



APPENDIX A
CONSTRUCTION COST ESTIMATES



**Appendix A.1
Preliminary Cost Estimate
Recommended Alternative - 44' Pavement Width With Transition to 40' Pavement Width**

| Item No. | Item Description | Unit | Quantity | Engineering Estimate | |
|---------------------------|--|------|----------|----------------------|---------------------|
| | | | | Unit Price | Total Price |
| Drainage | | | | | |
| 1 | Type C Inlet | EA | 8 | \$ 2,500.00 | \$ 20,000.00 |
| 2 | Type "C" Manhole | EA | 7 | \$ 2,500.00 | \$ 17,500.00 |
| 3 | 24" RCP Lead | LF | 197 | \$ 80.00 | \$ 15,760.00 |
| 4 | 5' x 3' Storm Box RCP | LF | 1133 | \$ 165.00 | \$ 186,945.00 |
| 5 | Trench Safety System | LF | 1155 | \$ 1.00 | \$ 1,155.00 |
| 6 | SWPPP | LS | 1 | \$ 15,000.00 | \$ 15,000.00 |
| 7 | CSB for Culvert | LF | 1133 | \$ 27.00 | \$ 30,591.00 |
| 8 | Trench Excavation | CY | 2527 | \$ 12.00 | \$ 30,324.00 |
| 9 | Dewatering | LF | 567 | \$ 30.00 | \$ 17,010.00 |
| Roadway | | | | | |
| 1 | 10-inch Reinforced Concrete Pavement | SY | 7055 | \$ 60.00 | \$ 423,300.00 |
| 2 | Reinforced Concrete Driveway | SF | 3418 | \$ 6.00 | \$ 20,508.00 |
| 3 | Lime / Fly-Ash Stabilized Subgrade, 6-inch | SY | 7055 | \$ 8.00 | \$ 56,440.00 |
| 4 | Lime / Fly-Ash (6% by Dry Weight) | TON | 194 | \$ 130.00 | \$ 25,221.63 |
| 5 | 6-Inch Concrete Curb | LF | 2468 | \$ 7.00 | \$ 17,276.00 |
| 6 | 4.5" Concrete Sidewalk | SF | 6967 | \$ 5.00 | \$ 34,835.00 |
| 7 | Removal of Concrete Pavement | SY | 6582 | \$ 10.00 | \$ 65,820.00 |
| 8 | Removal of Driveways | SY | 462 | \$ 8.00 | \$ 3,696.00 |
| 9 | Roadway Excavation | CY | 1282 | \$ 15.00 | \$ 19,230.00 |
| 10 | Low Profile Concrete Traffic Barrier | LF | 1297 | \$ 30.00 | \$ 38,910.00 |
| 11 | Sodding | SY | 12580 | \$ 4.00 | \$ 50,320.00 |
| 12 | Illumination | LS | 1 | \$ 50,000.00 | \$ 50,000.00 |
| 13 | Pavement Markings | LS | 1 | \$ 10,000.00 | \$ 10,000.00 |
| 14 | Temporary Signal | LS | 1 | \$ 75,000.00 | \$ 75,000.00 |
| 15 | Wheelchair Ramps | EA | 8 | \$ 600.00 | \$ 4,800.00 |
| 16 | Remove Existing Structures | EA | 23 | \$ 500.00 | \$ 11,500.00 |
| 17 | Remove Existing Asphalt Pavement and Base | SY | 352 | \$ 5.00 | \$ 1,760.00 |
| 18 | 2" Asphalt Overlay | TON | 58 | \$ 130.00 | \$ 7,488.29 |
| 19 | Traffic Signal with Fiber Communication | LS | 1 | \$ 200,000.00 | \$ 200,000.00 |
| 20 | Traffic Control and Regulation | LS | 1 | \$ 194,998.99 | \$ 194,998.99 |
| Public Utilities | | | | | |
| 1 | 8-inch Waterline | LF | 1240 | \$ 40.00 | \$ 49,600.00 |
| 2 | Sanitary Sewer Rehabilitation | LF | 1300 | \$ 300.00 | \$ 390,000.00 |
| 3 | Sanitary Sewer Manhole Reconstruction | EA | 4 | \$ 5,000.00 | \$ 20,000.00 |
| 4 | Mobilization for Sanitary Sewer Rehabilitation | LS | 1 | \$ 20,000.00 | \$ 20,000.00 |
| 5 | Sanitary Sewer By-pass Pumping | LS | 1 | \$ 20,000.00 | \$ 20,000.00 |
| Total | | | | \$ | 1,949,989.91 |
| Contingency (25%) | | | | \$ | 487,497.48 |
| Mobilization (10%) | | | | \$ | 243,748.74 |
| Grand Total | | | | \$ | 2,876,235.12 |

**Appendix A.2
Preliminary Cost Estimate
Roadway Alternative 1 - 40' Pavement Width**

| Item No. | Item Description | Unit | Quantity | Engineering Estimate | |
|---------------------------|--|------|----------|----------------------|---------------------|
| | | | | Unit Price | Total Price |
| Drainage | | | | | |
| 1 | Type C Inlet | EA | 8 | \$ 2,500.00 | \$ 20,000.00 |
| 2 | Type "C" Manhole | EA | 7 | \$ 2,500.00 | \$ 17,500.00 |
| 3 | 24" RCP Lead | LF | 197 | \$ 80.00 | \$ 15,760.00 |
| 4 | 5' x 3' Storm Box RCP | LF | 1133 | \$ 165.00 | \$ 186,945.00 |
| 5 | Trench Safety System | LF | 1155 | \$ 1.00 | \$ 1,155.00 |
| 6 | SWPPP | LS | 1 | \$ 15,000.00 | \$ 15,000.00 |
| 7 | CSB for Culvert | LF | 1133 | \$ 27.00 | \$ 30,591.00 |
| 8 | Trench Excavation | CY | 2527 | \$ 12.00 | \$ 30,324.00 |
| 9 | Dewatering | LF | 567 | \$ 30.00 | \$ 17,010.00 |
| Roadway | | | | | |
| 1 | 10-inch Reinforced Concrete Pavement | SY | 6612 | \$ 60.00 | \$ 396,720.00 |
| 2 | Reinforced Concrete Driveway | SF | 4172 | \$ 6.00 | \$ 25,032.00 |
| 3 | Lime / Fly-Ash Stabilized Subgrade, 6-inch | SY | 6612 | \$ 8.00 | \$ 52,896.00 |
| 4 | Lime / Fly-Ash (6% by Dry Weight) | TON | 182 | \$ 130.00 | \$ 23,637.90 |
| 5 | 6-Inch Concrete Curb | LF | 2487 | \$ 7.00 | \$ 17,409.00 |
| 6 | 4.5" Concrete Sidewalk | SF | 7303 | \$ 5.00 | \$ 36,515.00 |
| 7 | Removal of Concrete Pavement | SY | 6582 | \$ 10.00 | \$ 65,820.00 |
| 8 | Removal of Driveways | SY | 462 | \$ 8.00 | \$ 3,696.00 |
| 9 | Roadway Excavation | CY | 1097 | \$ 15.00 | \$ 16,455.00 |
| 10 | Low Profile Concrete Traffic Barrier | LF | 1297 | \$ 30.00 | \$ 38,910.00 |
| 11 | Sodding | SY | 1796 | \$ 4.00 | \$ 7,184.00 |
| 12 | Illumination | LS | 1 | \$ 50,000.00 | \$ 50,000.00 |
| 13 | Pavement Markings | LS | 1 | \$ 10,000.00 | \$ 10,000.00 |
| 14 | Temporary Signal | LS | 1 | \$ 75,000.00 | \$ 75,000.00 |
| 15 | Wheelchair Ramps | EA | 8 | \$ 600.00 | \$ 4,800.00 |
| 16 | Remove Existing Structures | EA | 23 | \$ 500.00 | \$ 11,500.00 |
| 17 | Remove Existing Asphalt Pavement and Base | SY | 352 | \$ 5.00 | \$ 1,760.00 |
| 18 | 2" Asphalt Overlay | TON | 58 | \$ 130.00 | \$ 7,488.29 |
| 19 | Traffic Signal with Fiber Communication | LS | 1 | \$ 200,000.00 | \$ 200,000.00 |
| 20 | Traffic Control and Regulation | LS | 1 | \$ 187,870.82 | \$ 187,870.82 |
| Public Utilities | | | | | |
| 1 | 8-inch Waterline | LF | 1240 | \$ 40.00 | \$ 49,600.00 |
| 2 | Sanitary Sewer Rehabilitation | LF | 1300 | \$ 300.00 | \$ 390,000.00 |
| 3 | Sanitary Sewer Manhole Reconstruction | EA | 4 | \$ 5,000.00 | \$ 20,000.00 |
| 4 | Mobilization for Sanitary Sewer Rehabilitation | LS | 1 | \$ 20,000.00 | \$ 20,000.00 |
| 5 | Sanitary Sewer By-pass Pumping | LS | 1 | \$ 20,000.00 | \$ 20,000.00 |
| Total | | | | \$ | 1,878,708.19 |
| Contingency (25%) | | | | \$ | 469,677.05 |
| Mobilization (10%) | | | | \$ | 234,838.52 |
| Grand Total | | | | \$ | 2,771,094.58 |

Appendix A.3



**Preliminary Cost Estimate
Roadway Alternative 2 - 44' Pavement Width**

| Item No. | Item Description | Unit | Quantity | Engineering Estimate | |
|---------------------------|--|------|----------|----------------------|---------------------|
| | | | | Unit Price | Total Price |
| Drainage | | | | | |
| 1 | Type C Inlet | EA | 8 | \$ 2,500.00 | \$ 20,000.00 |
| 2 | Type "C" Manhole | EA | 7 | \$ 2,500.00 | \$ 17,500.00 |
| 3 | 24" RCP Lead | LF | 197 | \$ 80.00 | \$ 15,760.00 |
| 4 | 5' x 3' Storm Box RCP | LF | 1133 | \$ 165.00 | \$ 186,945.00 |
| 5 | Trench Safety System | LF | 1155 | \$ 1.00 | \$ 1,155.00 |
| 6 | SWPPP | LS | 1 | \$ 15,000.00 | \$ 15,000.00 |
| 7 | CSB for Culvert | LF | 1133 | \$ 27.00 | \$ 30,591.00 |
| 8 | Trench Excavation | CY | 2527 | \$ 12.00 | \$ 30,324.00 |
| 9 | Dewatering | LF | 567 | \$ 30.00 | \$ 17,010.00 |
| Roadway | | | | | |
| 1 | 10-inch Reinforced Concrete Pavement | SY | 7138 | \$ 60.00 | \$ 428,280.00 |
| 2 | Reinforced Concrete Driveway | SF | 3362 | \$ 6.00 | \$ 20,172.00 |
| 3 | Lime / Fly-Ash Stabilized Subgrade, 6-inch | SY | 7138 | \$ 8.00 | \$ 57,104.00 |
| 4 | Lime / Fly-Ash (6% by Dry Weight) | TON | 196 | \$ 130.00 | \$ 25,518.35 |
| 5 | 6-Inch Concrete Curb | LF | 2444 | \$ 7.00 | \$ 17,108.00 |
| 6 | 4.5" Concrete Sidewalk | SF | 6967 | \$ 5.00 | \$ 34,835.00 |
| 7 | Removal of Concrete Pavement | SY | 6582 | \$ 10.00 | \$ 65,820.00 |
| 8 | Removal of Driveways | SY | 462 | \$ 8.00 | \$ 3,696.00 |
| 9 | Roadway Excavation | CY | 1282 | \$ 15.00 | \$ 19,230.00 |
| 10 | Low Profile Concrete Traffic Barrier | LF | 1297 | \$ 30.00 | \$ 38,910.00 |
| 11 | Sodding | SY | 12580 | \$ 4.00 | \$ 50,320.00 |
| 12 | Illumination | LS | 1 | \$ 50,000.00 | \$ 50,000.00 |
| 13 | Pavement Markings | LS | 1 | \$ 10,000.00 | \$ 10,000.00 |
| 14 | Temporary Signal | LS | 1 | \$ 75,000.00 | \$ 75,000.00 |
| 15 | Wheelchair Ramps | EA | 8 | \$ 600.00 | \$ 4,800.00 |
| 16 | Remove Existing Structures | EA | 23 | \$ 500.00 | \$ 11,500.00 |
| 17 | Remove Existing Asphalt Pavement and Base | SY | 352 | \$ 5.00 | \$ 1,760.00 |
| 18 | 2" Asphalt Overlay | TON | 58 | \$ 130.00 | \$ 7,488.29 |
| 19 | Traffic Signal with Fiber Communication | LS | 1 | \$ 200,000.00 | \$ 200,000.00 |
| 20 | Traffic Control and Regulation | LS | 1 | \$ 195,542.66 | \$ 195,542.66 |
| Public Utilities | | | | | |
| 1 | 8-inch Waterline | LF | 1240 | \$ 40.00 | \$ 49,600.00 |
| 2 | Sanitary Sewer Rehabilitation | LF | 1300 | \$ 300.00 | \$ 390,000.00 |
| 3 | Sanitary Sewer Manhole Reconstruction | EA | 4 | \$ 5,000.00 | \$ 20,000.00 |
| 4 | Mobilization for Sanitary Sewer Rehabilitation | LS | 1 | \$ 20,000.00 | \$ 20,000.00 |
| 5 | Sanitary Sewer By-pass Pumping | LS | 1 | \$ 20,000.00 | \$ 20,000.00 |
| Total | | | | \$ | 1,955,426.64 |
| Contingency (25%) | | | | \$ | 488,856.66 |
| Mobilization (10%) | | | | \$ | 244,428.33 |
| Grand Total | | | | \$ | 2,884,254.29 |