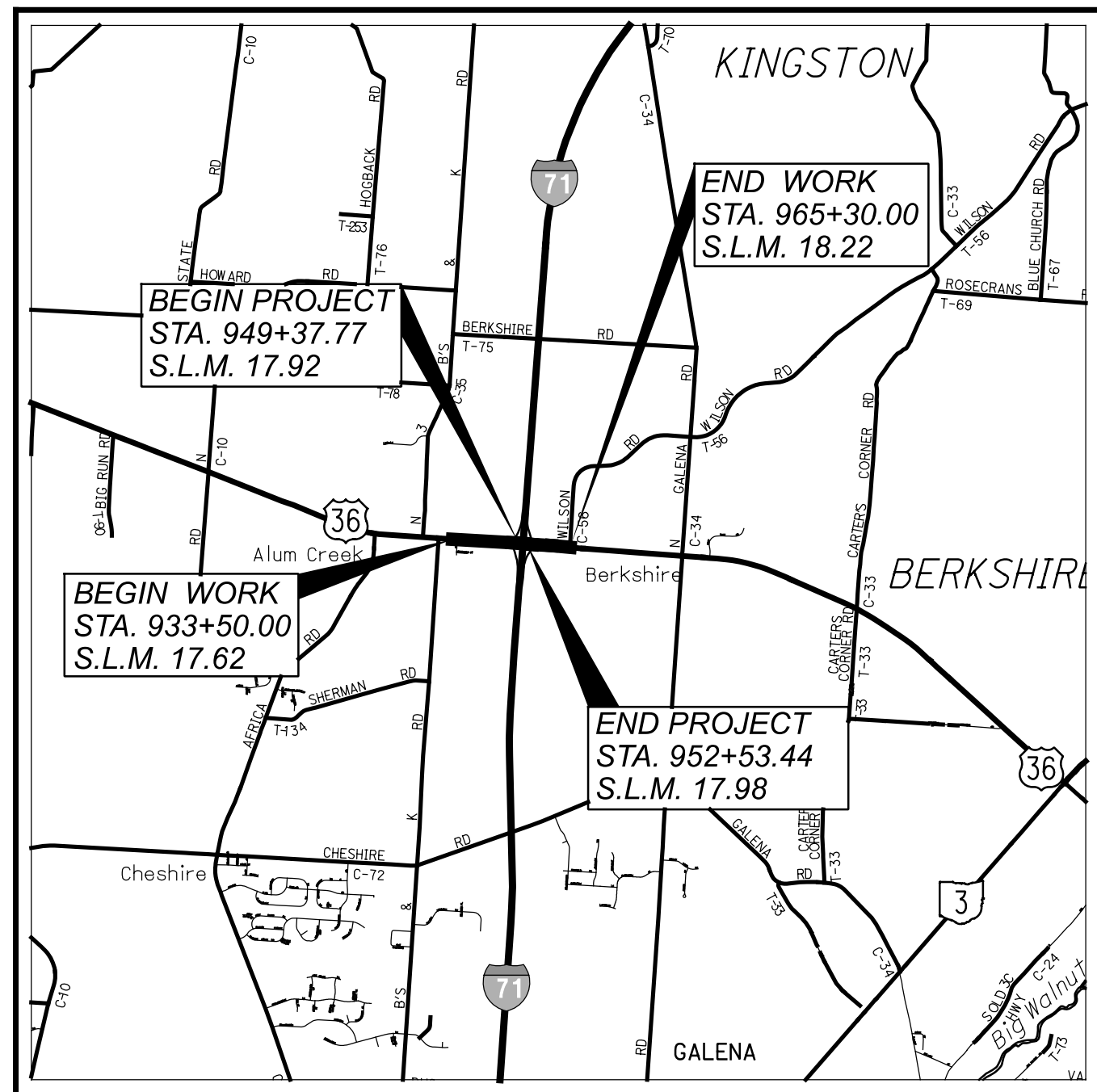


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

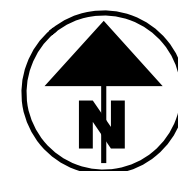
DEL-36-17.95

BERKSHIRE TOWNSHIP DELAWARE COUNTY



LOCATION MAP

LATITUDE: 40°15'60" LONGITUDE: 82°55'38"



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

DESIGN DESIGNATION

US 36	-----
CURRENT ADT (2018)	30,950
DESIGN YEAR ADT (2038)	27,600
DESIGN HOURLY VOLUME (2038)	-----
DIRECTIONAL DISTRIBUTION	50%
TRUCKS (24 HOUR B&C)	13%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
03 - RURAL PRINCIPAL ARTERIAL	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED

PLAN PREPARED BY:

2475 Sugar Grove Rd., SE
Lancaster, Ohio 43130
1105 Schrock Road, Suite 516
Columbus, Ohio 43229
1422 Euclid Avenue, Suite 1044
Cleveland, Ohio 44115
(740) 687-5542 Phone
www.2LMN.com

THIS WORK PRODUCT WAS PREPARED TO MEET THE SPECIFICALLY EXPRESSED NEEDS OF OUR CLIENT AND IS NOT TO BE COPIED OR RELIED UPON BY ANY PERSON WHO IS NOT IN PRIVACY OF CONTRACT WITH OUR COMPANY, NOR IS IT TO BE USED FOR ANY OTHER PURPOSE THAN THAT FOR WHICH IT WAS EXPRESSLY PROVIDED.

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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)

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS		
BP-3.1	1/21/22	AS-1-15	7/17/15	MT-95.30	7/19/19	TC-17.11	1/21/22	TC-81.11	7/16/21	800-2019	1/20/23
		AS-2-15	1/18/19	MT-95.40	1/17/20	TC-21.11	7/16/21			809	7/15/22
DM-4.1	7/17/20	GSD-1-19	1/15/21	MT-95.45	1/17/20	TC-21.21	7/15/22			831	10/21/16
DM-4.3	1/15/16	PCB-91	7/17/20	MT-95.50	7/21/17	TC-22.10	4/17/20			832	7/15/22
DM-4.4	1/15/16	SBR-3-20	7/17/20	MT-97.12	1/20/17	TC-41.10	7/19/13				
		VPF-1-90	7/20/18	MT-98.10	1/17/20	TC-41.20	10/18/13				
MGS-1.1	7/16/21			MT-98.11	1/17/20	TC-42.10	10/18/13				
MGS-2.1	1/19/18	HL-50.21	7/15/22	MT-99.20	4/19/19	TC-42.20	10/18/13				
MGS-3.1	1/19/18			MT-99.50	1/17/20	TC-52.10	10/18/13				
MGS-3.2	1/18/13			MT-99.60	7/15/16	TC-52.20	1/15/21				
MGS-4.3	1/18/13			MT-101.60	1/17/20	TC-61.30	7/19/19				
				MT-101.70	1/17/20	TC-65.10	1/17/14				
RM-3.1	7/20/18			MT-101.75	1/17/20	TC-65.11	7/15/22				
RM-4.2	4/17/20			MT-101.90	7/17/20	TC-71.10	7/15/22				
				MT-102.10	1/17/20	TC-73.20	1/17/20				
				MT-105.10	1/17/20	TC-74.10	1/21/22				

FEDERAL PROJECT NUMBER

E201126

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

REPLACE SUPERSTRUCTURE ON DEL US 36 STRUCTURE OVER I 71. RESURFACE 0.54 MILES OF US 36 FROM EAST OF FOURWINDS DR. TO WEST OF WILSON RD.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.80 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.10 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A* ACRES
*NOI NOT REQUIRED

2019 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.

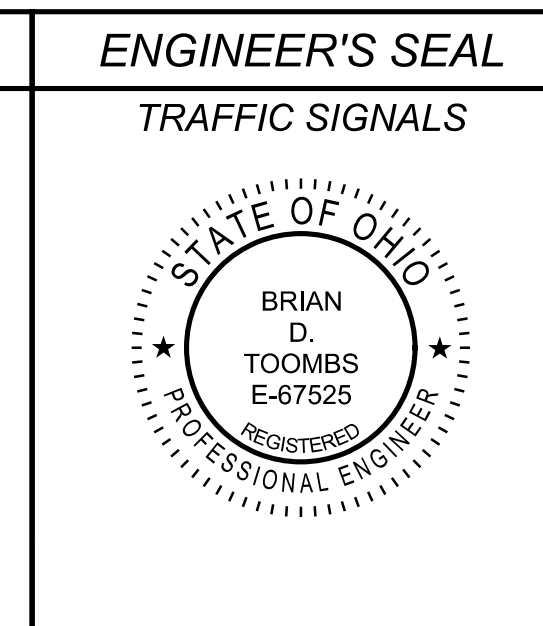
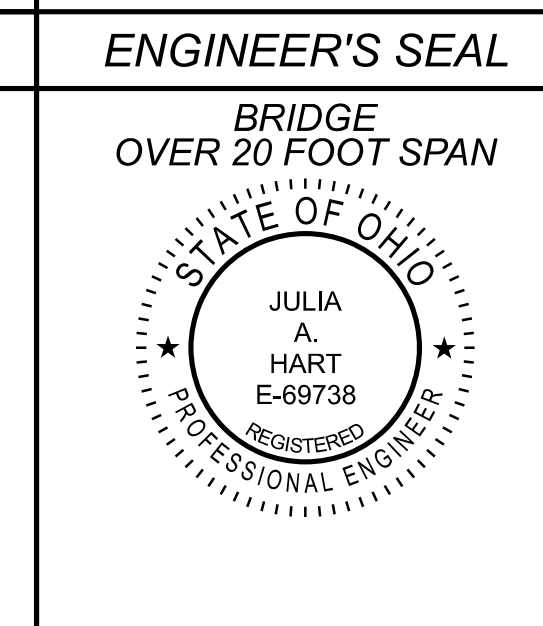
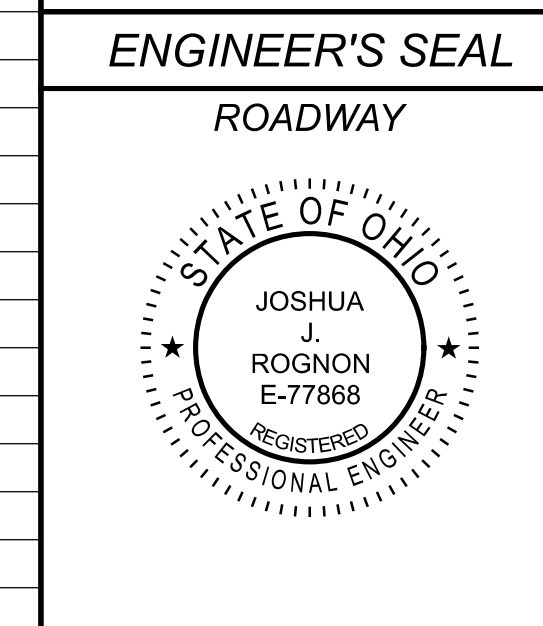
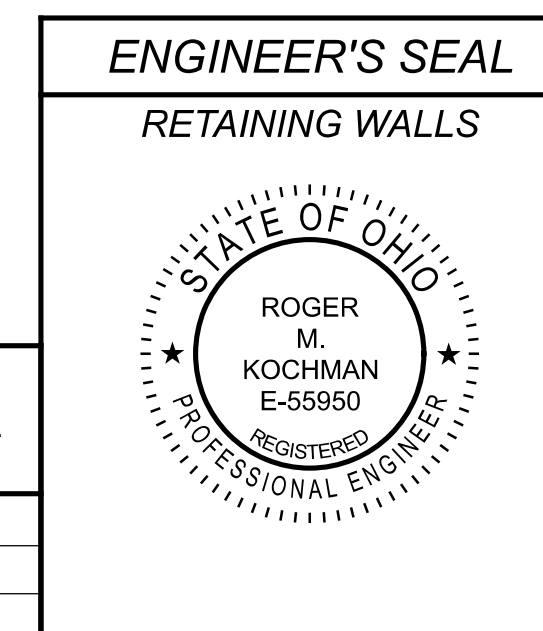
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEETS 72-77, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

DISTRICT DEPUTY DIRECTOR

Anthony C. Tuma

DIRECTOR, DEPARTMENT OF TRANSPORTATION

Jack Mahan



DESIGN AGENCY	
2LMN	
DESIGNER	
JJR	
REVIEWER	
JAH 12/15/22	
PROJECT ID	
113198	
SHEET	TOTAL
1	167

DEL-36-17.95

MODEL: Sheet PAPER: 34x22 (in.) DATE: 4/20/2023 TIME: 12:25:38 PM USER: Josh_Rognon V:\Projects\2LMN_113198_DEL-036-17.95\400-Engineering\Roadway\Sheets\113198_GT001.dgn

TITLE SHEET

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:

AEP OHIO 700 MORRISON ROAD GAHANNA, OHIO 43230 ATTN: BRENT GATES PH: 614-833-6802 bmgates@aep.com
VILLAGE OF SUNBURY 9 E. GRANVILLE STREET SUNBURY, OHIO 43074 ATTN: RHONDA MOURNE PH: 740-965-2684 mourne@sunburyvillage.com

CENTURYLINK 3760 INTERCHANGE DRIVE COLUMBUS, OHIO 43204 ATTN: JEFFREY SCHOONOVER PH: 780-376-1554 jeffrey.i.schoonover@brightspeed.com
CHARTER COMMUNICATIONS 3760 INTERCHANGE DRIVE COLUMBUS, OHIO 43204 ATTN: SAMUEL LUTZ PH: 61-481-5047 samuel.lutz@charter.com

DELCO-WATER 6658 OLENTANGY RIVER ROAD DELAWARE, OHIO 43015 ATTN: WILLIAM WINTER PH: 740-548-7746 EXT. 2408 bwinter@delcowater.com
ODOT DISTRICT 6 TRAFFIC 400 E. WILLIAMS STREET DELAWARE, OHIO 43015 ATTN: DAVID CARLIN, P.E. PH: 740-833-8267 david.carlin@dot.ohio.gov

FRONTIER COMMUNICATIONS 1300 COLUMBUS-SANDUSKY ROAD MARION, OHIO 43022 ATTN: ROB LATHAM OFFICE: 740-383-0686 CELL: 740-815-6015 robin.latham@ftr.com
COLUMBIA GAS OF OHIO 3550 JOHNNY APPLESEED CT COLUMBUS, OHIO 43231 ATTN: DAVID BEADLE PH: 614-582-9004 dbeadle@nisource.com

MARATHON PIPE LINE 840 HEATH ROAD HEATH, OHIO 43056 ATTN: JOE BURTON PH: 614-439-8145 jcburton@marathonpetroleum.com
ODOT ITS LAB 1606 W BROAD ST. COLUMBUS, OHIO 43223 PH: 614-387-4113 CEN.ITS.LAB@DOT.OHIO.GOV

DELAWARE COUNTY REGIONAL SEWER DISTRICT 50 CHANNING ST. 2ND FLOOR DELAWARE, OHIO 43015 ATTN: MARK SCHARER PH: 740-833-2240 mscharer@co.delaware.oh.us
CONSOLIDATED COOPERATIVE 4993 STATE ROUTE 521 DELAWARE, OHIO 43015 ATTN: RUSS KENDALL PH: 614-570-0567 rkendall@consolidated.coop

DELAWARE COUNTY ENGINEER'S OFFICE 50 CHANNING STREET DELAWARE, OHIO 43015 ATTN: JOE WARNER PH: 740-833-2400 jwarner@co.delaware.oh.us

WORK LIMITS

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

CLEARING AND GRUBBING

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

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 2 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

POSITIONING METHOD: VRS
MONUMENT TYPE: B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 18

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GR80
MAP PROJECTION: LAMBERT & CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE SOUTH ZONE
COMBINED SCALE FACTOR: 1.00000000
ORIGIN OF COORDINATE SYSTEM: 0,0,0

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

UNITS ARE IN U.S. SURVEY FEET.

SEEDING AND MULCHING

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

- 659, SOIL ANALYSIS TEST 1 EACH
- 659, SEEDING AND MULCHING 4,310 SQ. YD. (AREA BY COMPUTER)
- 659, REPAIR SEEDING AND MULCHING 220 SQ. YD.
- 659, INTER-SEEDING 220 SQ. YD.
- 659, COMMERCIAL FERTILIZER 0.60 TON
- 659, LIME 0.89 ACRES
- 659, WATER 24 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.

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.

MAINTAINING ITS DURING CONSTRUCTION

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

ASBESTOS NOTIFICATION

AN ASBESTOS SURVEY OF THE BRIDGE WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT AT THE BRIDGE.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORMS, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA ELECTRONICALLY OR VIA US MAIL TO:

OHIO EPA
DAPC-ASBESTOS
P.O. BOX 1049
COLUMBUS, OHIO 43216-1049

AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR REHABILITATION. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER.

INFORMATION REQUIRED ON THE FORM WILL INCLUDE:

- 1) CONTRACTORS NAME AND ADDRESS,
- 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL, AND
- 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE MEHTOD(S) TO BE USED.

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPETE AND SUBMIT THE OEPA NOTIFICATION FORM.

CONSTRUCTION NOTIFICATION

AT LEAST FOURTEEN DAYS PRIOR TO STARTING INITIAL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS VIA EMAIL AT d06.pio@dot.ohio.gov, THE DISTRICT WORK ZONE TRAFFIC MANAGER VIA EMAIL AT d06.mot@dot.ohio.gov AND THE CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OF THE ANTICIPATED START DATE OF ANY CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO THE PLACING OF WORK ZONE SIGNS. THE NOTIFICATION SHALL ALSO INCLUDE THE PROJECT NUMBER, PID, NAME AND PHONE NUMBER OF THE CONTRACTOR, A POINT OF CONTACT AND THE ANTICIPATED IMPACT ON TRAFFIC. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT WORK ZONE TRAFFIC MANAGER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION INITIATION DATE.

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. 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 SHOULD LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, DETOUR ROUTES IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME FRAME TABLE		
	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE
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
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE

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

MAINTAINING TRAFFIC - GENERAL

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION). COPIES ARE AVAILABLE FROM,

THE OHIO DEPARTMENT OF TRANSPORTATION
 BUREAU OF TRAFFIC,
 1980 WEST BROAD STREET
 COLUMBUS, OHIO 43223

THE CONTRACTOR SHALL NOT ORDER MATERIAL OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

MAINTAINING TRAFFIC - GENERAL (CONT...)

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.

CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY ODOT PERSONNEL. THE CONSTRUCTION INSPECTOR SHALL APPROVE ALL TEMPORARY TRAFFIC CONTROL DEVICES FOR CONDITION AND LOCATION BEFORE THE CONTRACTOR WILL BE ALLOWED WORK. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, HIS PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED.

MAINTAINING EXISTING DRIVES

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCE AND COMMERCIAL DRIVES TO THE FULLEST EXTENT POSSIBLE. IT IS UNDERSTOOD THAT FOR SHORT PERIODS OF TIME, THE FULL ACCESS TO A DRIVEWAY MAY NOT BE POSSIBLE. THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO THE RESIDENT/BUSINESS OWNER SO THAT DURING THESE SHORT INTERVALS, THE HOME/BUSINESS OWNER CAN STILL HAVE ACCESS TO PARK NEAR THEIR RESIDENCE/BUSINESS.

PROPERTIES WITH MULTIPLE ACCESS POINTS: WORK AT ONE DRIVE AT A TIME. PROPERTIES WITH A SINGLE ACCESS POINT: MAINTAIN ACCESS TO PROPERTY AT ALL TIMES USING ONE OF THE FOLLOWING METHODS: REPLACE DRIVEWAY USING PART WIDTH CONSTRUCTION, BACKFILL OPEN EXCAVATION WITH ITEM 304 AGGREGATE FOR TEMPORARY ACCESS, OR USE STEEL PLATES TO SPAN OVER OPEN EXCAVATIONS AND OR CONCRETE NOT OUT OF CURE. BEFORE ACCESS TO A DRIVEWAY IS INTERRUPTED, SUCCESSFULLY NOTIFY THE OCCUPANTS/OWNERS OF COMMERCIAL OR RESIDENTIAL DRIVES TO BE CLOSED AND COORDINATE THE CLOSURE AT LEAST 48 HOURS BEFORE THE CLOSURE BEGINS (SIMPLY LEAVING A WRITTEN NOTICE OR PHONE MESSAGE IS NOT SUFFICIENT) COORDINATE ALTERNATE ACCESS TO RESIDENTIAL PROPERTIES WITH THE OWNER/OCCUPANT.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT U.S. MAIL OR ANY OTHER DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS.

SUSPENSION OF WORK

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE "MANUAL", THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

PRE-MAINTENANCE OF TRAFFIC MEETING

A PRE-MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD (MINIMUM 14 WORK DAYS) PRIOR TO WORK BEGINNING OR ANY CHANGE OF PHASING. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER (d06.mot@dot.ohio.gov) AS WELL AS THE CONTRACTOR AND ANY OF HIS SUB-CONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

PART OF THE PRE-MOT WE WILL BE TO GO OVER SIGNAL TIMING AND COORDINATION BETWEEN EXISTING SIGNALS AND TEMPORARY SIGNALS. THIS PORTION OF THE MEETING SHALL INCLUDE DAVID CARLIN David.Carlin@dot.ohio.gov, JESSICA ORMEROID Jessica.Ormeroid@dot.ohio.gov, EMILIE WORLEY Emilie.Worley@2LMN.com, JULIA HART julia.hart@2lmn.com, RANDY KILL randy.kill@burgessniple.com AS WELL AS THE CONTRACTOR AND ANY OF HIS SUB-CONTRACTORS INVOLVED WITH SIGNAL OPERATION.

A FOLLOW UP MEETING IS TO BE HELD 7 DAYS AFTER THE SIGNALS ARE ACTIVE TO FINE TUNE THE OPERATION AND COORDINATION.

WEEKLY MAINTENANCE OF TRAFFIC MEETING

AFTER THE INITIAL PRE-MAINTENANCE OF TRAFFIC MEETING, THE CONTRACTOR SHALL MEET WITH THE PROJECT ENGINEER ON A WEEKLY BASIS TO GO OVER A DETAILED MAINTENANCE OF TRAFFIC REPORT OF AT LEAST 7 CALENDAR DAYS. THIS MEETING SHOULD BE HELD ON THE SAME DAY AND TIME OF EACH WEEK.

THE CONTRACTOR WILL PROVIDE TO THE PROJECT ENGINEER A WRITTEN DETAIL OF THE INFORMATION REQUIRED BY THE NOTIFICATION OF TRAFFIC RESTRICTIONS NOTE PRIOR TO THE MEETING.

IN ADDITION TO THE DETAILED MAINTENANCE OF TRAFFIC REPORT THE CONTRACTOR SHALL GIVE A GENERAL LOOK AHEAD OF AN ADDITIONAL 2 WEEKS OF UPCOMING WORK ACTIVITIES. THIS WILL INCLUDE ANY NOTIFICATION REQUIREMENTS FOR RESTRICTIONS THAT HAVE A DURATION GREATER THAN 12 HOURS.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

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

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

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

ITEM 614, BARRIER REFLECTOR, TYPE 1 (TWO-WAY) 102 EACH
ITEM 614, OBJECT MARKER, (TWO-WAY) 102 EACH

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

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

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

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

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

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

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

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

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

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

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

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.
3. COORDINATION TIMINGS PLANS FOR THE TRAFFIC SIGNALS ALONG US 36 (FOURWINDS DRIVE, WENDY'S/SHELL SIGNAL, TEMPORARY SIGNAL, I-71 SB RAMPS, I-71 NB RAMPS, WILSON ROAD) WILL BE UPDATED BY THE CONTRACTOR AT THE DIRECTION OF THE ODOT ENGINEER. INITIAL COORDINATION PLANS WILL BE PROVIDED AT THE PRE-MAINTENANCE OF TRAFFIC MEETING. TO PROVIDE COMMUNICATIONS AND COORDINATION BETWEEN THE TEMPORARY SIGNAL AND THE EXISTING SIGNALS IN THE CORRIDOR, AN ECONOLITE EOS CONTROLLER AND UBIQUITY ETHERNET RADIO SHALL BE INSTALLED AT THE TEMPORARY SIGNAL AND AN ADDITIONAL UBIQUITY ETHERNET RADIO INSTALLED AT THE I-71 SB RAMPS INTERSECTION.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONT...)

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

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION. IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

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

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

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

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDED DURING THE RELOCATION OF SIGNAL HEADS AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 2 HOURS AND SHALL NOT INCLUDE THE HOURS OF 6AM TO 10PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONT...)

DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY OFF-DUTY VILLAGE OF SUNBURY POLICE, HIRED BY THE CONTRACTOR:

1. US 36 & RAMPS A & B - INTERCHANGE INTERSECTION
2. US 36 & RAMPS C & D - INTERCHANGE INTERSECTION
3. US 36 & WILSON ROAD

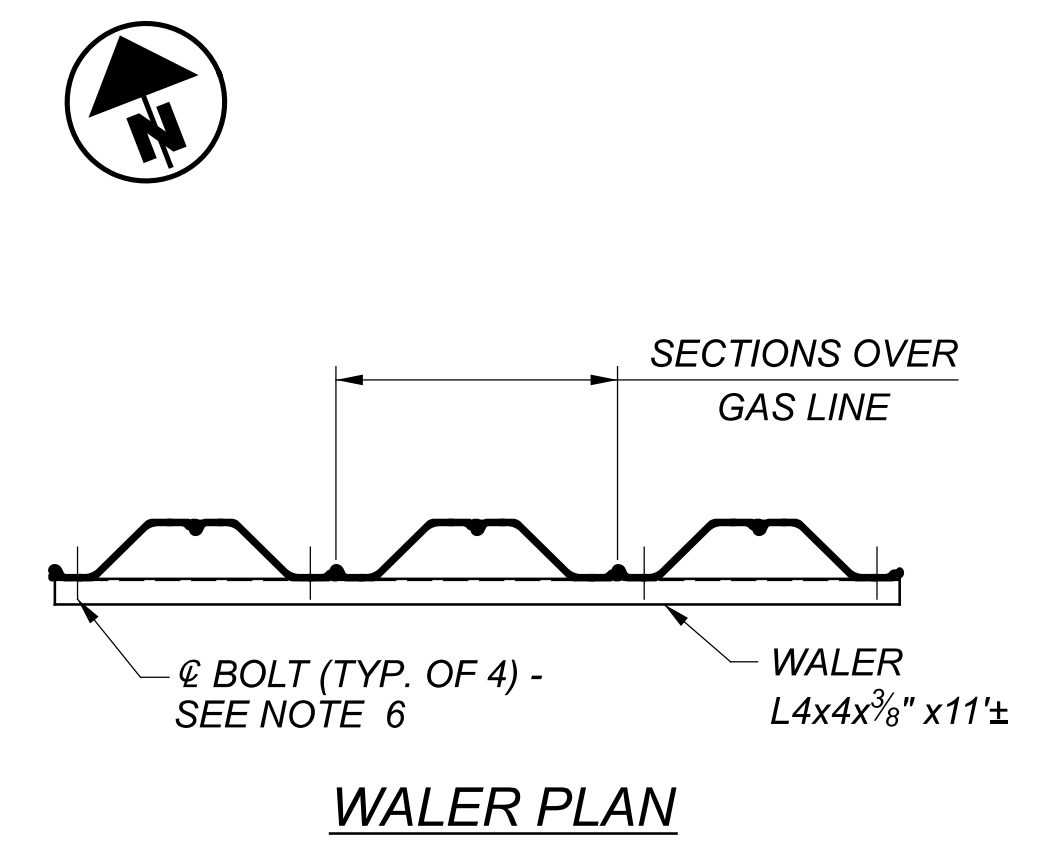
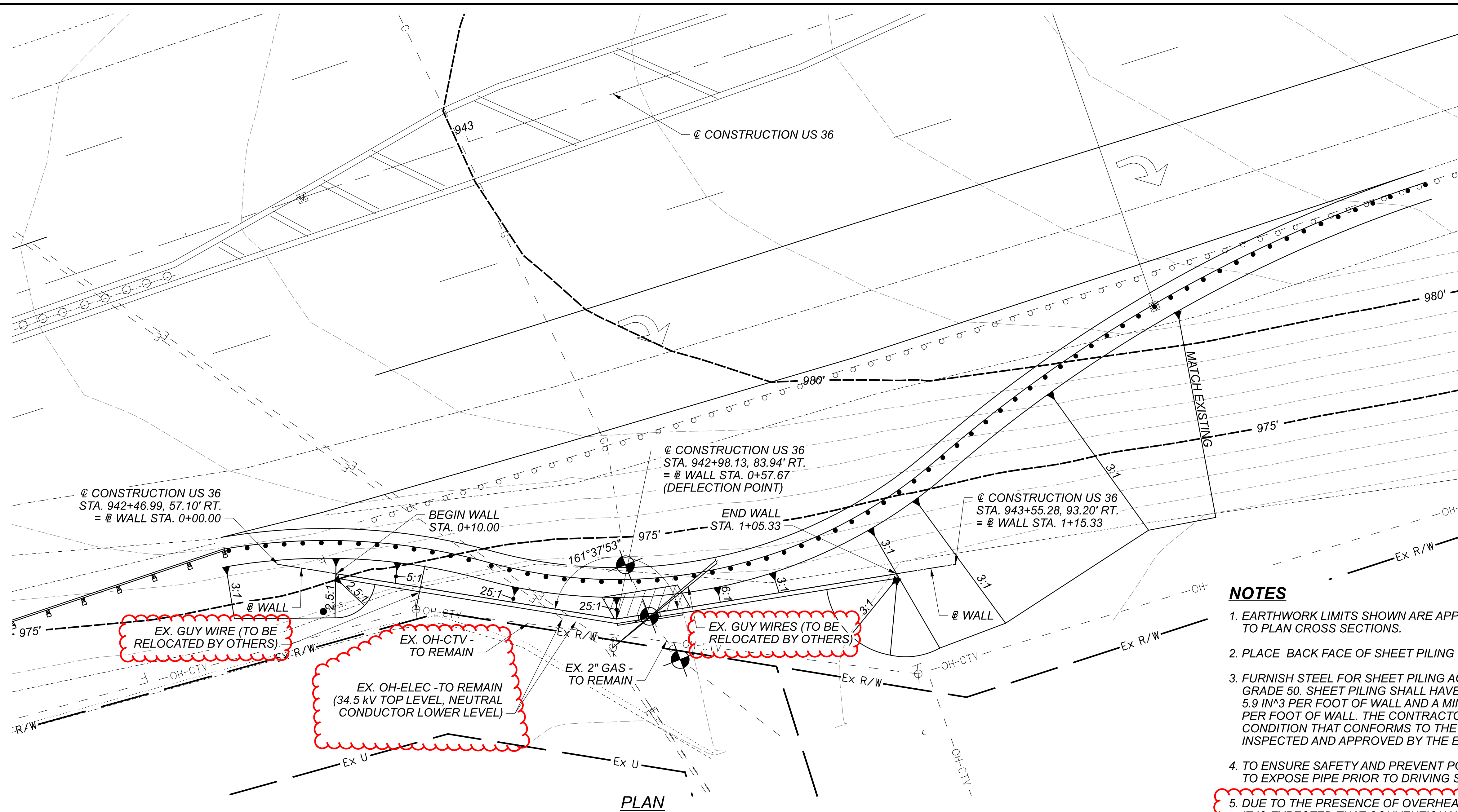
ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

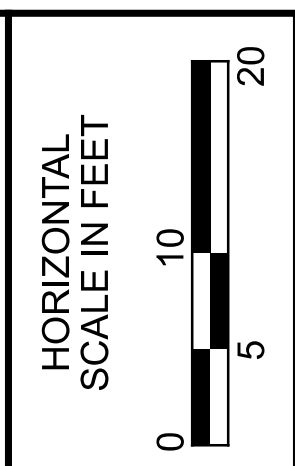
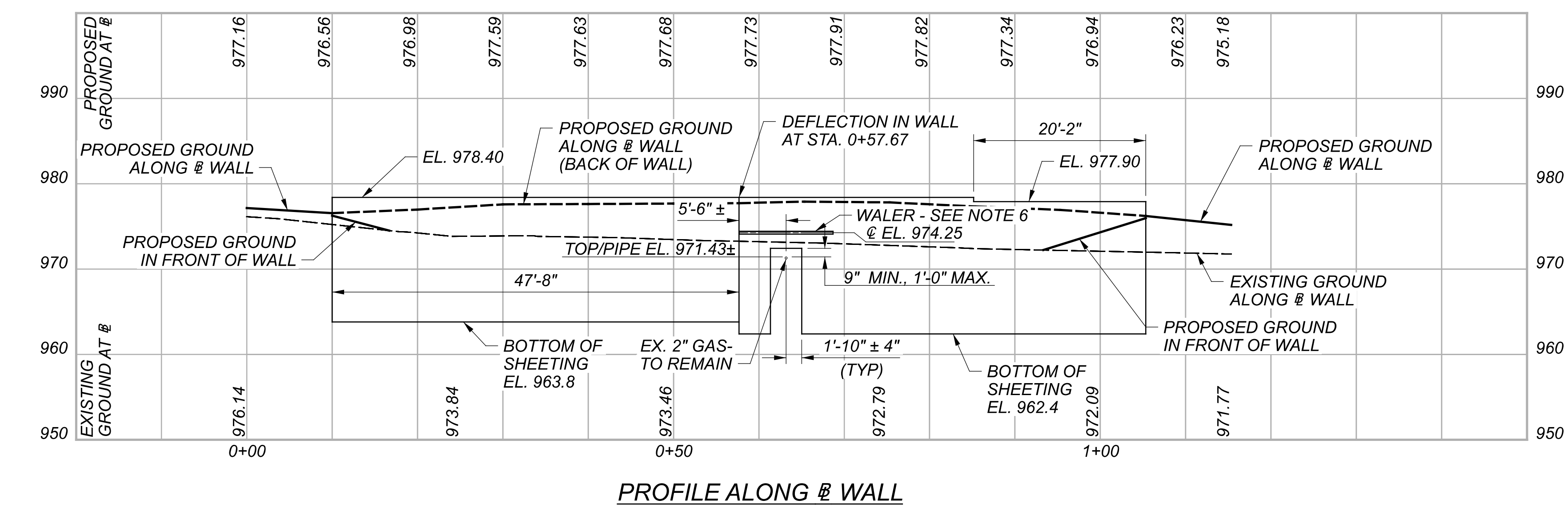
1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR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

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

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

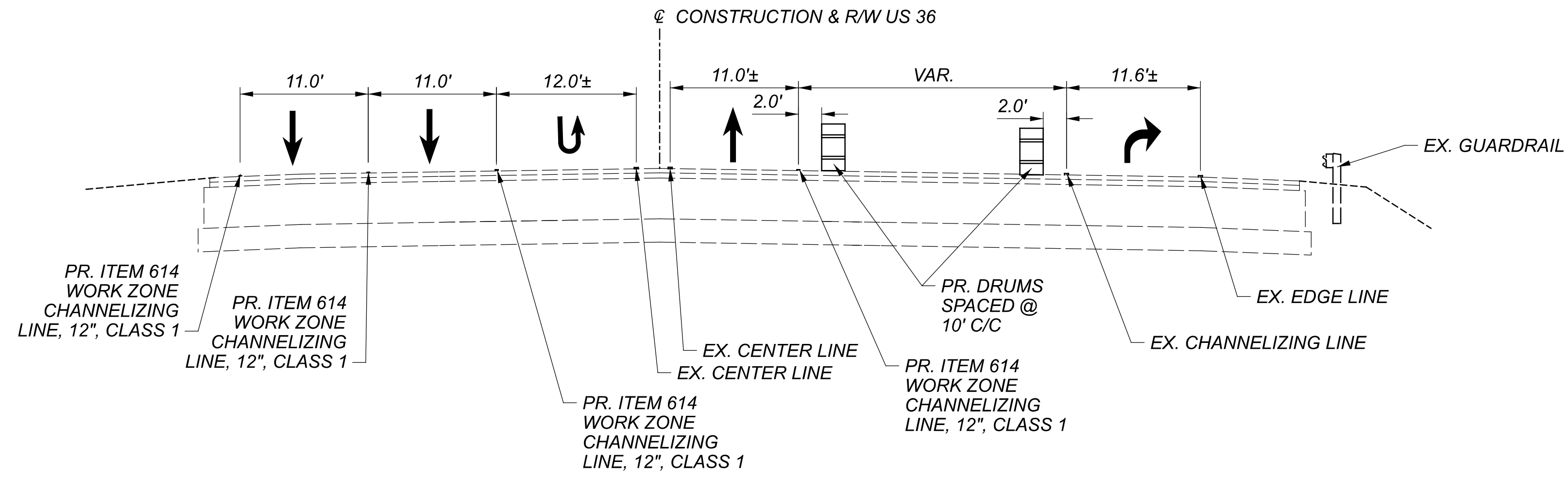


- NOTES**
- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
 - PLACE BACK FACE OF SHEET PILING ALONG @ WALL.
 - FURNISH STEEL FOR SHEET PILING ACCORDING TO ASTM A 328/A 328M OR ASTM A572, GRADE 50. SHEET PILING SHALL HAVE A MINIMUM PLASTIC SECTION MODULUS OF 5.9 IN³ PER FOOT OF WALL AND A MINIMUM MOMENT OF INERTIA OF 20 IN⁴ PER FOOT OF WALL. THE CONTRACTOR MAY USE USED SHEET PILING IN GOOD CONDITION THAT CONFORMS TO THE PROJECT REQUIREMENTS PROVIDED IT IS INSPECTED AND APPROVED BY THE ENGINEER.
 - TO ENSURE SAFETY AND PREVENT POSSIBLE DAMAGE, CAREFULLY REMOVE SOIL OVER PIPE TO EXPOSE PIPE PRIOR TO DRIVING SHEETING WITHIN 5' ON EITHER SIDE OF GAS LINE.
 - DUE TO THE PRESENCE OF OVERHEAD UTILITY LINES IN NEAR PROXIMITY TO THE WALL, IT IS EXPECTED THAT CONVENTIONAL DRIVING METHODS FOR THE SHEETING WILL NOT BE SUITABLE FOR PORTIONS OF THE WALL. THE USE OF AN ALTERNATE DRIVING METHOD WHICH CAN ACCOMMODATE LOW OVERHEAD CLEARANCE CONDITIONS, SUCH AS A SIDE-GRIP VIBRATORY DRIVER, WILL LIKELY BE NEEDED. DRIVE SHEET PILING TO AT LEAST THE ELEVATIONS SHOWN HERE. THREAD EACH SHEET PILE WITH ADJACENT SHEETS. USE CORNER PILES, JUNCTION PILES, AND INTERLOCKING CONNECTORS AS NECESSARY SO THAT ALL SHEET PILES ARE INTERLOCKED.
 - AFTER PLACING SHEET PILING, INSTALL WALER BY DRILLING HOLES IN THE ANGLE AND SHEETING AND INSTALLING 1/2" MIN DIAMETER A325 BOLTS WITH ONE NUT AND 2 WASHERS PER BOLT AT THE LOCATIONS SHOWN IN THE WALER PLAN ABOVE.
 - FOR THE AREA HATCHED IN PLAN VIEW, USE GRANULAR MATERIAL TYPE B. COMPACT EMBANKMENT PLACED BEHIND THE WALL FOR A DISTANCE OF 6' PERPENDICULAR TO THE GAS LINE ON EITHER SIDE AND FOR A DISTANCE OF 4' PERPENDICULAR TO THE WALL WITH SIX PASSES OF A MECHANICAL TAMPER OR VIBRATORY PLATE COMPACTOR THAT APPLIES AN IMPACT OR CENTRIFUGAL FORCE BETWEEN 1/2 TO 2 TONS.
 - AFTER TRAFFIC MAINTENANCE NO LONGER REQUIRES THE USE OF THE PAVEMENT SUPPORTED BY THE TEMPORARY RETAINING WALL, GROUND SURFACES SHALL BE REGRADED IN ACCORDANCE WITH ROADWAY PLANS AND THE WALL SHALL BE REMOVED.
 - ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO INSTALL AND REMOVE THE TEMPORARY WALL SHALL BE INCLUDED IN ITEM SPECIAL 530 RETAINING WALL, TEMPORARY, LUMP SUM.
 - THE DESIGN SHOWN FOR THE TEMPORARY WALL IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE TEMPORARY EMBANKMENT AND PAVEMENT. IF CONSTRUCTING AN ALTERNATE DESIGN, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH THE REQUIREMENTS FOR COFFERDAMS AND EXCAVATION BRACING IN C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY WALL AT THE CONTRACT LUMP SUM PRICE FOR RETAINING WALL, TEMPORARY. THE DEPARTMENT WILL NOT MAKE ADDITIONAL PAYMENT FOR PROVIDING AN ALTERNATE DESIGN.

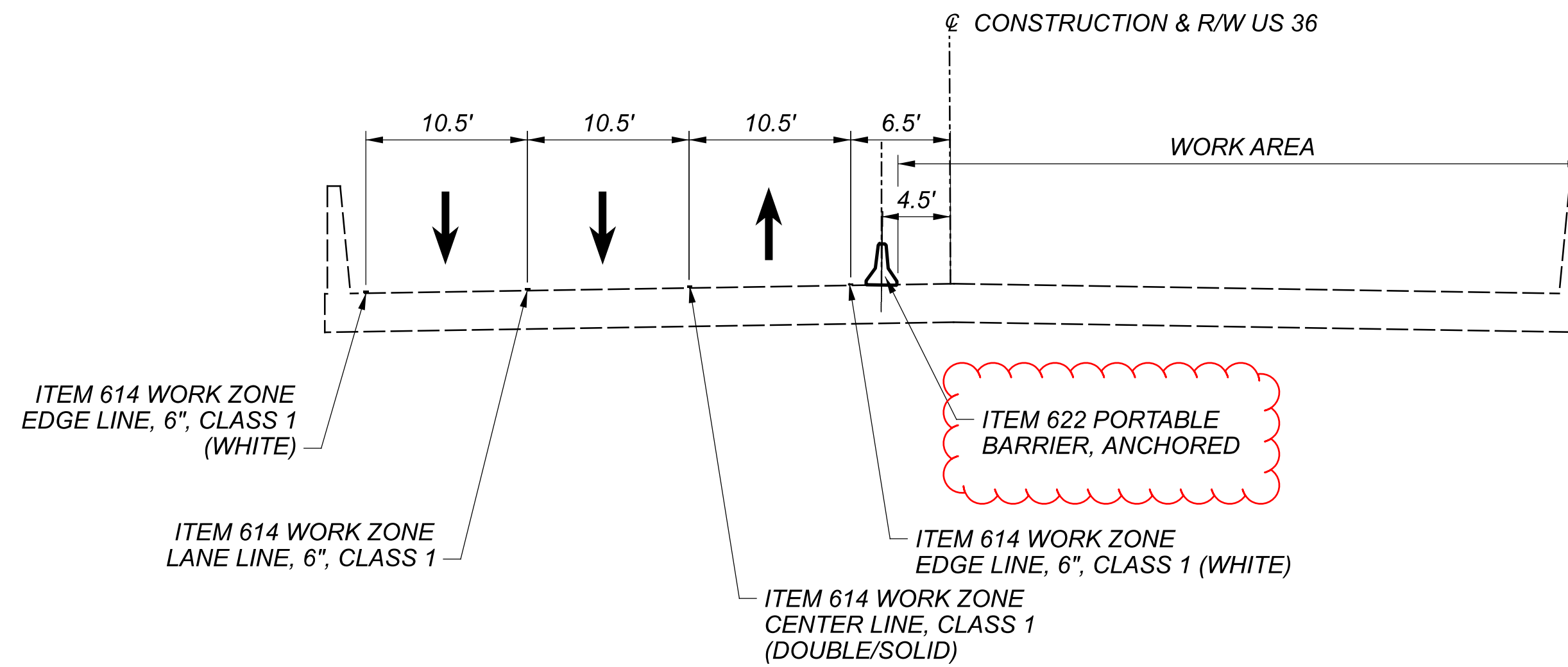


PLAN AND PROFILE
 TEMPORARY RETAINING WALL

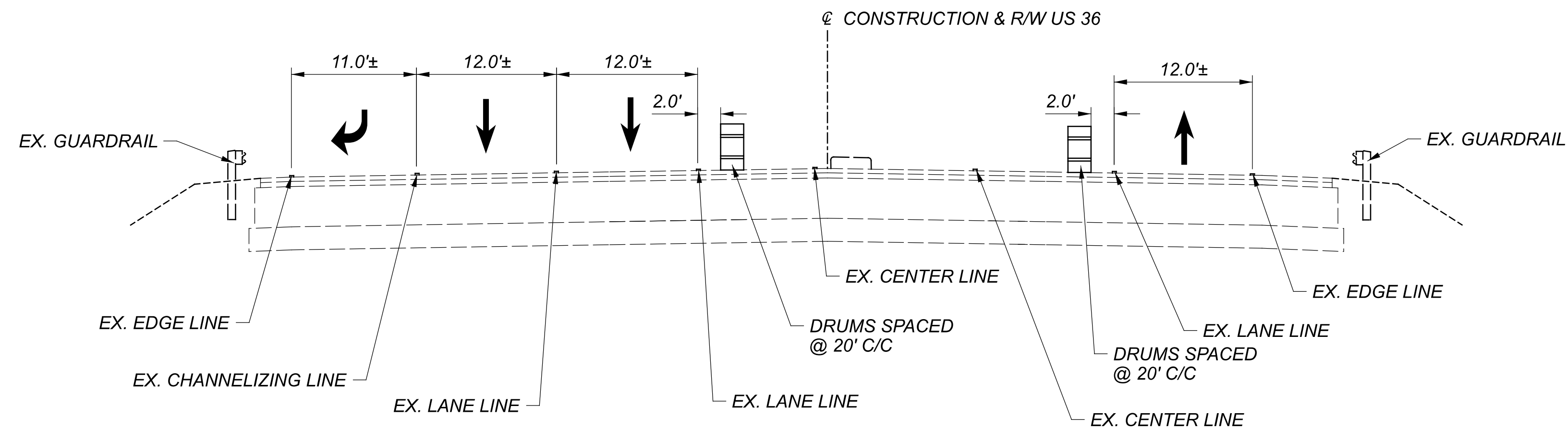
SFN	
DESIGN AGENCY	
B&N burgessniple.com	
DESIGNER	CHECKER
RMK	ODW
REVIEWER	
RS 05-09-22	
PROJECT ID	
113198	
SUBSET	TOTAL
1	1
SHEET	TOTAL
27	167



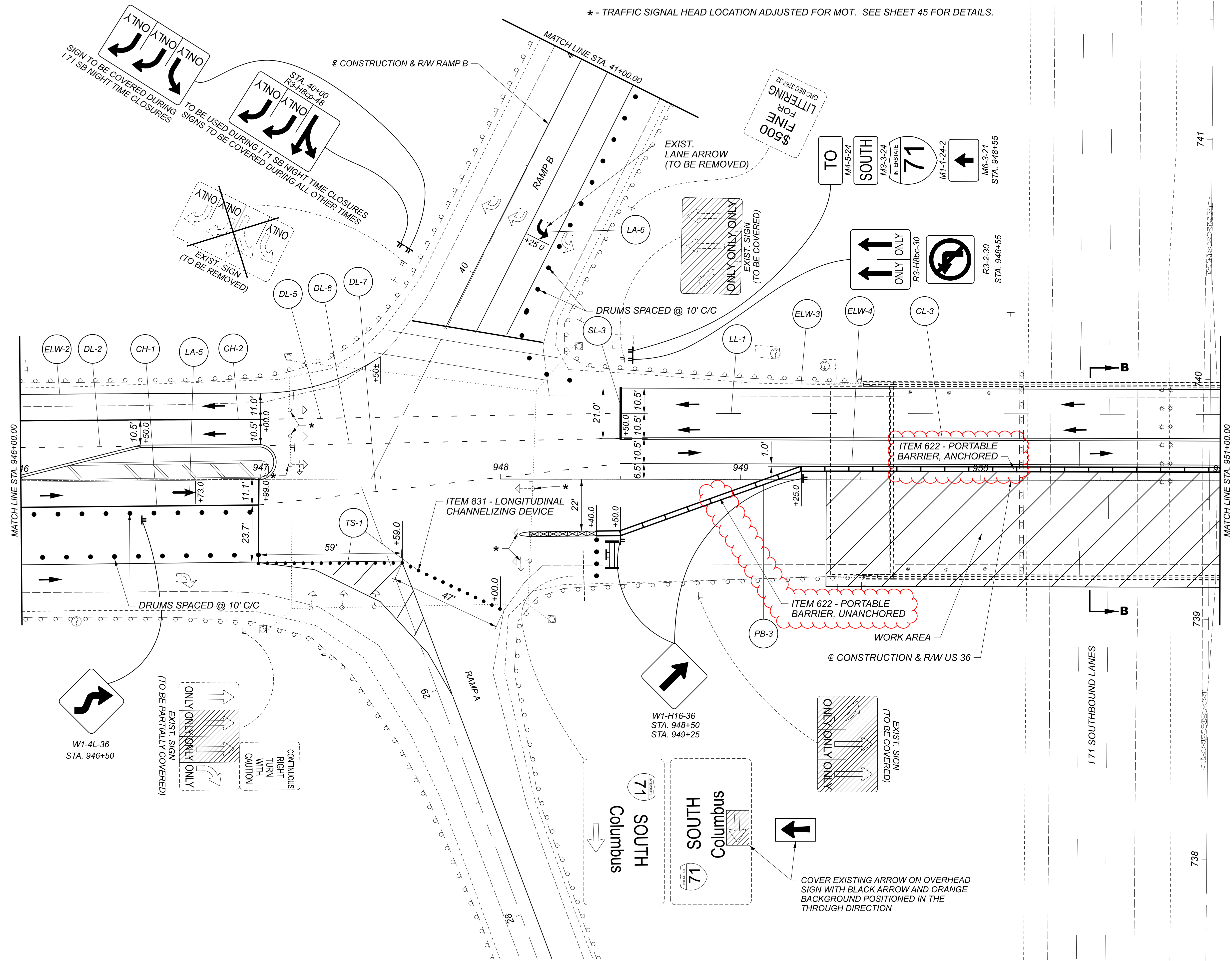
SEE A-A SHEET 34



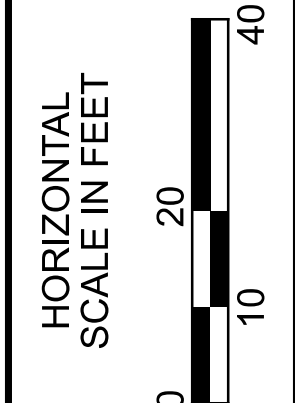
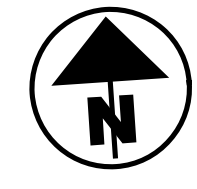
SEE B-B SHEET 35



SEE C-C SHEET 37



* - TRAFFIC SIGNAL HEAD LOCATION ADJUSTED FOR MOT. SEE SHEET 45 FOR DETAILS.



MAINTENANCE OF TRAFFIC PHASE 2
US 36 - STA. 946+00.00 TO STA. 951+00.00

DESIGN AGENCY	
2LMN	
DESIGNER	JJR
REVIEWER	ALL
PROJECT ID	12/15/22
SHEET	113198
TOTAL	167

SIGNAL TIMING CHART

INTERSECTION: TEMPORARY SIGNAL									
MAINTAINING AGENCY: CONTRACTOR									
START UP		DUAL ENTRY: YES		PHASES: 2+6					
START IN: ALL-RED FLASH		REST IN RED:		RING 1 -		RING 2 -			
TIME FOR: FLASH, ALL RED (SEC.): 10		OVERLAP		A	B	C	D		
FIRST PHASE(S): 2 + 6		PHASES		-	-	-	-		
COLOR DISPLAYED: GREEN									
INTERVAL OR FEATURE									
INTERSECTION MOVEMENT (PHASE)									
DIRECTION		1	2	3	4	5	6	7	8
MINIMUM GREEN (INITIAL) (SEC.)		WBL	EBT	-	-	-	-	-	-
ADDED INITIAL *(SEC./ACTUATION)		7	20	-	-	-	-	-	-
MAXIMUM INITIAL (SEC.)		-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)		3.0	3.0	-	-	-	-	-	-
TIME BEFORE REDUCTION *(SEC.)		-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)		-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)		45	80	-	-	-	-	-	-
MAXIMUM GREEN II (SEC.)		-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)		3.2	4.1	-	-	-	-	-	-
ALL RED CLEARANCE (SEC.)		1.7	1.0	-	-	-	-	-	-
WALK (SEC.)		-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)		-	-	-	-	-	-	-	-
RECALL	MAXIMUM (ON/OFF)	NO	NO	-	-	-	-	-	-
	MINIMUM (ON/OFF)	NO	YES	-	-	-	-	-	-
	PEDESTRIAN (ON/OFF)	-	-	-	-	-	-	-	-
MEMORY (ON/OFF)	NO	NO	-	-	-	-	-	-	-

***VOLUME DENSITY CONTROLS**

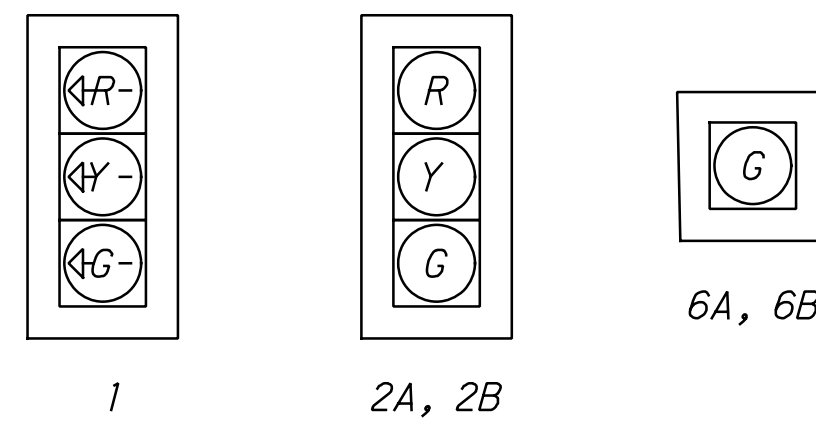
- ALL MOVEMENTS SHALL BE ACTUATED. THE PRIMARY THRU MOVEMENT SHOULD HAVE MIN RECALL ACTIVE TO REST IN GREEN.
- RADAR DETECTION UNITS FOR DILEMMA ZONE DETECTION SHALL PLACE A CONSTANT CALL TO THE CONTROLLER WHEN VEHICLES TRAVEL TIMES TO THE STOP BAR ARE BETWEEN 2.5 AND 6 SECONDS. SPEED TRIGGER SHALL BE SET FOR VEHICLES TRAVELING 35 MPH AND GREATER.
- RADAR SHALL HAVE QUEUE DETECTION CONFIGURED AND A ZONE PLACED AT 100-200 FEET FROM STOP BAR FOR SLOW MOVING VEHICLE EXTENSIONS. SPEED TRIGGER SHALL BE SET AT 1-35 MPH.
- ALL DETECTOR DELAYS SHALL BE PLACED IN THE CONTROLLER.

RADAR DETECTION CHART

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY IN CONTROLLER (SEC)	DELAY INHIBIT PHASE	PURPOSE	DETECTION ZONE LENGTH (FT)
D1	WB U-TURN	PRESENCE	1	-	-	CALL/EXTEND PHASE 1	30
D2	EB THRU	PRESENCE	2	-	-	DILEMMA ZONE	-

NOTE: DILEMMA ZONE SPEED THRESHOLD >30 MPH

SIGNAL HEADS

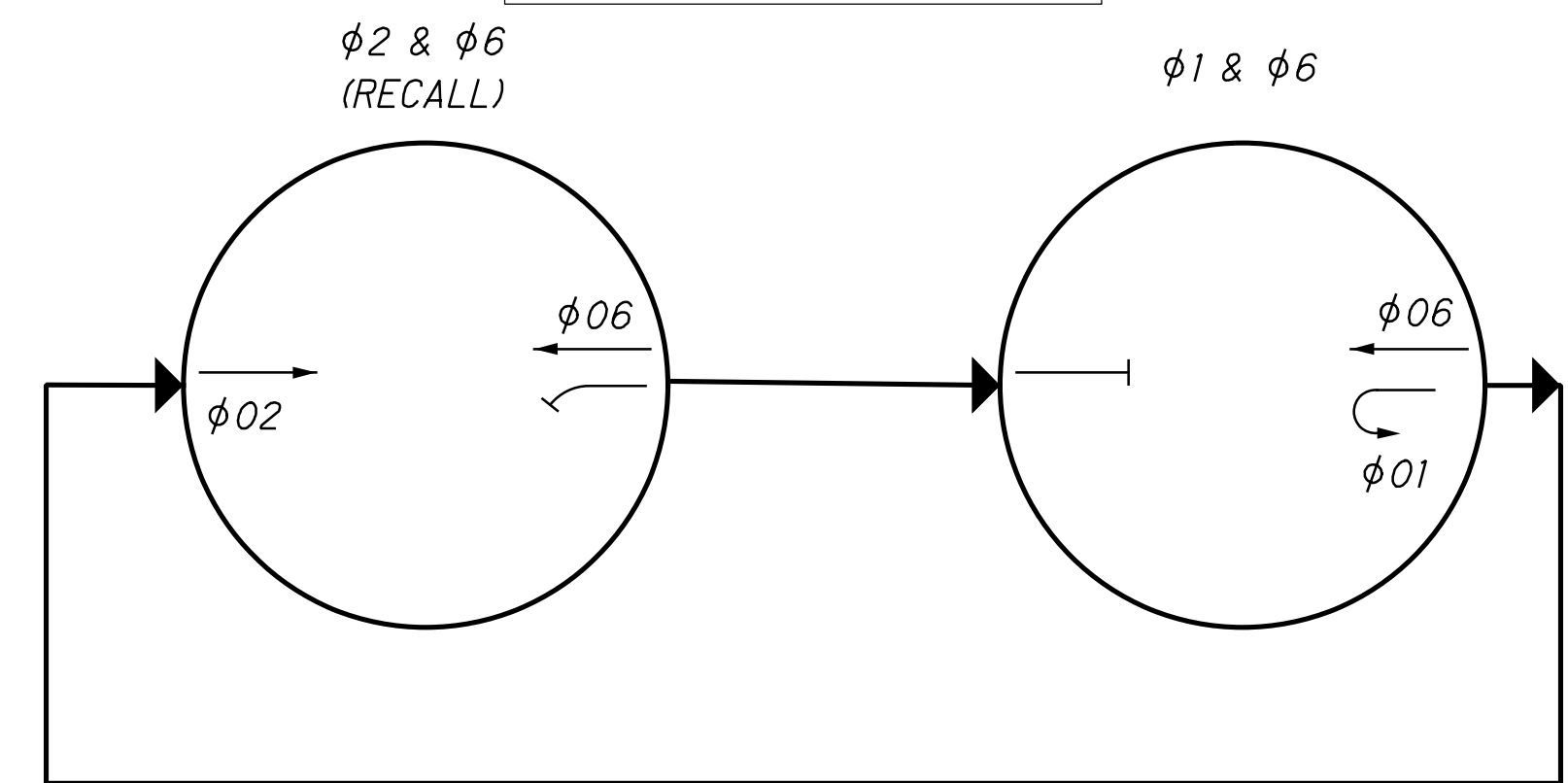


ALL VEHICULAR SIGNAL HEADS SHALL BE 12" LED WITH BACKPLATE CUTAWAY VISOR BLACK HOUSING

LEGEND

- TRAFFIC SIGNAL, 1 OR 3 UNIT, 12"
- TRAFFIC SIGNAL, 3 UNIT ARROWS, 12"
- TEMPORARY WOOD POLE
- POLE MTD. CONTROLLER
- STOP BAR RADAR DETECTION UNIT
- DETECTION ZONE

PROP

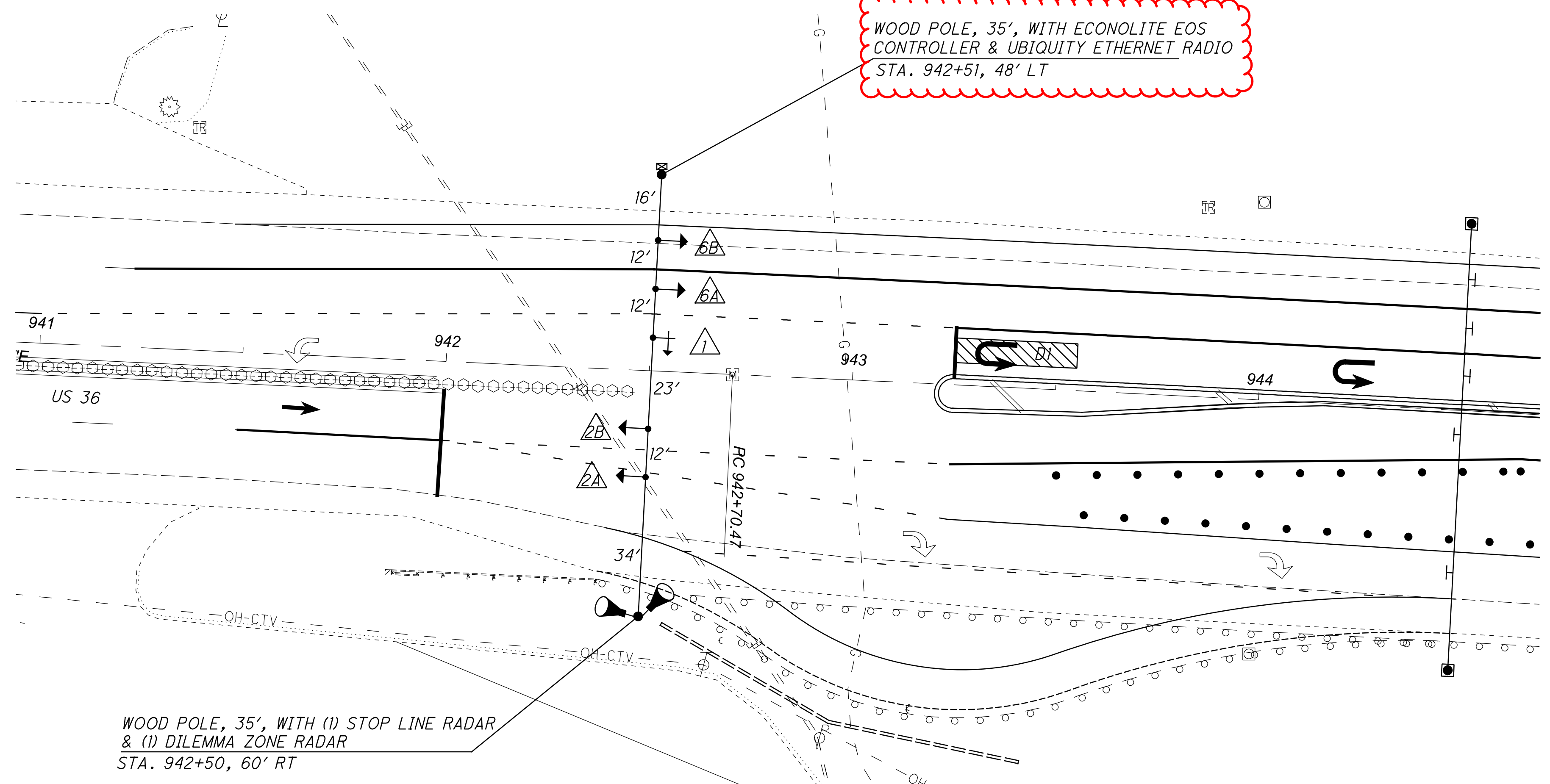


PHASING DIAGRAM

LEGEND

- VEHICLE ϕ
- PERMITTED ϕ
- PEDESTRIAN ϕ

WOOD POLE, 35', WITH ECONOLITE EOS CONTROLLER & UBIQUITY ETHERNET RADIO STA. 942+51, 48' LT



WOOD POLE, 35', WITH (1) STOP LINE RADAR & (1) DILEMMA ZONE RADAR STA. 942+50, 60' RT



**MAINTENANCE OF TRAFFIC PHASES 2 & 3
TEMPORARY SIGNAL**

DESIGN AGENCY

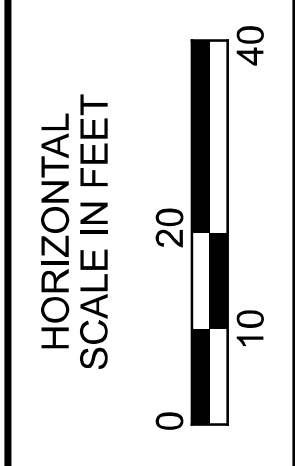


DESIGNER	STB
REVIEWER	EMW
PROJECT ID	113198
SHEET	44
TOTAL	167

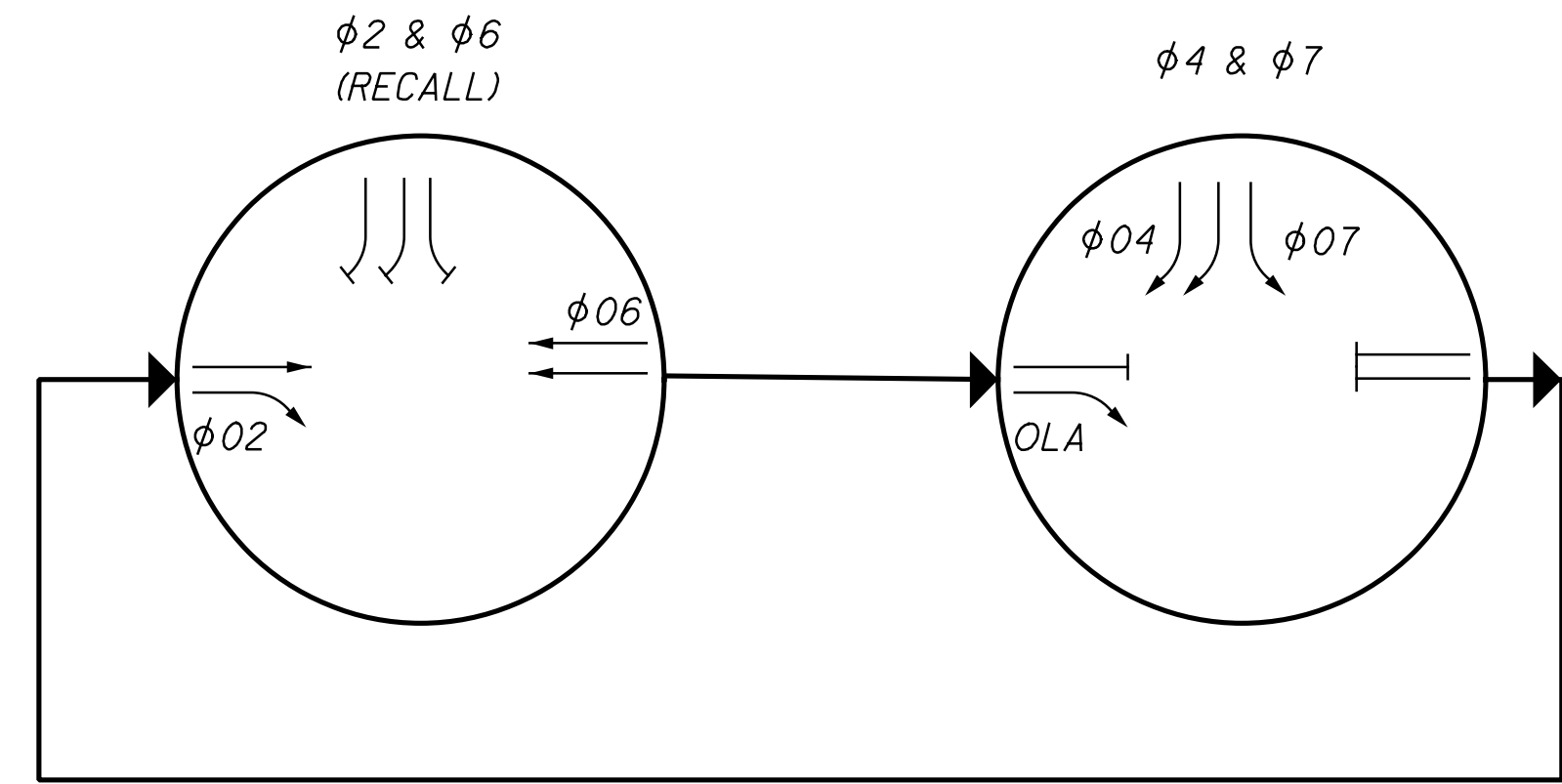
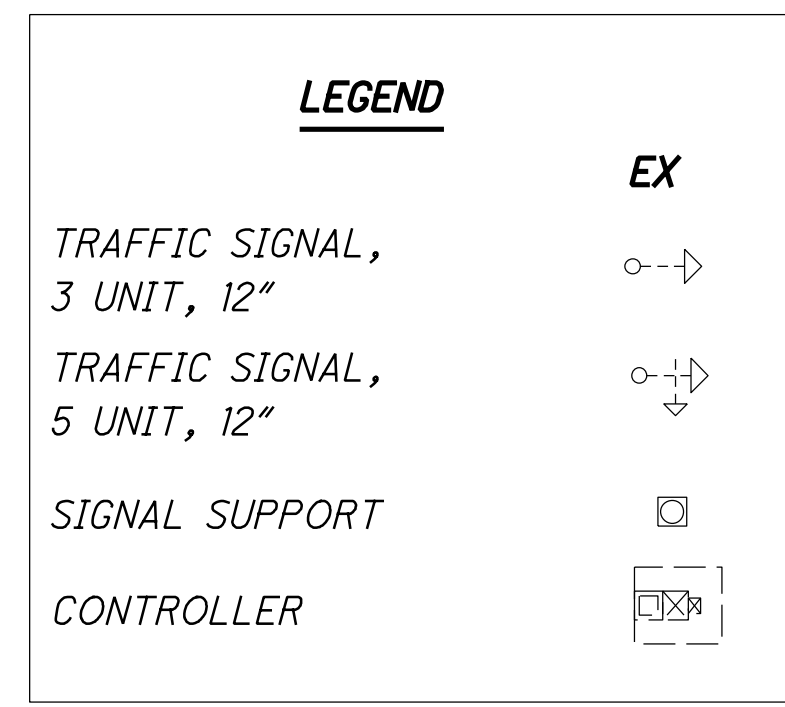
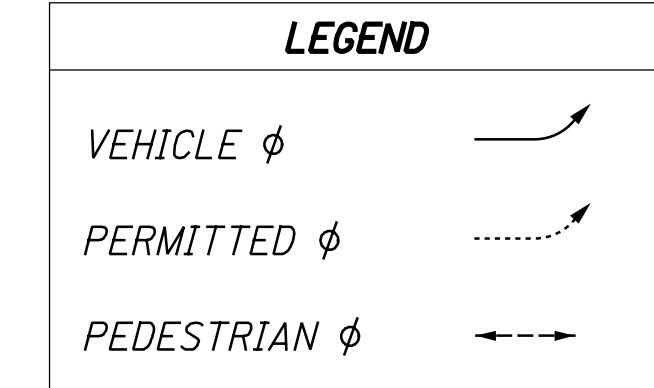
SIGNAL TIMING CHART

INTERSECTION: US 36 AT I-71 SB RAMPS									
MAINTAINING AGENCY: CONTRACTOR									
START UP	DUAL ENTRY:	YES	PHASES:				2+6		
	REST IN RED:		RING 1		RING 2				
	OVERLAP		A	B	C	D			
	PHASES		4+7	-	-	-			
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION		-	EB	-	SB	-	WB	SBL	-
MINIMUM GREEN (INITIAL) (SEC.)		-	20	-	10	-	20	10	-
ADDED INITIAL *(SEC./ACTUATION)		-	-	-	-	-	-	-	-
MAXIMUM INITIAL (SEC.)		-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)		-	3.0	-	3.0	-	3.0	3.0	-
TIME BEFORE REDUCTION *(SEC.)		-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)		-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)		-	90	-	36	-	90	36	-
MAXIMUM GREEN II (SEC.)		-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)		-	4.1	-	4.1	-	4.1	3.2	-
ALL RED CLEARANCE (SEC.)		-	1.8	-	1.0	-	1.8	2.3	-
WALK (SEC.)		-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)		-	-	-	-	-	-	-	-
RECALL	MAXIMUM (ON/OFF)	-	NO	-	NO	-	NO	NO	-
	MINIMUM (ON/OFF)	-	YES	-	NO	-	YES	NO	-
	PEDESTRIAN (ON/OFF)	-	-	-	-	-	-	-	-
MEMORY (ON/OFF)		-	NO	-	NO	-	NO	NO	-

NOTE:
UTILIZE EXISTING DETECTION DURING THIS MOT PHASE. SHIFT DETECTION ZONES AS NECESSARY FOR LANE CONFIGURATIONS.



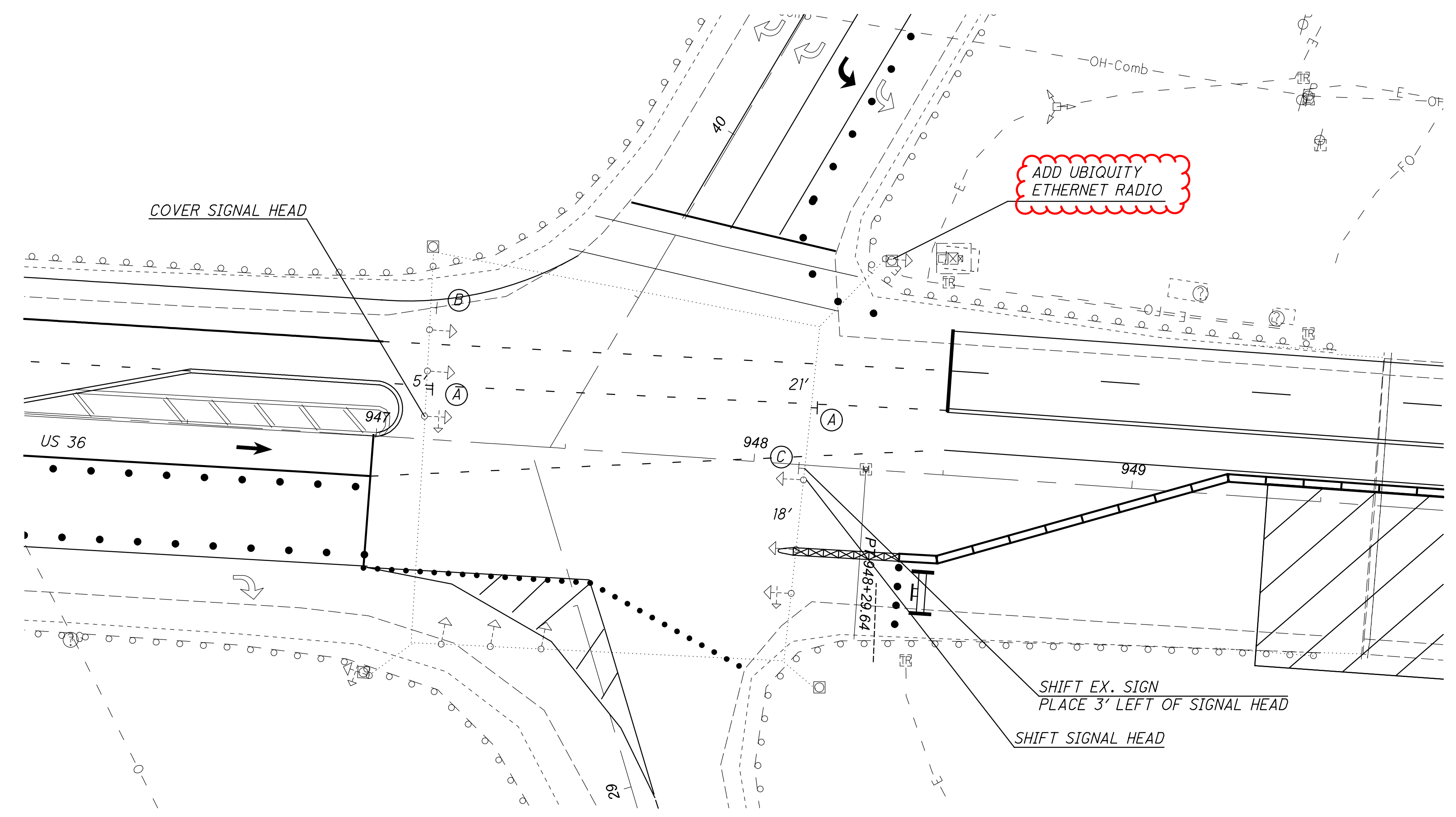
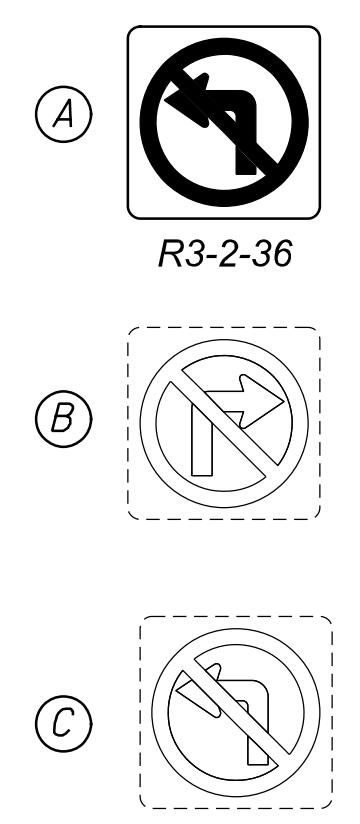
PHASING DIAGRAM



***VOLUME DENSITY CONTROLS**

- ALL MOVEMENTS SHALL BE ACTUATED. THE PRIMARY THRU MOVEMENT SHOULD HAVE MIN RECALL ACTIVE TO REST IN GREEN.
- FOR PROTECTED/PERMISSIVE PHASES, IMPLEMENT CALL OMITTS TO AVOID YELLOW BALL TRAP.
- ENABLE $\phi 1, 3$ & $\phi 5, 7$ DETECTOR SWITCHING TO ALLOW $\phi 1$ & $\phi 5$ TO EXTEND $\phi 2$ & $\phi 6$ OR $\phi 3$ & $\phi 7$ TO EXTEND $\phi 4$ & $\phi 8$, RESPECTIVELY, WHEN ALLOCATED GREEN TIME FOR LEFT TURN PHASES ARE EXHAUSTED.
- COUNTDOWN PEDESTRIAN SIGNALS SHALL GO TO ZERO ON YELLOW PER OMUTCD FIGURE 4E-2.
- RADAR DETECTION UNITS FOR DILEMMA ZONE DETECTION SHALL PLACE A CONSTANT CALL TO THE CONTROLLER WHEN VEHICLES TRAVEL TIMES TO THE STOP BAR ARE BETWEEN 2.5 AND 6 SECONDS. SPEED TRIGGER SHALL BE SET FOR VEHICLES TRAVELING 35 MPH AND GREATER.
- RADAR SHALL HAVE QUEUE DETECTION CONFIGURED AND A ZONE PLACED AT 100-200 FEET FROM STOP BAR FOR SLOW MOVING VEHICLE EXTENSIONS. SPEED TRIGGER SHALL BE SET AT 1-35 MPH.
- ALL DETECTOR DELAYS SHALL BE PLACED IN THE CONTROLLER.

SIGNS



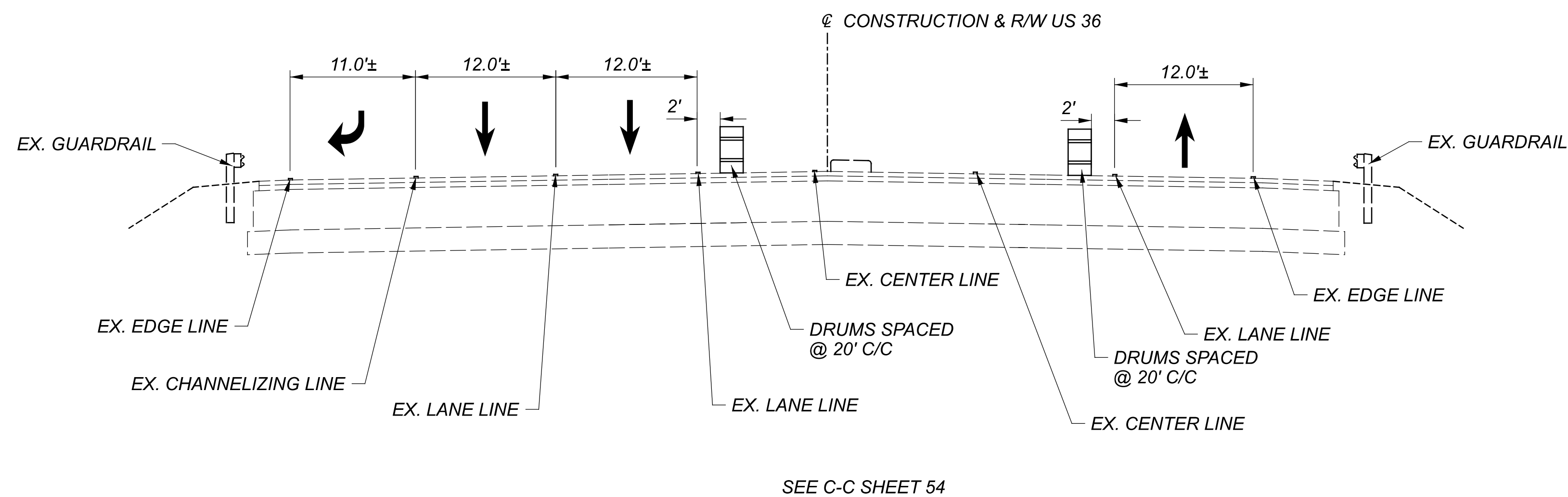
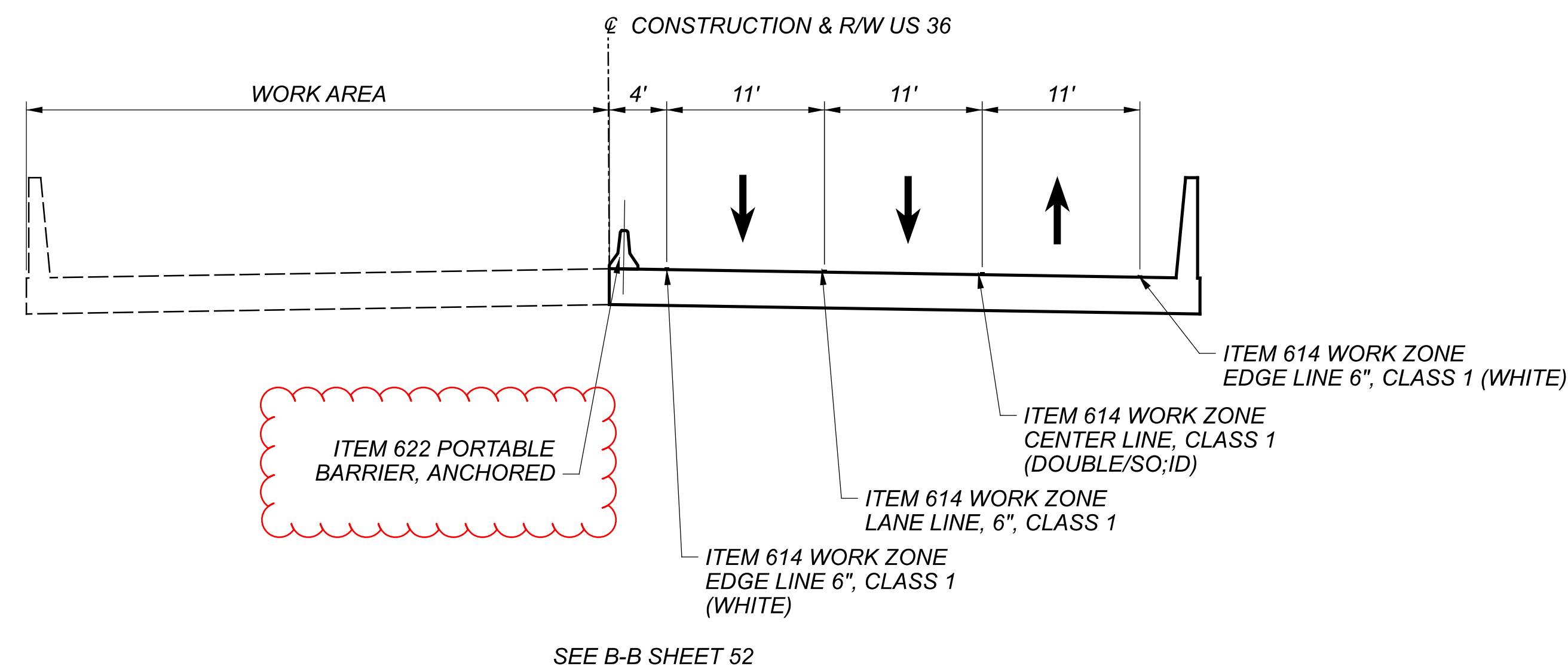
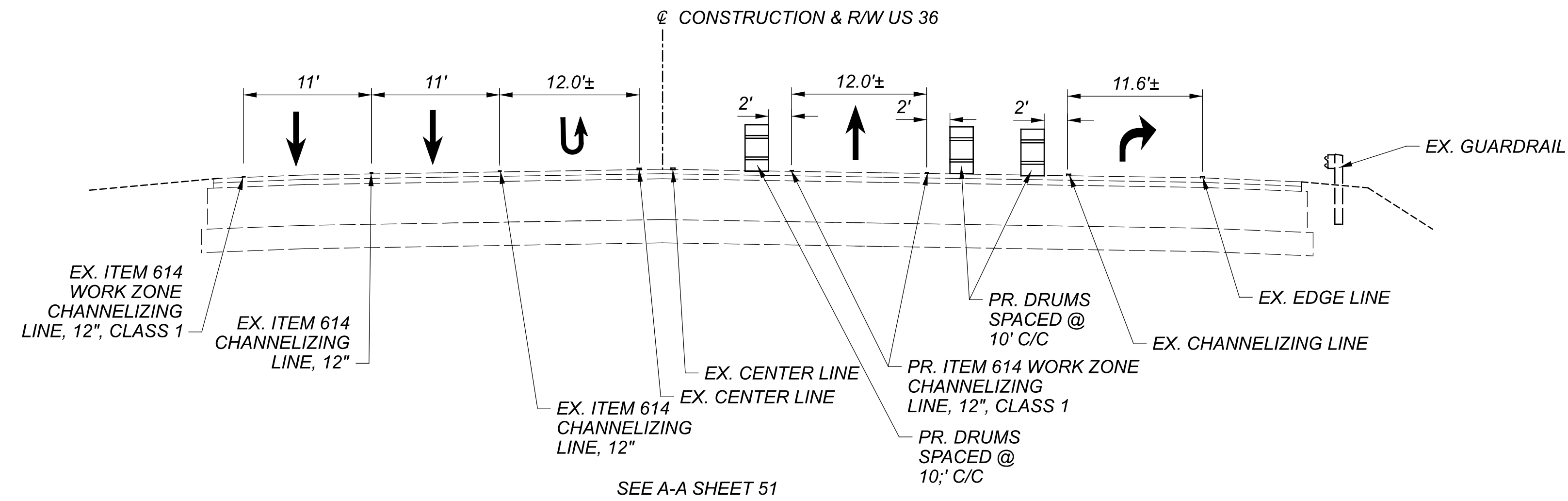
DEL-36-17.95

**MAINTENANCE OF TRAFFIC PHASE 2
TEMPORARY SIGNAL MODIFICATIONS
US 36 AT I-71 SB RAMPS**

DESIGN AGENCY

B&N
burgessniple.com

DESIGNER	STB
REVIEWER	EMW 9/22/22
PROJECT ID	113198
SHEET	TOTAL
45	167



REF NO.	SHEET NO.	STATION TO STATION	202	202	202	606	606	614	614	614	614	614	614	614	614	614	614	615	615	622	622	831
			CONCRETE MEDIAN REMOVED SY	GUARDRAIL REMOVED FT	ANCHOR ASSEMBLY REMOVED, TYPE E EACH	GUARDRAIL, TYPE MGS FT	ANCHOR ASSEMBLY, MGS TYPE E EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	BARRIER REFLECTOR, TYPE 1 (TWO-WAY) EACH	OBJECT MARKER, TWO WAY EACH	WORK ZONE LANE LINE, CLASS 1, 6" MILE	WORK ZONE CENTER LINE, CLASS 1 MILE	WORK ZONE EDGE LINE, CLASS 1, 6" MILE	WORK ZONE CHANNELIZING LINE, CLASS 1, 12" FT	WORK ZONE DOTTED LINE, CLASS 1 (W) WHITE (Y) YELLOW FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS 1 FT	WORK ZONE STOP LINE, CLASS 1 FT	WORK ZONE ARROW, CLASS 1 EACH	ROADS FOR MAINTAINING TRAFFIC LS	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	PORTABLE BARRIER, UNANCHORED FT	PORTABLE BARRIER, ANCHORED FT
		PHASE 1																				
PB-1	17	941+44 TO 944+76						1	8	8												
TP-1	17	941+89 TO 944+50				225	1															
PB-2	21	963+20 TO 965+32						1	6	6												
TP-2	21	963+20 TO 964+49				87.5	1															
TP-3	21	964+77 TO 964+89	9.6																			
TOTALS CARRIED TO SHEET			10			312.5	2	2	14	14								LS	425	480		

MAINTENANCE OF TRAFFIC SUBSUMMARY

DESIGN AGENCY	2LMN
DESIGNER	JJR
REVIEWER	ALL 12/15/22
PROJECT ID	113198
SHEET	78
TOTAL	167

REF NO.	SHEET NO.	STATION TO STATION	202	202	202	606	606	614	614	614	614	614	614	614	614	614	614	615	615	622	622	831	
			CONCRETE MEDIAN REMOVED SY	GUARDRAIL REMOVED FT	ANCHOR ASSEMBLY REMOVED, TYPE E EACH	GUARDRAIL, TYPE MGS FT	ANCHOR ASSEMBLY, MGS TYPE E EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	BARRIER REFLECTOR, TYPE 1 (TWO-WAY) EACH	OBJECT MARKER, TWO WAY EACH	WORK ZONE LANE LINE, CLASS 1, 6" MILE	WORK ZONE CENTER LINE, CLASS 1 MILE	WORK ZONE EDGE LINE, CLASS 1, 6" MILE	WORK ZONE CHANNELIZING LINE, CLASS 1, 12" FT	WORK ZONE DOTTED LINE, CLASS 1 (W) WHITE (Y) YELLOW FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS 1 FT	WORK ZONE STOP LINE, CLASS 1 FT	WORK ZONE ARROW, CLASS 1 EACH	ROADS FOR MAINTAINING TRAFFIC LS	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	PORTABLE BARRIER, UNANCHORED FT	PORTABLE BARRIER, ANCHORED FT	LONGITUDINAL CHANNELIZING DEVICE FT
		PHASE 2																					
CH-1	34-35	941+00 TO 946+27													527								
CH-2	34-35	941+00 TO 947+00													600								
DL-1	34	941+00 TO 943+25															225 (W)						
CH-3	34	943+25 TO 946+00													275								
CL-1	34	943+25 TO 947+00												0.071									
CL-2	34	943+25 TO 947+00												0.071									
DL-2	35	946+00 TO 946+50															50 (W)						
CH-4	34	941+50 TO 942+00													50								
LA-1	34	941+70 TO 942+00																	1				
LA-2	34	941+70 TO 942+00																	1				
SL-1	34	942+00 TO 943+25																		25.6			
DL-3	34	942+00 TO 943+25															250 (W)						
SL-2	34	943+25 TO 944+50																		12			
DL-4	34	942+60 TO 944+50															190 (W)						
CH-5	34	943+25 TO 944+65													140								
LA-3	34	943+30 TO 944+18																		1			
LA-4	34	944+18 TO 944+50																		1			
ELW-1	34	942+41 TO 944+50												0.040									
ELW-2	34-35	944+65 TO 947+50												0.055									
LA-5	35	946+73 TO 948+50																		1			
DL-5	35	947+00 TO 948+50															150 (W)						
DL-6	35	947+00 TO 948+50															150 (W)						
DL-7	35	946+99 TO 948+50															151 (W)						
TS-1	35	947+00 TO 948+00																				106	
LA-6	35	40+25 RAMP B																		1			
PB-3	35-36	948+40 TO 953+30						2	12	12										220	270		
SL-3	35	948+50 TO 953+50																		21			
ELW-3	35-36	948+50 TO 953+25											0.095										
ELW-4	35-36	948+50 TO 953+25											0.090										
TOTALS CARRIED TO SHEET 84								2	12	12			0.142	0.280	1592	1166		59	6		220	270	106

MAINTENANCE OF TRAFFIC SUBSUMMARY

DESIGN AGENCY
2LMN
 DESIGNER
 JJR
 REVIEWER
 ALL 12/15/22
 PROJECT ID
 113198
 SHEET TOTAL
 79 167

REF NO.	SHEET NO.	STATION TO STATION	202	202	202	606	606	614	614	614	614	614	614	614	614	614	614	615	615	622	622	831
			CONCRETE MEDIAN REMOVED SY	GUARDRAIL REMOVED FT	ANCHOR ASSEMBLY REMOVED, TYPE E EACH	GUARDRAIL, TYPE MGS FT	ANCHOR ASSEMBLY, MGS TYPE E EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	BARRIER REFLECTOR, TYPE 1 (TWO-WAY) EACH	OBJECT MARKER, TWO WAY EACH	WORK ZONE LANE LINE, CLASS 1, 6" MILE	WORK ZONE CENTER LINE, CLASS 1 MILE	WORK ZONE EDGE LINE, CLASS 1, 6" MILE	WORK ZONE CHANNELIZING LINE, CLASS 1, 12" FT	WORK ZONE DOTTED LINE, CLASS 1 (W) WHITE (Y) YELLOW FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS 1 FT	WORK ZONE STOP LINE, CLASS 1 FT	WORK ZONE ARROW, CLASS 1 EACH	ROADS FOR MAINTAINING TRAFFIC LS	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	PORTABLE BARRIER, UNANCHORED FT	PORTABLE BARRIER, ANCHORED FT
		PHASE 2																				
CL-3	35-36	948+50 TO 953+25								0.090												
LL-1	35-36	948+50 TO 953+25							0.090													
SL-4	36	953+25															10.5					
DL-8	36	953+25 TO 954+72													147 (W)							
DL-8A	36	953+25 TO 954+72													147 (W)							
DL-9	36	953+25 TO 955+86													261 (Y)							
TS-2	36	953+63 TO 954+72																				110
LA-7	36	18+20 RAMP D																1				
LA-8	36	19+12 RAMP D																1				
CH-6	37-38	958+72 TO 965+23												651								
CH-6A	37	957+00 TO 958+50												150								
LA-9	37	958+75 TO 964+78												165					1			
LA-10	37	959+63																	1			
LA-11	37	960+51																	1			
LA-12	37	961+43																	1			
LA-13	38	962+30																	1			
LA-14	38	963+20																	1			
LA-15	38	964+00																	1			
SL-4A	38	964+75																	1			
LA-16	38	964+00															12.1		1			
ELY-3	38	964+00 TO 964+78								0.017									1			
LA-17	40	41+12 RAMP B																	1			
LA-18	40	42+00 RAMP B																	1			
LA-19	40	43+75 RAMP B																	1			
LA-20	41	15+20 RAMP D																	1			
LA-21	41	15+98 RAMP D																	1			
LA-22	41	16+81 RAMP D																	1			
TOTALS CARRIED TO SHEET			84							0.090	0.090	0.017	966	555		23.0	16					110

MAINTENANCE OF TRAFFIC SUBSUMMARY

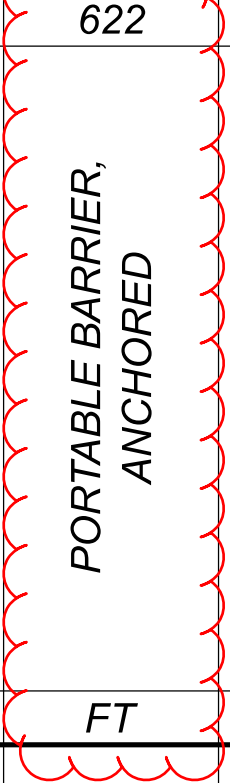
DESIGN AGENCY
2LMN
 DESIGNER
 JJR
 REVIEWER
 ALL 12/15/22
 PROJECT ID
 113198
 SHEET TOTAL
 80 167

REF NO.	SHEET NO.	STATION TO STATION	202	202	202	606	606	614	614	614	614	614	614	614	614	614	614	615	615	622	622	831
			CONCRETE MEDIAN REMOVED SY	GUARDRAIL REMOVED FT	ANCHOR ASSEMBLY REMOVED, TYPE E EACH	GUARDRAIL, TYPE MGS FT	ANCHOR ASSEMBLY, MGS TYPE E EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	BARRIER REFLECTOR, TYPE 1 (TWO-WAY) EACH	OBJECT MARKER, TWO WAY EACH	WORK ZONE LANE LINE, CLASS 1, 6" MILE	WORK ZONE CENTER LINE, CLASS 1 MILE	WORK ZONE EDGE LINE, CLASS 1, 6" MILE	WORK ZONE CHANNELIZING LINE, CLASS 1, 12" FT	WORK ZONE DOTTED LINE, CLASS 1 (W) WHITE (Y) YELLOW FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS 1 FT	WORK ZONE STOP LINE, CLASS 1 FT	WORK ZONE ARROW, CLASS 1 EACH	ROADS FOR MAINTAINING TRAFFIC LS	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	PORTABLE BARRIER, UNANCHORED FT	PORTABLE BARRIER, ANCHORED FT
		PHASE 3																				
CH-9	51	943+00 TO 944+65														165						
CH-10	51-52	943+00 TO 947+99														499						
DL-11	52	947+00 TO 948+80																				
DL-12	52	947+00 TO 948+80																				
DL-13	52	946+99 TO 948+80																				
SL-5	52	948+80 TO 953+10																				
PB-4	52-53	948+80 TO 955+22						2	11	11										160	270	
ELW-6	52-53	948+80 TO 953+40													0.122							
ELW-7	52-53	948+80 TO 953+40													0.088							
LL-2	52-53	948+80 TO 953+40								0.088												
CL-4	52-53	948+80 TO 953+40												0.088								
SL-6	53	953+40 TO 955+22																				
DL-14	53	953+40 TO 955+22																				
DL-15	53	953+40 TO 955+22																				
SL-6A	53	955+22 TO 955+22																				
TOTALS CARRIED TO SHEET			84					2	11	11	0.088	0.088	0.210	664	905	68				160	270	

MAINTENANCE OF TRAFFIC SUBSUMMARY

DESIGN AGENCY	2LMN
DESIGNER	JJR
REVIEWER	ALL 12/15/22
PROJECT ID	113198
SHEET	81
TOTAL	167

REF NO.	SHEET NO.	STATION TO STATION	202	202	202	606	606	614	614	614	614	614	614	614	614	614	614	615	615	622	622	831
			CONCRETE MEDIAN REMOVED SY	GUARDRAIL REMOVED FT	ANCHOR ASSEMBLY REMOVED, TYPE E EACH	GUARDRAIL, TYPE MGS FT	ANCHOR ASSEMBLY, MGS TYPE E EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	BARRIER REFLECTOR, TYPE 1 (TWO-WAY) EACH	OBJECT MARKER, TWO WAY EACH	WORK ZONE LANE LINE, CLASS 1, 6" MILE	WORK ZONE CENTER LINE, CLASS 1 MILE	WORK ZONE EDGE LINE, CLASS 1, 6" MILE	WORK ZONE CHANNELIZING LINE, CLASS 1, 12" FT	WORK ZONE DOTTED LINE, CLASS 1 (W) WHITE (Y) YELLOW FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS 1 FT	WORK ZONE STOP LINE, CLASS 1 FT	WORK ZONE ARROW, CLASS 1 EACH	ROADS FOR MAINTAINING TRAFFIC LS	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	PORTABLE BARRIER, UNANCHORED FT	PORTABLE BARRIER, ANCHORED FT
		PHASE 4																				
IA-3	64	941+76 TO		255	1			1														
PB-5	64	941+76 TO 944+761						8	8												300	
LL-3	64-65	941+00 TO 947+00								0.114												
LL-4	64-65	942+00 TO 946+99								0.114												
LL-5	64-65	944+21 TO 946+99								0.053												
TL-1	64	942+47 TO 943+00														36						
CL-5	64	942+47 TO 943+00								0.020												
ELW-8	64-65	941+00 TO 947+00									0.114											
SL-7	65	946+99 TO																35				
DL-16	65	947+00 TO 39+69 RAMP B														86 (W)						
ELW-9	65-66	948+20 TO 953+60									0.103											
SL-8	65	948+49 TO																24				
SL-9	65	948+53 TO																11				
DL-17	65	39+69 RAMP B TO 948+73																113 (W)				
DL-18	65	229+16 RAMP A TO 948+49																134 (W)				
LL-6	65-66	948+49 TO 953+37								0.093												
LL-7	65-66	948+73 TO 953+58								0.092												
CL-6	65-66	948+53 TO 953+50									0.095											
CH-7	65-66	948+49 TO 953+37																				
CH-8	65-66	948+53 TO 953+58																				
ELW-10	65-66	948+18 TO 953+86									0.108											
SL-10	66	953+50 TO																11				
SL-11	66	953+58 TO																24.5				
DL-19	66	953+37 TO 19+40 RAMP D														128 (W)						
LA-22	65	948+85 TO																1				
LA-23	65	948+89 TO																1				
LA-24	65	949+73 TO																1				
LA-25	65	949+79 TO																1				
LA-26	65	950+61 TO																1				
LA-27	65	950+61 TO																1				
LA-28	66	951+49 TO																1				
LA-29	66	951+49 TO																1				
LA-30	66	952+37 TO																1				
LA-31	66	952+37 TO																1				
LA-32	66	953+17 TO																1				
TOTALS CARRIED TO SHEET			84	255	1			1	8	8	0.466	0.115	0.325		461	36	106	11			300	




MAINTENANCE OF TRAFFIC SUBSUMMARY

DESIGN AGENCY
2LMN
 DESIGNER
 JJR
 REVIEWER
 ALL 12/15/22
 PROJECT ID
 113198
 SHEET TOTAL
 82 167

REF NO.	SHEET NO.	STATION TO STATION	202	202	202	606	606	614	614	614	614	614	614	614	614	614	614	615	615	622	622	831
			CONCRETE MEDIAN REMOVED SY	GUARDRAIL REMOVED FT	ANCHOR ASSEMBLY REMOVED, TYPE E EACH	GUARDRAIL, TYPE MGS FT	ANCHOR ASSEMBLY, MGS TYPE E EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	BARRIER REFLECTOR, TYPE 1 (TWO-WAY) EACH	OBJECT MARKER, TWO WAY EACH	WORK ZONE LANE LINE, CLASS 1, 6" MILE	WORK ZONE CENTER LINE, CLASS 1 MILE	WORK ZONE EDGE LINE, CLASS 1, 6" MILE	WORK ZONE CHANNELIZING LINE, CLASS 1, 12" FT	WORK ZONE DOTTED LINE, CLASS 1 (W) WHITE (Y) YELLOW FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS 1 FT	WORK ZONE STOP LINE, CLASS 1 FT	WORK ZONE ARROW, CLASS 1 EACH	ROADS FOR MAINTAINING TRAFFIC LS	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	PORTABLE BARRIER, UNANCHORED FT	PORTABLE BARRIER, ANCHORED FT
PHASE 4																						
LA-33	66	953+25 TO																				
LA-34	68	961+42																				
LA-35	68	962+29																				
LA-36	68	963+18																				
LA-37	68	964+86																				
PB-4	68	963+20 965+00		87.5	1			6	6												180	
IA-4	68	965+00						1														
TOTALS CARRIED TO SHEET			84	87.5	1			1	6	6											180	

MAINTENANCE OF TRAFFIC SUBSUMMARY

DESIGN AGENCY

 DESIGNER: JJR
 REVIEWER: ALL 12/15/22
 PROJECT ID: 113198
 SHEET: 83 TOTAL: 167

REF NO.	SHEET NO.	SUB-TOTALS	202 CONCRETE MEDIAN REMOVED SY	202 GUARDRAIL REMOVED FT	202 ANCHOR ASSEMBLY REMOVED, TYPE E EACH	606 GUARDRAIL, TYPE MGS FT	606 ANCHOR ASSEMBLY, MGS TYPE E EACH	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1 (TWO-WAY) EACH	614 OBJECT MARKER, TWO WAY EACH	614 WORK ZONE LANE LINE, CLASS I, 6" MILE	614 WORK ZONE CENTER LINE, CLASS I MILE	614 WORK ZONE EDGE LINE, CLASS I, 6" MILE	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12" FT	614 WORK ZONE DOTTED LINE, CLASS I (W) WHITE (Y) YELLOW FT	614 WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I FT	614 WORK ZONE STOP LINE, CLASS I FT	614 WORK ZONE ARROW, CLASS I EACH	615 ROADS FOR MAINTAINING TRAFFIC LS	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	622 PORTABLE BARRIER, UNANCHORED FT	622 PORTABLE BARRIER, ANCHORED FT	831 LONGITUDINAL CHANNELIZING DEVICE FT	
		PHASE 1 SUB-TOTALS FROM SHEET 78	10			312.5	2	2	14	14									LS	425	480			
		PHASE 2 SUB-TOTALS FROM SHEET 79						2	12	12		0.142	0.280	1592	1166						220	270	106	
		PHASE 2 SUB-TOTALS FROM SHEET 80									0.09	0.090	0.017	966	555									110
		PHASE 3 SUB-TOTALS FROM SHEET 81						2	11	11	0.088	0.088	0.210	664	905							160	270	
		PHASE 4 SUB-TOTALS FROM SHEET 82		225	1			1	8	8	0.466	0.115	0.325	993	461	36	106	11				300		
		PHASE 4 SUB-TOTALS FROM SHEET 83		87.5	1			1	6	6								5				180		
TOTALS CARRIED TO GENERAL SUMMARY			10	313	2	313	2	8	51	51	0.644	0.435	0.832	4215	3087	36	256	38	LS	425	1340	540	216	

MAINTENANCE OF TRAFFIC SUBSUMMARY

DESIGN AGENCY
2LMN
 DESIGNER
 JJR
 REVIEWER
 ALL 12/15/22
 PROJECT ID
 113198
 SHEET TOTAL
 84 167

SHEET NUM.								PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
124	131							01/IMS/11	02/NHS/05	03/NHS/11						
TRAFFIC CONTROL																
									510			644	00620	510	FT	CROSSWALK LINE, 12"
									402			644	00700	402	FT	TRANSVERSE/DIAGONAL LINE
									46			644	01300	46	EACH	LANE ARROW
									499			644	01510	499	FT	DOTTED LINE, 6"
									0.12			646	10010	0.12	MILE	EDGE LINE, 6"
									0.12			646	10110	0.12	MILE	LANE LINE, 6"
									0.06			646	10200	0.06	MILE	CENTER LINE
									640			646	10310	640	FT	CHANNELIZING LINE, 12"
									8			646	20300	8	EACH	LANE ARROW
									711			831	00100	711	FT	LONGITUDINAL CHANNELIZING DEVICE
									711			831	00500	711	FT	REMOVAL OF LONGITUDINAL CHANNELIZING DEVICE
STRUCTURE OVER 20 FOOT SPAN (SFN 2101149)																
	LS							LS				202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
	436							436				202	22900	436	SY	APPROACH SLAB REMOVED
	2,759							2,759				202	23500	2,759	SY	WEARING COURSE REMOVED
	24							24				203	35111	24	CY	GRANULAR MATERIAL, TYPE B, AS PER PLAN
	LS							LS				503	21300	LS		UNCLASSIFIED EXCAVATION
	173,997							173,997				509	10000	173,997	LB	EPOXY COATED STEEL REINFORCEMENT
	100							100				509	20001	100	LB	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN
	8,064							8,064				509	30020	8,064	FT	NO. 4 DEFORMED GFRP REINFORCEMENT
	396							396				510	10000	396	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT
	645							645				511	34447	645	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN
	79							79				511	34450	79	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)
	19							19				511	46012	19	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING
	1,150							1,150				512	10100	1,150	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
	72							72				512	10300	72	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
	33							33				512	10600	33	FT	CONCRETE REPAIR BY EPOXY INJECTION
	612,596							612,596				513	10240	612,596	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2
	14,817							14,817				513	20000	14,817	EACH	WELDED STUD SHEAR CONNECTORS
	LS							LS				513	95020	LS		STRUCTURAL STEEL, MISC.: TEMPORARY SLAB SUPPORTS
	LS							LS				514	00300	LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT
	LS							LS				514	00400	LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT
	160							160				516	10010	160	FT	ARMORLESS PREFORMED JOINT SEAL
	247							247				516	13200	247	SF	½" PREFORMED EXPANSION JOINT FILLER
	10							10				516	13600	10	SF	1" PREFORMED EXPANSION JOINT FILLER
	94							94				516	13900	94	SF	2" PREFORMED EXPANSION JOINT FILLER
	563							563				516	25000	563	SF	NYLON REINFORCED NEOPRENE SHEETING
	164							164				SPECIAL	51631250	164	FT	SAWING AND SEALING CONCRETE JOINTS
	532							532				516	41600	532	SF	1" ELASTOMERIC BEARING PAD
	11							11				516	44101	11	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (2.25")
	44							44				516	44201	44	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (3.27")
	LS							LS				516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
	532									532		517	76300	532	FT	RAILING, MISC.: DECORATIVE RAILING
	119							119				519	11100	119	SF	PATCHING CONCRETE STRUCTURE
	1,561							1,561				SPECIAL	51900100	1,561	SF	COMPOSITE FIBER WRAP SYSTEM
	450							450				526	25000	450	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")
	160							160				526	90030	160	FT	TYPE C INSTALLATION
	342							342				601	20001	342	SY	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN
	1							1				625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM

GENERAL SUMMARY

DESIGN AGENCY
2LMN

DESIGNER
 JJR

REVIEWER
 ALL 12/15/22

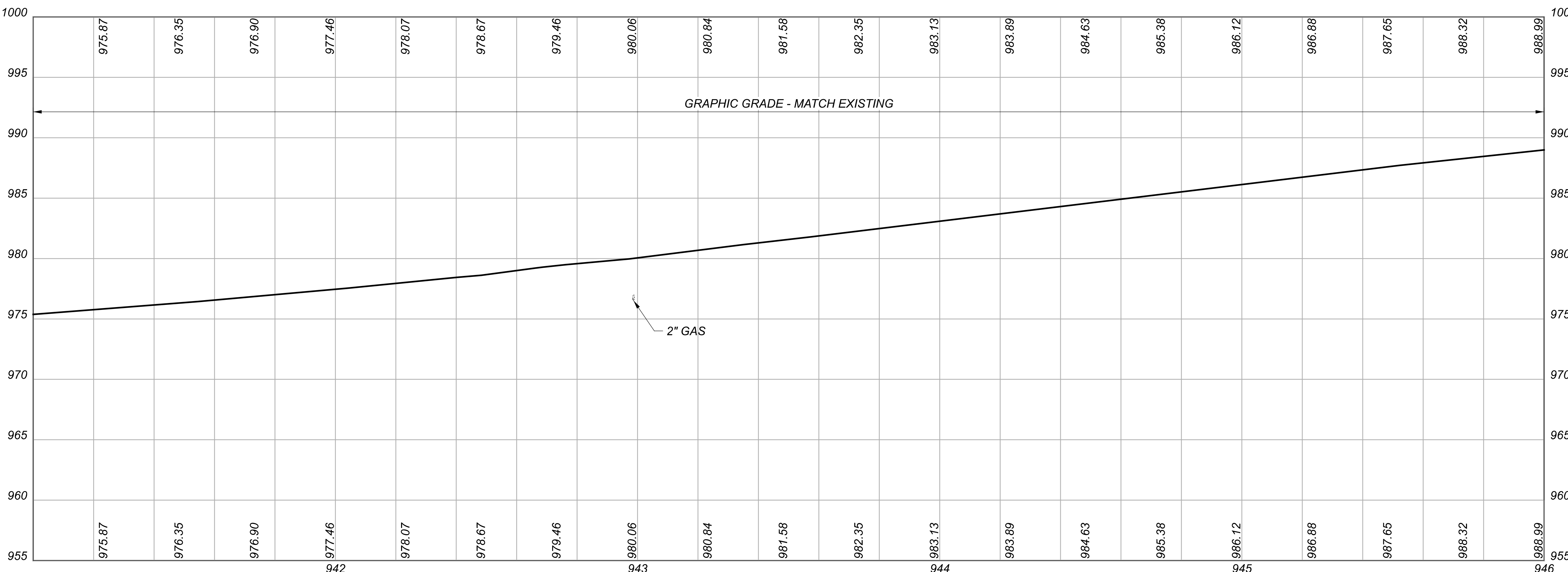
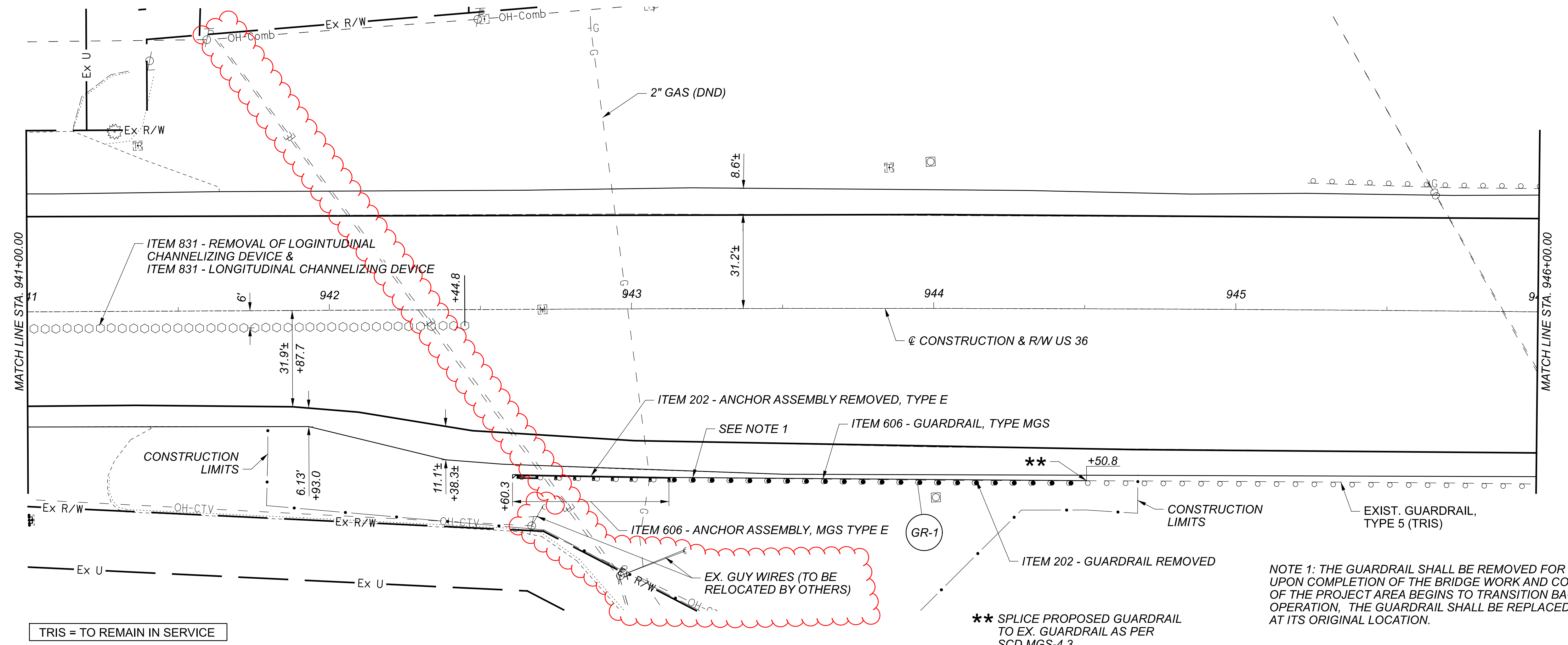
PROJECT ID
 113198

SHEET TOTAL
 86 | 167

SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
10	11	12	27	84						01/IMS/11	02/NHS/05	03/NHS/11						
			LS							LS			SPECIAL	53050030	LS		MAINTENANCE OF TRAFFIC RETAINING WALL, TEMPORARY	27
	300									300			614	11110	300	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	11
				8						8			614	12380	8	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	12
		102		51						153			614	13310	153	EACH	BARRIER REFLECTOR, TYPE 1 (TWO WAY)	
48		102		51						153			614	13360	153	EACH	OBJECT MARKER, TWO WAY	
										48			614	18601	48	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	10
				0.65						0.65			614	20010	0.65	MILE	WORK ZONE LANE LINE, CLASS I, 6"	
2.43										2.43			614	20560	2.43	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
				0.44						0.44			614	21000	0.44	MILE	WORK ZONE CENTER LINE, CLASS I	
1.92										1.92			614	21550	1.92	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
				0.84						0.84			614	22010	0.84	MILE	WORK ZONE EDGE LINE, CLASS I, 6"	
2.23										2.23			614	22360	2.23	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
				4,215						4,215			614	23010	4,215	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
8,586										8,586			614	23690	8,586	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
				3,087						3,087			614	24000	3,087	FT	WORK ZONE DOTTED LINE, CLASS I	
				36						36			614	25000	36	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I	
				256						256			614	26000	256	FT	WORK ZONE STOP LINE, CLASS I	
704										704			614	26610	704	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
				38						38			614	30000	38	EACH	WORK ZONE ARROW, CLASS I	
108										108			614	30650	108	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
				LS						LS			615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
				425						425			615	20000	425	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
1										1			616	10000	1	MGAL	WATER	
				1,340						1,340			622	41100	1,340	FT	PORTABLE BARRIER, UNANCHORED	
				540						540			622	41110	540	FT	PORTABLE BARRIER, ANCHORED	
				216						216			831	00100	216	FT	LONGITUDINAL CHANNELIZING DEVICE	
											LS		614	11000	LS		INCIDENTALS MAINTAINING TRAFFIC	
											12		619	16010	12	MNTH	FIELD OFFICE, TYPE B	
											LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LS		624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

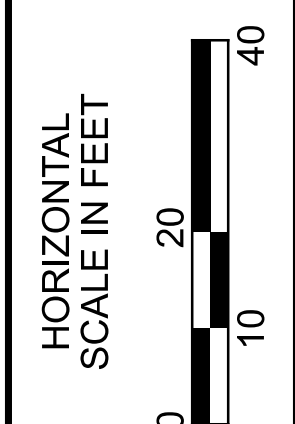
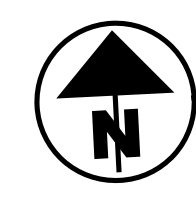
DESIGN AGENCY
2LMN
 DESIGNER
 JJR
 REVIEWER
 ALL 12/15/22
 PROJECT ID
 113198
 SHEET TOTAL
 87 167



TRIS = TO REMAIN IN SERVICE

** SPLICE PROPOSED GUARDRAIL TO EX. GUARDRAIL AS PER SCD MGS-4.3

NOTE 1: THE GUARDRAIL SHALL BE REMOVED FOR MOT PURPOSES. UPON COMPLETION OF THE BRIDGE WORK AND CONFIGURATION OF THE PROJECT AREA BEGINS TO TRANSITION BACK TO NORMAL OPERATION, THE GUARDRAIL SHALL BE REPLACED WITH NEW AT ITS ORIGINAL LOCATION.



PLAN AND PROFILE - US 36
 STA. 941+00.00 TO STA. 946+00.00

DESIGN AGENCY

2LMN

DESIGNER
JJR

REVIEWER
ALL 12/15/22

PROJECT ID
113198

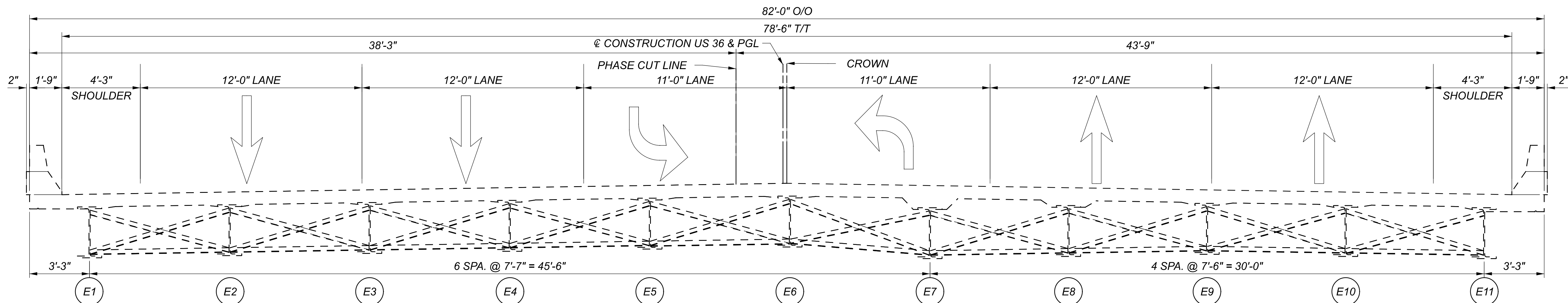
SHEET TOTAL
94 167

ESTIMATED QUANTITIES										CALCULATED BY: MAK		DATE: 9/20/2022	
										CHECKED BY: JAH		DATE: 11/21/2022 REV. 4/4/2023	
ITEM	EXT.	TOTAL QUANTITY	PARTICIPATION SPLITS			UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN	SEE SHT.	
			01/IMS/11	02/NHS/05	03/NHS/11								
202	11203	LUMP	LUMP			LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	3	
202	22900	436	436			SY	APPROACH SLAB REMOVED				436		
202	23500	2,759	2,759			SY	WEARING COURSE REMOVED			2322	437		
203	35111	24	24			CY	GRANULAR MATERIAL, TYPE B, AS PER PLAN	24				3	
503	21300	LUMP	LUMP			LS	UNCLASSIFIED EXCAVATION	LUMP	LUMP				
509	10000	173,997	173,997			LB	EPOXY COATED STEEL REINFORCEMENT	3330		170667			
509	20001	100	100			LB	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN	100				3	
509	30020	8,064	8,064			FT	NO. 4 DEFORMED GFRP REINFORCEMENT			8064			
510	10000	396	396			EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	396					
511	34447	645	645			CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			645		3	
511	34450	79	79			CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			79			
511	46012	19	19			CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING	19					
512	10100	1,150	1,150			SY	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	127	493	530			
512	10300	72	72			SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN			72			
512	10600	33	33			FT	CONCRETE REPAIR BY EPOXY INJECTION	9	24				
513	10240	612,596	612,596			LB	STRUCTURAL STEEL MEMBERS, LEVEL 2			612596			
513	20000	14,817	14,817			EACH	WELDED STUD SHEAR CONNECTORS			14817			
513	95020	LUMP	LUMP			LS	STRUCTURAL STEEL, MISC.: TEMPORARY SLAB SUPPORTS			LUMP		3	
514	00300	LUMP	LUMP			LS	FIELD PAINTING OF STRUCTURAL STEEL, INTERMEDIATE COAT			LUMP		3	
514	00400	LUMP	LUMP			LS	FIELD PAINTING OF STRUCTURAL STEEL, FINISH COAT			LUMP		3	
516	10010	160	160			FT	ARMORLESS PREFORMED JOINT SEAL				160		
516	13200	247	247			SF	1/2" PREFORMED EXPANSION JOINT FILLER	247					
516	13600	10	10			SF	1" PREFORMED EXPANSION JOINT FILLER				10		
516	13900	94	94			SF	2" PREFORMED EXPANSION JOINT FILLER				94		
516	25000	563	563			SF	NYLON REINFORCED NEOPRENE SHEETING	563					
516	31250	164	164			FT	SPECIAL - SAWING AND SEALING CONCRETE JOINTS	164				3	
516	41600	532	532			SF	1" ELASTOMERIC BEARING PAD	532					
516	44101	11	11			EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (2.25")		11			31	
516	44201	44	44			EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (3.27")	22	22			31	
516	47001	LUMP	LUMP			LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			LUMP		3	
517	76300	532		532		FT	RAILING, MISC.: DECORATIVE RAILING			532		3	
519	11100	119	119			SF	PATCHING CONCRETE STRUCTURE	54	65				
526	25000	450	450			SY	REINFORCED CONCRETE APPROACH SLABS (T=15")			450			
526	90030	160	160			FT	TYPE C INSTALLATION			160			
601	20001	38	38			SY	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN	38				6	
625	33000	1	1			EACH	STRUCTURE GROUNDING SYSTEM				1		
SPEC	519E00100	1,561	1,561			SF	COMPOSITE FIBER WRAP SYSTEM		1561			5	

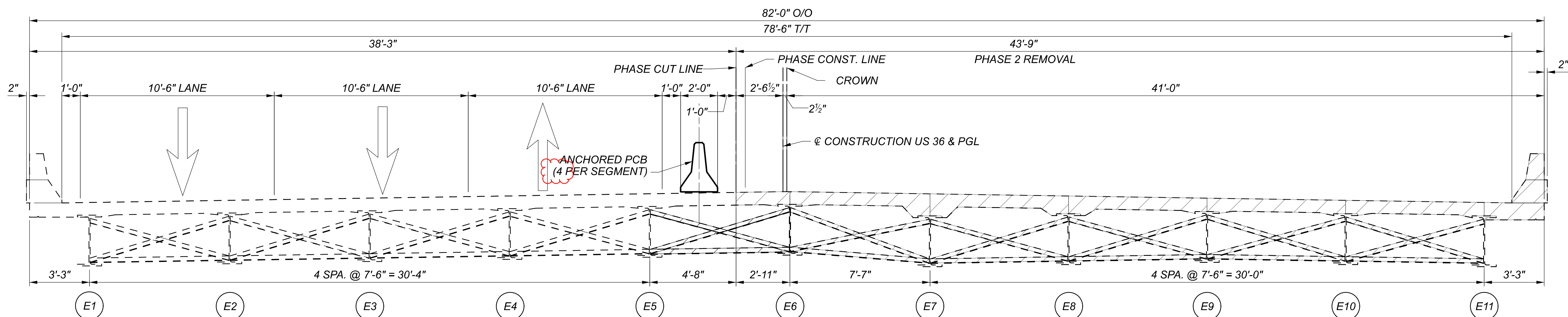
ESTIMATED QUANTITIES
 BRIDGE NO. DEL-00036-17.950
 US 36 OVER I-71

SFN	2101149
DESIGNER	MAK
CHECKER	JAH
REVIEWER	MUR 12/15/22
PROJECT ID	113198
SUBSET	7
TOTAL	43
SHEET	131
TOTAL	167

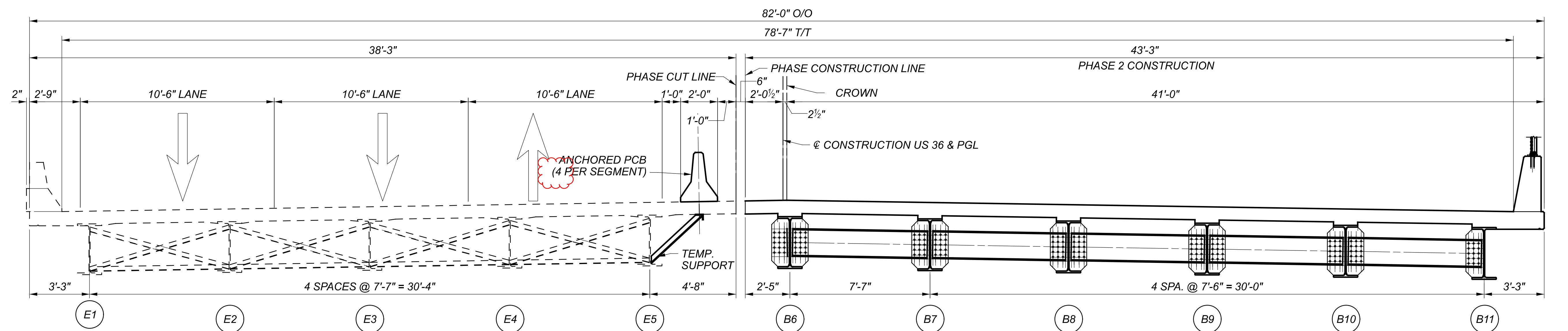




EXISTING CONDITION



PHASE 2 - REMOVAL



PHASE 2 - CONSTRUCTION

LEGEND:

- E# EXISTING BEAM DESIGNATION
- B# PROPOSED BEAM DESIGNATION
- PHASE 2 REMOVAL

SUGGESTED SEQUENCE OF CONSTRUCTION:

1. REFER TO MAINTENANCE OF TRAFFIC PLANS FOR PHASE 1.
2. PHASE 2, INSTALL TEMPORARY SLAB SUPPORT, SEE SHEET 14 / 43. THEN SHIFT ALL TRAFFIC TO THE NORTH SIDE OF THE BRIDGE.
3. REMOVE THE SOUTH SIDE OF THE BRIDGE AS SHOWN IN PHASE 2 REMOVAL.
4. CONSTRUCT THE SOUTH SIDE OF THE PROPOSED BRIDGE AS SHOWN IN PHASE 2 CONSTRUCTION.
5. REFER TO SHEET 8 / 43 FOR PHASE 3.

NOTES:

1. ALL EXISTING DIMENSIONS ARE ±

SFN 2101149	
DESIGNER AGENCY	
2LMN	
DESIGNER/CHECKER	BIM JAH
REVIEWER	MUR 12/15/22
PROJECT ID	113198
SUBSET	8 TOTAL 43
SHEET	132 TOTAL 167