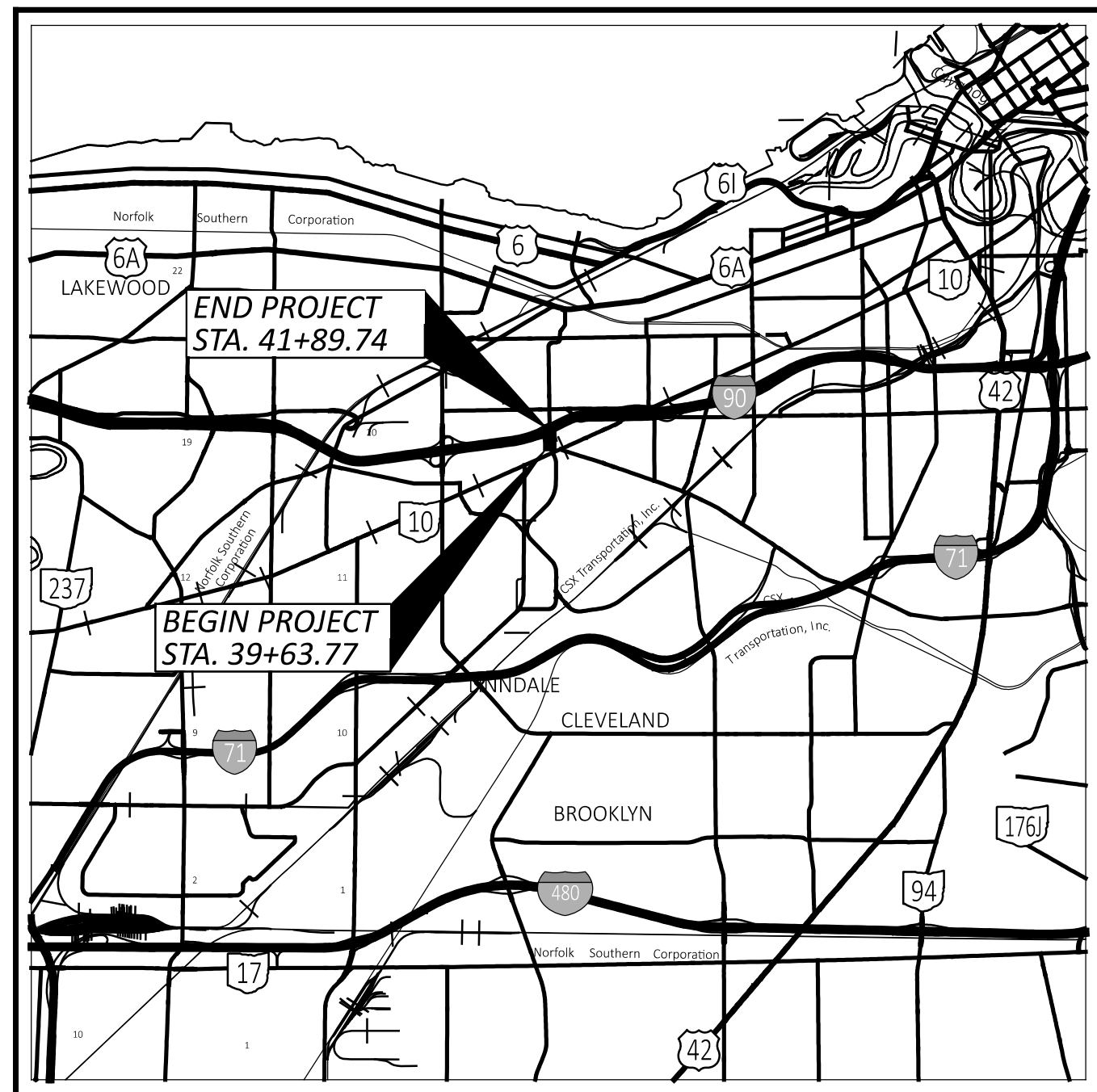


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

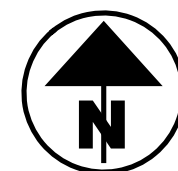
CUY IR 090 11.33 RAMP SAFETY

CITY OF CLEVELAND
CUYAHOGA COUNTY



LOCATION MAP

LATITUDE: 41°28'04"N LONGITUDE: 81°45'20"W



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

DESIGN DESIGNATION

CURRENT ADT (2023)	9,000
DESIGN YEAR ADT (2033)	9,500
DESIGN HOURLY VOLUME (2023)	800
DIRECTIONAL DISTRIBUTION	55%
TRUCKS (24 HOUR B&C)	1%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
URBAN MINOR ARTERIAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE

UNDERGROUND UTILITIES
Contact Two Working Days
Before You Dig

OHIO811.org
Before You Dig

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

PLAN PREPARED BY:



INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC PLAN	2
TYPICAL SECTIONS	3-4
GENERAL NOTES	5-6
MAINTENANCE OF TRAFFIC	7-12
GENERAL SUMMARY	13-14
SUB-SUMMARIES	15-17
PLAN	18
INTERSECTION DETAIL SHEET	19-21
TRAFFIC CONTROL	22-25
SIGNAL PLAN	26-32
LIGHTING PLAN	33-34

FEDERAL PROJECT NUMBER

N/A

RAILROAD INVOLVEMENT

N/A

PROJECT DESCRIPTION

CONSTRUCTION OF A SPLITTER ISLAND AND MEDIAN AT THE INTERSECTION OF THE I-90 OFF RAMP WITH WEST BOULEVARD. WORK INCLUDES PAVEMENT WIDENING, TRAFFIC SIGNAL REPLACEMENT AND TRAFFIC CONTROL.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	0.09 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.13 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

John Picuri, P.E., S.I.
District 12 Deputy Director

Jack Marchbanks, PhD
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-1.1	07/28/00	TC-41.41	07/19/19	HL-10.11	07/15/22	800	04/21/23		
BP-2.1	01/21/22	TC-41.50	10/18/13	HL-30.11	01/15/21	805	07/16/10		
BP-2.2	01/15/21	TC-42.20	10/18/13	HL-30.22	01/15/21	813	10/19/18		
BP-2.5	01/21/22	TC-65.10	01/17/14	HL-60.11	07/21/17	832	07/21/23		
BP-3.1	01/21/22	TC-65.11	07/15/22			903	07/20/12		
BP-5.1	07/15/22	TC-71.10	04/21/23	MT-95.30	07/19/19	913	04/16/21		
BP-7.1	01/20/23	TC-73.20	01/17/20	MT-98.10	01/17/20	1126	04/19/19		
F-1.1	07/19/13	TC-74.10	01/20/23	MT-98.29	01/17/20				
		TC-81.22	04/21/23	MT-101.60	04/21/23				
DM-4.4	01/15/16	TC-83.10	01/17/20	MT-101.90	07/17/20				
		TC-83.20	07/15/22	MT-110.10	07/19/13				
TC-12.31	04/15/22	TC-85.10	10/21/22						
TC-21.21	01/20/23	TC-85.20	04/21/23						
TC-41.20	10/18/13								
TC-41.30	04/21/23								
TC-41.40	10/18/13								

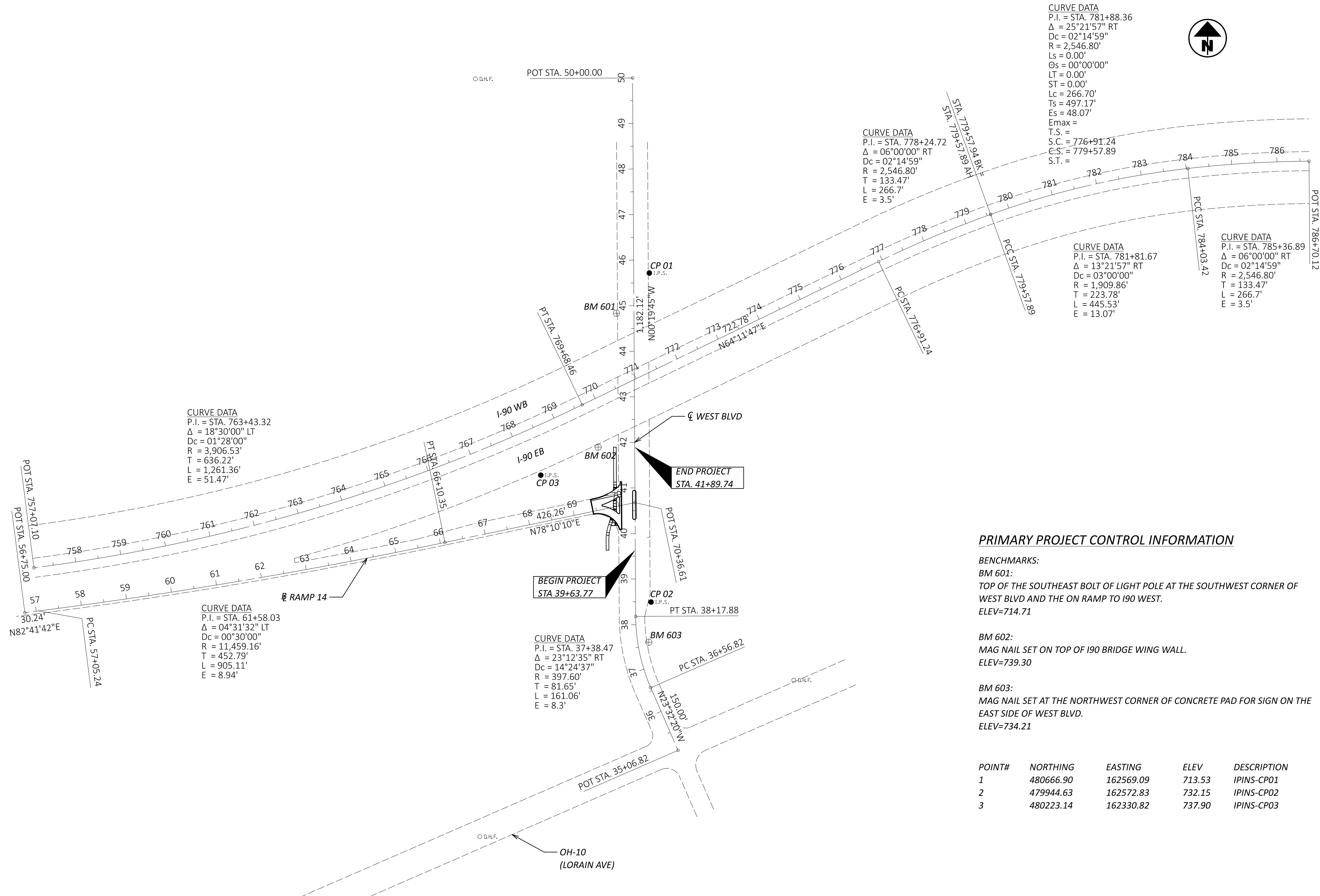
ENGINEER'S SEAL	ENGINEER'S SEAL
ENTIRE PLAN EXCEPT TRAFFIC SIGNALS & LIGHTING 	TRAFFIC SIGNALS & LIGHTING

TITLE SHEET

DESIGN AGENCY	
WSP USA, Inc. 1660 W 2nd St, Suite 820 Cleveland, OH 44113	
DESIGNER	
SAT	
REVIEWER	
SIG 05/10/23	
PROJECT ID	
119472	
SHEET	TOTAL
P.01	34

CUY-90-11.33

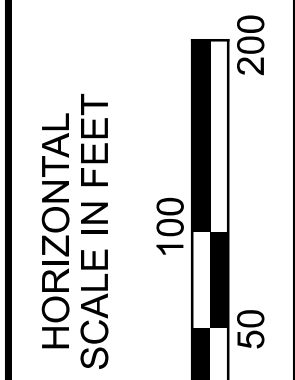
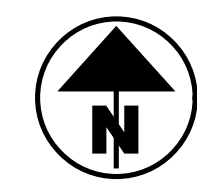
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PRIMARY PROJECT CONTROL INFORMATION

- BENCHMARKS:**
- BM 601:**
TOP OF THE SOUTHEAST BOLT OF LIGHT POLE AT THE SOUTHWEST CORNER OF WEST BLVD AND THE ON RAMP TO I90 WEST.
ELEV=714.71
 - BM 602:**
MAG NAIL SET ON TOP OF I90 BRIDGE WING WALL.
ELEV=739.30
 - BM 603:**
MAG NAIL SET AT THE NORTHWEST CORNER OF CONCRETE PAD FOR SIGN ON THE EAST SIDE OF WEST BLVD.
ELEV=734.21

POINT#	NORTHING	EASTING	ELEV	DESCRIPTION
1	480666.90	162569.09	713.53	IPINS-CP01
2	479944.63	162572.83	732.15	IPINS-CP02
3	480223.14	162330.82	737.90	IPINS-CP03



SCHEMATIC PLAN

DESIGN AGENCY

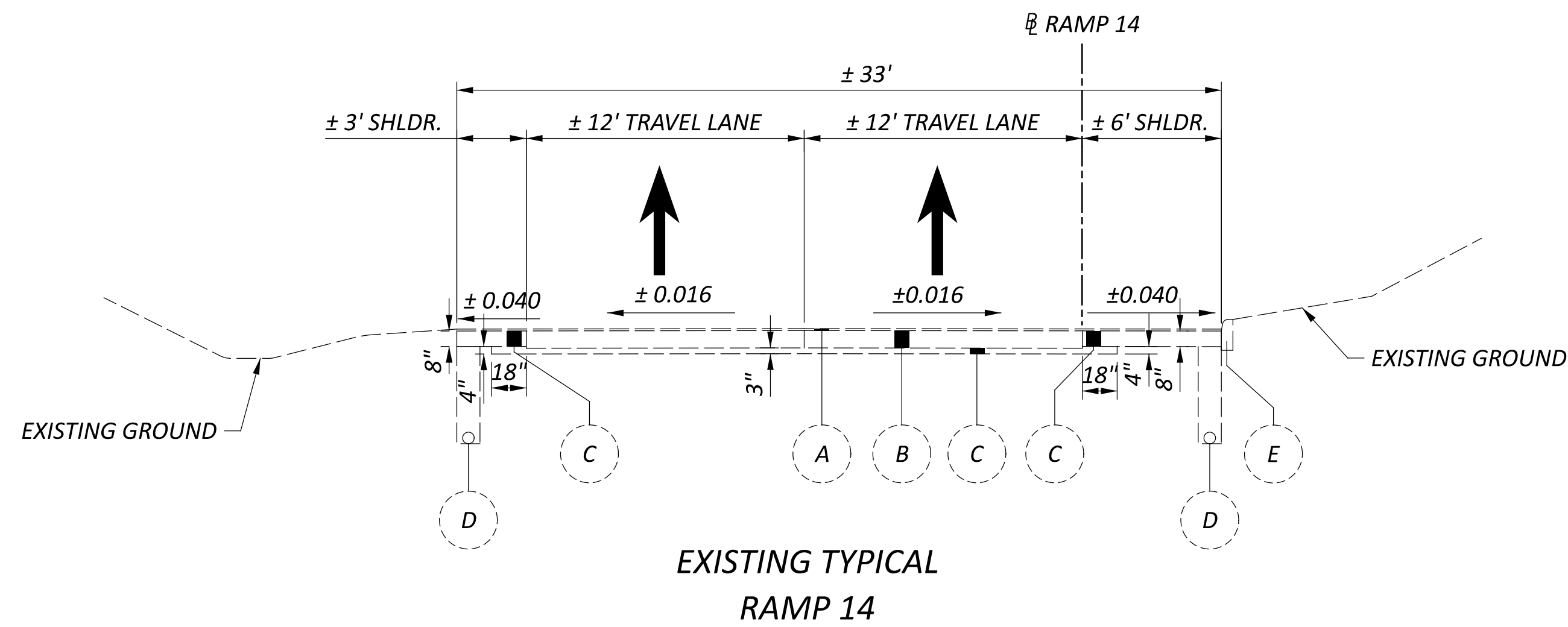
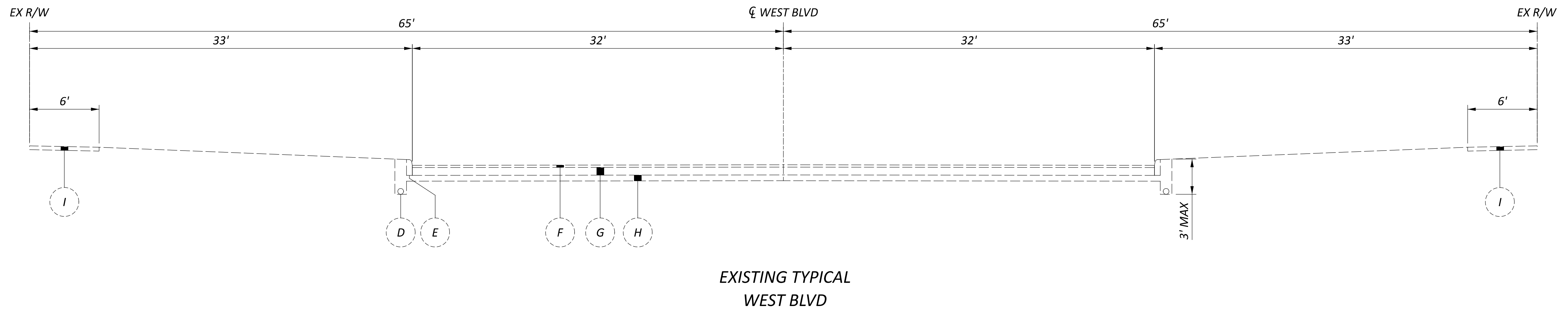
 WSP USA, Inc.
 1660 W 2nd St,
 Suite 820
 Cleveland, OH 44113

DESIGNER
 DDS

REVIEWER
 SAT 05/11/23

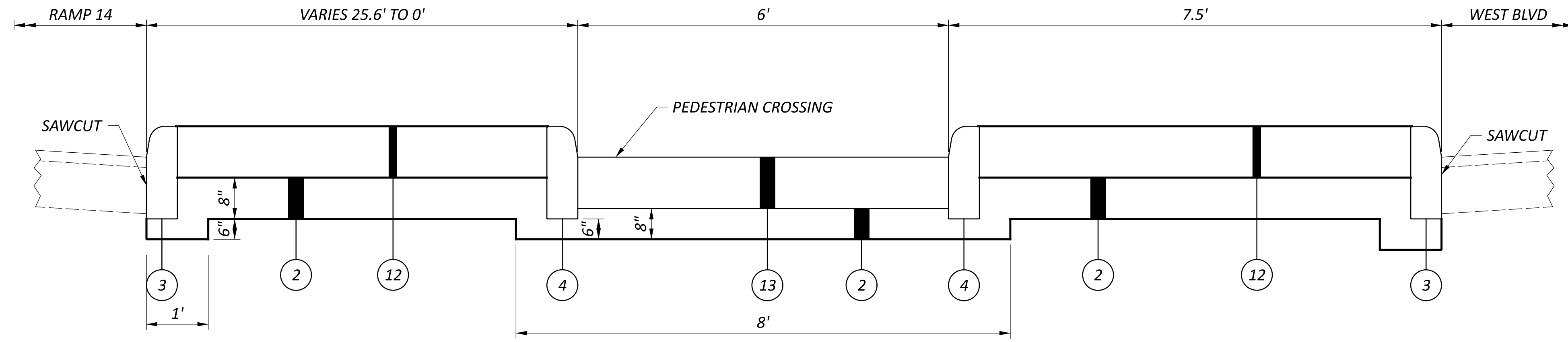
PROJECT ID
 119472

SHEET TOTAL
 P.02 34

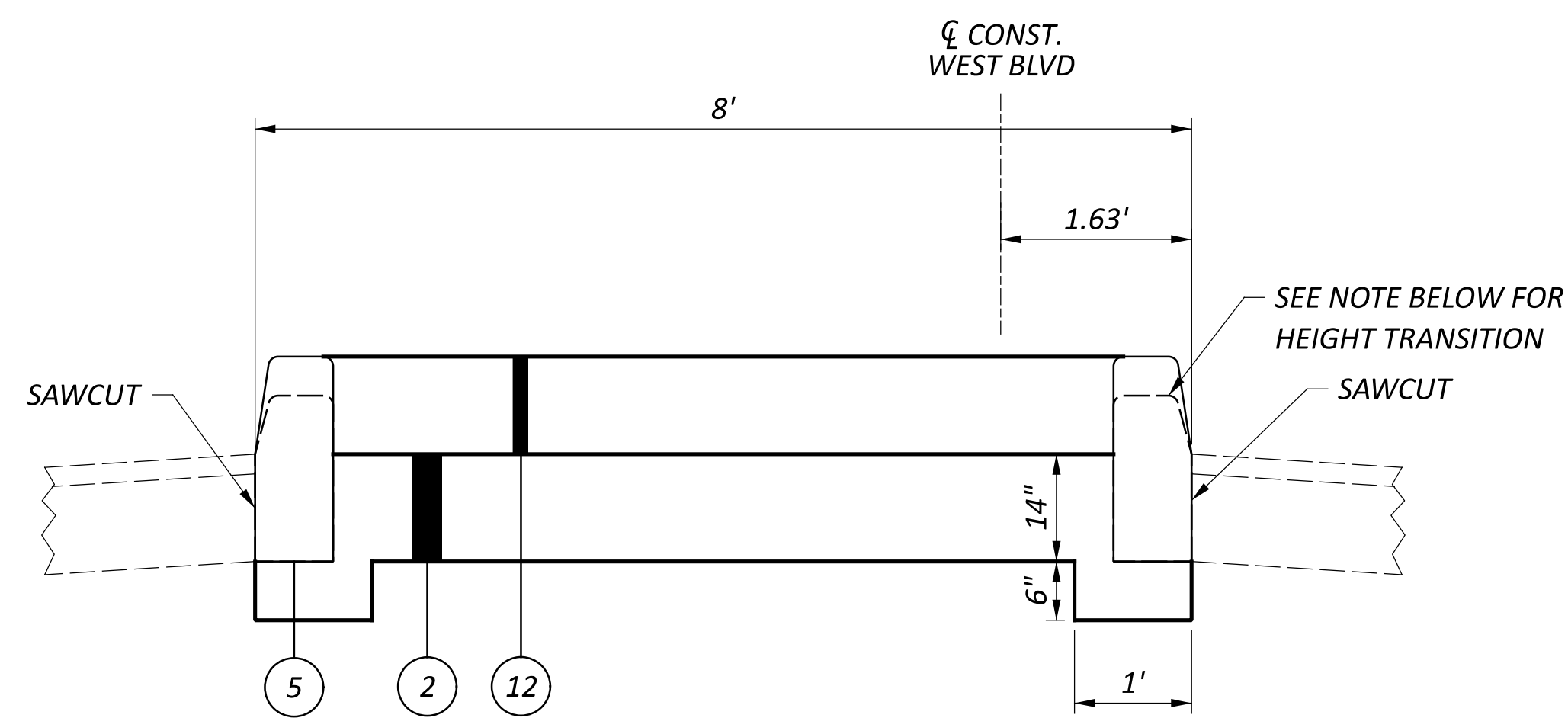


LEGEND

- (A) ASPHALT CONCRETE SURFACE (VARIES 2.5" ±)
- (B) 9" REINFORCED CONCRETE
- (C) ASPHALT CONCRETE BASE (VARIES)
- (D) 6" PIPE UNDERDRAINS
- (E) CONCRETE CURB
- (F) ASPHALT CONCRETE (2.5")
- (G) 8" CONCRETE
- (H) AGGREGATE BASE (6")
- (I) SIDEWALK

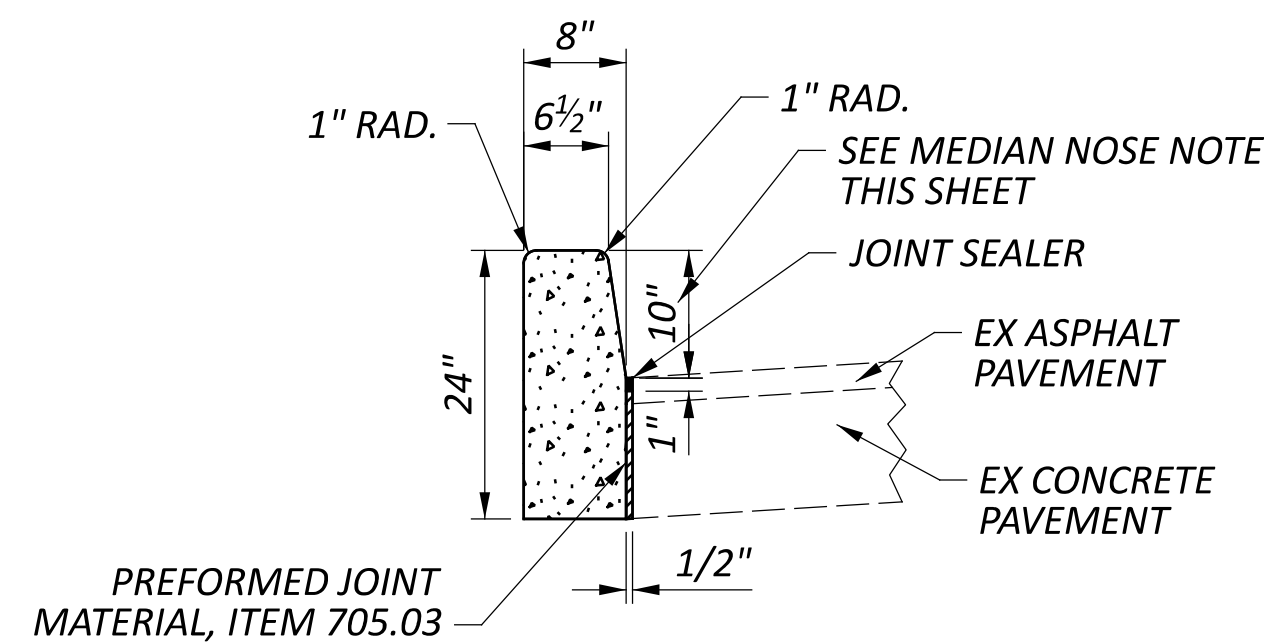


**RAMP 14 SPLITTER ISLAND SECTION
LOOKING NORTH**



WEST BLVD MEDIAN SECTION

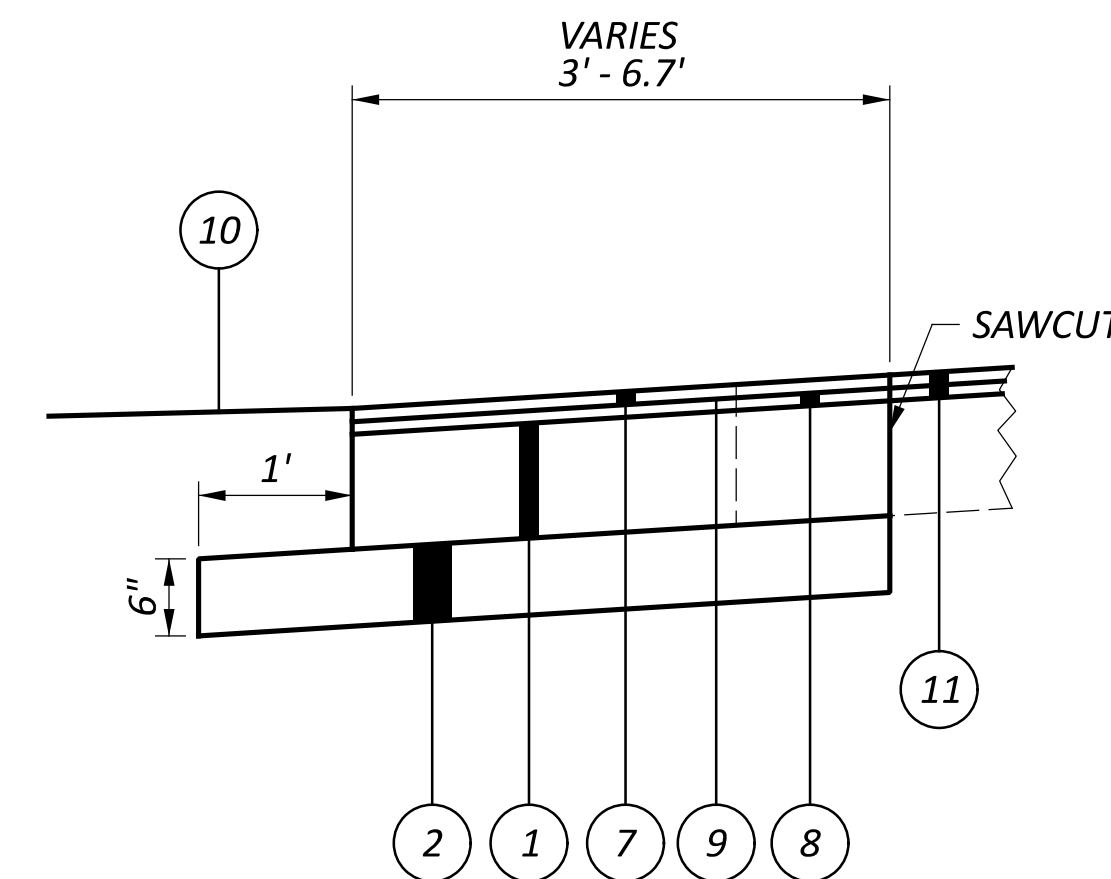
MEDIAN NOSE RAMP SHALL BE AS SHOWN ON SCD RM-3.1 EXCEPT AS NOTED HERE. CURB SHALL BE ITEM 609 - CURB, TYPE 7, AS PER PLAN. HEIGHT OF CURB FACE AT END OF NOSE RADIUS SHALL BE 6" AND TRANSITION TO A HEIGHT OF 10" OVER A LENGTH OF 10' ALONG MEDIAN CENTERLINE.



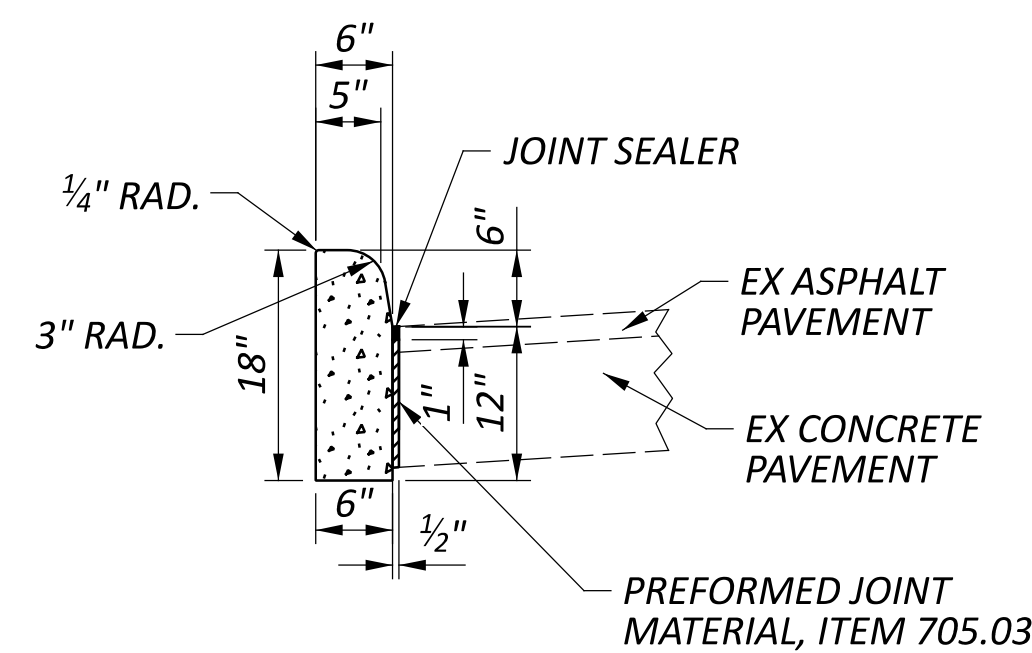
ITEM 609 - CURB, TYPE 7, AS PER PLAN

THE CONTRACTOR SHALL PLACE ITEM 609- CURB, TYPE 7, AS PER PLAN IN ACCORDANCE WITH ITEM 609, ODOT SCD BP-5.1 AND THE DETAIL ABOVE. THE CONTRACTOR SHALL INSTALL A BUTT JOINT BETWEEN THE EXISTING PAVEMENT AND THE CURB WITH TIE BARS OR HOOK BOLTS AT INTERVALS OF 5'. SEE ODOT SCD BP-2.1 FOR DETAILS OF THE TIE BARS AND HOOK BOLTS.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER FOOT FOR ITEM 609 - CURB, TYPE 7, AS PER PLAN.



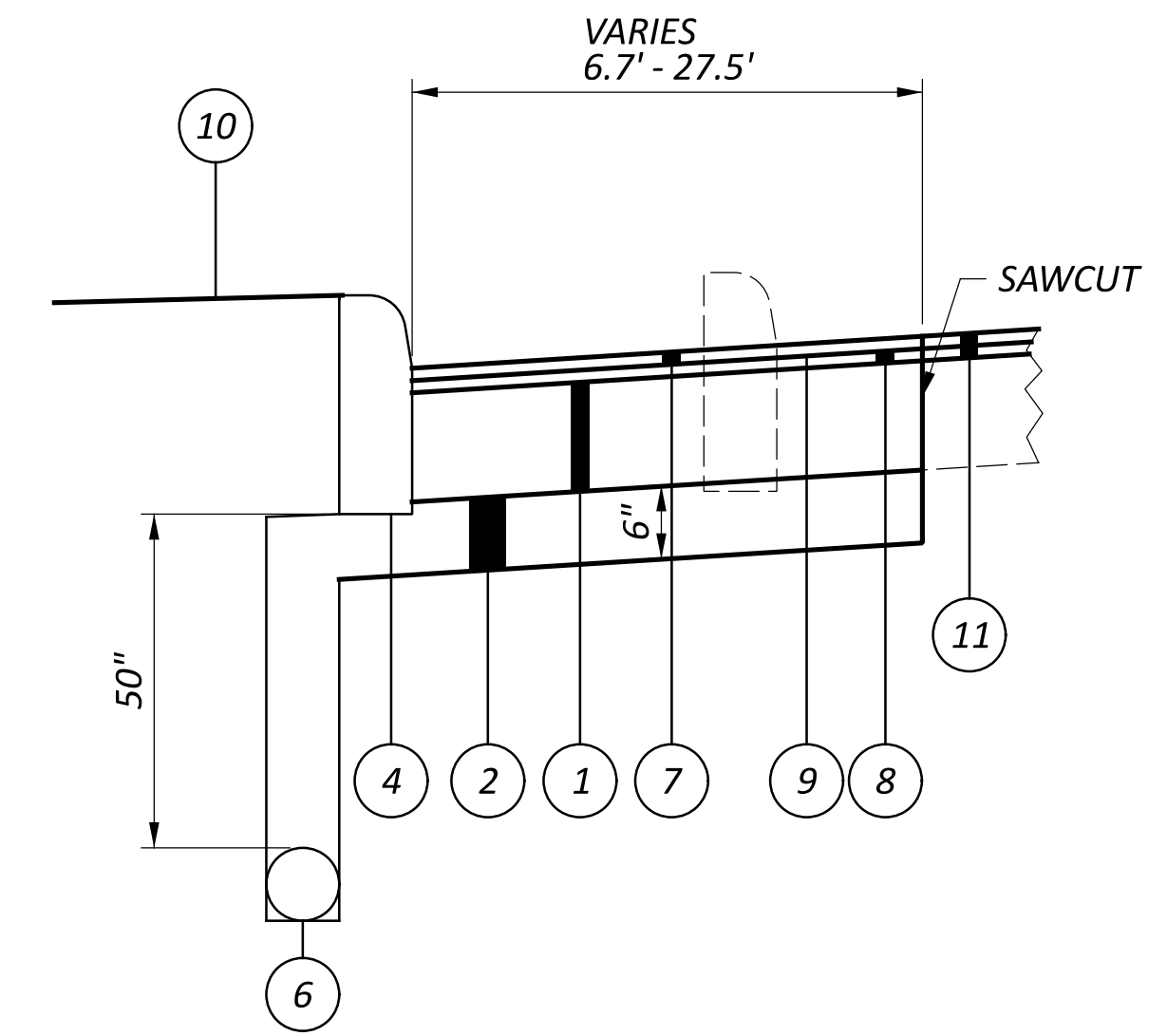
RAMP 14 WIDENING WITHOUT CURB



ITEM 609 - CURB, TYPE 6, AS PER PLAN

THE CONTRACTOR SHALL PLACE ITEM 609- CURB, TYPE 6, AS PER PLAN IN ACCORDANCE WITH ITEM 609, ODOT SCD BP-5.1 AND THE DETAIL ABOVE. THE CONTRACTOR SHALL INSTALL A BUTT JOINT BETWEEN THE EXISTING PAVEMENT AND THE CURB WITH TIE BARS OR HOOK BOLTS AT INTERVALS OF 5'. SEE ODOT SCD BP-2.1 FOR DETAILS OF THE TIE BARS AND HOOK BOLTS.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER FOOT FOR ITEM 609 - CURB, TYPE 6, AS PER PLAN.



RAMP 14 WIDENING WITH CURB

LEGEND

- 1 ITEM 305 - 9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN
- 2 ITEM 304 - AGGREGATE BASE
- 3 ITEM 609 - CURB, TYPE 6, AS PER PLAN
- 4 ITEM 609 - CURB, TYPE 6
- 5 ITEM 609 - CURB, TYPE 7, AS PER PLAN
- 6 ITEM 605 - 6" DEEP PIPE UNDERDRAINS
- 7 ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, 449 (1.25" THICKNESS)
- 8 ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, 449 (1.75" THICKNESS)
- 9 ITEM 407 - TACK COAT
- 10 ITEM 659 - SEEDING AND MULCHING
- 11 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3" THICKNESS)
- 12 ITEM 451 - REINFORCED CONCRETE PAVEMENT, MISC.: 10" THICK COLORED AND STAMPED (SEE GENERAL NOTES FOR DETAILS)
- 13 ITEM 608 - CURB RAMP, AS PER PLAN

UTILITIES

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

AT&T (FORMERLY SBC)
13630 LORAIN AVE. – 2ND FLOOR
CLEVELAND, OHIO 44111
ATTN: JAMES JANIS
PHONE: (216) 534-7285
EMAIL: PJ8191@ATT.COM

CEI FIRST ENERGY
THE ILLUMINATING COMPANY
6896 MILLER ROAD, SUITE 101
BRECKSVILLE, OH 44141
ATTN: JOHN M. ZASSICK
PHONE: (440) 546-8706
EMAIL: JMZASSICK@FIRSTENERGYCORP.COM

CITY OF CLEVELAND
DIVISION OF TRAFFIC ENGINEERING
601 LAKESIDE AVE., ROOM 25
CLEVELAND, OHIO 44114
ATTN: ANDREW R. CROSS
PHONE: (216) 664-3197
EMAIL: ACROSS@CITY.CLEVELAND.OH.US

CITY OF CLEVELAND
DIVISION OF CLEVELAND PUBLIC POWER (MELP)
1300 LAKESIDE AVE., ROOM 152
CLEVELAND, OHIO 44114
ATTN: CHRISTOPHER M. HIRZEL
PHONE: (216) 563-7212
EMAIL: CHIRZEL@CPP.ORG

CITY OF CLEVELAND
DIVISION OF WATER
1201 LAKESIDE AVE.
CLEVELAND, OHIO 44114
ATTN: FRED ROBERTS
PHONE: (216) 664-2444 EXT. 75590
EMAIL: FRED.ROBERTS@CLEVELANDWATER.COM

CITY OF CLEVELAND
DIVISION OF WATER POLLUTION CONTROL
12302 KIRBY ROAD
CLEVELAND, OHIO 44108
ATTN: ALAN SCHIELY
PHONE: (216) 664-3638
EMAIL: ASCHIELY@CLEVELANDWPC.COM

DOMINION ENERGY OHIO GAS COMPANY
320 SPRINGSIDE DR., SUITE 320
AKRON, OHIO 44333
EMAIL: RELOCATION@DOMINIONENERGY.COM

VERIZON BUSINESS
120 RAVINE ST.
AKRON, OHIO 44303
ATTN: AL GUEST
PHONE: (330) 622-5967
EMAIL: ALLAN.GUEST@VERIZON.COM

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

EXISTING PLANS

EXISTING PLANS ENTITLED CUY-90-10.40 MAY BE INSPECTED IN THE ODOT DISTRICT 12 OFFICE IN GARFIELD HEIGHTS, OH.

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 7:00 AM AND 7:00PM. 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.

SURVEYING PARAMETERS

THE FOLLOWING VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS WERE USED FOR ALL SURVEYING ON THIS PROJECT:

POSITIONING METHOD: ODOT REAL TIME VRS GPS NETWORK (2011) / CONVENTIONAL
MONUMENT TYPE: MAG NAILS / IRON PINS

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 18

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83 (2011 ADJ, 2010.0)
ELLIPSOID: GRS 80
COORDINATE SYSTEM: CUSTOM O.D.O.T CUYAHOGA LDP*
CUYAHOGA LDP PROJECTION PARAMETERS:

PROJECTION: TRANSVERSE MERCATOR
CENTRAL LATITUDE: N 40°09'00"
CENTRAL LONGITUDE: W 81°45'00"
FALSE NORTHING: 0 METERS
FALSE EASTING: 50,000 METERS
PROJECTION SCALE FACTOR: 1.000029

*THE LOW DISTORTION PROJECTION (LDP) IS A LOCAL COUNTY PROJECTION DEVELOPED BY O.D.O.T. THE DISTORTION BETWEEN GROUND AND GRID IS SO MINIMAL THAT THERE IS NO NEED FOR A SCALE FACTOR TO ADJUST BETWEEN GRID AND GROUND COORDINATES. CONTACT THE DISTRICT SURVEY DEPARTMENT FOR FURTHER INFORMATION OR QUESTIONS.

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

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.

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.

SEEDING AND MULCHING

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

659, TOPSOIL	14 CU. YD.
659, SEEDING AND MULCHING	122 SQ. YD.
659, COMMERCIAL FERTILIZER	0.02 TON
659, LIME	0.03 ACRES
659, WATER	0.01 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.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING

WHERE NEW CONCRETE IS PLACED ADJACENT TO AND TIED TO EXISTING CONCRETE, THE CONTRACTION JOINT SPACING REQUIRED IN STANDARD CONSTRUCTION DRAWING BP-2.2 WILL BE WAIVED. CONSTRUCT CONTRACTION JOINTS IN THE NEW CONCRETE PAVEMENT TO FORM A CONTINUOUS LINE WITH ALL CONTRACTION JOINTS IN THE EXISTING CONCRETE PAVEMENT. INSTALL EXPANSION JOINTS IN THE NEW CONCRETE PAVEMENT TO FORM A CONTINUOUS LINE WITH ALL EXPANSION JOINTS IN THE EXISTING CONCRETE PAVEMENT.

INTERIM COMPLETION DATES

APRIL 30, 2024 CONSTITUTES AN INTERIM COMPLETION DATE FOR LONG-TERM LANE CLOSURES PERMITTED IN THE PLANS AND THE COMPLETION OF THE FOLLOWING:

1. ALL PROPOSED ROADWAY AND PAVEMENT WORK, INCLUDING PROPOSED SIDEWALK AND CURB RAMP REPLACEMENT
2. SIGN REMOVALS AND INSTALLATIONS
3. ALL WORK NECESSARY TO MAINTAIN ACTUATED PEDESTRIAN CROSSINGS AT THE INTERSECTION VIA PEDESTRIAN PUSHBUTTONS AND PEDESTRIAN SIGNAL HEADS

JUNE 30, 2024 CONSTITUTES AN INTERIM COMPLETION DATE FOR PROPOSED TRAFFIC SIGNAL IMPROVEMENTS AND REMOVALS.

INCENTIVE/DISINCENTIVE CONTRACT

THIS PROJECT UTILIZES AN INCENTIVE/DISINCENTIVE CONTRACT. THE CONTRACTOR SHALL COMPLETE ALL PROPOSED WORK, EXCEPT TRAFFIC SIGNAL WORK, AS SPECIFIED IN THE TABLE BELOW. PROPOSED SIGNAL REPLACEMENT, INCLUDING ACTIVATION AND REMOVAL OF EXISTING SIGNAL AND APPURTENANCES SHALL BE COMPLETED NO LATER THAN JUNE 30, 2024.

DESCRIPTION OR LOCATION OF CRITICAL WORK	COMPLETION DATE	TIME PERIOD	DISINCENTIVE \$ PER TIME PERIOD	INCENTIVE \$ PER TIME PERIOD	MAXIMUM INCENTIVE \$
ALL WORK AS SHOWN IN THE PLANS AND DETAILED IN THESE NOTES EXCEPT FOR INSTALLATION OF PROPOSED TRAFFIC SIGNAL AND REMOVAL OF EXISTING TRAFFIC SIGNAL.	10/15/2023	DAY	\$5,000	\$3,500	\$20,000

ITEM 608 - CURB RAMP, AS PER PLAN

THE CONTRACTOR SHALL PLACE ITEM 608- CURB RAMP, AS PER PLAN IN ACCORDANCE WITH ODOT CMS ITEM 608 AND SCD BP-7.1 EXCEPT THAT THE CONCRETE THICKNESS SHALL BE 10".

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 608 - CURB RAMP, AS PER PLAN.

ITEM 305 - 9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN

THE CONTRACTOR SHALL PLACE ITEM 305- 9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN IN ACCORDANCE WITH ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) ITEM 305 AND ITEM 499. THE CONTRACTOR MAY USE CLASS QC MS CONCRETE AS LONG AS ALL REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 1126 ARE MET.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 305 - 9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN.

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE. UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

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

ITEM 605, 6" DEEP PIPE UNDERDRAINS 40 FT.

TEMPORARY PAVEMENT MARKINGS

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE EVENT THAT FINAL THERMOPLASTIC PAVEMENT MARKINGS CANNOT BE PLACED PRIOR TO THE INTERIM COMPLETION DATE OF OCTOBER 31, 2023. THESE ITEMS SHALL ONLY BE USED WITH THE APPROVAL AND DIRECTION OF THE ENGINEER AND THEY ARE NOT A SUBSTITUTE FOR THE THERMOPLASTIC PAVEMENT MARKINGS. THERMOPLASTIC PAVEMENT MARKINGS SHALL BE PLACED PRIOR TO THE JUNE 30, 2024 COMPLETION DATE OF THE PROJECT.

ITEM 642 - CENTER LINE	1 MILE
ITEM 642 - CHANNELIZING LINE, 8"	147 FT
ITEM 642 - STOP LINE	90 FT
ITEM 642 - CROSSWALK LINE, 12"	221 FT
ITEM 642 - LANE ARROW	4 EACH
ITEM 642 - ISLAND MARKING	188 SF

DESIGN AGENCY



WSP USA, Inc.
1660 W 2nd St,
Suite 820
Cleveland, OH 44113

DESIGNER

SAT

REVIEWER

SJG 05/12/23

PROJECT ID

119472

SHEET

P.05

TOTAL

34

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE CITY TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

SIDEWALK PERMIT

A PERMIT FOR THE SIDEWALK IMPROVEMENTS MUST BE OBTAINED BY THE CONTRACTOR FROM THE CITY OF CLEVELAND DIRECTOR OF PUBLIC SERVICE IN ACCORDANCE WITH CHAPTER 505 OF THE CITY CODE OF ORDINANCES.

NOTIFICATION

THE CONTRACTOR SHALL NOTIFY IN WRITING THE FOLLOWING AGENCIES AT LEAST TWO WEEKS PRIOR TO THE START OF CONSTRUCTION, AND AT LEAST SEVEN (7) CALENDAR DAYS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING ANY STREET TO TRAFFIC:

CITY OF CLEVELAND:
DIVISION OF ENGINEERING AND CONSTRUCTION 216-664-2381
DIVISION OF STREETS 216-664-2150
DIVISION OF TRAFFIC ENGINEERING 216-664-3194

CITY OF CLEVELAND DEPARTMENT OF PUBLIC SAFETY:
DIVISION OF EMERGENCY MEDICAL SERVICE (EMS) 216-664-2066
DIVISION OF FIRE 216-664-6800
DIVISION OF POLICE 216-664-1234

CONTRACTOR'S USE OF CITY RIGHT-OF-WAY

THE CONTRACTOR SHALL NOT BORROW FROM A SITE KNOWN OR SUSPECTED OF HAVING CONTAMINATED SOIL OR WATER. THE CONTRACTOR SHALL NOT UTILIZE ANY RIGHT-OF-WAY FOR STAGING OR STORAGE OF EQUIPMENT OR MATERIAL WITHOUT WRITTEN PERMISSION BY THE ENGINEER.

PERMIT

IN THE CITY OF CLEVELAND, ALL PERMITS MUST BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES PRIOR TO BEGINNING ANY WORK WITHIN THE CITY OF CLEVELAND RIGHT-OF-WAY. PERMITS INCLUDE BUT ARE NOT LIMITED TO STREET OPENING PERMIT, OVERLOAD PERMIT, OBSTRUCTION PERMIT AND/OR SIDEWALK PERMIT AND MAY BE OBTAINED THROUGH THE FOLLOWING CONTACT:

TRAVIS EVANS
DEPARTMENT OF FINANCE
DIVISION OF ASSESSMENTS AND LICENSES
601 LAKESIDE AVENUE, ROOM 122
CLEVELAND, OHIO 44114
PHONE: (216) 664-2174
EMAIL: DALPERMITS@CITY.CLEVELAND.OH.US

ALL STREET OPENING REPAIRS, CURB REPAIRS, AND/OR SIDEWALK REPAIRS EITHER INCIDENTAL TO THE PROJECT OR PART OF THE PROJECT MUST BE PERFORMED IN ACCORDANCE TO CITY OF CLEVELAND STANDARDS. A COPY OF THE STANDARDS CAN BE OBTAINED ON-LINE UNDER THE "FORMS AND PUBLICATIONS" TAB OF THE CAPITAL PROJECTS WEBSITE OR FROM THE DIVISION OF ENGINEERING AND CONSTRUCTION BY CALLING (216) 664-2381.

ALL PERMITS, FEES AND CHARGES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THEIR ASSOCIATED COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE PERTINENT WORK ITEMS. FOR BIDDING PURPOSES, THE FOLLOWING FEES AND CHARGES HAVE BEEN ESTIMATED BY THE CITY OF CLEVELAND DIVISION OF ENGINEERING AND CONSTRUCTION ON BEHALF OF THE DIVISION OF ASSESSMENTS AND LICENSES (DAL): \$ 750.00

DAL HAS ASSIGNED STP NUMBER _____ TO THIS PROJECT. THE CONTRACTOR SHALL CONTACT DAL AS DESCRIBED ABOVE, USING THE GIVEN STP NUMBER FOR REFERENCE. UPON RECEIPT OF PAYMENT, DAL WILL ISSUE THE PERMIT.

REINFORCED CONCRETE PAVEMENT, MISC.:

10" THICK COLORED AND STAMPED
AS SPECIFIED ON THE PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL COLORED AND STAMPED REINFORCED CONCRETE AS PER THE DETAIL IN THE DRAWINGS AND AS SPECIFIED HEREIN.

FURNISHING AND INSTALLATION OF THE INTEGRALLY COLORED CONCRETE ADMIXTURE AND STAMPING OF THE CONCRETE SHALL BE IN CONFORMANCE WITH THE FOLLOWING SPECIFICATION:

1. MATERIALS

THE ADMIXTURE SHALL BE A COLORED, WATER-REDUCING ADMIXTURE CONTAINING NO CALCIUM CHLORIDE WITH COLORING AGENTS THAT ARE LIMEPROOF AND UV RESISTANT. THE COLORED ADMIXTURE SHALL CONFORM TO THE FOLLOWING:

- A. ASTM C979 – STANDARD SPECIFICATION FOR PIGMENTS FOR INTEGRALLY COLORED CONCRETE
- B. ASTM C494 – STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR CONCRETE
- C. AASHTO M194 – CHEMICAL ADMIXTURES

2. CURING COMPOUND

CURING COMPOUND SHALL COMPLY WITH ASTM C309 AND BE APPROVED BY COLOR ADDITIVE MANUFACTURER FOR USE WITH COLORED CONCRETE.

3. EXPANSION JOINT SEALANT

JOINT SEALERS SHALL BE COLOR-MATCHED TO THE CONCRETE AND SPECIALLY FORMULATED FOR HIGH-PERFORMANCE VEHICULAR TRAFFIC AREAS.

4. CONCRETE MIX DESIGN

A. A CEMENT CONTENT IN ACCORDANCE WITH ODOT CMS ITEM 451 SHALL BE USED.

B. CALCIUM CHLORIDE SHALL NOT BE ADDED TO THE MIX.

C. SUPPLEMENTAL ADMIXTURES, SUCH AS ADDITIONAL WATER-REDUCING ADMIXTURES, WATER-PROOFING AGENTS, AND SUPER PLASTICIZERS SHALL NOT BE USED.

D. COLOR ADDITIVES: MIX IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. MIX UNTIL COLOR ADDITIVES ARE UNIFORMLY DISPERSED THROUGHOUT MIXTURE AND DISINTEGRATING BAGS, IF USED, HAVE DISINTEGRATED.

E. DO NOT ADD WATER TO THE MIX IN THE FIELD.

5. CONCRETE COLORS

A. COLOR SHALL BE LM SCOFIELD CHROMIX QUARRY RED OR APPROVED EQUAL. CONTRACTOR IS TO COORDINATE COLOR WITH ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

B. COLORED ADMIXTURE SHALL BE ADDED TO THE MIX PER MANUFACTURER'S WRITTEN INSTRUCTIONS IN A PREMEASURED BAG AND SHALL NOT BE ADDED BY WEIGHT OF CEMENT CONTENT.

6. CURING

APPLY CURING COMPOUND FOR COLORED CONCRETE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS USING MANUFACTURER'S RECOMMENDED APPLICATION TECHNIQUES. APPLY CURING COMPOUND AT CONSISTENT TIME FOR EACH POUR TO MAINTAIN CLOSE COLOR CONSISTENCY.

7. STAMPING

A. STAMPED PATTERN SHALL BE LM SCOFIELD CEDAR PARQUET TILE OR APPROVED EQUAL. CONTRACTOR IS TO COORDINATE PATTERN WITH ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

B. THE CONCRETE SHALL BE PLACED AND CONSOLIDATED SO AS TO COMPLETELY FILL SPACES IN THE FORMS AND TO PROVIDE SUITABLE SURFACE FOR FINISHING. THE CONCRETE ADJACENT TO THE FORMS SHALL BE SPADED. ALL SURROUNDING SURFACES SHALL BE PROTECTED TO PREVENT DISCOLORATION. WATER MUST NOT BE SPRAYED ON THE SURFACE TO RETEMPER THE PLASTIC CONCRETE FOR ADDITIONAL TROWELING. HARD STEEL TROWELING SHALL BE MINIMIZED TO AVOID TROWEL BURNS.

C. THE SURFACE SHALL BE BROOM FINISHED (LIGHT) AND HAVE A FLAT SURFACE FINISH, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

8. SEALING

A. THE SEALANT REQUIRED FOR THIS WORK SHALL BE AS RECOMMENDED BY THE COLORING MANUFACTURER.

B. ALL STAMPED CONCRETE TO BE SEALED SHALL BE SUFFICIENTLY CURED PRIOR TO APPLICATION OF SAID SEALANT. ALSO, ALL EXPANSION JOINT WORK SHALL BE FULLY CURED PRIOR TO APPLICATION OF THE SEALANT. THE COVERAGE RATE SHALL BE 100 TO 125 SQUARE FEET PER GALLON, UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.

C. THE MATERIAL INVOLVED IN THIS APPLICATION SHALL BE GUARANTEED BY THE MANUFACTURER. THE GUARANTEE SHALL ENSURE THE MOISTURE PERFORMANCE OF THE SYSTEM FOR A PERIOD OF FIVE YEARS FROM THE DATE OF APPLICATION. PROVISIONS OF THE GUARANTEE SHALL INCLUDE RESPONSIBILITY FOR WATER PENETRATIONS, CHLORIDE (SALT), AND FREEZE-THAW DAMAGE THROUGH STRUCTURALLY SOUND AREAS.

D. APPLICATION OF THE SEALER WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. APPLICATION METHODS MAY RANGE FROM BRUSH/PUSH BROOM TO AIRLESS SPRAY. THERE MAY BE A NEED TO BROOM THE SEALING COMPOUND INTO THE SURFACE EVEN WITH AN AIRLESS APPLICATION. THE ENGINEER WILL DETERMINE THE NEED FOR BROOMING AN AIRLESS APPLICATION.

E. ALL MATERIALS SHALL BE DELIVERED IN THE ORIGINAL MANUFACTURER'S SEALED CONTAINERS. MATERIALS SHALL BE STORED TO PREVENT DAMAGE TO THE CONTAINERS. THE SEALER SHALL BE THOROUGHLY STIRRED BEFORE AND DURING USE. SURFACE, AIR, AND MATERIAL TEMPERATURES SHALL NOT BE LESS THAN 50° F DURING APPLICATION OR WITHIN 4 HOURS AFTER SAID APPLICATION. PROTECT OTHER SURFACES NOT BEING SEALED AS NECESSARY DURING THE APPLICATION PROCESS.

F. THE CONTRACTOR SHALL NOT ALLOW FOOT OR VEHICULAR TRAFFIC ON SURFACES WHICH HAVE BEEN SEALED UNTIL SUCH TIME AS THEY ARE THOROUGHLY DRY, AS DETERMINED BY THE ENGINEER.

9. PAYMENT

THE QUANTITY AS PROVIDED SHALL BE PAID FOR AT THE APPLICABLE CONTRACT PRICE PER UNIT OF MEASUREMENT, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DETAILED ABOVE.

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1660 W 2nd St,
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DESIGNER

SAT

REVIEWER

SIG 05/12/23

PROJECT ID

119472

SHEET TOTAL

P.06 34

ITEM 614, MAINTAINING TRAFFIC

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY OF CLEVELAND AT LEAST 48 HOURS IN ADVANCE (EXCLUSIVE OF SATURDAY, SUNDAY OR HOLIDAYS) OF HIS INTENT TO DIVERT TRAFFIC AND TWO WEEKS IN ADVANCE OF A DETOUR.

NO CHANGE IN TRAFFIC PATTERNS SHALL TAKE PLACE DURING PEAK HOURS, 6:00 A.M. TO 9:00 A.M. AND 3:00 P.M. TO 6:00 P.M. MONDAY THROUGH FRIDAY.

THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN TRAFFIC THROUGHOUT THE PROJECT CONSTRUCTION FROM LORAIN AVENUE TO WESTERN AVENUE BY KEEPING THE EXISTING SIDEWALK ALONG EITHER THE EAST SIDE OR EXISTING WALK ALONG THE WEST SIDE OF WEST BOULEVARD OPEN DURING ALL PHASES OF CONSTRUCTION. THE PROPOSED PEDESTAL FOUNDATION IN THE NORTHWEST CORNER SHALL BE INSTALLED DURING PHASE 1. THE EXISTING PEDESTAL AND PED. HEAD SHALL BE RELOCATED TO THE THE PROPOSED LOCATION AND RECONNECTED TO THE EXISTING SIGNAL. THE WEST LEG CROSSWALK SHALL NOT RE-OPEN UNTIL THE PED. HEAD IS OPERATIONAL. IN PHASE 2 THE PEDESTAL SHALL BE REPLACED WITH THE PROPOSED PEDESTAL. PEDESTRIAN DETOURS SHALL FOLLOW ODOT SCD MT-110.10.

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

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

NEW YEAR'S (OBSERVED)	GENERAL/REGULAR ELECTION DAY (NOV)
TOTAL SOLAR ECLIPSE (4/8/24)	THANKSGIVING
MEMORIAL DAY	CHRISTMAS (OBSERVED)
FOURTH OF JULY (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	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
MONDAY (TOTAL SOLAR ECLIPSE)	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 am WEDNESDAY
TUESDAY (GEN./REG. ELECTION)	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

LANE CLOSURE/REDUCTION REQUIRED

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

NOTICE OF CLOSURE SIGN

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMP AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMP, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

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

TRENCH FOR WIDENING

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

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING AND MEDIAN BUILDUP SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 12 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING OR MEDIAN WORK SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

DRUM REQUIREMENTS

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

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS. INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

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

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

SEQUENCE OF CONSTRUCTION

PHASE 1

CLOSE RAMP 14 AND DETOUR TRAFFIC AS SHOWN ON DETOUR SHEET - RAMP 14. RAMP CLOSURE SHALL NOT EXCEED 14 CALENDAR DAYS.

CLOSE SOUTHBOUND WEST BLVD AND DETOUR TRAFFIC AS SHOWN ON DETOUR SHEET - WEST BLVD. DETOUR SHALL NOT EXCEED 14 CALENDAR DAYS (CONCURRENT WITH RAMP 14 DETOUR).

CLOSE WEST BLVD CENTER LANE AND INSIDE NORTHBOUND LANE. MAINTAIN NORTHBOUND CURB LANE.

CONSTRUCT IMPROVEMENTS, INCLUDING CURB RAMPS, RAMP 14 SPLITTER ISLAND, WEST BLVD MEDIAN ISLAND, PLACE PROPOSED PAVEMENT MARKINGS AND SIGNS.

PHASE 2

CLOSE THE NORTHBOUND AND SOUTHBOUND CURB LANES OF WEST BLVD BETWEEN THE HOURS OF 9 AM AND 3 PM DAILY. INSTALL NEW TRAFFIC SIGNAL. REMOVE EXISTING TRAFFIC SIGNAL.

DESIGN AGENCY



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REVIEWER
SIG 05/12/23

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119472

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

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

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

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

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

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

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

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:
 ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND
 AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION;
 AND,
 AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR

THE ACTIVE WORK AREA Laterally Closest to the OPEN TRAVELED LANE; OR

OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

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

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

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

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

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

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 16 HOURS

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

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

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

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

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET P.09 OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

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

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

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

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

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
 3 SIGN MONTH
 ASSUMING 1 PCMS SIGN FOR 1 MONTH

DESIGN AGENCY



WSP USA, Inc.
 1660 W 2nd St,
 Suite 820
 Cleveland, OH 44113

DESIGNER

SAT

REVIEWER

SJG 05/12/23

PROJECT ID

119472

SHEET

P.08

TOTAL

34

1

West Blvd
DETOUR
EXIT 167

D3-1-60
M4-8-30
M6-3-30

10

West Blvd
CLOSED
3/4 MILE

2

West Blvd
DETOUR
EXIT 167

D3-1-60
M4-8-30
M6-3-30

10

West Blvd
CLOSED
1/2 MILE

3

EXIT 167

10

West Blvd
CLOSED

EXIT ONLY

4

EXIT 167

10

West Blvd
CLOSED

EXIT ONLY

5

West Blvd
DETOUR
EXIT 169

D3-1-60
M4-8-30

W 44th St
W 41st St
1 MILE

6

West Blvd
DETOUR
EXIT 169

D3-1-60
M4-8-30

W 44th St
W 41st St
EXIT ONLY

7

West Blvd
DETOUR
EXIT 169

D3-1-60
M4-8-30

W 44th St
W 41st St
EXIT ONLY

8

West Blvd
DETOUR
EXIT 167A

D3-1-60
M4-8-30

W 98th St
West Blvd
3/4 MILE

9

West Blvd
DETOUR
EXIT 167A

D3-1-60
M4-8-30

W 98th St
West Blvd
1/2 MILE

10

West Blvd
DETOUR
EXIT 167A

D3-1-60
M4-8-30

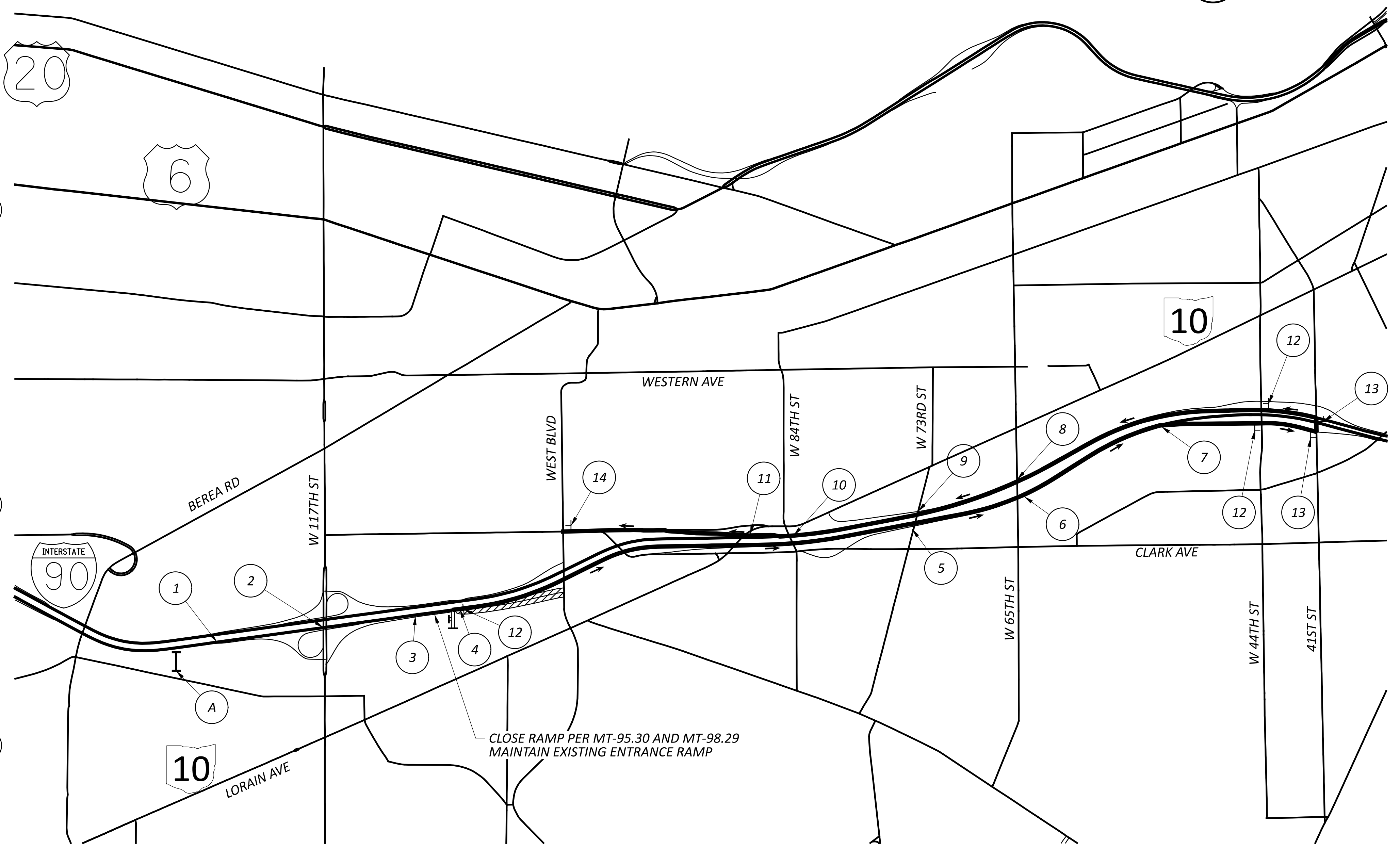
W 98th St
West Blvd
1/4 MILE

11

West Blvd
DETOUR
EXIT 167A

D3-1-60
M4-8-30

W 98th St
West Blvd



**WEST
BLVD
CLOSED**

**USE
W 41 ST
EXIT 169**

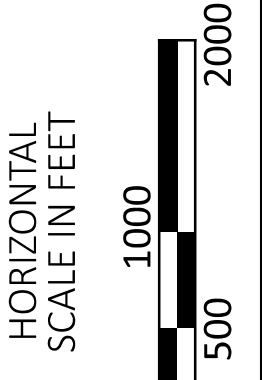
West Blvd
DETOUR
↑

West Blvd
DETOUR
←

END
DETOUR

- LEGEND**
- DETOUR ROUTE
 - ▨ RAMP CLOSURE
 - + TEMPORARY SIGN
 - I PORTABLE CHANGEABLE MESSAGE SIGN
 - II TYPE III BARRICADE

NOTE:
1. ALL SIGNS PROVIDED, ERECTED, MAINTAINED, AND REMOVED BY CONTRACTOR UNDER LUMP SUM BID FOR ITEM 614-DETOUR SIGNING



**MAINTENANCE OF TRAFFIC DETOUR PLAN
WEST BLVD EXIT RAMP CLOSURE**

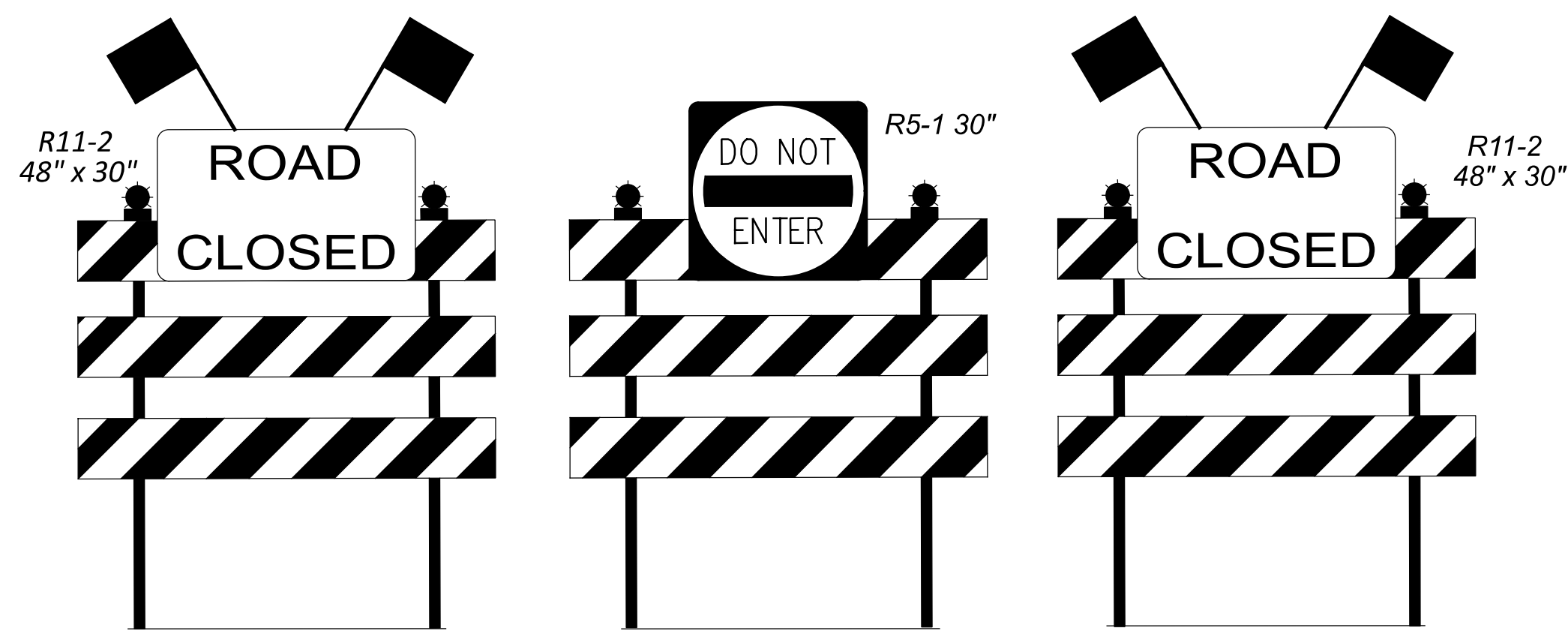
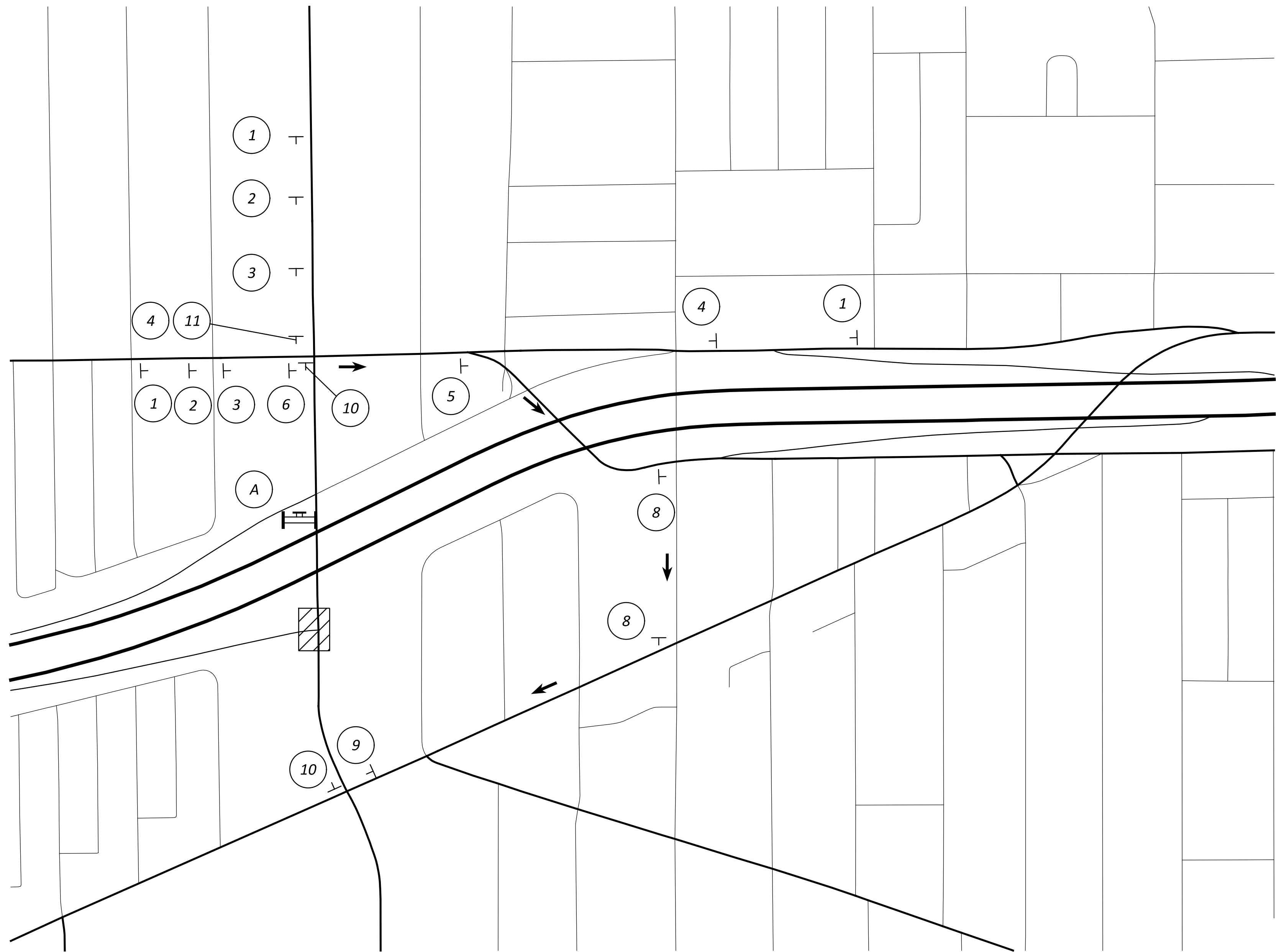
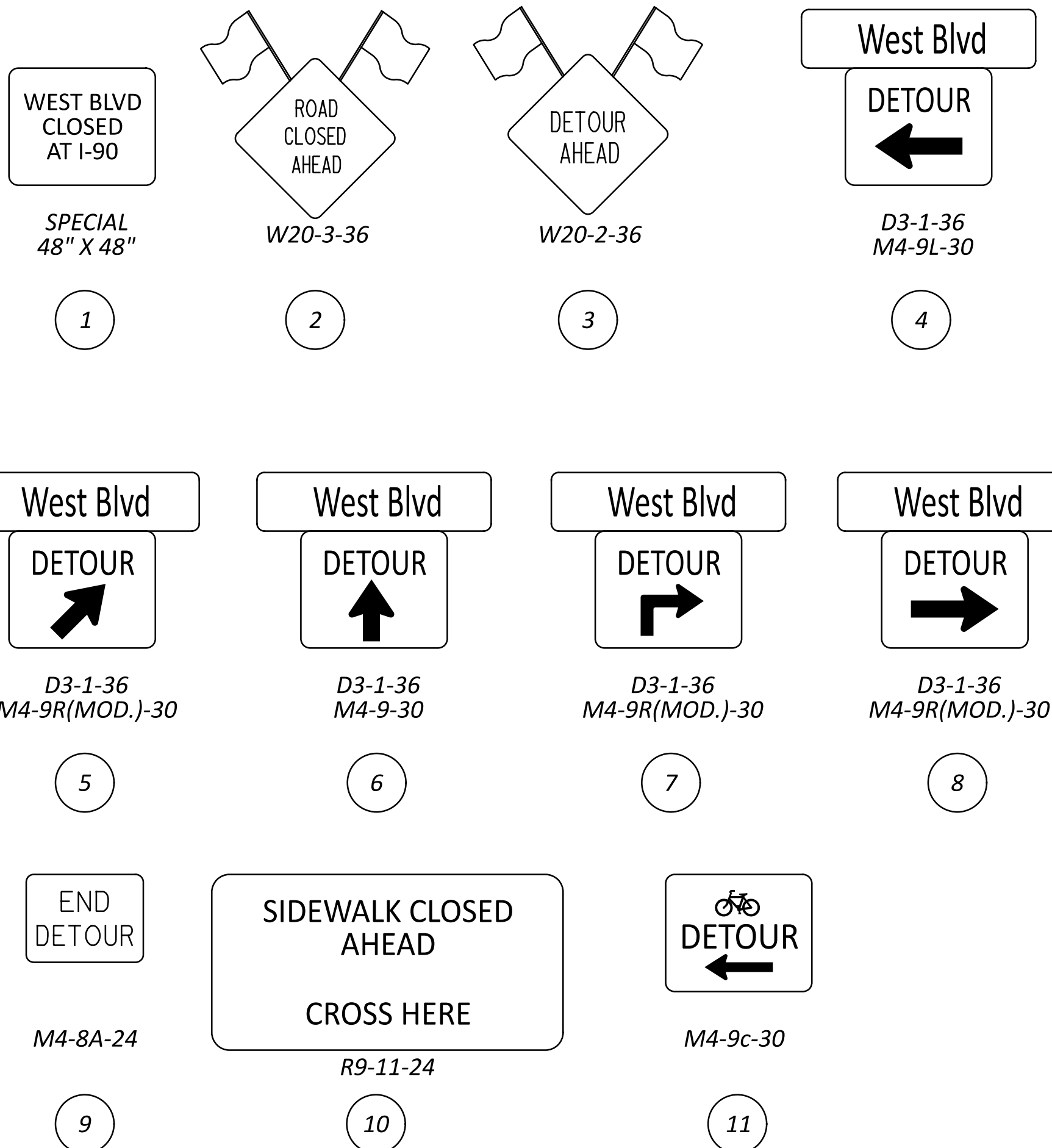
DESIGN AGENCY
WSP
WSP USA, Inc.
2 Miranova Pl,
Suite 450
Columbus, OH 43215

DESIGNER
BPT

REVIEWER
SAT 06/07/23

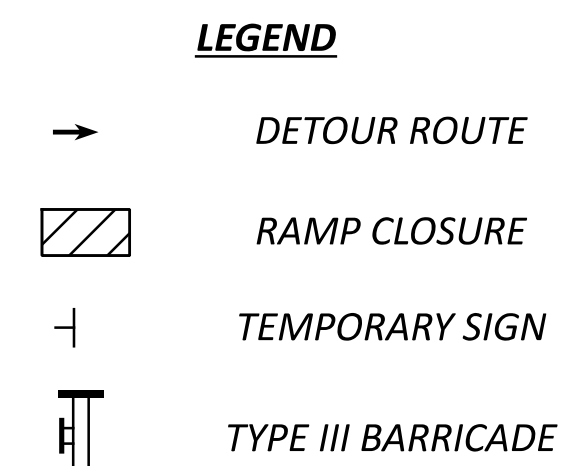
PROJECT ID
119472

SHEET TOTAL
P.09 34

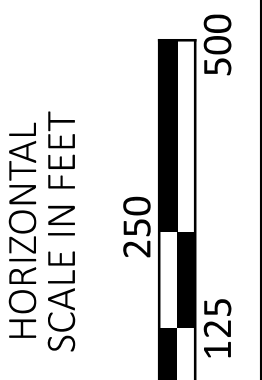


10' TYPE III BARRICADES (SOLID ACROSS STREET)

A

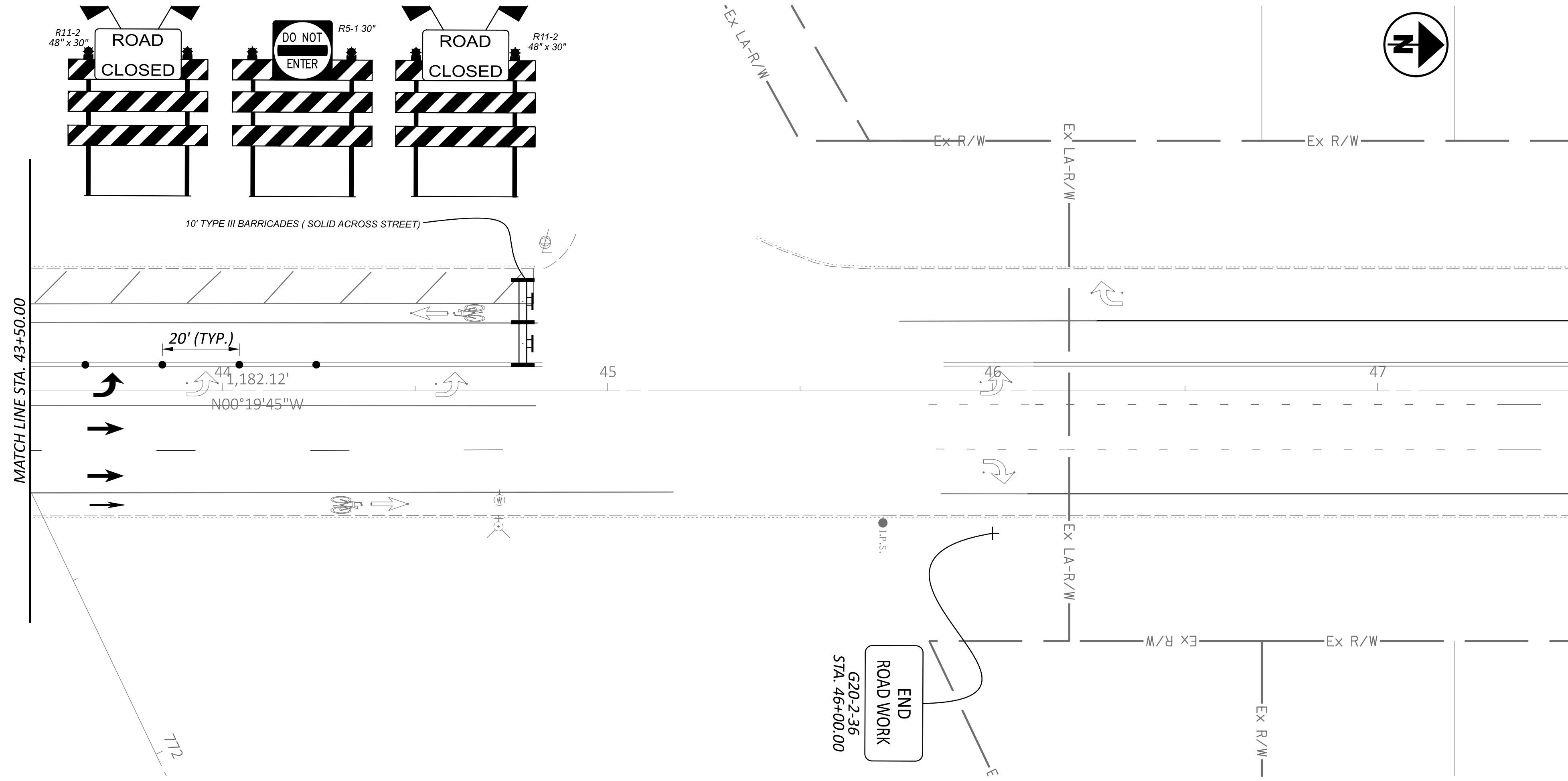


NOTE:
1. ALL SIGNS PROVIDED, ERECTED, MAINTAINED, AND REMOVED BY CONTRACTOR UNDER LUMP SUM BID FOR ITEM 614-DETOUR SIGNING

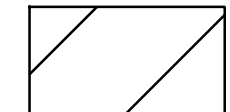



MAINTENANCE OF TRAFFIC DETOUR PLAN
WEST BLVD SOUTHBOUND

DESIGN AGENCY	
WSP USA, Inc. 2 Miranova Pl, Suite 450 Columbus, OH 43215	
DESIGNER	
BPT	
REVIEWER	
SAT 06/07/23	
PROJECT ID	
119472	
SHEET	TOTAL
P.10	34



LEGEND:

-  WORK AREA
-  DRUMS



MAINTENANCE OF TRAFFIC PHASE 1
 WEST BLVD STA 43+50 TO END

DESIGN AGENCY



WSP USA, Inc.
 1660 W 2nd St,
 Suite 820
 Cleveland, OH 44113

DESIGNER

KAD

REVIEWER

SAT 05/12/23

PROJECT ID

119472

SHEET TOTAL

P.12 34

REF NO.	SHEET NO.	STATION TO STATION			202	202	202	202	204	607	608	608	608	609	609	609								
					PAVEMENT REMOVED SY	WALK REMOVED SF	CURB REMOVED FT	FENCE REMOVED FT	SUBGRADE COMPACTION SY	FENCE, TYPE C1T FT	4" CONCRETE WALK SF	CURB RAMP SF	CURB RAMP, AS PER PLAN SF	CURB, TYPE 6 FT	CURB, TYPE 6, AS PER PLAN FT	CURB, TYPE 7, AS PER PLAN FT								
R-01	P.18	69+42.51	TO	70+16.74	30.20			76.67					41.54											
R-02	P.18	69+64.05	TO	70+05.96	80.64			80.64				154.22	54.14	125.56										
R-03	P.18	40+30.33	TO	40+95.00	56.00			56.00							139.00									
R-04	P.18	39+63.77	TO	40+30.38		414.16					337.28	188.11												
R-05	P.18	40+86.11	TO	41+89.74		617.42					461.01	101.01												
R-06	P.18	40+07.25	TO	40+34.98			24.06																	
R-07	P.18	40+85.47	TO	41+13.72			39.88																	
R-08	P.18	40+96.01	TO	41+89.82				101.56																
R-09	P.18	41+12.91	TO	41+89.82					76.91															
R-10	P.18	69+77.10	TO	69+89.16										23.79										
TOTALS CARRIED TO GENERAL SUMMARY					167	1032	64	102	214	77	799	290	155	96	150	139								

ROADWAY SUB-SUMMARY

DESIGN AGENCY

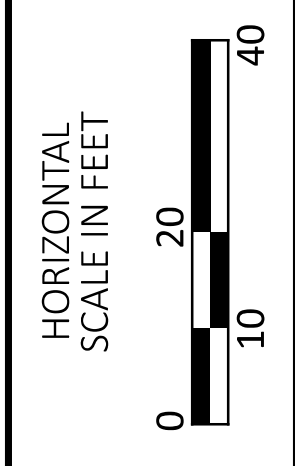
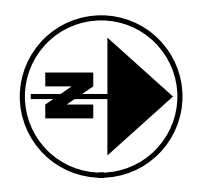
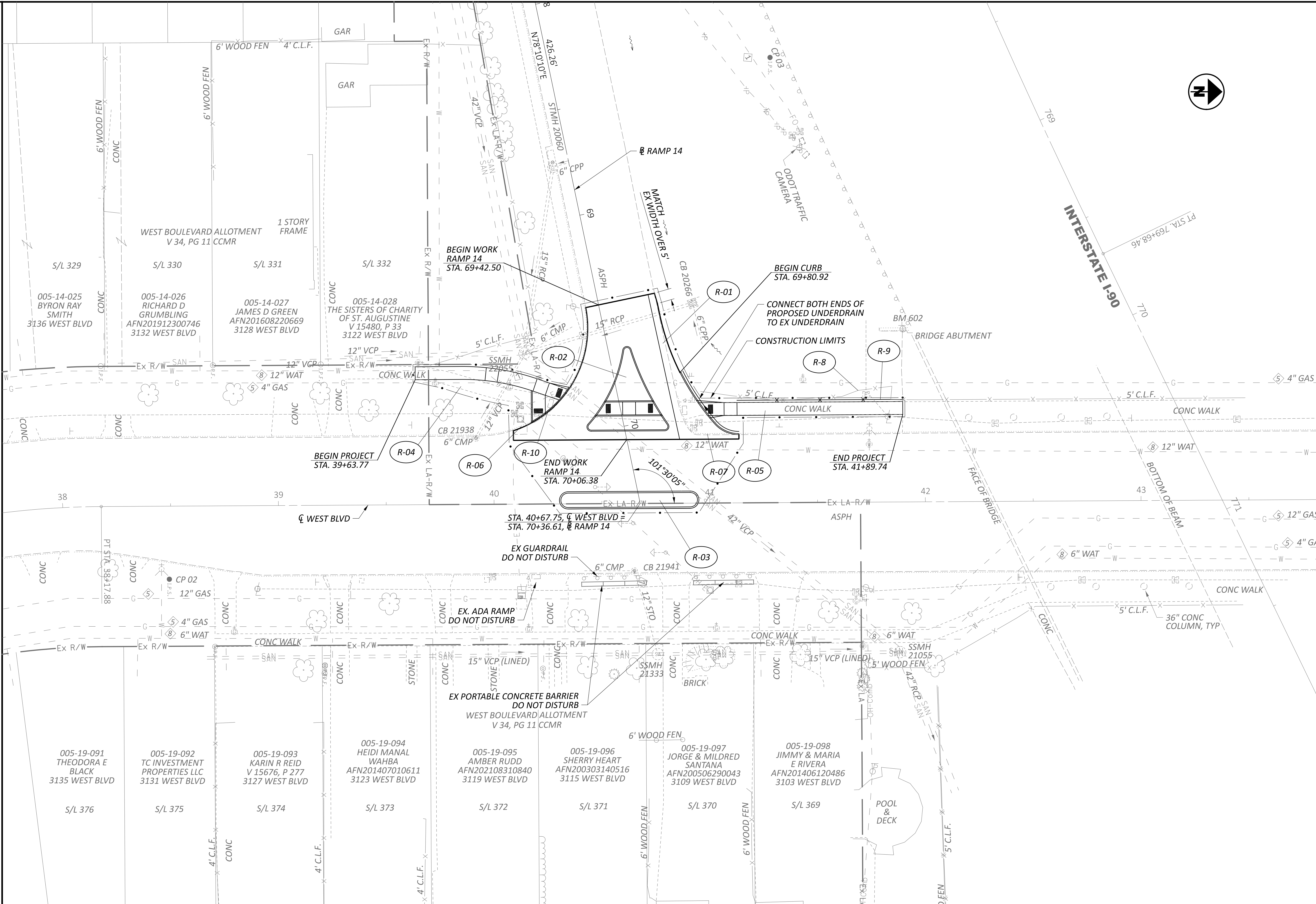
 WSP USA, Inc.
 1660 W 2nd St,
 Suite 820
 Cleveland, OH 44113

DESIGNER
 DDS

REVIEWER
 SAT 06/08/23

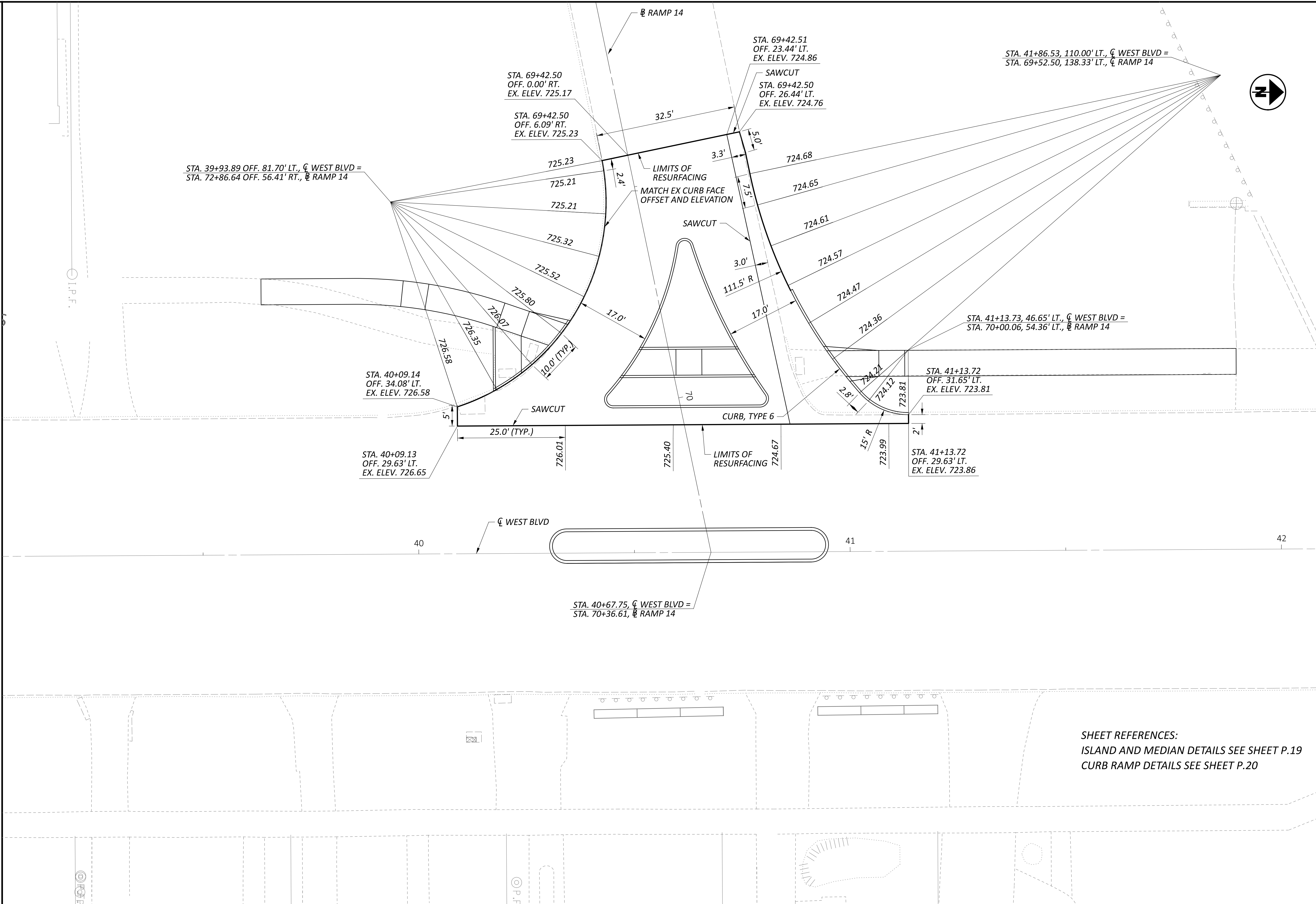
PROJECT ID
 119472

SHEET TOTAL
 P.15 | 34



PLAN
WEST BLVD AND RAMP 14

DESIGN AGENCY	
wsp	
WSP USA, Inc. 1660 W 2nd St, Suite 820 Cleveland, OH 44113	
DESIGNER	
SAT	
REVIEWER	
SIG 05/11/23	
PROJECT ID	
119472	
SHEET	TOTAL
P.18	34



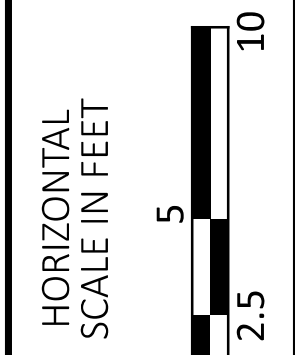
INTERSECTION DETAIL SHEET
WEST BLVD AND RAMP 14

SHEET REFERENCES:
ISLAND AND MEDIAN DETAILS SEE SHEET P.19
CURB RAMP DETAILS SEE SHEET P.20

DESIGN AGENCY
wsp
WSP USA, Inc.
1660 W 2nd St,
Suite 820
Cleveland, OH 44113

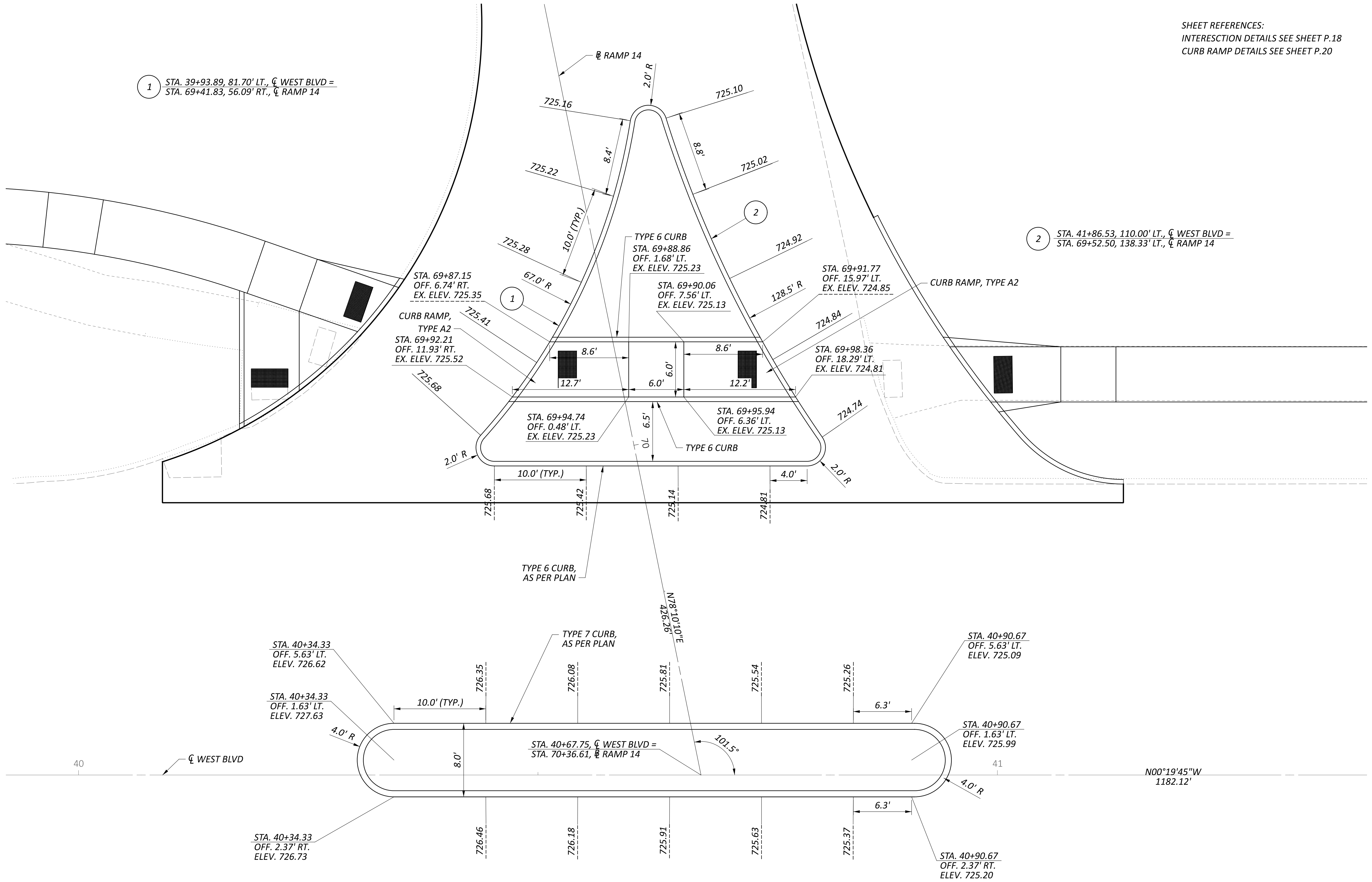
DESIGNER	SAT
REVIEWER	SIG
DATE	05/12/23
PROJECT ID	119472
SHEET	P.19
TOTAL	34

SHEET REFERENCES:
INTERSECTION DETAILS SEE SHEET P.18
CURB RAMP DETAILS SEE SHEET P.20



1 STA. 39+93.89, 81.70' LT., ζ WEST BLVD =
STA. 69+41.83, 56.09' RT., ζ RAMP 14

2 STA. 41+86.53, 110.00' LT., ζ WEST BLVD =
STA. 69+52.50, 138.33' LT., ζ RAMP 14

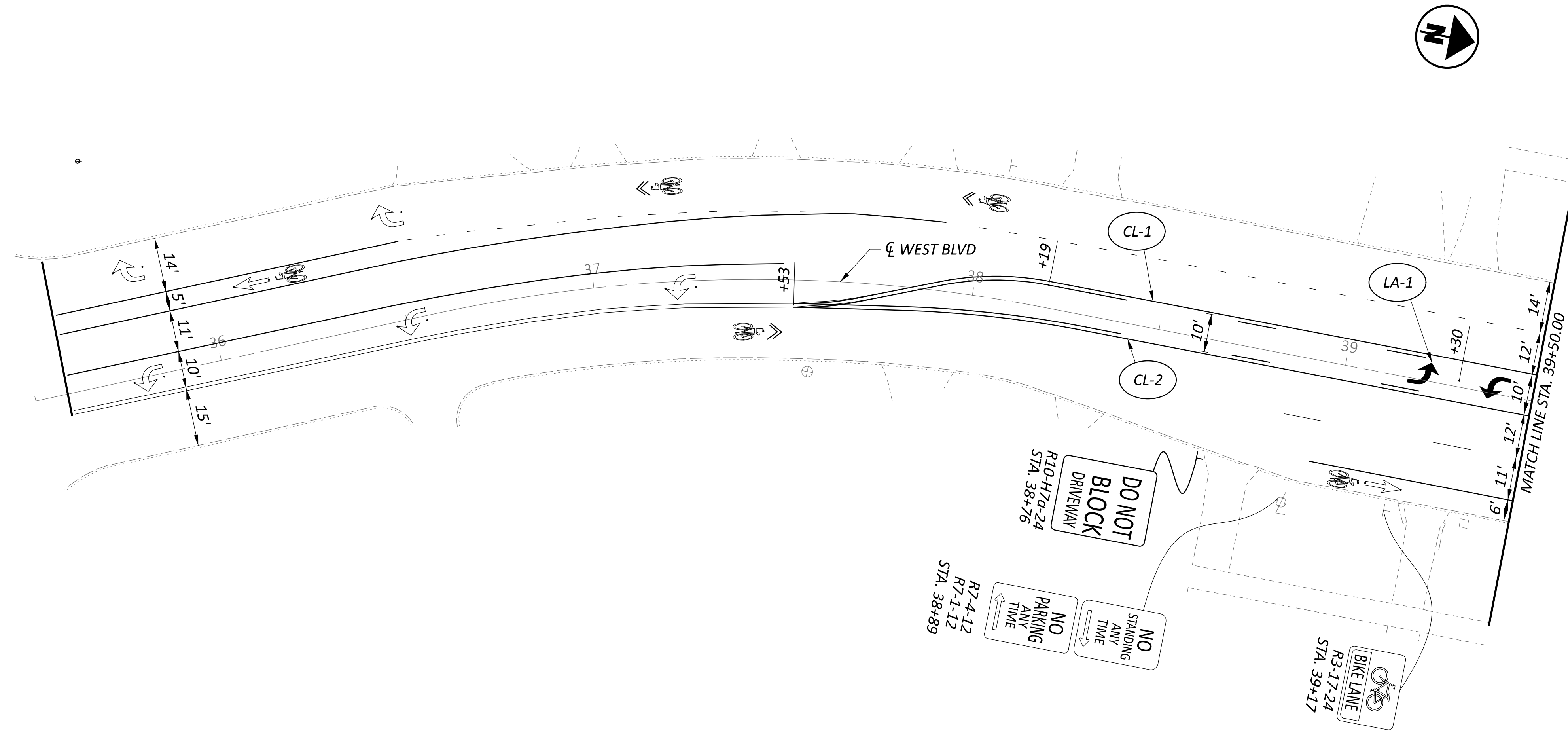


INTERSECTION DETAIL SHEET
SPLITTER ISLAND AND MEDIAN DETAILS

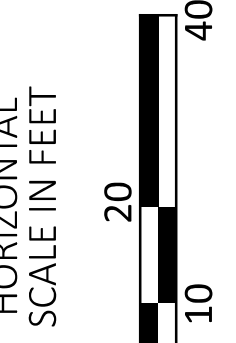
DESIGN AGENCY	
DESIGNER	SAT
REVIEWER	SIG
PROJECT ID	06/07/23
SHEET	119472
TOTAL	34
P.20	

- LEGEND**
- EW EDGE LINE, WHITE 6"
 - EY EDGE LINE, YELLOW 6"
 - CL CENTERLINE (SOLID AND DASHED)
 - CH CHANNELIZING LINE, 6"
 - SL STOP LINE, 24"
 - XW CROSSWALK, 12"
 - LA LANE ARROW
 - IY ISLAND MARKING, YELLOW
 - IW ISLAND MARKING, WHITE

- RAISED PAVEMENT MARKER (RPM)**
- 1 2 WAY (WHITE/RED)



PAVEMENT MARKING AND SIGNING PLAN
 WEST BLVD. - BEGIN TO STA. 39+50



DESIGN AGENCY



WSP USA, Inc.
 1660 W 2nd St,
 Suite 820
 Cleveland, OH 44113

DESIGNER
 SAT

REVIEWER
 SJG 05/12/23

PROJECT ID
 119472

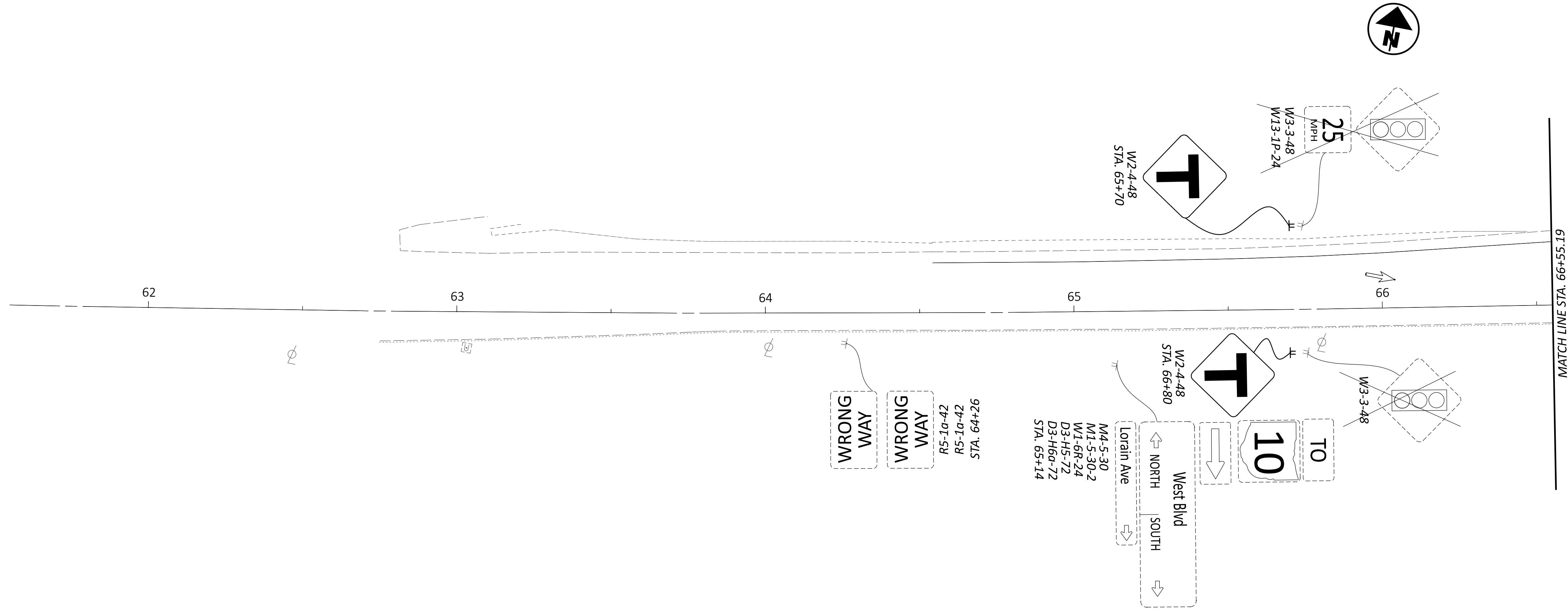
SHEET TOTAL
 P.22 34

LEGEND

- EW EDGE LINE, WHITE 6"
- EY EDGE LINE, YELLOW 6"
- CL CENTERLINE (SOLID AND DASHED)
- CH CHANNELIZING LINE, 6"
- SL STOP LINE, 24"
- XW CROSSWALK, 12"
- LA LANE ARROW
- IY ISLAND MARKING, YELLOW
- IW ISLAND MARKING, WHITE

RAISED PAVEMENT MARKER (RPM)

- 1 2 WAY (WHITE/RED)



PAVEMENT MARKING AND SIGNING PLAN
RAMP 14 BEGIN TO STA. 70+00

DESIGN AGENCY



WSP USA, Inc.
 1660 W 2nd St,
 Suite 820
 Cleveland, OH 44113

DESIGNER

SAT

REVIEWER








SJG 05/12/23

PROJECT ID


119472

SHEET TOTAL

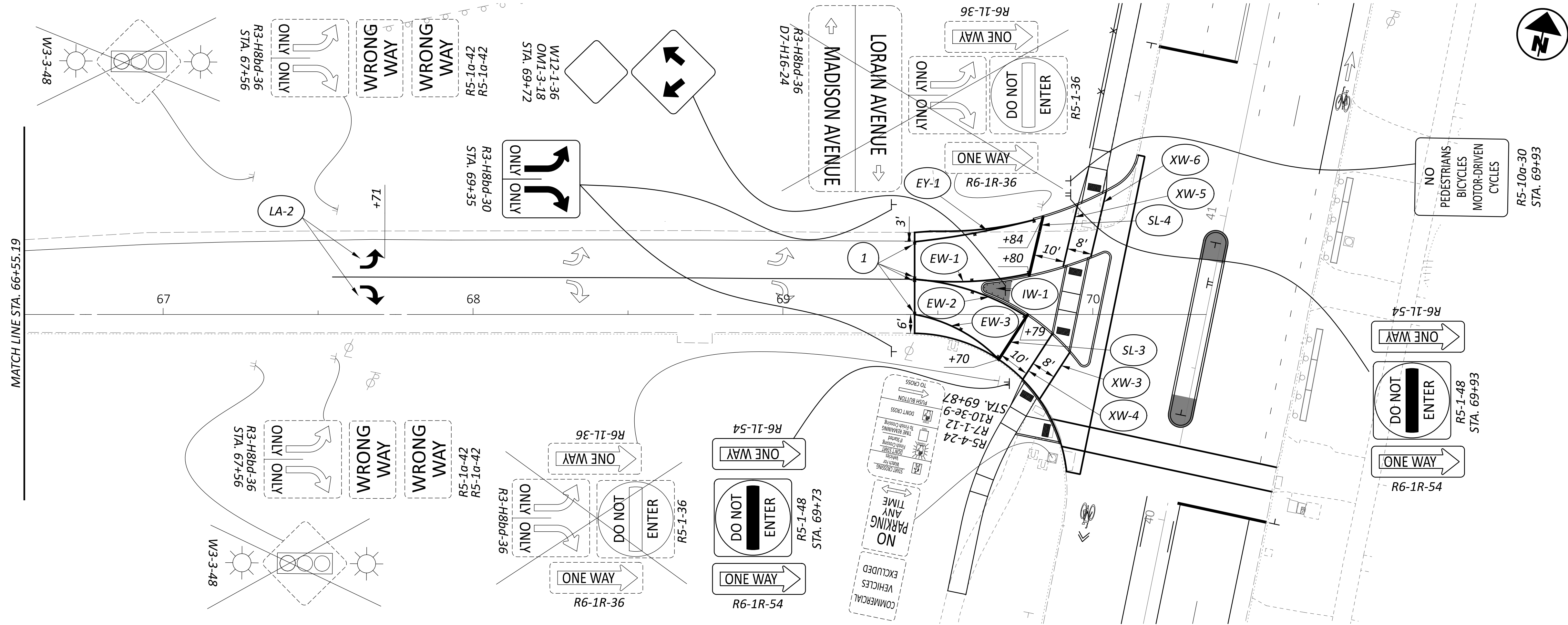
P.24 34

-  EDGE LINE, WHITE 6"
-  EDGE LINE, YELLOW 6"
-  CENTERLINE (SOLID AND DASHED)
-  CHANNELIZING LINE, 6"
-  STOP LINE, 24"
-  CROSSWALK, 12"
-  LANE ARROW
-  ISLAND MARKING, YELLOW
-  ISLAND MARKING, WHITE

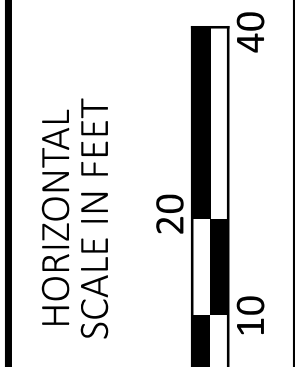
LEGEND

-  2 WAY (WHITE/RED)

RAISED PAVEMENT MARKER (RPM)



**PAVEMENT MARKING AND SIGNING PLAN
 RAMP 14 STA. 70+00 TO END**



DESIGN AGENCY	
	
WSP USA, Inc. 1660 W 2nd St, Suite 820 Cleveland, OH 44113	
DESIGNER	
SAT	
REVIEWER	
SIG 05/12/23	
PROJECT ID	
119472	
SHEET	TOTAL
P.25	34

POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM THE LOCATION INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120 VOLTS.

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 CONSTRUCTABILITY 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 DAYS 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.

ITEM 632 - REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, CONTROLLER, ETC., SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE REUSED AS PART OF A NEW INSTALLATION ON THE PROJECT OR STORED ON THE PROJECT FOR SALVAGE BY THE CITY OF CLEVELAND IN ACCORDANCE WITH THE LISTING GIVEN HEREIN.

(ITEMS TO BE STORED)
 VEHICULAR SIGNAL HEADS
 PEDESTRIAN PEDESTALS
 PEDESTRIAN SIGNAL HEADS
 CONTROLLER
 CABINET
 STRAIN POLES
 PUSHBUTTONS

REMOVED ITEMS SHALL BE DELIVERED TO THE CITY OF CLEVELAND.
 DOMINIC MARTINO
 CHIEF OF TRAFFIC SIGNALS
 (216)-420-8272
 DMARTINO@CLEVELANDOHIO.GOV

DEPARTMENT OF PUBLIC WORKS
 4150 E 49TH ST
 BUILDING #4
 CLEVELAND, OH 55206

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.

GROUNDING AND BONDING

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

- A. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH. 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 BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.
- D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.
- E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.
- F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

2. CONDUITS

- A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
- B. THE 725.05 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 METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX 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 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.

GROUNDING AND BONDING CONTINUED

- 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.
- 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 NUETRAL	AC NUETRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#W 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.

WORK INSPECTION

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

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 90 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 OR 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.

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

ITEM 633 - UNINTERRUPTIBLE POWER SUPPLY (UPS), BATTERY REPLACEMENT, 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 EXTERNAL 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 DOMED 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 AC UNLESS OTHERWISE INDICATED.

ITEM 632 - SIGNAL SUPPORT FOUNDATION, AS PER PLAN

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.

**ITEM 632 - SIGNAL SUPPORT, TYPE TC-81.22 (BY DESIGN, AS PER PLAN)
 ITEM 632 - COMBINATION SIGNAL SUPPORT, TYPE TC-81.22 (BY DESIGN)
 AS PER PLAN**

THIS ITEM SHALL CONFORM TO ITEM 632.15 AND 732.11, EXCEPT THAT POLES SHALL BE TAPERED TUBES OF CONTINUOUS TAPER. POLE CONSISTING OF STRAIGHT SECTIONS WITH A TAPERED EFFECT ACCOMPLISHED BY THE USE OF REDUCERS SHALL NOT BE PERMITTED. POLES SHALL BE ROUND IN SHAPE. OCTAGON SHAPED POLES ARE NOT PERMITTED. IN ADDITION, THE SIGNAL SUPPORTS SHALL BE POWDER COATED DARK BRONZE #F-283 PER CITY OF CLEVELAND SPECIFICATION. A PAINT CHIP SAMPLE SHALL BE SUBMITTED TO THE CITY OF CLEVELAND ENGINEER AT LEAST 7-DAYS PRIOR TO ORDERING MATERIALS FOR REVIEW AND APPROVAL.

PAYMENT FOR ITEM 632 SIGNAL SUPPORT, TYPE TC-81.22, (BY DESIGN), AS PER PLAN SHALL BE PER EACH SUPPORT AND BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK.

ITEM 632 - SIGNALIZATION, MISC.: STOP-LINE RADAR DETECTION RELOCATED

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND RE-INSTALLING A WAVETRONIX SMARTSENSOR MATRIX DETECTION UNIT. THE RELOCATION OF DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

1. POWER SHALL BE PROVIDED FROM THE PROPOSED TRAFFIC CABINET.
2. ALL REQUIRED INPUTS CARDS SHALL BE RELOCATED TO THE NEW 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. NEW CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
4. SURGE PROTECTION DEVICES, SHALL BE RELOCATED WITH THE DEVICE. AS RECOMMENDED BY THE MANUFACTURER THE SURGE PROTECTION DEVICES SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.
5. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
6. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MINIMUM 7 FEET).
7. THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.
8. THE CONTRACTOR SHALL CONTACT THE CITY OF CLEVELAND, CHIEF OF SIGNALS DOMINIC MARTINO(DMARTINO@CLEVELANDOHIO.GOV 216-420-8272) 10 BUSINESS DAYS PRIOR TO REMOVING THE STOP BAR RADAR, SO THAT THE EXISTING SIGNAL TIMING CAN BE MODIFIED TO PLACE THE EXIT RAMP SIGNAL PHASE INTO RECALL.
9. THE INSTALLATION SHALL INCLUDE ALL CONTROLLER PROGRAMMING FOR COMPLETE INSTALLATION, WHICH INCLUDES MODIFICATIONS FOR REMOVAL OF EXISTING DETECTION.

PAYMENT FOR ITEM 632 SIGNALIZATION, MISC.: STOP-LINE RADAR DETECTION RELOCATED SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT AND CONNECTIONS TESTED AND ACCEPTED.

ITEM 632 - SIGNALIZATION, MISC.: PEDESTAL FOUNDATION REMOVED

TRAFFIC SIGNAL PEDESTAL FOUNDATION SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE REUSED AS PART OF A NEW INSTALLATION ON THE PROJECT.

IN ADDITION TO THE REQUIREMENTS OF C&MS 632.26 WHERE SHOWN IN THE PLANS THE EXISTING PEDESTAL FOUNDATION SHALL BE REMOVED IN ENTIRETY.

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 FOUNDATION REMOVED, COMPLETE AND ACCEPTED.

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

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

THE GROUND-MOUNTED CABINET SHALL BE A NEMA TS-2, TYPE 1, CABINET SIZE 7 WITH 16 LOAD SWITCH BAYS, LED UNDER-SHELF LIGHTING, POWER HARNESSES FOR BOTH TS2 TYPE 1 AND TYPE 2 CONTROLLERS AND SHALL HAVE A MINIMUM OF THREE SHELVES.

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.

THE CABINET SHALL BE FURNISHED WITH AN EDI MMU AS ALLOWED ON THE TAP/APPROVED PRODUCTS LIST.

IN ADDITION THE CABINET SHALL BE INSTALLED ON A 12" RISER ON THE CONCRETE WORK PAD. THE 12" RISER SHALL BE INCIDENTAL TO THE CABINET.

PAYMENT FOR ITEM 633 CABINET, TYPE TS-2, AS PER PLAN WILL BE AT THE CONTRACT BID PRICE PER EACH COMPLETE AND IN PLACE INCLUDING ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 633 - CONTROLLER ITEM, MISC.: CONTROLLER, TYPE SIEMENS M-60

IN ADDITION TO THE REQUIREMENTS OF C&MS 633 AND 732, THE CONTROLLER TYPE SHALL BE SIEMENS M-60. PAYMENT FOR ITEM 633 CONTROLLER ITEM, MISC.: CONTROLLER, TYPE SIEMENS M-60 SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT TO INSTALL THE CONTROLLER.

ITEM 633 - GPS (GLOBAL POSITIONING SYSTEM) CLOCK ASSEMBLY, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 633 AND 732. THE CONTROLLER GPS CLOCK ASSEMBLY SHALL BE AN ELTEC TIME-SYNC GPS UNIT. PAYMENT FOR ITEM 633 GPS (GLOBAL POSITIONING SYSTEM) CLOCK ASSEMBLY, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH AND SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT TO INSTALL THE CONTROLLER.

ITEM 632 - PUSHBUTTON, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632 AND 732 THE PEDESTRIAN PUSHBUTTONS SHALL BE A POLARA BULLDOG III, MODEL NO. BDL3 WITH POLARA BULLDOG MOUNTING.

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH FURNISHED AND INSTALLED, TESTED AND ACCEPTED.



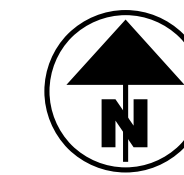
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	SEE SHEET
625	00450	4	EACH	CONNECTION, FUSED PULL APART	
625	00460	2	EACH	CONNECTION, UNFUSED PULL APART	
625	18500	2	EACH	BRACKET ARM, 25'	
625	23000	825	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE	
625	23400	390	FT	NO. 10 AWG POLE AND BRACKET CABLE	
625	25500	134	FT	CONDUIT, 3", 725.04	
625	25902	738	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	
625	26250	2	EACH	LUMINAIRE, CONVENTIONAL, TYPE III, 10K-11K, 120V	
625	29000	118	FT	TRENCH	
625	30510	2	EACH	PULL BOX, 725.06, SIZE 4	
625	30520	5	EACH	PULL BOX, 725.06, SIZE 7	
625	32000	7	EACH	GROUND ROD	
630	79100	3	EACH	SIGN HANGER ASSEMBLY, MAST ARM	
630	80100	18	SF	SIGN, FLAT SHEET	
630	80510	1	EACH	SIGN, STREET NAME	
632	05006	7	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
632	05064	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 4-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
632	20731	4	EACH	PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, AS PER PLAN	P.26
632	25000	9	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
632	25010	4	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
632	26001	2	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN	P.27
632	40500	551	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
632	40700	938	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
632	64020	3	EACH	PEDESTAL FOUNDATION	
632	64011	3	EACH	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	P.27
632	65200	368	FT	LOOP DETECTOR LEAD-IN CABLE	
632	68200	149	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	
632	69800	15	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	
632	70000	1	EACH	POWER SERVICE	
632	70400	1	EACH	CONDUIT RISER, 2" DIAMETER	
632	72131	1	EACH	SIGNAL SUPPORT, TYPE TC-81.22 DESIGN 12 POLE, AS PER PLAN	P.27
632	79101	2	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2, AS PER PLAN	P.27
632	89600	1	EACH	PEDESTAL, 8'	
632	89750	2	EACH	PEDESTAL, 15'	
632	90101	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	P.-26
632	90400	1	EACH	SIGNALIZATION, MISC.: PEDESTAL FOUNDATION REMOVED	P.-27
632	90400	1	EACH	SIGNALIZATION, MISC.: STOP-LINE RADAR DETECTION RELOCATED	P.-27
633	45001	1	EACH	GPS (GLOBAL POSITIONING SYSTEM) CLOCK ASSEMBLY, AS PER PLAN	P.-27
633	65511	1	EACH	CABINET, TYPE TS-2, AS PER PLAN	P.-27
633	67501	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), BATTERY REPLACEMENT, AS PER PLAN	P.-27
633	99000	1	EACH	CONTROLLER ITEM, MISC.: CONTROLLER, TYPE SIEMENS M-60	P.-27



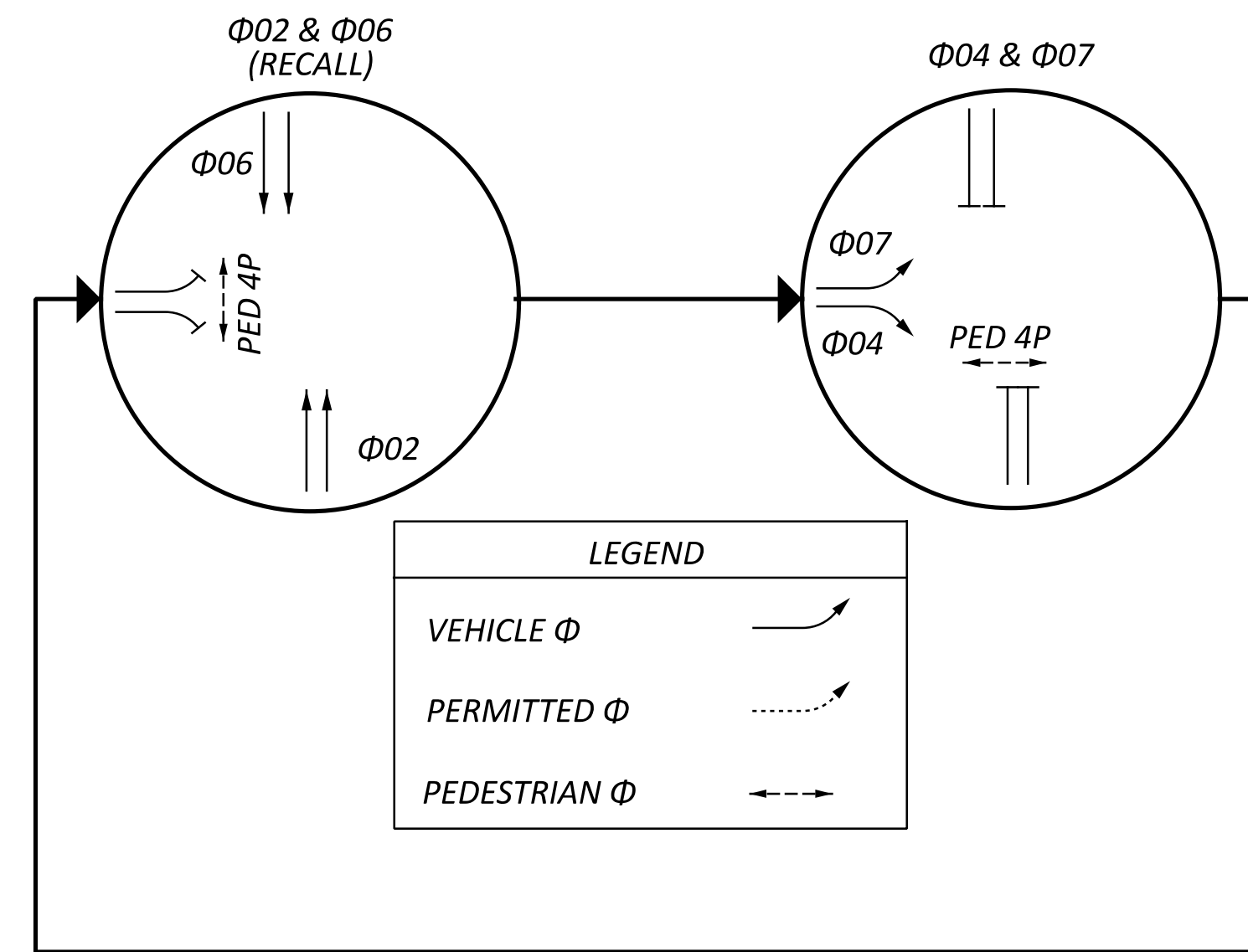
SIGNAL TIMING CHART (TEM FORM 496-3)

INTERSECTION: West Blvd & I-90 EB Exit Ramp									
MAINTAINING AGENCY: City of Cleveland									
START UP		DUAL ENTRY: ON		PHASES: 2 & 6					
START IN: ALL-RED FLASH		REST IN RED: RING 1 - RING 2 -							
TIME FOR: FLASH, ALL RED (SEC.): 5		OVERLAP		A B C D					
FIRST PHASE(S): 2 & 6		PHASES		-					
COLOR DISPLAYED: GREEN									
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION		-	-	-	-	-	-	-	-
MINIMUM GREEN (INITIAL) (SEC.)		-	-	-	-	-	-	-	-
ADDED INITIAL *(SEC./ACTUATION)		-	-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)		-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)		-	-	-	-	-	-	-	-
TIME BEFORE REDUCTION *(SEC.)		-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)		-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN II (SEC.)		-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)		-	4.1	-	4.4	-	4.1	-	-
ALL RED CLEARANCE (SEC.)		-	1.5	-	2	-	1.5	-	-
DELAYED GREEN (LPI) (SEC.)		-	-	-	-	-	-	-	-
FLASHING YELLOW ARROW DELAY^ (SEC.)		-	-	-	-	-	-	-	-
WALK (SEC.)		-	-	-	7	-	7	-	-
PEDESTRIAN CLEARANCE (SEC.)		-	-	-	17	-	16	-	-
RECALL	MAXIMUM (ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM (ON/OFF)	-	ON	-	-	-	ON	-	-
	PEDESTRIAN (ON/OFF)	-	-	-	-	-	ON	-	-
MEMORY (ON/OFF)		-	-	-	-	-	-	-	-

NOTE: SIGNAL TIMMINGS TO BE COMPLETED BY CITY OF CLEVELAND



PHASING DIAGRAM

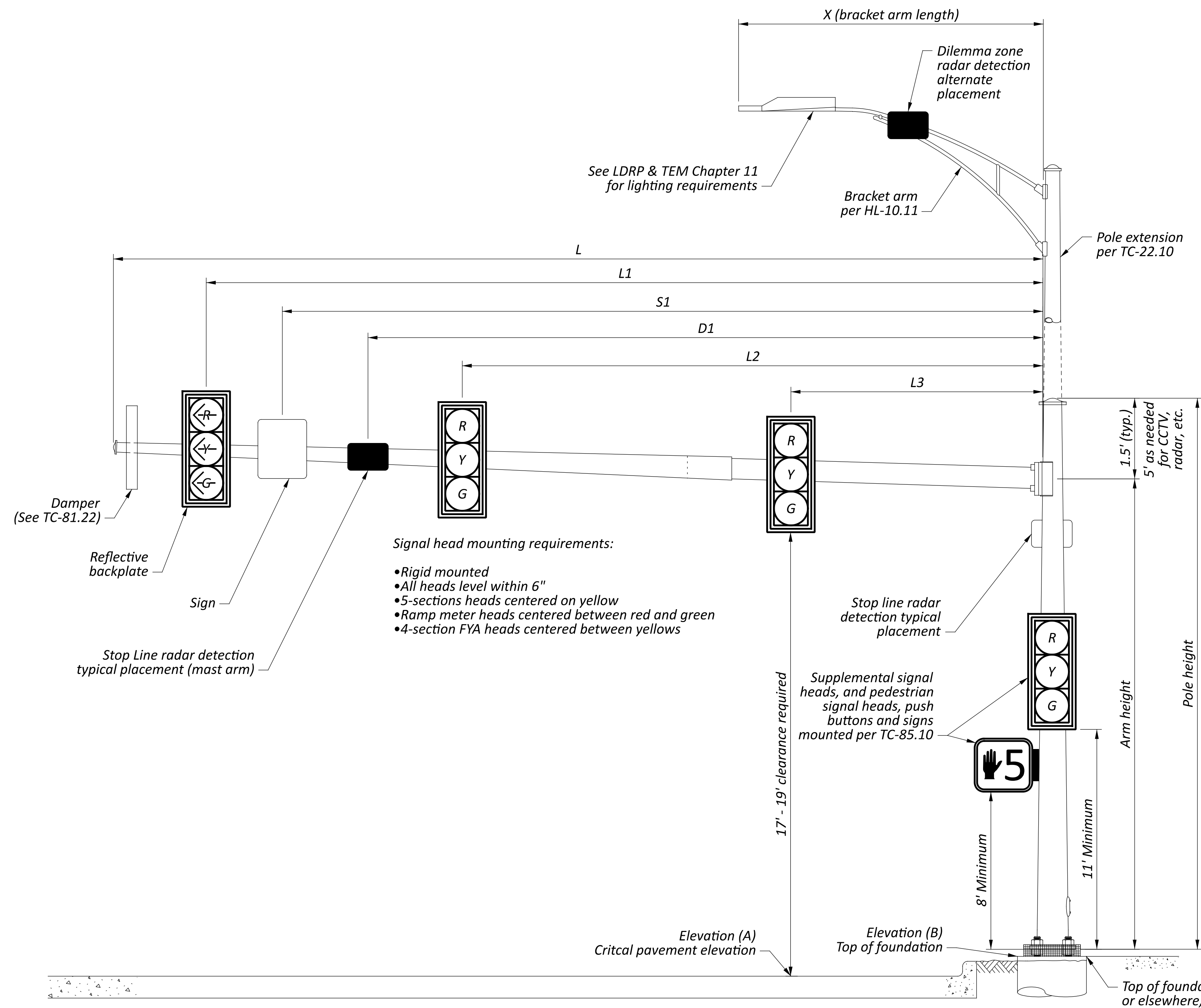


RADAR DETECTION CHART (TEM FORM 496-4)

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC.)	EXTENSION PROGRAMMED IN CONTROLLER (SEC.)	PURPOSE	DETECTION ZONE LENGTH (FT)
Z4	EBRT	PRESENCE	4	3	-	CALL/EXTEND PHASE 4	20
Z7	EBLT	PRESENCE	7	-	-	CALL/EXTEND PHASE 7	20

ADVANCED DILEMMA ZONE SPEED THRESHOLD
 PURPOSE = STOP LINE OR ADVANCED ≥ 35 MPH





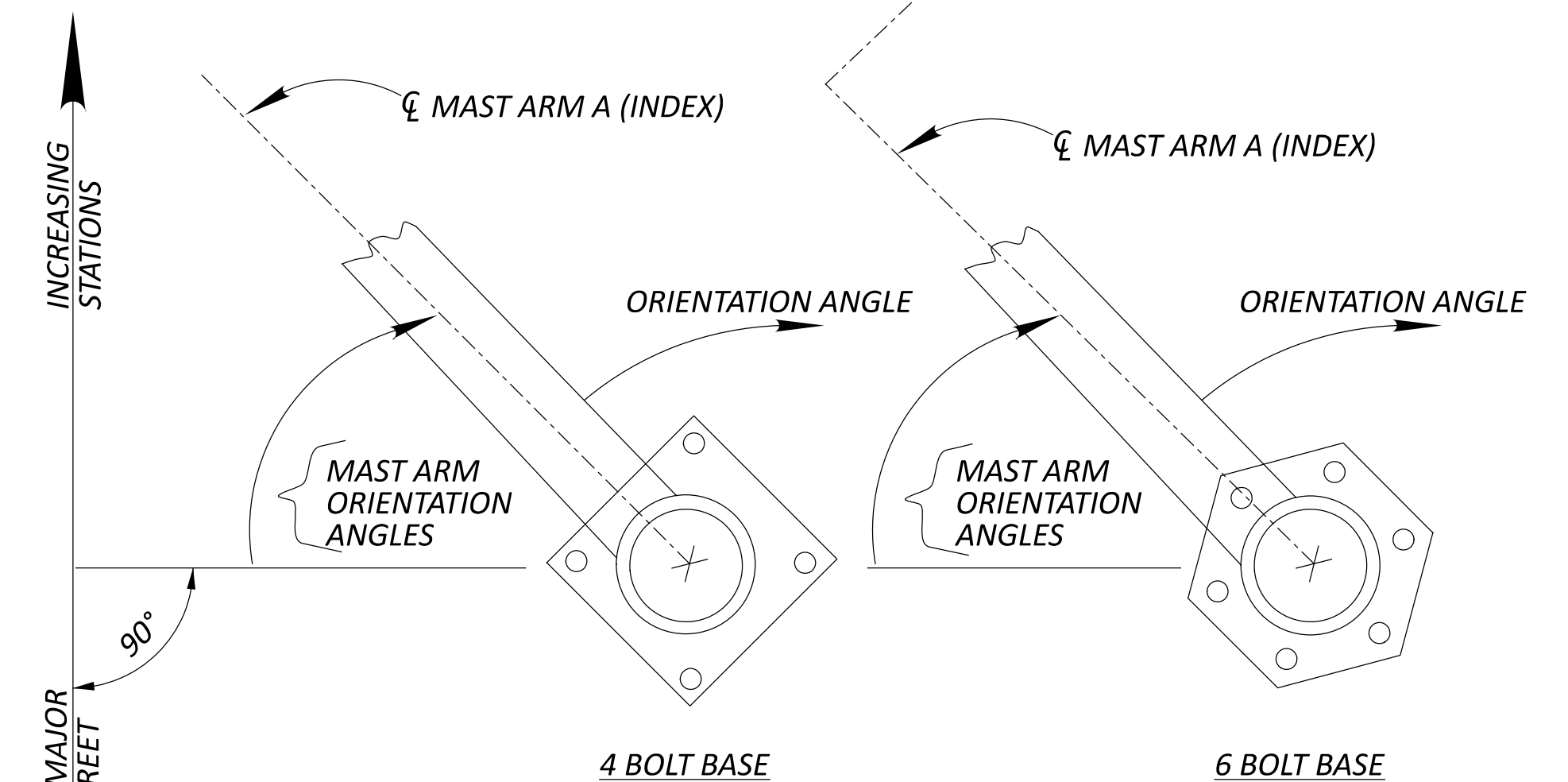
SIGNAL SUPPORT ELEVATION

MAST ARM TABLE (TEM FIGURES 498-37 & 498-38)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS										ORIENTATION ANGLES FROM MAST ARM A			
			A (Pavt. Elev.)	B (Top of Found.)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	S1	D1	MAST ARM ANGLE	SUPPLEMENTAL SIGNAL HEAD	BRACKET ARM	HANDHOLE	
																		FT
SP-1	40+03.3	37.9' LT	727.44	727.35	TC-81.22	2	35.0	20.0	28	25.7	13.2	4.6	-	0	280	0	180	
SP-2	41+12.1	49.6' RT	724.48	724.90	TC-81.22	2	35.0	20.0	32	29	17.1	8.7	22.2	270	-	90	180	
SP-3	40+64.9	49.6' RT	725.60	726.33	TC-81.22	12	21.5	20.0	43.0	40.0	28.4	33.9	-	0	-	-	180	

PEDESTAL TABLE

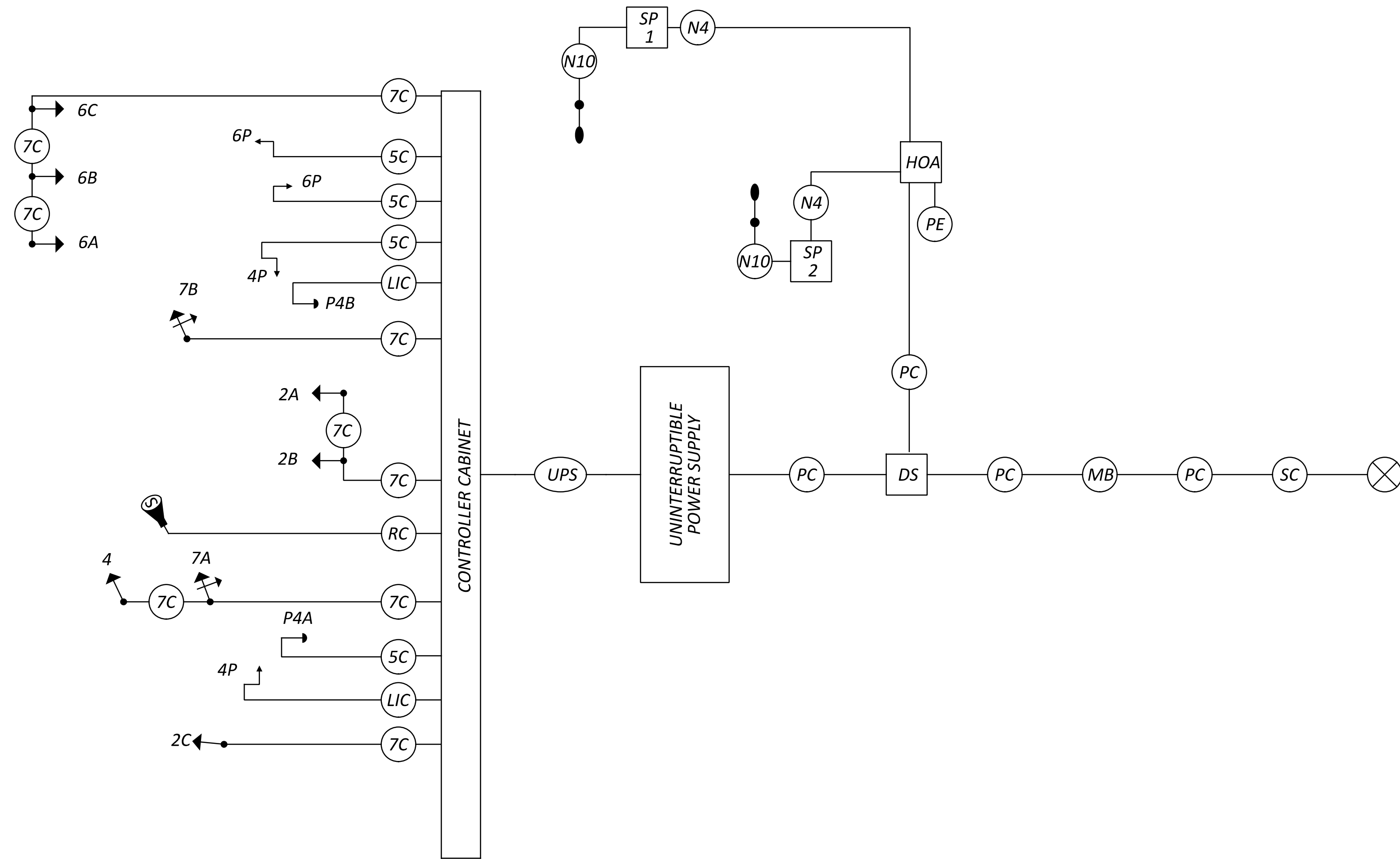
SUPPORT NO.	STATION	OFFSET	ELEVATION A (FEET)	POLE HEIGHT (FEET)	INDEX ANGLE (DEG.)	ORIENTATION ANGLES FROM INDEX ANGLE				
						HANDHOLE	PED. HEAD	PED. HEAD	PUSHBUTTON	SUPPLEMENTAL SIGNAL HEAD
			FT	FT	DEG	DEG	DEG	DEG	DEG	
PS-1	41+07.7	47.5' LT	724.64	8	0	180	2	-	-	155
PS-2	40+16.6	47.9' LT	726.71	15	0	180	182	271	271	-
PS-3	40+16.0	38.4' RT	726.94	15	0	180	90	-	90	285



POLE ORIENTATION

WIRING DIAGRAM (TYPICAL)

FIELD WIRING HOOKUP CHART (TEM FORM 496-16)



SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2A, 2B, 2C (NB)	R	φ 2 R	R
	Y	φ 2 Y	
	G	φ 2 G	
4 (EB RT)	R	φ 4 R	R
	Y	φ 4 Y	
	G	φ 4 G	
6A, 6B, 6C (SB)	R	φ 6 R	R
	Y	φ 6 Y	
	G	φ 6 G	
7A, 7B (EB LT)	R	φ 4 R	R
	Y	φ 4 Y	
	G	φ 4 G	
	<--G-->	φ 4 G	
PEDESTRIAN MOVEMENTS			
PED 4	W	φ 4 / LS 11 G	OUT
	DW	φ 4 / LS 11 R	
PED 6	W	φ 6 / LS 10 G	OUT
	DW	φ 6 / LS 10 R	

LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		2/C NO. 14 AWG (LEAD-IN CABLE)		SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG		POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
	PEDESTRIAN SIGNAL		SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG		METER BASE
	PEDESTRIAN PUSH BUTTON		RADAR DETECTION CABLE		NO. 4 AWG DISTRIBUTION CABLE
	STOP LINE RADAR DETECTION UNIT		PHOTOELECTRIC CELL		NO. 10 AWG POLE AND BRACKET CABLE
	LUMINAIRE, CONVENTIONAL		POWER SOURCE		DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
			SIGNAL SUPPORT POLE NO. __		UNINTERRUPTIBLE POWER SUPPLY CABLE
					HAND/ OFF/ AUTO SWITCH

WIRING DIAGRAM

CUY-90-11.33

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DESIGN AGENCY
WSP
 WSP USA, Inc.
 2 Miranova Pl,
 Suite 450
 Columbus, OH 43215

DESIGNER
 BPT

REVIEWER
 NWA 05/12/23

PROJECT ID
 119472

SHEET TOTAL
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ITEM 625 - PULL BOX CLEANED, AS PER PLAN

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

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

ITEM 625 - LIGHTING, MISC.: CABLE REMOVED AND REINSTALLED

THIS ITEM OF WORK SHALL CONSIST OF DISCONNECTING THE EXISTING LIGHTING CIRCUIT AND REMOVING THE CABLE FROM THE EXISTING CONDUIT AND REINSTALLING THE CABLE IN THE PROPOSED CONDUIT AND RECONNECTING THE CIRCUIT.

PAYMENT WILL BE MADE AT THE LUMP SUM UNIT PRICE BID UNDER C&MS ITEM 625, "LIGHTING, MISC.: CABLE REMOVED AND REINSTALLED" FOR ALL CABLE REMOVED AND REINSTALLED, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	SEE SHEET
625	25902	100	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	
625	30510	1	EACH	PULL BOX, 725.06, SIZE 4	
625	39520	1	EACH	PULL BOX CLEANED	
625	98200	LS		LIGHTING, MISC.: CABLE REMOVED AND REINSTALLED	P.32

DESIGN AGENCY



WSP USA, Inc.
 2 Miranova Pl,
 Suite 450
 Columbus, OH 43215

DESIGNER

BPT

REVIEWER

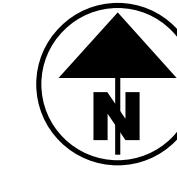
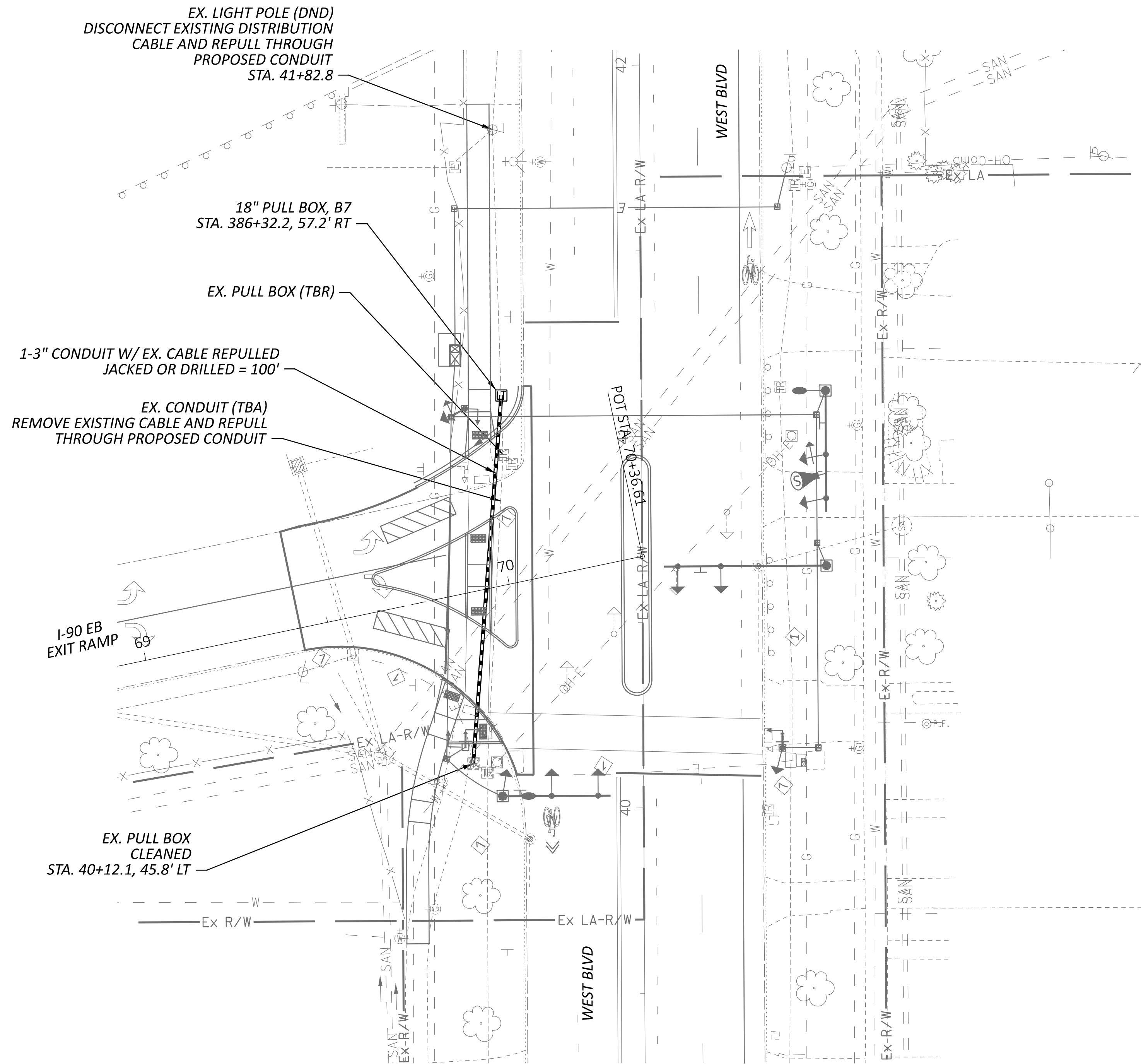
NWA 05/12/23

PROJECT ID

119472

SHEET TOTAL






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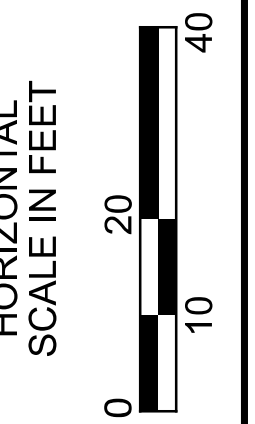


NOTE:

IT IS THE INTENT THAT THE EXISTING LIGHTING CIRCUIT BE DISCONNECTED AT THE EXISTING LIGHT POLE AT STA. 41+82.8. THE CABLE SHALL THEN BE REMOVED FROM THE EXISTING CONDUIT FROM THE EXISTING PULL BOX AT STA. 40+12.1. ONCE THE PROPOSED CONDUIT AND PULL BOX ARE IN PLACE THE EXISTING CABLE SHALL BE ROUTED THROUGH THE PROPOSED CONDUIT AND RECONNECTED TO THE EXISTING LIGHT POLE.

LEGEND:

-  EXISTING LIGHT POLE
-  EXISTING PULL BOX
-  EXISTING CONDUIT
-  PROPOSED PULL BOX
-  PROPOSED CONDUIT, 3"



LIGHTING PLAN

DESIGN AGENCY



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DESIGNER
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