LETTING DATE

CONSTRUCTION PROJECT NO.

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

HENDERSON COUNTY
US 41 OVER OHIO RIVER
HENDERSON SB BRIDGE
TRUSS REPAIRS

MOT ESTIMATE OF QUANTITIES

BID ITEM CODE	02014	02562	02650	02654	02671	02775	03171	03225	06550	06551	06556	06557	08903	20411ED	22664EN	25075EC	25117EC	26136EC	26137EC	26138EC
BID ITEM	BARRICADE - TYPE III	TEMPORARY SIGNS	MAINTAIN AND CONTROL TRAFFIC	TRUCK MOUNTED ATTENUTATOR	PORTABLE CHANGEABLE MESSAGE SIGNS	ARROW PANEL	CONC. BARRIER WALL, TYPE 9T	TUBULAR MARKERS	PAVE STRIPING - TEMP REM TAPE - W	PAVE STRIPING - TEMP REM TAPE - Y	PAVE STRIPING - DUR TY 1-6 IN - W	PAVE STRIPING - DUR TY 1-6 IN - y	CRASH CUSHION TY VI CLASS BY TL3	LAW ENFORCEMENT OFFICER	WATER BLASTING EXISTING STRIPE	QUEUE PROTECTION VEHICLE	FURNISH QUEUE PROTECTION VEHICLES	PORTABLE QUEUE WARNING ALERT SYSTEM	QUEUE WARNING PCMS	QUEUE WARNING PORTABLE RADAR SENSORS
UNIT	EA	SQ FT	LS	EACH	EACH	EACH	LF	EACH	LF	LF	LF	LF	EACH	HOUR	LF	HOUR	MONTH	MONTH	MONTH	MONTH
BRIDGE TOTALS	15	432	1	2	8	2	280	250	28697	25932	16473	12450	1	100	28923	448	2	2	8	8

EST. OF QUANTITIES

BID ITEM CODE	24879EC	24879EC	24879EC	24879EC
BID ITEM	STEEL REPAIR - US U32-U33 AT U32	STEEL REPAIR - DS L11-M12 AT L11	STEEL REPAIR - DS L27-M28 AT L27	STEEL REPAIR - CORING TYPICAL
UNIT	EACH	EACH	EACH	EACH
BRIDGE TOTALS	1	1	1	29

INDEX OF SHEETS

SPECIAL NOTES

FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS

FOR CONTRACT COMPLETION DATE AND LIQUIDATED DAMAGES ON BRIDGE REPAIR CONTRACT

FOR PORTABLE CHANGEABLE MESSAGE SIGNS

FOR TEMPORARY WORKSITE SPEED LIMIT SIGN ASSEMBLY

FOR PORTABLE QUEUE WARNING ALERT SYSTEM

FOR TRAFFIC QUEUE PROTECTION SYSTEM

FOR BOLTING PROCEDURES OF FULLY THREADED RODS

SPECIAL PROVISIONS

SPECIFICATIONS

2019 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

PLANS PREPARED BY:

JASON CLARENCE STITH 28365 LICENSED PROFESSIONAL ENGINEER STATE OF KENTUCKY

JASON STITH, P.E.
KY NO. 28365

PLANS PREPARED BY:

PAUL ANTHONY COZZENS 40351 LICENSED PROFESSIONAL ENGINEER STATE OF KENTUCKY

PAUL COZZENS, P.E.
KY NO. 40351

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY
DESIGNED BY: P COZZENS	J STITH
DETAILED BY: MJ DWYER	P COZZENS

TITLE SHEET

CROSSING
OHIO RIVER

ROUTE	ITEM NO.	COUNTY OF
US 41		HENDERSON
	SHEET NO. S1	DRAWING NUMBER 28922

MicroStation v10.17.01.58 USER: MaryJo.Dwyer DATE PLOTTED: 20-NOV-2024 FILE NAME: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Louisville_KY/01_Projects/KYTC T1 Steel Bridges/051B00007L Henderson SB/6) Remediation/CADD/SHEETS/Henderson Title Sheet.dgn

GENERAL NOTES

SCOPE OF WORK: THESE PLANS ARE TO BE USED TO REMEDIATE DISCONTINUITIES DISCOVERED IN COMPLETE JOINT PENETRATION WELDS OF THE MAIN TRUSS MEMBERS. THE REMEDIATION INCLUDES BOTH CORINGS AND PLATING ATTACHED TO THE TRUSS.

SPECIFICATIONS: REFERENCES TO THE SPECIFICATIONS ARE TO THE CURRENT EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION INCLUDING ANY CURRENT SUPPLEMENTAL SPECIFICATIONS. ALL REFERENCES TO THE AASHTO SPECIFICATIONS ARE TO THE FOURTH EDITION 2017 AASHTO LRFD CONSTRUCTION SPECIFICATIONS AND THE 2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, NINTH EDITION.

DESIGN LIVE LOAD: THE DESIGN LIVE LOAD IS HS20-44.

DESIGN METHOD: ALL STRUCTURAL MEMBERS ARE DESIGNED TO HAVE A CAPACITY EQUIVALENT OR GREATER THAN THEIR REQUIRED CAPACITY PER LOAD AND RESISTANCE FACTOR DESIGN METHOD, AS SPECIFIED IN THE REFERENCED AASHTO SPECIFICATIONS.

MATERIALS DESIGN SPECIFICATIONS:
FOR STRUCTURAL STEEL (NEW)
- Fy = 50000 PSI FOR GRADE 50
- Fy = 70000 PSI FOR GRADE HPS 70W

FOR STRUCTURAL STEEL (EXISTING)
- Fy = 32000 PSI FOR ASTM A373
- Fy = 36000 PSI FOR ASTM A36
- Fy = 50000 PSI FOR ASTM A440 AND A441 ≤ 3/4"
- Fy = 100000 PSI FOR ASTM A514

MATERIAL SPECIFICATIONS: AASHTO SPECIFICATIONS OR ASTM, CURRENT EDITION, AS DESIGNATED BELOW SHALL GOVERN THE MATERIALS FURNISHED BELOW SHALL GOVERN THE MATERIALS FURNISHED.

STRUCTURAL STEEL	
AASHTO	A.S.T.M.
M270 GR 50	A709 GR 50
M270 GR 50 (NSTM)	A709 GR 50 (NSTM)
M270 GR HPS 70W (NSTM)	A709 GR HPS 70W (NSTM)

HIGH STRENGTH BOLTS FOR STRUCTURAL JOINT	
AASHTO	A.S.T.M.
M253	F3125 GRADE A490, TYPE 1
CARBON AND ALLOY STEEL NUTS	A563 (DH), F436-1
HARDENED STEEL WASHERS	F436, TYPE 1

ALL NEW STRUCTURAL STEEL SPLICE PLATES SHALL BE ASTM A709 GRADE 50 (NSTM) OR ASTM A709 GRADE HPS 70W (NSTM). ALL OTHER STRUCTURAL STEEL INCLUDING FILLER PLATES, CHEESE PLATES, CONNECTION PLATES, AND ANGLES SHALL BE ASTM A709 GRADE 50. STRUCTURAL STEEL SPLICE PLATES SHALL MEET THE SUPPLEMENTAL REQUIREMENTS FOR FRACTURE CRITICAL MEMBERS IN TABLE II (AASHTO M270) FOR ZONE 2.

MEMBERS IDENTIFIED AS A NONREDUNDANT STEEL TENSION MEMBER (NSTM) ARE THE SAME AS THE FORMER IDENTIFICATION AS FRACTURE CRITICAL MEMBER (FCM). NSTM MATERIAL AND FABRICATION REQUIREMENTS ARE THE SAME AS FCM REQUIREMENTS IN THE KYTC STANDARD SPECIFICATIONS AND THE AASHTO/AWS D1.5 BRIDGE WELDING CODE.

ASTM F3125 GRADE A490 BOLTS ARE TO BE COATED WITH A ZINC/ALUMINUM COATING IN ACCORDANCE WITH ASTM F1136/F1136M OR F2833.

THREADED ROD SHALL BE ASTM A354 GRADE BD WITH ASTM A563 HEAVY HEX NUTS AND ASTM F436, TYPE 1 WASHERS. ASTM A354 GRADE BD THREADED ROD SHALL HAVE PROTECTIVE COATING PER ASTM F3393 CLASSIFICATION CODE D. ALL ASTM A354 GRADE BD THREADED RODS REQUIRE MAGNETIC PARTICLE TESTING, SIMILAR TO THE REQUIREMENTS OF ASTM F3125 GRADE A490 BOLTS. ASTM A354 GRADE BD THREADED RODS SHALL BE CLEANED WITH GRIT BLASTING OR SIMILAR. ACID CLEANING OF ASTM A354 GRADE BD THREADED RODS IS NOT PERMITTED. INSTALLATION OF ASTM A354 GRADE BD THREADED RODS AND ASTM A563 NUTS SHOULD NOT EXCEED MINIMUM PRETENSIONING FORCES OF THE THREADED ROD BY MORE THAN 10%. THE USE OF DIRECT TENSION INDICATORS (DTI), IS PERMITTED AS SHOWN IN THREADED ROD INSTALLATION SEQUENCE, AND IN ACCORDANCE WITH KYTC STANDARD SPECIFICATION SECTION 607.03.05.

HIGH STRENGTH BOLT CONNECTIONS: ALL EXISTING BOLTS TO BE REPLACED ARE TO BE REPLACED WITH THE SAME DIAMETER REPLACEMENT BOLT. SEE SHEET S4 FOR BOLT SIZE LEGEND USED THROUGHOUT THE PLAN SET. ALL NEW BOLTS THROUGH HOLES DRILLED IN THE FIELD SHALL BE 1" DIAMETER HIGH STRENGTH BOLTS WITH 1⅛" DIAMETER FIELD DRILLED HOLES USING THE NEW SPLICE PLATES AS THE TEMPLATE. ALL BOLTED CONNECTIONS ARE DESIGNED AS CLASS A FRICTION TYPE CONNECTIONS. TIGHTENING SHALL BE IN ACCORDANCE WITH SECTION 607.03.05 OF THE STANDARD SPECIFICATIONS.

REMOVAL OF EXISTING BOLTS: THE CONTRACTOR WILL BE PERMITTED TO REMOVE BOLTS IN ANY MANNER WHICH DOES NOT DAMAGE ADJACENT STRUCTURAL STEEL. THIS MAY INCLUDE MECHANICAL REMOVAL OR OTHER METHOD APPROVED BY THE ENGINEER. USE OF CUTTING TORCHES WILL NOT BE PERMITTED.

REMOVE STEEL: ALL EXISTING STEEL THAT IS REMOVED AND NOT REUSED IN THE COMPLETED STRUCTURE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE BRIDGE SITE.

EXISTING STRUCTURE: ALL DRAWINGS OF THE EXISTING STRUCTURE, INCLUDING BOLT HOLE SIZE AND LOCATION, BUTT WELD LOCATION, MEMBER PLATE AND GUSSET PLATE DIMENSIONS, ARE BASED ON THE DESIGN DRAWINGS OF THE BRIDGE. NO SHOP DRAWINGS OF THE BRIDGE WERE AVAILABLE TO THE ENGINEER DURING REPAIR DESIGN. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF THESE REPAIR PLANS BY FIELD INSPECTION PRIOR TO FABRICATION.

SHOP DRAWINGS: FABRICATORS SHALL SUBMIT ALL REQUIRED SHOP PLANS, BY E-MAIL, TO THE DIVISION OF STRUCTURAL DESIGN COORDINATOR FOR REVIEW, THESE SUBMISSIONS SHALL DEPICT THE SHOP PLANS, IN .PDF FORMAT, AS EITHER 11"X17" OR 22"X36" SHEETS. THE DIVISION OF STRUCTURAL DESIGN WILL MAKE REVIEW COMMENTS ON THESE ELECTRONIC SUBMISSIONS AS NEEDED. UPON RECONCILIATION OF THE COMMENTS, FILES SHALL BE RETURNED TO THE DESIGNER. EACH SHEET WILL BE ELECTRONICALLY STAMPED BY THE DESIGNER AND DIVISION OF STRUCTURES. ONLY PLANS ELECTRONICALLY STAMPED ARE TO BE USED FOR FABRICATION.

CLEANING AND PAINTING: ALL NEW STRUCTURAL STEEL SHALL RECEIVE SURFACE PREPARATION AND SHOP APPLIED PRIME COATING IN ACCORDANCE WITH SECTION 607 OF THE STANDARD SPECIFICATIONS. NECESSARY TOUCH-UP/REPAIR OF THE SHOP APPLIED PRIME COAT ON THE NEW STEEL MAY BE PERFORMED IN THE FIELD. INTERMEDIATE AND FINISH COATINGS ARE NOT REQUIRED. PRIME COAT TO BE CAPABLE OF ACHIEVING CLASS A SLIP RESISTANT COEFFICIENT IN ACCORDANCE WITH SECTION 607 OF THE STANDARD SPECIFICATIONS. THE PRIME COAT SHALL CONFORM TO SECTION 821 OF THE STANDARD SPECIFICATIONS.

ALL EXISTING STEEL FAYING SURFACES WHERE NEW STEEL IS TO BE INSTALLED SHALL BE CLEANED AND RECEIVE THE PRIME COAT IN ACCORDANCE WITH SECTION 607 OF THE STANDARD SPECIFICATIONS. LEVEL OF CLEANING SHALL BE TO AN SSPC-SP15 (COMMERCIAL GRADE POWER TOOL CLEANING). ALL POWER TOOLS SHALL BE EQUIPPED WITH VACUUM SHROUDS AND FITTED WITH HEPA FILTERS AT THEIR AIR EXHAUSTS. MAINTAIN AND OPERATE ALL VACUUM SHROUD POWER TOOLS TO COLLECT GENERATED DEBRIS. UNLESS NOTED OTHERWISE ON THE PLANS, ALL NEW AND EXISTING STEEL WITHIN 12" OF THE WORK LIMITS OF EACH RETROFIT LOCATION SHALL BE CLEANED AND PAINTED WITH ONE COAT OF PRIMER CAPABLE OF ACHIEVING CLASS A SLIP RESISTANT COEFFICIENT AS DIRECTED BY THE ENGINEER.

ALL ITEMS NECESSARY TO COMPLETE CLEANING AND PAINTING OF EXISTING AND NEW STEEL SHALL BE INCIDENTAL TO THE APPROPRIATE BID ITEM.

TOUCH UP PAINTING: ALL AREAS OF NEW OR EXISTING STRUCTURAL STEEL ON WHICH THE PAINT HAS BEEN DAMAGED BY THE CONTRACTOR WITH A CUTTING TORCH OR BY OTHER MEASURING CONSTRUCTION OR AFTER FINAL PAINTING SHALL BE WIRE BRUSH CLEANED AND SPOT PAINTED AS DIRECTED BY THE ENGINEER. THE COST OF THIS TOUCH UP PAINTING IS INCIDENTAL TO THE WORK.

DIMENSIONS: DIMENSIONS SHOWN ON THESE PLANS ARE TAKEN FROM ORIGINAL CONSTRUCTION CONTRACT PLANS, AND DO NOT NECESSARILY REFLECT THE EXISTING CONDITION. THE CONTRACTOR SHALL VERIFY DIMENSIONS, INCLUDING THICKNESSES OF PARTS, WITH FIELD MEASUREMENTS PRIOR TO ORDERING MATERIALS OR FABRICATING STEEL. LAYOUT DIMENSIONS ARE HORIZONTAL MEASUREMENTS.

PROHIBITED FIELD WELDING: EXCEPT AS SHOWN ON PLANS, NO WELDING OF ANY NATURE SHALL BE PERFORMED ON THE LOAD CARRYING MEMBERS OF THE BRIDGE WITHOUT THE WRITTEN CONSENT OF THE DIRECTOR, DIVISION OF BRIDGES, OR AN AUTHORIZED REPRESENTATIVE, AND THEN ONLY IN THE MANNER AND AT THE LOCATIONS DESIGNATED IN THE AUTHORIZATION.

DAMAGE TO STRUCTURE: THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY AND EXPENSE FOR ANY AND ALL DAMAGE TO THE STRUCTURE, INCLUDING TRUSS MEMBERS, DURING THE REPAIR AND RETROFIT WORK; EVEN TO THE REMOVAL AND REPLACEMENT OF TRUSS MEMBERS AND FALLEN SPANS, SHOULD THE DAMAGE RESULT FROM THE CONTRACTOR'S ACTIONS.

RESIDUAL LEAD PAINT: RESIDUAL LEAD PAINT MAY STILL BE ON THE BRIDGE. THE CONTRACTOR IS ADVISED TO TAKE ALL NECESSARY PROTECTIVE MEASURES INCLUDING WORKER SAFETY AND ENVIRONMENTAL REGULATIONS WHEN PERFORMING SURFACE PREPARATION AND OTHER WORK. THE DEPARTMENT WILL NOT CONSIDER ANY CLAIMS BASED ON RESIDUAL LEAD PAINT.

PROTECTION OF VEHICLES: NO WORK WILL BE ALLOWED OVER MOVING TRAFFIC BEFORE INSTALLING FALL PROTECTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT VEHICLES FROM DAMAGE AND HARM CAUSED BY FALLING DEBRIS OR OTHER OBJECTS RESULTING FROM THEIR OPERATIONS. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL THEIR ACTIONS IN ACCORDANCE WITH SECTION 107 OF THE STANDARD SPECIFICATIONS.

MAINTAINING TRAFFIC: TRAFFIC SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE PLANS AND SPECIAL NOTES FOR MAINTENANCE OF TRAFFIC.

PLANS OF EXISTING STRUCTURE: AS AN AID TO THE CONTRACTOR, A PORTION OF THE DESIGN PLANS OF THE EXISTING STRUCTURE ARE AVAILABLE FROM THE DIVISION OF MAINTENANCE UPON REQUEST. THE COMPLETENESS OF THESE DRAWINGS IS NOT GRANTED AND NO RESPONSIBILITY IS ASSUMED BY KYTC FOR THEIR ACCURACY. THE EXISTING DRAWING NUMBERS FOR THIS STRUCTURE INCLUDE: 5839, 5980, AND 22827.

ON-SITE INSPECTION: THE CONTRACTOR SHALL MAKE A THOROUGH INSPECTION OF THE BRIDGE AND THE WORK SITE PRIOR TO SUBMITTING THE FEE AND SHALL BE THOROUGHLY FAMILIARIZED WITH THE EXISTING CONDITIONS SO THAT THE WORK CAN BE EXPEDITIOUSLY PERFORMED AFTER A CONTRACT CHANGE ORDER IS AWARDED. A SUITABLE METHOD OF PERFORMING THE WORK DESCRIBED HEREIN SHOULD BE INVESTIGATED. SUBMISSION OF THE FEE WILL BE CONSIDERED EVIDENCE OF THIS INSPECTION HAVING BEEN MADE. ANY CLAIMS RESULTING FROM SITE CONDITIONS WILL NOT BE HONORED BY KYTC.

PAYMENT: THE LUMP SUM FEE FOR REPAIRS SHALL INCLUDE STRUCTURAL STEEL, BOLTS, WASHERS, PAINT, BOLTS, TOOLS, EQUIPMENT, INCIDENTAL MATERIALS AND CLEANUP NECESSARY TO COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

FABRICATION: WITH THE EXCEPTION OF ONE LANE CLOSURE TO VERIFY DIMENSIONS, NO LANE CLOSURES WILL BE PERMITTED UNTIL THE CONTRACTOR HAS ACQUIRED AND FABRICATED ALL STRUCTURAL STEEL.

ALL HOLES ARE TO BE DRILLIED FULL SIZE OR SUB-PUNCHED AND REAMED TO SIZE. THE SHOP DETAIL DRAWINGS SHALL INDICATE CLEARLY SUB-PUNCHED HOLES WHICH ARE TO BE REAMED AND/OR ASSEMBLED TO A TEMPLATE IN THE SHOP. HOLES WHICH ARE TO BE REAMED IN THE FIELD SHALL BE INDICATED ON THE SHOP DRAWINGS. ALL STEEL SHALL BE SO POSITIONED IN THE SPLICE PLATES AS TO PLACE THE DIRECTIONS OF FINISHED ROLLING PARALLEL TO THE DIRECTION OF PRIMARY STRESS. WELDED SPLICES WILL NOT BE PERMITTED.

IF EXISTING WELD REINFORCEMENT PREVENTS FLUSH CONTACT BETWEEN EXISTING MEMBER AND NEW PLATES, REMOVE WELD REINFORCEMENT BY SURFACE GRINDING IN THE DIRECTION OF PRIMARY STRESS UNTIL THE MAXIMUM PROJECTION ABOVE THE EXISTING MEMBER SURFACE IS LESS THAN OR EQUAL TO 1/16 INCH. CONTRACTOR SHALL ENSURE THAT WELD MATERIAL IS NOT REMOVED BELOW THE SURFACE LEVEL OF THE EXISTING MEMBERS. ADDITIONALLY, DO NOT GOUGE OR GRIND ANY MEMBER THAT WILL REMAIN IN SERVICE ON THE BRIDGE.

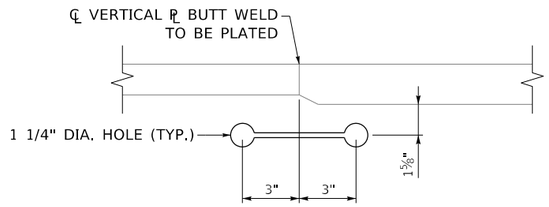
PRE-FABRICATION CONFERENCE: PRIOR TO THE START OF FABRICATION, THE CONTRACTOR, THE INSPECTOR AND THE ENGINEER SHALL HAVE A CONFERENCE TO ENSURE THAT AGREEMENT HAS BEEN REACHED REGARDING THE FABRICATION AND CONSTRUCTION PROCEDURES AND THE INSPECTION THEREOF. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CALL THIS CONFERENCE AT A TIME AND PLACE MUTUALLY CONVENIENT TO ALL PARTIES CONCERNED.

GENERAL NOTES

CONSTRUCTION PROCEDURE: THE CONTRACTOR SHALL FOLLOW THE GENERAL SEQUENCE OF CONSTRUCTION INCLUDED IN THESE PLANS. ALTERNATIVE SEQUENCES SHALL NOT BE ALLOWED WITHOUT THE WRITTEN CONSENT OF THE DIRECTOR, DIVISION OF BRIDGES, OR AN AUTHORIZED REPRESENTATIVE.

UNLESS NOTED OTHERWISE, WHERE BOLTS ARE REPLACED IN EXISTING CONDITIONS UNDER LOAD, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE GEOMETRY OF THE CONNECTIONS IS NOT CHANGED DURING REPLACEMENT OF BOLTS. A MAXIMUM OF TWO BOLTS MAY BE REMOVED AT ANY GIVEN TIME. STAGGER REMOVAL OF BOLTS SO THAT NO TWO ADJACENT BOLTS ARE REMOVED FROM THE CONNECTION AT THE SAME TIME.

CONTRACTOR'S SUBMITTALS: STABILITY OF PARTIAL EXISTING STRUCTURAL MEMBERS AND REMAINING STRUCTURAL MEMBERS ARE TO BE MAINTAINED BY THE CONTRACTOR DURING REPAIR, UNTIL ALL STEEL MEMBERS ARE IN-PLACE AND ALL BOLTS ARE PROPERLY INSTALLED. ERECTION LOADS INCLUDING SELF-WEIGHT OF THE STEEL MEMBERS, WIND LOADING AND CONSTRUCTION LIVE LOAD EFFECTS ARE TO BE EVALUATED BY THE CONTRACTOR FOR STABILITY OF THE STEEL MEMBERS DURING ANY STAGE OF CONSTRUCTION. CONTRACTOR IS TO SUBMIT CALCULATIONS, CONSTRUCTION SEQUENCES AND PROCEDURES, AND DETAILS OF TEMPORARY SUPPORT DEVICES AND STRUCTURES REQUIRED TO ACCOMPLISH THE REPAIRS INTENDED BY THIS CONTRACT.



DOG-BONE RETROFIT DETAIL

INSTALL AT EACH BUTT WELD AT EACH LOCATION AS SPECIFIED IN THE PLANS

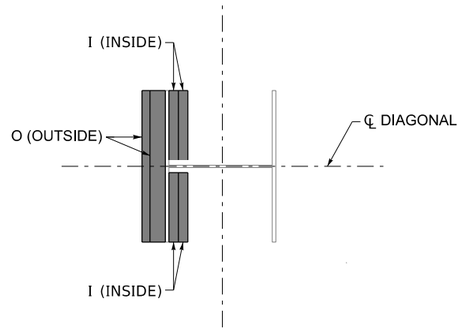
DOG-BONE RETROFIT PROCEDURE:

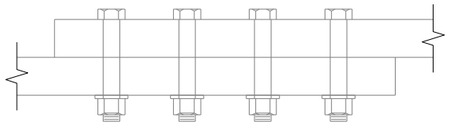
1. DRILL 1 1/4" DIA. HOLES IN HORIZONTAL PLATE.
2. WITH A CUTTING WHEEL OR PORTABLE PLASMA USE HOLES AS A START/STOP POINT FOR CUTTING SLOT PARALLEL TO VERTICAL PLATE.

PLATE MARKING CONVENTION

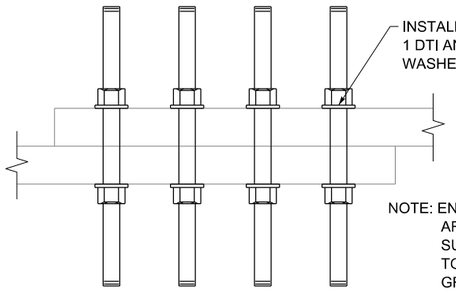
PLATE MARK	JOINT LOCATION	OUTSIDE/INSIDE	PLATE NUMBER
L11-O-1	L11	O	1
L27-I-2	L27	I	2

*REFER TO BELOW SKETCH DEFINING OUTSIDE AND INSIDE PLATE MARKS

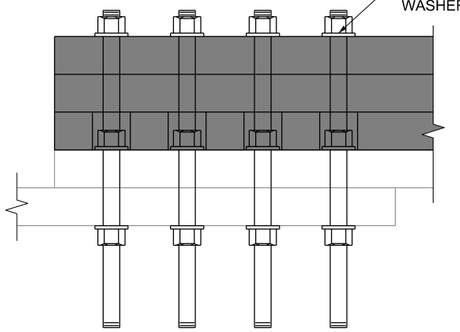




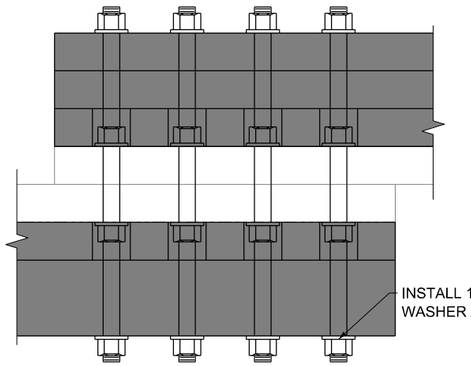
EXISTING CONDITION



REPLACE EXISTING BOLTS WITH THREADED RODS



INSTALL CHEESE PLATE AND OUTSIDE PLATES ON ONE SIDE



INSTALL CHEESE PLATE AND OUTSIDE PLATES ON REMAINING SIDE

THREADED ROD INSTALLATION SEQUENCE

(SEE SPECIAL NOTE FOR BOLTING PROCEDURES OF FULLY THREADED RODS)

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY	
DESIGNED BY: P COZZENS	L CLARK	
DETAILED BY: MJ DWYER	P COZZENS	

GENERAL NOTES - 2

CROSSING: OHIO RIVER

ROUTE: US 41

ITEM NO.:

SHEET NO.: S3

COUNTY OF: HENDERSON

DRAWING NUMBER: 28922

MicroStation v10.17.01.58 USER: MaryJo.Dwyer DATE PLOTTED: 20-NOV-2024
FILE NAME: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Louisville_KY/01_Projects/KYTC T1 Steel Bridges/051B00007L Henderson SB/6) Remediation/CADD/SHEETS/Henderson General Notes_02.dgn

BILL OF MATERIALS

PLATE MARK	TYPE	GRADE	NO. PLATES	PLATE WIDTH (IN)	PLATE THICKNESS (IN) ****	PLATE LENGTH		HOLE SIZE (IN)	GRADE 50 WEIGHT (LBS.)***	OPTIONAL GRADE	OPTIONAL PLATE THICKNESS (IN) ****	GRADE 70W WEIGHT (LBS.)***
						(ft)	(IN)					
U32-O-1	FILL	50	2	16*	7/16	4*	8*	1 1/8	222	---	---	---
U32-O-2	SPLICE	50 (NSTM)	1	16*	4	13*	3*	1 1/8	2,886	HPS 70W (NSTM)	3	2,164
L11-O-1	CHEESE	50	1	24	1 1/2	1	5 1/2	2 3/4	179	---	---	---
L11-O-2	FILL	50	1	24	2 3/16	0	7 1/8	1 1/8	106	---	---	---
L11-O-3	FILL	50	1	24*	2 7/16	2*	5 1/2*	1 1/8	489	---	---	---
L11-O-4	SPLICE	50 (NSTM)	1	24*	1 1/4	4*	6 3/4*	1 1/8	466	HPS 70W (NSTM)	1	373
L11-I-1	CHEESE	50	2	11*	1 1/2	4*	6 3/4*	**	512	---	---	---
L11-I-2	SPLICE	50 (NSTM)	2	11*	1 1/2	4*	6 3/4*	1 1/8	512	HPS 70W (NSTM)	1 1/8	384
L27-O-1	CHEESE	50	1	24	1 1/2	1	5 1/2	2 3/4	179	---	---	---
L27-O-2	FILL	50	1	24	2 1/4	0	7 1/8	1 1/8	109	---	---	---
L27-O-3	FILL	50	1	24*	2 3/8	2*	5 1/2*	1 1/8	477	---	---	---
L27-O-4	SPLICE	50 (NSTM)	1	24*	1 1/4	4*	6 3/4*	1 1/8	466	HPS 70W (NSTM)	1	373
L27-I-1	CHEESE	50	2	11*	1 1/2	4*	6 3/4*	**	512	---	---	---
L27-I-2	SPLICE	50 (NSTM)	2	11*	1 1/2	4*	6 3/4*	1 1/8	512	HPS 70W (NSTM)	1 1/8	384
								TOTAL	7,627		TOTAL	3,678

* DIMENSIONS ARE MINIMUM ORDERED PLATE DIMENSIONS, FOR PLATE GEOMETRY, SEE DETAIL SHEETS.

** FOR BOLT HOLE SIZES, SEE DETAIL SHEETS.

*** WEIGHTS ARE CALCULATED FROM THE MINIMUM ORDERED PLATE DIMENSIONS.

**** TO PROVIDE CONTRACTOR FLEXIBILITY IN PLATE ORDERS, THE THICKNESS OF THE FILL PLATES AND CHEESE PLATES ARE NOMINAL THICKNESSES THAT CAN BE MADE UP OF MULTIPLE PLATES IF DESIRED AS LONG AS NO PLATE THICKNESS IS LESS THAN 3/4". THE THICKNESS OF SPLICE PLATES IS THE MINIMUM THICKNESS REQUIRED BUT CAN BE MADE UP OF MULTIPLE PLATES IF DESIRED AS LONG AS NO PLATE THICKNESS IS LESS THAN 3/4".

NOTES

1. FOR MATERIAL AND FABRICATION, NONREDUNDANT STEEL TENSION MEMBER ABBREVIATED AS NSTM IN THE BILL OF MATERIALS IS THE SAME AS THE FORMER FRACTURE CRITICAL MEMBER (FCM) DESIGNATION.

2. PLATES WITH A 2 3/4" HOLE SIZE IN THE BILL OF MATERIAL ARE CHEESE PLATES. DETAIL SHEETS PROVIDE BOLT SYMBOLS WITH HOLE SIZES DIFFERING FROM THE 2 3/4" HOLE SIZE FOR THE CHEESE PLATES. USE 2 3/4" HOLES FOR ALL PLATES MARKED WITH 2 3/4" HOLES IN THE BILL OF MATERIAL.

3. ALL FILL PLATE THICKNESSES CAN BE INCREASED OR DECREASED BY 1/16" AS NEEDED BY THE CONTRACTOR TO SIMPLIFY THE PLATE ORDER.

LEGEND

- ● INDICATES DRILL 1 1/8" DIA. HOLE IN EXISTING PLATE AND NEW STEEL FOR INSTALLATION OF NEW 1" DIA. (A490) BOLTS. THREADS SHALL BE EXCLUDED FROM SHEAR PLANE.
- ⊗ INDICATES REMOVE EXISTING BOLTS AND REPLACE WITH NEW 1" DIA. (ASTM A354 GRADE BD) THREADED RODS WITH 1 1/8" DIA. HOLES IN NEW STEEL, UNLESS NOTED OTHERWISE.
- ◒ INDICATES REMOVE EXISTING BOLTS AND REPLACE WITH NEW 1" DIA. (A490) BOLTS WITH 1 1/8" DIA. HOLES IN NEW STEEL, UNLESS NOTED OTHERWISE. THREADS SHALL BE EXCLUDED FROM SHEAR PLANE.
- ○ INDICATES EXISTING BOLTS AND BOLT HOLES.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY	
DESIGNED BY: MJ DWYER	P COZZENS	
DETAILED BY: MJ DWYER	P COZZENS	

BILL OF MATERIALS
CROSSING
OHIO RIVER

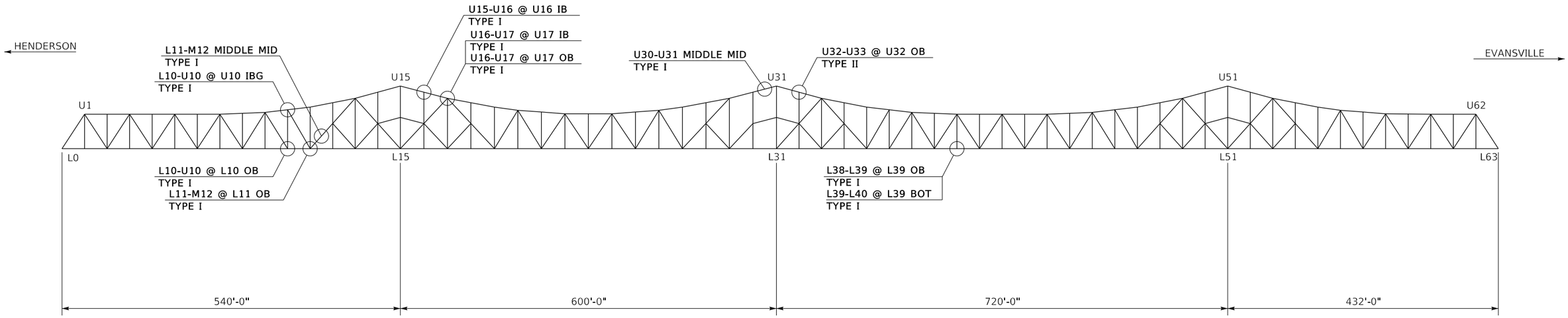
ROUTE
US 41

ITEM NO.

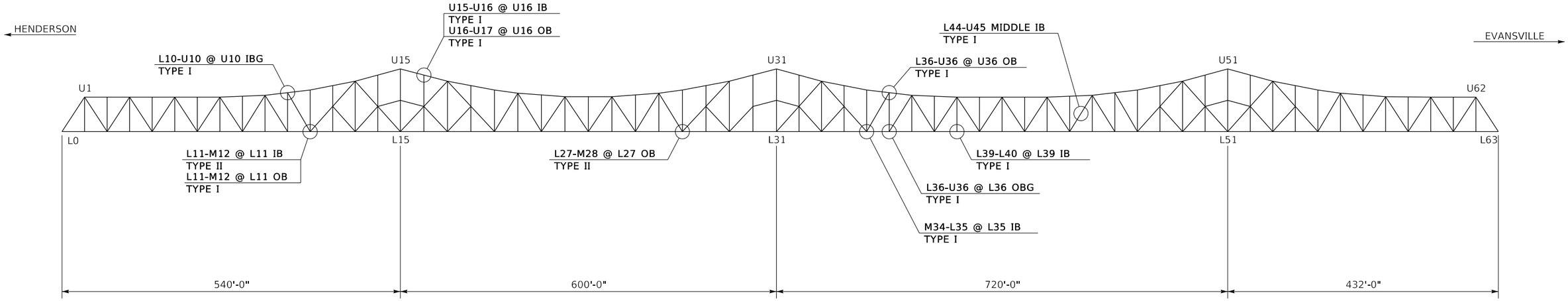
SHEET NO.
S4

COUNTY OF
HENDERSON

DRAWING NUMBER
28922



UPSTREAM TRUSS ELEVATION



DOWNSTREAM TRUSS ELEVATION

LEGEND

1. TRUSS MEMBER — U = UPPER CHORD, L = LOWER CHORD, M = MIDDLE PANEL
2. @ PANEL POINT
3. IB = INBOARD VERTICAL PLATE, OB = OUTBOARD VERTICAL PLATE, W = WEB HORIZONTAL PLATE, IBG = INBOARD GUSSET PLATE, OBG = OUTBOARD GUSSET PLATE
4. TYPE I = CORING, TYPE II = PLATING

(SEE SHEET NO. S6 FOR MORE DETAILS ON REPAIR TYPE)

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY	REPAIR LOCATIONS	ROUTE: US 41
DESIGNED BY: P COZZENS	L CLARK	CROSSING: OHIO RIVER	ITEM NO.
DETAILED BY: MJ DWYER	P COZZENS		SHEET NO. S5
			COUNTY OF: HENDERSON
			DRAWING NUMBER: 28922

UPSTREAM TRUSS REPAIRS

			NON-DESTRUCTIVE TESTING				REMEDIATION PLAN		REMEDIATION					
MEMBER	LOCATION	PLATE	INDICATION LENGTH (IN.)	X* (IN)	Y (IN)	DATE TESTED	REPAIR TYPE	CORE DIAMETER (IN)	INDICATION LENGTH (IN.)	X* (IN)	Y (IN)	DATE + REMEDIATED	NDT TECHNICIAN INITIALS +	REMARKS
U15-U16	U16	IB-FLANGE	1.00	+0.50	10.75	10/13/2023	I	2						
U16-U17	U17	IB-FLANGE	1.60	0.00	11.00	10/13/2023	I	2						
		OB-FLANGE	1.00	+0.50	11.50	10/13/2023	I	2						
U30-U31	U30-U31	MID	3.00	-0.50	10.30	10/12/2023	I ***	2						SNOWMAN RETROFIT
U32-U33	U32	OB-FLANGE	3.50	0.00	4.00	10/16/2024	II **	N/A						
L38-L39	L39	OB-FLANGE	3.00	0.00	12.50	10/10/2023	I ***	2						SNOWMAN RETROFIT
L39-L40	L39	BOTTOM	3.00	0.00	2.00	10/10/2023	I ***	2						SNOWMAN RETROFIT
L11-M12	L11	OB-FLANGE	2.50	-0.40	17.20	10/18/2023	I ***	2						SNOWMAN RETROFIT
	L11-M12	MID	2.25	+0.25	1.25	10/15/2023	I ***	2						SNOWMAN RETROFIT
L10-U10	L10	OB-FLANGE	1.00	+0.75	7.00	10/11/2023	I	2						
	U10	IB-GUSSET	1.50	0.00	25.00	10/15/2023	I	2						

DOWNSTREAM TRUSS REPAIRS

			NON-DESTRUCTIVE TESTING				REMEDIATION PLAN		REMEDIATION					
MEMBER	LOCATION	PLATE	INDICATION LENGTH (IN.)	X* (IN)	Y (IN)	DATE TESTED	REPAIR TYPE	CORE DIAMETER (IN)	INDICATION LENGTH (IN.)	X* (IN)	Y (IN)	DATE + REMEDIATED	NDT TECHNICIAN INITIALS +	REMARKS
U15-U16	U16	IB-FLANGE	1.50			10/24/2023	I	2						
U16-U17	U16	OB-FLANGE	1.50	+0.25	3.75	10/24/2023	I	2						
			1.40	+0.31	12.00	10/24/2023	I	2						
L39-L40	L39	IB-FLANGE	0.80	+0.50	17.75	10/21/2023	I	2						
L11-M12	L11	IB-FLANGE	2.30	0.00	14.30	10/20/2023	II	N/A						
			4.00	0.00	16.50	10/20/2023								
		OB-FLANGE	2.60	0.00	15.20	10/20/2023	I ***	2						SNOWMAN RETROFIT
L27-M28	L27	OB-FLANGE	4.30	+0.25	0.00	10/23/2023	II	N/A						
M34-L35	L35	IB-FLANGE	2.50	+0.50	0.00	10/22/2023	I ***	2						SNOWMAN RETROFIT
L44-U45	MIDDLE	IB-FLANGE	1.50	-0.25	20.50	10/24/2023	I	2						
L10-U10	U10	IB-GUSSET	1.00	0.00	21.50	10/23/2023	I	2						
			1.00	-0.75	29.00	10/23/2023	I	2						
L36-U36	L36	OB-GUSSET	1.50	+0.25	24.50	10/21/2023	I	2						
	U36	OB-FLANGE	1.10	+0.38	7.50	10/21/2023	I	2						

* + X DIMENSION REPRESENTS DEFECT BEING ON THE AHEAD/GREATER PANEL POINT SIDE OF THE WELD.
- X DIMENSION REPRESENTS DEFECT BEING ON THE BACK/SMALLER PANEL POINT OF THE WELD.
(EX: U15-U16 AT U16 WITH X = +0.50" REPRESENTS DEFECT BEING ON U16 SIDE OF THE WELD,
L11-M12 AT L11 WITH X = -0.40" REPRESENTS DEFECT BEING ON L11 SIDE OF THE WELD.)

** SEE DETAIL SHEETS FOR TYPE II PLATING REPAIRS

*** USE 2-2" CORES WITH NO LESS THAN 1/2" OVERLAP TO CAPTURE THE INDICATION(S). GRIND SMOOTH ANY ROUGH EDGES AT THE INTERFACES OF THE TWO CORINGS

\+ THE CONTRACTOR IS TO FILL OUT THIS INFORMATION ONCE REMEDIATION HAS BEEN COMPLETED. PROVIDE A COPY OF THE COMPLETED TABLE TO KYTC.

REPAIR TYPE LEGEND

I CORE HOLE AND PLATE
II PLATING (SEE DETAIL SHEETS INCLUDED IN THIS PLAN SET)

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

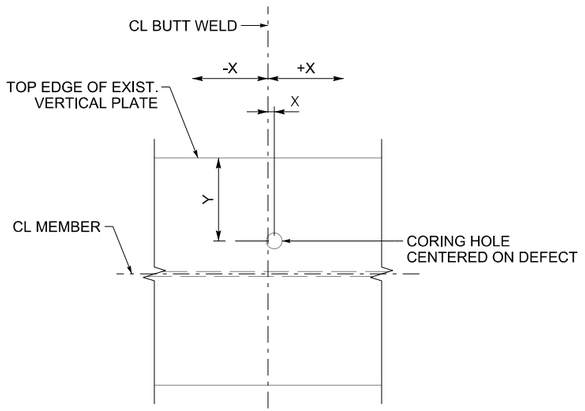
REVISION	DATE

PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY
DESIGNED BY: MJ DWYER	P COZZENS
DETAILED BY: MJ DWYER	P COZZENS

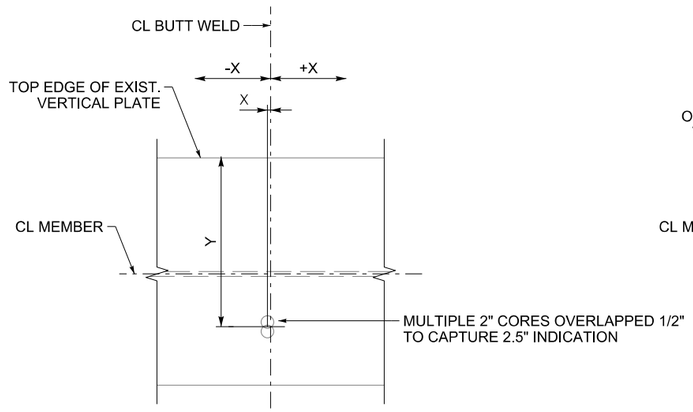
REPAIR LOCATIONS
CROSSING
OHIO RIVER

ROUTE	ITEM NO.	COUNTY OF
US 41		HENDERSON
	SHEET NO. S6	DRAWING NUMBER 28922



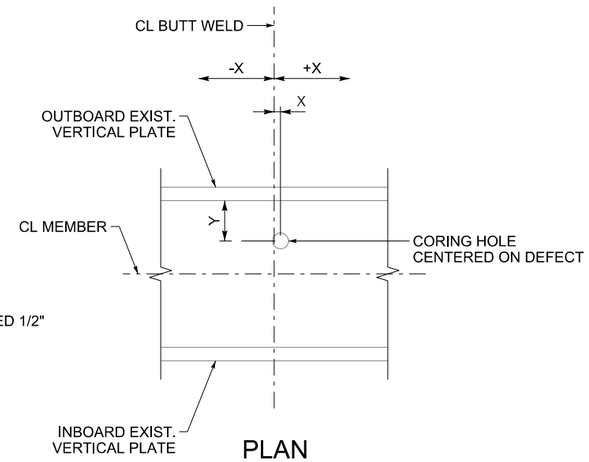
ELEVATION

INBOARD AND OUTBOARD VERTICAL PLATE REPAIRS



PLAN

EXAMPLE SNOWMAN DETAIL
US L11-L12 @ L11
OUTBOARD GUSSET PLATE



PLAN

HORIZONTAL PLATE REPAIRS

TYPE I REPAIRS

NOTES

1. FOR WELD REPAIR TYPE I, THE LOCATION OF THE INDICATION IS TO BE FIELD LOCATED BY A QUALIFIED NDT TECHNICIAN WITH A MINIMUM OF AN ASNT LEVEL II UT CERTIFICATE PRIOR TO PERFORMANCE OF ANY WORK.

2. FOR WELD REPAIR TYPE I, CENTER THE CORE HOLE ON THE LENGTH OF THE INDICATION TO ENSURE THE INDICATION IS FULLY CONTAINED WITHIN THE CORED HOLE.

3. AFTER CORING HAS BEEN PERFORMED, PERFORM MT, OR PT, ON THE REMAINING HOLE TO CONFIRM SURFACE BREAKING INDICATIONS ARE NOT FOUND ON THE SURFACE OF THE CORED HOLE. IF ANY SUCH INDICATIONS ARE FOUND, USE LIGHT SURFACE DIE GRINDING TO REMOVE THEM.

4. IF ANY CORE INTERSECTS WITH A PERPENDICULAR PLATE, CUT CORE FROM THE PLATE AND USE A DIE GRINDER TO SMOOTH OUT TRANSITION AND REMOVE ANY SHARP CORNERS, NOTCHES, OR CUTS.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

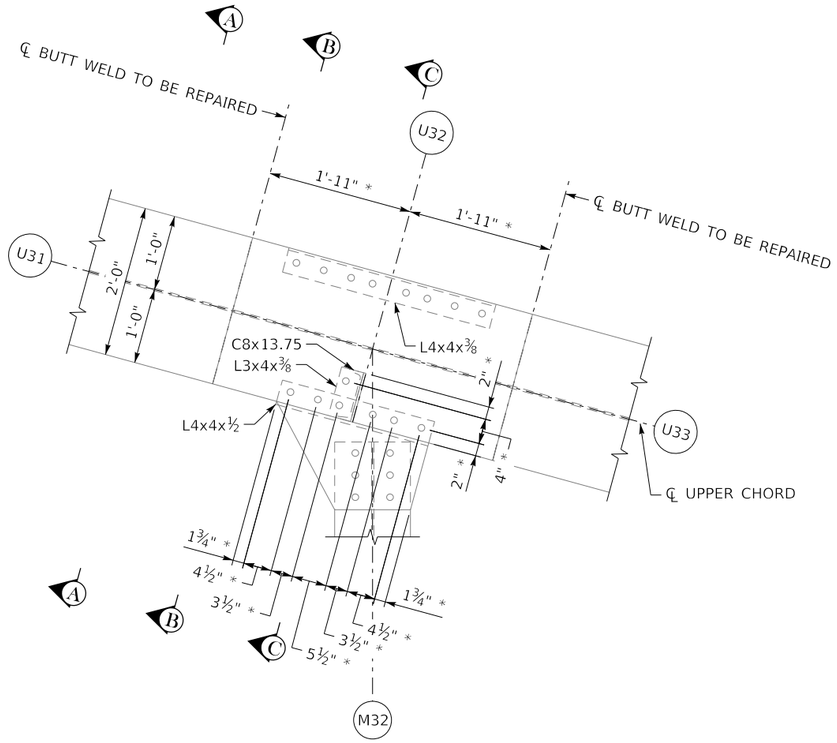
PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY	
DESIGNED BY: P COZZENS	J STITH	
DETAILED BY: MJ DWYER	P COZZENS	

REPAIR DETAILS

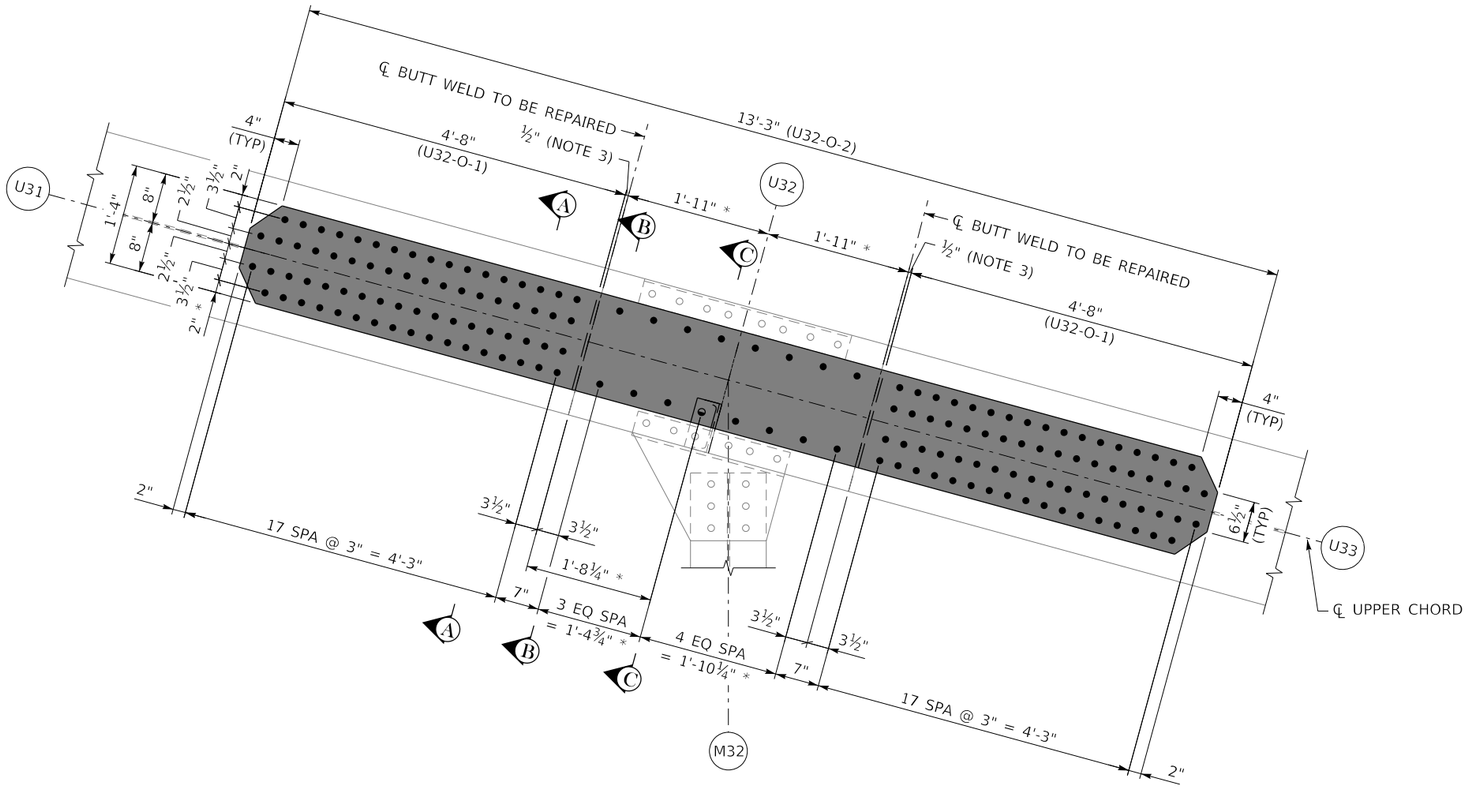
CROSSING
OHIO RIVER

ROUTE	ITEM NO.	COUNTY OF
US 41		HENDERSON
	SHEET NO. S7	DRAWING NUMBER 28922



EXISTING ELEVATION - U32

(UPSTREAM TRUSS, LOOKING DOWNSTREAM AT OUTBOARD FACE)



PROPOSED ELEVATION - U32

(UPSTREAM TRUSS, LOOKING DOWNSTREAM AT OUTBOARD FACE)

LEGEND

* BOLT SPACING DIMENSIONS ESTIMATED. FIELD VERIFICATION REQUIRED BEFORE FABRICATION.

CONSTRUCTION SEQUENCE

1. CONSTRUCT WEB DOG-BONES AT OB BUTT WELD. SEE RETROFIT DETAIL ON SHEET NO. S3.
2. INSTALL FILL AND SPLICE PLATES WITH NEW FASTENERS AS INDICATED. IF EXISTING WELD REINFORCEMENT INTERFERES WITH INSTALLATION OF NEW PLATES, GRIND FLUSH PER GENERAL NOTES.

NOTES

1. FOR SECTIONS A-A, B-B AND C-C, SEE SHEET NO. S9.
2. FOR BOLT LEGEND, SEE SHEET NO. S4.
3. ASSUMED 1/2" GAP BETWEEN EXISTING CENTERLINE OF BUTT WELD AND NEW FILL PLATE.

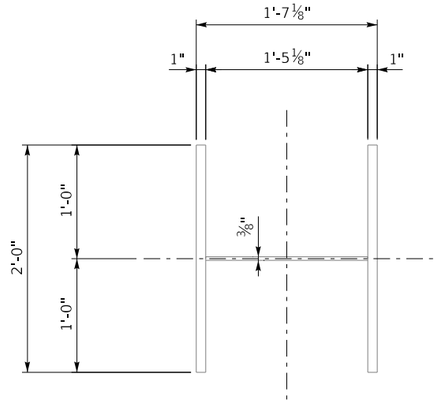
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

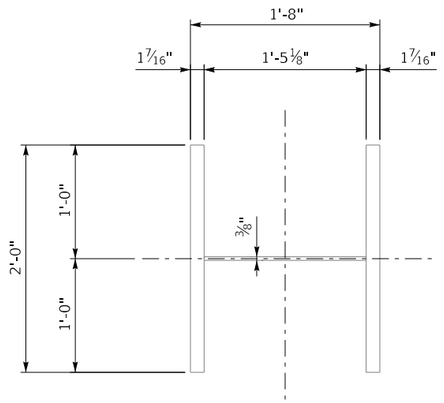
PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY	US U32 OB REPAIR DETAIL - 1
DESIGNED BY: P COZZENS	L CLARK	
DETAILED BY: MJ DWYER	P COZZENS	CROSSING: OHIO RIVER

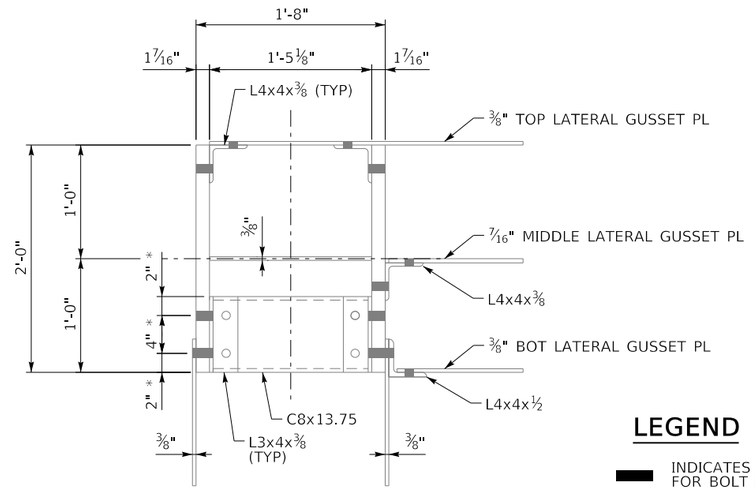
ROUTE	ITEM NO.	COUNTY OF
US 41		HENDERSON
	SHEET NO. S8	DRAWING NUMBER 28922



SECTION A-A
(EXISTING CONDITION)



SECTION B-B
(EXISTING CONDITION)



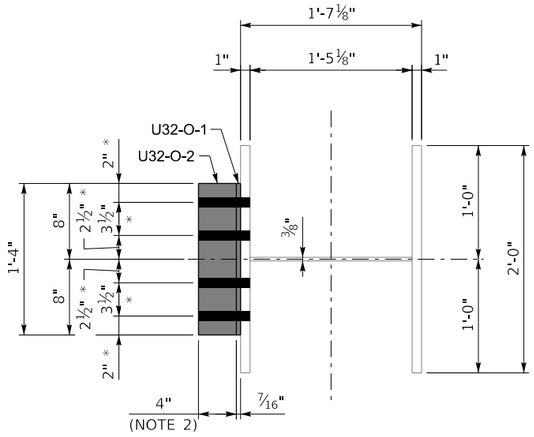
SECTION C-C
(EXISTING CONDITION)

LEGEND

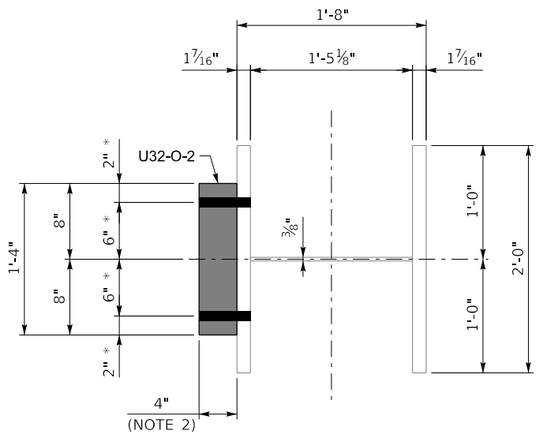
- ▬ INDICATES HOLE IN EXISTING PLATE AND NEW STEEL. FOR BOLT HOLE AND SIZE, SEE SHEET NO. S4.
- * BOLT SPACING DIMENSIONS ESTIMATED. FIELD VERIFICATION REQUIRED BEFORE FABRICATION.

NOTES

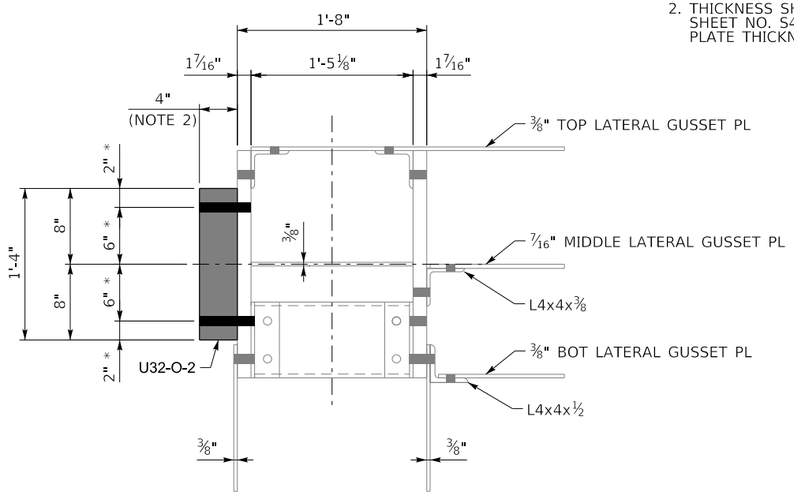
1. FOR LOCATION OF SECTIONS A-A, B-B AND C-C, SEE SHEET NO. S8.
2. THICKNESS SHOWN IS FOR GRADE 50 (NSTM) SPLICE PLATE. SEE SHEET NO. S4 FOR OPTIONAL GRADE HPS 70W (NSTM) SPLICE PLATE THICKNESS.



SECTION A-A
(PROPOSED CONDITION)



SECTION B-B
(PROPOSED CONDITION)



SECTION C-C
(PROPOSED CONDITION)

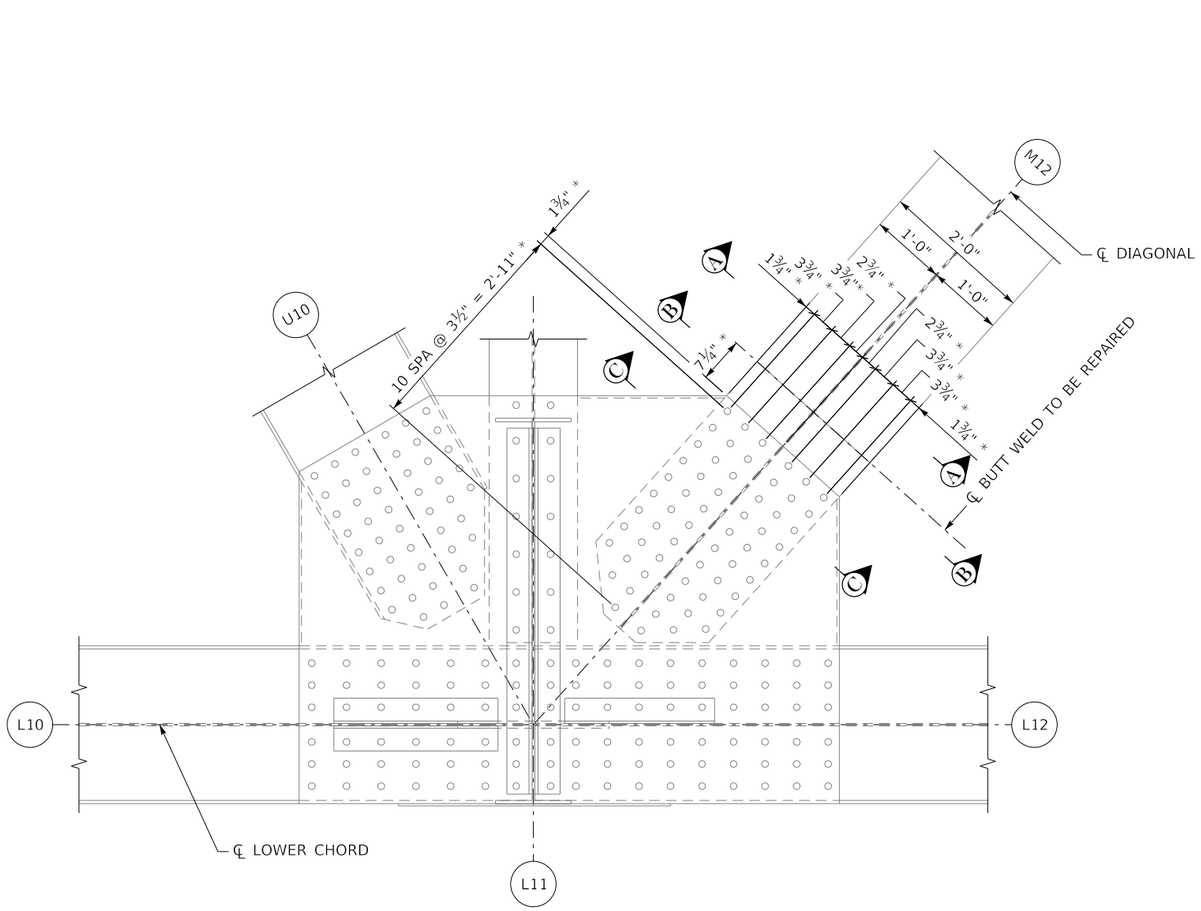
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

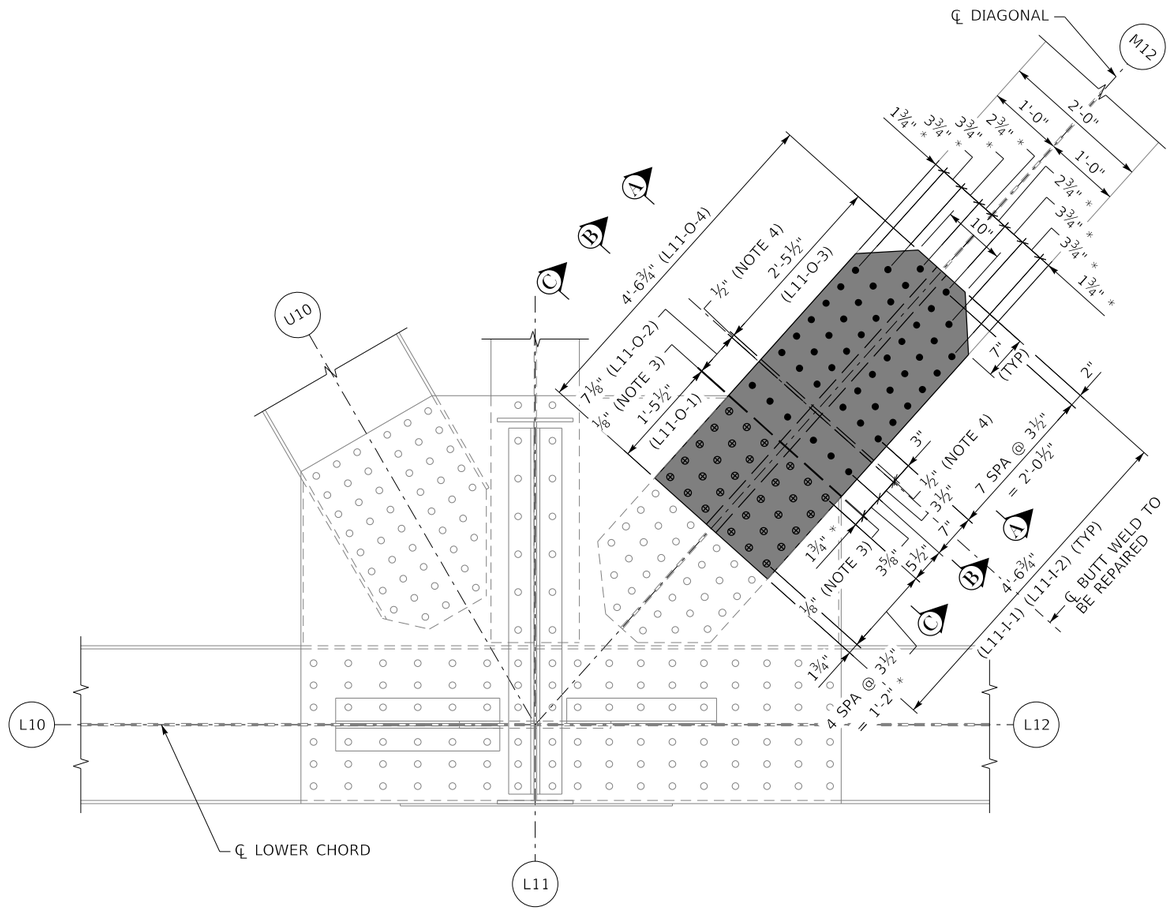
DATE: 10/07/2024	CHECKED BY	US U32 0B REPAIR DETAIL - 2	ROUTE: US 41
DESIGNED BY: P COZZENS	L CLARK	CROSSING: OHIO RIVER	ITEM NO.
DETAILED BY: MJ DWYER	P COZZENS		SHEET NO.: S9
			COUNTY OF: HENDERSON
			DRAWING NUMBER: 28922

MicroStation v10.17.01.58 USER: MaryJo.Dwyer DATE PLOTTED: 20-NOV-2024
FILE NAME: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Louisville_KY/01_Projects/KYTC T1 Steel Bridges/051B00007L Henderson SB/6) Remediation/CADD/SHEETS/Henderson_03_U32-DETAIL_02.dgn



EXISTING ELEVATION - L11

(DOWNSTREAM TRUSS, LOOKING DOWNSTREAM AT INBOARD FACE)



PROPOSED ELEVATION - L11

(DOWNSTREAM TRUSS, LOOKING DOWNSTREAM AT INBOARD FACE)

LEGEND

* BOLT SPACING DIMENSIONS ESTIMATED. FIELD VERIFICATION REQUIRED BEFORE FABRICATION.

CONSTRUCTION SEQUENCE

1. CONSTRUCT WEB DOG-BONE AT IB BUTT WELD. SEE RETROFIT ON SHEET NO. S3.
2. INSTALL THREADED RODS AT GUSSET CONNECTION ONE AT A TIME, TENSIONING EACH ROD BEFORE REMOVING THE NEXT BOLT.
3. INSTALL CHEESE, FILL AND SPLICE PLATES WITH NEW FASTENERS AS INDICATED. IF EXISTING WELD REINFORCEMENT INTERFERES WITH INSTALLATION OF NEW PLATES, GRIND FLUSH PER GENERAL NOTES.

NOTES

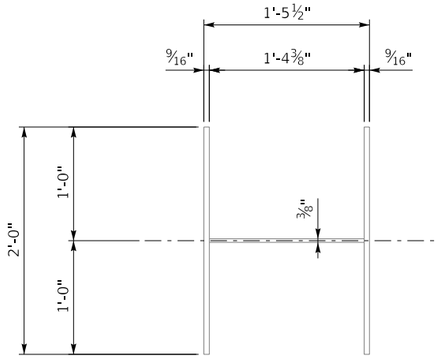
1. FOR SECTIONS A-A, B-B AND C-C, SEE SHEET NO. S11.
2. FOR BOLT LEGEND, SEE SHEET NO. S4.
3. ASSUMED 1/8" GAP BETWEEN EXISTING GUSSET PLATE AND NEW FILL PLATE.
4. ASSUMED 1/2" GAP BETWEEN EXISTING CENTERLINE OF BUTT WELD AND NEW FILL PLATE.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

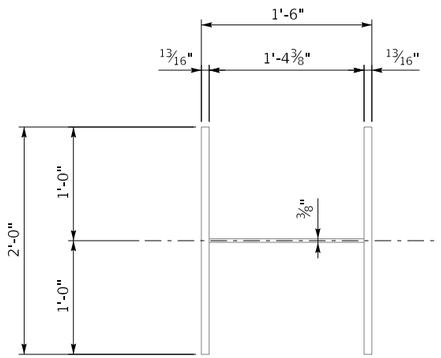
REVISION	DATE

PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

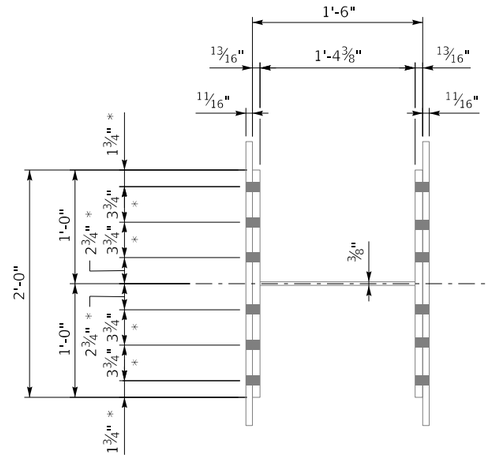
DATE: 10/07/2024	CHECKED BY	DS L11 IB REPAIR DETAIL – 1	ROUTE: US 41
DESIGNED BY: R DHARENNI	L CLARK	CROSSING: OHIO RIVER	ITEM NO.
DETAILED BY: MJ DWYER	R DHARENNI		SHEET NO. S10
			COUNTY OF HENDERSON
			DRAWING NUMBER 28922



SECTION A-A
(EXISTING CONDITION)



SECTION B-B
(EXISTING CONDITION)



SECTION C-C
(EXISTING CONDITION)

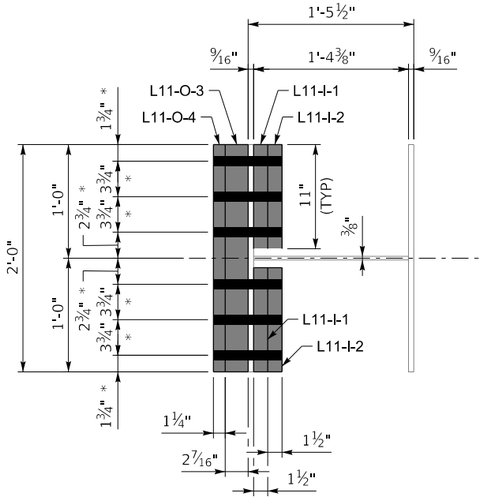
LEGEND

▬ INDICATES HOLE IN EXISTING PLATE AND NEW STEEL. FOR BOLT HOLE AND SIZE, SEE SHEET NO. S4.

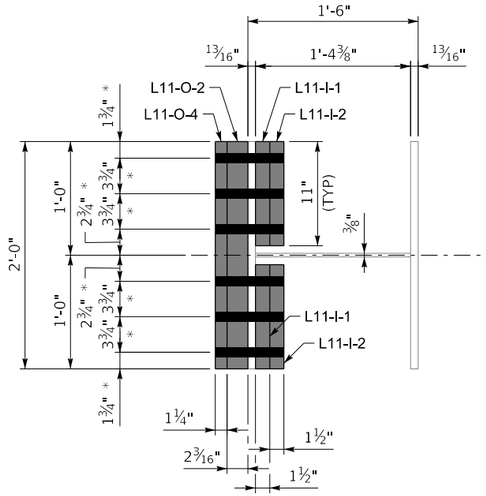
* BOLT SPACING DIMENSIONS ESTIMATED. FIELD VERIFICATION REQUIRED BEFORE FABRICATION.

NOTES

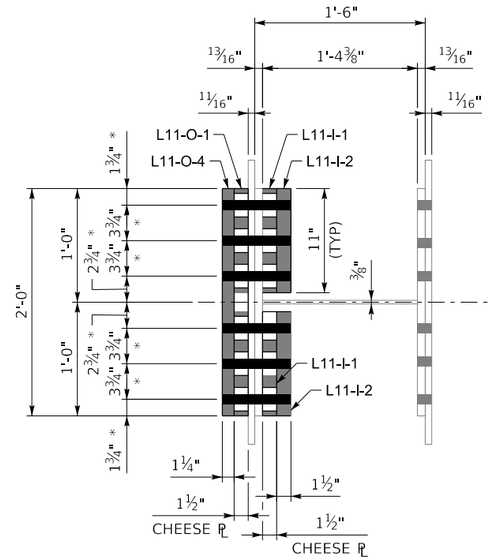
1. FOR LOCATION OF SECTIONS A-A, B-B AND C-C, SEE SHEET NO. S10.



SECTION A-A
(PROPOSED CONDITION)



SECTION B-B
(PROPOSED CONDITION)



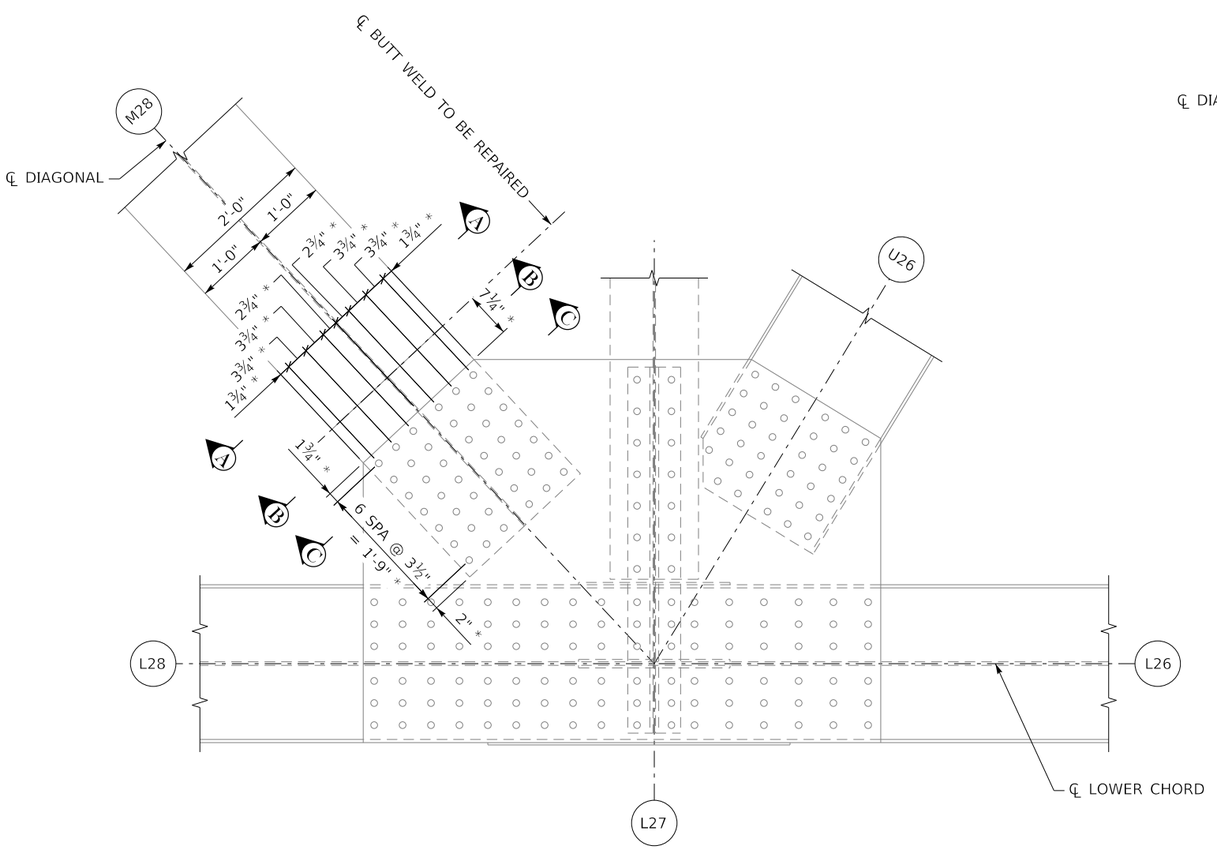
SECTION C-C
(PROPOSED CONDITION)

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

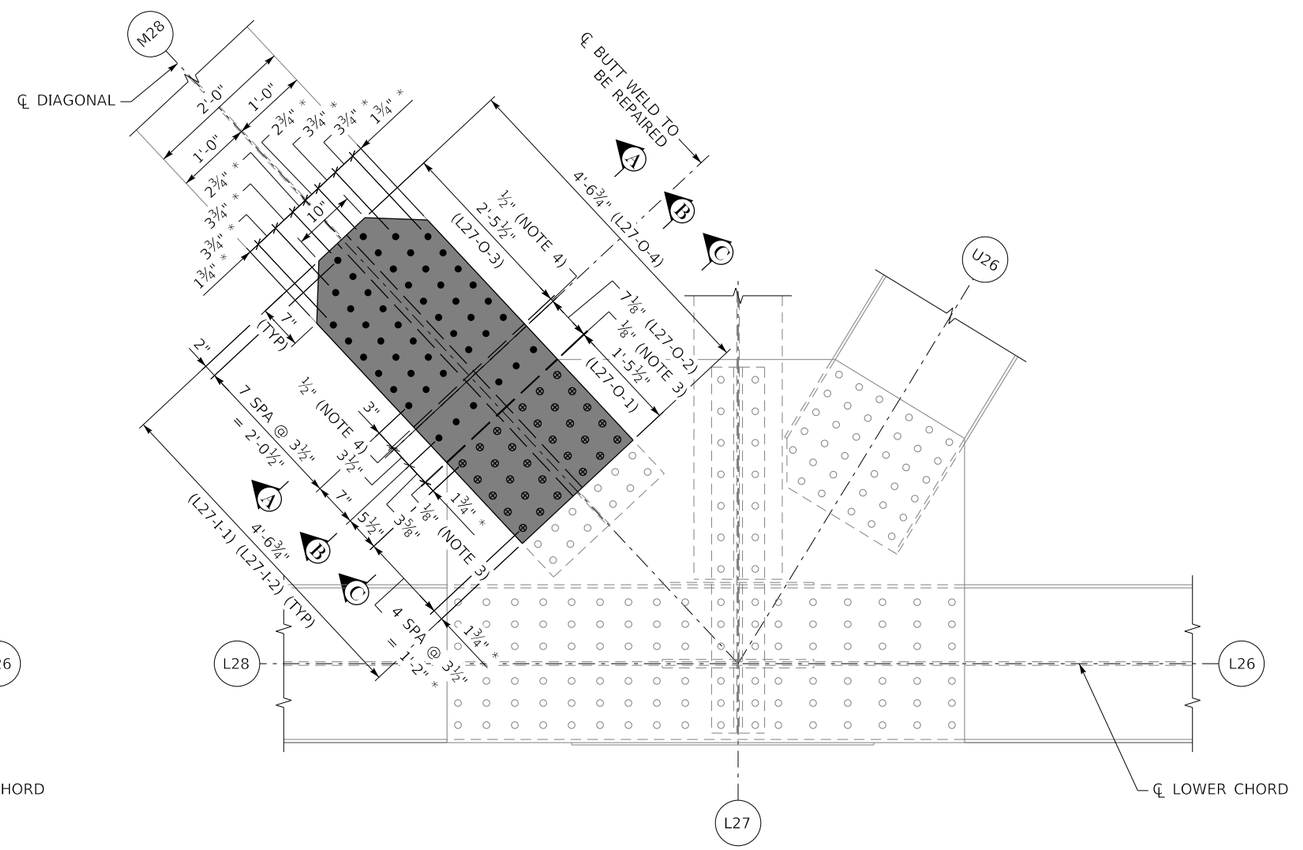
PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY	DS L11 IB REPAIR DETAIL - 2	ROUTE: US 41
DESIGNED BY: R DHARENNI	L CLARK	CROSSING: OHIO RIVER	ITEM NO.
DETAILED BY: MJ DWYER	R DHARENNI		SHEET NO.: S11
			COUNTY OF: HENDERSON
			DRAWING NUMBER: 28922



EXISTING ELEVATION - L27

(DOWNSTREAM TRUSS, LOOKING UPSTREAM AT OUTBOARD FACE)



PROPOSED ELEVATION - L27

(DOWNSTREAM TRUSS, LOOKING UPSTREAM AT OUTBOARD FACE)

LEGEND

* BOLT SPACING DIMENSIONS ESTIMATED. FIELD VERIFICATION REQUIRED BEFORE FABRICATION.

CONSTRUCTION SEQUENCE

1. CONSTRUCT WEB DOG-BONE AT OB BUTT WELD. SEE RETROFIT ON SHEET NO. S3.
2. INSTALL THREADED RODS AT GUSSET CONNECTION ONE AT A TIME, TENSIONING EACH ROD BEFORE REMOVING THE NEXT BOLT.
3. INSTALL CHEESE, FILL AND SPLICE PLATES WITH NEW FASTENERS AS INDICATED. IF EXISTING WELD REINFORCEMENT INTERFERES WITH INSTALLATION OF NEW PLATES, GRIND FLUSH PER GENERAL NOTES.

NOTES

1. FOR SECTIONS A-A, B-B AND C-C, SEE SHEET NO. S13.
2. FOR BOLT LEGEND, SEE SHEET NO. S4.
3. ASSUMED 1/8" GAP BETWEEN EXISTING GUSSET PLATE AND NEW FILL PLATE.
4. ASSUMED 1/2" GAP BETWEEN EXISTING CENTERLINE OF BUTT WELD AND NEW FILL PLATE.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

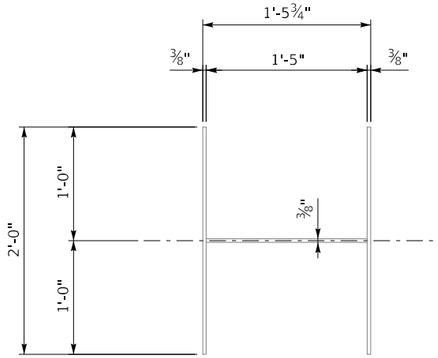
PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY	
DESIGNED BY: R DHARENNI	L CLARK	
DETAILED BY: MJ DWYER	R DHARENNI	

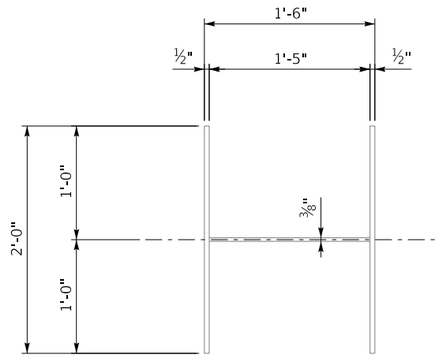
DS L27 0B REPAIR DETAIL - 1

CROSSING: OHIO RIVER

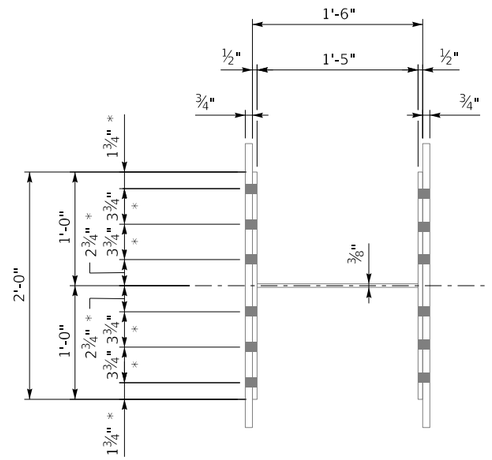
ROUTE	ITEM NO.	COUNTY OF
US 41		HENDERSON
	SHEET NO. S12	DRAWING NUMBER 28922



SECTION A-A
(EXISTING CONDITION)



SECTION B-B
(EXISTING CONDITION)



SECTION C-C
(EXISTING CONDITION)

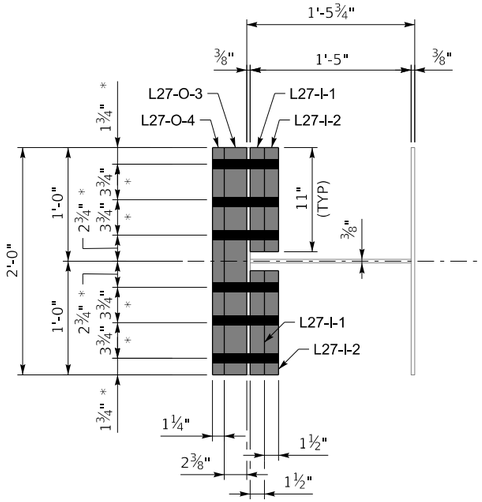
LEGEND

▬ INDICATES HOLE IN EXISTING PLATE AND NEW STEEL. FOR BOLT HOLE AND SIZE, SEE SHEET NO. S4.

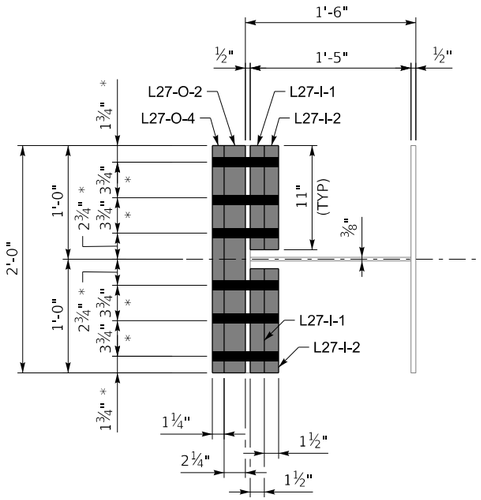
* BOLT SPACING DIMENSIONS ESTIMATED. FIELD VERIFICATION REQUIRED BEFORE FABRICATION.

NOTES

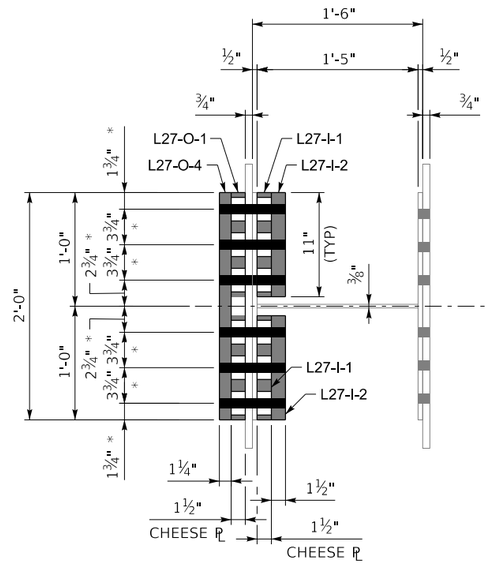
1. FOR LOCATION OF SECTIONS A-A, B-B AND C-C, SEE SHEET NO. S12.



SECTION A-A
(PROPOSED CONDITION)



SECTION B-B
(PROPOSED CONDITION)



SECTION C-C
(PROPOSED CONDITION)

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

PREPARED BY
Michael Baker INTERNATIONAL
1650 Lyndon Farm Court
Louisville, KY
Phone: (502)-339-3557
MBAKERINTL.COM

DATE: 10/07/2024	CHECKED BY
DESIGNED BY: R DHARENNI	L CLARK
DETAILED BY: MJ DWYER	R DHARENNI

DS L27 0B REPAIR DETAIL - 2

CROSSING: OHIO RIVER

ROUTE	ITEM NO.	COUNTY OF
US 41		HENDERSON
	SHEET NO. S13	DRAWING NUMBER 28922