

## DETAILED COST ESTIMATE AND COST ANALYSIS

### Project Goals and Objectives

There are significant flood risks in and around the city of San Antonio along Leon Creek and its tributaries. The flood risk is generally associated with infrequent, high-intensity rainfall events that result in extremely rapid but relatively short-duration flood peaks associated with high velocity stream flows. Of the 13 storms recorded worldwide for the greatest depth of precipitation in a single event, two are located along the Balcones escarpment in the vicinity of the study area. The 1978 storm centered over Medina, Texas produced almost 30 inches of rainfall in 24 hours, while the 1935 storm in D'Hanis produced 22 inches of rainfall in less than 3 hours. (Slade and Patton, 2002) More recently, the storms of October 1998 and August 2007 are typical examples of the flood risk faced by study area residents. Within a 24-hour period in August 2007, large portions of the Leon Creek watershed received between 12 and 16 inches of rain, with almost the entire watershed receiving 6 to 10 inches in that same period. (Jackson, undated) Velocities were sufficient to sweep at least one automobile off Grissom Road in the central portion of the watershed, and main traffic lanes on Interstate Highway 10, as well as US Highway 90, and State Highway 16 (both of which cross Leon Creek) were all closed due to the flood hazard. Within the city of San Antonio, eleven persons died during this event. In August of 2007, flooding associated with Tropical Storm Erin. During this event, the portion of the Leon Creek watershed near the I-35 intersection reported in excess of 8.25 inches of rain in 24 hours with a peak rainfall intensity of 2.25 inches per hour while Helotes Creek sub-watershed just to the north reported total rainfall amounts of almost 7 inches with a peak rainfall intensity of 3.8 inches per hour. (SARA, 2007)

Approximately 4,629 structures would be expected to receive damage from a 0.2% Annual Exceedence Probability (AEP) event, and expected annual damages in the watershed are estimated at \$12.3 million. More than 1500 single-family homes are located within the 1% AEP flood plain, and within several isolated pockets, damageable properties are located within the 50% AEP floodplain. Not only is it a large economic burden when flooding occurs, but there is concern for public health and safety. In sharp contrast, this same watershed can experience periods of low or almost nonexistent flow in certain areas, resulting in degradation of the channel and its environs. Despite these problems, opportunities exist to reduce flood damages and restore balance to the area's water resources.

There are problems for the Leon Creek ecosystem as well. Because the riparian woodlands of the watershed have been severely degraded due to residential development and urbanization, there is a need to restore this valuable riparian woodland habitat to improve the overall aquatic character and habitat of the creek. Multiple ecosystem restoration opportunities exist in the Leon Creek study area, ranging from restoration of riparian and aquatic ecosystems to improvement of endangered species habitat.

## **Objectives**

Plans formulated during this study will be evaluated based on their contributions to NED that are consistent with protection of the Nation's environment. In addition to these National objectives, additional planning objectives evolved from meetings with area residents, contact with the local sponsors, state and Federal agencies, and from observations made in the area. Specific needs, desires, and goals of the community were identified. The following planning objectives for this study were identified during the initial stages:

1. Reduce risk of flood damages within the Leon Creek Watershed and decrease the number of residents who reside in the 4% AEP and 1% AEP floodplains by 80%. Protect all structures in the 1% AEP floodplain from flood damages.
2. Reduce risk to life, health, and welfare of Leon Creek Watershed residents by decreasing flood risk to the extent practicable.
3. Restore and maintain the natural character of floodplains and a more natural hydraulic regime throughout the Watershed.
4. Restore ecosystems to a more diverse and sustainable natural condition by increasing aquatic and riparian habitat.
5. Increase opportunities for public use and recreation to residents of the Leon Creek Watershed and surrounding areas. Enhance connections between new and existing recreation.

## **Methodology**

To arrive at the current costs for each of the alternative, the MII V 4.1 software was used, after the Alternative Formulation Briefing the estimate was updated in MII Version 4.2, using the most recent cost books and labor rates. This is the most current version of the MCACES software. Each of the alternatives in the estimate is broken out based on the Civil Works Work Breakdown Structure (CWWBS). Within each alternative there are portions related to different areas of the CWWBS. To determine what the correct identification was for each component the PDT discussed this and found the most suitable. The Relocations CWWBS code was used for utilities. The quantities for each of the alternatives were acquired from the Halff and reviewed by the Civil Branch, Structural and Economics. The Non-Structural alternative is broken out by Area of Interest and relevant year Storm to get a better handle on the possible damage in those areas to have a clearer understanding of the affects of floods on this project. The Planning, Engineering and Design is currently reflected as 18 percent and Construction Management as 12 percent of the total construction cost for each alternative. Once the recommended plan is chosen it will be revised to be more specific. It currently includes but not limited to Cultural Resources, Geotechnical, and Surveys for Topographics and utilities.

## **Assumptions and Constraints**

The quantities are based on information provided by Halff and Associates. The Land acquisition costs are based on the RE spreadsheet that was provided, and includes RE markups.

## **Risks**

Contingencies for the alternatives were calculated using the Abbreviated Risk Analysis with variable contingencies based on the feature of work between 10.54% and 28.52% with a total project contingency of roughly 25.30% for construction and 20% for Lands and Damages. Risks discussed for determination of these contingencies dealt with unknown utility lines, sludge basins and fuel storage tank that had to be removed, along with the usability of the on-site soil for the levee construction.

## **Recommended Plan**

Since all three measures are incrementally justified, the plan recommended by the PDT and supported by the Sponsor consists of the 100-year Levee with Hydraulic Mitigation in AOI-2, the Helotes Creek Detention site, and the buyout (permanent floodplain evacuation) of four single-family homes and 32 townhomes in NS AOI-4. The overall plan has an estimated first cost of \$27,415,733 and produces flood risk reduction benefits estimated at \$3,872,080 annually. The Recommended Plan provides protection at the 1% AEP level for the Test Cell area (AOI-2), a significant reduction in flood damages in AOI-5, and eliminates flood damages at the 4% AEP level in NS AOI-4. It has only minor environmental effects and a robust benefit-to-cost ratio of 2.65 to 1.0. After further investigation it was determined that the Helotes Quarry will not be included in the Recommended Plan. Also the levee has been redesigned to wrap around the test cell area and includes a bentonite slurry floodwall to protect against seepage. The estimated first cost of this amended recommended plan \$28,965,866 and produces flood risk reduction benefits estimated at \$2,128,340 annually. The benefit-to-cost ratio of 1.49 to 1.0 at the FY2013 Federal interest rate.

Identification of this plan is consistent with the emphasis on sustainability embodied in the Corps' updated Environmental Operating Principles.

Tasks remaining to complete definition of the Recommended Plan include formal resource agency coordination, selection and approval of a mitigation plan, development of a Real Estate Appraisal, and an MCACES cost estimate. Safety Assurance Review and other required agency procedures are anticipated after completion of all Feasibility Report components and are discussed in detail in the Project Review Plan, which posted on the Fort Worth District website at [www.swf.usace.army.mil](http://www.swf.usace.army.mil).

Leon Creek, San Antonio, TX

Revised based on Quantities from the Halff on 4 October 2013.

This project includes Non-Structural buyouts for on AOI at the 25-yr flood level along with a channel modification and wrap around levee at the Test Cell.

It is assumed this will not be awarded to a small business and the prime contractor will perform the majority of the channel/sump work with the demo, storm drainage and levee being completed by a subcontractor.

Estimated by CESWF-EC-AC  
Designed by  
Prepared by N. Taggart

Preparation Date 9/21/2013  
Effective Date of Pricing 10/1/2012  
Estimated Construction Time 1,035 Days

<u>Description</u>	<u>Quantity</u>	<u>UOM</u>	<u>ProjectCost</u>
<b>PROJECT SUMMARY - Scope</b>			<b>28,965,886</b>
<b>1 Leon Creek NED - Total Project Cost</b>	<b>1.00</b>	<b>LS</b>	<b>28,965,886</b>
<b>1.1 NED</b>	<b>1.00</b>	<b>LS</b>	<b>28,965,886</b>
<b>1.1.1 Non-Structural</b>	<b>1.00</b>	<b>LS</b>	<b>5,885,675</b>
<b>1.1.2 Channel Mod w/ Levee in the Test Cell</b>	<b>1.00</b>	<b>LS</b>	<b>23,080,211</b>

<u>Description</u>	<u>Quantity</u>	<u>UOM</u>	<u>ContractCost</u>	<u>Contingency</u>	<u>ProjectCost</u>
<b>PROJECT INDIRECT SUMMARY - System</b>			<b>23,714,782</b>	<b>5,251,105</b>	<b>28,965,886</b>
<b>1 Leon Creek NED - Total Project Cost</b>	<b>1.00</b>	<b>LS</b>	<b>23,714,782</b>	<b>5,251,105</b>	<b>28,965,886</b>
<b>1.1 NED</b>	<b>1.00</b>	<b>LS</b>	<b>23,714,782</b>	<b>5,251,105</b>	<b>28,965,886</b>
<b>1.1.1 Non-Structural</b>	<b>1.00</b>	<b>LS</b>	<b>4,970,633</b>	<b>915,042</b>	<b>5,885,675</b>
<b>1.1.1.1 01 Lands and Damages</b>	<b>1.00</b>	<b>LS</b>	<b>3,982,915</b>	<b>795,958</b>	<b>4,778,873</b>
<b>1.1.1.2 02 Relocations</b>	<b>1.00</b>	<b>LS</b>	<b>673,824</b>	<b>71,021</b>	<b>744,845</b>
<b>1.1.1.3 06 Fish and Wildlife Facilities</b>	<b>1.00</b>	<b>LS</b>	<b>85,959</b>	<b>14,037</b>	<b>99,996</b>
<b>1.1.1.4 30 Planning, Engineering, and Design</b>	<b>1.00</b>	<b>LS</b>	<b>136,761</b>	<b>19,475</b>	<b>156,236</b>
<b>1.1.1.5 31 Construction Manganement</b>	<b>1.00</b>	<b>LS</b>	<b>91,174</b>	<b>14,551</b>	<b>105,725</b>
<b>1.1.2 Channel Mod w/ Levee in the Test Cell</b>	<b>1.00</b>	<b>LS</b>	<b>18,744,149</b>	<b>4,336,063</b>	<b>23,080,211</b>
<b>1.1.2.1 01 Lands and Damages</b>	<b>1.00</b>	<b>LS</b>	<b>2,194,150</b>	<b>438,205</b>	<b>2,632,355</b>
<b>1.1.2.2 02 Relocations</b>	<b>1.00</b>	<b>LS</b>	<b>440,190</b>	<b>121,052</b>	<b>561,243</b>
<b>1.1.2.3 06 Fish and Wildlife Facilities</b>	<b>1.00</b>	<b>LS</b>	<b>738,515</b>	<b>120,599</b>	<b>859,114</b>
<b>1.1.2.4 09 Channels and Canals</b>	<b>1.00</b>	<b>LS</b>	<b>6,701,426</b>	<b>1,911,247</b>	<b>8,612,673</b>
<b>1.1.2.5 11 Levee and Floodwalls</b>	<b>1.00</b>	<b>LS</b>	<b>4,850,637</b>	<b>1,174,824</b>	<b>6,025,461</b>
<b>1.1.2.6 30 Planning, Engineering, and Design</b>	<b>1.00</b>	<b>LS</b>	<b>2,291,538</b>	<b>326,315</b>	<b>2,617,853</b>
<b>1.1.2.7 31 Construction Manganement</b>	<b>1.00</b>	<b>LS</b>	<b>1,527,692</b>	<b>243,820</b>	<b>1,771,512</b>

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
<b>DETAILED ESTIMATE</b>			<b>20,297,019</b>	<b>3,417,762</b>	<b>5,251,105</b>	<b>28,965,886</b>
<b>1 Leon Creek NED - Total Project Cost</b>	<b>1.00</b>	<b>LS</b>	<b>20,297,019</b>	<b>3,417,762</b>	<b>5,251,105</b>	<b>28,965,886</b>
<b>1.1 NED</b>	<b>1.00</b>	<b>LS</b>	<b>20,297,019</b>	<b>3,417,762</b>	<b>5,251,105</b>	<b>28,965,886</b>
<b>1.1.1 Non-Structural</b>	<b>1.00</b>	<b>LS</b>	<b>4,782,037</b>	<b>188,596</b>	<b>915,042</b>	<b>5,885,675</b>
<b>1.1.1.1 01 Lands and Damages</b>	<b>1.00</b>	<b>LS</b>	<b>3,982,915</b>	<b>0</b>	<b>795,958</b>	<b>4,778,873</b>
<b>1.1.1.1.1 AOI-4</b>	<b>1.00</b>	<b>LS</b>	<b>3,982,915</b>	<b>0</b>	<b>795,958</b>	<b>4,778,873</b>
<b>1.1.1.1.1.1 25-Yr Event</b>	<b>1.00</b>	<b>LS</b>	<b>3,982,915</b>	<b>0</b>	<b>795,958</b>	<b>4,778,873</b>
<b>1.1.1.1.1.1.1 Real Estate</b>	<b>1.00</b>	<b>LS</b>	<b>3,982,915</b>	<b>0</b>	<b>795,958</b>	<b>4,778,873</b>
<b>1.1.1.1.1.1.1.1 Constructn Contract(s) Documnts</b>	<b>1.00</b>	<b>LS</b>	<b>3,982,915</b>	<b>0</b>	<b>795,958</b>	<b>4,778,873</b>
<b>1.1.1.1.1.1.1.1.1 Real Estate Analysis Documents</b>	<b>1.00</b>	<b>LS</b>	<b>3,982,915</b>	<b>0</b>	<b>795,958</b>	<b>4,778,873</b>
<b>1.1.1.1.1.1.1.1.1.1 Real Estate Planning Documents</b>	<b>1.00</b>	<b>LS</b>	<b>27,300</b>	<b>0</b>	<b>6,825</b>	<b>34,125</b>
1.1.1.1.1.1.1.1.1.1.1 Planning by Non Federal Sponsor	1.00	LS	19,500	0	4,875	24,375
			7,800.00		25.00%	9,750.00
1.1.1.1.1.1.1.1.1.1.2 Review of Non Federal Sponsor	1.00	LAN	7,800	0	1,950	9,750
<b>1.1.1.1.1.1.1.1.1.2 Real Estate Aquisition Documents</b>	<b>1.00</b>	<b>LS</b>	<b>163,800</b>	<b>0</b>	<b>40,950</b>	<b>204,750</b>
			156,000.00		25.00%	195,000.00
1.1.1.1.1.1.1.1.1.2.1 Acquisitions by Sponsor	1.00	EA	156,000	0	39,000	195,000
			7,800.00		25.00%	9,750.00
1.1.1.1.1.1.1.1.1.2.2 Review of Sponsor	1.00	EA	7,800	0	1,950	9,750
<b>1.1.1.1.1.1.1.1.1.3 Real Estate Condemnation Documents</b>	<b>1.00</b>	<b>LS</b>	<b>61,000</b>	<b>0</b>	<b>6,100</b>	<b>67,100</b>
1.1.1.1.1.1.1.1.1.3.1 Condemnations by Sponsor (estimate 10%)	1.00	LS	60,000	0	6,000	66,000
1.1.1.1.1.1.1.1.1.3.2 Review of Sponsor	1.00	LS	1,000	0	100	1,100
<b>1.1.1.1.1.1.1.1.1.4 Real Estate Appraisal Documents</b>	<b>1.00</b>	<b>LS</b>	<b>105,300</b>	<b>0</b>	<b>21,060</b>	<b>126,360</b>
1.1.1.1.1.1.1.1.1.4.1 Review of Sponsor	1.00	LS	7,800	0	1,560	9,360
1.1.1.1.1.1.1.1.1.4.2 Appraisals by Sponsor	1.00	LS	97,500	0	19,500	117,000
<b>1.1.1.1.1.1.1.1.1.5 Real Estate PL 91-646 Asst. Documents</b>	<b>1.00</b>	<b>LS</b>	<b>40,800</b>	<b>0</b>	<b>4,080</b>	<b>44,880</b>
1.1.1.1.1.1.1.1.1.5.1 PL 91-646 Asst. by Sponsor	1.00	LS	34,000	0	3,400	37,400
1.1.1.1.1.1.1.1.1.5.2 Review of Sponsor	1.00	LS	6,800	0	680	7,480
<b>1.1.1.1.1.1.1.1.1.6 Real Estate Payment Documents</b>	<b>1.00</b>	<b>LS</b>	<b>3,576,915</b>	<b>0</b>	<b>715,383</b>	<b>4,292,298</b>
			7,800.00		20.00%	9,360.00
1.1.1.1.1.1.1.1.1.6.1 Review of Sponsor	1.00	EA	7,800	0	1,560	9,360

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
			3,266,615.00		20.00%	3,919,938.00
1.1.1.1.1.1.1.1.1.1.6.2 Payments by Local Sponsor (Fee)	1.00	EA	3,266,615	0	653,323	3,919,938
1.1.1.1.1.1.1.1.1.1.6.3 Payments by Sponsor (PL 91-646)	1.00	LS	302,500	0	60,500	363,000
<b>1.1.1.1.1.1.1.1.1.1.7 RealEstate LERRD Crediting Docs</b>	<b>1.00</b>	<b>LS</b>	<b>7,800</b>	<b>0</b>	<b>1,560</b>	<b>9,360</b>
1.1.1.1.1.1.1.1.1.1.7.1 Real Estate LERRD Credit Documents	1.00	LS	7,800	0	1,560	9,360
<b>1.1.1.2 02 Relocations</b>	<b>1.00</b>	<b>LS</b>	<b>506,565</b>	<b>167,259</b>	<b>71,021</b>	<b>744,845</b>
<b>1.1.1.2.1 AOI-4</b>	<b>1.00</b>	<b>LS</b>	<b>506,565</b>	<b>167,259</b>	<b>71,021</b>	<b>744,845</b>
<b>1.1.1.2.1.1 25-Yr Event</b>	<b>1.00</b>	<b>LS</b>	<b>506,565</b>	<b>167,259</b>	<b>71,021</b>	<b>744,845</b>
			16.47			24.21
<b>1.1.1.2.1.1.1 Apartment Bldg 7 Structures</b>	<b>24,902.00</b>	<b>SF</b>	<b>410,018</b>	<b>135,381</b>	<b>57,485</b>	<b>602,884</b>
			0.16		10.54%	0.24
1.1.1.2.1.1.1.1 Building demolition, multi-level building, masonry, includes 20 mile haul, excludes foundation demolition, dump fees	498,040.00	CF	81,067	26,767	11,366	119,200
			6.35		10.54%	9.34
1.1.1.2.1.1.1.2 Disposal Fee	18,112.59	CY	115,060	37,991	16,132	169,183
			1.05		10.54%	1.55
1.1.1.2.1.1.1.3 Fencing demolition, remove wood fence, to 6' high, minimum	615.00	LF	648	214	91	953
			4.38		10.54%	6.44
1.1.1.2.1.1.1.4 Demolish, remove pavement & curb, remove concrete curbs, reinforced, excludes hauling and disposal fees	810.00	LF	3,549	1,172	498	5,219
			1.17		10.54%	1.72
1.1.1.2.1.1.1.5 Selective demolition parking lot asphalt	26,055.00	SF	30,522	10,078	4,279	44,879
			1.12		10.54%	1.65
1.1.1.2.1.1.1.6 Demolish, remove pavement & curb, patio/carport,bituminous, to 6" thick, with hand held air equipment, excludes hauling	4,800.00	SF	5,390	1,780	756	7,925
			1.14		10.54%	1.68
1.1.1.2.1.1.1.7 Fine grading, fine grade for slab on grade, machine	5,660.00	SY	6,455	2,131	905	9,491
			4.60		10.54%	6.77
1.1.1.2.1.1.1.8 Bldg. footings and foundations demolition, floors, concrete slab on grade, plain concrete, 6" thick, excludes disposal costs and dump fees	24,902.00	SF	114,650	37,855	16,074	168,579
1.1.1.2.1.1.1.9 Utility Connection Removal	0.06	LS	33,394	11,026	4,682	49,102
			12,705.00		10.54%	18,681.22
1.1.1.2.1.1.1.10 Swimming Pool removal	1.00	EA	12,705	4,195	1,781	18,681
			34.44		10.54%	50.64
1.1.1.2.1.1.1.11 Haul Rubble - TRUCK, HIGHWAY, 30,000 LBS GVW, 2 AXLE, 4X2	72.34	HR	2,491	823	349	3,663



Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.1.2.1.1.1.12 Haul Rubble - Truck dump bed	72.34	HR	1.41 102	34	10.54% 14	2.08 150
1.1.1.2.1.1.1.13 Haul Rubble - Outside Equip. Operators, Medium	72.34	HR	55.07 3,984	1,315	10.54% 559	80.98 5,858
<b>1.1.1.2.1.1.2 Residential 2 - 2 Story</b>	<b>7,594.00</b>	<b>SF</b>	<b>12.71</b> <b>96,547</b>	<b>31,878</b>	<b>13,536</b>	<b>18.69</b> <b>141,961</b>
1.1.1.2.1.1.2.1 Disposal Fee	5,680.55	CY	6.35 36,086	11,915	10.54% 5,059	9.34 53,060
1.1.1.2.1.1.2.2 Fine grading, fine grade for slab on grade, machine	1,177.00	SY	1.14 1,342	443	10.54% 188	1.68 1,974
1.1.1.2.1.1.2.3 Bldg. footings and foundations demolition, floors, concrete slab on grade, plain concrete, 6" thick, excludes disposal costs and dump fees	7,594.00	SF	4.60 34,963	11,544	10.54% 4,902	6.77 51,409
1.1.1.2.1.1.2.4 Utility Connection Removal	0.06	LS	8,228	2,717	1,154	12,098
1.1.1.2.1.1.2.5 Building demolition, two family, two story house, wood, includes 20 mile haul, excludes foundation demolition, dump fees, minimum	2.00	EA	6,264.04 12,528	4,137	10.54% 1,756	9,210.54 18,421
1.1.1.2.1.1.2.6 Demolish, remove pavement & curb, remove bituminous driveways, excludes hauling and disposal fees	333.33	SY	4.18 1,394	460	10.54% 195	6.15 2,050
1.1.1.2.1.1.2.7 Haul Rubble - TRUCK, HIGHWAY, 30,000 LBS GVW, 2 AXLE, 4X2	22.06	HR	34.44 760	251	10.54% 107	50.64 1,117
1.1.1.2.1.1.2.8 Haul Rubble - Truck dump bed	22.06	HR	1.41 31	10	10.54% 4	2.08 46
1.1.1.2.1.1.2.9 Haul Rubble - Outside Equip. Operators, Medium	22.06	HR	55.07 1,215	401	10.54% 170	80.98 1,786
<b>1.1.1.3 06 Fish and Wildlife Facilities</b>	<b>1.00</b>	<b>LS</b>	<b>64,622</b>	<b>21,337</b>	<b>14,037</b>	<b>99,996</b>
<b>1.1.1.3.1 Native grass cover seeding, including fertilization and water, complete in place</b>	<b>18,633.86</b>	<b>SY</b>	<b>3.47</b> <b>64,622</b>	<b>21,337</b>	<b>14,037</b>	<b>5.37</b> <b>99,996</b>
1.1.1.3.1.1 Seeding, mechanical seeding hydro or air seeding for large areas, includes lime, fertilizer	18,633.86	SY	0.82 15,207	5,021	16.33% 3,303	1.26 23,532
1.1.1.3.1.2 Watering, soaker hoses, 60' hose, 1" of water	1,202.85	ACR	41.08 49,415	16,316	16.33% 10,734	63.57 76,465
<b>1.1.1.4 30 Planning, Engineering, and Design</b>	<b>1.00</b>	<b>LS</b>	<b>136,761</b>	<b>0</b>	<b>19,475</b>	<b>156,236</b>
1.1.1.4.1 PED	0.18	LS	136,761	0	19,475	156,236
<b>1.1.1.5 31 Construction Mangement</b>	<b>1.00</b>	<b>LS</b>	<b>91,174</b>	<b>0</b>	<b>14,551</b>	<b>105,725</b>

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.1.5.1 Construction Management	0.12	LS	91,174	0	14,551	105,725
<b>1.1.2 Channel Mod w/ Levee in the Test Cell</b>	<b>1.00</b>	<b>LS</b>	<b>15,514,982</b>	<b>3,229,167</b>	<b>4,336,063</b>	<b>23,080,211</b>
<b>1.1.2.1 01 Lands and Damages</b>	<b>1.00</b>	<b>LS</b>	<b>2,194,150</b>	<b>0</b>	<b>438,205</b>	<b>2,632,355</b>
<b>1.1.2.1.1 Constructn Contract(s) Documnts</b>	<b>1.00</b>	<b>LS</b>	<b>2,194,150</b>	<b>0</b>	<b>438,205</b>	<b>2,632,355</b>
<b>1.1.2.1.1.1 Real Estate Analysis Documents</b>	<b>1.00</b>	<b>LS</b>	<b>2,194,150</b>	<b>0</b>	<b>438,205</b>	<b>2,632,355</b>
<b>1.1.2.1.1.1.1 Real Estate Planning Documents</b>	<b>1.00</b>	<b>LS</b>	<b>27,300</b>	<b>0</b>	<b>6,825</b>	<b>34,125</b>
1.1.2.1.1.1.1.1 Planning by Non Federal Sponsor	1.00	LS	19,500	0	4,875	24,375
			7,800.00		25.00%	9,750.00
1.1.2.1.1.1.1.2 Review of Non Federal Sponsor	1.00	LAN	7,800	0	1,950	9,750
<b>1.1.2.1.1.1.2 Real Estate Aquisition Documents</b>	<b>1.00</b>	<b>LS</b>	<b>163,800</b>	<b>0</b>	<b>40,950</b>	<b>204,750</b>
			156,000.00		25.00%	195,000.00
1.1.2.1.1.1.2.1 Acquisitions by Sponsor	1.00	EA	156,000	0	39,000	195,000
			7,800.00		25.00%	9,750.00
1.1.2.1.1.1.2.2 Review of Sponsor	1.00	EA	7,800	0	1,950	9,750
<b>1.1.2.1.1.1.3 Real Estate Condemnation Documents</b>	<b>1.00</b>	<b>LS</b>	<b>61,000</b>	<b>0</b>	<b>6,100</b>	<b>67,100</b>
1.1.2.1.1.1.3.1 Condemnations by Sponsor (estimate 10%)	1.00	LS	60,000	0	6,000	66,000
1.1.2.1.1.1.3.2 Review of Sponsor	1.00	LS	1,000	0	100	1,100
<b>1.1.2.1.1.1.4 Real Estate Appraisal Documents</b>	<b>1.00</b>	<b>LS</b>	<b>105,300</b>	<b>0</b>	<b>21,060</b>	<b>126,360</b>
1.1.2.1.1.1.4.1 Review of Sponsor	1.00	LS	7,800	0	1,560	9,360
1.1.2.1.1.1.4.2 Appraisals by Sponsor	1.00	LS	97,500	0	19,500	117,000
<b>1.1.2.1.1.1.5 Real Estate PL 91-646 Asst. Documents</b>	<b>1.00</b>	<b>LS</b>	<b>40,800</b>	<b>0</b>	<b>4,080</b>	<b>44,880</b>
1.1.2.1.1.1.5.1 PL 91-646 Asst. by Sponsor	1.00	LS	34,000	0	3,400	37,400
1.1.2.1.1.1.5.2 Review of Sponsor	1.00	LS	6,800	0	680	7,480
<b>1.1.2.1.1.1.6 Real Estate Payment Documents</b>	<b>1.00</b>	<b>LS</b>	<b>1,788,150</b>	<b>0</b>	<b>357,630</b>	<b>2,145,780</b>
			7,800.00		20.00%	9,360.00
1.1.2.1.1.1.6.1 Review of Sponsor	1.00	EA	7,800	0	1,560	9,360
			1,780,350.00		20.00%	2,136,420.00
1.1.2.1.1.1.6.2 Payments by Local Sponsor (Fee)	1.00	EA	1,780,350	0	356,070	2,136,420
<b>1.1.2.1.1.1.7 RealEstate LERRD Crediting Docs</b>	<b>1.00</b>	<b>LS</b>	<b>7,800</b>	<b>0</b>	<b>1,560</b>	<b>9,360</b>
1.1.2.1.1.1.7.1 Real Estate LERRD Credit Documents	1.00	LS	7,800	0	1,560	9,360
<b>1.1.2.2 02 Relocations</b>	<b>1.00</b>	<b>LS</b>	<b>330,925</b>	<b>109,265</b>	<b>121,052</b>	<b>561,243</b>
<b>1.1.2.2.1 Utilities</b>	<b>1.00</b>	<b>LS</b>	<b>330,925</b>	<b>109,265</b>	<b>121,052</b>	<b>561,243</b>

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
<b>1.1.2.2.1.1 Electric</b>	<b>1.00</b>	<b>LS</b>	<b>9,257</b>	<b>3,056</b>	<b>3,386</b>	<b>15,700</b>
			258.07			437.69
<b>1.1.2.2.1.1.1 Remove and Relocate Electric Distribution Power Poles</b>	<b>23.00</b>	<b>EA</b>	<b>5,936</b>	<b>1,960</b>	<b>2,171</b>	<b>10,067</b>
			129.04		27.50%	218.84
1.1.2.2.1.1.1.1 Wood light pole, 20' high, electrical demolition, remove	23.00	EA	2,968	980	1,086	5,033
			129.04		27.50%	218.84
1.1.2.2.1.1.1.2 Wood light pole, 20' high, electrical relocate	23.00	EA	2,968	980	1,086	5,033
			0.07			0.12
<b>1.1.2.2.1.1.2 Remove and Relocate OH Electric Transmission Line</b>	<b>2,800.00</b>	<b>LF</b>	<b>205</b>	<b>68</b>	<b>75</b>	<b>348</b>
			0.07		27.50%	0.12
1.1.2.2.1.1.2.1 Overhead line conductors & devices, overhead ground wire installation, material handling & spotting	2,800.00	LF	205	68	75	348
			12.47			21.14
<b>1.1.2.2.1.1.3 Raise OH Electric 40' Above Existing Ground (Levee Crossing)</b>	<b>250.00</b>	<b>LF</b>	<b>3,116</b>	<b>1,029</b>	<b>1,140</b>	<b>5,285</b>
			1,558.20		27.50%	2,642.67
1.1.2.2.1.1.3.1 Electrical Utility Poles, poles, wood, preservative treatment, 40' high, excludes excavation, backfill and cast in place concrete, see also Section 26 56 13.10 (MF95 16520 300)	2.00	EA	3,116	1,029	1,140	5,285
<b>1.1.2.2.1.2 Water</b>	<b>1.00</b>	<b>LS</b>	<b>119,568</b>	<b>39,479</b>	<b>43,738</b>	<b>202,785</b>
			10.25			17.38
<b>1.1.2.2.1.2.1 Remove &amp; Plug 6" Cast-Iron Water Line (Sump)</b>	<b>200.00</b>	<b>LF</b>	<b>2,049</b>	<b>677</b>	<b>750</b>	<b>3,476</b>
			7.80		27.50%	13.22
1.1.2.2.1.2.1.1 Selective demolition, water & sewer piping & fittings, cast Iron Pipe, 5"-6", diameter, excludes excavation	200.00	LF	1,559	515	570	2,644
			3.85		27.50%	6.52
1.1.2.2.1.2.1.2 Excavating, trench or continuous footing, common earth, 3/4 C.Y. excavator, 4' to 6' deep, excavator, excludes sheeting or dewatering	111.11	BCY	427	141	156	725
			62.78		27.50%	106.48
1.1.2.2.1.2.1.3 Water supply distribution piping, fitting w/rubber gasket, polyvinyl chloride, plug end, 6" diameter, class 150, D.R. 18, excludes excavation or backfill	1.00	EA	63	21	23	106
			93.83			159.14
<b>1.1.2.2.1.2.2 Install 6" Water Line and connect to existing 6" CI Water Line, complete in place</b>	<b>200.00</b>	<b>LF</b>	<b>18,767</b>	<b>6,196</b>	<b>6,865</b>	<b>31,828</b>
			88.06		27.50%	149.34
1.1.2.2.1.2.2.1 Ductile iron pipe, cement lined, mechanical restrained joint, no fittings, 18' lengths, 6" diameter, class 50 water piping, excludes excavation or backfill	200.00	LF	17,611	5,815	6,442	29,868
			1,116.11		27.50%	1,892.90
1.1.2.2.1.2.2.2 Water Service Connection, tapping sleeves with rubber gaskets, 6" x 6", excludes excavation and backfill	1.00	EA	1,116	369	408	1,893

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.2.1.2.2.3 Fill by borrow and utility bedding, for pipe and conduit, compacting bedding in trench	11.11	ECY	3.54 39	13	27.50% 14	6.01 67
<b>1.1.2.2.1.2.3 Remove and Plug 8" Cast Iron Water Line</b>	<b>475.00</b>	<b>LF</b>	<b>13.23 6,286</b>	<b>2,075</b>	<b>2,299</b>	<b>22.44 10,661</b>
1.1.2.2.1.2.3.1 Selective demolition, water & sewer piping & fittings, cast Iron Pipe, 8"-12", diameter, excludes excavation	475.00	LF	10.87 5,162	1,704	27.50% 1,888	18.43 8,755
1.1.2.2.1.2.3.2 Water supply distribution piping, fitting w/rubber gasket, polyvinyl chloride, plug end, 8" diameter, class 150, D.R. 18, excludes excavation or backfill	1.00	EA	108.57 109	36	27.50% 40	184.13 184
1.1.2.2.1.2.3.3 Excavating, trench or continuous footing, common earth, 3/4 C.Y. excavator, 4' to 6' deep, excavator, excludes sheeting or dewatering	263.89	BCY	3.85 1,015	335	27.50% 371	6.52 1,722
<b>1.1.2.2.1.2.4 Install 8" Water Line and connect to existing 8" CI Water Line, complete in place</b>	<b>1,400.00</b>	<b>LF</b>	<b>45.70 63,974</b>	<b>21,123</b>	<b>23,402</b>	<b>77.50 108,499</b>
1.1.2.2.1.2.4.1 Ductile iron pipe, cement lined, push joint (stab), no fittings, 18' lengths, 8" diameter, class 50 water piping, excludes excavation or backfill	1,400.00	LF	42.16 59,028	19,490	27.50% 21,592	71.51 100,110
1.1.2.2.1.2.4.2 Water Service Connection, tapping sleeves with rubber gaskets, 8" x 8", excludes excavation and backfill	1.12	EA	1,498.27 1,678	554	27.50% 614	2,541.04 2,846
1.1.2.2.1.2.4.3 Fill by borrow and utility bedding, for pipe and conduit, compacting bedding in trench	77.78	ECY	3.54 276	91	27.50% 101	6.01 467
1.1.2.2.1.2.4.4 Excavating, trench or continuous footing, common earth, 3/4 C.Y. excavator, 4' to 6' deep, excavator, excludes sheeting or dewatering	777.78	BCY	3.85 2,992	988	27.50% 1,095	6.52 5,075
<b>1.1.2.2.1.2.5 Bore 8" Water line, includes encasement pipe, complete in place</b>	<b>100.00</b>	<b>LF</b>	<b>271.51 27,151</b>	<b>8,965</b>	<b>9,932</b>	<b>460.47 46,047</b>
1.1.2.2.1.2.5.1 Ductile iron pipe, cement lined, push joint (stab), no fittings, 18' lengths, 8" diameter, class 50 water piping, excludes excavation or backfill	100.00	LF	42.16 4,216	1,392	27.50% 1,542	71.51 7,151
1.1.2.2.1.2.5.2 Horizontal boring, roadwork, 1/4" thick wall, 12" diameter casing, includes casing only, 100' minimum, excludes jacking pits or dewatering	100.00	LF	181.97 18,197	6,008	27.50% 6,657	308.63 30,863
1.1.2.2.1.2.5.3 Horizontal boring, prepare jacking pits, includes mobilization and demobilization, minimum	1.00	EA	4,737.15 4,737	1,564	27.50% 1,733	8,034.12 8,034

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
<b>1.1.2.2.1.2.6 Remove and relocate fire hydrant</b>	<b>1.00</b>	<b>EA</b>	1,341.33 <b>1,341</b>	<b>443</b>		2,274.87 <b>2,275</b>
1.1.2.2.1.2.6.1 Minor site demolition, hydrants, fire, remove and reset, excludes hauling	1.00	EA	1,341.33 1,341	443	27.50% 491	2,274.87 2,275
<b>1.1.2.2.1.3 Natural Gas</b>	<b>1.00</b>	<b>LS</b>	<b>65,735</b>	<b>21,705</b>	<b>24,046</b>	<b>111,485</b>
<b>1.1.2.2.1.3.1 Remove and Plug 4" Gas Line</b>	<b>140.00</b>	<b>LF</b>	3.51 <b>492</b>	<b>162</b>		5.96 <b>834</b>
1.1.2.2.1.3.1.1 Selective demolition, natural gas, steel pipe, pipe, 1"- 4", excludes excavation	140.00	LF	1.10 154	51	27.50% 57	1.87 262
1.1.2.2.1.3.1.2 Water supply distribution piping, fitting w/rubber gasket, polyvinyl chloride, plug end, 4" diameter, class 150, D.R. 18, excludes excavation or backfill	1.00	EA	38.28 38	13	27.50% 14	64.91 65
1.1.2.2.1.3.1.3 Excavating, trench or continuous footing, common earth, 3/4 C.Y. excavator, 4' to 6' deep, excavator, excludes sheeting or dewatering	77.78	BCY	3.85 299	99	27.50% 109	6.52 507
<b>1.1.2.2.1.3.2 Install 4" Gas line and connect to existing gas line, complete in place</b>	<b>1,010.00</b>	<b>LF</b>	38.44 <b>38,827</b>	<b>12,820</b>	<b>14,203</b>	65.20 <b>65,849</b>
1.1.2.2.1.3.2.1 Excavating, trench or continuous footing, common earth, 3/4 C.Y. excavator, 4' to 6' deep, excavator, excludes sheeting or dewatering	561.11	BCY	3.85 2,159	713	27.50% 790	6.52 3,661
1.1.2.2.1.3.2.2 Water Service Connection, tapping sleeves with rubber gaskets, 4" x 4", excludes excavation and backfill	1.00	EA	975.40 975	322	27.50% 357	1,654.26 1,654
1.1.2.2.1.3.2.3 Natural Gas Piping, steel pipe, tar coated and wrapped, plain end natural gas distribution, 4" diameter, schedule 40, excludes excavation or backfill	1,010.00	LF	35.34 35,693	11,785	27.50% 13,056	59.93 60,534
<b>1.1.2.2.1.3.3 Bore 4" Gas line</b>	<b>100.00</b>	<b>EA</b>	264.16 <b>26,416</b>	<b>8,722</b>	<b>9,663</b>	448.02 <b>44,802</b>
1.1.2.2.1.3.3.1 Horizontal boring, roadwork, 1/4" thick wall, 8" diameter casing, includes casing only, 100' minimum, excludes jacking pits or dewatering	100.00	LF	181.45 18,145	5,991	27.50% 6,638	307.74 30,774
1.1.2.2.1.3.3.2 Horizontal boring, prepare jacking pits, includes mobilization and demobilization, minimum	1.00	EA	4,737.15 4,737	1,564	27.50% 1,733	8,034.12 8,034
1.1.2.2.1.3.3.3 Natural Gas Piping, steel pipe, tar coated and wrapped, plain end natural gas distribution, 4" diameter, schedule 40, excludes excavation or backfill	100.00	LF	35.34 3,534	1,167	27.50% 1,293	59.93 5,993
<b>1.1.2.2.1.4 Groundwater Contamination Line</b>	<b>1.00</b>	<b>LS</b>	<b>109,469</b>	<b>36,145</b>	<b>40,044</b>	<b>185,658</b>

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
<b>1.1.2.2.1.4.1 Remove and dispose of 3" and 4" HDPE pipe (Pipes are side by side. Total distance is 1800LF)</b>	<b>3,600.00</b>	<b>LF</b>	<b>28,845</b>	<b>9,524</b>	<b>10,552</b>	<b>48,921</b>
			8.01			13.59
1.1.2.2.1.4.1.1 Selective demolition, water & sewer piping & fittings, ductile iron pipe, 4", diameter, excludes excavation	1,800.00	LF	19,081	6,300	27.50% 6,980	17.98 32,361
1.1.2.2.1.4.1.2 Selective demolition, water & sewer piping & fittings, copper pipe, 2 1/2"-3", diameter, excludes excavation	1,800.00	LF	5,917	1,954	27.50% 2,165	5.58 10,035
1.1.2.2.1.4.1.3 Excavating, trench or continuous footing, common earth, 3/4 C.Y. excavator, 4' to 6' deep, excavator, excludes sheeting or dewatering	1,000.00	BCY	3,847	1,270	27.50% 1,407	6.52 6,525
<b>1.1.2.2.1.4.2 Install 1-3" HDPE (groundwater contamination line) and connect to existing, complete in place</b>	<b>2,100.00</b>	<b>LF</b>	<b>37,155</b>	<b>12,268</b>	<b>13,591</b>	<b>63,013</b>
			17.69			30.01
1.1.2.2.1.4.2.1 Excavating, trench or continuous footing, common earth, 3/4 C.Y. excavator, 4' to 6' deep, excavator, excludes sheeting or dewatering	166.67	BCY	641	212	27.50% 235	6.52 1,087
1.1.2.2.1.4.2.2 Pipe, plastic, high density polyethylene (HDPE), dual wall contained pipe, straight, welded, based on 40' length, 3" DR 11 x 6" DR 17, add 1 weld per joint, excludes hangers, trenching, backfill, hoisting or digging equipment.	2,100.00	LF	36,499	12,051	27.50% 13,351	29.48 61,902
1.1.2.2.1.4.2.3 Welding, plastic, high density polyethylene (HDPE), dual wall contained pipe, labor per joint, pipe joint size is the outer pipe, cost based on the thickest walls, 3" pipe size, weld, excludes welding machine	1.00	EA	12	4	27.50% 4	20.82 21
1.1.2.2.1.4.2.4 WELDER, ELECTRIC DRIVEN, 300 AMP, SKID MOUNTED	1.00	HR	2	1	27.50% 1	3.62 4
<b>1.1.2.2.1.4.3 Install 1-4" HDPE (groundwater contamination line) and connect to existing, complete in place</b>	<b>2,100.00</b>	<b>LF</b>	<b>43,469</b>	<b>14,353</b>	<b>15,901</b>	<b>73,723</b>
			20.70			35.11
1.1.2.2.1.4.3.1 Excavating, trench or continuous footing, common earth, 3/4 C.Y. excavator, 4' to 6' deep, excavator, excludes sheeting or dewatering	166.67	BCY	641	212	27.50% 235	6.52 1,087
1.1.2.2.1.4.3.2 Pipe, plastic, high density polyethylene (HDPE), dual wall contained pipe, straight, welded, based on 40' length, 4" DR 17 x 8" DR 26, add 1 weld per joint, excludes hangers, trenching, backfill, hoisting or digging equipment.	2,100.00	LF	42,811	14,135	27.50% 15,660	34.57 72,606
			15.30		27.50%	25.95

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.2.1.4.3.3 Welding, plastic, high density polyethylene (HDPE), single wall, labor per joint, cost based on the thickest wall for each diameter, 4" pipe size, weld, excludes welding machine	1.00	EA	15	5	6	26
			2.13		27.50%	3.62
1.1.2.2.1.4.3.4 WELDER, ELECTRIC DRIVEN, 300 AMP, SKID MOUNTED	1.00	HR	2	1	1	4
			644.61			1,093.25
<b>1.1.2.2.1.5 Concrete pavement cut and repair for utility relocation</b>	<b>35.00</b>	<b>SY</b>	<b>22,562</b>	<b>7,449</b>	<b>8,253</b>	<b>38,264</b>
			102.06		27.50%	173.09
1.1.2.2.1.5.1 Selective demolition, cutout, concrete, slab on grade, bar reinforced, to 6" thick, 8-16 S.F., excludes loading and disposal	35.00	SY	3,572	1,179	1,307	6,058
			32.10		27.50%	54.43
1.1.2.2.1.5.2 Haul off and Disposal	591.67	LCY	18,990	6,270	6,946	32,206
			25.49			43.24
<b>1.1.2.2.1.6 Pressure pipe levee penetration, including casing pipe and valves at each toe</b>	<b>170.00</b>	<b>LF</b>	<b>4,334</b>	<b>1,431</b>	<b>1,585</b>	<b>7,350</b>
			22.60		27.50%	38.33
1.1.2.2.1.6.1 Pipe, plastic, PVC, high impact/pressure, 1" diameter, schedule 80, includes couplings 10' OC, and hangers 3 per 10'	170.00	LF	3,842	1,269	1,405	6,516
			246.02		27.50%	417.25
1.1.2.2.1.6.2 Valves, bronze, relief, pressure, water, threaded, 1", ASME	2.00	EA	492	162	180	835
<b>1.1.2.3 06 Fish and Wildlife Facilities</b>	<b>1.00</b>	<b>LS</b>	<b>555,198</b>	<b>183,317</b>	<b>120,599</b>	<b>859,114</b>
			7.05			10.91
<b>1.1.2.3.1 Unclassified excavation - Leon Creek mitigation</b>	<b>18,555.00</b>	<b>CY</b>	<b>130,822</b>	<b>43,195</b>	<b>28,417</b>	<b>202,435</b>
			7.05		16.33%	10.91
1.1.2.3.1.1 Excavation, bulk, dragline, bank measure, unclassified soil, 1-1/2 C.Y. bucket, excavate and load on truck	18,555.00	BCY	130,822	43,195	28,417	202,435
			5.52			8.54
<b>1.1.2.3.2 Overhaul of excess excavated material to offsite disposal, including haul and placement, complete in place</b>	<b>23,379.30</b>	<b>LCY</b>	<b>128,961</b>	<b>42,581</b>	<b>28,013</b>	<b>199,555</b>
			5.52		16.33%	8.54
1.1.2.3.2.1 Hauling, soil, 12 C.Y. truck, 10 mile haul, includes loading	23,379.30	LCY	128,961	42,581	28,013	199,555
<b>1.1.2.3.3 In-stream Structures</b>	<b>1.00</b>	<b>LS</b>	<b>92,514</b>	<b>30,546</b>	<b>20,096</b>	<b>143,156</b>
			55,134.01			85,314.41
<b>1.1.2.3.3.1 Rock Vane</b>	<b>1.00</b>	<b>EA</b>	<b>55,134</b>	<b>18,204</b>	<b>11,976</b>	<b>85,314</b>
			1.44		16.33%	2.23
1.1.2.3.3.1.1 Soil preparation, mulching, filter fabric weed barrier	259.00	SY	373	123	81	578
			40.67		16.33%	62.94
1.1.2.3.3.1.2 Volume of Aggregate A (rip rap) , dumped	158.24	TON	6,436	2,125	1,398	9,960

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.3.3.1.3 Base course drainage layers, aggregate base course for roadways and large paved areas, alternate method to figure base course, crushed stone, 3/4"maximum size, 9" deep	139.75	TON	48.83 6,824	2,253	16.33% 1,482	75.56 10,559
1.1.2.3.3.1.4 Boulders, installed	352.79	TON	117.63 41,500	13,703	16.33% 9,015	182.03 64,218
<b>1.1.2.3.3.2 Smaller Rock Vane</b>	<b>4.00</b>	<b>EA</b>	<b>9,344.92</b> <b>37,380</b>	<b>12,342</b>	<b>8,120</b>	<b>14,460.33</b> <b>57,841</b>
1.1.2.3.3.2.1 Soil preparation, mulching, filter fabric weed barrier	366.80	SY	1.44 529	175	16.33% 115	2.23 818
1.1.2.3.3.2.2 Volume of Aggregate A (rip rap) , dumped	156.80	TON	40.67 6,378	2,106	16.33% 1,385	62.94 9,869
1.1.2.3.3.2.3 Base course drainage layers, aggregate base course for roadways and large paved areas, alternate method to figure base course, crushed stone, 3/4"maximum size, 9" deep	138.40	TON	48.83 6,758	2,231	16.33% 1,468	75.56 10,457
1.1.2.3.3.2.4 Boulders, installed	201.60	TON	117.63 23,715	7,830	16.33% 5,151	182.03 36,697
<b>1.1.2.3.4 Trees 70 per acre</b>	<b>20.00</b>	<b>ACR</b>	<b>6,841.53</b> <b>136,831</b>	<b>45,179</b>	<b>29,722</b>	<b>10,586.59</b> <b>211,732</b>
1.1.2.3.4.1 Fruits and nuts, juglans nigra, (Black Walnut), B&B, zone 4, 2', bare root	1,680.00	EA	48.35 81,231	26,821	16.33% 17,645	74.82 125,696
1.1.2.3.4.2 Planting, trees, shrubs, and ground cover, medium soil, bare root seedlings, 17" to 24", includes planting only	1,680.00	EA	2.01 3,373	1,114	16.33% 733	3.11 5,219
1.1.2.3.4.3 Water	87,360.00	EA	0.01 438	145	16.33% 95	0.01 678
1.1.2.3.4.4 Subsurface drip irrigation, looped grid, pressure compensating, preinserted emitter, line, hand bury, irregular area, large, hand bury	72,600.00	LF	0.71 51,789	17,100	16.33% 11,250	1.10 80,138
<b>1.1.2.3.5 Clearing and Grubbing</b>	<b>1.00</b>	<b>LS</b>	<b>44,838</b>	<b>14,805</b>	<b>9,740</b>	<b>69,383</b>
1.1.2.3.5.1 Clearing & grubbing, dense brush, including stumps, clear and grub	3.80	ACR	7,013.53 26,651	8,800	16.33% 5,789	10,852.75 41,240
1.1.2.3.5.2 Clearing & grubbing, brush, including stumps	3.20	ACR	5,683.38 18,187	6,005	16.33% 3,951	8,794.47 28,142
<b>1.1.2.3.6 Adaptive Managment</b>	<b>1.00</b>	<b>LS</b>	<b>21,232</b>	<b>7,011</b>	<b>4,612</b>	<b>32,855</b>
1.1.2.3.6.1 Adaptive Management	0.03	LS	21,232	7,011	4,612	32,855
<b>1.1.2.4 09 Channels and Canals</b>	<b>1.00</b>	<b>LS</b>	<b>4,969,281</b>	<b>1,732,145</b>	<b>1,911,247</b>	<b>8,612,673</b>



Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
<b>1.1.2.4.1 09 Channel Improvements</b>	<b>1.00</b>	<b>LS</b>	<b>4,969,281</b>	<b>1,732,145</b>	<b>1,911,247</b>	<b>8,612,673</b>
<b>1.1.2.4.1.1 Site Work</b>	<b>1.00</b>	<b>LS</b>	<b>1,014,178</b>	<b>350,123</b>	<b>389,099</b>	<b>1,753,400</b>
<b>1.1.2.4.1.1.1 Site Prep and SWPPP</b>	<b>1.00</b>	<b>LS</b>	<b>401,527</b>	<b>147,837</b>	<b>156,678</b>	<b>706,042</b>
<b>1.1.2.4.1.1.1.1 Temporary barricades</b>	<b>1.00</b>	<b>EA</b>	<b>39,655</b>	<b>14,601</b>	<b>15,474</b>	<b>69,730</b>
<b>1.1.2.4.1.1.1.1.1 Traffic Control - Labor and Equipment</b>	<b>1.00</b>	<b>LS</b>	<b>34,463</b>	<b>12,689</b>	<b>13,448</b>	<b>60,599</b>
1.1.2.4.1.1.1.1.1.1 Setup signs and barricades	34.00	EA	43.70 1,486	547	28.52% 580	76.84 2,613
1.1.2.4.1.1.1.1.1.2 Traffic control sign and barricade maintenance	365.00	HR	87.40 31,902	11,746	28.52% 12,448	153.69 56,097
1.1.2.4.1.1.1.1.1.3 Preconstruction video survey of roadway	16.00	HR	67.16 1,074	396	28.52% 419	118.09 1,889
1.1.2.4.1.1.1.1.1.4 Traffic Control Flagmen	0.00	DAY	0.00 0	0	0.00% 0	0.00 0
<b>1.1.2.4.1.1.1.1.2 Traffic Control - Materials</b>	<b>1.00</b>	<b>LS</b>	<b>5,193</b>	<b>1,912</b>	<b>2,026</b>	<b>9,131</b>
1.1.2.4.1.1.1.1.2.1 Barricades, Type III, angle iron base, 6' high, 8' wide, with reflective tape	4.00	EA	338.50 1,354	499	28.52% 528	595.22 2,381
1.1.2.4.1.1.1.1.2.2 Road Work Ahead, CW20-1D, 36" x 36"	10.00	EA	58.50 585	215	28.52% 228	102.87 1,029
1.1.2.4.1.1.1.1.2.3 End Road Work, G20-2, 36" x 18"	10.00	EA	32.50 325	120	28.52% 127	57.15 571
1.1.2.4.1.1.1.1.2.4 Site Entrance, Custom, 36" x 36"	4.00	EA	58.50 234	86	28.52% 91	102.87 411
1.1.2.4.1.1.1.1.2.5 Be Prepared To Stop, CW3-4, 36" x 36"	0.00	EA	0.00 0	0	0.00% 0	0.00 0
1.1.2.4.1.1.1.1.2.6 Flag Man Sign, CW20-7, 36" x 36"	0.00	EA	0.00 0	0	0.00% 0	0.00 0
1.1.2.4.1.1.1.1.2.7 Yield, R1-2, 30" x 30" x 30"	0.00	EA	0.00 0	0	0.00% 0	0.00 0
1.1.2.4.1.1.1.1.2.8 Right Lane Closed, CW20-5T, 36" x 36"	0.00	EA	0.00 0	0	0.00% 0	0.00 0
1.1.2.4.1.1.1.1.2.9 Economy stand for aluminum diamond-shaped signs, 48" to 60" signs	22.00	EA	32.50 715	263	28.52% 279	57.15 1,257
1.1.2.4.1.1.1.1.2.10 Preconstruction video survey of roadway	1.00	LS	1,000	368	390	1,758

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.4.1.1.1.2.11 Vertical Panel	45.00	EA	21.77 980	361	28.52% 382	38.28 1,723
<b>1.1.2.4.1.1.1.2 Field Office and storage</b>	<b>1.00</b>	<b>LS</b>	<b>7,486</b>	<b>2,756</b>	<b>2,921</b>	<b>13,163</b>
1.1.2.4.1.1.1.2.1 Temporary electrical power equipment (pro-rated per job), connections, office trailer, 200 amp	1.00	EA	1,261.94 1,262	465	28.52% 492	2,219.00 2,219
1.1.2.4.1.1.1.2.2 Office Trailer, furnished, rent per month, 32' x 8', excl. hookups	24.00	EA	185.00 4,440	1,635	28.52% 1,733	325.30 7,807
1.1.2.4.1.1.1.2.3 Office Trailer, delivery, add per mile	200.00	MI	4.60 920	339	28.52% 359	8.09 1,618
1.1.2.4.1.1.1.2.4 Storage Boxes, rent per month, 20' x 8'	12.00	EA	72.00 864	318	28.52% 337	126.60 1,519
<b>1.1.2.4.1.1.1.3 Silt Fence</b>	<b>4,240.00</b>	<b>LF</b>	<b>9,846</b>	<b>3,625</b>	<b>3,842</b>	<b>17,314</b>
1.1.2.4.1.1.1.3.1 Erosion control, silt fence, polypropylene, 3' high, includes 7.5' posts	4,240.00	LF	2.32 9,846	3,625	28.52% 3,842	4.08 17,314
<b>1.1.2.4.1.1.1.4 Rock Berm In place</b>	<b>160.00</b>	<b>LF</b>	<b>5,882</b>	<b>2,166</b>	<b>2,295</b>	<b>10,343</b>
<b>1.1.2.4.1.1.1.4.1 Rock Filter Dam - Labor and Equipment</b>	<b>1.00</b>	<b>LS</b>	<b>5,882</b>	<b>2,166</b>	<b>2,295</b>	<b>10,343</b>
1.1.2.4.1.1.1.4.1.1 Rock filter dam	170.00	LCY	34.60 5,882	2,166	28.52% 2,295	60.84 10,343
<b>1.1.2.4.1.1.1.5 Stabilized Construction Access</b>	<b>330.00</b>	<b>SY</b>	<b>3,265</b>	<b>1,202</b>	<b>1,274</b>	<b>5,740</b>
1.1.2.4.1.1.1.5.1 Geotextile soil stabilization, geotextile fabric, woven, heavy duty, 600 lb. tensile strength	330.00	SY	9.89 2.06 679	250	28.52% 265	17.39 3.62 1,194
1.1.2.4.1.1.1.5.2 Base course drainage layers, aggregate base course for roadways and large paved areas, sand, washed and graded, compacted, 6" deep	55.00	ECY	41.08 2,259	832	28.52% 882	72.23 3,973
<b>1.1.2.4.1.1.1.5.1 Fiber Roll</b>	<b>743.00</b>	<b>LF</b>	<b>327</b>	<b>120</b>	<b>127</b>	<b>574</b>
1.1.2.4.1.1.1.5.1.1 Synthetic erosion control, jute mesh, 100 SY per roll, 4' wide, stapled	330.00	SY	0.99 327	120	28.52% 127	1.74 574
<b>1.1.2.4.1.1.1.6 Clearing and Grubbing</b>	<b>1.00</b>	<b>LS</b>	<b>176,749</b>	<b>65,077</b>	<b>68,969</b>	<b>310,795</b>
1.1.2.4.1.1.1.6.1 Clearing & grubbing, dense brush, including stumps, clear and grub	19.00	ACR	5,138.57 97,633	35,947	28.52% 38,097	9,035.64 171,677

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.4.1.1.1.6.2 Clearing & grubbing, brush, including stumps	19.00	ACR	4,164.02 79,116	29,130	28.52% 30,872	7,321.98 139,118
<b>1.1.2.4.1.1.1.7 Traffic Control along Military Parkway</b>	<b>1.00</b>	<b>LS</b>	<b>115,904</b>	<b>42,674</b>	<b>45,227</b>	<b>203,805</b>
<b>1.1.2.4.1.1.1.7.1 Traffic Control - Labor and Equipment</b>	<b>1.00</b>	<b>LS</b>	<b>113,121</b>	<b>41,650</b>	<b>44,141</b>	<b>198,911</b>
1.1.2.4.1.1.1.7.1.1 Setup signs and barricades	34.00	EA	43.70 1,486	547	28.52% 580	76.84 2,613
1.1.2.4.1.1.1.7.1.2 Traffic control sign and barricade maintenance	365.00	HR	87.40 31,902	11,746	28.52% 12,448	153.69 56,097
1.1.2.4.1.1.1.7.1.3 Preconstruction video survey of roadway	16.00	HR	67.16 1,074	396	28.52% 419	118.09 1,889
1.1.2.4.1.1.1.7.1.4 Traffic Control Flagmen	175.00	DAY	449.48 78,658	28,961	28.52% 30,693	790.36 138,313
<b>1.1.2.4.1.1.1.7.2 Traffic Control - Materials</b>	<b>1.00</b>	<b>LS</b>	<b>2,783</b>	<b>1,025</b>	<b>1,086</b>	<b>4,894</b>
1.1.2.4.1.1.1.7.2.1 Barricades, Type III, angle iron base, 6' high, 8' wide, with reflective tape	2.00	EA	338.50 677	249	28.52% 264	595.22 1,190
1.1.2.4.1.1.1.7.2.2 Road Work Ahead, CW20-1D, 36" x 36"	8.00	EA	58.50 468	172	28.52% 183	102.87 823
1.1.2.4.1.1.1.7.2.3 End Road Work, G20-2, 36" x 18"	8.00	EA	32.50 260	96	28.52% 101	57.15 457
1.1.2.4.1.1.1.7.2.4 Site Entrance, Custom, 36" x 36"	4.00	EA	58.50 234	86	28.52% 91	102.87 411
1.1.2.4.1.1.1.7.2.5 Be Prepared To Stop, CW3-4, 36" x 36"	2.00	EA	58.50 117	43	28.52% 46	102.87 206
1.1.2.4.1.1.1.7.2.6 Flag Man Sign, CW20-7, 36" x 36"	2.00	EA	58.50 117	43	28.52% 46	102.87 206
1.1.2.4.1.1.1.7.2.7 Yield, R1-2, 30" x 30" x 30"	2.00	EA	32.50 65	24	28.52% 25	57.15 114
1.1.2.4.1.1.1.7.2.8 Right Lane Closed, CW20-5T, 36" x 36"	0.00	EA	0.00 0	0	0.00% 0	0.00 0
1.1.2.4.1.1.1.7.2.9 Economy stand for aluminum diamond-shaped signs, 48" to 60" signs	26.00	EA	32.50 845	311	28.52% 330	57.15 1,486
<b>1.1.2.4.1.1.1.8 Metal Beam Guard Rail, in place</b>	<b>1,300.00</b>	<b>LF</b>	<b>42,739</b>	<b>15,736</b>	<b>16,677</b>	<b>75,152</b>
1.1.2.4.1.1.1.8.1 Vehicle guide rails, corrugated steel, galvanized steel posts, install metal guide/guard rail, double face, wood posts 6'-3" O.C., 6" x 8" posts	1,300.00	LF	32.88 42,739	15,736	28.52% 16,677	57.81 75,152

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
<b>1.1.2.4.1.1.2 Demolition</b>	<b>1.00</b>	<b>LS</b>	<b>612,651</b>	<b>202,286</b>	<b>232,420</b>	<b>1,047,358</b>
			34.81			59.51
<b>1.1.2.4.1.1.2.1 Remove and dispose of 48" RCP storm drain</b>	<b>380.00</b>	<b>LF</b>	<b>13,228</b>	<b>4,368</b>	<b>5,018</b>	<b>22,614</b>
			28.61		28.52%	48.91
1.1.2.4.1.1.2.1.1 Selective demolition, water & sewer piping & fittings, concrete pipe, 42"-48", diameter, excludes excavation	380.00	LF	10,873	3,590	4,125	18,587
			3.10		28.52%	5.30
1.1.2.4.1.1.2.1.2 Excavating, trench or continuous footing, common earth, 1 C.Y. excavator, 6' to 10' deep, excludes sheeting or dewatering	760.00	BCY	2,355	778	893	4,026
			30.30			51.80
<b>1.1.2.4.1.1.2.2 Remove and dispose of concrete pavement, driveways, and pads, including curbs</b>	<b>3,550.00</b>	<b>SY</b>	<b>107,562</b>	<b>35,515</b>	<b>40,806</b>	<b>183,883</b>
			25.10		28.52%	42.91
1.1.2.4.1.1.2.2.1 Demolish, remove pavement & curb, sidewalk, concrete, rod reinforced, 6" thick, with hand held air equipment, excludes hauling	3,550.00	SY	89,100	29,419	33,802	152,321
			31.20		28.52%	53.34
1.1.2.4.1.1.2.2.2 Haul off and Disposal	591.67	LCY	18,462	6,096	7,004	31,562
			16.22			27.73
<b>1.1.2.4.1.1.2.3 Demolish Metal bldg</b>	<b>7,600.00</b>	<b>SF</b>	<b>123,285</b>	<b>40,706</b>	<b>46,770</b>	<b>210,762</b>
			0.17		28.52%	0.28
1.1.2.4.1.1.2.3.1 Building demolition, single level building, steel, includes 20 mile haul, excludes foundation demolition, dump fees	76,000.00	CF	12,617	4,166	4,786	21,569
			31.20		28.52%	53.34
1.1.2.4.1.1.2.3.2 Haul off and Disposal	3,546.67	LCY	110,668	36,541	41,984	189,193
			1.51			2.58
<b>1.1.2.4.1.1.2.4 Remove and dispose of chain link fence enclosure</b>	<b>140.00</b>	<b>LF</b>	<b>211</b>	<b>70</b>	<b>80</b>	<b>361</b>
			1.51		28.52%	2.58
1.1.2.4.1.1.2.4.1 Selective demolition, chain link fences & gates, fence, fabric & accessories, fabric, to 8' high	140.00	LF	211	70	80	361
			12.05			20.60
<b>1.1.2.4.1.1.2.5 Remove and dispose of chain link security fence (perimeter)</b>	<b>4,600.00</b>	<b>LF</b>	<b>55,432</b>	<b>18,303</b>	<b>21,029</b>	<b>94,764</b>
			12.05		28.52%	20.60
1.1.2.4.1.1.2.5.1 Selective demolition, misc metal fences & gates, security fences, 12'-16' high	4,600.00	LF	55,432	18,303	21,029	94,764
			11.22			19.19
<b>1.1.2.4.1.1.2.6 Temporary 6' chain link security fence with portable foundation, complete in place</b>	<b>4,500.00</b>	<b>LF</b>	<b>50,509</b>	<b>16,677</b>	<b>19,162</b>	<b>86,348</b>
			11.22		28.52%	19.19

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.4.1.1.2.6.1 High-security chain link fences, gates & systems, 3 wire barbed wire fence, 7' high, includes excavation and posts	4,500.00	LF	50,509	16,677	19,162	86,348
<b>1.1.2.4.1.1.2.7 Remove and dispose of abandoned concrete sludge dewatering basin</b>	<b>5,200.00</b>	<b>SY</b>	<b>201,830</b>	<b>66,641</b>	<b>76,568</b>	<b>345,039</b>
1.1.2.4.1.1.2.7.1 Haul off and Disposal	1,155.56	LCY	36,057	11,905	13,679	61,642
1.1.2.4.1.1.2.7.2 Minor site demolition, concrete, reinforced, 7" to 24" thick, remove with backhoe, excludes hauling	1,155.56	CY	165,773	54,735	62,889	283,397
<b>1.1.2.4.1.1.2.8 Remove and dispose of abandoned concrete basin</b>	<b>320.00</b>	<b>SY</b>	<b>12,420</b>	<b>4,101</b>	<b>4,712</b>	<b>21,233</b>
1.1.2.4.1.1.2.8.1 Haul off and Disposal	71.11	LCY	2,219	733	842	3,793
1.1.2.4.1.1.2.8.2 Minor site demolition, concrete, reinforced, 7" to 24" thick, remove with backhoe, excludes hauling	71.11	CY	10,201	3,368	3,870	17,440
<b>1.1.2.4.1.1.2.9 Relocate/Adjust Fuel Farm System</b>	<b>1.00</b>	<b>LS</b>	<b>8,940</b>	<b>2,952</b>	<b>3,392</b>	<b>15,284</b>
1.1.2.4.1.1.2.9.1 Underground storage tank removal, remove tank contents, transfer reusable fuel, includes removal and handling	30,000.00	GAL	8,884	2,933	3,370	15,188
1.1.2.4.1.1.2.9.2 Excavating, trench or continuous footing, common earth, 1-1/2 C.Y. excavator, 6' to 10' deep, includes trench box, excludes dewatering	23.00	BCY	56	19	21	96
<b>1.1.2.4.1.1.2.10 Remove and dispose of concrete riprap (Military Parkway Ditch)</b>	<b>430.00</b>	<b>CY</b>	<b>36,724</b>	<b>12,126</b>	<b>13,932</b>	<b>62,782</b>
1.1.2.4.1.1.2.10.1 Selective demolition, rip-rap, slope protection broken stone	430.00	CY	19,818	6,544	7,518	33,880
1.1.2.4.1.1.2.10.2 Haul off and Disposal	541.80	LCY	16,906	5,582	6,414	28,902
<b>1.1.2.4.1.1.2.11 Remove and dispose of 5'x5' RCB and headwall</b>	<b>50.00</b>	<b>LF</b>	<b>2,509</b>	<b>828</b>	<b>952</b>	<b>4,289</b>
1.1.2.4.1.1.2.11.1 Selective demolition, box culvert, precast, 5'5' RCB, excludes excavation	50.00	LF	545	180	207	932
1.1.2.4.1.1.2.11.2 Haul off and Disposal	58.33	LCY	1,820	601	691	3,112

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.4.1.1.2.11.3 Excavating, trench or continuous footing, common earth, 1 C.Y. excavator, 6' to 10' deep, excludes sheeting or dewatering	46.29	BCY	143	47	54	245
<b>1.1.2.4.1.2 Channel</b>	<b>1.00</b>	<b>LS</b>	<b>1,916,302</b>	<b>694,052</b>	<b>744,473</b>	<b>3,354,826</b>
<b>1.1.2.4.1.2.1 Care of Water</b>	<b>1.00</b>	<b>LS</b>	<b>136,154</b>	<b>50,130</b>	<b>53,128</b>	<b>239,413</b>
			1.96		28.52%	3.45
1.1.2.4.1.2.1.1 Excavating, trench or continuous footing, common earth, 1-1/2 C.Y. excavator, 4' to 6' deep, excludes sheeting or dewatering	30,925.00	BCY	60,662	22,335	23,671	106,667
1.1.2.4.1.2.1.2 Backfill, trench, 6" to 12" lifts, dozer backfilling, compaction with sheepsfoot roller	26,595.50	ECY	61,390	22,603	23,955	107,948
			2.31		28.52%	4.06
			245.26			431.26
<b>1.1.2.4.1.2.1.1 Watering during excavation</b>	<b>57.50</b>	<b>DAY</b>	<b>14,102</b>	<b>5,192</b>	<b>5,503</b>	<b>24,797</b>
			60.31		28.52%	106.04
1.1.2.4.1.2.1.1.1 TRUCK, WATER, OFF-HIGHWAY, 5,000 GAL (18,927 L), W/175 HP (130 KW) TRACTOR	115.00	HR	6,935	2,553	2,706	12,195
1.1.2.4.1.2.1.1.2 Outside Equip. Operators, Medium	115.00	HR	4,810	1,771	1,877	8,457
			41.00		28.52%	72.09
1.1.2.4.1.2.1.1.3 Water	57.50	DAY	2,358	868	920	4,145
			1.99			3.50
<b>1.1.2.4.1.2.2 Unclassified excavation - Leon Creek channel</b>	<b>123,700.00</b>	<b>CY</b>	<b>246,548</b>	<b>90,776</b>	<b>96,205</b>	<b>433,528</b>
			5.18		28.52%	9.10
1.1.2.4.1.2.2.1 Excavation, bulk, dragline, bank measure, unclassified soil, 1-1/2 C.Y. bucket, excavate and load on truck	21,507.94	BCY	111,313	40,984	43,435	195,732
1.1.2.4.1.2.2.2 Excavating, structural, bank measure, 140 H.P., dozer, rough grade, push to stockpile	102,192.06	BCY	135,235	49,792	52,770	237,796
			1.32		28.52%	2.33
			4.02			7.06
<b>1.1.2.4.1.2.3 Overhaul of excess excavated material to offsite disposal, including haul and placement, complete in place</b>	<b>27,100.00</b>	<b>LCY</b>	<b>108,858</b>	<b>40,080</b>	<b>42,477</b>	<b>191,416</b>
			4.02		28.52%	7.06
1.1.2.4.1.2.3.1 Hauling, soil, 12 C.Y. truck, 10 mile haul, includes loading	27,100.00	LCY	108,858	40,080	42,477	191,416
			4.03			7.09
<b>1.1.2.4.1.2.4 Compacted Fill Embankment</b>	<b>16,500.00</b>	<b>CY</b>	<b>66,531</b>	<b>24,496</b>	<b>25,961</b>	<b>116,987</b>
			2.42		28.52%	4.26
1.1.2.4.1.2.4.1 Fill by borrow and utility bedding, borrow, select fill for shoulders and embankments, spread fill, with front-end loader	20,790.00	LCY	50,317	18,526	19,634	88,478

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.4.1.2.4.2 Compaction, structural, select fill, 8" lifts, vibratory plate	14,190.00	ECY	1.14 16,214	5,970	28.52% 6,327	2.01 28,510
<b>1.1.2.4.1.2.5 24" Rock Riprap with Heavy Duty Filter Fabric</b>	<b>2,060.00</b>	<b>CY</b>	<b>138.75</b> <b>285,825</b>	<b>105,237</b>	<b>111,531</b>	<b>243.98</b> <b>502,593</b>
1.1.2.4.1.2.5.1 Rip-rap 24"	2,060.00	LCY	136.81 281,839	103,769	28.52% 109,975	240.57 495,584
1.1.2.4.1.2.5.2 Geosynthetic soil stabilization, geotextile fabric, non-woven, 120 lb. tensile strength, includes scarifying and compaction	3,090.00	SY	1.29 3,987	1,468	28.52% 1,556	2.27 7,010
<b>1.1.2.4.1.2.6 Permanent Turf Reinforcement Mat on channel side slopes and bottom, complete in place</b>	<b>87,300.00</b>	<b>SY</b>	<b>8.82</b> <b>769,629</b>	<b>283,368</b>	<b>300,315</b>	<b>15.50</b> <b>1,353,311</b>
1.1.2.4.1.2.6.1 Landlok 450 Permanent Reinforcement Mat	87,300.00	SY	8.82 769,629	283,368	28.52% 300,315	15.50 1,353,311
<b>1.1.2.4.1.2.7 Native grass cover seeding, including fertilization and water, complete in place</b>	<b>87,300.00</b>	<b>SY</b>	<b>3.47</b> <b>302,756</b>	<b>99,965</b>	<b>114,856</b>	<b>5.93</b> <b>517,577</b>
1.1.2.4.1.2.7.1 Seeding, mechanical seeding hydro or air seeding for large areas, includes lime, fertilizer	87,300.00	SY	0.82 71,246	23,524	28.52% 27,028	1.40 121,799
1.1.2.4.1.2.7.2 Watering, soaker hoses, 60' hose, 1" of water	5,635.38	ACR	41.08 231,510	76,440	28.52% 87,828	70.23 395,778
<b>1.1.2.4.1.3 Storm Drainage Improvements/Sluice</b>	<b>1.00</b>	<b>LS</b>	<b>1,443,677</b>	<b>476,676</b>	<b>547,685</b>	<b>2,468,037</b>
<b>1.1.2.4.1.3.1 Adjust and cut flush existing 48" RCP</b>	<b>1.00</b>	<b>EA</b>	<b>230.01</b> <b>230</b>	<b>76</b>	<b>87</b>	<b>393.21</b> <b>393</b>
1.1.2.4.1.3.1.1 Selective demolition, water & sewer piping & fittings, concrete pipe fittings, 48"-84", diameter, excludes excavation	1.00	EA	230.01 230	76	28.52% 87	393.21 393
<b>1.1.2.4.1.3.2 5' x 5' reinforced concrete box culvert, complete in place (sluice structure)</b>	<b>260.00</b>	<b>LF</b>	<b>1,156.31</b> <b>300,641</b>	<b>99,266</b>	<b>114,053</b>	<b>1,976.77</b> <b>513,961</b>
1.1.2.4.1.3.2.1 Box culvert, precast concrete, 5' - 0" x 5' - 0" I.D., excludes excavation and backfill	260.00	LF	1,154.63 300,204	99,122	28.52% 113,888	1,973.90 513,214
1.1.2.4.1.3.2.2 Excavate and load, bank measure, medium material, 1-1/2 C.Y. bucket, hydraulic excavator	240.74	BCY	1.81 437	144	28.52% 166	3.10 746
<b>1.1.2.4.1.3.3 48" concrete headwall, complete in place</b>	<b>1.00</b>	<b>EA</b>	<b>5,611.79</b> <b>5,612</b>	<b>1,853</b>	<b>2,129</b>	<b>9,593.63</b> <b>9,594</b>

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.4.1.3.3.1 Concrete Culverts, headwall concrete, cast in place, 30 degree skewed wingwall, 48" diameter pipe	1.00	EA	5,611.79 5,612	1,853	28.52% 2,129	9,593.63 9,594
<b>1.1.2.4.1.3.4 12" (D50) rock riprap protection at concrete headwall (48" outfall), complete in place</b>	<b>75.00</b>	<b>CY</b>	<b>228.30 17,123</b>	<b>5,654</b>	<b>6,496</b>	<b>390.29 29,272</b>
1.1.2.4.1.3.4.1 Rip-rap 12"	75.00	LCY	228.30 17,123	5,654	28.52% 6,496	390.29 29,272
<b>1.1.2.4.1.3.5 12" (D50) rock riprap protection at 5'x5' sluice outfall, complete in place</b>	<b>425.00</b>	<b>CY</b>	<b>228.30 97,028</b>	<b>32,037</b>	<b>36,809</b>	<b>390.29 165,874</b>
1.1.2.4.1.3.5.1 Rip-rap 12"	425.00	LCY	228.30 97,028	32,037	28.52% 36,809	390.29 165,874
<b>1.1.2.4.1.3.6 Wingwalls for 5'x5' reinforced concrete box culvert, complete in place</b>	<b>25.00</b>	<b>CY</b>	<b>735.41 18,385</b>	<b>6,071</b>	<b>6,975</b>	<b>1,257.23 31,431</b>
1.1.2.4.1.3.6.1 Concrete Culverts, headwall concrete, cast in place, 30 degree skewed wingwall, 60" diameter pipe	2.00	EA	9,192.67 18,385	6,071	28.52% 6,975	15,715.33 31,431
<b>1.1.2.4.1.3.7 5'x5' flap gate, complete in place</b>	<b>1.00</b>	<b>EA</b>	<b>18,390.37 18,390</b>	<b>6,072</b>	<b>6,977</b>	<b>31,439.25 31,439</b>
1.1.2.4.1.3.7.1 Flap gates, hydraulic structures, aluminum, 60" diameter	1.00	EA	18,390.37 18,390	6,072	28.52% 6,977	31,439.25 31,439
<b>1.1.2.4.1.3.8 5" concrete riprap aprons, complete in place</b>	<b>18.00</b>	<b>CY</b>	<b>305.78 5,504</b>	<b>1,817</b>	<b>2,088</b>	<b>522.75 9,409</b>
1.1.2.4.1.3.8.1 Structural concrete, in place, spread footing (3000 psi), over 5 C.Y., includes forms, reinforcing steel, concrete, placing and finishing	18.00	CY	305.78 5,504	1,817	28.52% 2,088	522.75 9,409
<b>1.1.2.4.1.3.9 Structural concrete (sluice gate structure), in place, free-standing wall (3000 psi), 12" thick by 26' high, includes forms, reinforcing steel, concrete, placing and finishing</b>	<b>72.00</b>	<b>CY</b>	<b>694.58 50,009</b>	<b>16,512</b>	<b>18,972</b>	<b>1,187.41 85,494</b>
1.1.2.4.1.3.9.1 Structural concrete, in place, free-standing wall (3000 psi), 12" thick x 26' high, includes forms(4 uses), reinforcing steel, concrete, placing and finishing	72.00	CY	694.58 50,009	16,512	28.52% 18,972	1,187.41 85,494
<b>1.1.2.4.1.3.10 5'x5' Hydraulic sluice gates, hydraulic structures, cast iron, heavy duty, self contained w/ crank oper. gate</b>	<b>1.00</b>	<b>EA</b>	<b>48,736.06 48,736</b>	<b>16,092</b>	<b>18,489</b>	<b>83,316.72 83,317</b>
1.1.2.4.1.3.10.1 Hydraulic sluice gates, hydraulic structures, cast iron, heavy duty, self contained w/crank oper. gate, 60" x 60", AWWA C501	1.00	EA	48,736.06 48,736	16,092	28.52% 18,489	83,316.72 83,317



Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
<b>1.1.2.4.1.3.11 Ladder, shop fabricated, steel, 20" W, bolted to concrete, incl. cage</b>	<b>26.00</b>	<b>VLF</b>	125.56 <b>3,265</b>	<b>1,078</b>		214.65 <b>5,581</b>
1.1.2.4.1.3.11.1 Ladder, shop fabricated, steel, 20" W, bolted to concrete, incl cage	26.00	VLF	125.56 3,265	1,078	28.52% 1,238	214.65 5,581
<b>1.1.2.4.1.3.12 Floor grating, steel, galvanized, 1-3/4" x 3/16" bearing bars @ 15/16" O.C., cross bars @ 4" O.C., 12.5#/sf, field fabricated from panels</b>	<b>37.00</b>	<b>SF</b>	38.49 <b>1,424</b>	<b>470</b>		65.80 <b>2,435</b>
1.1.2.4.1.3.12.1 Floor grating, steel, galvanized, 1-3/4" x 3/16" bearing bars @ 15/16" O.C., cross bars @ 4" O.C., 12.5 #/S.F., up to 300 S.F., field fabricated from panels	37.00	SF	38.49 1,424	470	28.52% 540	65.80 2,435
<b>1.1.2.4.1.3.13 5' x 5' reinforced concrete box culvert, complete in place (Military Drive)</b>	<b>680.00</b>	<b>LF</b>	1,156.31 <b>786,291</b>	<b>259,619</b>		1,976.77 <b>1,344,204</b>
1.1.2.4.1.3.13.1 Box culvert, precast concrete, 5' - 0" x 5' - 0" I.D., excludes excavation and backfill	680.00	LF	1,154.63 785,150	259,242	28.52% 297,861	1,973.90 1,342,252
1.1.2.4.1.3.13.2 Excavate and load, bank measure, medium material, 1-1/2 C.Y. bucket, hydraulic excavator	629.63	BCY	1.81 1,142	377	28.52% 433	3.10 1,952
<b>1.1.2.4.1.3.14 6" concrete riprap, complete in place (Military Drive Ditch)</b>	<b>350.00</b>	<b>CY</b>	260.11 <b>91,038</b>	<b>30,059</b>		444.67 <b>155,635</b>
1.1.2.4.1.3.14.1 Rip-rap, sand-cement rip rap	2,100.00	SY	43.35 91,038	30,059	28.52% 34,537	74.11 155,635
<b>1.1.2.4.1.4 Sump</b>	<b>1.00</b>	<b>LS</b>	<b>595,125</b>	<b>211,294</b>	<b>229,991</b>	<b>1,036,409</b>
<b>1.1.2.4.1.4.1 Unclassified excavation</b>	<b>71,900.00</b>	<b>CY</b>	3.59 <b>257,876</b>	<b>94,947</b>		6.31 <b>453,447</b>
1.1.2.4.1.4.1.1 Excavate and fill, 75 H.P. dozer, move 150', stockpile	71,900.00	BCY	3.59 257,876	94,947	28.52% 100,625	6.31 453,447
<b>1.1.2.4.1.4.2 Compacted Fill Embankment</b>	<b>3,500.00</b>	<b>CY</b>	19.01 <b>66,531</b>	<b>24,496</b>		33.42 <b>116,987</b>
1.1.2.4.1.4.2.1 Fill by borrow and utility bedding, borrow, select fill for shoulders and embankments, spread fill, with front-end loader	20,790.00	LCY	2.42 50,317	18,526	28.52% 19,634	4.26 88,478
1.1.2.4.1.4.2.2 Compaction, structural, select fill, 8" lifts, vibratory plate	14,190.00	ECY	1.14 16,214	5,970	28.52% 6,327	2.01 28,510
<b>1.1.2.4.1.4.3 12" Rock Riprap with Heavy Duty Filter Fabric</b>	<b>270.00</b>	<b>CY</b>	199.70 <b>53,920</b>	<b>19,852</b>		351.15 <b>94,812</b>

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.4.1.4.3.1 Rip-rap conc Class B	270.00	LCY	199.70 53,920	19,852	28.52% 21,040	351.15 94,812
<b>1.1.2.4.1.4.4 6" concrete riprap, complete in place</b>	<b>55.00</b>	<b>CY</b>	<b>199.04</b> <b>10,947</b>	<b>4,031</b>	<b>4,272</b>	<b>350.00</b> <b>19,250</b>
1.1.2.4.1.4.4.1 Rip-rap, sand-cement rip rap	330.00	SY	33.17 10,947	4,031	28.52% 4,272	58.33 19,250
<b>1.1.2.4.1.4.5 Bermuda grass cover (seeding), including fertilization and water, complete in place</b>	<b>27,825.00</b>	<b>SY</b>	<b>7.40</b> <b>205,852</b>	<b>67,968</b>	<b>78,093</b>	<b>12.65</b> <b>351,914</b>
1.1.2.4.1.4.5.1 Watering, soaker hoses, 60' hose, 1" of water	1,793.67	ACR	41.08 73,687	24,330	28.52% 27,954	70.23 125,971
1.1.2.4.1.4.5.2 Seeding, bermuda grass, includes lime, fertilizer	27,825.00	SY	4.75 132,165	43,638	28.52% 50,139	8.12 225,942
<b>1.1.2.5 11 Levee and Floodwalls</b>	<b>1.00</b>	<b>LS</b>	<b>3,646,197</b>	<b>1,204,440</b>	<b>1,174,824</b>	<b>6,025,461</b>
<b>1.1.2.5.1 Levee</b>	<b>1.00</b>	<b>LS</b>	<b>3,646,197</b>	<b>1,204,440</b>	<b>1,174,824</b>	<b>6,025,461</b>
<b>1.1.2.5.1.2 Soil-bentonite slurry wall, complete in place (includes 7% wasting factor)</b>	<b>25,000.00</b>	<b>CY</b>	<b>86.11</b> <b>2,152,834</b>	<b>710,827</b>	<b>693,579</b>	<b>142.29</b> <b>3,557,239</b>
<b>1.1.2.5.1.2.1 Clay Cap</b>	<b>3,571.41</b>	<b>SY</b>	<b>8.56</b> <b>30,562</b>	<b>10,091</b>	<b>9,846</b>	<b>14.14</b> <b>50,499</b>
1.1.2.5.1.2.1.1 Geosynthetic Clay Liner	3,571.41	SY	8.56 30,562	10,091	24.22% 9,846	14.14 50,499
<b>1.1.2.5.1.2.2 Slurry wall</b>	<b>25,000.00</b>	<b>CY</b>	<b>32.55</b> <b>813,837</b>	<b>268,714</b>	<b>262,194</b>	<b>53.79</b> <b>1,344,746</b>
1.1.2.5.1.2.2.1 Slurry wall installation, soil, bentonite backfill mixing per cubic yard	25,000.00	CY	27.74 693,455	228,966	24.22% 223,410	45.83 1,145,831
1.1.2.5.1.2.2.2 Gravel packing and annular sealant, bentonite grout, 50 lb. bags	4,000.00	EA	30.10 120,382	39,748	24.22% 38,784	49.73 198,914
<b>1.1.2.5.1.2.3 Excavation</b>	<b>25,000.00</b>	<b>CY</b>	<b>52.34</b> <b>1,308,435</b>	<b>432,022</b>	<b>421,539</b>	<b>86.48</b> <b>2,161,995</b>
1.1.2.5.1.2.3.1 Slurry wall installation, normal soil, 26' - 75' excavation	25,000.00	CY	52.34 1,308,435	432,022	24.22% 421,539	86.48 2,161,995
<b>1.1.2.5.1.3 Compacted fill embankment, complete in place</b>	<b>151,200.00</b>	<b>CY</b>	<b>4.53</b> <b>684,624</b>	<b>226,051</b>	<b>220,565</b>	<b>7.48</b> <b>1,131,240</b>
1.1.2.5.1.3.1 Fill, from stockpile, 300 H.P. dozer, 2-1/2 C.Y., 300' haul, spread fill, with front-end loader, excludes compaction	190,512.00	LCY	3.16 602,357	198,888	24.22% 194,061	5.22 995,306

Description	Quantity	UOM	CostToPrime	PrimeCMU	Contingency	ProjectCost
1.1.2.5.1.3.2 Compaction of levee clay material, slope area, 3 passes, E.C.Y.	130,032.00	ECY	0.63 82,267	27,163	24.22% 26,504	1.05 135,934
<b>1.1.2.5.1.5 Permanent Turf Reinforcement Mat on channel side slopes and bottom, complete in place</b>	<b>10,225.00</b>	<b>SY</b>	<b>11.52 117,798</b>	<b>38,895</b>	<b>37,951</b>	<b>19.04 194,645</b>
1.1.2.5.1.5.1 Landlok 450 Permanent Reinforcement Mat	10,225.00	SY	11.52 117,798	38,895	24.22% 37,951	19.04 194,645
<b>1.1.2.5.1.6 Bermuda grass cover (seeding), including fertilization and water, complete in place</b>	<b>61,200.00</b>	<b>SY</b>	<b>7.40 452,762</b>	<b>149,494</b>	<b>145,867</b>	<b>12.22 748,123</b>
1.1.2.5.1.6.1 Watering, soaker hoses, 60' hose, 1" of water	3,945.11	ACR	41.08 162,071	53,513	24.22% 52,215	67.88 267,799
1.1.2.5.1.6.2 Seeding,bermuda grass, includes lime, fertilizer	61,200.00	SY	4.75 290,691	95,981	24.22% 93,652	7.85 480,324
<b>1.1.2.5.1.7 6' chain link permanent security perimeter fence, complete in place</b>	<b>3,000.00</b>	<b>LF</b>	<b>49.72 149,165</b>	<b>49,252</b>	<b>48,057</b>	<b>82.16 246,474</b>
1.1.2.5.1.7.1 Fence, metal, security, 6' high, standard FE-6, includes excavation and posts	3,000.00	LF	49.72 149,165	49,252	24.22% 48,057	82.16 246,474
<b>1.1.2.5.1.8 Locking metal access gate, including posts, concrete foundations, and hardware, complete in place</b>	<b>2.00</b>	<b>EA</b>	<b>723.43 1,447</b>	<b>478</b>	<b>466</b>	<b>1,195.36 2,391</b>
1.1.2.5.1.8.1 Fence, chain link industrial, double swing gates, 6' high, 12' opening, includes excavation, posts & hardware in concrete	2.00	OPN	723.43 1,447	478	24.22% 466	1,195.36 2,391
<b>1.1.2.5.1.9 Maintenance Road &amp; Access Ramp - Base course drainage layers, aggregate base course, stone base, compacted, 3/4" stone base, to 9" deep</b>	<b>5,100.00</b>	<b>SY</b>	<b>13.04 66,518</b>	<b>21,963</b>	<b>21,430</b>	<b>21.55 109,910</b>
1.1.2.5.1.9.1 Base course drainage layers, aggregate base course for roadways and large paved areas, stone base, compacted, 3/4" stone base, to 9" deep	5,100.00	SY	13.04 66,518	21,963	24.22% 21,430	21.55 109,910
<b>1.1.2.5.1.10 Access Driveway - 6" concrete, complete in place</b>	<b>20.00</b>	<b>CY</b>	<b>353.74 7,075</b>	<b>2,336</b>	<b>2,279</b>	<b>584.50 11,690</b>
1.1.2.5.1.10.1 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 6" thick, excludes base	1,080.00	SF	5.57 6,020	1,988	24.22% 1,939	9.21 9,946
1.1.2.5.1.10.2 Base course drainage layers, aggregate base course for roadways and large paved areas, stone base, compacted, 3/4" stone base, to 6" deep	1,080.00	SF	0.98 1,055	348	24.22% 340	1.61 1,744

<u>Description</u>	<u>Quantity</u>	<u>UOM</u>	<u>CostToPrime</u>	<u>PrimeCMU</u>	<u>Contingency</u>	<u>ProjectCost</u>
<b>1.1.2.5.1.11 Unclassified excavation - Leon Creek levee</b>	<b>2,700.00</b>	<b>CY</b>	<b>13,974</b>	<b>5,145</b>	<b>4,631</b>	<b>23,749</b>
			<i>5.18</i>			<i>8.80</i>
1.1.2.5.1.11.1 Excavation, bulk, dragline, bank measure, unclassified soil, 1-1/2 C.Y. bucket, excavate and load on truck	2,700.00	BCY	13,974	5,145	24.22% 4,631	8.80 23,749
<b>1.1.2.6 30 Planning, Engineering, and Design</b>	<b>1.00</b>	<b>LS</b>	<b>2,291,538</b>	<b>0</b>	<b>326,315</b>	<b>2,617,853</b>
1.1.2.6.1 PED	0.18	LS	2,291,538	0	326,315	2,617,853
<b>1.1.2.7 31 Construction Manganement</b>	<b>1.00</b>	<b>LS</b>	<b>1,527,692</b>	<b>0</b>	<b>243,820</b>	<b>1,771,512</b>
1.1.2.7.1 Construction Management	0.12	LS	1,527,692	0	243,820	1,771,512

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

PROJECT: Leon Creek Flood Risk Management  
PROJECT NO: P2  
LOCATION: San Antonio, TX

DISTRICT: SWF Fort Worth  
POC: CHIEF, COST ENGINEERING, Milton Schmidt  
PREPARED: 10/17/2013

This Estimate reflects the scope and schedule in report; Feasibility Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER A	Civil Works Feature & Sub-Feature Description B	COST (\$K) C	CNTG (\$K) D	CNTG (%) E	TOTAL (\$K) F	ESC (%) G	COST (\$K) H	CNTG (\$K) I	TOTAL (\$K) J	Spent Thru: 1-Oct-12 (\$K) K	L	COST (\$K) M	CNTG (\$K) N	FULL (\$K) O
02	RELOCATIONS	\$1,114	\$192	17%	\$1,306	0.0%	\$1,114	\$192	\$1,306	\$0		\$1,214	\$209	\$1,423
06	FISH & WILDLIFE FACILITIES	\$824	\$135	16%	\$959	0.0%	\$824	\$135	\$959	\$0		\$911	\$149	\$1,060
09	CHANNELS & CANALS	\$6,701	\$1,911	29%	\$8,613	0.0%	\$6,701	\$1,911	\$8,613	\$0		\$7,405	\$2,112	\$9,516
11	LEVEES & FLOODWALLS	\$4,851	\$1,175	24%	\$6,025	0.0%	\$4,851	\$1,175	\$6,025	\$0		\$5,487	\$1,329	\$6,817
<b>CONSTRUCTION ESTIMATE TOTALS:</b>		\$13,491	\$3,413		\$16,903	0.0%	\$13,491	\$3,413	\$16,903	\$0		\$15,017	\$3,799	\$18,816
01	LANDS AND DAMAGES	\$6,177	\$1,234	20%	\$7,411	0.0%	\$6,177	\$1,234	\$7,411	\$0		\$6,274	\$1,254	\$7,528
30	PLANNING, ENGINEERING & DESIGN	\$2,428	\$346	14%	\$2,774	0.0%	\$2,428	\$346	\$2,774	\$0		\$2,735	\$389	\$3,124
31	CONSTRUCTION MANAGEMENT	\$1,619	\$258	16%	\$1,877	0.0%	\$1,619	\$258	\$1,877	\$0		\$1,804	\$288	\$2,092
<b>PROJECT COST TOTALS:</b>		\$23,715	\$5,251	22%	\$28,966		\$23,715	\$5,251	\$28,966	\$0		\$25,830	\$5,730	\$31,560

<b>Mandatory by Regulation</b>	CHIEF, COST ENGINEERING, Milton Schmidt
<b>Mandatory by Regulation</b>	PROJECT MANAGER, Nova Robbins
<b>Mandatory by Regulation</b>	CHIEF, REAL ESTATE, Hyla Head
	CHIEF, PLANNING,xxx
	CHIEF, ENGINEERING, xxx
	CHIEF, OPERATIONS, xxx
	CHIEF, CONSTRUCTION, Mike Zalesak
	CHIEF, CONTRACTING,xxx
	CHIEF, PM-PB, xxxx
	CHIEF, DPM, xxx

ESTIMATED FEDERAL COST:	50%	\$15,780
ESTIMATED NON-FEDERAL COST:	50%	\$15,780
<b>ESTIMATED TOTAL PROJECT COST:</b>		<b>\$31,560</b>

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

\*\*\*\* CONTRACT COST SUMMARY \*\*\*\*

PROJECT: Leon Creek Flood Risk Management  
 LOCATION: San Antonio, TX  
 This Estimate reflects the scope and schedule in report; Feasibility Report

DISTRICT: SWF Fort Worth  
 POC: CHIEF, COST ENGINEERING, Milton Schmidt  
 PREPARED: 10/17/2013

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: 9/21/2013		Program Year (Budget EC): 2014										
		Effective Price Level: 1-Oct-2012		Effective Price Level Date: 1 OCT 13										
		RISK BASED												
WBS	Civil Works	COST	CNTG	CNTG	TOTAL	ESC	COST	CNTG	TOTAL	Mid-Point	INFLATED	COST	CNTG	FULL
NUMBER	Feature & Sub-Feature Description	(\$K)	(\$K)	(%)	(\$K)	(%)	(\$K)	(\$K)	(\$K)	Date	(%)	(\$K)	(\$K)	(\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
<b>Leon Creek</b>														
02	RELOCATIONS	\$1,114	\$192	17%	\$1,306	0.0%	\$1,114	\$192	\$1,306	2017Q3	9.0%	\$1,214	\$209	\$1,423
06	FISH & WILDLIFE FACILITIES	\$824	\$135	16%	\$959	0.0%	\$824	\$135	\$959	2018Q2	10.5%	\$911	\$149	\$1,060
09	CHANNELS & CANALS	\$6,701	\$1,911	29%	\$8,613	0.0%	\$6,701	\$1,911	\$8,613	2018Q2	10.5%	\$7,405	\$2,112	\$9,516
11	LEVEES & FLOODWALLS	\$4,851	\$1,175	24%	\$6,025	0.0%	\$4,851	\$1,175	\$6,025	2019Q3	13.1%	\$5,487	\$1,329	\$6,817
					\$0									
<b>CONSTRUCTION ESTIMATE TOTALS:</b>		\$13,491	\$3,413	25%	\$16,903		\$13,491	\$3,413	\$16,903			\$15,017	\$3,799	\$18,816
01	LANDS AND DAMAGES	\$6,177	\$1,234	20%	\$7,411	0.0%	\$6,177	\$1,234	\$7,411	2013Q4	1.6%	\$6,274	\$1,254	\$7,528
30	PLANNING, ENGINEERING & DESIGN													
2.0%	Project Management	\$270	\$38	14%	\$308	0.0%	\$270	\$38	\$308	2015Q4	8.8%	\$294	\$42	\$336
1.0%	Planning & Environmental Compliance	\$135	\$19	14%	\$154	0.0%	\$135	\$19	\$154	2015Q4	8.8%	\$147	\$21	\$168
6.2%	Engineering & Design	\$842	\$120	14%	\$962	0.0%	\$842	\$120	\$962	2015Q4	8.8%	\$916	\$130	\$1,046
1.0%	Reviews, ATRs, IEPs, VE	\$135	\$19	14%	\$154	0.0%	\$135	\$19	\$154	2015Q4	8.8%	\$147	\$21	\$168
1.0%	Life Cycle Updates (cost, schedule, risks)	\$135	\$19	14%	\$154	0.0%	\$135	\$19	\$154	2015Q4	8.8%	\$147	\$21	\$168
1.0%	Contracting & Reprographics	\$135	\$19	14%	\$154	0.0%	\$135	\$19	\$154	2015Q4	8.8%	\$147	\$21	\$168
3.0%	Engineering During Construction	\$405	\$58	14%	\$463	0.0%	\$405	\$58	\$463	2018Q4	23.4%	\$500	\$71	\$571
1.8%	Planning During Construction	\$236	\$34	14%	\$270	0.0%	\$236	\$34	\$270	2018Q4	23.4%	\$291	\$41	\$333
1.0%	Project Operations	\$135	\$19	14%	\$154	0.0%	\$135	\$19	\$154	2015Q4	8.8%	\$147	\$21	\$168
31	CONSTRUCTION MANAGEMENT													
8.0%	Construction Management	\$1,079	\$172	16%	\$1,251	0.0%	\$1,079	\$172	\$1,251	2018Q4	11.4%	\$1,202	\$192	\$1,394
2.0%	Project Operation:	\$270	\$43	16%	\$313	0.0%	\$270	\$43	\$313	2018Q4	11.4%	\$301	\$48	\$349
2.0%	Project Management	\$270	\$43	16%	\$313	0.0%	\$270	\$43	\$313	2018Q4	11.4%	\$301	\$48	\$349
<b>CONTRACT COST TOTALS:</b>		\$23,715	\$5,251		\$28,966		\$23,715	\$5,251	\$28,966			\$25,830	\$5,730	\$31,560

**Abbreviated Risk Analysis**

Project (less than \$40M): **Leon Creek**  
 Project Development Stage: **Feasibility (Recommended Plan)**  
 Risk Category: **Low Risk: Simple Project-No Life Safety**

Total Construction Contract Cost = \$ 13,490,551

	<u>CWWBS</u>	<u>Feature of Work</u>	<u>Contract Cost</u>	<u>% Contingency</u>	<u>\$ Contingency</u>	<u>Total</u>
	01 LANDS AND DAMAGES	Real Estate	\$ 6,177,065	19.98%	\$ 1,234,159	\$ 7,411,224.06
1	02 RELOCATIONS	Relocations - Non-Structural	\$ 673,824	10.54%	\$ 71,053	\$ 744,876.94
2	02 RELOCATIONS	Relocations - Structural	\$ 440,190	27.50%	\$ 121,040	\$ 561,230.75
3	09 01 CHANNELS	Channel/Sump/Demo/Storm Drainage	\$ 6,701,426	28.52%	\$ 1,911,371	\$ 8,612,797.06
4	11 01 LEVEES	Levee	\$ 4,850,637	24.22%	\$ 1,174,614	\$ 6,025,251.17
5	06 FISH AND WILDLIFE FACILITIES	Mitigation	\$ 824,474	16.33%	\$ 134,630	\$ 959,104.07
12		Remaining Construction Items	\$ -	0.0%	\$ -	\$ -
13	30 PLANNING, ENGINEERING, AND DESIGN	Planning, Engineering, & Design	\$ 2,428,299	14.24%	\$ 345,775	\$ 2,774,073.91
14	31 CONSTRUCTION MANAGEMENT	Construction Management	\$ 1,618,866	15.96%	\$ 258,341	\$ 1,877,207.22

<b>Totals</b>						
		Real Estate	\$ 6,177,065	19.98%	\$ 1,234,159	\$ 7,411,224.06
		Total Construction Estimate	\$ 13,490,551	25.30%	\$ 3,412,709	\$ 16,903,260
		Total Planning, Engineering & Design	\$ 2,428,299	14.24%	\$ 345,775	\$ 2,774,074
		Total Construction Management	\$ 1,618,866	15.96%	\$ 258,341	\$ 1,877,207
		<b>Total</b>	\$ 23,714,782		\$ 5,250,984	\$ 28,965,765