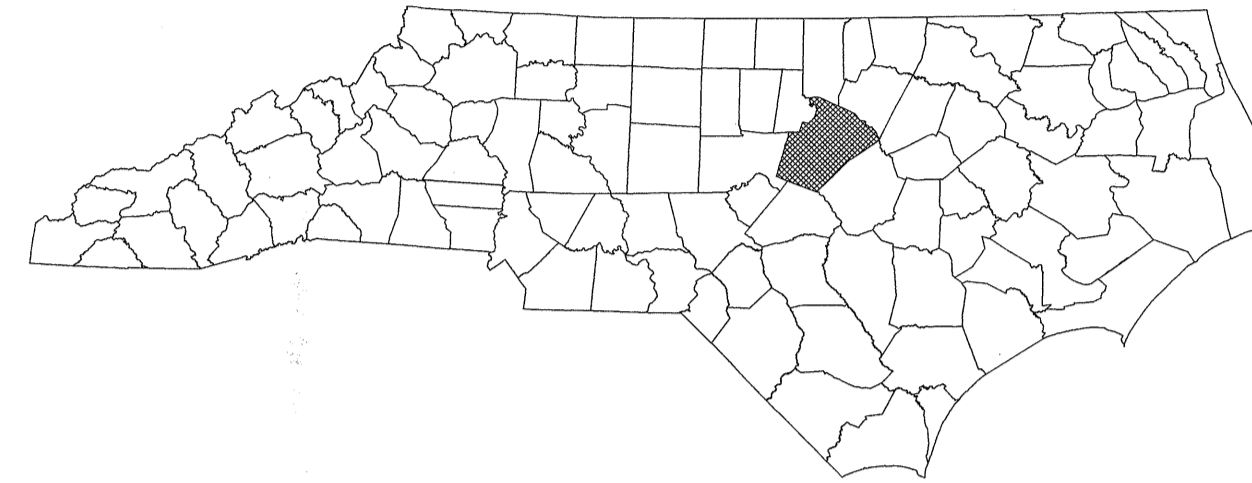


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

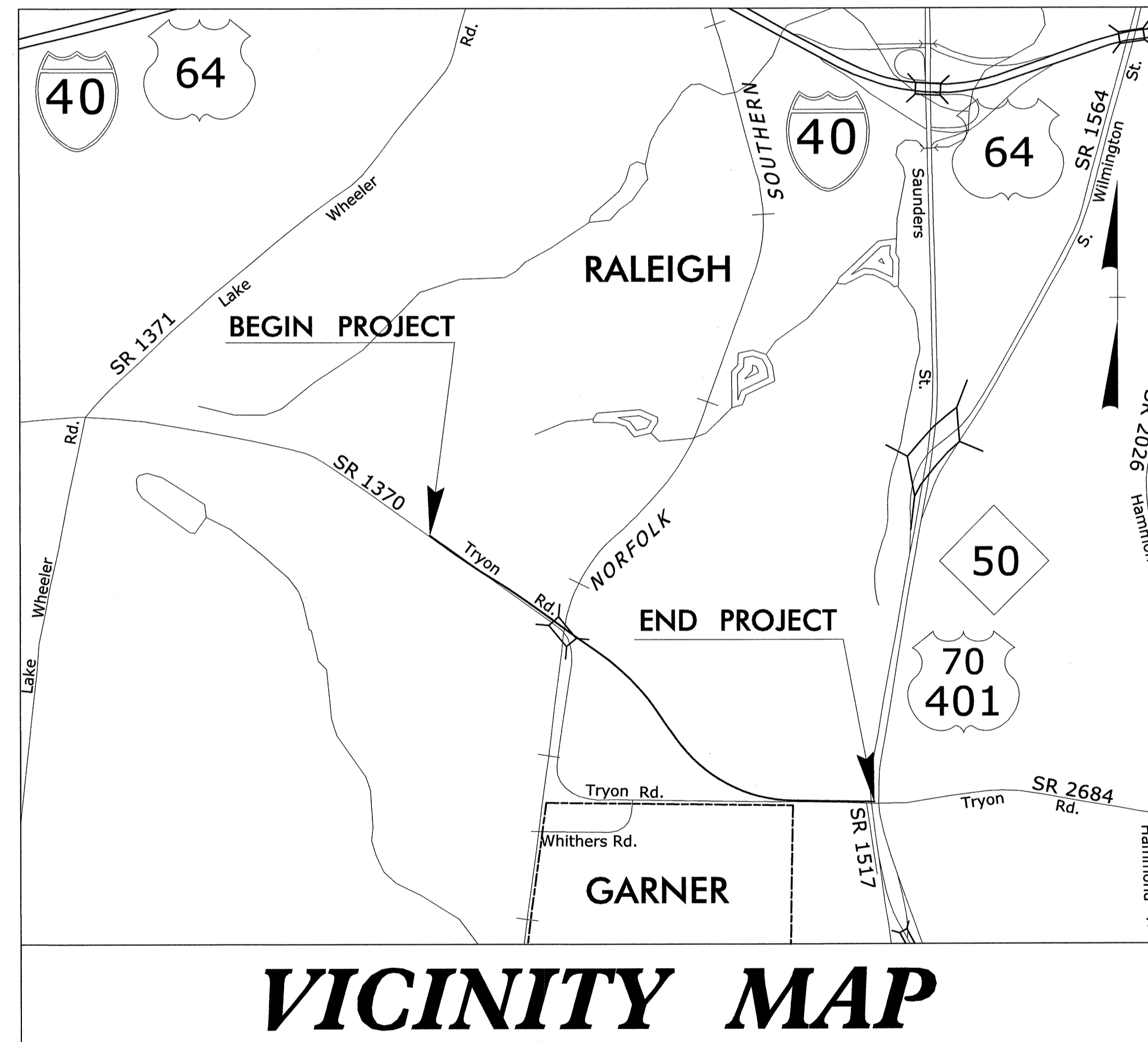
TRANSPORTATION MANAGEMENT PLAN

WAKE COUNTY



LOCATION:
RALEIGH - SR 1370 (TRYON ROAD) FROM
WEST OF BRIDGE NO. 259 TO US 70-401/NC 50

TYPE OF WORK:
GRADING, DRAINAGE, PAVING, STRUCTURE, AND
SIGNALS



VICINITY MAP

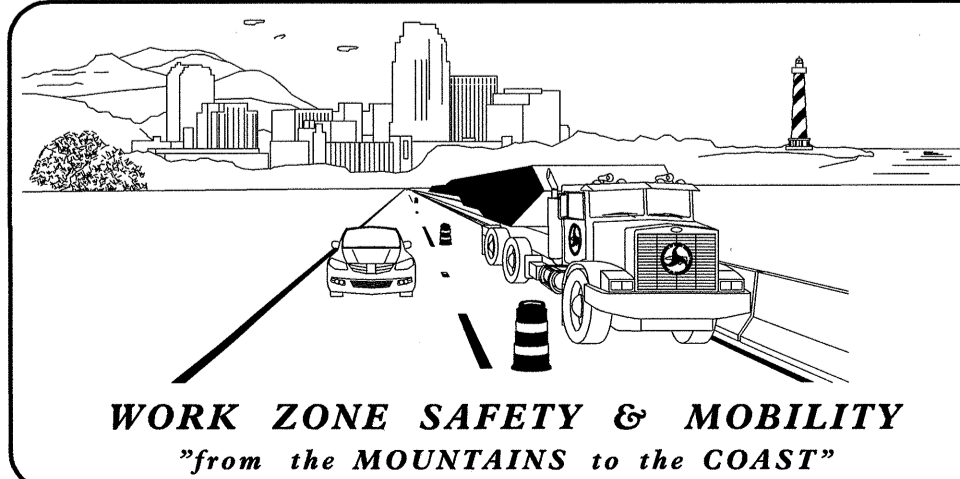
SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING
TMP-1B & 1C	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES AND LOCAL NOTES)
TMP-2	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TMP-2A	TEMPORARY SHORING DATA
TMP-2B - 2C	TRYON RD. DETOUR
TMP-2D	GRENELLE ST. ROAD CLOSURE
TMP-3 & 3A	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4 - 9	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-10 - 16	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL
TMP-17	TEMPORARY TRAFFIC CONTROL PHASE III DETAIL

SHEET NO.
TMP-1

U-4432

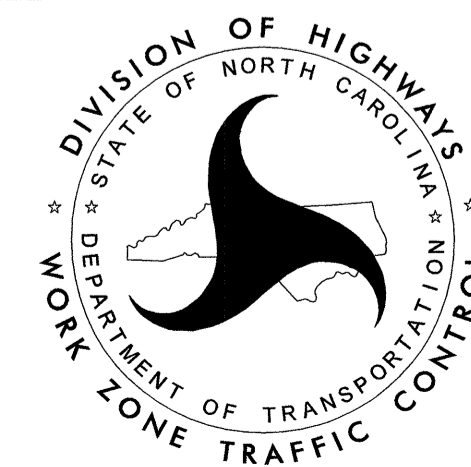
TIP PROJECT:

11/5/2013 R:\TIP\files\TrafficControl\top\U4432.TC_TMP-01.dgn User:rdonaldson



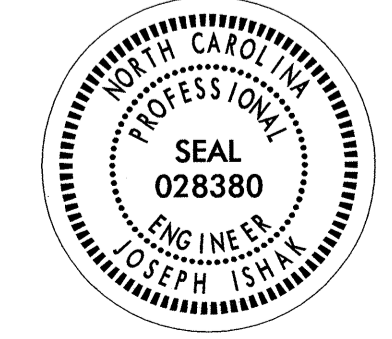
N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
J. ISHAK, P.E. TRAFFIC CONTROL PROJECT ENGINEER
M. H. STEELMAN TRAFFIC CONTROL PROJECT DESIGN ENGINEER
L. K. DONALDSON, P.E. TRAFFIC CONTROL DESIGN ENGINEER



APPROVED: *Joseph Ishak*
DATE: 11-5-2013

SEAL



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 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
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	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
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
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

LEGEND

GENERAL

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

- WORK AREA
- REMOVAL
- TEMPORARY CROSSOVER
- WORK PREVIOUSLY BEGUN

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN
- RECTANGULAR RAPID FLASHING BEACONS (RRFB)
SEE SIGNAL SPECIAL PROVISIONS.

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKERS

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

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

4" COLD APPLIED PLASTIC
TYPE IV REMOVABLE TAPE

- CA WHITE EDGE LINE
- CI YELLOW DOUBLE CENTER

24" PAINT

- P2 WHITE STOPBAR
- P3 WHITE CROSSWALK LINE

4" PAINT

- PA WHITE EDGE LINE
- PB YELLOW EDGE LINE
- PC WHITE SKIP
- PD WHITE MINISKIP
- PE WHITE SOLID LANE LINE
- PI YELLOW DOUBLE CENTER

8" PAINT

- PN WHITE GORE LINE
- PO WHITE DIAGONAL
- PP YELLOW DIAGONAL
- PQ WHITE CROSSWALK LINE

PAINT SYMBOLS

- QA LEFT TURN ARROW
- QB RIGHT TURN ARROW
- QC STRAIGHT TURN ARROW
- QD STRAIGHT/LEFT TURN ARROW
- QE STRAIGHT/RIGHT TURN ARROW
- QI ALPHANUMERIC CHARACTER
- QM 12" YIELD LINE SYMBOL

APPROVED: _____ DATE: _____			<p>ROADWAY STANDARD DRAWINGS & LEGEND & TEMPORARY PAVEMENT MARKING</p>

MANAGEMENT STRATEGIES

THE PROJECT WILL BE CONSTRUCTED USING A COMBINATION OF STAGED CONSTRUCTION, LANE CLOSURES, AND ROAD CLOSURES. TEMPORARY SHORING, CROSSEOVERS AND TEMPORARY SIGNALS WILL BE USED TO MANAGE TRAFFIC OPERATIONS DURING CONSTRUCTION.

GENERAL NOTES

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

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
EXISTING TRYON RD. (PHASE I), PROPOSED TRYON RD. (PHASE II & III) & US 70 (WILMINGTON ST.)	MONDAY THRU SATURDAY FROM 6:00 AM TO 9:00 PM
	SUNDAY FROM 10:00 AM TO 6:00 PM

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

ROAD NAME: EXISTING TRYON RD. (PHASE I), PROPOSED TRYON RD. (PHASE II & III), AND US 70 (WILMINGTON ST.)

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 9:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

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 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 9:00 P.M. TUESDAY.

7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.

8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
EXISTING TRYON RD. (PHASE I), PROPOSED TRYON RD. (PHASE II & III) & US 70 (WILMINGTON ST.)	MONDAY THRU SATURDAY FROM 5:00 AM TO 11:00 PM SUNDAY FROM 7:00 AM TO 11:00 PM	15 MIN TRAFFIC SHIFTS & SIGNALS INSTALLATION

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 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.

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

TRAFFIC PATTERN ALTERATIONS

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

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.

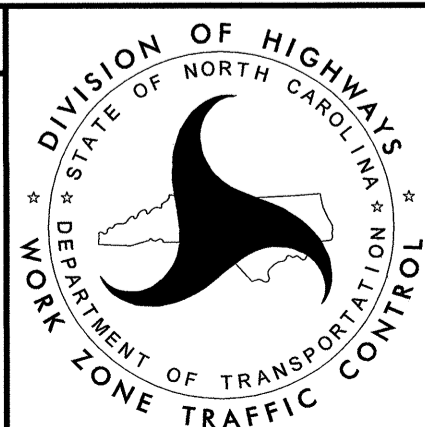

O) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE 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.

APPROVED:	DATE:		<h2>TRANSPORTATION OPERATIONS PLAN</h2>
			

GENERAL NOTES CONTINUED

TRAFFIC BARRIER

- R) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT 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 TRANSPORTATION MANAGEMENT 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 TRANSPORTATION MANAGEMENT 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.

- S) 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: (SEE ALSO 1101.05)

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

- T) 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.
- U) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- V) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.
- W) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
ROADWAY	PAINT	TEMPORARY RAISED
BRIDGE	COLD APPLIED PLASTIC (TYPE IV)	TEMPORARY RAISED


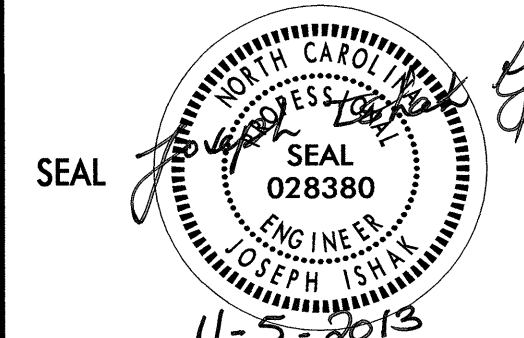
- X) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- Y) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Z) REMOVE/REPLACE ANY CONFLICTING/DAMAGED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

MISCELLANEOUS

- BB) LAW ENFORCEMENT SHALL BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- CC) IN THE EVENT A TIE-IN TO A DRIVEWAY CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 500 FT AND 250 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.
- DD) ALL CURB 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.

LOCAL NOTES

- 1) NO CONSTRUCTION VEHICLES SHALL INGRESS OR EGRESS ACROSS THE SHOULDER FROM EXISTING TRYON RD. FROM BRIDGE #259 TO WITHERS RD. IN PHASE I. CONSTRUCTION VEHICLES SHALL UTILIZE PROPOSED TRYON RD. THRU RENAISSANCE PARK SUBDIVISION FOR INGRESS AND EGRESS EAST OF EXISTING BRIDGE DURING PHASE I OF CONSTRUCTION.

APPROVED: _____	DATE: _____	
		

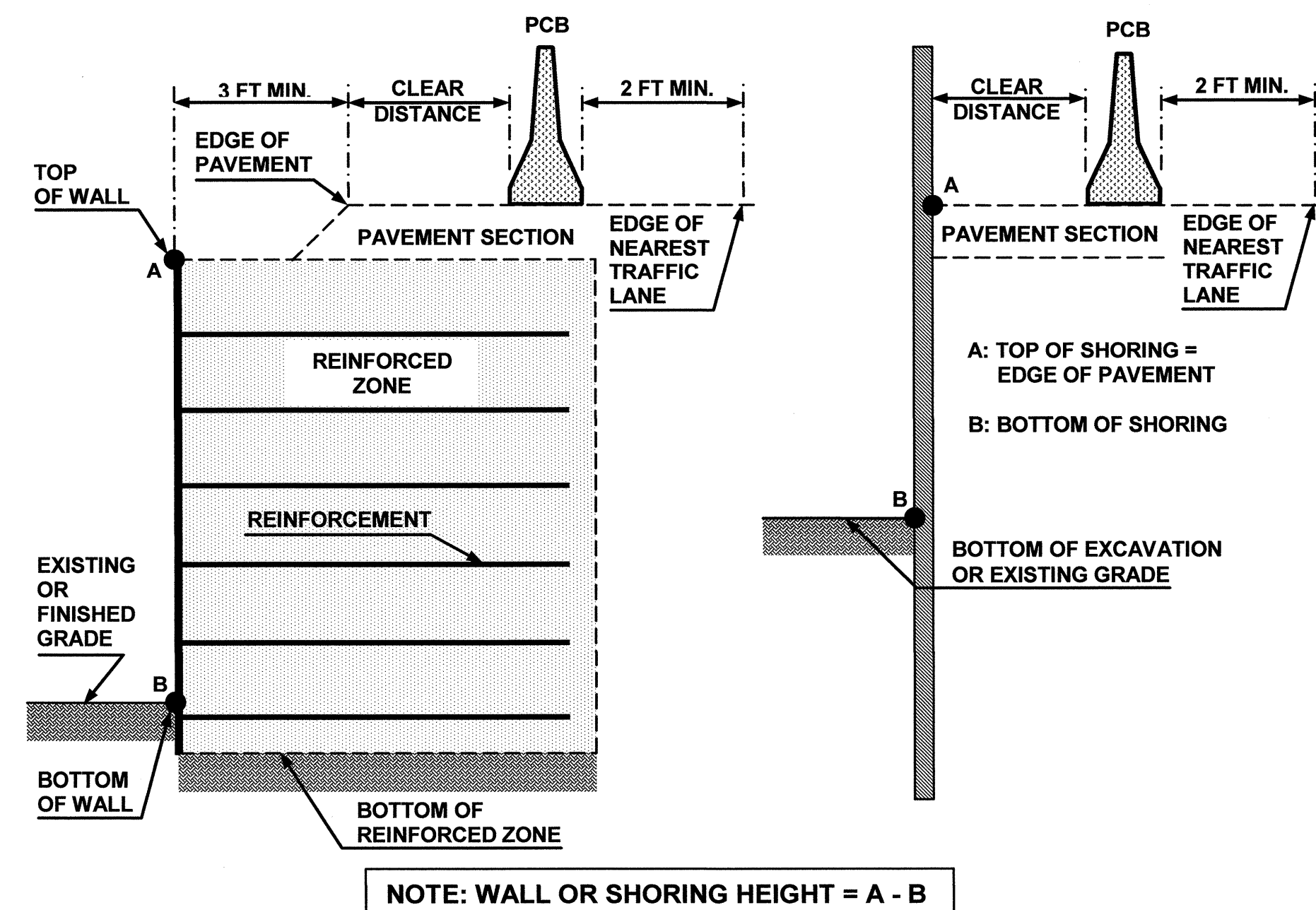


FIGURE A

NOTES

- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 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).
- 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.
- 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.
- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- 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.
- 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.
- 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 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	Asphalt	All Offsets	24 for All Design Speeds					
Anchored PCB	Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds					

* See Figure Below

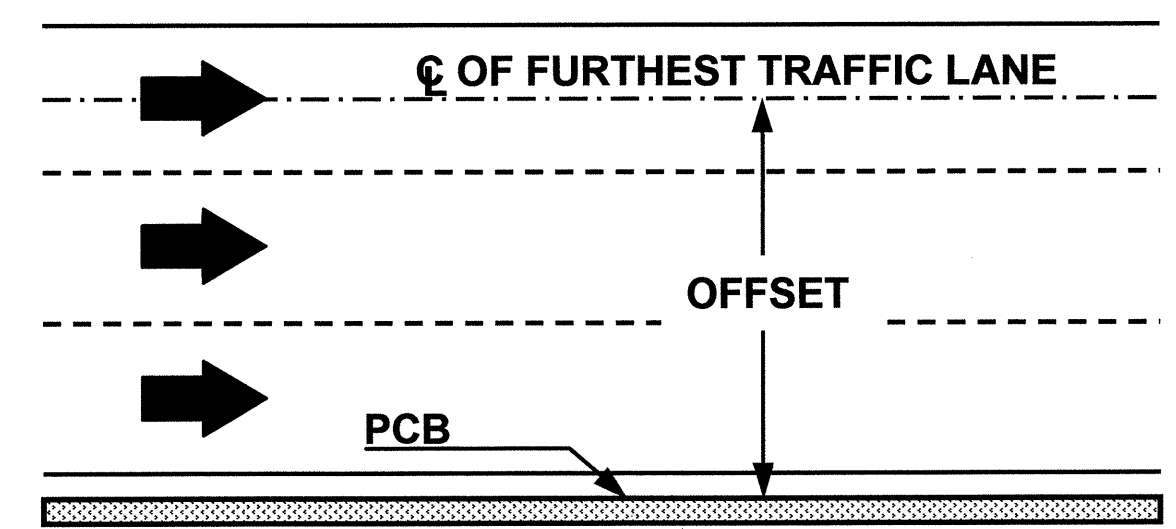


FIGURE B

APPROVED: _____ DATE: _____		<p>PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS</p>

SHORING LOCATION 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 -L- 26+90±, 8.4' RIGHT, TO STATION -L- 28+00±, 8.4' RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 325.0 FT

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -L- 26+90±, 8.4' RIGHT, TO STATION -L- 28+00±, 8.4' RIGHT, WILL NOT PENETRATE BELOW ELEVATION 313.0 FT DUE TO VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY SHORING AT SHORING HEIGHTS WHERE APPLICABLE AND USE AN ANCHORED SHORING ELSEWHERE FOR TEMPORARY SHORING FROM STATION -L- 26+90±, 8.4' RIGHT, TO STATION -L- 28+00±, 8.4' RIGHT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING. FOR ANCHORED SHORING, SEE TEMPORARY SHORING PROVISION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 26+90±, 8.4' RT, TO STATION -L- 28+00±, 8.4' RIGHT.

SHORING LOCATION 2

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 -L- 26+88±, 3.0' RIGHT, TO STATION -L- 27+16±, 3.0' RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 325.0 FT

DO NOT USE CANTILEVER OR BRACED SHORING FOR TEMPORARY SHORING FROM STATION -L- 26+88±, 3.0' RIGHT, TO STATION -L- 27+16±, 3.0' RIGHT.

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

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 26+88±, 3.0' RIGHT, TO STATION -L- 27+16±, 3.0' RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

SHORING LOCATION 3

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 -L- 28+98±, 3.0' RIGHT, TO STATION -L- 29+26±, 3.0' RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:


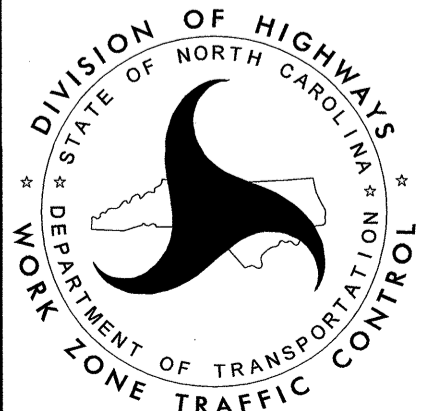
UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 325.0 FT

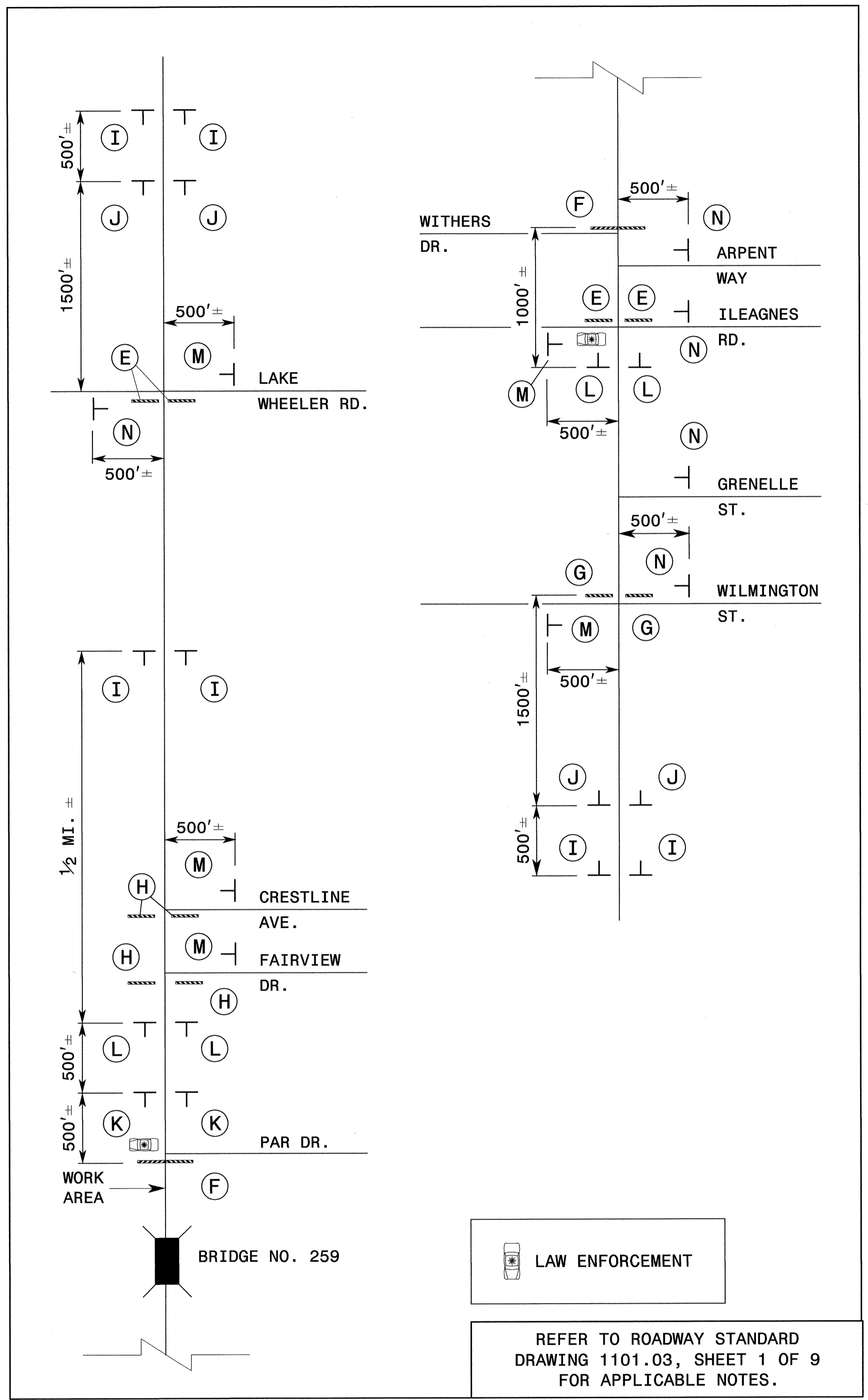
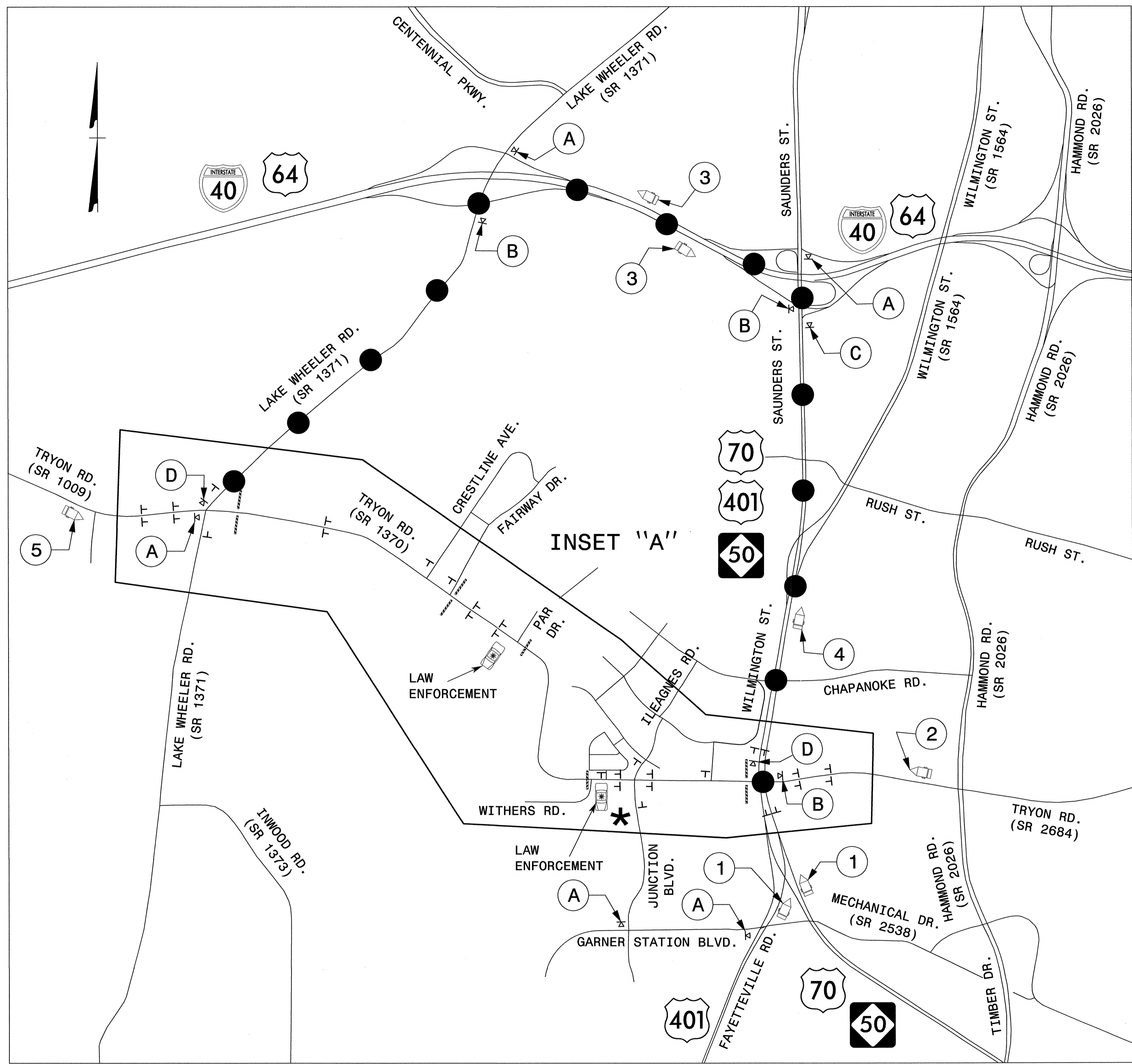
DO NOT USE CANTILEVER OR BRACED SHORING FOR TEMPORARY SHORING FROM STATION -L- 28+98±, 3.0' RIGHT, TO STATION -L- 29+26±, 3.0' RIGHT.

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

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 28+98±, 3.0' RIGHT, TO STATION -L- 29+26±, 3.0' RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

10/31/2013
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 User: rcdonovan

APPROVED: <i>James R. Batts</i> DATE: 11/1/13 		<h2>TEMPORARY SHORING DATA</h2>
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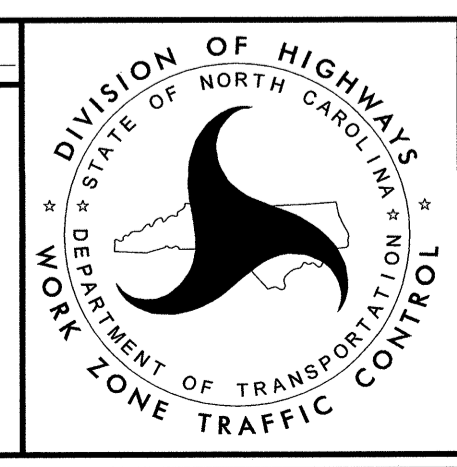
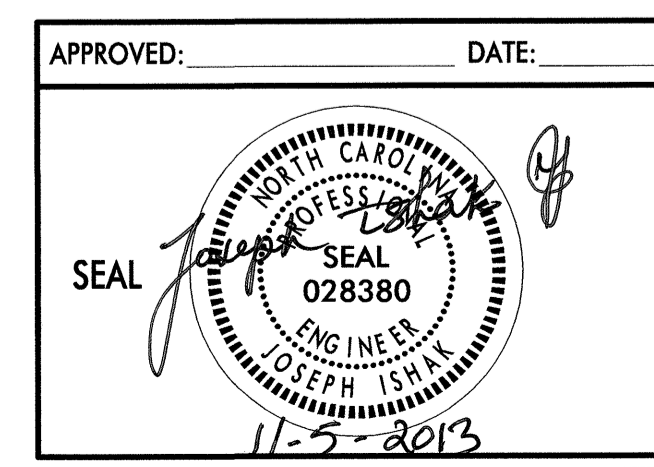


SEE SHEET TMP-2C FOR SIGNING

PLACE DETOUR SIGNS AS DIRECTED BY ENGINEER.

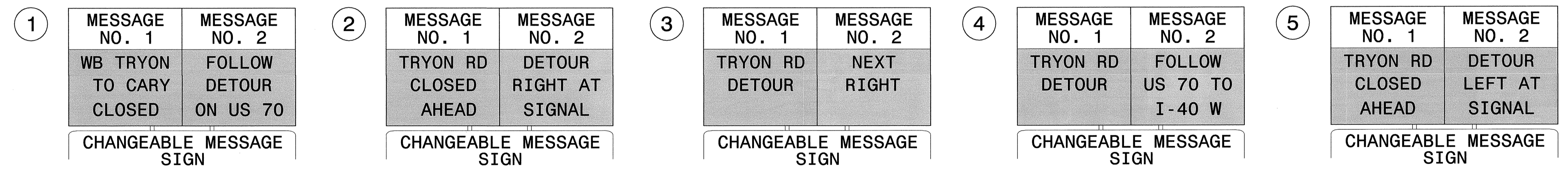
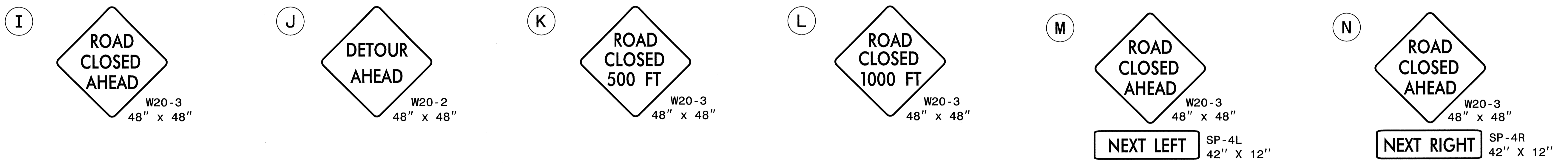
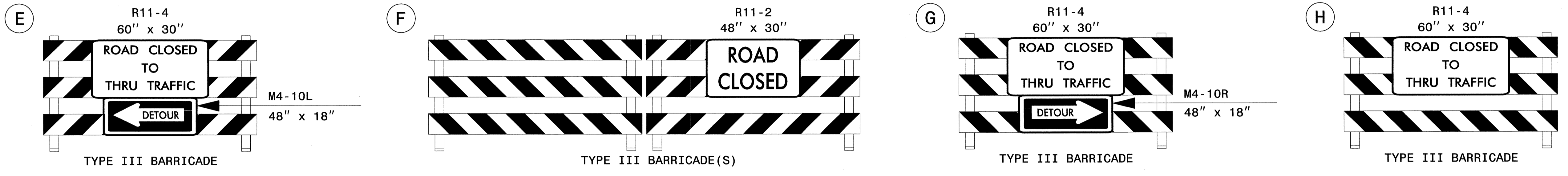
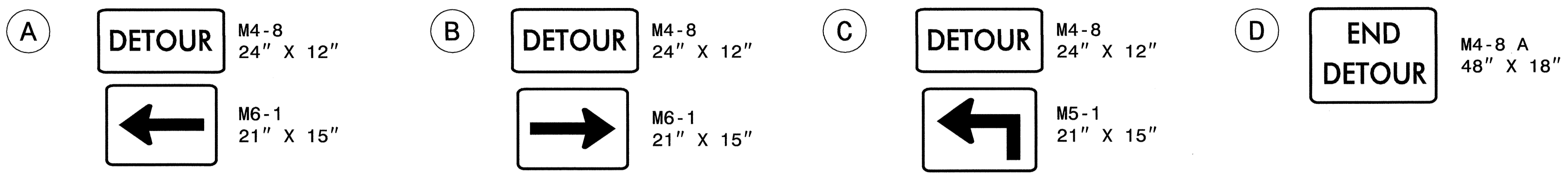
* COORDINATE WITH LAW ENFORCEMENT TO DIRECT WESTBOUND TRYON RD. THRU TRAFFIC TO JUNCTION BLVD. DETOUR ROUTE.

INSET "A"



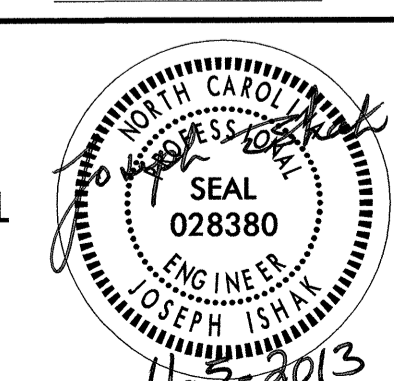
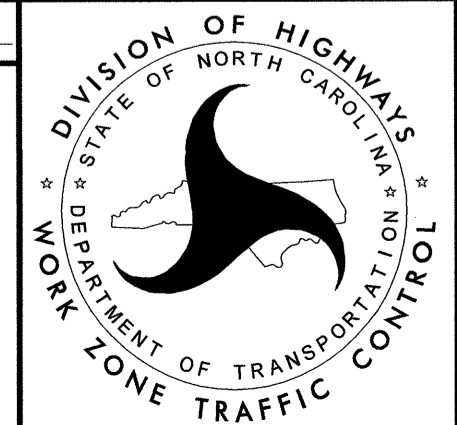
TRYON RD. DETOUR

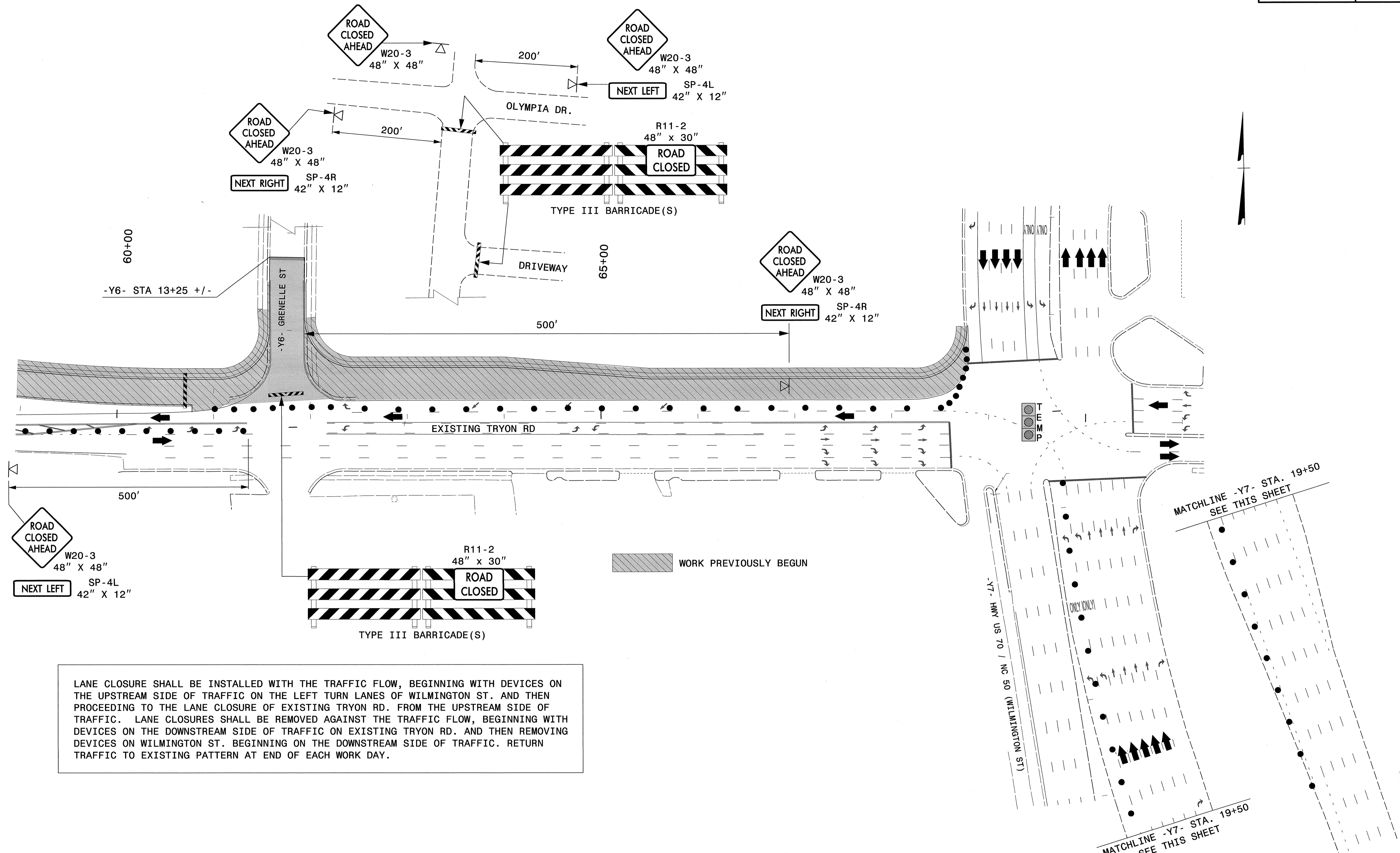
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THESE SIGNS REFER BACK TO SHEET TMP-2B.

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APPROVED:  DATE: 11-5-2013		<p>TRYON RD. DETOUR</p>
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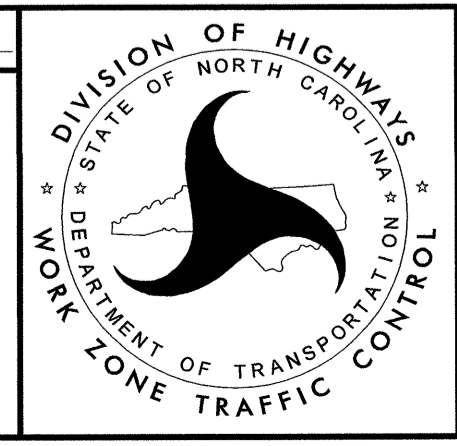


LANE CLOSURE SHALL BE INSTALLED WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC ON THE LEFT TURN LANES OF WILMINGTON ST. AND THEN PROCEEDING TO THE LANE CLOSURE OF EXISTING TRYON RD. FROM THE UPSTREAM SIDE OF TRAFFIC. LANE CLOSURES SHALL BE REMOVED AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC ON EXISTING TRYON RD. AND THEN REMOVING DEVICES ON WILMINGTON ST. BEGINNING ON THE DOWNSTREAM SIDE OF TRAFFIC. RETURN TRAFFIC TO EXISTING PATTERN AT END OF EACH WORK DAY.

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SEAL



GRENELLE ST. ROAD CLOSURE

NOTES:

- 1) USE ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 FOR LANE CLOSURES ON 2-LANE, 2-WAY ROADWAYS.
- 2) USE ROADWAY STANDARD DRAWING 1101.02 SHEET 3 AND 7 OF 15 FOR LANE CLOSURES ON MULTI-LANE ROADWAYS.
- 3) MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES UNLESS OTHERWISE NOTED IN PHASING.
- 4) MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION.
- 5) RETURN TRAFFIC TO EXISTING PATTERN BY THE END OF EACH DAY UNLESS OTHERWISE NOTED IN PHASING OR DIRECTED BY THE ENGINEER.
- 6) CONSTRUCT ALL ROADS UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE UNLESS OTHERWISE STATED IN PHASING, OR AS DIRECTED BY THE ENGINEER.
- 7) WHEN NECESSARY, RELOCATE ANY WORK ZONE SIGNING DURING TRAFFIC SHIFTS AS DIRECTED BY THE ENGINEER.
- 8) CONSTRUCT ANY TEMPORARY OR PROPOSED WIDENING OR WEDGING IN SUCH A MANNER THAT PONDING WILL NOT OCCUR IN THE TRAVEL LANE.

PHASE 1

STEP 1) USING LANE CLOSURES AND FLAGGERS AS NEEDED, INSTALL WORK ZONE ADVANCE WARNING SIGNS AS SHOWN IN ROADWAY STANDARD DRAWINGS 1101.01 SHEETS 2 OF 3 AND 3 OF 3.

STEP 2) USING LANE CLOSURES AND FLAGGERS AS NEEDED,

- A) CONSTRUCT RIGHT SIDE OF PROPOSED -L- FROM STA. -L- 23+93+/- TO STA. 24+75+/- AS SHOWN ON TMP-4, INCLUDING CONSTRUCTION OF PROPOSED TEMPORARY MONOLITHIC ISLAND AS SHOWN IN ROADWAY PLANS AND TMP-4A. SEE NOTE ON TMP-4 ABOUT REVISING PAVEMENT MARKINGS. CONSTRUCT LEFT SIDE OF PROPOSED -L- FROM STA. 24+49+/- TO STA. 25+42+/- AS SHOWN ON TMP-4. INCLUDE TEMPORARY PAVEMENT FOR GOLF CART PATH AS SHOWN ON TMP-4 AND TMP-10. INSTALL AND COVER RECTANGULAR RAPID FLASHING BEACONS (RRFB) (SEE SIGNAL PLAN SPECIAL PROVISIONS) AND PEDESTRIAN CROSSING WARNING SIGNS (BLACK LEGEND ON ORANGE BACKGROUND) AS SHOWN ON TMP-4 AND TMP-4A (SEE SIGNAL PLAN SPECIAL PROVISIONS).
- B) PLACE TEMPORARY CROSSWALK MARKINGS (INCLUDING TEMPORARY YIELD MARKINGS), ACTIVATE RECTANGULAR RAPID FLASHING BEACONS (RRFB) AND UNCOVER TEMPORARY PEDESTRIAN WARNING SIGNS. RELOCATE PEDESTRIAN TRAFFIC TO PROPOSED TEMPORARY PEDESTRIAN CROSSWALK. REMOVE EXISTING CROSSWALK PAVEMENT MARKINGS FROM EXISTING PEDESTRIAN CROSSWALK AND ANY CONFLICTING EXISTING PEDESTRIAN SIGNS.

STEP 3) USING LANE CLOSURES AND FLAGGERS AS NEEDED BEGIN CONSTRUCTION OF THE FOLLOWING:

- LEFT SIDE OF PROPOSED -L- FROM STA. 19+25+/- TO STA. 24+49+/- AS SHOWN ON TMP-4.
- RIGHT SIDE OF PROPOSED -L- FROM STA. -L- 19+25+/- TO STA. 23+93+/- AS SHOWN ON TMP-4.
- LEFT SIDE OF PROPOSED -L- FROM THE END OF THE APPROACH SLAB AT END BENT 2 TO THE TIE-IN OF -Y3- PALACE GARDEN WAY, INCLUDING THE RIGHT SIDE OF -Y3- PALACE GARDEN WAY AS SHOWN ON TMP-4 AND TMP-6.
- RIGHT SIDE OF PROPOSED -L- FROM STA. 29+50+/- TO TIE-IN AT -Y3- PALACE GARDEN WAY AS SHOWN ON TMP-6.
- TEMPORARY CROSSOVER -LDET3- ON -L- FROM STA. 34+50+/- TO STA. 36+22+/- AS SHOWN ON TMP-6. (SEE ROADWAY PLANS)
- CLOSE SIDEWALKS ON PROPOSED TRYON RD. AS SHOWN ON TMP-6 AND TMP-7 AND CONSTRUCT WIDENING OF PROPOSED -L- FROM TIE-IN OF -Y3- PALACE GARDEN WAY TO TIE-IN OF -Y5- ILEAGNES RD. INCLUDING REMOVAL OF EXISTING MEDIAN FROM STA. 49+00+/- TO STA. 50+18+/- AND CONSTRUCTION OF PROPOSED MONOLITHIC ISLANDS AS SHOWN ON TMP-6 AND TMP-7.
- LEFT SIDE OF PROPOSED -L- FROM TIE-IN OF -Y5- ILEAGNES RD. TO RIGHT SIDE OF -Y6- AND FROM LEFT SIDE OF -Y6- TO TIE-IN AT -Y7- WILMINGTON ST. AS SHOWN ON TMP-7 AND TMP-9.
- PROPOSED SIDEWALK AND CURB AND GUTTER ON -Y6-, TYING INTO PROPOSED CURB AND GUTTER ON LEFT SIDE OF -L-.
- REMOVAL OF EXISTING MONOLITHIC ISLAND ON -L- FROM STA 51+37+/- TO STA. 53+40+/- AND PROVIDE TEMPORARY/PROPOSED PAVEMENT AS NEEDED FOR TEMPORARY CROSSOVER -LDET4- AS SHOWN ON TMP-7 AND TMP-14. (SEE ROADWAY PLANS.)
- RIGHT SIDE OF PROPOSED -L- FROM STA. 53+41+/- TO STA. 55+50+/- AS SHOWN ON TMP-7.

- PROPOSED WIDENING, MEDIAN AND WEDGING ON -Y5- ILEAGNES RD. FROM STA. 12+67+/- TO STA. 15+35+/- AS SHOWN ON TMP-7.
- PROPOSED -Y8- UP TO EDGE AND ELEVATION OF EXISTING TRYON RD. AS SHOWN ON TMP-7 AND TMP-9.

STEP 4) UPON NCDOT ACCEPTANCE OF A PREPARED PLAN DETAILING THE UTILITY WORK ASSOCIATED WITH SHEET UC-2 (PHASE I AND PHASE II UTILITY WORK) IN THE UTILITY PLAN, CONSTRUCT THE FOLLOWING:

A) AWAY FROM TRAFFIC, ASSEMBLE UTILITY WORK AS MUCH AS POSSIBLE FOR UPCOMING ROAD CLOSURE.

COMPLETE THE FOLLOWING WORK OF PHASE I, STEP 4.B. FROM 9:00 P.M. FRIDAY TO THE FOLLOWING MONDAY AT 6:00 A.M. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

B) USING RSD 1101.03 SHEET 1 OF 9 AND TMP-2B AND TMP-2C, CLOSE TRYON RD. AND DETOUR TRAFFIC AND COMPLETE UTILITY WORK ASSOCIATED WITH SHEET UC-2 (PHASE I) IN THE UTILITY PLANS. SAFE UP TRYON RD. THEN, REMOVE/COVER ROAD CLOSURE SIGNING AND DETOUR SIGNING.

COMPLETE THE FOLLOWING WORK OF PHASE I, STEP 4.C IN ONE NIGHT ON MONDAY THROUGH SUNDAY FROM 9:00 P.M. TO 6:00 A.M. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.

C) USING RSD 1101.03, SHEET 1 OF 9, AND SHEETS TMP-2B AND TMP-2C, CLOSE TRYON RD. AND DETOUR TRAFFIC AND COMPLETE THE UTILITY WORK ASSOCIATED WITH SHEET UC-2 (PHASE II). SAFE UP TRYON RD. REMOVE ROAD CLOSURE SIGNING AND DETOUR SIGNING AND OPEN TRYON RD. TO TRAFFIC.

STEP 5) USING LANE CLOSURES AND FLAGGERS AS NEEDED, COMPLETE CONSTRUCTION OF A MINIMUM OF 5' OF WIDENING ON LEFT SIDE OF EXISTING ROADWAY FROM STA. 25+42+/- TO STA. 26+75+/- AND CONSTRUCT TEMPORARY PAVEMENT THAT EXTENDS FROM THE PROPOSED PAVEMENT AT 26+75+/- TO THE EDGE OF EXISTING BRIDGE AS SHOWN ON TMP-4. WEDGE EXISTING ROADWAY AS NECESSARY TO MAINTAIN A SMOOTH TRANSITION TO MAINTAIN EXISTING TRAFFIC. INSTALL TEMPORARY PORTABLE CONCRETE BARRIER AND CRASH CUSHION ON THE LEFT SIDE OF EXISTING ROADWAY FROM -L- STA. 25+72+/- TO EXISTING BRIDGE RAILING AS SHOWN ON TMP-4. USE TRANSITION TO ATTACH TEMPORARY PORTABLE CONCRETE BARRIER TO EXISTING BRIDGE (SEE ROADWAY PLANS).

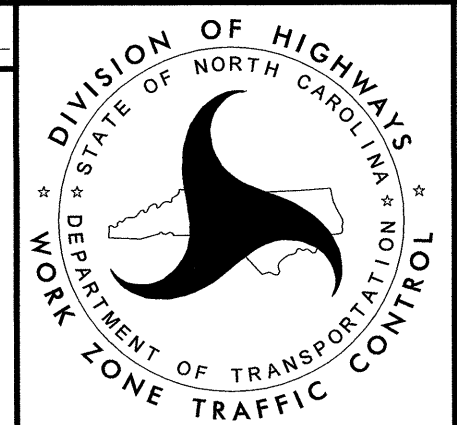
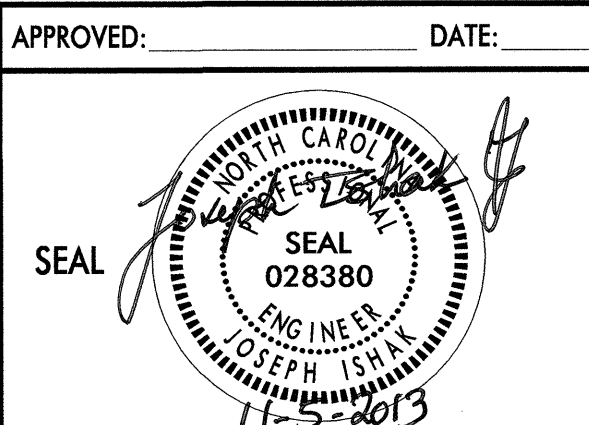
STEP 6) USING LANE CLOSURES AND FLAGGERS AS NEEDED:

- COMPLETE CONSTRUCTION OF ALL WORK DESCRIBED IN PHASE I STEP 3; EXCEPT THE RIGHT SIDE CONSTRUCTION FROM -L- STA. 29+50+/- TO STA. 34+50+/- AND STA. 54+40+/- TO STA. 55+50+/- DOES NOT NEED TO BE COMPLETED.
- CONSTRUCT LEFT SIDE OF PROPOSED -L- FROM STA. 25+42+/- TO THE BEGINNING OF THE APPROACH SLAB AT END BENT 1 WEDGING EXISTING ROADWAY, AS NEEDED, TO MAINTAIN EXISTING TRAFFIC AS SHOWN ON TMP-4, INCLUDING TEMPORARY PAVEMENT FOR WATER-FILLED BARRIER (SEE TMP-10).
- CONSTRUCT STAGE 1 OF PROPOSED STRUCTURE, END BENTS AND APPROACH SLABS USING TEMPORARY SHORING LOCATION 1 TO MAINTAIN EXISTING TRAFFIC AND TEMPORARY SHORING LOCATIONS 2 AND 3 TO MAINTAIN REINFORCED BRIDGE APPROACH FILL AS SHOWN ON TMP-4 & 5. CONSTRUCT PROPOSED -DR1- FROM STA. 12+00+/- TO FACE OF TEMPORARY SHORING LOCATION 1 AS SHOWN ON TMP-4.
- INSTALL AND COVER TEMPORARY SIGNALS AS SHOWN IN SIGNAL PLANS AT THE INTERSECTIONS OF -Y5- ILEAGNES RD. AND PROPOSED -L- TRYON RD., AND -L- TRYON RD. AND -Y7- WILMINGTON ST. BEGIN INSTALLATION OF FINAL SIGNALS AND COVER AS SHOWN IN SIGNAL PLANS AT THE INTERSECTIONS OF -Y5- ILEAGNES RD. AND PROPOSED -L- TRYON RD., AND -L- TRYON RD AND -Y7- WILMINGTON ST.

ICT

ICT

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APPROVED: _____ DATE: _____		<p>PHASING</p>
		

COMPLETE THE FOLLOWING WORK OF PHASE I, STEP 6.A AND 6.B ON TWO CONSECUTIVE NIGHTS OF THE CONTRACTOR'S CHOICE FROM MONDAY THROUGH FRIDAY BETWEEN 9:00 P.M. TO 6:00 A.M. THE FOLLOWING DAY. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

ICT

- A) FIRST NIGHT: USING TMP-2D FOR THE PLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AND A NIGHT TIME ROAD CLOSURE, CONSTRUCT 9" ASPHALT BASE LAYER ON PROPOSED -Y6- AND OPEN TO TRAFFIC. (SEE ROADWAY SHEET NO. 2-C, TYPICAL SECTION NO. 8.)
- B) SECOND NIGHT: USING TMP-2D FOR THE PLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AND A NIGHT TIME ROAD CLOSURE, CONSTRUCT FIRST LAYER OF SURFACE COURSE ON PROPOSED -Y6- AND OPEN TO TRAFFIC. (SEE ROADWAY SHEET NO. 2-C, TYPICAL SECTION NO. 8.)

PHASE 2

STEP 1) USING LANE CLOSURES AND FLAGGERS AS NEEDED ON PROPOSED TRYON RD., PALACE GARDEN WAY, THE ARTS DR. AND ILEAGNES RD.; PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -L- FROM STA. 26+10+/- TO STA. 61+00+/-, -Y3-, AND -Y5- AS SHOWN ON TMP-10, AND TMP-12 THRU TMP-15. MAINTAIN EXISTING BARRICADES FROM PHASE I AND USE DRUMS TO CLOSE LANES THAT WOULD OTHERWISE LEAD TRAFFIC TO A CLOSED ROAD. PLACE DRAINABLE TEMPORARY PORTABLE CONCRETE BARRIER AND CRASH CUSHION FROM STA. 26+10+/- TO STA. 29+93+/- AS SHOWN ON TMP-10. SET TEMPORARY TRAFFIC SIGNAL AT THE INTERSECTION OF PROPOSED -L- TRYON RD. AND -Y5- ILEAGNES RD. ON FLASH. PLACE TEMPORARY TRAFFIC CONTROL WARNING SIGNS SHOWN ON TMP-10, TMP-12 AND TMP-14. INSTALL AND COVER STOP SIGNS AND TEMPORARY ROAD CLOSURE SIGNING AS SHOWN ON TMP-16.

COMPLETE THE FOLLOWING WORK OF PHASE II, STEP 2.A THRU 2.C FROM 9:00 P.M. FRIDAY TO THE FOLLOWING MONDAY AT 6:00 A.M. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

ICT

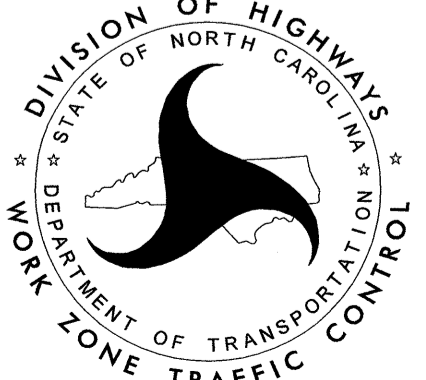
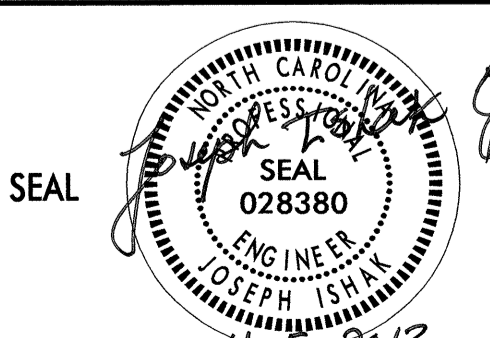
STEP 2) WORKING IN A CONTINUOUS MANNER AND USING FLAGGERS AS NEEDED:

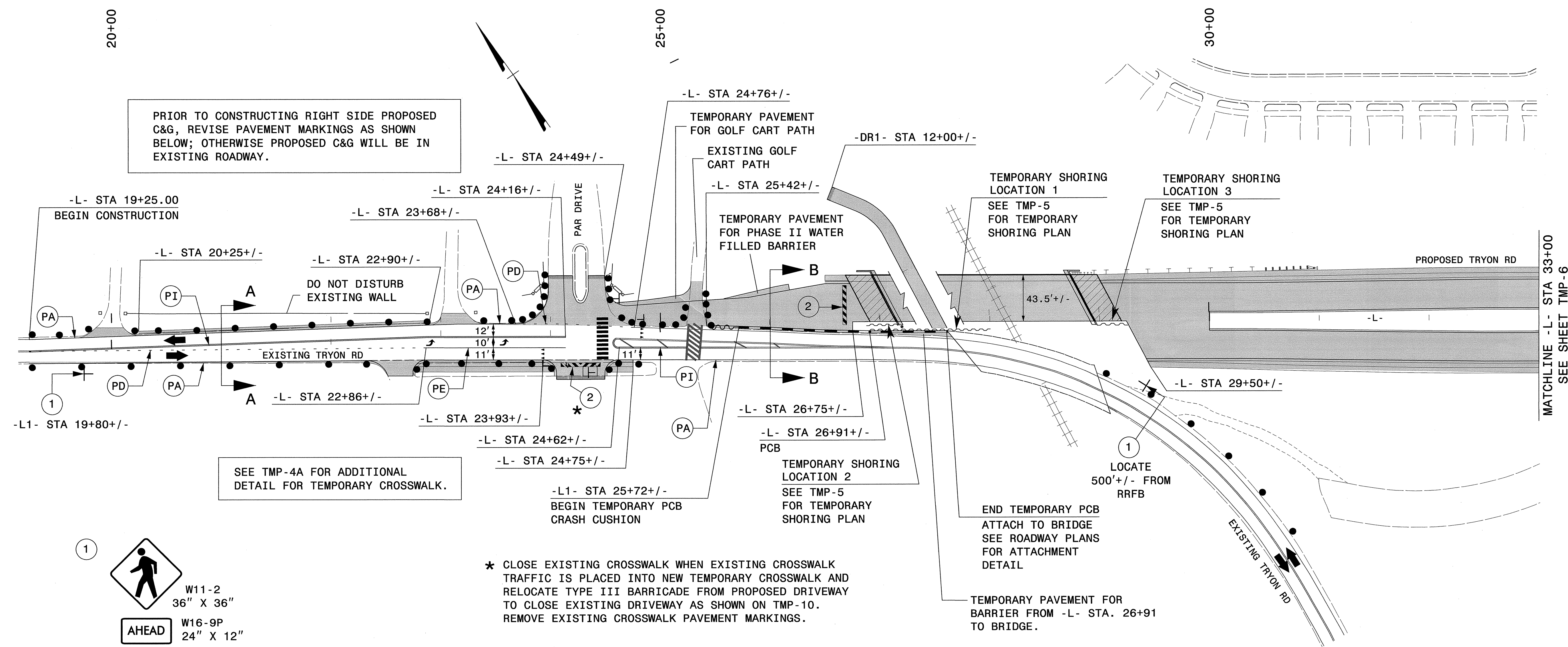
- A) USING FLAGGERS AS NEEDED, CLOSE THE EASTBOUND LANE OF EXISTING TRYON RD. TO TRAFFIC WEST OF THE EXISTING BRIDGE PLACING TRAFFIC INTO A TEMPORARY ONE-LANE, 2-WAY PATTERN ON EXISTING TRYON RD. PLACE TEMPORARY PAVEMENT MARKINGS ALONG -LDET1- AS MUCH AS POSSIBLE FOR UPCOMING TRAFFIC SHIFT. REMOVE ENOUGH EXISTING TEMPORARY PORTABLE CONCRETE BARRIER ALONG LEFT SIDE OF EXISTING TRYON RD. TO ALLOW PLACEMENT OF THE TEMPORARY PORTABLE CONCRETE BARRIER FOR THE PHASE II PATTERN. (SEE TMP-10)
- B) SIMULTANEOUSLY, PERFORM THE FOLLOWING WORK OF STEP 2B:
- ON WEST END OF PROJECT, SWITCH TRYON RD. TRAFFIC TO WESTBOUND LANE IN A 1-LANE PATTERN ON -LDET1- USING LAW ENFORCEMENT AND CMS'S, DIRECT PROPOSED TRYON RD. TO ILEAGNES RD. AND OLD TRYON RD. USE DRUMS TO CLOSE LANES THAT WOULD OTHERWISE LEAD TO A CLOSED ROAD. COMPLETE PLACEMENT OF TEMPORARY PAVEMENT MARKINGS ON -LDET1- AND INSTALLATION OF TEMPORARY PORTABLE CONCRETE BARRIER. (SEE TMP-10)
 - UNCOVER ROAD CLOSURE SIGNING AND STOP SIGNS INSTALLED IN PHASE II, STEP 1 AND INSTALL BARRICADES TO CLOSE ROAD. DO NOT INSTALL/UNCOVER DEVICES/SIGNS EAST OF ILEAGNES RD. (SEE TMP-16) USE LAW ENFORCEMENT AND CMS'S TO DIRECT WESTBOUND TRYON RD. TRAFFIC TO ILEAGNES RD. AND PROPOSED TRYON RD.
- C) USING LANE CLOSURES AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN FROM -L- STA. 61+00+/- TO TIE-IN OF TEMPORARY PAVEMENT MARKINGS ON US 70 (WILMINGTON ST.) AND ON GRENELLE ST. AS SHOWN ON TMP-15. PLACE TRAFFIC INTO TEMPORARY PATTERN SHOWN ON TMP-14 AND TMP-15. ACTIVATE TEMPORARY TRAFFIC SIGNAL. CLOSE EXISTING TRYON RD. TO TRAFFIC WITH TYPE III BARRICADES AS SHOWN ON TMP-15 AND TMP-16.

- STEP 3) - BEHIND TEMPORARY PORTABLE CONCRETE BARRIER AND USING LANE CLOSURES, AS NECESSARY, REMOVE EXISTING STRUCTURE NO. 259 AND CONSTRUCT PROPOSED STAGE II OF THE PROPOSED STRUCTURE AND -DR1-. ONCE OVERHEAD STRUCTURE WORK IS COMPLETE, SWITCH PEDESTRIAN TRAFFIC TO COMPLETED -DR1- AS SOON AS PRACTICAL AND AS DIRECTED BY THE ENGINEER. ONCE PEDESTRIAN TRAFFIC HAS BEEN SWITCHED TO -DR1-, REMOVE PEDESTRIAN CROSSWALK MARKINGS AND PEDESTRIAN CROSSING WARNING SIGNS AND RECTANGULAR RAPID FLASHING BEACONS (RRFB) AS DIRECTED BY ENGINEER. REMOVE TEMPORARY MONOLITHIC ISLAND FROM PROPOSED DRIVEWAY ACROSS FROM PAR DR.
- USING LANE CLOSURES AND FLAGGERS AS NEEDED:
 - CONSTRUCT THE RIGHT SIDE OF PROPOSED -L- FROM STA. 24+75+/- TO THE BEGINNING OF THE APPROACH SLAB AT END BENT 1 (TMP-10).
 - COMPLETE CONSTRUCTION OF THE RIGHT SIDE OF PROPOSED -L- FROM THE END OF THE APPROACH SLAB AT END BENT 2 TO STA. 34+50+/- (TMP-10 AND TMP-12)
 - CONSTRUCT RIGHT SIDE OF PROPOSED -L- FROM STA. 55+50+/- TO TIE-IN OF -L- INTO -Y7- WILMINGTON ST. WEDGE/MILL/PAVE -L- FROM STA. 60+78 TO -Y7-. REPLACE TEMPORARY MARKINGS IN THE EXISTING PATTERN BY THE END OF EACH WORK DAY.
 - COMPLETE INSTALLATION OF FINAL TRAFFIC SIGNALS AND COVER FINAL SIGNAL HEADS AS SHOWN IN SIGNAL PLANS.
 - COMPLETE CONSTRUCTION OF -Y8- AND -Y9- INCLUDING TIE-INS TO EXISTING ROADWAY AND TEMPORARY PAVEMENT MARKINGS SHOWN ON TMP-14 AND TMP-15. REMOVE TRAFFIC CONTROL DEVICES USED TO CLOSE -Y8- AND -Y9- AND OPEN TO TRAFFIC.

PHASE 3

- STEP 1) USING LANE CLOSURES AND FLAGGERS AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS MATCHING PATTERN OF FINAL PAVEMENT MARKINGS SHOWN IN FINAL PAVEMENT MARKING PLANS AND REMOVE CONFLICTING PAVEMENT MARKINGS. PLACE TRAFFIC INTO FINAL PATTERN ON ALL ROADS, UNCOVERING AND ACTIVATING FINAL TRAFFIC SIGNALS. REMOVE TEMPORARY PORTABLE CONCRETE BARRIER AT BRIDGE.
- STEP 2) USING LANE CLOSURES AND FLAGGERS, AS NEEDED, REMOVE TEMPORARY PAVEMENT ON -L- FROM STA. 34+50+/- TO STA. 36+22+/- AND COMPLETE CONSTRUCTION OF MEDIAN AS SHOWN ON TMP-17. CONSTRUCT PROPOSED MONOLITHIC ISLANDS ON -L- FROM STA. 51+50+/- TO STA. 54+42+/- AND FROM STA. 60+77+/- TO STA. 68+56+/- AS SHOWN ON TMP-17.
- STEP 3) USING LANE CLOSURES AS NEEDED, CONSTRUCT FINAL LAYER OF SURFACE COURSE. PLACE FINAL PAVEMENT MARKINGS AS SHOWN IN FINAL PAVEMENT MARKING PLANS.
- STEP 4) USING LANE CLOSURES AS NEEDED, REMOVE ALL TEMPORARY ADVANCE WORK ZONE WARNING SIGNS AND TRAFFIC CONTROL DEVICES.

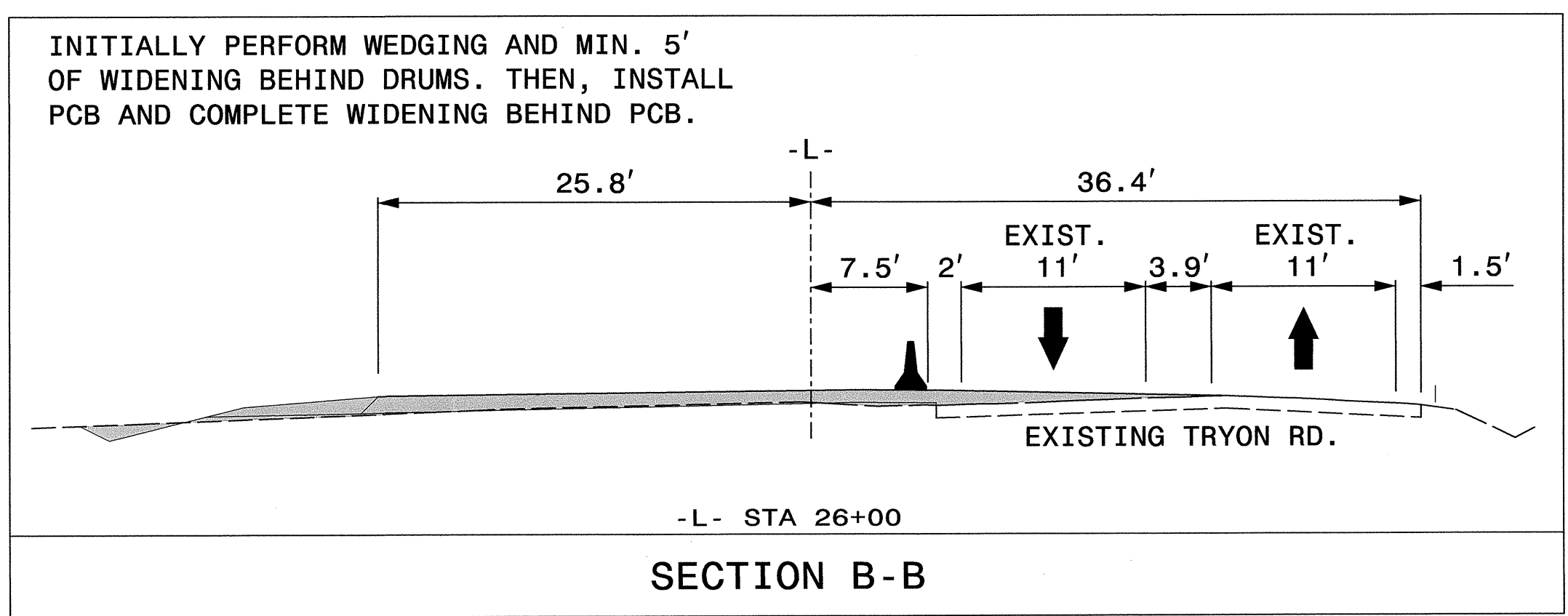
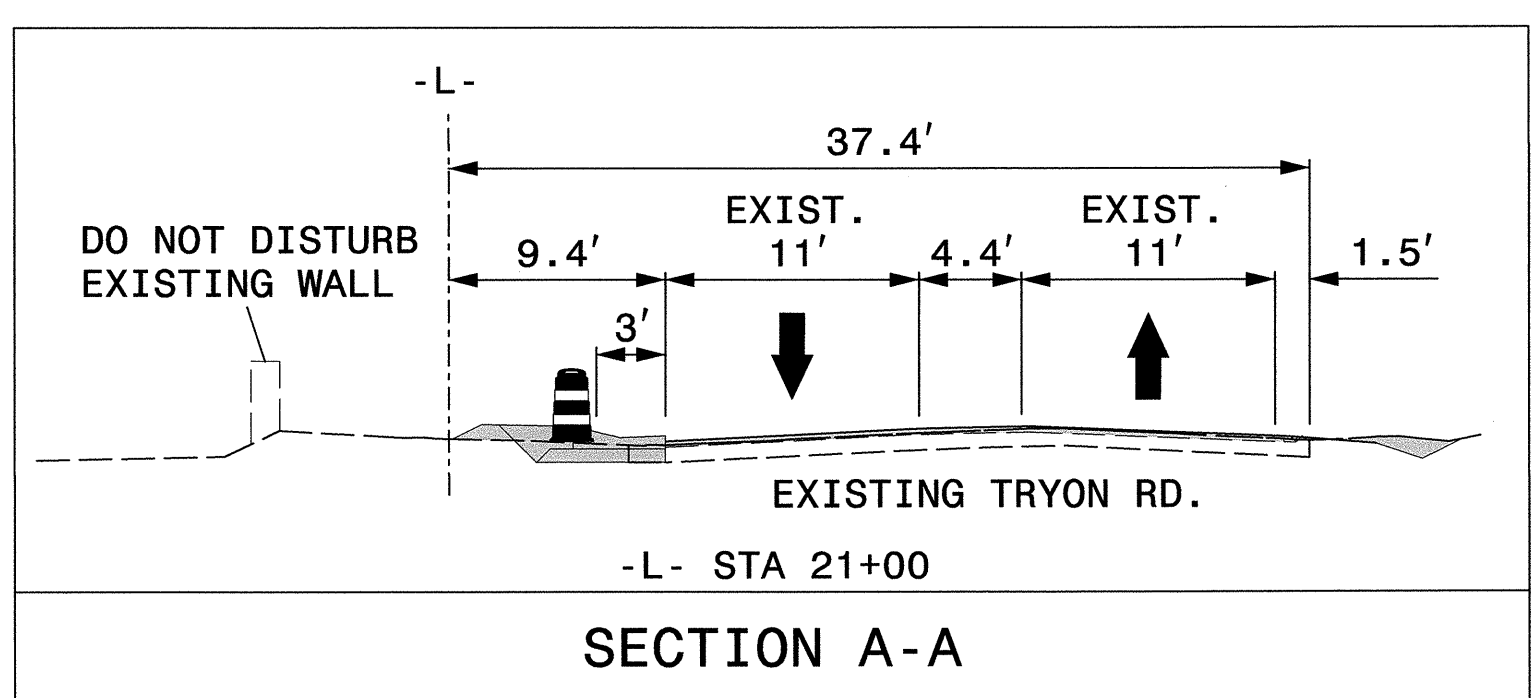
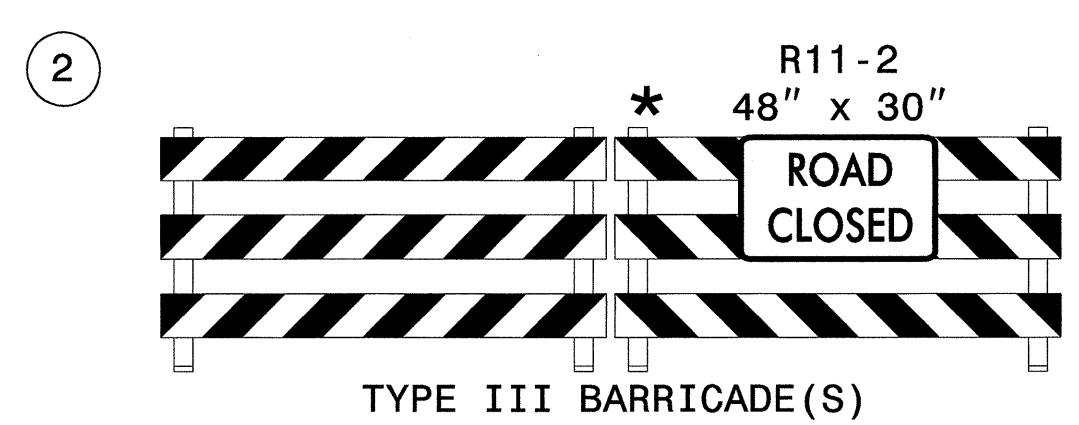
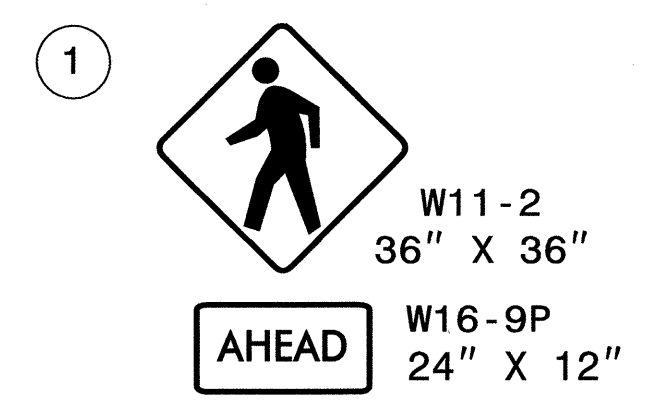
APPROVED: _____ DATE: _____		<h1>PHASING</h1>
		



PRIOR TO CONSTRUCTING RIGHT SIDE PROPOSED C&G, REVISE PAVEMENT MARKINGS AS SHOWN BELOW; OTHERWISE PROPOSED C&G WILL BE IN EXISTING ROADWAY.

SEE TMP-4A FOR ADDITIONAL DETAIL FOR TEMPORARY CROSSWALK.

* CLOSE EXISTING CROSSWALK WHEN EXISTING CROSSWALK TRAFFIC IS PLACED INTO NEW TEMPORARY CROSSWALK AND RELOCATE TYPE III BARRICADE FROM PROPOSED DRIVEWAY TO CLOSE EXISTING DRIVEWAY AS SHOWN ON TMP-10. REMOVE EXISTING CROSSWALK PAVEMENT MARKINGS.

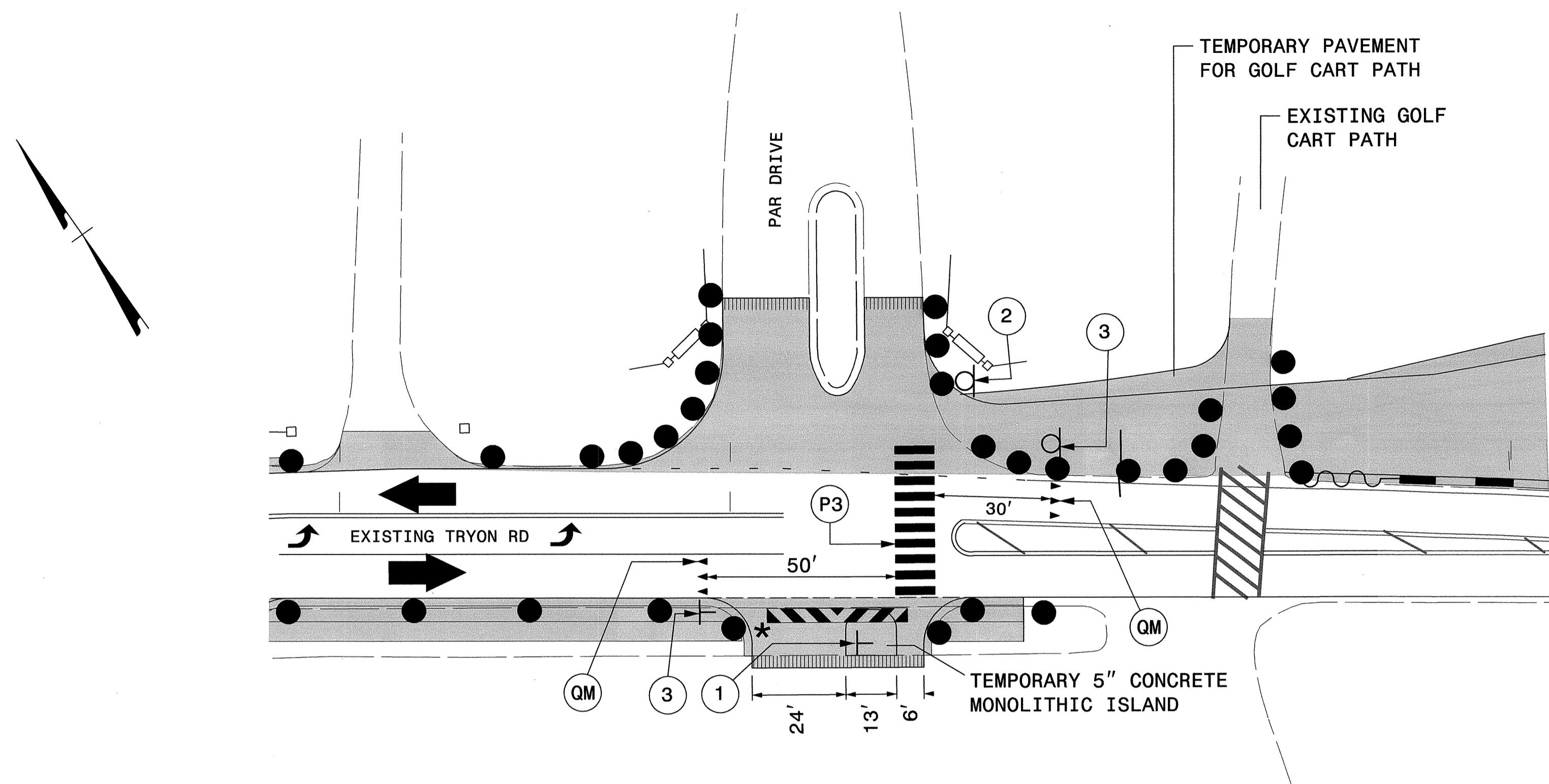


NOTE: ALL DIMENSIONS ARE +/-

APPROVED: _____ DATE: _____

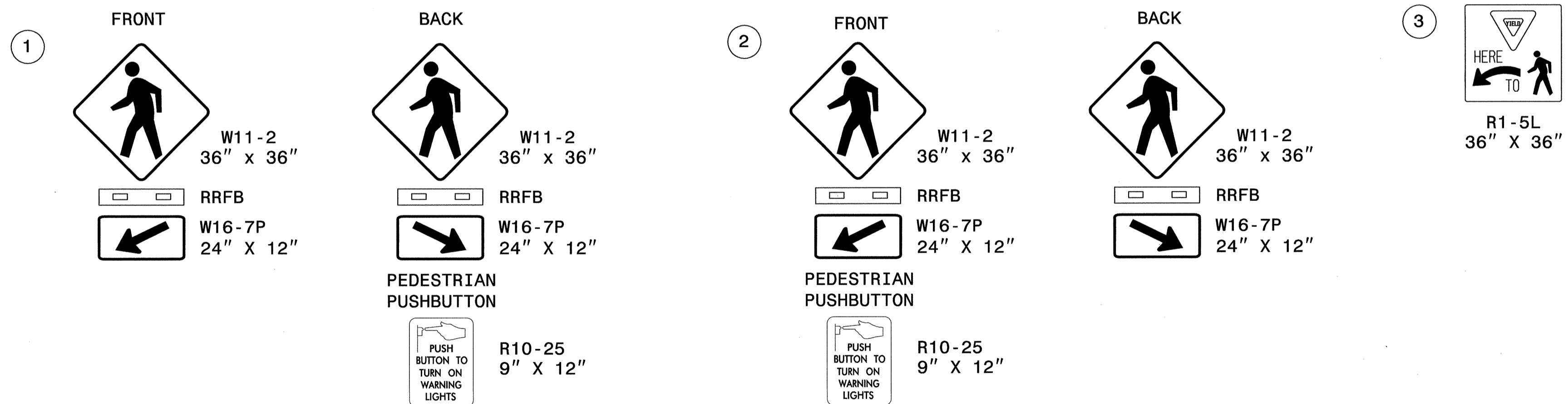
PHASE I

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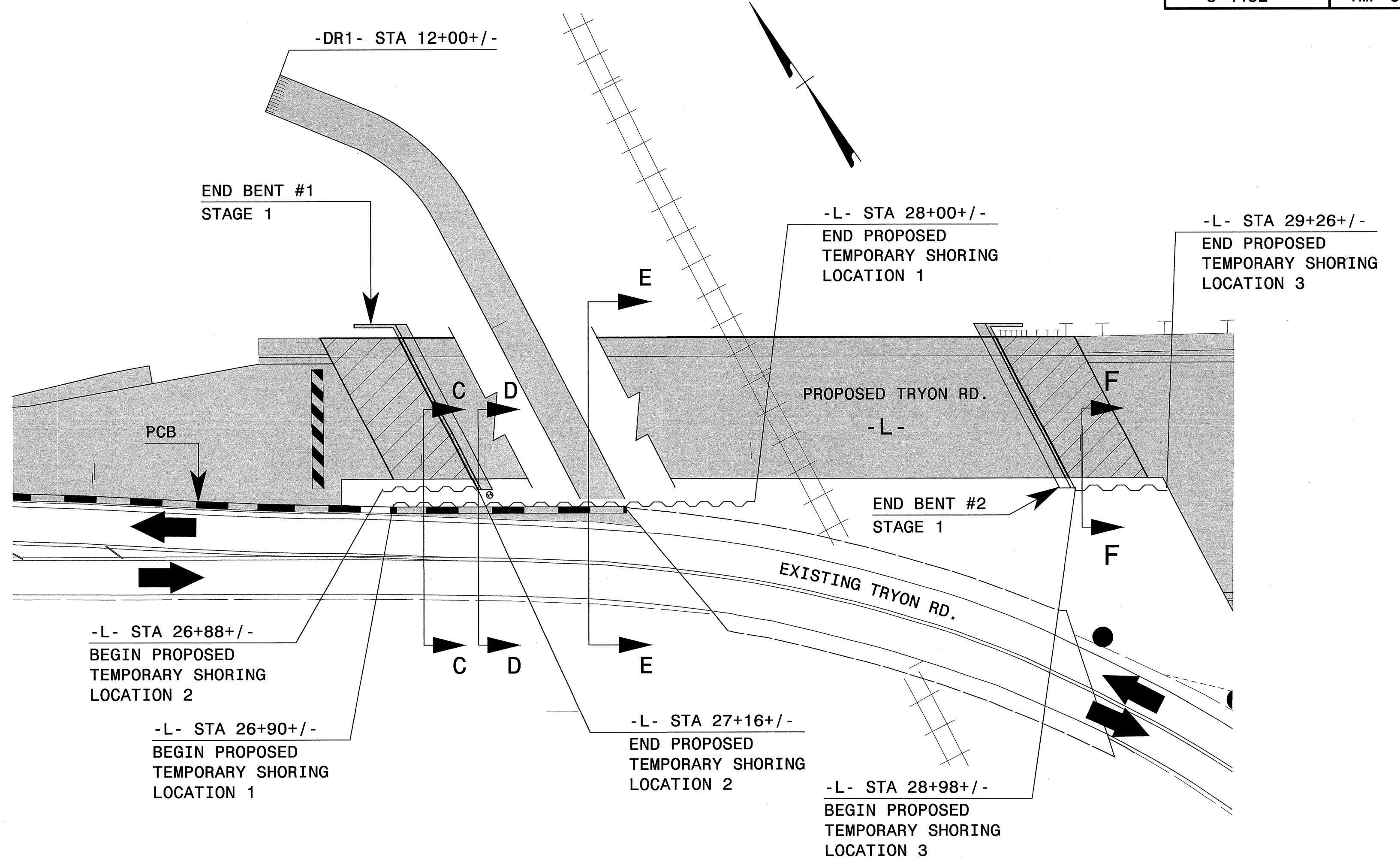
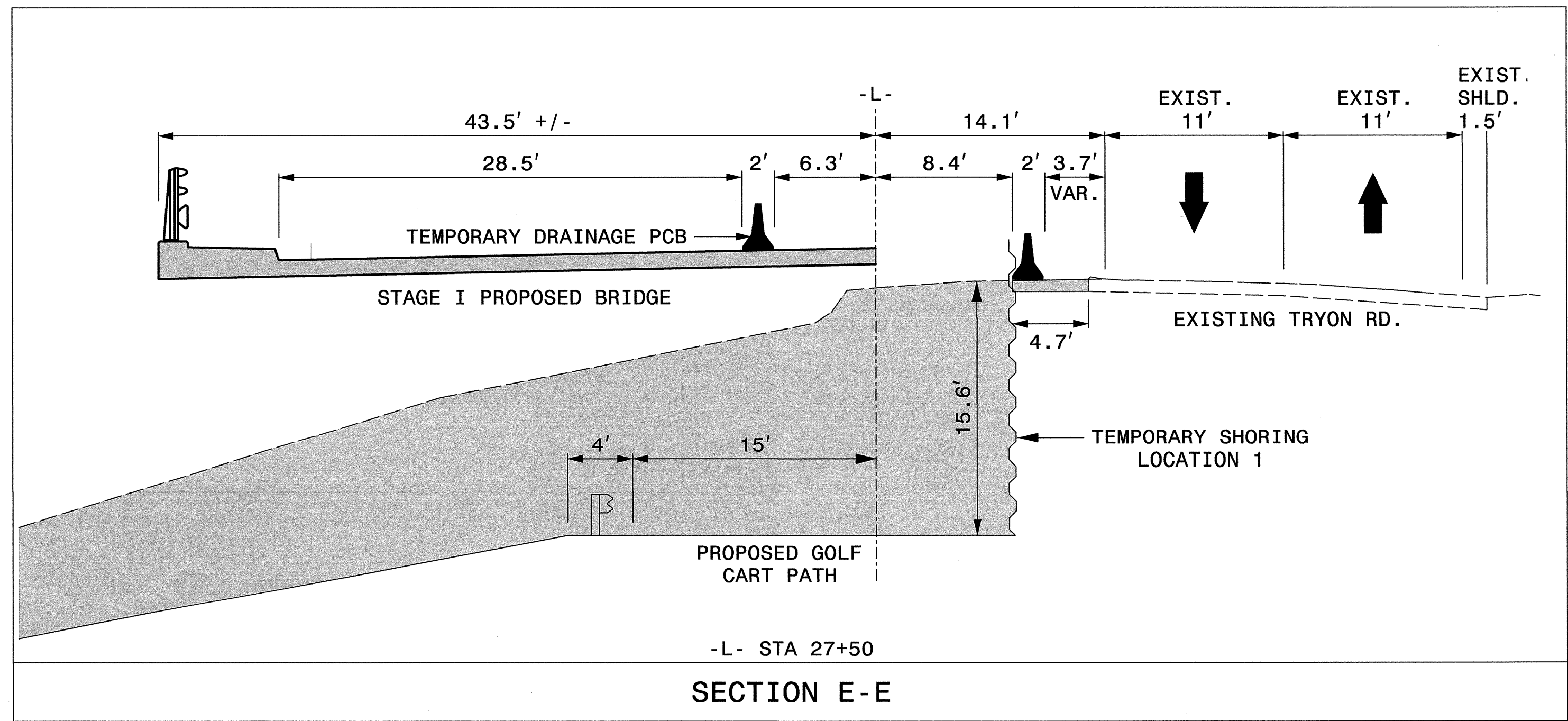
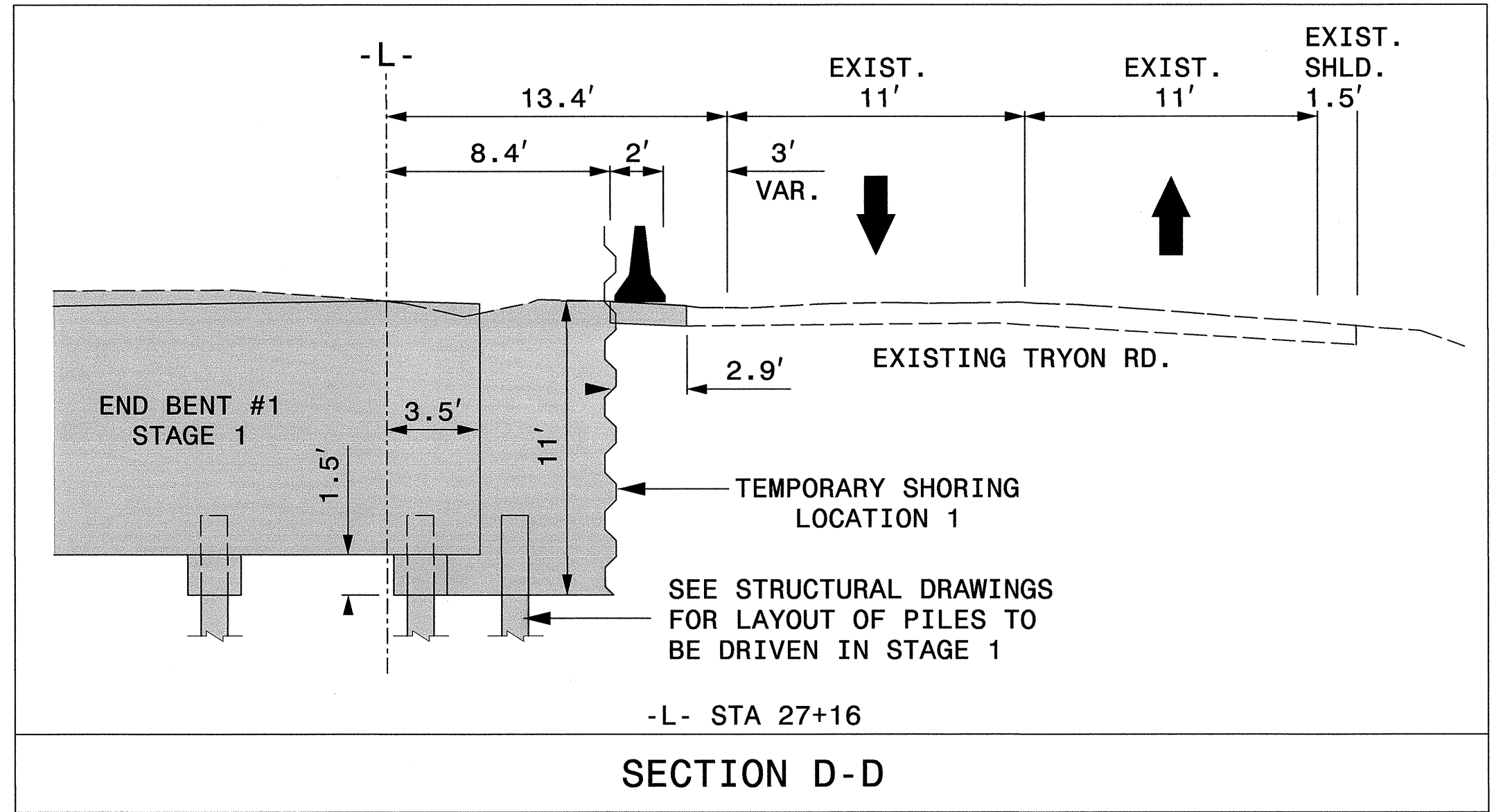
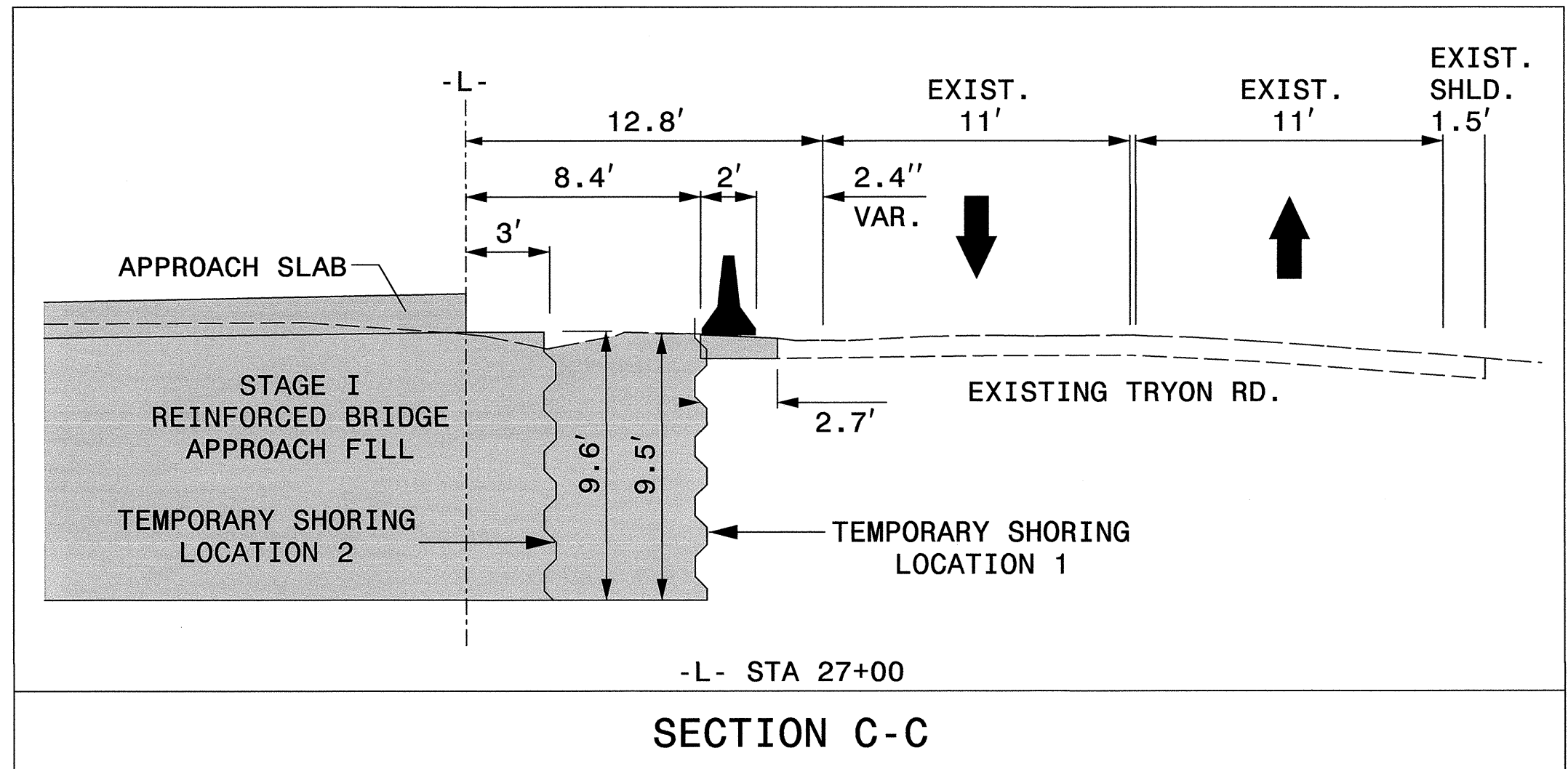
* CLOSE EXISTING CROSSWALK WHEN EXISTING CROSSWALK TRAFFIC IS PLACED INTO NEW TEMPORARY CROSSWALK AND RELOCATE TYPE III BARRICADE FROM PROPOSED DRIVEWAY TO CLOSE EXISTING DRIVEWAY AS SHOWN ON TMP-10. REMOVE EXISTING CROSSWALK PAVEMENT MARKINGS.

NOTE: SEE SIGNAL SPECIAL PROVISIONS FOR DESIGN OF RECTANGULAR RAPID FLASHING BEACONS (RRFB) ASSEMBLY.



NOTE: ALL DIMENSIONS ARE +/-

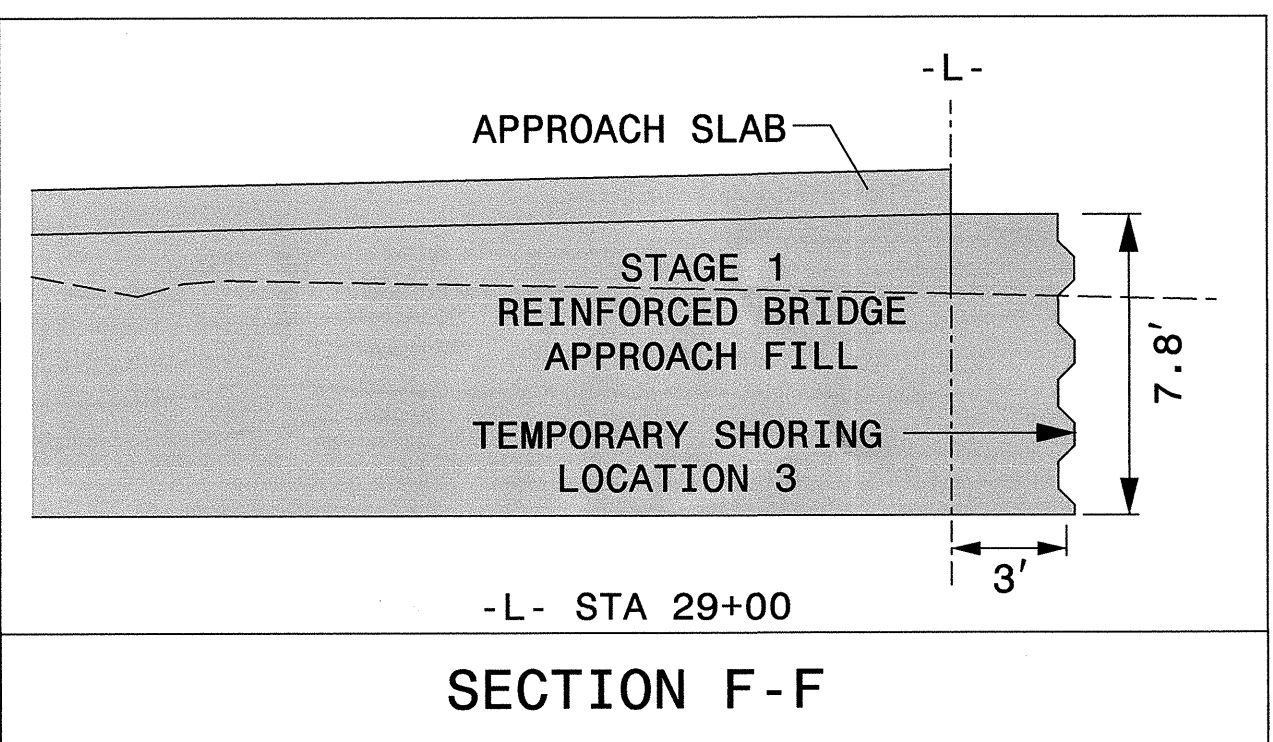
APPROVED: _____ DATE: _____		<h1>PHASE I TEMPORARY CROSSWALK</h1>



TEMPORARY SHORING LOCATION 1 (1005 SF)
 BEGIN -L- STA 26+90+/-, 8.4'+/- RIGHT OF -L-
 END -L- STA 28+00+/-, 8.4'+/- RIGHT OF -L-

TEMPORARY SHORING LOCATION 2 (160 SF)
 BEGIN -L- STA 26+88+/-, 3'+/- RIGHT OF -L-
 END -L- STA 27+16+/-, 3'+/- RIGHT OF -L-

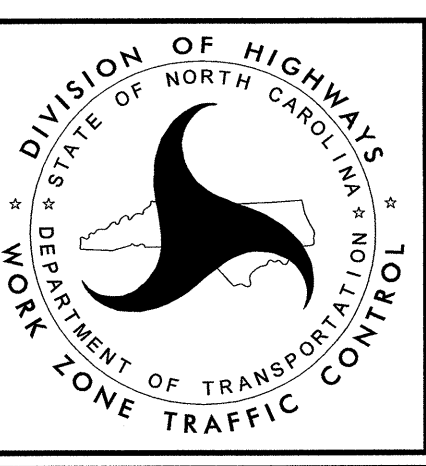
TEMPORARY SHORING LOCATION 3 (162 SF)
 BEGIN -L- STA 28+98+/-, 3'+/- RIGHT OF -L-
 END -L- STA 29+26+/-, 3'+/- RIGHT OF -L-



NOTE: ALL DIMENSIONS +/-

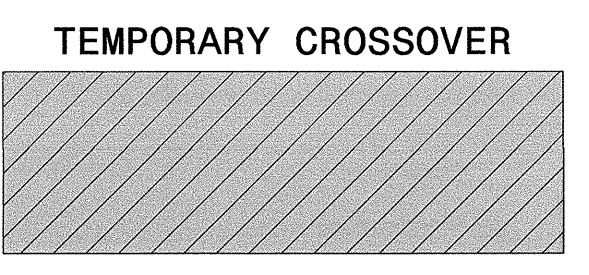
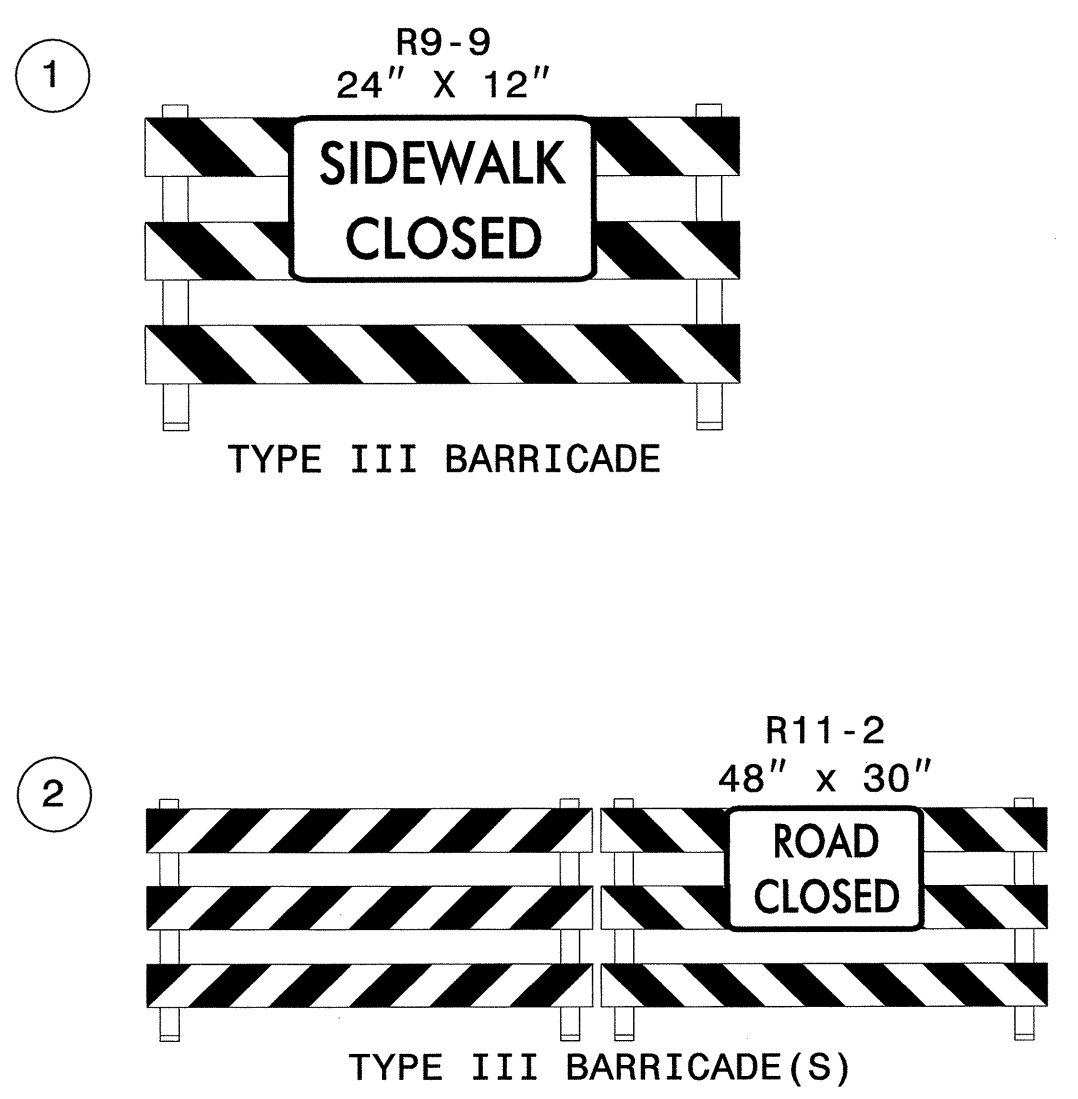
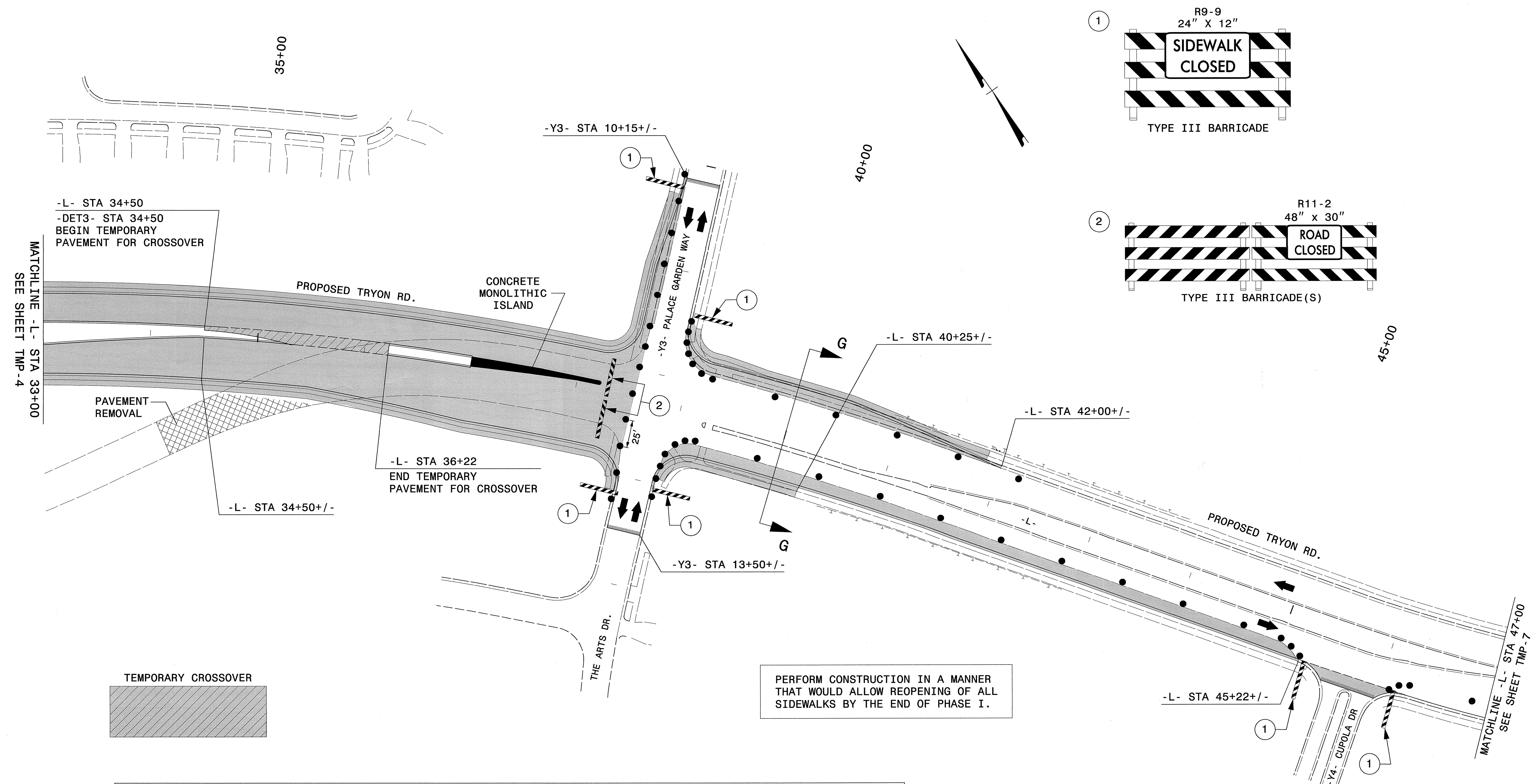
APPROVED: _____ DATE: _____

SEAL

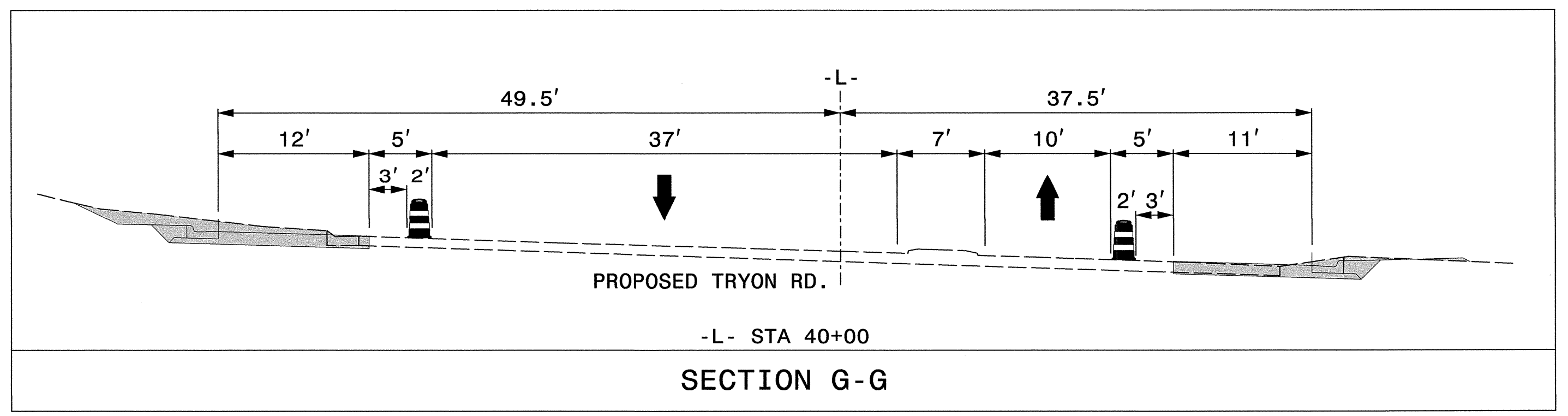


PHASE I

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PERFORM CONSTRUCTION IN A MANNER THAT WOULD ALLOW REOPENING OF ALL SIDEWALKS BY THE END OF PHASE I.

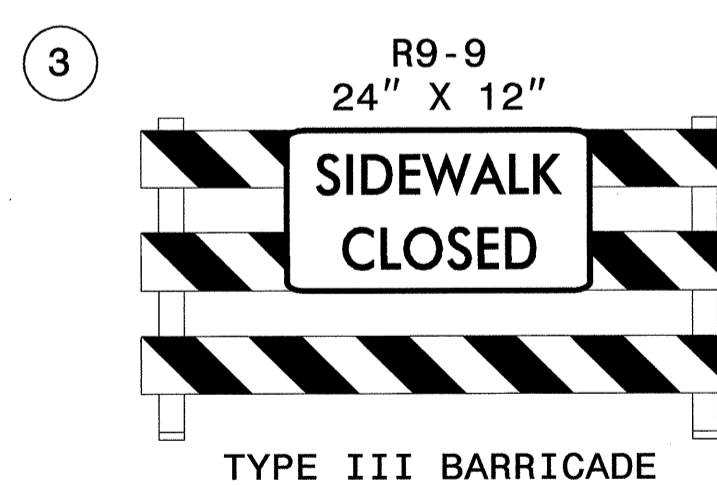
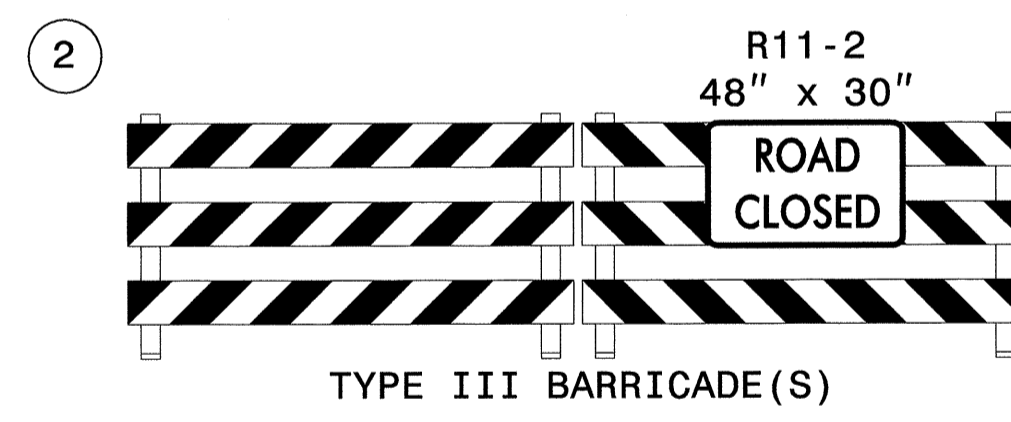
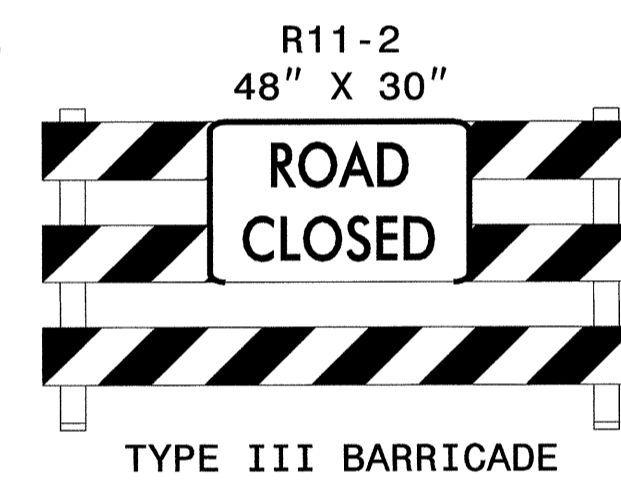
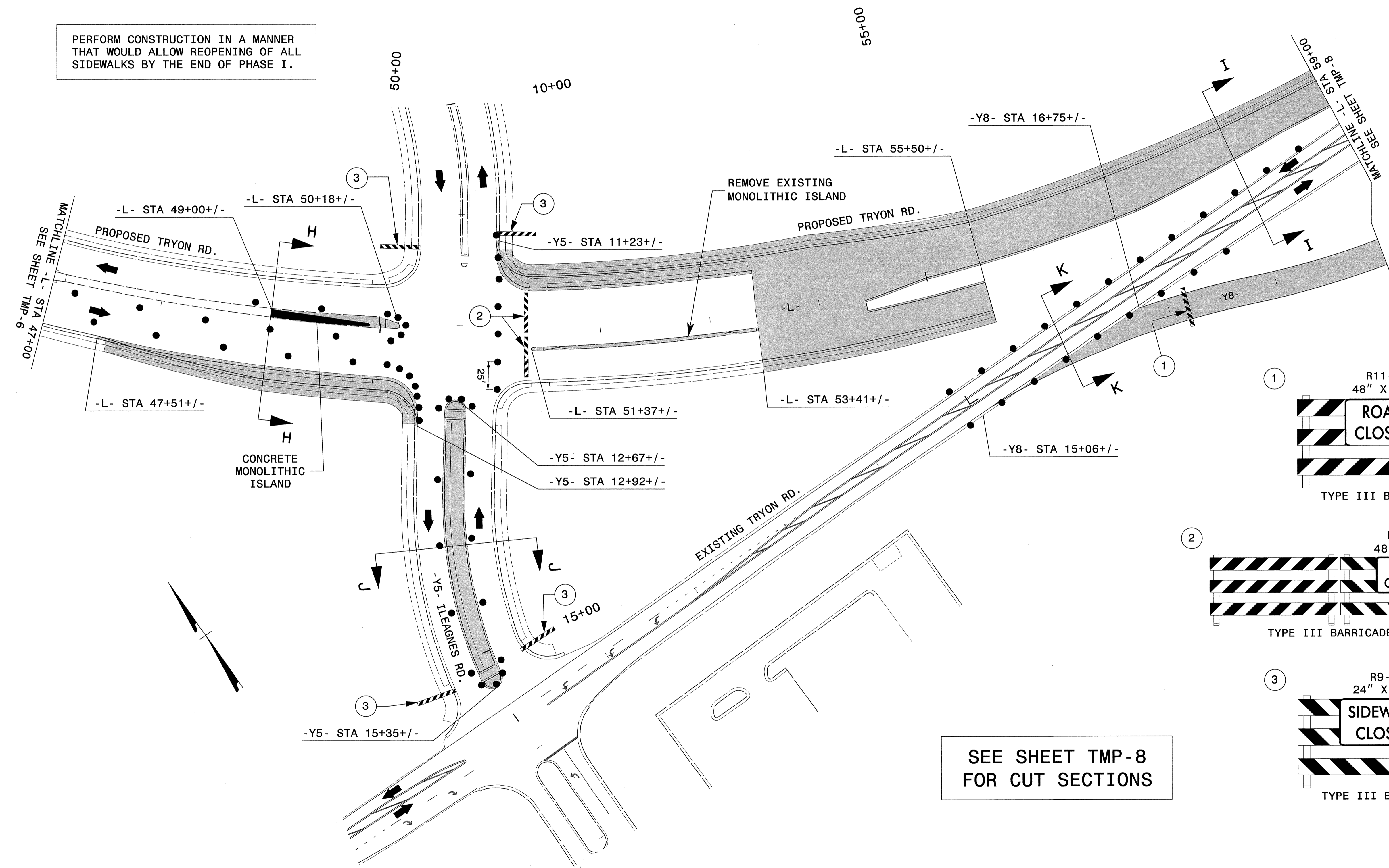


NOTE: ALL DIMENSIONS +/-

APPROVED: _____ DATE: _____		<h1>PHASE I</h1>

11/5/2013
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 User:jdondalson

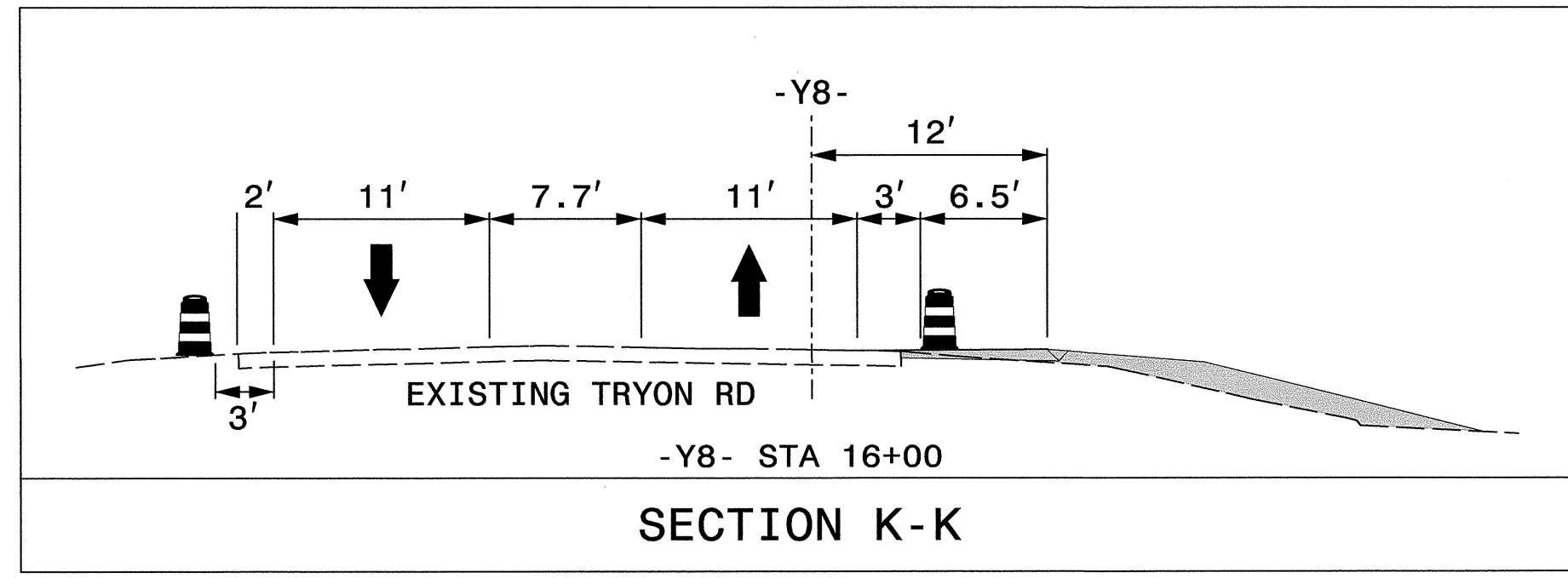
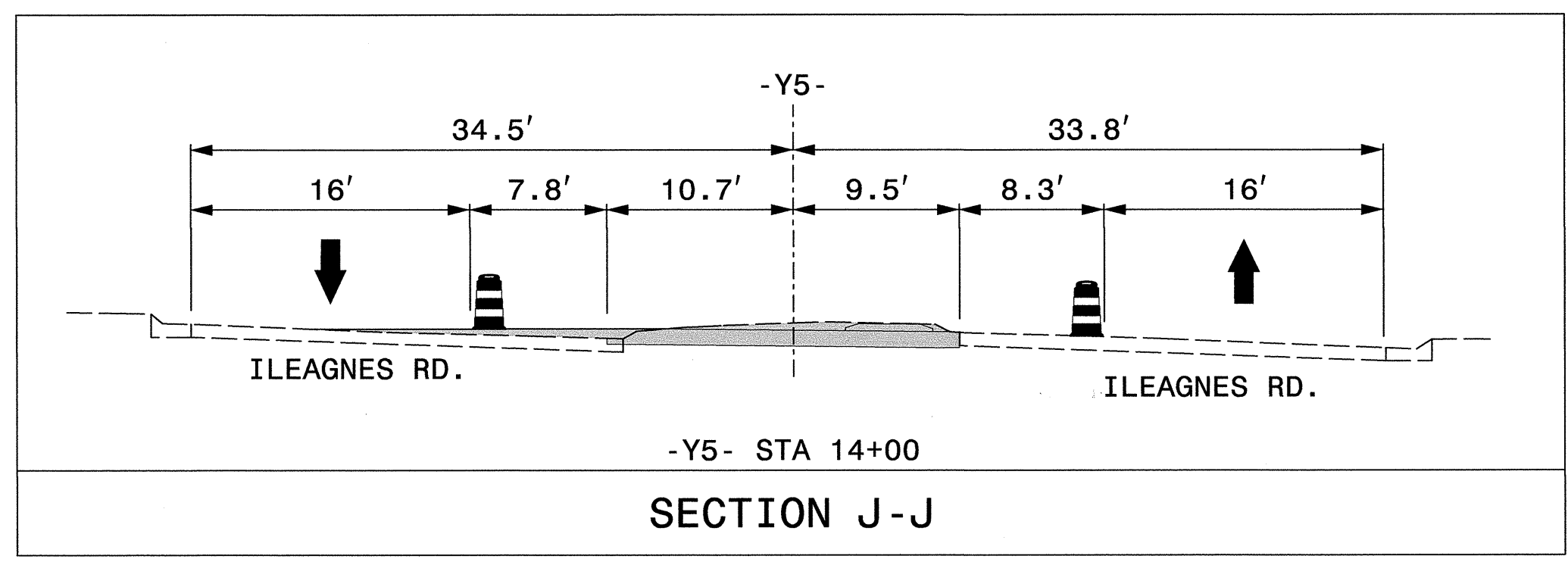
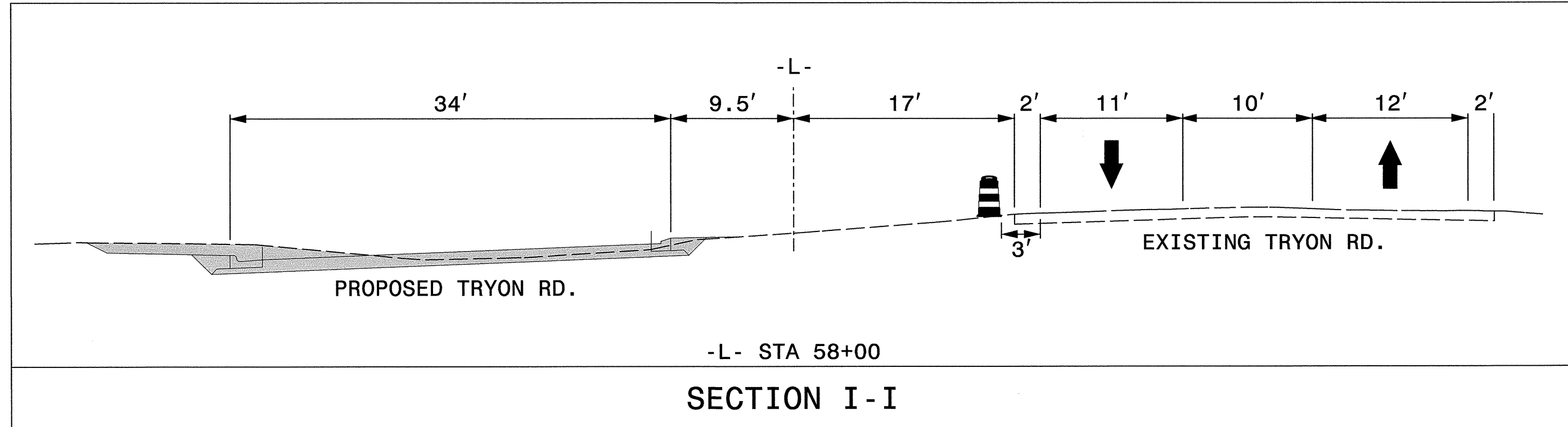
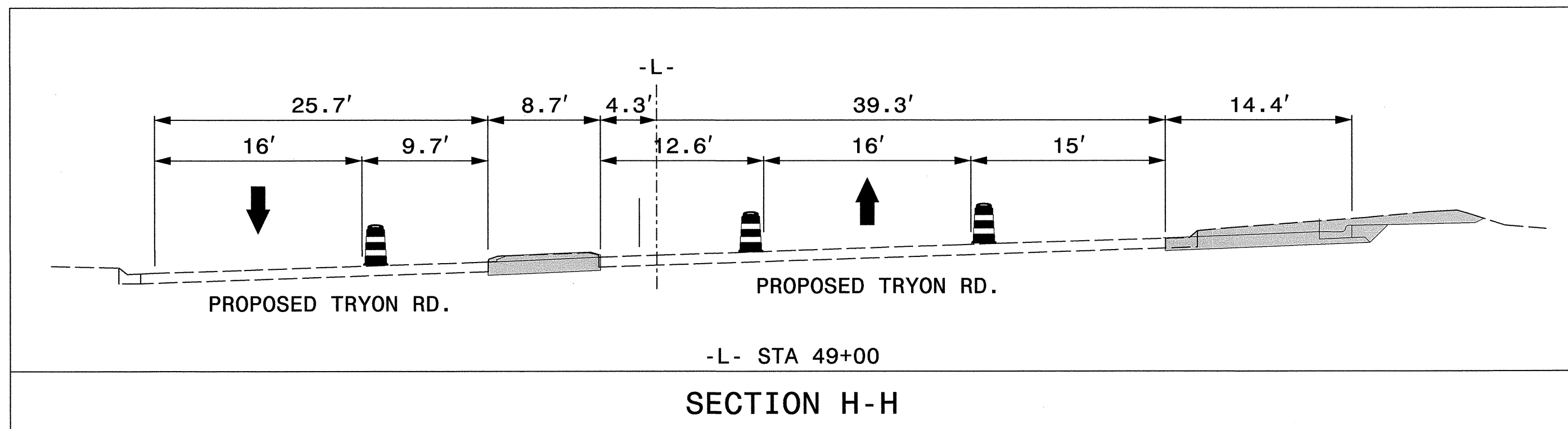
PERFORM CONSTRUCTION IN A MANNER THAT WOULD ALLOW REOPENING OF ALL SIDEWALKS BY THE END OF PHASE I.



SEE SHEET TMP-8
FOR CUT SECTIONS

11/5/2013 R:\TrafficControl\Top\U4432-TC-TMP-TMP-07.dgn User:tidonadson

APPROVED: _____ DATE: _____		<h1>PHASE I</h1>



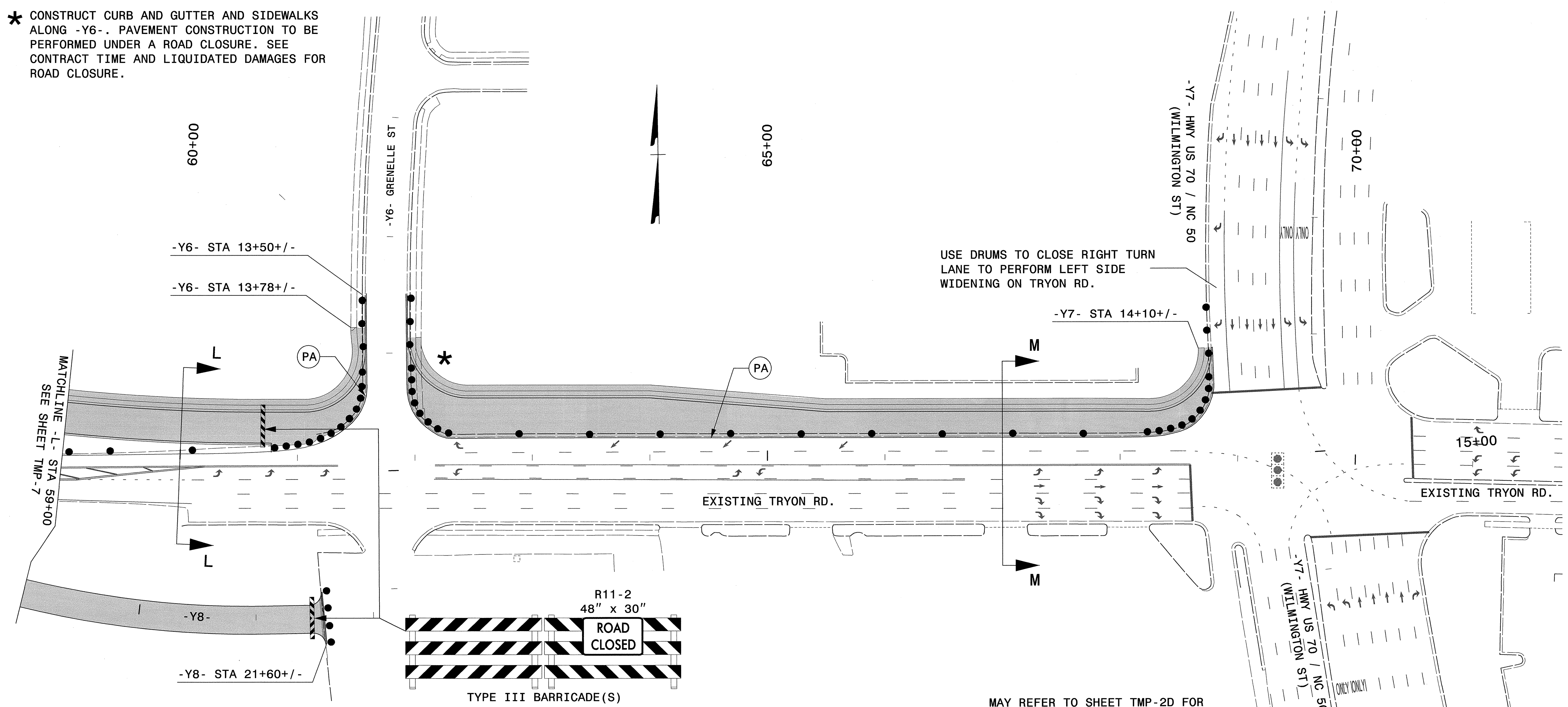
ALL CUT SECTIONS REFER
BACK TO SHEET TMP-7

NOTE: ALL DIMENSIONS +/-

APPROVED: _____	DATE: _____

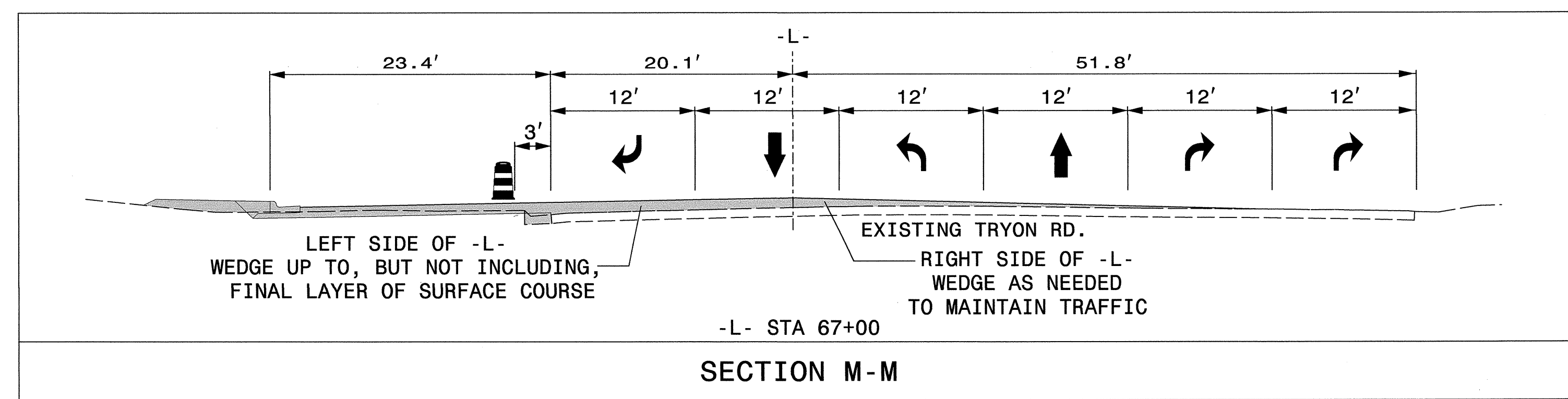
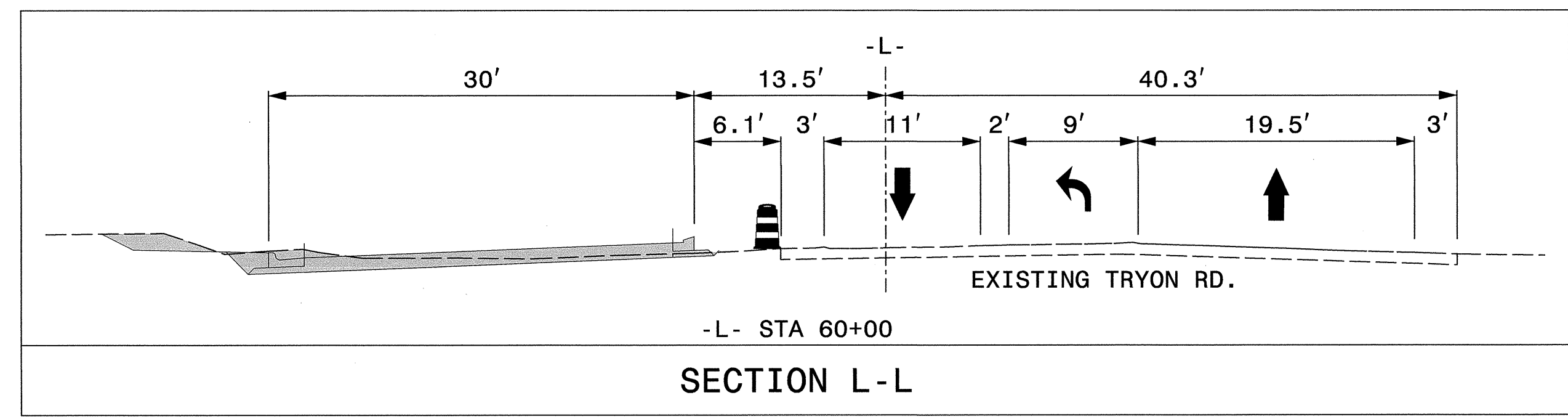
PHASE I

* CONSTRUCT CURB AND GUTTER AND SIDEWALKS ALONG -Y6-. PAVEMENT CONSTRUCTION TO BE PERFORMED UNDER A ROAD CLOSURE. SEE CONTRACT TIME AND LIQUIDATED DAMAGES FOR ROAD CLOSURE.



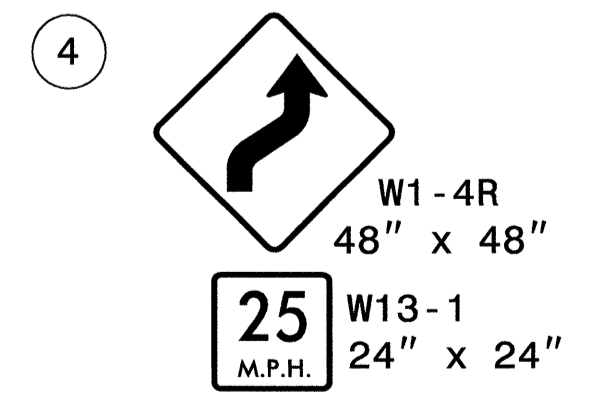
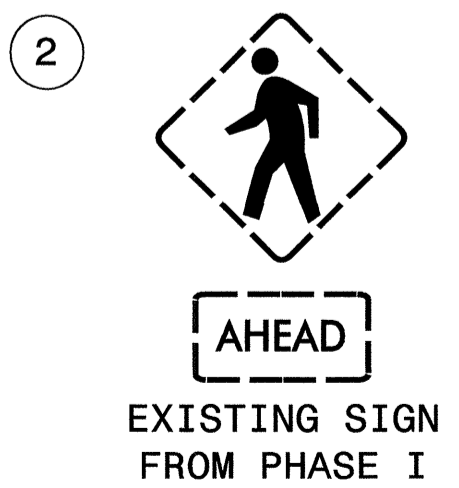
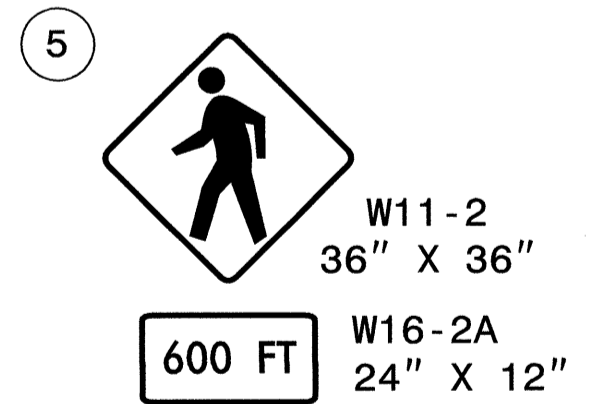
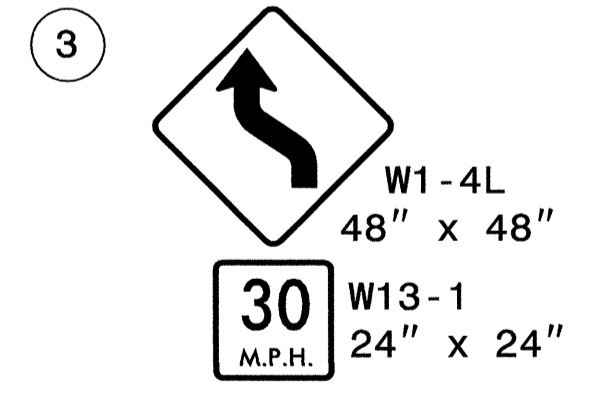
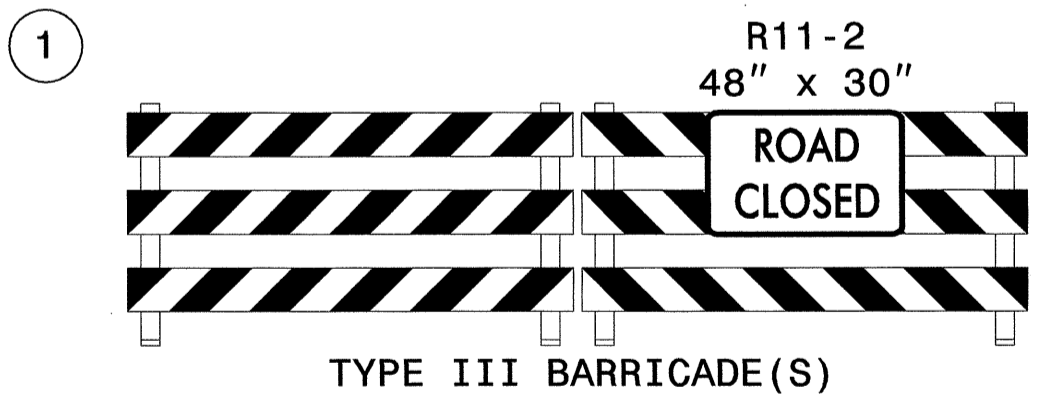
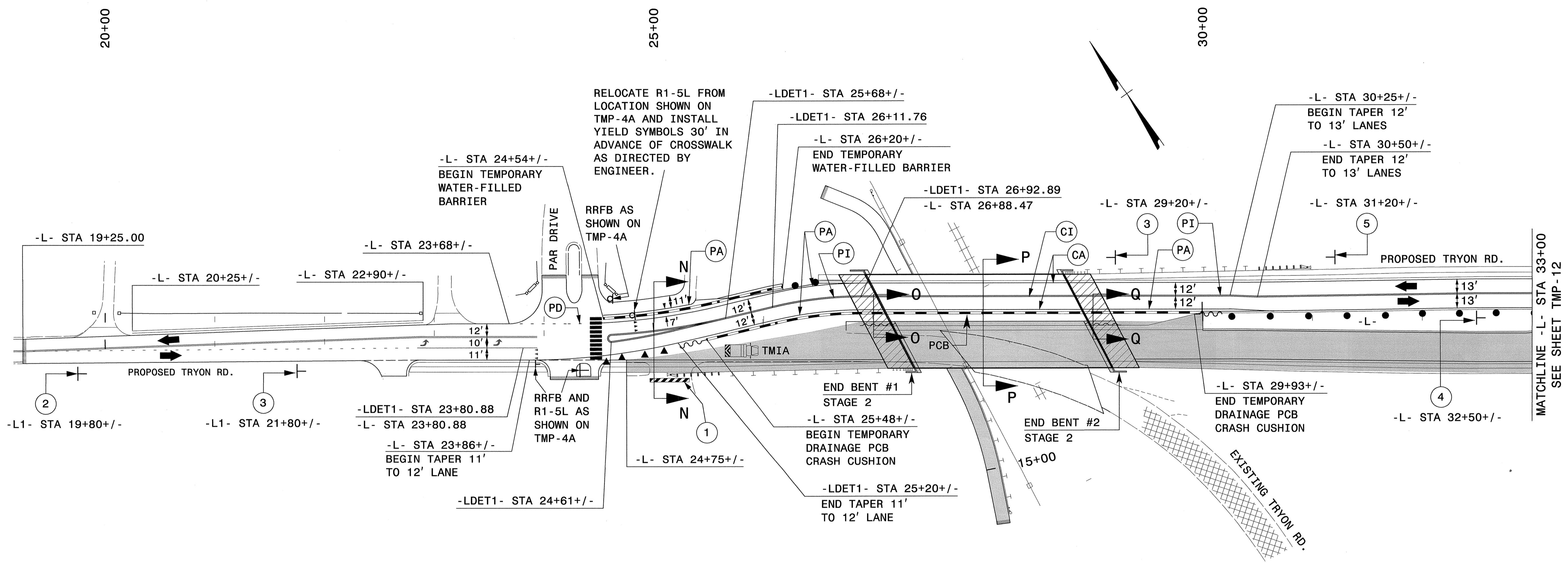
USE DRUMS TO CLOSE RIGHT TURN LANE TO PERFORM LEFT SIDE WIDENING ON TRYON RD.

MAY REFER TO SHEET TMP-2D FOR CLOSURE OF LEFT TURN LANE FROM US 70 W TO TRYON RD. TO PERFORM LEFT SIDE WIDENING.



APPROVED: _____ DATE: _____

PHASE I



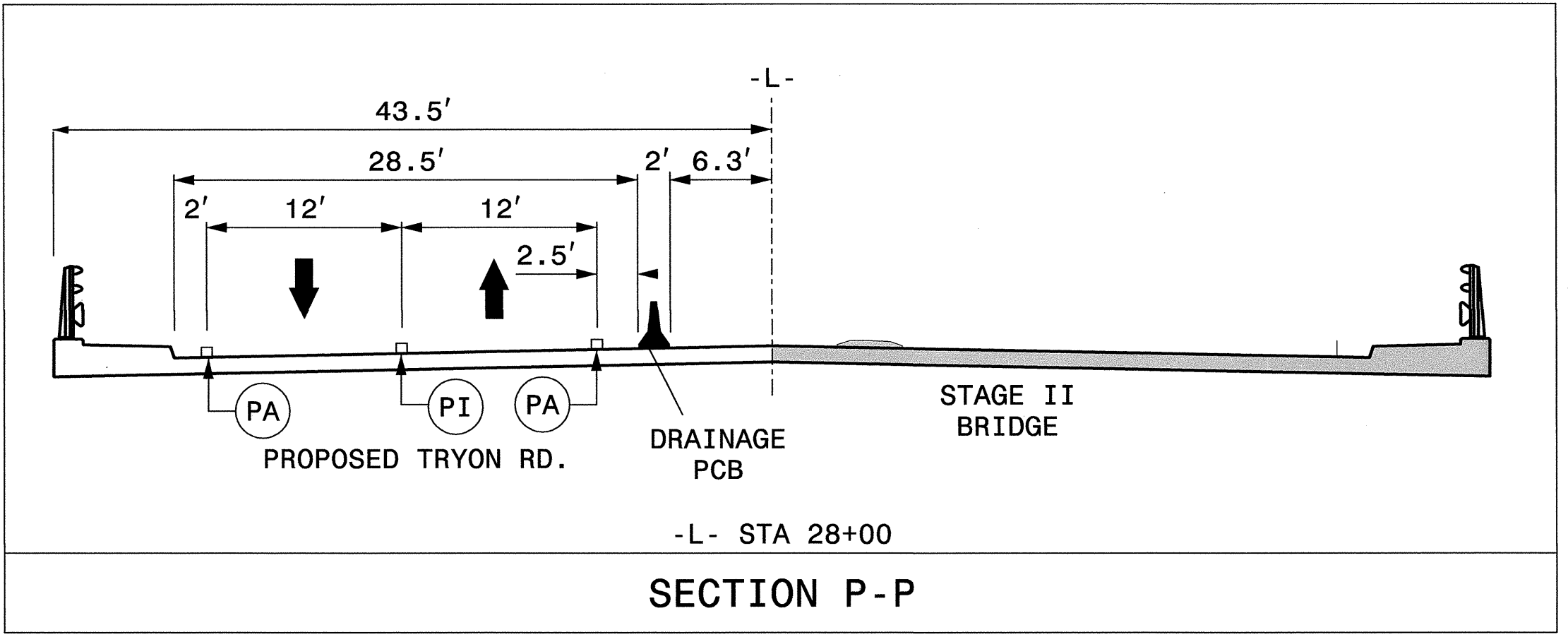
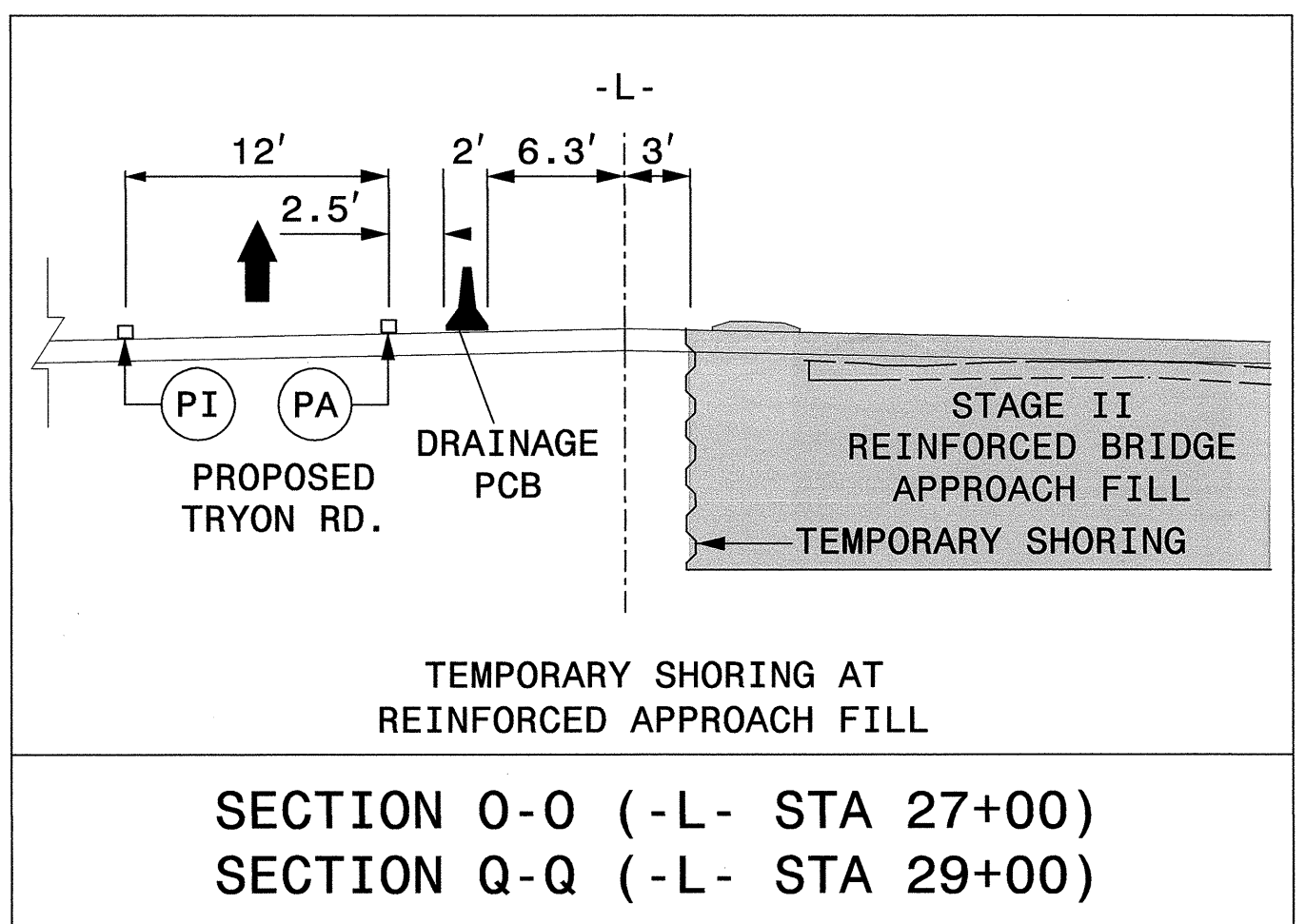
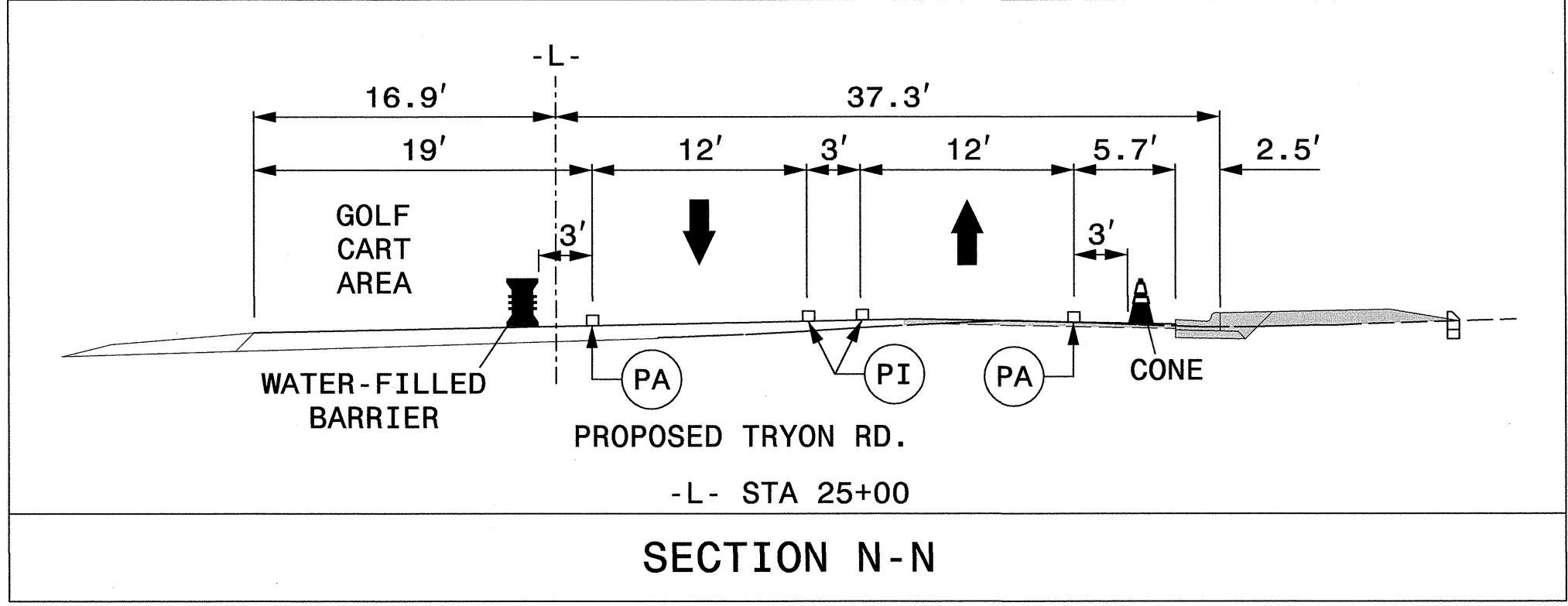
SEE SHEET TMP-11
FOR CUT SECTIONS

11/5/2013 R:\TrafficControl\cp\U4432-TC-TMP-10.dgn User:tdonadson

APPROVED: _____ DATE: _____

PHASE II

MATCHLINE -L- STA 33+00
SEE SHEET TMP-12



ALL CUT SECTIONS REFER
BACK TO SHEET TMP-10

APPROVED: _____ DATE: _____

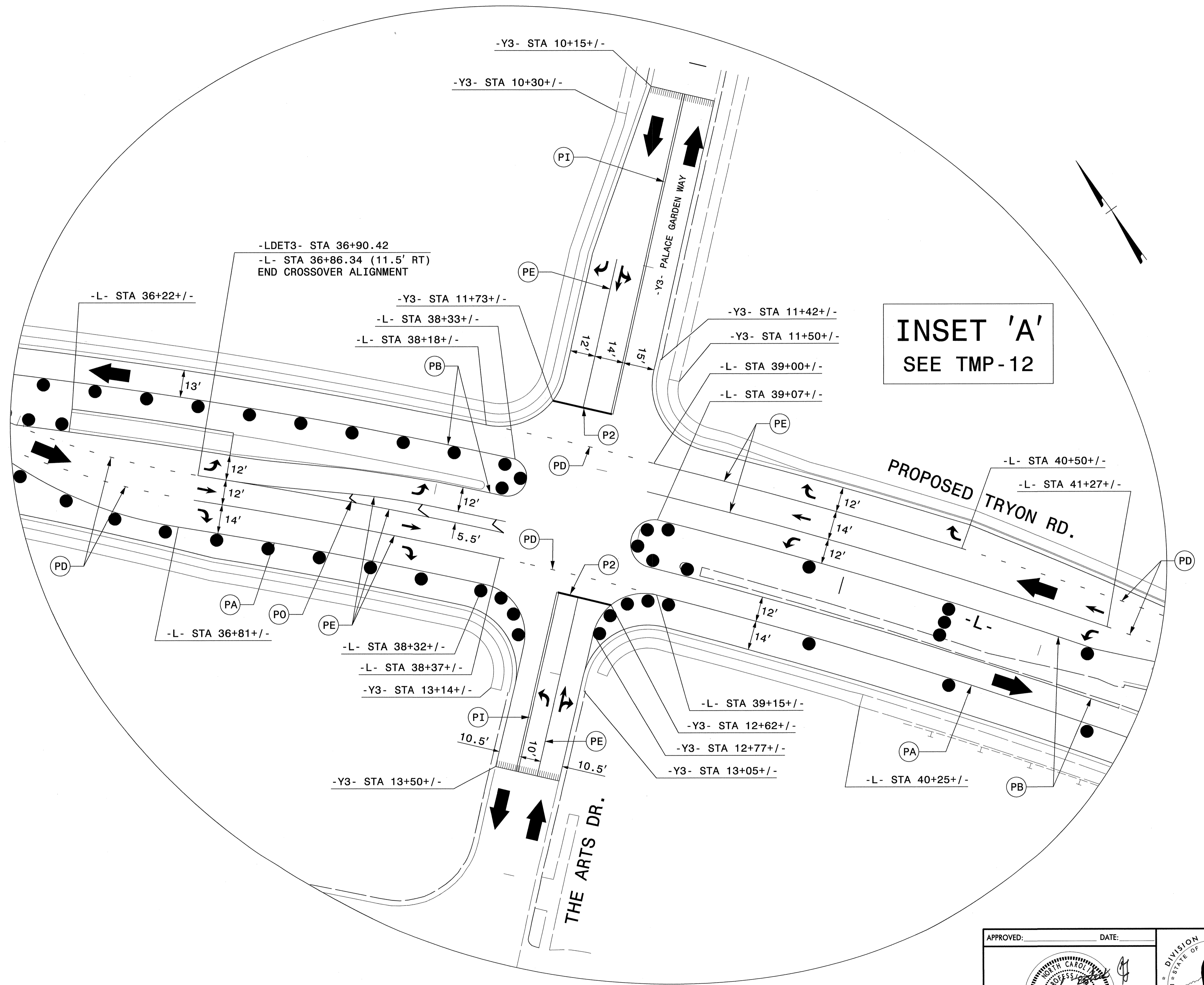
SEAL

11-2-2013

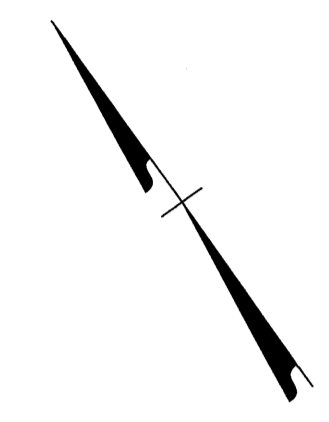
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PHASE II

11/5/2013 R:\Traf\TrafficControl\top\U4432.TC.TMP-11.dgn User: idonaldson



INSET 'A'
SEE TMP-12

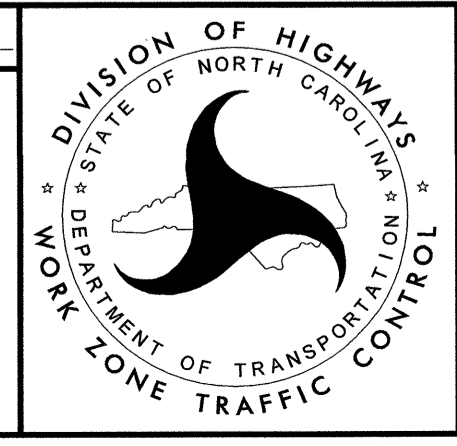


11/5/2013
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 User:tidonadson

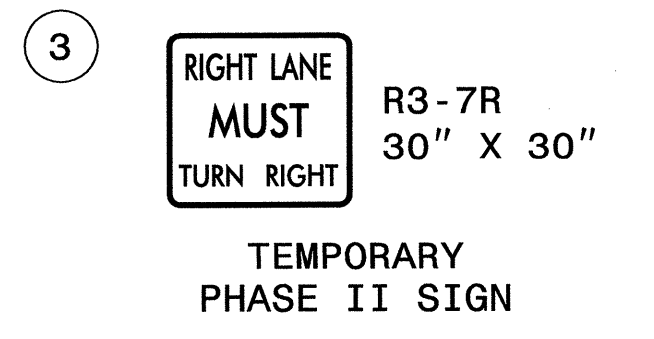
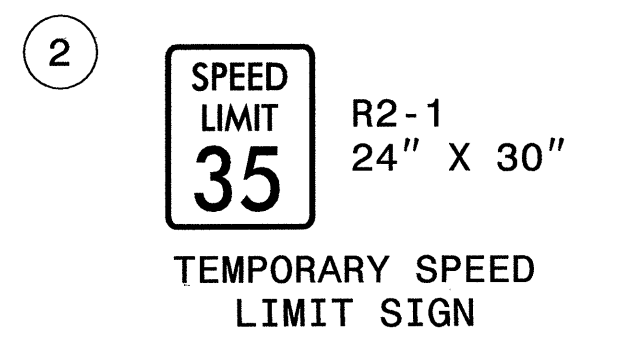
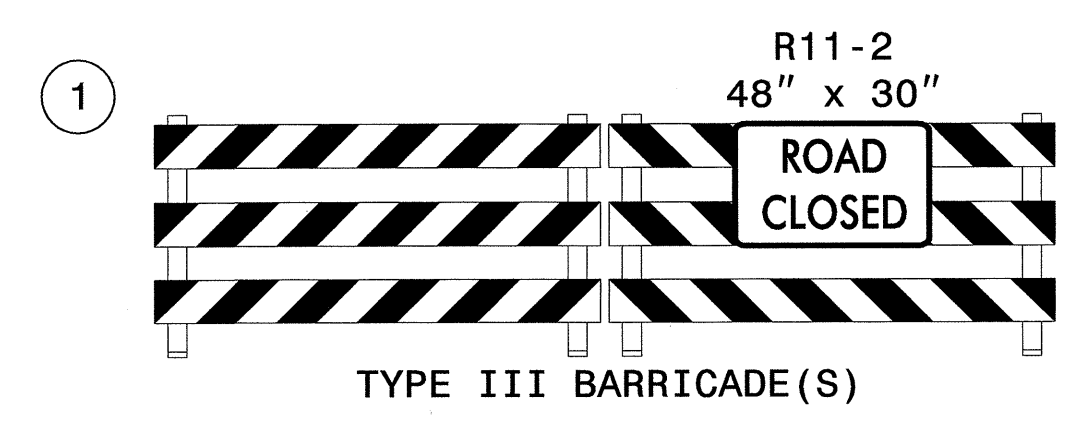
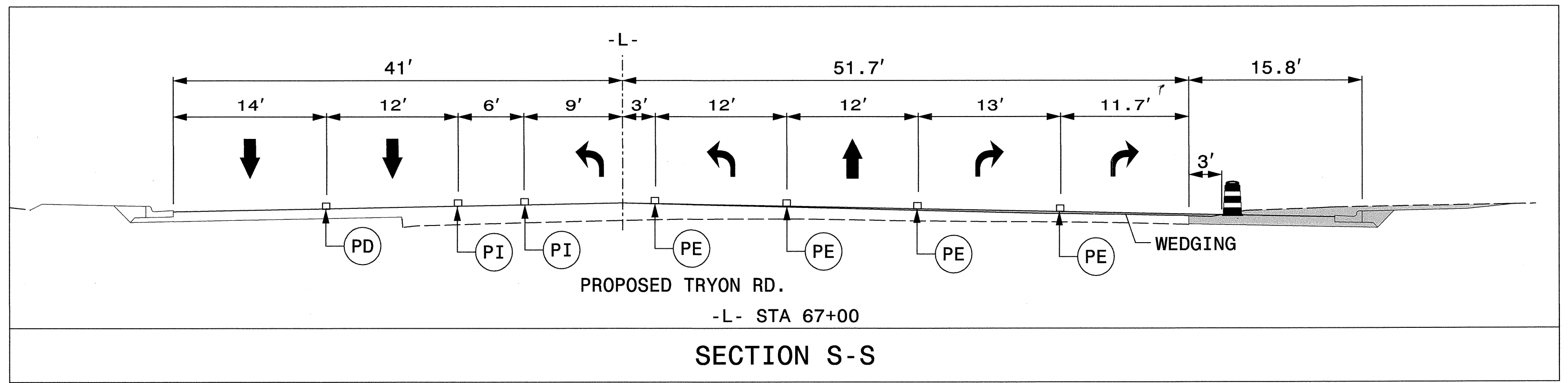
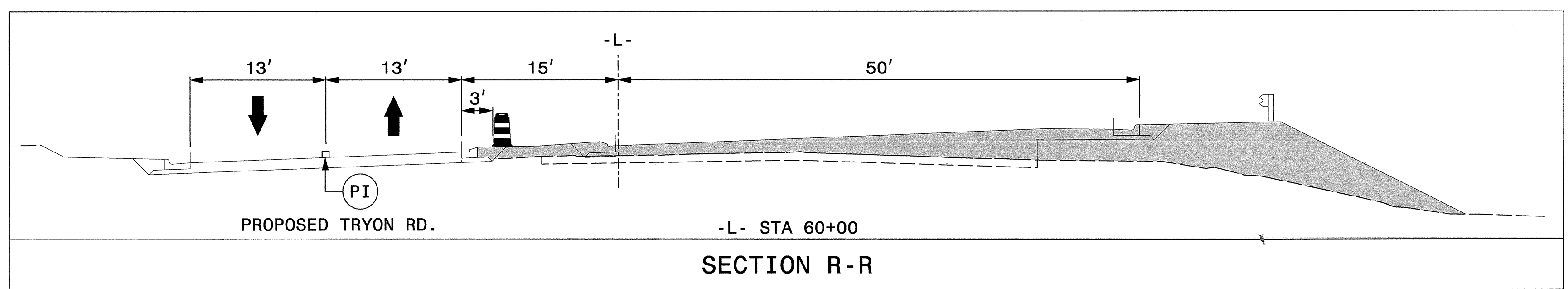
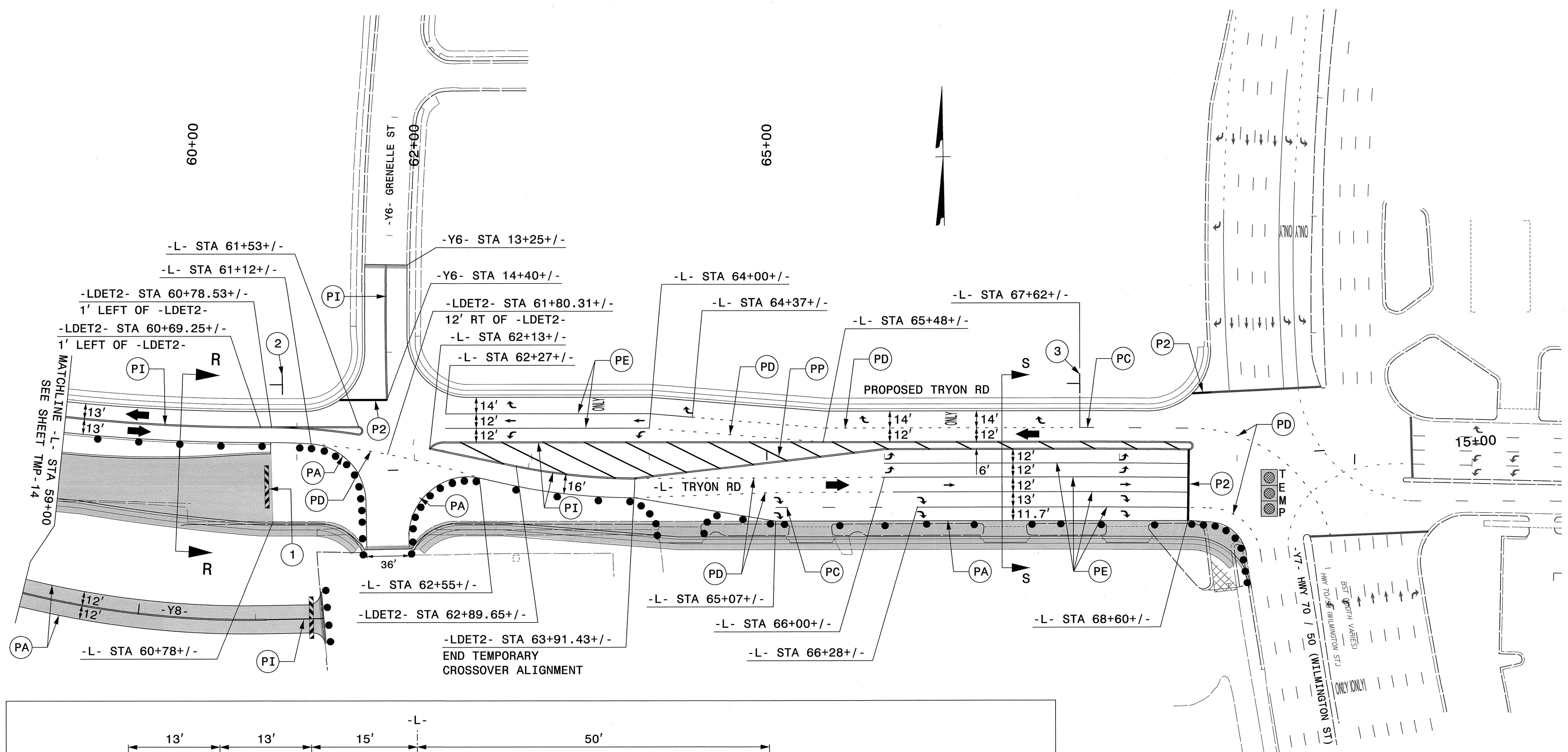
APPROVED: _____ DATE: _____

SEAL

11-9-2013

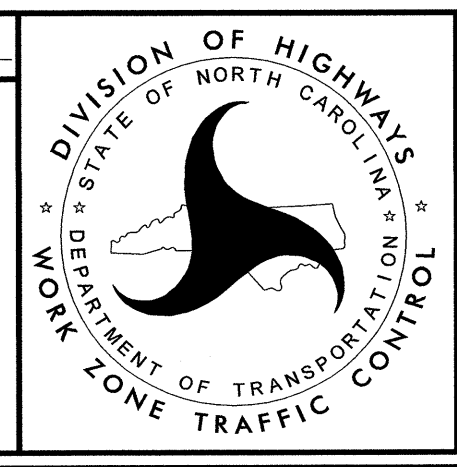


PHASE II



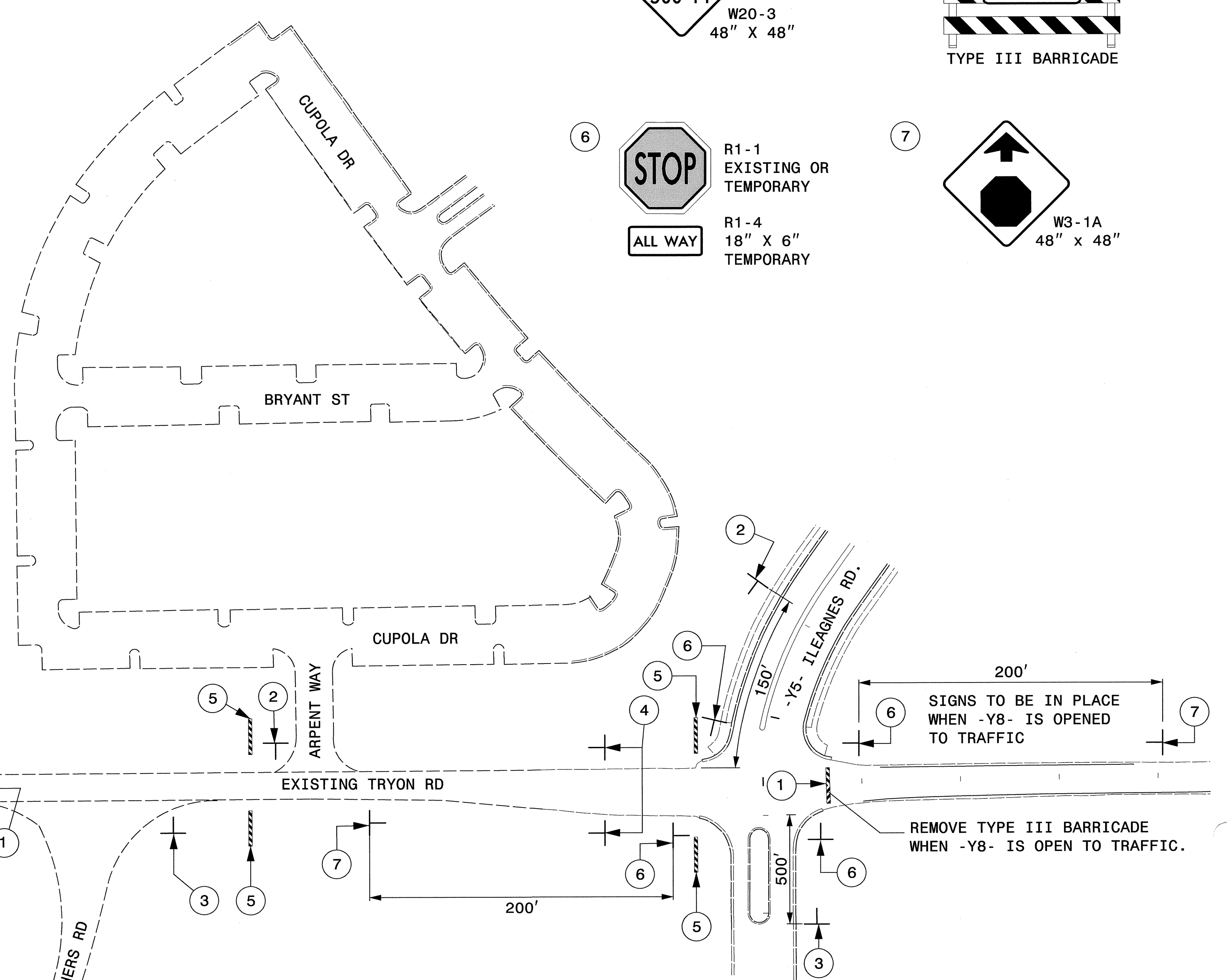
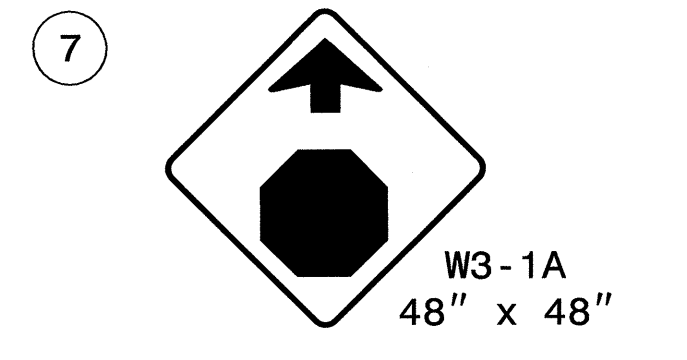
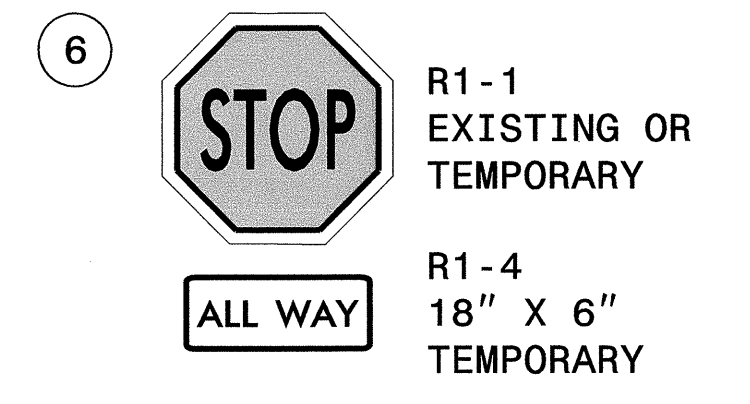
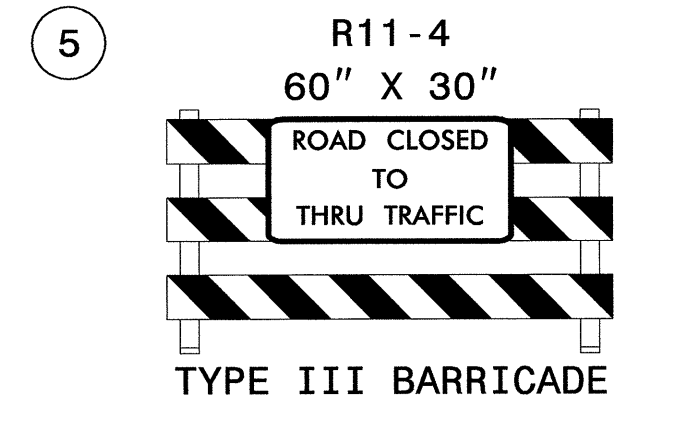
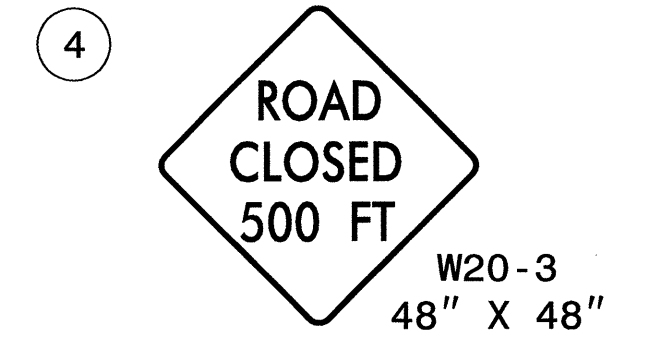
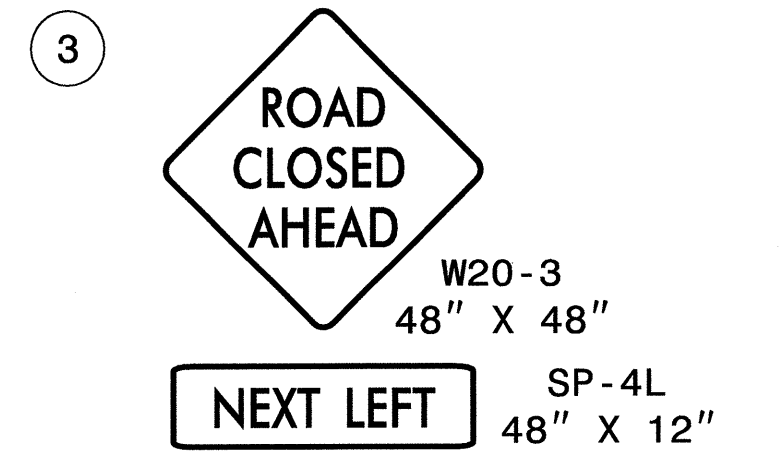
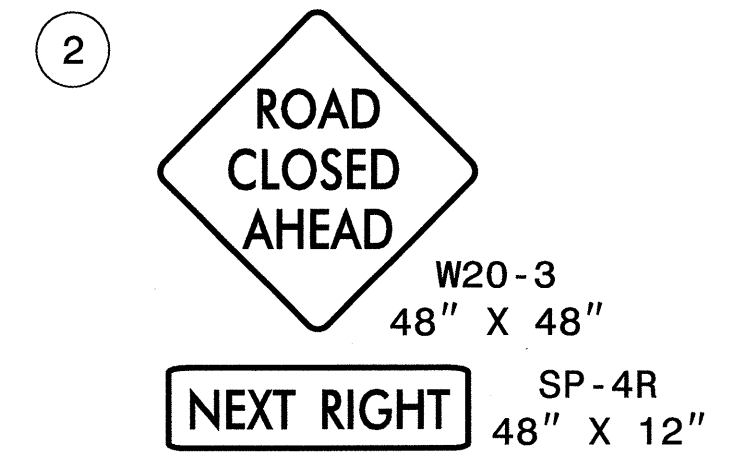
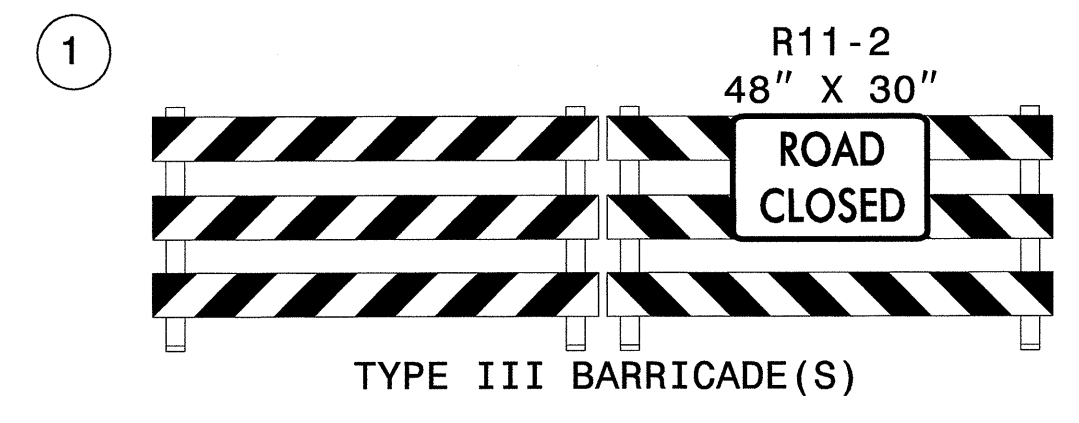
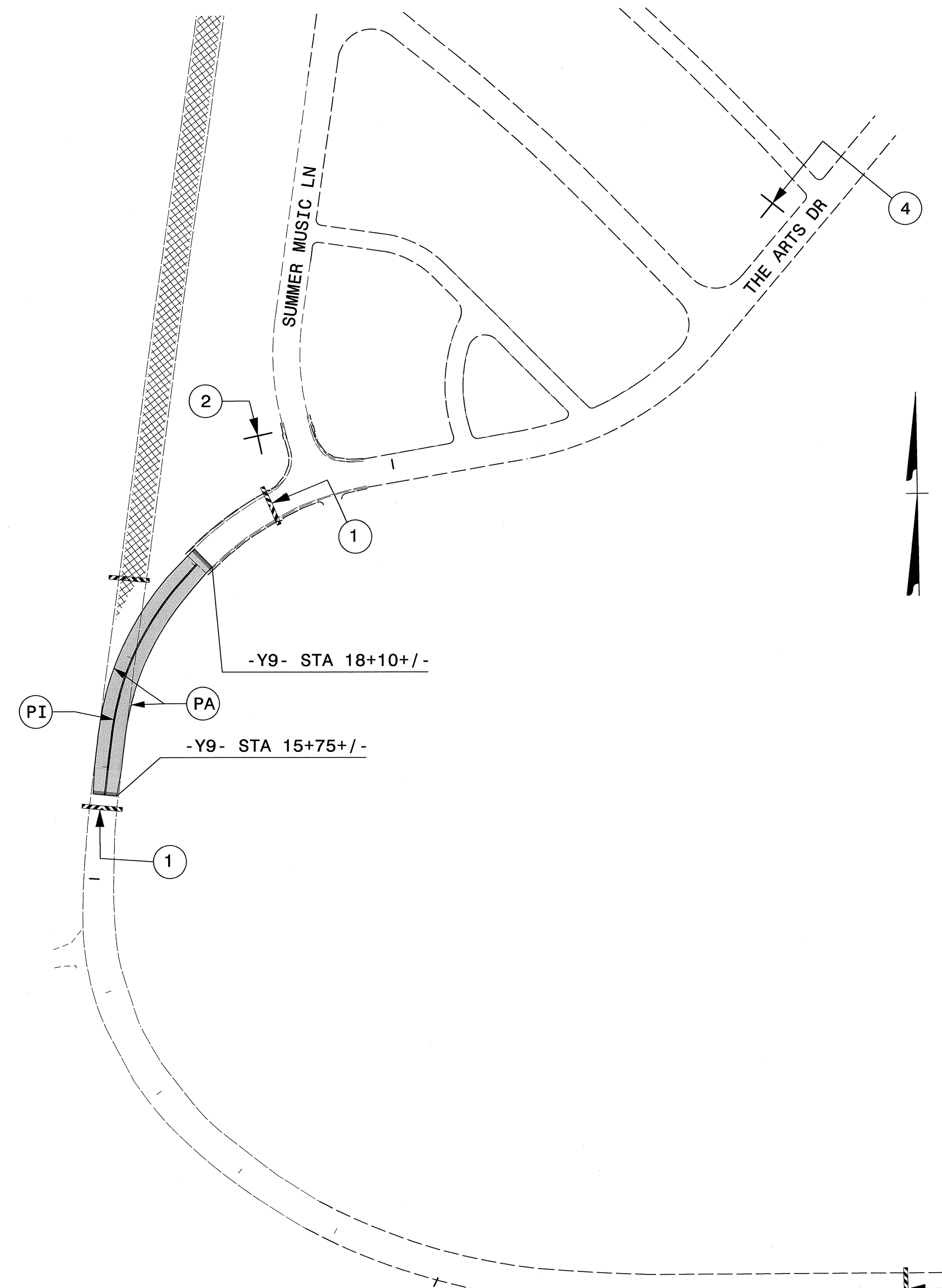
NOTE: ALL DIMENSIONS +/-

APPROVED: _____ DATE: _____



PHASE II

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 User: idonaldson



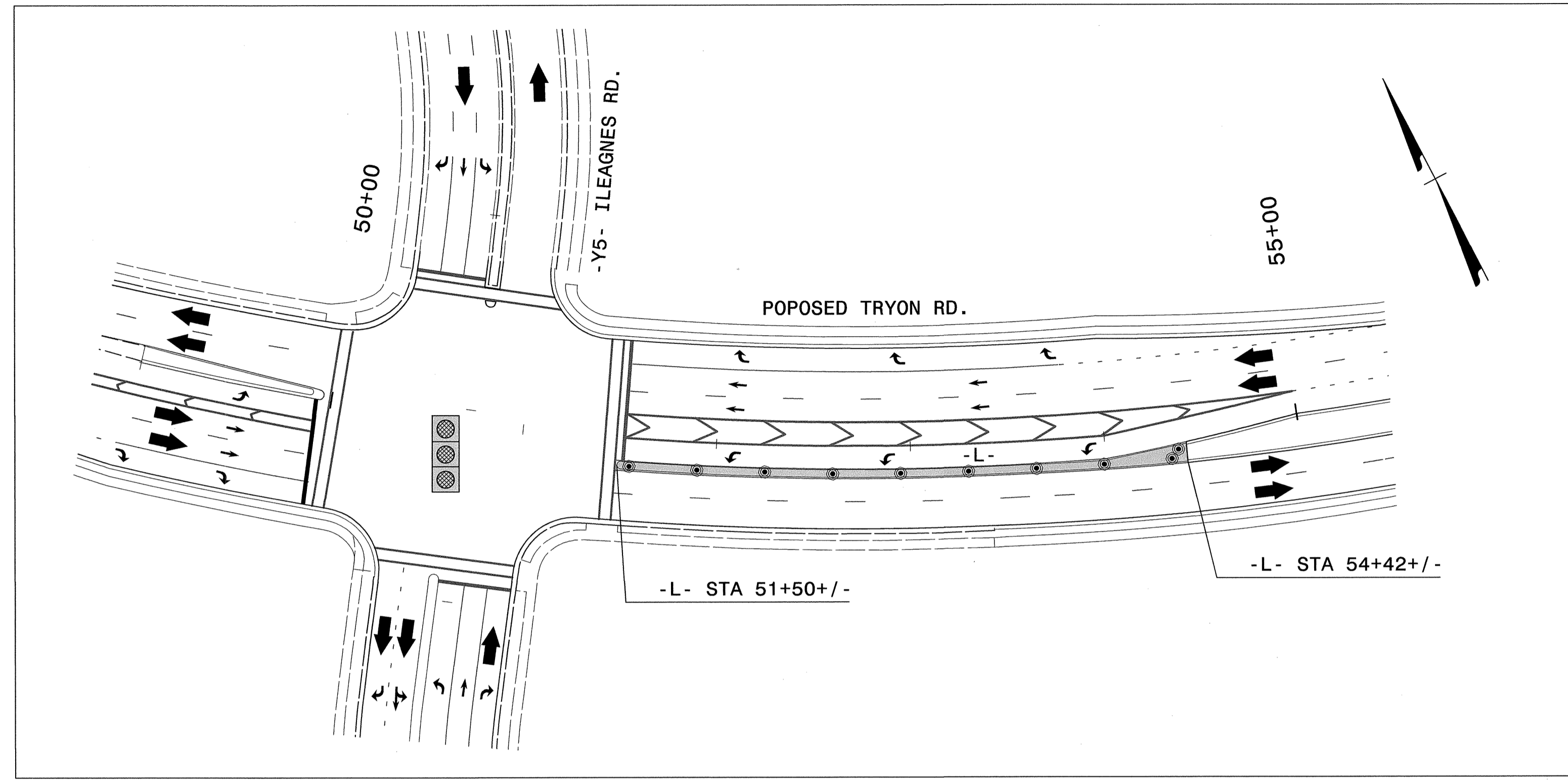
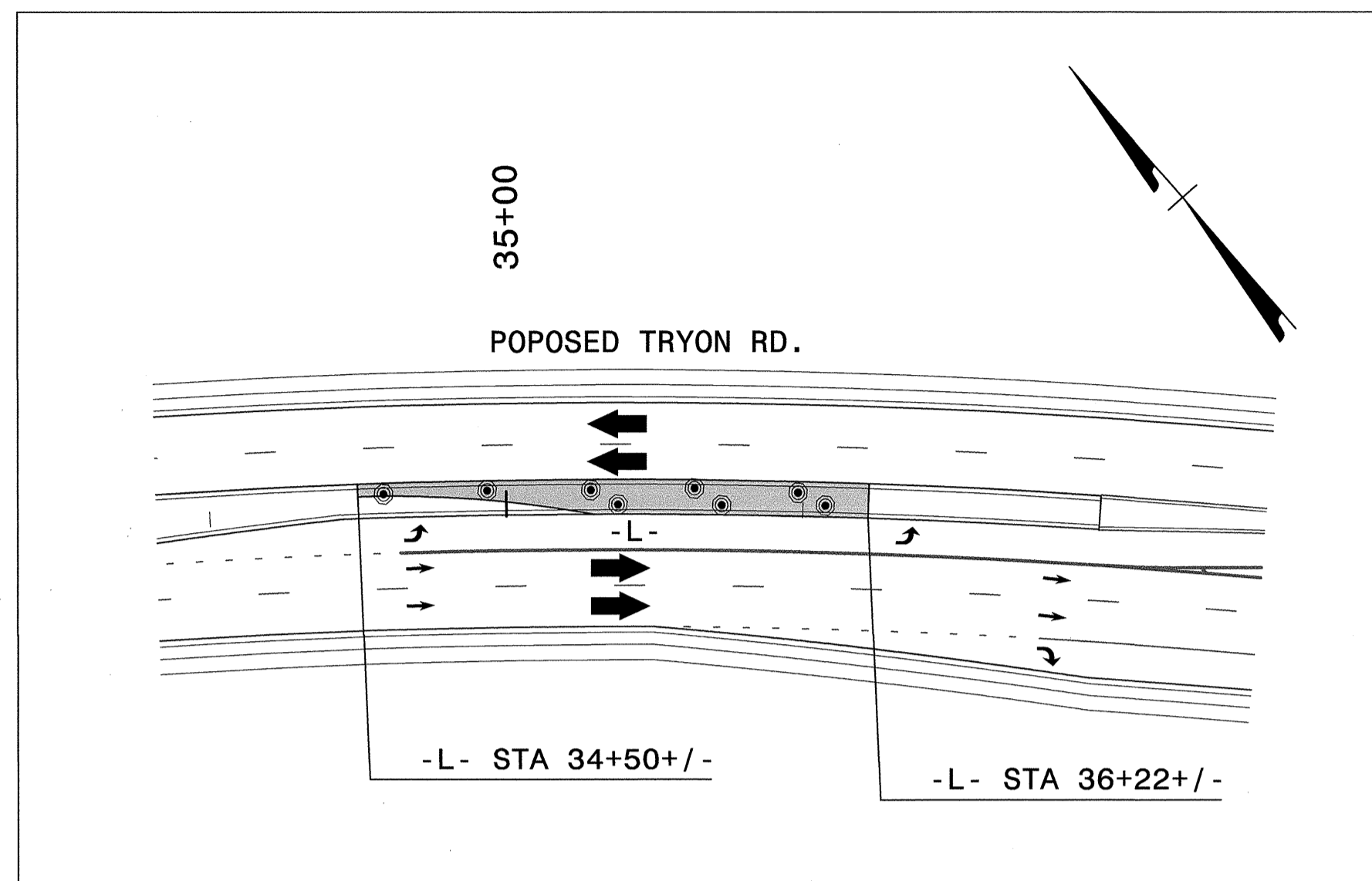
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APPROVED: _____ DATE: _____

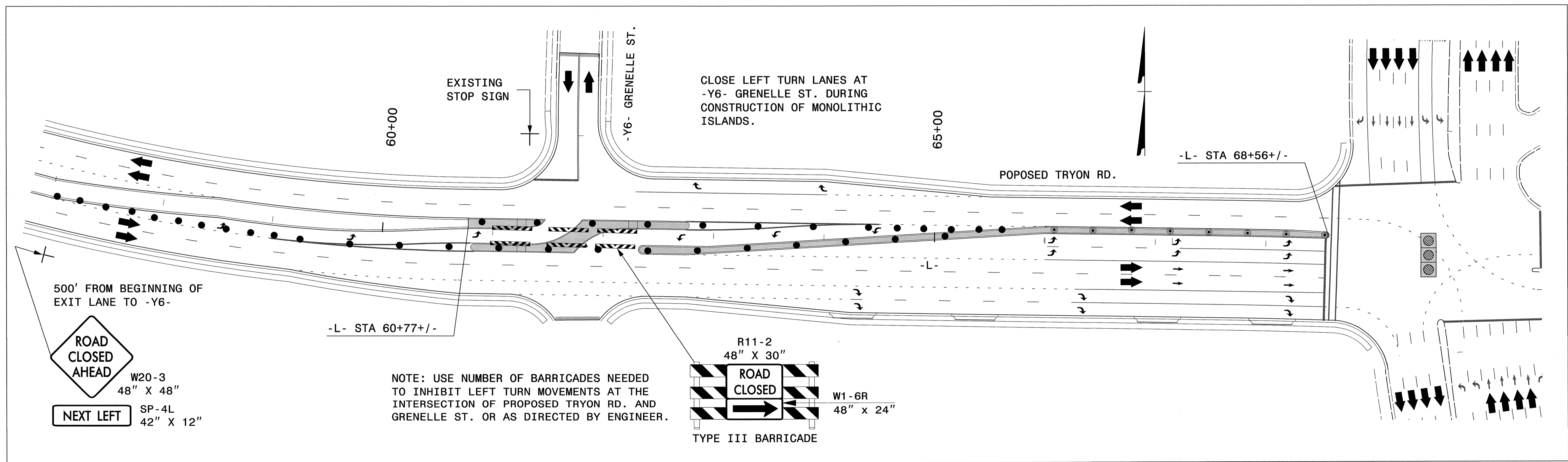
SEAL

11-5-2013

PHASE II
-Y9-



*PLACE TEMPORARY PAVEMENT MARKINGS IN PATTERN THAT MATCHES FINAL PAVEMENT MARKING PLANS.



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APPROVED: _____ DATE: _____		<h1>PHASE III</h1>