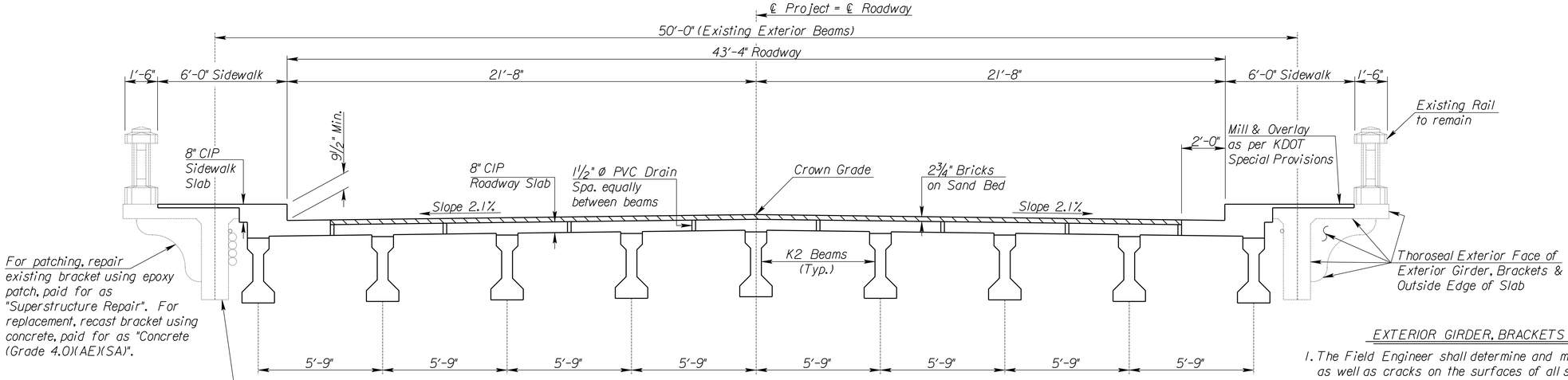
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	TE-0284-01	2007	30	47



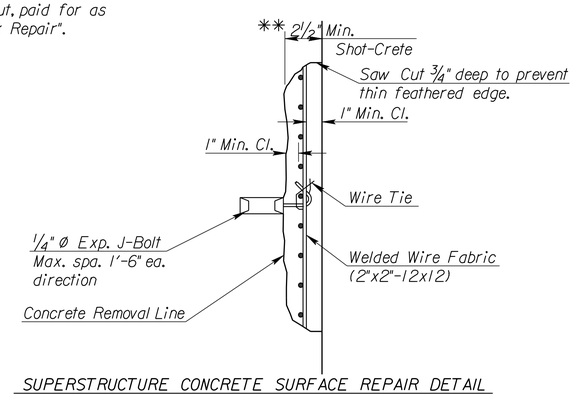
TYPICAL CROSS SECTION
Looking East

Coating (Concrete Surfaces) Notes:
After repair of all existing structural concrete is complete, the visible face of the exterior girder, all of the brackets, the underneath of sidewalk and the outside edge of sidewalk shall be rubbed and grouted with "Thoroseal" or approved equal to eliminate all staining and blemishes.

"Thoroseal" grouting will not be paid for separately but shall be considered subsidiary to the bid item, "Concrete (Grade 4.0)(AE)(SA)".

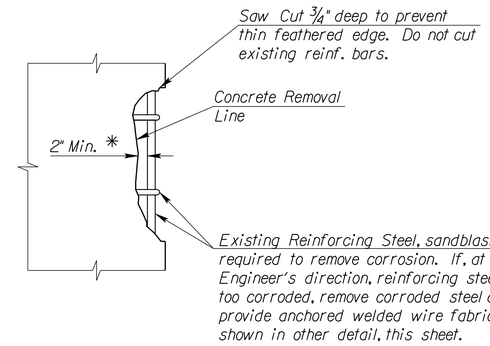
EXTERIOR GIRDER, BRACKETS & SIDEWALK REPAIR NOTES

1. The Field Engineer shall determine and mark areas of spalled and/or unsound concrete as well as cracks on the surfaces of all superstructure elements, including exterior girder, brackets, sidewalk slab and top of concrete base for metal handrail. Spalled/unsound concrete shall be found by sounding the surfaces with a hammer.
2. Areas of spalled/unsound concrete shall be repaired using an approved epoxy, with a color and texture compatible with existing concrete. See Special Provisions for epoxy specifications. All surfaces upon which epoxy is to be placed shall be thoroughly cleaned and brushed. Remove corrosion of all exposed reinforcing steel by brushing or sandblasting. Replace corroded reinforcing with new epoxy coated reinforcing as required (see details this sheet).
3. At many of the bents the exterior girder has cracks without spalled concrete. At these locations and all other beam locations with similarly cracked concrete, inject epoxy grout to seal the cracks in accordance with KDOT & Manufacturer Specifications.
4. Reinforcing steel, damaged by the Contractor, shall be replaced by drilling and grouting new bars, as directed by the Engineer, at no extra cost to the City.
5. The bid item "Superstructure Repair" shall be full compensation for all removal of existing structure, wire mesh, and all labor, materials and equipment necessary to complete the repair of spalled/unsound concrete.
6. Pressure inject epoxy grout into cracks on the top of sidewalk slab after milling has been done, as well as to the top of concrete base under the metal handrail, and all other locations designated by the Engineer in accordance with the "General Notes" sheet and K.D.O.T. Specifications.
7. The bid item "Epoxy Resin Crack Repair" shall be full compensation for all removal of existing structure, epoxy grout and ports, all labor, materials and equipment necessary to complete the repair of cracked concrete.
8. Estimated areas and lengths based on visual observation in the field; actual quantities to be repaired in the field may vary subject to the determination by the Engineer.
9. Twelve brackets are assumed to be in such bad condition that they are paid for as "Concrete (Grade 4.0)(AE)(SA)". For these brackets, remove the spalled/unsound concrete and the existing reinforcing. Drill and grout #4B2 bars and repour the bracket to the shape shown on this sheet using concrete, not epoxy.



SUPERSTRUCTURE CONCRETE SURFACE REPAIR DETAIL

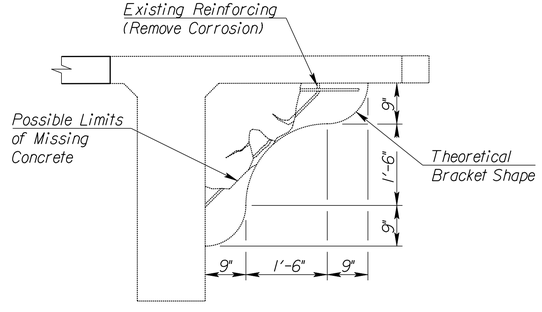
** NOTE: Whenever the depth of deteriorated concrete does not extend to the face of existing reinforcing steel, the existing concrete shall be removed a min. of 2½" behind the original surface or to sound concrete whichever is greater. All new reinforcing steel shall be epoxy coated. See detail above for placement of wire mesh which is used for this type of repair.



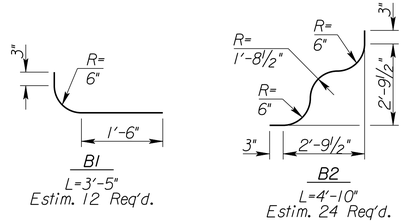
SUPERSTRUCTURE CONCRETE SURFACE REPAIR DETAIL

* NOTE: Whenever the depth of deteriorated concrete extends to the existing reinforcing steel, the existing concrete shall be removed a minimum of 2" behind the reinforcing steel or the sound concrete, whichever is greater.

Bracket Repair Note:
For brackets the Engineer judges complete replacement is required, remove all spalled concrete, sandblast existing reinforcing to remove corrosion, drill and grout new epoxy reinforcing as needed and re-pour bracket using concrete, paid for as "Concrete (Grade 4.0)(AE)(SA)". All other brackets to be repaired using epoxy patching with repair of reinforcement as required, paid for as "Superstructure Repair".

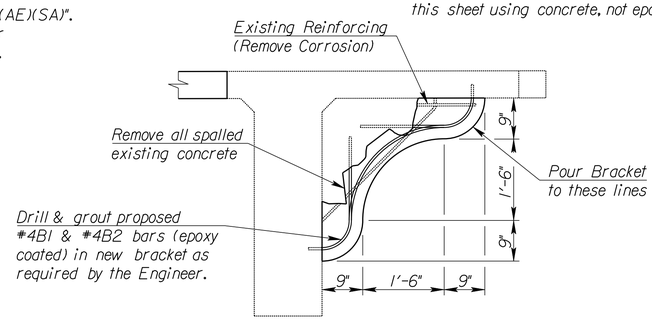


EXISTING BRACKET DETAIL



BENDING DIAGRAMS

#4B1 & #4B2 not paid for as reinforcing steel but as "Drilling & Grouting". Note that each #4B2 is paid for as two "Drilling & Grouting".



BRACKET REPAIR DETAIL

CITY OF WICHITA
JAMES ARMOUR, P.E., CITY ENGINEER

13TH STREET BRIDGE OVER
LITTLE ARKANSAS RIVER

SUPERSTRUCTURE REPAIR DETAILS

PARSONS BRINCKERHOFF
Wichita, Kansas

SCALE ——
DATE 10/9/2007
DWG. NO. 35750A

SURV.	JG, CP	PLOT	CADD	DES.	AH	DR.	GB	TR.	CKD.	BS	APP.	RG

K:\35750A\CADD\SHEETS\BRIDGE\13THSSDET01.dgn