

TRAFFIC CONTROL PLAN NOTES

- DURING CONSTRUCTION OF THIS PROJECT, MAINTAIN ACCESS TO PROPERTIES, ENTRANCES TO REMAIN OPEN AT ALL TIMES, ONE LANE OF TRAFFIC ON KY-1 MUST BE MAINTAINED AT ALL TIMES. (9' 6" MINIMUM LANE WIDTH)
- ADDITIONAL SHORT-TERM LANE CLOSURES SHALL BE APPROVED BY ENGINEER TO AVOID SCHOOL TRANSPORTATION HOURS.
- SEE SHEET S8 FOR BRIDGE PARTIAL WIDTH CONSTRUCTION PHASE NOTES, DETAILS, AND BRIDGE TYPICAL SECTIONS.

PHASE 1A - REMOVAL NOTES

- INSTALL AND MAINTAIN TEMPORARY BARRIERS AND TRAFFIC CONTROL DEVICES.
- MAINTAIN ONE LANE OF TRAFFIC ON EXISTING WESTBOUND LANE OF KY-1 PAVEMENT WITH TWO-WAY OPERATIONS.
- REMOVE EXISTING BRIDGE BARRIER AND ASPHALT OVERLAY PAVEMENT. (SEE SHEET S8)
- INSTALL TEMPORARY PAVEMENT ALONG EXISTING EASTBOUND LANE AS NEEDED TO OBTAIN 9' 6" MIN. LANE WIDTH AND ALIGN WITH SIDE MOUNTED MGS RAILING SYSTEM INSTALLED IN PHASE 1B.

PHASE 1B - CONSTRUCTION NOTES

- MAINTAIN TEMPORARY BARRIERS AND TRAFFIC CONTROL DEVICES.
- MAINTAIN ONE LANE OF TRAFFIC ON EXISTING WESTBOUND LANE OF KY-1 PAVEMENT WITH TWO-WAY OPERATIONS.
- REPAIR BRIDGE DECK ALONG SIDE OF EXISTING BRIDGE.
- INSTALL SIDE MOUNTED MGS RAILING SYSTEM.
- INSTALL T631 RAILING SYSTEM.
- INSTALL AND RELOCATE TEMPORARY BARRIERS AND TRAFFIC CONTROL DEVICES ALONG EASTBOUND LANE.

NOTES:

- DRIVE GUARDRAIL POSTS INTO EXISTING ROADWAY AND PATCH WHEN PHASED WORK IS COMPLETE (TYP). CONSTRUCT 25 LF MINIMUM, OR AS DETERMINED BY ENGINEER TO ANCHOR RAILING MOUNTED ON BRIDGE.
- TEMPORARY GUARDRAIL WILL BE ATTACHED TO TEMPORARY CONCRETE BARRIER USING TERMINAL SECTION NO.2. (SEE STANDARD DRAWING RBR-010-06 & SEE SECTION A-A ON SEPIA 15).
- ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS REQUIRED FOR MOT AND CONSTRUCTION PHASING SHALL BE CONSIDERED INCIDENTAL TO MAINTENANCE OF TRAFFIC.

FOR MAINTENANCE OF TRAFFIC ONLY

NOTE:

SEE SHEET S8 FOR BRIDGE PARTIAL WIDTH CONSTRUCTION PHASE NOTES, DETAILS, AND TYPICAL SECTIONS.

TEMPORARY PAVEMENT IS INCIDENTAL TO MAINTAIN AND CONTROL TRAFFIC LUMP SUM.

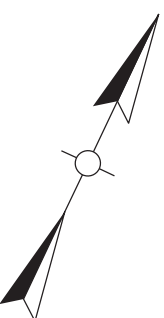
LEGEND

- BRIDGE CONSTRUCTION
- TEMPORARY TRAFFIC BARRIER (TYPE 9T)
- CHANNELIZING DEVICES
- CRASH CUSHION



TRAFFIC CONTROL PLAN
KY-1
OVER LOST CREEK

COUNTY OF	ITEM NO.	SHEET NO.
GREENUP	9-10022.00	R6



- TRAFFIC CONTROL PLAN NOTES**
- DURING CONSTRUCTION OF THIS PROJECT, MAINTAIN ACCESS TO PROPERTIES, ENTRANCES TO REMAIN OPEN AT ALL TIMES, ONE LANE OF TRAFFIC ON KY-1 MUST BE MAINTAINED AT ALL TIMES. (9' 6" MINIMUM LANE WIDTH)
 - ADDITIONAL SHORT-TERM LANE CLOSURES SHALL BE APPROVED BY ENGINEER TO AVOID SCHOOL TRANSPORTATION HOURS.
 - SEE SHEET S8 FOR BRIDGE PARTIAL WIDTH CONSTRUCTION PHASE NOTES, DETAILS, AND BRIDGE TYPICAL SECTIONS.

- PHASE 2 NOTES**
- MAINTAIN TEMPORARY BARRIERS AND TRAFFIC CONTROL DEVICES.
 - SHIFT TRAFFIC & MAINTAIN ONE LANE OF TRAFFIC ON EXISTING EASTBOUND LANE OF KY-1 PAVEMENT WITH TWO-WAY OPERATIONS.
 - REMOVE PHASE 2 OF EXISTING BRIDGE. (SEE SHEET S8)
 - CONSTRUCT PHASE 2 OF PROPOSED BRIDGE (SEE SHEET S8) AND PROPOSED KY-1 PAVEMENT WIDENING.

- PHASE 3 NOTES**
- RELOCATE AND MAINTAIN TEMPORARY BARRIERS AND TRAFFIC CONTROL DEVICES.
 - SHIFT TRAFFIC TO WESTBOUND LANE OF NEWLY CONSTRUCTED BRIDGE AND KY-1 PAVEMENT AND MAINTAIN ONE LANE OF TRAFFIC WITH TWO-WAY OPERATIONS.
 - REMOVE PHASE 3 OF EXISTING BRIDGE. (SEE SHEET S8)
 - CONSTRUCT PHASE 3 OF PROPOSED BRIDGE (SEE SHEET S8) AND PROPOSED KY-1 PAVEMENT.
 - REMOVE TEMPORARY BARRIERS AND TRAFFIC CONTROL DEVICES.
 - OPEN NEWLY CONSTRUCTED KY-1 TO TRAFFIC.

- NOTES:**
1. DRIVE GUARDRAIL POSTS INTO EXISTING ROADWAY AND PATCH WHEN PHASED WORK IS COMPLETE (TYP). CONSTRUCT 25 LF MINIMUM, OR AS DETERMINED BY ENGINEER TO ANCHOR RAILING MOUNTED ON BRIDGE.
 2. TEMPORARY GUARDRAIL WILL BE ATTACHED TO TEMPORARY CONCRETE BARRIER USING TERMINAL SECTION NO.2. (SEE STANDARD DRAWING RBR-010-06 & SEE SECTION A-A ON SEPIA 15).
 3. ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS REQUIRED FOR MOT AND CONSTRUCTION PHASING SHALL BE CONSIDERED INCIDENTAL TO MAINTENANCE OF TRAFFIC.

FOR MAINTENANCE OF
TRAFFIC ONLY

NOTE:

SEE SHEET S8 FOR BRIDGE PARTIAL WIDTH CONSTRUCTION PHASE NOTES, DETAILS, AND TYPICAL SECTIONS.

TEMPORARY PAVEMENT IS INCIDENTAL TO MAINTAIN AND CONTROL TRAFFIC LUMP SUM.

- LEGEND**
- BRIDGE CONSTRUCTION
 - TEMPORARY TRAFFIC BARRIER (TYPE 9T)
 - CHANNELIZING DEVICES
 - CRASH CUSHION



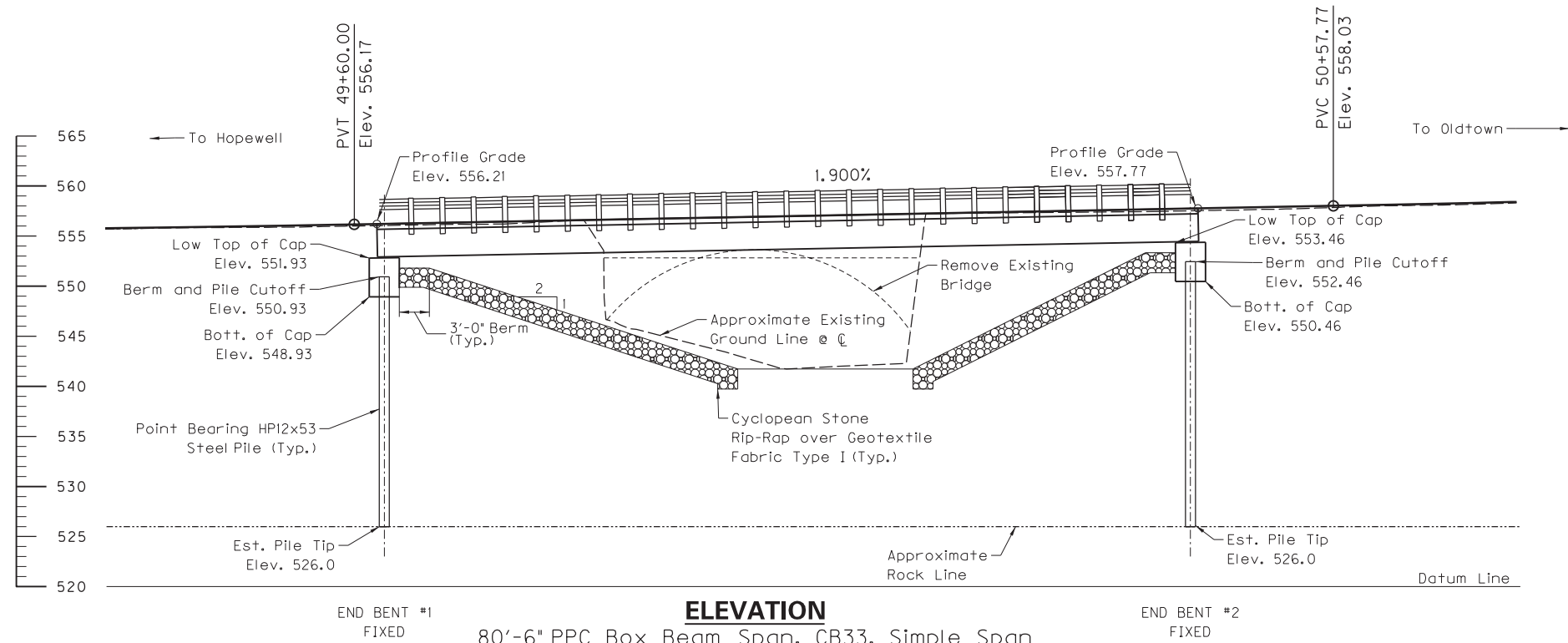
TRAFFIC CONTROL PLAN
KY-1
OVER LOST CREEK

FILE NAME: ... \Roadway\Design\R00600PL.dgn

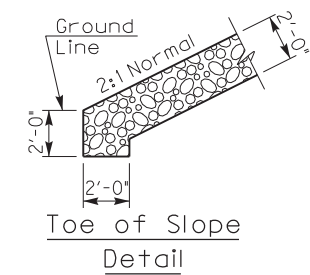
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DATE PLOTTED: 3/20/2019 4:09:30 PM

E-SHEET NAME:

Power: InRoads v8.11.9.397

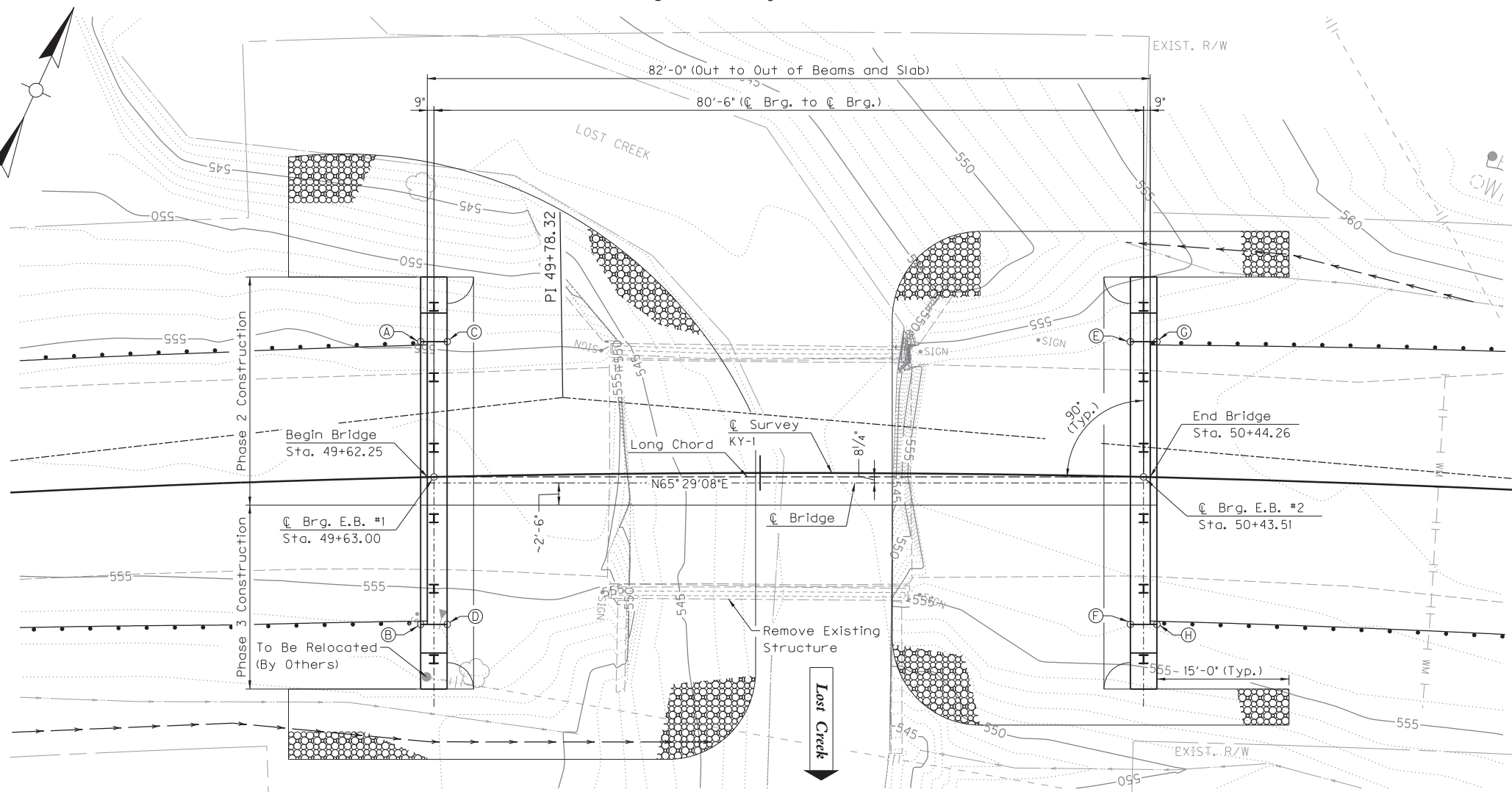


ELEVATION
80'-6" PPC Box Beam Span, CB33, Simple Span
1.25xHL-93 (KYHL-93) Live Load
29'-0" Bridge Roadway Width ~ No Skew



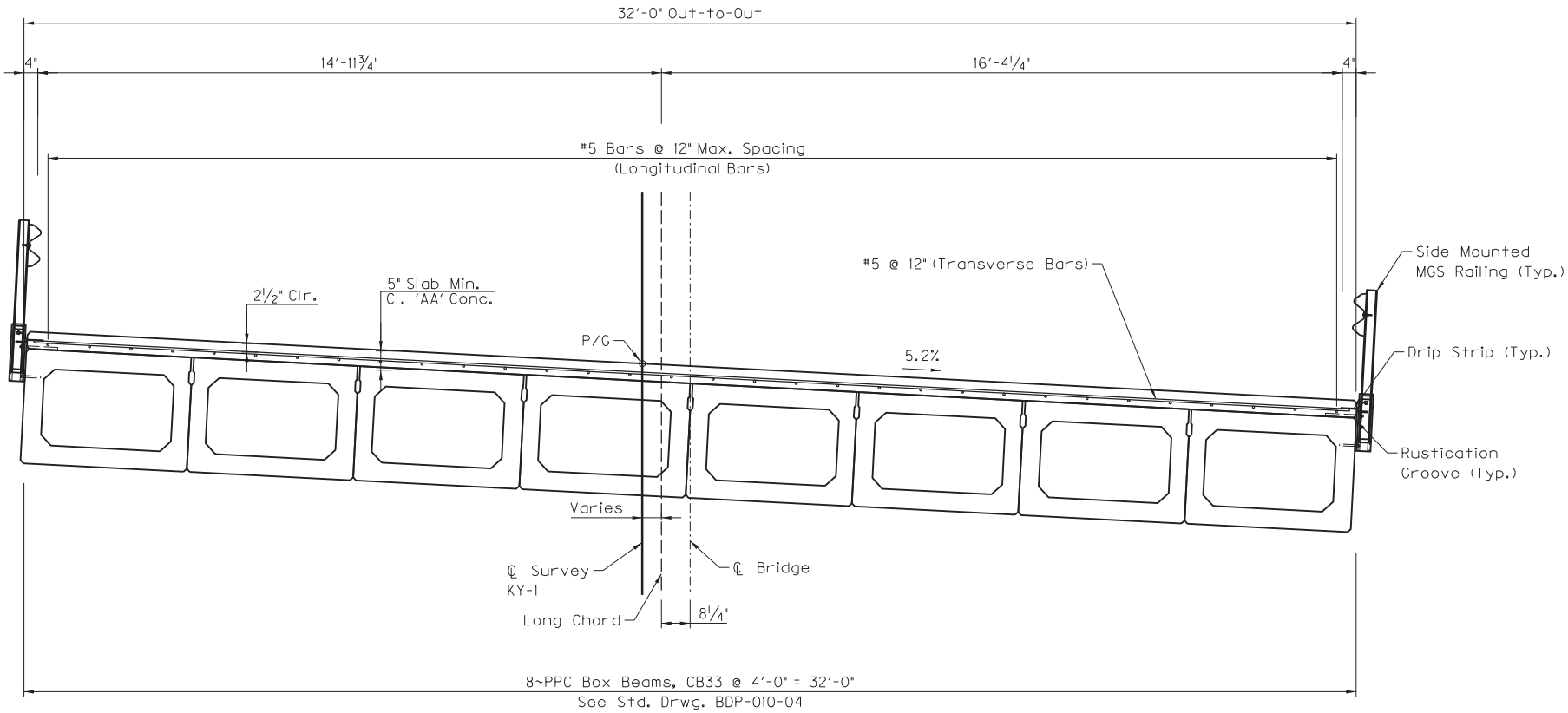
End Bent 1 Table of Elevations		End Bent 2 Table of Elevations	
A	553.60	E	555.13
B	551.93	F	553.46
C	553.65	G	555.18
D	551.99	H	553.51

LONG CHORD COORDINATES		
STATION	State Plane Coordinates	
	NORTH (Y)	EAST (X)
49+63.00	4050795.57	5736226.52
50+43.51	4050828.98	5736299.77



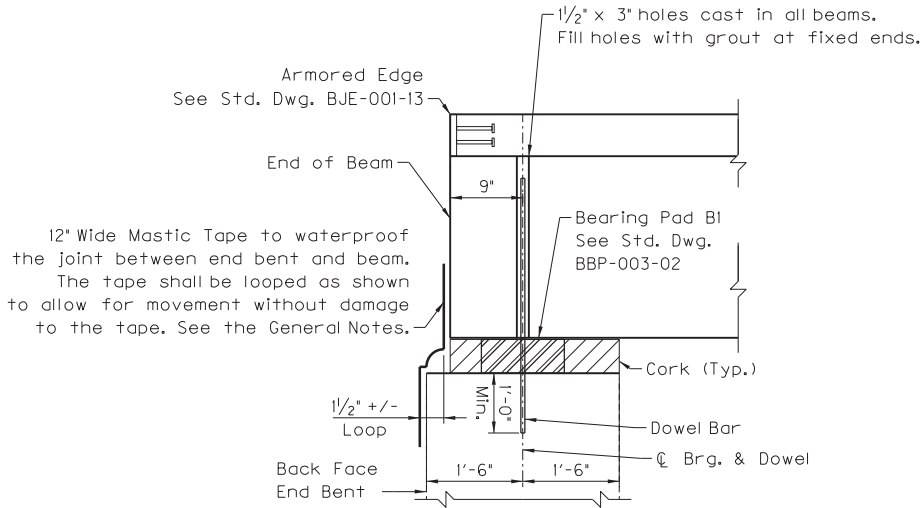
PLAN
(Superstructure Not Shown)

REVISION		DATE
DATE: MAY 24, 2019		CHECKED BY
DESIGNED BY: L. SEWELL		B. DRECKMAN
DETAILED BY: L. SEWELL		B. DRECKMAN
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY GREENUP		
ROUTE KY-1	CROSSING LOST CREEK	
LAYOUT		
ITEM NUMBER	PREPARED BY	SHEET NO.
9-10022.00	IE INTEGRATED ENGINEERING	S2
	BRIDGING KENTUCKY Restore Renew Replace	DRAWING NO. 27961



Note: All slab bars shall be epoxy coated.



TYPICAL SECTION





TYPICAL SECTION AT END BENT

- Beam End Notes:
- Dowel bar shall be #8 epoxy coated measuring 2'-0".
 - After cutting prestress strands flush with surface, paint with approved bituminous material. Incidental to Precast Box Beams.
 - Place plastic film or other bond breaker between tape loop and expansion joint material

- Slab Note:
- Phased Partial Width Construction requires #5 transverse slab bars to be lap spliced (or mechanically coupled using KYTC approved epoxy coated couplers). Minimum required lap splice length for #5 slab bars is 2'-8". Longitudinal construction joint shall provide a minimum of 3' clear cover to the nearest longitudinal slab bar.

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Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY GREENUP		
ROUTE KY-1	CROSSING LOST CREEK	
TYPICAL DECK SECTION		
PREPARED BY  INTEGRATED ENGINEERING		SHEET NO. S3 DRAWING NO. 27961
		



REVISION	DATE
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DESIGNED BY: L. SEWELL	B. DRECKMAN
DETAILED BY: L. SEWELL	B. DRECKMAN
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY GREENUP	
ROUTE KY-1	CROSSING LOST CREEK
<i>FOUNDATION LAYOUT</i>	
PREPARED BY <div style="text-align: center; margin-top: 20px;">  </div>	<div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: right; padding-top: 20px;"> SHEET NO. <div style="font-size: 2em; font-weight: bold; border: 1px solid black; padding: 5px; display: inline-block;">S4</div> DRAWING NO. <div style="font-size: 2em; font-weight: bold; border: 1px solid black; padding: 5px; display: inline-block;">27961</div> </div>

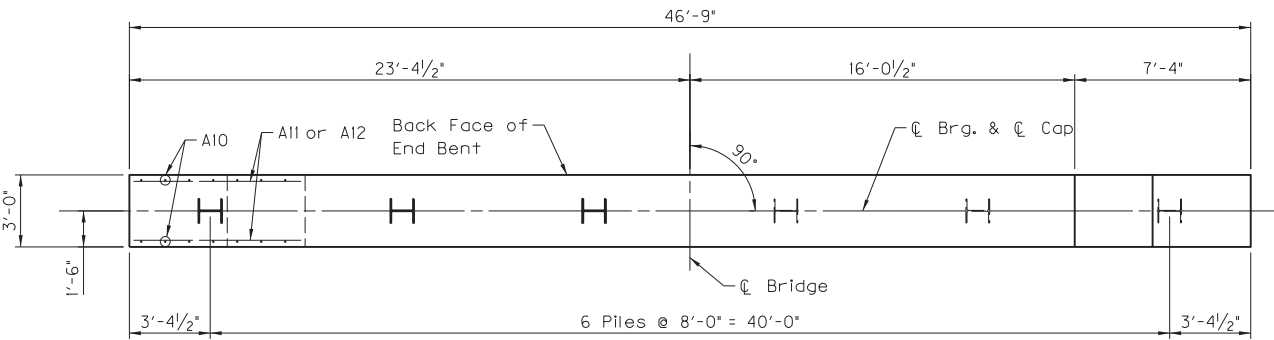
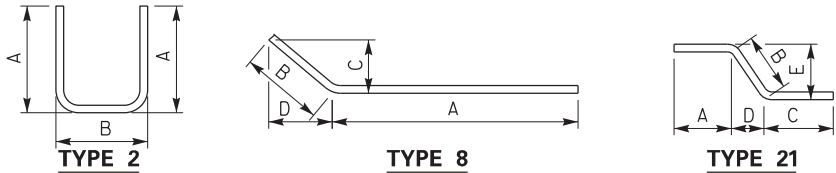
BILL OF REINFORCEMENT										
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D	E
A1e	2s	22	5	7'-10"	CAP	2'-7"	2'-8"			
A2e	2s	14	5	8'-4"	CAP	2'-10"	2'-8"			
A3e	2s	14	5	9'-0"	CAP	3'-2"	2'-8"			
A4e	2s	36	5	9'-8"	CAP	3'-6"	2'-8"			
A5e	STR	5	8	46'-5"	CAP					
A6e	2l	4	8	46'-5 1/2"	CAP	7'-2"	32'-1 1/2"	7'-2"	32'-1"	1'-8"
A7e	STR	4	5	46'-5"	CAP					
A8e	STR	2	5	39'-3"	CAP					
A9e	STR	2	5	23'-10"	CAP					
A10e	STR	28	5	5'-3"	WING					
A11e	STR	12	5	7'-0"	WING					
A12e	8	4	6	7'-5"	WING	3'-0"	4'-5"	2'-0"	3'-11 1/2"	

PARTIAL WIDTH CONSTRUCTION NOTES:

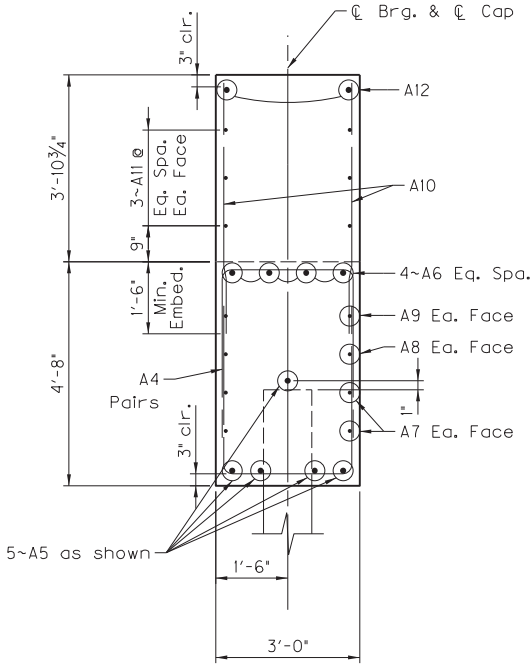
1) A5e-A8e bar counts and length shown assume full width construction. Partial width construction is required for project. Bar counts and lengths shall be adjusted accordingly to account for lap splices (or optional use of KYTC approved epoxy coated mechanical couplers). The minimum lap splice length for #8 bars shall be 5'-9" and #5 bars shall be 3'-4", accounted for on shop drawings, and included in contractor's bid.

2) Construction joints for partial widths of End Bents 1 and 2 shall be located to provide a minimum of 1'-0" cover from nearest pile edge, and a minimum of 2" cover to the nearest stirrup reinforcing bar.

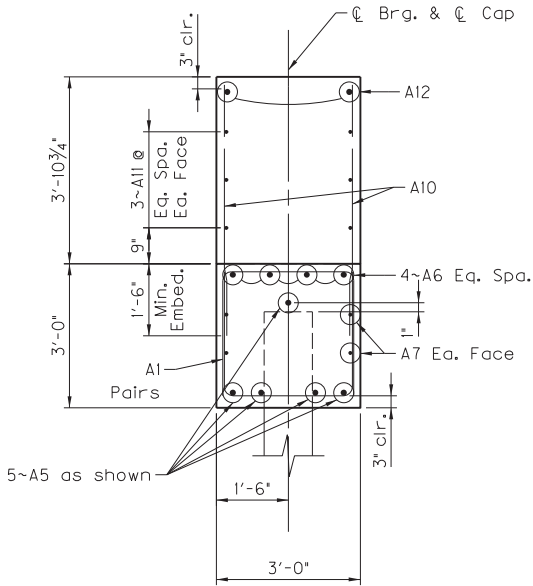
- NOTES:
- 1) Conform to KYTC, Standard Specifications, Current Edition.
 - 2) Concrete to be Class "A", 3500 psi.
 - 3) Rebar to be epoxy coated A615, Grade 60.
 - 4) Maintain 2" clear cover to reinforcement unless otherwise noted.
 - 5) Piles shall be HP12x53.
 - 6) Piles driven to rock must be driven to Refusal.
 - 7) Pile load = 133 Tons
 - 8) Piles must be driven 10' into existing ground or to refusal on bedrock. Piles at wet crossings must be driven to 10' below stream bed or to refusal on bedrock. A minimum pile length of 10' is required in all circumstances.
 - 9) Contractor shall provide a hammer capable of driving the piling to refusal or capacity without encountering excessive blow counts or damaging the pile. Contractor shall be responsible for all damaged piling.



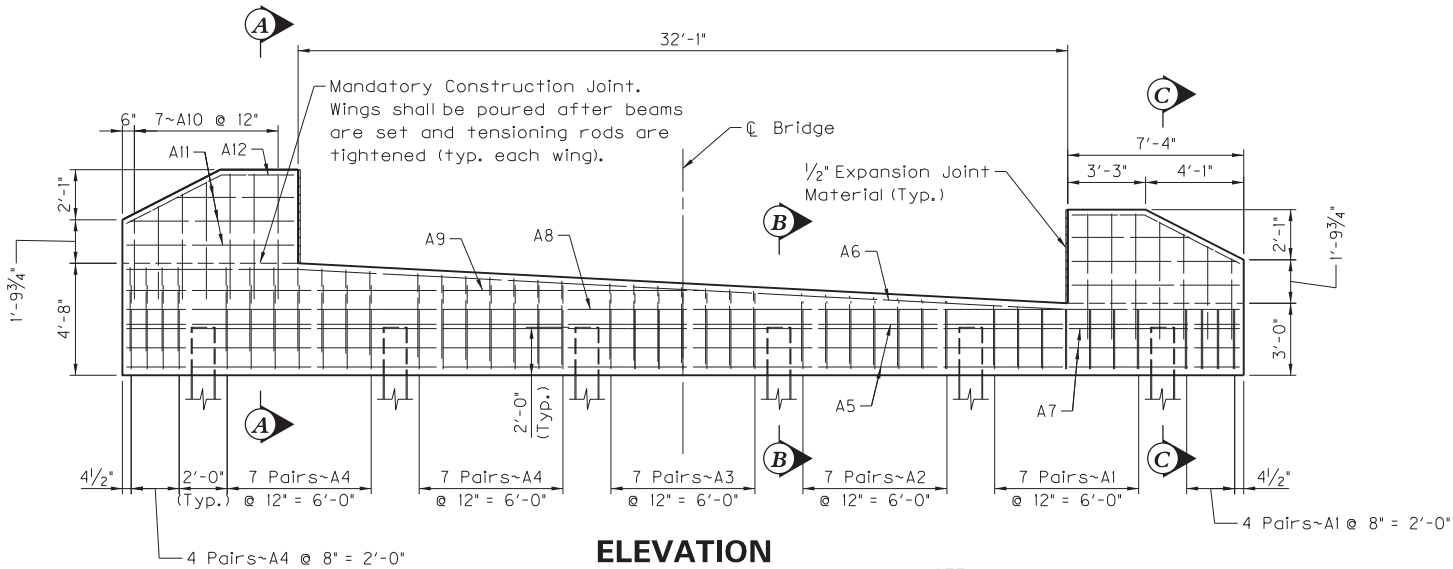
PLAN



SECTION A-A

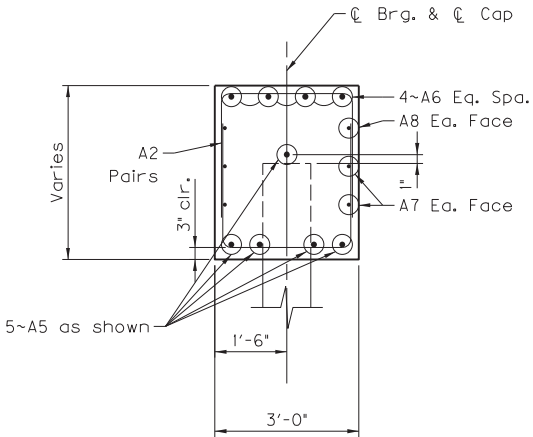


SECTION C-C





ELEVATION
(Looking Ahead)

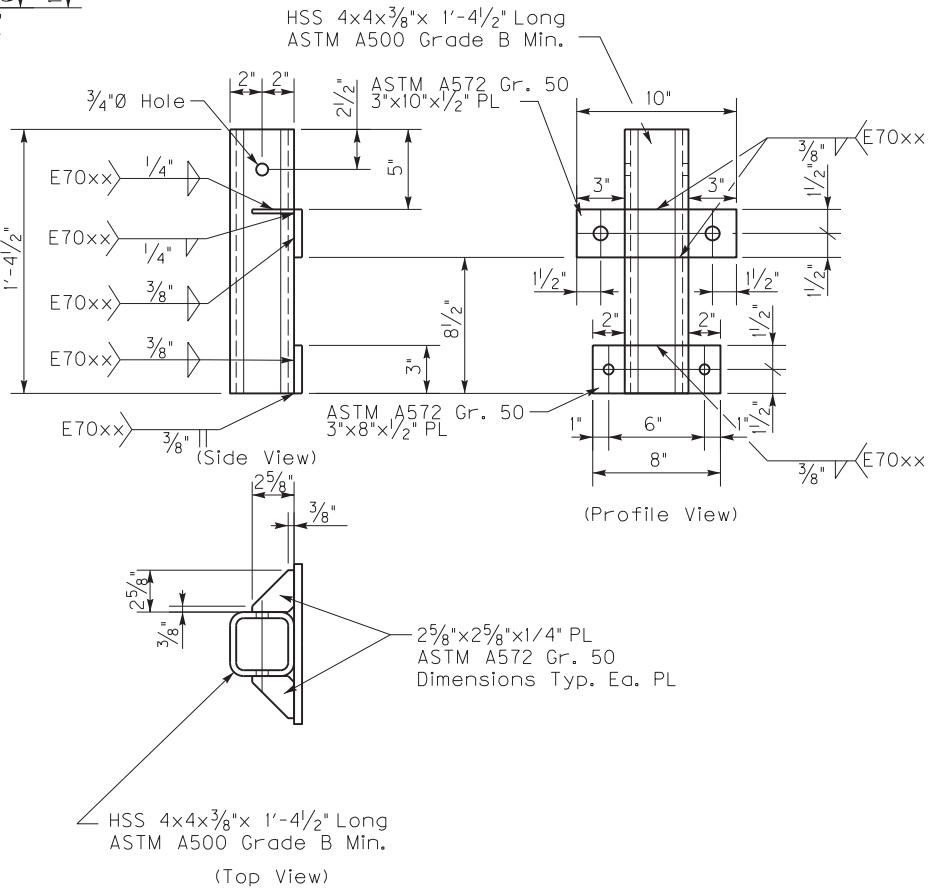
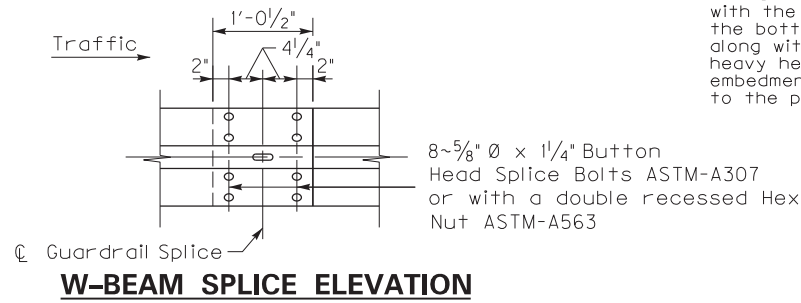
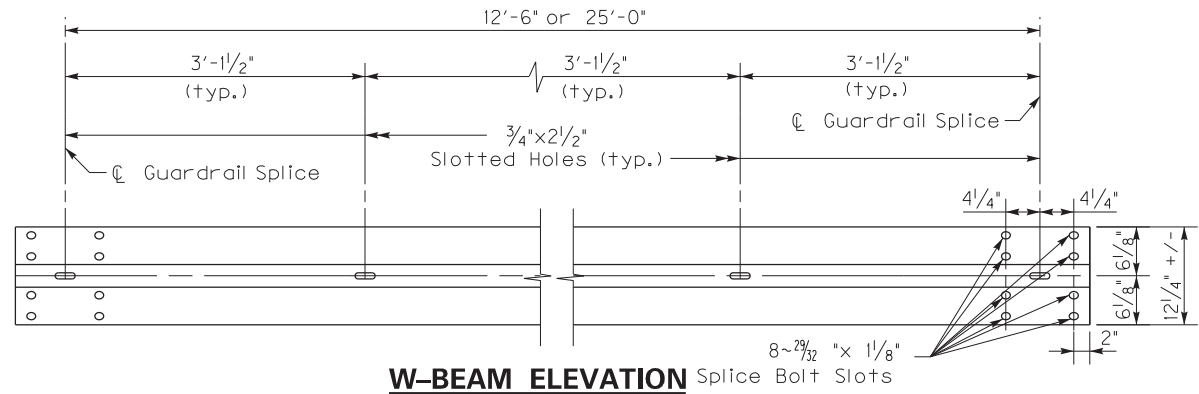
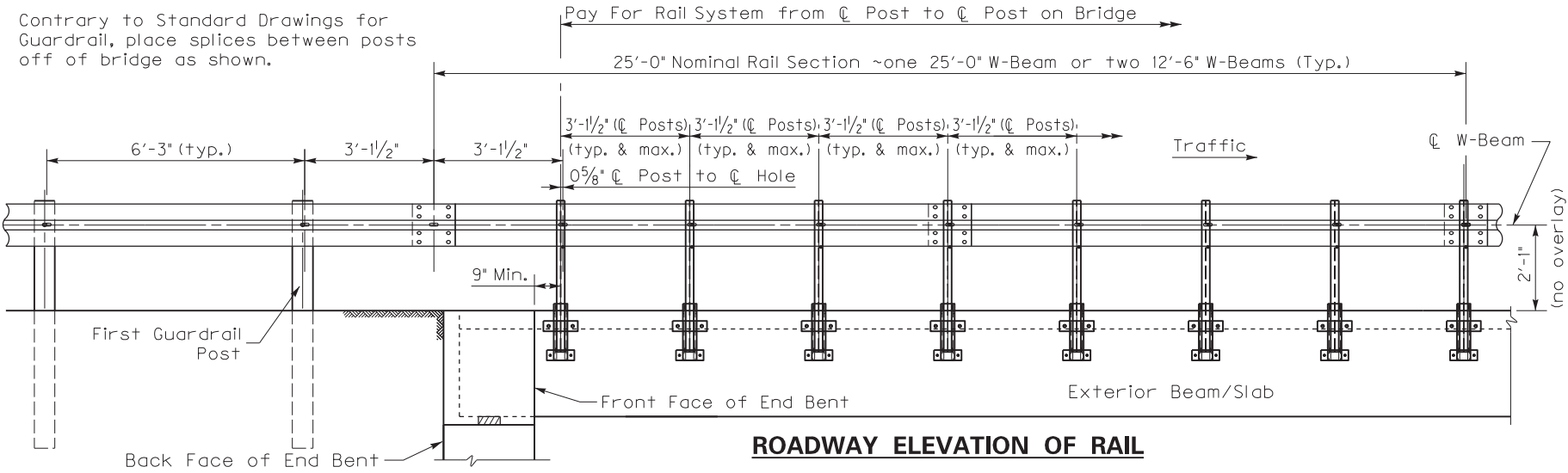
NOTE:
Trim A10e-A11e bars as necessary



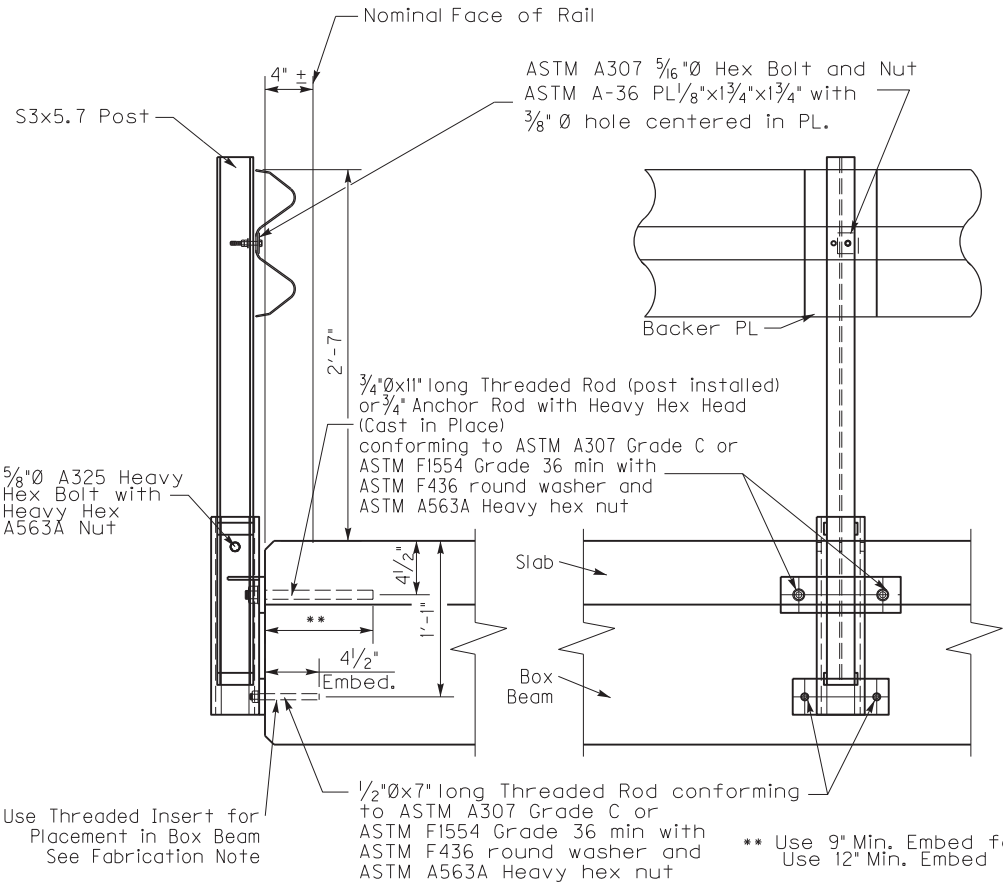
SECTION B-B

REVISION		DATE
DATE: MAY 24, 2019	CHECKED BY	
DESIGNED BY: L. SEWELL	B. DRECKMAN	
DETAILED BY: L. SEWELL	B. DRECKMAN	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY GREENUP		
ROUTE KY-1	CROSSING LOST CREEK	
PILE END BENT DETAILS		
PREPARED BY 		SHEET NO. S5
		DRAWING NO. 27961

Contrary to Standard Drawings for Guardrail, place splices between posts off of bridge as shown.



MOUNTING BRACKET



X-SECTION VIEW

BACK VIEW

TRANSITION AND END TREATMENT NOTES:

This traffic railing must be anchored by a minimum of 25 feet of guardrail. This 25 feet at each corner of the bridge is to be paid with the roadway plans. See roadway plans for layout.

CONSTRUCTION NOTES:

Face of rail post must be plumb unless otherwise approved by the Engineer. Post must be perpendicular to adjacent roadway grade. Fully anchored guardrail must be attached to each end of rail. Typical guardrail construction as indicated above and not bridge rail transition or bridge end connector. It is recommended that the bridge plans show rail post locations. Round or chamfer exposed edges of rail posts and backer Plate to approximately 1/16" by grinding. Shop drawings are not required. Threaded rod may be cast in the beam/slab or may be drilled and epoxy grouted. Epoxy grout must conform to Section 826 and must have a minimum bond strength of 1,305 psi. Follow all manufacturers recommendations for installation.

MATERIAL NOTES:

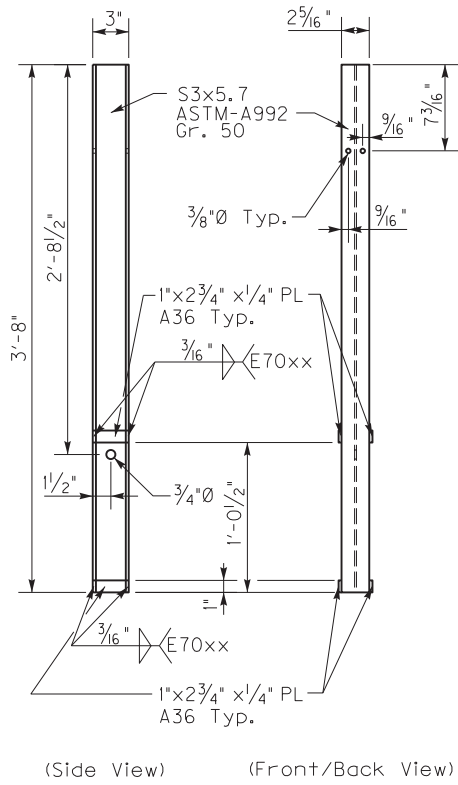
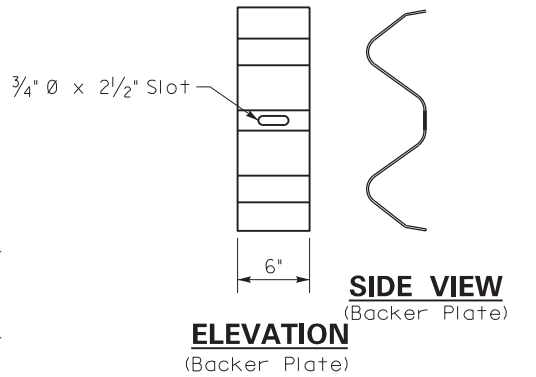
All components must be supplied galvanized including fasteners, anchor rods, threaded rods, etc. Galvanize all steel components after fabrication in accordance with ASTM A123. W-beam must meet the requirements of Sepia 027 except as modified in these plans. The contractor may furnish rail elements of 25'-0" or 12'-6" (Nominal) lengths. W-beam must have slotted holes at 3'-1 1/2".

GENERAL NOTES:

This railing has been successfully evaluated by full scale crash test to meet MASH TL-3 criteria. This railing can be used for speeds 50 mph and greater. This rail is designed to deflect approximately 4' - 4'-6" as it contains and redirects the errant vehicle. This rail may not be installed on top of or behind curbs that project above finished grade, on bridges with expansion joints providing more than 5' of movement, on retaining walls, or on grade separations and interchanges. Repairs to impact-damaged post and mounting bracket unit are not permitted. Replace all impact-damaged posts with a new post. If mounting bracket is visibly damaged, replace the bracket with a new one as well. Average weight of railing with no overlay: 19 plf total.

FABRICATION NOTE:



Fabricator may elect to provide a 3/4" Ø ASTM A563A heavy hex sleeve nut with a minimum length of 2 1/4" and minimum 1/4" across the flats along with threaded rod and the Anchor Rod. Maintain 12" minimum embedment with the 3/4" Anchor Rod behind the sleeve nut. The fabricator may elect to provide a 1/2" ferrule insert for the bottom anchors with a minimum length of 2 3/4" and a safe working load of 2000 lbs in tension and shear along with the threaded rod. Alternately, the bottom anchors may also be supplied with a 1/2" Ø ASTM A563A heavy hex sleeve nut with a minimum length of 1 1/2" and a minimum of 1/8" across the flats. Maintain 4 1/2" embedment behind the sleeve nut. All costs for sleeve nuts, threaded rods, anchor rods, etc. are incidental to the price bid for the Railing System Side Mounted MGS.

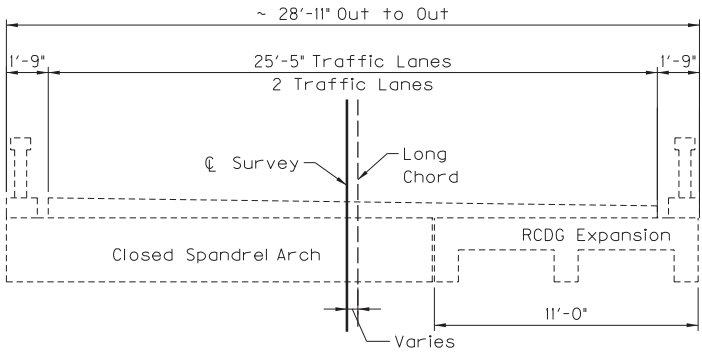


POST ELEVATION

ITEM NUMBER

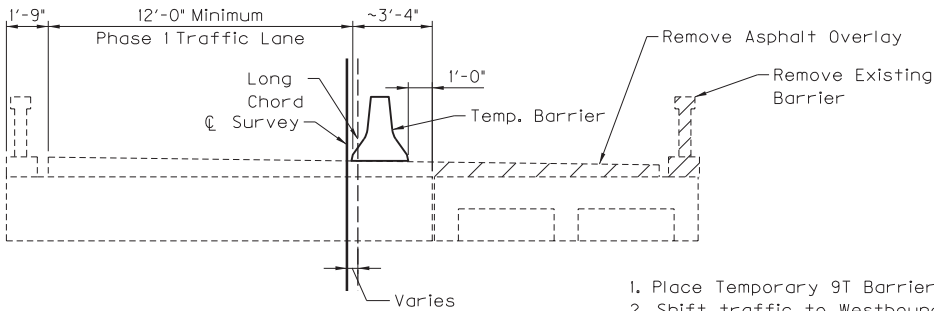
9-10022.00

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DETAILED BY: L. SEWELL	B. DRECKMAN	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY GREENUP		
ROUTE KY-1	CROSSING LOST CREEK	
SIDE MOUNTED MGS RAILING		
PREPARED BY		SHEET NO. S6 DRAWING NO. 27961
		



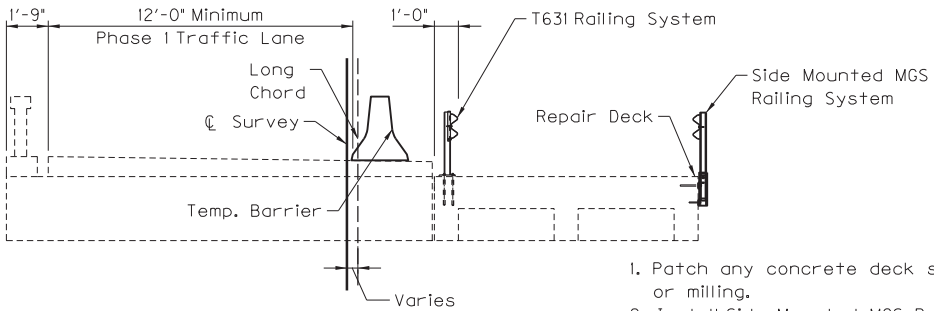
TYPICAL SECTION EXISTING

Note: Field Verify Existing Dimensions



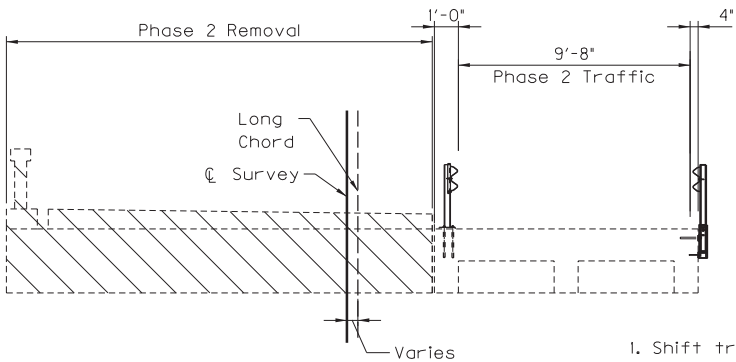
PHASE 1 REMOVAL

1. Place Temporary 9T Barrier
2. Shift traffic to Westbound lane (two way operations)
3. Remove existing barrier on RCDG section of structure.
4. Asphalt Overlay should be milled down to concrete deck in order to maintain specified railing heights for temporary barriers.



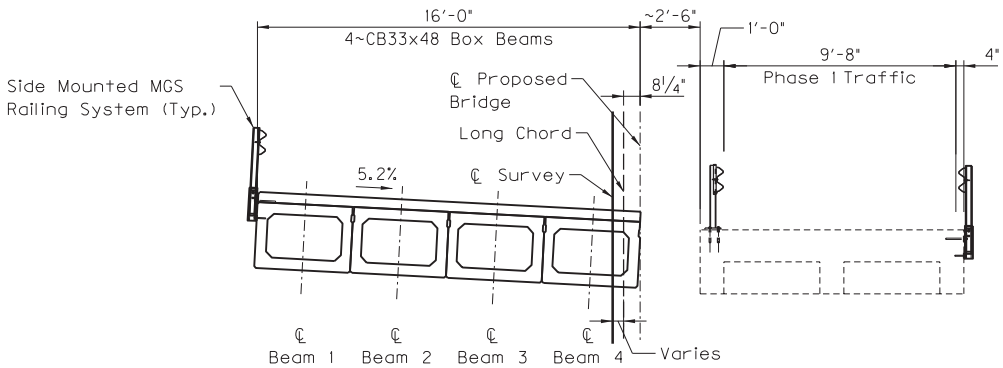
PHASE 1 CONSTRUCTION

1. Patch any concrete deck surface damaged in barrier removal or milling.
2. Install Side Mounted MGS Rail System into existing RCDG Structure. Maintain 2'-1" barrier height to ϕ W-Beam
3. Install T631 Railing System by drilling and grouting anchor bolts a minimum of 7" into existing concrete deck. Maintain 2'-1" barrier rail height to ϕ W-Beam.



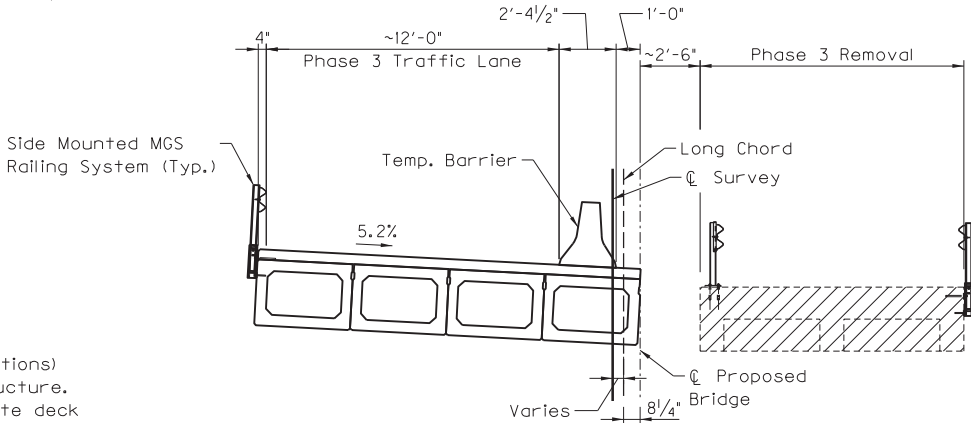
PHASE 2 REMOVAL

1. Shift traffic to Eastbound lane (two way operations).
2. Remove existing North side Spandrel Arch and wingwalls.



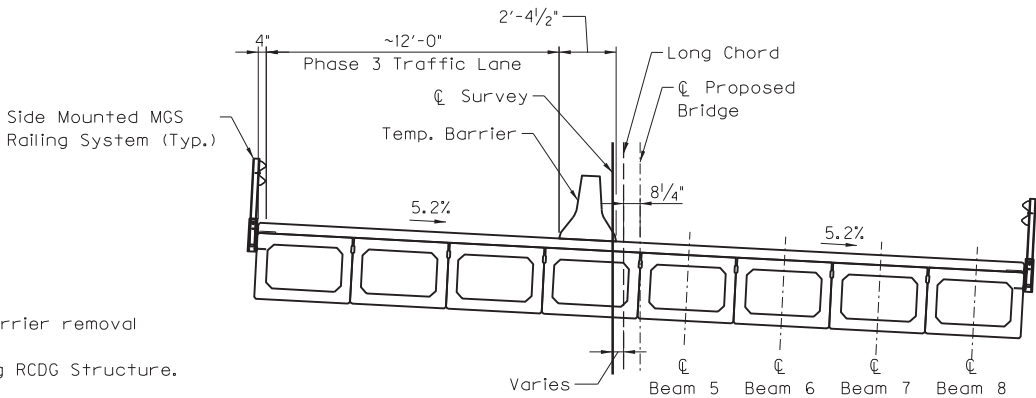
PHASE 2 CONSTRUCTION

1. Construct End Bents 1 and 2 on the North side.
2. Set Beams 1-4 of new structure.
3. Place 5" Concrete Slab.
4. Place Side Mounted MGS Railing System.



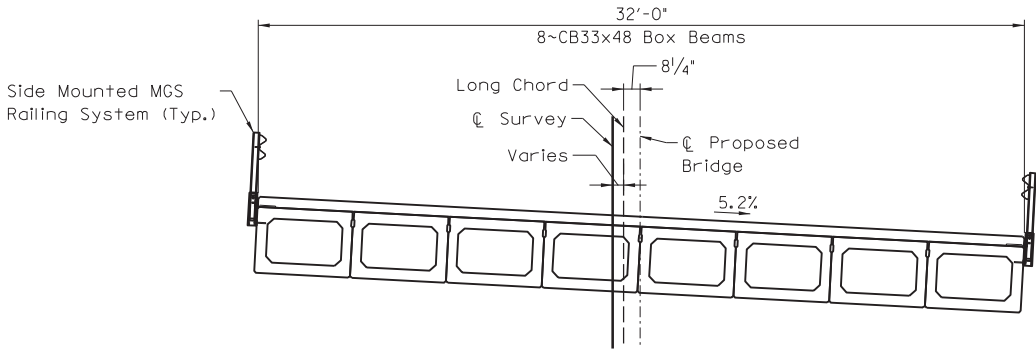
PHASE 3 REMOVAL

1. Install temporary barrier Type 9T on newly constructed bridge.
2. Shift traffic to Westbound lane on new bridge (Two Way Operations).
3. Remove remaining existing structure .



PHASE 3 CONSTRUCTION

1. Construct remaining portion of End Bents.
2. Set Beams 5-8 and place 5" slab.
3. Place Side Mounted MGS Railing System.





TYPICAL SECTION - FINAL

(Slab and Beam Reinforcement not shown for clarity)

ITEM NUMBER

9-10022.00

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Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY GREENUP		
ROUTE KY-1	CROSSING LOST CREEK	
PHASED CONSTRUCTION		
PREPARED BY		SHEET NO. S8
		DRAWING NO. 27961