

I:\ProjectData\MUS_93006\400-Engineering\Roadway\Sheets\93006_G600A.dgn Sheet 4/28/2021 8:23:13 AM ngilberl

SHEET NUM.										PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.		
61	312	313	319	1908	2204					01/IMS/P V	02/IMS/B R	03/IMS/C V	04/S<2/O T	05/SAF/O T								
																				ROADWAY		
	3									3						606	60022	3	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), 40 MPH, 24" WIDE		
	1									1						606	60022	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), 55 MPH, 24" WIDE		
	1									1						606	60028	1	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), 70 MPH, 36" WIDE		
				1						1						606	60023	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), AS PER PLAN	2127	
4										4						606	61000	4	EACH	IMPACT ATTENUATOR, MISC.: REPLACE IMPACT ATTENUATOR IN KIND	61	
					2,881					2,881						607	23000	2,881	FT	FENCE, TYPE CLT		
					2,831					2,831						607	23001	2,831	FT	FENCE, TYPE CLT, AS PER PLAN	45	
					4					4						607	61200	4	EACH	GATE, TYPE CLT		
					6					6						607	61201	6	EACH	GATE, TYPE CLT, AS PER PLAN	45	
					5,852					5,852						607	70000	5,852	FT	FENCELINE SEEDING AND MULCHING		
		9,516								9,516						608	10000	9,516	SF	4" CONCRETE WALK		
		949								949						608	52000	949	SF	CURB RAMP		
			8,023							8,023						622	10100	8,023	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1		
			44							44						622	10101	44	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1, AS PER PLAN	883	
			477							477						622	10140	477	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1		
					1,204					1,204						622	10160	1,204	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D		
					477					477						622	10161	477	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN A	884	
				12							12					622	10161	12	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN B	2132	
				1						1						622	24850	1	EACH	CONCRETE BARRIER END SECTION, TYPE B1		
				7						7						622	25000	7	EACH	CONCRETE BARRIER END SECTION, TYPE D		
					2					2						622	25011	2	EACH	CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN A	884	
				1							1					622	25011	1	EACH	CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN B	2132	
					74					74						622	25006	74	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1		
					12					12						622	25007	12	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1, AS PER PLAN	883	
					3					3						622	25014	3	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1		
					11					11						622	25050	11	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D		
				1							1					622	25051	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN B	2132	
					14					14						625	32000	14	EACH	GROUND ROD		

GENERAL SUMMARY

MUS-70-10.49

CALCULATED
XXX
CHECKED
XXX

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

Table with 2 columns: Drawing ID and Date/Revision. Includes AS-1-15, AS-2-15, CPA-1-08, CPP-1-08, CS-1-08, GSD-1-19, PCB-91, SBR-1-13, SBR-2-13.

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN DATA

ITEM 511 CLASS OC1 CONCRETE, SUBSTRUCTURE (ABUTMENT AND FOOTING) COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
ITEM 511 CLASS OC2 CONCRETE, SUPERSTRUCTURE (DECK) COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
REINFORCING STEEL - ASTM A615 OR A996, GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN LOADING

DESIGN LOADING: HL-93.
FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

REFERENCE

EXISTING BRIDGE PLANS MAY BE INSPECTED AND ARE PROVIDED WITH THIS PROJECT'S BIDDING DOCUMENTS.

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 CMS SECTIONS 102.05, 105.02, AND 513.04.

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.

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINWALLS.

CONSTRUCTION SEQUENCE

SEE GENERAL NOTES FOR MAINTENANCE OF TRAFFIC NOTES AND MAINTENANCE OF TRAFFIC DETAIL SHEETS TO PLAN SEQUENCE OF OPERATIONS.

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AT THE COMPLETION OF WORK FOR ALL PHASES OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE DISTRICT 5 SMOOTHNESS CORDINATOR.

PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

- 1. CLEAN, SWEEP, AND PREPARE THE FINAL DECK AND FINAL ROADWAY SURFACE.
2. MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
3. PERFORM GROOVING OF THE BRIDGE DECK.

INSPECTION FOR BATS

PRIOR TO THE START OF DEMOLITION ACTIVITIES THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS OR NESTING BIRDS. IF ANY BATS OR BIRD NESTS ARE OBSERVED THE CONTRACTOR SHALL NOTIFY NICOLE HAFER-LIPSTREU IN THE DISTRICT 5 PLANNING DEPARTMENT @ (740) 323-5103 (NICOLE.HAFERLIPSTREU@DOT.OHIO.GOV), OR, BRIAN TATMAN @ (740) 323-5191 (BRIAN.TATMAN@DOT.OHIO.GOV) PRIOR TO STARTING ANY DEMOLITION WORK.

ELASTOMERIC BEARING PADS

THE ELASTOMERIC BEARING PAD SHALL BE PLACED AT THE REAR AND FORWARD ABUMENTS AS DETAILED IN THE PLAN. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARING WAS DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONGTERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED. THE DIMENSION PROVIDED FOR THE ELASTOMERIC BEARING PAD MAY NOT REQUIRE THE CONTRACTOR TO TRIM THE ENDS OF THE BEARING PAD TO PROPERLY FIT THE SKEWED ANGLES OF THE DIAPHRAGM. HOWEVER, IF TRIMMING IS REQUIRED, THE CONTRACTOR SHALL TRIM EACH ITEM 516 ELASTOMERIC BEARING PAD, MISC., BY MECHANICAL MEANS AS APPROVED BY THE ENGINEER. MITER CUT THE ENDS SO THAT THE BEARING PADS FIT FLUSH BETWEEN ADJOINING PHASES/VERTICAL WINGWALL SURFACES. OTHERWISE, PROVIDE SHORTER BEARING PADS AND PLACE A PROPER AMOUNT OF P.E.J.F. BETWEEN ADJOINING PHASES. ALL ASSOCIATED TIME LABOR AND MATERIALS TO PERFORM THIS FIELD WORK WILL BE INCIDENTAL TO ITEM 516 ELASTOMERIC BEARING PAD, MISC.

CUT LINE CONSTRUCTION JOINT PREPARATION

THE INTENT OF THIS PLAN IS TO ALLOW THE CONTRACTOR TO PERFORM FULL DEPTH SAW CUTS AT THE REMOVAL LINES FOLLOWED BY 1/4" SCARIFICATION TO THE REMAINING CUT LINE SURFACES. HOWEVER, AT THE CONTRACTOR'S OPTION FOR THE SUBSTRUCTURE REMOVALS, SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE. RE-STEEL NOT TO BE INCORPORATED IN THE PROPOSED CONCRETE SHALL BE MECHANICALLY CUT AT THE REMOVAL LINE.

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, INCLUDING THE REMOVAL OF ALL EXISTING CONCRETE DECK, PARAPETS, MEDIANS, BRIDGE RAILINGS, SCUPPERS WITH ATTACHMENTS, EXPANSION JOINTS, STEEL BULB ANGLE GUTTERS, AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND AS SHOWN IN THIS PLAN. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED, I.E. THE EXISTING PIERS. THE USE OF EXPLOSIVES, HEADACHE BALLS, HOE RAM TYPE EQUIPMENT, AND TRACK HOE PULVERIZER/SHEAR/MULTI-PROCESSOR ATTACHMENTS IS PROHIBITED WITHIN 5 FEET OF ANY EXISTING SUBSTRUCTURE THAT IS TO BE REUSED. ANY DAMAGE TO THE EXISTING SUBSTRUCTURE THAT IS TO BE REUSED SHALL BE REPAIRED/REPLACED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF TRAFFIC: THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2019 501.05.B.2.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF MATERIALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE).

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUBSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE EXISTING SUBSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER FOR ABUTMENT REMOVAL SHALL BE APPROVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS WILL NOT BE PERMITTED FOR ABUTMENT REMOVAL. RETAIN EXISTING PILES AT ABUTMENTS TO ELEVATIONS AS INDICATED IN PLANS.

EXISTING PIERS SHALL REMAIN IN PLACE AND UNDAMAGED DURING ADJACENT STRUCTURE REMOVALS.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUBSTRUCTURE.

ITEM 202 - APPROACH SLAB REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK SHALL INCLUDE THE REMOVAL OF ALL EXISTING APPROACH SLABS, ADJACENT CONCRETE CURB, AND CONCRETE MEDIAN BARRIER.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A SQ. YD. BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, APPROACH SLAB REMOVED, AS PER PLAN.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE TEMPORARY SHEET PILING USED FOR PHASE CONSTRUCTION SHALL HAVE A MINIMUM SECTION MODULOUS OF 27 IN^3 /FT OF WALL.

PAYMENT TO PERFORM THE TEMPORARY SHEET PILING SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE PROPOSED WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED. EXCAVATION AROUND PIER COLUMNS SHALL BE TO THE DEPTH OF THE TOP OF PIER FOOTINGS AND PROVIDE ADEQUATE AREA TO PERFORM THE WORK SHOWN IN THESE PLANS.

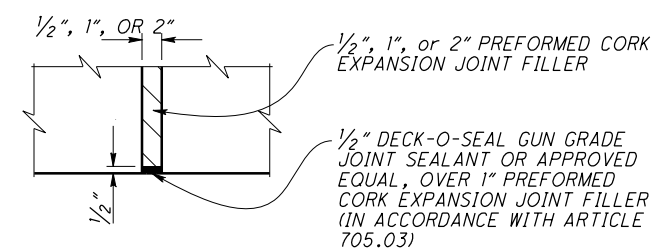
THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 516 - 1/2", 1", or 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1/2" P.E.J.F., 1" P.E.J.F, AND 2" P.E.J.F. CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER 1/2" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1/2" PEJF, A.P.P., SQ. FT. AND 1" PEJF, A.P.P., SQ. FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM 519 - COMPOSITE FIBER WRAP SYSTEM

REFER TO PROPOSAL NOTE 519 FOR ITEM SPECIFICATIONS NOT GIVEN HEREIN. THE REQUIRED CONFINING STRESS DUE TO FRP JACKET (F) WILL BE 0.150 FOR THE HEIGHT SHOWN ON SHEET 29/72 THRU 35/72. THE FINAL URETHANE (OR SYSTEM SPECIFIED) COATING SYSTEM APPLICATION COLOR SHALL BE FEDERAL COLOR FS-595C-16440: LIGHT GULL GRAY.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO CMS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, P-E-J.F., A.P.P., WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS UNLESS OTHERWISE NOTED IN THE PLAN. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE PROPOSED APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAILS SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

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BRIDGE NOTES
MUS-70-10-49
PID No. 93006
3/72
1690
2231
DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
REVIEWED DATE: 11/24/2020
TAG: 6002919
STRUCTURE FILE NUMBER:
DRAIN TDF:
CHECKED: CPS
REVISED:

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

AS-1-15	DATED/REVISED: 7/17/2015
AS-2-15	DATED/REVISED: 1/18/2019
CPA-1-08	DATED/REVISED: 7/18/2008
CPP-1-08	DATED/REVISED: 7/21/2017
CS-1-08	DATED/REVISED: 1/19/2018
GSD-1-19	DATED/REVISED: 1/18/2019
PCB-91	DATED/REVISED: 1/18/2013
SBR-1-13	DATED/REVISED: 7/20/2018
SBR-2-13	DATED/REVISED: 7/20/2018

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN DATA

ITEM 511 CLASS OC1 CONCRETE, SUBSTRUCTURE (ABUTMENT AND FOOTING)
 COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
 ITEM 511 CLASS OC2 CONCRETE, SUPERSTRUCTURE (DECK)
 COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
 REINFORCING STEEL - ASTM A615 OR A996, GRADE 60
 MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN LOADING

DESIGN LOADING: HL-93.
 FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

REFERENCE

EXISTING BRIDGE PLANS MAY BE INSPECTED AND ARE PROVIDED WITH THIS PROJECT'S BIDDING DOCUMENTS.

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 CMS SECTIONS 102.05, 105.02, AND 513.04.

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DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
 2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.

FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE PROPOSED APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAILS SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AT THE COMPLETION OF WORK FOR ALL PHASES OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE DISTRICT 5 SMOOTHNESS COORDINATOR.

PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

1. CLEAN, SWEEP, AND PREPARE THE FINAL DECK AND FINAL ROADWAY SURFACE.
2. MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
3. PERFORM GROOVING OF THE BRIDGE DECK.

INSPECTION FOR BATS

PRIOR TO THE START OF DEMOLITION ACTIVITIES THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS OR NESTING BIRDS. IF ANY BATS OR BIRD NESTS ARE OBSERVED THE CONTRACTOR SHALL NOTIFY NICOLE HAFER-LIPSTREU IN THE DISTRICT 5 PLANNING DEPARTMENT @ (740) 323-5103 (NICOLE.HAFERLIPSTREU@DOT.OHIO.GOV), OR, BRIAN TATMAN @ (740) 323-5191 (BRIAN.TATMAN@DOT.OHIO.GOV) PRIOR TO STARTING ANY DEMOLITION WORK.

ELASTOMERIC BEARING PADS

ELASTOMERIC BEARING PAD: THE ELASTOMERIC BEARING PAD SHALL BE PLACED AT THE REAR AND FORWARD ABUMENTS AS DETAILED IN THE PLAN. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARING WAS DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONGTERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED. THE DIMENSION PROVIDED FOR THE ELASTOMERIC BEARING PAD WILL ALLOW THE CONTRACTOR TO TRIM THE ENDS OF THE BEARING PAD TO PROPERLY FIT THE SKEWED ANGLES OF THE DIAPHRAGM. THE CONTRACTOR SHALL TRIM EACH ITEM 516 ELASTOMERIC BEARING PAD, MISC., BY MECHANICAL MEANS AS APPROVED BY THE ENGINEER. MITER CUT THE ENDS SO THAT THE BEARING PADS FIT FLUSH BETWEEN ADJOINING PHASES/VERTICAL WINGWALL SURFACES. ALL ASSOCIATED TIME LABOR AND MATERIALS TO PERFORM THIS FIELD WORK WILL BE INCIDENTAL TO ITEM 516 ELASTOMERIC BEARING PAD, MISC.

CUT LINE CONSTRUCTION JOINT PREPARATION

THE INTENT OF THIS PLAN IS TO ALLOW THE CONTRACTOR TO PERFORM FULL DEPTH SAW CUTS AT THE REMOVAL LINES FOLLOWED BY 1/4" SCARIFICATION TO THE REMAINING CUT LINE SURFACES. HOWEVER, AT THE CONTRACTOR'S OPTION FOR THE SUBSTRUCTURE REMOVALS, SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE. RE-STEEL NOT TO BE INCORPORATED IN THE PROPOSED CONCRETE SHALL BE MECHANICALLY CUT AT THE REMOVAL LINE.

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, INCLUDING THE REMOVAL OF ALL EXISTING CONCRETE DECK, PARAPETS, MEDIANS, BRIDGE RAILINGS, SCUPPERS WITH ATTACHMENTS, EXPANSION JOINTS, STEEL BULB ANGLE GUTTERS, AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND AS SHOWN IN THIS PLAN. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED, I.E. THE EXISTING PIERS. THE USE OF EXPLOSIVES, HEADACHE BALLS, HOE RAM TYPE EQUIPMENT, AND TRACK HOE PULVERIZER/SHEAR/MULTI-PROCESSOR ATTACHMENTS IS PROHIBITED WITHIN 5 FEET OF ANY EXISTING SUBSTRUCTURE THAT IS TO BE REUSED. ANY DAMAGE TO THE EXISTING SUBSTRUCTURE THAT IS TO BE REUSED SHALL BE REPAIRED/REPLACED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF TRAFFIC: THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2019 501.05.B.2.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF MATERIALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE).

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUBSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE EXISTING SUBSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER FOR ABUTMENT REMOVAL SHALL BE APPROVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS WILL NOT BE PERMITTED FOR ABUTMENT REMOVAL. RETAIN EXISTING PILES AT ABUTMENTS TO ELEVATIONS AS INDICATED IN PLANS.

EXISTING PIERS SHALL REMAIN IN PLACE AND UNDAMAGED DURING ADJACENT STRUCTURE REMOVALS.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUBSTRUCTURE.

ITEM 202 - APPROACH SLAB REMOVED, AS PER PLAN

THIS WORK CONSISTS OF THE REMOVAL OF ALL EXISTING APPROACH SLABS AND CONCRETE MEDIAN BARRIER.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A SQ. YD. BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, APPROACH SLABS REMOVED, AS PER PLAN.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE PROPOSED WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED. EXCAVATION AROUND PIER COLUMNS SHALL BE TO THE DEPTH OF THE TOP PIER FOOTING AND PROVIDE ADEQUATE AREA TO PERFORM THE WORK SHOWN IN THESE PLANS.

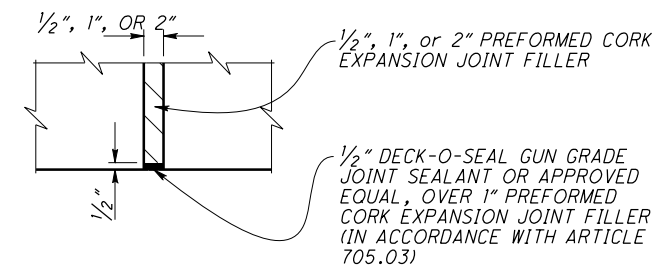
THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE I SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED ALSO BE ABLE TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE I BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 516 - 1/2" OR 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1/2" P.E.J.F., 1" P.E.J.F., AND 2" P.E.J.F. CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER 1/2" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
 P.O. BOX 397
 HAMPSHIRE, IL 60140
 PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1/2" PEJF, A.P.P., SO. FT. AND 1" PEJF, A.P.P., SO. FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO CMS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS UNLESS OTHERWISE NOTED IN THE PLAN. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

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DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	DATE 11/24/2020	STRUCTURE FILE NUMBER 6002943
	REVIEWED TAG	
DESIGNED YEL	DRAWN YEL	CHECKED CPS
BRIDGE NOTES 1 BRIDGE NO.: MUS-70-1199 OVER 7TH STREET		
MUS-70-10.49	PID No. 93006	
3 / 73		
1762 2231		

ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE AND PORTIONS OF THE EXISTING SUBSTRUCTURES AS INDICATED IN THE PLANS. THIS INCLUDES THE REMOVAL OF ALL EXISTING CONCRETE DECK, PARAPETS, MEDIANS, BRIDGE RAILINGS, SCUPPERS WITH ATTACHMENTS, STEEL BULB ANGLE GUTTERS AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND AS SHOWN IN THIS PLAN. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED, I.E. THE EXISTING PIERS. THE USE OF EXPLOSIVES, HEADACHE BALLS, HOE RAM TYPE EQUIPMENT, AND TRACK HOE PULVERIZER/SHEAR/MULTI-PROCESSOR ATTACHMENTS IS PROHIBITED WITHIN 5 FEET OF ANY EXISTING SUBSTRUCTURE THAT IS TO BE REUSED. ANY DAMAGE TO THE EXISTING SUBSTRUCTURE THAT IS TO BE REUSED SHALL BE REPAIRED/REPLACED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF TRAFFIC: THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2019 501.05.B.2.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF MATERIALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

INSPECTION FOR BATS

PRIOR TO THE START OF DEMOLITION ACTIVITIES THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS OR NESTING BIRDS. IF ANY BATS OR BIRD NESTS ARE OBSERVED THE CONTRACTOR SHALL NOTIFY NICOLE HAFER-LIPSTREU IN THE DISTRICT 5 PLANNING DEPARTMENT @ (740) 323-5103 (NICOLE.HAFERLIPSTREU@DOT.OHIO.GOV), OR, BRIAN TATMAN @ (740) 323-5191 (BRIAN.TATMAN@DOT.OHIO.GOV) PRIOR TO STARTING ANY DEMOLITION WORK.

ITEM 840 - SELECT GRANULAR BACKFILL, AS PER PLAN

SELECT GRANULAR BACKFILL, AS PER PLAN SHALL BE THE MATERIAL USED TO CONSTRUCT THE TEMPORARY WIRED FACED MECHANICALLY STABILIZED EARTH WALL AS BE SUPPLEMENT SPECIFICATION 867.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING ABUTMENTS IN ORDER TO PERFORM ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE EXISTING WINGWALLS AND EXTEND TO THE END OF THE EXISTING APPROACH SLABS AS DETAILED.

THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 202 - REMOVAL MISC.: TEMPORARY PIER SUPPORT

THIS ITEM SHALL INCLUDE TEMPORARY PIER SUPPORTS TO BE INSTALLED AT THE EXISTING PIERS. SEE SHEETS 4-6/12 AND 11-12/12 FOR DETAILS.

MATERIALS:
STEEL SHALL BE ASTM A36 OR BETTER. USED STRUCTURAL STEEL IN GOOD CONDITION MAY BE PROVIDED. HIGH STRENGTH (H.S.) BOLTS AND ANCHOR RODS SHALL BE NEW 1" DIA. OR 1 1/4" DIA. ASTM A325. ALL BOLTS AND ANCHOR RODS SET IN EXISTING CONCRETE SHALL BE PLACED AS PER C&M 510 USING NONSHRINK, NONMETALLIC GROUT.

CONSTRUCTION SEQUENCE:
TEMPORARY SUPPORTS SHALL BE INSTALLED PRIOR TO PHASE I REMOVALS.

REMOVAL OF SUPPORTS:
TEMPORARY SUPPORTS SHALL BE REMOVED ONLY DURING REMOVAL OF THE PORTION OF THE PIER THEY ARE AFFIXED TO. SEE SHEETS 11/12 FOR DETAILS.

WELDING:
THE CONTRACTOR MAY CHOOSE WHICH, IF ANY, WELDS ARE PERFORMED IN THE SHOP.

PAYMENT:
THIS ITEM SHALL INCLUDE ALL COSTS FOR STRUCTURAL STEEL, NUTS, BOLTS, WASHERS, PLATES, WELDING, CONCRETE, REINFORCING STEEL, AND ALL OTHER LABOR AND MATERIALS NEEDED TO INSTALL AND LATER PARTIALLY REMOVE TEMPORARY SUPPORTS.

ALL QUANTITIES SHOWN BELOW CARRIED TO THE GENERAL SUMMARY

MUS -70- 1066L	MUS -70- 1066R	MUS -70- 1089	MUS -70- 1159	MUS -70- 1186	MUS -70- 1192	MUS -70- 1199	MUS -70- 1212	MUS -70- 1306	MUS -70- 1144A	MUS -70- 1142E	MUS -70- 1142	MUS -70- 1186K	MUS -60D- 0005	MUS -60G- 0033	01/IMS/PV	02/IMS/BR	ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
ROADWAY																						
		1005		989	1037	1005	1065		327	360		414	557			6759	202	32800	6759	SO.YD.	CONCRETE SLOPE PROTECTION REMOVED	
								9345								9345	203	20000	9345	CU.YD.	EMBANKMENT	
306	306	530	756	599	507	559	367		169	171	196	132	138	241		4977	204	10000	4977	SO.YD.	SUBGRADE COMPACTION	
													1		1		606	60023	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), AS PER PLAN	2127
													12			12	622	24001	12	FEET	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (B)	2132
													1			1	622	25011	1	EACH	CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN (B)	2132
													1			1	622	25051	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN (B)	2132
EROSION CONTROL																						
933	933												451			2317	601	20000	2317	SO.YD.	CRUSHED AGGREGATE SLOPE PROTECTION	
2	2	2	2	1	1	2	2		1	1		1	1			18	601	20010	18	CU.YD.	CRUSHED AGGREGATE SLOPE PROTECTION	
				987	1025	1071	1065		332	365		414	557			5816	601	21000	5816	CU.YD.	CONCRETE SLOPE PROTECTION	
		52														52	601	21001	52	CU.YD.	CONCRETE SLOPE PROTECTION, AS PER PLAN	1397
PAVEMENT																						
51	51	89	137	95	80	93	82		28	29	33	30	42	451		1291	304	20000	1291	CU.YD.	AGGREGATE BASE	

BRIDGE NOTES

BRIDGE NO. MUS-70-1306
I.R. 70 OVER ABANDONED RAILROAD

MUS-70-10.49
PID No. 93006

2 / 12

1908
2231

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION DISTRICT 5

DATE
11/20/20

REVIEWED TAG
11/20/20

DRAWN JKS
REVISOR

DESIGNED JKS
CHECKED CPS

STRUCTURE FILE NUMBER
6003036

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STANDARD DRAWINGS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

- AS-1-15 DATED: 07-17-15
- AS-2-15 DATED: 01-18-19
- BR-1-13 DATED: 01-17-14
- SIGD-1-96 DATED: 07-18-14
- SIGD-2-14 DATED: 07-18-14

REFERENCE

EXISTING BRIDGE PLANS MAY BE INSPECTED AND ARE PROVIDED WITH THIS PROJECT'S BIDDING DOCUMENTS.

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 8th EDITION OF STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2018, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN LOADING

HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 kips/ft²

DESIGN DATA

- CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPER STRUCTURE)
- CONCRETE CLASS OC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUB STRUCTURE)
- REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI
- STRUCTURAL STEEL - ASTM A709, GRADE 33, MINIMUM YIELD STRENGTH 33 KSI

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

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, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE BID 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.

INSPECTION OF EXISTING STRUCTURAL STEEL

THE ENGINEER WILL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THE WELDS, PLATES AND GIRDERS ARE FREE OF DEFECTS AND CRACKS. IF NECESSARY, REMOVE ALL DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS THAT MAY INTERFERE WITH THE ENGINEER'S INSPECTION. THE INSPECTION WILL NOT TAKE PLACE UNTIL THE TOP FLANGES ARE CLEANED ACCORDING TO 511.07, BUT IT WILL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE DEPARTMENT WILL PAY FOR THE COST ASSOCIATED WITH THIS INSPECTION WITH ITEM 511, QC/OA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN. THE ENGINEER WILL REPORT ALL CRACKS FOUND TO THE OFFICE OF CONSTRUCTION ADMINISTRATION, BRIDGE CONSTRUCTION SPECIALIST, ALONG WITH SPECIFIC INFORMATION ON LOCATION OF THE CRACKS, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

WELDED ATTACHMENTS

WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.

ELASTOMERIC BEARINGS

THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED (SUPERSTRUCTURE), AS PER PLAN

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING PARAPETS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSS FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (STEEL BEAM STEEL GIRDER), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURE MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. FOR MODIFICATIONS TO OR EXTENSIONS OF EXISTING CONCRETE SUBSTRUCTURE MEMBERS WHERE AESTHETICS IS A CONCERN, INCLUDE THE FOLLOWING NOTES IN AN ITEM 202, AS PER PLAN NOTE.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED (SUBSTRUCTURE), AS PER PLAN

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTION TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

ABUTMENT DIAPHRAGM CONCRETE

PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET.

DECK SLAB CONCRETE QUANTITY

THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRAD.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.23.

DECK PLACEMENT DESIGN ASSUMPTIONS

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.2 KIPS FOR A TOTAL MACHINE LOAD OF 17.6 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48".

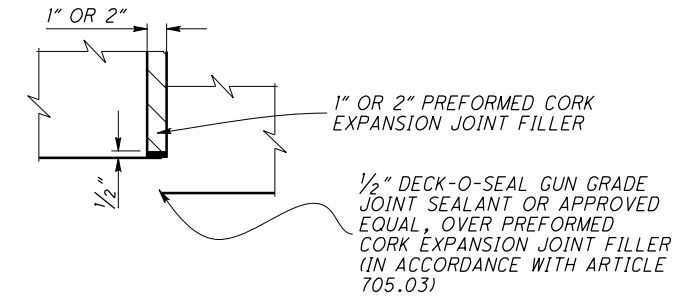
A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1" & 2" P.E.J.F. CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER 1/2" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1" OR 2" PEJF, A.P.P., SQ.FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN: ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS-BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED, ALONG WITH MICROFILM, TO THE OFFICE OF STRUCTURAL ENGINEERING FOR RECORD PURPOSES. THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM: STIFFENER PLATES AND END CROSS FRAMES.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO C&MS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, CURBS, REINFORCING STEEL, JOINT FILLERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS. IN ADDITION TO 511.07, DO NOT PLACE APPROACH SLAB CONCRETE ABOVE THE APPROACH SLAB SEAT UNTIL AFTER THE DECK AND DIAPHRAGM CONCRETE FOR THE SUPERSTRUCTURE HAS BEEN PLACED. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE NEW APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAIL SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE EDGES OF THE APPROACH SLAB.

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DESIGNED YEL TAG	CHECKED TAG	DRAWN YEL REVISED	REVIEWED TAG	DATE	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
			STRUCTURE FILE NUMBER	6001890	
BRIDGE NOTES					
BRIDGE NO.: MUS-70-1142E RAMP 'E' OVER MCINTIRE AVE.					
MUS-70-10-49					
PID No. 93006					
3 / 44					
1966 2231					

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SHEET NUM.						PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			24	31		02/IMS/B R								
STRUCTURE OVER 20 FOOT SPAN (MUS-70-1142E or SFN6001890)														
						LS		202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (SUPERSTRUCTURE)	3	
						105		202	11301	105	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURES)	3	
						103		202	22900	103	SY	APPROACH SLAB REMOVED		
						LS		503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	44	
						61,871		509	10000	61,871	LB	EPOXY COATED REINFORCING STEEL		
						197		511	21520	197	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE		
						2		511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE		
						46		511	34448	46	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)		
						116		511	43510	116	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING		
						451		512	10050	451	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)		
						71		512	10100	71	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
			951	2,878		3,829		513	10201	3,829	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	3	
						2,010		513	20000	2,010	EACH	WELDED STUD SHEAR CONNECTORS		
						6,911		514	00050	6,911	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL		
						6,911		514	00056	6,911	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT		
						6,911		514	00060	6,911	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT		
						6,911		514	00066	6,911	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT		
						9		514	10000	9	EACH	FINAL INSPECTION REPAIR		
						12		516	13601	12	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3	
						180		516	13901	180	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3	
						95		516	14020	95	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL		
						71		516	14600	71	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	44	
						71		516	31011	71	FT	2" DEEP JOINT SEALER, AS PER PLAN	4	
						10		516	44300	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (10" x 1'-2" x 3.2729")	29	
						5		516	44300	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-3" x 1'-6" x 3.7226")	29	
						5		516	44300	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-3" x 1'-6" x 3.7226") WITH ANCHOR RODS	29	
						LS		516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	4	
						6		518	12000	6	EACH	SCUPPERS, INCLUDING SUPPORTS		
						41		518	21200	41	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC		
						72		518	40000	72	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		
						72		518	40010	72	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		
						639		SPECIAL	51900100	639	SF	COMPOSITE FIBER WRAP SYSTEM	4	
						171		526	25001	171	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	3	
						79		613	41201	79	CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	4	

MUS-70-10.49	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
PID No. 93006	REVIEWED DATE TAG 11/27/2020 STRUCTURE FILE NUMBER 6001890
5 / 44	DRAWN YEL YEL REVIS TAG
1968 2231	PARAPET DETAILS BRIDGE NO.: MUS-70-1142E RAMP 'E' OVER MCINTIRE AVE.

MUS-70-1142 (RAMP E) BRIDGE SUMMARY - 06/IMS/BR										CALC: RSN	CHECK: AH
ITEM	ITEM EXT.	TOTAL QUANTITY	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER	GENERAL	APP/REF SHEET NO.		
202	11003	LS	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	3		
202	22900	150	SY	APPROACH SLAB REMOVED	150						
204	30010	2,580	CY	GRANULAR MATERIAL, TYPE B	2,580						
503	11100	LS	LS	COFFERDAMS AND EXCAVATION BRACING				LS			
503	21100	140	CY	UNCLASSIFIED EXCAVATION		140					
503	21301	LS	LS	UNCLASSIFIED EXCAVATION, AS PER PLAN	LS				4		
505	11100	LS	LS	PILE DRIVING EQUIPMENT MOBILIZATION				LS			
507	00100	2,170	FT	STEEL PILES HP10X42, FURNISHED	2,170						
507	00150	1,940	FT	STEEL PILES HP10X42, DRIVEN	1,940						
507	00200	540	FT	STEEL PILES HP12X53, FURNISHED		540					
507	00250	450	FT	STEEL PILES HP12X53, DRIVEN		450					
507	93300	64	EACH	STEEL POINTS OR SHOES	46	18					
509	10001	110,224	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	25,532	18,786	65,906		4		
511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN			2		12		
511	34446	230	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			230				
511	34463	80	CY	CLASS QC SSC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			80		3		
511	40512	90	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		90					
511	44112	80	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	80						
511	46512	204	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	145	59					
512	10050	1392	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	694	153	545				
512	10300	20	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN			20				
513	10301	260,013	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN			260,013		3		
513	20000	2,148	EACH	WELDED STUD SHEAR CONNECTORS			2,148				
514	00061	16,900	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			16,900		4		
514	00067	16,900	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			16,900		4		
514	10000	12	EACH	FINAL INSPECTION REPAIR			12				
516	13601	20	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN			20		4		
516	13901	156	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	156				4		
516	14020	109	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	109						
516	14600	76	FT	STRUCTURE JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB			76		40		
518	21200	45	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	45						
518	40000	645	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	645						
518	40010	20	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	20						
526	30010	200	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")	200						
530	00200	LS	LS	STRUCTURES - VIBRATION MONITORING				LS	3		
530	00200	LS	LS	STRUCTURES - PRECONSTRUCTION CONDITION SURVEY				LS	4		
530	00600	7,275	SF	STRUCTURES - AESTHETIC TREATMENT (CONCRETE FORMLINER/STAIN)	5,720		1,555		3		
613	41201	240	CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	240				4		
840	20001	6,392	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	6,392				43		
840	21000	5,649	CY	WALL EXCAVATION	5,649						
840	22001	595	SY	FOUNDATION PREPARATION, AS PER PLAN	595				46		
840	23000	3,435	CY	SELECT GRANULAR BACKFILL	3,435						
840	26000	345	FT	CONCRETE COPING	345						
840	27000	5	DAY	ON-SITE ASSISTANCE	5						
869	00101	12	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS, AS PER PLAN	8	4			21, 22		

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS", ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017 (EIGHTH EDITION), AND THE ODOT BRIDGE DESIGN MANUAL, 2020, EXCEPT AS NOTED ELSEWHERE IN THE PLANS.

REFERENCED SUPPLEMENTAL SPECIFICATIONS

840 -----DATED 01-17-2020

DESIGN LOADING

HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KSF

DESIGN DATA

CONCRETE

COPING, CLASS QCI: $F'_c = 4.0$ KSI

REINFORCING STEEL

REINFORCING STEEL, ASTM A615 OR A996: MINIMUM $F_y = 60$ KSI

DESIGN SUBMITTALS

THE CONTRACTOR IS HEREBY NOTIFIED THAT THE MECHANICALLY STABILIZED EARTH (MSE) WALL SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS PROVIDED IN SUPPLEMENTAL SPECIFICATION 840. AFTER THE AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT MSE WALL DETAIL DESIGN PLANS (4 SETS), DESIGN CALCULATIONS (2 SETS), AND SHOP DRAWINGS PER 501.04 TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL BY THE DIRECTOR. THE PLANS FOR MSE WALL SHALL BE PREPARED BY AN APPROVED MSE WALL SUPPLIER LISTED IN SUPPLEMENTAL SPECIFICATION 840. THE PLANS SHALL BE SUBMITTED EIGHT WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OF THE MSE WALL AND THE CONTRACTOR SHALL ALLOW FOUR WEEKS FOR THE REVIEW BY ODOT.

PROPRIETARY MSE WALL DATA

THE PROPRIETARY WALL SUPPLIER SHALL DESIGN THE INTERNAL STABILITY OF MSE WALL IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 840 TO SUPPORT THE ABUTMENT. THE DESIGN FOR INTERNAL STABILITY SHALL INCLUDE AN UNFACTORED HORIZONTAL STRIP LOAD FROM THE SUPERSTRUCTURE OF 2.0 K/FT APPLIED PERPENDICULAR TO THE FACE OF WALL AT A POINT HALF THE HEIGHT OF THE CONCRETE FOOTING.

FACTORED BEARING RESISTANCE

THE FACTORED BEARING RESISTANCE FOR THE DESIGN OF REAR ABUTMENT MSE WALL IS 15.5 KSF AND 15.2 KSF FOR THE FORWARD ABUTMENT MSE WALL.

UNDERCUT AND BACKFILL

PRIOR TO CONSTRUCTION OF THE MSE WALL, THE EXISTING IN-SITU SOILS, SHALL BE REMOVED AND THE RESULTING EXCAVATION SHALL BE BACKFILLED WITH EITHER GRANULAR MATERIAL TYPE B OR GRANULAR MATERIAL TYPE C TO THE ELEVATION OF THE BOTTOM OF THE MASE WALL LEVELING PAD. THE SOIL SHOULD BE OVEREXCAVATED TO AT LEAST ELEVATION 700.00 AT THE REAR ABUTMENT AND 701.00 AT THE FORWARD. IF SOFT OR LOOSE SOILS ARE ENCOUNTERED BELOW THESE ELEVATIONS, THE OVEREXCAVATION MAY NEED TO EXTEND DEEPER. THE LIMITS SHOULD BE VERIFIED AND ADJUSTED AFTER RECEIVING THE FINAL MSE WALL DRAWINGS.

MINIMUM SOIL REINFORCEMENT LENGTH

THE MINIMUM SOIL REINFORCEMENT LENGTH AT REAR ABUTMENT MSE WALL AND FORWARD ABUTMENT MSE WALL IS 70% OF THE WALL HEIGHT.

SEALING OF CONCRETE SURFACES (NON-EPOXY, CLEAR)

SURFACES OF THE MSE WALL PANELS AND ASSOCIATED COMPONENTS AS DETAILED IN THE PLANS, SHALL BE SEALED WITH A NON-EPOXY CLEAR SEALER AS PER CMS 512. ALL MATERIAL AND WORK ASSOCIATED WITH THIS ITEM IS INCIDENTAL TO ITEM 840 - MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN.

REINFORCING STEEL

UPON THE WALL MANUFACTURER'S MSE WALL DESIGN, AND AS DESCRIBED IN THE PLANS AND SS 840, FURNISH AND INSTALL POXY COATED REINFORCING STEEL ACCORDING TO CMS 509 ND INCIDENTAL TO ITEM 840 - MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN.

ITEM SPECIAL - 530 - STRUCTURE: AESTHETIC TREATMENT (CONCRETE FORMLINER/STAIN)

THE SURFACE FINISH SHALL BE ONE OF THE PATTERNS DESCRIBED BELOW IN THE ARCHITECTURAL SURFACE ELEVATION AND TABLE FROM AN APPROVED COMPANY MEETING THE DETAILS SHOWN ON THIS PAGE.

THE STAINING OF THE PATTERNED CONCRETE SURFACES SHALL BE DONE PRIOR TO APPLICATION OF ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY). THE STAIN COLORED CONCRETE, USING LITHOCHROME TINTURA STAIN, SHALL BE LAYERED TO ACHIEVE A VARIEGRATED AFFECT USING COLORS AS PROVIDED BY L.M. SCOFIELD COMPANY, DOUGLASVILLE, GEORGIA (800) 800-9900 OR APPROVED EQUAL. A VARYING COMBINATION OF COLORS SHALL BE UTILIZED IN ORDER TO BEST DUPLICATE THE APPEARANCE OF INDIGENOUS SANDSTONE. THE STAIN SHALL BE APPLIED BY AN AIR APPLIED, EVEN AND CONTROLLED, METHOD AS RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER. THE CONTRACTOR WILL NOT ALLOW OVERSPRAY OR RUNS TO RUIN THE APPEARANCE OF THE ADJACENT CONCRETE, WHICH SHALL REMAIN UNSTAINED. SEE AESTHETIC DETAIL SHEETS FOR THE LOCATION OF THE SURFACES TO BE STAINED.

THE CONTRACTOR OR AN APPROVED SUB-CONTRACTOR MUST SUPPLY DOCUMENTATION STATING THAT THEY HAVE AT LEAST 5 YEARS EXPERIENCE IN CONCRETE STAINING WITH PAST WORK REFERENCES CITED.

GENERAL PARAMETERS OF THE PATTERNED SURFACE TEXTURE AND COLOR ARE GIVEN HEREIN; HOWEVER, FINAL BASIS FOR APPROVAL WILL BE PROVIDED BY A EXISTING BRIDGE EXAMPLE. THE PHYSICAL LOCATION OF THIS EXAMPLE IS:

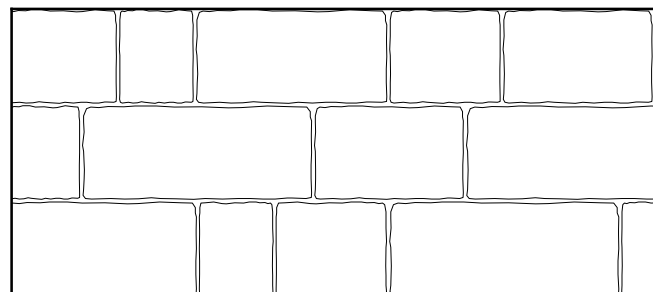
BRIDGE NO. COS-541-19.18
SFN: 1602404
COSHOCOTON, OH 43812
COORDINATES = 40.2751760, -81.8763820

ALL CONCRETE WORK MUST BE COMPLETED AND CURED FOR A MINIMUM OF 28 DAYS BEFORE THE STAIN IS APPLIED. SURFACE PREPARATION SHALL BE AS PER CMS 512.03 F

TWO FULL SCALE, DIFFERENTLY PATTERNED, STAINED AND SEALED, PRECONSTRUCTION TEST PANELS SHALL BE PROVIDED FOR APPROVAL BY THE DIRECTOR. IF THE TEST PANELS DO NOT MEET THE APPROVAL OF THE DIRECTOR, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED PANEL SURFACE CHOSEN. THE TEST PANELS WILL BE PROVIDED REPEATEDLY, AS NECESSARY, UNTIL APPROVAL IS GRANTED. FIVE FEET BY FIVE FEET TEST PANELS SHALL BE PROVIDED. THE MOCK-UPS SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS, PATTERN, AND COLOR/SEALANT INTENDED TO BE USED ON THE PROJECT. THE PANELS SHALL BE OF THE SAME CEMENT, AGGREGATE SOURCE, AND CONCRETE SEALANT THAT WILL BE USED TO CONSTRUCT THE PROJECT. AFTER APPROVAL THE CONCRETE TEST PANELS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

MEASUREMENT: ITEM SPECIAL 530 STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN) SHALL BE MEASURED IN SQ. FT. AND SHALL BE DEFINED BY THE AREAS THAT ARE DETAILED FOR THE APPROVED PATTERNED AREA.

ALL WORK INCLUDING SURFACE PREPARATION, STAINING AND OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE ITEMIZED PAYMENT FOR ITEM SPECIAL 530 STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN).



ARCHITECTURAL SURFACE - ELEVATION

ITEM SPECIAL - 530 - STRUCTURE: AESTHETIC TREATMENT (CONCRETE FORMLINER/STAIN) (CONTINUED)

THE FOLLOWING SHALL BE USED:
THE PATTERN AND TEXTURE SHALL DUPLICATE THE APPEARANCE OF RECTANGULAR CUT AND HAND HEWN SANDSTONE THAT IS DRY LAID (WITH NO MORTAR JOINTS). THE BRIDGE RAILING SHALL HAVE 3 COURSES WITH A TOTAL HEIGHT EQUALING 3 FT. TYPICAL STONE/COURSING HEIGHTS AT THE ABUTMENTS SHALL VARY (SEE PLAN DETAILS PERTAINING TO THESE). THE PATTERN SHALL BE RANDOMIZED WITHIN THE WORK AREA.

THE FOLLOWING FORMLINER SHALL BE USED:

COMPANY NAME:	PANEL SURFACE TREATMENT:	SPECIFICATIONS:
SPEC FORMLINERS, INC.	RECTANGULAR CUT, HAND HEWN, & DRY LAID SANDSTONE (CUSTOM)	MAX RELIEF 1 1/2" AVERAGE RELIEF 1" STONE LENGTHS 1' TO 3'
CUSTOM ROCK INTERNATIONAL	RECTANGULAR CUT, HAND HEWN, & DRY LAID SANDSTONE (CUSTOM)	MAX RELIEF 1 1/2" AVERAGE RELIEF 1" STONE LENGTHS 1' TO 3'
APPROVED EQUAL	APPROVED EQUAL	APPROVED EQUAL

AESTHETIC WORK ON BRIDGE NO. MUS-70-1142 AND ALL OTHER BRIDGES WITH AESTHETIC RAILING AS DETAILED IN THESE PLANS SHALL MATCH IDENTICALLY.

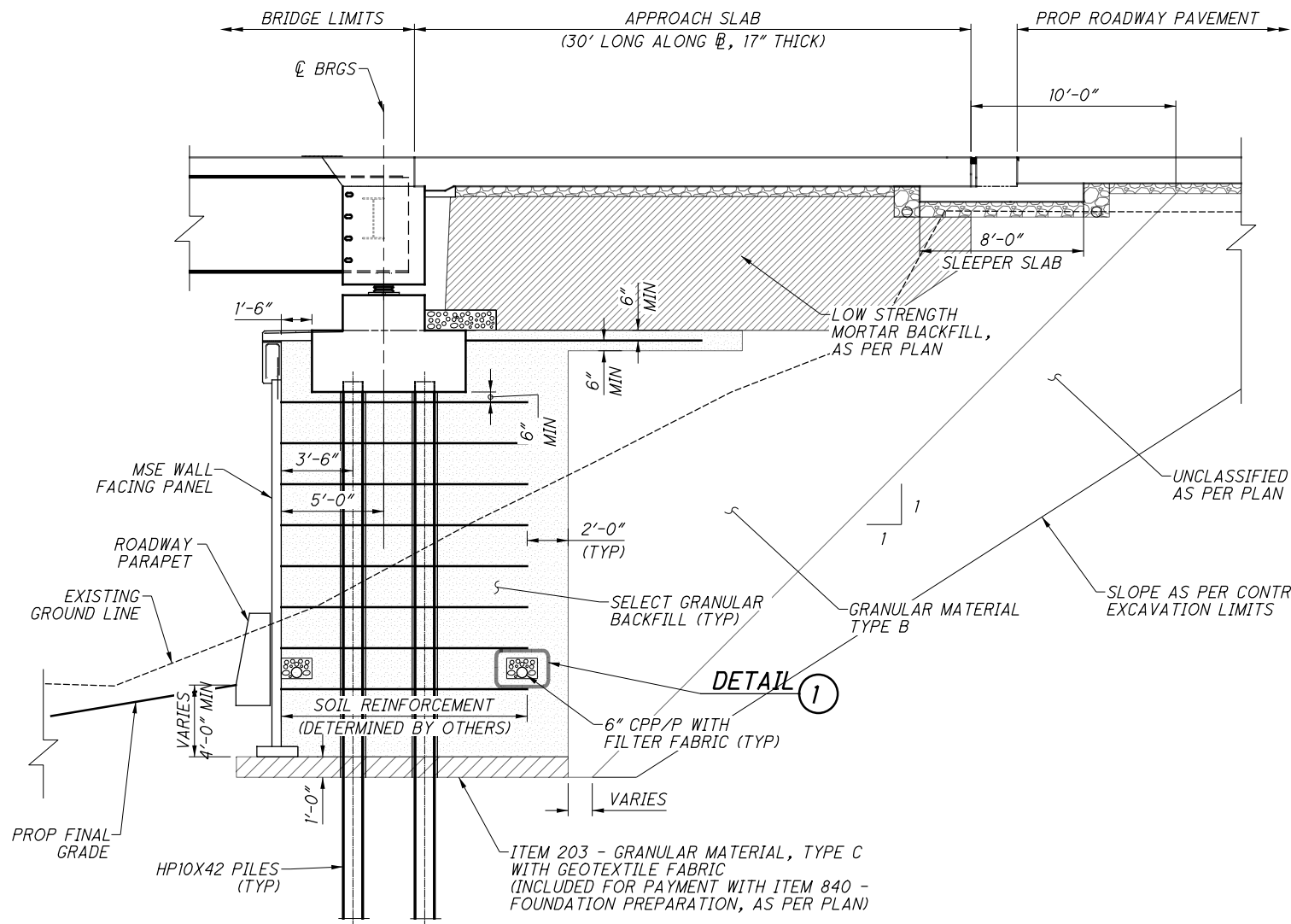
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DESIGN AGENCY
GannettFleming
ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

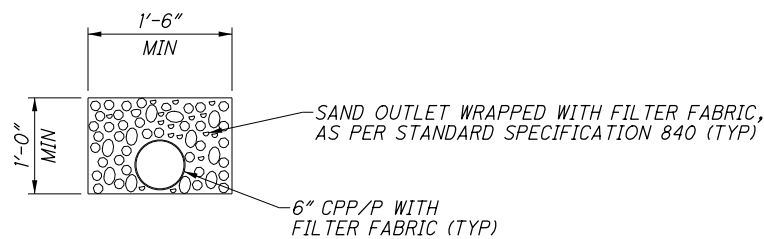
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REVIEWED
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12/2020
STRUCTURE FILE NUMBER
6002766

MSE WALL NOTES
BRIDGE NO. MUS-70-1142
UNDER RAMP E

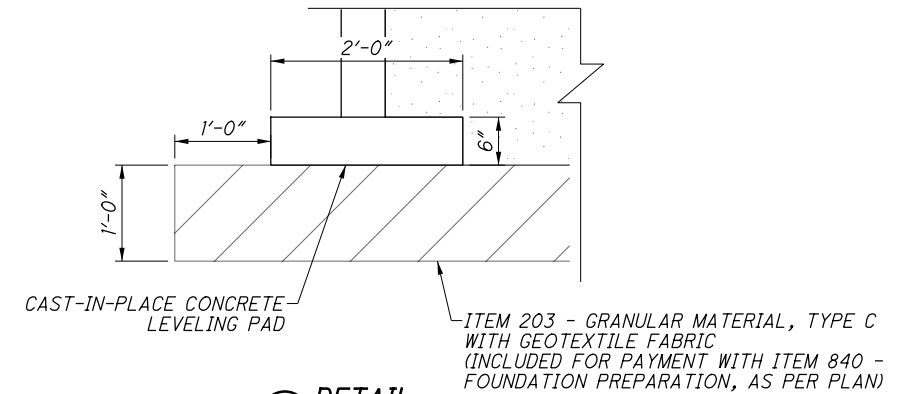
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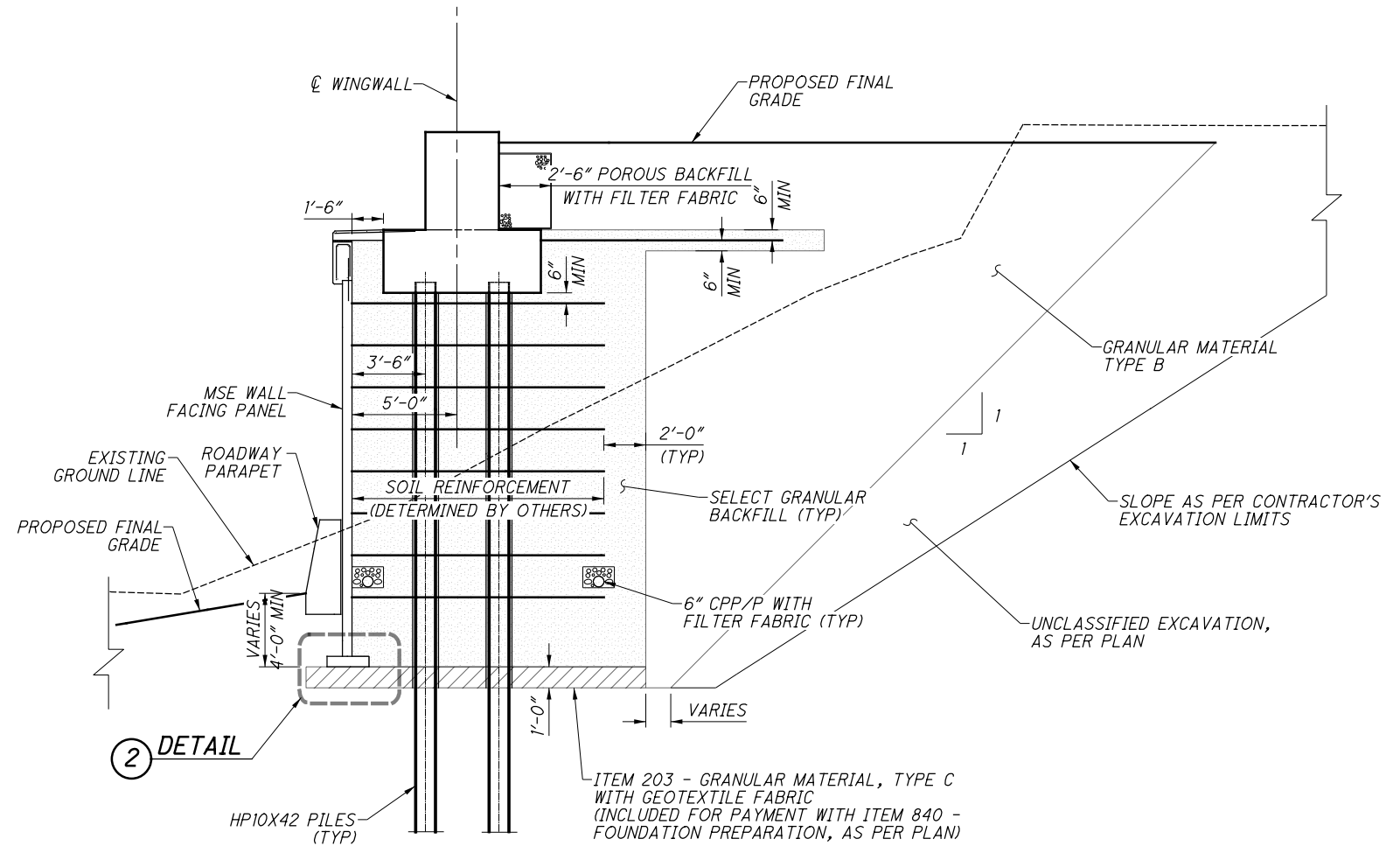
MSE WALL TYPICAL SECTION AT ABUTMENT



1 DETAIL
PIPE DRAINAGE DETAILS



2 DETAIL
LEVELING PAD DETAILS



MSE WALL TYPICAL SECTION AT WINGWALL

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

AS-1-15	DATED/REVISED: 7/17/2015
AS-2-15	DATED/REVISED: 1/18/2019
CPA-1-08	DATED/REVISED: 7/18/2008
CPP-1-08	DATED/REVISED: 7/21/2017
CS-1-08	DATED/REVISED: 1/19/2018
GSD-1-19	DATED/REVISED: 1/18/2019
PCB-91	DATED/REVISED: 7/17/2020
SBR-1-13	DATED/REVISED: 7/20/2018
HL-20.14	DATED/REVISED: 4/17/2020

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN DATA

ITEM 511 CLASS OC1 CONCRETE, SUBSTRUCTURE (ABUTMENT AND FOOTING)
 COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
 ITEM 511 CLASS OC2 CONCRETE, SUPERSTRUCTURE (DECK)
 COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
 REINFORCING STEEL - ASTM A615 OR A996, GRADE 60
 MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN LOADING

DESIGN LOADING: HL-93.
FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

REFERENCE

EXISTING BRIDGE PLANS MAY BE INSPECTED AND ARE PROVIDED WITH THIS PROJECT'S BIDDING DOCUMENTS.

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 CMS SECTIONS 102.05, 105.02, AND 513.04.

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.

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.

FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE PROPOSED APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAILS SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

ITEM 202 APPROACH SLAB REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK SHALL INCLUDE THE REMOVAL OF ALL EXISTING APPROACH SLABS, AND ADJACENT CONCRETE CURB.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A SQ. YD. BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, APPROACH SLAB REMOVED, AS PER PLAN.

ELASTOMERIC BEARING PADS

ELASTOMERIC BEARING PAD: THE ELASTOMERIC BEARING PAD SHALL BE PLACED AT THE REAR AND FORWARD ABUMENTS AS DETAILED IN THE PLAN. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARING WAS DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONGTERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED. THE DIMENSION PROVIDED FOR THE ELASTOMERIC BEARING PAD WILL ALLOW THE CONTRACTOR TO TRIM THE ENDS OF THE BEARING PAD TO PROPERLY FIT THE SKEWED ANGLES OF THE DIAPHRAGM. THE CONTRACTOR SHALL TRIM EACH ITEM 516 ELASTOMERIC BEARING PAD, MISC., BY MECHANICAL MEANS AS APPROVED BY THE ENGINEER. MITER CUT THE ENDS SO THAT THE BEARING PADS FIT FLUSH BETWEEN ADJOINING PHASES/VERTICAL WINGWALL SURFACES. ALL ASSOCIATED TIME LABOR AND MATERIALS TO PERFORM THIS FIELD WORK WILL BE INCIDENTAL TO ITEM 516 ELASTOMERIC BEARING PAD, MISC.

CUT LINE CONSTRUCTION JOINT PREPARATION

THE INTENT OF THIS PLAN IS TO ALLOW THE CONTRACTOR TO PERFORM FULL DEPTH SAW CUTS AT THE REMOVAL LINES FOLLOWED BY 1/4" SCARIFICATION TO THE REMAINING CUT LINE SURFACES. HOWEVER, AT THE CONTRACTOR'S OPTION FOR THE SUBSTRUCTURE REMOVALS, SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE. RE-STEEL NOT TO BE INCORPORATED IN THE PROPOSED CONCRETE SHALL BE MECHANICALLY CUT AT THE REMOVAL LINE.

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, INCLUDING THE REMOVAL OF ALL EXISTING CONCRETE DECK, PARAPETS, MEDIANS, BRIDGE RAILINGS, SCUPPERS WITH ATTACHMENTS, EXPANSION JOINTS, STEEL BULB ANGLE GUTTERS, AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND AS SHOWN IN THIS PLAN. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED, I.E. THE EXISTING PIERS. THE USE OF EXPLOSIVES, HEADACHE BALLS, HOE RAM TYPE EQUIPMENT, AND TRACK HOE PULVERIZER/SHEAR/MULTI-PROCESSOR ATTACHMENTS IS PROHIBITED WITHIN 5 FEET OF ANY EXISTING SUBSTRUCTURE THAT IS TO BE REUSED. ANY DAMAGE TO THE EXISTING SUBSTRUCTURE THAT IS TO BE REUSED SHALL BE REPAIRED/REPLACED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF TRAFFIC: THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2019 501.05.B.2.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF MATERIALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE).

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUBSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE EXISTING SUBSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER FOR ABUTMENT REMOVAL SHALL BE APPROVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS WILL NOT BE PERMITTED FOR ABUTMENT REMOVAL. RETAIN EXISTING PILES AT ABUTMENTS TO ELEVATIONS AS INDICATED IN PLANS.

EXISTING PIERS SHALL REMAIN IN PLACE AND UNDAMAGED DURING ADJACENT STRUCTURE REMOVALS.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUBSTRUCTURE.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE TEMPORARY SHEET PILING USED FOR PHASE CONSTRUCTION SHALL HAVE A MINIMUM SECTION MODULOUS OF 27 IN³/FT OF WALL.

PAYMENT TO PERFORM THE TEMPORARY SHEET PILING SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE PROPOSED WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED. EXCAVATION AROUND PIER COLUMNS SHALL BE TO THE DEPTH OF THE TOP PIER FOOTING AND PROVIDE ADEQUATE AREA TO PERFORM THE WORK SHOWN IN THESE PLANS.

THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

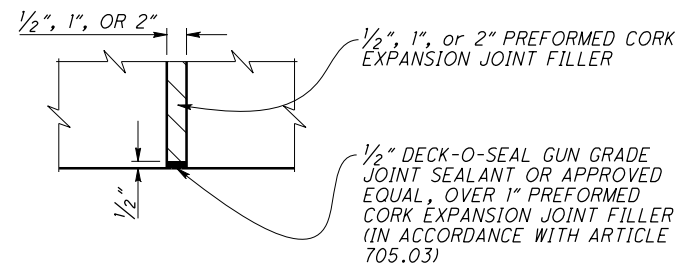
ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN

A 2" DEEP X 1" WIDE STRIP SHALL BE SAWCUT OUT OF THE APPROACH ASPHALT ABUTTING THE SLEEPER SLAB AFTER THE FINAL SURFACE HAS BEEN CONSTRUCTED. JOINT SEALER AS PER 705.04 SHALL BE USED TO SEAL THE JOINT CREATED.

ITEM 516 - 1/2", 1", OR 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1/2" P.E.J.F., 1" P.E.J.F., AND 2" P.E.J.F. CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER 1/2" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS WITH DECK-O-SEAL GUN GRADE JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1/2" PEJF, A.P.P., SQ. FT. AND 1" PEJF, A.P.P., SQ. FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM 519 - COMPOSITE FIBER WRAP SYSTEM

REFER TO PROPOSAL NOTE 519 FOR ITEM SPECIFICATIONS NOT GIVEN HEREIN. THE REQUIRED CONFINING STRESS DUE TO FRP JACKET (F) WILL BE 0.150 FOR THE HEIGHT SHOWN ON SHEET 17/35 & 18/35. THE FINAL URETHANE (OR SYSTEM SPECIFIED) COATING SYSTEM APPLICATION COLOR SHALL BE FEDERAL COLOR FS-595C-16440: LIGHT GULL GRAY.

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DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
	DATE	12/4/2020
REVIEWED	CPS	STRUCTURE FILE NUMBER 600866
DRAWN	CPS	REVISION
DESIGNED	CPS	CHECKED TAG
BRIDGE NOTES		
BRIDGE NO. MUS-70-1186K		
RAMP 'K' OVER 5TH STREET		
MUS-70-10.49		
PID No. 93006		
3 / 35		
2057 2231		

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

AS-1-15	DATED/REVISED: 7/17/2015
AS-2-15	DATED/REVISED: 1/18/2019
CPA-1-08	DATED/REVISED: 7/18/2008
CPP-1-08	DATED/REVISED: 7/21/2017
CS-1-08	DATED/REVISED: 1/19/2018
GSD-1-19	DATED/REVISED: 1/18/2019
PCB-91	DATED/REVISED: 7/17/2020
SBR-1-13	DATED/REVISED: 7/20/2018

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN DATA

ITEM 511 CLASS OC1 CONCRETE, SUBSTRUCTURE (ABUTMENT AND FOOTING)
 COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
 ITEM 511 CLASS OC2 CONCRETE, SUPERSTRUCTURE (DECK)
 COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
 REINFORCING STEEL - ASTM A615 OR A996, GRADE 60
 MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN LOADING

DESIGN LOADING: HL-93.
FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

REFERENCE

EXISTING BRIDGE PLANS MAY BE INSPECTED AND ARE PROVIDED WITH THIS PROJECT'S BIDDING DOCUMENTS.

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 CMS SECTIONS 102.05, 105.02, AND 513.04.

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.

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINWALLS.

FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE PROPOSED APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAILS SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

INSPECTION FOR BATS

PRIOR TO THE START OF DEMOLITION ACTIVITIES, THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS. THE CONTRACTOR SHALL NOTIFY NICOLE HAFER-LIPSTREU (Nicole.HaferLipsTreu@dot.ohio.gov) @ (740) 323-5103 OR BRIAN TATMAN (brian.tatman@dot.ohio.gov) @ (740) 323-5191 IN THE DISTRICT 5 PLANNING DEPARTMENT OF THE RESULTS OF THE INSPECTION.

ELASTOMERIC BEARING PADS

ELASTOMERIC BEARING PAD: THE ELASTOMERIC BEARING PAD SHALL BE PLACED AT THE REAR AND FORWARD ABUMENTS AS DETAILED IN THE PLAN. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARING WAS DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONGTERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED. THE DIMENSION PROVIDED FOR THE ELASTOMERIC BEARING PAD WILL ALLOW THE CONTRACTOR TO TRIM THE ENDS OF THE BEARING PAD TO PROPERLY FIT THE SKEWED ANGLES OF THE DIAPHRAGM. THE CONTRACTOR SHALL TRIM EACH ITEM 516 ELASTOMERIC BEARING PAD, MISC., BY MECHANICAL MEANS AS APPROVED BY THE ENGINEER. MITER CUT THE ENDS SO THAT THE BEARING PADS FIT FLUSH BETWEEN ADJOINING PHASES/VERTICAL WINGWALL SURFACES. ALL ASSOCIATED TIME LABOR AND MATERIALS TO PERFORM THIS FIELD WORK WILL BE INCIDENTAL TO ITEM 516 ELASTOMERIC BEARING PAD, MISC.

CUT LINE CONSTRUCTION JOINT PREPARATION

THE INTENT OF THIS PLAN IS TO ALLOW THE CONTRACTOR TO PERFORM FULL DEPTH SAW CUTS AT THE REMOVAL LINES FOLLOWED BY 1/4" SCARIFICATION TO THE REMAINING CUT LINE SURFACES. HOWEVER, AT THE CONTRACTOR'S OPTION FOR THE SUBSTRUCTURE REMOVALS, SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE. RE-STEEL NOT TO BE INCORPORATED IN THE PROPOSED CONCRETE SHALL BE MECHANICALLY CUT AT THE REMOVAL LINE.

ITEM 202 - PORTION OF STRUCTURE REMOVED, OVER 20 FOOT, AS PER PLAN, (SUPERSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, INCLUDING THE REMOVAL OF ALL EXISTING CONCRETE DECK, PARAPETS, MEDIANS, BRIDGE RAILINGS, SCUPPERS WITH ATTACHMENTS, EXPANSION JOINTS, STEEL BULB ANGLE GUTTERS, AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND AS SHOWN IN THIS PLAN. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED, I.E. THE EXISTING PIERS. THE USE OF EXPLOSIVES, HEADACHE BALLS, HOE RAM TYPE EQUIPMENT, AND TRACK HOE PULVERIZER/SHEAR/MULTI-PROCESSOR ATTACHMENTS IS PROHIBITED WITHIN 5 FEET OF ANY EXISTING SUBSTRUCTURE THAT IS TO BE REUSED. ANY DAMAGE TO THE EXISTING SUBSTRUCTURE THAT IS TO BE REUSED SHALL BE REPAIRED/REPLACED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF TRAFFIC: THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2019 501.05.B.2.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF MATERIALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE).

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUBSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE EXISTING SUBSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER FOR ABUTMENT REMOVAL SHALL BE APPROVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS WILL NOT BE PERMITTED FOR ABUTMENT REMOVAL. RETAIN EXISTING PILES AT ABUTMENTS TO ELEVATIONS AS INDICATED IN PLANS.

EXISTING PIERS SHALL REMAIN IN PLACE AND UNDAMAGED DURING ADJACENT STRUCTURE REMOVALS.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUBSTRUCTURE.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE TEMPORARY SHEET PILING USED FOR PHASE CONSTRUCTION SHALL HAVE A MINIMUM SECTION MODULOUS OF 27 IN³/FT OF WALL.

PAYMENT TO PERFORM THE TEMPORARY SHEET PILING SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE PROPOSED WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED. EXCAVATION AROUND PIER COLUMNS SHALL BE TO THE DEPTH OF THE TOP PIER FOOTING AND PROVIDE ADEQUATE AREA TO PERFORM THE WORK SHOWN IN THESE PLANS.

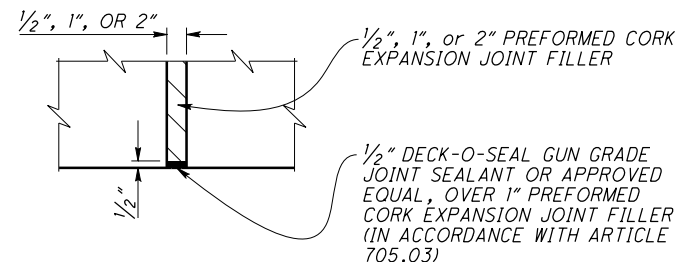
THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 516 - 1/2", 1", OR 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1/2" P.E.J.F., 1" P.E.J.F., AND 2" P.E.J.F. CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER 1/2" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS WITH DECK-O-SEAL GUN GRADE JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1/2" PEJF, A.P.P., SQ. FT. AND 1" PEJF, A.P.P., SQ. FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN

A 2" DEEP X 1" WIDE STRIP SHALL BE SAWCUT OUT OF THE APPROACH ASPHALT ABUTTING THE SLEEPER SLAB AFTER THE FINAL SURFACE HAS BEEN CONSTRUCTED. JOINT SEALER AS PER 705.04 SHALL BE USED TO SEAL THE JOINT CREATED.

ITEM 519 - COMPOSITE FIBER WRAP SYSTEM

REFER TO PROPOSAL NOTE 519 FOR ITEM SPECIFICATIONS NOT GIVEN HEREIN. THE REQUIRED CONFINING STRESS DUE TO FRP JACKET (f_i) WILL BE 0.150 FOR THE HEIGHT SHOWN ON SHEET 18/38 & 19/38. THE FINAL URETHANE (OR SYSTEM SPECIFIED) COATING SYSTEM APPLICATION COLOR SHALL BE FEDERAL COLOR FS-595C-16440: LIGHT GULL GRAY.

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DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DESIGNED	CPS	CHECKED	TAG
DRAWN	CPS	REVIEWED	CPS
DATE	12/4/2020	STRUCTURE FILE NUMBER	6001807
BRIDGE NOTES			
BRIDGE NO.: MUS-600-0005			
RAMP 'L' OVER 6TH STREET			
MUS-70-10-49		PID No. 93006	
3 / 38		2092 2231	