

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AVON LAKE REGIONAL WATER
201 MILLER RD.
AVON LAKE, OHIO 44102
ATTN: JACK GAYDAR
PHONE: (440) 933-6226
EMAIL: Jgaydar@avonlakewater.org

OHIO EDISON TRANSMISSION
76 SOUTH MAIN ST.
AKRON, OHIO 44308
ATTN: ALAN SCHEMPP
PHONE: (330) 384-5489

RURAL LORAIN COUNTY WATER AUTHORITY
42401 STATE ROUTE 303
LAGRANGE, OHIO 44050
ATTN: JAMES TRUESDELL
PHONE: (440) 355-5121
EMAIL: jtruesdell@rlcwa.com

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

SURVEY PARAMETERS

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

VERTICAL POSITIONING:
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID 12A

HORIZONTAL POSITIONING:
REFERENCE FRAME: NAD 83 (CONUS)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: PROJECT GROUND COORDINATES
COMBINED SCALE FACTOR: 1.00007257
ENG./METRIC CONVERSION: 1 METER = 3.28083333 FEET

PROJECT GROUND COORDINATES ARE SCALED FROM OHIO STATE PLANE NORTH ZONE (3401) GRID POINT N: 631675.936 E: 2102889.245 ELEVATION: 708.68. GRID POINT ESTABLISHED USING GPS ODOT VRS RTK NETWORK. ELEVATION OF GRID POINT HELD AS PRIMARY BENCHMARK. BASIS OF BEARINGS ESTABLISHED ON BASIS OF GRID NORTH OF THE OHIO STATE PLANE NORTH (3401) COORDINATE SYSTEM.

UNITS ARE IN U.S. SURVEY FEET

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 606 GUARDRAIL REBUILT, AS PER PLAN

THIS ITEM SHALL FOLLOW THE SPECIFICATIONS IN THE CMS FOR 606 ITEMS AND SHALL INCLUDE ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO REMOVE AND REPLACE EXISTING GUARDRAIL IN KIND OVER PROPOSED UNDERDRAIN OUTLET LOCATIONS WHERE FULL GUARDRAIL REPLACEMENT IS NOT OTHERWISE SPECIFIED IN THE PLANS. AT EACH LOCATION, EITHER ONE OR TWO LENGTHS OF GUARDRAIL AND ASSOCIATED POSTS ARE TO BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE CONSTRUCTION OF THE PROPOSED UNDERDRAIN. A QUANTITY IS PROVIDED BELOW AND CARRIED TO THE GENERAL SUMMARY FOR THIS WORK.

ITEM 606 GUARDRAIL REBUILT, AS PER PLAN 125 FEET

ITEM 202 PAVEMENT REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REMOVE THE EXISTING PAVEMENT WHERE INDICATED IN THE PLANS. THIS WORK SHALL INCLUDE REMOVAL OF EXISTING CONCRETE AND ASPHALT PAVEMENTS, AS WELL AS THE EXISTING BASE, SUBBASE, AND AGGREGATE BASE MATERIALS.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST 2 EACH

659, TOPSOIL 1,237 CU. YD.

659, REPAIR SEEDING AND MULCHING 557 SQ. YD.

659, INTER-SEEDING 557 SQ. YD.

659, COMMERCIAL FERTILIZER 1.5 TON

659, LIME .26 ACRES

659, WATER 62 M. GAL.

659, MOWING 2786 M. SQ.FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL WITHIN THE CONSTRUCTION LIMITS QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE THE TYPICAL SECTIONS FOR ADDITIONAL INFORMATION.

ITEM 204 - PROOF ROLLING 13 HOUR.

ITEM 607 FENCE REMOVED AND REBUILT, AS PER PLAN

THIS ITEM SHALL INCLUDE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REMOVE AND REBUILD IN KIND THE EXISTING RIGHT OF WAY FENCING AS NEEDED TO ACCOMMODATE CONSTRUCTION ACTIVITIES WITHIN THE CONSTRUCTION LIMITS. THE CONTRACTOR SHALL FIELD VERIFY THE LIMITS OF FENCE REMOVAL WITHIN THE CONSTRUCTION LIMITS BASED ON THE LOCATION OF EXISTING FENCE POSTS TO BE USED AS LOGICAL TERMINI FOR THE WORK. FENCING SHALL NOT BE DISTURBED OUTSIDE THE DEFINED CONSTRUCTION LIMITS. THE ALIGNMENT OF THE REBUILT FENCE SHALL FOLLOW AS CLOSELY AS PRACTICAL TO THE EXISTING ALIGNMENT, EXCEPT WHERE DEVIATIONS ARE NECESSARY TO TIE IN TO THE PROPOSED WINGWALL END LOCATIONS. SUCH DIVERSIONS SHOULD BE ACCOMPLISHED WITHIN THE SPAN OF ONE OR TWO FENCE PANELS NEAREST THE PROPOSED WINGWALLS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

ENVIRONMENTAL

1. THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. THE CONTRACTOR SHALL NOT REMOVE TREES UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.
2. NO WORK ATTEMPTED BELOW WATER MARKING. ODOT WILL OBTAIN AND ADHERE TO ALL APPROPRIATE WATERWAY PERMITS PRIOR TO ANY WORK BELOW THE ORDINARY HIGH WATER MARK OF ANY WATERWAY AND ALL SPECIAL PROVISIONS FOR WATERWAY PERMITS WILL BE INCLUDED IN THE PROJECT PLANS.
3. THE CONTRACTOR MUST SUBMIT THE ONLINE OEPA DEMOLITION/RENOVATION FORM TO THE OEPA WITHIN 10 BUSINESS DAYS PRIOR TO DEMOLITION OF THE STRUCTURES.

CALCULATED
HB
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GENERAL NOTES

LOR-90-17.85

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ITEM 614 - MAINTAINING TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON ALL EXISTING ROADWAYS IN ACCORDANCE WITH THE OHIO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

PN 127 - LANE VALUE CONTRACT

THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE BELOW FOR EACH UNIT OF TIME THE DESCRIBED CRITICAL LANE IS RESTRICTED FROM FULL USE BY THE TRAVELING PUBLIC WITHIN THE RESTRICTED TIME PERIOD. THE DISINCENTIVES WILL BE ASSESSED FOR ALL RESTRICTIONS OF THE CRITICAL WORK.

CRITICAL WORK IS SHOWN IN THE LANE VALUE CONTRACT TABLE BELOW.

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTIONS OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE WITH TEMPORARY SAFETY FEATURES IN PLACE.

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
2 LANES (EACH DIRECTION) OF LOR IR 90 FROM MM 17.33 TO MM 18.41	6 AM TO 7 PM	EACH MINUTE	\$250

THE CONTRACTOR SHALL DIVERT TRAFFIC FROM NORMAL CHANNELS BY PLASTIC DRUMS, PORTABLE BARRIER, TRAFFIC SIGNS, AND WORK ZONE PAVEMENT MARKINGS, AS SHOWN ON SHEETS 20-47.

A MINIMUM OF 2 LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND COMPLETED PAVEMENT. AN EXCEPTION WILL BE MADE TO THIS RULE DURING PRE-PHASE 1 TEMPORARY PAVEMENT CONSTRUCTION. DURING PRE-PHASE 1 A SINGLE LANE CLOSURE IN EACH DIRECTION WILL BE ALLOWED AT NIGHT (7PM-6AM). NIGHT CLOSURES MAY ALSO BE PERMITTED DURING PHASE 1 IF NEEDED.

THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (419) 281-0513, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL BARRICADES, SIGNS, SIGN SUPPORTS AND INCIDENTALS RELATED TO TRAFFIC CONTROL SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

SIGNS FURNISHED SHALL BE IN NEW OR LIKE NEW CONDITIONS. LIKE NEW SIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PROVIDING AND MAINTAINING ALL SIGNS AND BARRICADES FOR THE MAINTENANCE OF TRAFFIC AND SAFETY OF HIS/HER WORK AT THE LOCATIONS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER.

EXISTING TRAFFIC CONTROL DEVICES LOCATED WITHIN THE WORK AREA, WHICH ARE REQUIRED FOR INTERIM OR PERMANENT TRAFFIC CONTROL, SHALL BE RELOCATED TO POINTS APPROVED BY THE ENGINEER. APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED, IN COMPLIANCE WITH THE MANUAL, AT ALL TIMES WHILE TRAFFIC IS MAINTAINED. THE COST OF RELOCATION, IF REQUIRED, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 614 - MAINTAINING TRAFFIC (CONT.)

TRUCK MOUNTED ATTENUATORS (TMA'S) SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

NO WORK SHALL BE PERFORMED AND ALL LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEAR'S	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$250 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED (PER THE LANE VALUE CONTRACT PN 127).

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS AND PROVISIONS OF THE OHIO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE FAILURE RESULTS IN A CONDITION AT THE WORK SITE WHICH IS UNSAFE FOR TRAFFIC, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 1.5 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

DRUM REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, WILL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 55 M. GAL.

ITEM 614, REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 15 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 50 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

WORK ZONE INCREASED PENALTIES SIGN (R11-H5a)

R11-H5a SIGNS SHALL BE FURNISHED, ERECTED AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

THE R11-H5a SIGNS SHALL BE MOUNTED ON 2 NO. 3 POSTS WHEN LOCATED WITHIN CLEAR ZONES.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF C&MS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, AND COVERING DURING SUSPENSION OF WORK AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALTIES SIGN 2 EACH

ITEM 615, ROADS FOR MAINTAINING TRAFFIC

PAYMENT FOR ITEM 615, ROADS FOR MAINTAINING TRAFFIC SHALL INCLUDE THE FOLLOWING EARTHWORK, AND ANY OTHER INCIDENTAL ITEMS REQUIRED TO CONSTRUCT THE TEMPORARY PAVEMENT IN PRE-PHASE 1.

ITEM 203, EXCAVATION 2370 CY

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MAINTENANCE OF TRAFFIC NOTES

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SHEET NO.	REFERENCE NO.	ALIGNMENT	STATION		SIDE	614	614	614	614	614	614	614	614	614	615	622	622	642	642	642		
			INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNIDIRECTIONAL)		WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY YELLOW)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY YELLOW)	BARRIER REFLECTOR, TYPE 1, (ONE WAY), WHITE	BARRIER REFLECTOR, TYPE 1, (TWO WAY), YELLOW/YELLOW	OBJECT MARKER, ONE WAY	OBJECT MARKER, TWO WAY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE BARRIER, 32", UNANCHORED	PORTABLE BARRIER, 32", ANCHORED	EDGE LINE, 6", TYPE 1, AS PER PLAN (WHITE)	EDGE LINE, 6", TYPE 1, AS PER PLAN (YELLOW)	CHANNELIZING LINE, 8", TYPE 1, AS PER PLAN (WHITE)			FT
			FROM	TO		FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SY	FT	FT	MILE	MILE	FT		
PHASE 1 QUANTITIES																						
21 - 28	EW-1	I.R. 90 WB	903+35	951+20	LT																	
21 - 28	EW-2	I.R. 90 EB	904+35	951+20	RT																	
21 - 28	CL-1	I.R. 90 WB	903+35	951+20	LT																	
21 - 28	CL-2	I.R. 90 EB	904+35	951+20	RT																	
21 - 28	EY-1	I.R. 90 WB	903+35	951+20	LT																	
21 - 28	EY-2	I.R. 90 EB	904+35	951+20	RT																	
21 - 22		I.R. 90 WB	903+35	907+00	LT			18														
22 - 27		I.R. 90 WB	907+00	948+00	LT				34													
27 - 28		I.R. 90 WB	948+00	951+20	LT			16														
21 - 22		I.R. 90 WB	903+35	907+00	LT			18														
22 - 27		I.R. 90 WB	907+00	948+00	LT				34													
27 - 28		I.R. 90 WB	948+00	951+20	LT			16														
21 - 22		I.R. 90 WB	903+35	907+00	LT				18													
22 - 27		I.R. 90 WB	907+00	948+00	LT					34												
27 - 28		I.R. 90 WB	948+00	951+20	LT			16														
21 - 22		I.R. 90 EB	904+35	907+10	RT			14														
22 - 27		I.R. 90 EB	907+10	948+60	RT				34													
27 - 28		I.R. 90 EB	948+60	951+20	RT			13														
21 - 22		I.R. 90 EB	904+35	907+10	RT			14														
22 - 27		I.R. 90 EB	907+10	948+60	RT					35												
27 - 28		I.R. 90 EB	948+60	951+20	RT			13														
21 - 24	PV-1	I.R. 90 WB	904+50	927+19	LT										1264							
21 - 24	PV-2	I.R. 90 EB	904+75	926+86	RT										1225							
25 - 28	PV-3	I.R. 90 WB	929+08	950+75	LT										1205							
25 - 27	PV-4	I.R. 90 EB	928+50	950+50	RT										1221							
24	PV-5	I.R. 90 WB	924+84.23	927+47	LT										292							
25	PV-6	I.R. 90 WB	928+29	929+85	LT										173							
24	PV-7	I.R. 90 EB	925+04.23	926+71	RT										185							
24 - 25	PV-8	I.R. 90 EB	928+29	929+35	RT										118							
PHASE 2 QUANTITIES																						
30 - 38	EW-3	I.R. 90 WB	906+04	948+95	LT																	
30 - 38	EW-4	I.R. 90 EB	905+84	949+30	RT																	
30 - 38	CL-3	I.R. 90 WB	906+04	948+95	LT																	
30 - 38	CL-4	I.R. 90 EB	905+84	949+30	RT																	
30 - 38	EY-3	I.R. 90 WB	906+04	948+95	LT																	
30 - 38	EY-4	I.R. 90 EB	905+84	949+30	RT																	
SUBTOTALS CARRIED TO SHEET 15									389						5,683				6.86		18,109	

CALCULATED MLV	CHECKED JML
MAINTENANCE OF TRAFFIC SUBSUMMARY	
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13 196	

SHEET NO.	REFERENCE NO.	ALIGNMENT	STATION		SIDE	614	614	614	614	614	614	614	614	614	615	622	622	642	642	642			
			INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNIDIRECTIONAL)		WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY YELLOW)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY YELLOW)	BARRIER REFLECTOR, TYPE 1, (ONE WAY), WHITE	BARRIER REFLECTOR, TYPE 1, (TWO WAY), YELLOW/YELLOW	OBJECT MARKER, ONE WAY	OBJECT MARKER, TWO WAY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE BARRIER, 32", UNANCHORED	PORTABLE BARRIER, 32", ANCHORED	EDGE LINE, 6", TYPE 1, AS PER PLAN (WHITE)	EDGE LINE, 6", TYPE 1, AS PER PLAN (YELLOW)	CHANNELIZING LINE, 8", TYPE 1, AS PER PLAN (WHITE)			FT	
			FROM	TO		FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SY	FT	FT	MILE	MILE	FT			
PHASE 2 QUANTITIES (CONTINUED)																							
30 - 31		I.R. 90 WB	906+04	909+64	LT			18															
31 - 37		I.R. 90 WB	909+64	944+85	LT				30														
37 - 38		I.R. 90 WB	944+85	948+95	LT			21															
30 - 31		I.R. 90 WB	906+04	909+64	LT			18															
31 - 37		I.R. 90 WB	909+64	944+85	LT				29														
37 - 38		I.R. 90 WB	944+85	948+95	LT			21															
30 - 31		I.R. 90 WB	906+04	909+64	LT				18														
31 - 37		I.R. 90 WB	909+64	944+85	LT				29														
37 - 38		I.R. 90 WB	944+85	948+95	LT			21															
30 - 31		I.R. 90 EB	905+84	909+44	RT			18															
31 - 37		I.R. 90 EB	909+44	945+15	RT				30														
37 - 38		I.R. 90 EB	945+15	949+30	RT			21															
30 - 31		I.R. 90 EB	905+84	909+44	RT			18															
31 - 37		I.R. 90 EB	909+44	945+15	RT				30														
37 - 38		I.R. 90 EB	945+15	949+30	RT			21															
30 - 31		I.R. 90 EB	905+84	909+44	RT			18															
31 - 37		I.R. 90 EB	909+44	945+15	RT				30														
37 - 38		I.R. 90 EB	945+15	949+30	RT			21															
31		I.R. 90 EB	908+54		RT		1																
31 - 37	PB-1	I.R. 90 EB	908+74	945+15	RT												3650						
31		I.R. 90 EB	908+74	909+44	RT	80																	
31 - 37		I.R. 90 EB	909+44	945+15	RT								71		71								
31 - 38	PB-2	I.R. 90 WB	909+64	946+34	LT																		
31 - 37		I.R. 90 WB	909+64	944+85	LT								71		71								
37 - 38		I.R. 90 WB	944+85	946+34	LT	160																	
38		I.R. 90 WB	946+54		LT		1																
PHASE 3 QUANTITIES																							
40 - 46	EW-5	I.R. 90 WB	909+74	944+85.00	LT																	0.67	
40 - 46	EW-6	I.R. 90 EB	909+44	945+05.00	RT																	0.67	
40 - 46	CL-5	I.R. 90 WB	909+74	944+85.00	LT																		
40 - 46	CL-6	I.R. 90 EB	909+44	94+50.00	RT																		
40 - 46	EY-5	I.R. 90 WB	909+74	944+85.00	LT																	0.67	
40 - 46	EY-6	I.R. 90 EB	909+44	945+05.00	RT																	0.67	
SUBTOTALS CARRIED TO SHEET 15						240	2		409				142		142						7,360	2.68	7,073

CALCULATED	MLV
	CHECKED
JML	
MAINTENANCE OF TRAFFIC SUBSUMMARY	
LOR-90-17.85	
14	
196	

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SHEET NO.	REFERENCE NO.	ALIGNMENT	STATION		SIDE	614	614	614	614	614	614	614	614	614	615	622	622	642	642	642		
			INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNIDIRECTIONAL)		WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY YELLOW)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY YELLOW)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY YELLOW)	BARRIER REFLECTOR, TYPE 1, (ONE WAY), WHITE	BARRIER REFLECTOR, TYPE 1, (TWO WAY), YELLOW/YELLOW	OBJECT MARKER, ONE WAY	OBJECT MARKER, TWO WAY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE BARRIER, 32", UNANCHORED	PORTABLE BARRIER, 32", ANCHORED	EDGE LINE, 6", TYPE 1, AS PER PLAN (WHITE)	EDGE LINE, 6", TYPE 1, AS PER PLAN (YELLOW)	CHANNELIZING LINE, 8", TYPE 1, AS PER PLAN (WHITE)		
			FROM	TO		FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SY	FT	FT	MI	MI	MI		
PHASE 3 QUANTITIES (CONTINUED)																						
40 - 43		I.R. 90 WB	909+74	924+74	LT			75														
43 - 44		I.R. 90 WB	924+74	929+85	LT					4												
44 - 46		I.R. 90 WB	929+85	944+85	LT			75														
40 - 43		I.R. 90 WB	909+74	924+74	LT			75														
43 - 44		I.R. 90 WB	924+74	929+85	LT					4												
44 - 46		I.R. 90 WB	929+85	944+85	LT			75														
40 - 43		I.R. 90 WB	909+74	924+74	LT				75													
43 - 44		I.R. 90 WB	924+74	929+85	LT					4												
44 - 46		I.R. 90 WB	929+85	944+85	LT				75													
40 - 43		I.R. 90 EB	909+44	925+04	RT			78														
43 - 44		I.R. 90 EB	925+04	929+45	RT					4												
44 - 46		I.R. 90 EB	929+45	945+05	RT			78														
40 - 43		I.R. 90 EB	909+44	925+04	RT																	
43 - 44		I.R. 90 EB	925+04	929+45	RT					4												
44 - 46		I.R. 90 EB	929+45	945+05	RT			78														
42		I.R. 90 EB	920+23		RT		1															
42 - 43	PB-3	I.R. 90 EB	920+43	926+48	RT											601						
43 - 44	PB-5	I.R. 90 EB	926+48	928+83	RT												230					
44	PB-7	I.R. 90 EB	928+83	929+45	RT											70						
42 - 43		I.R. 90 EB	919+84	925+04	RT	515																
43 - 44		I.R. 90 EB	925+04	929+45	RT							9		9								
43	PB-4	I.R. 90 WB	924+74	926+98	LT											230						
43 - 44	PB-6	I.R. 90 WB	926+98	929+20	LT												230					
45		I.R. 90 WB	934+59		LT		1															
44 - 45	PB-8	I.R. 90 WB	929+20	934+39	LT											521						
43 - 44		I.R. 90 WB	924+74	929+85	LT							10		10								
44 - 45		I.R. 90 WB	929+85	935+05	LT	515																
SUBTOTALS FROM THIS SHEET						1,030	2		942			19		19		1,422	460					
SUBTOTALS FROM SHEET 13									389						5,683			6.86		18,109		
SUBTOTALS FROM SHEET 14						240	2		409			142		142			7,360	2.68		7,073		
TOTALS CARRIED TO GENERAL SUMMARY						1,270	4		1,740			19	142	19	142	5,683	1,422	7,820	9.54		25,182	

MAINTENANCE OF TRAFFIC SUBSUMMARY

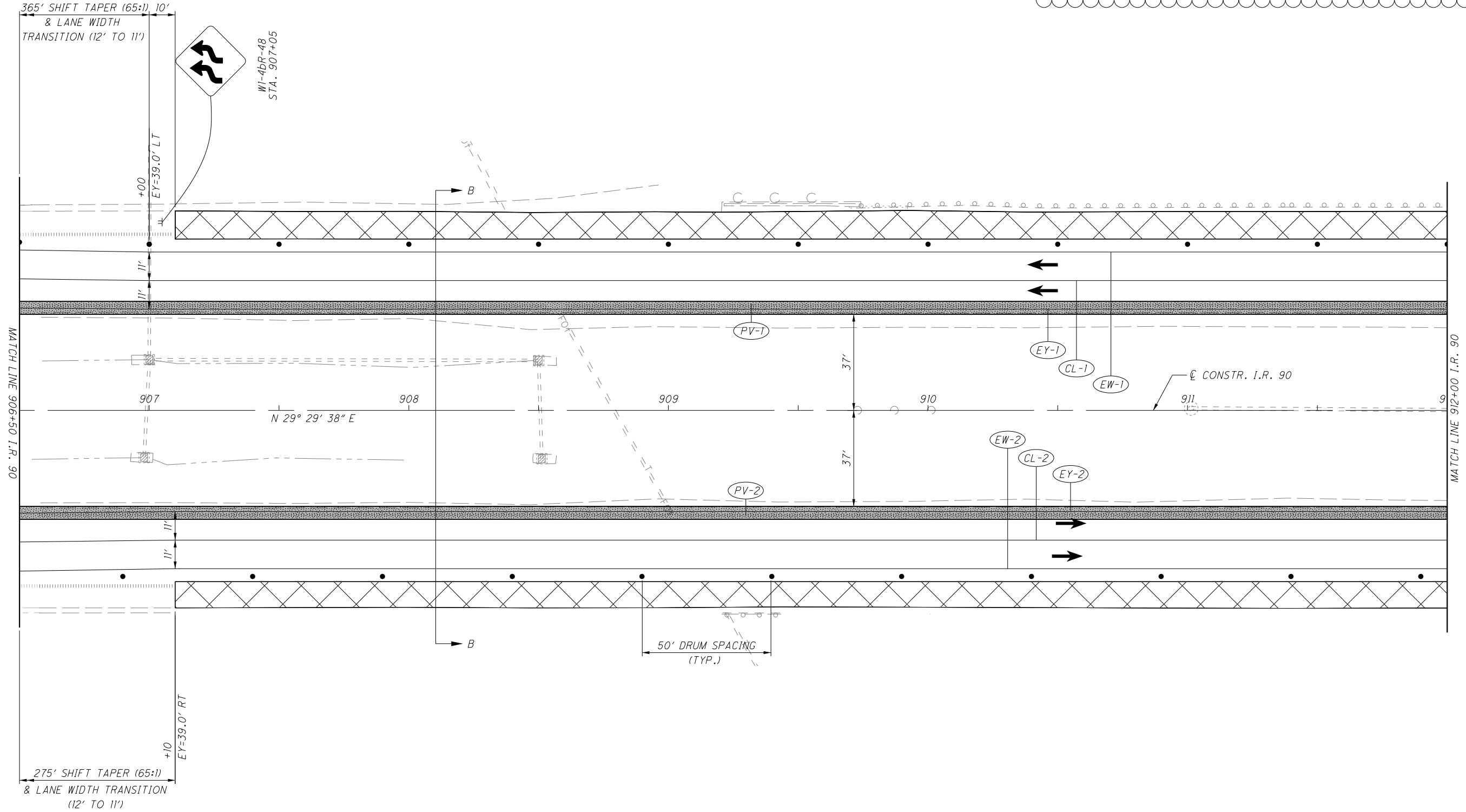
LOR-90-17.85

CALCULATED
MLV
CHECKED
JML

- NOTES:
1. FOR LEGEND, SEE SHEET 20
 2. FOR TYPICAL SECTION, SEE SHEET 17
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, III - 119
 4. INSIDE SHOULDER REPLACEMENT WITH TEMPORARY PAVEMENT TO BE INSTALLED PRIOR TO PHASE 1 START
 5. TEMPORARY PAVEMENT CONSTRUCTED OUTSIDE PERMANENT PAVEMENT LIMITS MAY REMAIN AFTER CONSTRUCTION

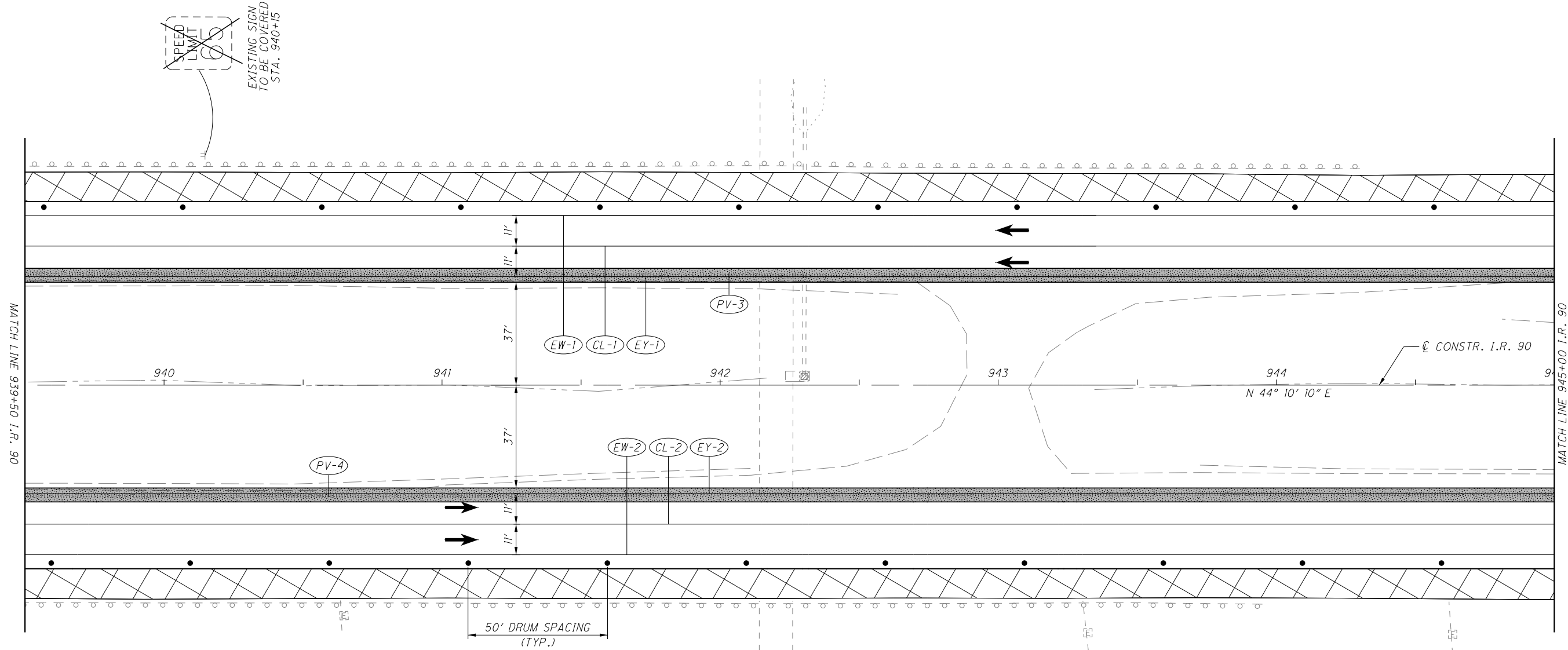
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0 10 20 40
HORIZONTAL
SCALE IN FEET



MAINTENANCE OF TRAFFIC - PHASE 1
STA. 906+50 TO STA. 912+00

LOR-90-17.85



EXISTING SIGN
TO BE COVERED
STA. 940+15

- NOTES:
1. FOR LEGEND, SEE SHEET 20
 2. FOR TYPICAL SECTION, SEE SHEET 17
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 111 - 119
 4. INSIDE SHOULDER REPLACEMENT WITH TEMPORARY PAVEMENT TO BE INSTALLED PRIOR TO PHASE I START
 5. TEMPORARY PAVEMENT CONSTRUCTED OUTSIDE PERMANENT PAVEMENT LIMITS MAY REMAIN AFTER CONSTRUCTION

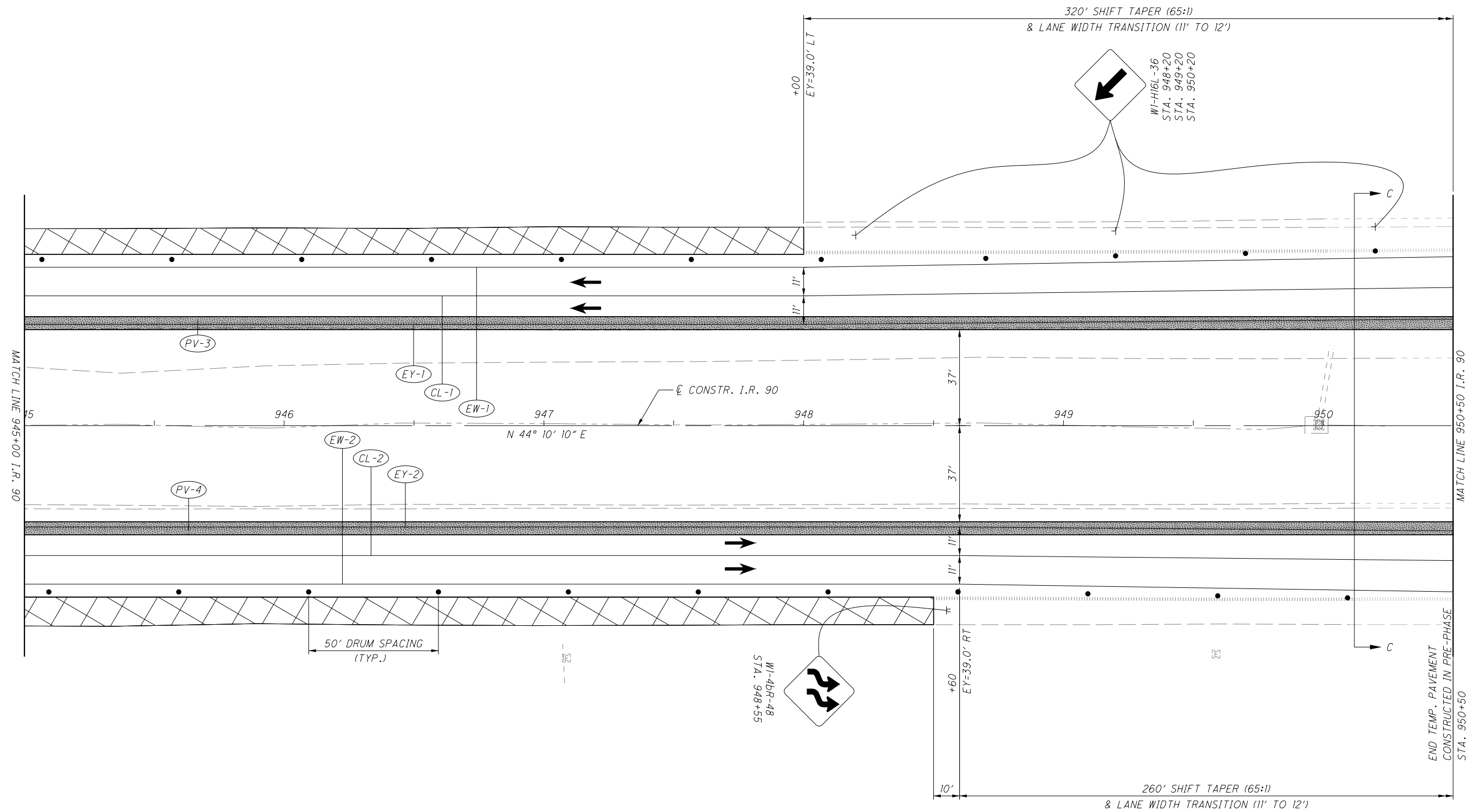
CALCULATED
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0 20 40
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 939+50 TO STA. 945+00

LOR-90-17.85

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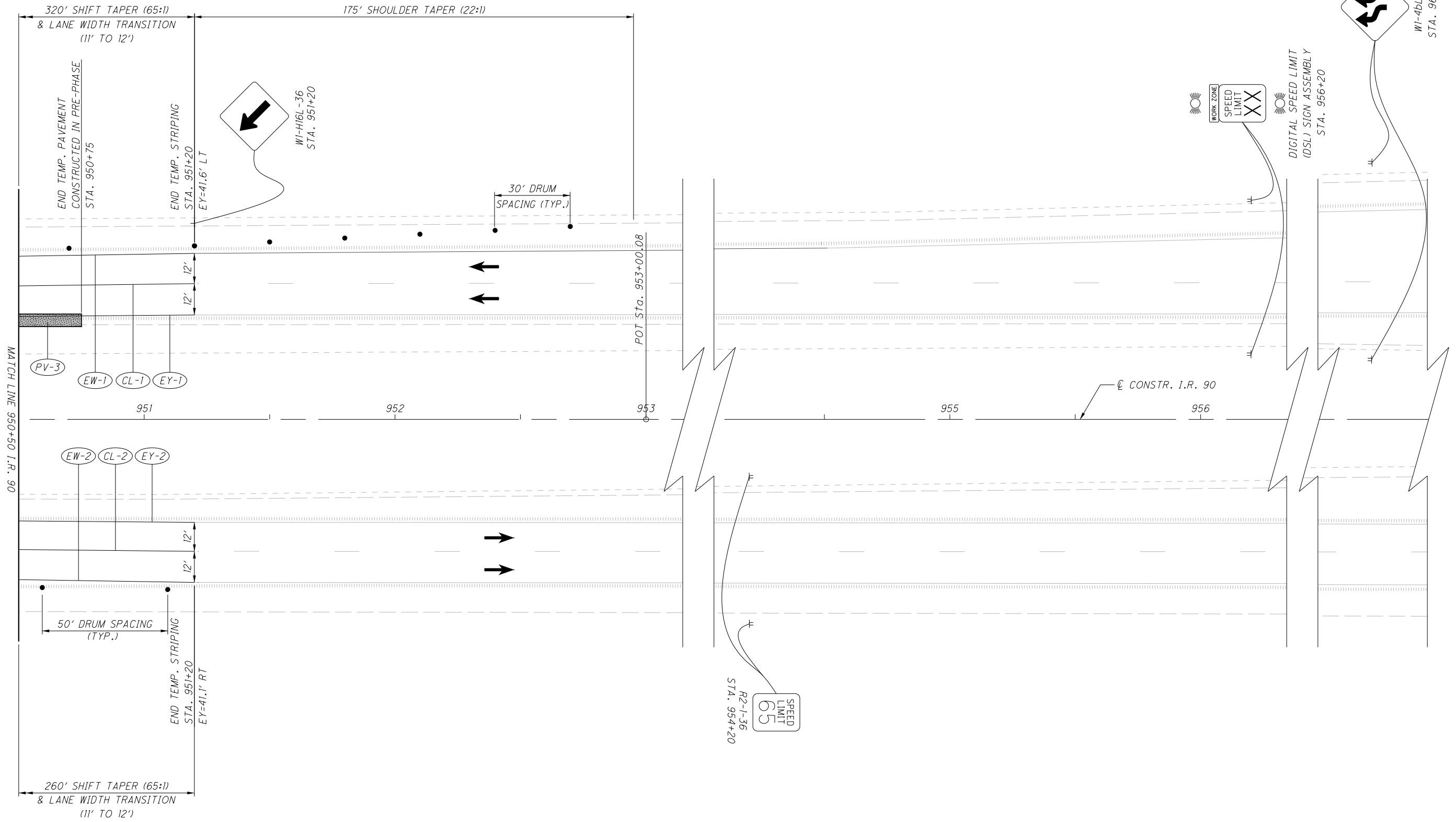
- NOTES:
1. FOR LEGEND, SEE SHEET 20
 2. FOR TYPICAL SECTION, SEE SHEET 17
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 111 - 119
 4. INSIDE SHOULDER REPLACEMENT WITH TEMPORARY PAVEMENT TO BE INSTALLED PRIOR TO PHASE 1 START
 5. TEMPORARY PAVEMENT CONSTRUCTED OUTSIDE OF PERMANENT PAVEMENT LIMITS MAY REMAIN AFTER CONSTRUCTION

CALCULATED	ML V
CHECKED	JML

0 20 40
HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 945+00 TO STA. 950+50

LOR-90-17.85



NOTES:
 1. FOR LEGEND, SEE SHEET 20
 2. FOR TYPICAL SECTION, SEE SHEET 17
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 111 - 119
 4. INSIDE SHOULDER REPLACEMENT WITH TEMPORARY PAVEMENT TO BE INSTALLED PRIOR TO PHASE 1 START
 5. TEMPORARY PAVEMENT CONSTRUCTED OUTSIDE PERMANENT PAVEMENT LIMITS MAY REMAIN AFTER CONSTRUCTION

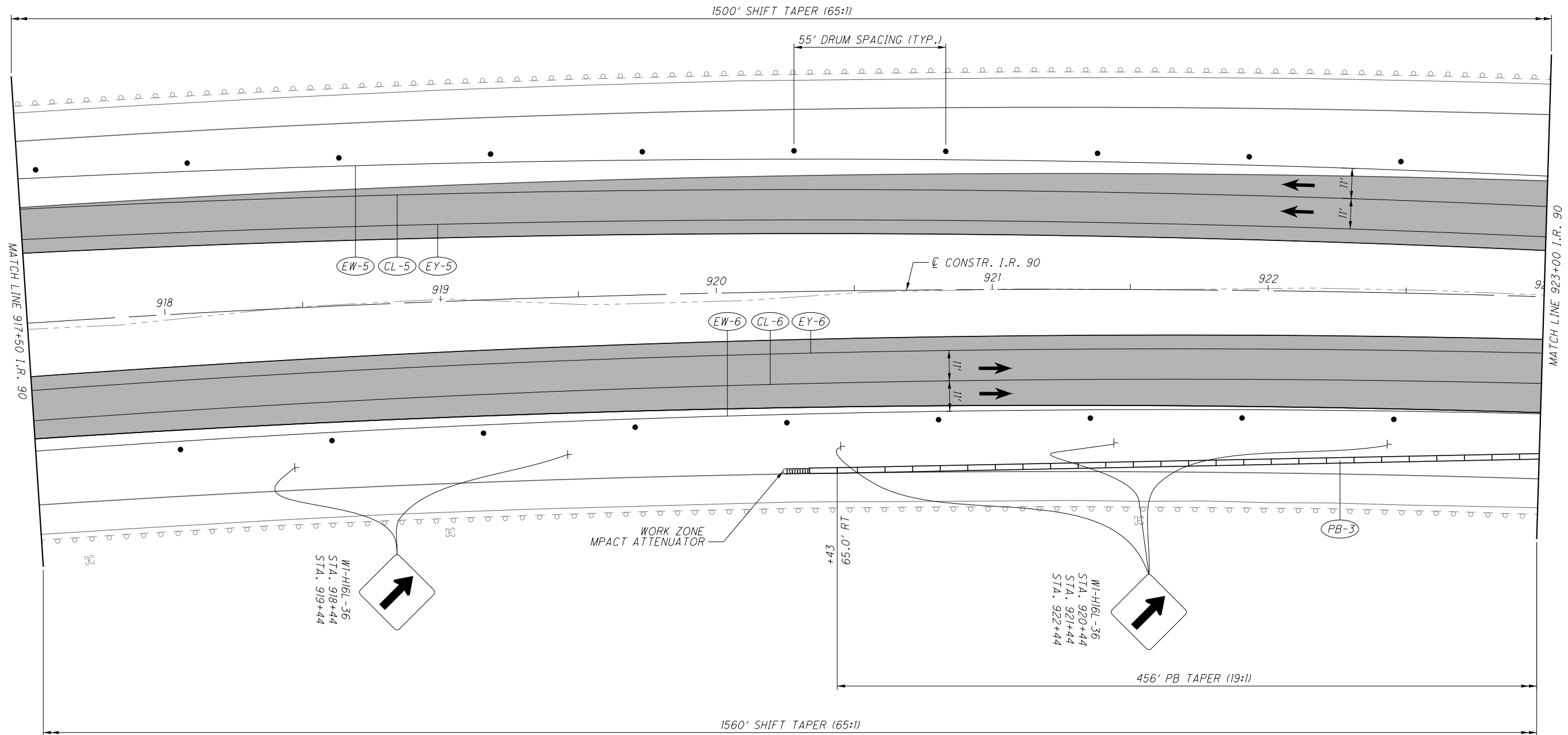
CALCULATED MLV
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0 20 40
 HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 950+50 TO STA. 961+20

LOR-90-17.85

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- NOTES:
1. FOR LEGEND, SEE SHEET 12
 2. FOR TYPICAL SECTION, SEE SHEET 11
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 42 - 50

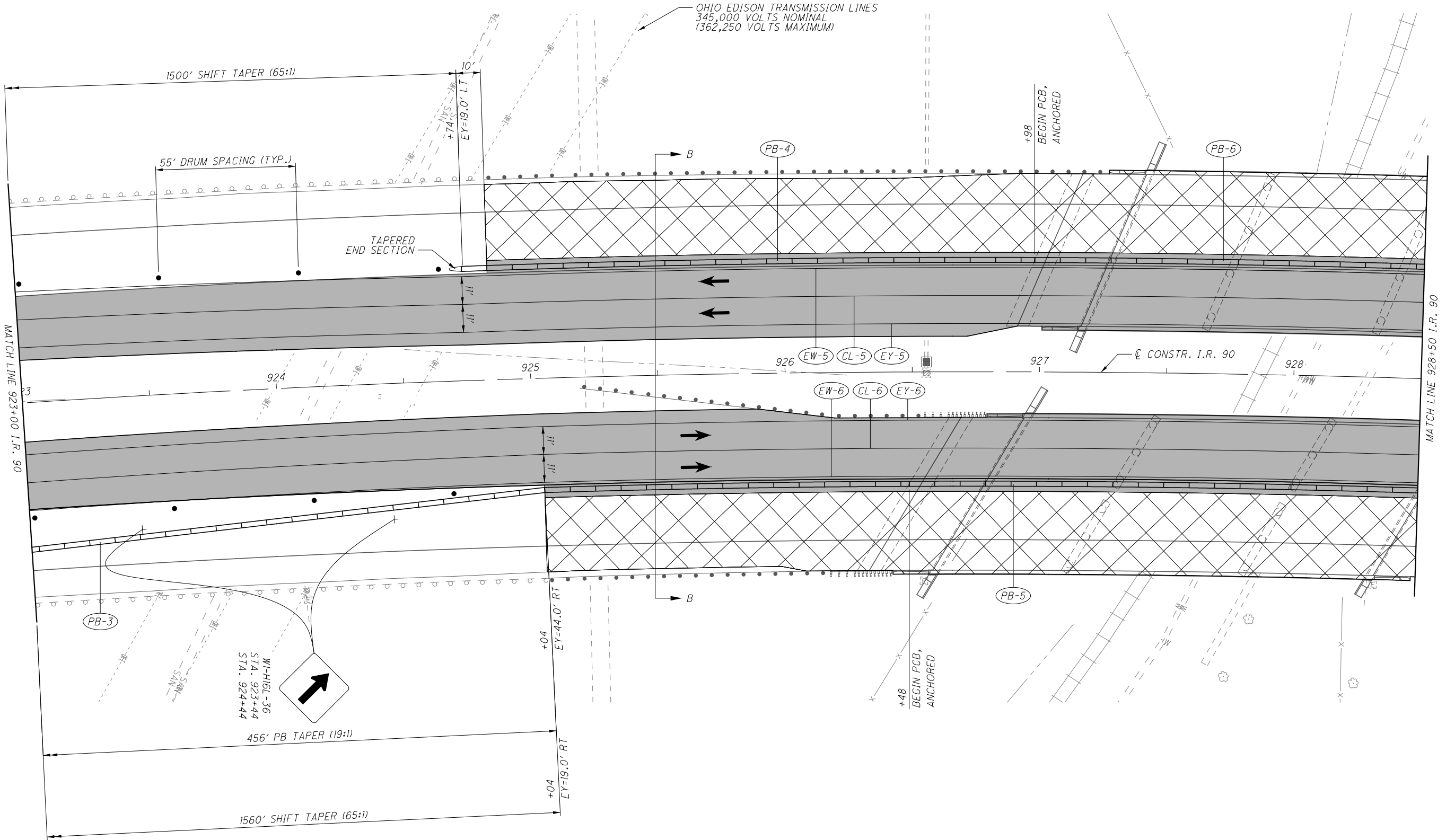
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ML V
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0 20 40
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
STA. 917+50 TO STA. 923+00

LOR-90-17.85

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MATCH LINE 923+00 I.R. 90

MATCH LINE 928+50 I.R. 90

CALCULATED
ML V
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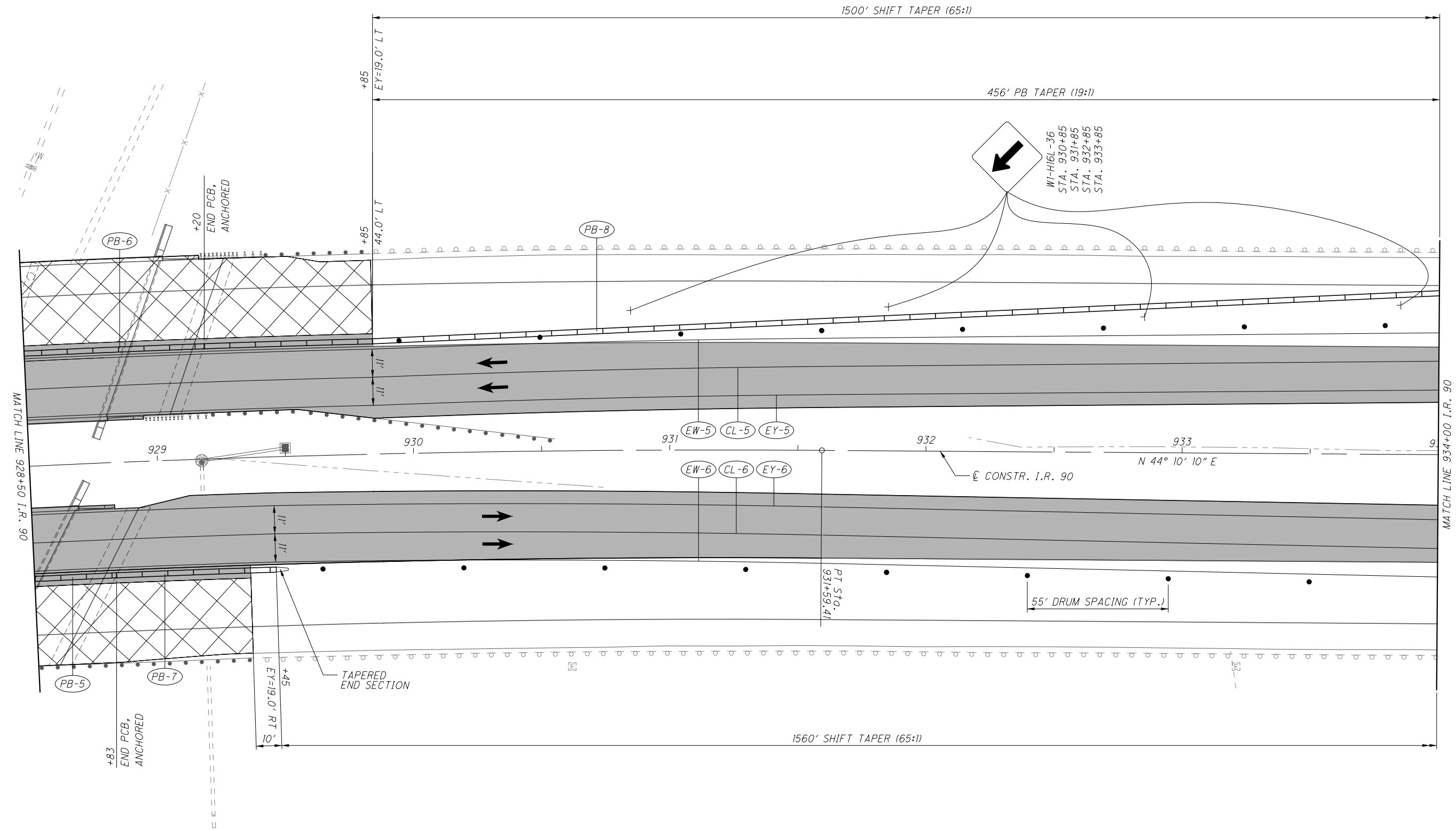
0 20 40
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
STA. 923+00 TO STA. 928+50

LOR-90-17.85

- NOTES:
1. FOR LEGEND, SEE SHEET 12
 2. FOR TYPICAL SECTION, SEE SHEET 11
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 42 - 50

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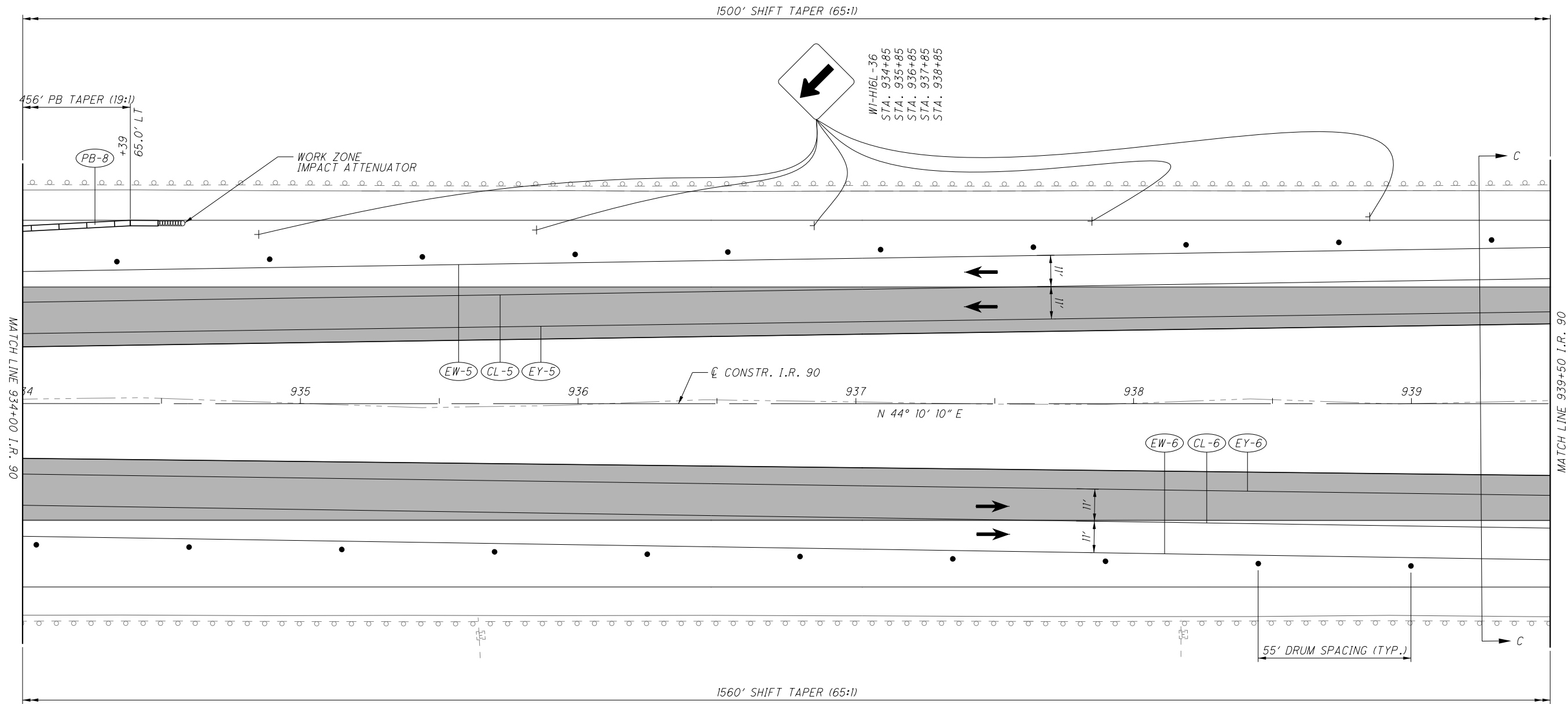
- NOTES:
1. FOR LEGEND, SEE SHEET 12
 2. FOR TYPICAL SECTION, SEE SHEET 11
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 42 - 50

CALCULATED
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0 20 40
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
STA. 928+50 TO STA. 934+00

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1500' SHIFT TAPER (65:1)

1560' SHIFT TAPER (65:1)

456' PB TAPER (19:1)
+39
65.0' LT
PB-8

WORK ZONE
IMPACT ATTENUATOR

WI-HIGH-36
STA. 934+85
STA. 935+85
STA. 936+85
STA. 937+85
STA. 938+85

EW-5 CL-5 EY-5

CONSTR. I.R. 90

N 44° 10' 10" E

EW-6 CL-6 EY-6

55' DRUM SPACING (TYP.)

CALCULATED
MLV
CHECKED
JML

0 20 40
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
STA. 934+00 TO STA. 939+50

LOR-90-17.85

- NOTES:
1. FOR LEGEND, SEE SHEET 12
 2. FOR TYPICAL SECTION, SEE SHEET 11
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 42 - 50

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SHEET NUM.										PART.			ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE	CALCULATED	HB	CHECKED	SNP
7	8	11	52	54	56	57	104	109	110					EXT	TOTAL			NO.				
																	ROADWAY					
LS														201	11000	LS	CLEARING AND GRUBBING					
				11,982										202	23001	11,982	PAVEMENT REMOVED, AS PER PLAN	7				
			12											202	35100	12	PIPE REMOVED, 24" AND UNDER					
			1,225											202	38000	1,225	GUARDRAIL REMOVED					
			2											202	58100	2	CATCH BASIN REMOVED					
	2,370													203	10000	8,712	EXCAVATION					
							6,342							203	20000	4,363	EMBANKMENT					
							4,363															
														204	10000	26,163	SUBGRADE COMPACTION					
13														204	45000	13	PROOF ROLLING					
														606	15050	764	GUARDRAIL, TYPE MGS					
125			764											606	16001	125	GUARDRAIL REBUILT, AS PER PLAN	7				
														606	35000	4	BRIDGE TERMINAL ASSEMBLY, TYPE 1					
														607	35001	207	FENCE REMOVED AND REBUILT, AS PER PLAN	7				
																	EROSION CONTROL					
														601	20000	69	CRUSHED AGGREGATE SLOPE PROTECTION					
														601	21050	27	TIED CONCRETE BLOCK MAT, TYPE 1					
2														659	00100	2	SOIL ANALYSIS TEST					
1,237														659	00300	1,730	TOPSOIL					
														659	10000	11,146	SEEDING AND MULCHING					
														659	14000	557	REPAIR SEEDING AND MULCHING					
557														659	15000	557	INTER-SEEDING					
557														659	20000	1.5	COMMERCIAL FERTILIZER					
1.5														659	31000	0.26	LIME					
0.26														659	35000	62	WATER					
62																						
														659	40000	2,786	MOWING					
2,786														670	00500	4,439	SLOPE EROSION PROTECTION					
														832	15000	LS	STORM WATER POLLUTION PREVENTION PLAN					
														832	15002	LS	STORM WATER POLLUTION PREVENTION INSPECTIONS					
														832	15010	LS	STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE					
														832	30000	74,000	EACH	EROSION CONTROL				
																	DRAINAGE					
														605	11100	14,229	6" SHALLOW PIPE UNDERDRAINS					
														605	13300	1,868	6" UNCLASSIFIED PIPE UNDERDRAINS					
														605	14000	13,476	6" BASE PIPE UNDERDRAINS					
														611	00510	537	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS					
														611	04600	33	12" CONDUIT, TYPE C					
														611	06100	8	15" CONDUIT, TYPE C					
														611	98410	2	CATCH BASIN, NO. 8					
														611	99574	1	MANHOLE, NO. 3					
														611	99710	17	PRECAST REINFORCED CONCRETE OUTLET					
																	PAVEMENT					
														252	01500	13,665	FULL DEPTH PAVEMENT SAWING					
														253	01000	3,488	PAVEMENT REPAIR					
														254	01000	17,439	PAVEMENT PLANING, ASPHALT CONCRETE					
														254	01600	3,488	PATCHING PLANED SURFACE					
														302	46000	7,147	ASPHALT CONCRETE BASE, PG64-22					
														304	20000	4,361	AGGREGATE BASE					
														407	20000	6,464	NON-TRACKING TACK COAT					
														442	10000	1,683	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)					
														442	10100	1,963	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)					
														617	10100	490	COMPACTED AGGREGATE					
														618	40100	14,410	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)					
																	ELECTRICAL					
														625	31510	2	PULL BOX REMOVED					
																	TRAFFIC CONTROL					
														621	00100	59	RPM					
														621	54000	50	RAISED PAVEMENT MARKER REMOVED					
														630	02100	54	GROUND MOUNTED SUPPORT, NO. 2 POST					
														630	03100	63	GROUND MOUNTED SUPPORT, NO. 3 POST					
														630	06500	36	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9					

GENERAL SUMMARY

LOR-90-17.85

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SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
						130											
						LS					202	11203	LS		STRUCTURE OVER 20 FOOT SPAN (LOR-90-1785 R, 4704925)		
						134					202	22900	134	SY	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	126	
						821					202	23500	821	SY	APPROACH SLAB REMOVED		
						LS					503	11100	LS		WEARING COURSE REMOVED		
						LS					503	21300	LS		COFFERDAMS AND EXCAVATION BRACING (TEMPORARY SHORING)		
															UNCLASSIFIED EXCAVATION		
						847					504	11101	847	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 3)	127	
						918					504	11101	918	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 4)	127	
						LS					505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION		
						1,600					507	00200	1,600	FT	STEEL PILES HPI2X53, FURNISHED		
						1,440					507	00250	1,440	FT	STEEL PILES HPI2X53, DRIVEN		
						142,171					509	10000	142,171	LB	EPOXY COATED REINFORCING STEEL		
						369					511	34447	369	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	127	
						61					511	34450	61	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)		
						104					511	41012	104	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		
						120					511	43512	120	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING		
						904					512	10100	904	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
						4					512	33000	4	SY	TYPE 2 WATERPROOFING		
						263,230					513	10281	263,230	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN	127	
						8,004					513	20000	8,004	EACH	WELDED STUD SHEAR CONNECTORS		
						2					513	95030	2	EACH	STRUCTURAL STEEL, MISC.: TEMPORARY BEAM END RETROFIT	127	
						111					516	13200	111	SF	1/2" PREFORMED EXPANSION JOINT FILLER		
						70					516	13600	70	SF	1" PREFORMED EXPANSION JOINT FILLER		
						62					516	13900	62	SF	2" PREFORMED EXPANSION JOINT FILLER		
						193					516	14014	193	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL		
						16					516	44100	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15" x 14" x 2.499" PAD WITH 17" x 15" x 2.000" LOAD PLATE)		
						16					516	44201	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (13" x 12" x 3.848" PAD WITH 17" x 13" x 1.500" TOP LOAD PLATE, 14" x 13" x 1.500" BOTTOM LOAD PLATE AND HP SECTION)	178	
						129					518	21200	129	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC		
						173					518	40000	173	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		
						70					518	40011	70	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	144	
						120					524	94704	120	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK		
						150					524	94802	150	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK		
						75					524	94803	75	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK, AS PER PLAN	127	
						343					526	25010	343	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")		
						139					526	90010	139	FT	TYPE A INSTALLATION		
						1,215					601	12001	1,215	SY	RIPRAP, WITH GROUT, AS PER PLAN	127	
						LS					SPECIAL	69091000	LS		AS-BUILT CONSTRUCTION PLANS	126	
						58					846	00110	58	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM		

GENERAL SUMMARY

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SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	10	11	15												
				1,270							614	11630	1,270	FT	MAINTENANCE OF TRAFFIC INCREASED BARRIER DELINEATION	
				2							614	12380	2	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
2											614	12484	2	EACH	WORK ZONE INCREASED PENALTIES SIGN	
15											614	12500	15	EACH	REPLACEMENT SIGN	
50											614	12600	50	EACH	REPLACEMENT DRUM	
				1,740							614	12801	1,740	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	10
				19							614	13310	19	EACH	BARRIER REFLECTOR, TYPE 1, (ONE WAY)	
				142							614	13310	142	EACH	BARRIER REFLECTOR, TYPE 1, (TWO WAY)	
				19							614	13350	19	EACH	OBJECT MARKER, ONE WAY	
				142							614	13360	142	EACH	OBJECT MARKER, TWO WAY	
	18										614	18801	18	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	9
				5,683							615	20000	5,683	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
55											616	10000	55	MGAL	WATER	
				1,550							622	41100	1,550	FT	PORTABLE BARRIER, UNANCHORED	
				7,820							622	41110	7,820	FT	PORTABLE BARRIER, ANCHORED	
				9.54							642	00105	9.54	MILE	EDGE LINE, 6", TYPE 1, AS PER PLAN	11
				25,182							642	00401	25,182	FT	CHANNELIZING LINE, 8", TYPE 1, AS PER PLAN	11
			36								808	18700	36	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
											100	00300	LS	INCIDENTALS PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE		
											614	11000	LS	LIABILITY INSURANCE		
											614	11110	1,000	HR	MAINTAINING TRAFFIC	
		1,000									619	16020	15	MNTH	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
											623	10000	LS	FIELD OFFICE, TYPE C		
											623	10000	LS	CONSTRUCTION LAYOUT STAKES AND SURVEYING		
											624	10000	LS	MOBILIZATION		

GENERAL SUMMARY

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SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	202	606	606	625	202	202	607							
			GUARDRAIL REMOVED	GUARDRAIL TYPE MGS		BRIDGE TERMINAL ASSEMBLY, TYPE 1	PULL BOX REMOVED	CATCH BASIN REMOVED	PIPE REMOVED, 24" AND UNDER	FENCE REMOVED AND REBUILT, AS PER PLAN	FROM	TO	FT	FT	EACH	EACH	EACH	FT	FT
63-65	R-1	IR-90	923+96.54	926+90.65	RT	295													
63-65	R-2	IR-90	924+84.23	927+46.86	LT	266													
63-65	G-1	IR-90	924+84.23	927+28.75	LT		248												
65	R-3	IR-90	925+04.23	926+67.76	RT	161													
65	G-2	IR-90	925+04.23	926+41.99	RT		112	1											
65	G-3	IR-90	925+19.06	926+79.39	RT		136	1											
65	R-4	IR-90	936+54.30		RT				1										
65	R-5	IR-90	928+27.38	929+35.00	RT	106													
65	R-6	IR-90	928+33.21		RT				1										
65	G-4	IR-90	928+46.04	929+35.00	RT		88												
65-67	R-7	IR-90	928+81.47	931+85.81	LT	307													
65	R-8	IR-90	928+96.18	929+85.00	LT	90													
65-67	G-5	IR-90	928+95.29	930+55.19	LT		137	1											
65	G-6	IR-90	929+18.79	929+85.00	LT		43	1											
65	R-9	IR-90	926+55.53	926+55.57	LT					1	8								
65	R-10	IR-90	929+17.26	929+17.27	RT					1	4								
65	F-1	IR-90	926+24.72	926+57.35	RT							60							
65	F-2	IR-90	927+30.24	927+51.31	LT							48							
65	F-3	IR-90	928+21.25	928+21.48	RT							57							
65	F-4	IR-90	929+02.13	929+16.39	LT							42							
TOTALS CARRIED TO GENERAL SUMMARY						1225	764	4	2	2	12	207							

ROADWAY SUBSUMMARY

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LOCATION	STATION TO STATION	SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A A=LxW	COMPUTER GENERATED AREA	202	204	252	254	302	302	304	407	442	442	617	618	
							PAVEMENT REMOVED, AS PER PLAN	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	5" ASPHALT CONCRETE BASE, PG64-22	5 1/2" ASPHALT CONCRETE BASE, PG64-22	6" AGGREGATE BASE	NON-TRACKING TACK COAT, 0.08 GAL/70	1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	COMPACTED AGGREGATE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
							SY	SY	FT	SY	CY	CY	CY	GAL	CY	CY	CY	FT	
IR-90 WB	907+10.00	LT								10.85									
IR-90 EB	907+10.00	RT								10.08									
IR-90 WB	907+10.00	LT			924+84.23					1774.23									
IR-90 EB	907+10.00	RT			925+04.23					1794.23									
IR-90 WB	907+10.00	LT	1999.92		927+09.92														2000
IR-90 WB	907+10.00	LT	1774.23	10.8	924+84.23	19161.68		2129.08											
IR-90 WB	907+10.00	LT			909+74.31			2785.74						49.52	12.90	15.04			
IR-90 WB	907+10.00	LT			924+84.23			19590.43			302.35								
IR-90 WB	907+10.00	LT			924+84.23			20482.88				347.68							
IR-90 WB	907+10.00	LT			924+84.23			21375.37		2375.04			395.84						
IR-90 EB	907+10.00	RT	1927.33		926+37.33														1927
IR-90 EB	907+10.00	RT	620.23	12.5	913+30.23	7752.87		861.43											
IR-90 EB	907+10.00	RT			990+44.23			2339.12						41.58	10.83	12.63			
IR-90 EB	907+10.00	RT			925+04.23			18973.08			292.82								
IR-90 EB	907+10.00	RT			925+04.23			19864.73				337.19							
IR-90 EB	907+10.00	RT			925+04.23			20756.35		2306.26			384.38						
IR-90 WB	907+10.00	LT	2006.57		927+16.57												68.11		
IR-90 EB	907+10.00	RT	1922.48		926+32.48												65.26		
IR-90 EB	909+44.23	LT	1711.94		926+56.17														1712
IR-90 EB	909+44.23	LT&RT			926+69.06			92598.83						1646.20	428.70	500.03			
IR-90 EB	909+44.23	LT			925+04.23			30885.83			476.67								
IR-90 EB	909+44.23	LT			925+04.23			31664.80				537.48							
IR-90 EB	909+44.23	LT			925+04.23			32443.80		3604.87			600.81						
IR-90 EB	909+44.23	LT&RT	1560.00	24	925+04.23	37440.00													
IR-90 EB	909+44.23	RT			909+44.23						4160.00								
IR-90 EB	909+44.23	RT			925+04.23						4.83								
IR-90 EB	909+44.23	RT			925+04.23					1560.00									
IR-90 EB	909+44.23	RT	1724.83		926+69.06												58.55		
IR-90 WB	909+74.31	RT	1722.61		926+96.92														1723
IR-90 WB	909+74.31	LT			909+74.31						4.44								
IR-90 WB	909+74.31	LT			924+84.23					1509.92									
IR-90 WB	909+74.31	RT	306.72	10	912+81.03	3067.20		340.80											
IR-90 WB	909+74.31	LT&RT			927+16.57			9135.51						1620.19	421.92	492.13			
IR-90 WB	909+74.31	RT			924+84.23			25184.76			388.68								
IR-90 WB	909+74.31	RT			924+84.23			25941.18				440.33							
IR-90 WB	909+74.31	RT			924+84.23			26697.57		2966.40			494.40						
IR-90 WB	909+74.31	LT&RT	1509.92	24	924+84.23	36238.08					4026.45								
IR-90 WB	909+74.31	LT	1716.95		926+91.26												58.28		
IR-90 EB	913+30.23	RT	1174	10.5	925+04.23	12327		1369.67											
IR-90 WB	924+84.23	LT&RT	227.09	40	927+11.32	9083.60		1009.29											
IR-90 WB	924+84.23	LT&RT			927+16.57						215.63								
IR-90 WB	924+84.23	LT&RT			927+16.57							240.91							
IR-90 WB	924+84.23	LT&RT			927+16.57				1601.62				266.94						
IR-90 WB	924+84.23	LT			924+84.23					40.83									
IR-90 EB	925+04.23	LT&RT	148.55	40	926+52.78	5942.00		660.22											
IR-90 EB	925+04.23	LT&RT			926+69.06						0.00								
IR-90 EB	925+04.23	LT&RT			926+69.06			9179.44				155.81							
IR-90 EB	925+04.23	LT&RT			926+69.06			9324.84		1036.09			172.68						
IR-90 EB	925+04.23	RT			925+04.23														
IR-90 EB	926+33.98	LT&RT			926+87.26			522.45	58.05										
IR-90 EB	926+46.72	RT	23.53	8.75	926+70.25	205.89		22.88											
IR-90 EB	926+60.10	LT	27.16	3.75	926+87.26	101.85		11.32											
IR-90 WB	926+99.61	LT&RT			927+43.98			509.95	56.66										
IR-90 WB	927+07.10	RT	23.33	5.3	927+30.43	123.65		13.74											
IR-90 WB	927+16.36	LT	27.62	8.8	927+43.98	243.06		27.01											
TOTALS THIS SHEET								6560.13	13890.28	6748.96	8186.45	1676.15	2059.40	2315.05	3357.50	874.35	1019.84	250.20	7361.8

PAVEMENT SUBSUMMARY

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LOCATION	STATION TO STATION		SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A A = L x W	COMPUTER GENERATED AREA	202	204	252	254	302	302	304	407	442	442	617	618	
	PAVEMENT REMOVED, AS PER PLAN	SUBGRADE COMPACTION						FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	5" ASPHALT CONCRETE BASE, PG64-22	5 1/2" ASPHALT CONCRETE BASE, PG64-22	6" AGGREGATE BASE	NON-TRACKING TACK COAT, 0.08 GAL/YD	1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	COMPACTED AGGREGATE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)			
				FT	FT	SQ FT	SQ FT	SY	SY	FT	SY	CY	CY	CY	GAL	CY	CY	CY	FT	
IR-90 EB	928+30.69	928+80.74	LT&RT	50.05			516.19	57.35												
IR-90 EB	928+35.20	928+59.91	RT	24.71	8.6	212.51		23.61												
IR-90 EB	928+48.73	928+72.19	LT	23.46	4	93.84		10.43												
IR-90 EB	928+58.60	945+04.84	LT&RT				87144.32								1549.23	403.45	470.58			
IR-90 EB	928+58.60	929+35.00	LT&RT				3663.06					56.53								
IR-90 EB	928+58.60	929+35.00	LT&RT				3722.26					63.18								
IR-90 EB	928+58.60	929+35.00	LT&RT				3770.16		418.91					69.82						
IR-90 EB	928+58.60	948+50.00	RT	1991.40														67.60		
IR-90 EB	928+65.99	929+35.00	LT&RT	69.01	40	2760.40		306.71												
IR-90 EB	928+66.90	948+50.00	RT	1983.10															1983	
IR-90 EB	928+84.09	945+04.84	LT	1620.75															1621	
IR-90 WB	928+84.33	929+10.56	RT	26.23	4.5	118.03		13.11												
IR-90 WB	928+85.89	929+27.34	LT&RT				486.45	54.05												
IR-90 EB	928+92.02	945+04.84	RT	1612.82														54.75		
IR-90 WB	928+95.12	929+18.92	LT	23.8	4.5	107.10		11.90												
IR-90 WB	929+05.65	929+85.00	LT&RT				4145.08					63.97								
IR-90 WB	929+05.65	929+85.00	LT&RT				4211.28					71.48								
IR-90 WB	929+05.65	929+85.00	LT&RT				4260.34		473.37					78.90						
IR-90 WB	929+05.65	944+85.00	LT&RT				80687.21							1434.44	373.55	435.71				
IR-90 WB	929+05.65	944+85.00	LT	1579.35														53.61		
IR-90 WB	929+14.51	944+85.00	RT	1570.49															1570	
IR-90 WB	929+15.13	929+85.00	LT&RT	69.87	40	2794.8		310.53												
IR-90 WB	929+26.16	948+00.00	LT	1873.84															1874	
IR-90 WB	929+28.38	948+04.00	LT	1875.62														63.67		
IR-90 EB	929+35.00	948+50.00	RT	1915	10	19150		2127.78												
IR-90 EB	929+35.00	948+50.00	RT				20796.69					320.96								
IR-90 EB	929+35.00	948+50.00	RT				21752.69						369.23							
IR-90 EB	929+35.00	948+50.00	RT				22708.68		2523.19					420.53						
IR-90 EB	925+35.00	945+04.84	LT				29966.51					462.48								
IR-90 EB	925+35.00	945+04.84	LT				30751.21						521.97							
IR-90 EB	925+35.00	945+04.84	LT				31535.93		3503.99					584.00						
IR-90 EB	925+35.00	945+04.84	LT&RT	1969.84	24	47276.16					5252.91									
IR-90 EB	929+35.00	945+04.84	RT							39.80										
IR-90 EB	929+35.00	945+04.84	RT							1569.84										
IR-90 EB	929+35.00	948+50.00	RT							1915.00										
IR-90 WB	929+85.00	944+80.84	LT	1495.84	10	14958.4		1662.04												
IR-90 WB	929+85.00	944+85.00	RT				25317.76					390.74								
IR-90 WB	929+85.00	944+85.00	RT				26070.39						442.52							
IR-90 WB	929+85.00	944+85.00	RT				26821.45		2980.16					496.69						
IR-90 WB	929+85.00	948+00.00	LT				19540.96					301.58								
IR-90 WB	929+85.00	948+00.00	LT				20449.63						347.11							
IR-90 WB	929+85.00	948+00.00	LT				21358.29		2373.14					395.52						
IR-90 WB	929+85.00	944+85.00	LT&RT	1500.00	24	36000					4000.00									
IR-90 WB	929+85.00	948+00.00	LT				3204.4								56.97	14.84	17.30			
IR-90 WB	929+85.00		LT							39.87										
IR-90 WB	929+85.00	944+85.00	LT							1500.00										
IR-90 WB	929+85.00	948+00.00	LT							1815.00										
IR-90 WB	944+85.00		LT							5.15										
IR-90 EB	945+04.84	948+50.00	RT				3707.44							65.91	17.16	20.02				
IR-90 EB	945+04.84		RT							10.01										
IR-90 EB	940+46.72	945+04.84	LT	458.12	12	5497.44		610.83												
IR-90 WB	941+57.31	944+85.00	LT	327.69	8	2621.52		291.28												
IR-90 WB	948+00.00		LT							10.42										
IR-90 EB	948+50.00		RT							10.60										
TOTALS THIS SHEET								5422.28	12272.76	6915.69	9252.91	1596.27	1815.50	2045.46	3106.55	809.00	943.61	239.62	7048	
TOTALS FROM SHEET 53								6560.13	13890.28	6748.96	8186.45	1676.15	2059.40	2315.05	3357.50	874.35	1019.84	250.20	7362	
TOTALS CARRIED TO GENERAL SUMMARY								11982	26163	13665	17439	7147	4361	6464	1683	1963	490	14410		

PAVEMENT SUBSUMMARY

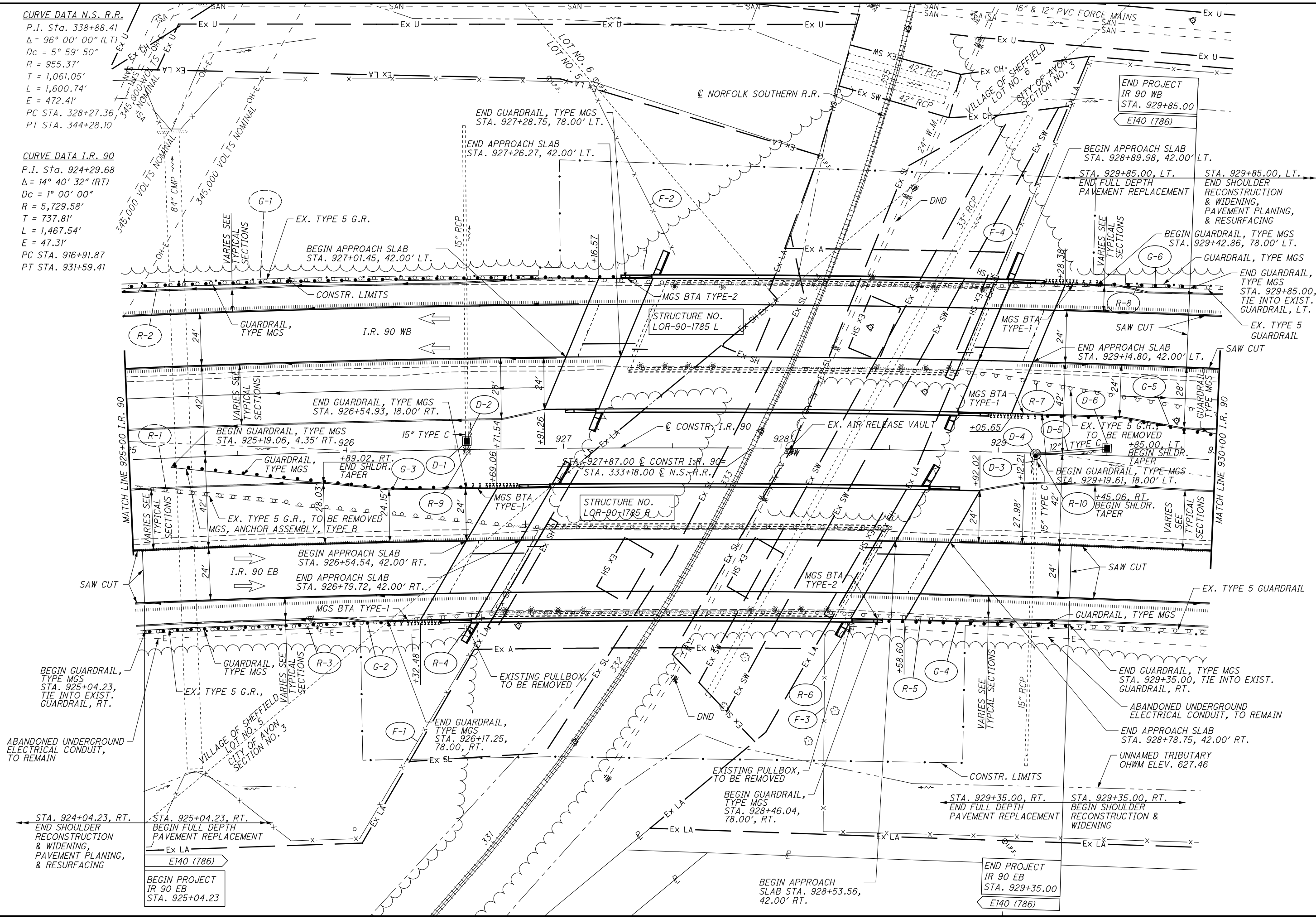
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CURVE DATA N.S. R.R.
 P.I. Sta. 338+88.41
 $\Delta = 96^\circ 00' 00''$ (LT)
 $Dc = 5^\circ 59' 50''$
 $R = 955.37'$
 $T = 1,061.05'$
 $L = 1,600.74'$
 $E = 472.41'$
 PC STA. 328+27.36
 PT STA. 344+28.10

CURVE DATA I.R. 90
 P.I. Sta. 924+29.68
 $\Delta = 14^\circ 40' 32''$ (RT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 737.81'$
 $L = 1,467.54'$
 $E = 47.31'$
 PC STA. 916+91.87
 PT STA. 931+59.41



CALCULATED HB
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PLAN - I.R. 90
STA. 925+00 TO STA. 930+00

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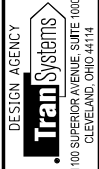
MADE BY: GJZ
CHECKED BY: RSB

DATE: 12/11/2019
DATE: 12/12/2019

ESTIMATED QUANTITIES

STRUCTURE FILE NUMBER: 4704895 (L) / 4704925 (R)

ITEM	EXTENSION	LOR-90-1785L	LOR-90-1785R	UNIT	DESCRIPTION	LOR-90-1785L (WESTBOUND)				LOR-90-1785R (EASTBOUND)				REFERENCE SHEET NUMBER
		(WESTBOUND)	(EASTBOUND)			ABUTMENTS	PIERS	SUPER STRUCTURE	GENERAL	ABUTMENTS	PIERS	SUPER STRUCTURE	GENERAL	
		TOTAL	TOTAL											
202	11203	LS	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LS			LS	126/196
202	22900	134	134	SY	APPROACH SLAB REMOVED					134			134	
202	23500	773	821	SY	WEARING COURSE REMOVED					773			821	
503	11100	LS	LS		COFFERDAMS AND EXCAVATION BRACING (TEMPORARY SHORING)					LS			LS	
503	21300	LS	LS		UNCLASSIFIED EXCAVATION					LS			LS	
504	11101	812		SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 1)					812				127/196
504	11101	877		SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 2)					877				127/196
504	11101		847	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 3)								847	127/196
504	11101		918	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 4)								918	127/196
505	11100	LS	LS		PILE DRIVING EQUIPMENT MOBILIZATION					LS			LS	
507	00200	1500	1600	FT	STEEL PILES HP12x53, FURNISHED	1500						1600		
507	00250	1350	1440	FT	STEEL PILES HP12x53, DRIVEN	1350						1440		
509	10000	138107	142171	LB	EPOXY COATED REINFORCING STEEL	14561	25543	96619	1384	15152	24457	101178	1384	
511	34447	349	369	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			349				369		127/196
511	34450	58	61	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			58				61		
511	41012	90	104	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		90				104			
511	43512	114	120	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	114				120				
512	10100	773	904	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	118	304	351		122	368	369	45	
512	33000	4	4	SY	TYPE 2 WATERPROOFING	4				4				
513	10281	240810	263230	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN			240810				263230		127/196
513	20000	8334	8004	EACH	WELDED STUD SHEAR CONNECTORS			8334				8004		
513	95030	2	2	EACH	STRUCTURAL STEEL, MISC.: TEMPORARY BEAM END RETROFIT			2				2		129/196
516	13200	137	111	SF	1/2" PREFORMED EXPANSION JOINT FILLER	137				111				
516	13600	124	70	SF	1" PREFORMED EXPANSION JOINT FILLER			124		37		17	16	
516	13900	58	62	SF	2" PREFORMED EXPANSION JOINT FILLER	58				62				
516	14014	165	193	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	165				193				
516	44100	16	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE)		16				16			
516	44201	16		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN	16								178/196
516	44201		16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN					16				178/196
518	21200	121	129	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	121				129				
518	40000	167	173	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	167				173				
518	40011	63	70	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	63				70				144/196
524	94704	40	120	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK		40				120			
524	94802	176	150	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK		176				150			
524	94803	59	75	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK, AS PER PLAN		59				75			127/196
526	25010	343	343	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")					343			343	
526	90010	130	139	FT	TYPE A INSTALLATION					130			139	
601	12001	1105	1215	SY	RIPRAP, WITH GROUT, AS PER PLAN					1105			1215	127/196
SPECIAL	69091000	LS	LS		AS-BUILT CONSTRUCTION PLANS					LS			LS	126/196
846	00110	54	58	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM					54			58	



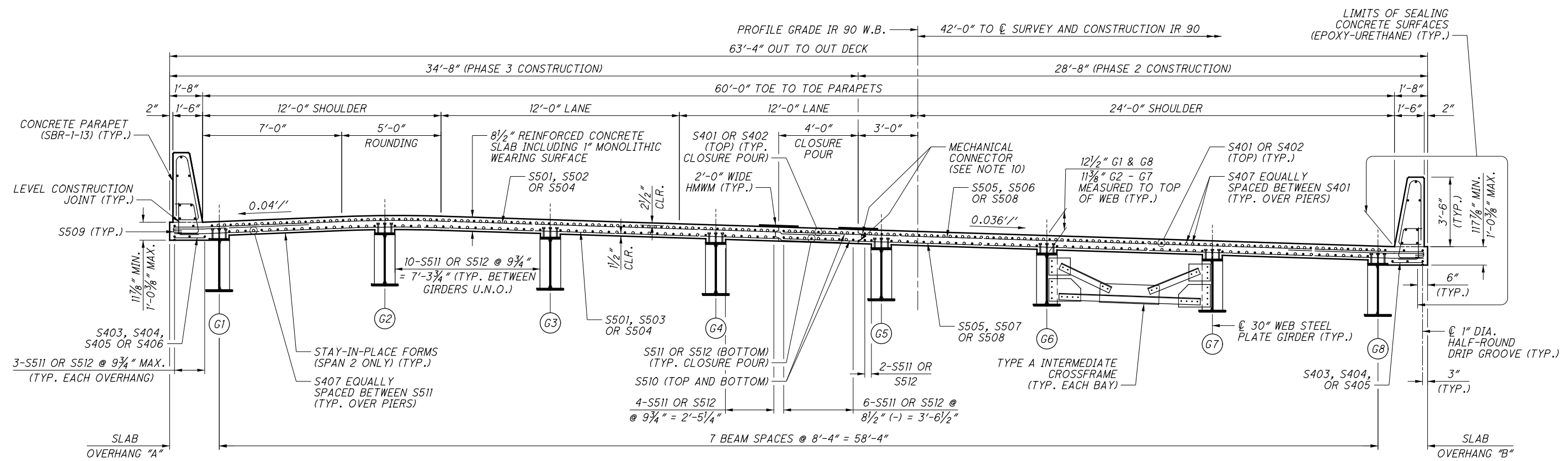
DESIGN AGENCY
DATE: 5/16/19
REVIEWED: NFF
STRUCTURE FILE NUMBER: 4704895/4704925

DRAWN: GJZ
CHECKED: ZTW

ESTIMATED QUANTITIES
BRIDGE NO. LOR-90-1785 L/R
IR 90 OVER NORFOLK SOUTHERN RAILROAD

LOR-90-17.85
PID No. 90942

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LEFT BRIDGE TRANSVERSE SECTION

SLAB OVERHANG "A" - SPAN 1 (SEE NOTE 9)							
LOCATION	CL BEARING REAR ABUTMENT	0.2	0.4	0.5	0.6	0.8	CL PIER 1
STATION AT CL G1	927+41.94	927+51.41	927+60.88	927+65.62	927+70.36	927+79.83	927+89.30
SLAB OVERHANG A	2'-5 3/4"	2'-7"	2'-8"	2'-8 3/8"	2'-8 7/8"	2'-9 1/2"	2'-10"

SLAB OVERHANG "A" - SPAN 2 (SEE NOTE 9)							
LOCATION	CL PIER 1	0.2	0.4	0.5	0.6	0.8	CL PIER 2
STATION AT CL G1	927+89.30	928+02.48	928+15.65	928+22.24	928+28.82	928+42.00	928+55.17
SLAB OVERHANG A	2'-10"	2'-10 3/8"	2'-10 1/4"	2'-10 1/8"	2'-9 7/8"	2'-9 1/8"	2'-8"

SLAB OVERHANG "A" - SPAN 3 (SEE NOTE 9)							
LOCATION	CL PIER 2	0.2	0.4	0.5	0.6	0.8	CL BEARING FORWARD ABUTMENT
STATION AT CL G1	928+55.17	928+64.64	928+74.11	928+78.85	928+83.58	928+93.06	929+02.53
SLAB OVERHANG A	2'-8"	2'-7"	2'-5 3/4"	2'-5"	2'-4 3/8"	2'-2 3/4"	2'-0 7/8"

SLAB OVERHANG "B" - SPAN 1 (SEE NOTE 9)							
LOCATION	CL BEARING REAR ABUTMENT	0.2	0.4	0.5	0.6	0.8	CL PIER 1
STATION AT CL G8	927+17.78	927+27.35	927+36.92	927+41.70	927+46.48	927+56.05	927+65.62
SLAB OVERHANG B	2'-10 1/4"	2'-8 1/2"	2'-7"	2'-6 1/4"	2'-5 5/8"	2'-4 1/2"	2'-3 1/2"

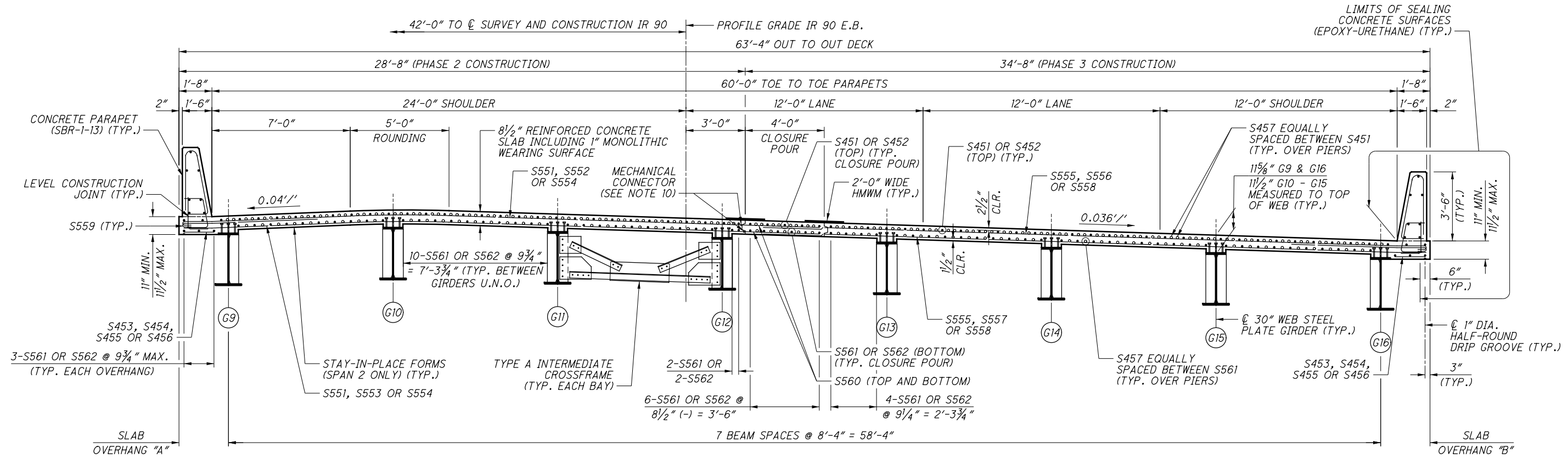
SLAB OVERHANG "B" - SPAN 2 (SEE NOTE 9)							
LOCATION	CL PIER 1	0.2	0.4	0.5	0.6	0.8	CL PIER 2
STATION AT CL G8	927+65.62	927+78.93	927+92.23	927+98.89	928+05.54	928+18.85	928+32.15
SLAB OVERHANG B	2'-3 1/2"	2'-2 1/2"	2'-1 1/8"	2'-1 3/4"	2'-1 5/8"	2'-1 3/4"	2'-2 1/4"

SLAB OVERHANG "B" - SPAN 3 (SEE NOTE 9)							
LOCATION	CL PIER 2	0.2	0.4	0.5	0.6	0.8	CL BEARING FORWARD ABUTMENT
STATION AT CL G8	928+32.15	928+41.72	928+51.29	928+56.08	928+60.86	928+70.43	928+80.00
SLAB OVERHANG B	2'-2 1/4"	2'-2 7/8"	2'-3 5/8"	2'-4"	2'-4 5/8"	2'-5 3/4"	2'-7 1/8"

NOTES:

- FOR PHASE 2 AND PHASE 3 LEFT BRIDGE REMOVAL AND PHASE 2 AND PHASE 3 LEFT BRIDGE CONSTRUCTION, SEE SHEETS [11/67] AND [12/67].
- FOR RIGHT BRIDGE TRANSVERSE SECTION, SEE SHEET [48/67].
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 4 INCHES FOR GIRDER G1 AND G8, AND 2 7/8 INCHES FOR GIRDERS G2 THRU G7, AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ALL COSTS ASSOCIATED WITH THE ADDITIONAL DECK SLAB CONCRETE IN THE FULLY FILLED STAY-IN-PLACE FORM RIBS SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED FOR PAYMENT WITH ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN.
- THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH CMS 511.23.
- FOR LEFT BRIDGE ROUNDING DETAIL, SEE SHEET [39/67].
- FOR LEFT BRIDGE SLAB PLAN, SEE SHEET [49/67].
- FIELD BEND S501, S502, S503 AND S504 BARS AS REQUIRED.
- FOR RAILING ELEVATION AND DETAILS, SEE SHEET [52/67].
- SLAB OVERHANG DIMENSIONS ARE MEASURED NORMAL TO G1 AND G8.
- MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.

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RIGHT BRIDGE TRANSVERSE SECTION

SLAB OVERHANG "A" - SPAN 1 (SEE NOTE 9)

LOCATION	CL BEARING REAR ABUTMENT	0.2	0.4	0.5	0.6	0.8	CL PIER 1
STATION AT CL G9	926+94.78	927+04.91	927+15.05	927+20.11	927+25.18	927+35.31	927+45.45
SLAB OVERHANG A	2'-5 7/8"	2'-7 1/4"	2'-8 1/2"	2'-9"	2'-9 3/8"	2'-10 1/4"	2'-10 3/4"

SLAB OVERHANG "A" - SPAN 2 (SEE NOTE 9)

LOCATION	CL PIER 1	0.2	0.4	0.5	0.6	0.8	CL PIER 2
STATION AT CL G9	927+45.45	927+59.34	927+73.24	927+80.19	927+87.14	928+01.03	928+14.93
SLAB OVERHANG A	2'-10 3/4"	2'-11 1/8"	2'-11 1/8"	2'-11"	2'-10 3/4"	2'-10"	2'-8 3/4"

SLAB OVERHANG "A" - SPAN 3 (SEE NOTE 9)

LOCATION	CL PIER 2	0.2	0.4	0.5	0.6	0.8	CL BEARING FORWARD ABUTMENT
STATION AT CL G9	928+14.93	928+25.06	928+35.20	928+40.26	928+45.33	928+55.46	928+65.60
SLAB OVERHANG A	2'-8 3/4"	2'-7 5/8"	2'-6 3/8"	2'-5 5/8"	2'-4 3/4"	2'-3"	2'-1"

SLAB OVERHANG "B" - SPAN 1 (SEE NOTE 9)

LOCATION	CL BEARING REAR ABUTMENT	0.2	0.4	0.5	0.6	0.8	CL PIER 1
STATION AT CL G16	926+59.91	926+70.14	926+80.38	926+85.50	926+90.61	927+00.85	927+11.09
SLAB OVERHANG B	3'-0 1/2"	2'-10 3/8"	2'-8 1/2"	2'-7 5/8"	2'-6 3/4"	2'-5 1/4"	2'-4"

SLAB OVERHANG "B" - SPAN 2 (SEE NOTE 9)

LOCATION	CL PIER 1	0.2	0.4	0.5	0.6	0.8	CL PIER 2
STATION AT CL G16	927+11.09	927+25.13	927+39.17	927+46.19	927+53.21	927+67.25	927+81.29
SLAB OVERHANG B	2'-4"	2'-2 1/2"	2'-1 1/2"	2'-1 1/4"	2'-1"	2'-0 3/4"	2'-1"

SLAB OVERHANG "B" - SPAN 3 (SEE NOTE 9)

LOCATION	CL PIER 2	0.2	0.4	0.5	0.6	0.8	CL BEARING FORWARD ABUTMENT
STATION AT CL G16	927+81.29	927+91.53	928+01.77	928+06.88	928+12.00	928+22.24	928+32.48
SLAB OVERHANG B	2'-1"	2'-1 3/8"	2'-2"	2'-2 1/2"	2'-2 7/8"	2'-4"	2'-5 1/4"

NOTES:

- FOR PHASE 2 AND PHASE 3 RIGHT BRIDGE REMOVAL AND PHASE 2 AND PHASE 3 RIGHT BRIDGE CONSTRUCTION, SEE SHEETS [13/67] AND [14/67].
- FOR LEFT BRIDGE TRANSVERSE SECTION, SEE SHEET [47/67].
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 3/8" INCHES FOR GIRDER G9 AND G16, AND 3" INCHES FOR GIRDERS G10 THRU G15, AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ALL COSTS ASSOCIATED WITH THE ADDITIONAL DECK SLAB CONCRETE IN THE FULLY FILLED STAY-IN-PLACE FORM RIBS SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED FOR PAYMENT WITH ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN.
- THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH CMS 511.23.
- FOR RIGHT BRIDGE ROUNDING DETAIL, SEE SHEET [40/67].
- FOR RIGHT BRIDGE SLAB PLAN, SEE SHEET [50/67].
- FIELD BEND S551, S552, S553 AND S554 BARS AS REQUIRED.
- FOR RAILING ELEVATION AND DETAILS, SEE SHEET [52/67].
- SLAB OVERHANG DIMENSIONS ARE MEASURED NORMAL TO G9 AND G16.
- MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.

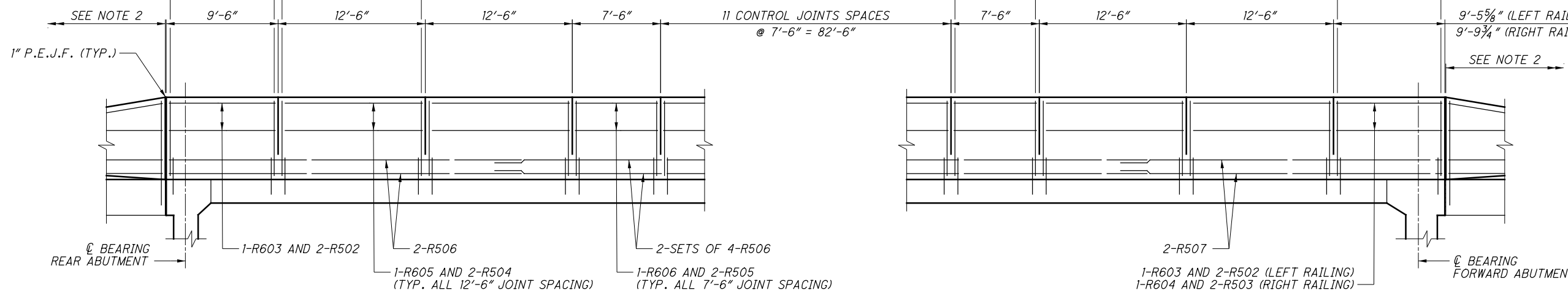
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10-R501, 10-R601 AND 10-R602
@ 1'-0" = 9'-0"

13-R501, 13-R601 AND 13-R602
@ 1'-0" = 12'-0"
(TYP. ALL 12'-6" JOINT SPACING)

8-R501, 8-R601 AND 8-R602
@ 1'-0" = 7'-0"
(TYP. ALL 7'-6" JOINT SPACING)

10-R501, 10-R601 AND 10-R602
@ 1'-0" = 9'-0" (LEFT RAILING)
11-R501, 11-R601 AND 11-R602
@ 11" (+) = 9'-3" (RIGHT RAILING)



LEFT BRIDGE RAILING ELEVATION

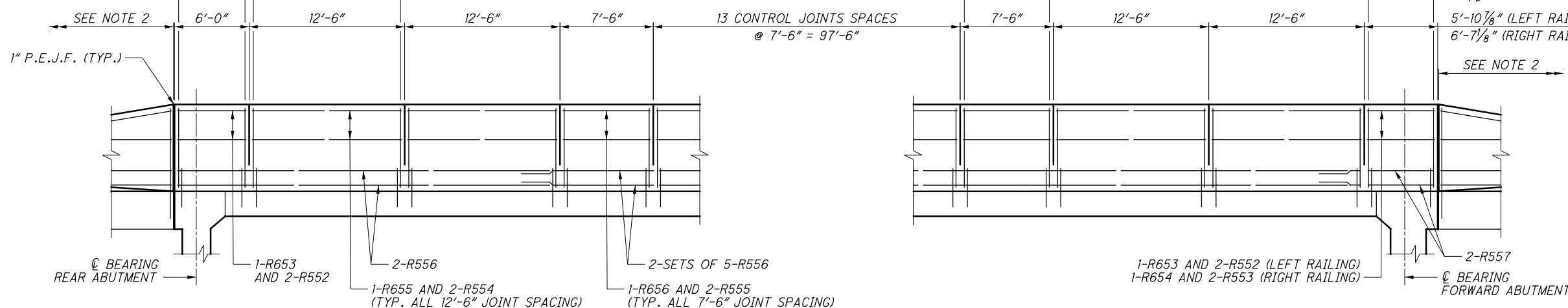
(LEFT RAILING SHOWN, RIGHT RAILING SAME EXCEPT AS NOTED)

7-R551, 7-R651 AND 7-R652
@ 11" = 5'-6"

13-R551, 13-R651 AND 13-R652
@ 1'-0" = 12'-0"
(TYP. ALL 12'-6" JOINT SPACING)

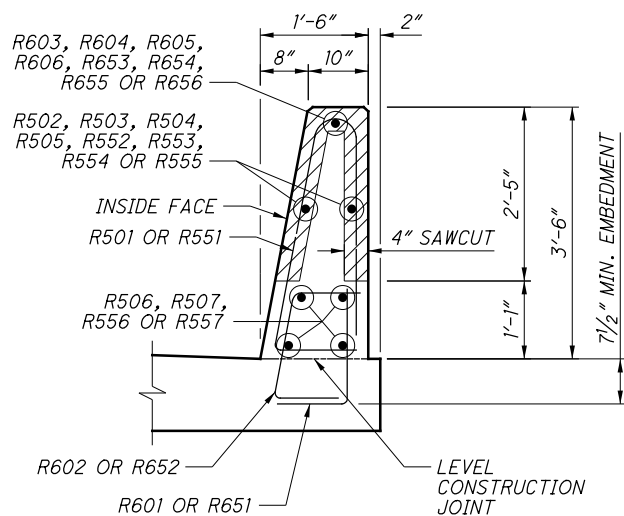
8-R551, 8-R651 AND 8-R652
@ 1'-0" = 7'-0"
(TYP. ALL 7'-6" JOINT SPACING)

7-R551, 7-R651 AND 7-R652
@ 11" (-) = 5'-5" (LEFT RAILING)
8-R551, 8-R651 AND 8-R652
@ 10 1/2" (-) = 6'-1" (RIGHT RAILING)



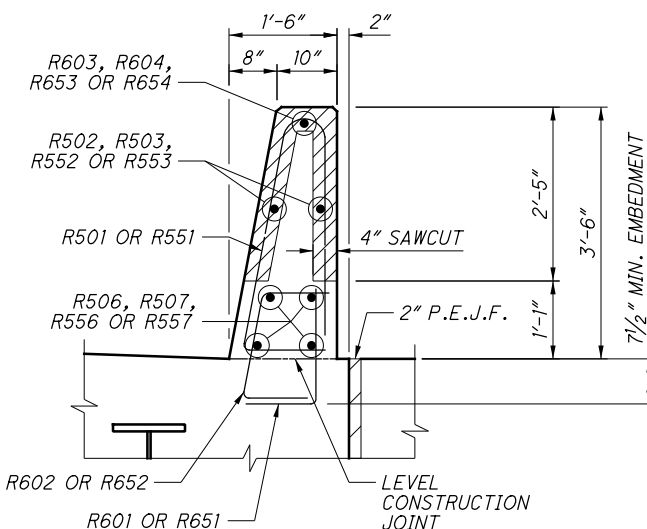
RIGHT BRIDGE RAILING ELEVATION

(LEFT RAILING SHOWN, RIGHT RAILING SAME EXCEPT AS NOTED)



TYPICAL BRIDGE RAILING SECTION

(DECK REINFORCEMENT NOT SHOWN)



TYPICAL DIAPHRAGM RAILING SECTION

(DIAPHRAGM REINFORCEMENT NOT SHOWN)

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
NO. 5 HORIZONTAL	2'-3" MIN.

NOTES:

- HORIZONTAL DIMENSIONS ARE GIVEN ALONG RAILING INSIDE FACE.
- FOR RAILING DETAILS ON APPROACH SLAB, SEE SHEET 60/67.
- FOR ADDITIONAL RAILING DETAILS NOT SHOWN, SEE ODOT STANDARD DRAWING SBR-1-13.

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