

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
ATB-US-20-21.86
PART 1
CITY OF CONNEAUT
ASHTABULA COUNTY

FOR PART 2, SEE ATB-US-20-21.86 (CENTER ROAD BRIDGE REHABILITATION)
FOR PART 3, SEE ATB-20/531-21.86/22.11.

PROJECT DESCRIPTION

THIS PROJECT ENTAILS THE REPLACEMENT OF PAVEMENT FOR 0.73 MILES ALONG U.S. 20 AND INCLUDES THE ADDITION OF CURB AND GUTTER, DRAINAGE IMPROVEMENTS AND A ROAD DIET FOR U.S. 20 THAT REDUCES THE NUMBER OF LANES FROM FOUR TO THREE.

EARTH DISTURBED AREAS


PROJECT EARTH DISTURBED AREA: 5.25 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 5.50 ACRES

2019 SPECIFICATIONS

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

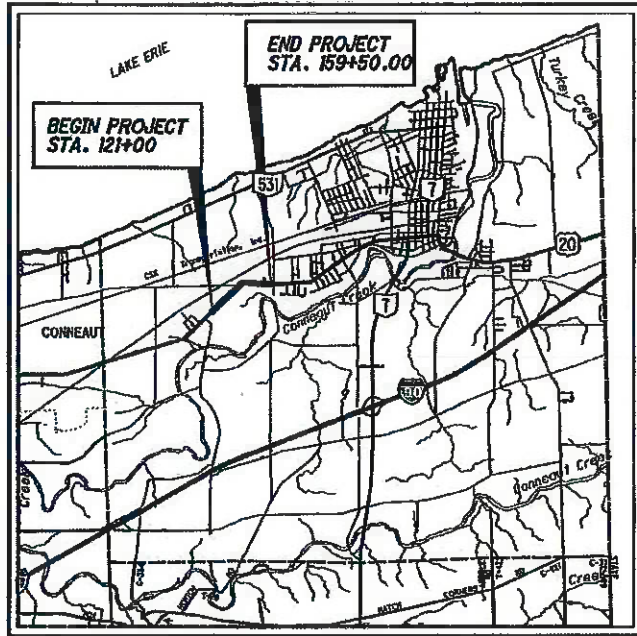
REV	DATE	DESCRIPTION
R1	2/11/21	ADDED SHEETS

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY IN THE WESTBOUND DIRECTION AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 10.

APPROVED: 
DATE: 12-20-20 CONNEAUT CITY MANAGER

APPROVED: 
DATE: 12/7/2020 DISTRICT DEPUTY DIRECTOR

APPROVED: _____
DATE: _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION



LOCATION MAP

LATITUDE: 41°56'15" N LONGITUDE: 80°35'44" W



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

DESIGN DESIGNATION

CURRENT ADT (2020)	6900
DESIGN YEAR ADT (2040)	6900
DESIGN HOURLY VOLUME (2040)	600
DIRECTIONAL DISTRIBUTION	50%
TRUCKS (24 HOUR B&C)	2%
DESIGN SPEED	40 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
PRINCIPAL URBAN ARTERIAL	
NHS PROJECT	YES

DESIGN EXCEPTIONS ADA DESIGN WAIVER
NONE NONE REQUIRED

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig



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

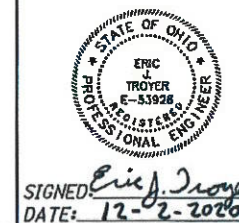
PLAN PREPARED BY:
CT CONSULTANTS, INC.
8150 STERLING COURT
MENTOR, OHIO 44060

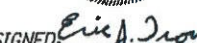


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ENGINEERS SEAL:



SIGNED: 
DATE: 12-2-2020

PARTS 1, 2, AND 3												
STANDARD CONSTRUCTION DRAWINGS										SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-3.1	1-17-20			MT-96.11	4-17-20	TC-41.20	10-18-13			800-2019	1-15-21	ASBESTOS 11-1-19
BP-4.1	7-19-13	LA-1.1	10-15-10	MT-96.26	1-18-19	TC-41.30	10-18-13					WPC 1-21-21
BP-5.1	1-18-19	MGS-1.1	1-19-18	MT-97.10	4-19-19	TC-42.10	10-18-13	DBR-2-73	7-19-02	821	4-20-12	
BP-7.1	7-17-20	MGS-2.1	1-19-18	MT-97.11	1-20-17	TC-42.20	10-18-13	DBR-3-11	7-15-11			
		MGS-3.1	1-19-18	MT-97.12	1-20-17			DS-1-92	7-18-03	832	10-19-18	
CB-1.1	7-19-19	MGS-3.2	1-18-13			TC-52.10	10-18-13	SBR-3-20	7-17-20			
CB-2.1	7-20-18	MGS-4.2	7-19-13	MT-99.20	4-19-19	TC-52.20	7-20-18	TST-1-99	7-20-18	895	4-18-14	
CB-2.2	7-20-18	MGS-4.3	1-18-13									
CB-2.3	1-15-16	MGS-5.3	7-15-16	MT-101.60	1-17-20					961	4-17-20	
		MH-1.2	1-15-16	MT-101.70	1-17-20	TC-65.10	1-17-14					
DM-1.1	7-17-20	RM-5.2	1-18-19	MT-101.90	7-17-20	TC-65.11	7-21-17			995	7-17-15	
DM-1.2	1-18-13											
		MT-95.31	7-19-19	MT-105.10	1-17-20							
DM-4.3	1-15-16	MT-95.32	4-19-19	MT-110.10	7-19-13							
DM-4.4	1-15-16	MT-95.50	7-21-17									

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:

POWER: THE ILLUMINATING COMPANY
FIRST ENERGY
6869 MILLER ROAD, SUITE 101
BRECKSVILLE, OHIO 44141
(440) 456-8706
ATTN: JOHN M. ZASSICK
jmzassick@firstenergycorp.com

COMMUNICATION: OSP ENGINEERING AND CONSTRUCTION (SPRINT)
11370 ENTERPRISE PARK DRIVE
SHARONVILLE, OHIO 45241
(814) 553-2300
ATTN: STEVE HUGHES
STEVEN.HUGHES@SPRINT.COM

GAS: DOMINION EAST OHIO
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OHIO 44333
(330) 664-2638
ATTN: MICAH RISACHER
Micah.J.Risacher@dominionenergy.com

TELEPHONE: GREAT WAVE COMMUNICATION
224 STATE STREET
CONNEAUT, OHIO 44030
(440) 593-7140
ATTN: ENGINEERING DEPT.

WATER: CITY OF CONNEAUT
WATER TREATMENT PLANT
770 LAKE ROAD
CONNEAUT, OHIO 44030
(440) 593-7420
ATTN: RICH NEUBAUER
wfp@conneautoh.org

SPECTRUM: 3315 NORTH RIDGE EAST,
SUITE 100
ASHTABULA, OHIO 44004
(440) 261-4604
ATTN: KIP LINCOLN

ODOT: UTILITY COORDINATOR
(330) 786-4832
ATTN: MATTHEW STEELE
matthew.steele@dot.ohio.gov

UTILITY RELOCATIONS AND ISSUES DURING CONSTRUCTION: JAMES HOCKADAY
CITY OF CONNEAUT
(440) 593-7401

SANITARY: CITY OF CONNEAUT
WASTEWATER DEPARTMENT
1206 BROAD STREET EXT
CONNEAUT, OHIO 44030
(440) 593-7434
ATTN: BRIAN BIDWELL
wwl@conneautoh.org

ERIC TROYER
CT CONSULTANTS, INC.
(614) 779-0038

STORM: CITY OF CONNEAUT
PUBLIC WORKS
283 16TH STREET
CONNEAUT, OHIO 44030
(440) 593-7435
ATTN: JOE DIBELL
pwd3@conneautoh.org

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. AND FROM LEVEL A AND B SUBSURFACE UTILITY LOCATION SERVICES.

EXISTING PLANS

EXISTING PLANS ENTITLED CLEVELAND BUFFALO ROAD (1930), CLEVELAND BUFFALO ROAD (1947), AND ATB-20-21.96 (2001) MAY BE INSPECTED IN THE ODOT DISTRICT 4 OFFICE IN AKRON, OHIO.

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 PM AND 7:00 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.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 2 AND 3 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: VRS BTK
MONUMENT TYPE: TYPE "B"

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID 12 A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83(2011) EPOCH: 2010.0000
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 1.0000000
ORIGIN OF COORDINATE SYSTEM: (X,Y) EASTING (X):0, NORTHING (Y):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.

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 202 - PAVEMENT REMOVED. AS PER PLAN

EXISTING PAVEMENT SHALL BE REMOVED AS PER ITEM 202. THE EXISTING TYPICAL SECTION IS AN APPROXIMATION OF THE EXISTING PAVEMENT BASED ON PAVEMENT BORINGS AND EXISTING PLANS. EXISTING MATERIAL CONSISTS OF CONCRETE BASE, REINFORCED CONCRETE BASE, BRICK PAVERS AND ASPHALT. THE THICKNESSES OF THESE MATERIALS CAN VARY. PAYMENT FOR THE ABOVE SHALL BE MADE UNDER THE UNIT PRICE BID FOR ITEM 202 PAVEMENT REMOVED, AS PER PLAN.

ITEM 202 - MAILBOX REMOVED. AS PER PLAN

THE EXISTING MAILBOX SHALL BE CAREFULLY REMOVED PRIOR TO CONSTRUCTION AND PLACED AT A LOCATION THAT IS ACCESSABLE FOR ALL DELIVERIES AND BY THE RESIDENT DURING THE CONSTRUCTION PROCESS. AFTER CONSTRUCTION, THE EXISTING MAILBOX SHALL BE RELOCATED TO ITS FINAL LOCATION. ANY DAMAGED MAILBOXES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. PAYMENT SHALL BE MADE UNDER THE UNIT PRICE FOR ITEM 202 MAILBOX REMOVED, AS PER PLAN.

ITEM 204 - PROOF ROLLING

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

ITEM 204 - PROOF ROLLING 7 HOUR

UNSTABLE OR UNSUITABLE SOILS FOR PAVEMENT STABILIZATION

THE FOLLOWING ITEMS AND QUANTITIES SHALL BE USED AS DIRECTED BY THE ENGINEER TO ADDRESS UNSTABLE OR UNSUITABLE SOILS ENCOUNTERED:

ITEM 204 EXCAVATION OF SUBGRADE 650 CY
ITEM 204 GRANULAR MATERIAL, TYPE B 650 CY
ITEM 204 GEOTEXTILE FABRIC, 1900 SY

ITEM 304 AGGREGATE BASE. AS PER PLAN

GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE.

ITEM 441 ASPHALT CONCRETE SURFACE COURSE. TYPE 1. (448). AS PER PLAN. PG70-22M

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

THE USE OF GRAVEL FOR COARSE VIRGIN AGGREGATE IS PROHIBITED.

IN ADDITION TO THE GUTTER SEALING REQUIREMENTS SPECIFIED ON SCD BP-3.1 AND IN 401.15, THE CONTRACTOR SHALL SEAL THE FOLLOWING LOCATIONS:

- ALL CASTINGS INCLUDING BUT NOT LIMITED TO MONUMENTS, MANHOLES, WATER VALVES, CATCH BASINS, CURB INLETS.
- BUTT JOINTS AND FEATHER JOINTS INCLUDING BRIDGE APPROACHES.
- BUTT JOINT BETWEEN PAVED SHOULDER AND DRIVEWAY ASPHALT AND TAPERED EDGE WHEN FEATHERING TO AN EXISTING ASPHALT DRIVEWAY.
- PERIMETER OF ALL PAVEMENT REPAIRS OR OTHER ASPHALT INLAYS WHEN PAVEMENT REPAIRS/INLAYS ARE NOT OVERLAID WITH AN ASPHALT CONCRETE SURFACE COURSE.

THE MATERIAL USED SHALL BE A CERTIFIED 702.01 PG BINDER. THE WIDTH OF THE SEALER SHALL BE 2 INCHES.

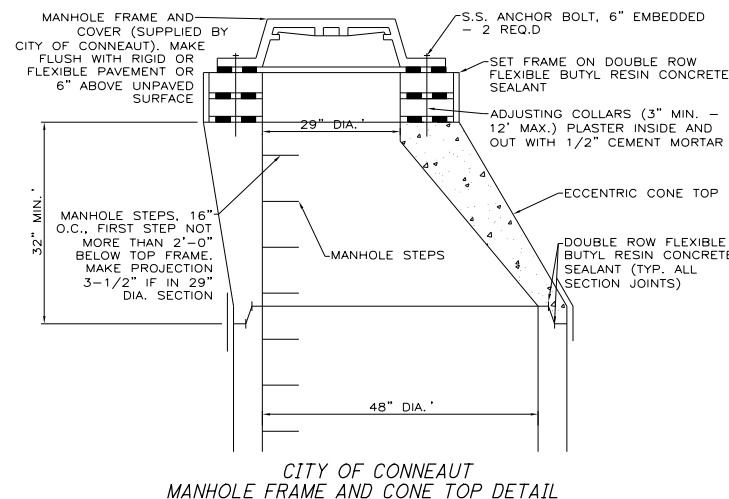
ANY ADDITIONAL COSTS ASSOCIATED WITH THE WORK IDENTIFIED IN THIS NOTE SHALL BE INCLUDED IN THE APPROPRIATE ASPHALT CONCRETE SURFACE COURSE ITEM OF WORK.

ITEM 611 MANHOLE. AS PER PLAN

STORM MANHOLES SHALL BE AS PER ITEM 611 EXCEPT FOR THE FOLLOWING:

1. STORM COVERS AND FRAMES SHALL BE SUPPLIED BY THE CITY OF CONNEAUT. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE CITY PRIOR TO CONSTRUCTION TO PROCURE THESE ITEMS.
2. THE ECCENTRIC CONE OR THE FLAT TOP COVER OF THE MANHOLE SHALL BE MODIFIED TO FIT THE CITY OF CONNEAUT FRAME (INSIDE DIAMETER = 29"). THE FRAME SHALL BE ATTACHED TO THE MANHOLE WITH STAINLESS STEEL ANCHOR BOLTS. SEE DETAIL BELOW.

THE WORK AND MATERIALS DESCRIBED ABOVE AND IN THE DETAIL BELOW (EXCEPT THE FRAME AND THE COVER) SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 611 MANHOLE, AS PER PLAN.



ITEM 625 LIGHT POLE FOUNDATION REMOVED. AS PER PLAN

THE EXISTING LIGHT POLE FOUNDATION SHALL BE REMOVED AS PER 625.21 ALONG WITH THE REMAINING LIGHT POLE BASE. THE ELECTRIC POWER LINES TO THE LIGHT POLE BASE SHALL BE CUT AND CAPPED AT THE RIGHT OF WAY LINE.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PRIVATE USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT, AT MAXIMUM OPERATING HEIGHT, SHALL EXCEED A HEIGHT OF 25 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, COORDINATION WITH THE AIRPORT OWNER AND THE ODOT OFFICE OF AVIATION WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. FOR PRIVATE USE AIRPORTS OR HELIPORTS, COORDINATE WITH THE AIRPORT OWNER AND THE ODOT OFFICE OF AVIATION. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL COORDINATION IS MET AND DOCUMENTATION HAS BEEN FURNISHED TO THE PROJECT ENGINEER. IF COORDINATION IS NOT OBTAINED, THEN THE PROJECT ENGINEER WILL HAVE THE AUTHORITY TO PROVIDE RESTRICTIONS AS REQUIRED.

HELIPORT
UH CONNEAUT MEDICAL CENTER
158 WEST MAIN STREET
CONNEAUT, OHIO 44038
(440) 593-1131

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 606 - ANCHOR ASSEMBLY. MGS TYPE E (MASH 2016)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

REV.	DATE	DESCRIPTION
R1	2/11/21	NOTE REVISIONS

BEGIN CONSTRUCTION DATE

NO CONSTRUCTION WORK CAN BEGIN UNTIL MAY 1, 2021 WITHOUT APPROVAL BY THE ODOT DISTRICT 4 CONSTRUCTION ENGINEER.



SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	1104 CU. YD.
659, SEEDING AND MULCHING	9939 SQ. YD.
659, REPAIR SEEDING AND MULCHING	497 SQ. YD.
659, INTER-SEEDING	497 SQ. YD.
659, COMMERCIAL FERTILIZER	1.4 TON
659, LIME	2.1 ACRES
659, WATER	54 M. GAL.
659, MOWING	90 M. SQ.FT.

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

POST CONSTRUCTION STORM WATER TREATMENT

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

MANUFACTURED WATER QUALITY STRUCTURE

THIS PLAN UTILIZES MANUFACTURED WATER QUALITY STRUCTURES FOR WATER QUALITY TREATMENT. AREAS HAVE BEEN SHOWN IN THE PLANS FOR PLACEMENT OF AN OFF-LINE SYSTEM. PAYMENT FOR THESE DEVICES SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM 895, MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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

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

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

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

MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED

ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY CITY FORCES.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1. LONGITUDINAL JOINTS ARE ONLY ALLOWED AT THE PHASE LINE. TRANSVERSE JOINTS ARE ONLY ALLOWED AT INTERSECTIONS AND AT THE BEGIN AND END PAVEMENT WORK LIMITS.

ITEM SPECIAL - PIPE CLEANOUT, 24" AND UNDER

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

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

STA. 120+00, LT	10" STM	50 FT
STA. 120+00, RT	10" STM	50 FT
STA. 129+80, RT	12" STM	100 FT
STA. 140+78, LT	10" STM	30 FT
STA. 144+96, RT	15" STM	100 FT
TOTAL:		330 FT

SPECIAL, PIPE CLEANOUT, 24" AND UNDER 330 FT.



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:

605, AGGREGATE DRAINS	50 FT.
611, 6" CONDUIT, TYPE F, FOR UNDERDRAIN OUTLETS	50 FT.
611, PRECAST REINFORCED CONCRETE OUTLET	5 EACH
605 6" UNCLASSIFIED PIPE UNDERDRAINS	100 FT.

TEMPORARY DRAINAGE ITEMS

TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC PLAN ARE ITEMIZED ON THE MOT PLANS. PAYMENT FOR THE TEMPORARY DRAINAGE ITEMS ARE ITEMIZED AND CARRIED TO THE GENERAL SUMMARY.

ITEM 611 MANHOLE RECONSTRUCTED TO GRADE. AS PER PLAN (SANITARY)

IN ADDITION TO THE REQUIREMENTS OF CMS 611.10.D FOR MANHOLES, THE CONTRACTOR SHALL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (A MINIMUM OF 1'-0" OUTSIDE OF THE CASTING) AND ADJUST THE CASTING TO GRADE (ACCORDING TO THE TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN PLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE SHALL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

THE CONTRACTOR SHALL REPLACE THE SANITARY COVERS, FRAMES AND MANHOLE CONES AS PER THE MANHOLE FRAME AND CONE TOP DETAIL SHOWN ON SHEET 7.

THE SANITARY COVERS AND FRAMES SHALL BE SUPPLIED BY THE CITY OF CONNEAUT. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE CITY PRIOR TO CONSTRUCTION TO PROCURE THESE ITEMS.

ALL ITEMS ADJUSTED AND RECONSTRUCTED TO GRADE SHALL BE AS DIRECTED BY THE ENGINEER.

PAYMENT SHALL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION OF THE NEW CONE, FRAME AND COVER, AND ALL LABOR REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.

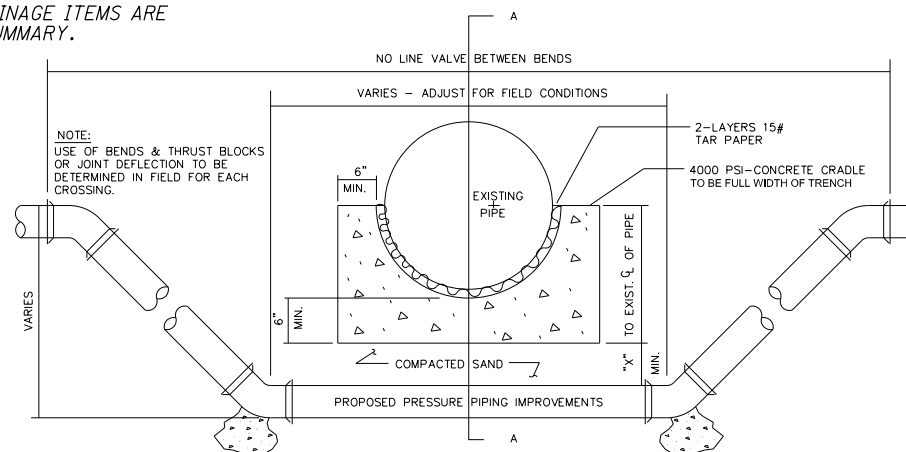
VALVE BOX ADJUSTED TO GRADE. AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 638.18 FOR VALVE BOXES, THE CONTRACTOR SHALL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (A MINIMUM OF 1'-0" OUTSIDE OF THE CASTING) AND ADJUST THE CASTING TO GRADE (ACCORDING TO THE TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN PLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE SHALL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

ALL ITEMS ADJUSTED TO GRADE SHALL BE AS DIRECTED BY THE ENGINEER.

PAYMENT SHALL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION OF THE NEW CASTING, AND ALL LABOR REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.



- CONCRETE CRADLE CONDITIONS:**
- a) IF SANITARY OR STORM SEWER PIPE JOINT IS WITHIN PROPOSED IMPROVEMENT TRENCH LIMITS
 - b) IF CROSSING A WATER LINE AT ANY POINT
 - c) IF CROSSING SPACE IS LESS THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS "X" DIMENSION THEN OMIT SAND FILL AND USE CONCRETE
- "X" DIMENSION REQUIREMENTS:**
- a) 6" FOR WATER LINE CROSSING (ALSO FOR GAS & O.B.T. LINES w/NO CRADLE NEEDED)
 - b) 18" FOR SANITARY OR STORM SEWER PIPE
 - c) IF CROSSING SPACE IS MORE THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS FOREMENTIONED "X" DIMENSION THEN EXTEND "X" DIMENSION TO MAKE UP DIFFERENCE.

PIPE LOWERING DETAIL
11/88 NOT TO SCALE SD-4-13

ITEM 638 WATERWORK MISC.: WATER SERVICE CONNECTION PIPE LOWERING

IN ADDITION TO THE REQUIREMENTS OF CMS 638 FOR WATER SERVICES, THE CONTRACTOR SHALL FOLLOW THE PIPE LOWERING DETAIL ON THIS SHEET.

WATERLINE CONTINGENCY QUANTITIES

CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE PLANS TO USED AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITIES HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE WORK:

ITEM 638 - VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	10 EACH
ITEM 638 - SERVICE BOX ADJUSTED TO GRADE	60 EACH
ITEM 638 - WATER SERVICE CONNECTION PIPE LOWERING	400 FT

SPECIAL - GAS VALVE BOX ADJUSTED TO GRADE

IN ADDITION TO THE REQUIREMENTS OF CMS 638.18 FOR VALVE BOXES, THE CONTRACTOR SHALL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (A MINIMUM OF 1'-0" OUTSIDE OF THE CASTING) AND ADJUST THE CASTING TO GRADE (ACCORDING TO THE TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN PLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE SHALL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

ALL ITEMS ADJUSTED TO GRADE SHALL BE AS DIRECTED BY THE ENGINEER.

PAYMENT SHALL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION OF THE NEW CASTING, AND ALL LABOR REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE WORK:

ITEM SPECIAL - GAS VALVE BOX ADJUSTED TO GRADE 10 EACH

EXISTING ASBESTOS CEMENT WATERLINE

WHEN WORKING AROUND OR REMOVING THE EXISTING ASBESTOS CEMENT WATERLINE, ALL OSHA REQUIREMENTS SHALL BE ADHERED TO BY THE CONTRACTOR. ANY REMOVALS SHALL BE AS PER CMS 202.04. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK:

ITEM 202 ASBESTOS PIPE REMOVED 489 FT

LOCATIONS OF THE ESTIMATED REMOVALS ARE AS FOLLOWS:

STA. 119+90 TO STA. 120+05, RT.	= 15 FT
STA. 123+45 TO STA. 123+55, RT.	= 10 FT
STA. 124+26 TO STA. 124+56, RT.	= 30 FT
STA. 126+58 TO STA. 126+68, RT.	= 10 FT
STA. 127+62 TO STA. 127+72, RT.	= 10 FT
STA. 129+75 TO STA. 130+23, RT.	= 48 FT
STA. 131+25 TO STA. 131+56, RT.	= 31 FT
STA. 131+97 TO STA. 132+18, RT.	= 21 FT
STA. 133+45 TO STA. 133+65, RT.	= 20 FT
STA. 134+31 TO STA. 134+51, RT.	= 20 FT
STA. 134+98 TO STA. 135+18, RT.	= 20 FT
STA. 136+02 TO STA. 136+22, RT.	= 20 FT
STA. 140+84 TO STA. 140+94, RT.	= 10 FT
STA. 143+85 TO STA. 143+95, RT.	= 10 FT
STA. 144+91 TO STA. 145+01, RT.	= 10 FT
STA. 147+35 TO STA. 147+45, RT.	= 10 FT
STA. 150+85 TO STA. 150+95, RT.	= 10 FT
STA. 152+43 TO STA. 152+69, RT.	= 26 FT
STA. 154+35 TO STA. 154+45, RT.	= 10 FT
STA. 154+64 TO STA. 154+84, RT.	= 20 FT
STA. 155+24 TO STA. 155+44, RT.	= 20 FT
STA. 155+95 TO STA. 156+15, RT.	= 20 FT
STA. 157+59 TO STA. 157+81, RT.	= 22 FT
STA. 158+33 TO STA. 158+57, RT.	= 24 FT
STA. 159+02 TO STA. 159+44, RT.	= 42 FT

TOTAL = 489 FT

SIGN LIGHTING, MISC.: REFURBISH SIGN LIGHTING ASSEMBLY

THIS WORK SHALL CONSIST OF REMOVING AND REPLACING ANY DAMAGED, RUSTY OR NON-FUNCTIONING PARTS OF THE EXISTING SIGN LIGHTING ASSEMBLY. ALL ITEMS SHALL BE AS DIRECTED BY THE ENGINEER.

PAYMENT SHALL INCLUDE REMOVAL OF THE EXISTING PART, INSTALLATION OF THE NEW PART, AND ALL LABOR AND DESIGN REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.


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GENERAL NOTES
ATB-US-20-21.86 (SLM 23.01 - SLM 23.74)
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123


ITEM 614. MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR PHASE 1 OF CONSTRUCTION WHERE ONE LANE EAST BOUND WILL BE PROVIDED, BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410 AND 614. WESTBOUND TRAFFIC SHALL BE DETOURED DURING PHASE 1 AS PER THE DETOUR ROUTE SHOWN ON SHEET 11 FOR A LENGTH OF TIME NOT EXCEEDING 180 DAYS.

THE FOLLOWING COMPLETION DATES ARE REQUIRED FOR THIS PROJECT:

PHASE 1 AND PHASE 2: **OCTOBER 31, 2021** 
PHASE 3: JULY 31, 2022

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

410.	TRAFFIC COMPACTED SURFACE, TYPE A OR B	300 CU. YD.	
611	12" CONDUIT, TYPE B	50 FT	
611	18" CONDUIT, TYPE B	50 FT	
611	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	2 EACH	
611	CATCH BASIN, NO. 2-3	2 EACH	
614	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	50 CU. YD.	
615	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	250 SQ. YD.	
615	ROADS FOR MAINTAINING TRAFFIC,	LUMP SUM	
616	WATER	50 M. GAL.	

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.


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.

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.

PHASE I		
WORK ZONE MARKING SIGN	10 EACH	
WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	1.5 MILE	
WORK ZONE CENTER LINE, CLASS I, 642 PAINT	0.1 MILE	
WORK ZONE STOP LINE, CLASS I, 642 PAINT	30 FT	
WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	210 FT	
PHASE II		
WORK ZONE MARKING SIGN	10 EACH	
WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	1.6 MILE	
WORK ZONE CENTER LINE, CLASS I, 642 PAINT	0.1 MILE	
WORK ZONE STOP LINE, CLASS I, 642 PAINT	30 FT	
WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	310 FT	
PHASE III		
WORK ZONE MARKING SIGN	10 EACH	
WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	1.5 MILE	
WORK ZONE CENTER LINE, CLASS I, 642 PAINT	1.8 MILE	
WORK ZONE STOP LINE, CLASS I, 642 PAINT	60 FT	
WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	431 FT	
WORK ZONE ARROW, CLASS I, 642 PAINT	21 EACH	
TOTAL		
WORK ZONE MARKING SIGN	30 EACH	
WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	4.6 MILE	
WORK ZONE CENTER LINE, CLASS I, 642 PAINT	2.0 MILE	
WORK ZONE STOP LINE, CLASS I, 642 PAINT	120 FT	
WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	431 FT	
WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	520 FT	
WORK ZONE ARROW, CLASS I, 642 PAINT	21 EACH	

ITEM 614. PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

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

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

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET 10 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 30 SIGN MONTH ASSUMING 2 PCMS SIGN(S) FOR 15 MONTH(S)

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL AND ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFLECTORS.]

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL) 21 EACH
ITEM 614, OBJECT MARKER, 2-WAY 21 EACH

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

ITEM 614 - BUSINESS ENTRANCE (M4-H15) SIGN, AS PER PLAN

THE BUSINESS ENTRANCE (M4-H15) SIGN SHOULD BE PROVIDED AT EACH TEMPORARILY RELOCATED COMMERCIAL DRIVEWAY FOR WHICH THE RELOCATION IS NOT OBVIOUS TO THE MOTORIST. THE PROJECT ENGINEER SHALL DETERMINE WHETHER OR NOT THE DRIVEWAY RELOCATION IS, OR IS NOT, OBVIOUS AND WHETHER OR NOT A SIGN SHOULD BE PROVIDED. ONLY ONE SIGN PER BUSINESS SHALL BE PERMITTED. THE SIGN SHALL BE 36 INCH X 48 INCH IN SIZE WITH TYPE G OR TYPE H ORANGE RETROREFLECTIVE SHEETING. THE SIGN LEGEND SHALL BE PLACED ON BOTH SIDES OF THE SIGN (BACK TO BACK). THE SIGN SHALL HAVE THE STANDARD M4-H15 LEGEND WITH THE WORD "BUSINESS" ON THE TOP LINE, EXCEPT UNDER UNUSUAL CIRCUMSTANCES WHERE IT MAY NOT BE INTUITIVE THAT A DRIVEWAY SERVES A SPECIFIC BUSINESS. IN SUCH UNUSUAL CASES, THE ACTUAL BUSINESS NAME MAY BE SUBSTITUTED FOR THE WORD "BUSINESS".

THE SIGN SHALL BE MOUNTED ON TWO #3 POSTS OR ON TEMPORARY POSTS IN ACCORDANCE WITH SCD MT-105.10 AND IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. THE SIGN SHALL BE CLEARLY VISIBLE AND SHALL CLEARLY IDENTIFY THE LOCATION OF THE DRIVEWAY. THE SIGN SHOULD BE POSITIONED AT 90 DEGREES TO THE DIRECTION(S) OF TRAFFIC. THE SIGN MAY NEED TO BE MOVED FOR EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.

PAYMENT FOR ALL COSTS ASSOCIATED WITH MANUFACTURING, MOUNTING, RELOCATING, AND REMOVING THE SIGN, INCLUDING ALL LABOR, MATERIALS AND EQUIPMENT SHALL BE INCLUDED IN THE CONTRACT PRICE PER EACH FOR ITEM 614-BUSINESS ENTRANCE SIGN.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS ITEM:

ITEM 614, BUSINESS ENTRANCE SIGN, AS PER PLAN 6 EACH

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY:

EXCAVATION FOR MAINTAINING TRAFFIC 75 CU. YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED. COORDINATE THE GEOTECHNICAL EVALUTATION WITH ODOT DISTRICT 4, GEOTECHNICAL SECTION IF NECESSARY.

REV.	DATE	DESCRIPTION
R1	2/18/21	QUANTITY REVISIONS AND ADDITIONS.
		NOTE REVISIONS

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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 A NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

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

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

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

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

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

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 100 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.

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.

DROP-OFFS

DURING NON-WORKING HOURS, WHEN TRAFFIC IS MAINTAINED LESS THAN 3 FEET FROM THE WORK AREA, A 3-INCH MAXIMUM DROP-OFF IS PERMITTED. WHEN TRAFFIC IS MAINTAINED 3 FEET OR MORE FROM THE WORK AREA, A 15-INCH MAXIMUM DROP-OFF IS PERMITTED. SEE DETAIL ON SHEET 13 FOR ADDITIONAL INFORMATION.

IN ORDER TO MAINTAIN A 3-FOOT MINIMUM OFFSET FROM THE TRAVELED LANE TO THE WORK AREA IN DROP-OFF LOCATIONS, A WEDGE OF FIRM AND UNYIELDING BACKFILL (ITEM 410) SHALL BE PLACED AS DETAILED ON SHEET 13. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED FOR THE TREATMENT OF DROP-OFFS:

ITEM 410 TRAFFIC COMPACTED SURFACE, TYPE A OR B 110 CY

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

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

NOTIFICATION TIME FRAME TABLE		
ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 weeks	21 BUSINESS DAYS PRIOR TO CLOSURE
	> 12 hours & < 2 weeks	14 BUSINESS DAYS PRIOR TO CLOSURE
	< 12 hours	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 weeks	14 BUSINESS 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 TABLE.

CONSTRUCTION SEQUENCE

PHASE 1:

1. INSTALL WESTBOUND U.S. 20 DETOUR ROUTE. SEE SHEET 11.
2. CLOSE DOWN TWO WESTBOUND LANES OF WESTBOUND U.S. 20 USING SCD MT-101.60 AND INSIDE EASTBOUND LANE PAVEMENT USING MT-95.32. OUTSIDE EASTBOUND PAVEMENT TO REMAIN OPEN TO TRAFFIC THRU THE CLOSURE AND DETOUR. SEE SHEET 13.
3. SHIFT TRAFFIC TO EASTBOUND CURB LANE AND MAINTAIN ONE-WAY EASTBOUND TRAFFIC ON EXISTING/TEMPORARY PAVEMENT THRU THE PROJECT.
4. CONSTRUCT PHASE 1 IMPROVEMENTS THRU THE INTERMEDIATE COURSE.

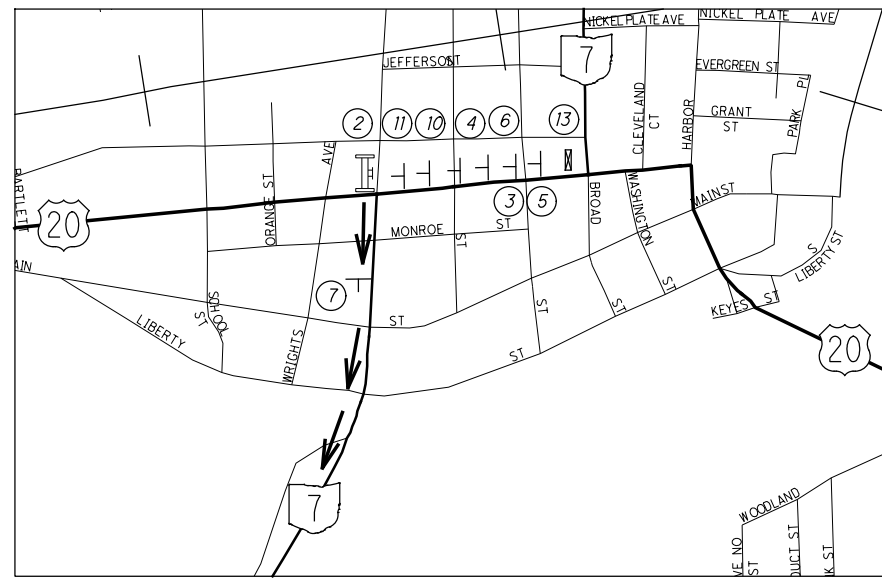
PHASE 2:

1. SHIFT TRAFFIC OVER TO COMPLETED PHASE 1 IMPROVEMENTS, MAINTAINING ONE-WAY, ONE LANE TRAFFIC THROUGHOUT THE PROJECT. MAINTAIN DETOUR ROUTE. SEE SHEET 13.
2. CONSTRUCT TYPE 2 MANUFACTURED WATER QUALITY SYSTEM AND PHASE 2 IMPROVEMENTS THROUGH THE INTERMEDIATE COURSE.
3. ADD TEMPORARY PAVEMENT MARKINGS IDENTICAL TO PAVEMENT MARKING PLAN. ALSO ADD TEMPORARY EDGE LINES ADJACENT TO NEW CURB AND GUTTER.
4. REMOVE MAINTENANCE OF TRAFFIC ITEMS AND OPEN ROADWAY TO FULL TWO-WAY THREE LANE TRAFFIC.

PHASE 3





1. CONSTRUCT THE FINAL ASPHALT SURFACE COURSE USING MT-97.11 AND PAVEMENT MARKINGS USING MT-99.20.
2. OPEN ROADWAY TO FULL TWO-WAY THREE LANE TRAFFIC.

REV.	DATE	DESCRIPTION
R1	2/11/21	NOTE REVISIONS



DETAIL 'A'

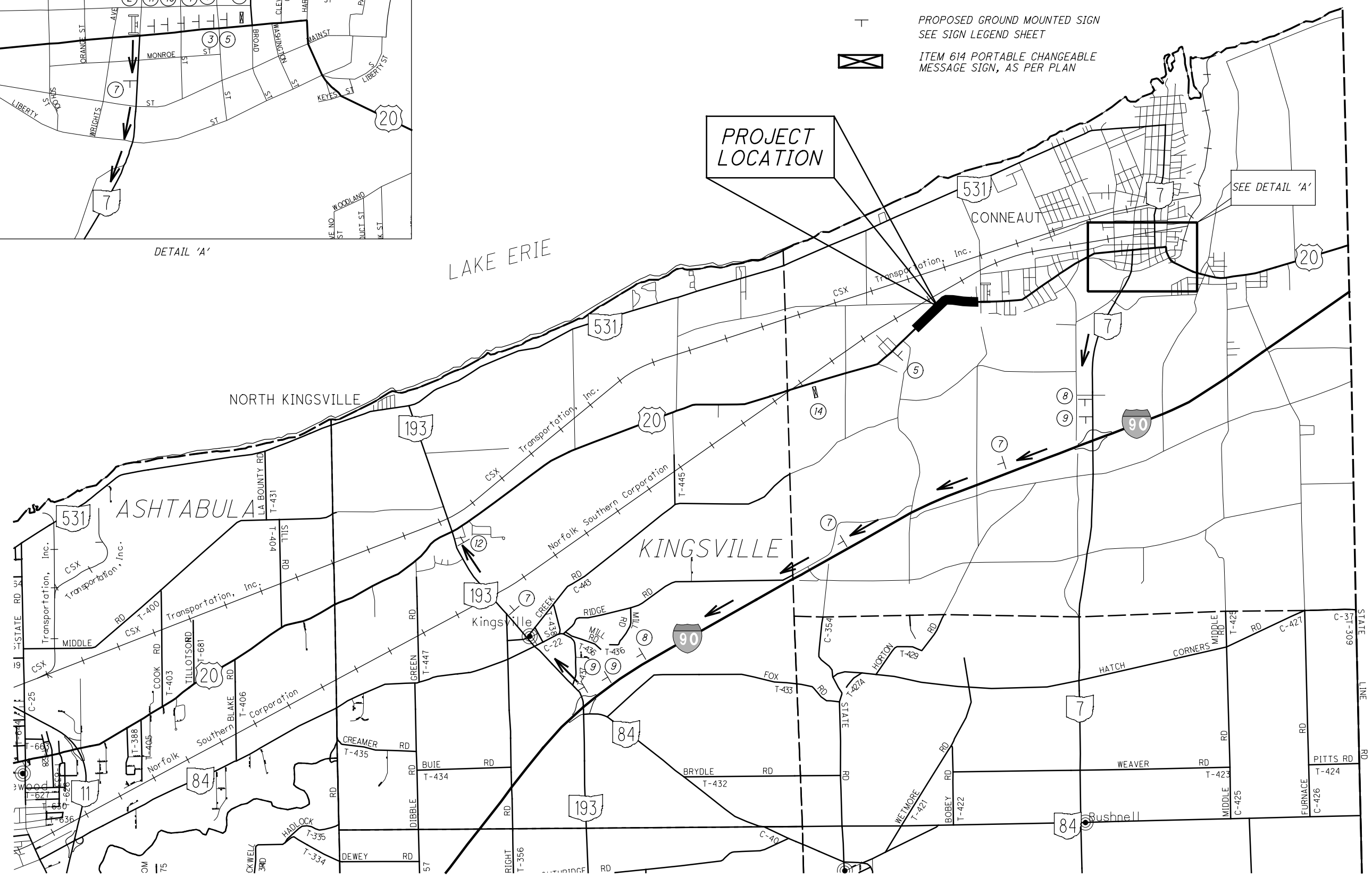
LEGEND

-  WESTBOUND DETOUR ROUTE, PHASE 1 AND PHASE 2 R1
-  PROJECT LOCATION
-  PROPOSED GROUND MOUNTED SIGN
SEE SIGN LEGEND SHEET
-  ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

CALCULATED
EJT
CHECKED
DLT




HORIZONTAL SCALE IN MILES

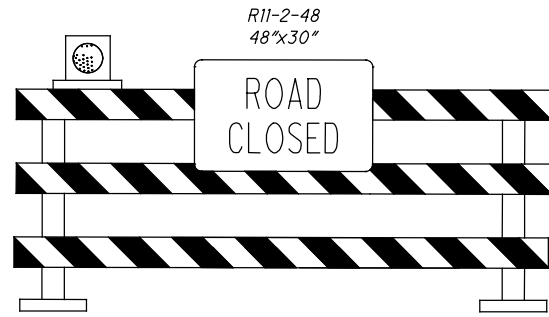


REV.	DATE	DESCRIPTION
R1	2/11/21	NOTE REVISION

MAINTENANCE OF TRAFFIC
PHASE I DETOUR ROUTE

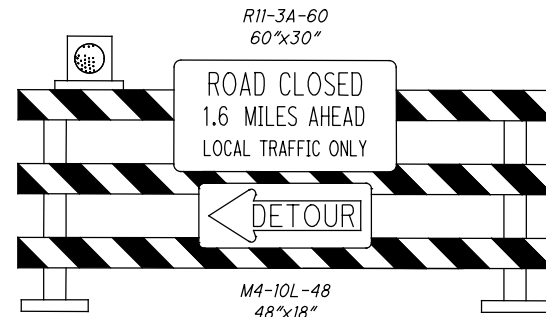
ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)

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SIGNS MOUNTED ON TYPE III PORTABLE BARRICADE

①



SIGNS MOUNTED ON TYPE III PORTABLE BARRICADE

②



W20-3-36
36"x36"

③



SPECIAL
36"x24"

④

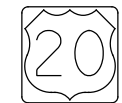


W20-1-36
36"x36"

⑤



M1-4-24-2



M1-4-24-2



M1-4-24-2



W20-2-36
36"x36"

⑥



M4-8-12

⑦



M4-8-12

⑧



M6-3-12

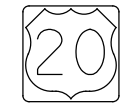


M5-1-12



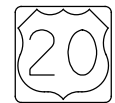
M1-4-24-2

⑨



M1-4-24-2

⑩



M1-4-24-2

⑪



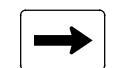
M4-8-12



M4-8-12



M4-8-12



M6-1-12



M5-1-12



M6-1-12



M4-8A-24
24"x18"

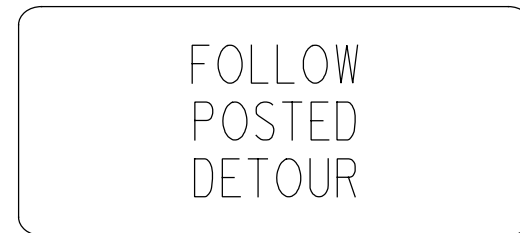
⑫

REV.	DATE	DESCRIPTION
R1	2/11/21	TEXT REVISION

PHASE 1



P.C.M.S. MESSAGE 1

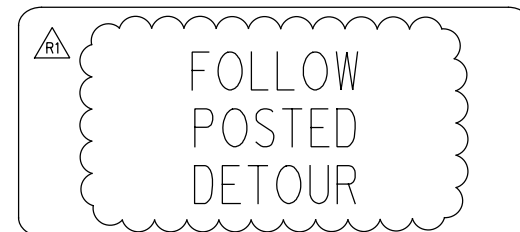


P.C.M.S. MESSAGE 2

PHASE 2



P.C.M.S. MESSAGE 1



P.C.M.S. MESSAGE 2

PHASE 1



P.C.M.S. MESSAGE 1



P.C.M.S. MESSAGE 2



P.C.M.S. MESSAGE 3

PHASE 2



P.C.M.S. MESSAGE 1



P.C.M.S. MESSAGE 2

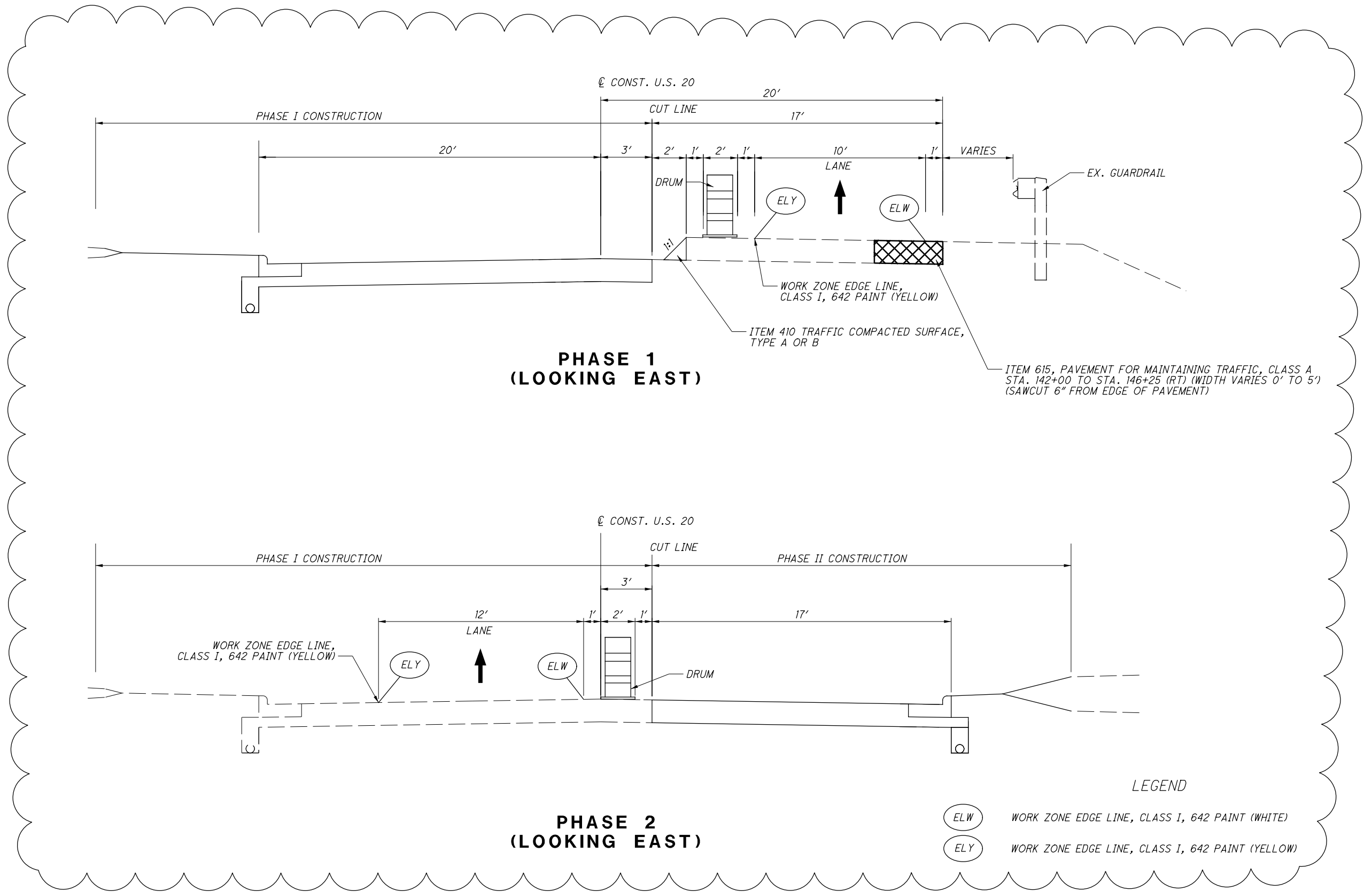


P.C.M.S. MESSAGE 3

MAINTENANCE OF TRAFFIC DETOUR SIGNING (PHASE 1)

ATB US-20-21.86
(SLM 23.01 - SLM 23.74)

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R1

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE MOVED. PHASE 2 IS NOW ONE-WAY.

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)

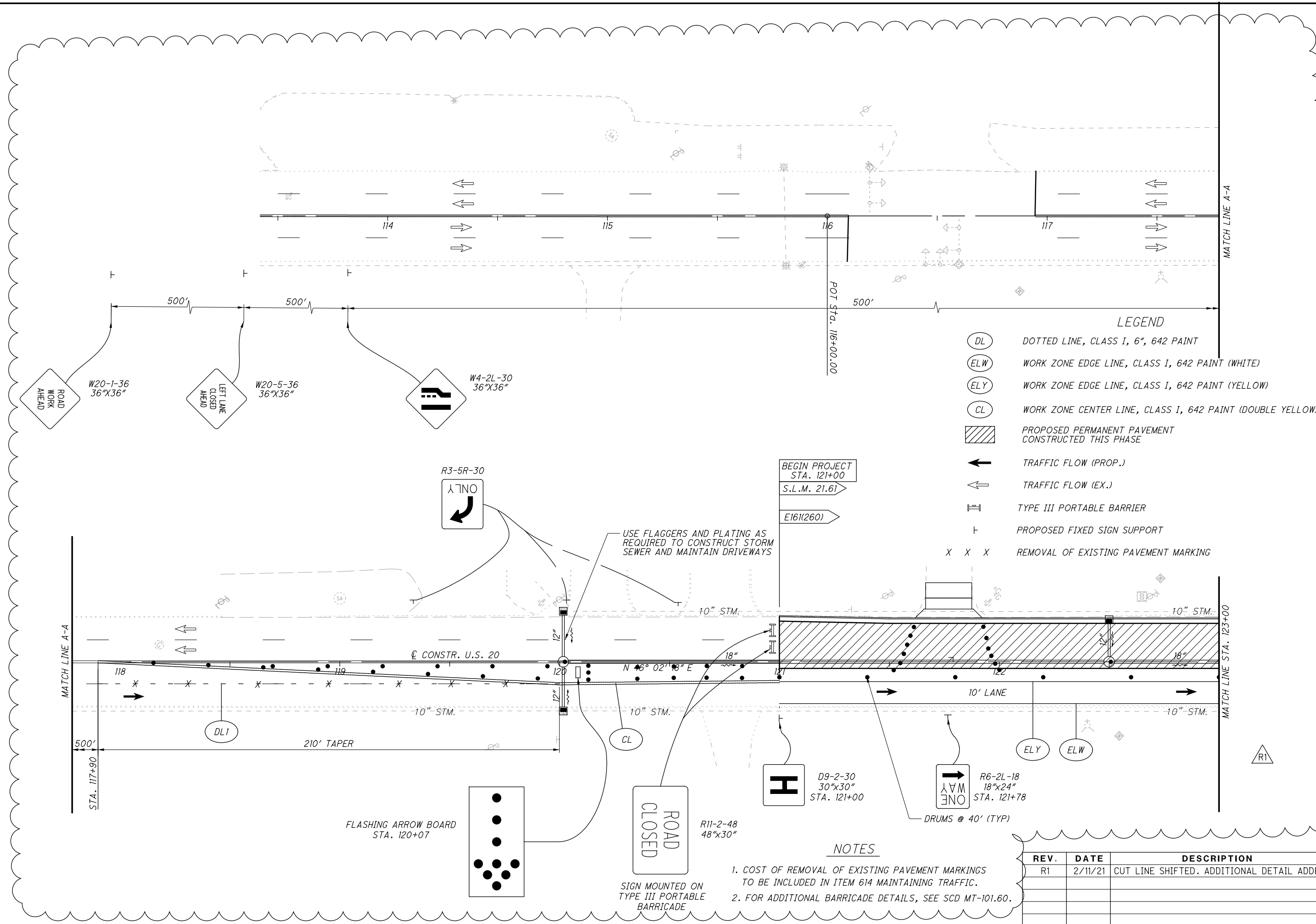
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CALCULATED
EJT
CHECKED
DLT

0 20 40
HORIZONTAL
SCALE IN FEET

**MAINTENANCE OF TRAFFIC-PHASE 1
STA. 118+00 TO STA. 123+00**

**ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)**



- LEGEND**
- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
 - (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
 - (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
 - (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
 - [Hatched Box] PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
 - ← TRAFFIC FLOW (PROP.)
 - ⇐ TRAFFIC FLOW (EX.)
 - [T-bar] TYPE III PORTABLE BARRIER
 - ┬ PROPOSED FIXED SIGN SUPPORT
 - X X X REMOVAL OF EXISTING PAVEMENT MARKING

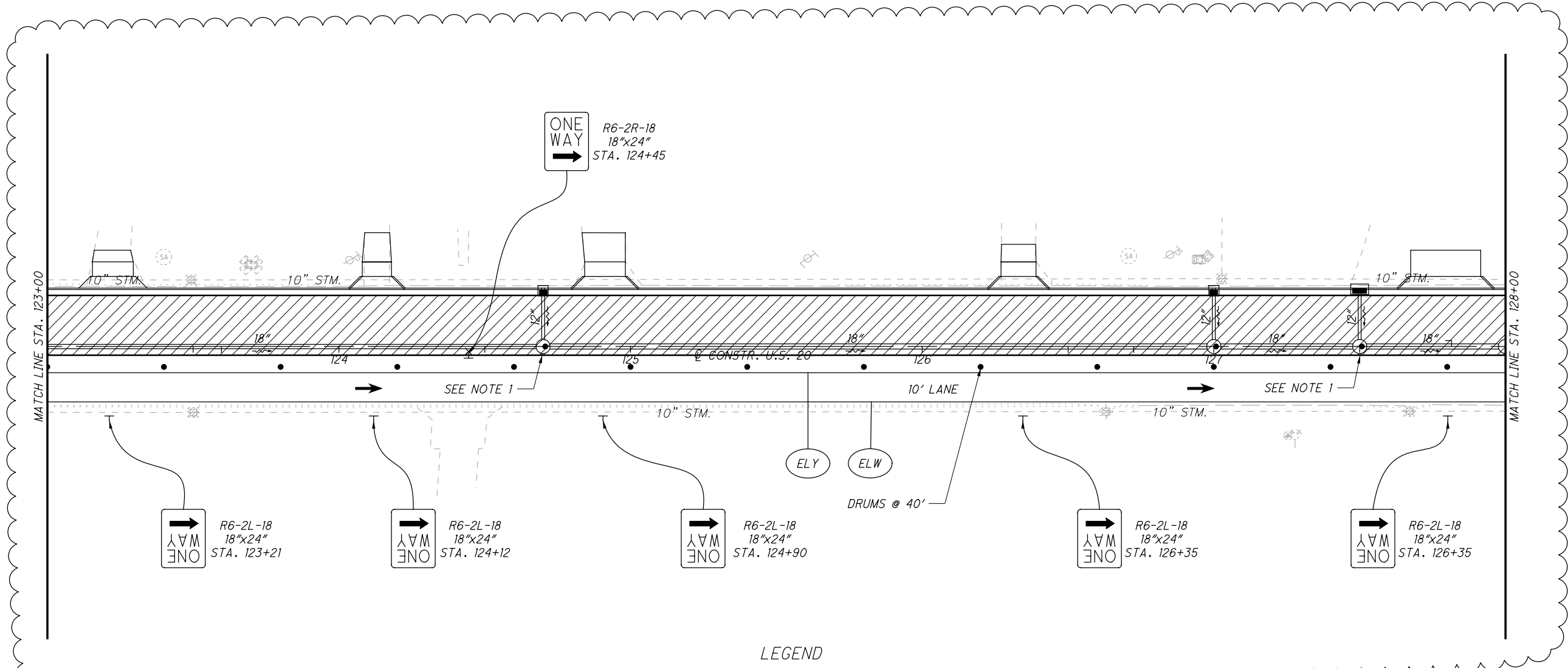
- NOTES**
1. COST OF REMOVAL OF EXISTING PAVEMENT MARKINGS TO BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC.
 2. FOR ADDITIONAL BARRICADE DETAILS, SEE SCD MT-101.60.

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED.

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CALCULATED
EJT
CHECKED
DLT

0 10 20 40
HORIZONTAL
SCALE IN FEET



ONE WAY
R6-2L-18
18"x24"
STA. 123+21

ONE WAY
R6-2L-18
18"x24"
STA. 124+12

ONE WAY
R6-2L-18
18"x24"
STA. 124+90

ONE WAY
R6-2L-18
18"x24"
STA. 126+35

ONE WAY
R6-2L-18
18"x24"
STA. 126+35

ONE WAY
R6-2R-18
18"x24"
STA. 124+45

NOTES
1. INSTALL TEMPORARY PLUG IN STORM SEWER
NEAREST CENTERLINE OF U.S. 20

LEGEND

- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
- (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
- [Hatched Box] PROPOSED PERMANENT PAVEMENT
CONSTRUCTED THIS PHASE
- [Arrow] TRAFFIC FLOW
- [Barrier Symbol] TYPE III PORTABLE BARRIER
- [Post Symbol] PROPOSED FIXED SIGN SUPPORT
- [Sign Symbol] PROPOSED PORTABLE SIGN SUPPORT
- X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL TEXT ADDED.

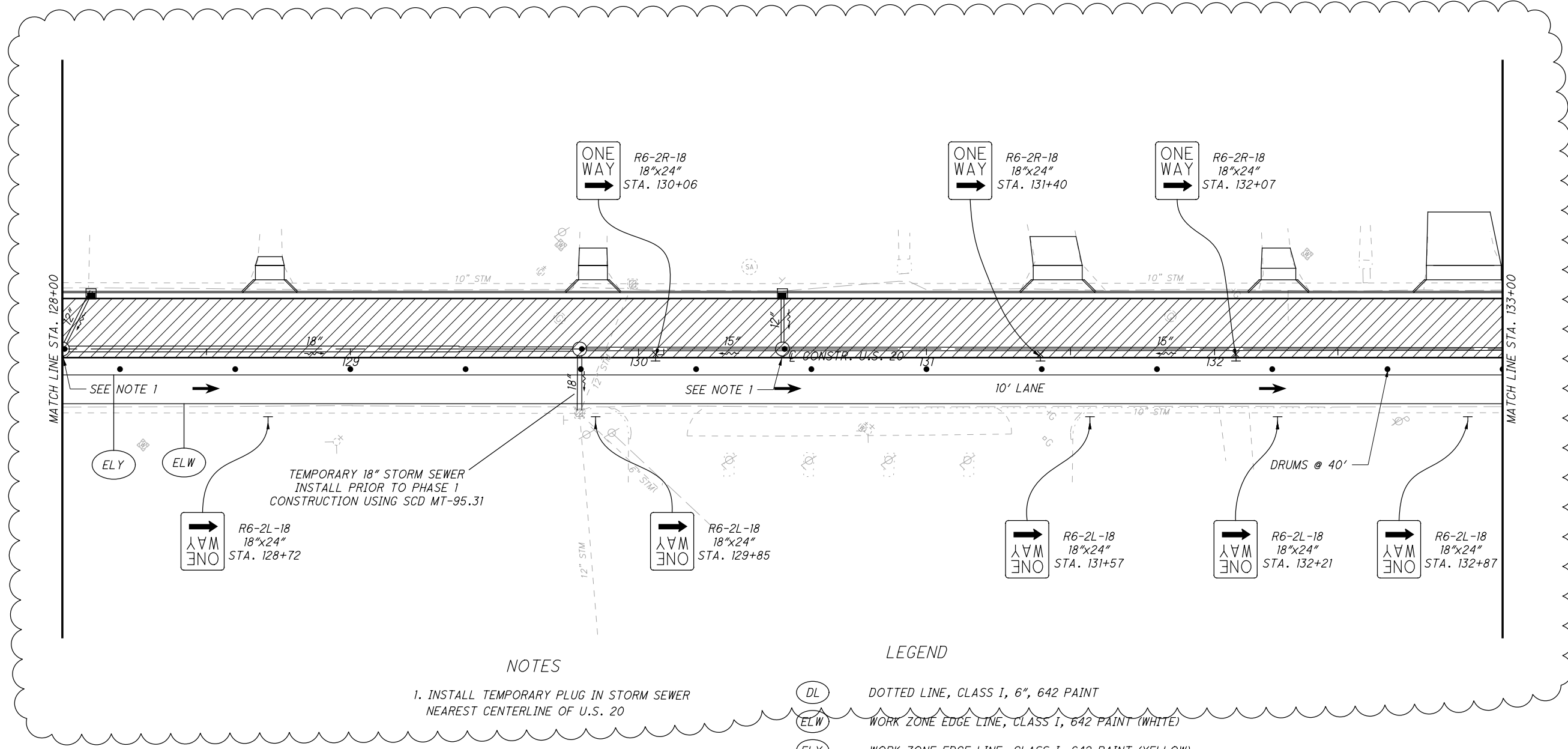
**MAINTENANCE OF TRAFFIC-PHASE 1
STA. 123+00 TO STA. 128+00**

**ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)**

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0 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED JRE
CHECKED DLT



NOTES

1. INSTALL TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

LEGEND

- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
- (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
- [Hatched Box] PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
- [Arrow] TRAFFIC FLOW
- [Barrier Symbol] TYPE III PORTABLE BARRIER
- [Post Symbol] PROPOSED FIXED SIGN SUPPORT
- [Sign Symbol] PROPOSED PORTABLE SIGN SUPPORT
- X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED.

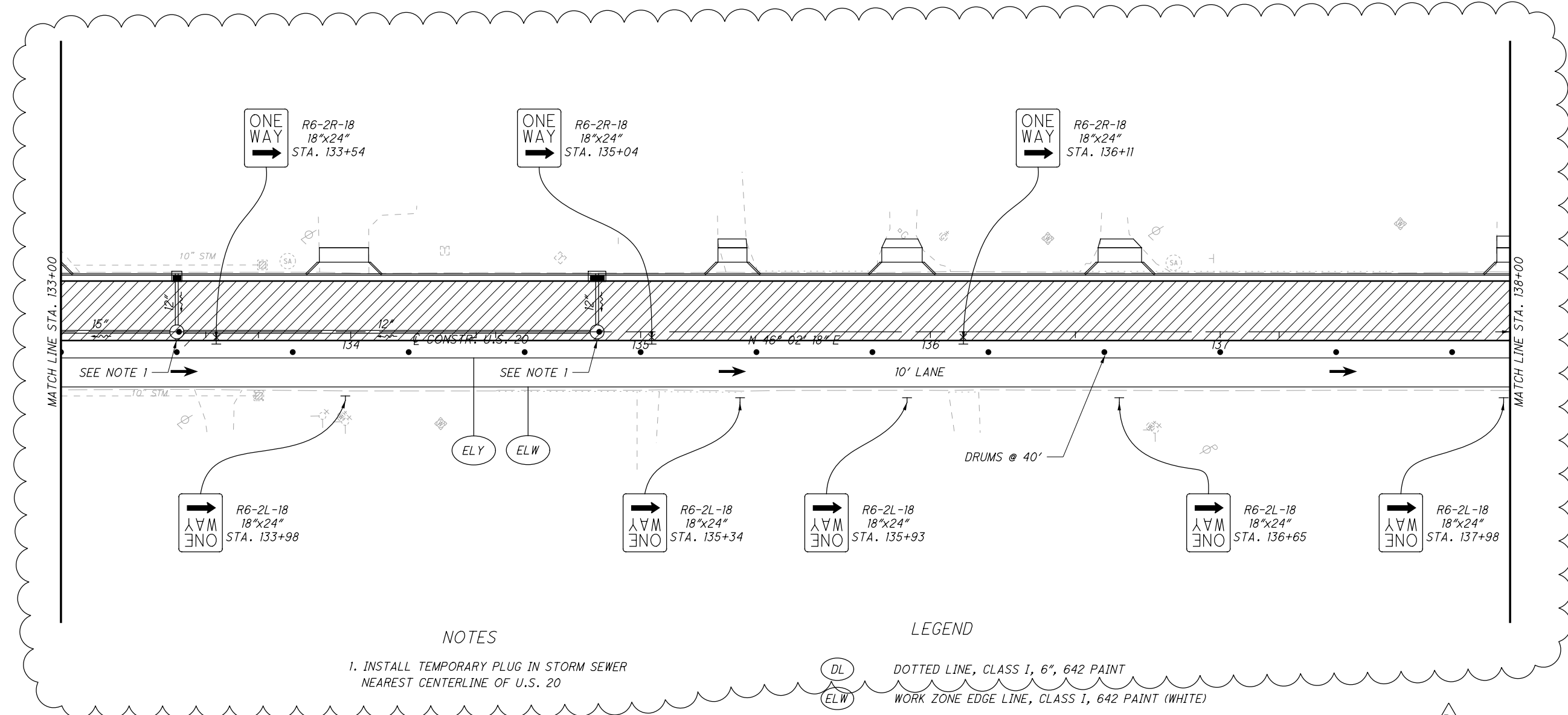
**MAINTENANCE OF TRAFFIC-PHASE 1
STA. 128+00 TO STA. 133+00**

**ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)**

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CALCULATED
JRE
CHECKED
DLT

0 10 20 40
HORIZONTAL
SCALE IN FEET



NOTES

1. INSTALL TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

LEGEND

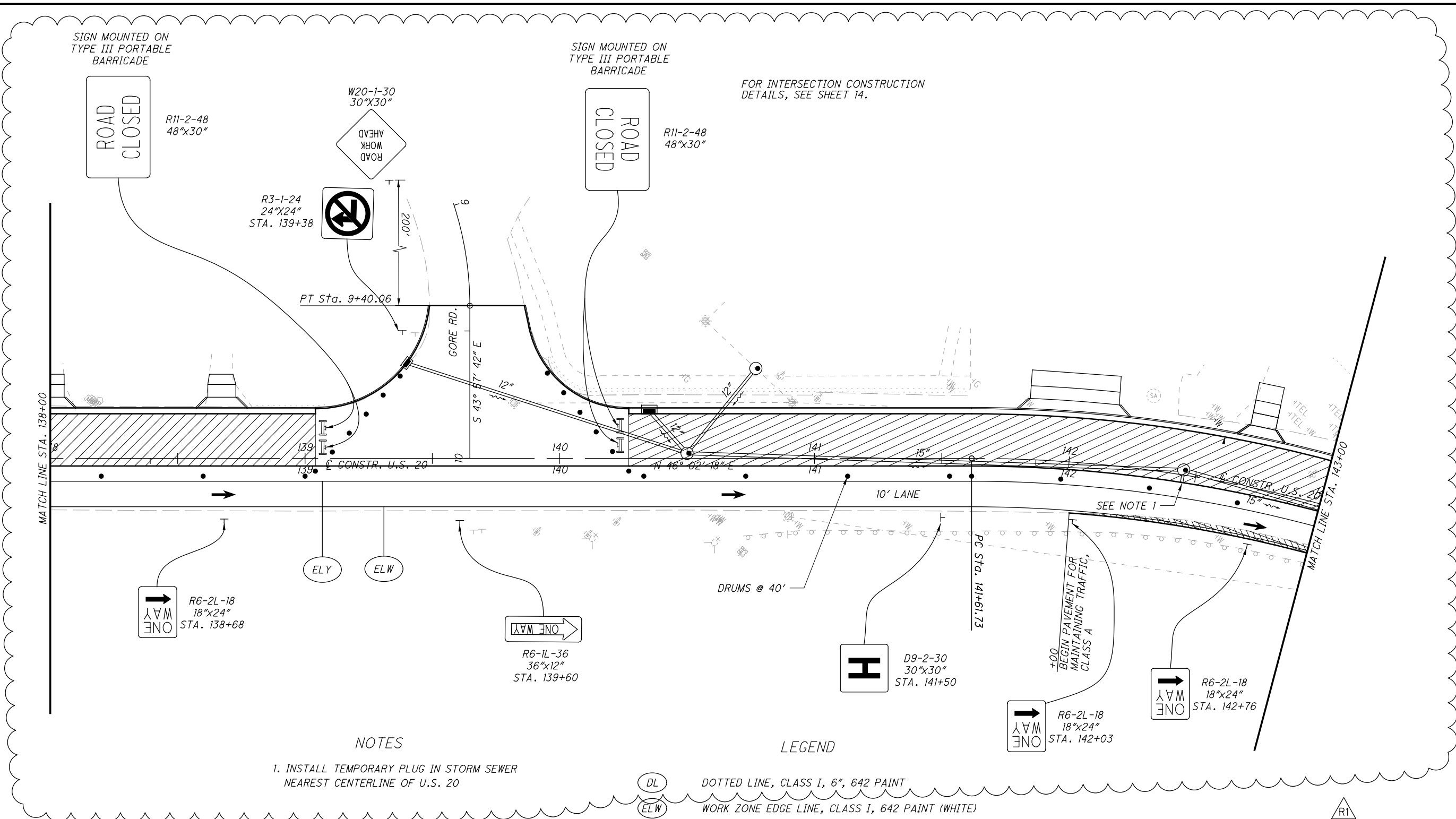
- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
- (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
- [Hatched Box] PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
- [Arrow] TRAFFIC FLOW
- [Barrier Symbol] TYPE III PORTABLE BARRIER
- [T Symbol] PROPOSED FIXED SIGN SUPPORT
- [X Symbol] PROPOSED PORTABLE SIGN SUPPORT
- X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL TEXT ADDED.

**MAINTENANCE OF TRAFFIC-PHASE 1
STA. 133+00 TO STA. 138+00**

**ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)**

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NOTES
 1. INSTALL TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

- LEGEND**
- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
 - (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
 - (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
 - (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
 - [Cross-hatch] ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
 - [Diagonal lines] PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
 - [Arrow] TRAFFIC FLOW
 - [Barrier symbol] TYPE III PORTABLE BARRIER
 - [T symbol] PROPOSED FIXED SIGN SUPPORT
 - [X symbol] PROPOSED PORTABLE SIGN SUPPORT
 - X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED.

0 20 40
HORIZONTAL SCALE IN FEET

CALCULATED JRE
CHECKED DLT

MAINTENANCE OF TRAFFIC-PHASE 1
STA. 138+00 TO STA. 143+00

ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)

19
123

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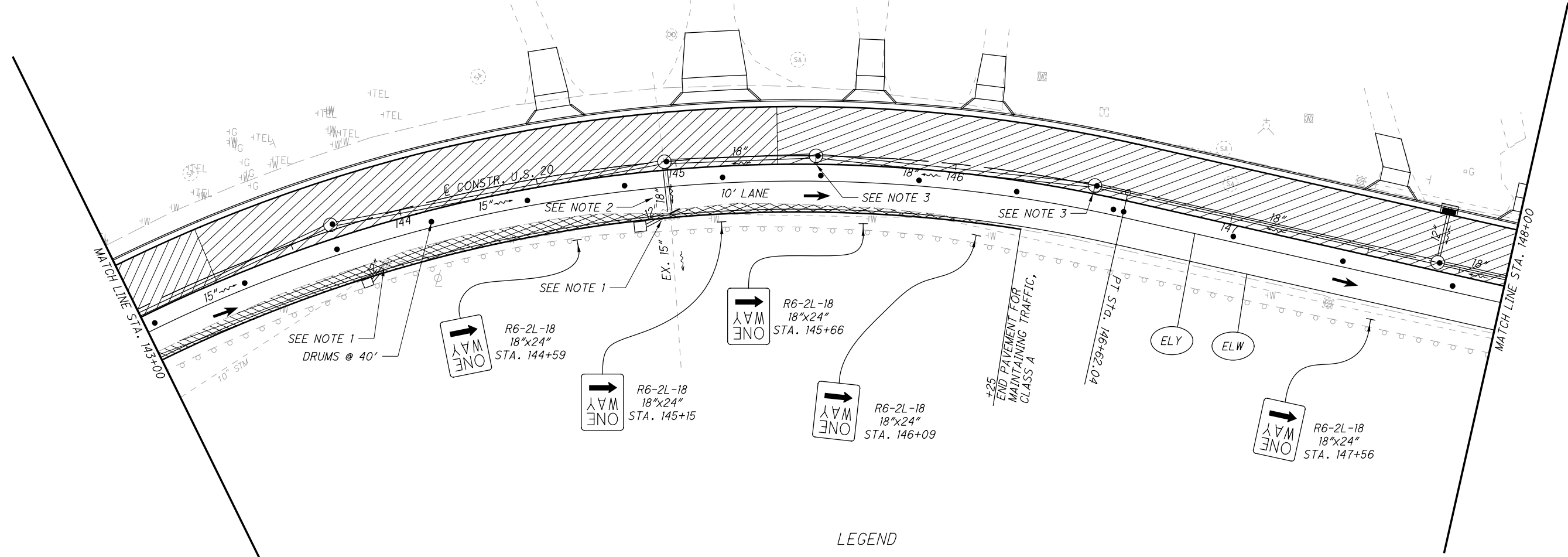
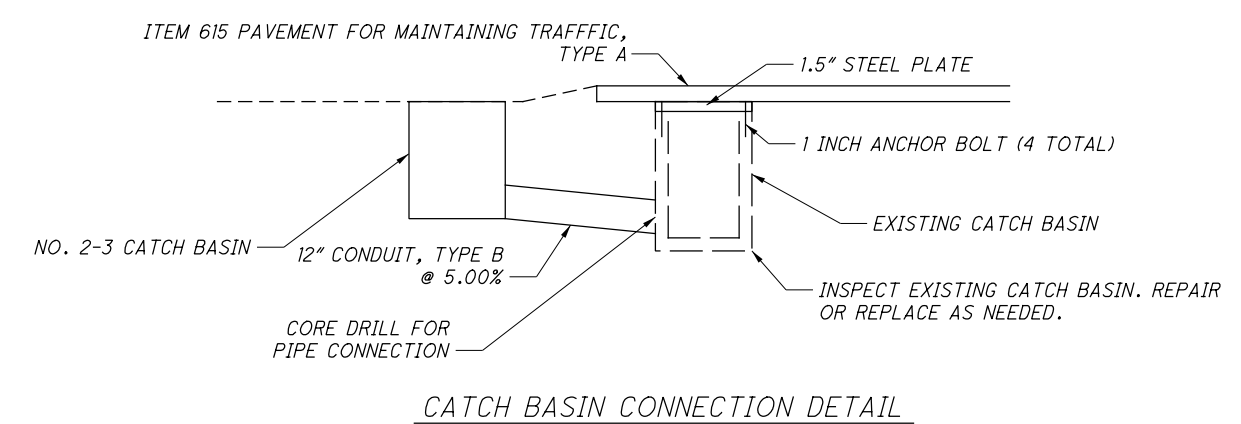
CALCULATED JRE CHECKED DLT

0 20 40
HORIZONTAL SCALE IN FEET

0 10 20 30 40
VERTICAL SCALE IN FEET

MAINTENANCE OF TRAFFIC-PHASE 1
STA. 143+00 TO STA. 148+00

ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)



NOTES

1. PRIOR TO PHASE 1, REMOVE FRAME AND GRATE FROM CATCH BASIN. INSPECT AND REPAIR OR REPLACE AS NEEDED. INSTALL 1.5" THICK STEEL PLATE ON TOP OF CATCH BASIN USING FOUR (4) 1 INCH DIAMETER ANCHOR BOLTS WITH 6 NCH EMBEDMENT. ADD TEMPORARY NO. 2-3 CATCH BASIN ADJACENT TO EXISTING CATCH BASIN. CONNECT TEMPORARY CATCH BASIN TO EXISTING CATCH BASIN WITH 12" CONDUIT, TYPE B. SEE CATCH BASIN CONNECTION DETAIL ABOVE.
2. CONSTRUCT TEMPORARY 18" STORM SEWER PRIOR TO PHASE 1 CONSTRUCTION USING SCD MT-95.31
3. INSTALL TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20.

LEGEND

- DL DOTTED LINE, CLASS I, 6", 642 PAINT
- ELW WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- ELY WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- CL WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
- ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
- TRAFFIC FLOW
- TYPE III PORTABLE BARRIER
- PROPOSED FIXED SIGN SUPPORT
- PROPOSED PORTABLE SIGN SUPPORT
- X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED.

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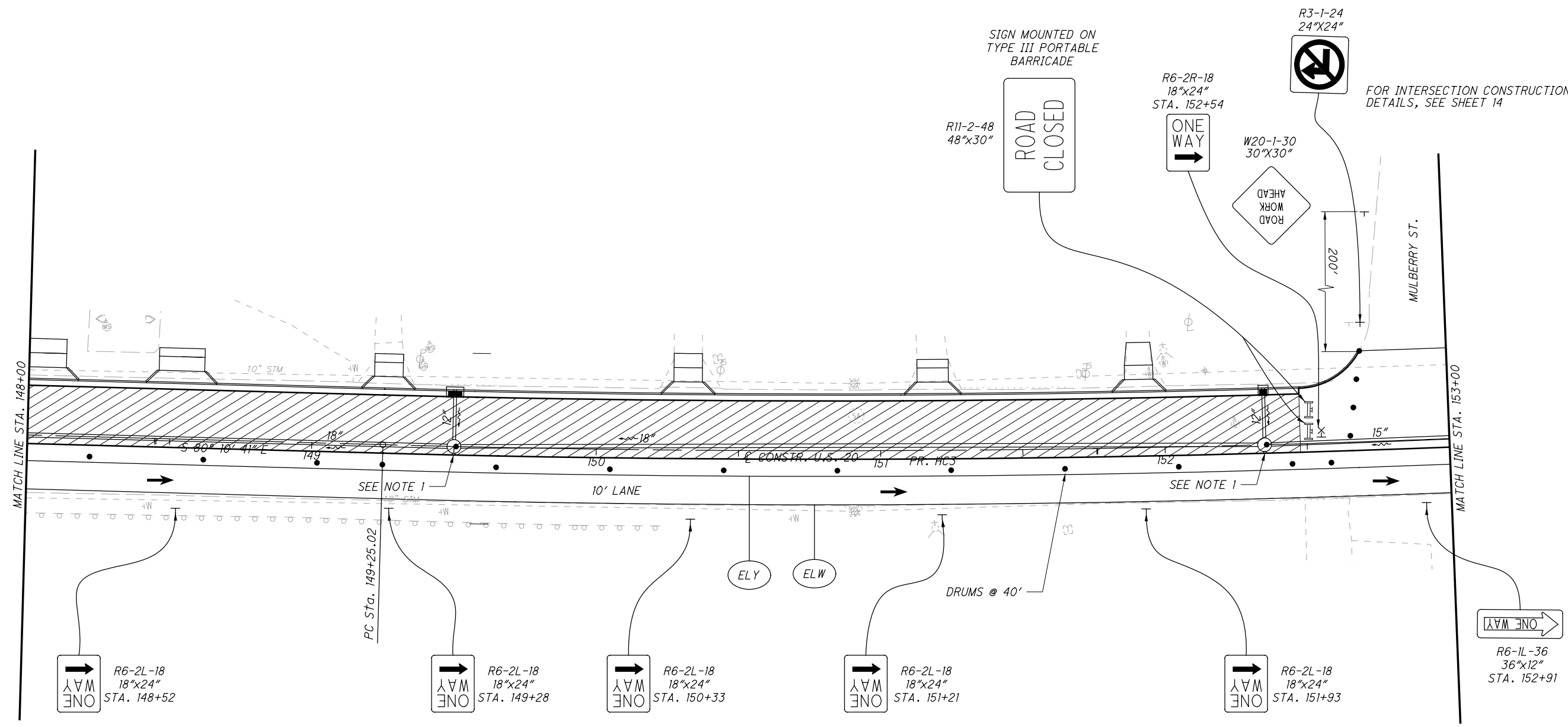













 HORIZONTAL SCALE IN FEET

CALCULATED JRE
 CHECKED DLT
MAINTENANCE OF TRAFFIC-PHASE 1
STA. 148+00 TO STA. 153+00

ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)



NOTES
 1. INSTALL TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

- LEGEND**
-  DOTTED LINE, CLASS I, 6", 642 PAINT
 -  WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
 -  WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
 -  WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
 -  PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
 -  TRAFFIC FLOW
 -  TYPE III PORTABLE BARRIAR
 -  PROPOSED FIXED SIGN SUPPORT
 -  PROPOSED PORTABLE SIGN SUPPORT
 - X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED.

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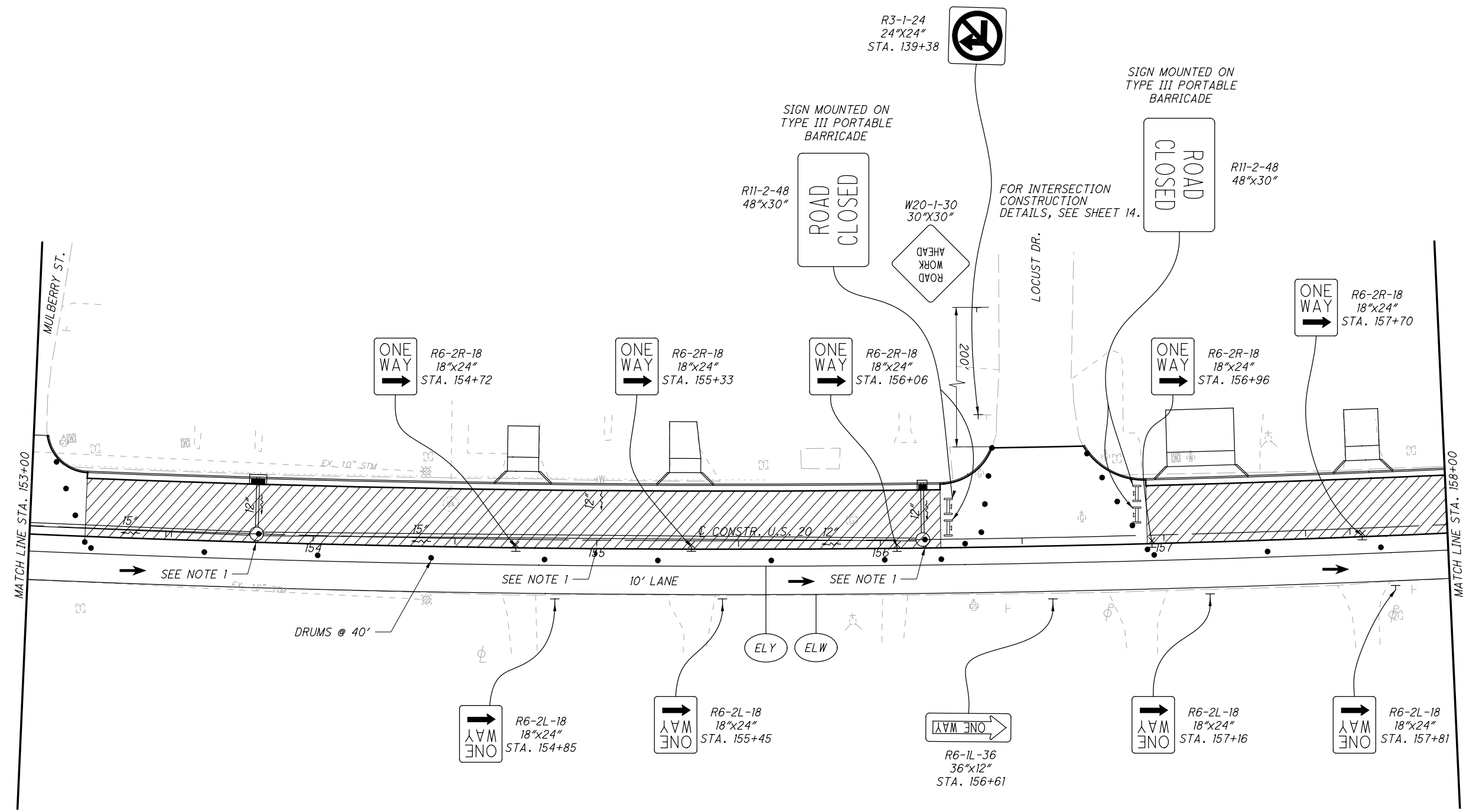




 CALCULATED JRE
 CHECKED DLT

MAINTENANCE OF TRAFFIC-PHASE 1
STA. 153+00 TO STA. 158+00











ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)



NOTES

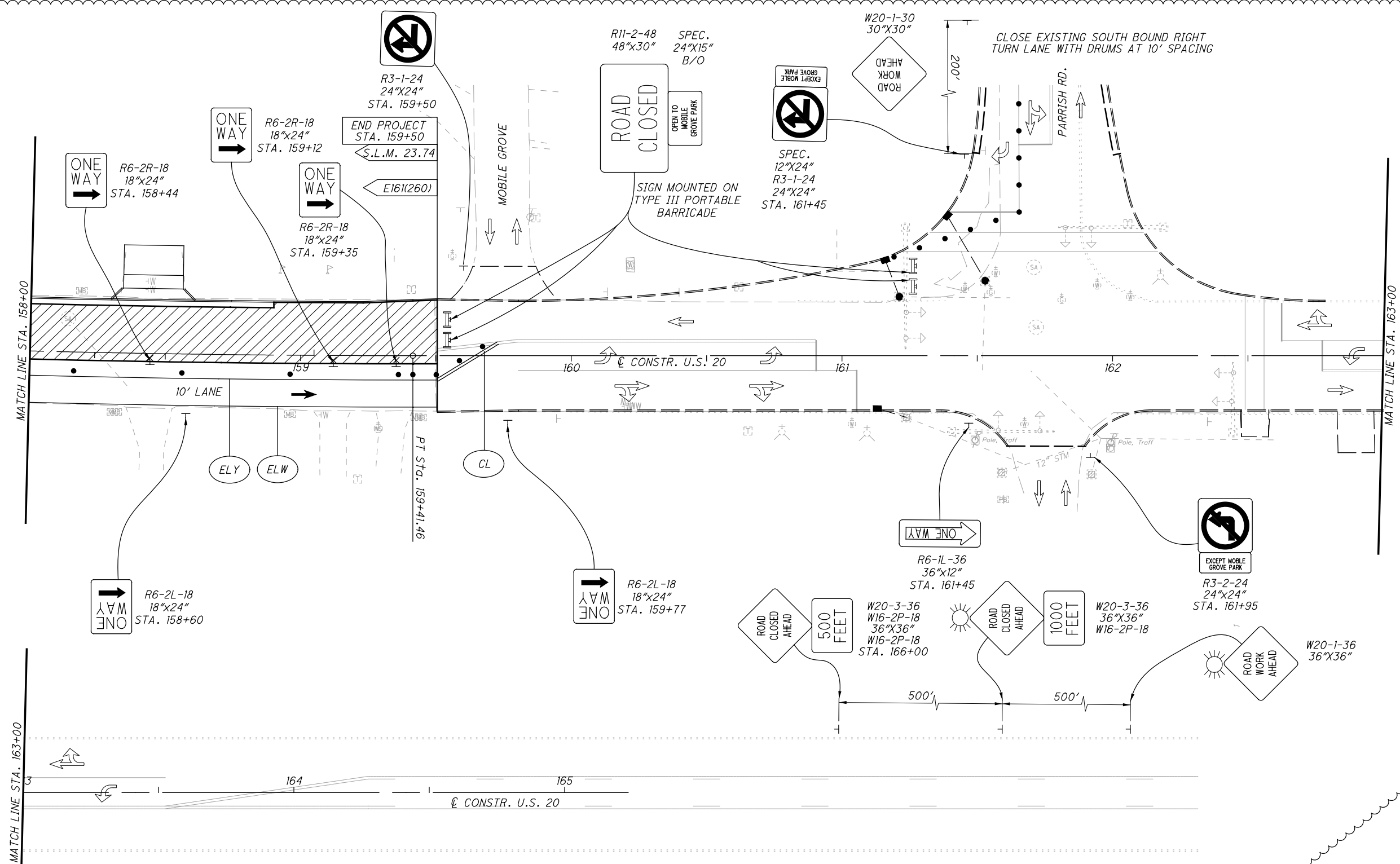
1. INSTALL TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

LEGEND

-  DOTTED LINE, CLASS I, 6", 642 PAINT
-  WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
-  PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
-  TRAFFIC FLOW
-  TYPE III PORTABLE BARRIER
-  PROPOSED FIXED SIGN SUPPORT
-  PROPOSED PORTABLE SIGN SUPPORT
-  REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED.

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NOTES

1. COST OF REMOVAL OF EXISTING PAVEMENT MARKINGS TO BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC.
2. FOR ADDITIONAL BARRICADE DETAILS, SEE SCD MT-101.60.

- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
- (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
- (LA) WORK ZONE LANE ARROW, CLASS I, 642 PAINT
- (Hatched Box) PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE

LEGEND

- (Arrow) EXISTING LANE ARROW
- (Arrow) TRAFFIC FLOW (PROP.)
- (Arrow) TRAFFIC FLOW (EX.)
- (Barricade) TYPE III PORTABLE BARRIER
- (T) PROPOSED FIXED SIGN SUPPORT
- (X) PROPOSED PORTABLE SIGN SUPPORT
- (X X X) REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED.

CALCULATED JRE CHECKED DLT

0 20 40 HORIZONTAL SCALE IN FEET

0 10 20 30 40 VERTICAL SCALE IN FEET

MAINTENANCE OF TRAFFIC-PHASE 1
STA. 158+00 TO STA. 165+00

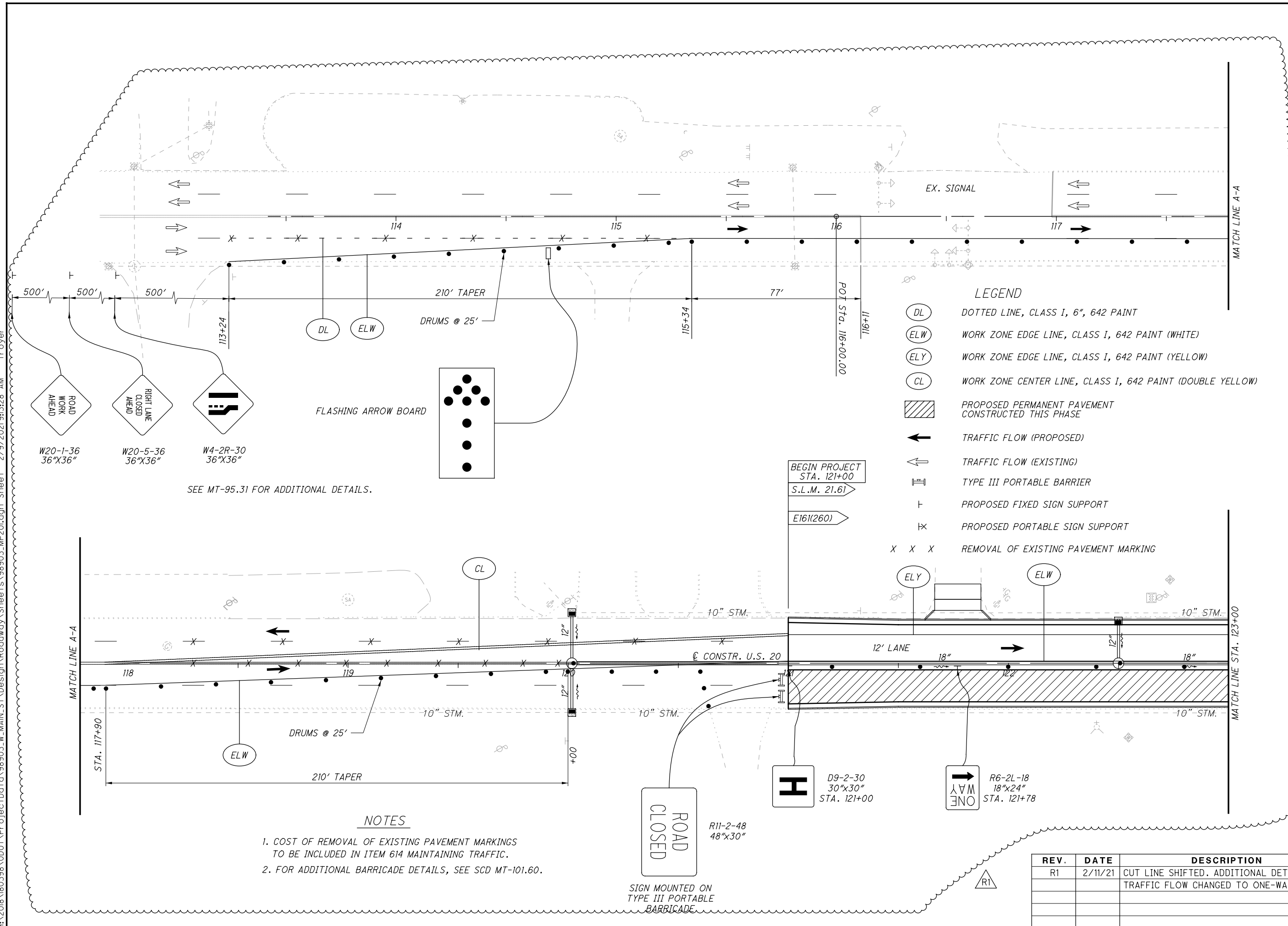
ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)

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**MAINTENANCE OF TRAFFIC-PHASE 2
STA. 118+00 TO STA. 123+00**

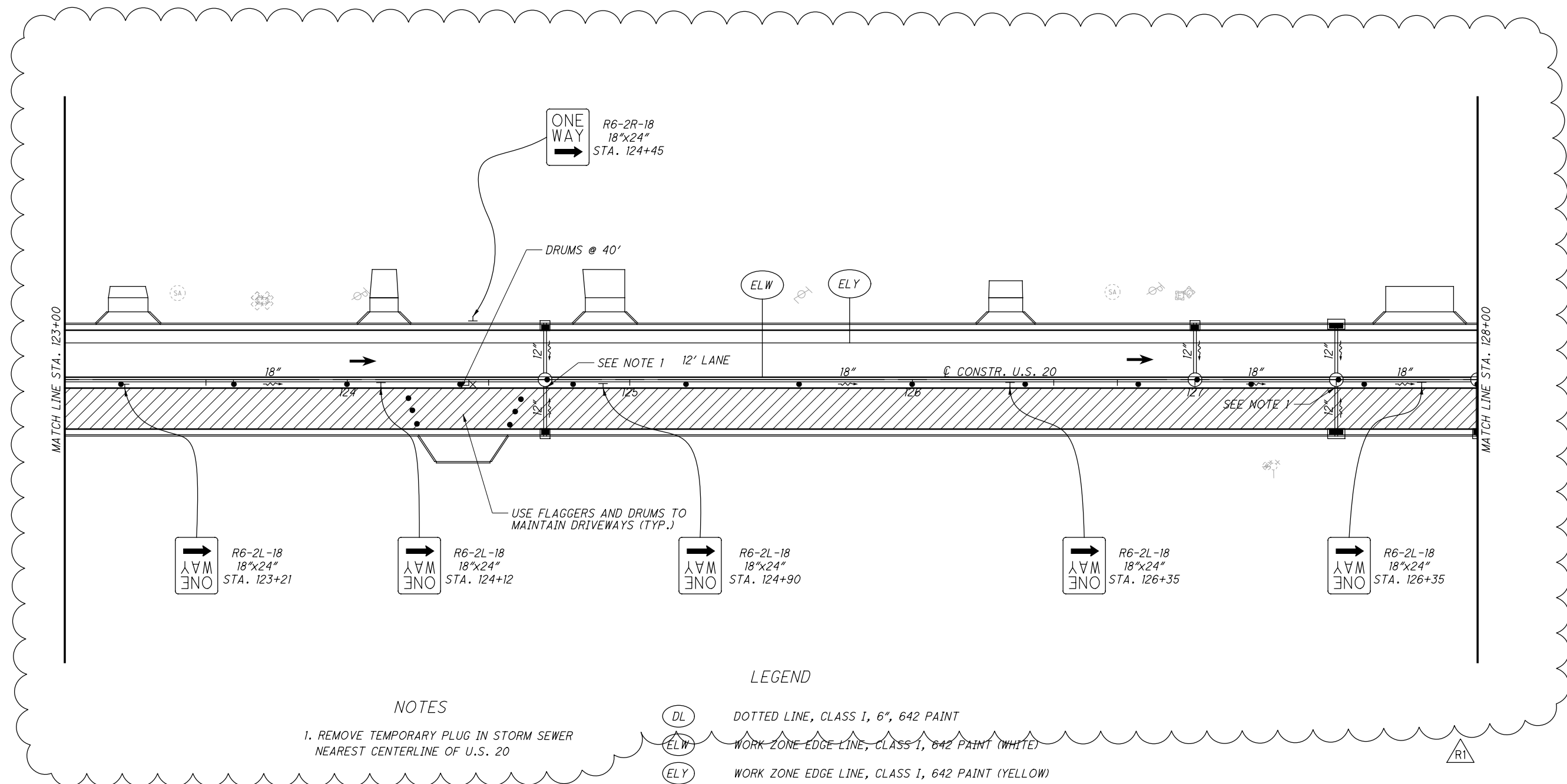
**ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)**



- LEGEND**
- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
 - (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
 - (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
 - (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
 - [Hatched Box] PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
 - [Arrow] TRAFFIC FLOW (PROPOSED)
 - [Open Arrow] TRAFFIC FLOW (EXISTING)
 - [Barrier Symbol] TYPE III PORTABLE BARRIER
 - [T Symbol] PROPOSED FIXED SIGN SUPPORT
 - [X Symbol] PROPOSED PORTABLE SIGN SUPPORT
 - [X X X] REMOVAL OF EXISTING PAVEMENT MARKING

- NOTES**
1. COST OF REMOVAL OF EXISTING PAVEMENT MARKINGS TO BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC.
 2. FOR ADDITIONAL BARRICADE DETAILS, SEE SCD MT-101.60.

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED. TRAFFIC FLOW CHANGED TO ONE-WAY.



NOTES
1. REMOVE TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

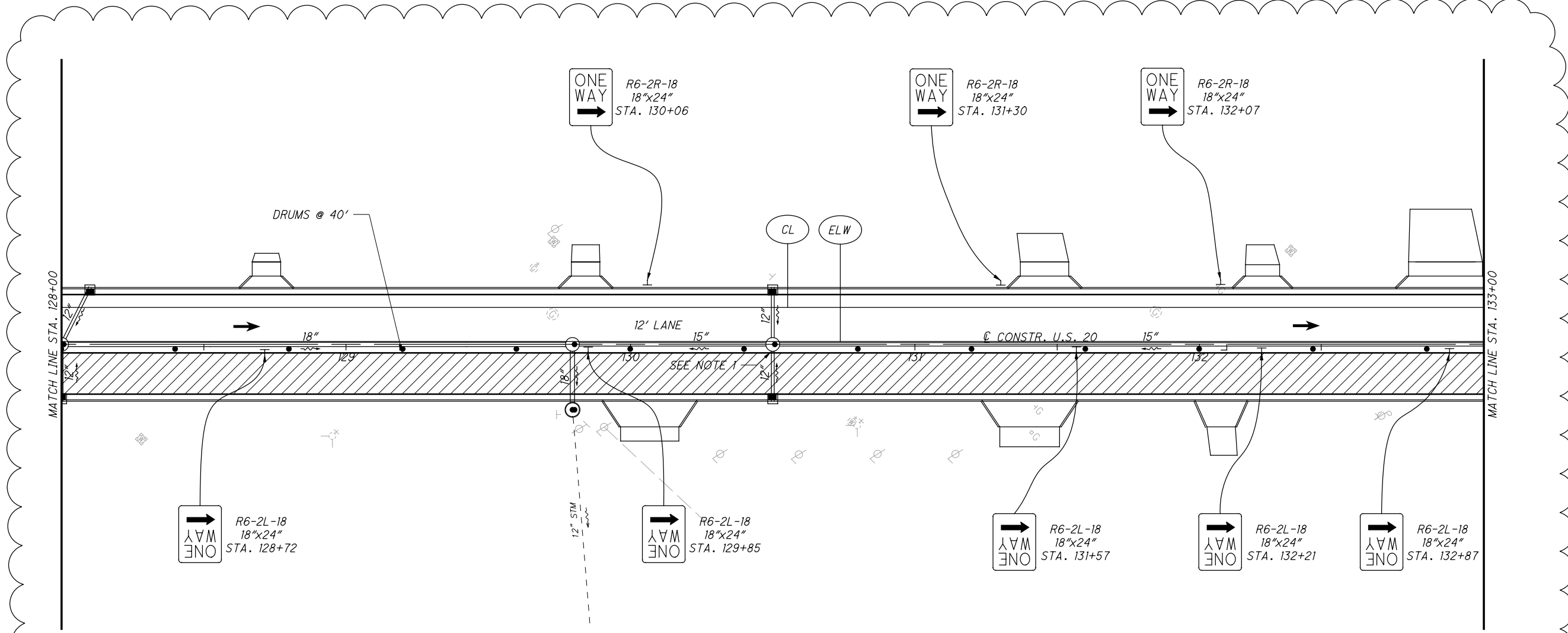
- LEGEND**
- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
 - (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
 - (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
 - (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
 - [Hatched Box] PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
 - [Arrow] TRAFFIC FLOW
 - [Barrier Symbol] TYPE III PORTABLE BARRIER
 - [T Symbol] PROPOSED FIXED SIGN SUPPORT
 - [X Symbol] PROPOSED PORTABLE SIGN SUPPORT
 - X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED. TRAFFIC FLOW CHANGED TO ONE-WAY.

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CALCULATED JRE
CHECKED DLT

0 10 20 40
HORIZONTAL SCALE IN FEET



NOTES

1. REMOVE TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

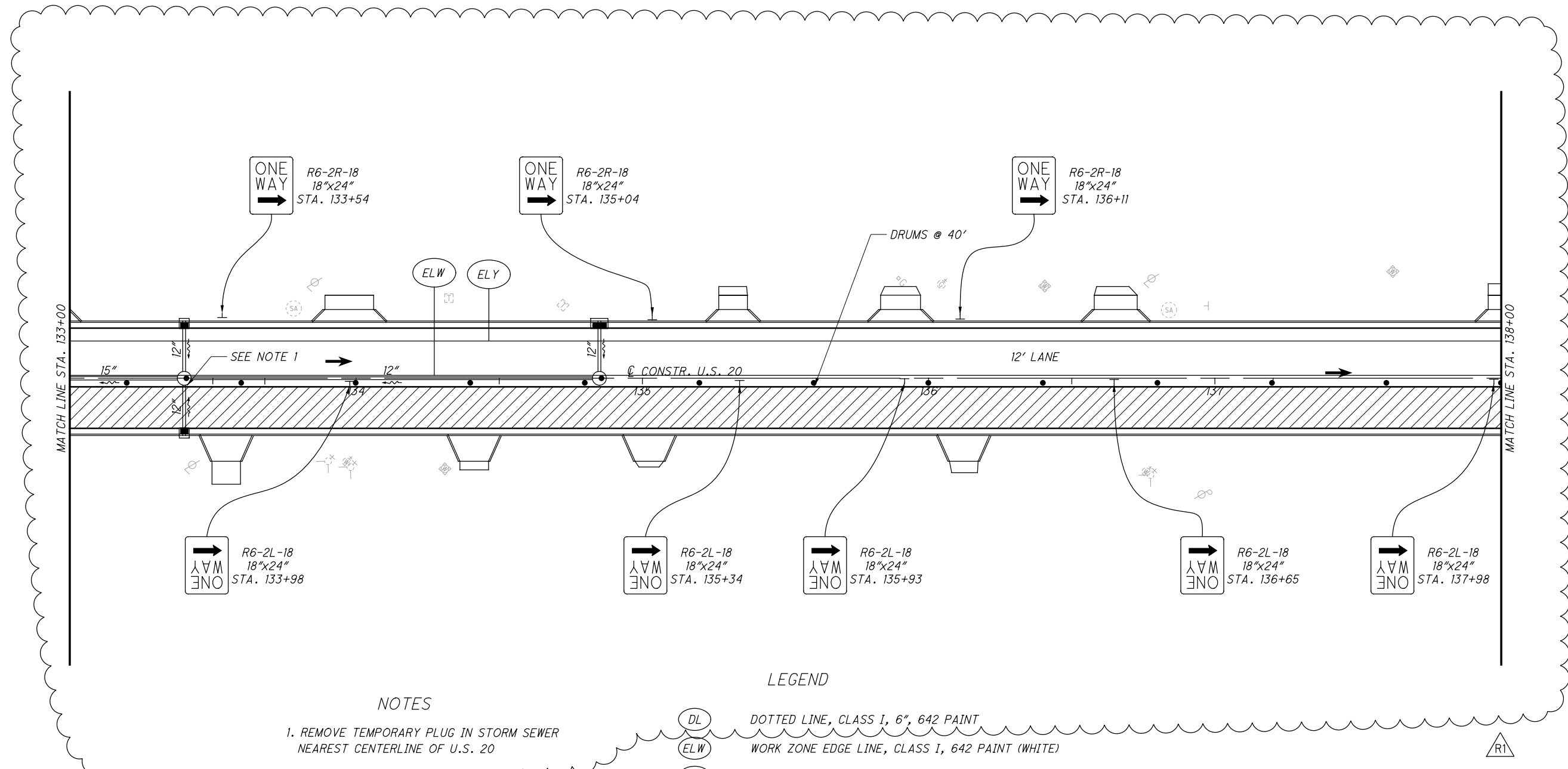
- LEGEND**
- DL DOTTED LINE, CLASS I, 6", 642 PAINT
 - ELW WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
 - ELY WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
 - CL WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
 - PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
 - ← TRAFFIC FLOW
 - TYPE III PORTABLE BARRIER
 - + PROPOSED FIXED SIGN SUPPORT
 - × PROPOSED PORTABLE SIGN SUPPORT
 - X X X REMOVAL OF EXISTING PAVEMENT MARKING



REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED. TRAFFIC FLOW CHANGED TO ONE-WAY.

MAINTENANCE OF TRAFFIC-PHASE 2
STA. 128+00 TO STA. 133+00

ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)



NOTES

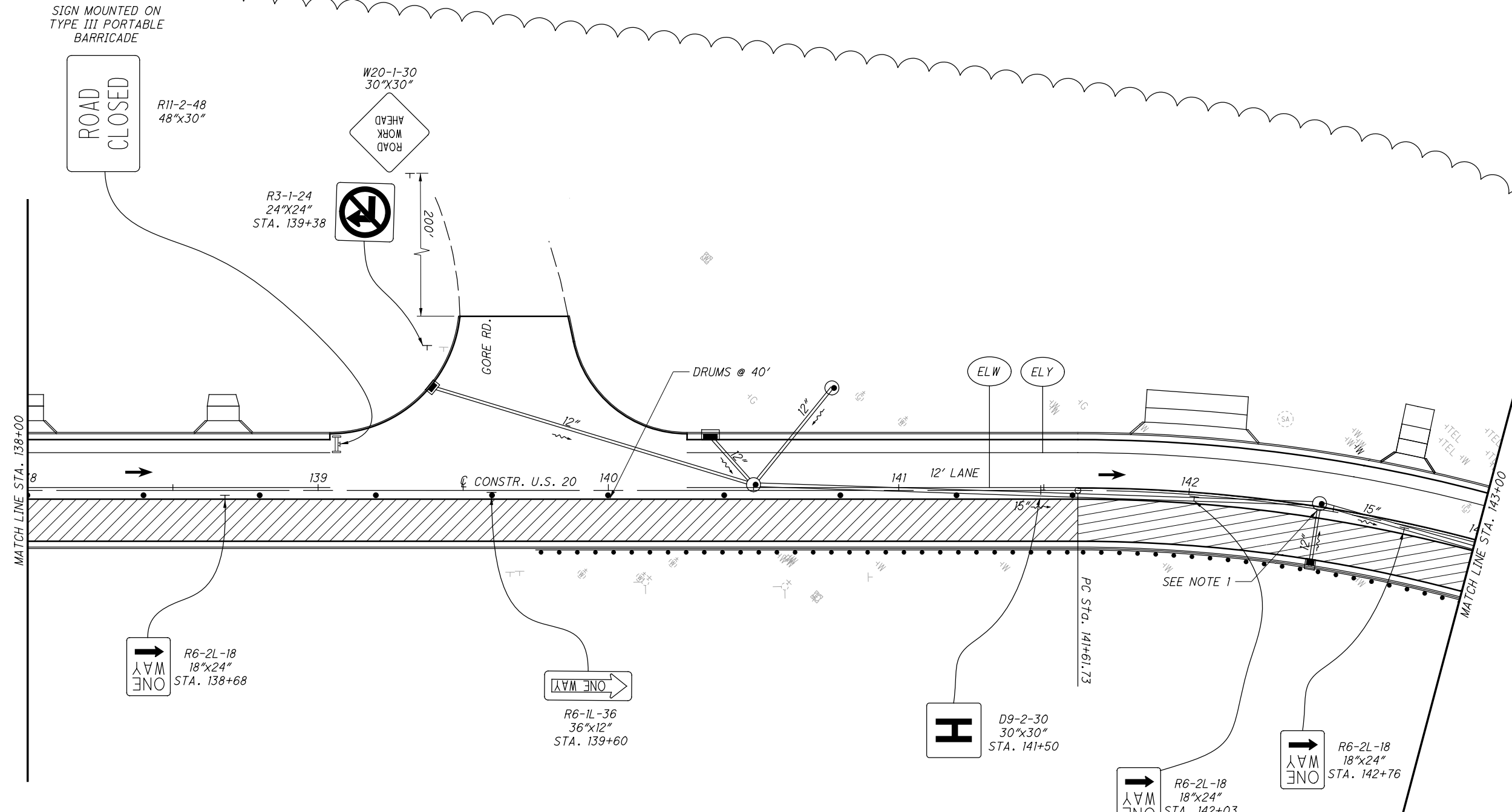
1. REMOVE TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

LEGEND

- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
- (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
- [Hatched Box] PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
- [Arrow] TRAFFIC FLOW
- [Barrier Symbol] TYPE III PORTABLE BARRIER
- [T Symbol] PROPOSED FIXED SIGN SUPPORT
- [X Symbol] PROPOSED PORTABLE SIGN SUPPORT
- X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED. TRAFFIC FLOW CHANGED TO ONE-WAY.

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SIGN MOUNTED ON TYPE III PORTABLE BARRICADE

NOTES
 1. REMOVE TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

LEGEND

- DL DOTTED LINE, CLASS I, 6", 642 PAINT
- ELW WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- ELY WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- CL WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
- PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
- ← TRAFFIC FLOW
- TYPE III PORTABLE BARRICADE
- PROPOSED FIXED SIGN SUPPORT
- PROPOSED PORTABLE SIGN SUPPORT
- X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED. TRAFFIC FLOW CHANGED TO ONE-WAY.

CALCULATED
JRE
CHECKED
DLT

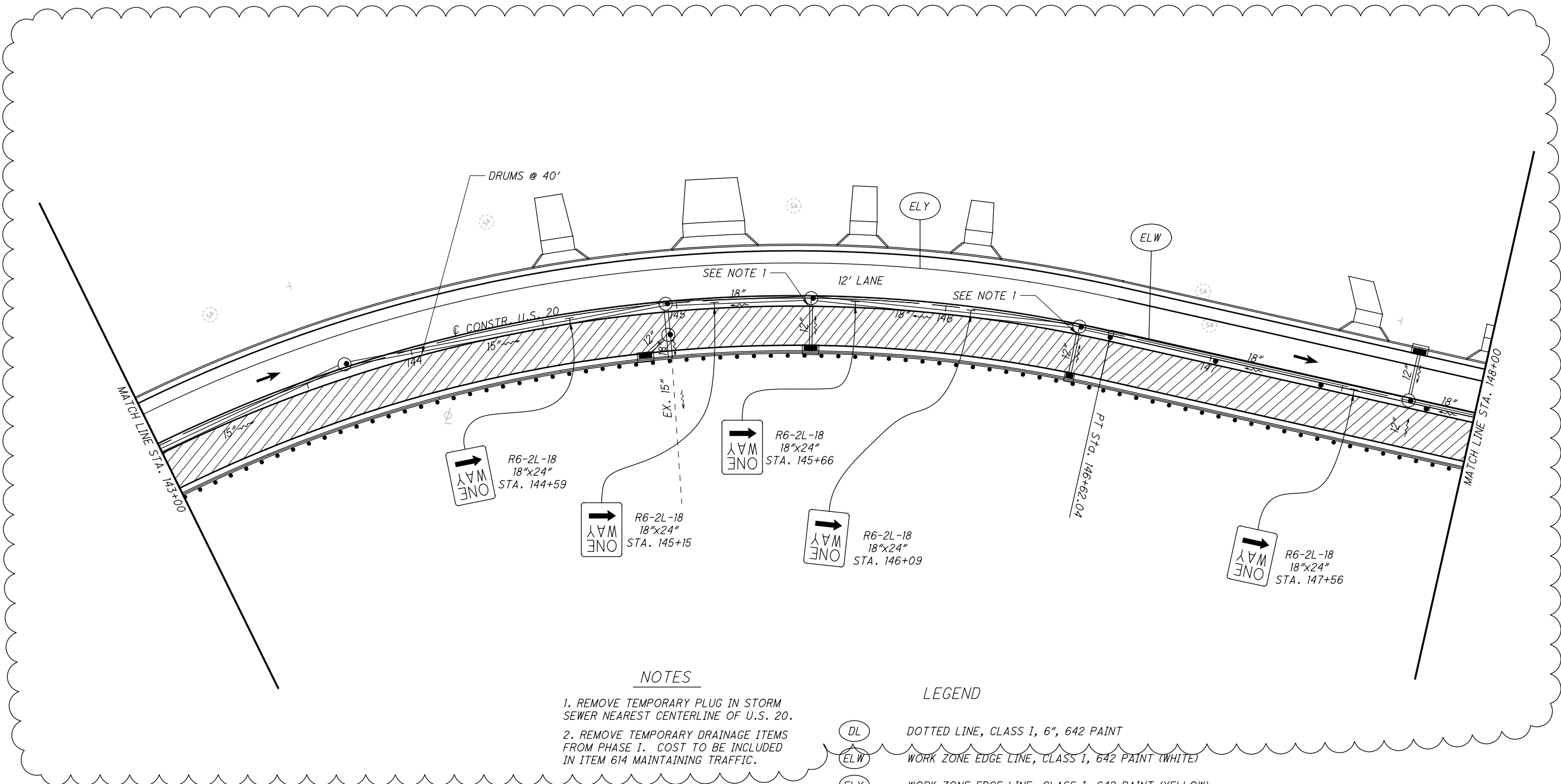
0 20 40
HORIZONTAL SCALE IN FEET

ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)

28
123

MAINTENANCE OF TRAFFIC-PHASE 2
STA. 138+00 TO STA. 143+00

28
123



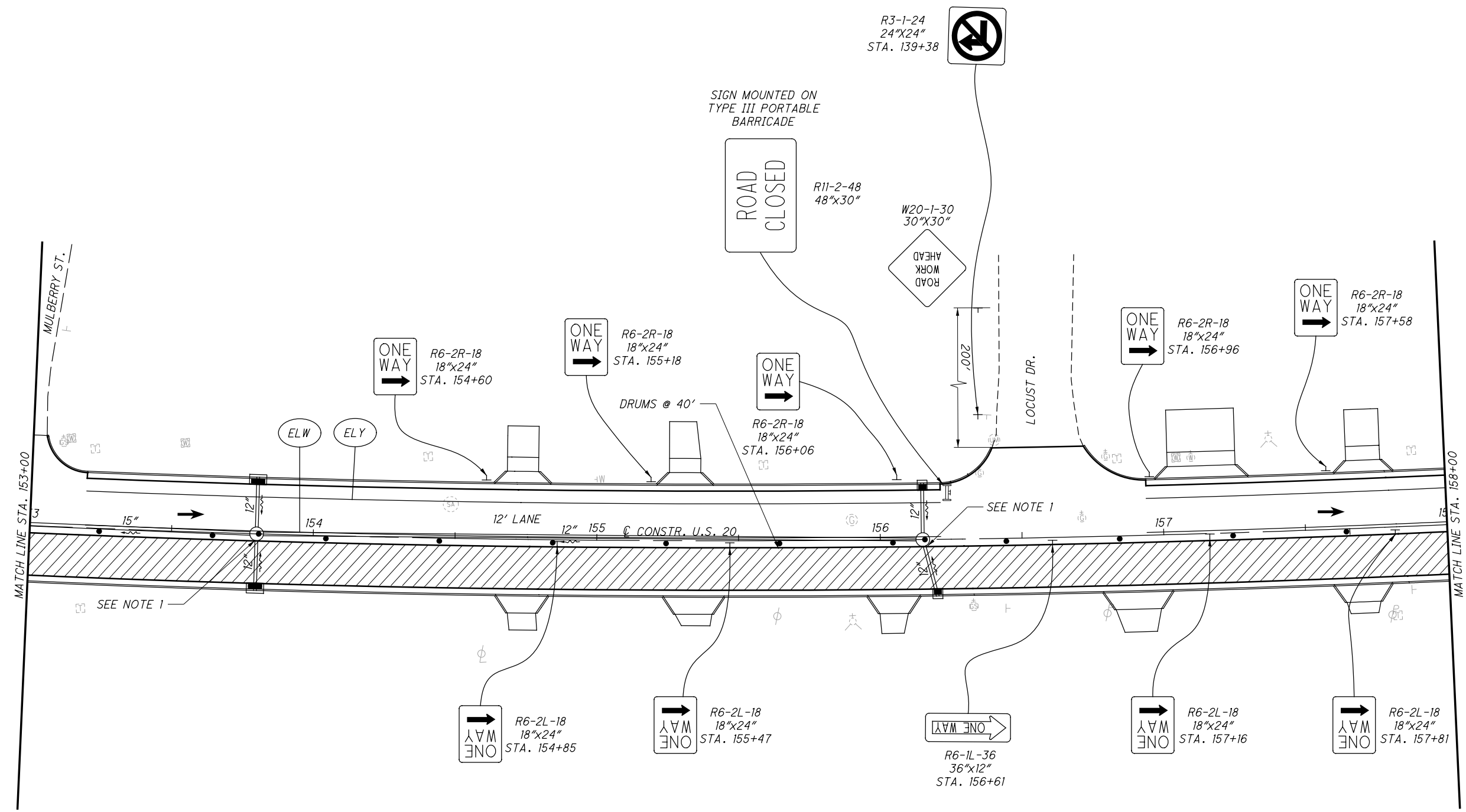
NOTES

1. REMOVE TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20.
2. REMOVE TEMPORARY DRAINAGE ITEMS FROM PHASE I. COST TO BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC.

LEGEND

- (DL) DOTTED LINE, CLASS I, 6", 642 PAINT
- (ELW) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- (ELY) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- (CL) WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
- [Hatched Box] PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
- [Arrow] TRAFFIC FLOW
- [Barrier Symbol] TYPE III PORTABLE BARRIER
- [T Symbol] PROPOSED FIXED SIGN SUPPORT
- [X Symbol] PROPOSED PORTABLE SIGN SUPPORT
- X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED. TRAFFIC FLOW CHANGED TO ONE-WAY.



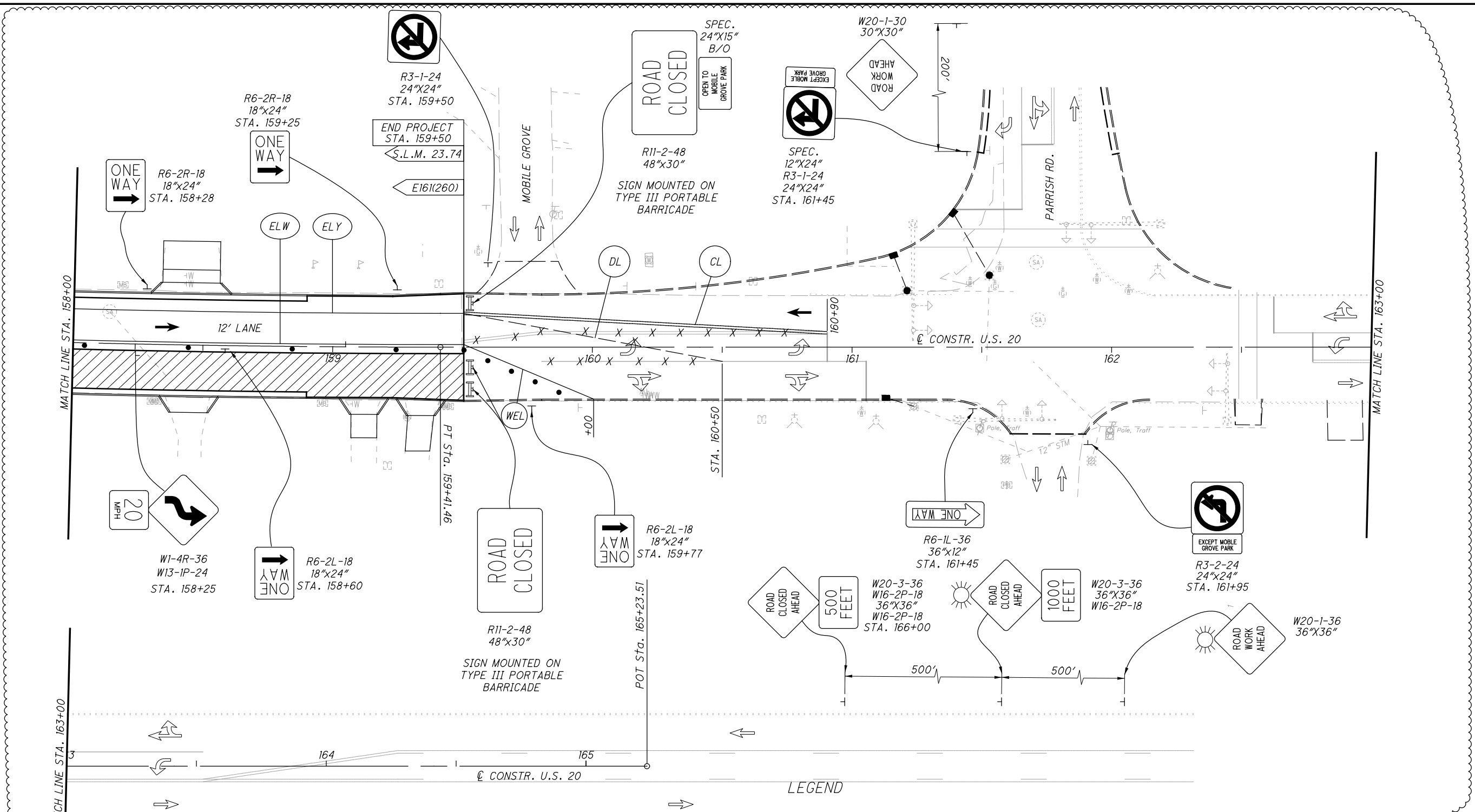
NOTES

1. REMOVE TEMPORARY PLUG IN STORM SEWER NEAREST CENTERLINE OF U.S. 20

LEGEND

- DL DOTTED LINE, CLASS I, 6", 642 PAINT
- ELW WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- ELY WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- CL WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
- PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
- ← TRAFFIC FLOW
- TYPE III PORTABLE BARRIER
- PROPOSED FIXED SIGN SUPPORT
- PROPOSED PORTABLE SIGN SUPPORT
- X X X REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED. TRAFFIC FLOW CHANGED TO ONE-WAY.



NOTES

1. COST OF REMOVAL OF EXISTING PAVEMENT MARKINGS TO BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC.
2. FOR ADDITIONAL BARRICADE DETAILS, SEE SCD MT-101.60.

LEGEND

DL	DOTTED LINE, CLASS I, 6", 642 PAINT
ELW	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
ELY	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
CL	WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE YELLOW)
	PROPOSED PERMANENT PAVEMENT CONSTRUCTED THIS PHASE
	TRAFFIC FLOW
	TYPE III PORTABLE BARRIERS
	PROPOSED FIXED SIGN SUPPORT
	PROPOSED PORTABLE SIGN SUPPORT
X X X	REMOVAL OF EXISTING PAVEMENT MARKING

REV.	DATE	DESCRIPTION
R1	2/11/21	CUT LINE SHIFTED. ADDITIONAL DETAIL ADDED. TRAFFIC FLOW CHANGED TO ONE-WAY.

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SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE	
7	8		36	37	38	39	40	41	42	87	01/NHS/ PV/CONN		EXT	TOTAL			SHEET	
																	NO.	
ROADWAY																		
LS											LS		201	11000	LS			
													202	23000	1,056	R1	7	
											17,432	17,432	202	23001	17,432			
			4,329	3,157									202	32000	7,486	FT		
			169										202	32500	169	FT		
			93										202	35100	93	FT		
	489												202	35700	489	FT		
			171	654									202	38000	825	FT		
			1	1									202	42812	2	EACH		
								46					202	53101	46	EACH	7	
			14	8									202	58100	22	EACH		
	330												330	SPECIAL	20270110	330	FT	8
								4,448					203	10000	4,614	R1		
								217					203	20000	217			
													204	10000	18,602	R1		
650													204	13000	650	CY		
650													204	30010	650	CY		
7													204	45000	7	HOUR		
1,900													204	50000	1,900	SY		
												93						
													253	01000	93	SY		
			325	675									606	15100	1,000	FT		
			1	1									606	26150	2	EACH	7	
				30									607	30000	30	FT		
			305										608	10000	305	SF		
			317										608	52000	317	SF		
EROSION CONTROL																		
	2												659	00100	2	EACH		
	1,104												659	00300	1,104	CY		
	9,939												659	10000	9,939	SY		
	497												659	14000	497	SY		
	497												659	15000	497	SY		
	1.4												659	20000	1.4	TON		
	2.1												659	31000	2.1	ACRE		
	54												659	35000	54	MGAL		
	90												659	40000	90	MSF		
										LS	LS		832	15000	LS			
										LS	LS		832	15002	LS			
										LS	LS		832	15010	LS			
										73,413	73,413		832	30000	73,413	EACH		
GENERAL SUMMARY																		
															REV.	DATE	DESCRIPTION	
															R1	2/18/21	FUNDING SPLIT ELIMINATED, QUANTITIES REVISED	
															33			
															123			

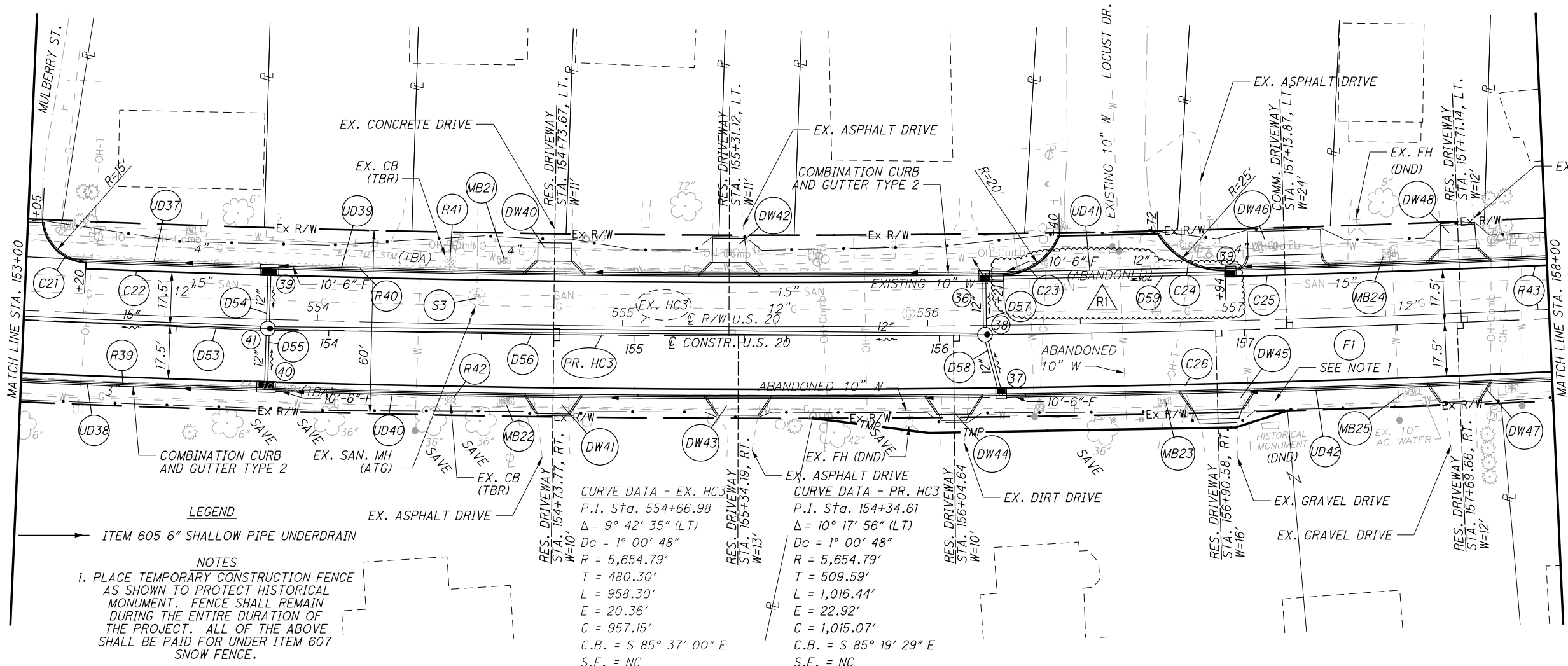
ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)

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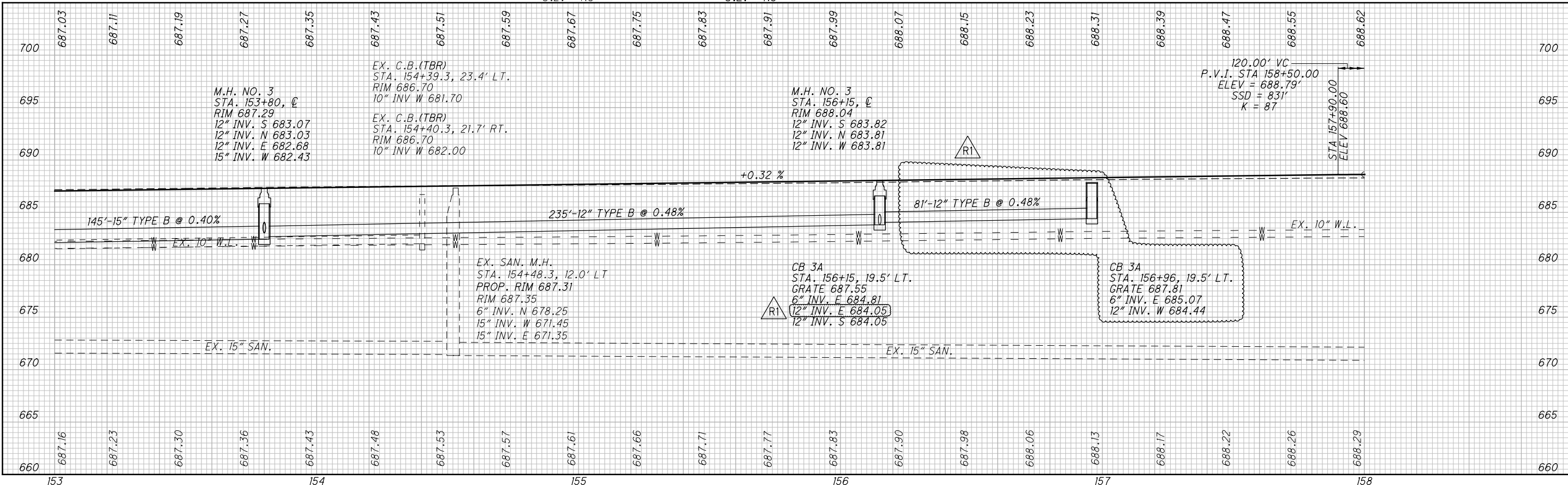
SHEET NUM.										PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	10				41		105	106	01/NHS/PV/CONN							
OTHER UTILITIES																	
	10									10		SPECIAL	61199700	10	EACH	GAS VALVE BOX ADJUSTED TO GRADE	8
TRAFFIC CONTROL																	
								82	49	131		621	00100	131	EACH	RPM	
						19				19		626	00110	19	EACH	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	
								230	276	506		630	03100	506	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
								3	8	11		630	08600	11	EACH	SIGN POST REFLECTOR	
								120	161	281		630	80100	281	SF	SIGN, FLAT SHEET	
								7	5	12		630	84900	12	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								5	3	8		630	86002	8	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
								1	1	2		631	97700	2	EACH	SIGN LIGHTING MISC.: REFURBISH SIGN LIGHTING ASSEMBLY	8
								0.05	0.06	0.11		644	00104	0.11	MILE	EDGE LINE, 6"	
								1.05	0.68	1.73		644	00300	1.73	MILE	CENTER LINE	
								255	176	431		644	00400	431	FT	CHANNELIZING LINE, 8"	
								34	26	60		644	00500	60	FT	STOP LINE	
								12	8	20		644	01300	20	EACH	LANE ARROW	
								1		1		644	01350	1	EACH	LANE REDUCTION ARROW	
MAINTENANCE OF TRAFFIC																	
		300	110							410		410	12000	410	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
		50								50		611	04400	50	FT	12" CONDUIT, TYPE B	
		50								50		611	07400	50	FT	18" CONDUIT, TYPE B	
		2								2		611	98510	2	EACH	CATCH BASIN, NO. 2-3	
		2								2		611	98635	2	EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	20
		30	100							100		614	11110	100	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		50								50		614	12460	50	EACH	WORK ZONE MARKING SIGN	
		21								21		614	13000	21	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
		21								21		614	13312	21	EACH	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	
		21								21		614	13360	21	EACH	OBJECT MARKER, TWO WAY	
		30								30		614	18601	30	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	9
		2								2		614	21100	2	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
		4.6								4.6		614	22110	4.6	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
		431								431		614	23200	431	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
		520								520		614	24202	520	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
		120								120		614	26200	120	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
		21								21		614	30200	21	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
		6								6		614	40051	6	EACH	BUSINESS ENTRANCE SIGN, AS PER PLAN	9
		LS								LS		615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
		250								250		615	20000	250	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
		100								100		616	10000	100	MGAL	WATER	
INCIDENTALS																	
										LS		103	05000	LS		PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	
		LS								LS		614	11000	LS		MAINTAINING TRAFFIC	
										18		619	16010	18	MNTH	FIELD OFFICE, TYPE B	
										LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS		624	10000	LS		MOBILIZATION	

REV.	DATE	DESCRIPTION
R1	2/18/21	FUNDING SPLIT ELIMINATED. QUANTITIES ADDED AND REVISED.

GENERAL SUMMARY
ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)

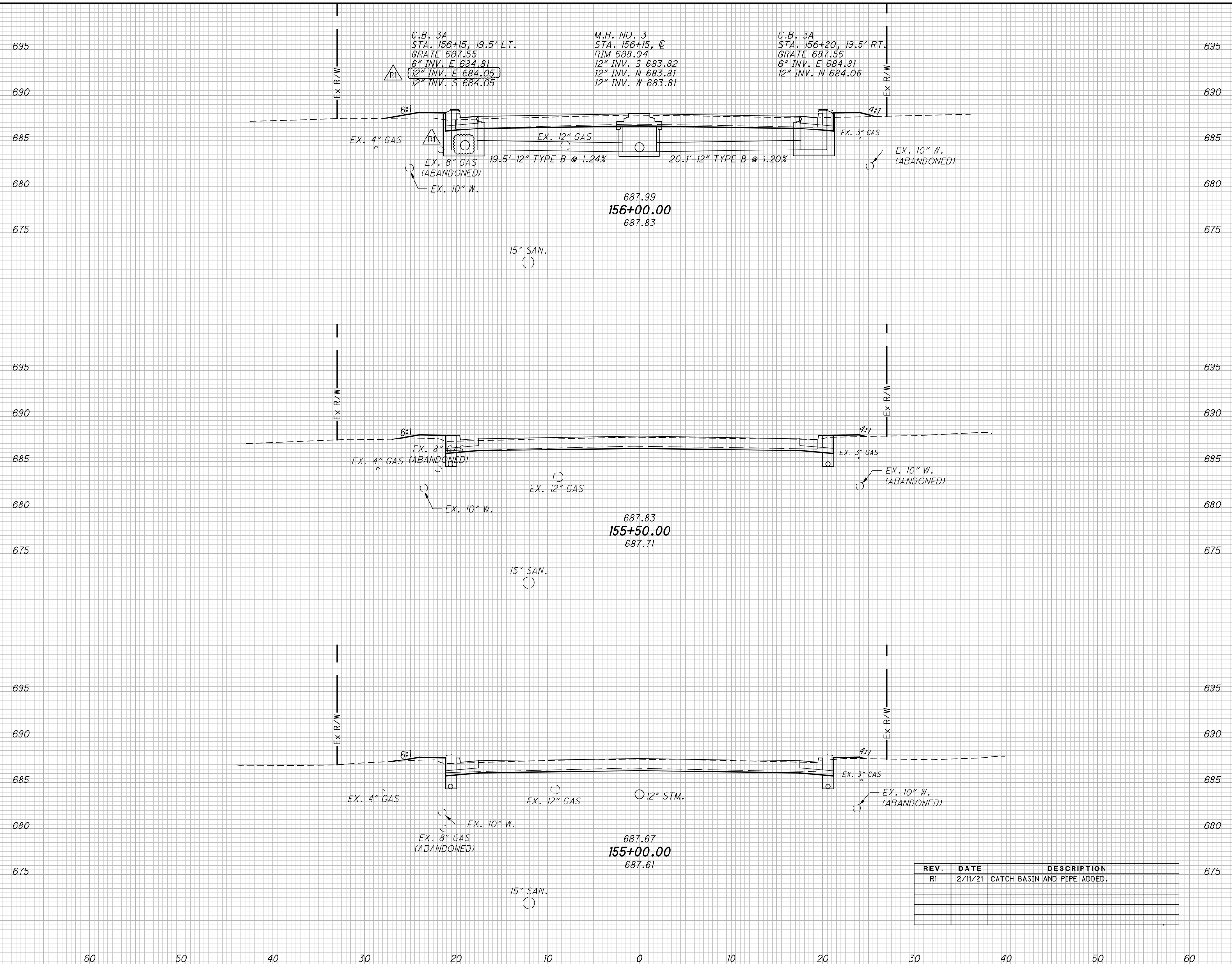


REV.	DATE	DESCRIPTION
R1	2/11/21	CATCH BASIN AND PIPE ADDED.



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SEEDING	END AREA		VOLUME		CALCULATED	CHECKED	DLT
	CUT	FILL	CUT	FILL			
20	6	6					
112	9	3	14	9			
111	10	3	18	6			
111			22	6			
334			54	21			



C.B. 3A
 STA. 156+15, 19.5' LT.
 GRATE 687.55
 6" INV. E 684.81
 12" INV. E 684.05
 12" INV. S 684.05

M.H. NO. 3
 STA. 156+15, C
 RIM 688.04
 12" INV. S 683.82
 12" INV. N 683.81
 12" INV. W 683.81

C.B. 3A
 STA. 156+20, 19.5' RT.
 GRATE 687.56
 6" INV. E 684.81
 12" INV. N 684.06

687.99
156+00.00
 687.83

687.83
155+50.00
 687.71

687.67
155+00.00
 687.61

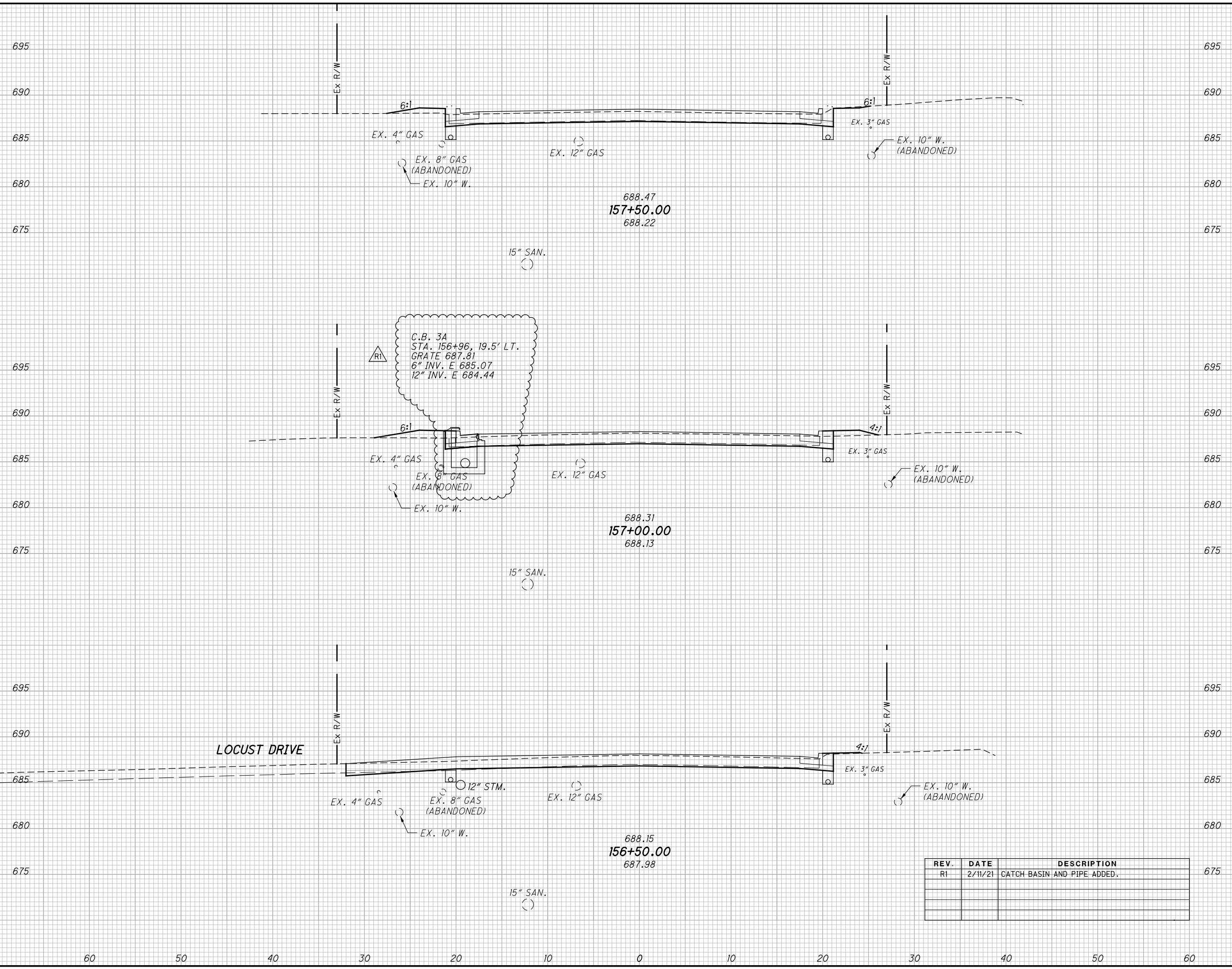
REV.	DATE	DESCRIPTION
R1	2/11/21	CATCH BASIN AND PIPE ADDED.

CROSS SECTIONS U.S. 20
STA. 155+00.00 TO STA. 156+00.00
ATB-U.S.20-21.86
(SLM 23.01 - SLM 23.74)

80
123

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SEEDING	
END WIDTH	SO. YDS.
20	695
112	690
20	685
75	680
7	675
75	670
262	665

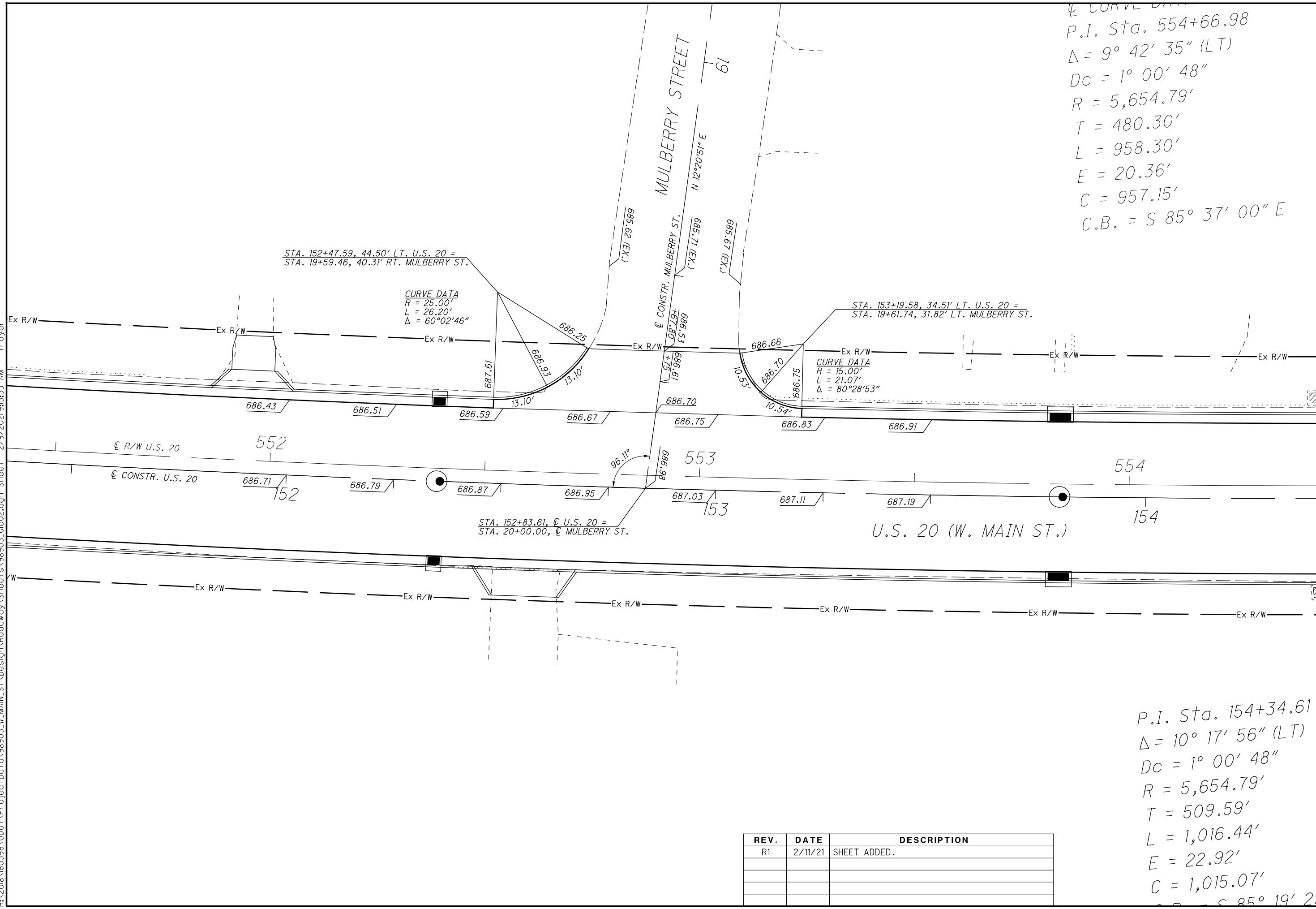


REV.	DATE	DESCRIPTION
R1	2/11/21	CATCH BASIN AND PIPE ADDED.

END AREA	VOLUME	CALCULATED	CHECKED	DLT
5	4	10	11	11
6	8	11	9	9
6	1	11	7	7
		32	27	27

ATB-U.S.20-21.86
CROSS SECTIONS U.S. 20
STA. 156+50.00 TO STA. 157+50.00
(SLM 23.01 - SLM 23.74)

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CURVE DATA
 P.I. Sta. 554+66.98
 $\Delta = 9^\circ 42' 35''$ (LT)
 $Dc = 1^\circ 00' 48''$
 $R = 5,654.79'$
 $T = 480.30'$
 $E = 20.36'$
 $C = 957.15'$
 $C.B. = S 85^\circ 37' 00'' E$

CURVE DATA
 $R = 15.00'$
 $L = 21.07'$
 $\Delta = 80^\circ 28' 53''$

CURVE DATA
 $R = 25.00'$
 $L = 26.20'$
 $\Delta = 60^\circ 02' 46''$

P.I. Sta. 154+34.61
 $\Delta = 10^\circ 17' 56''$ (LT)
 $Dc = 1^\circ 00' 48''$
 $R = 5,654.79'$
 $T = 509.59'$
 $L = 1,016.44'$
 $E = 22.92'$
 $C = 1,015.07'$
 $C.B. = S 85^\circ 19' 2'' E$

REV.	DATE	DESCRIPTION
R1	2/11/21	SHEET ADDED.

CALCULATED
 EJT
 CHECKED
 DLT

0 5 10 20
 HORIZONTAL
 SCALE IN FEET

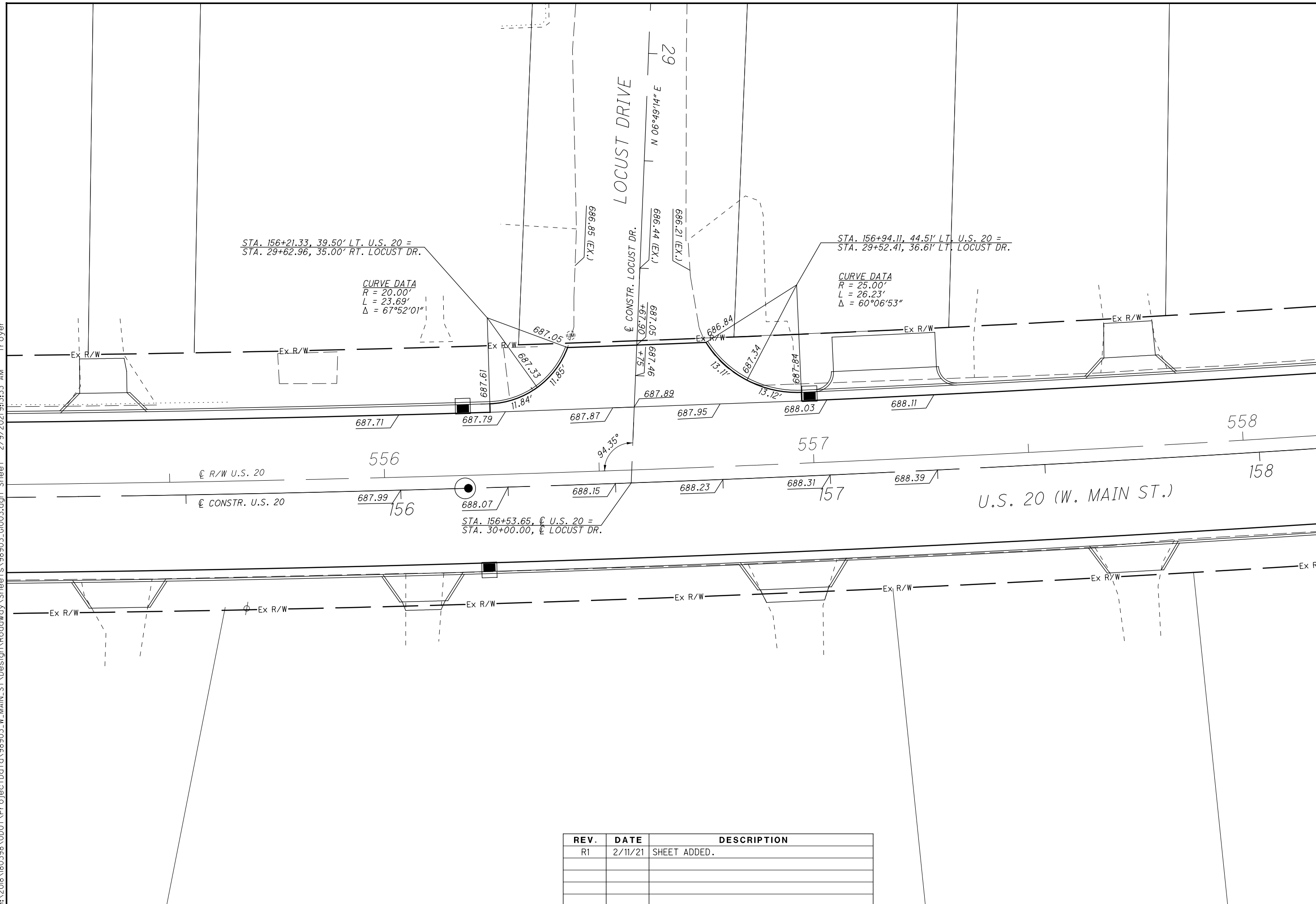
INTERSECTION DETAIL
U.S. 20 & MULBERRY STREET

ATB-U.S.20-21.61

H:\2018\180398\000\ProjectData\98903.W_MAIN_ST\Design\Roadway\Sheets\98903_G003.dgn Sheet 2/9/2021 9:33:33 AM troyer

CALCULATED
EJT
CHECKED
DLT

0 5 10
HORIZONTAL
SCALE IN FEET



INTERSECTION DETAIL
U.S. 20 & LOCUST DRIVE

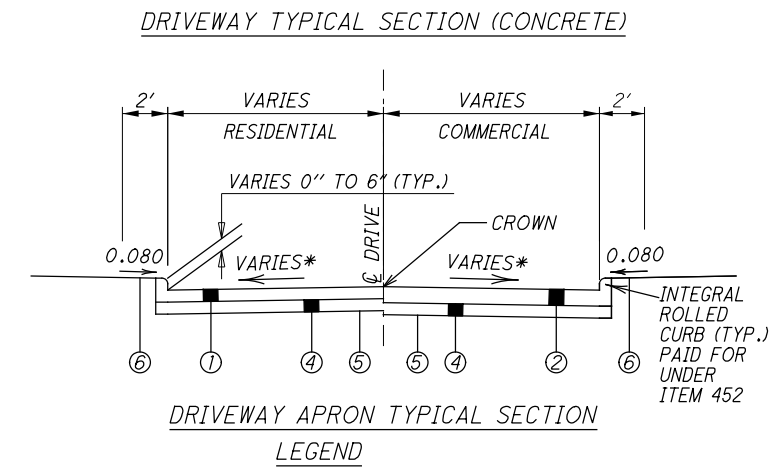
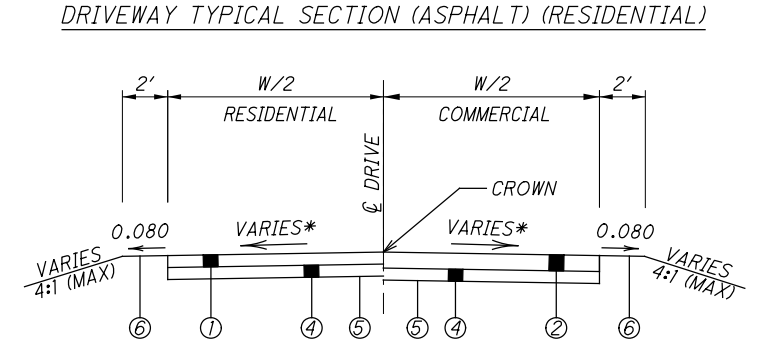
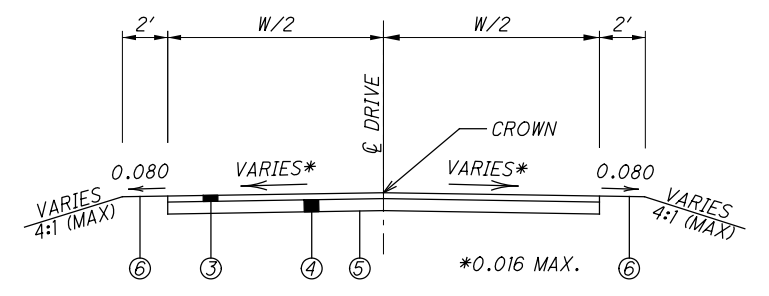
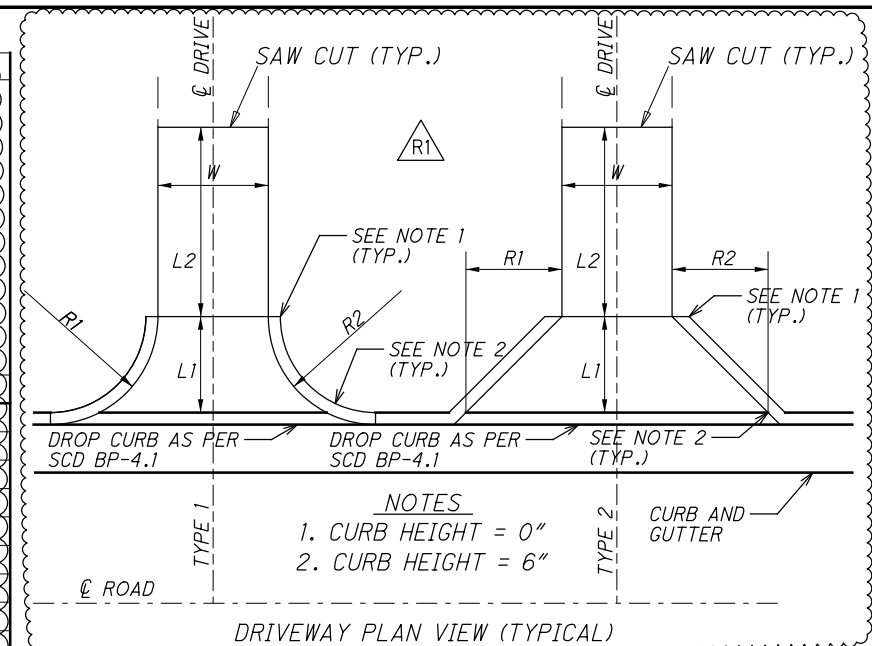
ATB-U.S.20-21.61

86B
123

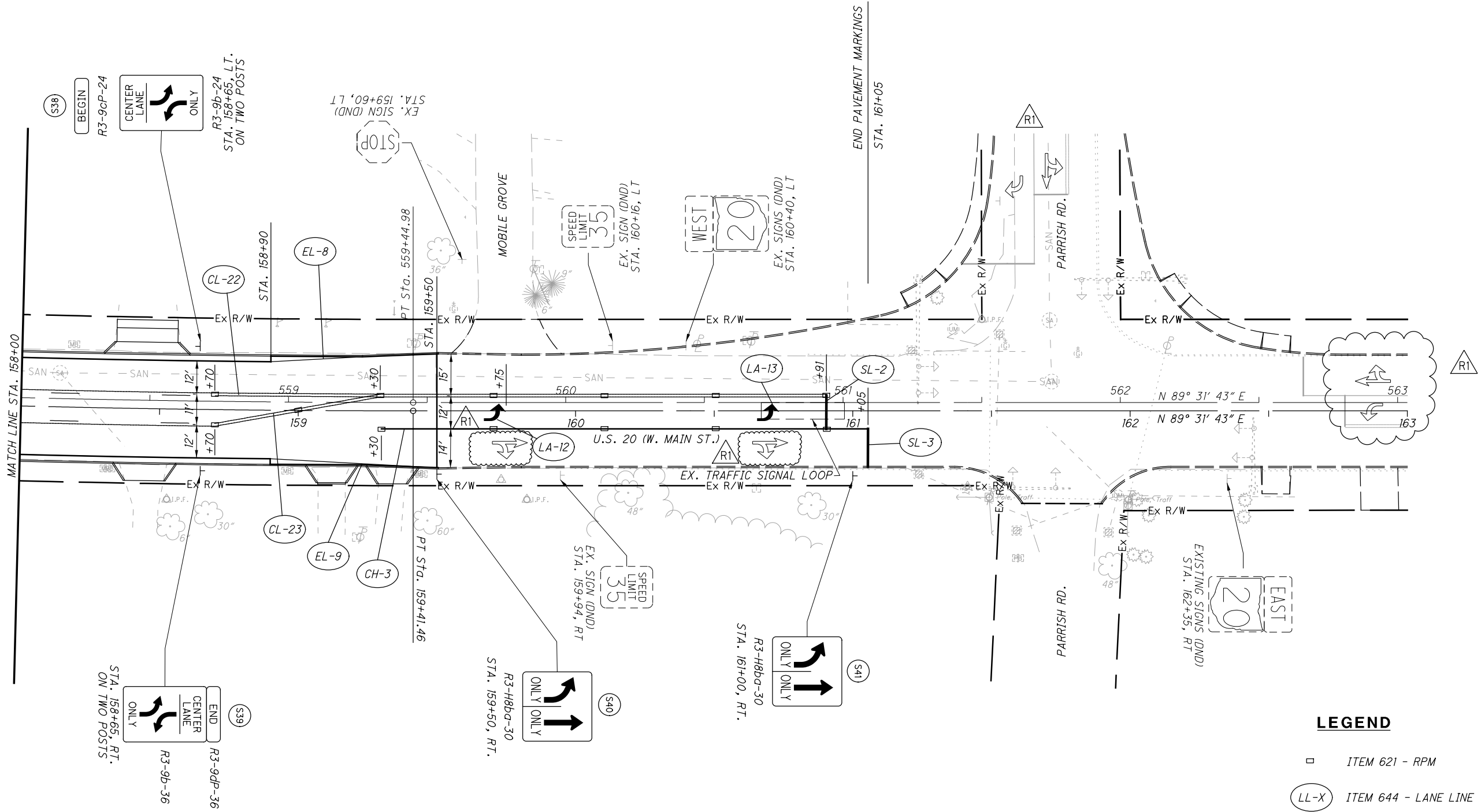
REV.	DATE	DESCRIPTION
R1	2/11/21	SHEET ADDED.

H:\2018\80398\0DOT\Project\Drawings\Roadway\Sheets\98903_GD001.dgn Sheet 2/9/2021 9:33:34 AM Troyer

SHEET NO.	REFERENCE NO.	STATION	SIDE	DRIVE TYPE (PROPOSED)	MATERIAL (PROP.)	DRIVE ANGLE	APRON LENGTH "L1"	DRIVEWAY LENGTH "L2"	WIDTH "W"	R1 (LEFT SIDE OF APRON LOOKING FROM ROAD CL)	R2 (RIGHT SIDE OF APRON LOOKING FROM ROAD CL)	CADD GENERATED APRON SURFACE AREA	CADD GENERATED DRIVE SURFACE AREA	202 PAVEMENT REMOVED, ASPHALT (INFORMATION ONLY)	202 PAVEMENT REMOVED	203 6" EXCAVATION	204 SUBGRADE COMPACTION	252 FULL DEPTH PAVEMENT SAWING	304 6" AGGREGATE BASE, AS PER PLAN	441 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M	452 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS WITH QA/QC	452 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS WITH QA/QC		
						DEG.	FT.	FT.	FT.	FT.	FT.	SQ. FT.	SQ. FT.	S.Y.	S.Y.	C.Y.	S.Y.	FT.	C.Y.	C.Y.	S.Y.	S.Y.		
44	DW-1	121+77.0	L	1 (COMM.)	CONC	90	4	5	21	4.5	4.5	88	105	26.0		3.6	21.4	21	3.6			21.4		
45	DW-2	123+22.5	L	2 (RES.)	ASPH	90	4	3	14	4	4	78	42	15.4		2.2	13.3	14	2.2	0.4	8.7			
45	DW-3	124+13.0	L	2 (RES.)	ASPH	90	4	5	10	4	4	62	50	10.0		2.1	12.4	10	2.1	0.5	6.9			
45	DW-4	124+41.0	R	1 (COMM.)	CONC	90	9	0	19	9.5	9.5	172	0		19.1	3.2	19.1	19	3.2			19.1		
45	DW-5	124+91.25	L	2 (RES.)	ASPH	90	4	5	14	4	4	78	70	20.4		2.7	16.4	14	2.7	0.6	8.7			
45	DW-6	126+33.0	L	2 (RES.)	CONC	90	4	3	12	4	4	70	36		14.0	2.0	11.8	12	2.0			11.8		
45	DW-7	127+79.5	L	1 (COMM.)	CONC	90	4	5	35	4.5	4.5	108	120	56.0		4.2	25.3	35	4.2			25.3		
46	DW-8	128+72.0	L	2 (RES.)	ASPH	90	4	3	10	4	4	62	30	11.9		1.7	10.2	10	1.7	0.3	6.9			
46	DW-9	129+84.2	L	2 (RES.)	CONC	90	4	5	10	4	4	62	50		13.8	2.1	12.4	10	2.1			12.4		
46	DW-10	130+06.78	R	1 (COMM.)	CONC	90	9	0	20.5	9.5	9.5	234	0		26.0	4.3	26.0	20.5	4.3			26.0		
46	DW-11	131+40.33	R	1 (COMM.)	CONC	90	9	0	21	9.5	9.5	238	0		26.4	4.4	26.4	21	4.4			26.4		
46	DW-12	131+45.55	L	2 (RES.)	CONC	90	4	5	17	4	4	90	85		23.0	3.2	19.4	17	3.2			19.4		
46	DW-13	132+07.6	R	2 (RES.)	CONC	90	9	0	10	4	4	136	0	10.0		2.5	15.1	10	2.5	0.0	15.1			
46	DW-14	132+22.16	L	2 (RES.)	ASPH	90	4	5	11	4	4	70	60	14.6		2.4	14.4	11	2.4	0.6	7.8			
46	DW-15	132+86.51	L	2 (RES.)	ASPH	90	4	16	26	4	4	126	393	60.5		9.6	57.7	26	9.6	3.6	14.0			
47	DW-16	133+54.68	R	2 (RES.)	ASPH	90	9	4	10	4	4	136	39	19.5		3.2	19.4	10	3.2	0.4	15.1			
47	DW-17	133+97.64	L	2 (RES.)	CONC	90	4	5	17	4	4	90	85		17.0	3.2	19.4	17	3.2			19.4		
47	DW-18	134+41.26	R	2 (RES.)	ASPH	90	9	4	10	4	4	136	40	19.6		3.3	19.6	10	3.3	0.4	15.1			
47	DW-19	135+02.44	R	2 (RES.)	CONC	90	9	0	10	4	4	136	0	7.0		2.5	15.1	10	2.5	0.0	15.1			
47	DW-20	135+31.7	L	2 (RES.)	ASPH	90	4	4	10	4	4	62	40	10.0		1.9	11.3	10	1.9	0.4	6.9			
47	DW-21	135+90.23	L	2 (RES.)	ASPH	90	4	5	14	4	4	78	70	20.0		2.7	16.4	14	2.7	0.6	8.7			
47	DW-22	136+12.25	R	2 (RES.)	CONC	90	9	0	10	4	4	136	0	10.0		2.5	15.1	10	2.5	0.0	15.1			
47	DW-23	136+65.35	L	2 (RES.)	ASPH	90	4	3	15	4	4	82	45	14.7		2.4	14.1	15	2.4	0.4	9.1			
48	DW-24	138+00.46	L	2 (RES.)	ASPH	90	4	5	10	4	4	62	50	14.5		2.1	12.4	10	2.1	0.5	6.9			
48	DW-25	138+67.34	L	2 (RES.)	ASPH	90	4	5	11	4	4	66	55	14.0		2.2	13.4	11	2.2	0.5	7.3			
48	DW-26	142+00.51	L	1 (COMM.)	CONC	90	4	7	35	4.5	4.5	153	245	63.8		7.4	44.2	35	7.4			44.2		
48	DW-27	142+72.00	L	2 (RES.)	ASPH	90	4	14	10	4	4	63	140	18.7		3.8	22.6	10	3.8	1.3	7.0			
49	DW-28	144+59.95	L	2 (RES.)	ASPH	90	4	19	12	4	4	71	218	24.9		5.4	32.1	12	5.4	2.0	7.9			
49	DW-29	145+15.36	L	1 (COMM.)	CONC	90	4	18	23	4.5	4.5	105	393	66.1		9.2	55.3	23	9.2			55.3		
49	DW-30	145+68.07	L	2 (RES.)	ASPH	90	4	15	10	4	4	63	144	17.8		3.8	23.0	10	3.8	1.3	7.0			
49	DW-31	146+08.8	L	2 (RES.)	ASPH	90	4	8	10	4	4	63	79	15.6		2.6	15.8	10	2.6	0.7	7.0			
49	DW-32	147+53.59	L	2 (RES.)	ASPH	90	4	11	10	4	4	61	110	23.3		3.2	19.0	10	3.2	1.0	6.8			
50	DW-33	148+05.00	L	2 (RES.)	ASPH	90	4	5	16	4	4	86	90	22.0		3.3	19.6	16	3.3	0.8	9.6			
50	DW-34	148+53.7	L	2 (RES.)	ASPH	90	4	5	16	4	4	86	80	18.4		3.1	18.4	16	3.1	0.7	9.6			
50	DW-35	149+26.46	L	2 (RES.)	CONC	90	4	6	10	4	4	61	60		16.0	2.2	13.4	10	2.2			13.4		
50	DW-36	150+32.13	L	2 (RES.)	CONC	90	4	8	10	4	4	62	80		19.6	2.6	15.8	10	2.6			15.8		
50	DW-37	151+18.46	L	2 (RES.)	ASPH	90	4	5	11	4	4	66	55	15.0		2.2	13.4	11	2.2	0.5	7.3			
50	DW-38	151+91.22	L	2 (RES.)	ASPH	90	4	8	10	4	4	62	78	17.6		2.6	15.6	10	2.6	0.7	6.9			
50	DW-39	152+56.18	R	2 (RES.)	CONC	90	6	0	15	4	4	122	0	10.7		2.3	13.6	15	2.3	0.0	13.6			
51	DW-40	154+73.67	L	2 (RES.)	CONC	90	4	6	11	4	4	66	66		16.7	2.4	14.7	11	2.4			14.7		
51	DW-41	154+73.77	R	2 (RES.)	CONC	90	6	0	10	4	4	92	0	8.0		1.7	10.2	10	1.7	0.0	10.2			
51	DW-42	155+31.12	L	2 (RES.)	ASPH	90	4	8	11	4	4	66	87	21.3		2.8	17.0	11	2.8	0.8	7.3			
51	DW-43	155+34.19	R	2 (RES.)	CONC	90	6	0	13	4	4	110	0	10.0		2.0	12.2	13	2.0	0.0	12.2			
51	DW-44	156+04.64	R	2 (RES.)	ASPH	90	6	2	10	4	4	92	18	8.0		2.0	12.2	10	2.0	0.2	10.2			
51	DW-45	156+90.58	R	2 (RES.)	ASPH	90	6	3	16	4	4	128	45	18.0		3.2	19.2	16	3.2	0.4	14.2			
51	DW-46	157+13.87	L	1 (COMM.)	CONC	90	4	8	24	4.5	4.5	99	192	46.7		5.4	32.3	24	5.4			32.3		
51	DW-47	157+69.66	R	2 (RES.)	CONC	90	6	0	12	4	4	104	0	10.0		1.9	11.6	12	1.9	0.0	11.6			
52	DW-48	157+71.14	L	2 (RES.)	ASPH	90	4	8	12	4	4	70	93	16.0		3.0	18.1	12	3.0	0.9	7.8			
52	DW-49	158+44.83	R	2 (RES.)	CONC	90	6	0	14	4	4	116	0		10.7	2.1	12.9	14	2.1			12.9		
52	DW-50	158+45.22	L	2 (RES.)	ASPH	90	4	8	22	4	4	110	176	32.4		5.3	31.8	22	5.3	1.6	12.2			
52	DW-51	159+12.13	R	2 (RES.)	CONC	90	6	0	10	4	4	91	0		8.0	1.7	10.1	10	1.7			10.1		
52	DW-52	159+33.96	R	2 (RES.)	CONC	90	6	0	10	4	4	91	0		6.8	1.7	10.1	10	1.7			10.1		
SUBTOTAL														838.4	217.2	165.4	992.3	740.5	165.4	22.2	475.8	250.2		
TOTALS CARRIED TO GENERAL SUMMARY														1056	166	993	741	166	23	476	251			



- ① 452 - 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS WITH QA/QC
- ② 452 - 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS WITH QA/QC
- ③ 441 - 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), A.P.P., PG70-22M
- ④ 304 - 6" AGGREGATE BASE, AS PER PLAN
- ⑤ 204 - SUBGRADE COMPACTION
- ⑥ 659 - SEEDING AND MULCHING



LEGEND

- ITEM 621 - RPM
- LL-X ITEM 644 - LANE LINE
- CH-X ITEM 644 - CHANNELIZING LINE, 8"
- CL-X ITEM 644 - CENTER LINE
- EL-X ITEM 644 - EDGE LINE, 6" (WHITE)
- LA-X ITEM 644 - LANE ARROW (TWO-WAY LEFT TURN)
- SL-X ITEM 644 - STOP LINE

REV.	DATE	DESCRIPTION
R1	2/11/21	ADDED EXISTING LANE ARROWS.

CALCULATED
EJT
CHECKED
DLT

0 0 0
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 148+00 TO STA. 163+00

ATB-US-20-21.86
(SLM 23.01 - SLM 23.74)