

DATE	BY

ITEM	BASE BID ITEM QUANTITY	UNIT	ALTERNATE NO. 1 ITEM QUANTITY	UNIT
Embankment (Granular Fill)	263	CY	-	-
Excavation (Class III)	2,422	CY	-	-
Concrete Grade 4.0 (AE) (Special)	0	CY	620	CY
Concrete Grade 4.0 (AE)	316	CY	-	-
Concrete Grade 4.0 (AE)	749	CY	(620)	CY
Concrete Masonry Coating	516	SY	(516)	SY
Concrete Sealer	516	SY	-	-
Graffiti Control System	458	SY	-	-
Structural Steel (ASTM A709 Gr 50T 2) (Bridges)	522,572	LBS	-	-
Structural Steel (ASTM A709 Gr 50T 2) (Plate)	67,984	LBS	-	-
Structural Steel (ASTM A500 Gr B) (Collision Beam) Expansion Device (Sliding Plate)	17,244	LBS	-	-
Expansion Device (Sliding Plate)	127	LF	-	-
Headed Stud Anchors	3,696	EA	-	-
Reinforcing Steel (Gr. 60)	93,230	LBS	-	-
Reinforcing Steel (Gr. 60) (Epoxy-Coated)	37,300	LBS	-	-
Steel Piles (HP 14x89)	7,910	LF	-	-
Test Pile (Special) (HP 14x89)	340	LF	-	-
Dynamic Pile Testing	4	EA	-	-
Temporary Shoring	1	LS	-	-
Elastomer Bearings (HP)	8	EA	-	-
Plaster Bridges	(HP)	(EA)	-	-
Steel Bearing Device (EXP)	8,737	LBS	-	-
Steel Bearing Device (FIX)	10,095	LBS	-	-
Bridge Handrail (Steel-Type 2, 2A)	252	LF	-	-
Abutment Strip Drain	354	SY	-	-
Bridge Backwall Protection System (Type K)	354	SY	-	-
Pipe Underdrains (4.0") (Type K)	150	LF	-	-
Waterproofing (Deck)	439	SY	-	-
Waterproofing (Plaster Bridges)	433	SY	-	-
Remove Structures (Bridges)	1	EA	-	-

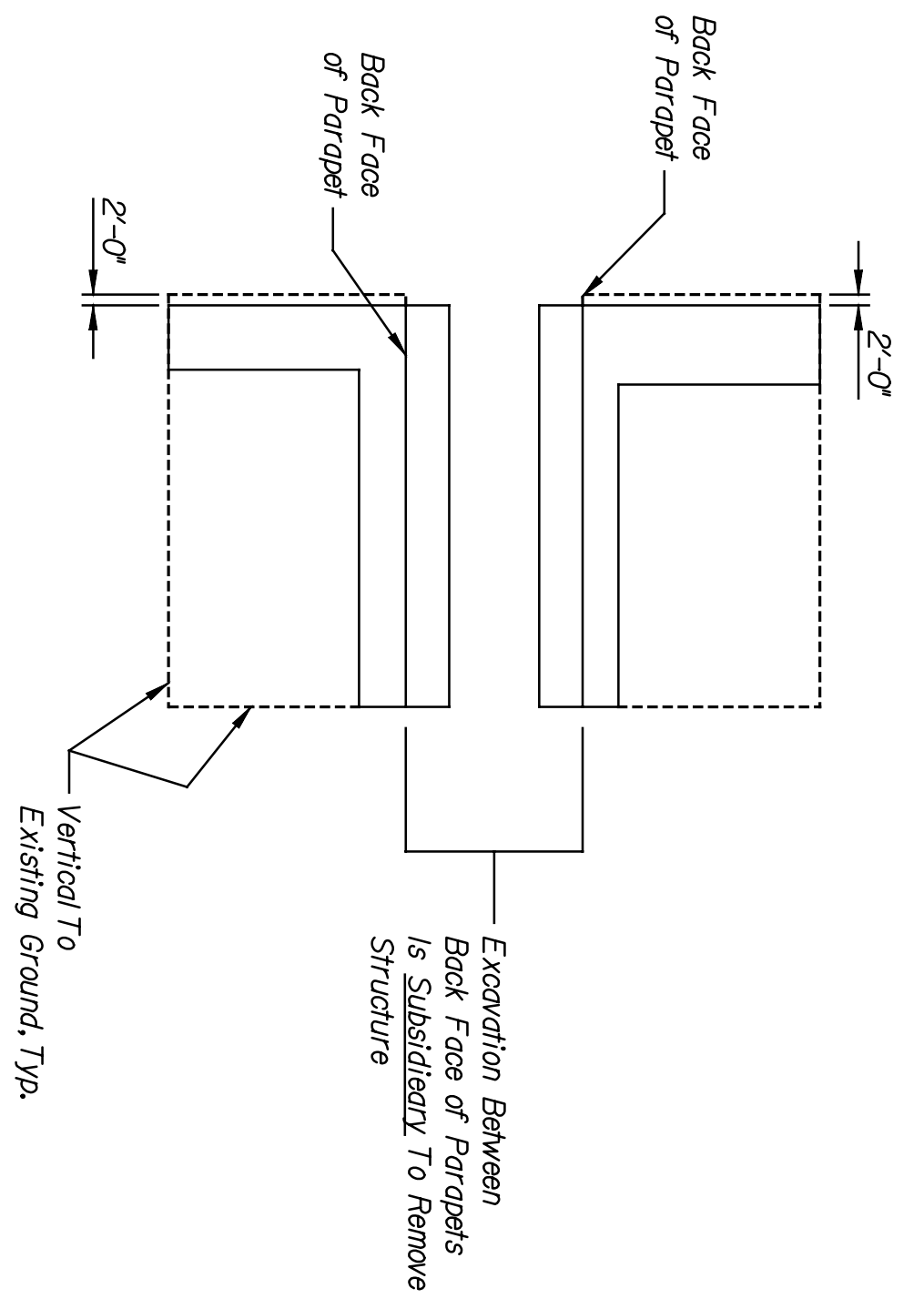
PNTE
 ARCHITECTS ENGINEERS PLANNERS

This sheet designed by:

BRIDGE GENERAL NOTES

RAILROAD BRIDGE DESIGN SPECIFICATIONS: AREMA Manual for Railway Engineering, 2002.
 CONSTRUCTION SPECIFICATIONS Wichita Central Corridor Railroad Grade Separation Project, 25th Street to Waterman, Wichita, Kansas-Project Specifications, HNTB Corporation, 2005.
 MATERIAL and TESTING SPECIFICATIONS: The material and test specifications, current as of the publication of the project specifications, will be used. In cases of discontinuance or material changes to the specification, the engineer will be contacted for guidance.
 REFERENCES: Wichita Central Corridor Railroad Grade Separation Project, Douglas Avenue to 21st Street, Wichita, Kansas-Final Geotechnical Investigation Report, HNTB Corporation, September 2003.
 Kansas-Hazardous Materials Screening Report, HNTB Corporation, September 2000.
 BNSF Railway Guidelines, 2002.
 BNSF Railway / Union Pacific Railroad Standard Drawings
 Engineering and Shop Drawings for Existing Bridges at 2nd Street, 1st Street and Douglas Avenue.

HORIZONTAL & VERTICAL GEOMETRY CONTROL:
 Refer to Railroad and Street plans for horizontal and vertical geometry control.
 The track profile grade is at the top of rail.
 All elevations shown are U.S.G.S. Datum (NGVD 29) City Datum = U.S.G.S. Datum - 1187.41.
STRUCTURAL EXCAVATION:
 Structural excavation shall be in accordance with the plans and specifications.
STRUCTURAL BACKFILL:
 Structural backfill shall be located within the limits identified in the plans and specifications. Structural backfill shall meet or exceed the requirements of Embankment.



EXCAVATION FOR PAYMENT LIMITS

Abutment Footing Plan Shown

***NOTES:**
 Negative quantities are denoted by the number surrounded by parentheses (xxx). Negative quantities are subtractions from the base bid quantities, all other quantities are additions. The extension of the negative quantities on the official bid tab will reduce the overall cost of the Alternate. This project will be awarded to the Contractor with the lowest and best total base bid amount plus alternates selected by the City, the total of which is within the Owner's approved budget.

REINFORCING:
 All bar bending dimensions and tolerances are in accordance with CRSIS Manual of Standard Practice.

Reinforcing bars will be designated as follows: SSCOM SS = Bar Size (No. 3 to No. 18)
 CC = Component Designator, as follows:
 A-Abutment F-Footing D-Dowel
 P-Par PC-Par Beam PC-Par Column
 PW-Par Wall S-Slab/Deck R-Railing
 C-Curb
 NW = Bar Mark Sequence (00-99)
 Reinforcing Bar Annotation Example:
 #11 Bar, located in the abutment, 12th bar in bar size/location sequence

EMBAKMENT:
 Fill material located within the volume bounded by the back face the abutment, back face of the wingwall(s), ends of the wingwall(s) and above the limits of structural backfill shall be classified as embankment.
 Excavated materials not considered suitable for use as backfill or embankment shall be wasted off site. All embankment quantities are anticipated to be from an approved borrow site provided by the Contractor. Reuse of excavated materials in the embankment will only be permitted if the Contractor provides tests verifying the materials proposed for reuse meet the requirements for compacted granular fill. Embankment materials shall consist of compacted granular fill with a minimum effective internal friction angle of 32 degrees when tested by the standard direct shear test AASHTO T-236 utilizing a sample of the material compacted to 100% of maximum laboratory dry density of optimum moisture content. For all embankment materials placed on the project, except for the UPRR track construction work between 17th and 21st Streets, the moisture content of the fill at the time of placement and compaction shall be within the range of 3% below to 3% above the optimum moisture content value determined by the Standard Proctor (ASTM D-698). Embankment shall be compacted to at least 100% of the material's maximum Standard Proctor dry density (ASTM D-698). Embankment materials shall be free of organic material, debris and less than 10% by weight shall pass the no. 200 sieve. The fill shall be placed and compacted in lifts of 8 inches or less in loose thickness. Where the existing embankment is left in place, new embankment shall be stair-stepped into the existing embankment. The Contractor is responsible for furnishing and placing compacted granular fill that meets the design and performance requirements of the project. Payment for embankment shall be based on plan quantities. No additional payment will be authorized unless the Engineer approves embankment beyond the plan limits.

PROTECTIVE SHORING:
 Provide protective shoring as required by the BNSF Railway, federal, state and local regulations.
 Additional shoring may be required.
 Provide protective shoring as indicated in the plans and specifications.
 Protective shoring plans & calculations shall be designed and sealed by a professional engineer licensed in the State of Kansas.
 Protective shoring calculations, plans and details shall be submitted eight (8) weeks prior to commencing shoring operations.
 Protective shoring calculations, plans and details shall be submitted to the Engineer and distributed to the BNSF, UPRR and WUTA for approval. Protective shoring construction shall not begin until approved by the Engineer and the railroads.

QUANTITIES:
 Items not listed separately in the Summary of Bridge Quantities are subsidiary to other items.
QUALITY CONTROL:
 Prior to placing structural steel, verify that the bridge seat elevations are equal to the plan elevation +/- 1/8" and submit the documentation of the elevations to the Engineer.

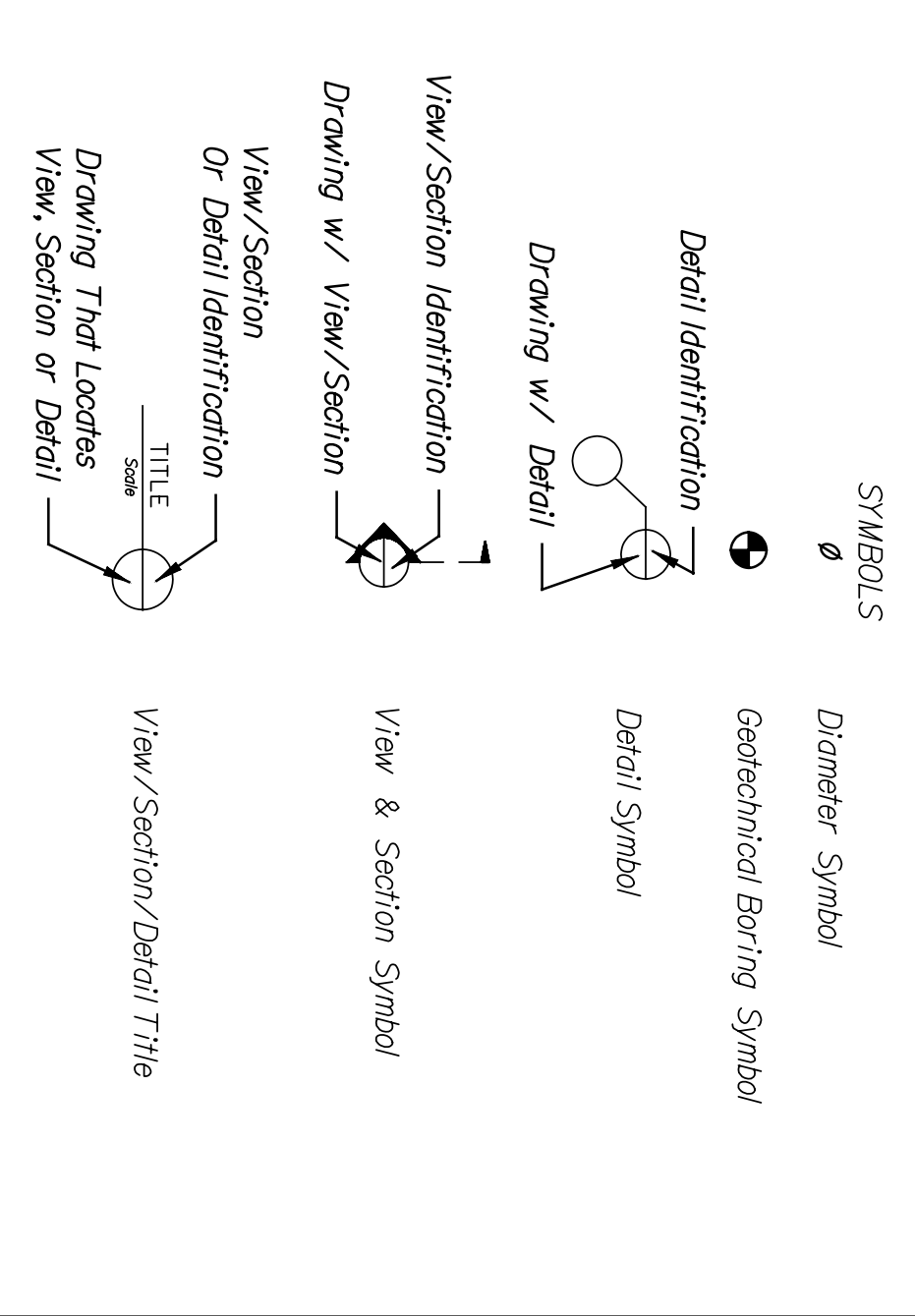
Alternate 1 - White Concrete

Sheets W06.3 & W06.6 replace sheets B6.3 & B6.6 Respectively. For all other plan details, see Sheets B6.1 through B6.29.

Explanation: The bridge abutments are cast using Concrete Grade 4.0 (AE) (Special) with a concrete sealer and graffiti control protection on the exposed surfaces. The purpose of this alternate is to provide an integrally colored white cement concrete.

STATE	KANSAS	PROJECT NO.	472-840T1	YEAR	2005	SHEET NO.	W06.3	TOTAL SHEETS	
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ABBREVIATIONS:	AASHTO American Association of State Highway & Transportation Officials	IN.	Inches
ACI	American Concrete Institute	KIP	1000 Pounds
AISC	American Institute of Steel Construction	KSF	Kips per Square Foot
ANSI	American National Standards Institute	L.F.	Linear Feet
AREMA	American Railway Engineering and Maintenance-of-Way Association	Lbs.	Pounds
ASME	American Society of Mechanical Engineers	Max.	0.001 inches Minimum Maximum
ASTM	American Society of Testing & Materials	N/A	Not Applicable
AWIS	American Welding Society	N.F.	Not Applicable
B/	Battion of Burlington Northern and Santa Fe Railway Company	PCF	Pounds per Cubic Foot
BNSF	Battion of Burlington Northern and Santa Fe Railway Company	PLF	Pounds per Linear Foot
Btm	Bottom	P.L.	Point of Intersection (Horizontal Curves)
CRSI	Concrete Reinforcing Steel Institute (www.crsi.org)	P.V.C.	Point of Vertical Curvature
C.F.	Cubic Feet	P.V.I.	Point of Vertical Intersection
C.S.	Curve to Spiral Point	P.V.T.	Point of Vertical Tangency
C.Y.	Cubic Yards	R	Radius
dft	dry film thickness	S.C.	Spiral to Curve Point
E.F.	Each Face	S.C.	Similar
E.S.	Equal Spacing	Sim.	Similar
E.W.	Each Way	S.T	Spiral to Tangent Point
F	Compressive Strength	SSPC	SSPC-The Society for Protective Coatings
F.F.	Fairment	SY	Square Yards
FT.	Foot	T/	Top of
Golv.	Golvonized	T.S.	Tangent to Spiral Point
		Typ.	Typical
		U.M.O.	Unless noted Otherwise
		USACOE	U.S. Army Corps of Engineers
		UPRR	Union Pacific Railroad
		WUTA	Wichita Union Terminal Association



CITY OF WICHITA
WICHITA CENTRAL CORRIDOR
ALTERNATE 1
1ST STREET
SUMMARY OF QUANTITIES AND GENERAL NOTES

SHEET NO.	05	SCALE AS NOTED	APPD.	DESIGNED	CHKD	DETAILS	QUANTITIES	DUL	TRACED	DUL
DESIGNER	DMH	DETAILS	DMH	QUANTITIES	DMH	TRACED	DMH			

NO.	DATE	REVISIONS	BY	APPD.
1				
2				
3				

LOCATION: BNSF BR. 20.2 WICHITA, KS
 LINK SEGMENT 1400