REFERENCE SHALL BE MADE TO THE FOLLOWING STANDARD DRAWINGS:

AS-1-15	REVISED 07-17-15	MGS-3.1	REVISED 01-19-18
EXJ-4-87	REVISED 01-19-18	MGS-3.2	REVISED 01-18-13
PCB-91	REVISED 07-17-20	TVPF-1-18	REVISED 07-20-18
SBR-1-20	REVISED 07-17-20	VPF-1-90	REVISED 07-20-18

REFERENCE SHALL BE MADE TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

800	DATED 10-15-21
842	DATED 10-15-21

DESIGN DATA:

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC SCC - COMPRESSIVE STRENGTH 4.5 KSI

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60 KSI

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, 2020.

EXISTING STRUCTURE PLANS

THE EXISTING STRUCTURE PLANS ARE AVAILABLE ONLINE THROUGH THE FOLLOWING WEBSITE:
ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/D08-100835/Reference%20Files/

IT IS THE RESPONSIBLITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL PERTINENT EXISTING DRAWINGS AND DETAILS RELEVANT TO THIS PROJECT.

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 INDICTIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTION 102.05, 105.02 AND 513.04.

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

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE PARAPETS, PORTIONS OF APPROACH SLABS, VANDAL PROTECTION FENCING, AND PORTIONS OF BRIDGE DRAINAGE PIPES AND APPURTENANCES. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING 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. REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL OF CONCRETE. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ANY REMOVAL OPERATION. THE COST TO CLEAR AND CLEAN UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED WITH THE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

ALL UTILITIES MUST REMAIN ACTIVE DURING CONSTRUCTION UNLESS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL TEMPORARILY SUPPORT ANY CONDUITS AND ELECTRICAL BOXES AS NECESSARY TO PERFORM THE REPAIRS.

ITEM 509 - REINFORCING STEEL, MISC.: GALVANIZED REINFORCING

REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS PER CMS 509 AND SHALL BE GALVANIZED PER CMS 711.02.

ITEM 509 - REINFORCING STEEL, REPLACEMENT OF REINFORCING STEEL, AS PER PLAN

REPLACEMENT OF ALL EXISITING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ADDITIONAL QUANTITIES HAVE BEEN PROVIDED FOR DOWEL HOLES, IF NEEDED, TO EMBED THE REPLACEMENT REINFORCING INTO THE EXISTING STRUCTURE. PAYMENT FOR DOWEL HOLES SHALL BE MADE AT THE BID UNIT PRICE FOR ITEM 510 DOWEL HOLES, AS PER PLAN.

ITEM 510 - DOWEL HOLES, AS PER PLAN

USE AN ANCHOR ADHESIVE EVALUATED ACCORDING TO ICCES REPORT AC308, "ACCEPTANCE CRITERIA FOR POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS", FOR CRACKED AND UNCRACKED CONCRETE APPLICATIONS. PUBLISHED ICCES REPORTS FOR ACCEPTABLE PRODUCTS ARE AVAILABLE AT:

WWW.ICC-ES.ORG/EVALUATION_REPORTS/INDEX.SHTML

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:

DEWALT/POWERS FASTENERS PURE 110 + EPOXY ADHESIVE ANCHOR SYSTEM
(ICCES REPORT ESR-3298)

ADHESIVES TECHNOLOGY CORPORATION (ATC) ULTRABOND HS-1CC ADHESIVE ANCHOR SYSTEM
(ICCES REPORT ESR-4094)

SIMPSON STRONG-TIE SET-3G EPOXY ADHESIVE ANCHORS
(ICCES REPORT ESR-4057)

HILTI HIT-HY 200 ADHESIVE ANCHOR SYSTEM
(ICCES REPORT ESR-3187)

INSTALL ADHESIVE ANCHORS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN SECTION 4.3 OF THE ICCES REPORTS LISTED ABOVE. THE MINIMUM EMBEDMENT DEPTH FOR ANCHORS SHALL BE AS SHOWN IN THE PLANS.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF TEMPORARILY SUPPORTING THE EXISTING STRUCTURES TO COMPLETE THE WORK AS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN:

ESITMATED QUANTITES ARE BASED ON THE MOST RECENT IN-DEPTH INSPECTION OF THE STRUCTURE. AREAS TO BE PATCHED HAVE BEEN DETAILED IN THE PLANS.

IT IS POSSIBLE THAT ADDITIONAL AREAS REQUIRING PATCHING MAY HAVE DEVELOPED SINCE THE MOST RECENT INSPECTION OF THE STRUCTURE. THEREFORE, THE CONTRACTOR SHALL SOUND THE SURROUNDING PERIMETER OF THE AREA TO BE PATCHED AND PATCH NEW AREAS APPROVED BY THE ENGINEER THAT HAVE NOT BEEN DETAILED IN THE PLANS.

PRIOR TO THE SURFACE CLEANING SPECIFIED IN C&MS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

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.

TEMPORARY SUPPORT: PRIOR TO THE REMOVAL AND DURING THE PATCHING REPAIR OF SUBSTRUCTURE CONCRETE PROVIDE TEMPORARY SUPPORT AT THE LOCATIONS BELOW:

- GIRDER 1 AT PIER 1
- GIRDER 5 AT PIER 2
- GIRDER 5 AT PIER 3
- GIRDER 1 AT PIER 2
- GIRDER 1 AT PIER 3

ALLOW 24 HOURS AFTER CONCRETE HAS BEEN PLACED BEFORE REMOVING TEMPORARY SUPPORTS. THE TEMPORARY SUPPORTS SHALL BE CAPABLE OF CARRYING THE DEAD LOAD OF THE SUPERSTRUCTURE AND LIVE LOAD ON THE STRUCTURE. FOLLOW ALL REQUIREMENTS AND PROVISIONS SET FORTH BY ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERTSTRUCTURE, AS PER PLAN

MEASUREMENT AND PAYMENT: THE PLAN QUANTITIES INCLUDE AN INCREASE OF THE FIELD MEASURED QUANTITIES. THE ACCEPTED QUANTITIES FOR THE COMPLETED WORK AS DESCRIBED WILL BE MEASURED AND PAID BY ITEM 519 - PATCHING CONCRETE STRUCTURE. ANY TEMPORARY SUPPORT REQUIRED TO COMPLETE THE WORK AS REQUIRED BY THIS NOTE SHALL BE PAID UNDER ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

ITEM 842 - CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE

DESCRIPTION: THIS WORK CONSISTS OF INJECTING THE SOIL AND FILLING VOIDS UNDER CONCRETE APPROACH SLABS AND 5 FEET OF THE FLEXIBLE ASPHALT CONCRETE APPROACH PAVEMENT USING HIGH DENSITY POLYURETHANE (HDP). ALL PROVISIONS OF SS 842 APPLY EXCEPT AS MODIFIED IN THIS NOTE.

MATERIALS: SUPPLY A HIGH DENSITY POLYURETHANE MEETING THE PROPERTIES SPECIFIED BELOW AND VERIFIED BY CERTIFIED TEST DATA FROM AN INDEPENDENT TESTING LABORATORY. AT LEAST 24 HOURS PRIOR TO PERFORMING WORK, SUBMIT CERTIFIED TEST DATA TO THE ENGINEER FOR APPROVAL.

PROPERTY	ASTM TEST	REQUIRED VALUE
MATERIAL DENSITY	D1622 (NOTE 1)	3.0 LBS/FT3 MINIMUM
TENSILE STRENGTH, 1 HOUR	D1623 (NOTE 1)	40 PSI MINIMUM
COMPRESSIVE STRENGTH, 1 HOUR	D1621 (NOTE 1)	40 PSI MINIMUM
DIMENSIONAL STABILITY, HIGH TEMPERATURE, 1 DAY	D2126	+3.3% CHANGE @158 ºF (70 ºC), 97 % RELATIVE HUMIDITY
DIMENSIONAL STABILITY, HIGH TEMPERATURE, 7 DAY	D2126	+4.0% CHANGE @158 ºF (70 ºC), 97 % RELATIVE HUMIDITY
DIMENSIONAL STABILITY, LOW TEMPERATURE, 1 DAY	D2126	-0.35% CHANGE @- 22 ºF (-30 ºC), AMBIENT RELATIVE HUMIDITY
DIMENSIONAL STABILITY, LOW TEMPERATURE, 7 DAY	D2126	-0.60% CHANGE @-22 ºF (-30 ºC), AMBIENT RELATIVE HUMIDITY
WATER ABSORPTION	D2842	LESS THAN 2.0% VOLUME

NOTE 1: SUPPLY MATERIAL THAT WILL MEET A MINIMUM DENSITY OF AT LEAST 50% OF THE REQUIRED DENSITY VALUE WHEN PREPARED UNDER A HEAD OF WATER.

ITEM 842 - CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE (CONT.)

MANUFACTURER'S SHIPPING RECORD:
PROVIDE MANUFACTURER BATCH NUMBERS AND SHIPPING INVOICES. MARK EACH COMPONENT CONTAINER WITH THE FOLLOWING INFORMATION:
A. NUMBER OF GALLONS (LITERS)
B. NET WEIGHT OF MATERIAL
C. BATCH NUMBER
D. DATE OF PRODUCTION
E. EFFECTIVE SHELF LIFE OF THE PRODUCT
F. COMPANY NAME AND ADDRESS
G. COMPONENT TRADE NAME AS GIVEN IN THE MATERIAL TEST DATA
H. MATERIAL SAFETY DATA SHEETS (MSDS)

EQUIPMENT. SUBMIT AN INVENTORY OF ALL LIFTING EQUIPMENT TO THE ENGINEER FOR REVIEW. PROVIDE THE FOLLOWING EQUIPMENT AS A MINIMUM:

A. ELECTRIC OR PNEUMATIC DRILL CAPABLE OF DRILLING 5/8-INCH DIAMETER HOLES TO THE DEPTH OF THE SLAB.

B. TRUCK OR TRAILER MOUNTED PUMPING UNIT, WITH PRE-HEATERS AND VOLUMETRIC CONTROLS CAPABLE OF INJECTING THE HDP BETWEEN THE APPROACH SLAB AND SUB-BASE. THE PUMPING UNIT MUST BE CAPABLE OF CONTROLLING THE RATE OF APPROACH SLAB RISE AND MEASURE THE MATERIAL USAGE. THE UNIT SHALL BE EQUIPPED WITH CERTIFIED FLOW METERS TO MEASURE FLOW OF BOTH COMPONENT MATERIALS SEPARATELY TO MEASURE THE AMOUNT OF HIGH-DENSITY POLYURETHANE INJECTED AT EACH LOCATION. THE CERTIFIED FLOW METER SHALL HAVE A DIGITAL OUTPUT TO SHOW BOTH POUNDS AND GALLONS OF EACH COMPONENT MATERIAL AND HELP INSURE A ONE TO ONE MIX RATIO.

C. LASER-LEVELING UNIT TO ENSURE THAT THE APPROACH SLAB IS ON AN EVEN PLANE AND TO THE EXISTING ELEVATIONS.

CONSTRUCTION PLAN: BEFORE PERFORMING WORK, PREPARE AND SUBMIT A PLAN TO THE ENGINEER THAT INCLUDES THE FOLLOWING MINIMUM INFORMATION:
A. EXISTING ELEVATIONS OF THE APPROACH SLAB AND ADJACENT PAVEMENT.
B. INJECTION HOLE LAYOUT
C. MAPPING OF EXISTING CRACKS
D. CONTRACTOR'S WRITTEN STANDARD INSTALLATION PROCEDURES

DRILLING HOLES: LOCATE AND DRILL A SERIES OF 5/8-INCH HOLES AS NECESSARY TO FILL VOIDS UNDER THE APPROACH SLAB. ADHERE TO THE FOLLOWING REQUIREMENTS:
A. HOLES SHALL BE DRILLED NOT LESS THAN 12 INCHES (300 MM) NOR MORE THAN 18 INCHES (450 MM) FROM EACH EDGE OR JOINT
B. SPACING OF HOLES SHALL NOT EXCEED 4 FEET (1.2 M) CENTER TO CENTER IN ANY DIRECTION.
C. DEPTH OF HOLES SHALL BE DRILLED TO A DEPTH OF 4 FEET BELOW THE BOTTOM OF THE CONCRETE APPROACH SLAB.

GENERAL: RESET FLOW METERS ON MATERIAL PUMPING UNITS TO ZERO, PRIOR TO PERFORMING THE WORK EACH DAY. PERFORM A TEST SHOT OF MATERIAL OF A MINIMUM OF 1 GALLON. COMPARE THE DIGITAL OUTPUT IN GALLONS OF EACH COMPONENT TO DETERMINE THE ACTUAL RATIO. IF RATIO IS LESS THAN 0.95 OR GREATER THAN 1.05, CHECK SYSTEM FOR PROBLEMS, FIX, AND RECHECK RATIO.
INJECT HDP UNDER THE SLAB ACCORDING TO THE CONTRACTOR'S WRITTEN STANDARD INSTALLATION PROCEDURES. REMOVE ANY EXCESSIVE POLYURETHANE MATERIAL FROM THE INJECTION AREA.
RECORD MATERIAL USED FROM THE VOLUMETRIC METERS ON MATERIAL PUMPING UNITS.
USE A TIGHT STRING LINE OR LASER LEVEL TO MONITOR AND VERIFY ELEVATIONS. TAKE PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING SLABS. STOP THE OPERATION IF CRACKING OCCURS DURING THE INJECTION PROCEDURE AND INFORM THE ENGINEER. ALTER THE OPERATIONS TO PREVENT ADDITIONAL CRACKING.
REPAIR APPROACH SLAB AND PAVEMENT AREAS THAT DO NOT MEET PROPOSED ELEVATIONS. REPAIR ALL AREAS DAMAGED AS A RESULT OF THE WORK. MAKE REPAIRS TO THE SATISFACTION OF THE ENGINEER.
DO NOT PERFORM WORK WHEN THE SUBGRADE TEMPERATURE IS BELOW 32 °F (0 °C) OR VISIBLY FROZEN.
RECORD FINAL ELEVATIONS OF THE APPROACH SLAB AND ADJACENT PAVEMENT IN THE SAME LOCATIONS AS WERE RECORDED FOR EXISTING ELEVATIONS PRIOR TO BEGINNING WORK.

FILLING HOLES: CLEAN HOLES TO THE DEPTH OF THE SLAB, THEN FILL WITH NON SHRINK NONMETALLIC GROUT CONFORMING TO C&MS 705.20

104.02 ADJUSTMENT EXCLUSION
THE ENGINEER SHALL NOT ADJUST UNIT PRICES AS DESCRIBED IN 104.02.D.2 FOR ITEM 842 - CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE

METHOD OF MEASUREMENT. THE DEPARTMENT WILL MEASURE THE WEIGHT OF HDP MATERIAL PUMPED.

STRUCTURE GENERAL NOTES

DESIGN AGENCY

DESIGNER GTF

REVIEWER CAH 10/15/21

PROJECT ID 102754

SHEET 14 TOTAL 40

D08-BM-FY2022

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ESTIMATED QUANTITIES - STRUCTURE No.: BUT-75-0115 (SFN: 0901571) (01/IMS/BR FUNDING SPLIT)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			LUMP	
509	20000	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL			100	
510	10001	10	EACH	DOWEL HOLES, AS PER PLAN			10	
511	34410	8	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE			8	
512	10100	743	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			743	
512	74000	682	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES			682	
842	10000	5000	LBS	CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE				5000
607	39994	360	FT	TEMPORARY VANDAL FENCE, TYPE B				360
607	98200	LUMP	LS	FENCE MISC.: VANDAL PROTECTION FENCE REMOVED AND REBUILT			LUMP	

ESTIMATED QUANTITIES - STRUCTURE No.: BUT-75-0219 (SFN: 0901636) (01/IMS/BR FUNDING SPLIT)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			LUMP	
503	21300	LUMP	LS	UNCLASSIFIED EXCAVATION			LUMP	
509	10000	9123	LB	EPOXY COATED REINFORCING STEEL			9123	
509	30020	13015	FT	NO. 4 GFRP DEFORMED BARS			13015	
509	40000	7413	LB	REINFORCING STEEL, MISC.: GALVANIZED REINFORCING			7413	
509	20000	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL				100
510	10001	1736	EACH	DOWEL HOLES, AS PER PLAN			1592	144
511	34460	124	CY	CLASS QC SCC CONCRETE, BRIDGE DECK (PARAPET)			124	
512	10100	743	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			743	
512	74000	101	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES			101	
516	13600	17	SF	1" PREFORMED EXPANSION JOINT FILLER			17	
516	31010	16	FT	2" DEEP JOINT SEALER				16
842	10000	5000	LBS	CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE				5000
526	25000	43	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")				43
530	13000	2466	SF	FORM LINER			2466	
607	39994	721	FT	TEMPORARY VANDAL FENCE, TYPE B			721	
625	25500	822	FT	CONDUIT, 3", 725.04				822
607	39901	721	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN (ALTERNATE 1)			721	
607	40000	721	FT	SPECIAL - VANDAL PROTECTION FENCE - AESTHETIC VANDAL PROTECTION FENCE (ALTERNATE 2)			721	

ESTIMATED QUANTITIES - STRUCTURE No.: PRE-127-0227 (SFN: 6802311) (02/STR/BR FUNDING SPLIT)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.
503	11100	LUMP	LS	COFFERDAMS AND EXCAVATION BRACING				LUMP
512	10100	2648	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		2648		
516	47001	LUMP	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LUMP
519	11101	537	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN		537		
519	100	2180	SF	SPECIAL - COMPOSITE FIBER WRAP SYSTEM (SEE PROPOSAL NOTE 519)		2180		
842	10000	4000	LBS	CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE				4000

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-42-0000 (SFN: 6802311) (03/S>2/BR FUNDING SPLIT)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			LUMP	
518	43300	100	FT	6" PIPE DOWNSPOUT, INCLUDING SPECIALS, 748.06				100
518	62100	200	FT	STRUCTURE DRAINAGE, MISC.: CLEANING BRIDGE DRAINAGE SYSTEM			LUMP	

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-71-0320 (SFN: 3114260) (04/IMS/BR FUNDING SPLIT)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			LUMP	
509	10000	239	LB	EPOXY COATED REINFORCING STEEL			239	
509	20000	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL				100
510	10001	10	EACH	DOWEL HOLES, AS PER PLAN				10
511	34410	5	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE			5	
513	20001	22	EACH	WELDED STUD SHEAR CONNECTORS, AS PER PLAN				22

STRUCTURE ESTIMATED QUANTITIES

DESIGN AGENCY

DESIGNER GTF

REVIEWER CAH 10/15/21

PROJECT ID 102754

SHEET 16 TOTAL 40

D08-BM-FY2022