

LOCATION MAP

LATITUDE: 39°14'27" LONGITUDE: -84°46'19"



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

DESIGN DESIGNATION	DRY FORK RD. N OF I-74	DRY FORK RD. S OF I-74	I-74 RAMP 'C'	I-74 RAMP 'D'
CURRENT ADT (2026)	7465	9161	6556	6609
DESIGN YEAR ADT (2046)	12333	15256	9411	10354
DESIGN HOURLY VOLUME (2046)	1233	1526	941	1035
DIRECTIONAL DISTRIBUTION	0.59	0.53	N/A	N/A
TRUCKS (24 HOUR B&C)	4%	4%	8%	8%
DESIGN SPEED	40 MPH	40 MPH	N/A	N/A
LEGAL SPEED	35 MPH	35 MPH	N/A	N/A
DESIGN FUNCTIONAL CLASSIFICATION:	MAJOR COLLECTOR (URBAN)	MINOR ARTERIAL (URBAN)	INTERSTATE (URBAN)	INTERSTATE (URBAN)
NHS PROJECT	YES			

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:
TEC ENGINEERING
7288 CENTRAL PARKE BLVD.
MASON, OH 45040

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

HAM-CR14-3.49 Dry Fork Rd

CITY OF HARRISON

HARRISON TOWNSHIP

HAMILTON COUNTY

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STANDARD CONSTRUCTION DRAWINGS												SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-1.1	7/28/00	MGS-1.1	1/17/25	AS-1-15	1/20/23	MT-95.30	7/18/25	TC-9.11	1/9/24	TC-74.10	7/21/23	800-2023	7/18/25
BP-2.1	1/21/22	MGS-2.1	7/18/25	AS-2-15	7/21/23	MT-95.45	7/21/23	TC-12.31	7/18/25	TC-81.22	1/17/25	809	7/18/25
BP-2.2	1/15/21	MGS-3.1	7/18/25			MT-95.50	7/21/17	TC-21.21	7/18/25	TC-83.10	1/17/20	813	7/21/23
BP-2.5	7/19/24	MGS-3.2	7/18/25	BR-2-15	7/19/24	MT-98.20	4/19/19	TC-22.10	1/17/25	TC-83.20	7/18/25	825	7/19/24
BP-3.1	1/19/24	MGS-4.2	7/18/25			MT-98.21	7/21/23	TC-22.20	7/18/25	TC-85.10	1/19/24	832	7/18/25
BP-5.1	7/18/25	MGS-4.3	7/18/25	GSD-1-19	7/19/24	MT-98.28	1/17/20	TC-41.10	7/19/13	TC-85.20	4/21/23	869	10/17/14
BP-6.1	7/19/13	MGS-5.2	7/15/16			MT-98.29	1/17/20	TC-41.20	10/18/13			875	1/17/25
BP-7.1	7/18/25	MGS-5.3	7/15/16	PCB-91	7/17/20	MT-99.30	7/18/25	TC-41.30	4/21/23	ITS-12.50	1/17/25	878	1/21/22
BP-8.1	7/19/24	MGS-6.1	1/19/18			MT-101.60	1/17/25	TC-41.50	10/18/13			909	7/18/25
				SBR-1-20	7/19/24	MT-101.70	7/19/24	TC-42.10	10/18/13	HL-10.11	7/21/23	913	4/16/21
DM-1.1	1/17/25					MT-101.75	7/21/23	TC-42.20	10/18/13	HL-10.12	7/21/23		
DM-1.2	1/17/25			SICD-1-96	7/18/14	MT-101.90	7/17/20	TC-51.11	7/18/25	HL-10.13	1/20/23		
DM-4.1	7/17/20			SICD-2-14	1/15/21	MT-103.10	7/18/25	TC-52.10	10/18/13	HL-20.11	7/18/25		
DM-4.2	7/20/12	CB-3A	7/19/24			MT-105.10	1/17/20	TC-52.20	1/15/21	HL-30.11	7/21/23		
DM-4.3	1/15/16			VPF-1-24	7/19/25	MT-110.10	7/19/13	TC-61.30	7/19/24	HL-30.21	4/17/20		
DM-4.4	1/15/16							TC-65.10	1/17/14	HL-30.22	1/17/25		
		RM-4.3	7/18/25	HW-2.1	7/15/22			TC-65.11	1/17/25	HL-40.20	7/18/25		
		RM-4.4	1/17/25	HW-2.2	7/20/18			TC-71.10	7/18/25	HL-50.21	7/15/22		
		RM-4.5	7/18/25					TC-72.20	7/18/25	HL-60.11	7/21/17		
		RM-4.6	7/18/25					TC-73.20	1/17/25	HL-60.31	7/19/24		

FEDERAL PROJECT NUMBER

231052

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

WIDENING OF DRY FORK ROAD (C.R.14) BRIDGE OVER I.R.74 FOR LEFT TURN LANES. WIDENING I.R.74 WESTBOUND OFF-RAMP "D" TO EXTEND SECOND LANE BACK TO THE GORE AREA. WIDENING I.R. 74 EASTBOUND ON-RAMP "C" FOR ADDITIONAL RECEIVING LANE. ADD SIDEWALK ON WEST SIDE OF THE BRIDGE.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	3.92 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	3.92 ACRES

LIMITED ACCESS

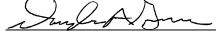
THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

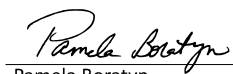
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

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 SHEET 008.

DISTRICT DEPUTY DIRECTOR


Douglas A. Gruver, P.E.
District 08 Deputy Director

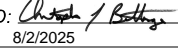
DIRECTOR, DEPARTMENT OF TRANSPORTATION


Pamela Boratyn

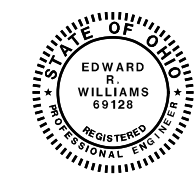
ENGINEER'S SEAL:

BRIDGE NO. HAM-74-0358



SIGNED: 
DATE: 8/2/2025

ENGINEER'S SEAL:



SIGNED: _____
DATE: _____

DESIGN AGENCY



DESIGNER

KLL

REVIEWER

ERW 08/29/25

PROJECT ID

118472

SHEET

001

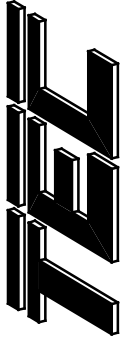
TOTAL

172

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	8	11	24	25	26	90	91	92	105	114	01/MPO/ HARR	02/BRO/ HARR	03/SAF/ HARR						
LS											LS			201	11000	LS		ROADWAY	
			8,077								8,077			202	23000	8,077	SY	CLEARING AND GRUBBING	
			216								216			202	30700	216	FT	PAVEMENT REMOVED	
			1,894								1,894			202	38000	1,894	FT	CONCRETE BARRIER REMOVED	
			10								10			202	42207	10	EACH	GUARDRAIL REMOVED	
			4								4			202	47001	4	EACH	ANCHOR ASSEMBLY REMOVED, AS PER PLAN	8
																		BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	8
			7								7			202	98100	7	EACH	REMOVAL MISC.: LOOP DETECTORS	8
											4,800			203	10000	4,800	CY	EXCAVATION	
											7,600			203	20000	7,600	CY	EMBANKMENT	
					11,692						11,692			204	10000	11,692	SY	SUBGRADE COMPACTION	
					3,778						3,778			204	13000	3,778	CY	EXCAVATION OF SUBGRADE, 12"	
					3,778						3,778			204	30020	3,778	CY	GRANULAR MATERIAL, TYPE C, 12"	
4											4			204	45000	4	hour	PROOF ROLLING	
					11,327						11,327			204	50000	11,327	SY	GEOTEXTILE FABRIC	
			2								2			606	60028	2	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), 36"	
			1,162.5								1,162.5			606	15050	1,162.5	FT	GUARDRAIL, TYPE MGS	
			250								250			606	15100	250	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
			50								50			606	15200	50	FT	GUARDRAIL, TYPE MGS HALF POST SPACING WITH LONG POSTS	
			6								6			606	26150	6	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	8
			8								8			606	26550	8	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			4								4			606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
			2								2			606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
			949								949			608	12000	949	SF	5" CONCRETE WALK	
			315								315			608	52000	315	SF	CURB RAMP	
			2								2			622	25050	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
			158								158			622	10060	158	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B	
			198								198			622	10160	198	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
			2								2			622	25000	2	EACH	CONCRETE BARRIER END SECTION, TYPE D	
			2								2			622	25004	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B	
																		EROSION CONTROL	
				4							4			601	21050	4	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
				1							1			601	32200	1	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
1,010											1,010			659	00300	1,010	CY	TOPSOIL	
9,097											9,097			659	10000	9,097	SY	SEEDING AND MULCHING	
455											455			659	14000	455	SY	REPAIR SEEDING AND MULCHING	
1.23											1.23			659	20000	1.23	TON	COMMERCIAL FERTILIZER	
1.88											1.88			659	31000	1.88	ACRE	LIME	
49											49			659	35000	49	MGAL	WATER	
21											21			659	40000	21	MSF	MOWING	
											LS			832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
											LS			832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
											LS			832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
											30,000			832	30000	30,000	EACH	EROSION CONTROL	
																		DRAINAGE	
				2.1							2.1			602	20000	2.1	CY	CONCRETE MASONRY	
				4,082							4,082			605	14000	4,082	FT	6" BASE PIPE UNDERDRAINS	
				12							12			611	97400	12	FT	CONDUIT, MISC.: 33" CONDUIT, TYPE C	8
				1							1			611	98450	1	EACH	CATCH BASIN, NO. 2-2A	
				227							227			611	04600	227	FT	12" CONDUIT, TYPE C	
				105							105			611	13600	105	FT	30" CONDUIT, TYPE C	
				4							4			611	98180	4	EACH	CATCH BASIN, NO. 3A	
				1							1			611	99574	1	EACH	MANHOLE, NO. 3	
				2							2			611	99710	2	EACH	PRECAST REINFORCED CONCRETE OUTLET	

GENERAL SUMMARY

DESIGN AGENCY



PLAN PREPARED BY:
TEL Engineering, Inc.
7288 Central Park Blvd.
Mason, OH 45940

DESIGNER

KLL

REVIEWER

ERW 12/01/25

PROJECT ID

118472

SHEET

019

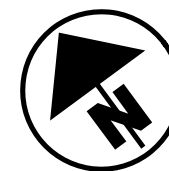
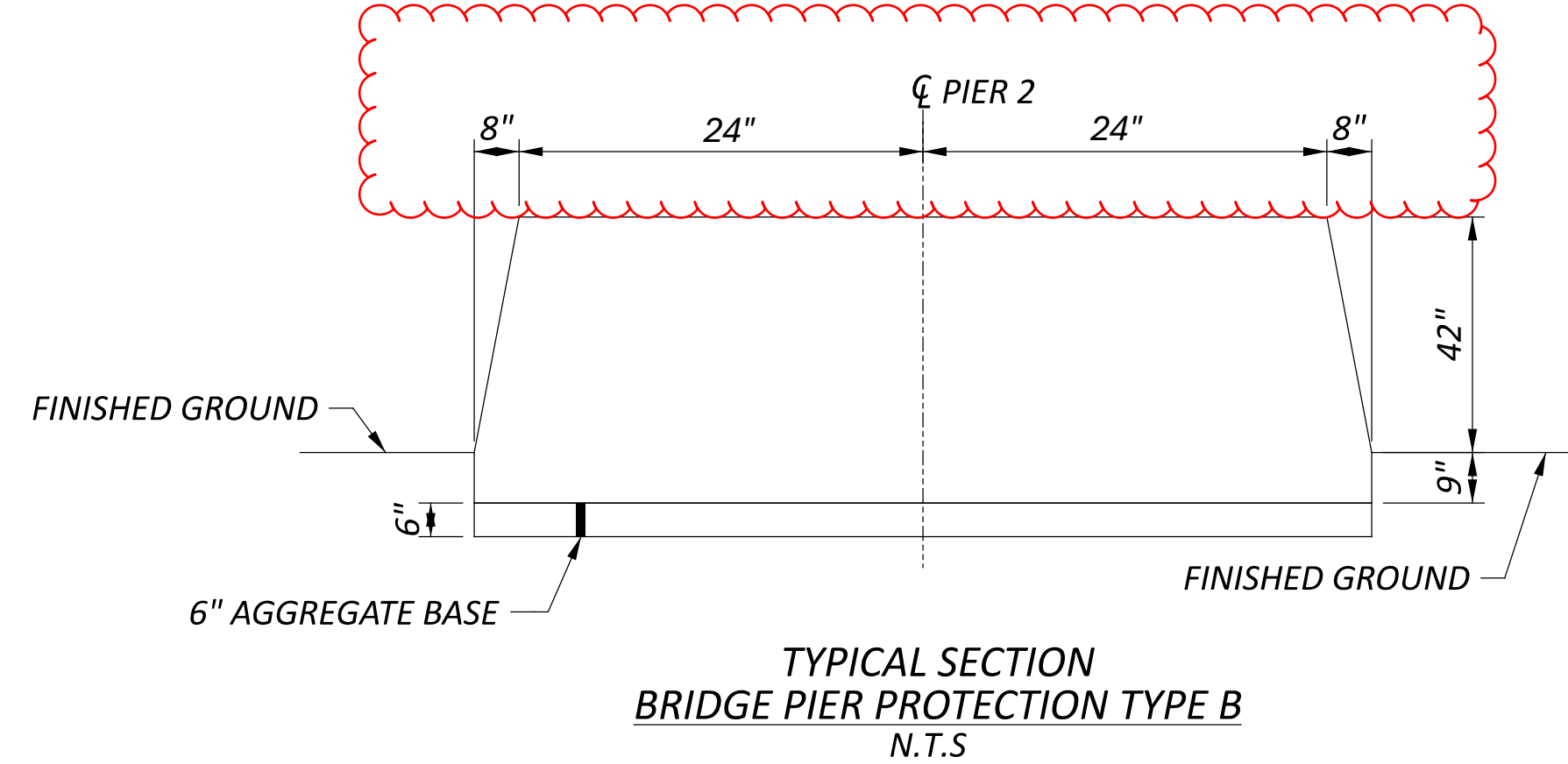
TOTAL

172

[illegible]

MODEL: Sheet - GR001-4. PAPER SIZE: 34x22 (in.) DATE: 12/1/2025 TIME: 9:27:13 AM PLTDRW: OHDOT_PDF.pltGCR: OHDOT_Pen.tbl USER: klmiville@teceng.com WORKSPACE: OHDOTCE02 WORKSET: 118472 PRODUCT: OpenRoads Designer 24.00.00.205

1. ALL GUARDRAIL SHALL BE STANDARD POST UNLESS OTHERWISE NOTED.
2. SEE SCD RM-4.3, RM-4.4, RM-4.5 AND RM-4.6 FOR SINGLE SLOPE CONCRETE BARRIER DETAILS.



HORIZONTAL
SCALE IN FEET

10 20 40

GUARDRAIL PLAN

IR 74

DESIGN AGENCY  PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Park Blvd. Mason, OH 45040	
DESIGNER KLL	
REVIEWER ERW 12/01/25	
PROJECT ID 118472	
SHEET 089	TOTAL 172

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:
REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15	REVISED	01-20-23
AS-2-15	REVISED	07-21-23
BR-2-15	REVISED	07-19-24
GSD-1-19	REVISED	07-19-24
SBR-1-20	REVISED	07-19-24
SICD-1-21	REVISED	01-19-24
SICD-2-24	REVISED	01-15-21
VPF-1-24	REVISED	07-19-25

DESIGN SPECIFICATIONS:

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

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING:

SUPERSTRUCTURE: VEHICULAR LIVE LOAD: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KSF

SUBSTRUCTURE: EXISTING SUBSTRUCTURES - CF400 (57)
& 0.00 KSF FUTURE WEARING SURFACE

FOUNDATION: EXISTING FOUNDATIONS - CF400 (57)
& 0.00 KSF FUTURE WEARING SURFACE

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT:

EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI (DECK, PARAPET, SUBSTRUCTURES)

GFRP REINFORCEMENT (PARAPET)

GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI (SUBSTRUCTURES)

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

STEEL CIP PILES - ASTM A252 GRADE 3 - YIELD STRENGTH 45 KSI

MONOLITHIC WEARING SURFACE:

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

PROPOSED WORK:

1. REPLACE EX. DECK AND APPROACH SLABS.
2. PATCH EX. SUBSTRUCTURES.
3. RAISE EX. ABUTMENT AND PIER BEAM SEAT.
4. WIDEN SUBSTRUCTURES. CONVERT ABUTMENTS TO SEMI-INTEGRAL.
5. INSTALL SHEAR CONNECTORS ON EX. BEAMS.
6. INSTALL PROPOSED BEAM LINES TO ACCOMMODATE WIDENED BRIDGE.
7. REPLACE ALL BEARINGS WITH ELASTOMERIC BEARINGS.
8. SEAL EXPOSED CONCRETE SURFACES.
9. INSTALL VANDAL PROTECTION FENCE.
10. STRUCTURE GROUNDING PER HL-50.12.

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 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

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

DESCRIPTION:
THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAMS. DO NOT BEGIN WORK UNTIL THE ENGINEER ACCEPTS THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISITING CONCRETE REINFORCEMENT TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, CONCRETE BRIDGE RAILINGS, METAL RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSSFRAMES, 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 DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS:
BEFORE DECK SLAB CUTTING BEGINS, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFCAE OF THE 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 CONCRETE REINFORCEMENT IN THE DECK SLAB. 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.

EXISTING WELDED ATTACHMENTS:
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.

CUTLINE CONSTRUCTION JOINT PREPARATION:
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING CONCRETE REINFORCMENT, 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 STEEL REINFORCEMENT 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.

SUBSTRUCTURE CONCRETE REMOVAL:
REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE DEPARTMENT WILL NOT PERMIT HYDRAULIC HOE-RAM TYPE HAMMERS. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS 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 CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

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, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 202 - REMOVAL, MISC.: PORTIONS OF STRUCTURE REMOVED, BULB ANGLE, AS PER PLAN:

THIS WORK CONSISTS OF REMOVING IN ITS ENTIRETY THE EXISTING BULB ANGLES THAT WERE CAST INTO THE DECK WHEN THE EXISTING DECK WAS CONSTRUCTED. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE STRUCTURAL STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

EXISTING WELDED ATTACHMENTS: GRIND THE FLANGE SURFACES SMOOTH WHERE THE EXISTING WELDED BULB ANGLE ATTACHES TO THE FLANGES LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - REMOVAL, MISC.: PORTIONS OF STRUCTURE REMOVED, BULB ANGLE, AS PER PLAN.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

SHORING REQUIRED TO CONSTRUCT THE PIER FOUNDATIONS IN THE OUTSIDE SHOULDERS OF IR 74 TO BE LEFT IN PLACE. SHORING INSTALLED UNDER EXISTING BEAMS MAY REQUIRE SPECIAL EQUIPMENT.

ITEM 509 - CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN:

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT CONCRETE REINFORCEMENT BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING STEEL REINFORCEMENT 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 CONCRETE REINFORCEMENT OF THE SAME SIZE, COATING, AND MATERIAL AT NO COST TO THE DEPARTMENT.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 272 KIPS PER PILE AT THE ABUTMENTS AND 290 KIPS PER PILE AT THE PIERS.

ABUTMENT PILES:
12-IN DIAMETER PILES 25 FEET LONG, ORDER LENGTH 1 DYNAMIC LOAD TESTING ITEM

PIER PILES:
12-IN DIAMETER PILES 30 FEET LONG, ORDER LENGTH 1 DYNAMIC LOAD TESTING ITEMS

PROVIDE PLAIN CYLINDRICAL CASINGS WITH A MINIMUM PILE WALL THICKNESS OF 3/8 INCH FOR THE CAST-IN-PLACE REINFORCED CONCRETE PILES.

PILE DRIVING:

USE A PILE DRIVING HAMMER WITH A RATED ENERGY OF NOT GREATER THAN 33,305 FOOT-POUNDS TO INSTALL THE PILES. ENSURE THAT STRESSES IN THE PILES DURING DRIVING DO NOT EXCEED (40.5) POUNDS PER SQUARE INCH.

ITEM 514 - FIELD PAINTING, MISC.: COATING OF BEAM ENDS:

PRIOR TO ENCASING THE BEAM ENDS, PREPARE THE ENDS PER SSPC-SP 10 OR SSPC-SP 11 TO BARE METAL ACHIEVING A 1.2 TO 3.5 MIL PROFILE. PAINT THE BEAM ENDS WITH ORGANIC ZINC PRIME COAT PER CMS 514. PROVIDE THE PRIME COAT THICKNESS AS PER CMS 514.20. EXTEND THE LIMITS OF THE BEAM PREPARATION AND PAINTING 1-FT BEYOND THE LIMITS OF THE END DIAPHRAGM CONCRETE.

AFTER THE DIAPHRAGM CONCRETE IS SET, SEAL THE INTERFACE BETWEEN THE BEAM AND CONCRETE WITH CAULK.

THE DEPARTMENT WILL PAY FOR ALL ABOVE LABOR AND AT THE CONTRACT BID PRICE FOR ITEM 514 - FIELD PAINTING, MISC.: COATING OF BEAM ENDS.

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN:

THIS ITEM CONSISTS OF FIELD PAINTING DAMAGED STRUCTURAL STEEL BY PERFORMING SURFACE PREPARATION AND APPLYING A TWO-COAT PAINT SYSTEM TO THE UNCOATED STEEL AND FEATHERED REMOVAL AREAS OF EXISTING COATINGS.

CMS 514.06 THROUGH 514.10 APPLY. REMOVE EXISTING PAINT COATING TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER ACCORDING TO SSPC-SP 15, COMMERCIAL GRADE POWER TOOL CLEANING, OR EQUAL AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 3. THE ENGINEER WILL USE THE SSPC-VIS 3 TO DETERMINE THE ACCEPTANCE OF THE COMMERCIAL GRADE POWER TOOL CLEANING. FEATHER THE EXISTING PAINT TO EXPOSE A MINIMUM OF 1/2 INCH OF EACH COAT. CONTAIN AND DISPOSE OF WASTE GENERATED BY THE CLEANING ACCORDING TO CMS 514.13.D.

ROUND ALL EXPOSED CORNERS OF MAIN MATERIAL AS NECESSARY TO ACHIEVE A 1/16 INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A 45 DEGREE ANGLE.

APPLY THE PRIME AND INTERMEDIATE COATS OF THE SPECIFIED THREE-COAT PAINT SYSTEM, CMS 708.02, ACCORDING TO CMS 514.15, 514.16, 514.17, AND 514.20 TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER. TINT THE INTERMEDIATE COAT TO APPROXIMATELY THE SAME COLOR AS THE EXISTING FINISH COLOR. MATCH THE COLOR TO THE ENGINEERS SATISFACTION. THE ENGINEER WILL DETERMINE THE PRIME COAT THICKNESS; PRIME AND INTERMEDIATE COAT THICKNESS USING A TYPE 2 MAGNETIC GAGE AT SPOT LOCATIONS. EACH COAT OF PAINT SHALL MEET THE MINIMUM DRY FILM THICKNESS REQUIREMENTS OF CMS 514.20.

APPLY PAINT AS FOLLOWS:

A. APPLY THE PRIME COAT ONLY TO THE SURFACE OF THE BARE STEEL AND THE EXISTING PRIME COAT EXPOSED BY FEATHERING. DO NOT APPLY THE PRIME COAT TO THE ADJACENT INTERMEDIATE COAT.

B. APPLY THE INTERMEDIATE COAT ONLY TO THE NEW PRIME COAT AND THE EXISTING INTERMEDIATE COAT EXPOSED BY FEATHERING. DO NOT APPLY THE INTERMEDIATE COAT TO THE ADJACENT FINISH COAT.

AT THE PERIMETER OF THE REPAIR AREA, APPLY THE PRIME AND INTERMEDIATE COATS USING A BRUSH. APPLY THE FINISH COAT USING EITHER BRUSH OR SPRAY. IN LIEU OF BRUSHING THE USE OF MASKING AREAS NOT TO BE COATED AND SPRAY TO FEATHERED REMOVAL LINES MAY BE PERFORMED.

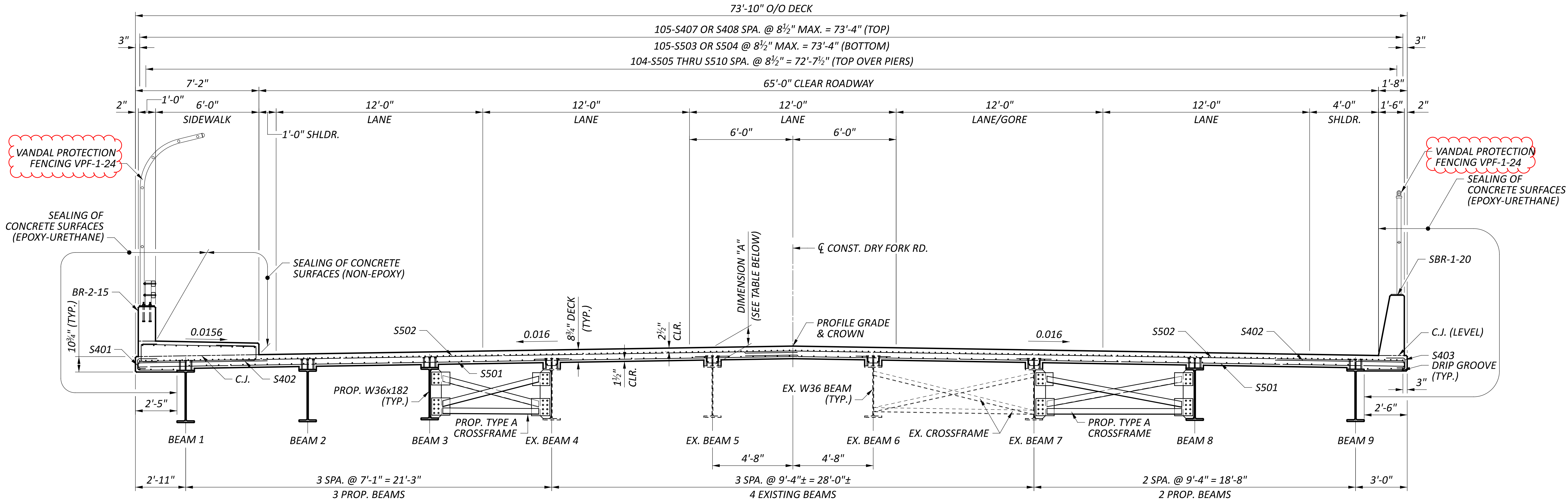
BLEND REPAIR AREAS WITH THE ADJACENT COATING AND PROVIDE A FINISHED SURFACE IN THE PATCHED AREAS THAT IS SMOOTH AND HAS AN EVEN PROFILE WITH THE ADJACENT SURFACE.

THE DEPARTMENT WILL MEASURE FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN BY THE NUMBER OF SQUARE FEET OF STRUCTURAL STEEL PAINTED. ALL REQUIREMENTS OF THIS SPECIFICATION ARE CONSIDERED INCIDENTAL TO THE WORK. THE DEPARTMENT WILL DETERMINE THE SURFACE AREA BY TAKING EXACT FIELD MEASUREMENTS OF ALL PAINTED SURFACES AND CALCULATIONS. DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN.

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

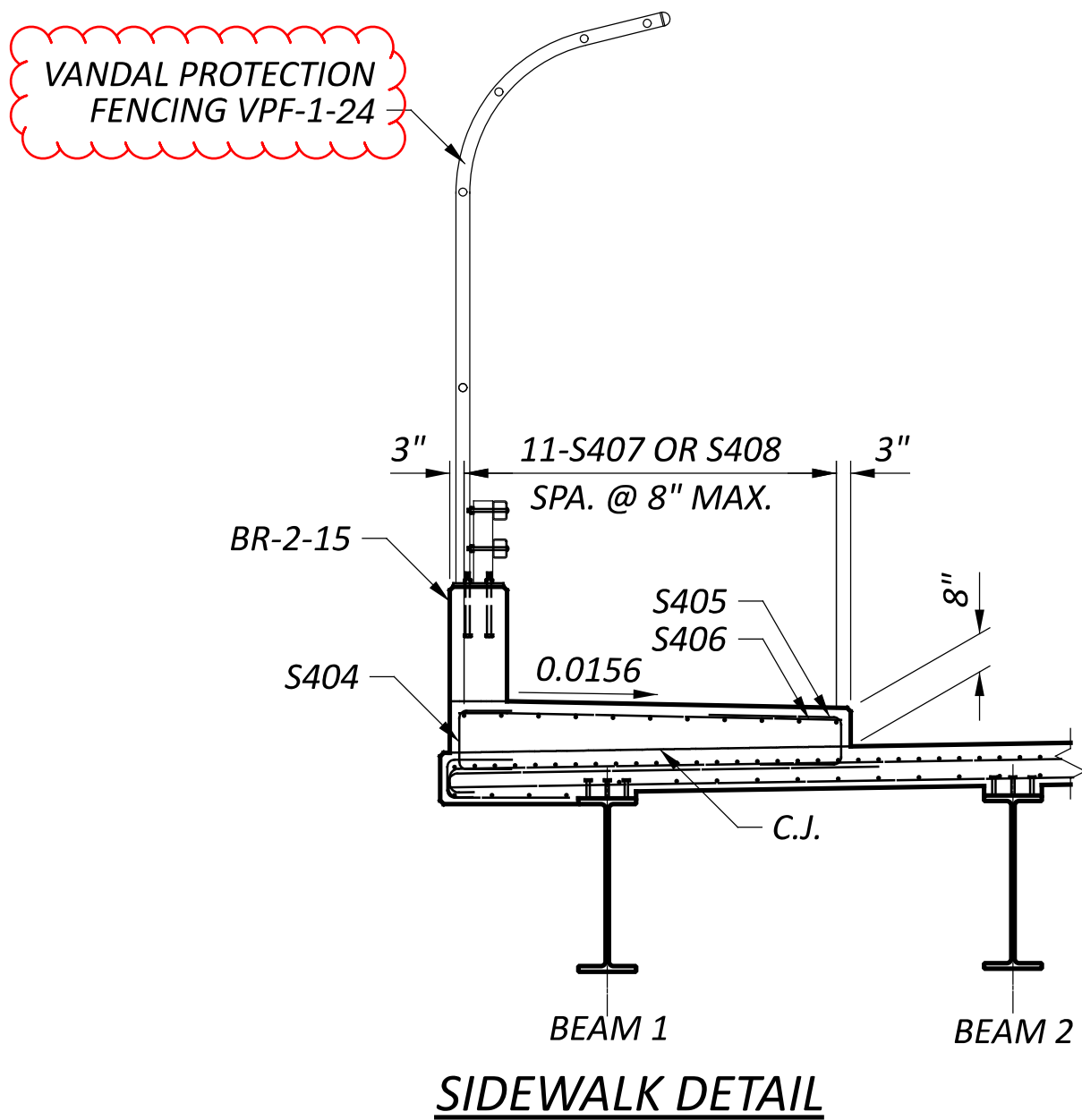
THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05. EXISTING BEAMS SHALL NOT BE SUPPORTED ON EXISTING PIER CAPS AFTER THE ENDS OF THE PIER CAPS ARE REMOVED. THE BRIDGE 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.

SFN 3107981	
DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	
DESIGNER MAH	CHECKER PEG
REVIEWER CLB 08/25/25	
PROJECT ID 118472	
SUBSET 2	TOTAL 37
SHEET P.124	TOTAL 172

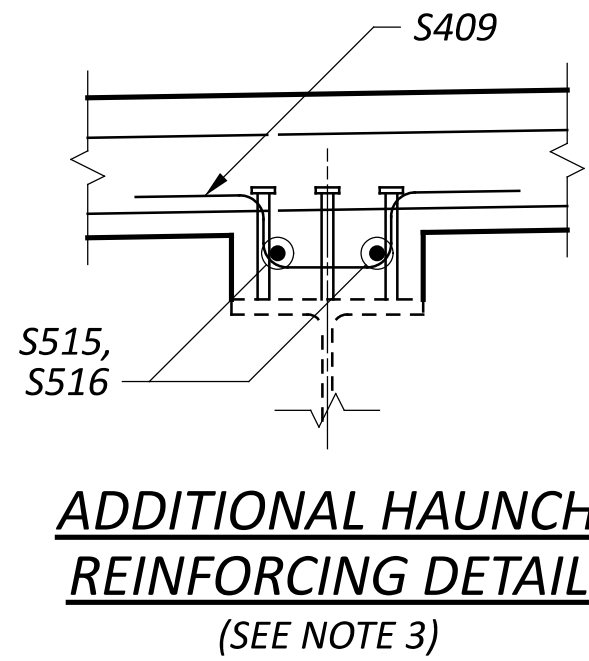


TRANSVERSE SECTION

DIMENSION "A" (TOP SLAB TO TOP OF FLANGE)					
LOCATION	CL BRG. R.A.	CL BRG. PIER 1	CL BRG. PIER 2	CL BRG. PIER 3	CL BRG. F.A.
BEAM 1	10⅞"	10⅞"	10⅞"	10⅞"	10⅞"
BEAM 2	10⅞"	10⅞"	10⅞"	10⅞"	10⅞"
BEAM 3	10⅞"	10⅞"	10⅞"	10⅞"	10⅞"
BEAM 4	10⅞"	1'-0⅛"	1'-1⅜"	1'-2"	1'-2⅜⅛"
BEAM 5	10⅞"	1'-0⅛"	1'-2⅜⅛"	1'-2⅜"	1'-2⅜⅛"
BEAM 6	11⅜"	1'-0⅜"	1'-2⅜"	1'-2⅜"	1'-2⅜⅛"
BEAM 7	11⅜"	1'-0⅜"	1'-1⅝"	1'-2⅜⅛"	1'-2⅜⅛"
BEAM 8	10⅞"	10⅞"	10⅞"	10⅞"	10⅞"
BEAM 9	10⅞"	10⅞"	10⅞"	10⅞"	10⅞"



SIDEWALK DETAIL



- NOTES:
- FOR DECK PLAN, SEE SHEET 24/37.
 - PARAPET DETAILS, SEE SHEETS 31/37 THRU 34/37.
 - ADDITIONAL HAUNCH REINFORCEMENT IS REQUIRED AT EXISTING BEAMS 4 THROUGH 7. FOR ADDITIONAL LOCATION INFORMATION FOR HAUNCH REINFORCEMENT, SEE SHEET 24/37.
 - 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 VARIABLE HAUNCH THICKNESS AND A HAUNCH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE TOP 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.

TRANSVERSE SECTION
BRIDGE NO. HAM-74-0358
DRY FORK RD. OVER IR 74

SFN	3107981
DESIGN AGENCY	STRUCTUREPOINT INC.
DESIGNER	CHECKER
MAH	PEG
REVIEWER	
CLB	08/25/25
PROJECT ID	118472
SUBSET	TOTAL
23	37
SHEET	TOTAL
P.145	172