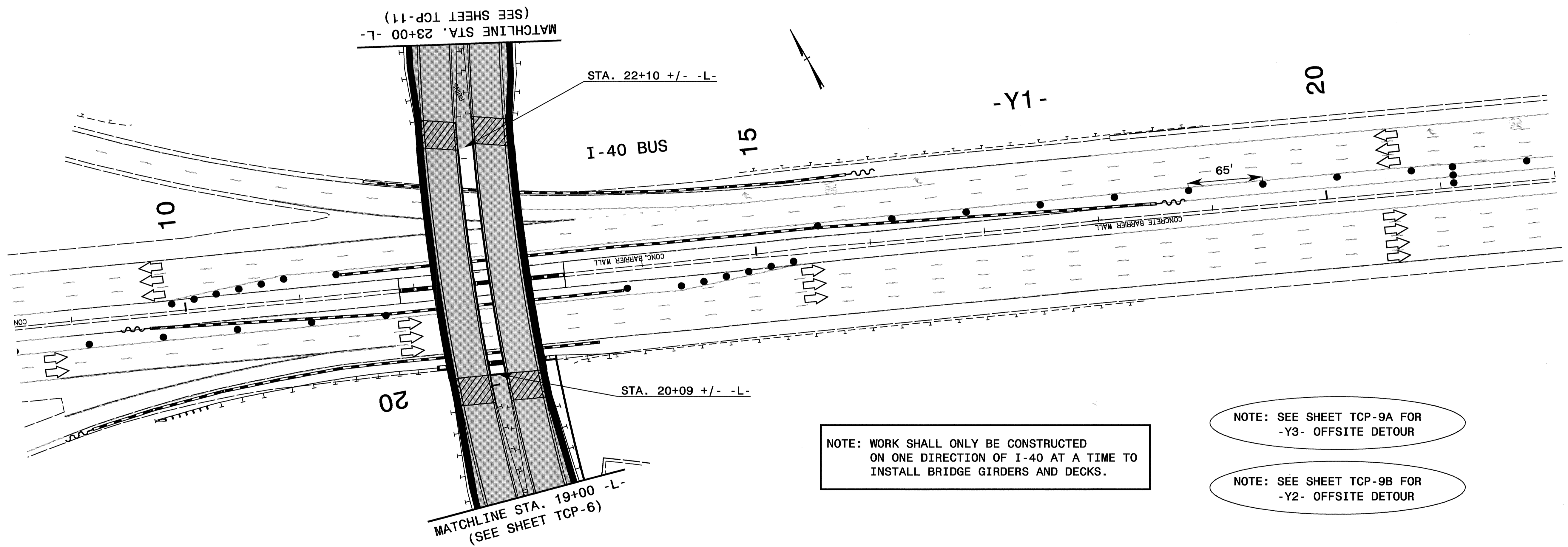




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 ahayes AT WZTC24738

APPROVED: <i>J.W. Woolard</i> DATE: 5/5/09  SEAL	<b>AREA 2, PHASE I DETAIL</b> SCALE: NONE DATE: 03/09 DWG. BY: DAH DESIGN BY: DAH REVIEWED BY: JWW	REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						



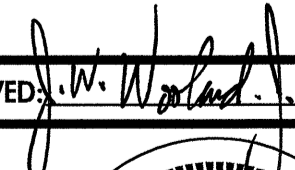
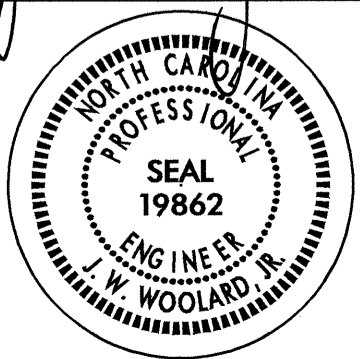



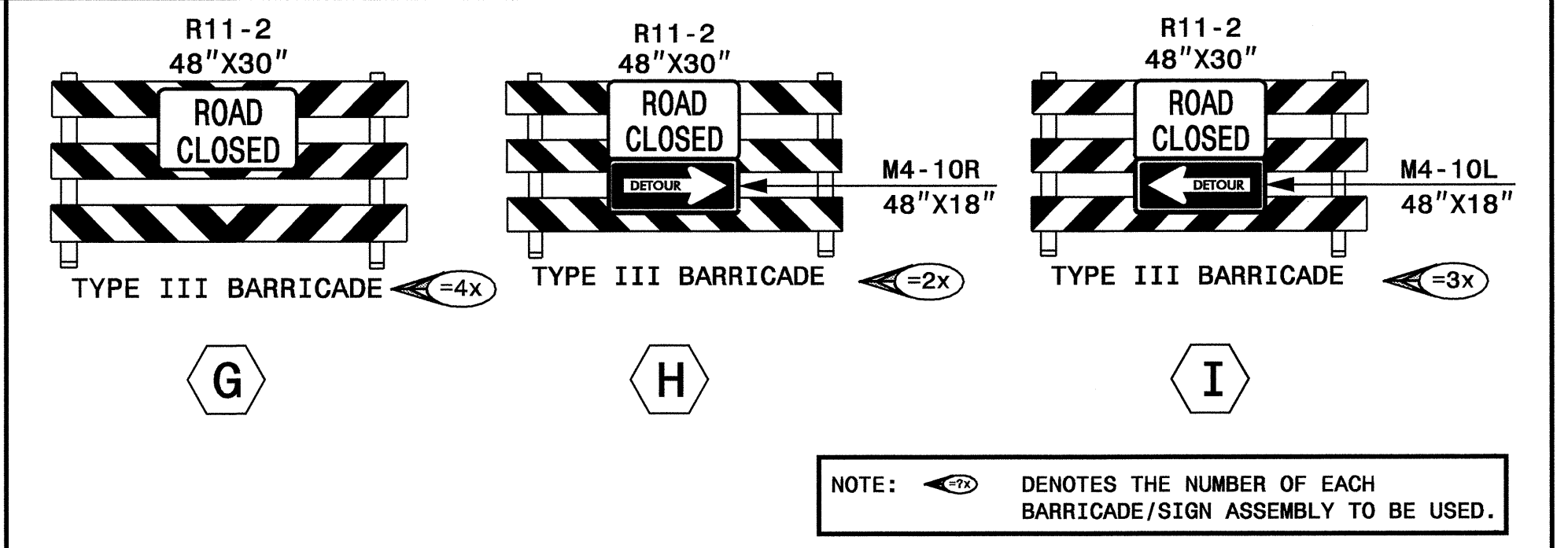
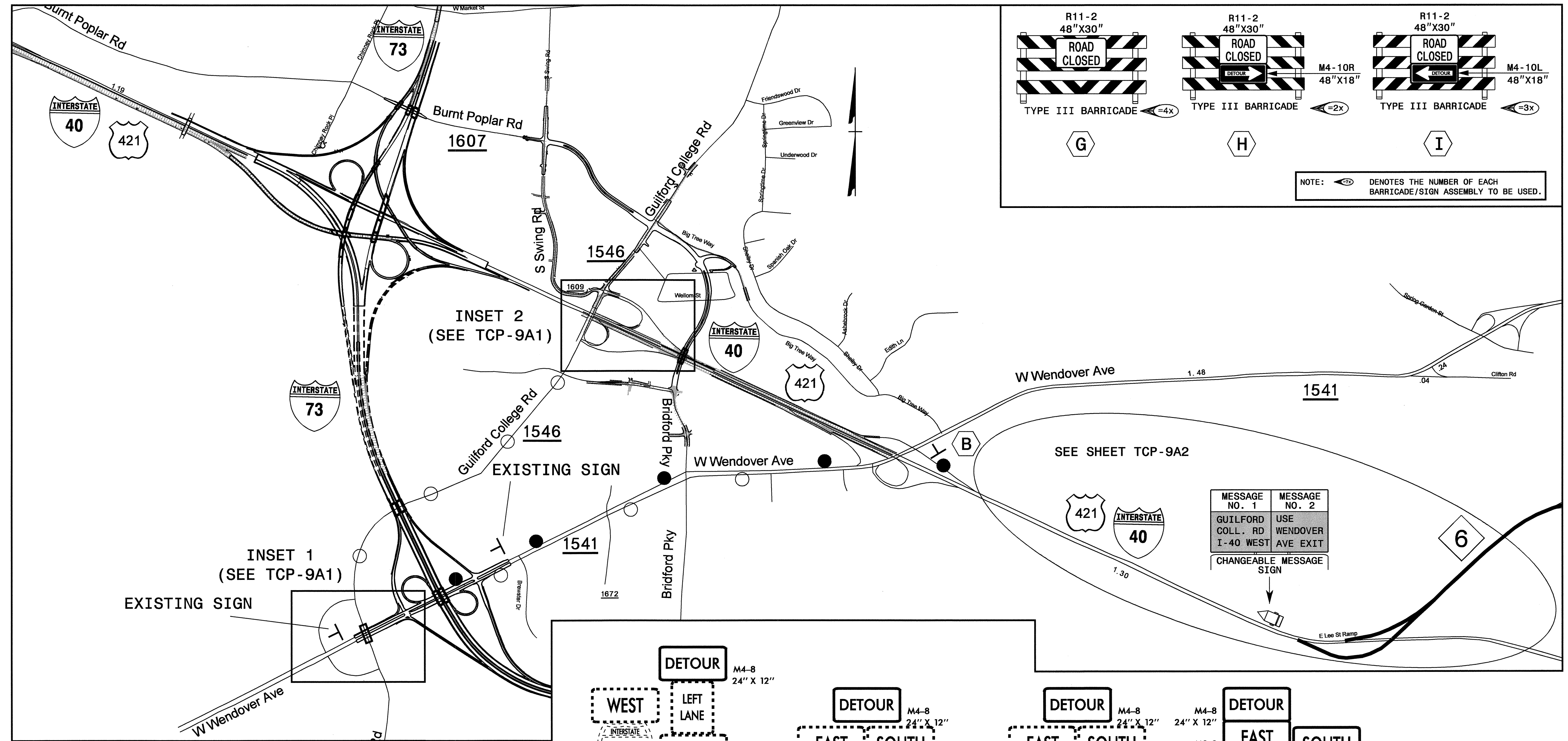
NOTE: WORK SHALL ONLY BE CONSTRUCTED ON ONE DIRECTION OF I-40 AT A TIME TO INSTALL BRIDGE GIRDERS AND DECKS.

NOTE: SEE SHEET TCP-9A FOR -Y3- OFFSITE DETOUR

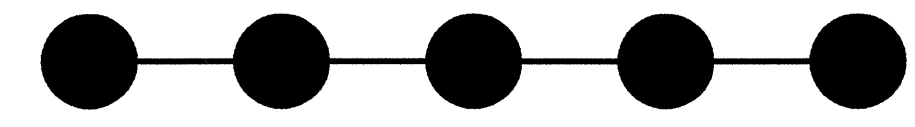
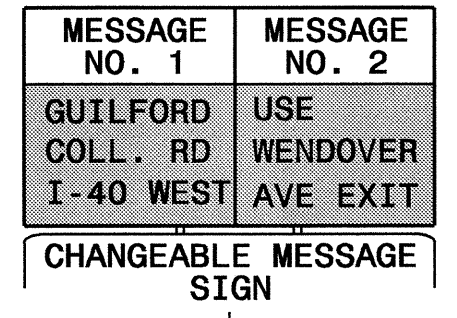
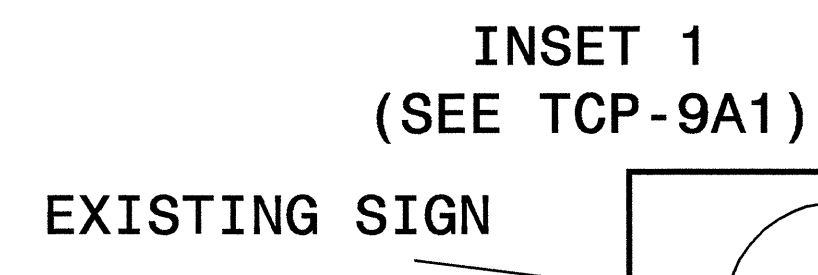
NOTE: SEE SHEET TCP-9B FOR -Y2- OFFSITE DETOUR

04-MAY-2009 16:34  
 \\dot\dfs\0010\Proj\Traffic\TrafficControl\top\Area 2\Phase II\U-4006\_TC-TCP-A2\_Phil\_TCP\_09.dgn  
 chayas AT WZTC244738

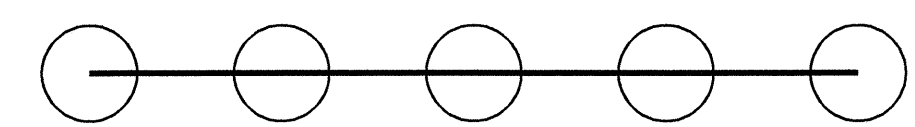
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	SCALE: NONE	
	DATE: 03/09	
	DWG. BY: DAH	
	DESIGN BY: DAH	
REVIEWED BY: JWW	REVISIONS	



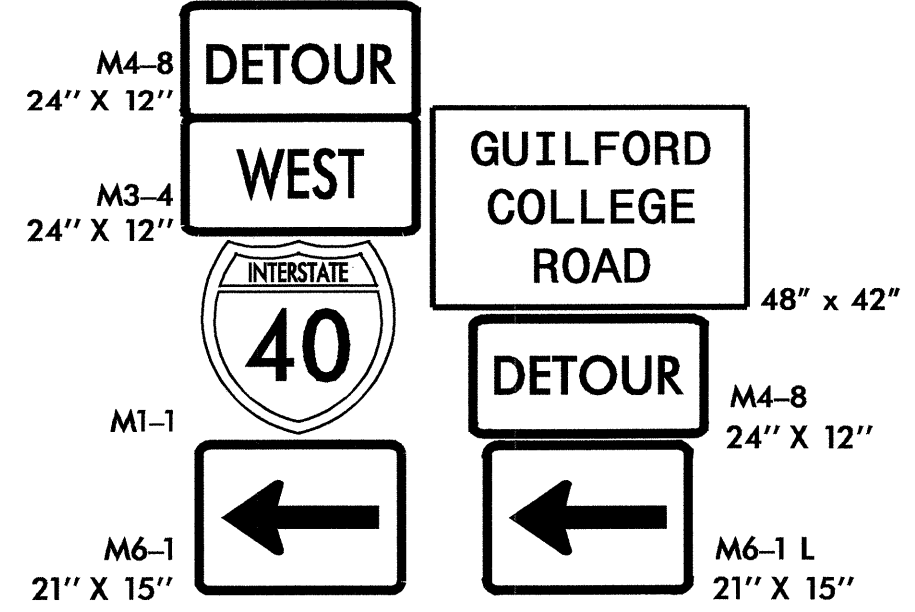
NOTE: DENOTES THE NUMBER OF EACH BARRICADE/SIGN ASSEMBLY TO BE USED.



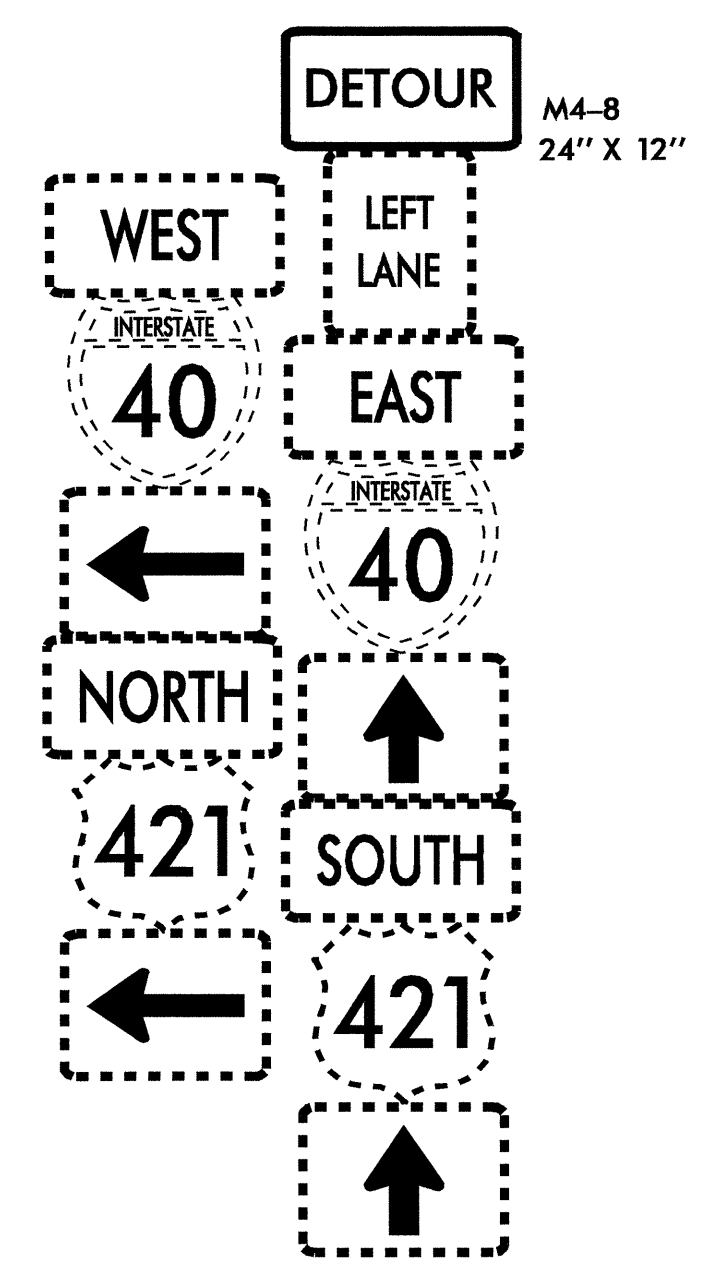
SR 1546  
GUILFORD COLLEGE RD  
DETOUR



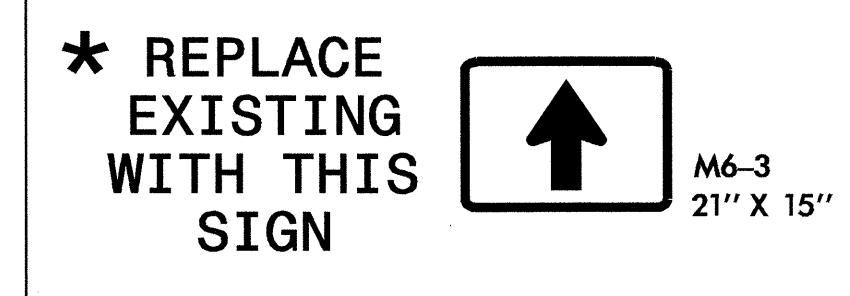
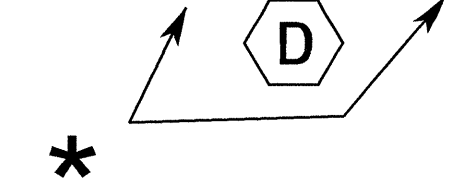
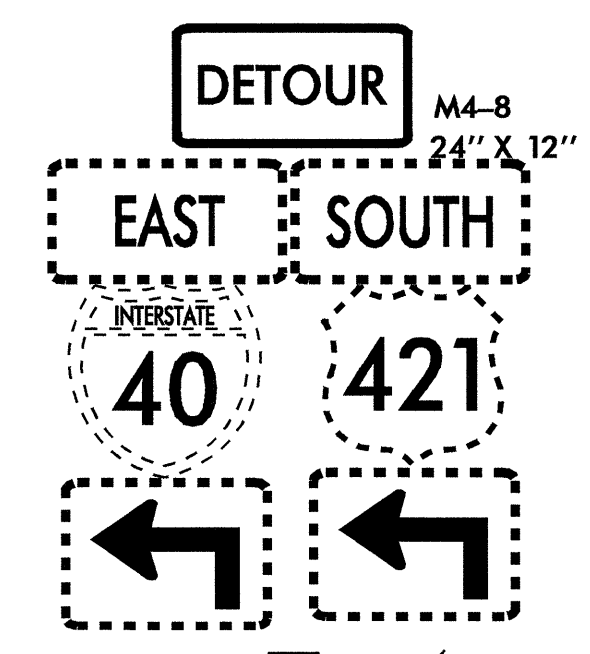
I-40 EB DETOUR



B



C



\* REPLACE EXISTING WITH THIS SIGN M6-3 21" X 15"

APPROVED: DATE: 5/5/09

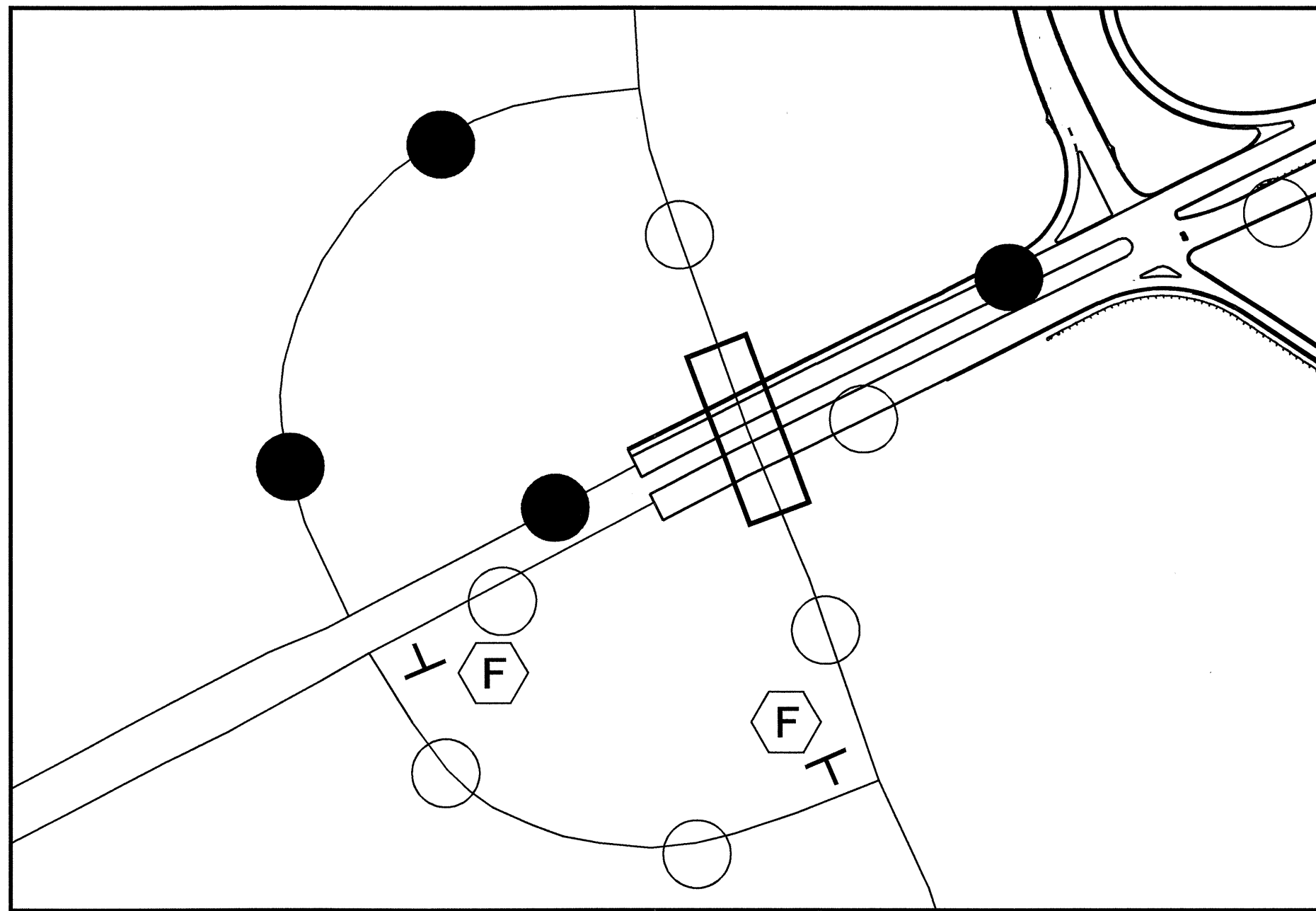
SEAL:

AREA 2, PHASE II DETAIL  
-Y3- TO I-40 EAST OFFSITE DETOUR  
I-40 WEST OFFSITE DETOUR

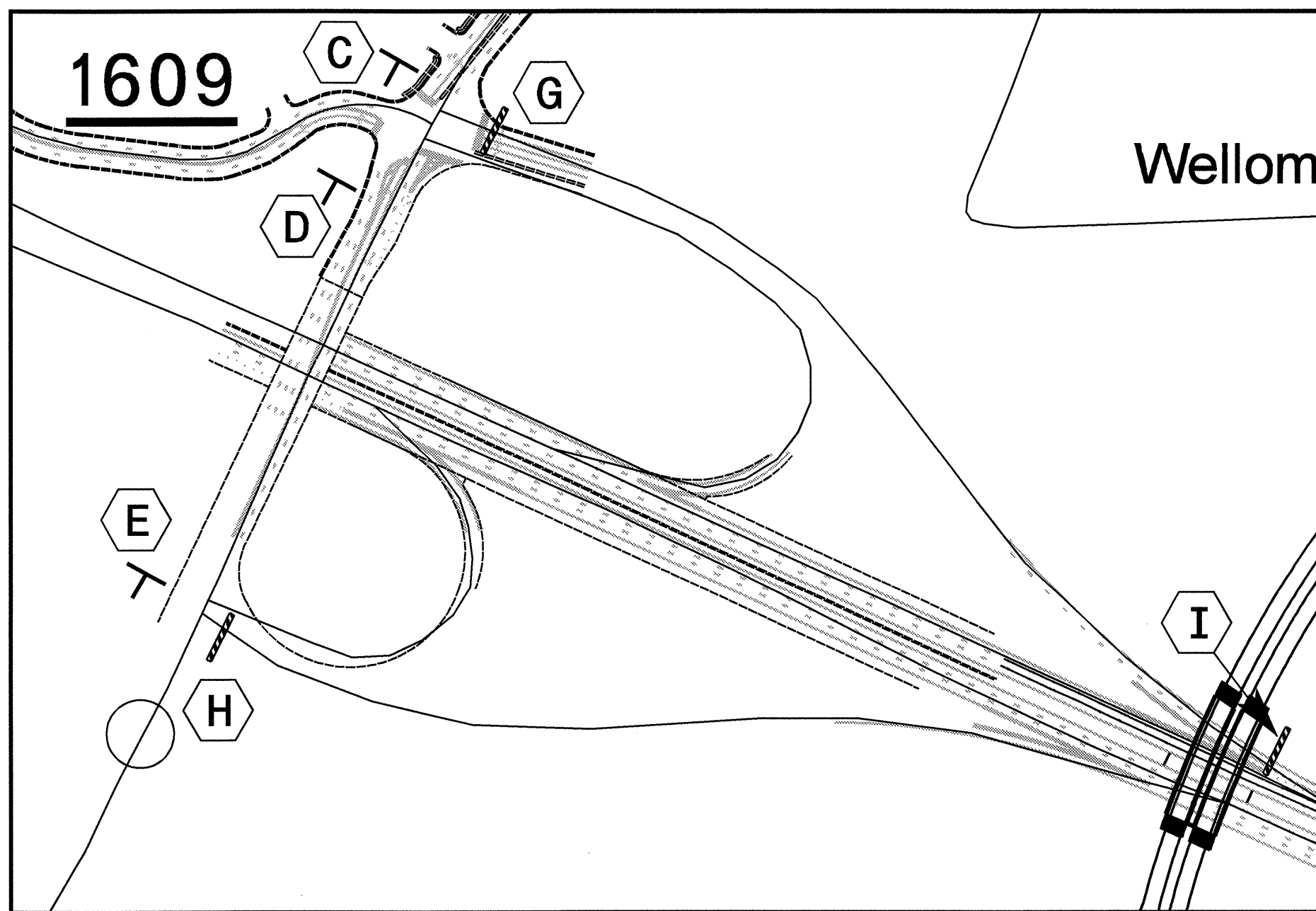
SCALE: NONE		REVISIONS
DATE: 03/09		
DWG. BY: DAH		
DESIGN BY: DAH		

REVIEWED BY: JWW

04-MAY-2009 16:34 \\dch1\dfs\proj\TrafficControl\Tcp\Area 2\Phase II\U-4006\TrafficControl\Tcp\Area 2\Phase II\U-4006\Tcp\_09A\_Y3\_05D.dgn AT: WZTC24738



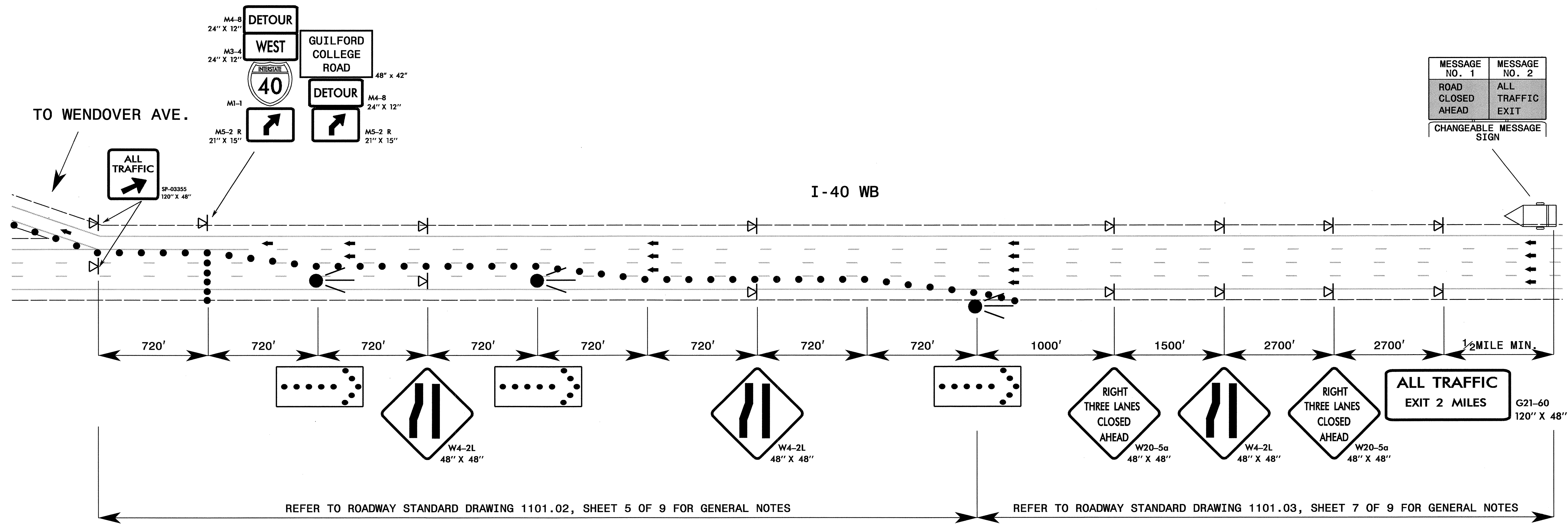
INSET 1



INSET 2

04-MAY-2009 16:33  
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 anayes AT W1224738

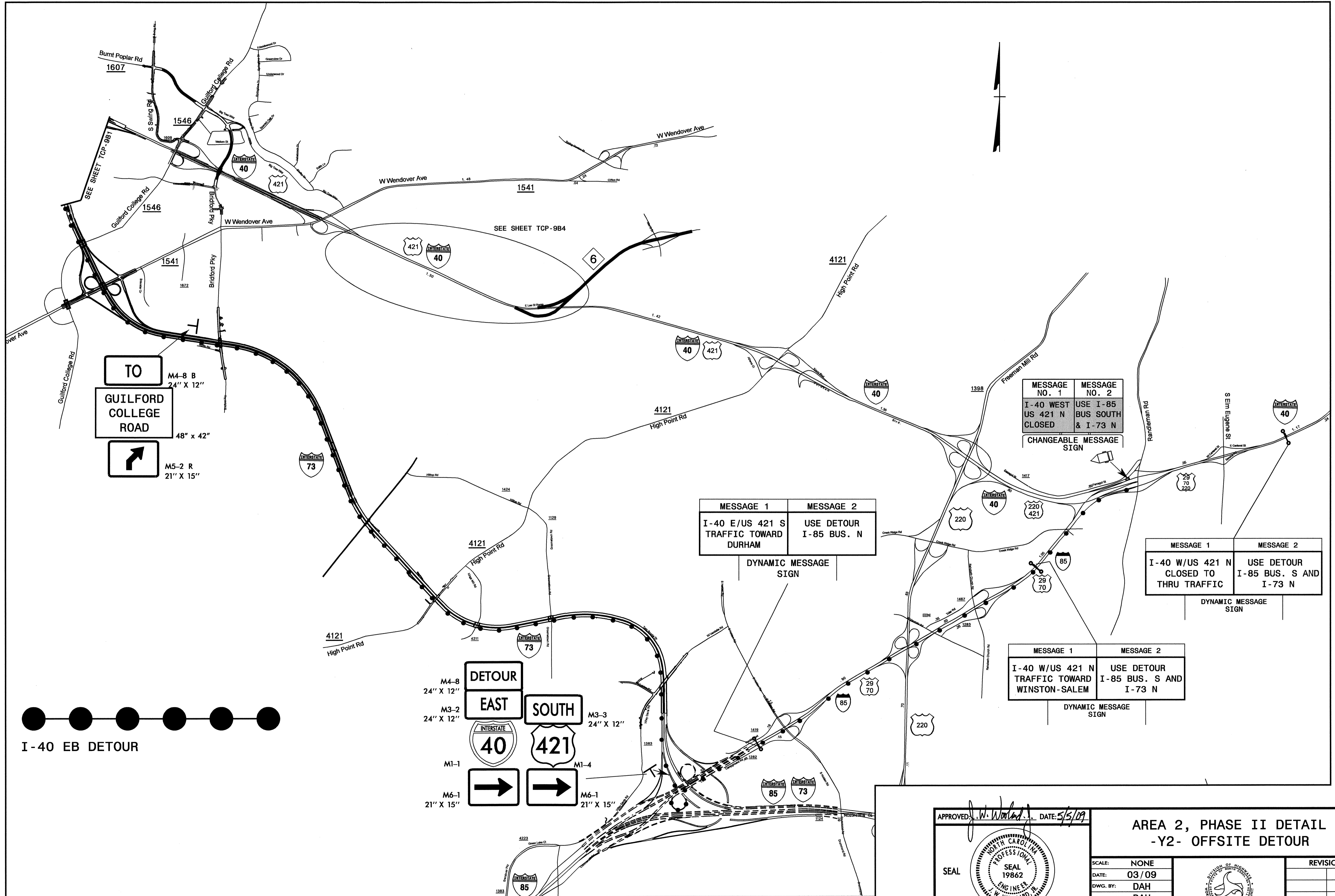
APPROVED: <i>J.W. Wolcott</i>	DATE: 5/5/09	AREA 2, PHASE II DETAIL -Y3- TO I-40 EAST OFFSITE DETOUR I-40 WEST OFFSITE DETOUR	
	SCALE: NONE		
	DATE: 03/09		
	DWG. BY: DAH		
	DESIGN BY: DAH		
REVIEWED BY: JWW		REVISIONS	



MESSAGE NO. 1	MESSAGE NO. 2
ROAD CLOSED AHEAD	ALL TRAFFIC EXIT
CHANGEABLE MESSAGE SIGN	

04-MAY-2009 16:33  
 \\dot\dfsroot\01\Proj\Hippo\Projects-U\4006\Traffic\TrafficControl\Top\Area 2\Phase II\U-4006-TCP-A2-Phil-TCP-09A2-Y2-OSD.dgn  
 ahayes AT WZTC24738

APPROVED: <i>J.W. Woolard</i>	DATE: 5/5/09	<b>AREA 2, PHASE II DETAIL          -Y2- AND -Y3- OFFSITE DETOUR</b>	
SEAL 	SCALE: NONE		
	DATE: 03/09		
	DWG. BY: DAH		
	DESIGN BY: DAH		
REVIEWED BY: JWW			CADD FILE



**TO**  
**GUILFORD COLLEGE ROAD**

M4-8 B  
 24" X 12"

48" x 42"

M5-2 R  
 21" X 15"

MESSAGE 1	MESSAGE 2
I-40 E/US 421 S TRAFFIC TOWARD DURHAM	USE DETOUR I-85 BUS. N

DYNAMIC MESSAGE SIGN

MESSAGE NO. 1	MESSAGE NO. 2
I-40 WEST US 421 N CLOSED	USE I-85 BUS SOUTH & I-73 N

CHANGEABLE MESSAGE SIGN

MESSAGE 1	MESSAGE 2
I-40 W/US 421 N CLOSED TO THRU TRAFFIC	USE DETOUR I-85 BUS. S AND I-73 N

DYNAMIC MESSAGE SIGN

MESSAGE 1	MESSAGE 2
I-40 W/US 421 N TRAFFIC TOWARD WINSTON-SALEM	USE DETOUR I-85 BUS. S AND I-73 N

DYNAMIC MESSAGE SIGN

**DETOUR**  
 M4-8  
 24" X 12"

**EAST**  
 M3-2  
 24" X 12"

**SOUTH**  
 M3-3  
 24" X 12"

**40**  
 M1-1

**421**  
 M1-4

**→**  
 M6-1  
 21" X 15"

**→**  
 M6-1  
 21" X 15"

I-40 EB DETOUR

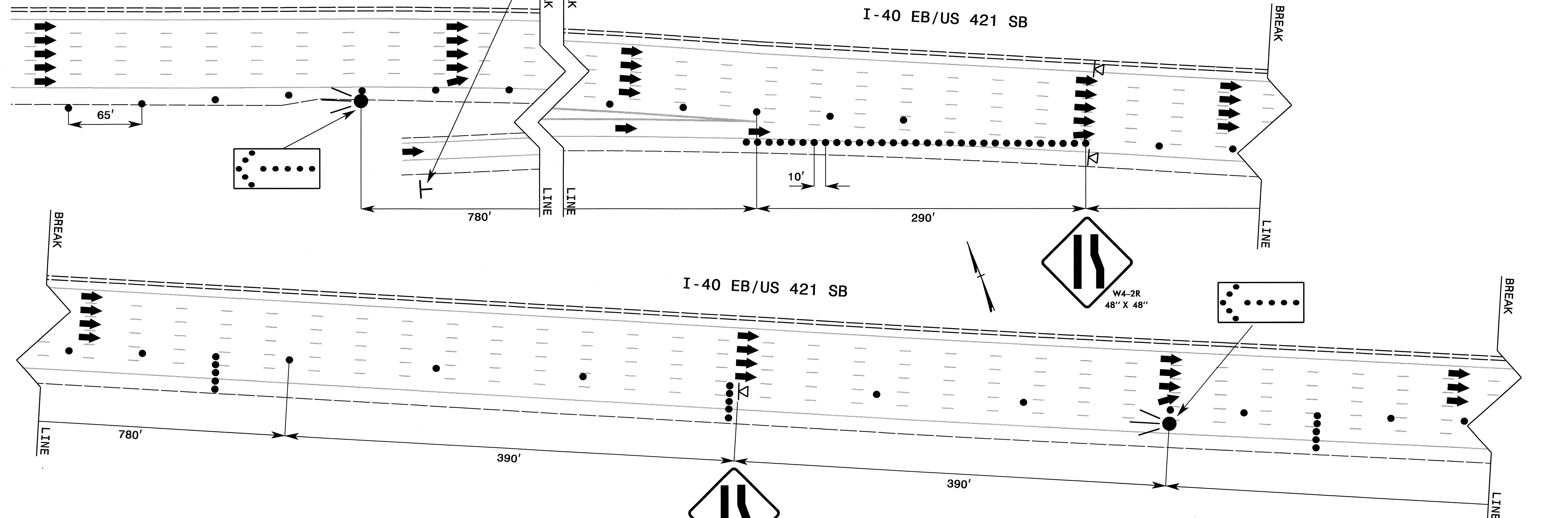
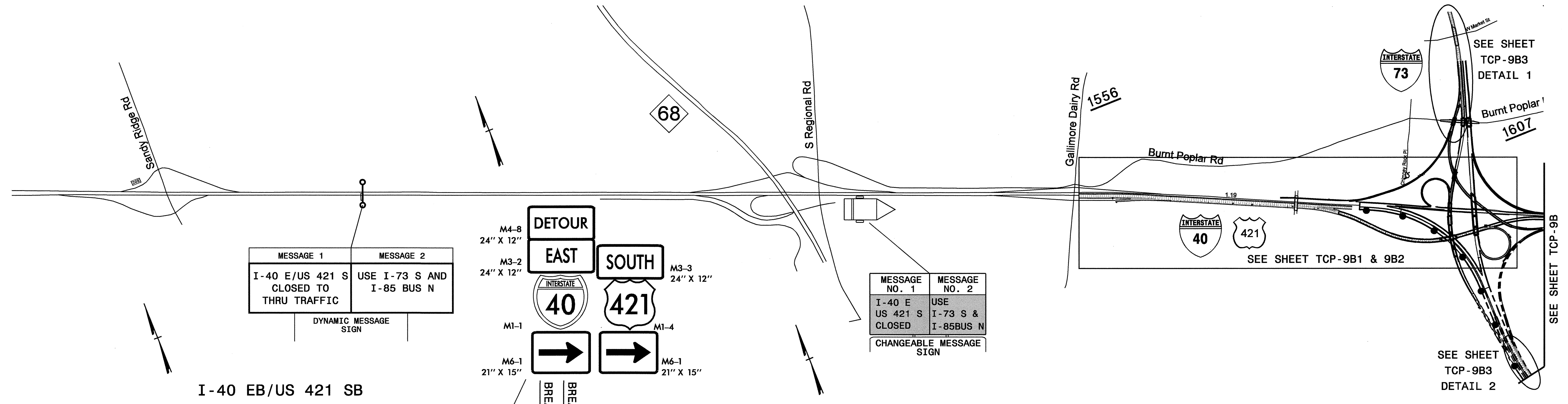
APPROVED: *J.W. Woolard* DATE: 5/5/09

SEAL

**AREA 2, PHASE II DETAIL  
 -Y2- OFFSITE DETOUR**

SCALE: NONE		<b>REVISIONS</b> <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>								
DATE: 03/09										
DWG. BY: DAH										
DESIGN BY: DAH										
REVIEWED BY: JWW	CADD FILE									

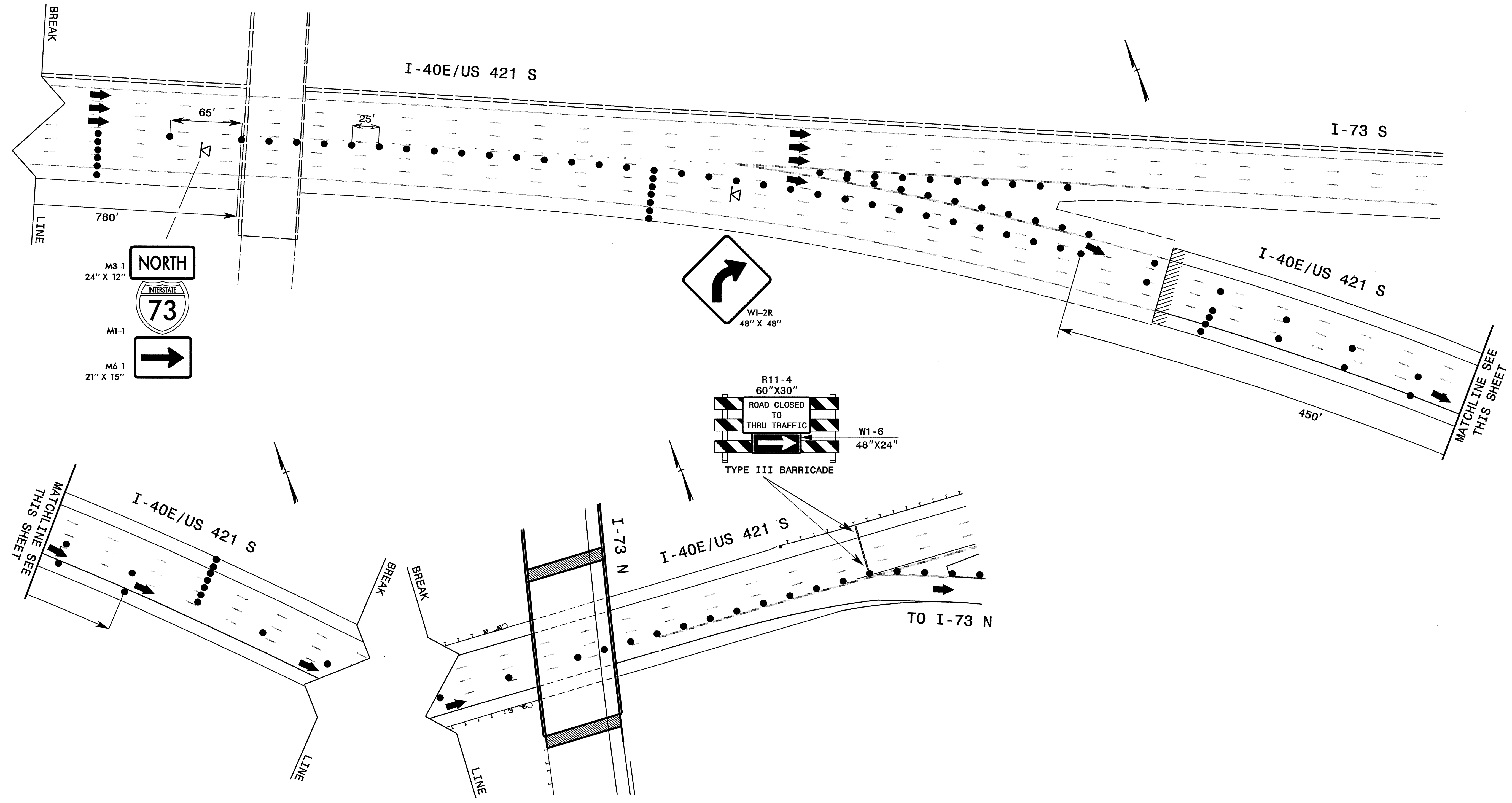
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 chaves AT WZTC24738



04-MAY-2009 16:32  
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 ahayes AT WZTC24738

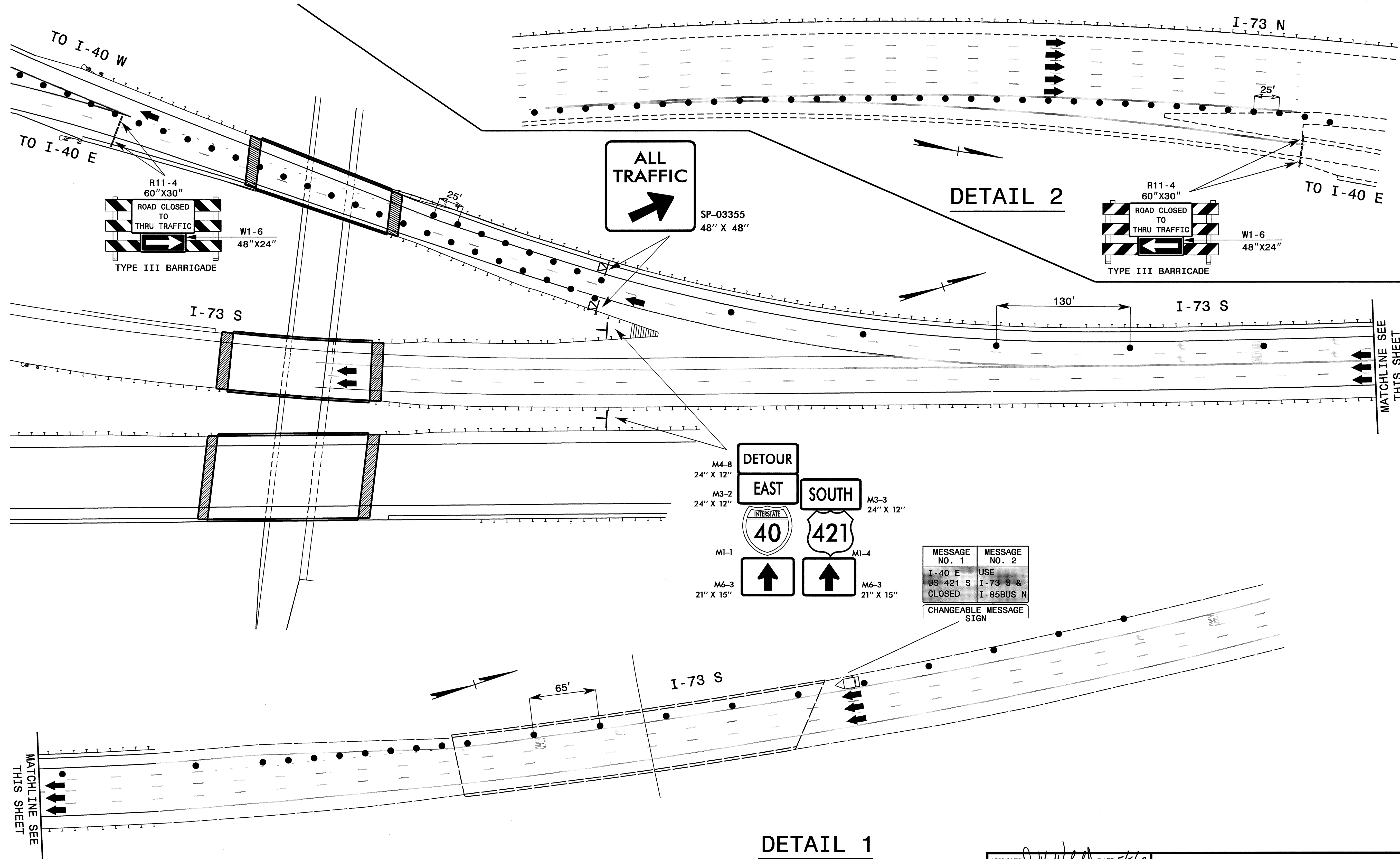
APPROVED: <i>[Signature]</i> DATE: 5/5/09	<b>AREA 2, PHASE II DETAIL</b> <b>-Y2- OFFSITE DETOUR</b>	
SCALE: NONE		REVISIONS
DATE: 03/09		
DWG. BY: DAH		
DESIGN BY: DAH		
REVIEWED BY: JWW		CADD FILE






04-MAY-2009 16:53  
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 ahayes AT WZTC24738

APPROVED: <i>J. Woolard</i> DATE: 5/5/09	<b>AREA 2, PHASE II DETAIL</b> <b>-Y2- OFFSITE DETOUR</b>																			
<table border="1"> <tr> <td>SCALE:</td> <td>NONE</td> </tr> <tr> <td>DATE:</td> <td>03/09</td> </tr> <tr> <td>DWG. BY:</td> <td>DAH</td> </tr> <tr> <td>DESIGN BY:</td> <td>DAH</td> </tr> <tr> <td>REVIEWED BY:</td> <td>JWW</td> </tr> </table>	SCALE:	NONE	DATE:	03/09	DWG. BY:	DAH	DESIGN BY:	DAH	REVIEWED BY:	JWW	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		REVISIONS							
SCALE:	NONE																			
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DWG. BY:	DAH																			
DESIGN BY:	DAH																			
REVIEWED BY:	JWW																			
REVISIONS																				



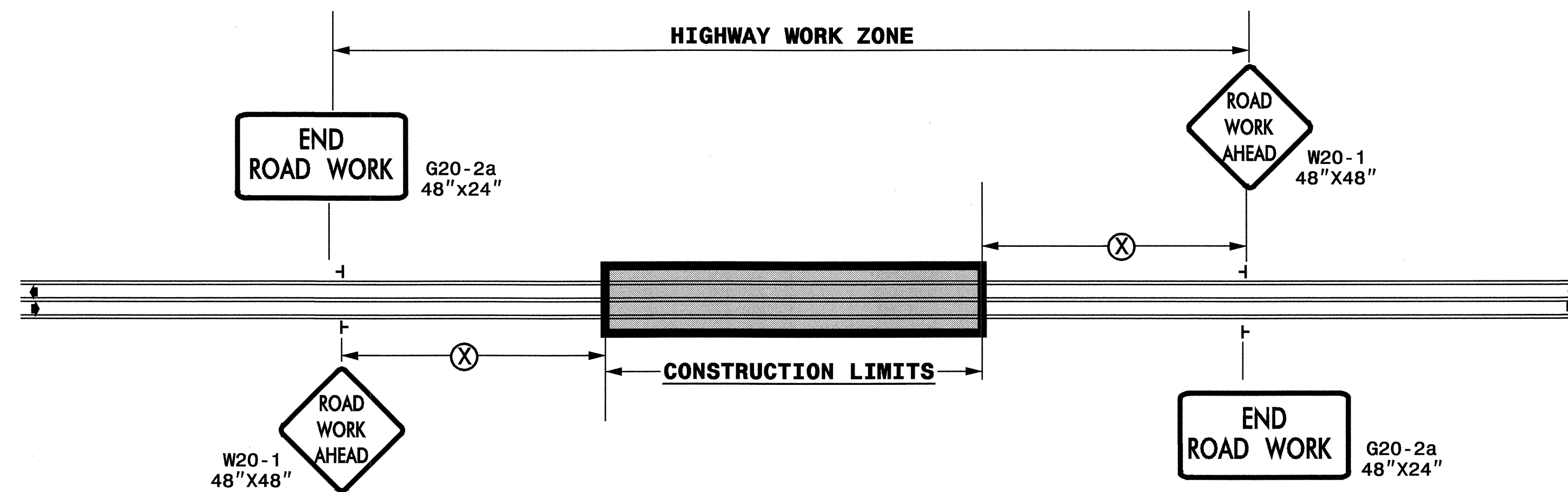
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 AT WZTC244738

APPROVED: <i>J.W. Woolard</i> DATE: 5/5/09	<b>AREA 2, PHASE II DETAIL</b> <b>-Y2- OFFSITE DETOUR</b>	
		
SCALE: NONE	REVISIONS	
DATE: 03/09		
DWG. BY: DAH		
DESIGN BY: DAH		
REVIEWED BY: JWW		



**TWO-WAY UNDIVIDED \*\* (-Y2- AND -SR1-)**

ROADWAY	RECOMMENDED MINIMUM SIGN SPACING
-SR1- McCALLUM ST	500'
-Y2- BIG TREE WAY	800'



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

AREA 3  
DETAIL DRAWING FOR  
TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS

SHEET 1 OF 1

**GENERAL NOTES**

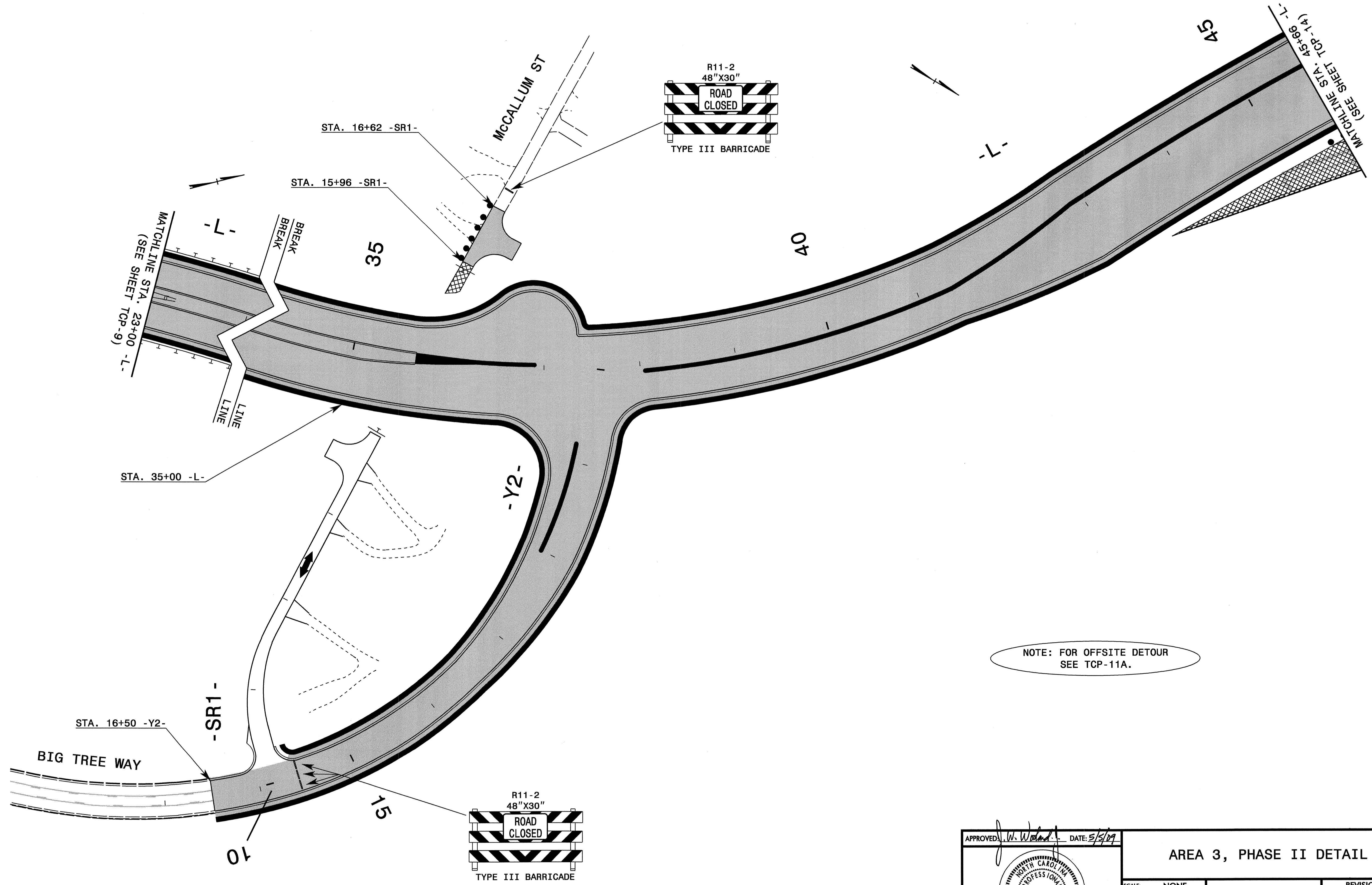
- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, 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.
- \*\* TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

**LEGEND**

- ┆ STATIONARY SIGN
- ◀ DIRECTION OF TRAFFIC FLOW

APPROVED: <i>J.W. Woolard</i> DATE: 5/5/09	<p>AREA 3 DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS</p>	
	SCALE: NONE	REVISIONS
	DATE: 03/09	7-98 10/01
	DWG. BY: DAH	10-98 03/04
	DESIGN BY: DAH	01/01 11/04
REVIEWED BY: JWW		

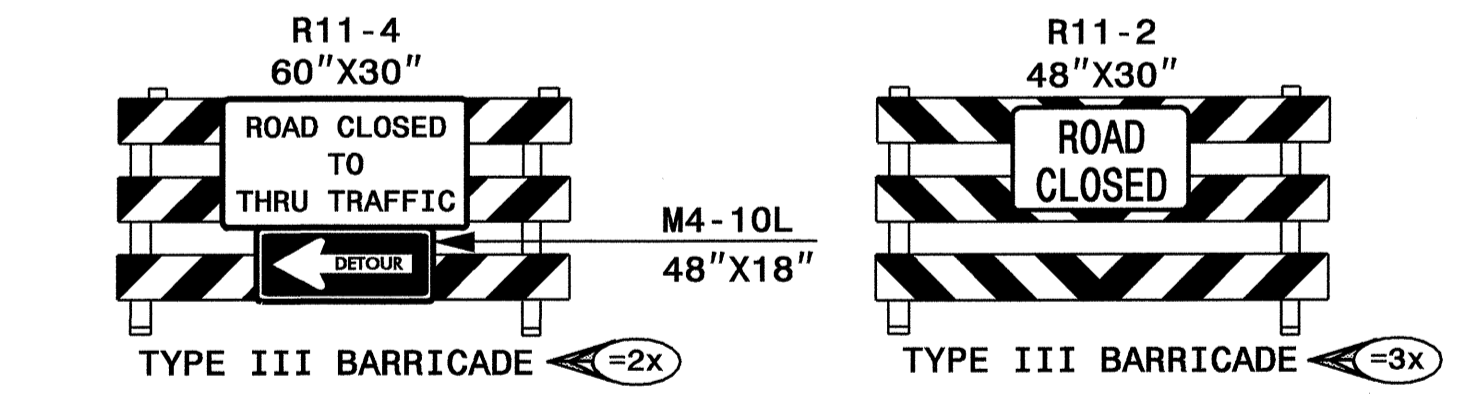
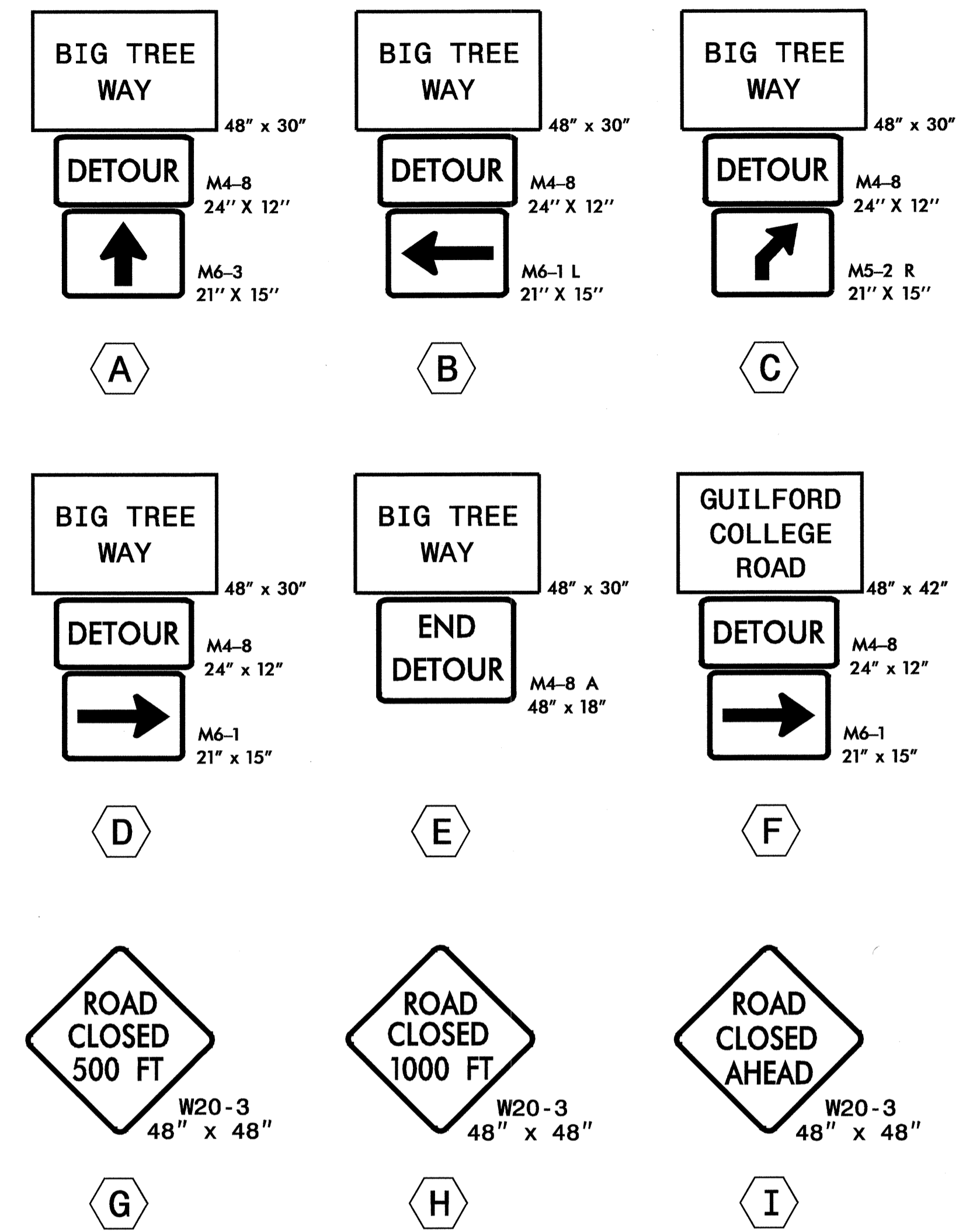
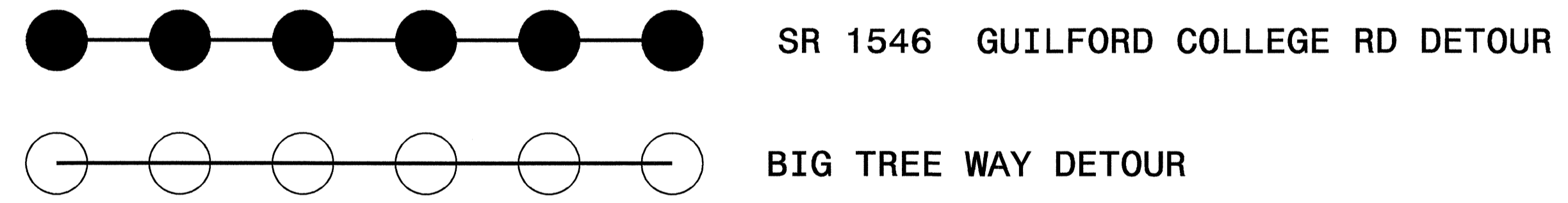
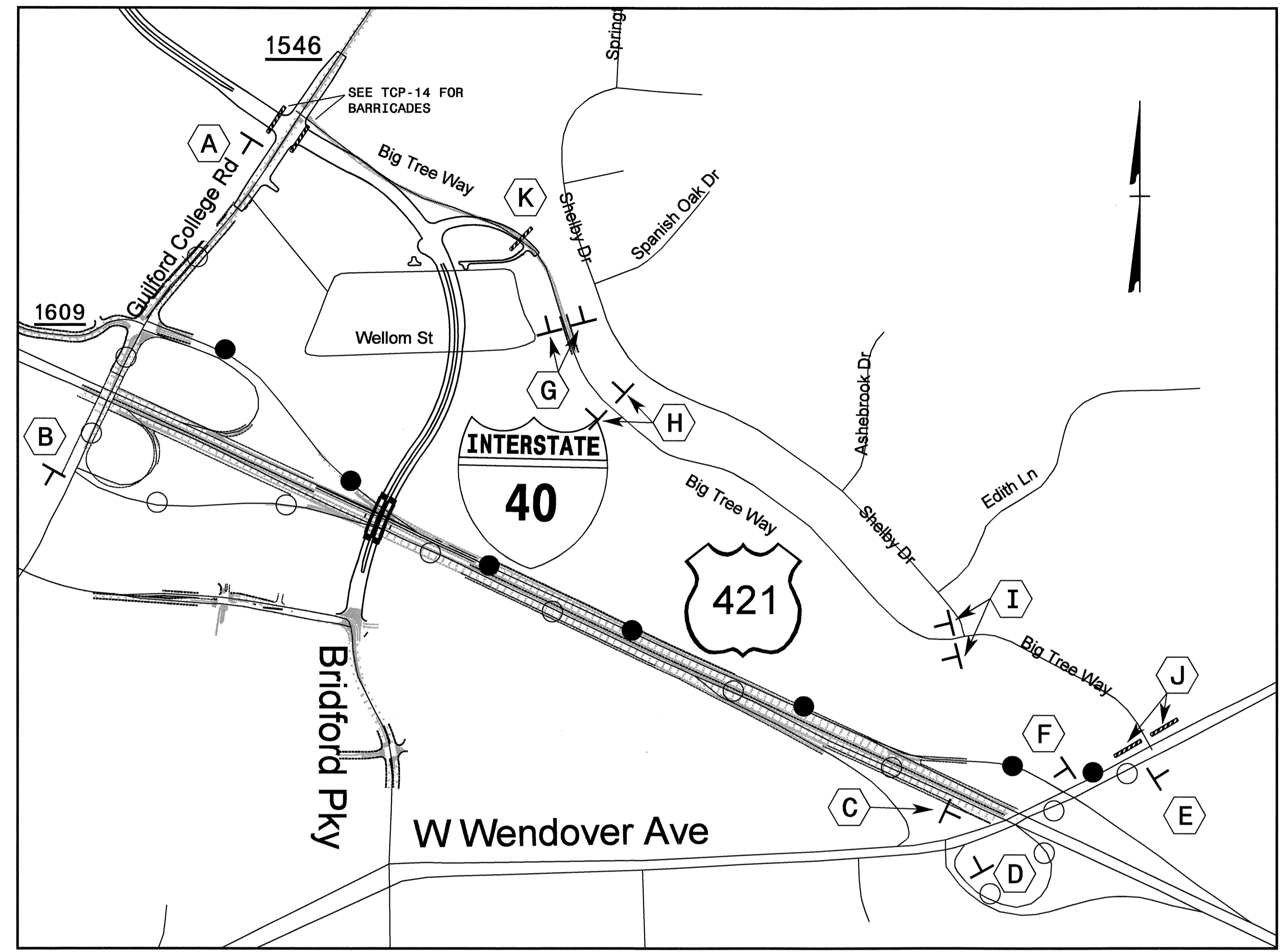
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 AT 12:24:38



NOTE: FOR OFFSITE DETOUR  
SEE TCP-11A.

APPROVED: <i>[Signature]</i> DATE: 5/5/09	<b>AREA 3, PHASE II DETAIL</b>	
SCALE: NONE		REVISIONS
DATE: 03/09		
DWG. BY: DAH		
DESIGN BY: DAH		
REVIEWED BY: JWW		CADD FILE

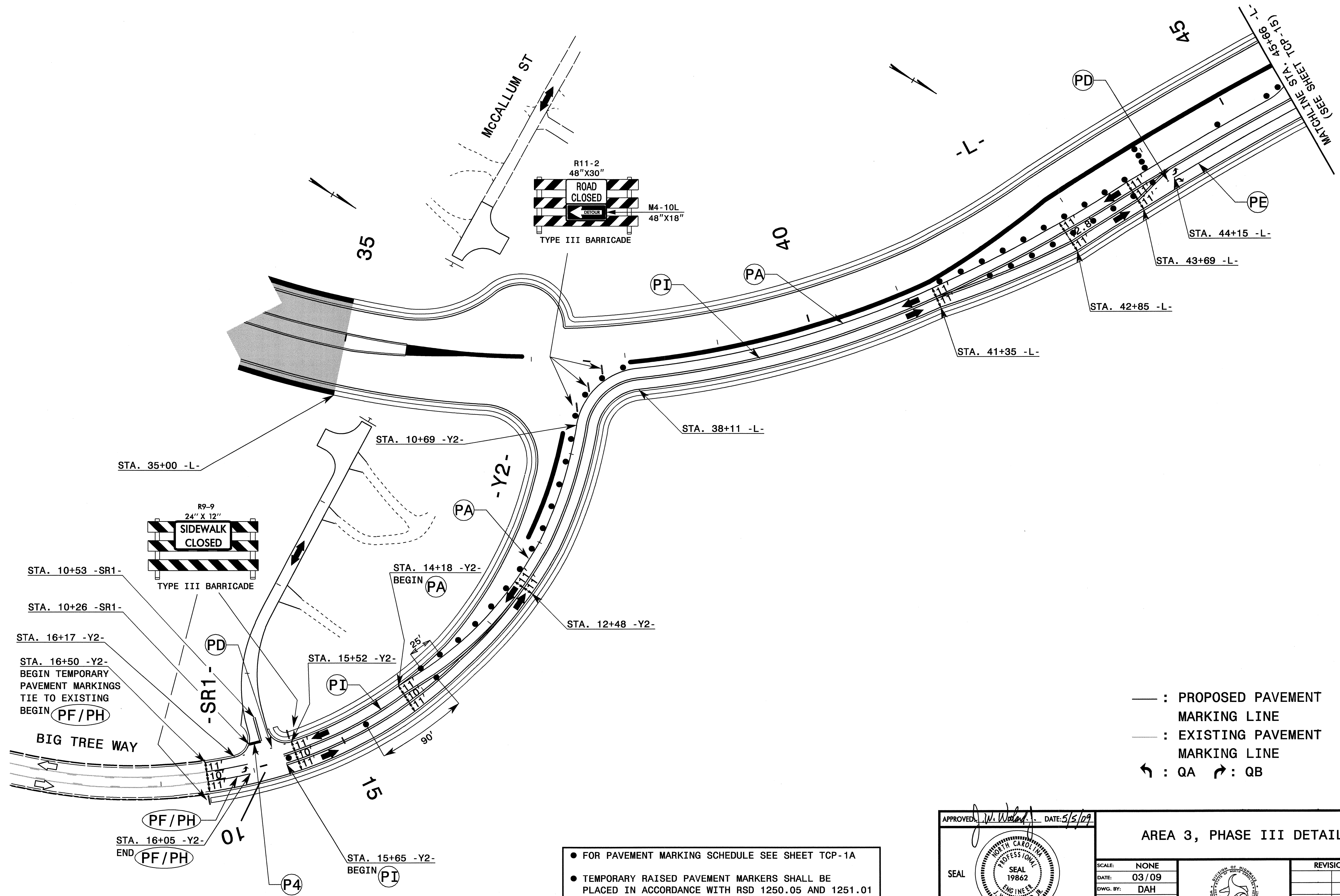
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 ahayes AT WZTC24738



NOTE: DENOTES THE NUMBER OF EACH BARRICADE/SIGN ASSEMBLY TO BE USED.

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 chaves AT WZTC24738

APPROVED:	DATE: 5/3/09	<b>AREA 3, PHASE II DETAIL -Y2- OFFSITE DETOUR</b>	
		DATE: 03/09	REVISIONS
DESIGN BY: DAH			
REVIEWED BY: JWW			



04-MAY-2009 16:28  
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 dhayes AT WZTC24738

- FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-1A
- TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.05 AND 1251.01

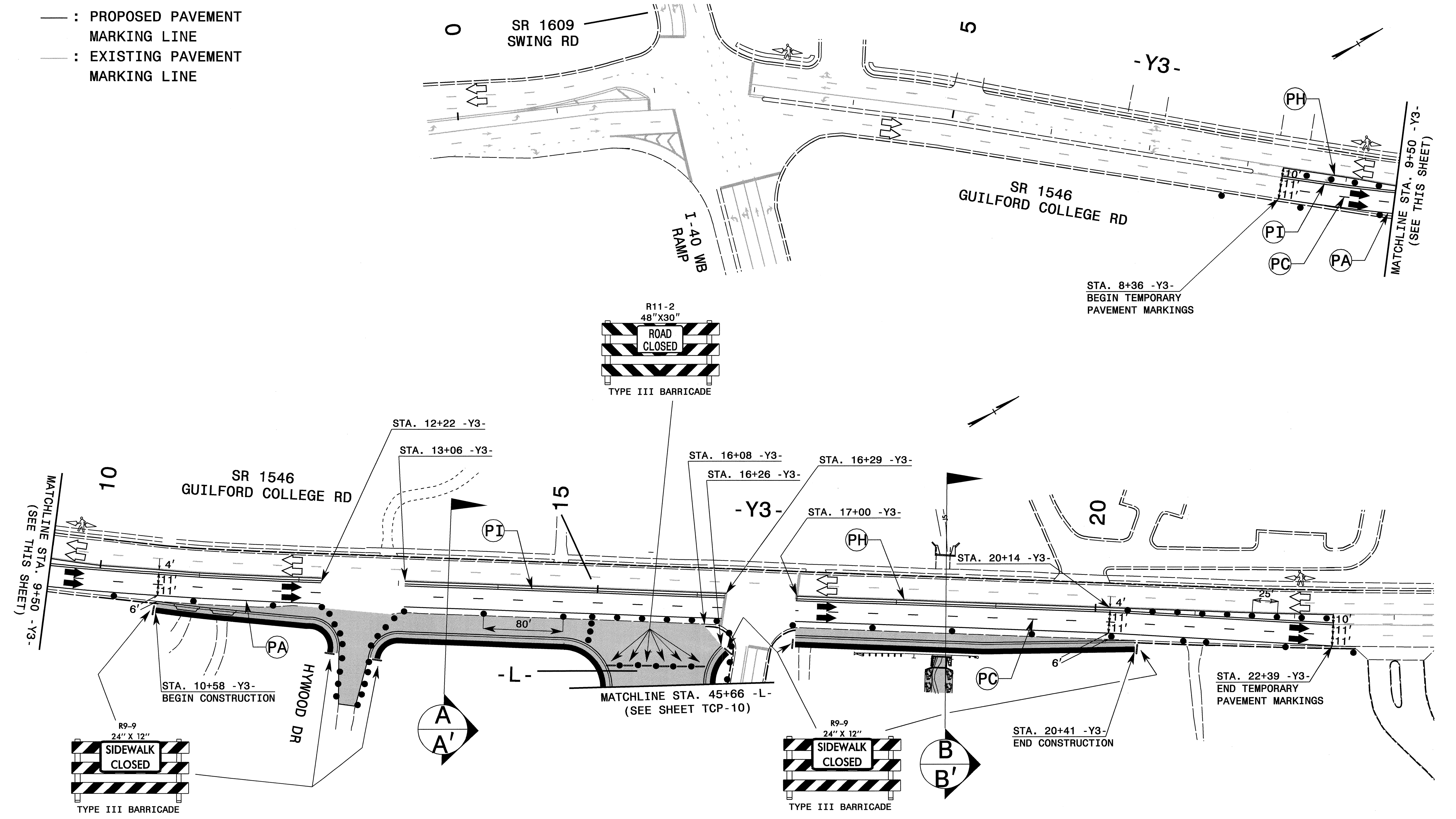
APPROVED: *J. W. Woolard* DATE: 5/5/09

SEAL

AREA 3, PHASE III DETAIL

SCALE:	NONE		REVISIONS
DATE:	03/09		
DWG. BY:	DAH		
DESIGN BY:	DAH		
REVIEWED BY:	JWW		

— : PROPOSED PAVEMENT  
 MARKING LINE  
 - - - : EXISTING PAVEMENT  
 MARKING LINE

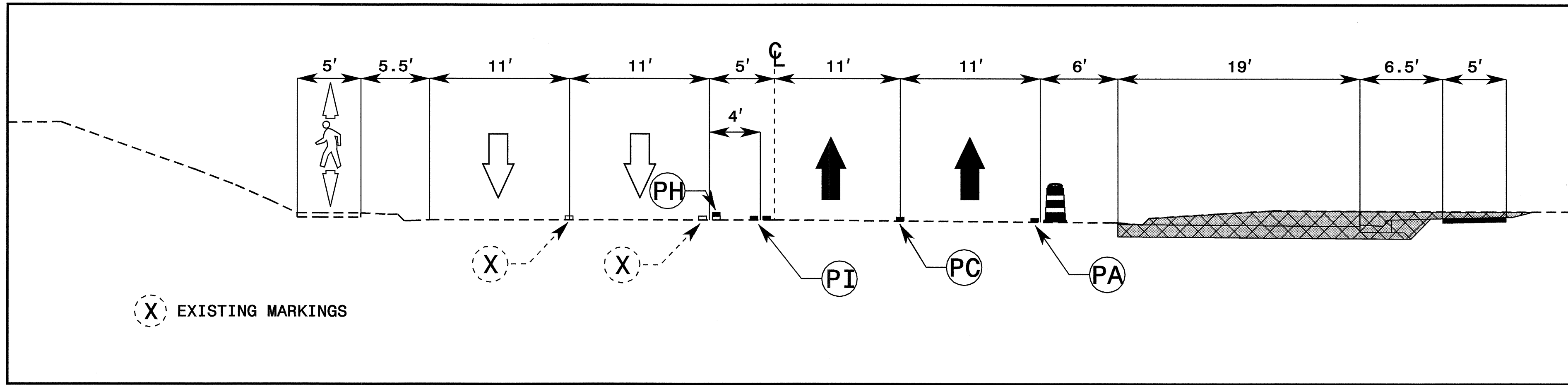


- FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-1A
- TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.05 AND 1251.01

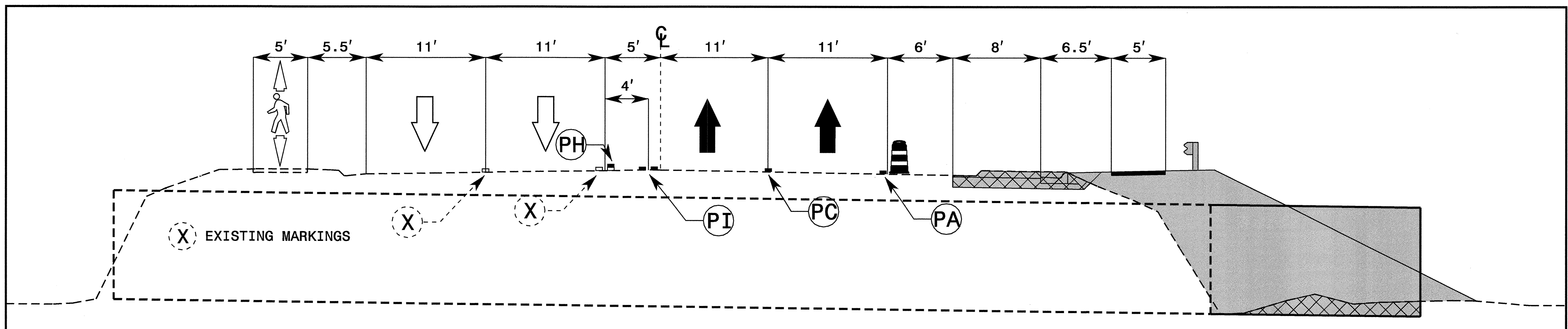
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	DATE: 03/09		REVISIONS
	DWG. BY: DAH		
	DESIGN BY: DAH		
REVIEWED BY: JWW			

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 ahayes AT WZTC24738





CUT SECTION A  
STA. 13+50 -Y3-A'

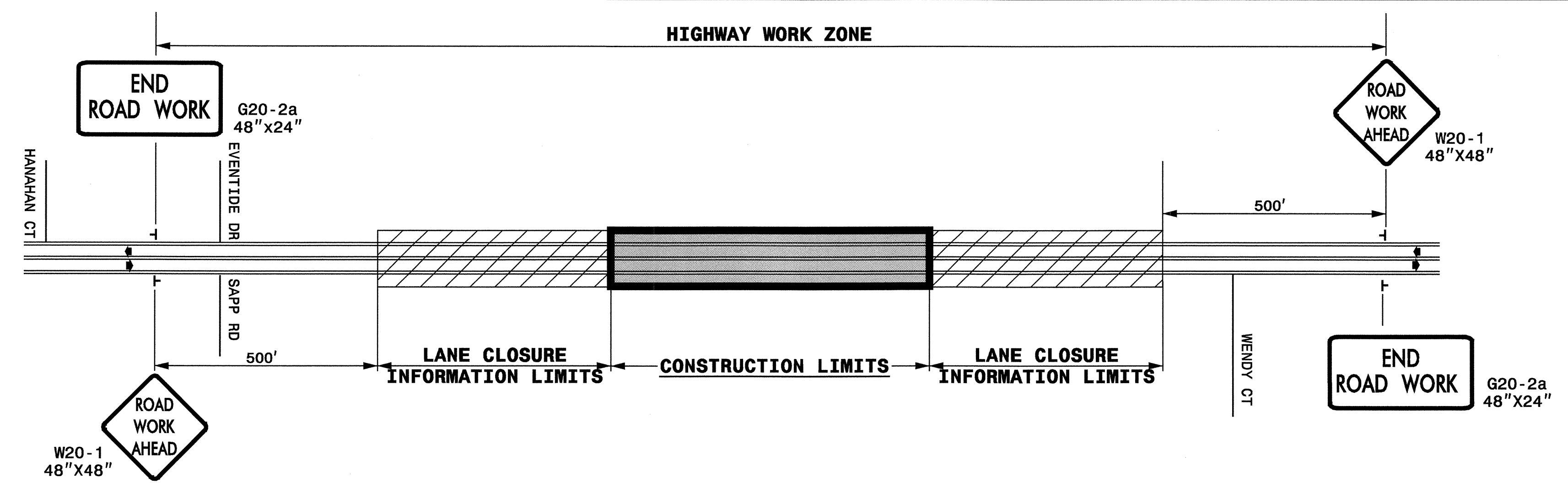


CUT SECTION B  
STA. 18+50 -Y3-B'

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 AT WZTC244738  
 dahyes

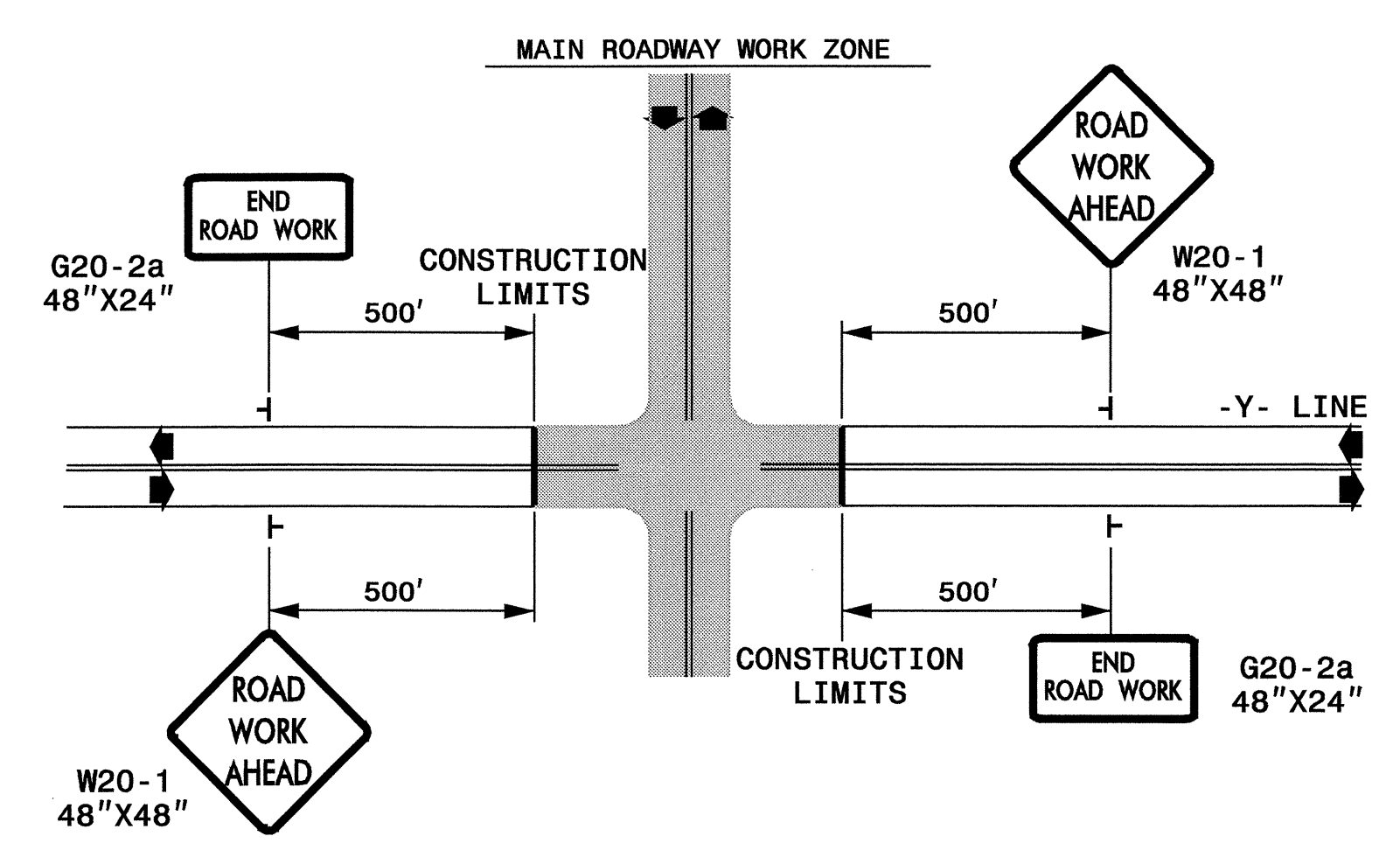
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SEAL 	SCALE: NONE									
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REVISIONS										

**TWO-WAY UNDIVIDED \*\* (-Y4-)**



STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

**ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (ROADWAYS)**



- ROADWAYS**
- HYWOOD DR
  - WEST VIEW VALLEY DRIVEWAY
  - ASHLEY OAKS DRIVEWAY
  - CENTURY OAKS DRIVEWAY
  - HIBLER RD

AREA 4  
 DETAIL DRAWING FOR  
 TWO-WAY UNDIVIDED  
 WORK ZONE WARNING SIGNS

**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.
- \*\* TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

**LEGEND**

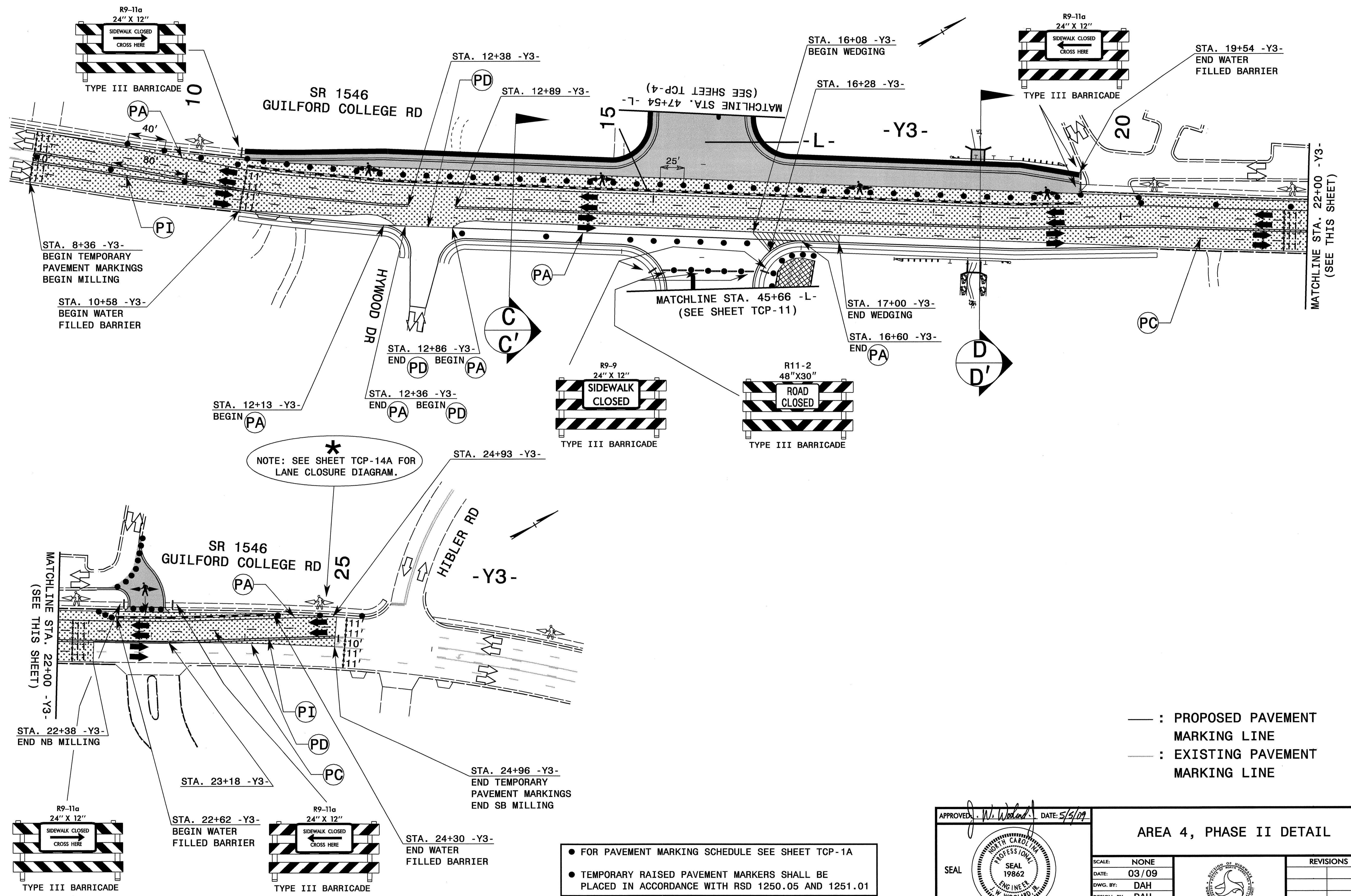
┆ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

APPROVED: <i>J.W. Woolard</i> DATE: 5/5/09	AREA 4 DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS	
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	DATE: 03/09	7-98 10/01
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	DESIGN BY: DAH	01/01 11/04
REVIEWED BY: JWW	CADD FILE	

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 chaves AT WZTC24738



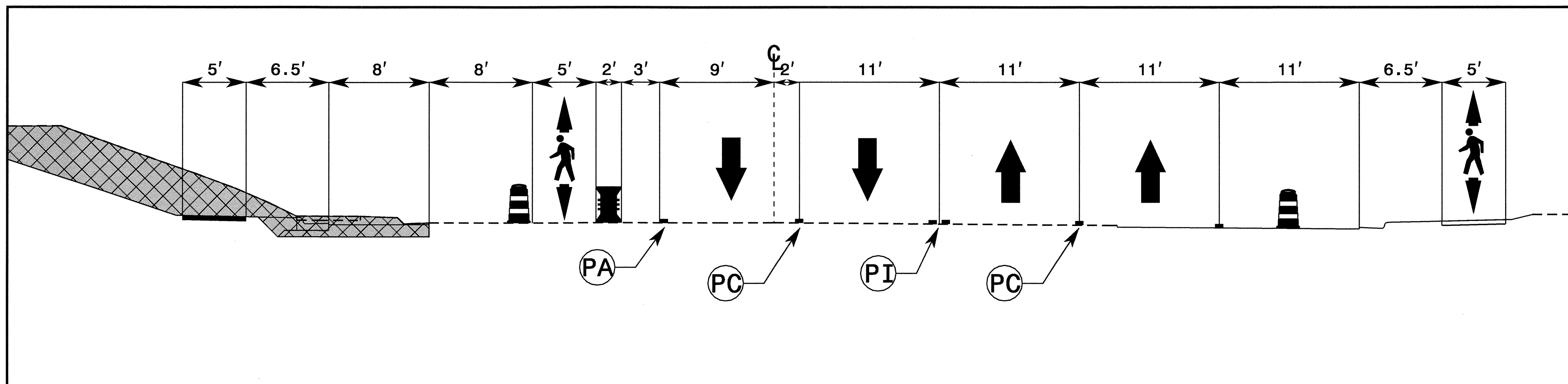
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NOTE: SEE SHEET TCP-14A FOR  
LANE CLOSURE DIAGRAM.

— : PROPOSED PAVEMENT  
MARKING LINE  
— : EXISTING PAVEMENT  
MARKING LINE

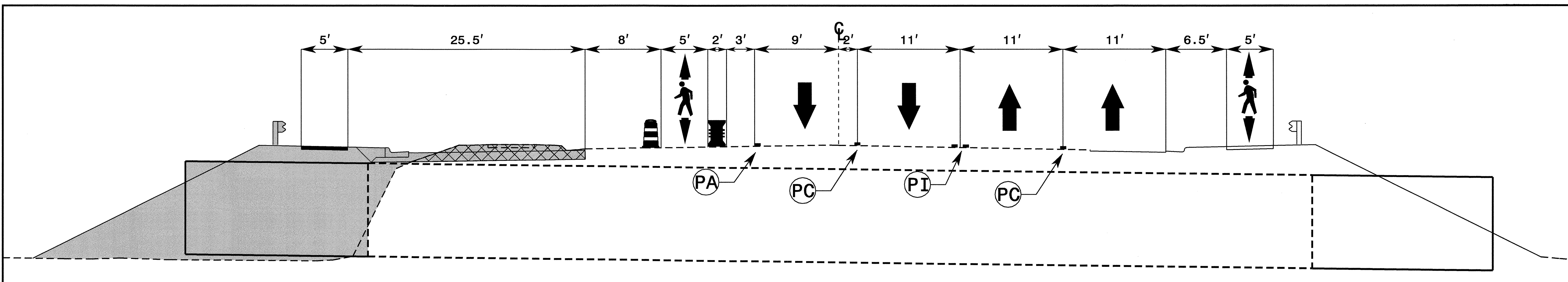
- FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-1A
- TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.05 AND 1251.01

APPROVED: <i>[Signature]</i> DATE: 5/5/09	<b>AREA 4, PHASE II DETAIL</b>	
SCALE: NONE	REVISIONS	
DATE: 03/09		
DWG. BY: DAH		
DESIGN BY: DAH		
REVIEWED BY: JWW		

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 ahayes AT 11:22:47:38



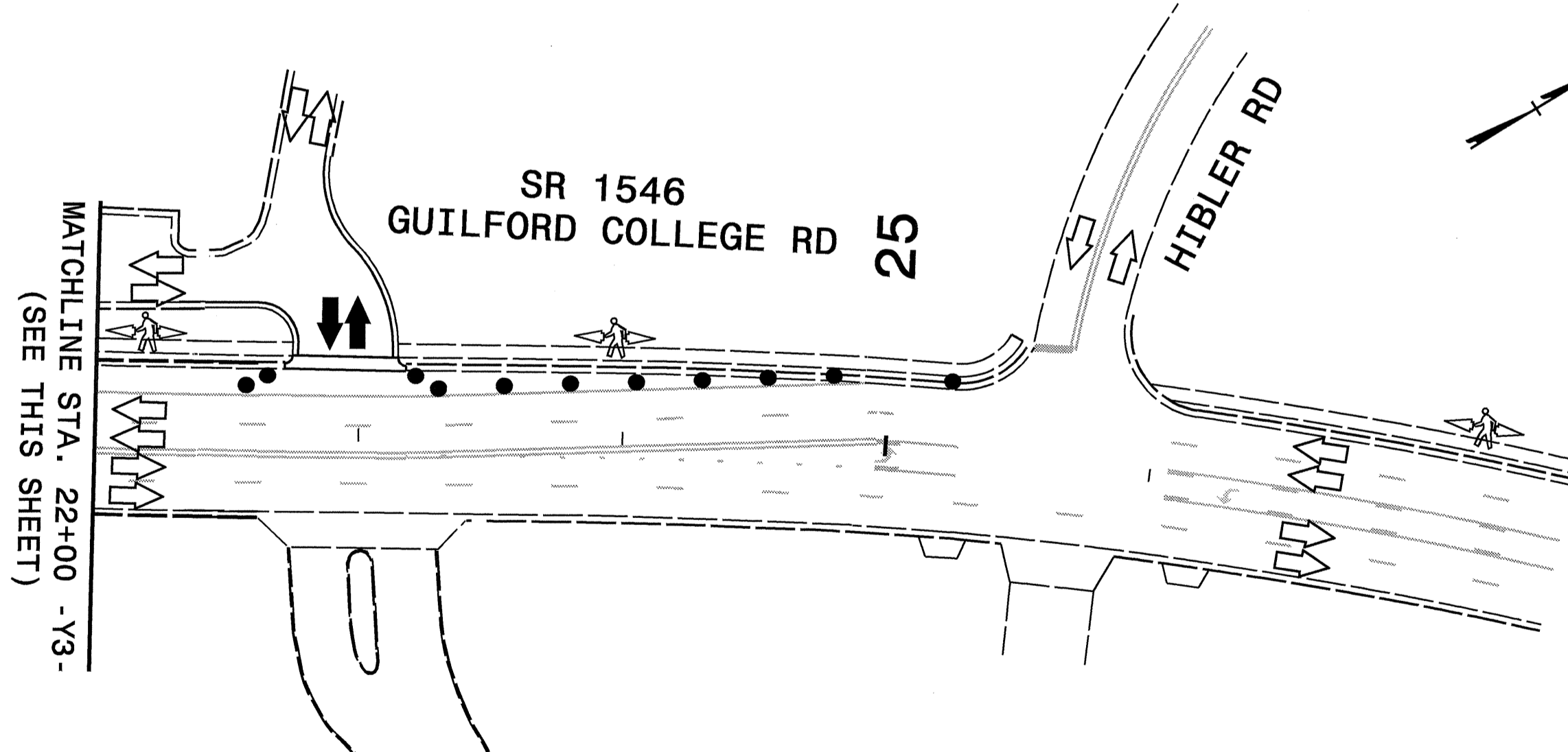
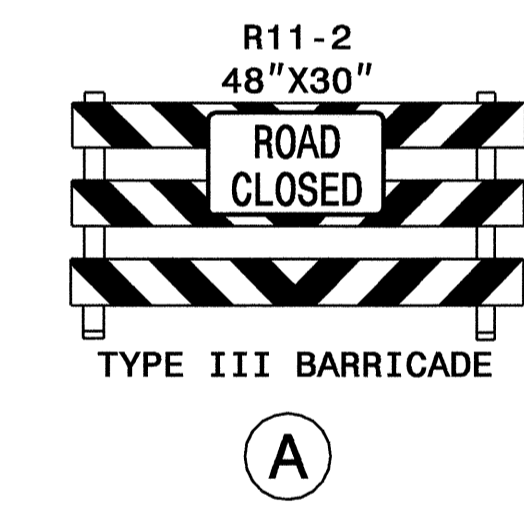
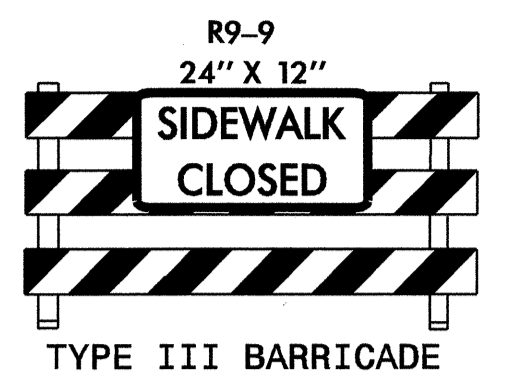
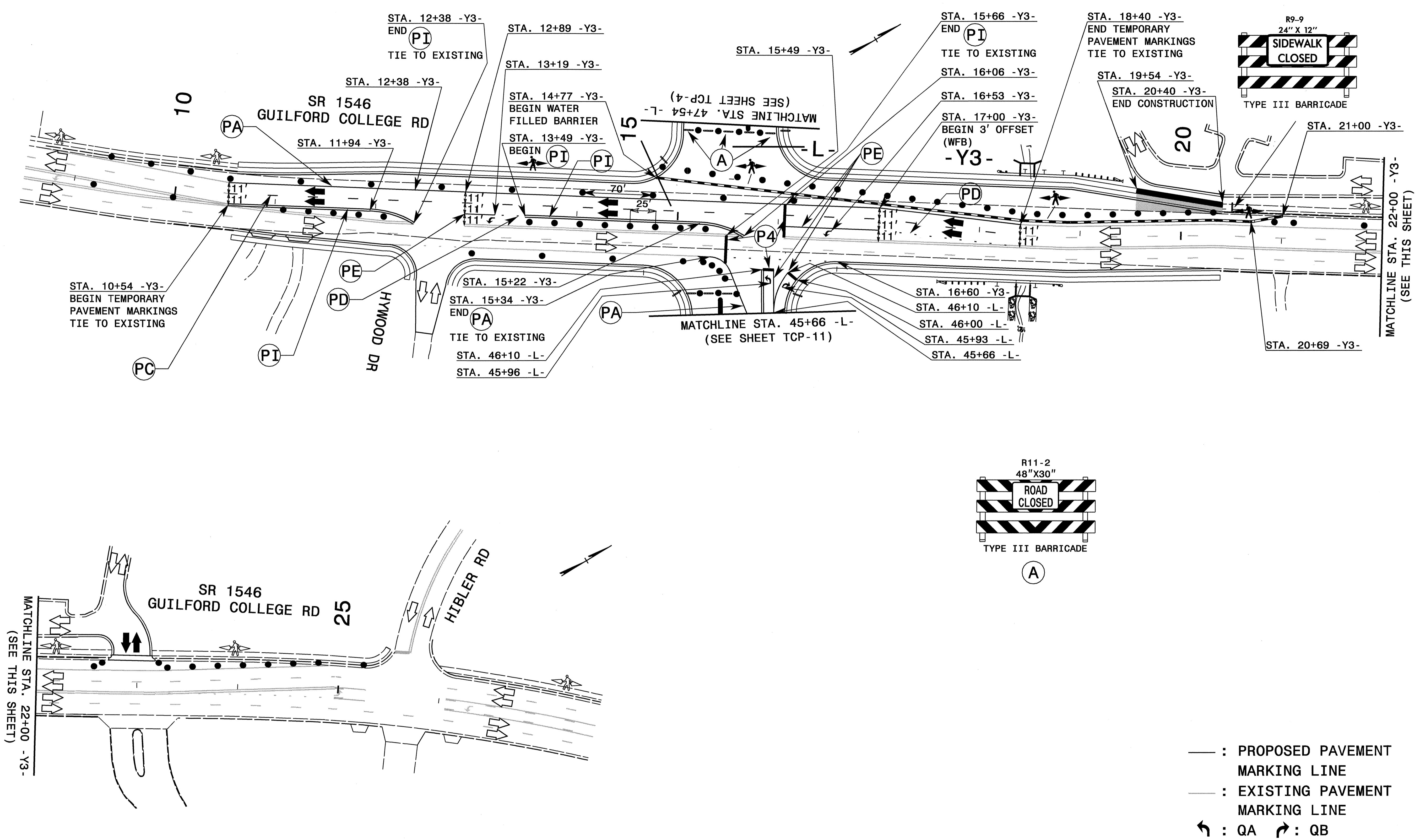
CUT SECTION **C**  
STA. 13+50 -Y3- **C'**



CUT SECTION **D**  
STA. 18+50 -Y3- **D'**

04-MAY-2009 16:26  
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 ahayes AT WZTC24738

APPROVED: <i>J.W. Woolard</i> DATE: 5/5/09	<b>AREA 4, PHASE II DETAIL</b>									
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	DATE: 01/09									
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REVISIONS										



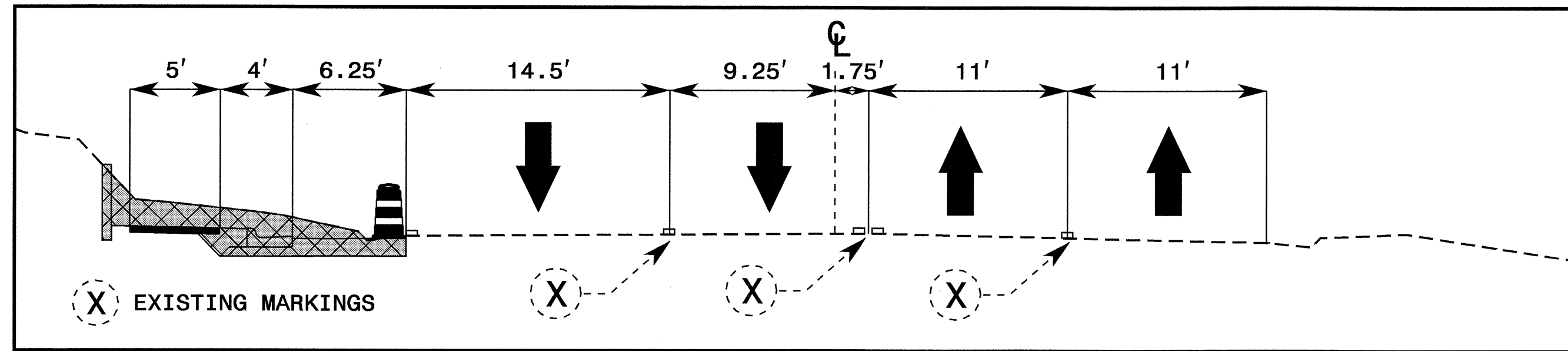
- FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-1A
- TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.05 AND 1251.01

APPROVED: *J.W. Woodard* DATE: 5/5/09

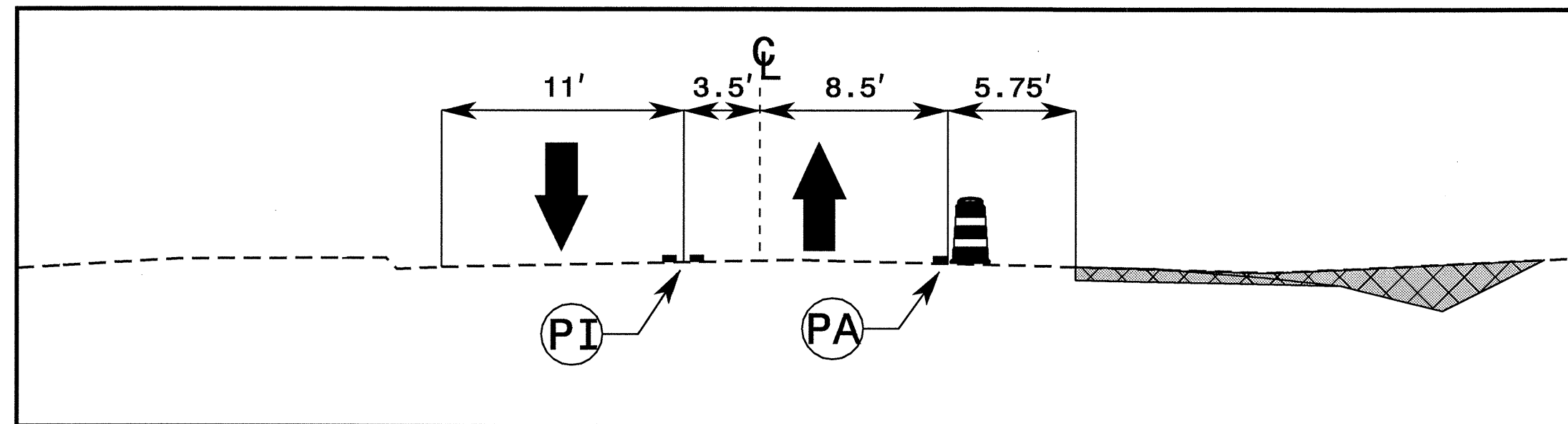
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<b>AREA 4, PHASE III DETAIL</b>	
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DATE: 03/09	
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REVIEWED BY: JWW	

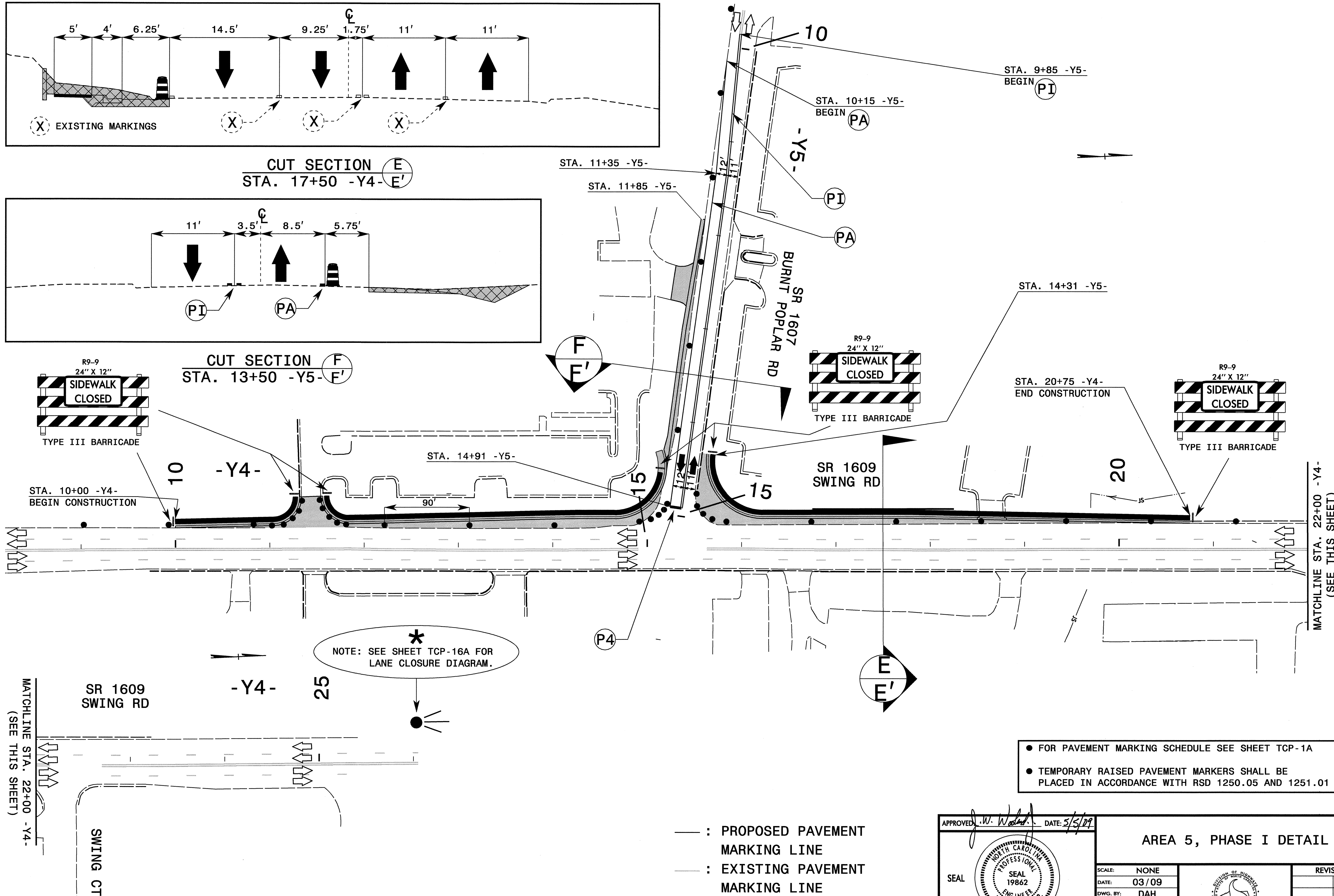
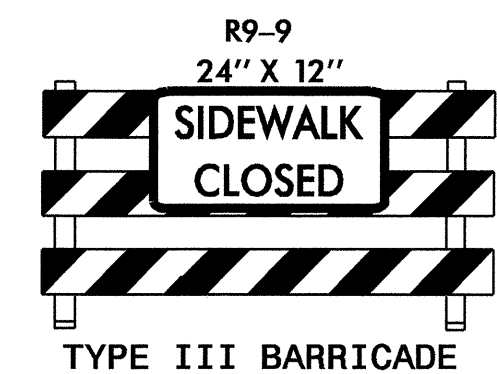
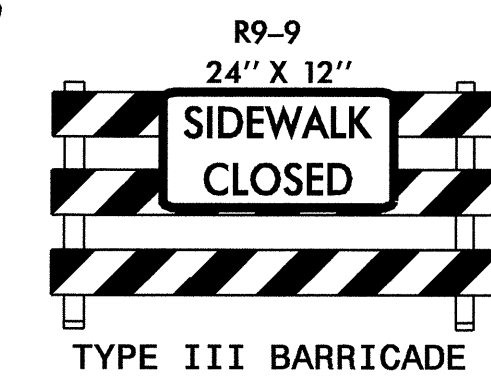
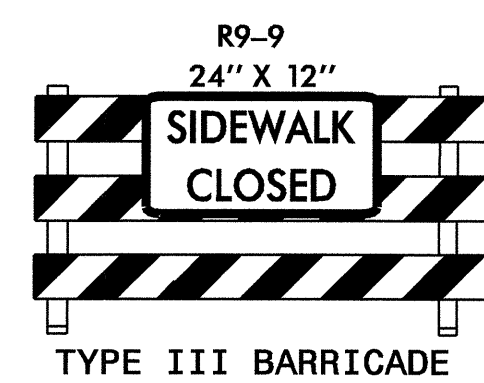
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 AT WZTC244738



CUT SECTION E  
STA. 17+50 -Y4-E



CUT SECTION F  
STA. 13+50 -Y5-F



\*  
NOTE: SEE SHEET TCP-16A FOR  
LANE CLOSURE DIAGRAM.

- FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-1A
- TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.05 AND 1251.01

— : PROPOSED PAVEMENT MARKING LINE  
- - - : EXISTING PAVEMENT MARKING LINE

APPROVED: *W. Wood* DATE: 5/5/09

SEAL

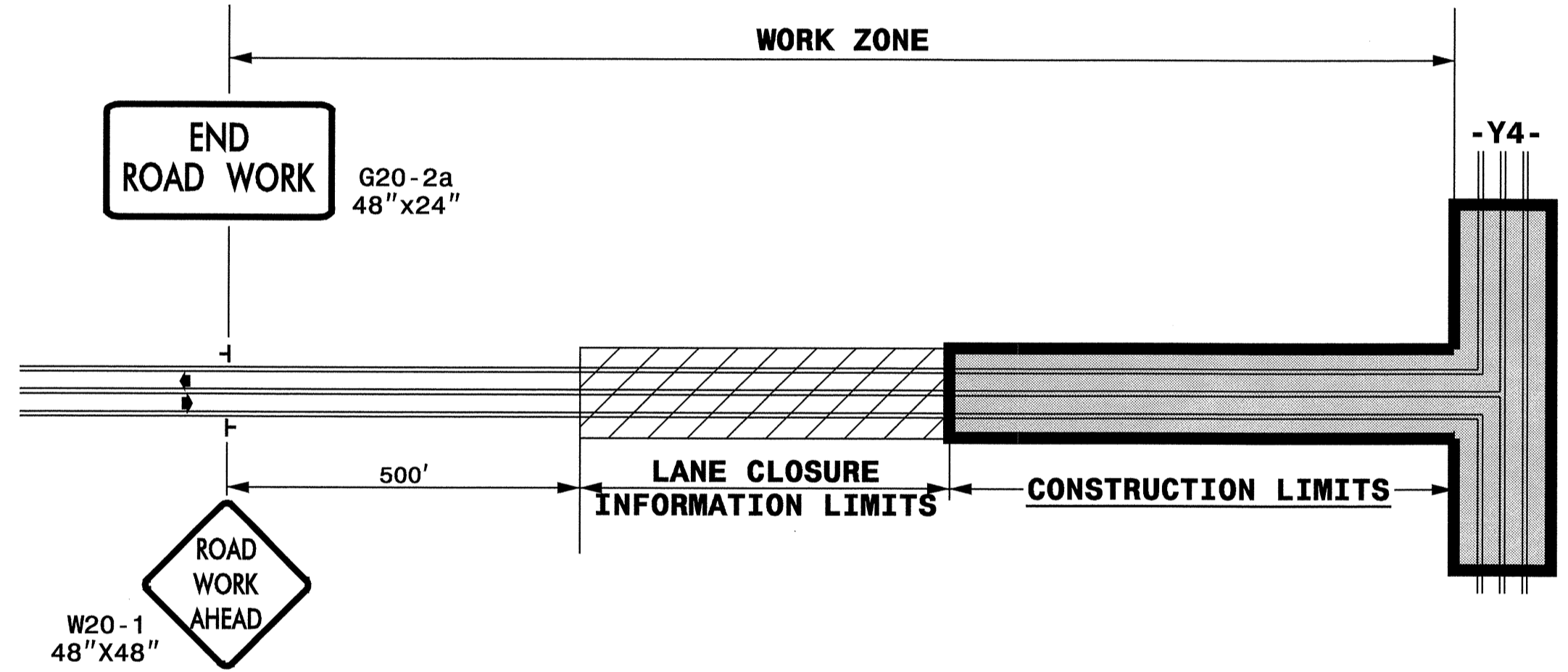
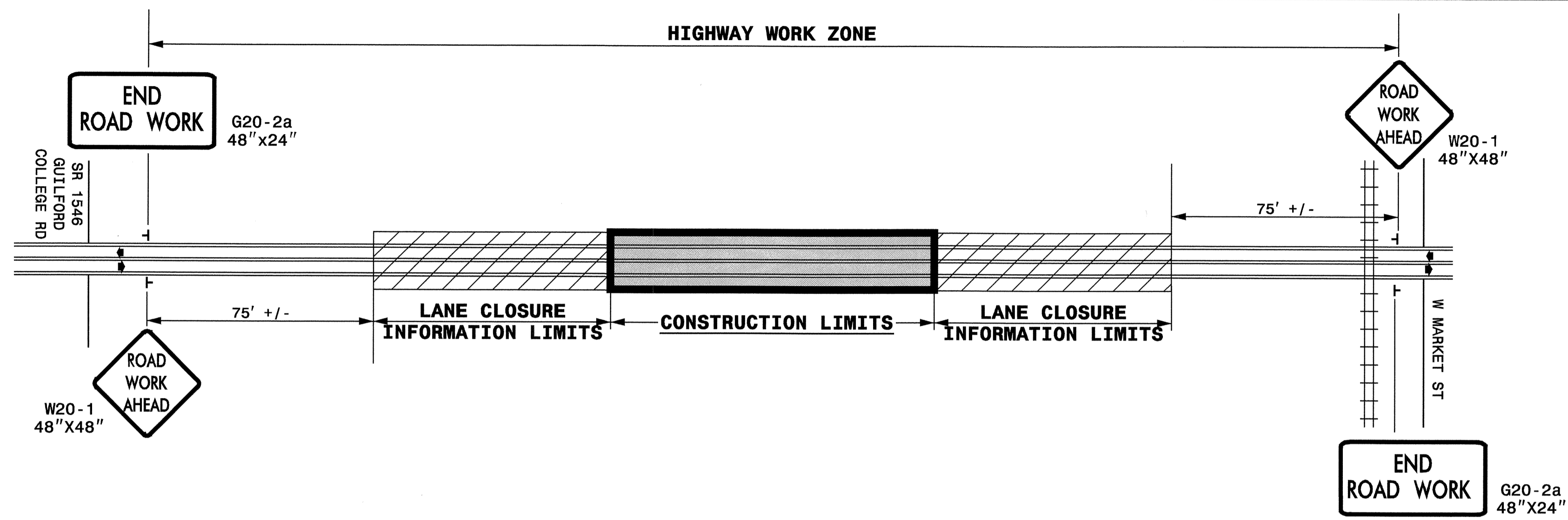
AREA 5, PHASE I DETAIL

SCALE: NONE		REVISIONS
DATE: 03/09		
DWG. BY: DAH		
DESIGN BY: DAH		
REVIEWED BY: JWW		

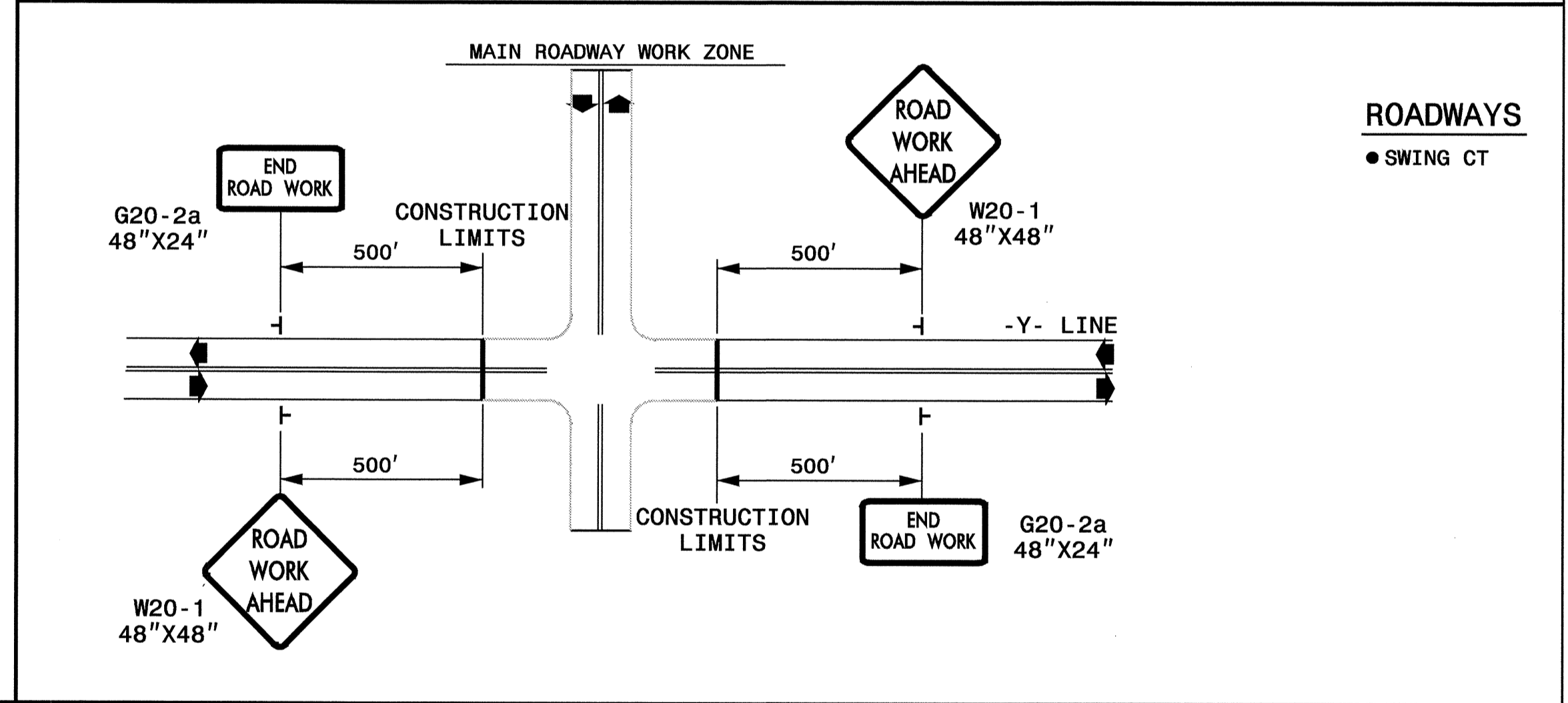
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 AT WZTC244738  
 ahayes

**TWO-WAY UNDIVIDED \*\* (-Y4- AND -Y5-)**



**ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (ROADWAYS)**



**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.
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- 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.
- \*\* TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

**LEGEND**

┆ STATIONARY SIGN

◄ DIRECTION OF TRAFFIC FLOW

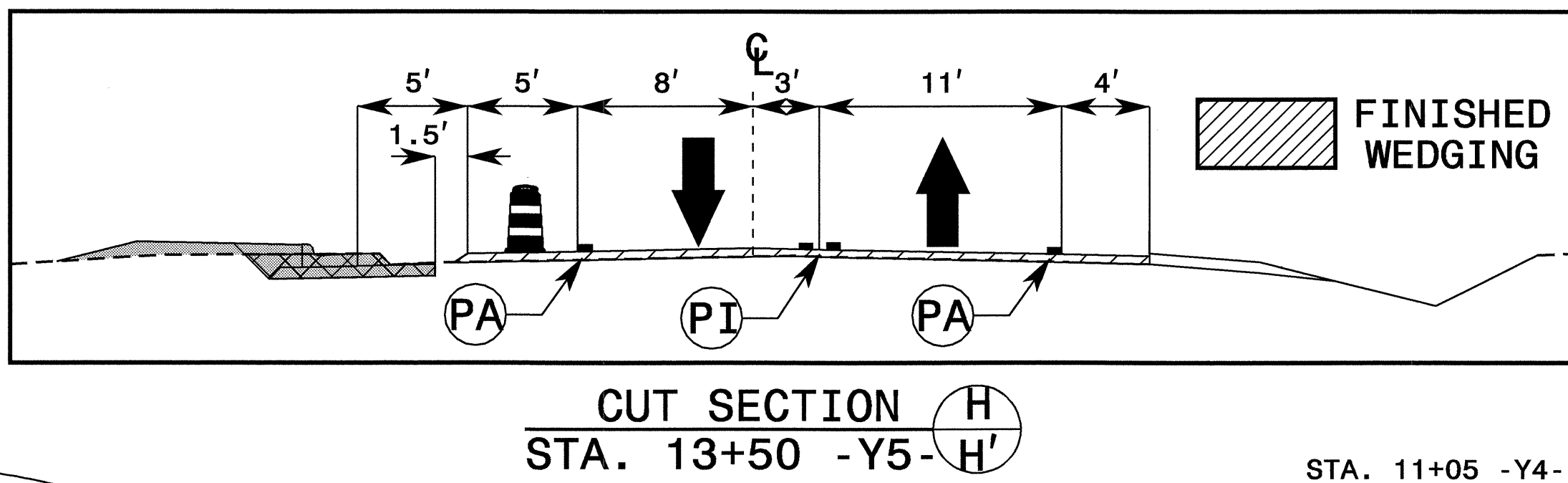
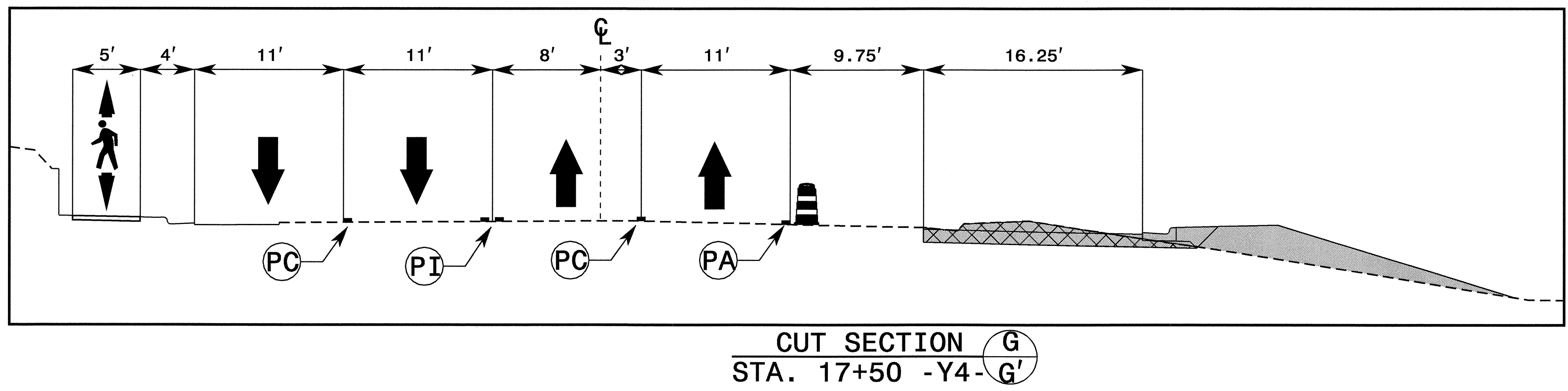
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

**AREA 5  
DETAIL DRAWING FOR  
TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS**

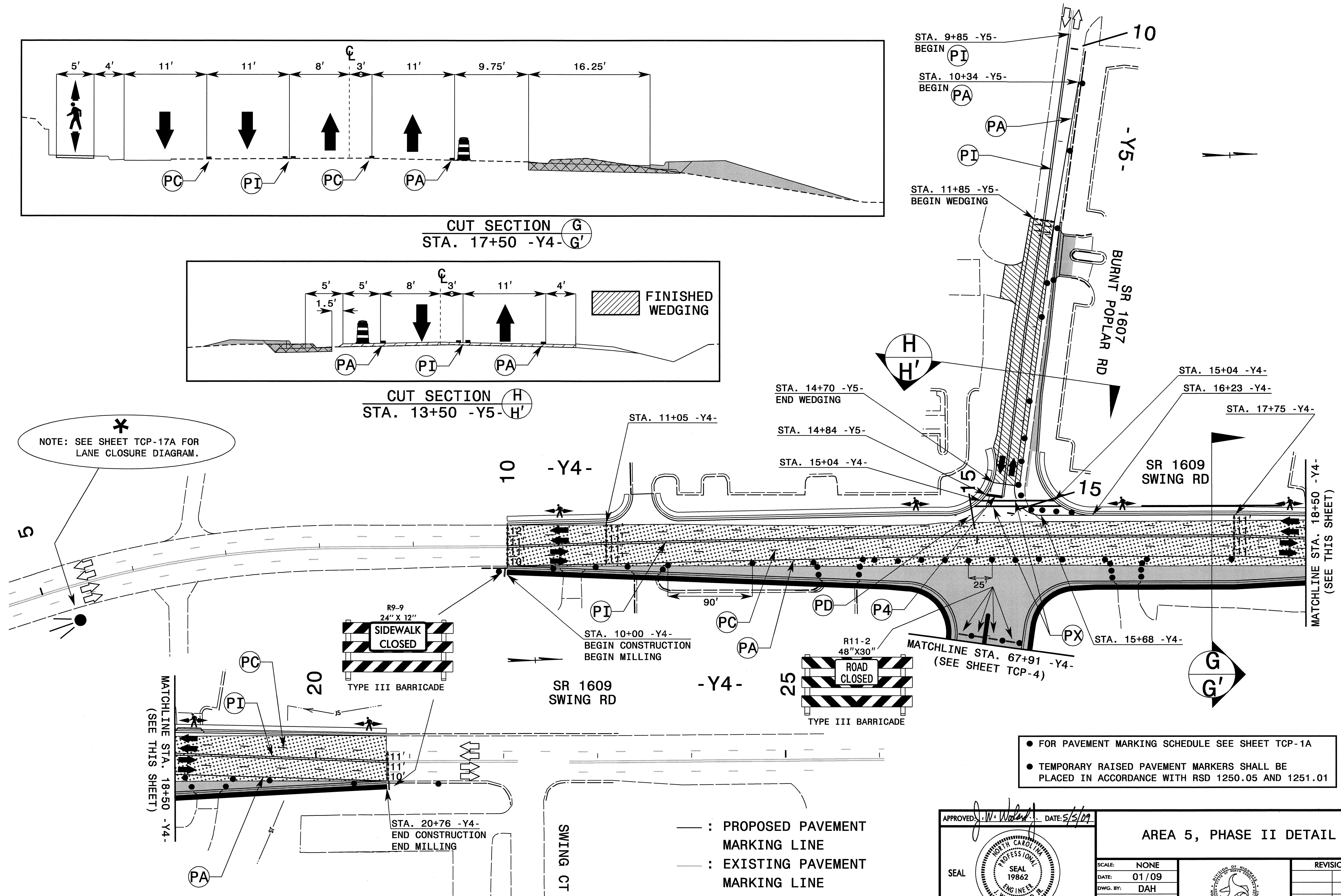
SHEET 1 OF 1

APPROVED: <i>W. Woodard</i> DATE: 5/3/09	AREA 5 DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS	
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REVIEWED BY: JWW		

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\*  
NOTE: SEE SHEET TCP-17A FOR  
LANE CLOSURE DIAGRAM.



- FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-1A
- TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.05 AND 1251.01

— : PROPOSED PAVEMENT MARKING LINE  
 - - - : EXISTING PAVEMENT MARKING LINE

APPROVED: <i>J.W. Walden</i> DATE: 5/5/09	<b>AREA 5, PHASE II DETAIL</b>		
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	DATE: 01/09		REVISIONS
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	DESIGN BY: DAH		
REVIEWED BY: JWW			

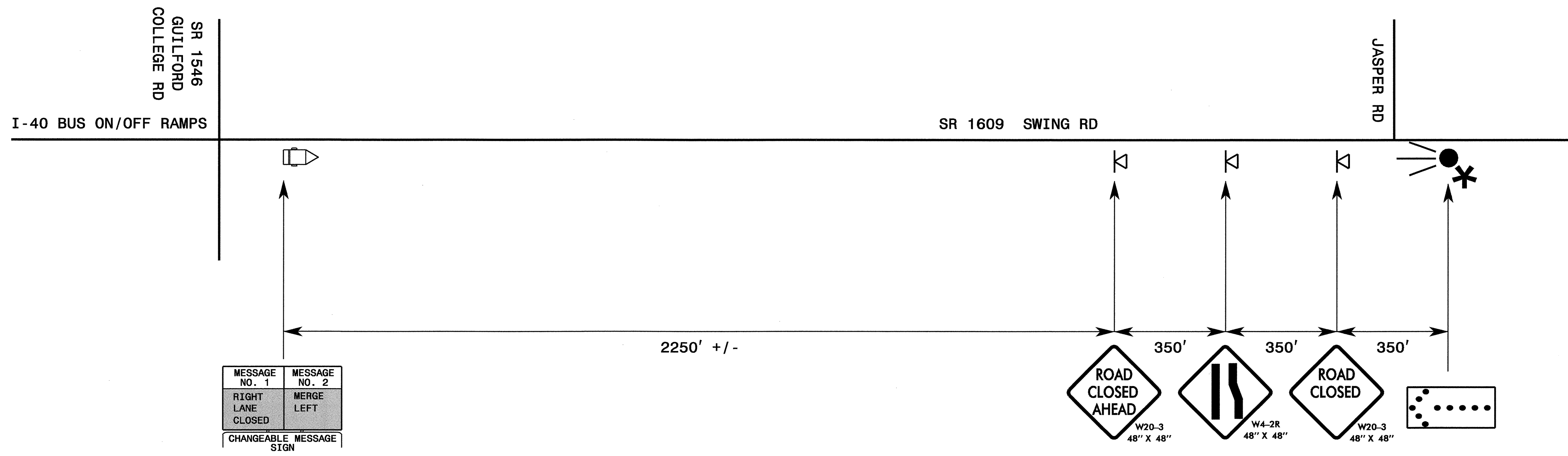
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 chaves AT WZTC24738



LANE CLOSURE DIAGRAM

INSET 2

NOTE: REFER TO RSD 1101.02, SHEET 3 OF 9 FOR GENERAL NOTES.



04-MAY-2009 16:23  
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 chaves AT WZTC24738

APPROVED: <i>J.W. Woolard</i> DATE: 5/3/09	<b>AREA 5, PHASE II DETAIL</b>	
	SCALE: NONE	
	DATE: 01/09	
	DWG. BY: DAH	
	DESIGN BY: DAH	
REVIEWED BY: JWW	REVISIONS	