



# GENERAL NOTES

**SPECIFICATIONS:** All references to the Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction with current Supplemental Specifications. All references to the AASHTO Specifications are to the current edition of the AASHTO LRFD Bridge Design Specs, with interims.

**DESIGN LOAD:** This bridge slab is designed for a KYHL-93 live load. The KYHL-93 live load is arrived at by increasing the standard HL-93 truck and lane loads as specified in the AASHTO Specifications by 25%. The beams are designed for a HS-25 Live Load.

**FUTURE WEARING SURFACE:** This structure is designed for a 60 PSF future wearing surface load.

**DESIGN STRESSES:**

Concrete Class "A"	~	f'c = 3500 psi
Concrete Class "AA"	~	f'c = 4000 psi
Steel Reinforcement	~	Fy = 60,000 psi
Structural Steel Yield Strength	~	Fy = 50,000 psi

**DESIGN METHOD:** All reinforced concrete members are designed by the load and resistance factor method as specified in the current AASHTO Specifications. The steel beams and upgrades were designed with the Load Factor Method specified in the 17th edition AASHTO Standard Specifications for Highway Bridges.

**REINFORCEMENT:** Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2", unless otherwise noted. Any reinforcement bars designed be 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.

**BEVELED EDGES:** Bevel all exposed edges 3/4" unless otherwise noted.

**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.

**SHOP DRAWINGS:** Submit shop drawings that are required by the plans and specifications directly to the Division of Structural Design. Is any changes in the design plans are proposed by a fabricator or supplier, submit those changes to the Department through the Contractor.

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

**SUPERSTRUCTURE SLAB:** Ensure the entire superstructure slab is poured continuously, out to out, before allowing any concrete to set.

**MASONRY COATING:** Apply masonry coating to abutments according to the Specifications. Do not apply masonry coating to the piers or where Concrete Sealer is called out in these plans on the superstructure.

**CONCRETE SEALER:** The superstructure deck, barriers and overhangs shall also be sealed as shown herein these plans. Concrete surfaces (except the deck) shall receive the ordinary surface finish as described in section 601.03.18(A) prior to being sealed.

**CONCRETE:** Class "AA" is to be used throughout the new superstructure. Class "A" is to be used on the substructures.

**ORIGINAL PLANS:** Original drawing number is 13333.

**FORM WEIGHT:** Design Includes 16 psf for stay in place firm weight and allows for concrete filling voids. If contractor chooses to fill flutes with concrete, cost for extra concrete is incidental.

**PROHIBITED FIELD WELDING:** No welding of any nature, other than indicated on plans, is to be performed without the written consent of the designer, and then only in the manner and at the locations designated in the authorization.

**SHEAR CONNECTORS:** The minimum length of studs is 8 1/4". Provide the necessary length to penetrate at least 2" above bottom of slab. The "Lump Sum Bid" for shear connectors shall be full payment for all necessary shear connectors, welding and welding material, and materials necessary to field weld or shop weld the shear connectors in place according to the plans and specifications.

If the Contractor wishes to use something other than the stud shear connectors shown on the plans, the proposed arrangement shall be submitted for approval with the shop plans.

Studs shall be welded in accordance with AWS Specifications.

**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 be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will be honored by the Department of Highways.

**DAMAGE TO THE STRUCTURE:** The contractor is responsible for any and all damages to the existing structure during reconstruction even to the replacement of the entire structure, should any part be damaged due to their actions.

**DRILLING AND GROUTING:** In accordance with Section 826 of the specifications, drill holes to a depth as shown herein these plans and apply a Type IV epoxy bonding adhesive in the holes. Also apply a Type V epoxy bonding material to the interface between the existing concrete and the new concrete prior to placing the new concrete. All costs associated with this work shall be incidental to the unit price bid for Class "A" Concrete.

**EXISTING REINFORCING STEEL:** The costs of cutting, bending and cleaning existing reinforcing steel in the abutments, if required, is to be incidental to the lump sum bid for "Bridge Deck Removal".

**Bridge Deck Removal:** Include in the lump sum bid for "Bridge Deck Removal" all costs (materials, labor, equipment, etc.) associated with removing and disposing of the deck, barriers, and all removal on existing abutments as detailed herein in accordance with Section 203 of the Specifications. Also include in this lump sum bid the cost of any required excavation and subsequent backfilling (including materials, labor, equipment, etc.) behind the abutments.

**DIMENSIONS AND ELEVATIONS:** All dimensions and elevations given in these plans are based on field surveyed data and dimensions from the old plans. Prior to beginning work or ordering any materials, the contractor shall verify all dimensions and elevations. No claim shall be honored by KYTC regarding site conditions.

**BRIDGE OVERLAY APPROACH PAVEMENT:** Excavation into existing pavement or ground behind abutment may be required for abutment rehab. Include all costs for excavation in the lump sum price bid for Bridge Deck Removal. Backfill of excavated soil shall be with geotextile wrapped 57s. Pavement structure in the fully removed sections shall consist of a minimum of 12 inches compacted DGA, 2-4 inch minimum lifts of asphalt base, and 1.5 inch minimum of asphalt surface. Surface shall be placed over existing pavement where existing pavement was not fully removed to provide a smooth transition from the bridge deck elevation to the existing pavement elevation within 200 feet off the end of the bridge. Provide plan to Engineer for approval prior to beginning work.

MATERIAL	A.S.T.M	AASHTO
High Strength Low Alloy	*A709 GR 50	*M270 GR 50
Structural Steel	* Use this equivalent specification with the ANSI/AASHTO/AWS D1.5 welding code, and welding notes.	
Pintles and stud shear connectors,	UNS G 1018	M-169
High strength bolts, nuts, and washers	ASTM F3125 A325	M253 Type 1
Sheet lead and Pig lead	B29-79	

All flange and web material, including splice plates, in longitudinal plate girders shall meet the longitudinal charpy V-Notch toughness test applicable to Zone 2 minimum service temperature from -1 deg. F. to -30 deg. F. in accordance with the following:

M270 GR 50	(up to 2" thickness) of 25 ft-lbs at 40° F.
M270 GR 50	(2" to 4" thickness) of 30 ft-lbs at 40° F.

Sampling and testing procedures shall be in accordance with AASHTO T243 current edition, utilizing (H) frequency testing. When plate thickness exceeds 1 1/2", frequency of testing shall be (P).

**MAINTAIN AND CONTROL TRAFFIC:** The contractor is fully responsible for maintaining and controlling traffic on this project. Bridge is to be fully closed to traffic for construction. Contractor shall provide signs letting public know of bridge closure for each direction and shall place type III barricades at each end of the bridge.

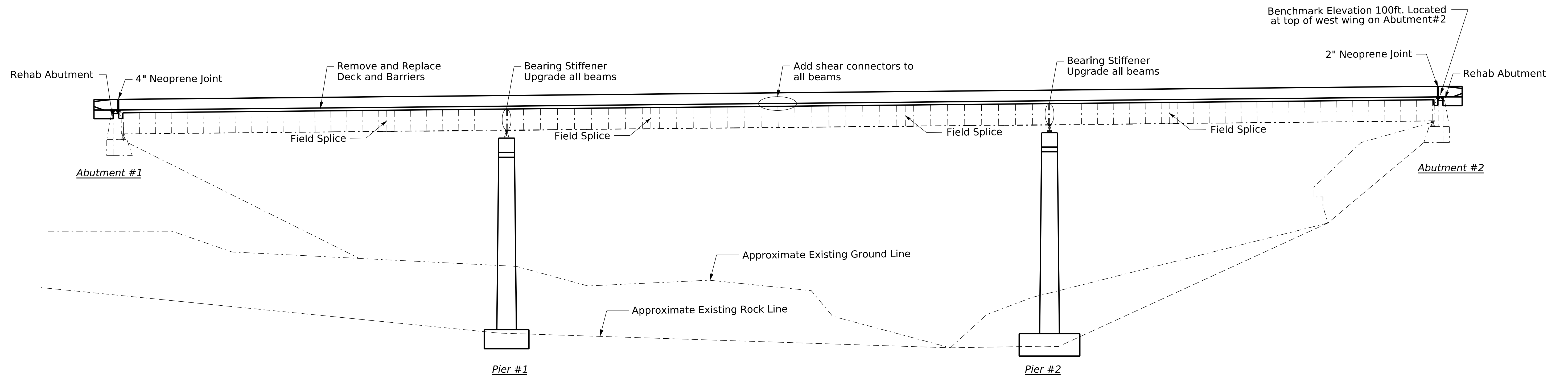
**HIGH STRENGTH BOLT CONNECTIONS:** Unless otherwise specified on the plans, all bolted connections shall be ASTM F3125 Grade A325 high strength bolts, nuts, and washers. Type 1 hot dipped bolts and associated hardware shall be used as described in AASHTO M253. All high strength bolted field connections are to be installed with "direct tension indicators" (DTI's) in accordance with the Standard Specifications and ASTM F959. All DTI's shall be manufactured from a steel conforming to the chemical requirements of ASTM F3125 for Type 1 hot dipped galvanized steel. DTI's shall be installed under the bolt head with the bumps facing the underside of the bolt head. Put a hardened washer under the nut and tension from the nut.

The following abbreviations may have been used in the preparation of these plans:

bet.	between
b.f.	Back Face
BOF	Bottom of Footing
BOS	Bottom of Slab
bot.	Bottom
Brg.	Bearing
C to C	Center to Center
c.e.	Current Edition
C.Y.	Cubic Yards
Chd.	Chord
CL	Center Line
Clr.	Clear
Conc.	Concrete
Cu.	Cubic
Dwg.	Drawing
e.f.	Each Face
El.	Elevation
eq.	Equal
Est.	Estimate
Ext.	Exterior
F to F	Face to Face
f.f.	Front Face
f.s.	Far Side
fr.	Front
ft.	Feet
I.D.	Inside Diameter
in.	Inch
Int.	Interior
L	Left
LBS	Low Bridge Seat
LBS.	Pounds
M	Meter
MPH	Miles Per Hour
n.s.	Near Side
O.D.	Outside Diameter
Opp.	Opposite
PC	Point of Curvature
Perp.	Perpendicular
PI	Point of Intersection
PPC	Precast Prestressed Concrete
PPCDU	Precast Prestressed Deck Unit
PSI	Pounds per Square Inch
PT	Point of Tangency
R	Radius
R	Right
RCBC	Reinforced Concrete Box Culvert
RCDG	Reinforced Concrete Deck Girder
Req'd	Required
RR	Railroad
Shld.	Shoulder
spa.	Spaces
Sta.	Station
Std.	Standard
Str.	Straight
Tan	Tangent
Thru	Through
TOF	Top of Footing
TOS	Top of Slab
Tot.	Total
Typ.	Typical
Vert.	Vertical
W.P.	Working Point
Yd.	Yard

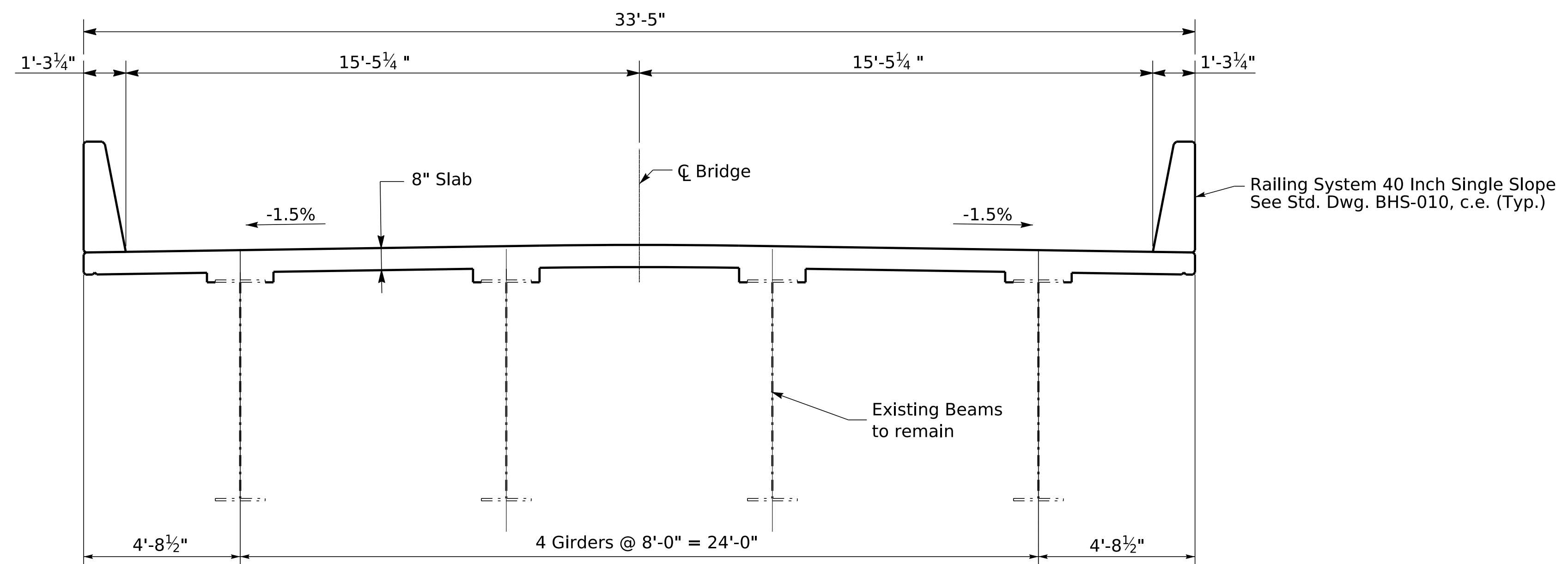
◀ To LEITCHFIELD

To HARDINSBURG ▶



**ELEVATION**

Note: The elevations given in these plans are relative elevations based on a point located at the top of the west wing on Abutment #2. The elevation at this location is assumed to be 100 feet and is not based on sea level elevations.



**TYPICAL SECTION**  
(Showing new deck and beams)



COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY

Division of  
Structural Design

DATE: April 2024

DESIGNED BY: N. Cordtz

DETAILED BY: M. BawiThawng

CHECKED BY

W. Deaton

N. Cordtz

LAYOUT

CROSSING  
Rough River

ROUTE

KY 259

ITEM NO.

4-10047

SHEET NO.

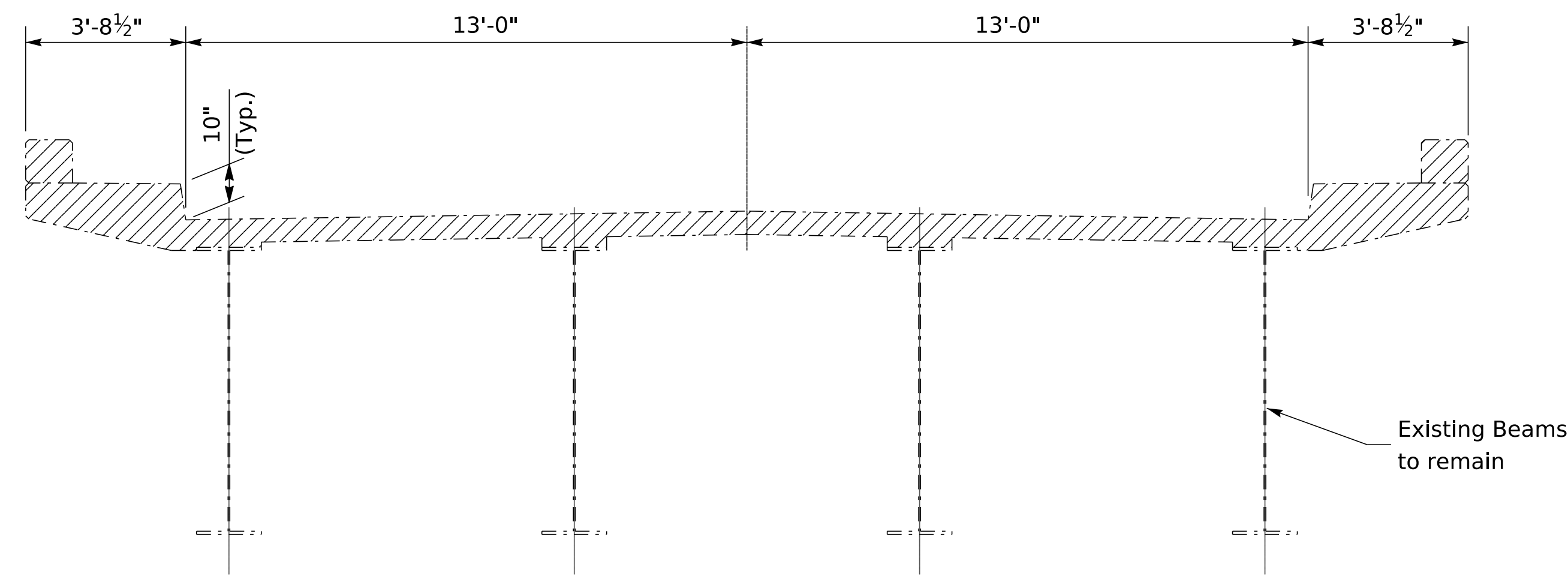
53

COUNTY OF

GRAYSON

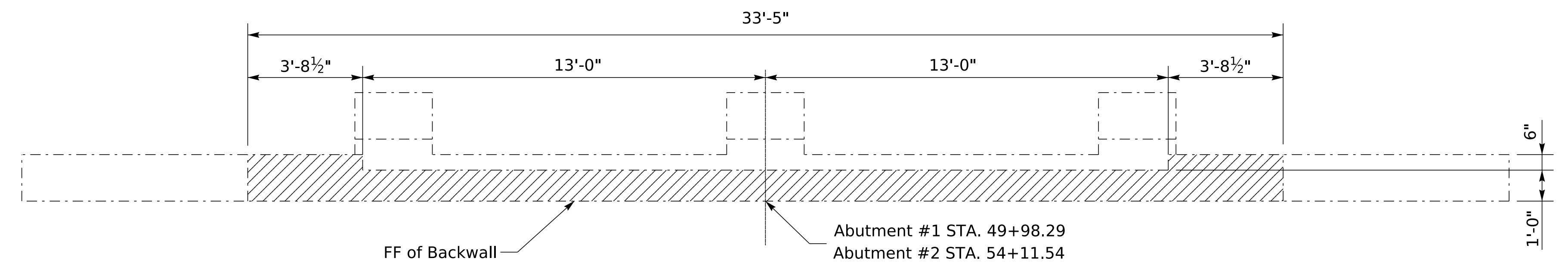
DRAWING NUMBER

28895

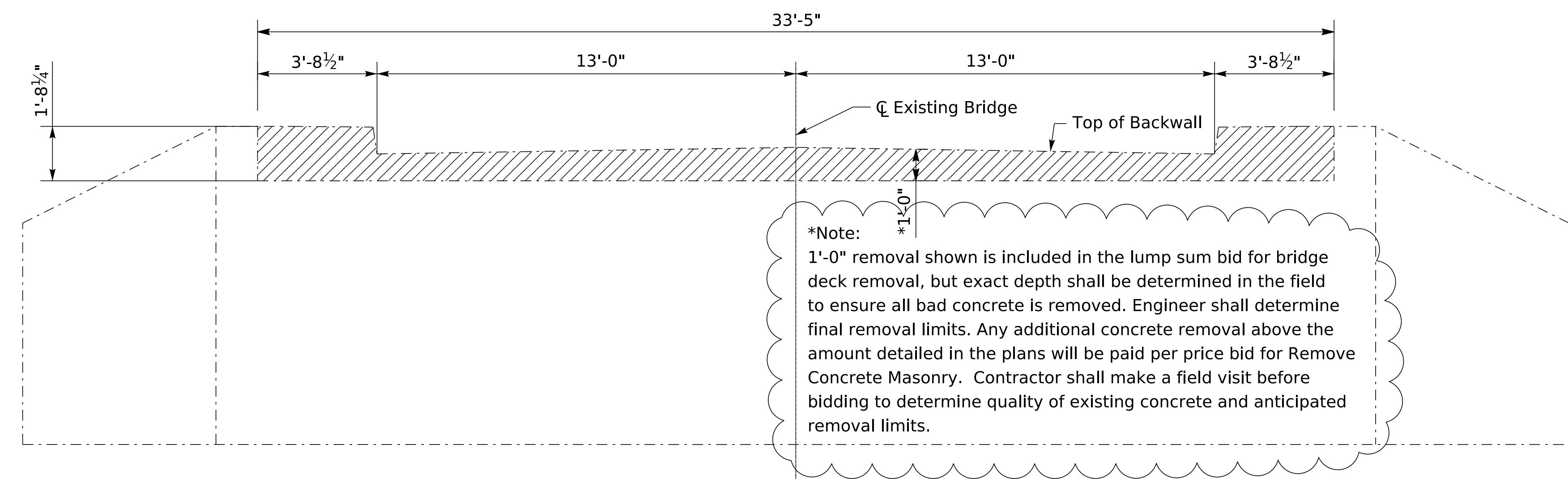


**ELEVATION**

Note: Take care when removing deck to not damage existing steel beams. Any and all damage due to the contractor actions will be repaired by the contractor at their cost. Submit proposed KY P.E. stamped repair plans and calculations for review and approval prior to beginning repairs.



**PLAN**



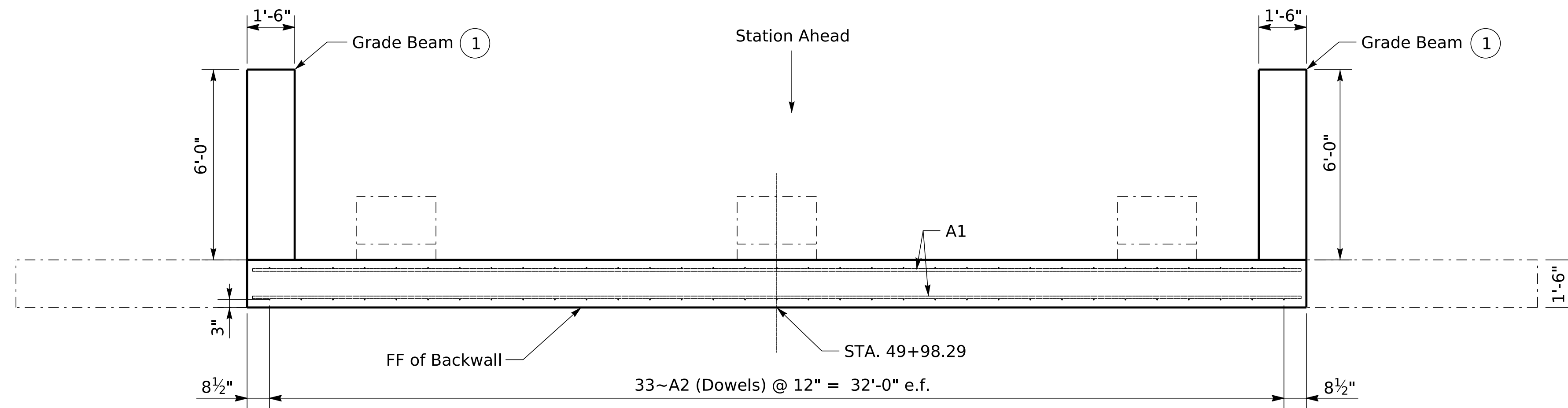
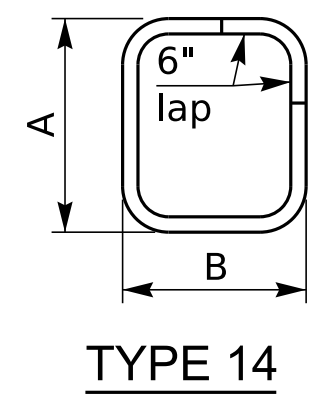
**ELEVATION**

**ABUTMENTS REMOVAL**

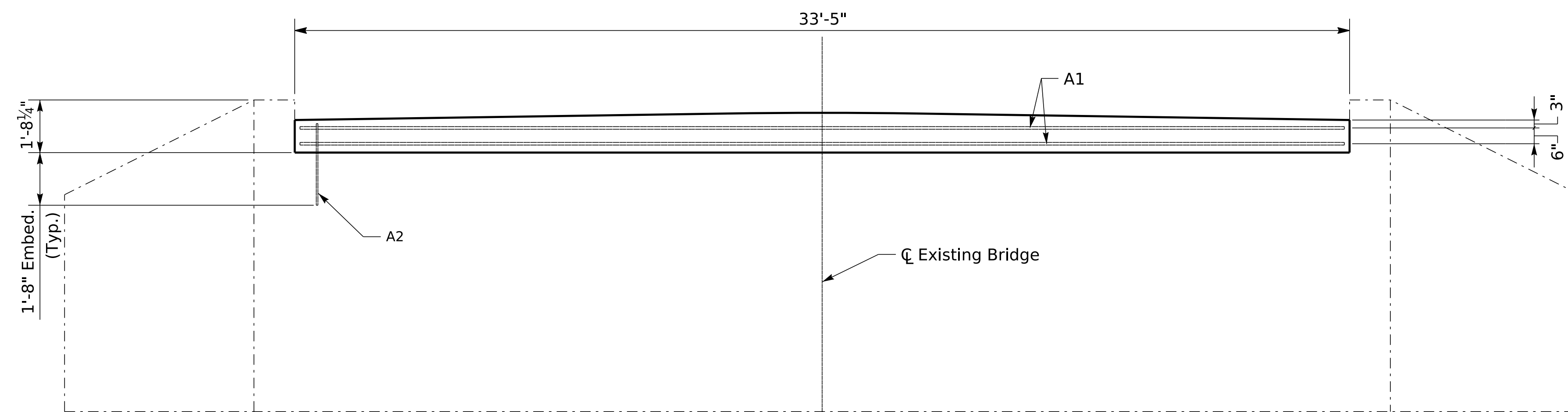
\*Note:  
 1'-0" removal shown is included in the lump sum bid for bridge deck removal, but exact depth shall be determined in the field to ensure all bad concrete is removed. Engineer shall determine final removal limits. Any additional concrete removal above the amount detailed in the plans will be paid per price bid for Remove Concrete Masonry. Contractor shall make a field visit before bidding to determine quality of existing concrete and anticipated removal limits.

### BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
A1e	Str.	4	8	33'-1"	Top of Endwall				
A2e	Str.	66	5	2'-7"	Dowels				
A3e	14s	18	4	7'-7"	Grade Beam	2-4	1-2		
A4e	Str.	12	5	6'-10"	Grade Beam				

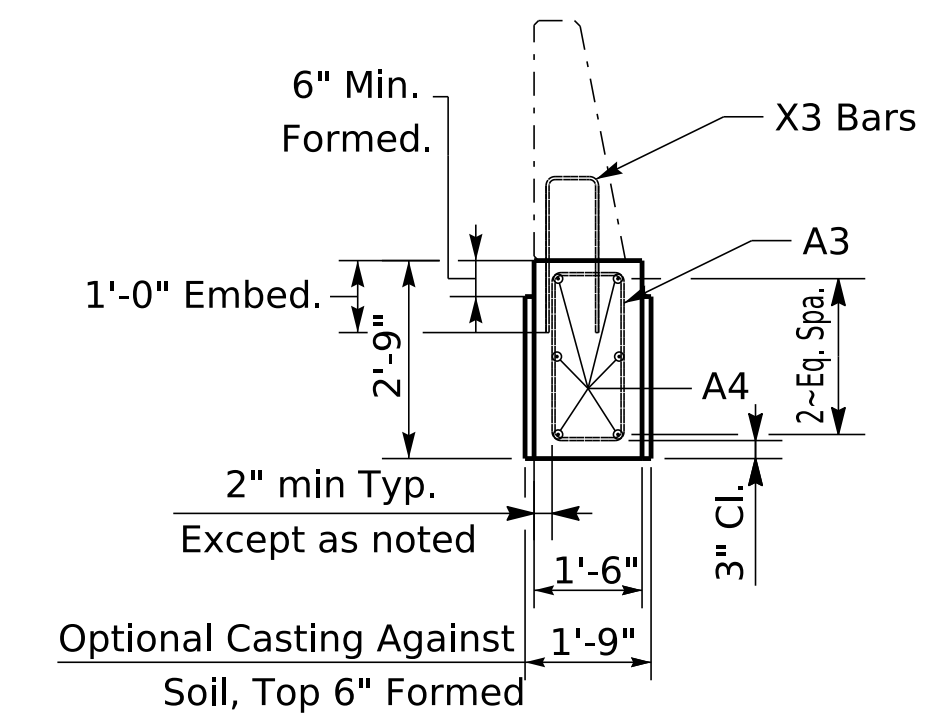


**PLAN**

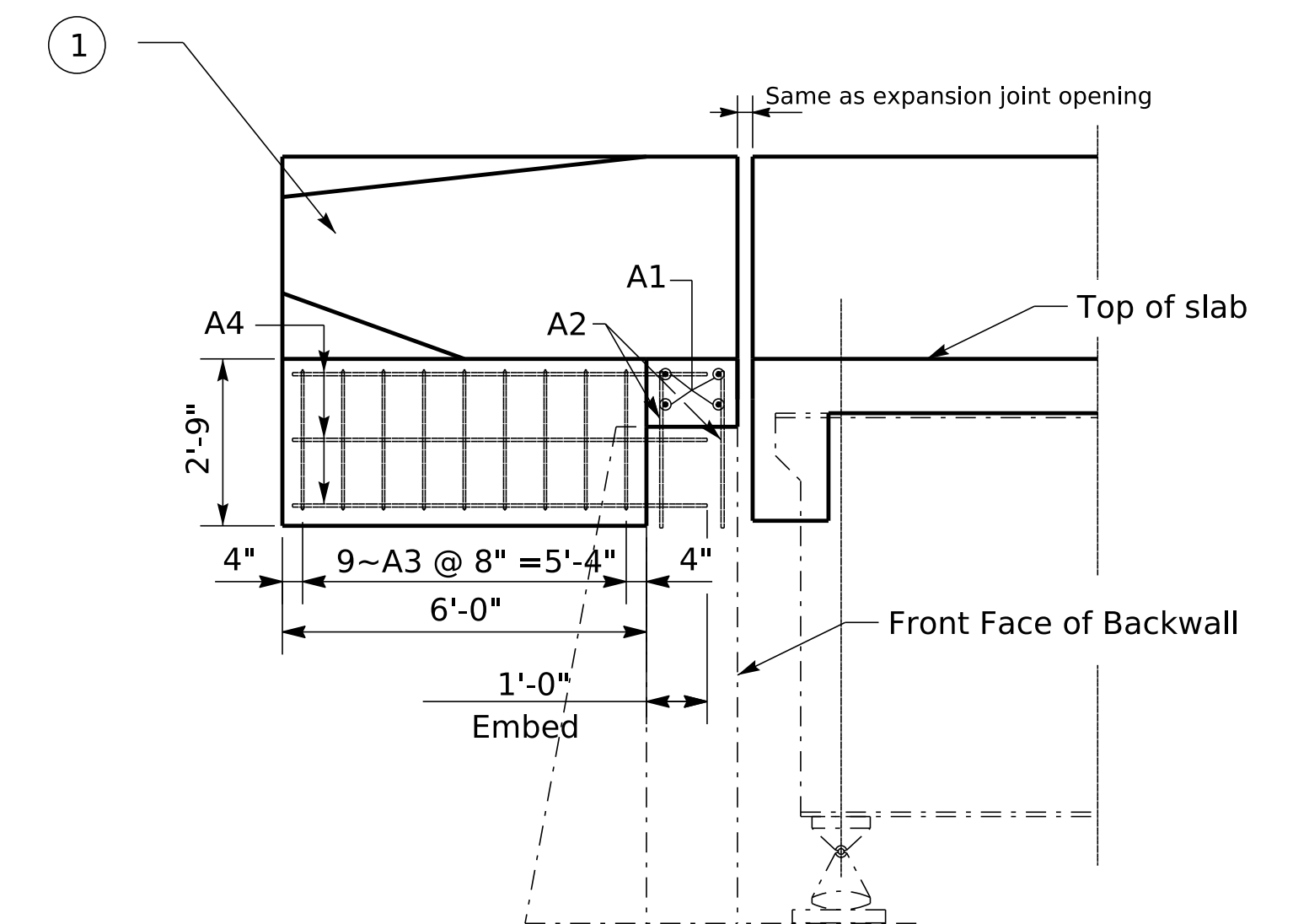


**ELEVATION**

① See Std. Dwg. BHS-010, c.e. (Railing System 40 Inch Single Slope) for additional information of barrier and grade beam construction. Drill and epoxy grout X3 (#4) and A4 bars into existing abutment 12" min. where applicable. All costs incidental to Railing System 40 Inch Single Slope.



**GRADE BEAM SECTION**



**GRADE BEAM ELEVATION**



COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY

Division of  
Structural Design

DATE: April 2024

DESIGNED BY: N. Cordtz

DETAILED BY: M. BawiThawng

CHECKED BY

W. Deaton

N. Cordtz

**ABUTMENT #1**

CROSSING  
Rough River

ROUTE

KY 259

ITEM NO.

4-10047

SHEET NO.  
S5

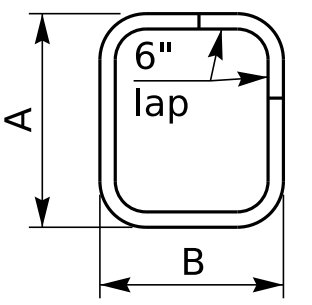
COUNTY OF

GRAYSON

DRAWING NUMBER  
28895

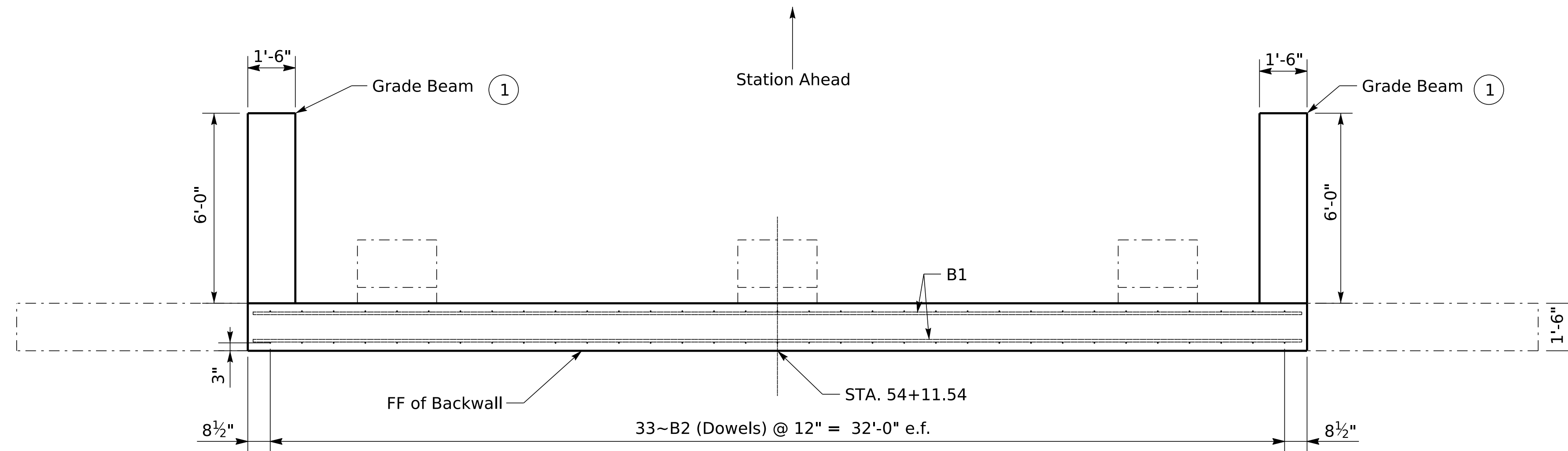
### BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
B1e	Str.	4	8	33- 1	Top of Endwall				
B2e	Str.	66	5	2- 7	Dowels				
B3e	14s	18	4	7- 7	Grade Beam	2- 4	1- 2		
B4e	Str.	12	5	6- 10	Grade Beam				



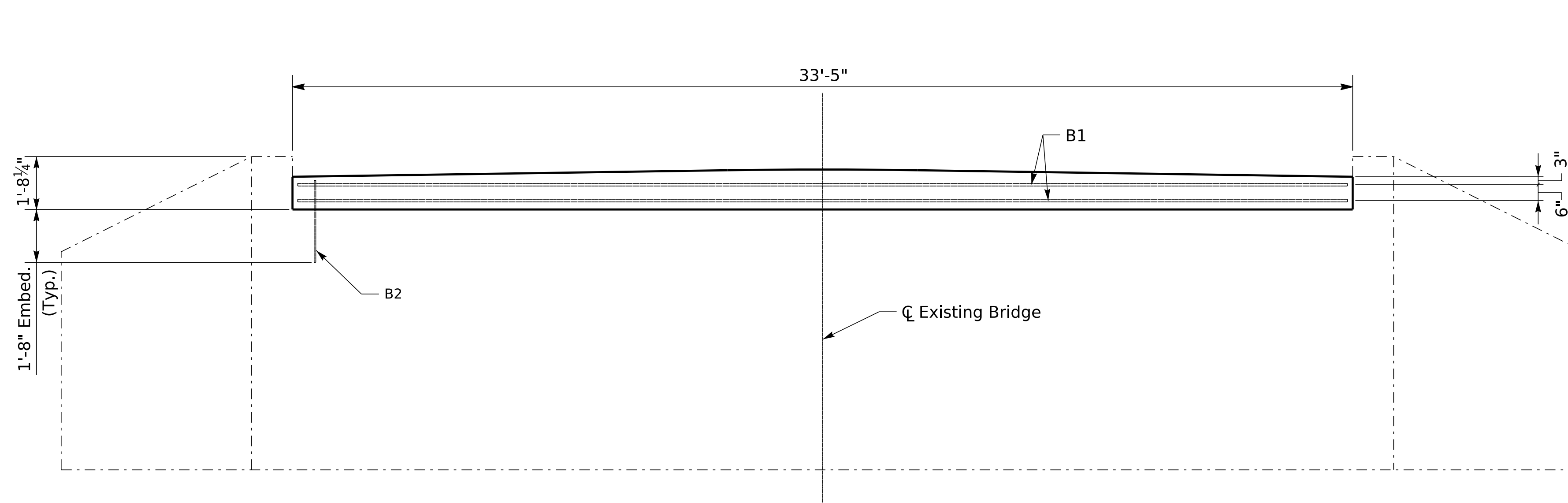
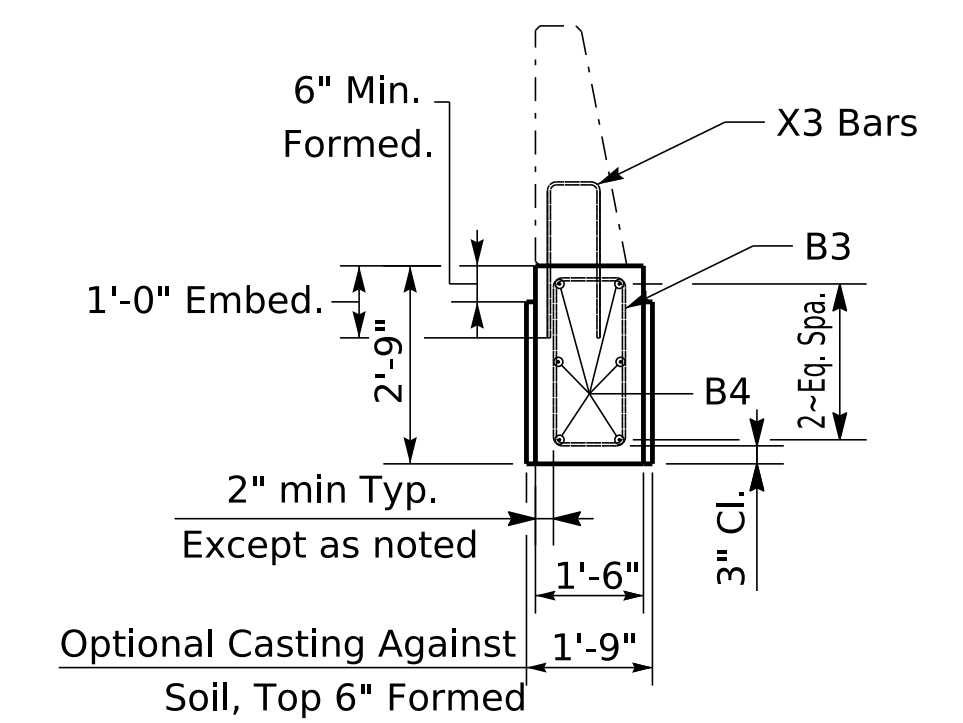
TYPE 14

① See Std. Dwg. BHS-010, c.e. (Railing System 40 Inch Single Slope) for additional information of barrier and grade beam construction. Drill and epoxy grout X3 (#4) and B4 bars into existing abutment 12" min. where applicable. All costs incidental to Railing System 40 Inch Single Slope .

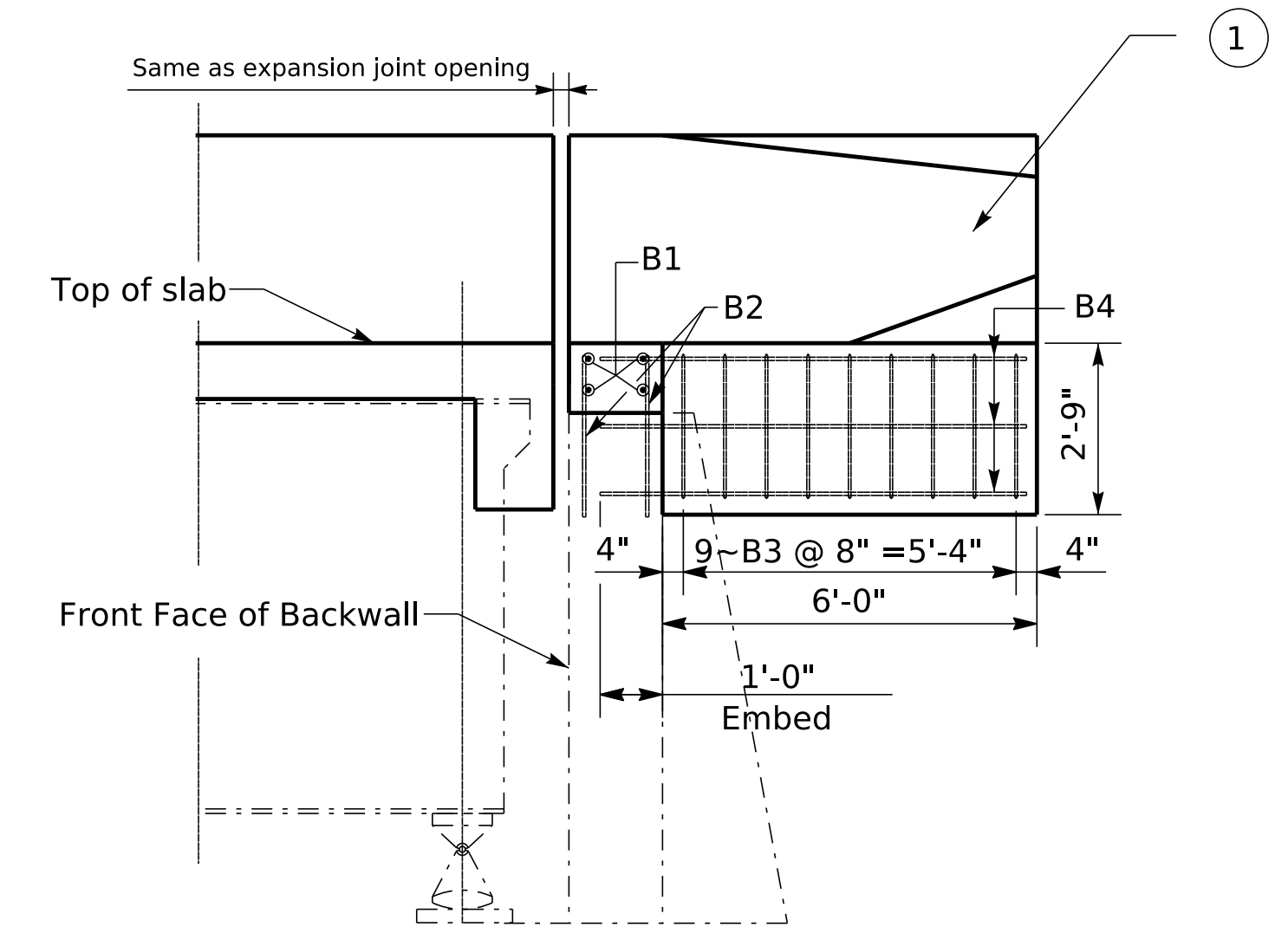


PLAN

### GRADE BEAM SECTION



ELEVATION



GRADE BEAM ELEVATION



COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY

Division of  
Structural Design

DATE: April 2024

DESIGNED BY: N. Cordtz

DETAILED BY: M. BawiThawng

CHECKED BY

W. Deaton

N. Cordtz

ABUTMENT #2

CROSSING  
Rough River

ROUTE

KY 259

ITEM NO.

4-10047

SHEET NO.

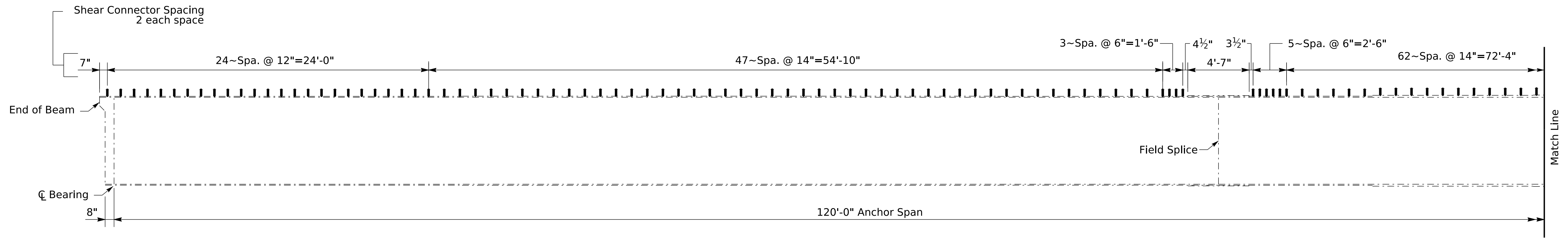
S6

COUNTY OF

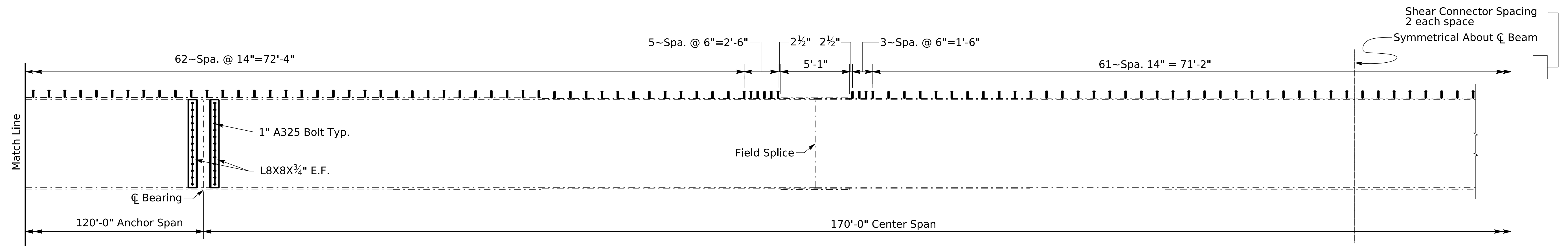
GRAYSON

DRAWING NUMBER

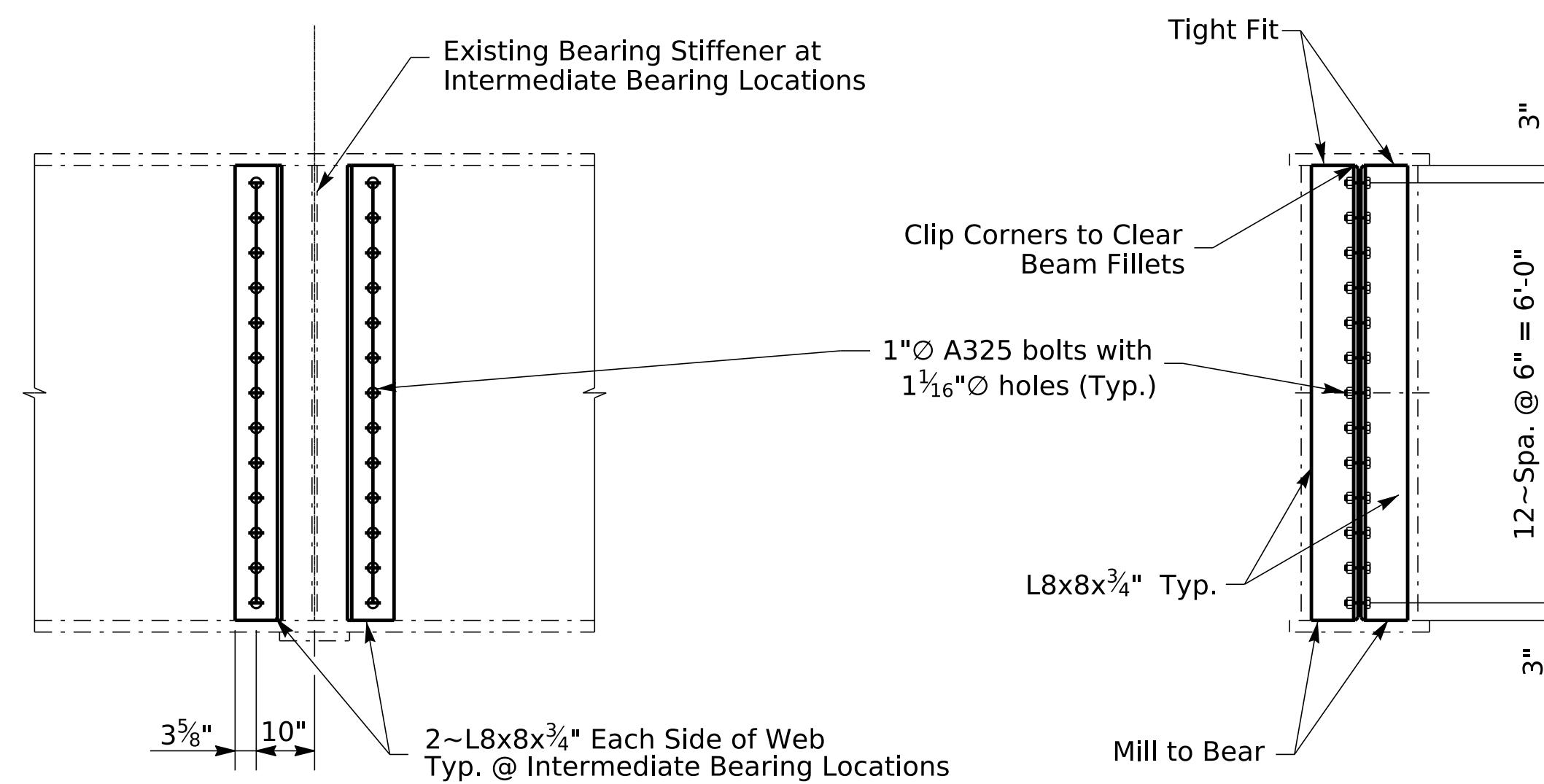
28895



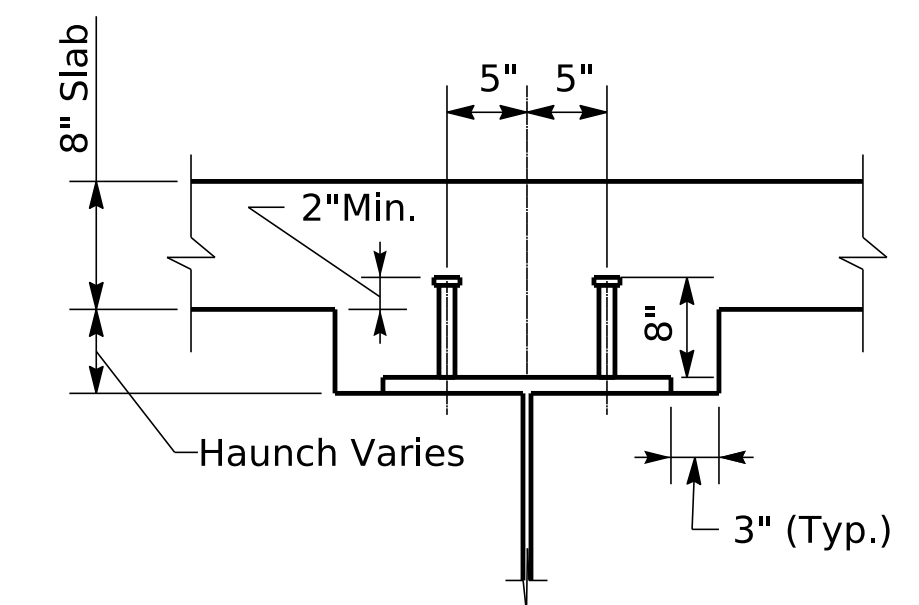
**HALF ELEVATION GIRDERS 1 THRU 4**



**HALF ELEVATION GIRDERS 1 THRU 4**



**BEARING STIFFENER**

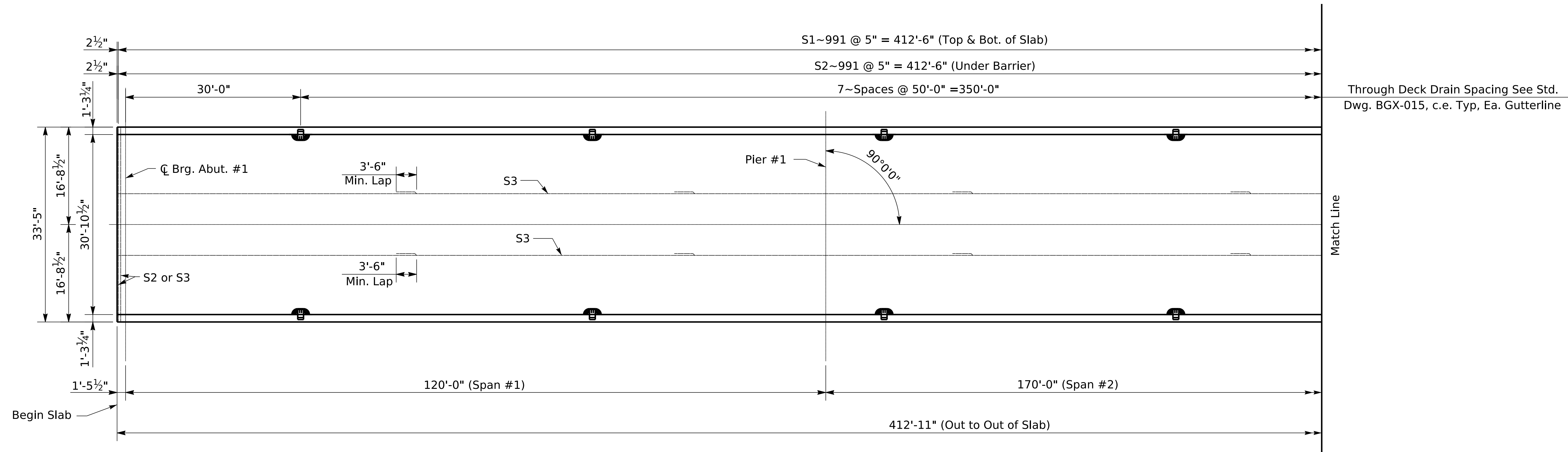


**SHEAR CONNECTOR**

Use 1" x 8 3/4" Long Granular or Solid Flux Filled Headed Studs, Automatically End Welded.

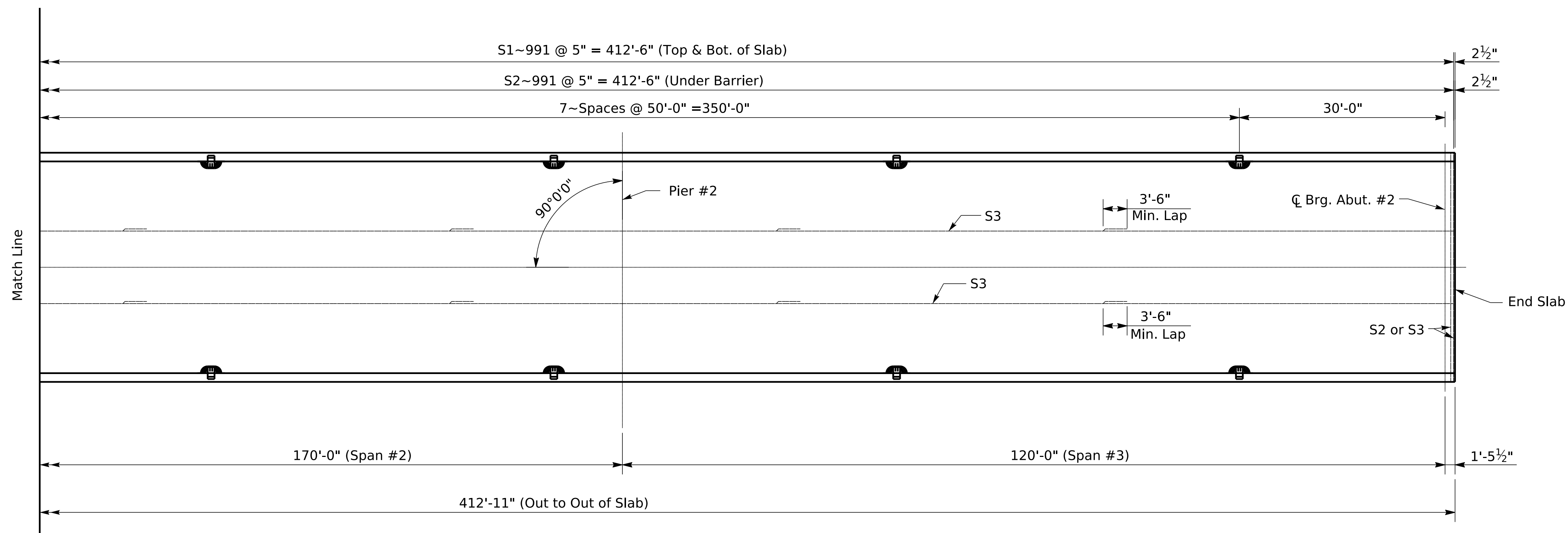
**BEARING STIFFENERS:** Use A709 Grade 50 steel. Steel is not required to be Charpy V-notch tested. Steel shall be painted with an approved 3 coat system in accordance with Section 607 or be hot dipped galvanized. The unit price bid for Steel Repair is for the pair of angles and all bolts at each truss line on each floor beam. Include in the unit price both angles, bolts and associated hardware, any incidental materials, equipment, and labor required to fabricate, paint, and install in accordance with these plans and specifications.

	REVISION	DATE	PREPARED BY	DATE: April 2024	CHECKED BY	<b>STEEL DETAILS</b> CROSSING Rough River	ROUTE	ITEM NO.	COUNTY OF
			<b>Division of Structural Design</b>	DESIGNED BY: N. Cordtz	W. Deaton		KY 259	4-10047	GRAYSON
OpenRoads Designer v10.12.02.4 USER: Brian.Miller		DATE PLOTTED: 11-OCT-2024		DETAILED BY: M. BawThawng	N. Cordtz		SHEET NO. S7	DRAWING NUMBER 28895	



**PLAN OF SLAB**

Note:  
S3 Minimum Lap = 3'-6"



**PLAN OF SLAB**



COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY

Division of  
Structural Design

DATE: April 2024

DESIGNED BY: N. Cordtz

DETAILED BY: M. BawiThawng

CHECKED BY

W. Deaton

N. Cordtz

**SUPERSTRUCTURE**

CROSSING  
Rough River

ROUTE

KY 259

ITEM NO.

4-10047

SHEET NO.

S8

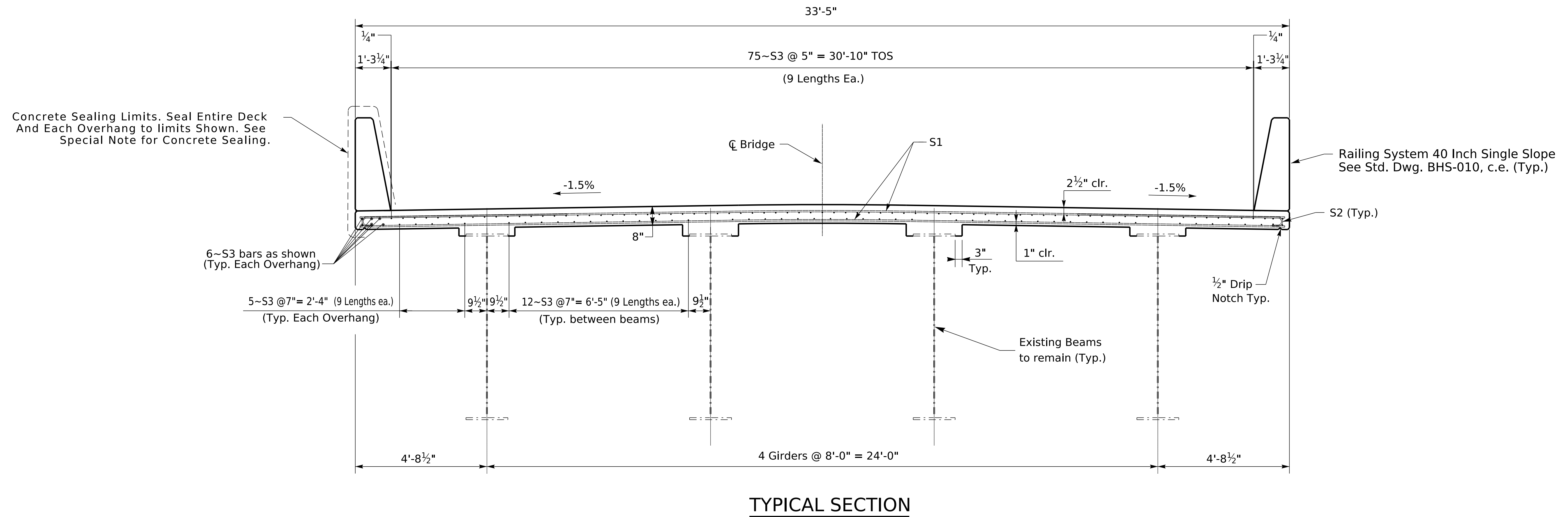
COUNTY OF

GRAYSON

DRAWING NUMBER

28895





COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY

Division of  
Structural Design

DATE: April 2024

DESIGNED BY: N. Cordtz

DETAILED BY: M. Bawithawng

CHECKED BY

W. Deaton

N. Cordtz

**SUPERSTRUCTURE**

CROSSING  
Rough River

ROUTE

KY 259

ITEM NO.

4-10047

SHEET NO.

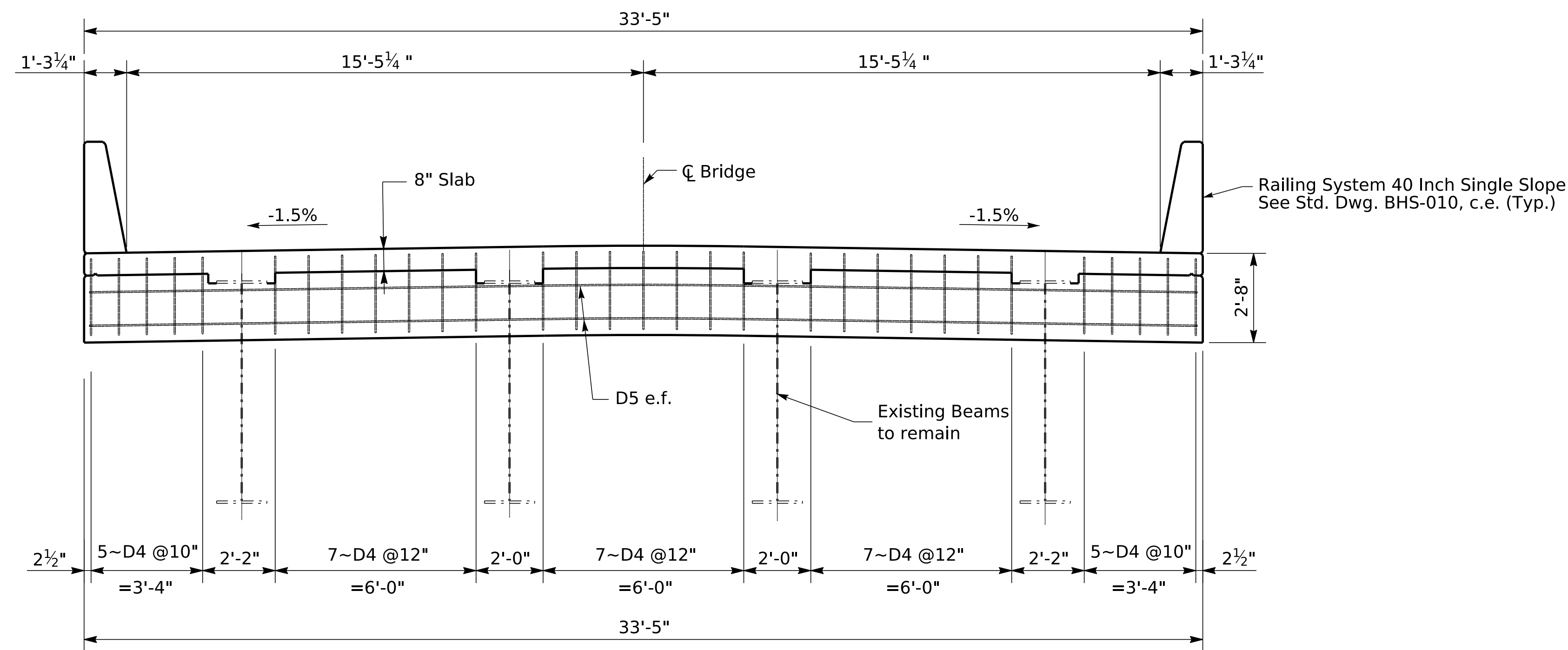
S9

COUNTY OF

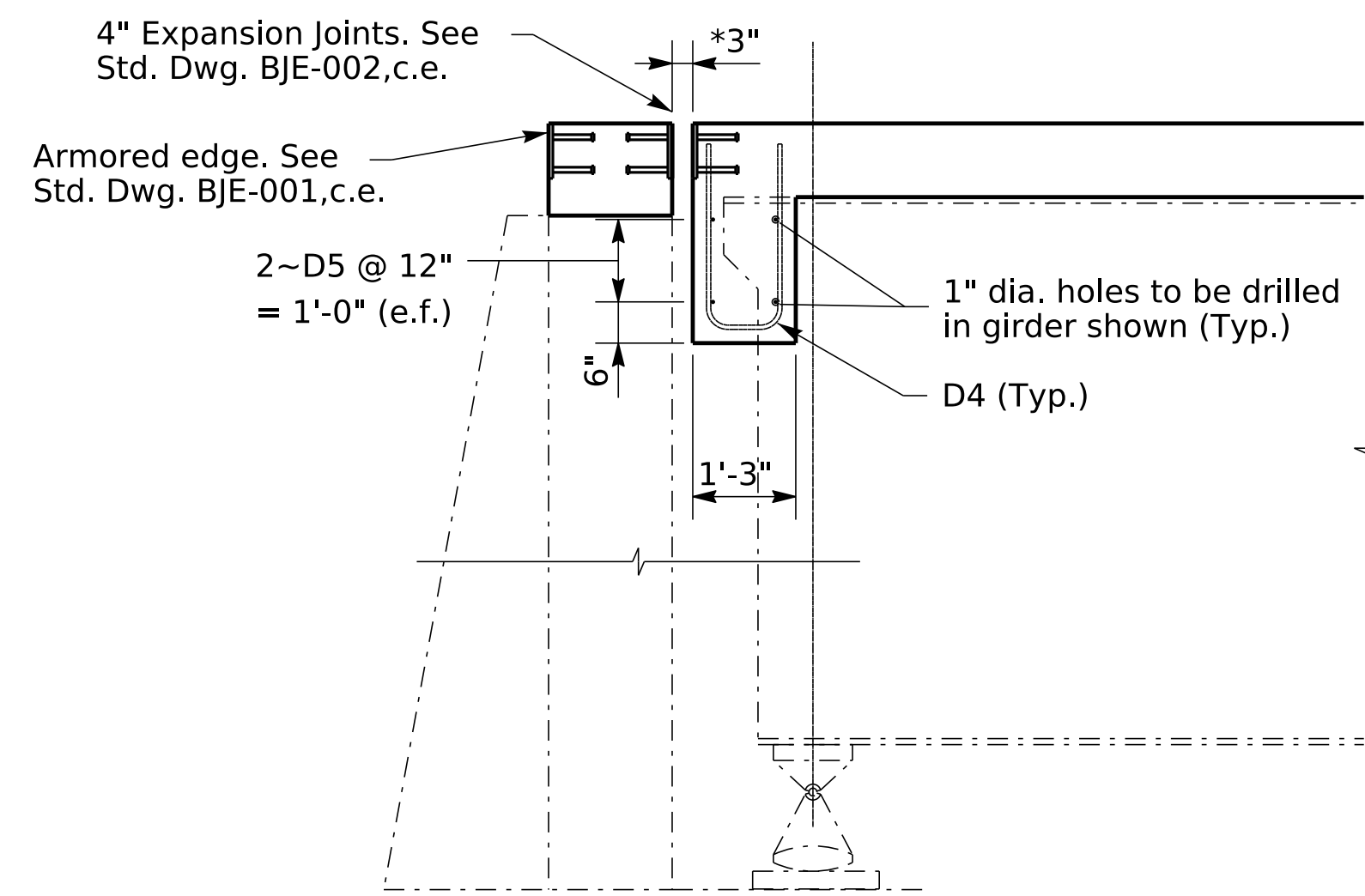
GRAYSON

DRAWING NUMBER

28895

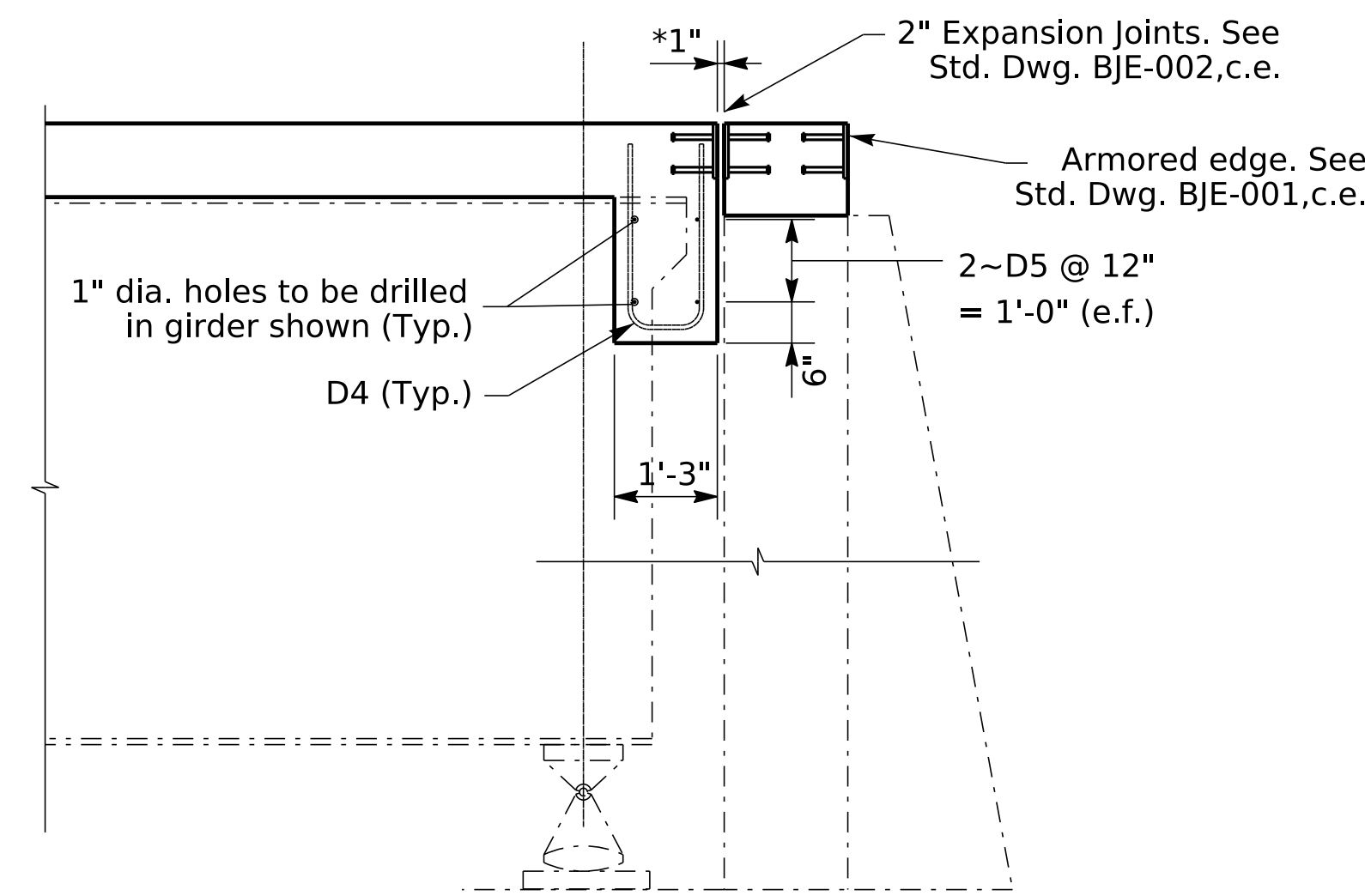


**DIAPHRAGM ELEVATION**



**SECTION AT ABUTMENT 1**

Note:  
3" Joint opening shown. Adjust as necessary for chosen joint manufacturer requirements and temperature adjustments.

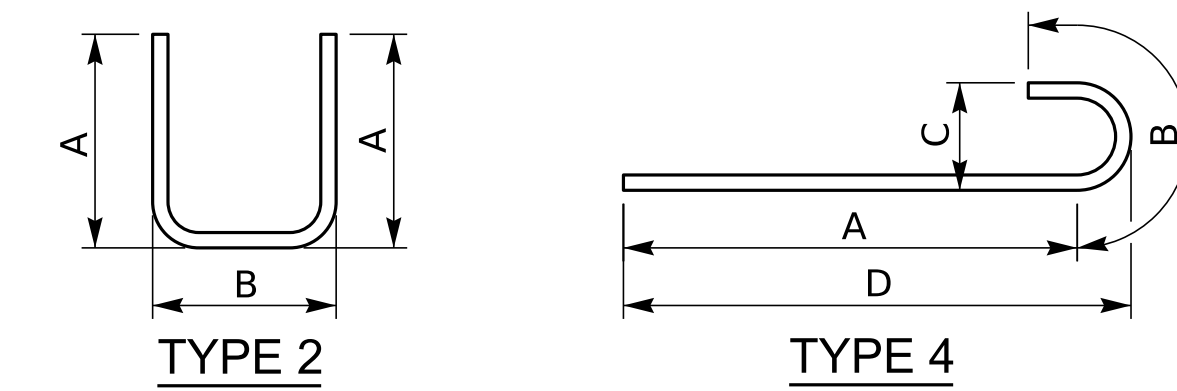


**SECTION AT ABUTMENT 2**

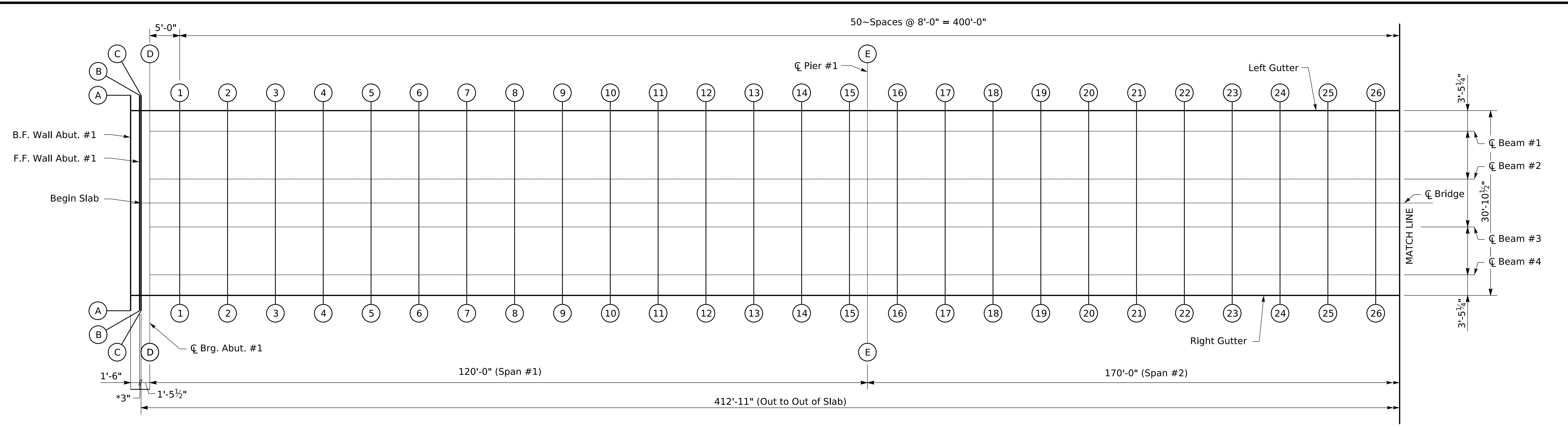
Note:  
1" Joint opening shown. Adjust as necessary for chosen joint manufacturer requirements and temperature adjustments.

**BILL OF REINFORCEMENT**

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
S1e	Str.	1982	5	33- 1	Top & Bot. Slab Transverse				
S2e	4	1982	4	5- 6	Slab Overhang	4-10	0- 8	0- 4	5- 0
S3e	Str.	1197	5	49- 0	Slab Longitudinal				
D4e	2	62	5	5- 4	Diaphragm	2- 4	0- 11		
D5e	Str.	8	5	33- 1	Diaphragm				

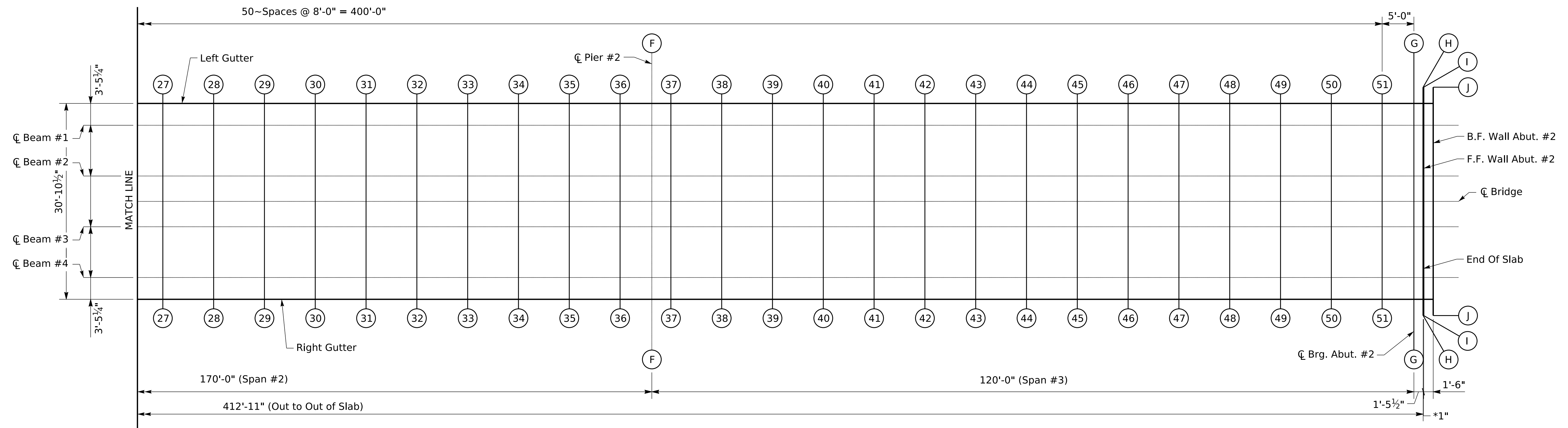


Temp	Abutment 1	Abutment 2
120°	0.295"	0.289"
110°	0.522"	0.383"
100°	0.750"	0.477"
90°	0.977"	0.570"
80°	1.204"	0.664"
70°	1.432"	0.757"
60°	1.659"	0.851"
50°	1.886"	0.945"
40°	2.114"	1.038"
30°	2.341"	1.132"
20°	2.568"	1.225"
10°	2.796"	1.319"
0°	3.023"	1.413"
-10°	3.250"	1.506"
-20°	3.478"	1.600"
-30°	3.705"	1.693"



\* NOTE: 3" joint opening shown. Adjust as necessary for chosen joint manufacturer requirements and temperature adjustments.

**GRID LAYOUT**



\* NOTE: 1" joint opening shown. Adjust as necessary for chosen joint manufacturer requirements and temperature adjustments.

**GRID LAYOUT**



COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY

Division of  
Structural Design

DATE: April 2024

DESIGNED BY: N. Cordtz

DETAILED BY: M. BawiThawng

CHECKED BY

W. Deaton

N. Cordtz

CONSTRUCTION ELEVATION

CROSSING  
Rough River

ROUTE

KY 259

ITEM NO.

4-10047

SHEET NO.

S11

COUNTY OF

GRAYSON

DRAWING NUMBER

28895

**CONSTRUCTION ELEVATIONS**

LOCATION	LEFT GUTTER	BEAM 1			BEAM 2			¢ BRIDGE			BEAM 4			BEAM 5			RIGHT GUTTER
		CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	
SKEW LN AA	95.291	95.343			95.463			95.501			95.463			95.343			95.291
SKEW LN BB	95.306	95.358			95.478			95.516			95.478			95.358			95.306
SKEW LN CC	95.309	95.360			95.480			95.518			95.480			95.360			95.309
SKEW LN DD	95.323	95.375			95.495			95.533			95.495			95.375			95.323
SKEW LN EE	96.523	96.574			96.694			96.732			96.694			96.574			96.523
SKEW LN FF	98.222	98.273			98.393			98.431			98.393			98.273			98.222
SKEW LN GG	99.421	99.473			99.593			99.631			99.593			99.473			99.421
SKEW LN HH	99.436	99.487			99.607			99.645			99.607			99.487			99.436
SKEW LN II	99.437	99.488			99.608			99.646			99.608			99.488			99.437
SKEW LN JJ	99.452	99.503			99.623			99.661			99.623			99.503			99.452
GRID LN 01	95.384	95.436			95.553			95.591			95.553			95.436			95.384
GRID LN 02	95.480	95.531			95.645			95.683			95.645			95.531			95.480
GRID LN 03	95.573	95.624			95.735			95.773			95.735			95.624			95.573
GRID LN 04	95.663	95.715			95.823			95.861			95.823			95.715			95.663
GRID LN 05	95.750	95.801			95.907			95.945			95.907			95.801			95.750
GRID LN 06	95.831	95.883			95.988			96.026			95.988			95.883			95.831
GRID LN 07	95.909	95.961			96.066			96.104			96.066			95.961			95.909
GRID LN 08	95.983	96.034			96.142			96.180			96.142			96.034			95.983
GRID LN 09	96.054	96.105			96.215			96.253			96.215			96.105			96.054
GRID LN 10	96.123	96.175			96.287			96.325			96.287			96.175			96.123
GRID LN 11	96.192	96.244			96.359			96.397			96.359			96.244			96.192
GRID LN 12	96.263	96.314			96.432			96.470			96.432			96.314			96.263
GRID LN 13	96.335	96.387			96.506			96.544			96.506			96.387			96.335
GRID LN 14	96.411	96.463			96.583			96.621			96.583			96.463			96.411
GRID LN 15	96.491	96.543			96.663			96.701			96.663			96.543			96.491
GRID LN 16	96.576	96.628			96.747			96.785			96.747			96.628			96.576
GRID LN 17	96.667	96.719			96.835			96.873			96.835			96.719			96.667
GRID LN 18	96.763	96.814			96.926			96.964			96.926			96.814			96.763
GRID LN 19	96.862	96.913			97.020			97.058			97.020			96.913			96.862
GRID LN 20	96.962	97.014			97.115			97.153			97.115			97.014			96.962
GRID LN 21	97.063	97.114			97.210			97.248			97.210			97.114			97.063
GRID LN 22	97.162	97.213			97.304			97.342			97.304			97.213			97.162
GRID LN 23	97.258	97.309			97.395			97.433			97.395			97.309			97.258
GRID LN 24	97.349	97.401			97.484			97.522			97.484			97.401			97.349
GRID LN 25	97.436	97.488			97.569			97.607			97.569			97.488			97.436
GRID LN 26	97.518	97.570			97.651			97.689			97.651			97.570			97.518
GRID LN 27	97.596	97.648			97.729			97.767			97.729			97.648			97.596
GRID LN 28	97.669	97.721			97.804			97.842			97.804			97.721			97.669
GRID LN 29	97.737	97.789			97.875			97.913			97.875			97.789			97.737
GRID LN 30	97.802	97.853			97.944			97.982			97.944			97.853			97.802
GRID LN 31	97.862	97.914			98.010			98.048			98.010			97.914			97.862
GRID LN 32	97.922	97.973			98.074			98.112			98.074			97.973			97.922
GRID LN 33	97.981	98.033			98.139			98.177			98.139			98.033			97.981
GRID LN 34	98.042	98.094			98.206			98.244			98.206			98.094			98.042
GRID LN 35	98.107	98.158			98.274			98.312			98.274			98.158			98.107
GRID LN 36	98.176	98.227			98.346			98.384			98.346			98.227			98.176
GRID LN 37	98.251	98.302			98.422			98.460			98.422			98.302			98.251
GRID LN 38	98.331	98.382			98.502			98.540			98.502			98.382			98.331
GRID LN 39	98.415	98.466			98.585			98.623			98.585			98.466			98.415
GRID LN 40	98.502	98.553			98.671			98.709			98.671			98.553			98.502
GRID LN 41	98.591	98.643			98.758			98.796			98.758			98.643			98.591
GRID LN 42	98.682	98.734			98.846			98.884			98.846			98.734			98.682
GRID LN 43	98.773	98.824			98.934			98.972			98.934			98.824			98.773
GRID LN 44	98.862	98.913			99.020			99.058			99.020			98.913			98.862
GRID LN 45	98.948	98.999			99.105			99.143			99.105			98.999			98.948
GRID LN 46	99.030	99.081			99.186			99.224			99.186			99.081			99.030
GRID LN 47	99.108	99.160			99.265			99.303			99.265			99.160			99.108
GRID LN 48	99.181	99.233			99.341			99.379			99.341			99.233			99.181
GRID LN 49	99.251	99.303			99.414			99.452			99.414			99.303			99.251
GRID LN 50	99.318	99.370			99.483			99.521			99.483			99.370			99.318
GRID LN 51	99.382	99.434			99.551			99.589			99.551			99.434			99.382

**NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BEAMS**

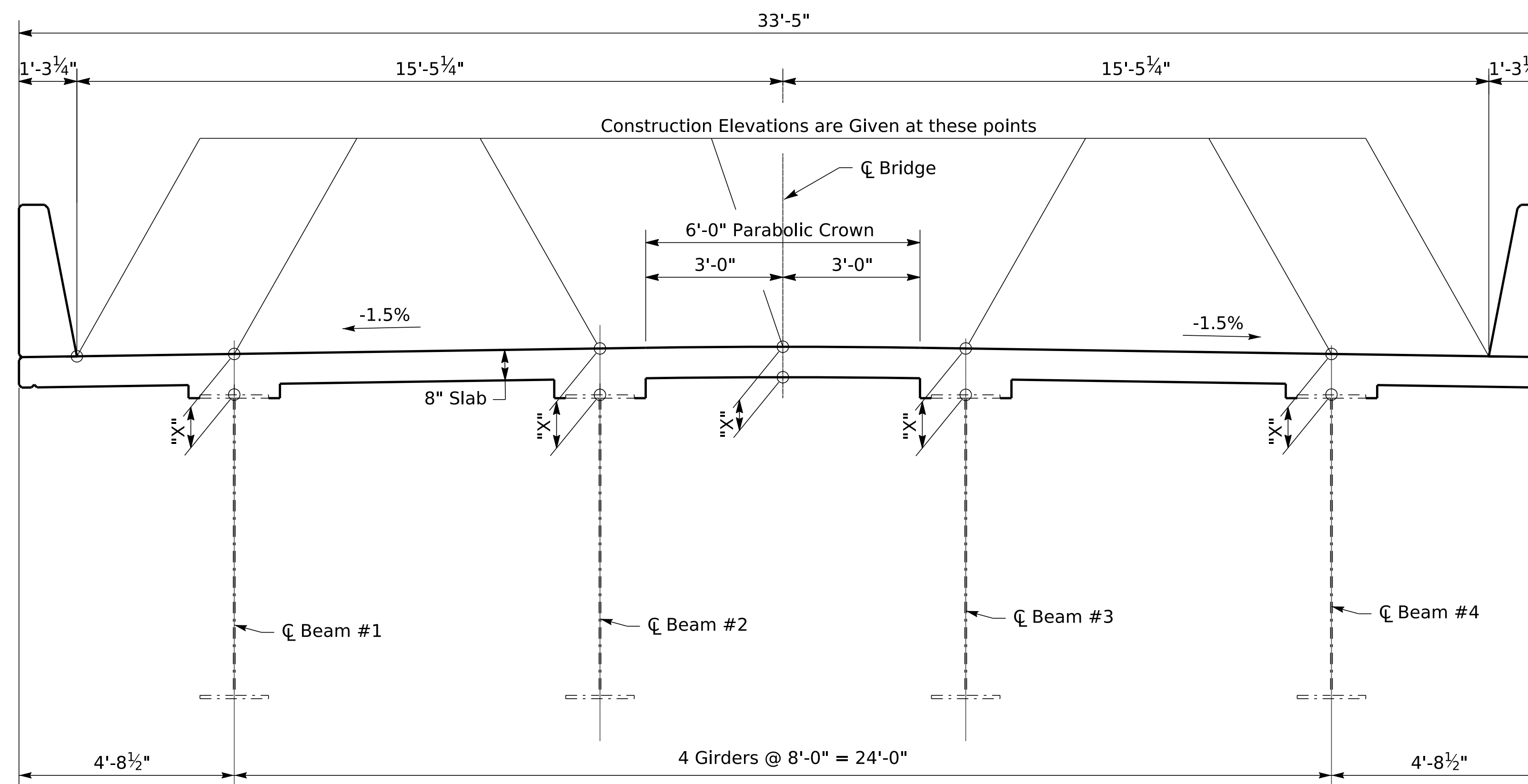
Take elevations on top of beam at points indicated by the grid layout. The beam elevations are to be read to three decimals, and entered in tables under "Top of Beam" elevations.

Compute dimension "X" as follows: "Construction Elevation" minus "Top of Beam" elevation equals dimension "X". Construction Elevations include camber due to weight of the concrete slab and barrier. Measuring of dimension "X" gives the final check on beam tolerances for camber, beam damage, and errors in erection that produce reverse cambers, sags, and unsightly fascia beams.

For setting templates, measure dimension "X" above top of beams for top of template. Do not set template by elevations.

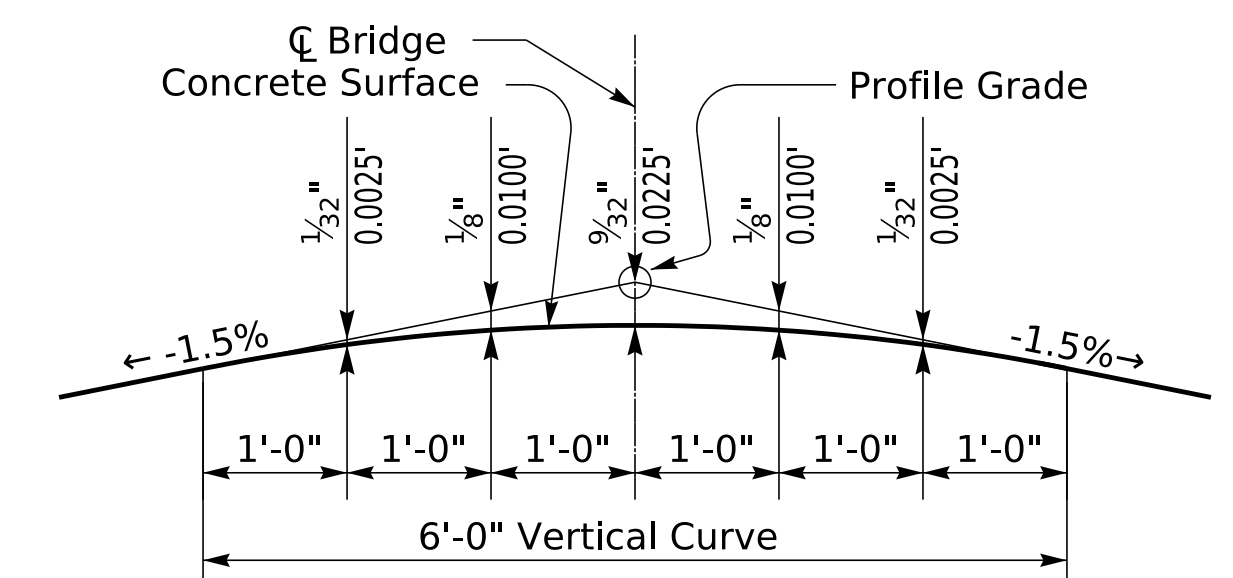
Temporary supports or shoring will not be permitted under the girders when pouring the concrete floor slab or when taking "Top of Beam" elevations.

Construct barrier to roadway grade. Do not add camber to the barrier.



Railing System 40 Inch Single Slope  
See Std. Dwg. BHS-010, c.e. (Typ.)

**TYPICAL SECTION**



**PARABOLIC CROWN**



COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS



REVISION

DATE

PREPARED BY

Division of  
Structural Design

DATE: April 2024

DESIGNED BY: N. Cordtz

DETAILED BY: M. Bawithawng

CHECKED BY

W. Deaton

N. Cordtz

**CONSTRUCTION ELEVATION**

CROSSING  
Rough River

ROUTE

KY 259

ITEM NO.

4-10047

SHEET NO.

S13

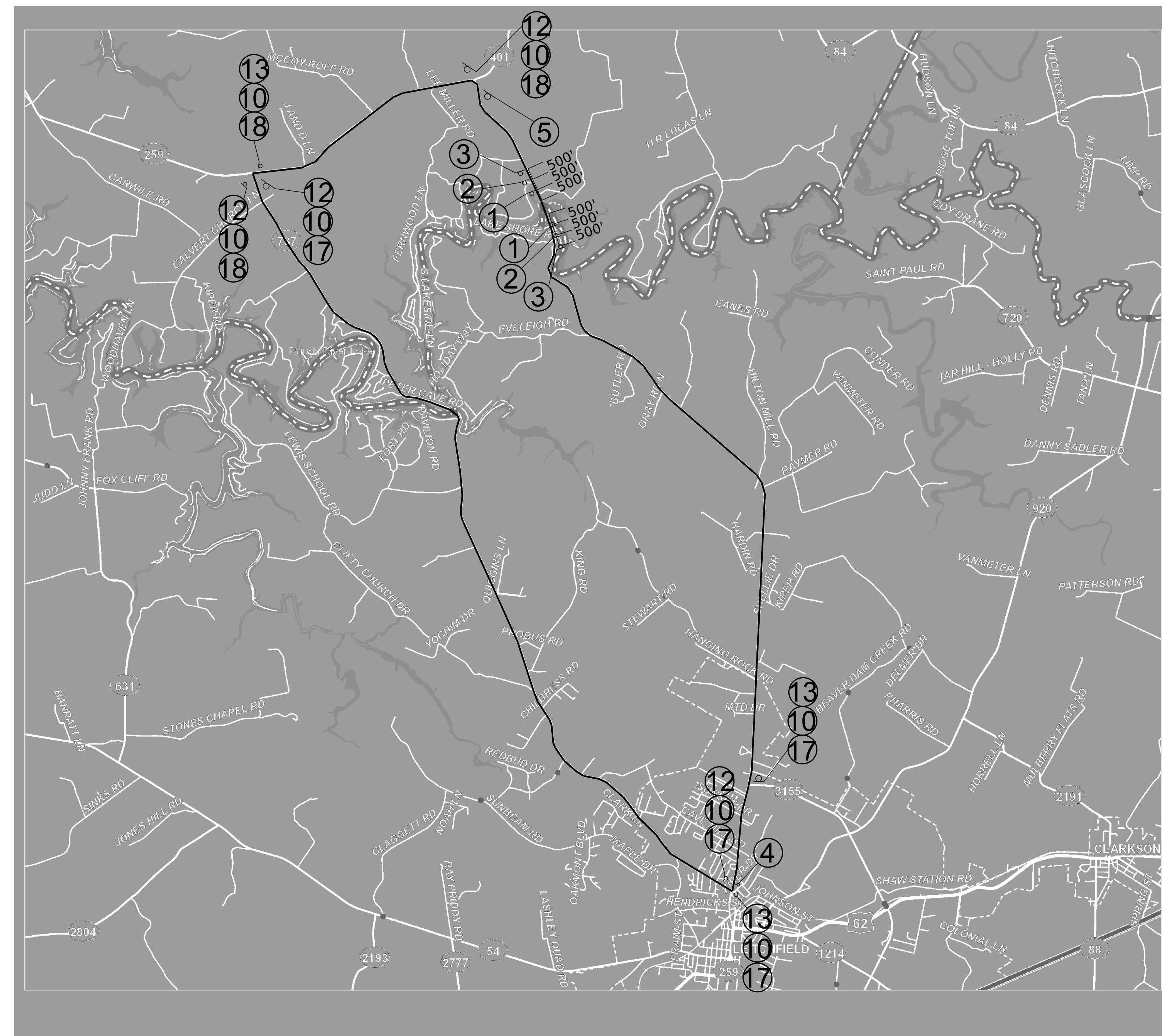
COUNTY OF

GRAYSON

DRAWING NUMBER

28895

- ① **ROAD CLOSED** R11-2 (48"x30")
- ② **ROAD CLOSED 500 FT** W20-3 (36"x36")
- ③ **ROAD CLOSED 1000 FT** W20-3 (36"x36")
- ④ **BRIDGE CLOSED 8.0 MILES AHEAD LOCAL TRAFFIC ONLY** R11-4 (60"x30")
- ⑤ **BRIDGE CLOSED 1.5 MILES AHEAD LOCAL TRAFFIC ONLY** R11-4 (60"x30")
- ⑩ **259** M1-5 (30"x24")
- ⑫ **DETOUR** M4-9 (30"x24")
- ⑬ **DETOUR** M4-9 (30"x24")
- ⑰ **NORTH** M3-4 (24"x12")
- ⑱ **SOUTH** M3-2 (24"x12")



	<b>COMMONWEALTH OF KENTUCKY</b> DEPARTMENT OF HIGHWAYS		PREPARED BY <b>Division of Structural Design</b>	DATE: April 2024 DESIGNED BY: N. Cordtz DETAILED BY: M. BawiThawng	CHECKED BY W. Deaton N. Cordtz	<b>DETOUR</b> CROSSING Rough River	ROUTE KY 259	ITEM NO. 4-10047 SHEET NO. S14	COUNTY OF <b>GRAYSON</b> DRAWING NUMBER 28895
	OpenRoads Designer v10.12.02.4	USER: Brian.Miller	DATE PLOTTED: 11-OCT-2024	FILE NAME: J:\District04\RS & M\Grayson Breckinridge 043B00001N Deck Replacement\Nick's Design\DETAILS\28895.dgn					