

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: Kansas Department of Transportation, Standard Specifications for State Road and Bridge Construction, 2007, English Version, Kansas Department of Transportation Special Provisions and City of Wichita, Standard Specifications for the Construction of Public Projects.

REMOVAL OF EXISTING STRUCTURE: All materials removed from the existing structure, shall become property of the Contractor. Remove this material from the site.

BROKEN CONCRETE: Waste the broken concrete from the existing bridge on sites provided by the Contractor and approved by the Engineer. All necessary permits or agreements required to dispose of waste material will be the responsibility of the Contractor.

BRIDGE EXCAVATION: All excavation shall be Class III. See the Bridge Excavation sheet for the limits of pay excavation.

BACKFILL COMPACTION: Compact backfill at the abutments.

DIMENSIONS: All dimensions shown on the design plans are horizontal dimensions unless otherwise noted. Make necessary allowances for roadway grade and cross slope.

CONCRETE: All Superstructure concrete is bid as Concrete (Grade 4.0)(AE). Bevel all exposed edges of concrete with a 3/4" triangular molding, except as otherwise noted on the plans. Construction Joints are optional with the Contractor, but if used, place only at locations shown, or at locations approved by the Engineer.

REINFORCING STEEL: All reinforcing steel dimensions are to the centerline of bars unless otherwise noted. All new reinforcing steel shall conform to the requirements of ASTM A615-96, Grade 60. All existing reinforcing steel shall remain in place unless otherwise noted or is sufficiently deteriorated. Any reinforcing steel cut or damaged by the Contractor during concrete removal shall be replaced at no additional cost to the City. Where non-coated bars come in contact with epoxy coated bars, they need not be coated.

DRILL & GROUT: This item shall consist of grouting reinforcing steel into the existing concrete, where required by the Engineer, with an epoxy grout. Locate each hole with the aid of a pachometer to miss the existing reinforcing steel. Drill the holes to the specifications required by the grout manufacturer and in such a manner as not to damage adjacent concrete or bars. After the hole is drilled, remove all loose material by using a wire brush to free the dust from the side of the hole and then vacuuming to remove material and dust. Follow the manufacturer's directions for mixing, application and curing. The tools, materials, labor and incidentals necessary to complete the work shall be included in the bid item "Drilling & Grouting".

SITE CLEARING: Trees and shrubs in the public Right-of-Way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed construction shall be saved and protected from damage.

CANAL PROTECTION: The Contractor shall execute his work in such a manner and take such precautions as necessary to prohibit the falling of broken concrete and other debris into the Wichita Flood Control Canal. The methods or protection, such as catch platforms, proposed by the Contractor shall be approved by the Engineer. (No Separate Payment).

COMPACTION: The compaction requirement for the approach slab will be 6" of (Type AAXMR 3-3). All compaction and excavation, except Class III Excavation, shall be considered subsidiary to other items.

TRAFFIC CONTROL: Traffic Control shall be paid for at the lump sum price bid and shall be full compensation for the work as outlined in the plans. This work involves road closure at the site plus a marked detour route.

SUBSTRUCTURE WATERPROOFING MEMBRANE: Apply a Substructure Waterproofing Membrane, in accordance with KDOT Specifications, to the abutment bridge seats. Apply the membrane within the limits shown on the plans to drain the bridge seat and the areas around the bearings. Repair any damage done to the membrane while the bridge is under repair. All work shall be as directed and approved by the Engineer.

CLEANING BRIDGE SEATS: All bridge seats over which any work is done shall be swept clean of all debris. All costs of cleaning the bridge seats shall be paid for in other items of work.

HOT MIX ASPHALT - COMMERCIAL GRADE (CLASS A) (4"): Hot Mix Asphalt shall be subsidiary to the Linear Foot bid item "Guardrail, Steel Plate". This work shall include all milling and overlays as shown on plans, saw cutting and removing existing pavement, as noted, and the placement of 4" Asphalt at the Guardrail Widening Areas.

SEEDING: The entire disturbed area, excepting the paved or surfaced areas, and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded, and mulched. Soil preparation shall conform to the Standard Specifications.

SUBSTRUCTURE REPAIR: Item "Substructure Repair" shall consist of providing temporary support of the existing structure during the replacement of the Northeast abutment corner, and the blast cleaning and painting of the existing bearing devices. Positive support is required to stabilize individual elements in the assembly as well as stabilize the assembly as a unit. The Contractor is to provide an adequate number of Jacks, in the Jacking assembly, to prevent any damage from occurring to the bridge in the event of a failure of a single Jack. Jacks shall have a rated capacity of at least one and one-half times the calculated load; the Contractor's Engineer shall verify the plan calculated loads which include provisions for the structure self-weight. All costs including labor, equipment, material, and incidentals necessary to complete the work described above shall be included in the price bid per Lump Sum "Substructure Repair".

FLOWABLE FILL: Item "Flowable Fill" shall consist of placing Fill into the area described in the plans. All costs including labor, materials, equipment, and incidentals included in the placement of the "Flowable Fill" shall be included in the price bid per Cubic Yard of "Flowable Fill".

APPROACH SLABS: Grade 4.0 Concrete shall be used in the approach slabs. The quantity given is based on the actual square yards of the approach slabs. All costs of concrete, reinforcing steel, excavation, labor, equipment and other incidentals necessary to complete the work as specified shall be included in the price bid per Square yard of "Concrete Pavement I2", Approach".

STRIP SEAL TYPE EXPANSION JOINT: The sealed expansion Joints shall be constructed as shown in the plans and in a manner approved by the Engineer. All Joints will be constructed as per details noted as with opening unless otherwise specified. All costs necessary to complete the work as specified or as shown in the plans including the cost of materials, labor, equipment and incidentals shall be included in the unit price bid per Linear Feet of "Expansion Joint".

CONCRETE SURFACE REPAIR: Item "Concrete Surface Repair" consists of building up damaged Pier Column Concrete or as directed by the Engineer. The removal of loose concrete shall be done using hand tools. Power tools will not be allowed unless hand tools prove incapable of excavating all deteriorated concrete to sound concrete approved by the Engineer. Should power tools be necessary, power tools shall be of such size as approved by the Engineer such that their use does not cause damage to the sound concrete. Any damage done to the existing reinforcing steel during the removal process shall be repaired at the Contractor's expense to the satisfaction of the Engineer. Any deteriorated reinforcing steel with a section loss greater than 50%, as determined by the Engineer, shall be reported to the Bridge Engineer for remedial action. Prior to mortar application, blast clean the concrete surface and reinforcing steel free of debris and corrosion. Apply pneumatically placed mortar to replace deteriorated concrete. Build up mortar to a level surface even with the original lines.

The Contractor shall submit a proposed work plan of the repair method to be used to the Engineer for their approval. The work plan should include surface preparation methods, patching material, bonding agents, material placing methods and finishing methods. The Contractor shall test repair an area to verify the effectiveness of the proposed repair method prior to commencement of all work. Faulty repairs shall be replaced at the Contractor's expense. All costs including labor, equipment, material and incidentals necessary to complete work as described above shall be included in the price bid per Square Yard of "Concrete Surface Repair".

EPOXY RESIN CRACK REPAIR: Item "Epoxy Resin Crack Repair" shall consist of structurally rebonding cracks and delaminations in the pier columns at the locations shown on the plans or as directed by the Engineer. All costs including labor, materials, equipment, and incidentals necessary to complete the work described above shall be included in the price bid per Linear Foot of "Epoxy Resin Crack Repair".

EMBEDDED GALVANIZED ANODE: Embed sacrificial galvanized anodes as shown on the plans per the manufacturer's requirements or as directed by the Engineer. The Contractor shall submit a sample of the anode to be used to the Engineer for approval. Use pre-manufactured anodes containing at least 100g of zinc metal, in accordance with ASTM B 418-95A Type I or Type II. All anodes shall be installed in accordance with the manufacturer's specifications. Quantity includes 25% increase to account for anodes to be attached to existing reinforcing steel where determined applicable by the Engineer. All costs of the anodes including material, labor, equipment, and incidentals necessary to complete the work as specified shall be included in the price bid per Each "Embedded Galvanized Anode".

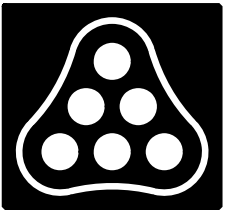
DESIGN DATA

DESIGN SPECIFICATIONS:

AASHTO Specifications, 2010 Edition and latest Interim Specifications. Load Factor Design

UNIT STRESSES:

Concrete (Grade 4.0)(AE)	$f'c = 4,000 \text{ p.s.i.}$	$fc = 1,600 \text{ p.s.i.}$
Concrete (Grade 3.0)	$f'c = 3,000 \text{ p.s.i.}$	$fc = 1,200 \text{ p.s.i.}$
Reinforcing Steel (Grade 60)(Epoxy Coated)	$fy = 60,000 \text{ p.s.i.}$	$fs = 24,000 \text{ p.s.i.}$

	No. _____		Revision _____		By _____		Date _____	
	SOUTHEAST BLVD AT WICHITA FLOOD CONTROL CANAL							
	GENERAL NOTES							
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