

MEMO



To

CHBP Grant Review

From

HNTB

Cc

ODOT

Subject

Kay County CHBP I-35 Plan Set and
Cost Estimate

Date

November 27, 2018

Attached are preliminary 90% design plans and cost estimates for consideration in the Kay County CHBP Grant Application for the I-35 Bridge Raises for JP2443215. Please note the following items as you review:

- These plans are preliminary and not for construction. These plans are 90% complete and have been submitted for the Final Plan Field Review Meeting scheduled for December 6, 2018. 100% Plans, Specs, and Estimates are due in December 2018.
- Plans and cost estimates have been provided for JP 22432(15) – I-35 Bridge Raisings, which includes eight bridge locations (Indian, Adobe, Ferguson, Chrysler, Coleman, Hartford, Highland, North) over I-35 in Kay County, Oklahoma. Also included are the plans and costs for one additional bridge location, the removal/demolition of Home Road over I-35.
- As part of the Field Assessment and corresponding memo dated 5-25-2017, it was recommended that Home Road be removed from service as it was not a good candidate for a raise considering the condition of the existing structure. This removal was subsequently approved by ODOT and later approved by the Kay County commission.
- The removal/demolition of Home Road bridge has been excluded from the Grant application.

Estimate I-35 Base Bid

Estimated Cost:\$4,902,252.90

Contingency: 10.00%

Estimated Total: \$5,392,478.19

Base Date: 10/31/18

Spec Year: 09

Unit System: E

Work Type: GRADE, DRAIN AND BRIDGE

Highway Type: GRAVEL

Urban/Rural Type: RURAL

Season: FALL

County: KAY

Latitude of Midpoint: 0

Longitude of Midpoint: 0

District:

Federal/State Project Number:

Prepared by System Administrator

<u>Line #</u>	<u>Item Number</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
<u>Description</u>					
<u>Supplemental Description</u>					
0001	201(A) 0102 CLEARING AND GRUBBING	1.000	LSUM	\$15,000.00000	\$15,000.00
0002	202(A) 0183 UNCLASSIFIED EXCAVATION	7,285.000	CY	\$10.55000	\$76,856.75
0003	202(D) 0184 UNCLASSIFIED BORROW	16,665.000	CY	\$13.00000	\$216,645.00
0004	205(A) 4230 TYPE A-SALVAGED TOPSOIL	8,136.000	CY	\$6.10000	\$49,629.60
0005	221(C) 2801 TEMPORARY SILT FENCE	19,725.000	LF	\$1.20000	\$23,670.00
0006	221(K) 0600 TEMPORARY FIBER LOG	225.000	LF	\$3.35000	\$753.75
0007	230(A) 2806 SOLID SLAB SODDING	60,165.000	SY	\$1.35000	\$81,222.75
0008	233(A) 2817 VEGETATIVE MULCHING	12.460	AC	\$205.00000	\$2,554.30
0009	402(E) 0225 TRAFFIC BOUND SURFACE COURSE TYPE E	8,068.000	TON	\$31.00000	\$250,108.00
0010	509(D) 0325 CLASS C CONCRETE	10.000	CY	\$330.00000	\$3,300.00
0011	613(A) 0492 24" R.C.PIPES CLASS III	10.000	LF	\$90.00000	\$900.00
0012	613(L) 5730 24" PREFAB. CULVERT END SECTION, ROUND	2.000	EA	\$920.00000	\$1,840.00
0013	619(A) 0920 REMOVAL OF STRUCTURES & OBSTRUCTIONS	1.000	LSUM	\$30,000.00000	\$30,000.00
0014	619(B) 4725 REMOVAL OF FENCE	2,993.000	LF	\$1.75000	\$5,237.75

<u>Line #</u>	<u>Item Number</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
<u>Description</u>					
<u>Supplemental Description</u>					
0015	619(B) 4728 REMOVAL OF ASPHALT PAVEMENT	145.000	SY	\$10.00000	\$1,450.00
0016	619(B) 4780 REMOVAL OF GUARDRAIL	3,918.000	LF	\$3.10000	\$12,145.80
0017	623(A) 1418 BEAM GUARDRAIL W-BEAM SINGLE	2,038.000	LF	\$18.00000	\$36,684.00
0018	623(G) 8590 GUARDRAIL END TREATMENT (31")	32.000	EA	\$2,250.00000	\$72,000.00
0019	623(I) 8700 GUARDRAIL BRIDGE CONN-THRIE BEAM (31")	32.000	EA	\$1,500.00000	\$48,000.00
0020	624(C) 4459 FENCE-STYLE SWF (5 BARBED WIRE)	3,168.000	LF	\$5.75000	\$18,216.00

Total for Group 0100:\$946,213.70

Group 0200: Bridge

0021	501(B) 1307 SUBSTRUCTURE EXCAVATION COMMON	435.000	CY	\$55.00000	\$23,925.00
0022	501(G) 6309 CLSM BACKFILL	356.000	CY	\$150.00000	\$53,400.00
0023	502(C) 6116 (PL)FALSEWORK JACKING	1.000	LSUM	\$456,340.00000	\$456,340.00
0024	504(A) 1304 APPROACH SLAB	1,014.200	SY	\$215.00000	\$218,053.00
0025	504(B) 1305 SAW-CUT GROOVING	937.400	SY	\$5.00000	\$4,687.00
0026	504(D) 6245 CONCRETE RAIL (TR4)	640.000	LF	\$105.00000	\$67,200.00
0027	506(A) 1322 STRUCTURAL STEEL	152,990.000	LB	\$5.00000	\$764,950.00
0028	507(C) 6282 ELASTOMERIC BEARING PADS	70.000	EA	\$3,500.00000	\$245,000.00

<u>Line #</u>	<u>Item Number</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
<u>Description</u>					
<u>Supplemental Description</u>					
0029	509 6152	6,284.000	SY	\$50.00000	\$314,200.00
SPECIAL CONCRETE FINISH					
0030	509(B) 1328	75.600	CY	\$650.00000	\$49,140.00
CLASS A CONCRETE					
0031	510(C) 6138	7,160.000	SY	\$110.00000	\$787,600.00
SLOPE WALL (5")					
0032	513(B) 6019	33.000	SY	\$350.00000	\$11,550.00
CLASS B BRIDGE DECK REPAIR					
0033	523(C) 6570	3,594.000	SY	\$20.00000	\$71,880.00
DECK AREA SEALED (FLOODCOATS)					
0034	540 4501	15.000	SY	\$615.00000	\$9,225.00
(PL)REPAIR BRIDGE ITEMS					
0035	545 4800	1.000	LSUM	\$2,300.00000	\$2,300.00
(PL)REPLACE BRIDGE ITEMS					
0036	613(H) 6204	1,942.000	LF	\$40.00000	\$77,680.00
6" PERFORATED PIPE UNDERDRAIN ROUND					
0037	613(I) 6207	736.000	LF	\$25.00000	\$18,400.00
6" NON-PERF.PIPE UNDERDRAIN RND.					
0038	619(B) 2500	1.000	LSUM	\$105,000.00000	\$105,000.00
REMOVAL OF BRIDGE ITEMS					
0039	619(D) 1397	1.000	LSUM	\$90,000.00000	\$90,000.00
REMOVAL OF EXISTING BRIDGE STRUCTURE					

Total for Group 0200:\$3,370,530.00

Group 0300: Traffic

0040	619(B) 5190	700.000	LF	\$3.50000	\$2,450.00
REMOVAL OF CABLE BARRIER					
0041	628(C) 5110	2.000	EA	\$2,000.00000	\$4,000.00
END ANCHORS					
0042	628(F) 5185	10.000	EA	\$1,100.00000	\$11,000.00
(PL)HIGH TENSION CABLE BARRIER - RE-TENSIONING					

<u>Line #</u>	<u>Item Number</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
<u>Description</u>					
<u>Supplemental Description</u>					
0043	850(A) 8110 SHEET ALUMINUM SIGNS	144.000	SF	\$21.00000	\$3,024.00
0044	851(C) 8330 2 1/2" SQUARE TUBE POST	152.000	LF	\$10.00000	\$1,520.00
0045	853 9069 GUARDRAIL DELINEATORS(TYPE 2, CODE 1)	72.000	EA	\$10.60000	\$763.20
0046	871(B) 8705 (SP)CONST.ZONE IMPACT ATTEN.	960.000	SD	\$6.00000	\$5,760.00
0047	877(B) 8484 DELIVER PORTABLE LONGITUDINAL BARRIER	2,240.000	LF	\$22.00000	\$49,280.00
0048	877(C) 8486 RELOCATION OF PORTABLE LONGITUDINAL BARRIER	17,920.000	LF	\$1.40000	\$25,088.00
0049	880(B) 8818 CONSTRUCTION SIGNS 0 TO 6.25 SF	8,000.000	SD	\$0.11000	\$880.00
0050	880(B) 8821 CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	4,000.000	SD	\$0.20000	\$800.00
0051	880(B) 8824 CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	10,000.000	SD	\$2.00000	\$20,000.00
0052	880(C) 8842 CONSTRUCTION BARRICADES(TYPE III)	2,000.000	SD	\$0.75000	\$1,500.00
0053	880(C) 8845 BARRICADES(TYPE III)	10.000	EA	\$300.00000	\$3,000.00
0054	880(C) 8848 WING BARRICADES	1,200.000	SD	\$0.42000	\$504.00
0055	880(E) 8860 WARNING LIGHTS(TYPE A)	10,000.000	SD	\$0.18000	\$1,800.00
0056	880(F) 8878 DRUMS	22,000.000	SD	\$0.12000	\$2,640.00
0057	880(I) 8902 FLAGGER	30.000	SD	\$190.00000	\$5,700.00

<u>Line #</u>	<u>Item Number</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
<u>Description</u>					
<u>Supplemental Description</u>					
0058	882(A) 8306	480.000	SD	\$10.00000	\$4,800.00
PORT.CHANGEABLE MESSAGE SIGN					

Total for Group 0300:\$144,509.20

Group 0600: Staking

0059	642(B) 0096	1.000	LSUM	\$35,000.00000	\$35,000.00
CONSTRUCTION STAKING LEVEL II					

Total for Group 0600:\$35,000.00

Group 0640: Construction

0060	220 2800	1.000	LSUM	\$6,000.00000	\$6,000.00
SWPPP DOCUMENTATION AND MANAGEMENT					

0061	641 1399	1.000	LSUM	\$400,000.00000	\$400,000.00
MOBILIZATION					

Total for Group 0640:\$406,000.00

Estimate I-35 Alt A

Estimated Cost:\$137,030.60

Contingency: 10.00%

Estimated Total: \$150,733.66

Base Date: 10/31/18

Spec Year: 09

Unit System: E

Work Type: GRADE, DRAIN AND BRIDGE

Highway Type: GRAVEL

Urban/Rural Type: RURAL

Season: FALL

County: KAY

Latitude of Midpoint: 0

Longitude of Midpoint: 0

District:

Federal/State Project Number:

Prepared by System Administrator

<u>Line #</u>	<u>Item Number</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
<u>Description</u>					
<u>Supplemental Description</u>					

Group 0100: Roadway

0005	303(A) 2100 AGGREGATE BASE TYPE A	82.000	CY	\$75.00000	\$6,150.00
0006	310(B) 0149 SUBGRADE, METHOD B	370.000	SY	\$5.50000	\$2,035.00
0007	411(B) 5945 SUPERPAVE, TYPE S3(PG 64-22 OK)	124.000	TON	\$115.00000	\$14,260.00
0008	411(C) 5960 SUPERPAVE, TYPE S4(PG 64-22 OK)	41.000	TON	\$165.00000	\$6,765.00

Total for Group 0100:\$29,210.00

Group 0300: Traffic

0009	619(B) 5190 REMOVAL OF CABLE BARRIER	1,775.000	LF	\$3.50000	\$6,212.50
0010	628(F) 5185 (PL)HIGH TENSION CABLE BARRIER - RE-TENSIONING	5.000	EA	\$1,100.00000	\$5,500.00
0011	880(A) 8800 ARROW DISPLAY(TYPE A)	20.000	SD	\$4.00000	\$80.00
0012	880(B) 8818 CONSTRUCTION SIGNS 0 TO 6.25 SF	400.000	SD	\$0.11000	\$44.00
0013	880(B) 8821 CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	200.000	SD	\$0.20000	\$40.00
0014	880(B) 8824 CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	550.000	SD	\$3.75000	\$2,062.50
0015	880(C) 8842 CONSTRUCTION BARRICADES(TYPE III)	40.000	SD	\$0.75000	\$30.00
0016	880(C) 8848 WING BARRICADES	80.000	SD	\$0.42000	\$33.60
0017	880(E) 8860 WARNING LIGHTS(TYPE A)	300.000	SD	\$0.18000	\$54.00

<u>Line #</u>	<u>Item Number</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
<u>Description</u>					
<u>Supplemental Description</u>					
0018	880(F) 8878 DRUMS	3,200.000	SD	\$0.12000	\$384.00
0019	880(I) 8902 FLAGGER	30.000	SD	\$190.00000	\$5,700.00
0020	880(J) 8905 CONSTRUCTION TRAFFIC CONTROL	1.000	LSUM	\$80,000.00000	\$80,000.00
0021	882(A) 8306 PORT.CHANGEABLE MESSAGE SIGN	960.000	SD	\$8.00000	\$7,680.00

Total for Group 0300:\$107,820.60

Estimate I-35 Alt B

Estimated Cost:\$74,846.70

Contingency: 10.00%

Estimated Total: \$82,331.37

Base Date: 10/31/18

Spec Year: 09

Unit System: E

Work Type: GRADE, DRAIN AND BRIDGE

Highway Type: GRAVEL

Urban/Rural Type: RURAL

Season: FALL

County: KAY

Latitude of Midpoint: 0

Longitude of Midpoint: 0

District:

Federal/State Project Number:

Prepared by System Administrator

<u>Line #</u>	<u>Item Number</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
<u>Description</u>					
<u>Supplemental Description</u>					
Group 0300: Traffic					
0001	877(C) 8486 RELOCATION OF PORTABLE LONGITUDINAL BARRIER	17,920.000	LF	\$2.50000	\$44,800.00
0002	880(A) 8800 ARROW DISPLAY(TYPE A)	500.000	SD	\$4.00000	\$2,000.00
0003	880(B) 8818 CONSTRUCTION SIGNS 0 TO 6.25 SF	4,000.000	SD	\$0.11000	\$440.00
0004	880(B) 8821 CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	100.000	SD	\$0.20000	\$20.00
0005	880(B) 8824 CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	1,000.000	SD	\$3.50000	\$3,500.00
0006	880(C) 8842 CONSTRUCTION BARRICADES(TYPE III)	350.000	SD	\$0.75000	\$262.50
0007	880(C) 8848 WING BARRICADES	10.000	SD	\$0.42000	\$4.20
0008	880(E) 8860 WARNING LIGHTS(TYPE A)	1,000.000	SD	\$0.18000	\$180.00
0009	880(F) 8878 DRUMS	7,000.000	SD	\$0.12000	\$840.00
0010	880(I) 8902 FLAGGER	10.000	SD	\$190.00000	\$1,900.00
0011	880(J) 8905 CONSTRUCTION TRAFFIC CONTROL	1.000	LSUM	\$20,000.00000	\$20,000.00
0012	882(A) 8306 PORT.CHANGEABLE MESSAGE SIGN	60.000	SD	\$15.00000	\$900.00

Total for Group 0300:\$74,846.70