PIK - SR-SR 32-15.77 Safety (PART 1
200242 PID - 108734
Dist 9 4/23/2020

Contract Proposal Available @
www.contracts.dot.state.oh.us/home

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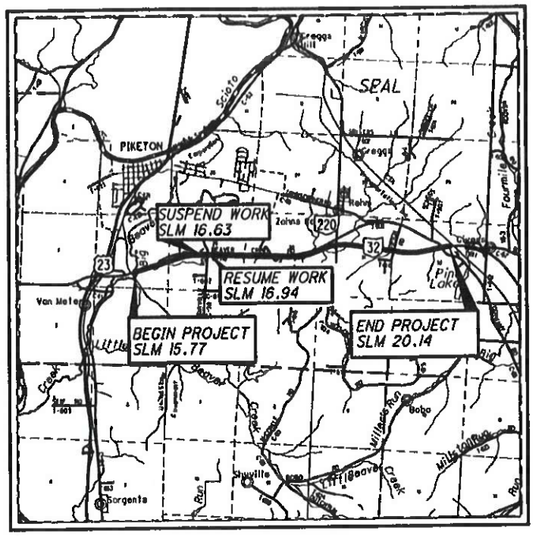


LOCATION MAP

LATITUDE: N 39°03'05" LONGITUDE: W 82°58'27"

SCALE IN MILES 0 1 2 3 4

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2020)	9400
DESIGN YEAR ADT (2040)	13,000
DESIGN HOURLY VOLUME (2040)	1700
DIRECTIONAL DISTRIBUTION	62%
TRUCKS (24 HOUR B&C)	16%
DESIGN SPEED	60 MPH
LEGAL SPEED	60 MPH
DESIGN FUNCTIONAL CLASSIFICATION: PRINCIPAL ARTERIAL	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
Ohio Department of Transportation
District Nine

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

PIK-32-15.77

PART 1

SEAL TOWNSHIP

PIKE COUNTY

FOR PART 2, SEE PIK-32-17.15

INDEX OF SHEETS:

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF PLANING BEFORE RESURFACING 4.06 MILES OF SR-32 FROM SLM 15.77 SUSPENDING AT SLM 16.63, RESUMING AT SLM 16.94 AND ENDING AT SLM 20.14 IN BOTH DIRECTIONS WITH SMOOTHSEAL. ALSO INCLUDED IN THIS PROJECT IS PROFILE CORRECTION AT DESIGNATED BRIDGE APPROACHES IN PIKE COUNTY, OHIO.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	N/A ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

ENGINEERS SEAL:
STATE OF OHIO MATTHEW C MCCLELLAN E-77959 REGISTERED PROFESSIONAL ENGINEER
SIGNED: Matthew C McClellan
DATE: 1/23/20

ENGINEERS SEAL:
STATE OF OHIO DAVID M. BEEKMAN E-69687 REGISTERED PROFESSIONAL ENGINEER
SIGNED: David M Beekman
DATE: 1/23/20

STANDARD CONSTRUCTION DRAWINGS

BP-2.1	7/17/15	RM-3.1	7/20/18	MT-95.30	7/19/19	TC-41.40	10/18/13		
BP-3.1	01/17/20	RM-4.2	1/17/20	MT-95.40	1/17/20	TC-41.50	10/18/13		
				MT-95.50	7/21/17	TC-42.10	10/18/13		
CB-2.3	1/15/16	AS-1-15	7/17/15	MT-98.11	1/17/20	TC-42.20	10/18/13		
CB-3.3	1/15/16	HW-2.1	7/20/18	MT-98.22	1/17/20	TC-51.11	1/15/16		
		HW-2.2	7/20/18	MT-99.20	4/19/19	TC-51.12	1/15/16		
I-1.1	7/20/18			MT-99.30	1/17/20	TC-52.10	10/18/13		
		HL-10.11	7/19/19	MT-101.70	1/17/20	TC-52.20	7/20/18		
DM-1.1	7/21/17	HL-10.12	1/20/17	MT-101.75	1/17/20	TC-65.10	1/17/14		
DM-1.2	1/18/13	HL-10.13	1/17/20	MT-101.90	7/21/17	TC-65.11	7/21/17		
DM-4.3	1/15/16	HL-20.11	4/21/17	MT-104.10	10/16/15	TC-71.10	1/19/18		
DM-4.4	1/15/16	HL-30.11	7/19/19	MT-105.10	1/17/20	TC-72.20	7/20/18		
		HL-30.22	1/17/14						
BP-4.1	7/19/13	HL-40.10	1/20/17	TC-41.10	7/19/13				
BP-9.1	1/18/19	HL-60.11	7/21/17	TC-41.20	10/18/13				
		HL-60.31	1/17/20	TC-41.30	10/18/13				

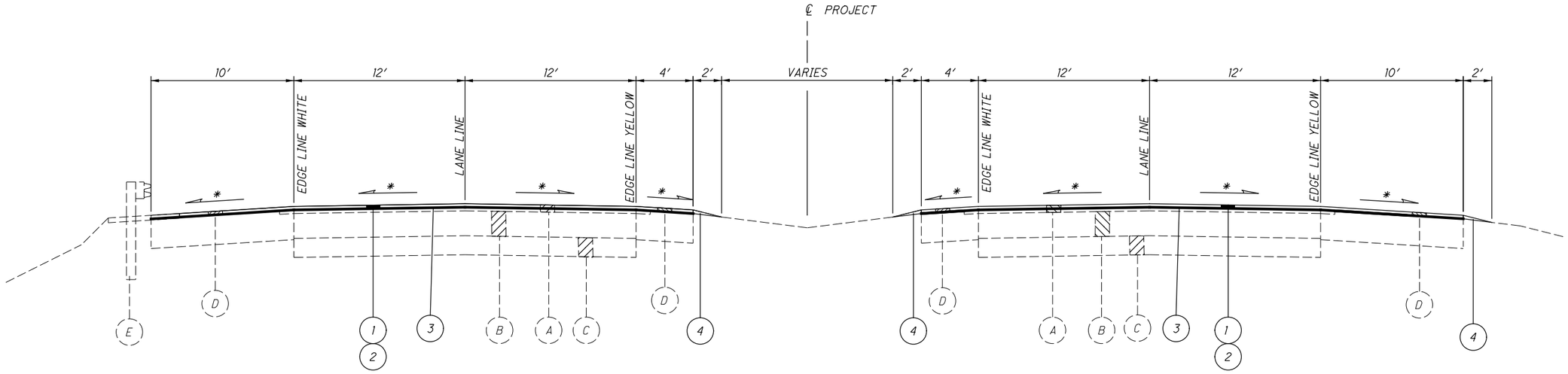
SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
800	1/17/20	
808	1/18/19	
821	4/20/12	
832	10/19/18	
836	1/19/18	
843	10/18/19	
897	1/16/15	
902	7/19/19	
908	10/20/17	
921	4/20/12	
813	10/19/18	
913	4/21/17	

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED Michael R Loucks
DATE 01-28-2020 DISTRICT DEPUTY DIRECTOR

APPROVED Jack Marchbanks II
DATE 3/5/20 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E180(891)
PID NO. 108734
CONSTRUCTION PROJECT NO. 00000
RAILROAD INVOLVEMENT NONE
PIK-32-15.77 PART 1
1 / 14



TYPICAL I

THE ABOVE TYPICAL APPLIES BETWEEN THE FOLLOWING:
SLM 15.77 - SLM 16.63
SLM 16.94 - SLM 20.14

* MATCH EXISTING PAVEMENT SLOPE

PROPOSED LEGEND

1	1″	ITEM 424 - FINE GRADED POLYMER, ASPHALT CONCRETE, TYPE B, SURFACE COURSE
2	0.75″	ITEM 897 - PAVMENT PLANING, ASPHALT CONCRETE, CLASS A
3		ITEM 407 - TACK COAT
4		ITEM 617 - COMPACTED AGGREGATE

EXISTING LEGEND

A	EXISTING ASPHALT CONCRETE PAVEMENT
B	EXISTING ASPHALT BASE
C	EXISTING AGGREGATE BASE
D	EXISTING PAVED BERM
E	EXISTING GUARDRAIL, TYPE 5

CALCULATED BCB
CHECKED DMB

TYPICAL SECTION

PIK-32-15.77
PART 1

UTILITIES

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

AMERICAN ELECTRIC POWER
(DISTRIBUTION)
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
MR. PAUL PAXTON
614-883-6831

AMERICAN ELECTRIC POWER
(TRANSMISSION)
700 MORRISON ROAD
GAHANNA, OHIO 43230
MR. MIKE CARR
614-552-1893

CHARTER COMMUNICATIONS
32 ENTERPRISE DRIVE
CHILLICOTHE, OHIO 45601
MR. JASON JACOBS
740-648-3027

FRONTIER COMMUNICATIONS
1315 ALBERT STREET
PORTSMOUTH, OHIO 45662
MS. DENA MARTIN
740-354-0521

PIKE WATER, INC.
P.O. BOX 191
WAVERLY, OHIO 45690
MR. TIM WILLIAMS
740-947-2524

PIKE COUNTY SEWER DISTRICT
116 S. MARKET STREET,
SUITE 103
WAVERLY, OHIO 45690
MR. SCOTT BRYANT
740-648-6038

SPRINT COMMUNICATIONS, INC.
11370 ENTERPRISE PARK DRIVE
SHARONVILLE, OHIO 45241
MR. STEVE HUGHES
513-459-5796

UTILITY PIPELINE, LTD.
(FKA PIKE NATURAL GAS)
P.O. BOX 249
HILLSBORO, OHIO 45133
MR. KIRK SEELING
330-498-9130, EXT. 405

THERE ARE NO EXISTING UNDERGROUND UTILITY FACILITIES SHOWN ON THIS PLAN, NOR WILL ANY EXISTING UNDERGROUND UTILITY FACILITIES BE RELOCATED FOR THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) FOR FIELD MARKINGS TO IDENTIFY POTENTIAL UTILITY CONFLICTS. WITH THE APPROVAL OF THE PROJECT ENGINEER, THE CONTRACTOR SHALL ADJUST THE PROJECT CONSTRUCTION ACCORDINGLY, SO AS TO AVOID DAMAGE TO THE EXISTING UTILITY FACILITIES.

EXISTING PLANS

EXISTING PLANS ENTITLED PIK-220-14.01 (2011), PIK-32-13.84 (2012), PIK-32-13.43 (2012) (ACCELERATION LANE) MAY BE INSPECTED IN THE ODOT DISTRICT 9 OFFICE IN CHILLICOTHE, OHIO.

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.

EXTRA AREAS

QUANTITIES FOR THE FOLLOWING EXTRA AREAS ARE SHOWN ON THE PAVEMENT CALCULATION SHEET:

TURN LANES: FULL WIDTH OR AS DIRECTED BY THE ENGINEER

MEDIAN CROSSOVERS: AS DIRECTED BY THE ENGINEER

OTHER DESIGNATED AREAS: AS DIRECTED BY THE ENGINEER

RPM

IN ADDITION TO CMS 621.03, RPM'S SHALL NOT BE INSTALLED ON BRIDGES OR APPROACH SLABS OF STRUCTURES WITH A CONCRETE WEARING SURFACE. INSTALL RPM'S IN THE ASPHALT CONCRETE BEFORE AND AFTER THE SUPERSTRUCTURE.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

ITEM 897 - PATCHING PLANED SURFACE

THE FOLLOWING ESTIMATED QUANTITY OF 20% OF THE PLANED SURFACE HAS BE CARRIED TO THE GENERAL SUMMARY FOR PATCHING PLANED SURFACE AS DESIGNATED BY THE ENGINEER.

ITEM 897, PATCHING PLANED SURFACE 37,570 SY

INTERIM COMPLETION DATES FOR PAVEMENT PLANING

TRAFFIC SHALL NOT BE REQUIRED TO USE ANY PLANED ROADWAY SURFACE FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, DISINCENTIVES SHALL BE ASSESSED IN THE AMOUNT OF $1000 FOR EACH CALENDAR DAY OR PORTION THEREOF BEYOND THE 21 CALENDAR DAYS.

ITEM 620, DELINEATOR MISC.; LONGITUDINAL CHANNELIZER, CATAGORY II

LONGITUDINAL CHANNELIZERS SHALL BE PROVIDED AS CALLED FOR IN THE PLANS. THIS ITEM SHALL COME FROM THE PRE-APPROVED PRODUCTS LIST LISTED ON ODOT'S WEB PAGE. A LONGITUDINAL CHANNELIZER CONSISTS OF A COMBINATION OF VERTICAL COMPONENTS AND LONGITUDINAL BASE COMPONENTS, FIT TOGETHER TO CREATE A CONTINUOUS CHANNELIZING DEVICE.

THE VERTICAL COMPONENT SHALL BE THE SHORTEST VERSION OFFERED BY THE MANUFACTURER. IT SHALL BE VISIBLE FROM ALL SIDES AND SHALL MATCH THE CORRESPONDING PAVEMENT MARKING COLOR. THE UPRIGHT SHALL HAVE A MINIMUM OF TWO 3-INCH WIDE RETROREFLECTIVE BANDS, PLACED A MAXIMUM OF 2 INCHES FROM THE TOP WITH A MAXIMUM OF 6 INCHES BETWEEN THE BANDS. THE LONGITUDINAL BASE COMPONENTS SHALL ALSO BE EQUIPPED WITH REFLECTORS.

THE LONGITUDINAL CHANNELIZER SHALL BE NCHRP 350 COMPLIANT AND IS INTENDED TO BE USED AS A PERMANENT INSTALLATION.

FOR INSTALLATION PROCEDURES, FOLLOW THE MANUFACTURER'S INSTRUCTIONS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THIS WORK WHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 609, DELINEATOR MISC.: LONGITUDINAL CHANNELIZER, CATAGORY II.

ITEM 202, REMOVAL, MISC.; LONGITUDINAL CHANNELIZER, CATAGORY II

THIS ITEM SHALL CONSIST OF REMOVAL AND DISPOSAL OF EXISTING LONGITUDINAL CHANNELIZER LOCATED AT SLM 20.00, WESTBOUND.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 202, REMOVAL, MISC.; LONGITUDINAL CHANNELIZER, CATAGORY II

285 FT

ITEM 516 - JOINT SEALER, AS PER PLAN

ITEM 516 SHALL APPLY. PLACE 1.5" DEEP X 1" WIDE HOT APPLIED JOINT SEALER, 705.04 SIMILAR TO THE ONE SHOWN ON DETAIL B IN SCD AS-1-15.

PAYMENT FOR THE WORK LISTED ABOVE SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - JOINT SEALER, AS PER PLAN AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MEANS, AND MATERIALS NECESSARY TO PERFORM ABOVE WORK.

CALCULATED BCB
CHECKED DMB

GENERAL NOTES

PIK-32-15.77
PART 1

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT.

BEFORE THE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAME(S) AND TELEPHONE NUMBER(S) OF OF A PERSON OR PERSONS WHO CAN BE CONTACTED TWENTY-FOUR (24) HOURS PER DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR PLACING OR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVEABLE PAVEMENT DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 CALENDAR DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 CALENDAR DAYS PRIOR TO CLOSURE
START OF CONST. & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO CLOSURE

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

THE CONTRACTOR SHALL ARRANGE FOR ALL MAINTENANCE OF TRAFFIC OPERATIONS SUCH THAT THERE WILL BE NO OBSTRUCTIONS TO THE CONTINUOUS FLOW OF TRAFFIC. ALL INTERSECTIONS AND DRIVEWAYS SHALL BE OPEN TO TRAFFIC AT ALL TIMES UNLESS OTHERWISE SHOWN IN THE PLAN.

ITEM 614, MAINTAINING TRAFFIC (cont'd)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS UNLESS PORTABLE BARRIER IS IN PLACE:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	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 OR EVENT	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 ONLY)	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 WILL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

LANE VALUE CONTRACT TABLE

DESCRIPTION OF CRITICAL LANE	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
1 LANE EB & WB OF PIK SR-32 FROM SLM 15.74 TO SLM 16.63 & FROM SLM 16.94 TO SLM 20.14	EACH MINUTE	$75.00

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.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 50 CY

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND OF THE TYPE AND LOCATION AS SHOWN IN THE PLANS.

ITEM 614, MAINTAINING TRAFFIC (cont'd)

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 OF 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.

THE FOLLOWING IS A SUGGESTED PHASING SEQUENCE FOR MAINTENANCE OF TRAFFIC AND CONSTRUCTION FOR THE THIS PROJECT. FOR DETAILS NOT SHOWN ON THESE PLANS, CONSULT THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS.

PHASE 1
SET UP TRAFFIC CONTROL IN ACCORDANCE WITH SCD MT-95.30 AND PERFORM PAVEMENT PLANING AND RESURFACING ON THE EASTBOUND AND WESTBOUND PASSING LANES OF SR-32, INCLUDING EXISTING SHOULDERS.

PHASE 2
SET UP TRAFFIC CONTROL IN ACCORDANCE WITH SCD MT-95.30 AND PERFORM PAVEMENT PLANING AND RESURFACING ON THE EASTBOUND AND EASTBOUND DRIVING LANES OF SR-32, INCLUDING EXISTING SHOULDERS.

PHASE 3
SET UP TRAFFIC CONTROL IN ACCORDANCE WITH SCD MT-95.30 AND PERFORM ANY REMAINING WORK, AND PLACE THE PERMANENT PAVEMENT MARKINGS.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

ITEM 614, WORK ZONE, MARKING SIGN	10	EACH
ITEM 614, WORK ZONE, LANE LINE, CLASS II, 6"	16.20	MILE
ITEM 614, WORK ZONE EDGE LINE, CLASS I, 4", 740.06, TYPE 1	0.57	MILE
ITEM 614, WORK ZONE, CHANNELIZING LINE, CLASS III, 12", 642 PAINT	4559	FT
ITEM 614, WORK ZONE, DOTTED LINE, CLASS I, 4", 740.06 TYPE I	2640	FT

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 1 M. GAL.

CALCULATED BCB CHECKED DMB

MAINTENANCE OF TRAFFIC GENERAL NOTES

PIK-32-15.77
PART 1

4
14

WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBER	COUNTY & ROUTE	DIRECTION
WZ-50333	PIK-32-15.77	EB/WB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRECONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION.

WORK ZONE SPEED ZONES (WZSZS), (cont'd)

WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 32 SNMT

ASSUMING 12 DSL SIGN ASSEMBLY(IES) FOR 3 MONTH(S)

CALCULATED BY:
SPACING = 1.0 MILES FOR SPEED ZONE AREA
SLM 15.75 - SLM 20.14 = 4.39
4.39/1.0 = 4.39 SIGNS OR 5 SIGNs + 1 (1st SIGN) = 6
BOTH EB & WB = 6 X 2 = 12 SIGNS
NUMBER OF ENTRANCE RAMPS = 0 SIGNS
NUMBER OF WORK ZONE SPEED LIMIT SIGNS FOR THIS WORK ZONE SPEED ZONE = 12+0 = 12

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $50 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 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.

THE 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 SHUTDOWNS.

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A), (cont'd)

THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.

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 RE-ERECTED 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 MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALTIES SIGN 17 EACH

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS, PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (cont'd)

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 4 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRE-CONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT. THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 6 SNMT

ASSUMING 2 PCMS SIGN(S) FOR 3 MONTH(S)

CALCULATED BCB CHECKED DMB

MAINTENANCE OF TRAFFIC GENERAL NOTES

PIK-32-15.77 PART 1

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/ SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONT'D)

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 40 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

CALCULATED BCB CHECKED DMB

GENERAL NOTES OF TRAFFIC MAINTENANCE

PIK-32-15.77 PART 1

6 14

SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
		3	4	5	6	9	10	11	14				02/NHS/ PV		EXT	TOTAL			
																		ROADWAY	
		LS											LS	201	11000	LS		CLEARING AND GRUBBING	
		285											285	202	98200	285	FT	REMOVAL MISC.: LONGITUDINAL CHANNILIZER, CATEGORY II	3
																		EROSION CONTROL	
													1,000	832	30000	1,000	EACH	EROSION CONTROL	
																		PAVEMENT	
									211				211	202	23500	211	SY	WEARING COURSE REMOVED	
									1,633				1,633	254	01000	1,633	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	
									700				700	254	01000	700	SY	PAVEMENT PLANING, ASPHALT CONCRETE, VARIABLE THICKNESS, 1.5" MIN.	
									562				562	254	01010	562	SY	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, 1.5"	
						15,906			200				16,106	407	10000	16,106	GAL	TACK COAT	
									48				48	407	13900	48	GAL	TACK COAT, 702.13	
						5,198							5,198	424	12000	5,198	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B	
									122				122	442	20000	122	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), 1.5"	
									88				88	442	20000	88	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), (VARIABLE THICKNESS)	
									168				168	516	31001	168	FT	JOINT SEALER, AS PER PLAN	3
						518							518	617	10100	518	CY	COMPACTED AGGREGATE	
						15.94							15.94	618	40600	15.94	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
						187,128							187,128	897	01010	187,128	SY	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A, 0.75"	
		37,570											37,570	897	02000	37,570	SY	PATCHING PLANED SURFACE	
																		TRAFFIC CONTROL	
							3						3	620	60500	3	EACH	REMOVAL OF DELINEATOR, POST SURFACE MOUNTED	
							310						310	620	70010	310	FT	DELINEATOR, MISC.:LONGITUDINAL CHANNILIZER, CATEGORY II	3
								671					671	621	00100	671	EACH	RPM	
								671					671	621	54000	671	EACH	RAISED PAVEMENT MARKER REMOVED	
							2						2	630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
							16.12						16.12	644	00104	16.12	MILE	EDGE LINE, 6"	
							8.06						8.06	644	00204	8.06	MILE	LANE LINE, 6"	
							0.05						0.05	644	00300	0.05	MILE	CENTER LINE	
							4,599						4,599	644	00404	4,599	FT	CHANNELIZING LINE, 12"	
							32						32	644	00500	32	FT	STOP LINE	
							1,452						1,452	644	00700	1,452	FT	TRANSVERSE/DIAGONAL LINE	
							475						475	644	00900	475	SF	ISLAND MARKING	
							27						27	644	01300	27	EACH	LANE ARROW	
							2,638						2,638	644	01510	2,638	FT	DOTTED LINE, 6"	
							0.08						0.08	646	10010	0.08	MILE	EDGE LINE, 6"	
							0.04						0.04	646	10110	0.04	MILE	LANE LINE, 6"	
																		MAINTENANCE OF TRAFFIC	
					40								40	614	11110	40	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
			10										10	614	12460	10	EACH	WORK ZONE MARKING SIGN	
				17									17	614	12484	17	EACH	WORK ZONE INCREASED PENALTIES SIGN	
			50										50	614	13000	50	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
				6									6	614	18601	6	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	5
			16.2										16.2	614	20410	16.2	MILE	WORK ZONE LANE LINE, CLASS II, 6"	
			0.57										0.57	614	22200	0.57	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 740.06, TYPE I	
			4,559										4,559	614	23690	4,559	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
			2,640										2,640	614	24400	2,640	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 740.06, TYPE I	

CALCULATED BCB
CHECKED DMB

GENERAL SUMMARY

PIK-32-15.77
PART 1

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			3	4	5	6	9	10	11	14			02/NHS/ PV						
																		MAINTENANCE OF TRAFFIC	
				1									1	616	10000	1	MGAL	WATER	
					32								32	808	18700	32	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
																		INCIDENTALS	
				LS									LS	614	11000	LS		MAINTAINING TRAFFIC	
													1	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													1	624	10000	LS		MOBILIZATION	

CALCULATED BCB
CHECKED DMB

GENERAL SUMMARY

PIK-32-15.77
PART 1

8
14

LOCATION					PAVEMENT DATA							407	424	897		617	618	
COUNTY-ROUTE DIRECTION	LOG POINT		LENGTH		PAVEMENT WIDTH	PAVEMENT AREA	SHOULDER WIDTH		SHOULDER AREA	CADD MEASURED CORES & TAPERS, & CROSSOVERS (PAVEMENT AREA VARIES)	TOTAL PAVEMENT AREA	TACK COAT (0.085 GAL/SY)	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B	PAVEMENT PLANING ASPHALT CONCRETE, CLASS A		COMPACTED AGGREGATE	RUMBLE STRIPS (ASPHALT CONCRETE)	COMMENTS
													1"	0.75"		1"		
	SLM	TO SLM	MILES	FT	FT	SY	FT	FT	SY	SY	SY	GALLON	CY	SY		CY	MILE	
PIK-SR-32 EB	15.7745	15.7934	0.0189	99.79	SEE BRIDGE SHEETS FOR STRUCTURE PIK-32-1574 R													
	15.7934	16.6300	0.8366	4,417.25	24	11,779.33	4	10	6,871.27		18,650.60	1,585.30	518.07	18,650.60		54.53	1.68	
	16.6300	16.9400	0.3100	1,636.80														SUSPEND/RESUME PAVING - MATCH BEGIN/END OF PIK-32-17.58, PART 2
	16.9400	17.6330	0.6930	3,659.04	24	9,757.44	4	10	5,691.84		15,449.28	1,313.19	429.15	15,449.28		45.17	1.40	
	17.6330	17.6983	0.0653	344.78	SEE BRIDGE SHEET FOR STRUCTURE PIK-32-1765 R													
	17.6983	20.1353	2.4370	12,867.36	24	34,312.96	4	10	20,015.89		54,328.85	4,617.95	1,509.13	54,328.85		158.86	4.88	END PROJECT AT REAR APPROACH SLAB OF PIK-32-2014
EXTRA AREAS																		
BEAVER CREEK RD.	16.08									410.00		34.85	11.39	410.00				MEDIAN CROSSOVER
LEFT TURN LANE	16.01									470.99		40.03	13.08	470.99				LEFT TURN LANE
SCHUSTER RD RT	18.57									892.83		75.89	24.80	892.83				MEDIAN CROSSOVER
										655.59		55.73	18.21	655.59				LEFT TURN LANE TO SR 220
TIPTON LANE	19.36									607.98		51.68	16.89	607.98				MEDIAN CROSSOVER
										759.16		64.53	21.09	759.16				LEFT TURN LANE
GERMANY RD, RT	20.00									884.21		75.16	24.56	884.21				MEDIAN CROSSOVER
										444.87		37.81	12.36	444.87				RIGHT TURN LANE TO GERMANY ROAD
PIK-SR-32 WB	15.7745	15.7934	0.0189	99.79	SEE BRIDGE SHEETS FOR STRUCTURE PIK-32-1574 R													
	15.7934	16.6300	0.8366	4,417.25	24	11,779.33	4	10	6,871.27		18,650.60	1,585.30	518.07	18,650.60		54.53	1.68	
	16.6300	16.9400	0.3100	1,636.80														SUSPEND/RESUME PAVING - MATCH BEGIN/END OF PIK-32-17.58, PART 2
	16.9400	17.6330	0.6930	3,659.04	24	9,757.44	4	10	5,691.84		15,449.28	1,313.19	429.15	15,449.28		45.17	1.40	
	17.6330	17.6888	0.0558	294.62	SEE BRIDGE SHEET FOR STRUCTURE PIK-32-1765 R													
	17.6888	20.1353	2.4465	12,917.52	24	34,446.72	4	10	20,093.92		54,540.64	4,635.95	1,515.02	54,540.64		159.48	4.90	END PROJECT AT REAR APPROACH SLAB OF PIK-32-2014
EXTRA AREAS																		
SR-220 LT/SCHUSTER RD RT	18.57																	
										632.90		53.80	17.58	632.90				LEFT TURN LANE TO SCHUSTER RD
TIPTON LANE	19.36																	
										563.44		47.89	15.65	563.44				LEFT TURN LANE
BEAVER CREEK RD/GERMANY RD	20.00									3,048.68		259.14	84.69	3,048.68				LT. LN TURN TO GERMANY RD, ACCELERATION LN & WHITE TRANSVERSE LINE AREA
										525.48		44.67	14.60	525.48				RIGHT TURN LANE TO BEAVER CREEK RD
										162.60		13.82	4.52	162.60				ON LANE TO WB SR-32 & PAV'T AREA IN FRONT OF CONCRETE ISLAND
											SUB-TOTALS	15,905.88	5,198.00	187,127.99		517.75	15.94	
											TOTALS CARRIED TO GENERAL SUMMARY	15,906	5,198	187,128		518	15.94	

CALCULATED BCB
CHECKED DMB

PAVEMENT CALCULATIONS

PIK-32-15.77
PART 1

LOCATION	LOG POINT FROM SLM	LOG POINT TO SLM	LENGTH MILE	620 REMOVAL OF DELINEATOR, POST SURFACE MOUNTED EACH	620 DELINEATOR, MISC.: LONGITUDINAL CHANNELIZER, CATEGORY II FT	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	644 EDGE LINE, 6" (YELLOW) MILE	644 EDGE LINE, 6" (WHITE) MILE	644 LANE LINE, 6" MILE	644 CENTER LINE (DOUBLE SOLID) MILE	644 CHANNELIZING LINE, 12" FT		644 STOP LINE FT	644 TRANSVERSE / DIAGONAL LINE (WHITE) FT		644 TRANSVERSE / DIAGONAL LINE (YELLOW) FT		644 ISLAND MARKING SF	644 LANE ARROW LEFT TURN EACH	644 LANE ARROW RIGHT TURN EACH	644 LANE ARROW MERGE (RIGHT) EACH	644 DOTTED LINE, 6" (WHITE) FT	644 DOTTED LINE, 6", (YELLOW) FT	646 EDGE LINE, 6" (YELLOW) MILE	646 EDGE LINE, 6" (WHITE) MILE	646 LANE LINE, 6" MILE	COMMENTS
PIK-32 EB & WB	15.7747	16.6300	0.86				1.71	1.71	1.71																		
PIK-32 EB & WB	16.6300	16.9400	0.31																								SUSPEND/RESUME PAVING
PIK-32 EB & WB	16.9400	17.6500	0.71				1.42	1.42	1.42																		
PIK-32 EB & WB	17.6500	17.6708	0.02																						0.04	0.04	0.04	PIK-32-1765 R (BRIDGE DECK ONLY)
PIK-32 EB & WB	17.6708	20.1353	2.46				4.93	4.93	4.93																		
EB EXTRA AREAS																											
BEAVER CREEK RD.	16.08																										
LEFT TURN LANE											310								4			136					
SR 220 LT/SCHUSTER RD RT	18.57																										
LEFT TURN LANE											417			100			168	3			189					INCLUDES CHANNELIZING LINE BORDER OF TRANSVERSE LINE AREA
SCHUSTER RD																					100					INTERSECTING ROAD RT
TIPTON LANE	19.36																										
LEFT TURN LANE											471			95		96	2			176					INCLUDES CHANNELIZING LINE BORDER OF TRANSVERSE LINE AREA
TIPTON LANE																				75							INTERSECTING ROAD RT
GERMANY RD/ BEAVER CREEK	20.00																										
GERMANY RD										0.01			32							112						INTERSECTING ROAD RT
RIGHT TURN LANE											278							3									
MAINLINE/CROSSOVER																					77					FROM GERMANY RD'S CENTERLINE TO WB 32 YELLOW EDGE LINE
																					60					FROM WB LEFT TURN LANE TO GERMANY RD CENTERLINE
WB EXTRA AREAS																											
BEAVER CREEK RD.	16.08																										
MEDIAN																					78						
SR 220 LT/SCHUSTER RD RT	18.57																										
LEFT TURN LANE											523			102		149	3			179							
SR 220																				150						INTERSECTING ROAD LT
TIPTON LANE	19.36																			110						INTERSECTING ROAD LT
LEFT TURN LANE											408			95		62	3									INCLUDES CHANNELIZING LINE BORDER OF TRANSVERSE LINE AREA
GERMANY RD/ BEAVER CREEK	20.00																										
RIGHT TURN LANE											300							3		74							
CONCRETE ISLAND											162			101												BORDER OF TRANSVERSE LINE AREA
BEAVER CREEK RIGHT OUT LANE																				56							
LEFT TURN LANE											130							3								YIELD BAR MARKINGS NOT TO BE REPLACED
LEFT TURN YELLOW TRANSVERSE AREA										0.04					161											CENTER LINE IS THE BORDER OF YELLOW TRANSVERSE LINE AREA
WB WHITE TRANSVERSE AREA				3	310						802			798												CHANNELIZING LINE IS BORDER OF WHITE TRANSVERSE AREA
ACCELERATION LANE						2					396	402							3	932						YIELD SIGNS TO BE REMOVED, YIELD BAR MARKINGS NOT TO BE REPLACED
SUB-TOTALS				3	310	2	8.06	8.06	8.06	0.05	4197	402	32	1291	161	475	18	6	3	2423	215	0.04	0.04	0.04		
TOTALS CARRIED TO GENERAL SUMMARY				3	310	2	16.12		8.06	0.05	4599		32	1452		475	27			2638		0.08		0.04		

CALCULATED BCB
CHECKED DMB

PAVEMENT MARKING SUB-SUMMARY

PIK-32-15.77 PART 1

DETAIL	STANDARD DRAWING TC-65.10
1	EDGE LINE
2	CHANNELIZING LINE
3	LANE LINE
4	CENTER LINE

DETAIL	STANDARD DRAWING TC-65.11
5	ENTRANCE RAMP
6	EXIT RAMP
7	4 LANE DIVIDED TO 2 LANE TRANSITION
8	4 LANE UNDIVIDED TO 2 LANE TRANSITION
9	MULTILANE DIVIDED HIGHWAY

DETAIL	STANDARD DRAWING TC-65.11
10	APPROACH W/ LEFT TURN LANE
11	STOP APPROACH
12	TWO WAY LEFT TURN LANE
13	ONE LANE BRIDGE
14	HORIZONTAL CURVE

							REFLECTOR TYPE											621		REMARKS
							ONE WAY			TWO WAY										
							WHITE		YELLOW	WHITE RED				YELLOW YELLOW			YELLOW RED	RPM	RAISED PAVEMENT MARKER REMOVED	
LOCATION	SLM	SLM	LENGTH	LENGTH	DIRECTION	DETAIL	RIGHT EDGE LINE		LEFT EDGE LINE	EDGE LINE		CHANNELIZING LINE		LANE LINE	YELLOW TRANSVERSE LINE		CENTER LINE	RAMP		
	MILE	MILE	MILE	FT			40′	80′	80′	40′	80′	40′	80′	80′	40′	80′	80′	80′	EACH	EACH	
SR-32 EB	15.7747	16.6300	0.8553	4,515.98	EB									58					58	58	SUSPEND @SLM 16.63
	16.9400	17.6500	0.7100	3,748.80	EB									48					48	48	RESUME @ SLM 16.94, SKIP PIK-32-1765 BRIDGE DECK
	17.6708	20.1353	2.4645	13,012.56	EB									164					164	164	
SR-32 WB	15.7747	16.6300	0.8553	4,515.98	WB									58					58	58	SUSPEND @SLM 16.63
	16.9400	17.6500	0.7100	3,748.80	WB									48					48	48	RESUME @ SLM 16.94, SKIP PIK-32-1765 BRIDGE DECK
	17.6708	20.1353	2.4645	13,012.56	WB									164					164	164	
EB EXTRA AREAS																					
BEAVER CREEK RD.	16.08																				
LEFT TURN LANE				310		2						9							9	9	
SR 220/SCHUSTER RD	18.57																				
LEFT TURN LANE				70		2						3							3	3	
TRANSVERSE AREA				177		2						9							9	9	
TIPTON LANE	19.36																				
LEFT TURN LANE				108		2						4							4	4	
TRANSVERSE AREA				174		2						9							9	9	
GERMANY RD	20.00																				
RIGHT TURN LANE				278		2						8							8	8	
WB EXTRA AREAS																					
SR 220/SCHUSTER RD	18.57																				
LEFT TURN LANE				90		2						4							4	4	
TRANSVERSE AREA				165								8							8	8	
TIPTON LANE	19.36																				
LEFT TURN LANE				115		2						4							4	4	
TRANSVERSE AREA				140		2						7							7	7	
GERMANY RD	20.00																				
WB ACCELERATION LANE				402		2						20							20	20	CHANNELIZING LINES, NO TRANSVERSE AREA
WHITE TRANSVERSE AREA				802		2						20							20	20	
LEFT TURN LANE				128		2						5							5	5	
LEFT TURN MEDIAN AREA				198		4											6		6	6	
CONCRETE ISLAND				162		2						6							6	6	
RIGHT TURN LANE				300		2						9							9	9	
TOTALS CARRIED TO THE GENERAL SUMMARY																			671	671	

CALCULATED BCB CHECKED DMB

RAISED PAVEMENT MARKER SUB-SUMMARY

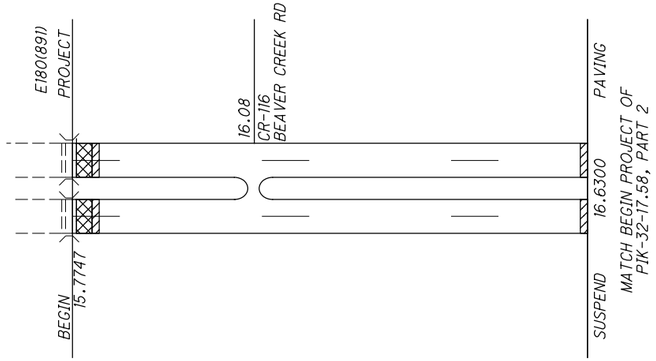
PIK-32-15.77 PART 1

11 / 14

PIK-32-1574 L

FWD. APPROACH SLAB
SLM 15.7745 - SLM 15.7792

PAVEMENT TRANSITION
SLM 15.7792 - SLM 15.7934



PIK-32-1574 R

FWD. APPROACH SLAB
SLM 15.7745 - SLM 15.7792

PAVEMENT TRANSITION
SLM 15.7792 - SLM 15.7934

STOP WORK AT REAR
APPROACH SLABS OF
STRUCTURE 2014, EB & WB

PIK-32-1765 L

PAVEMENT TRANSITION
SLM 17.6333 - SLM 17.6472

FWD APPROACH SLAB
SLM 17.6708 - SLM 17.6746

REAR APPROACH SLAB
SLM 17.6472 - SLM 17.6500

PAVEMENT TRANSITION
SLM 17.6746 - SLM 17.6888

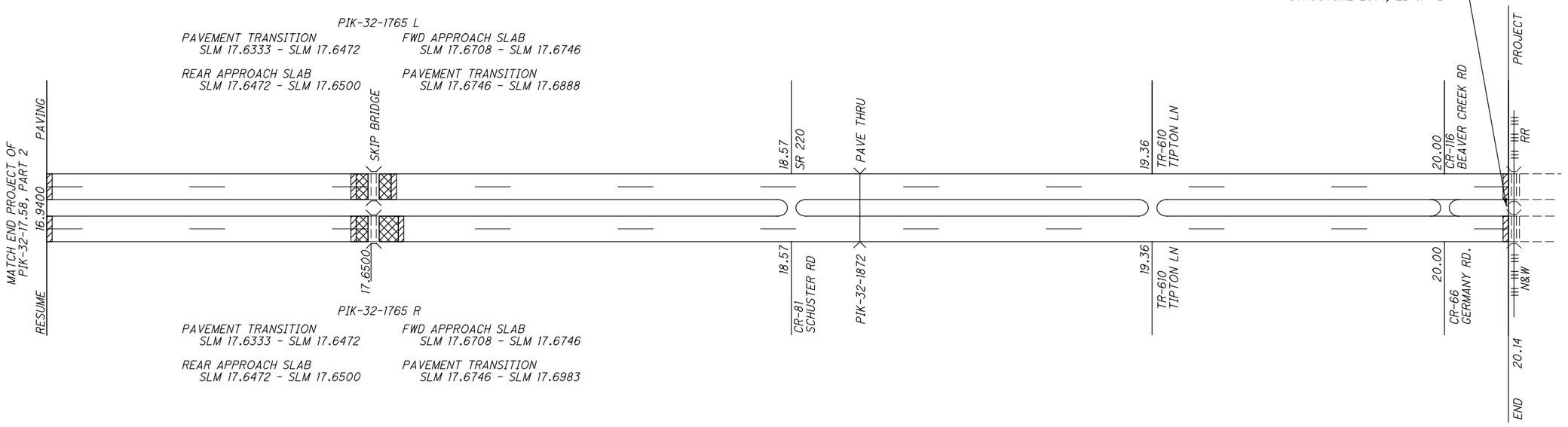
PIK-32-1765 R

PAVEMENT TRANSITION
SLM 17.6333 - SLM 17.6472

FWD APPROACH SLAB
SLM 17.6708 - SLM 17.6746

REAR APPROACH SLAB
SLM 17.6472 - SLM 17.6500

PAVEMENT TRANSITION
SLM 17.6746 - SLM 17.6983



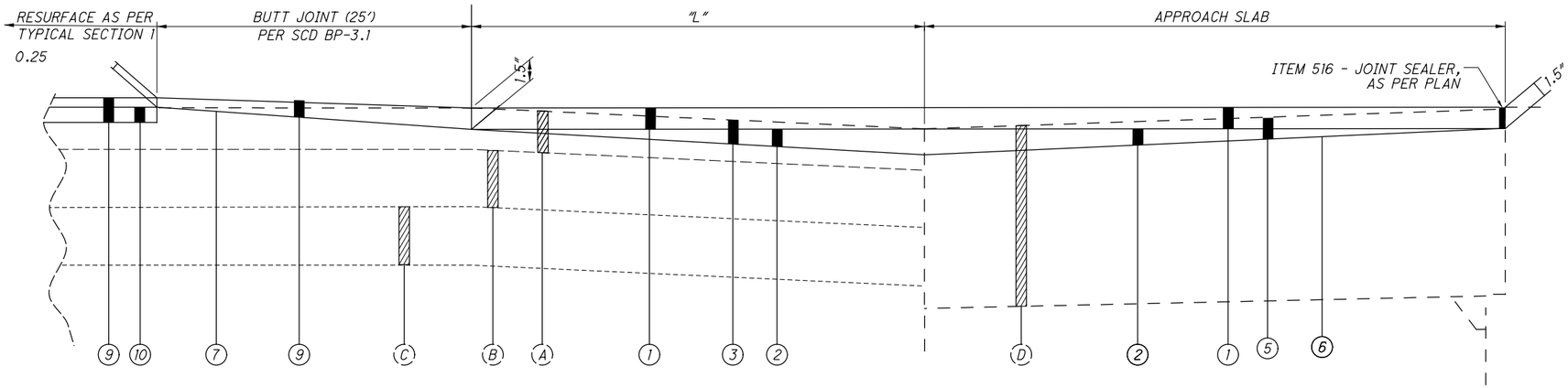
BUTT JOINT AS PER BP-3.1

APPROACH PAVEMENT TRANSITION

CALCULATED BCB
CHECKED DMB

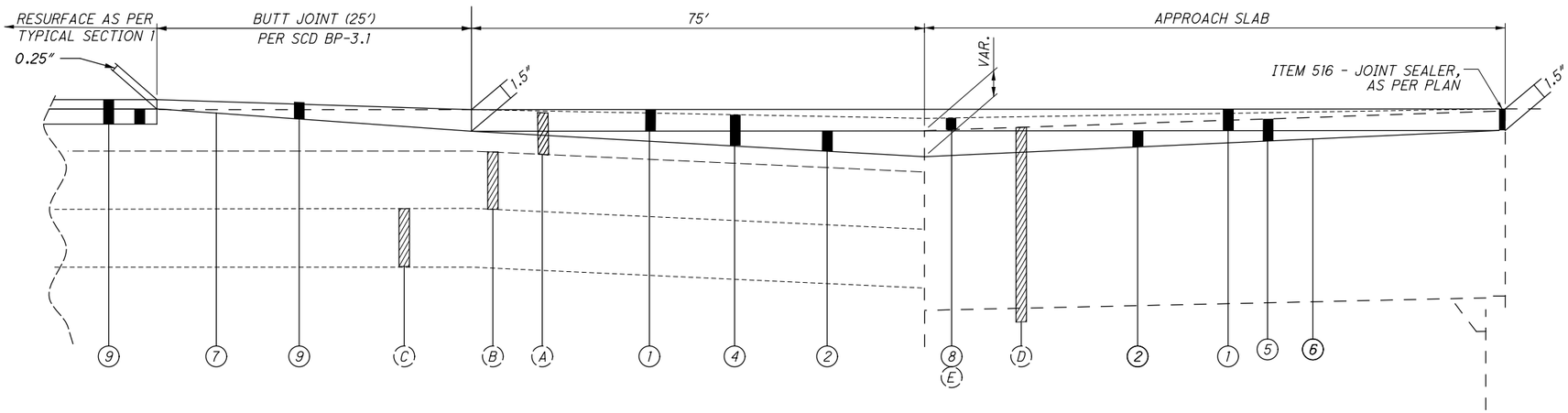
PAVEMENT LINE DIAGRAM

PIK-32-15.77
PART 1



THE ABOVE DETAIL APPLIES TO THE FOLLOWING STRUCTURES WITHOUT ASPHALT CONCRETE OVERLAY ON APPROACH SLABS:

PIK-32-1574 L - FORWARD APPROACH SLAB
PIK-32-1765 L - REAR APPROACH SLAB
PIK-32-1765 R - REAR & FORWARD APPROACH SLABS



THE ABOVE DETAIL APPLIES TO THE FOLLOWING STRUCTURES WITH ASPHALT CONCRETE OVERLAY ON APPROACH SLABS:

PIK-32-1574 R - FORWARD APPROACH SLAB
PIK-32-1765 L - FORWARD APPROACH SLAB

PROPOSED PAVEMENT LEGEND

(1) 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)

(2) 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448) (VARIABLE THICKNESS)

(3) 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"

(4) 254 - 1.5" PAVEMENT PLANING, ASPHALT CONCRETE, (VARIABLE THICKNES), 1.5" MIN.

(5) 254 - PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, 1.5"

(6) 407 - TACK COAT, 702.13

(7) 407 - TACK COAT

(8) 202 - WEARING COURSE REMOVED

(9) 424 - 1" FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B

(10) 897 - 0.75" PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A

EXISTING PAVEMENT LEGEND

(A) ±2.75" ASPHALT CONCRETE

(B) ±8" ASPHALT BASE

(C) ±8 AGGREGATE BASE

(D) ±15" THICK REINFORCED CONCRETE APPROACH SLAB

(E) 2" AVG. THICK EX. ASPHALT CONCRETE

CALCULATED BCB
CHECKED DMB

PAVEMENT DETAILS AT STRUCTURES

PIK-32-15.77
PART 1

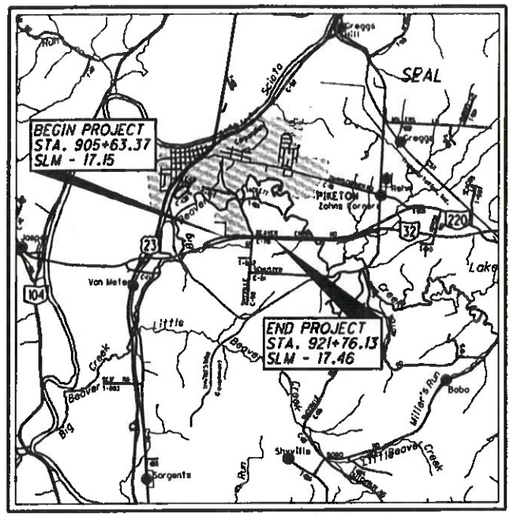
BRIDGE LOCATION	WIDTH	LENGTH (L)	DECK AREA	APPROACH SLAB AREA	PAVEMENT TRANSITION AREA	202 WEARING COURSE REMOVED	254 PAVEMENT PLANING, ASPHALT CONCRETE 1.5"	254 PAVEMENT PLANING, ASPHALT CONCRETE, (VARIABLE THICKNESS), 1.5" MIN.	254 PAVEMENT PLANING, PORTLAND CEMENT CONCRETE 1.5"	407 TACK COAT	407 TACK COAT, 702.13	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448) 1.5"	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448), (VARIABLE THICKNESS) 1.5"	516 JOINT SEALER, AS PER PLAN			COMMENTS
	FT	FT	SY	SY	SY	SY	SY	SY	SY	GAL	GAL	CY	CY	FT			
PIK-32-1574 R SFN: 6601901																	OVER BIG BEAVER CREEK
SLM 15.7400 - SLM 15.7745	42	182	849.33														
FWD. APPROACH SLAB SLM 15.7745 - SLM 15.7792	42	25		116.67		116.67			116.67		9.92	4.86	4.86	42.00			EXISTING ASPHALT OVERLAY ON APPROACH SLAB
PAVEMENT TRANSITION SLM 15.7792 - SLM 15.7934	42	75			350.00			350.00		29.75		14.58	14.58				
STRUCTURE SUB-TOTAL						116.67	0.00	350.00	116.67	29.75	9.92	19.44	19.44	42.00			
STRUCTURE TOTALS						117	0	350	117	30	10	20	20	42			
PIK-32-1574 L SFN: 6601871																	OVER BIG BEAVER CREEK
SLM 15.7400 - SLM 15.7745	42	182	849.33														
FWD. APPROACH SLAB SLM 15.7745 - SLM 15.7792	42	25		116.67					116.67		9.92	4.86	4.86	42.00			NO ASPHALT OVERLAY ON APPROACH SLAB
PAVEMENT TRANSITION SLM 15.7792 - SLM 15.7934	42	75			350.00		350.00			29.75		14.58	14.58				
STRUCTURE SUB-TOTAL						0.00	350.00	0.00	116.67	29.75	9.92	19.44	19.44	42.00			
STRUCTURE TOTALS						0	350	0	117	30	10	20	20	42			
PIK-32-1765 R SFN: 6601812																	OVER BIG BEAVER CREEK
PAVEMENT TRANSITION SLM 17.6330 - SLM 17.6472	42	75			350.00		350.00			29.75		14.58	14.58				
REAR APP. SLAB SLM 17.6472 - SLM 17.6500	42	15		70.00					70.00		5.95	2.92	2.92	42.00			NO EXISTING ASPHALT OVERLAY ON APPROACH SLAB
SLM 17.6500 - SLM 17.6708	42	182	849.33														
FWD. APPROACH SLAB SLM 17.6708 - SLM 17.6746	42	20		93.33					93.33		7.93	3.89	3.89	42.00			NO EXISTING ASPHALT OVERLAY ON APPROACH SLAB
PAVEMENT TRANSITION SLM 17.6746 - SLM 17.6983	42	125			583.33		583.33			49.58		24.31	24.31				
STRUCTURE SUB-TOTAL						0.00	933.33	0.00	163.33	79.33	13.88	45.69	28.19	84.00			
STRUCTURE TOTALS						0	933	0	164	80	14	46	29	84			
PIK-32-1765 L SFN: 6601790																	OVER BIG BEAVER CREEK
PAVEMENT TRANSITION SLM 17.6330 - SLM 17.6472	42	75			350.00		350.00			29.75		14.58	14.58				
REAR APP. SLAB SLM 17.6472 - SLM 17.6500	42	15		70.00					70.00		5.95	2.92	2.92	42.00			NO EXISTING ASPHALT OVERLAY ON APPROACH SLAB
SLM 17.6500 - SLM 17.6708	42	182	849.33														
FWD. APPROACH SLAB SLM 17.6708 - SLM 17.6746	42	20		93.33		93.33			93.33		7.93	3.89	3.89	42.00			EXISTING ASPHALT OVERLAY ON APPROACH SLAB
PAVEMENT TRANSITION SLM 17.6746 - SLM 17.6888	42	75			350.00			350.00		29.75		14.58	14.58				
STRUCTURE SUB-TOTAL						93.33	350.00	350.00	163.33	59.50	13.88	35.97	18.47	84.00			
STRUCTURE TOTALS						94	350	350	164	60	14	36	19	84			
PIK-32-1872 N SFN: 6601936																	TRIBUTARY TO BIG BEAVER CREEK
PAVE THRU																	
TOTALS CARRIED TO GENERAL SUMMARY						**211**	**1633**	**700**	**562**	**200**	**48**	**122**	**88**	**168**			

I:\ProjectData\PIK\108734_PIK_32.1679\Design\Roadway\Sheets\108734_S000L.dgn Sheet 1/27/2020 8:44:9 AM bbrown

CALCULATED BCB CHECKED DMB

STRUCTURES (OVER 20 FOOT SPAN)

PIK-32-15.77
PART 1



LOCATION MAP

LATITUDE: 39°03'07" LONGITUDE: 82°59'42"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED

INTERSTATE HIGHWAY

FEDERAL ROUTES

STATE ROUTES

COUNTY & TOWNSHIP ROADS

OTHER ROADS

FOR DESIGN DESIGNATION AND DESIGN EXCEPTION INFORMATION, SEE SHEET 2.

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

PIK-32-17.15 PART 2

SEAL TOWNSHIP

PIKE COUNTY

FOR PART 1, SEE PIK-32-15.77

INDEX OF SHEETS:

PROJECT DESCRIPTION

THIS SAFETY PROJECT INVOLVES THE REMOVAL OF THE EXISTING SIGNAL AT C.R. 58 (SHYVILLE ROAD) AND INSTALLING AN RCUT INTERSECTION, ADDING OR EXTENDING RIGHT TURN LANES ON S.R. 32 AND MILL/FILL 0.31 MILES ALONG S.R. 32 AND 0.26 MILES ALONG C.R. 58. THIS PROJECT WILL ALSO INCLUDE DRAINAGE, TRAFFIC CONTROL AND LIGHTING.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 2.26 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.28 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 4.90 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED Michael B. Colbert
DATE 01-27-2020 DISTRICT DEPUTY DIRECTOR

APPROVED Jack Marchbanks Jr.
DATE 3/5/20 DIRECTOR, DEPARTMENT OF TRANSPORTATION

					SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
		SEE PART 1			SEE PART 1	SEE PART 1

FEDERAL PROJECT NO. E180(891)

PID NO. 108734

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

PIK-32-17.15

1/111

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:

Stantec
1500 Lake Shore Drive, Suite 100
Columbus, Ohio 43204
(614) 486-4383

ENGINEERS SEAL:
FOR SHEETS 8-56 & 94-111
STATE OF OHIO PAUL J. DURHAM E-81699 REGISTERED PROFESSIONAL ENGINEER
SIGNED:
DATE: 1/24/2020

ENGINEERS SEAL:
FOR SHEETS 1-7 & 57-93
STATE OF OHIO ANGELA L. BOYCE 71465 REGISTERED PROFESSIONAL ENGINEER
SIGNED: Angela L Boyce
DATE: 1/24/2020

S.R. 32
EX. CURVE NO. 1

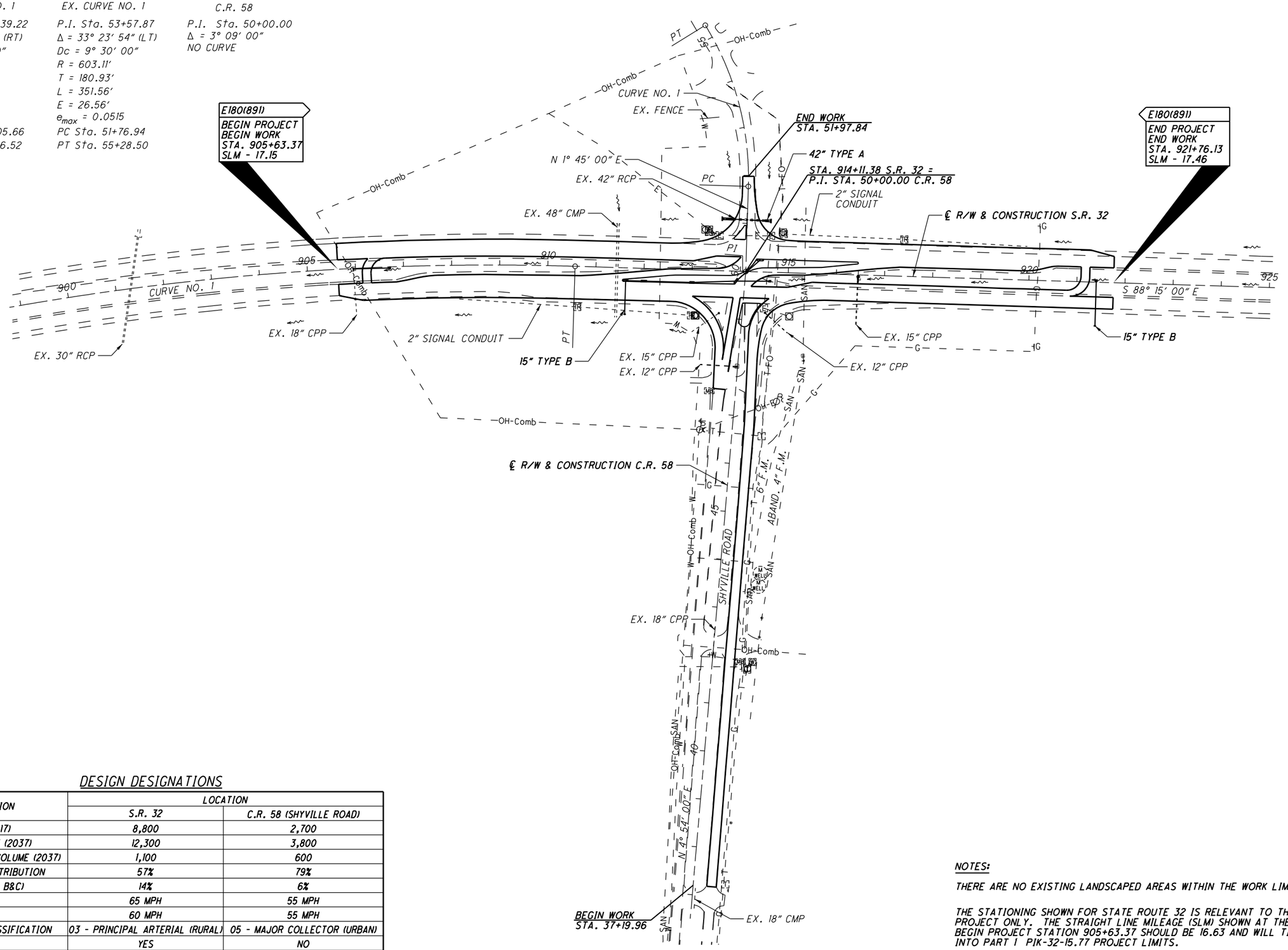
P.I. Sta. 901+39.22
Δ = 18° 30′ 31″ (RT)
Dc = 1° 00′ 00″
R = 5,729.58′
T = 933.56′
L = 1,850.86′
E = 75.56′
e_{max} = 0.032
PC Sta. 892+05.66
PT Sta. 910+56.52

C.R. 58
EX. CURVE NO. 1

P.I. Sta. 53+57.87
Δ = 33° 23′ 54″ (LT)
Dc = 9° 30′ 00″
R = 603.11′
T = 180.93′
L = 351.56′
E = 26.56′
e_{max} = 0.0515
PC Sta. 51+76.94
PT Sta. 55+28.50

C.R. 58

P.I. Sta. 50+00.00
Δ = 3° 09′ 00″
NO CURVE



DESIGN DESIGNATIONS

DESIGN DESIGNATION	LOCATION	
	S.R. 32	C.R. 58 (SHYVILLE ROAD)
CURRENT ADT (2017)	8,800	2,700
DESIGN YEAR ADT (2037)	12,300	3,800
DESIGN HOURLY VOLUME (2037)	1,100	600
DIRECTIONAL DISTRIBUTION	57%	79%
TRUCKS (24 HOUR B&C)	14%	6%
DESIGN SPEED	65 MPH	55 MPH
LEGAL SPEED	60 MPH	55 MPH
FUNCTIONAL CLASSIFICATION	03 - PRINCIPAL ARTERIAL (RURAL)	05 - MAJOR COLLECTOR (URBAN)
NHS PROJECT	YES	NO
DESIGN EXCEPTIONS	NONE	NONE

NOTES:

THERE ARE NO EXISTING LANDSCAPED AREAS WITHIN THE WORK LIMITS.

THE STATIONING SHOWN FOR STATE ROUTE 32 IS RELEVANT TO THIS PROJECT ONLY. THE STRAIGHT LINE MILEAGE (SLM) SHOWN AT THE BEGIN PROJECT STATION 905+63.37 SHOULD BE 16.63 AND WILL TIE INTO PART 1 PIK-32-15.77 PROJECT LIMITS.

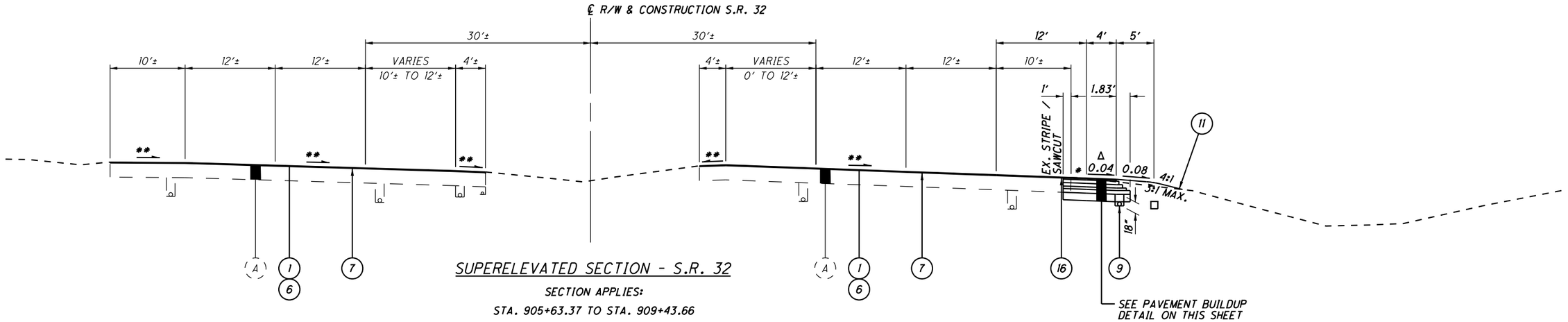
N

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED SLP
CHECKED ALB

SCHEMATIC PLAN

PIK-32-17.15



SUPERELEVATED SECTION - S.R. 32

SECTION APPLIES:

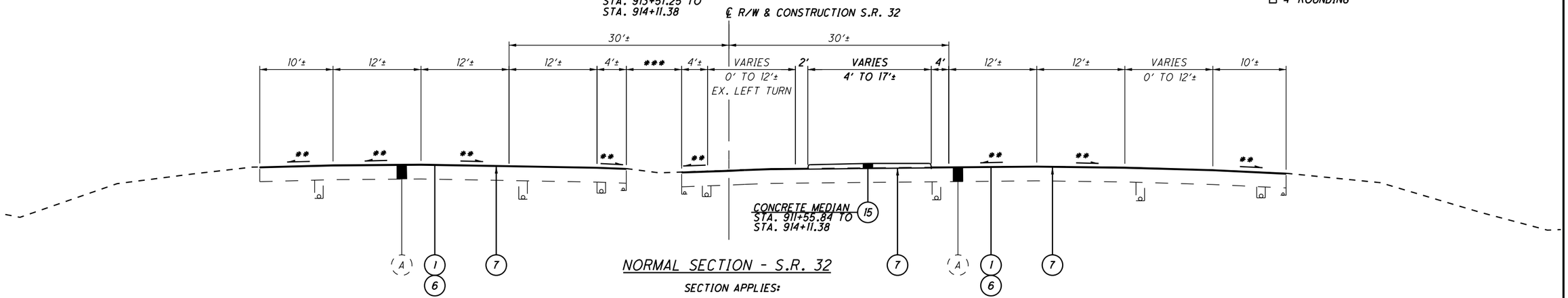
STA. 905+63.37 TO STA. 909+43.66

* MATCH ADJACENT PAVEMENT SLOPE

** VARIES MATCH EXISTING

Δ VARIES, MATCH EX. CROSS SLOPE, 0.04 MIN.

□ 4' ROUNDING



NORMAL SECTION - S.R. 32

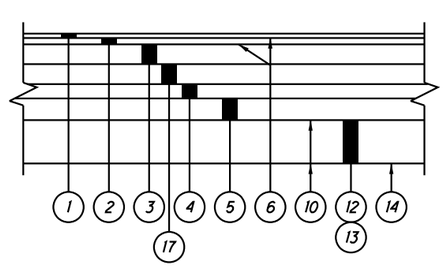
SECTION APPLIES:

STA. 909+43.66 TO STA. 914+11.38

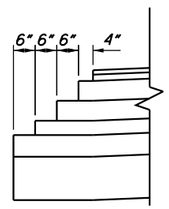
LEGEND

1. ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22
2. ITEM 441 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
3. ITEM 301 - 5.5" ASPHALT CONCRETE BASE, PG64-22
4. ITEM 304 - 4" AGGREGATE BASE
5. ITEM 304 - 6" AGGREGATE BASE
6. ITEM 407 - TACK COAT
7. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1.25"
8. ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN
9. ITEM 605 - 6" BASE PIPE UNDERDRAIN
10. ITEM 204 - SUBGRADE COMPACTION
11. ITEM 659 - SEEDING AND MULCHING
12. ITEM 204 - EXCAVATION OF SUBGRADE
13. ITEM 204 - GRANULAR MATERIAL, TYPE C
14. ITEM 204 - GEOTEXTILE FABRIC
15. ITEM 609 - CONCRETE MEDIAN
16. ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (VARIABLE THICKNESS, 0" MIN.)
17. ITEM 301 - 5.5" ASPHALT CONCRETE BASE, PG64-22

(A) EXISTING ASPHALT PAVEMENT (24")



PAVEMENT BUILDUP DETAIL

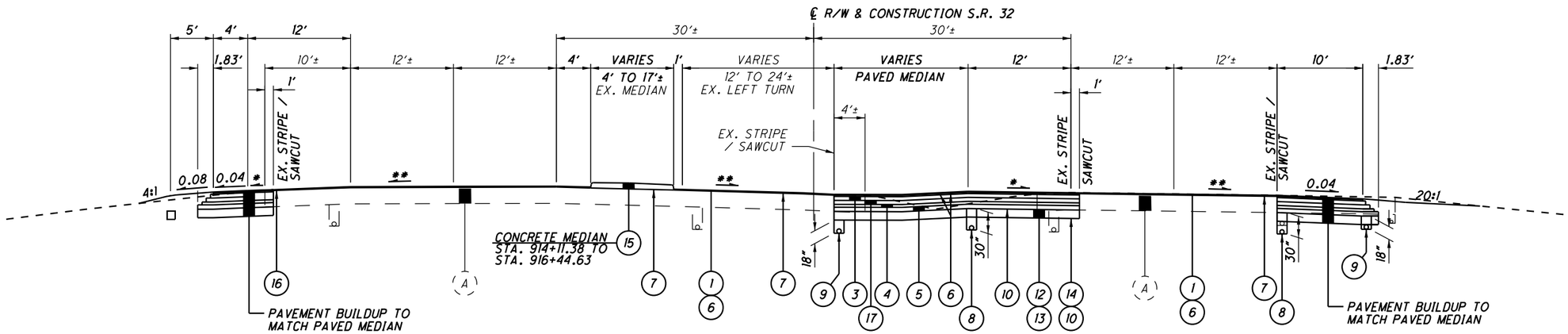


EDGE COURSE DETAIL

TYPICAL SECTIONS

PIK-32-17.15

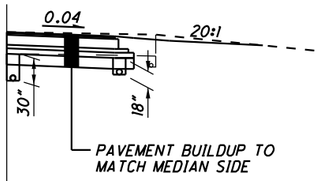
3
111



NORMAL SECTION - S.R. 32

SECTION APPLIES:

STA. 914+11.38 TO STA. 915+66.57

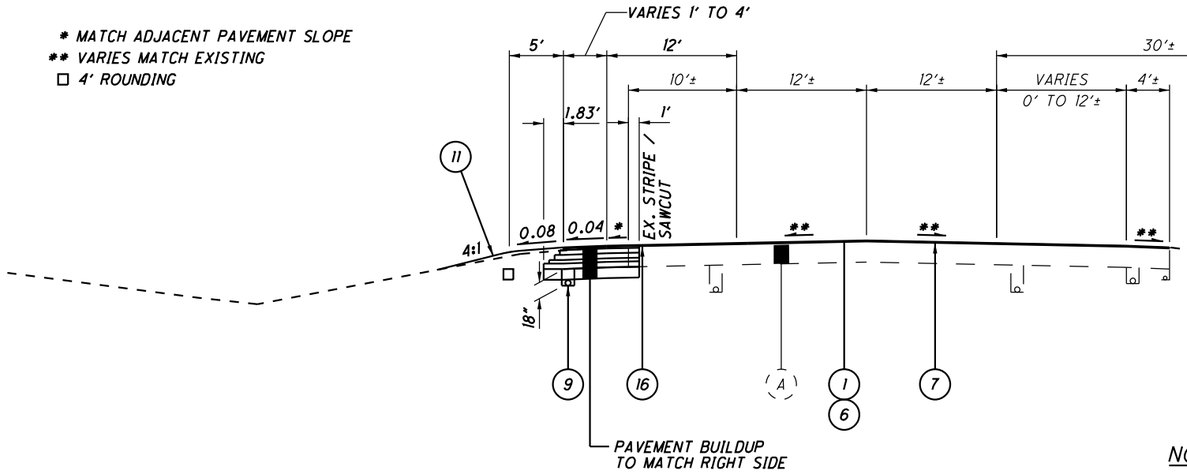


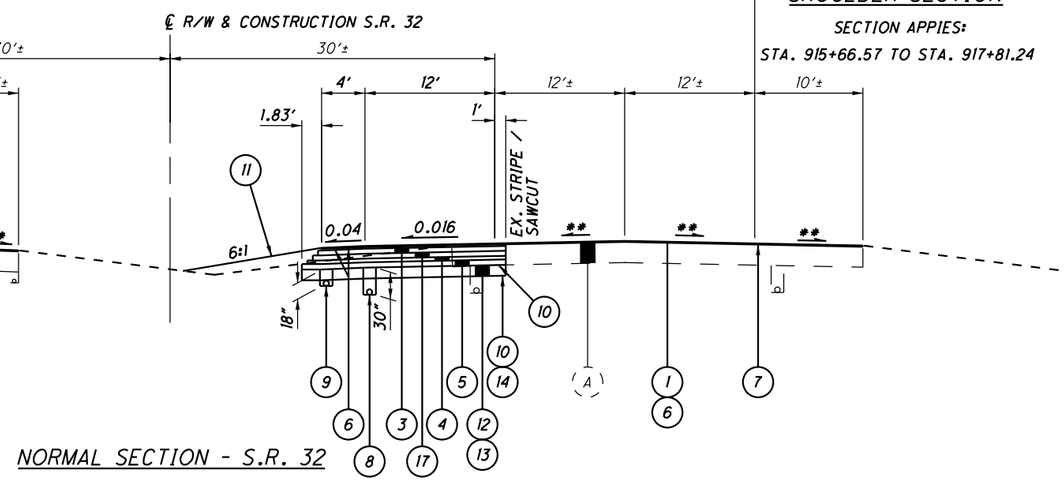
SHOULDER SECTION

SECTION APPIES:

STA. 915+66.57 TO STA. 917+81.24

* MATCH ADJACENT PAVEMENT SLOPE
** VARIES MATCH EXISTING
□ 4′ ROUNDING

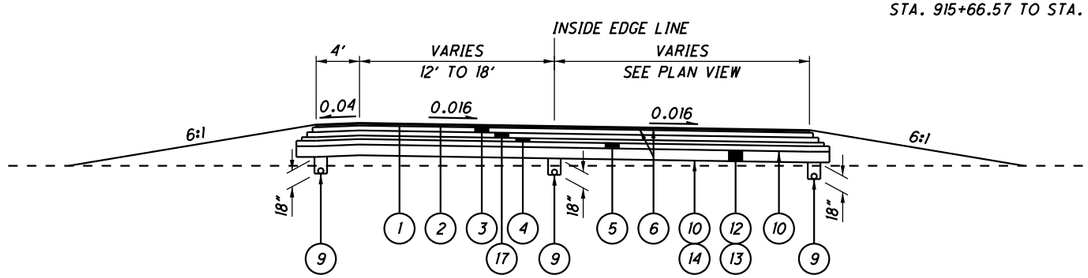




NORMAL SECTION - S.R. 32

SECTION APPLIES:

STA. 915+66.57 TO STA. 921+76.13
WIDENING APPLIES FROM
STA. 915+66.57 TO STA. 921+26.19



RCUT CROSSOVER SECTION

SECTION APPLIES:

WESTBOUND RCUT CROSSOVER SHOWN
EASTBOUND RCUT CROSSOVER SLOPE OPPOSITE AS SHOWN

LEGEND

SEE SHEET 3 FOR LEGEND

TYPICAL SECTIONS

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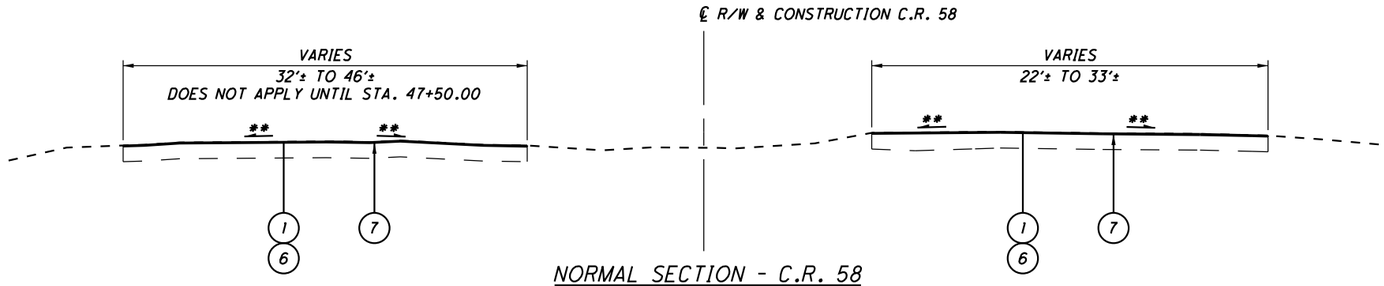


NORMAL SECTION - C.R. 58

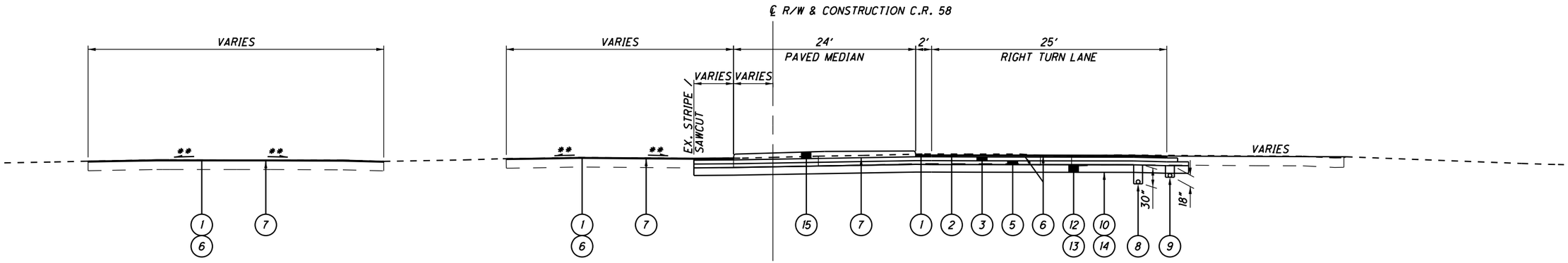
SECTION APPLIES:

STA. 37+19.96 TO STA. 48+85.39

* MATCH ADJACENT PAVEMENT SLOPE

** VARIES MATCH EXISTING

□ 4' ROUNDING



NORMAL SECTION - C.R. 58

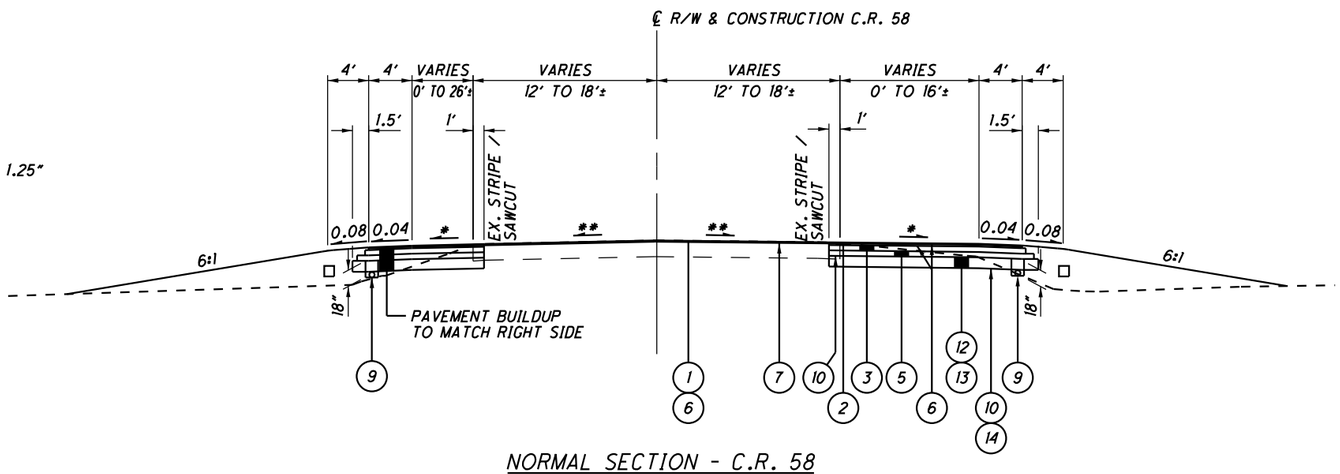
SECTION APPLIES:

STA. 48+85.39 TO STA. 49+45.17

LEGEND

1. ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22
2. ITEM 441 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
3. ITEM 301 - 6" ASPHALT CONCRETE BASE, PG64-22
4. NOT USED
5. ITEM 304 - 6" AGGREGATE BASE
6. ITEM 407 - TACK COAT
7. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1.25"
8. ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN
9. ITEM 605 - 6" BASE PIPE UNDERDRAIN
10. ITEM 204 - SUBGRADE COMPACTION
11. ITEM 659 - SEEDING AND MULCHING
12. ITEM 204 - EXCAVATION OF SUBGRADE
13. ITEM 204 - GRANULAR MATERIAL, TYPE C
14. ITEM 204 - GEOTEXTILE FABRIC
15. ITEM 609 - CONCRETE MEDIAN

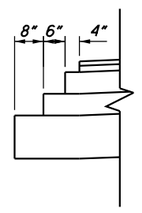
(A) EXISTING ASPHALT PAVEMENT (24")



NORMAL SECTION - C.R. 58

SECTION APPLIES:

STA. 50+66.50 TO STA. 51+97.84



EDGE COURSE DETAIL

TYPICAL SECTIONS

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ROUNDING

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

UTILITIES

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

AMERICAN ELECTRIC POWER
(DISTRIBUTION)
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
MR. PAUL PAXTON
614-883-6831

AMERICAN ELECTRIC POWER
(TRANSMISSION)
8600 SMITHS MILL ROAD
NEW ALBANY, OHIO 43054
MR. MIKE CARR
380-205-5072

FRONTIER COMMUNICATIONS
1315 ALBERT STREET
PORTSMOUTH, OHIO 45662
MS. DENA MARTIN
740-354-0521

CHARTER COMMUNICATIONS
32 ENTERPRISE DRIVE
CHILLICOTHE, OHIO 45601
MR. JASON JACOBS
740-648-3027

PIKE WATER, INC.
P.O. BOX 191
WAVERLY, OHIO 45690
MR. TIM WILLIAMS
740-947-2524

PIKE COUNTY SEWER DISTRICT
116 S. MARKET STREET, SUITE 103
WAVERLY, OHIO 45690
MR. SCOTT BRYANT
740-648-6038

UTILITY PIPELINE, LTD.
(FKA PIKE NATURAL GAS)
P.O. BOX 249
HILLSBORO, OHIO 45133
MR. KIRK SEELING
330-498-9130, EXT. 405

ODOT DISTRICT 9 TRAFFIC
P.O. BOX 467
CHILLICOTHE, OHIO 45601
MR. ERIC BEERY
740-774-9045

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.

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.

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.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE BELOW FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: AS NOTED IN THE PROJECT CONTROL TABLE SHOWN ON THIS SHEET

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 12B

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83/2011 EPOCH 2010
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE (3402)
COMBINED SCALE FACTOR: 1.000074506
ORIGIN OF COORDINATE SYSTEM: 0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

PRIMARY PROJECT CONTROL POINTS
CONTROL POINT COORDINATES AND MONUMENT LOCATION

SOURCE OF CONTROL	GRID NORTH	GRID EAST	MON. TYPE	ELEV.
SV1	383591.938	1827436.786	5/8" REBAR & ODOT CAP	675.96
SV2	383436.149	1827932.169	5/8" REBAR & ODOT CAP	678.02
SV3	383473.727	1828426.583	5/8" REBAR & ODOT CAP	681.00

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. PROOF ROLLING IS BASED ON 8702 SY OF SUBGRADE COMPACTION.

ITEM 204 - PROOF ROLLING_ _ _ _ _ _ _ _ _ _ _ .3 HOUR

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

   IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

   PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTORS OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

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

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 611 - 6" CONDUIT, TYPE F_ _ _ _ _ _ _ _ _ _ _ _ 10 FT

ITEM 605 - 6" UNCLASSIFIED PIPE UNDERDRAINS _ _ _ _ .100 FT

CALCULATED SLP CHECKED ALB

GENERAL NOTES

PIK-32-17.15

SEEDING AND MULCHING

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

ITEM 659 - TOPSOIL _ _ _ _ _ _ _ _ _ _ _ _ _ _ 534 CY

ITEM 659 - REPAIR SEEDING AND MULCHING _ _ _ _ . 240 SY

ITEM 659 - INTER-SEEDING _ _ _ _ _ _ _ _ _ _ _ 240 SY

ITEM 659 - COMMERCIAL FERTILIZER _ _ _ _ _ _ . 0.67 TON

ITEM 659 - LIME _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 0.99 AC

ITEM 659 - WATER _ _ _ _ _ _ _ _ _ _ _ _ _ _ 27 M GAL

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIP(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

THE QUANTITY FOR ITEM 659 - TOPSOIL INCLUDES THE TOPSOIL TO BE PLACED IN THE AREA OF THE VEGETATED FILTER STRIP SHOWN ON SHEET 63.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR PROVIDING THE VEGETATED FILTER STRIPS AS SHOWN ON SHEET 63.

ITEM 670 - SLOPE EROSION PROTECTION _ _ _ _ _ . 941 SY

CALCULATED SLP
CHECKED ALB

GENERAL NOTES

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SEQUENCE OF CONSTRUCTION

THE FOLLOWING IS A SUGGESTED SEQUENCE OF CONSTRUCTION THAT IS INTENDED TO MAINTAIN LOCAL TRAFFIC AS LONG AS POSSIBLE.

PHASE 1

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING PAVEMENT.

ERECT TRAFFIC CONTROL FOR PHASE 1 AND CLOSE THE LEFT EASTBOUND AND LEFT WESTBOUND LANES PER SCD MT-95.40.

CONSTRUCT THE RESTRICTED CROSSING U-TURNS (RCUTS), INCLUDING THE RELATED DRAINAGE ITEMS AND THE EASTBOUND LEFT TURN LANE.

AFTER COMPLETION OF THE PHASE 1 CONSTRUCTION ACTIVITIES, REMOVE PHASE 1 TEMPORARY TRAFFIC CONTROL DEVICES AND PLACE DRUMS, SHOWN IN PHASE 2A, CLOSING PAVEMENT CONSTRUCTED IN PHASE 1 FROM TRAFFIC. WHILE MAINTAINING AT LEAST ONE LANE OF TRAFFIC, USE SCD MT-95.30 TO PERFORM LANE CLOSURES OF BOTH LANES OF EASTBOUND S.R. 32 AT STA. 921+40 TO INSTALL THE DRAINAGE PIPE CROSSINGS UNDER THE EXISTING S.R. 32 PAVEMENT AND THE ASSOCIATED EROSION CONTROL. THE INSTALLATION OF THE PIPE CROSSING AND PAVEMENT REPAIR OPERATIONS SHALL BE COMPLETED IN A THREE DAY WORK PERIOD AND THE LANE SHALL BE REOPENED TO TRAFFIC WHEN NO WORK IS BEING PERFORMED.

PHASE 2A

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING PAVEMENT.

ERECT TRAFFIC CONTROL FOR PHASE 2A AND CLOSE THE RIGHT EASTBOUND LANE PER SCD MT-95.40.

CONSTRUCT THE EXTENSION OF THE EASTBOUND RIGHT TURN LANE.

DURING PHASE 2A CONSTRUCTION ACTIVITIES, USE DRUMS TO EXTEND THE CLOSURE OF THE OUTSIDE LANE OF S.R. 32 TO STA. 911+70 AND MAINTAIN THE RIGHT TURN MOVEMENT FROM EASTBOUND S.R. 32 TO SHYVILLE ROAD AND CONSTRUCT THE CULVERT CROSSING UNDER THE OUTSIDE AND RIGHT TURN LANES AND HEADWALL ON THE OUTSIDE SHOULDER OF S.R. 32 AT STA. 911+62.50. AT LEAST ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES AND THE INSTALLATION AND PAVEMENT REPAIR OPERATIONS SHALL BE COMPLETED IN A THREE DAY WORK PERIOD AND THE LANES SHALL BE REOPENED TO TRAFFIC WHEN NO WORK IS BEING PERFORMED.

PHASE 2B

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING PAVEMENT AND THE PROPOSED PAVEMENT BUILT IN PHASE 2A.

ERECT TRAFFIC CONTROL FOR PHASE 2B AND CLOSE THE RIGHT WESTBOUND LANE PER SCD MT-95.40.

CONSTRUCT THE WESTBOUND RIGHT TURN LANE, THE NORTHEAST QUADRANT OF THE INTERSECTION AND THE EASTERN CULVERT EXTENSION.

THIS WORK MAY BE DONE CONCURRENTLY WITH PHASE 2A.

AFTER THE OUTSIDE LANE OF S.R. 32 IS OPENED TO TRAFFIC, USE SCD MT-95.30 TO CLOSE THE INSIDE LANE OF EASTBOUND S.R. 32 AND INSTALL THE CULVERT CROSSING AT STA. 911+62.50 UNDER THE EXISTING PAVEMENT OF THE INSIDE LANE OF EASTBOUND S.R. 32. AT LEAST ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON EASTBOUND S.R. 32 AT ALL TIMES AND THE INSTALLATION AND PAVEMENT REPAIR OPERATIONS SHALL BE COMPLETED IN A THREE DAY WORK PERIOD. THE LANES SHALL BE REOPENED TO TRAFFIC WHEN NO WORK IS BEING PERFORMED AND THE LEFT TURN MOVEMENT AT SHYVILLE ROAD SHALL BE MAINTAINED.

PHASE 3

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING AND PROPOSED PAVEMENT AND THE PROPOSED RCUTS BUILT IN PHASE 1.

ERECT TRAFFIC CONTROL FOR PHASE 3 AND CLOSE THE LEFT EASTBOUND AND LEFT WESTBOUND LANES PER SCD MT-95.40.

COVER OR REMOVE ALL OF THE EXISTING SIGNAL HEADS.

CONSTRUCT THE NEW S.R. 32 MEDIAN AND THE RELATED DRAINAGE ITEMS.

PHASE 4

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING AND PROPOSED PAVEMENT.

REMOVE THE EXISTING GRASS MEDIAN AND CONSTRUCT THE NEW C.R. 58 MEDIAN ON THE SOUTH LEG OF THE INTERSECTION.

PHASE 5

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING AND PROPOSED PAVEMENT.

ERECT TRAFFIC CONTROL FOR PHASE 5.

CONSTRUCT THE NORTHWEST AND SOUTHEAST QUADRANT OF THE INTERSECTION AND THE WESTERN CULVERT EXTENSION.

PHASE 5B

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING AND PROPOSED PAVEMENT.

AFTER PHASE 5 IS COMPLETE, REMOVE THE PORTABLE BARRIER AND OTHER CONFLICTING TEMPORARY TRAFFIC CONTROL DEVICES. USE DRUMS TO SHIFT TRAFFIC ON SHYVILLE ROAD TO THE OUTSIDE OF THE PAVEMENT TO CONSTRUCT THE CONCRETE ISLAND IN THE NORTHWEST CORNER OF THE INTERSECTION.

THE CONTRACTOR SHALL MAINTAIN ALL MOVEMENTS AT THE INTERSECTION DURING THIS PHASE.

SEE SHEET 51 FOR PHASE 5B TEMPORARY TRAFFIC CONTROL.

PHASE 6

AFTER ALL CONSTRUCTION IS COMPLETED, OPEN ALL LANES UP TO TRAFFIC. REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES FROM THE PREVIOUS PHASES, EXCEPT FOR THE APPROPRIATE LEAD IN SIGNS.

MILL AND OVERLAY PAVEMENT AREAS SHOWN IN THE PLANS. REMOVE THE SIGNAL INSTALLATION, ACCORDING TO THE LIGHTING PLANS. PLACE ALL FINAL TRAFFIC CONTROL AND APPURTENANCES.

ITEM 614 - MAINTAINING TRAFFIC

BEFORE THE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAME(S) AND TELEPHONE NUMBER(S) OF A PERSON OR PERSONS WHO CAN BE CONTACTED TWENTY-FOUR (24) HOURS PER DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR PLACING OR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT.

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.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES AS NEEDED.

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 OF 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.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

CALCULATED TJS CHECKED ALB

MAINTENANCE OF TRAFFIC GENERAL NOTES

PIK-32-17.15

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.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NONGATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE LISTED ON THIS SHEET. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 8 SIGN MONTHS ASSUMING 2 PCMS SIGNS FOR 4 MONTHS

PROBABLE PCMS LOCATIONS:

1-MILE IN ADVANCE OF THE US-23/SR-32 INTERSECTION IN EACH DIRECTION.

CALCULATED NRH CHECKED ALB

OFFICE OF TRAFFIC GENERAL NOTES

MAINTENANCE

PIK-32-17.15

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLESTACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING THE SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 80 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME FRAME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP AND ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS AND < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 CALENDAR DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	7 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

CALCULATED NRH CHECKED ALB

MAINTENANCE OF TRAFFIC GENERAL NOTES

PIK-32-17.15

REF. NO.	STATION TO STATION		SIDE	614														622		
	FROM	TO		INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER	BARRIER REFLECTOR, TYPE 1	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS 1	WORK ZONE CENTER LINE, CLASS 1	WORK ZONE EDGE LINE, CLASS 1, 4", WHITE	WORK ZONE EDGE LINE, CLASS 1, 4", YELLOW	WORK ZONE CHANNELIZING LINE, CLASS 1, 8"	WORK ZONE DOTTED LINE, CLASS 1	WORK ZONE STOP LINE, CLASS 1	WORK ZONE ARROW, CLASS 1, 642 PAINT	PORTABLE BARRIER, UNANCHORED		
				FT	EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	MILE	FT	FT		EACH	FT		
	PHASE 1																			
CH-1	908+02.00	910+68.48	RT				27							265			3			
DL-1	891+33.61	898+83.61	RT												745					
DL-2	928+05.12	935+11.83	LT												707					
EY-1	891+33.61	910+68.63	RT				96						0.36							
EY-2	905+86.00	913+70.27	LT										0.15							
EY-3	914+39.80	921+54.00	RT										0.14							
EY-4	920+37.00	935+11.83	LT				65						0.28							
IAB-1	914+71.00		RT			1														
IAU-1	903+78.41		RT		1															
IAU-2	909+09.97		LT		1															
IAU-3	923+43.50		LT		1															
PB-1	903+78.41	907+01.79	RT	100				5	7									330		
PB-2	905+86.30	909+09.97	LT	100				5	7									330		
PB-3	914+71.00	921+53.74	RT	100				12	14									690		
PB-4	920+37.26	923+43.50	LT	100				5	8									310		
	PHASE 2A																			
CH-1	907+76.59	910+68.48	RT				15							290			3			
DL-1	890+78.54	897+57.19	RT												675					
EW-1	890+78.54	910+02.00	RT				65					0.36								
EY-1	915+18.43	920+35.25	RT										0.12							
IAU-1	903+63.90		RT		1															
PB-1	903+63.90	910+01.76	RT	150				10	13									640		
	PHASE 2B																			
CH-1	906+64.46	909+81.17	RT				17							314			3			
DL-1	929+89.58	936+95.14	LT												706					
DS-1	50+75.08	53+26.43	LT								0.05									
EW-1	53+26.43	936+95.14	RT/LT				65					0.48								
EW-2	50+85.35	53+26.43	LT									0.05								
EW-3	905+63.37	909+81.17	RT									0.08								
IAU-1	923+85.00		LT		1															
LL-1	894+55.97	913+43.92	RT				17			0.36										
PB-1	52+82.32	923+85.03	RT/LT	100				22	24									1190		
	PHASE 3																			
CH-1	916+93.00	921+26.20	RT/LT				29							483						
CH-2	914+68.28	920+76.13	LT				30							608			7			
CH-3	906+04.37	906+04.45	RT/LT				6							55						
DL-1	894+55.97	902+15.50	RT												754					
DL-2	925+19.56	932+25.14	LT												706					
DS-1	50+75.07	53+26.44	LT				14				0.05									
EW-3	52+92.15	921+76.13	RT/LT									0.19								
EY-1	894+55.97	906+13.91	RT				65						0.22							
EY-2	906+04.45	906+26.43	LT										0.01							
EY-3	906+83.83	906+83.83	RT/LT										0.15				7			
EY-4	907+56.00	915+00.00	RT										0.14							
EY-5	912+92.00	919+50.00	LT										0.12							
EY-6	915+08.09	920+56.36	RT/LT										0.13							
EY-7	920+86.03	921+35.25	RT										0.01							
EY-8	921+30.43	932+25.14	LT				65						0.21							
EY-9	43+34.99	47+50.18	RT				35						0.08							
EY-10	47+94.88	48+66.76	RT										0.01							
SL-1	906+13.85	906+31.85	RT													18				
SL-2	921+08.20	921+26.20	LT													18				
IAU-1	907+43.97		RT		1															
IAU-2	920+20.00		LT		1															
PB-1	907+43.97	916+67.68	RT	150				16	19									930		
PB-2	912+84.26	920+20.03	LT	100				13	16									740		
TOTALS CARRIED TO SHEET 12				900	7	1	611	88	108	0.36	0.10	1.16	2.13	2015	4293	36	23	5160		

CALCULATED JTK
CHECKED STC

MAINTENANCE OF TRAFFIC SUBSUMMARY

PIK-32-17.15

11
111

REF. NO.	STATION TO STATION		SIDE	614															622		
	FROM	TO		INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER	BARRIER REFLECTOR, TYPE 1	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS 1	WORK ZONE CENTER LINE, CLASS 1	WORK ZONE EDGE LINE, CLASS 1, 4", WHITE	WORK ZONE EDGE LINE, CLASS 1, 4", YELLOW	WORK ZONE CHANNELIZING LINE, CLASS 1, 8"	WORK ZONE DOTTED LINE, CLASS 1	WORK ZONE STOP LINE, CLASS 1	WORK ZONE ARROW, CLASS 1, 642 PAINT	PORTABLE BARRIER, UNANCHORED		
				FT	EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	MILE	FT	FT	FT	EACH	FT		
	PHASE 4																				
CH-1	907+60.00	926+40.00	RT				95							1878			5				
CH-2	910+60.00	917+82.20	RT				13							722							
CH-3	915+34.48	917+82.20	RT				13							248							
CH-4	915+50.00	916+93.00	RT				8							143							
DL-1	37+17.27	41+94.78	LT												478						
DL-2	917+82.20	920+52.66	RT												270						
EW-1	915+34.27	923+40.00	RT									0.15									
EW-2	911+50.00	914+30.00	RT/LT				15					0.05									
EY-1	37+20.77	41+98.36	LT				24						0.09								
EY-2	42+58.64	47+53.25	LT										0.09								
EY-3	911+50.00	915+00.00	RT										0.07								
EY-4	919+86.72	920+56.36	LT										0.01								
EY-5	914+32.00	916+50.00	LT										0.04								
EY-6	913+02.00	913+02.00	LT										0.04								
IAU-1	913+27.00		RT		1																
IAU-2	48+02.39		RT		1																
LL-1	913+02.22	932+25.14	LT				17			0.36											
PB-1	913+27.00	915+34.37	RT	50				3	4									210			
PB-2	48+02.39	915+34.37	RT	200					5									200			
	PHASE 5																				
CH-1	907+80.00	912+25.08	RT				39							725			3				
CH-2	906+50.00	913+40.19	RT				71							1259							
CH-3	914+23.41	48+69.93	RT				10							182							
CH-4	914+23.41	915+03.74	RT				5							80							
DL-1	891+33.61	898+83.61	RT												745						
DL-2	913+40.00	914+23.41	RT												166						
DL-3	914+87.05	918+00.00	RT												313						
DS-1	50+75.07	56+28.50	RT				27				0.10										
EW-1	912+25.08	913+40.00	RT									0.02									
EW-2	913+47.77	56+28.50	LT									0.11									
EW-3	37+70.00	918+00.00	RT									0.28									
EW-4	913+89.49	917+25.00	RT/LT				15					0.06					2				
EY-1	891+33.61	911+17.19	RT				65						0.35								
EY-2	914+23.94	916+50.00	RT/LT										0.04								
IAU-1	52+18.30		LT		1																
PB-1	912+51.26	52+18.30	LT	100				5	7									280			
	PHASE 5B																				
SL-1	50+64.00	50+71.00	LT													14					
	TOTALS FROM SHEET 11			900	7	1	611	88	108	0.36	0.10	1.16	2.13	2015	4293	36	23	5160			
	TOTALS FROM THIS SHEET			350	3	0	417	8	16	0.36	0.10	0.67	0.73	5237	1972	14	10	690			
	TOTALS CARRIED TO GENERAL SUMMARY			1250	10	1	1028	96	124	0.72	0.20	1.83	2.86	7252	6265	50	33	5850			

CALCULATED JTK CHECKED STC

QUANTITY OF TRAFFIC SUBSUMMARY

MAINTENANCE

PIK-32-17.15

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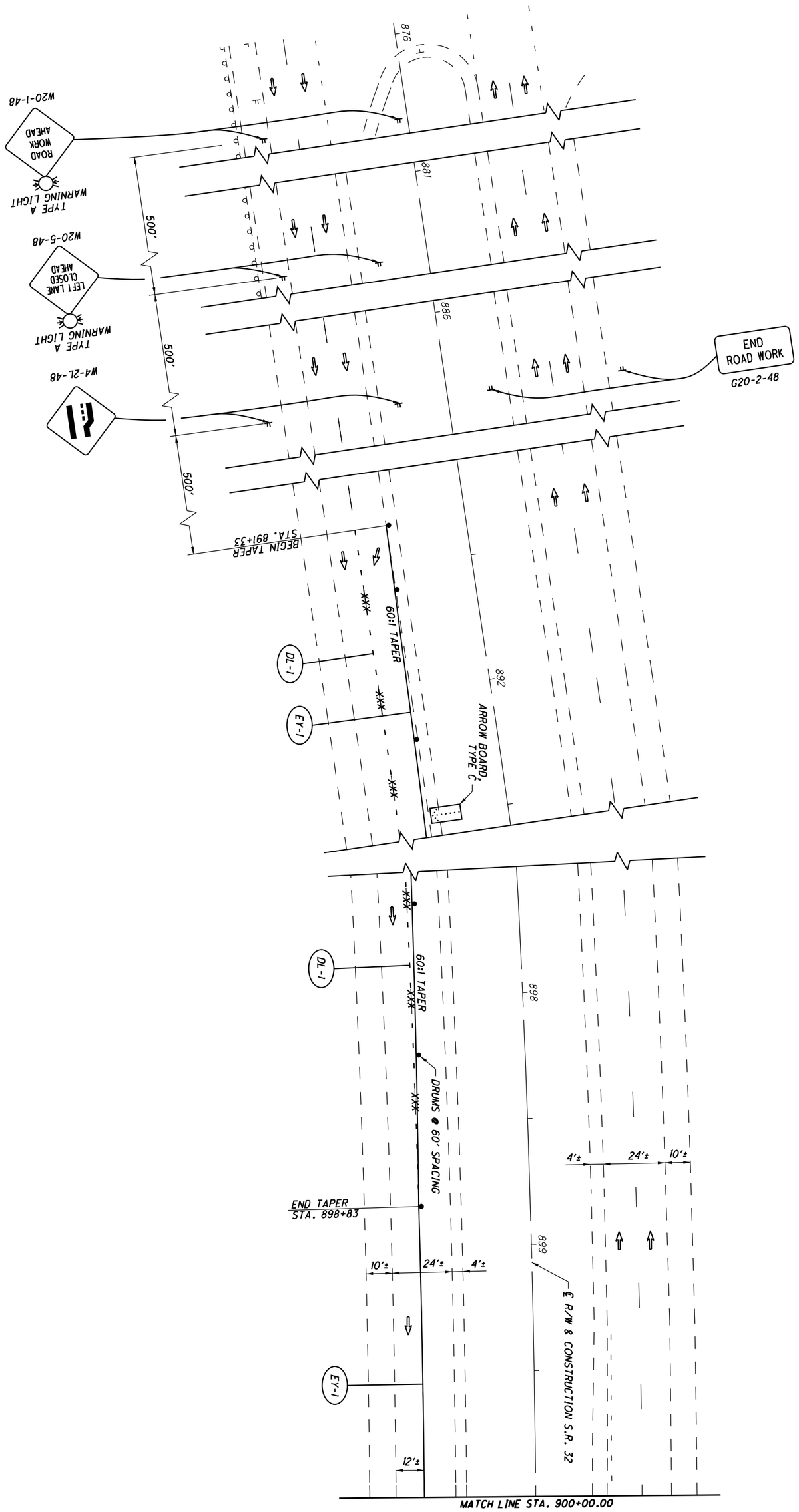


LEGEND

⇩ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

(DL) - WORK ZONE DOTTED LINE, 4"

(EY) - WORK ZONE EDGE LINE, YELLOW, 4"

13 / 111	PIK-32-17.15	MOT (PHASE 1) - S.R. 32 STA. 876+33.61 TO STA. 900+00.00	CALCULATED NRH CHECKED TJS	0 20 10 40 HORIZONTAL SCALE IN FEET

LEGEND

- 32" PORTABLE BARRIER
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- PORTABLE BARRIER TAPERED END SECTION

- IAU - WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)
- PB - 32" PORTABLE BARRIER
- EY - WORK ZONE EDGE LINE, YELLOW, 4"

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED NRH
CHECKED TJS

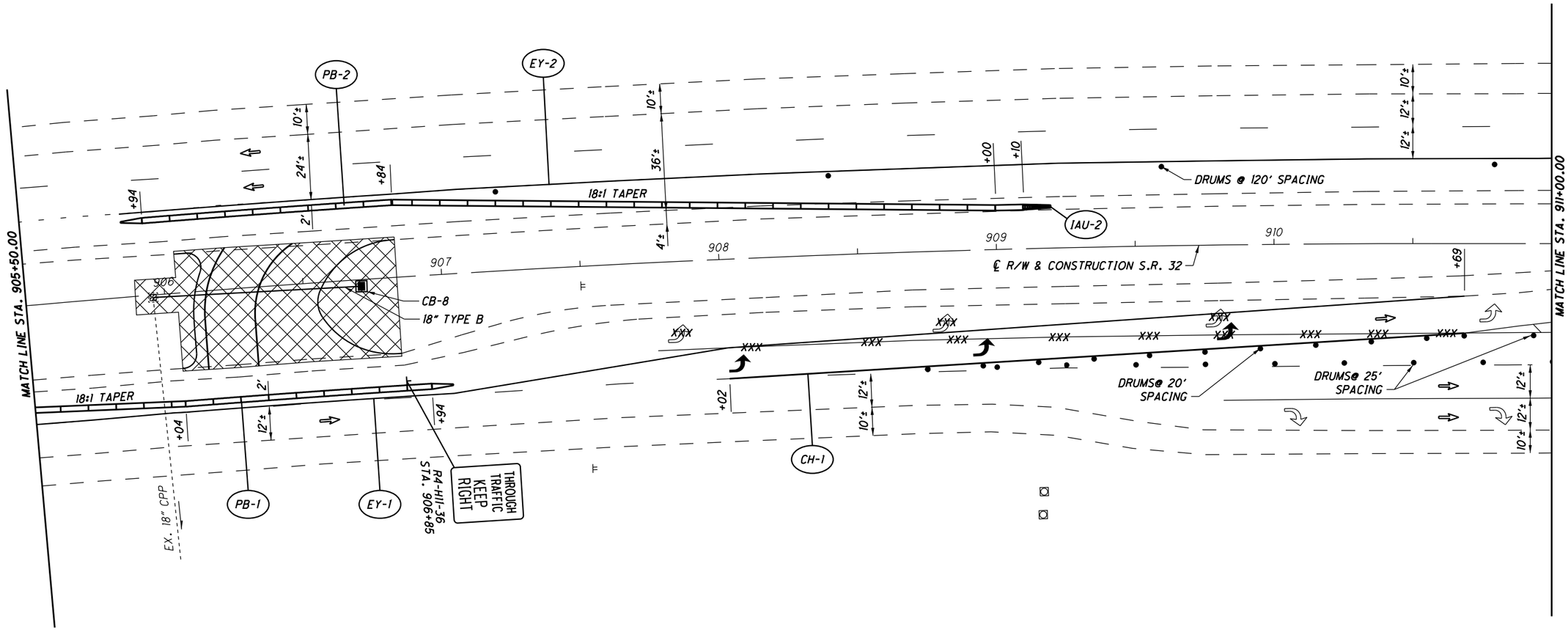
MOT (PHASE 1) - S.R. 32
STA. 900+00.00 TO STA. 905+50.00

PIK-32-17.15

14
111

S.R. 32
EX. CURVE NO. 1

P.I. Sta. 901+39.22
Δ = 18° 30′ 31″ (RT)
Dc = 1° 00′ 00″
R = 5,729.58′
T = 933.56′
L = 1,850.86′
E = 75.56′
C = 1,842.82′
C.B. = N 82° 29′ 45″ E



LEGEND

- 32" PORTABLE BARRIER
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- WORK AREA
- PORTABLE BARRIER TAPERED END SECTION

XXX REMOVE EXISTING MARKINGS

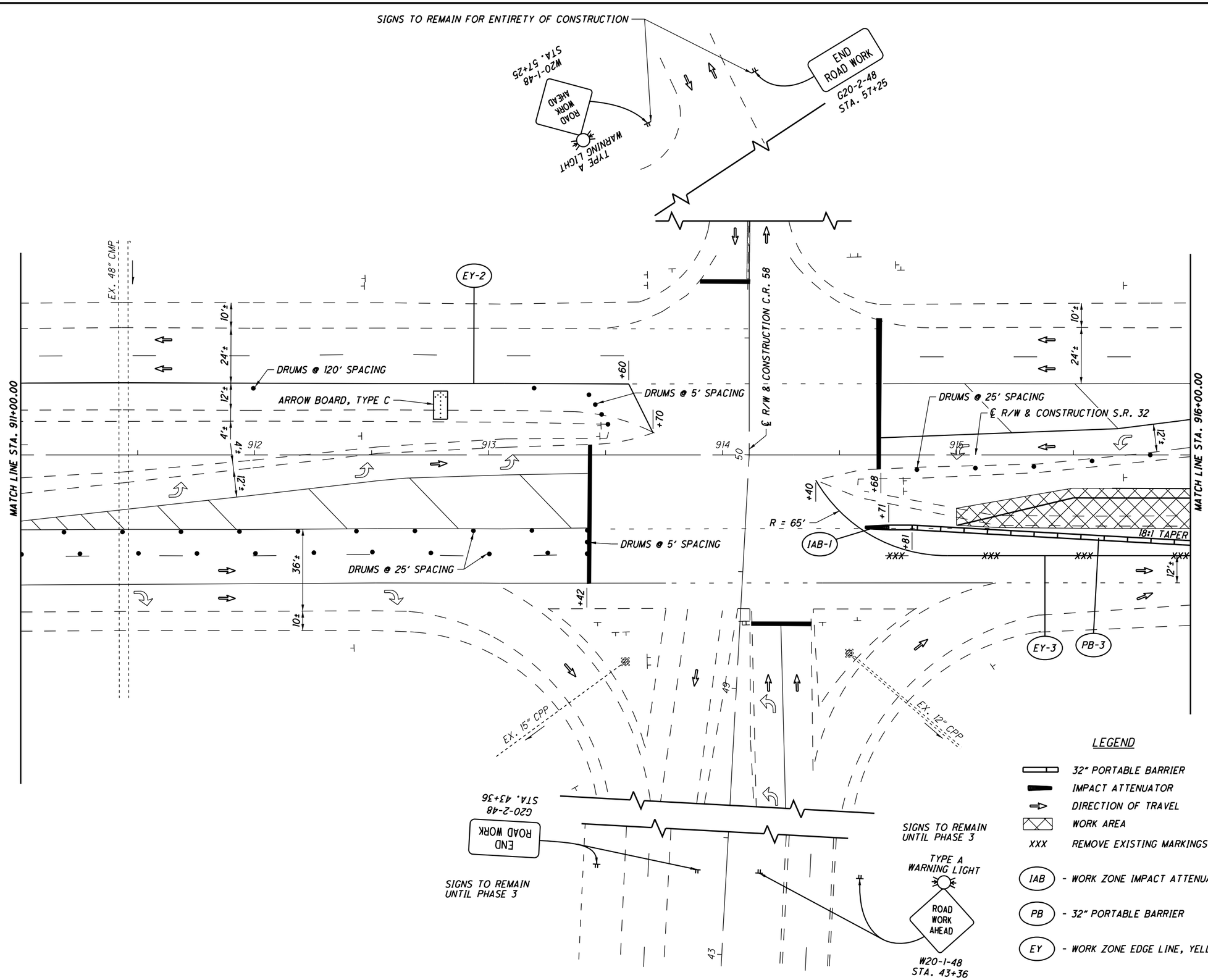
- IAU - WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)
- PB - 32" PORTABLE BARRIER
- EY - WORK ZONE EDGE LINE, YELLOW, 4"
- CH - WORK ZONE CHANNELIZING LINE, 8"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 1) - S.R. 32
STA. 905+50.00 TO STA. 911+00.00

PIK-32-17.15



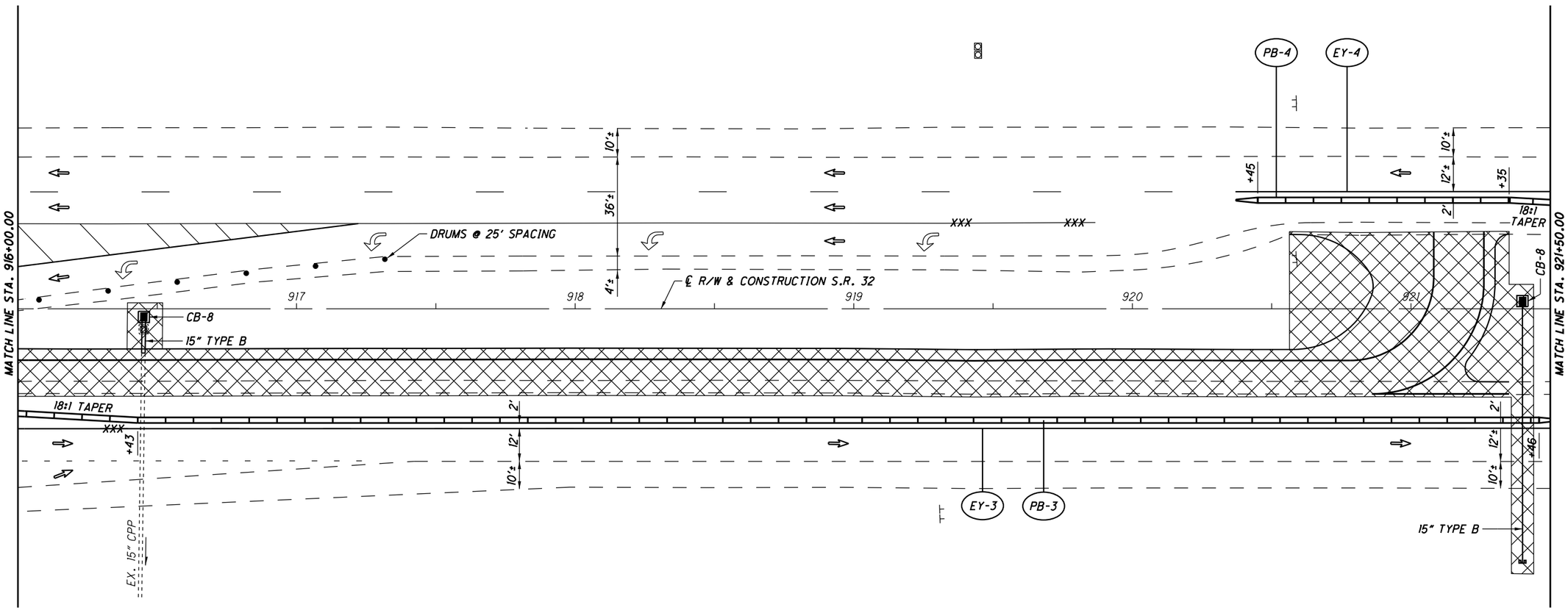
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 1) - S.R. 32
STA. 911+00.00 TO STA. 916+00.00

PIK-32-17.15

16
111



LEGEND

- 32" PORTABLE BARRIER
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- WORK AREA
- PORTABLE BARRIER TAPERED END SECTION
- XXX REMOVE EXISTING MARKINGS
- (PB) - 32" PORTABLE BARRIER
- (EY) - WORK ZONE EDGE LINE, YELLOW, 4"

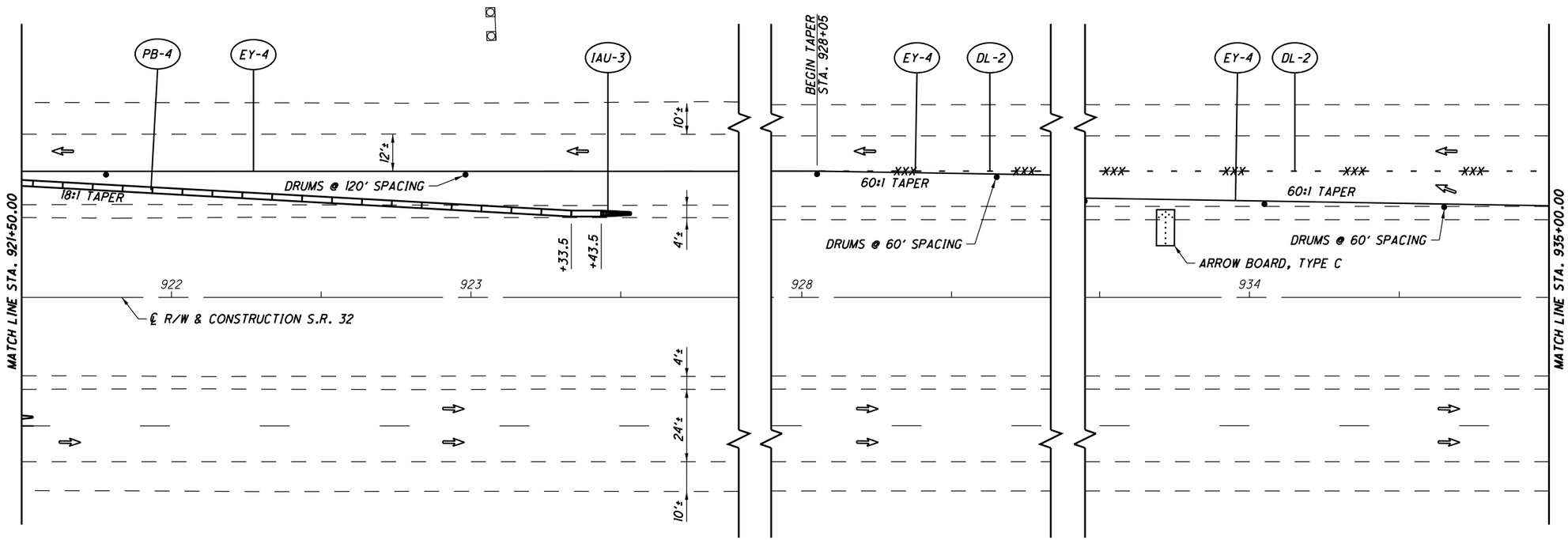
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 1) - S.R. 32
STA. 916+00.00 TO STA. 921+50.00

PIK-32-17.15

17
111



LEGEND

- 32" PORTABLE BARRIER
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- PORTABLE BARRIER TAPERED END SECTION
- XXX REMOVE EXISTING MARKINGS
- (IAU) - WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)
- (PB) - 32" PORTABLE BARRIER
- (DL) - WORK ZONE DOTTED LINE, WHITE, 4"
- (EY) - WORK ZONE EDGE LINE, YELLOW, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 1) - S.R. 32
STA. 921+50.00 TO STA. 935+00.00

PIK-32-17.15

18
111

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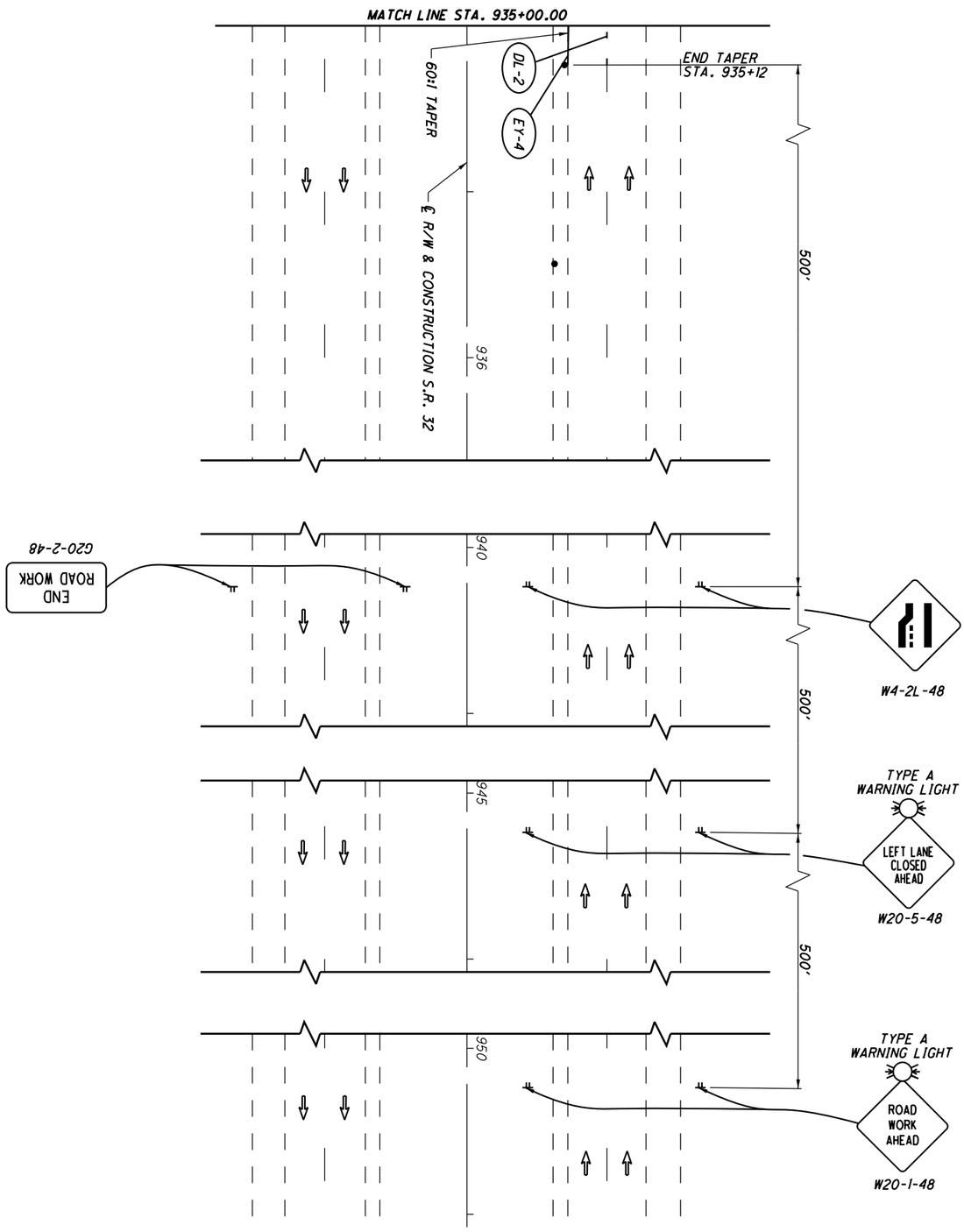


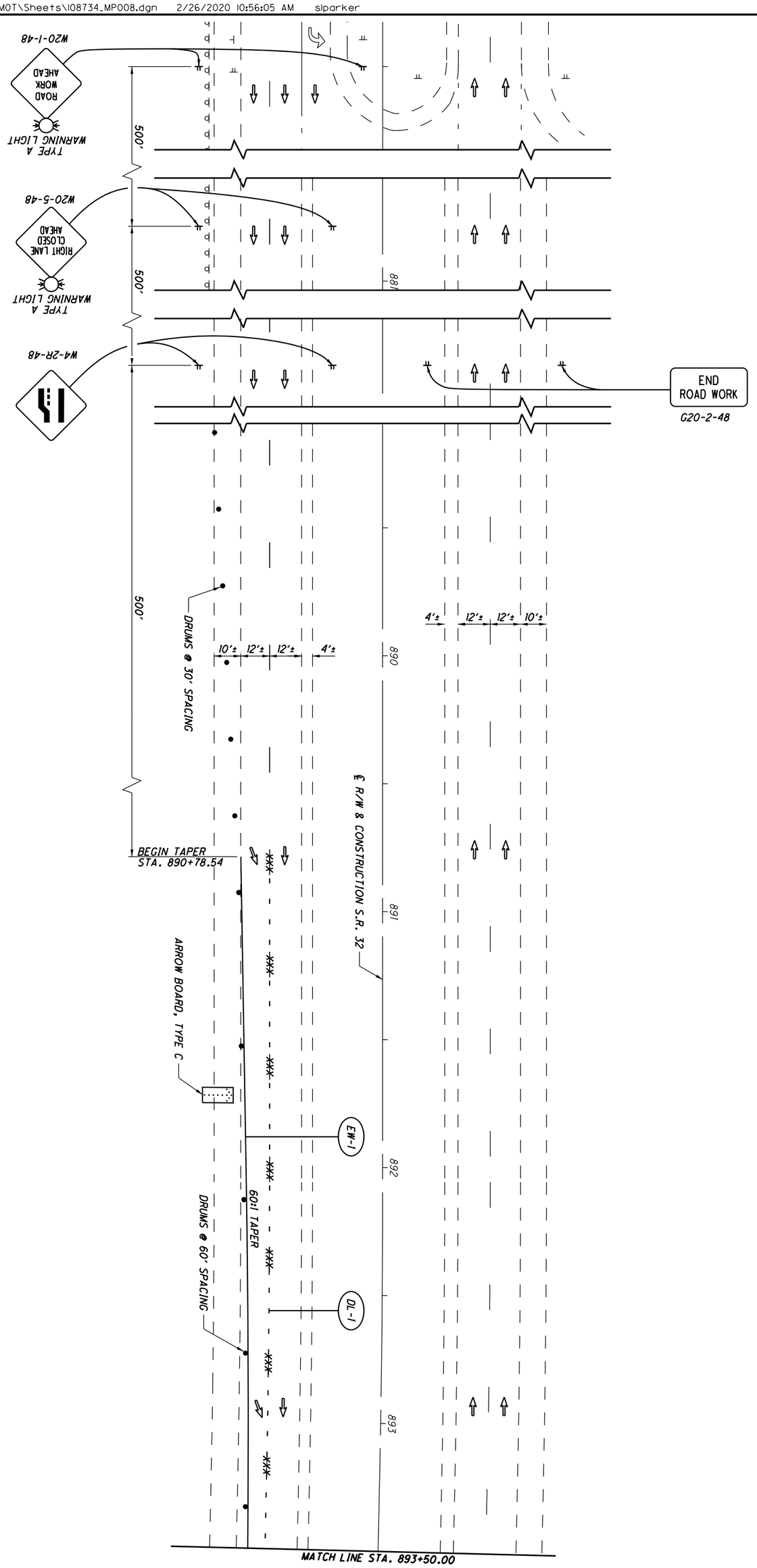
LEGEND

⇩ DIRECTION OF TRAVEL

(DL) - WORK ZONE DOTTED LINE, WHITE, 4"

(EY) - WORK ZONE EDGE LINE, YELLOW, 4"

111 / 61	PIK-32-17.15	MOT (PHASE 1) - S.R. 32 STA. 935+00.00 TO STA. 950+12.00	CALCULATED NRH CHECKED TJS	0 10 20 40 HORIZONTAL SCALE IN FEET



LEGEND

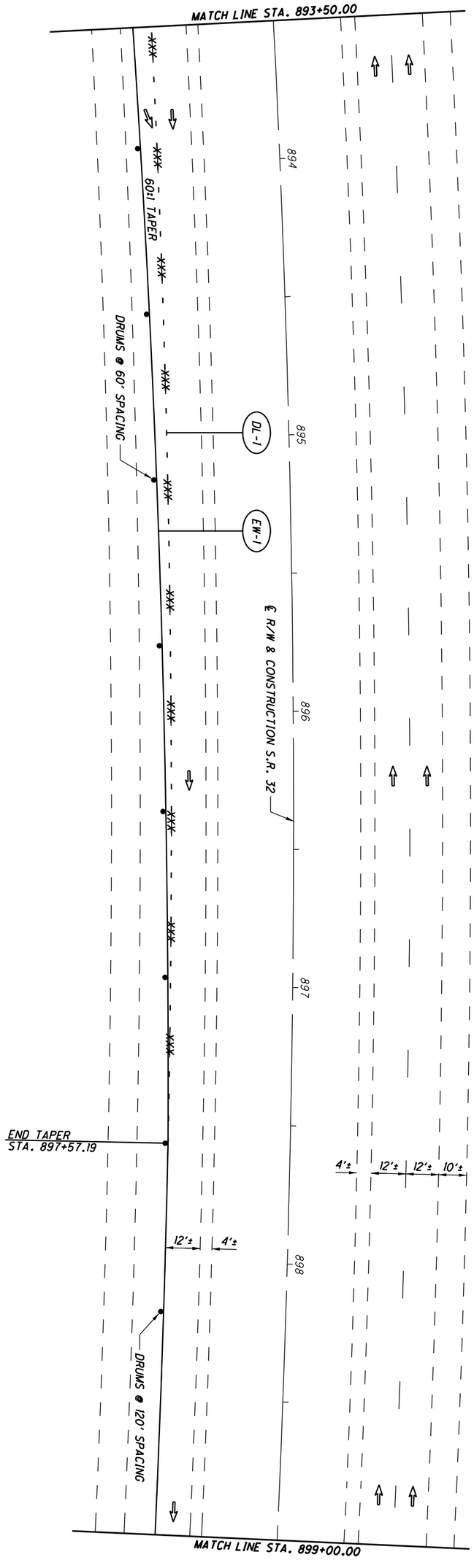
⇩ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

(DL) - WORK ZONE DOTTED LINE, 4"

(EW) - WORK ZONE EDGE LINE, WHITE, 4"

20 / 111	PIK-32-17.15	MOT (PHASE 2A) - S.R. 32 STA. 875+50.00 TO STA. 893+50.00	CALCULATED NRH / CHECKED TJS	0 20 / 10 40 HORIZONTAL SCALE IN FEET



LEGEND

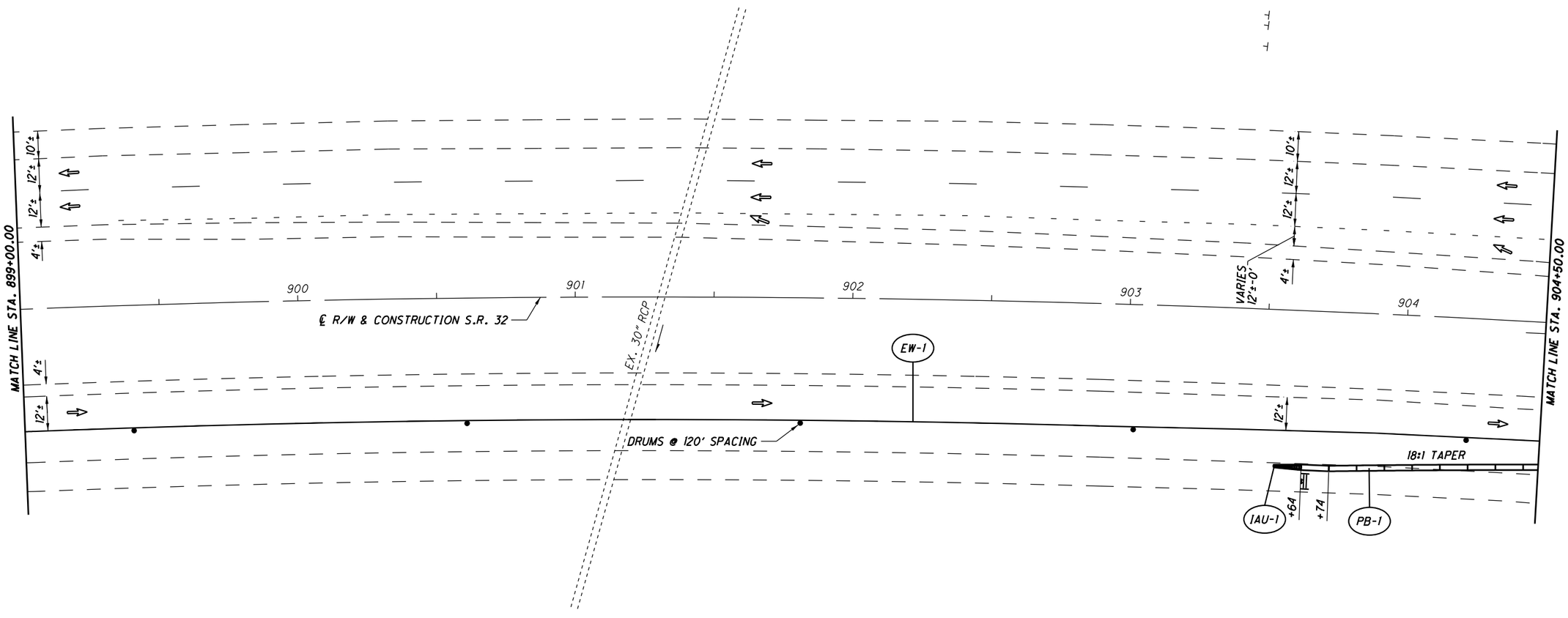
⇩ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

(DL) - WORK ZONE DOTTED LINE, 4"

(EW) - WORK ZONE EDGE LINE, WHITE, 4"

21 / 111	PIK-32-17.15	MOT (PHASE 2A) - S.R. 32 STA. 893+50.00 TO STA. 899+00.00	CALCULATED NRH CHECKED TJS	0 20 10 40 HORIZONTAL SCALE IN FEET



LEGEND

- 32" PORTABLE BARRIER
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- IAU - WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)
- PB - 32" PORTABLE BARRIER
- EW - WORK ZONE EDGE LINE, WHITE, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 2A) - S.R. 32
STA. 899+00.00 TO STA. 904+50.00

PIK-32-17.15

22
111

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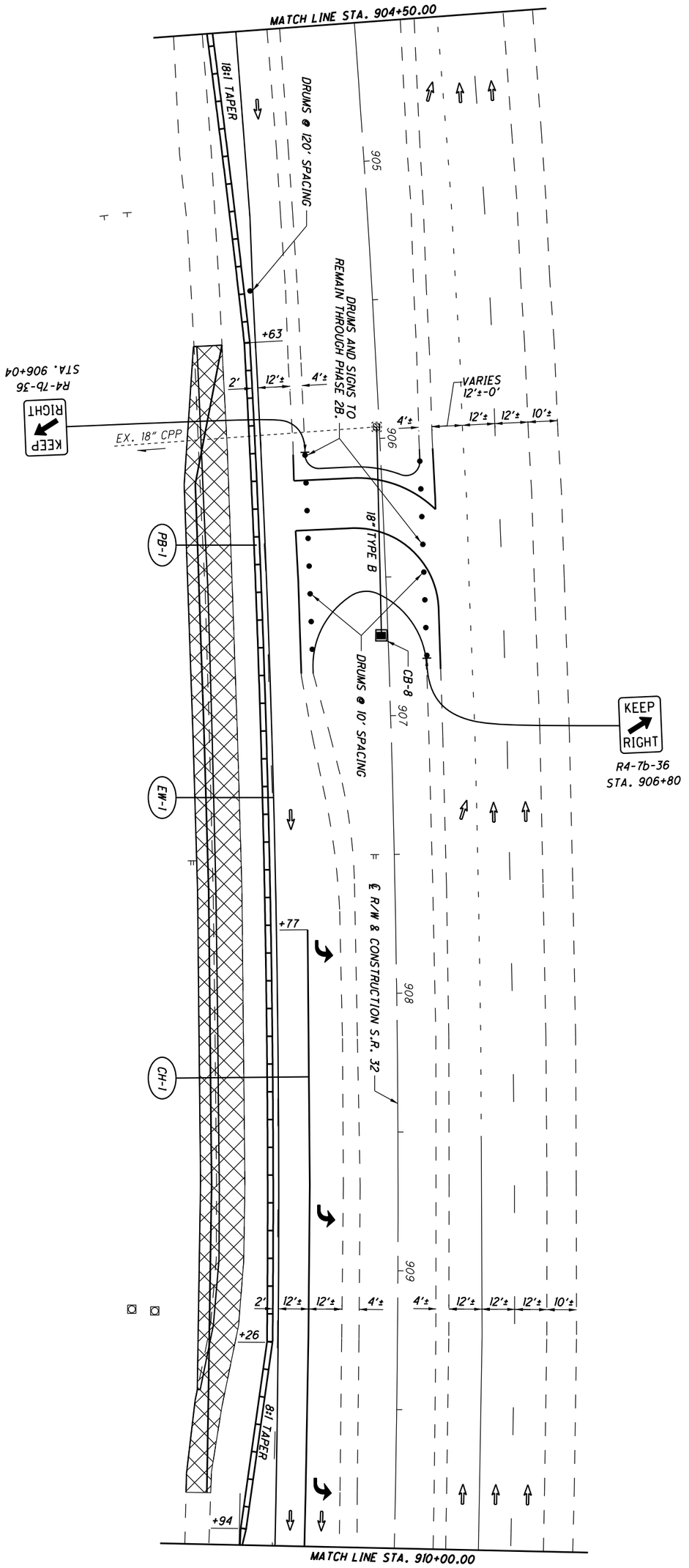
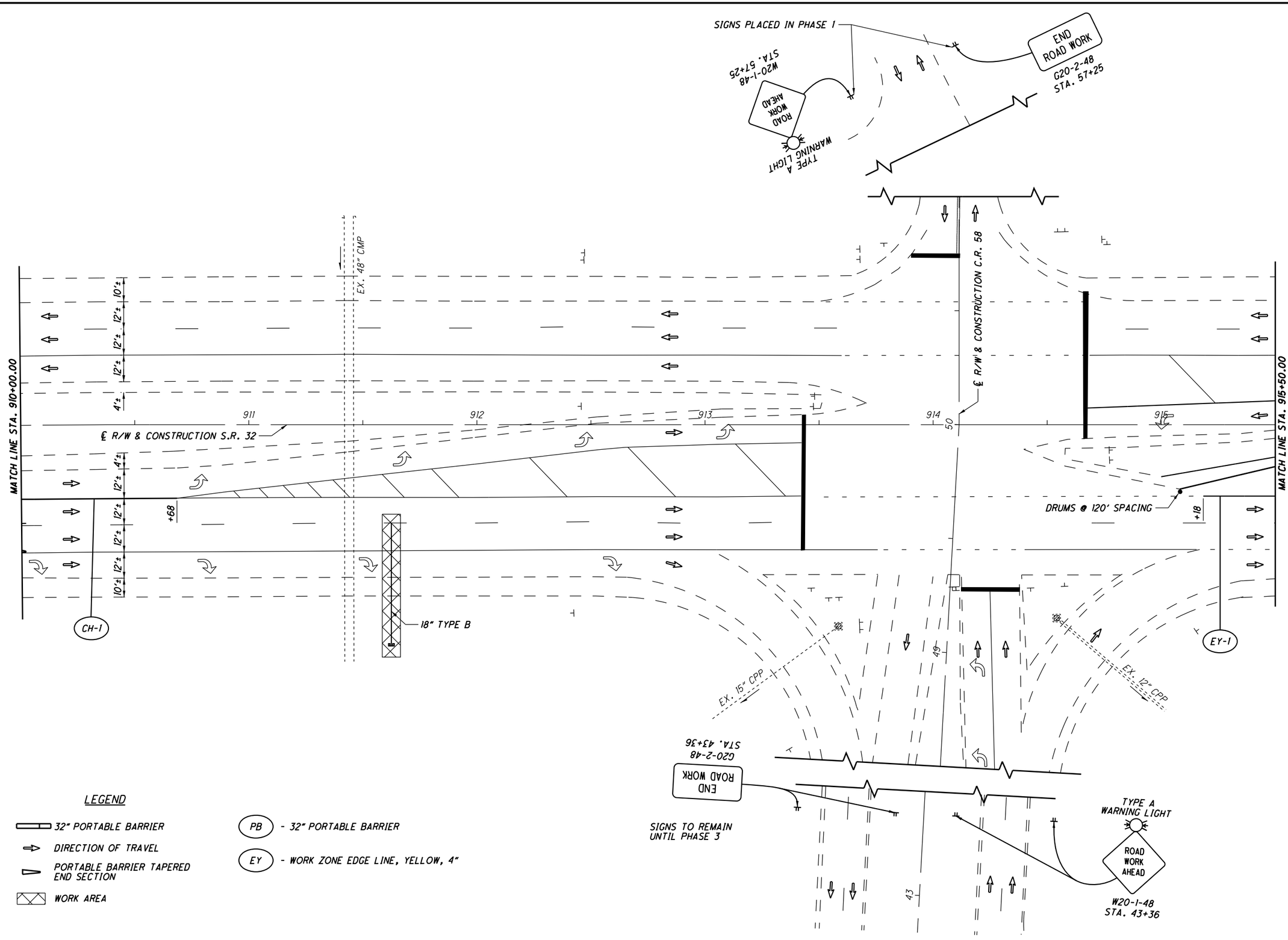


LEGEND

- 32" PORTABLE BARRIER
- DIRECTION OF TRAVEL
- WORK AREA
- LANE ARROW
- PB - 32" PORTABLE BARRIER
- EW - WORK ZONE EDGE LINE, WHITE, 4"

23 / 111	PIK-32-17.15	MOT (PHASE 2A) - S.R. 32 STA. 904+50.00 TO STA. 910+00.00	CALCULATED NRH CHECKED TJS	0 20 10 40 HORIZONTAL SCALE IN FEET



LEGEND

- 32" PORTABLE BARRIER
- DIRECTION OF TRAVEL
- PORTABLE BARRIER TAPERED END SECTION
- WORK AREA
- PB - 32" PORTABLE BARRIER
- EY - WORK ZONE EDGE LINE, YELLOW, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 2A) - S.R. 32
STYA. 910+00.00 TO STA. 915+50.00

PIK-32-17.15

24
111

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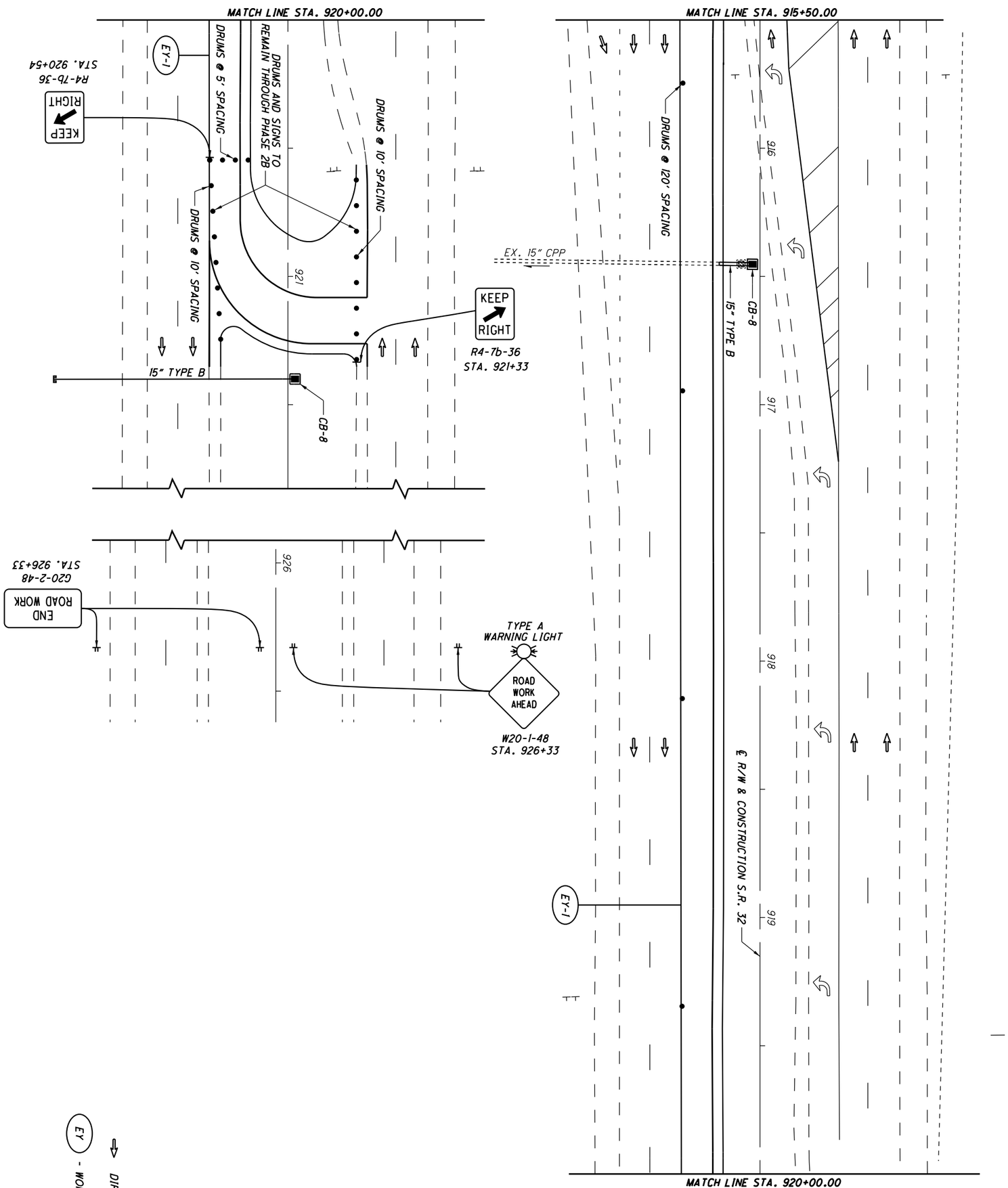
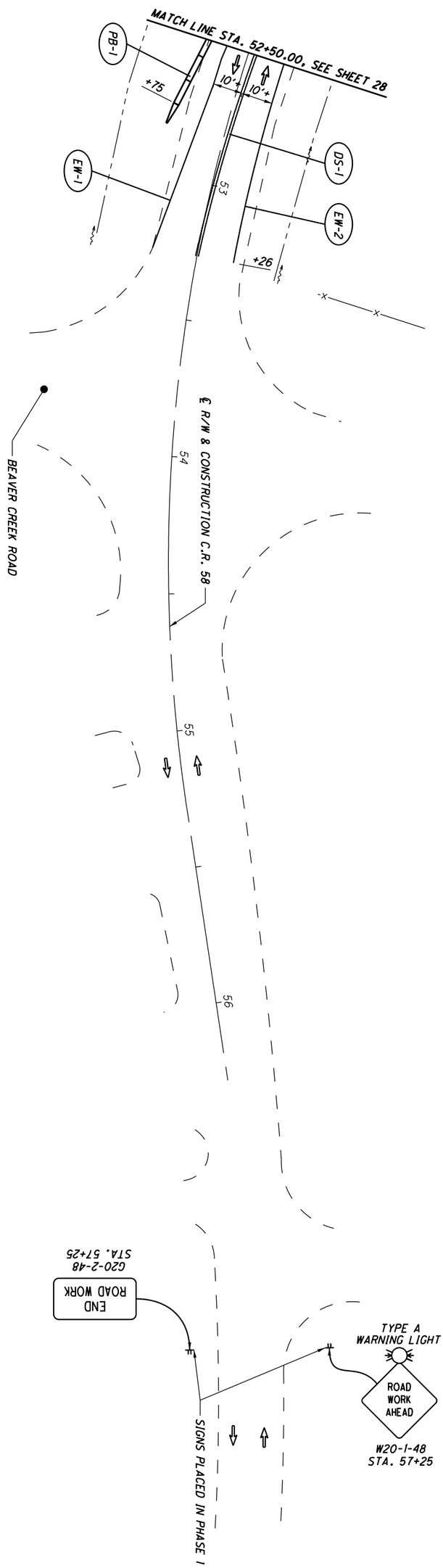


LEGEND

⇩ DIRECTION OF TRAVEL

EY - WORK ZONE EDGE LINE, YELLOW, 4"

25 / 111	PIK-32-17.15	MOT (PHASE 2A) - S.R. 32 STA. 915+50.00 TO STA. 926+33.00	CALCULATED NRH / CHECKED TJS	0 10 20 40 HORIZONTAL SCALE IN FEET



LEGEND

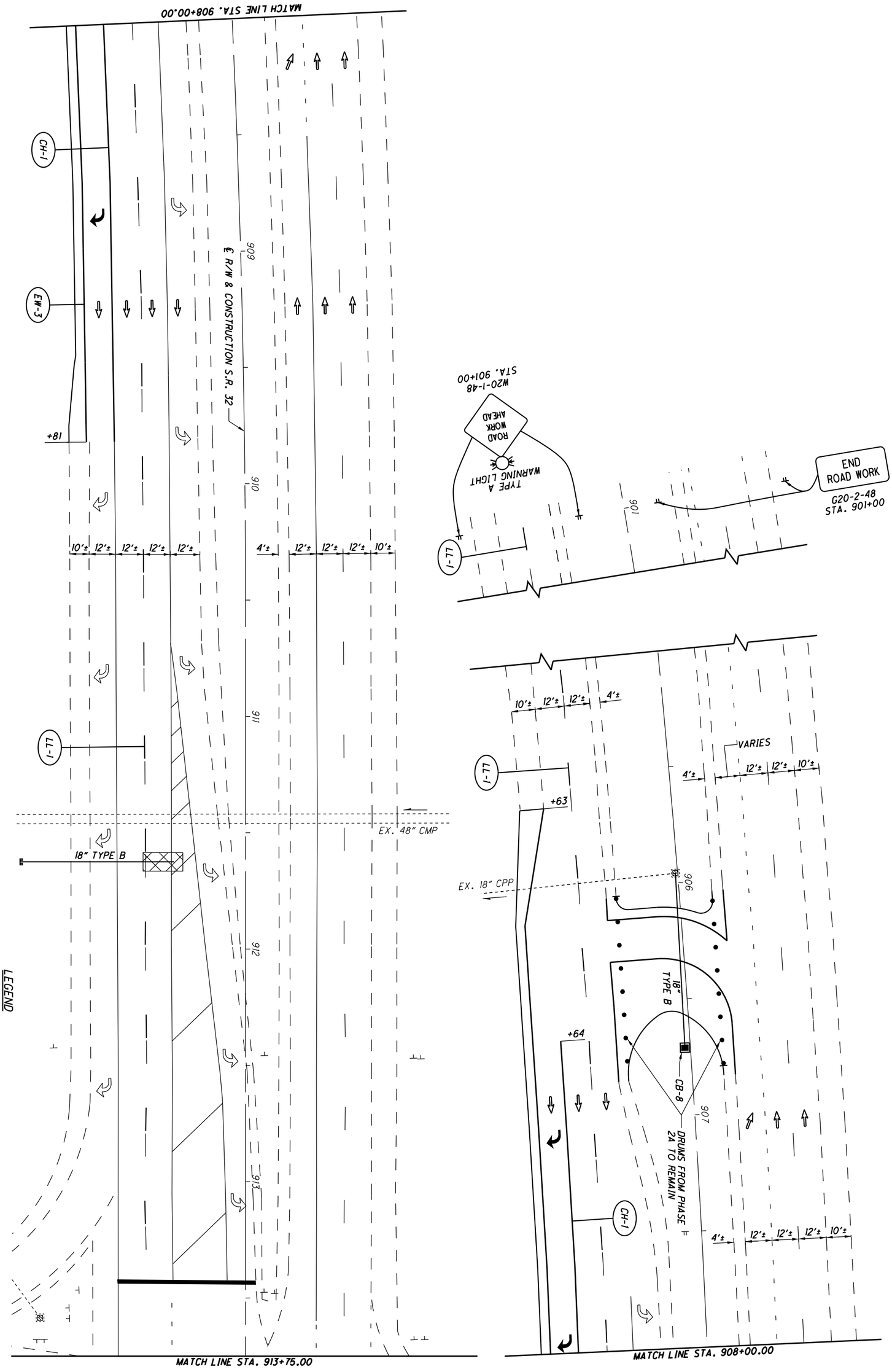
⇩ DIRECTION OF TRAVEL

(PB) - 32" PORTABLE BARRIER

(EW) - WORK ZONE EDGE LINE, WHITE, 4"

(DS) - CENTER LINE, DOUBLE SOLID, 4", YELLOW

26 / 111	PIK-32-17.15	MOT (PHASE 2B) - C.R. 58 STA. 52+50.00 TO STA. 56+00.00	CALCULATED NRH CHECKED TJS	0 10 20 40 HORIZONTAL SCALE IN FEET



LEGEND

⇩ DIRECTION OF TRAVEL

(CH) - WORK ZONE CHANNELIZING LINE, 8"

(LL) - WORK ZONE LANE LINE, 4"

27 / 111	PIK-32-17.15	MOT (PHASE 2B) - S.R. 32 STA. 901+00.00 TO STA. 913+75.00	CALCULATED NRH CHECKED TJS	0 20 10 40 HORIZONTAL SCALE IN FEET

MATCH LINE STA. 52+50.00, SEE SHEET 26

DS-1

EW-2

℄ R/W & CONSTRUCTION C.R. 58

+98

10'

10'

2'

EX. 42" CONC.

42" TYPE A

R = 53'

PB-1

EW-1

2'

12'±

12'±

℄ R/W & CONSTRUCTION S.R. 32

914

915

916

917

918

919

CB-8

15" TYPE B

DRUMS AND EDGE LINE FROM PHASE 2A TO REMAIN

12'

12'±

12'±

MATCH LINE STA. 913+75.00

MATCH LINE STA. 919+50.00

LEGEND

32" PORTABLE BARRIER

DIRECTION OF TRAVEL

WORK AREA

XXX REMOVE EXISTING MARKINGS

PB - 32" PORTABLE BARRIER

EW - WORK ZONE EDGE LINE, WHITE, 4"

DS - CENTER LINE, DOUBLE SOLID, 4", YELLOW

HORIZONTAL SCALE IN FEET

0 10 20 40

CALCULATED NRH

CHECKED TJS

MOT (PHASE 2B) - C.R. 58 & S.R. 32
STA. 913+75.00 TO STA. 919+50.00

PIK-32-17.15

28
111

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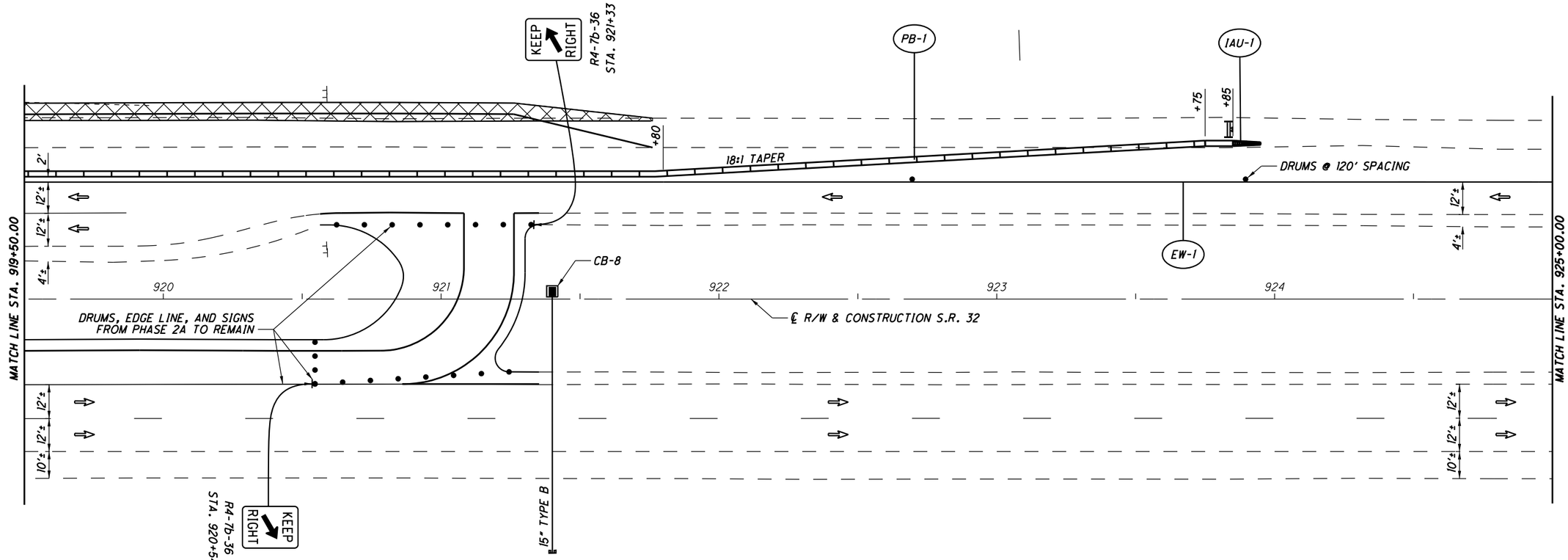

LEGEND

- 32" PORTABLE BARRIER
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL
- WORK AREA

- (IAU) - WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)
- (PB) - 32" PORTABLE BARRIER
- (EW) - WORK ZONE EDGE LINE, WHITE, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 2B) - S.R. 32
STA. 919+50.00 TO STA. 925+00.00

PIK-32-17.15

29
111

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LEGEND

⇨ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

(EW) - WORK ZONE EDGE LINE, WHITE, 4"

(DL) - WORK ZONE DOTTED LINE, 4"

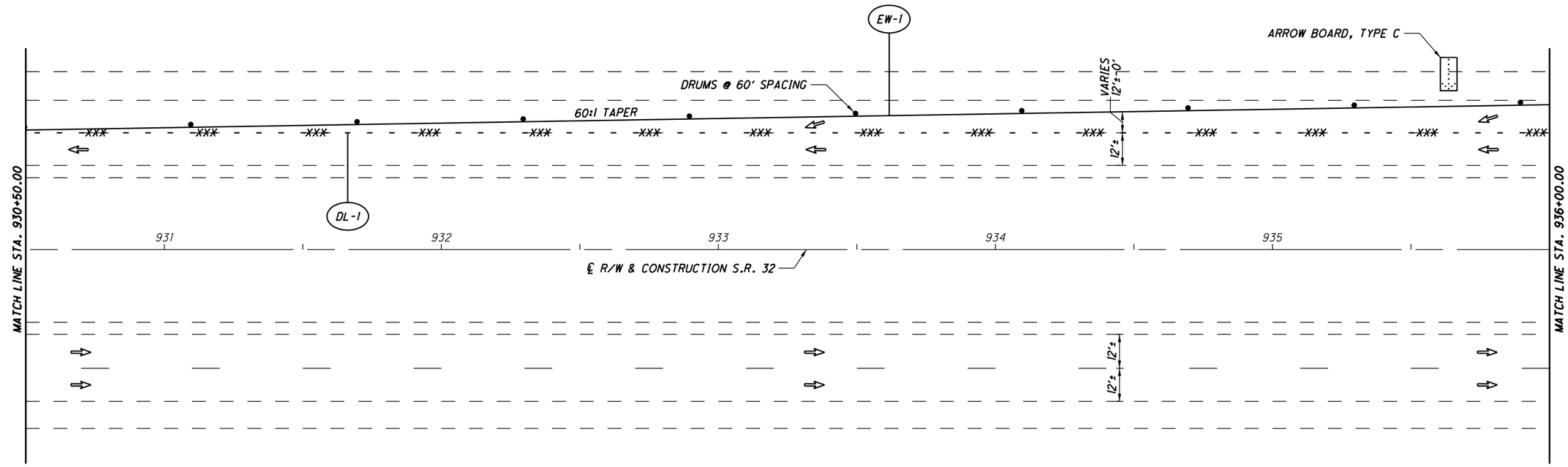
N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED NRH | CHECKED TJS

MOT (PHASE 2B) - S.R. 32
STA. 925+00.00 TO STA. 930+50.00

PIK-32-17.15



LEGEND

⇨ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

(EW) - WORK ZONE EDGE LINE, WHITE, 4"

(DL) - WORK ZONE DOTTED LINE, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 2B) - S.R. 32
STA. 930+50.00 TO STA. 936+00.00

PIK-32-17.15

31
111

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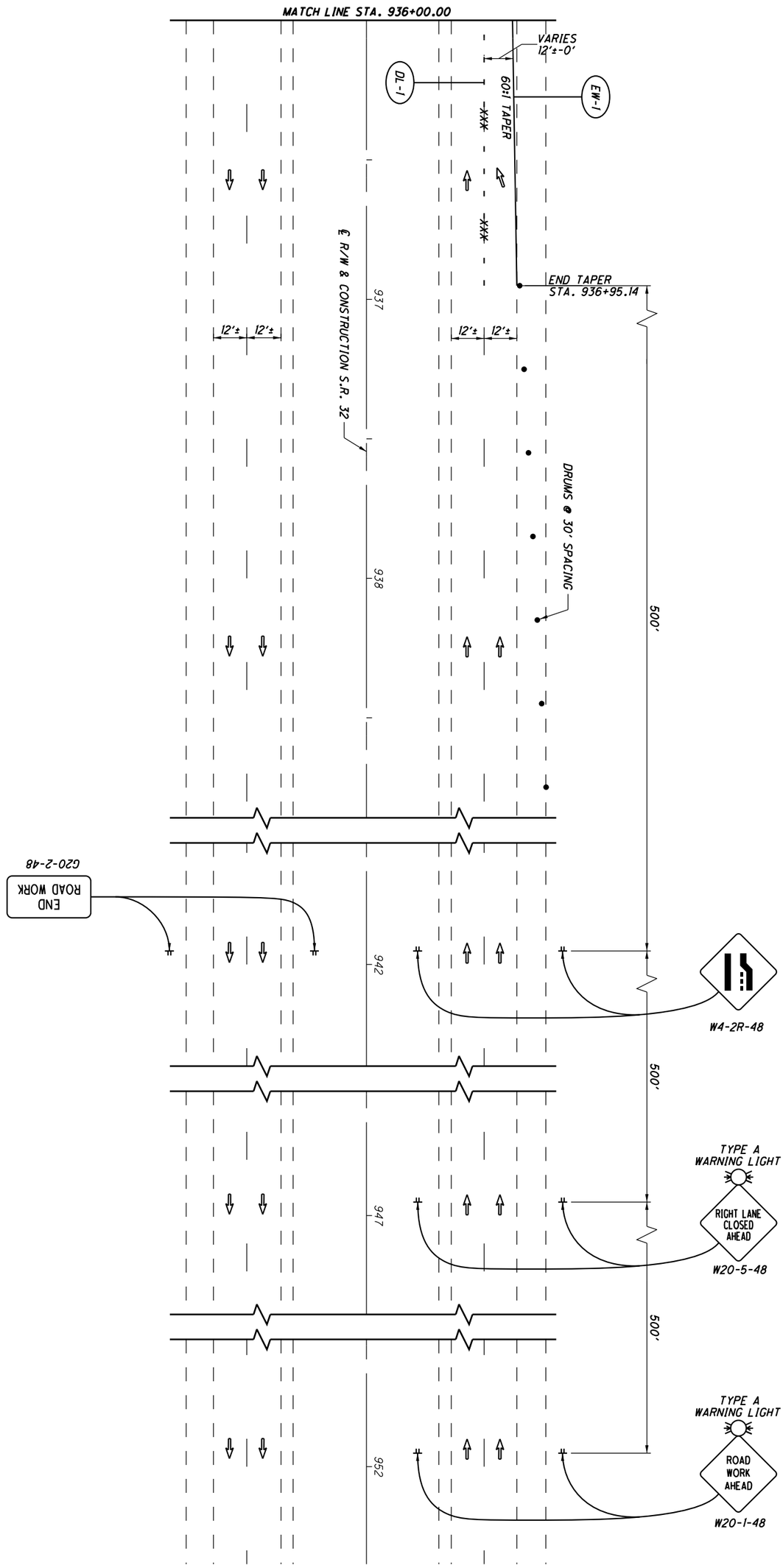
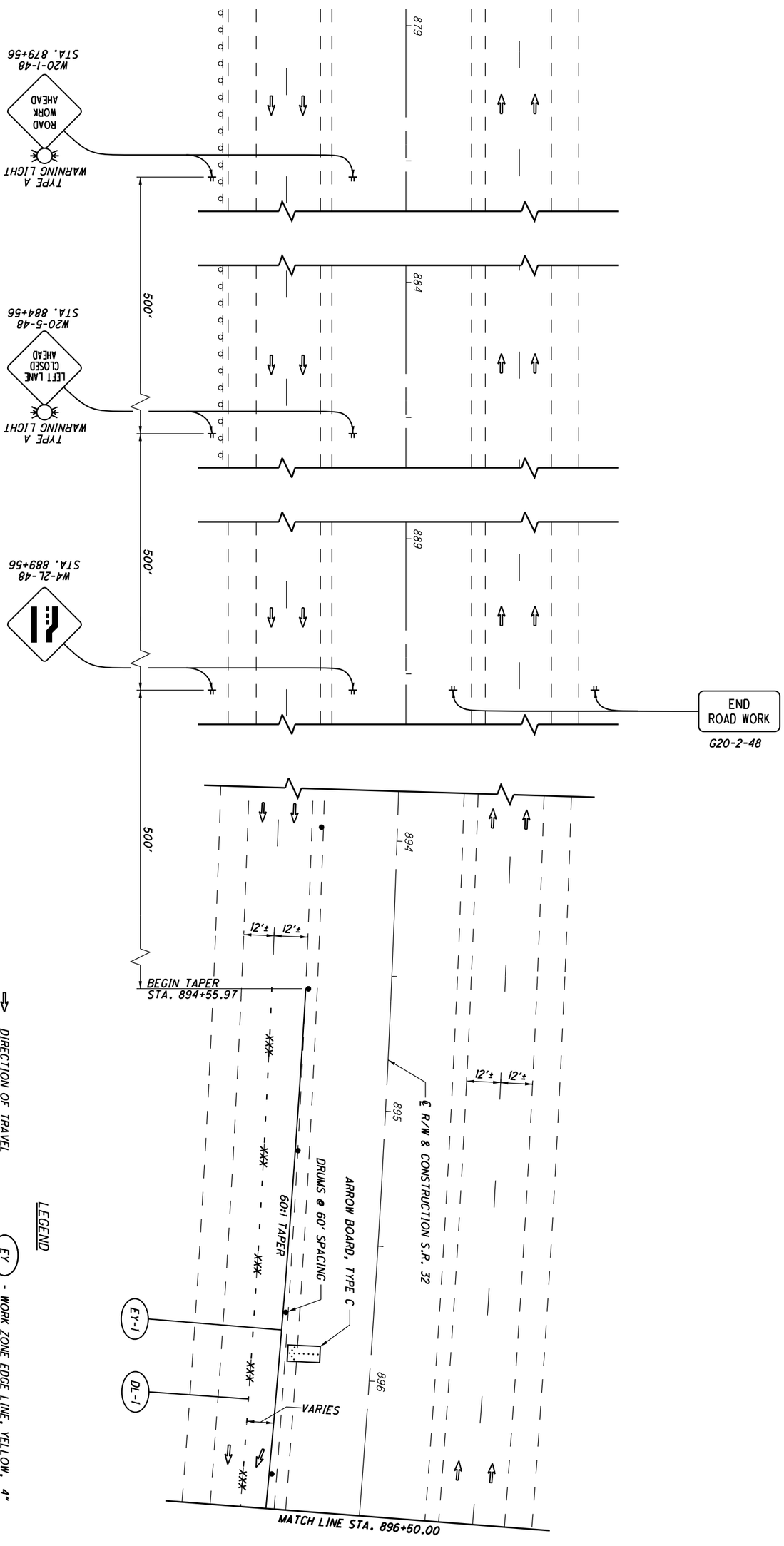
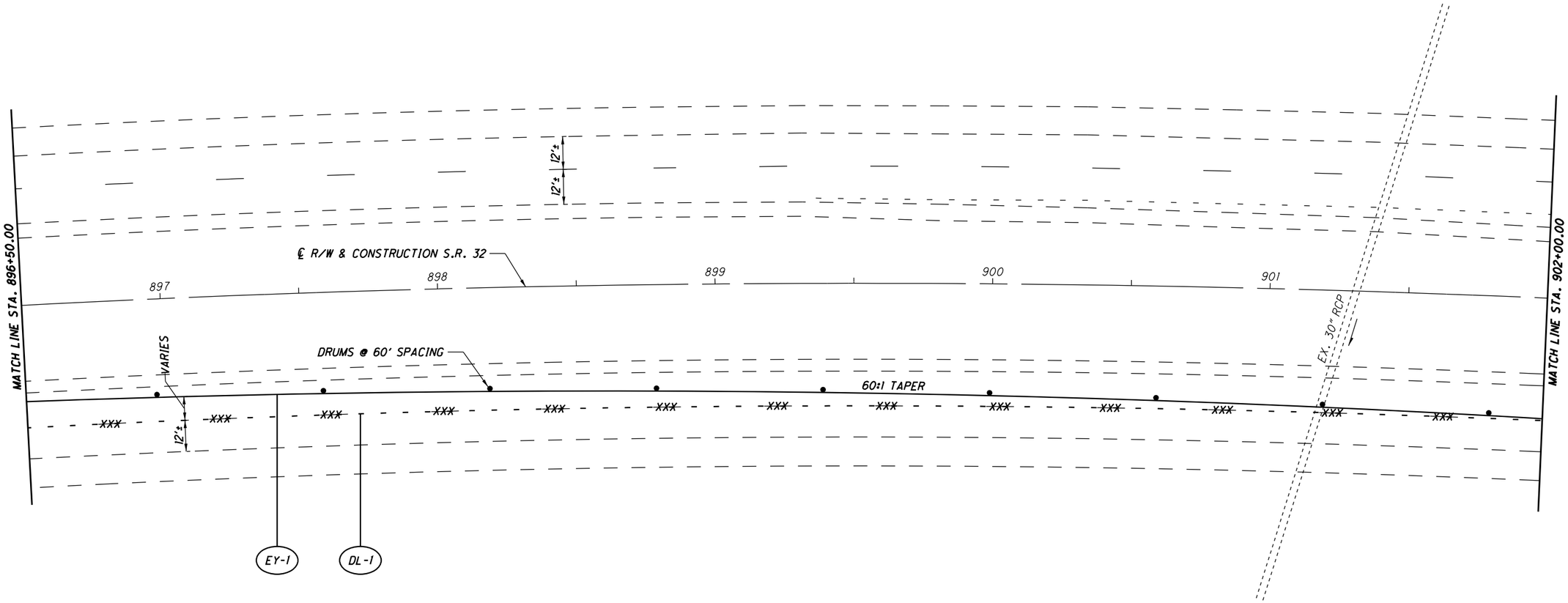

MATCH LINE STA. 936+00.00
VARIES 12'±-0'
DL-1
EW-1
60:1 TAPER
XXX
XXX
END TAPER STA. 936+95.14
℄ R/W & CONSTRUCTION S.R. 32
937
938
942
947
952
12'±
12'±
12'±
12'±
DRUMS @ 30' SPACING
500'
500'
500'
END ROAD WORK
G20-2-48
W4-2R-48
TYPE A WARNING LIGHT
RIGHT LANE CLOSED AHEAD
W20-5-48
TYPE A WARNING LIGHT
ROAD WORK AHEAD
W20-1-48
LEGEND
DIRECTION OF TRAVEL
XXX REMOVE EXISTING MARKINGS
EW - WORK ZONE EDGE LINE, WHITE, 4"
DL - WORK ZONE DOTTED LINE, 4"


879
884
889
894
895
896
STA. 879+56
W20-1-48
ROAD WORK AHEAD
TYPE A WARNING LIGHT
500'
STA. 884+56
W20-5-48
LEFT LANE CLOSED AHEAD
TYPE A WARNING LIGHT
500'
STA. 889+56
W4-2L-48
500'
END ROAD WORK
G20-2-48
12'± 12'±
BEGIN TAPER
STA. 894+55.97
12'± 12'±
℄ R/W & CONSTRUCTION S.R. 32
DRUMS @ 60' SPACING
ARROW BOARD, TYPE C
60:1 TAPER
EY-1
DL-1
VARIES
MATCH LINE STA. 896+50.00
LEGEND
EY - WORK ZONE EDGE LINE, YELLOW, 4"
DL - WORK ZONE DOTTED LINE, 4"
LL - WORK ZONE LANE LINE, 4"
DIRECTION OF TRAVEL
XXX REMOVE EXISTING MARKINGS



LEGEND

⇒ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

EY - WORK ZONE EDGE LINE, YELLOW, 4"

DL - WORK ZONE DOTTED LINE, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 3) - S.R. 32
STA. 896+50.00 TO STA. 902+00.00

PIK-32-17.15

34
111

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NOTE:
INSTALL PERMANENT TRAFFIC CONTROL SIGNS FOR U-TURNS DURING THIS PHASE.

Shyville Rd

MATCH LINE STA. 902+00.00

903 904 905 906 907

VARIES 12'±-0'

12'± 12'±

℄ R/W & CONSTRUCTION S.R. 32

EY-2

CH-3

STA. 906+00

R1-1-36

STOP

SL-1

18" TYPE B

CB-8

EY-3

IAU-1

+44

MATCH LINE STA. 907+50.00

907+50.00

60:1 TAPER

DRUMS @ 120' SPACING

DRUMS @ 5' SPACING

DRUMS @ 10' SPACING

XXX

12'±

+14

CHANNELIZING LINE PLACED IN PHASE 2B

EDGE LINE PLACED IN PHASE 2B

EX. 18" CPP

DL-1

END TAPER STA. 902+15.50

EY-1

W23-2-36 STA. 903+00

NEW TRAFFIC PATTERN AHEAD

SIGN TO BE POSTED FOR TWO WEEKS ONLY

KEEP RIGHT

R4-7b-36 STA. 906+08

DO NOT ENTER

R5-1-36 STA. 906+09

LEGEND

⇨ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

EY - WORK ZONE EDGE LINE, YELLOW, 4"

DL - WORK ZONE DOTTED LINE, 4"

EW - WORK ZONE EDGE LINE, WHITE, 4"

IAU - WORK ZONE IMPACT ATTENAUTOR (UNIDIRECTIONAL)

SL - WORK ZONE STOP LINE, CLASS I

N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED NRH CHECKED TJS

MOT (PHASE 3) - S.R. 32
STA. 902+00.00 TO STA. 907+50.00

PIK-32-17.15

35
111

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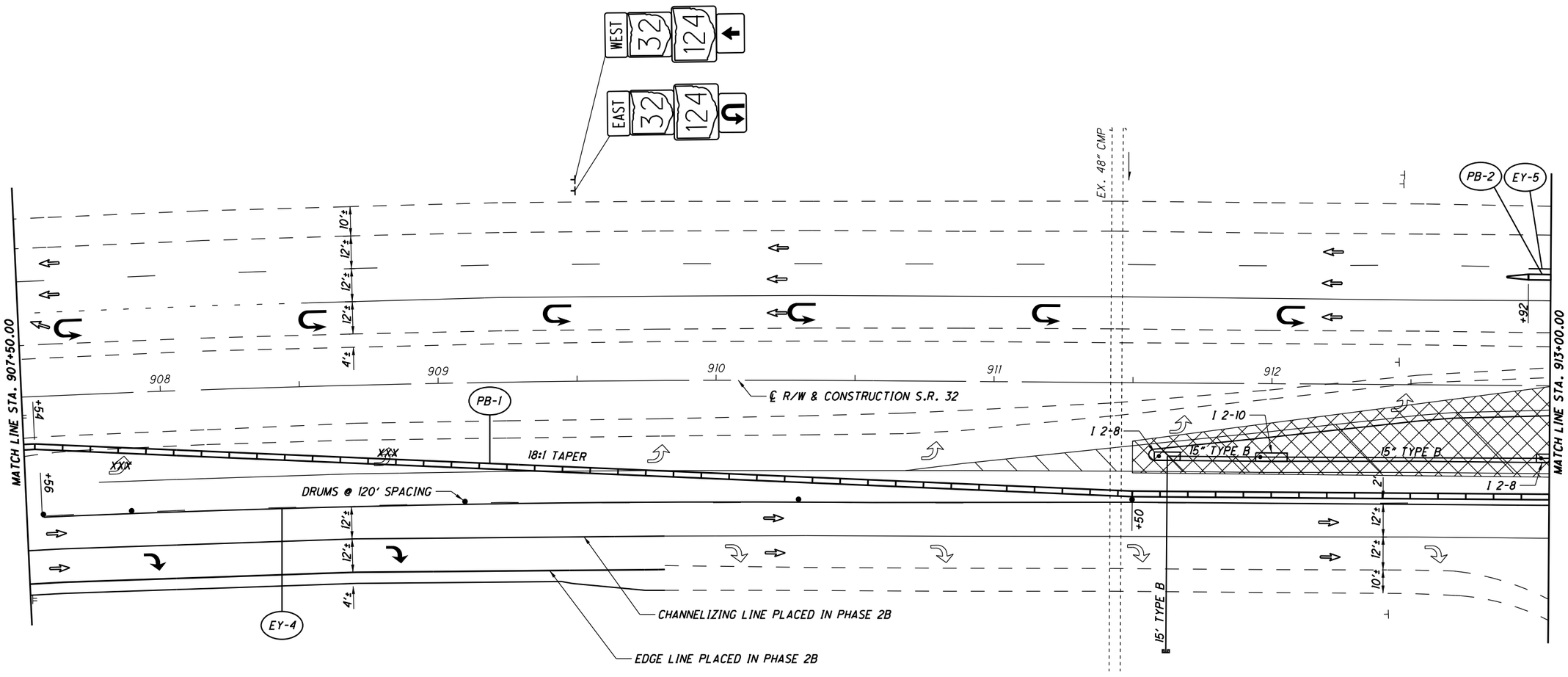
NOTE:
INSTALL PERMANENT TRAFFIC CONTROL
SIGNS FOR U-TURNS DURING THIS PHASE.



LEGEND

- 32" PORTABLE BARRIER
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- PORTABLE BARRIER TAPERED END SECTION
- WORK AREA
- XXX REMOVE EXISTING MARKINGS
- PB - 32" PORTABLE BARRIER
- EY - WORK ZONE EDGE LINE, YELLOW, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 3) - S.R. 32
STA. 907+50.00 TO STA. 913+00.00

PIK-32-17.15

36
111

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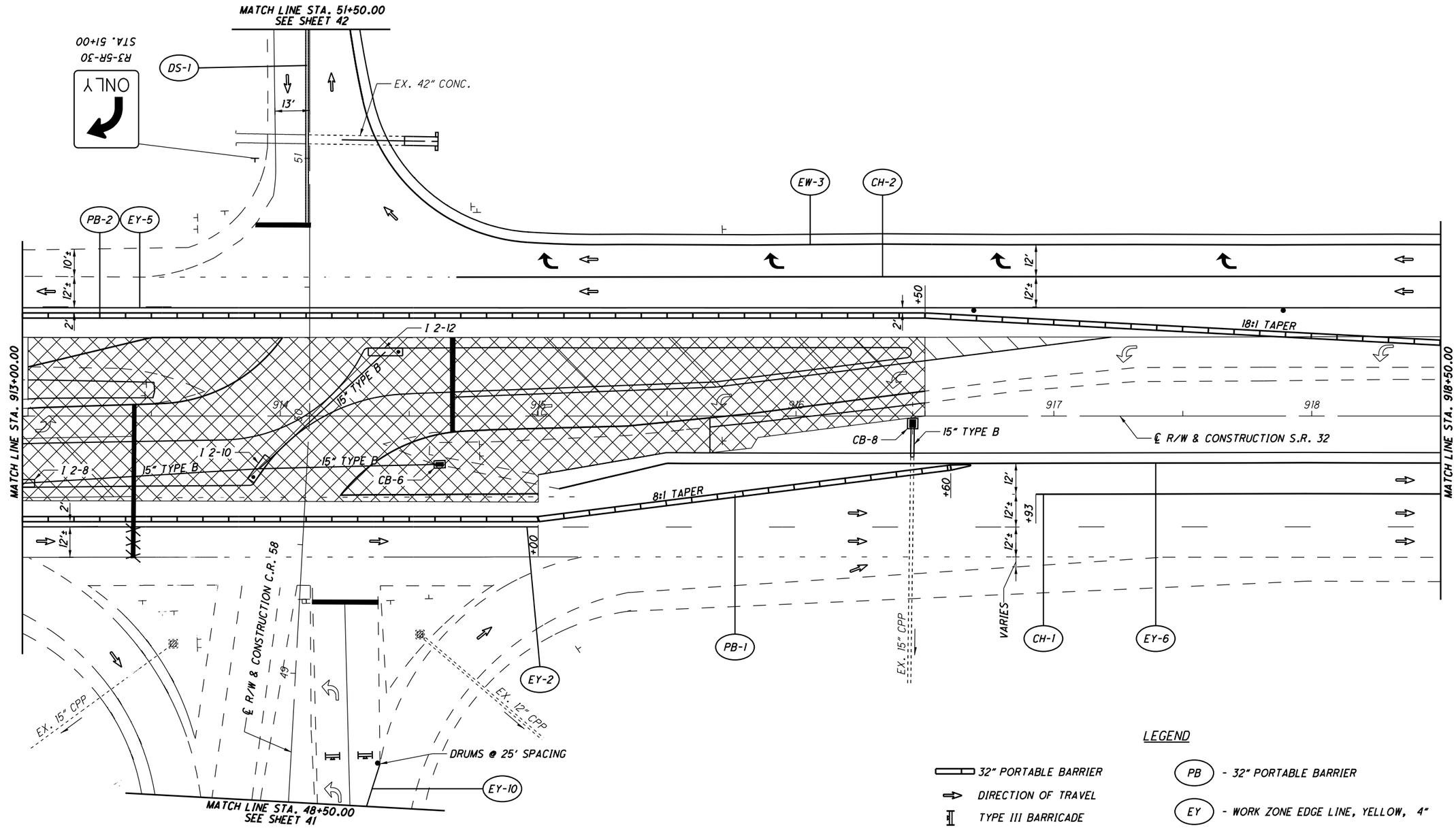

LEGEND

- 32" PORTABLE BARRIER
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- PORTABLE BARRIER TAPERED END SECTION
- WORK AREA
- LANE ARROW
- XXX REMOVE EXISTING MARKINGS

- PB - 32" PORTABLE BARRIER
- EY - WORK ZONE EDGE LINE, YELLOW, 4"
- CH - WORK ZONE CHANNELIZING LINE, 8"
- EW - WORK ZONE EDGE LINE, WHITE, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 3) - S.R. 32
STA. 913+00.00 TO STA. 918+50.00

PIK-32-17.15

37
111

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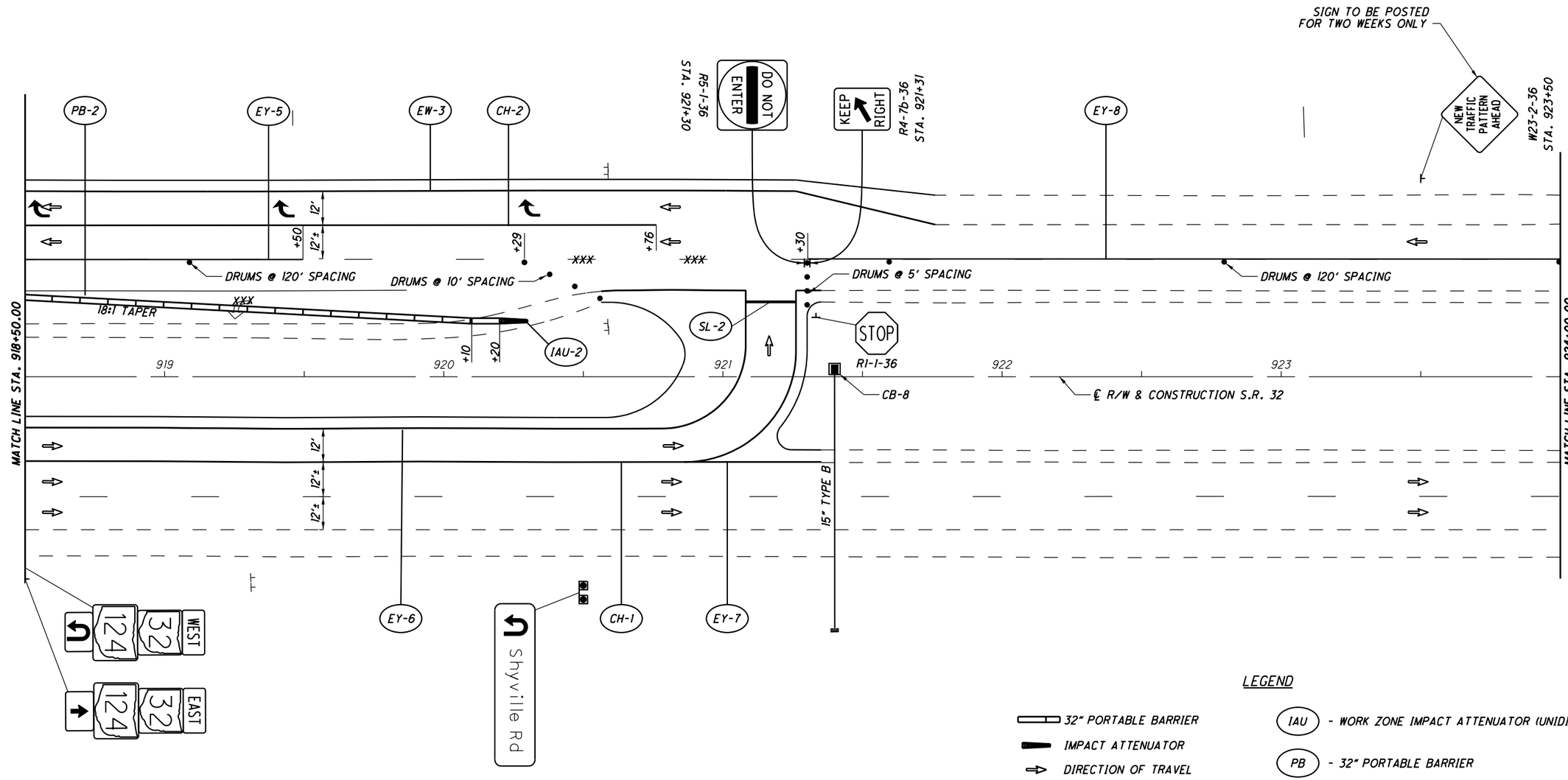


NOTE:
INSTALL PERMANENT TRAFFIC CONTROL SIGNS FOR U-TURNS DURING THIS PHASE.

LEGEND

- 32" PORTABLE BARRIER
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- XXX REMOVE EXISTING MARKINGS

- (IAU) - WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)
- (PB) - 32" PORTABLE BARRIER
- (EY) - WORK ZONE EDGE LINE, YELLOW, 4"
- (CH) - WORK ZONE CHANNELIZING LINE, 8"
- (EW) - WORK ZONE EDGE LINE, WHITE, 4"
- (SL) - WORK ZONE STOP LINE, CLASS I

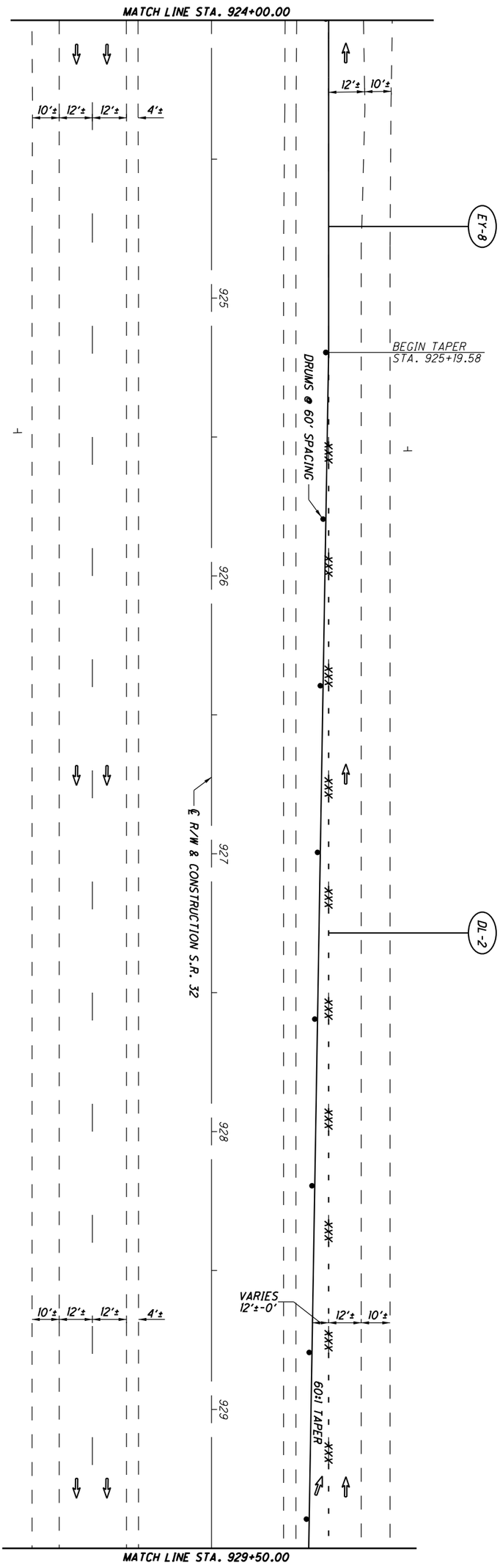
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 3) - S.R. 32
STA. 918+50.00 TO STA. 924+00.00

PIK-32-17.15

38
111



LEGEND

⇩ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

EY - WORK ZONE EDGE LINE, YELLOW, 4"

DL - WORK ZONE DOTTED LINE, 4"

LEGEND

⇨ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

(EY) - WORK ZONE EDGE LINE, YELLOW, 4"

(DL) - WORK ZONE DOTTED LINE, 4"

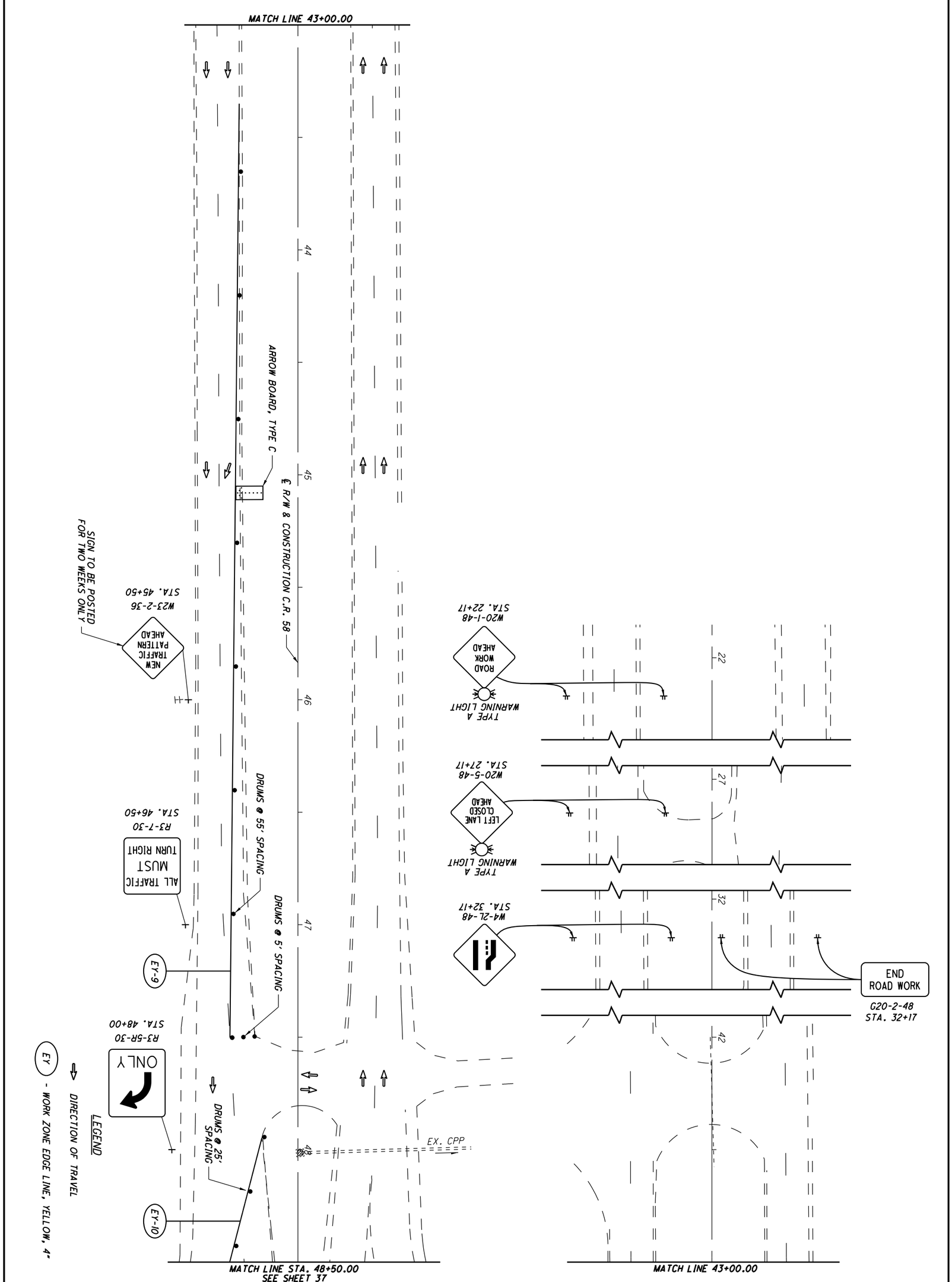
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

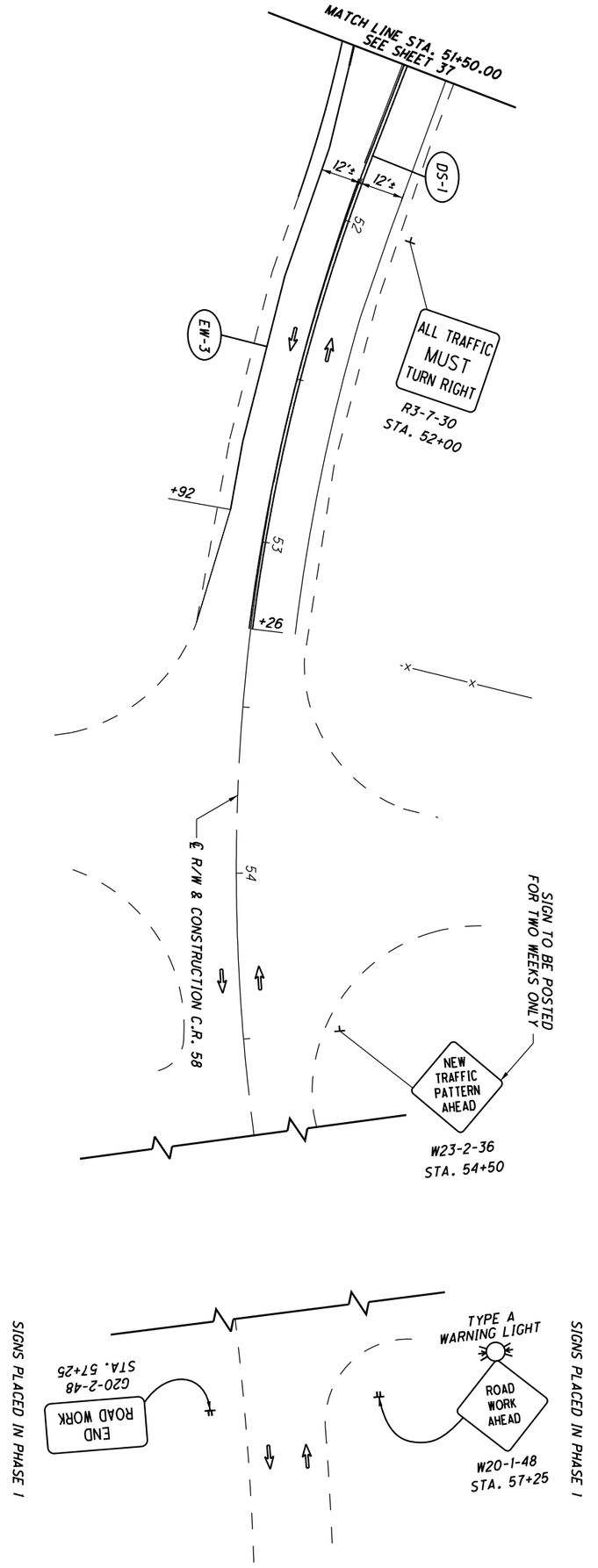
MOT (PHASE 3) - S.R. 32
STA. 929+50.00 TO STA. 947+50.00

PIK-32-17.15

40
111



41 / 111	PIK-32-17.15	MOT (PHASE 3) - C.R. 58 STA. 22+00.00 TO STA. 48+50.00	CALCULATED NRH CHECKED TJS	0 10 20 40 HORIZONTAL SCALE IN FEET



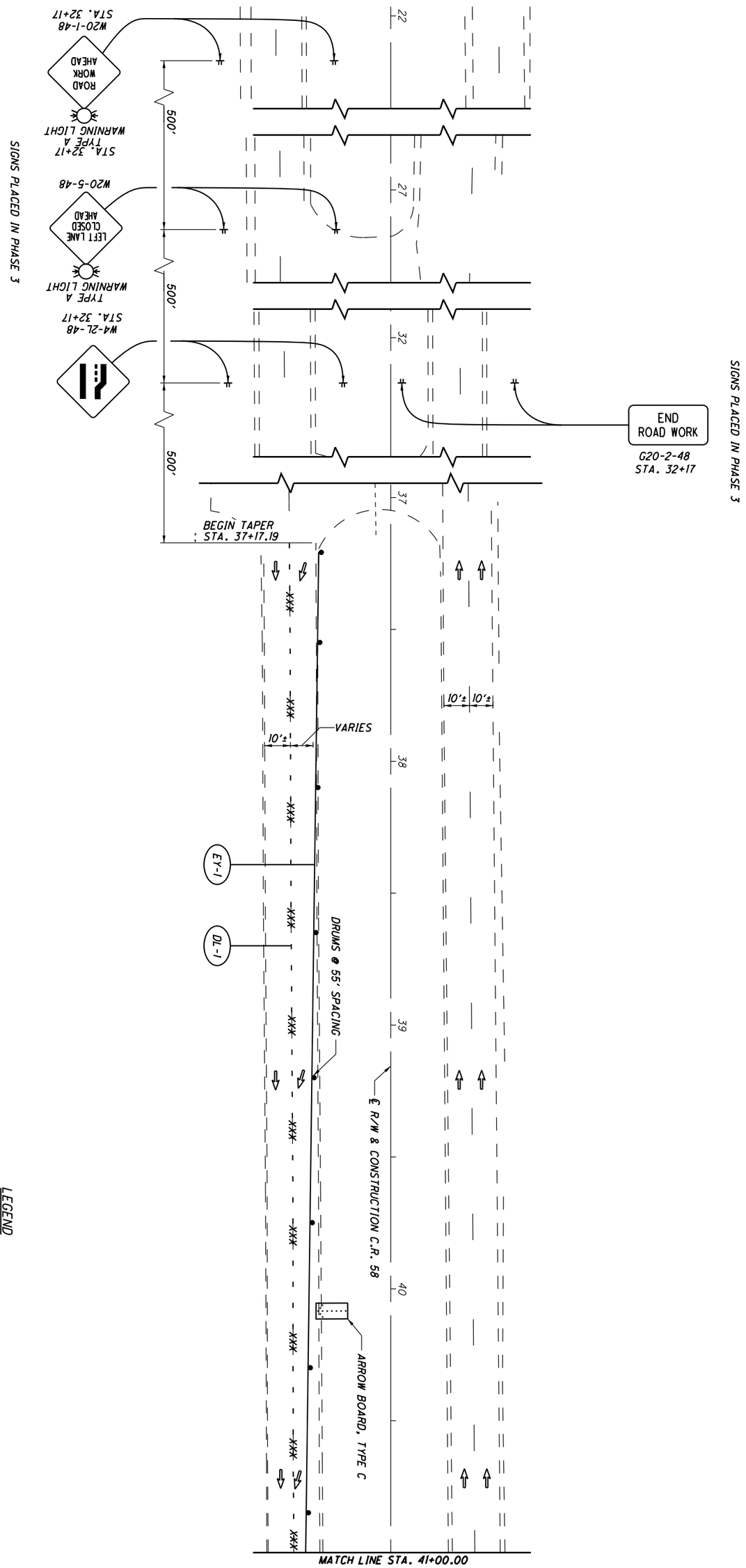
LEGEND

⇩ DIRECTION OF TRAVEL

(EW) - WORK ZONE EDGE LINE, WHITE, 4"

(DS) - WORK ZONE CENTER LINE, DOUBLE SOLID, 4", YELLOW

42 / 111	PIK-32-17.15	MOT (PHASE 3) - C.R. 58 STA. 51+50.00 TO STA. 56+00.00	CALCULATED NRH CHECKED TJS	0 10 20 40 HORIZONTAL SCALE IN FEET



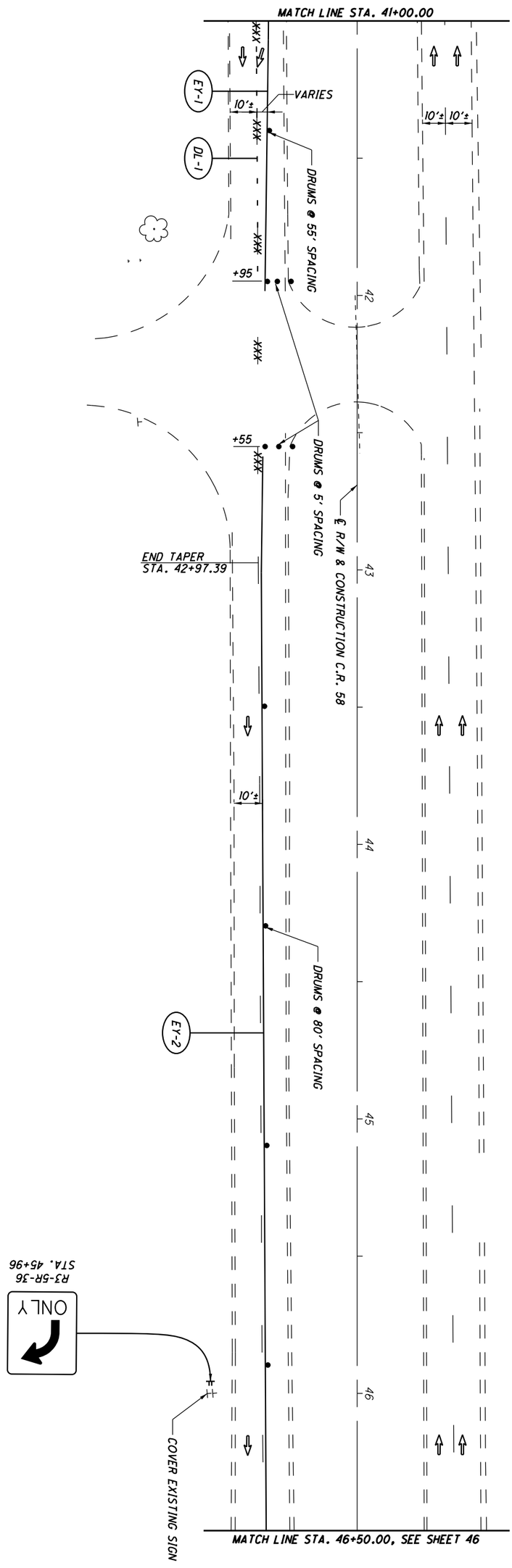
LEGEND

⇩ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

(EY) - WORK ZONE EDGE LINE, YELLOW, 4"

(DL) - WORK ZONE DOTTED LINE, 4"



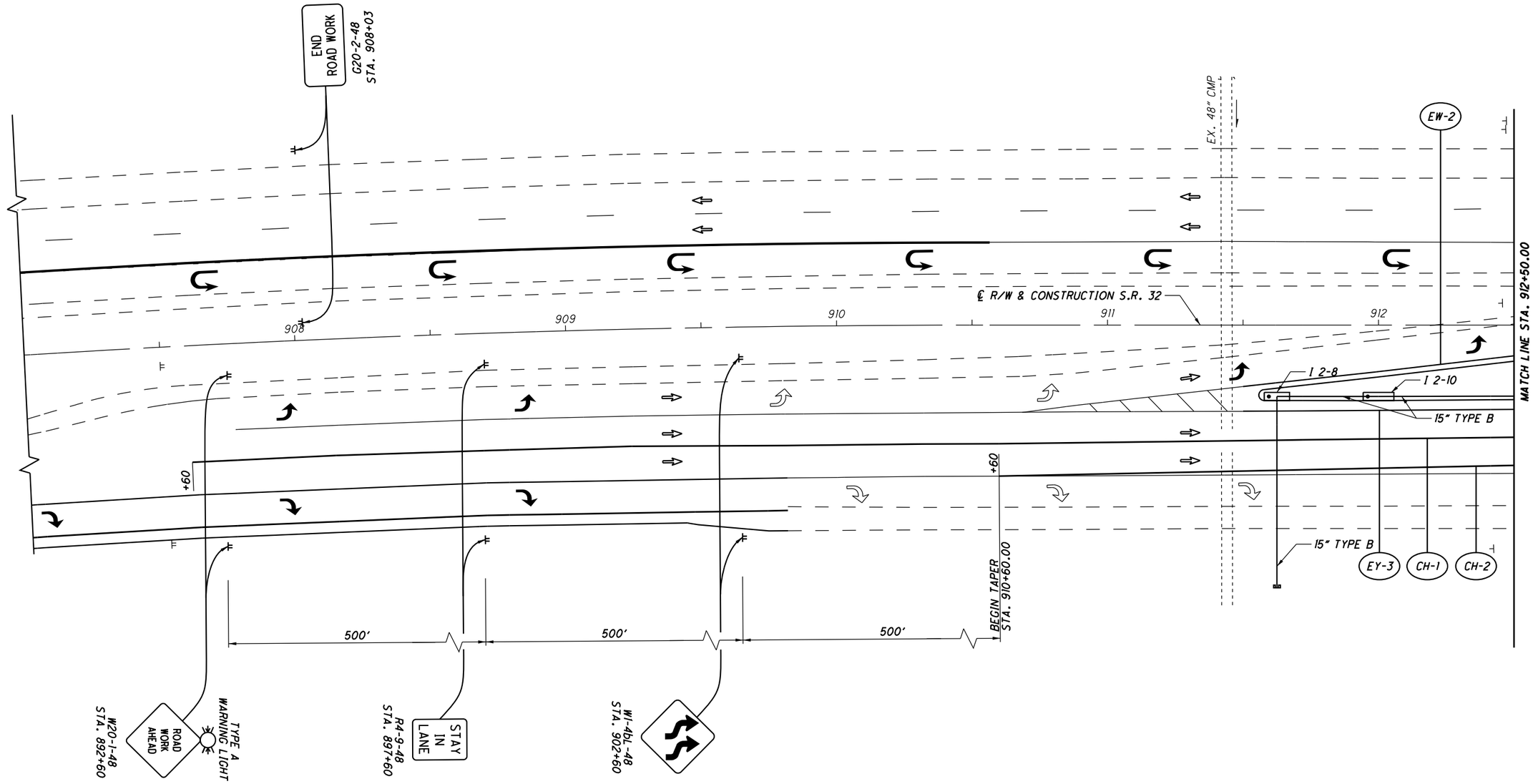
LEGEND

⇩ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

(EY) - WORK ZONE EDGE LINE, YELLOW, 4"

(DL) - WORK ZONE DOTTED LINE, 4"



LEGEND

⇨ DIRECTION OF TRAVEL

↴ LANE ARROW

(LL) - WORK ZONE LANE LINE, 4"

(CH) - WORK ZONE CHANNELIZING LINE, 8"

N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED NRH | CHECKED TJS

MOT (PHASE 4) - S.R. 32
STA. 892+60.00 TO STA. 912+50.00

PIK-32-17.15

MATCH LINE STA. 912+50.00

EY-2
CH-2
1AU-1
PB-1
1AU-2
PB-2
EY-6
EW-2
LL-1
EY-5
EW-1
CH-4
CH-3
CH-1

15" TYPE B
60:1 TAPER
8:1 TAPER
EX. 15" CPP
EX. CPP
EX. 42" CONC.
42" TYPE A
1 2-8
1 2-10
1 2-12
CB-6
+27
+37
+00
+02
+12
+83
+32
+34
+50
+80
10'
1'
DRUMS @ 25' SPACING
DRUMS @ 5' SPACING
DRUMS @ 80' SPACING
℄ R/W & CONSTRUCTION C.R. 58
℄ R/W & CONSTRUCTION S.R. 32
MIN. 12'
47
48
49
50
51
914
915
916
MATCH LINE STA. 46+50.00, SEE SHEET 44
MATCH LINE STA. 916+00.00

KEEP RIGHT
R4-7b-36
STA. 48+05

ONLY
R3-5R-36
STA. 48+12

SIGNS PLACED IN PHASE 1

TYPE A WARNING LIGHT
ROAD WORK AHEAD
W20-1-48
STA. 57+25

END ROAD WORK
G20-2-48
STA. 57+25

SIGNS PLACED IN PHASE 1

LEGEND

- 32" PORTABLE BARRIER
- XXX REMOVE EXISTING MARKINGS
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- WORK AREA
- LANE ARROW

- 1AU - WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)
- PB - 32" PORTABLE BARRIER
- EW - WORK ZONE EDGE LINE, WHITE, 4"
- EY - WORK ZONE EDGE LINE, YELLOW, 4"
- LL - WORK ZONE LANE LINE, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 4) - C.R. 58
STA. 46+50.00 TO STA. 57+25.00

PIK-32-17.15

46
111

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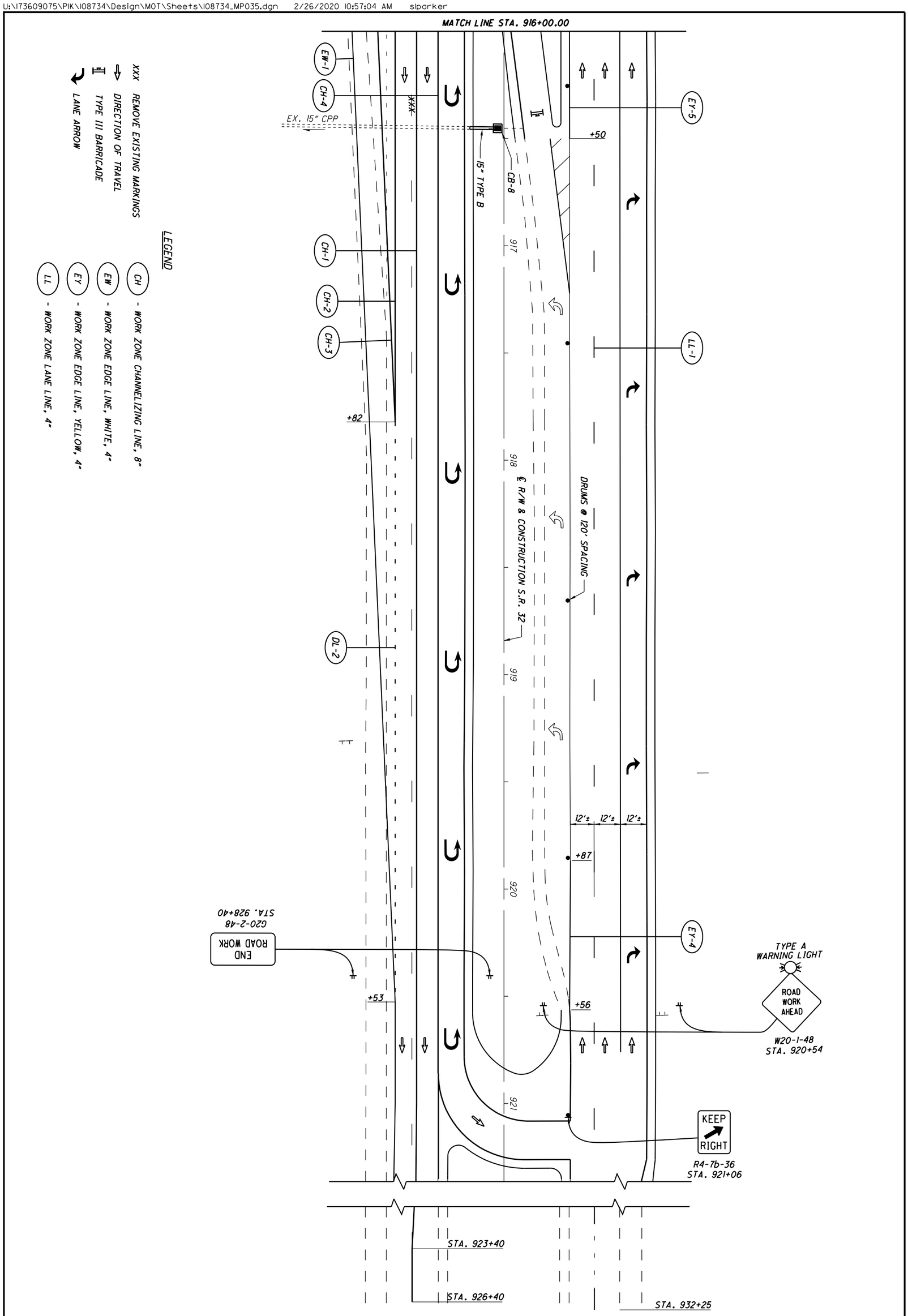
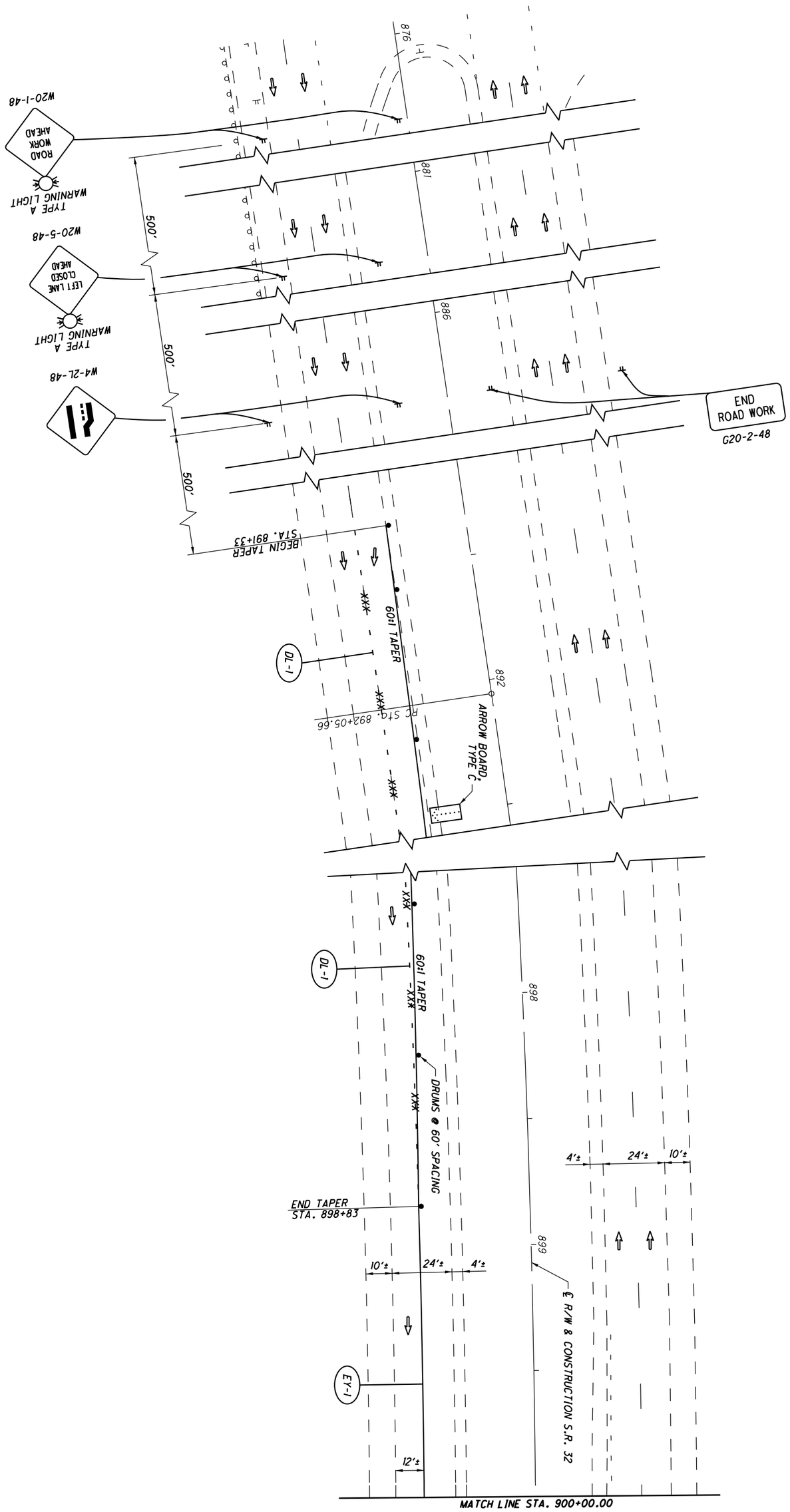


47 / 111	PIK-32-17.15	MOT (PHASE 4) - S.R. 32 STA. 916+00.00 TO STA. 932+97.00	CALCULATED NRH / CHECKED TJS	0 10 20 40 HORIZONTAL SCALE IN FEET



LEGEND

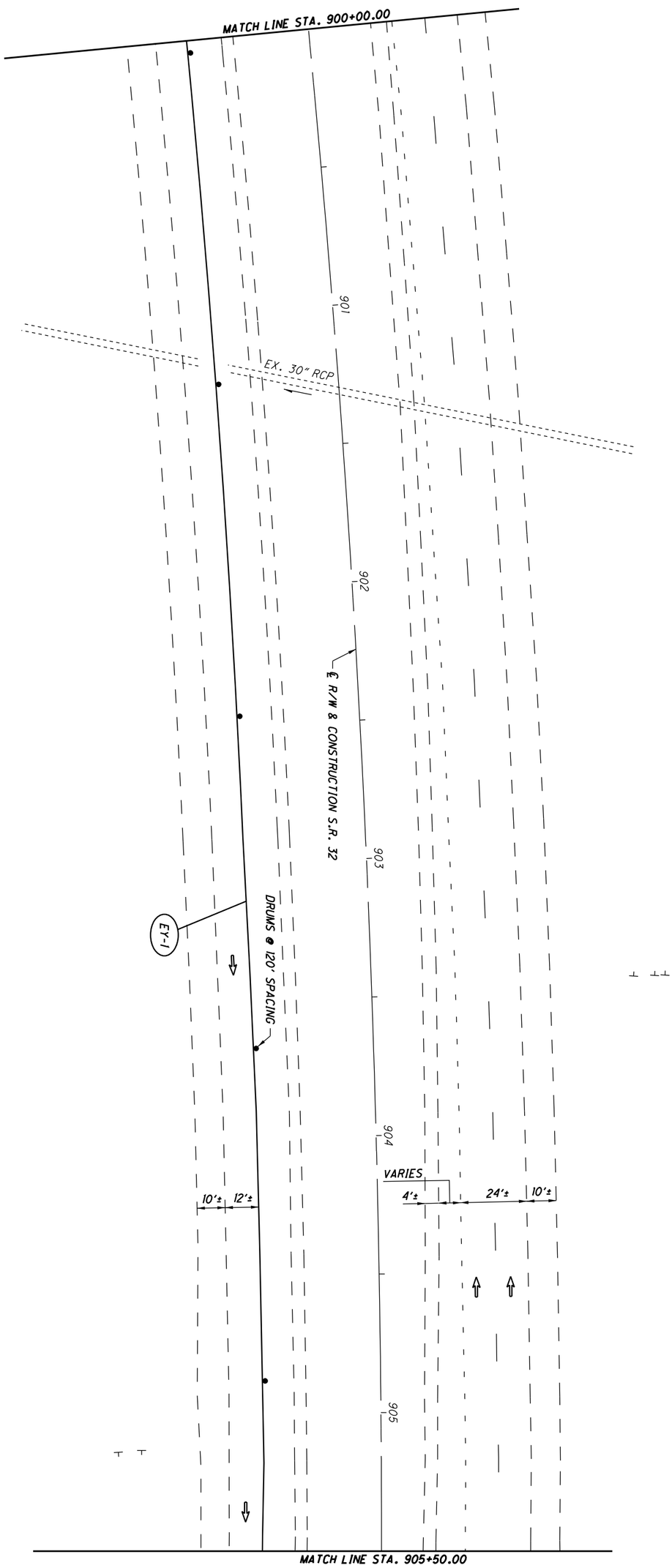
⇩ DIRECTION OF TRAVEL

XXX REMOVE EXISTING MARKINGS

(DL) - WORK ZONE DOTTED LINE, 4"

(EY) - WORK ZONE EDGE LINE, YELLOW, 4"

48 / 111	PIK-32-17.15	MOT (PHASE 5) - S.R. 32 STA. 876+33.61 TO STA. 900+00.00	CALCULATED NRH CHECKED TJS	0 20 10 40 HORIZONTAL SCALE IN FEET



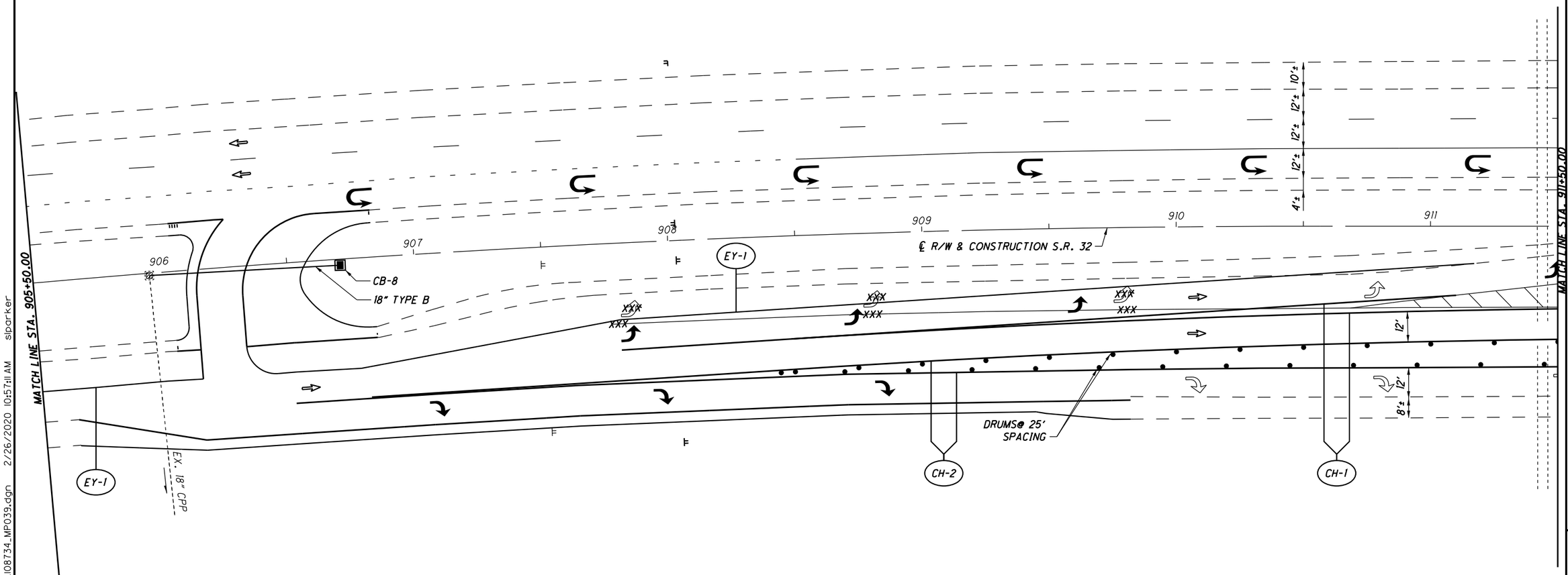
LEGEND

⇩ DIRECTION OF TRAVEL

(EY) - WORK ZONE EDGE LINE, YELLOW, 4"

49 / 111	PIK-32-17.15	MOT (PHASE 5) - S.R. 32 STA. 900+00.00 TO STA. 905+50.00	CALCULATED NRH CHECKED TJS	0 10 20 40 HORIZONTAL SCALE IN FEET

S.R. 32
EX. CURVE NO. 1
P.I. Sta. 901+39.22
Δ = 18° 30′ 31″ (RT)
Dc = 1° 00′ 00″
R = 5,729.58′
T = 933.56′
L = 1,850.86′
E = 75.56′
C = 1,842.82′
C.B. = N 82° 29′ 45″ E



LEGEND

- LANE ARROW
- DIRECTION OF TRAVEL
- XXX REMOVE EXISTING MARKINGS
- (CH) - WORK ZONE CHANNELIZING LINE, WHITE, CLASS I, 8"
- (EY) - WORK ZONE EDGE LINE, YELLOW, 4"

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 5) - S.R. 32
STA. 905+50.00 TO STA. 911+50.00

PIK-32-17.15

50
111

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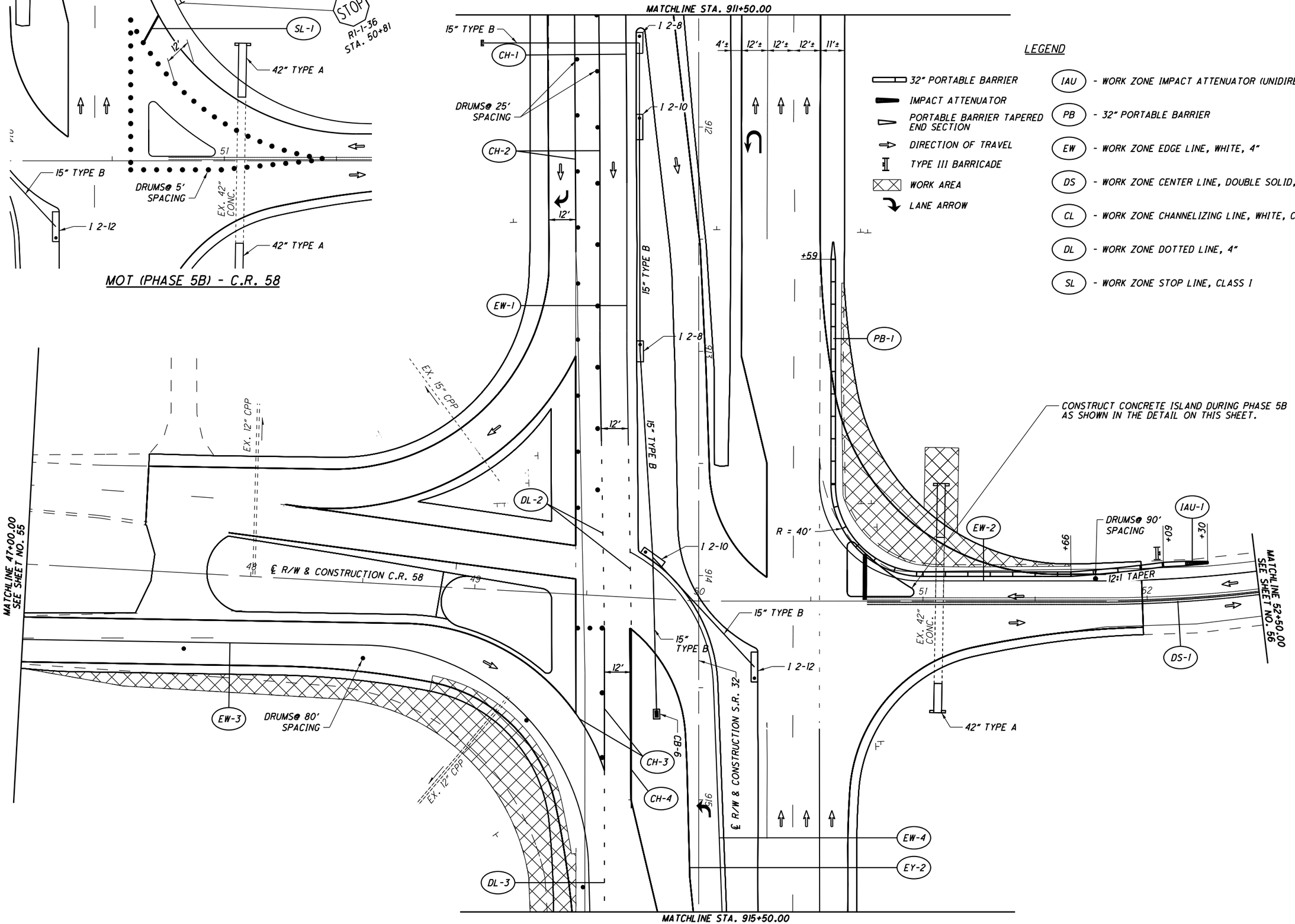
MOT (PHASE 5B) - C.R. 58



LEGEND

- 32" PORTABLE BARRIER
- IMPACT ATTENUATOR
- PORTABLE BARRIER TAPERED END SECTION
- DIRECTION OF TRAVEL
- TYPE III BARRICADE
- WORK AREA
- LANE ARROW

- IAU - WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)
- PB - 32" PORTABLE BARRIER
- EW - WORK ZONE EDGE LINE, WHITE, 4"
- DS - WORK ZONE CENTER LINE, DOUBLE SOLID, 4", YELLOW
- CL - WORK ZONE CHANNELIZING LINE, WHITE, CLASS I, 8"
- DL - WORK ZONE DOTTED LINE, 4"
- SL - WORK ZONE STOP LINE, CLASS I

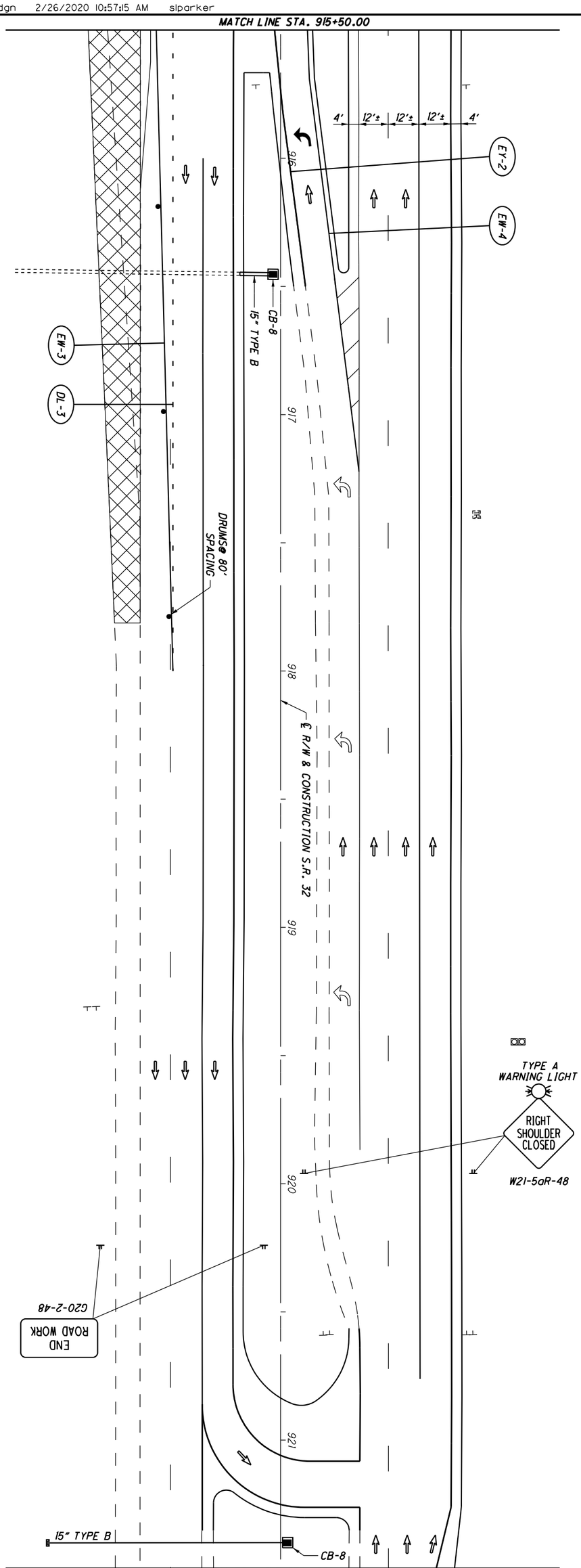
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 5) - C.R. 58
STA. 911+50 TO STA. 915+50

PIK-32-17.15

51
111



LEGEND

LANE ARROW

DIRECTION OF TRAVEL

WORK AREA

EW - WORK ZONE EDGE LINE, WHITE, 4"

DL - WORK ZONE DOTTED LINE, 4"

52
111

PIK-32-17.15

MOT (PHASE 5) - S.R. 32

STA. 915+50.00 TO STA. 921+50.00

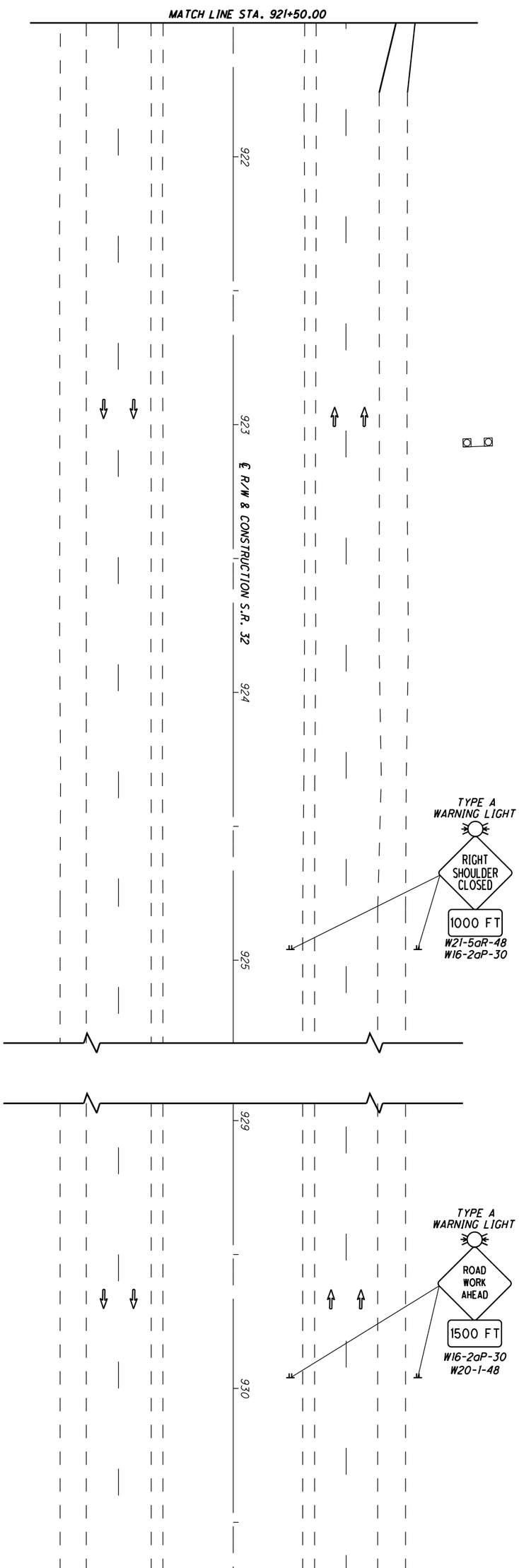
CALCULATED NRH

CHECKED TJS

0 10 20 40

HORIZONTAL SCALE IN FEET

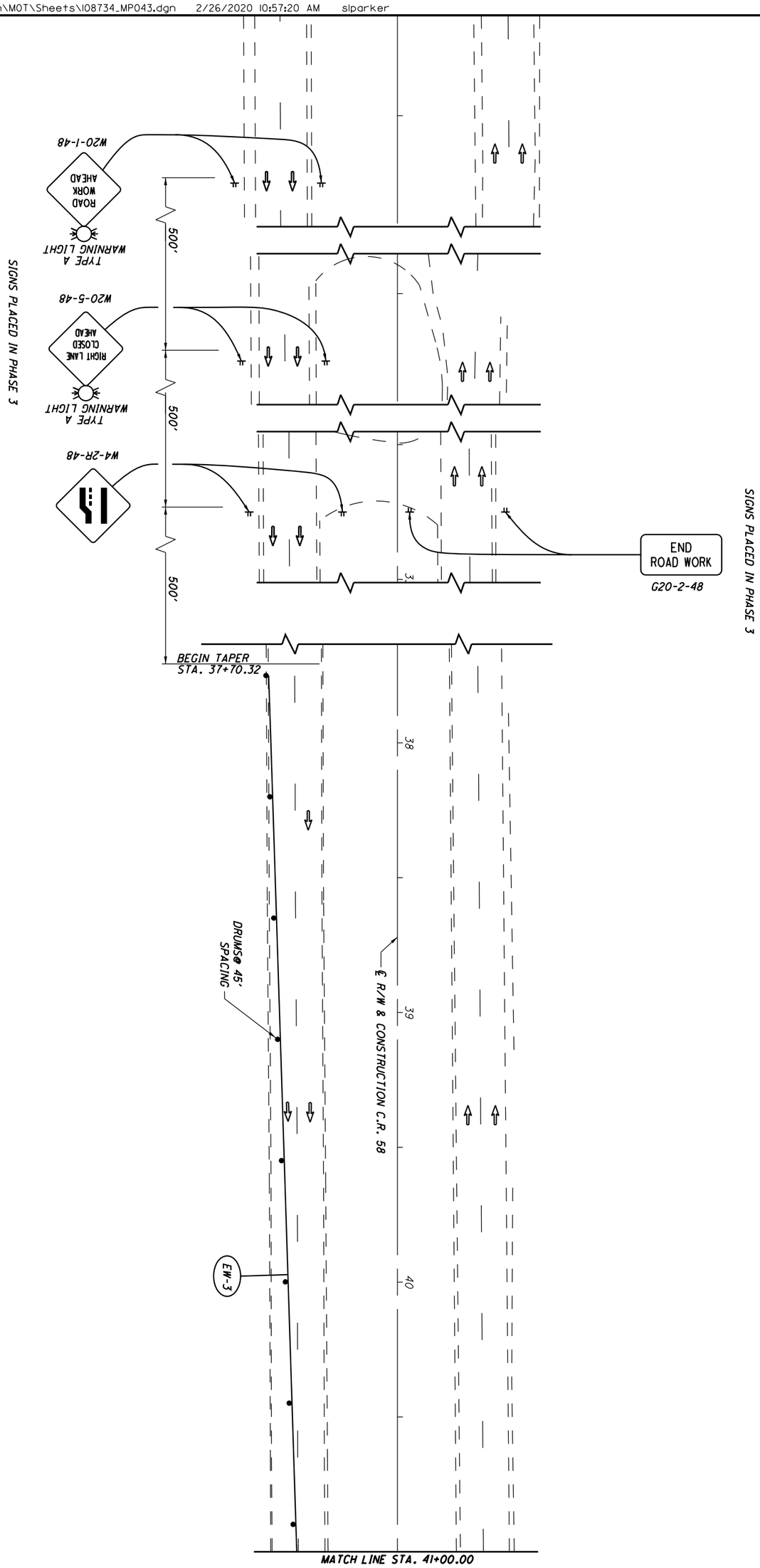
N



LEGEND

⇩ DIRECTION OF TRAVEL

53 / 111	PIK-32-17.15	MOT (PHASE 5) - S.R. 32 STA. 921+50.00 TO END OF WORK	CALCULATED NRH / CHECKED TJS	0 10 20 40 HORIZONTAL SCALE IN FEET

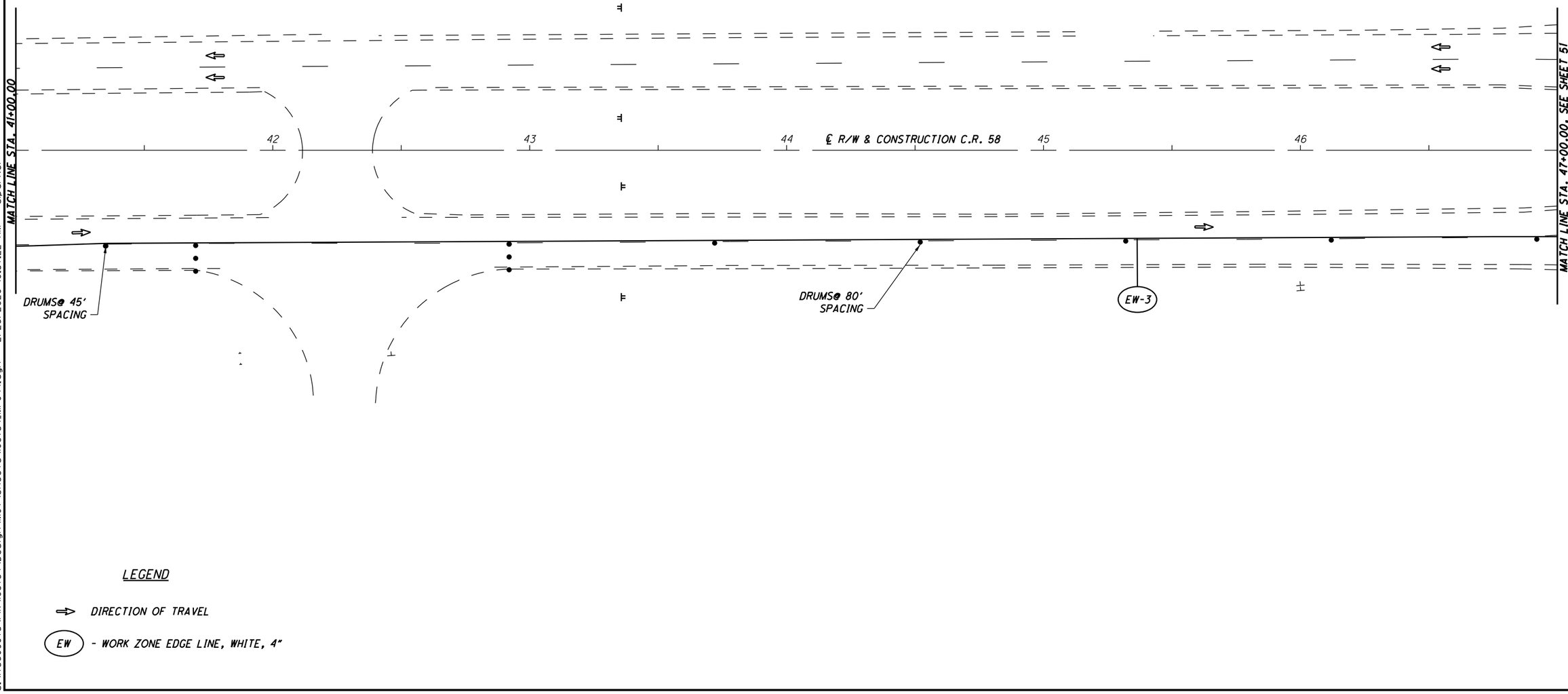


PIK-32-17.15

MOT (PHASE 5) - C.R. 58
BEGINNING OF WORK TO STA. 41+00.00

CALCULATED NRH
CHECKED TJS

0 10 20 40
HORIZONTAL SCALE IN FEET



N

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED NRH
CHECKED TJS

MOT (PHASE 5) - C.R. 58
STA. 41+00.00 TO STA. 47+00.00

PIK-32-17.15

55
111

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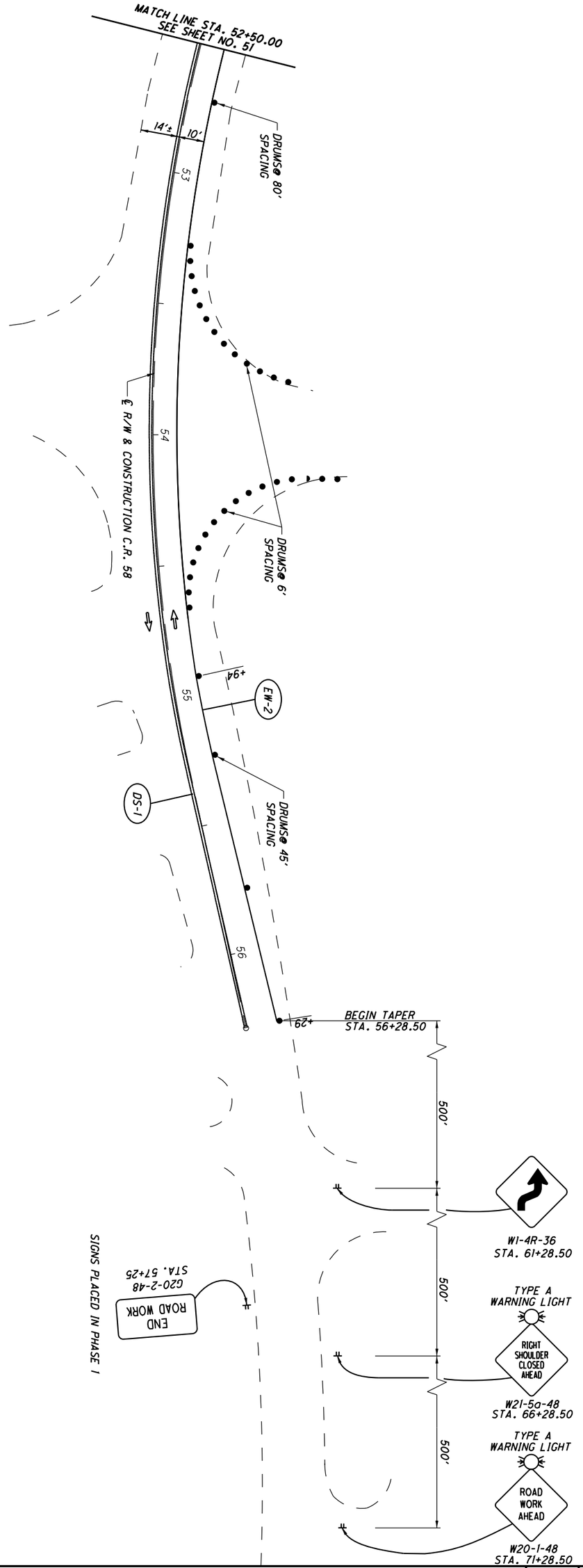

LEGEND

⇕ DIRECTION OF TRAVEL

(EW) - WORK ZONE EDGE LINE, WHITE, 4"

(DS) - WORK ZONE CENTER LINE, DOUBLE SOLID, 4", YELLOW

56 / 111	PIK-32-17.15	MOT (PHASE 5) - C.R. 58 STA. 52+50.00 TO END OF WORK	CALCULATED NRH CHECKED TJS	0 10 20 40 HORIZONTAL SCALE IN FEET

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	60	61	62	93								01/NHS/OT						
																		ROADWAY	
LS													LS	201	11000	LS		CLEARING AND GRUBBING	
		2											2	202	20010	2	EACH	HEADWALL REMOVED	
		56		1,937									1,993	202	23010	1,993	SY	PAVEMENT REMOVED, ASPHALT	
		71											71	202	35100	71	FT	PIPE REMOVED, 24" AND UNDER	
		2											2	202	58100	2	EACH	CATCH BASIN REMOVED	
		1,225											1,225	203	10000	1,225	CY	EXCAVATION	
		811											811	203	20000	811	CY	EMBANKMENT	
		4,285		4,417									8,702	204	10000	8,702	SY	SUBGRADE COMPACTION	
		1,404											1,404	204	13000	1,404	CY	EXCAVATION OF SUBGRADE	
		1,437											1,437	204	30020	1,437	CY	GRANULAR MATERIAL, TYPE C	
3													3	204	45000	3	HOUR	PROOF ROLLING	
		4,285											4,285	204	50000	4,285	SY	GEOTEXTILE FABRIC	
																		EROSION CONTROL	
					11								11	601	21050	11	SY	TIED CONCRETE BLOCK MAT, TYPE 1	
		8											8	601	32100	8	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
		5											5	601	32200	5	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
	534												534	659	00300	534	CY	TOPSOIL	
			4,805										4,805	659	10000	4,805	SY	SEEDING AND MULCHING	
	240												240	659	14000	240	SY	REPAIR SEEDING AND MULCHING	
	240												240	659	15000	240	SY	INTER-SEEDING	
	0.67												0.67	659	20000	0.67	TON	COMMERCIAL FERTILIZER	
	0.99												0.99	659	31000	0.99	ACRE	LIME	
	27												27	659	35000	27	MGAL	WATER	
	941												941	670	00500	941	SY	SLOPE EROSION PROTECTION	
			38										38	670	00710	38	SY	DITCH EROSION PROTECTION MAT, TYPE A	
													LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
													LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
													LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
													41,429	832	30000	41,429	EACH	EROSION CONTROL	
			228										228	836	10020	228	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 2	
																		DRAINAGE	
		2.3											2.3	602	20000	2.3	CY	CONCRETE MASONRY	
					768								768	605	11100	768	FT	6" SHALLOW PIPE UNDERDRAINS	
100					872								972	605	13300	972	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
					2,195								2,195	605	14000	2,195	FT	6" BASE PIPE UNDERDRAINS	
					277								277	611	00510	277	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
10													10	611	01500	10	FT	6" CONDUIT, TYPE F	
			438										438	611	05900	438	FT	15" CONDUIT, TYPE B, 706.02 OR 707.13(0.064) OR 707.33	
			95										95	611	05900	95	FT	15" CONDUIT, TYPE B, 706.02 OR 707.33	
			13										13	611	05900	13	FT	15" CONDUIT, TYPE B, 707.33	
			75										75	611	07400	75	FT	18" CONDUIT, TYPE B, 706.02 OR 707.33	
			37										37	611	19200	37	FT	42" CONDUIT, TYPE A, 706.02	
			1										1	611	98370	1	EACH	CATCH BASIN, NO. 6	
			3										3	611	98410	3	EACH	CATCH BASIN, NO. 8	
			1										1	611	98630	1	EACH	CATCH BASIN ADJUSTED TO GRADE	
			2										2	611	98720	2	EACH	INLET, NO. 2-8	
			2										2	611	98730	2	EACH	INLET, NO. 2-10	
			1										1	611	98740	1	EACH	INLET, NO. 2-12	
					6								6	611	99710	6	EACH	PRECAST REINFORCED CONCRETE OUTLET	

CALCULATED ALB
CHECKED TJS

GENERAL SUMMARY

PIK-32-17.15

57
111

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SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
61	62	108	110										01/NHS/OT						
																		PAVEMENT	
	3,323												3,323	252	01500	3,323	FT	FULL DEPTH PAVEMENT SAWING	
	4,827												4,827	254	01000	4,827	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
	1,125												1,125	301	46000	1,125	CY	ASPHALT CONCRETE BASE, PG64-22	
	1,107												1,107	304	20000	1,107	CY	AGGREGATE BASE	
	824												824	407	10000	824	GAL	TACK COAT	
	298												298	441	10000	298	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22	
	184												184	441	10200	184	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	
	30												30	441	50300	30	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (VARIABLE THICKNESS, 0" MIN.)	
	1,732												1,732	609	71000	1,732	SF	CONCRETE MEDIAN	
5,076													5,076	618	40100	5,076	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
																		LIGHTING	
			12										12	625	00450	12	EACH	CONNECTION, FUSED PULL APART	
			12										12	625	00480	12	EACH	CONNECTION, UNFUSED PERMANENT	
			2										2	625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, AT18B40	
			2										2	625	14100	2	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
			1,656										1,656	625	23200	1,656	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
			832										832	625	23400	832	FT	NO. 10 AWG POLE AND BRACKET CABLE	
			1,300										1,300	625	24320	1,300	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
			522										522	625	25902	522	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	
			6										6	625	26253	6	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-III-M, 9100 - 9700 LUMENS	108
			1,253										1,253	625	29000	1,253	FT	TRENCH	
			2										2	625	30700	2	EACH	PULL BOX, 725.08, 18"	
			3										3	625	31510	3	EACH	PULL BOX REMOVED	
			2										2	625	32000	2	EACH	GROUND ROD	
		1											1	625	34001	1	EACH	POWER SERVICE, AS PER PLAN	108
			1,253										1,253	625	36000	1,253	FT	PLASTIC CAUTION TAPE	
			2										2	625	39520	2	EACH	PULL BOX CLEANED	
			2										2	625	75506	2	EACH	LUMINAIRE REMOVED	
			1										1	625	75800	1	EACH	DISCONNECT CIRCUIT	
			23										23	632	68200	23	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	
		1											1	632	90101	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	108
			1										1	809	60040	1	EACH	CCTV IP-CAMERA SYSTEM, QUAD MULTI-VIEW FIXED WITH PTZ	

CALCULATED ALB CHECKED TJS

GENERAL SUMMARY

PIK-32-17.15

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9	10	12	94	97									01/NHS/OT						
																		TRAFFIC CONTROL	
			237										237	621	00100	237	EACH	RPM	
			140										140	621	54000	140	EACH	RAISED PAVEMENT MARKER REMOVED	
				553									553	630	03100	553	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
				133									133	630	06400	133	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	
				121									121	630	06500	121	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	
				30									30	630	08004	30	FT	ONE WAY SUPPORT, NO. 3 POST	
				19									19	630	08600	19	EACH	SIGN POST REFLECTOR	
				15									15	630	09000	15	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
				585									585	630	80100	585	SF	SIGN, FLAT SHEET	
				92									92	630	80200	92	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
				4									4	630	84500	4	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
				50									50	630	84900	50	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
				2									2	630	85400	2	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
				42									42	630	86002	42	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
				6									6	630	86102	6	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
			0.12										0.12	642	30030	0.12	MILE	REMOVAL OF PAVEMENT MARKING	
			2.26										2.26	644	00104	2.26	MILE	EDGE LINE, 6"	
			1.19										1.19	644	00204	1.19	MILE	LANE LINE, 6"	
			0.01										0.01	644	00300	0.01	MILE	CENTER LINE	
			3,816										3,816	644	00404	3,816	FT	CHANNELIZING LINE, 12"	
			54										54	644	00500	54	FT	STOP LINE	
			346										346	644	00700	346	FT	TRANSVERSE/DIAGONAL LINE	
			363										363	644	00720	363	FT	CHEVRON MARKING	
			49										49	644	01300	49	EACH	LANE ARROW	
			280										280	644	01510	280	FT	DOTTED LINE, 6"	
			102										102	644	20800	102	FT	YIELD LINE	
																		MAINTENANCE OF TRAFFIC	
	80												80	614	11110	80	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		1,250											1,250	614	11630	1,250	FT	INCREASED BARRIER DELINEATION	
		10											10	614	12336	10	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	
		1											1	614	12338	1	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
		1,028											1,028	614	12800	1,028	EACH	WORK ZONE RAISED PAVEMENT MARKER	
		96											96	614	13310	96	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
		124											124	614	13350	124	EACH	OBJECT MARKER, ONE WAY	
8													8	614	18601	8	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	9
		0.72											0.72	614	20000	0.72	MILE	WORK ZONE LANE LINE, CLASS I, 4"	
		0.2											0.2	614	21000	0.2	MILE	WORK ZONE CENTER LINE, CLASS I	
		4.69											4.69	614	22000	4.69	MILE	WORK ZONE EDGE LINE, CLASS I, 4"	
		7,252											7,252	614	23000	7,252	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8"	
		6,265											6,265	614	24000	6,265	FT	WORK ZONE DOTTED LINE, CLASS I	
		50											50	614	26000	50	FT	WORK ZONE STOP LINE, CLASS I	
		33											33	614	30200	33	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
		5,850											5,850	622	41100	5,850	FT	PORTABLE BARRIER, UNANCHORED	
																		INCIDENTALS	
													LS	614	11000	LS		MAINTAINING TRAFFIC	
													4	619	16010	4	MNTH	FIELD OFFICE, TYPE B	
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	

CALCULATED ALB
CHECKED TJS

GENERAL SUMMARY

PIK-32-17.15

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 PAVEMENT REMOVED, ASPHALT SY	202 PIPE REMOVED, 24" AND UNDER FT	202 CATCH BASIN REMOVED EACH	202 HEADWALL REMOVED EACH		203 EXCAVATION CY	203 EMBANKMENT CY		204 EXCAVATION OF SUBGRADE CY	204 GRANULAR MATERIAL, TYPE C CY	204 GEOTEXTILE FABRIC SY	204 SUBGRADE COMPACTION SY		602 CONCRETE MASONRY CY		601 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER CY	601 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER CY	
		S.R. 32																				
D-1	64	905+98.20	906+70.92	RT.																	1.56	
D-2	65	911+62.50	914+61.75	LT./RT.														0.27			1.33	
D-3	66	916+43.85	916+45.23	RT.		8	1														1.56	
D-4	67	921+40.00	921+40.08	LT./RT.														0.27				
	82	905+63.37	921+76.13	LT./RT.						1094	345		1181	1212	3595	3595						
		C.R. 58																				
D-5	69	51+06.53	51+08.22	LT./RT.				2		25								1.70		8		
R-1	68	47+08.03	48+00.00	RT.	56						38											
R-2	69	49+17.73	48+80.00	RT.		63	1															
	85	48+00.00	51+97.84	LT./RT.						106	428		223	225	690	690						
TOTALS					56	71	2	2		1225	811		1404	1437	4285	4285		2.24		8	4.45	
TOTALS CARRIED TO GENERAL SUMMARY					56	71	2	2		1225	811		1404	1437	4285	4285		2.3		8	5	

CALCULATED ALB CHECKED TJS

SUBSUMMARY

PIK-32-17.15

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SUBSUMMARY

CALCULATED ALB | CHECKED TJS

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	611 15" CONDUIT, TYPE B, 706.02 OR 707.1310.0641 OR 707.33 FT	611 15" CONDUIT, TYPE B, 707.33 FT	611 15" CONDUIT, TYPE B, 706.02 OR 707.33 FT	611 18" CONDUIT, TYPE B, 706.02 OR 707.33 FT	611 42" CONDUIT, TYPE A, 706.02 FT	611 CATCH BASIN, NO. 6 EACH	611 CATCH BASIN, NO. 8 EACH	611 CATCH BASIN ADJUSTED TO GRADE EACH	611 INLET, NO. 2-8 EACH	611 INLET, NO. 2-10 EACH	611 INLET, NO. 2-12 EACH	659 SEEDING AND MULCHING SY	618 RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) FT	670 DITCH EROSION PROTECTION MAT, TYPE A SY	836 SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 2 SY
		S.R. 32																	
D-1	64	905+98.20	906+70.92	RT.				75			1	1							
D-2	65	911+62.50	914+61.75	LT./RT.	438					1			2	2	1				
D-3	66	916+43.85	916+45.23	RT.		13					1								
D-4	67	921+40.00	921+40.00	LT./RT.			95				1								
RS-1	64	905+63.37	906+04.75	RT.													41.17		
RS-2	64	905+63.37	906+08.86	LT.													45.64		
RS-3	64-65	905+63.37	912+60.17	RT.													692.31		
RS-4	64-65	906+83.83	913+53.64	LT./RT.													671.00		
RS-5	64-65	906+82.84	913+02.15	LT.													620.62		
RS-6	64-65	905+63.37	912+46.70	LT.													688.26		
RS-7	65-66	915+86.96	921+76.13	RT.													589.18		
RS-8	65-66	915+66.57	920+57.86	RT.													491.29		
RS-9	65-66	915+66.57	920+56.36	LT./RT.													492.16		
RS-10	65-66	915+23.97	921+76.13	LT.													653.51		
RS-11	66	921+26.19	921+76.13	RT.													49.94		
RS-12	66	921+35.23	921+76.13	LT.													40.90		
	82	905+63.37	921+76.13	LT.RT.												3482			
		C.R. 58																	
D-5	69	51+06.53	51+08.22	LT./RT.					37							246			
EC-1	69	51+11.30	51+97.84	RT.															227.16
EC-2	69	51+11.92	51+50.00	LT.														37.93	
R-1	68	47+08.03	48+00.00	RT.												96			
	85	48+00.00	51+97.84	LT./RT.												981			
TOTALS					438	13	95	75	37	1	3	1	2	2	1	4805	5075.98	37.93	227.16
TOTALS CARRIED TO GENERAL SUMMARY					438	13	95	75	37	1	3	1	2	2	1	4805	5076	38	228

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PAVEMENT CALCULATIONS

CALCULATED SLP | CHECKED ALB

STATION FROM	STATION TO	LENGTH	SIDE	202 PAVEMENT REMOVED, ASPHALT	204 AREA	204 SUBGRADE COMPACTION (AREA/9)	252 FULL DEPTH PAVEMENT SAWING	254 AREA	254 PAVEMENT PLANING, ASPHALT CONCRETE, 1.25" (AREA/9)	301 AREA	301 5.5" ASPHALT CONCRETE BASE, PG64-22 (AREA*5.5/12)/27)	301 AREA	301 5.5" ASPHALT CONCRETE BASE, PG64-22 (AREA*5.5/12)/27)	301 AREA	301 6" ASPHALT CONCRETE BASE, PG64-22 (AREA*6/12)/27)	304 AREA	304 4" AGGREGATE BASE (AREA*4/12)/27)	304 AREA	304 6" AGGREGATE BASE (AREA*6/12)/27)	407 AREA	407 TACK COAT (AREA/9*0.055)*2	407 TACK COAT (AREA/9*0.085)	441 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22 (AREA*11.25/12)/27)	441 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) (AREA*11.75/12)/27)	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (VARIABLE THICKNESS, 0"MIN.)	609 CONCRETE MEDIAN
				SY	SF	SY	FT	SF	SY	SF	CY	SF	CY	SF	CY	SF	CY	SF	CY	SF	GAL	GAL	CY	CY	CY	SF
S.R. 32																										
905+63.37	921+76.13	1612.76	LT./RT.					CADD	17325.86											CADD		1412.17	576.87			6408.86
905+63.37	909+43.66	380.29	RT.	41.83	CADD	335.47	378.52			CADD	41.69	CADD	44.88			CADD	34.96	CADD	55.92	CADD	28.48		8.99	12.59		
906+04.74	906+83.83	79.09	LT./RT.	16.99	CADD	273.67	156.86			CADD	38.84	CADD	39.86			CADD	29.72	CADD	45.62	CADD	27.48		8.67	12.14		
914+01.48	917+81.24	379.76	RT.	563.46	CADD	476.94	400.67			CADD	66.94	CADD	68.94			CADD	51.57	CADD	79.49	CADD	47.28		14.93	20.89		
914+24.32	921+35.24	710.92	LT./RT.	536.34	CADD	1787.59	943.90			CADD	256.98	CADD	262.39			CADD	194.74	CADD	297.94	CADD	182.42		57.58	80.61		
914+95.50	921+76.13	680.63	LT.	75.62	CADD	619.84	681.64			CADD	77.38	CADD	83.15			CADD	64.68	CADD	103.31	CADD	52.94		16.72	23.40		
906+00.00	909+50.00	350.00	RT.																						5	
915+00.00	921+76.13	676.13	LT.																						24	
C.R. 58																										
37+19.96	49+34.38	1214.42	LT./RT.	178.85			267.19	CADD	4283.85											CADD		364.13	148.75			1322.11
48+85.39	49+34.38	48.99	LT./RT.	470.81	CADD	421.81	96.04							CADD	67.65			CADD	68.73	CADD	27.90		8.81	12.33		409.74
50+63.94	51+97.84	133.90	LT./RT.					CADD	543.14											CADD		44.03	17.99			
50+63.94	51+97.84	133.90	LT./RT.	52.47	CADD	501.33	397.92							CADD	76.23			CADD	79.38	CADD	48.92		15.45	21.62		
51+50.00	51+97.84	47.84	LT.																						1	
TOTALS				1936.37		4416.65	3322.75		4826.99		481.83		499.22		143.88		375.67		730.39		415.42	408.16	297.89	183.58	30.00	1731.85
TOTALS CARRIED TO GENERAL SUMMARY				1937		4417	3323		4827		1125						1107				824		298	184	30	1732

NOTE: CADD DENOTES COMPUTER GENERATED AREA.

PIK-32-17.15

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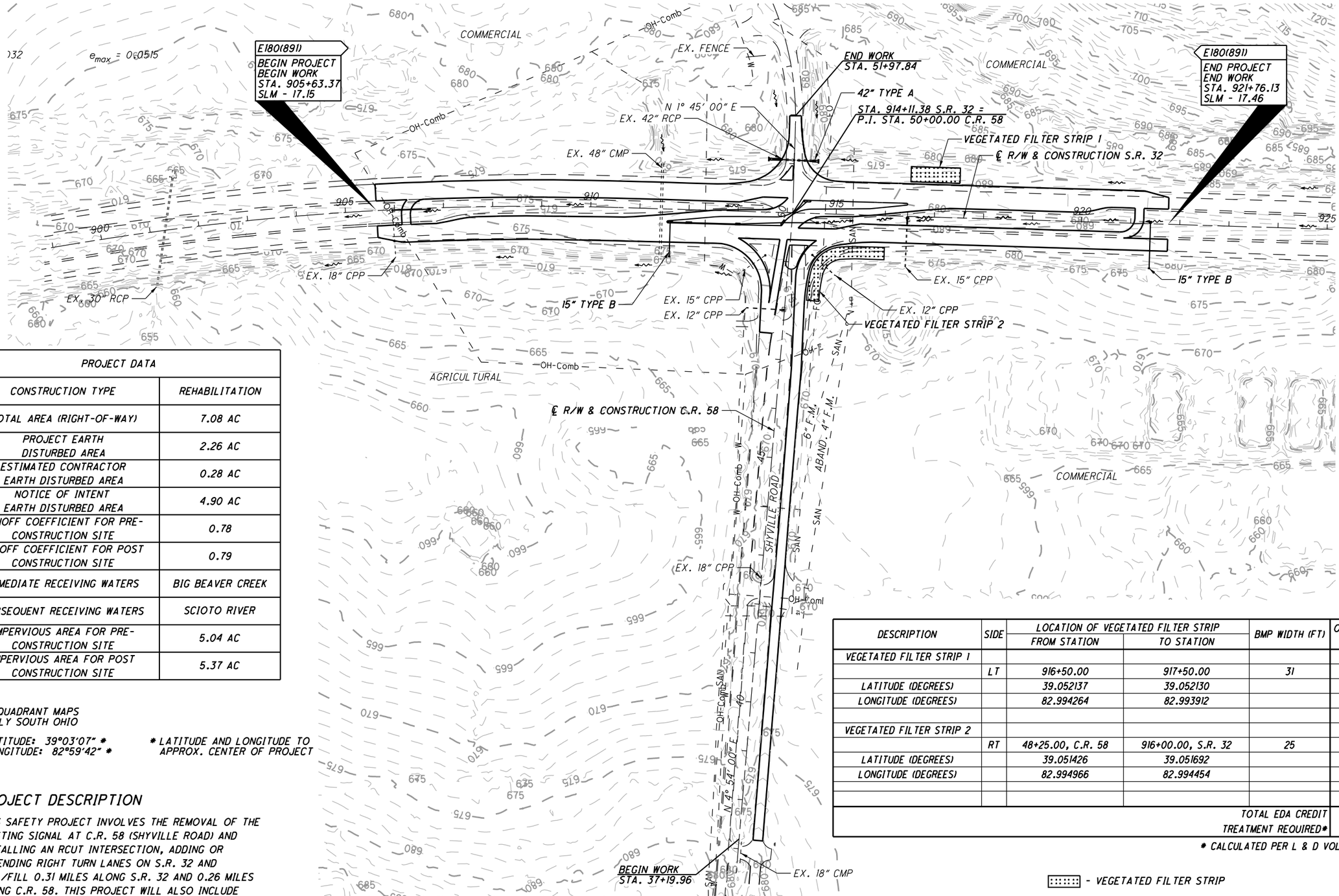


PROJECT DATA	
CONSTRUCTION TYPE	REHABILITATION
TOTAL AREA (RIGHT-OF-WAY)	7.08 AC
PROJECT EARTH DISTURBED AREA	2.26 AC
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.28 AC
NOTICE OF INTENT EARTH DISTURBED AREA	4.90 AC
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.78
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.79
IMMEDIATE RECEIVING WATERS	BIG BEAVER CREEK
SUBSEQUENT RECEIVING WATERS	SCIOTO RIVER
IMPERVIOUS AREA FOR PRE-CONSTRUCTION SITE	5.04 AC
IMPERVIOUS AREA FOR POST CONSTRUCTION SITE	5.37 AC

USGS QUADRANT MAPS
WAVERLY SOUTH OHIO

LATITUDE: 39°03'07" *
LONGITUDE: 82°59'42" *

* LATITUDE AND LONGITUDE TO APPROX. CENTER OF PROJECT

PROJECT DESCRIPTION

THIS SAFETY PROJECT INVOLVES THE REMOVAL OF THE EXISTING SIGNAL AT C.R. 58 (SHYVILLE ROAD) AND INSTALLING AN RCUT INTERSECTION, ADDING OR EXTENDING RIGHT TURN LANES ON S.R. 32 AND MILL/FILL 0.31 MILES ALONG S.R. 32 AND 0.26 MILES ALONG C.R. 58. THIS PROJECT WILL ALSO INCLUDE DRAINAGE, TRAFFIC CONTROL AND LIGHTING.

DESCRIPTION	SIDE	LOCATION OF VEGETATED FILTER STRIP		BMP WIDTH (FT)	ONSITE TREATED AREA
		FROM STATION	TO STATION		
VEGETATED FILTER STRIP 1					
	LT	916+50.00	917+50.00	31	0.14
LATITUDE (DEGREES)		39.052137	39.052130		
LONGITUDE (DEGREES)		82.994264	82.993912		
VEGETATED FILTER STRIP 2					
	RT	48+25.00, C.R. 58	916+00.00, S.R. 32	25	0.32
LATITUDE (DEGREES)		39.051426	39.051692		
LONGITUDE (DEGREES)		82.994966	82.994454		
			TOTAL EDA CREDIT		0.46
			TREATMENT REQUIRED*		0.45

* CALCULATED PER L & D VOL. 2, SEC. 1115.7

▨ - VEGETATED FILTER STRIP

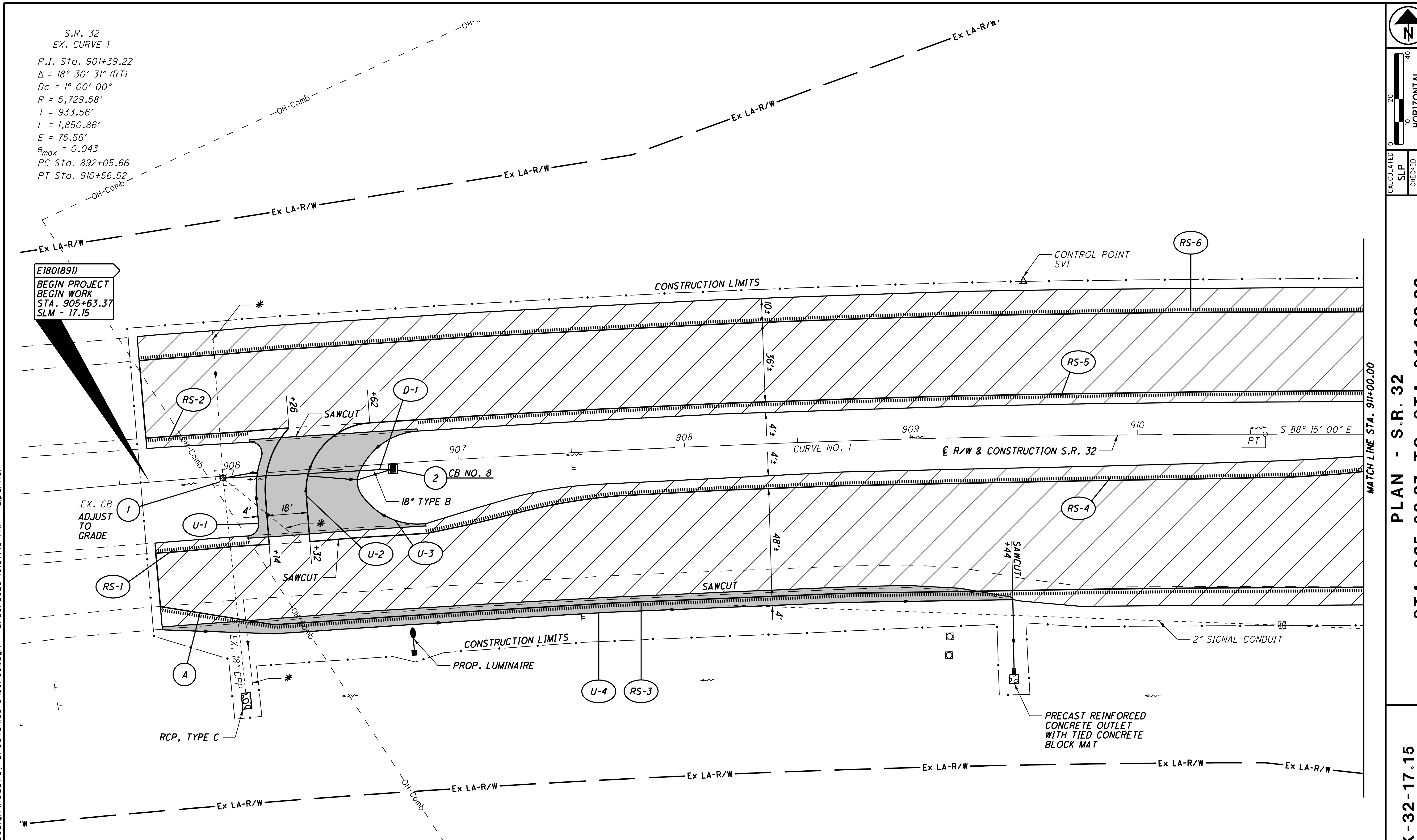
NOTE: THE QUANTITY FOR ITEM 659 - TOPSOIL INCLUDES THE TOPSOIL TO BE PLACED IN THE AREA OF THE VEGETATED FILTER STRIP.

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED SLP
CHECKED ALB

PROJECT SITE PLAN

PIK-32-17.15


S.R. 32
EX. CURVE 1
P.I. Sta. 901+39.22
Δ = 18° 30' 31" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 933.56'
L = 1,850.86'
E = 75.56'
e max = 0.043
PC Sta. 892+05.66
PT Sta. 910+56.52
Ex LA-R/W
OH-Comb
E180(891)
BEGIN PROJECT
BEGIN WORK
STA. 905+63.37
SLM - 17.15
CONSTRUCTION LIMITS
CONTROL POINT
SV1
RS-1
RS-2
RS-3
RS-4
RS-5
RS-6
D-1
U-1
U-2
U-3
U-4
SAWCUT
CB NO. 8
18" TYPE B
EX. CB
ADJUST
TO
GRADE
℄ R/W & CONSTRUCTION S.R. 32
CURVE NO. 1
S 88° 15' 00" E
PT
MATCH LINE STA. 911+00.00
PROP. LUMINAIRE
EX. 18" CPP
RCP, TYPE C
2" SIGNAL CONDUIT
PRECAST REINFORCED
CONCRETE OUTLET
WITH TIED CONCRETE
BLOCK MAT
CALCULATED SLP
CHECKED ALB
HORIZONTAL
SCALE IN FEET
PLAN - S.R. 32
STA. 905+63.37 TO STA. 911+00.00
PIK-32-17.15
64
111

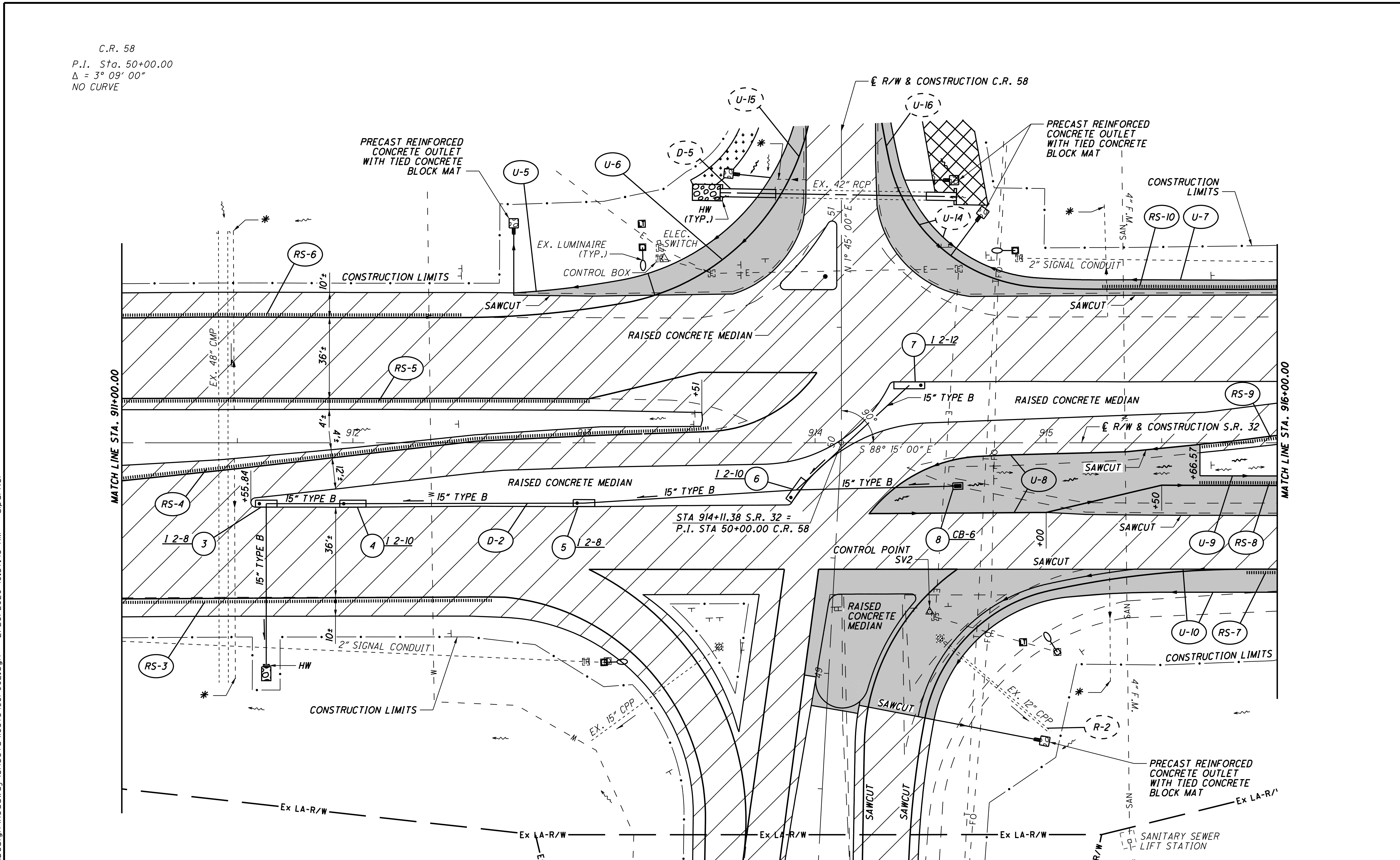
A - STA. 905+63.37
BEGIN PAVEMENT TAPER, 55.10' RT.
BEGIN SHOULDER TAPER, 65.40' RT.
STA. 906+13.37
END PAVEMENT TAPER, 67.19' RT.
END SHOULDER TAPER, 71.19' RT.

* - EX. UNDERDRAIN OUTLET (LOCATION APPROXIMATE)

LEGEND

- 1.25" ASPHALT PLANE AND REPLACE
- RUMBLE STRIPS
- FULL DEPTH PAVEMENT

FOR QUANTITIES, SEE SHEETS 60-61
FOR PAVEMENT DETAILS, SEE SHEET 86
FOR STORM SEWER PROFILE, SEE SHEET 90
FOR UNDERDRAIN TABLE, SEE SHEET 93
FOR TRAFFIC CONTROL, SEE SHEETS 98-99
FOR LIGHTING, SEE SHEET 111


C.R. 58
P.I. Sta. 50+00.00
Δ = 3° 09' 00"
NO CURVE
℄ R/W & CONSTRUCTION C.R. 58
PRECAST REINFORCED CONCRETE OUTLET WITH TIED CONCRETE BLOCK MAT
U-5
U-6
D-5
U-15
U-16
U-14
HW (TYP.)
EX. 42" RCP
EX. LUMINAIRE (TYP.)
ELEC. SWITCH
CONTROL BOX
CONSTRUCTION LIMITS
SAWCUT
RS-6
RS-5
RS-4
RS-3
RS-7
RS-8
RS-9
RS-10
U-7
U-8
U-9
U-10
D-2
R-2
10'±
36'±
4'±
12'±
EX. 48" CMP
RAISED CONCRETE MEDIAN
N 1° 45' 00" E
2" SIGNAL CONDUIT
4" F.M.
SAN
7 I 2-12
15" TYPE B
+51
912
913
914
915
90°
℄ R/W & CONSTRUCTION S.R. 32
S 88° 15' 00" E
MATCH LINE STA. 911+00.00
MATCH LINE STA. 916+00.00
+55.84
+66.57
+50
+00
I 2-10 6
3 I 2-8
4 I 2-10
5 I 2-8
8 CB-6
STA 914+11.38 S.R. 32 = P.I. STA 50+00.00 C.R. 58
CONTROL POINT SV2
HW
EX. 15" CPP
EX. 12" CPP
Ex LA-R/W
SANITARY SEWER LIFT STATION

LEGEND

* - EX. UNDERDRAIN OUTLET (LOCATION APPROXIMATE)

- 1.25" ASPHALT PLANE AND REPLACE
- RUMBLE STRIPS
- FULL DEPTH PAVEMENT

FOR QUANTITIES, SEE SHEETS 60-61
FOR PAVEMENT DETAILS, SEE SHEET 86 & 88-89
FOR STORM SEWER PROFILES, SEE SHEET 90
FOR CULVERT DETAIL, SEE SHEET 92
FOR UNDERDRAIN TABLE, SEE SHEET 93
FOR TRAFFIC CONTROL, SEE SHEETS 100 & 105
FOR LIGHTING, SEE SHEET 111

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED SLP
CHECKED ALB

PLAN - S.R. 32
STA. 911+00.00 TO STA. 916+00.00

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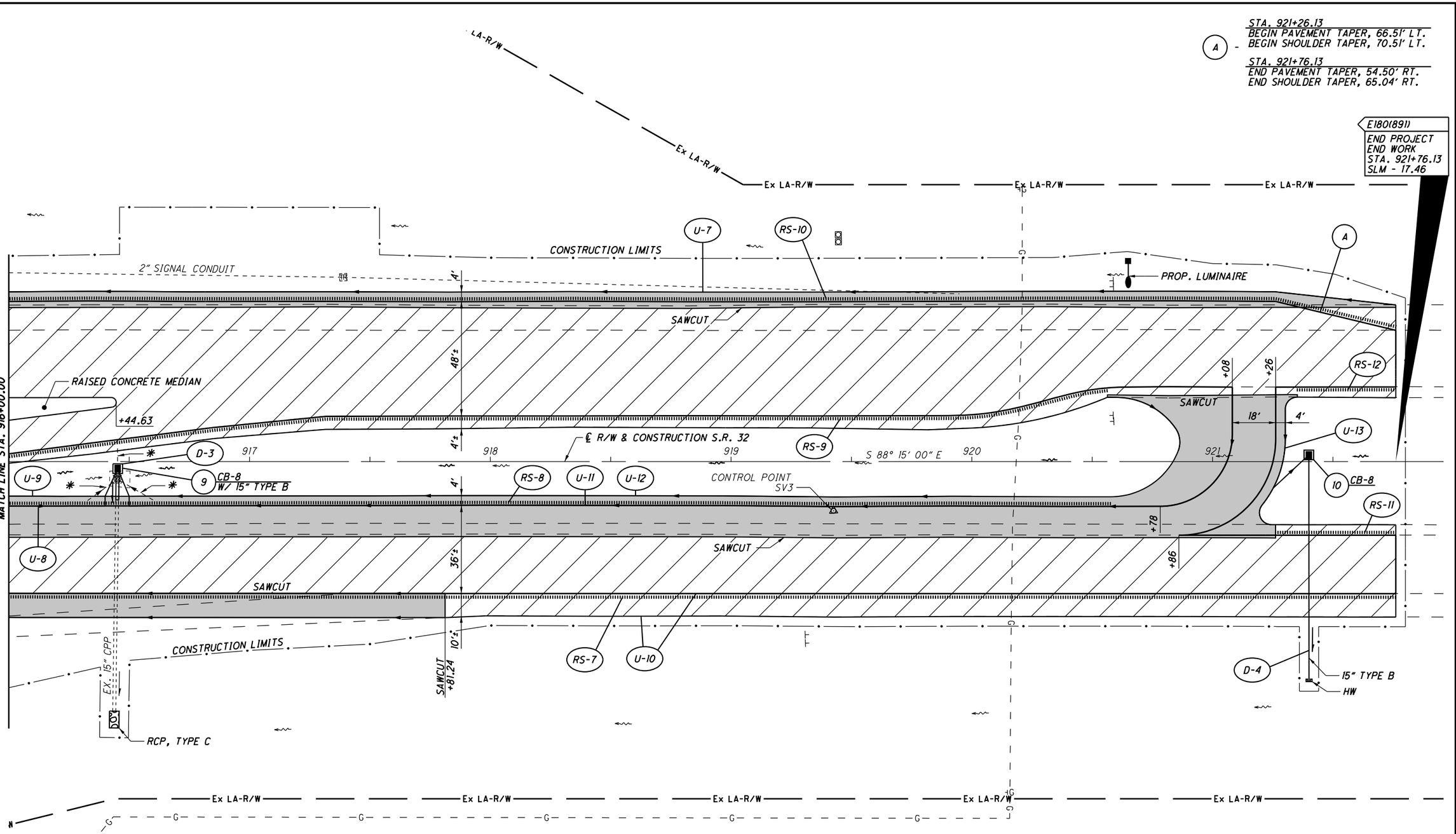
STA. 921+26.13
Ⓐ - BEGIN PAVEMENT TAPER, 66.51' LT.
BEGIN SHOULDER TAPER, 70.51' LT.

STA. 921+76.13
END PAVEMENT TAPER, 54.50' RT.
END SHOULDER TAPER, 65.04' RT.



LEGEND

✱ - EX. UNDERDRAIN OUTLET
(LOCATION APPROXIMATE)

▨ - 1.25" ASPHALT PLANE AND REPLACE

┅ - RUMBLE STRIPS

■ - FULL DEPTH PAVEMENT

FOR QUANTITIES, SEE SHEETS 60-61
FOR PAVEMENT DETAILS, SEE SHEETS 87-88
FOR STORM SEWER PROFILES, SEE SHEETS 90-91
FOR UNDERDRAIN TABLE, SEE SHEET 93
FOR TRAFFIC CONTROL, SEE SHEETS 101-102
FOR LIGHTING, SEE SHEET 111

0 10 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED SLP
CHECKED ALB

PLAN - S.R. 32
STA. 916+00.00 TO STA. 921+76.13

PIK-32-17.15

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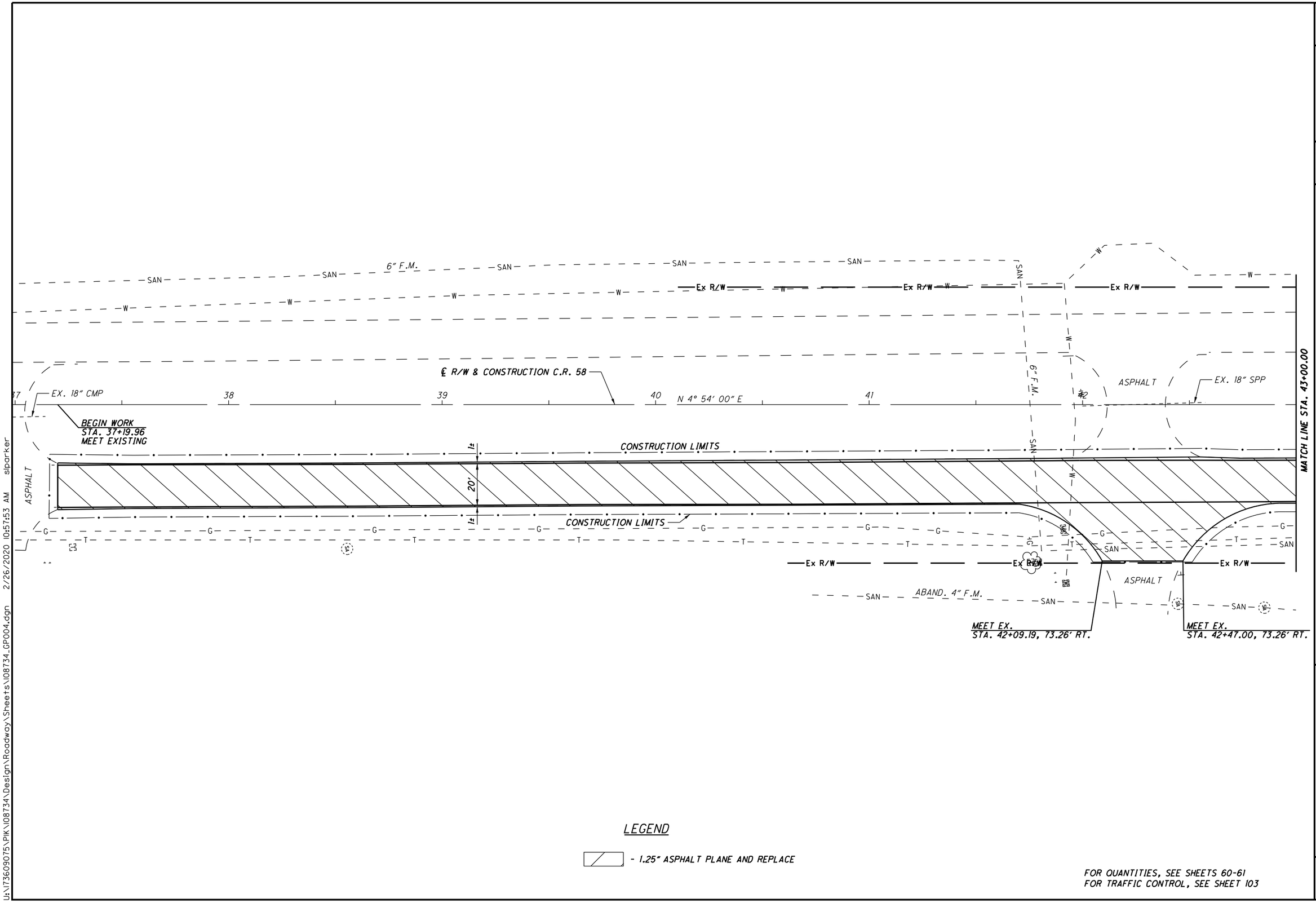

LEGEND

- 1.25" ASPHALT PLANE AND REPLACE

FOR QUANTITIES, SEE SHEETS 60-61
FOR TRAFFIC CONTROL, SEE SHEET 103

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SLP
CHECKED ALB

PLAN - C.R.58
STA. 37+19.96 TO STA. 43+00.00

PIK-32-17.15

67
111

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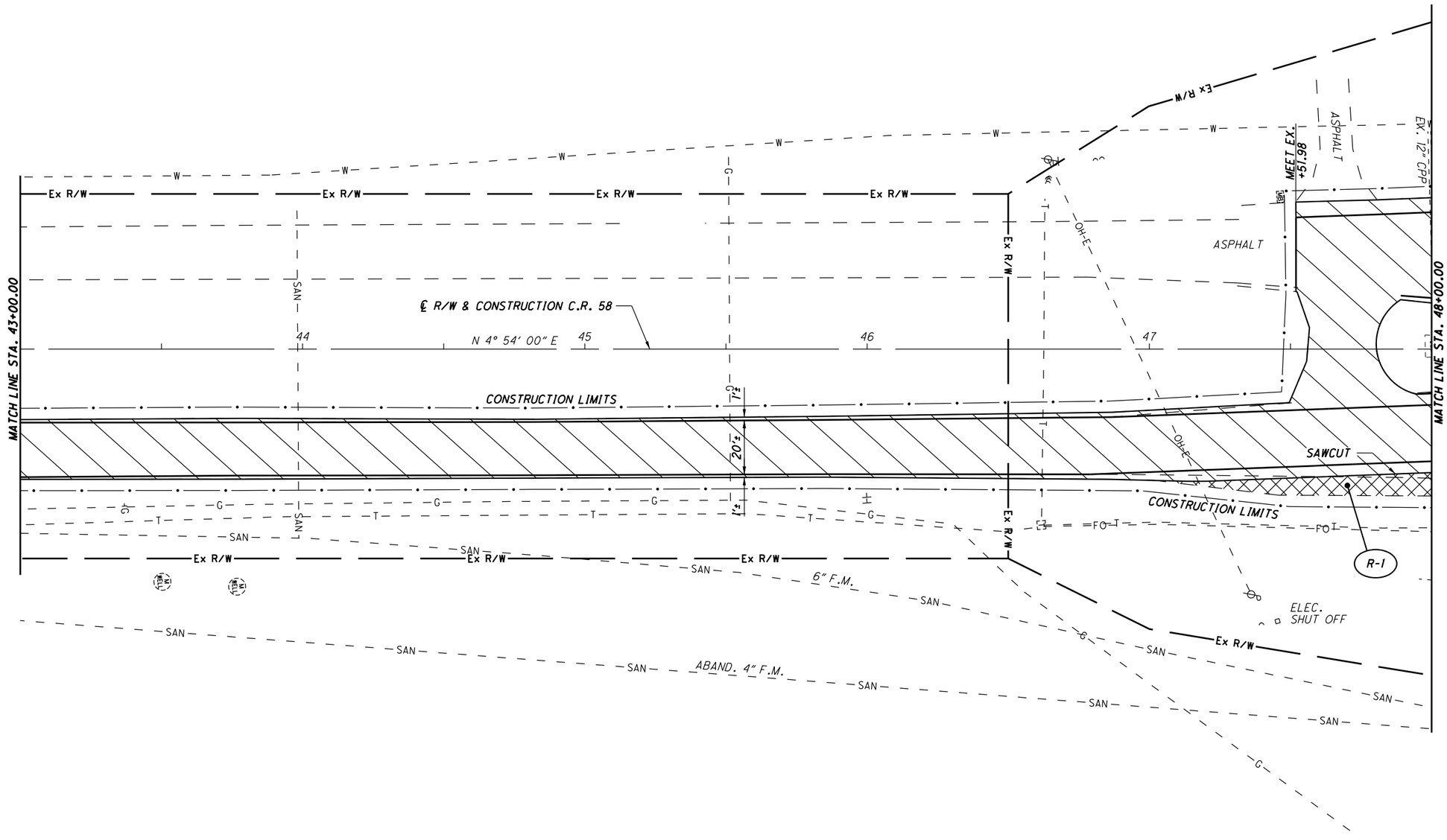

LEGEND

- 1.25" ASPHALT PLANE AND REPLACE
- QUANTITIES ARE INCLUDED IN REFERENCE NUMBER R-1 FOR THE REMOVAL OF EXISTING PAVEMENT, REGRADING TO ENSURE A DRAINABLE SURFACE AND SEEDING AND MULCHING.

FOR QUANTITIES, SEE SHEETS 60-61
FOR PAVEMENT DETAILS, SEE SHEET 88
FOR TRAFFIC CONTROL, SEE SHEET 100, 103, 104

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SLP
CHECKED ALB

PLAN - C.R.58
STA. 43+00.00 TO STA. 48+00.00

PIK-32-17.15

68
111

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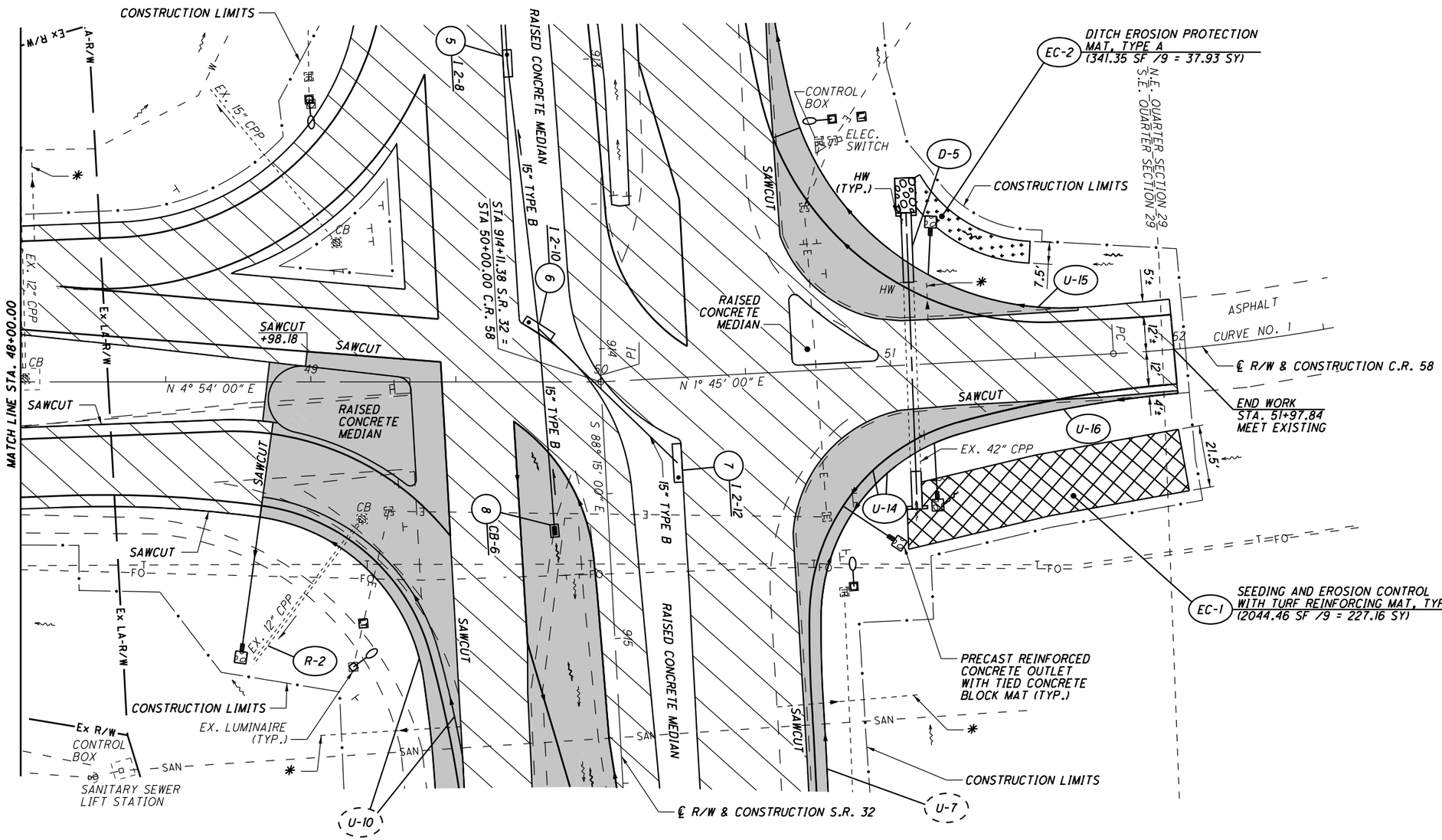
C.R. 58
EX. CURVE NO. 1

P.I. Sta. 53+57.87
Δ = 33° 23′ 54″ (LT)
Dc = 9° 30′ 00″
R = 603.11′
T = 180.93′
L = 351.56′
E = 26.56′
e_{max} = 0.0515
PC Sta. 51+76.94
PT Sta. 55+28.50

C.R. 58

P.I. Sta. 50+00.00
Δ = 3° 09′ 00″
NO CURVE



LEGEND

✱ - EX. UNDERDRAIN OUTLET (LOCATION APPROXIMATE)

- 1.25" ASPHALT PLANE AND REPLACE
- FULL DEPTH PAVEMENT

FOR QUANTITIES, SEE SHEETS 60-61
FOR PAVEMENT DETAILS, SEE SHEETS 88-89
FOR STORM SEWER PROFILES, SEE SHEET 90
FOR CULVERT DETAIL, SEE SHEET 92
FOR UNDERDRAIN TABLE, SEE SHEET 93
FOR TRAFFIC CONTROL, SEE SHEETS 100 & 105
FOR LIGHTING, SEE SHEET 111

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SLP
CHECKED ALB

PLAN - C.R.58
STA. 51+00.00 TO STA. 51+97.84

PIK-32-17.15

69
111

SEEDING	
END WIDTH	SQ. YDS.
14	23
15	31
0	54

END AREA	
CUT	FILL
38	4
11	4
0	0

VOLUME	
CUT	FILL
13	3
8	3
21	6

CALCULATED SLP
CHECKED ALB

EX LA-R/W

PROP. 18" TYPE B
℄ = 668.16

906+13.86
671.02

3.5:1

PROP. 18" TYPE B
℄ = 668.07

906+00.00
670.72

4:1

6" UNDERDRAIN (TYP.)

STA. 905+95.80
EX. CATCH BASIN, ADJUSTED TO GRADE
FOR DETAILS, SEE SHEET 90

- 12" UNSUITABLE SUBGRADE

ITEM 204 - EXCAVATION OF SUBGRADE	20 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C	22 CY
ITEM 204 - GEOTEXTILE FABRIC	64 SY
ITEM 204 - SUBGRADE COMPACTION	64 SY

905+63.37
672.08
BEGIN WORK
BEGIN PROJECT

690 680 670 660 650

120 100 80 60 40 20 0 20 40 60 80 100 120

CROSS SECTIONS S.R. 32
STA. 905+63.37 TO STA. 906+13.86

PIK-32-17.15

70
111

SEEDING	
END WIDTH	SQ. YDS.
13	75
14	78
14	57
	210

END AREA	
CUT	FILL
13	3
12	5
67	5

VOLUME	
CUT	FILL
24	8
74	10
71	7
169	25

CALCULATED SLP

CHECKED ALB

EX LA-R/W

907+50.00
672.69

3.4:1

PROP. LIGHTING CIRCUIT OR CONDUIT

907+00.00
672.25

6" UNDERDRAIN (TYP.)

PROP. LIGHTING CIRCUIT OR CONDUIT

STA. 906+70.92
CATCH BASIN NO. 8
FOR DETAILS, SEE SHEET 90

- 12" UNSUITABLE SUBGRADE

ITEM 204 - EXCAVATION OF SUBGRADE	141 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C	144 CY
ITEM 204 - GEOTEXTILE FABRIC	429 SY
ITEM 204 - SUBGRADE COMPACTION	429 SY

906+50.00
671.87

PROP. 18" TYPE B
℄ = 668.37

690 680 670 660 650

120 100 80 60 40 20 0 20 40 60 80 100 120

CROSS SECTIONS S.R. 32
STA. 906+50.00 TO STA. 907+50.00

PIK-32-17.15

71
111

SEEDING	
END WIDTH	SQ. YDS.
12	73
14	75
13	73
	221

END AREA	
CUT	FILL
13	3
13	4
13	4

VOLUME	
CUT	FILL
25	7
25	8
25	7
75	22

CALCULATED SLP
CHECKED ALB

690
680
670
660
650

120 100 80 60 40 20 0 20 40 60 80 100 120

909+00.00
674.29

4:1
6" UNDERDRAIN (TYP.)
EX. 2" SIGNAL CONDUIT
PROP. LIGHTING CIRCUIT

908+50.00
673.83

3:1
EX. 2" SIGNAL CONDUIT
PROP. LIGHTING CIRCUIT OR CONDUIT

908+00.00
673.36

3:1
PROP. LIGHTING CIRCUIT OR CONDUIT

EX LA-R/W

- 12" UNSUITABLE SUBGRADE

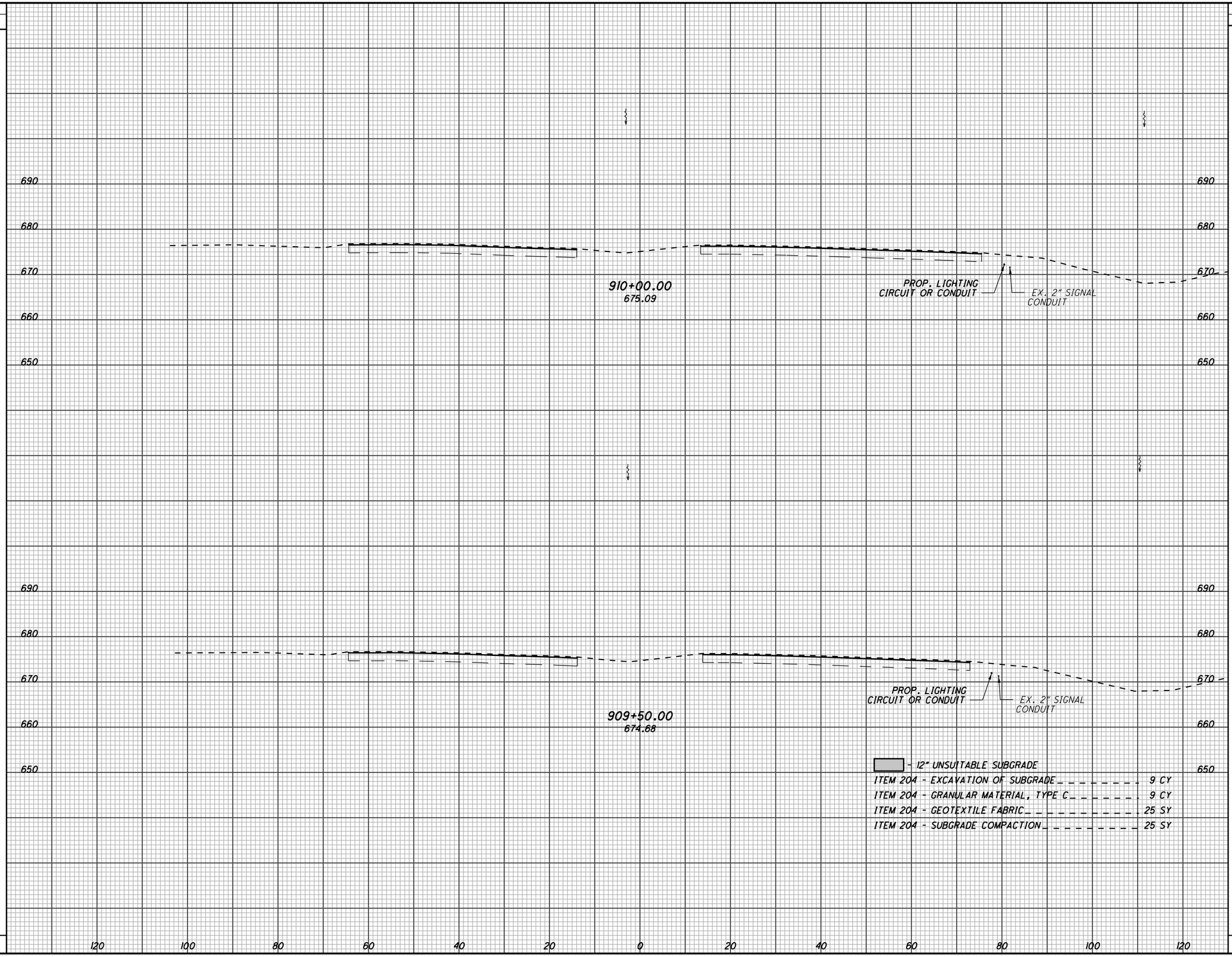
ITEM 204 - EXCAVATION OF SUBGRADE	51 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C	51 CY
ITEM 204 - GEOTEXTILE FABRIC	150 SY
ITEM 204 - SUBGRADE COMPACTION	150 SY

CROSS SECTIONS S.R. 32
STA. 908+00.00 TO STA. 909+00.00

PIK-32-17.15

72
111

SEEDING	
END WIDTH	SQ. YDS.
0	0
	34
0	34



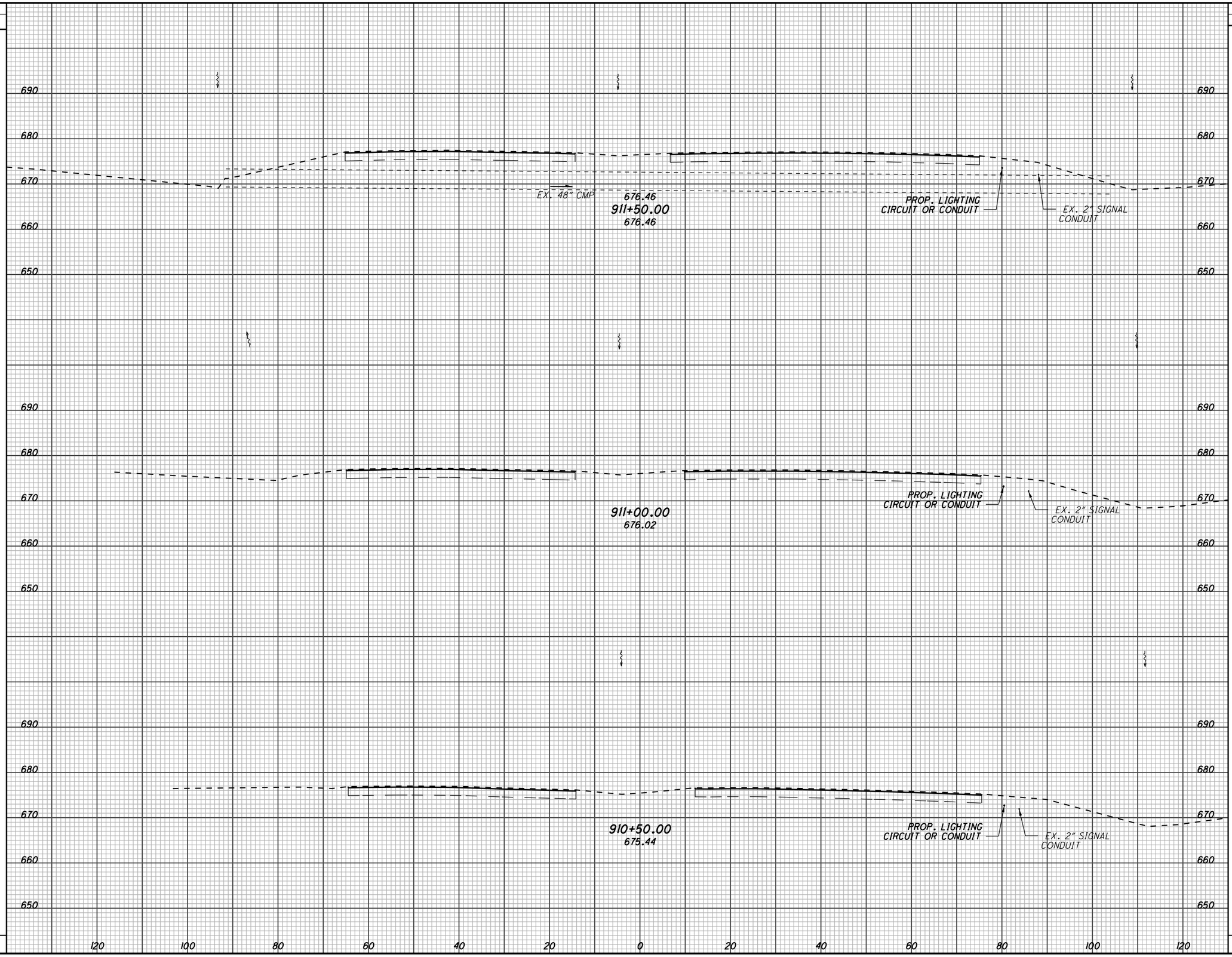
END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
0	0	0	0
0	0	13	3

CALCULATED SLP
CHECKED ALB

CROSS SECTIONS S.R. 32
STA. 909+50.00 TO STA. 910+00.00

PIK-32-17.15

SEEDING	
END WIDTH	SQ. YDS.
0	0



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	0

CALCULATED SLP

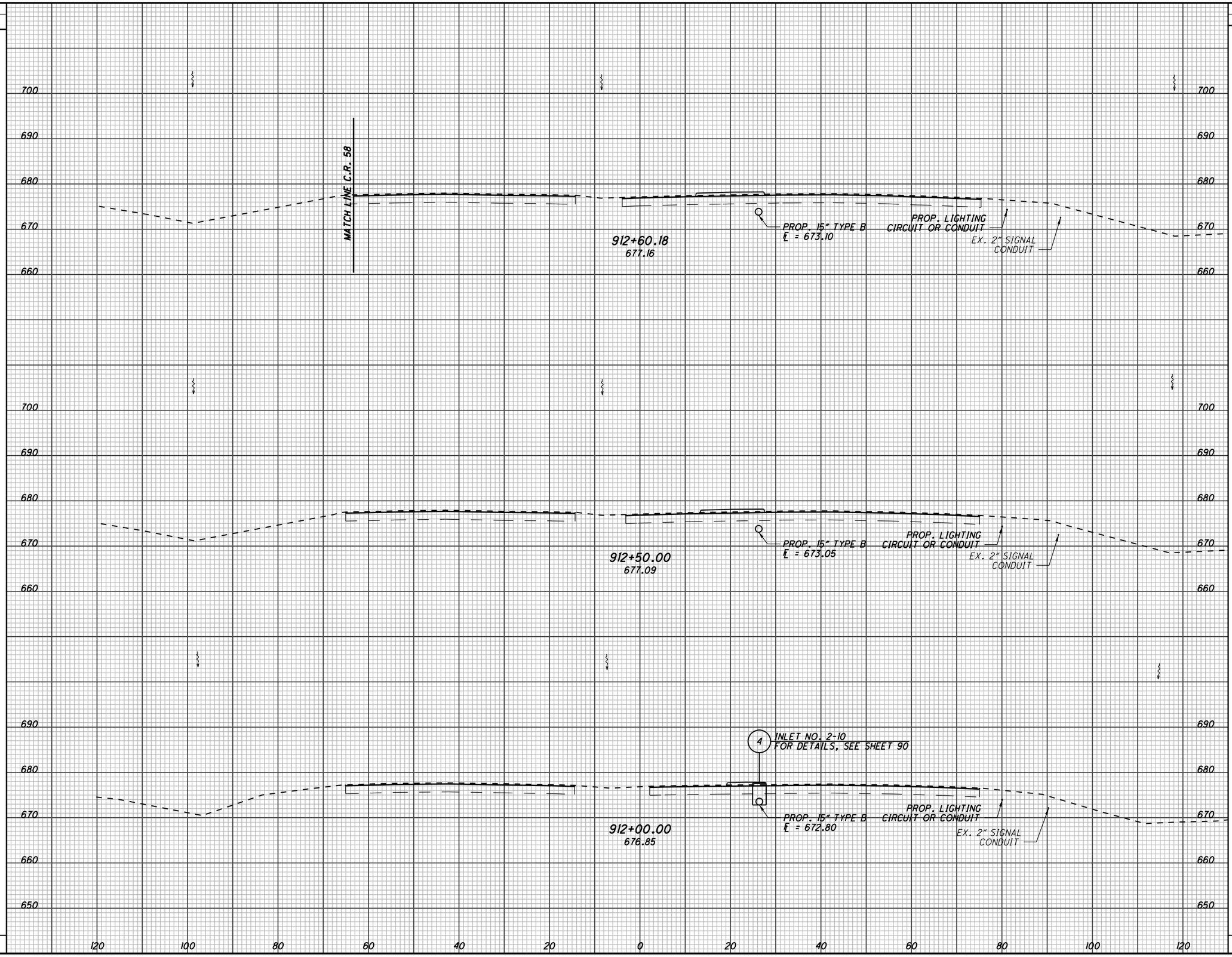
CHECKED ALB

CROSS SECTIONS S.R. 32
STA. 910+50.00 TO STA. 911+50.00

PIK-32-17.15

74
111

SEEDING	
END WIDTH	SQ. YDS.
0	0
0	0
0	0
0	0
0	0



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

CALCULATED SLP
CHECKED ALB

CROSS SECTIONS S.R. 32
STA. 912+00.00 TO STA. 912+60.18

PIK-32-17.15

75
111

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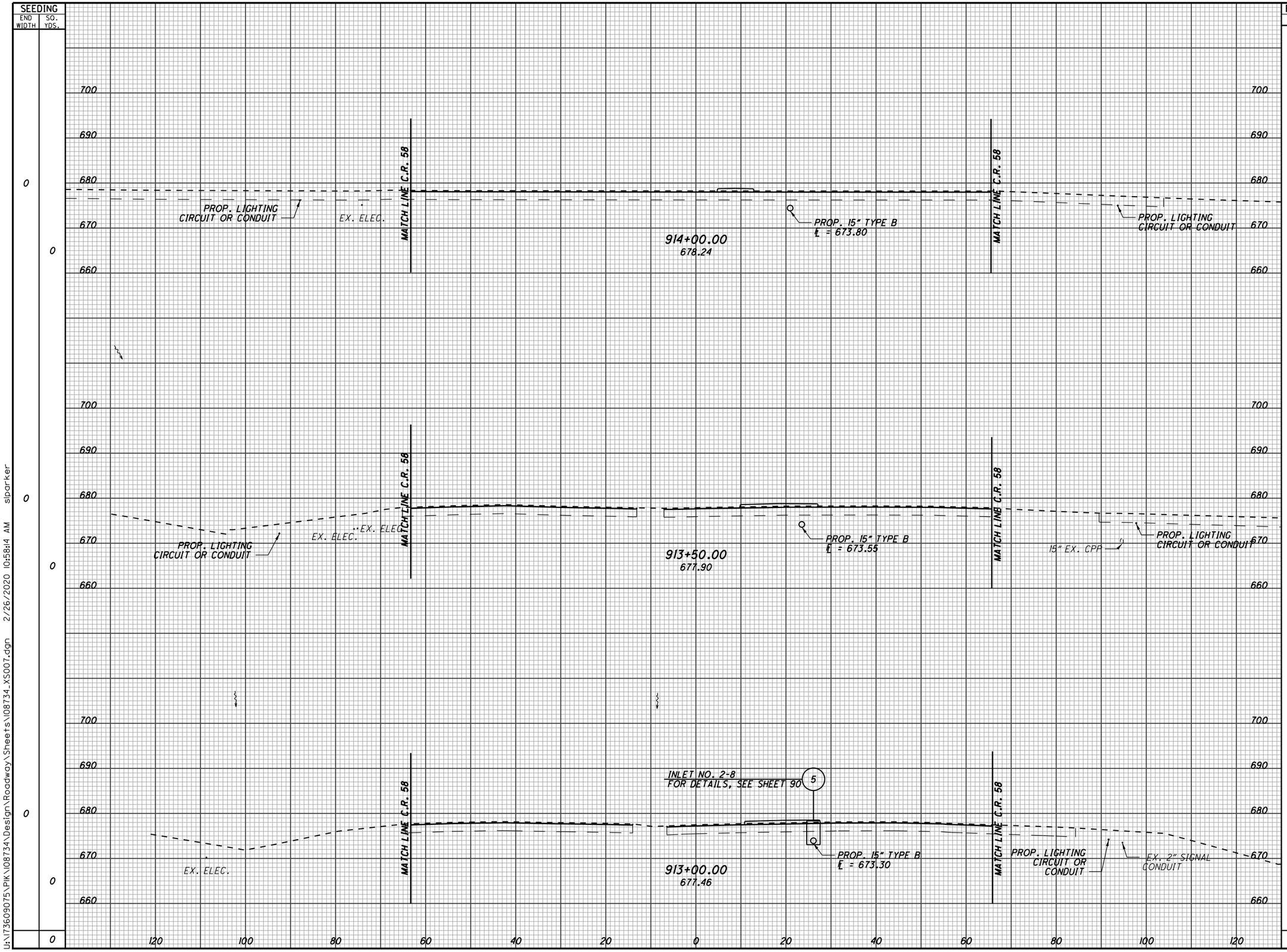
SEEDING	
END WIDTH	SQ. YDS.
0	0
0	0
0	0
0	0
0	0

END AREA	
CUT	FILL
0	0

VOLUME	
CUT	FILL
0	0
0	0
0	0

CALCULATED SLP
CHECKED ALB



CROSS SECTIONS S.R. 32
STA. 913+00.00 TO STA. 914+00.00

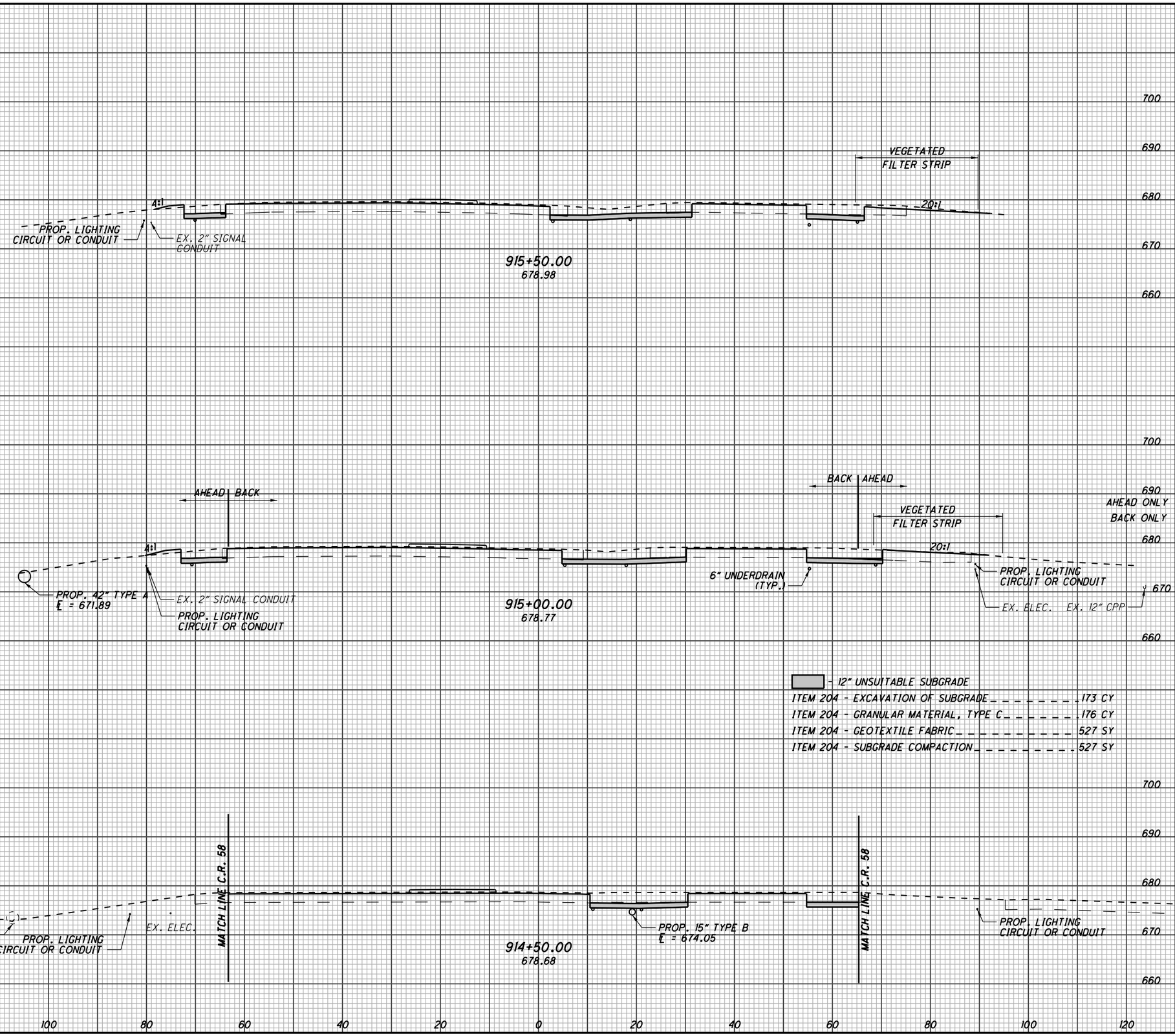
PIK-32-17.15

76
111

SEEDING END WIDTH	SEEDING SQ. YDS.
44	237
41	
AHEAD ONLY	
0	
BACK ONLY	
0	0
0	0
	237

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
47	3	80	7
AHEAD ONLY 39	4		
BACK ONLY 26	0		
27	0		
3	0		
		110	7

CALCULATED SLP
CHECKED ALB



CROSS SECTIONS S.R. 32
STA. 914+50.00 TO STA. 915+50.00

PIK-32-17.15

77
111

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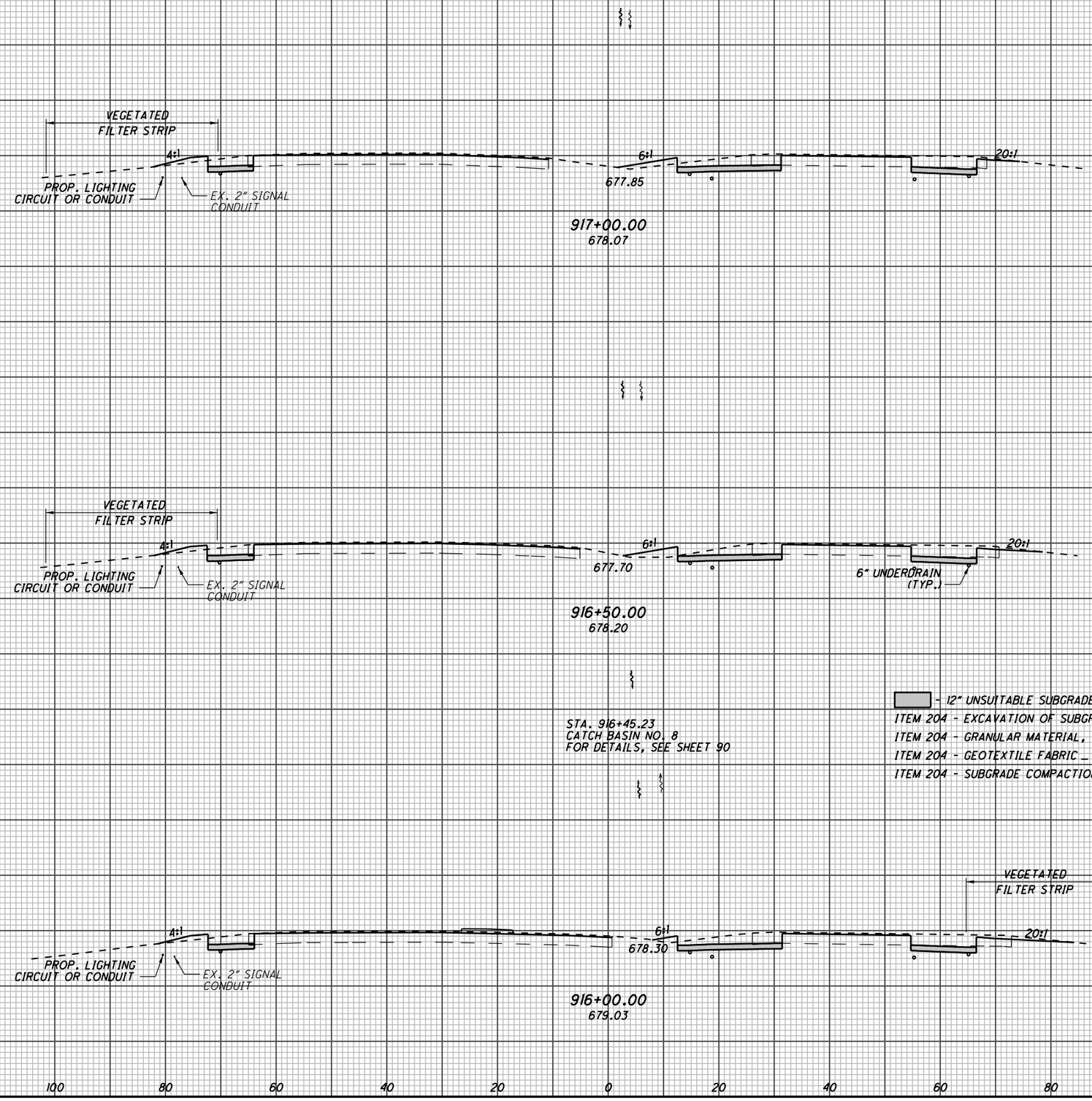
SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
59	337	31	14	56	28	
62	345	29	16	58	24	
62	295	33	9	75	12	
	977			189	64	

CALCULATED SLP
CHECKED ALB



- 12" UNSUITABLE SUBGRADE

ITEM 204 - EXCAVATION OF SUBGRADE	228 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C	233 CY
ITEM 204 - GEOTEXTILE FABRIC	671 SY
ITEM 204 - SUBGRADE COMPACTION	671 SY

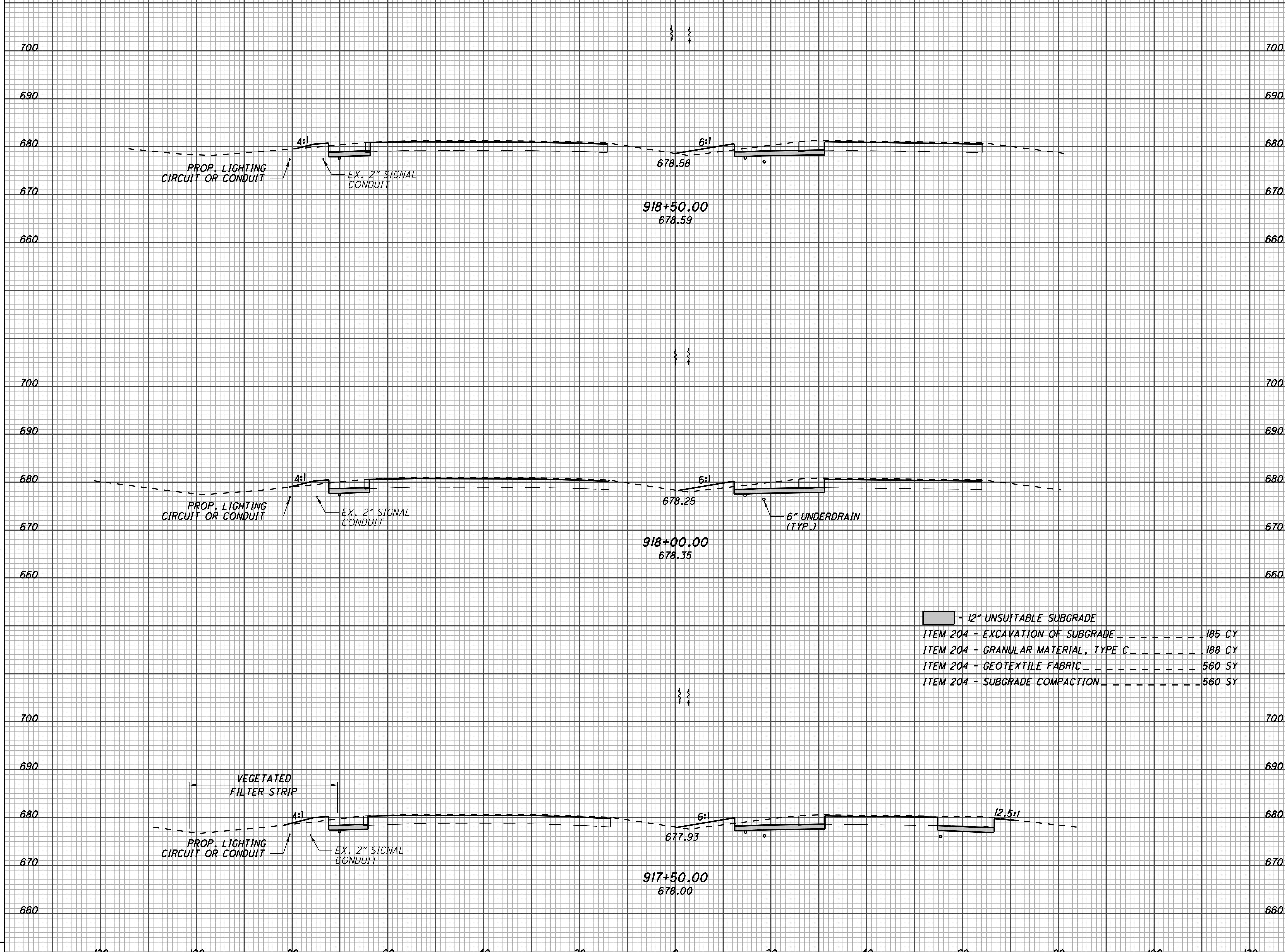
CROSS SECTIONS S.R. 32
STA. 916+00.00 TO STA. 917+00.00

PIK-32-17.15

78
111

CROSS SECTIONS S.R. 32
STA. 917+50.00 TO STA. 918+50.00

Station	SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
918+50.00	32		27	16		
		181			51	28
918+00.00	33		28	14		
		253			54	28
917+50.00	58		30	16		
		325			57	28
Total		759			162	84

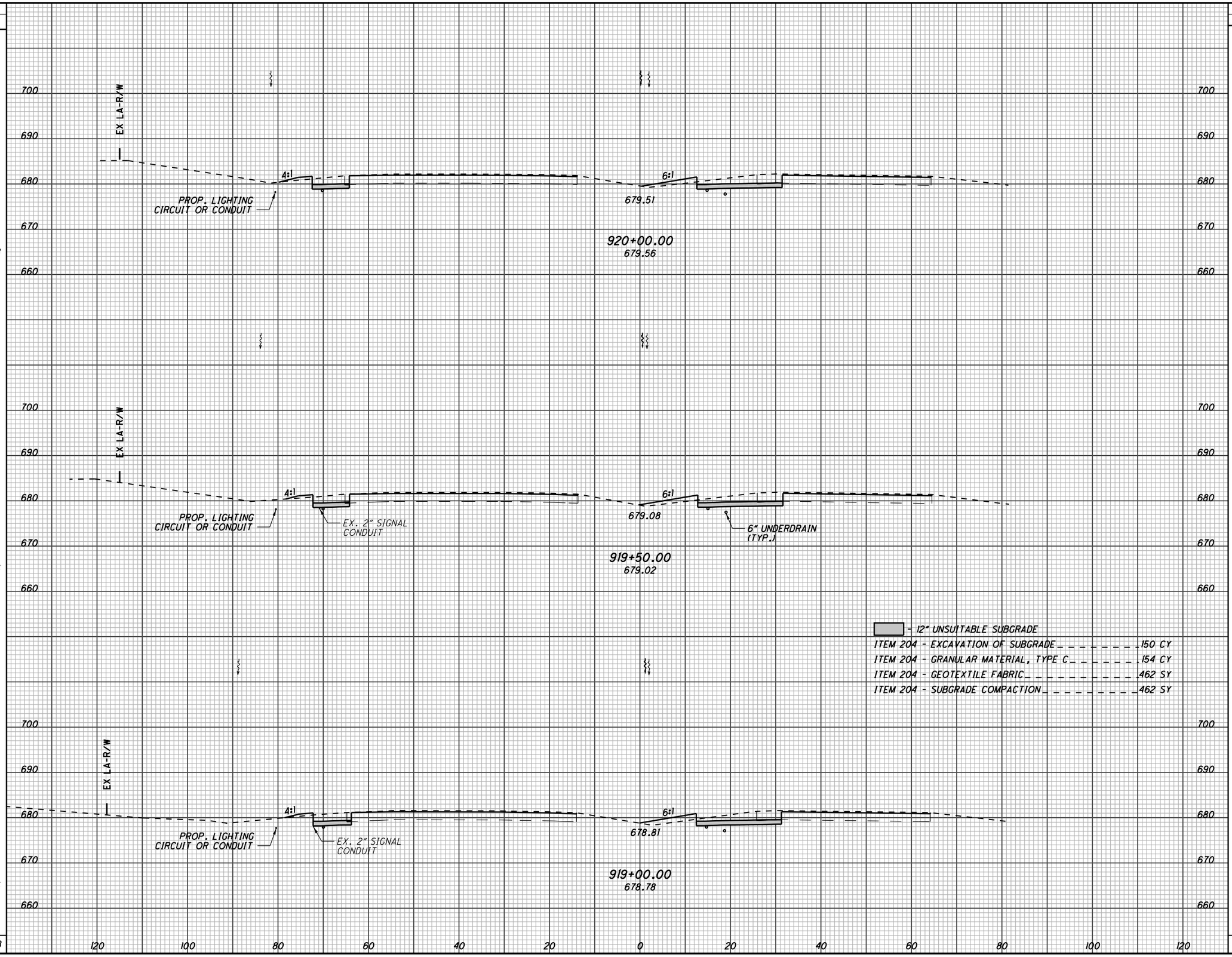


CALCULATED SLP
CHECKED ALB

PIK-32-17.15

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
32	178	28	13	52	25	
32	175	28	13	52	26	
31	175	28	15	51	29	
	528			155	80	

CALCULATED SLP
CHECKED ALB



CROSS SECTIONS S.R. 32
STA. 919+00.00 TO STA. 920+00.00

PIK-32-17.15

80
111

SEEDING END WIDTH	SEEDING SQ. YDS.
33	72
16	137
33	181
	390

STA. 921+40.00
CATCH BASIN NO. 8
FOR DETAILS, SEE SHEET 91

EX LA-R/W

4:1

6:1 6:1

PROP. 15" TYPE A
℄ = 678.96

921+26.19
680.05

4:1

PROP. 15" TYPE A
℄ = 678.77

6" UNDERDRAIN
(TYP.)

921+00.00
679.75

EX LA-R/W

4:1

6:1

679.54

920+50.00
679.61

700
690
680
670
660

120 100 80 60 40 20 0 20 40 60 80 100 120

- 12" UNSUITABLE SUBGRADE
ITEM 204 - EXCAVATION OF SUBGRADE _ _ _ _ _ _ _ _ 195 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C _ _ _ _ _ _ _ 202 CY
ITEM 204 - GEOTEXTILE FABRIC _ _ _ _ _ _ _ _ _ _ _ 610 SY
ITEM 204 - SUBGRADE COMPACTION _ _ _ _ _ _ _ _ _ _ 610 SY

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
34	12	45	9
57	5	79	15
28	11	52	23
		176	47

CALCULATED SLP
CHECKED ALB

CROSS SECTIONS S.R. 32
STA. 920+50.00 TO STA. 921+26.19

PIK-32-17.15

81
111

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SEEDING	
END WIDTH	SQ. YDS.
0	
	15
	10
	57
	72

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		5	1
9	1		
		19	6
		24	7

CALCULATED SLP

CHECKED ALB

ITEM 203 - EXCAVATION _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1094 CY
ITEM 203 - EMBANKMENT _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 345 CY
ITEM 204 - EXCAVATION OF SUBGRADE _ _ _ _ _ _ _ _ _ _ _ _ 1181 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C _ _ _ _ _ _ _ _ _ _ _ 1212 CY
ITEM 204 - GEOTEXTILE FABRIC _ _ _ _ _ _ _ _ _ _ _ _ _ _ 3595 SY
ITEM 204 - SUBGRADE COMPACTION _ _ _ _ _ _ _ _ _ _ _ _ _ 3595 SY
ITEM 659 - SEEDING AND MULCHING _ _ _ _ _ _ _ _ _ _ _ _ _ 3482 SY

QUANTITIES CARRIED TO THE SUBSUMMARY, SEE SHEETS 60-61.

EX LA-R/W

700
690
680
670
660

921+76.13
680.44
END WORK
END PROJECT

- 12" UNSUITABLE SUBGRADE
ITEM 204 - EXCAVATION OF SUBGRADE _ _ _ _ _ _ _ _ 29 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C _ _ _ _ _ _ _ 33 CY
ITEM 204 - GEOTEXTILE FABRIC _ _ _ _ _ _ _ _ _ _ _ 97 SY
ITEM 204 - SUBGRADE COMPACTION _ _ _ _ _ _ _ _ _ _ 97 SY

EX LA-R/W

4:1

6" UNDERDRAIN

921+50.00
680.26

120 100 80 60 40 20 0 20 40 60 80 100 120

CROSS SECTIONS S.R. 32
STA. 921+50.00 TO STA. 921+76.13

PIK-32-17.15

82
111

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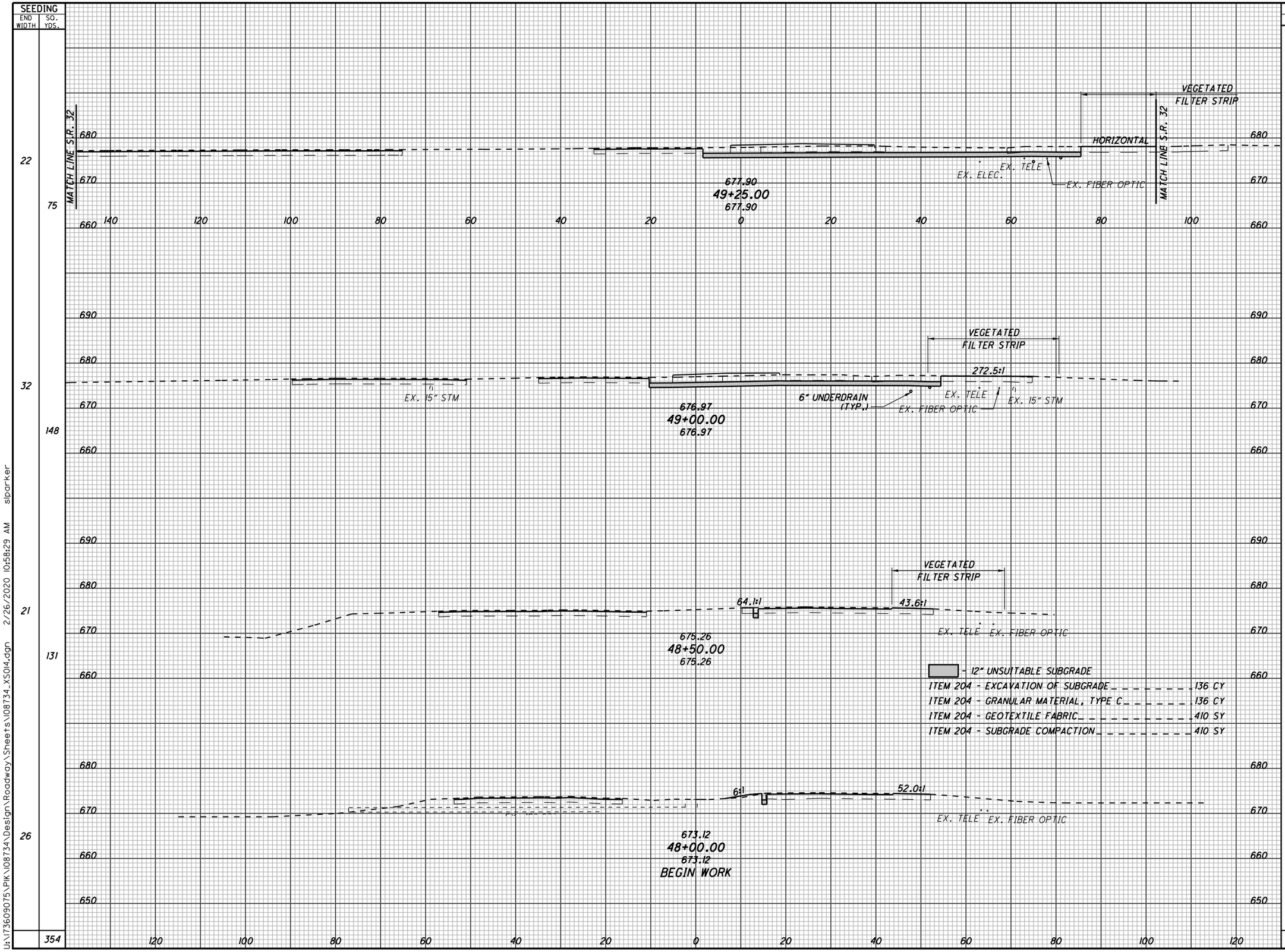
SEEDING	
END WIDTH	SQ. YDS.
22	75
32	148
21	131
26	
	354



- 12" UNSUITABLE SUBGRADE

ITEM 204 - EXCAVATION OF SUBGRADE	136 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C	136 CY
ITEM 204 - GEOTEXTILE FABRIC	410 SY
ITEM 204 - SUBGRADE COMPACTION	410 SY

END AREA		VOLUME	
CUT	FILL	CUT	FILL
45	23	34	24
28	27	26	39
0	15	2	26
2	13		
		62	89

CALCULATED SLP
CHECKED ALB

CROSS SECTIONS C.R. 58
STA. 48+00.00 TO STA. 49+25.00

PIK-32-17.15

SEEDING	
END WIDTH	SQ. YDS.
62	127
0	0
0	12
	139

STA. 51+07.35
PROP. CONDUIT, TYPE A
FOR DETAILS, SEE SHEETS 92.

6:1

6:1

6" UNDERDRAIN (TYP.)

EX. ELEC.

EX. TELE

EX. FIBER OPTIC

678.53
51+00.00
678.53

MATCH LINE S.R. 32

MATCH LINE S.R. 32

EX. ELEC.

EX. TELE

EX. FIBER OPTIC

678.42
50+63.33
678.42
RESUME WORK

- 12" UNSUITABLE SUBGRADE
ITEM 204 - EXCAVATION OF SUBGRADE _ _ _ _ _ _ _ _ 47 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C _ _ _ _ _ _ _ 47 CY
ITEM 204 - GEOTEXTILE FABRIC _ _ _ _ _ _ _ _ _ _ _ 147 SY
ITEM 204 - SUBGRADE COMPACTION _ _ _ _ _ _ _ _ _ _ 147 SY

MATCH LINE S.R. 32

MATCH LINE S.R. 32

EX. ELEC.

EX. TELE

EX. FIBER OPTIC

678.27
49+34.38
678.27
SKEW ANGLE = 87° RHF
SUSPEND WORK

690
680
670
660

160 140 120 100 80 60 40 20 0 20 40 60 80

END AREA		VOLUME	
CUT	FILL	CUT	FILL
11	150	8	102
0	0		
16	0	11	4
		19	106

CALCULATED SLP
CHECKED ALB

CROSS SECTIONS C.R. 58
STA. 49+34.38 TO STA. 51+00.00

PIK-32-17.15

84
111

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SEEDING	
END WIDTH	SQ. YDS.
6	163
55	325
	488

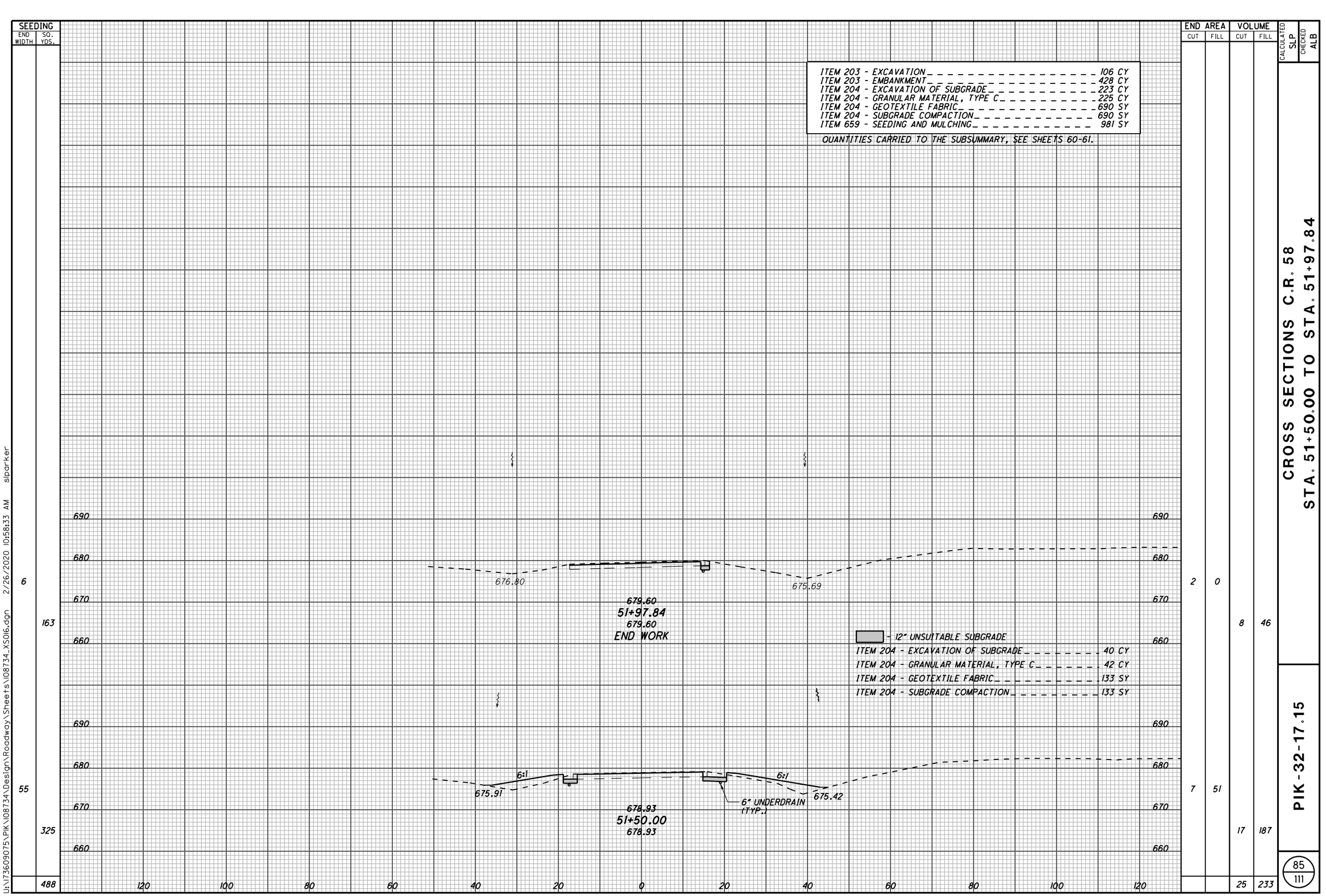
END AREA		VOLUME	
CUT	FILL	CUT	FILL
2	0	8	46
7	51	17	187
		25	233

CALCULATED SLP

CHECKED ALB

ITEM 203 - EXCAVATION _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 106 CY
ITEM 203 - EMBANKMENT _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 428 CY
ITEM 204 - EXCAVATION OF SUBGRADE _ _ _ _ _ _ _ _ _ _ _ _ 223 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C _ _ _ _ _ _ _ _ _ _ _ 225 CY
ITEM 204 - GEOTEXTILE FABRIC _ _ _ _ _ _ _ _ _ _ _ _ _ _ 690 SY
ITEM 204 - SUBGRADE COMPACTION _ _ _ _ _ _ _ _ _ _ _ _ _ 690 SY
ITEM 659 - SEEDING AND MULCHING _ _ _ _ _ _ _ _ _ _ _ _ _ 981 SY

QUANTITIES CARRIED TO THE SUBSUMMARY, SEE SHEETS 60-61.



ITEM 204 - EXCAVATION OF SUBGRADE _ _ _ _ _ _ _ _ _ 40 CY
ITEM 204 - GRANULAR MATERIAL, TYPE C _ _ _ _ _ _ _ _ 42 CY
ITEM 204 - GEOTEXTILE FABRIC _ _ _ _ _ _ _ _ _ _ _ 133 SY
ITEM 204 - SUBGRADE COMPACTION _ _ _ _ _ _ _ _ _ _ 133 SY

CROSS SECTIONS C.R. 58
STA. 51+50.00 TO STA. 51+97.84

PIK-32-17.15

85
111

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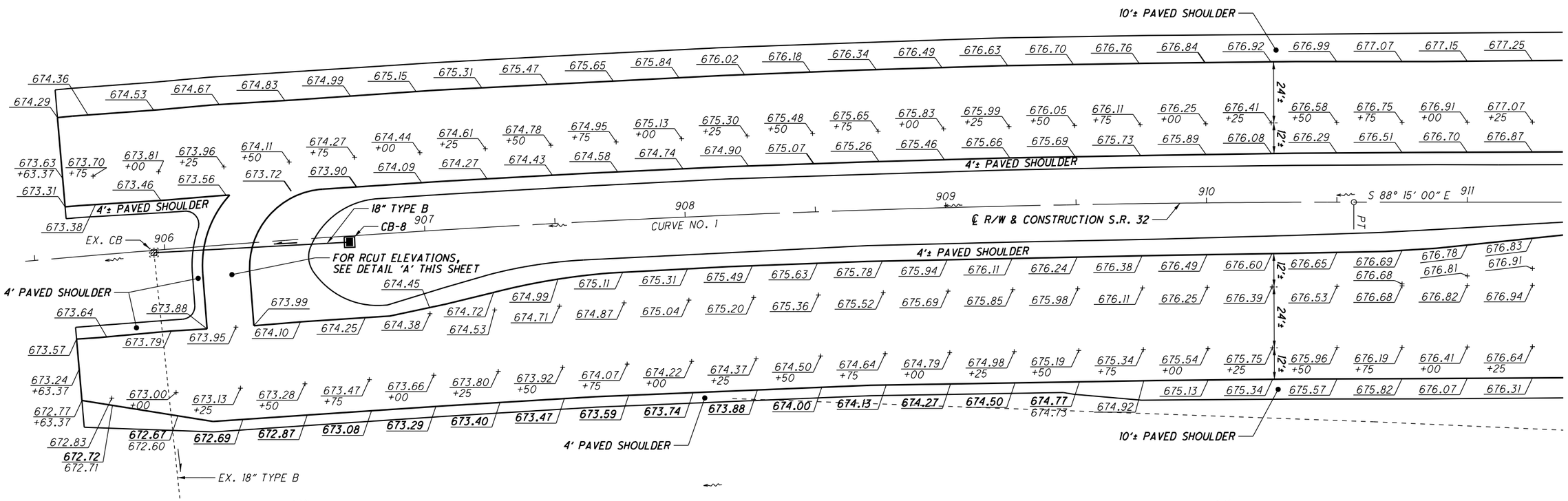
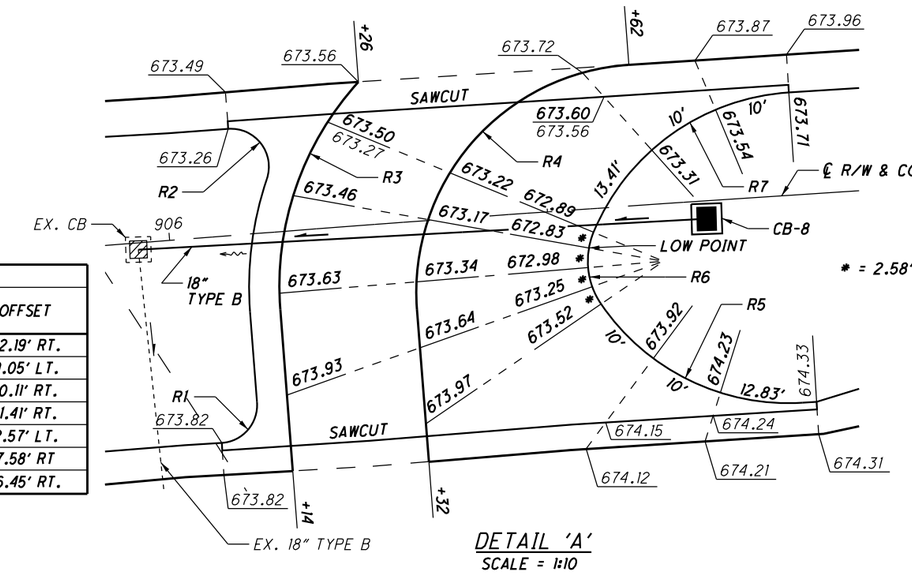


S.R. 32
EX. CURVE NO. 1

P.I. Sta. 901+39.22
Δ = 18° 30' 31" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 933.56'
L = 1,850.86'
E = 75.56'
e_{max} = 0.043
PC Sta. 892+05.66
PT Sta. 910+56.52

RADIUS RETURN DATA			
RADIUS NO.	RADIUS	R.P. STATION	OFFSET
R1	5'	906+04.82	22.19' RT.
R2	5'	906+08.83	9.05' LT.
R3	40'	906+53.93	10.11' RT.
R4	30'	906+61.95	11.41' RT.
R5	30'	906+82.09	2.57' LT.
R6	10'	906+64.85	7.58' RT
R7	30'	906+82.82	16.45' RT.



DETAIL 'A'
SCALE = 1:10

LEGEND

EXIST. / + — PROPOSED ELEVATION TO MATCH EXISTING ELEVATION

PROP. / + — PROPOSED ELEVATION

PROP. / EXIST. / + — WEDGE COURSE NEEDED TO MATCH PROPOSED

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SLP CHECKED ALB

PAVEMENT DETAIL S.R. 32

PIK-32-17.15

86 / 111

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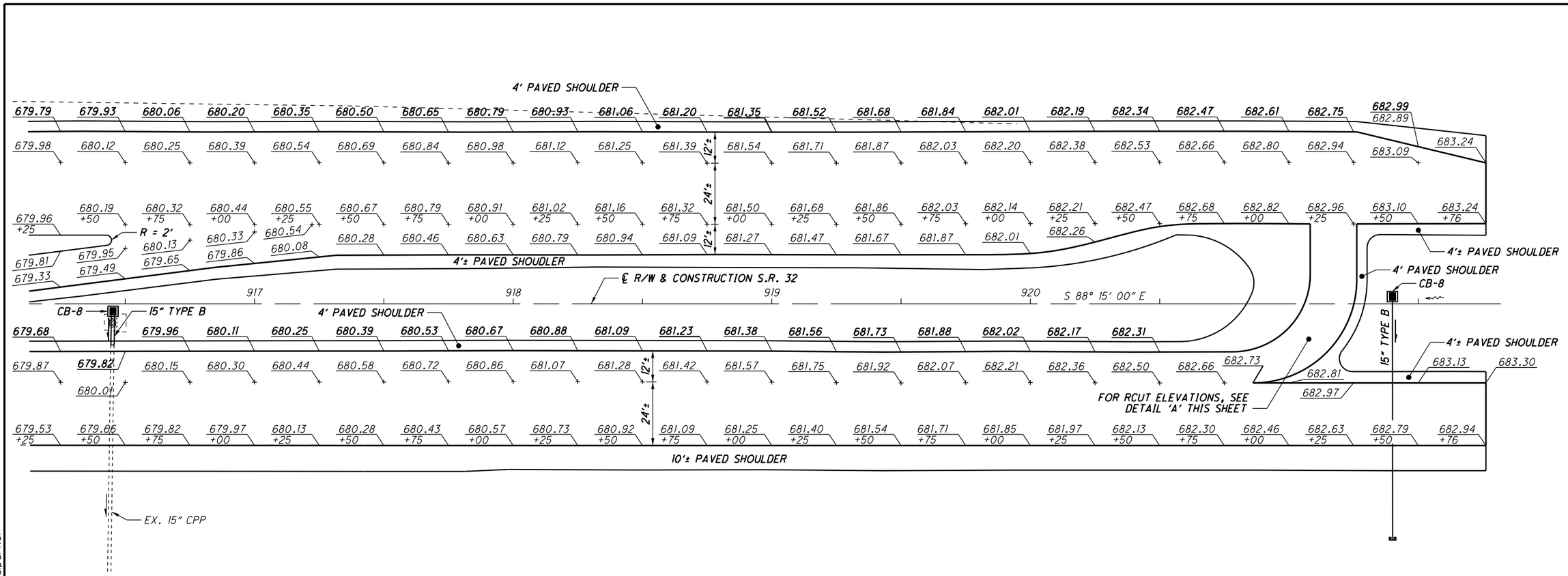

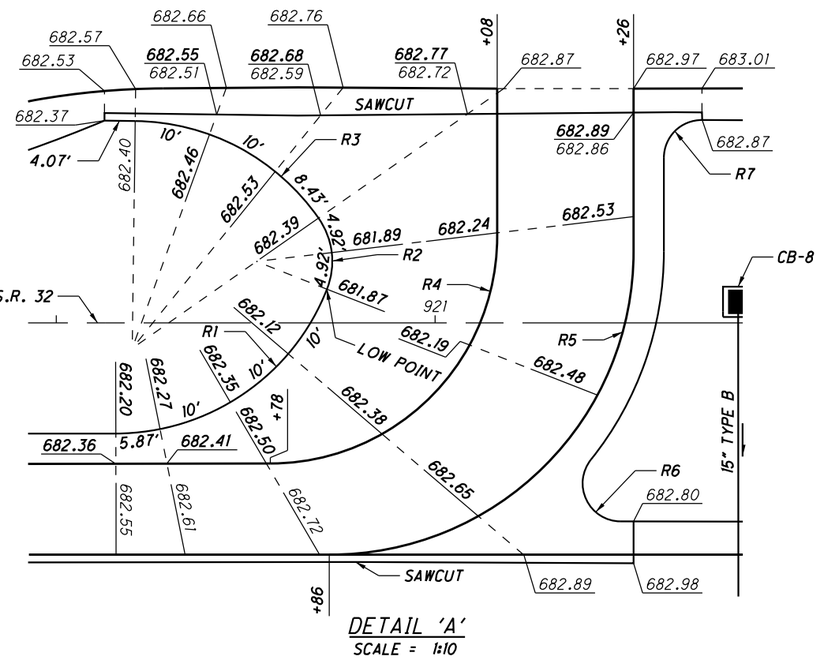

DETAIL 'A'
SCALE = 1:10

RADIUS RETURN DATA			
RADIUS NO.	RADIUS	R.P. STATION	OFFSET
R1	30'	920+57.81	15.40' LT.
R2	10'	920+76.43	8.10' LT.
R3	30'	920+60.04	3.36' RT.
R4	30'	920+78.21	11.43' LT.
R5	40'	920+86.21	9.42' LT.
R6	5'	921+24.47	21.19' RT.
R7	5'	921+35.21	21.77' LT.

LEGEND

EXIST. - PROPOSED ELEVATION TO MATCH EXISTING ELEVATION

PROP. - PROPOSED ELEVATION

PROP. / EXIST. - WEDGE COURSE NEEDED TO MATCH PROPOSED

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SLP CHECKED ALB

PAVEMENT DETAIL S.R. 32

PIK-32-17.15

LEFT E/P RETURN DATA (R1)
Δ = 10° 05' 07"
R = 400.00'
L = 70.41'
T = 35.30'
RP STA. 912+46.70, 454+20' LT., S.R. 32
PCC STA. 913+16.94, 60.41' LT., S.R. 32
PT STA. 912+46.90, 54.20' LT., S.R. 32

LEFT E/P RETURN DATA (R2)
Δ = 79° 53' 13"
R = 100.00'
L = 139.43'
T = 83.74'
RP STA. 51+58.86, 112' LT., C.R. 58
PC STA. 51+58.86, 12' LT., C.R. 58
PCC STA. 913+16.94, 60.41' LT., S.R. 32

* = 9.43'

** ISLAND DETAIL 'A' SEE SHEET 89

□ = 678.18

MATCHLINE STA. 51+50.00

10'± PAVED SHOULDER

4'± PAVED SHOULDER

℄ R/W & CONSTRUCTION S.R. 32
S 88° 15' 00" E

℄ R/W & CONSTRUCTION C.R. 58
CURVE NO. 1

N 1° 45' 00" E

N 4° 54' 00" E

STA. 914+11.38 S.R. 32 =
P.I. STA. 50+00.00 C.R. 58

90°

FOR ELEVATIONS IN THIS AREA
SEE ISLAND DETAIL 'C' SHEET 89

RAISED CONCRETE ISLAND

ISLAND DETAIL 'B'
SEE SHEET 89

42" TYPE A

15" TYPE B

18" TYPE B

I 2-8

I 2-10

I 2-12

CB-6

EX. 42" CONC.

EX. 15" CPP

EX. 12"

EX. CB

PAVED SHOULDER VARIES

℄ R/W & CONSTRUCTION C.R. 58

R1 R2 R4 R5 R6 R7 R8 R9

C.R. 58
EX. CURVE 1
P.I. Sta. 53+57.87
Δ = 33° 23' 54" (LT)
Dc = 9° 30' 00"
R = 603.11'
T = 180.93'
L = 351.56'
E = 26.56'
e_{max} = 0.032
PC Sta. 51+76.94
PT Sta. 55+28.50

C.R. 58
P.I. Sta. 50+00.00
Δ = 3° 09' 00"
NO CURVE

RIGHT E/P RETURN DATA (R4)
Δ = 10° 31' 22"
R = 400.00'
L = 73.46'
T = 36.83'
RP STA. 51+94.87, 412' RT., C.R. 58
PCC STA. 51+22.41, 20.62' RT., C.R. 58
PT STA. 51+94.87, 12' R., C.R. 58

RIGHT E/P RETURN DATA (R5)
Δ = 73° 57' 30"
R = 70.00'
L = 90.36'
T = 52.71'
RP STA. 915+00.42, 137.23' LT., S.R. 32
PCC STA. 914+95.76, 67.39' LT., S.R. 32
PCC STA. 51+22.41, 20.62' RT., C.R. 58

RIGHT E/P RETURN DATA (R6)
Δ = 4° 2' 38"
R = 400.00'
L = 28.23'
T = 14.12'
RP STA. 915+22.38, 466.50' LT., S.R. 32
PC STA. 915+23.97, 66.50' LT., S.R. 32
PCC STA. 914+95.76, 67.39' LT., S.R. 32

RIGHT E/P RETURN DATA (R7)
Δ = 9° 59' 12"
R = 400.00'
L = 69.72'
T = 34.95'
RP STA. 48+28.85, 438.98' RT., C.R. 58
PC STA. 48+13.51, 39.27' RT., C.R. 58
PCC STA. 48+83.06 42.67' RT., C.R. 58

RIGHT E/P RETURN DATA (R8)
Δ = 66° 39' 57"
R = 70.00'
L = 81.45'
T = 46.04'
RP STA. 48+73.57, 112.02' RT., C.R. 58
PCC STA. 48+83.06, 42.67' RT., C.R. 58
PCC STA. 915+01.26, 62.02' RT., S.R. 32

RIGHT E/P RETURN DATA (R9)
Δ = 12° 22' 17"
R = 400.00'
L = 86.37'
T = 43.35'
RP STA. 915+87.12, 454.70' RT., S.R. 32
PCC STA. 915+01.26, 64.02' RT., S.R. 32
PT STA. 915+86.96, 54.70' RT., S.R. 32

LEGEND

EXIST. / PROP. - PROPOSED ELEVATION TO MATCH EXISTING ELEVATION

PROP. - PROPOSED ELEVATION

PROP. / EXIST. - WEDGE COURSE NEEDED TO MATCH PROPOSED

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SLP
CHECKED ALB

INTERSECTION DETAIL
S.R. 32 & C.R. 58

PIK-32-17.15

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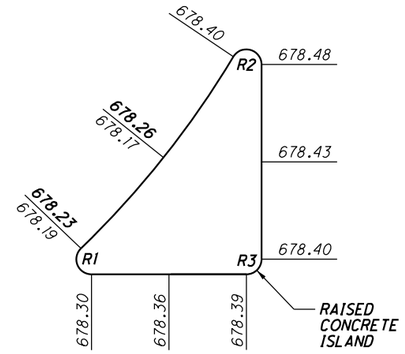
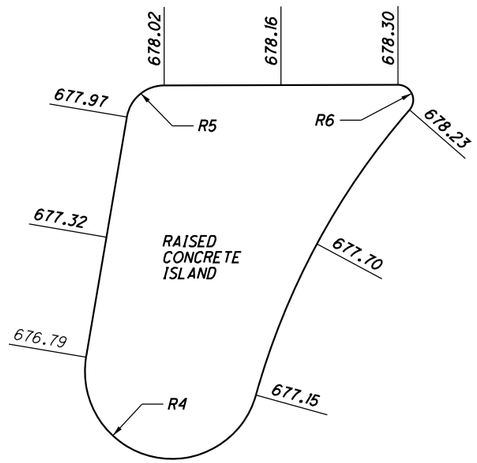
RADIUS RETURN DATA			
RADIUS NO.	RADIUS	R.P. STATION	OFFSET
1	2'	50+68.26	24.43' LT.
2	2'	50+93.96	4.00' LT.
3	2'	50+68.26	4.00' LT.



ISLAND DETAIL 'A'

ELEVATION IS AT BOTTOM OF ISLAND

RADIUS RETURN DATA			
RADIUS NO.	RADIUS	R.P. STATION	OFFSET
4	11.5'	48+96.89	6.06' LT.
5	5'	49+29.56	3.22' LT.
6	2'	49+34.34	33.87' LT.



ISLAND DETAIL 'B'

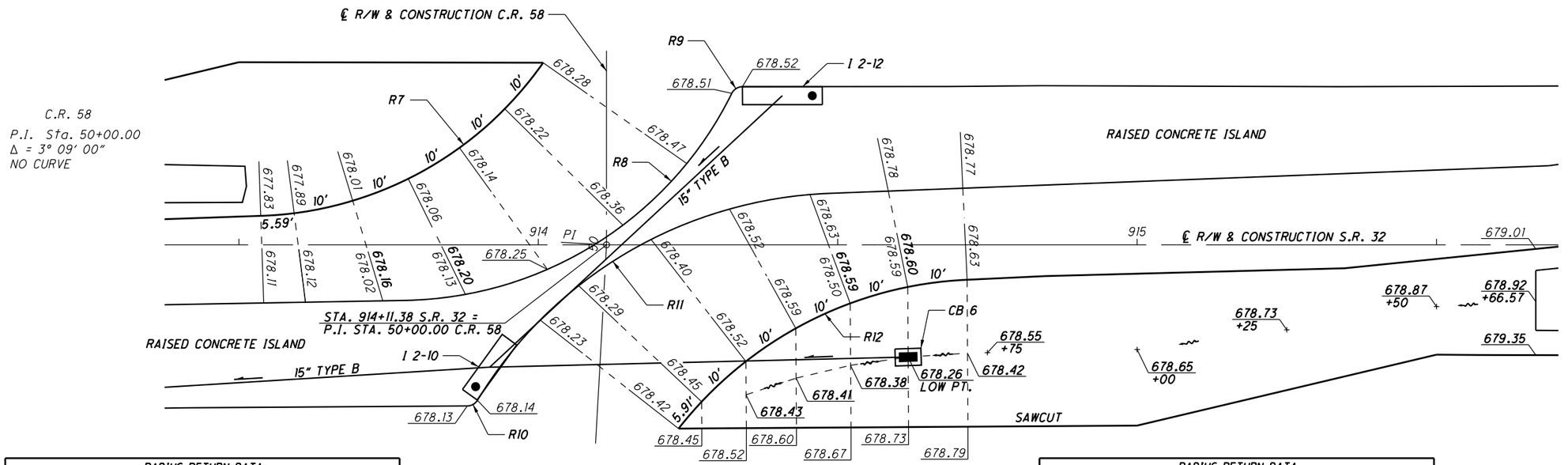
ELEVATION IS AT BOTTOM OF ISLAND

LEGEND

EXIST. - PROPOSED ELEVATION TO MATCH EXISTING ELEVATION

PROP. - PROPOSED ELEVATION

PROP. / EXIST. - WEDGE COURSE NEEDED TO MATCH PROPOSED



ISLAND DETAIL 'C'

ELEVATION IS AT BOTTOM OF ISLAND

RADIUS RETURN DATA			
RADIUS NO.	RADIUS	R.P. STATION	OFFSET
7	60'	913+51.63	64.78' LT.
8	62'	913+76.70	52.72' LT.
9	2'	914+34.08	24.38' LT.

RADIUS RETURN DATA			
RADIUS NO.	RADIUS	R.P. STATION	OFFSET
10	2'	913+88.11	24.90' RT.
11	72'	914+51.32	63.37' RT.
12	65'	914+74.58	70.75' RT.

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SLP
CHECKED ALB

ISLAND DETAILS
S.R. 32 & T.R. 58

PIK-32-17.15

89
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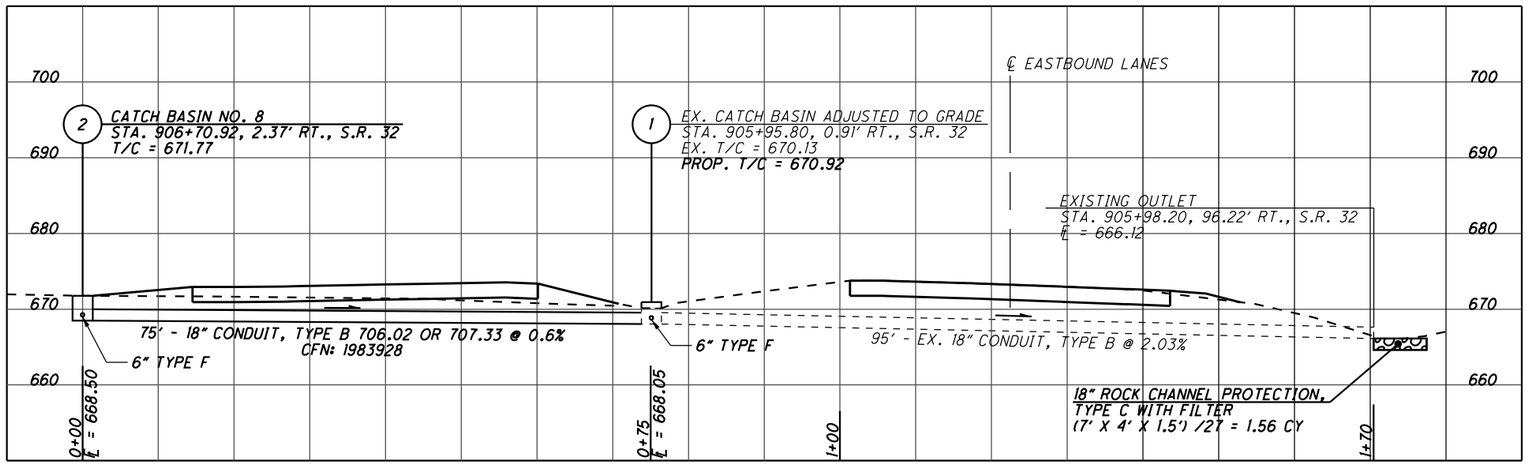
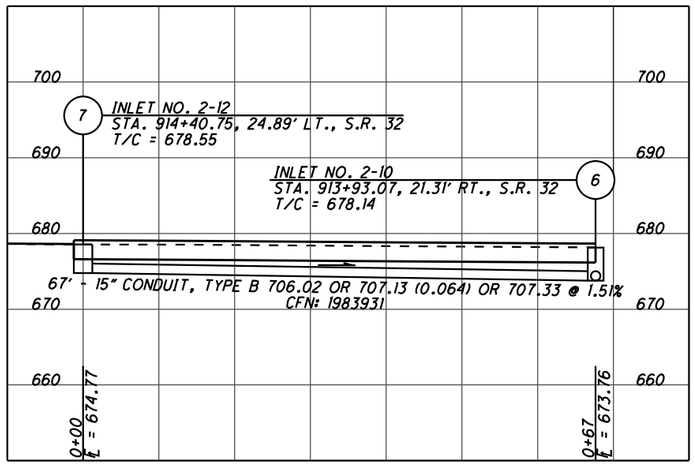
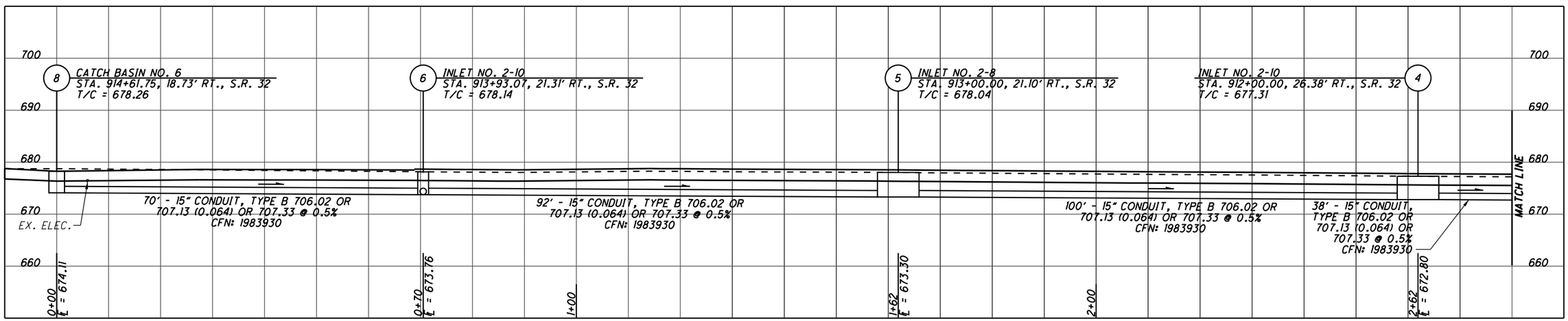
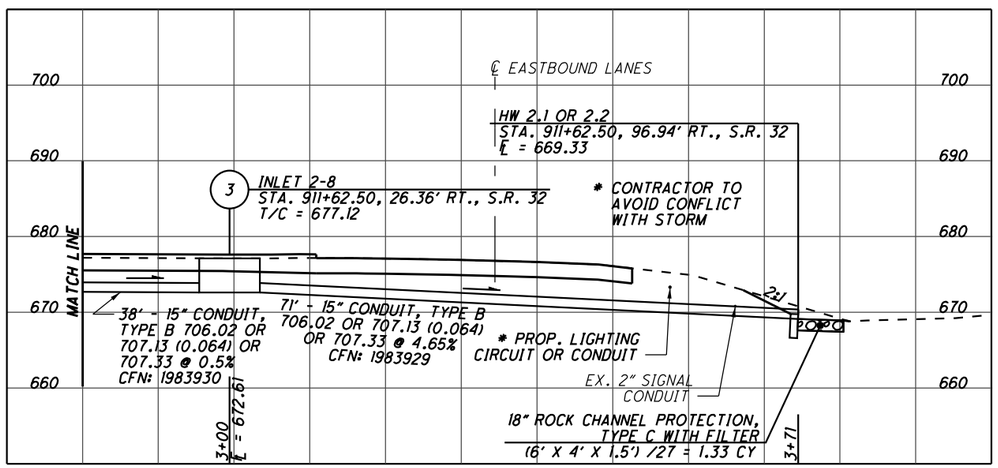
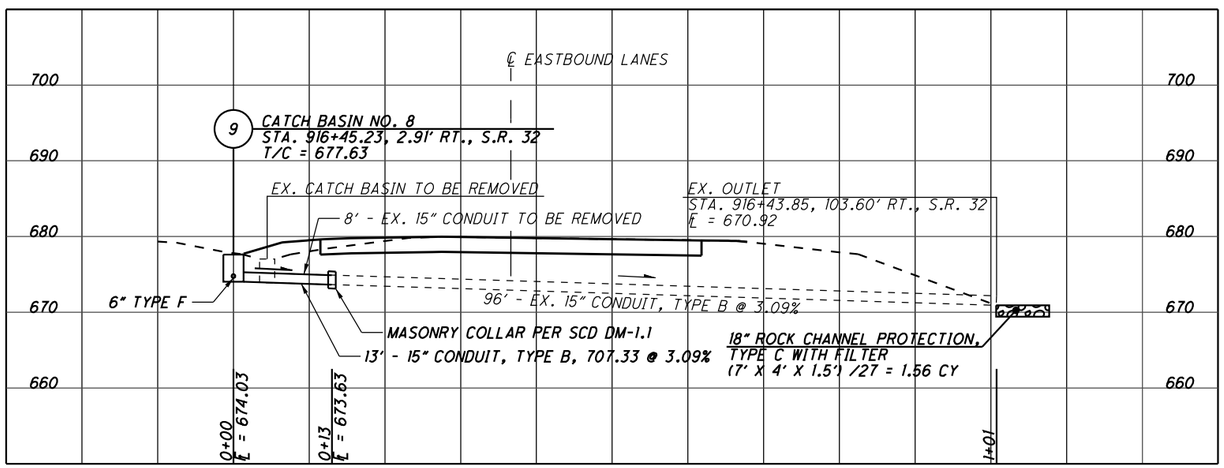








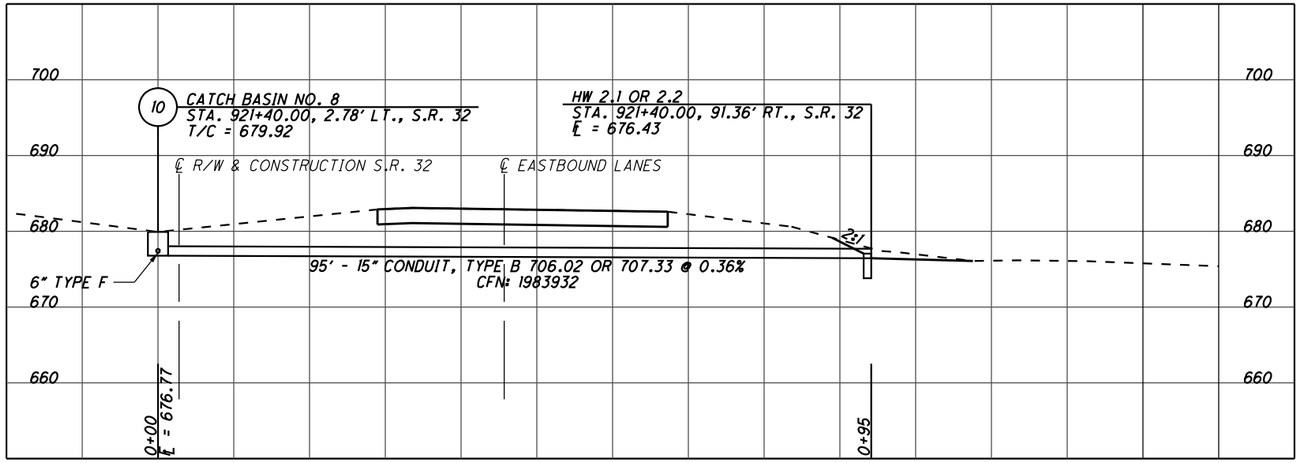


FOR HYDRAULIC DESIGN DATA, SEE SHEET 91

CALCULATED SLP CHECKED TJS

STORM SEWER PROFILES

PIK-32-17.15



HYDRAULIC DESIGN DATA
pH: 7.0
DESIGN SERVICE LIFE: 75 YR.
ABRASION LEVEL: 1

CALCULATED SLP
CHECKED TJS

STORM SEWER PROFILES

PIK-32-17.15

11 91

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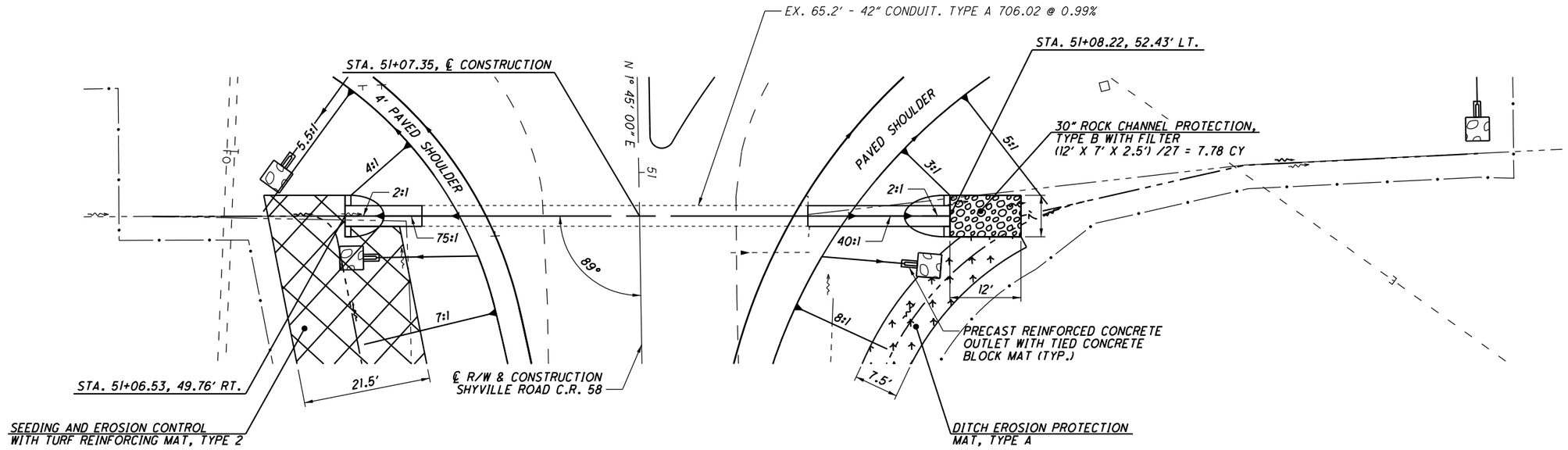
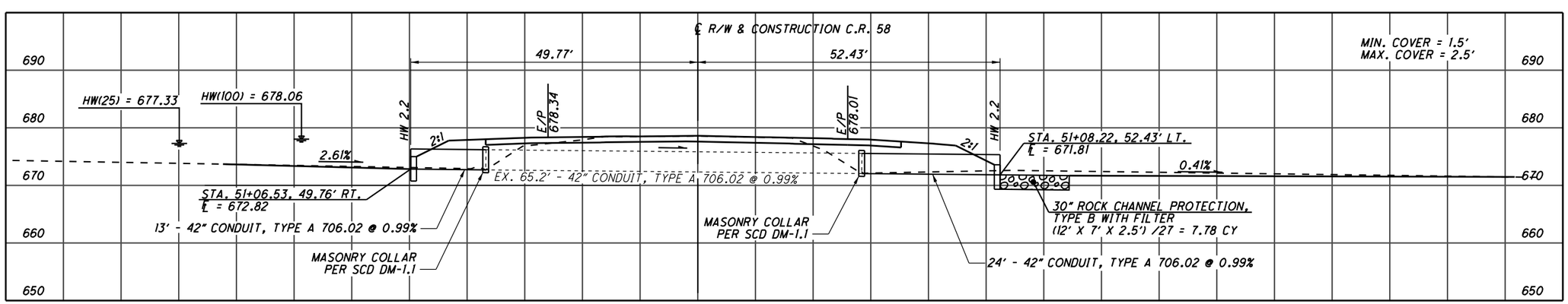


HYDRAULIC DATA	
DRAINAGE AREA	= 40.8 AC
Q_{25}	= 78.4 CFS
Q_{100}	= 91.5 CFS
V_{25}	= 12.3 FPS
V_{100}	= 12.6 FPS
HW_{25}	= 677.33
HW_{100}	= 678.06
pH	= 7.6

ESTIMATE QUANTITIES			
ITEM	TOTAL	UNIT	DESCRIPTION
202	2	EA	HEADWALL REMOVED
203	25	CY	EXCAVATION
601	8	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
602	1.7	CY	CONCRETE MASONRY
611	37	FT	42" CONDUIT, TYPE A, 706.02
659	246	SY	SEEDING AND MULCHING

QUANTITIES CARRIED TO SUBSUMMARY, SEE SHEETS 60-61



HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED T.JS CHECKED ALB

CULVERT DETAIL
SHYVILLE ROAD (C.R. 58) - STA. 51+07.35

PIK-32-17.15

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UNDERDRAIN TABLE

CALCULATED SLP CHECKED ALB

REFERENCE NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	LEFT OUTLET TO	RIGHT OUTLET TO	OUTLET ELEV.	OUTLET STATION	OUTLET OFFSET	REMARKS	601 TIED CONCRETE BLOCK MAT, TYPE 1	605 6" BASE PIPE UNDERDRAIN	605 6" SHALLOW PIPE UNDERDRAINS	605 6" UNCLASSIFIED PIPE UNDERDRAINS	611 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	611 PRECAST REINFORCED CONCRETE OUTLET	BENDS AND BRANCHES FOR INFORMATION ONLY		
											SY	FT	FT	FT	FT	EACH	EACH		
		S.R. 32																	
U-1	64	906+04.75	906+11.22	LT./RT.		EX. CB #1	668.60	905+95.80	0.91	UNDERDRAIN LOW POINT AT STA. 906+11.22.		47.5			15.5		1		
U-2	64	906+31.96	906+47.18	LT./RT.		TEE		906+54.95	6.11	TEE INTO UNDERDRAIN U-3		48.7			22		1		
U-3	64	905+64.95	906+83.83	LT./RT.		CB #2	669.00	906+70.92	2.37	UNDERDRAIN LOW POINT AT STA. 906+54.95.		76.2			16.4		1		
U-4	64	905+63.37	909+43.66	RT.		SLOPE	668.76	909+43.66	105.00		1.78	375.9			31.9	1	1		
U-5	65	912+69.57	51+02.00 (C.R. 58)	LT.	SLOPE		672.60	912+69.57	93.00	UNCLASSIFIED UNDERDRAIN FROM STA. 51+02, FL = 673.96 TO STA. 912+67.59, FL = 673.96	1.78			111.8	26	1	1		
U-6	65	913+30.66	51+02.00 (C.R. 58)	LT.	TEE			913+27.69	73.30	TEE INTO UNDERDRAIN U-6 UNCLASSIFIED UNDERDRAIN FROM STA. 51+02, FL = 673.36 TO STA. 913+30.66, FL = 673.36				64.8	9.9		2		
U-7	65-66	914+61.11	921+76.13	LT	SLOPE		675.00	914+71.37	98.09		1.78	718.1			19.1	1	1		
U-8	65-66	915+66.57	916+40.00	RT.		TEE		916+40.00	14.41	TEE INTO UNDERDRAIN U-9 UNCLASSIFIED UNDERDRAIN FROM STA. 915+66.57, FL = 674.75 TO STA. 916+40, FL = 674.75				369.1	4		1		
U-9	65-66	915+66.57	916+40.00	RT.		CB #9	674.53	916+45.23	2.91	UNCLASSIFIED UNDERDRAIN FROM STA. 915+66.57, FL = 675.69 TO STA. 916+40, FL = 675.69				73.4	12.6		2		
U-10	65-66	48+82.52 (C.R. 58)	917+81.24	RT.		SLOPE	672.25	48+76.47 (C.R. 58)	90.85		1.78	356.1	366.1		51.6	1	3		
U-11	66	916+50.00	921+08.21	LT./RT.		TEE		916+50.00	14.40	TEE INTO UNDERDRAIN U-12 UNCLASSIFIED UNDERDRAIN FROM STA. 921+08.21, FL = 677.62 TO STA. 920+25, FL = 677.62			375	116.5	4		1		
U-12	66	916+50.00	920+56.36	RT.		CB #9	674.53	916+45.23	2.91	UNCLASSIFIED UNDERDRAIN FROM STA. 920+56.36, FL = 678.37 TO STA. 920+00, FL = 678.37		350		136.1	12.4		2		
U-13	66	921+24.46	921+35.24	LT/RT	CB #10		677.27	921+40.00	2.78	UNDERDRAIN LOW POINT AT STA. 921+25.18. TEE INTO UNDERDRAIN U-13		61.1			20.2		1		
		C.R. 58																	
U-14	69	50+81.00	51+00.00	RT			675.00	914+71.37	98.09			22	26.1				1		
U-15	69	51+14.73	51+65.60	LT	SLOPE		673.91	51+16.34	46.79		1.78	53.5			14	1	1		
U-16	69	51+13.65	51+97.74	RT		SLOPE	675.00	51+13.65	46.76		1.78	85.8			17.2	1	1		
TOTALS											10.68	2194.9	767.2	871.7	276.8	6	21		
TOTALS CARRIED TO GENERAL SUMMARY											11	2195	768	872	277	6			

PIK-32-17.15

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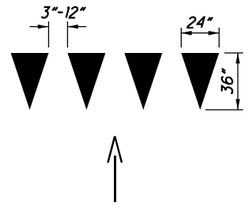
REFERENCE NO.	SHEET NO.	LOCATION	STATION FROM	STATION TO	SIDE	621 * RPM, TWO-WAY, YELLOW/YELLOW	621 * RPM, TWO-WAY, RED/WHITE	642 REMOVAL OF PAVEMENT MARKING	644 EDGE LINE, 6" (WHITE)	644 EDGE LINE, 6" (YELLOW)	644 LANE LINE, 6"	644 CENTER LINE	644 CHANNELIZING LINE, 12"	644 STOP LINE	644 TRANSVERSE/DIAGONAL LINE (YELLOW)	644 CHEVRON MARKING, (WHITE)	644 CHEVRON MARKING, (YELLOW)	644 LANE ARROW	644 DOTTED LINE, 6"	644 YIELD LINE
						EACH	EACH	MILE	MILE	MILE	MILE	MILE	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	FOOT	EACH
EY-1	98-99	SR 32	899+36	906+54				0.12		0.14										
EY-2	99-100	SR 32	906+32	914+01		14				0.15										
EY-3	99-100	SR 32	905+32	914+01		11				0.16										
LL-1	99-102	SR 32	905+63	936+95			39				0.59									
LL-2	99-102	SR 32	890+79	921+76			39				0.59									
CH-1	99-100	SR 32	906+14	912+95			18						728					7		
CH-2	99-100	SR 32	907+75	911+55			12						465					5		
CH-3	99-100	SR 32	906+50	913+83			16						729					7		
EW-1	99-102	SR 32	905+63	921+76					0.31											
EW-2	99-102	SR 32	905+63	921+76					0.31											
TW-1	99-100	SR 32	910+80	911+41												35				
YL-1	99	SR 32	906+14	906+32																18
TY-1	99	SR 32	906+32	906+68													150			
EW-3	100-101	SR 32	911+55	916+45			12		0.10									2		
EW-4	100-101	SR 32	911+55	916+45			11		0.10									2		
EW-5	100	SHYVILLE ROAD	48+14	49+39					0.03											
EW-6	100	SHYVILLE ROAD	48+14	49+44					0.03											
EW-7	100,103-104	SHYVILLE ROAD	37+20	49+41					0.23									2		
EW-8	100,104	SHYVILLE ROAD	47+52	49+25					0.04											
EW-9	100,105	SHYVILLE ROAD	50+60	51+98					0.03									2		
EW-10	100,105	SHYVILLE ROAD	50+67	51+98					0.03											
EY-4	100,102	SR 32	914+23	921+76		11				0.14										
EY-5	100,102	SR 32	914+23	921+08		12				0.14										
EY-6	100	SHYVILLE ROAD	50+54	51+30						0.02										
EY-7	100	SHYVILLE ROAD	50+54	51+30						0.02										
EY-9	100,103-104	SHYVILLE ROAD	37+20	49+48						0.23										
EY-10	100,104	SHYVILLE ROAD	47+89	49+45						0.03										
LL-3	100,104	SHYVILLE ROAD	47+52	48+14							0.01									
SL-1	100	SR 32	913+59	913+82										25						
SL-2	100	SR 32	914+46	914+74										29						
CH-4	100-102	SR 32	914+46	921+00			16						654					7		
CH-5	100-102	SR 32	915+50	921+26			15						620					6		
TY-2	100	SR 32	913+14	913+95											112					
TY-3	100	SR 32	914+29	915+68											234					
YL-2	100	SR 32	913+98	914+31																33
YL-3	100	SR 32	913+94	914+27																33
TW-2	101	SR 32	916+50	917+11												42				
CH-6	101	SR 32	916+45	919+87			11						420					4		
TY-4	102	SR 32	920+72	921+08													136			
EY-8	102	SR 32	920+86	921+76						0.02										
YL-4	102	SR 32	921+08	921+26																18
DL-1	103	SHYVILLE ROAD	37+20	40+00														3	280	
CH-7	103	SHYVILLE ROAD	40+00	42+00									200					2		
CL-1	105	SHYVILLE ROAD	51+30	51+98								0.01								
SUBTOTAL						48	189	0.12	1.21	1.05	1.19	0.01	3816	54	346	77	286	49	280	102
TOTALS CARRIED TO GENERAL SUMMARY						237		0.12	2.26		1.19	0.01	3816	54	346	363		49	280	102

ITEM 621, RAISED PAVEMENT MARKER REMOVED

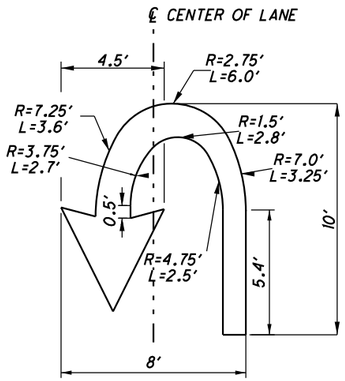
THE CONTRACTOR SHALL REMOVE ALL EXISTING RAISED PAVEMENT MARKERS WITH THE PROJECT LIMITS. ALL ASPECTS OF ITEM 621 SHALL APPLY. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK.

ITEM 621, RAISED PAVEMENT MARKER REMOVED 140 EACH

*NOTE:
INSTALL RASIED PAVEMENT MARKERS ACCORDING TO STANDARD CONSRUCTION DRAWINGS TC-65.10 AND TC-65.11



YIELD LINE
PAVEMENT MARKING DETAIL



U-TURN LANE ARROW
PAVEMENT MARKING DETAIL

CALCULATED JTK CHECKED STC

PAVEMENT MARKING

PIK-32-17.15

REFERENCE NO.	SHEET NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST FOOT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4x7.7 FOOT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6x9 FOOT	ONE WAY SUPPORT, NO. 3 POST FOOT	SIGN POST REFLECTOR EACH	BREAKAWAY STRUCTURAL BEAM CONNECTIONS EACH	SIGN, FLAT SHEET SF	SIGN, GROUND MOUNTED EXTRUSHEET SF	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL EACH
S-1	98	SR 32	901+70	RT											1			2		
S-2	98	SR 32	901+70	RT											1			2		
S-3	98	SR 32	904+50	LT	M3-4-30	30x15	15.0						3.1							
					M1-5-30-3	37.5x30							7.8							
S-4	98	SR 32	904+50	LT	M3-4-30	30x15	15.8						3.1							
					M1-5-30-2	30x30							6.3							
					M1-H11-30	30x15							3.1							
S-5	98	SR 32	905+12	RT	R5-1a-42	42x30							8.8							
S-6	99	SR 32	905+75	RT	R3-2-36	36x36	14.3						9.0							
					R5-1-36	36x36					1		9.0							
S-7	99	SR 32	905+75	RT	R3-H8cb-48	48x30	14.2 / 14.6						10.0							
					R5-1-36	36x36					2		9.0							
S-8	99	SR 32	906+05	RT	R1-2-36	36x36x36	14.2				1		3.9							
S-9	99	SR 32	906+25	RT	R6-1L-54	54x18	12.9						6.8							
S-10	99	SR 32	907+50	RT											2			4		
S-11	99	SR 32	907+00	LT	D3-H3a-192	192x36			13.5 / 13.3			2		48.0		2				
S-12	99	SR 32	907+75	RT	R3-H8da-54	54x30	14.2 / 15.1						11.3							
S-13	99	SR 32	909+00	RT	D3-H3-150	150x36			17.3 / 18.1			2		37.5		2				
S-14	99	SR 32	909+13	RT											1				2	
S-15	99	SR 32	909+50	LT	M3-4-30	30x15		18.7				1	3.1							
					M1-5-30-2	30x30							6.3							
					M1-5-30-3	37.5x30							7.8							
					M6-3-30	30x21							4.4							
S-16	99	SR 32	909+50	LT	M3-2-30	30x15		19.1				1	3.1							
					M1-5-30-2	30x30							6.3							
					M1-5-30-3	37.5x30							7.8							
					M6-MOD-30	30x21							4.4							
S-17	100	SR 32	912+00	RT	R5-1a-42	42x30	13.9 / 14.1				2		8.8							
S-18	100	SR 32	912+46	RT/LT											2			2		
S-19	100	SR 32	912+75	RT	R5-1-36	36x36	14.5				1		9.0							
S-20	100	SR 32	913+46	RT											2			1		
S-21	100	SR 32	913+54	RT											2			1		
S-22	100	SR 32	913+59	RT											2			1		
S-23	100	SR 32	913+60	RT	D3-H6b-72	72x24	12.7 / 12.8						12.0							
S-24	100	SR 32	913+37	RT											1			1		
S-25	100	SR 32	912+47	LT											3			1		
S-26	100	SR 32	912+47	LT											2			1		
S-27	100	SR 32	912+48	LT											2			1		
S-28	100	SR 32	913+00	LT	R3-H8MOD-48	48x30	13.6 / 13.9						10.0							
S-29	100	SR 32	913+40	LT	D3-H6b-72	72x24	13.0 / 13.1						12.0							
S-30	100	SR 32	913+60	LT	R6-1R-54	54x18				15.0			6.8							
					R6-1L-54	54x18							6.8							
					R1-1-36	36x36					1		9.0							
S-31	100	SR 32	913+45	LT	R6-1R-54	54x18	12.1						6.8							
S-32	100	SR 32	913+48	LT											1			1		
S-33	100	SR 32	913+78	LT											2			1		
S-34	100	SR 32	913+90	LT	R1-1-36	36x36	13.5				1		9.0							
S-35	100	SR 32	913+68	LT														2		
S-36	100	SR 32	914+56	LT											4		1		2	
S-37	100	SR 32	914+77	LT											3			2		
S-38	100	SR 32	914+77	RT											2			1		
S-39	100	SR 32	915+00	LT	R5-1-36	36x36	14.5				1		9.0							
S-40	100	SR 32	915+71	LT											1			1		
S-41	100	SR 32	916+00	LT	R5-1a-42	42x30	13.5 / 14				2		8.8							
S-42	100	SR 32	913+89	RT	R1-2-36	36x36x36	13.5				1		3.9							
SUBTOTALS CARRIED TO SHEET NO. 97							333.0	37.8	62.2	15.0	13	6	246.3	85.5	32	4	1	21	4	

CALCULATED JTK
CHECKED PJD

SIGNING SUBSUMMARY

PIK-32-17.15

REFERENCE NO.	SHEET NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST FOOT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4x7.7 FOOT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6x9 FOOT	ONE WAY SUPPORT, NO. 3 POST FOOT	SIGN POST REFLECTOR EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION EACH	SIGN, FLAT SHEET SF	SIGN, GROUND MOUNTED EXTRUSHEET SF	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL EACH
S-43	100	SR 32	914+34	LT	R1-2-36	36x36x36	13.5				1		3.9						
S-44	100	SR 32	914+77	RT											1			1	
S-45	100	SR 32	914+10	RT											2			2	
S-46	100	SR 32	914+84	RT	R1-1-36	36x36				15.0	1		9.0						
					R6-IL-54	54x18							6.8						
					R6-IR-54	54x18								6.8					
S-47	100	SR 32	914+39	RT	R1-1-36	36x36	13.5				1		9.0						
S-48	100	SR 32	914+43	RT											1			1	
S-49	100	SR 32	915+15	RT											1			1	
S-50	100	SR 32	915+71	RT											1			1	
S-51	100	SR 32	914+58	RT											1			1	
S-52	100	SR 32	915+75	RT	R6-IR-54	54x18	12.4						6.8						
S-53	100	SR 32	913+68	RT											1			2	
S-54	101	SR 32	916+50	RT	R3-H8MOD-48	48x30	13.9 / 14.2						10.0						
S-55	101	SR 32	918+50	RT	M3-4-30	30x15		19.5				1	3.1						
					M1-5-30-2	30x30							6.3						
					M1-5-30-3	37.5x30							7.8						
					M6-MOD-30	30x21							4.4						
S-56	101	SR 32	918+50	RT	M3-2-30	30x15		20.0				1	3.1						
					M1-5-30-2	30x30							6.3						
					M1-5-30-3	37.5x30							7.8						
					M6-3-30	30x21							4.4						
S-57	101	SR 32	919+31	RT											3			1	
S-58	101	SR 32	919+31	RT											2			1	
S-59	101	SR 32	919+45	LT													1		2
S-60	101	SR 32	919+50	LT	R3-H8da-54	54x30	14.1 / 14.8						11.3						
S-61	102	SR 32	920+50	RT	D3-H3a-192	192x36			14.9 / 16.1			2	48.0						
S-62	102	SR 32	920+50	LT	D3-H3-150	150x36			14.4 / 13.7			2	37.5						
S-63	102	SR 32	920+59	LT											2			4	
S-64	102	SR 32	921+15	LT	R6-IL-54	54x18	12.4						6.8						
S-65	102	SR 32	921+75	LT	R3-H8cb-48	48x30	14.0 / 14.2						10.0						
					R5-1-36	36x36					2		9.0						
S-66	102	SR 32	921+35	LT	R1-2-36	36x36x36	13.5				1		3.9						
S-67	102	SR 32	921+75	LT	R5-1-36	36x36	14.6				1		9.0						
					R3-2-36	36x36							9.0						
S-68	102	SR 32	923+00	LT	R5-1a-42	42x30							8.8						
S-69	102	SR 32	925+94	LT											2			4	
S-70	103	SHYVILLE ROAD	38+00	RT	R3-H8bb-30	30x30	13.2						6.25						
S-71	103	SHYVILLE ROAD	39+50	RT	R3-7R-30	30x30	13.2						6.25						
S-72	103	SHYVILLE ROAD	41+50	RT	R3-H8bb-30	30x30	13.2						6.25						
S-73	104	SHYVILLE ROAD	46+00	RT											1			2	
S-74	104	SHYVILLE ROAD	47+00	RT	M4-5-30	30x15		18.8				1	3.1						
					M3-4-30	30x15							3.1						
					M1-5-30-2	30x30							6.3						
					M1-5-30-3	37.5x30							7.8						
					M5-1-30	30x21							4.4						
S-75	104	SHYVILLE ROAD	47+00	RT	M3-2-30	30x15		16.3				1	3.1						
					M1-5-30-2	30x30							6.3						
					M1-5-30-3	37.5x30							7.8						
					M5-1-30	30x21							4.4						
S-76	104	SHYVILLE ROAD	48+00	RT	R3-5R-36	36x42	14.2 / 14.3						10.5						
SUBTOTALS CARRIED TO SHEET NO. 97							219.7	74.6	59.1	15.0	6	8	313.7	6.8	18	0	1	21	2

CALCULATED JTK
CHECKED PJD

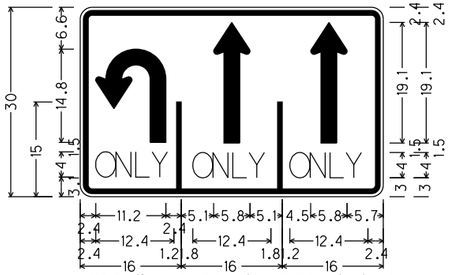
SIGNING SUBSUMMARY

PIK-32-17.15

REFERENCE NO.	SHEET NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4x7.7	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6x9	ONE WAY SUPPORT, NO. 3 POST	SIGN POST REFLECTOR	BREAKAWAY STRUCTURAL BEAM CONNECTION	SIGN, FLAT SHEET	SIGN, GROUND MOUNTED EXTRUSHEET	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL
							FOOT	FOOT	FOOT	FOOT	EACH	EACH	SF	SF	EACH	EACH	EACH	EACH	EACH
S-77	105	SHYVILLE ROAD	51+10	RT											2			1	
S-78	105	SHYVILLE ROAD	52+00	LT	R3-5R-36	36x42	15.3 / 15.7						10.5						
S-79	105	SHYVILLE ROAD	53+00	LT	M3-4-30	30x15		18.3				1	2.0						
					M1-5-30-2	30x30							6.3						
					M1-5-30-3	37.5x30							7.8						
					M5-1-30	30x21							4.4						
S-80	105	SHYVILLE ROAD	53+00	LT	M4-5-30	30x15		20.5				1	3.1						
					M3-2-30	30x15							3.1						
					M1-5-30-2	30x30							6.3						
					M1-5-30-3	37.5x30							7.8						
					M5-1-30	30x21							4.4						
		SUBTOTAL FROM SHEET NO 95					333.0	37.8	62.2	15.0	13	6	246.3	85.5	32	4	1	21	4
		SUBTOTAL FROM SHEET NO 96					219.7	74.6	59.1	15.0	6	8	313.7	6.8	18	0	1	21	2
		SUBTOTAL FROM THIS SHEET					0.0	20.5	0.0	0.0	0	1	24.7	0.0	0	0	0	0	0
TOTALS CARRIED TO GENERAL SUMMARY							553	133	121	30	19	15	585	92	50	4	2	42	6

CALCULATED JTK
CHECKED PJD

R3-H8MOD-48 DETAIL



1.9" Radius, 0.8" Border, 0.5" Indent, LaneMarker height: 13.8 LaneMarker width: 0.8Black on White;
Turn Arrow Custom;
[ONLY] D 2K specified length;
1.9" Radius, 0.8" Border, 0.5" Indent, LaneMarker height: 13.8 LaneMarker width: 0.8Black on White;
Arrow Custom - 19.1" 90L;
[ONLY] D 2K specified length;
1.9" Radius, 0.8" Border, 0.5" Indent, Black on White;
Arrow Custom - 19.1" 90L;
[ONLY] D 2K specified length;
Table of letter and object lefts.

2.4

O	N	L	Y
2.4	5.7	8.8	11.4

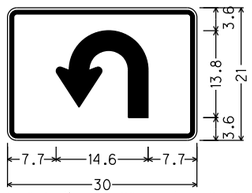
5.1

O	N	L	Y
1.8	5.0	8.2	10.7

4.5

O	N	L	Y
1.2	4.4	7.5	10.1

M6-MOD-30 DETAIL



1.5" Radius, 0.6" Border, 0.4" Indent, Black on White;
Turn Arrow Custom;
Table of letter and object lefts.

7.7

SIGNING SUBSUMMARY

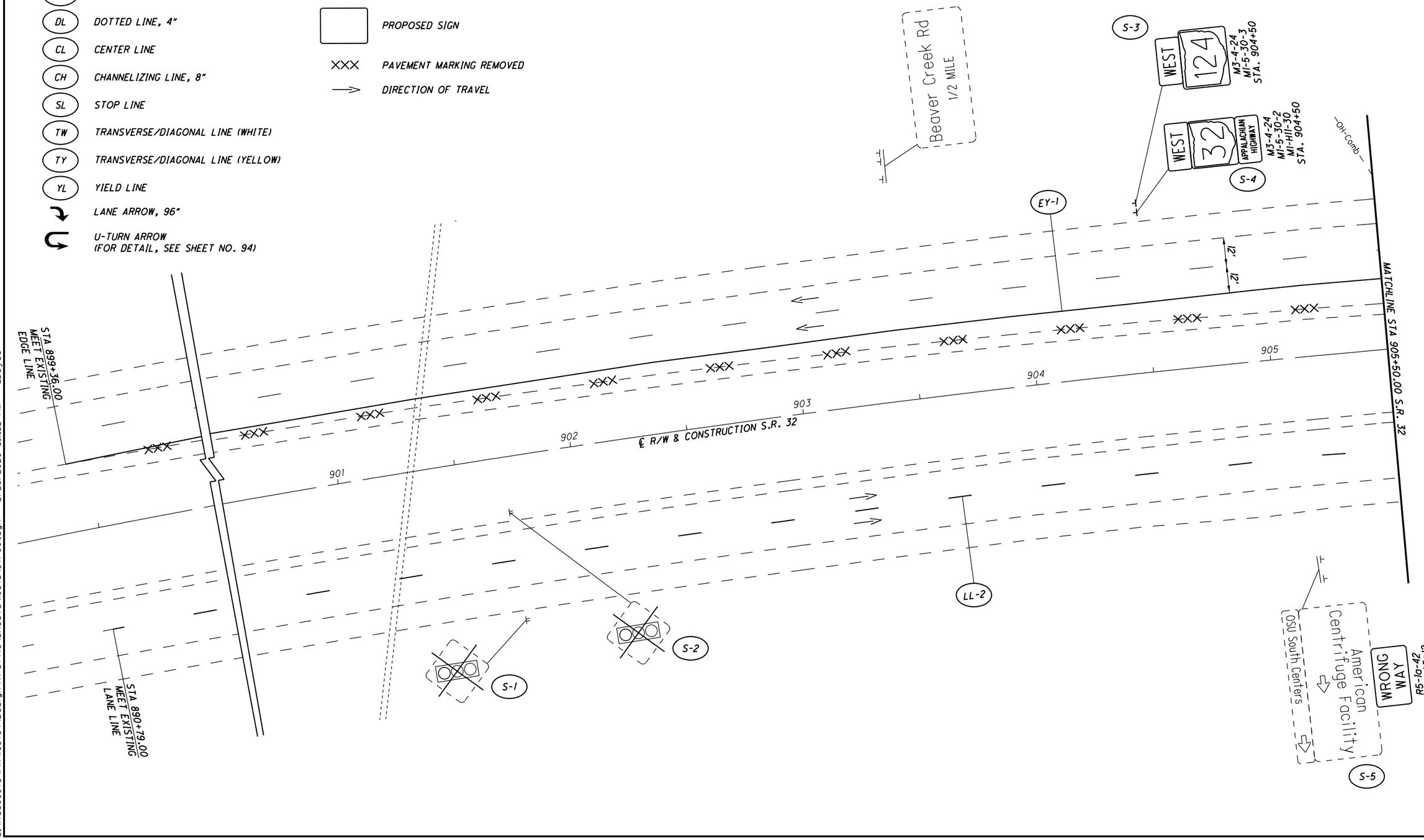
PIK-32-17.15

LEGEND

ALL PAVEMENT MARKINGS SHALL BE
ITEM 644 THERMOPLASTIC PAVEMENT MARKING

- (EW) EDGE LINE (WHITE), 4"
- (EY) EDGE LINE (YELLOW), 4"
- (LL) LANE LINE, 4"
- (DL) DOTTED LINE, 4"
- (CL) CENTER LINE
- (CH) CHANNELIZING LINE, 8"
- (SL) STOP LINE
- (TW) TRANSVERSE/DIAGONAL LINE (WHITE)
- (TY) TRANSVERSE/DIAGONAL LINE (YELLOW)
- (YL) YIELD LINE
- LANE ARROW, 96"
- U-TURN ARROW (FOR DETAIL, SEE SHEET NO. 94)

- EXISTING SIGN TO BE REMOVED
- EXISTING SIGN TO REMAIN
- PROPOSED SIGN
- XXX PAVEMENT MARKING REMOVED
- DIRECTION OF TRAVEL



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LBA
CHECKED PJD

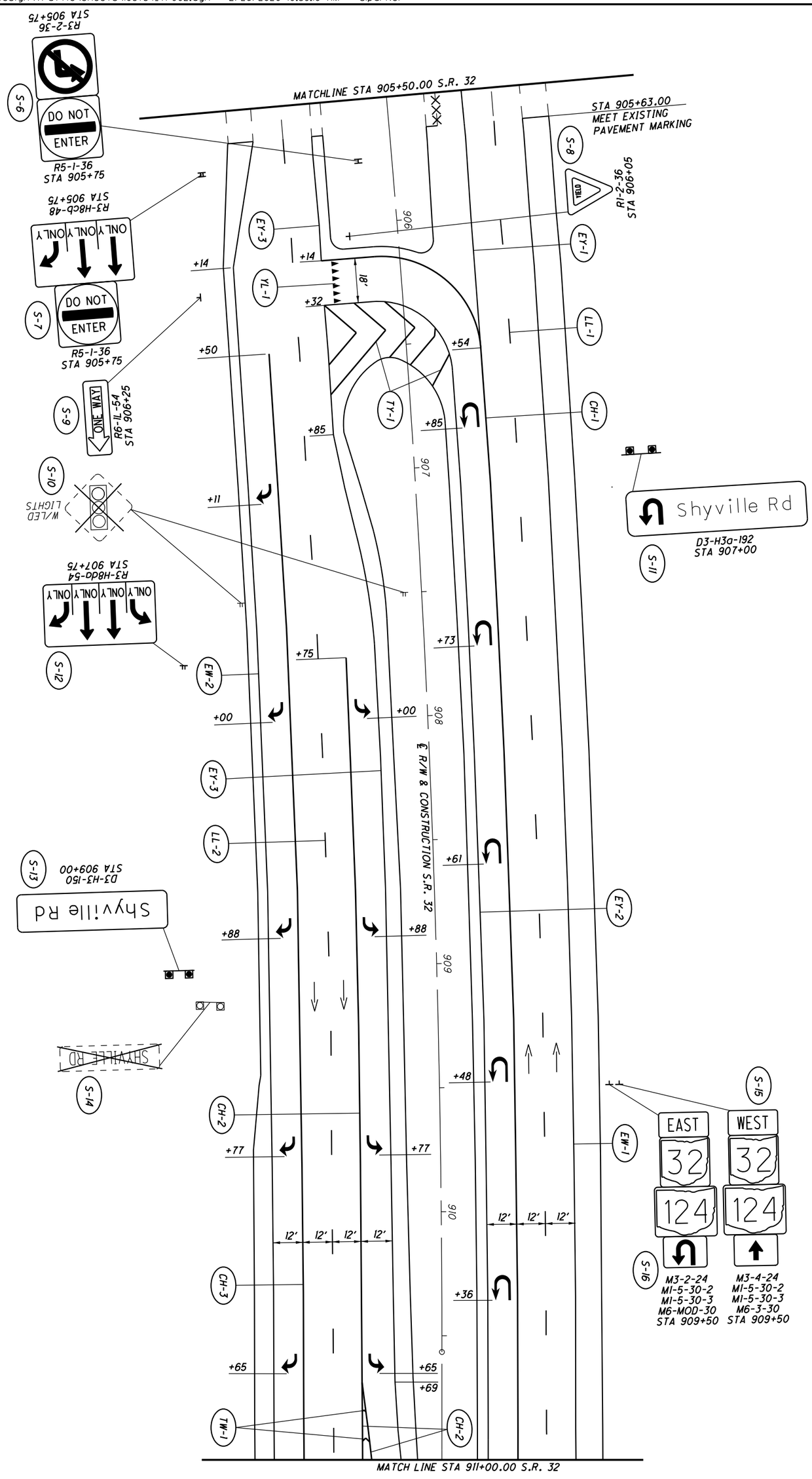
TRAFFIC CONTROL PLAN S.R. 32
STA 899+32.00 TO STA 905+50.00

PIK-32-17.15

98
111

U:\173609075\PIK\108734\Design\Traffic\Sheets\108734_TP001.dgn 2/26/2020 3:11:32 PM aboyce

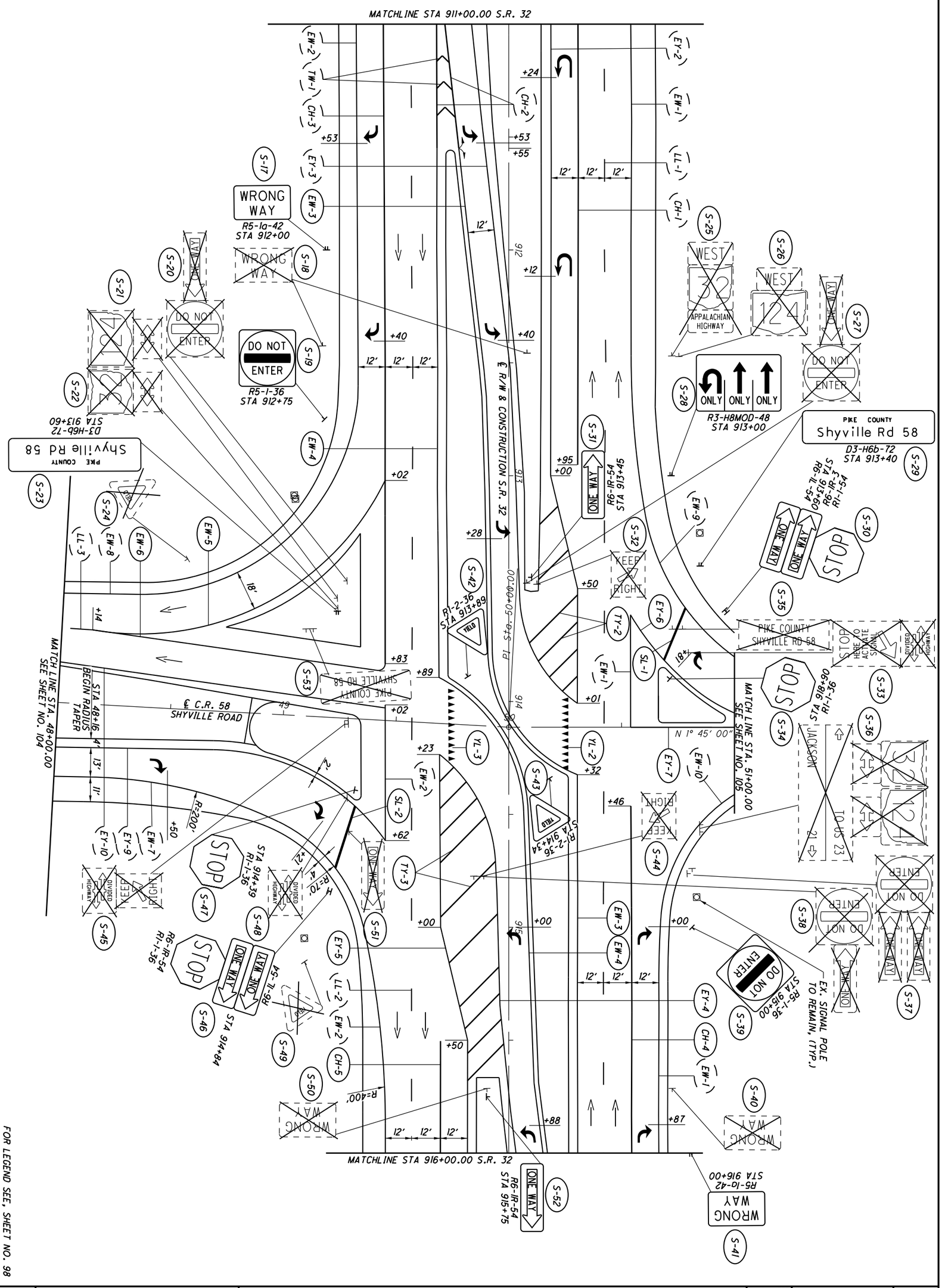
U:\173609075\PIK\108734\Design\Traffic\Sheets\108734_TP002.dgn 2/26/2020 10:59:10 AM slparker



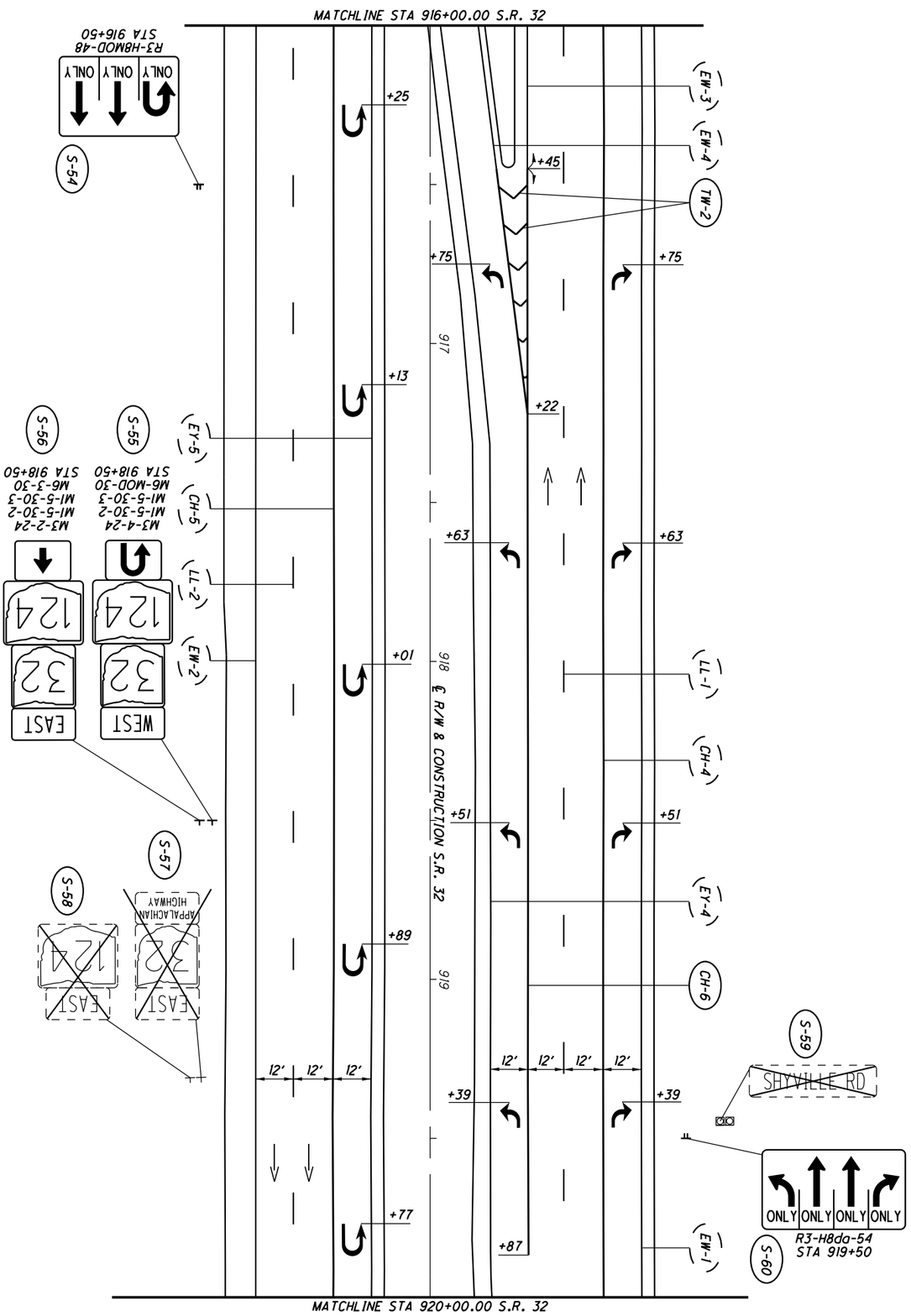
FOR LEGEND, SEE SHEET NO. 98

111 / 99	PIK-32-17.15	TRAFFIC CONTROL PLAN S.R. 32 STA 905+50.00 TO STA 911+00.00	CALCULATED LBA CHECKED PJD	0 20 10 40 HORIZONTAL SCALE IN FEET

U:\173609075\PIK\108734\Design\Traffic\Sheets\108734_TP003.dgn 2/26/2020 10:59:12 AM siparker



100 / 111	PIK-32-17.15	TRAFFIC CONTROL PLAN S.R. 32 STA 911+00.00 TO STA 916+00.00	CALCULATED LBA CHECKED PJD	0 10 20 40 HORIZONTAL SCALE IN FEET



FOR LEGEND, SEE SHEET NO. 98

101 / 111	PIK-32-17.15	TRAFFIC CONTROL PLAN S.R. 32 STA 916+00.00 TO STA 920+00.00	CALCULATED LBA CHECKED PJD	0 20 10 40 HORIZONTAL SCALE IN FEET

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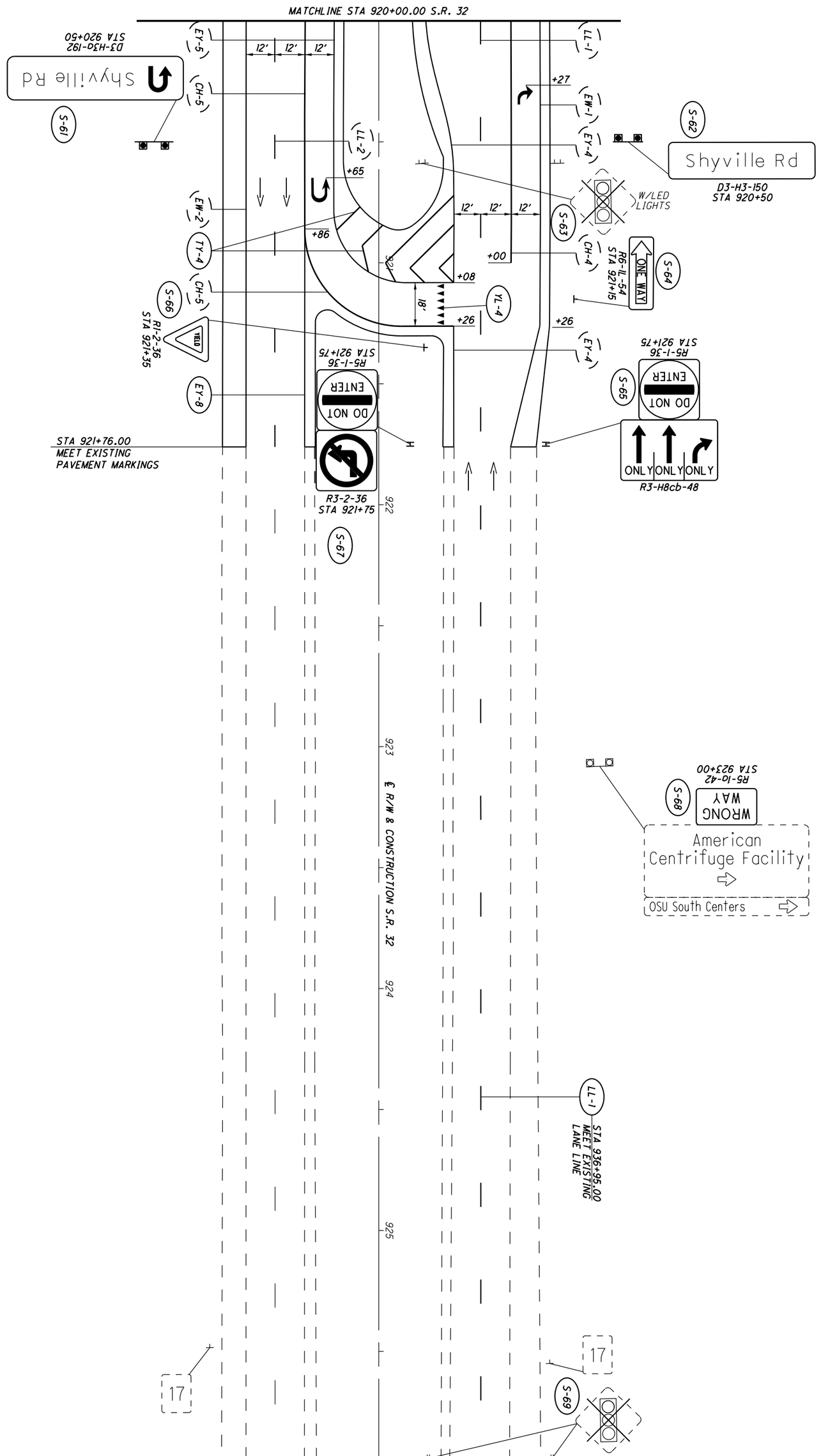

FOR LEGEND, SEE SHEET NO. 98

102 / 111	PIK-32-17.15	TRAFFIC CONTROL PLAN S.R. 32 STA 920+00.00 TO STA 926+00.00	CALCULATED LBA CHECKED PJD	0 20 10 40 HORIZONTAL SCALE IN FEET

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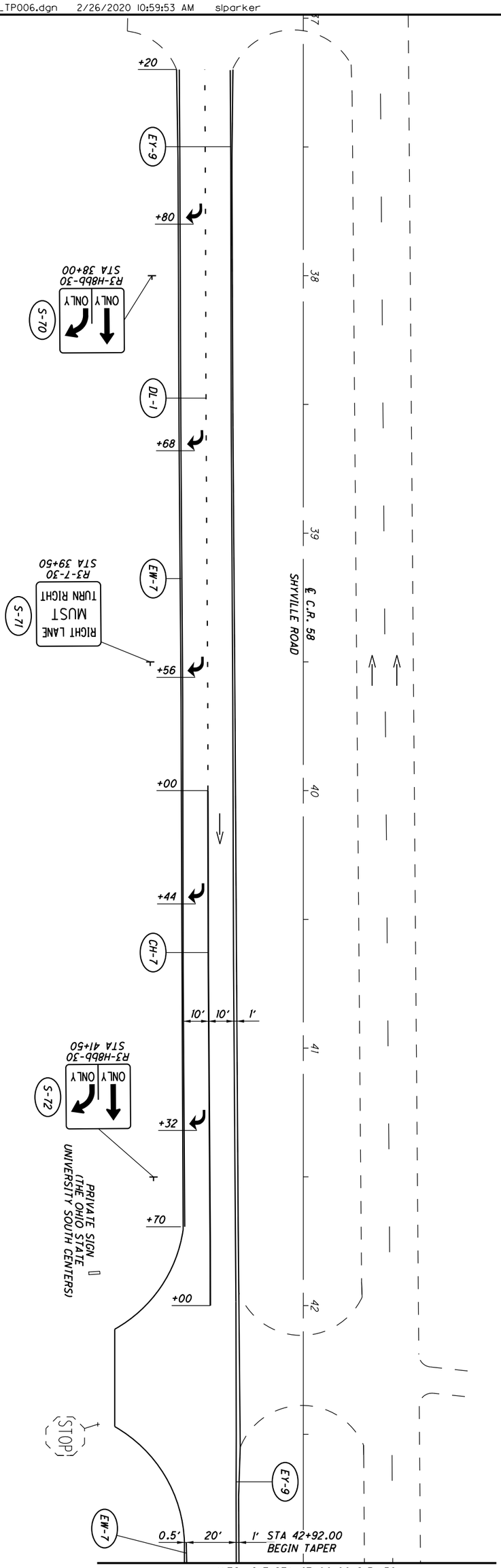
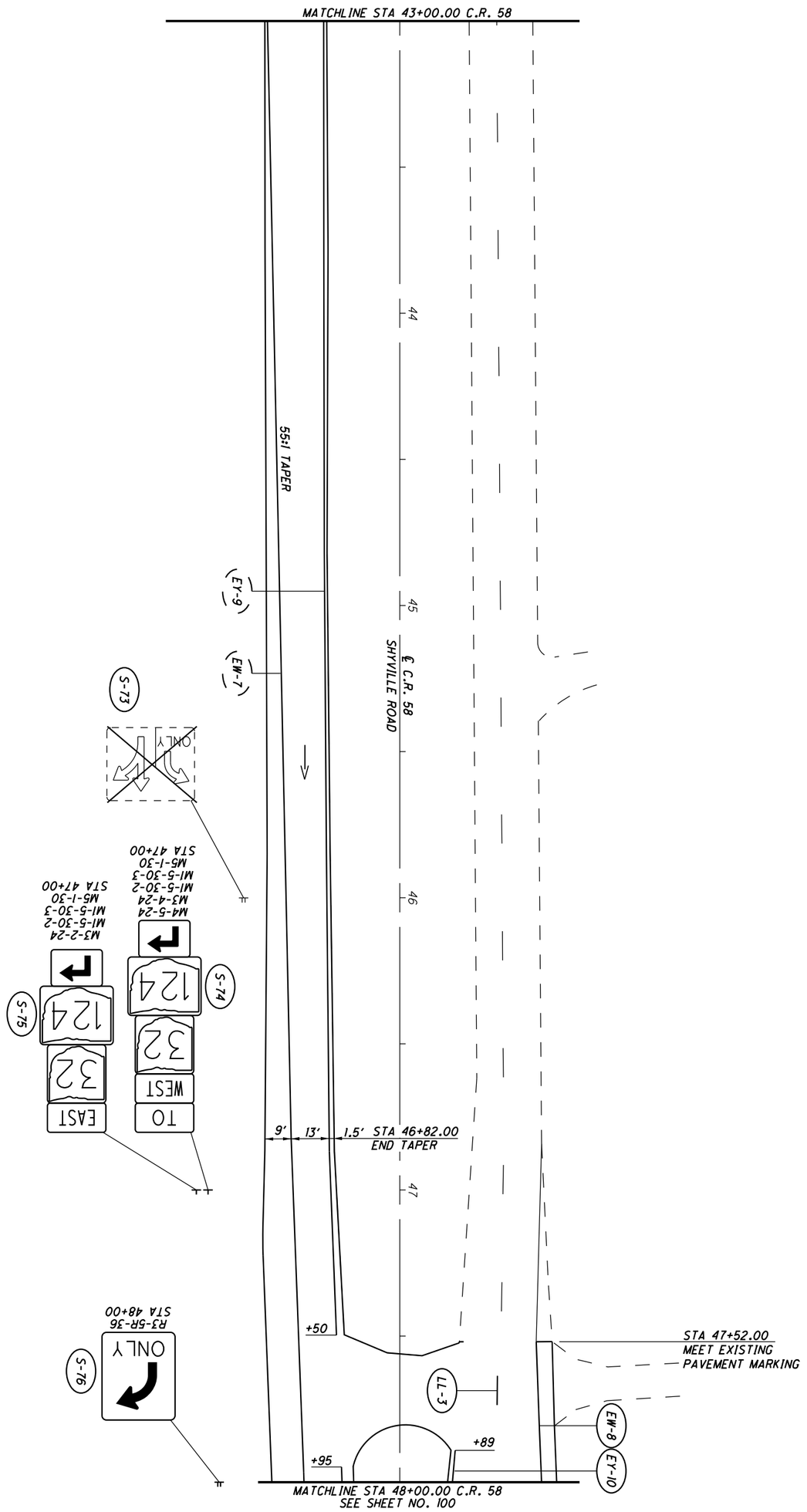


FOR LEGEND, SEE SHEET NO. 98

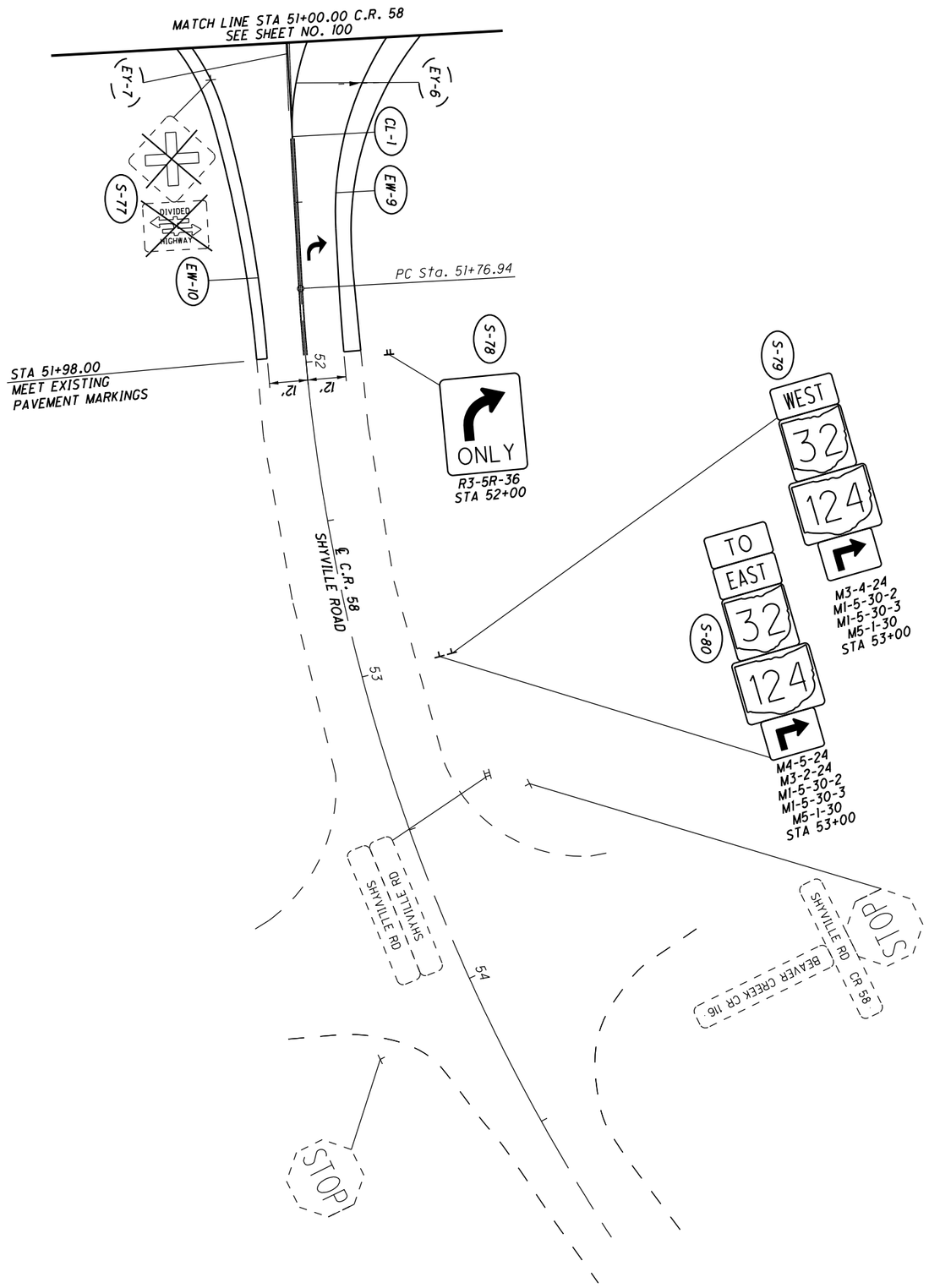
103 / 111	PIK-32-17.15	TRAFFIC CONTROL PLAN C.R. 58 STA 38+20.00 TO STA 43+00.00	CALCULATED LBA CHECKED PJD	0 20 10 40 HORIZONTAL SCALE IN FEET



FOR LEGEND, SEE SHEET NO. 98

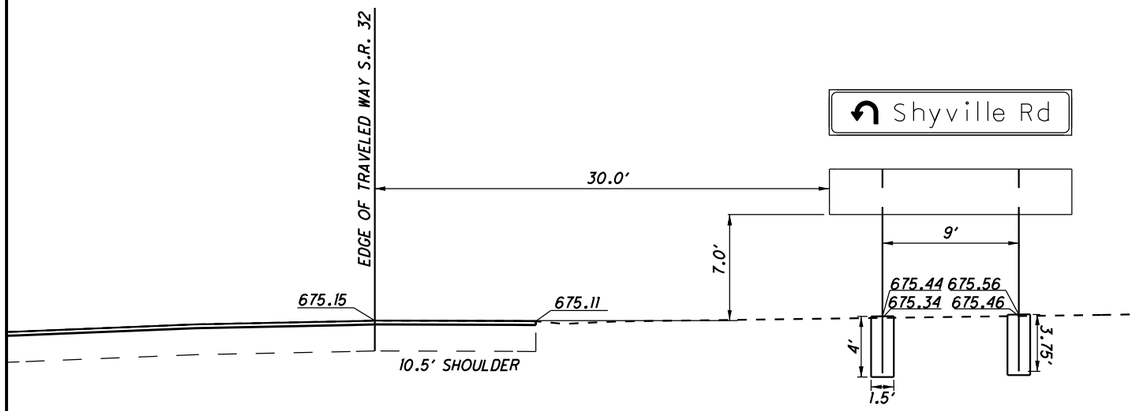
104 / 111	PIK-32-17.15	TRAFFIC CONTROL PLAN C.R. 58 STA. 43+00.00 TO STA. 48+00.00	CALCULATED LBA CHECKED PJD	0 20 10 40 HORIZONTAL SCALE IN FEET

U:\173609075\PIK\108734\Design\Traffic\Sheets\108734_TP008.dgn 2/26/2020 10:59:58 AM slparker

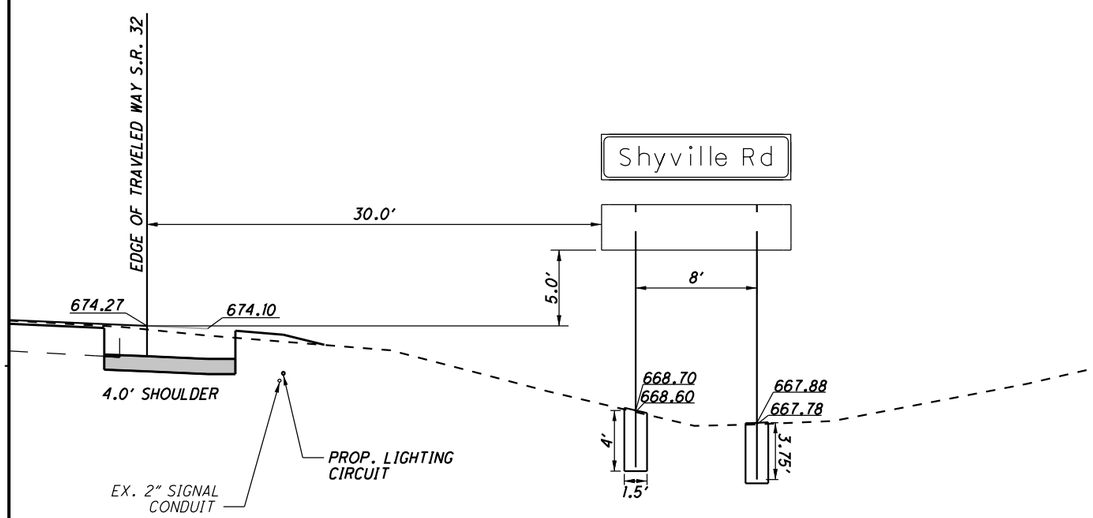


FOR LEGEND, SEE SHEET NO. 98

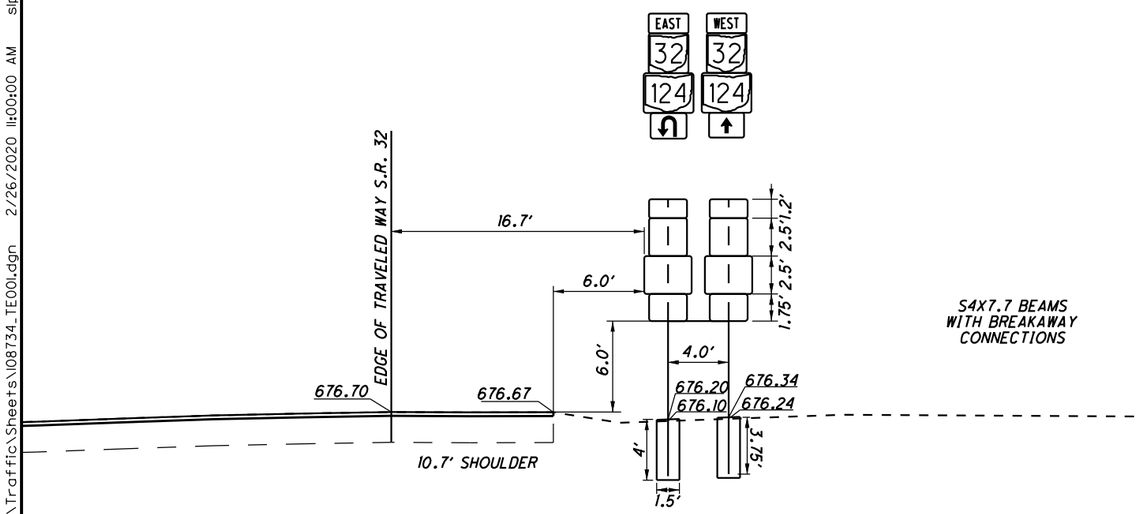
105 / 111	PIK-32-17.15	TRAFFIC CONTROL PLAN C.R. 58 STA 51+00.00 TO STA 51+98.00	CALCULATED LBA CHECKED PJD	0 10 20 40 HORIZONTAL SCALE IN FEET



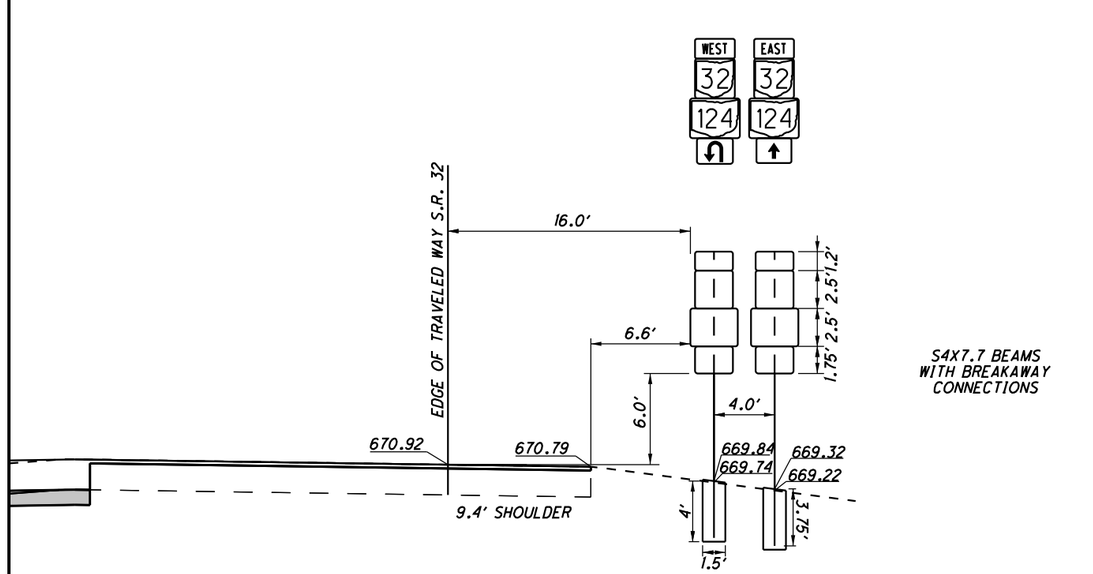
SIGN NO. S-11
STA. 907+00.00, LT S.R. 32



SIGN NO. S-13
STA. 909+00.00, RT S.R. 32



SIGN NOS. S-15 AND S-16
STA. 909+50.00, LT ROAD



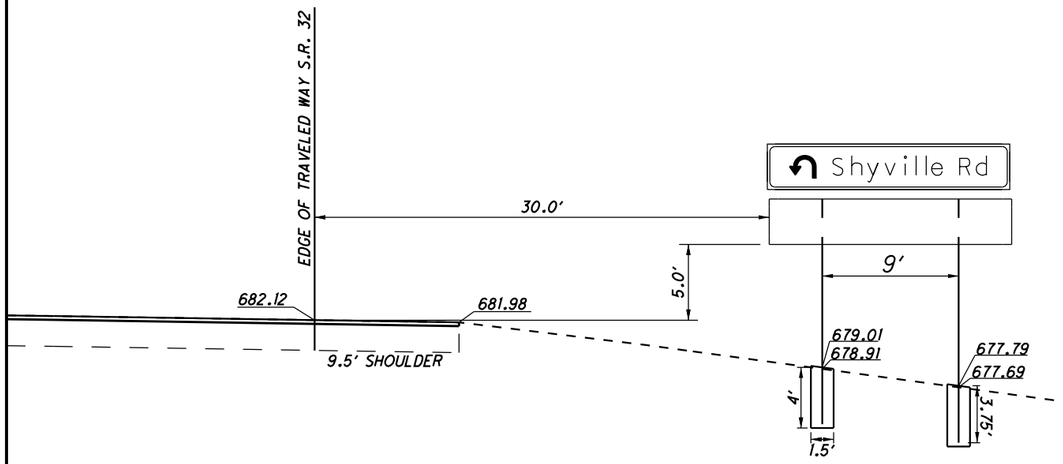
SIGN NOS. S-55 AND S-56
STA. 918+50.00, RT S.R. 32

CALCULATED JTK
CHECKED PJD

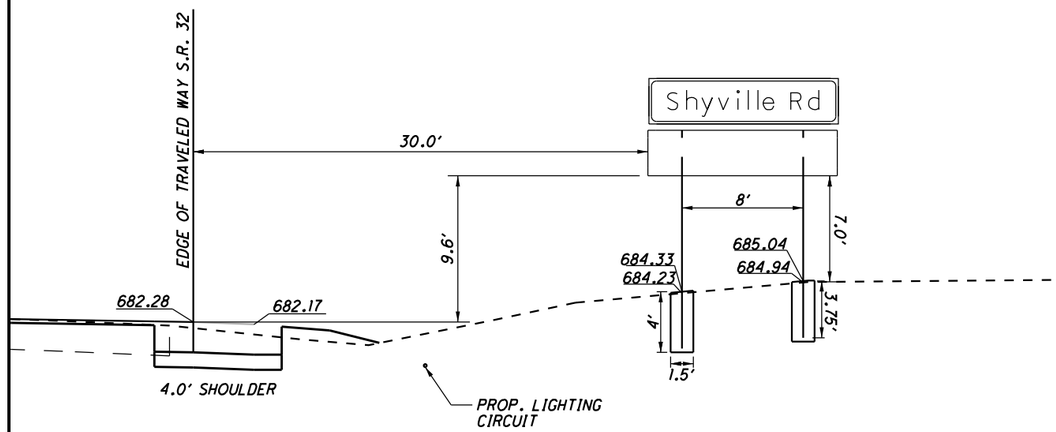
GROUND MOUNTED SIGN ELEVATIONS

PIK-32-17.15

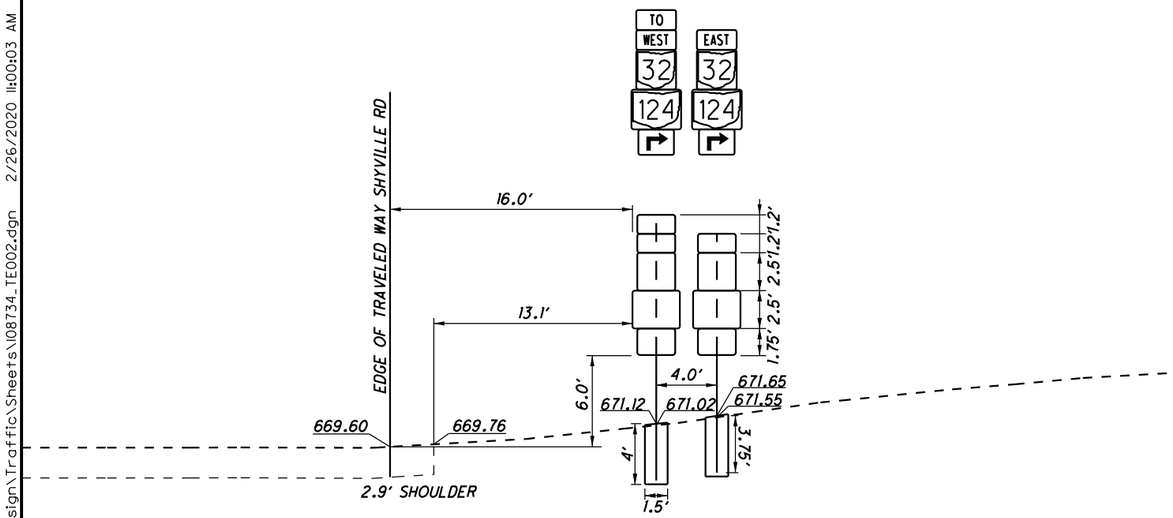
106
111



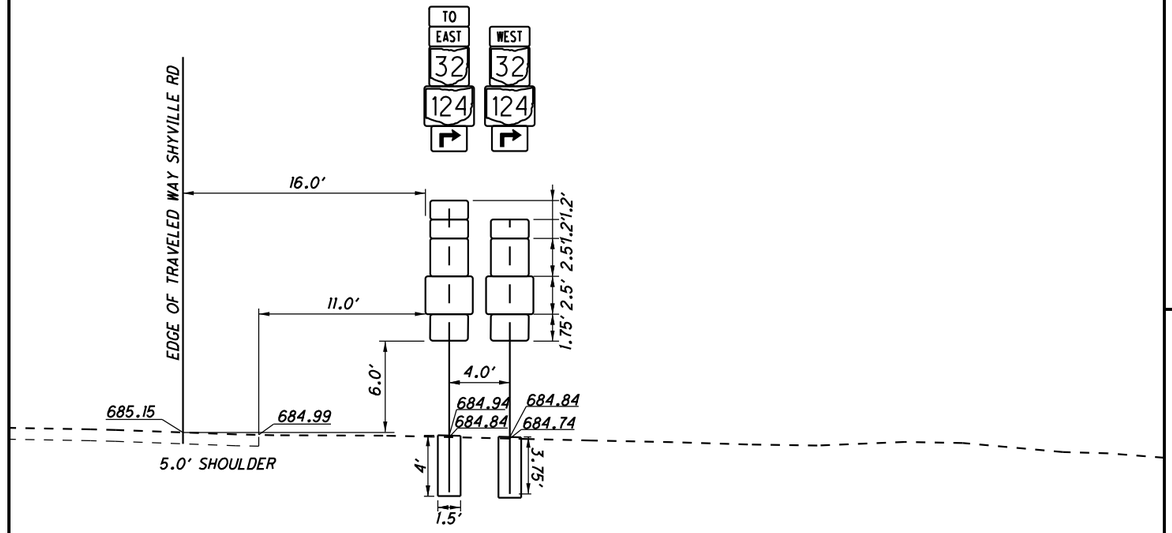
SIGN NO. S-61
STA. 920+50.00, RT S.R. 32



SIGN NO. S-62
STA. 920+50.00, LT S.R. 32



SIGN NOS. S-74 AND S-75
STA. 47+00.00, RT SHYVILLE ROAD



SIGN NOS. S-79 AND S-80
STA. 53+00.00, LT SHYVILLE ROAD

CALCULATED JTK
CHECKED PJD

GROUND MOUNTED SIGN ELEVATIONS

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ITEM 625, PULL BOX CLEANED

THIS ITEM OF WORK SHALL CONSIST OF CLEANING AN EXISTING PULL BOX BY REMOVING ANY EXISTING CABLES NOT BEING RECONNECTED, AND DEBRIS SO THAT NEW CABLES CAN BE INSTALLED. ANY UNUSED OPENINGS SHALL BE CLOSED. DISTURBED AREAS NEAR THE PULL BOX SHALL BE CLEARED OF WEEDS OR DEBRIS AND SHALL BE FULLY RESTORED. MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF OF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER C&MS ITEM 625, "PULL BOX CLEANED" FOR EACH PULL BOX CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625, LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-III-M, 9200-11600 LUMENS

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AMERICAN ELECTRIC LIGHTING "AUTOBAHN ATBM-P05-MVOLT-R3 4B-3K", COOPER INDUSTRIES "VERDEON VERD-A02-E-U-T3-7030-10K-IP66-4B-AP", GENERAL ELECTRIC "EVOLVE ERLH-3-10-C3-30-A-GRAY-LR", OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625 LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III-M, LED, 9200-11600 LUMENS, AS PER PLAN FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625, POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

AMERICAN ELECTRIC POWER (DISTRIBUTION)
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
MR. PAUL PAXTON
(614) 883-6831

THE ENGINEER SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

ELECTRIC POWER FOR THE LIGHTING CIRCUIT AND IP-CAMERA SHALL BE OBTAINED FROM THE EXISTING POWER DROP AT THE LOCATION INDICATED IN THE PLANS.

THE EXISTING HIGHWAY LIGHTING AND SIGNAL POWER SERVICE ELEMENTS, INCLUDING THE DISCONNECT SWITCHES AND LIGHTING CONTROL CENTER SHALL BE REUSED.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

ITEM 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, CONTROLLER, ETC. NOT BEING UTILIZED FOR THE PROPOSED LIGHTING OR CAMERA SYSTEMS ON THE PROJECT SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26. REMOVED ITEMS SHALL BE DELIVERED TO THE NEAREST ODOT FACILITY WHOSE ADDRESS IS BELOW:

ODOT DISTRICT 9, ATTN: BRAD MONTGOMERY (740-774-9084)
5591 WAKEFIELD MOUND ROAD
PIKETON, OHIO 45661

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 632, "REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

CONTROL CENTER DATA									
CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
A	240	1.6	EXISTING	60	A	6.60	10	4	OHIO DEPARTMENT OF TRANSPORTATION
					-	-	-	-	
					-	-	-	-	

CALCULATED PJD CHECKED TJS

GENERAL NOTES

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GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.

   A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.

   B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.051 OR 725.052), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.

   C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.

   D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.

   E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.

   F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

2. CONDUITS.

   A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.

   B. THE 725.051 OR 725.052 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.

   C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

   D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

GROUNDING AND BONDING (CONTINUED)

3. WIRE FOR GROUNDING AND BONDING.

   A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:

      I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.

      II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

      III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

      IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

   B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.

4. GROUND ROD.

   A. A ¾ INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.

   B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

GROUNDING AND BONDING (CONTINUED)

5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL #1 WALK
2	WHITE	AC NEUTRAL AC NEUTRAL
3	RED	RED BALL #1 DW/FDW
4	GREEN	EQUIPMENT GROUND EQUIPMENT GROUND
5	ORANGE	YELLOW BALL #2 DW/FDW
6	BLUE	GREEN ARROW #2 WALK
7	WHITE BLACK STRIPE	YELLOW ARROW NOT USED

6. POWER SERVICE AND DISCONNECT SWITCH.

   A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.

   B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.

      I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.

      II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.

7. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

CALCULATED PJD
CHECKED TJS

GENERAL NOTES

PIK-32-17.15

REFERENCE NO.	STATION FROM	STATION TO	SIDE	625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PERMANENT EACH	625 LIGHT POLE, CONVENTIONAL, AT18B40 EACH	625 LIGHT POLE FOUNDATION, 24"x8' DEEP EACH	625 NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE FOOT	625 NO. 10 AWG POLE AND BRACKET CABLE FOOT	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES FOOT	625 CONDUIT, JACKED OR DRILLED, 725.04, 3" FOOT	625 LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-III-M, 9100-9700 LUMENS EACH	625 TRENCH FOOT	625 PULL BOX, 725.08, 18" EACH	625 PULL BOX REMOVED EACH	625 GROUND ROD EACH	625 PLASTIC CAUTION TAPE FOOT	625 PULL BOX CLEANED EACH	625 LUMINAIRE REMOVED EACH	625 DISCONNECT CIRCUIT EACH	632 POWER CABLE, 2 CONDUCTOR, NO. 6 AWG FT	809 CCTV IP-CAMERA SYSTEM, QUAD, MULTI-VIEW FIXED WITH PTZ EACH
L-1	906+75		RT	2		1	1		116			1				1						
L-2	906+75	913+01	RT							636			626				626					
L-3	913+01		RT															1				
L-4	913+09		RT	2					150			1										
L-5	913+01	914+90	RT					606			192											
L-6	913+01	913+09	RT							18			8				8					
L-7	914+90		RT		3									1								
L-8	914+90	915+05	RT							25			15				15					
L-9	915+05		RT	2					150			1							1			
L-10	914+88	914+90	RT/LT					528			166											
L-11	914+88		LT		6													1				
L-12	914+88	920+65	LT							587			577				577					
L-13	920+65		LT	2		1	1		116			1				1						
L-14	914+87	914+88	LT							14			4				4					
L-15	914+87		LT	2					150			1										
L-16	913+25	914+88	LT					522			164											
L-17	913+25		LT		3									1						1		
L-18	913+25	913+25	LT							20			10				10					
L-19	913+25		LT	2					150			1							1			
L-20	913+25		LT																		1	
L-21	913+25	913+33	LT										13				13				23	
L-22	913+55		LT											1								
L-23	914+62		LT											1								
L-24	914+90		RT											1								
SUBTOTALS				12	12	2	2	1656	832	1300	522	6	1253	2	3	2	1253	2	2	1	23	1
TOTALS CARRIED TO GENERAL SUMMARY				12	12	2	2	1656	832	1300	522	6	1253	2	3	2	1253	2	2	1	23	1

CALCULATED JTK
CHECKED PJD

LIGHTING SUBSUMMARY

PIK-32-17.15

LIGHTING PLAN
STA 905+63.37 TO STA 921+76.13
PIK-32-17.15

CALCULATED PJD | CHECKED TJS

HORIZONTAL SCALE IN FEET
0 25 50 100

111
111

LEGEND

- EX. CONVENTIONAL LUMINAIRE
- EX. PULL BOX TO BE REMOVED
- EX. CONTROL CENTER/POWER SERVICE
- EX. LIGHTING CIRCUIT
- L-1 SUB-SUMMARY REFERENCE NUMBER
- LIGHTING PULL BOX/JUNCTION BOX
- EX. SIGNAL PULL BOX
- CONTROL CENTER/POWER SERVICE
- CONVENTIONAL GROUND MOUNTED LUMINAIRE
- PTZ CAMERA
- LIGHTING CIRCUIT DUCT CABLE
  3-WIRE, 3-CONDUCTOR, 120V/240V (SINGLE-PHASE, 3-WIRE SYSTEM)
  —L1 (120V)——
  —L2 (120V)——
  —N—
- PROPOSED 3" CONDUIT WITH DISTRIBUTION CABLE JACKED OR DRILLED

NOTE: THERE ARE SEVERAL STORM SEWERS AND UNDERDRAINS WITHIN THE PROJECT AREA. THE CONTRACTOR IS TO ADJUST THE DEPTH OF PROPOSED LIGHTING DUCT CABLING AND CONDUITS, AS NECESSARY, TO AVOID CONFLICTS WITH THESE DRAINAGE FACILITIES.

L-19 A-1, STA 913+25, 84.50' LT
EX. TC-81.10, DES. 12 W/35' BRACKET ARM
EX. 200W HPS LUMINAIRE TO BE REPLACED W/ 68-92 W LED, TYPE III-M

L-20 PROPOSED 360° PTZ CAMERA

EX. POWER SERVICE AND LIGHTING CONTROL CENTER

PROP. PULL BOX A1
STA 913+25, 94.75' LT L-17

A, #4 3C, 3W L-16

A-2, STA 914+87, 83.25' LT L-15
EX. TC-81.10, DES. 12 W/35' BRACKET ARM, PROPOSED 68-92W LED, TYPE III-M

EX. PULL BOX L-11

A, #4 3C, 3W L-10

A-3, STA 920+65, 83.25' LT L-13
AT18B40, 68-92W LED, TYPE III-M

A-4, STA 915+05, 90.50' RT L-9
EX. TC-81.10, DES. 12 W/35' BRACKET ARM
EX. 200W HPS LUMINAIRE TO BE REPLACED W/ 68-92 W LED, TYPE III-M

PROP. PULL BOX A2
STA 914+90, 86.25' RT L-7

A-6, STA 906+75, 84' RT L-1
AT18B40, 68-92W LED, TYPE III-M

L-2

A, #4 3C, 3W

L-3 EX. PULL BOX

L-4 A-5, STA 913+09, 95' RT
EX. TC-81.10, DES. 12 W/35' BRACKET ARM
PROPOSED 68-92W LED, TYPE III-M

L-5 A, #4 3C, 3W

L-22 L-23 L-24

€ C.R. 58 SHYVILLE ROAD

€ R/W & CONSTRUCTION S.R. 32

OH-Comb OH-E G-SAN SAN W

CIRCUIT DIAGRAM

EX. LIGHTING CONTROL CENTER AND DISCONNET SWITCH

L-18 PB A1 L-21 L-14

EX. PB

EX. SIGNAL DISCONNECT SWITCH

EX. SIGNAL CABINET

L-6 EX. PB L-8 PB A2

WIRE LEGEND

CIRCUIT — A, #4 / 3C/3W — AWG

NO. OF CONDUCTORS — NO. OF WIRES

POLE LEGEND

CIRCUIT NUMBER — POLE NUMBER | STATION | OFFSET — POLE REF. NO.

POLE DESCRIPTION | LUMINAIRE WATTAGE & TYPE

PROJECT DESCRIPTION

THIS PROJECT, PIK-32-17.15, IS THE EXPLORATION FOR THE IMPROVEMENT OF A 0.5 MILE SECTION OF SR 32 IN PIKE COUNTY, OHIO. FULL-DEPTH PAVEMENT INSTALLATION IS PLANNED FOR NEW RIGHT-HAND TURN LANES AND LEFT J-TURNS IN THE MEDIAN IN EACH DIRECTION.

HISTORIC RECORDS

SIX HISTORIC BORINGS FROM THE 1993 EXPLORATION FOR PIK-32-16.05 ARE PRESENTED ON THIS SOIL PROFILE.

GEOLOGY

THE PROJECT SITE IS LOCATED WITHIN THE SHAWNEE-MISSISSIPPIAN PLATEAU REGION OF THE ALLEGHENY PLATEAUS. THE SHAWNEE-MISSISSIPPIAN PLATEAU REGION IS DESCRIBED AS A HIGHLY DISSECTED PLATEAU OF FINE AND COARSE-GRAINED ROCK SEQUENCES AND IS THE MOST RUGGED AREA IN OHIO. LOWLAND AREAS CONTAIN THE REMNANTS OF ANCIENT LACUSTRINE CLAY FILLED TEAYS DRAINAGE SYSTEMS. THIS REGION HAS HIGH RELIEF (GENERALLY BETWEEN 400 AND 800 FEET) WITH ELEVATIONS OF 490 TO 1340 FEET. OVERBURDEN SOILS AT THE PROJECT SITE ARE UNDERLAIN PRIMARILY BY SEDIMENTARY BEDROCK FROM THE SUNBRUY SHALE, BEREA SANDSTONE, AND BEDFORD SHALE, UNDIVIDED GROUP FROM THE DEVONIAN AND MISSISSIPPIAN AGE.

RECONNAISSANCE

STANTEC REPRESENTATIVES VISITED THE SITE ON MAY 23, 2019. TEN BORINGS WERE LOCATED WITHIN THE PROJECT AREA. THREE BORINGS WERE LOCATED ON PAVED AREAS OF SR 32. THE AREA SURROUNDING THE PROJECT SITE IS RURAL RESIDENTIAL WITH SOME COMMERCIAL INDUSTRY AND IS RELATIVELY FLAT. THE EXISTING PAVEMENT CONDITION WAS FAIR.

SUBSURFACE EXPLORATION

TEN BORINGS WERE ADVANCED ON MAY 29, 2019 ALONG SR 32 FOR THIS PROJECT TO OBTAIN GEOTECHNICAL DATA FOR THE PROPOSED ROADWAY IMPROVEMENTS. THESE BORINGS WERE DRILLED WITH A TRUCK-MOUNTED DRILL RIG USING 3.25-INCH I.D. HOLLOW-STEM AUGERS. DISTURBED SOIL SAMPLES WERE OBTAINED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) CONTINUOUSLY. THE AUTOMATIC SAMPLING HAMMER WAS CALIBRATED ON APRIL 24, 2018 AND HAS A DRILL ROD ENERGY RATIO (ER) OF 88.4 PERCENT.

EXPLORATION FINDINGS

THE EXISTING ROAD SURFACE IN THE PROJECT AREA CONSISTED OF 1.2 TO 1.4 FEET OF ASPHALT FOLLOWED BY 0.3 TO 0.5 FEET OF AGGREGATE BASE. THE SUB-SURFACE MATERIALS ENCOUNTERED CONSISTED PRIMARILY OF COHESIVE SOILS CLASSIFYING AS SILT AND CLAY (A-6A) AND SILTY CLAY (A-6B) AT VARIOUS DEPTHS. SOILS CLASSIFYING AS CLAY (A-7-6) WERE ALSO ENCOUNTERED IN MULTIPLE BORINGS AT DEPTHS BETWEEN 2.0 AND 5.0 FEET. SOIL CLASSIFYING AS SANDY SILT (A-4A) WAS ENCOUNTERED IN BORING B-006 AT A DEPTH OF 1.5 TO 3.0 FEET. IN BORING B-008, GRAVEL AND STONE FRAGMENTS WITH SAND WAS ENCOUNTERED AT A DEPTH OF 1.5 FEET TO 2.7 FEET.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JULY 2019.

AVAILABLE INFORMATION

THE AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECTS OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE OF GEOTECHNICAL ENGINEERING AT 1980 WEST BROAD STREET.

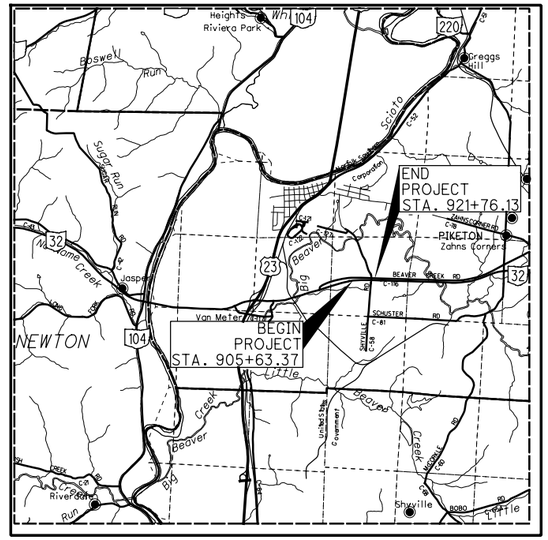
LEGEND

	DESCRIPTION	ODOT CLASS	CLASSIFIED MECH.	CLASSIFIED VISUAL
▩	GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	0	1
▥	SANDY SILT	A-4a	1	1
▨	SILT AND CLAY	A-6a	7	6
▤	SILTY CLAY	A-6b	4	8
▦	CLAY	A-7-6	6	5
		TOTAL	18	21
▩	PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL		
▧	SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL		
⊕	BORING LOCATION - PLAN VIEW			
⊕	HISTORIC BORING LOCATION - PLAN VIEW			
┼	DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.			
N_{60}	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.			
N	INDICATES STANDARD PENETRATION RESISTANCE.			
X/Y/D"	NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X= NUMBER OF BLOWS FOR 6 INCHES (UNCORRECTED). Y/D"= NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.			
WC	INDICATES WATER CONTENT IN PERCENT.			
NP	INDICATES A NON-PLASTIC SAMPLE.			
SS	INDICATES A SPLIT SPOON SAMPLE, STANDARD PENETRATION TEST.			
W—	INDICATES FREE WATER.			
▼	DRILLING WATER LEVEL AT COMPLETION OF BORING (MEASURED IN HOLLOW STEM AUGERS OR FLUSH JOINT CASING).			
▼	DRILLING WATER AT COMPLETION OF BORING (MEASURED IN HOLLOW STEM AUGERS OR FLUSH JOINT CASING).			

HISTORIC LEGEND

	DESCRIPTION	ODOT CLASS	CLASSIFIED MECH.	CLASSIFIED VISUAL
▥	SANDY SILT	A-4a	0	1
⁙	SILT	A-4b	1	0
▨	SILT AND CLAY	A-6a	3	1
▤	SILTY CLAY	A-6b	3	1
▦	CLAY	A-7-6	1	1
		TOTAL	8	4
⁙	SANDSTONE	VISUAL		

RECON. - EH 05/24/19
DRILLING - EH & MM 05/29 TO 05/30/19
DRAWN - MJ 09/19 & 01/20
REVIEWED - JRS 09/19 & 01/20



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

	12"		3"		2.0 mm		0.42 mm		0.074 mm		0.005 mm	
BOULDERS		COBBLES		GRAVEL		COARSE SAND		FINE SAND		SILT		CLAY
					No. 10 SIEVE		No. 40 SIEVE		No. 200 SIEVE			

INDEX OF SHEETS					
SUMMARY OF SOIL TEST DATA, SHEET 2					
LOCATION FROM STA. TO STA.	PLAN VIEW SHEET	PROFILE SHEET	CROSS SECTION SHEET	CUT Max/Min	FILL Max/Min
PIK-32-17.15					
903+80 918+50	3	3	-	-	<3
918+50 922+90	4	4	6	-	<3
T.R. 58 (SHYVILLE RD.) 48+00 52+00	5	5	-	-	<3

DESIGN AGENCY
Stantec
11687 Lebanon Road
Cincinnati, Ohio 45241
(513) 842-8200

PID NO.
108734

SOIL PROFILE

PIK-32-17.15

SUMMARY OF SOIL TEST DATA
STATE ROUTE 32

EXPLORATION NO. / STATION & OFFSET	FROM - TO	SAMPLE ID	N60	% REC	tsf HP	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO4
B-001-0-18	0.00 - 1.50	SS-1	19	78	4.5+				SAME AS SS-2					14	A-6b (VISUAL)	360
STA 904+09, 12' RT.	1.50 - 3.00	SS-2	35	89	4.5+	0	0	4	46	50	40	18	22	18	A-6b (13)	-
LATITUDE = 39.051853	3.00 - 4.50	SS-3	32	100	3.5	0	1	7	57	35	38	18	20	21	A-6b (12)	-
LONGITUDE = -82.998635	4.50 - 6.00	SS-4	19	100	2				SAME AS SS-3					20	A-6b (VISUAL)	-
B-002-0-18	0.00 - 1.50	SS-1	19	100	2.5				SAME AS SS-2					20	A-6b (VISUAL)	370
STA 904+58, 61' RT.	1.50 - 3.00	SS-2	31	100	4.5	2	0	5	55	38	28	16	12	16	A-6a (9)	-
LATITUDE = 39.05173	3.00 - 4.50	SS-3	35	100	3.5				SAME AS SS-4					17	A-6b (VISUAL)	-
LONGITUDE = -82.998448	4.50 - 6.00	SS-4	27	94	4.5+	1	1	11	42	45	37	18	19	20	A-6b (12)	-
B-003-0-18	1.50 - 3.00	SS-1	21	100	4	1	0	8	42	49	43	19	24	23	A-7-6 (14)	-
STA 907+59, 61' RT.	3.00 - 4.50	SS-2	18	100	3				SAME AS SS-1					19	A-7-6 (VISUAL)	100
LATITUDE = 39.051772	4.50 - 6.00	SS-3	21	100	1.75	1	1	12	45	41	31	17	14	22	A-6a (10)	-
LONGITUDE = -82.997405	6.00 - 7.50	SS-4	21	100	2				SAME AS SS-3					27	A-6a (VISUAL)	-
B-005-0-18	0.00 - 1.50	SS-1	16	33	2				VISUAL					21	A-6b (VISUAL)	140
STA 914+97, 71' LT.	1.50 - 3.00	SS-2	10	100	1.5	0	1	1	48	50	42	19	23	26	A-7-6 (14)	-
LATITUDE = 39.052027	3.00 - 4.50	SS-3	18	100	4	1	1	1	41	56	48	21	27	21	A-7-6 (16)	-
LONGITUDE = -82.995402	4.50 - 6.00	SS-4	28	100	4				SAME AS SS-3					20	A-7-6 (VISUAL)	-
B-006-0-18	0.00 - 1.50	SS-1	9	44	4				VISUAL					13	A-6b (VISUAL)	100
STA 916+03, 58' RT.	1.50 - 3.00	SS-2	27	78	2	45	11	8	22	14	NP	NP	NP	11	A-4a (0)	-
LATITUDE = 39.051743	3.00 - 3.40	SS-3	50/5"	100	-				SAME AS SS-2					15	A-4a (VISUAL)	-
LONGITUDE = -82.994444																
B-007-0-18	2.00 - 3.50	SS-1	19	89	4.5				SAME AS SS-2					17	A-7-6 (VISUAL)	100
STA 917+21, 29' LT.	3.50 - 5.00	SS-2	21	94	4.5+	3	2	2	50	43	45	20	25	24	A-7-6 (15)	-
LATITUDE = 39.051974	5.00 - 6.50	SS-3	25	89	3.5	5	2	2	60	31	34	19	15	22	A-6a (10)	-
LONGITUDE = -82.994018	6.50 - 8.00	SS-4	44	100	4				SAME AS SS-3					17	A-6a (VISUAL)	-
B-008-0-18	0.00 - 1.50	SS-1	7	61	1.75				SAME AS SS-3					15	A-6a (VISUAL)	130
STA 918+61, 58' RT.	1.50 - 2.70	SS-2A	21	72	-	57	13	7	14	9	NP	NP	NP	12	A-1-b (0)	-
LATITUDE = 39.051728	2.70 - 3.00	SS-2B	-	-	2				SAME AS SS-3					19	A-6a (VISUAL)	-
LONGITUDE = -82.993533	3.00 - 4.50	SS-3	21	100	2	21	8	9	30	32	31	18	13	16	A-6a (7)	-
	4.50 - 6.00	SS-4	16	67	0.5				SAME AS SS-3					22	A-6a (VISUAL)	-
B-009-0-18	0.00 - 1.50	SS-1	35	72	4.5+				SAME AS SS-2					15	A-6b (VISUAL)	100
STA 920+94, 30' RT.	1.50 - 3.00	SS-2	37	100	4	1	0	1	49	49	38	19	19	22	A-6b (12)	-
LATITUDE = 39.051786	3.00 - 3.70	SS-3A	50	100	4				SAME AS SS-2					16	A-6b (VISUAL)	-
LONGITUDE = -82.992713	3.70 - 4.50	SS-3B	-	-	-				SAME AS SS-2					14	A-6a (VISUAL)	-
	4.50 - 6.00	SS-4	35	100	4.5	16	4	4	33	43	31	17	14	18	A-6a (10)	-
B-010-0-18	2.00 - 3.50	SS-1	35	100	4.5+				SAME AS SS-2					14	A-6a (VISUAL)	100
STA 921+04, 30' LT.	3.50 - 5.00	SS-2	27	100	3.5	15	5	4	34	42	28	16	12	18	A-6a (9)	-
LATITUDE = 39.051951	5.00 - 6.50	SS-3	25	72	-	4	3	5	39	49	42	20	22	24	A-7-6 (13)	-
LONGITUDE = -82.992672	6.50 - 8.00	SS-4	35	100	-				SAME AS SS-3					20	A-7-6 (VISUAL)	-

SUMMARY OF SOIL TEST DATA
SHYVILLE ROAD

EXPLORATION NO. / STATION & OFFSET	FROM - TO	SAMPLE ID	N60	% REC	tsf HP	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO4
B-004-0-18	0.00 - 1.50	SS-1	7	78	4.5+				SAME AS SS-2					16	A-6a (VISUAL)	100
STA 50+81, 50' LT.	1.50 - 2.10	SS-2	12/50/1"	100	4.5+	17	11	10	33	29	29	16	13	14	A-6a (7)	-
LATITUDE = 39.052074	3.00 - 3.80	SS-3A	19	100	4.5+				SAME AS SS-2					19	A-6a (VISUAL)	-
LONGITUDE = -82.995687	3.80 - 4.50	SS-3B	-	-	2.5				SAME AS SS-4					25	A-7-6 (VISUAL)	-
	4.50 - 6.00	SS-4	18	44	1.5	0	1	1	27	71	59	22	37	29	A-7-6 (20)	-

SUMMARY OF SOIL TEST DATA (HISTORIC)
STATE ROUTE 32

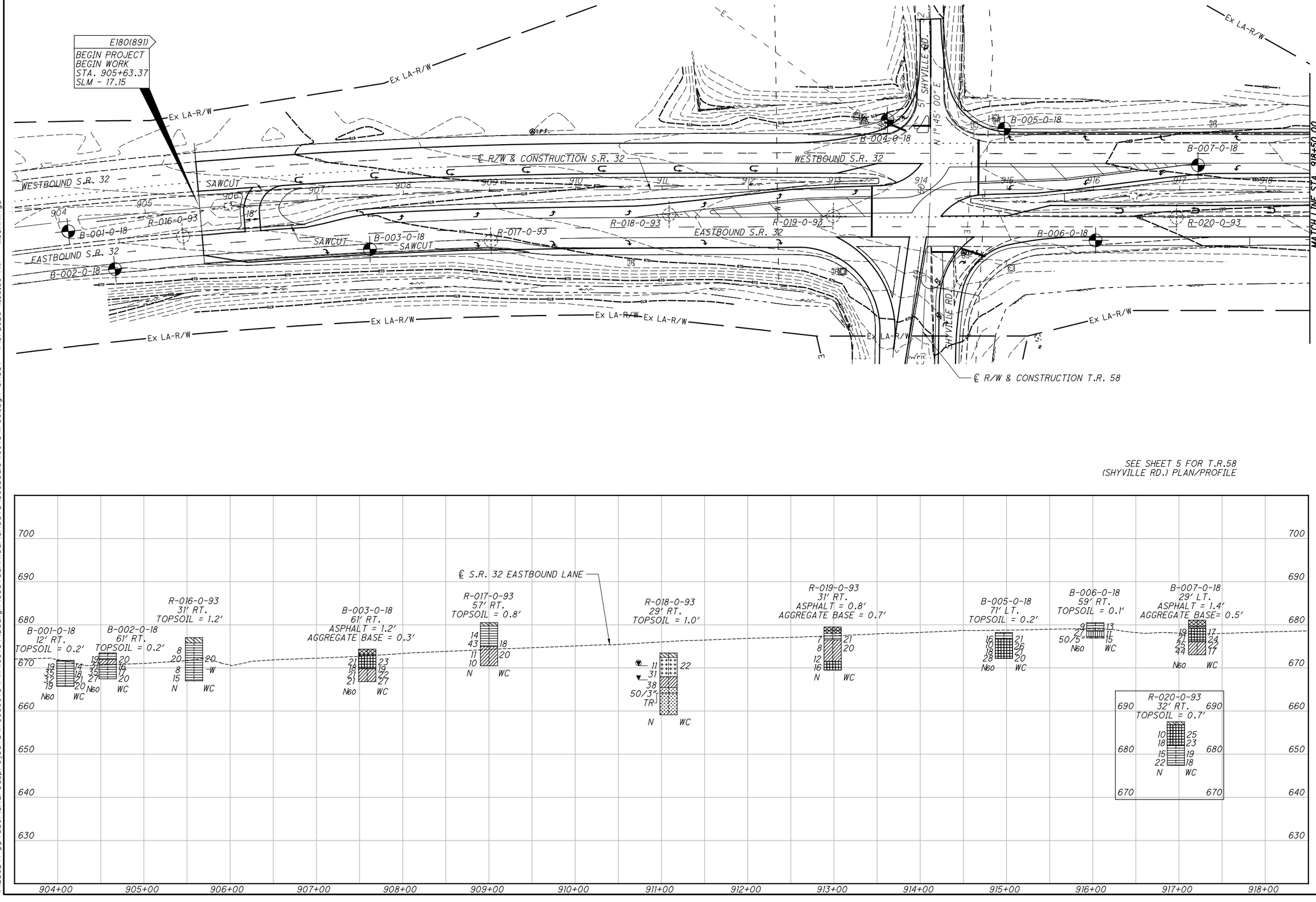
EXPLORATION NO. / STATION & OFFSET	DEPTH FROM - TO	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
R-016-0-93	0.0 - 1.2										TOPSOIL (VISUAL)
STA 905+42, 31' RT.	1.2 - 10.0	0	6	0	55	39	38	17	21	20	A-6B*
LATITUDE = 39.051828											
LONGITUDE = -82.998167											
R-017-0-93	0.0 - 0.8										TOPSOIL (VISUAL)
STA 909+01, 57' RT.	0.8 - 5.5	0	0	3	55	42	37	17	20	18	A-6B*
LATITUDE = 39.051879	5.5 - 10.0	0	0	12	60	28	29	18	11	20	A-6A
LONGITUDE = -82.996911											
R-018-0-93	0.0 - 1.0										TOPSOIL (VISUAL)
STA 911+08, 29' RT.	1.0 - 5.5	0	6	4	64	26	30	20	10	22	A-4B
LATITUDE = 39.051859	5.5 - 8.0										A-6A (VISUAL)
LONGITUDE = -82.996181	8.0 - 9.3										A-4A (VISUAL)
	9.3 - 14.3										SANDSTONE
R-019-0-93	0.0 - 0.8										ASPHALT (VISUAL)
STA 912+98, 31' RT.	0.8 - 1.5										AGGREGATE BASE (VISUAL)
LATITUDE = 39.051841	1.5 - 3.0	5	4	4	51	36	33	17	16	21	A-6B*
LONGITUDE = -82.995512	3.0 - 8.0	0	1	1	63	35	32	19	13	20	A-6A
	8.0 - 10.0										A-7-6 (VISUAL)
R-020-0-93	0.0 - 0.7										TOPSOIL (VISUAL)
STA 916+96, 32' RT.	0.7 - 5.5	1	2	2	55	40	41	19	22	25	A-7-6
LATITUDE = 39.051809	5.5 - 10.0	4	6	3	49	29	34	17	17	19	A-6B
LONGITUDE = -82.994111											
R-028-0-93	0.0 - 0.4										TOPSOIL (VISUAL)
STA 920+92, 34' RT.	0.4 - 8.5	0	4	4	59	34	33	20	13	26	A-6A*
LATITUDE = 39.051777	8.5- 10.0										A-6B (VISUAL)
LONGITUDE = -82.992717											

DRAWN MSJ
CHECKED EMK

SOIL PROFILE
SUMMARY OF SOIL TEST DATA

PIK - 32 - 17.15

2 / 6



HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN MSJ
CHECKED EMK

SOIL PROFILE
STA. 903+80 TO 918+50

PIK-32-17.15

3 / 6

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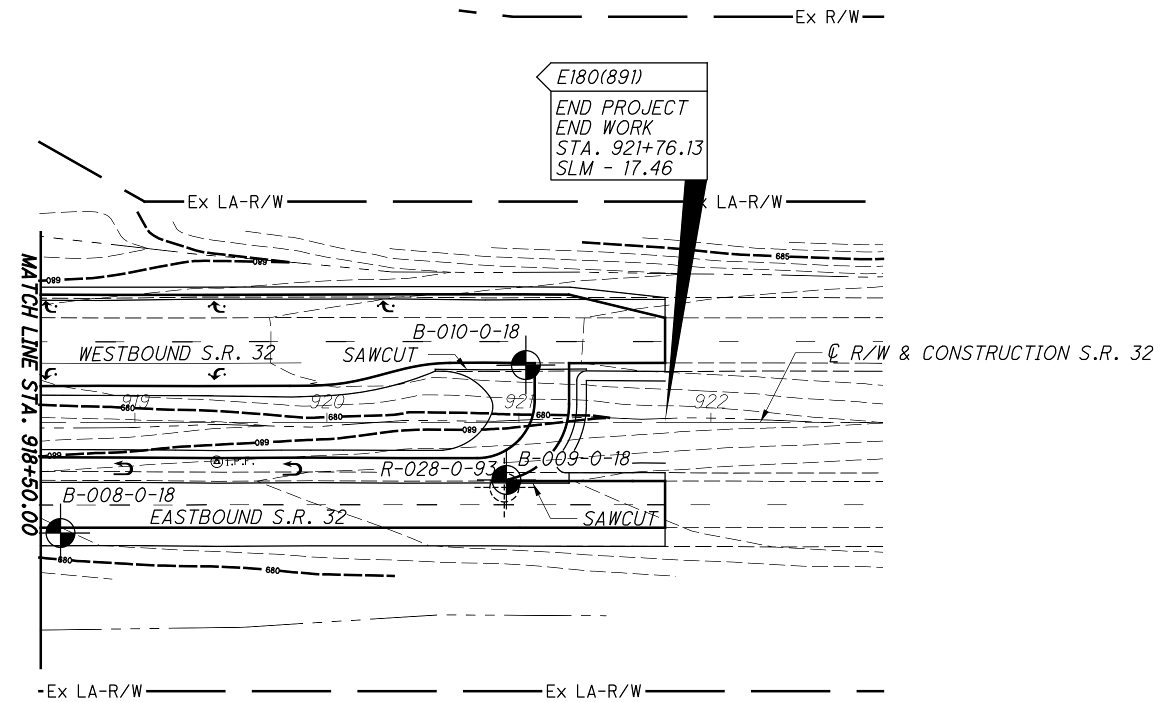
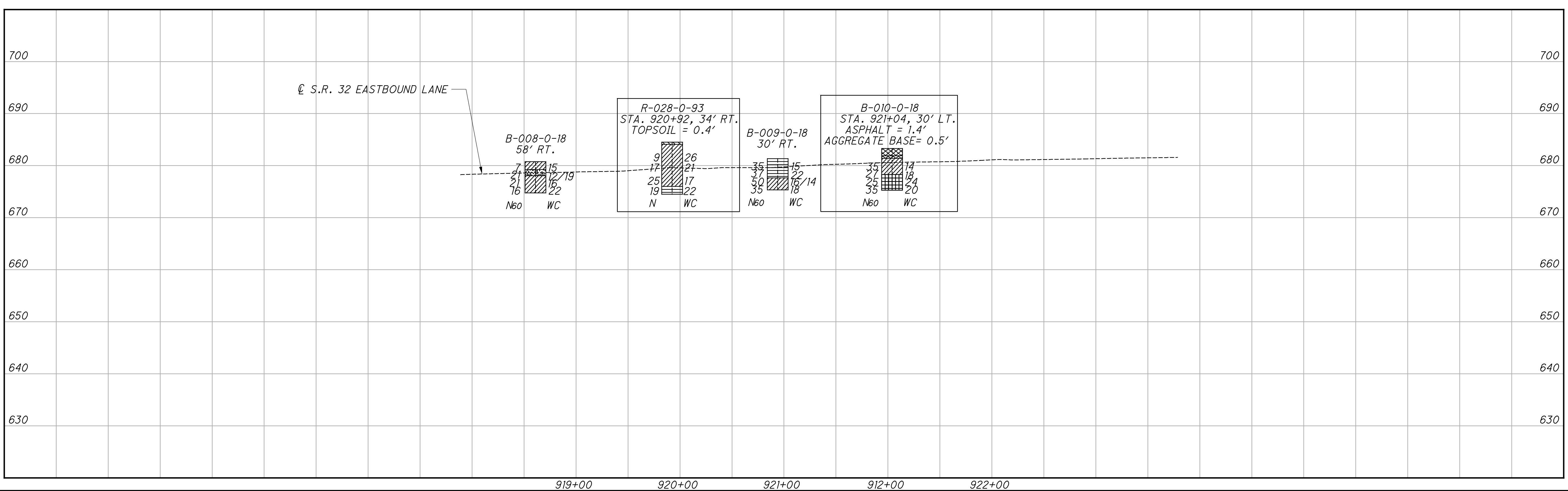


SEE SHEET 6 FOR CROSS SECTION 921+00 FOR ADDITIONAL BORING INFORMATION

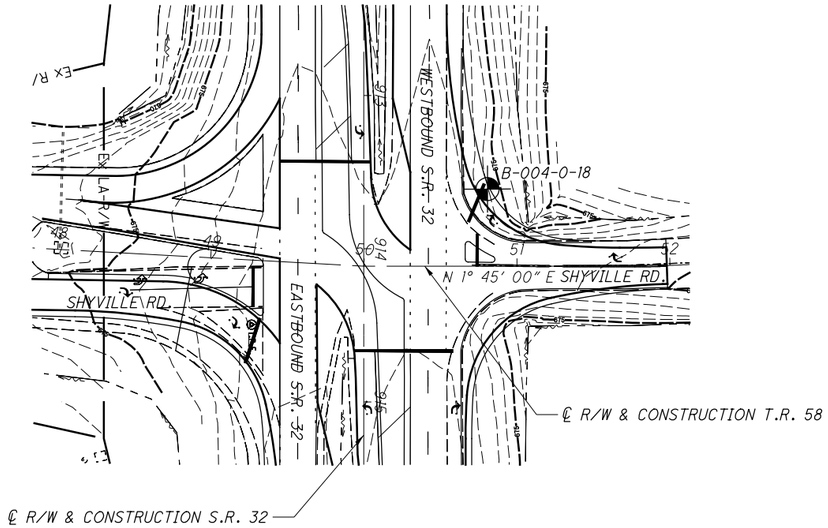


SOIL PROFILE
STA. 918+50 TO 922+90

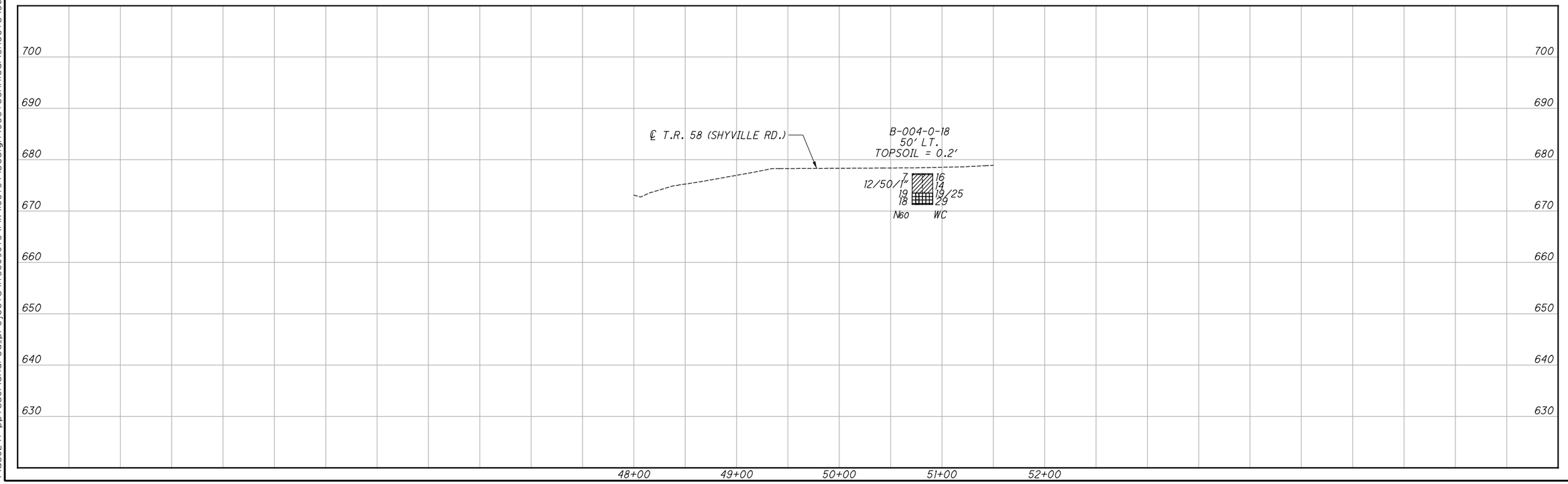
HORIZONTAL SCALE IN FEET

DRAWN MSJ
CHECKED EMK

PIK-32-17.15



SEE SHEET 3 FOR S.R. 32 PLAN/PROFILE



SOIL PROFILE - T.R. 58 (SHYVILLE ROAD)
STA. 48+00 TO 52+00

PIK-32-17.15

5 / 6

DRAWN MSJ
CHECKED EMK

HORIZONTAL SCALE IN FEET
0 25 50 100

N

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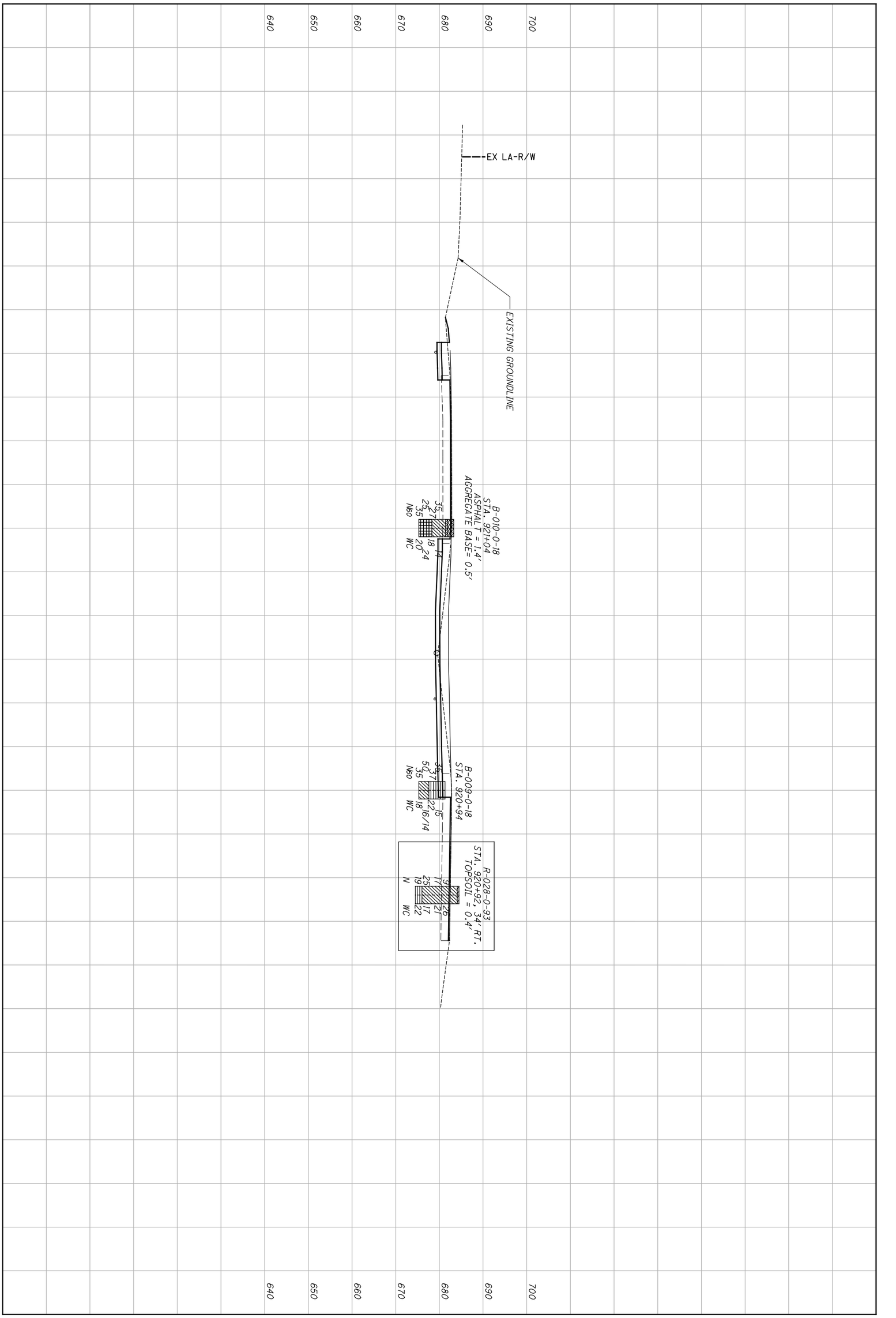

9/9	PIK-32-17.15	CROSS SECTION STATION 921+00.00	DRAWN MSJ CHECKED EMK	10 5 20 HORIZONTAL SCALE IN FEET