

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 120 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 8. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$ 2000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

ACCESS TO BUSINESS PROPERTIES SHALL BE MAINTAINED AT ALL TIMES WITHIN PROJECT AREA. THE EXISTING CHURCH DRIVEWAY AT NORTHWEST QUADRANT SHALL BE CLOSED DURING BRIDGE CONSTRUCTION PERIOD. A TEMPORARY AGGREGATE DRIVEWAY SHALL BE PLACED IN THE PUBLIC RIGHT OF WAY STRIP BETWEEN THE METAMORA COMMUNITY PARK AND PRIVATE RESIDENCES TO MAINTAIN ACCESS FROM PARK STREET. THE DRIVE SHALL BEGIN AT PARK STREET AND TERMINATE AT THE NW CORNER OF THE CHURCH PARKING LOT. THE DRIVE IS INCLUDED IN THE LUMP SUM FOR MAINTAINING TRAFFIC.

PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES FOLLOWING PEDESTRIAN DETOUR ROUTES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL NECESSARY MODIFICATIONS TO THE PEDESTRIAN ACCESS TO ACCOMMODATE CONSTRUCTION ACTIVITIES AND SIGNING PEDESTRIAN DETOUR. THE PEDESTRIANS WILL BE DETOURED THROUGH MAPLE ST AND SWANTON ST AS SHOWN ON SHEET 9.

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, DETOUR SIGNING, LUMP SUM
 ITEM 614, MAINTAINING TRAFFIC, LUMP SUM

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 (ROAD CLOSED SIGN)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

NEAR " BEGIN WORK" STATION 741+69.43
 NEAR "END WORK" STATION 744+84.15

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, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS FOLLOWS:

LOCATIONS SHOWN ON DETOUR PLAN (SHEET 8) AS SIGN 7.
 LOCATIONS SHOWN ON DETOUR PLAN (SHEET 8) AS SIGN 12.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

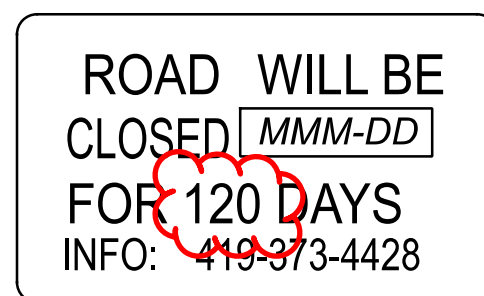
NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

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.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

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



W20-H13-60

DESIGNATED LOCAL DETOUR ROUTE

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE SHALL BE SWANTON STREET BETWEEN SR 120 AND MAPLE STREET. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THE ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 254 - PAVEMENT PLANING	223 SQ. YD.
ITEM 204 - SUBGRADE COMPACTION	112 SQ. YD.
ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449). PG64-22	31 CU. YD.
ITEM 301, ASPHALT CONCRETE BASE, (449). PG64-22	13 CU. YD.
ITEM 304, AGGREGATE BASE	19 CU. YD.
ITEM 407, NON-TRACKING TACK COAT	47 GAL.
ITEM 617, WATER	3 M. GAL.

NOTIFICATION OF TRAFFIC RESTRICTIONS

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

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

NOTIFICATION TIME TABLE

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

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

THE ODOT PROJECT ENGINEER SHALL FORWARD THE CONSTRUCTION NOTIFICATION INFORMATION TO THE FOLLOWING DEPARTMENTS WITHIN THE TIMELINE OUTLINED IN THE TEM PART 642-58 TO ENSURE COMPLIANCE WITH FEDERAL NOTIFICATION REQUIREMENTS:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY PHONE AT: (419)373-4428 OR EMAIL AT: D02.PIO@DOT.OHIO.GOV

DISTRICT PERMIT SECTION BY PHONE AT: (419)373-4301 OR EMAIL AT: D02.PERMIT@DOT.OHIO.GOV

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 6 M. GAL.

DESIGN AGENCY



BERGMANN
 ARCHITECTS ENGINEERS PLANNERS
 3334 Executive Parkway, Ste 111,
 Toledo, OH 43624

DESIGNER

SNJ

REVIEWER

XF 03/29/24

PROJECT ID

101140

SHEET TOTAL

7 | 74

SHEET NUM.								PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	7	12	21	23	25	26	OFFICE CALCS	01/STR/10	EXT	TOTAL			
ROADWAY														
LS									LS	201	11000	LS	CLEARING AND GRUBBING	
			428		48				476	202	23000	476	SY	PAVEMENT REMOVED
			1,706						1,706	202	30000	1,706	SF	WALK REMOVED
			261						261	202	32000	261	FT	CURB REMOVED
			156	48					204	202	35100	204	FT	PIPE REMOVED, 24" AND UNDER
			13						13	202	38000	13	FT	GUARDRAIL REMOVED
				1					1	202	58000	1	EACH	MANHOLE REMOVED
			2						2	202	58100	2	EACH	CATCH BASIN REMOVED
			109						109	202	75000	109	FT	FENCE REMOVED
					3	528			531	203	10000	531	CY	EXCAVATION
					1	635			636	203	20000	636	CY	EMBANKMENT
								573	573	204	10000	573	SY	SUBGRADE COMPACTION
								147	147	204	13000	147	CY	EXCAVATION OF SUBGRADE
								135	135	204	30020	135	CY	GRANULAR MATERIAL, TYPE C
2									2	204	45000	2	HOUR	PROOF ROLLING
								271	271	204	50000	271	SY	GEOTEXTILE FABRIC
			13						13	606	15050	13	FT	GUARDRAIL, TYPE MGS
			1						1	606	35000	1	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1
			110						110	607	23001	110	FT	FENCE, TYPE CLT, AS PER PLAN
			1,657						1,657	608	10000	1,657	SF	4" CONCRETE WALK
			200						200	608	13000	200	SF	6" CONCRETE WALK
11									11	SPECIAL	69065016	11	TON	WORK INVOLVING PETROLEUM CONTAMINATED SOIL
EROSION CONTROL														
			308						308	601	32100	308	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
101	6								6	616	10000	6	MGAL	WATER
912									101	659	60300	101	CY	TOPSOIL
46									912	659	10000	912	SY	SEEDING AND MULCHING
									46	659	14000	46	SY	REPAIR SEEDING AND MULCHING
46									46	659	15000	46	SY	INTER-SEEDING
0.12									0.12	659	20000	0.12	TON	COMMERCIAL FERTILIZER
0.19									0.19	659	31000	0.19	ACRE	LIME
3									3	659	35000	3	MGAL	WATER
								10,000	10,000	832	30000	10,000	EACH	EROSION CONTROL
DRAINAGE														
			0.5						0.5	602	20000	0.5	CY	CONCRETE MASONRY
			22						22	611	04400	22	FT	12" CONDUIT, TYPE B
			47						47	611	04600	47	FT	12" CONDUIT, TYPE C
			46						46	611	05900	46	FT	15" CONDUIT, TYPE B
			42						42	611	06100	42	FT	15" CONDUIT, TYPE C
			2						2	611	98150	2	EACH	CATCH BASIN, NO. 3
			4						4	611	99574	4	EACH	MANHOLE, NO. 3
				1					1	611	99575	1	EACH	MANHOLE, NO. 3, AS PER PLAN
				1					1	611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE
PAVEMENT														
								882	882	254	01000	882	SY	PAVEMENT PLANING, ASPHALT CONCRETE (2.5")
								61	61	301	56000	61	CY	ASPHALT CONCRETE BASE, PG64-22, (449)
				5					5	301	56100	5	CY	ASPHALT CONCRETE BASE, PG64-22, (449), (DRIVEWAYS)
					3				95	304	20000	95	CY	AGGREGATE BASE
									199	202	20000	202	GAL	NON-TRACKING TACK COAT
									86	86	70000	86	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22
								26	26	441	70300	26	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)
				2					2	441	70500	2	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)
			120						120	609	16000	120	FT	CURB, TYPE 2-B
			128						128	609	26000	128	FT	CURB, TYPE 6

GENERAL SUMMARY

DESIGN AGENCY

BERGMANN
 ARCHITECTS ENGINEERS PLANNERS
 3334 Goodtime Parkway, Ste 111
 Toledo, OH 43605

DESIGNER
MAS

REVIEWER
 XF 03/29/24

PROJECT ID
 101140

SHEET TOTAL
 10 | 74

SHEET NUM.								PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.	
5	6	7	12	21	23	25	26	OFFICE CALCS	01/STR/10	EXT	TOTAL				
													WATER WORK		
				257					257	638	02500	257	FT	12" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MECHANICAL JOINTS AND FITTINGS	
				159					159	638	05600	159	FT	2" POLYETHYLENE SERVICE BRANCH	
				48					48	638	06708	48	FT	24" STEEL PIPE ENCASEMENT, OPEN CUT	
				1					1	638	07690	1	EACH	2" GATE VALVE AND VALVE BOX	
				2					2	638	08100	2	EACH	12" GATE VALVE AND VALVE BOX	
				1					1	638	10481	1	EACH	FIRE HYDRANT REMOVED, AS PER PLAN	21
				1					1	638	11201	1	EACH	METER, SETTING, STOP AND CHAMBER, AS PER PLAN	21
														TRAFFIC CONTROL	
							52		52	630	03100	52	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
							1		1	630	08600	1	EACH	SIGN POST REFLECTOR	
							1		1	630	79500	1	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
							16		16	630	80100	16	SF	SIGN, FLAT SHEET	
							2		2	630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
							2		2	630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
							3		3	630	87500	3	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
							0.06		0.06	642	00300	0.06	MILE	CENTER LINE, TYPE 1	
							25		25	642	00500	25	FT	STOP LINE, TYPE 1	
							30		30	642	00800	30	FT	CURB MARKING, TYPE 1	
							228		228	642	01200	228	FT	PARKING LOT STALL MARKING, TYPE 1	
							1		1	644	01600	1	EACH	HANDICAP SYMBOL MARKING	
														BUILDING DEMOLITION	
LS									LS	202	56001	LS		BUILDING DEMOLISHED, AS PER PLAN (BUILDINGS A, B, CONSTRUCTION OF A NEW WALL FOR C)	6
LS									LS	202	56001	LS		BUILDING DEMOLISHED, AS PER PLAN: SECURITY GUARD	6
														STRUCTURE OVER 20 FOOT SPAN	
														SEE SHEET 42 FOR FUL-120-14.08 ESTIMATED QUANTITIES	
														MAINTENANCE OF TRAFFIC	
		112							112	204	10000	112	SY	SUBGRADE COMPACTION	
		223							223	254	01000	223	SY	PAVEMENT PLANING, ASPHALT CONCRETE (2.5")	
		13							13	301	56000	13	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
		19							19	304	20000	19	CY	AGGREGATE BASE	
		47							47	407	20000	47	GAL	NON-TRACKING TACK COAT	
		31							31	441	70000	31	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
		LS							LS	614	12420	LS		DETOUR SIGNING	
		3							3	617	25000	3	MGAL	WATER	
														INCIDENTALS	
		LS							LS	614	11000	LS		MAINTAINING TRAFFIC	
							6		6	619	16010	6	MNTH	FIELD OFFICE, TYPE B	
							LS		LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
							LS		LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

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 ARCHITECTS ENGINEERS PLANNERS
 3334 Goodtime Parkway, Ste 111
 Toledo, OH 43605

DESIGNER
 MAS

REVIEWER
 XF 03/29/24

PROJECT ID
 101140

SHEET TOTAL
 11 74

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

- AS-1-15 DATED (REVISED) 01/20/2023
- AS-2-15 DATED (REVISED) 07/21/2023
- BR-2-15 DATED (REVISED) 01/21/2022

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

- 800 DATED 01/19/2024
- 832 DATED 07/21/2023

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

DESIGN LOADING INCLUDES:
VEHICULAR LIVE LOAD: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.06 KIPS/SQ.FT

DESIGN DATA

CONCRETE CLASS QC2:
COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1:
COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50:
YIELD STRENGTH = 50 KSI

STEEL H-PILES - ASTM A572: YIELD STRENGTH 50 KSI

ABBREVIATIONS:

- AGG. - AGGREGATE
- APP. - APPROACH
- BLDG. - BUILDING
- BOT. - BOTTOM
- C/C - CENTER TO CENTER
- CLR. - CLEARANCE
- CONC. - CONCRETE
- CONST. - CONSTRUCTION
- DIA. - DIAMETER
- EA. - EACH
- EL. - ELEVATION
- EMBED. - EMBEDMENT
- ES - EACH SIDE
- EQ. - EQUAL
- EX. - EXISTING
- FS - FAR SIDE
- FTG. - FOOTING
- JT. - JOINT
- MAX. - MAXIMUM
- PROP. - PROPOSED
- PVMT. - PAVEMENT
- NE QUAD. - NORTHEAST QUADRANT
- NS - NEAR SIDE
- NPCPP - NON-PERFORATED CORRUGATED PLASTIC PIPE
- PCPP - PERFORATED CORRUGATED PLASTIC PIPE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- R/W - RIGHT OF WAY
- SER. - SERIES
- SPA. - SPACE, SPACES
- STA. - STATION
- STD. DWG. - STANDARD DRAWING
- THICK. - THICKNESS
- TYP. - TYPICAL

REMOVAL OF EXISTING STRUCTURE:

PORTIONS OF THE EXISTING STRUCTURE SHALL BE REMOVED AS INDICATED IN THESE PLANS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS, SECTIONS 102.05 AND 105.02. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ULTIMATE BEARING VALUE IS 380 KIPS PER PILE FOR THE ABUTMENT AND WINGWALL PILES.

REAR ABUTMENT PILES:
HP12x53 PILES 55 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

WINGWALLS 1&2 PILES:
HP12x53 PILES 60 FEET LONG, ORDER LENGTH
DYNAMIC LOAD TESTING INCLUDED W/ REAR ABUT.

FORWARD ABUTMENT & WINGWALL 4 PILES:
HP12x53 PILES 60 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

WINGWALL 3 PILES:
HP12x53 PILES 65 FEET LONG, ORDER LENGTH
DYNAMIC LOAD TESTING INCLUDED W/ FWD. ABUT.

ITEM SPECIAL - STRUCTURE MISC.: VIBRATION MONITORING

MONITOR GROUND VIBRATIONS CAUSED BY PILE DRIVING, TEMPORARY SHEETING INSTALLATION AND EXTRACTION, AND COMPACTION OF BACKFILL MATERIALS BEHIND ABUTMENTS AND WINGWALLS TO MINIMIZE THE POTENTIAL DAMAGE TO EXISTING BUILDINGS.

RETAIN AN EXPERIENCED VIBRATION SPECIALIST TO ESTABLISH THE ACCEPTABLE VIBRATION LIMITS AND TO PERFORM THE VIBRATION MONITORING. USE A VIBRATION SPECIALIST THAT IS AN EXPERT IN THE INTERPRETATION OF VIBRATION DATA, AND WHO MEETS ONE OF THE FOLLOWING CRITERIA: 1) IS A REGISTERED ENGINEER WITH AT LEAST TWO YEARS OF PROVEN EXPERIENCE IN MONITORING VIBRATIONS ON SIMILAR CONSTRUCTION PROJECTS, OR 2) HAS AT LEAST FIVE YEARS OF PROVEN EXPERIENCE IN MONITORING VIBRATIONS ON SIMILAR CONSTRUCTION PROJECTS. DO NOT USE A VIBRATION SPECIALIST THAT IS AN EMPLOYEE OF THE CONTRACTOR.

SUBMIT A RESUME OF THE CREDENTIALS OF THE PROPOSED VIBRATION SPECIALIST AT, OR BEFORE, THE PRECONSTRUCTION MEETING. INCLUDE IN THE RESUME A LIST OF CONSTRUCTION PROJECTS ON WHICH THE VIBRATION SPECIALIST WAS RESPONSIBLY IN CHARGE OF MONITORING THE VIBRATIONS. LIST A DESCRIPTION OF THE PROJECTS, WITH DETAILS OF THE VIBRATION INTERPRETATIONS MADE ON THE PROJECT. LIST THE NAMES AND TELEPHONE NUMBERS OF PROJECT OWNERS WITH SUFFICIENT KNOWLEDGE OF THE PROJECTS TO VERIFY THE SUBMITTED INFORMATION. OBTAIN THE ENGINEER'S ACCEPTANCE OF THE VIBRATION SPECIALIST BEFORE BEGINNING ANY PILE DRIVING WORK. ALLOW 30 DAYS FOR THE REVIEW OF THIS DOCUMENTATION.

USE SEISMOGRAPHS CAPABLE OF CONTINUOUSLY RECORDING THE PEAK PARTICLE VELOCITY FOR THREE MUTUALLY PERPENDICULAR COMPONENTS OF VIBRATION, AND OF PROVIDING A PERMANENT RECORD OF THE ENTIRE VIBRATION EVENT. USE A SUFFICIENT NUMBER OF SEISMOGRAPHS TO PROVIDE REDUNDANCY IN CASE ONE DEVICE SHOULD FAIL. SUBMIT A PLAN OF THE PROPOSED SEISMOGRAPH LOCATIONS TO THE ENGINEER FOR REVIEW.

ITEM SPECIAL - STRUCTURE MISC.: VIBRATION MONITORING, CONTINUED:

THE VIBRATION SPECIALIST SHALL PERFORM THE FOLLOWING:

- MEASURE THE AMBIENT GROUND VIBRATIONS NEAR EXISTING STRUCTURES BEFORE PILE DRIVING BEGINS.
- ESTABLISH VIBRATION LIMITS TO MINIMIZE POTENTIAL DAMAGE TO EXISTING STRUCTURES AND EXPLAIN WHY THEY ARE BEING USED TO THE ENGINEER BEFORE DRIVING PILES NEAR EXISTING STRUCTURES.
- MONITOR GROUND VIBRATIONS DURING PILE DRIVING.
- IMMEDIATELY INFORM THE CONTRACTOR AND ENGINEER IF THE VIBRATION LIMITS ARE REACHED OR EXCEEDED.
- FURNISH THE DATA RECORDED AND INCLUDE THE FOLLOWING:
 - IDENTIFICATION OF SEISMOGRAPH.
 - DISTANCE AND DIRECTION OF SEISMOGRAPH FROM PILE DRIVING.
 - START TIME AND DURATION OF PILE DRIVING.
 - LIST OF PILES DRIVEN DURING EACH MONITORING INTERVAL.

IMMEDIATELY SUSPEND ALL PILE DRIVING IF THE VIBRATION LIMITS ARE REACHED OR EXCEEDED. EVALUATE ALTERNATIVE CONSTRUCTION PROCEDURES, SUCH AS ADDITIONAL PREBORE DEPTH, TO REDUCE VIBRATIONS.

SUBMIT THREE COPIES OF THE FINAL REPORT WHICH CONTAINS ALL MEASUREMENTS, INTERPRETATIONS, AND RECOMMENDATIONS TO THE ENGINEER.

THE DEPARTMENT WILL PAY FOR THIS ITEM AT THE CONTRACT LUMP SUM PRICE FOR ITEM SPECIAL - STRUCTURAL SURVEY AND MONITORING OF VIBRATION. THE DEPARTMENT WILL PAY THE FINAL TWENTY PERCENT AFTER THE ENGINEER RECEIVES THE FINAL REPORT.

THE DEPARTMENT WILL PAY ACCORDING TO C&MS 109.05 FOR ALTERNATIVE CONSTRUCTION PROCEDURES THAT THE ENGINEER DETERMINES ARE NECESSARY TO REDUCE VIBRATIONS.

ITEM SPECIAL - STRUCTURE MISC.: PRECONSTRUCTION CONDITION SURVEY

BEFORE PILE DRIVING BEGINS, CONDUCT A CONDITION SURVEY OF ALL EXISTING BUILDINGS, STRUCTURES, AND UTILITIES WITHIN 200-FT OF THE PILE DRIVING WORK. THE PURPOSE OF THE SURVEY IS TO DOCUMENT THE CONDITION OF THE BUILDINGS, STRUCTURES, OR UTILITIES PRIOR TO PILE DRIVING, SO THAT CLAIMS OF DAMAGE CAUSED BY THE PILE DRIVING CAN BE VERIFIED.

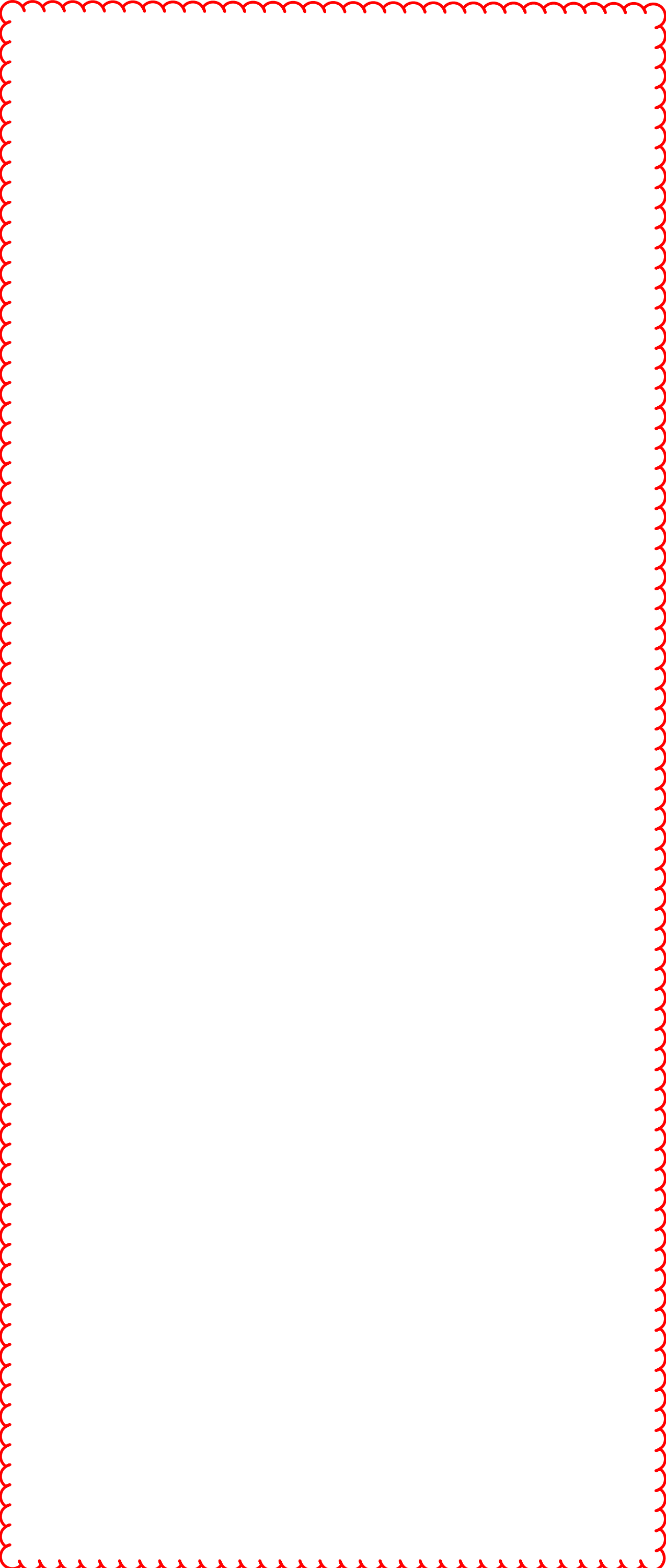
RETAIN AN EXPERIENCED VIBRATION SPECIALIST TO PERFORM OR SUPERVISE THE CONDITION SURVEY. USE A VIBRATION SPECIALIST THAT MEETS THE QUALIFICATION REQUIREMENTS FOR VIBRATION MONITORING.

RECORD THE CONDITION OF EXISTING STRUCTURES AND BUILDING MATERIALS, USING WRITTEN TEXT, PHOTOGRAPHS, AND VIDEO RECORDINGS. INSPECT INTERIOR WALLS, CEILINGS, AND FLOORS THAT ARE ACCESSIBLE. INSPECT THE EXTERIOR OF THE BUILDING THAT IS VISIBLE FROM GROUND LEVEL. ALSO RECORD THE LOCATION, SIZE, AND TYPE OF ALL CRACKS AND OTHER STRUCTURAL DEFICIENCIES.

IF OWNERS, OR OCCUPANTS, FAIL TO ALLOW ACCESS TO THE PROPERTY FOR THE PRECONSTRUCTION CONDITION SURVEY, SEND A CERTIFIED LETTER TO THE OWNER OR OCCUPANT. DOCUMENT THE NOTIFICATION EFFORT AND THE CERTIFIED LETTER IN THE REPORT.

SUBMIT THREE COPIES OF THE REPORT TO THE ENGINEER THAT SUMMARIZES THE PRECONSTRUCTION CONDITION OF THE BUILDINGS, STRUCTURES, AND UTILITIES, AND THAT IDENTIFIES AREAS OF CONCERN.

THE DEPARTMENT WILL PAY FOR THIS ITEM AT THE CONTRACT LUMP SUM PRICE FOR ITEM SPECIAL - STRUCTURAL SURVEY AND MONITORING OF VIBRATION.



GENERAL NOTES
BRIDGE NO. FUL-120-14.08
SR 120 OVER TEN MILE CREEK

SFN	2601746
DESIGN AGENCY	
DESIGNER	CHECKER
JAM	M.JQ
REVIEWER	
MTG	03/29/24
PROJECT ID	101140
SUBSET	TOTAL
3	24
SHEET	TOTAL
41	74

BERGMANN
ARCHITECTS ENGINEERS PLANNERS
324 Cheslow Parkway, Ste 110
Tomball, TX 77375

THREE-SIDED CULVERT WALL AND TOP SLAB THICKNESSES:

THE WALL AND TOP SLAB THICKNESSES SHOWN IN THE PLANS WERE OBTAINED FROM THE MANUFACTURERS AT THE TIME THE PLANS WERE PREPARED. IF THE WALL AND/OR TOP/BOTTOM SLAB THICKNESSES OF THE CULVERT PROPOSED ARE DIFFERENT FROM WHAT IS SHOWN IN THE PLANS, A MARKED COPY OF THE PROJECT PLANS, INCLUDING ALL PLAN NOTES AND DETAILS SHOWING ALL ITEMS AFFECTED BY THE DIFFERENT CULVERT DIMENSIONS, SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS. ALL WORK REQUIRED TO ACCOMMODATE ANY REVISED DIMENSIONS SHALL BE AT NO EXTRA COST TO THE STATE.

STRUCTURE BACKFILL SEQUENCE:

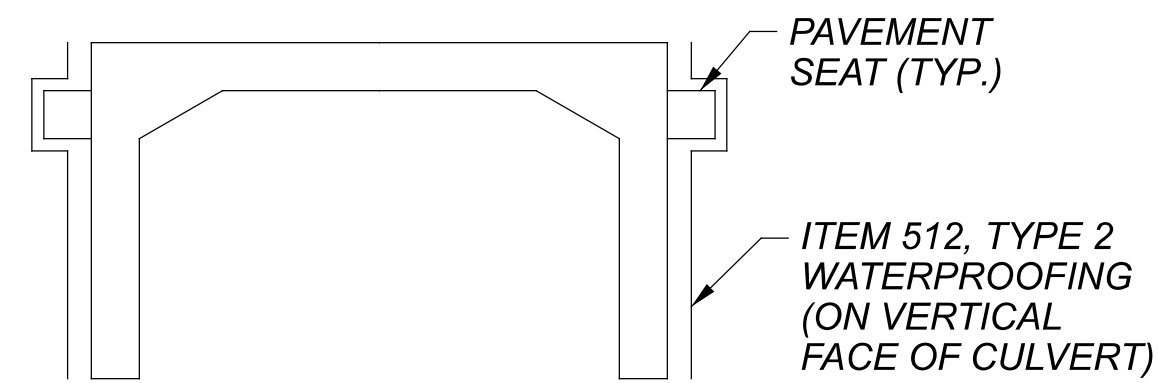
MAINTAIN A LEVEL BACKFILL HEIGHT ON BOTH SIDES OF THE CONCRETE BASEWALLS UNTIL THE PRECAST UNITS HAVE BEEN SET AND GROUTED IN PLACE.

ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION 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 SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

ITEM 512, TYPE 2 WATERPROOFING:

MEMBRANE WATERPROOFING (SHEET TYPE 2) SHALL EXTEND VERTICALLY DOWN ALL SIDES OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. THE EXTERIOR JOINT GAP ON THE TOP AND SIDES BETWEEN THE PRECAST CULVERT SECTIONS SHALL BE FILLED WITH PORTLAND CEMENT MORTAR PRIOR TO INSTALLING THE MEMBRANE WATERPROOFING. JOINT WRAP AS SPECIFIED IN 611.08 AND CONCRETE SEALING AS SPECIFIED IN 611.09 ARE NOT REQUIRED UNDER THE LIMITS OF THE MEMBRANE WATERPROOFING. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE AND BID PER SQUARE YARD FOR ITEM 512, TYPE 2 WATERPROOFING.



ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN:

THE REINFORCED CONCRETE APPROACH SLABS SHALL BE IN ACCORDANCE WITH STD. DWG. AS-1-15 EXCEPT THAT THE CONCRETE AND REINFORCEMENT SHALL BE PLACED AS SHOWN IN THESE PLANS ON SHEETS 20/24 AND 21/24.

ITEM 526 - TYPE B INSTALLATION, AS PER PLAN:

THE APPROACH SLABS SHALL BE INSTALLED IN ACCORDANCE WITH STD. DWG. AS-2-15, BUT THE CONCRETE AND REINFORCEMENT FOR THE APPROACH PAVEMENT SEATS SHALL BE PLACED AS SHOWN IN THESE PLANS ON SHEET 21/24.

ITEM 611 - CONDUIT, TYPE A, PRECAST REINFORCED CONCRETE THREE SIDED FLAT TOPPED CULVERT, AS PER PLAN, 34'x10':

IN ADDITION TO THE REQUIREMENTS OF C&MS ITEM 611, FILL THE TOP EXTERIOR, SIDE INTERIOR, AND SIDE EXTERIOR JOINT GAPS WITH NON-SHRINK MORTAR PRIOR TO INSTALLING THE 12-INCH WIDE JOINT WRAP AND TYPE 2 WATERPROOFING AND/OR REINFORCED CONCRETE DECK.

ESTIMATED QUANTITIES (01/STR/10)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	APP. SLABS	GEN.	SEE SHEET
202	11002	LS	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN					LS	
202	22900	190	SY	APPROACH SLAB REMOVED					190	
503	11101	LS	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					LS	4/24
503	21100	1624	CY	UNCLASSIFIED EXCAVATION	1624					
505	11100	LS	LS	PILE DRIVING EQUIPMENT MOBILIZATION					LS	
507	00200	5145	FT	STEEL PILES HP12X53, FURNISHED	5145					
507	00250	4715	FT	STEEL PILES HP12X53, DRIVEN	4715					
507	92200	2385	FT	PREBORED HOLES	2385					
509	10000	107812	LB	EPOXY COATED STEEL REINFORCEMENT	56217		11353	40242		
511	34444	76	CY	CLASS QC2 CONCRETE, BRIDGE DECK			76			
511	34448	7	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)			7			
511	44110	119	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	119					
511	46010	84	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	84					
511	46510	253	CY	CLASS QC1 CONCRETE, FOOTING	253					
511	51510	19	CY	CLASS QC2 CONCRETE, SIDEWALK			19			
512	10050	450	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	309		141			
512	33000	235	SY	TYPE 2 WATERPROOFING	235					4/24
516	13600	11	SF	1" PREFORMED EXPANSION JOINT FILLER	11					
516	31200	102	FT	SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS					102	
517	75120	74	FT	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING)			74			
518	21200	127	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	127					
518	40000	253	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	253					
518	40010	52	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	52					
522	20000	4	EACH	DYNAMIC LOAD TESTING						
526	30001	285	SY	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN				285		4/24
526	90021	285	SY	TYPE B INSTALLATION, AS PER PLAN				285		4/24
530	14000	LS	LS	SPECIAL - STRUCTURAL SURVEY AND MONITORING OF VIBRATION					LS	3/24
611	70001	72	FT	CONDUIT, TYPE A, PRECAST REINFORCED CONCRETE THREE SIDED FLAT TOPPED CULVERT, AS PER PLAN, 34' X 10'					72	4/24

ESTIMATED QUANTITIES
 BRIDGE NO. FUL-120-14.08
 SR 120 OVER TEN MILE CREEK

DESIGN AGENCY



BERGMANN
 ARCHITECTS ENGINEERS PLANNERS
 3234 Executive Parkway, Ste. 111
 Toledo, OH 43606

DESIGNER

JAM

REVIEWER

MJQ 03/29/24

PROJECT ID

101140

SUBSET TOTAL

4 24

SHEET TOTAL

42 74