

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS:

KDOT Standard Specifications for State and Road Bridge Construction, 2015 Edition.

DESIGN:

Design is in accordance with the 2016 AREMA Manual for Railway Engineering.

DIMENSIONS:

Dimensions, Elevations, and Stations shown on the plans were taken from incomplete "As Built" drawings of the original construction, Repair plans dated 2005, and field measurements. The Contractor shall verify all dimensions, elevations and stations before ordering or fabricating new materials. The dimensions shown on the plans are horizontal dimensions unless otherwise noted. Survey information for the site, including a "point cloud" is available to the Contractor upon request.

EXISTING UTILITIES:

The information shown on these plans concerning type, size, and location of underground and other utilities is not guaranteed to be accurate or all inclusive. The Contractor is responsible for making his own determination as to the type, size, and location of underground utilities and other utilities as may be necessary to avoid damage thereto, before proceeding with the work.

COORDINATION WITH RAILROAD:

The work entailed herein involves repairs and modifications to an in-service BNSF bridge. While access to the track area of the bridge is not anticipated, the Contractor shall coordinate all activities with BNSF Railway prior to commencing work. All required permits, access rights, insurance, and other documents required to complete the work shall be obtained by the Contractor.

UNIT STRESSES:

Precast Concrete $f'c = 5 \text{ ksi}$
 CIP Concrete $f'c = 4 \text{ ksi}$
 Reinforcing Steel $Fy = 60 \text{ ksi}$

REINFORCING STEEL:

All new reinforcing steel shall be deformed new billet steel conforming to the requirements of ASTM A615 (Grade 60), Epoxy Coated. Minimum clearance to reinforcing steel shall be 2" unless shown otherwise. All reinforcing bends shall be detailed in accordance with the Concrete Reinforcing Steel Institute (CSRI) Manual of Standard Practice. Bent bar dimensions are given out to out of bars. Bar spacings are center to center of bars.

CONCRETE:

All concrete for precast members shall be Grade 5.0 (AE) in accordance with specifications. All concrete for cast-in-place columns and barrier rails shall be Grade 4.0 (AE) in accordance with the specifications. Exposed edges shall be chamfered $\frac{3}{4}$ ", unless noted otherwise.

STRUCTURAL STEEL:

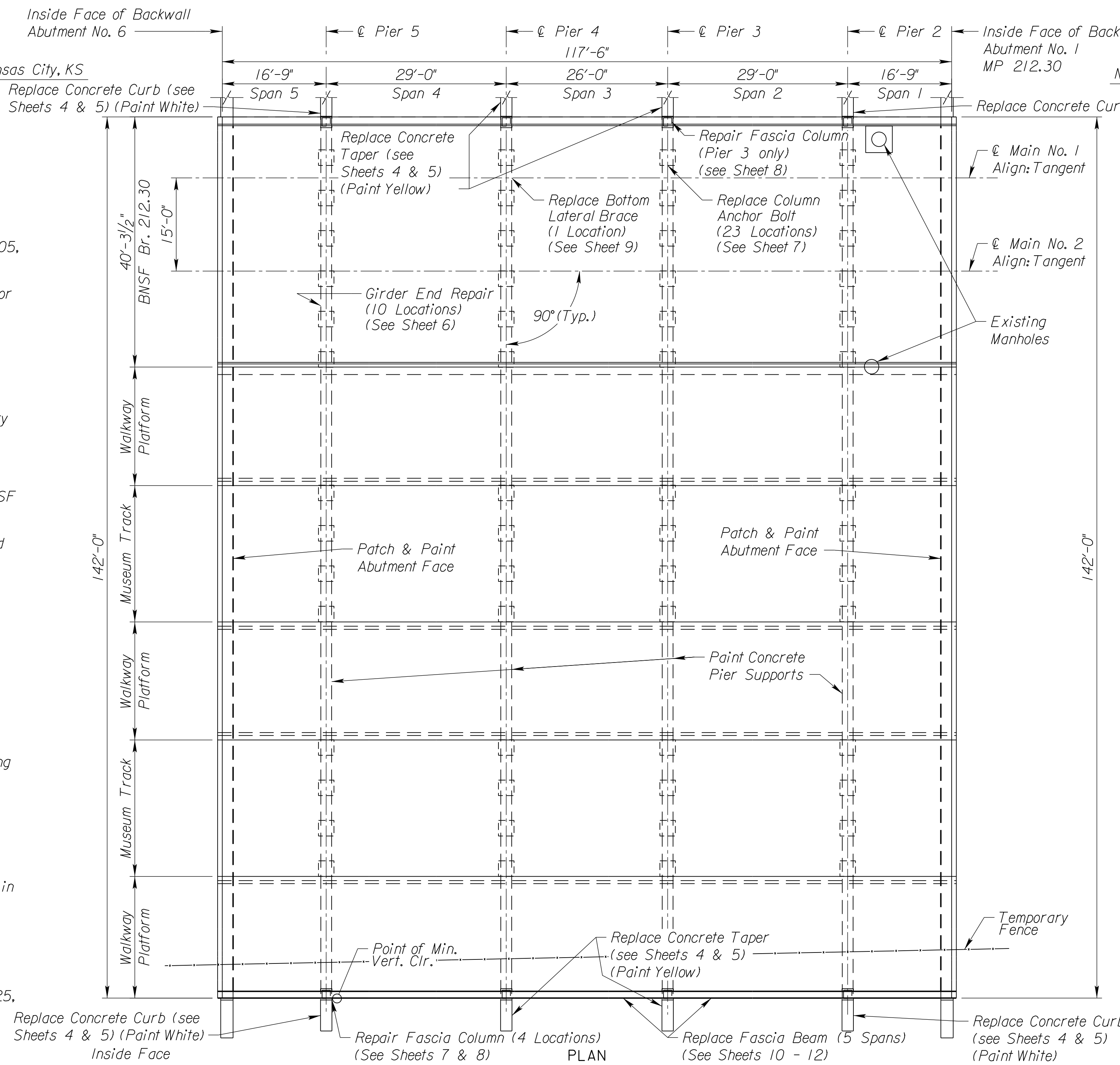
All steel shall be ASTM A709 GR50T2, unless noted otherwise. All fasteners shall be $\frac{7}{8}$ " diameter high strength bolts per ASTM F3125 GR A325, TYPE 1 with $\frac{15}{16}$ " diameter open holes, unless noted otherwise.

STEEL PIER PAINTING:

The existing steel piers shall be painted. The piers shall first be power washed to remove loose and flaking paint, dirt and pigeon droppings. The power washing shall be done according to SSPC-SPI2 Low-Pressure Water Cleaning. The cleaning equipment used shall be capable of generating 3,000 psi of pressure.
 -Bare metal shall first be spot primed with KemKromik Universal Primer.
 -All areas shall then be coated with a prime coat of Pro-Block Acrylic Primer.
 -Final top coat shall be Sher-Cryl High Performance Acrylic Paint. The final top coat color shall be "Red Iron". A sample of the final color shall be prepared and submitted for approval prior to final painting.
 Surface Cleaning, preparation and painting is included in the Lump Sum price for "Steel Pier Painting".

STEEL GIRDER PAINTING:

The steel girders that receive repairs shall be spot painted. The spot painting shall be completed using the same procedure outlined in "Steel Pier Painting". The final top coat color for the spot painting shall be "White". Area of 2 SF for each girder was assumed for quantity. Surface Cleaning, preparation and painting is included in the square foot price for "Steel Girder Painting".



SCOPE OF WORK ITEMS	
ITEM	DESCRIPTION OF WORK
1	Repair Girder Ends (10 Locations)
2	Replace Column Anchor Bolts (23 Locations)
3	Replace Bottom Lateral Brace (1 Location)
4	Repair East Fascia Columns (4 Locations)
5	Replace East Fascia Beams (5 Spans)
6	Repair Curbs and Tapers (8 Locations)
7	Paint Concrete (Abutments, Pier Barriers, Fascia Beam and Tapers)
8	Paint Piers
9	Patch Concrete Abutments

INDEX OF DRAWINGS	
SHEET	DRAWING TITLE
2	GENERAL PLAN & ELEVATION
3	TYPICAL SECTIONS
4	BARRIER CONCRETE REMOVAL
5	BARRIER CONCRETE CONSTRUCTION
6	GIRDER END REPAIR DETAILS
7	COLUMN REPAIR DETAILS 1 OF 2
8	COLUMN REPAIR DETAILS 2 OF 2
9	COLUMN BRACING REPAIR DETAILS
10	EAST FASCIA BEAM DETAILS 1 OF 3
11	EAST FASCIA BEAM DETAILS 2 OF 3
12	EAST FASCIA BEAM DETAILS 3 OF 3
13	CONCRETE SURFACE REPAIR

SUMMARY OF QUANTITIES		
ITEM	QUANTITY	UNIT
Concrete Beam Replacement	116.8	LF
Pier Diaphragm Repair	1	Each
Anchor Bolt Replacement	23	Each
Girder End Repair	10	Each
Concrete Column Repair	5	Each
Concrete Painting	1,250	SY
Steel Pier Painting	1	LS
Steel Girder Painting	20	SF
Concrete Removal	1	LS
Concrete Grade 4.0 (Barrier Rail)	34.1	CY
Reinforcing Steel (Gr. 60) (Barrier Rail)	1,269	LBS
Concrete Surface Repair	375	SF

Note:
Field verify minimum clearance.

PRINTS ISSUED		
DATE	PURPOSE	NO.
7.31.17	90% Submittal Set	

DOUGLAS AVE.-BNSF RAILROAD UNDERPASS IMPROVEMENTS WICHITA, KS

LKArchitecture
 Architecture • Engineering • Planning • Interior Design • Landscape Architecture

345 RIVERVIEW, WICHITA, KS 67203
 Phone (316) 268-0230 Fax (316) 268-0205

PROJECT NUMBER:
17145

SHEET TITLE:
GENERAL PLAN & ELEVATION

SHEET NUMBER:
2



LAT: 37.68622N
 LONG: 97.33001W