STRUCTURE GENERAL NOTES:

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

AS-1-81	DATED	04-20-01
BR-1	DATED	01-06-99
EXJ-4-87	DATED	04-20-01
CR _ 3.1	DATED	11 - 30 - 99

AND TO SUPPLEMENTAL SPECIFICATIONS

842	DATED	01-06-99
844	DATED	01-06-99
848	DATED	06-30-98
864	DATED	07-11-00
899	DATED	10-21-98
910	DATED	07-11-00
954	DATED	09-09-97

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPEC-IFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 1996, INCLUDING THE 1997, 1998, AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING:

HS20 LOADING WITH 60 PSF

DESIGN DATA:

CLASS S OR HIGH PERFORMANCE CONCRETE SUPER-STRUCTURE - COMPRESSIVE STRENGTH 4500 PSI CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 PSI (APPROACH SLABS)

REINFORCING STEEL - ASTM A615, A616 OR A617 GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

STRUCTURAL STEEL - ASTM A36 -YIELD STRENGTH 36,000 PSI 20,000 PSI UNIT STRENGTH

ITEM 516-REFURBISHING BEARING DEVICES, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS HAND TOOL CLEANING (GRINDING IE NECESSARY) PAINTING WITH APPROVED PAINTING SYSTEM, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE REARINGS ARE VERTICALLY ALIGNED AT 60°F, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. THE CONTRACTOR SHALL ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER

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

THIS ITEM SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS, AND EQUIPMENT TO RAISE OR RE-POSTION ANY EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND OPERATION OF AN ADEQUATE JACKING SYSTEM, INCLUDING ANY TEMPORARY OR PERMANENT SUPPORTS NECESSARY TO PERFORM THE WORK DESCRIBED IN THE PROJECT PLANS. THREE (3) SETS OF JACKING PLANS, WHICH INCLUDE THE INFORMATION DESCRIBED IN THIS NOTE, SHALL BE SUB-MITTED TO THE DIRECTOR FOR APPROVAL AT LEAST THIRTY (30) DAYS BEFORE ACTUAL WORK IS TO BEGIN THE PLANS SHALL BE PREPARED AND STAMPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER.

JACKING SUBMITTALS SHALL INCLUDE AT LEAST THE FOLLOWING:

- THE SIGNATURE AND NUMBER, OR PROFESSIONAL SEAL, OF THE OHIO REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THE
- 2. CALCULATIONS AND ANALYSES OF THE STRUCTURE TO DETERMINE AND DEFINE THE ACTUAL LOADING APPLIED AT THE CONTRACTOR'S SELECTED JACKING POINTS.
- 3. A DRAWING SHOWING THE PHYSICAL AND DIMENSIONAL POSITION OF THE JACKS WITH RESPECT TO THE STRUCTURE INCLUDING CLEARANCES AND CENTER OF LIFT.
- 4. A SCHEMATIC OF JACKS, CHECK VALVES, PUMPS WITH 3 WAY RETRACTOR VALVE, PRESSURE GAGES, FLOW CONTROL VALVES, FTC. IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL JACKS AT EACH ABUTMENT OR PIER SHALL BE CONNECTED TOGETHER. ALL JACKS AT EACH ABUTMENT OR PIER SHALL BE
- 5. ANALYSIS AND CALCULATIONS OF THE STRESSES INDUCED OR CREATED IN THE STRUCTURE AND ANY TEMPORARY SUPPORTS. DESIGN CALCULATIONS FOR ANY TEMPORARY SUPPORTS.
- 6. PHYSICAL DIMENSIONS, MATERIALS, AND FABRICATION DETAILS OF ANY TEMPORARY OR PERMANENT SUPPORTS. HORIZONTAL AND VERTICAL MOVEMENT RESTRAINT SHALL BE PROVIDED.
- 7. A STEP BY STEP PROCEDURE DETAILING ALL STEPS IN THE JACKING OPERATION
- 8. METHOD OF ATTACHMENT TO STRUCTURAL MEMBERS. WELDING TO TENSION AREAS WILL NOT BE PERMITTED

THE ENTIRE SYSTEM INCLUDING JACKS SHALL HAVE 20% MORE CAPACITY THAN REQUIRED BASED ON CALCULATED

FOR LIFTS GREATER THAN ONE INCH, JACKS SHALL HAVE LOCKING NUTS TO POSITIVELY LOCK AND SUPPORT THE STRUCTURE DURING THE LIFT

JACKS SHALL HAVE A SWIVEL LOAD CAP, A DOMED PISTON HEAD OR SOME OTHER DEVICE TO PROTECT AGAINST THE EFFECTS OF SIDE LOAD ON THE JACK.

JACKS ALONE SHALL NOT BE USED TO SUPPORT LOADS EXCEPT DURING THE ACTUAL JACKING OPERATION. TEMPORARY SUPPORTS, BLOCKING OR OTHER METHODS APPROVED BY THE DIRECTOR SHALL BE USED.

SINGLE ACTING RAMS WITH NO OVER-TRAVEL PROTECTION SYSTEM SHALL NOT BE USED.

SPARE EQUIPMENT SHALL BE AVAILABLE ON SITE FOR THE REQUIRED STRUCTURE RAISING TO PROCEED IN THE EVENT OF BREAKDOWN. A LIST OF SPARE EQUIPMENT SHALL BE PROVIDED TO THE ENGINEER.

AT A MINIMUM, A JACKING OPERATION SHALL LIFT ALL BEAMS AT ANY ONE ABUTMENT OR PIER SIMULTANEOUSLY. THE ONLY EXCEPTION IS THE SITUATION WHERE THE WORK INVOLVES REPLACING OR REHABILITATING INDIVIDUAL BEARINGS; NO PERMANENT SHIMMING IS REQUIRED AND THE HEIGHT OF THE LIFT SHALL NOT EXCEED 1/4 INCH.

MAXIMUM DIFFERENTIAL JACKING HEIGHT BETWEEN ANY ADJACENT ABUTMENTS OR PIERS SHALL BE ONE INCH OR LESS. THIS HEIGHT MAY BE MODIFIED IF CALCULATIONS, BY THE CONTRACTOR'S OHIO REGISTERED PROFESSIONAL ENGINEER, SHOW THE SUPERSTRUCTURE COMPONENTS
WILL NOT BE TEMPORARILY STRESSED BEYOND ALLOWABLE STRESSES FOR THOSE COMPONENTS AND THAT NO PERMANENT STRESSES WILL BE INDUCED IN THE COMPONENTS AFTER THEY OBTAIN THEIR FINAL POSITION.

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. THE JACKING OPERATION SHALL IMMEDIATELY CEASE AND APPROVED SUPPORTS SHALL BE INSTALLED. THE CONTRACTOR SHALL THEN ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. ANY BEAMS THAT SEPARATE FROM THE DECK SHALL BE EPOXY INJECTED FOR THE DISTANCE OF SEPARATION IN ACCORDANCE WITH ODOT'S PROPOSAL NOT "CONCRETE REPAIR BY EPOXY INJECTION". COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS SHALL BE BORNE BY THE CONTRACTOR

THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT THE BRIDGE BEARINGS ARE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUITABLE MEANS OF REPAIR, SUBJECT TO THE ENGINEER'S APPROVAL, WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.

PAYMENT SHALL BE MADE AT THE LUMP SUM PRICE BID FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN. THIS SHALL INCLUDE ALL NECESSARY TOOLS, LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THIS ITEM OF WORK.

PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. 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 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. ALL WORK SHALL BE DONE IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAT NOMINAL 90-POUND (41 KILOGRAM) CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN REBUILT STRUCTURE.

DOWEL HOLES AND REINFORCING STEEL: DOWEL HOLES SHALL BE DRILLED WHERE SHOWN ON THE PLANS. REINFORCING STEEL SHALL BE INSTALLED USING EPOXY GROUT PER 510 AND CMS 705.20. ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE DOWEL HOLE SHALL BE LOCATED WITH THE AID OF A REINFORCING STEEL LOCATOR PRIOR TO DRILLING THE HOLES. IF AN EXISTING BAR IS ENCOUNTERED IN THE SAME LOCATION AS A PROPOSED DOWEL HOLE, THE DOWEL HOLE SHALL BE MOVED TO EITHER SIDE OF THE EXISTING BAR.

ITEM 517-RAILING FACED, AS PER PLAN: DESCRIPTION: THIS ITEM OF WORK SHALL CONSIST OF FACING CURB STYLE PARAPETS, USING CAST IN PLACE CONCRETE, TO OBTAIN THE DEFLECTOR SHAPE AS SHOWN IN THE PLANS.

REMOVAL: THE CONTRACTOR SHALL CAREFULLY REMOVE THE EXISTING ALUMINUM RAILING, POSTS, CURBS PLATES, EXISTING CONCRETE CURB AN BULB ANGLE GUTTER. ALL LOOSE OR UNSOUND CONCRETE SHALL BE REMOVED.

ITEM 519-PATCHING CONCRETE STRUCTURES:

DESCRIPTION: THIS ITEM CONSISTS OF THE REMOVAL OF ALL LOOSE AND DISINTEGRATED CONCRETE, THE PREPARATION OF THE SURFACES, THE FURNISHING AND PLACING OF THE REINFORCING STEEL INCLUDING WELDED STEEL WIRE FABRIC, DOWELS AND EXPANSION BOLTS, FORMS AND THE PLACING OF CONCRETE PATCHES, INCLUDING CURING OF SAME. ANY UNSOUND AREAS ARE TO BE PATCHED AND CRACKS ARE TO BE REPAIRED BY EPOXY

				ESTIMATED QUANTITIES				
ITEM	ITEM EXT.	TOTAL	UNIT	IT DESCRIPTION				GEN'L
202	11201	1	LUMP	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN				LUMP
516	11211	63	LF.	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN		63		
516	45305	10	EACH	REFURBISH BEARING DEVICES, AS PER PLAN		10		
516	47001	1	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				
517	76201	613	LF.	RAILING FACED, AS PER PLAN	613			
519	11101	1	SQ. FT.	PATCHING CONCRETE STRUCTURE, AS PER PLAN		1		
519	12600	5.5	LF.	CONCRETE REPAIR BY EPOXY INJECTION		3.5	2	
519	99000	1	LUMP	PATCHING CONCRETE STRUCTURES, AS PER PLAN				LUMP
842	43001	8	CU. YDS.	CLASS C CONCRETE, PIER, AS PER PLAN			8	
842	45501	18	CU. YDS.	CLASS C CONCRETE, ABUTMENT, AS PER PLAN		18		
848	10000	989	SQ. YDS.	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION	989			
848	50100	1	LUMP	TEST SLAB				LUMP
848	90000	989	SQ. YDS.	OVERLAY, MISC.:	989			
864	10100	1160	SQ. YDS.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) (LIGHT NEUTRAL, FEDERAL COLOR NO. 17778)	602	115	443	

REVISION /1 - 05/06/02 BY: JJP CHECKED: JDL

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ENGINEERING, IN PARK COURT

& SPAANS E HARRISON DIANAPOLIS,

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QUANTITIES

ESTIMATED (CLE-275-0043

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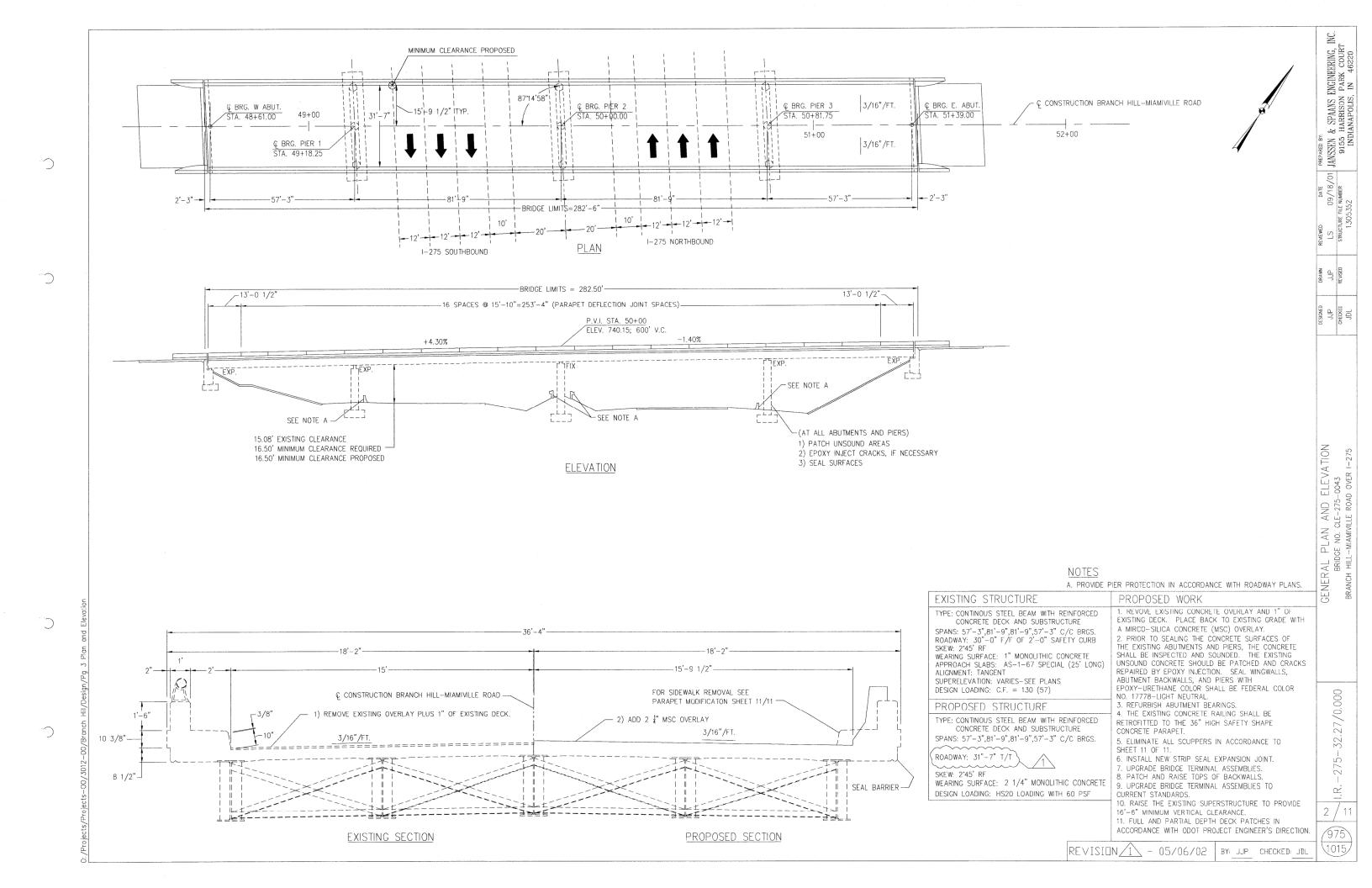
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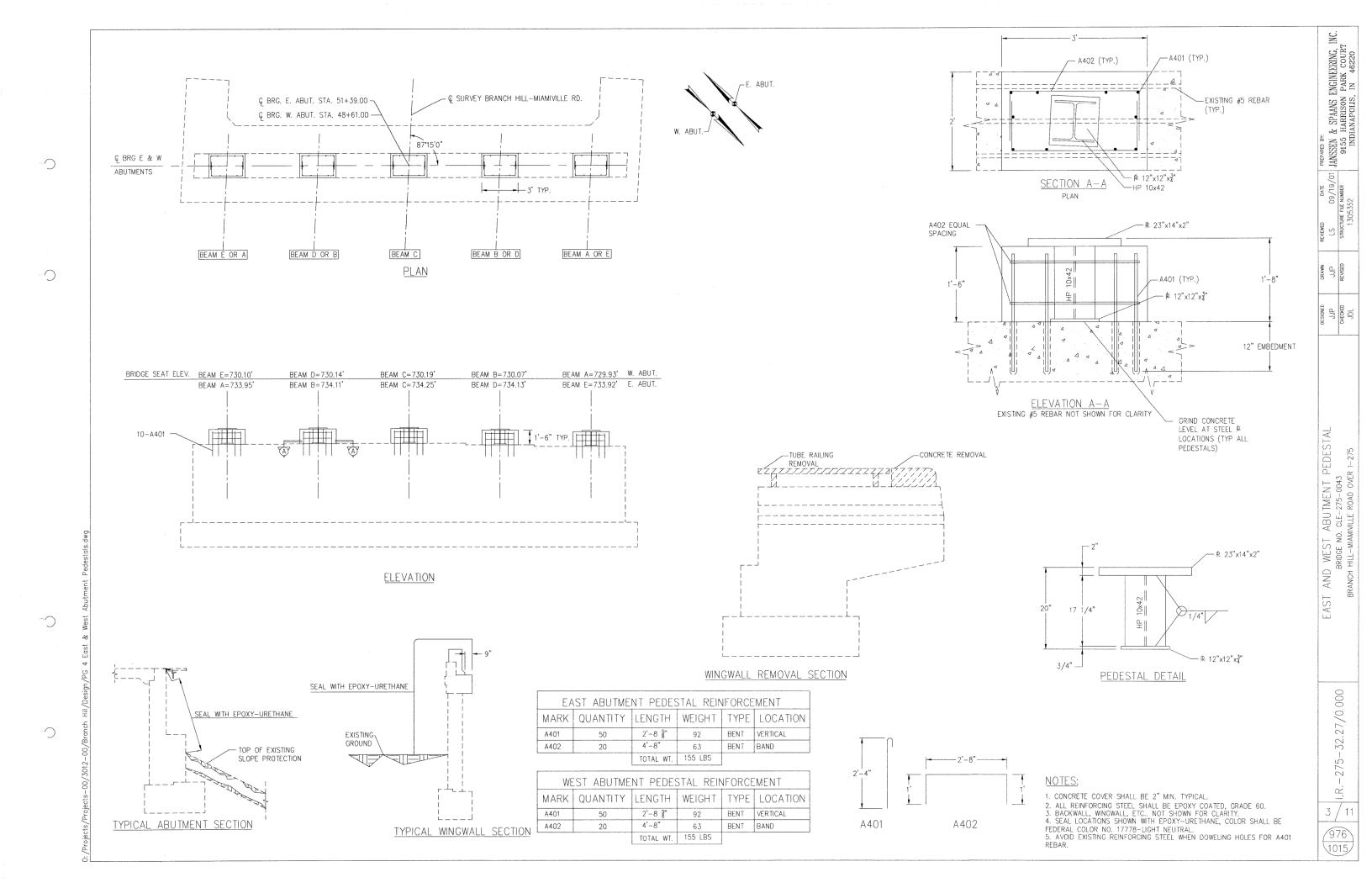
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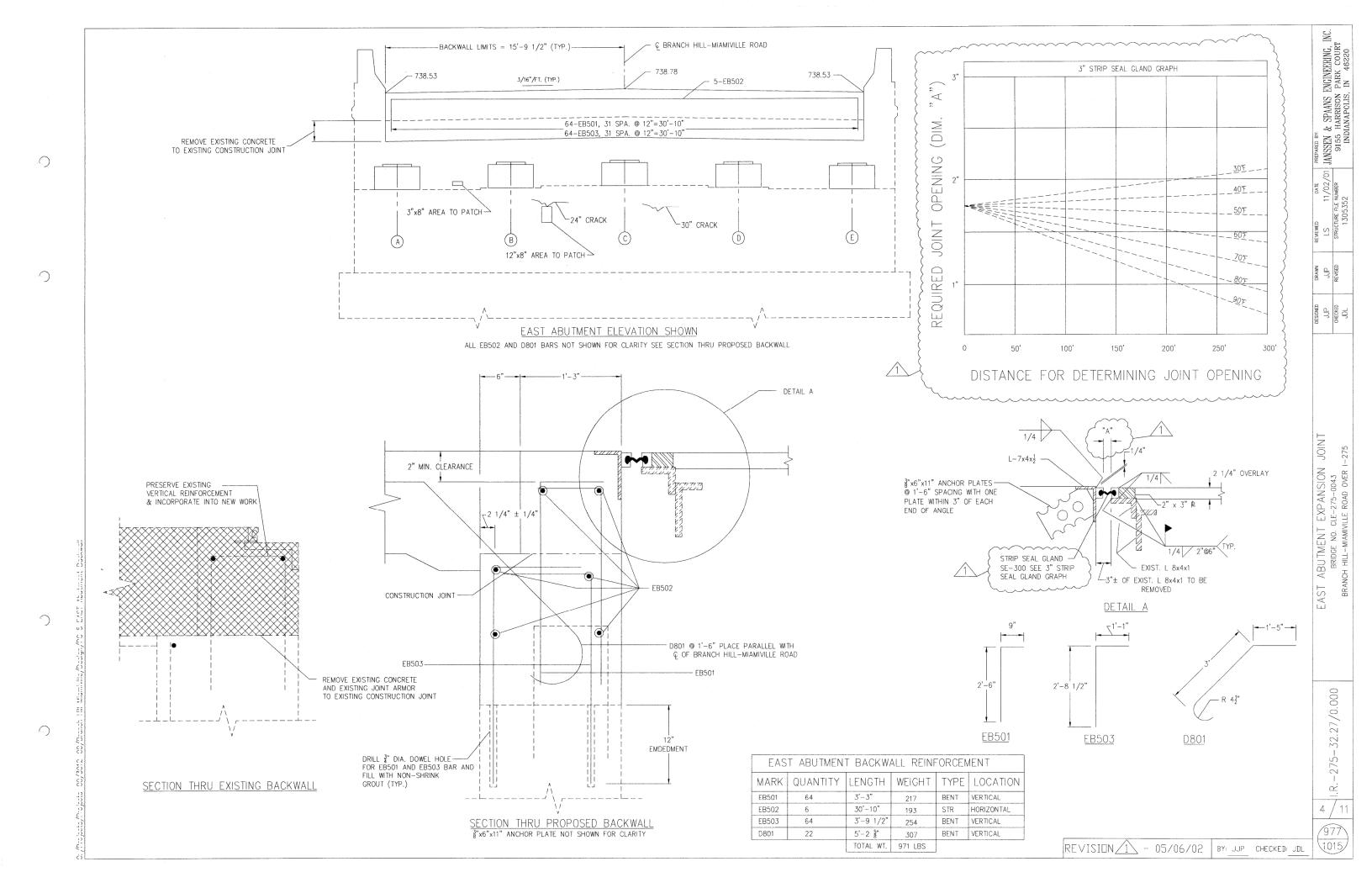
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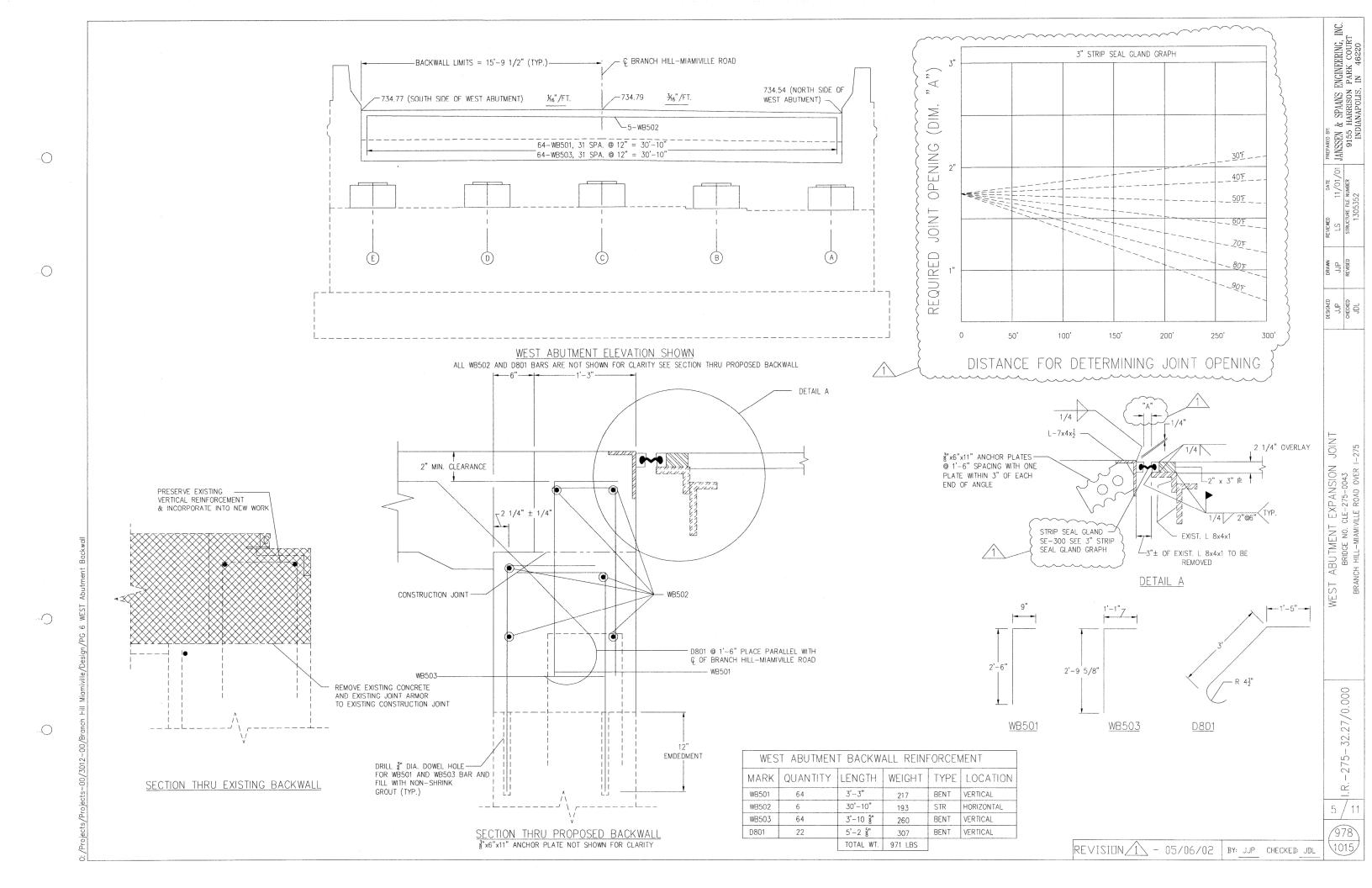
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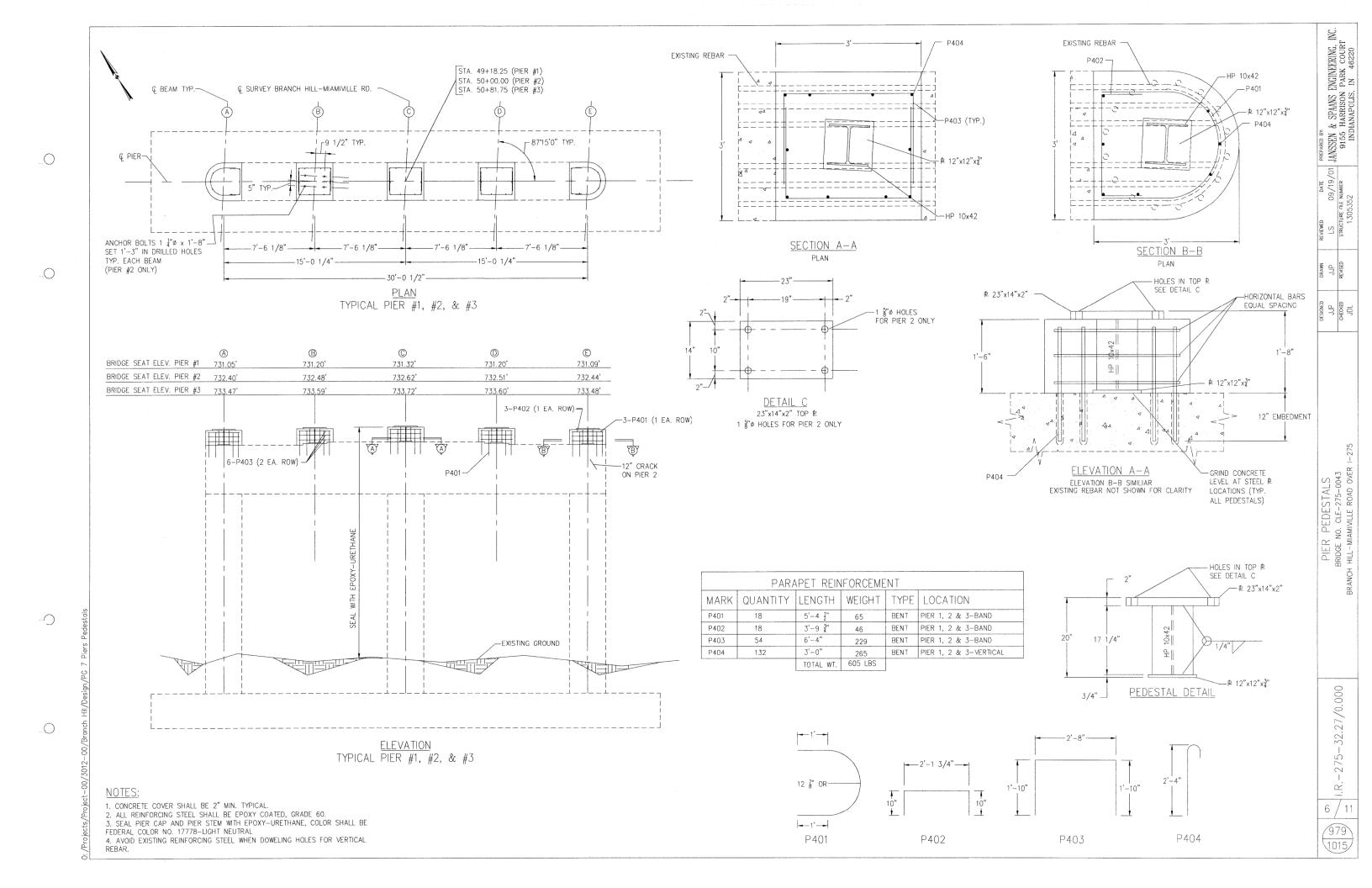
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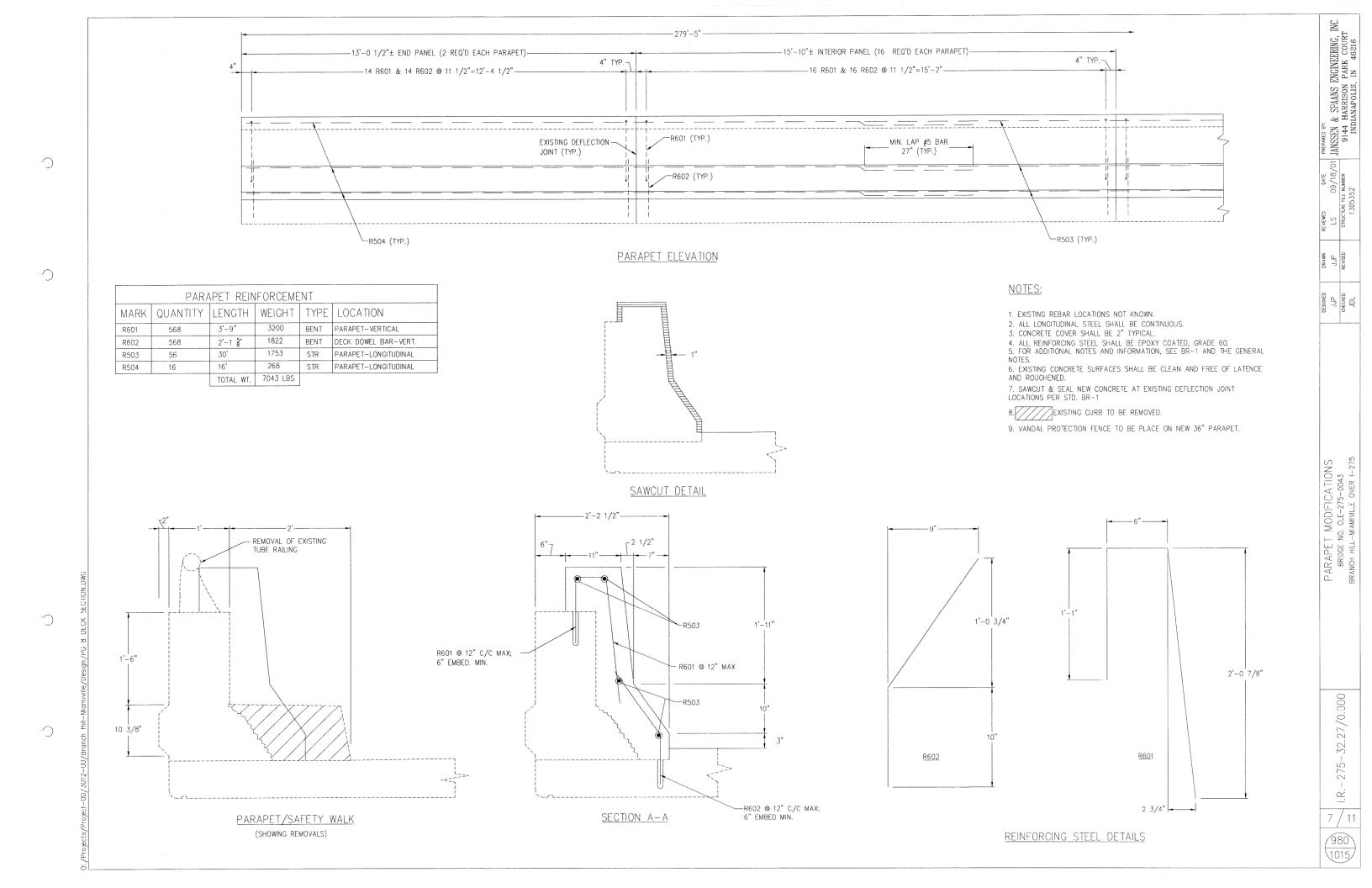


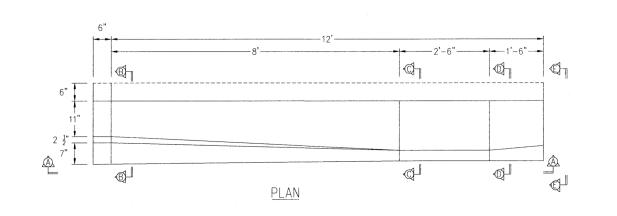


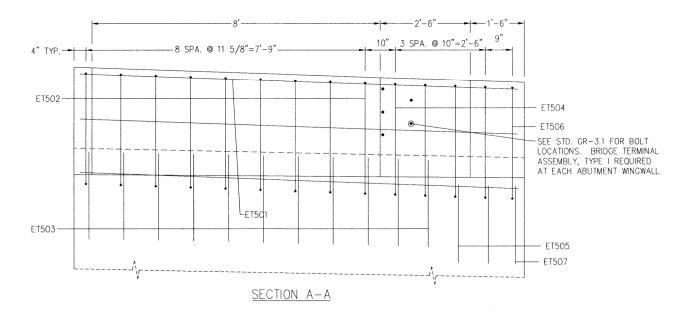


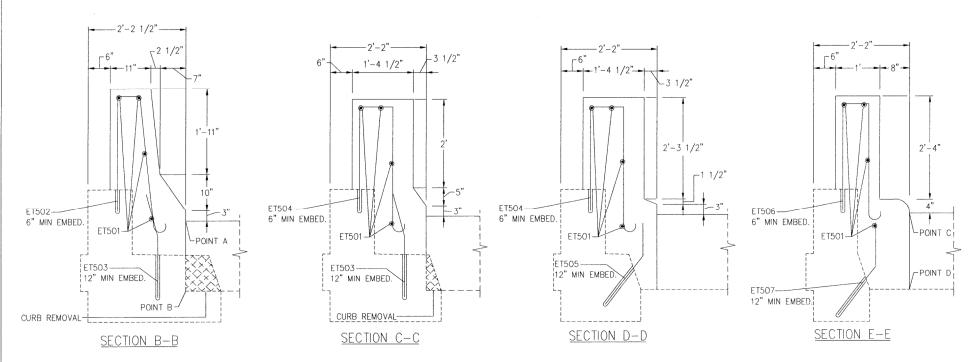








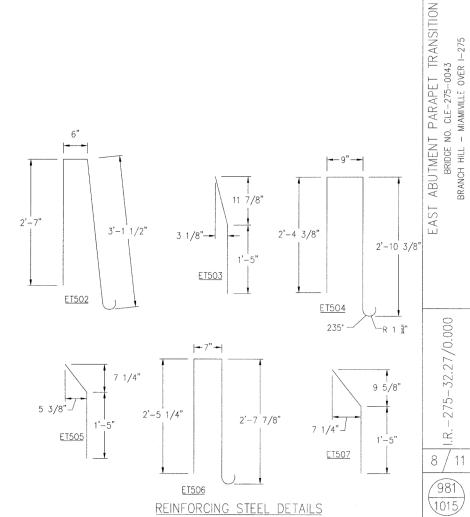




	PARAPET R	EINFORCE	MENT EAS	ST ABL	ITMENT	
MARK	QUANTITY	LENGTH	WEIGHT	TYPE	LOCATION	
ET501	8	12'-2"	102	STR	LONGITUDINAL	
ET502	18	6'-6 3/4"	124	BENT	VERTICAL	
ET503	22	2'-5 1/4"	56	BENT	VERTICAL	
ET504	8	6'-4"	53	BENT	VERTICAL	
ET505	4	2'-2"	10	BENT	VERTICAL	
ET506	2	6'-0 1/4"	13	BENT	VERTICAL	
ET507	2	2'-5"	6	BENT	VERTICAL	
	Principle of the Control of the Cont	TOTAL WT.	364 LBS			

		TABLE A		
LOCATION	POINT A	POINT B	POINT C	POINT D
NE PARAPET	738.53	736.93	738.57	736.81
SE PARAPET	738.53	736.90	738.57	736.80

- 1. FOR BRIDGE TERMINAL ASSEMBLY, TYPE 1 SEE STANDARD CONSTRUCTION DRAWING GR-3.1.
- 2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
- 3. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE. 4. ALL REINFORCING SHALL BE EPOXY COATED, GRADE 60.



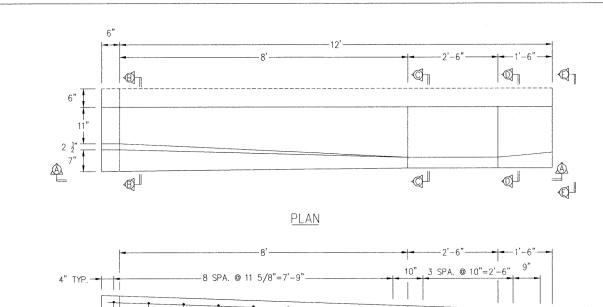
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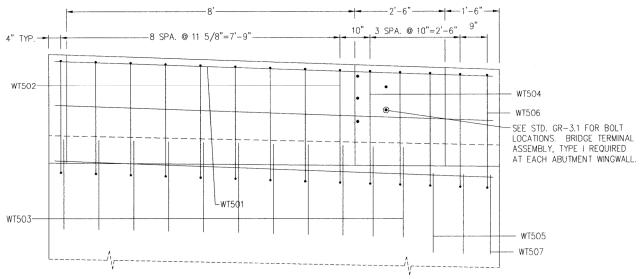
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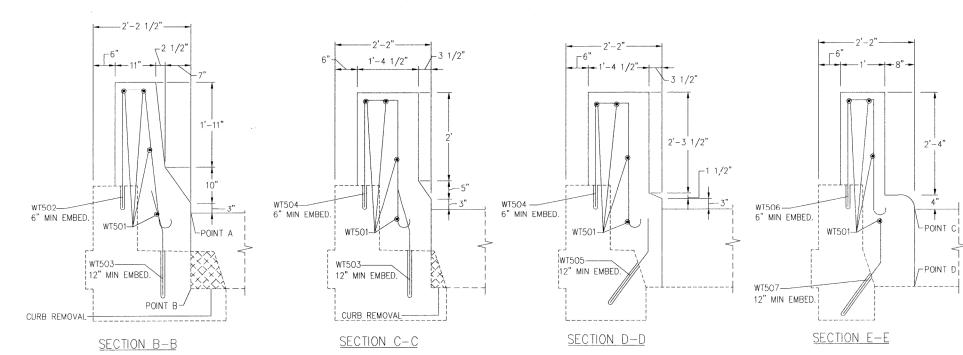
REVIEWED DATE PREPARED BY.

LS 11/02/01 ANSSEN & SPAANS ENGINEERING, INC.

STRUCTURE FILE NUMBER
1305352 INDIANAPOLIS, IN 46220







SECTION A-A

PARAPET REINFORCEMENT EAST ABUTMENT									
MARK	QUANTITY	LENGTH	WEIGHT	TYPE	LOCATION				
WT501	8	12'-2"	102	STR	LONGITUDINAL				
WT502	18	6'-8 3/4"	127	BENT	VERTICAL				
WT503	22	2'-5 5/16"	56	BENT	VERTICAL				
WT504	8	6'-5 5/8"	54	BENT	VERTICAL				
WT505	4	2'-2"	10	BENT	VERTICAL				
WT506	2	6'-0 1/4"	13	BENT	VERTICAL				
WT507	2	2'-5"	6	BENT	VERTICAL				
		TOTAL WT.	368 LBS						

•												
	TABLE A											
	LOCATION	POINT	Α	POINT	В	POINT	С	POINT	D			
	NW PARAPET	734.54		732.83		734.24		732.41				
	SW PARAPET	734.77		732.98		734.38		732.53				

NOTES

1. FOR BRIDGE TERMINAL ASSEMBLY, TYPE 1 SEE STANDARD CONSTRUCTION DRAWING GR-3.1.

2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.

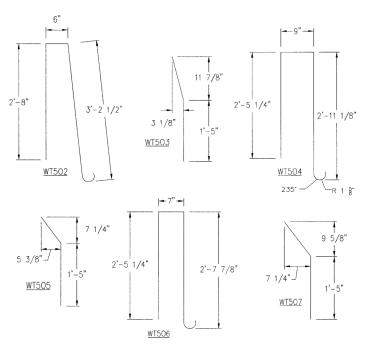
2/O1 JANSSEN & SPAANS ENGINEERING, INC.
R 9155 HARRISON PARK COURT
INDIANAPOLIS, IN 46220

ABUTMENT PARAPET TRANSITION BRIDGE NO. CLE-275-0043 BRANCH HILL - MIAMIVILLE OVER 1-275

I.R.-275-32.27/0.000

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- 3. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE. 4. ALL REINFORCING SHALL BE EPOXY COATED, GRADE 60.



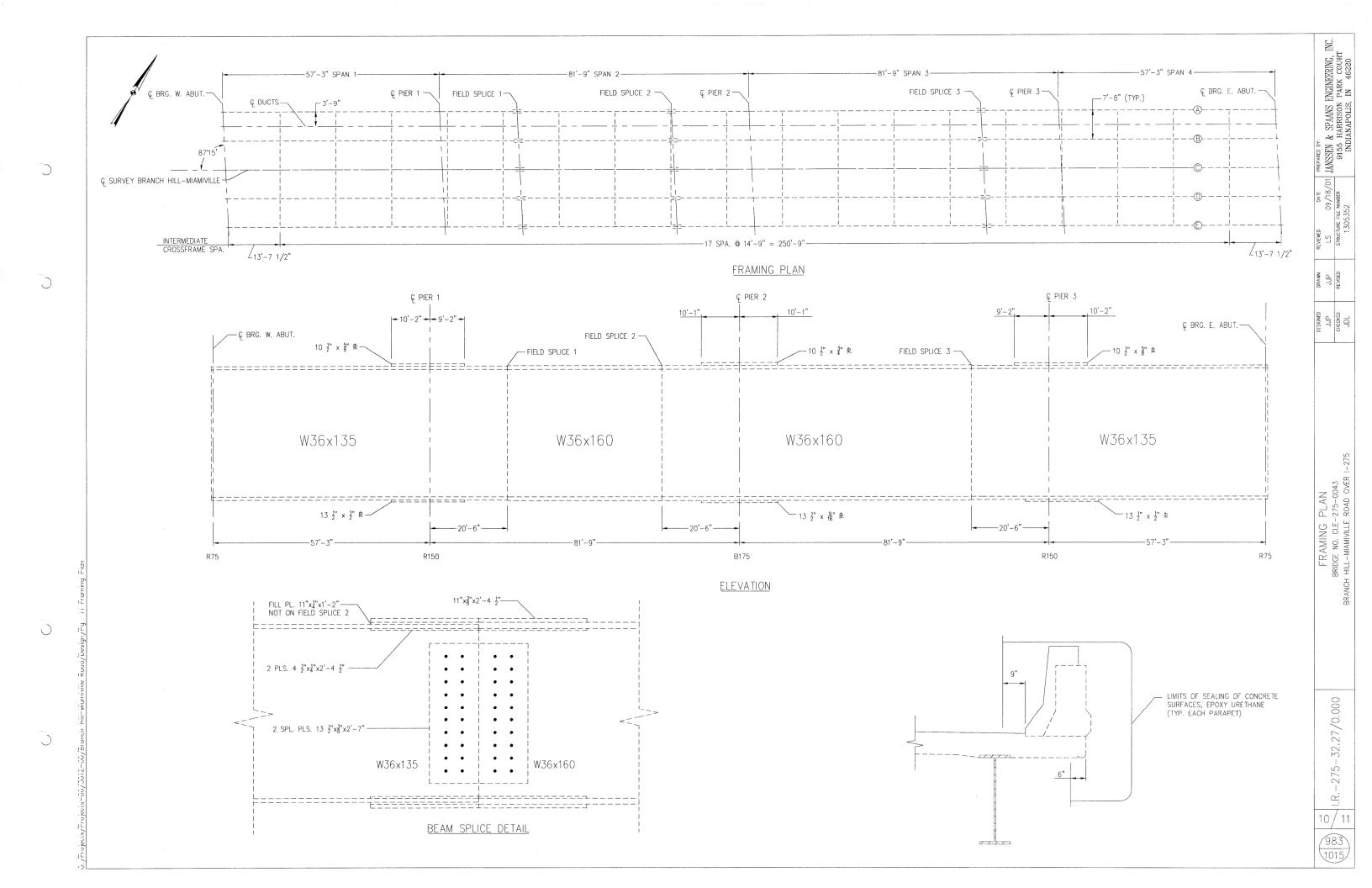
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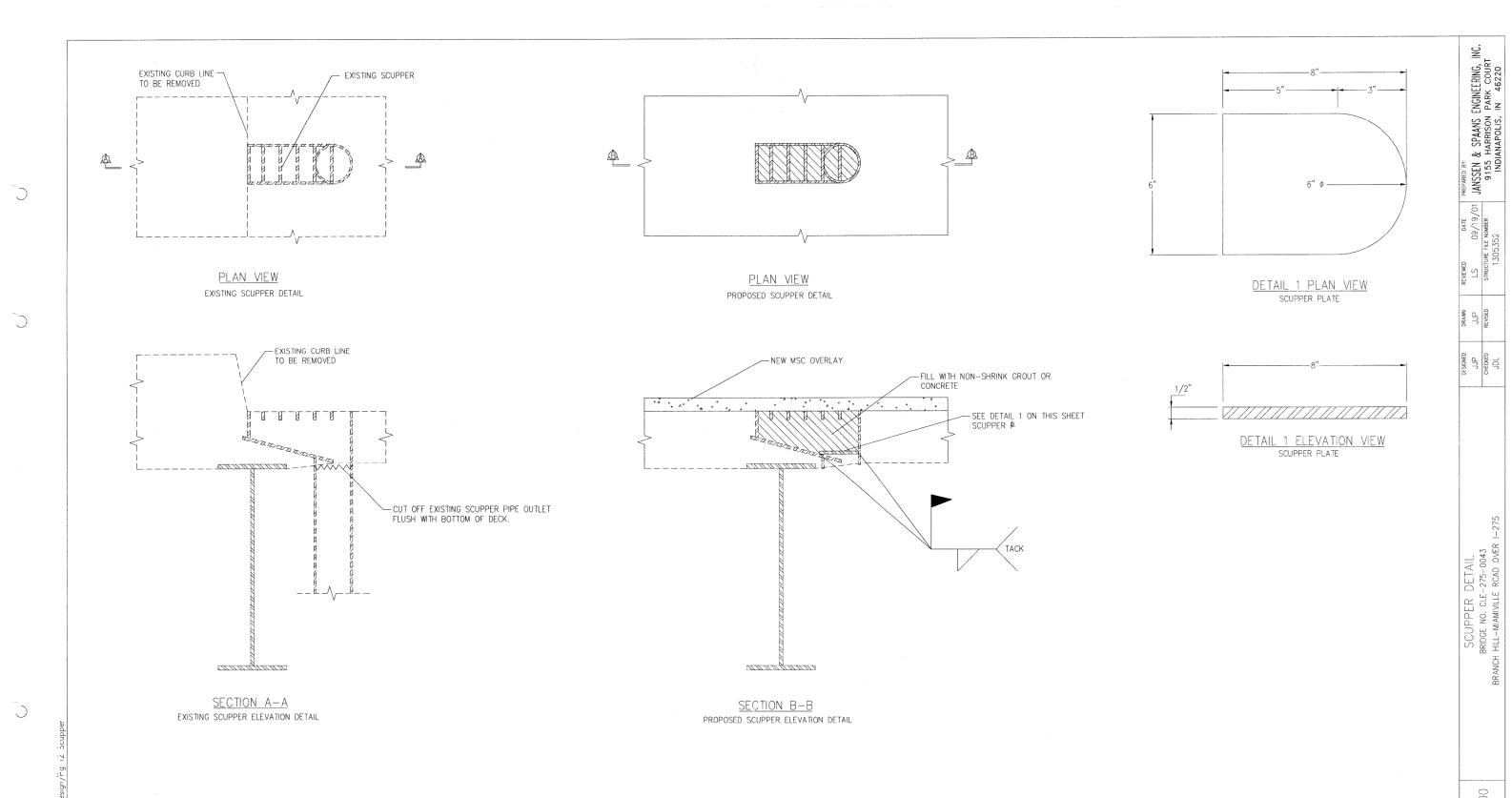
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982 REINFORCING STEEL DETAILS





1. CUT THE EXISTING SCUPPER PIPE OUTLET FLUSH WITH THE BOTTOM OF THE DECK.
2. TACK WELD THE SCUPPER PLATE TO THE EXISTING SCUPPER PIPE OUTLET 3. PLACE NON-SHRINK GROUT OR CONCRETE IN EXISTING SCUPPER.
4. AN MSC OVERLAY WILL BE PLACED ON THE BRIDGE DECK.

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