

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

D08-BM-FY2023

VILLAGE OF MILLVILLE
CITY OF MONROE
CITY OF SHARONVILLE
CITY OF NORWOOD
CITY OF CINCINNATI
WEST CHESTER TOWNSHIP
BUTLER, HAMILTON & WARREN COUNTIES

FEDERAL PROJECT NUMBER
E191 (876)

RAILROAD INVOLVEMENT
INDIANA & OHIO RAILWAY CO.

PROJECT DESCRIPTION

BRIDGE MAINTENANCE PROJECT INCLUDING, BARRIER AND VANDAL PROTECTION FENCE REPLACEMENT, CONCRETE OVERLAY WITH HYDRODEMOLITION, BEARING REPLACEMENT, CONCRETE PATCHING AND REPAIR, SEALING OF CONCRETE BRIDGE DECKS, BRIDGE DRAINAGE REPAIR. WORK ALSO TO INCLUDE UPGRADING OF BRIDGE GUARDRAIL AND BRIDGE APPROACH RESURFACING ON VARIOUS BRIDGES IN THE DISTRICT.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.0 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 8-10.

INDEX OF SHEETS:

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48-49	NOT USED
50	HAM-771-0000R

LOCATION MAP
SEE SHEET 2



LOCATION MAP

LATITUDE: 39°25'52" LONGITUDE: -84°17'03"

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

DESIGN DESIGNATION

SEE SHEET 2

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 8 - ENGINEERING DEPARTMENT
505 SOUTH S.R. 741
LEBANON, OHIO 45036

ENGINEER'S SEAL:
FOR AESTHETIC VPF PLANS
(SHEETS 22, 35-40)

SIGNED: [Signature]
DATE: 12/19/2022

ENGINEER'S SEAL:
FOR ENTIRE PLAN SET EXCEPT
AESTHETIC VPF PLANS

SIGNED: [Signature]
DATE: 12/23/2022

STANDARD CONSTRUCTION DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/17/20 HL-30.32	4/17/20 AS-1-15	7/17/15 ASBESTOS
BP-5.1	7/16/21	PCB-91	7/15/11 INSPECTION
MGS-1.1	7/16/21 MT-95.31	7/19/19 SBR-1-20	10/15/22 SPECIAL PROVISIONS
MGS-2.1	1/19/18 MT-95.41	4/19/19 TVPF-1-18	10/15/22 D08 BRIDGE
MGS-3.1	1/19/18 MT-95.45	1/17/20 VPF-1-90	4/16/21 MAINTENANCE
MGS-3.2	1/18/13 MT-101.70	1/17/20	10/19/18 FY2023
MGS-4.2	7/19/13 MT-101.75	1/17/20	PID 105478
MGS-4.3	1/18/13	1/17/20	DATE: 12/30/2022
MGS-5.3	7/15/16 TC-65.10	1/17/14	
RM-4.2	4/17/20 TC-71.10	7/15/22	
		DM-4.3	
		DM-4.4	

APPROVED
DATE 12-17-2022
Tammy K. Capbell
DISTRICT DEPUTY DIRECTOR

APPROVED
DATE _____
DIRECTOR, DEPARTMENT OF TRANSPORTATION

DESIGN AGENCY	
DESIGNER	GTF
REVIEWER	JAO
PROJECT ID	105478
SUBSET	1
TOTAL SHEET	1
TOTAL SHEET	50

TITLE SHEET

SEQUENCE OF CONSTRUCTION

WAR-63-00100:
DURING THE REPAIR THE ENTIRE SHOULDER SHALL BE CLOSED WITH DRUMS PER MT-95.45. ONCE STARTED THE REPAIR SHALL BE COMPLETED (FORMED AND POURED) NOT INCLUDING CURE WITHIN 72 HOURS.

BUT-27-0601:
CLOSE US 27 BETWEEN THE SOUTHERN INTERSECTION WITH SR 129 AND THE NORTHERN INTERSECTION WITH SR 129. DETOUR TRAFFIC AS SHOWN ON SHEET 6. COMPLETE CRITICAL WORK ACCORDING TO THE WINDOW CONTRACT TABLE.

HAM-75-1747:
PERFORM BARRIER AND VANDAL FENCE REPLACEMENT BY SHIFTING TRAFFIC AS SHOWN ON SHEETS 9 AND 10. FLAGGING TRAFFIC TO INSTALL MOT PHASES OR FOR ANCILLARY WORK IS PERMITTED DURING WORKING HOURS. LANES ON I-75 SHALL BE CLOSED WHEN REMOVING THE EXISTING BARRIER/VANDAL FENCE AND WHEN INSTALLING THE PROPOSED VANDAL FENCE; OR AS OTHERWISE NEEDED. LANE CLOSURES ON I-75 ARE PERMITTED IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE.

HAM-71-0320:
MAINTAIN ALL LANES AT ALL TIMES, EXCEPT A MINIMUM OF 2 LANES OF TRAFFIC MAY BE MAINTAINED DURING WORKING HOURS. CLOSE THE RIGHT 2 LANES PER MT-95.31 AND PROVIDE THE DETOUR SHOWN ON SHEET 8. CLOSE THE LEFT 2 LANES PER MT-95.32 AND PROVIDE THE DETOUR SHOWN ON SHEET 7. IF IT IS NECESSARY TO CLOSE BOTH INTERIOR LANES, CLOSE EACH OUTSIDE LANE AND SPLIT THE INTERIOR LANES SIMILAR TO OMUTCD FIGURE 6H-38.

PCMS SHALL BE USED FOR NOTICE OF CLOSURE AND REMAIN FOR DETOUR INFORMATION. IF A DETOUR WILL BE USED ON SUBSEQUENT DAYS, THE SIGNS ALONG THE DETOUR ROUTE MAY REMAIN AND THE SIGNS ALONG MCWILLAN STREET SHALL BE REMOVED ONCE THE ROAD REOPENS. IF A DETOUR WILL NOT BE USED WITHIN THE FOLLOWING 3 DAYS, ALL DETOUR SIGNS SHALL BE REMOVED. ONLY 1 DETOUR ROUTE SHALL BE POSTED AT A TIME.

HAM-32-0127:
MAINTAIN ALL LANES AT ALL TIMES. IF NECESSARY, A LANE MAY BE CLOSED IN THE EASTBOUND DIRECTION AND THE WESTBOUND LANES MAY BE TEMPORARILY SHIFTED. THE SR 32 RAMP TO WESTBOUND SR 125 SHALL BE MAINTAINED; DUE TO SIGHT DISTANCE THIS LANE CANNOT BE CLOSED.

HAM-22-0622:
MAINTAIN ALL LANES AT ALL TIMES, EXCEPT SHORT-TERM LANE CLOSURES ARE PERMITTED ACCORDING TO THE LANE VALUE CONTRACT TABLE AND A LONG-TERM RIGHT LANE CLOSURE AS SHOWN ON SHEETS 17 AND 18 IS PERMITTED ACCORDING TO THE WINDOW CONTRACT TABLE. LANE CLOSURES ON SR 562 ARE PERMITTED IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE.

HAM-75-0088:

MAINTAIN A MINIMUM OF 2 LANES OF TRAFFIC ON 9TH STREET INCLUDING THE RAMP TO SOUTHBOUND I-75 DURING WORKING HOURS. MAINTAIN LANES ON I-75 IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE.

HAM-471-0000:
COMPLETE WORK ACCORDING TO THE MAINTENANCE OF TRAFFIC POLICY EXCEPTION PLAN NOTE.

HAM-75-0252:
CLOSE 1 LANE IN EACH DIRECTION ON WHV AND MAINTAIN TRAFFIC ON HALF OF THE ROADWAY, SIMILAR TO OMUTCD FIGURE 6H-32, FOR A MAXIMUM OF TWO WEEKENDS. WHEN PERFORMING WORK IN THE EASTBOUND LANES, CLOSE THE RAMP FROM EASTBOUND WHV TO NORTHBOUND I-75 USING SCD MT-98.30. WHEN PERFORMING WORK IN WESTBOUND LANES, CLOSE THE RAMP FROM NORTHBOUND I-75 TO WESTBOUND WHV USING SCD MT-98.29. PROVIDE 2 PCMS FOR DETOURING INFORMATION DURING THE RAMP CLOSURES.

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTIONS

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTIONS PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SPI)).

APPROVED MOT EXCEPTIONS INCLUDE:

- CLOSE THE NORTHBOUND I-471 RAMP TO EASTBOUND/WESTBOUND US 50 OVERNIGHT FROM 10 PM TO 5 AM. THE CLOSURE IS PERMITTED TO OCCUR ONE TIME ANY DAY OF THE WEEK TO PERFORM FIELD MEASURE AND VERIFICATION OF THE PROPOSED WORK. THIS CLOSURE IS NOT PERMITTED TO OCCUR 2 HOURS BEFORE TO 2 HOURS AFTER EVENTS AT GREAT AMERICAN BALL PARK, PAYCOR STADIUM, OR HERITAGE BANK AREA. THIS RESTRICTION ALSO APPLIES TO ANY OTHER DOWNTOWN VENUE GENERATING AN EVENT ATTENDANCE OF 10,000+.

2 PCMS SHALL BE USED TO PROVIDE NOTICE OF CLOSURE AND DETOUR INFORMATION BEFORE AND DURING THE CLOSURE. A DISINCENTIVE IN THE AMOUNT OF \$240 PER MINUTE SHALL BE ASSESSED FOR FAILING TO REOPEN THE RAMP BY THE TIME DESCRIBED ABOVE.

- CLOSE THE NORTHBOUND I-471 RAMP TO EASTBOUND/WESTBOUND US 50 ON A WEEKEND BEGINNING FRIDAY AT 10 PM AND REOPENING BY MONDAY AT 5 AM. THE CLOSURE IS PERMITTED TO OCCUR ONE TIME TO PERFORM EXPANSION JOINT REPAIRS. THIS CLOSURE IS NOT PERMITTED TO OCCUR 2 HOURS BEFORE TO 2 HOURS AFTER EVENTS AT GREAT AMERICAN BALL PARK, PAYCOR STADIUM, OR HERITAGE BANK AREA. THIS RESTRICTION ALSO APPLIES TO ANY OTHER DOWNTOWN VENUE GENERATING AN EVENT ATTENDANCE OF 10,000+.

2 PCMS SHALL BE USED TO PROVIDE NOTICE OF CLOSURE AND DETOUR INFORMATION BEFORE AND DURING THE CLOSURE. A DISINCENTIVE IN THE AMOUNT OF \$240 PER MINUTE SHALL BE ASSESSED FOR FAILING TO REOPEN THE RAMP BY THE TIME DESCRIBED ABOVE.

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER & HAMILTON COUNTY ADMINISTRATOR, AS WELL AS THE CONTRACTOR, AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTIONS REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED 11/9/2022 FOR PID 105478" IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTIONS LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.



SHEET NUM.	PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	01\IMS\47	02\NHS\47						
7	17	19					ROADWAY	
	22		202	23000	22	SY	PAVEMENT REMOVED	
	35		202	32000	35	FT	CURB REMOVED	
	200		202	38000	200	FT	GUARDRAIL REMOVED	
	3	3	202	42001	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	3
	1	1	202	42040	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
	8	4	202	47000	8	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
	67		204	10000	67	SY	SUBGRADE COMPACTION	
	0.15	0.02	209	15050	0.15	MILE	RESHAPING UNDER GUARDRAIL	
	175	75	606	15050	175	FT	GUARDRAIL, TYPE MGS	
	1	1	606	26151	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E, AS PER PLAN (NCHRP 350 OR MASH 2016)	3
	3	3	606	26550	3	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
	1	1	606	35003	1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1, AS PER PLAN	28
	2	2	606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
	4	4	606	35102	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
	1	1	606	98100	1	EACH	GUARDRAIL, MISC.; TEXAS SHORT TRANSITION	28
	115	100	609	24510	115	FT	CURB, TYPE 4-C	
	24	12	626	00110	24	EACH	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)	
		LUMP	SPECIAL	69098400	LS		CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	3
		LUMP	878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
							EROSION CONTROL	
		120	659	10000	120	SY	SEEDING AND MULCHING	3
		0.02	659	20000	0.02	TON	COMMERCIAL FERTILIZER	
		0.24	659	31000	0.24	ACRE	LIME	
		0.36	659	35000	0.36	MGAL	WATER	
		1,000	832	30000	1,000	EACH	EROSION CONTROL	
	14	14	253	01001	14	SY	PAVEMENT REPAIR, AS PER PLAN	42
	2,758	2,758	254	01000	2,758	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.25" DEPTH	
	830	830	254	01000	830	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 2" DEPTH	
	4.4	4.4	301	56010	4.4	CY	ASPHALT CONCRETE BASE, PG64-28, (449)	
	11.2	11.2	304	20000	11.2	CY	AGGREGATE BASE	
	326.9	326.9	407	20000	326.9	GAL	NON-TRACKING TACK COAT	
	2,750	2,750	423	00200	2,750	SY	CRACK SEALING, TYPE I	
	98	98	441	50000	98	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
	46	46	442	20000	46	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)	
							TRAFFIC CONTROL	
	1,413	1,413	512	74500	1,413	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
	9	9	512	74520	9	EACH	REMOVAL OF EXISTING PAVEMENT MARKING	
	14	14	621	00100	14	EACH	RPM	
	18	18	621	54000	18	EACH	RAISED PAVEMENT MARKER REMOVED	
	0.15	0.15	642	00200	0.15	MILE	LANE LINE, 4", TYPE 1	
	0.09	0.09	642	00300	0.09	MILE	CENTER LINE, TYPE 1	
	793	793	642	00400	793	FT	CHANNELIZING LINE, 8", TYPE 1	
	40	40	642	00500	40	FT	STOP LINE, TYPE 1	
	40	40	642	00700	40	FT	TRANSVERSE/DIAGONAL LINE, TYPE 1	
	7	7	642	01300	7	EACH	LANE ARROW, TYPE 1	
	2	2	642	01400	2	EACH	WORD ON PAVEMENT, 72", TYPE 1	
	65	65	644	00104	65	MILE	EDGE LINE, 6"	
	0.19	0.19	644	00300	0.19	MILE	CENTER LINE	
	0.22	0.22	644	00700	0.22	FT	TRANSVERSE/DIAGONAL LINE	
	0.24	0.16	646	10010	0.24	MILE	EDGE LINE, 6"	
	0.13	0.09	646	10200	0.13	MILE	CENTER LINE	

GENERAL SUMMARY




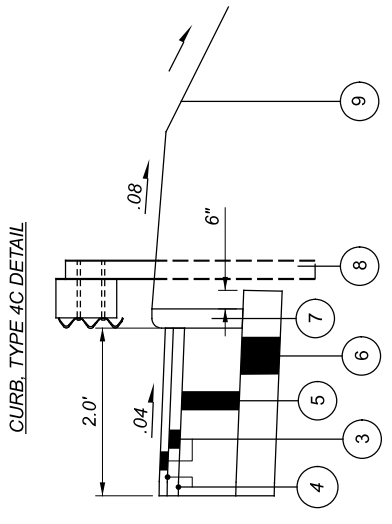
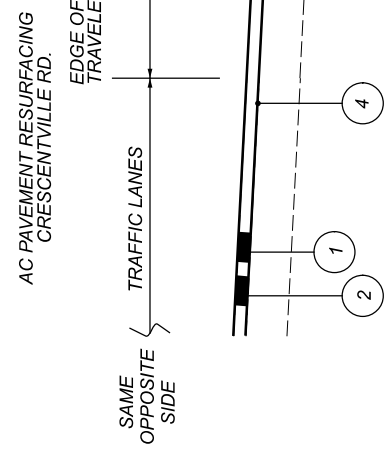
DESIGN AGENCY

DESIGNER: GTF
 REVIEWER: JAO
 PROJECT ID: 8-22-22
 SHEET: 105478
 TOTAL: 16 / 50

SHEET NUM.	PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	01/IMS/47	02/NHS/47						
8	18	20					STRUCTURE OVER 20 FOOT SPAN (BRIDGE No.: WAR-63-0010)	
							(SEE SHEET 24)	
							STRUCTURE OVER 20 FOOT SPAN (BRIDGE No.: BUT-27-0601)	
							(SEE SHEET 24)	
							STRUCTURE OVER 20 FOOT SPAN (BRIDGE No.: HAM-75-1747)	
							(SEE SHEET 24)	
							STRUCTURE OVER 20 FOOT SPAN (BRIDGE No.: HAM-71-0320)	
							(SEE SHEET 24)	
							STRUCTURE OVER 20 FOOT SPAN (BRIDGE No.: HAM-75-0252)	
							(SEE SHEET 24)	
							STRUCTURE OVER 20 FOOT SPAN (BRIDGE No.: HAM-32-0127)	
							(SEE SHEET 25)	
							STRUCTURE OVER 20 FOOT SPAN (BRIDGE No.: HAM-22-0622)	
							(SEE SHEET 25)	
							STRUCTURE OVER 20 FOOT SPAN (BRIDGE No.: HAM-75-0088)	
							(SEE SHEET 25)	
							STRUCTURE OVER 20 FOOT SPAN (BRIDGE No.: HAM-471-0000R)	
							(SEE SHEET 25)	
370			607	39992	370	FT	MAINTENANCE OF TRAFFIC OPTION A: MASH (RM-4.1 & RM-4.2) TEMPORARY VANDAL FENCE, TYPE A	
370			607	39994	370	FT	MAINTENANCE OF TRAFFIC OPTION B: NCHRP (PCB-91) TEMPORARY VANDAL FENCE, TYPE B	
4			614	12384	4	EACH	MAINTENANCE OF TRAFFIC	
24			614	13310	24	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
24			614	13360	24	EACH	BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL)	
7			614	18601	7	SNMT	OBJECT MARKER, TWO WAY	6
0.26			614	21100	0.26	MILE	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	
0.26			614	22110	0.26	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
0.14		0.14	614	22210	0.14	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
150		150	614	24202	150	FT	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
30		30	614	26200	30	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
2		2	614	30400	2	EACH	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
							WORK ZONE ARROW, CLASS I, 740.06, TYPE I	
240			622	41100	240	FT	PORTABLE BARRIER, UNANCHORED	
740			622	41110	740	FT	PORTABLE BARRIER, ANCHORED	
			614	11000	LS		INCIDENTALS	
			623	10000	LS		MAINTAINING TRAFFIC	
			624	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
							MOBILIZATION	



DESIGN AGENCY  DESIGNER GTF REVIEWER JAO PROJECT ID 8-22-22 105478 SHEET TOTAL 18 50



- LEGEND**
- ① PAVEMENT PLANING (T=1.25")
 - ② 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
 - ③ 1.50" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
 - ④ NON-TRACKING TACK COAT
 - ⑤ ASPHALT CONCRETE TACK COAT
 - ⑥ AGGREGATE BASE, PG64-22
 - ⑦ CURB, TYPE 4C
 - ⑧ MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
 - ⑨ SEEDING AND MULCHING

PAVEMENT & ROADWAY CALCULATIONS

ROUTE	STATION		LENGTH	PAVEMENT WIDTH	PAVEMENT AREA	PAVEMENT REMOVED		SUBGRADE COMPACTION	RESHAPING UNDER GUARDRAIL	PAVEMENT REPAIR, AS PER PLAN	PAVEMENT PLANING ASPHALT CONCRETE		CRACK SEALING, TYPE 1	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22		NON TRACKING TACK COAT @ 0.09 GAL/SQ YD	6" AGGRE-GATE BASE	7" ASPHALT CONCRETE BASE, PG64-22	301	304	407	423	442		609	NOTES	
	FROM (METRIC)	TO				SQ YD	FT				INCHES	SQ YD		THICK-NESS	INCHES								CU YD	THICK-NESS			INCHES
BUT US 27 6.01	11+45.55	11+60.55	15								1.25	1001													15	SEE C&MS 209.05	
BUT US 27 6.01					1001				0.02																		
CRESCENTVILLE RD.	0+492.13	0+539.39	155	58	1001				0.03						90.1												
CRESCENTVILLE RD. (SEE CURB DETAIL)	0+539.39	0+546.99	25	2.0 (L&R)	11			11	0.01						2.0				2.2	1.9	2.0			1	50.0	SEE CURB DETAIL SHEET (TACK COAT BETWEEN LIFTS)	
CRESCENTVILLE RD.	0+546.99	0+554.59	25	4.0 (L&R)	22			22	0.01									3.7									
CRESCENTVILLE RD.	0+554.60	0+664.61	361		-																						
CRESCENTVILLE RD.	0+664.61	0+672.21	25	4.0 (L&R)	22			22	0.01									3.7									
CRESCENTVILLE RD. (SEE CURB DETAIL)	0+672.21	0+679.83	25	2.0 (L&R)	11			11	0.01						3.00				2.2	1.9	2.0			1	50.0	SEE CURB DETAIL SHEET (TACK COAT BETWEEN LIFTS)	
CRESCENTVILLE RD.	0+672.21	0+755.14	272	58	1757				0.05						1.25			158.1									
WESTERN HILLS VIA.		7+54.25	12+00.00	446	830					14								74.7						46			
		TOTALS CARRIED TO GENERAL SUMMARY						22	35	67					98			326.9						46	115		

GUARDRAIL ESTIMATED QUANTITIES

ROUTE	SIDE	STATION		STATION	STATION		GUARDRAIL REMOVED		GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE E, AS PER PLAN		ANCHOR ASSEMBLY, MGS TYPE T	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1, AS PER PLAN		MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	GUARDRAIL, MISC.: TEXAS SHORT TRANSITION		626	NOTES		
		FROM (METRIC)	TO		FROM	TO	FT	EACH		ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	ANCHOR ASSEMBLY REMOVED, TYPE T		FT	EACH		ANCHOR ASSEMBLY, MGS TYPE E, AS PER PLAN	ANCHOR ASSEMBLY, MGS TYPE T			EACH	EACH
FRONT STREET	R	0+25	0+75																		
FRONT STREET	R	1+10	1+65																		
WATER ST	L	0+15	0+75																		
US ROUTE 27	R	11+50	12+25			100															
CRESCENTVILLE RD	L			0+463.597	0+554.597																
CRESCENTVILLE RD	R			0+463.597	0+554.597																
CRESCENTVILLE RD	L			0+664.603	0+768.103																
CRESCENTVILLE RD	R			0+664.603	0+768.103																
		TOTALS CARRIED TO GENERAL SUMMARY				200															

ITEM 607 - SPECIAL - VANDAL PROTECTION FENCE AESTHETIC, 6 FT STRAIGHT, COATED FABRIC (ALTERNATE BID 2, WEST CHESTER TOWNSHIP, SOUTH SIDE)

DESCRIPTION:

THIS ITEM SHALL CONSIST OF FURNISHING ALL MATERIALS, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO FABRICATE AND INSTALL THE AESTHETIC FENCE STRUCTURAL FRAMING DETAILED HEREIN ON NEW CONCRETE BRIDGE RAILING. CONSTRUCT IN A MANNER THAT PROVIDES A RIGID, TAUT FENCE CLOSELY CONFORMING TO THE TOP SURFACE OF THE CONCRETE PARAPET UNLESS OTHERWISE SPECIFIED IN THE PLANS, INSTALL POSTS AND POST SLEEVES PLUMB. IT SHALL ALSO CONSIST OF ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO INSTALL THE AESTHETIC FENCE PANELS THEMSELVES.

AESTHETIC FENCE PANELS:

DECORATIVE LETTER FENCE PANELS AND FLOWERS SHALL BE FABRICATED FROM ASTM - 6061-T6 ALUMINUM $\frac{3}{8}$ " THICK INCLUDING THE 2" x 2" x $\frac{1}{4}$ " ANGLES. THE ALUMINUM ANGLES SHALL BE WELDED TO THE ALUMINUM PANEL USING AN ALUMINUM 4043 FILLER METAL. THE STAINLESS STEEL BOLT HEAD SHALL BE WELDED TO THE BACKSIDE OF THE FLOWER GRAPHIC ALUMINUM PANELS USING A BIMETALLIC TRANSITION INSERT.

FONT FOR THE LETTERS SHALL BE LUMAQUETTE BOLD. COLORS FOR THE AESTHETIC LETTER PANELS SHALL BE WHITE CYMK (0:0:0:0) FOR THE LETTERS AND BACKGROUND COLOR AND ENTIRE BACKSIDE OF PANEL INCLUDING ANGLES SHALL BE GREEN CMYK (91:33:99:25). COLOR OF THE FLOWER GRAPHIC ON BOTH SIDES INCLUDING ATTACHED BOLTS AND PLATE WASHERS SHALL BE MEDIUM GREEN CYMK (59:2:100:0).

BOTH PANELS AND FLOWER LOGO AND THEIR CONNECTION SHALL BE POWDER COATED PER FEDERAL SPECIFICATION NO. FS-595B-17038.

AESTHETIC FENCE PANELS SHALL BE DESIGNED TO WITHSTAND WIND LOADING OF 50 LBS. PER SQUARE FOOT OF PANEL AREA.

SEE STANDARD DRAWING VPF-1-90, DATED 07-20-18 FOR MATERIAL SPECIFICATIONS AND SIZES OF FENCE LINE AND END POSTS, TOP, BOTTOM AND LINE RAILS, BASE PLATES, SHIM PLATES AND FABRIC, ANCHORS AND ANCHOR ADHESIVE, AND ALL OTHER MATERIALS NOT LISTED HEREIN FOR THE COMPLETE INSTALLATION OF THE VANDAL PROTECTION FENCE.

FASTENERS:

CONNECTIONS BETWEEN ADJACENT AESTHETIC FENCE PANELS SHALL BE PER STANDARD DRAWING VPF-1-90. CONNECTIONS BETWEEN THE ALUMINUM PANELS AND THE GALVANIZED LINE RAILS, FENCE LINE AND END POSTS SHALL BE MADE WITH $\frac{1}{4}$ " SELF-DRILLING STAINLESS STEEL SCREWS AND $\frac{3}{8}$ " STAINLESS STEEL PLATE WASHERS.

PRIOR TO DRILLING ANCHOR HOLES, LOCATE ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS THE PROPOSED ANCHOR, UTILIZE THE ALTERNATIVE DRILLING LOCATIONS PROVIDED IN THE FENCE POST BASE PLATES.

WELDING:

SHALL CONFORM TO ANSI/AWS D.1.6, STRUCTURAL WELDING CODE - STAINLESS STEEL AND AWS D.1.2 FOR ALUMINUM.

CAULKING COMPOUND:

SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-00230C TYPE II, CLASS A, ALUMINUM GRAY. WHEN APPLYING THE CAULK TO THE BASE PLATE, PROVIDE A 1 INCH OPENING THROUGH THE CAULKING ON LOW SIDE OF BASE PLATE.

CONSTRUCTION PROCEDURE:

1. FIELD VERIFY THE PLAN LOCATIONS OF ALL BASE PLATES AND MARK PARAPETS ACCORDINGLY.
2. MARK AND DRILL HOLES FOR THE $\frac{1}{2}$ INCH HIGH STRENGTH THREADED ANCHORS USING A BASE PLATE OR TEMPLATE.
3. INSTALL BASE PLATES AND SHIMS WHERE REQUIRED.
4. INSTALL RAILS AND POSTS AND SHIMS WHERE REQUIRED.
5. CAULK EDGES OF BASE PLATES, SHIMS AND SLEEVES.
6. INSTALL DECORATIVE FENCE PANELS.

ITEM 607 - SPECIAL - VANDAL PROTECTION FENCE AESTHETIC, 6 FT STRAIGHT, COATED FABRIC (ALTERNATE BID 2, WEST CHESTER, SOUTH SIDE)

(CONTINUED)

SHOP DRAWINGS:

PRIOR TO FABRICATION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR ACCEPTANCE.

AESTHETIC PANELS AND FLOWERS:

PRIOR TO COMPLETE FABRICATION, THE CONTRACTOR SHALL SUBMIT PHYSICAL SAMPLES OF THE ALUMINUM LETTER PANEL WITH ALUMINUM ANGLE WELDED, AND ALUMINUM FLOWER PANEL INCLUDING COLORS OF SURFACE POWDER COATING.

BASIS OF PAYMENT:

PAYMENT FOR LABOR, MATERIALS, EQUIPMENT REQUIRED TO FABRICATE AND INSTALL THE AESTHETIC FENCE SHALL BE INCLUDED WITH THE COST OF THE ITEM 607 - SPECIAL - VANDAL PROTECTION FENCE (ALTERNATE BID 2) - 360.91 LF.

ITEM 607 - SPECIAL - VANDAL PROTECTION FENCE, AESTHETIC, 6 FT STRAIGHT, COATED FABRIC (ALTERNATE BID 2, SHARONVILLE, NORTH SIDE)
DESCRIPTION:

THIS ITEM SHALL CONSIST OF FURNISHING ALL MATERIALS, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO FABRICATE AND INSTALL THE AESTHETIC FENCE STRUCTURAL FRAMING DETAILED HEREIN. IT SHALL ALSO CONSIST OF ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO INSTALL THE AESTHETIC FENCE PANELS THEMSELVES.

AESTHETIC FENCE PANELS:

DECORATIVE FENCE PANELS SHALL BE FABRICATED FROM ASTM - 6061-T6 ALUMINUM $\frac{3}{8}$ " THICK. THE STAINLESS STEEL BOLT HEAD SHALL BE WELDED TO THE BACKSIDE OF THE ALUMINUM PANELS USING A BIMETALLIC TRANSITION INSERT.

COLORS FOR THE AESTHETIC PANELS SHALL BE FEDERAL COLOR 36321 GREY FOR THE SEPARATION AREA AND THE ENTIRE BACKSIDE OF THE PANEL; FEDERAL COLOR 11105 RED FOR THE LONGER FOUR SECTION ARCH; AND FEDERAL COLOR 15056 BLUE FOR THE SHORTER THREE SECTION ARCH.

ALL PANELS AND THEIR CONNECTION SHALL BE POWDER COATED PER FEDERAL SPECIFICATION NO. FS-595B-17038.

AESTHETIC FENCE PANELS SHALL BE DESIGNED TO WITHSTAND WIND LOADING OF 50 LBS. PER SQUARE FOOT OF PANEL AREA.

SEE STANDARD DRAWING VPF-1-90, DATED 07-20-18 FOR MATERIAL SPECIFICATIONS AND SIZES OF FENCE LINE AND END POSTS, TOP, BOTTOM AND LINE RAILS, BASE PLATES, SHIM PLATES AND FABRIC, ANCHORS AND ANCHOR ADHESIVE, AND ALL OTHER MATERIALS NOT LISTED HEREIN FOR THE COMPLETE INSTALLATION OF THE VANDAL PROTECTION FENCE.

FASTENERS:

CONNECTIONS BETWEEN ADJACENT AESTHETIC FENCE PANELS SHALL BE PER STANDARD DRAWING VPF-1-90.

ANCHORS:

THE $\frac{1}{2}$ INCH DIA. THREADED ROD FOR ADHESIVE ANCHORS USED TO SECURE THE BASE PLATES SHALL CONFORM TO ASTM F593G, NUTS AND WASHERS FOR THE THREADED ROD SHALL CONFORM TO ASTM 5994 AND ASTM A240, RESPECTIVELY.

ANCHOR ADHESIVE SHALL BE THE HILTI-HY-200-R ADHESIVE ANCHOR SYSTEM OR APPROVED EQUIVALENT.

PRIOR TO DRILLING ANCHOR HOLES, LOCATE ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS THE PROPOSED ANCHOR, UTILIZE THE ALTERNATIVE DRILLING LOCATIONS PROVIDED IN THE FENCE POST BASE PLATES.

WELDING:

SHALL CONFORM TO ANSI/AWS D.1.6, STRUCTURAL WELDING CODE - STAINLESS STEEL AND AWS D.1.2 FOR ALUMINUM.

CAULKING COMPOUND:

SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-00230C TYPE II, CLASS A, ALUMINUM GRAY. WHEN APPLYING THE CAULK TO THE BASE PLATE, PROVIDE A 1 INCH OPENING THROUGH THE CAULKING ON LOW SIDE OF BASE PLATE.

ITEM 607 - SPECIAL - VANDAL PROTECTION FENCE, AESTHETIC, 6 FT STRAIGHT, COATED FABRIC (ALTERNATE BID 2, SHARONVILLE, NORTH SIDE)
(CONTINUED)

CONSTRUCTION PROCEDURE:

1. FIELD VERIFY THE PLAN LOCATIONS OF ALL BASE PLATES AND MARK PARAPETS ACCORDINGLY.

2. MARK AND DRILL HOLES FOR THE $\frac{1}{2}$ INCH HIGH STRENGTH THREADED ANCHOR RODS USING A BASE PLATE OR TEMPLATE.

3. INSTALL BASE PLATES AND SHIM WHERE REQUIRED.

4. INSTALL RAILS AND POSTS AND SHIM WHERE REQUIRED.

5. CAULK EDGES OF BASE PLATES, SHIMS AND SLEEVES.

6. INSTALL DECORATIVE FENCE PANELS.

SHOP DRAWINGS:

PRIOR TO FABRICATION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR ACCEPTANCE.

AESTHETIC PANELS:

PRIOR TO COMPLETE FABRICATION, THE CONTRACTOR SHALL SUBMIT PHYSICAL SAMPLES OF THE ALUMINUM PANEL INCLUDING COLORS OF SURFACE POWDER COATING.

BASIS OF PAYMENT:

PAYMENT FOR LABOR, MATERIALS, EQUIPMENT REQUIRED TO FABRICATE AND INSTALL THE AESTHETIC FENCE SHALL BE INCLUDED WITH THE COST OF THE ITEM 607 - SPECIAL - VANDAL PROTECTION FENCE (ALTERNATE BID 3) - 360.91 LF.

ITEM 530 - SPECIAL - STRUCTURES, AESTHETIC LETTERING

FORMLINER FOR AESTHETIC LETTERING SHALL BE MADE OF PLASTICIZED POLYVINYL CHLORIDE. THE MATERIAL SHALL HAVE SUFFICIENT FIRMNESS TO RESIST DISTORTION FROM FRESHLY PLACED CONCRETE AND SUFFICIENT PLIABILITY TO PERMIT REMOVAL WITHOUT DAMAGE TO THE FORMLINERS OR TO EARLY AGE CONCRETE.

FORMLINERS SHALL HAVE A SHORE A HARDNESS OF APPROXIMATELY 25.

LETTERING FORMLINER SHALL BE INSTALLED IN THE FORMS TO PROVIDE THE DIMENSIONAL RELATIONSHIP BETWEEN LETTERS AS SHOWN ON THE PLANS. FORMLINERS SHALL BE ATTACHED FIRMLY TO PRIMARY FORM ELEMENTS TO ENSURE THAT THE FORMLINERS WILL BE TRUE AND STRAIGHT IN THE VERTICAL POSITION.

AFTER FORMS ARE STRIPPED, IMPERFECTIONS IN THE FINISHED CONCRETE SHALL BE PATCHED WITH THE SAME MATERIALS AND MIX USED IN THE CONCRETE POUR TO RESTORE FULLY THE TEXTURED SURFACES TO THE SATISFACTION OF THE ENGINEER.

THE ADDITIONAL THICKNESS OF THE DECORATIVE FORM LINER SHALL BE ADDED TO THE EXTERIOR FACE OF THE STANDARD SBR-T-20 PARAPET SHOWN HEREIN. THE INCORPORATION OF THIS FORM LINER SHALL NOT RESULT IN ANY REDUCTION TO THE PROPOSED ROADWAY WIDTH.

FORM LINER
ACCEPTABLE FORM LINER MANUFACTURERS INCLUDE CUSTOMROCK FORM LINER WWW.CUSTOMROCK.COM, #1103 RUSTIC ASHLAR (KEYED); ARCHITECTURAL POLYMERS, INC. PATTERN #898, RUSTIC ASHLER STONE; AND FITZGERALD FORMLINERS PATTERN #17033, SIERRA DRYSTACK, OR APPROVED EQUAL

AESTHETIC LETTERING, INCLUDING ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO PRODUCE THE FINISHED PRODUCT, SHALL BE PAID FOR UNDER

ITEM 530: SPECIAL - STRUCTURES, AESTHETIC LETTERING.

SRF	3111261
DESIGN AGENCY	FRUMBAUGH ENGINEERING & SURVEYING, LLC
DESIGNER	CHECKER
GWG	SRF
REVIEWER	
DDM	08-27-21
PROJECT ID	105478
SUBSET	TOTAL
2	3
SHEET	TOTAL
22	50



MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 12/20/2022 TIME: 3:57:23 PM USER: stevens.schwartz
TITLE: 2022\148_22_Crescentville Rd - W75 Overpass Fencing, North Side - West Chester Township\Structures\Sheets\105478_SN011.dgn

ITEM 607 - FENCE MISC.: VANDAL PROTECTION FENCE REBUILT

BRIDGE No.: WAR-63-0010

REMOVE AND DISPOSE OF EXISTING TEMPORARY HORIZONTAL STRUTS. SALVAGE EXISTING FENCE FABRIC FOR RESUE REPLACE THE SALVAGED POST, BASEPLATE, AND TWO SECTIONS OF DECORATIVE VANDAL PROTECTION FENCE. THE SALVAGED FENCE ELEMENTS HAVE BEEN PREVIOUSLY REMOVED DUE TO COLLISION DAMAGE TO THE CONCRETE PARAPET.

SALVAGED FENCE ELEMENTS ARE AVAILABLE AT THE CITY OF MONROE PUBLIC WORKS DEPARTMENT (CONTACT JASON HOLBROOK, 513-727-8953, HOLBROOK@MONROEOHIO.ORG; 1000 HOMAN AVE, MONROE, OH 45050). FURNISH AND INSTALL NEW CONNECTION BOLTS/NUTS/WASHERS FOR THE FENCE AND BASE PLATES AS WELL AS NEW FABRIC TIES FOR THE FENCE FABRIC AS SHOWN IN THE FENCE REPAIR DETAILS.

PAYMENT FOR FURNISHING AND INSTALLING NEW VANDAL FENCING HARDWARE AS INDICATED IN THE PLAN DETAILS AND NOTES TO BE INCLUDED IN ITEM 607 - FENCE MISC.: VANDAL PROTECTION FENCE REBUILT.

REMOVE EXISTING FENCE ELEMENTS PER CMS 202.

PAYMENT FOR ALL WORK ASSOCIATED WITH THE REMOVAL OF EXISTING VANDAL PROTECTION FENCE ELEMENTS TO BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED.

SEE EXISTING FENCING DETAILS, SHEET 26

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 THE SOIL, INJECTED AT A DEPTH OF 4 FEET IN A FOOT GRID PATTERN. USING HIGH DENSITY POLYURETHANE (HDP), ALL PROVISIONS OF SS 842 APPLY EXCEPT AS MODIFIED IN THIS NOTE. THE SETTLED APPROACH SLAB AT THE PAVEMENT END SHALL BE RAISED APPROXIMATELY 1".

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/FT ³ 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 °F (70 °C), 97 % RELATIVE HUMIDITY
DIMENSIONAL STABILITY, HIGH TEMPERATURE, 7 DAY	D2126	+4.0% CHANGE @158 °F (70 °C), 97 % RELATIVE HUMIDITY
DIMENSIONAL STABILITY, LOW TEMPERATURE, 1 DAY	D2126	-0.35% CHANGE @- 22 °F (-30 °C), AMBIENT RELATIVE HUMIDITY
DIMENSIONAL STABILITY, LOW TEMPERATURE, 7 DAY	D2126	-0.60% CHANGE @-22 °F (-30 °C), 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.

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.

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

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.

ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATES (NEOPRENE), AS PER PLAN

ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300° F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BEARING REPOSITIONING: IF STEEL IS ERRECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60° F (±) 10° F, THE BEAMS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F (±) 10° F.

STRUCTURAL STEEL FOR BEARING LOAD PLATE, MASONRY PLATE, SHIMS AND HP SECTIONS SHALL BE A709 GRADE 50 AND INCLUDED WITH ITEM 516 FOR PAYMENT. ALL STRUCTURAL STEEL USED FOR THE PROPOSED BEARING SHALL BE FIELD PAINTED PER OZEU. PAINT COLOR SHALL BE FEDERAL COLOR 14277 AND BE INCLUDED IN ITEM 514 FOR PAYMENT.

THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS FOR EACH GIRDER AT THE ABUTMENTS PRIOR TO JACKING OPERATIONS AND FABRICATION OF BEARINGS. THE CONTRACTOR IS TO SUBMIT THE VERIFIED ELEVATIONS TO THE DISTRICT 8 BRIDGE ENGINEER PRIOR TO JACKING. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED.

ANY BEARING HP-SECTION HEIGHTS OR DIMENSIONS SHOWN SHALL BE CONSIDERED APPROXIMATE AND ARE SHOWN FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY THE HEIGHT OF REQUIRED HP-SECTION BY MEASURING THE DISTANCE BETWEEN THE BEAM SEAT ELEVATION AND THE BOTTOM OF THE EXISTING BEAM FLANGE AND THEN SUBTRACTING FROM THAT DISTANCE THE THICKNESS OF THE BEARING AND LOAD PLATES.

ANY PLATE THICKNESS ADJUSTMENTS AND/OR SHIMS REQUIRED TO COMPLETE THE BEARINGS INSTALLATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. A MAXIMUM OF ONE SHIM PLATE SHALL BE ALLOWED PER BEARING.

IN ADDITION TO THE REQUIREMENTS OF 516 AND THE DETAILS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL ASSURE THAT THERE IS A SNUG FIT BETWEEN THE BEARING DEVICE AND BEARING SEAT. THE CONTRACTOR SHALL ASSURE THAT NO BEAMS OR BEARING DEVICES ARE FLOATING.

SET MASONRY PLATES ON BRIDGE SEATS THAT ARE FLAT AND SMOOTHLY FINISHED. IF THE BRIDGE SEAT AREA IS UNEVEN, USE A BUSH-HAMMER OR GRINDER FOLLOWED BY A THIN FILM OF PORTLAND CEMENT MORTAR OR PASTE TO FILL THE PITTED SURFACE TO BRING THE SEAT AREA TO THE PROPER ELEVATION AND PROVIDE A LEVEL, EVEN SURFACE.

BASIS OF PAYMENT: THE UNIT PRICE BIDS SHALL INCLUDE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE LAMINATED ELASTOMERIC BEARINGS WITH STEEL LOAD PLATES AND HP-SECTIONS INCLUDING GRINDING OF WELDS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.

STRUCTURE GENERAL NOTES

DESIGN AGENCY



DESIGNER: GTF
 REVIEWER: CAH 10/15/21
 PROJECT ID: 105478
 SHEET: 23 TOTAL: 50

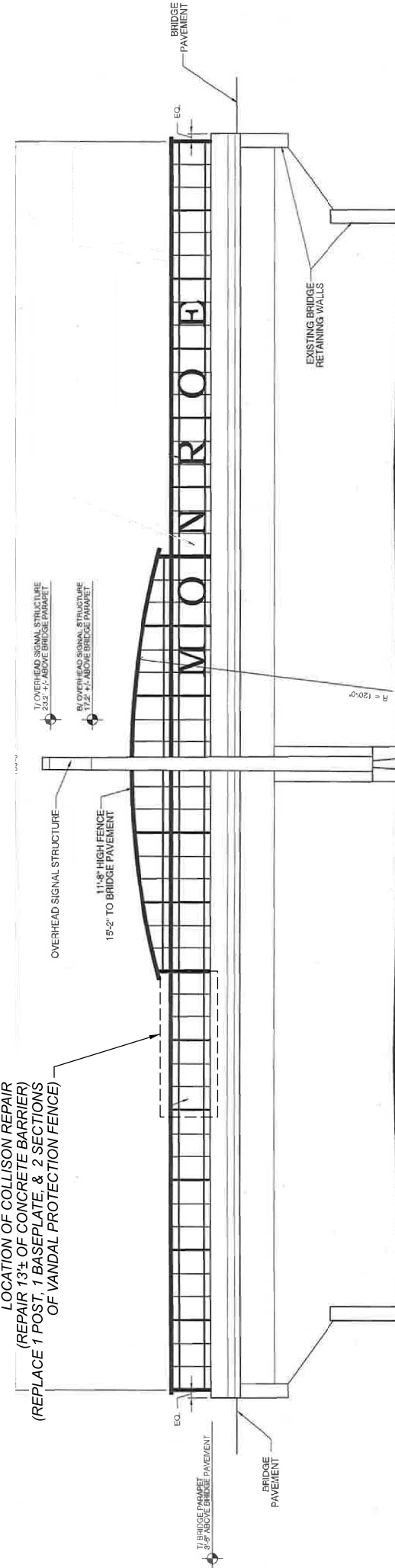


ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
519	12300	65	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B			65		

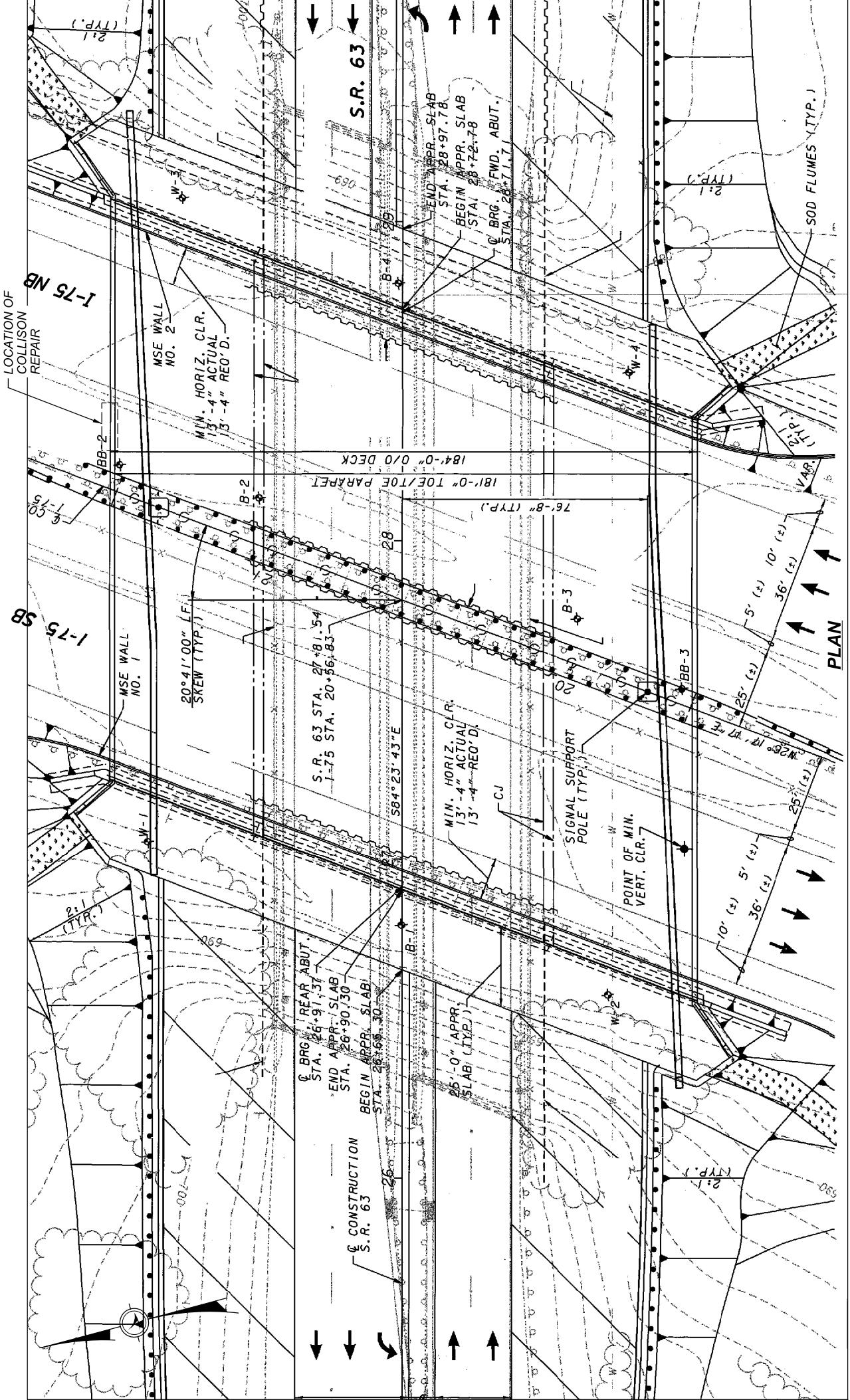
ESTIMATED QUANTITIES - STRUCTURE No.: HAM-75-0252 (SFN 3105458) (01/IMS/47 FUNDING SPLIT)									
ESTIMATED QUANTITIES - STRUCTURE No.: HAM-32-0127 (SFN 3102076) (02/NHS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
202	11200	LUMP	LS	PORTIONS OF STRUCTURE REMOVED				LUMP	
514	00050	995	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			995		
514	00056	995	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			995		
514	00060	1090	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, INTERMEDIATE COAT			1090		
516	44301	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (T = 4.468")	20				23
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					21
530	00400	2	EACH	SPECIAL - STRUCTURES.: CLEANING ABUTMENT BEAM SEAT	2				44

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-22-0622 (SFN 3100855) (02/NHS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
512	73500	1020	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			1020		
847	10000	25	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY (T = 1.25")			25		
847	20000	1	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			LUMP	1	
847	30000	LUMP		TEST SLAB					
847	30200	2	CY	FULL DEPTH REPAIR				2	
847	30400	25	SY	EXISTING CONCRETE OVERLAY REMOVED (T = 1.25")			25		

LOCATION OF COLLISION REPAIR
 (REPAIR 13'± OF CONCRETE BARRIER
 (REPLACE 1 POST, 1 BASEPLATE, & 2 SECTIONS
 OF VANDAL PROTECTION FENCE))



SOUTH ELEVATION
 (NOT TO SCALE)



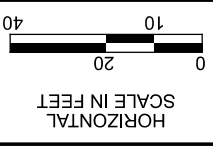
PLAN



SFN 8301425
 DESIGN AGENCY

DESIGNER/CHECKER	CAH
GTF	CAH
REVIEWER	CAH
PROJECT ID	105478
SUBSET	1
TOTAL SHEET	2
TOTAL SHEET	26
TOTAL	50

SITE PLAN
 BRIDGE No.: WAR-63-0010
 STATE ROUTE 63 OVER I.R. 75



NOTES

- 1) DETAILS ON THIS SITE PLAN SHEET ARE FROM ARCHIVED PLANS AND SHOULD BE USED FOR REFERENCE ONLY
- 2) SEE SHEET 26 FOR FENCE DETAILS
- 3) PHOTOGRAPHS OF COLLISION DAMAGE TO THE CONCRETE PARAPET ARE AVAILABLE AT THE LINK BELOW:
<http://ftp.dot.state.oh.us/pub/Districts/D08/D08-BM-FY2023-PID105478/Photos>

ITEM 606 - SPECIAL STRUCTURES: REPAIR OF DAMAGED EPOXY COATING ON EXISTING REINFORCING STEEL
 REPAIR DAMAGED EPOXY COATING ON THE EXPOSED REINFORCING STEEL. USE A WIRE BRUSH OR MECHANICAL MEANS TO REMOVE RUST AND LOOSE EPOXY. REPAIR USING EPOXY COATING MEETING THE REQUIREMENTS OF ASTM A775.

DESIGN TRAFFIC:

HAM-IR 75-0.64
 2023 ADT = 115,000 2023 ADTT = 10,350
 DHV = 13,000
 DESIGN SPEED = 70 MPH LEGAL SPEED = 70 MPH
 DESIGN FUNCTIONAL CLASSIFICATION: 01-PRINCIPAL ARTERIAL FREEWAY

HAM-SR 63-0.37
 2023 ADT = 34,500 2023 ADTT = 690
 DHV = 4,400
 DESIGN SPEED = 50 MPH LEGAL SPEED = 50 MPH
 DESIGN FUNCTIONAL CLASSIFICATION: 04-MINOR ARTERIAL (URBAN)

EXISTING STRUCTURE

TYPE: 2 SPAN COMPOSITE PRESTRESSED CONCRETE BEAMS WITH REINFORCED CONCRETE DECK, PIER AND SEMI-INTEGRAL ABUTMENTS ON STEEL H-PILES

SPANS: 90'-2", 90'-2" C/C BEARINGS
ROADWAY: 181'-0" TOE/TOE PARAPET
LOADING: HS-25-44 & ALT. MILITARY LOADING
SKEW: 20°

WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-81 (25' LONG)
ALIGNMENT: TANGENT
CROWN: 0.020 FT/FT
STRUCTURE FILE NUMBER: 8301425
DATE BUILT: 7/21/2006
DISPOSITION: DAMAGED CONCRETE PARAPET AND VANDAL PROTECTION FENCE DUE TO COLLISION

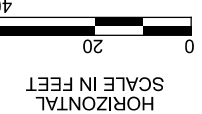
PROPOSED WORK

- 1) REMOVE EXISTING TEMPORARY HORIZONTAL FENCE STRUTS. SALVAGE EXISTING FENCE FABRIC FOR REUSE
- 2) REMOVE DAMAGED PORTION OF CONCRETE BARRIER. SALVAGE EXISTING REINFORCING STEEL
- 3) REPAIR DAMAGE EPOXY COATING ON REINFORCING STEEL
- 4) REPLACE CONCRETE
- 5) SEAL CONCRETE SURFACES DAMAGED BY COLLISION OR CONTRACTOR REMOVAL/REPAIR OPERATIONS.
- 6) REPLACE POST, BASEPLATE, AND TWO SECTIONS OF DECORATIVE VANDAL PROTECTION FENCE



DESIGN AGENCY	0900702	DESIGNER/CHECKER	DLC
REVIEWER	AS	DATE	07-26-22
PROJECT ID	105478	TOTAL SHEETS	2
SUBSET	1	TOTAL SHEETS	2
SHEET	28	TOTAL SHEETS	50

SITE PLAN
BRIDGE NO.: BUT-27-0601
US ROUTE 27 OVER INDIAN CREEK



NOTES

- 1) DETAILS ON THIS SITE PLAN SHEET ARE FROM ARCHIVED PLANS AND SHOULD BE USED FOR REFERENCE ONLY.
- 2) SEE SHEET 17 FOR GUARDRAIL SUBSUMMARY.
- 3) SEE SHEET 18 FOR TEXAS DOT SHORT TRANSITION PLAN INSERT SHEET.

ITEM 606 - MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1, AS PER PLAN
BTA SHALL BE INSTALLED ON A 15' RADIUS DUE TO THE PROXIMITY OF WATER STREET.

ITEM 606 - GUARDRAIL, MISC.: TEXAS SHORT TRANSITION
INSTALL TEXAS SHORT TRANSITION PER C&MS 606 AND PER THE TDOT METAL BEAM GUARD FENCE THREE-BEAM TRANSITION PLAN INSERT SHEET.

DESIGN TRAFFIC:
BUT-US 27-6.01
2023 ADT = 14,500
DHV = 1,600
2023 ADTT = 1,740
DESIGN SPEED = 25 MPH
LEGAL SPEED = 25 MPH
DESIGN FUNCTIONAL CLASSIFICATION: 03-PRINCIPAL ARTERIAL (URBAN)
MHS ROUTE YES

LEGEND

- ITEM 848, MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION
- ITEM 519, PATCHING CONCRETE STRUCTURE

HYDRAULIC DATA

DRAINAGE AREA = 87.1 SQ. MILES
Q (100) = 16,232 CFS V (100) = 10.92 FTS
Q (25) = 12,038 CFS V (25) = 11.93 FTS
STRUCTURE CLEARS THE 25 YEAR DESIGN HW BY 1.7 FEET.

EXISTING STRUCTURE

TYPE: PRESTRESSED PRECAST CONC. BOX BEAMS WITH 6" MIN. COMPOSITE CONC. SLAB AND REINFORCED CONCRETE SUBSTRUCTURE

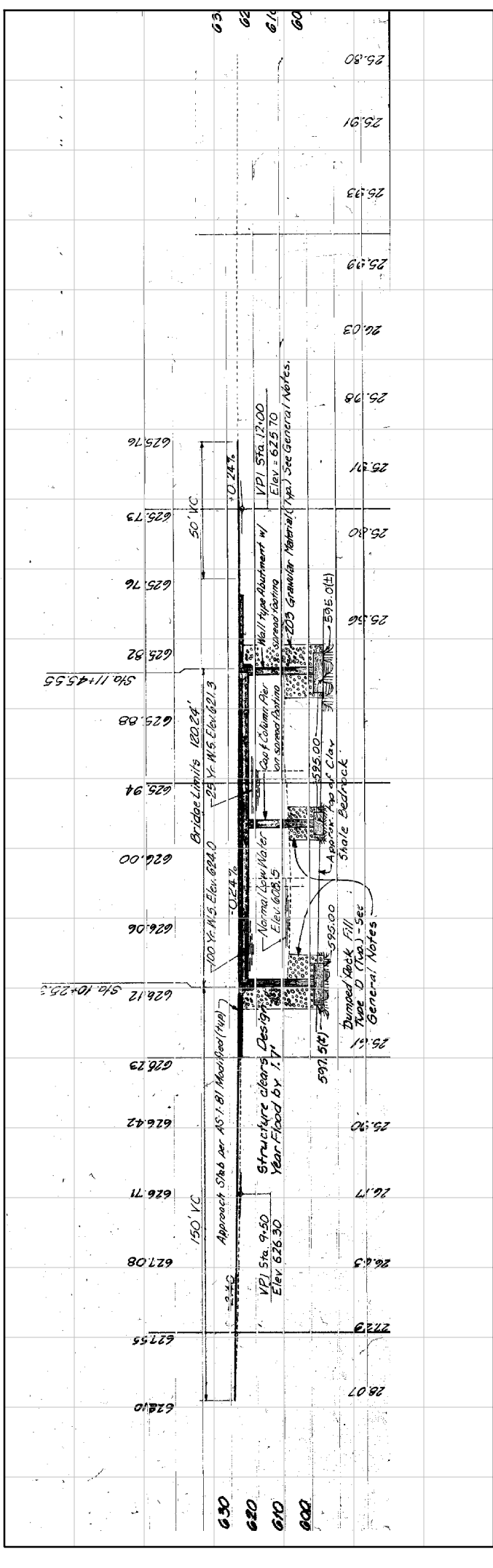
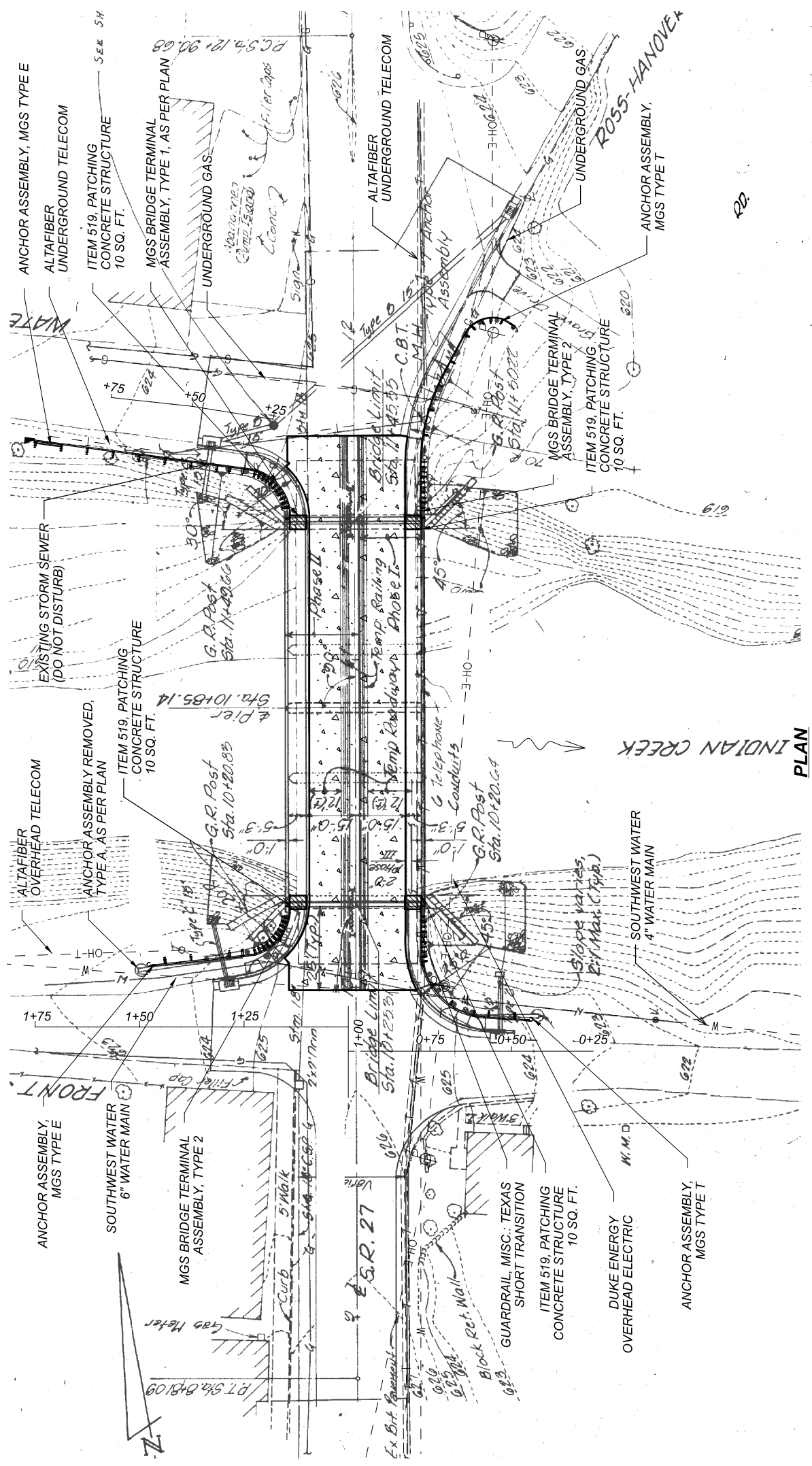
SPANS: 57'-0", 57'-0"
ROADWAY: 30' F/F CURBS WITH 5'-3" WALK EACH SIDE

LOADING: HS20-44 & THE ALTERNATE MILITARY LOADING
SKEW: NONE

WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: 25' AS-1-81 MODIFIED
ALIGNMENT: TANGENT
CROWN: NORMAL
STRUCTURE FILE NUMBER: 0900702
DATE BUILT: 1987
DISPOSITION: SEE PROPOSED WORK

PROPOSED WORK

- 1) REMOVE 1 1/4" OF THE EXISTING CONCRETE WEARING SURFACE ON THE DECK, TOP OF BACKWALL, AND APPROACH SLABS USING HYDRODEMOLITION. REPLACE WITH 1 1/4" MICRO-SILICA CONCRETE OVERLAY.
- 2) REMOVE THE 1" COMPRESSION SEAL BETWEEN THE TOP OF BACKWALL AND THE APPROACH SLAB AND REPLACE WITH HOT APPLIED JOINT SEALER PER 705.04
- 3) REPLACE 15' OF THE DETERIORATED EAST CURB ON THE NORTH APPROACH SLAB
- 4) REPLACE THE DETERIORATED SIDEWALK SURFACE AND CURB OVERTOP THE TOP OF BACKWALLS DOWN TO THE FIRST LAYER OF REINFORCING WITH 519 PATCHING
- 5) REMOVE THE EXISTING SEALER ON THE CURB, SIDEWALK, AND TRAFFIC SIDE OF THE PARAPET AND RECOAT WITH EPOXY URETHANE SEALER ON THE BRIDGE AND APPROACH SLABS
- 6) REPLACE THE GUARDRAIL AT ALL 4 CORNERS



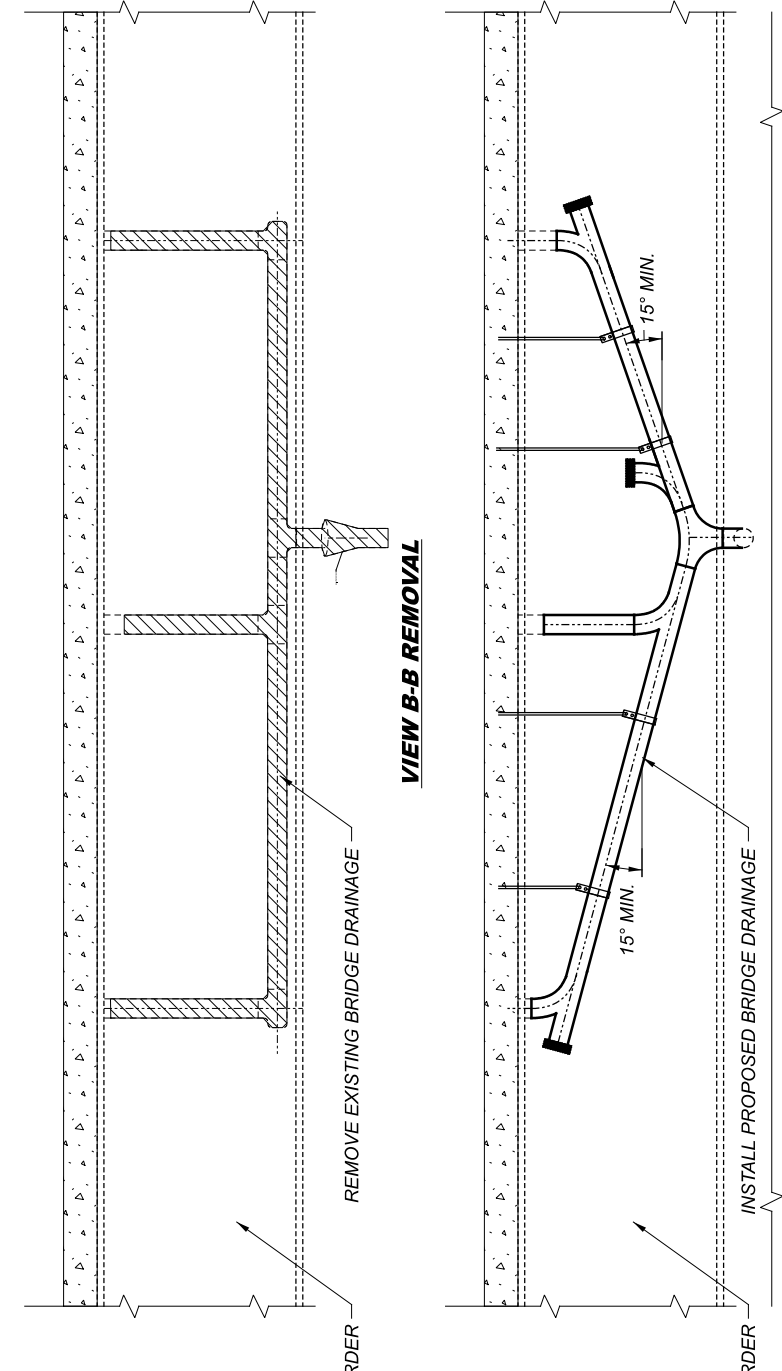
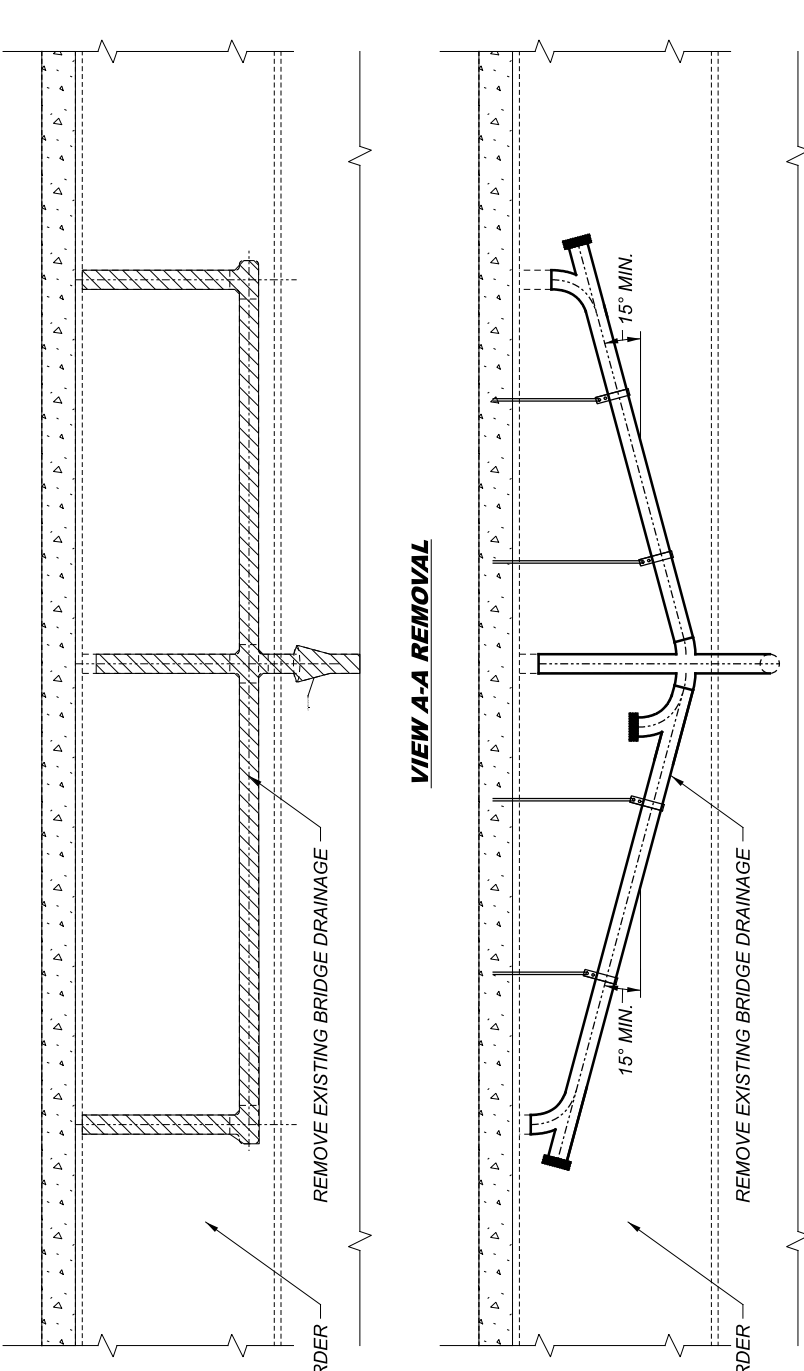
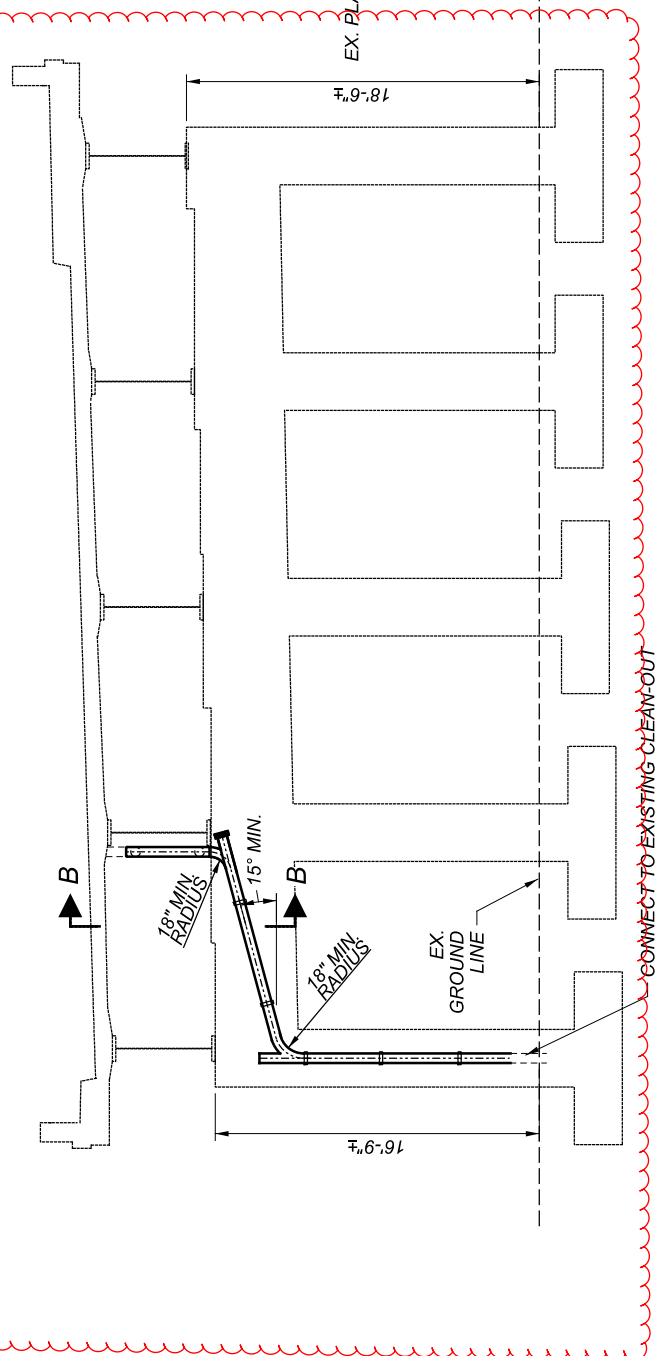
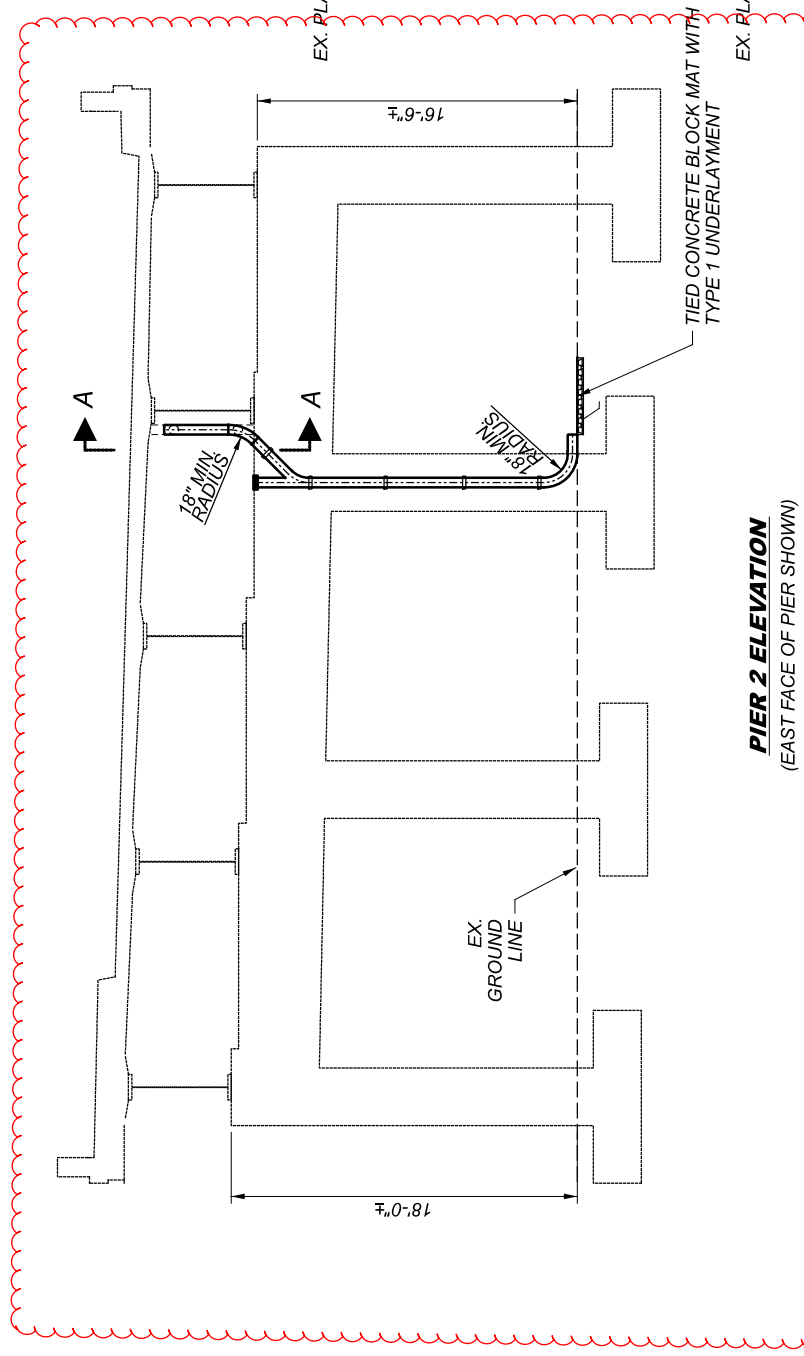
ELEVATION

STRUCTURE REPAIR DETAILS
 BRIDGE NO.: HAM-75-0088
 NINTH STREET OVER I.R. 75

SFN 3109038
 DESIGN AGENCY



DESIGNER	CHECKER	GTF	ND	REVIEWER	CAH	10/15/21	PROJECT ID	105478	SUBSET	TOTAL	SHEET	TOTAL
									2	2	49	50



LEGEND:



- ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

NOTES:

- DIMENSIONS SHOWN SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT PROPOSED DRAINAGE SYSTEM LOCATIONS & PREPARE DETAILED SHOP DRAWINGS INDICATING THE PROPOSED SIZES, FITTINGS, CONNECTIONS AND OTHER PERTINENT INFORMATION PRIOR TO COMMENCING REPAIR WORK.
- REMOVAL LOCATIONS TO COINCIDE WITH PROPOSED WORK LOCATIONS SHOWN. REMOVALS TO BE PAID UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED.