

ITEM 614, MAINTAINING TRAFFIC

ALL LANE CLOSURES ALONG US 23 & 35 SHALL BE IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE SCHEDULE. ALL RAMPS SHALL BE MAINTAINED AT ALL ITEMS EXCEPT FOR 2 DIFFERENT PHASES WHEN RAMPS A& B AT THE MAIN STREET INTERCHANGE CAN BE SIMULTANOUSLY CLOSED FOR 45 DAYS AND WHEN RAMPS C & D AT THE MAIN STREET INTERCHANGE CAN BE SIMULTANOUSLY CLOSEDFOR 45 DAYS. THE 45-DAY CLOSURE FOR RAMPS C & DSHALL ONLY BE DURING PHASE 3 OF US 23/35 MAINLINE MANITENANCE OF TRAFFIC.

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.

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

THE CONTRACTOR WILL ADVISE THE DISTRICT PUBLIC INFORMATION OFFICER AT (740) 774-8834, FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE PROJECT ENGINEER WILL PROVIDE ASSISTANCE/CLARIFICATION FOR ANY QUESTIONS.

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

ALL EXISTING LANES, INCLUDING RAMPS, SHALL BE OPEN AND AVAILABLE TO TRAFFIC IN THE ORIGINAL OR PROPOSED FINAL ALIGNMENT BETWEEN [MARCH 1] AND [OCTOBER 1]. SHOULD THE CONTRACTOR FAIL TO MEET THESE REQUIREMENTS, A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$10,000.00 PER CALENDAR DAY.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS EXCEPT FOR LANE CLOUSURES ENFORCED BY PORTABLE BARRIER:

NEW YEAR'S (OBSERVED)	GENERAL/REGULAR ELECTION DAY
THANKSGIVING	
MEMORIAL DAY	CHRISTMAS (OBSERVED)
FOURTH OF JULY (OBSERVED)	(OTHER HOLIDAY OR SPECIAL EVENT)
LABOR DAY	
THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:	
DAY OF HOLIDAY	TIME ALL LANES
OR SPECIAL EVENT	MUST BE OPEN TO TRAFFIC

SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
MONDAY	(TOTAL SOLAR ECLIPSE)
	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	(GEN./REG. ELECTION)
	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY	(THANKSGIVING ONLY)
	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

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

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

DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	TIME UNIT	DISINCENTIVE \$PER TIME UNIT
ALL LANES OF US 23	EACH HOUR	\$10,000.00

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.

ITEM 614, MAINTAINING TRAFFIC (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 RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

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

ITEM 614, MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)

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

ITEM 614,	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	250 CU. YD.
ITEM 616,	WATER	10 M. GAL.

ITEM 614, MAINTAINING TRAFFIC (SIGNS AND BARRICADES)

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

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 10 M. GAL.

WORK ZONE SPEED ZONES (WZSZS)

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

WZSZ REVISION NUMBER(S) COUNTY-ROUTE-SECTION(S) DIRECTION(S)  
WZ-50442- 55MPH - US 23 NORTHBOUND  
WZ-50442- 55MPH - US 23 SOUTHBOUND

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

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

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

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

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

WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS SHALL BE IN ACCORDANCE WITH THIS NOTE AND SCD MT-104.10. ADDITIONALLY PAYMENT MAY BE REMOVED, OR A DISINCENTIVE APPLIED, FOR WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS THE SAME AS DESCRIBED IN THE MOST RECENT PUBLICATION OF SS 808 IN REGARDS TO WZSZS USING DSL SIGN ASSEMBLIES (SEE SS 808.06 PARAGRAPHS 4 THROUGH 7, INCLUDING TABLE 1).

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

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

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH)					
FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS					
		WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
ORIGNAL POSTED SPEED LIMIT	WORKERS PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65	
65	55	60	50	60	
60	55	60	50	60	
55	50	55	45	55	

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

[ITEM 614, WORK ZONE SPEED LIMIT SIGN 6 EACH]
[ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 18 SIGN MNTH]



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.

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 CRASH 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 CITY OF CHILLICOTHE FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

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

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

- 1. MAIN STREET AND US-23 NB RAMPS (RAMPS A & B)
- 2. MAIN STREET AND US-23 SB RAMPS (RAMPS C & D)

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

- 1. TIME OF NOTIFICATION OF MALFUNCTION;
- 2. TIME OF WORK 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.


WORK ZONE MARKINGS AND SIGNS

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

ITEM 614, WORK ZONE MARKING SIGN	14 EACH
ITEM 614, WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	37.52 MILES
ITEM 614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	59.04 MILES
ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS III, 6", 642 PAINT	814 FEET

WORK ZONE MARKING QUANTITIES FOR USE AFTER PAVEMENT PLANING AND AFTER SURFACE COURSE.

DESIGN AGENCY



DESIGNER

AJ

REVIEWER

SA 08-20-24

PROJECT ID

118771

SHEET

P.20A

TOTAL

153



LEGEND

WORK AREA

SIGN ON POST

DRUMS

PORTABLE CONCRETE BARRIER

TYPE 3 BARRICADE

DIRECTION OF TRAFFIC

WORK ZONE LANE LINE, CLASS 1 (WHITE)

WORK ZONE EDGE LINE, CLASS 1 (WHITE)

WORK ZONE EDGE LINE, CLASS 1 (YELLOW)

WORK ZONE DOTTED LINE, CLASS 1 (WHITE)

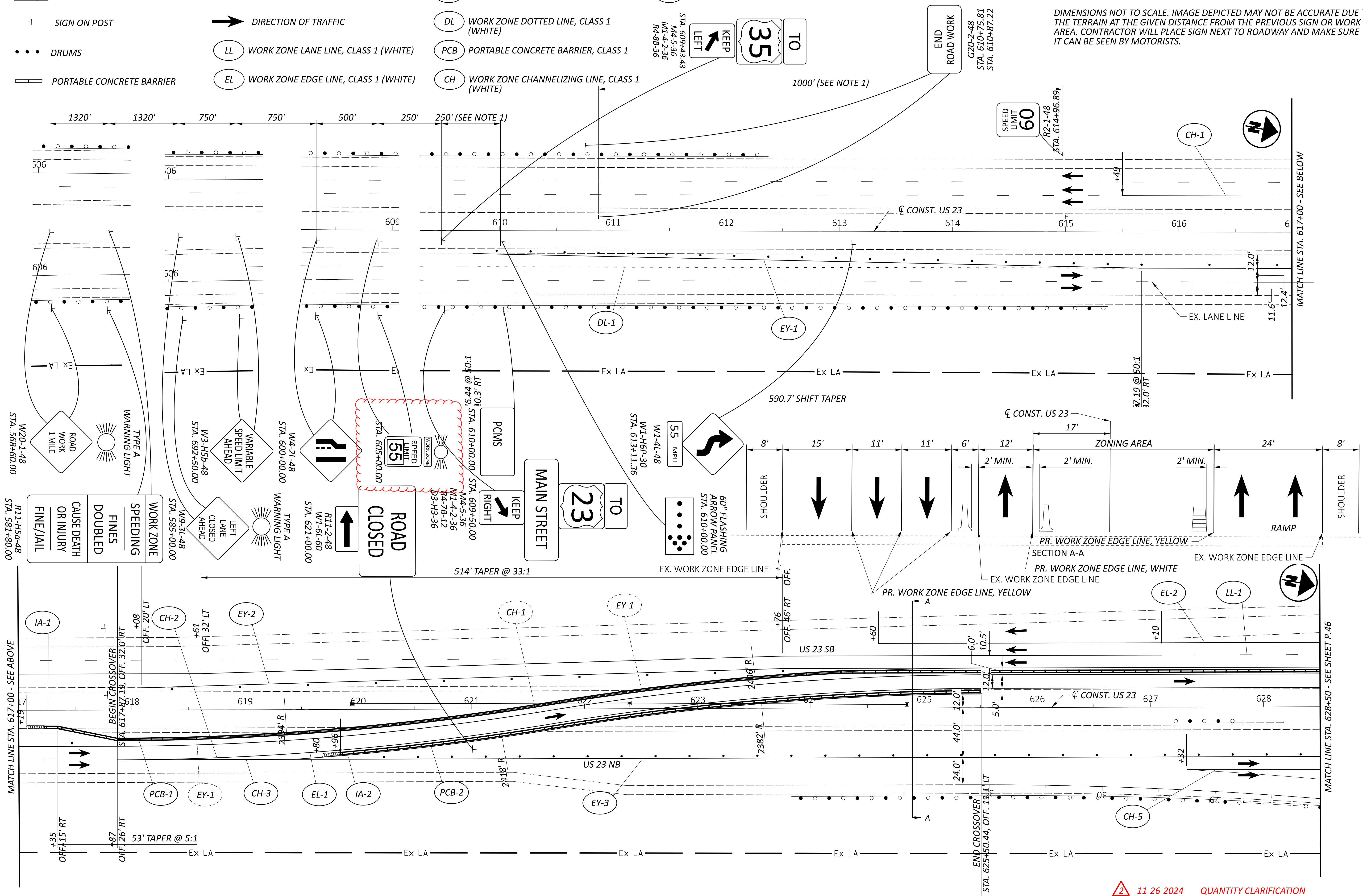
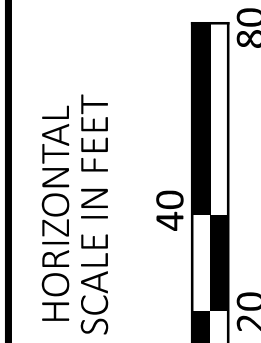
PORTABLE CONCRETE BARRIER, CLASS 1

WORK ZONE CHANNELIZING LINE, CLASS 1 (WHITE)

WORK ZONE IMPACT ATTENUATOR, 24"

NOTE 1:

DIMENSIONS NOT TO SCALE. IMAGE DEPICTED MAY NOT BE ACCURATE DUE TO THE TERRAIN AT THE GIVEN DISTANCE FROM THE PREVIOUS SIGN OR WORK AREA. CONTRACTOR WILL PLACE SIGN NEXT TO ROADWAY AND MAKE SURE IT CAN BE SEEN BY MOTORISTS.



PHASE 1 - MAINTENANCE OF TRAFFIC  
STA. START TO STA. 628+50

DESIGN AGENCY

PRIME

DESIGNER

ERM

REVIEWER

SA 08/20/24

PROJECT ID

118771

SHEET

P.45

TOTAL

153



NOTE 1:

DIMENSIONS NOT TO SCALE. IMAGE DEPICTED MAY NOT BE ACCURATE DUE TO THE TERRAIN AT THE GIVEN DISTANCE FROM THE PREVIOUS SIGN OR WORK AREA. CONTRACTOR WILL PLACE SIGN NEXT TO ROADWAY AND MAKE SURE IT CAN BE SEEN BY MOTORISTS.

LEGEND

WORK AREA

SIGN ON POST

DRUMS

PORTABLE CONCRETE BARRIER

TYPE 3 BARRICADE

DIRECTION OF TRAFFIC

LL WORK ZONE LANE LINE, CLASS 1 (WHITE)

EL WORK ZONE EDGE LINE, CLASS 1 (WHITE)

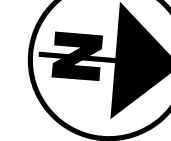
EY WORK ZONE EDGE LINE, CLASS 1 (YELLOW)

DL WORK ZONE DOTTED LINE, CLASS 1 (WHITE)

PCB PORTABLE CONCRETE BARRIER, CLASS 1

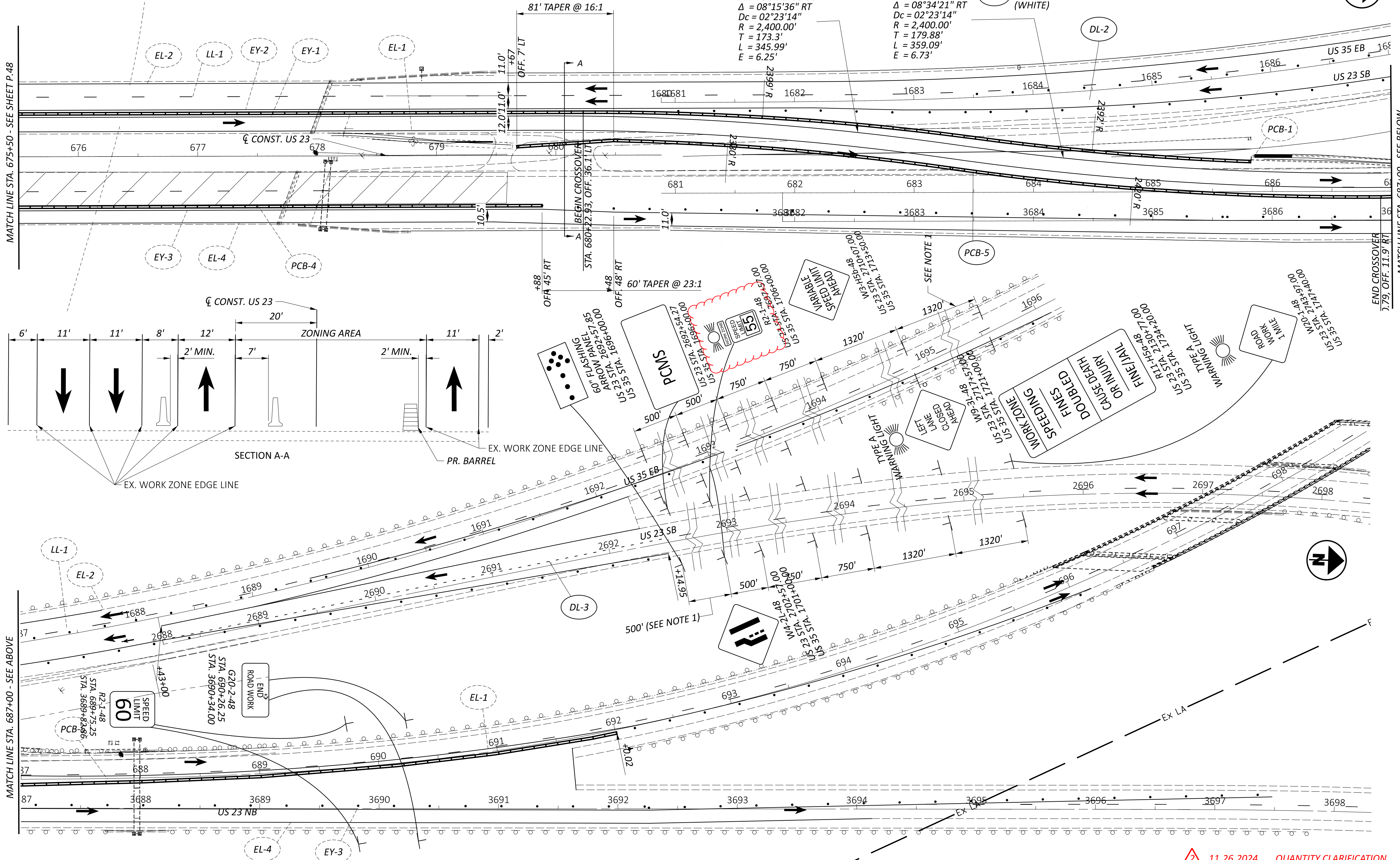
CH WORK ZONE CHANNELIZING LINE, CLASS 1 (WHITE)

IA WORK ZONE IMPACT ATTENUATOR, 24"



CURVE DATA  
 P.I. = STA. 1+73.30  
 $\Delta = 08^{\circ}15'36''$  RT  
 $D_c = 02^{\circ}23'14''$   
 $R = 2,400.00'$   
 $T = 173.33'$   
 $L = 345.99'$   
 $E = 6.25'$

CURVE DATA  
 P.I. = STA. 1+79.88  
 $\Delta = 08^{\circ}34'21''$  RT  
 $D_c = 02^{\circ}23'14''$   
 $R = 2,400.00'$   
 $T = 179.88'$   
 $L = 359.09'$   
 $E = 6.73'$



MATCH LINE STA. 675+50 - SEE SHEET P.48

MATCH LINE STA. 687+00 - SEE BELOW

SECTION A-A

PR. BARREL

60" FLASHING  
 ARROW PANEL  
 US 23 STA. 682+57.85  
 US 35 STA. 1686+00.00

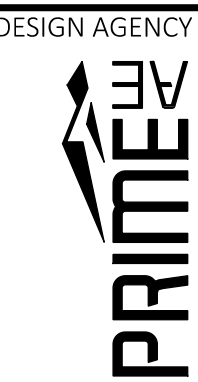
PCMS  
 US 23 STA. 2692+57.85  
 US 35 STA. 1686+00.00

WORK ZONE  
 SPEEDING  
 FINES  
 DOUBLED  
 OR INJURY  
 CAUSE DEATH  
 FINE/MAIL  
 US 23 STA. 2130+7.00  
 US 35 STA. 1743+97.00

WARNING LIGHT  
 TYPE A  
 US 23 STA. 2130+7.00  
 US 35 STA. 1743+97.00

ROAD WORK  
 1 MILE  
 US 23 STA. 2130+7.00  
 US 35 STA. 1743+97.00

PHASE 1 - MAINTENANCE OF TRAFFIC  
 STA. 675+50 TO END



DESIGN AGENCY

DESIGNER

REVIEWER

SA 08/20/24

PROJECT ID

118771

SHEET

P.49

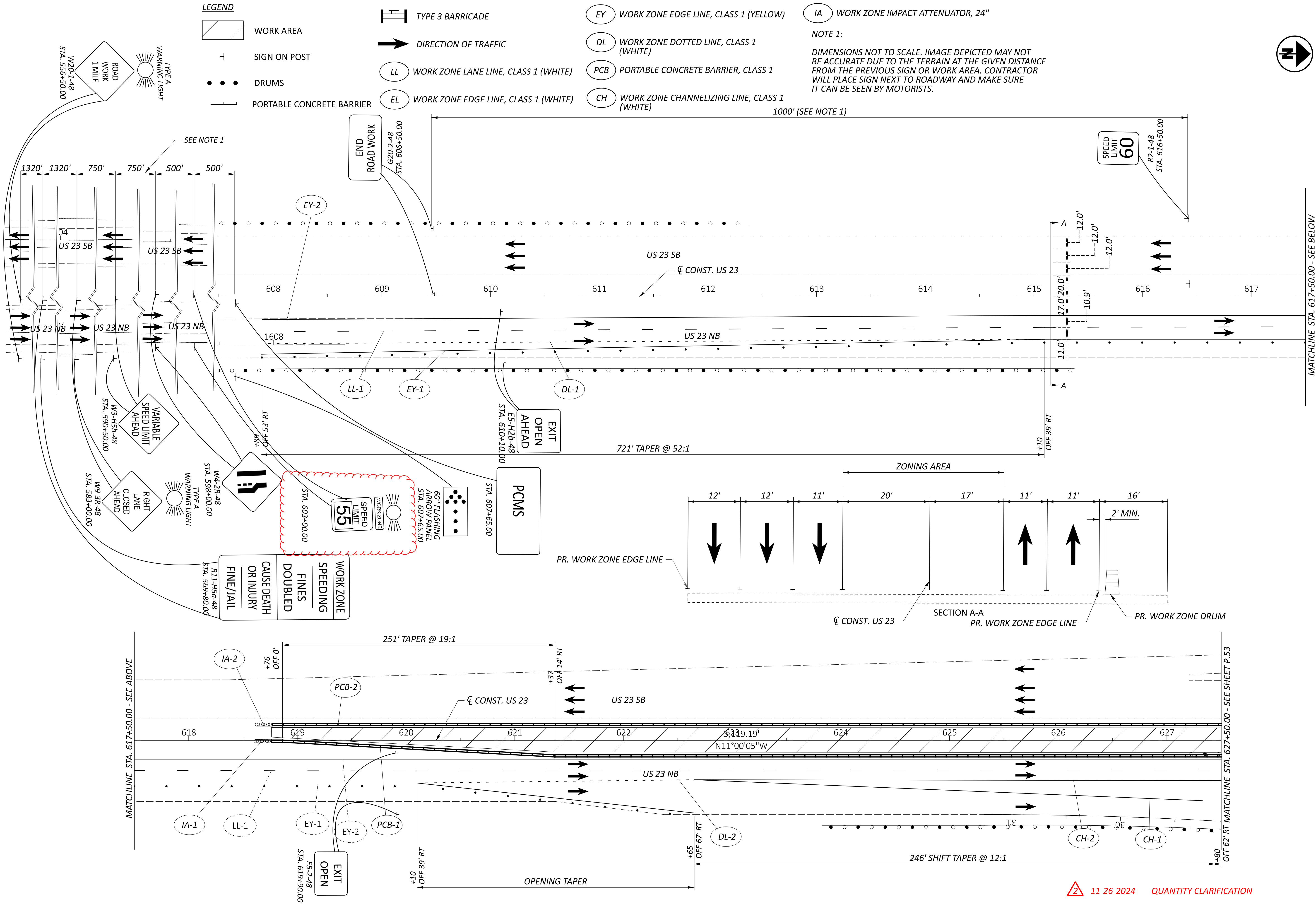
TOTAL

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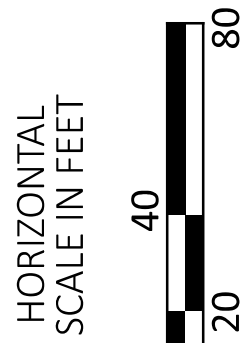
11 26 2024 QUANTITY CLARIFICATION







PHASE 2 - MAINTENANCE OF TRAFFIC  
STA. 607+50.00 TO STA. 627+50.00



DESIGN AGENCY



DESIGNER

ERM

REVIEWER

SA 08/20/24

PROJECT ID

118771

SHEET

P.52

TOTAL

153



LEGEND



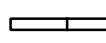
WORK AREA



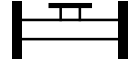
SIGN ON POST



DRUMS



PORTABLE CONCRETE BARRIER



TYPE 3 BARRICADE



DIRECTION OF TRAFFIC



WORK ZONE LANE LINE, CLASS 1 (WHITE)



WORK ZONE EDGE LINE, CLASS 1 (WHITE)



WORK ZONE EDGE LINE, CLASS 1 (YELLOW)



WORK ZONE DOTTED LINE, CLASS 1 (WHITE)



PORTABLE CONCRETE BARRIER, CLASS 1



WORK ZONE CHANNELIZING LINE, CLASS 1 (WHITE)



WORK ZONE IMPACT ATTENUATOR, 24"

MATCHLINE STA. 1687+50.00 - SEE SHEET P.55  
STA. 686+20.36  
OFF 25.4'

EL-2

1688

2688

1689

2689

255.64'

2690

1690

2691

1691

2692

1692

2693

US 23 SB

N61°29'58"W

PCMS

STA. 1690+68.81

60" FLASHING  
ARROW PANEL  
STA. 1690+69.40

PCMS

STA. 2690+70.33

60" FLASHING  
ARROW PANEL  
STA. 2690+67.98

596' TAPER

SEE NOTE 1

500'

SEE NOTE 1

500'

750'

750'

1320'

1320'

500'

500'

750'

750'

1320'

1320'

1320'

1320'

1320'

1320'

1320'

1320'

1320'

700'

700'

700'

700'

700'

700'

700'

700'

700'

700'

700'

700'

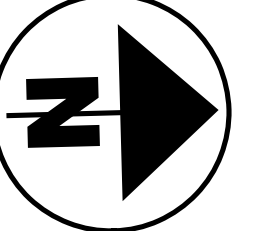
700'

700'

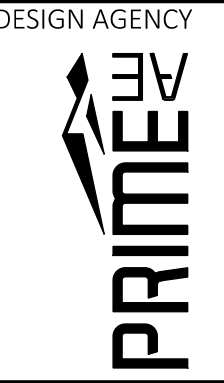
700'

700'

700'

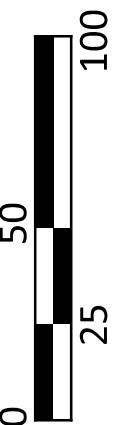


PHASE 2 - MAINTENANCE OF TRAFFIC  
Ramp U.S. 23 and Ramp U.S. 35



DESIGNER	ERM
REVIEWER	SA 08/20/24
PROJECT ID	118771
SHEET	TOTAL
P.56	153

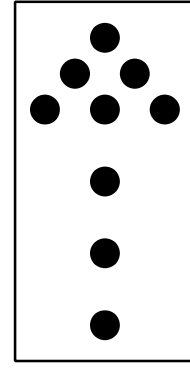
HORIZONTAL  
SCALE IN FEET



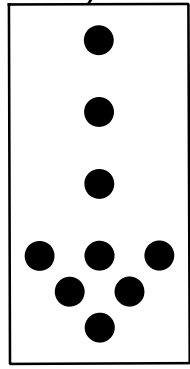








60" FLASHING  
ARROW PANEL  
STA. 1698+00.00

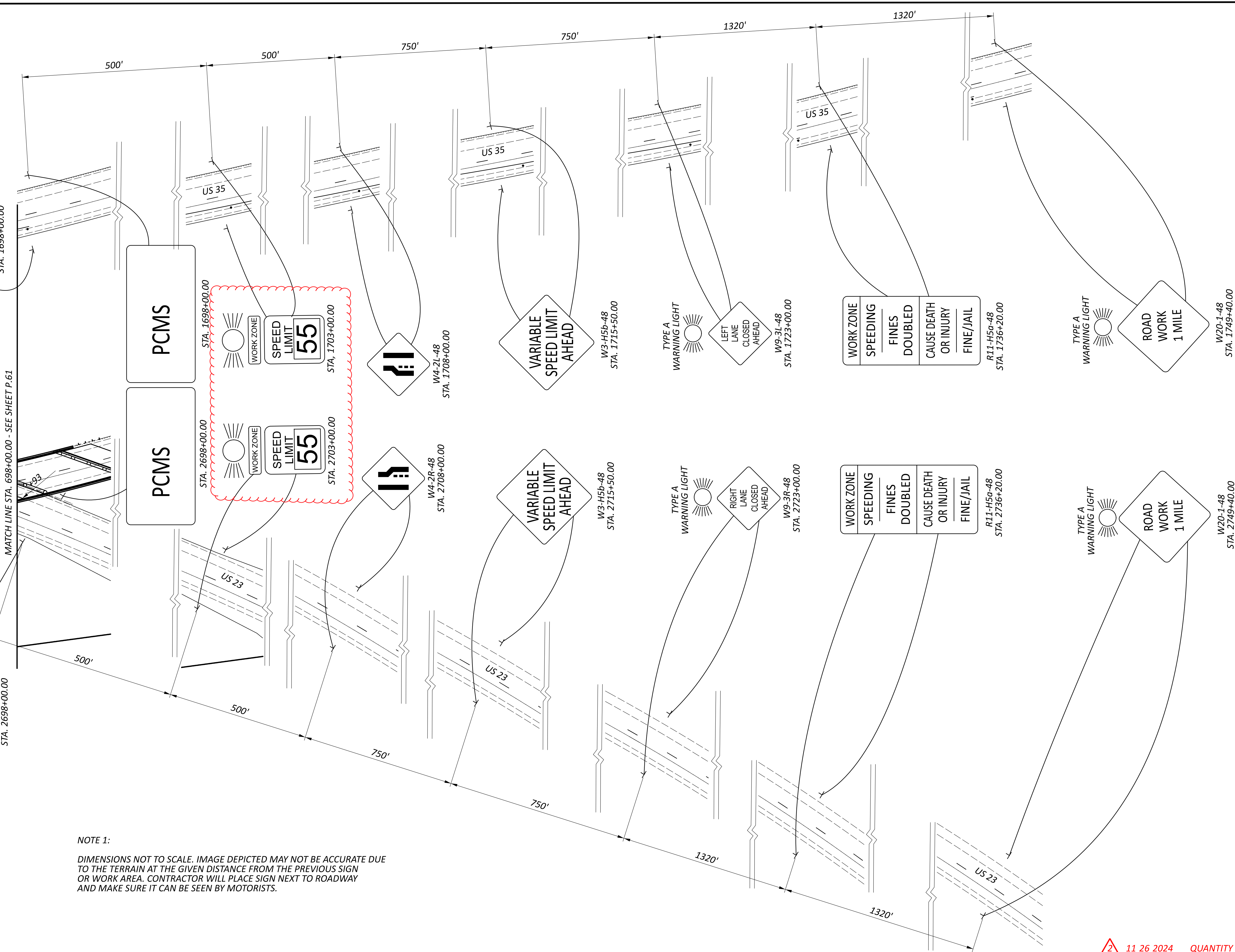


60" FLASHING  
ARROW PANEL  
STA. 2698+00.00

MATCH LINE STA. 698+00.00 - SEE SHEET P.61

NOTE 1:

DIMENSIONS NOT TO SCALE. IMAGE DEPICTED MAY NOT BE ACCURATE DUE TO THE TERRAIN AT THE GIVEN DISTANCE FROM THE PREVIOUS SIGN OR WORK AREA. CONTRACTOR WILL PLACE SIGN NEXT TO ROADWAY AND MAKE SURE IT CAN BE SEEN BY MOTORISTS.





SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION
								P.131		P.143	01/NHS/05	02/NHS/13	03/NHS/13					
																		STRUCTURE OVER 20 FOOT SPAN (ROS-23-1202 R) (CONT.)
								995			<div>1</div>		995	848	20000	995	SY	SURFACE PREPARATION USING HYDRODEMOLITION
								25					25	848	30200	25	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY
								100					100	848	50000	100	SY	HAND CHIPPING
								LS					LS	848	50100	LS		TEST SLAB
								995					995	848	50320	995	SY	EXISTING CONCRETE OVERLAY REMOVED (4.5")
								199					199	848	50340	199	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY
																		STRUCTURE OVER 20 FOOT SPAN (ROS-23-1257 L)
										LS		LS	202	11203	LS			PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
										245		245	202	22900	245	SY	APPROACH SLAB REMOVED	
										1,852		1,852	509	10000	1,852	LB	EPOXY COATED STEEL REINFORCEMENT	
										166		166	510	10001	166	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	
									<div>1</div>	<div>30</div>		30	511	34410	30	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	
										33		33	512	10100	33	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
										3,928		3,928	513	10201	3,928	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	
										863		863	514	80020	863	SF	SHOP PAINTING AND FIELD TOUCH-UP OF STRUCTURAL STEEL	
										196		196	516	11211	196	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	
										94		94	516	31010	94	FT	2" DEEP JOINT SEALER	
										96		96	518	12800	96	EACH	SCUPPER, MODIFICATION	
										245		245	526	25000	245	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")	
										94		94	526	90010	94	FT	TYPE A INSTALLATION	
										20		20	609	24000	20	FT	CURB, TYPE 4-A	
										6,407		6,407	848	10200	6,407	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION (3")	
										6,407		6,407	848	20000	6,407	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
										161		161	848	30200	161	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	
										321		321	848	50000	321	SY	HAND CHIPPING	
										LS		LS	848	50100	LS		TEST SLAB	
										22		22	848	50200	22	CY	FULL-DEPTH REPAIR	
										6,407		6,407	848	50320	6,407	SY	EXISTING CONCRETE OVERLAY REMOVED (4.5")	

2

11-26-2024 - QUANTITY CLARIFICATION

1

11-11-2024 - PARTICIPITAION REVISION

DESIGN AGENCY

ARCADIS

23 TRIANGLE PARK DRIVE SUITE 2000  
CINCINNATI, OH 45246  
(615) 942-3141  
www.arcadis.com

DESIGNER

BSB

REVIEWER

SRB 11/11/24

PROJECT ID

118771

SHEET

P.92

TOTAL


153


GENERAL SUMMARY



SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.11		MS003		P.16	P.17		P.19	P.20	P.20A	01/NHS/05	02/NHS/13	03/NHS/13						
		425									225	200	611	04200	425	FT	MAINTENANCE OF TRAFFIC	
		490									250	240	611	05700	490	FT		
		2						500			1	1	611	98450	2	EACH		
8		20									200	150	614	11110	500	HOURL		
											8	10	614	12380	28	EACH		
											LS		614	12420	LS			
											14		614	12460	14	EACH		
												3	614	12470	6	EACH		
											10	4	614	12484	18	EACH		
											25	15	614	12600	55	EACH		
		4									2	2	614	12756	4	EACH		
40											250		614	13000	250	CY		
37											740	739	614	13310	1,479	EACH		
											738	738	614	13360	1,476	EACH		
											36	18	614	18600	72	SNMT		
0.05		4									4.05		614	20010	4.05	MILE		
0.69											37.52		614	20560	37.52	MILE		
1.17		12									0.69		614	21000	0.69	MILE		
		7									6	6	614	22010	13.17	MILE		
											7		614	22010	7	MILE		
											59.04		614	22360	59.04	MILE		
560		10,392									560	5,000	614	23000	10,952	FT		
											814		614	23680	814	FT		
201											201	2,650	614	24000	5,509	FT		
79											79		614	26000	79	FT		
											4		614	30000	4	EACH		
4											LS		615	10000	LS			
		3,067									1,532	1,535	615	20000	3,067	SY		
											20		616	10000	20	MGAL		
1,648		34,460									16,000	20,108	622	41100	36,108	FT		
											9	9	808	18700	18	SNMT		
											0.4	0.3	614	11000	LS			
											LS		623	10000	LS			
											LS		624	10000	LS			

GENERAL SUMMARY

 11-26-2024 - QUANTITY CLARIFICATION

 11-11-2024 - PARTICIPITAION REVISION / PROJECT WORK REDUCTION

DESIGN AGENCY



23 TRIANGLE PARK DRIVE SUITE 2000  
CHICAGO, IL 60604  
(616) 942-3141  
www.arcadis.com

DESIGNER

BSB

REVIEWER

SRB 11/11/24

PROJECT ID

118771

SHEET

P.93

TOTAL

153




						CALC:	JAZ	DATE:	7/8/2024
						CHECKED:	MCM	DATE:	7/12/2024
ESTIMATED QUANTITIES FOR ROS-23-1257 L (02/NHS/13)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11203	LS	LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					2/11
202	22900	245	SY	APPROACH SLAB REMOVED				245	
202	23000	256	SY	PAVEMENT REMOVED				256	
202	32000	20	FT	CURB REMOVED				20	
301	56000	88	CY	ASPHALT CONCRETE BASE, PG64-22, (449)				88	
407	10000	16	GAL	TACK COAT				16	
442	10021	22	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), PWL 2024, AS PER PLAN (PG 70-22M)				22	P.10
509	10000	1852	LB	EPOXY COATED STEEL REINFORCEMENT	1272		580		
510	10001	166	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	158		8		2/11
511	34410	30	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	8		12	10	
512	10100	33	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)				33	
513	10201	3928	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	3928				
514	80020	863	SF	SHOP PAINTING AND FIELD TOUCH-UP OF STRUCTURAL STEEL			863		
516	11211	196	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN			196		2/11
516	31010	94	FT	2" DEEP JOINT SEALER	94				
518	12800	96	EACH	SCUPPER, MODIFICATION				96	
526	25000	245	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")				245	
526	90010	94	FT	TYPE A INSTALLATION				94	
609	24000	20	FT	CURB, TYPE 4-A				20	
848	10200	6407	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, (3")			6407		
848	20000	6407	SY	SURFACE PREPARATION USING HYDRODEMOLITION			6407		
848	30200	161	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			161		
848	50000	321	SY	HAND CHIPPING			321		
848	50100	LS	LS	TEST SLAB					
848	50200	22	CY	FULL-DEPTH REPAIR			22		
848	50320	6407	SY	EXISTING CONCRETE OVERLAY REMOVED, (4.5")			6407		

						CALC:	JAZ	DATE:	7/8/2024
						CHECKED:	MCM	DATE:	7/12/2024
ESTIMATED QUANTITIES FOR ROS-23-1257 R (02/NHS/13)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11203	LS	LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					2/11
202	22900	245	SY	APPROACH SLAB REMOVED				245	
202	23000	256	SY	PAVEMENT REMOVED				256	
202	32000	20	FT	CURB REMOVED				20	
301	56000	88	CY	ASPHALT CONCRETE BASE, PG64-22, (449)				88	
407	10000	16	GAL	TACK COAT				16	
442	10021	22	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), PWL 2024, AS PER PLAN (PG 70-22M)				22	P.10
509	10000	1852	LB	EPOXY COATED STEEL REINFORCEMENT	1272		580		
510	10001	166	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	158		8		2/11
511	34410	30	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	8		12	10	
512	10100	33	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)				33	
513	10201	3928	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	3928				
514	80020	863	SF	SHOP PAINTING AND FIELD TOUCH-UP OF STRUCTURAL STEEL			863		
516	11211	196	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN			196		2/11
516	31010	94	FT	2" DEEP JOINT SEALER	94				
518	12800	96	EACH	SCUPPER, MODIFICATION				96	
526	25000	245	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")				245	
526	90010	94	FT	TYPE A INSTALLATION				94	
609	24000	20	FT	CURB, TYPE 4-A				20	
848	10200	6407	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, (3")			6407		
848	20000	6407	SY	SURFACE PREPARATION USING HYDRODEMOLITION			6407		
848	30200	161	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			161		
848	50000	321	SY	HAND CHIPPING			321		
848	50100	LS	LS	TEST SLAB					
848	50200	22	CY	FULL-DEPTH REPAIR			22		
848	50320	6407	SY	EXISTING CONCRETE OVERLAY REMOVED, (4.5")			6407		

 11-26-2024 -  
QUANTITY CLARIFICATION

ESTIMATED QUANTITIES  
BRIDGE NO. ROS-23-1257 L&R  
OVER SCIOTO RIVER

SFN		7100752L
SFN		7100787R
DESIGN AGENCY		
DESIGNER	CHECKER	
JAZ		
REVIEWER		MCM 07/12/24
PROJECT ID		118771
SUBSET	TOTAL	
3	13	
SHEET	TOTAL	
P.143	153	