

FILE NAME: ... \S02_Rehab General Notes_KY 2557

USER: agrace
DATE PLOTTED: 10/21/2022 4:45:11 PM

E-SHEET NAME:

MicroStation v8.11.9.916

A. 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 LRFD Bridge Construction Specifications, with Interims.

ON-SITE INSPECTION: Each Contractor submitting a bid for this work shall make a thorough inspection of the project site prior to submitting a bid and shall be thoroughly familiarized with existing conditions so that work can expeditiously performed after a Contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. All claims resulting from the site conditions will not be honored by the Department of Highways.

VERIFYING FIELD CONDITIONS: The Contractor is not to order any materials, produce any shop drawings, or begin any construction activities until after verifying dimensions and conditions in the field. Dimensions and details shown on these Plans in relation to the existing structure shall be considered approximate. Existing plans, if available, shall not be considered accurate. It shall be the Contractor's responsibility to verify such dimensions and details in the field and to notify the Project Engineer and the Designer of any differences. Failure to notify either may delay drawing and other approvals. Thereafter make the necessary approved adjustments prior to construction or ordering materials. All Specification requirements shall remain in effect. Any variations shall not be cause for additional compensation for a change in the scope of 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 requirement of Article 104.02.02 of the Standard Specifications is satisfied. The cost of all labor, equipment, surveying, and materials necessary to verify field dimensions shall be included in the lump sum price for "Staking".

PLANS OF EXISTING STRUCTURE: As an aid to the Contractor, the plans of the existing structure are available from the Division of Maintenance upon request. The completeness of these drawings are not guaranteed and no responsibility is assumed by KYTC for their accuracy. The existing drawing numbers for this structure are 08745 and 20698.

CONSTRUCTION LOAD: The Contractor shall abide by the posted bridge limits. Storage of material on the bridge is prohibited.

UTILITIES: Before beginning work, locate all existing utilities. Consider location of utilities shown on the drawings to be approximate and for informational purposes only. The Department does not warrant the locations and assumes no responsibility for the accuracy or completeness. The Contractor must make his own determination. Except as shown on the Plans, work around and do not disturb existing utilities.

DAMAGE OUTSIDE ENVIRONMENTALLY-CLEARED AREA: Any area used outside the environmentally-cleared area shall obtain full environmental approvals prior to use. Once cleared, any area that is disturbed outside of the modified environmentally-cleared area during the life of the project shall be repaired by the Contractor at his expense, should any 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 damage to the structure, should such damage result from the Contractor's actions. 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. 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.

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees fahrenheit. Layout dimensions are horizontal dimensions.

WELDING REINFORCEMENT: The welding and welding material shall conform to the "Recommended Practices for Welding Reinforcing Steel", American Welding Society Specifications, Current Edition. No direct payment shall be made for welding or weld material, but the cost of these items shall be included in the unit price bid for the repair being completed.

DISPOSAL OF MATERIALS: All materials and debris removed from or beneath the bridge shall become the property of the Contractor and shall be removed from the right-of-way.

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 for the work involved and otherwise considered incidental to the Contract. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of the existing structure, phase construction, incidental materials, labor, or anything else required to complete the structure.

BEFORE YOU DIG: The Contractor shall be responsible for all requirements and conformation with the Underground Facility Damage Prevention Act of 1994. The Contractor will be responsible for locating any utilities on this project. If underground utilities shall be located prior to construction. Any utilities disturbed or damaged as a result of the Contractor's operations will be repaired to the satisfaction of the utility owner at the Contractor's expense. The Contractor is advised to call (800) 752-6007 a minimum of two working days prior to excavation for information on the location of some, but not necessarily all underground utilities.

B. GENERAL NOTES REHABILITATION PROJECTS

MATERIALS FOR DESIGN SPECIFICATIONS:

For Class 'A' Concrete:	F'C = 3,500 psi
For Class 'AA' Concrete:	F'C = 4,000 psi
For Class 'M' Concrete:	F'C = 4,000 psi
For Steel Reinforcement:	FY = 60,000 psi

The Specifications, Current Edition, as designated below shall govern the following materials furnished:

<u>Material</u>	<u>Specification</u>
Structural Steel	AASHTO M270 or ASTM A709, Grade 50
Bolts	F3125 Grade A325
Grout	CI107

LEAD PAINT (RESIDUAL): The Contractor is advised to take all necessary protective measures, including worker safety and environmental regulations, when performing surface preparation and/or removal work. The Department will not consider any claims based on residual lead paint.

CONCRETE: Class 'AA' Concrete is to be used throughout the superstructure and in the portions of the substructure above the tops of caps. Class 'A' concrete is to be used in the substructure below the caps. Prestressed beam concrete shall be in accordance with the plans and specifications.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Clear distance to face of concrete is 2" unless otherwise noted. Spacing of bars is from center to center of bars. Any reinforcing bars designated by suffix 'e' in the plans shall be epoxy coated in accordance with Section 811.10 of the Standard Specifications. Any reinforcing bars designated by suffix 's' in a Bill of Reinforcement shall be considered a stirrup for purposes of bend diameters.

EXISTING STEEL REINFORCEMENT: The cost of cutting, bending, and cleaning existing steel reinforcement shall be incidental to the repair item being completed.


BEVELED EDGES: Bevel all exposed edges ¾" unless otherwise noted.

CONCRETE COATING: Concrete coating is estimated at 4300 SF. It is the responsibility of the Contractor to verify this estimate and bid appropriately. No payment adjustments will be made if the actual quantity is different than the estimate.

BRIDGE NUMBER

036B00040N

PREPARED BY

 Stantec

SHEET NO.

S2

DRAWING NO.

28189

REVISION

DATE

DATE: 10/20/2022

CHECKED BY

DESIGNED BY: M. FASANO

B. BENIFIELD

DETAILED BY: A. GRACE

M. FASANO

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
FLOYD

ROUTE
KY 2557

CROSSING
LEVISA FORK

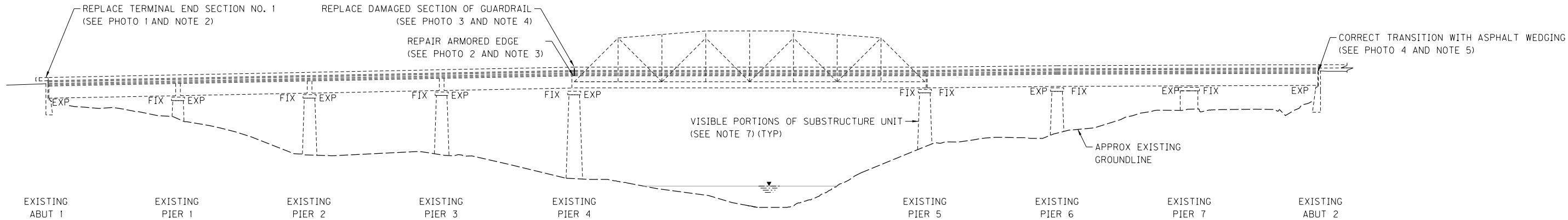
GENERAL NOTES

FILE NAME: ...S03.Plan and Elevation_KY 2557

USER: agrace
DATE PLOTTED: 10/21/2022 5:44:46 PM

E-SHEET NAME:

MicroStation v8.11.9.916



ELEVATION



PHOTO 1
(NORTHWEST CORNER)



PHOTO 2
(2 L.F. SECTION)



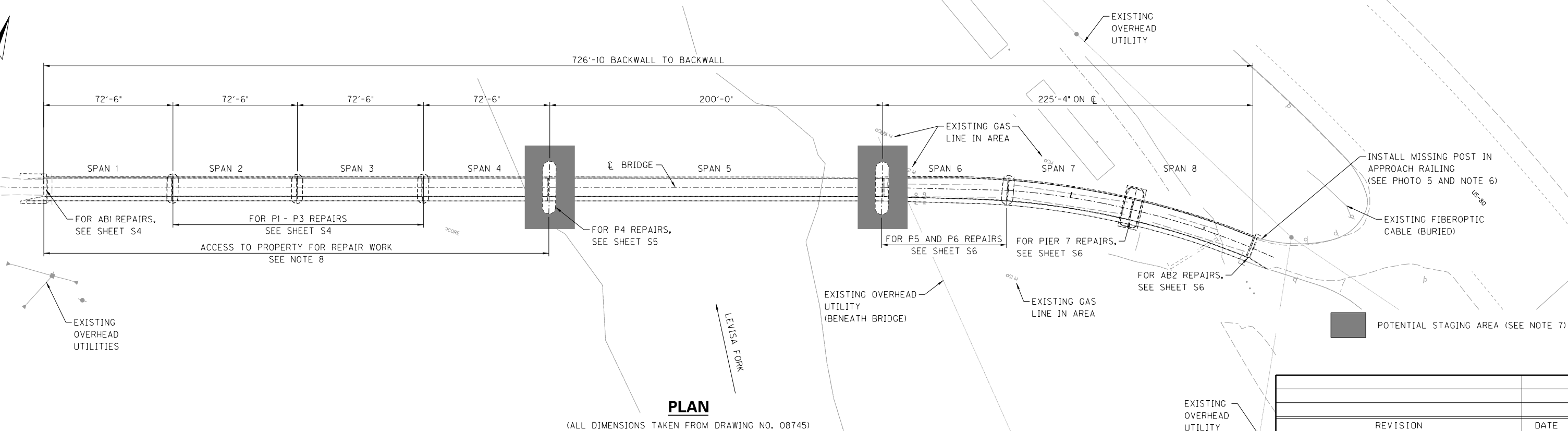
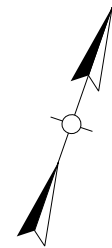
PHOTO 3
(NORTH RAILING)



PHOTO 4
(DIFFERENTIAL SETTLEMENT)



PHOTO 5
(NORTHEAST CORNER)




PLAN

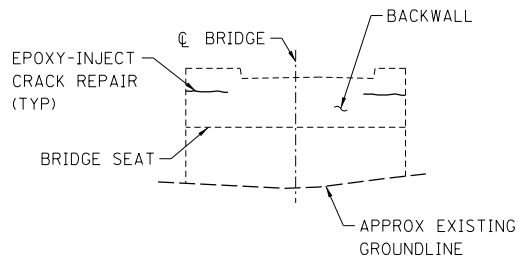
(ALL DIMENSIONS TAKEN FROM DRAWING NO. 08745)

- NOTES:
- ALL EXISTING UTILITIES ARE NOT TO BE DISTURBED.
 - REMOVE AND REPLACE EXISTING TERMINAL END SECTION NO. 1 IN ACCORDANCE WITH STANDARD DRAWING RBR-010-06.
 - REPAIR ARMORED EDGE IN ACCORDANCE WITH THE SPECIAL NOTE AND STANDARD DRAWINGS BJE-001-14, BJE-003, AND BJE-005.
 - ALL WORK RELATED TO THE REPLACEMENT OF DAMAGED GUARDRAIL SECTIONS SHALL BE PAID FOR WITH BID ITEM 2383 FOR "REMOVE AND RESET GUARDRAIL".
 - ALL WORK RELATED TO THE ASPHALT WEDGING SHALL BE PAID FOR WITH BID ITEM 190 FOR "LEVELING AND WEDGING PG64-22".
 - ALL WORK RELATED TO THE INSTALLATION OF THE MISSING POST SHALL BE PAID FOR WITH BID ITEM 2399 FOR "EXTRA LENGTH GUARDRAIL POST".
 - IN ORDER TO PERFORM THE EXTENSIVE REPAIR WORK ON PIERS 4 AND 5, THE CONTRACTOR SHOULD UTILIZE UNDERBRIDGE ACCESS EQUIPMENT DEPLOYED FROM THE BRIDGE DECK, IF AT ALL POSSIBLE. COFFERDAMS AND/OR TEMPORARY CONCRETE STAGING MAY BE USED TO COMPLETE WORK IF NECESSARY. PADS MAY BE CONSIDERED, IF NECESSARY. THE CONTRACTOR SHALL SUBMIT REPAIR ACCESS PLANS TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. ALL WORK SHALL BE INCIDENTAL TO THE BID ITEM FOR "CONCRETE PATCHING REPAIR".
 - CONTRACTOR SHALL OBTAIN A SIGNED CONSENT AND RELEASE FORM PRIOR TO PERFORMING REPAIR WORK IN THIS AREA.

BRIDGE NUMBER

036B00040N

REVISION		DATE	
DATE: 10/20/2022		CHECKED BY	
DESIGNED BY: M. FASANO		B. BENIFIELD	
DETAILED BY: A. GRACE		M. FASANO	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLOYD			
ROUTE KY 2557		CROSSING LEVISA FORK	
PLAN AND ELEVATION			
PREPARED BY		SHEET NO.	
 Stantec		S3	
		DRAWING NO.	
		28189	



ABUTMENT 1

(EAST FACE SHOWN)
(WINGWALLS NOT SHOWN)

SEQUENCE NOTES:

- 1 REPAIR NORTHWEST WINGWALL, AS REQUIRED.
- 2 EPOXY INJECT CRACKS AT THE ENDS OF THE BACKWALL, AS REQUIRED.
- 3 APPLY CONCRETE COATING TO ALL VISIBLE PORTIONS OF SUBSTRUCTURE, PER THE SPECIAL NOTE.



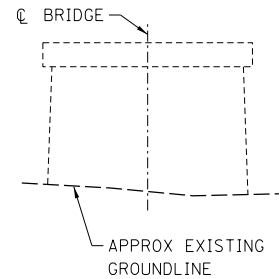
(NORTHWEST WINGWALL, ~ 8 L.F. REPAIR)



(BACKWALL, NORTH END)



(BACKWALL, SOUTH END)



PIER 1

(WEST FACE SHOWN)

SEQUENCE NOTES:

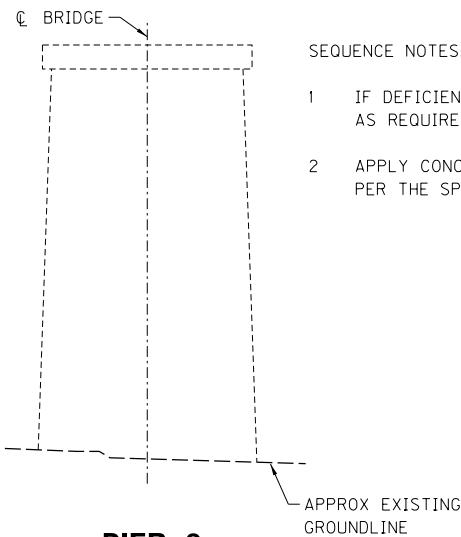
- 1 REMOVE VEGETATION FROM STRUCTURE.
- 2 IF DEFICIENCIES ARE PRESENT, REPAIR PIER CAP (INCLUDING TOP FACE), AS REQUIRED.
- 3 APPLY CONCRETE COATING TO ALL VISIBLE PORTIONS OF SUBSTRUCTURE, PER THE SPECIAL NOTE.



(EAST FACE)



(SOUTH END)



PIER 2

(WEST FACE SHOWN)

SEQUENCE NOTES:

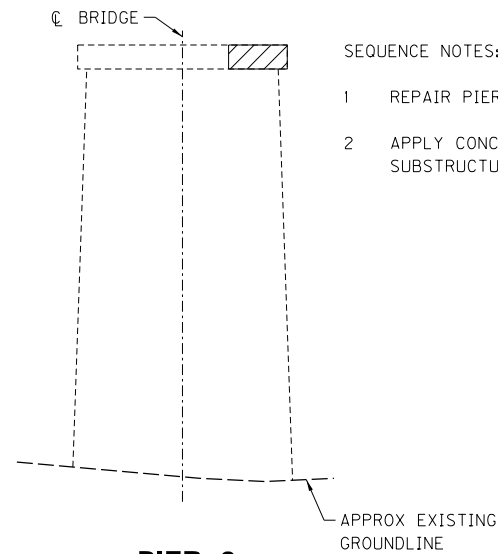
- 1 IF DEFICIENCIES ARE PRESENT, REPAIR PIER CAP (INCLUDING TOP FACE), AS REQUIRED.
- 2 APPLY CONCRETE COATING TO ALL VISIBLE PORTIONS OF SUBSTRUCTURE, PER THE SPECIAL NOTE.



(EAST FACE)



(SOUTH END)



PIER 3

(WEST FACE SHOWN)

SEQUENCE NOTES:

- 1 REPAIR PIER CAP (INCLUDING TOP OF FACE), AS REQUIRED.
- 2 APPLY CONCRETE COATING TO ALL VISIBLE PORTIONS OF SUBSTRUCTURE, PER THE SPECIAL NOTE.




(TOP FACE, SOUTH END)

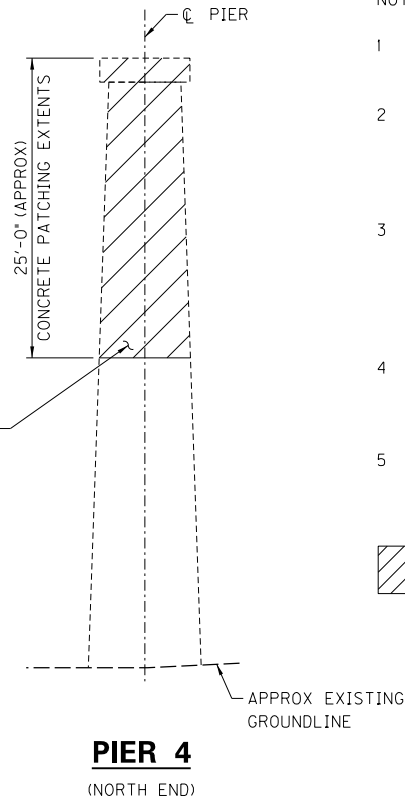
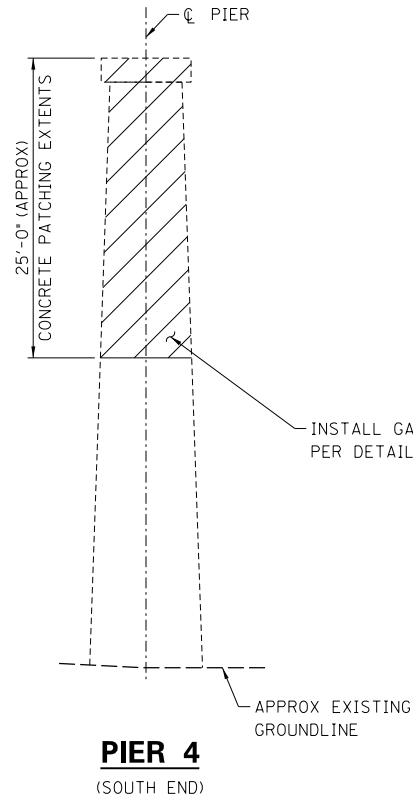
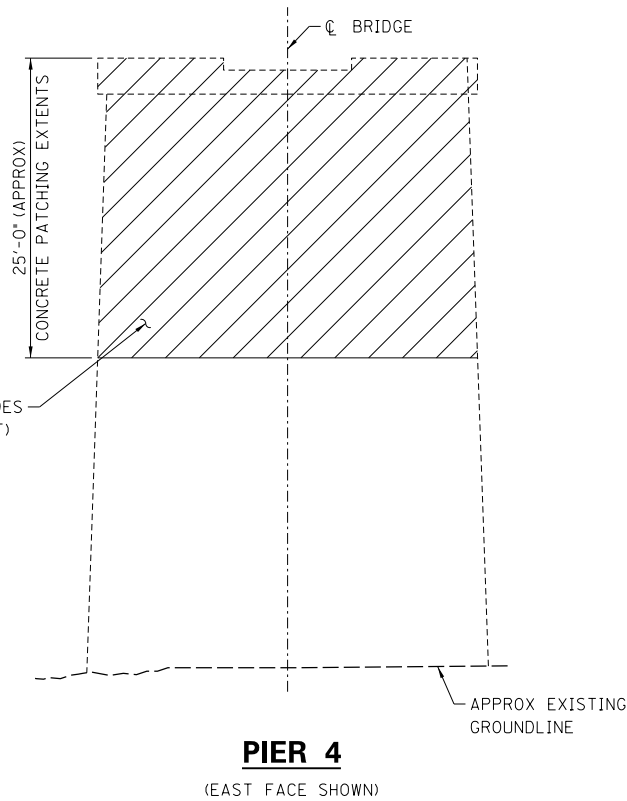
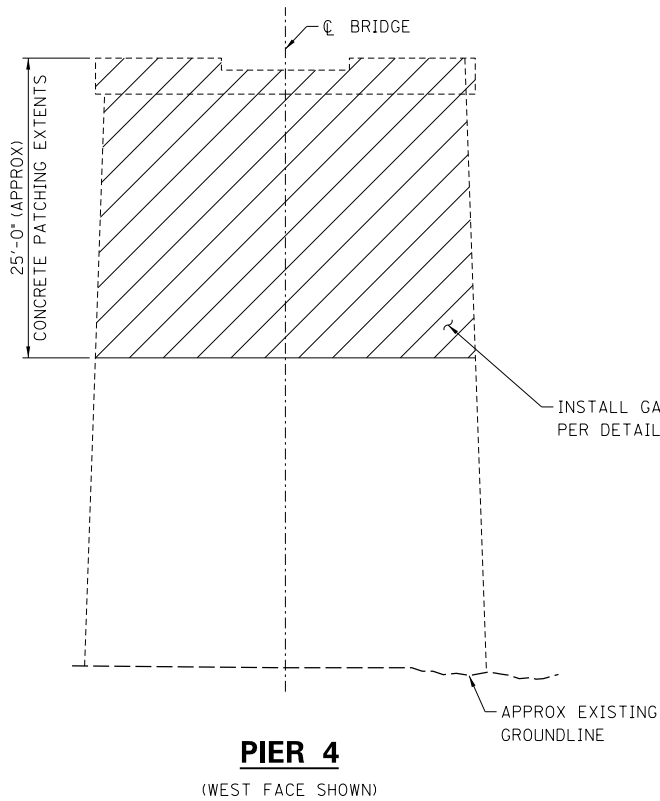


SOUTH END

EXPOSED HEIGHT (APPROX)		PATCHING REPAIRS (APPROX)	EPOXY INJECTION CRACK REPAIR (APPROX)
AB1	10'-0"	0 SF	12 LF
P1	12'-5"	35 SF	0 LF
P2	34'-6"	10 SF	0 LF
P3	36'-0"	35 SF	0 LF

 CONCRETE PATCHING REPAIRS

REVISION		DATE
DATE: 10/20/2022	CHECKED BY	
DESIGNED BY: M. FASANO	B. BENIFIELD	
DETAILED BY: A. GRACE	M. FASANO	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY FLOYD		
ROUTE KY 2557	CROSSING LEVISA FORK	
SUBSTRUCTURE REPAIRS (1 OF 3)		
PREPARED BY		SHEET NO. S4
 Stantec		DRAWING NO. 28189



NOTES:

- 1 REPAIR PIER WALL AND CAP (INCLUDING TOP FACE), AS REQUIRED (SEE SEQUENCE NOTES).
- 2 GALVANIC ANODE DETAIL DEPICTS VERTICAL REINFORCEMENT OUTSIDE OF TRANSVERSE REINFORCEMENT. CONTRACTOR TO PLACE ANODES PARALLEL TO EXTERIOR REINFORCEMENT LAYER.
- 3 LONG STRIP GALVANIC ANODES WITH 0.25 POUNDS OF ZINC PER FOOT SHALL BE PAID FOR WITH BID ITEM 2614IEC FOR "GALVANIC ANODE". (4) 6' LONG ANODES SHALL BE PLACED VERTICALLY EVERY 2' O.C. IN THE AREA TO BE PATCHED.
- 4 ALL CONCRETE SHALL BE REMOVED AS SPECIFIED IN THE DETAIL UNTIL SOUND CONCRETE IS ENCOUNTERED, WITH A MINIMUM REMOVAL DEPTH OF 1½".
- 5 SEE NOTE 8 ON SHEET S3 FOR REPAIR ACCESS GUIDANCE.



(WEST FACE)



(EAST FACE)



(PIER CAP, SOUTH END)



(PIER CAP, NORTH END)



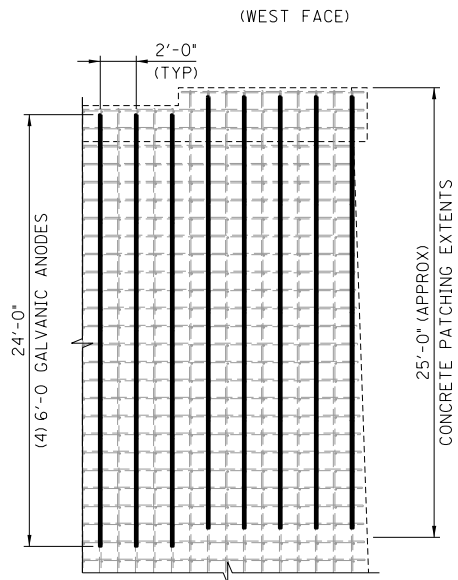
(TYPICAL PIER CAP CONDITION)



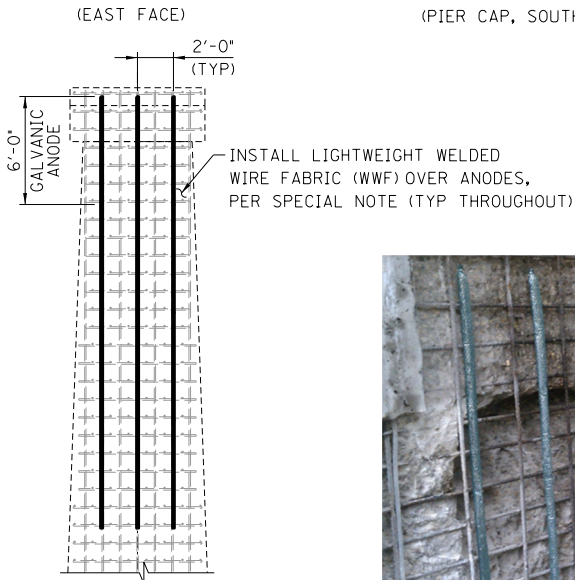
(SOUTH END, 2' DEEP VOID)



(NORTH END)



GALVANIC ANODE DETAIL
(EXISTING REINFORCEMENT FOR SCHEMATIC PURPOSES ONLY)
(FIELD CONDITIONS WILL VARY)
(SEE NOTE 2 THIS SHEET)



GALVANIC ANODE INSTALLATION
(TAKEN FROM SIMILAR REHABILITATION PROJECT)


SEQUENCE NOTES:

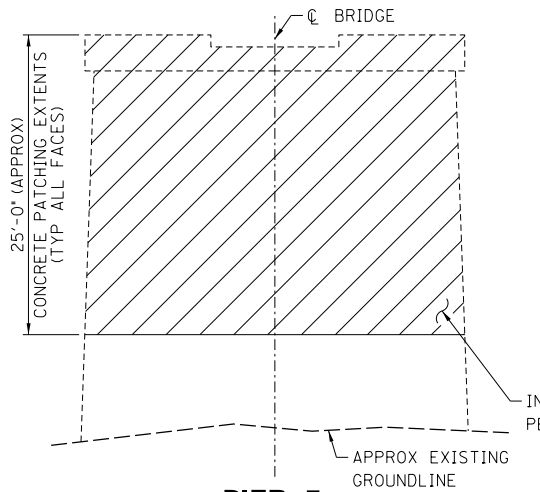
- 1 REMOVE CONCRETE AS SPECIFIED IN THE DETAIL UNTIL SOUND CONCRETE IS ENCOUNTERED, WITH A MINIMUM REMOVAL DEPTH OF 1½".
- 2 INSTALL GALVASHIELD DISTRIBUTED ANODE SYSTEM IN ACCORDANCE WITH THE SPECIAL NOTE FOR DISTRIBUTED GALVANIC ANODES.
- 3 PERFORM CONCRETE PATCHING REPAIR WORK, PER THE SPECIAL NOTE.
- 4 APPLY CONCRETE COATING TO ALL VISIBLE PORTIONS OF SUBSTRUCTURE, PER THE SPECIAL NOTE.

EXPOSED HEIGHT (APPROX)		PATCHING REPAIRS (APPROX)
P4, WEST FACE	50'-10"	800 SF
P4, EAST FACE		800 SF
P4, SOUTH END		187.5 SF
P4, NORTH END		187.5 SF

BRIDGE NUMBER

036B00040N

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DETAILED BY: A. GRACE		M. FASANO	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLOYD			
ROUTE KY 2557		CROSSING LEVISA FORK	
SUBSTRUCTURE REPAIRS (2 OF 3)			
PREPARED BY		SHEET NO.	
 Stantec		S5	
		DRAWING NO.	
		28189	



PIER 5
(WEST FACE SHOWN)

SEQUENCE NOTES:

- 1 REMOVE CONCRETE AS SPECIFIED IN THE DETAIL UNTIL SOUND CONCRETE IS ENCOUNTERED, WITH A MINIMUM REMOVAL DEPTH OF 1/2".
- 2 INSTALL GALVASHIELD DISTRIBUTED ANODE SYSTEM IN ACCORDANCE WITH THE SPECIAL NOTE FOR DISTRIBUTED GALVANIC ANODES.
- 3 PERFORM CONCRETE PATCHING REPAIR WORK, PER THE SPECIAL NOTE.
- 4 APPLY CONCRETE COATING TO ALL VISIBLE PORTIONS OF SUBSTRUCTURE, PER THE SPECIAL NOTE.



(EAST FACE)



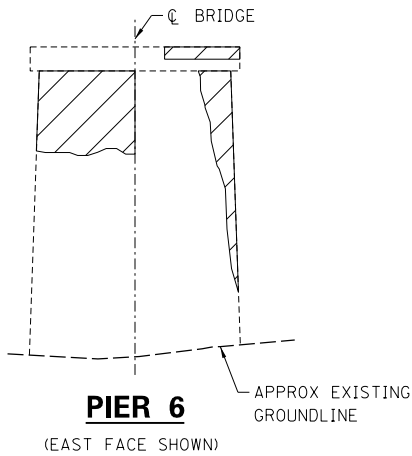
(WEST FACE)

NOTES:

- 1 REMOVE VEGETATION ADJACENT TO PIER, AS NEEDED.
- 2 REPAIR PIER WALL AND CAP (INCLUDING TOP FACE), AS REQUIRED. PIER IS IN SIMILAR CONDITION TO PIER 4. (SEE SEQUENCE NOTES) (SEE SHEET S5 FOR COMPARABLE CONDITIONS PHOTOS)
- 3 GALVANIC ANODE DETAIL DEPICTS VERTICAL REINFORCEMENT OUTSIDE OF TRANSVERSE REINFORCEMENT. CONTRACTOR TO PLACE ANODES PARALLEL TO EXTERIOR REINFORCEMENT LAYER.

NOTES CONT.:

- 4 LONG STRIP GALVANIC ANODES WITH 0.25 POUNDS OF ZINC PER FOOT SHALL BE PAID FOR WITH BID ITEM 2614IEC FOR "GALVANIC ANODE". (4) 6' LONG ANODES SHALL BE PLACED VERTICALLY EVERY 2' O.C. IN THE AREA TO BE PATCHED.
- 5 ALL CONCRETE SHALL BE REMOVED AS SPECIFIED IN THE DETAIL UNTIL SOUND CONCRETE IS ENCOUNTERED, WITH A MINIMUM REMOVAL DEPTH OF 1/2".
- 6 SEE NOTE 8 ON SHEET S3 FOR REPAIR ACCESS GUIDANCE.



(WEST FACE)



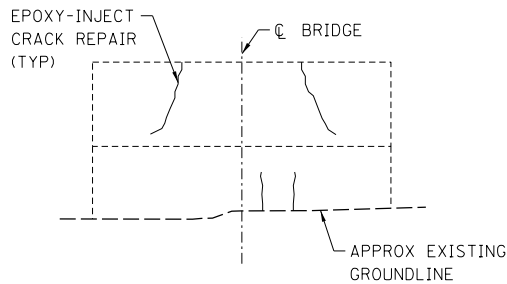
(EAST FACE)



(TOP FACE, SOUTH END)

SEQUENCE NOTES:

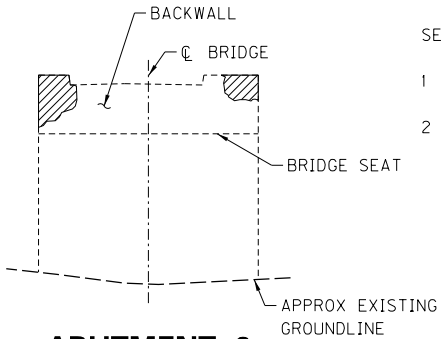
- 1 REMOVE VEGETATION FROM PIER, AS NEEDED.
- 2 REPAIR PIER WALL AND CAP (INCLUDING TOP FACE), AS REQUIRED.
- 3 APPLY CONCRETE COATING TO ALL VISIBLE PORTIONS OF SUBSTRUCTURE, PER THE SPECIAL NOTE.



PIER 7
(WEST FACE SHOWN)

SEQUENCE NOTES:

- 1 THIS PIER HAS BEEN RECENTLY RETROFITTED.
- 2 EPOXY INJECT CRACKS IN RETROFIT CONCRETE, AS REQUIRED.
- 3 APPLY CONCRETE COATING TO ALL VISIBLE PORTIONS OF SUBSTRUCTURE, PER THE SPECIAL NOTE.



ABUTMENT 2
(WEST FACE SHOWN)

SEQUENCE NOTES:

- 1 REPAIR BACKWALL, AS REQUIRED.
- 2 APPLY CONCRETE COATING TO ALL VISIBLE PORTIONS OF SUBSTRUCTURE, PER THE SPECIAL NOTE.




(WEST FACE)



(BACKWALL, NORTH END)

EXPOSED HEIGHT (APPROX)		PATCHING REPAIRS (APPROX)	EPOXY INJECTION CRACK REPAIR (APPROX)
P5, WEST FACE	32'-9"	800 SF	0 LF
P5, EAST FACE	32'-9"	800 SF	0 LF
P5, SOUTH END	32'-9"	187.5 SF	0 LF
P5, NORTH END	32'-9"	187.5 SF	0 LF
P6	25'-10"	245 SF	0 LF
P7	12'-5"	0 SF	65 LF
AB2	17'-5"	25 SF	0 LF

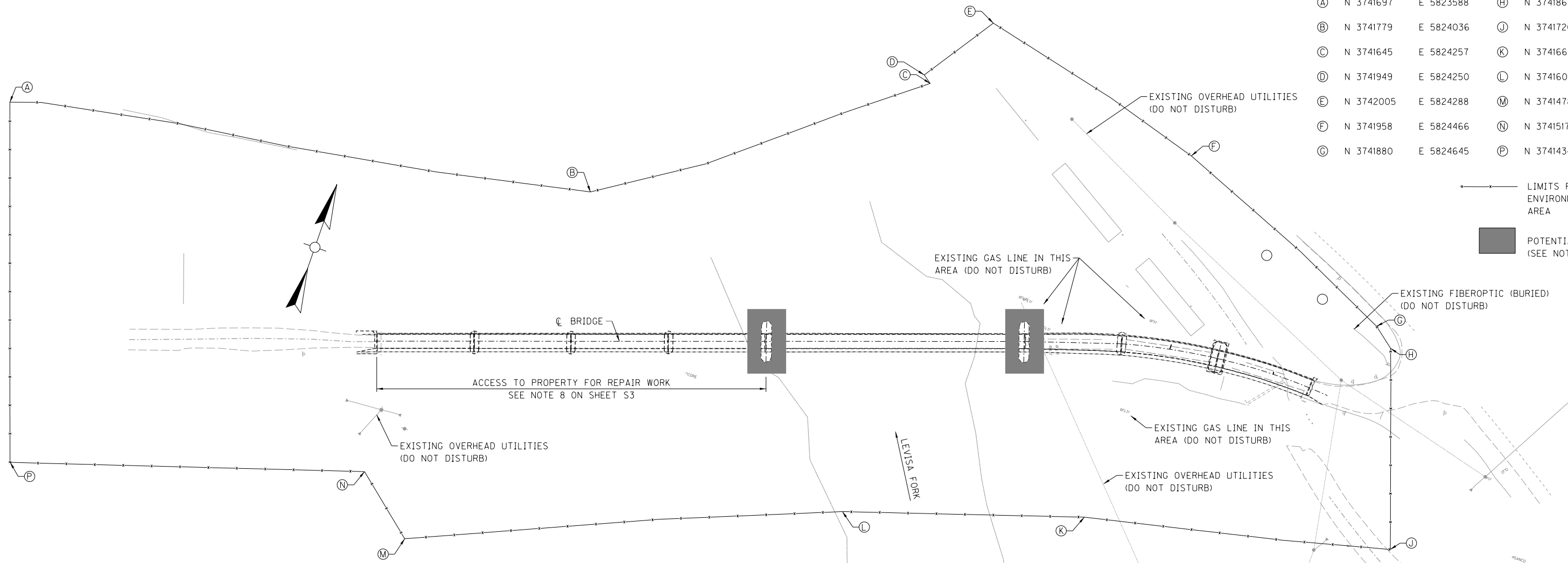
 CONCRETE PATCHING REPAIRS

REVISION		DATE	
DATE: 10/20/2022		CHECKED BY	
DESIGNED BY: M. FASANO		B. BENIFIELD	
DETAILED BY: A. GRACE		M. FASANO	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLOYD			
ROUTE KY 2557		CROSSING LEVISA FORK	
SUBSTRUCTURE REPAIRS (3 OF 3)			
PREPARED BY		SHEET NO. S6	
 Stantec		DRAWING NO. 28189	


3 COORDINATES (KENTUCKY SINGLE ZONE)

(A)	N 3741697	E 5823588	(H)	N 3741868	E 5824661
(B)	N 3741779	E 5824036	(J)	N 3741720	E 5824712
(C)	N 3741645	E 5824257	(K)	N 3741666	E 5824480
(D)	N 3741949	E 5824250	(L)	N 3741609	E 5824301
(E)	N 3742005	E 5824288	(M)	N 3741478	E 5823988
(F)	N 3741958	E 5824466	(N)	N 3741517	E 5823942
(G)	N 3741880	E 5824645	(P)	N 3741434	E 5823680

 POTENTIAL STAGING AREA
(SEE NOTE 7 ON SHEET S3)



ENVIRONMENTALLY-CLEARED
AREA FOR CONSTRUCTION

REVISION	DATE
DATE: 10/20/2022	CHECKED BY
DESIGNED BY: M. FASANO	B. BENIFIELD
DETAILED BY: A. GRACE	M. FASANO
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY FLOYD	
ROUTE KY 2557	CROSSING LEVISA FORK
ENVIRONMENTALLY-CLEARED AREA	
PREPARED BY  Stantec	SHEET NO. S7 DRAWING NO. 28189

BRIDGE NUMBER
036B00040N