



LOCATION MAP

LATITUDE: 40°34'52.7" LONGITUDE: 83°4'38.2"



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

DESIGN DESIGNATION
SR 95

CURRENT ADT (2021)	21,600
DESIGN YEAR ADT (2045)	24,200
DESIGN HOURLY VOLUME (2045)	2360
DIRECTIONAL DISTRIBUTION	55% (DESIGN HR) 51% (24 HR)
TRUCKS (24 HOUR B&C)	3%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
03 PRINCIPAL ARTERIAL (URBAN)	
NHS PROJECT	NO

DESIGN DESIGNATION
US 23 RAMP B

CURRENT ADT (2021)	3360
DESIGN YEAR ADT (2045)	3760
DESIGN HOURLY VOLUME (2045)	340
DIRECTIONAL DISTRIBUTION	100%
TRUCKS (24 HOUR B&C)	6%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
03 PRINCIPAL ARTERIAL (URBAN)	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES

Contact Two Working Days
Before You Dig


Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:


AKRON / CLEVELAND / COLUMBUS
PO 450 GRANT ST., AKRON, OH 44311
P 330.275.1390 / TF 800.635.1390
W ENVDESIGNGROUP.COM

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MAR-95-17.90

MARION TOWNSHIP
CLARIDON TOWNSHIP
MARION COUNTY

INDEX OF SHEETS:

TITLE SHEET	P.1
SCHEMATIC PLAN	P.2
TYPICAL SECTIONS	P.3-P.4
GENERAL NOTES	P.5-P.6
MAINTENANCE OF TRAFFIC	P.7-P.27
GENERAL SUMMARY	P.28-P.30
SUBSUMMARIES	P.31-P.32
PROJECT SITE PLAN	P.33
PLAN AND PROFILE - SR 95	P.34-P.41
CROSS SECTIONS - SR 95	P.42-P.77
PLAN - US 23 RAMP B	P.78-P.79
CROSS SECTIONS - US 23 RAMP B	P.80-P.89
PLAN - JAMES WAY	P.90
CROSS SECTIONS - JAMES WAY	P.91-P.93
PLAN - AMERICA BLVD	P.94
DRIVEWAY DETAILS	P.95
STORM SEWER PROFILES	P.96-P.97
INTERSECTION DETAIL	P.98-P.104
TRAFFIC CONTROL	P.105-P.112
TRAFFIC SIGNAL PLANS	P.113-P.135
RETAINING WALL PLANS	P.136-P.142

FEDERAL PROJECT NUMBER

E210(264)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

IMPROVEMENTS INCLUDE REBUILDING TRAFFIC SIGNALS AT SR 95 INTERSECTIONS WITH THE US 23 RAMPS AND JAMES WAY. WIDEN JAMES WAY TO ADD A NORTHBOUND RIGHT TURN LANE, WIDEN SOUTHBOUND US 23 RAMP TO SR 95 TO ADD A LEFT TURN LANE, NEW SIDEWALKS AND SHARED USE PATHS, PAVEMENT RESURFACING, NEW DRAINAGE, AND NEW SIGNAGE AND PAVEMENT MARKINGS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	1.79 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	2.04 ACRES

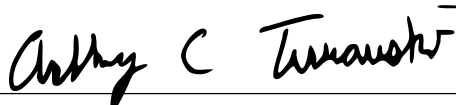
LIMITED ACCESS

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.

2023 SPECIFICATIONS

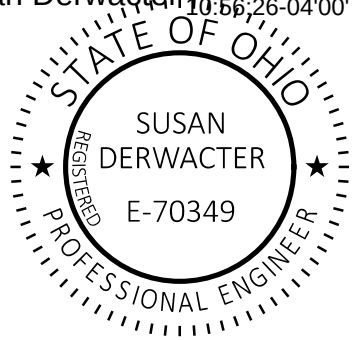
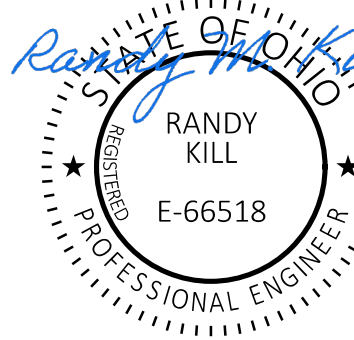
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY 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.

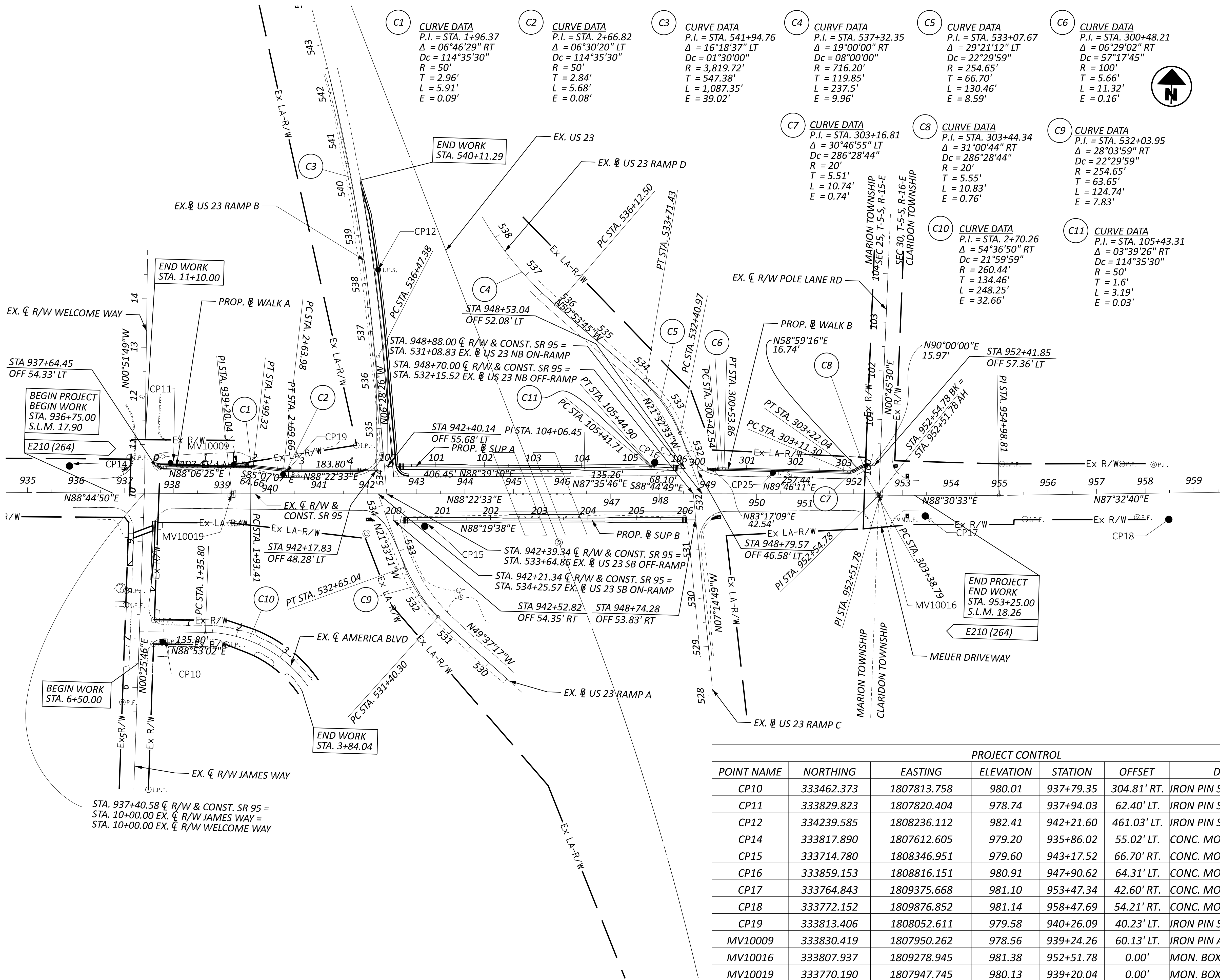

Anthony C. Turowski, P.E.
District 06 Deputy Director


Pamela Boratyn
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/19/24	HL-10.12	7/21/23	TC-21.21	1/20/23	TC-85.21	1/19/24	PIS203011 7/18/14	800-2023 1/17/25
BP-4.1	7/19/13	HL-30.11	7/21/23	TC-22.10	1/17/25	TC-85.22	4/21/23		809 1/17/25
BP-7.1	1/17/25	HL-30.21	4/17/20	TC-41.20	10/18/13			PIS208320 7/18/14	813 7/21/23
CB-2-3, 2-4	7/19/24	HL-30.22	1/17/25	TC-41.30	4/21/23				825 7/19/24
		HL-40.20	1/17/25	TC-41.50	10/18/13				832 7/19/24
				TC-42.10	10/18/13				878 1/21/22
DM-1.1	7/17/25			TC-42.20	10/18/13				909 1/17/25
				TC-52.10	10/18/13				913 4/16/21
MGS-1.1	1/17/25	MT-95.30	7/19/19	TC-52.20	1/15/21				
MGS-2.1	1/17/25	MT-95.45	7/21/23	TC-65.10	1/17/14				
MGS-3.1	1/19/18	MT-99.30	1/17/20	TC-65.11	1/17/25				
		MT-101.70	7/19/24	TC-71.10	4/21/23				
MH-1	7/15/22	MT-101.90	7/17/20	TC-74.10	7/21/23				
MH-3	7/19/24	MT-102.10	7/21/23	TC-81.11	1/19/24				
		MT-102.20	4/19/19	TC-83.20	7/19/24				
		MT-105.10	1/17/20	TC-84.20	1/19/24				

ENGINEER'S SEAL	ENGINEER'S SEAL	ENGINEER'S SEAL
 SUSAN DERWACTER E-70349 SHEETS: P.1 - P.20 & P.28 - P.112	 MICHAEL A. KILLIAN E-61621 SHEETS: P.136 - P.142	 RANDY KILL E-66518 SHEETS: P.21 - P.27 & P.113 - P.135

DESIGN AGENCY	Environmental Design Group
DESIGNER	WES
REVIEWER	JES
PROJECT ID	114818
SHEET	P.1
TOTAL	P.142



PROJECT CONTROL						
POINT NAME	NORTHING	EASTING	ELEVATION	STATION	OFFSET	DESCRIPTION
CP10	333462.373	1807813.758	980.01	937+79.35	304.81' RT.	IRON PIN SET
CP11	333829.823	1807820.404	978.74	937+94.03	62.40' LT.	IRON PIN SET
CP12	334239.585	1808236.112	982.41	942+21.60	461.03' LT.	IRON PIN SET
CP14	333817.890	1807612.605	979.20	935+86.02	55.02' LT.	CONC. MON. SET
CP15	333714.780	1808346.951	979.60	943+17.52	66.70' RT.	CONC. MON. SET
CP16	333859.153	1808816.151	980.91	947+90.62	64.31' LT.	CONC. MON. SET
CP17	333764.843	1809375.668	981.10	953+47.34	42.60' RT.	CONC. MON. SET
CP18	333772.152	1809876.852	981.14	958+47.69	54.21' RT.	CONC. MON. SET
CP19	333813.406	1808052.611	979.58	940+26.09	40.23' LT.	IRON PIN SET
MV10009	333830.419	1807950.262	978.56	939+24.26	60.13' LT.	IRON PIN AND CAP FOUND
MV10016	333807.937	1809278.945	981.38	952+51.78	0.00'	MON. BOX
MV10019	333770.190	1807947.745	980.13	939+20.04	0.00'	MON. BOX

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 7/2/2025 TIME: 8:27:08 AM USER: bshepherd
E:\ODOT\21-00473-010 MAR-95-17.90\114818\400-Engineering\Roadway\Sheets\114818_GY001.dgn



DESIGNER	
WES	
REVIEWER	
JES	03/24/25
PROJECT ID	
114818	
SHEET	TOTAL
P.3	P.142

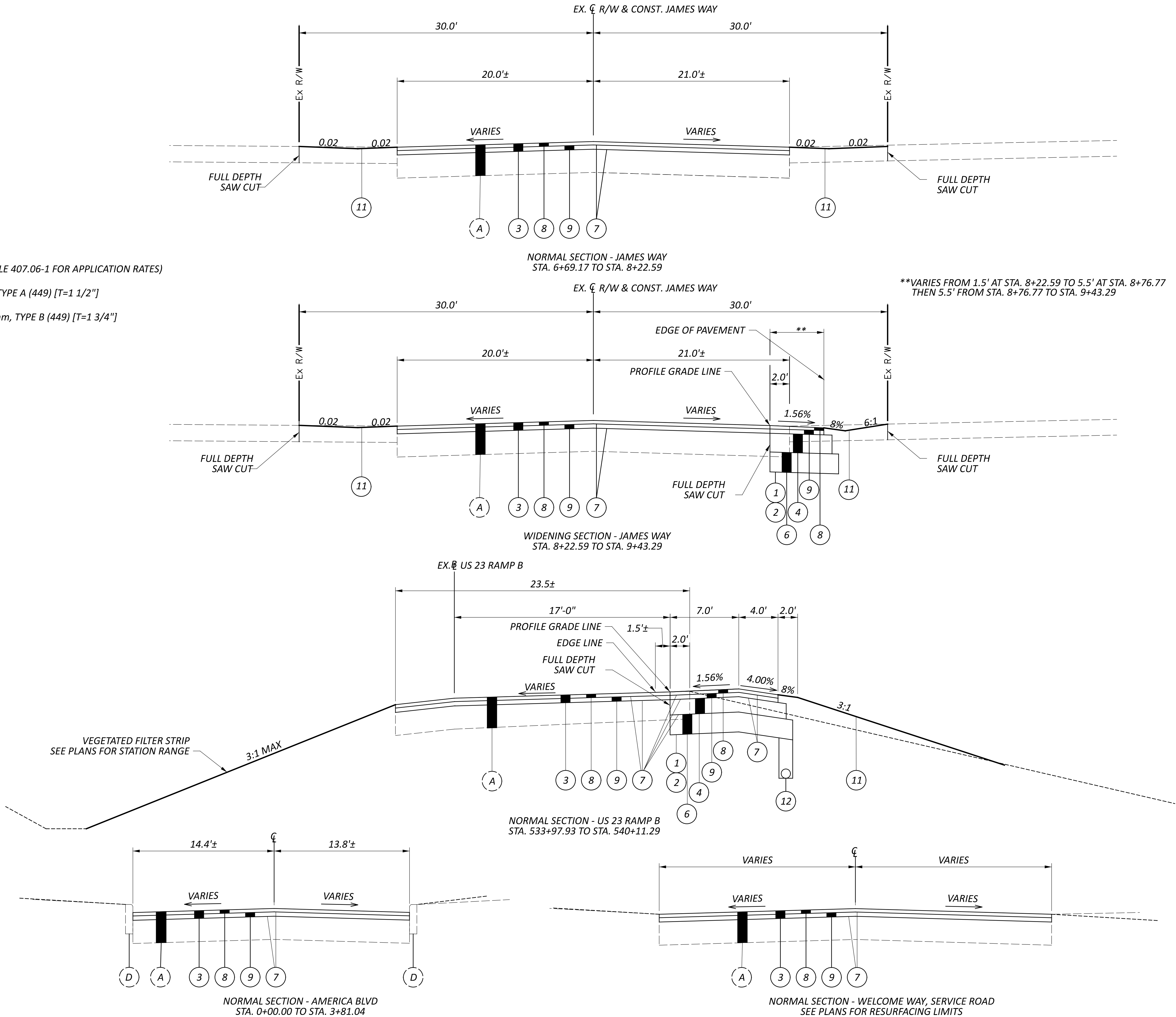
TYPICAL SECTIONS

EXISTING LEGEND

- A EXISTING ASPHALT PAVEMENT
- D CONCRETE CURB

PROPOSED LEGEND

- 1 ITEM 204 - SUBGRADE COMPACTION
- 2 ITEM 204 - PROOF ROLLING
- 3 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE [T=3"]
- 4 ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 [T=6"] [449]
- 5 ITEM 304 - AGGREGATE BASE [T=5"]
- 6 ITEM 304 - AGGREGATE BASE, AS PER PLAN, 6" AVG.
- 7 ITEM 407 - NON-TRACKING TACK COAT (REFERENCE CMS TABLE 407.06-1 FOR APPLICATION RATES)
- 8 ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (449) [T=1 1/2"]
- 9 ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19mm, TYPE B (449) [T=1 3/4"]
- 10 ITEM 608 - 4" CONCRETE WALK
- 11 ITEM 659 - SEEDING AND MULCHING, CLASS 1
- 12 ITEM 605 - 6" BASE PIPE UNDERDRAINS



TYPICAL SECTIONS

DESIGN AGENCY	
Environmental DesignGroup	
AKRON / CLEVELAND / COLUMBUS	
2300 WEST 130th / W 90th Street, Suite 200	
Akron, OH 44310-1200	
DESIGNER	
WES	
REVIEWER	
JES 03/24/25	
PROJECT ID	
114818	
SHEET	
P.4	TOTAL P.142

GENERAL

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:

<u>WATER</u>	<u>GAS</u>
AQUA OHIO ATTN: DONALD J. SCOTT 810 HOLLAND RD MARION, OH 43302 DJSCOTT@AQUAAMERICA.COM (740) 383-0931	COLUMBIA GAS ATTN: BENJAMIN CRUM 1021 NORTH MAIN STREET MANSFIELD, OH 44903 BENJAMINCRUM@NISOURCE.COM (419) 340-2932
<u>ELECTRIC</u>	<u>TELEPHONE</u>
FIRST ENERGY OHIO ATTN: CHRIS HARPER HARPERC@FIRSTENERGYCORP.COM (937) 327-1283	FRONTIER ATTN: CHRIS AVERY IRA.AVERY@FTR.COM (740) 383-0551
AEP OHIO (614) 883-6831	<u>FIBER</u>
<u>CABLE/COMMUNICATIONS</u>	ADC OHIO ATTN: LINDSAY JOHNSON DLINDSAYJOHNSON@IBSWEBSITE.COM (614) 240-5999
CHARTER COMMUNICATIONS ATTN: JOSEPH VLOCK JOSEPH.VLOCK@CHARTER.COM (614) 402-1979	EVERSTREAM ATTN: CHRIS POWELL (380) 209-5936
<u>TRAFFIC</u>	<u>SANITARY</u>
ODOT DISTRICT 6 TRAFFIC ATTN: DAVE CARLIN DAVE.CARLIN@DOT.OHIO.GOV	MARION COUNTY SANITARY ENGINEER 222 W CENTER ST, MARION, OH 43302 ATTN: PHIL WRIGHT PWRIGHT@CO.MARION.OH.US (740) 223-4130

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET P.2 OF THE PLANS 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: MONUMENT TYPE:	ODOT VRS GNSS TYPE B
VERTICAL POSITIONING	
ORTHOMETRIC HEIGHT DATUM: GEOID:	NAVD88 GEOID 12B
HORIZONTAL POSITIONING	
REFERENCE FRAME: ELLIPSOID: MAP PROJECTION: COORDINATE SYSTEM: COMBINED SCALE FACTOR: ORIGIN OF COORDINATE SYSTEM	NAD83 (2011) GRS80 LAMBERT CONFORMAL CONIC 2 PARALLEL OHIO STATE PLANE, NORTH ZONE 0.999933 0,0,0

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.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 8 PM AND 7 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

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.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING 2 HOURS

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

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

ITEM 621 - RPM

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING RPMs IN ACCORDANCE WITH ODOT CMS 621 AND ODOT SCD TC-65.10 AND TC-65.11.

PAYMENT FOR ITEM 621 - RPM SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE IN PLACE ACCORDING TO THE ABOVE STANDARDS.

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY FOR THIS ITEM.

ITEM 621 - RPM 150 EACH

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

- SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
- 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 SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS).
- COMPACT THE SUBGRADE ACCORDING TO C&MS 204.03.

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.

- 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 C&MS 204.06.

- EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO C&MS 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.
- PROOF ROLL THE STABILIZED AREAS ACCORDING TO C&MS 204.06 TO VERIFY STABILITY.
- 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.

ITEM 304 - AGGREGATE BASE, AS PER PLAN, 6" AVG.

THIS ITEM SHALL CONFORM TO ITEM 304 OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE QUANTITY PROVIDED IN THE PAVEMENT EDGE REPAIR CALCULATIONS ON SHEET P.29 HAS BEEN ESTIMATED USING A 6" THICKNESS.

THE CONTRACTOR MUST FIRST FIELD VERIFY THE THICKNESS OF THE EXISTING AGGREGATE BASE AND DETERMINE THE DEPTH OF EXISTING SUBGRADE PRIOR TO THE PLACING OF THIS ITEM. IF THE EXISTING SUBGRADE IS FOUND TO BE AT A DIFFERENT ELEVATION THAN THE PROPOSED SUBGRADE (WHEN ASSUMING A PROPOSED 6" AGGREGATE BASE), THE CONTRACTOR SHALL PROVIDE THE RESULTS OF THE INVESTIGATION TO THE PROJECT ENGINEER. THE ENGINEER SHALL THEN DIRECT THE CONTRACTOR TO ADJUST THE THICKNESS OF THIS ITEM ACCORDINGLY.

THE CONTRACTOR WILL BE COMPENSATED FOR ANY ADDITIONAL QUANTITY OF THIS ITEM AT THE CONTRACT BID PRICE OF THE ITEM. THE CONTRACTOR WILL NOT RECEIVE ANY ADDITIONAL COMPENSATION BEYOND THE ADJUSTED QUANTITY AT THE CONTRACT BID PRICE.

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 mm & 19 mm Type A OR B (449), AS PER PLAN

THE CONTRACTOR MUST SUBMIT AGGREGATE TO BE USED TO OMM FOR APPROVAL A MINIMUM OF 3 WEEKS BEFORE SUBMITTING A JMF FOR APPROVAL. OBTAIN OMM APPROVAL OF ANY BLENDS.

DRAINAGE

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

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

EROSION CONTROL

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	706 CU. YD.
659, SEEDING AND MULCHING	6359 SQ. YD.
659, REPAIR SEEDING AND MULCHING	318 SQ. YD.
659, INTER-SEEDING	318 SQ. YD.
659, COMMERCIAL FERTILIZER	0.89 TON
659, LIME	1.32 ACRES
659, WATER	36 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.

WATER QUALITY

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.

DESIGN AGENCY

Environmental
DesignGroup

ANFON, CLEVELAND, COLUMBIA, OH
33089 STATE / HWY 168, 168
E, R. 8
33089 STATE / HWY 168, 168

DESIGNER

WES

REVIEWER

JES 03/24/25

PROJECT ID

114818

SHEET

P.5

TOTAL

P.142

ITEM 202 - GUTTER REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING CONCRETE PAVED GUTTER LOCATED NORTH OF THE PROPOSED ~~Q~~ CONSTRUCTION WALK B. THE PORTION OF THE PAVED GUTTER TO BE REMOVED IS FROM STA. 949+25 TO STA. 952+00 AS SHOWN IN THE PLANS. THE PROPOSED DITCH BOTTOM WILL MATCH THE FLOW LINE OF THE PROPOSED GUTTER AT STA. 949+25.

PAYMENT FOR ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT FOR ITEM 202 - GUTTER REMOVED, AS PER PLAN.

ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN

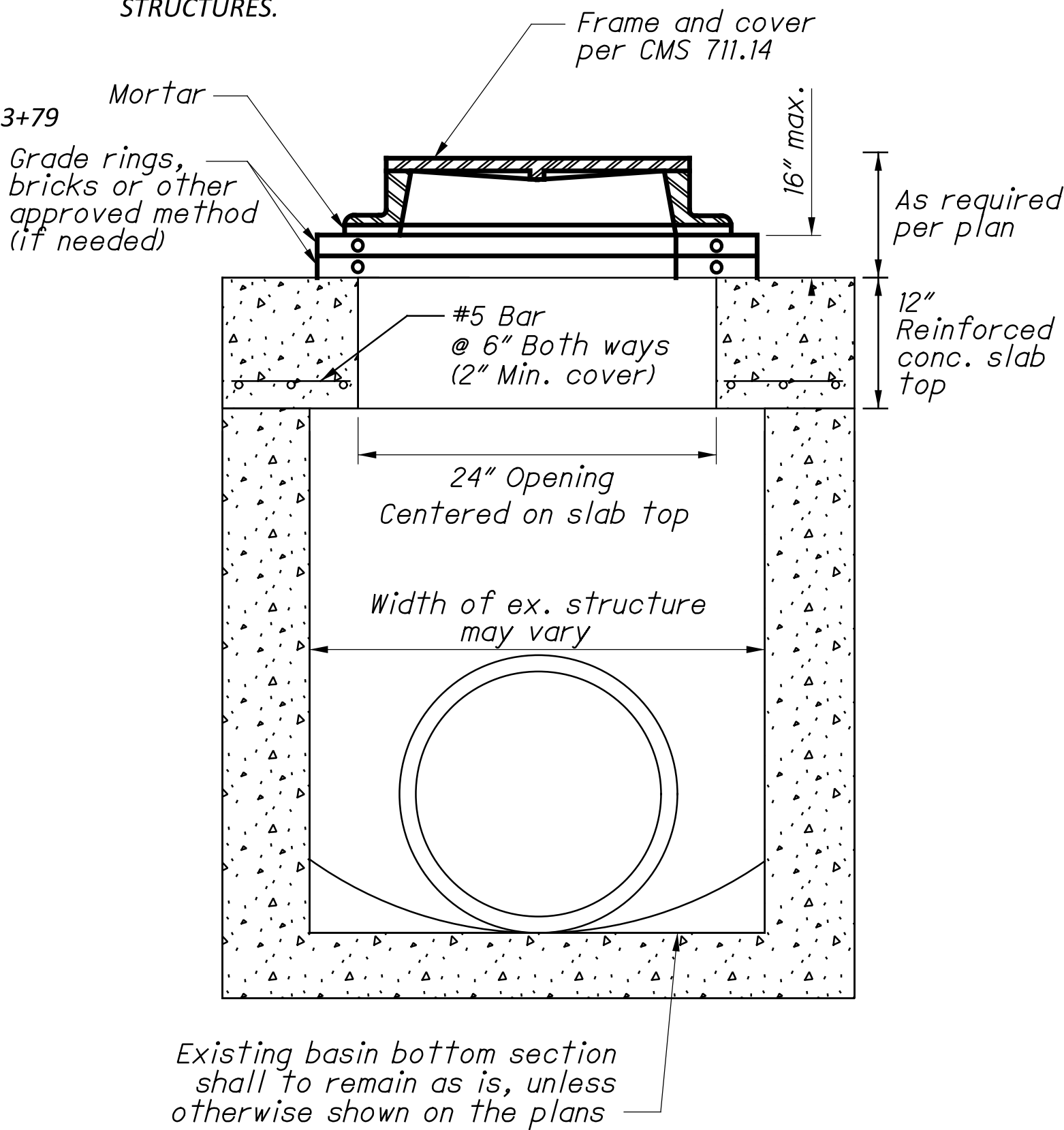
THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING CONCRETE MEDIAN BARRIER AND CONCRETE PAD LOCATED LEFT AND RIGHT OF THE EX ~~Q~~ R/W & CONST. SR 95. THE PORTION OF THE EX. CONCRETE MEDIAN BARRIER AND CONCRETE PAD TO BE REMOVED IS FROM STA. 943+79 TO STA. 944+88 AND FROM STA. 946+22 TO STA. 947+29 AS SHOWN IN THE PLANS.

PAYMENT FOR ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT FOR ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN.

ITEM 611 - CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN

CATCH BASIN NO. 3 AND 3A RECONSTRUCTED TO GRADE, AS PER PLAN, SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 611, AS SHOWN IN THE BELOW SECTION AND AS DESCRIBED:

REMOVE THE EXISTING CATCH BASIN GRATE AND LID FROM THE EXISTING STRUCTURE. PROVIDE NEW FLAT SLAB TOP LID CONSTRUCTED AS SHOWN BELOW THAT MEETS REQUIREMENTS OF CMS 706.13. PROVIDE A MANHOLE FRAME AND COVER THAT MEET CMS 711.14 REQUIREMENTS AS SHOWN ON STANDARD DRAWING MH-1.1. NO BRICK OR CONCRETE BLOCK CONSTRUCTION SHALL BE PERMITTED. NO CONCRETE BLOCKOUT SHALL BE PROVIDED. FINAL ADJUSTMENT TO GRADE SHALL BE MADE AS NOTED ELSEWHERE IN THE PLANS FOR MANHOLE STYLE STRUCTURES.



SIDE VIEW, CATCH BASIN, NO. 3A AND 3
RECONSTRUCTED TO GRADE, AS PER PLAN

ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) 35 MPH, 12" WIDE OR ITEM 606, IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL 35 MPH, 60" WIDE EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 614 - MAINTAINING TRAFFIC

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING THE TEMPORARY TRAFFIC CONTROL DEVICES THROUGHOUT THE PHASES OF CONSTRUCTION AS DETAILED ON SHEETS P.8 - P.27.

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 FOR ITEM 614 - MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

NOTIFICATION OF CONSTRUCTION INITIATION:

AT LEAST FOURTEEN DAYS PRIOR TO STARTING INITIAL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS VIA E-MAIL AT D06.PIO@DOT.OHIO.GOV, THE DISTRICT WORK ZONE TRAFFIC MANAGER VIA E-MAIL AT D06.MOT@DOT.OHIO.GOV AND THE CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION VIA E-MAIL AT HAULING.PERMITS@DOT.OHIO.GOV OF THE ANTICIPATED START DATE OF ANY CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO THE PLACING OF WORK ZONE SIGNS. THE NOTIFICATION SHALL ALSO INCLUDE THE PROJECT NUMBER, PID, NAME AND PHONE NUMBER OF THE CONTRACTOR, A POINT OF CONTACT AND THE ANTICIPATED IMPACT ON TRAFFIC. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT WORK ZONE TRAFFIC MANAGER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION INITIATION DATE.

NOTIFICATIONS 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 SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE PIO (D06.PIO@DOT.OHIO.GOV). 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	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	7 CALENDAR DAYS PRIOR TO CLOSURE
	<=12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE	
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION	

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

SEQUENCE OF CONSTRUCTION

PHASE 1
INSTALL UNDERGROUND UTILITIES USING FLAGGERS OR PARTIAL-WIDTH CLOSURES.

PHASE 2A
REMOVE EXSITING WALL AND CONSTRUCT RETAINING WALL, SIDEWALKS AND SHARED USE PATH ON THE NORTH SIDE OF SR 95. CONSTRUCT CORRESPONDING GRADING AND DITCHES. CONSTRUCT THE PAVEMENT REMOVAL AND SEEDING/ SWALE ON THE WEST SIDE OF JAMES WAY. PERFORM TEMPORARY SIGNAL WORK.

PHASE 2B
REMOVE EXSITING WALL AND CONSTRUCT RETAINING WALL, CONSTRUCT SHARED USE PATH ON THE SOUTH SIDE OF SR 95. CONSTRUCT CORRESPONDING GRADING AND DITCHES. PERFORM TEMPORARY SIGNAL WORK.

PHASE 3
CONSTRUCT THE PAVEMENT WIDENING ON US 23 RAMP B AND ON THE EAST SIDE OF JAMES WAY. MAINTAIN TRAFFIC ON EXISTING PAVEMENT. CONSTRUCT THE VEGETATED FILTER STRIP ALONG THE WEST SIDE OF US 23 RAMP B. PERFORM TEMPORARY SIGNAL WORK.

PHASE 4
REMOVE THE EXISTING CONCRETE BARRIER ABUTTING THE BRIDGE SUPPORTS. PERFORM FULL DEPTH PAVEMENT REPLACEMENT BENEATH THE REMOVED BARRIER. CLOSE THE TWO INTERIOR THROUGH LANES OF TRAFFIC AND MAINTAIN TRAFFIC ON THE TWO OUTER LANES. PERFORM TEMPORARY SIGNAL WORK.

PHASE 5
PERFORM PAVEMENT RESURFACING ON ALL ROADS EXCEPT FOR US 23 RAMP B. INSTALL PAVEMENT MARKINGS AND PERFORM SIGN REPLACEMENTS. INSTALL NEW TRAFFIC SIGNALS.

PHASE 6
PERFORM PAVEMENT RESURFACING ON US 23 RAMP B WITH RAMP CLOSURE. INSTALL PAVEMENT MARKINGS.

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.

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.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:
ITEM 614, BARRIER REFLECTOR, TYPE 1, ONE WAY 65 EACH
ITEM 614, OBJECT MARKER, ONE WAY 65 EACH

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

COORDINATION WITH ADJACENT PROJECTS

THE CONTRACTOR SHALL COORDINATE WORK WITH ODOT AND THE CONTRACTORS ON THE ADJACENT PROJECT MAR-23/529-7.86 & 10.06/2.8, PID 112677 COORDINATION SHALL BE MADE TO PREVENT CONFLICTING ADVANCE WARNING SIGNS, CONFLICTING DETOUR ROUTES, OVERLAPPING /CONFLICTING LANE CLOSURES, AND TO ENSURE THAT A MINIMUM DISTANCE OF 2 MILES BETWEEN ADJACENT LANE CLOSURES IS MAINTAINED. THIS IS NOT AN EXHAUSTIVE LIST OF COORDINATION ITEMS THAT MAY NEED TO BE RESOLVED BETWEEN PROJECTS. THE DEPARTMENT RESERVES THE RIGHT TO DECIDE WHICH PROJECT’S ACTIVITIES TAKE PRECEDENCE. PROJECTS THAT HAVE ACTIVITIES DELAYED DUE TO CONFLICTS WILL CONSIDER THIS AN EXCUSABLE, NON-COMPENSABLE DELAY PER 108.06.B. ON PROJECTS THAT HAVE ACTIVITIES DELAYED DUE TO CONFLICTS WHERE THE CONTRACTOR FAILED TO MEET THE NOTIFICATION REQUIREMENTS, THE DELAYS SHALL NOT BE CONSIDERED EXCUSABLE OR COMPENSABLE. ATTENDANCE AT DEPARTMENT ORDERED TRAFFIC COORDINATION MEETINGS BETWEEN ADJACENT PROJECTS SHALL BE CONSIDERED MANDATORY FOR EACH PROJECT’S SUPERINTENDENT AND INCIDENTAL TO THE LUMP SUM MAINTENANCE OF TRAFFIC PAYMENT ITEM.

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 50 M. GAL.

DRUM REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, WILL NOT BE ACCEPTED. PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS

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

HOLIDAYS	
NEW YEAR'S (OBSERVED)	GENERAL/REGULAR ELECTION DAY (NOV)
MEMORIAL DAY	THANKSGIVING
FOURTH OF JULY (OBSERVED)	CHRISTMAS (OBSERVED)
LABOR DAY	

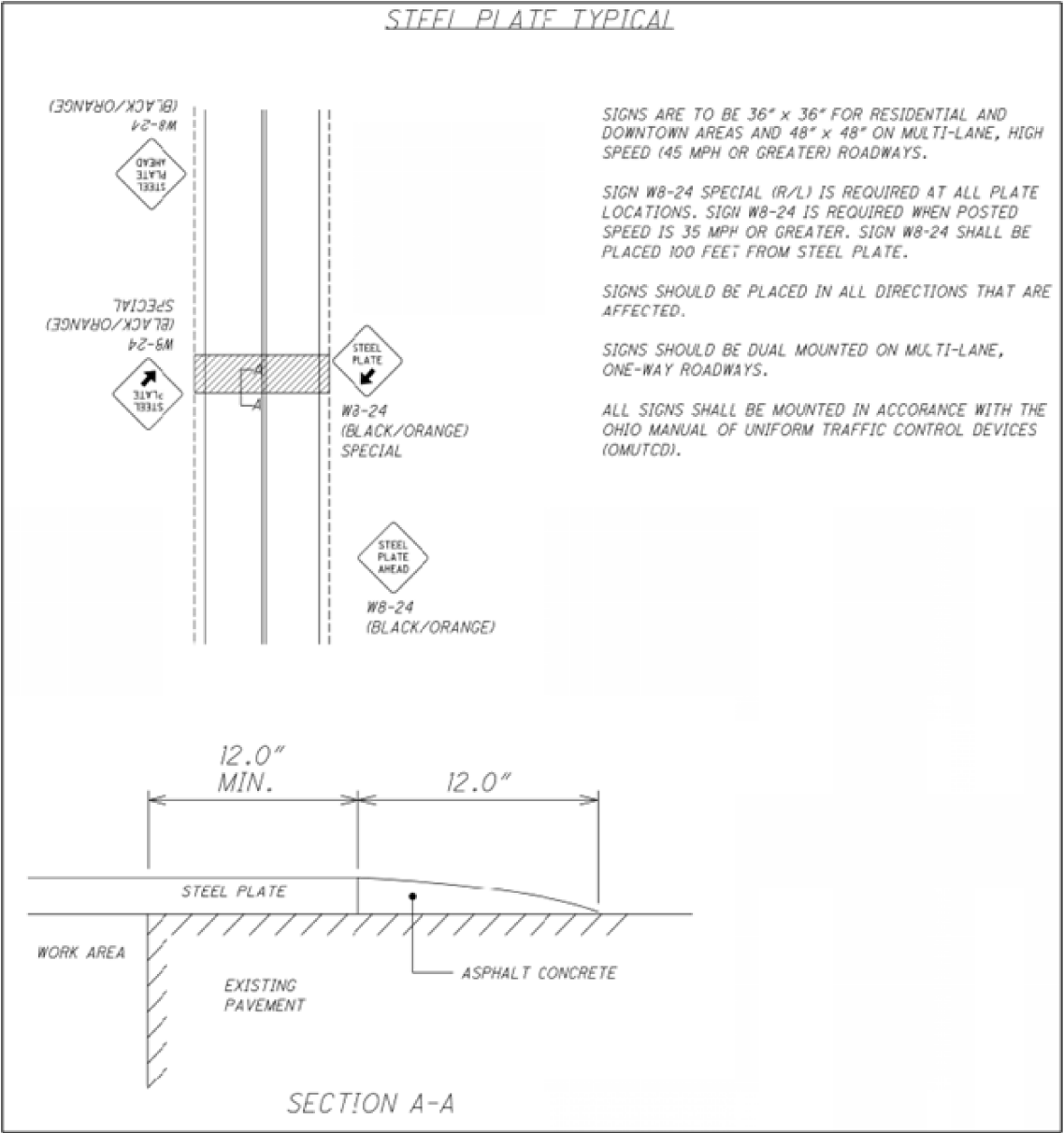
THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR SPECIAL EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00 NOON MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY (GEN./ REG. ELECTION)	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00 NOON TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00 NOON 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

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION. NEWLY CONSTRUCTED LANE ADDITIONS, ONCE COMPLETED AND INITIALLY OPENED TO TRAFFIC, SHALL BE OPEN TO TRAFFIC DURING ALL SUBSEQUENT DESIGNATED HOLIDAYS AND SPECIAL EVENTS, AND RELATED PERIODS OF TIME, SPECIFIED ABOVE. SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$100 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

OVERNIGHT TRENCH CLOSING

ANY OVERNIGHT TRENCH SHALL BE COMPLETELY BACKFILLED TO ADJACENT PAVEMENT SURFACE GRADE BY THE END OF EACH WORK DAY OR SHALL BE SECURELY PLATED OVER. THIS REQUIREMENT MAY BE MET BY TEMPORARILY PLACING SUB-BASE AND BASE MATERIAL TO MATCH THE EXISTING GRADE ADJACENT TO THE TRAVELED LANE. WHEN STEEL PLATES ARE USED THEY SHALL FOLLOW THE DIAGRAM BELOW:



THE ASPHALT CONCRETE USED SHALL BE AT THE APPROVAL OF THE PROJECT ENGINEER/MANAGER.

THE USAGE OF STEEL PLATES FOR OVERNIGHT TRENCH CLOSING IS PROHIBITED ON ROADWAYS WITH POSTED SPEEDS OF 55 MPH OR GREATER. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED OR SECURELY PLATED AT THE DIRECTION OF THE ENGINEER.

DROPOFFS IN WORK ZONES:

THE DROPOFF ADJACENT TO THE TRAVELED LANE SHALL MEET THE CRITERIA OUTLINED IN STANDARD DRAWING MT-101.90. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR MATERIALS, LABOR OR EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS OF MT-101.90

SHORT DURATION RAMP CLOSURES:

FOR THE PURPOSE OF PERFORMING THE REQUIRED RAMP WORK AND WITH PRIOR APPROVAL FROM THE ENGINEER, RAMP B AT US 23 MAY BE CLOSED AND DETOURED DURING THE HOURS LISTED IN THE RAMP CLOSURE RESTRICTION TABLE AND ARE SUBJECT TO DISINCENTIVE.

FOR ALL RAMP CLOSURES, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

1. A MINIMUM OF TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) PLACED, AS DIRECTED BY THE ENGINEER, TO WARN DRIVERS OF THE CLOSURE AND TO PROVIDE THE DESIGNATED DETOUR ROUTE.
2. POSITIVE GUIDANCE ALONG THE DETOUR ROUTE WITH DETOUR SIGNS (M4-9 SERIES) IN ACCORDANCE WITH THE DETOUR SIGNS NOTE.

WHEN CLOSING ENTRANCE RAMPS, CORRESPONDING LEAD-IN LANES AND TURN LANES SHALL ALSO BE CLOSED.

IF A DESIGNATED DETOUR ROUTE IS NOT PROVIDED IN THE PLANS, TRAFFIC SHALL BE DIRECTED TO THE NEXT INTERCHANGE, IF AVAILABLE, TO TURN AROUND. IF THE USE OF THE NEXT INTERCHANGE IS NOT POSSIBLE, AN ALTERNATIVE DETOUR ROUTE SHALL BE PROVIDED BY THE ENGINEER.

FOR CLOSURE PERIODS LESS THAN 72 HOURS, DETOUR SIGNS MAY BE PLACED ON TEMPORARY SIGN SUPPORTS IN ACCORDANCE WITH MT-105.10.

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 IMPACT ATTENUATOR	9 EACH
ITEM 614 - WORK ZONE LANE LINE, CLASS I, 642 PAINT	0.24 MILES
ITEM 614 - WORK ZONE CENTER LINE, CLASS I, 642 PAINT	0.10 MILES
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 642 PAINT	0.47 MILES
ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	440 FT
ITEM 614 - WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	188 FT
ITEM 622 - PORTABLE BARRIER, 32"	3234 FT
ITEM 630 - GROUND MOUNTED SUPPORT, NO. 3 POST	336 FT
ITEM 630 - SIGN, FLAT SHEET	556.25 SF
ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	48 EACH
ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	48 EACH

RAMP CLOSURE RESTRICTIONS - US 23 RAMPS

Ramp Closure Restrictions US Route 23 in Marion County					
Secondary Route: State Route 95 SLM along 23:					
Ramp Designation	Movement	No Closures Allowed		Detour Routes	
		Mon-Fri	Sat-Sun	Primary Detour Route	Secondary Detour Route
A	SR-95 to US-23 NB	5AM-7PM	No Restriction	SR-95 to US-23 S (Ramp C) to SR-98 (Ramp A) to US-23 N (Ramp B)	SR-95 E to SR-98 N to SR-309 W to US-23 N (Ramp A)
B	US-23 NB to SR-95	5AM-7PM	No Restriction	US-23 N to SR-309 (Ramp B) to US-23 S (Ramp D) to SR-95 (Ramp C)	US-23 N to Marion-Williamsport Rd (Ramp C) to US-23 S (Ramp A) to SR-95
C	US-23 SB to SR-95	5AM-7PM	No Restriction	US-23 S to SR-98 (Ramp A) to US-23 N (Ramp B) to SR-95 (Ramp B)	US-23 S to SR-98 N to SR-95
D	SR-95 to US-23 SB	5AM-7PM	No Restriction	US-23 N to SR-309 (Ramp B) to US-23 S (Ramp B)	SR-95 E to SR-98 S to US-23 S (Ramp D)

DESIGN AGENCY

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DESIGNER

WES

REVIEWER

JES 03/24/25

PROJECT ID

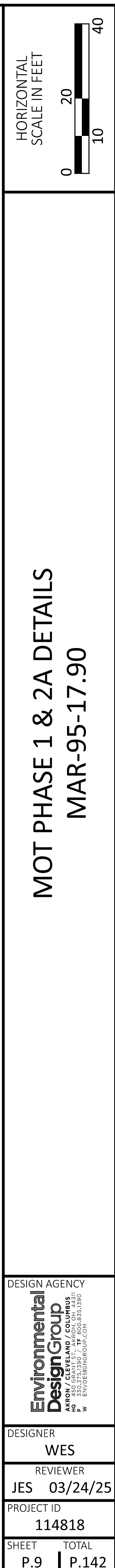
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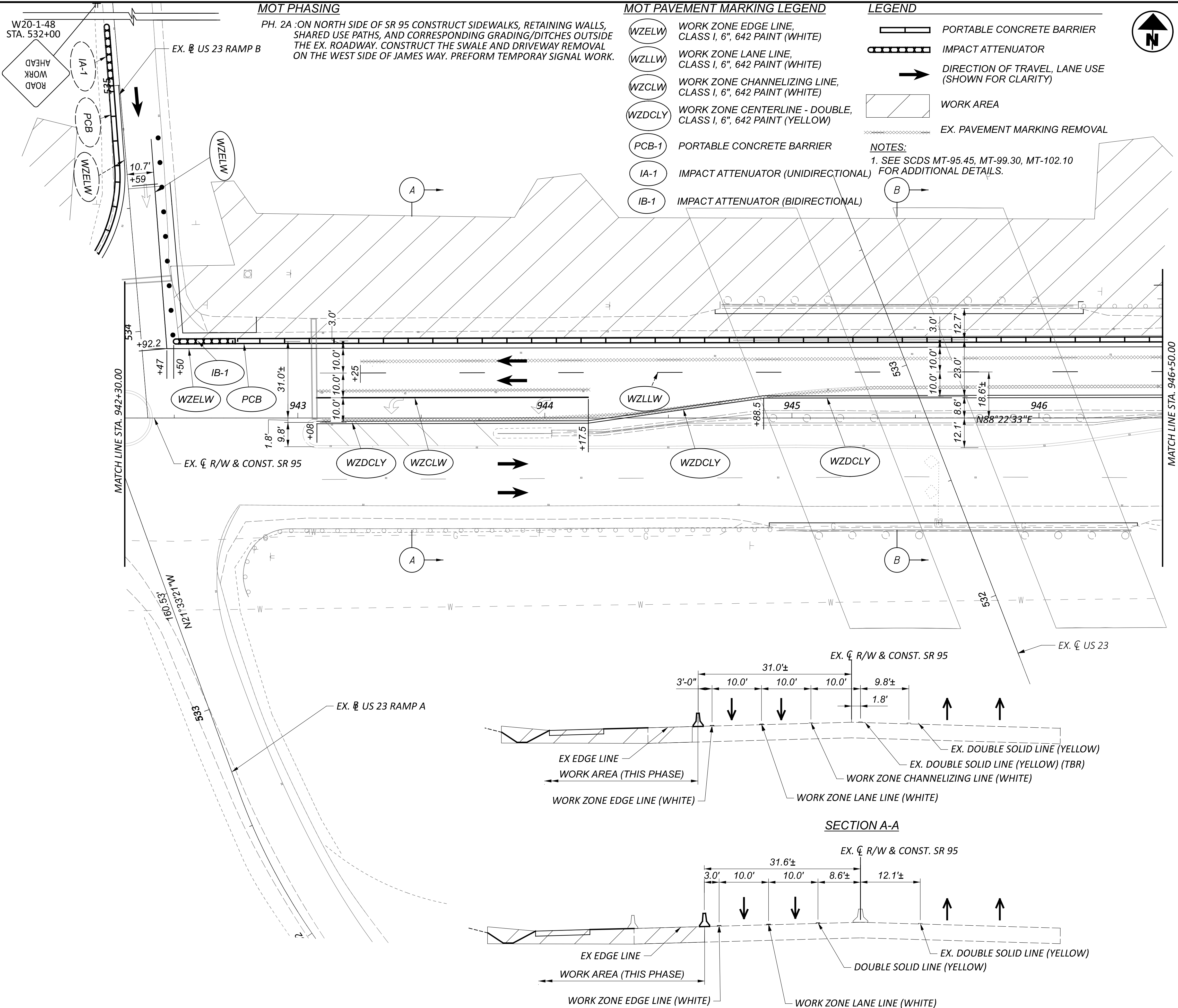
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P.8

TOTAL

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MODEL: 114818_GP003 PAPERSIZE: 34x22 (in.) DATE: 7/2/2025 TIME: 8:27:33 AM USER: bshepherd
E:\ODOT\21-00473-010 MAR-95-17.90\114818\400-Engineering\MOT\Sheets\114818_MP012.dgn

PH. 2A :ON NORTH SIDE OF SR 95 CONSTRUCT SIDEWALKS, RETAINING WALL, SHARED USE PATHS, AND CORRESPONDING GRADING/DITCHES OUTSIDE THE EX. ROADWAY. CONSTRUCT THE SWALE AND DRIVEWAY REMOVAL ON THE WEST SIDE OF JAMES WAY. PREFORM TEMPORARY SIGNAL WORK.

EX. 4 US 23 RAMP D

SHARE THE ROAD

W11-1-36
W16-1P-36

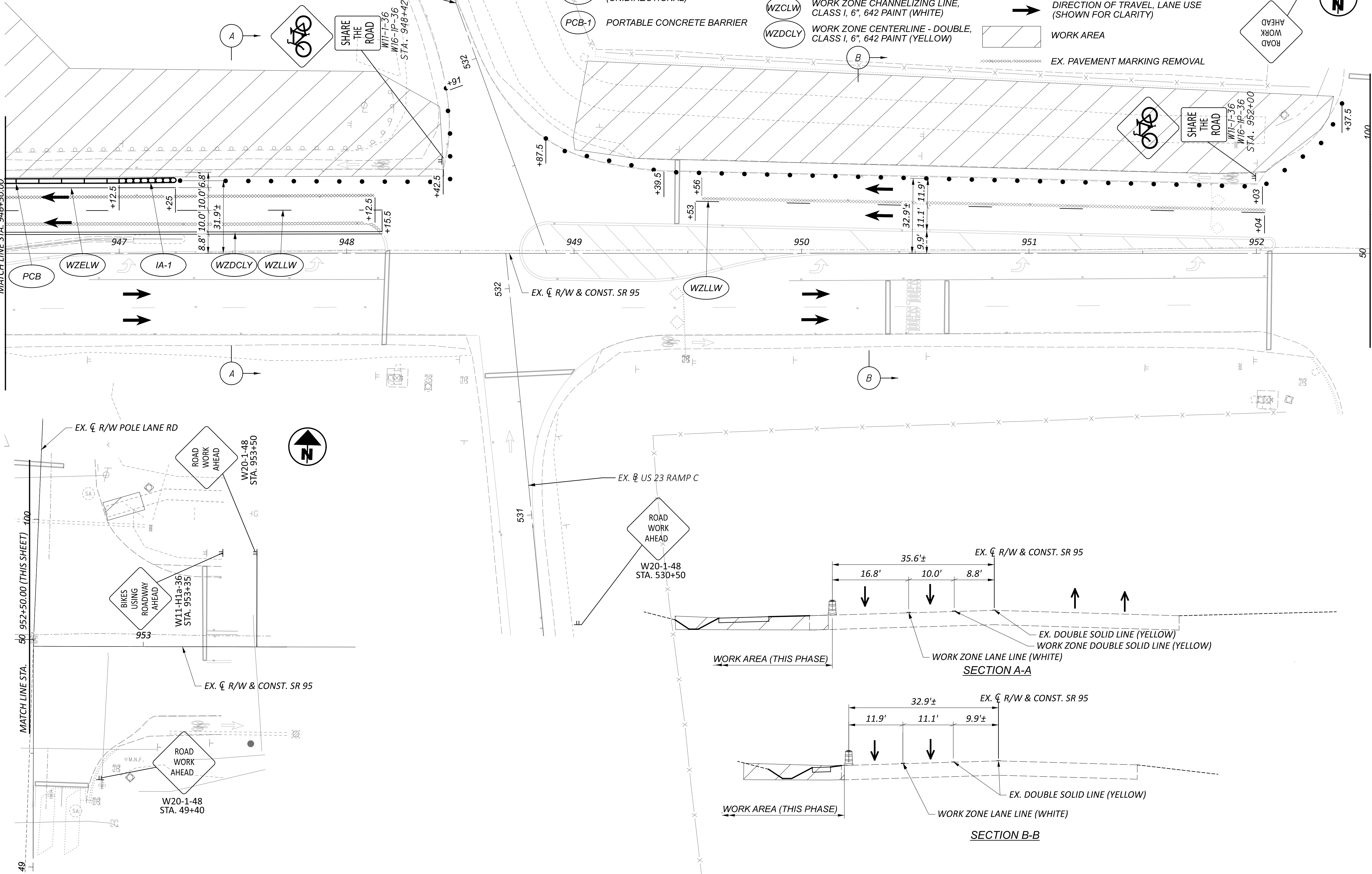
NOTES:
1. SEE SCDS MT-95.45, MT-99.30, MT-102.10 & MT-102.20 FOR ADDITIONAL DETAILS.

IA-1 IMPACT ATTENUATOR
(UNIDIRECTIONAL)

PCB-1 PORTABLE CONCRETE BARRIER

	WORK ZONE EDGE LINE, CLASS 1, 6", 642 PAINT (WHITE)
	WORK ZONE LANE LINE, CLASS 1, 6", 642 PAINT (WHITE)
	WORK ZONE CHANNELIZING LINE, CLASS 1, 6", 642 PAINT (WHITE)
	WORK ZONE CENTERLINE - DOUBLE, CLASS 1, 6", 642 PAINT (YELLOW)

	PORTABLE CONCRETE BARRIER
	IMPACT ATTENUATOR
	DRUMS SPACED AT 10' CENTER/CENTER
	DIRECTION OF TRAVEL, LANE USE (SHOWN FOR CLARITY)
	WORK AREA
	EX. PAVEMENT MARKING REMOVAL



MATCH LINE STA. 952+50.00 (THIS SHEET)

MOT PHASE 2A DETAILS
MAR-95-17.90

DESIGN AGENCY

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330.375.1390 / TF 800.835.1390
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DESIGNER

WES

REVIEWER

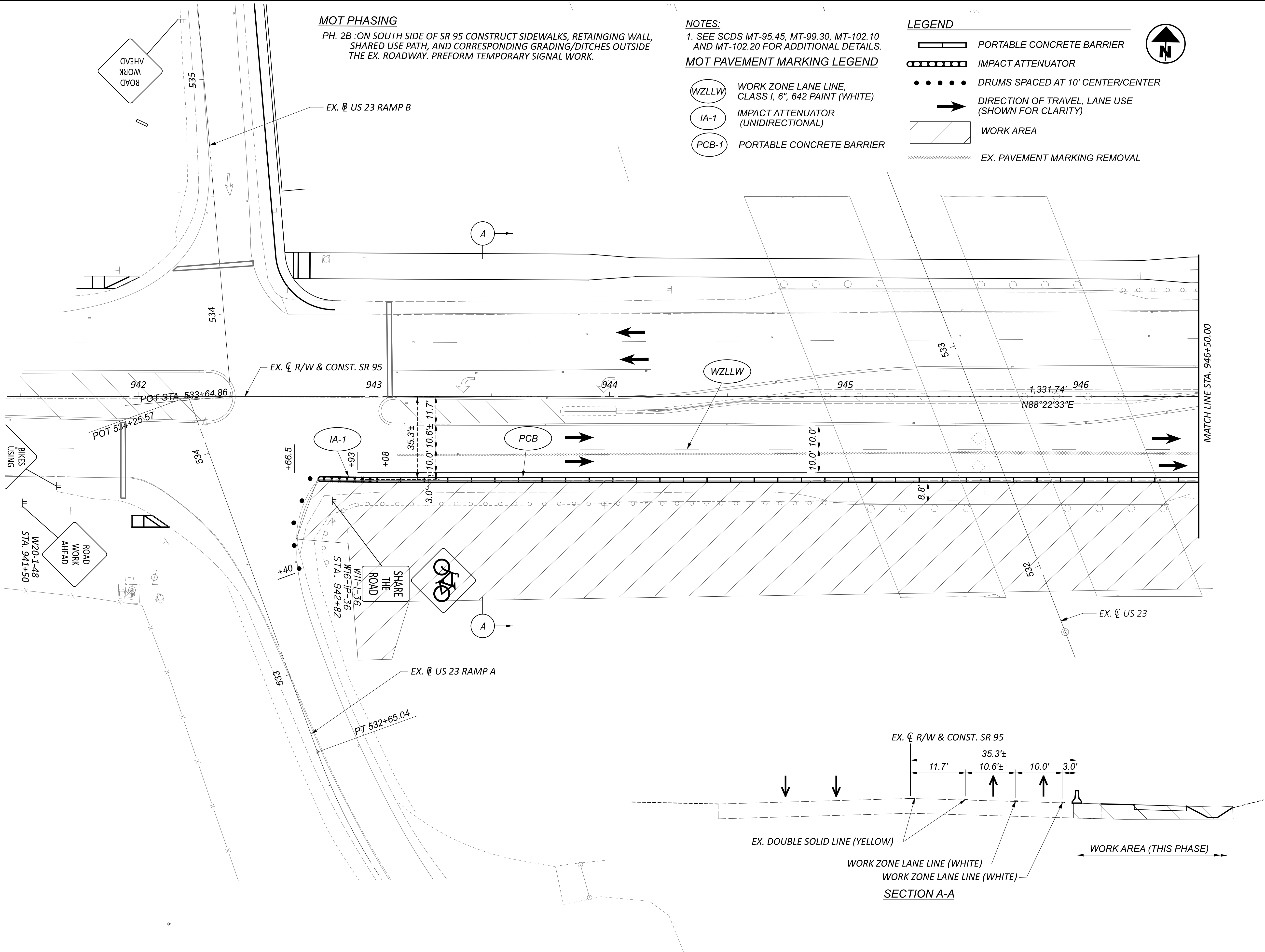
JES 03/24

PROJECT ID

114818

SHEET TOTAL

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MOT PHASING

PH. 2B :ON SOUTH SIDE OF SR 95 CONSTRUCT SIDEWALKS, RETAINING WALL, SHARED USE PATH, AND CORRESPONDING GRADING/DITCHES OUTSIDE THE EX. ROADWAY. PREFORM TEMPORARY SIGNAL WORK.

NOTES:

1. SEE SCDS MT-95.45, MT-99.30, MT-102.10 AND MT-102.20 FOR ADDITIONAL DETAILS.

MOT PAVEMENT MARKING LEGEND

- (WZLLW) WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT (WHITE)
- (IA-1) IMPACT ATTENUATOR (UNIDIRECTIONAL)
- (PCB-1) PORTABLE CONCRETE BARRIER

LEGEND

- PORTABLE CONCRETE BARRIER
- IMPACT ATTENUATOR
- DRUMS SPACED AT 10' CENTER/CENTER
- DIRECTION OF TRAVEL, LANE USE (SHOWN FOR CLARITY)
- WORK AREA
- EX. PAVEMENT MARKING REMOVAL



EX. R/W & CONST. SR 95

EX. DOUBLE SOLID LINE (YELLOW)

WORK ZONE LANE LINE (WHITE)

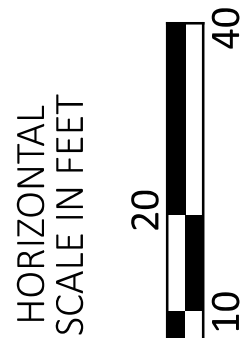
WORK ZONE LANE LINE (WHITE)

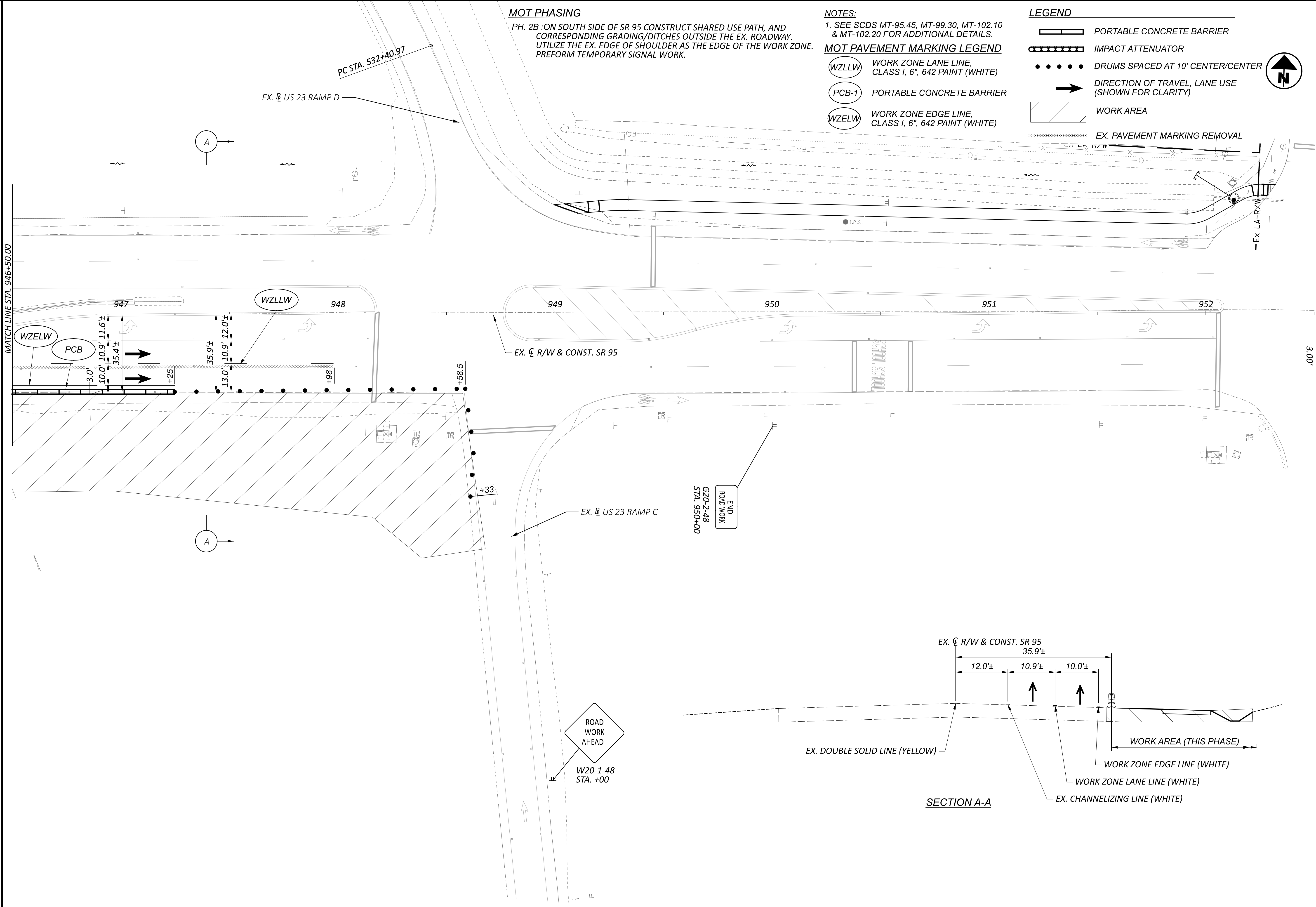
SECTION A-A

MOT PHASE 2B DETAILS
MAR-95-17.90

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DESIGNER
WES
REVIEWER
JES 03/24/25
PROJECT ID
114818
SHEET
P.12
TOTAL
P.142





MOT PHASING

PH. 2B :ON SOUTH SIDE OF SR 95 CONSTRUCT SHARED USE PATH, AND CORRESPONDING GRADING/DITCHES OUTSIDE THE EX. ROADWAY. UTILIZE THE EX. EDGE OF SHOULDER AS THE EDGE OF THE WORK ZONE. PREFORM TEMPORARY SIGNAL WORK.

NOTES:

1. SEE SCDS MT-95.45, MT-99.30, MT-102.10 & MT-102.20 FOR ADDITIONAL DETAILS.

MOT PAVEMENT MARKING LEGEND

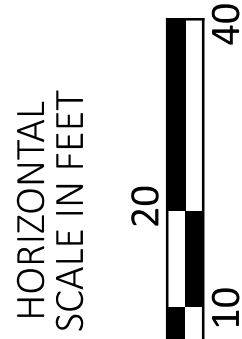
- (WZLLW) WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT (WHITE)
- (PCB-1) PORTABLE CONCRETE BARRIER
- (WZELW) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)

LEGEND

- PORTABLE CONCRETE BARRIER
- IMPACT ATTENUATOR
- DRUMS SPACED AT 10' CENTER/CENTER
- DIRECTION OF TRAVEL, LANE USE (SHOWN FOR CLARITY)
- WORK AREA
- EX. PAVEMENT MARKING REMOVAL



MOT PHASE 2B DETAILS
MAR-95-17.90



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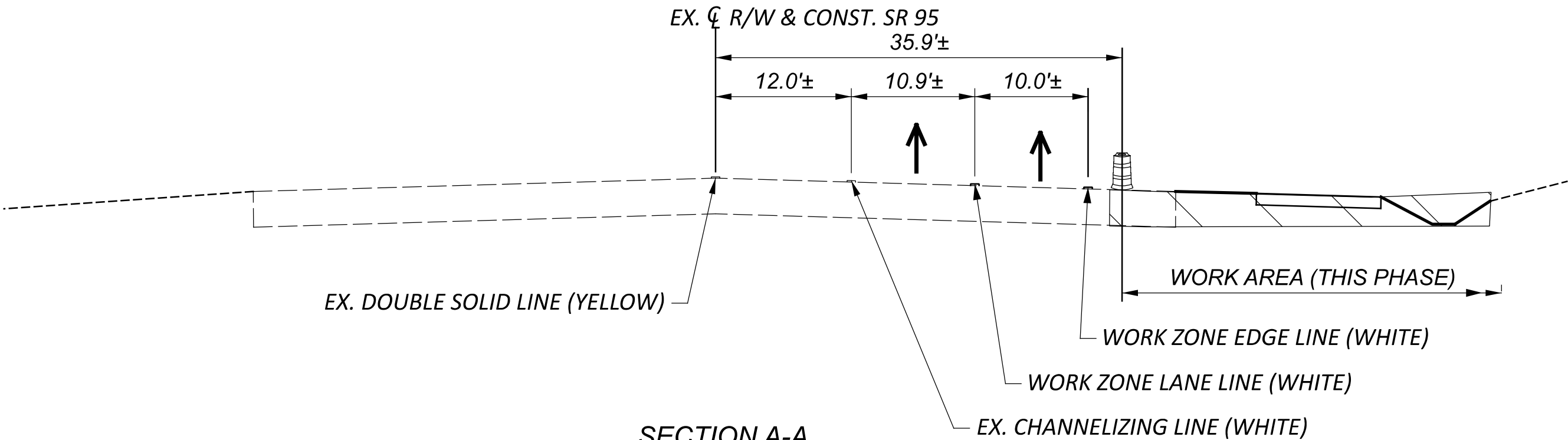
REVIEWER
JES

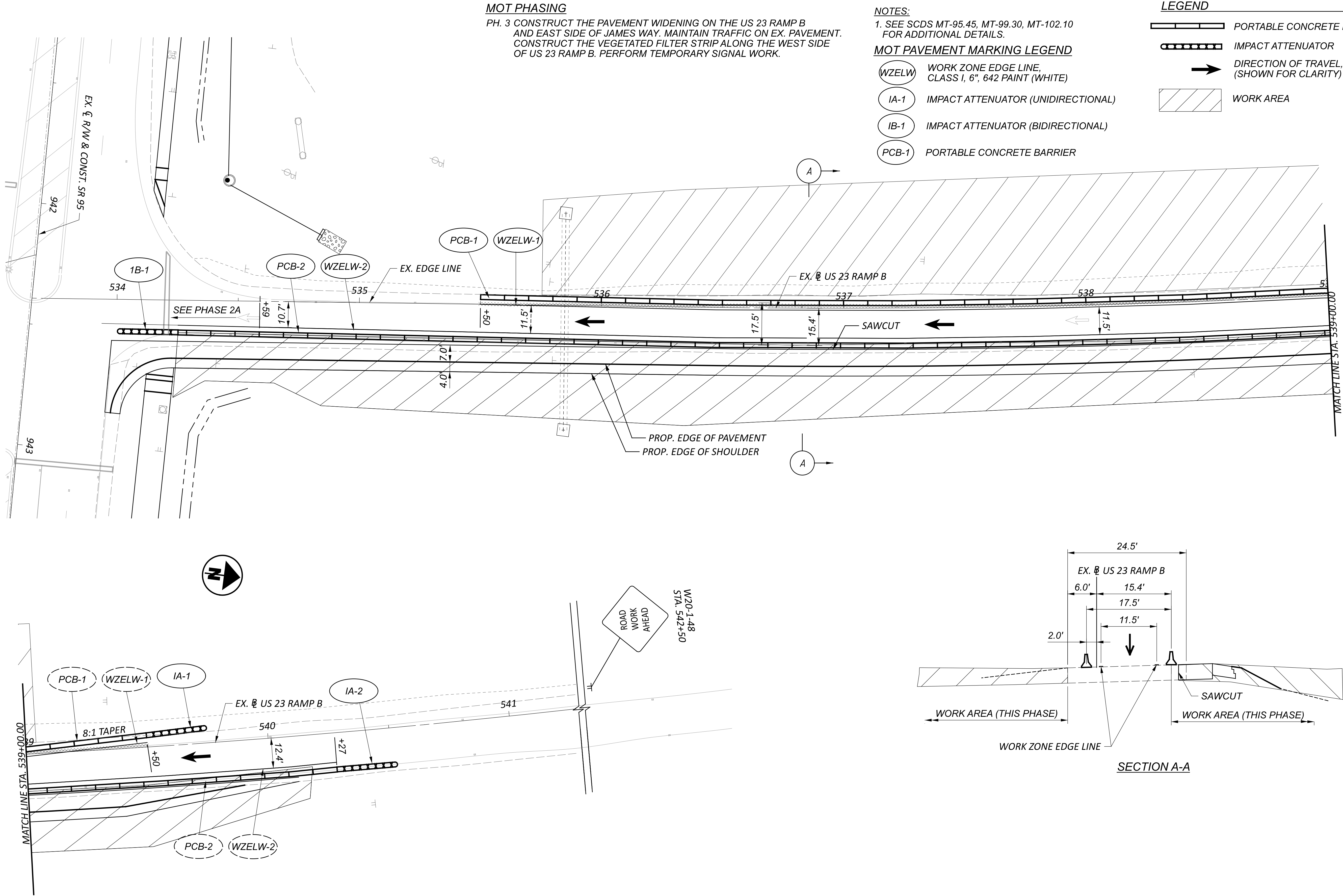
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114818

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TOTAL
P.142

SECTION A-A





MOT PHASING

PH. 3 CONSTRUCT THE PAVEMENT WIDENING ON THE US 23 RAMP B AND EAST SIDE OF JAMES WAY. MAINTAIN TRAFFIC ON EX. PAVEMENT. CONSTRUCT THE VEGETATED FILTER STRIP ALONG THE WEST SIDE OF US 23 RAMP B. PERFORM TEMPORARY SIGNAL WORK.

NOTES:

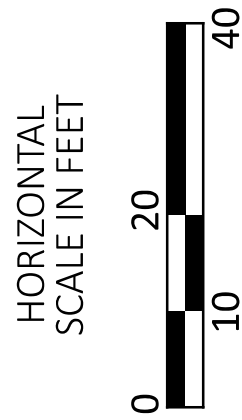
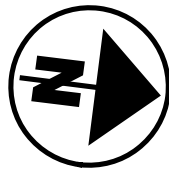
1. SEE SCDS MT-95.45, MT-99.30, MT-102.10 FOR ADDITIONAL DETAILS.

MOT PAVEMENT MARKING LEGEND

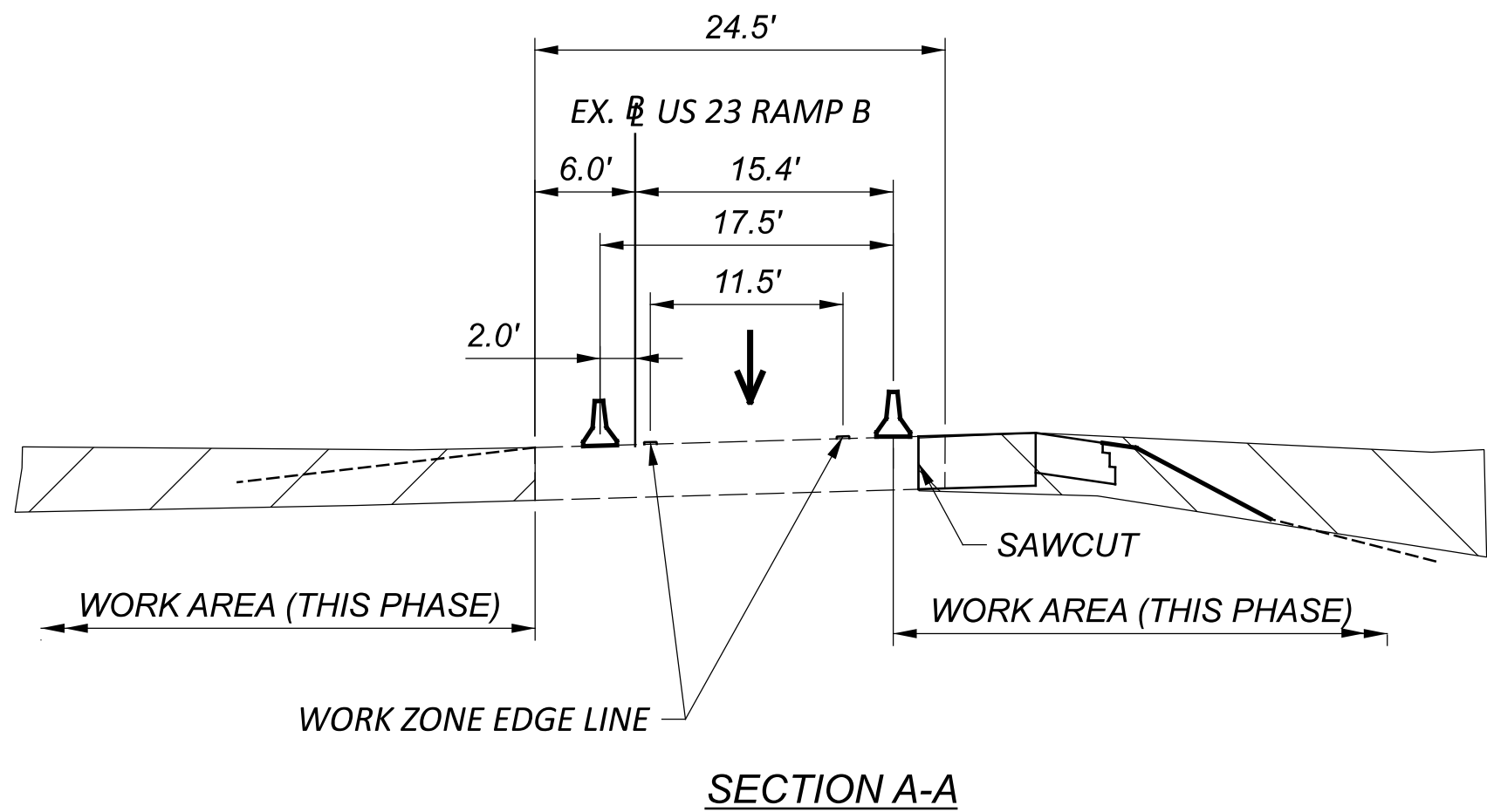
- WZELW WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)
- IA-1 IMPACT ATTENUATOR (UNIDIRECTIONAL)
- IB-1 IMPACT ATTENUATOR (BIDIRECTIONAL)
- PCB-1 PORTABLE CONCRETE BARRIER

LEGEND

- PORTABLE CONCRETE BARRIER
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL, LANE USE (SHOWN FOR CLARITY)
- WORK AREA



MOT PHASE 3 DETAILS
MAR-95-17.90



DESIGN AGENCY
Environmental Design Group
ARROW / CLEVELAND / COLUMBUS
2500 W. 12TH AVE., STE. 200
COLUMBUS, OH 43260-1199
TEL: 614.464.1200 FAX: 614.464.1201

DESIGNER
WES

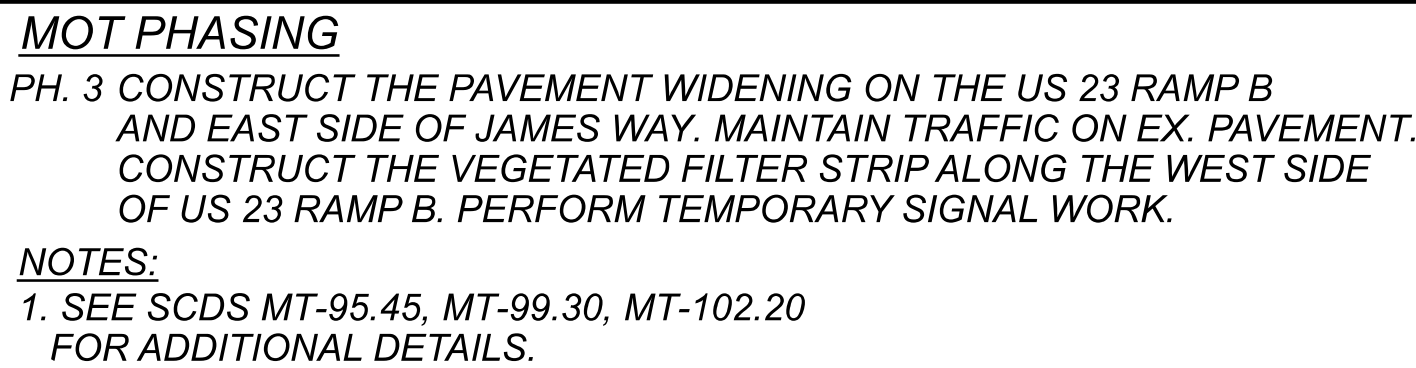
REVIEWER
JES

PROJECT ID
114818

SHEET
P.14

TOTAL
P.142

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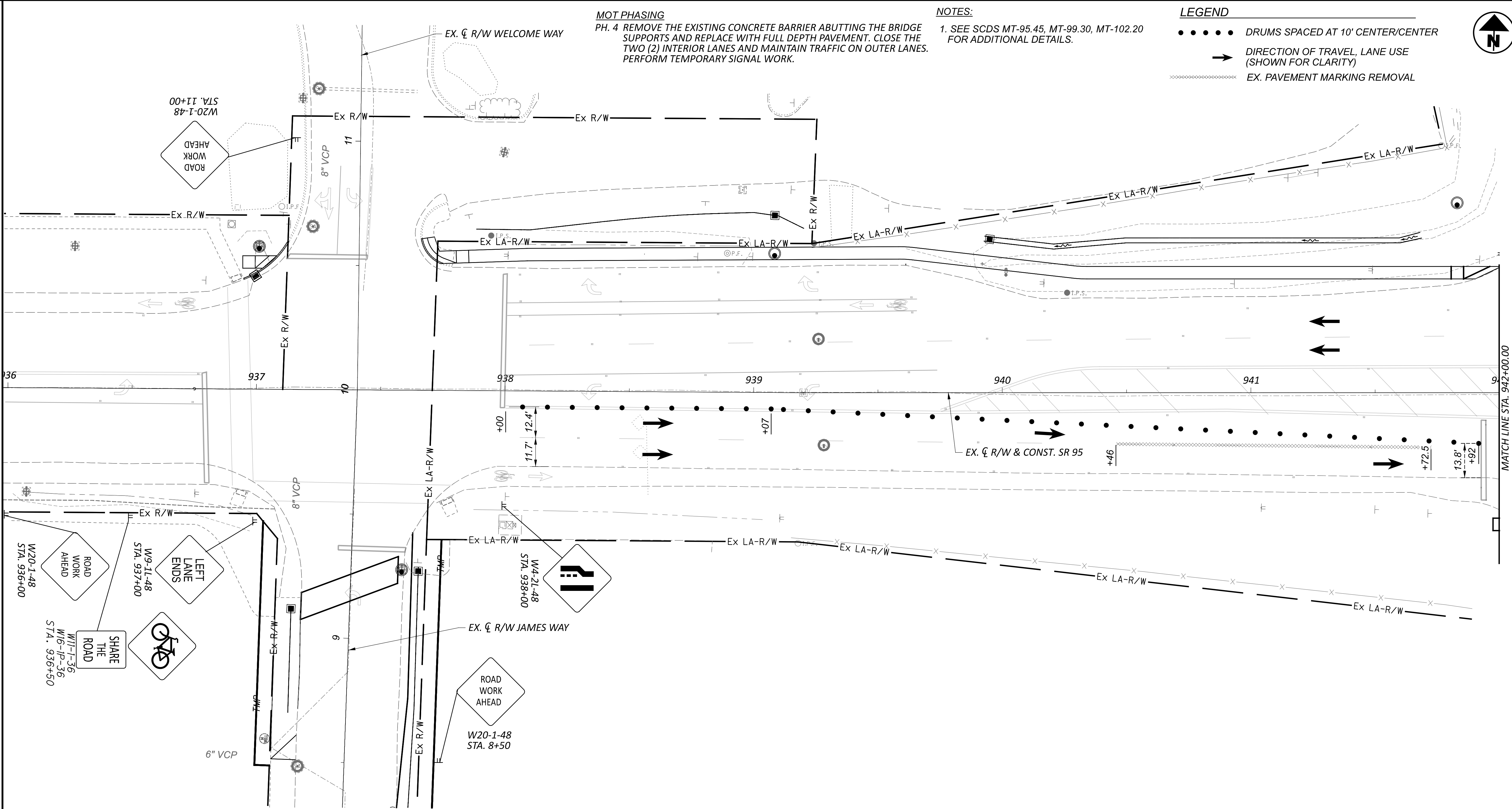
HORIZONTAL
SCALE IN FEET



10 20 40

DESIGN AGENCY
**Environmental
 Design Group**
 4000 W. 10TH AVENUE, SUITE 100
 DENVER, CO 80202
 PHONE: 303.733.1990
 WWW.ENVDESIGNGROUP.COM

DESIGNER **WES**
 REVIEWER
JES 03/24/25
 PROJECT ID
114818
 SHEET **P.15** TOTAL
P.142



MOT PHASING

PH. 4 REMOVE THE EXISTING CONCRETE BARRIER ABUTTING THE BRIDGE SUPPORTS AND REPLACE WITH FULL DEPTH PAVEMENT. CLOSE THE TWO (2) INTERIOR LANES AND MAINTAIN TRAFFIC ON OUTER LANES. PERFORM TEMPORARY SIGNAL WORK.

NOTES:

1. SEE SCDS MT-95.45, MT-99.30, MT-102.20 FOR ADDITIONAL DETAILS.

LEGEND

- • • • • DRUMS SPACED AT 10' CENTER/CENTER
- ➔ DIRECTION OF TRAVEL, LANE USE (SHOWN FOR CLARITY)
- EX. PAVEMENT MARKING REMOVAL



MOT PHASE 4 DETAILS
MAR-95-17.90

DESIGN AGENCY
Environmental Design Group
ARROW / CLEVELAND / COLUMBUS
2500 CENTENNIAL BLVD., SUITE 200
COLUMBUS, OH 43260-1199

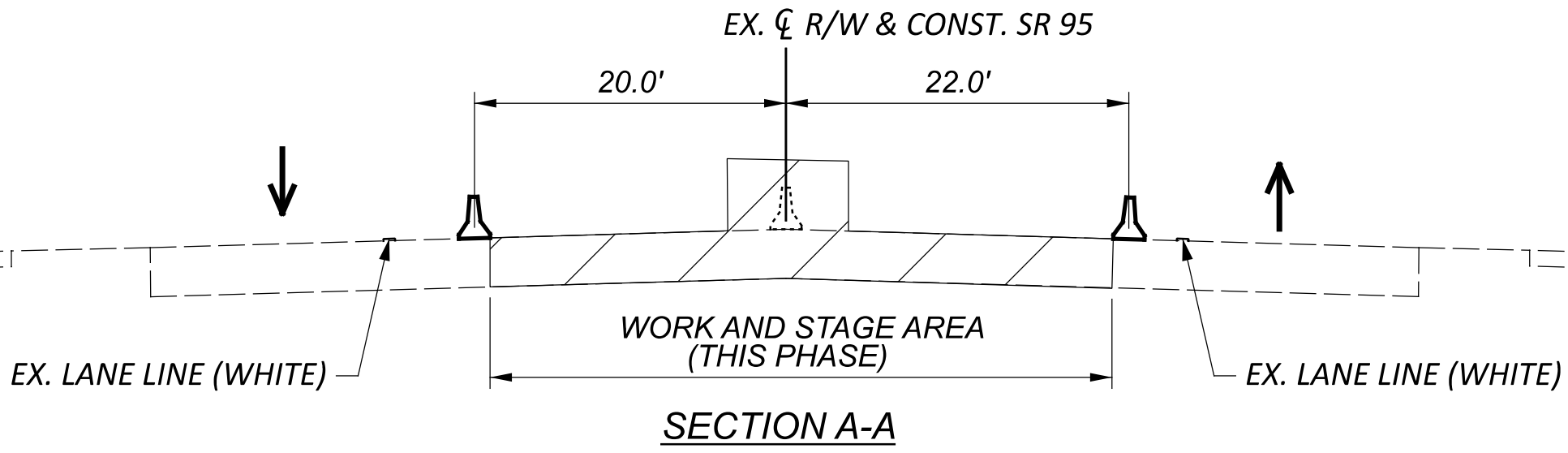
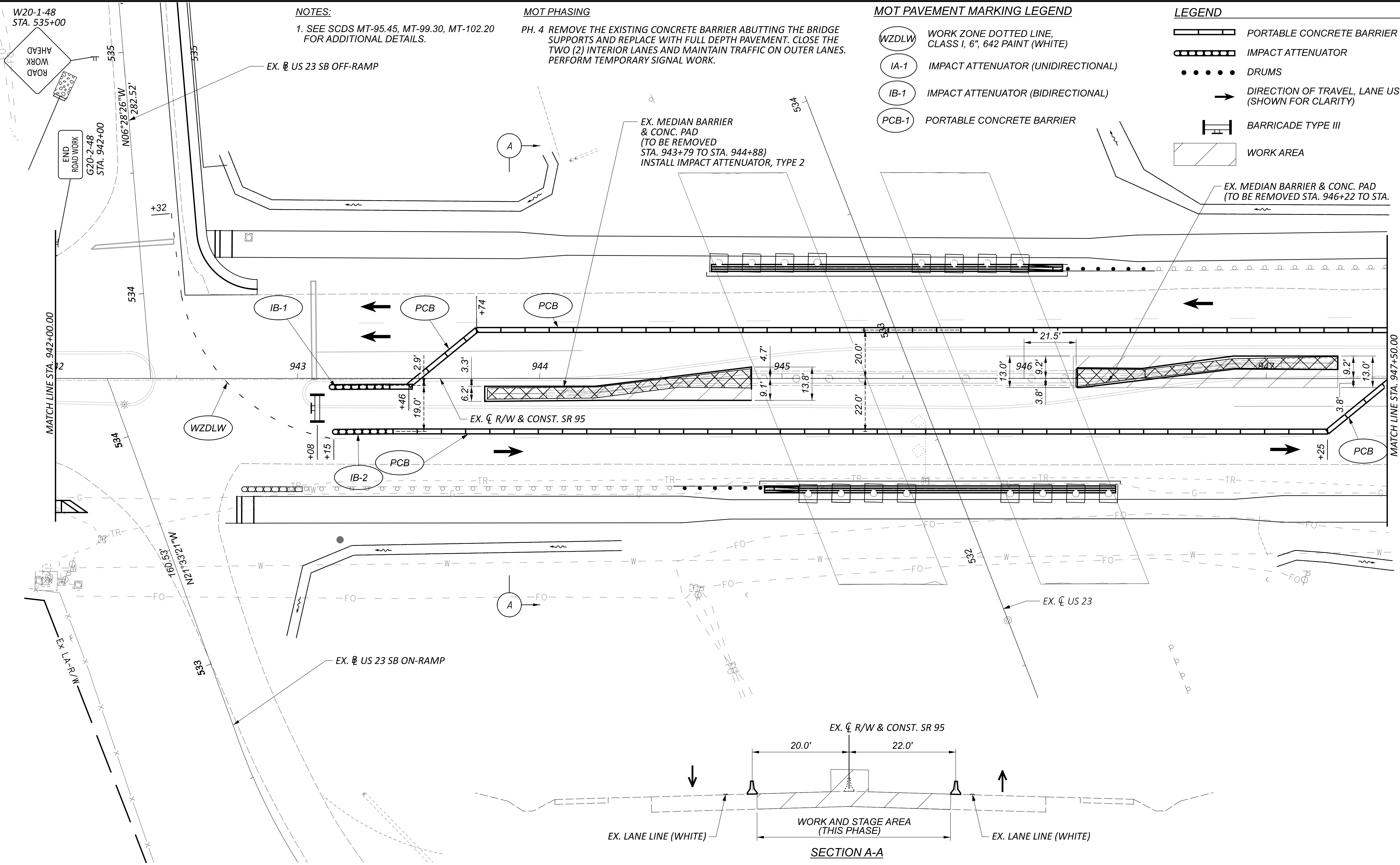
DESIGNER
WES

REVIEWER
JES

PROJECT ID
03/24/25

SHEET
114818

TOTAL
P.16



NOTES:
1. SEE SCDS MT-95.45, MT-99.30, MT-102.20 FOR ADDITIONAL DETAILS.

MOT PHASING
PH. 4 REMOVE THE EXISTING CONCRETE BARRIER ABUTTING THE BRIDGE SUPPORTS AND REPLACE WITH FULL DEPTH PAVEMENT. CLOSE THE TWO (2) INTERIOR LANES AND MAINTAIN TRAFFIC ON OUTER LANES. PERFORM TEMPORARY SIGNAL WORK.

MOT PAVEMENT MARKING LEGEND

- WZDLW WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT (WHITE)
- IA-1 IMPACT ATTENUATOR (UNIDIRECTIONAL)
- IB-1 IMPACT ATTENUATOR (BIDIRECTIONAL)
- PCB-1 PORTABLE CONCRETE BARRIER

LEGEND

- PORTABLE CONCRETE BARRIER
- IMPACT ATTENUATOR
- DRUMS
- DIRECTION OF TRAVEL, LANE USE (SHOWN FOR CLARITY)
- BARRICADE TYPE III
- WORK AREA



MOT PHASE 4 DETAILS
MAR-95-17.90

DESIGN AGENCY
Environmental Design Group
ARROW / CLEVELAND / COLUMBUS
2500 WESTERN AVE., STE. 200
COLUMBUS, OH 43260-1199

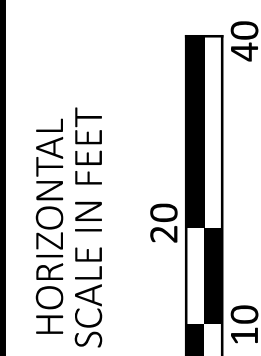
DESIGNER
WES
REVIEWER
JES 03/24/25
PROJECT ID
114818
SHEET
P.17
TOTAL
P.142

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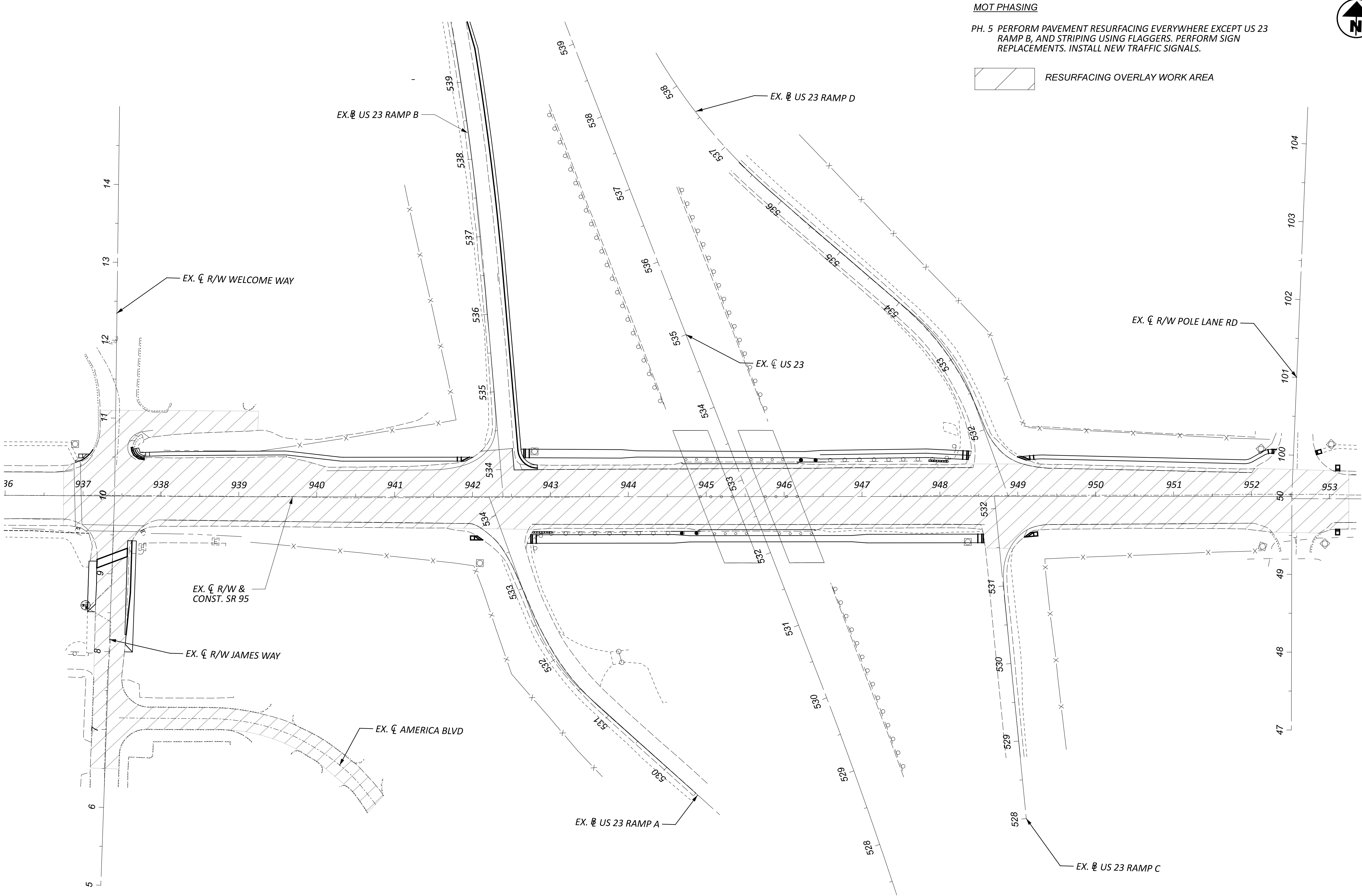
PH. 4 REMOVE THE EXISTING CONCRETE BARRIER ABUTTING THE BRIDGE SUPPORTS AND REPLACE WITH FULL DEPTH PAVEMENT. CLOSE THE TWO (2) INTERIOR LANES AND MAINTAIN TRAFFIC ON OUTER LANES PERFORM TEMPORARY SIGNAL WORK.

	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT (WHITE)
	WORK ZONE DOUBLE LINE, CLASS I, 6", 642 PAINT (WHITE)
	IMPACT ATTENUATOR (UNIDIRECTIONAL)
	IMPACT ATTENUATOR (BIDIRECTIONAL)
	PORTABLE CONCRETE BARRIER

	PORTABLE CONCRETE BARRIER
	IMPACT ATTENUATOR
	DRUMS
	DIRECTION OF TRAVEL, LANE USE (SHOWN FOR CLARITY)
	BARRICADE TYPE III
	EX. PAVEMENT MARKING REMOVAL

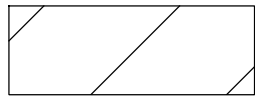


DESIGNER	
WES	
REVIEWER	
JES 03/24/25	
PROJECT ID	
114818	
SHEET	TOTAL
P.18	P.142

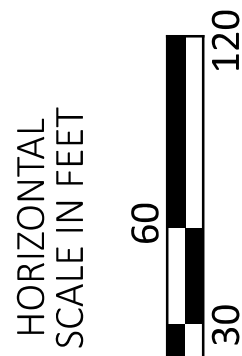


MOT PHASING

PH. 5 PERFORM PAVEMENT RESURFACING EVERYWHERE EXCEPT US 23 RAMP B, AND STRIPING USING FLAGGERS. PERFORM SIGN REPLACEMENTS. INSTALL NEW TRAFFIC SIGNALS.



RESURFACING OVERLAY WORK AREA



MOT PHASE 5
MAR-95-17.90

DESIGN AGENCY

**Environmental
DesignGroup**
AKRON / CLEVELAND / COLUMBUS
216.270.1356 / 1F 500.983.1350
E, R, S 216.270.1350 / 1F 500.983.1350

DESIGNER

WES

REVIEWER

JES 03/24/25

PROJECT ID

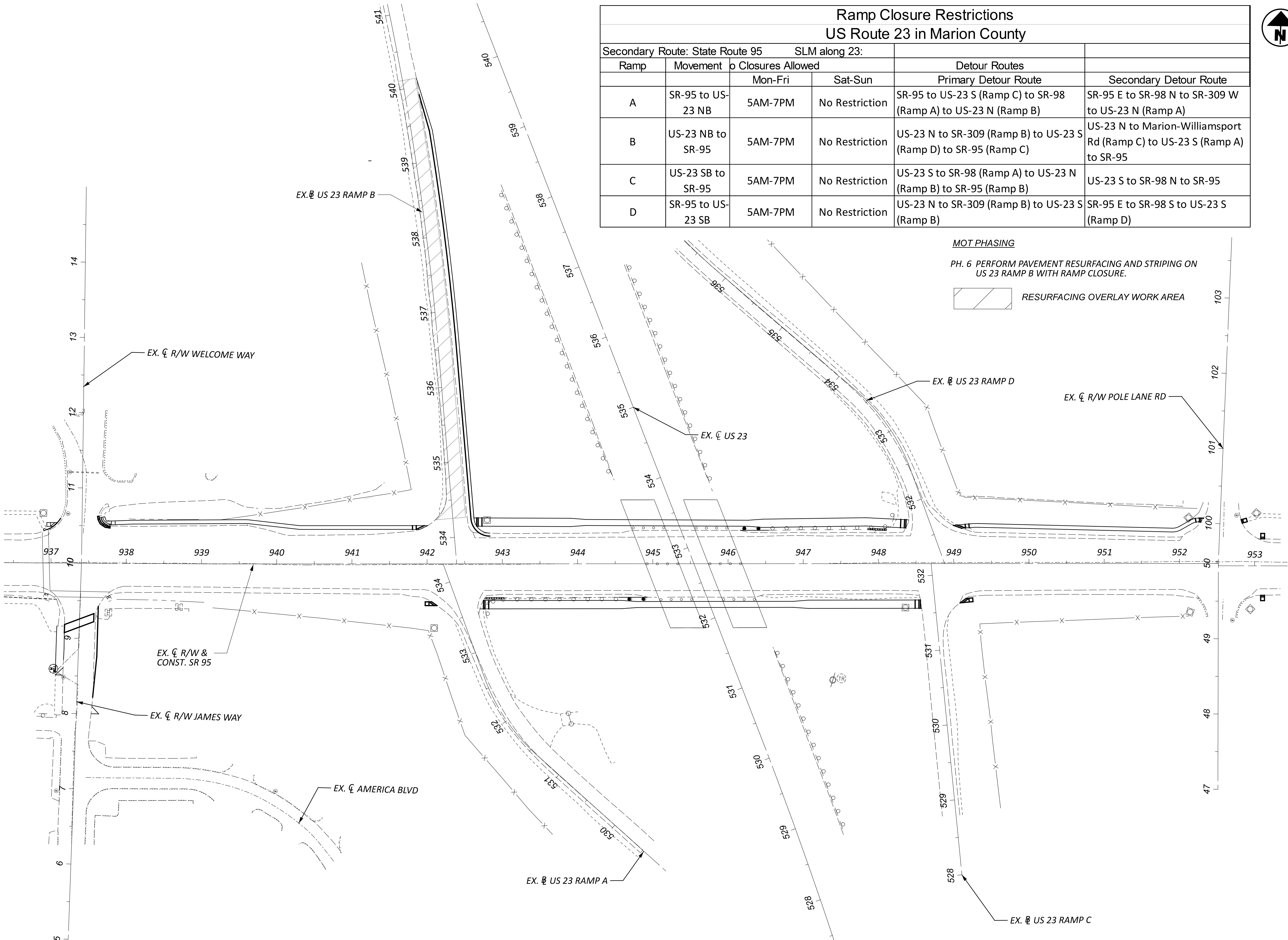
114818

SHEET

P.19

TOTAL

P.142

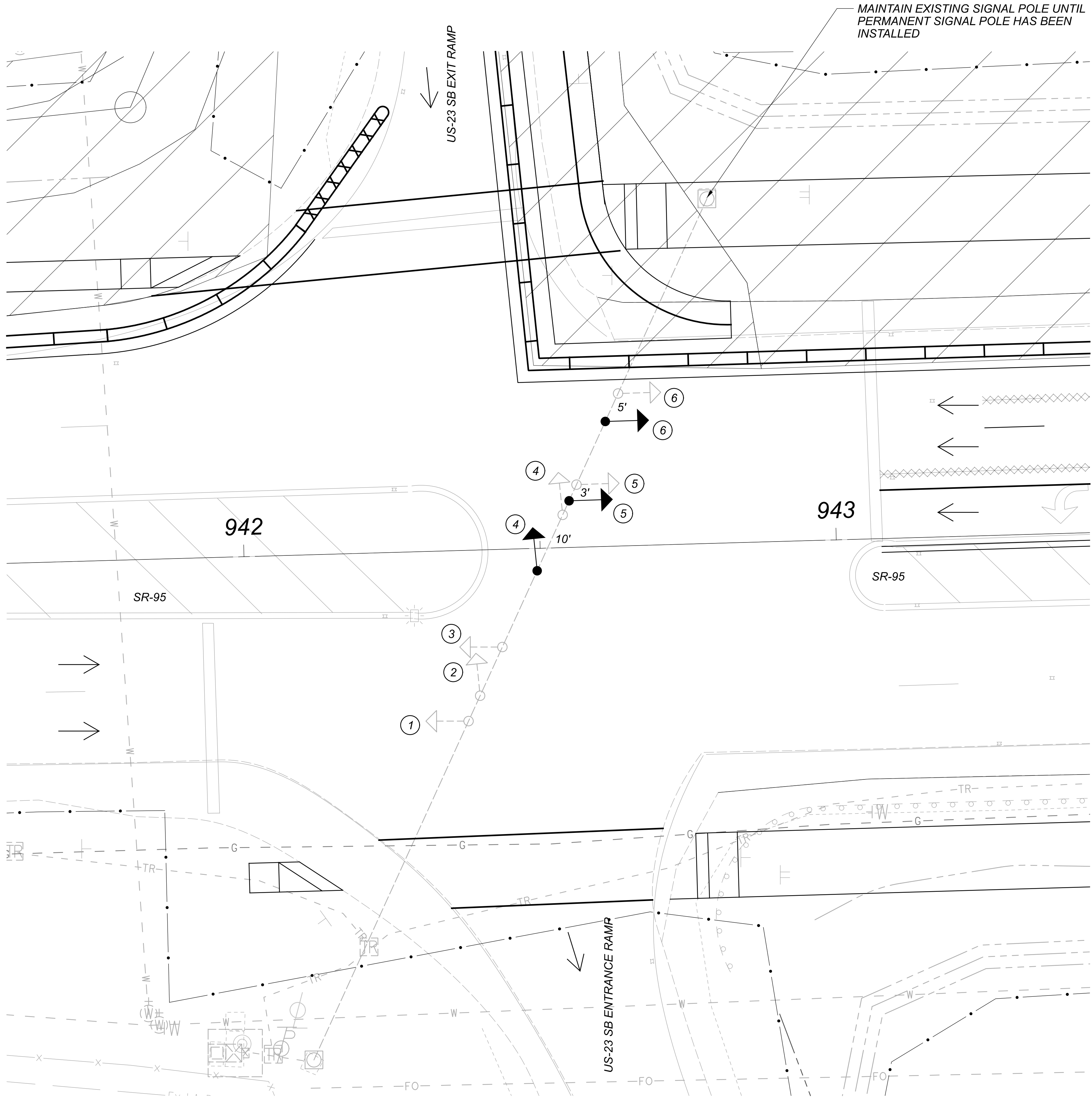


Ramp Closure Restrictions					
US Route 23 in Marion County					
Secondary Route: State Route 95		SLM along 23:			
Ramp	Movement	Closures Allowed		Detour Routes	
		Mon-Fri	Sat-Sun	Primary Detour Route	Secondary Detour Route
A	SR-95 to US-23 NB	5AM-7PM	No Restriction	SR-95 to US-23 S (Ramp C) to SR-98 (Ramp A) to US-23 N (Ramp B)	SR-95 E to SR-98 N to SR-309 W to US-23 N (Ramp A)
B	US-23 NB to SR-95	5AM-7PM	No Restriction	US-23 N to SR-309 (Ramp B) to US-23 S (Ramp D) to SR-95 (Ramp C)	US-23 N to Marion-Williamsport Rd (Ramp C) to US-23 S (Ramp A) to SR-95
C	US-23 SB to SR-95	5AM-7PM	No Restriction	US-23 S to SR-98 (Ramp A) to US-23 N (Ramp B) to SR-95 (Ramp B)	US-23 S to SR-98 N to SR-95
D	SR-95 to US-23 SB	5AM-7PM	No Restriction	US-23 N to SR-309 (Ramp B) to US-23 S (Ramp B)	SR-95 E to SR-98 S to US-23 S (Ramp D)

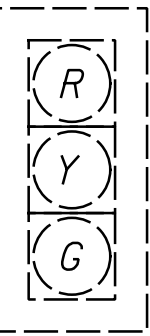
MOT PHASING

PH. 6 PERFORM PAVEMENT RESURFACING AND STRIPING ON US 23 RAMP B WITH RAMP CLOSURE.

RESURFACING OVERLAY WORK AREA

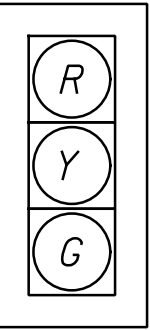


EXISTING SIGNAL HEADS



1, 2, 3,
4, 5, 6

RELOCATED SIGNAL HEADS

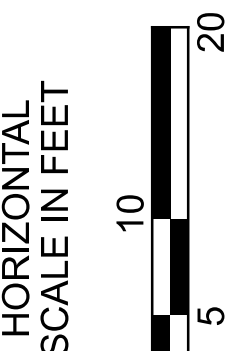


4, 5, 6

- NOTES:
1. CONTRACTOR TO ADJUST ADVANCE RADAR DETECTION ZONES AND STOP BAR DETECTION ZONES AS NEEDED TO MAINTAIN PROPER VEHICLE DETECTION.
2. EXISTING PHASING AND SIGNAL TIMINGS TO BE MAINTAINED.

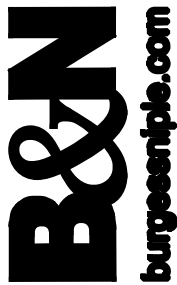
LEGEND

- WORK AREA
- EXISTING SIGNAL POLE
- EXISTING VEHICULAR SIGNAL HEAD
- RELOCATED VEHICULAR SIGNAL HEAD



TEMPORARY TRAFFIC SIGNAL PLAN - PHASE 2A
SR-95 & US-23 SOUTHBOUND RAMPS

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

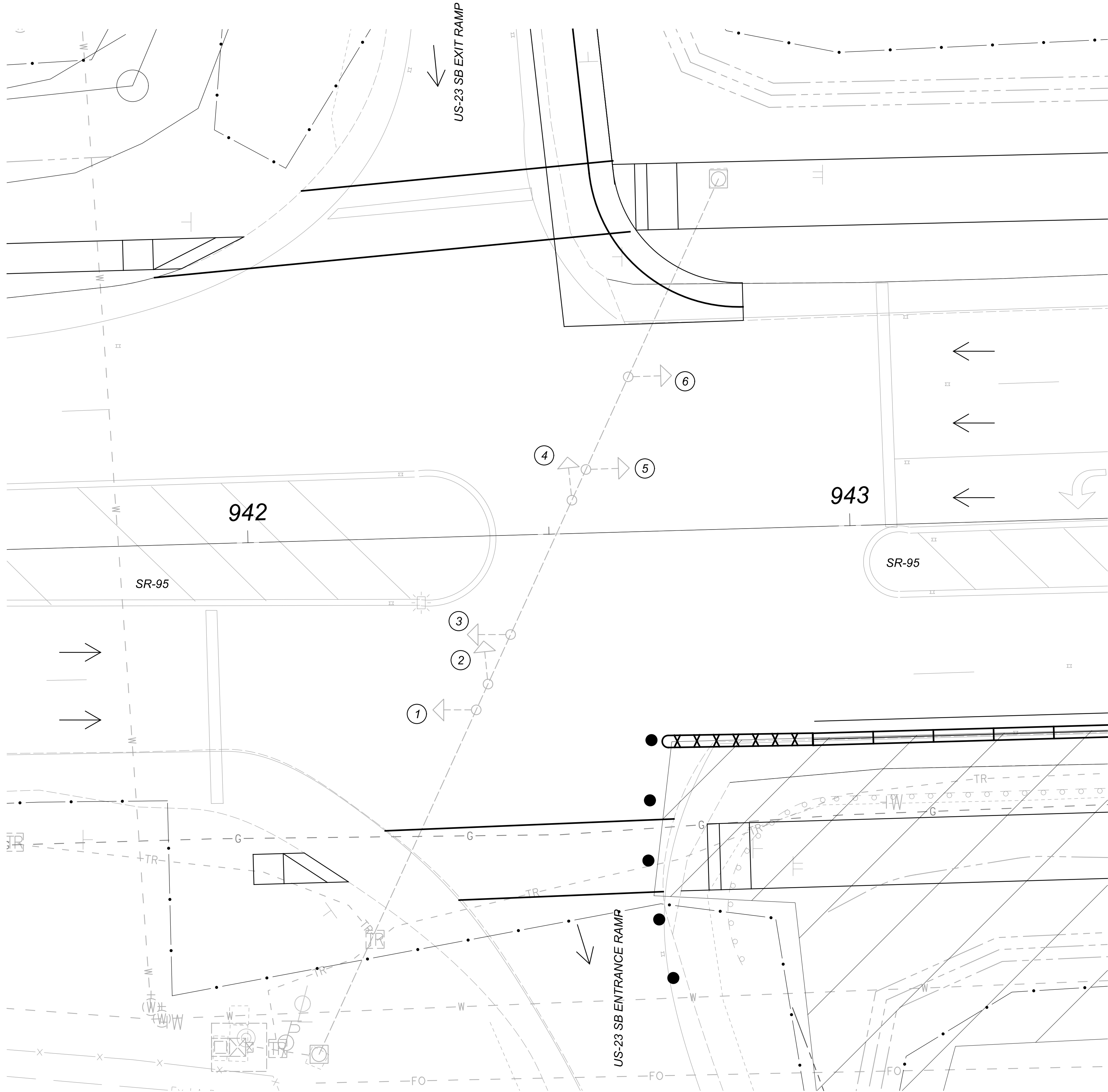
114818

SHEET

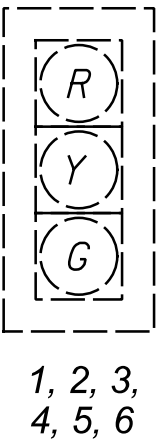
P.21

TOTAL

P.142



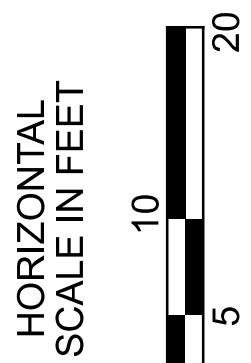
EXISTING SIGNAL HEADS



- NOTES:
1. CONTRACTOR TO ADJUST ADVANCE RADAR DETECTION ZONES AND STOP BAR DETECTION ZONES AS NEEDED TO MAINTAIN PROPER VEHICLE DETECTION.
 2. EXISTING PHASING AND SIGNAL TIMINGS TO BE MAINTAINED.

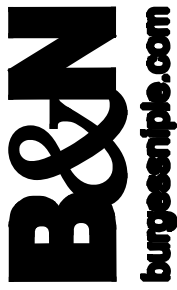
LEGEND

- WORK AREA
- EXISTING SIGNAL POLE
- EXISTING VEHICULAR SIGNAL HEAD
- RELOCATED VEHICULAR SIGNAL HEAD



TEMPORARY TRAFFIC SIGNAL PLAN - PHASE 2B
SR-95 & US-23 SOUTHBOUND RAMP

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

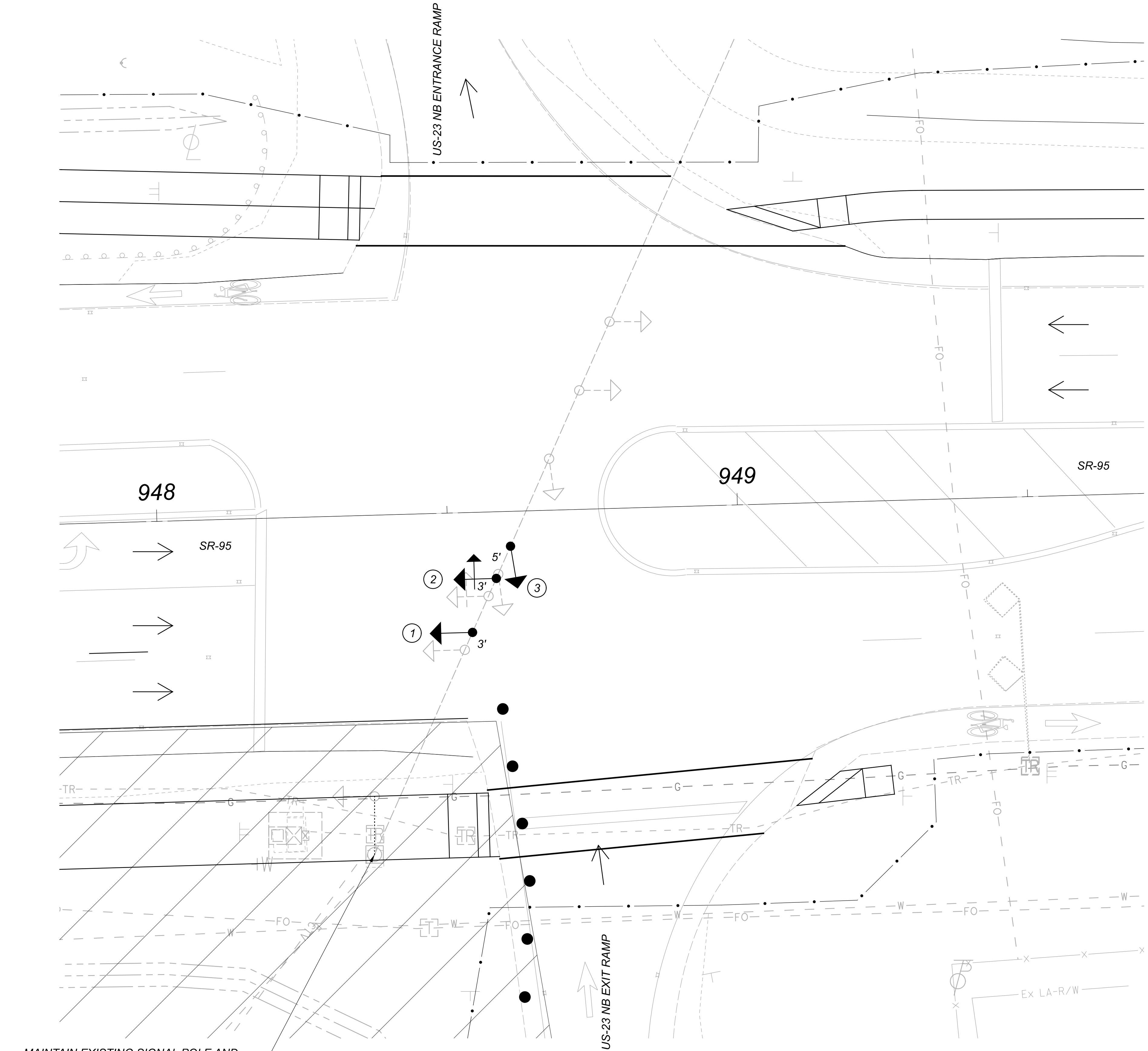
114818

SHEET

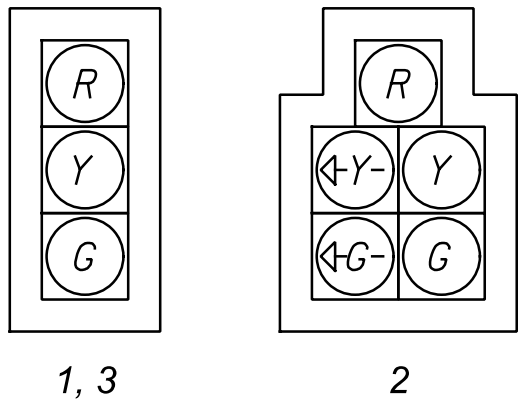
P.22

TOTAL

P.142



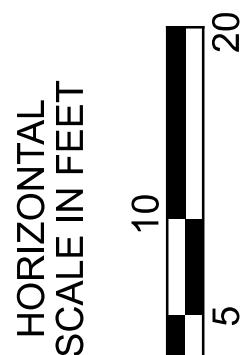
RELOCATED SIGNAL HEADS



NOTES:
1. CONTRACTOR TO ADJUST ADVANCE RADAR DETECTION ZONES AND STOP BAR DETECTION ZONES AS NEEDED TO MAINTAIN PROPER VEHICLE DETECTION.
2. EXISTING PHASING AND SIGNAL TIMINGS TO BE MAINTAINED.

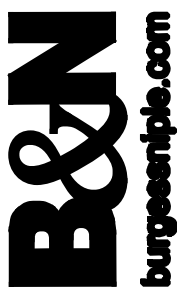
LEGEND

- WORK AREA
- EXISTING SIGNAL POLE
- EXISTING VEHICULAR SIGNAL HEAD
- RELOCATED VEHICULAR SIGNAL HEAD



TEMPORARY TRAFFIC SIGNAL PLAN - PHASE 2B
SR-95 & US-23 NORTHBOUND RAMP

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

114818

SHEET

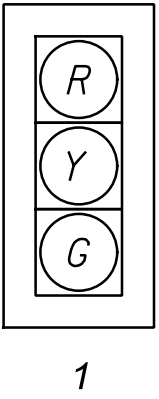
P.23

TOTAL

P.142



RELOCATED SIGNAL HEADS

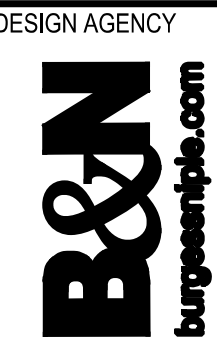


- NOTES:
1. CONTRACTOR TO ADJUST ADVANCE RADAR DETECTION ZONES AND STOP BAR DETECTION ZONES AS NEEDED TO MAINTAIN PROPER VEHICLE DETECTION.
2. EXISTING PHASING AND SIGNAL TIMINGS TO BE MAINTAINED.

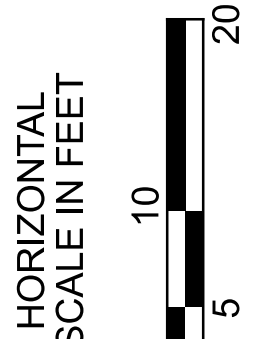
LEGEND

- WORK AREA
- EXISTING SIGNAL POLE
- EXISTING VEHICULAR SIGNAL HEAD
- RELOCATED VEHICULAR SIGNAL HEAD

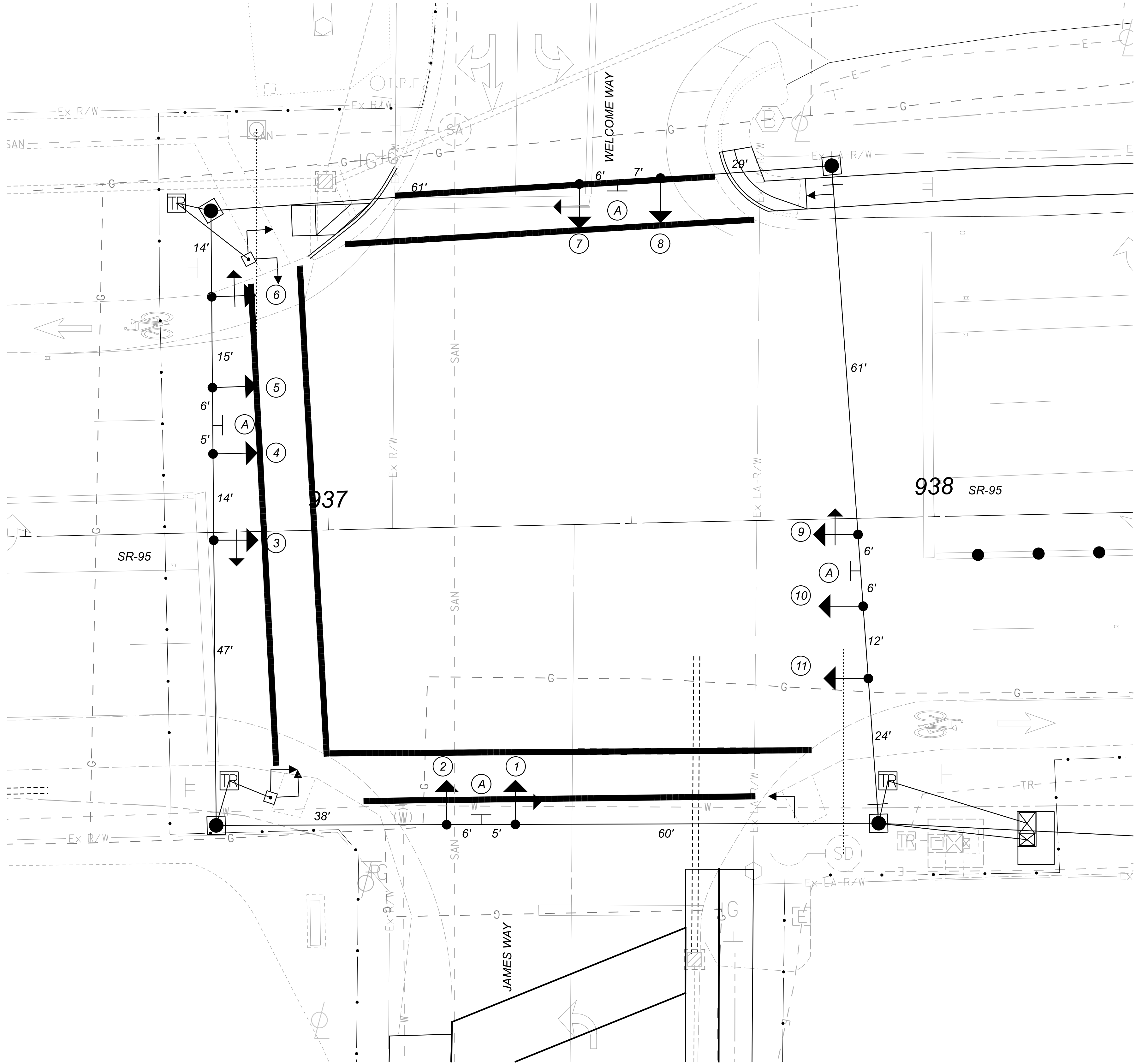
TEMPORARY TRAFFIC SIGNAL PLAN - PHASE 3
SR-95 & US-23 SOUTHBOUND RAMP



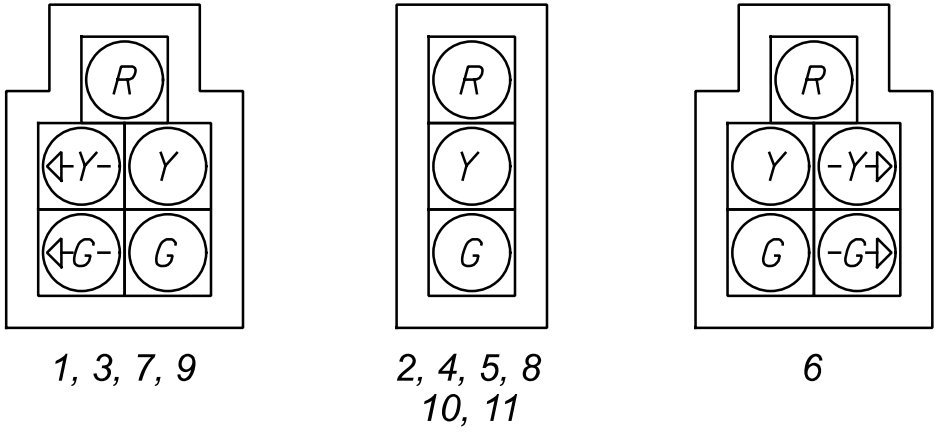
DESIGNER	RML
REVIEWER	JTP
PROJECT ID	03-31-25
SHEET	114818
P.24	TOTAL P.142



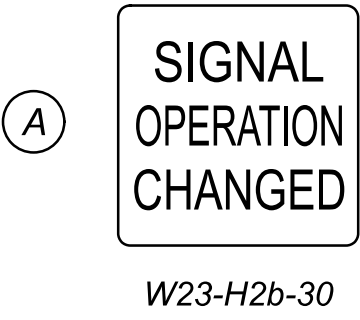
NOTE 1: SEE PERMANENT SIGNAL PLAN SHEET SP.117- P.121
FOR POLE AND SPAN WIRE DETAILS



RELOCATED PERMANENT SIGNALS

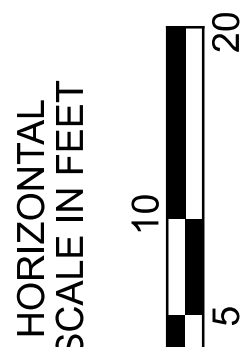


TEMPORARY SIGNING



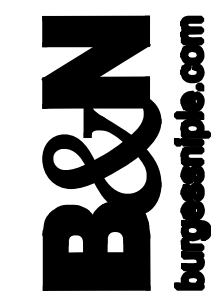
LEGEND

- WORK AREA
- EXISTING SIGNAL POLE
- PROPOSED SIGNAL POLE
- PEDESTAL SUPPORT
- EXISTING VEHICULAR SIGNAL HEAD
- PROPOSED VEHICULAR SIGNAL HEADS
- 332 CONTROLLER AND WORKPAD



TEMPORARY TRAFFIC SIGNAL PLAN - PHASE 4
SR-95 & JAMES WAY/WELCOME WAY

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

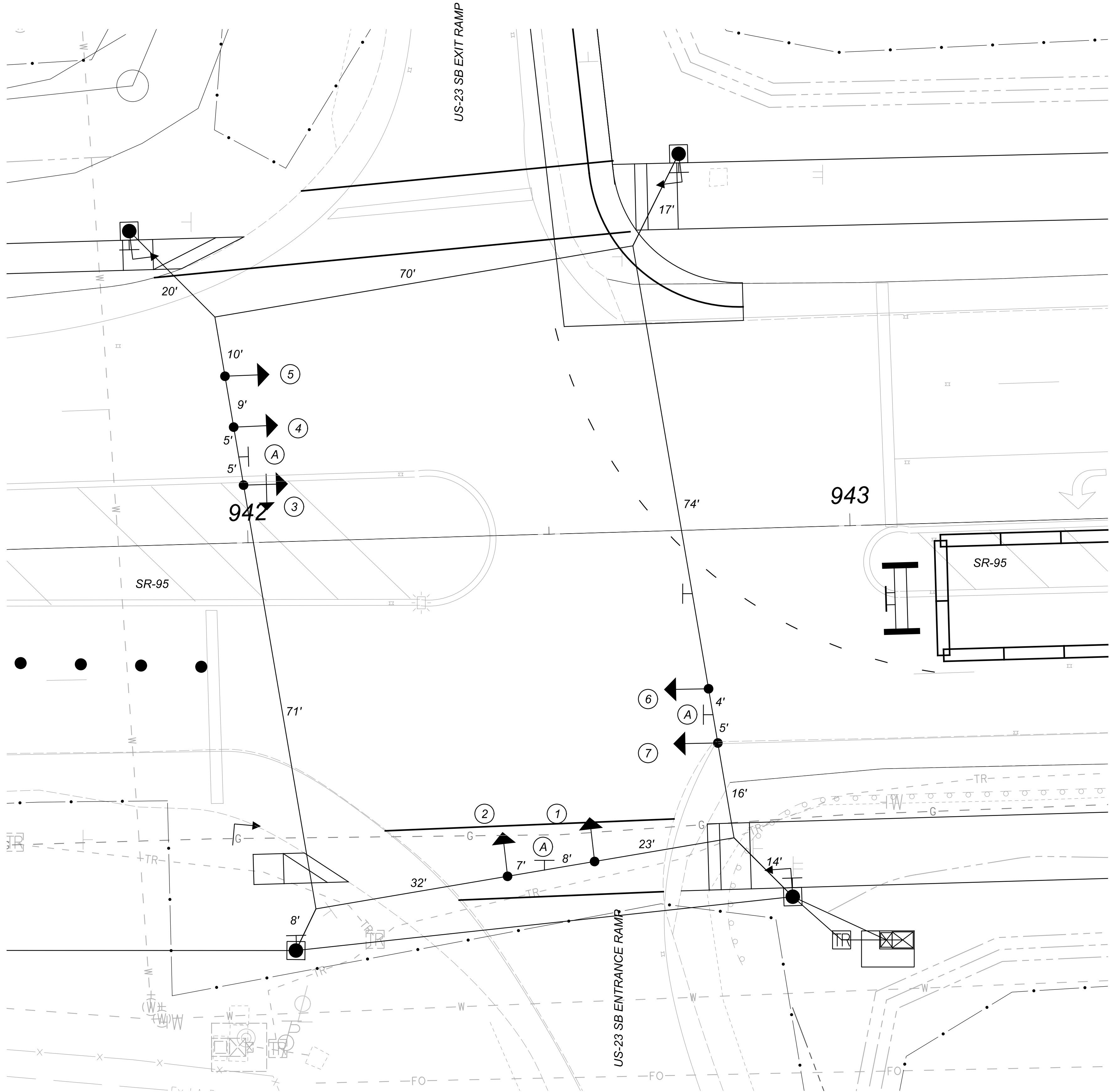
114818

SHEET

P.25

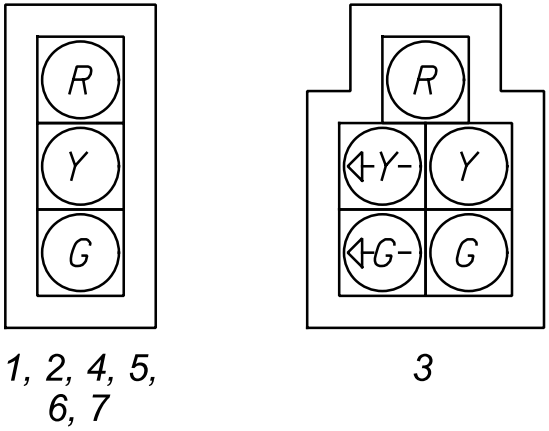
TOTAL

P.142

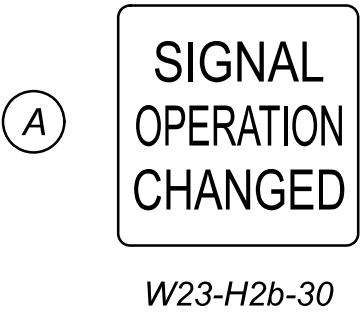


NOTE 1: SEE PERMANENT SIGNAL PLAN SHEETS P.122 P.126
FOR POLE AND SPAN WIRE DETAILS

RELOCATED PERMANENT SIGNALS



TEMPORARY SIGNING



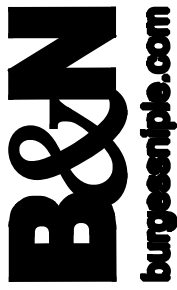
LEGEND

- WORK AREA
- EXISTING SIGNAL POLE
- PROPOSED SIGNAL POLE
- PEDESTAL SUPPORT
- EXISTING VEHICULAR SIGNAL HEAD
- PROPOSED VEHICULAR SIGNAL HEADS
- 332 CONTROLLER AND WORKPAD



TEMPORARY TRAFFIC SIGNAL PLAN - PHASE 4
SR-95 & US-23 SOUTHBOUND RAMP

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

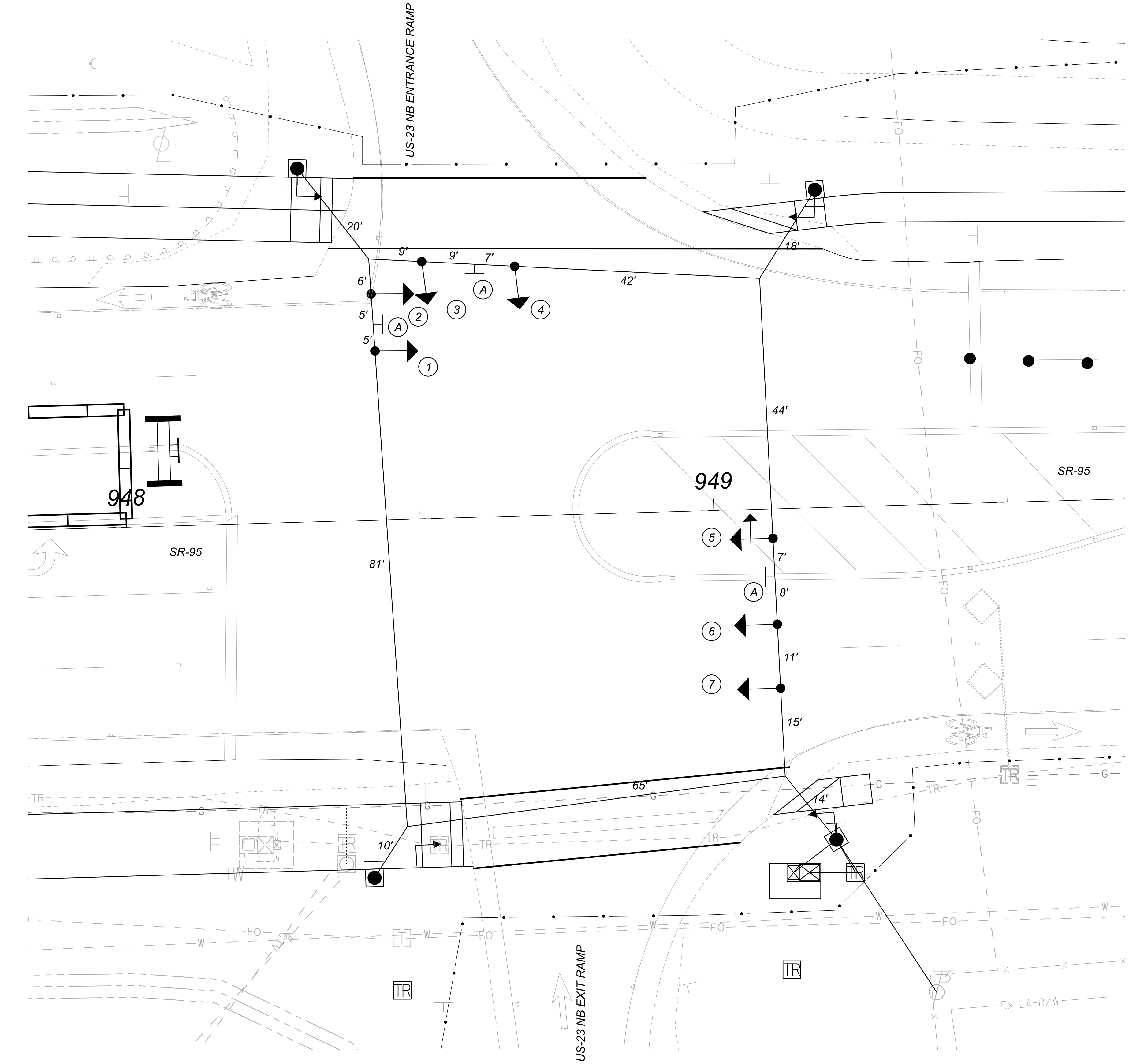
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P.26

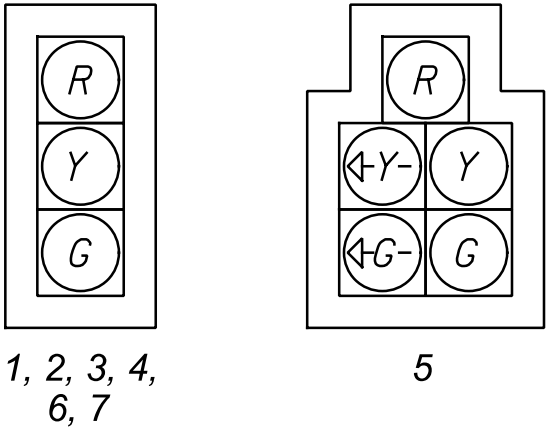
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P.142

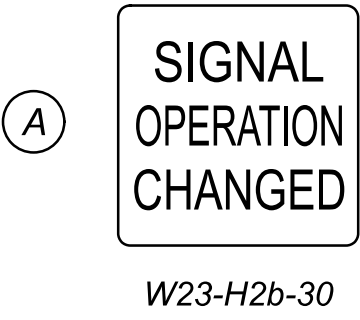


NOTE 1: SEE PERMANENT SIGNAL PLAN SHEETS P.127 P.131
FOR POLE AND SPAN WIRE DETAILS

RELOCATED PERMANENT SIGNALS



TEMPORARY SIGNING



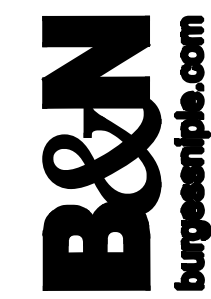
LEGEND

- WORK AREA
- EXISTING SIGNAL POLE
- PROPOSED SIGNAL POLE
- PEDESTAL SUPPORT
- EXISTING VEHICULAR SIGNAL HEAD
- PROPOSED VEHICULAR SIGNAL HEADS
- 332 CONTROLLER AND WORKPAD



TEMPORARY TRAFFIC SIGNAL PLAN - PHASE 4
SR-95 & US-23 NORTHBOUND RAMP

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

114818

SHEET

P.27

TOTAL

P.142

MAR-95-17-90

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SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION
OFFICE CALCS	P.5	P.7	P.8	P.31	P.32	P.105	P.106	P.107	P.116				01/SAF/21		EXT	TOTAL		
														201	11000	LS		ROADWAY
																		CLEARING AND GRUBBING
616				75									691	202	23000	691	SY	PAVEMENT REMOVED
				285									285	202	30700	285	FT	CONCRETE BARRIER REMOVED
				216									216	202	30701	216	FT	CONCRETE BARRIER REMOVED, AS PER PLAN
				79									79	202	32601	79	FT	GUTTER REMOVED, AS PER PLAN
				95	10								105	202	35100	105	FT	PIPE REMOVED, 24" DIAMETER AND UNDER
				173									173	202	38000	173	FT	GUARDRAIL REMOVED
					1								1	202	58100	1	EACH	CATCH BASIN REMOVED
				10									10	202	75000	10	FT	FENCE REMOVED
				2									2	202	98100	2	EACH	REMOVAL MISC.: BOLLARD
				1									1	202	98100	1	EACH	REMOVAL MISC.:EXIST WOOD POST
816													816	203	10000	816	CY	EXCAVATION
1,216													1,216	203	20000	1,216	CY	EMBANKMENT
2,118													2,118	204	10000	2,118	SY	SUBGRADE COMPACTION
	2												2	204	45000	2	HOUR	PROOF ROLLING
1,179				1,168									2,347	255	20000	2,347	FT	FULL DEPTH PAVEMENT SAWING
				25									25	606	15050	25	FT	GUARDRAIL, TYPE MGS
				2									2	606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
				2									2	606	60022	2	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) 35 MPH, 12" WIDE
				2									2	606	60022	2	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) 35 MPH, 60" WIDE
3,736													3,736	608	10000	3,736	SF	4" CONCRETE WALK
				892									892	608	52000	892	SF	CURB RAMP
				30									30	609	26000	30	FT	CURB, TYPE 6
														878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS
																		EROSION CONTROL
					3.6								3.6	601	21050	3.6	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT
267					5.6								272.6	601	32100	272.6	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
	2												2	659	00100	2	EACH	SOIL ANALYSIS TEST
	706				98								804	659	00300	804	CY	TOPSOIL
	6,359												6,359	659	00500	6,359	SY	SEEDING AND MULCHING, CLASS 1
	318												318	659	14000	318	SY	REPAIR SEEDING AND MULCHING
	318												318	659	15000	318	SY	INTER-SEEDING
	0.89												0.89	659	20000	0.89	TON	COMMERCIAL FERTILIZER
	1.32												1.32	659	31000	1.32	ACRE	LIME
	36												36	659	35000	36	MGAL	WATER
					884								884	670	00500	884	SY	SLOPE EROSION PROTECTION
														832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN
														832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS
														832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE
30,000													30,000	832	30000	30,000	EACH	EROSION CONTROL
																		DRAINAGE
					0.49								0.49	511	46610	0.49	CY	CLASS QC1 CONCRETE, HEADWALL
					458								458	605	14000	458	FT	6" BASE PIPE UNDERDRAINS
				32									32	611	00510	32	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS
				144									144	611	04400	144	FT	12" CONDUIT, TYPE B
				9									9	611	04600	9	FT	12" CONDUIT, TYPE C
				248									248	611	52204	248	FT	14" X 23" CONDUIT, TYPE C, 706.04
				1									1	611	98180	1	EACH	CATCH BASIN, NO. 3A
				4									4	611	98470	4	EACH	CATCH BASIN, NO. 2-2B
				5									5	611	98635	5	EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN
				4									4	611	99574	4	EACH	MANHOLE, NO. 3
				5									5	611	99654	5	EACH	MANHOLE ADJUSTED TO GRADE
				2									2	611	99710	2	EACH	PRECAST REINFORCED CONCRETE OUTLET

GENERAL SUMMARY

DESIGN AGENCY

Environmental
DesignGroup

AKRON / CLEVELAND / COLUMBUS
33001-3701356 / 1F 604-953-1350
E, R, & S 2010-2024/06/07/12/24

DESIGNER

WES

REVIEWER

JES 03/24/25

PROJECT ID

114818

SHEET

P.28

TOTAL

P.142

MAR-95-17.90

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 7/2/2025 TIME: 8:28:21 AM USER: bshepherd
E:\DOT\121-00473-010 MAR-95-17.90\114818\400-Engineering\Roadway\Sheets\114818_GG002.dgn

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	P.5	P.8	P.31	P.32	P.105	P.106	P.107	P.116					01/SAF/21						
																		PAVEMENT	
20,195													20,195	254	01000	20,195	SY	PAVEMENT PLANING, ASPHALT CONCRETE [T=3.5"]	
175													175	301	56000	175	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
384													384	304	20000	384	CY	AGGREGATE BASE	
179													179	304	20001	179	CY	AGGREGATE BASE, AS PER PLAN	P.5
872													872	407	20000	872	GAL	NON-TRACKING TACK COAT	
192													192	442	22100	192	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449)	P.5
224													224	442	22450	224	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE B (449)	P.5
																		LIGHTING	
								16					16	625	18100	16	EACH	BRACKET ARM, 12'	
								16					16	625	26253	16	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE III DISTRIBUTION	P.115
								29					29	625	32000	29	EACH	GROUND ROD	
																		TRAFFIC CONTROL	
	150												150	621	00100	150	EACH	RPM	
		336					802.92						1,138.92	630	03100	1,138.92	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
								1					1	630	79000	1	EACH	SIGN HANGER ASSEMBLY, SPAN WIRE	
								13					13	630	79500	13	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
		556.25					357.48	56					969.73	630	80100	969.73	SF	SIGN, FLAT SHEET	
		48					54						102	630	84900	102	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
		48					4						4	630	85100	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
							59						107	630	86002	107	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					0.5	0.11							0.61	644	00104	0.61	MILE	EDGE LINE, 6", WHITE	
						0.12							0.12	644	00104	0.12	MILE	EDGE LINE, 6", YELLOW	
					0.45								0.45	644	00204	0.45	MILE	LANE LINE, 6"	
					0.43	0.03							0.46	644	00300	0.46	MILE	CENTER LINE	
					2,476	842							3,318	644	00404	3,318	FT	CHANNELIZING LINE, 12"	
					313	152							465	644	00500	465	FT	STOP LINE	
					310	931							1,241	644	00620	1,241	FT	CROSSWALK LINE, 12"	
					2								2	644	01100	2	EACH	SCHOOL SYMBOL MARKING, 72"	
					19	8							27	644	01300	27	EACH	LANE ARROW	
					92								92	644	01510	92	FT	DOTTED LINE, 6"	
					11								11	644	01630	11	EACH	BIKE LANE SYMBOL MARKING	
																		TRAFFIC SIGNALS	
								366					366	625	25400	366	FT	CONDUIT, 2", 725.04	
								112					112	625	25500	112	FT	CONDUIT, 3", 725.04	
								101					101	625	25600	101	FT	CONDUIT, 4", 725.04	
								134					134	625	25902	134	FT	CONDUIT, JACKED OR DRILLED, 725.04, 2"	
								478					478	625	29000	478	FT	TRENCH	
								6					6	625	30700	6	EACH	PULL BOX, 725.08, 18"	
								4					4	625	30706	4	EACH	PULL BOX, 725.08, 24"	
								4					4	625	76000	4	EACH	ARC FLASH CALCULATIONS AND LABEL	
								23					23	632	05006	23	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
								2					2	632	05064	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 4-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
								11					11	632	05086	11	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
								20					20	632	20731	20	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	P.113
								36					36	632	25000	36	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
								20					20	632	25010	20	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
								4					4	632	26000	4	EACH	PEDESTRIAN PUSHBUTTON	
								2,133					2,133	632	42300	2,133	FT	SIGNAL CABLE, 3 CONDUCTOR, NO. 12 AWG	
								4,221					4,221	632	40500	4,221	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
								4,112					4,112	632	40700	4,112	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
								16					16	632	64010	16	EACH	SIGNAL SUPPORT FOUNDATION	P.115
								5					5	632	64020	5	EACH	PEDESTAL FOUNDATION	

GENERAL SUMMARY

DESIGN AGENCY

Environmental
Design Group

AKRON / CLEVELAND / COLUMBUS
216.397.1100 • 216.397.1101
216.397.1102 • 216.397.1103
P W ENVDESIGNGROUP.COM

DESIGNER	WES
REVIEWER	JES 03/24/25
PROJECT ID	114818
SHEET	TOTAL
P.29	P.142

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	P.5	P.7	P.8	P.32	P.32	P.105	P.106	P.107	P.116				01/SAF/21						
									8				8	632	64950	8	EACH	TRAFFIC SIGNALS CONTINUED	
									1,244				1,244	632	65200	1,244	FT	LOOP DETECTOR LEAD-IN CABLE	
									471				471	632	69800	471	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	
									4				4	632	70000	4	EACH	POWER SERVICE	
									4				4	632	70400	4	EACH	CONDUIT RISER, 2" DIAMETER	
									8				8	632	87140	8	EACH	COMBINATION STRAIN POLE, TYPE TC-81.11, DESIGN 12	
									8				8	632	87150	8	EACH	COMBINATION STRAIN POLE, TYPE TC-81.11, DESIGN 13	
									4				4	632	89802	4	EACH	PEDESTAL, 5', TRANSFORMER BASE	
									4				4	632	90100	4	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	
									1,518				1,518	632	30400	1,518	FT	MESSENGER WIRE, 7 STRAND, ½" DIAMETER WITH ACCESSORIES	
									1,518				1,518	632	30600	1,518	FT	TETHER WIRE, WITH ACCESSORIES	
									4				4	633	65511	4	EACH	CABINET, TYPE TS-2, AS PER PLAN	P.114
									4				4	633	67100	4	EACH	CABINET FOUNDATION	
									4				4	633	67200	4	EACH	CONTROLLER WORK PAD	
									4				4	633	75001	4	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	P.114
									232				232	809	64550	232	FT	ETHERNET CABLE, OUTDOOR-RATED	
									4				4	809	65990	4	EACH	ITS DEVICE, MISC.:RELOCATE EXISTING COMMUNICATIONS	
									8				8	809	69001	8	EACH	ADVANCE RADAR DETECTION, AS PER PLAN	P.115
									12				12	809	69101	12	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	P.115
									4				4	809	69123	4	EACH	ATC CONTROLLER, AS PER PLAN	P.115
									3				3	809	65990	3	EACH	ITS DEVICE, MISC.:32" ITS PULL BOX w/ PAD & STANDARD LID ASSEMBLY, TYPE 2	
														809	70000	LS		MAINTAINING ITS DURING CONSTRUCTION	
																		RETAINING WALLS	
														622	10121	290	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN	P.136
																		MAINTENANCE OF TRAFFIC	
				1									1	614	12380	1	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
				8									8	614	12384	8	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
			65										65	614	13310	65	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
			65										65	614	13350	65	EACH	OBJECT MARKER, ONE WAY	
				0.24									0.24	614	20110	0.24	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
				0.1									0.1	614	21100	0.1	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
				0.47									0.47	614	22100	0.47	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	
				440									440	614	23200	440	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
				188									188	614	24200	188	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT	
			50										50	616	10000	50	MGAL	WATER	
				3,234									3,234	622	41100	3,234	FT	PORTABLE BARRIER, UNANCHORED	
														614	11000	LS		INCIDENTALS	
														623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
														624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY
**Environmental
Design Group**
AKRON / CLEVELAND / COLUMBUS
216.275.1350 / 216.275.1350
216.275.1350 / 216.275.1350

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

SHEET TOTAL
P.30 P.142

ROADWAY SUBSUMMARY																									
SHEET NO.	REFERENCE NO.	STATION			202										255		606				608		609		
					PAVEMENT REMOVED	CONCRETE BARRIER REMOVED	CONCRETE BARRIER REMOVED, AS PER PLAN	GUTTER REMOVED, AS PER PLAN	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	FENCE REMOVED	REMOVAL, MISC.: BOLLARD	REMOVAL, MISC.: EXIST WOOD POST	FULL DEPTH PAVEMENT SAWING		GUARDRAIL, TYPE MGS	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), 35 MPH, 12" WIDE	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), 35 MPH, 60" WIDE	CURB RAMP		CURB, TYPE 6			
		FROM	TO	SIDE	SY	FT	FT	FT	FT	FT	FT	EACH	EACH	FT		FT	EACH	EACH	EACH	SF		FT			
P.34	R1	937+00.00		LT	8																				
P.34	R2	939+23.00	939+33.00	LT							10														
P.34	R3	938+96.00	939+92.00	LT					95																
P.36	R4	943+79.00	944+88.00	RT/CL			109											1							
P.36	R5	946+22.00	947+29.00	CL/LT			107										1								
P.36	R6	944+90.81	946+17.91	LT	35	142								152											
P.36	R7	944+68.91	946+39.81	RT	32	143								152											
P.39	R8	949+24.00	952+03.00	LT				79																	
P.90	R9	9+06.69		LT								2													
P.90	R10	9+43.29		RT									1												
P.90	R11	8+50.03	9+15.72	LT										145											
P.90	R12	8+02.88	9+43.29	RT										302											
P.90	R13	9+06.89	9+33.59	RT/LT										417											
P.34	C1	936+97.98	937+12.61	LT																		24			
P.34	C2	937+64.45	937+67.89	LT																		6			
P.34	CR1	936+98.00		LT																51					
P.34	CR2	937+78.00		LT																57					
P.36	CR3	941+90.00		LT																64					
P.36	CR4	942+66.00		LT																102					
P.36	CR5	941+91.00		RT																63					
P.36	CR6	942+75.00		RT																108					
P.39	CR7	948+33.00		LT																97					
P.39	CR8	949+14.00		LT																62					
P.39	CR9	948+54.00		RT																87					
P.39	CR10	949+20.00		RT																55					
P.41	CR11	952+27.00		LT																43					
P.41	CR12	952+87.00		LT																33					
P.41	CR13	953+10.00		LT																35					
P.41	CR14	953+10.00		RT																35					
P.36	GR1	942+77.00	943+02.00	RT						44								1							
P.36	GR2	944+53.31	944+90.81	RT						37.5							12.5	1							
P.36	GR3	946+17.91	946+55.41	LT						37.5							12.5	1							
P.39	GR4	947+86.00	948+21.00	LT						54									1						
TOTALS CARRIED TO GENERAL SUMMARY					75	285	216	79	95	173	10	2	1	1168			25	2	2	2	892		30		

MAR-95-17.90

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 7/2/2025 TIME: 8:28:23 AM USER: bshepherd
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[illegible]

DRAINAGE SUBSUMMARY

**Environmental
Design Group**
AKRON / CLEVELAND / COLUMBUS
450 GRANT ST., AKRON, OH 44311
HQ 330 EAST 13TH AVE., CLEVELAND, OH 44115
530 EAST 13TH AVE., COLUMBUS, OH 43216
TEL: 216-398-1300 FAX: 800-835-1390

DESIGNER

WES

REVIEWER

JES 03/24/25

PROJECT ID:

PROJECT ID
114818

114818

SHEET	TOTAL
200	210

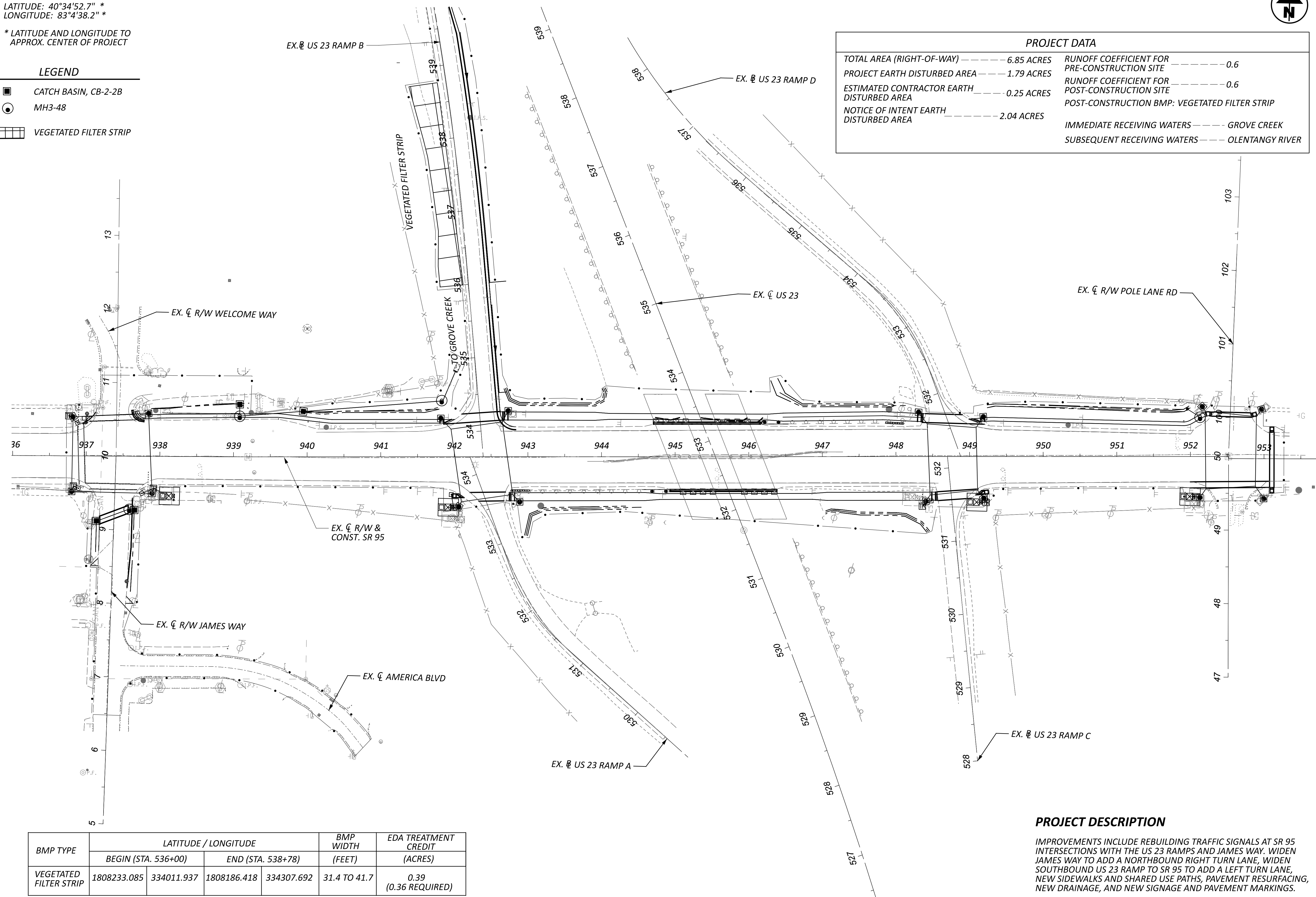
P.32	P.142
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LATITUDE: 40°34'52.7" *
LONGITUDE: 83°4'38.2" *

* LATITUDE AND LONGITUDE TO
APPROX. CENTER OF PROJECT

LEGEND

- CATCH BASIN, CB-2-2B
- MH3-48
- VEGETATED FILTER STRIP



PROJECT DATA

TOTAL AREA (RIGHT-OF-WAY)	6.85 ACRES	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.6
PROJECT EARTH DISTURBED AREA	1.79 ACRES	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.6
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.25 ACRES	POST-CONSTRUCTION BMP: VEGETATED FILTER STRIP	
NOTICE OF INTENT EARTH DISTURBED AREA	2.04 ACRES	IMMEDIATE RECEIVING WATERS	GROVE CREEK
		SUBSEQUENT RECEIVING WATERS	OLENTANGY RIVER

PROJECT DESCRIPTION

IMPROVEMENTS INCLUDE REBUILDING TRAFFIC SIGNALS AT SR 95 INTERSECTIONS WITH THE US 23 RAMPS AND JAMES WAY. WIDEN JAMES WAY TO ADD A NORTHBOUND RIGHT TURN LANE, WIDEN SOUTHBOUND US 23 RAMP TO SR 95 TO ADD A LEFT TURN LANE, NEW SIDEWALKS AND SHARED USE PATHS, PAVEMENT RESURFACING, NEW DRAINAGE, AND NEW SIGNAGE AND PAVEMENT MARKINGS.

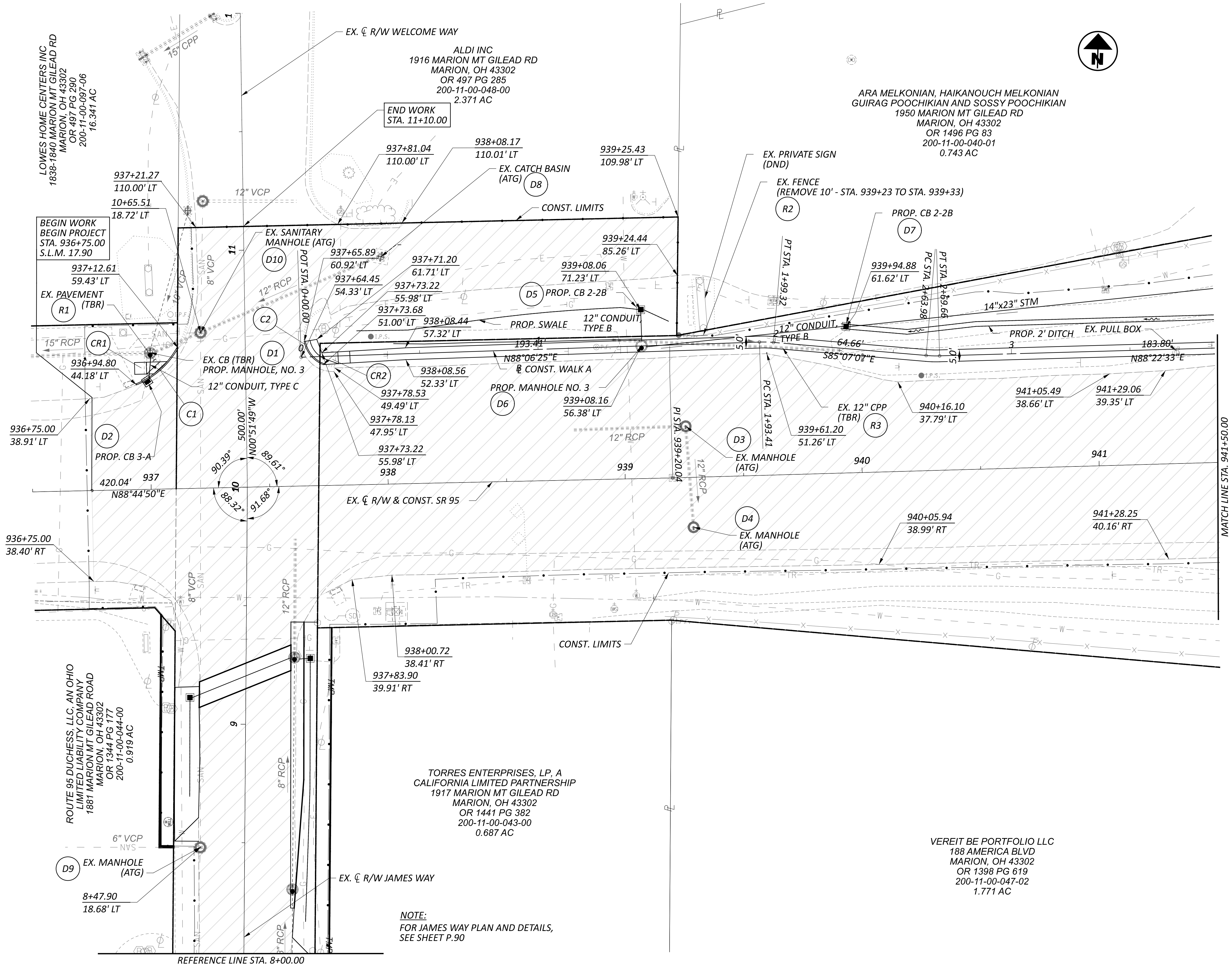
BMP TYPE	LATITUDE / LONGITUDE				BMP WIDTH (FEET)	EDA TREATMENT CREDIT (ACRES)
	BEGIN (STA. 536+00)		END (STA. 538+78)			
VEGETATED FILTER STRIP	1808233.085	334011.937	1808186.418	334307.692	31.4 TO 41.7	0.39 (0.36 REQUIRED)



PROJECT SITE PLAN
MAR-95-17.90

DESIGN AGENCY
Environmental Design Group
AKRON / CLEVELAND / COLUMBUS, OH
216.270.1350 / 1.800.953.1350
E, R, S 216.270.1350

DESIGNER	WES
REVIEWER	JES 03/24/25
PROJECT ID	114818
SHEET	P.33
TOTAL	P.142



LEGEND:

LIMITS OF PAVEMENT RESURFACING

NOTES:

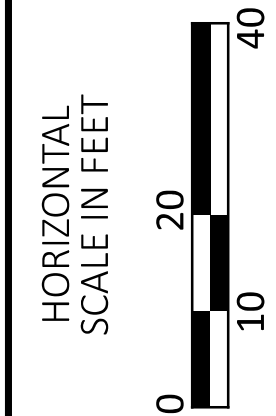
FOR WALK A PROFILE, SEE SHEET P.35

FOR SR 95 CROSS SECTIONS, SEE SHEETS P.42-P.77

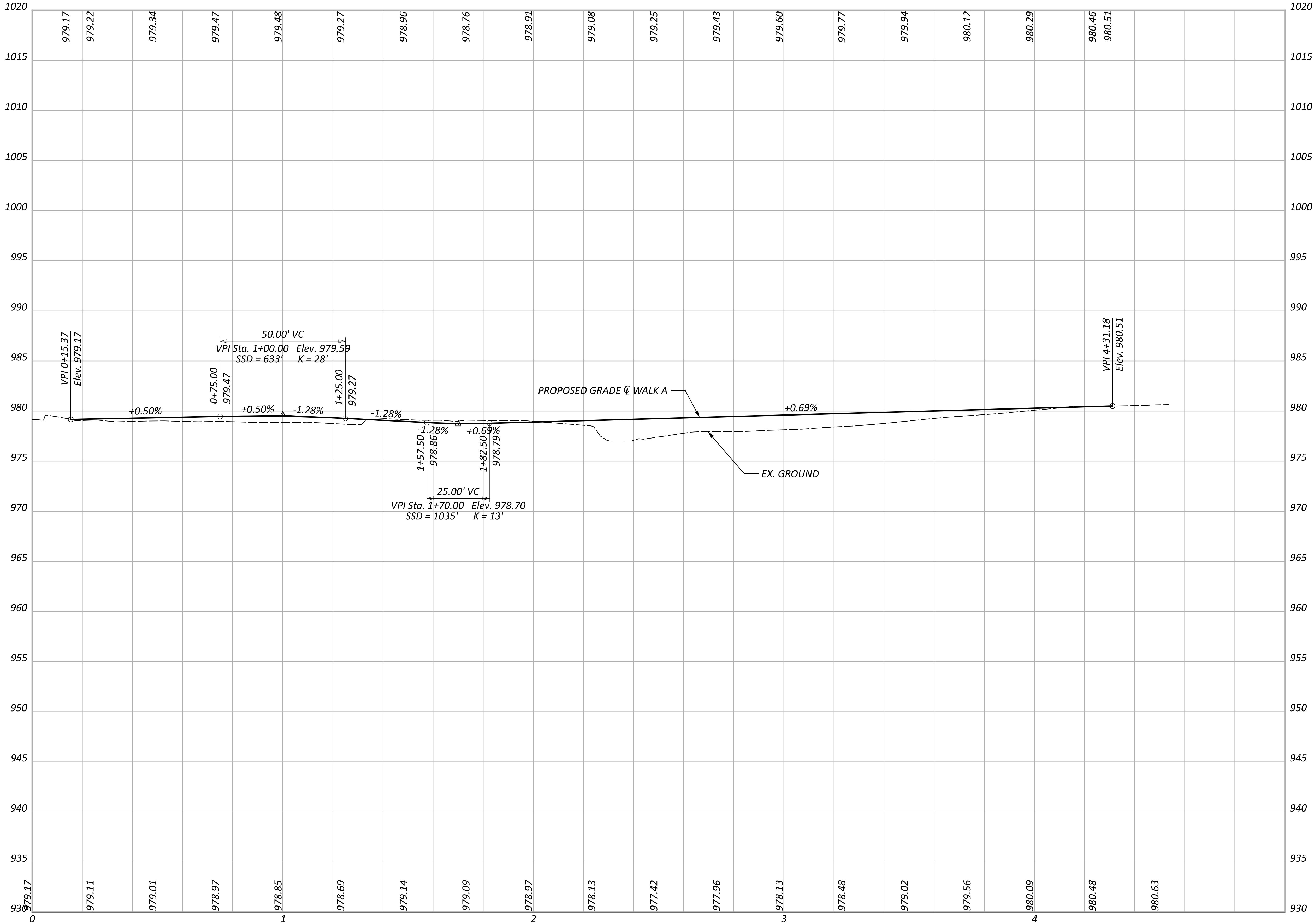
FOR STORM SEWER PROFILES, SEE SHEETS P.96-P.97

FOR INTERSECTION DETAILS, SEE SHEETS P.98-P.104

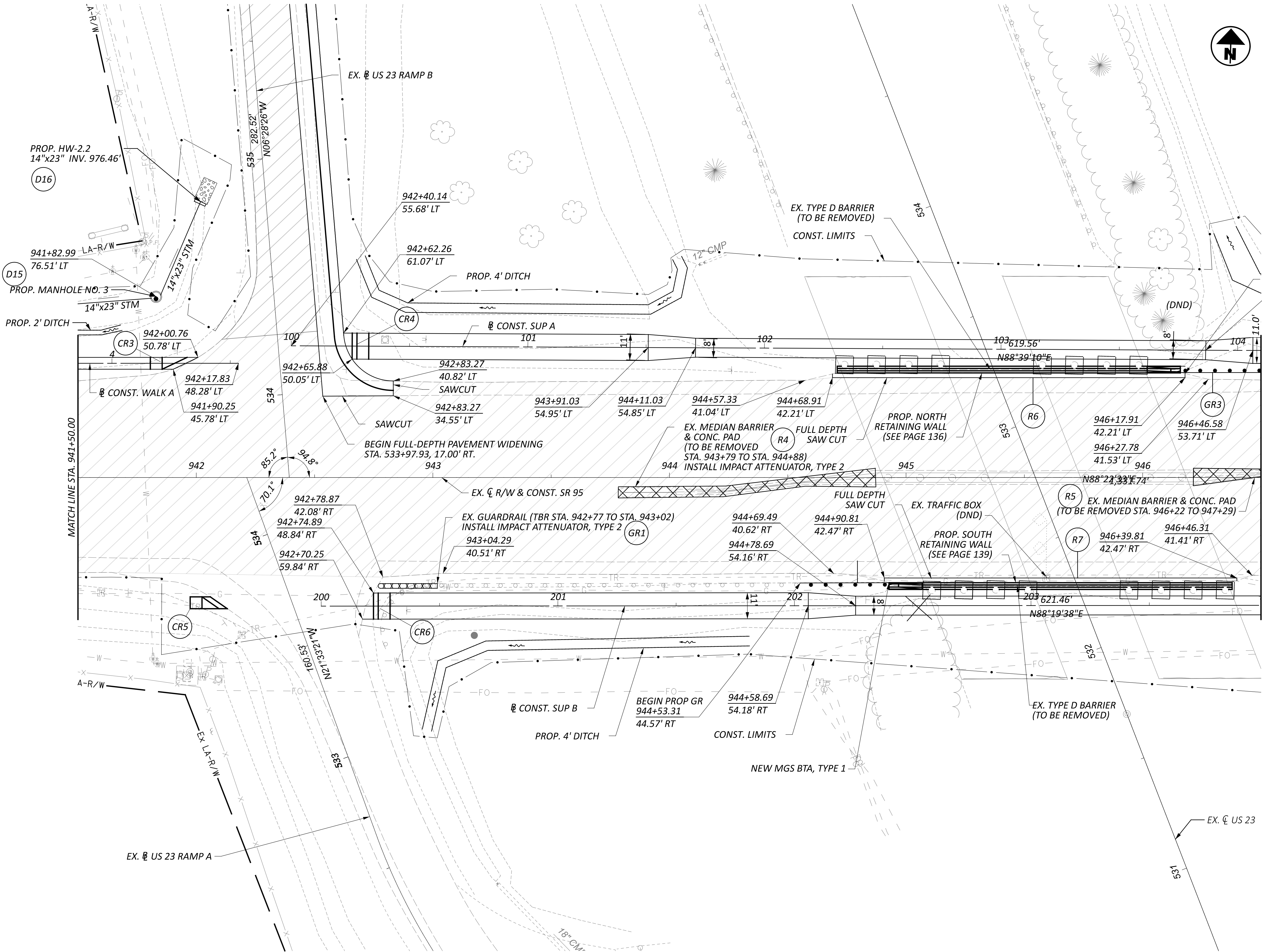
PLAN - SR 95
BEGIN TO STA. 941+50



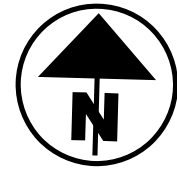
DESIGN AGENCY	
Environmental Design Group	
ARON / CLEVELAND / COLUMBUS	
2500 E. 12TH AVE., 1ST FLOOR, COLUMBUS, OH 43206	
DESIGNER	
WES	
REVIEWER	
JES 03/24/25	
PROJECT ID	
114818	
SHEET	
P.34	TOTAL P.142



PROFILE - WALK A



- LEGEND:**
- LIMITS OF PAVEMENT RESURFACING
- NOTES:**
- FOR SUP A PROFILE, SEE SHEET P.37
- FOR SR 95 SUP B PROFILE, SEE SHEET P.38
- FOR SR 95 CROSS SECTIONS, SEE SHEETS P.42-P.77
- FOR STORM SEWER PROFILES, SEE SHEETS P.96-P.97
- FOR INTERSECTION DETAILS, SEE SHEETS P.98-P.104
- FOR RETAINING WALL DETAILS, SEE SHEETS P.136-P.142

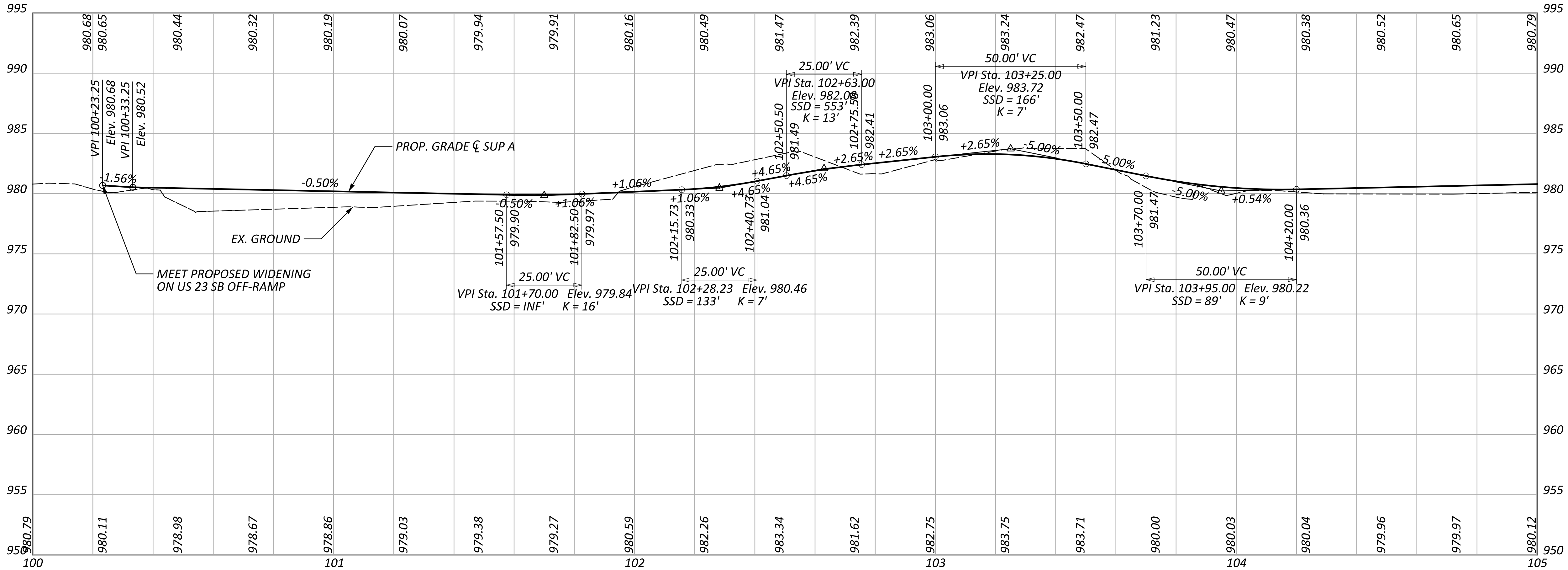
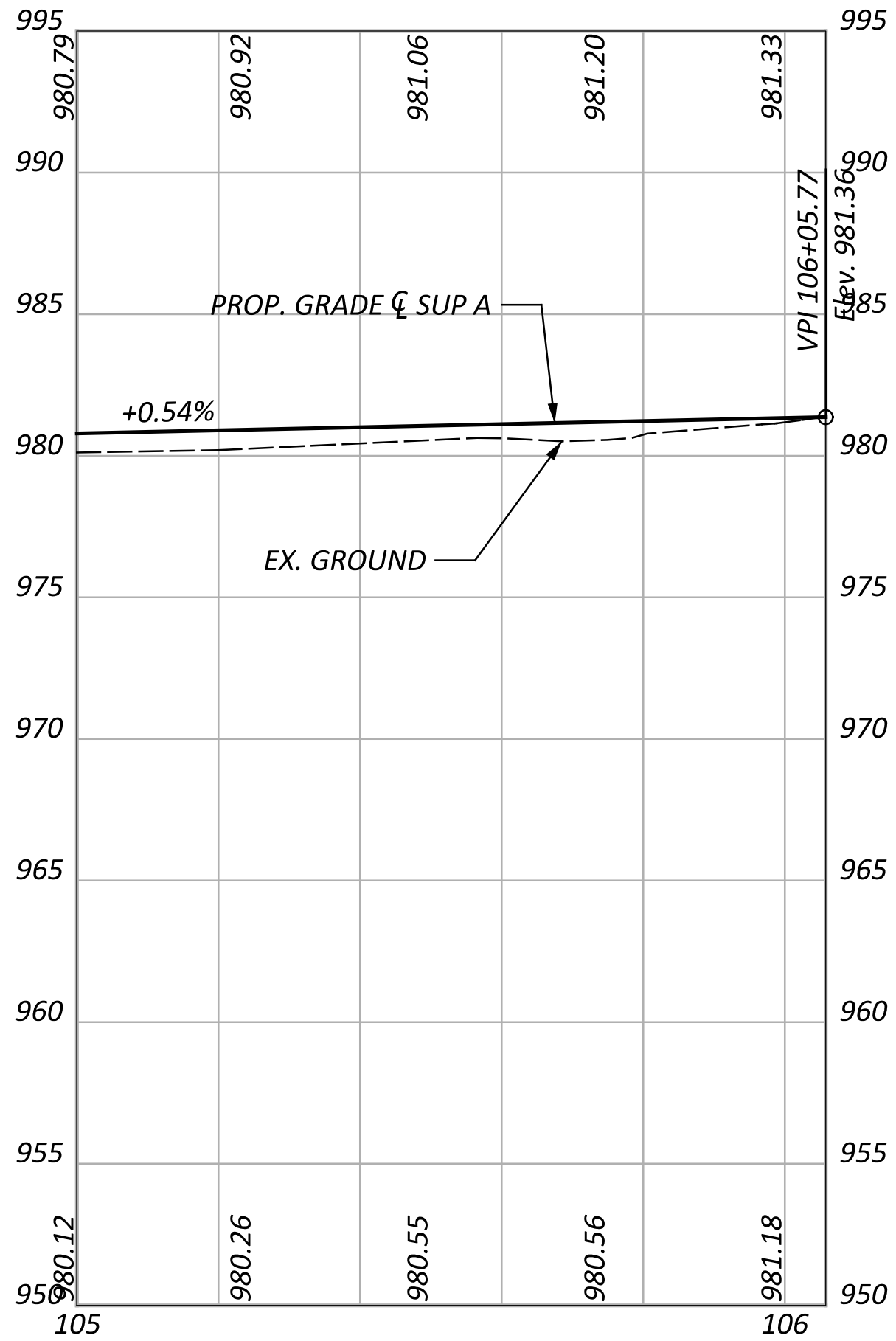


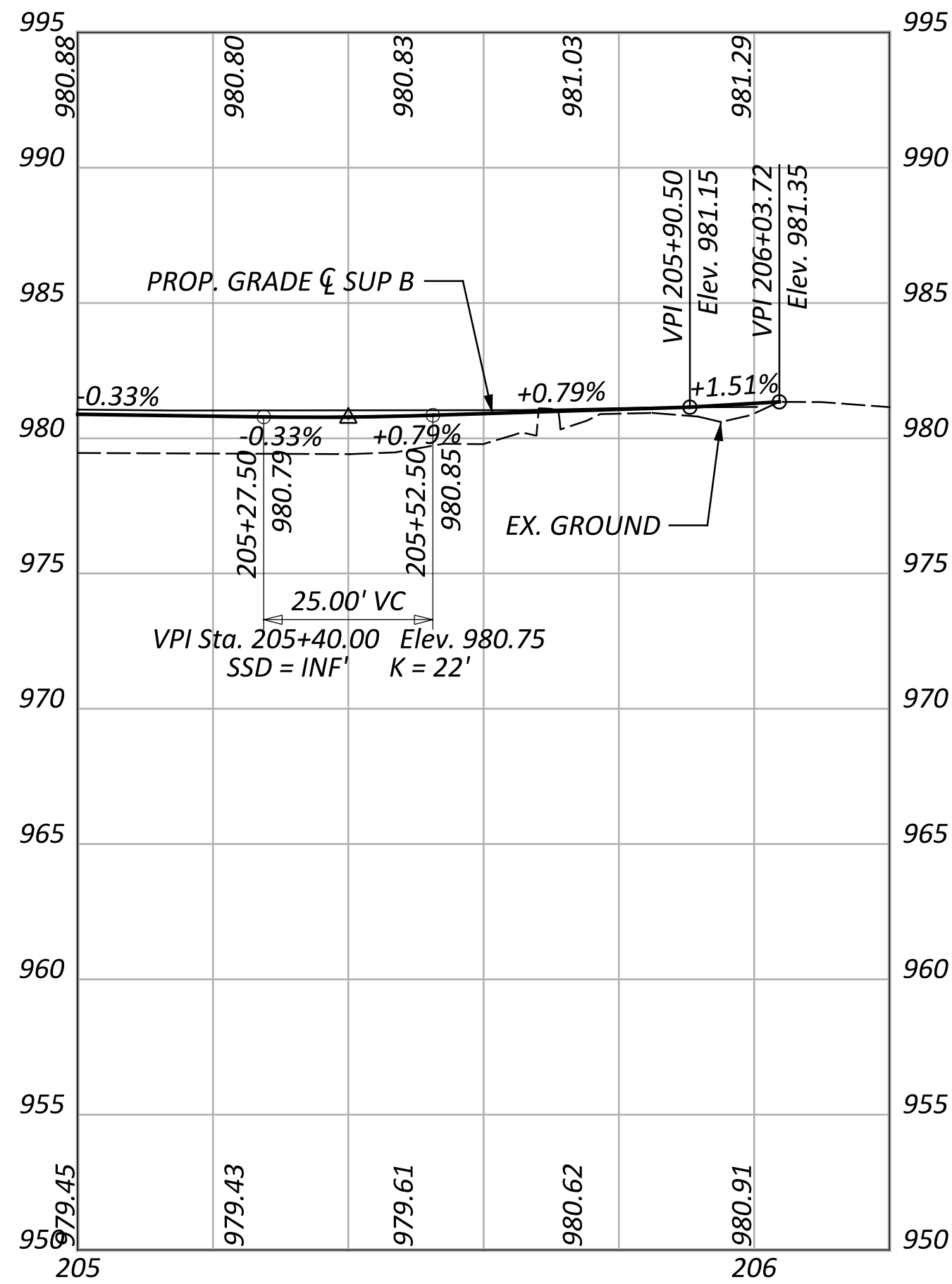
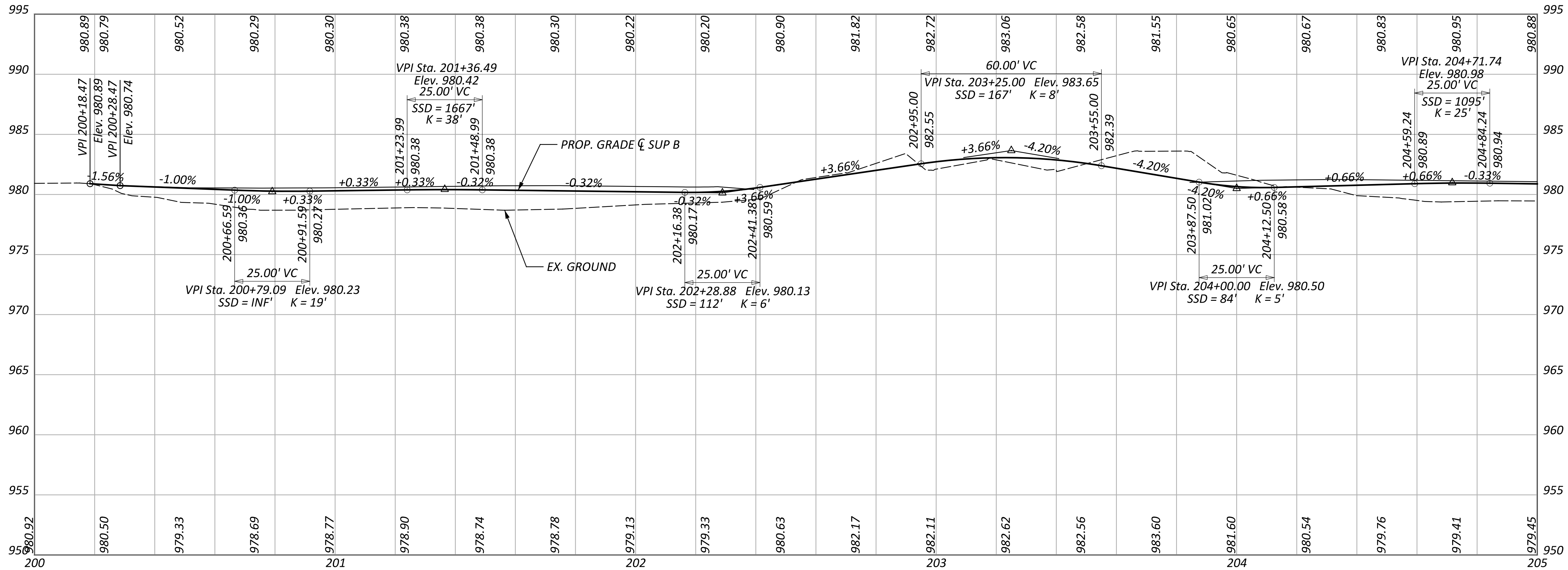
PLAN - SR 95
STA. 941+50 TO STA. 946+50



DESIGN AGENCY
Environmental Design Group
ARROW / CLEVELAND / COLUMBUS
2500 WESTBURY BLVD., SUITE 200
COLUMBUS, OH 43260-1000

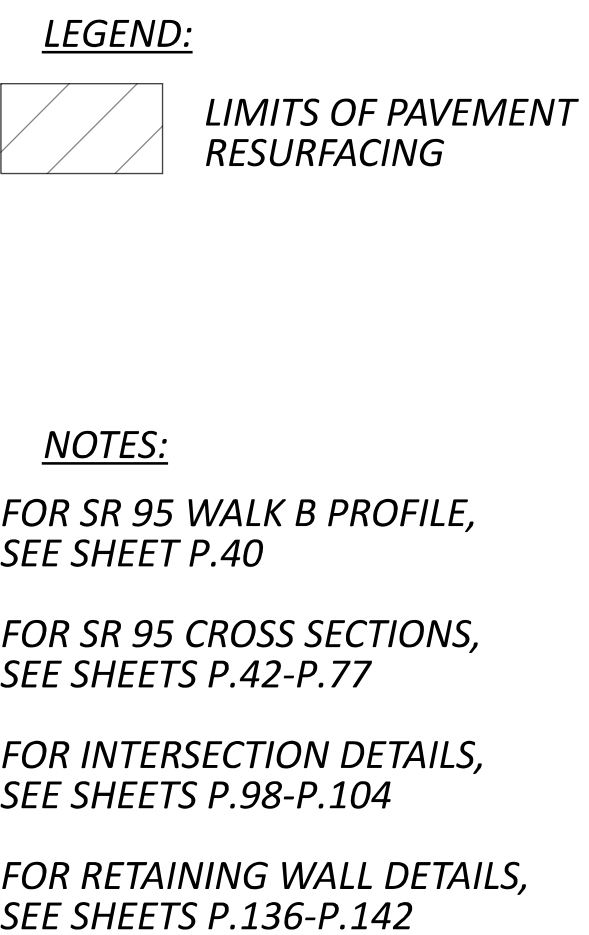
DESIGNER	WES
REVIEWER	JES
DATE	03/24/25
PROJECT ID	114818
SHEET	P.36
TOTAL	P.142





PROFILE - SUP B

MODEL: 114818_GP003 PAPERSIZE: 34x22 (in.) DATE: 7/2/2025 TIME: 8:28:56 AM USER: bshepherd
E:\ODOT\21-00473-010 MAR-95-17.90\114818\400-Engineering\Roadway\Sheets\114818_GP003.dgn



HORIZONTAL
SCALE IN FEET

A horizontal scale bar with alternating black and white segments. The segments are labeled 0, 10, 20, and 40, indicating the scale in feet.

PLAN - SR 95
STA. 946+50 TO STA. 951+50

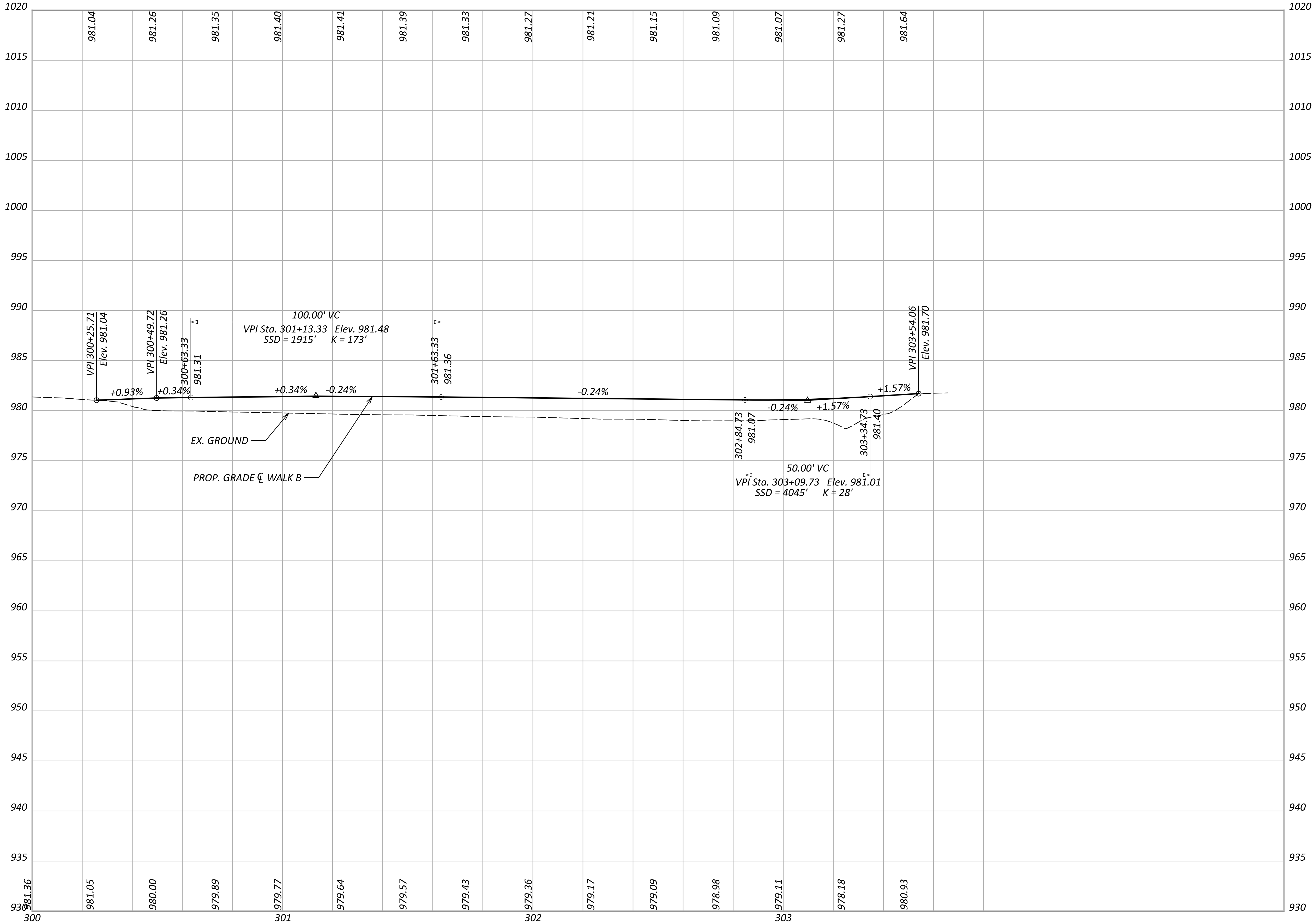
DESIGN AGENCY
**Environmental
 Design Group**
 ARRON / CLEVELAND / COLUMBUS
 P 313.757.1390 F 714.800.955.1390
 W ENVDESIGNGROUP.COM

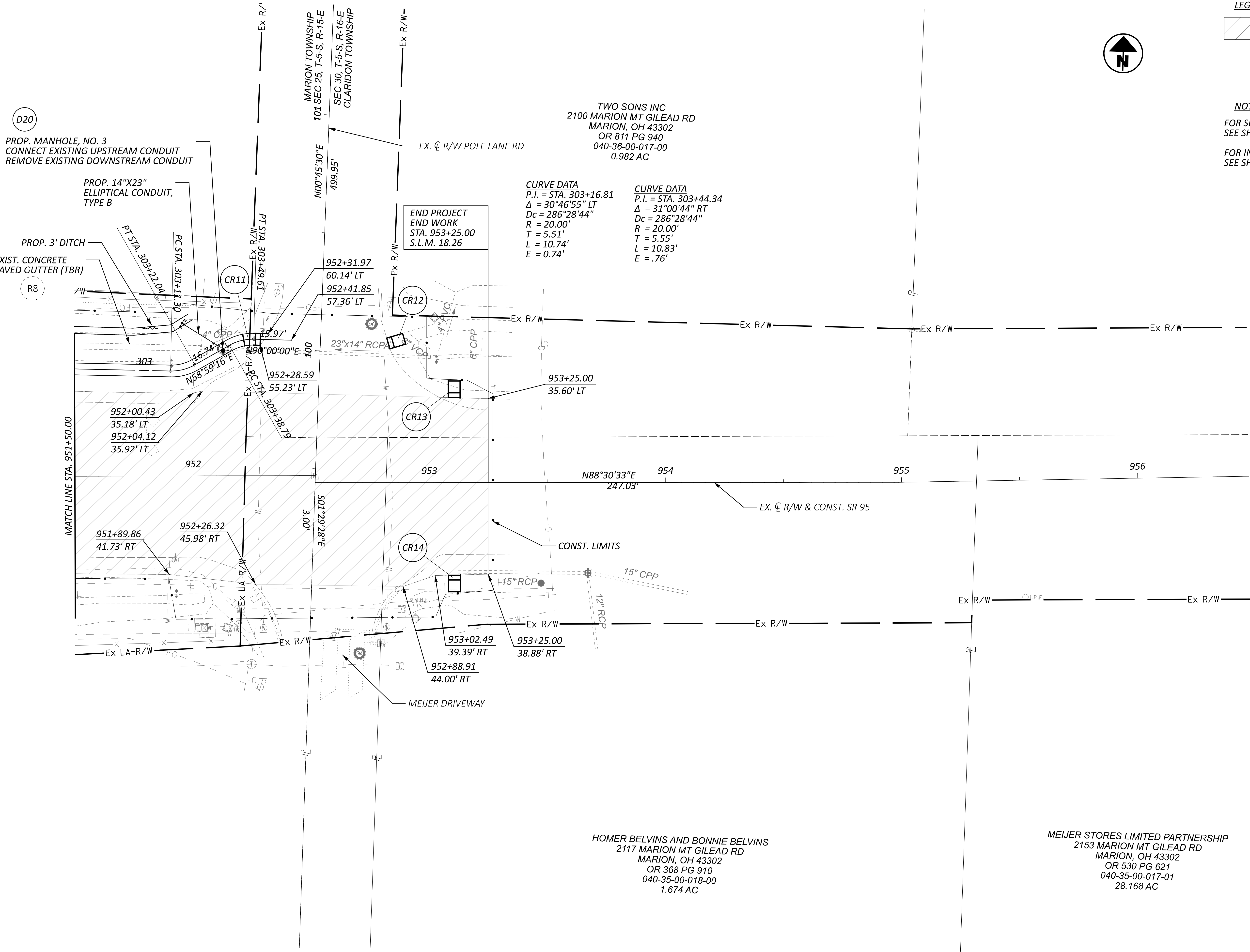
DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

SHEET TOTAL
P.39 | P.142



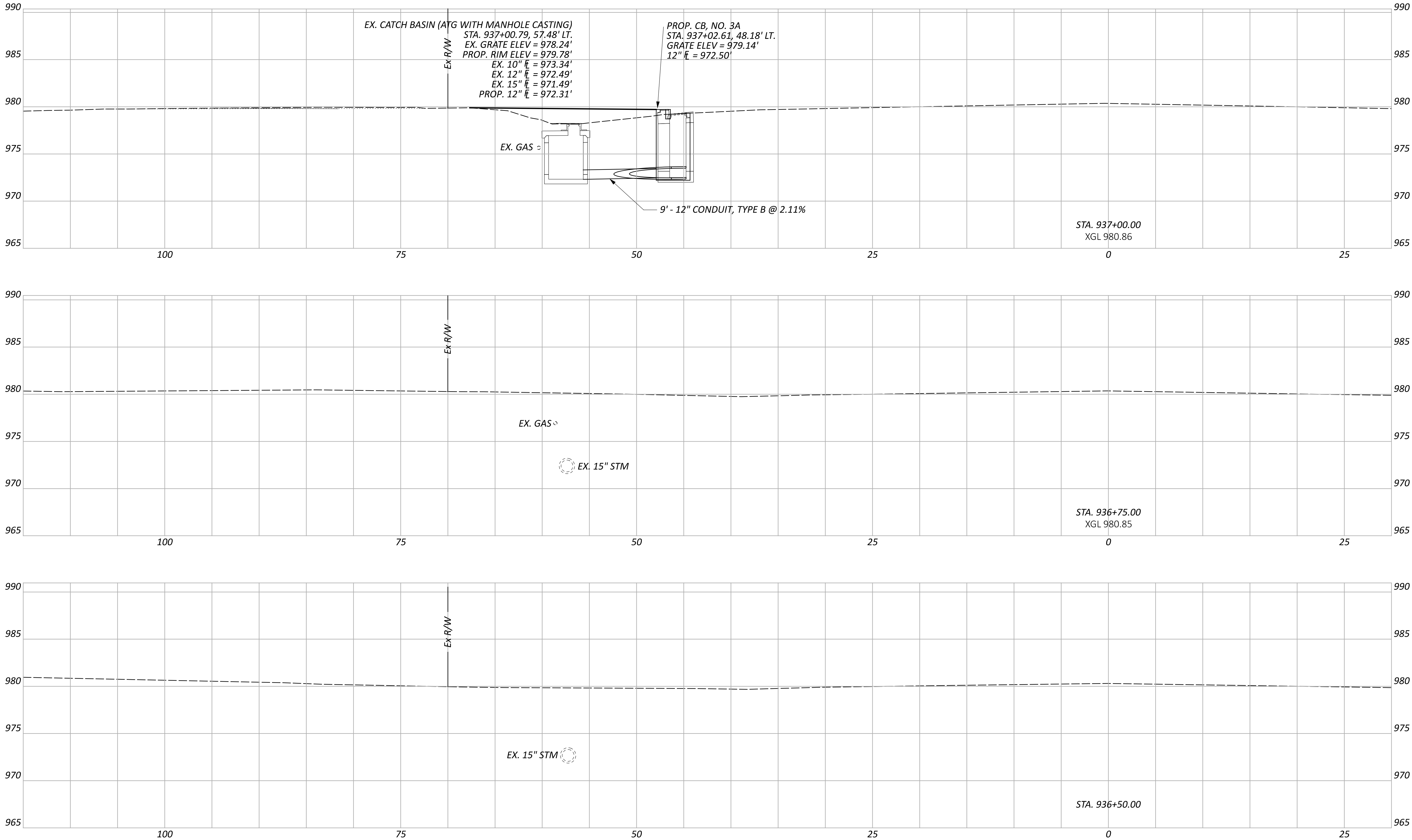


LEGEND:
LIMITS OF PAVEMENT RESURFACING

NOTES:
FOR SR 95 CROSS SECTIONS, SEE SHEETS P.42-P.77
FOR INTERSECTION DETAILS, SEE SHEETS P.98-P.104

PLAN - SR 95
STA. 951+50 TO END

DESIGN AGENCY	
Environmental Design Group	
DESIGNER	
WES	
REVIEWER	
JES 03/24/25	
PROJECT ID	
114818	
SHEET	
P.41	P.142



CROSS SECTIONS - SR 95 - LT
STA. 936+50 TO STA. 937+00

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
ENGINEERS, INC.
2501 CENTRE ROAD, SUITE 200
COLUMBUS, OH 43260-1350
P. 614.291.1200
F. 614.291.1201

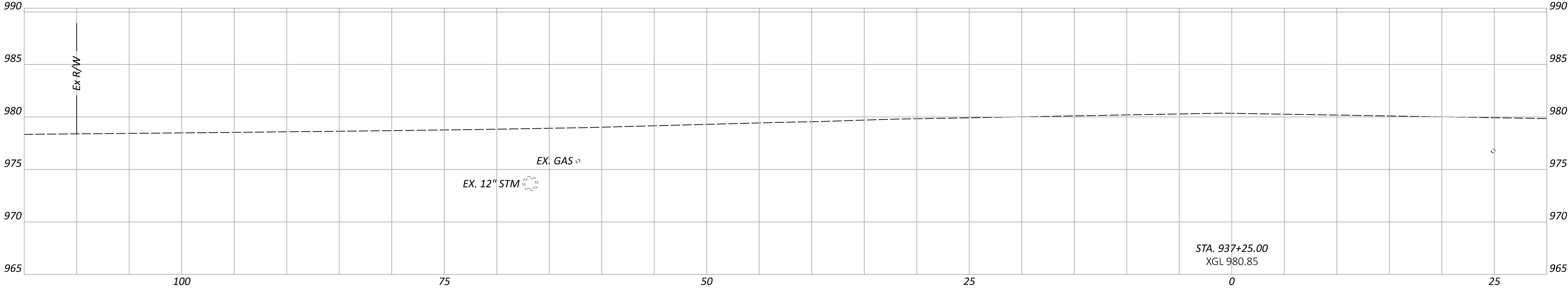
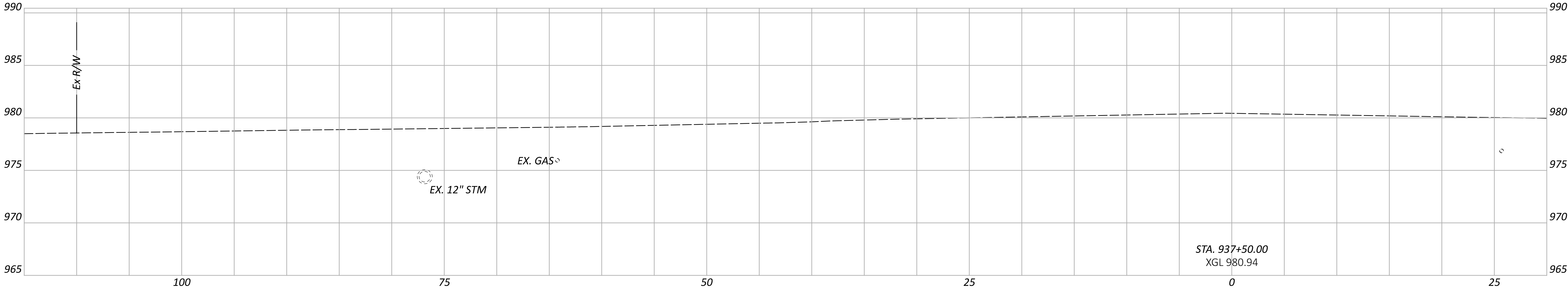
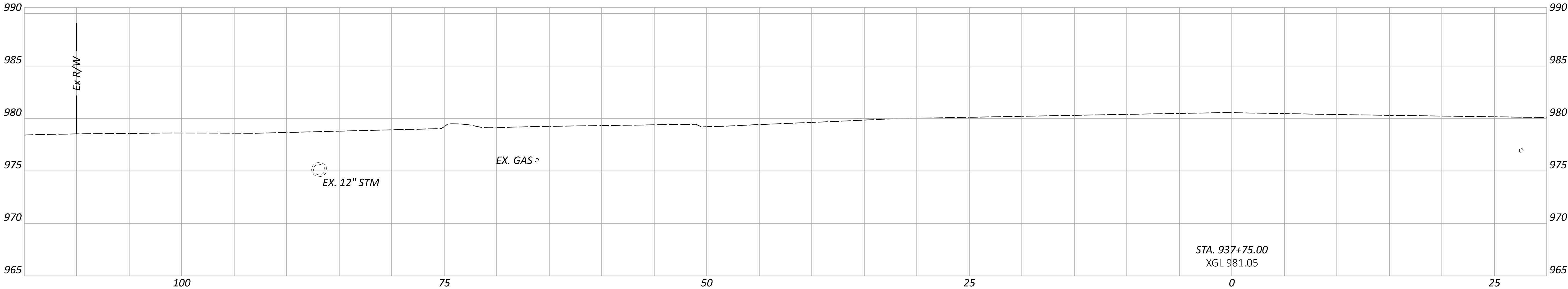
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

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SHEET	TOTAL
P.42	P.142



Sheet Totals			114818	
Seeding	Cut	Fill	SHEET	TOTAL
.	.	.	P.43	P.142

DESIGN AGENCY

Environmental Design Group

ARROYO / CLEVELAND / COLUMBUS
2500 CENTENNIAL BLVD., 2ND FLOOR
SAN ANTONIO, TEXAS 78201

DESIGNER

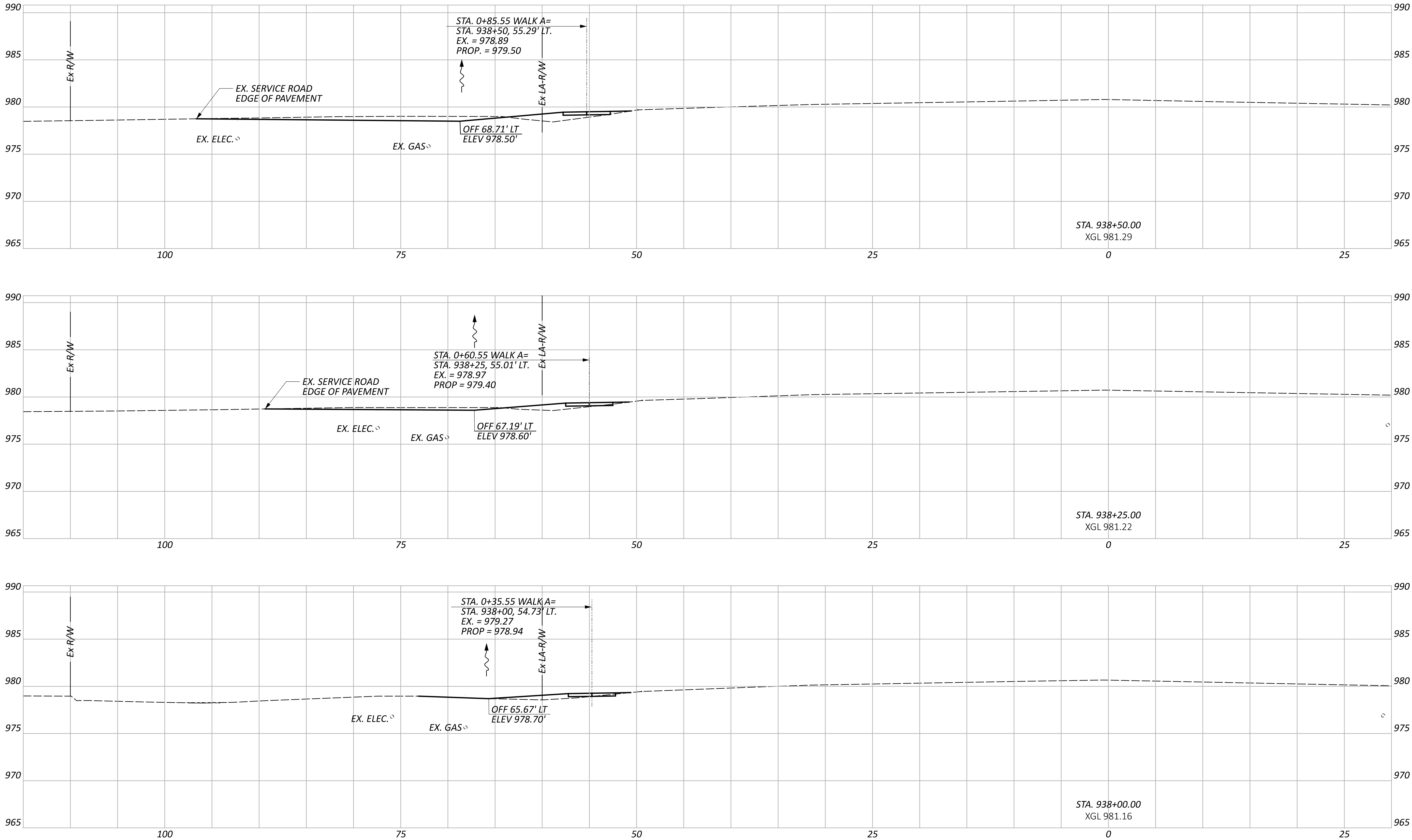
WES

REVIEWER

JES 01/19/24

PROJECT ID

114818



CROSS SECTIONS - SR 95 - LT
STA. 938+00 TO STA. 938+50

DESIGN AGENCY
Environmental Design Group
ARON / CLEVELAND / COLUMBUS
2500 WESTERN AVE., STE. 200
COLUMBUS, OH 43204

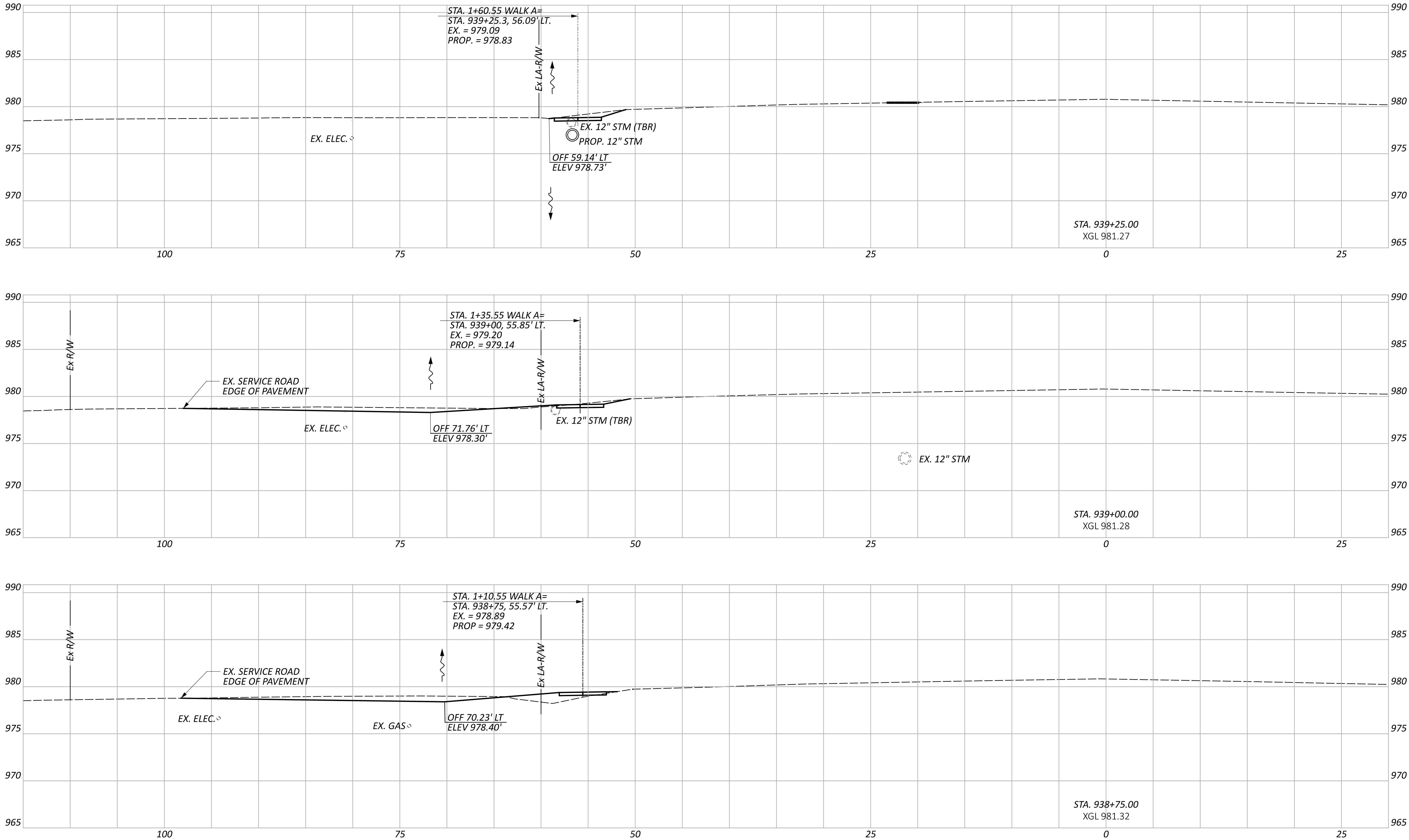
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

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SHEET	TOTAL
P.44	P.142



CROSS SECTIONS - SR 95 - LT
STA. 938+75 TO STA. 939+25

DESIGN AGENCY
Environmental Design Group
ARON / CLEVELAND / COLUMBUS
2501 CENTER RD., 1F 600.031.1350
E.S. 2010.01.01.01.01.01

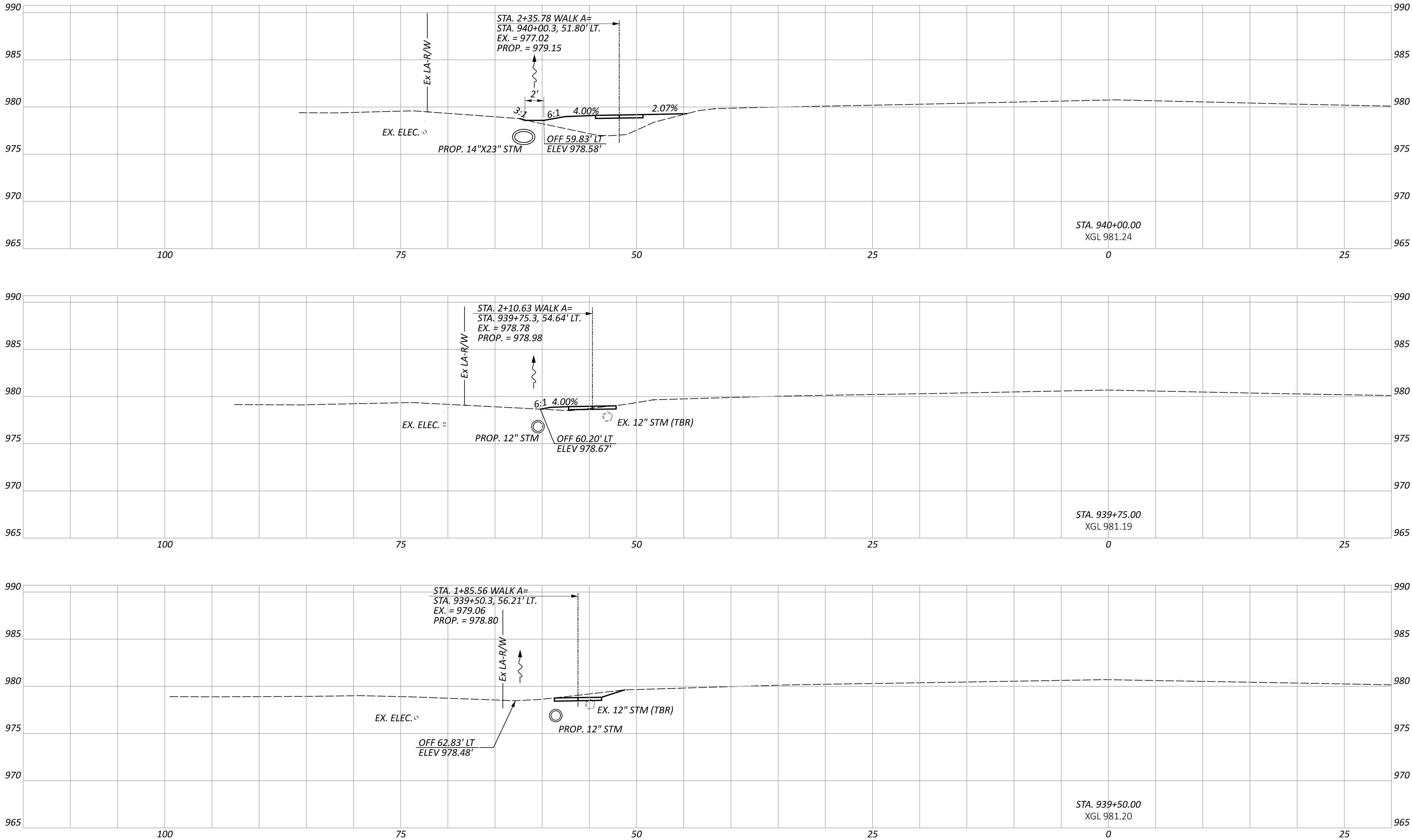
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

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SHEET	TOTAL
P.45	P.142



CROSS SECTIONS - SR 95 - LT
STA. 939+50 TO STA. 940+00

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
ENGINEERS, INC.
2501 STATE ROUTE 159
COLUMBUS, OH 43260-1350
P. 614.461.1200
F. 614.461.1201

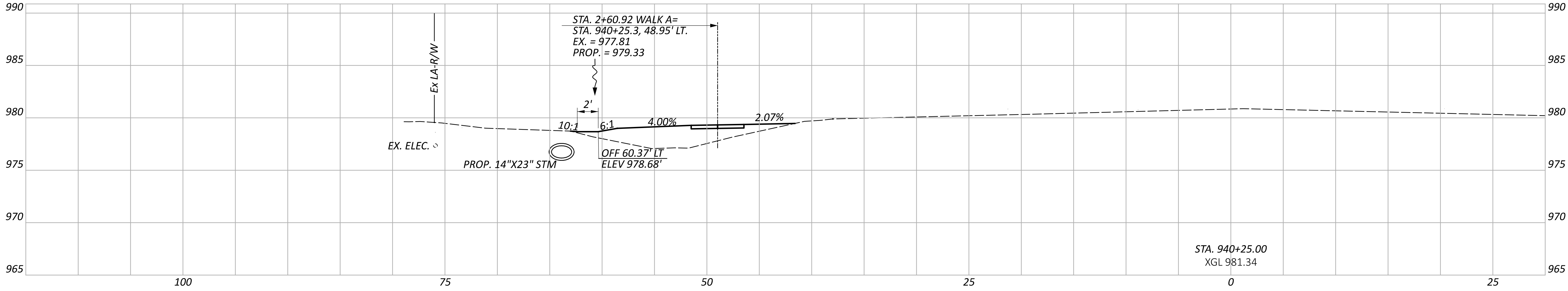
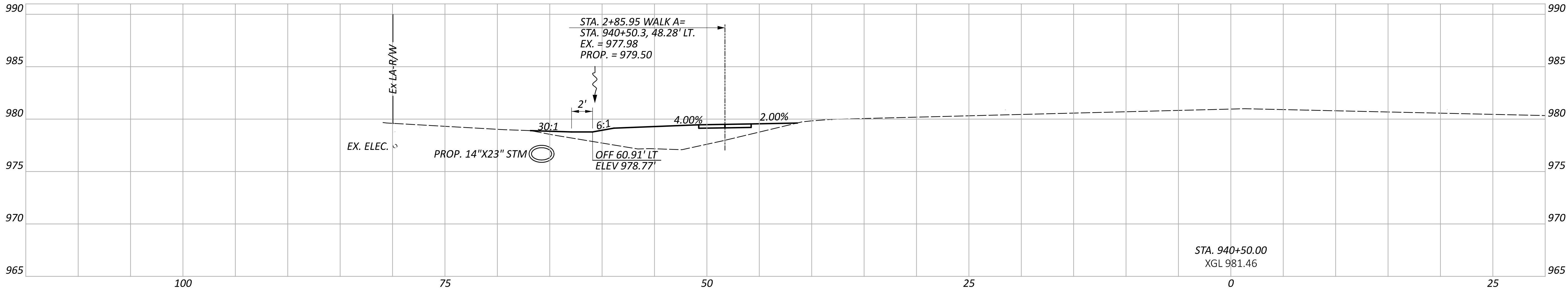
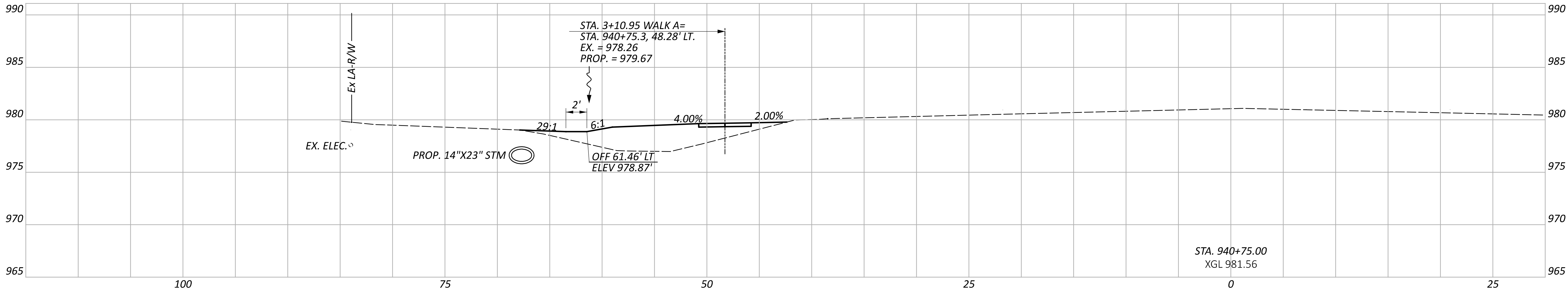
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.46	P.142



CROSS SECTIONS - SR 95 - LT
STA. 940+25 TO STA. 940+75

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
2500 WESTBURY BLVD., 1F 600.831.1350
E.S. 2500 WESTBURY BLVD., 1F 600.831.1350

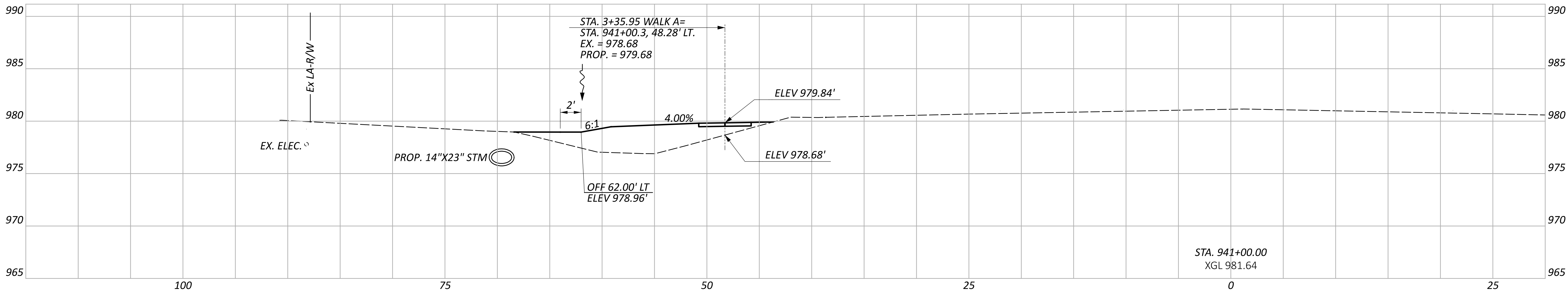
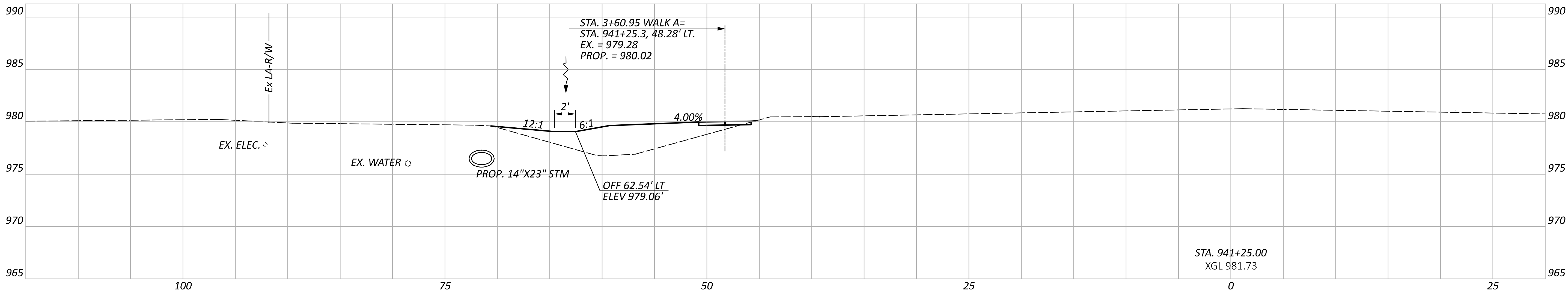
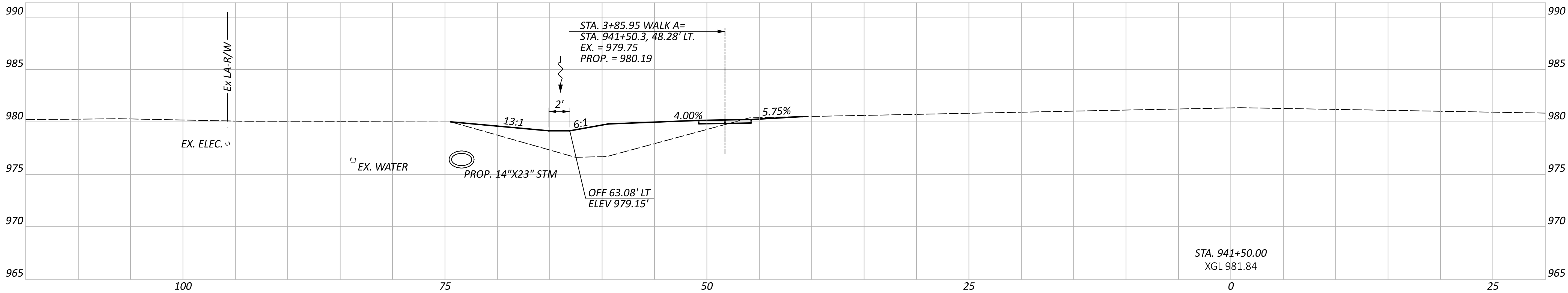
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.47	P.142



CROSS SECTIONS - SR 95 - LT
STA. 941+00 TO STA. 941+50

DESIGN AGENCY
Environmental Design Group
ARON / CLEVELAND / COLUMBUS
2500 CENTER RD., STE. 200
COLUMBUS, OH 43260-1350
614.265.0000

DESIGNER
WES

REVIEWER
JES 01/19/24

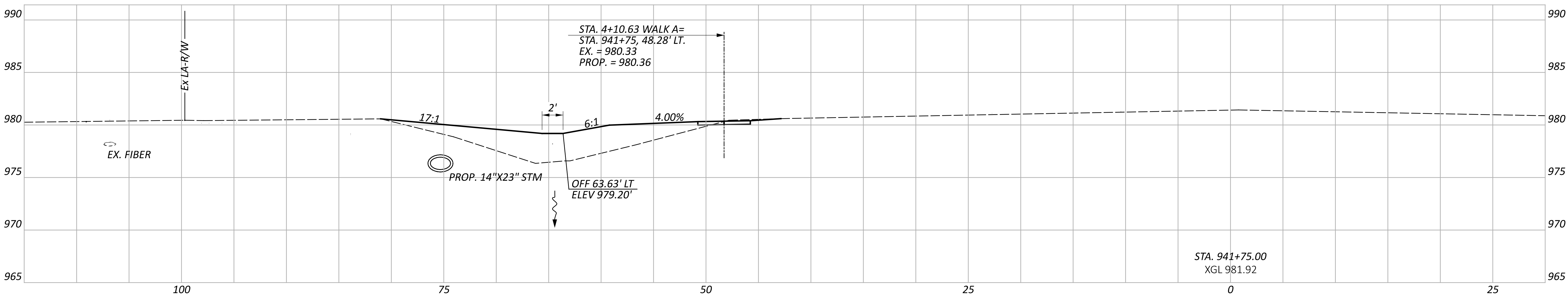
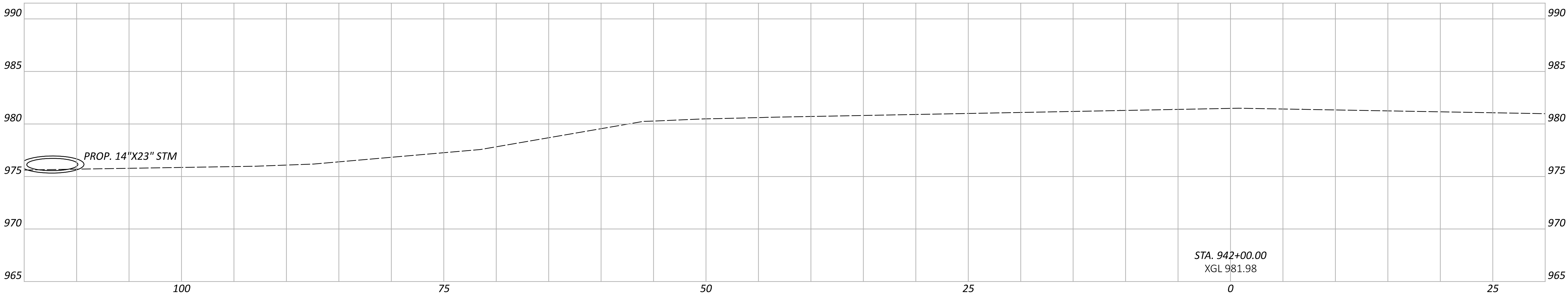
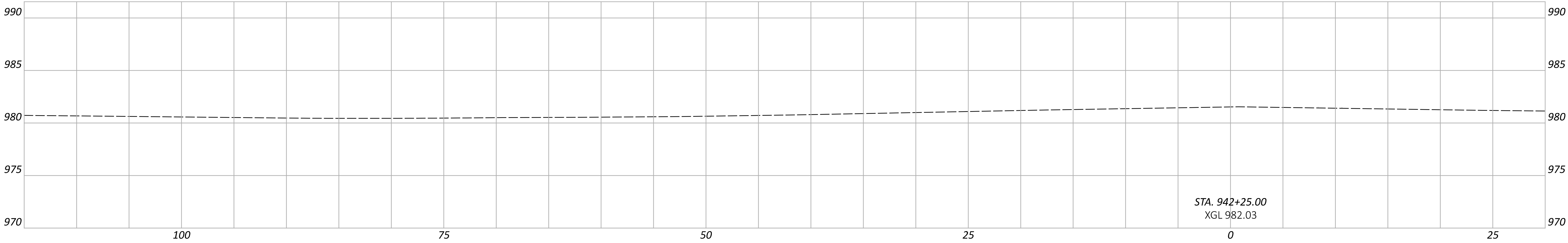
PROJECT ID
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MAR-95-17.90

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CROSS SECTIONS - SR 95 - LT
STA. 941+75 TO STA. 942+25

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
2500 CENTER RD., N.W. #200
COLUMBUS, OH 43260-1100

DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

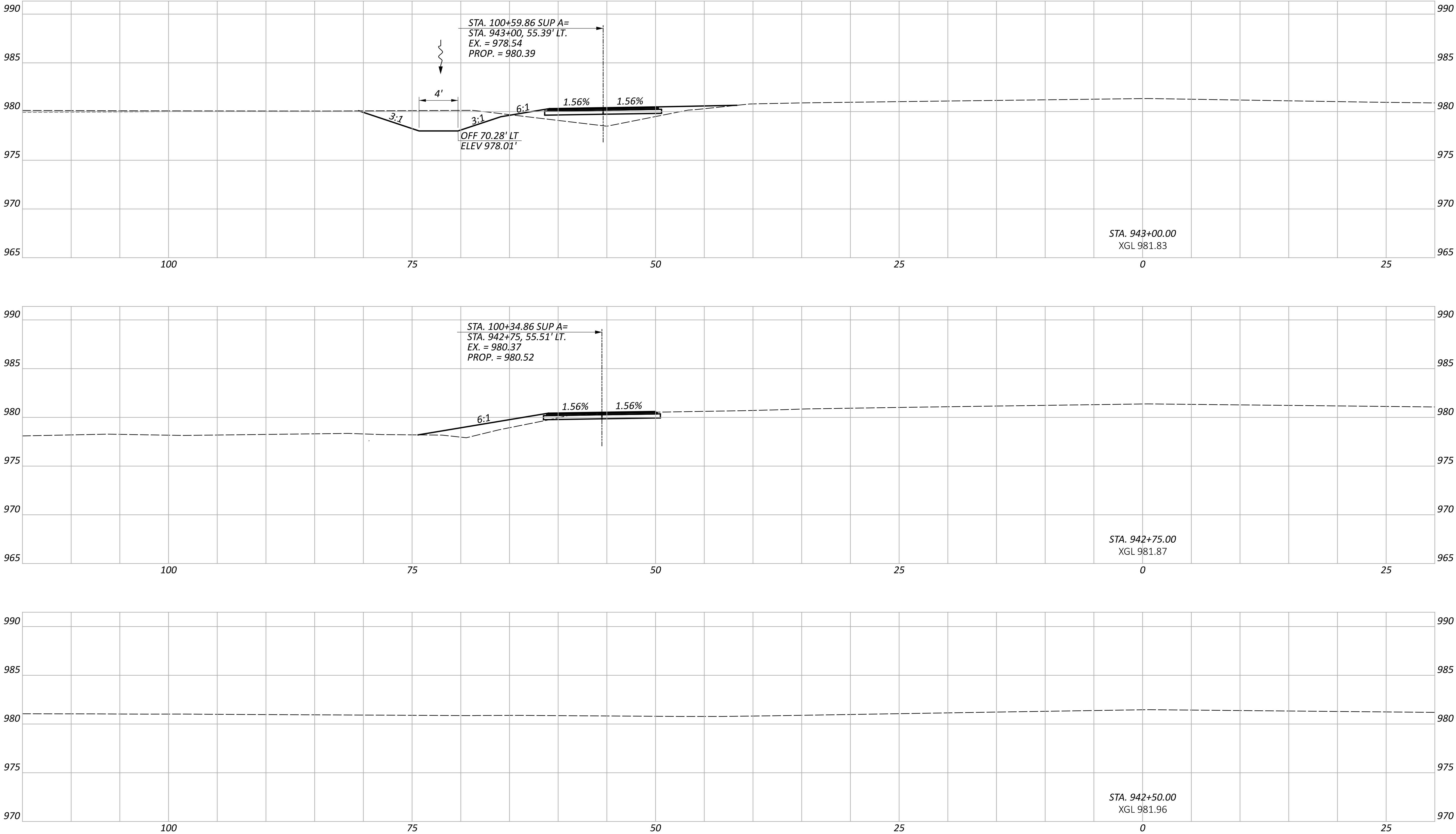
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SHEET	TOTAL
P.49	P.142

MAR-95-17.90

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CROSS SECTIONS - SR 95 - LT
STA. 942+50 TO STA. 943+00

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
2500 WESTBURY BLVD., 1F, SUITE 100
COLUMBUS, OH 43260-1000

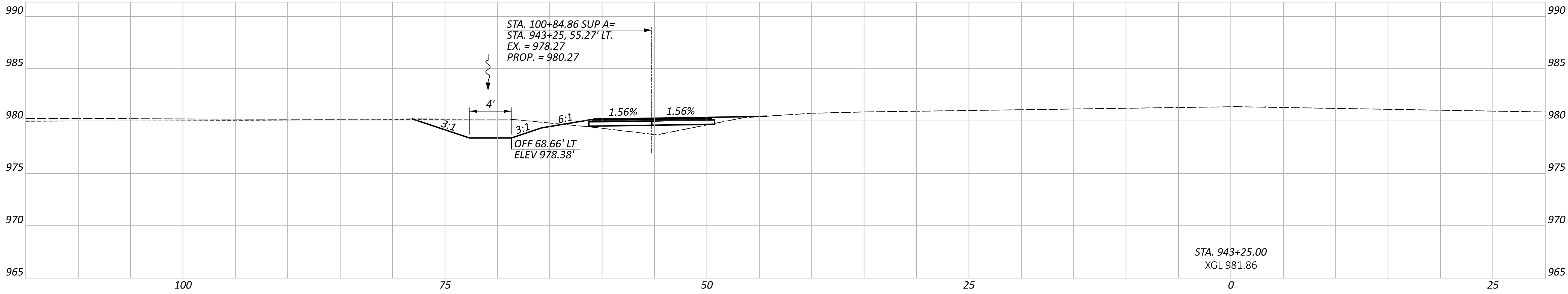
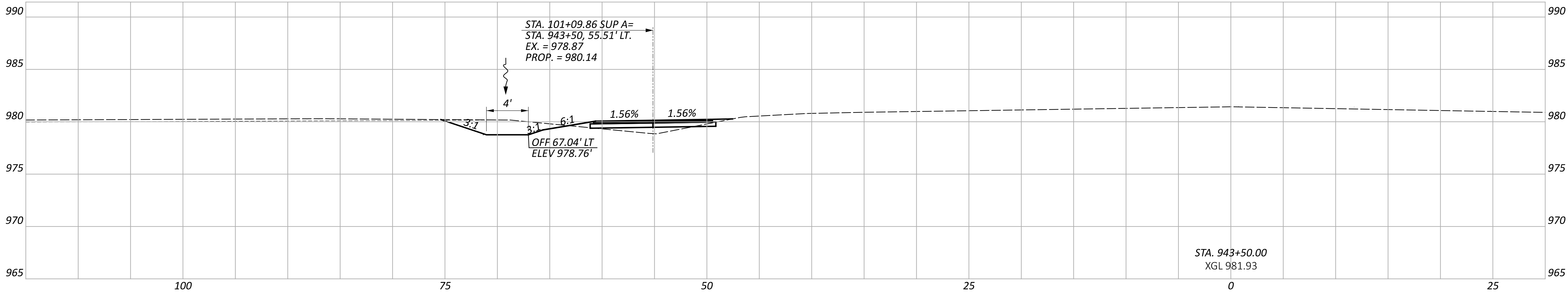
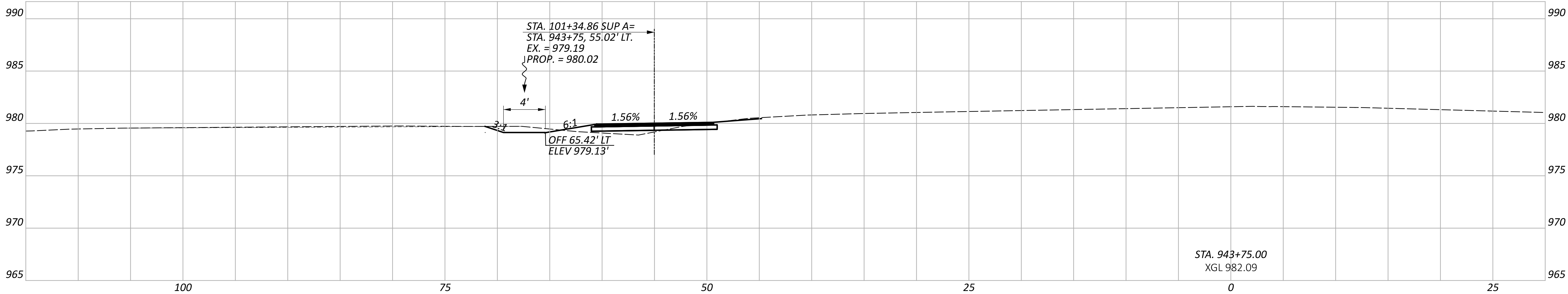
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.50	P.142



CROSS SECTIONS - SR 95 - LT
STA. 943+25 TO STA. 943+75

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 CENTER RD., #200
COLUMBUS, OH 43260-1350

DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

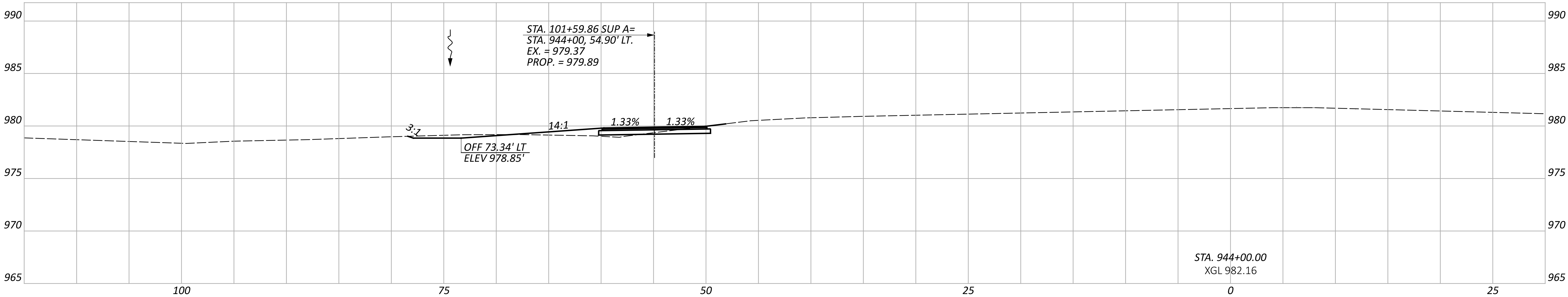
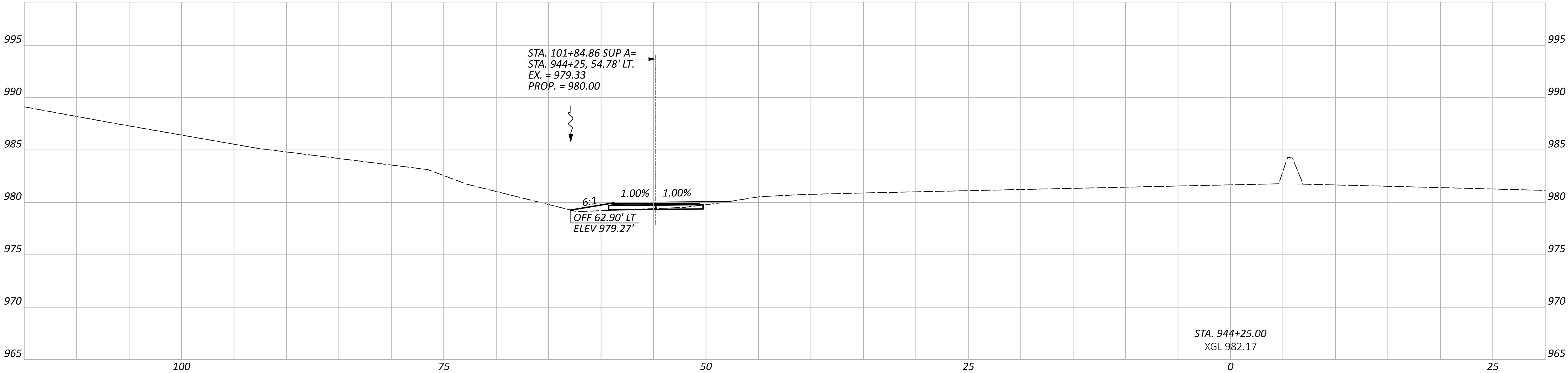
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P.51	P.142

MAR-95-17.90

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CROSS SECTIONS - SR 95 - LT
STA. 944+00 TO STA. 944+25

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
2500 CENTER ST., 2ND FLOOR
COLUMBUS, OH 43215

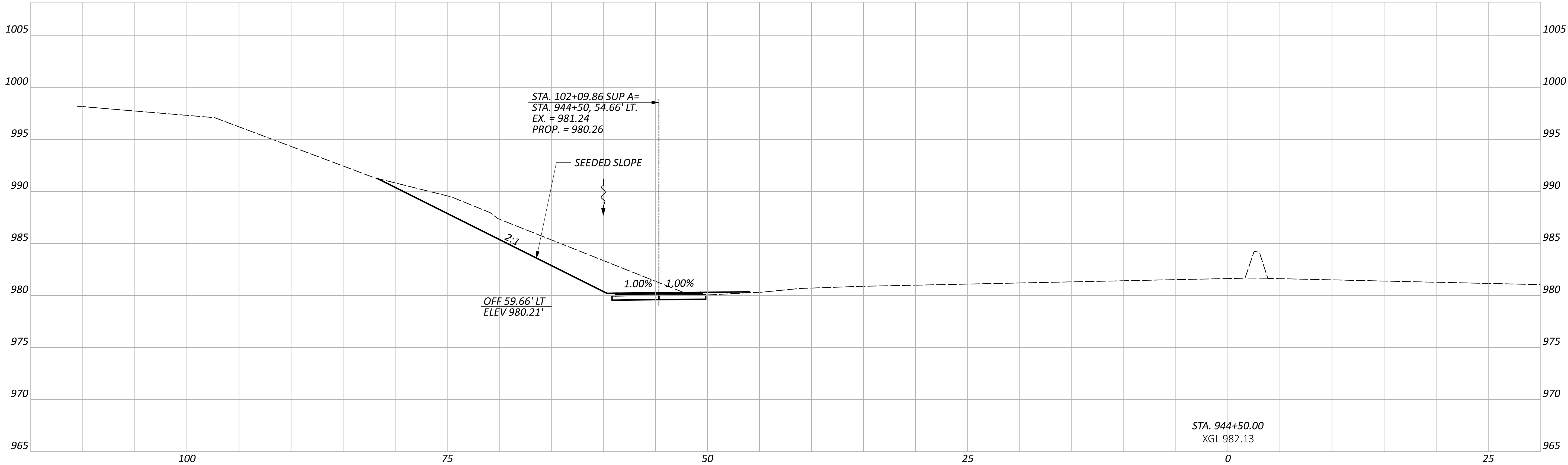
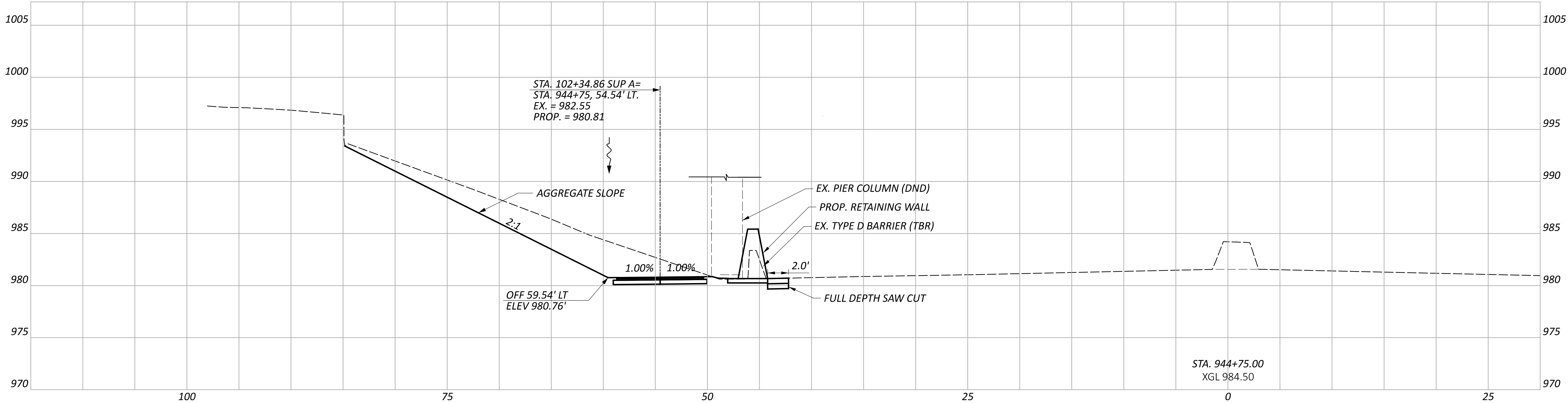
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.52	P.142



CROSS SECTIONS - SR 95 - LT
STA. 944+50 TO STA. 944+75

DESIGN AGENCY
**Environmental
Design Group**
ARROYO / CLEVELAND / COLUMBUS
2500 CENTER RD., #200
COLUMBUS, OH 43260-1350
P. 614.291.1200
F. 614.291.1201

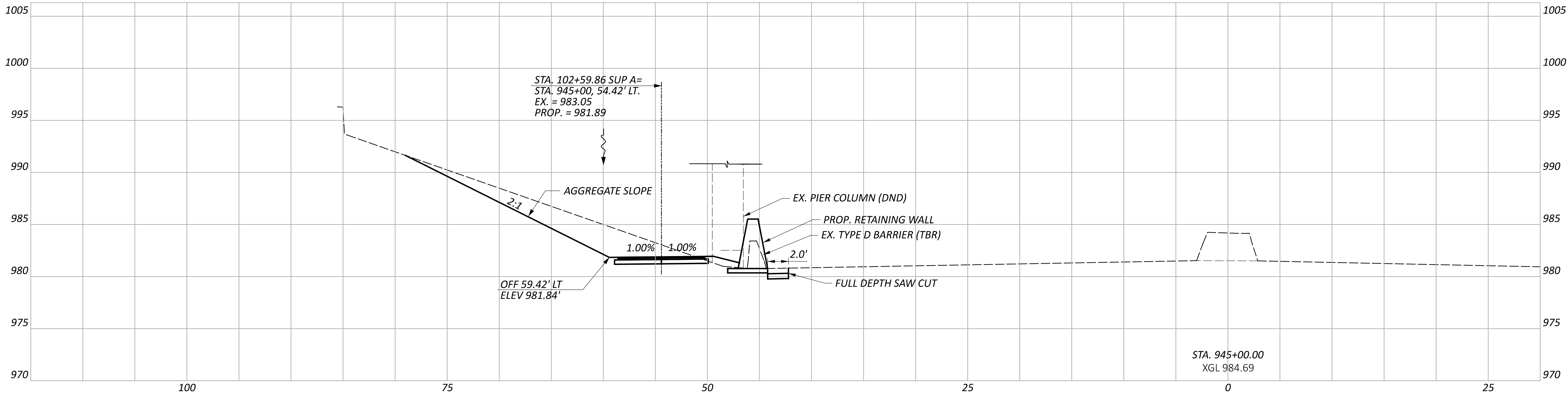
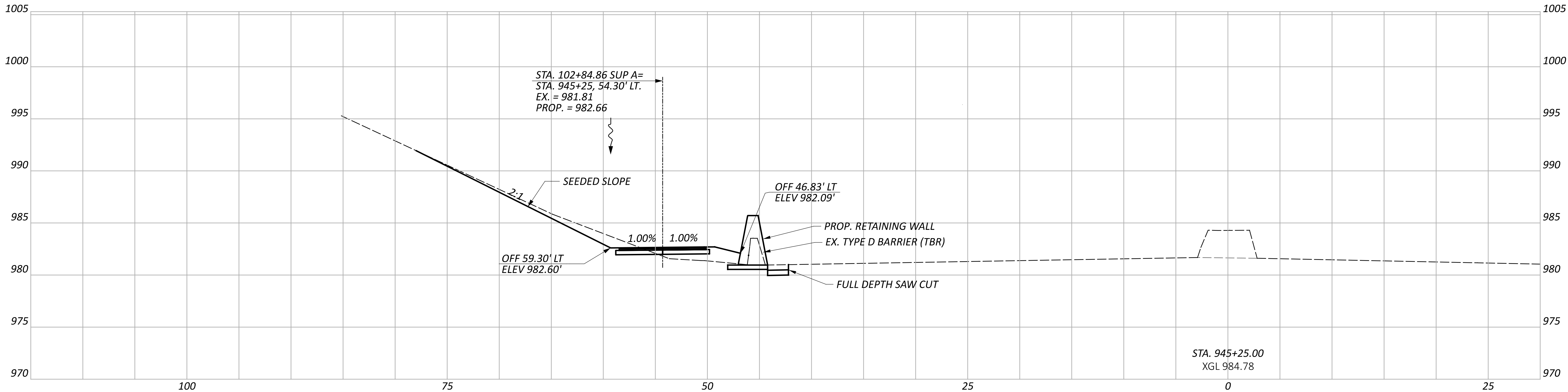
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.53	P.142



CROSS SECTIONS - SR 95 - LT
STA. 945+00 TO STA. 945+25

DESIGN AGENCY
Environmental Design Group
ARON / CLEVELAND / COLUMBUS
2500 WESTBURY BLVD., SUITE 200
COLUMBUS, OH 43260-1350
614.461.1350

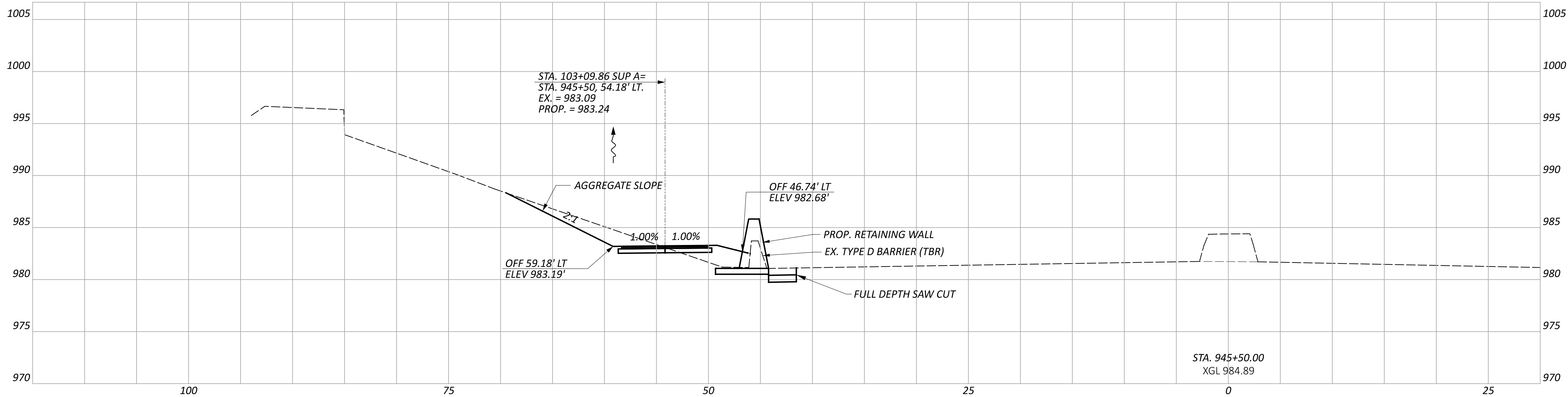
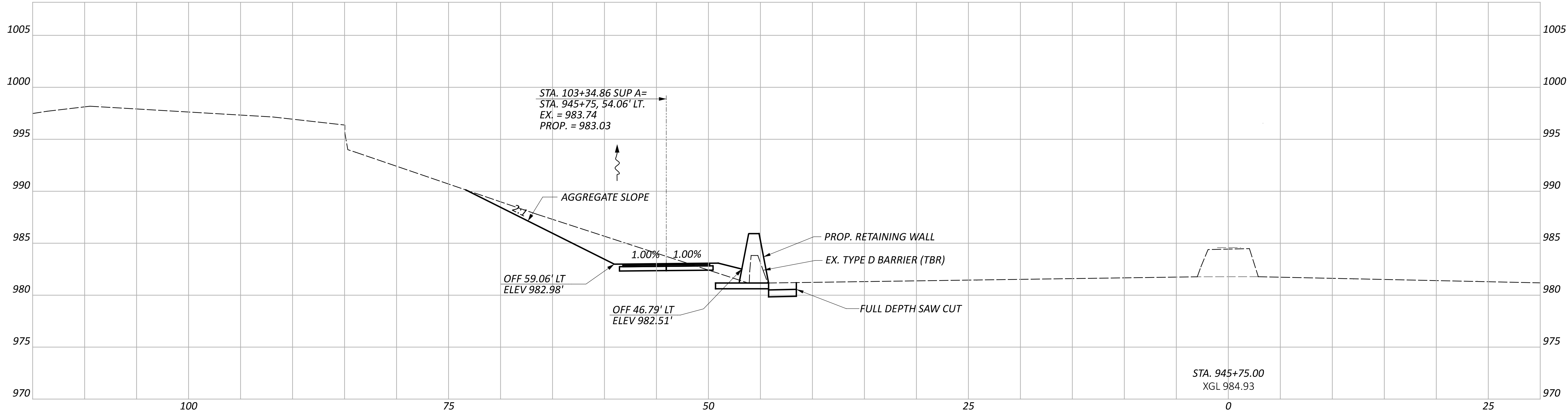
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.54	P.142



CROSS SECTIONS - SR 95 - LT
STA. 945+50 TO STA. 945+75

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
ENGINEERING, INC.
2501 STATE ST., 1F
COLUMBUS, OH 43260-1350
P. 614.291.0000
F. 614.291.0001

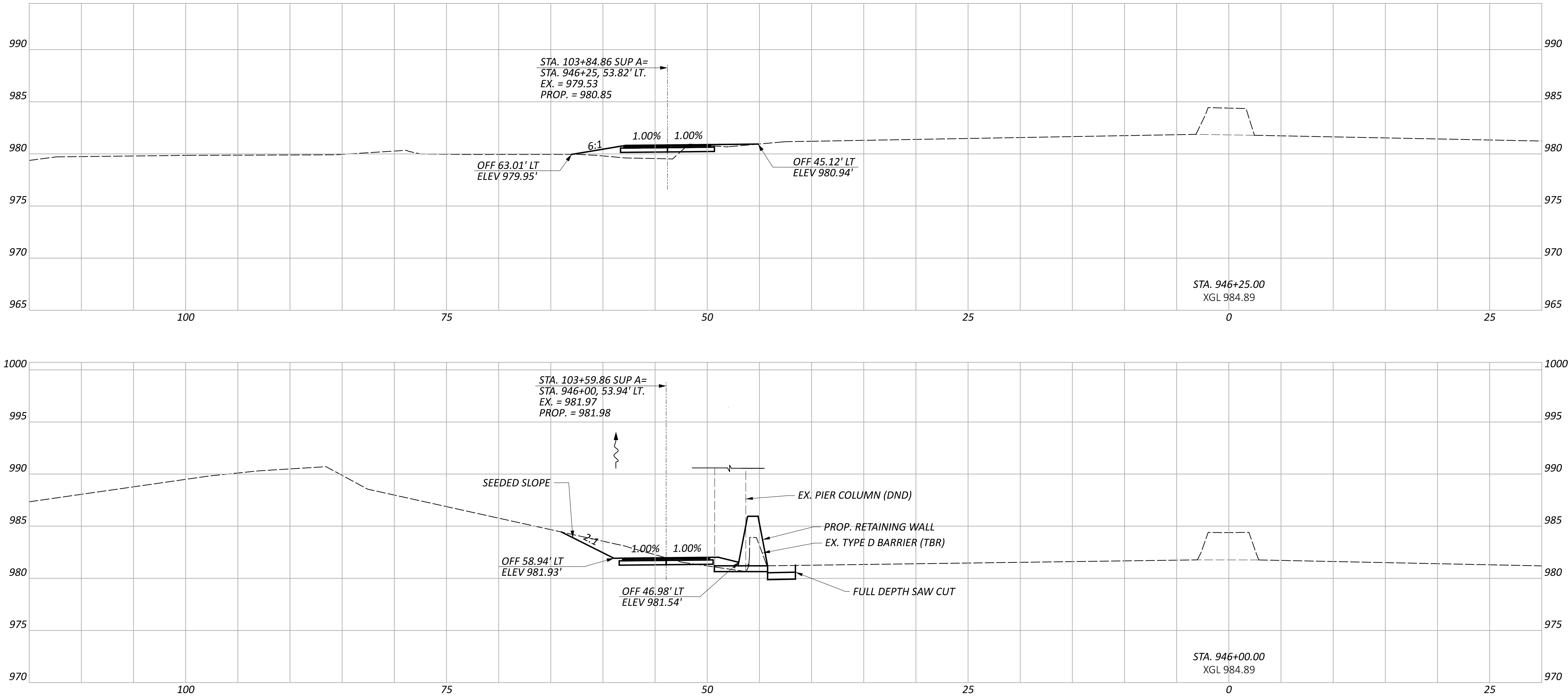
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.55	P.142



CROSS SECTIONS - SR 95 - LT
STA. 946+00 TO STA. 946+25

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
2500 WESTERN AVE., 1F, 600.031.1350
E.S. & S.
DESIGNER

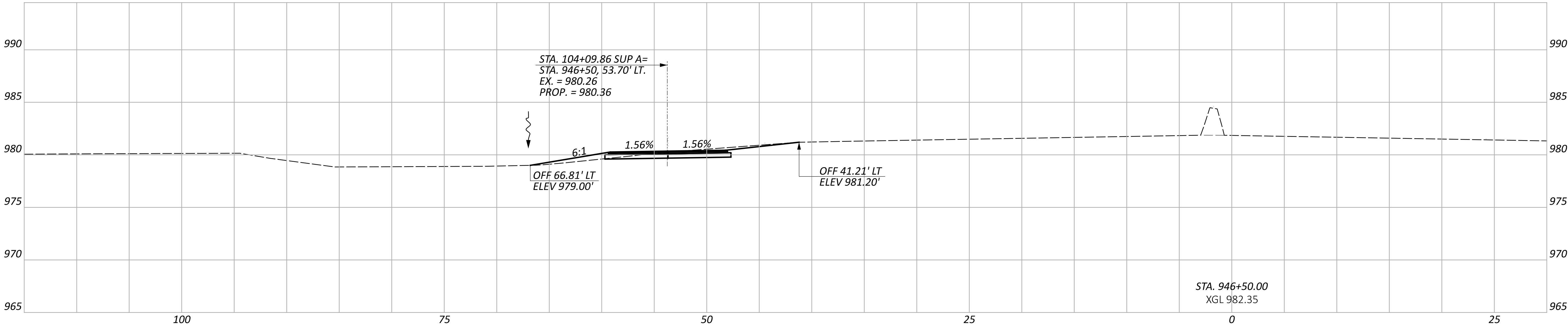
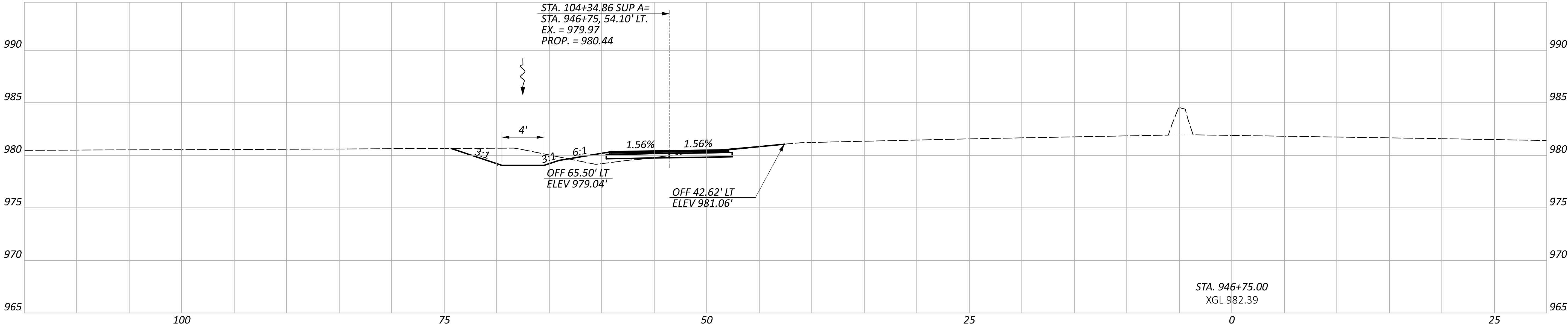
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REVIEWER
JES 01/19/24

PROJECT ID
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SHEET	TOTAL
P.56	P.142



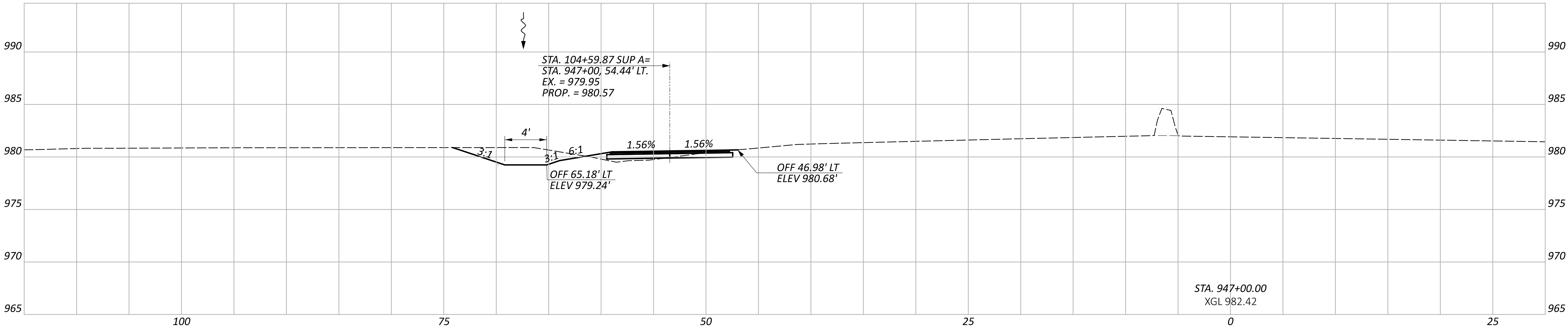
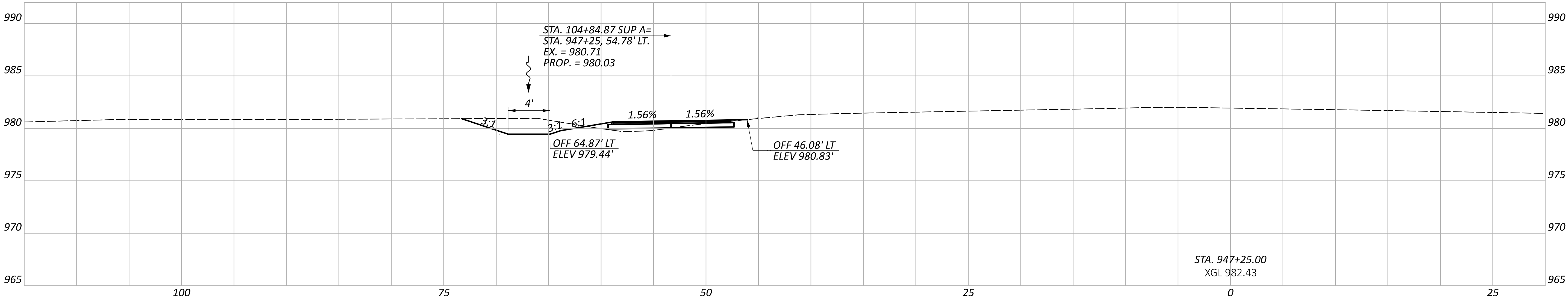
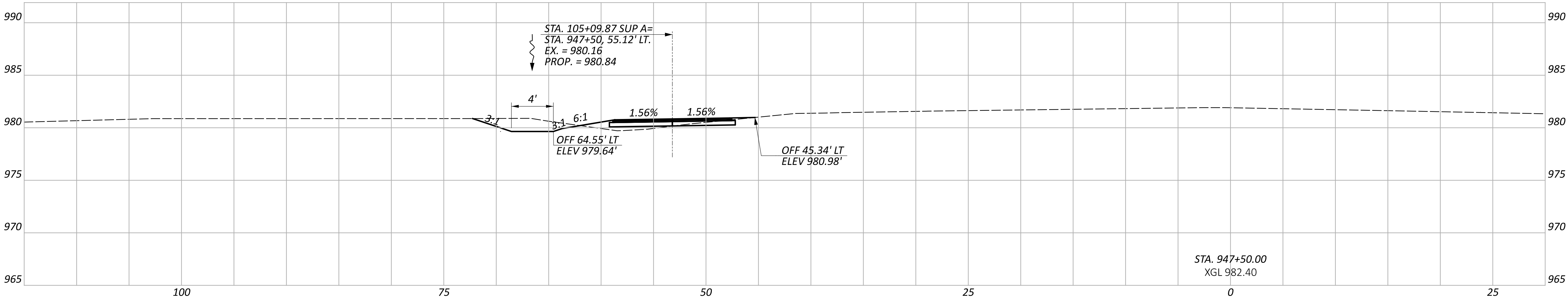
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DESIGN AGENCY	
Environmental Design Group	
ARROW / CLEVELAND / COLUMBUS	
250 N. STATE ST., 12TH FLOOR, COLUMBUS, OH 43260-1399	
TEL: 614.464.1200 FAX: 614.464.1201	
DESIGNER	
WES	
REVIEWER	
JES 01/19/24	
PROJECT ID	
114818	

CROSS SECTIONS - SR 95 - LT
STA. 946+50 TO STA. 946+75

MAR-95-17-90

MODEL: CLX_RW_S095 - 947+00.00 [Sheet] PAPER SIZE: 34x22 (in.) DATE: 7/27/2025 TIME: 8:29:54 AM USER: bshepherd
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CROSS SECTIONS - SR 95 - LT
STA. 947+00 TO STA. 947+50

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 CENTER RD., STE. 200
COLUMBUS, OH 43260-1350
614.461.1200

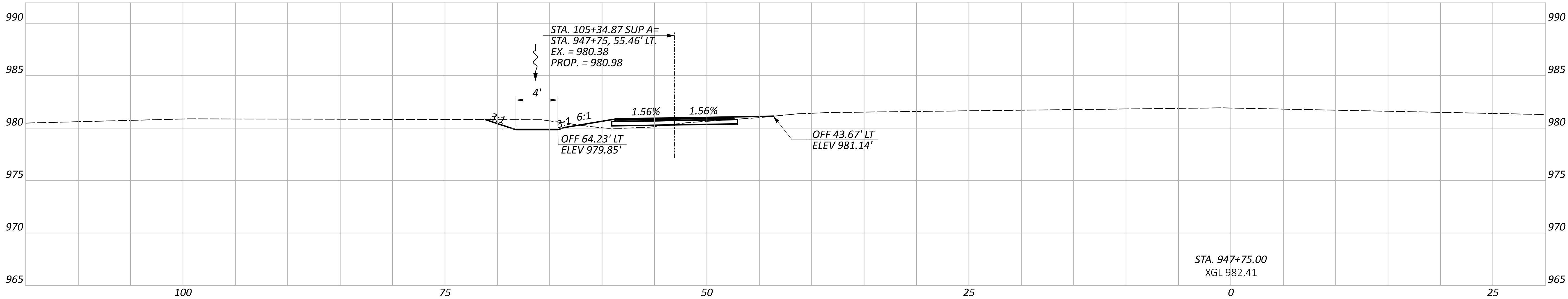
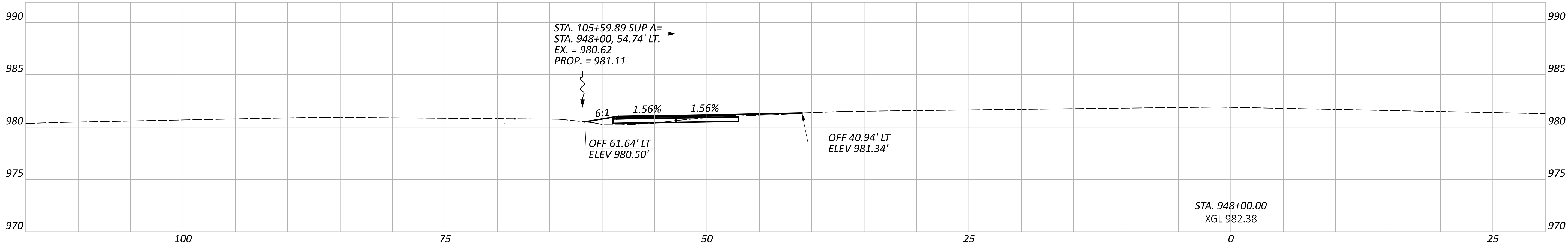
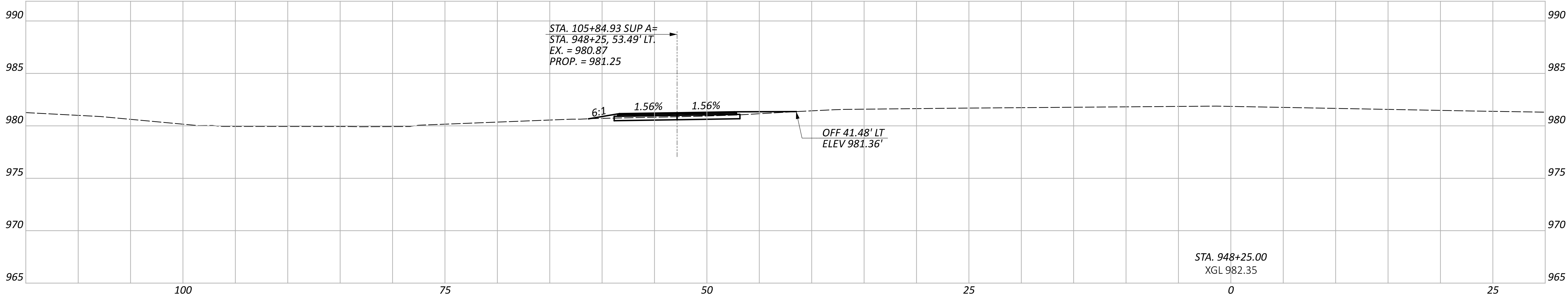
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.58	P.142



CROSS SECTIONS - SR 95 - LT
STA. 947+75 TO STA. 948+25

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
ENGINEERING, INC.
2500 CENTER RD., STE. 200
COLUMBUS, OH 43260-1350
614.461.1200

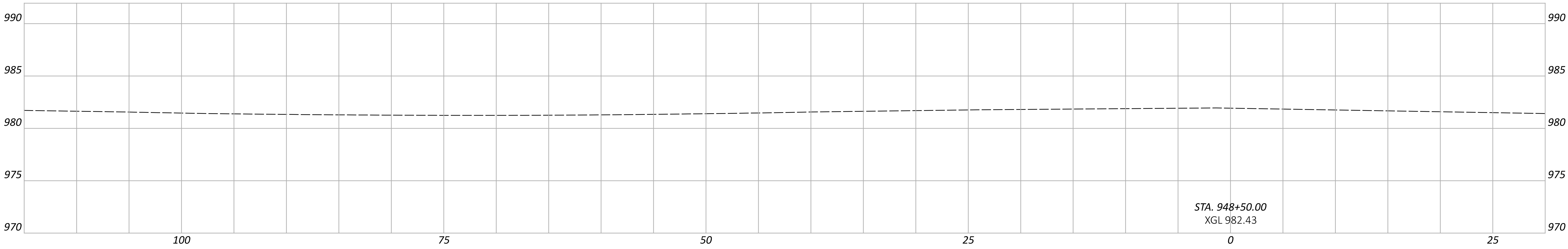
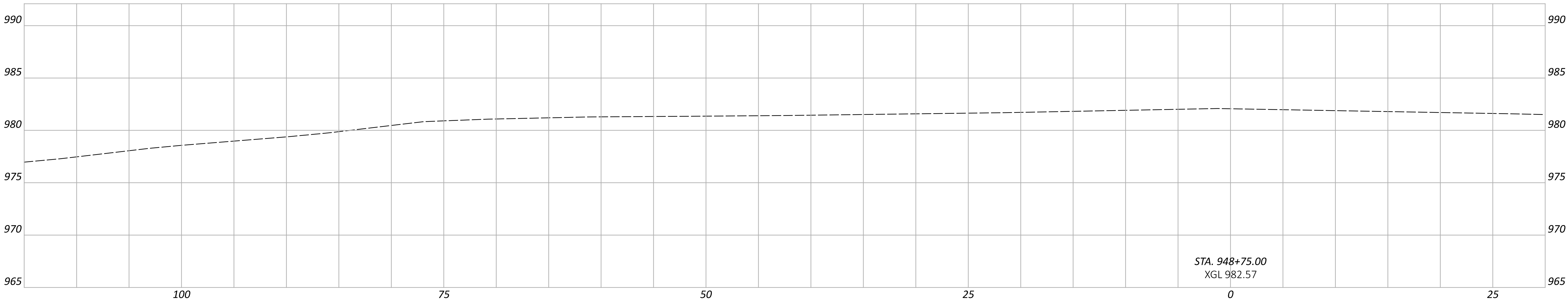
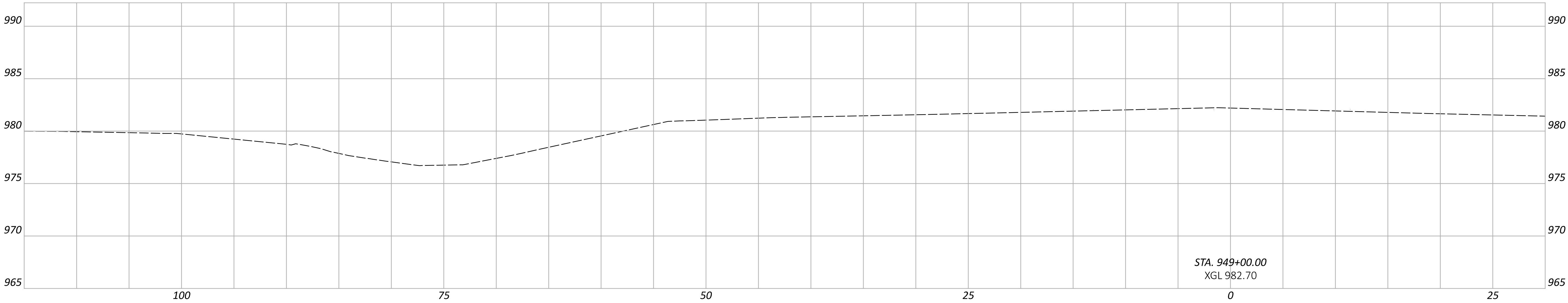
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.59	P.142



CROSS SECTIONS - SR 95 - LT
STA. 948+50 TO STA. 949+00

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
2500 EAST 17TH AVE., 1F, SUITE 100
COLUMBUS, OH 43206-1350
P. 603.491.1350
F. 603.491.1350
WWW.EDG-DESIGN.COM

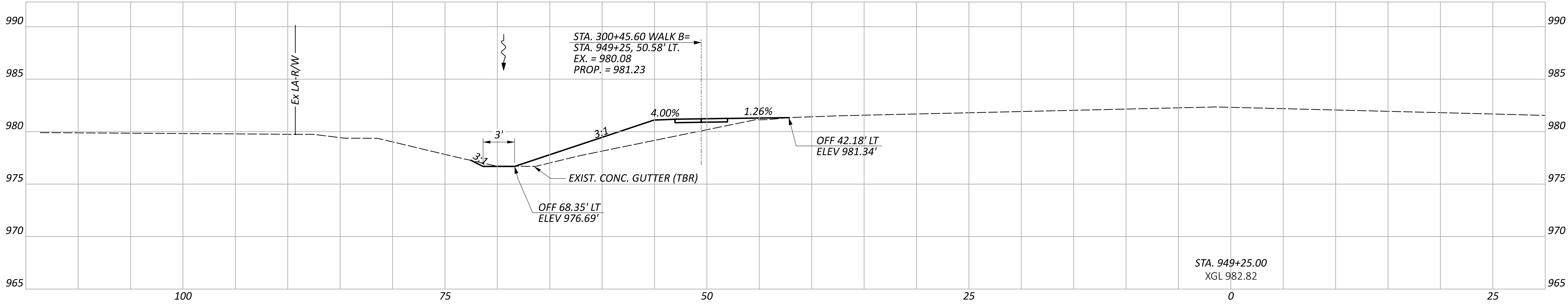
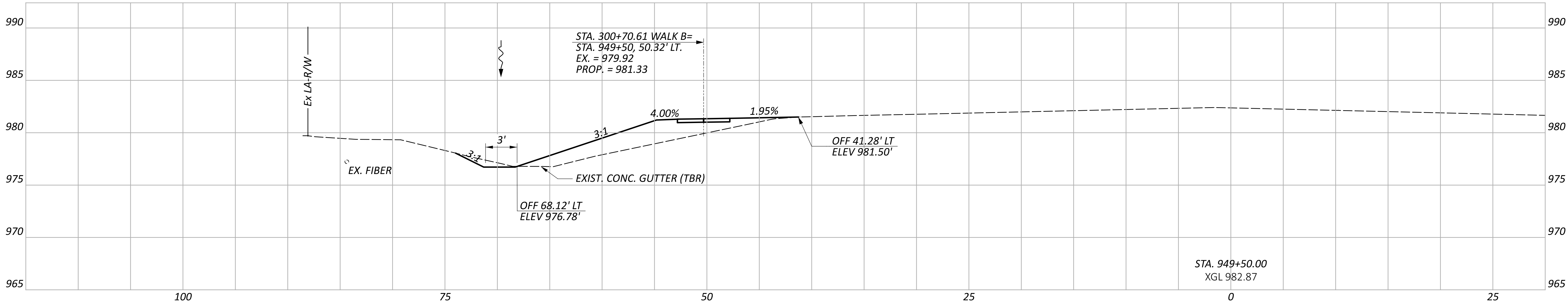
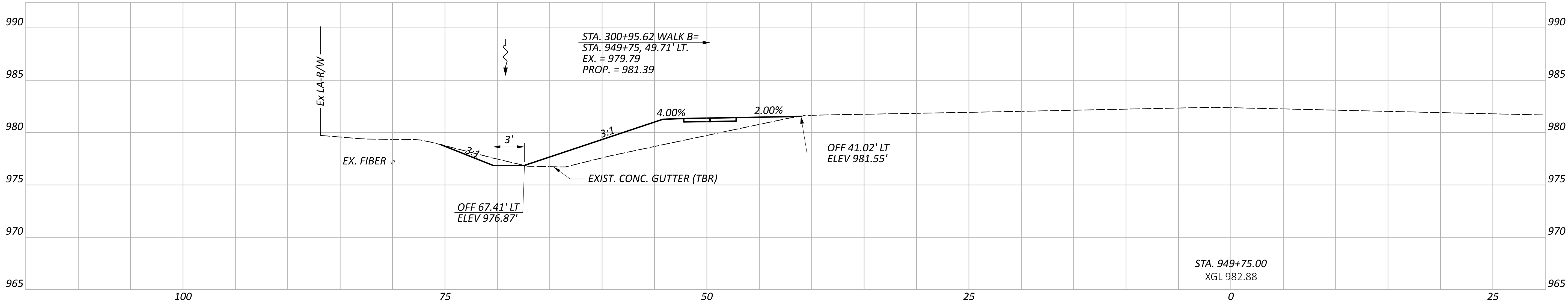
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.60	P.142



CROSS SECTIONS - SR 95 - LT
STA. 949+25 TO STA. 949+75

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 CENTER RD., N.W. #200
COLUMBUS, OH 43260-1350
614.461.0000 FAX 614.461.0001

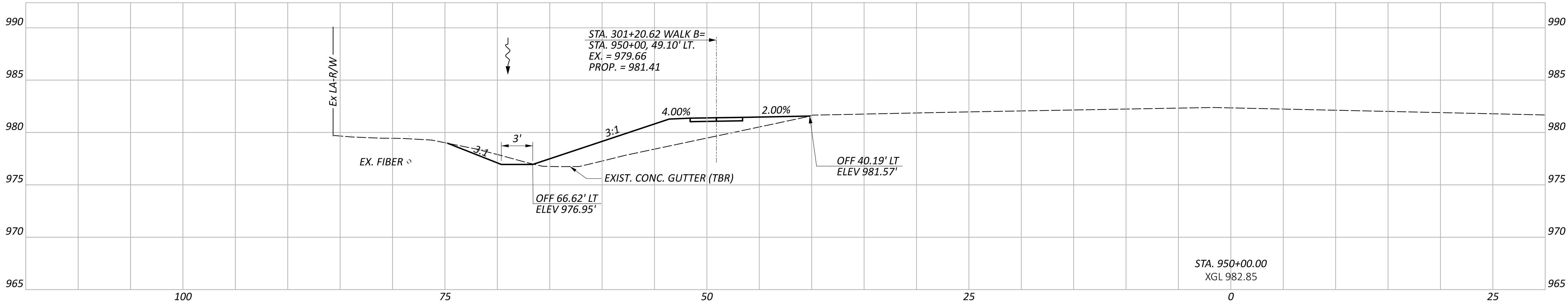
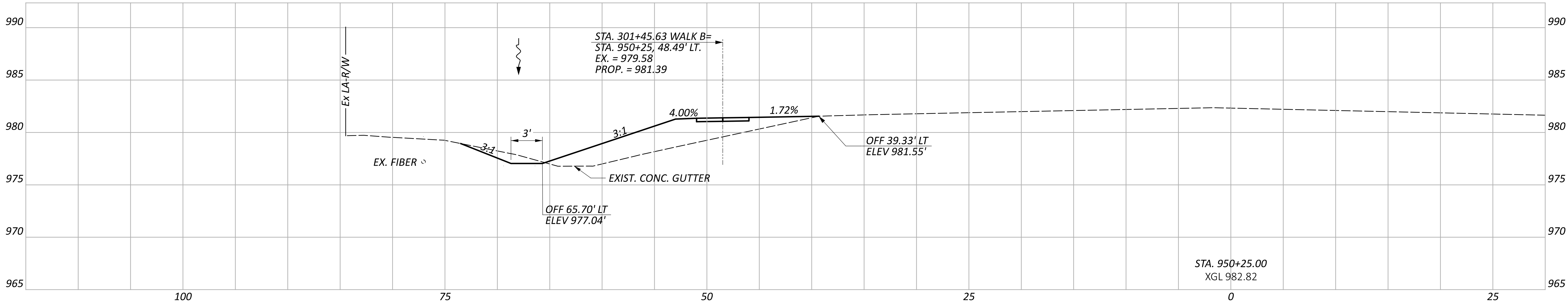
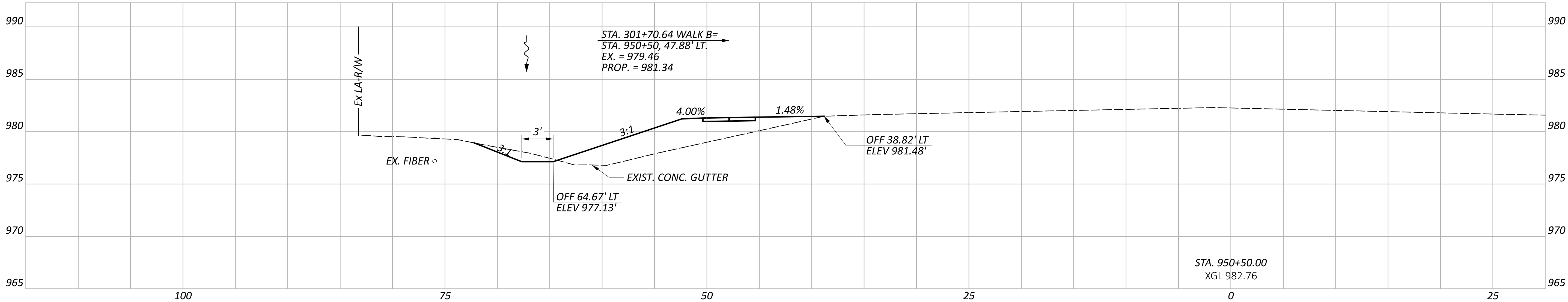
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.61	P.142



CROSS SECTIONS - SR 95 - LT
STA. 950+00 TO STA. 950+50

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 WESTBURY BLVD., 1F
COLUMBUS, OH 43260-1350
P. 614.291.0000
F. 614.291.0001

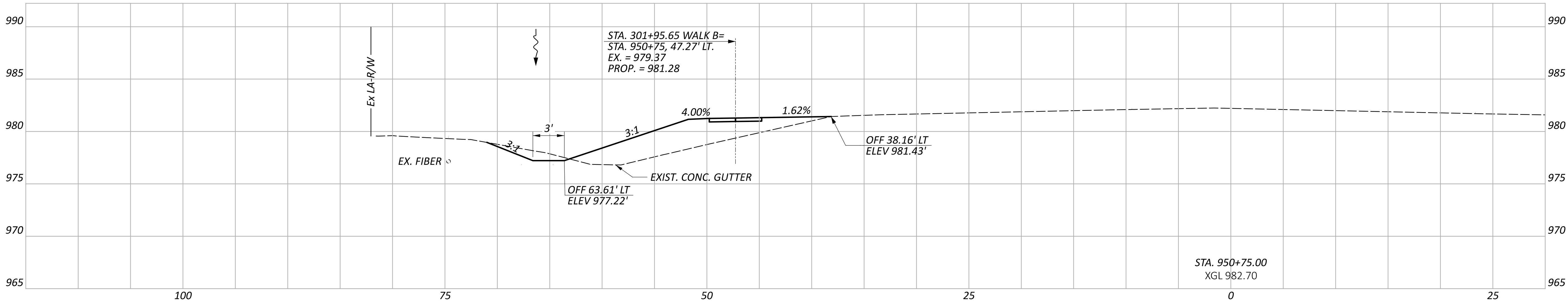
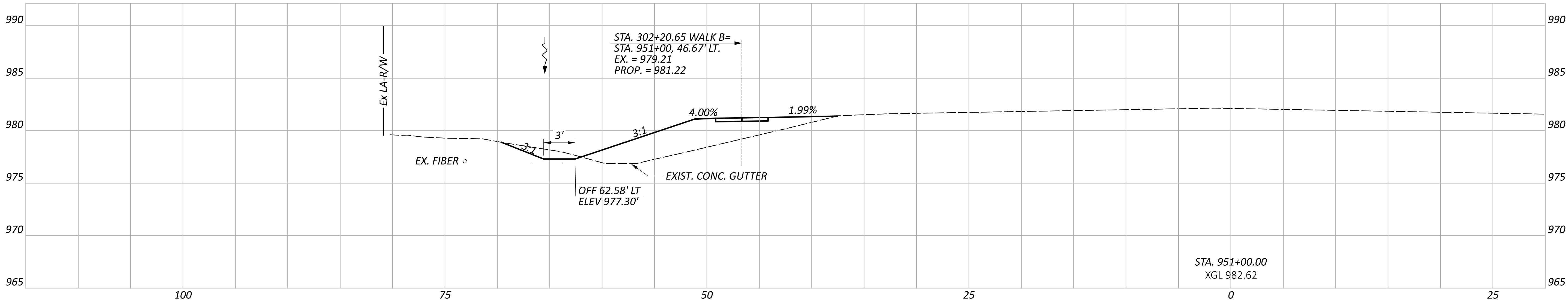
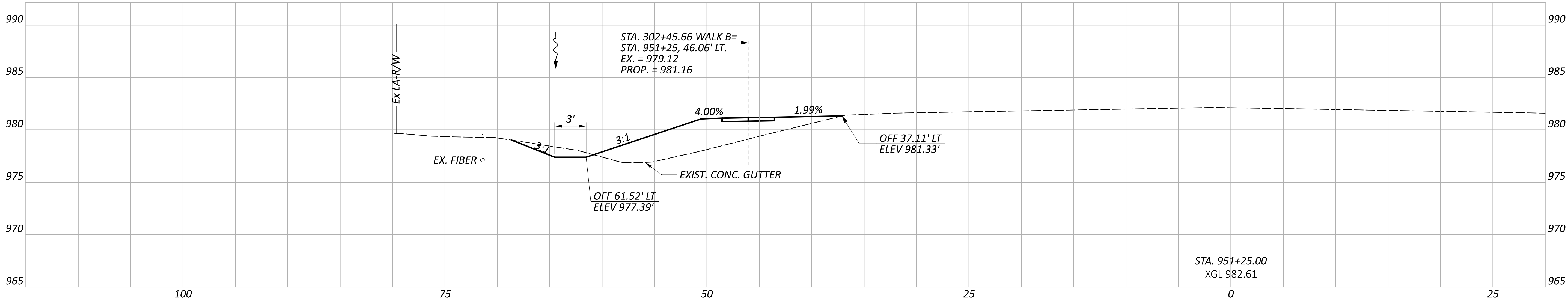
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.62	P.142



CROSS SECTIONS - SR 95 - LT
STA. 950+75 TO STA. 951+25

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
ENGINEERS, INC.
2500 WESTBURY BLVD., SUITE 200
COLUMBUS, OH 43260-1390
P. 603.451.1390
F. 603.451.1391
WWW.EDG-INC.COM

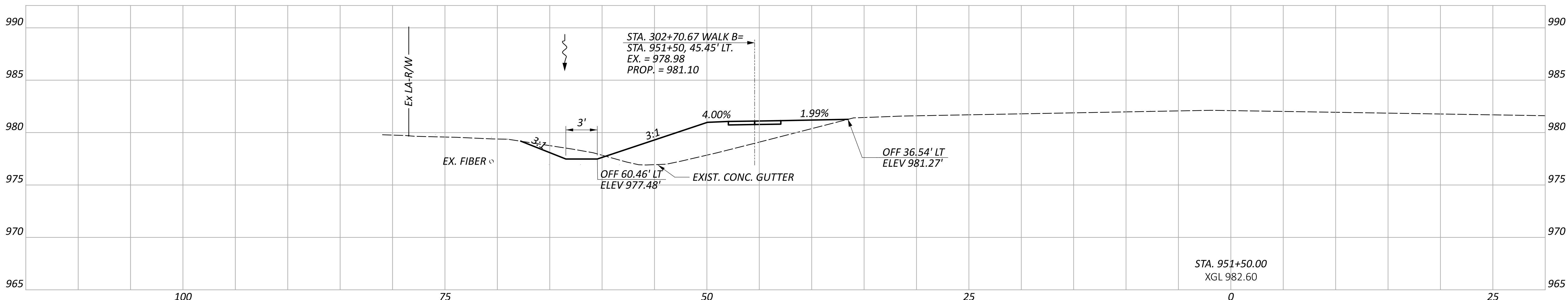
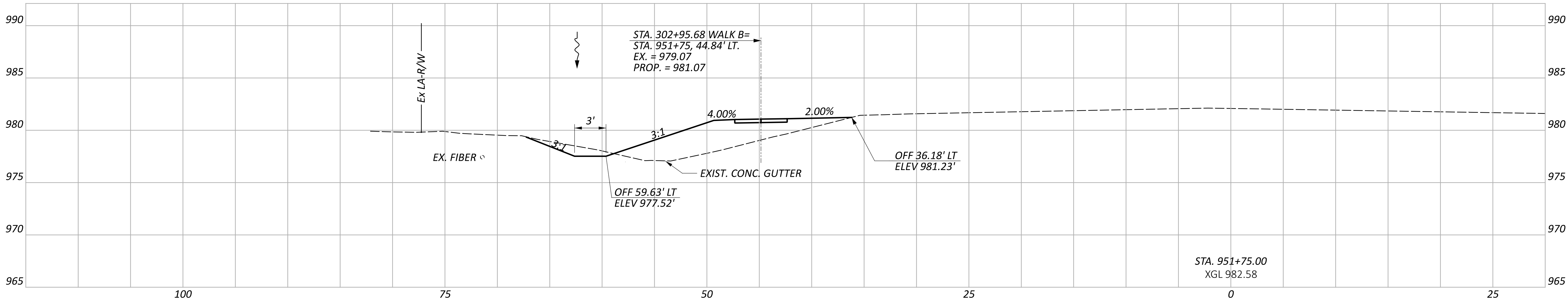
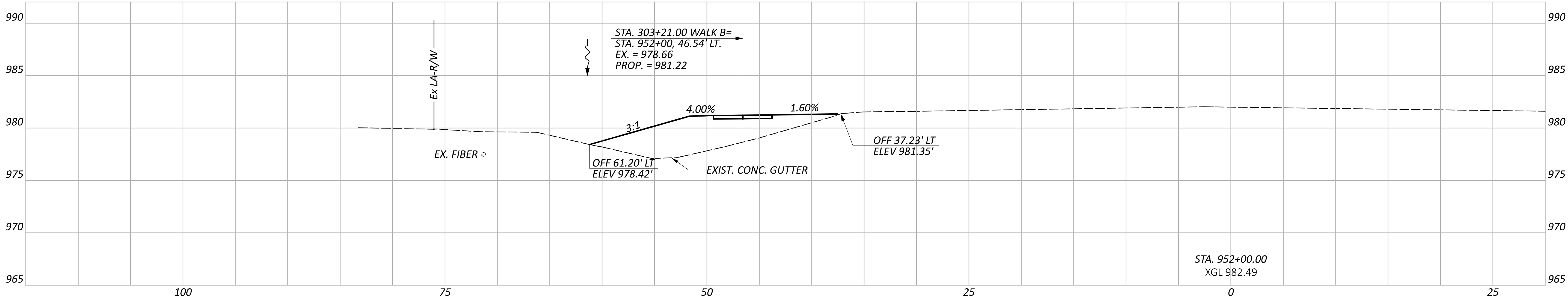
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.63	P.142



CROSS SECTIONS - SR 95 - LT
STA. 951+50 TO STA. 952+00

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
ENGINEERING, INC.
2500 WESTERN AVE., STE. 200
COLUMBUS, OH 43260-1350
P. 603.651.1350
F. 603.651.1351
WWW.EDG-INC.COM

DESIGNER
WES

REVIEWER
JES 01/19/24

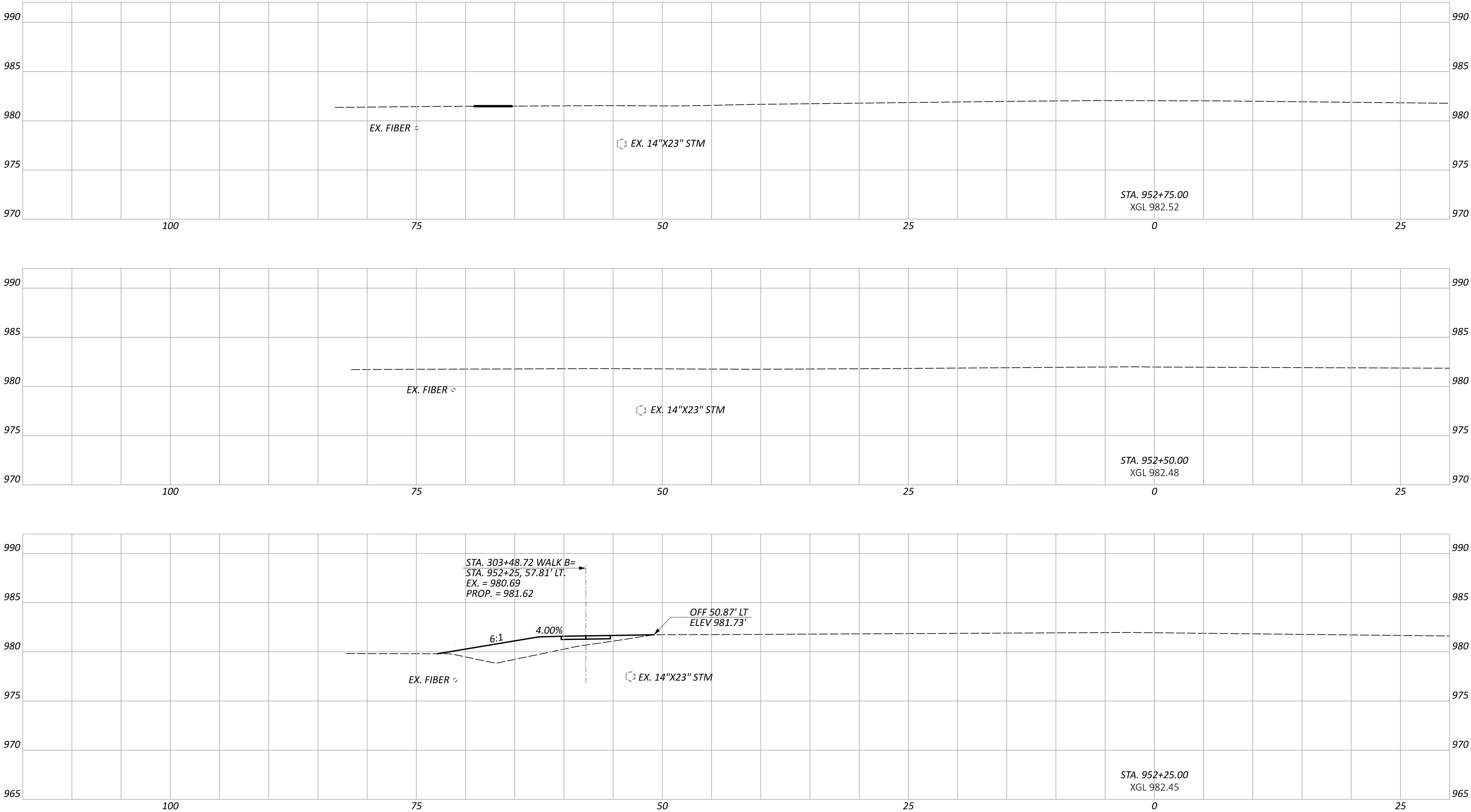
PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.64	P.142

MAR-95-17.90

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Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
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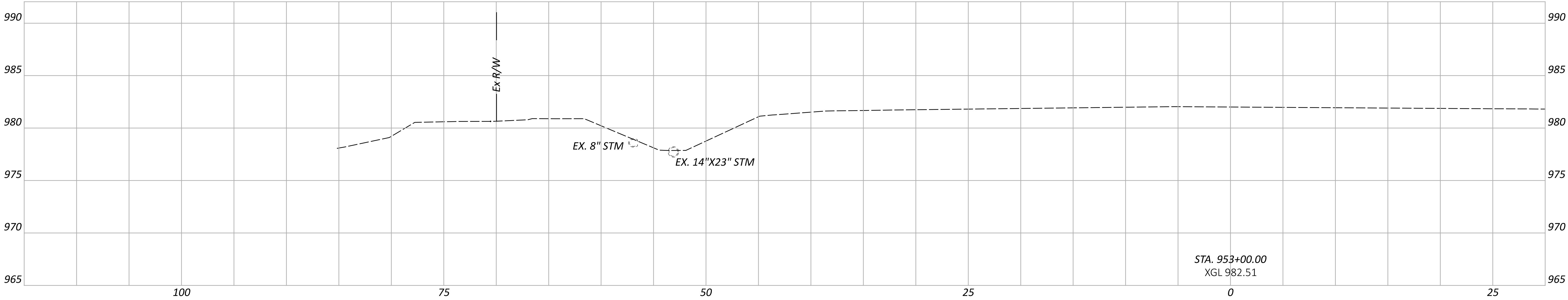
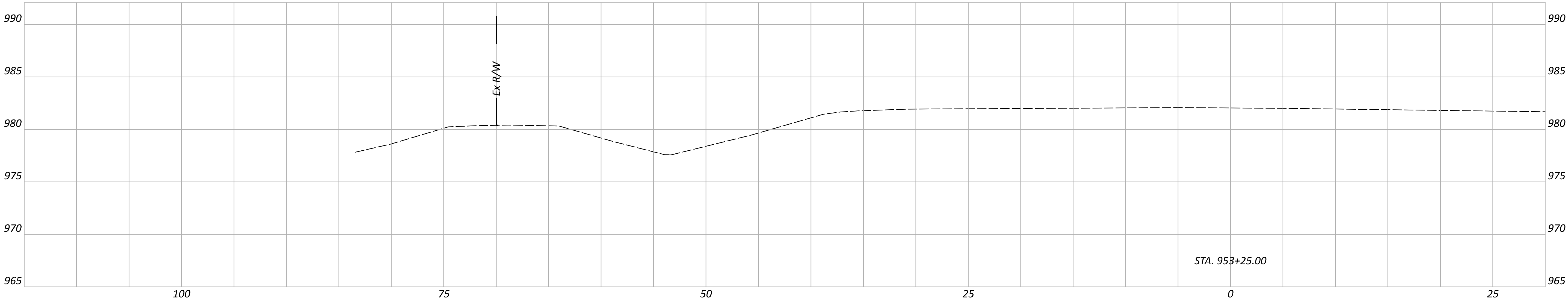
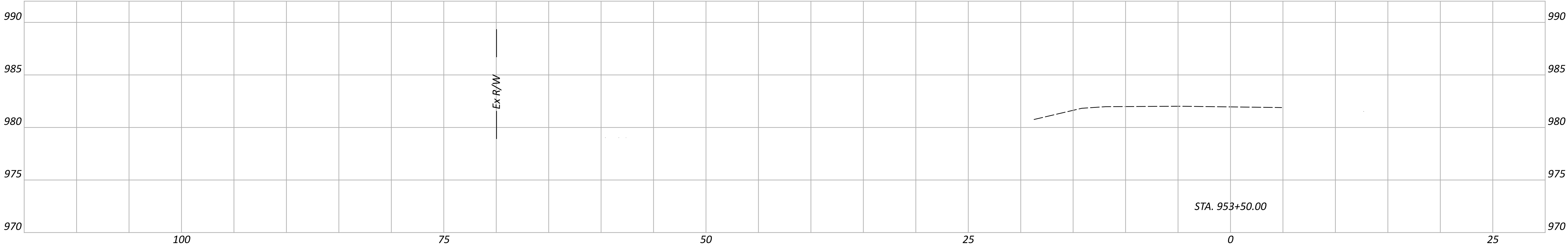
DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
250 WESTERN AVE., 1F, 600.031.1350
E.S. & S. 2007.01.01.001.001

DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

CROSS SECTIONS - SR 95 - LT
STA. 952+25 TO STA. 952+75



CROSS SECTIONS - SR 95 - LT
STA. 953+00 TO STA. 953+50

DESIGN AGENCY
**Environmental
Design Group**
ARROYO / CLEVELAND / COLUMBUS
2500 W. 10TH AVE., SUITE 100
DENVER, CO 80202

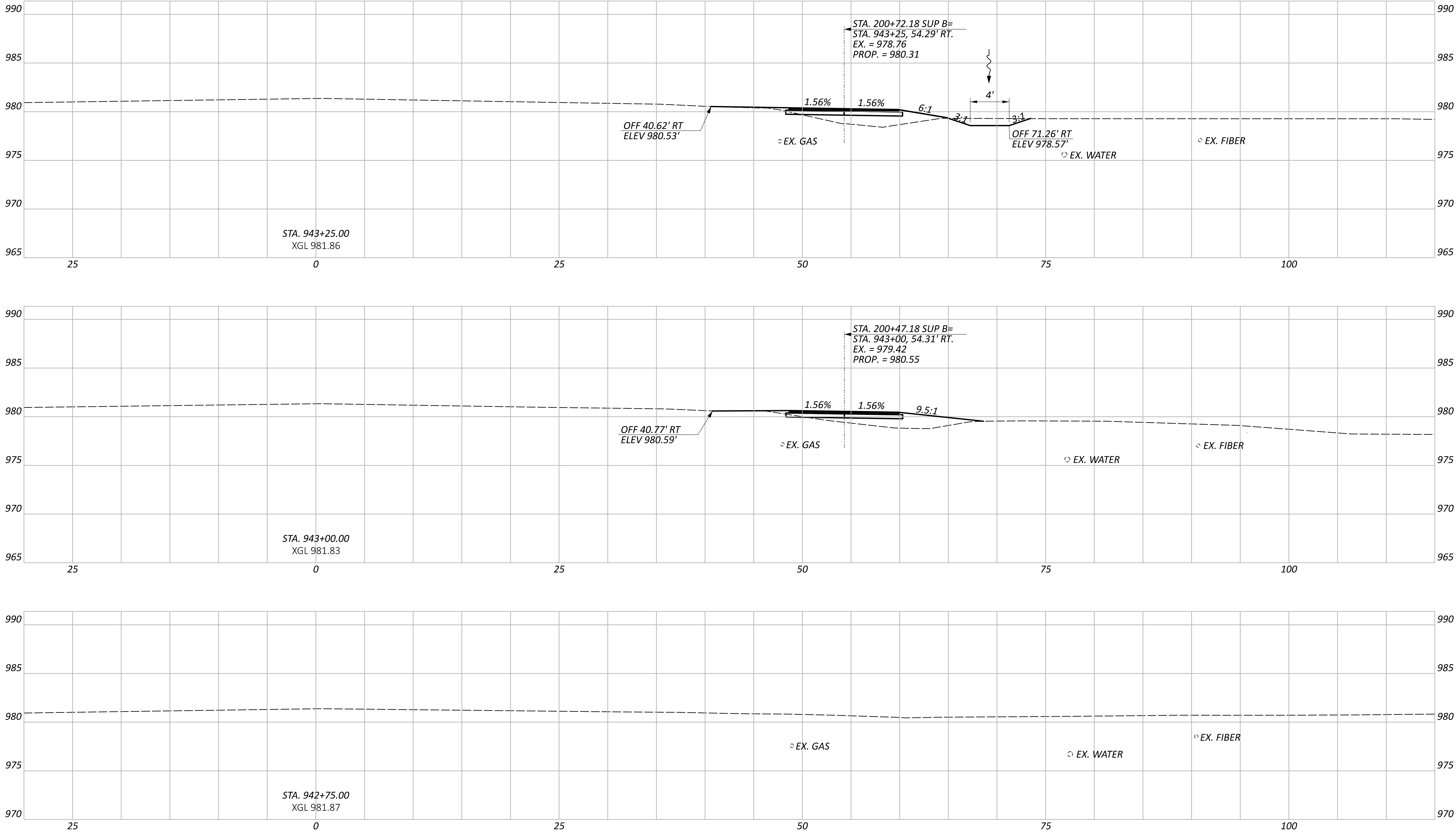
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.66	P.142



CROSS SECTIONS - SR 95 - RT
STA. 942+75 TO STA. 943+25

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
ENGINEERS, INC.
2500 WESTBURY BLVD., SUITE 200
COLUMBUS, OH 43260-1350
614.291.1350

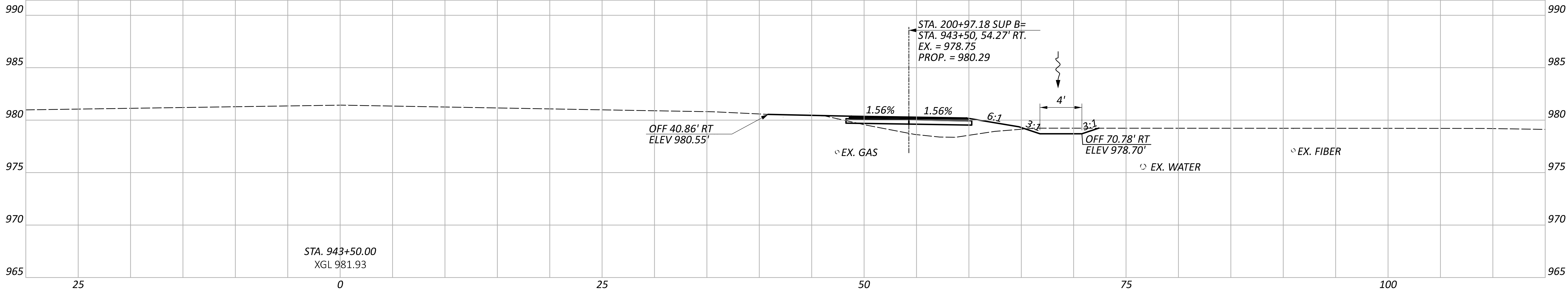
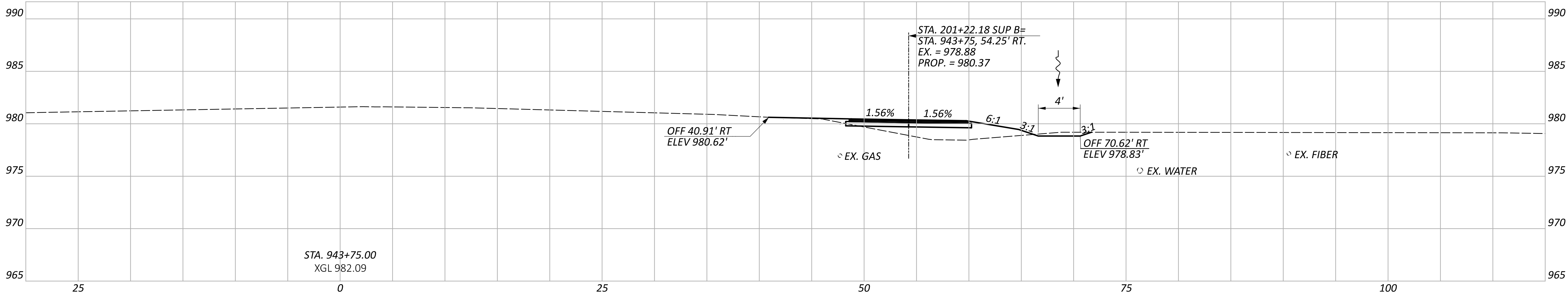
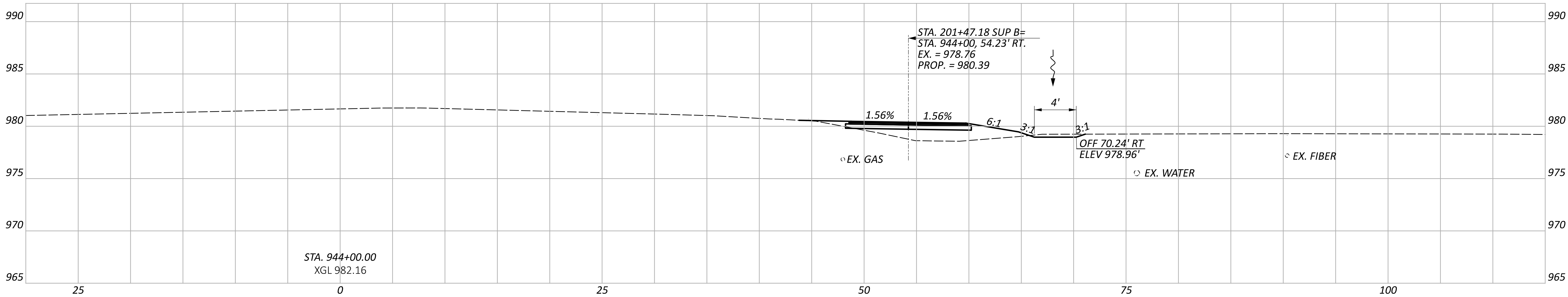
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

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SHEET	TOTAL
P.67	P.142



CROSS SECTIONS - SR 95 - RT
STA. 943+50 TO STA. 944+00

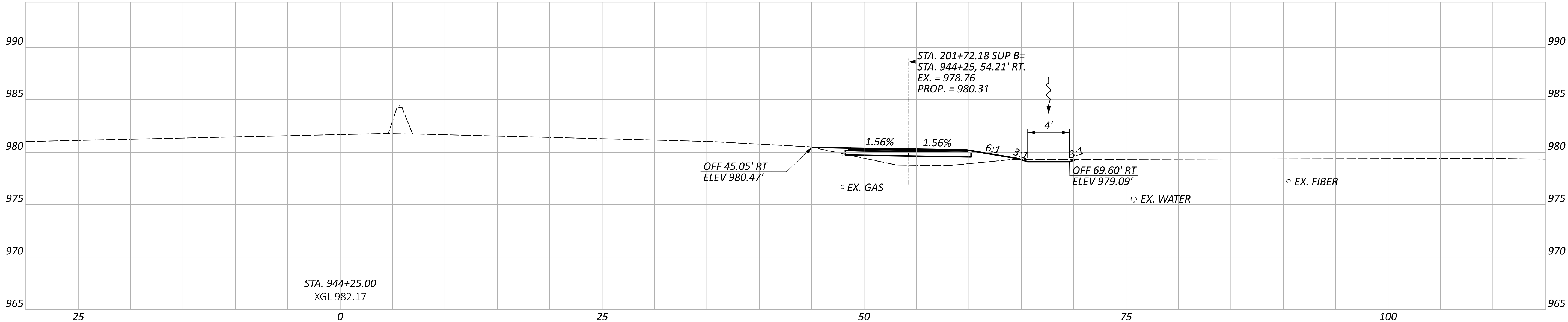
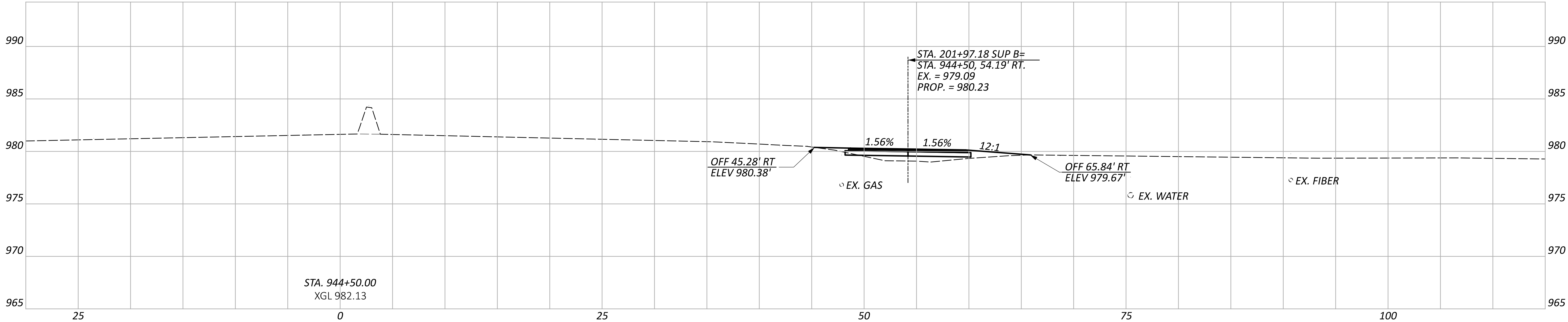
DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 STATE ST., STE. 200
COLUMBUS, OH 43260-1390
614.464.1200

DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals			SHEET TOTAL	
Seeding	Cut	Fill	P.68	P.142
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CROSS SECTIONS - SR 95 - RT
STA. 944+25 TO STA. 944+50

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
ENGINEERS, INC.
2500 STATE ROUTE 159
S.W.
COLUMBUS, OH 43260-1091

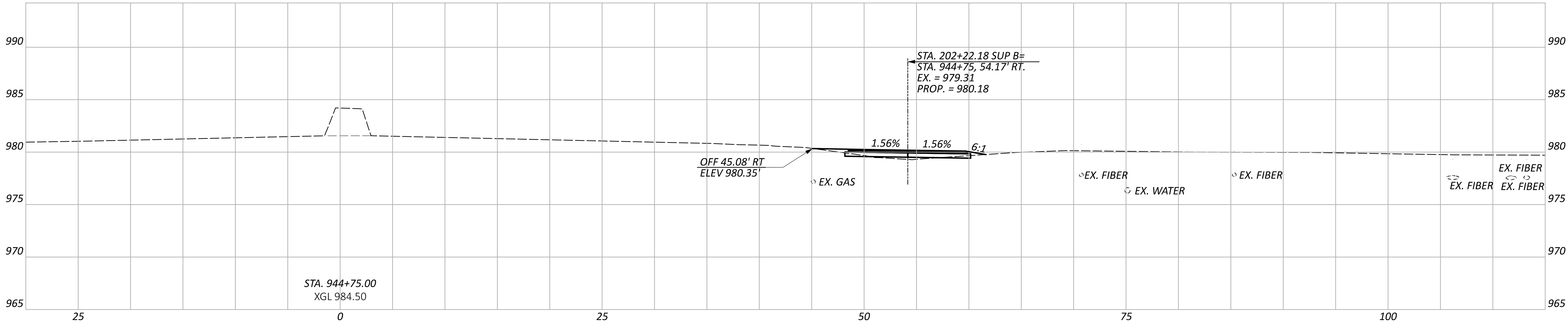
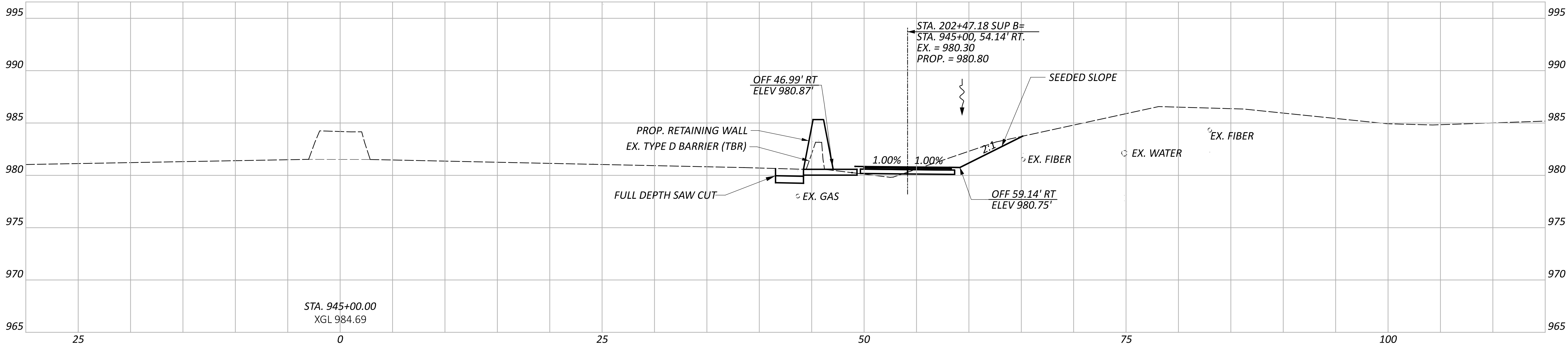
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.69	P.142



Sheet Totals			SHEET TOTAL	
Seeding	Cut	Fill	P.70	P.142
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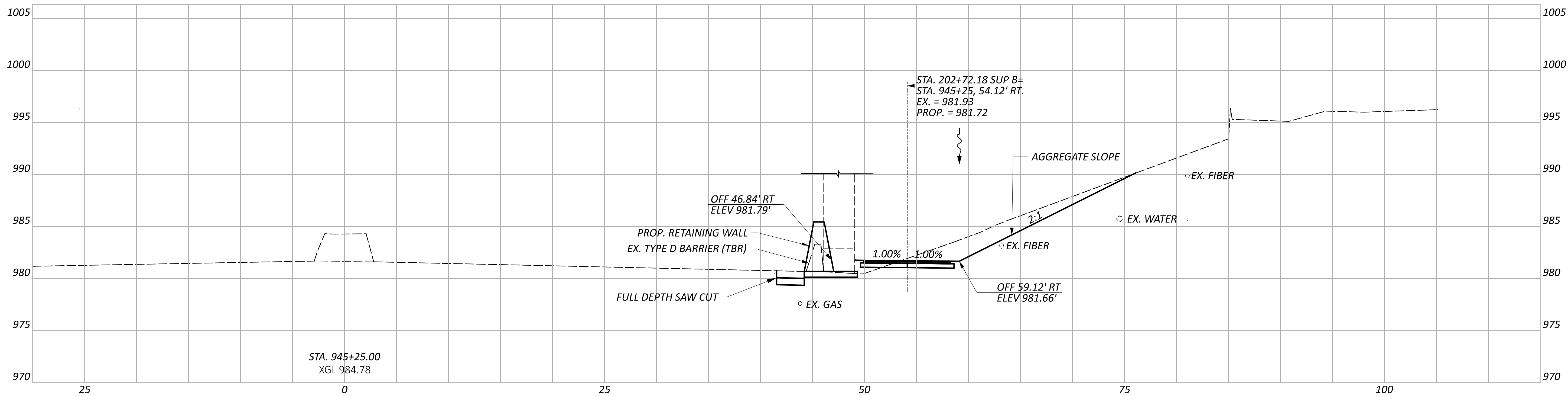
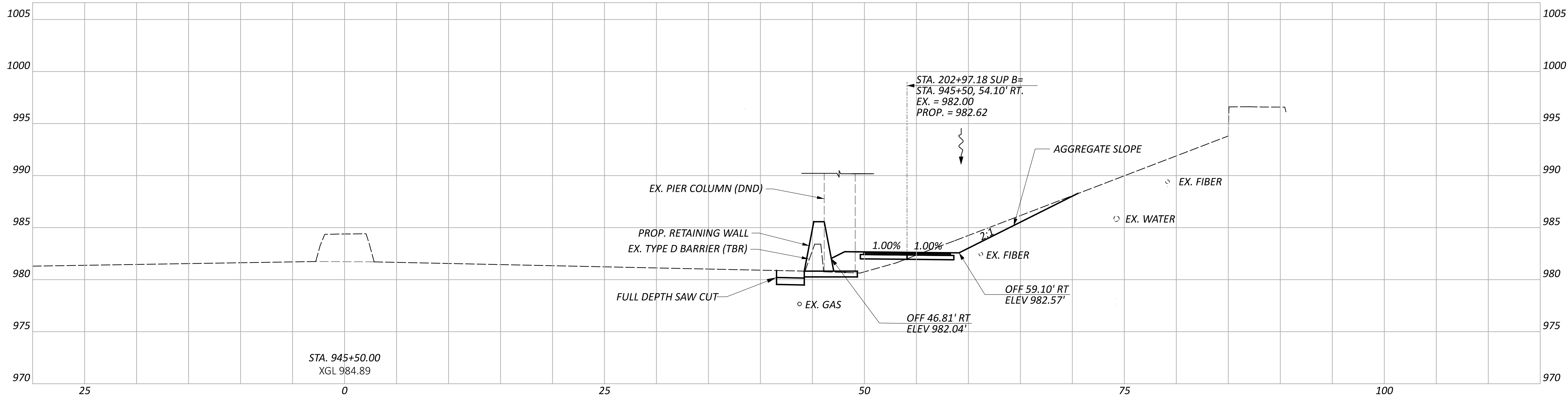
DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
2500 CLEVELAND AVE., N.E.
COLUMBUS, OH 43209-1199

DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

CROSS SECTIONS - SR 95 - RT
STA. 944+75 TO STA. 945+00



CROSS SECTIONS - SR 95 - RT
STA. 945+25 TO STA. 945+50

DESIGN AGENCY
Environmental Design Group
ARON / CLEVELAND / COLUMBUS
2500 WESTERN AVE., STE. 200
COLUMBUS, OH 43219

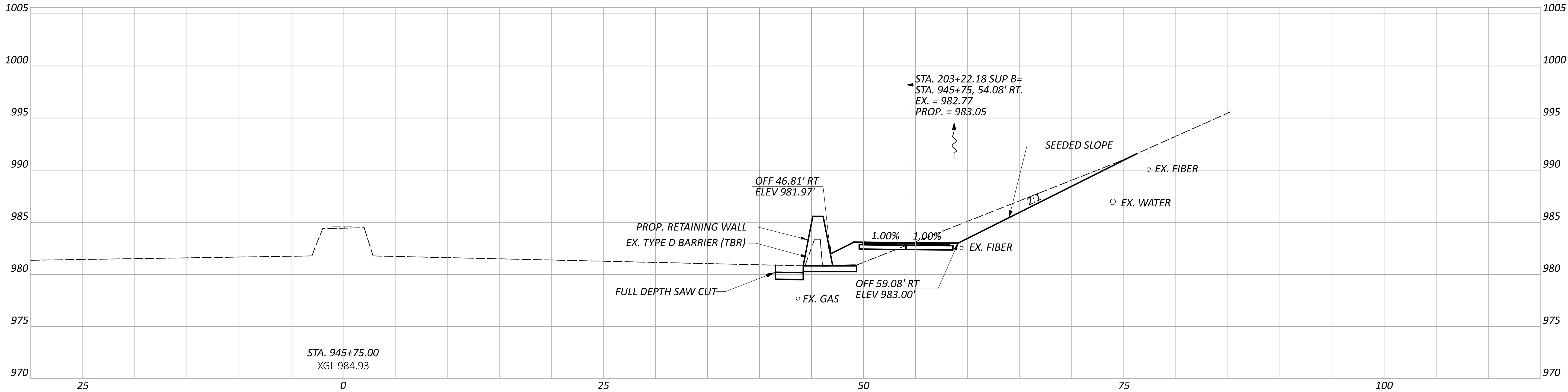
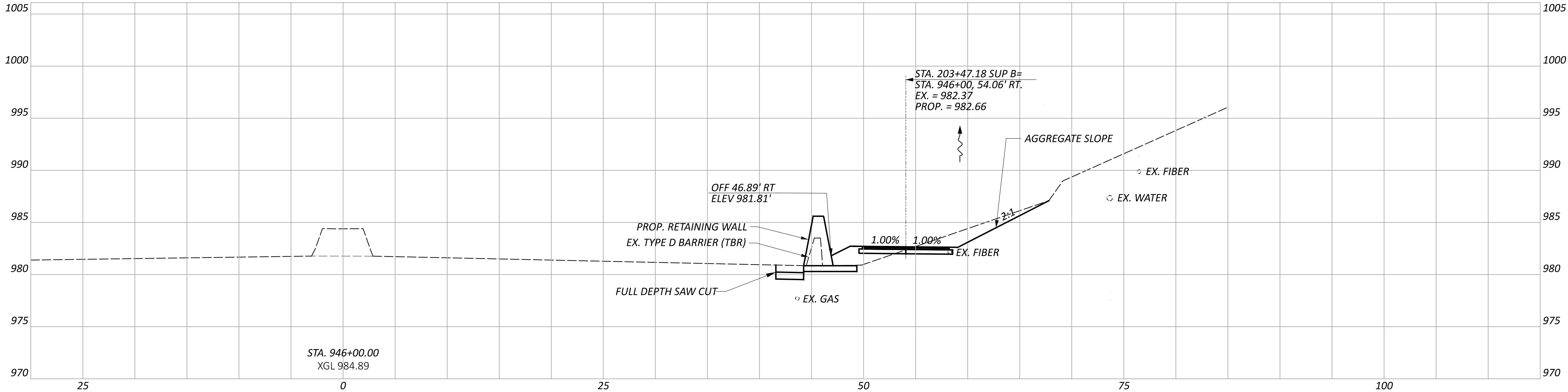
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.71	P.142



CROSS SECTIONS - SR 95 - RT
STA. 945+75 TO STA. 946+00

DESIGN AGENCY
**Environmental
Design Group**
ARON / CLEVELAND / COLUMBUS
2500 WESTBURY BLVD., SUITE 200
COLUMBUS, OH 43260-1350
614.466.0000

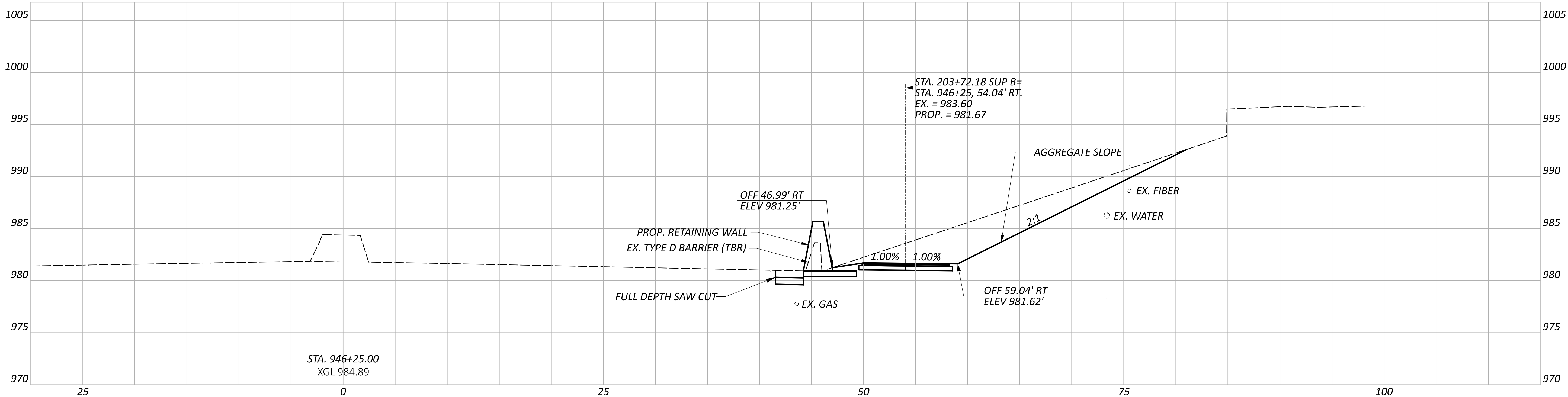
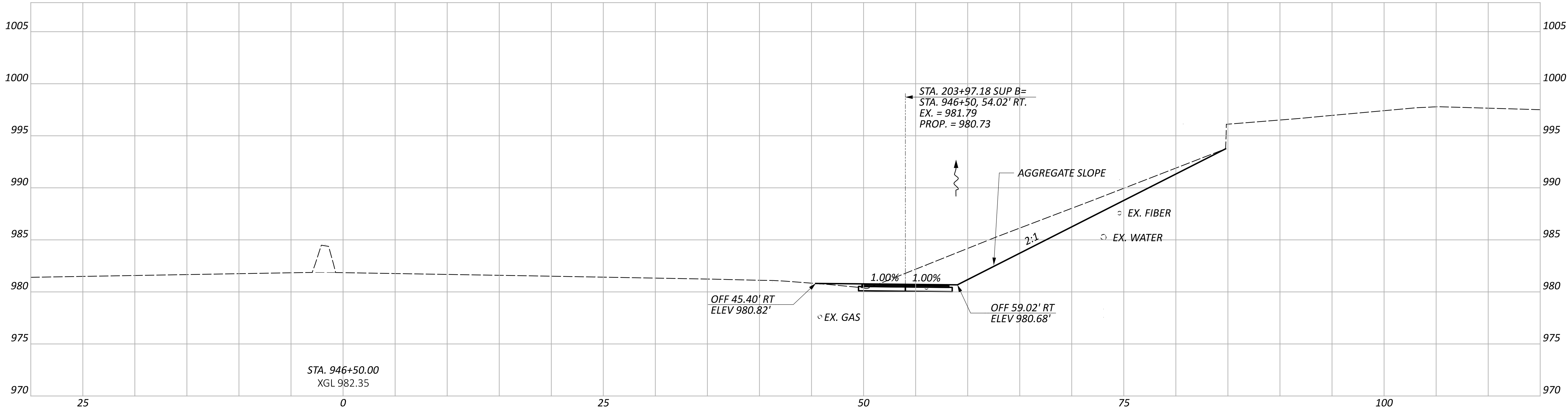
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.72	P.142



CROSS SECTIONS - SR 95 - RT
STA. 946+25 TO STA. 946+50

DESIGN AGENCY
**Environmental
Design Group**
ARROYO / CLEVELAND / COLUMBUS
2500 W. 10TH AVE., SUITE 100
DENVER, CO 80202

DESIGNER
WES

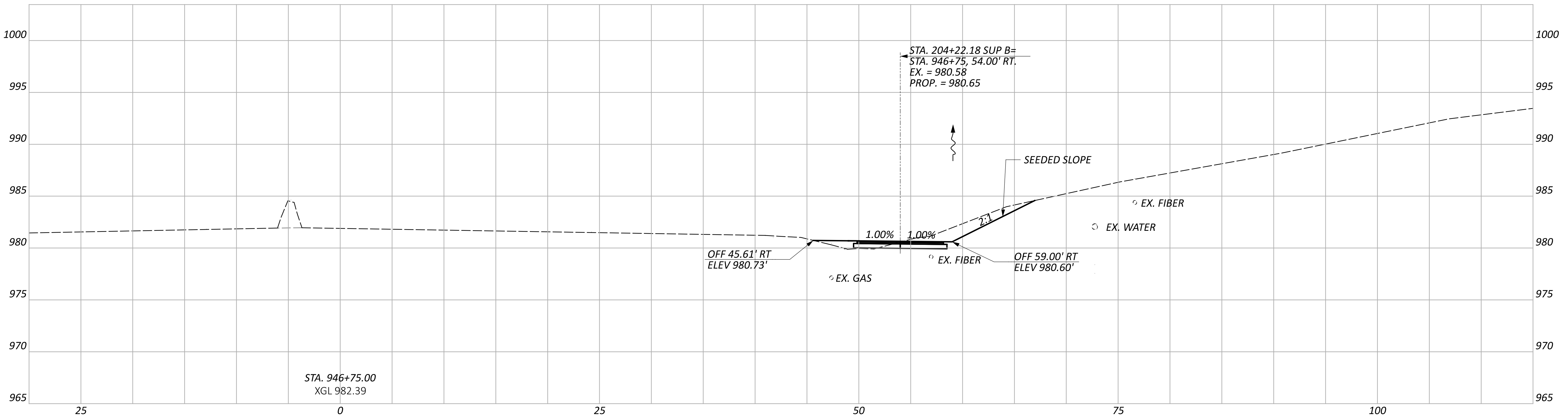
REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.73	P.142

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**ENVIRONMENTAL
DESIGN GROUP**
AKRON / CLEVELAND / COLUMBUS
HQ 450 GRANT ST., AKRON, OH 44311
P 330.375.1390 / TF 800.835.1290
W ENVDESIGNGROUP.COM

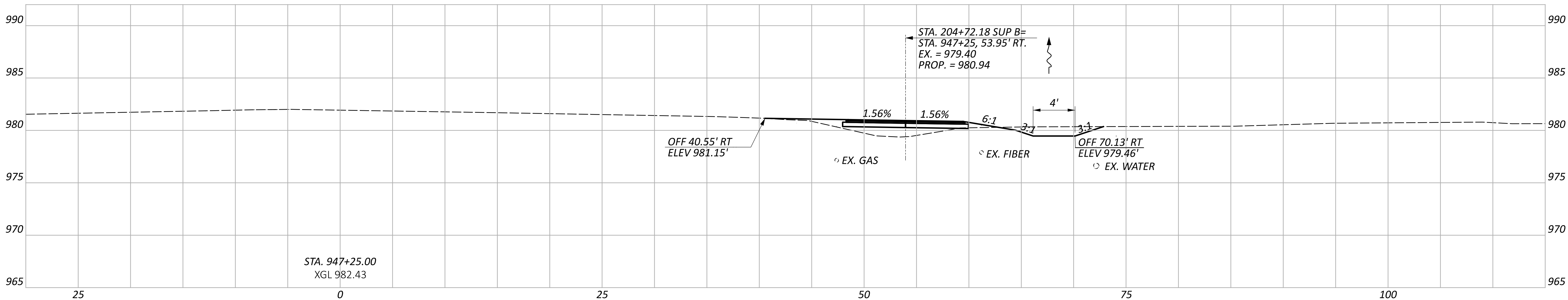
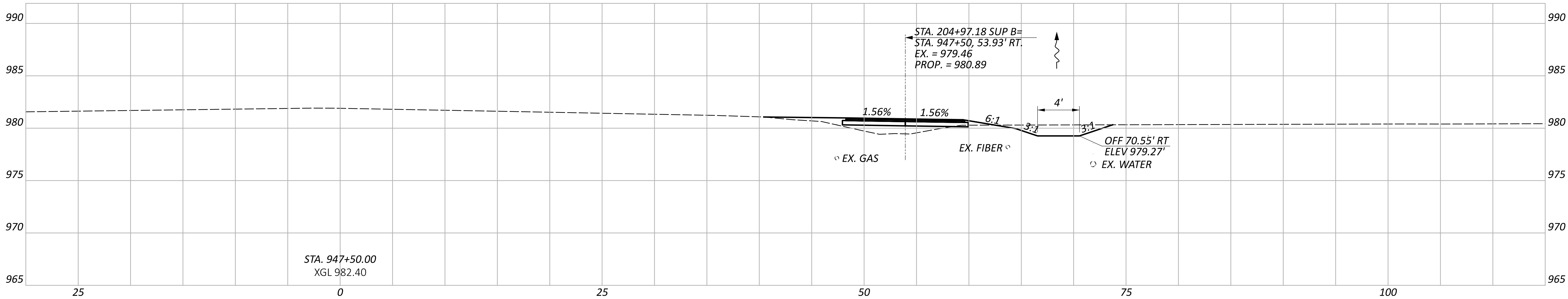
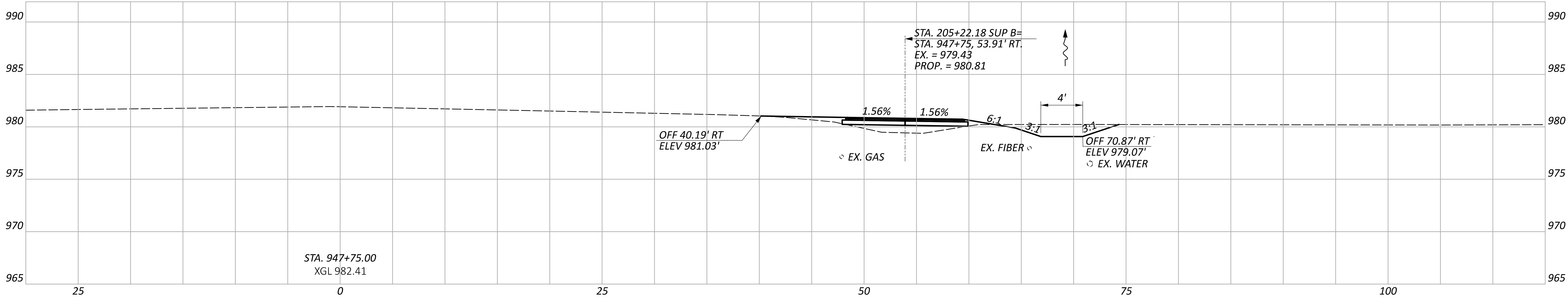
DESIGNER
WES
REVIEWER
JES 01/19/24
PROJECT ID
114818
SHEET TOTAL
P.74 | P.142

Sheet Totals			114818	
Seeding	Cut	Fill	SHEET	TOTAL
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MAR-95-17.90

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CROSS SECTIONS - SR 95 - RT
STA. 947+25 TO STA. 947+75

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 CENTER ST., STE. 200
COLUMBUS, OH 43260-1390
614.261.0000

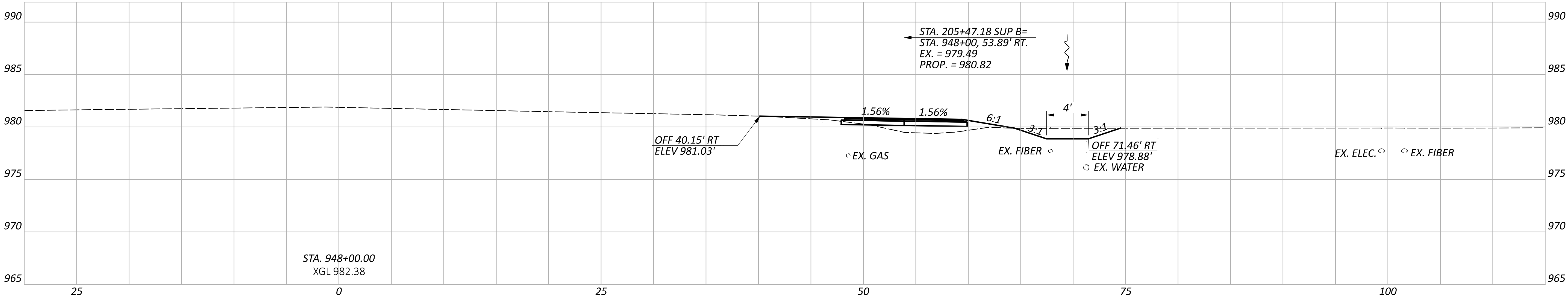
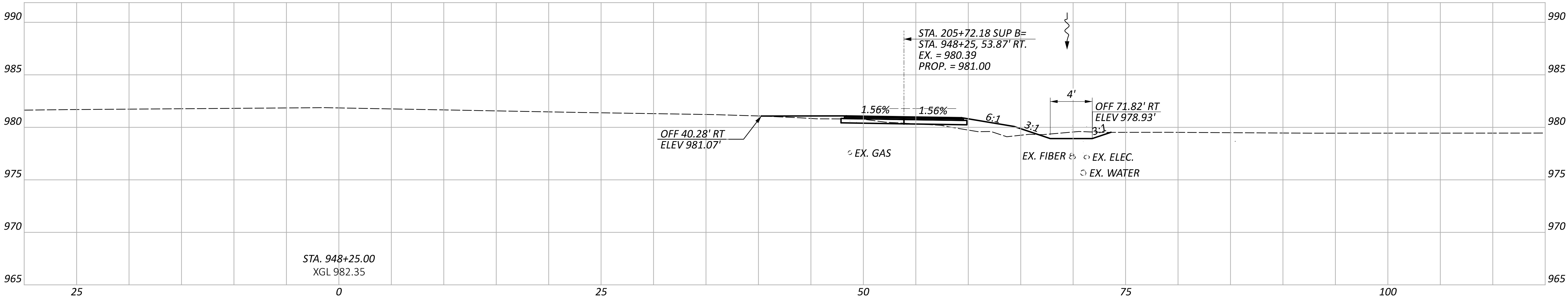
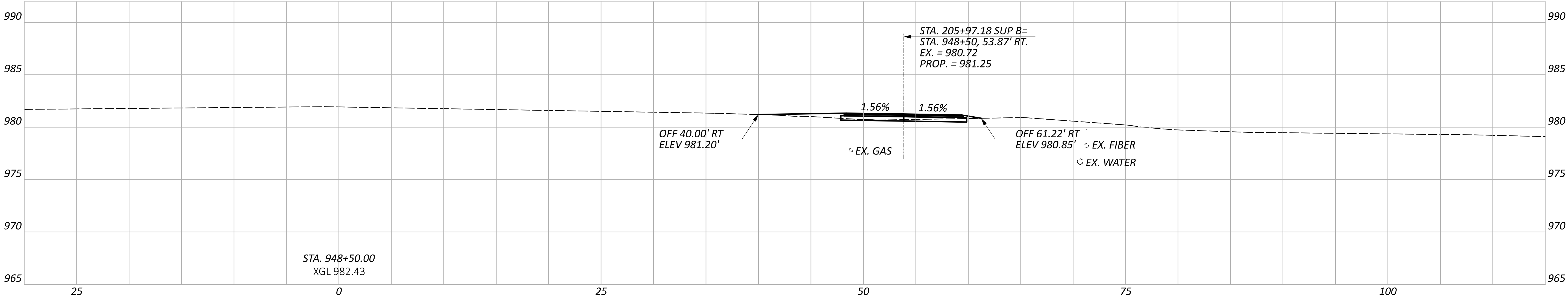
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.75	P.142



CROSS SECTIONS - SR 95 - RT
STA. 948+00 TO STA. 948+50

DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 CENTER ST., N.W. #200
AKRON, OH 44303-1350
P. 330.451.1350
F. 330.451.1350

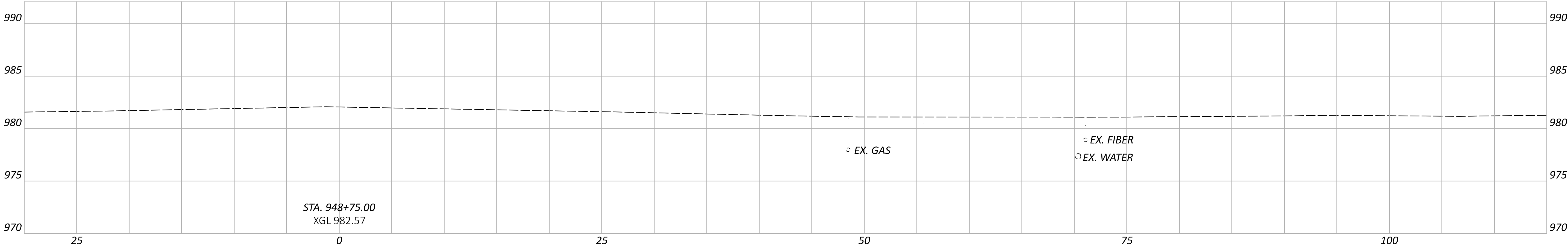
DESIGNER
WES

REVIEWER
JES 01/19/24

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.76	P.142



Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.77	P.142

DESIGN AGENCY

Environmental Design Group
ARON / CLEVELAND / COLUMBUS
250 WEST 12TH ST., 12TH FLOOR
COLUMBUS, OH 43260-1399
TEL: 614.464.7421

DESIGNER

WES

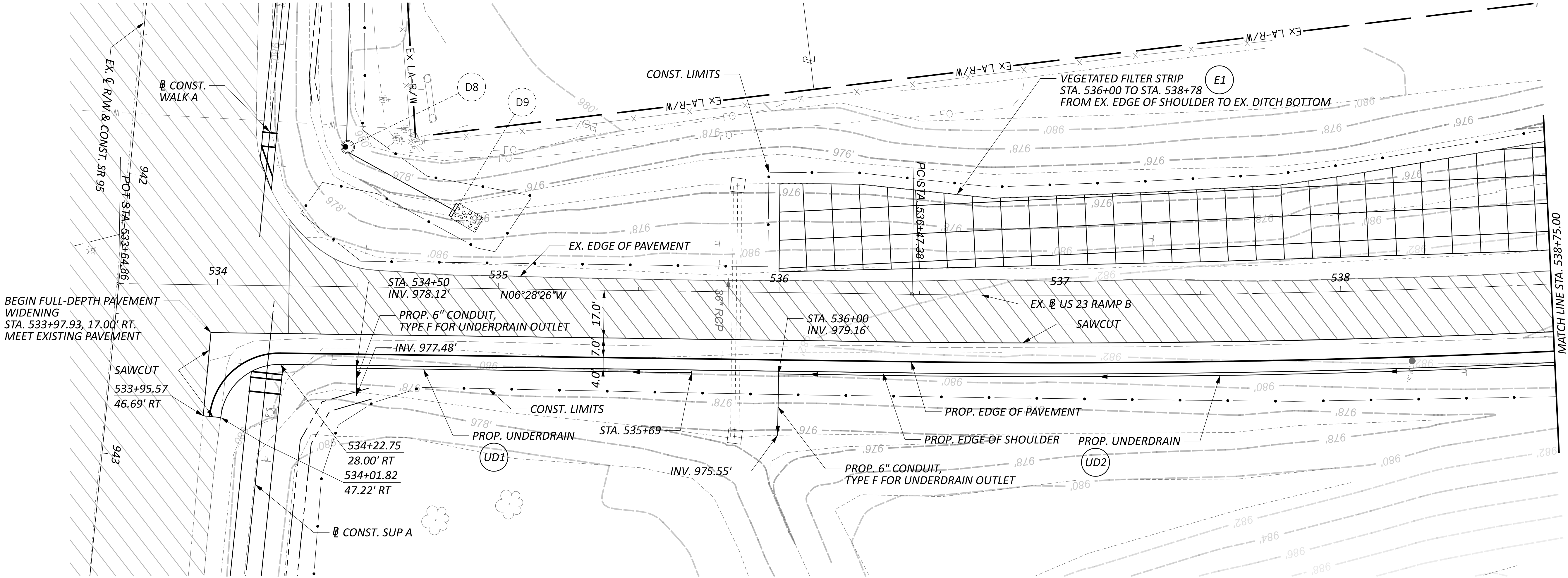
REVIEWER

JES 01/19/24

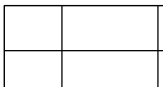
PROJECT ID

114818

CROSS SECTIONS - SR 95 - RT
STA. 948+75



LEGEND:

 VEGETATED FILTER STRIP
(INCLUDES 4" OF ITEM 659,
TOPSOIL AND ITEM 670,
SLOPE EROSION PROTECTION)

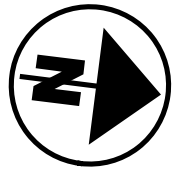
 LIMITS OF PAVEMENT
RESURFACING

NOTES:

FOR US 23 RAMP B
CROSS SECTIONS,
SEE SHEETS P.80-P.89

FOR STORM SEWER PROFILES, SEE
SHEETS P.96-P.97

FOR INTERSECTION DETAILS,
SEE SHEETS P.98-P.104



PLAN - US 23 RAMP B
STA. 533+75 TO STA. 538+75



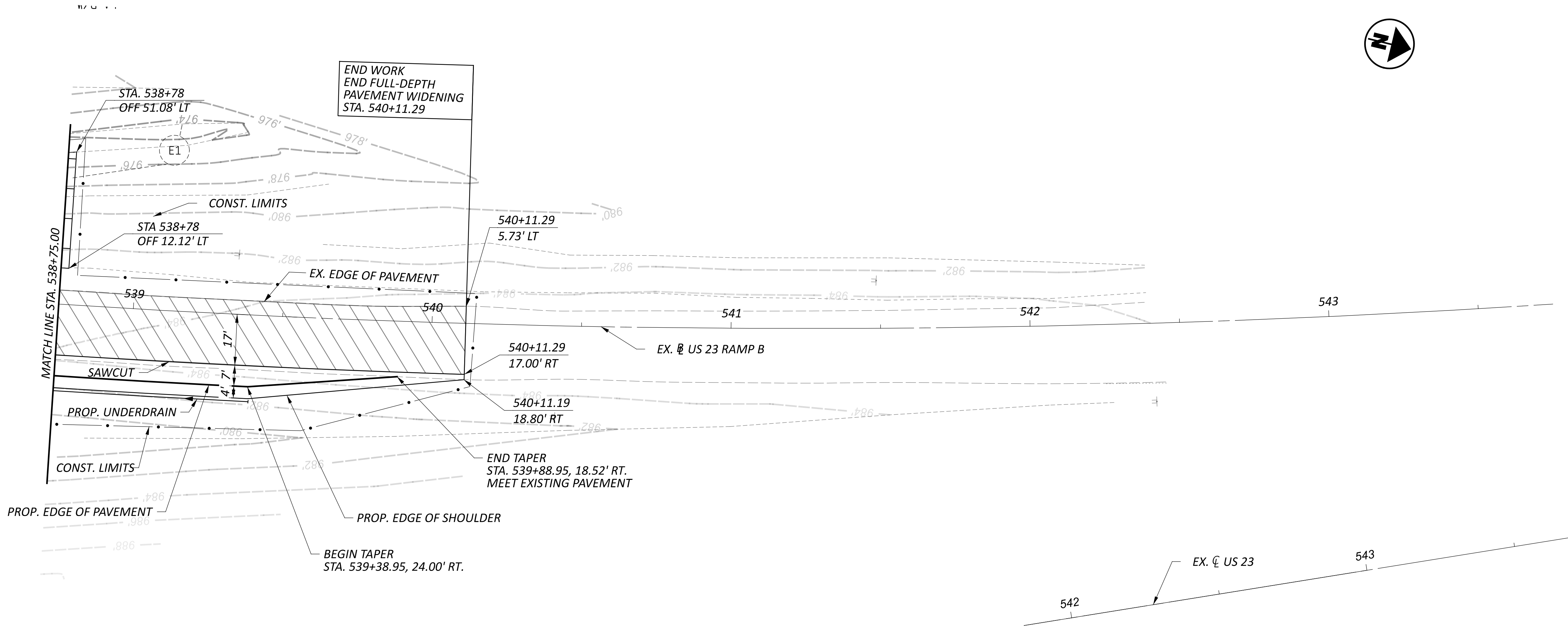
DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 WESTBURY AVENUE, SUITE 200
COLUMBUS, OH 43260-1350
P. 614.291.1200
F. 614.291.1201

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

SHEET TOTAL
P.78 P.142



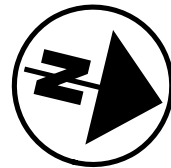
LEGEND:

VEGETATED FILTER STRIP
(INCLUDES 4" OF ITEM 659,
TOPSOIL AND ITEM 670,
SLOPE EROSION PROTECTION)

LIMITS OF PAVEMENT
RESURFACING

NOTES:

FOR US 23 RAMP B CROSS SECTIONS,
SEE SHEETS P.80-P.89



PLAN - US 23 RAMP B
STA. 538+75 TO END

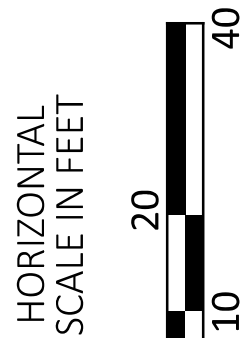
DESIGN AGENCY
**Environmental
Design Group**
ARROYO / CLEVELAND / COLUMBUS
2500 W. 12TH AVE., SUITE 200
DENVER, CO 80202

DESIGNER
WES

REVIEWER
JES 03/24/25

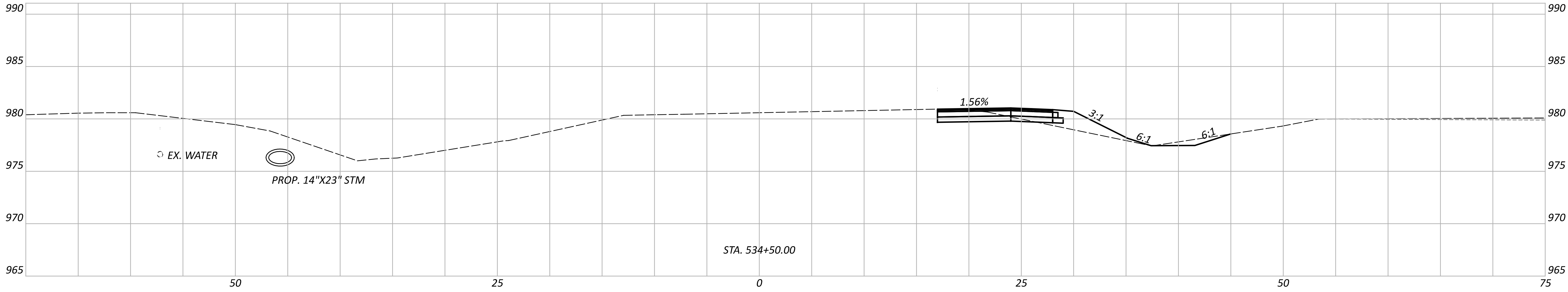
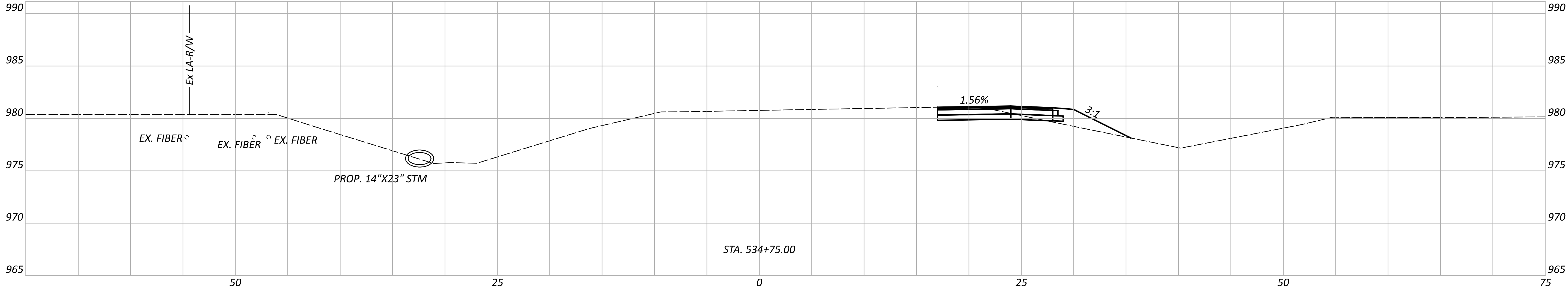
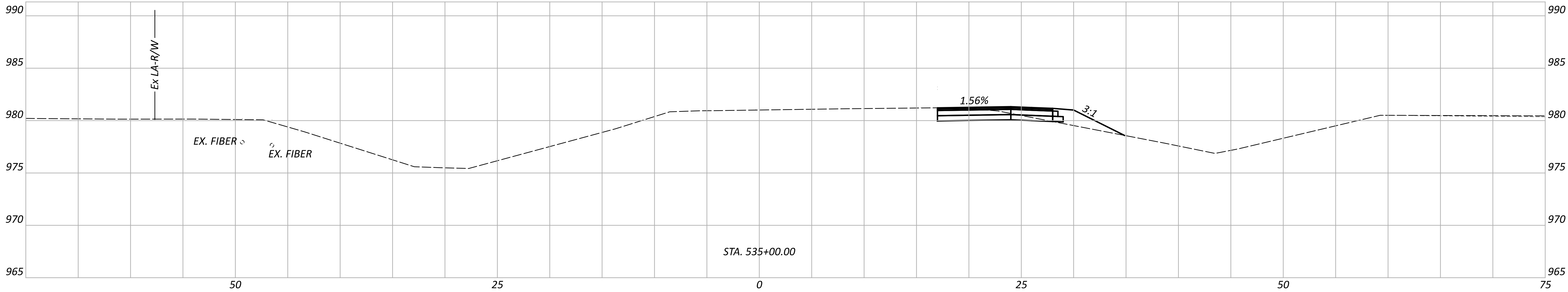
PROJECT ID
114818

SHEET TOTAL
P.79 P.142



MAR-95-17.90

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CROSS SECTIONS - US 23 RAMP B
STA. 534+50 TO STA. 535+00

DESIGN AGENCY
**Environmental
Design Group**
ARROYO / CLEVELAND / COLUMBUS
2500 W. 12TH AVE., SUITE 100
DENVER, CO 80202

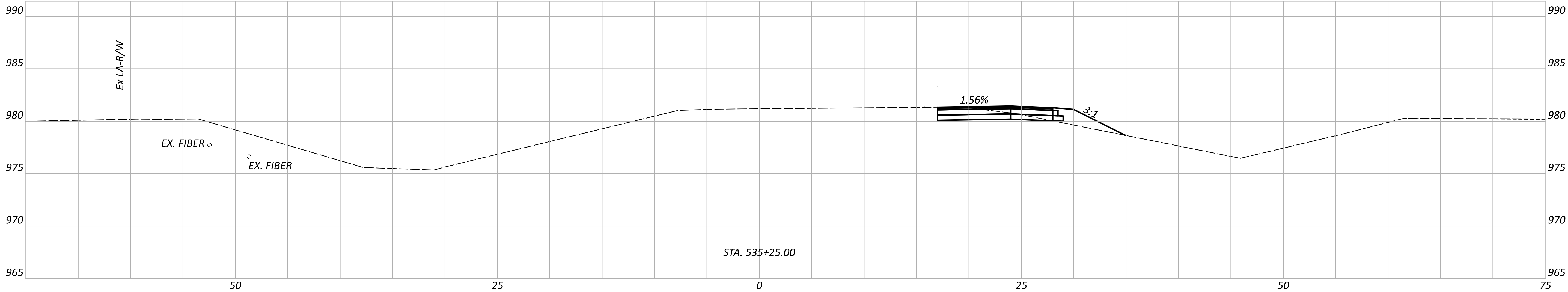
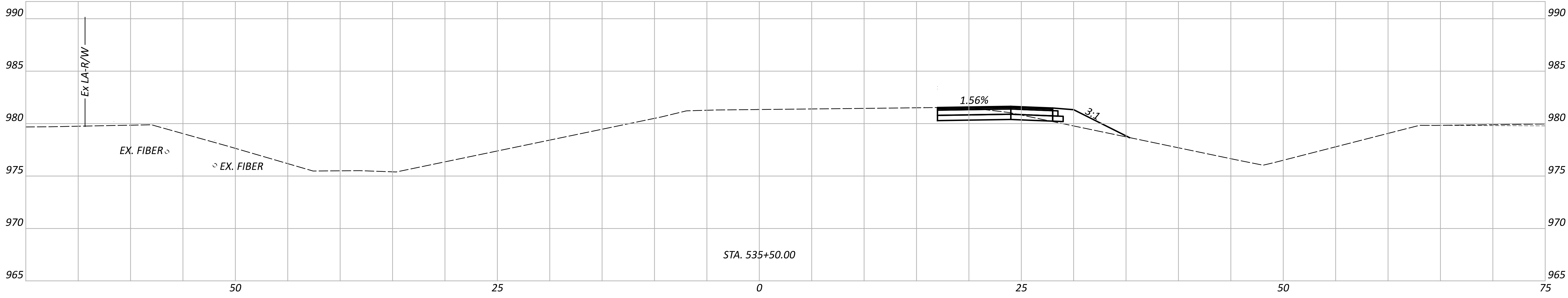
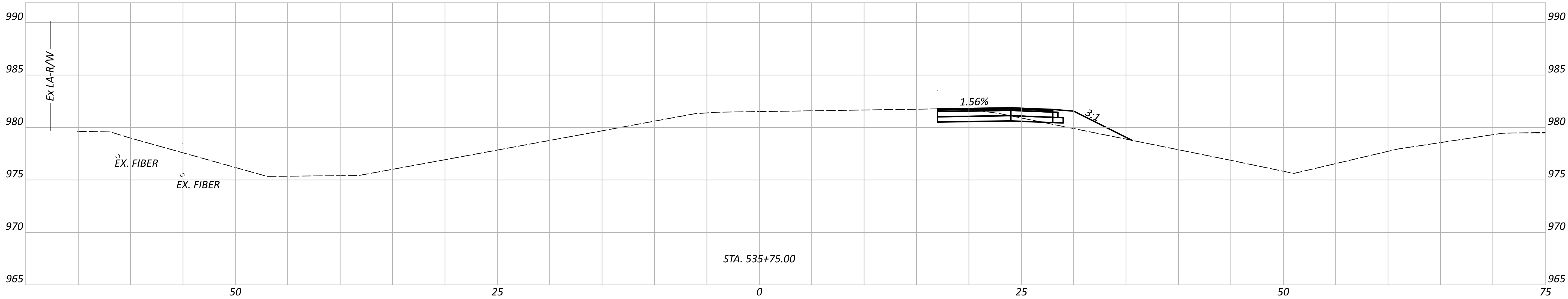
DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

Sheet Totals		
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SHEET	TOTAL
P.80	P.142



CROSS SECTIONS - US 23 RAMP B
STA. 535+25 TO STA. 535+75

DESIGN AGENCY
**Environmental
Design Group**
ARROYO / CLEVELAND / COLUMBUS
2500 W. 12TH ST., SUITE 100
DENVER, CO 80202

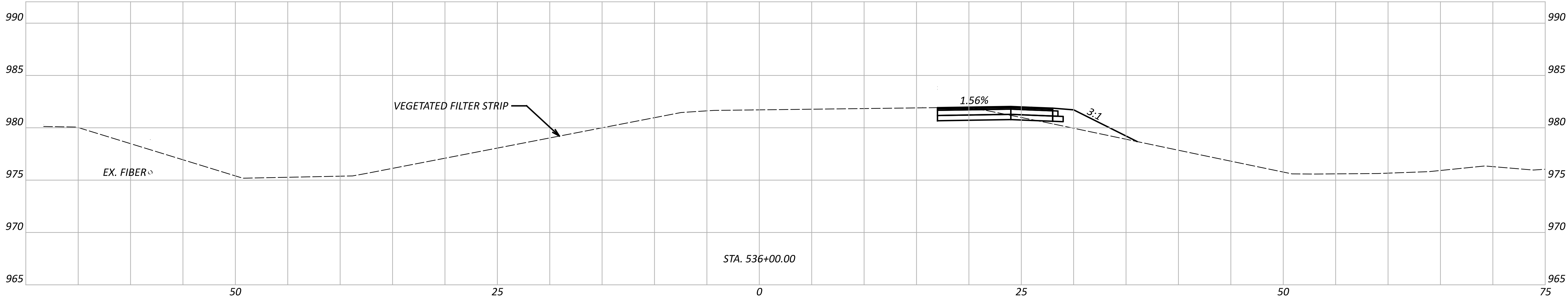
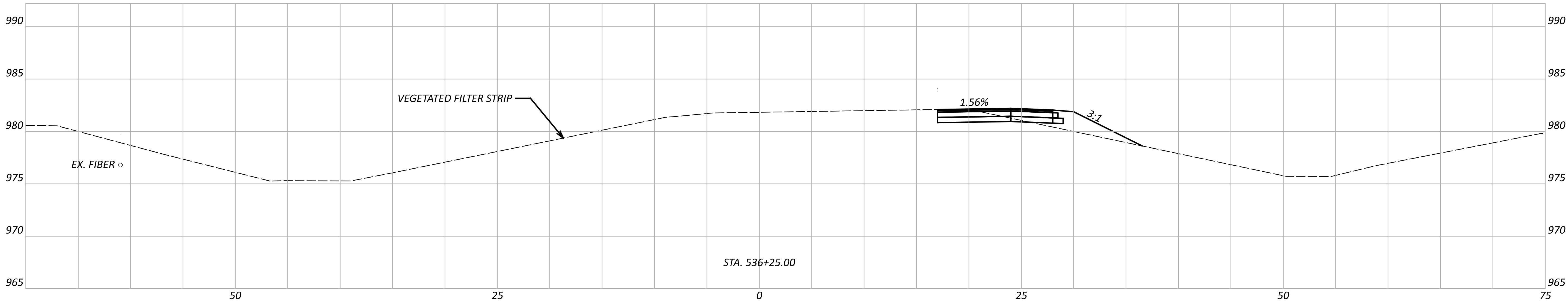
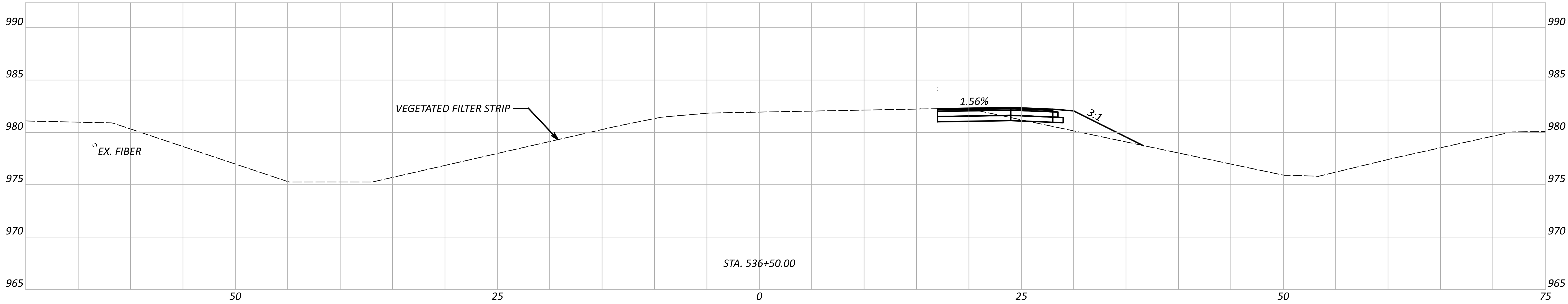
DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
P.81	P.142



CROSS SECTIONS - US 23 RAMP B
STA. 536+00 TO STA. 536+50

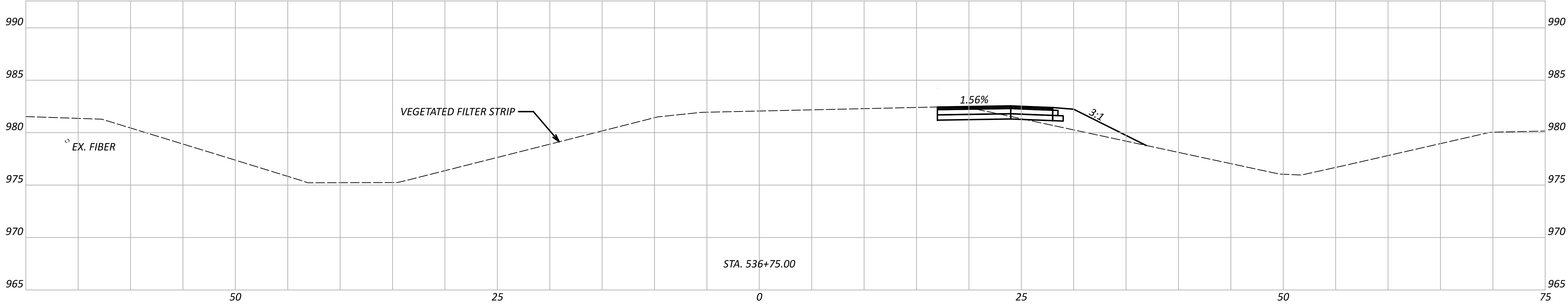
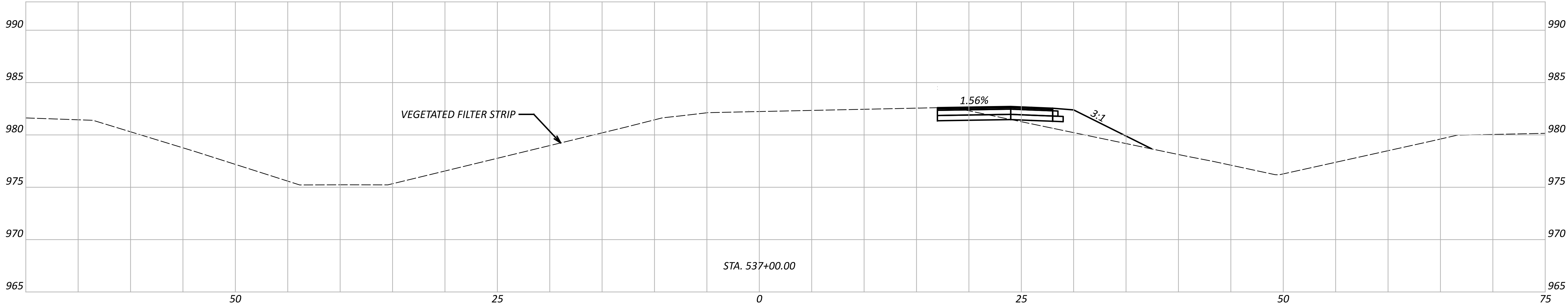
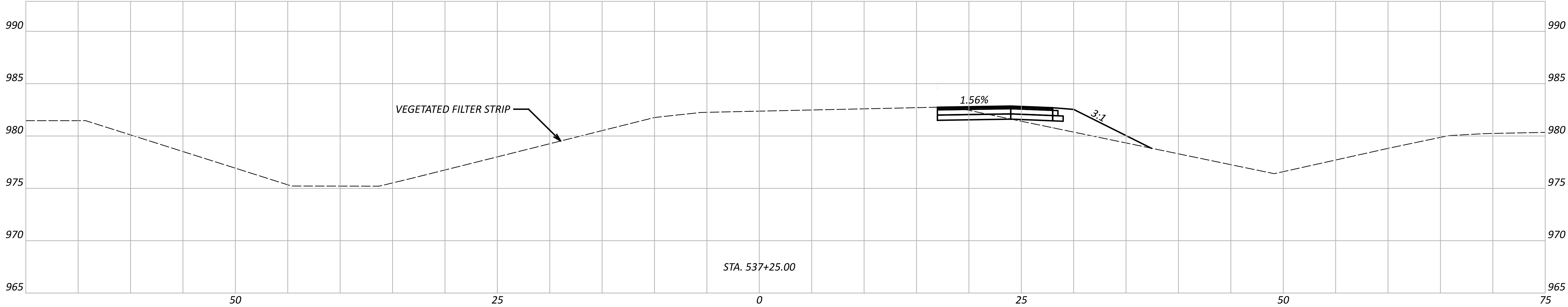
DESIGN AGENCY
Environmental Design Group
ARROYO / CLEVELAND / COLUMBUS
2500 W. 10TH AVE., SUITE 100
DENVER, CO 80202

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
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CROSS SECTIONS - US 23 RAMP B
STA. 536+75 TO STA. 537+25

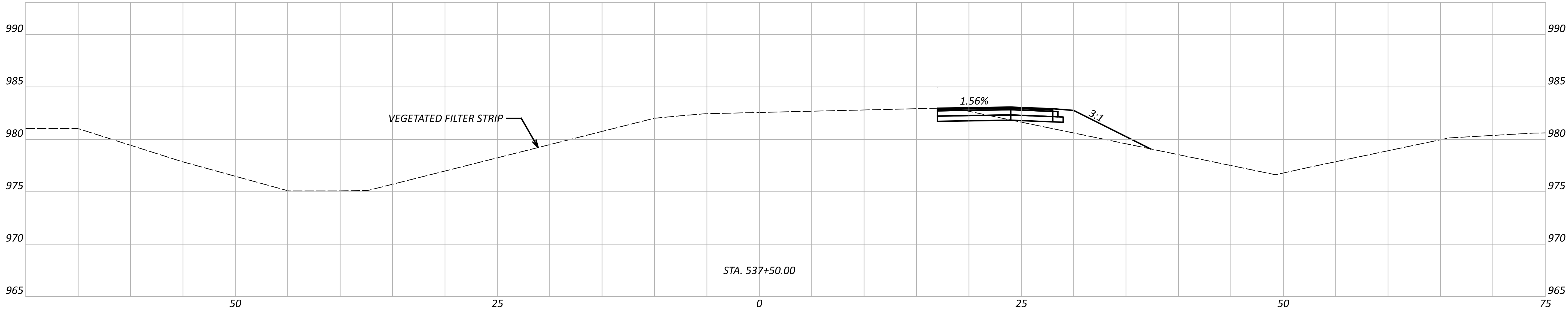
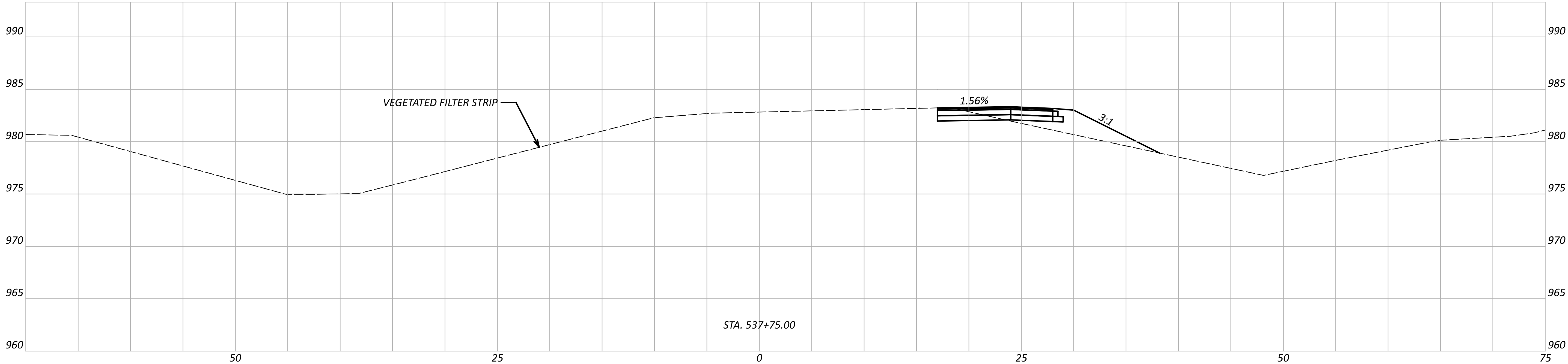
DESIGN AGENCY
Environmental Design Group
ARROW / CLEVELAND / COLUMBUS
2500 WESTBURY BLVD., STE. 200
COLUMBUS, OH 43260-1390
(614) 461-1200

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
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Sheet Totals			PROJECT ID	
Seeding	Cut	Fill	114818	
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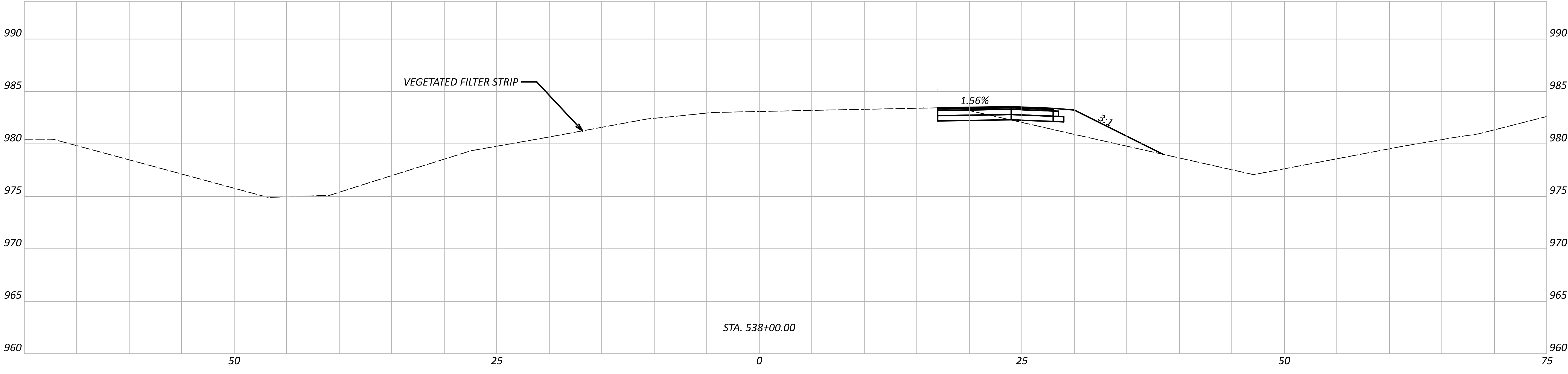
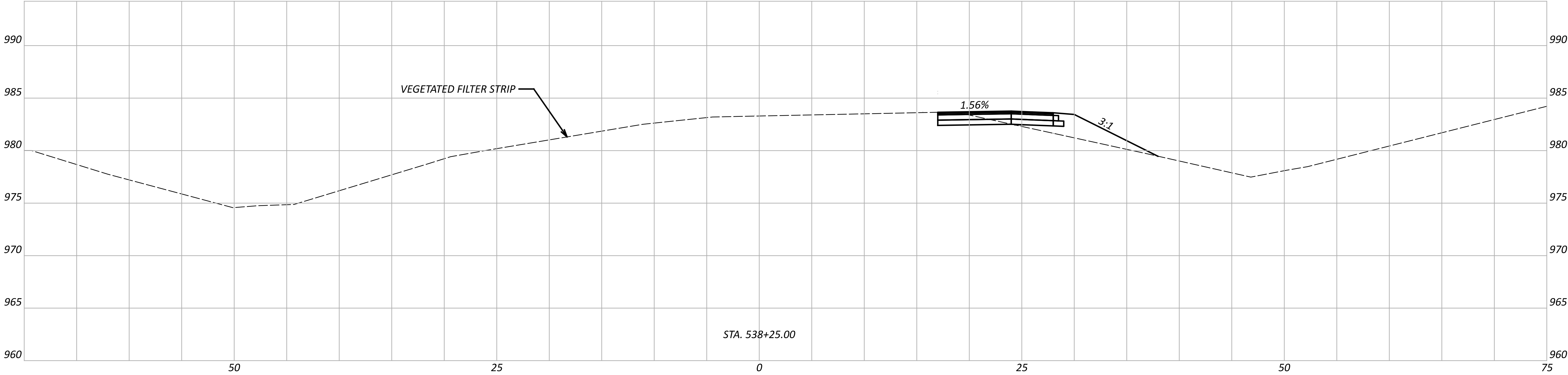
DESIGN AGENCY
Environmental Design Group
ARROYO / CLEVELAND / COLUMBUS
2500 W. 10TH AVE., SUITE 100
DENVER, CO 80202

DESIGNER
WES

REVIEWER
JES 03/24/25

SHEET TOTAL
P.84 P.142

CROSS SECTIONS - US 23 RAMP B
STA. 537+50 TO STA. 537+75



Sheet Totals			SHEET TOTAL	
Seeding	Cut	Fill	P.85	P.142
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DESIGN AGENCY

Environmental Design Group
ARROYO / CLEVELAND / COLUMBUS
2500 W. 10TH AVE., SUITE 100
DENVER, CO 80202

DESIGNER

WES

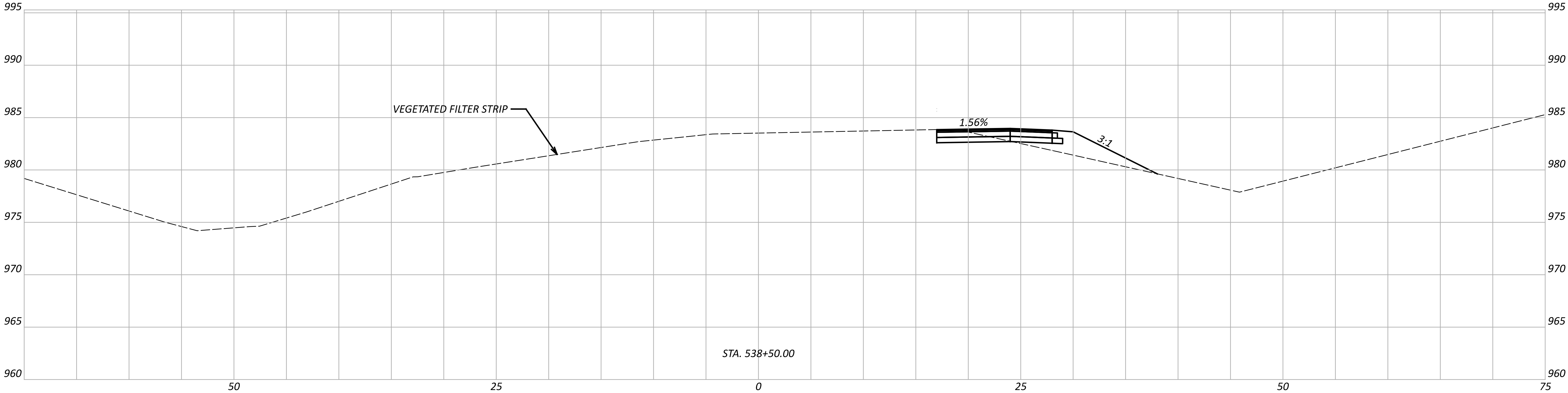
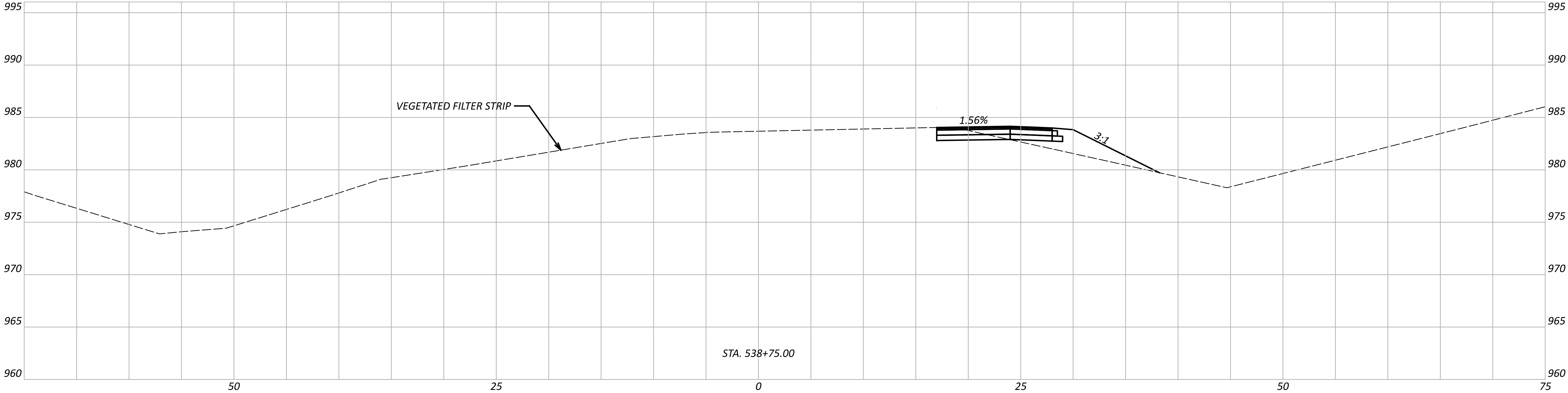
REVIEWER

JES 03/24/25

PROJECT ID

114818

CROSS SECTIONS - US 23 RAMP B
STA. 538+00 TO STA. 538+25



Sheet Totals			SHEET TOTAL	
Seeding	Cut	Fill	P.86	P.142
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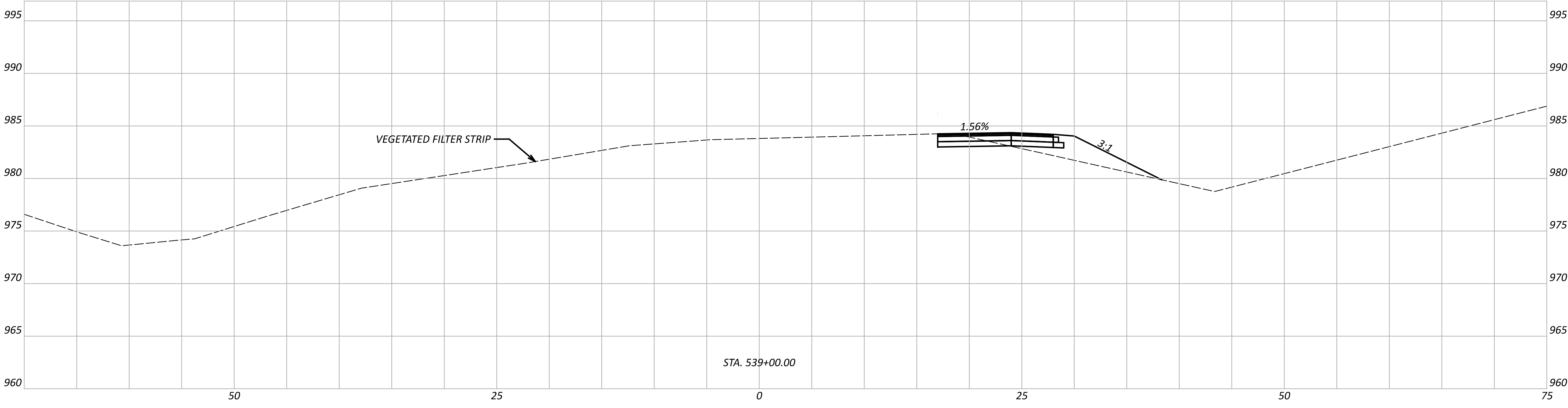
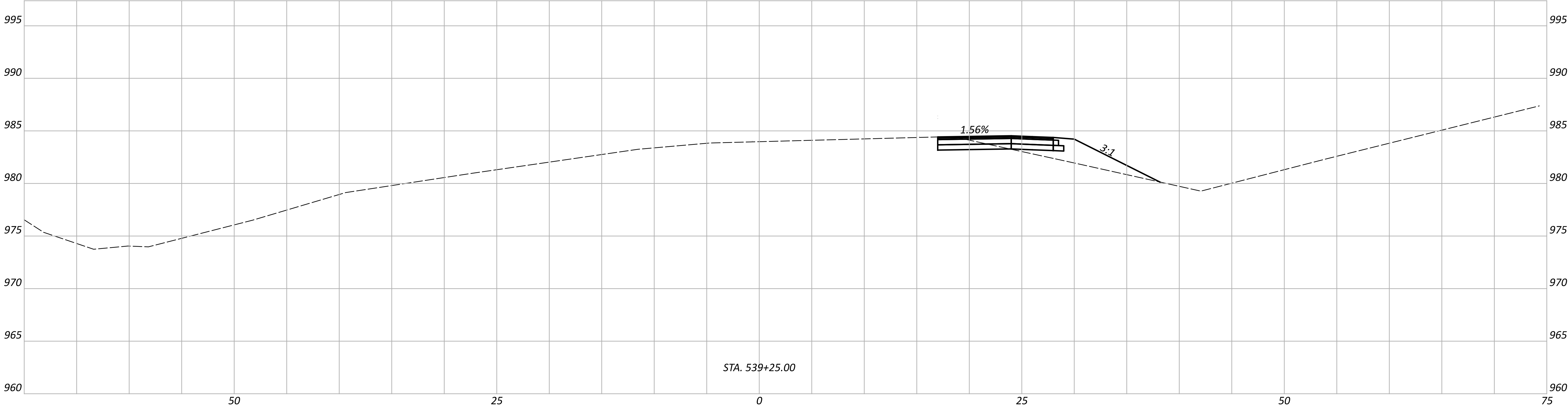
DESIGN AGENCY
**Environmental
Design Group**
ARROYO / CLEVELAND / COLUMBUS
2500 W. 10TH ST., SUITE 100
DENVER, CO 80202

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

CROSS SECTIONS - US 23 RAMP B
STA. 538+50 TO STA. 538+75



Sheet Totals			SHEET TOTAL	
Seeding	Cut	Fill	P.87	P.142
.	.	.		

DESIGN AGENCY

Environmental Design Group
ARROYO / CLEVELAND / COLUMBUS
2500 W. 10TH AVE., SUITE 100
DENVER, CO 80202

DESIGNER

WES

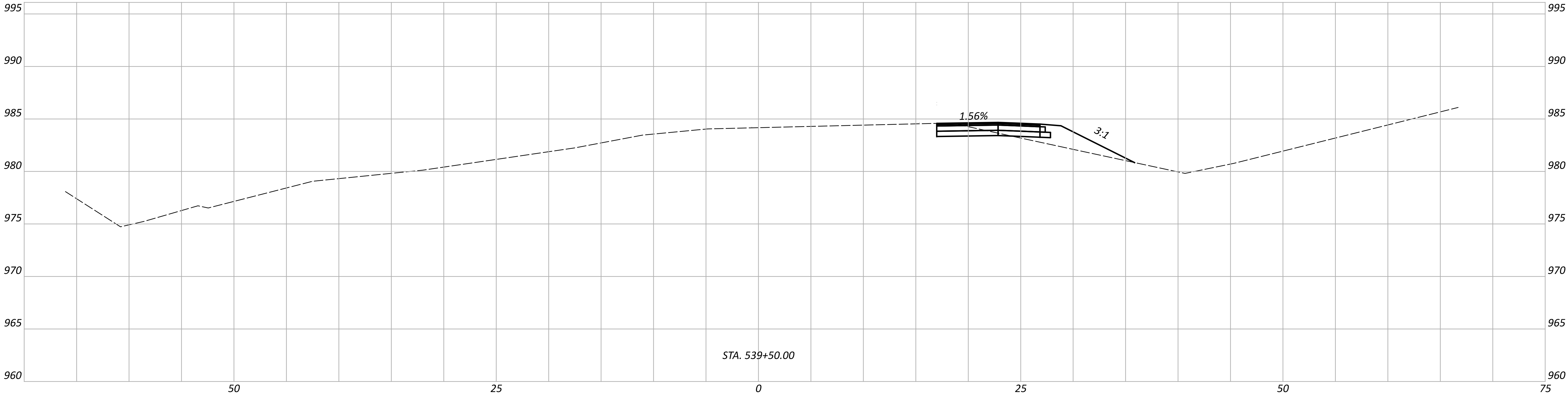
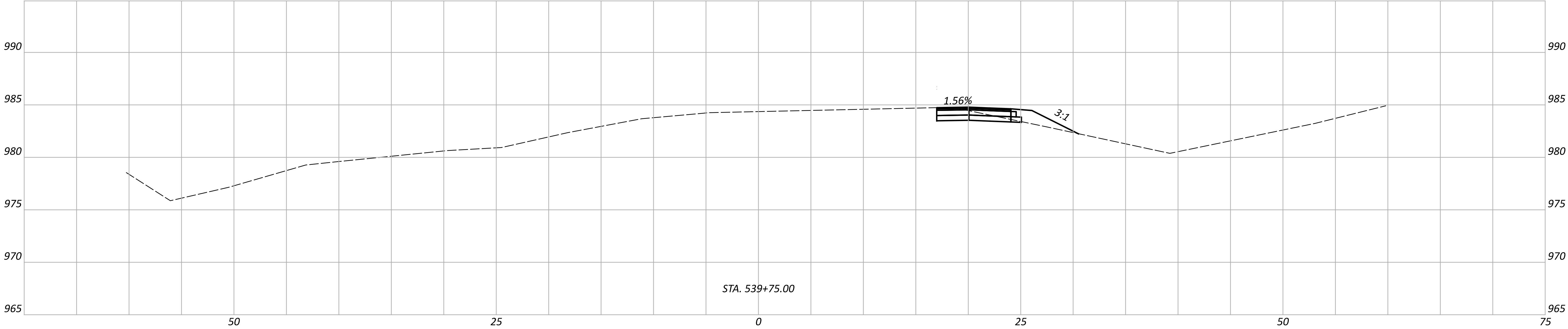
REVIEWER

JES 03/24/25

PROJECT ID

114818

CROSS SECTIONS - US 23 RAMP B
STA. 539+00 TO STA. 539+25



Sheet Totals			SHEET TOTAL	
Seeding	Cut	Fill	P.88	P.142
.	.	.		

DESIGN AGENCY

Environmental Design Group
ARROYO / CLEVELAND / COLUMBUS
2500 W. 10TH AVE., SUITE 100
DENVER, CO 80202

DESIGNER

WES

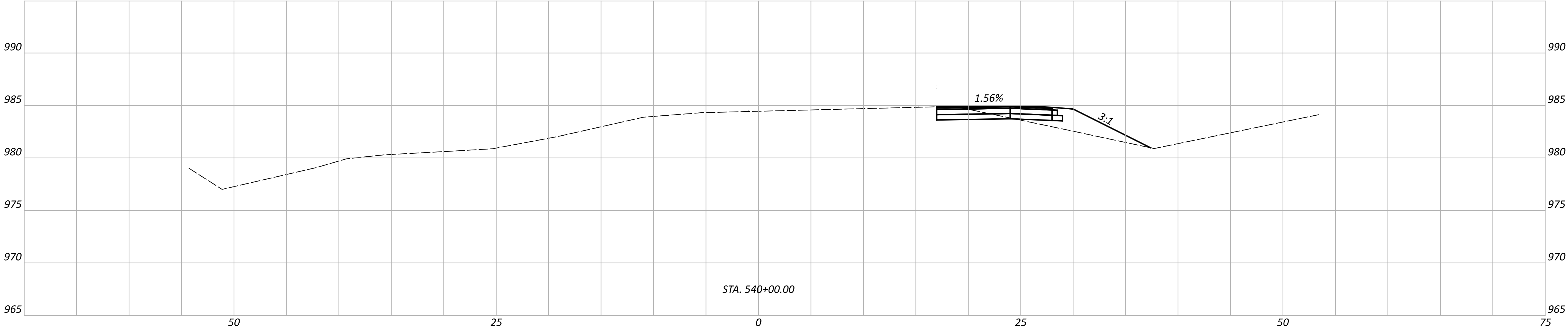
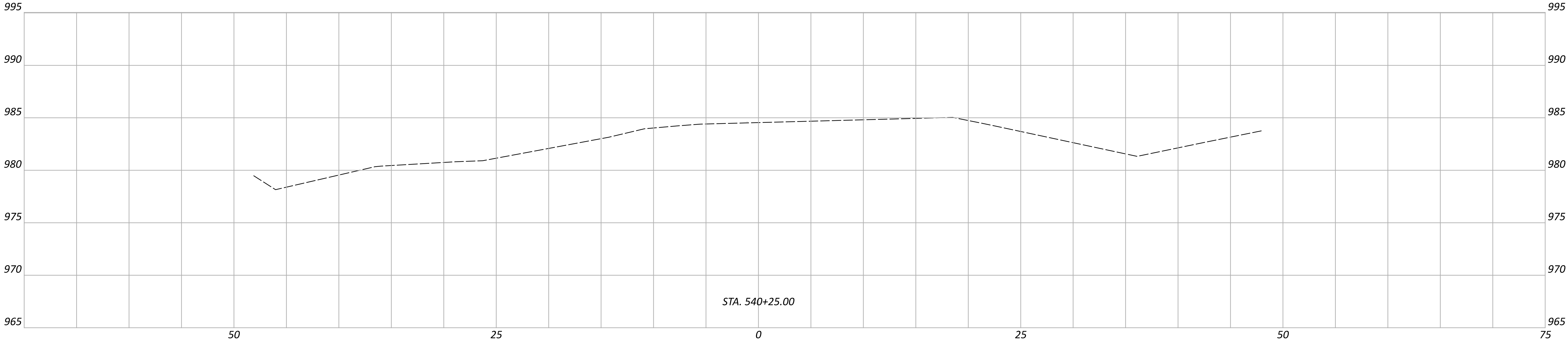
REVIEWER

JES 03/24/25

PROJECT ID

114818

CROSS SECTIONS - US 23 RAMP B
STA. 539+50 TO STA. 539+75



Sheet Totals			SHEET TOTAL	
Seeding	Cut	Fill	P.89	P.142
.	.	.		

DESIGN AGENCY

Environmental Design Group
ARON / CLEVELAND / COLUMBUS
2500 WESTBURY BLVD., 1F
COLUMBUS, OH 43260-1350
614.291.6000 FAX 614.291.6001

DESIGNER

WES

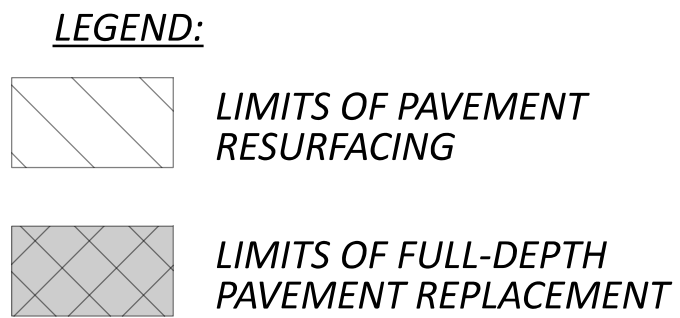
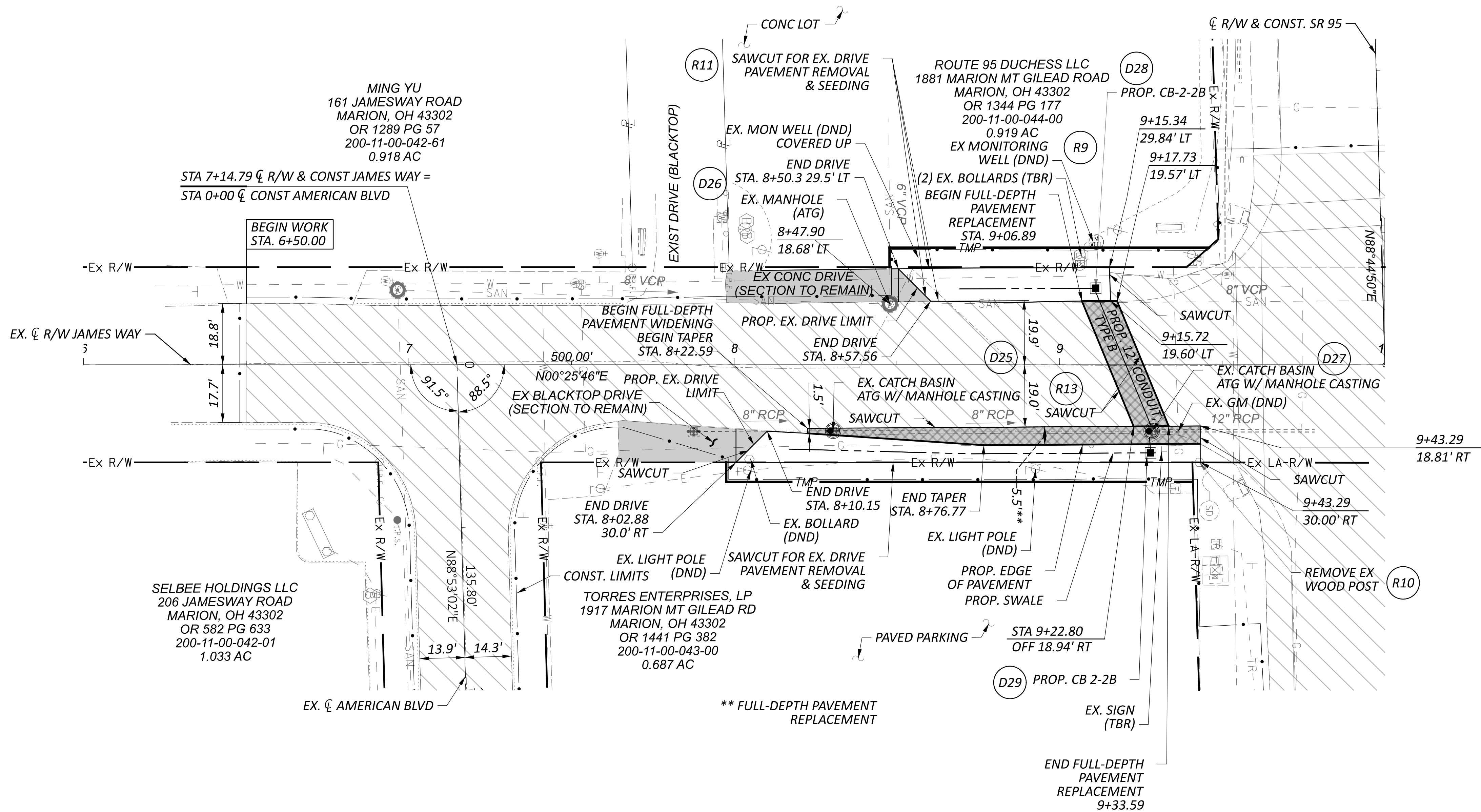
REVIEWER

JES 03/24/25

PROJECT ID

114818

CROSS SECTIONS - US 23 RAMP B
STA. 540+00 TO STA. 540+25



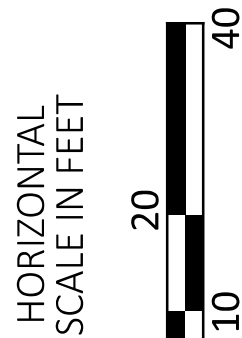
NOTES:

FOR JAMES WAY CROSS SECTIONS,
SEE SHEETS P.91-P.93

FOR DRIVEWAY DETAILS,
SEE SHEET P.95

FOR STORM SEWER PROFILE,
SEE SHEET P.97

PLAN - JAMES WAY
STA. 6+50 TO STA. 10+00

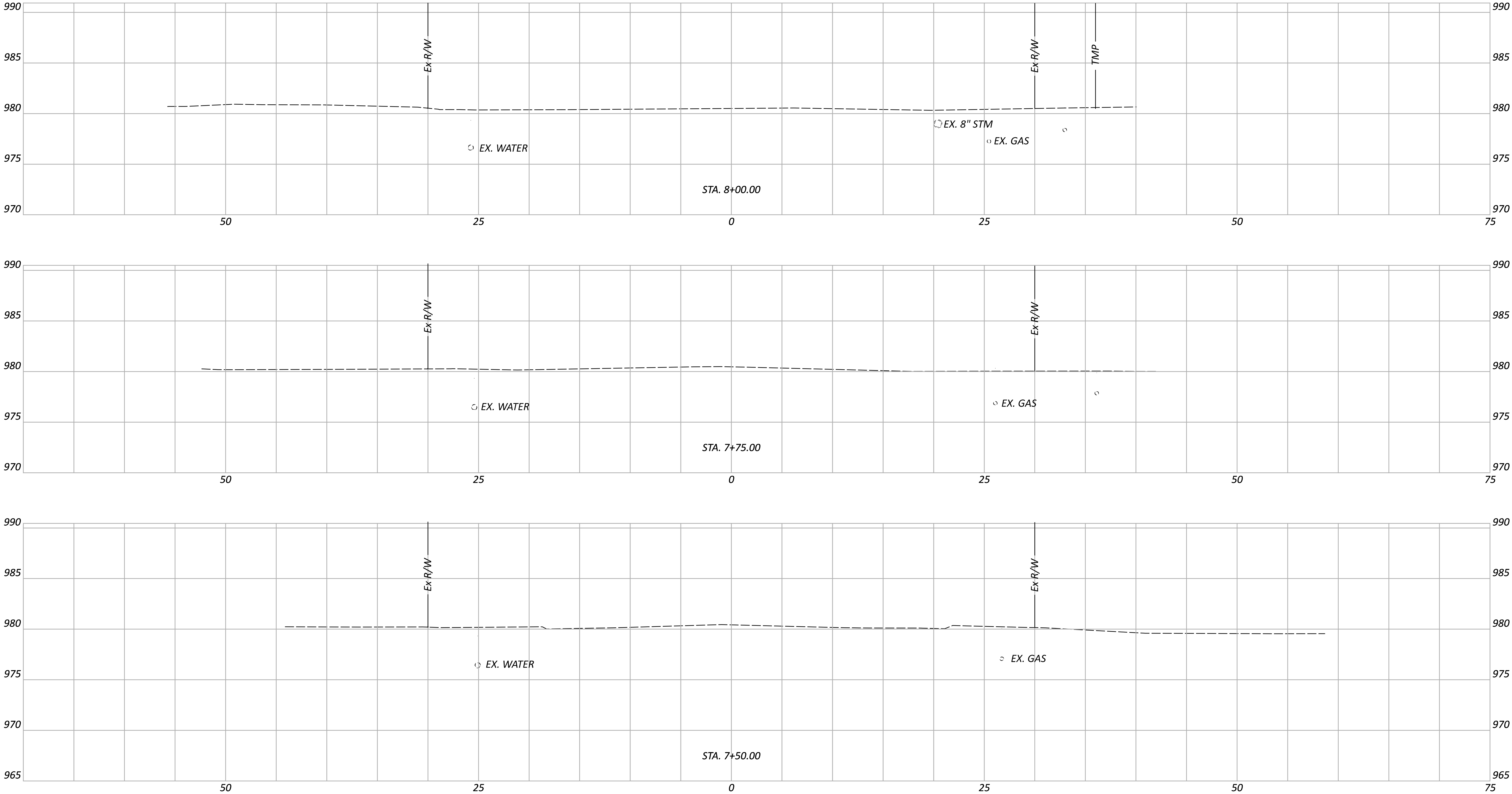


DESIGN AGENCY	
Environmental Design Group	
APPROVED FOR COLUMBUS COUNTY 2500 W. 10TH AVE., SUITE 100 COLUMBUS, GA 31906	
DESIGNER	
WES	
REVIEWER	
JES 03/24/25	
PROJECT ID	
114818	
SHEET	
P.90	TOTAL P.142

MAR-95-17.90

MODEL: CLX_RW_PENNY - 7+50.00 [Sheet] PAPER SIZE: 34x22 (in.) DATE: 7/2/2025 TIME: 8:31:31 AM USER: bshepherd

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CROSS SECTIONS - JAMES WAY
STA. 7+50 TO STA. 8+00

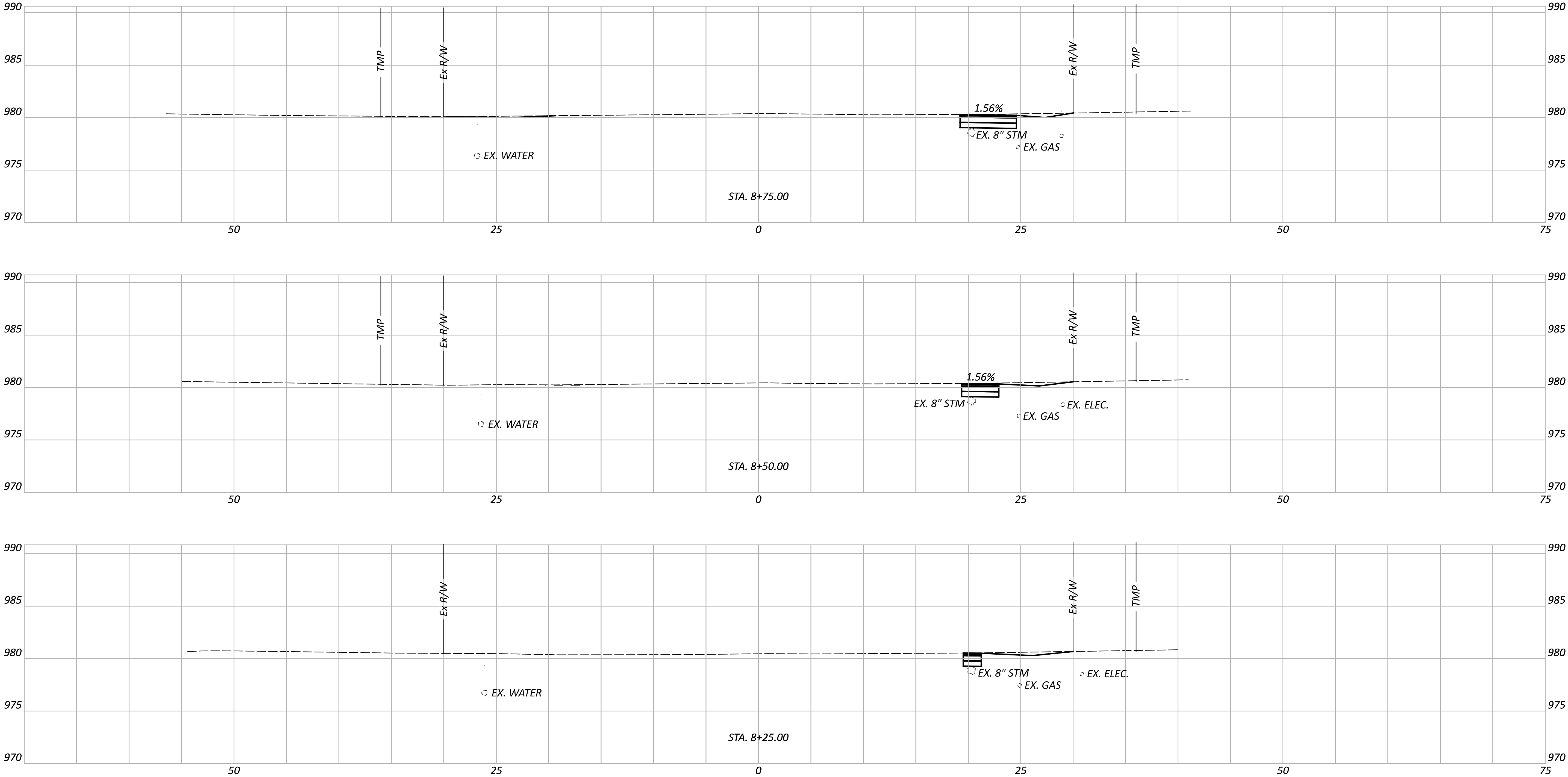
DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 WESTBURY AVENUE, SUITE 200
COLUMBUS, OH 43260-1350
614.261.0000 FAX 614.261.0001

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
.	.	.	P.91	P.142



CROSS SECTIONS - JAMES WAY
STA. 8+25 TO STA. 8+75

DESIGN AGENCY
Environmental Design Group
ARON / CLEVELAND / COLUMBUS
250 WEST 10TH ST., 10TH FLOOR
COLUMBUS, OH 43260-1000

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

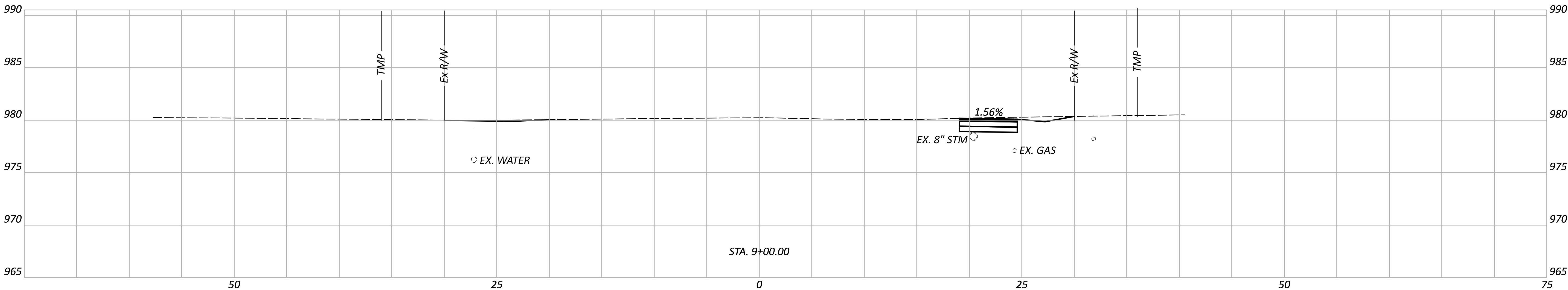
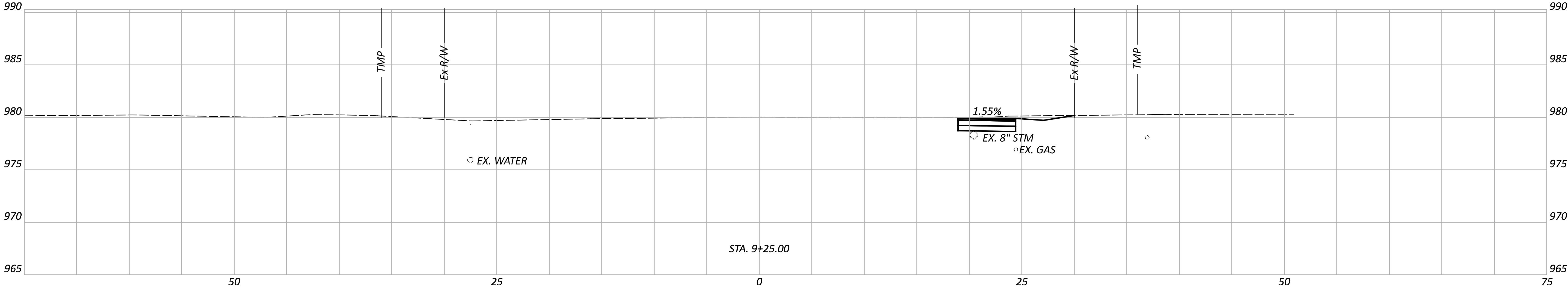
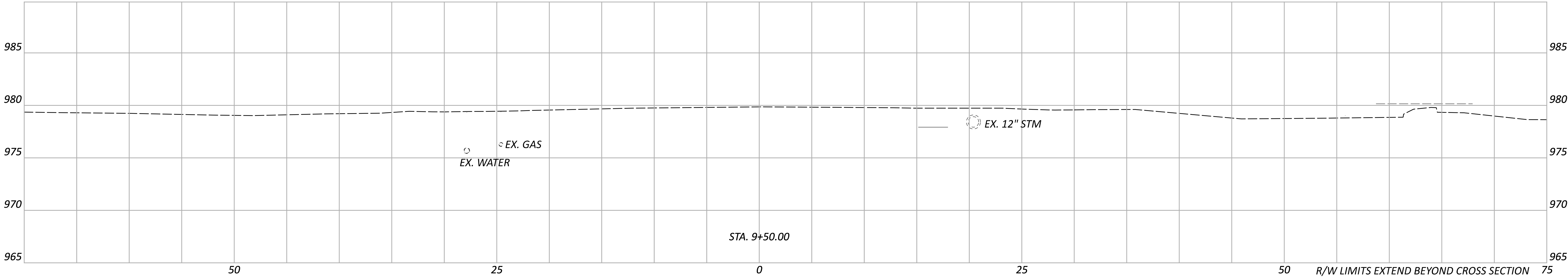
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Seeding	Cut	Fill
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SHEET	TOTAL
P.92	P.142

MAR-95-17.90

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CROSS SECTIONS - JAMES WAY
STA. 9+00 TO STA. 9+50

DESIGN AGENCY
**Environmental
Design Group**
ARROYO / CLEVELAND / COLUMBUS
2500 W. 12TH ST., SUITE 200
DENVER, CO 80202

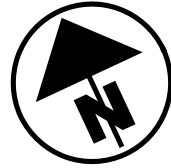
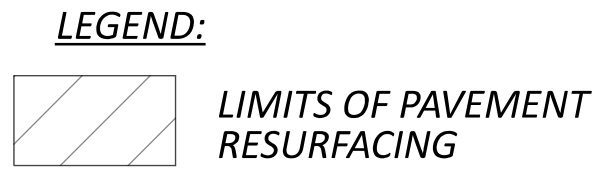
DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

Sheet Totals		
Seeding	Cut	Fill
.	.	.

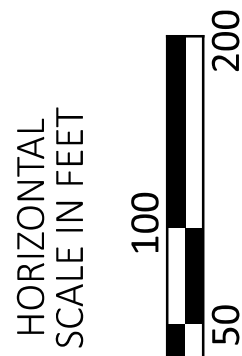
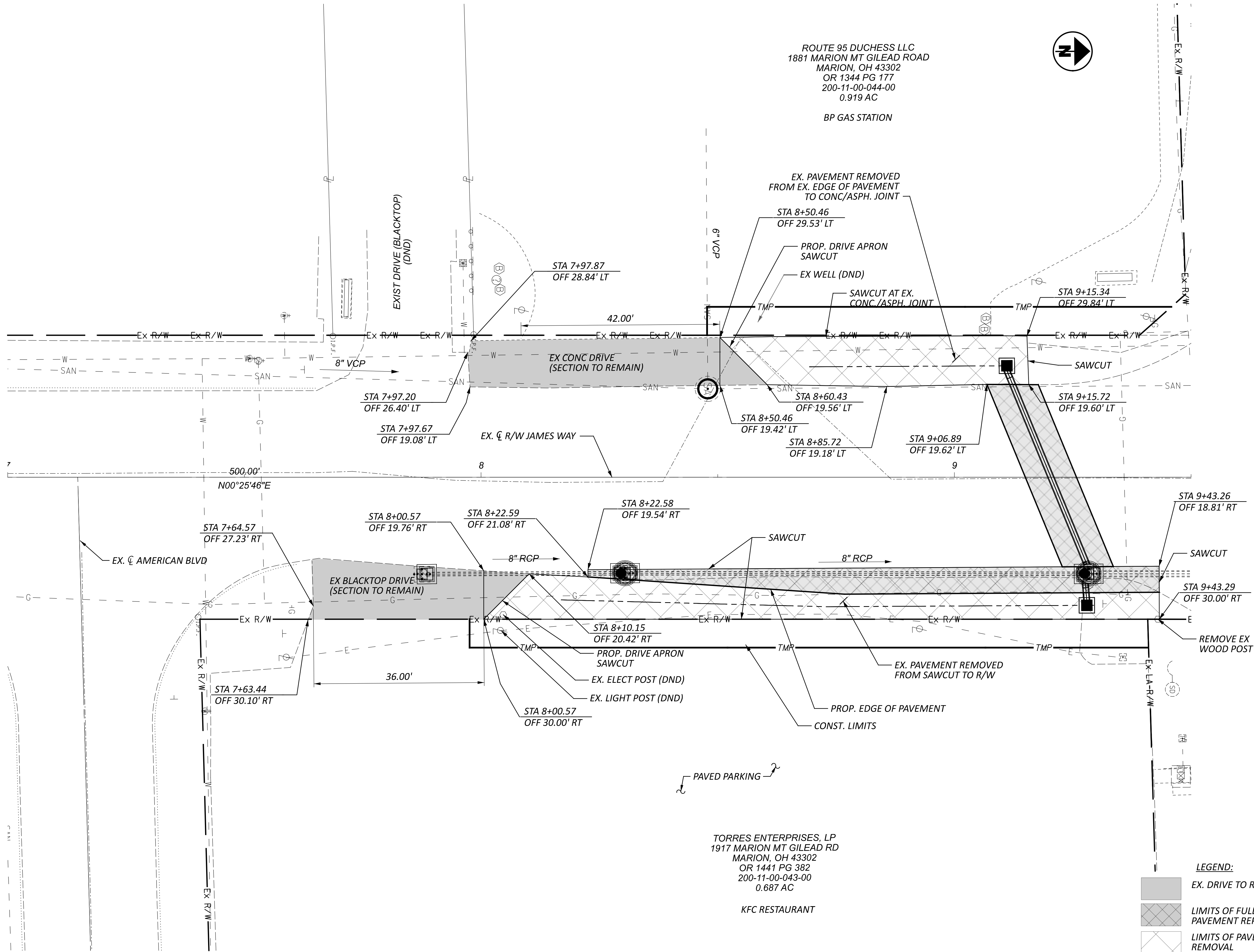
SHEET	TOTAL
P.93	P.142



PLAN - AMERICA BLVD
STA. 0+00 TO STA. 2+45.35

HORIZONTAL
SCALE IN FEET

A horizontal scale bar with alternating black and white segments. The segments are labeled 0, 10, 20, and 40, indicating the scale in feet.



DRIVE DETAILS
JAME WAY

DESIGN AGENCY
Environmental Design Group
AKRON / CLEVELAND / COLUMBUS
2330 STATE ST. / W. 2ND FLOOR
AKRON, OH 44303-4499

DESIGNER	WES
REVIEWER	JES
PROJECT ID	03/24/25
SHEET	114818
P.95	TOTAL P.142

MODEL: 114818_DF001 PAPER SIZE: 34x22 (in.) DATE: 7/2/2025 TIME: 8:31:43 AM USER: bshepherd
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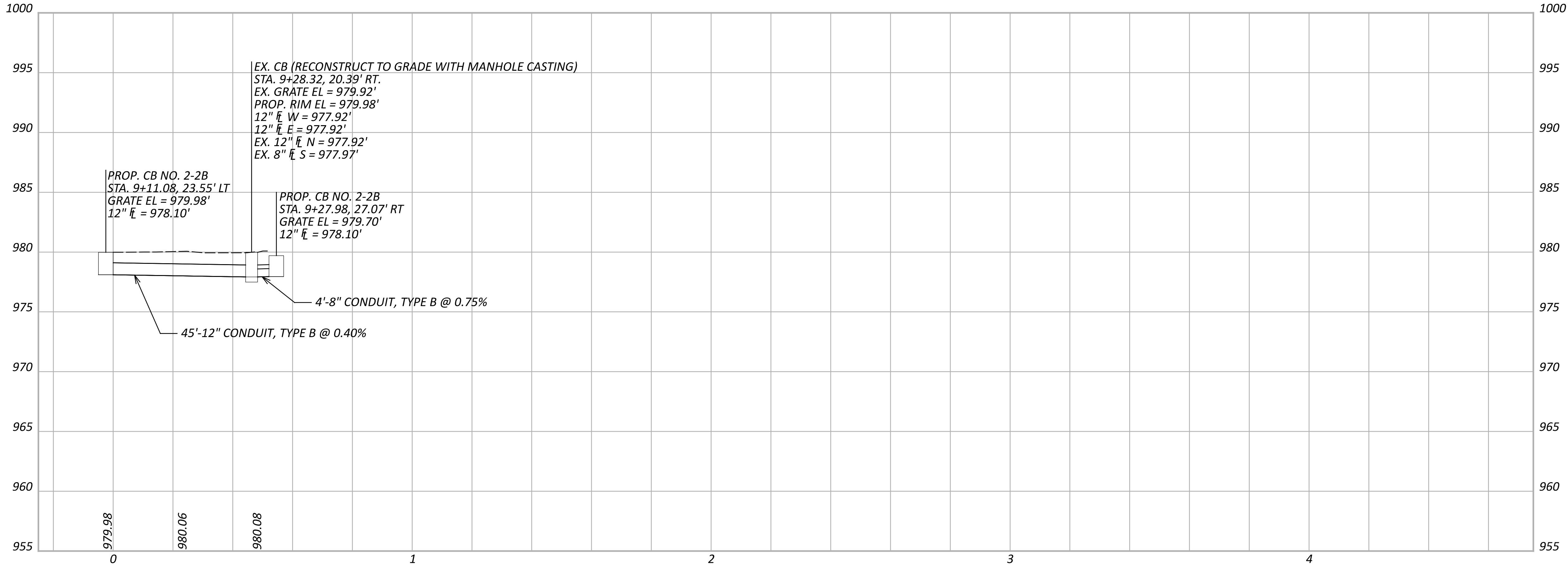
DESIGNER
WEC

REVIEWER

PROJECT ID

SHEET	TOTAL
-------	-------

P.96	P.14
------	------



STORM SEWER PROFILE
JAMES WAY

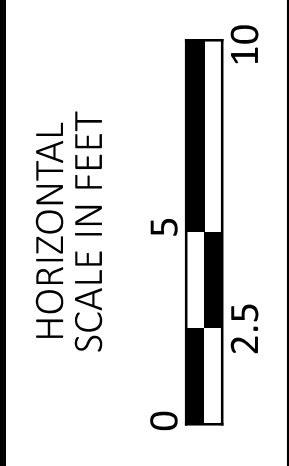
DESIGN AGENCY
**Environmental
Design Group**
ARROW / CLEVELAND / COLUMBUS
2500 WESTERN AVE., #200 CLEVELAND, OH 44113-1590
P. 216.261.6000 F. 216.261.6001

DESIGNER
WES

REVIEWER
JES 03/24/25

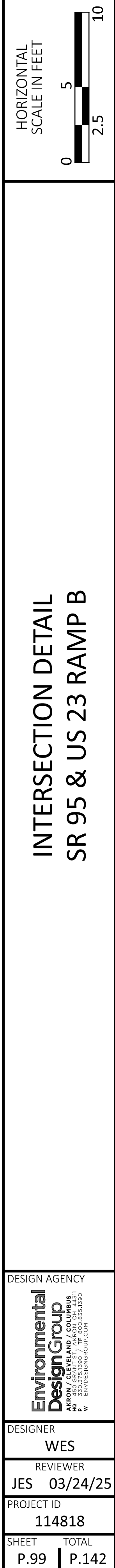
PROJECT ID
114818

SHEET	TOTAL
P.97	P.142



INTERSECTION DETAIL

SR 95 & WELCOME WAY



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DESIGN AGENCY

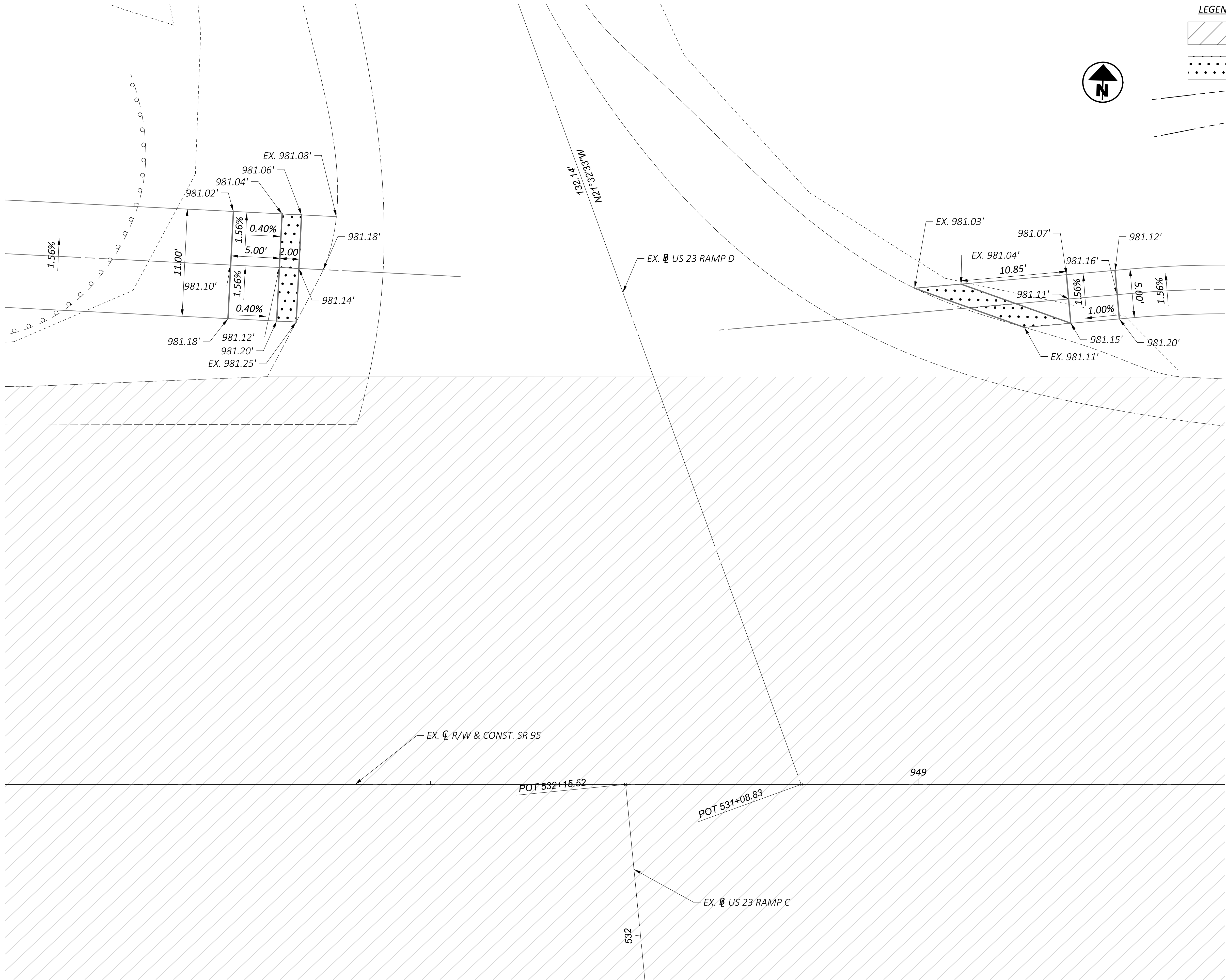
**Environmental
Design Group**
AKRON / CLEVELAND / COLUMBUS
HQ 450 GRANT ST., AKRON, OH 44311
P 330.375.1390 / TF 800.835.1390
W ENVDESIGNGROUP.COM

DESIGNER
WES

REVIEWER
JES 03/24,

PROJECT ID
114818

SHEET	TOTAL
P.100	P.1



INTERSECTION DETAIL
SR 95 & US 23 RAMP D

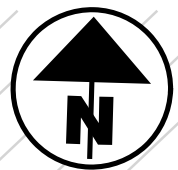
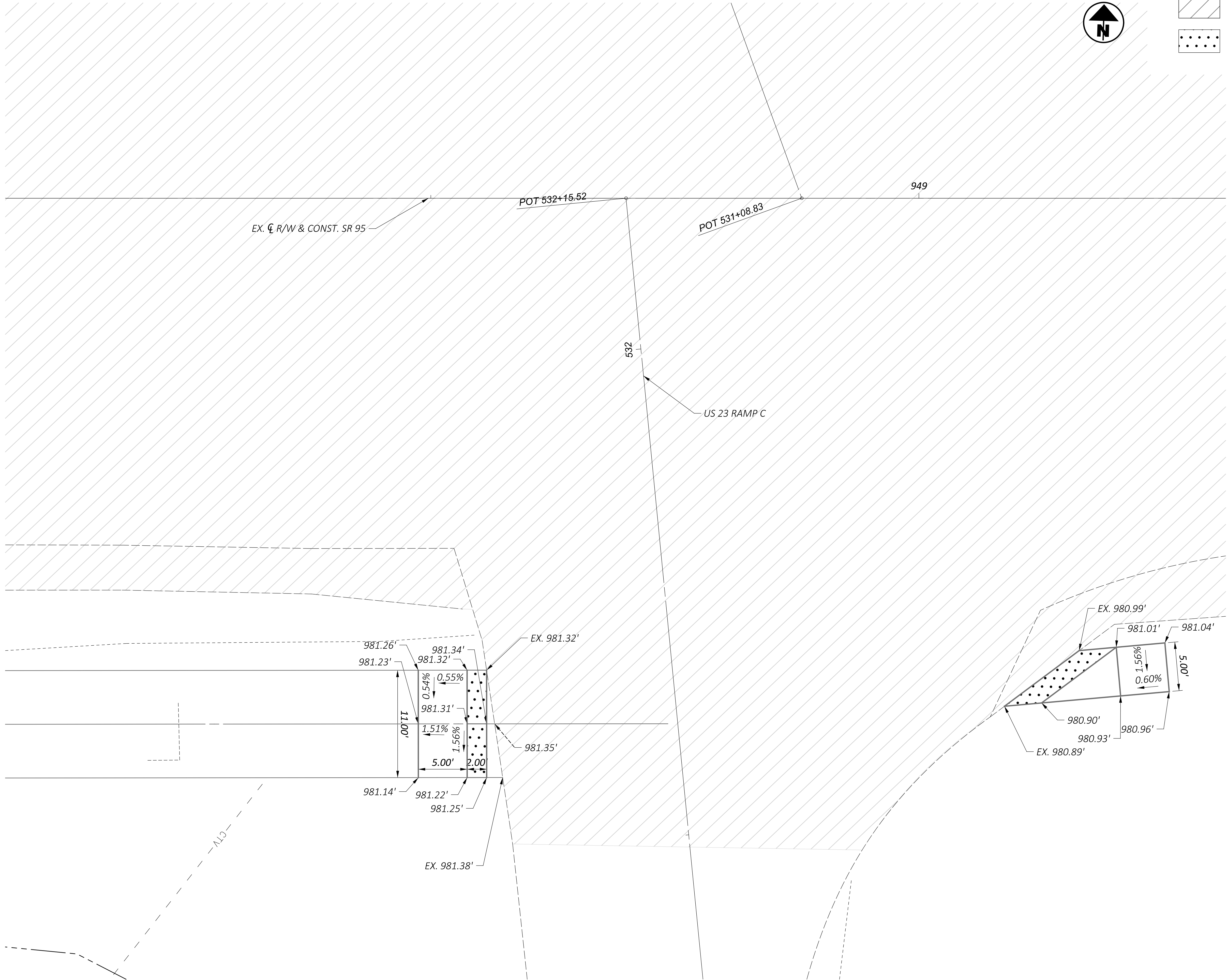
DESIGN AGENCY
**Environmental
Design Group**
AKRON / CLEVELAND / COLUMBUS
216.275.1350 / 114818
216.275.1350 / 114818

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

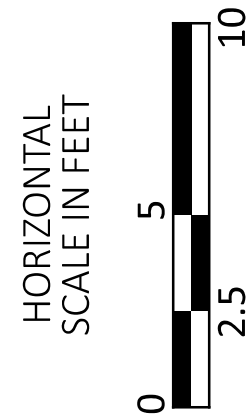
SHEET TOTAL
P.101 P.142



LEGEND:

LIMITS OF PAVEMENT RESURFACING

DETECTABLE WARNING SURFACE



INTERSECTION DETAIL
SR 95 & US 223 RAMP C

DESIGN AGENCY
Environmental Design Group
AKRON / CLEVELAND / COLUMBUS, OH
216.275.1585 / TW 606.983.1350
E 216.275.1585 / F 216.275.1585

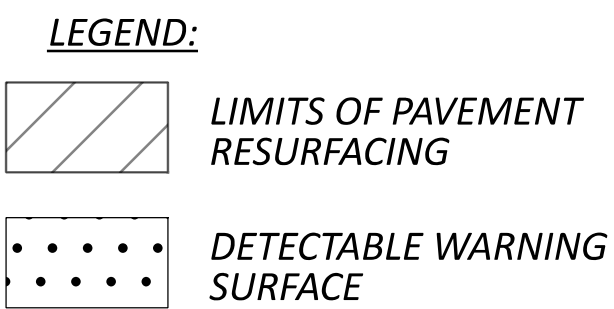
DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

SHEET TOTAL
P.102 P.142

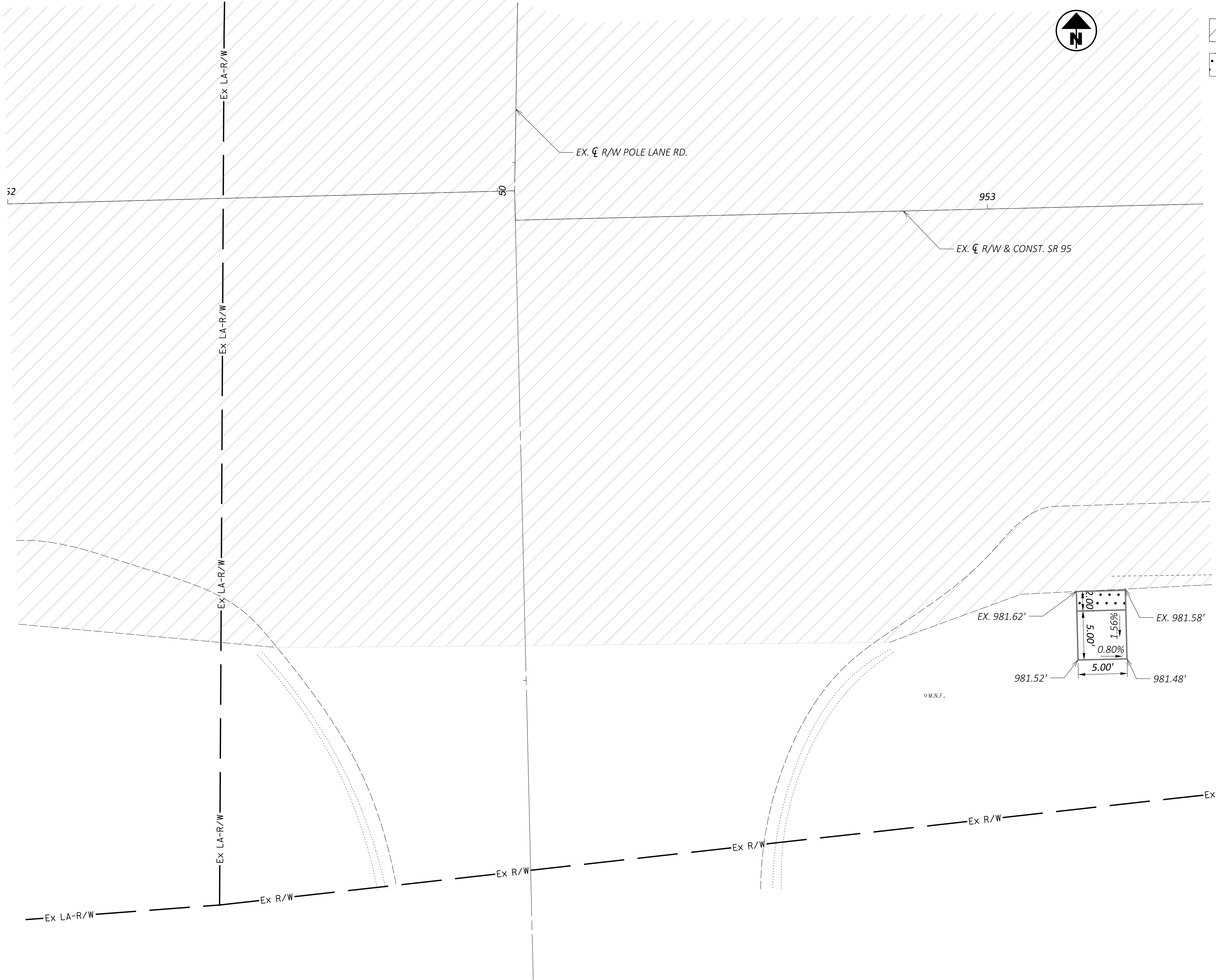
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HORIZONTAL
SCALE IN FEET

2.5 5 10

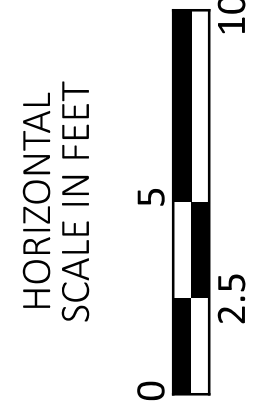
DESIGN AGENCY
**Environmental
 Design Group**
 ARON / CLEVELAND / COLUMBUS
 310.771.1196 • 216.803.8511
 601.244.6644 • 601.244.6644



LEGEND:

LIMITS OF PAVEMENT
RESURFACING

DETECTABLE WARNING
SURFACE



INTERSECTION DETAIL
SR 95 & POLE LANE RD - SOUTH

DESIGN AGENCY	
Environmental Design Group AKRON / CLEVELAND / COLUMBUS 216.270.1500 / 114818 E: 216.270.1500 / 114818	
DESIGNER	
WES	
REVIEWER	
JES 03/24/25	
PROJECT ID	
114818	
SHEET	
P.104	TOTAL P.142

PAVEMENT MARKING SUBSUMMARY											
SHEET NO.	REFERENCE NO.	STATION			644						
					STOP LINE	CROSSWALK LINE, 12"	SCHOOL ZONE MARKING, 72"	LANE ARROW	CHANNELIZING LINE, 12"	BIKE LANE SYMBOL MARKING	
		FROM	TO	SIDE	FT	FT	EACH	EACH	FT	EACH	
		SR 95									
P.108	CH	936+75	936+79	RT					4		
P.108	CH	938+00	939+61	LT					161		
P.108	CH	938+00	939+61	LT					161		
P.108	CH	938+00	941+51	LT					351		
P.108	CH	938+00	939+65	LT					165		
P.108	CH	939+66.5	941+95	RT					229		
P.109	CH	942+94	946+68	LT					374		
P.109	CH	943+08	948+18	RT					510		
P.110	CH	946+62	948+18	RT/LT					156		
P.110	CH	949+75	952+00	RT					225		
P.110	CH	950+60	952+00	RT/LT					140		
P.108	SL	936+79		LT/RT	44						
P.108	SL	937+80		LT	11						
P.108	SL	938+00		LT/RT	44						
P.109	SL	941+95		RT	42						
P.109	SL	942+94		LT	22						
P.109	SL	943+07.5		LT	11						
P.110	SL	948+18		LT/RT	60						
P.110	SL	949+27		LT	27						
P.111	SL	952+00		LT/RT	52						
P.108	CW	936+88	936+96	LT/RT		160					
P.111	CW	953+08	953+14	LT/RT		150					
P.110	SZ	950+52					1				
P.110	SZ	950+52					1				
P.108	BL	938+15		LT						1	
P.108	BL	938+23		RT						1	
P.108	BL	939+43.5		LT						1	
P.108	BL	940+21		LT						1	
P.109	BL	941+55		LT						1	
P.109	BL	944+61.5		RT						1	
SUB-TOTAL					313	310	2		2476	6	
TOTALS CARRIED TO GENERAL SUMMARY					313	310	2		2476	6	

DESIGN AGENCY
**Environmental
 Design Group**
 ARON, CLEVELAND, COLUMBUS
 450 GRANVILLE AVENUE, SUITE 1420
 CLEVELAND, OHIO 44115
 WWW.ENVDESIGNGROUP.COM

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

SHEET TOTAL
P.105 | P.142

PAVEMENT MARKING SUBSUMMARY

MAR-95-17.90

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 7/2/2025 TIME: 8:31:59 AM USER: bshepherd
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PAVEMENT MARKING SUBSUMMARY															
SHEET NO.	REFERENCE NO.	STATION			644										
					EDGE LINE, 6" (WHITE)	EDGE LINE, 6" (YELLOW)	LANE LINE, 6"	CENTER LINE	CHANNELIZING LINE, 12"	STOP LINE	CROSSWALK LINE, 12"	SCHOOL ZONE MARKING, 72"	LANE ARROW	DOTTED LINE, 6"	BIKE LANE SYMBOL MARKING
		FROM	TO	SIDE	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	EACH
		JAMES WAY/WELCOME WAY													
P.108	CL	8+04	9+36	LT				132							
P.108	CL	10+62	10+89	RT				27							
P.108	CH	8+04	9+49	RT					145						
P.108	CH	8+77	9+49	RT					72						
P.108	CH	10+62	10+98	LT					36						
P.108	SL	9+36		LT/RT						11					
P.108	SL	9+49		RT						25					
P.108	SL	10+62		LT/RT						28					
P.108	LA	8+33		LT									1		
P.108	LA	9+28		LT									1		
P.108	LA	9+28		RT									1		
P.108	LA	9+28		RT									1		
P.108	LA	10+76.5		LT									1		
P.108	LA	10+76.5		LT									1		
P.108	CW	9+54	9+62	LT/RT						145					
P.108	CW	10+47	10+55	LT/RT						121					
		US 23 RAMP B													
P.109	ELW	534+13.5	539+89	LT	576										
P.109	ELY	534+00	539+89	RT		589									
P.109	CH	534+29	539+39	RT					589						
P.109	SL	534+29		LT/RT						47					
P.109	CW	534+12	534+25	LT/RT							130				
P.109	LA	534+37		RT									1		
P.109	LA	534+37		RT									1		
P.109	LA	535+37		RT									1		
P.112	LA	536+37		RT									1		
P.112	LA	537+37		RT									1		
P.112	LA	538+37		RT									1		
P.112	LA	539+29		RT									1		
		US 23 RAMP A													
P.109	CW	533+65	533+80	LT/RT							82				
SUB-TOTAL					576	589		159	842	111	478		8		
TOTALS CARRIED TO GENERAL SUMMARY					0.11	0.11		0.03	842	111	478		8		

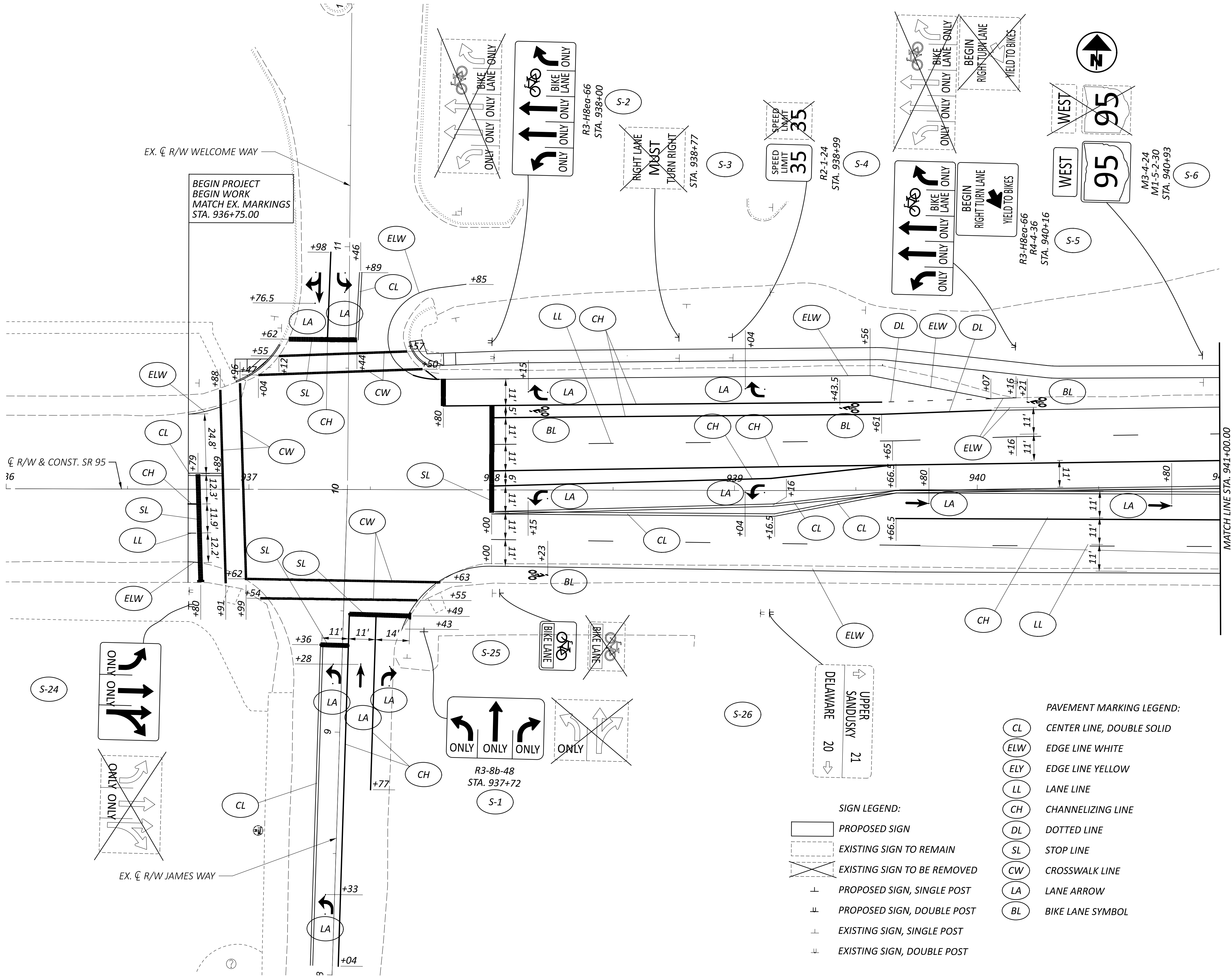
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PAVEMENT MARKING SUBSUMMARY

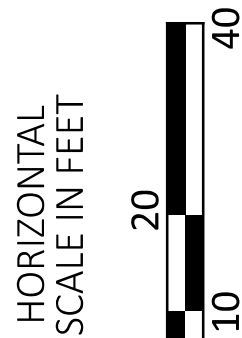
DESIGN AGENCY
**Environmental
 Design Group**
 ARON, CLEVELAND, COLUMBUS
 430 GRANVILLE AVE., SUITE 1000, CLEVELAND, OH 44115
 TEL: 216.398.1500 FAX: 216.398.1501
 INFO@EDG-GRP.COM WWW.EDG-GRP.COM

SIGNING SUBSUMMARY										
SHEET NO.	REFERENCE NO.	STATION	SIDE	CODE	SIZE (INCHES)	630				
						GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN, FLAT SHEET	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
SR 95										
P.108	S-1	937+72	RT	R3-8b	48 X 30	13	10	1		1
P.108	S-2	938+00	LT	R3-H8ea	66 X 30	26	13.75	1		2
P.108	S-3	938+77	LT					1		1
P.108	S-4	938+99	LT	R2-1	24 X 30	13	5	1		1
P.108	S-5	940+16	LT	R3-H8ea	66 X 30	26	13.75	1		2
				R4-4	36 X 30		7.5			
P.108	S-6	940+93	LT	M1-5-2	30 X 24	13.5	5	1		1
				M3-4	24 X 12		2			
P.109	S-7	941+49	LT	D1-H1	48 X 12	23	4	1		2
P.109	S-9	942+74	LT	R6-1R	36 X 12	11.5	3	2		1
				R6-1L	36 X 12		3			
P.109	S-10	942+97	LT	D1-H1a	48 X 12	23	4	1		2
P.109	S-11	942+83	RT	D9-2-24	24 X 24	14.25	4	2		1
				M6-1	30 X 21		4.38			
P.109	S-12	942+89	RT	M2-H4	108 X 36	27	27	1		2
P.109	S-13	944+83	RT	M3-1	30 X 12	12.75	2.5	3		1
				M1-4	30 X 30		6.25			
				M5-1	30 X 21		4.38			
P.110	S-14	946+26	LT	M3-3	30 X 12	12.75	2.5	3		1
				M1-4	30 X 30		6.25			
				M5-1	30 X 21		4.38			
P.110	S-15	946+86	RT	R3-H8ca	48 X 30	26	10	1		2
P.110	S-16	947+02	LT	W3-3	30 X 30	13	6.25	1		1
P.110	S-17	948+00	LT	M2-H4	108 X 36	27	27	1		2
P.110	S-18	948+13	RT	D1-H1a		25			1	2
P.110	S-19	948+49	RT	R6-1L	36 X 12	11.5	3	2		1
				R6-1R	36 X 12		3			
P.110	S-20	950+53	LT	D1-H16a		29			1	2
US 23 RAMP B										
P.109	S-8	534-41	RT	R5-1	36 X 36	13.5	9	1		1
P.112	S-21	535+80	RT	R5-1a	30 X 18	12	3.75	1		1
P.112	S-22	538+44	RT	E9-H15		33			1	2
P.112	S-23	540+00	LT	R3-H8bh	36 X 30	13	7.5	1		1
P.109	S-42	534+53	LT	R5-1	36 X 36	13.5	9	1		1
P.112	S-44	535+80	LT	R5-1a	30 X 18	12	3.75	1		1
TOTALS CARRIED TO GENERAL SUMMARY						444.25	214.89	29	3	35

SIGNING SUBSUMMARY										
SHEET NO.	REFERENCE NO.	STATION	SIDE	CODE	SIZE (INCHES)	630				
						GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN, FLAT SHEET	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
SR 95										
P.108	S-24	936+75	RT	R3-H8cg	48 X 30	26	10	1		2
P.108	S-25	938+03	RT	R3-17	30 X 24	12.5	5	1		1
P.108	S-26	939+15	RT	D1-H16a		29			1	2
P.109	S-27	941+06	RT	R3-H8cbb	48 X 30	26	10	1		1
P.109	S-28	941+52	RT	D10-H8	12 X 12	11.5	1	1		1
P.109	S-29	941+74	RT	R7-1	12 X 18	12	1.5	1		1
P.109	S-30	942+13	RT	M3-3	30 X 12	12.75	2.5	1		1
				M1-4	30 X 30		6.25			
				M5-1	30 X 21		4.38			
P.109	S-31	944+12	RT	W3-3	30 X 30	13	6.25	1		1
P.110	S-32	949+29	RT	R6-1L	36 X 12	11.5	3	2		1
				R6-1R	36 X 12		3			
P.110	S-33	949+55	RT	R3-H8cg	48 X 30	24	10	2		2
				R3-17	30 X 24		5			
P.110	S-34	949+99	RT	M3-2	24 X 12	27	2	2		1
				M1-5-2	30 X 24		5			
P.110	S-35	950+58	RT	S1-1	30 X 30	13.67	6.25	2		1
				S4-3P	24 X 8		1.33			
P.111	S-36	951+99	RT	R3-H8cg	48 X 30	26	10	1		2
P.111	S-37	952+02	LT	R3-17	30 X 24	12.5	5	1		1
P.110	S-38	950+55	LT	R7-1	12 X 18	12	1.5	1		1
P.110	S-39	949+46	LT	R3-H8bk	36 X 30	13	7.5	1		1
P.110	S-40	949+11	LT	M3-1	30 X 12	12.75	2.5	3		1
				M1-4	30 X 30		6.25			
				M6-1	30 X 21		4.38			
P.109	S-41	944+28	LT	R3-H8ca	48 X 30	26	10	1		2
P.109	S-43	941+92	LT	R6-1L	36 X 12	11.5	3	2		1
				R6-1R	36 X 12					
P.109	S-44	941+72	LT	R3-H8ca	48 X 30	26	10			
TOTALS CARRIED TO GENERAL SUMMARY						358.67	142.59	25	1	24



TRAFFIC CONTROL - SR 95
BEGIN TO STA. 941+50



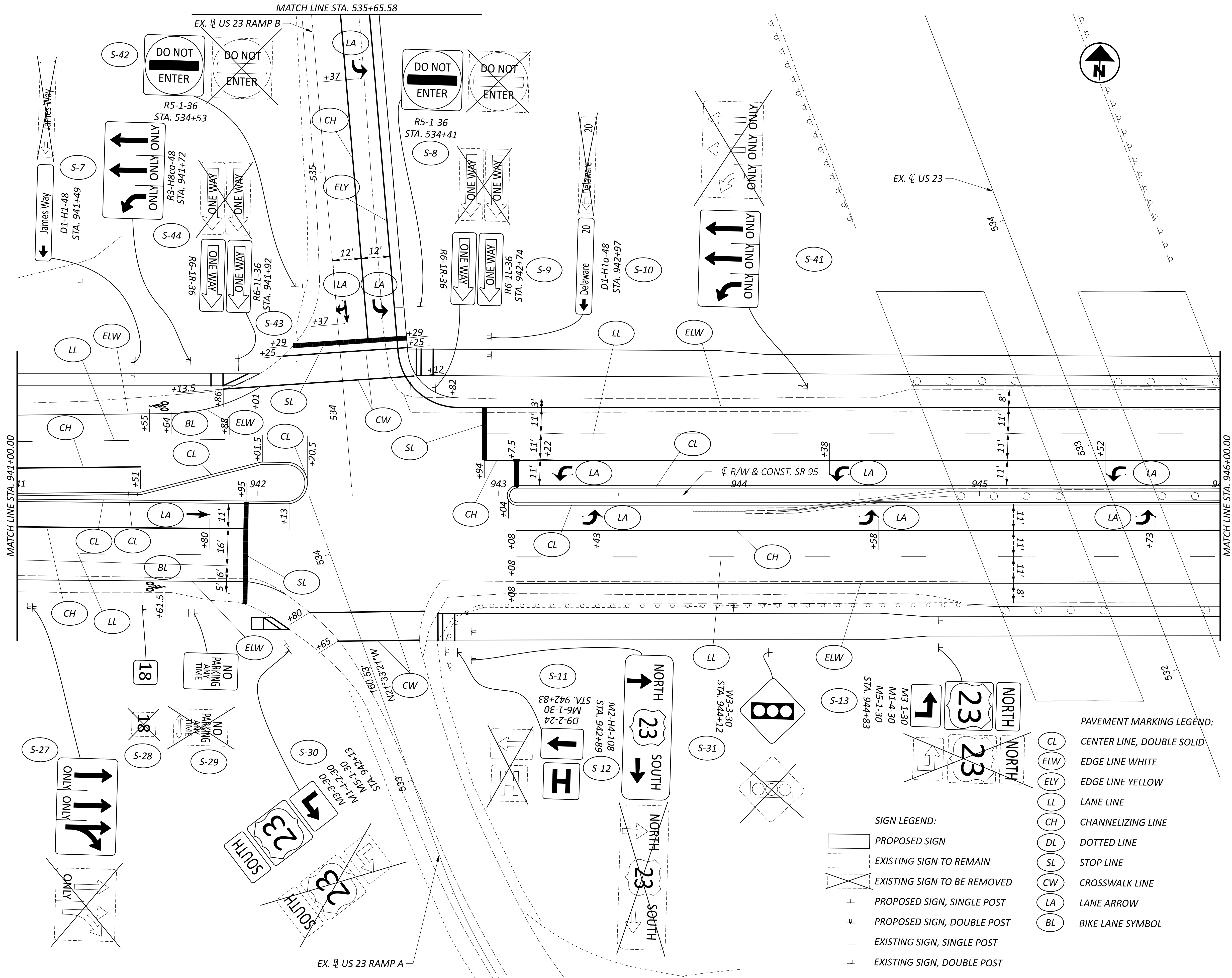
DESIGN AGENCY
Environmental Design Group
AKRON / CLEVELAND / COLUMBUS
216.275.1585 / 1F 500.953.1350
216.275.2400 ext. 1224

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

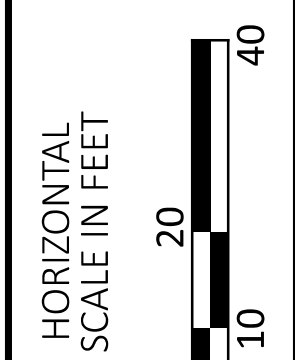
SHEET TOTAL
P.108 P.142



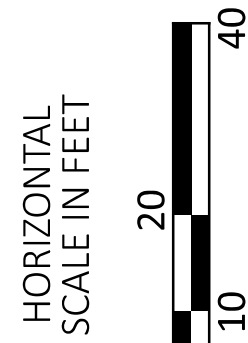
- SIGN LEGEND:**
- PROPOSED SIGN
 - EXISTING SIGN TO REMAIN
 - EXISTING SIGN TO BE REMOVED
 - PROPOSED SIGN, SINGLE POST
 - PROPOSED SIGN, DOUBLE POST
 - EXISTING SIGN, SINGLE POST
 - EXISTING SIGN, DOUBLE POST

- PAVEMENT MARKING LEGEND:**
- CL CENTER LINE, DOUBLE SOLID
 - ELW EDGE LINE WHITE
 - ELY EDGE LINE YELLOW
 - LL LANE LINE
 - CH CHANNELIZING LINE
 - DL DOTTED LINE
 - SL STOP LINE
 - CW CROSSWALK LINE
 - LA LANE ARROW
 - BL BIKE LANE SYMBOL

TRAFFIC CONTROL - SR 95
STA. 941+00 TO STA. 946+00



DESIGN AGENCY	
Environmental Design Group	
APPROVED / CLEVELAND / COLUMBUS 2500 WESTERN AVE., STE. 200 COLUMBUS, OH 43260-1199	
DESIGNER	
WES	
REVIEWER	
JES 03/24/25	
PROJECT ID	
114818	
SHEET	TOTAL
P.109	P.142



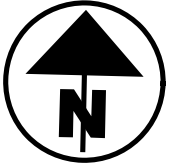
DESIGN AGENCY
**Environmental
 Design Group**
 AKRON / CLEVELAND / COLUMBUS
 PO BOX 37651390 / 7 TF 800.835.1390
 W ENVDESIGNGROUP.COM

DESIGNER
WES

REVIEWER
JES 03/24/2

PROJECT ID
114818

SHEET	TOTAL
P.110	P.142



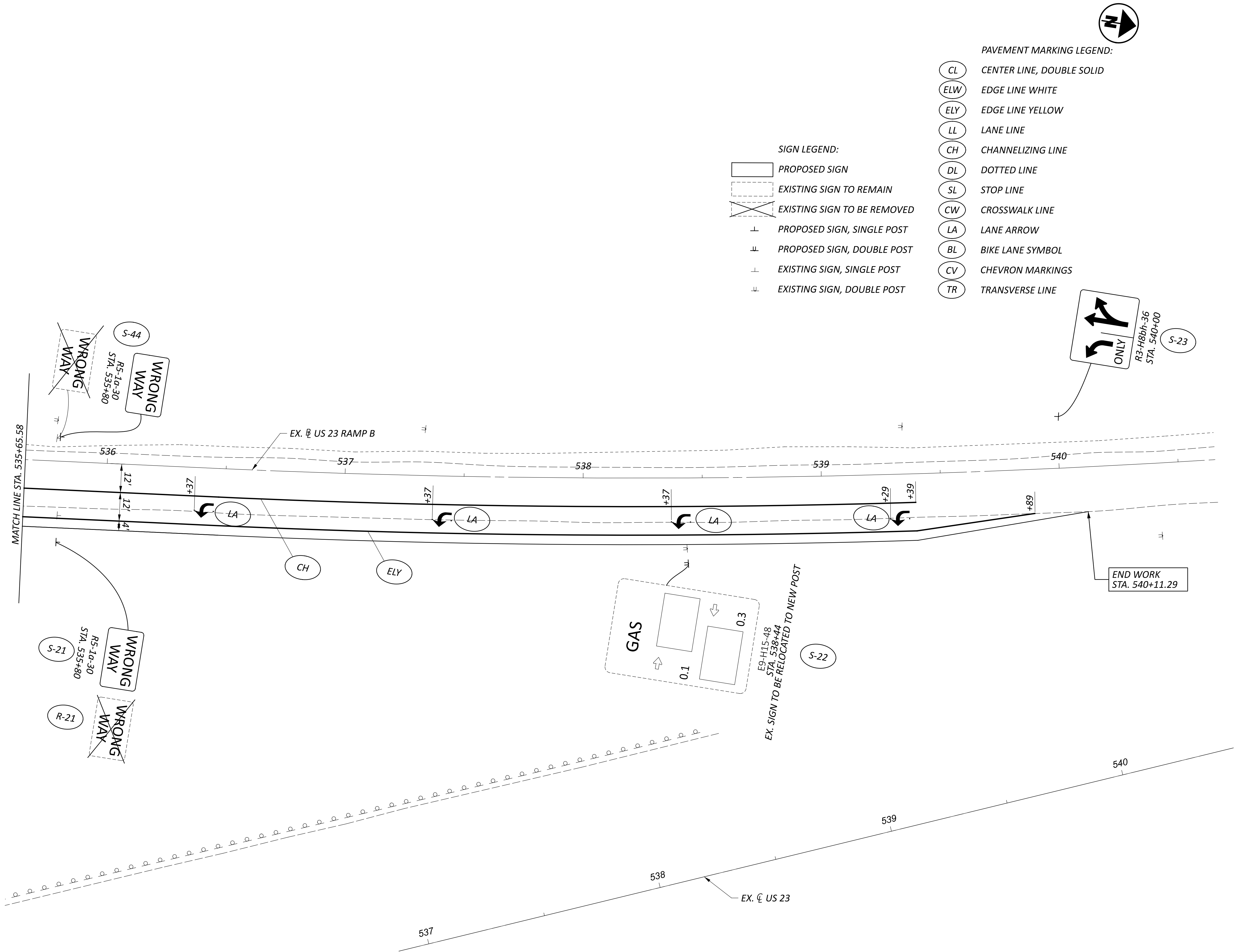
TRAFFIC CONTROL - SR 95
STA. 951+00 TO END

HORIZONTAL
SCALE IN FEET

10 20 40

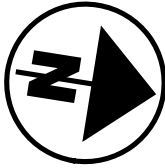
**Environmental
Design Group**
AKRON / CLEVELAND / COLUMBUS
HQ 350 GRANT ST., AKRON, OH 44311
P 330.376.1390 / F 800.835.1290
W ENVDESIGNGROUP.COM

DESIGNER	
WES	
REVIEWER	
JES	03/24/25
PROJECT ID	
114818	
SHEET	TOTAL
P.111	P.142



- SIGN LEGEND:**
- PROPOSED SIGN
 - EXISTING SIGN TO REMAIN
 - EXISTING SIGN TO BE REMOVED
 - PROPOSED SIGN, SINGLE POST
 - PROPOSED SIGN, DOUBLE POST
 - EXISTING SIGN, SINGLE POST
 - EXISTING SIGN, DOUBLE POST

- PAVEMENT MARKING LEGEND:**
- CL CENTER LINE, DOUBLE SOLID
 - ELW EDGE LINE WHITE
 - ELY EDGE LINE YELLOW
 - LL LANE LINE
 - CH CHANNELIZING LINE
 - DL DOTTED LINE
 - SL STOP LINE
 - CW CROSSWALK LINE
 - LA LANE ARROW
 - BL BIKE LANE SYMBOL
 - CV CHEVRON MARKINGS
 - TR TRANSVERSE LINE



TRAFFIC CONTROL - US 23 RAMP B

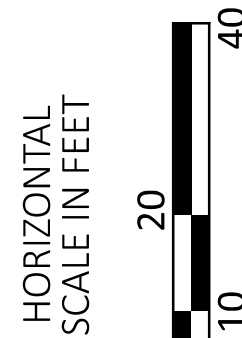
DESIGN AGENCY
Environmental Design Group
AKRON / CLEVELAND / COLUMBUS
216.275.1350 / 216.275.1351
216.275.1352 / 216.275.1353

DESIGNER
WES

REVIEWER
JES 03/24/25

PROJECT ID
114818

SHEET TOTAL
P.112 P.142



MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES, OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT EACH INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
2. NEW OF REUSED SIGNAL/FLASHER INSTALLATIONS OF DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK TO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE PUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE A DIRECT RESULT OF A VEHICLE CRASH THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. TJE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF MARION FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 8 HOURS AND SHALL NOT INCLUDE THE HOURS OF 6 TO 9 AM OR 3 TO 7 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION, CONT'D

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING, WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREW'S ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 632 POWER SERVICE

THE CONTRACTOR SHALL CONTACT THE METER SECTION OF AEP FOR INFORMATION REGARDING THE METER BASE INSTALLATION PRIOR TO ORDERING POLES. THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS.

THE VOLTAGE SUPPLIED SHALL BE NOMINALLY 120/240 VOLTS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES WITH THE EXCEPTION OF NORMAL MONTHLY ENERGY CHARGES. WHERE THERE IS AN EXISTING TRAFFIC SIGNAL THAT IS BEING REPLACED, THE CONTRACTOR SHALL COORDINATE WITH THE POWER COMPANY TO CONTINUE BILLING ON THE EXISTING DISTRICT 6 ACCOUNT. WHERE A NEW SIGNAL IS BEING INSTALLED, THE CONTRACTOR SHALL ESTABLISH THE ACCOUNT IN THE DISTRICT'S NAME FROM THE ONSET.

SIGNAL ACTIVATION

PRIOR TO ACTIVATING THE NEW TRAFFIC SIGNAL TO STOP-AND-GO MODE AND/OR REMOVING THE EXISTING TRAFFIC SIGNAL FROM SERVICE, ALL ITEMS IN THE PROPOSED SIGNAL PLAN SHALL BE FULLY COMPLETED, (I.E., VEHICLE DETECTION, PEDESTRIAN SIGNAL HEADS, ETC.). IF THERE ARE CONSTRUCTIBILITY ISSUES (I.E., ROADWAY WIDENING, ETC.) THAT PREVENT THE SIGNAL FROM BEING COMPLETED PRIOR TO ACTIVATION, IT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER. THE DISTRICT TRAFFIC ENGINEER WILL THEN REVIEW, APPROVE OR REJECT PROPOSALS TO ACTIVATE THE TRAFFIC SIGNAL PRIOR TO COMPLETION.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER AT LEAST 10 WORKING SAYS PRIOR TO SCHEDULING THE FINAL INSPECTION OF THE SIGNAL INSTALLATION. FINAL INSPECTION IS NOT CONSIDERED COMPLETE UNTIL DESIGNATED DISTRICT TRAFFIC PERSONNEL INSPECT THE TRAFFIC SIGNAL AND ISSUE WRITTEN APPROVAL. IF ISSUES ARE FOUND DURING THE FINAL INSPECTION THAT EFFECT THE SAFETY OF THE TRAVELING PUBLIC AND/OR THE EFFICIENCY OF THE INTERSECTION, THE SIGNAL SHALL NOT BE ACTIVATED ON THE PROPOSED DATE. ANY PUNCH LIST ITEMS THAT ARE FOUND SHALL BE CORRECTED AND REINSPECTED BY DISTRICT TRAFFIC PERSONNEL PRIOR TO FINAL ACCEPTANCE. ODOT FORCES SHALL ONLY ASSUME DAY TO DAY MAINTENANCE OF THE TRAFFIC SIGNAL AFTER FINAL WRITTEN ACCEPTANCE HAS BEEN ISSUED.

632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, SIGNAL SUPPORTS, CABINET(S), CONTROLLERS, ETC., SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26 AND AS INDICATED ON THE PLANS. UNLESS NOTED, POWER SERVICES SHALL BE REMOVED IN ACCORDANCE WITH C&MS 625.21.F. REMOVED ITEMS SHALL BE REUSED AS PART OF A NEW INSTALLATION ON THE PROJECT OR STORED FOR SALVAGE BY ODOT IN ACCORDANCE WITH THE LISTING GIVEN HEREIN.

REMOVE:
SIGNAL CABINET AND COMPONENTS
WAVETRONIX DETECTION EQUIPMENT
UPS

REUSE:
ETHERNET RADIO
MODEM

REMOVED ITEMS SHALL BE DELIVERED TO THE NEAREST ODOT FACILITY WHOSE ADDRESS IS LISTED BELOW:

ODOT DISTRICT 6, ATTN: DAVID CARLIN, P.E. (740-833-8198)
400 E. WILLIAM STREET
DELAWARE, OH 43015

IN THE EVENT THE ITEMS STORED ON THE PROJECT FOR SALVAGE BY THE LOCAL AGENCY ARE NOT REMOVED, THE CONTRACTOR SHALL, WHEN DIRECTED BY THE ENGINEER IN WRITING, REMOVE AND DISPOSE OF THE ITEMS AT NO ADDITIONAL COST TO THE PROJECT.

WORK INSPECTION

THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER AND DISTRICT ENGINEER WITH 72-HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INTERSECTION SITE(S) SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

DETECTION MAINTENANCE

IF VEHICLE DETECTION BECOMES UNEXPECTEDLY DISABLED, REQUIRES MODIFICATION, OR IS SCHEDULED TO BE TEMPORARILY REMOVED DURING THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER.

IF THE LOSS OF VEHICLE DETECTION IS KNOWN PRIOR TO THE START OF CONSTRUCTION, IT SHALL BE DISCUSSED AT THE PRECONSTRUCTION MEETING. AT SUCH TIME, THE DISTRICT TRAFFIC ENGINEER SHALL ADVISE THE PROJECT ENGINEER AND CONTRACTOR ON THE APPROPRIATE ACTION TO RECTIFY ANY LOSS OF VEHICLE DETECTION. THIS MAY INCLUDE PLACING THE TRAFFIC SIGNAL ON MINIMUM OR MAXIMUM RECALL, MODIFYING THE MINIMUM GREEN TIMES, AND REMOVING THE MALFUNCTIONING DETECTION FROM SERVICE. WHERE NON-INTRUSIVE DETECTION (I.E., VIDEO, RADAR) ALREADY EXISTS, THE CONTRACTOR SHALL INSURE THAT DETECTION IS OPERATING AND MAINTAINED BY RECONFIGURING THE DETECTION UNITS ACCORDINGLY DURING ALL CONSTRUCTION PHASES. THIS IS TO AVOID THE SIGNAL FROM MAXING OUT THE EFFECTED SIGNAL PHASE AND CREATING UNNECESSARY DELAYS.

LOCATIONS WHERE NON-INTRUSIVE DETECTION IS PROPOSED AND THE EXISTING VEHICLE DETECTION IS TO BE ABANDONED, THE NON-INTRUSIVE VEHICLE DETECTION SHALL BE INSTALLED, CONFIGURED, AND MADE FULLY FUNCTIONAL PRIOR TO THE EXISTING DETECTION BEING DISABLED. THE CONTRACTOR SHALL CONTINUE TO MAINTAIN AND MODIFY THE DETECTION UNTIL FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL. THIS IS ENSURE VEHICLE DETECTION REMAINS FULLY FUNCTIONAL THROUGHOUT CONSTRUCTION.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 30 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY.

EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLER, CABINET, UNINTERRUPTIBLE POWER SUPPLY, VEHICLE DETECTION EQUIPMENT, LED LAMP UNITS, NETWORK AND COMMUNICATION/INTERCONNECT EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OF THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

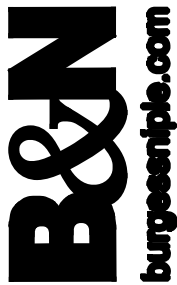
632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, (COUNTDOWN), AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632 AND 732 THE FOLLOWING SHALL APPLY:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.
2. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.
3. PIPE, SPACERS, AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.
4. THE PEDESTRIAN SIGNAL HEAD SHALL BE OF THE LED COUNTDOWN TYPE.
5. NEW ATTACHMENT HARDWARE AND FITTINGS SHALL BE USED.
6. THE LIGHT EMITTING DIODE (LED) MODULES SHALL MEET THE REQUIREMENTS OF C&MS 732.04. THE CONTRACTOR SHALL PROVIDE ODOT, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS THAT ARE TO BE USED IN THE SIGNAL HEAD PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES.

PAYMENT FOR ITEM 632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, (COUNTDOWN), AS PER PLAN SHALL BE MADE FOR THE NUMBER OF COMPLETE SIGNAL HEADS FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS, AND NEW ATTACHMENT HARDWARE.

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

114818

SHEET

P.113

TOTAL

P.142

ITEM 633 CABINET, TYPE TS-2, AS PER PLAN

THE CABINET SHALL BE FURNISHED AND INSTALLED ACCORDING TO C&MS 633 AND 733 AND BE LISTED ON THE TRAFFIC AUTHORIZED PRODUCTS LIST (TAP).

THE EQUIPMENT PROVIDED AS PART OF THIS CONTRACT SHALL BE THE LATEST MODEL, CURRENTLY UNDER PRODUCTION AND NEW. THE CATALOG NUMBER FOR THE GROUND MOUNTED CABINET SHALL BE EL 720 SIZE 7 (SIZE R) WITH A MINIMUM OF THREE SHELVES. THE CABINET SHALL BE ALUMINUM WITH THE NATURAL ALUMINUM FINISH INSIDE AND OUTSIDE. THE LOAD BAY SHALL BE THE TF5016 OR NEWER, WITH 16 LOAD SWITCH POSITIONS. PROVIDE ONLY THE EXACT NUMBER OF LOAD SWITCHES REQUIRED. EACH LOAD SWITCH SHALL HAVE LIGHT EMITTING DIODES (LEDs) FOR THE CONTROLLER OUTPUT AND LOAD SWITCH OUTPUT. ALSO PROVIDE 8 FLASH RELAY POSITIONS (BUT ONLY SUPPLY THE EXACT NUMBER OF RELAYS NEEDED FOR EACH SPECIFIC INTERSECTION), 1 NEMA 2-CIRCUIT FLASHER, AND AN MMU MONITOR. EACH CABINET SHALL COME EQUIPPED WITH TWO 16-CHANNEL CABINET DETECTOR RACKS (CDR) INCLUDING BUS INTERFACE UNITS (BIU). THE LOOP DETECTOR TERMINATION PANEL FOR THE SECOND DETECTOR RACK SHALL BE OMITTED. WHERE LOOP DETECTORS ARE SPECIFIED, THE CABINET SHALL INCLUDE THE EXACT NUMBER OF FOUR CHANNEL DETECTOR CARDS WITH SOFTWARE REQUIRED FOR EACH INTERSECTION. THE CABINET SHALL BE EQUIPPED WITH A CABINET POWER SUPPLY (CPS). THE CABINET SHALL BE WIRED TO ALLOW THE USE OF EVP CONFIRMATION LIGHTS. THE POLICE PANEL ON THE OUTSIDE OF THE CABINET DOOR SHALL HAVE A FLASH SWITCH, A SWITCH FOR AUTOMATIC/MANUAL OPERATION, SIGNAL ON/OFF SWITCH AND A MANUAL PUSHBUTTON WITH A MINIMUM CORD LENGTH OF 10 FEET. THE TECHNICIAN PANEL ON THE INSIDE OF THE CABINET DOOR SHALL INCLUDE A FLASH SWITCH, A STOP TIME SWITCH, AND AN EQUIPMENT ON/OFF SWITCH. A CABINET DOOR OPEN SWITCH AND A CABINET LIGHT ON/OFF SWITCH SHALL ALSO BE SUPPLIED.

THE CONTROLLER CABINET SHALL ALSO INCLUDE:

- A. SLIDE-OUT LAPTOP SHELF
- B. INTERIOR, UNDERSHELF LED CABINET LIGHTING, INCLUDING A MINIMUM OF 2 PANELS OF 6 HIGH-INTENSITY LEDS EACH A DOOR-ACTIVATED SWITCH. THE LED PANELS SHALL BE MOUNTED IN LOCATIONS TO MAXIMIZE LIGHT ON THE CABINET EQUIPMENT.
- C. A GOOSENECK/ADJUSTABLE LIGHT FIXTURE WITH AN LED LAMP. THE ADJUSTABLE LIGHT FIXTURE SHALL BE MOUNTED ON THE LOWER RIGHT SIDE OF THE CONTROLLER CABINET.
- D. A MINIMUM OF TWO (2) GFCI PROTECTED RECEPTACLES
- E. A MINIMUM OF SIX (6) SURGE PROTECTED (NON-GFCI) RECEPTACLES

CONTROLLER CABINET LABELLING TO IDENTIFY THE WIRING AND FUNCTION DETECTOR LEAD-IN CABLE:
PHASE NUMBER SERVICE, DIRECTION, MOVEMENT TYPE, AND LOOP PLAN NUMBER

SIGNAL HEAD FIELD WIRING:
PHASE NUMBER, DIRECTION, MOVEMENT TYPE, AND COLOR (RED, YELLOW, GREEN, YELLOW ARROW, GREEN ARROW) OR PEDESTRIAN MOVEMENT

THE MALFUNCTION MANAGEMENT UNIT SHALL BE MANUFACTURED BY EDI AND HAVE A RJ-45 PORT FOR PC/NETWORK COMMUNICATIONS.

EACH CONDUIT ENTRANCE TO THE CABINET SHALL BE SEALED WITH A RUBBER PIPE/CONDUIT SEAL GASKET. THE SEAL SHALL BE OF A MATERIAL AND TYPE TIGHTLY FITTING AND ABLE TO SEAL OUT WATER, INSECTS, RODENTS, AND DIRT. THE SEAL SHALL BE EASILY REMOVED FOR SERVICE INSTALLATIONS OR CABLE REPLACEMENTS.

PROVIDE A HAND/ON/AUTO SWITCH WITHIN SIGNAL CONTROLLER CABINET AND DEDICATED CIRCUIT BREAKER FOR HIGHWAY LIGHTING. DEDICATE ONE LEG OF THE 120/240 POWER SERVICE TO THE TRAFFIC SIGNAL AND ONE LEG TO THE HIGHWAY LIGHTING. DO NOT POWER LIGHTS THROUGH THE UPS.

THE CONTRACTOR SHALL PROVIDE THE CABINET WIRING DIAGRAM/PLANS IN PDF FORMAT TO ODOT DISTRICT 6 TRAFFIC.

PAYMENT FOR ITEM 633 CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS2, AS PER PLAN, WILL BE AT THE CONTRACT BID PRICE COMPLETE AND IN PLACE AND CONNECTIONS TESTED AND ACCEPTED.

GROUNDING AND BONDING

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

- A. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED FOR FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH. 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 (725.05), 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 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. CONDUIT

- 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 725.05 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 THE EQUIPMENT GROUNDING CONDUCTOR.

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 A 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 3/4-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, CONT'D

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.

ITEM 809, ITS DEVICE, MISC: RELOCATE EXISTING COMMUNICATIONS

CONTRACTOR SHALL RELOCATE THE ETHERNET RADIO, MODEM, AND ANTENNA FROM THE EXISTING TRAFFIC SIGNAL INSTALLATION TO THE PROPOSED TRAFFIC SIGNAL INSTALLATION AND MAKE ALL NECESSARY CONNECTIONS AND MODIFICATIONS NECESSARY, INCLUDING WIRING, FITTINGS AND LABOR, TO ALLOW THE NEW TRAFFIC SIGNAL TO COMMUNICATE IN THE SAME MANNER AS THE EXISTING TRAFFIC SIGNAL.

PAYMENT FOR ITEM 809, ITS DEVICE, MISC: RELOCATE EXISTING COMMUNICATIONS SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH INTERSECTION, TESTED AND ACCEPTED.

ITS JUNCTION BOX

THE CONTRACTOR SHALL PRESERVE IN PLACE THE ITS FACILITIES LOCATED SOUTH OF THE INTERSECTION OF SR-95 AND US-23 NORTHBOUND OFF-RAMP. THE CONTRACTOR SHALL SUPPLY BARRIER WALL JUNCTION BOXES THAT MEET THE FOLLOWING SPECIFICATIONS:

SHALL BE OF TYPE POLYMER-CONCRETE
SIZE: 17 INCHES (HEIGHT) X 30 INCHES (LENGTH) X 18 INCHES (DEPTH)
MINIMUM WALL THICKNESS: 0.5 INCH
MINIMUM LID THICKNESS: 2 INCHES
ANSI TIER 22 RATING
LID SHALL BE MARKED "TRAFFIC"

BOXES SHALL HAVE A SOLID BOTTOM.

USE HORIZONTAL REINFORCING STEEL MEMBERS UNDERNEATH AND ABOVE THE JUNCTION BOX TO SECURE IN PLACE AND TIE TO THE REST OF THE WALL REINFORCING STEEL. THE JUNCTION BOX SHALL BE ATTACHED TO THE FORM WORK TO SECURE IT IN THE APPROPRIATE POSITION IN THE WALL DURING CONCRETE PLACEMENT. SLIP FORMING IS NOT PERMITTED IN SECTIONS OF CONCRETE WALL CONTAINING JUNCTION BOXES.

633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 633 AND 733, POLE ATTACHMENT HARDWARE WILL BE INCLUDED FOR POLE-MOUNTED CABINETS, AND A CABINET RISER (8-INCH MINIMUM) AND ANCHOR BOLTS WILL BE PROVIDED FOR BASE-MOUNTED CABINETS. BEFORE PERFORMING THE WORK, THE CONTRACTOR, THE DISTRICT TRAFFIC ENGINEER, AND THE PROJECT ENGINEER WILL PERFORM A SITE INSPECTION TO ESTABLISH THE LOCATION OF THE UPS CABINET AND FOUNDATION.

THE UPS CABINET SHALL INCLUDE A GENERATOR POWER PANEL WITH A HEAVY-DUTY POWER RELAY VERSUS THE LINE VOLTAGE GENERATOR SWITCH. THE GENERATOR INLET SHALL BE A RECESSED PANEL WITH A DOOR THAT IS FLUSH WITH THE EXTERN SIDE OF THE UPS CABINET. IT SHALL INCLUDE A RECESSED PLUG, AUTOMATIC TRANSFER SWITCH AND A DOOR THAT SECURELY CLOSES OVER THE POWER CORD.

THE CABINET SHALL HAVE A DOOR STOP MECHANISM AND THERMOSTATICALLY CONTROLLED FAN. ADDITIONALLY, THE CABINET SHALL BE BUILT WITH ALL BATTERIES ALWAYS BELOW THE INVERTER TO AVOID POTENTIAL FURTHER BATTERY LEAKAGE ISSUES.

THE CABINET SHALL INCLUDE A BATTERY BALANCING DEVICE THAT REGULATES THE BATTERIES AND OPTIMIZES PERFORMANCE.

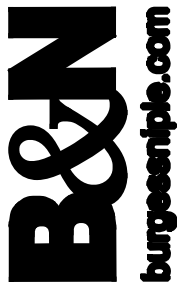
THE UPS FURNISHED SHALL BE AN ALPHA MANUFACTURED UNIT AND LISTED ON THE TRAFFIC AUTHORIZED PRODUCTS (TAP) LIST.

AFTER FOUR (4) HOURS OF BATTERY RUNTIME, THE SYSTEM SHALL BE PROGRAMMED TO SWITCH THE INTERSECTION FROM FULL OPERATION TO CONTROLLER AUTOMATIC FLASH OPERATION THROUGH THE MONITOR. THE CONTROLLER SHALL BE PROGRAMMED SO THAT FLASH OPERATION SHALL BEGIN ONCE THE INTERSECTION RUNS MINOR STREET GREEN (TYP. PH. 4&8), ALL-RED CLEARANCE, AND THEN FLASH OPERATION.

THE UPS OUTPUT NOTIFICATIONS FOR ON BATTERY, BATTERY 2-HOUR TIMER, AND LOW BATTERY SHALL BE WIRED INTO THE TRAFFIC SIGNAL CABINET BACK PANEL OR THROUGH THE CONTROLLER WITH A C11 TO PROVIDE SPECIAL STATUS ALARMS FOR EACH OUTPUT INTO THE SIGNAL CONTROLLER.

THIS ITEM SHALL INCLUDE A RED LED STATUS INDICATOR LAMP TO ALLOW MAINTENANCE PERSONNEL AND LAW ENFORCEMENT TO QUICKLY ASSESS WHETHER A TRAFFIC SIGNAL CABINET IS BEING POWERED BY A UPS. THE LED HOUSING SHALL BE NEMA 4X, IP65, OR IP66, RATED FOR OUTDOOR USE AND BE TAMPER/SHATTER RESISTANT. IT SHALL BE A DOME ENCLOSURE CONTAINING A RED LENS WITH LED THAT IS VISIBLE FROM 100 FOOT MINIMUM. THE ENCLOSURE AND LED MODULE SHOULD BE PLACED ON THE SIDE OF THE UPS CABINET FACING TOWARDS THE MAINLINE ROADWAY AND SEALED FROM WATER INTRUSION. IT SHOULD BE WIRED USING MINIMUM 20GA STRANDED, INSULATED HOOKUP WIRE TO THE STATUS RELAY OUTPUTS OF THE UPS. THE WIRES SHALL BE TERMINATED BY LUGS AT THE DISPLAY END AND PERMANENTLY LABELED "BACKUP POWER STATUS DISPLAY," WITH WIRE POLARITY INDICATED. THE RED LED SHALL ONLY ILLUMINATE TO INDICATE THE CABINET IS OPERATING UNDER UPS BACKUP POWER (THE "BACKUP" OPERATING CONDITION). THIS ITEM INCLUDES PROGRAMMING THE UPS STATUS RELAY OUTPUTS TO PRODUCE THE LAMP STATUS DISPLAYS. THESE STATUS DISPLAYS WILL BE SOLID 100% DUTY CYCLE (NOT FLASHING) DISPLAYS. THE OPERATING VOLTAGE OF THE LED LAMP SHALL BE 120V UNLESS OTHERWISE INDICATED.

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

114818

SHEET

P.114

TOTAL

P.142

632 SIGNAL SUPPORT FOUNDATION

PRIOR TO ORDERING THE SIGNAL SUPPORTS, THE CONTRACTOR SHALL CONTACT OUPS TO HAVE ALL THE UTILITIES LOCATED IN THE FIELD. THEN, THE CONTRACTOR SHALL MEET THE PROJECT ENGINEER TO LOCATE THE PROPOSED SUPPORT LOCATIONS TO INSURE THERE ARE NO CONFLICTS WITH UTILITIES. IF THERE ARE ISSUES, THE PROJECT ENGINEER SHALL PROVIDE GUIDANCE AS TO THE RELOCATION OF THE SUPPORTS.

DUE TO THE FURTHER POSSIBILITY OF CONFLICT WITH EXISTING OR PROPOSED UNDERGROUND OBSTRUCTIONS (INCLUDING THE POSSIBILITY OF UNRECORDED OBSTRUCTIONS) WHICH COULD AFFECT THE LOCATION OF THE FOUNDATION FOR THIS ITEM, AND CONSEQUENTLY, THE DESIGN OF THE SUPPORT AND/OR ARMS, THE CONTRACTOR SHALL NOT PLACE FINAL ORDERS FOR THE ITEM UNTIL THE FOUNDATIONS HAVE BEEN INSTALLED, AT FINAL GRADE, AND THE CONTRACTOR HAS RECEIVED, FROM ENGINEER, WRITTEN NOTICE TO PROCEED WITH THE ORDERS FOR THE ITEM.

IF ANY FOUNDATION LOCATIONS MUST BE ADJUSTED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND MAINTAINING AGENCY, WHO WILL DETERMINE THE REVISED LOCATION AND IF NEEDED, THE SUPPORT DESIGN. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR DETERMINING THE REVISED DESIGN. THE ENGINEER WILL INFORM THE CONTRACTOR OF ANY CHANGES NECESSARY AND AUTHORIZE THE CONTRACTOR TO ORDER THE SUPPORT.

THE CONTRACTOR SHALL, WHEN DEVELOPING THE PROGRESS SCHEDULE, AND THOSE OF SUBCONTRACTORS, ENSURE THAT THE FOUNDATIONS ARE INSTALLED AT THE EARLIEST TIME AS IS FEASIBLE AND PRACTICAL, AND SHALL INCLUDE SUFFICIENT TIME IN THE PROGRESS SCHEDULE FOR ORDERING, MANUFACTURING, DELIVERY, AND INSTALLATION OF THE SUPPORT ITEMS AFTER THE FOUNDATIONS ARE IN PLACE.

NO PAYMENTS FOR DELIVERED MATERIALS FOR THE FOUNDATION OR SUPPORT ITEMS SHALL BE MADE UNTIL THE FOUNDATIONS ARE IN PLACE, AND IF CHANGES IN THE DESIGN OF THIS ITEM ARE REQUIRED, NO PAYMENT SHALL BE MADE FOR THE ITEMS MANUFACTURED TO THE ORIGINAL DESIGN.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE AND WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY FOR EACH SUPPORT FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

MAINTAINING ITS DURING CONSTRUCTION

THE CONTRACTOR SHALL MAINTAIN ALL PREEXISTING OR NEWLY INSTALLED ITS/TRAFFIC DEVICES AND INFRASTRUCTURE DURING CONSTRUCTION ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809.

625 LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), TYPE III DISTRIBUTION, AS PER PLAN

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 WITH AN IES II-M-SC DISTRIBUTION AND 200 WATT HIGH PRESSURE SODIUM LAMPS SHALL BE AMERICAN ELECTRIC "SERIES 126" WITH PHOTOMETRIC DISTRIBUTION AE3849I (ADJUST LUMEN VALUE FOR 200W HPS), COOPER "OVX" WITH PHOTOMETRIC DISTRIBUTION OVX25SXX2DF (ADJUST LUMEN VALUE FOR 200W HPS), GENERAL ELECTRIC "M-400" WITH PHOTOMETRIC DISTRIBUTION 1014 (ADJUST LUMEN VALUE FOR 200W HPS), OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), TYPE III DISTRIBUTION, 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.

809 ADVANCE RADAR DETECTION

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR ADVANCE RADAR DETECTION UNIT (MODEL SS-200E). THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

1. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
2. ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
3. THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
4. SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CONTROL CABINET TO PROTECT THE CABINET ELECTRONICS.
5. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING OF THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
6. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MINIMUM 7 FEET).
7. A CABINET INTERFACE DEVICE SHALL BE PROVIDED THAT SUPPORTS A MINIMUM OF SIX SENSORS OR THE NUMBER OF SENSORS INCLUDED IN THE PLANS, PROVIDES 64 DETECTOR CHANNELS, COMMUNICATES TO THE CONTROLLER THROUGH THE SDLC PORT AND PROVIDES AN ETHERNET PORT FOR NETWORK COMMUNICATIONS.
8. PRIOR TO PROGRAMMING, THE CONTRACTOR SHALL CONTACT THE ODOT DISTRICT 6 DISTRICT TRAFFIC ENGINEER AT 740-833-8198. A DISTRICT 6 TRAFFIC DEPARTMENT REPRESENTATIVE SHALL BE PRESENT DURING THE PROGRAMMING OF THE SYSTEM.

PAYMENT FOR ITEM 809 ADVANCE RADAR DETECTION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT, CONNECTIONS TESTED AND ACCEPTED, AND ANY OTHER NECESSARY HARDWARE TO ESTABLISH A FULLY FUNCTIONAL DETECTION SYSTEM.

809 STOP-BAR RADAR DETECTION

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR MATRIX DETECTION UNIT. THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

1. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
2. ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
3. THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
4. SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CONTROL CABINET TO PROTECT THE CABINET ELECTRONICS.
5. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING OF THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
6. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MINIMUM 7 FEET).
7. A CABINET INTERFACE DEVICE SHALL BE PROVIDED THAT SUPPORTS A MINIMUM OF SIX SENSORS OR THE NUMBER OF SENSORS INCLUDED IN THE PLANS, PROVIDES 64 DETECTOR CHANNELS, COMMUNICATES TO THE CONTROLLER THROUGH THE SDLC PORT AND PROVIDES AN ETHERNET PORT FOR NETWORK COMMUNICATIONS.
8. PRIOR TO PROGRAMMING, THE CONTRACTOR SHALL CONTACT THE ODOT DISTRICT 6 DISTRICT TRAFFIC ENGINEER AT 740-833-8198. A DISTRICT 6 TRAFFIC DEPARTMENT REPRESENTATIVE SHALL BE PRESENT DURING THE PROGRAMMING OF THE SYSTEM.

PAYMENT FOR ITEM 809 STOP-BAR RADAR DETECTION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT, CONNECTIONS TESTED AND ACCEPTED.

ARC FLASH LABELING REQUIREMENTS

THE NATIONAL ELECTRICAL CODE ARTICLE 110, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, REQUIRES THAT ARC FLASH HAZARD WARNING MARKINGS BE APPLIED TO MANY ELECTRICAL ENCLOSURES. ODOT SUPPLEMENTAL SPECIFICATIONS 825 ARC-FLASH HAZARD CALCULATIONS AND EQUIPMENT LABEL IS THE CONSTRUCTION ITEM FOR SUCH LABELING. THIS ITEM SHOULD BE INCLUDED FOR EACH LIGHTING POWER SERVICE DISCONNECT ENCLOSURE AND ALL UPSTREAM ENCLOSURES ONT HE CUSTOMER END OF THE POWER SERVICE. ENCLOSURES (INCLUDING LIGHT TOWERS) DOWNSTREAM FROM THE MAIN DISCONNECT VERY RARELY REQUIRE ARC-FLASH ANALYSIS.

THE ARC FLASH LABEL REQUIREMENT OF THE NEC ART. 110 REQUIRES ONLY A "GENERIC" WARNING MARKING, WHICH DOES NEED ANY SITE-SPECIFIC ELECTRICAL ANALYSIS. ODOT SS 825 IS INTENDED TO EXCEED THIS MINIMUM NEC REQUIREMENT BY ANALYZING THE SUBJECT ENCLOSURE AND THE ELECTRICAL SYSTEM FEEDING IT. BASED ON THIS ANALYSIS, THE SS 825 LABEL PROVIDES INFORMATION TO GUIDE MAINTAINERS ON THE PROPER SELECTION OF PPE (PERSONAL PROTECTIVE EQUIPMENT) REQUIRED FOR ENERGIZED ACCESS TO, OR ENERGIZED WITHIN, THAT ENCLOSURE. ODOT STANDARD PROCEDURE 220-006(SP) HAS ADDITIONAL ELECTRICAL SAFETY PROCEDURE DETAILS, AND THE INTENT OF SS 825 ARC FLASH LABELS IS TO SATISFY THIS PROCEDURE.

809 ATC CONTROLLER, AS PER PLAN (PROGRAM AND INSTALL ONLY)

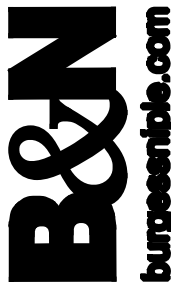
ALL REQUIREMENTS OF SS 809 SHALL BE FOLLOWED, ALONG WITH THE ADDITIONAL DESCRIPTION AS STATED BELOW. THE ATC CONTROLLER WILL BE PROVIDED BY THE DISTRICT WITHOUT PROGRAMMING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROGRAMMING THE CONTROLLER. IF AVAILABLE, THE EXISTING CONTROLLER DATA WILL BE PROVIDED TO THE CONTRACTOR BY THE DISTRICT. ODOT WILL NOT BE RESPONSIBLE FOR THE PROGRAMMING. THE EXISTING DATA MAY REQUIRE UPDATES TO REFLECT THE PROPOSED CONDITIONS DESCRIBED IN THE PLANS.

THE CONTROLLER WILL BE A NEMA ECONOLITE COBALT AS LISTED ON THE TRAFFIC AUTHORIZED PRODUCTS LIST (TAP). THE CONTRACTOR SHALL INSURE THAT THE CABINET TYPE BEING INSTALLED BY THE PROJECT IS COMPATIBLE WITH THE PROVIDED CONTROLLER.

PAYMENT SHALL BE MADE ONCE THE CONTROLLER IS PROGRAMMED, INSTALLED, TESTED, AND FUNCTIONING ACCORDING TO THE PLANS AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS TO COMPLETE THE WORK.

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

114818

SHEET

TOTAL

P.115 P.142

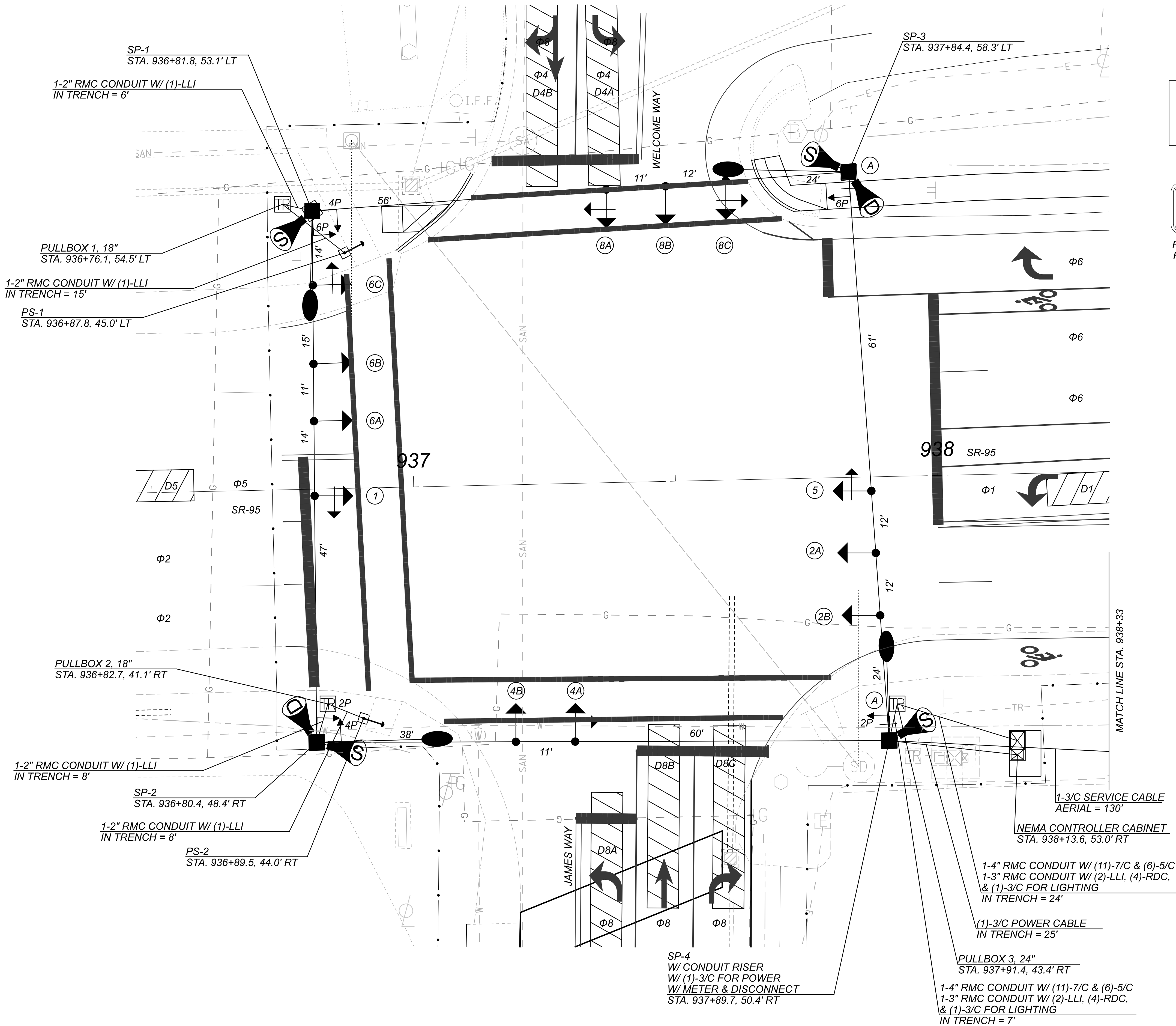
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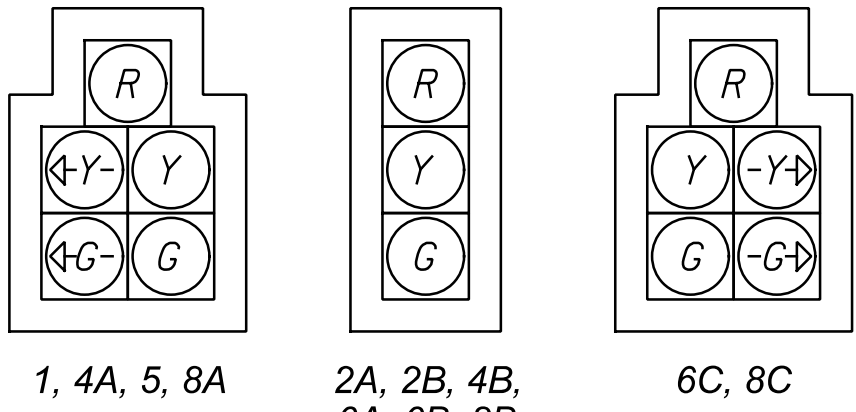
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TRAFFIC SIGNAL SUBSUMMARY

DESIGN AGENCY  burgessmple.com	
DESIGNER RML	
REVIEWER JTP 03-31-25	
PROJECT ID 114818	
SHEET P.116	TOTAL P.142



SIGNAL HEADS



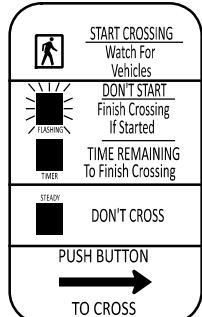
ALL VEHICULAR SIGNAL HEADS SHALL BE 12" LED WITH BACKPLATE CUTAWAY VISOR BLACK HOUSING



PS-1, PS-2, PS-3, SP-3

PEDESTRIAN HEADS (LED, COUNTDOWN, TYPE D2)

PEDESTRIAN SIGNS



R9-3

R10-3E (left or right arrows) (sign is included with push button)

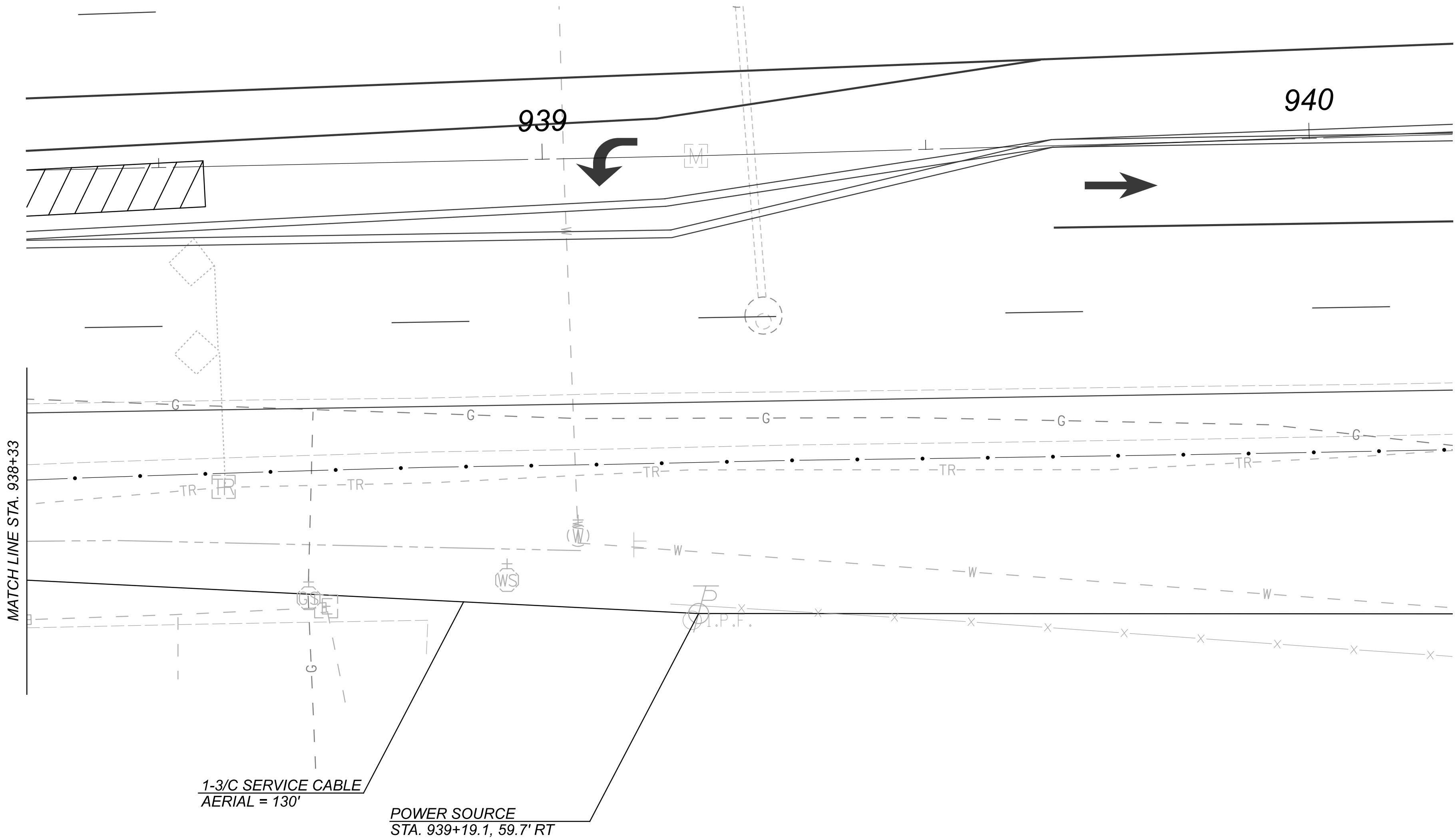
PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
1	936+76.1	LT	54.5	18
2	936+82.7	RT	41.1	18
3	937+91.4	RT	43.4	24

LEGEND

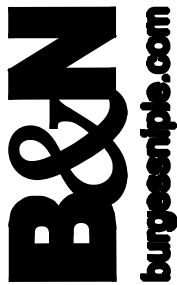
TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD, 12"	PR. →	EX. →
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"	→	→
SIGNAL SUPPORT POLE	■	■
PEDESTRIAN HEAD	↓	↓
PEDESTRIAN PUSH BUTTON	—	—
PEDESTAL SUPPORT	□	□
NEMA CONTROLLER AND WORK PAD	⊠	⊠
TRAFFIC PULL BOX	⊞	⊞
SIGN	+	+
LUMINAIRE	⦿	⦿
DILEMMA ZONE RADAR DETECTION UNIT	⦿	⦿
STOP LINE RADAR DETECTION UNIT	⦿	⦿
DETECTION ZONE	▨	▨

SEE SHEET P.117
FOR SIGNAL LEGEND



TRAFFIC SIGNAL PLAN
SR-95 & JAMES WAY/WELCOMING WAY

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

114818

SHEET

P.118

TOTAL

P.142

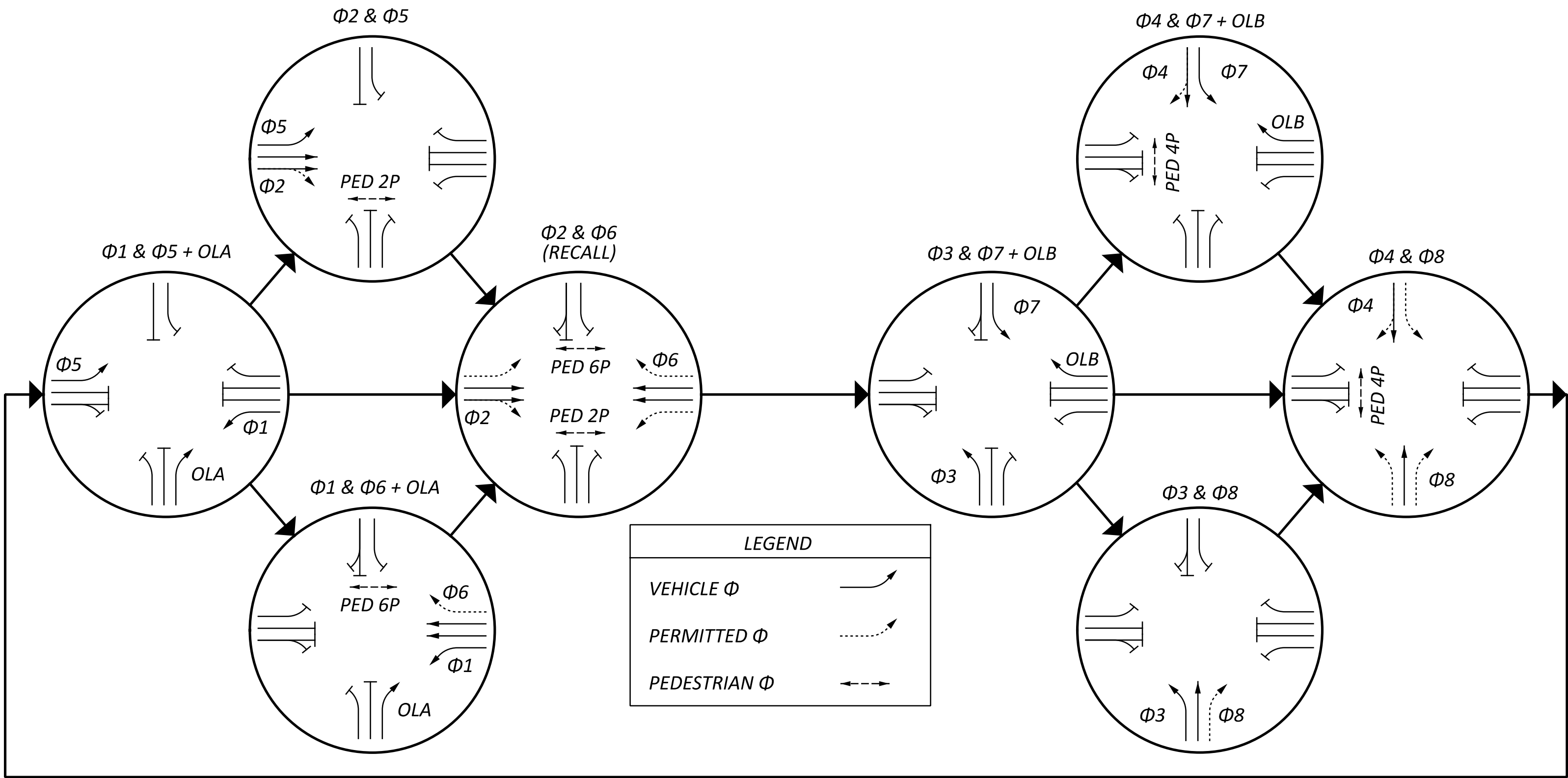
HORIZONTAL
SCALE IN FEET



Traffic Signal Controller Timing Chart

INTERSECTION: SR-95 & JAMES WAY/WELCOME WAY														
MAINTAINING AGENCY: ODOT														
START UP START IN: ALL-RED FLASH TIME FOR: FLASH , ALL RED (SEC.): 9, 6 FIRST PHASE(S): 2 & 6 COLOR DISPLAYED: GREEN			DUAL ENTRY: YES		PHASES: 2 & 6 AND 4 & 8									
			REST IN RED:		RING 1		NO		RING 2		NO			
			OVERLAP				A		B		C		D	
			PHASES				1		7		-		-	
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.											
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8				
DIRECTION			WBLT	EB	NBLT	SB	EBLT	WB	SBLT	NB				
MINIMUM GREEN (INITIAL) (SEC.)			7	20	7	10	7	20	7	10				
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-				
MAXIMUM INITIAL *(SEC.)			-	-	-	-	-	-	-	-				
PASSAGE TIME (PRESET GAP) (SEC.)			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
TIME BEFORE REDUCTION *(SEC.)			-	-	-	-	-	-	-	-				
MINIMUM GAP *(SEC.)			-	-	-	-	-	-	-	-				
TIME TO REDUCE *(SEC.)			-	-	-	-	-	-	-	-				
MAXIMUM GREEN I (SEC.)			24	65	18	30	24	65	18	30				
MAXIMUM GREEN II (SEC.)			-	-	-	-	-	-	-	-				
YELLOW CHANGE (SEC.)			3.2	4.1	3.0	3.4	3.2	4.1	3.0	3.4				
ALL RED CLEARANCE (SEC.)			2.7	1.3	2.8	1.7	2.7	1.3	2.8	1.7				
DELAYED GREEN (LPI) ^ (SEC.)			-	-	-	6	-	-	-	-				
FLASHING YELLOW ARROW DELAY^ (SEC.)			-	-	-	-	-	-	-	-				
WALK (SEC.)			-	7	-	7	-	7	-	-				
PEDESTRIAN CLEARANCE (SEC.)			-	20	-	21	-	21	-	-				
RECALL	MAXIMUM (ON/OFF)	OFF	OFF	-	OFF	OFF	OFF	-	OFF					
	MINIMUM (ON/OFF)	OFF	ON	-	OFF	OFF	ON	-	OFF					
	PEDESTRIAN (ON/OFF)	OFF	ON	-	OFF	OFF	ON	-	OFF					
MEMORY (ON/OFF)			-	ON	-	-	-	ON	-	-				
*VOLUME DENSITY CONTROLS														
# FOR CROSSINGS WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET														
^ WHEN IMPLEMENTING FYA, A MINIMUM 3 SEC. DELAY SHALL BE PROGRAMMED PER FYA PHASE.														

PHASING DIAGRAM



RADAR DETECTION CHART

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC.)	EXTENSION PROGRAMMED IN CONTROLLER (SEC.)	DETECTOR NO.	PURPOSE	DETECTION ZONE LENGTH (FT)
D1	WB LT	PRESENCE	1	-	-	1	STOP LINE	35
D4A	SB THRU	PRESENCE	4	-	-	2	STOP LINE	35
D4B	SB THRU	PRESENCE	4	8	-	2	STOP LINE	35
D5	EB LT	PRESENCE	4	-	-	3	STOP LINE	35
D8A	NB LT	PRESENCE	8	-	-	5	STOP LINE	35
D8B	NB THRU	PRESENCE	8	-	-	5	STOP LINE	35
D8C	NB RT	PRESENCE	2	8	-	5	STOP LINE	35
-	EB THRU	PULSE	2	-	-	6	DILEMMA	-
-	WB THRU	PULSE	6	-	-	7	DILEMMA	-

Note: Advance/Dilemma Zone Speed Threshold: 30 MPH
Purpose: Stop-Line or Advance Detection

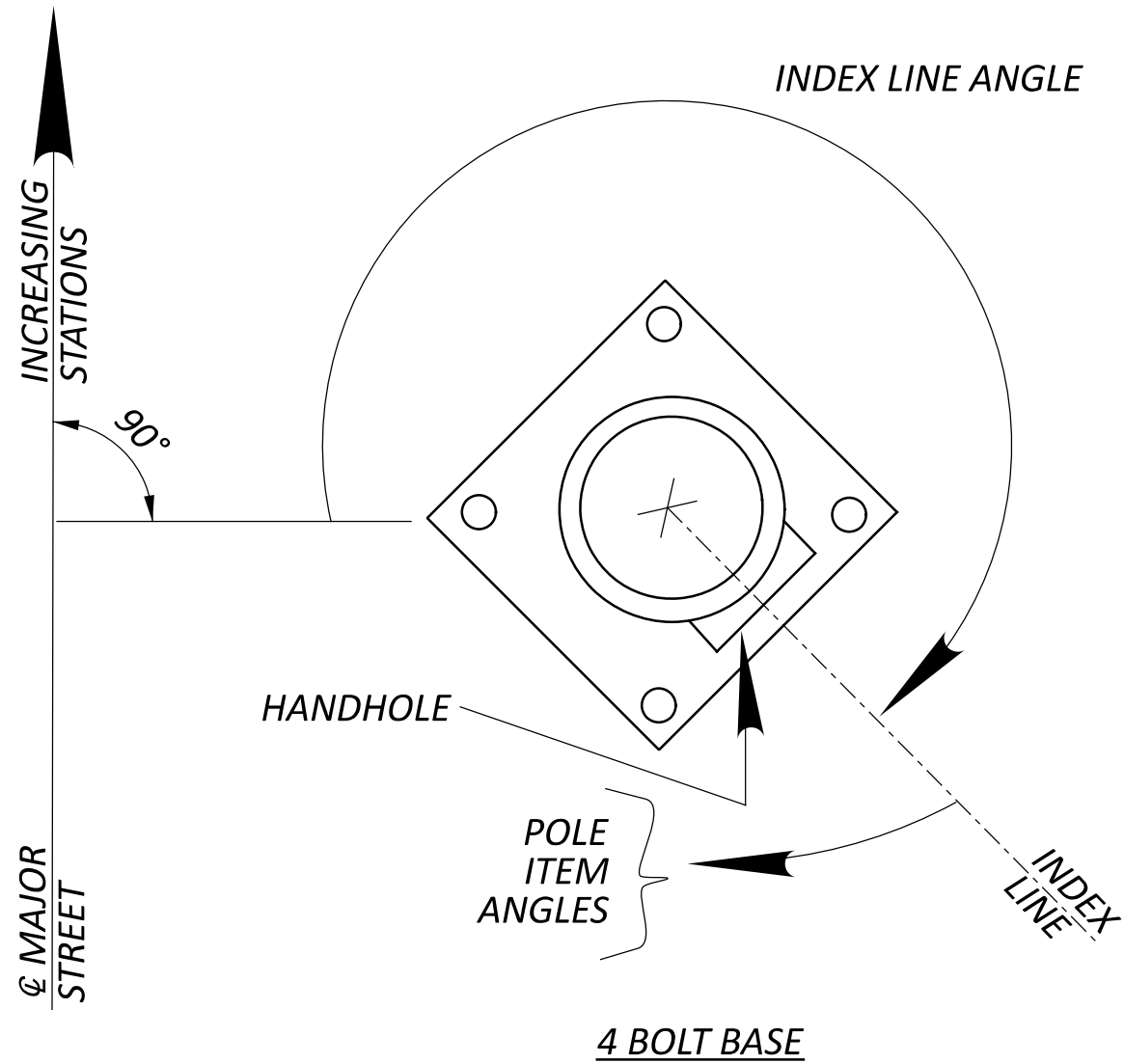
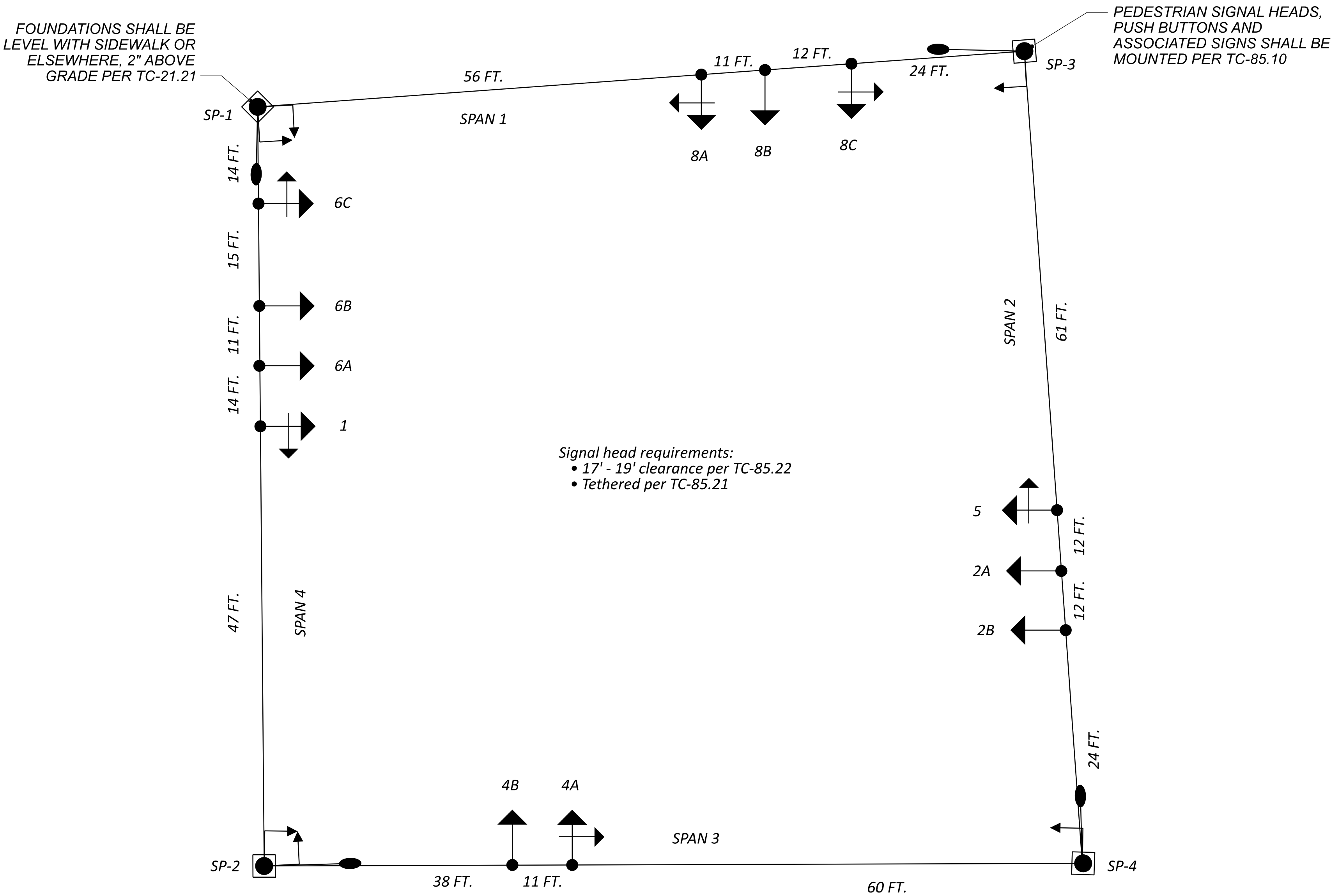
STRAIN POLE TABLE

REFERENCE SHEET NO.*	STATION & OFFSET*	POLE NO.	DESIGN NO.	POLE HEIGHT (FT.)	FOUNDATION ELEV.*	SPAN WIRE ATTACHED HEIGHT*	CABLE ENTRANCE DISTANCE BELOW SPAN WIRE ATTACHMENT (IN.)	INDEX LINE ANGLE (DEG.)	ANGLES (DEG.) FROM INDEX LINE					
									PEDESTRIAN SIGNALS	PEDESTRIAN PUSH BUTTONS	POWER SERVICE	CABLE ENTRANCE	BRACKET ARM	2" CAPPED
P.117	936+81.8, 53.1' LT	SP-1	13	34	980.0	28.5	12	244	24 / 114	-	-	119	119	-
P.117	936+80.4, 48.4' RT	SP-2	13	34	979.0	29.0	12	180	2 / 88	-	-	2	90	-
P.117	937+84.4, 58.3' LT	SP-3	13	35	979.0	29.5	12	356	2	-	-	1	93	-
P.117	937+89.7, 50.4' RT	SP-4	13	35	979.0	29.5	12	180	2	-	192	176	0	-
P.117	936+87.8, 44.9' LT	PS-1	PEDESTAL	5	-	-	-	244	-	0	-	-	-	-
P.117	936+89.5, 44.0' RT	PS-2	PEDESTAL	5	-	-	-	180	-	288	-	-	-	-

*See TEM Section 441-8

Notes:

1. All angles are measured clockwise.
2. The index line goes through the center of the handhole.

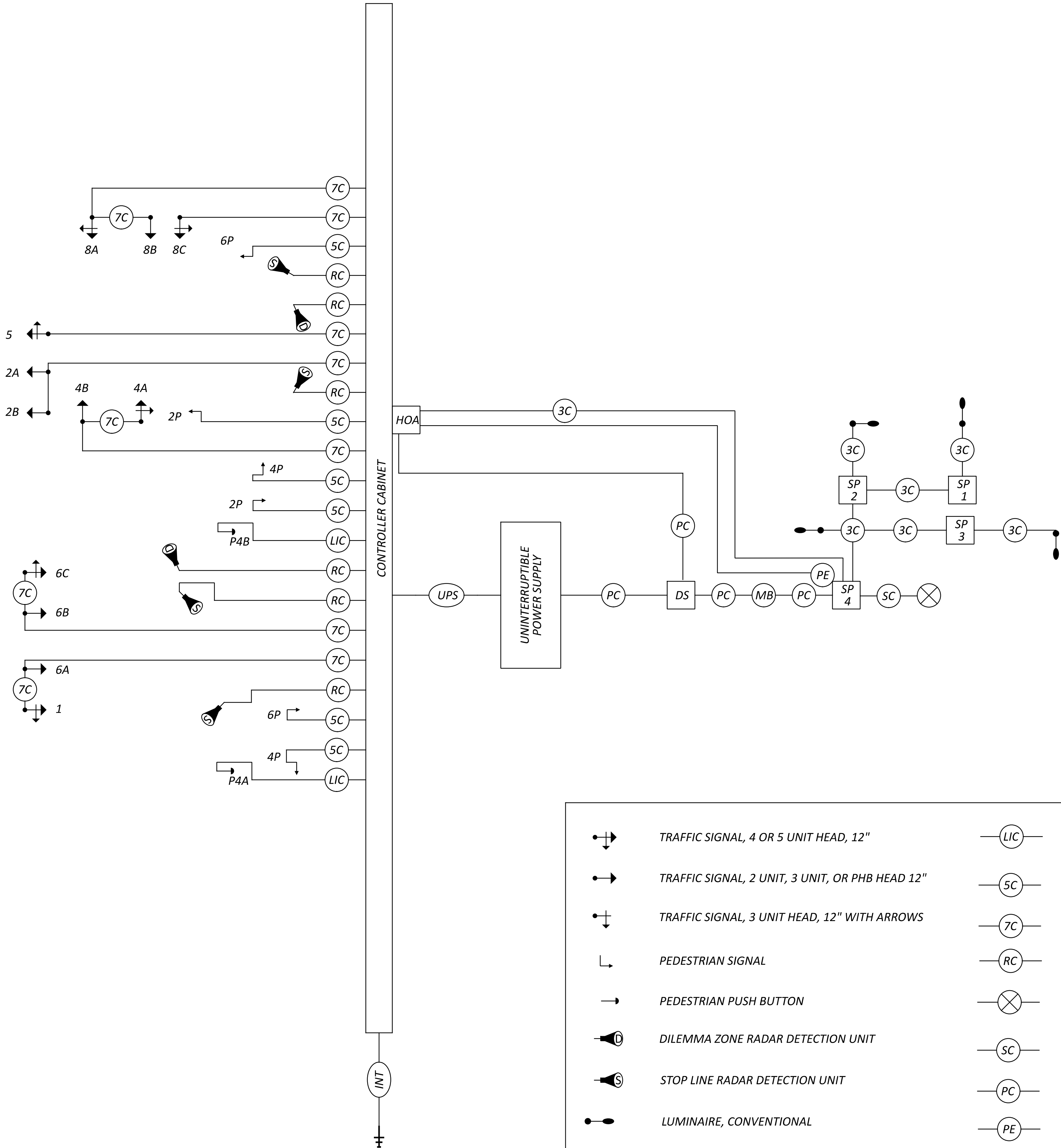


Note:

- Index line passes through the center of the handhole

POLE ORIENTATION

WIRING DIAGRAM

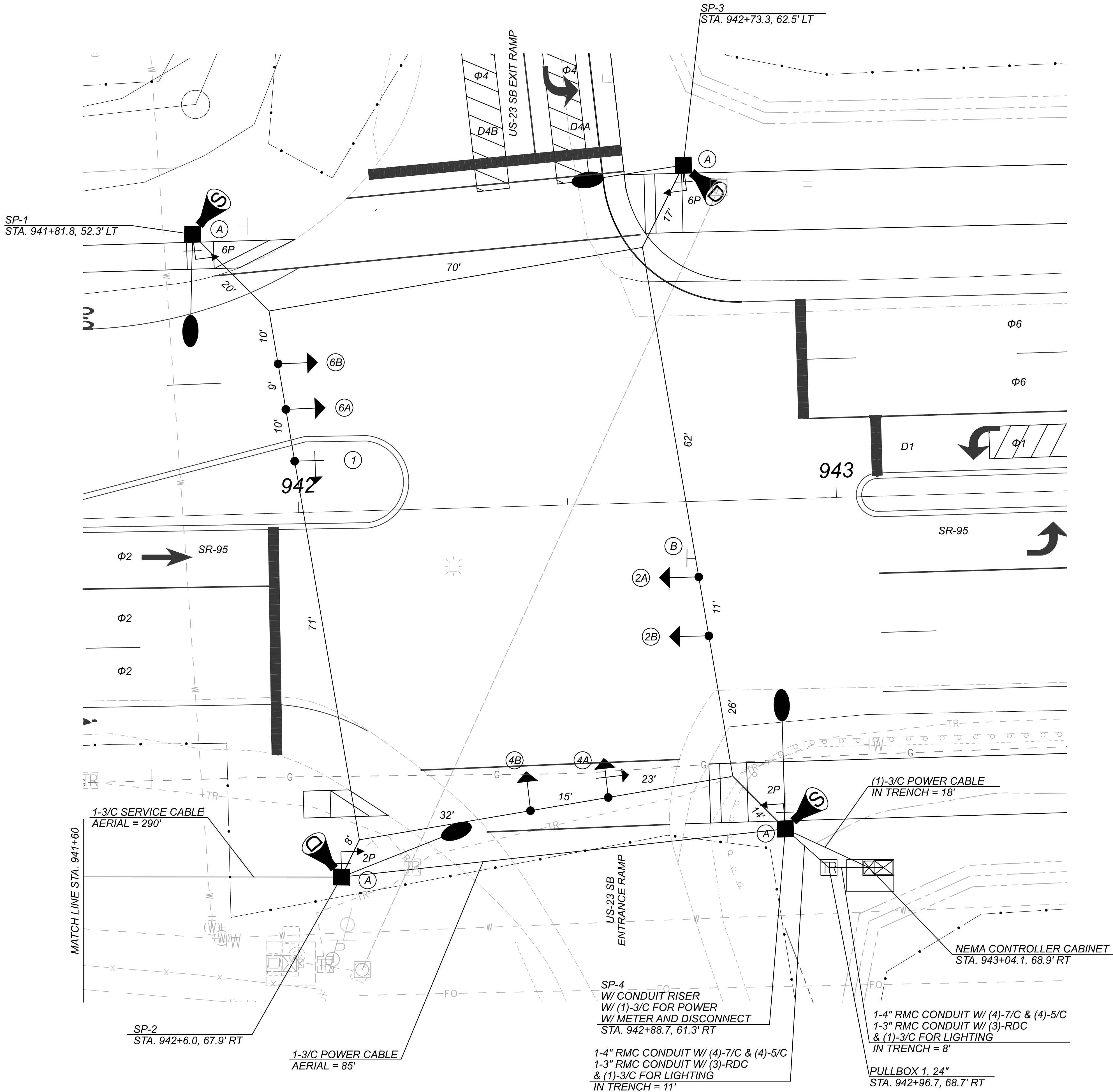


FIELD WIRING HOOKUP CHART

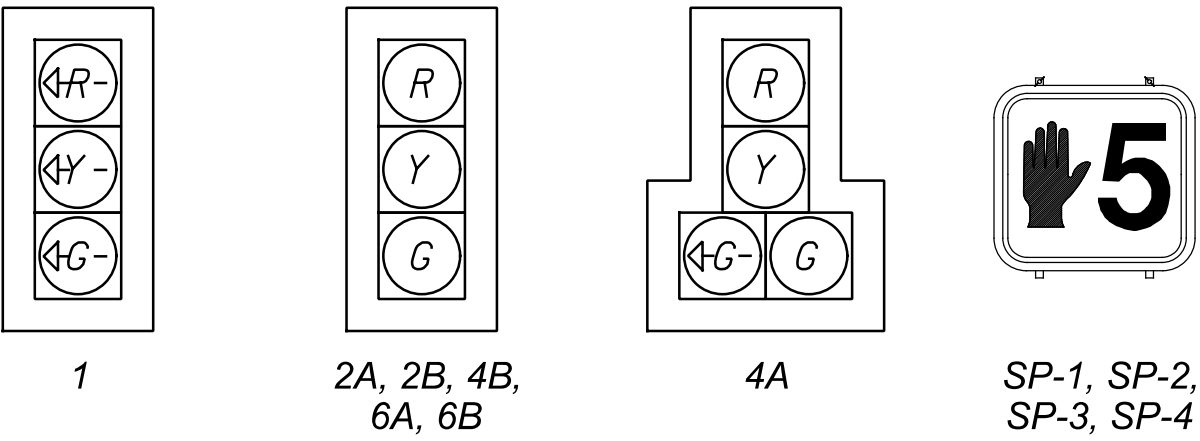
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	
1 (WB LT)	R	Ø6 R	R	6C (WB RT)	R	Ø6 R	R	
	<--Y---	Ø1 Y			---Y-->	Ø4 R		
	<--G---	Ø1 G			---G-->	Ø4 G		
	Y	Ø6 Y			Y	Ø6 Y		
	G	Ø6 G			G	Ø6 G		
2A, 2B (EB)	R	Ø2 R	R	8A (NB LT)	R	Ø8 R	R	
	Y	Ø2 Y			<--Y---	Ø8 Y		
	G	Ø2 G			<--G---	Ø8 G		
	-	-			Y	Ø8 Y		
	-	-			G	Ø8 G		
4A (SB LT)	R	Ø4 R	R	8B (NB)	R	Ø8 R	R	
	<--Y---	Ø4 Y			Y	Ø8 Y		
	<--G---	Ø4 G			G	Ø8 G		
	4B (SB)	Y		Ø4 Y	8C (NB RT)	R	Ø8 R	R
		G		Ø4 G		---Y-->	Ø1 Y	
R		Ø4 R	<--G-->	Ø1 G				
	Y	Ø4 Y	Y	Ø8 Y				
	G	Ø4 G	G	Ø8 G				
	5 (EB LT)	R	Ø2 R	R	PEDESTRIAN MOVEMENTS			
<--Y---		Ø5 Y	2P SOUTH		W	Ø2 PED / LS 10 G	OUT	
<--G---		Ø5 G			DW	Ø2 PED / LS 10 R		
Y		Ø2 Y	4P WEST		W	Ø4 PED / LS 11 G	OUT	
G		Ø2 G			DW	Ø4 PED / LS 11 R		
6A, 6B (WB)	R	Ø6 R	R	6P NORTH	W	Ø6 PED / LS 12 G	OUT	
	Y	Ø6 Y			DW	Ø6 PED / LS 12 R		
	G	Ø6 G		-	-	-	-	
LS = LOAD SWITCH				-	-	-	-	

LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		2/C NO. 14 AWG (LEAD-IN CABLE)		METER BASE
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG		SIGNAL CABLE, 3 CONDUCTOR, NO. 12 AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG		UNINTERRUPTIBLE POWER SUPPLY CABLE
	PEDESTRIAN SIGNAL		RADAR DETECTION CABLE		HAND/ OFF/ AUTO SWITCH
	PEDESTRIAN PUSH BUTTON		POWER SOURCE		SIGNAL SUPPORT POLE NO. __
	DILEMMA ZONE RADAR DETECTION UNIT		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG		PTZ CAMERA
	STOP LINE RADAR DETECTION UNIT		POWER CABLE, 3 CONDUCTOR, NO. 6 AWG		
	LUMINAIRE, CONVENTIONAL		PHOTOELECTRIC CELL		



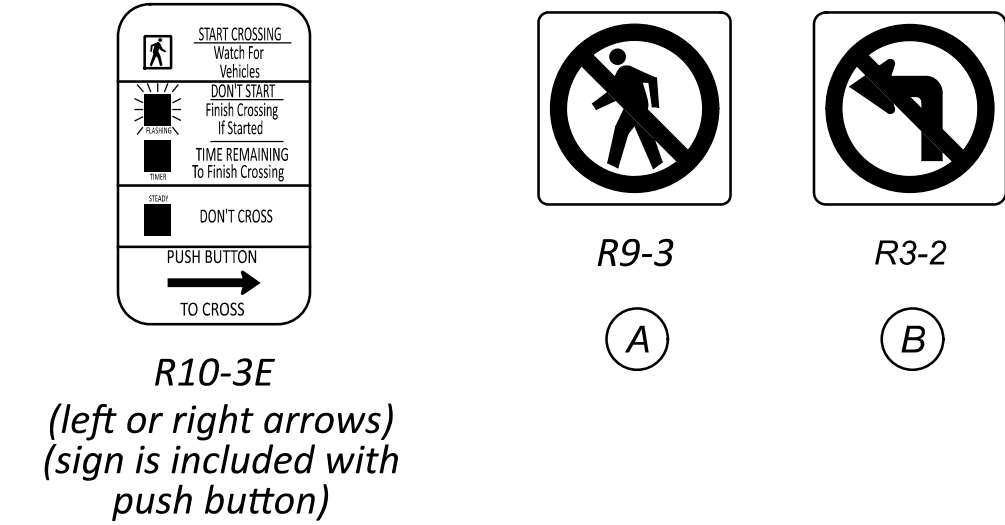
SIGNAL HEADS



ALL VEHICULAR SIGNAL HEADS
SHALL BE
12" LED WITH BACKPLATE
CUTAWAY VISOR
BLACK HOUSING

PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

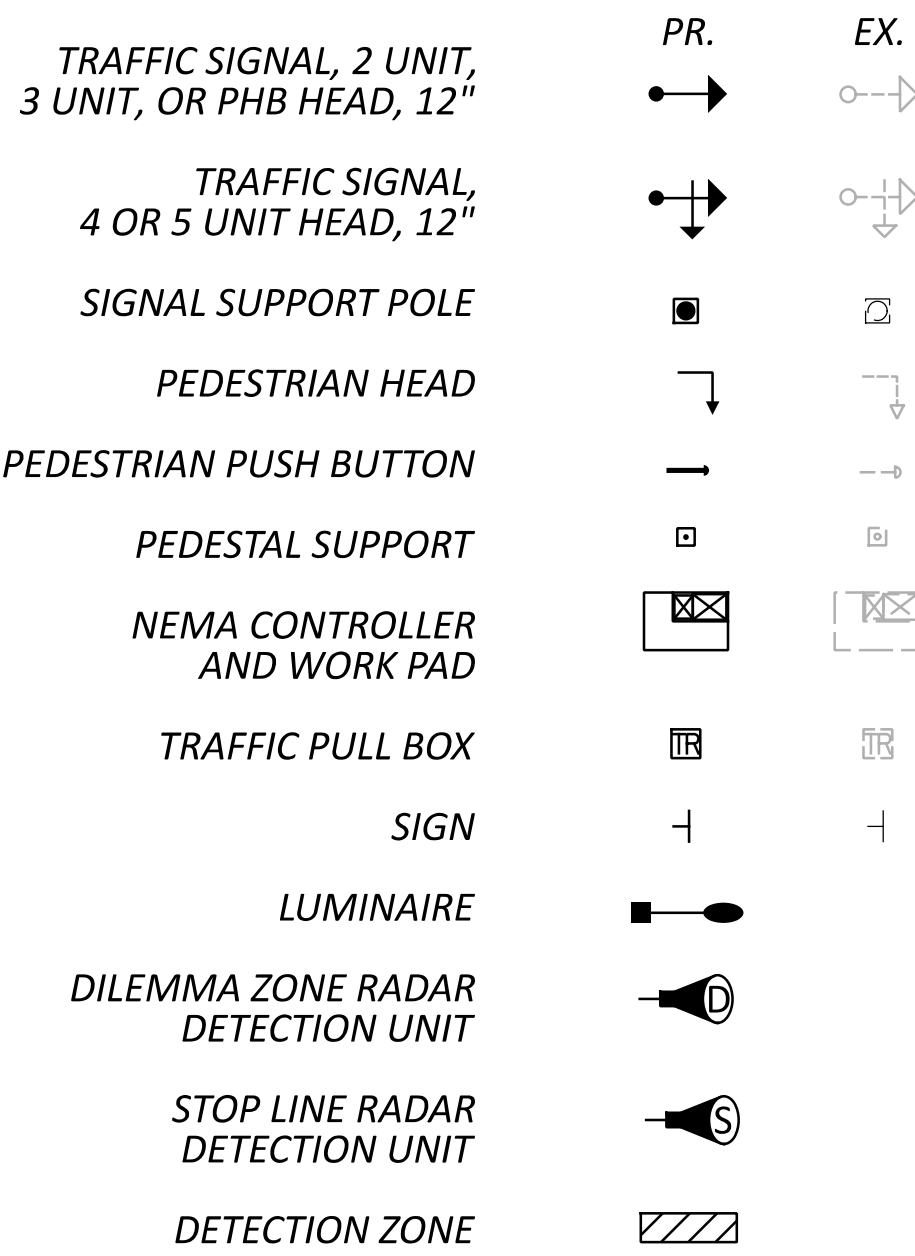
SIGNING LEGEND



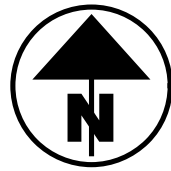
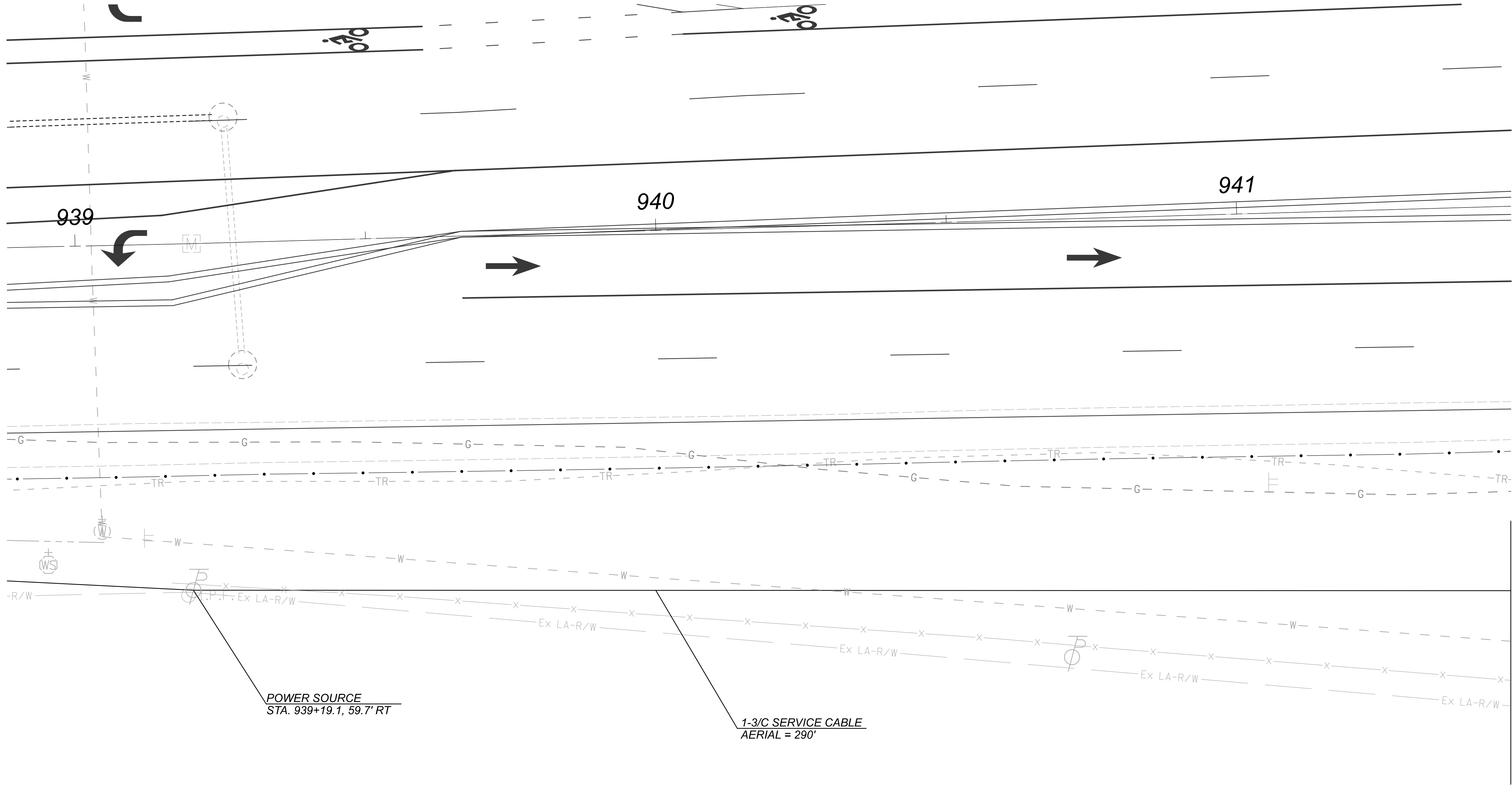
PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
1	942+96.7	RT	68.7	24

LEGEND

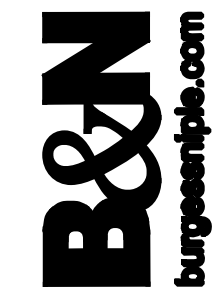


SEE SHEET P.122
FOR SIGNAL LEGEND



TRAFFIC SIGNAL PLAN
SR-95 & US-23 SOUTHBOUND RAMPs

DESIGN AGENCY



DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

114818

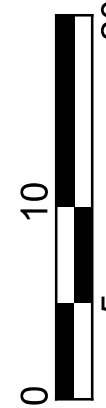
SHEET

P.123

TOTAL

P.142

HORIZONTAL
SCALE IN FEET

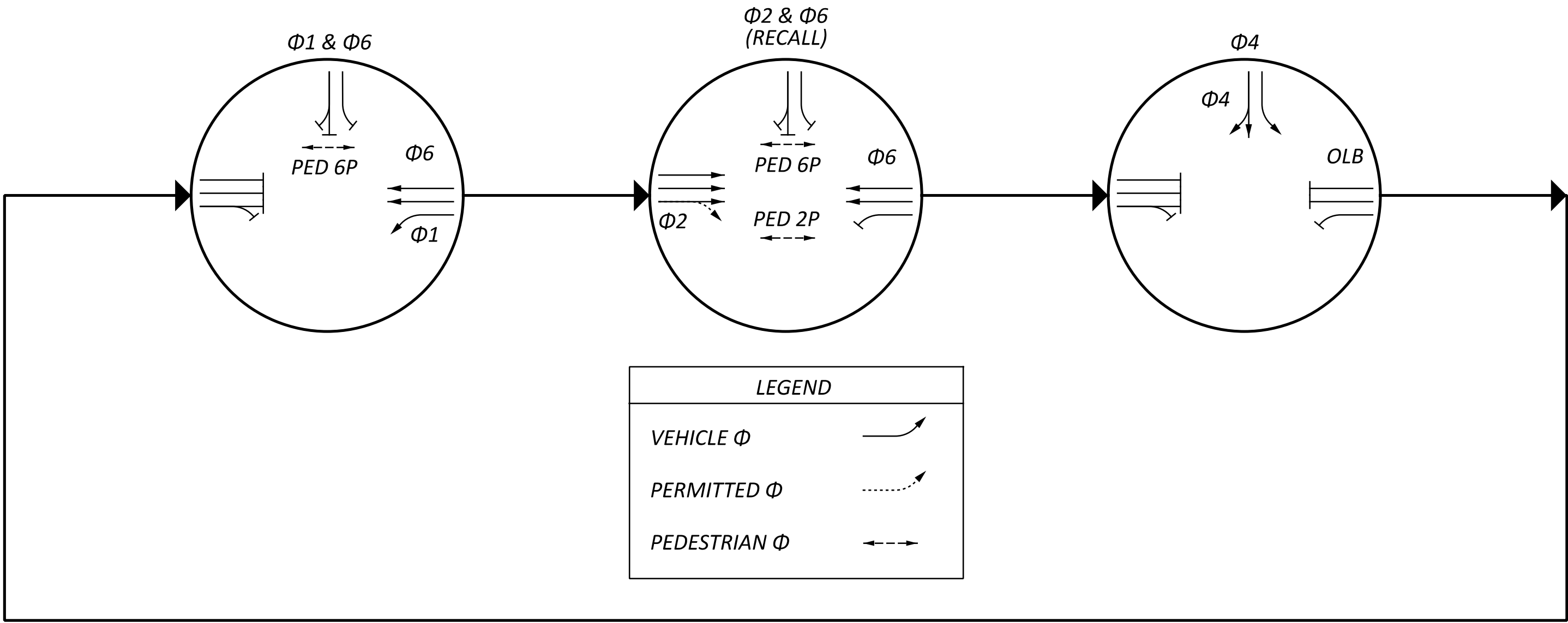


Traffic Signal Controller Timing Chart

INTERSECTION: SR-95 & US-23 SB RAMPS														
MAINTAINING AGENCY: ODOT														
START UP START IN: ALL-RED FLASH TIME FOR: FLASH , ALL RED (SEC.): 9, 6 FIRST PHASE(S): 2 & 6 COLOR DISPLAYED: GREEN			DUAL ENTRY: YES		PHASES: 2 & 6									
			REST IN RED:		RING 1		NO		RING 2		NO			
			OVERLAP				A		B		C		D	
			PHASES				-		-		-		-	
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.											
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8				
DIRECTION			WBLT	EB	SBLT	-	-	WB	-	SB				
MINIMUM GREEN (INITIAL) (SEC.)			7	20	10	-	-	20	-	10				
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-				
MAXIMUM INITIAL *(SEC.)			-	-	-	-	-	-	-	-				
PASSAGE TIME (PRESET GAP) (SEC.)			3.0	3.0	3.0	-	-	3.0	-	3.0				
TIME BEFORE REDUCTION *(SEC.)			-	-	-	-	-	-	-	-				
MINIMUM GAP *(SEC.)			-	-	-	-	-	-	-	-				
TIME TO REDUCE *(SEC.)			-	-	-	-	-	-	-	-				
MAXIMUM GREEN I (SEC.)			18	65	32	-	-	65	-	32				
MAXIMUM GREEN II (SEC.)			-	-	-	-	-	-	-	-				
YELLOW CHANGE (SEC.)			3.2	4.1	3.4	-	-	4.1	-	3.4				
ALL RED CLEARANCE (SEC.)			2.5	1.2	2.8	-	-	1.2	-	2.8				
DELAYED GREEN (LPI) ' (SEC.)			-	-	-	-	-	-	-	-				
FLASHING YELLOW ARROW DELAY^ (SEC.)			-	-	-	-	-	-	-	-				
WALK (SEC.)			-	7	-	-	-	7	-	-				
PEDESTRIAN CLEARANCE (SEC.)			-	18	-	-	-	12	-	-				
RECALL	MAXIMUM (ON/OFF)	OFF	OFF	OFF	-	-	OFF	-	OFF					
	MINIMUM (ON/OFF)	OFF	ON	OFF	-	-	ON	-	OFF					
	PEDESTRIAN (ON/OFF)	OFF	ON	OFF	-	-	ON	-	OFF					
MEMORY (ON/OFF)			-	ON	-	-	-	ON	-	-				
*VOLUME DENSITY CONTROLS														
# FOR CROSSINGS WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET														
^ WHEN IMPLEMENTING FYA, A MINIMUM 3 SEC. DELAY SHALL BE PROGRAMMED PER FYA PHASE.														

- NOTES:
- All movements shall be actuated. The primary through movement shall have min recall active to rest in green.
 - For protected/ permissive phases, implement call omits to avoid yellow ball trap.
 - Enable Φ1, 3 and Φ5, 7 detector switching to allow Φ1 and Φ5 to extend Φ2 and Φ6 or Φ3 and Φ7 to extend Φ4 and Φ8, respectively, when allocated green time for left turn phases are exhausted.
 - Countdown pedestrian signal heads shall go to zero on yellow per OMUTCD Figure 4E-2.
 - Radar detection units for dilemma zone detection shall place a constant call to the controller when vehicle travel times to the stop bar are between 2.5 and 6.0 seconds. Speed trigger shall be set for vehicles traveling 35 MPH and greater.
 - Radar shall have queue detection configured and a zone placed at 100-200 feet from the stop bar for slow moving vehicle extensions. Speed trigger shall be set at 1 - 35 MPH.
 - All detector delays shall be placed on the controller.
 - For any entry to flashing operation programming shall run minor street green (typ. Φ4 & Φ8), all-red clearance and then flashing operation.

PHASING DIAGRAM



RADAR DETECTION CHART

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC.)	EXTENSION PROGRAMMED IN CONTROLLER (SEC.)	DETECTOR NO.	PURPOSE	DETECTION ZONE LENGTH (FT)
D1	WB LT	PRESENCE	1	-	-	1	STOP LINE	35
D4A	SB LT	PRESENCE	8	-	-	2	STOP LINE	35
D4B	SB RT	PRESENCE	8	10	-	2	STOP LINE	35
-	EB THRU	PULSE	2	-	-	3	DILEMMA	-
-	WB THRU	PULSE	6	-	-	4	DILEMMA	-

Note: Advance/Dilemma Zone Speed Threshold: 30 MPH
Purpose: Stop-Line or Advance Detection

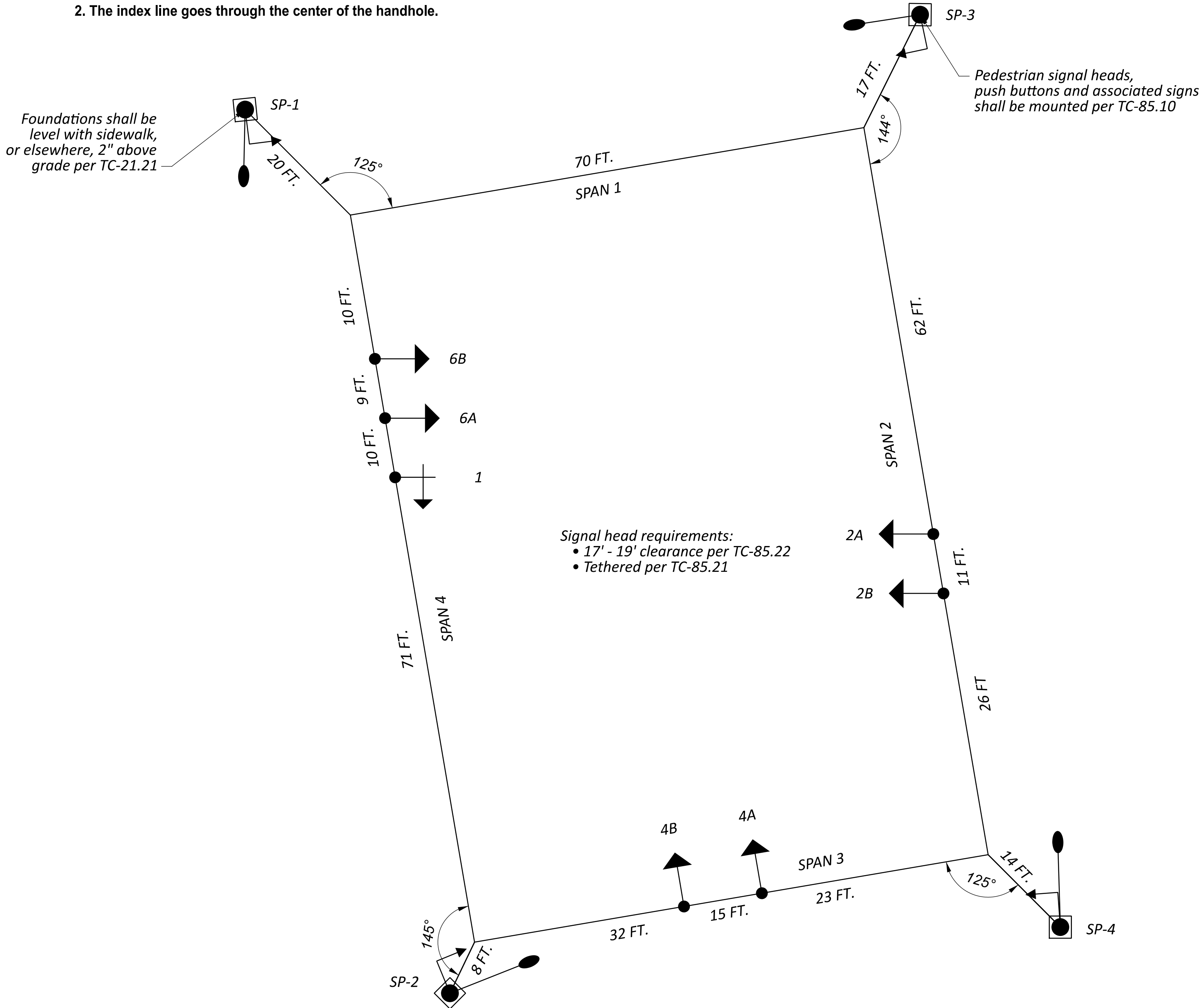
STRAIN POLE TABLE

REFERENCE SHEET NO.*	STATION & OFFSET*	POLE NO.	DESIGN NO.	POLE HEIGHT (FT.)	FOUNDATION ELEV.*	SPAN WIRE ATTACHED HEIGHT*	CABLE ENTRANCE DISTANCE BELOW SPAN WIRE ATTACHMENT (IN.)	INDEX LINE ANGLE (DEG.)	ANGLES (DEG.) FROM INDEX LINE					
									PEDESTRIAN SIGNALS	PEDESTRIAN PUSH BUTTONS	POWER SERVICE	CABLE ENTRANCE	BRACKET ARM	2" CAPPED
P.122	941+81.8, 52.3' LT	SP-1	12	37	980.0	31.5	12	0	354	-	-	317	3	-
P.122	942+06.0, 67.9' RT	SP-2	12	36	977.5	31.0	12	180	358	-	90	206	70	-
P.122	942+73.3, 62.5' LT	SP-3	12	35	979.5	30.0	12	0	354	-	-	28	83	-
P.122	942+88.7, 61.3' RT	SP-4	12	36	979.0	30.5	12	0	357	-	-	317	90	-

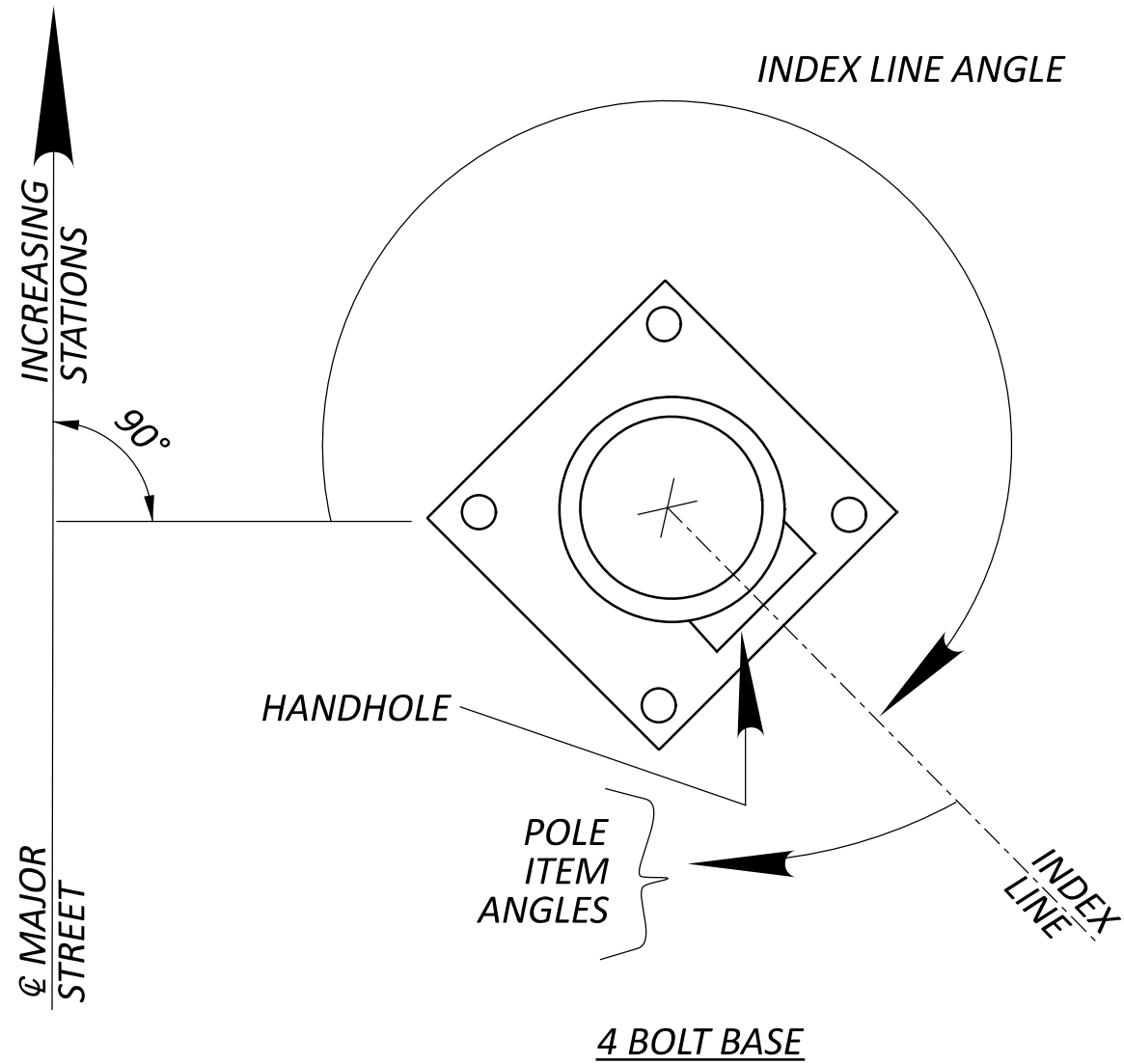
*See TEM Section 441-8

Notes:

1. All angles are measured clockwise.
2. The index line goes through the center of the handhole.



SPAN WIRE PLAN VIEW DETAIL

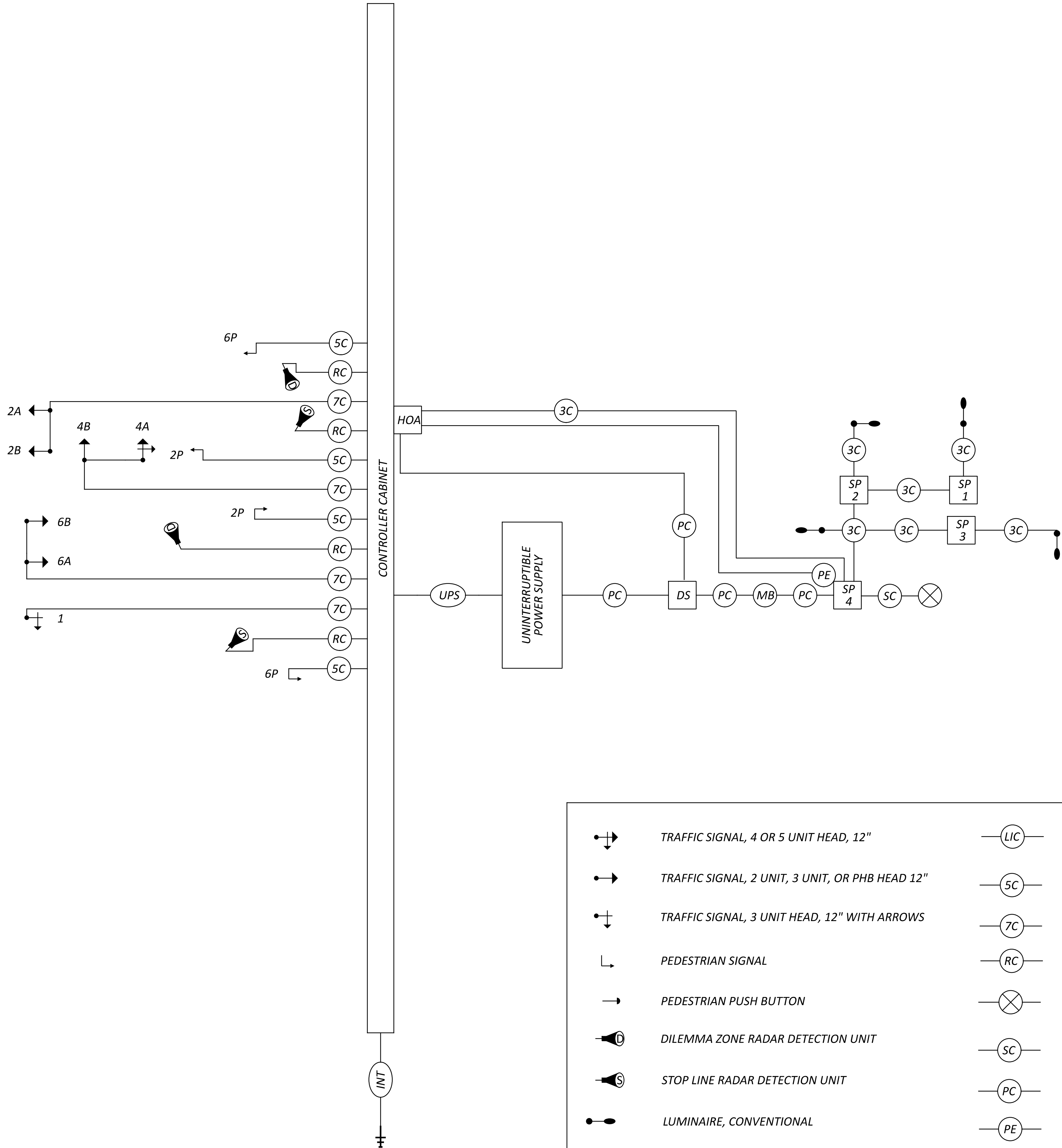


Note:

- Index line passes through the center of the handhole

POLE ORIENTATION

WIRING DIAGRAM

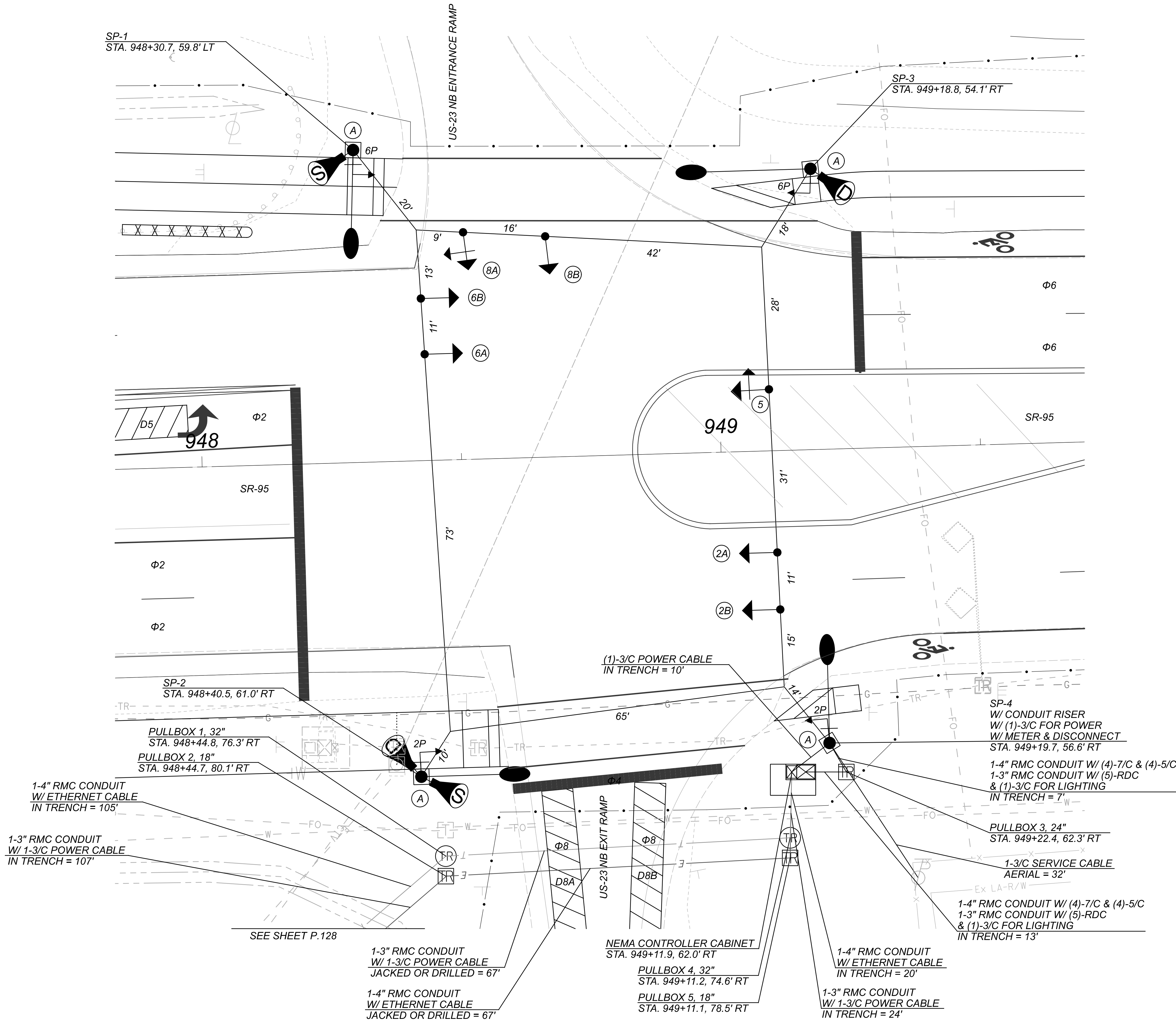


FIELD WIRING HOOKUP CHART

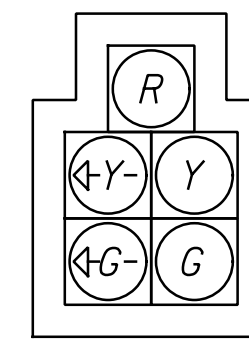
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
1 (WB LT)	R	Φ6 R	R
	<---Y---	Φ1 Y	
	<---G---	Φ1 G	
	Y	Φ6 Y	
	G	Φ6 Y	
2A, 2B (EB)	R	Φ2 R	R
	Y	Φ2 Y	
	G	Φ2 G	
	-	-	
	-	-	
4A, 4B (SB)	R	Φ4 R	R
	Y	Φ4 Y	
	G	Φ4 G	
	-	-	
	-	-	
6A, 6B (WB)	R	Φ6 R	R
	Y	Φ6 Y	
	G	Φ6 G	
PEDESTRIAN MOVEMENTS			
2P SOUTH	W	Φ2 PED / LS 10 G	OUT
	DW	Φ2 PED / LS 10 R	
6P NORTH	W	Φ6 PED / LS 11 G	OUT
	DW	Φ6 PED / LS 11 R	
-	-	-	-
-	-	-	
-	-	-	
LS = LOAD SWITCH			

LEGEND

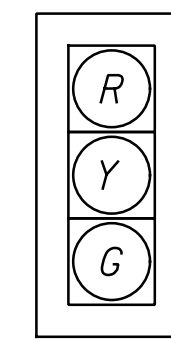
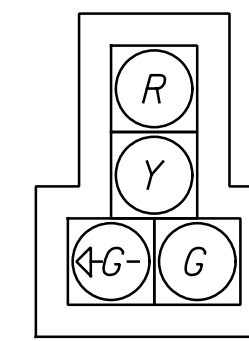
	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		2/C NO. 14 AWG (LEAD-IN CABLE)		METER BASE
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG		SIGNAL CABLE, 3 CONDUCTOR, NO. 12 AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG		UNINTERRUPTIBLE POWER SUPPLY CABLE
	PEDESTRIAN SIGNAL		RADAR DETECTION CABLE		HAND/ OFF/ AUTO SWITCH
	PEDESTRIAN PUSH BUTTON		POWER SOURCE		SIGNAL SUPPORT POLE NO. __
	DILEMMA ZONE RADAR DETECTION UNIT		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG		PTZ CAMERA
	STOP LINE RADAR DETECTION UNIT		POWER CABLE, 3 CONDUCTOR, NO. 6 AWG		
	LUMINAIRE, CONVENTIONAL		PHOTOELECTRIC CELL		



SIGNAL HEADS



5

2A, 2B, 6A,
6B, 8B

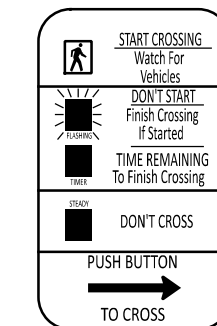
8A

SP-1, SP-3,
SP-4, PS-1

ALL VEHICULAR SIGNAL HEADS
SHALL BE
12" LED WITH BACKPLATE
CUTAWAY VISOR
BLACK HOUSING

PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

SIGNING LEGEND



R10-3E
(left or right arrows)
(sign is included with
push button)



R9-3



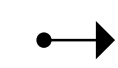
PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
1	948+44.8	RT	76.3	32
2	948+44.7	RT	80.1	18
3	949+22.4	RT	62.3	24
4	949+11.2	RT	74.6	32
5	949+11.1	RT	78.5	18

LEGEND

TRAFFIC SIGNAL, 2 UNIT,
3 UNIT, OR PHB HEAD, 12"

PR.



EX.



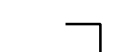
TRAFFIC SIGNAL,
4 OR 5 UNIT HEAD, 12"



SIGNAL SUPPORT POLE



PEDESTRIAN HEAD



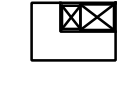
PEDESTRIAN PUSH BUTTON



PEDESTAL SUPPORT



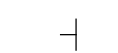
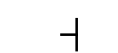
NEMA CONTROLLER
AND WORK PAD



TRAFFIC PULL BOX



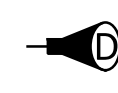
SIGN



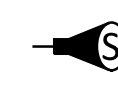
LUMINAIRE



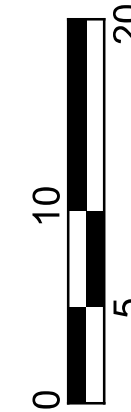
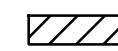
DILEMMA ZONE RADAR
DETECTION UNIT



STOP LINE RADAR
DETECTION UNIT



DETECTION ZONE





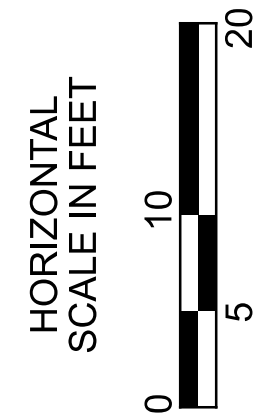
DESIGN AGENCY



REVIEWER
JTP 03-31-2

PROJECT ID
114818

SHEET	TOTAL
P.128	P.14

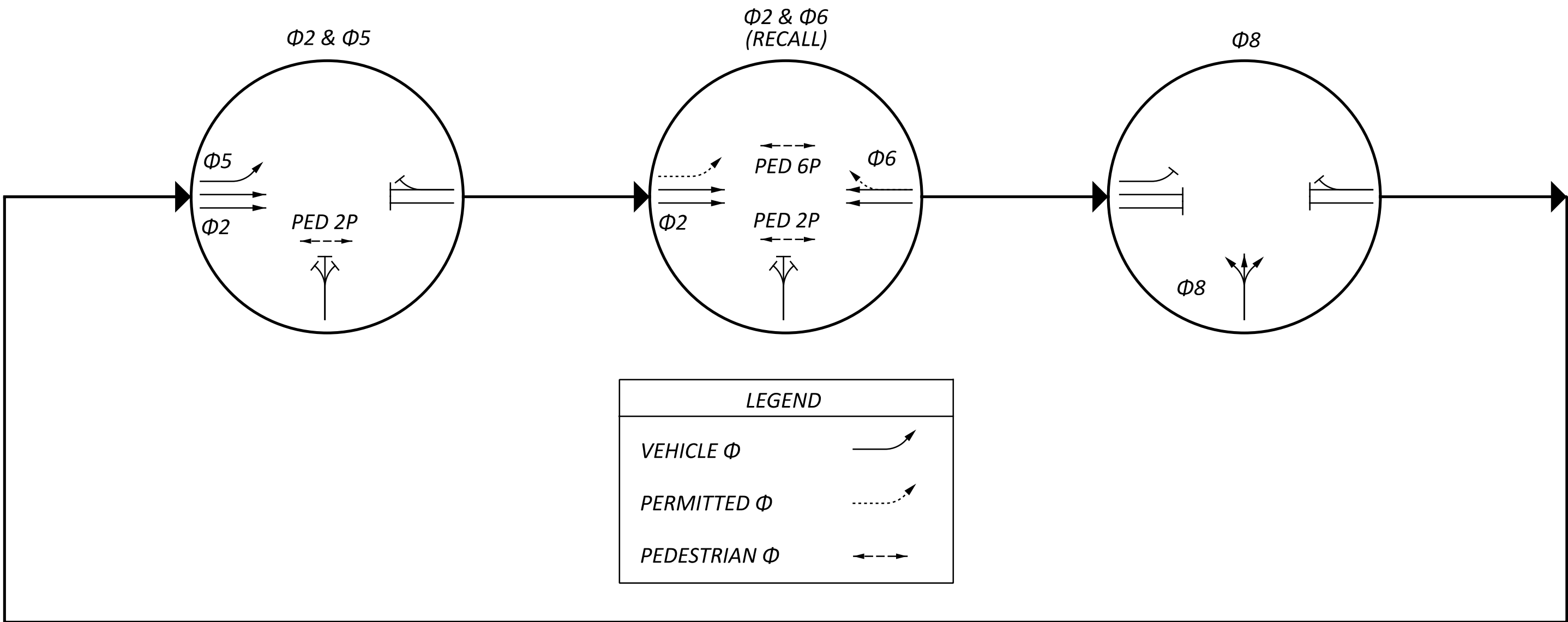


Traffic Signal Controller Timing Chart

INTERSECTION: SR-95 & US-23 NB RAMPS												
MAINTAINING AGENCY: ODOT												
START UP START IN: ALL-RED FLASH TIME FOR: FLASH , ALL RED (SEC.): 9, 6 FIRST PHASE(S): 2 & 6 COLOR DISPLAYED: GREEN			DUAL ENTRY: YES		PHASES:		2 & 6					
			REST IN RED:		RING 1		NO		RING 2		NO	
			OVERLAP			A		B		C		D
			PHASES			-		-		-		-
			INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.						
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8		
DIRECTION			-	EB	-	-	EBLT	WB	-	NB		
MINIMUM GREEN (INITIAL) (SEC.)			-	20	-	-	7	20	-	10		
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-		
MAXIMUM INITIAL *(SEC.)			-	-	-	-	-	-	-	-		
PASSAGE TIME (PRESET GAP) (SEC.)			-	3.0	-	-	3.0	3.0	-	3.0		
TIME BEFORE REDUCTION *(SEC.)			-	-	-	-	-	-	-	-		
MINIMUM GAP *(SEC.)			-	-	-	-	-	-	-	-		
TIME TO REDUCE *(SEC.)			-	-	-	-	-	-	-	-		
MAXIMUM GREEN I (SEC.)			-	65	-	-	18	65	-	32		
MAXIMUM GREEN II (SEC.)			-	-	-	-	-	-	-	-		
YELLOW CHANGE (SEC.)			-	4.1	-	-	3.2	4.1	-	3.4		
ALL RED CLEARANCE (SEC.)			-	1.2	-	-	1.8	1.2	-	1.8		
DELAYED GREEN (LPI) ' (SEC.)			-	-	-	-	-	-	-	-		
FLASHING YELLOW ARROW DELAY^ (SEC.)			-	-	-	-	-	-	-	-		
WALK (SEC.)			-	7	-	-	-	7	-	-		
PEDESTRIAN CLEARANCE (SEC.)			-	18	-	-	-	13	-	-		
RECALL	MAXIMUM (ON/OFF)	-	OFF	-	-	OFF	OFF	-	OFF			
	MINIMUM (ON/OFF)	-	ON	-	-	OFF	ON	-	OFF			
	PEDESTRIAN (ON/OFF)	-	ON	-	-	OFF	ON	-	OFF			
MEMORY (ON/OFF)			-	ON	-	-	-	ON	-	-		
*VOLUME DENSITY CONTROLS												
# FOR CROSSINGS WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET												
^ WHEN IMPLEMENTING FYA, A MINIMUM 3 SEC. DELAY SHALL BE PROGRAMMED PER FYA PHASE.												

- NOTES:
- All movements shall be actuated. The primary through movement shall have min recall active to rest in green.
 - For protected/ permissive phases, implement call omits to avoid yellow ball trap.
 - Enable Φ1, 3 and Φ5, 7 detector switching to allow Φ1 and Φ5 to extend Φ2 and Φ6 or Φ3 and Φ7 to extend Φ4 and Φ8, respectively, when allocated green time for left turn phases are exhausted.
 - Countdown pedestrian signal heads shall go to zero on yellow per OMUTCD Figure 4E-2.
 - Radar detection units for dilemma zone detection shall place a constant call to the controller when vehicle travel times to the stop bar are between 2.5 and 6.0 seconds. Speed trigger shall be set for vehicles traveling 35 MPH and greater.
 - Radar shall have queue detection configured and a zone placed at 100-200 feet from the stop bar for slow moving vehicle extensions. Speed trigger shall be set at 1 - 35 MPH.
 - All detector delays shall be placed on the controller.
 - For any entry to flashing operation programming shall run minor street green (typ. Φ4 & Φ8), all-red clearance and then flashing operation.

PHASING DIAGRAM



RADAR DETECTION CHART

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC.)	EXTENSION PROGRAMMED IN CONTROLLER (SEC.)	DETECTOR NO.	PURPOSE	DETECTION ZONE LENGTH (FT)
D5	EB LT	PRESENCE	5	-	-	1	STOP LINE	35
D8A	NB THRU	PRESENCE	8	-	-	2	STOP LINE	35
D8B	NB THRU	PRESENCE	8	10	-	2	STOP LINE	35
-	EB THRU	PULSE	2	-	-	3	DILEMMA	-
-	WB THRU	PULSE	6	-	-	4	DILEMMA	-

Note: Advance/Dilemma Zone Speed Threshold: 30 MPH
Purpose: Stop-Line or Advance Detection

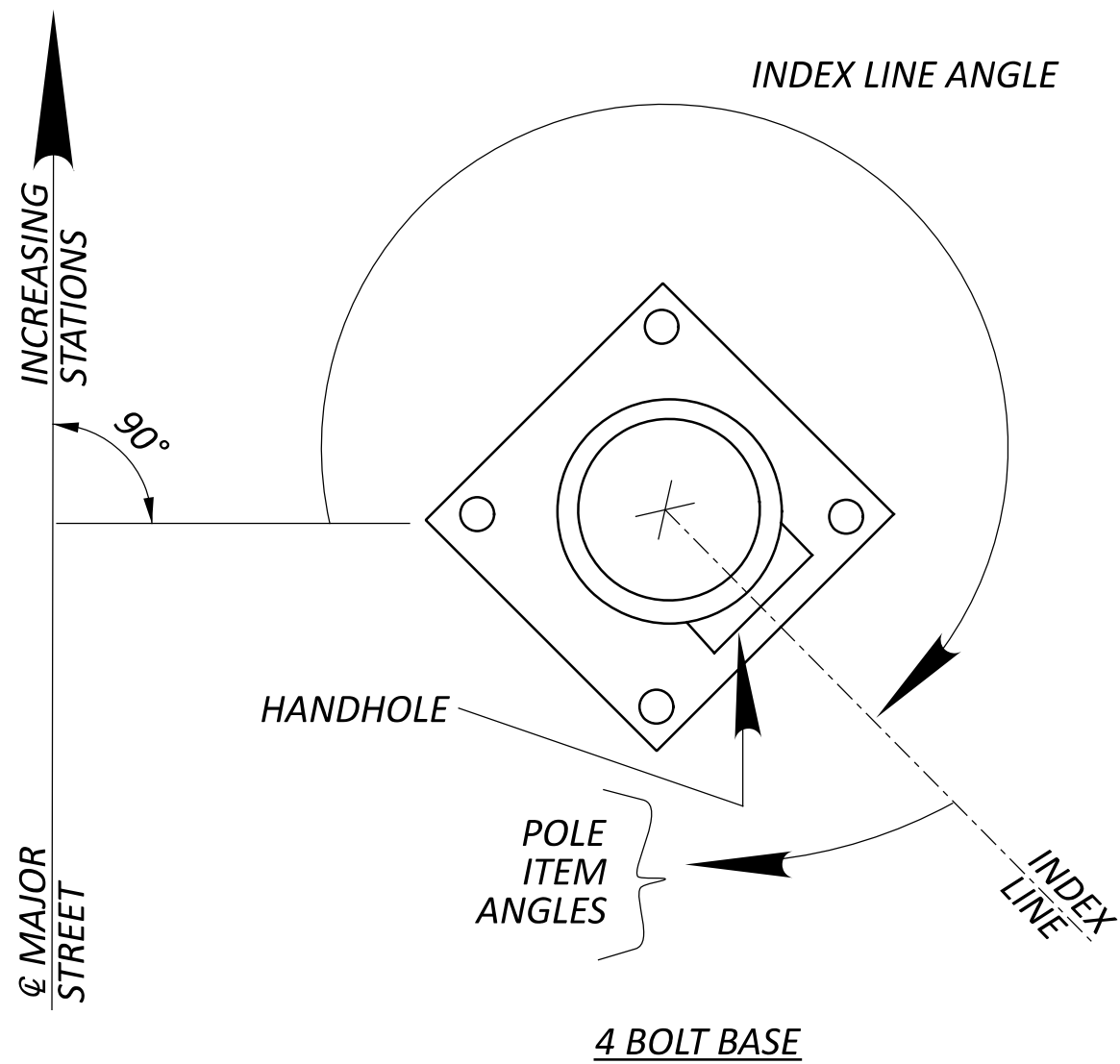
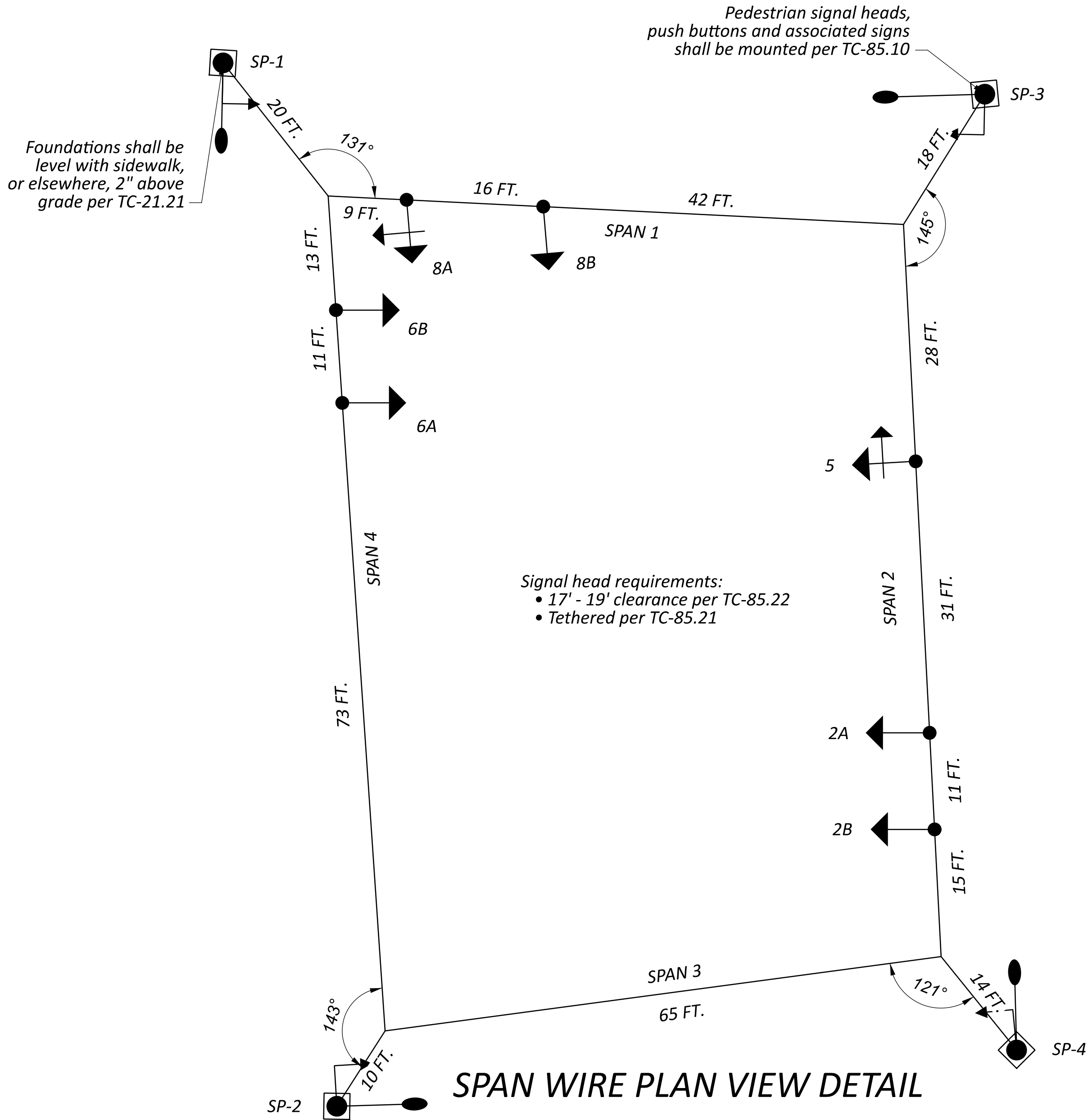
STRAIN POLE TABLE

REFERENCE SHEET NO.*	STATION & OFFSET*	POLE NO.	DESIGN NO.	POLE HEIGHT (FT.)	FOUNDATION ELEV.*	SPAN WIRE ATTACHED HEIGHT*	CABLE ENTRANCE DISTANCE BELOW SPAN WIRE ATTACHMENT (IN.)	INDEX LINE ANGLE (DEG.)	ANGLES (DEG.) FROM INDEX LINE					
									PEDESTRIAN SIGNALS	PEDESTRIAN PUSH BUTTONS	POWER SERVICE	CABLE ENTRANCE	BRACKET ARM	2" CAPPED
P.127	948+30.7, 59.8' LT	SP-1	12	36	981.0	31.0	12	3	3	-	-	320	3	-
P.127	948+40.5, 61.0' RT	SP-2	12	35	980.5	28.0	12	0	0	-	-	326	90	-
P.127	949+18.8, 54.1' LT	SP-3	12	36	979.5	31.0	12	355	8	-	-	39	95	-
P.127	949+19.7, 56.6' RT	SP-4	12	36	979.0	30.5	12	152	205	-	152	171	90	-

*See TEM Section 441-8

Notes:

1. All angles are measured clockwise.
2. The index line goes through the center of the handhole.

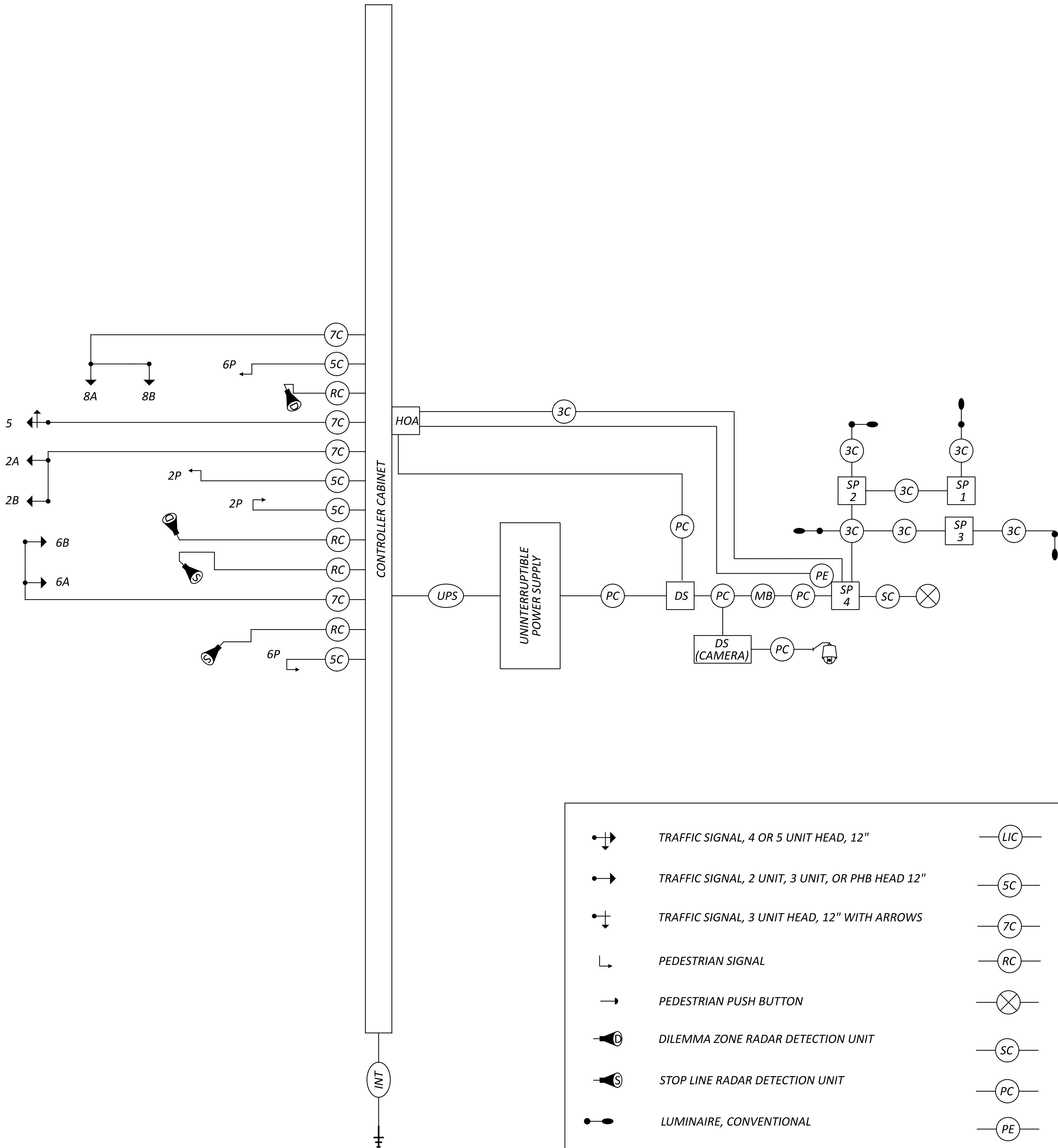


Note:

- Index line passes through the center of the handhole

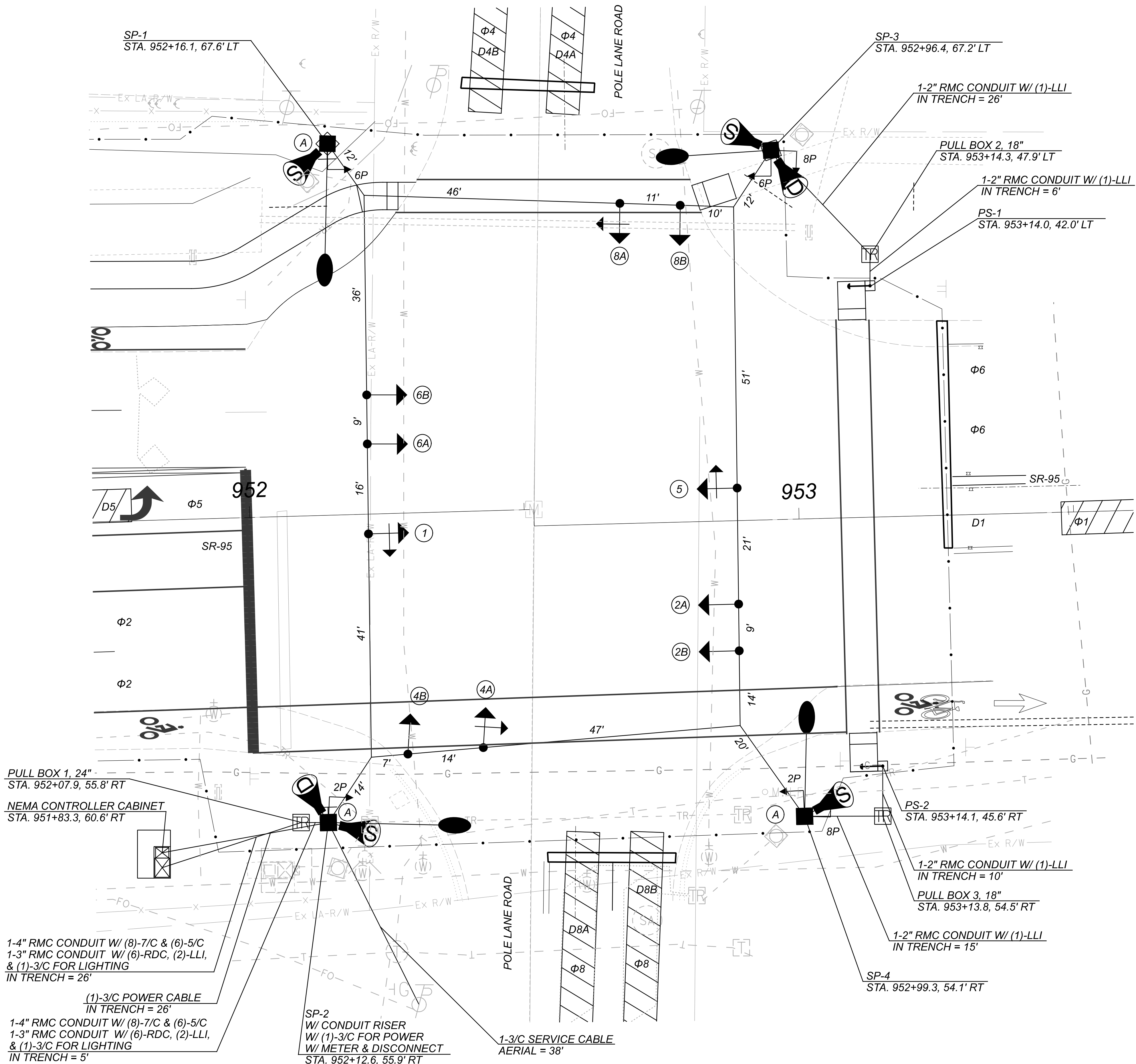
POLE ORIENTATION

CONTROLLER CABINET

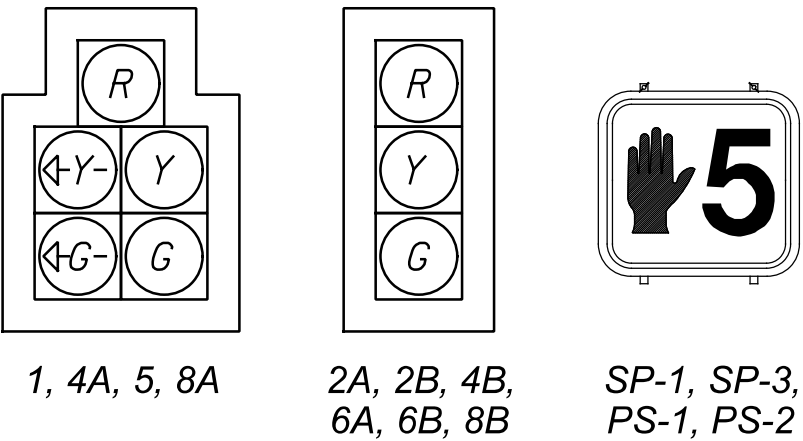


SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2A, 2B (EB)	R	Φ2 R	R
	Y	Φ2 Y	
	G	Φ2 G	
	-	-	
	-	-	
5 (EB LT)	<--R---	Φ5 R	R
	<--Y---	Φ5 Y	
	<--G---	Φ5 G	
	-	-	
	-	-	
6A, 6B (WB)	R	Φ6 R	R
	Y	Φ6 Y	
	G	Φ6 G	
	-	-	
	-	-	
8A, 8B (NB)	R	Φ8 R	R
	Y	Φ8 Y	
	G	Φ8 G	
PEDESTRIAN MOVEMENTS			
2P SOUTH	W	Φ2 PED / LS 10 G	OUT
	DW	Φ2 PED / LS 10 R	
6P NORTH	W	Φ6 PED / LS 11 G	OUT
	DW	Φ6 PED / LS 11 R	
-	-	-	-
-	-	-	
-	-	-	
LS = LOAD SWITCH			

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		2/C NO. 14 AWG (LEAD-IN CABLE)		METER BASE
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG		SIGNAL CABLE, 3 CONDUCTOR, NO. 12 AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG		UNINTERRUPTIBLE POWER SUPPLY CABLE
	PEDESTRIAN SIGNAL		RADAR DETECTION CABLE		HAND/ OFF/ AUTO SWITCH
	PEDESTRIAN PUSH BUTTON		POWER SOURCE		SIGNAL SUPPORT POLE NO. ____
	DILEMMA ZONE RADAR DETECTION UNIT		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG		PTZ CAMERA
	STOP LINE RADAR DETECTION UNIT		POWER CABLE, 3 CONDUCTOR, NO. 6 AWG		
	LUMINAIRE, CONVENTIONAL		PHOTOELECTRIC CELL		

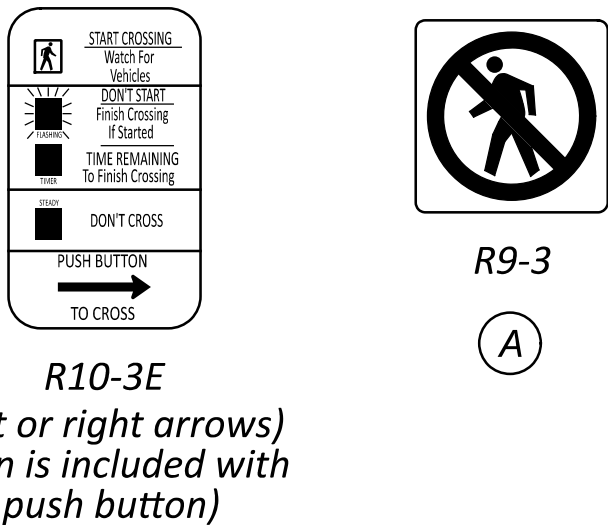


SIGNAL HEADS



ALL VEHICULAR SIGNAL HEADS
SHALL BE
12" LED WITH BACKPLATE
CUTAWAY VISOR
BLACK HOUSING

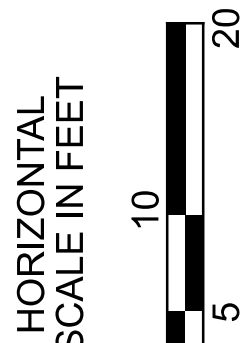
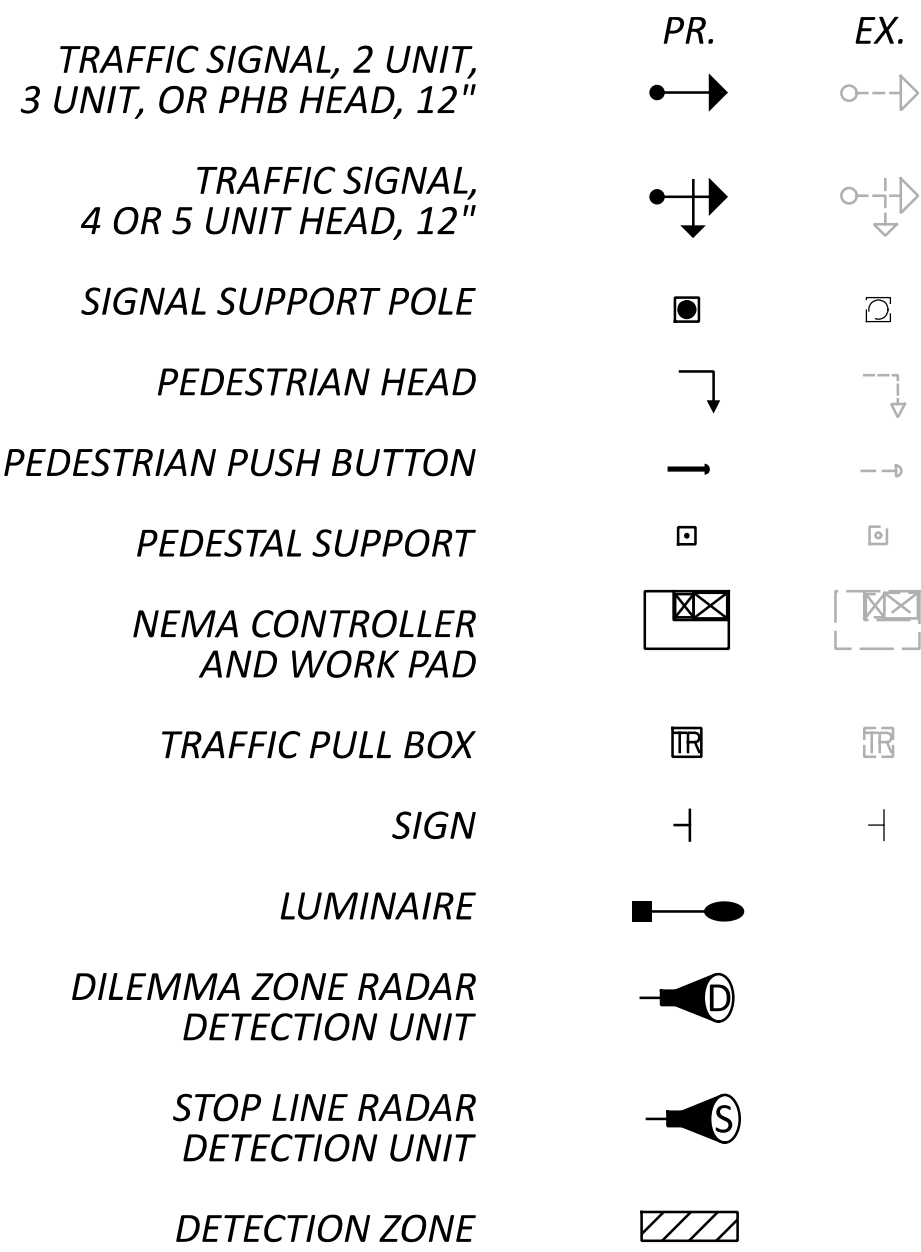
SIGNING LEGEND



PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
1	952+07.9	RT	55.8	24
2	953+12.4	LT	47.9	24
3	953+12.0	RT	54.7	24

LEGEND



TRAFFIC SIGNAL PLAN
SR-95 & POLE LANE ROAD

DESIGN AGENCY

B&N
burbanknyc.com

DESIGNER

RML

REVIEWER

JTP 03-31-25

PROJECT ID

114818

SHEET

P.132

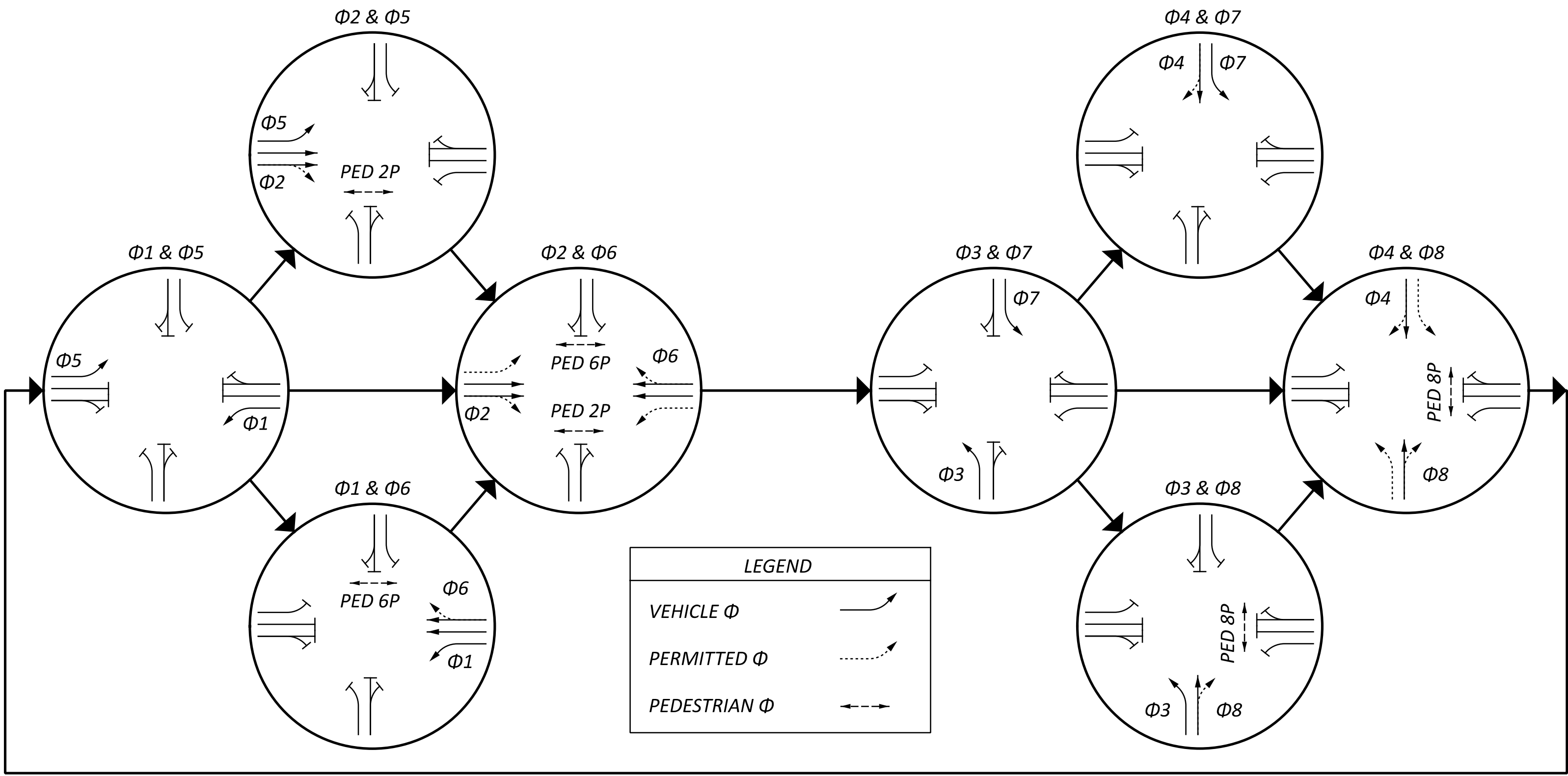
TOTAL

P.142

Traffic Signal Controller Timing Chart

INTERSECTION: SR-95 & POLE LANE ROAD										
MAINTAINING AGENCY: ODOT										
START UP START IN: ALL-RED FLASH TIME FOR: FLASH , ALL RED (SEC.): 9, 6 FIRST PHASE(S): 2 & 6 COLOR DISPLAYED: GREEN			DUAL ENTRY: YES		PHASES: 2 & 6 AND 4 & 8					
			REST IN RED:		RING 1 NO		RING 2 NO			
			OVERLAP				A	B	C	D
			PHASES				-	-	-	-
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8
DIRECTION			WBLT	EB	SBLT	SB	EBLT	WB	NBLT	NB
MINIMUM GREEN (INITIAL) (SEC.)			7	20	7	10	7	20	7	10
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)			-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
TIME BEFORE REDUCTION *(SEC.)			-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)			-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)			20	65	18	32	20	65	24	32
MAXIMUM GREEN II (SEC.)			-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)			3.2	4.1	3.0	3.4	3.2	4.1	3.0	3.4
ALL RED CLEARANCE (SEC.)			2.7	1.3	2.8	1.7	2.7	1.3	2.8	1.7
DELAYED GREEN (LPI) ^ (SEC.)			-	-	-	-	-	-	-	6
FLASHING YELLOW ARROW DELAY^ (SEC.)			-	-	-	-	-	-	-	-
WALK (SEC.)			-	7	-	-	-	8	-	7
PEDESTRIAN CLEARANCE (SEC.)			-	12	-	-	-	27	-	19
RECALL	MAXIMUM (ON/OFF)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	MINIMUM (ON/OFF)	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
	PEDESTRIAN (ON/OFF)	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
MEMORY (ON/OFF)			-	ON	-	-	-	ON	-	-
*VOLUME DENSITY CONTROLS										
# FOR CROSSINGS WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET										
^ WHEN IMPLEMENTING FYA, A MINIMUM 3 SEC. DELAY SHALL BE PROGRAMMED PER FYA PHASE.										

PHASING DIAGRAM



LEGEND	
VEHICLE Φ	
PERMITTED Φ	
PEDESTRIAN Φ	

- NOTES:
- All movements shall be actuated. The primary through movement shall have min recall active to rest in green.
 - For protected/ permissive phases, implement call omits to avoid yellow ball trap.
 - Enable Φ1, 3 and Φ5, 7 detector switching to allow Φ1 and Φ5 to extend Φ2 and Φ6 or Φ3 and Φ7 to extend Φ4 and Φ8, respectively, when allocated green time for left turn phases are exhausted.
 - Countdown pedestrian signal heads shall go to zero on yellow per OMUTCD Figure 4E-2.
 - Radar detection units for dilemma zone detection shall place a constant call to the controller when vehicle travel times to the stop bar are between 2.5 and 6.0 seconds. Speed trigger shall be set for vehicles traveling 35 MPH and greater.
 - Radar shall have queue detection configured and a zone placed at 100-200 feet from the stop bar for slow moving vehicle extensions. Speed trigger shall be set at 1 - 35 MPH.
 - All detector delays shall be placed on the controller.
 - For any entry to flashing operation programming shall run minor street green (typ. Φ4 & Φ8), all-red clearance and then flashing operation.

RADAR DETECTION CHART

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC.)	EXTENSION PROGRAMMED IN CONTROLLER (SEC.)	DETECTOR NO.	PURPOSE	DETECTION ZONE LENGTH (FT)
D1	WB LT	PRESENCE	1	-	-	1	STOP LINE	35
D4A	SB THRU	PRESENCE	4	-	-	2	STOP LINE	35
D4B	SB THRU	PRESENCE	4	10	-	2	STOP LINE	35
D5	EB LT	PRESENCE	5	-	-	3	STOP LINE	35
D8A	NB THRU	PRESENCE	8	-	-	4	STOP LINE	35
D8B	NB THRU	PRESENCE	8	10	-	4	STOP LINE	35
-	EB THRU	PULSE	2	-	-	5	DILEMMA	-
-	WB THRU	PULSE	6	-	-	6	DILEMMA	-

Note: Advance/Dilemma Zone Speed Threshold: 30 MPH
Purpose: Stop-Line or Advance Detection

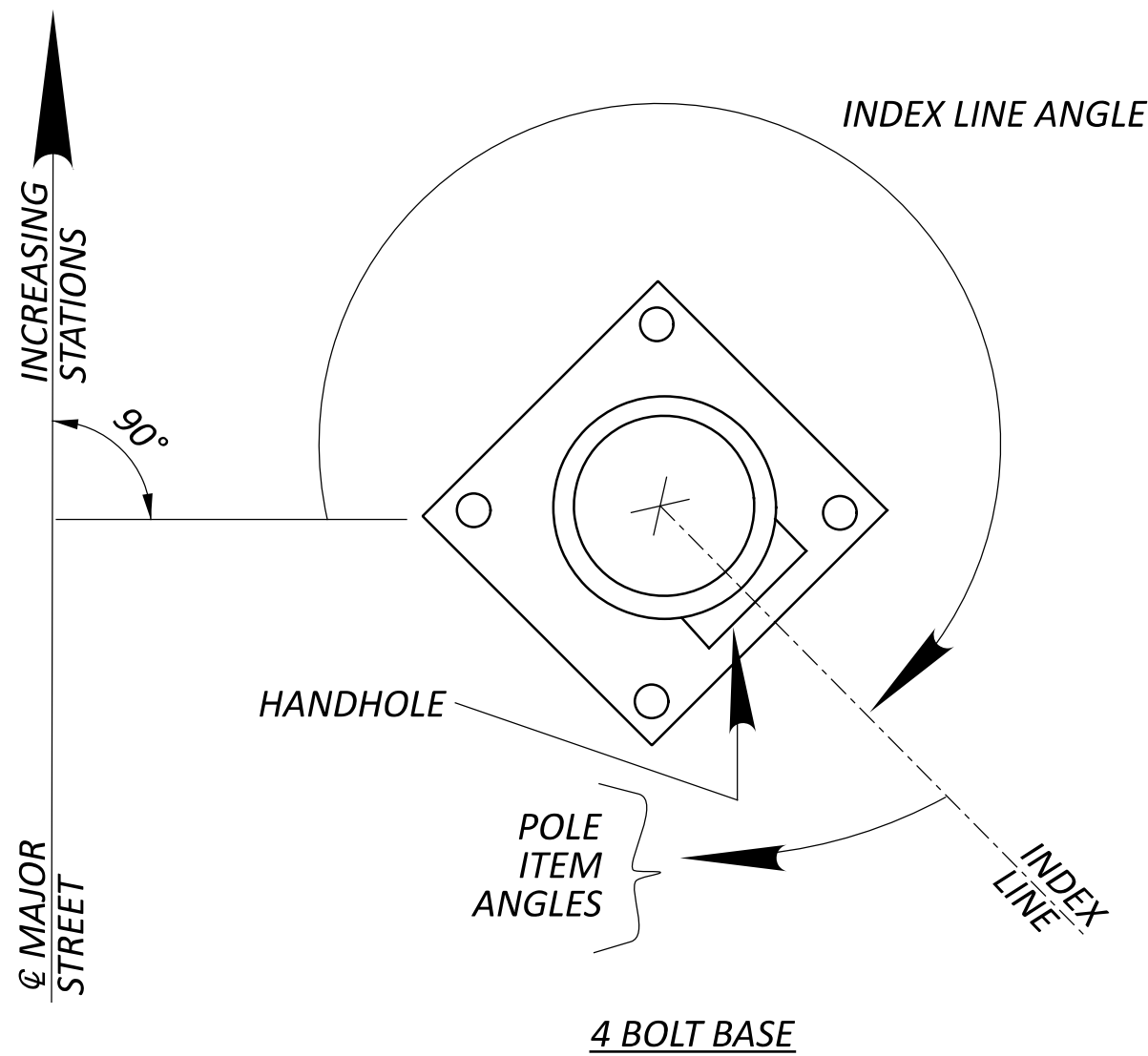
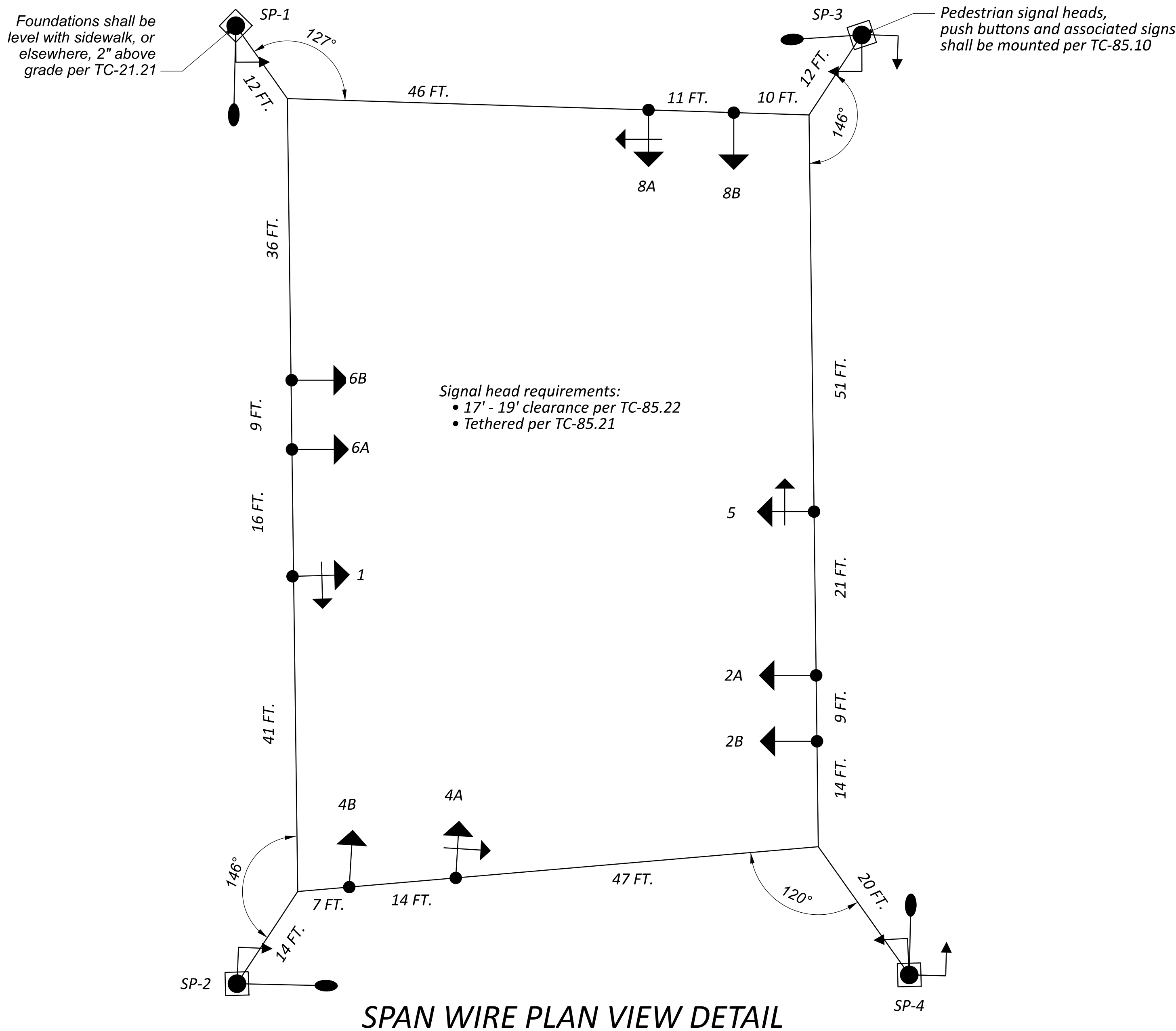
STRAIN POLE TABLE

REFERENCE SHEET NO.*	STATION & OFFSET*	POLE NO.	DESIGN NO.	POLE HEIGHT (FT.)	FOUNDATION ELEV.*	SPAN WIRE ATTACHED HEIGHT*	CABLE ENTRANCE DISTANCE BELOW SPAN WIRE ATTACHMENT (IN.)	INDEX LINE ANGLE (DEG.)	ANGLES (DEG.) FROM INDEX LINE					
									PEDESTRIAN SIGNALS	PEDESTRIAN PUSH BUTTONS	POWER SERVICE	CABLE ENTRANCE	BRACKET ARM	2" CAPPED
P.132	952+16.1, 67.6' LT	SP-1	13	36	980.0	30.5	12	318	357	-	-	8	3	-
P.132	952+12.6, 55.9' RT	SP-2	13	36	981.0	30.5	12	180	4	-	102	213	270	-
P.132	952+96.4, 67.2' LT	SP-3	13	35	981.0	29.5	12	343	273 / 357	-	-	51	104	-
P.132	952+99.3, 54.1' RT	SP-4	13	35	982.0	29.5	12	180	90 / 355	-	-	145	3	-
P.132	953+12.2, 40.9' LT	PS-1	PEDESTAL	5	-	-	-	180	-	90	-	-	-	-
P.132	953+12.3, 44.2' RT	PS-2	PEDESTAL	5	-	-	-	180	-	270	-	-	-	-

*See TEM Section 441-8

Notes:

1. All angles are measured clockwise.
2. The index line goes through the center of the handhole.

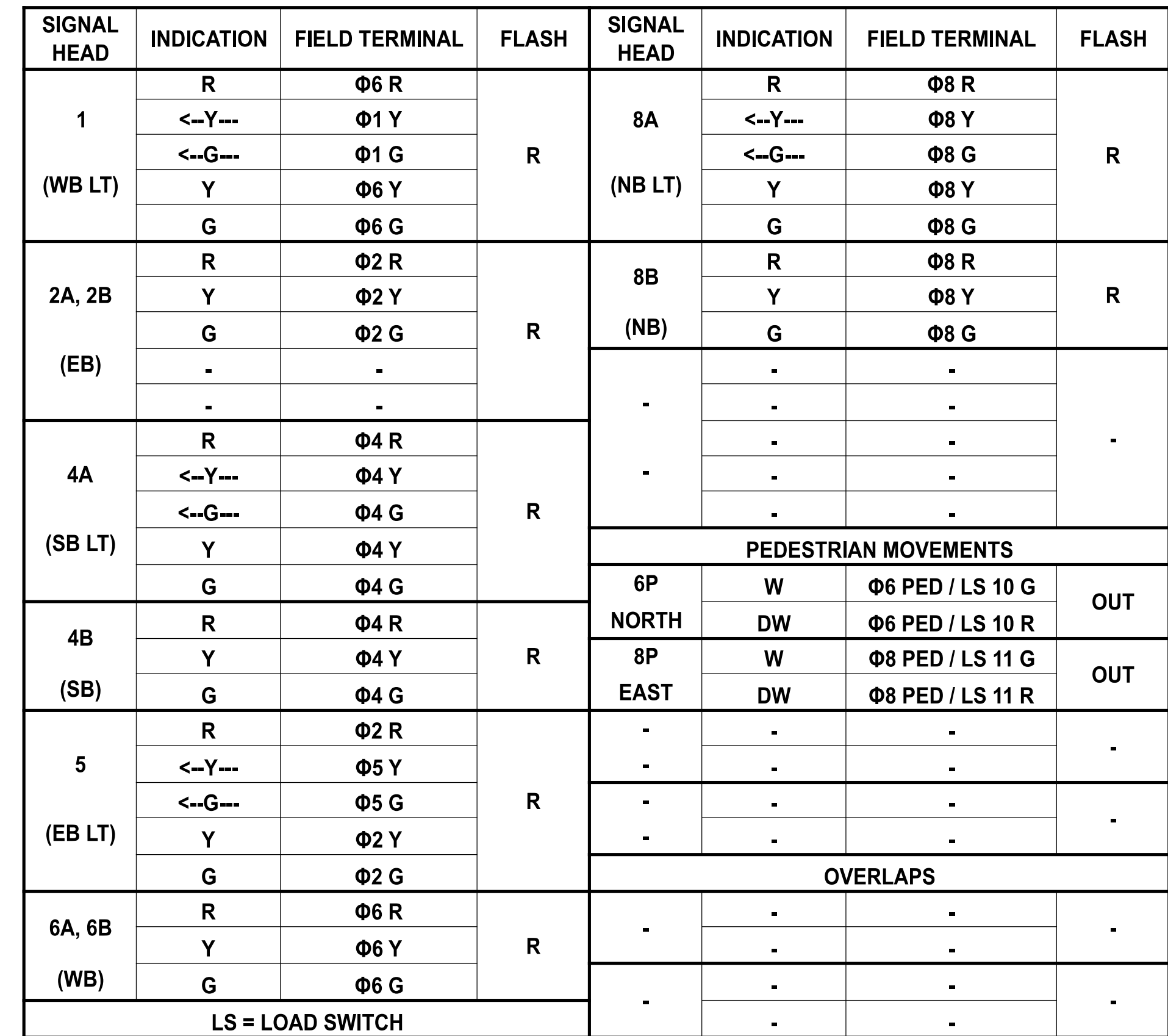


Note:

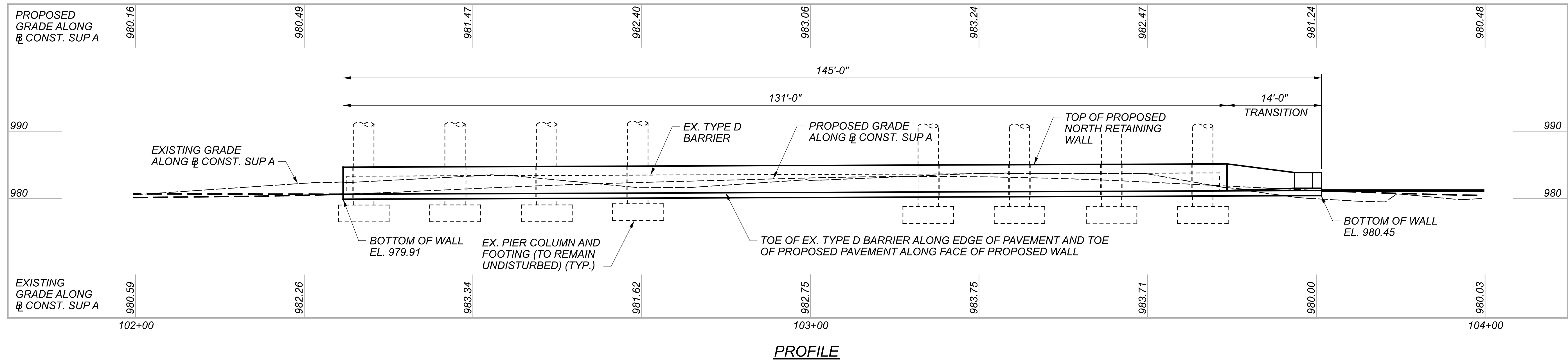
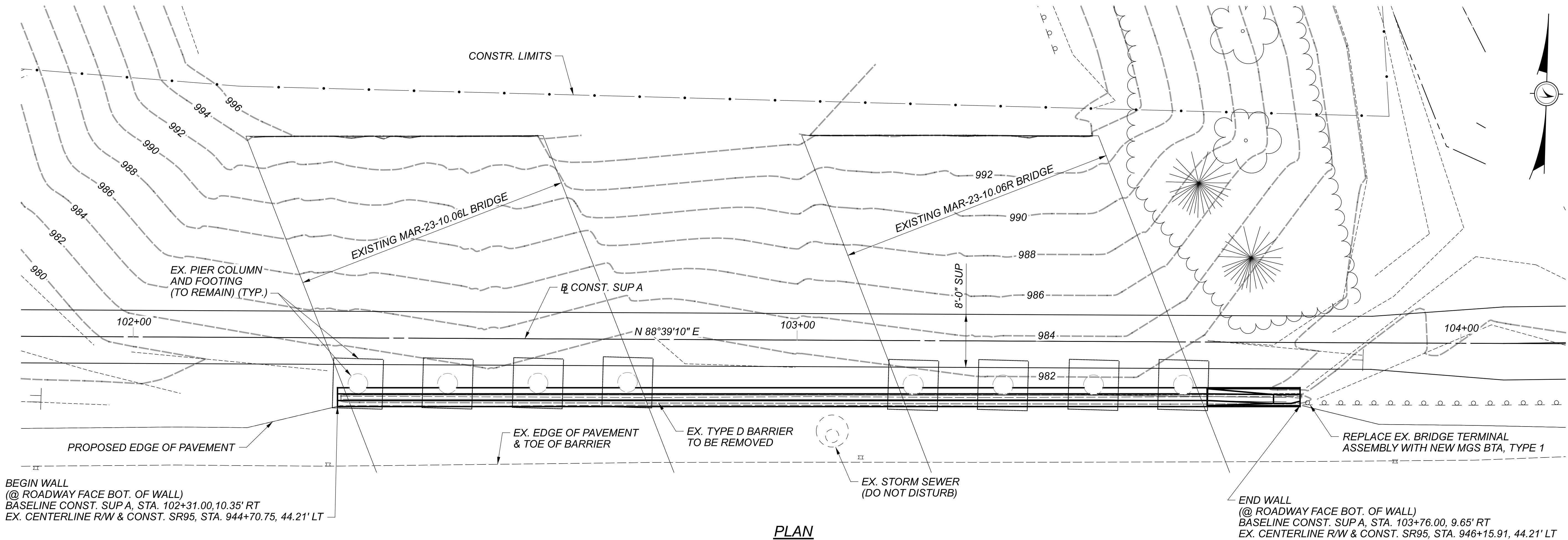
- Index line passes through the center of the handhole

POLE ORIENTATION

FIELD WIRING HOOKUP CHART



	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		2/C NO. 14 AWG (LEAD-IN CABLE)		METER BASE
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG		SIGNAL CABLE, 3 CONDUCTOR, NO. 12 AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG		UNINTERRUPTIBLE POWER SUPPLY CABLE
	PEDESTRIAN SIGNAL		RADAR DETECTION CABLE		HAND/ OFF/ AUTO SWITCH
	PEDESTRIAN PUSH BUTTON		POWER SOURCE		SIGNAL SUPPORT POLE NO. ____
	DILEMMA ZONE RADAR DETECTION UNIT		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG		PTZ CAMERA
	STOP LINE RADAR DETECTION UNIT		POWER CABLE, 3 CONDUCTOR, NO. 6 AWG		
	LUMINAIRE, CONVENTIONAL		PHOTOELECTRIC CELL		



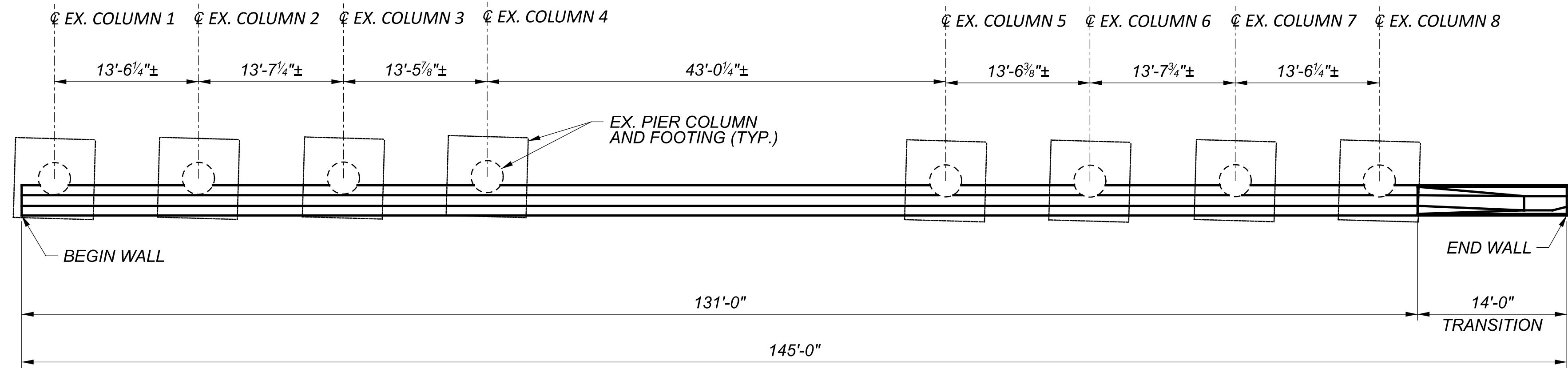
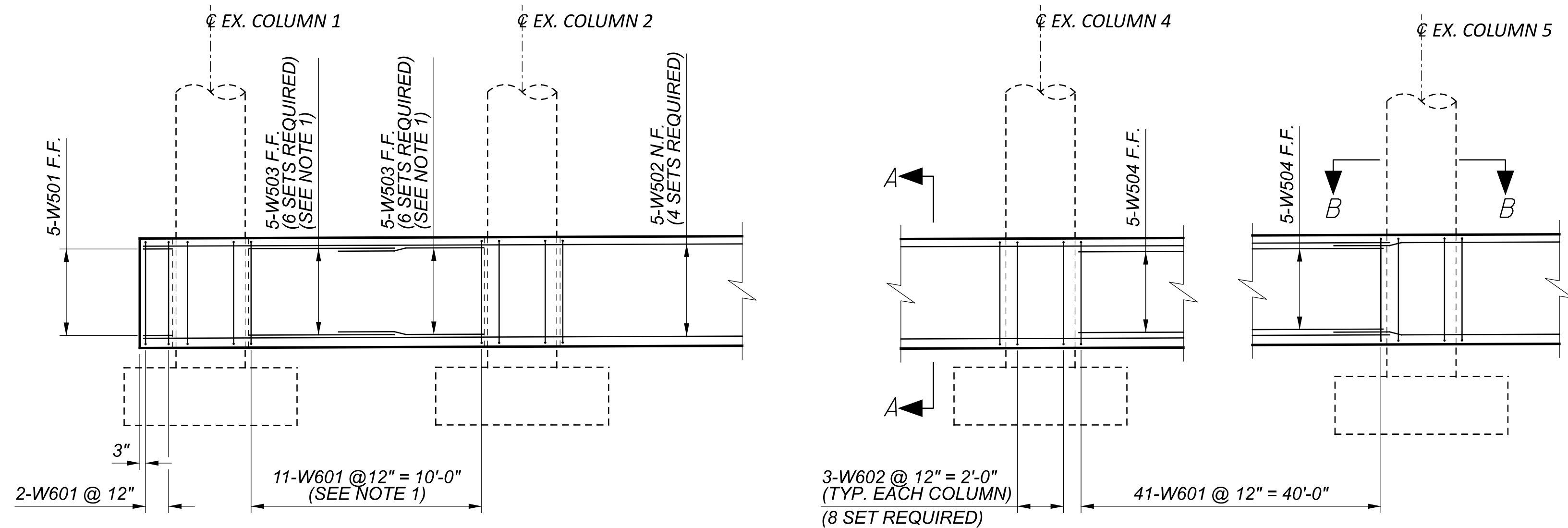
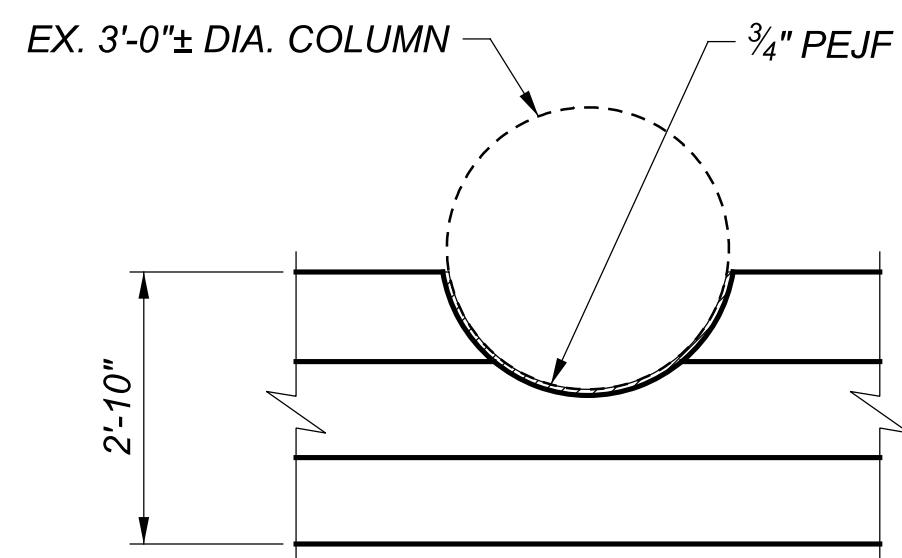
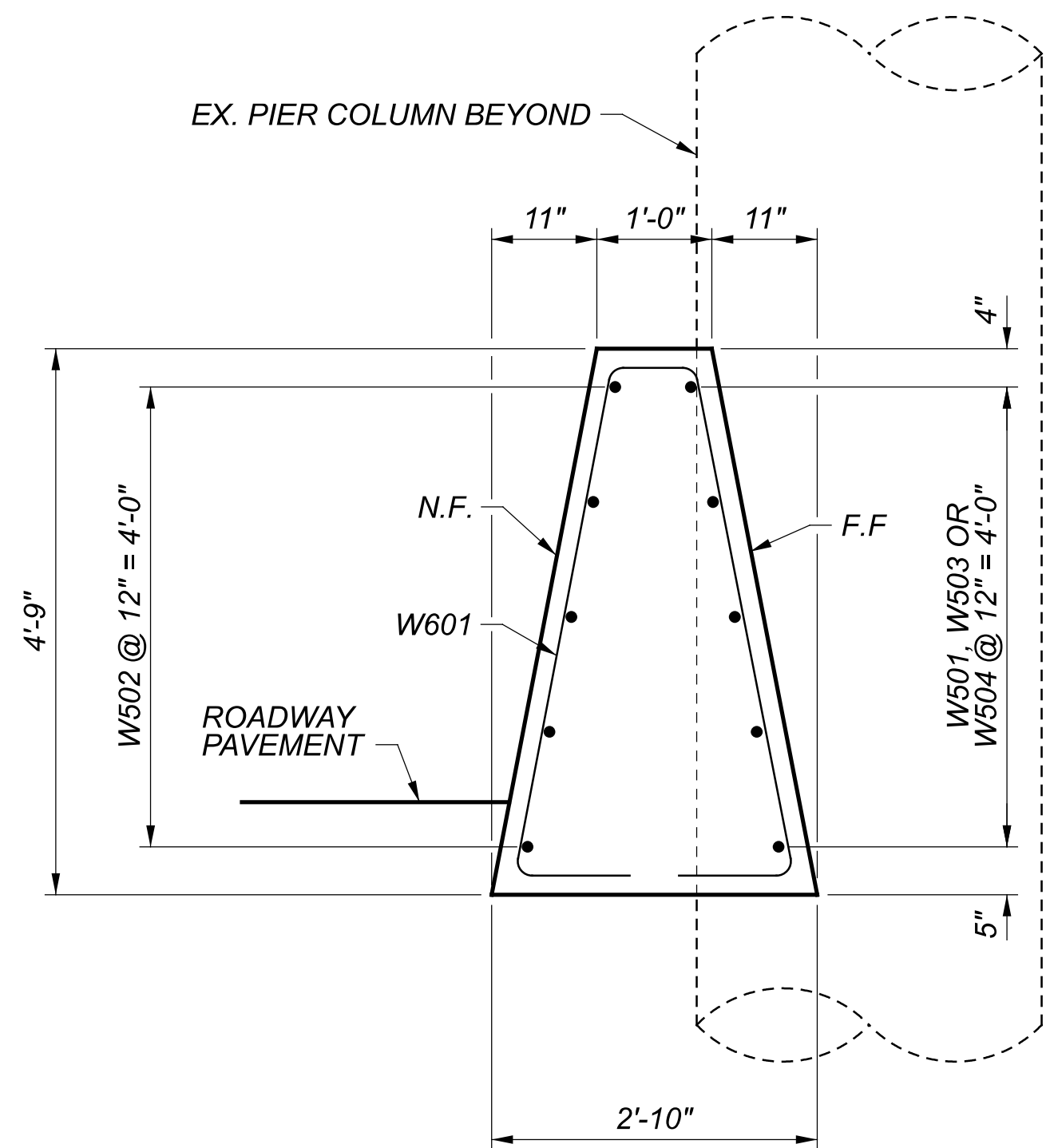
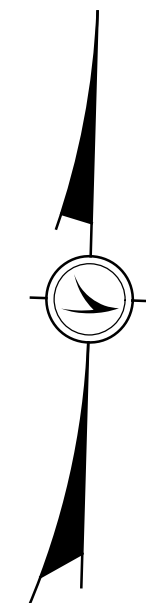
LEGEND:

BTA = BRIDGE TERMINAL ASSEMBLY
SUP = SHARED USE PATH

- PAYMENT FOR CONCRETE BARRIER RETAINING WALL SHALL BE MADE PER LIN. FT. (145 - FT FOR NORTH WALL) OF ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN, AND SHALL INCLUDE ALL MATERIALS, LABOR, AND EQUIPMENT NEEDED TO CONSTRUCT CONCRETE (4.5 KSI COMPRESSIVE STRENGTH), EXCAVATION, REINFORCING STEEL, SEALING AND PEJF REQUIRED TO CONSTRUCT THE BARRIER RETAINING WALL AS SHOWN.
- THE TOTAL QUANTITY FOR THE BARRIER RETAINING WALLS IS 290 LF.

NORTH RETAINING WALL
ALONG SR-95 SHARED-USE-PATH A
STA. 102+31.00 TO STA 103+76.00

SFN	
N/A	
DESIGN AGENCY	
B&N burgessniple.com	
DESIGNER	CHECKER
XAC	KML
REVIEWER	
MAK 03-17-25	
PROJECT ID	
114818	
SUBSET	TOTAL
1	7
SHEET	TOTAL
P.136	142

PLANPARTIAL ELEVATIONSECTION B-BSECTION A-ALAP LENGTH

#5 BAR = 2'-5" MINIMUM

LEGEND:

N.F. = NEAR FACE

F.F. = FAR FACE

PEJF = PREFORMED EXPANSION JOINT FILLER

NOTES:

1. W503 ALONG THE FAR FACE OF THE WALL BETWEEN COLUMNS 1 THROUGH 4 AND COLUMNS 5 THROUGH 8.

2. FOR TRANSITION DETAILS, SEE SHEET 3/7

NORTH RETAINING WALL
ALONG SR-95 SHARED-USE-PATH A
WALL DETAILS

SFN

N/A

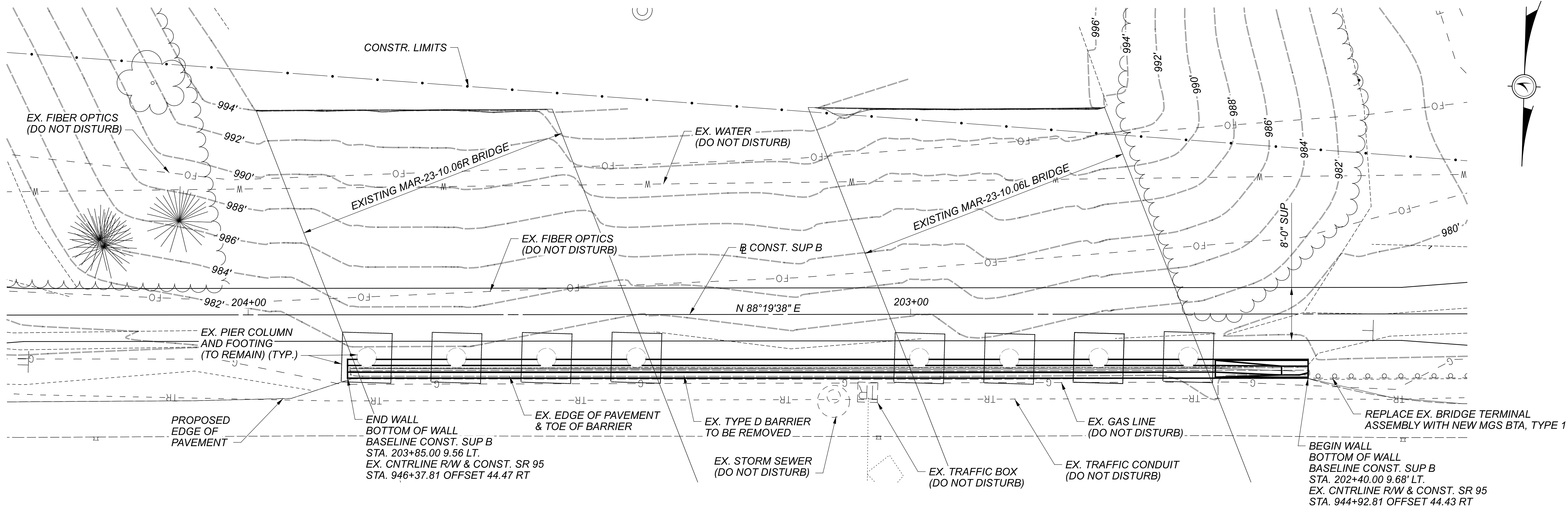
DESIGN AGENCY

B&N
burgessniple.comDESIGNER
XACCHECKER
KMLREVIEWER
MAK 03-17-25PROJECT ID
114818SUBSET
2TOTAL
7SHEET
P.137TOTAL
142

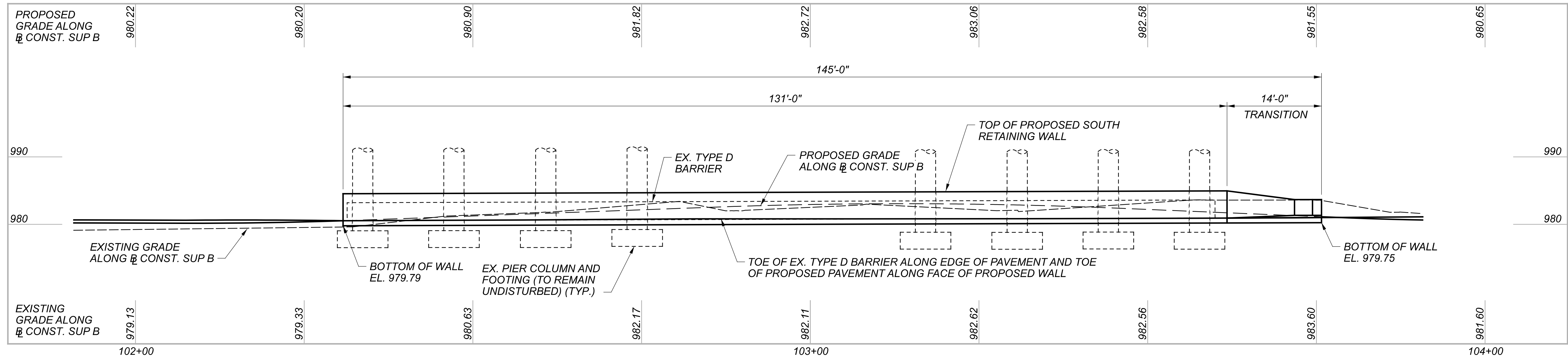


N.F. = NEAR FACE
F.F = FAR FACE
E.F. = EACH FACE
RAD. = RADIUS
O.C.J. = OPTIONAL CONSTRUCTION JOINT
PEJF = PREFORMED EXPANSION JOINT FILLER

1. FOR WALL PLAN VIEW, SEE SHEETS 1/7 AND 4/7.
2. SEAL ALL EXPOSED NEW CONCRETE SURFACES WITH EPOXY URETHANE SEALER, PER ODOT CMS ITEM 512.
3. FOR GUARDRAIL INFORMATION AND ADDITIONAL DETAILS, SEE ODOT STD. DWG. RM-4.6 SHEET 3 OF 3.



PLAN



PROFILE

LEGEND:

BTA = BRIDGE TERMINAL ASSEMBLY
SUP = SHARED USE PATH

NOTES:

- PAYMENT FOR CONCRETE BARRIER RETAINING WALL SHALL BE MADE PER LIN. FT. (145 - FT FOR SOUTH WALL) OF ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN, AND SHALL INCLUDE ALL MATERIALS, LABOR, EQUIPMENT NEEDED TO CONSTRUCT CONCRETE (4.5 KSI COMPRESSIVE STRENGTH), EXCAVATION, REINFORCING STEEL, SEALING AND PEJF REQUIRED TO CONSTRUCT THE BARRIER RETAINING WALL AS SHOWN.

SOUTH RETAINING WALL
ALONG SR-95 SHARED-USE-PATH B
STA 202+40.00 TO STA 203+85.00

SFN	N/A
DESIGN AGENCY	
B&N burgessniple.com	
DESIGNER	CHECKER
XAC	KML
REVIEWER	
MAK	3-17-25
PROJECT ID	114818
SUBSET	TOTAL
4	7
SHEET	TOTAL
P.139	142



PLAN



**SOUTH RETAINING WALL
ALONG SR-95 SHARED-USE-PATH B
WALL DETAILS**

SFN	N/A
DESIGN AGENCY	



DESIGNER	CHECKER
XAC	KML

REVIEWER
MAK 03-17-25

PROJECT ID
114818

SUBSET	TOTAL
5	7

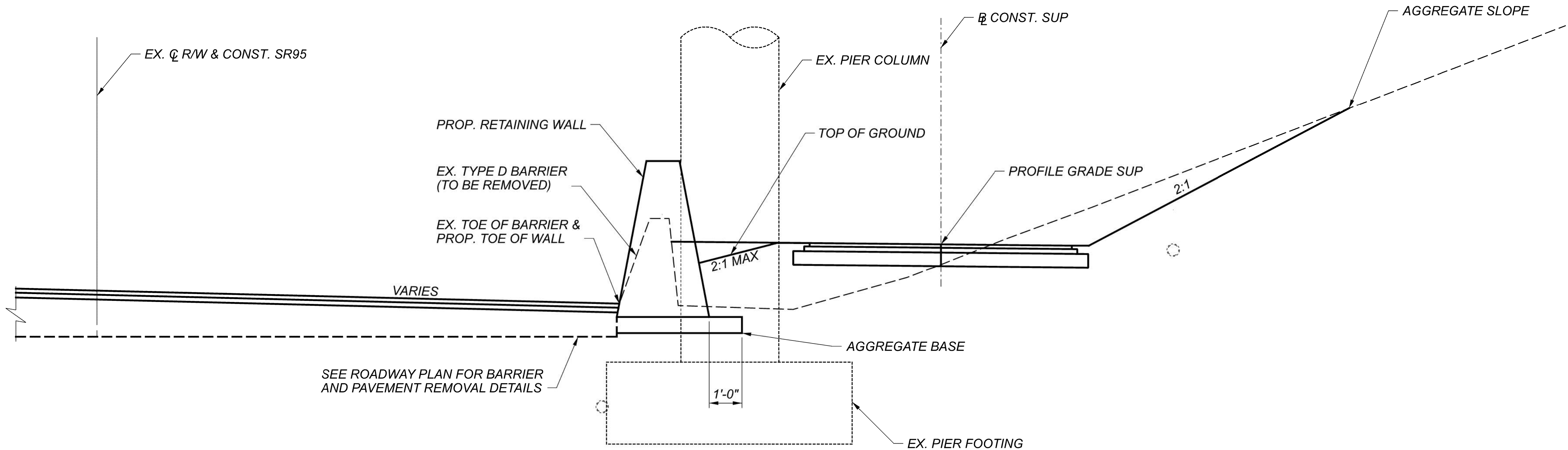
SHEET	TOTAL
P.140	142

LEGEND:

N.F. = NEAR FACE
F.F = FAR FACE
PEJF = PREFORMED EXPANSION JOINT FILLER

NOTES:

1. W503 ALONG THE FAR FACE OF THE WALL BETWEEN COLUMNS 1 THROUGH 4 AND COLUMNS 5 THROUGH 8.
2. FOR TRANSITION DETAILS, SEE SHEET 3/7.

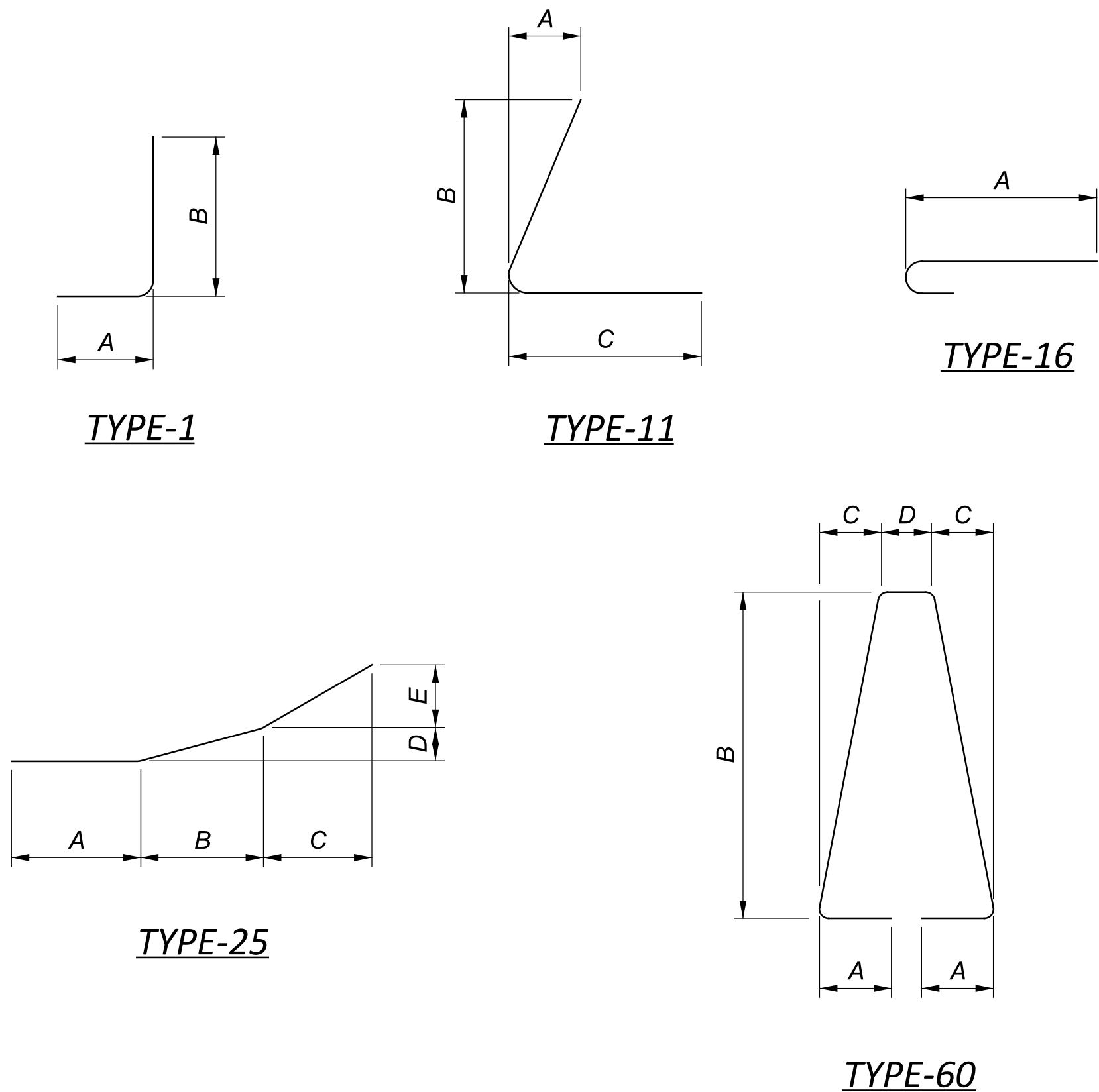


TYPICAL WALL CROSS SECTION
(SOUTH WALL SHOWN,
NORTH WALL SIMILAR)

TYPICAL WALL CROSS SECTION
ALONG SR-95 SHARED-USE-PATH
WALL DETAILS

SFN	
N/A	
DESIGN AGENCY	
B&N burgessniple.com	
DESIGNER	CHECKER
XAC	KML
REVIEWER	
MAK 03-17-25	
PROJECT ID	
114818	
SUBSET	TOTAL
6	7
SHEET	TOTAL
P.141	142

MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
NORTH RETAINING WALL REINFORCING											
W501	5	1'-5"	7	STR							
W502	20	30'-0"	626	STR							
W503	60	8'-0"	501	STR							
W504	10	22'-8"	236	STR							
W505	5	23'-0"	120	STR							
W506	5	6'-6"	34	STR							
W507	12	10'-0"	125	STR							
W508	3	5'-6"	17	25	1'-8"	2'-5"	1'-4"	0'-1 ½"	0'-5"		
W509	7	5'-6"	40	STR							
W601	112	11'-4"	1907	60	1'-0"	4'-5"	0'-10"	0'-8"	0'-10"		
W602	24	5'-3"	189	11	0'-10"	4'-5"	1'-0"				
	2 SR	3'-9"			3'-1"						
W603	OF	TO	146	16	TO						0'-1 ¾"
	11	5'-1"			4'-5"						
W604	8	3'-11"	47	1	1'-0"	3'-1"					
TOTAL			3,995								



MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
SOUTH RETAINING WALL REINFORCING											
W501	5	1'-5"	7	STR							
W502	20	30'-0"	626	STR							
W503	60	8'-0"	501	STR							
W504	10	22'-8"	236	STR							
W505	5	23'-0"	120	STR							
W506	5	6'-6"	34	STR							
W507	12	10'-0"	125	STR							
W508	3	5'-6"	17	25	1'-8"	2'-5"	1'-4"	0'-1 ½"	0'-5"		
W509	7	5'-6"	40	STR							
W601	112	11'-4"	1907	60	1'-0"	4'-5"	0'-10"	0'-8"	0'-10"		
W602	24	5'-3"	189	11	0'-10"	4'-5"	1'-0"				
	2 SR	3'-9"			3'-1"						
W603	OF	TO	146	16	TO						0'-1 ¾"
	11	5'-1"			4'-4"						
W604	8	3'-11"	47	1	1'-0"	3'-1"					
TOTAL			3,995								

NOTES:

1. ALL REINFORCING STEEL TO BE EPOXY COATED.
2. BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS OR NUMBERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

EXAMPLE: W1001
W = WALL BAR
10 = #10 BAR
01 = BAR SEQUENCE NUMBER 1
3. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.
4. STR IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.
5. REINFORCING STEEL SHALL CONFORM TO ODOT CMS 509.