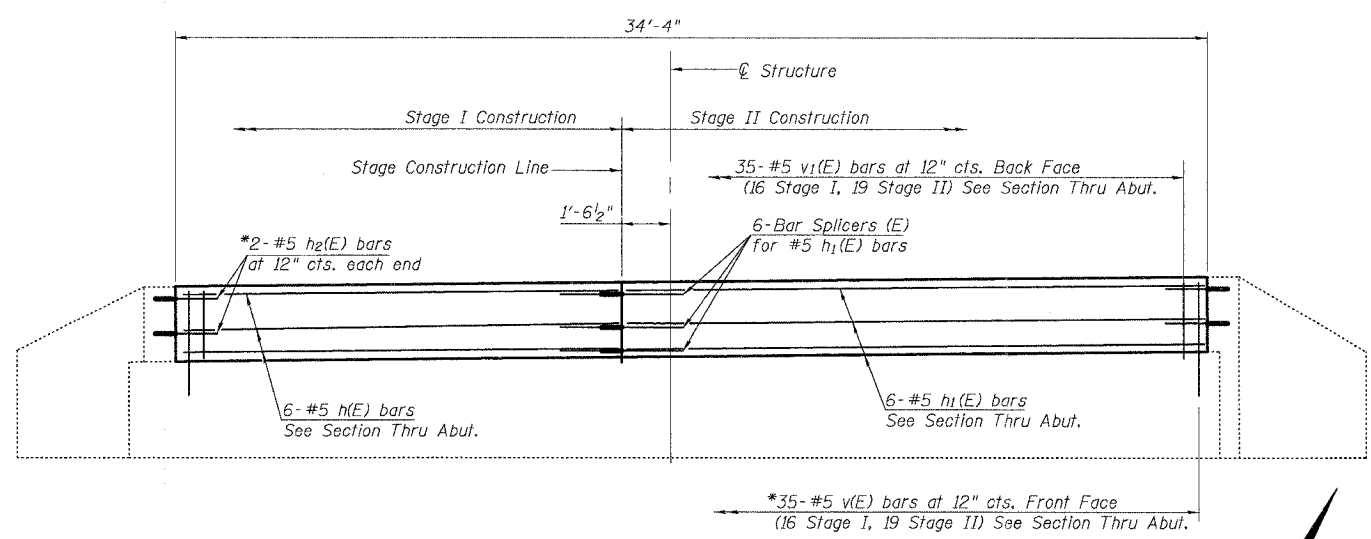
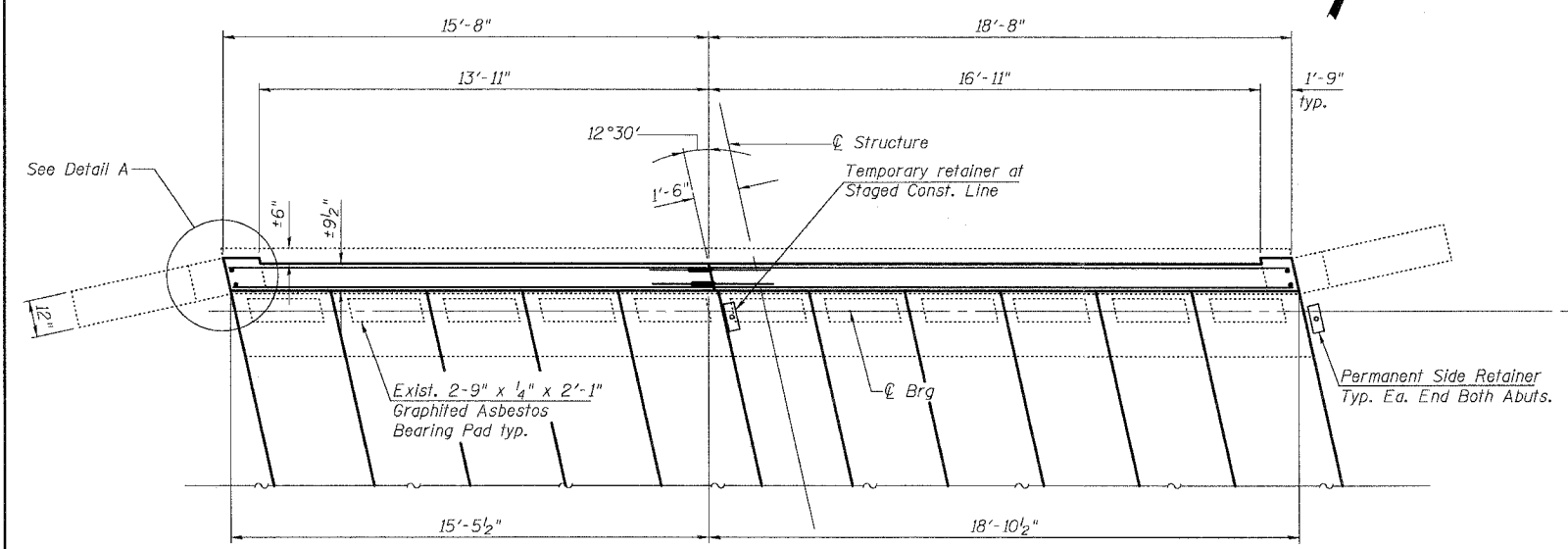


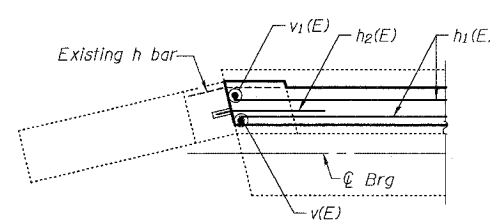
Contract #78034



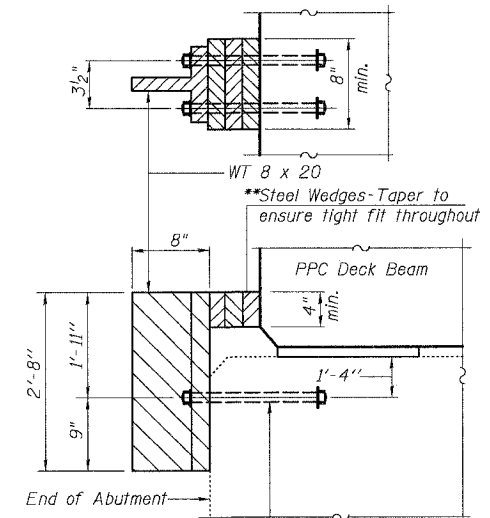
**ELEVATION**  
(North Abutment Shown, South Abutment Opposite)



**TOP VIEW**  
(North Abutment Shown, South Abutment Opposite)



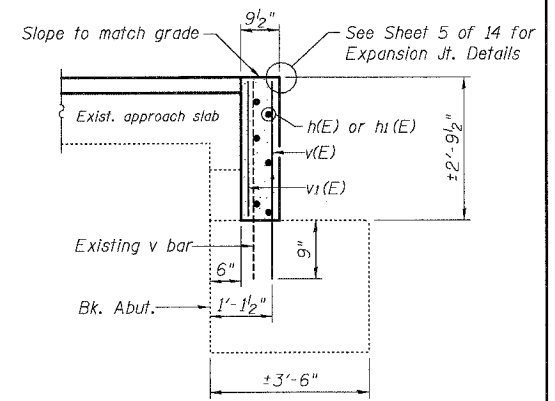
**DETAIL A**



**PERMANENT RETAINER DETAILS**

\*Epoxy Grout v(E) & h2(E) bars in 9" deep min drilled holes according to Sec 584 of the Standard Specifications. The center of the hole for the h2(E) bars shall be drilled a min of 4" from the front face of the existing wingwall.

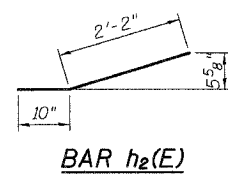
\*\*Shim permanent retainers tight before grouting the shear keys and pouring the concrete wearing surface. Remove shims after the concrete wearing surface has cured.



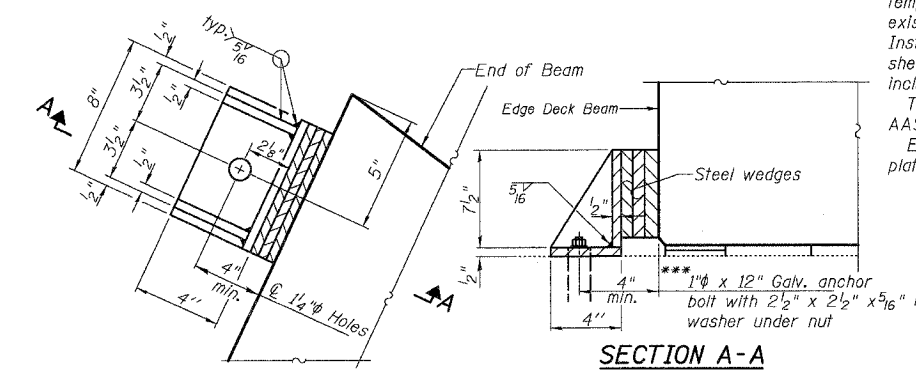
**SECTION THRU ABUTMENT**  
(Dim at right angles)

**BILL OF MATERIAL**  
**2-ABUTMENTS**

Bar	No.	Size	Length	Shape
h(E)	12	#5	15'-3"	
h1(E)	12	#5	18'-4"	
h2(E)	8	#5	3'-0"	
v(E)	70	#5	3'-4"	
v1(E)	70	#5	2'-5"	
Concrete Structures		Cu. Yd.	5.7	
Reinforcement Bars, Epoxy Coated		Pound	870	
Bar Splicers		Each	12	



**BAR h2(E)**



**SECTION A-A**

**PLAN TEMPORARY SIDE RETAINERS**

\*\*\*Anchor bolts shall be approved threaded rods placed in drilled holes and grouted in place. Cost included with Precast Prestressed Concrete Deck Beams (27" deep).

**NOTES**

Install permanent retainers at abutment at west end of abutment cap and temporary retainer at Stage Line prior to grouting Stage I shear keys. After Stage I concrete and concrete wearing surface is poured and cured, the temporary retainer shall be removed. Burn existing anchor bolts flush with existing abutment surface. Grind anchor bolts smooth and seal with epoxy. Install permanent retainer at east end of abutment prior to grouting Stage II shear keys. Cost of retainers, accessories and removal of temporary retainer is included with Precast Prestressed Concrete Deck Beams (27" depth). The side retainers shall be galvanized after shop fabrication according to AASHTO M111 and ASTM 385. Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates for side retainers.

**ABUTMENT DETAILS**  
**F.A. RT. 782 SECTION 111BR-1**  
**GALLATIN COUNTY**  
**STATION 355+95.00**  
**STRUCTURE NO. 030-0018**

PROJECT NO.	07056-4
DATE	4/17/08
DRAWN BY	TFG
CHECKED BY	GB/BD/MCB

PLOT DATE = 04/17/2008  
FILE NAME = J:\07056-4\111BR-1\111BR-1-10.dgn  
PLOT SCALE = 1/8" = 1'-0"  
PLOT NAME = 10.dgn