

APPENDICES B

COST ESTIMATE

**PLEASANT VALLEY PRELIMINARY ENGINEERING REPORT
PEDESTRIAN BRIDGE OPTIONS ESTIMATED CONSTRUCTION COSTS**



| ITEM | DESCRIPTION | UNIT | UNIT PRICE ¹ | UPSTREAM OPTION | | DOWNSTREAM OPTION | | WISHBONE OPTION | | PENNINSULA OPTION | | BRIDGE WIDENING OPTION | |
|---|---|------|-------------------------|-----------------|--------------------|-------------------|--------------------|-----------------|--------------------|-------------------|--------------------|------------------------|--------------------|
| | | | | QTY | PRICE | QTY | PRICE | QTY | PRICE | QTY | PRICE | QTY | PRICE |
| BRIDGE | | | | | | | | | | | | | |
| 416 | DRILL SHAFT (48 IN) | LF | \$ 520.00 | 260 | \$ 135,200 | 260 | \$ 135,200 | 160 | \$ 83,200 | 160 | \$ 83,200 | 180 | \$ 93,600 |
| 416 | DRILL SHAFT (60 IN) | LF | \$ 520.00 | 275 | \$ 143,000 | 275 | \$ 143,000 | 605 | \$ 314,600 | 550 | \$ 286,000 | 55 | \$ 28,600 |
| 420 | CL C CONC (ABUT) | CY | \$ 950.00 | 122 | \$ 115,900 | 122 | \$ 115,900 | 90 | \$ 85,500 | 90 | \$ 85,500 | 143 | \$ 135,850 |
| 420 | CL C CONC (CAP) | CY | \$ 1,500.00 | 198 | \$ 297,000 | 240 | \$ 360,000 | 407 | \$ 610,500 | 621 | \$ 931,500 | 77 | \$ 115,500 |
| 420 | CL C CONC (COLUMN) | CY | \$ 1,430.00 | 73 | \$ 104,390 | 91 | \$ 130,130 | 147 | \$ 210,210 | 83 | \$ 118,690 | 517 | \$ 739,310 |
| 422 | REINF CONC SLAB | SF | \$ 25.00 | 25,324 | \$ 633,100 | 25,153 | \$ 628,825 | 34,868 | \$ 871,700 | 31,067 | \$ 776,675 | 23,229 | \$ 580,725 |
| 425 | PRESTR CONC SLAB BEAM (4SB15) | LF | \$ 160.00 | 818 | \$ 130,880 | 848 | \$ 135,680 | 405 | \$ 64,800 | 405 | \$ 64,800 | 817 | \$ 130,720 |
| 425 | PRESTR CONC GIRDER (TX) | LF | \$ 170.00 | 2,280 | \$ 387,600 | 2,230 | \$ 379,100 | 2,658 | \$ 451,860 | 2,775 | \$ 471,750 | 1,414 | \$ 240,380 |
| 450 | RAIL (CUSTOM) | LF | \$ 225.00 | 2,092 | \$ 470,700 | 2,062 | \$ 463,950 | 2,405 | \$ 541,125 | 2,057 | \$ 462,825 | 2,908 | \$ 654,300 |
| 420 | CUSTOM ARCH | EA | \$ 1,000,000.00 | 1 | \$ 1,000,000 | 2 | \$ 2,000,000 | 1 | \$ 1,000,000 | 1 | \$ 1,000,000 | 1 | \$ 1,000,000 |
| | | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| BRIDGE SUBTOTAL | | | | | \$3,418,000 | | \$4,492,000 | | \$4,233,000 | | \$4,281,000 | | \$3,719,000 |
| REMOVAL & PAVEMENT STRIPPING | | | | | | | | | | | | | |
| 104 | REMOVING CONC (SIDEWALKS) | SY | \$ 12.00 | - | \$ - | - | \$ - | - | \$ - | - | \$ - | 1,606 | \$ 19,272 |
| 104 | REMOVING CONC (CURB AND GUTTER) | LF | \$ 10.00 | - | \$ - | - | \$ - | - | \$ - | - | \$ - | 2,064 | \$ 20,640 |
| 105 | REMOVING STAB BASE AND ASPH PAV (13") | SY | \$ 10.00 | 383 | \$ 3,830 | 766 | \$ 7,660 | 383 | \$ 3,830 | 383 | \$ 3,830 | 958 | \$ 9,580 |
| 496 | REMOV STR (BRIDGE 100 - 499 FT LENGTH) | EA | \$ 30,000.00 | 1 | \$ 30,000 | 1 | \$ 30,000 | 1 | \$ 30,000 | 1 | \$ 30,000 | 5 | \$ 150,000 |
| | | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| REMOVAL SUBTOTAL | | | | | \$34,000 | | \$38,000 | | \$34,000 | | \$34,000 | | \$199,000 |
| ROADWAY | | | | | | | | | | | | | |
| 110 | EXCAVATION (ROADWAY) | CY | \$ 10.00 | 5,315 | \$ 53,150 | 10,602 | \$ 106,020 | 3,999 | \$ 39,990 | 4,218 | \$ 42,180 | 3,524 | \$ 35,240 |
| 132 | EMBANKMENT (FINAL)(DENS CONT)(TY C) | CY | \$ 18.00 | 4,479 | \$ 80,622 | 4,098 | \$ 73,764 | 2,620 | \$ 47,160 | 4,401 | \$ 79,218 | 2,891 | \$ 52,038 |
| | GRANITE GRAVEL HIKE AND BIKE TRAIL | SY | \$ 36.00 | 717 | \$ 25,812 | 965 | \$ 34,740 | 693 | \$ 24,948 | 709 | \$ 25,524 | 1,611 | \$ 57,996 |
| 247 | FL BS (CMP IN PLC)(TYA GR1-2)(FNAL POS) | CY | \$ 60.00 | 120 | \$ 7,200 | 140 | \$ 8,400 | 91 | \$ 5,460 | 119 | \$ 7,140 | 270 | \$ 16,200 |
| 100 | DECORATIVE ROCK WALL | SF | \$ 60.00 | 706 | \$ 42,360 | 752 | \$ 45,120 | - | \$ - | - | \$ - | 668 | \$ 40,080 |
| 310 | PRIME COAT (MC-30) | GAL | \$ 3.90 | - | \$ - | - | \$ - | - | \$ - | - | \$ - | 115 | \$ 449 |
| 403 | TEMPORARY SPL SHORING | SF | \$ 20.00 | 896 | \$ 17,920 | 1,792 | \$ 35,840 | 896 | \$ 17,920 | 896 | \$ 17,920 | 896 | \$ 17,920 |
| 529 | CONC CURB & GUTTER (TY II) | LF | \$ 20.00 | - | \$ - | - | \$ - | - | \$ - | - | \$ - | 2,064 | \$ 41,280 |
| 341 | D-GR HMA TY-C PG70-22 | TON | \$ 125.00 | 42 | \$ 5,250 | 84 | \$ 10,500 | 42 | \$ 5,250 | 42 | \$ 5,250 | 105 | \$ 13,125 |
| 531 | CONC SIDEWALKS (6") | SY | \$ 85.00 | 978 | \$ 83,130 | 978 | \$ 83,130 | 978 | \$ 83,130 | 978 | \$ 83,130 | 3,752 | \$ 318,920 |
| 540 | MTL W-BEAM GD FEN (TIM POST) | LF | \$ 30.00 | - | \$ - | - | \$ - | - | \$ - | - | \$ - | 400 | \$ 12,000 |
| | | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| ROADWAY SUBTOTAL | | | | | \$315,000 | | \$398,000 | | \$224,000 | | \$260,000 | | \$605,000 |
| AESTHETIC TREATMENTS | | | | | | | | | | | | | |
| | FURNISHINGS ALLOWANCE | LS | \$ 35,000.00 | 1 | \$ 35,000 | 1 | \$ 35,000 | 1 | \$ 35,000 | 1 | \$ 35,000 | 1 | \$ 35,000 |
| | LANDSCAPE & IRRIGATION ALLOWANCE | LS | \$ 200,000.00 | 1 | \$ 200,000 | 1 | \$ 200,000 | 1 | \$ 200,000 | 1 | \$ 200,000 | 1 | \$ 200,000 |
| | WAYFINDING AND INTERPRETIVE SIGNAGE | LS | \$ 50,000.00 | 1 | \$ 50,000 | 1 | \$ 50,000 | 1 | \$ 50,000 | 1 | \$ 50,000 | 1 | \$ 50,000 |
| | LIGHTING ALLOWANCE | LS | \$ 100,000.00 | 1 | \$ 100,000 | 1 | \$ 100,000 | 1 | \$ 100,000 | 1 | \$ 100,000 | 1 | \$ 100,000 |
| | TRELLIS/SHADE STRUCTURE ALLOWANCE | LS | \$ 240,000.00 | 1 | \$ 240,000 | 1 | \$ 240,000 | 1 | \$ 240,000 | 1 | \$ 240,000 | 1 | \$ 240,000 |
| | | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| AESTHETIC TREATMENTS SUBTOTAL | | | | | \$625,000 | | \$625,000 | | \$625,000 | | \$625,000 | | \$625,000 |
| SUM OF QUANTIFIED COSTS | | | | | \$4,392,000 | | \$5,553,000 | | \$5,116,000 | | \$5,200,000 | | \$5,148,000 |

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|--|--|-------------|-------------------------|-----------------|---------------------|-------------------|---------------------|-----------------|---------------------|-------------------|---------------------|------------------------|---------------------|
| | | | | QTY | PRICE | QTY | PRICE | QTY | PRICE | QTY | PRICE | QTY | PRICE |
| UNQUANTIFIED COSTS² | | | | | | | | | | | | | |
| | Construction Traffic Control | MO | \$10,000.00 | 2 | \$ 20,000 | 2 | \$ 20,000 | 2.00 | \$ 20,000 | 2.00 | \$ 20,000 | 18.00 | \$ 180,000 |
| | Temporary and Permanent Erosion Control | | 2.0% | | \$ 87,840 | | \$ 111,060 | | \$ 102,320 | | \$ 104,000 | | \$ 102,960 |
| | Drainage | | 1.0% | | \$ 43,920 | | \$ 55,530 | | \$ 51,160 | | \$ 52,000 | | \$ 51,480 |
| | Utilities (unknown impacts) | | 0.50% | | \$ 21,960 | | \$ 27,765 | | \$ 25,580 | | \$ 26,000 | | \$ 25,740 |
| | Utilities (known mitigation) ⁵ | | 10.00% | | \$ - | | \$ - | | \$ - | | \$ - | | \$ 514,800 |
| | Signing and Pavement Markings | | 0.5% | | \$ 21,960 | | \$ 27,765 | | \$ 25,580 | | \$ 26,000 | | \$ 25,740 |
| | Mobilization & Demobilization | | 10.0% | | \$ 439,200 | | \$ 555,300 | | \$ 511,600 | | \$ 520,000 | | \$ 514,800 |
| | Contingency ³ | | 25.0% | | \$ 1,098,000 | | \$ 1,388,250 | | \$ 1,279,000 | | \$ 1,300,000 | | \$ 1,287,000 |
| | Utility Contingency | | 5.0% | | \$ 219,600 | | \$ 277,650 | | \$ 255,800 | | \$ 260,000 | | \$ 257,400 |
| SUM OF UNQUANTIFIED COSTS | | | | | \$1,733,000 | | \$2,186,000 | | \$2,015,000 | | \$2,048,000 | | \$2,703,000 |
| CONSTRUCTION SUBTOTAL | | | | | \$6,125,000 | | \$7,739,000 | | \$7,131,000 | | \$7,248,000 | | \$7,851,000 |
| RELATED PROJECT COSTS⁴ | | | | | | | | | | | | | |
| | Engineering and Design | | 12.0% | | \$ 735,000 | | \$ 928,680 | | \$ 855,720 | | \$ 869,760 | | \$ 942,120 |
| | CE&I (Construction Engineering & Inspection) | | 10.0% | | \$ 612,500 | | \$ 773,900 | | \$ 713,100 | | \$ 724,800 | | \$ 785,100 |
| | COA Management | | 12.0% | | \$ 735,000 | | \$ 928,680 | | \$ 855,720 | | \$ 869,760 | | \$ 942,120 |
| TOTAL OPTION COST (CURRENT YEAR) | | 2019 | | | \$8,208,000 | | \$10,370,000 | | \$9,556,000 | | \$9,712,000 | | \$10,520,000 |
| TOTAL OPTION COST (YEAR OF EXPENDITURE) | | 2026 | 4.0% | | \$10,900,000 | | \$13,700,000 | | \$12,600,000 | | \$12,800,000 | | \$13,900,000 |

1. Based on TxDOT unit prices and Engineering Judgment: October 2019.

2. Percentage calculated from SUM OF QUANTIFIED COSTS.

5. Escalated to 10% for Bridge Widening Option due to the known utility relocation.

3. Contingency is included to account for conceptual level of detail.

4. Percentage calculated from CONSTRUCTION SUBTOTAL.

This estimate represents our engineering judgment as professionals knowledgeable with the construction of similar projects. This estimate is for planning and programming purposes only and does not guarantee what actual construction costs will be.

| PREVIOUS COST REPORTING | | | | | | |
|--------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|
| Draft 20190518 | | \$10,045,000.00 | \$13,693,000.00 | \$12,764,000.00 | \$12,178,000.00 | \$11,278,000.00 |
| As shown on meeting 2 display boards | | \$10,600,000.00 | \$14,500,000.00 | \$13,500,000.00 | \$12,900,000.00 | \$12,000,000.00 |