

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

HART COUNTY US 31W OVER GREEN RIVER REPAIR PLANS

LETTING DATE

CONSTRUCTION PROJECT NO.

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SPECIAL NOTE FOR JOINT SEAL REPLACEMENT
SPECIAL NOTE FOR JACKING AND SUPPORTING BRIDGE SPAN
SPECIAL NOTE FOR COMPLETION DATE, LIQUIDATED DAMAGES AND PENALTIES

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SPECIAL PROVISIONS

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BBP-003	Expansion Joint Replacement 1"-3"
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TTC-110-04	LANE CLOSURE USING TRAFFIC SIGNALS
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TTS-140	CHANNELIZING DEVICES

ESTIMATE OF QUANTITIES

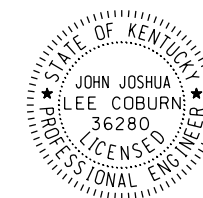
BID ITEM CODE	08435	08435	23290EC	23388EC	24083EC	24084EC	24879EC			
BID ITEM	Jack And Support Bridge Span - Pier 1	Jack And Support Bridge Span - Pier 9	Gusset Plate Retrofit	Joint Seal Replacement	Floorbeam Repair	Stringer Repair	Steel Repair - Column Replacement			
UNIT	L.S.	L.S.	E.A.	L.F.	E.A.	E.A.	E.A.			
Substructure										
PIER 1							2			
PIER 9							2			
Superstructure	1	1	5	308	1	11				
BRIDGE TOTALS	1	1	5	308	1	11	4			

ROADWAY GENERAL SUMMARY

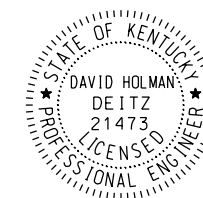
ITEM	DESCRIPTION	UNIT	QUANTITY
02562	TEMPORARY SIGNAGE	S.Q.F.T.	93
02569	DEMOBILIZATION	L.S.	1
02650	MAINTAIN AND CONTROL TRAFFIC	L.S.	1
03171	CONC BARRIER WALL TYPE 9T	L.F.	1671
20318ES508	RELOCATE CONC BARRIER WALL	L.F.	1671
02671	PORTABLE CHANGEABLE MESSAGE SIGN	E.A.	11
04933	TEMP SIGNAL 2 PHASE	E.A.	2
06510	PAVE STRIPING-TEMP PAINT- 4 IN	L.F.	1000
06514	PAVE STRIPING-PERM PAINT- 4 IN	L.F.	5880
06550	PAVE STRIPING-TEMP REM TAPE - W	L.F.	5880

① THE DEPARTMENT WILL MEASURE THE QUANTITY "EACH" FOR THESE REPAIRS/RETROFITS PAYMENT AT THE CONTRACT UNIT PRICE FOR "EACH" IS FULL COMPENSATION FOR FURNISHING AND INSTALLING ALL MATERIALS AS SPECIFIED.

② SEE SPECIAL NOTE OF JACKING AND SUPPORTING BRIDGE SPAN.



June 10, 2026
Engineer of Record
for Sheets R01-R06



June 10, 2026
Engineer of Record
for Sheets S01-S11

SPECIFICATIONS

2026 Standard Specifications for Road and Bridge Construction.
10th Edition AASHTO LRFD Bridge Design Specifications



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY



DATE: JUNE, 2026

CHECKED BY

DESIGNED BY: J.P. MURRIN

D.H. DEITZ

DETAILED BY: J.E. GEMBKA

J.P. MURRIN

TITLE SHEET

CROSSING
GREEN RIVER at MUNFORDVILLE

ROUTE
US 31W

BRIDGE NO.
050B00004N

ITEM NO.
4-10095

SHEET NO.
S01

COUNTY OF
HART

DRAWING NUMBER
29147

GENERAL NOTES

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 CURRENT EDITION OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, WITH INTERIMS. ALL REFERENCES TO THE ASTM STANDARDS ARE TO THE CURRENT EDITION OF THE ASTM STANDARD SPECIFICATIONS, WITH INTERIMS.

MATERIAL DESIGN SPECIFICATIONS:

ASTM SPECIFICATIONS, CURRENT EDITION, AS DESIGNATED BELOW SHALL GOVERN THE FOLLOWING MATERIALS FURNISHED.

MATERIAL	ASTM, CURRENT ED.
STRUCTURAL STEEL FOR ROLLED SHAPES AND PLATES	A709 GRADE 50
ALTERNATE SPECIFICATION FOR W-SHAPES	A992 GRADE 50
ALTERNATE SPECIFICATIONS FOR ANGLES, PLATES, AND CHANNELS	A572 GRADE 50
BOLTS	F3125 GRADE A325
PINS	A668 CLASS J
ANCHOR BOLTS	F1554 GRADE 55

ALL STRUCTURAL STEEL MATERIAL USED IN REPAIRS SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TOUGHNESS TEST APPLICABLE TO ZONE 2 IN ACCORDANCE WITH THE FOLLOWING, UNLESS OTHERWISE NOTED: 25 FT.LBS. AT 40°F

DIMENSIONS: DIMENSIONS SHOWN ON THESE PLANS ARE TAKEN FROM THE ORIGINAL CONSTRUCTION CONTRACT PLANS AND DO NOT NECESSARILY REFLECT REVISIONS MADE DURING CONSTRUCTION OR REPAIRS PREVIOUSLY INSTALLED. THE CONTRACTOR SHALL VERIFY ELEVATIONS AND DIMENSIONS, INCLUDING THICKNESS OF PARTS AND FASTENER SIZE/SPACING, WITH FIELD MEASUREMENTS PRIOR TO ORDERING MATERIALS OR FABRICATING STEELWORK. ALL PLAN DIMENSIONS ARE FOR A NORMAL TEMPERATURE OF 60°F. LAYOUT DIMENSIONS ARE HORIZONTAL DIMENSIONS.

BRIDGE PLANS: A COPY OF AVAILABLE EXISTING BRIDGE PLANS WILL BE MADE AVAILABLE TO THE SUCCESSFUL BIDDER UPON WRITTEN REQUEST.

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

VERIFYING FIELD CONDITIONS: PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE THE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK; HOWEVER THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK. IN ADDITION, THE OVERRUN AND UNDERRUN FORMULAS MAY BE APPLIED TO APPROPRIATE REPAIRS PROVIDED THAT THE REQUIREMENTS OF ARTICLE 104.02.02 OF THE STANDARD SPECIFICATIONS ARE SATISFIED.

MILL TEST REPORTS: NOTARIZED MILL TEST REPORTS SHALL BE FURNISHED IN TRIPLICATE TO THE DEPARTMENT SHOWING THAT ALL STRUCTURAL STEEL CONFORMS TO THE REQUIREMENTS OF THE SPECIFICATIONS.

WELDING SPECIFICATIONS: ALL WELDING AND WELDING MATERIALS SHALL CONFORM TO 'JOINT SPECIFICATION ANSI/AASHTO/AWS D1.1 : BRIDGE WELDING CODE'. MODIFICATION AND ADDITIONS AS STATED ON THE PLANS SHALL SUPERSEDE THE JOINT SPECIFICATIONS.

PROHIBITED FIELD WELDING: EXCEPT WHERE SHOWN IN THE 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 BRIDGE MAINTENANCE, AND THEN ONLY IN THE MANNER AND AT THE LOCATIONS DESIGNATED IN THE AUTHORIZATION.

WELDING PROCEDURES: QUALIFICATION TEST OF ALL WELDING PROCEDURES, WHEN REQUIRED BY AWS, SHALL BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO THE FINAL APPROVAL OF THE SHOP DRAWINGS AND THE START OF THE FABRICATION.

CLEANING AND PAINTING: REFER TO THE SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS.

PAINTING DAMAGED AREAS: ALL AREAS OF NEW OR EXISTING STRUCTURAL STEEL ON WHICH THE PAINT HAS BEEN DAMAGED BY THE CONTRACTOR SHALL BE CLEANED AND SPOT PAINTED TO THE SATISFACTION OF THE ENGINEER AND IN ACCORDANCE WITH THE SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS. THE COST OF THIS TOUCH-UP PAINTING IS TO BE INCIDENTAL TO THE CONTRACT.

REMOVAL OF EXISTING RIVETS AND BOLTS: THE CONTRACTOR WILL BE PERMITTED TO REMOVE RIVETS IN ANY MANNER THAT DOES NOT DAMAGE ADJACENT STRUCTURAL STEEL. THIS MAY INCLUDE MECHANICAL REMOVAL OR OTHER METHODS APPROVED BY THE ENGINEER. USE OF CUTTING TORCHES WILL NOT BE PERMITTED. FOR SEQUENCE OF RIVET/BOLT REMOVAL, FOLLOW REPAIR PROCEDURES/NOTES SHOWN IN THE PLANS.

HIGH STRENGTH BOLT CONNECTIONS: UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL BOLTED CONNECTIONS SHALL BE ASTM F3125 GRADE A325 HIGH STRENGTH BOLTS, A563DH NUTS, AND F436 FLAT WASHERS. OPEN HOLES SHALL BE 1/16 INCH GREATER THAN THE BOLT DIAMETER, UNLESS OTHERWISE NOTED. BOLT THREADS SHALL BE EXCLUDED FROM THE SHEAR PLANE IN ALL BOLTED CONNECTIONS, UNLESS OTHERWISE NOTED. FROM AVAILABLE ORIGINAL DESIGN DRAWING INFORMATION, THE EXISTING RIVETS ARE 3/4" AND SHALL BE REPLACED WHERE NOTED WITH HIGH STRENGTH BOLTS OF EQUAL SIZE. CONTRACTOR TO FIELD VERIFY SIZE AND LENGTH PRIOR TO ORDERING MATERIALS.

ANY CONNECTION OR MISDRILLED HOLES IN STEEL MEMBERS THAT ARE NOT SPECIFIED TO RECEIVE ANY OTHER CONNECTED PART SHALL BE FILLED WITH A HIGH STRENGTH BOLT THAT IS TENSIONED PER THE SPECIFICATIONS.

TYPE I MECHANICALLY GALVANIZED BOLTS SHALL BE USED AS DESCRIBED IN AASHTO M 164, ALL HIGH STRENGTH BOLTED CONNECTIONS ARE TO BE INSTALLED USING 'DIRECT TENSION INDICATORS' (DTI'S) IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND ASTM F959. ALL DTI'S SHALL BE MECHANICALLY ZINC COATED. INSTALLATION DETAILS OF THE DTI'S SHALL BE SHOWN ON THE SHOP PLANS.

SHOP DRAWINGS: SUBMIT SHOP DRAWINGS DIRECTLY TO THE CONSULTANT. WHEN ANY CHANGES IN THE DESIGN PLANS ARE PROPOSED BY THE FABRICATOR OR SUPPLIER, SUBMIT THOSE CHANGES TO THE CONSULTANT.

SUBMIT FINAL APPROVED SHOP DRAWINGS TO THE ENGINEER.

DISPOSAL OF MATERIALS: ALL MATERIALS AND DEBRIS REMOVED FROM OR BENEATH THE BRIDGE OR APPROACHES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE RIGHT-OF-WAY.

STABILITY OF THE STRUCTURE: THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE FROM THE TIME OF MOBILIZATION UNTIL AFTER THE BRIDGE HAS BEEN REOPENED TO NORMAL TRAFFIC FOLLOWING COMPLETION OF ALL WORK REQUIRED IN THE CONTRACT.

DAMAGE OUTSIDE CONSTRUCTION LIMITS: ANY AREA THAT IS DISTURBED OUTSIDE THE LIMITS OF THE CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE, SHOULD SUCH DAMAGE RESULT FROM THE CONTRACTOR'S ACTIONS.

DAMAGE TO THE STRUCTURE: THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY AND EXPENSE FOR REPAIR OF ANY AND ALL DAMAGES TO THE STRUCTURE, SHOULD SUCH DAMAGE RESULT FROM THE CONTRACTOR'S ACTIONS. AFTER COMPLETION OF ALL OPERATIONS, THE STRUCTURE AND SITE SHALL BE LEFT IN A CONDITION THAT IS IN ACCORDANCE WITH SECTION 105.12 OF THE SPECIFICATIONS.

CONSTRUCTION LOAD: THE CONTRACTOR SHALL ABIDE BY THE BRIDGE POSTING LIMITS. STORAGE OF MATERIAL ON THE BRIDGE IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.

RESIDUAL LEAD: 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.

CONSTRUCTION PHASING AND MAINTENANCE OF TRAFFIC: THIS BRIDGE SHALL BE REPAIRED IN PHASES COINCIDING WITH THE MAINTENANCE OF TRAFFIC AND CONSTRUCTION PHASING SCHEME.

COMPLETION OF THE STRUCTURE: THE CONTRACTOR IS REQUIRED TO COMPLETE THE STRUCTURE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. MATERIAL, LABOR OR CONSTRUCTION OPERATIONS, NOT OTHERWISE SPECIFIED, ARE TO BE INCLUDED IN THE BID ITEM MOST APPROPRIATE TO THE WORK INVOLVED. THIS MAY INCLUDE COFFERDAMS, SHORING, EXCAVATIONS, BACKFILLING, REMOVAL OF ALL OR PARTS OF EXISTING STRUCTURES, PHASE CONSTRUCTION, INCIDENTAL MATERIALS, LABOR, OR ANYTHING ELSE REQUIRED TO COMPLETE THE STRUCTURE.

UTILITIES: THERE ARE OVERHEAD POWERLINES ADJACENT TO THE BRIDGE AND OTHER UTILITIES ON THE BRIDGE. THESE SHALL NOT BE DISTURBED BY THE CONTRACTOR.

PROTECTION OF VEHICLES AND PEDESTRIANS: NO WORK WILL BE ALLOWED OVER VEHICULAR TRAFFIC, BOAT TRAFFIC, OR PEDESTRIAN ACCESSIBLE AREAS WITHOUT ALL NECESSARY PRECAUTIONS TO PROTECT VEHICLES, WHETHER MOVING OR PARKED, AND INDIVIDUALS FROM DAMAGE AND HARM CAUSED BY FALLING DEBRIS OR OTHER OBJECTS RESULTING FROM THE WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL ACTIONS IN ACCORDANCE WITH SECTION 107 OF THE STANDARD SPECIFICATIONS.

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF VEHICULAR TRAFFIC, BOAT TRAFFIC, OR PEDESTRIANS ADJACENT TO AND UNDER THE STRUCTURE TO THE ENGINEER FOR APPROVAL.



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY

Palmer
ENGINEERING

DATE: JUNE, 2026

CHECKED BY

DESIGNED BY: J.P. MURRIN

D.H. DEITZ

DETAILED BY: J.E. GEMBKA

J.P. MURRIN

GENERAL NOTES

CROSSING
GREEN RIVER at MUNFORDVILLE

ROUTE
US 31W

BRIDGE NO.
050B00004N

ITEM NO.
4-10095

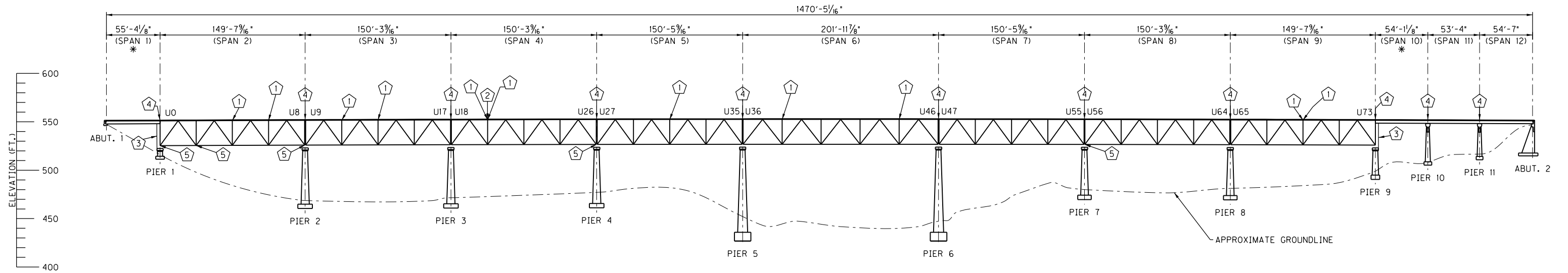
SHEET NO.
S02

COUNTY OF
HART

DRAWING NUMBER
29147

TO BOWLING GREEN (SOUTH)

TO MUNFORDVILLE (NORTH)



ELEVATION

REPAIR LEGEND

- ① STRINGER 1 OR 5 REPAIRS (SEE TABLE ON THE RIGHT)
- ② FLOORBEAM 20 REPAIR
- ③ STEEL COLUMN REPLACEMENTS
- ④ JOINT SEAL REPLACEMENT (STRIP SEALS AT PIERS 1 AND 5, COMPRESSION SEALS AT OTHER LOCATIONS)
- ⑤ GUSSET PLATE RETROFIT (SEE TABLE ON THE RIGHT)

NOTES:

- 1. FLOORBEAM NUMERIC SEQUENCE MATCHES THE TRUSS PANEL POINT NUMBERING SEQUENCE SHOWN ABOVE. FOR EXAMPLE, FLOORBEAM 8 IS COINCIDENT WITH PANEL POINT U8.
- * INDICATES SPAN TO BE TEMPORARY JACKED/SUPPORTED ACCORDING TO 'THE SPECIAL NOTE FOR JACKING AND SUPPORTING BRIDGE SPAN.'

① TABLE OF STRINGER END REPAIR LOCATIONS

SPAN	FLOORBEAM	FACE	(STRINGER)
2	4	NORTH	(5)
	6	NORTH	(5)
3	11	NORTH	(5)
	13	NORTH	(5)
4	20	SOUTH	(1)
		NORTH	(5)
5	31	NORTH	(5)
		NORTH	(5)
6	44	NORTH	(5)
		NORTH	(5)
9	69	SOUTH	(1)
		NORTH	(5)

⑤ TABLE OF GUSSET PLATE RETROFITS

SPAN	PANEL POINT	SIDE	PLATE
2	L0	DS	OB & IB
	L2	DS	OB & IB
	L8	DS	OB & IB
4	L26	DS	OB & IB
8	L56	DS	OB & IB



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION	DATE



DATE:	JUNE, 2026	CHECKED BY:	
DESIGNED BY:	J.P. MURRIN	D.H. DEITZ	
DETAILED BY:	J.E. GEMBKA	J.P. MURRIN	

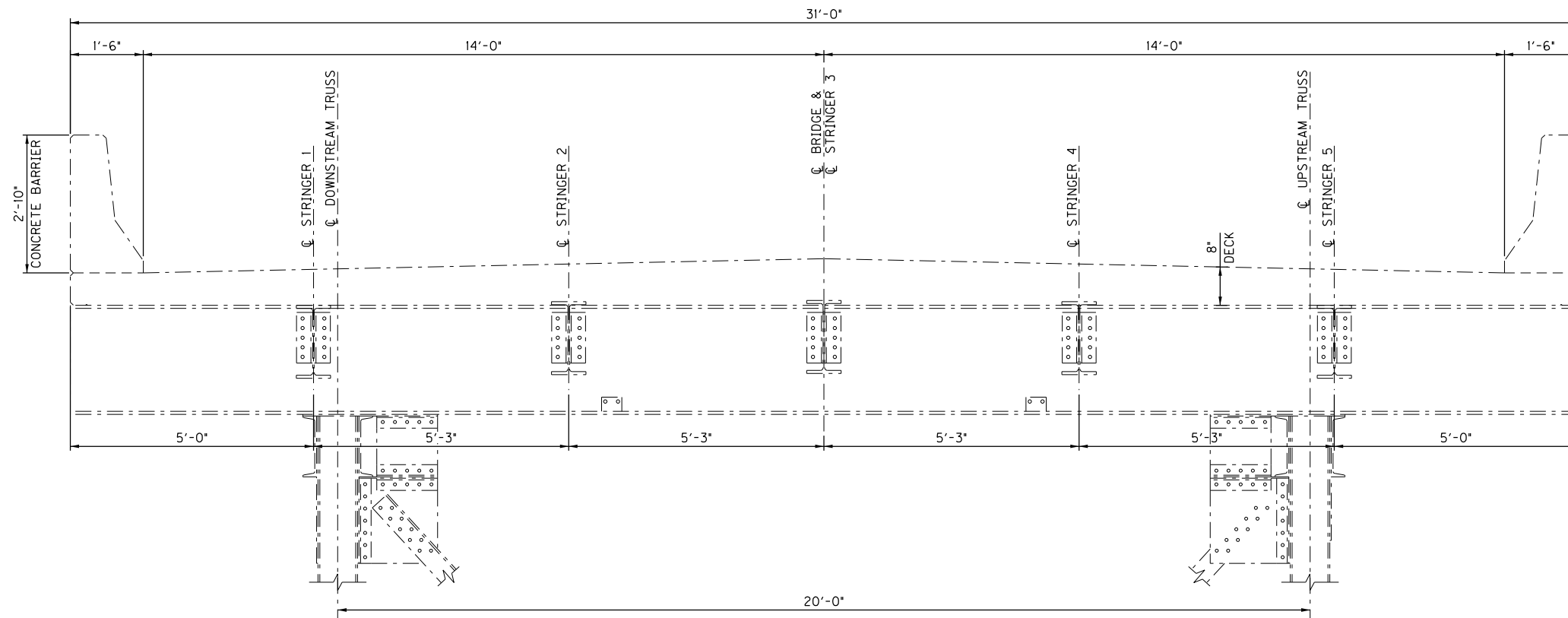
BRIDGE ELEVATION - REPAIR LOCATIONS

CROSSING
GREEN RIVER at MUNFORDVILLE

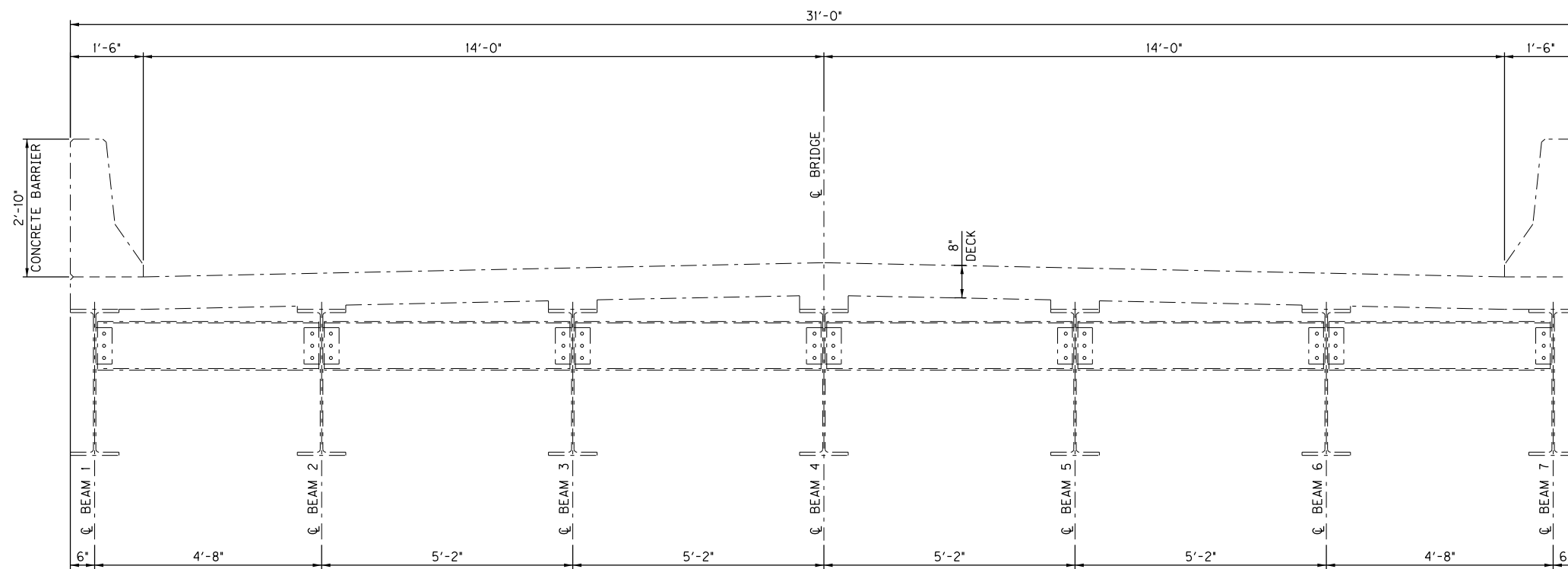
ROUTE
US 31W
BRIDGE NO.
050B00004N

ITEM NO.
4-10095
SHEET NO.
S03

COUNTY OF
HART
DRAWING NUMBER
29147

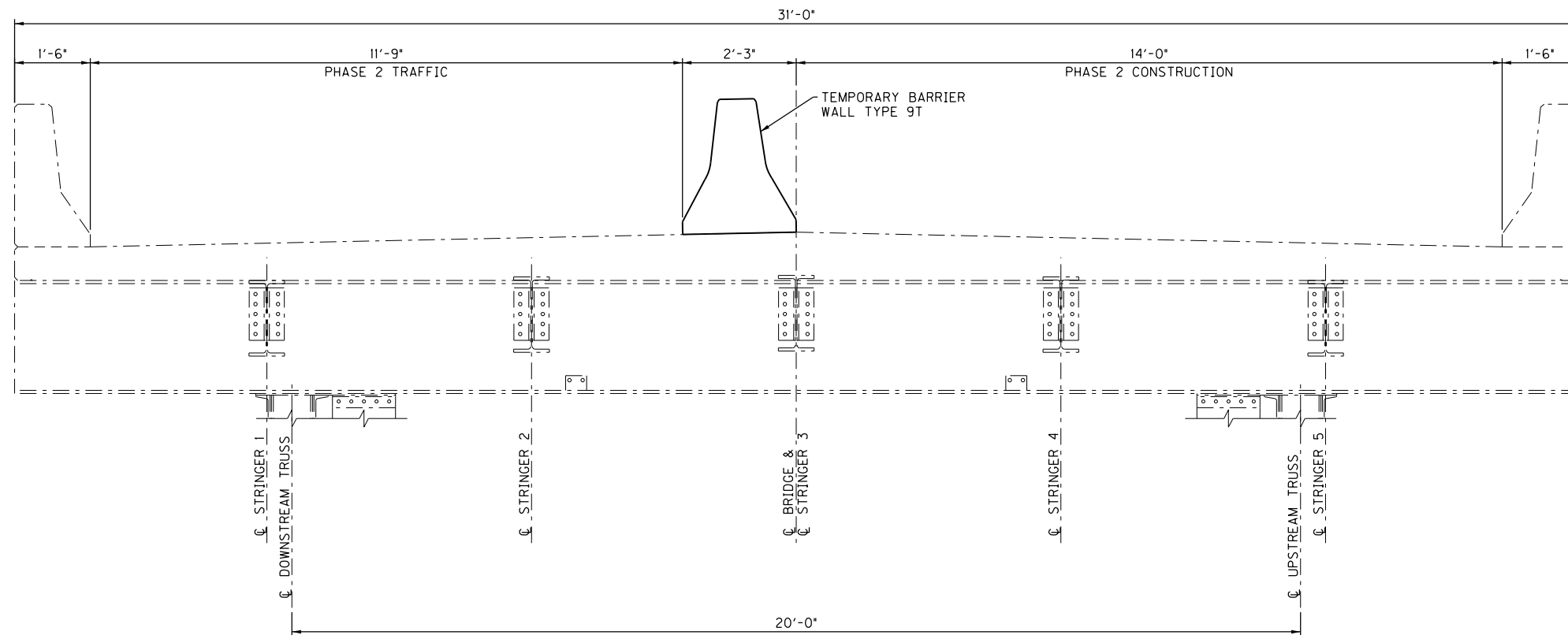


TYPICAL SECTION - TRUSS SPANS 2-9
(LOOKING AHEAD)

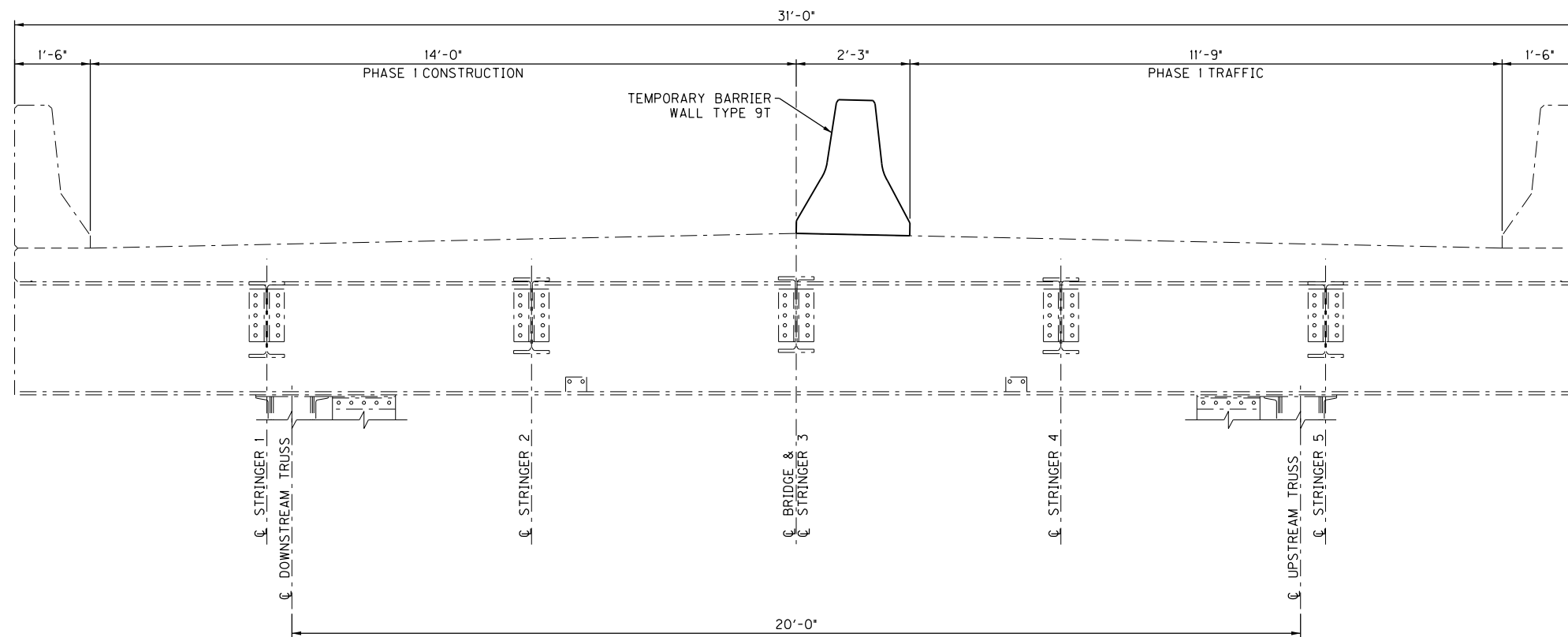


TYPICAL SECTION - APPROACH SPANS 1 & 10-12
(LOOKING AHEAD)

	REVISION	DATE	PREPARED BY	DATE:	JUNE, 2026	CHECKED BY	TYPICAL SECTIONS CROSSING GREEN RIVER at MUNFORDVILLE	ROUTE	US 31W	ITEM NO.	4-10095	COUNTY OF	HART
				DESIGNED BY:	J.P. MURRIN	D.H. DEITZ		BRIDGE NO.	050B00004N	SHEET NO.	S04	DRAWING NUMBER	29147
				DETAILED BY:	J.E. GEMBKA	J.P. MURRIN							

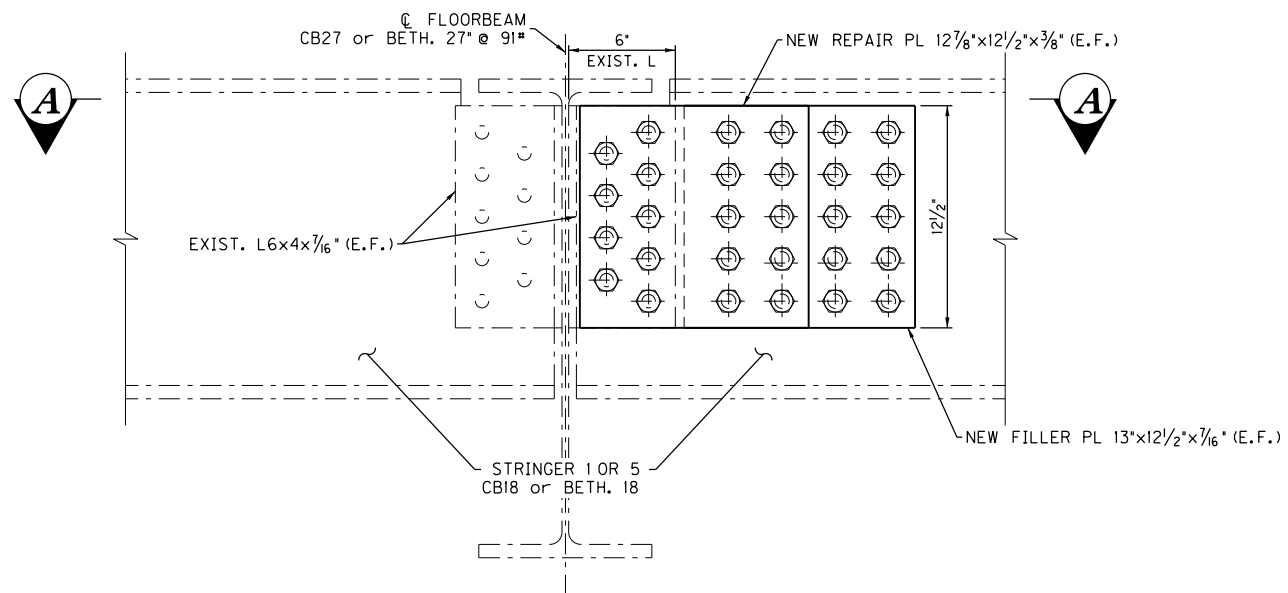


PHASE 2 CONSTRUCTION
 (TRUSS SPANS SHOWN, APPROACH SPANS SIMILAR)
 (LOOKING AHEAD)

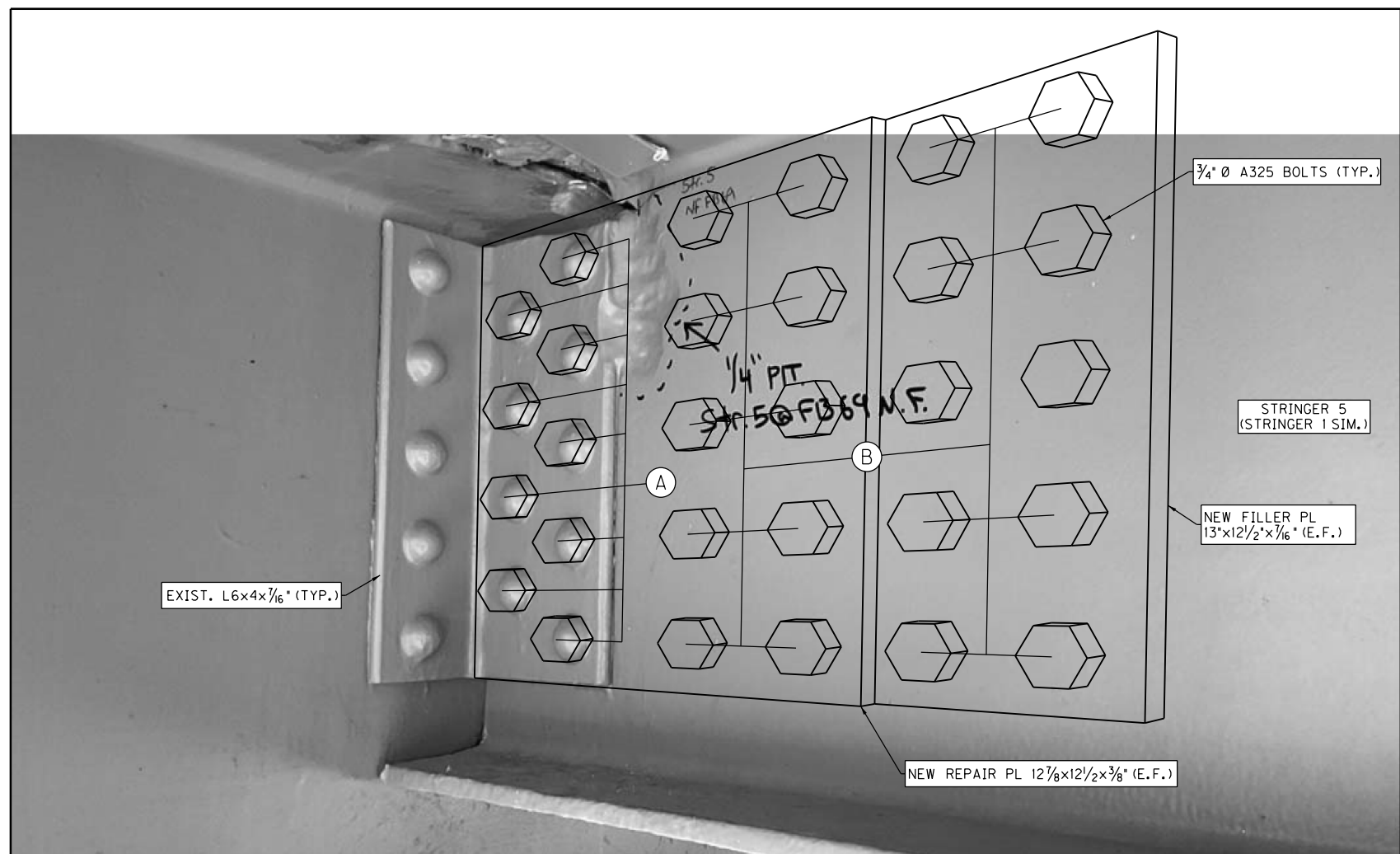


PHASE 1 CONSTRUCTION
 (TRUSS SPANS SHOWN, APPROACH SPANS SIMILAR)
 (LOOKING AHEAD)

	REVISION	DATE	PREPARED BY	DATE:	JUNE, 2026	CHECKED BY	MOT TYPICAL SECTIONS			
				DESIGNED BY:	D.H. DEITZ	J.P. MURRIN	CROSSING	ROUTE	ITEM NO.	COUNTY OF
				DETAILED BY:	J.E. GEMBKA	D.H. DEITZ	GREEN RIVER at MUNFORDVILLE	US 31W	4-10095	HART
							BRIDGE NO.	SHEET NO.	DRAWING NUMBER	
							050B00004N	S05	29147	

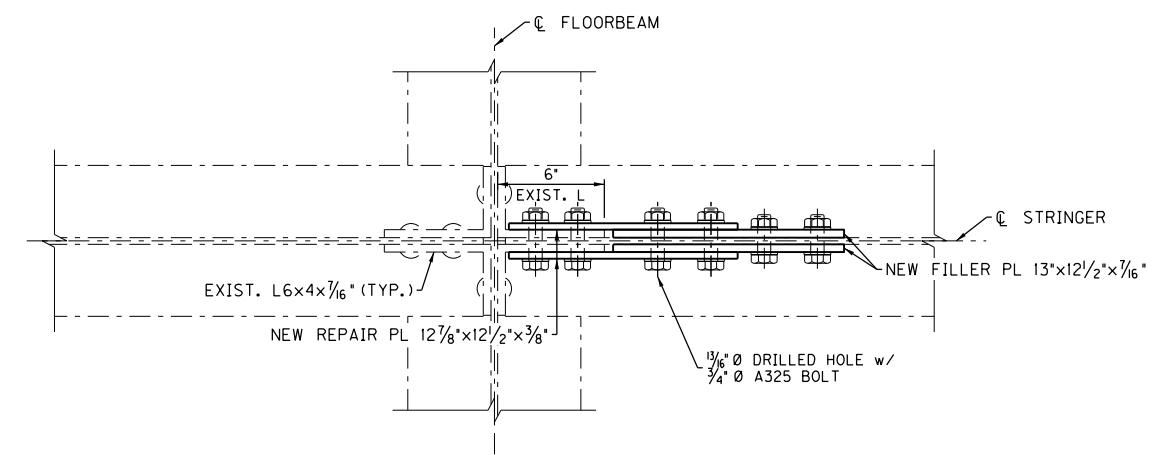


TYPICAL STRINGER 1 & 5 END RETROFIT AT FLOORBEAM

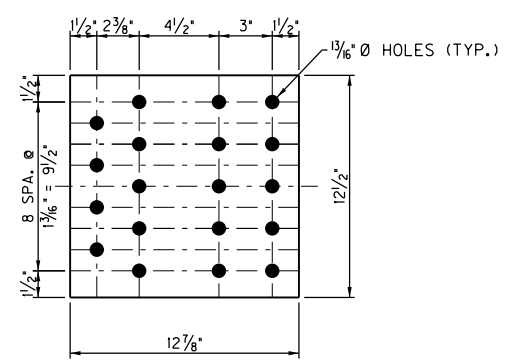


**TYPICAL STRINGER END REPAIR
(LOOKING SOUTHWEST FROM THE NORTH FACE OF FLOORBEAM 69)**

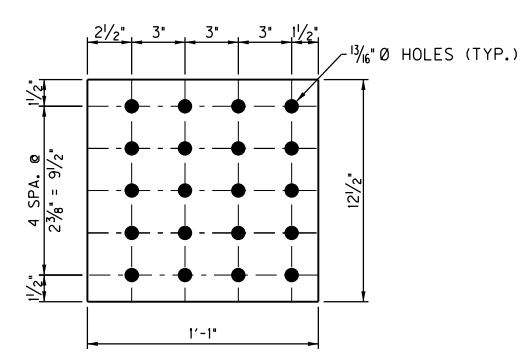
1. FIELD MEASURE EXISTING DIMENSIONS INCLUDING: ANGLE HEIGHT, RIVET SPACINGS, RIVET SIZES, AND RIVET EDGE DISTANCES. REPORT ANY DISCREPANCIES TO THE DESIGN ENGINEER. THIS SHALL BE DONE PRIOR TO ORDERING OR FABRICATING MATERIALS.
2. PERFORM REPAIR WHILE TRAFFIC IS MAINTAINED ON THE OPPOSITE SIDE OF THE BRIDGE OF STRINGER REPAIR OR WHILE BRIDGE IS CLOSED. CONTRACTOR SHALL MINIMIZE CONSTRUCTION LOADS IN AREAS SUPPORTED BY THE STRINGER BEING REPAIRED.
3. CUT AND REMOVE EXISTING RIVETS (A) ONE-AT-A-TIME AND REPLACE WITH A DRIFT PIN BEFORE REMOVING THE NEXT RIVET.
4. AFTER ALL EXISTING RIVETS HAVE BEEN REMOVED AND REPLACED WITH DRIFT PINS (A) AND THE SURROUNDING AREA HAS BEEN CLEANED IN ACCORDANCE WITH THE SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS, INSTALL NEW FILLER PLATE AND NEW REPAIR PLATE ON BOTH FACES OF THE STRINGER.
5. REPLACE EACH DRIFT PIN (A) WITH A 3/4" Ø A HIGH STRENGTH BOLT, WASHER, AND HEAVY HEX NUT. EACH BOLT SHALL BE INSTALLED USING DTI'S AND PRE-TENSIONED PER THE STANDARD SPECIFICATIONS BEFORE REPLACING THE NEXT DRIFT PIN.
6. HOLES IN THE EXISTING STRINGER (B) SHALL BE DRILLED ONE-AT-A-TIME. A 3/4" Ø A325 HIGH STRENGTH BOLT, WASHER, AND HEAVY HEX NUT SHALL BE INSTALLED USING DTI'S BEFORE DRILLING THE NEXT HOLE AND PRE-TENSIONED PER THE STANDARD SPECIFICATIONS.
7. SEE 'SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS'.



SECTION A-A



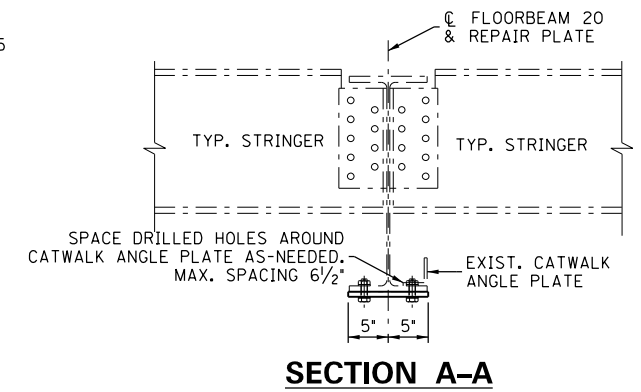
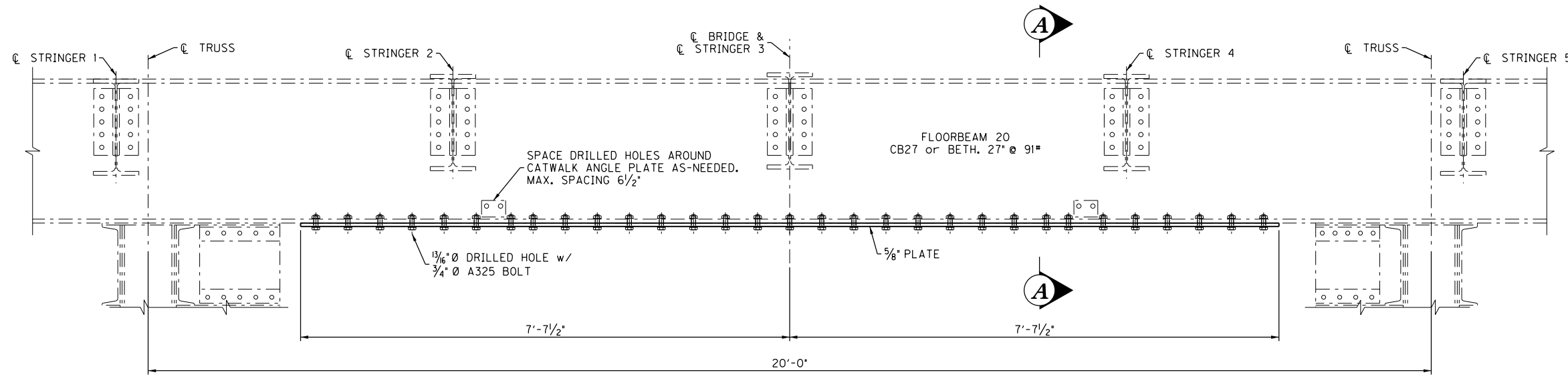
REPAIR PLATE



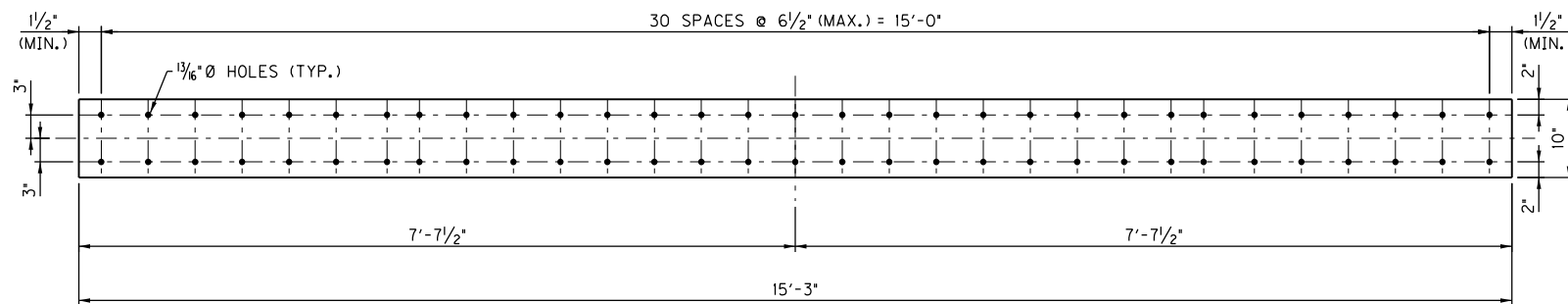
FILLER PLATE

SEE SHEET S03 FOR LIST OF REPAIR LOCATIONS

	REVISION	DATE	PREPARED BY	DATE:	CHECKED BY	STRINGERS 1 & 5 END REPAIRS CROSSING GREEN RIVER at MUNFORDVILLE	ROUTE	ITEM NO.	COUNTY OF
				JUNE, 2026	D.H. DEITZ		US 31W	4-10095	HART
				DESIGNED BY:	D.H. DEITZ		BRIDGE NO.	SHEET NO.	DRAWING NUMBER
			J.E. GEMBKA	D.H. DEITZ		050B00004N	S06	29147	



FLOORBEAM 20 REPAIR ELEVATION
(LOOKING AHEAD)



REPAIR PLATE PLAN

REPAIR PLATE NOTES:

1. AFTER THE BOTTOM FLANGE OF THE FLOORBEAM HAS BEEN CLEANED AND IS FREE OF LAITANCE, INSTALL NEW 15'-3"x10"x5/8" PLATE.
2. HOLES IN THE EXISTING FLOOR BEAM SHALL BE DRILLED ONE-AT-A-TIME. A 3/4" Ø A325 HIGH STRENGTH BOLT, WASHER, AND HEAVY HEX NUT SHALL BE INSTALLED USING DTI'S BEFORE DRILLING THE NEXT HOLE AND PRE-TENSIONED PER THE STANDARD SPECIFICATIONS.
3. SEE 'SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS'.



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY



DATE: JUNE, 2026

CHECKED BY

DESIGNED BY: J.P. MURRIN

E.C. MILLER

DETAILED BY: J.E. GEMBKA

E.C. MILLER

FLOORBEAM 20 REPAIR

CROSSING
GREEN RIVER at MUNFORDVILLE

ROUTE
US 31W

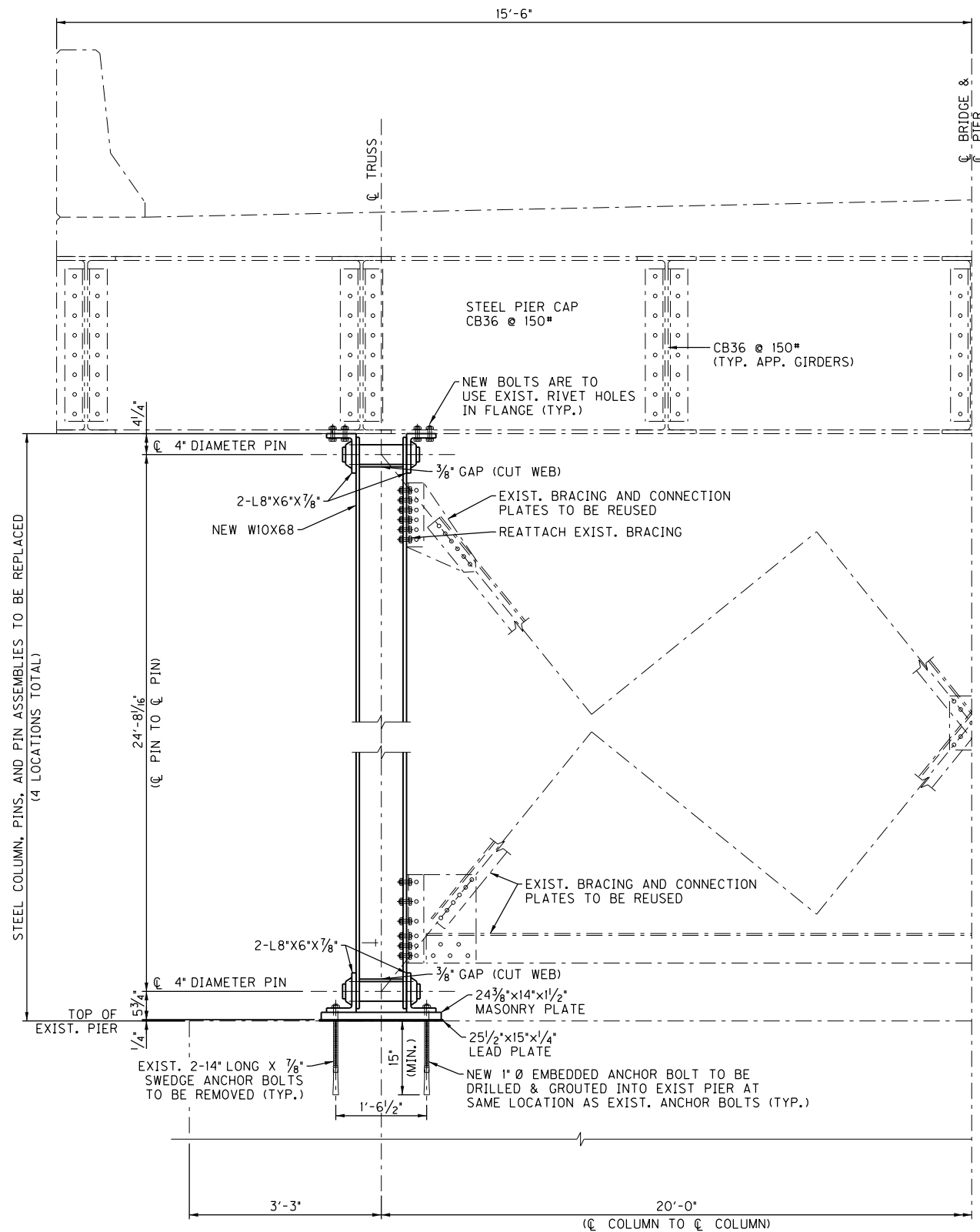
BRIDGE NO.
050B00004N

ITEM NO.
4-10095

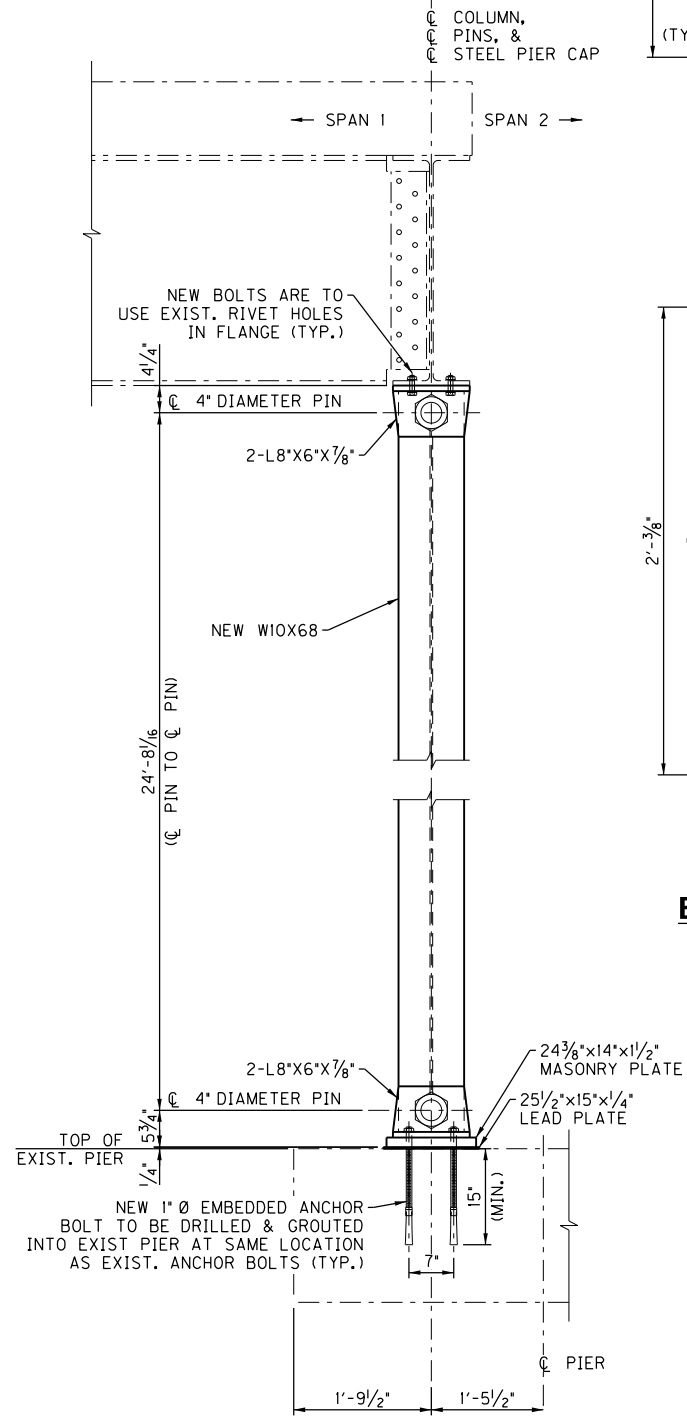
SHEET NO.
S07

COUNTY OF
HART

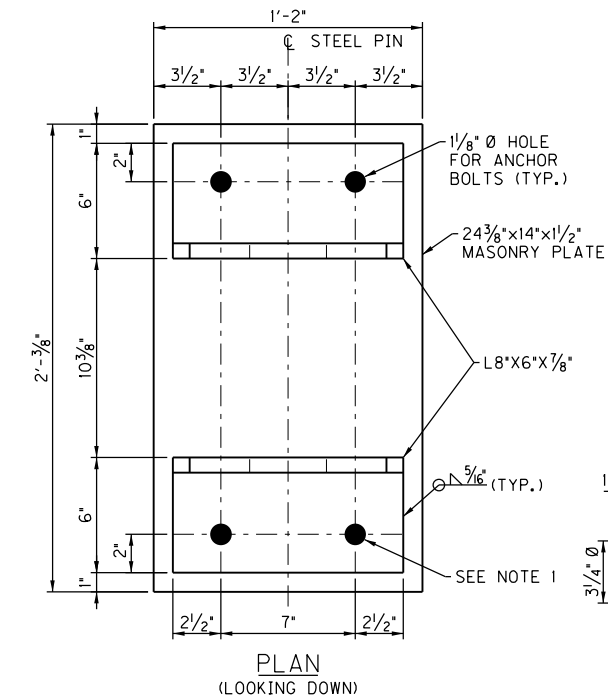
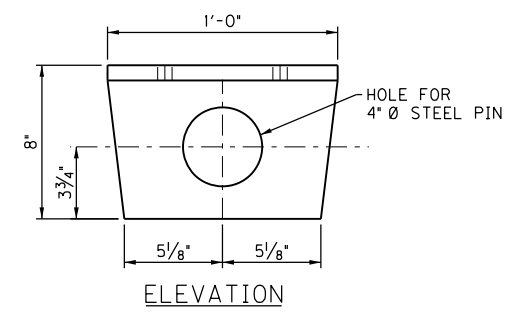
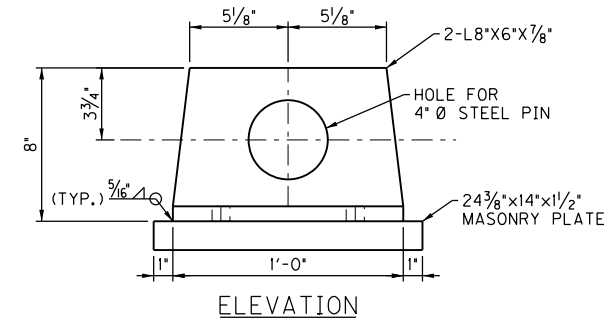
DRAWING NUMBER
29147



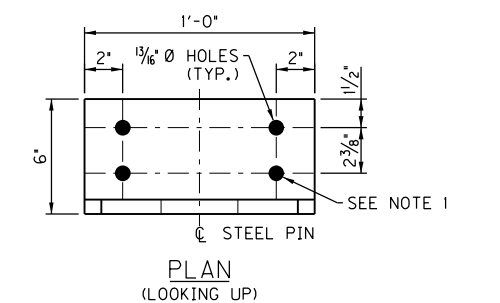
TYPICAL PIER 1 & 9 STEEL COLUMN HALF-SECTION
(SYMMETRICAL ABOUT C BRIDGE)
(LOOKING AHEAD)



TYPICAL PIER 1 (9 SIMILAR) STEEL COLUMN ELEVATION



BASE CONNECTION DETAILS



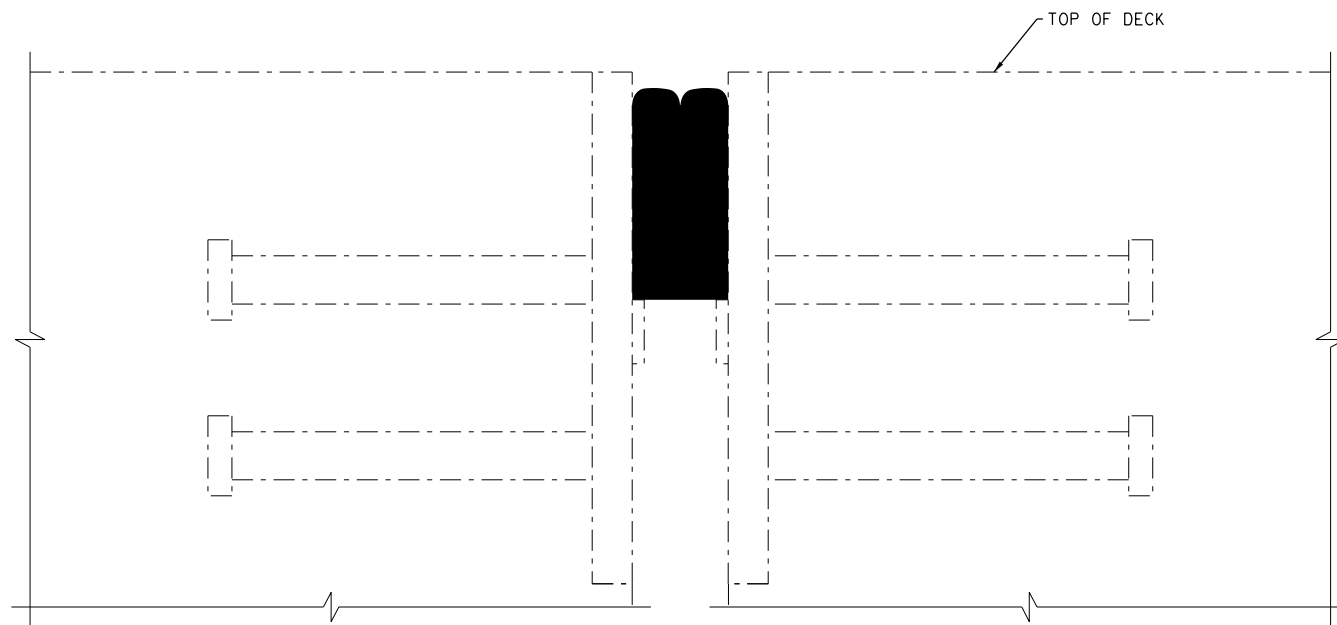
ANGLE PLATE FOR TOP OF COLUMN DETAILS



NOTES:

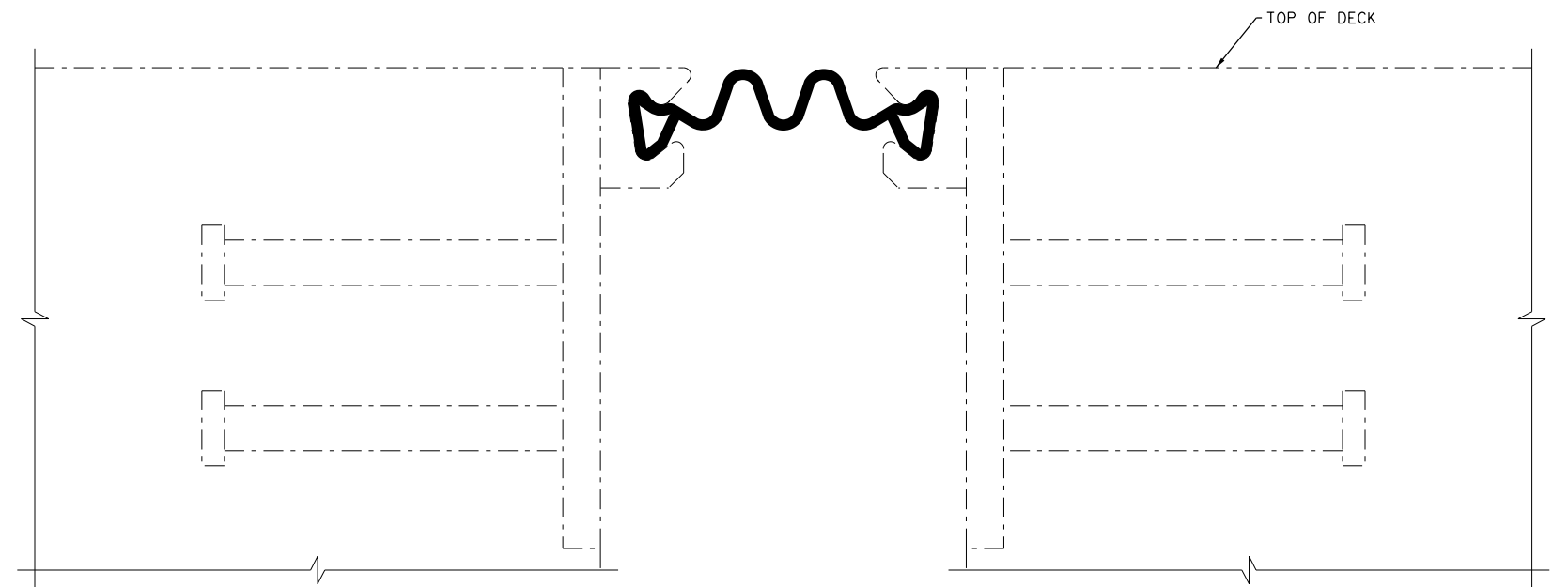
- FIELD MEASURE ALL EXISTING DIMENSIONS INCLUDING BUT NOT LIMITED TO COLUMN HEIGHTS, RIVET SIZES, AND PIN ASSEMBLY ANCHOR BOLT SPACINGS (TOP AND BOTTOM OF COLUMN). NEW ASSEMBLY ANCHOR BOLTS ARE TO BE PLACED AT THE SAME LOCATION AS EXISTING. REPORT ANY DISCREPANCIES TO THE DESIGN ENGINEER. THIS SHALL BE DONE PRIOR TO ORDERING OR FABRICATING MATERIALS.
- THE BRIDGE IS TO BE CLOSED TO TRAFFIC DURING THE REMOVAL AND REPLACEMENT OF THE COLUMNS. NO CONSTRUCTION LOADINGS SHALL BE PERMITTED IN THE SPAN SUPPORTED BY THE COLUMNS DURING THEIR REMOVAL AND REPLACEMENT.
- THE CONTRACTOR SHALL USE TEMPORARY SHORING TO SUPPORT THE LOAD OF THE SPAN WHILE REMOVING AND REPLACING STEEL COLUMNS. THE TEMPORARY SHORING DESIGN SHALL BE PREPARED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF KENTUCKY. DESIGN SHALL INSURE STABILITY OF THE BRIDGE THROUGHOUT REMOVAL AND REPLACEMENT OF THE COLUMNS. EXISTING SERVICE DEAD LOAD ON EACH COLUMN IS APPROXIMATELY 100 KIPS. THIS LOAD IS PROVIDED FOR REFERENCE ONLY. THE CONTRACTOR'S DESIGN ENGINEER SHALL ESTABLISH THE ACTUAL JACKING LOAD BASED ON THE SPECIFIC DETAILS AND LOCATIONS OF THE SHORING. SEE SPECIAL NOTE FOR JACKING AND SUPPORTING BRIDGE SPAN FOR ADDITIONAL INFORMATION.
- ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GRADE 50 AND GALVANIZED IN ACCORDANCE WITH THE SPECIFICATIONS.
- PINS SHALL CONFORM TO ASTM A668 CLASS J AND SHALL BE FABRICATED IN ACCORDANCE WITH THE SPECIFICATIONS. PINS SHALL BE CONSIDERED NSTM MEMBERS.
- SEE GENERAL NOTES FOR HIGH STRENGTH BOLTED CONNECTION DETAILS.

	REVISION	DATE	PREPARED BY	DATE:	JUNE, 2026	CHECKED BY		ROUTE	US 31W	ITEM NO.	4-10095	COUNTY OF	HART		
			Palmer ENGINEERING	DESIGNED BY:	D.H. DEITZ	J.P. MURRIN		CROSSING	GREEN RIVER at MUNFORDVILLE	BRIDGE NO.	050B00004N	SHEET NO.	S08	DRAWING NUMBER	29147
				DETAILED BY:	J.E. GEMBKA	J.P. MURRIN									



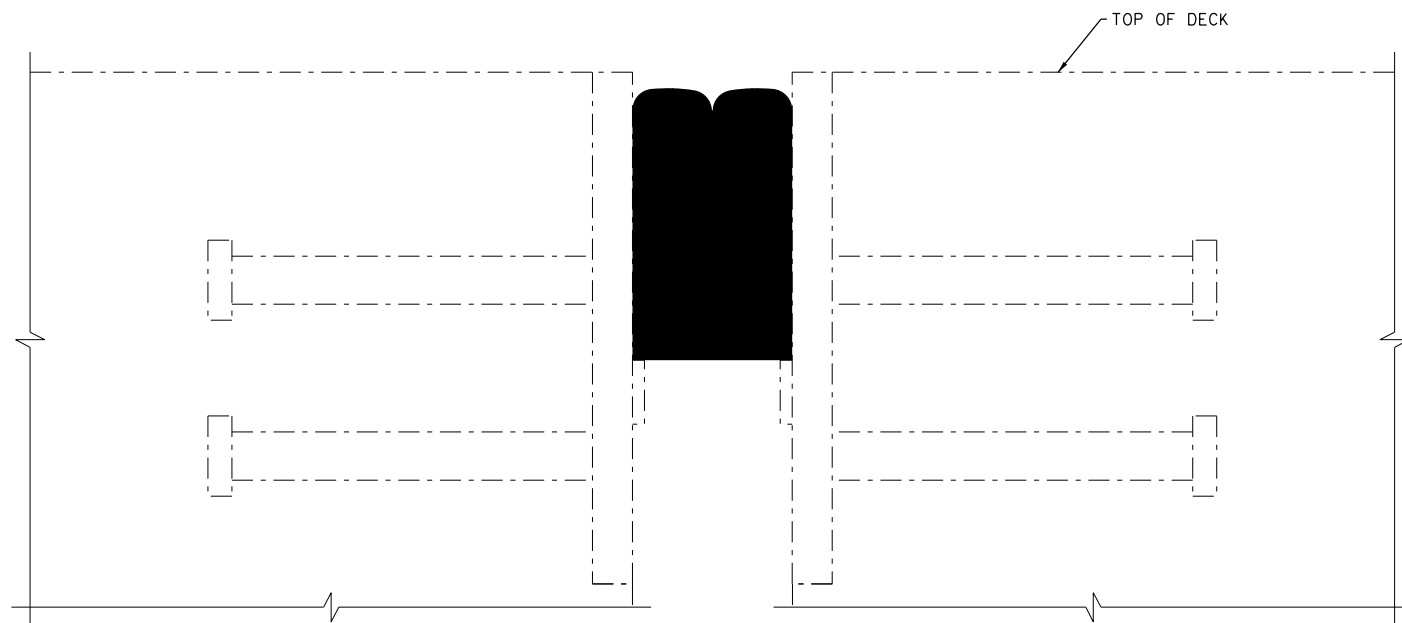
PROPOSED COMPRESSION SEAL REPLACEMENT AT PIERS 10 & 11

USE EMSEAL BEJS EQUIVALENT SYSTEM. USE CORNER TRANSITION PER THE MANUFACTURER'S SPECIFICATIONS.



PROPOSED STRIP SEAL REPLACEMENT AT PIERS 1 & 5

USE WABO STRIP SEAL OR EQUIVALENT SYSTEM. USE CORNER TRANSITIONS PER MANUFACTURER'S SPECIFICATIONS.



PROPOSED COMPRESSION SEAL REPLACEMENT AT PIERS 2-4, 6-9

USE EMSEAL BEJS EQUIVALENT SYSTEM. USE CORNER TRANSITION PER THE MANUFACTURER'S SPECIFICATIONS.

JOINT SEAL REPLACEMENT NOTES:

1. THE CONTRACTOR IS TO VERIFY ALL JOINT DIMENSIONS, JOINT TYPE, AND LOCATIONS.
2. SEE SPECIAL NOTE FOR JOINT SEAL REPLACEMENT, STD. DWG. BJE-003, BJE-005, AND BJE-006 FOR ADDITIONAL DETAILS.
3. THE ENDS OF THE JOINT SEALS SHALL BE SEALED TO PREVENT WATER AND FOREIGN MATERIAL ENTRANCE.



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION	DATE

PREPARED BY
Palmer
ENGINEERING

DATE:	JUNE, 2026	CHECKED BY:	D.H. DEITZ
DESIGNED BY:	J.P. MURRIN		
DETAILED BY:	J.E. GEMBKA	J.P. MURRIN	

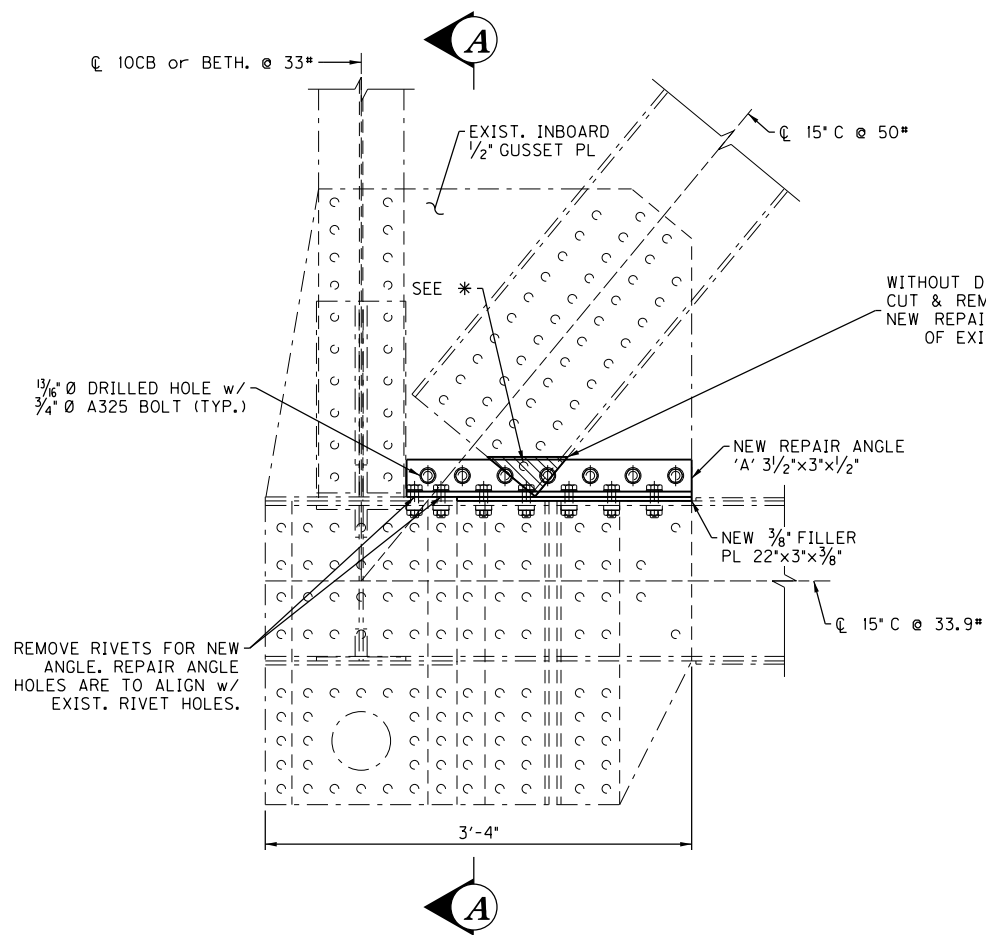
JOINT SEAL REPLACEMENT

CROSSING
GREEN RIVER at MUNFORDVILLE

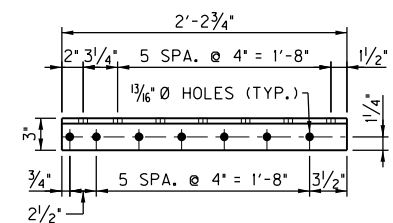
ROUTE
US 31W
BRIDGE NO.
050B00004N

ITEM NO.
4-10095
SHEET NO.
S09

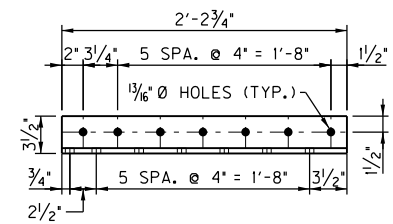
COUNTY OF
HART
DRAWING NUMBER
29147



ELEVATION VIEW OF INBOARD GUSSET PLATE REPAIR

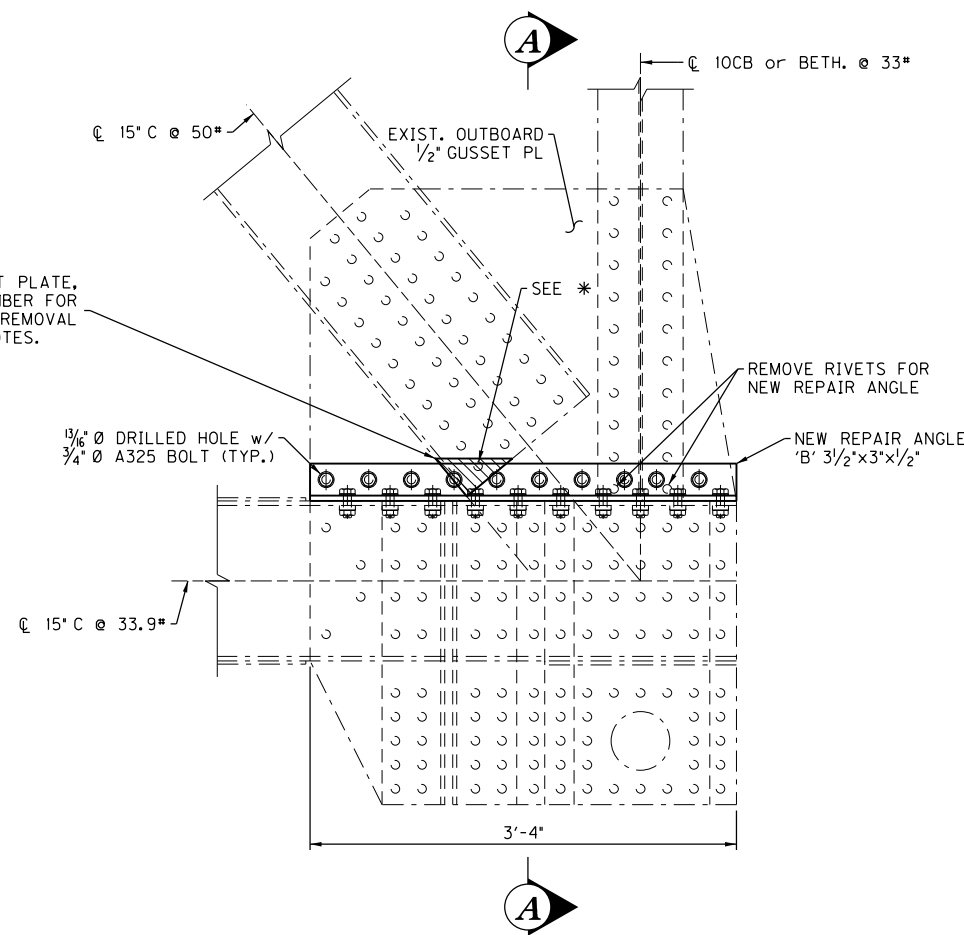


PLAN VIEW OF REPAIR ANGLE A

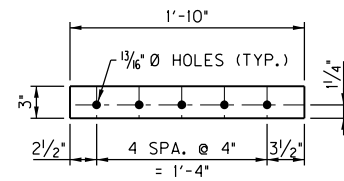


ELEVATION VIEW OF REPAIR ANGLE A

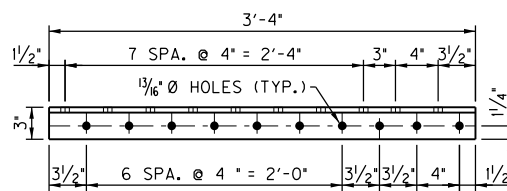
L8 & L26 INBOARD GUSSET PLATE RETROFIT
(L0 & L56 ARE OPPOSITE HAND)



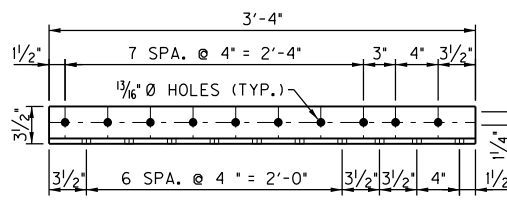
ELEVATION VIEW OF OUTBOARD GUSSET PLATE REPAIR



FILLER PLATE

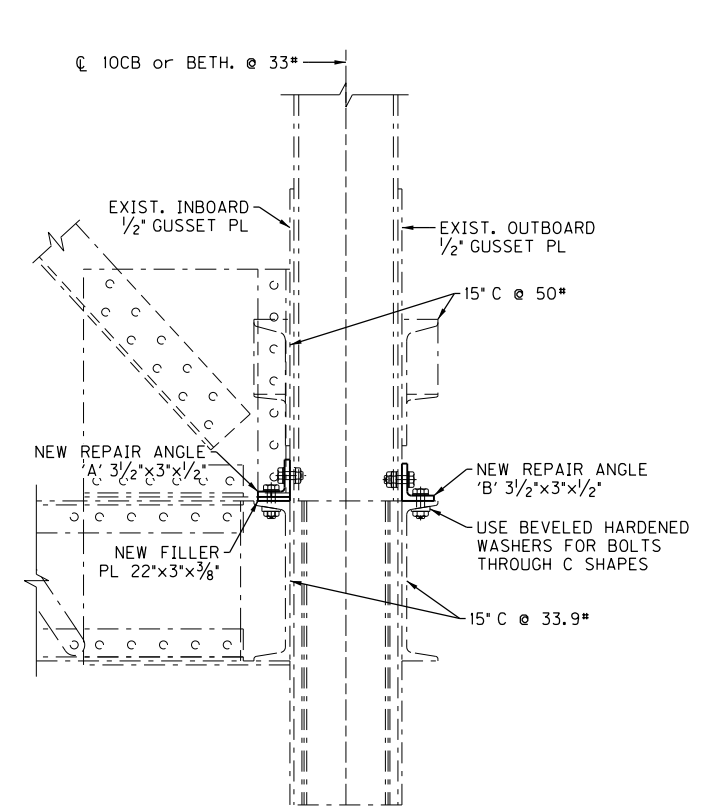


PLAN VIEW OF REPAIR ANGLE B



ELEVATION VIEW OF REPAIR ANGLE B

L8 & L26 OUTBOARD GUSSET PLATE RETROFIT
(L0 & L56 ARE OPPOSITE HAND)



SECTION A-A

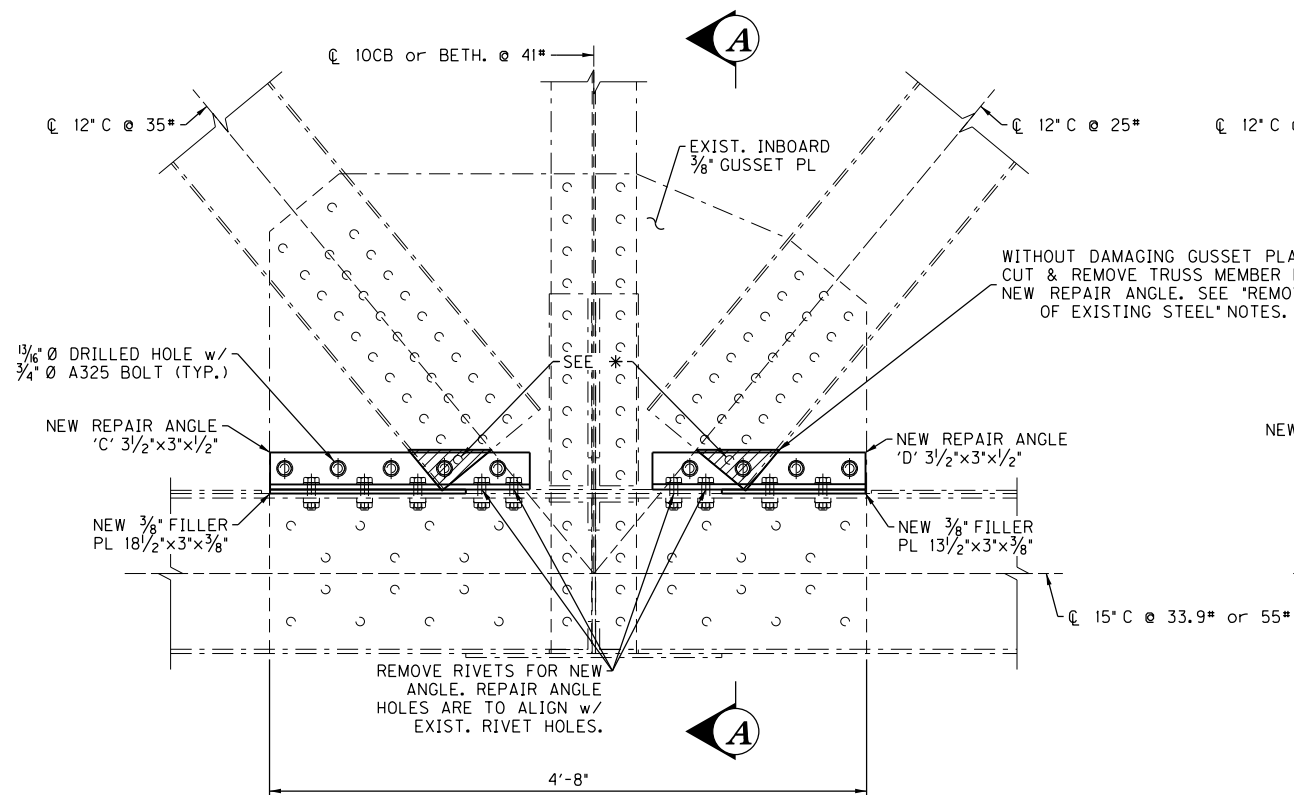
NOTES:

- FIELD MEASURE EXISTING DIMENSIONS, INCLUDING, BUT NOT LIMITED TO: RIVET SIZES, RIVET SPACINGS, RIVET EDGE DISTANCES, PLATE THICKNESSES, AND PLATE LENGTHS. REPORT ANY DISCREPANCIES OR CONFLICTS TO THE DESIGN ENGINEER. THIS SHALL BE DONE PRIOR TO ORDERING OR FABRICATING MATERIALS.
- PERFORM ALL REPAIRS WHILE TRAFFIC IS MAINTAINED ON THE OPPOSITE SIDE OF THE BRIDGE FROM THE GUSSET PLATE RETROFIT OR WHILE THE BRIDGE IS CLOSED. THE CONTRACTOR SHALL MINIMIZE CONSTRUCTION LOADS IN AREAS SUPPORTED BY THE GUSSET PLATE BEING REPAIRED.
- THE SURROUNDING AREA SHALL BE CLEANED AND FREE OF LAITANCE BEFORE INSTALLING THE NEW PLATES AND ANGLES IN ACCORDANCE WITH THE SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS.
- HOLES IN THE EXISTING GUSSET PLATES AND STEEL MEMBERS SHALL BE DRILLED ONE-AT-A-TIME. A 3/4 inch diameter A325 HIGH STRENGTH BOLT, WASHER, AND HEAVY HEX NUT SHALL BE INSTALLED USING DIT'S BEFORE DRILLING THE NEXT HOLE AND PRE-TENSIONED PER THE STANDARD SPECIFICATIONS.
- SEE 'SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS'.

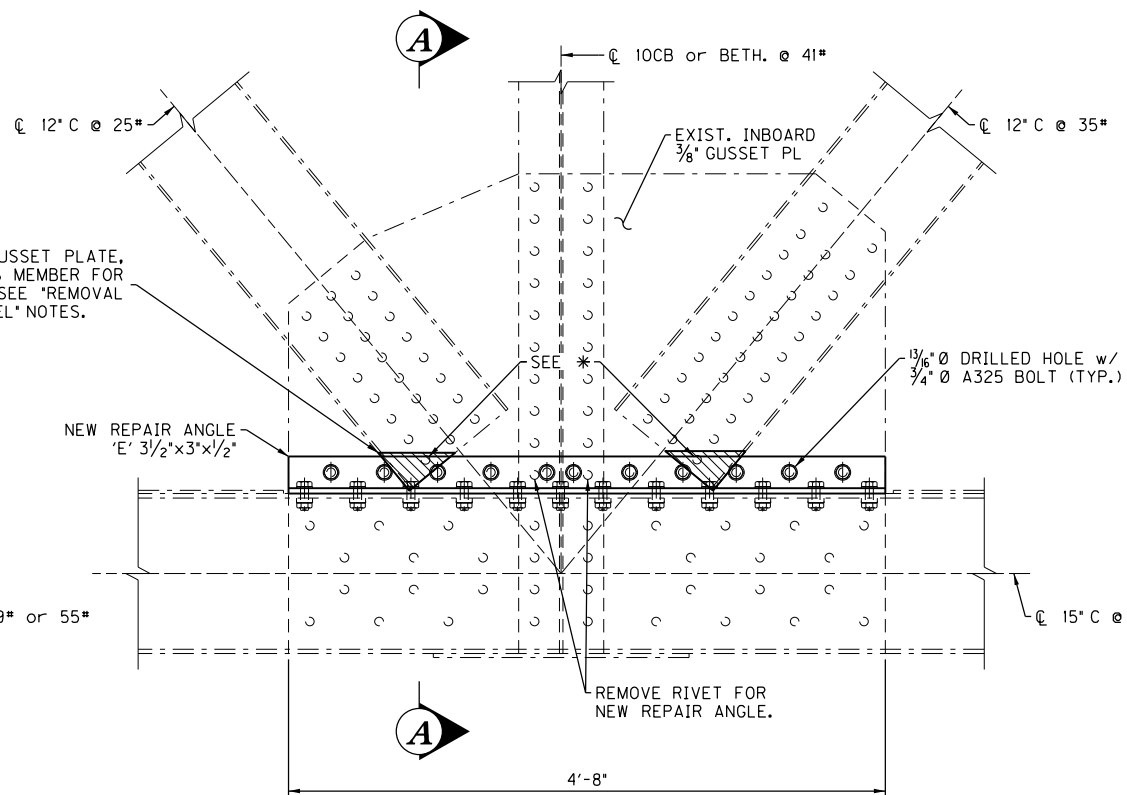
REMOVAL OF EXISTING STEEL:

- REMOVE PORTIONS OF THE EXISTING TRUSS MEMBERS INDICATED ON THE PLANS WITHOUT DAMAGING THE GUSSET PLATE OR OTHER STEEL DESIGNATED TO REMAIN. PERFORM ALL REMOVAL OPERATIONS USING MECHANICAL METHODS. THERMAL CUTTING, PLASMA CUTTING, AND SIMILAR PROCESSES ARE PROHIBITED.
- REMOVE THE TRUSS MEMBER IN A MANNER THAT PRESERVES THE FULL THICKNESS OF THE GUSSET PLATE. DO NOT REMOVE MORE THAN ONE RIVET UP FROM THE BOTTOM CORNER OF THE TRUSS MEMBER AND ENSURE THAT THE REMAINING RIVETS ARE NOT CUT. DO NOT GOUGE, NOTCH, UNDERCUT, DEFORM, OR OTHERWISE DAMAGE THE GUSSET PLATE.
- LEAVE A THIN SACRIFICIAL LAYER OF STEEL ADJACENT TO THE GUSSET PLATE DURING REMOVAL OPERATIONS TO PREVENT DAMAGE TO THE GUSSET PLATE.
- AFTER THE TRUSS MEMBER HAS BEEN SUBSTANTIALLY REMOVED, MECHANICALLY SEPARATE THE REMAINING SACRIFICIAL STEEL FROM THE GUSSET PLATE BY PRYING, WEDGING, CHIPPING, GRINDING, OR OTHER APPROVED METHODS. PERFORM THE WORK IN A MANNER THAT PRESERVES THE FULL THICKNESS OF THE GUSSET PLATE.
- ANY DAMAGE TO THE GUSSET PLATE OR OTHER STEEL DESIGNATED TO REMAIN SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH A REPAIR PROCEDURE APPROVED BY THE ENGINEER.

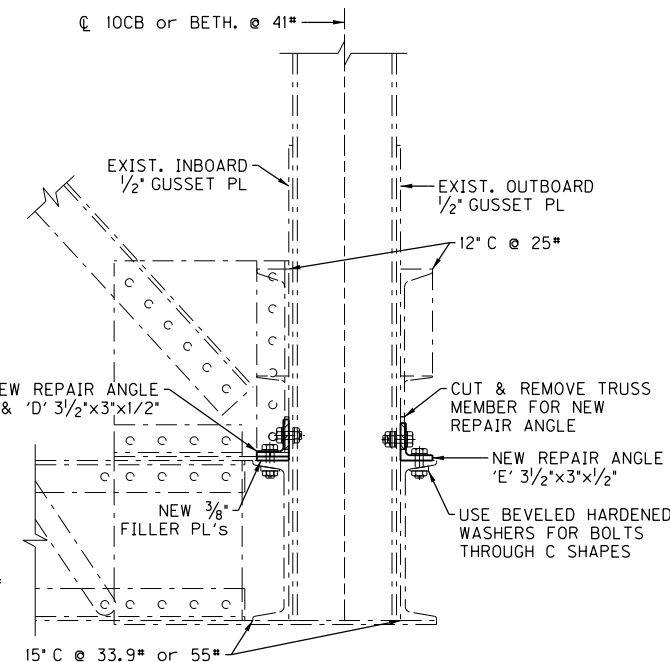
	REVISION	DATE	PREPARED BY	DATE:	CHECKED BY	GUSSET PLATE RETROFITS - L0, L8, L26, & L56	ROUTE	ITEM NO.	COUNTY OF
				JUNE, 2026	D.E. RUST		US 31W	4-10095	HART
				DESIGNED BY:	D.E. RUST	CROSSING	BRIDGE NO.	SHEET NO.	DRAWING NUMBER
				DETAILED BY:	D.E. RUST	GREEN RIVER at MUNFORDVILLE	050B00004N	S10	29147



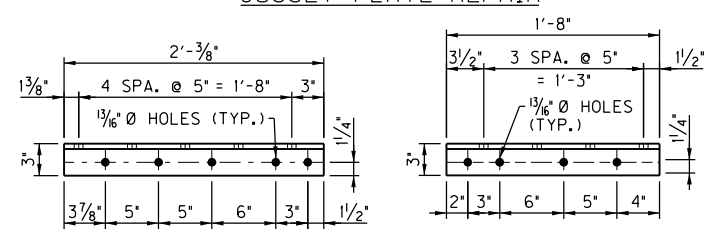
ELEVATION VIEW OF INBOARD GUSSET PLATE REPAIR



ELEVATION VIEW OF OUTBOARD GUSSET PLATE REPAIR

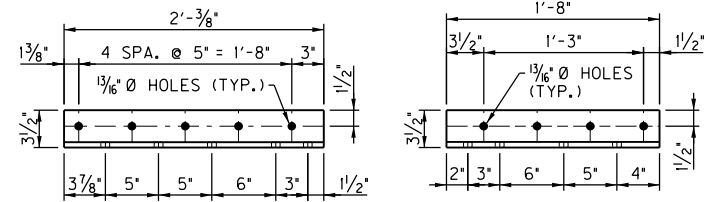


SECTION A-A



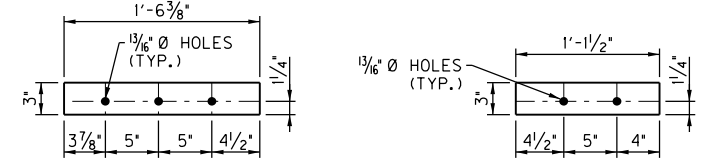
PLAN VIEW OF REPAIR ANGLE C

PLAN VIEW OF REPAIR ANGLE D



ELEVATION VIEW OF REPAIR ANGLE C

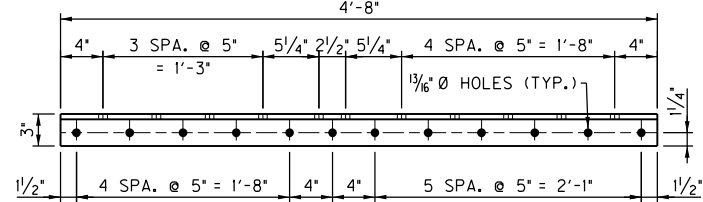
ELEVATION VIEW OF REPAIR ANGLE D



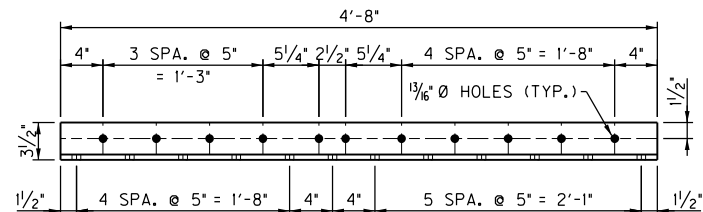
FILLER PLATE

FILLER PLATE

L2 INBOARD GUSSET PLATE RETROFIT



PLAN VIEW OF REPAIR ANGLE E



ELEVATION VIEW OF REPAIR ANGLE E

L2 OUTBOARD GUSSET PLATE RETROFIT

NOTES:

- FIELD MEASURE EXISTING DIMENSIONS, INCLUDING, BUT NOT LIMITED TO: RIVET SIZES, RIVET SPACINGS, RIVET EDGE DISTANCES, PLATE THICKNESSES, AND PLATE LENGTHS. REPORT ANY DISCREPANCIES OR CONFLICTS TO THE DESIGN ENGINEER. THIS SHALL BE DONE PRIOR TO ORDERING OR FABRICATING MATERIALS.
- PERFORM ALL REPAIRS WHILE TRAFFIC IS MAINTAINED ON THE OPPOSITE SIDE OF THE BRIDGE FROM THE GUSSET PLATE RETROFIT OR WHILE THE BRIDGE IS CLOSED. THE CONTRACTOR SHALL MINIMIZE CONSTRUCTION LOADS IN AREAS SUPPORTED BY THE GUSSET PLATE BEING REPAIRED.
- THE SURROUNDING AREA SHALL BE CLEANED AND FREE OF LAITANCE BEFORE INSTALLING THE NEW PLATES AND ANGLES IN ACCORDANCE WITH THE SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS.
- HOLES IN THE EXISTING GUSSET PLATES AND STEEL MEMBERS SHALL BE DRILLED ONE-AT-A-TIME. A 3/4\"/>

REMOVAL OF EXISTING STEEL:

- REMOVE PORTIONS OF THE EXISTING TRUSS MEMBERS INDICATED ON THE PLANS WITHOUT DAMAGING THE GUSSET PLATE OR OTHER STEEL DESIGNATED TO REMAIN. PERFORM ALL REMOVAL OPERATIONS USING MECHANICAL METHODS. THERMAL CUTTING, PLASMA CUTTING, AND SIMILAR PROCESSES ARE PROHIBITED.
- REMOVE THE TRUSS MEMBER IN A MANNER THAT PRESERVES THE FULL THICKNESS OF THE GUSSET PLATE. DO NOT REMOVE MORE THAN ONE RIVET UP FROM THE BOTTOM CORNER OF THE TRUSS MEMBER AND ENSURE THAT THE REMAINING RIVETS ARE NOT CUT. DO NOT GOUGE, NOTCH, UNDERCUT, DEFORM, OR OTHERWISE DAMAGE THE GUSSET PLATE.
- LEAVE A THIN SACRIFICIAL LAYER OF STEEL ADJACENT TO THE GUSSET PLATE DURING REMOVAL OPERATIONS TO PREVENT DAMAGE TO THE GUSSET PLATE.
- AFTER THE TRUSS MEMBER HAS BEEN SUBSTANTIALLY REMOVED, MECHANICALLY SEPARATE THE REMAINING SACRIFICIAL STEEL FROM THE GUSSET PLATE BY PRYING, WEDGING, CHIPPING, GRINDING, OR OTHER APPROVED METHODS. PERFORM THE WORK IN A MANNER THAT PRESERVES THE FULL THICKNESS OF THE GUSSET PLATE.
- ANY DAMAGE TO THE GUSSET PLATE OR OTHER STEEL DESIGNATED TO REMAIN SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH A REPAIR PROCEDURE APPROVED BY THE ENGINEER.

	REVISION	DATE	PREPARED BY	DATE:	CHECKED BY	GUSSET PLATE RETROFITS - L2 CROSSING GREEN RIVER at MUNFORDVILLE	ROUTE	ITEM NO.	COUNTY OF
				JUNE, 2026	D.E. RUST		US 31W	4-10095	HART
				DESIGNED BY:	D.E. RUST	BRIDGE NO. 050B00004N	SHEET NO.	DRAWING NUMBER	
				J.E. GEMBKA	D.E. RUST		S11	29147	

MAINTENANCE OF TRAFFIC NOTES

1. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE STANDARD DRAWINGS, CURRENT EDITIONS.
2. EXCEPT FOR THE ROADWAY AND TRAFFIC CONTROL BID ITEMS LISTED, ALL ITEMS OF WORK NECESSARY TO MAINTAIN AND CONTROL TRAFFIC WILL BE PAID AT THE LUMP SUM BID PRICE TO "MAINTAIN AND CONTROL TRAFFIC" AS SET FORTH IN THE CURRENT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION UNLESS OTHERWISE PROVIDED FOR IN THESE NOTES. THE LUMP SUM BID TO "MAINTAIN AND CONTROL TRAFFIC" SHALL ALSO INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING ITEMS AND OPERATIONS:
 - A. ALL GRADING AND NECESSARY DRAINAGE (UNLESS A BID ITEM FOR DETOUR CONSTRUCTION IS INCLUDED) FOR THE TEMPORARY ROADWAY AND REMOVAL THEREOF, WHEN IT IS NO LONGER NEEDED. IF A BID ITEM FOR DETOUR CONSTRUCTION OR CROSSOVER IS INCLUDED, GRADING AND DRAINAGE WILL BE PAID FOR IN THE BID ITEM "DETOUR CONSTRUCTION" OR "CROSSOVER".
 - B. ALL LABOR AND MATERIALS NECESSARY FOR CONSTRUCTION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES AND MARKINGS.
 - C. ALL FLAGPERSONS AND TRAFFIC CONTROL DEVICES SUCH AS, BUT NOT LIMITED TO, FLASHERS, SIGNS BARRICADES AND VERTICAL PANELS, PLASTIC DRUMS (STEEL DRUMS WILL NOT BE PERMITTED) AND CONES NECESSARY FOR THE CONTROL AND PROTECTION OF VEHICULAR AND PEDESTRIAN TRAFFIC AS SPECIFIED IN THESE NOTES, THE PLANS, THE MUTCD OR THE ENGINEER.
3. ANY TEMPORARY TRAFFIC CONTROL ITEMS, DEVICES, MATERIALS AND INCIDENTALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR WHEN NO LONGER NEEDED.
4. THE CONTRACTOR SHALL COMPLETELY COVER ANY SIGNS, EITHER EXISTING, PERMANENT OR TEMPORARY, WHICH DO NOT PROPERLY APPLY TO THE CURRENT TRAFFIC PHASING, AND SHALL MAINTAIN THE COVERING UNTIL THE SIGNS ARE APPLICABLE OR ARE REMOVED.
5. IN GENERAL, ALL TRAFFIC CONTROL DEVICES SHALL BE PLACED STARTING AND PROCEEDING IN THE DIRECTION OF THE FLOW OF TRAFFIC AND REMOVED STARTING AND PROCEEDING IN THE DIRECTION OPPOSITE THE FLOW OF TRAFFIC.
6. THE ENGINEER AND THE CONTRACTOR, OR THEIR AUTHORIZED REPRESENTATIVES, SHALL REVIEW THE SIGNING BEFORE TRAFFIC IS ALLOWED TO USE ANY LANE CLOSURES, CROSSOVERS OR DETOURS. ALL SIGNING SHALL BE APPROVED BY THE ENGINEER BEFORE WORK CAN BE STARTED BY THE CONTRACTOR.
7. IF THE CONTRACTOR DESIRES TO DEVIATE FROM THE TRAFFIC CONTROL SCHEME AND CONSTRUCTION SCHEDULE OUTLINED IN THESE PLANS AND THIS PROPOSAL, HE SHALL PREPARE AN ALTERNATE PLAN AND PRESENT IT IN WRITING TO THE ENGINEER. THIS ALTERNATE PLAN CAN BE USED ONLY AFTER REVIEW AND APPROVAL OF THE DIVISIONS OF TRAFFIC, DESIGN AND CONSTRUCTION, AND THE FEDERAL HIGHWAY ADMINISTRATION, WHERE APPLICABLE. ALTERNATE MAINTENANCE OF TRAFFIC SCHEMES WILL NOT BE SUBJECT TO VALUE ENGINEERING UNDER SECTION 111.
8. IF TRAFFIC SHOULD BE STOPPED DUE TO CONSTRUCTION OPERATIONS AND AN EMERGENCY VEHICLE ON AN OFFICIAL EMERGENCY RUN ARRIVES AT THE SCENE, THE CONTRACTOR SHALL MAKE THE PROVISIONS FOR THE PASSAGE OF THAT VEHICLE AS QUICKLY AS POSSIBLE.
9. THE CONTRACTOR SHALL REPAIR AND/OR UPGRADE PAVEMENT ALONG AND ACROSS EXISTING ROADS WHERE CONSTRUCTION TRAFFIC CROSSES. ACCESS TO ALL PUBLIC ROADS TO BE MAINTAINED EXCEPT AS INDICATED IN THE MAINTENANCE OF TRAFFIC NOTES.
10. THE CONTRACTOR MUST NOTIFY THE DISTRICT PUBLIC INFORMATION OFFICER (PIO) AT KYTC DISTRICT 4 (OFFICE) WITHIN THE FOLLOWING TIME FRAMES OF PENDING CHANGES IN THEIR WORK SCHEDULE WHICH WILL AFFECT TRAFFIC PATTERNS:
 - A.) AT LEAST FOURTEEN (14) DAYS PRIOR TO BEGINNING CONSTRUCTION
11. A PAVEMENT EDGE THAT TRAFFIC IS EXPECTED TO CROSS IN A LANE CHANGE SITUATION SHALL NOT HAVE AN ELEVATION DIFFERENCE GREATER THAN 1 1/2 INCHES. THIS MAY BE INCREASED TO 2 INCHES FOR LOW SPEED SITUATIONS. WARNING SIGNS SHALL BE PLACED IN ADVANCE AND THROUGHOUT THE DROP-OFF AREA WHEN DROP-OFFS ARE GREATER THAN 1/2 INCH. MODIFICATIONS WILL BE AS DIRECTED BY THE ENGINEER.

PAVEMENT EDGES THAT TRAFFIC IS NOT EXPECTED TO CROSS SHALL BE TREATED AS FOLLOWS: OR, AS DIRECTED BY THE ENGINEER:

4 INCHES AND LESS - PLASTIC DRUMS, VERTICAL PANELS, OR BARRICADES SHALL BE PLACED EVERY 40 FEET. CONES MAY BE USED IN PLACE OF PLASTIC DRUMS, VERTICAL PANELS, AND BARRICADES DURING DAYLIGHT HOURS. SPACING FOR TAPERS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

GREATER THAN 4 INCHES - POSITIVE SEPARATION NEEDED OR WEDGE WITH 3:1 OR FLATTER SLOPE. IF THERE IS 8 FEET OR MORE DISTANCE BETWEEN THE EDGE OF PAVEMENT AND DROP-OFF, PLASTIC DRUMS, VERTICAL PANELS OR BARRICADES MAY BE USED. IF CONCRETE BARRIERS ARE USED, SPECIAL REFLECTIVE DEVICES OR STEADY BURN LIGHTS SHALL BE USED FOR OVERNIGHT INSTALLATIONS.

FOR TEMPORARY CONDITIONS, DROP-OFFS 4 INCHES AND GREATER MAY BE PROTECTED WITH PLASTIC DRUMS, VERTICAL PANELS, OR BARRICADES FOR SHORT DISTANCES WHILE WORK IS BEING DONE IN THE DROP-OFF AREA IF THERE IS 8 FEET OR MORE OF SEPARATION BETWEEN DROP OFF AND TRAVELED WAY.

LESSER TREATMENT THAN THOSE DESCRIBED ABOVE MAY BE CONSIDER FOR LOW-VOLUME LOCAL STREETS
12. KYTC DISTRICT 4 PUBLIC INFORMATION OFFICER (PIO) WILL INFORM THE MOTORING PUBLIC AND AREA STAKEHOLDERS OF PROJECT INFORMATION INCLUDING MAINTENANCE OF TRAFFIC. THE DISTRICT PUBLIC INFORMATION OFFICER WILL COORDINATE AND DISSEMINATE TO STAKEHOLDER AND THE MEDIA APPROPRIATE INFORMATION REGARDING THE CONSTRUCTION PLANS. PRIOR TO CONSTRUCTION, SIGNS SHALL BE IN PLACE PER APPLICABLE STANDARD DRAWINGS AND/OR AS DIRECTED BY THE ENGINEER OVER THE PROJECT LIMITS.
13. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND KYTC DISTRICT 4 A MINIMUM OF SEVEN DAYS ADVANCED OF ANY CHANGE IN TRAFFIC PATTERNS.
14. TEMPORARY AND EXISTING MARKINGS THAT DO NOT CONFORM TO THE TRAFFIC OPERATION IN USE SHALL BE WATER BLASTED BY AN APPROVED METHOD SATISFACTORY TO THE ENGINEER. GRINDING IS NOT AN ACCEPTABLE ALTERNATE FOR STRIPING REMOVAL ON EXISTING PORTLAND CEMENT CONCRETE PAVEMENT. THIS IS INCIDENTAL TO MAINTENANCE OF TRAFFIC.

15. DATES AND TIMES FOR HOLIDAYS AND SPECIAL EVENTS WHEN ROAD CLOSURES, LANE CLOSURES AND BLASTING WILL NOT BE ALLOWED ON DATES LISTED BELOW AND IN SECTION 101 OF KY STANDARD SPECIFICATIONS.

INDEPENDENCE DAY	JULY 4TH, 2026
LABOR DAY	SEPTEMBER 5TH-7TH, 2026
HALLOWEEN	OCTOBER 31ST, 2026
THANKSGIVING/BLACK FRIDAY	NOVEMBER 26TH-29TH, 2026
CHRISTMAS HOLIDAY	DECEMBER 24TH-27TH, 2026
NEW YEARS HOLIDAY	DECEMBER 31ST-JANUARY 3RD, 2027

FUTURE HOLIDAY DATES SHALL BE DETERMINED BY THE DEPARTMENT IF NECESSARY, COMPARABLE TO ABOVE DATES. THE ABOVE DATES ARE SUBJECT TO CHANGE IF THE DEPARTMENT DEEMS NECESSARY.
16. THE CONTRACTOR SHALL MAINTAIN SERVICE TO ALL LIGHTING FOR THE DURATION OF THE PROJECT. IF ANY LIGHTING IS DETERMINED TO REQUIRE REPLACEMENT THEN THE SWITCH OVER TO NEW PROPOSED LIGHTING SHOULD BE DONE DURING DAYLIGHT HOURS. IF THE CONTRACTOR INTERRUPTS POWER TO THE LIGHTING, SYSTEM REPAIRS SHALL EXPEDITED TO THE SYSTEM AS SOON AS POSSIBLE AT NO COST TO THE DEPARTMENT.
17. THE CONTRACTOR SHALL MAINTAIN A MINIMUM LANE WIDTH OF 11 FEET 9 INCHES.
18. THE CONTRACTOR WILL BE ALLOWED FOUR (4) WEEKEND CLOSURES TO COMPLETE WORK ON THE BRIDGE PIERS. WORK ON OTHER ITEMS WILL BE ALLOWED DURING THE CLOSURE, BUT THOSE ITEMS WILL NOT WARRANT ANY ADDITIONAL WEEKEND CLOSURES.

A WEEKEND IS DEFINED AS BEGINNING AT 9:00PM ON FRIDAY AND ENDING AT 5:00AM MONDAY LOCAL TIME.
19. THE CONTRACTOR SHALL NOTIFY HART COUNTY 911 SERVICE TWO WEEKS PRIOR TO ANY LANE CLOSURES AND BRIDGE CLOSURES.
20. THE CONTRACTOR SHALL PROVIDE PORTABLE VARIABLE MESSAGE SIGNS. MESSAGE SIGNS SHALL BE THE TYPE THAT ALLOWS THE DISPLAYED MESSAGE TO BE CHANGED FROM A REMOTE LOCATION AND SHALL BE LOCATED AS DIRECTED AND APPROVED BY THE ENGINEER. THE PORTABLE VARIABLE MESSAGE SIGNS SHALL BE USED WHEN NECESSARY TO ALERT THE PUBLIC OF POSSIBLE DELAYS AND SHALL BE IN OPERATION AT ALL TIMES. IN THE EVENT OF DAMAGE OR MECHANICAL/ELECTRICAL FAILURE, THE CONTRACTOR SHALL REPAIR OR REPLACE THE PORTABLE VARIABLE MESSAGE SIGN IMMEDIATELY. A SPARE PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE KEPT ON SITE AT NO ADDITIONAL COST TO THE DEPARTMENT. PAYMENT WILL BE ALLOWED PORTABLE VARIABLE MESSAGE SIGNS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR UPON COMPLETION OF THE PROJECT.
21. TEMPORARY TAPE - ITEM NO. 6550 - PAVE STRIPING - TEMP REM TAPE -W AND ITEM NO. 6551 - PAVE STRIPING - TEMP REM TAPE-Y WILL BE USED FOR TEMPORARY STIPING ON THE EXISTING BRIDGE DECK.
22. LAW ENFORCEMENT OFFICER - IF REQUESTED BY THE CONTRACTOR, THE ENGINEER MAY APPROVE LAW ENFORCEMENT OFFICER SUPPORT TO SUPPLEMENT THE CONTRACTOR'S TEMPORARY TRAFFIC CONTROL. IF APPROVED, PROVIDE ONE (1) LAW ENFORCEMENT SUPPORT UNIT FOR EACH LANE CLOSURE. EACH UNIT CONSISTING OF AN OFF DUTY LAW ENFORCEMENT OFFICER FROM ANY POLICE AGENCY HAVING LAWFUL JURISDICTION AND A POLICE CAR EQUIPED WITH EXTERNALLY MOUNTED FLASHING BLUE LIGHTS. PLACE THE POLICE SUPPORT UNIT AT A LOCATION THAT IS MOST EFFECTIVE TO ALERT TRAFFIC OF THE WORK, BUT SAFE FOR THE WORKERS, THE OFFICER, AND THE TRAVELING PUBLIC. THE DEPARTMENT WILL MEASURE AND PAY FOR EACH APPROVED INDIVIDUAL LAW ENFORCEMENT SUPPORT UNIT ON A PER HOUR BASIS FOR THE OFFICER WITH THE POLICE VEHICLE. IF LAW ENFORCEMENT SUPPORT IS UTILIZED WITHOUT PRIOR APPROVAL BY THE ENGINEER, THE DEPARTMENT MAY DENY PAYMENT FOR ANY INVOICED HOURS PRIOR TO THE APPROVAL DATE.
23. BARRIERS - THE DEPARTMENT WILL MEASURE BARRIERS USED FOR LANE CLOSURES. THE DEPARTMENT WILL MEASURE FOR PAYMENT THE MAXIMUM NUMBER OF BARRIERS IN CONCURRENT USE AT THE SAME TIME ON A SINGLE DAY. THE DEPARTMENT WILL PAY ONCE FOR THE MAXIMUM AMOUNT OF BARRIERS REQUIRED AND WILL PAY ONCE TO RELOCATE THE BARRIERS WHEN CHANGING FROM PHASE 1 TO PHASE 2. THE DEPARTMENT WILL NOT PAY FOR THE REMOVAL OF THE BARRIERS AT THE END OF CONSTRUCTION. THE DEPARTMENT WILL NOT MEASURE FOR PAYMENT ANY REPLACEMENTS FOR DAMAGED BARRIERS, OR ANY BARRIERS THE ENGINEER DIRECTS TO BE REPLACED DUE TO POOR CONDITION OR REFLECTIVITY. RETAIN POSSESSION OF THE BARRIERS UPON COMPLETION OF CONSTRUCTION.
24. TRAFFIC CONTROL COORDINATOR - DESIGNATE AN EMPLOYEE TO BE TRAFFIC CONTROL COORDINATOR AS PER SECTION 112. THE TRAFFIC CONTROL COORDINATOR SHALL INSPECT THE PROJECT MAINTENANCE OF TRAFFIC PERIODICALLY. THE TRAFFIC CONTROL COORDINATOR SHALL REPORT LL INCIDENTS TO THE ENGINEER ON THE PROJECT. THE CONTRACTOR SHALL FURNISH THE NAME AND TELEPHONE NUMBER WHERE THE TRAFFIC CONTROL COORDINATOR CAN BE CONTACTED AT ALL TIMES.

PHASE 1

INSTALL TRAFFIC CONTROL DEVICES INCLUDING THE CLOSURE OF THE NORTHBOUND LANE, INSTALLING TEMPORARY BARRIER, AND SIGNALS. FOLLOW TTC-110-04 FOR INSTALLATION OF TRAFFIC CONTROL DEVICES. TIME THE TEMPORARY SIGNAL TO ALLOW ALTERNATING TRAFFIC TO USE THE OPEN SOUTHBOUND LANE TO CROSS THE BRIDGE. INSTALL PORTABLE MESSAGE SIGNS ON I-65 AND US-31W TO INFORM DRIVERS THAT THE BRIDGE IS CLOSED TO OVERSIZED LOADS.

PHASE 2



RELOCATE TEMPORARY BARRIER, OPEN THE NORTHBOUND LANE, CLOSE THE SOUTHBOUND LANE. FOLLOW TTC-110-04 FOR TRAFFIC CONTROL DEVICE INSTALLATION. TIME THE TEMPORARY SIGNAL TO ALLOW ALTERNATING TRAFFIC TO USE THE OPEN NORTHBOUND LANE TO CROSS THE BRIDGE. CONTINUE TO MAINTAIN PORTABLE MESSAGE SIGNS ON I-65 AND US-31W TO INFORM DRIVERS THAT THE BRIDGE IS CLOSED TO OVERSIZED LOADS.

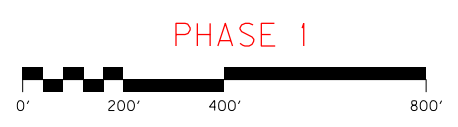
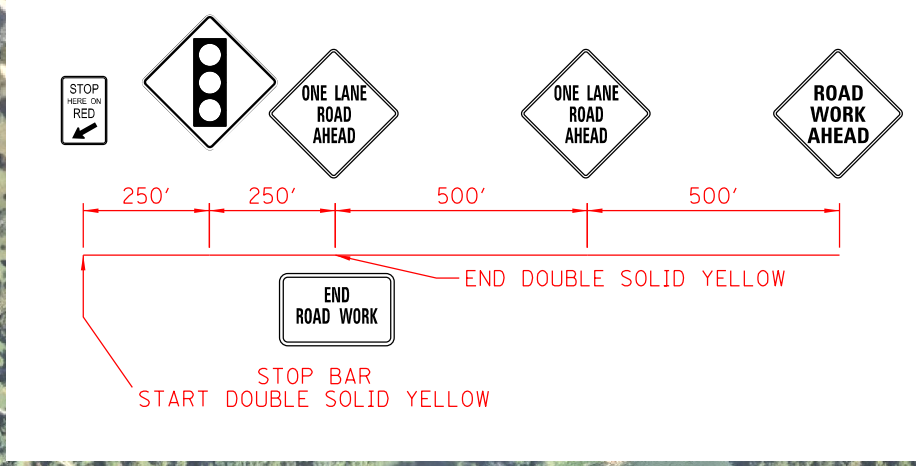
WEEKEND PHASES

INSTALL PORTABLE MESSAGE SIGNS SHOWN ON R06. PROGRAM SIGNS AS SHOWN ON R06 TO INFORM DRIVERS THAT THE BRIDGE IS CLOSED AND TO USE I-65 AS AN ALTERNATE ROUTE.

PHASE 3

REMOVE ALL TEMPORARY TRAFFIC CONTROL ITEMS AND OPEN ALL LANES TO TRAFFIC.

 COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION	DATE	PREPARED BY 	DATE:	MAINTENANCE OF TRAFFIC NOTES	ROUTE US 31W	ITEM NO. 4-10095	COUNTY OF HART
						CROSSING GREEN RIVER at MUNFORDVILLE	BRIDGE NUMBER 050B0004N	SHEET NO. R01



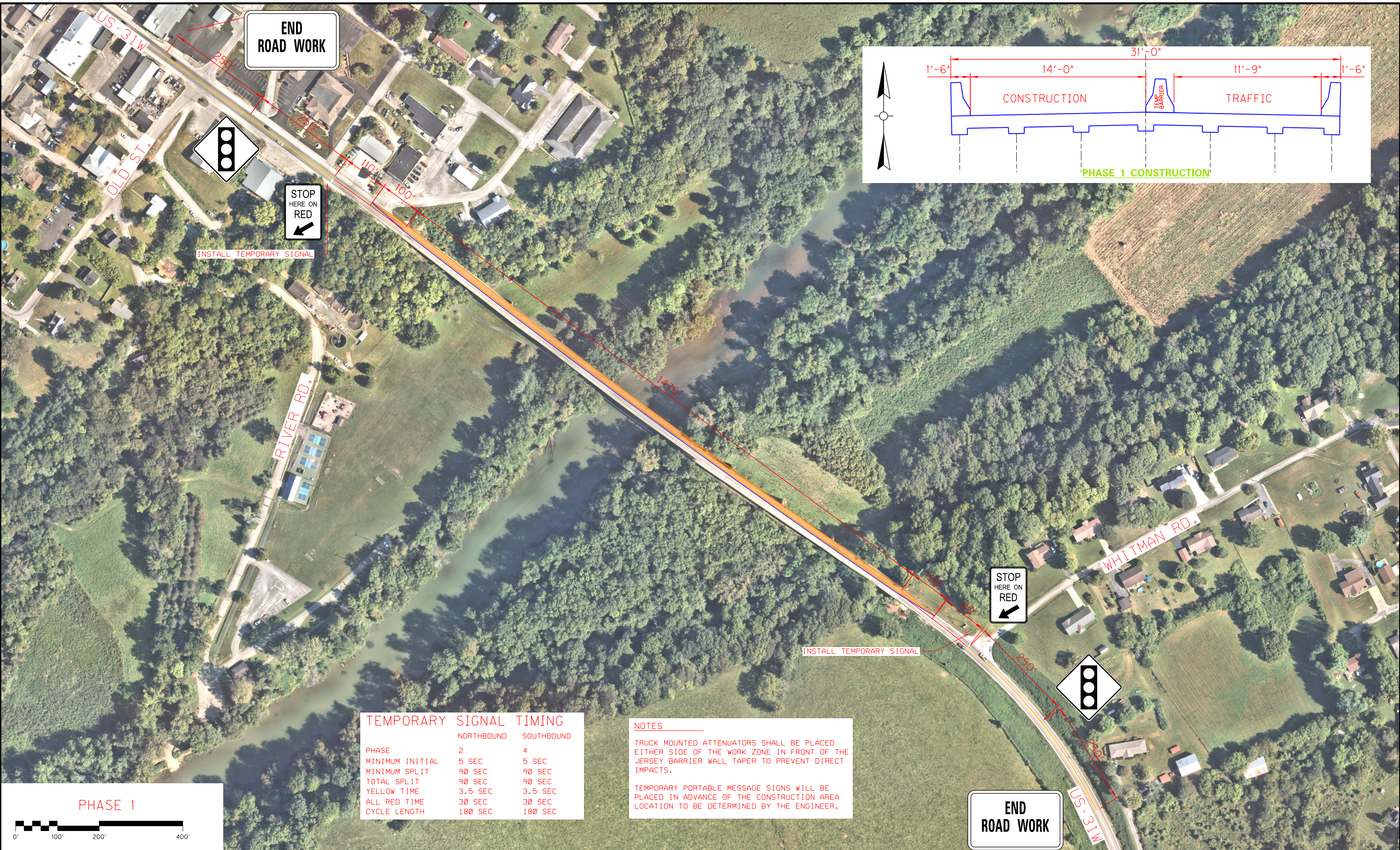
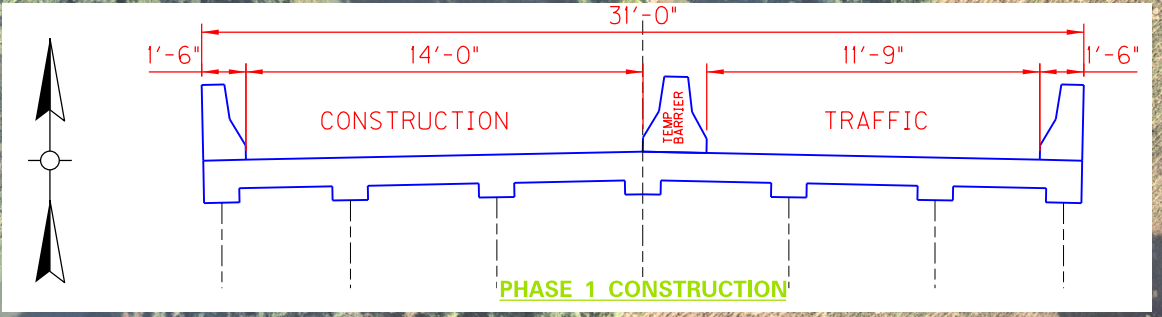
	REVISION	DATE	PREPARED BY	DATE:	MAINTENANCE OF TRAFFIC CROSSING GREEN RIVER at MUNFORDVILLE	ROUTE	ITEM NO.	COUNTY OF
						US 31W	4-10095	HART
...\\dng\MOT\MOT PLAN_PHASE 1.dgn 6/10/2026						BRIDGE NUMBER	SHEET NO.	DRAWING NUMBER
						050B0004N	R02	29147

END ROAD WORK



STOP HERE ON RED

INSTALL TEMPORARY SIGNAL



TEMPORARY SIGNAL TIMING

	NORTHBOUND	SOUTHBOUND
PHASE	2	4
MINIMUM INITIAL	5 SEC	5 SEC
MINIMUM SPLIT	90 SEC	90 SEC
TOTAL SPLIT	90 SEC	90 SEC
YELLOW TIME	3.5 SEC	3.5 SEC
ALL RED TIME	30 SEC	30 SEC
CYCLE LENGTH	180 SEC	180 SEC

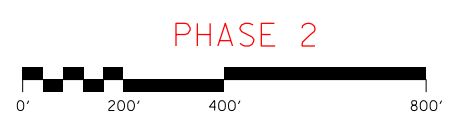
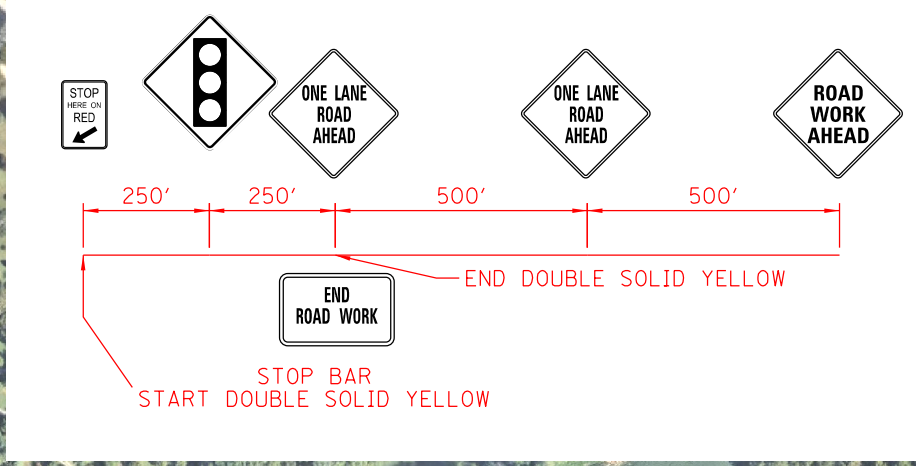
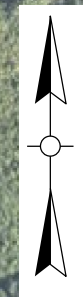
NOTES

TRUCK MOUNTED ATTENUATORS SHALL BE PLACED EITHER SIDE OF THE WORK ZONE IN FRONT OF THE JERSEY BARRIER WALL TAPER TO PREVENT DIRECT IMPACTS.

TEMPORARY PORTABLE MESSAGE SIGNS WILL BE PLACED IN ADVANCE OF THE CONSTRUCTION AREA LOCATION TO BE DETERMINED BY THE ENGINEER.

END ROAD WORK





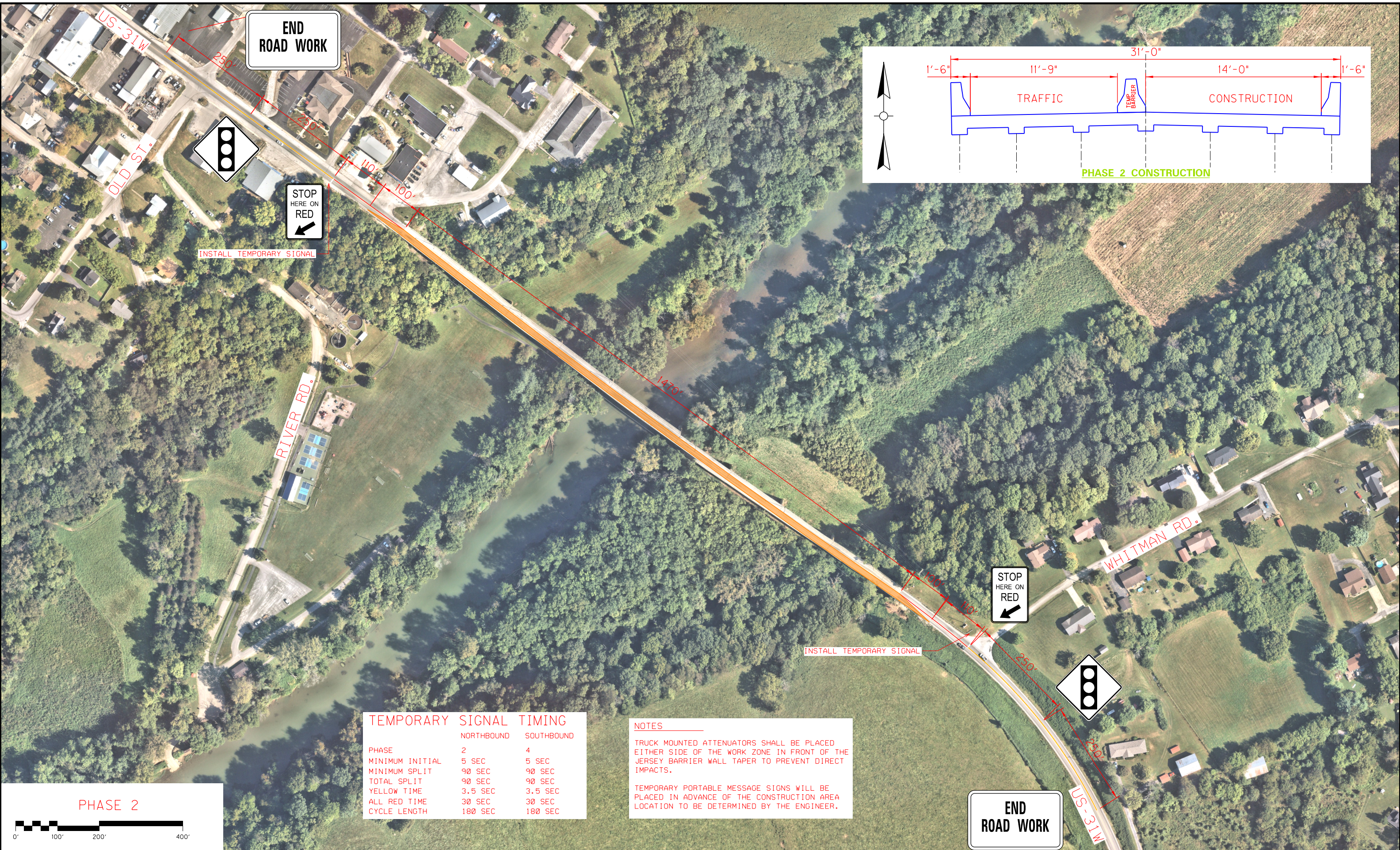
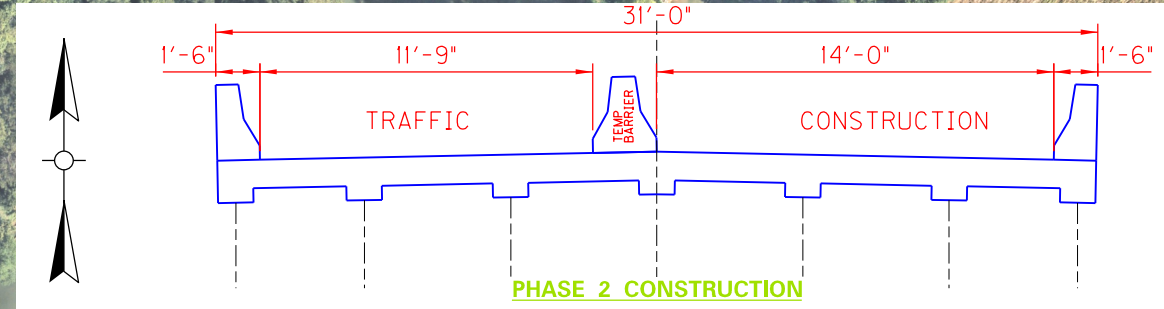
	REVISION	DATE	PREPARED BY	DATE:		MAINTENANCE OF TRAFFIC	ROUTE	ITEM NO.	COUNTY OF
						CROSSING	US 31W	4-10095	HART
						GREEN RIVER at MUNFORDVILLE	BRIDGE NUMBER	SHEET NO.	DRAWING NUMBER
							050B0004N	R04	29147

END ROAD WORK



STOP HERE ON RED

INSTALL TEMPORARY SIGNAL



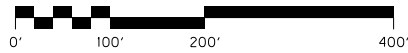
TEMPORARY SIGNAL TIMING		
	NORTHBOUND	SOUTHBOUND
PHASE	2	4
MINIMUM INITIAL	5 SEC	5 SEC
MINIMUM SPLIT	90 SEC	90 SEC
TOTAL SPLIT	90 SEC	90 SEC
YELLOW TIME	3.5 SEC	3.5 SEC
ALL RED TIME	30 SEC	30 SEC
CYCLE LENGTH	180 SEC	180 SEC

NOTES

TRUCK MOUNTED ATTENUATORS SHALL BE PLACED EITHER SIDE OF THE WORK ZONE IN FRONT OF THE JERSEY BARRIER WALL TAPER TO PREVENT DIRECT IMPACTS.

TEMPORARY PORTABLE MESSAGE SIGNS WILL BE PLACED IN ADVANCE OF THE CONSTRUCTION AREA LOCATION TO BE DETERMINED BY THE ENGINEER.

PHASE 2



COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY



DATE:

MAINTENANCE OF TRAFFIC

CROSSING
 GREEN RIVER at MUNFORDVILLE

ROUTE
 US 31W

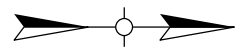
BRIDGE NUMBER
 050B0004N

ITEM NO.
 4-10095

SHEET NO.
 R05

COUNTY OF
 HART

DRAWING NUMBER
 29147



○ = PORTABLE MESSAGE SIGN PLACEMENT LOCATION.
SEE FOOTNOTES FOR WRITTEN MESSAGES.



1:

BRIDGE
CLOSED
THIS
WEEKEND

2:

US-31W
NARROW
BRIDGE
MAX
WIDTH
10 FT

WEEK DAY SINGLE LANE BRIDGE
NOT TO SCALE



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY



DATE:

MAY, 2026

PHASE 3 DETOUR PLAN - WEEKDAY

ROUTE
US 31W

ITEM NO.
4-10095

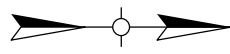
COUNTY OF
HART

CROSSING
GREEN RIVER at MUNFORDVILLE

BRIDGE NUMBER
050B0004N

SHEET NO.
R07

DRAWING NUMBER
29147





○ = PORTABLE MESSAGE SIGN PLACEMENT LOCATION.
SEE FOOTNOTES FOR WRITTEN MESSAGES.



- 1: US-31W BRIDGE CLOSED
USE EXIT 58 FOR WOODSONVILLE
- 2: US-31W BRIDGE CLOSED
WOODSONVILLE EXIT NOW
- 3: US-31W BRIDGE CLOSED
USE I-65 FOR WOODSONVILLE
- 4: US-31W BRIDGE CLOSED
EXIT NOW FOR MUNFORDVILLE
- 5: US-31W BRIDGE CLOSED
USE I-65 FOR MUNFORDVILLE
- 6: US-31W BRIDGE CLOSED
USE BYP FOR WOODSONVILLE
- 7: US-31W BRIDGE CLOSED
USE US-31W NB FOR WOODSONVILLE

WEEKEND CLOSURE
NOT TO SCALE

 COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION	DATE	PREPARED BY	DATE:	MAY, 2026	PHASE 3 DETOUR PLAN - WEEKEND	ROUTE	ITEM NO.	COUNTY OF
						CROSSING	BRIDGE NUMBER	SHEET NO.	DRAWING NUMBER
...\\dng\MOT\DETOUR PLAN (WEEKEND)		6/10/2026				GREEN RIVER at MUNFORDVILLE	050B0004N	R06	29147