

Appendix B10
Opinion of Probable Construction Cost

| WATANA PROGRAM COST | JULY 2014 |
|---|---------------------------------------|
| FERC LICENCING | \$ 267,253,000 |
| OWNER COST ADMIN & LEGAL | \$ 184,664,354 |
| INITIAL CAMP & ACCESS | inc in Licensing cost |
| ENGINEERING DESIGN FOR LIC | \$ 20,573,000 |
| ENGINEERING FINAL DESIGN | \$ 184,664,354 |
| ENGINEERING DURING CONSTRUCTION | \$ 92,385,641 |
| CONSTRUCTION MANAGEMENT | \$ 153,869,141 |
| ENVIRONMENTAL MONITORING DURING CONSTRUCTION | \$ 57,420,242 |
| GEOTECHNICAL INVESTIGATION | \$ 28,870,513 |
| LOGISTICS FOR SI | \$ 8,554,226 |
| QUALITY CONTROL & INSPECTION | \$ 92,385,641 |
| CONSTRUCTION COST (JULY 2014 Main Civil Contract only) | \$ 2,878,841,278 |
| ENVIRONMENTAL MITIGATION MEASURES | \$ 407,738,281 |
| PERMITS AND FEES | TBD |
| PERMANENT ACCESS ROAD CONTRACT | \$ 192,031,833 |
| RAILHEAD IMPROVEMENTS | \$ 34,068,783 |
| TRANSMISSION LINES | \$ 165,743,940 |
| AIRPORT CONSTRUCTION | included in airport civil & buildings |
| AIRPORT OPERATION | \$ 130,361,141 |
| AIR SERVICE | included in airport operations |
| CAMP & AIRSTRIP CIVIL WORKS CONTRACT | \$ 30,049,914 |
| CAMP & AIRSTRIP BUILDINGS CONSTRUCTION CONTRACT | \$ 178,400,154 |
| CAMP OPERATION & SECURITY CONTRACT | \$ 159,115,083 |
| CLEARING CONTRACT | \$ 45,297,999 |
| TURBINE, GENERATOR, TRANSFORMER SUPPLY CONTRACT | \$ 201,792,198 |
| MEDICAL & EVACUATION CONTRACT | \$ 20,721,785 |
| RAILROAD ARRC OPERATION CONTRACT | \$ 59,508,577 |
| CONSTRUCTION INTEREST | TBD |
| PROJECT ESCALATION | TBD |
| FINANCING COST | TBD |
| OWNER INSURANCE | \$ 61,590,428 |
| TOTAL PROGRAM COST | \$ 5,655,901,506 |
| Per AACE Cost Estimate Guidelines Estimate Range | |
| LOW PROGRAM COST -30% | \$ 3,959,131,054 |
| HIGH PROGRAM COST +50% | \$ 8,483,852,259 |

**SUSITNA-WATANA HYDROELECTRIC PROJECT
PERMANENT ACCESS ROAD CONTRACT
RCC Dam 600 MW
Opinion of Probable Construction Costs**

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | | \$ 192,031,833 | |
|---------------------|---|--------------|-----------|--------------------------|-----------------------|--|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments | |
| 336 | Roads, Rail & Air Facilities | 1 | LS | | \$ 112,315,436 | | |
| 336.100 | Permanent Access Road | 1 | LS | | \$ 112,315,436 | | |
| 336.101 | Clearing & Grubbing | 876.50 | AC | 8,203.17 | \$ 7,190,075 | | |
| 336.102 | Pioneer | 2,587.20 | STA | 775.39 | \$ 2,006,089 | | |
| 336.103 | Erosion & Sediment Controls | 1.00 | LS | 936,379.83 | \$ 936,380 | | |
| 336.104 | Permanent Access Road Excavation Common & Organic Str | 1,711,400.00 | CY | 6.93 | \$ 11,852,205 | Includes 400,000 cy Stripping | |
| 336.104A | Permanent Access Road Place Organic on Slopes | 400,000.00 | CY | 5.92 | \$ 2,367,920 | | |
| 336.105 | Permanent Access Road Excavation Rock | 1,311,400.00 | CY | 12.57 | \$ 16,481,169 | | |
| 336.106 | Permanent Access Road Embankment | 2,522,690.00 | ECY | 3.88 | \$ 9,787,455 | | |
| 336.107 | Gravel Surfacing | 153,315.00 | CY | 20.63 | \$ 3,163,255 | Inc Fine Grade | |
| 336.108 | Permanent Access Road Long Span Bridge MP5.8 | 740.00 | FT | 4,469.34 | \$ 3,307,312 | 24ft Wide Deck | |
| 336.109 | Permanent Access Road Long Span Bridge MP14.9 | 825.00 | FT | 6,229.32 | \$ 5,139,192 | 24ft Wide Deck | |
| 336.110 | Permanent Access Road Long Span Bridge MP15.1 | 700.00 | FT | 5,509.00 | \$ 3,856,303 | 24ft Wide Deck | |
| 336.111 | Permanent Access Road Long Span Bridge MP17.3 | 290.00 | FT | 4,752.60 | \$ 1,378,255 | 24ft Wide Deck | |
| 336.112 | Permanent Access Road Long Span Bridge MP21.6 | 516.00 | FT | 5,292.27 | \$ 2,730,811 | 24ft Wide Deck | |
| 336.113 | Permanent Access Road Long Span Bridge MP26 | 880.00 | FT | 5,956.06 | \$ 5,241,331 | 24ft Wide Deck | |
| 336.114 | Permanent Access Road Long Span Bridge MP43 | 820.00 | FT | 4,809.85 | \$ 3,944,076 | 24ft Wide Deck | |
| 336.115 | Permanent Bridge at Site | 335.00 | FT | 13,951.70 | \$ 4,673,820 | 28ft Wide Deck | |
| 336.116 | Permanent Access Road Drainage | 865.00 | LOC | 9,469.91 | \$ 8,191,472 | | |
| 336.117 | Guard Rail | 51,744.00 | LF | 48.40 | \$ 2,504,588 | 20% of Road | |
| 336.118 | Riprap | 1,730.00 | LOC | 367.30 | \$ 635,428 | | |
| 336.119 | Seeding | 876.50 | AC | 2,200.00 | \$ 1,928,300 | | |
| 336.120 | 24.9 KV System inc transmission (& fibreoptics) from Intertie | 50.00 | Miles | 300,000.00 | \$ 15,000,000 | Allowance | |
| | | | | Running Subtotal: | \$ 112,315,436 | | |
| | Mobilization/Field Oversight Expenses | | | | \$ 29,178,749 | | |
| 1 | Contractor General Conditions (Prime) | 17 | Mo | 1,716,397.00 | \$ 29,178,749 | | |
| | Unidentified Required Items | | | | \$ 11,319,535 | | |
| 1 | Unlisted Items Allowance | 1 | LS | 8% | \$ 11,319,535 | | |
| | | | | Running Subtotal: | \$ 152,813,720 | | |
| | Markups | | | | \$ 21,760,674 | | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included | |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included | |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 12.0% | \$ 18,337,646 | | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 3,423,027 | | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included | |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included | |
| | | | | Running Subtotal: | \$ 174,574,394 | | |
| | Project Administration & Management | | | | \$ 17,457,439 | | |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included | |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included | |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included | |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 10% | \$ 17,457,439 | | |
| 5 | Construction Contingency/Management Reserve | 1 | LS | 0% | \$ - | not included | |
| Grand Total: | | | | | \$ 192,031,833 | Total Estimated Constr Costs w/ Cont. | |

Notes:

Cost Range:

\$153,630,000

\$240,040,000

Per AACE cost estimate guidelines

- This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

| Estimate Line Detail | | | | | | | | | | | |
|--|--|---------------------|------------|---------|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
| Roads, Rail & Air Facilities | | 1.00 | LS | | 562,027 | 42,372,577 | 33,221,678 | 19,152,319 | 29,717,335 | 17,030,300 | 141,494,209 |
| | | | | | 562,026.72 | 42,372,576.69 | 33,221,678.45 | 19,152,319.01 | 29,717,334.87 | 17,030,300.00 | 141,494,209.01 |
| Permanent Access Road | | 1.00 | LS | | 408,197 | 31,299,920 | 31,022,428 | 3,347,467 | 29,717,335 | 16,928,300 | 112,315,450 |
| | | | | | 408,197.28 | 31,299,919.74 | 31,022,428.30 | 3,347,466.89 | 29,717,334.87 | 16,928,300.00 | 112,315,449.80 |
| 336.101 | Clearing & Grubbing | 876.50 | AC | | 48,925 | 3,718,623 | 3,471,452 | | | | 7,190,075 |
| | | | | | 55.82 | 4,242.58 | 3,960.58 | | | | 8,203.17 |
| 05 | Clearing | 876.50 | AC | | 21,036 | 1,560,521 | 987,570 | | | | 2,548,091 |
| | | | | | 24.00 | 1,780.40 | 1,126.72 | | | | 2,907.12 |
| | Prod=0.25 acre/hour (5.00 acre/ day), 24.000MH/acre, 0.04 acre/MH, 3,506.00 hour (175.30 days) | | | | | | | | | | |
| | Heavy Density Clearing of Trees | 1.00 | EA | 726.78 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 283,460 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 283,460 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 274,064 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 719,536 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 507,423 | | | | |
| | 2.6 CY Backhoe (Cat 350) | 1.0 | | 118.77 | | | 416,408 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 63,739 | | | | |
| 10 | Grubbing | 876.50 | AC | | 27,889 | 2,158,102 | 2,483,881 | | | | 4,641,984 |
| | | | | | 31.82 | 2,462.18 | 2,833.86 | | | | 5,296.05 |
| | Prod=0.22 AC/hour (4.40 AC/ day), 31.818MH/AC, 0.03 AC/MH, 3,984.09 hour (199.20 days) | | | | | | | | | | |
| | Grubb Heavy Tree Roots & Haul On Site | 1.00 | EA | 1165.13 | | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 322,114 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 311,436 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 298,807 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 272,552 | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 79.75 | | 953,194 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 576,617 | | | | |
| | 2.6 CY Backhoe (Cat 350) | 1.0 | | 118.77 | | | 473,190 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 1,365,547 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 68,526 | | | | |
| 336.102 | Pioneer | 2,587.20 | STA | | 9,000 | 703,530 | 1,302,570 | | | | 2,006,100 |
| | | | | | 3.48 | 271.93 | 503.47 | | | | 775.39 |
| 05 | Pioneer | 2,587.20 | STA | | 9,000 | 703,530 | 1,302,570 | | | | 2,006,100 |
| | | | | | 3.48 | 271.93 | 503.47 | | | | 775.39 |
| | Prod=0.86 STA/hour (17.25 STA/ day), 3.479MH/STA, 0.29 STA/MH, 3,000.00 hour (150.00 days) | | | | | | | | | | |
| | Pioneer | 1.00 | EA | 668.7 | | | | | | | |
| | Dozer Operator | 3.0 | | 78.17 | | 703,530 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 3.0 | | 144.73 | | | 1,302,570 | | | | |
| 336.103 | Erosion & Sediment Controls | 1.00 | LS | | 10,533 | 742,035 | 60,545 | | 133,800 | | 936,380 |
| | | | | | 10,533.33 | 742,035.17 | 60,544.67 | | 133,800.00 | | 936,379.83 |
| 10 | Erosion & Sediment Controls | 1.00 | LS | | 10,533 | 742,035 | 60,545 | | 133,800 | | 936,380 |
| | | | | | 10,533.33 | 742,035.17 | 60,544.67 | | 133,800.00 | | 936,379.83 |
| | Prod=300.00 SF/hour (3,000.00 SF/ day), 0.017MH/SF, 60.00 SF/MH, 1,666.67 hour (166.67 days) | | | | | | | | | | |
| | Place Erosion Mat | 1.00 | EA | 365.84 | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 125,000 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 456,067 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 28,667 | | | | |
| | Prod=200.00 ft/hour (2,000.00 ft/ day), 0.020MH/ft, 50.00 ft/MH, 550.00 hour (55.00 days) | | | | | | | | | | |
| | Erect Silt Fence with Rubber Tire Backhoe | 1.00 | EA | 350.63 | | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 44,468 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 41,250 | | | | | |
| | Labourer | 2.0 | | 68.41 | | 75,251 | | | | | |
| | 1.7 CY Backhoe Loader (Case680) | 1.0 | | 40.76 | | | 22,418 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 9,460 | | | | |
| | Erosion Mat (Single Net Straw Blanket) | 500,000.00 | sf | 0.14 | | | | | 70,000 | | |
| | Heavy Duty Silt Fence | 110,000.00 | ft | 0.58 | | | | | 63,800 | | |
| 336.104 | Permanent Access Road Excavation Common | 1,711,400.00 | CY | | 60,180 | 4,800,155 | 7,052,050 | | | | 11,852,205 |
| | | | | | 0.04 | 2.80 | 4.12 | | | | 6.93 |
| 15 | Common Excavation to Embankment | 1,311,400.00 | CY | | 48,180 | 3,842,968 | 5,639,863 | | | | 9,482,831 |
| | | | | | 0.04 | 2.93 | 4.30 | | | | 7.23 |
| 30 | Excavation to Embankment | 1,311,400.00 | CY | | 48,180 | 3,842,968 | 5,639,863 | | | | 9,482,831 |
| | | | | | 0.04 | 2.93 | 4.30 | | | | 7.23 |
| 20 | Load Haul to Embankment | 1,311,400.00 | CY | | 48,180 | 3,842,968 | 5,639,863 | | | | 9,482,831 |
| | | | | | 0.04 | 2.93 | 4.30 | | | | 7.23 |
| | Prod=299.41 CY/hour (5,988.13 CY/ day), 0.037MH/CY, 27.22 CY/MH, 4,380.00 hour (219.00 days) | | | | | | | | | | |
| | Load Haul to Road Emankment | 1.00 | EA | 2165.03 | | | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|-----------------|---|---------------------|-----------|----------|---------------|------------------|------------------|------------------|----------|----------|-------------------|
| | Equipment Foreman | 1.0 | | 80.85 | | 354,123 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 354,123 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 354,123 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 684,769 | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 79.75 | | 2,095,830 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 1,267,835 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 476,237 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 442,292 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 114.25 | | | 2,502,075 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 876,088 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 75,336 | | | | |
| 25 | Strip & Stockpile Organic Material | 400,000.00 | CY | | 12,000 | 957,187 | 1,412,187 | | | | 2,369,373 |
| | | | | | 0.03 | 2.39 | 3.53 | | | | 5.92 |
| 20 | Load Haul to Stockpile | 400,000.00 | CY | | 12,000 | 957,187 | 1,412,187 | | | | 2,369,373 |
| | | | | | 0.03 | 2.39 | 3.53 | | | | 5.92 |
| | Prod=300.00 CY/hour (6,000.00 CY/ day), 0.030MH/CY, 33.33 CY/MH, 1,333.33 hour (66.67 days) | | | | | | | | | | |
| | Load Haul to Stockpile | 1.00 | EA | 1777.03 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 107,800 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 107,800 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 107,800 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 208,453 | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 79.75 | | 425,333 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 385,947 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 144,973 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 134,640 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 457,000 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 266,693 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 22,933 | | | | |
| 336.104A | Place Organic from Stockpile on Slope | 400,000.00 | CY | | 12,000 | 957,187 | 1,410,733 | | | | 2,367,920 |
| | | | | | 0.03 | 2.39 | 3.53 | | | | 5.92 |
| 20 | Load Haul From Stockpile to Slope | 400,000.00 | CY | | 12,000 | 957,187 | 1,410,733 | | | | 2,367,920 |
| | | | | | 0.03 | 2.39 | 3.53 | | | | 5.92 |
| | Prod=300.00 CY/hour (6,000.00 CY/ day), 0.030MH/CY, 33.33 CY/MH, 1,333.33 hour (66.67 days) | | | | | | | | | | |
| | Load Haul to Stockpile | 1.00 | EA | 1775.94 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 107,800 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 107,800 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 107,800 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 208,453 | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 79.75 | | 425,333 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 385,947 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 144,973 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 134,640 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 457,000 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 266,693 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 21,480 | | | | |
| 336.105 | Permanent Access Road Excavation Rock | 1,311,400.00 | CY | | 85,864 | 6,634,844 | 6,624,437 | 3,221,889 | | | 16,481,169 |
| | | | | | 0.07 | 5.06 | 5.05 | 2.46 | | | 12.57 |
| 10 | Rock Excavation | 1,311,400.00 | CY | | 85,864 | 6,634,844 | 6,624,437 | 3,221,889 | | | 16,481,169 |
| | | | | | 0.07 | 5.06 | 5.05 | 2.46 | | | 12.57 |
| 10 | Presplit Face | 72,000.00 | SF | | 1,714 | 127,641 | 51,591 | 571,587 | | | 750,819 |
| | | | | | 0.02 | 1.77 | 0.72 | 7.94 | | | 10.43 |
| | Prod=210.00 LF/hour (4,200.00 LF/ day), 0.048MH/LF, 21.00 LF/MH, 171.43 hour (8.57 days) | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 1045.52 | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 12,857 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 35,182 | | | | | |
| | Powderman | 2.0 | | 80.01 | | 27,432 | | | | | |
| | Driller | 3.0 | | 74.77 | | 38,453 | | | | | |
| | Blaster | 1.0 | | 80.01 | | 13,716 | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 86.91 | | | 44,697 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 2,762 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 4,133 | | | | |
| | Drill Steel | 180.00 | EA | 1,000.00 | | | | 180,000 | | | |
| | Drill Bits | 360.00 | EA | 350.00 | | | | 126,000 | | | |
| | RED E-SPLIT PRESPLIT | 18,000.00 | EA | 8.35 | | | | 150,300 | | | |
| | Non Elec Detonators | 710.50 | EA | 6.70 | | | | 4,761 | | | |
| | Lead in Line | 157.90 | EA | 200.00 | | | | 31,579 | | | |
| | Delivery Cost | 78.90 | EA | 1,000.00 | | | | 78,947 | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---------|--|--------------|-----|----------|--------|-----------|-----------|-----------|----------|----------|------------|
| 20 | Drill and Shoot | 1,311,400.00 | CY | | 40,383 | 3,009,284 | 1,570,709 | 2,650,302 | | | 7,230,295 |
| | | | | | 0.03 | 2.29 | 1.20 | 2.02 | | | 5.51 |
| 10 | Drill and Shoot Production | 1,311,400.00 | CY | | 40,383 | 3,009,284 | 1,570,709 | 2,650,302 | | | 7,230,295 |
| | | | | | 0.03 | 2.29 | 1.20 | 2.02 | | | 5.51 |
| | Prod=240.00 FT/hour (4,800.00 FT/ day), 0.042MH/FT, 24.00 FT/MH, 4,038.33 hour (201.92 days) | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 1134.13 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 326,499 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 828,787 | | | | | |
| | Powderman | 1.0 | | 80.01 | | 323,107 | | | | | |
| | Driller | 4.0 | | 74.77 | | 1,207,784 | | | | | |
| | Shotfirer | 1.0 | | 80.01 | | 323,107 | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 4.0 | | 86.91 | | | 1,403,886 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 69,459 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 97,364 | | | | |
| | Between Holes QRC 1 for every 4 holes | 18,734.3 | EA | 4.75 | | | | 88,988 | | | |
| | Shoot Line | 936.7 | EA | 52.00 | | | | 48,709 | | | |
| | Caps | 74,562.5 | EA | 7.20 | | | | 536,850 | | | |
| | Booster | 74,562.5 | EA | 6.90 | | | | 514,481 | | | |
| | Anfo | 1,311,400.0 | LB | 0.72 | | | | 944,208 | | | |
| | Drill Bits | 637.0 | EA | 400.00 | | | | 254,786 | | | |
| | Drill Steel | 262.3 | EA | 1,000.00 | | | | 262,280 | | | |
| 30 | Rock Excavation to Embankment | 1,126,400.00 | CY | | 37,600 | 3,005,067 | 4,297,342 | | | | 7,302,409 |
| | | | | | 0.03 | 2.67 | 3.82 | | | | 6.48 |
| 20 | Load Haul to Embankment | 1,126,400.00 | CY | | 37,600 | 3,005,067 | 4,297,342 | | | | 7,302,409 |
| | | | | | 0.03 | 2.67 | 3.82 | | | | 6.48 |
| | Prod=299.57 CY/hour (5,991.49 CY/ day), 0.033MH/CY, 29.96 CY/MH, 3,760.00 hour (188.00 days) | | | | | | | | | | |
| | Load Haul to Road Embankment | 1.00 | EA | 1942.13 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 303,996 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 303,996 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 303,996 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 293,919 | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 79.75 | | 1,799,160 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 544,185 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 408,825 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 379,685 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 114.25 | | | 2,147,900 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 752,075 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 64,672 | | | | |
| 40 | Rock Excavation to Crusher | 185,000.00 | CY | | 6,167 | 492,852 | 704,795 | | | | 1,197,647 |
| | | | | | 0.03 | 2.66 | 3.81 | | | | 6.47 |
| | Prod=300.00 CY/hour (6,000.00 CY/ day), 0.033MH/CY, 30.00 CY/MH, 616.67 hour (30.83 days) | | | | | | | | | | |
| | Load Haul to Crusher | 1.00 | EA | 1942.13 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 49,858 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 49,858 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 49,858 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 48,205 | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 79.75 | | 295,075 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 89,250 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 67,050 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 62,271 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 114.25 | | | 352,271 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 123,346 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 10,607 | | | | |
| 336.106 | Permanent Access Road Embankment | 2,522,690.00 | CY | | 48,840 | 3,807,159 | 5,980,295 | | | | 9,787,455 |
| | | | | | 0.02 | 1.51 | 2.37 | | | | 3.88 |
| 10 | Permanent Access Road Embankment | 2,522,690.00 | CY | | 48,840 | 3,807,159 | 5,980,295 | | | | 9,787,455 |
| | | | | | 0.02 | 1.51 | 2.37 | | | | 3.88 |
| | Prod=309.91 ECY/hour (6,198.26 ECY/ day), 0.019MH/ECY, 51.65 ECY/MH, 8,140.00 hour (407.00 days) | | | | | | | | | | |
| | Place & Compact Embankment | 1.00 | EA | 1202.39 | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.85 | | 658,119 | | | | | |
| | Grade Checker | 1.0 | | 76.04 | | 618,966 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 658,119 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 636,304 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 617,826 | | | | | |
| | Scraper Water Wagon Operator | 1.0 | | 75.90 | | 617,826 | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 242.24 | | | 1,971,834 | | | | |

| Estimate Line Detail | | | | | | | | | | | |
|--|--|-------------------|-----------|---------|---------------|------------------|------------------|---------------|------------------|----------|------------------|
| Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 821,977 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 1,628,163 | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 174.24 | | | 1,418,314 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 140,008 | | | | |
| 336.107 | Gravel Surfacing | 153,315.00 | CY | | 19,346 | 1,510,738 | 1,652,518 | | | | 3,163,255 |
| | | | | | 0.13 | 9.85 | 10.78 | | | | 20.63 |
| 10 | Fine Grade Roadway | 704,000.00 | SY | | 7,822 | 611,244 | 404,659 | | | | 1,015,903 |
| | Prod=450.00 SY/hour (4,500.00 SY/ day), 0.011MH/SY, 90.00 SY/MH, 1,564.44 hour (156.44 days) | | | | 0.01 | 0.87 | 0.57 | | | | 1.44 |
| | <i>Grade & Compact Subgrade Road</i> | 1.00 | EA | 649.37 | | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 126,485 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 118,741 | | | | | |
| | Scraper Operator | 1.0 | | 78.17 | | 122,293 | | | | | |
| | Grademan | 1.0 | | 76.04 | | 118,960 | | | | | |
| | Water Truck Driver | 1.0 | | 79.75 | | 124,764 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 157,978 | | | | |
| | 11 CY Elevated Scraper 175 Hsp (Cat 613) | 1.0 | | 73.57 | | | 115,096 | | | | |
| | 10 Ton Compactor 120 hsp (Dyn CA25) | 1.0 | | 45.52 | | | 71,214 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 60,372 | | | | |
| 20 | Gravel Surfacing | 153,315.00 | CY | | 11,524 | 899,494 | 1,247,858 | | | | 2,147,352 |
| | | | | | 0.08 | 5.87 | 8.14 | | | | 14.01 |
| 20 | Crush Road Base from Excavation | 370,000.00 | TN | | 4,625 | 350,917 | 502,886 | | | | 853,803 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 925.00 hour (92.50 days) | | | | 0.01 | 0.95 | 1.36 | | | | 2.31 |
| | <i>Secondary Crushing</i> | 1.00 | EA | 923.03 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 74,786 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 74,786 | | | | | |
| | Crusher Operator | 1.0 | | 80.85 | | 74,786 | | | | | |
| | Labourer | 2.0 | | 68.41 | | 126,559 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 100,575 | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 292.82 | | | 270,859 | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 124.91 | | | 115,542 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 15,910 | | | | |
| 30 | Load Haul Place Road Base from Crusher | 153,315.00 | CY | | 6,899 | 548,576 | 744,973 | | | | 1,293,549 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.045MH/CY, 22.22 CY/MH, 766.57 hour (76.66 days) | | | | 0.05 | 3.58 | 4.86 | | | | 8.44 |
| | <i>Load Haul to Place Road Base</i> | 1.00 | EA | 1687.44 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 61,978 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 61,978 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 61,978 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 59,923 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 58,183 | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 79.75 | | 244,537 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 110,946 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 83,350 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 77,409 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 262,744 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 153,330 | | | | |
| | 13 Ton Compactor 72' (Cat 553) | 1.0 | | 57.41 | | | 44,009 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 13,185 | | | | |
| 336.108 | Permanent Access Road Long Span Bridge MP5.8 | 740.00 | FT | | 4,359 | 334,623 | 130,132 | 17,984 | 2,824,572 | | 3,307,312 |
| | | | | | 5.89 | 452.19 | 175.85 | 24.30 | 3,816.99 | | 4,469.34 |
| 5.8 | Bridge Construction | 740.00 | FT | | 4,359 | 334,623 | 130,132 | 17,984 | 2,824,572 | | 3,307,312 |
| | | | | | 5.89 | 452.19 | 175.85 | 24.30 | 3,816.99 | | 4,469.34 |
| 20 | Concrete Abutments | 64.00 | CY | | 657 | 49,269 | 8,123 | 9,832 | 20,672 | | 87,897 |
| | | | | | 10.27 | 769.84 | 126.93 | 153.63 | 323.00 | | 1,373.40 |
| 10 | Concrete Footer | 24.00 | CY | | 168 | 12,544 | 2,395 | 2,180 | 7,752 | | 24,871 |
| | | | | | 7.02 | 522.68 | 99.79 | 90.83 | 323.00 | | 1,036.31 |
| | Build Forms | 300.00 | SF | | 25 | 1,920 | 203 | 1,680 | | | 3,803 |
| | | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 271 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 244 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 1,119 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|-----------|--------------|--------------|------------|--------------|----------|---------------|
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 138 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 300.0 | SF | 5.60 | | | | 1,680 | | | |
| | Set, Strip & Move Forms | 300.0 | SF | | 39 | 2,970 | 361 | 450 | | | 3,781 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 3.57 hour (0.36 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 144 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 733 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 1,679 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 129 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 210 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 86 | | | | |
| | Set Strip Form Material | 300.0 | SF | 1.50 | | | | 450 | | | |
| | Mix and Place Concrete Super Sack | 24.00 | CY | | 73 | 5,301 | 1,533 | | 5,400 | | 12,234 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 6.67 hour (0.67 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 539 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 516 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 1,368 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 912 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 456 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 522 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 455 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 532 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 462 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 633 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 5 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 9 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 93 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 215 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 115 | | | | |
| | Super Sack Concrete Mix | 24.00 | CY | 225.00 | | | | | 5,400 | | |
| | Place Reinforcing Steel | 4,200.00 | LB | | 24 | 1,792 | 298 | | 2,352 | | 4,442 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 2.95 hour (0.29 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 119 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 202 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 236 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,129 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 106 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 173 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 54 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 71 | | | | |
| | Supply Fabricated Rebar | 4,200.00 | LB | 0.56 | | | | | 2,352 | | |
| | Finish Concrete | 200.00 | SF | | 2 | 139 | | | | | 139 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.88 hour (0.09 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 139 | | | | | |
| | Cure Concrete | 500.00 | SF | | 2 | 188 | | 50 | | | 238 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1.20 hour (0.12 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 188 | | | | | |
| | Curing Agent per sf | 500.00 | SF | 0.10 | | | | 50 | | | |
| | Patch & Point | 300.00 | SF | | 3 | 235 | | | | | 235 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 1.50 hour (0.15 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|---------------|--------------|--------------|--------------|----------|---------------|
| | Cement Finisher | 2.0 | | 78.33 | | | 235 | | | | |
| 20 | Concrete Back Wall & Wings | 40.00 | CY | | 489 | 36,725 | 5,728 | 7,652 | 12,920 | | 63,026 |
| | | | | | 12.22 | 918.13 | 143.21 | 191.31 | 323.00 | | 1,575.65 |
| | Build Forms | 868.00 | SF | | 72 | 5,556 | 586 | 4,861 | | | 11,002 |
| | | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 10.33 hour (1.03 days) | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 784 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 707 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 827 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 3,238 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 188 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 398 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 868.0 | SF | 5.60 | | | | 4,861 | | | |
| | Set, Strip & Move Forms | 1,736.00 | SF | | 227 | 17,187 | 2,090 | 2,604 | | | 21,881 |
| | | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 20.67 hour (2.07 days) | | | | | | | | | | |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 835 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,241 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,653 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 9,713 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 744 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,216 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 376 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 498 | | | | |
| | Set Strip Form Material | 1,736.0 | SF | 1.50 | | | | 2,604 | | | |
| | Mix and Place Concrete Super Sack | 40.00 | CY | | 122 | 8,834 | 2,555 | | 9,000 | | 20,390 |
| | | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 11.11 hour (1.11 days) | | | | | | | | | | |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 898 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 860 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 2,280 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 1,520 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 760 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 870 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 759 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 886 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 770 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 1,055 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 9 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 16 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 155 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 359 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 191 | | | | |
| | Super Sack Concrete Mix | 40.0 | CY | 225.00 | | | | | 9,000 | | |
| | Place Reinforcing Steel | 7,000.00 | LB | | 39 | 2,987 | 497 | | 3,920 | | 7,404 |
| | | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 4.91 hour (0.49 days) | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 199 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 336 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 393 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,882 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 177 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 289 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 89 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 118 | | | | |
| | Supply Fabricated Rebar | 7,000.0 | LB | 0.56 | | | | | 3,920 | | |
| | Finish Concrete | 140.00 | SF | | 1 | 97 | | | | | 97 |
| | | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.62 hour (0.06 days) | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 97 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|------------------|-----------|---------|------------|---------------|--------------|--------------|---------------|----------|---------------|
| | Cure Concrete | 1,876.00 | SF | | 9 | 704 | | 188 | | | 892 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.50 hour (0.45 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 704 | | | | | |
| | Curing Agent per sf | 1,876.0 | SF | 0.10 | | | | 188 | | | |
| | Patch & Point | 1,736.00 | SF | | 17 | 1,360 | | | | | 1,360 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 8.68 hour (0.87 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 1,360 | | | | | |
| 30 | Concrete Piers Footer | 145.20 | CY | | 932 | 69,198 | 13,895 | 8,152 | 46,900 | | 138,144 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| 10 | Concrete FooterPiers 4 Ea | 145.20 | CY | | 932 | 69,198 | 13,895 | 8,152 | 46,900 | | 138,144 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| | Build Forms | 1,120.00 | SF | | 93 | 7,168 | 756 | 6,272 | | | 14,196 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 13.33 hour (1.33 days) | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 1,012 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 912 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,067 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 4,178 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 242 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 514 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 1,120.0 | SF | 5.60 | | | | 6,272 | | | |
| | Set, Strip & Move Forms | 1,120.00 | SF | | 224 | 16,935 | 2,060 | 1,680 | | | 20,675 |
| | Prod=55.00 SF/hour (550.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 20.36 hour (2.04 days) | | | | 0.20 | 15.12 | 1.84 | 1.50 | | | 18.46 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 823 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,179 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,629 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 9,571 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 733 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,199 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 370 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 491 | | | | |
| | Set Strip Form Material | 1,120.0 | SF | 1.50 | | | | 1,680 | | | |
| | Mix and Place Concrete Super Sack | 145.20 | CY | | 444 | 32,069 | 9,276 | | 32,670 | | 74,015 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 40.33 hour (4.03 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 3,261 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 3,121 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 8,278 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 5,518 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 2,759 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 3,159 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 2,756 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 3,217 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 2,796 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 3,831 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 31 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 57 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 564 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 1,303 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 694 | | | | |
| | Super Sack Concrete Mix | 145.2 | CY | 225.00 | | | | | 32,670 | | |
| | Place Reinforcing Steel | 25,410.00 | LB | | 143 | 10,842 | 1,804 | | 14,230 | | 26,875 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 17.83 hour (1.78 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 721 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|----------|-----------|------------|--------|------------|-----------|----------|------------|
| | Labourer | 1.0 | | 68.41 | | 1,220 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 1,427 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 6,833 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 642 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,049 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 324 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 430 | | | | |
| | Supply Fabricated Rebar | 25,410.0 | LB | 0.56 | | | | | | 14,230 | |
| | Finish Concrete | 800.00 | SF | | 7 | 555 | | | | | 555 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 3.54 hour (0.35 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 555 | | | | | |
| | Cure Concrete | 2,000.00 | SF | | 10 | 751 | | 200 | | | 951 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.79 hour (0.48 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 751 | | | | | |
| | Curing Agent per sf | 2,000.0 | SF | 0.10 | | | | 200 | | | |
| | Patch & Point | 1,120.00 | SF | | 11 | 877 | | | | | 877 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 5.60 hour (0.56 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 877 | | | | | |
| 40 | Superstructure & Pier Steel Purchase | 728.00 | TN | | | | | | 2,757,000 | | 2,757,000 |
| | Pier Steel | 78.0 | TN | 9,705.13 | | | | | 3,787.09 | | 3,787.09 |
| | Superstructure Steel Purchase | 650.0 | TN | 3,076.92 | | | | | 2,000,000 | | |
| 45 | Load & Haul Steel From Rail Yard | 36.00 | LOADS | | 180 | 13,938 | 5,489 | | | | 19,427 |
| | Prod=1.80 LOADS/hour (18.00 LOADS/ day), 5.000MH/LOADS, 0.20 LOADS/MH, 20.00 hour (2.00 days) | | | | 5.00 | 387.17 | 152.47 | | | | 539.64 |
| | Load & Haul Steel From Rail Yard | 1.00 | EA | 971.35 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 1,617 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 1,636 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 6,131 | | | | | |
| | Highway Truck Driver | 3.0 | | 75.90 | | 4,554 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 1,253 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 344 | | | | |
| | Tractor & Hi-Trailer | 3.0 | | 64.87 | | | 3,892 | | | | |
| 50 | Pier Erection | 78.00 | TN | | 350 | 27,060 | 9,991 | | | | 37,051 |
| | Prod=1.56 TN/hour (15.60 TN/ day), 4.487MH/TN, 0.22 TN/MH, 50.00 hour (5.00 days) | | | | 4.49 | 346.92 | 128.09 | | | | 475.01 |
| | Pier Erection | 1.00 | EA | 741.02 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 4,043 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 4,090 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 15,328 | | | | | |
| | Oiler | 1.0 | | 72.00 | | 3,600 | | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 850 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 243 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 350 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 1,804 | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 5,886 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 860 | | | | |
| 60 | Superstructure Erection | 650.00 | TN | | 2,240 | 175,158 | 92,634 | | | | 267,792 |
| | Prod=2.03 TN/hour (20.31 TN/ day), 3.446MH/TN, 0.29 TN/MH, 320.00 hour (32.00 days) | | | | 3.45 | 269.47 | 142.51 | | | | 411.99 |
| | Launch Bridge Superstructure | 1.00 | EA | 836.85 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 25,872 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 25,014 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 26,173 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 98,099 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 46,314 | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 5,437 | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|----------------|--------------|----------------|----------------|---------------|------------------|----------|------------------|
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 1,552 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 2,237 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 11,546 | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 20,045 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 5,504 | | | | |
| 336.109 | Permanent Access Road Long Span Bridge MP14.9 | 825.00 | FT | | 5,409 | 416,429 | 169,208 | 17,984 | 4,535,572 | | 5,139,192 |
| | | | | | 6.56 | 504.76 | 205.10 | 21.80 | 5,497.66 | | 6,229.32 |
| 14.9 | Bridge Construction | 825.00 | FT | | 5,409 | 416,429 | 169,208 | 17,984 | 4,535,572 | | 5,139,192 |
| | | | | | 6.56 | 504.76 | 205.10 | 21.80 | 5,497.66 | | 6,229.32 |
| 20 | Concrete Abutments | 64.00 | CY | | 657 | 49,269 | 8,123 | 9,832 | 20,672 | | 87,897 |
| | | | | | 10.27 | 769.84 | 126.93 | 153.63 | 323.00 | | 1,373.40 |
| 10 | Concrete Footer | 24.00 | CY | | 168 | 12,544 | 2,395 | 2,180 | 7,752 | | 24,871 |
| | | | | | 7.02 | 522.68 | 99.79 | 90.83 | 323.00 | | 1,036.31 |
| | Build Forms | 300.00 | SF | | 25 | 1,920 | 203 | 1,680 | | | 3,803 |
| | | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | <i>1.00</i> | <i>EA</i> | <i>594.33</i> | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 271 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 244 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 1,119 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 138 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 300.00 | SF | 5.60 | | | | 1,680 | | | |
| | Set, Strip & Move Forms | 300.00 | SF | | 39 | 2,970 | 361 | 450 | | | 3,781 |
| | | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | <i>Set Strip Retaining Walls</i> | <i>1.00</i> | <i>EA</i> | <i>932.78</i> | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 144 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 733 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 1,679 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 129 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 210 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 86 | | | | |
| | Set Strip Form Material | 300.00 | SF | 1.50 | | | | 450 | | | |
| | Mix and Place Concrete Super Sack | 24.00 | CY | | 73 | 5,301 | 1,533 | | 5,400 | | 12,234 |
| | | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 6.67 hour (0.67 days) | | | | | | | | | | |
| | <i>Mix & Place Super Sack Concrete</i> | <i>1.00</i> | <i>EA</i> | <i>1025.08</i> | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 539 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 516 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 1,368 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 912 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 456 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 522 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 455 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 532 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 462 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 633 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 5 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 9 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 93 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 215 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 115 | | | | |
| | Super Sack Concrete Mix | 24.00 | CY | 225.00 | | | | | 5,400 | | |
| | Place Reinforcing Steel | 4,200.00 | LB | | 24 | 1,792 | 298 | | 2,352 | | 4,442 |
| | | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 2.95 hour (0.29 days) | | | | | | | | | | |
| | <i>Place Reinforcing Steel</i> | <i>1.00</i> | <i>EA</i> | <i>709.18</i> | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 119 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 202 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 236 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,129 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 106 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|---------------|--------------|--------------|--------------|----------|---------------|
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 173 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 54 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 71 | | | | |
| | Supply Fabricated Rebar | 4,200.0 | LB | 0.56 | | | | | 2,352 | | |
| | Finish Concrete | 200.00 | SF | | 2 | | 139 | | | | 139 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.88 hour (0.09 days) | | | | 0.01 | | 0.69 | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | | 139 | | | | |
| | Cure Concrete | 500.00 | SF | | 2 | | 188 | 50 | | | 238 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1.20 hour (0.12 days) | | | | 0.00 | | 0.38 | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | | 188 | | | | |
| | Curing Agent per sf | 500.0 | SF | 0.10 | | | | 50 | | | |
| | Patch & Point | 300.00 | SF | | 3 | | 235 | | | | 235 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 1.50 hour (0.15 days) | | | | 0.01 | | 0.78 | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | | 235 | | | | |
| 20 | Concrete Back Wall & Wings | 40.00 | CY | | 489 | 36,725 | 5,728 | 7,652 | 12,920 | | 63,026 |
| | | | | | 12.22 | 918.13 | 143.21 | 191.31 | 323.00 | | 1,575.65 |
| | Build Forms | 868.00 | SF | | 72 | 5,556 | 586 | 4,861 | | | 11,002 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 10.33 hour (1.03 days) | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | | 784 | | | | |
| | Labourer | 1.0 | | 68.41 | | | 707 | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | | 827 | | | | |
| | Carpenter | 4.0 | | 78.33 | | | 3,238 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 188 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 398 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 868.0 | SF | 5.60 | | | | 4,861 | | | |
| | Set, Strip & Move Forms | 1,736.00 | SF | | 227 | 17,187 | 2,090 | 2,604 | | | 21,881 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 20.67 hour (2.07 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | | 835 | | | | |
| | Labourer | 3.0 | | 68.41 | | | 4,241 | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | | 1,653 | | | | |
| | Carpenter | 6.0 | | 78.33 | | | 9,713 | | | | |
| | Oiler | 0.5 | | 72.00 | | | 744 | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,216 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 376 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 498 | | | | |
| | Set Strip Form Material | 1,736.0 | SF | 1.50 | | | | 2,604 | | | |
| | Mix and Place Concrete Super Sack | 40.00 | CY | | 122 | 8,834 | 2,555 | | 9,000 | | 20,390 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 11.11 hour (1.11 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | | 898 | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | | 860 | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | | 2,280 | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | | 1,520 | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | | 760 | | | | |
| | Carpenter | 1.0 | | 78.33 | | | 870 | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | | 759 | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | | 886 | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 770 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 1,055 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 9 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 16 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 155 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 359 | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|---------------|--------------|--------------|---------------|----------|---------------|
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 191 | | | | |
| | Super Sack Concrete Mix | 40.0 | CY | 225.00 | | | | | 9,000 | | |
| | Place Reinforcing Steel | 7,000.00 | LB | | 39 | 2,987 | 497 | | 3,920 | | 7,404 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 4.91 hour (0.49 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 199 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 336 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 393 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,882 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 177 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 289 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 89 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 118 | | | | |
| | Supply Fabricated Rebar | 7,000.0 | LB | 0.56 | | | | | 3,920 | | |
| | Finish Concrete | 140.00 | SF | | 1 | 97 | | | | | 97 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.62 hour (0.06 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 97 | | | | | |
| | Cure Concrete | 1,876.00 | SF | | 9 | 704 | | 188 | | | 892 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.50 hour (0.45 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 704 | | | | | |
| | Curing Agent per sf | 1,876.0 | SF | 0.10 | | | | 188 | | | |
| | Patch & Point | 1,736.00 | SF | | 17 | 1,360 | | | | | 1,360 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 8.68 hour (0.87 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 1,360 | | | | | |
| 30 | Concrete Piers Footer | 145.20 | CY | | 932 | 69,198 | 13,895 | 8,152 | 46,900 | | 138,144 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| 10 | Concrete FooterPiers 4 Ea | 145.20 | CY | | 932 | 69,198 | 13,895 | 8,152 | 46,900 | | 138,144 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| | Build Forms | 1,120.00 | SF | | 93 | 7,168 | 756 | 6,272 | | | 14,196 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 13.33 hour (1.33 days) | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 1,012 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 912 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,067 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 4,178 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 242 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 514 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 1,120.0 | SF | 5.60 | | | | 6,272 | | | |
| | Set, Strip & Move Forms | 1,120.00 | SF | | 224 | 16,935 | 2,060 | 1,680 | | | 20,675 |
| | Prod=55.00 SF/hour (550.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 20.36 hour (2.04 days) | | | | 0.20 | 15.12 | 1.84 | 1.50 | | | 18.46 |
| | <i>Set Strip Retaining Walls</i> | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 823 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,179 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,629 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 9,571 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 733 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,199 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 370 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 491 | | | | |
| | Set Strip Form Material | 1,120.0 | SF | 1.50 | | | | 1,680 | | | |
| | Mix and Place Concrete Super Sack | 145.20 | CY | | 444 | 32,069 | 9,276 | | 32,670 | | 74,015 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 40.33 hour (4.03 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | <i>Mix & Place Super Sack Concrete</i> | 1.00 | EA | 1025.08 | | | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|------------------|-----------|----------|------------|---------------|--------------|------------|---------------|----------|---------------|
| | Loader Operator | 1.0 | | 80.85 | | 3,261 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 3,121 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 8,278 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 5,518 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 2,759 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 3,159 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 2,756 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 3,217 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 2,796 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 3,831 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 31 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 57 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 564 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 1,303 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 694 | | | | |
| | Super Sack Concrete Mix | 145.2 | CY | 225.00 | | | | | | 32,670 | |
| | Place Reinforcing Steel | 25,410.00 | LB | | 143 | 10,842 | 1,804 | | 14,230 | | 26,875 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 17.83 hour (1.78 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 721 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 1,220 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 1,427 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 6,833 | | | | | |
| | Oilier | 0.5 | | 72.00 | | 642 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,049 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 324 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 430 | | | | |
| | Supply Fabricated Rebar | 25,410.00 | LB | 0.56 | | | | | | 14,230 | |
| | Finish Concrete | 800.00 | SF | | 7 | 555 | | | | | 555 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 3.54 hour (0.35 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 555 | | | | | |
| | Cure Concrete | 2,000.00 | SF | | 10 | 751 | | 200 | | | 951 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.79 hour (0.48 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 751 | | | | | |
| | Curing Agent per sf | 2,000.00 | SF | 0.10 | | | | 200 | | | |
| | Patch & Point | 1,120.00 | SF | | 11 | 877 | | | | | 877 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 5.60 hour (0.56 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 877 | | | | | |
| 40 | Superstructure & Pier Steel Purchase | 989.00 | TN | | | | | | 4,468,000 | | 4,468,000 |
| | Superstructure Steel Purchase | 850.00 | TN | 3,790.59 | | | | | 4,517.69 | | 4,517.69 |
| | Pier Steel | 139.00 | TN | 8,964.03 | | | | | 3,222,000 | | 1,246,000 |
| 45 | Load & Haul Steel From Rail Yard | 50.00 | LOADS | | 250 | 19,358 | 7,624 | | | | 26,982 |
| | Prod=1.80 LOADS/hour (18.00 LOADS/ day), 5.000MH/LOADS, 0.20 LOADS/MH, 27.78 hour (2.78 days) | | | | 5.00 | 387.17 | 152.47 | | | | 539.64 |
| | Load & Haul Steel From Rail Yard | 1.00 | EA | 971.35 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 2,246 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 2,272 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 8,516 | | | | | |
| | Highway Truck Driver | 3.0 | | 75.90 | | 6,325 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 1,740 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 478 | | | | |
| | Tractor & Hi-Trailer | 3.0 | | 64.87 | | | 5,406 | | | | |
| 50 | Pier Erection | 139.00 | TN | | 630 | 48,708 | 17,984 | | | | 66,692 |
| | Prod=1.54 TN/hour (15.44 TN/ day), 4.532MH/TN, 0.22 TN/MH, 90.00 hour (9.00 days) | | | | 4.53 | 350.42 | 129.38 | | | | 479.80 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---------|---|---------------|-----------|---------|--------------|----------------|----------------|---------------|------------------|----------|------------------|
| | <i>Pier Erection</i> | 1.00 | EA | 741.02 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 7,277 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 7,361 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 27,590 | | | | | |
| | Oiler | 1.0 | | 72.00 | | 6,480 | | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 1,529 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 437 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 629 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 3,247 | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 10,594 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,548 | | | | |
| 60 | Superstructure Erection | 850.00 | TN | | 2,940 | 229,895 | 121,582 | | | | 351,477 |
| | Prod=2.02 TN/hour (20.24 TN/ day), 3.459MH/TN, 0.29 TN/MH, 420.00 hour (42.00 days) | | | | 3.46 | 270.47 | 143.04 | | | | 413.50 |
| | <i>Launch Bridge Superstructure</i> | 1.00 | EA | 836.85 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 33,957 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 32,831 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 34,352 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 128,755 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 60,787 | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 7,136 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 2,037 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 2,936 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 15,154 | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 26,309 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 7,224 | | | | |
| 336.110 | Permanent Access Road Long Span Bridge MP15.1 | 700.00 | FT | | 4,426 | 340,815 | 138,857 | 15,952 | 3,360,679 | | 3,856,303 |
| | | | | | 6.32 | 486.88 | 198.37 | 22.79 | 4,800.97 | | 5,509.00 |
| 15.1 | Bridge Construction | 700.00 | FT | | 4,426 | 340,815 | 138,857 | 15,952 | 3,360,679 | | 3,856,303 |
| | | | | | 6.32 | 486.88 | 198.37 | 22.79 | 4,800.97 | | 5,509.00 |
| 20 | Concrete Abutments | 64.00 | CY | | 657 | 49,269 | 8,123 | 9,832 | 20,672 | | 87,897 |
| | | | | | 10.27 | 769.84 | 126.93 | 153.63 | 323.00 | | 1,373.40 |
| 10 | Concrete Footer | 24.00 | CY | | 168 | 12,544 | 2,395 | 2,180 | 7,752 | | 24,871 |
| | | | | | 7.02 | 522.68 | 99.79 | 90.83 | 323.00 | | 1,036.31 |
| | Build Forms | 300.00 | SF | | 25 | 1,920 | 203 | 1,680 | | | 3,803 |
| | | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 271 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 244 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 1,119 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 138 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 300.00 | SF | 5.60 | | | | 1,680 | | | |
| | Set, Strip & Move Forms | 300.00 | SF | | 39 | 2,970 | 361 | 450 | | | 3,781 |
| | | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | <i>Set Strip Retaining Walls</i> | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 144 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 733 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 1,679 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 129 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 210 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 86 | | | | |
| | Set Strip Form Material | 300.00 | SF | 1.50 | | | | 450 | | | |
| | Mix and Place Concrete Super Sack | 24.00 | CY | | 73 | 5,301 | 1,533 | | 5,400 | | 12,234 |
| | | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 6.67 hour (0.67 days) | | | | | | | | | | |
| | <i>Mix & Place Super Sack Concrete</i> | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 539 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 516 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 1,368 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 912 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|--------|------------|---------------|--------------|--------------|--------------|----------|---------------|
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 456 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 522 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 455 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 532 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 462 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 633 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 5 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 9 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 93 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 215 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 115 | | | | |
| | Super Sack Concrete Mix | 24.0 | CY | 225.00 | | | | | 5,400 | | |
| | Place Reinforcing Steel | 4,200.00 | LB | | 24 | 1,792 | 298 | | 2,352 | | 4,442 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 2.95 hour (0.29 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 119 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 202 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 236 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,129 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 106 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 173 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 54 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 71 | | | | |
| | Supply Fabricated Rebar | 4,200.00 | LB | 0.56 | | | | | 2,352 | | |
| | Finish Concrete | 200.00 | SF | | 2 | 139 | | | | | 139 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.88 hour (0.09 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 139 | | | | | |
| | Cure Concrete | 500.00 | SF | | 2 | 188 | | 50 | | | 238 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1.20 hour (0.12 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 188 | | | | | |
| | Curing Agent per sf | 500.00 | SF | 0.10 | | | | 50 | | | |
| | Patch & Point | 300.00 | SF | | 3 | 235 | | | | | 235 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 1.50 hour (0.15 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 235 | | | | | |
| 20 | Concrete Back Wall & Wings | 40.00 | CY | | 489 | 36,725 | 5,728 | 7,652 | 12,920 | | 63,026 |
| | | | | | 12.22 | 918.13 | 143.21 | 191.31 | 323.00 | | 1,575.65 |
| | Build Forms | 868.00 | SF | | 72 | 5,556 | 586 | 4,861 | | | 11,002 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 10.33 hour (1.03 days) | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 784 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 707 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 827 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 3,238 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 188 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 398 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 868.00 | SF | 5.60 | | | | 4,861 | | | |
| | Set, Strip & Move Forms | 1,736.00 | SF | | 227 | 17,187 | 2,090 | 2,604 | | | 21,881 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 20.67 hour (2.07 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | <i>Set Strip Retaining Walls</i> | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 835 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,241 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,653 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 9,713 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 744 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,216 | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|--------------|--------------|--------------|--------------|----------|---------------|
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 376 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 498 | | | | |
| | Set Strip Form Material | 1,736.0 | SF | 1.50 | | | | 2,604 | | | |
| | Mix and Place Concrete Super Sack | 40.00 | CY | | 122 | 8,834 | 2,555 | | 9,000 | | 20,390 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 11.11 hour (1.11 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | <i>Mix & Place Super Sack Concrete</i> | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 898 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 860 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 2,280 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 1,520 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 760 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 870 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 759 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 886 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 770 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 1,055 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 9 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 16 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 155 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 359 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 191 | | | | |
| | Super Sack Concrete Mix | 40.00 | CY | 225.00 | | | | | 9,000 | | |
| | Place Reinforcing Steel | 7,000.00 | LB | | 39 | 2,987 | 497 | | 3,920 | | 7,404 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 4.91 hour (0.49 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 199 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 336 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 393 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,882 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 177 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 289 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 89 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 118 | | | | |
| | Supply Fabricated Rebar | 7,000.00 | LB | 0.56 | | | | | 3,920 | | |
| | Finish Concrete | 140.00 | SF | | 1 | 97 | | | | | 97 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.62 hour (0.06 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 97 | | | | | |
| | Cure Concrete | 1,876.00 | SF | | 9 | 704 | | 188 | | | 892 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.50 hour (0.45 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 704 | | | | | |
| | Curing Agent per sf | 1,876.00 | SF | 0.10 | | | | 188 | | | |
| | Patch & Point | 1,736.00 | SF | | 17 | 1,360 | | | | | 1,360 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 8.68 hour (0.87 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 1,360 | | | | | |
| 30 | Concrete Piers Footer | 109.00 | CY | | 699 | 51,946 | 10,431 | 6,120 | 35,207 | | 103,703 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| 10 | Concrete FooterPiers 4 Ea | 109.00 | CY | | 699 | 51,946 | 10,431 | 6,120 | 35,207 | | 103,703 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| | Build Forms | 840.77 | SF | | 70 | 5,381 | 568 | 4,708 | | | 10,657 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 10.01 hour (1.00 days) | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 760 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 685 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 801 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 3,136 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|--|---|------------------|-----------|---------|------------|---------------|--------------|--------------|---------------|----------|---------------|
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 182 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 386 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 840.8 | SF | 5.60 | | | | 4,708 | | | |
| Set, Strip & Move Forms | | 840.77 | SF | | 168 | 12,713 | 1,546 | 1,261 | | | 15,520 |
| | Prod=55.00 SF/hour (550.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 15.29 hour (1.53 days) | | | | 0.20 | 15.12 | 1.84 | 1.50 | | | 18.46 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 618 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 3,137 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,223 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 7,184 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 550 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 900 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 278 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 369 | | | | |
| | Set Strip Form Material | 840.8 | SF | 1.50 | | | | 1,261 | | | |
| Mix and Place Concrete Super Sack | | 109.00 | CY | | 333 | 24,074 | 6,963 | | 24,525 | | 55,562 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 30.28 hour (3.03 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 2,448 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 2,343 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 6,214 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 4,143 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 2,071 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 2,372 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 2,069 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 2,415 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 2,099 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 2,876 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 23 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 43 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 423 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 978 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 521 | | | | |
| | Super Sack Concrete Mix | 109.00 | CY | 225.00 | | | | | 24,525 | | |
| Place Reinforcing Steel | | 19,075.00 | LB | | 107 | 8,139 | 1,354 | | 10,682 | | 20,175 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 13.39 hour (1.34 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 541 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 916 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 1,071 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 5,130 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 482 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 788 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 243 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 323 | | | | |
| | Supply Fabricated Rebar | 19,075.0 | LB | 0.56 | | | | | 10,682 | | |
| Finish Concrete | | 600.55 | SF | | 5 | 416 | | | | | 416 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 2.66 hour (0.27 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 416 | | | | | |
| Cure Concrete | | 1,501.38 | SF | | 7 | 564 | | 150 | | | 714 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 3.60 hour (0.36 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 564 | | | | | |
| | Curing Agent per sf | 1,501.4 | SF | 0.10 | | | | 150 | | | |
| Patch & Point | | 840.77 | SF | | 8 | 659 | | | | | 659 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 4.20 hour (0.42 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---------|---|----------|-------|----------|--------|---------|---------|---------|-----------|----------|------------|
| | Cement Finisher | 2.0 | | 78.33 | | 659 | | | | | |
| 40 | Superstructure & Pier Steel Purchase | 788.00 | TN | | | | | | 3,304,800 | | 3,304,800 |
| | Pier Steel | 68.0 | TN | 9,058.82 | | | | | 4,193.91 | | 4,193.91 |
| | Superstructure Steel Purchase | 720.0 | TN | 3,734.44 | | | | | 616,000 | | 616,000 |
| | | | | | | | | | 2,688,800 | | 2,688,800 |
| 45 | Load & Haul Steel From Rail Yard | 40.00 | LOADS | | 200 | 15,487 | 6,099 | | | | 21,586 |
| | Prod=1.80 LOADS/hour (18.00 LOADS/ day), 5.000MH/LOADS, 0.20 LOADS/MH, 22.22 hour (2.22 days) | | | | 5.00 | 387.17 | 152.47 | | | | 539.64 |
| | Load & Haul Steel From Rail Yard | 1.00 | EA | 971.35 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 1,797 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 1,818 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 6,812 | | | | | |
| | Highway Truck Driver | 3.0 | | 75.90 | | 5,060 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 1,392 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 382 | | | | |
| | Tractor & Hi-Trailer | 3.0 | | 64.87 | | | 4,325 | | | | |
| 50 | Pier Erection | 68.00 | TN | | 350 | 27,060 | 9,991 | | | | 37,051 |
| | Prod=1.36 TN/hour (13.60 TN/ day), 5.147MH/TN, 0.19 TN/MH, 50.00 hour (5.00 days) | | | | 5.15 | 397.94 | 146.93 | | | | 544.87 |
| | Pier Erection | 1.00 | EA | 741.02 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 4,043 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 4,090 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 15,328 | | | | | |
| | Oiler | 1.0 | | 72.00 | | 3,600 | | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 850 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 243 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 350 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 1,804 | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 5,886 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 860 | | | | |
| 60 | Superstructure Erection | 720.00 | TN | | 2,520 | 197,053 | 104,213 | | | | 301,266 |
| | Prod=2.00 TN/hour (20.00 TN/ day), 3.500MH/TN, 0.29 TN/MH, 360.00 hour (36.00 days) | | | | 3.50 | 273.69 | 144.74 | | | | 418.43 |
| | Launch Bridge Superstructure | 1.00 | EA | 836.85 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 29,106 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 28,141 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 29,444 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 110,362 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 52,103 | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 6,116 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 1,746 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 2,516 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 12,989 | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 22,550 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 6,192 | | | | |
| 336.111 | Permanent Access Road Long Span Bridge MP17.3 | 290.00 | FT | | 1,945 | 148,893 | 53,429 | 11,910 | 1,164,023 | | 1,378,255 |
| | | | | | 6.71 | 513.42 | 184.24 | 41.07 | 4,013.87 | | 4,752.60 |
| 17.3 | Bridge Construction | 290.00 | FT | | 1,945 | 148,893 | 53,429 | 11,910 | 1,164,023 | | 1,378,255 |
| | | | | | 6.71 | 513.42 | 184.24 | 41.07 | 4,013.87 | | 4,752.60 |
| 20 | Concrete Abutments | 64.00 | CY | | 657 | 49,269 | 8,123 | 9,832 | 20,672 | | 87,897 |
| | | | | | 10.27 | 769.84 | 126.93 | 153.63 | 323.00 | | 1,373.40 |
| 10 | Concrete Footer | 24.00 | CY | | 168 | 12,544 | 2,395 | 2,180 | 7,752 | | 24,871 |
| | | | | | 7.02 | 522.68 | 99.79 | 90.83 | 323.00 | | 1,036.31 |
| | Build Forms | 300.00 | SF | | 25 | 1,920 | 203 | 1,680 | | | 3,803 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 271 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 244 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 1,119 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 138 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 300.00 | SF | 5.60 | | | | 1,680 | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|--|---|----------|-----|---------|--------|--------|--------|---------|----------|----------|------------|
| Set, Strip & Move Forms | | | | | | | | | | | |
| | | 300.00 | SF | | 39 | 2,970 | 361 | 450 | | | 3,781 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 3.57 hour (0.36 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 144 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 733 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 1,679 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 129 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 210 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 86 | | | | |
| | Set Strip Form Material | 300.00 | SF | 1.50 | | | | 450 | | | |
| Mix and Place Concrete Super Sack | | | | | | | | | | | |
| | | 24.00 | CY | | 73 | 5,301 | 1,533 | | 5,400 | | 12,234 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 6.67 hour (0.67 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 539 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 516 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 1,368 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 912 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 456 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 522 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 455 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 532 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 462 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 633 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 5 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 9 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 93 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 215 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 115 | | | | |
| | Super Sack Concrete Mix | 24.00 | CY | 225.00 | | | | | 5,400 | | |
| Place Reinforcing Steel | | | | | | | | | | | |
| | | 4,200.00 | LB | | 24 | 1,792 | 298 | | 2,352 | | 4,442 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 2.95 hour (0.29 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 119 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 202 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 236 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,129 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 106 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 173 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 54 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 71 | | | | |
| | Supply Fabricated Rebar | 4,200.00 | LB | 0.56 | | | | | 2,352 | | |
| Finish Concrete | | | | | | | | | | | |
| | | 200.00 | SF | | 2 | 139 | | | | | 139 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.88 hour (0.09 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 139 | | | | | |
| Cure Concrete | | | | | | | | | | | |
| | | 500.00 | SF | | 2 | 188 | | 50 | | | 238 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1.20 hour (0.12 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 188 | | | | | |
| | Curing Agent per sf | 500.00 | SF | 0.10 | | | | 50 | | | |
| Patch & Point | | | | | | | | | | | |
| | | 300.00 | SF | | 3 | 235 | | | | | 235 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 1.50 hour (0.15 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 235 | | | | | |
| 20 | Concrete Back Wall & Wings | 40.00 | CY | | 489 | 36,725 | 5,728 | 7,652 | 12,920 | | 63,026 |
| | | | | | 12.22 | 918.13 | 143.21 | 191.31 | 323.00 | | 1,575.65 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|--|---|----------|-----|---------|--------|--------|-------|---------|----------|----------|------------|
| Build Forms | | | | | | | | | | | |
| | | 868.00 | SF | | 72 | 5,556 | 586 | 4,861 | | | 11,002 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 10.33 hour (1.03 days) | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 784 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 707 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 827 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 3,238 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 188 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 398 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 868.0 | SF | 5.60 | | | | 4,861 | | | |
| Set, Strip & Move Forms | | | | | | | | | | | |
| | | 1,736.00 | SF | | 227 | 17,187 | 2,090 | 2,604 | | | 21,881 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 20.67 hour (2.07 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | <i>Set Strip Retaining Walls</i> | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 835 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,241 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,653 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 9,713 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 744 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,216 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 376 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 498 | | | | |
| | Set Strip Form Material | 1,736.0 | SF | 1.50 | | | | 2,604 | | | |
| Mix and Place Concrete Super Sack | | | | | | | | | | | |
| | | 40.00 | CY | | 122 | 8,834 | 2,555 | | 9,000 | | 20,390 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 11.11 hour (1.11 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | <i>Mix & Place Super Sack Concrete</i> | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 898 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 860 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 2,280 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 1,520 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 760 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 870 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 759 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 886 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 770 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 1,055 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 9 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 16 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 155 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 359 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 191 | | | | |
| | Super Sack Concrete Mix | 40.0 | CY | 225.00 | | | | | 9,000 | | |
| Place Reinforcing Steel | | | | | | | | | | | |
| | | 7,000.00 | LB | | 39 | 2,987 | 497 | | 3,920 | | 7,404 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 4.91 hour (0.49 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 199 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 336 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 393 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,882 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 177 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 289 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 89 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 118 | | | | |
| | Supply Fabricated Rebar | 7,000.0 | LB | 0.56 | | | | | 3,920 | | |
| Finish Concrete | | | | | | | | | | | |
| | | 140.00 | SF | | 1 | 97 | | | | | 97 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.62 hour (0.06 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 97 | | | | | |
| Cure Concrete | | | | | | | | | | | |
| | | 1,876.00 | SF | | 9 | 704 | | 188 | | | 892 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.50 hour (0.45 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|--------------|--------------|--------------|--------------|----------|---------------|
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 704 | | | | | |
| | Curing Agent per sf | 1,876.0 | SF | 0.10 | | | | 188 | | | |
| | Patch & Point | 1,736.00 | SF | | 17 | 1,360 | | | | | 1,360 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 8.68 hour (0.87 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 1,360 | | | | | |
| 30 | Concrete Piers Footer | 37.00 | CY | | 237 | 17,633 | 3,541 | 2,077 | 11,951 | | 35,202 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| 10 | Concrete FooterPiers 4 Ea | 37.00 | CY | | 237 | 17,633 | 3,541 | 2,077 | 11,951 | | 35,202 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| | Build Forms | 285.40 | SF | | 24 | 1,827 | 193 | 1,598 | | | 3,618 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.40 hour (0.34 days) | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 258 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 232 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 272 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 1,065 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 62 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 131 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 285.4 | SF | 5.60 | | | | 1,598 | | | |
| | Set, Strip & Move Forms | 285.40 | SF | | 57 | 4,315 | 525 | 428 | | | 5,268 |
| | Prod=55.00 SF/hour (550.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 5.19 hour (0.52 days) | | | | 0.20 | 15.12 | 1.84 | 1.50 | | | 18.46 |
| | <i>Set Strip Retaining Walls</i> | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 210 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 1,065 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 415 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 2,439 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 187 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 305 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 94 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 125 | | | | |
| | Set Strip Form Material | 285.4 | SF | 1.50 | | | | 428 | | | |
| | Mix and Place Concrete Super Sack | 37.00 | CY | | 113 | 8,172 | 2,364 | | 8,325 | | 18,861 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 10.28 hour (1.03 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | <i>Mix & Place Super Sack Concrete</i> | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 831 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 795 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 2,109 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 1,406 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 703 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 805 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 702 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 820 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 713 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 976 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 8 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 15 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 144 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 332 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 177 | | | | |
| | Super Sack Concrete Mix | 37.0 | CY | 225.00 | | | | | 8,325 | | |
| | Place Reinforcing Steel | 6,475.00 | LB | | 36 | 2,763 | 460 | | 3,626 | | 6,848 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 4.54 hour (0.45 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 184 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 311 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 364 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,741 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 164 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|--|---------------|-----------|-----------|----------|--------|------------|-----------|-----------|----------|------------|
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 267 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 83 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 110 | | | | |
| | Supply Fabricated Rebar | 6,475.0 | LB | 0.56 | | | | | 3,626 | | |
| | Finish Concrete | 203.86 | SF | | 2 | | 141 | | | | 141 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.90 hour (0.09 days) | | | | 0.01 | | 0.69 | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | | 141 | | | | |
| | Cure Concrete | 509.64 | SF | | 2 | | 191 | 51 | | | 242 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1.22 hour (0.12 days) | | | | 0.00 | | 0.38 | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | | 191 | | | | |
| | Curing Agent per sf | 509.6 | SF | 0.10 | | | | 51 | | | |
| | Patch & Point | 285.40 | SF | | 3 | | 224 | | | | 224 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 1.43 hour (0.14 days) | | | | 0.01 | | 0.78 | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | | 224 | | | | |
| 40 | Superstructure & Pier Steel Purchase | 270.00 | TN | | | | | | 1,131,400 | | 1,131,400 |
| | Superstructure Steel Purchase | 258.0 | TN | 3,765.12 | | | | | 4,190.37 | | 4,190.37 |
| | Pier Steel | 12.0 | TN | 13,333.33 | | | | | 971,400 | | 971,400 |
| | | | | | | | | | 160,000 | | 160,000 |
| 45 | Load & Haul Steel From Rail Yard | 14.00 | LOADS | | 70 | 5,420 | 2,135 | | | | 7,555 |
| | Prod=1.80 LOADS/hour (18.00 LOADS/ day), 5.000MH/LOADS, 0.20 LOADS/MH, 7.78 hour (0.78 days) | | | | 5.00 | 387.17 | 152.47 | | | | 539.64 |
| | Load & Haul Steel From Rail Yard | 1.00 | EA | 971.35 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | | 629 | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | | 636 | | | | |
| | Ironworker | 4.0 | | 76.64 | | | 2,384 | | | | |
| | Highway Truck Driver | 3.0 | | 75.90 | | | 1,771 | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | | | 487 | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | | 134 | | |
| | Tractor & Hi-Trailer | 3.0 | | 64.87 | | | | | 1,514 | | |
| 50 | Pier Erection | 12.00 | TN | | 70 | 5,412 | 1,998 | | | | 7,410 |
| | Prod=1.20 TN/hour (12.00 TN/ day), 5.833MH/TN, 0.17 TN/MH, 10.00 hour (1.00 days) | | | | 5.83 | 451.00 | 166.52 | | | | 617.52 |
| | Pier Erection | 1.00 | EA | 741.02 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | | 809 | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | | 818 | | | | |
| | Ironworker | 4.0 | | 76.64 | | | 3,066 | | | | |
| | Oiler | 1.0 | | 72.00 | | | 720 | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | | | 170 | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | | | 49 | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | | | 70 | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | | | 361 | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | | | 1,177 | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | | 172 | | |
| 60 | Superstructure Erection | 258.00 | TN | | 910 | 71,158 | 37,632 | | | | 108,791 |
| | Prod=1.98 TN/hour (19.85 TN/ day), 3.527MH/TN, 0.28 TN/MH, 130.00 hour (13.00 days) | | | | 3.53 | 275.81 | 145.86 | | | | 421.67 |
| | Launch Bridge Superstructure | 1.00 | EA | 836.85 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | | 10,511 | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | | 10,162 | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | | 10,633 | | | | |
| | Ironworker | 4.0 | | 76.64 | | | 39,853 | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | | | 18,815 | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | | | 2,209 | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | | | 631 | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | | | 909 | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | | | 4,690 | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | | | 8,143 | | |

| Estimate Line Detail | | | | | | | | | | | |
|--|--|--------------------|-----|---------|--------------|----------------|---------------|---------------|------------------|----------|------------------|
| Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 2,236 | | | | |
| 336.112 | Permanent Access Road Long Span Bridge MP21.6 | 516.00 FT | | | 3,152 | 242,348 | 96,033 | 13,908 | 2,378,522 | | 2,730,811 |
| | | | | | 6.11 | 469.67 | 186.11 | 26.95 | 4,609.54 | | 5,292.27 |
| 21.6 | Bridge Construction | 516.00 FT | | | 3,152 | 242,348 | 96,033 | 13,908 | 2,378,522 | | 2,730,811 |
| | | | | | 6.11 | 469.67 | 186.11 | 26.95 | 4,609.54 | | 5,292.27 |
| 20 | Concrete Abutments | 64.00 CY | | | 657 | 49,269 | 8,123 | 9,832 | 20,672 | | 87,897 |
| | | | | | 10.27 | 769.84 | 126.93 | 153.63 | 323.00 | | 1,373.40 |
| 10 | Concrete Footer | 24.00 CY | | | 168 | 12,544 | 2,395 | 2,180 | 7,752 | | 24,871 |
| | | | | | 7.02 | 522.68 | 99.79 | 90.83 | 323.00 | | 1,036.31 |
| | Build Forms | 300.00 SF | | | 25 | 1,920 | 203 | 1,680 | | | 3,803 |
| | | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 EA | | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 271 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 244 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 1,119 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 138 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 300.00 SF | | 5.60 | | | | 1,680 | | | |
| | Set, Strip & Move Forms | 300.00 SF | | | 39 | 2,970 | 361 | 450 | | | 3,781 |
| | | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | Set Strip Retaining Walls | 1.00 EA | | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 144 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 733 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 1,679 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 129 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 210 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 86 | | | | |
| | Set Strip Form Material | 300.00 SF | | 1.50 | | | | 450 | | | |
| | Mix and Place Concrete Super Sack | 24.00 CY | | | 73 | 5,301 | 1,533 | | 5,400 | | 12,234 |
| | | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 6.67 hour (0.67 days) | | | | | | | | | | |
| | Mix & Place Super Sack Concrete | 1.00 EA | | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 539 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 516 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 1,368 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 912 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 456 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 522 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 455 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 532 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 462 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 633 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 5 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 9 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 93 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 215 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 115 | | | | |
| | Super Sack Concrete Mix | 24.00 CY | | 225.00 | | | | | 5,400 | | |
| | Place Reinforcing Steel | 4,200.00 LB | | | 24 | 1,792 | 298 | | 2,352 | | 4,442 |
| | | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 2.95 hour (0.29 days) | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 EA | | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 119 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 202 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 236 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,129 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 106 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 173 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 54 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 71 | | | | |
| | Supply Fabricated Rebar | 4,200.00 LB | | 0.56 | | | | | 2,352 | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|---------------|--------------|--------------|--------------|----------|---------------|
| | Finish Concrete | 200.00 | SF | | 2 | 139 | | | | | 139 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.88 hour (0.09 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 139 | | | | | |
| | Cure Concrete | 500.00 | SF | | 2 | 188 | | 50 | | | 238 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1.20 hour (0.12 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 188 | | | | | |
| | Curing Agent per sf | 500.0 | SF | 0.10 | | | | 50 | | | |
| | Patch & Point | 300.00 | SF | | 3 | 235 | | | | | 235 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 1.50 hour (0.15 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 235 | | | | | |
| 20 | Concrete Back Wall & Wings | 40.00 | CY | | 489 | 36,725 | 5,728 | 7,652 | 12,920 | | 63,026 |
| | | | | | 12.22 | 918.13 | 143.21 | 191.31 | 323.00 | | 1,575.65 |
| | Build Forms | 868.00 | SF | | 72 | 5,556 | 586 | 4,861 | | | 11,002 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 10.33 hour (1.03 days) | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 784 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 707 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 827 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 3,238 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 188 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 398 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 868.0 | SF | 5.60 | | | | 4,861 | | | |
| | Set, Strip & Move Forms | 1,736.00 | SF | | 227 | 17,187 | 2,090 | 2,604 | | | 21,881 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 20.67 hour (2.07 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 835 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,241 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,653 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 9,713 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 744 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,216 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 376 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 498 | | | | |
| | Set Strip Form Material | 1,736.0 | SF | 1.50 | | | | 2,604 | | | |
| | Mix and Place Concrete Super Sack | 40.00 | CY | | 122 | 8,834 | 2,555 | | 9,000 | | 20,390 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 11.11 hour (1.11 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 898 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 860 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 2,280 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 1,520 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 760 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 870 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 759 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 886 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 770 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 1,055 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 9 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 16 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 155 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 359 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 191 | | | | |
| | Super Sack Concrete Mix | 40.0 | CY | 225.00 | | | | | 9,000 | | |
| | Place Reinforcing Steel | 7,000.00 | LB | | 39 | 2,987 | 497 | | 3,920 | | 7,404 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|---------------|--------------|--------------|---------------|----------|---------------|
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 4.91 hour (0.49 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 199 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 336 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 393 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,882 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 177 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 289 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 89 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 118 | | | | |
| | Supply Fabricated Rebar | 7,000.0 | LB | 0.56 | | | | | 3,920 | | |
| | Finish Concrete | 140.00 | SF | | 1 | 97 | | | | | 97 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.62 hour (0.06 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 97 | | | | | |
| | Cure Concrete | 1,876.00 | SF | | 9 | 704 | | 188 | | | 892 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.50 hour (0.45 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 704 | | | | | |
| | Curing Agent per sf | 1,876.0 | SF | 0.10 | | | | 188 | | | |
| | Patch & Point | 1,736.00 | SF | | 17 | 1,360 | | | | | 1,360 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 8.68 hour (0.87 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 1,360 | | | | | |
| 30 | Concrete Piers Footer | 72.60 | CY | | 466 | 34,599 | 6,948 | 4,076 | 23,450 | | 69,072 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| 10 | Concrete FooterPiers 4 Ea | 72.60 | CY | | 466 | 34,599 | 6,948 | 4,076 | 23,450 | | 69,072 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| | Build Forms | 560.00 | SF | | 47 | 3,584 | 378 | 3,136 | | | 7,098 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 6.67 hour (0.67 days) | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 506 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 456 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 533 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 2,089 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 121 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 257 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 560.0 | SF | 5.60 | | | | 3,136 | | | |
| | Set, Strip & Move Forms | 560.00 | SF | | 112 | 8,468 | 1,030 | 840 | | | 10,337 |
| | Prod=55.00 SF/hour (550.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 10.18 hour (1.02 days) | | | | 0.20 | 15.12 | 1.84 | 1.50 | | | 18.46 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 412 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 2,090 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 815 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 4,785 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 367 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 599 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 185 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 245 | | | | |
| | Set Strip Form Material | 560.0 | SF | 1.50 | | | | 840 | | | |
| | Mix and Place Concrete Super Sack | 72.60 | CY | | 222 | 16,035 | 4,638 | | 16,335 | | 37,007 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 20.17 hour (2.02 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 1,630 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 1,561 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 4,139 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 2,759 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|------------------|-----------|-----------|-----------|--------------|------------|------------|--------------|----------|---------------|
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 1,380 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 1,580 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 1,378 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 1,608 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 1,398 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 1,915 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 16 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 29 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 282 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 651 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 347 | | | | |
| | Super Sack Concrete Mix | 72.6 | CY | 225.00 | | | | | | 16,335 | |
| | Place Reinforcing Steel | 12,705.00 | LB | | 71 | 5,421 | 902 | | 7,115 | | 13,438 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 8.92 hour (0.89 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 360 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 610 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 713 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 3,417 | | | | | |
| | Oilier | 0.5 | | 72.00 | | 321 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 525 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 162 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 215 | | | | |
| | Supply Fabricated Rebar | 12,705.00 | LB | 0.56 | | | | | | 7,115 | |
| | Finish Concrete | 400.00 | SF | | 4 | 277 | | | | | 277 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 1.77 hour (0.18 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 277 | | | | | |
| | Cure Concrete | 1,000.00 | SF | | 5 | 375 | | 100 | | | 475 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 2.40 hour (0.24 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 375 | | | | | |
| | Curing Agent per sf | 1,000.00 | SF | 0.10 | | | | 100 | | | |
| | Patch & Point | 560.00 | SF | | 6 | 439 | | | | | 439 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 2.80 hour (0.28 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 439 | | | | | |
| 40 | Superstructure & Pier Steel Purchase | 524.00 | TN | | | | | | 2,334,400 | | 2,334,400 |
| | Pier Steel | 20.0 | TN | 14,500.00 | | | | | 4,454.96 | | 4,454.96 |
| | Superstructure Steel Purchase | 504.00 | TN | 4,056.35 | | | | | 2,044,400 | | |
| 45 | Load & Haul Steel From Rail Yard | 27.00 | LOADS | | 135 | 10,454 | 4,117 | | | | 14,570 |
| | Prod=1.80 LOADS/hour (18.00 LOADS/ day), 5.000MH/LOADS, 0.20 LOADS/MH, 15.00 hour (1.50 days) | | | | 5.00 | 387.17 | 152.47 | | | | 539.64 |
| | Load & Haul Steel From Rail Yard | 1.00 | EA | 971.35 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 1,213 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 1,227 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 4,598 | | | | | |
| | Highway Truck Driver | 3.0 | | 75.90 | | 3,416 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 940 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 258 | | | | |
| | Tractor & Hi-Trailer | 3.0 | | 64.87 | | | 2,919 | | | | |
| 50 | Pier Erection | 20.00 | TN | | 117 | 9,020 | 3,330 | | | | 12,350 |
| | Prod=1.20 TN/hour (12.00 TN/ day), 5.833MH/TN, 0.17 TN/MH, 16.67 hour (1.67 days) | | | | 5.83 | 451.00 | 166.52 | | | | 617.52 |
| | Pier Erection | 1.00 | EA | 741.02 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 1,348 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 1,363 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 5,109 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---------|---|----------|-----|---------|--------|---------|---------|---------|-----------|----------|------------|
| | Oiler | 1.0 | | 72.00 | | | 1,200 | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | | | 283 | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | | | 81 | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | | | 117 | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | | | 601 | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | | | 1,962 | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | | 287 | | |
| 60 | Superstructure Erection | 504.00 | TN | | 1,778 | 139,007 | 73,514 | | | | 212,521 |
| | Prod=1.98 TN/hour (19.85 TN/ day), 3.527MH/TN, 0.28 TN/MH, 253.95 hour (25.40 days) | | | | 3.53 | 275.81 | 145.86 | | | | 421.67 |
| | Launch Bridge Superstructure | 1.00 | EA | 836.85 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 20,532 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 19,852 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 20,771 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 77,852 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 36,755 | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | | 4,315 | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | | 1,232 | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | | 1,775 | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | | 9,163 | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | | 15,908 | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | 4,368 | | | |
| 336.113 | Permanent Access Road Long Span Bridge MP26 | 880.00 | FT | | 5,639 | 434,584 | 181,192 | 17,984 | 4,607,572 | | 5,241,331 |
| | | | | | 6.41 | 493.85 | 205.90 | 20.44 | 5,235.88 | | 5,956.06 |
| 26 | Bridge Construction | 880.00 | FT | | 5,639 | 434,584 | 181,192 | 17,984 | 4,607,572 | | 5,241,331 |
| | | | | | 6.41 | 493.85 | 205.90 | 20.44 | 5,235.88 | | 5,956.06 |
| 20 | Concrete Abutments | 64.00 | CY | | 657 | 49,269 | 8,123 | 9,832 | 20,672 | | 87,897 |
| | | | | | 10.27 | 769.84 | 126.93 | 153.63 | 323.00 | | 1,373.40 |
| 10 | Concrete Footer | 24.00 | CY | | 168 | 12,544 | 2,395 | 2,180 | 7,752 | | 24,871 |
| | | | | | 7.02 | 522.68 | 99.79 | 90.83 | 323.00 | | 1,036.31 |
| | Build Forms | 300.00 | SF | | 25 | 1,920 | 203 | 1,680 | | | 3,803 |
| | | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 271 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 244 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 1,119 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 138 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 300.00 | SF | 5.60 | | | | 1,680 | | | |
| | Set, Strip & Move Forms | 300.00 | SF | | 39 | 2,970 | 361 | 450 | | | 3,781 |
| | | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 144 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 733 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 1,679 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 129 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 210 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 86 | | | | |
| | Set Strip Form Material | 300.00 | SF | 1.50 | | | | 450 | | | |
| | Mix and Place Concrete Super Sack | 24.00 | CY | | 73 | 5,301 | 1,533 | | 5,400 | | 12,234 |
| | | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 6.67 hour (0.67 days) | | | | | | | | | | |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 539 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 516 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 1,368 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 912 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 456 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 522 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 455 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 532 | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|--------|------------|---------------|--------------|--------------|--------------|----------|---------------|
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 462 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 633 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 5 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 9 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 93 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 215 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 115 | | | | |
| | Super Sack Concrete Mix | 24.0 | CY | 225.00 | | | | | 5,400 | | |
| | Place Reinforcing Steel | 4,200.00 | LB | | 24 | 1,792 | 298 | | 2,352 | | 4,442 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 2.95 hour (0.29 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 119 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 202 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 236 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,129 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 106 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 173 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 54 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 71 | | | | |
| | Supply Fabricated Rebar | 4,200.0 | LB | 0.56 | | | | | 2,352 | | |
| | Finish Concrete | 200.00 | SF | | 2 | 139 | | | | | 139 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.88 hour (0.09 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 139 | | | | | |
| | Cure Concrete | 500.00 | SF | | 2 | 188 | | 50 | | | 238 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1.20 hour (0.12 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 188 | | | | | |
| | Curing Agent per sf | 500.0 | SF | 0.10 | | | | 50 | | | |
| | Patch & Point | 300.00 | SF | | 3 | 235 | | | | | 235 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 1.50 hour (0.15 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 235 | | | | | |
| 20 | Concrete Back Wall & Wings | 40.00 | CY | | 489 | 36,725 | 5,728 | 7,652 | 12,920 | | 63,026 |
| | | | | | 12.22 | 918.13 | 143.21 | 191.31 | 323.00 | | 1,575.65 |
| | Build Forms | 868.00 | SF | | 72 | 5,556 | 586 | 4,861 | | | 11,002 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 10.33 hour (1.03 days) | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 784 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 707 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 827 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 3,238 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 188 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 398 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 868.0 | SF | 5.60 | | | | 4,861 | | | |
| | Set, Strip & Move Forms | 1,736.00 | SF | | 227 | 17,187 | 2,090 | 2,604 | | | 21,881 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 20.67 hour (2.07 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 835 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,241 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,653 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 9,713 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 744 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,216 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 376 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 498 | | | | |
| | Set Strip Form Material | 1,736.0 | SF | 1.50 | | | | 2,604 | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|--------------|--------------|--------------|--------------|----------|---------------|
| | Mix and Place Concrete Super Sack | 40.00 | CY | | 122 | 8,834 | 2,555 | | 9,000 | | 20,390 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 11.11 hour (1.11 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 898 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 860 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 2,280 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 1,520 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 760 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 870 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 759 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 886 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 770 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 1,055 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 9 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 16 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 155 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 359 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 191 | | | | |
| | Super Sack Concrete Mix | 40.00 | CY | 225.00 | | | | | 9,000 | | |
| | Place Reinforcing Steel | 7,000.00 | LB | | 39 | 2,987 | 497 | | 3,920 | | 7,404 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 4.91 hour (0.49 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 199 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 336 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 393 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,882 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 177 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 289 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 89 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 118 | | | | |
| | Supply Fabricated Rebar | 7,000.00 | LB | 0.56 | | | | | 3,920 | | |
| | Finish Concrete | 140.00 | SF | | 1 | 97 | | | | | 97 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.62 hour (0.06 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 97 | | | | | |
| | Cure Concrete | 1,876.00 | SF | | 9 | 704 | | 188 | | | 892 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.50 hour (0.45 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 704 | | | | | |
| | Curing Agent per sf | 1,876.00 | SF | 0.10 | | | | 188 | | | |
| | Patch & Point | 1,736.00 | SF | | 17 | 1,360 | | | | | 1,360 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 8.68 hour (0.87 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 1,360 | | | | | |
| 30 | Concrete Piers Footer | 145.20 | CY | | 932 | 69,198 | 13,895 | 8,152 | 46,900 | | 138,144 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| 10 | Concrete FooterPiers 4 Ea | 145.20 | CY | | 932 | 69,198 | 13,895 | 8,152 | 46,900 | | 138,144 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| | Build Forms | 1,120.00 | SF | | 93 | 7,168 | 756 | 6,272 | | | 14,196 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 13.33 hour (1.33 days) | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 1,012 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 912 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,067 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 4,178 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 242 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 514 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 1,120.00 | SF | 5.60 | | | | 6,272 | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|------------------|-----------|---------|------------|---------------|--------------|--------------|---------------|----------|---------------|
| | Set, Strip & Move Forms | 1,120.00 | SF | | 224 | 16,935 | 2,060 | 1,680 | | | 20,675 |
| | Prod=55.00 SF/hour (550.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 20.36 hour (2.04 days) | | | | 0.20 | 15.12 | 1.84 | 1.50 | | | 18.46 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 823 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,179 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,629 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 9,571 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 733 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,199 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 370 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 491 | | | | |
| | Set Strip Form Material | 1,120.00 | SF | 1.50 | | | | 1,680 | | | |
| | Mix and Place Concrete Super Sack | 145.20 | CY | | 444 | 32,069 | 9,276 | | 32,670 | | 74,015 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 40.33 hour (4.03 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 3,261 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 3,121 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 8,278 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 5,518 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 2,759 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 3,159 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 2,756 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 3,217 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 2,796 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 3,831 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 31 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 57 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 564 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 1,303 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 694 | | | | |
| | Super Sack Concrete Mix | 145.2 | CY | 225.00 | | | | | 32,670 | | |
| | Place Reinforcing Steel | 25,410.00 | LB | | 143 | 10,842 | 1,804 | | 14,230 | | 26,875 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 17.83 hour (1.78 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 721 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 1,220 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 1,427 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 6,833 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 642 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,049 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 324 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 430 | | | | |
| | Supply Fabricated Rebar | 25,410.0 | LB | 0.56 | | | | | 14,230 | | |
| | Finish Concrete | 800.00 | SF | | 7 | 555 | | | | | 555 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 3.54 hour (0.35 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 555 | | | | | |
| | Cure Concrete | 2,000.00 | SF | | 10 | 751 | | 200 | | | 951 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.79 hour (0.48 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 751 | | | | | |
| | Curing Agent per sf | 2,000.0 | SF | 0.10 | | | | 200 | | | |
| | Patch & Point | 1,120.00 | SF | | 11 | 877 | | | | | 877 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 5.60 hour (0.56 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 877 | | | | | |
| 40 | Superstructure & Pier Steel Purchase | 1,022.00 | TN | | | | | | 4,540,000 | | 4,540,000 |
| | | | | | | | | | 4,442.27 | | 4,442.27 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---------|---|----------|-------|-----------|--------|---------|---------|---------|-----------|----------|------------|
| | Superstructure Steel Purchase | 950.0 | TN | 3,684.21 | | | | | 3,500,000 | | |
| | Pier Steel | 72.0 | TN | 14,444.44 | | | | | 1,040,000 | | |
| 45 | Load & Haul Steel From Rail Yard | 52.00 | LOADS | | 270 | 20,907 | 8,234 | | | | 29,141 |
| | Prod=1.73 LOADS/hour (17.33 LOADS/ day), 5.192MH/LOADS, 0.19 LOADS/MH, 30.00 hour (3.00 days) | | | | 5.19 | 402.06 | 158.34 | | | | 560.39 |
| | Load & Haul Steel From Rail Yard | 1.00 | EA | 971.35 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 2,426 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 2,454 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 9,197 | | | | | |
| | Highway Truck Driver | 3.0 | | 75.90 | | 6,831 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 1,879 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 516 | | | | |
| | Tractor & Hi-Trailer | 3.0 | | 64.87 | | | 5,838 | | | | |
| 50 | Pier Erection | 72.00 | TN | | 420 | 32,472 | 11,989 | | | | 44,461 |
| | Prod=1.20 TN/hour (12.00 TN/ day), 5.833MH/TN, 0.17 TN/MH, 60.00 hour (6.00 days) | | | | 5.83 | 451.00 | 166.52 | | | | 617.52 |
| | Pier Erection | 1.00 | EA | 741.02 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 4,907 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 18,394 | | | | | |
| | Oiler | 1.0 | | 72.00 | | 4,320 | | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 1,019 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 291 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 419 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 2,165 | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 7,063 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,032 | | | | |
| 60 | Superstructure Erection | 950.00 | TN | | 3,360 | 262,738 | 138,950 | | | | 401,688 |
| | Prod=1.98 TN/hour (19.79 TN/ day), 3.537MH/TN, 0.28 TN/MH, 480.00 hour (48.00 days) | | | | 3.54 | 276.57 | 146.26 | | | | 422.83 |
| | Launch Bridge Superstructure | 1.00 | EA | 836.85 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 38,808 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 37,522 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 39,259 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 147,149 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 69,470 | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 8,155 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 2,328 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 3,355 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 17,318 | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 30,067 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 8,256 | | | | |
| 336.114 | Permanent Access Road Long Span Bridge MP43 | 820.00 | FT | | 4,593 | 351,995 | 132,762 | 20,022 | 3,439,296 | | 3,944,076 |
| | Prod=5.60 FT/hour (56.00 FT/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | 5.60 | 429.26 | 161.91 | 24.42 | 4,194.26 | | 4,809.85 |
| 43 | Bridge Construction | 820.00 | FT | | 4,593 | 351,995 | 132,762 | 20,022 | 3,439,296 | | 3,944,076 |
| | Prod=5.60 FT/hour (56.00 FT/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | 5.60 | 429.26 | 161.91 | 24.42 | 4,194.26 | | 4,809.85 |
| 20 | Concrete Abutments | 64.00 | CY | | 657 | 49,269 | 8,123 | 9,832 | 20,672 | | 87,897 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | 10.27 | 769.84 | 126.93 | 153.63 | 323.00 | | 1,373.40 |
| 10 | Concrete Footer | 24.00 | CY | | 168 | 12,544 | 2,395 | 2,180 | 7,752 | | 24,871 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 3.57 hour (0.36 days) | | | | 7.02 | 522.68 | 99.79 | 90.83 | 323.00 | | 1,036.31 |
| | Build Forms | 300.00 | SF | | 25 | 1,920 | 203 | 1,680 | | | 3,803 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 271 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 244 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 1,119 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 138 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 300.00 | SF | 5.60 | | | | 1,680 | | | |
| | Set, Strip & Move Forms | 300.00 | SF | | 39 | 2,970 | 361 | 450 | | | 3,781 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 3.57 hour (0.36 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|---------------|--------------|--------------|---------------|----------|---------------|
| | Crane Operator Class-A | 0.5 | | 80.85 | | 144 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 733 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 1,679 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 129 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 210 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 86 | | | | |
| | Set Strip Form Material | 300.0 | SF | 1.50 | | | | 450 | | | |
| | Mix and Place Concrete Super Sack | 24.00 | CY | | 73 | 5,301 | 1,533 | | 5,400 | | 12,234 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 6.67 hour (0.67 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 539 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 516 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 1,368 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 912 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 456 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 522 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 455 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 532 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 462 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 633 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 5 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 9 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 93 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 215 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 115 | | | | |
| | Super Sack Concrete Mix | 24.00 | CY | 225.00 | | | | | 5,400 | | |
| | Place Reinforcing Steel | 4,200.00 | LB | | 24 | 1,792 | 298 | | 2,352 | | 4,442 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 2.95 hour (0.29 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 119 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 202 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 236 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,129 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 106 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 173 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 54 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 71 | | | | |
| | Supply Fabricated Rebar | 4,200.00 | LB | 0.56 | | | | | 2,352 | | |
| | Finish Concrete | 200.00 | SF | | 2 | 139 | | | | | 139 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.88 hour (0.09 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 139 | | | | | |
| | Cure Concrete | 500.00 | SF | | 2 | 188 | | 50 | | | 238 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1.20 hour (0.12 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 188 | | | | | |
| | Curing Agent per sf | 500.00 | SF | 0.10 | | | | 50 | | | |
| | Patch & Point | 300.00 | SF | | 3 | 235 | | | | | 235 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 1.50 hour (0.15 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 235 | | | | | |
| 20 | Concrete Back Wall & Wings | 40.00 | CY | | 489 | 36,725 | 5,728 | 7,652 | 12,920 | | 63,026 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 10.33 hour (1.03 days) | | | | 12.22 | 918.13 | 143.21 | 191.31 | 323.00 | | 1,575.65 |
| | Build Forms | 868.00 | SF | | 72 | 5,556 | 586 | 4,861 | | | 11,002 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|---------------|--------------|--------------|--------------|----------|---------------|
| | Boomtruck Operator | 1.0 | | 75.90 | | | 784 | | | | |
| | Labourer | 1.0 | | 68.41 | | | 707 | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | | 827 | | | | |
| | Carpenter | 4.0 | | 78.33 | | | 3,238 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | | 188 | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | | 398 | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 868.0 | SF | 5.60 | | | | | | 4,861 | |
| | Set, Strip & Move Forms | 1,736.00 | SF | | 227 | 17,187 | 2,090 | 2,604 | | | 21,881 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 20.67 hour (2.07 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | | 835 | | | | |
| | Labourer | 3.0 | | 68.41 | | | 4,241 | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | | 1,653 | | | | |
| | Carpenter | 6.0 | | 78.33 | | | 9,713 | | | | |
| | Oiler | 0.5 | | 72.00 | | | 744 | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | | 1,216 | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | | 376 | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | | 498 | | | |
| | Set Strip Form Material | 1,736.0 | SF | 1.50 | | | | | | 2,604 | |
| | Mix and Place Concrete Super Sack | 40.00 | CY | | 122 | 8,834 | 2,555 | | 9,000 | | 20,390 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 11.11 hour (1.11 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | | 898 | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | | 860 | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | | 2,280 | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | | 1,520 | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | | 760 | | | | |
| | Carpenter | 1.0 | | 78.33 | | | 870 | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | | 759 | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | | 886 | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | | 770 | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | | 1,055 | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | | 9 | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | | 16 | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | | 155 | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | | 359 | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | 191 | | | |
| | Super Sack Concrete Mix | 40.0 | CY | 225.00 | | | | | | 9,000 | |
| | Place Reinforcing Steel | 7,000.00 | LB | | 39 | 2,987 | 497 | | 3,920 | | 7,404 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 4.91 hour (0.49 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | | 199 | | | | |
| | Labourer | 1.0 | | 68.41 | | | 336 | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | | 393 | | | | |
| | Ironworker | 5.0 | | 76.64 | | | 1,882 | | | | |
| | Oiler | 0.5 | | 72.00 | | | 177 | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | | 289 | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | | 89 | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | | 118 | | | |
| | Supply Fabricated Rebar | 7,000.0 | LB | 0.56 | | | | | | 3,920 | |
| | Finish Concrete | 140.00 | SF | | 1 | 97 | | | | | 97 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.62 hour (0.06 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | | 97 | | | | |
| | Cure Concrete | 1,876.00 | SF | | 9 | 704 | | 188 | | | 892 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.50 hour (0.45 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | | 704 | | | | |
| | Curing Agent per sf | 1,876.0 | SF | 0.10 | | | | | | 188 | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|------------------|-----------|---------|--------------|---------------|---------------|---------------|---------------|----------|----------------|
| | Patch & Point | 1,736.00 | SF | | 17 | 1,360 | | | | | 1,360 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 8.68 hour (0.87 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 1,360 | | | | | |
| 30 | Concrete Piers Footer | 181.50 | CY | | 1,164 | 86,497 | 17,369 | 10,190 | 58,625 | | 172,680 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| 10 | Concrete FooterPiers 5 Ea | 181.50 | CY | | 1,164 | 86,497 | 17,369 | 10,190 | 58,625 | | 172,680 |
| | | | | | 6.42 | 476.57 | 95.70 | 56.14 | 323.00 | | 951.41 |
| | Build Forms | 1,400.00 | SF | | 117 | 8,961 | 945 | 7,840 | | | 17,746 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 16.67 hour (1.67 days) | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 1,265 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 1,140 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,333 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 5,222 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 303 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 642 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 1,400.00 | SF | 5.60 | | | | 7,840 | | | |
| | Set, Strip & Move Forms | 1,400.00 | SF | | 280 | 21,169 | 2,575 | 2,100 | | | 25,843 |
| | | | | | 0.20 | 15.12 | 1.84 | 1.50 | | | 18.46 |
| | Prod=55.00 SF/hour (550.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 25.45 hour (2.55 days) | | | | | | | | | | |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 1,029 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 5,224 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 2,036 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 11,963 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 916 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,498 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 463 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 614 | | | | |
| | Set Strip Form Material | 1,400.00 | SF | 1.50 | | | | 2,100 | | | |
| | Mix and Place Concrete Super Sack | 181.50 | CY | | 555 | 40,086 | 11,595 | | 40,838 | | 92,519 |
| | | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 50.42 hour (5.04 days) | | | | | | | | | | |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 4,076 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 3,902 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 10,347 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 6,898 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 3,449 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 3,949 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 3,444 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 4,021 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 3,495 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 4,789 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 39 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 72 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 705 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 1,628 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 867 | | | | |
| | Super Sack Concrete Mix | 181.5 | CY | 225.00 | | | | | 40,838 | | |
| | Place Reinforcing Steel | 31,762.50 | LB | | 178 | 13,553 | 2,254 | | 17,787 | | 33,594 |
| | | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 22.29 hour (2.23 days) | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 901 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 1,525 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 1,783 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 8,541 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 802 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,312 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 405 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 537 | | | | |
| | Supply Fabricated Rebar | 31,762.5 | LB | 0.56 | | | | | 17,787 | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---------|---|-----------------|-----------|-----------|-----------|--------------|---------|------------|-----------|----------|--------------|
| | Finish Concrete | 1,000.00 | SF | | 9 | 693 | | | | | 693 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 4.42 hour (0.44 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 693 | | | | | |
| | Cure Concrete | 2,500.00 | SF | | 12 | 939 | | 250 | | | 1,189 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 5.99 hour (0.60 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 939 | | | | | |
| | Curing Agent per sf | 2,500.0 | SF | 0.10 | | | | 250 | | | |
| | Patch & Point | 1,400.00 | SF | | 14 | 1,097 | | | | | 1,097 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 7.00 hour (0.70 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 1,097 | | | | | |
| 40 | Superstructure & Pier Steel Purchase | 686.00 | TN | | | | | | 3,360,000 | | 3,360,000 |
| | Pier Steel | 72.0 | TN | 11,666.67 | | | | | 840,000 | | 4,897.96 |
| | Superstructure Steel Purchase | 614.0 | TN | 4,104.23 | | | | | 2,520,000 | | 4,897.96 |
| 45 | Load & Haul Steel From Rail Yard | 35.00 | LOADS | | 182 | 14,072 | 5,542 | | | | 19,614 |
| | Prod=1.73 LOADS/hour (17.33 LOADS/ day), 5.192MH/LOADS, 0.19 LOADS/MH, 20.19 hour (2.02 days) | | | | 5.19 | 402.06 | 158.34 | | | | 560.39 |
| | Load & Haul Steel From Rail Yard | 1.00 | EA | 971.35 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 1,633 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 1,652 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 6,190 | | | | | |
| | Highway Truck Driver | 3.0 | | 75.90 | | 4,598 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 1,265 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 347 | | | | |
| | Tractor & Hi-Trailer | 3.0 | | 64.87 | | | 3,930 | | | | |
| 50 | Pier Erection | 72.00 | TN | | 420 | 32,472 | 11,989 | | | | 44,461 |
| | Prod=1.20 TN/hour (12.00 TN/ day), 5.833MH/TN, 0.17 TN/MH, 60.00 hour (6.00 days) | | | | 5.83 | 451.00 | 166.52 | | | | 617.52 |
| | Pier Erection | 1.00 | EA | 741.02 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 4,907 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 18,394 | | | | | |
| | Oiler | 1.0 | | 72.00 | | 4,320 | | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 1,019 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 291 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 419 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 2,165 | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 7,063 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,032 | | | | |
| 60 | Superstructure Erection | 614.00 | TN | | 2,170 | 169,685 | 89,739 | | | | 259,424 |
| | Prod=1.98 TN/hour (19.81 TN/ day), 3.534MH/TN, 0.28 TN/MH, 310.00 hour (31.00 days) | | | | 3.53 | 276.36 | 146.15 | | | | 422.51 |
| | Launch Bridge Superstructure | 1.00 | EA | 836.85 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 25,064 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 24,233 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 25,355 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 95,034 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 44,866 | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 5,267 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 1,504 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 2,167 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 11,185 | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 19,418 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 5,332 | | | | |
| 336.115 | Permanent Bridge at Site | 335.00 | FT | | 6,042 | 467,530 | 217,362 | 9,832 | 3,979,095 | | 4,673,820 |
| | | | | | 18.04 | 1,395.61 | 648.84 | 29.35 | 11,877.90 | | 13,951.70 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|----------|-----|---------|--------|----------|----------|---------|-----------|----------|------------|
| 17.3 | Bridge Construction | 335.00 | FT | | 6,042 | 467,530 | 217,362 | 9,832 | 3,979,095 | | 4,673,820 |
| | | | | | 18.04 | 1,395.61 | 648.84 | 29.35 | 11,877.90 | | 13,951.70 |
| 10 | Bridge Piling | 12.00 | EA | | 548 | 42,417 | 23,490 | | 31,050 | | 96,956 |
| | | | | | 45.69 | 3,534.71 | 1,957.49 | | 2,587.50 | | 8,079.71 |
| 10 | Bridge Piling | 12.00 | EA | | 420 | 33,140 | 20,807 | | 21,600 | | 75,547 |
| | | | | | 35.00 | 2,761.70 | 1,733.90 | | 1,800.00 | | 6,295.60 |
| | Prod=6.00 FT/hour (60.00 FT/ day), 1.167MH/FT, 0.86 FT/MH, 60.00 hour (6.00 days) | | | | | | | | | | |
| | Bore 600 mm (24") Drilled Shafts | 1.00 | EA | 899.12 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Auger Operator | 1.0 | | 78.17 | | 4,690 | | | | | |
| | Pile Driving Foreman | 1.0 | | 80.00 | | 4,800 | | | | | |
| | Pile Driver | 4.0 | | 78.33 | | 18,799 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 7,063 | | | | |
| | Pile Auger 900mm (36") Soilmec R 825 Drill Track Mounted | 1.0 | | 198.42 | | | 11,905 | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 13.45 | | | 807 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,032 | | | | |
| | H-Piles 310 x 132 (12x89 lb) | 360.00 | FT | 60.00 | | | | | 21,600 | | |
| 20 | Concrete Backfill | 42.00 | CY | | 128 | 9,276 | 2,683 | | 9,450 | | 21,409 |
| | | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix and Place Concrete Super Sack | 42.00 | CY | | 128 | 9,276 | 2,683 | | 9,450 | | 21,409 |
| | | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 11.67 hour (1.17 days) | | | | | | | | | | |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 943 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 903 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 2,394 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 1,596 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 798 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 914 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 797 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 930 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 809 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 1,108 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 9 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 17 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 163 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 377 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 201 | | | | |
| | Super Sack Concrete Mix | 42.00 | CY | 225.00 | | | | | 9,450 | | |
| 20 | Concrete Abutments | 64.00 | CY | | 657 | 49,269 | 8,123 | 9,832 | 20,672 | | 87,897 |
| | | | | | 10.27 | 769.84 | 126.93 | 153.63 | 323.00 | | 1,373.40 |
| 10 | Concrete Footer | 24.00 | CY | | 168 | 12,544 | 2,395 | 2,180 | 7,752 | | 24,871 |
| | | | | | 7.02 | 522.68 | 99.79 | 90.83 | 323.00 | | 1,036.31 |
| | Build Forms | 300.00 | SF | | 25 | 1,920 | 203 | 1,680 | | | 3,803 |
| | | | | | 0.08 | 6.40 | 0.68 | 5.60 | | | 12.68 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 271 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 244 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 1,119 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 138 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 300.00 | SF | 5.60 | | | | 1,680 | | | |
| | Set, Strip & Move Forms | 300.00 | SF | | 39 | 2,970 | 361 | 450 | | | 3,781 |
| | | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 3.57 hour (0.36 days) | | | | | | | | | | |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 144 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 733 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 286 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 1,679 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 129 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 210 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 86 | | | | |
| | Set Strip Form Material | 300.00 | SF | 1.50 | | | | 450 | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|---------------|--------------|--------------|---------------|----------|---------------|
| | Mix and Place Concrete Super Sack | 24.00 | CY | | 73 | 5,301 | 1,533 | | 5,400 | | 12,234 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 6.67 hour (0.67 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 539 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 516 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 1,368 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 912 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 456 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 522 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 455 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 532 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 462 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 633 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 5 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 9 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 93 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 215 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 115 | | | | |
| | Super Sack Concrete Mix | 24.00 | CY | 225.00 | | | | | 5,400 | | |
| | Place Reinforcing Steel | 4,200.00 | LB | | 24 | 1,792 | 298 | | 2,352 | | 4,442 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 2.95 hour (0.29 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 119 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 202 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 236 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,129 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 106 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 173 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 54 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 71 | | | | |
| | Supply Fabricated Rebar | 4,200.00 | LB | 0.56 | | | | | 2,352 | | |
| | Finish Concrete | 200.00 | SF | | 2 | 139 | | | | | 139 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.88 hour (0.09 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 139 | | | | | |
| | Cure Concrete | 500.00 | SF | | 2 | 188 | | 50 | | | 238 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1.20 hour (0.12 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 188 | | | | | |
| | Curing Agent per sf | 500.00 | SF | 0.10 | | | | 50 | | | |
| | Patch & Point | 300.00 | SF | | 3 | 235 | | | | | 235 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 1.50 hour (0.15 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 235 | | | | | |
| 20 | Concrete Back Wall & Wings | 40.00 | CY | | 489 | 36,725 | 5,728 | 7,652 | 12,920 | | 63,026 |
| | | | | | 12.22 | 918.13 | 143.21 | 191.31 | 323.00 | | 1,575.65 |
| | Build Forms | 868.00 | SF | | 72 | 5,556 | 586 | 4,861 | | | 11,002 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 10.33 hour (1.03 days) | | | | 0.08 | 6.40 | 0.67 | 5.60 | | | 12.68 |
| | Fabricate Gang Formwork | 1.00 | EA | 594.33 | | | | | | | |
| | Boomtruck Operator | 1.0 | | 75.90 | | 784 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 707 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 827 | | | | | |
| | Carpenter | 4.0 | | 78.33 | | 3,238 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 188 | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 38.52 | | | 398 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 868.00 | SF | 5.60 | | | | 4,861 | | | |
| | Set, Strip & Move Forms | 1,736.00 | SF | | 227 | 17,187 | 2,090 | 2,604 | | | 21,881 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------------|-----------|---------|------------|--------------|--------------|------------|--------------|----------|---------------|
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.131MH/SF, 7.64 SF/MH, 20.67 hour (2.07 days) | | | | 0.13 | 9.90 | 1.20 | 1.50 | | | 12.60 |
| | Set Strip Retaining Walls | 1.00 | EA | 932.78 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 835 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,241 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,653 | | | | | |
| | Carpenter | 6.0 | | 78.33 | | 9,713 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 744 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 1,216 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 376 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 498 | | | | |
| | Set Strip Form Material | 1,736.0 | SF | 1.50 | | | | 2,604 | | | |
| | Mix and Place Concrete Super Sack | 40.00 | CY | | 122 | 8,834 | 2,555 | | 9,000 | | 20,390 |
| | Prod=3.60 CY/hour (36.00 CY/ day), 3.056MH/CY, 0.33 CY/MH, 11.11 hour (1.11 days) | | | | 3.06 | 220.86 | 63.88 | | 225.00 | | 509.74 |
| | Mix & Place Super Sack Concrete | 1.00 | EA | 1025.08 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 898 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 860 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 2,280 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 1,520 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 760 | | | | | |
| | Carpenter | 1.0 | | 78.33 | | 870 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.32 | | 759 | | | | | |
| | Concrete Truck Driver | 1.0 | | 79.75 | | 886 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 770 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 1,055 | | | | |
| | 2-CY Concrete Bucket (Gravity) | 1.0 | | 0.77 | | | 9 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 16 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 155 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 359 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 191 | | | | |
| | Super Sack Concrete Mix | 40.0 | CY | 225.00 | | | | | 9,000 | | |
| | Place Reinforcing Steel | 7,000.00 | LB | | 39 | 2,987 | 497 | | 3,920 | | 7,404 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 11.228MH/ton, 0.09 ton/MH, 4.91 hour (0.49 days) | | | | 0.01 | 0.43 | 0.07 | | 0.56 | | 1.06 |
| | Place Reinforcing Steel | 1.00 | EA | 709.18 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 199 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 336 | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 393 | | | | | |
| | Ironworker | 5.0 | | 76.64 | | 1,882 | | | | | |
| | Oiler | 0.5 | | 72.00 | | 177 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 289 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 89 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 118 | | | | |
| | Supply Fabricated Rebar | 7,000.0 | LB | 0.56 | | | | | 3,920 | | |
| | Finish Concrete | 140.00 | SF | | 1 | 97 | | | | | 97 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.62 hour (0.06 days) | | | | 0.01 | 0.69 | | | | | 0.69 |
| | Finish Concrete with Trowel | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 97 | | | | | |
| | Cure Concrete | 1,876.00 | SF | | 9 | 704 | | 188 | | | 892 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 4.50 hour (0.45 days) | | | | 0.00 | 0.38 | | 0.10 | | | 0.48 |
| | Apply Concrete Curing Agent | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 704 | | | | | |
| | Curing Agent per sf | 1,876.0 | SF | 0.10 | | | | 188 | | | |
| | Patch & Point | 1,736.00 | SF | | 17 | 1,360 | | | | | 1,360 |
| | Prod=200.00 SF/hour (2,000.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 8.68 hour (0.87 days) | | | | 0.01 | 0.78 | | | | | 0.78 |
| | Point & Patch Concrete | 1.00 | EA | 156.66 | | | | | | | |
| | Cement Finisher | 2.0 | | 78.33 | | 1,360 | | | | | |
| 40 | Deck & Superstructure | 335.00 | FT | | 4,655 | 361,772 | 180,207 | | 3,927,373 | | 4,469,352 |
| | Prod=5.45 TN/hour (54.55 TN/ day), 1.650MH/TN, 0.61 TN/MH, 128.33 hour (12.83 days) | | | | 13.90 | 1,079.92 | 537.93 | | 11,723.50 | | 13,341.35 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---------|---|-----------|-------|----------|--------|-----------|-----------|---------|-----------|----------|------------|
| | <i>Handle & Loadout Steel</i> | 1.00 | EA | 969.96 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 10,376 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 10,496 | | | | | |
| | Ironworker | 7.0 | | 76.64 | | 68,848 | | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 2,180 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 622 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 897 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 4,630 | | | | |
| | 225 Ton Crawler Crane (American 9310) | 1.0 | | 188.73 | | | 24,220 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 2,207 | | | | |
| | Prod=2.00 TN/hour (20.00 TN/ day), 5.000MH/TN, 0.20 TN/MH, 350.00 hour (35.00 days) | | | | | | | | | | |
| | <i>Erect Structural Steel Bridge</i> | 1.00 | EA | 1192.86 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 28,298 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 27,360 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 28,627 | | | | | |
| | Ironworker | 7.0 | | 76.64 | | 187,768 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 50,656 | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 5,947 | | | | |
| | Acetylene Cutting Torch | 1.0 | | 4.85 | | | 1,698 | | | | |
| | 10 KW Generator Set (Gas) | 1.0 | | 6.99 | | | 2,447 | | | | |
| | 375 CFM Diesel Compressor | 1.0 | | 36.08 | | | 12,628 | | | | |
| | 225 Ton Crawler Crane (American 9310) | 1.0 | | 188.73 | | | 66,056 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 6,020 | | | | |
| | Deck & Superstructure | 700.0 | TN | 5,610.53 | | | | | 3,927,373 | | |
| 45 | Load & Haul Steel From Rail Yard | 35.00 | LOADS | | 182 | 14,072 | 5,542 | | | | 19,614 |
| | Prod=1.73 LOADS/hour (17.33 LOADS/ day), 5.192MH/LOADS, 0.19 LOADS/MH, 20.19 hour (2.02 days) | | | | 5.19 | 402.06 | 158.34 | | | | 560.39 |
| | <i>Load & Haul Steel From Rail Yard</i> | 1.00 | EA | 971.35 | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 1,633 | | | | | |
| | Ironworker Foreman | 1.0 | | 81.79 | | 1,652 | | | | | |
| | Ironworker | 4.0 | | 76.64 | | 6,190 | | | | | |
| | Highway Truck Driver | 3.0 | | 75.90 | | 4,598 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 1,265 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 347 | | | | |
| | Tractor & Hi-Trailer | 3.0 | | 64.87 | | | 3,930 | | | | |
| 336.116 | Permanent Access Road Drainage | 865.00 | LOC | | 53,244 | 3,875,067 | 1,798,363 | | 2,518,045 | | 8,191,475 |
| | | | | | 61.55 | 4,479.85 | 2,079.03 | | 2,911.03 | | 9,469.91 |
| 42 | Road Drainage | 51,900.00 | LF | | 53,244 | 3,875,067 | 1,798,363 | | 2,518,045 | | 8,191,475 |
| | | | | | 1.03 | 74.66 | 34.65 | | 48.52 | | 157.83 |
| 14 | Culvert Pipe | 51,900.00 | LF | | 53,244 | 3,875,067 | 1,798,363 | | 2,518,045 | | 8,191,475 |
| | | | | | 1.03 | 74.66 | 34.65 | | 48.52 | | 157.83 |
| | Prod=8.29 LF/hour (165.71 LF/ day), 1.026MH/LF, 0.97 LF/MH, 6,264.00 hour (313.20 days) | | | | | | | | | | |
| | <i>Exc Lay Backfill Culvert Pipe Crew</i> | 1.00 | EA | 905.72 | | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 506,444 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 506,444 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 469,800 | | | | | |
| | Labourer | 5.0 | | 68.41 | | 2,142,601 | | | | | |
| | Water Truck Driver | 0.5 | | 79.75 | | 249,777 | | | | | |
| | 3.5 CY Loader (Cat 950) | 1.0 | | 59.69 | | | 373,898 | | | | |
| | 2.6 CY Backhoe (Cat 350) | 1.0 | | 118.77 | | | 743,975 | | | | |
| | Jumping Jack Tamper | 1.0 | | 2.94 | | | 18,416 | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | 52,179 | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 359,616 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 107,741 | | | | |
| | 5000 Gallon Watertanker | 0.5 | | 45.51 | | | 142,537 | | | | |
| | Pipe Bedding | 4,429.4 | CY | 50.00 | | | | | 221,470 | | |
| | 900 mm (36") x 3.5 mm Corrugated Steel Pipe (68mm x 13mm) | 51,900.0 | FT | 44.25 | | | | | 2,296,575 | | |
| 336.117 | Guard Rail | 51,744.00 | LF | | 20,800 | 1,507,948 | 220,480 | | 776,160 | | 2,504,588 |
| | | | | | 0.40 | 29.14 | 4.26 | | 15.00 | | 48.40 |
| 10 | Guard Rail | 51,744.00 | LF | | 20,800 | 1,507,948 | 220,480 | | 776,160 | | 2,504,588 |
| | | | | | 0.40 | 29.14 | 4.26 | | 15.00 | | 48.40 |
| | Prod=9.95 ft/hour (199.02 ft/ day), 0.402MH/ft, 2.49 ft/MH, 5,200.00 hour (260.00 days) | | | | | | | | | | |
| | <i>Install Steel Beam Guide Rail</i> | 1.00 | EA | 332.39 | | | | | | | |
| | Auger Operator | 1.0 | | 78.17 | | 406,484 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 390,000 | | | | | |
| | Labourer | 2.0 | | 68.41 | | 711,464 | | | | | |
| | Truck Mounted Post Hole Auger | 1.0 | | 18.29 | | | 95,108 | | | | |

| Estimate Line Detail | | | | | | | | | | | |
|--|--|-----------------|--------------|-----------|----------------|-------------------|------------------|-------------------|----------|-------------------|-------------------|
| Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 125,372 | | | | |
| | Guide Rail | 51,744.0 | FT | 15.00 | | | | | 776,160 | | |
| 336.118 | Riprap | 1,730.00 | LOC | | 3,900 | 305,417 | 330,011 | | | | 635,428 |
| | | | | | 2.25 | 176.54 | 190.76 | | | | 367.30 |
| 52 | Rip Rap | 1,730.00 | LOC | | 3,900 | 305,417 | 330,011 | | | | 635,428 |
| | | | | | 2.25 | 176.54 | 190.76 | | | | 367.30 |
| | Prod=50.00 CY/hour (500.00 CY/ day), 0.100MH/CY, 10.00 CY/MH, 300.00 hour (30.00 days) | | | | | | | | | | |
| | Place Rip Rap | 1.00 | EA | 564.39 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 24,048 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 24,255 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 24,255 | | | | | |
| | Labourer | 2.0 | | 68.41 | | 41,046 | | | | | |
| | 3.0 CY Track Loader (Cat 963) | 1.0 | | 75.16 | | | 22,548 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 28,005 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 5,160 | | | | |
| | Prod=62.50 CY/hour (500.00 CY/ day), 0.160MH/CY, 6.25 CY/MH, 240.00 hour (30.00 days) | | | | | | | | | | |
| | Load Haul Rip Rap | 1.00 | EA | 1942.13 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 19,404 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 19,404 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 19,404 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 18,761 | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 79.75 | | 114,840 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 34,735 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 26,095 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 24,235 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 114.25 | | | 137,100 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 48,005 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 4,128 | | | | |
| 336.119 | Seeding | 876.50 | AC | | | | | | | 1,928,300 | 1,928,300 |
| | | | | | | | | | | 2,200.00 | 2,200.00 |
| 10 | Seeding | 876.50 | AC | | | | | | | 1,928,300 | 1,928,300 |
| | | | | | | | | | | 2,200.00 | 2,200.00 |
| | Seeding & Wood Fibre Mulch | 876.5 | AC | 2,200.00 | | | | | | 1,928,300 | |
| 336.120 | 24.9 KV System Inc Transmission & Fibre Optic from Intertie | 50.00 | MILES | | | | | | | 15,000,000 | 15,000,000 |
| | | | | | | | | | | 300,000.00 | 300,000.00 |
| | Project Overhead | 17.00 | Month | | 153,829 | 11,072,657 | 2,199,250 | 15,804,852 | | 102,000 | 29,178,759 |
| | | | | | 9,048.79 | 651,332.76 | 129,367.66 | 929,697.18 | | 6,000.00 | 1,716,397.60 |
| | Project Indirect Costs | 17.00 | MO | | 153,829 | 11,072,657 | 2,199,250 | 15,804,852 | | 102,000 | 29,178,759 |
| | | | | | 9,048.79 | 651,332.76 | 129,367.66 | 929,697.18 | | 6,000.00 | 1,716,397.60 |
| 900 | Project Mangement Full Operation | 17.00 | Month | | 10,200 | 1,028,500 | 877 | | | | 1,029,377 |
| | | | | | 600.00 | 60,500.00 | 51.60 | | | | 60,551.60 |
| | Project Manager III | 1.0 | EA | 24,500.00 | | 17.00 month | | | | | |
| | General Superintendent | 2.0 | EA | 18,000.00 | | 17.00 month | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 3.0 | EA | 17.20 | | | | 17.00 month | | | |
| 905 | Field Engineering | 17.00 | month | | 8,800 | 711,000 | 877 | | | | 711,877 |
| | | | | | 517.65 | 41,823.53 | 51.60 | | | | 41,875.13 |
| | Field Engineer II | 1.0 | EA | 15,000.00 | | 10.00 month | | | | | |
| | Field Engineer II | 1.0 | EA | 15,000.00 | | 17.00 month | | | | | |
| | Project Engineer II | 1.0 | EA | 18,000.00 | | 17.00 month | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 3.0 | EA | 17.20 | | | | 17.00 hour | | | |
| 910 | Surveying | 10.00 | Month | | 20,783 | 1,574,961 | 139,976 | 23,500 | | | 1,738,437 |
| | | | | | 2,078.33 | 157,496.10 | 13,997.58 | 2,350.00 | | | 173,843.68 |
| | Prod=0.68 hours/hour (6.77 hours/ day), 11.809MH/hours, 0.08 hours/MH, 2,597.92 hour (259.79 days) | | | | | | | | | | |
| | Survey Crew | 2.00 | EA | 330.06 | | | | | | | |
| | Survey Party Chief | 2.0 | | 75.00 | | 389,688 | | | | | |
| | Survey Rodman | 6.0 | | 76.04 | | 1,185,274 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 2.0 | | 18.18 | | | 94,460 | | | | |
| | Survey Total Station | 2.0 | | 3.22 | | | 16,731 | | | | |
| | Robotic Total Station | 2.0 | | 5.54 | | | 28,785 | | | | |
| | Survey Equipment | 10.0 | Month | 1,200.00 | | | | 12,000 | | | |
| | Survey Supplies | 10.0 | Month | 400.00 | | | | 4,000 | | | |
| | Survey Stakes | 10.0 | Month | 750.00 | | | | 7,500 | | | |

| Estimate Line Detail | | | | | | | | | | | | |
|--|--|----------|-------|-----------|----------|-------------|---------------|-----------|----------|-----------|------------|--|
| Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost | |
| 911 | Quality Control | 10.00 | MO | | 18,185 | 740,406 | 296,734 | 42,110 | | | 1,079,250 | |
| | | | | | 1,818.54 | 74,040.63 | 29,673.40 | 4,211.00 | | | 107,925.03 | |
| 10 | Quality Control | 10.00 | MO | | 18,185 | 740,406 | 296,734 | 42,110 | | | 1,079,250 | |
| | | | | | 1,818.54 | 74,040.63 | 29,673.40 | 4,211.00 | | | 107,925.03 | |
| | Prod=0.01 MO/hour (0.12 MO/ day), 1,818.542MH/MO, 0.00 MO/MH, 865.97 hour (86.60 days) | | | | | | | | | | | |
| | Quality Control | 3.00 | EA | 399.22 | | | | | | | | |
| | Quality Control Manager | 3.0 | | 52.50 | | 136,391 | | | | | | |
| | Quality Control Engineer | 9.0 | | 42.50 | | 331,234 | | | | | | |
| | Quality Control Technician | 9.0 | | 35.00 | | 272,781 | | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 18.0 | | 17.20 | | | 268,105 | | | | | |
| | Testing Concrete Slump Equipment | 3.0 | | 1.08 | | | 2,806 | | | | | |
| | Testing Soil Compaction Equipment | 3.0 | | 1.27 | | | 3,299 | | | | | |
| | Testing Concrete Strength Equipment | 3.0 | | 2.29 | | | 5,949 | | | | | |
| | Instrumentation Electrical Test | 3.0 | | 1.08 | | | 2,806 | | | | | |
| | Instrumentation Air Measurement | 3.0 | | 1.27 | | | 3,299 | | | | | |
| | Instrumentation Pressure Test | 3.0 | | 1.46 | | | 3,793 | | | | | |
| | Instrumentation Slope Stability | 3.0 | | 2.57 | | | 6,677 | | | | | |
| | QC Staff Expenses | 10.0 | Month | 1,500.00 | | | | 15,000 | | | | |
| | QC Plan Development Cost | 1.0 | LS | 20,000.00 | | | | 20,000 | | | | |
| | Nuclear Gauge | 300.0 | Day | 23.70 | | | | 7,110 | | | | |
| 920 | Safety | 10.00 | Month | | 2,020 | 400,000 | 344 | 150,400 | | | 550,744 | |
| | | | | | 202.00 | 40,000.00 | 34.40 | 15,040.00 | | | 55,074.40 | |
| | Safety Manager | 1.0 | EA | 16,000.00 | | 10.00 month | | | | | | |
| | Safety Person | 2.0 | EA | 12,000.00 | | 10.00 hour | | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 2.0 | EA | 17.20 | | | 10.00 hour | | | | | |
| | Medical Exam | 150.0 | EA | 200.00 | | | | 30,000 | | | | |
| | First Aid Supplies | 10.0 | Month | 200.00 | | | | 2,000 | | | | |
| | Hardhats | 215.0 | EA | 60.00 | | | | 12,900 | | | | |
| | Safety Supplies | 10.0 | Month | 4,000.00 | | | | 40,000 | | | | |
| | Safety Training Course | 130.0 | EA | 400.00 | | | | 52,000 | | | | |
| | General Signs c/w Posts | 45.0 | EA | 300.00 | | | | 13,500 | | | | |
| 925 | Consultants | 1.00 | LS | | | | | 35,000 | | | 35,000 | |
| | Consultant Allowance | 1.0 | LS | 35,000.00 | | | | 35,000.00 | | | 35,000.00 | |
| 930 | Administration | 10.00 | Month | | 4,510 | 417,500 | 172 | | | | 417,672 | |
| | | | | | 451.00 | 41,750.00 | 17.20 | | | | 41,767.20 | |
| | Project Timekeeper | 1.0 | EA | 11,000.00 | | 10.00 month | | | | | | |
| | Project Office Clerk | 1.0 | EA | 2,750.00 | | 10.00 week | | | | | | |
| | Project Secretary | 1.0 | EA | 11,000.00 | | 10.00 month | | | | | | |
| | Office Manager | 1.0 | EA | 17,000.00 | | 10.00 hour | | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | EA | 17.20 | | | 10.00 hour | | | | | |
| 935 | Equipment | 10.00 | Month | | 48,010 | 3,409,120 | 1,329,483 | 25,000 | | | 4,763,603 | |
| | | | | | 4,801.00 | 340,912.00 | 132,948.33 | 2,500.00 | | | 476,360.33 | |
| 10 | Equipment Management | 10.00 | Month | | 10 | 220,000 | 431,283 | 25,000 | | | 676,283 | |
| | | | | | 1.00 | 22,000.00 | 43,128.33 | 2,500.00 | | | 67,628.33 | |
| | Equipment Superintendent | 1.0 | EA | 22,000.00 | | 10.00 hour | | | | | | |
| | 250 Amp Diesel Welder | 1.0 | EA | 7.66 | | | 1,666.67 hour | | | | | |
| | 350 Amp Diesel Welder | 1.0 | EA | 10.15 | | | 1,666.67 hour | | | | | |
| | 185 CFM Diesel Compressor | 1.0 | EA | 22.04 | | | 1,666.67 hour | | | | | |
| | 2000 PSI Pressure Washer | 1.0 | EA | 3.92 | | | 1,666.67 hour | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | EA | 3,500.00 | | | 10.00 hour | | | | | |
| | 2-Ton Mechanic Truck | 5.0 | EA | 38.80 | | | 1,666.67 hour | | | | | |
| | Shop Supplies | 10.0 | Month | 2,500.00 | | | | 25,000 | | | | |
| 20 | Equipment Service | 10.00 | MO | | 48,000 | 3,189,120 | 898,200 | | | | 4,087,320 | |
| | | | | | 4,800.00 | 318,912.00 | 89,820.00 | | | | 408,732.00 | |
| | Prod=1.00 HR/hour (10.00 HR/ day), 8.000MH/HR, 0.13 HR/MH, 6,000.00 hour (600.00 days) | | | | | | | | | | | |
| | Equipment Service | 1.00 | EA | 681.22 | | | | | | | | |
| | Serviceman | 4.0 | | 66.44 | | 1,594,560 | | | | | | |
| | Lube/Service Operator | 4.0 | | 66.44 | | 1,594,560 | | | | | | |
| | Lube Truck | 2.0 | | 36.33 | | | 435,960 | | | | | |
| | Fuel Truck (Tandem Axle 20000 litres) | 2.0 | | 38.52 | | | 462,240 | | | | | |
| 940 | Administration Costs | 10.00 | Month | | | | | 976,142 | | 102,000 | 1,078,142 | |
| | | | | | | | | 97,614.21 | | 10,200.00 | 107,814.21 | |
| | Drug Testing | 130.0 | EA | 100.00 | | | | 13,000 | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------------|---|-------------|-----------|-----------|---------------|----------------|----------------|------------------|----------|----------|------------------|
| | Employee Moves | 10.0 | EA | 10,000.00 | | | | 100,000 | | | |
| | Vehicle Licenses | 10.0 | Month | 100.00 | | | | 1,000 | | | |
| | Office Supplies | 10.0 | Month | 4,000.00 | | | | 40,000 | | | |
| | Engineering Supplies | 10.0 | Month | 2,500.00 | | | | 25,000 | | | |
| | Photographs | 10.0 | Month | 300.00 | | | | 3,000 | | | |
| | Donation and subscriptions | 10.0 | Month | 300.00 | | | | 3,000 | | | |
| | Travel and conference | 10.0 | Month | 1,000.00 | | | | 10,000 | | | |
| | Association Dues | 10.0 | Month | 350.00 | | | | 3,500 | | | |
| | Permits | 1.0 | LS | 35,000.00 | | | | 35,000 | | | |
| | Staff Office Furniture (per person) | 10.0 | EA | 800.00 | | | | 8,000 | | | |
| | General Office Furniture | 6.0 | SET | 5,400.00 | | | | 32,400 | | | |
| | Laptop Computer | 6.0 | EA | 3,132.02 | | | | 18,792 | | | |
| | Office Printer | 1.0 | EA | 2,400.00 | | | | 2,400 | | | |
| | Networking Hardware | 6.0 | EA | 2,000.00 | | | | 12,000 | | | |
| | Office Software (per user) | 6.0 | EA | 900.00 | | | | 5,400 | | | |
| | Office PhotoCopy Machine | 1.0 | EA | 2,700.00 | | | | 2,700 | | | |
| | Project Sign | 1.0 | EA | 5,000.00 | | | | 5,000 | | | |
| | Small Tool Allowance | 437,300.0 | MH | 1.50 | | | | 655,950 | | | |
| | Office Cleaning Service | 10.0 | MO | 5,200.00 | | | | | | 52,000 | |
| | Toilet Compartments | 10.0 | MO | 5,000.00 | | | | | | 50,000 | |
| 945 | Office Shop Setup | 1.00 | LS | | 10,721 | 802,170 | 167,627 | 4,452,700 | | | 5,422,496 |
| | | | | | 10,720.69 | 802,169.70 | 167,626.62 | 4,452,700.00 | | | 5,422,496.32 |
| 10 | Fuel Storage Setup | 1.00 | LS | | 2,728 | 206,362 | 36,194 | 67,200 | | | 309,756 |
| | | | | | 2,727.91 | 206,361.84 | 36,194.22 | 67,200.00 | | | 309,756.06 |
| | Prod=0.01 EA/hour (0.10 EA/ day), 800.000MH/EA, 0.00 EA/MH, 200.00 hour (10.00 days) | | | | | | | | | | |
| | <i>Install Electrical Services</i> | | | | | | | | | | |
| | Electrical Foreman | 1.00 | EA | 322.2 | | | | | | | |
| | Electrical Foreman | 1.0 | | 80.00 | | 16,000 | | | | | |
| | Electrician | 3.0 | | 75.00 | | 45,000 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 3,440 | | | | |
| | Prod=0.03 EA/hour (0.22 EA/ day), 216.000MH/EA, 0.00 EA/MH, 144.00 hour (18.00 days) | | | | | | | | | | |
| | <i>Fuel Tank Area Installation</i> | | | | | | | | | | |
| | Labourer | 1.00 | EA | 572.49 | | | | | | | |
| | Labourer | 1.0 | | 68.41 | | 9,851 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 11,642 | | | | | |
| | Mechanic Welder | 4.0 | | 78.17 | | 45,026 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 13,442 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 2,477 | | | | |
| | Prod=2,690.98 SF/hour (21,527.82 SF/ day), 0.001MH/SF, 768.85 SF/MH, 37.16 hour (4.65 days) | | | | | | | | | | |
| | <i>Grade Yard</i> | | | | | | | | | | |
| | Foreman Roadwork | 1.00 | EA | 448.38 | | | | | | | |
| | Foreman Roadwork | 0.5 | | 80.00 | | 1,486 | | | | | |
| | Grademan Roadwork | 1.0 | | 76.04 | | 2,826 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 3,004 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 2,821 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 3,753 | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 2,133 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 639 | | | | |
| | Prod=77.16 TN/hour (617.29 TN/ day), 0.026MH/TN, 38.58 TN/MH, 36.29 hour (4.54 days) | | | | | | | | | | |
| | <i>Place Granular in Yard</i> | | | | | | | | | | |
| | Grader Operator | 1.00 | EA | 332.34 | | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 2,934 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 2,754 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 3,664 | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 2,083 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 624 | | | | |
| | Yard Gravel | 2,800.0 | TN | 10.00 | | | | 28,000 | | | |
| | Chainlink Fence 1800mm (6 ft) | 1,400.0 | FT | 28.00 | | | | 39,200 | | | |
| | General Labour Foreman | 1.0 | | 75.00 | | 16,149 | | | | | |
| | General Labourer | 2.0 | | 68.41 | | 29,460 | | | | | |
| | Auger Operator | 1.0 | | 80.85 | | 17,408 | | | | | |
| | Truck Mounted Post Hole Auger | 1.0 | | 18.29 | | | 3,938 | | | | |
| 10 | Office Site Prep & Reclaim | 1.00 | LS | | 6,673 | 496,786 | 115,243 | 2,803,000 | | | 3,415,029 |
| | | | | | 6,672.78 | 496,786.26 | 115,243.20 | 2,803,000.00 | | | 3,415,029.46 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 5.000MH/HR, 0.20 HR/MH, 180.00 hour (18.00 days) | | | | | | | | | | |
| | <i>Install Electrical Services</i> | | | | | | | | | | |
| | Electrical Foreman | 1.00 | EA | 392.2 | | | | | | | |
| | Electrical Foreman | 1.0 | | 80.00 | | 14,400 | | | | | |
| | Electrician | 3.0 | | 75.00 | | 40,500 | | | | | |
| | Electricians Helper | 1.0 | | 70.00 | | 12,600 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 3,096 | | | | |
| | Prod=0.71 HRS/hour (7.14 HRS/ day), 8.400MH/HRS, 0.12 HRS/MH, 140.00 hour (14.00 days) | | | | | | | | | | |
| | <i>Install Water Services</i> | | | | | | | | | | |
| | Install Water Services | 1.00 | EA | 641.82 | | | | | | | |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|---|-----------|-----|-----------|--------|----------|-----------|-----------|--------------|----------|--------------|
| | Equipment Foreman | 1.0 | | 80.85 | | | 11,319 | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | | 11,319 | | | | |
| | Loader Operator | 1.0 | | 80.85 | | | 11,319 | | | | |
| | Labourer | 1.0 | | 68.41 | | | 9,577 | | | | |
| | Pipelayer | 1.0 | | 68.41 | | | 9,577 | | | | |
| | Topman | 1.0 | | 68.41 | | | 9,577 | | | | |
| | 3.0 CY Track Loader (Cat 963) | 1.0 | | 75.16 | | | | 10,522 | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | | 13,069 | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | | 1,166 | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | 2,408 | | | |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 6.000MH/HRS, 0.17 HRS/MH, 180.00 hour (18.00 days) | | | | | | | | | | |
| | <i>Install Sanitary Services</i> | 1.00 | EA | 641.82 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | | 14,553 | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | | 14,553 | | | | |
| | Loader Operator | 1.0 | | 80.85 | | | 14,553 | | | | |
| | Labourer | 1.0 | | 68.41 | | | 12,314 | | | | |
| | Pipelayer | 1.0 | | 68.41 | | | 12,314 | | | | |
| | Topman | 1.0 | | 68.41 | | | 12,314 | | | | |
| | 3.0 CY Track Loader (Cat 963) | 1.0 | | 75.16 | | | | 13,529 | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | | 16,803 | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | | 1,499 | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | 3,096 | | | |
| | Prod=2,083.33 SF/hour (16,666.67 SF/ day), 0.002MH/SF, 520.83 SF/MH, 120.00 hour (15.00 days) | | | | | | | | | | |
| | <i>Grade Yard</i> | 1.00 | EA | 488.38 | | | | | | | |
| | Foreman Roadwork | 1.0 | | 80.00 | | | 9,600 | | | | |
| | Grademan Roadwork | 1.0 | | 76.04 | | | 9,125 | | | | |
| | Grader Operator | 1.0 | | 80.85 | | | 9,702 | | | | |
| | Packer Operator | 1.0 | | 75.90 | | | 9,108 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | | 12,118 | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | | 6,889 | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | 2,064 | | | |
| | Prod=52.50 TN/hour (420.00 TN/ day), 0.057MH/TN, 17.50 TN/MH, 80.00 hour (10.00 days) | | | | | | | | | | |
| | <i>Place Granular in Yard</i> | 1.00 | EA | 408.38 | | | | | | | |
| | Grademan Roadwork | 1.0 | | 76.04 | | | 6,083 | | | | |
| | Grader Operator | 1.0 | | 80.85 | | | 6,468 | | | | |
| | Packer Operator | 1.0 | | 75.90 | | | 6,072 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | | 8,078 | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | | 4,593 | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | 1,376 | | | |
| | Prod=1.08 HR/hour (8.61 HR/ day), 6.503MH/HR, 0.15 HR/MH, 96.00 hour (12.00 days) | | | | | | | | | | |
| | <i>Setup Office Equipment</i> | 1.00 | EA | 557.02 | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | | 7,200 | | | | |
| | Labourer | 4.0 | | 68.41 | | | 26,269 | | | | |
| | Electrical Technologist | 2.0 | | 85.00 | | | 16,320 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | 1,651 | | | |
| | 1 Ton Flat Bed Truck 4x4 | 1.0 | | 21.18 | | | | 2,033 | | | |
| | Yard Gravel | 4,200.00 | TN | 15.00 | | | | | 63,000 | | |
| | Office Complex Contractor | 10,000.00 | SF | 260.00 | | | | | 2,600,000 | | |
| | Chainlink Fence 1800mm (6 ft) | 4,000.00 | FT | 35.00 | | | | | 140,000 | | |
| | General Labour Foreman | 1.0 | | 75.00 | | | 46,140 | | | | |
| | General Labourer | 2.0 | | 68.41 | | | 84,171 | | | | |
| | Auger Operator | 1.0 | | 80.85 | | | 49,739 | | | | |
| | Truck Mounted Post Hole Auger | 1.0 | | 18.29 | | | | 11,252 | | | |
| 20 | Shop Setup | 1.00 | LS | | 1,320 | 99,022 | 16,189 | 1,582,500 | | | 1,697,711 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 120.00 hour (12.00 days) | | | | | 1,320.00 | 99,021.60 | 16,189.20 | 1,582,500.00 | | 1,697,710.80 |
| | <i>Set Up Shop</i> | 1.00 | EA | 960.09 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | | 9,702 | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | | 9,702 | | | | |
| | Labourer | 4.0 | | 68.41 | | | 32,837 | | | | |
| | Heavy Duty Mechanic | 4.0 | | 80.85 | | | 38,808 | | | | |
| | Oiler | 1.0 | | 66.44 | | | 7,973 | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | | 14,125 | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | | 2,064 | | | |
| | Shop Building 110ft x 120 ft | 13,200.00 | SF | 100.00 | | | | | 1,320,000 | | |
| | Shop Equipment | 1.0 | LS | 50,000.00 | | | | | 50,000 | | |
| | Shop Concrete | 250.00 | CY | 850.00 | | | | | 212,500 | | |
| 950 | Mobilization | 1.00 | LS | | | | | 5,000,000 | | | 5,000,000 |

Estimate Line Detail

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|--|----------|-----|-------|--------|-----------|------------|--------------|----------|----------|--------------|
| | | | | | | | | 5,000,000.00 | | | 5,000,000.00 |
| 10 | Mobilization | 1.00 | LS | | | | | 5,000,000.00 | | | 5,000,000.00 |
| | Mobilization | 1.0 | LS | ##### | | | | 5,000,000.00 | | | 5,000,000.00 |
| 951 | Demobilization | 1.00 | LS | | | | | 5,000,000.00 | | | 5,000,000.00 |
| | Demobilization | 1.00 | LS | | | | | 5,000,000.00 | | | 5,000,000.00 |
| 10 | Demobilization | 1.00 | LS | | | | | 5,000,000.00 | | | 5,000,000.00 |
| | Demobilization | 1.0 | LS | ##### | | | | 5,000,000.00 | | | 5,000,000.00 |
| 955 | As-Builts/O&M Manuals | 1.00 | LS | | | | | 100,000.00 | | | 100,000.00 |
| | As-Builts/O&M Manuals | 1.00 | LS | | | | | 100,000.00 | | | 100,000.00 |
| 10 | As-Builts/O&M Manuals | 1.00 | LS | | | | | 100,000.00 | | | 100,000.00 |
| | As-Builts/O&M Manuals | 1.0 | LS | ##### | | | | 100,000.00 | | | 100,000.00 |
| 975 | Site Security | 17.00 | MO | | 30,600 | 1,989,000 | 263,160 | | | | 2,252,160 |
| | Prod=0.00 MO/hour (0.02 MO/ day), 1,800.00MH/MO, 0.00 MO/MH, 7,650.00 hour (765.00 days) | | | | | 1,800.00 | 117,000.00 | 15,480.00 | | | 132,480.00 |
| | Security Team | 2.00 | EA | 147.2 | | | | | | | |
| | Security Officer | 4.0 | | 65.00 | | | 1,989,000 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 2.0 | | 17.20 | | | | 263,160 | | | |

**SUSITNA-WATANA HYDROELECTRIC PROJECT
RAILHEADS IMPROVEMENTS CONTRACT
RCC Dam 600 MW**

Opinion of Probable Construction Costs

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | \$ 34,068,783 | |
|--------------------|---|----------|-----------|--------------------------|----------------------|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
| 336 | Roads, Rail & Air Facilities | 1 | LS | | \$ 34,068,783 | |
| 336.200 | Rail Facilities & Storage Construction | | | | \$ 23,226,328 | |
| 336.201 | Mobilization, Demobilization | 1 | LS | 248,591.92 | \$ 248,592 | |
| 336.202 | Clearing & Grubbing | 40 | AC | 8,226.07 | \$ 329,043 | |
| 336.203 | Common Excavation | 300,000 | CY | 10.09 | \$ 3,028,241 | |
| 336.204 | Borrow (Selected Material) | 210,000 | CY | 31.15 | \$ 6,541,046 | AARC Material at \$26.61 CY |
| 336.205 | Grading D-1 (Subballast) | 40,000 | CY | 83.52 | \$ 3,340,760 | AARC Material at \$40.90 TN |
| 336.206 | Seeding | 7 | AC | 2,200.00 | \$ 15,400 | |
| 336.207 | Geogrid | 135,000 | SY | 13.80 | \$ 1,863,000 | |
| 336.208 | Ballasted Track in Place, 115lb rail ,wood ties | 11,900 | TF | 220.00 | \$ 2,618,000 | |
| 336.209 | Turnout, Non-PTC Ready, ARRC std No. 11 115# | 3 | EA | 120,000.00 | \$ 360,000 | |
| 336.210 | Turnout ARRC Std. No. 11, 115# PTC Ready | 2 | EA | 470,000.00 | \$ 940,000 | |
| 336.211 | Concrete storage area | 45,000 | SF | 15.75 | \$ 708,641 | Concrete Reinforced slab .5 ft thick |
| 336.212 | Covered Storage Area | 20,000 | SF | 44.74 | \$ 894,762 | Allowance |
| 336.213 | Helipad | 10,000 | SF | 29.24 | \$ 292,440 | Concrete Reinforced slab 1 ft thick |
| 336.214 | Transfer Ramp Loading | 1 | LS | 125,000.00 | \$ 125,000 | Allowance |
| 336.215 | Maintenance Shop | 13,200 | SF | 145.56 | \$ 1,921,402 | |
| | | | | Running Subtotal: | \$ 23,226,328 | |
| | Mobilization/Field Oversight Expenses | | | | \$ 3,317,579 | |
| 1 | Contractor General Conditions (Prime) | 5 | mo | \$ 663,515.80 | \$ 3,317,579 | |
| | Unidentified Required Items | | | | \$ 1,858,106 | |
| 1 | Unlisted Items Allowance | 1 | LS | 8% | \$ 1,858,106 | |
| | | | | Running Subtotal: | \$ 28,402,013 | |
| | Markups | | | | \$ 4,044,447 | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 12.0% | \$ 3,408,242 | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 636,205 | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included |
| | | | | Running Subtotal: | \$ 32,446,460 | |
| | Project Administration & Management | | | | \$ 1,622,323 | |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 5% | \$ 1,622,323 | |
| 5 | Construction Contingency/Management Reserve | 1 | LS | 0% | \$ - | not included |
| | Grand Total: | | | | \$ 34,068,783 | Total Estimated Constr Costs w/ Contingency |

Cost Range: \$27,260,000 - \$42,590,000 Per AACE cost estimate guidelines
-20% 25%

Notes:

- 1 This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- 2 Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- 3 Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- 4 Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC.

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

| Estimate Line Detail | | | | | | | | | | | |
|---|--|--------------|-----------|------------|---------------|------------------|------------------|------------------|-------------------|------------------|-------------------|
| Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
| Rail Facilities & Storage Construction | | 1.00 | LS | | 46,545 | 3,546,191 | 2,503,586 | 2,012,800 | 11,106,008 | 4,058,400 | 23,226,985 |
| | | | | | 46,545.41 | 3,546,191.35 | 2,503,586.05 | 2,012,800.00 | 11,106,007.72 | 4,058,400.00 | 23,226,985.11 |
| 336.201 | Mobilization/ Demobilization | 1.00 | LS | | 467 | 33,572 | 4,920 | 200,000 | 10,100 | | 248,592 |
| | | | | | 466.67 | 33,571.58 | 4,920.33 | 200,000.00 | 10,100.00 | | 248,591.92 |
| 10 | Erosion & Sediment Controls | 1.00 | LS | | 467 | 33,572 | 4,920 | | 10,100 | | 48,592 |
| | | | | | 466.67 | 33,571.58 | 4,920.33 | | 10,100.00 | | 48,591.92 |
| | Prod=300.00 SF/hour (3,000.00 SF/ day), 0.017MH/SF, 60.00 SF/MH, 33.33 hour (3.33 days) | | | | | | | | | | |
| | Place Erosion Mat | 1.00 | EA | 365.84 | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 2,500 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 9,121 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 573 | | | | |
| | Prod=200.00 ft/hour (2,000.00 ft/ day), 0.020MH/ft, 50.00 ft/MH, 75.00 hour (7.50 days) | | | | | | | | | | |
| | Erect Silt Fence with Rubber Tire Backhoe | 1.00 | EA | 350.63 | | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 6,064 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 5,625 | | | | | |
| | Labourer | 2.0 | | 68.41 | | 10,262 | | | | | |
| | 1.7 CY Backhoe Loader (Case680) | 1.0 | | 40.76 | | | 3,057 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,290 | | | | |
| | Erosion Mat (Single Net Straw Blanket) | 10,000.0 | sf | 0.14 | | | | | 1,400 | | |
| | Heavy Duty Silt Fence | 15,000.0 | ft | 0.58 | | | | | 8,700 | | |
| 20 | Mobilization | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| 10 | Mobilization | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| | Mobilization | 1.0 | LS | 100,000.00 | | | | 100,000 | | | |
| 30 | Demobilization | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| 10 | Demobilization | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| | Demobilization | 1.0 | LS | 100,000.00 | | | | 100,000 | | | |
| 336.202 | Clearing & Grubbing | 40.00 | AC | | 2,233 | 170,619 | 158,423 | | | | 329,043 |
| | | | | | 55.82 | 4,265.48 | 3,960.58 | | | | 8,226.07 |
| 05 | Clearing | 40.00 | AC | | 960 | 71,645 | 45,069 | | | | 116,714 |
| | | | | | 24.00 | 1,791.12 | 1,126.72 | | | | 2,917.84 |
| | Prod=0.25 acre/hour (5.00 acre/ day), 24.000MH/acre, 0.04 acre/MH, 160.00 hour (8.00 days) | | | | | | | | | | |
| | Heavy Density Clearing of Trees | 1.00 | EA | 729.46 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 12,936 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 12,936 | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 12,936 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 32,837 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 23,157 | | | | |
| | 2.6 CY Backhoe (Cat 350) | 1.0 | | 118.77 | | | 19,003 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,909 | | | | |
| 10 | Grubbing | 40.00 | AC | | 1,273 | 98,975 | 113,355 | | | | 212,329 |
| | | | | | 31.82 | 2,474.36 | 2,833.86 | | | | 5,308.23 |
| | Prod=0.22 AC/hour (4.40 AC/ day), 31.818MH/AC, 0.03 AC/MH, 181.82 hour (9.09 days) | | | | | | | | | | |
| | Grubb Heavy Tree Roots & Haul On Site | 1.00 | EA | 1167.81 | | | | | | | |

Estimate Line Detail

Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|---------|---------------|------------------|------------------|---------|----------|----------|------------------|
| | Backhoe Operator | 1.0 | | 80.85 | | 14,700 | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 14,700 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 13,636 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 12,438 | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 79.75 | | 43,500 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 26,315 | | | | |
| | 2.6 CY Backhoe (Cat 350) | 1.0 | | 118.77 | | | 21,595 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 62,318 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 3,127 | | | | |
| 336.203 | Common Excavation | 300,000.00 | CY | | 17,246 | 1,378,081 | 1,650,160 | | | | 3,028,241 |
| | | | | | 0.06 | 4.59 | 5.50 | | | | 10.09 |
| 15 | Common Excavation to Embankment | 300,000.00 | CY | | 14,826 | 1,183,755 | 1,432,914 | | | | 2,616,669 |
| | | | | | 0.05 | 3.95 | 4.78 | | | | 8.72 |
| 30 | Excavation to Embankment | 300,000.00 | CY | | 14,826 | 1,183,755 | 1,432,914 | | | | 2,616,669 |
| | | | | | 0.05 | 3.95 | 4.78 | | | | 8.72 |
| 10 | Load Haul to Embankment | 300,000.00 | CY | | 9,018 | 724,684 | 899,490 | | | | 1,624,174 |
| | | | | | 0.03 | 2.42 | 3.00 | | | | 5.41 |
| | Prod=299.41 CY/hour (5,988.13 CY/ day), 0.030MH/CY, 33.27 CY/MH, 1,001.98 hour (50.10 days) | | | | | | | | | | |
| | Load Haul to Road Embankment | 1.00 | EA | 1620.96 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 81,010 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 81,010 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 81,010 | | | | | |
| | Dozer Operator | 2.0 | | 80.85 | | 162,021 | | | | | |
| | Water Truck Driver | 1.0 | | 79.75 | | 79,908 | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 79.75 | | 239,724 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 290,034 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 108,946 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 101,180 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 343,430 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 17,234 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 38,667 | | | | |
| 20 | Permanent Access Road Embankment | 300,000.00 | CY | | 5,808 | 459,071 | 533,424 | | | | 992,495 |
| | | | | | 0.02 | 1.53 | 1.78 | | | | 3.31 |
| | Prod=309.91 ECY/hour (6,198.26 ECY/ day), 0.019MH/ECY, 51.65 ECY/MH, 968.01 hour (48.40 days) | | | | | | | | | | |
| | Place & Compact Embankment | 1.00 | EA | 1025.29 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 78,264 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 78,264 | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 78,264 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 73,472 | | | | | |
| | Grademan | 1.0 | | 76.04 | | 73,608 | | | | | |
| | Water Truck Driver | 1.0 | | 79.75 | | 77,199 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 140,101 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 97,750 | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 174.24 | | | 168,667 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 16,650 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 37,356 | | | | |
| | 10000 Gallon Cat 631 Waterwagon | 1.0 | | 75.31 | | | 72,901 | | | | |
| 25 | Strip & Stockpile Organic Material | 72,600.00 | CY | | 2,420 | 194,326 | 217,246 | | | | 411,572 |

Estimate Line Detail

Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|---------|--------------|----------------|----------------|---------|------------------|----------|------------------|
| | | | | | 0.03 | 2.68 | 2.99 | | | | 5.67 |
| 20 | Load Haul to Stockpile | 72,600.00 | CY | | 2,420 | 194,326 | 217,246 | | | | 411,572 |
| | | | | | 0.03 | 2.68 | 2.99 | | | | 5.67 |
| | Prod=300.00 CY/hour (6,000.00 CY/ day), 0.033MH/CY, 30.00 CY/MH, 242.00 hour (12.10 days) | | | | | | | | | | |
| | Load Haul to Stockpile | 1.00 | EA | 1700.71 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 19,566 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 19,566 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 19,566 | | | | | |
| | Dozer Operator | 2.0 | | 80.85 | | 39,131 | | | | | |
| | Water Truck Driver | 1.0 | | 79.75 | | 19,300 | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 79.75 | | 77,198 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 70,049 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 26,313 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 24,437 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 82,945 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 4,162 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 9,339 | | | | |
| 336.204 | Borrow (Select Material) | 210,000.00 | CY | | 5,880 | 461,992 | 490,955 | | 5,588,100 | | 6,541,046 |
| | | | | | 0.03 | 2.20 | 2.34 | | 26.61 | | 31.15 |
| 30 | Excavation to Embankment | 210,000.00 | CY | | 5,880 | 461,992 | 490,955 | | 5,588,100 | | 6,541,046 |
| | | | | | 0.03 | 2.20 | 2.34 | | 26.61 | | 31.15 |
| 10 | Borrow Excavation Compaction Embankment | 210,000.00 | CY | | 5,880 | 461,992 | 490,955 | | 5,588,100 | | 6,541,046 |
| | | | | | 0.03 | 2.20 | 2.34 | | 26.61 | | 31.15 |
| | Prod=250.00 ECY/hour (5,000.00 ECY/ day), 0.028MH/ECY, 35.71 ECY/MH, 840.00 hour (42.00 days) | | | | | | | | | | |
| | Place & Compact Embankment | 1.00 | EA | 1134.46 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 67,914 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 67,914 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 67,914 | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 67,914 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 63,756 | | | | | |
| | Grademan | 1.0 | | 76.04 | | 63,874 | | | | | |
| | Water Truck Driver | 1.0 | | 74.65 | | 62,706 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 121,573 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 91,333 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 84,823 | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 174.24 | | | 146,362 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 14,448 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 32,416 | | | | |
| | Borrow from ARRC Pit | 210,000.0 | CY | 26.61 | | | | | 5,588,100 | | |
| 336.205 | Grading D-1 Subballast | 40,000.00 | CY | | 1,647 | 127,907 | 85,206 | | 3,127,647 | | 3,340,760 |
| | | | | | 0.04 | 3.20 | 2.13 | | 78.19 | | 83.52 |
| 10 | Fine Grade Roadway | 147,058.82 | SY | | 1,647 | 127,907 | 85,206 | | | | 213,113 |
| | | | | | 0.01 | 0.87 | 0.58 | | | | 1.45 |
| | Prod=446.43 SY/hour (4,464.29 SY/ day), 0.011MH/SY, 89.29 SY/MH, 329.41 hour (32.94 days) | | | | | | | | | | |
| | Grade & Compact Subgrade | 1.00 | EA | 646.95 | | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 26,633 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 25,002 | | | | | |
| | Scraper Operator | 1.0 | | 80.85 | | 26,633 | | | | | |
| | Grademan | 1.0 | | 76.04 | | 25,048 | | | | | |

| Estimate Line Detail | | | | | | | | | | | |
|--|--|------------|-----|------------|--------|---------|--------|---------|-----------|------------|------------|
| Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
| | Water Truck Driver | 1.0 | | 74.65 | | 24,591 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 33,264 | | | | |
| | 11 CY Elevated Scraper 175 Hsp (Cat 613) | 1.0 | | 73.57 | | | 24,235 | | | | |
| | 10 Ton Compactor 120 hsp (Dyn CA25) | 1.0 | | 45.52 | | | 14,995 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 12,712 | | | | |
| 20 | Purchase Subballast Local | 76,470.59 | TN | | | | | | 3,127,647 | | 3,127,647 |
| | Subballast | 76,470.6 | TN | 40.90 | | | | | 40.90 | | 40.90 |
| | | | | | | | | | 3,127,647 | | |
| 336.206 | Seeding | 7.00 | AC | | | | | | | 15,400 | 15,400 |
| | | | | | | | | | | 2,200.00 | 2,200.00 |
| 10 | Seeding | 7.00 | AC | | | | | | | 15,400 | 15,400 |
| | Seeding & Wood Fibre Mulch | 7.0 | AC | 2,200.00 | | | | | | 2,200.00 | 2,200.00 |
| | | | | | | | | | | 15,400 | |
| 336.207 | Geogrid | 135,000.00 | SY | | 563 | 39,222 | 1,935 | | 1,822,500 | | 1,863,657 |
| | Prod=1,200.00 SY/hour (24,000.00 SY/ day), 0.004MH/SY, 240.00 SY/MH, 112.50 hour (5.62 days) | | | | 0.00 | 0.29 | 0.01 | | 13.50 | | 13.80 |
| | Place GeoGrid | 1.00 | EA | 365.84 | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 8,437 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 30,784 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,935 | | | | |
| | Geogrid Tensar UX 1600 | 135,000.0 | SY | 13.50 | | | | | 1,822,500 | | |
| 336.208 | Ballasted Track in Place ,115 LB Rail, Wood Ties | 11,900.00 | TF | | | | | | | 2,618,000 | 2,618,000 |
| | | | | | | | | | | 220.00 | 220.00 |
| 10 | Ballasted Track in Place ,115 LB Rail, Wood Ties | 11,900.00 | TF | | | | | | | 2,618,000 | 2,618,000 |
| | ARRC Subcontract Railway Tracks | 11,900.0 | FT | 220.00 | | | | | | 220.00 | 220.00 |
| | | | | | | | | | | 2,618,000 | |
| 336.209 | Turnout Non PTC Ready,ARRC std NO.11 115# | 3.00 | EA | | | | | | | 360,000 | 360,000 |
| | | | | | | | | | | 120,000.00 | 120,000.00 |
| 10 | Turnout Non PTC Ready,ARRC std NO.11 115# | 3.00 | EA | | | | | | | 360,000 | 360,000 |
| | ARRC Railway Subcontract No.11 Turnout Non PTC Ready | 3.0 | EA | 120,000.00 | | | | | | 120,000.00 | 120,000.00 |
| | | | | | | | | | | 360,000 | |
| 336.210 | Turnout PTC Ready ARRC Std. No. 11 115# | 2.00 | EA | | | | | | | 940,000 | 940,000 |
| | | | | | | | | | | 470,000.00 | 470,000.00 |
| 10 | Turnout PTC Ready ARRC Std. No. 11 115# | 2.00 | EA | | | | | | | 940,000 | 940,000 |
| | ARRC Railway Subcontract No.11 Turnout PTC Ready | 2.0 | EA | 470,000.00 | | | | | | 470,000.00 | 470,000.00 |
| | | | | | | | | | | 940,000 | |
| 336.211 | Concrete Storage Area | 45,000.00 | SF | | 4,978 | 362,785 | 59,887 | | 285,970 | | 708,641 |
| | | | | | 0.11 | 8.06 | 1.33 | | 6.35 | | 15.75 |
| 10 | Concrete Storage Area | 833.00 | CY | | 4,978 | 362,785 | 59,887 | | 285,970 | | 708,641 |
| | | | | | 5.98 | 435.52 | 71.89 | | 343.30 | | 850.71 |
| 10 | Foundation Prep | 45,000.00 | SF | | 220 | 15,927 | 3,592 | | | | 19,519 |
| | | | | | 0.00 | 0.35 | 0.08 | | | | 0.43 |
| | Prod=615.00 SF/hour (6,150.00 SF/ day), 0.005MH/SF, 205.00 SF/MH, 73.17 hour (7.32 days) | | | | | | | | | | |
| | Foundation Prep | 1.00 | EA | 266.76 | | | | | | | |

Estimate Line Detail

Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|--|-----------|-----|---------|--------|---------|--------|---------|----------|----------|------------|
| | Labourer | 2.0 | | 68.41 | | 10,011 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 5,916 | | | | | |
| | 1.7 CY Backhoe Loader (Case680) | 1.0 | | 40.76 | | | 2,982 | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | 610 | | | | |
| 15 | Build Base Slab Forms | 424.00 | SF | | 85 | 6,195 | 341 | | 2,158 | | 8,694 |
| | | | | | 0.20 | 14.61 | 0.80 | | 5.09 | | 20.51 |
| | Prod=30.00 SF/hour (300.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 14.13 hour (1.41 days) | | | | | | | | | | |
| | <i>Fabricate Light Formwork</i> | 1.00 | EA | 462.45 | | | | | | | |
| | Carpenter Foreman | 1.0 | | 73.89 | | 1,044 | | | | | |
| | Carpenter | 5.0 | | 72.89 | | 5,151 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 341 | | | | |
| | Supply Light Wood Form | 424.0 | SF | 5.09 | | | | | 2,158 | | |
| 20 | SSM Slab Forms | 424.00 | SF | | 85 | 6,248 | 948 | | 424 | | 7,619 |
| | | | | | 0.20 | 14.74 | 2.23 | | 1.00 | | 17.97 |
| | Prod=32.50 SF/hour (325.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 13.05 hour (1.30 days) | | | | | | | | | | |
| | <i>Set Strip Slab Forms</i> | 1.00 | EA | 551.535 | | | | | | | |
| | Carpenter Foreman | 1.0 | | 73.89 | | 964 | | | | | |
| | Carpenter | 5.0 | | 72.89 | | 4,755 | | | | | |
| | Crane Operator Class A | 0.5 | | 81.13 | | 529 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 409 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 224 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 315 | | | | |
| | Set Strip Footing Material | 424.0 | SF | 1.00 | | | | | 424 | | |
| 25 | Mix and Place Concrete Slab | 833.00 | CY | | 2,291 | 163,245 | 47,733 | | 187,425 | | 398,403 |
| | | | | | 2.75 | 195.97 | 57.30 | | 225.00 | | 478.28 |
| | Prod=4.00 CY/hour (40.00 CY/ day), 2.750MH/CY, 0.36 CY/MH, 208.25 hour (20.83 days) | | | | | | | | | | |
| | <i>Place Slab Concrete with Pump</i> | 1.00 | EA | 1013.1 | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 16,837 | | | | | |
| | Concrete Foreman | 1.0 | | 77.39 | | 16,116 | | | | | |
| | Concrete Labourer | 3.0 | | 68.41 | | 42,739 | | | | | |
| | Vibrator Operator | 2.0 | | 68.41 | | 28,493 | | | | | |
| | Concrete Truck Spotter | 1.0 | | 68.41 | | 14,246 | | | | | |
| | Carpenter | 1.0 | | 72.89 | | 15,179 | | | | | |
| | Concrete Pump Operator | 1.0 | | 68.41 | | 14,246 | | | | | |
| | Concrete Truck Driver | 1.0 | | 73.89 | | 15,388 | | | | | |
| | 8 CY Concrete Transit Mixer | 1.0 | | 69.33 | | | 14,438 | | | | |
| | 124 YPH Trailer Mounted Concrete Pump | 1.0 | | 94.98 | | | 19,780 | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 296 | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 6.99 | | | 2,911 | | | | |
| | Cat TH63 Forklift | 1.0 | | 32.30 | | | 6,726 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 3,582 | | | | |
| | Super Sack Concrete Mix | 833.0 | CY | 225.00 | | | | | 187,425 | | |
| 30 | Finish Concrete Base Slab | 45,000.00 | SF | | 1,500 | 109,290 | | | | | 109,290 |
| | | | | | 0.03 | 2.43 | | | | | 2.43 |
| | Prod=60.00 sf/hour (600.00 sf/ day), 0.033MH/sf, 30.00 sf/MH, 750.00 hour (75.00 days) | | | | | | | | | | |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 145.72 | | | | | | | |
| | Cement Finisher | 2.0 | | 72.86 | | 109,290 | | | | | |

Estimate Line Detail

Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|---------------|----------------|---------------|---------|----------------|----------|----------------|
| 35 | Cure Concrete Base Slab | 45,000.00 | SF | | 90 | 6,557 | | | 2,250 | | 8,807 |
| | | | | | 0.00 | 0.15 | | | 0.05 | | 0.20 |
| | Prod=1,000.00 SF/hour (10,000.00 SF/ day), 0.002MH/SF, 500.00 SF/MH, 45.00 hour (4.50 days) | | | | | | | | | | |
| | Cure Concrete | 1.00 | EA | 145.72 | | | | | | | |
| | Cement Finisher | 2.0 | | 72.86 | | 6,557 | | | | | |
| | Curing Agent per m2/sf | 45,000.0 | sf | 0.05 | | | | | 2,250 | | |
| 75 | Reinforcement | 124,950.00 | LB | | 708 | 55,322 | 7,273 | | 93,713 | | 156,308 |
| | | | | | 0.01 | 0.44 | 0.06 | | 0.75 | | 1.25 |
| | Prod=6,000.00 LB/hour (60,000.00 LB/ day), 0.001MH/LB, 1,500.00 LB/MH, 20.83 hour (2.08 days) | | | | | | | | | | |
| | Handle Reinforcing Steel | 1.00 | EA | 400.73 | | | | | | | |
| | Ironworker | 2.0 | | 76.93 | | 3,204 | | | | | |
| | Crane Operator Class A | 2.0 | | 81.13 | | 3,379 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 1,304 | | | | |
| | 4 Tonne Forklift (JCB-8000lb) | 1.0 | | 21.97 | | | 458 | | | | |
| | Prod=1,100.00 LB/hour (11,000.00 LB/ day), 0.005MH/LB, 200.00 LB/MH, 113.59 hour (11.36 days) | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 477.595 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 4,592 | | | | | |
| | Ironworker Foreman | 4.0 | | 77.93 | | 35,409 | | | | | |
| | Ironworker | 1.0 | | 76.93 | | 8,739 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 3,558 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,954 | | | | |
| | Supply Rebar | 124,950.0 | LB | 0.75 | | | | | 93,713 | | |
| 336.212 | Covered Storage Araea | 20,000.00 | SF | | 10,318 | 734,829 | 16,073 | | 143,860 | | 894,762 |
| | | | | | 0.52 | 36.74 | 0.80 | | 7.19 | | 44.74 |
| 10 | Covered Storage Area | 1.00 | LS | | 10,318 | 734,829 | 16,073 | | 143,860 | | 894,762 |
| | | | | | 10,317.70 | 734,829.07 | 16,073.33 | | 143,860.00 | | 894,762.40 |
| | Prod=30.00 SF/hour (300.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 666.67 hour (66.67 days) | | | | | | | | | | |
| | Coverered Storage Area | 1.00 | EA | 462.45 | | | | | | | |
| | Carpenter Foreman | 1.0 | | 73.89 | | 49,260 | | | | | |
| | Carpenter | 5.0 | | 72.89 | | 242,967 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 16,073 | | | | |
| | 4 x 8 Lumber | 2,000.0 | FT | 1.93 | | | | | 3,860 | | |
| | Aluminum Roofing Panels | 20,000.0 | SF | 7.00 | | | | | 140,000 | | |
| | Roofer Foreman | 1.0 | | 75.00 | | 118,457 | | | | | |
| | Roofer | 3.0 | | 68.41 | | 324,145 | | | | | |
| 336.213 | Helipad | 10,000.00 | SF | | 1,895 | 138,163 | 26,446 | | 127,831 | | 292,440 |
| | | | | | 0.19 | 13.82 | 2.64 | | 12.78 | | 29.24 |
| 10 | Helipad Concrete | 370.00 | CY | | 1,895 | 138,163 | 26,446 | | 127,831 | | 292,440 |
| | | | | | 5.12 | 373.41 | 71.48 | | 345.49 | | 790.38 |
| 10 | Foundation Prep | 10,000.00 | SF | | 49 | 3,539 | 798 | | | | 4,338 |
| | | | | | 0.00 | 0.35 | 0.08 | | | | 0.43 |
| | Prod=615.00 SF/hour (6,150.00 SF/ day), 0.005MH/SF, 205.00 SF/MH, 16.26 hour (1.63 days) | | | | | | | | | | |
| | Foundation Prep | 1.00 | EA | 266.76 | | | | | | | |
| | Labourer | 2.0 | | 68.41 | | 2,225 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 1,315 | | | | | |
| | 1.7 CY Backhoe Loader (Case680) | 1.0 | | 40.76 | | | 663 | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | 135 | | | | |

Estimate Line Detail

Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|----------------|--|------------------|--------------|-----------|---------------|------------------|----------------|------------------|---------------|----------------|------------------|
| | Cure Concrete | 1.00 | EA | 145.72 | | | | | | | |
| | Cement Finisher | 2.0 | | 72.86 | | 1,515 | | | | | |
| | Curing Agent per m2/sf | 10,400.0 | sf | 0.05 | | | | | 520 | | |
| 75 | Reinforcement | 55,500.00 | LB | | 315 | 24,573 | 3,231 | | 41,625 | | 69,429 |
| | Prod=6,000.00 LB/hour (60,000.00 LB/ day), 0.001MH/LB, 1,500.00 LB/MH, 9.25 hour (0.93 days) | | | | 0.01 | 0.44 | 0.06 | | 0.75 | | 1.25 |
| | Handle Reinforcing Steel | 1.00 | EA | 400.73 | | | | | | | |
| | Ironworker | 2.0 | | 76.93 | | 1,423 | | | | | |
| | Crane Operator Class A | 2.0 | | 81.13 | | 1,501 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 579 | | | | |
| | 4 Tonne Forklift (JCB-8000lb) | 1.0 | | 21.97 | | | 203 | | | | |
| | Prod=1,100.00 LB/hour (11,000.00 LB/ day), 0.005MH/LB, 200.00 LB/MH, 50.45 hour (5.05 days) | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 477.595 | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 80.85 | | 2,040 | | | | | |
| | Ironworker Foreman | 4.0 | | 77.93 | | 15,728 | | | | | |
| | Ironworker | 1.0 | | 76.93 | | 3,881 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 1,580 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 868 | | | | |
| | Supply Rebar | 55,500.0 | LB | 0.75 | | | | | 41,625 | | |
| 336.214 | Transfer Ramp Loading | 1.00 | LS | | | | | | | 125,000 | 125,000 |
| | | | | | | | | | | 125,000.00 | 125,000.00 |
| 336.215 | Maintenance Shop | 13,200.00 | SF | | 1,320 | 99,022 | 9,581 | 1,812,800 | | | 1,921,402 |
| | | | | | 0.10 | 7.50 | 0.73 | 137.33 | | | 145.56 |
| 20 | Shop Setup | 13,200.00 | SF | | 1,320 | 99,022 | 9,581 | 1,812,800 | | | 1,921,402 |
| | | | | | 0.10 | 7.50 | 0.73 | 137.33 | | | 145.56 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 120.00 hour (12.00 days) | | | | | | | | | | |
| | Set Up Shop | 1.00 | EA | 905.02 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 9,702 | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 9,702 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 32,837 | | | | | |
| | Heavy Duty Mechanic | 4.0 | | 80.85 | | 38,808 | | | | | |
| | Oiler | 1.0 | | 66.44 | | 7,973 | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 7,517 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 2,064 | | | | |
| | Shop Building 110ft x 120 ft | 13,200.0 | SF | 100.00 | | | | 1,320,000 | | | |
| | Shop Equipment | 1.0 | LS | 20,000.00 | | | | 20,000 | | | |
| | Shop Concrete | 600.0 | CY | 788.00 | | | | 472,800 | | | |
| | Project Overhead | 5.00 | Month | | 25,384 | 1,966,204 | 405,035 | 905,540 | | 40,800 | 3,317,579 |
| | | | | | 5,076.89 | 393,240.85 | 81,006.93 | 181,108.01 | | 8,160.00 | 663,515.80 |
| | Project Indirect Costs | 5.00 | MO | | 25,384 | 1,966,204 | 405,035 | 905,540 | | 40,800 | 3,317,579 |
| | | | | | 5,076.89 | 393,240.85 | 81,006.93 | 181,108.01 | | 8,160.00 | 663,515.80 |
| 900 | Project Mangement Full Operation | 5.00 | Month | | 3,000 | 302,500 | 258 | | | | 302,758 |
| | | | | | 600.00 | 60,500.00 | 51.60 | | | | 60,551.60 |
| | Project Manager III | 1.0 | EA | 24,500.00 | | 5.00 month | | | | | |
| | General Superintendent | 2.0 | EA | 18,000.00 | | 5.00 month | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 3.0 | EA | 17.20 | | | 5.00 month | | | | |

| Estimate Line Detail | | | | | | | | | | | |
|--|---|-------------|--------------|-----------|--------------|----------------|---------------|---------------|----------|----------|----------------|
| Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
| 905 | Field Engineering | 5.00 | month | | 1,600 | 135,000 | 258 | | | | 135,258 |
| | | | | | 320.00 | 27,000.00 | 51.60 | | | | 27,051.60 |
| | Field Engineer II | 1.0 | EA | 15,000.00 | | 3.00 month | | | | | |
| | Project Engineer II | 1.0 | EA | 18,000.00 | | 5.00 month | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 3.0 | EA | 17.20 | | | 5.00 hour | | | | |
| 910 | Surveying | 4.00 | Month | | 6,235 | 471,948 | 55,990 | 9,400 | | | 537,338 |
| | | | | | 1,558.75 | 117,986.98 | 13,997.58 | 2,350.00 | | | 134,334.56 |
| | Prod=0.34 hours/hour (3.39 hours/ day), 8.857MH/hours, 0.11 hours/MH, 2,078.33 hour (207.83 days) | | | | | | | | | | |
| | Survey Crew | 1.00 | EA | 254.02 | | | | | | | |
| | Survey Party Chief | 1.0 | | 75.00 | | 155,875 | | | | | |
| | Survey Rodman | 2.0 | | 76.04 | | 316,073 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 37,784 | | | | |
| | Survey Total Station | 1.0 | | 3.22 | | | 6,692 | | | | |
| | Robotic Total Station | 1.0 | | 5.54 | | | 11,514 | | | | |
| | Survey Equipment | 4.0 | Month | 1,200.00 | | | | 4,800 | | | |
| | Survey Supplies | 4.0 | Month | 400.00 | | | | 1,600 | | | |
| | Survey Stakes | 4.0 | Month | 750.00 | | | | 3,000 | | | |
| 911 | Quality Control | 4.00 | MO | | 3,118 | 135,092 | 65,073 | 28,844 | | | 229,008 |
| | | | | | 779.37 | 33,772.92 | 16,268.15 | 7,211.00 | | | 57,252.07 |
| 10 | Quality Control | 4.00 | MO | | 3,118 | 135,092 | 65,073 | 28,844 | | | 229,008 |
| | | | | | 779.37 | 33,772.92 | 16,268.15 | 7,211.00 | | | 57,252.07 |
| | Prod=0.00 MO/hour (0.04 MO/ day), 779.375MH/MO, 0.00 MO/MH, 1,039.17 hour (103.92 days) | | | | | | | | | | |
| | Quality Control | 1.00 | EA | 192.62 | | | | | | | |
| | Quality Control Manager | 1.0 | | 52.50 | | 54,556 | | | | | |
| | Quality Control Engineer | 1.0 | | 42.50 | | 44,165 | | | | | |
| | Quality Control Technician | 1.0 | | 35.00 | | 36,371 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 3.0 | | 17.20 | | | 53,621 | | | | |
| | Testing Concrete Slump Equipment | 1.0 | | 1.08 | | | 1,122 | | | | |
| | Testing Soil Compaction Equipment | 1.0 | | 1.27 | | | 1,320 | | | | |
| | Testing Concrete Strength Equipment | 1.0 | | 2.29 | | | 2,380 | | | | |
| | Instrumentation Electrical Test | 1.0 | | 1.08 | | | 1,122 | | | | |
| | Instrumentation Air Measurement | 1.0 | | 1.27 | | | 1,320 | | | | |
| | Instrumentation Pressure Test | 1.0 | | 1.46 | | | 1,517 | | | | |
| | Instrumentation Slope Stability | 1.0 | | 2.57 | | | 2,671 | | | | |
| | QC Staff Expenses | 4.0 | Month | 1,500.00 | | | | 6,000 | | | |
| | QC Plan Development Cost | 1.0 | LS | 20,000.00 | | | | 20,000 | | | |
| | Nuclear Gauge | 120.0 | Day | 23.70 | | | | 2,844 | | | |
| 920 | Safety | 4.00 | Month | | 804 | 112,000 | 138 | 57,200 | | | 169,338 |
| | | | | | 201.00 | 28,000.00 | 34.40 | 14,300.00 | | | 42,334.40 |
| | Safety Manager | 1.0 | EA | 16,000.00 | | 4.00 month | | | | | |
| | Safety Person | 1.0 | EA | 12,000.00 | | 4.00 hour | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 2.0 | EA | 17.20 | | | 4.00 hour | | | | |
| | Medical Exam | 60.0 | EA | 200.00 | | | | 12,000 | | | |
| | First Aid Supplies | 4.0 | Month | 200.00 | | | | 800 | | | |
| | Hardhats | 50.0 | EA | 60.00 | | | | 3,000 | | | |
| | Safety Supplies | 4.0 | Month | 4,000.00 | | | | 16,000 | | | |
| | Safety Training Course | 50.0 | EA | 400.00 | | | | 20,000 | | | |

| Estimate Line Detail | | | | | | | | | | | |
|--|--|-------------|--------------|-----------|--------------|----------------|----------------|----------------|----------|---------------|----------------|
| Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
| | General Signs c/w Posts | 18.0 | EA | 300.00 | | | | 5,400 | | | |
| 930 | Administration | 4.00 | Month | | 4 | 68,000 | 69 | | | | 68,069 |
| | Office Manager | 1.0 | EA | 17,000.00 | 1.00 | 17,000.00 | 17.20 | | | | 17,017.20 |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | EA | 17.20 | | 4.00 hour | 4.00 hour | | | | |
| 935 | Equipment | 4.00 | Month | | 9,601 | 667,157 | 260,618 | 6,000 | | | 933,775 |
| | | | | | 2,400.33 | 166,789.33 | 65,154.44 | 1,500.00 | | | 233,443.78 |
| 10 | Equipment Management | 4.00 | Month | | 1 | 29,333 | 80,978 | 6,000 | | | 116,311 |
| | | | | | 0.33 | 7,333.33 | 20,244.44 | 1,500.00 | | | 29,077.78 |
| | Equipment Superintendent | 1.0 | EA | 22,000.00 | | 1.33 hour | | | | | |
| | 250 Amp Diesel Welder | 1.0 | EA | 7.66 | | | 666.67 hour | | | | |
| | 350 Amp Diesel Welder | 1.0 | EA | 10.15 | | | 666.67 hour | | | | |
| | 185 CFM Diesel Compressor | 1.0 | EA | 22.04 | | | 666.67 hour | | | | |
| | 2000 PSI Pressure Washer | 1.0 | EA | 3.92 | | | 666.67 hour | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | EA | 16.11 | | | 4.00 hour | | | | |
| | 2-Ton Mechanic Truck | 2.0 | EA | 38.80 | | | 666.67 hour | | | | |
| | Shop Supplies | 4.0 | Month | 1,500.00 | | | | 6,000 | | | |
| 20 | Equipment Service | 4.00 | MO | | 9,600 | 637,824 | 179,640 | | | | 817,464 |
| | | | | | 2,400.00 | 159,456.00 | 44,910.00 | | | | 204,366.00 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 4.000MH/HR, 0.25 HR/MH, 2,400.00 hour (240.00 days) | | | | | | | | | | |
| | Equipment Service | 1.00 | EA | 340.61 | | | | | | | |
| | Serviceman | 2.0 | | 66.44 | | 318,912 | | | | | |
| | Lube/Service Operator | 2.0 | | 66.44 | | 318,912 | | | | | |
| | Lube Truck | 1.0 | | 36.33 | | | 87,192 | | | | |
| | Fuel Truck (Tandem Axle 20000 litres) | 1.0 | | 38.52 | | | 92,448 | | | | |
| 940 | Administration Costs | 4.00 | Month | | | | | 132,096 | | 40,800 | 172,896 |
| | | | | | | | | 33,024.02 | | 10,200.00 | 43,224.02 |
| | Drug Testing | 52.0 | EA | 100.00 | | | | 5,200 | | | |
| | Donation and subscriptions | 4.0 | Month | 300.00 | | | | 1,200 | | | |
| | Photographs | 4.0 | Month | 300.00 | | | | 1,200 | | | |
| | Engineering Supplies | 4.0 | Month | 2,500.00 | | | | 10,000 | | | |
| | Office Supplies | 4.0 | Month | 4,000.00 | | | | 16,000 | | | |
| | Vehicle Licenses | 4.0 | Month | 100.00 | | | | 400 | | | |
| | Permits | 1.0 | LS | 1,500.00 | | | | 1,500 | | | |
| | Staff Office Furniture (per person) | 4.0 | EA | 800.00 | | | | 3,200 | | | |
| | General Office Furniture | 3.0 | SET | 5,400.00 | | | | 16,200 | | | |
| | Laptop Computer | 3.0 | EA | 3,132.02 | | | | 9,396 | | | |
| | Office Printer | 1.0 | EA | 2,400.00 | | | | 2,400 | | | |
| | Office Software (per user) | 3.0 | EA | 900.00 | | | | 2,700 | | | |
| | Office PhotoCopy Machine | 1.0 | EA | 2,700.00 | | | | 2,700 | | | |
| | Small Tool Allowance | 40,000.0 | MH | 1.50 | | | | 60,000 | | | |
| | Office Cleaning Service | 4.0 | MO | 5,200.00 | | | | | | 20,800 | |
| | Toilet Compartments | 4.0 | MO | 5,000.00 | | | | | | 20,000 | |
| 945 | Office Shop Setup | 1.00 | LS | | 1,023 | 74,507 | 22,632 | 572,000 | | | 669,139 |
| | | | | | 1,022.64 | 74,507.34 | 22,631.56 | 572,000.00 | | | 669,138.90 |
| 10 | Fuel Storage Setup | 1.00 | LS | | 203 | 15,825 | 12,897 | | | | 28,722 |

Estimate Line Detail

Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------------|---|-------------|-----------|--------|------------|---------------|--------------|----------------|----------|----------|----------------|
| | Prod=2,690.98 SF/hour (21,527.82 SF/ day), 0.001MH/SF, 768.85 SF/MH, 37.16 hour (4.65 days) | | | | 202.64 | 15,825.26 | 12,896.84 | | | | 28,722.10 |
| | <i>Grade Yard</i> | 1.00 | EA | 448.38 | | | | | | | |
| | Foreman Roadwork | 0.5 | | 80.00 | | 1,486 | | | | | |
| | Grademan Roadwork | 1.0 | | 76.04 | | 2,826 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 3,004 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 2,821 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 3,753 | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 2,133 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 639 | | | | |
| | Prod=77.16 TN/hour (617.29 TN/ day), 0.026MH/TN, 38.58 TN/MH, 36.29 hour (4.54 days) | | | | | | | | | | |
| | <i>Place Granular in Yard</i> | 1.00 | EA | 332.34 | | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 2,934 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 2,754 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 3,664 | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 2,083 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 624 | | | | |
| 10 | Office Site Prep & Reclaim | 1.00 | LS | | 820 | 58,682 | 9,735 | 572,000 | | | 640,417 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 5.000MH/HR, 0.20 HR/MH, 20.00 hour (2.00 days) | | | | 820.00 | 58,682.08 | 9,734.72 | 572,000.00 | | | 640,416.80 |
| | <i>Install Electrical Services</i> | 1.00 | EA | 397.2 | | | | | | | |
| | Electrical Foreman | 1.0 | | 80.00 | | 1,600 | | | | | |
| | Electrician | 4.0 | | 75.00 | | 6,000 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 344 | | | | |
| | Prod=0.71 HRS/hour (7.14 HRS/ day), 7.000MH/HRS, 0.14 HRS/MH, 28.00 hour (2.80 days) | | | | | | | | | | |
| | <i>Install Water Services</i> | 1.00 | EA | 485.81 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 2,264 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 2,264 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 5,746 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 2,614 | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | 233 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 482 | | | | |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 5.000MH/HRS, 0.20 HRS/MH, 20.00 hour (2.00 days) | | | | | | | | | | |
| | <i>Install Sanitary Services</i> | 1.00 | EA | 485.81 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 1,617 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 1,617 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 4,105 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 1,867 | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | 167 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 344 | | | | |
| | Prod=1.08 HR/hour (8.61 HR/ day), 4.645MH/HR, 0.22 HR/MH, 96.00 hour (12.00 days) | | | | | | | | | | |
| | <i>Setup Office Equipment</i> | 1.00 | EA | 387.02 | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 7,200 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 26,269 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,651 | | | | |
| | 1 Ton Flat Bed Truck 4x4 | 1.0 | | 21.18 | | | 2,033 | | | | |
| | Office Complex Contractor | 2,200.0 | SF | 260.00 | | | | 572,000 | | | |
| 955 | As-Builts/O&M Manuals | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |

Estimate Line Detail**Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION**

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|-----------------------|----------|-----|------------|--------|-------|-------|------------|----------|----------|------------|
| 10 | As-Builts/O&M Manuals | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| | As-Builts/O&M Manuals | 1.0 | LS | 100,000.00 | | | | 100,000 | | | |

**SUSITNA-WATANA HYDROELECTRIC PROJECT
CAMP & AIRSTRIP CIVIL CONTRACT
RCC Dam 600 MW**

Opinion of Probable Construction Costs

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | \$ | 30,049,914 | |
|--------------------|--|----------|-----------|--------------------------|----------------------|--|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments | |
| 336 | Roads, Rail & Air Facilities | 1 | LS | | \$ 14,179,390 | | |
| 336.300 | Roads, Building, Camp Areas | | | | \$ 4,366,944 | | |
| 336.301 | Grubbing | 167.3 | AC | 5,308.23 | \$ 888,066 | | |
| 336.302 | Earthworks Building Areas Including Roads & | 182,414 | CY | 8.87 | \$ 1,618,118 | | |
| 336.303 | Gravel Surfacing 12 in | 45,768 | CY | 16.39 | \$ 750,090 | | |
| 336.304 | Site Drainage | 1 | LS | 300,000.00 | \$ 300,000 | Allowance | |
| 336.305 | Sports Fields | 360,000 | SF | 0.29 | \$ 105,722 | | |
| 336.306 | Fencing Building All Areas | 15,666 | LF | 45.00 | \$ 704,948 | | |
| 336.400 | Air Strip | | | | \$ 9,812,446 | | |
| 336.401 | Grubbing | 159.7 | AC | 5,308.23 | \$ 847,724 | | |
| 336.402 | Earthworks | 450,000 | CY | 8.87 | \$ 3,991,770 | | |
| 336.403 | Gravel surfacing | 24,074 | CY | 22.62 | \$ 544,567 | | |
| 336.404 | Concrete Paving | 12,244 | SY | 116.66 | \$ 1,428,385 | | |
| 336.405 | Ancillaries - lights, radar etc. | 1 | LS | 3,000,000.00 | \$ 3,000,000 | Allowance | |
| | | | | Running Subtotal: | \$ 14,179,390 | | |
| | Mobilization/Field Oversight Expenses | | | | \$ 7,962,190 | | |
| 1 | Contractor General Conditions (Prime) | 12 | MO | 663,515.80 | \$ 7,962,190 | | |
| | Unidentified Required Items | | | | \$ 1,771,326 | | |
| 1 | Unlisted Items Allowance | 8% | | | \$ 1,771,326 | | |
| | | | | Running Subtotal: | \$ 23,912,906 | | |
| | Markups | | | | \$ 3,405,198 | | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included | |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included | |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 12.0% | \$ 2,869,549 | | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 535,649 | | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included | |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included | |
| | | | | Running Subtotal: | \$ 27,318,104 | | |
| | Project Administration & Management | | | | \$ 2,731,810 | | |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included | |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included | |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included | |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 10% | \$ 2,731,810 | | |
| 5 | Construction Contingency/Management Rese | 1 | LS | 0% | \$ - | not included | |
| | Grand Total: | | | | \$ 30,049,914 | Total Estimated Constr Costs w/ Cont. | |

Cost Range: **\$24,040,000** **\$37,560,000** Per AACE cost estimate guidelines
-20% 25%

Notes:

- This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

Estimate Line Detail

Estimate: CONTRACT 1 - CAMP & AIRSTRIP CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---|---|-------------------|-----------|---------|----------------|------------------|------------------|------------------|----------|------------------|-------------------|
| Direct Cost | | 1.00 | LS | | 108,677 | 8,456,402 | 6,111,688 | 2,173,296 | | 5,399,778 | 22,141,165 |
| | | | | | 108,676.56 | 8,456,402.46 | 6,111,687.91 | 2,173,296.14 | | 5,399,778.00 | 22,141,164.51 |
| Roads, Rail & Air Facilities | | 1.00 | LS | | 47,754 | 3,737,512 | 5,139,605 | | | 5,301,858 | 14,178,975 |
| | | | | | 47,753.83 | 3,737,512.20 | 5,139,604.74 | | | 5,301,858.00 | 14,178,974.94 |
| Building & Camp Areas | | 1.00 | LS | | 18,014 | 1,407,759 | 1,906,078 | | | 1,052,970 | 4,366,807 |
| | | | | | 18,014.32 | 1,407,758.94 | 1,906,078.44 | | | 1,052,970.00 | 4,366,807.38 |
| 336.301 | Grubbing | 167.30 | AC | | 5,323 | 413,961 | 474,105 | | | | 888,066 |
| | | | | | 5,323 | 413,961 | 474,105 | | | | 888,066 |
| | | | | | 31.82 | 2,474.36 | 2,833.86 | | | | 5,308.23 |
| 10 | Grubbing | 167.30 | AC | | 5,323 | 413,961 | 474,105 | | | | 888,066 |
| | | | | | 31.82 | 2,474.36 | 2,833.86 | | | | 5,308.23 |
| | Prod=0.22 AC/hour (4.40 AC/ day), 31.818MH/AC, 0.03 AC/MH, 760.45 hour (38.02 days) | | | | | | | | | | |
| | Grubb Heavy Tree Roots & Haul On Site | 1.00 | EA | 1167.81 | | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 61,483 | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 61,483 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 57,034 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 52,023 | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 79.75 | | 181,939 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 110,061 | | | | |
| | 2.6 CY Backhoe (Cat 350) | 1.0 | | 118.77 | | | 90,319 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 260,646 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 13,080 | | | | |
| 336.302 | Eathworks | 182,414.00 | CY | | 8,077 | 634,572 | 983,279 | | | | 1,617,851 |
| | | | | | 8,077 | 634,572 | 983,279 | | | | 1,617,851 |
| | | | | | 0.04 | 3.48 | 5.39 | | | | 8.87 |
| 15 | Common Excavation to Embankment | 182,414.00 | CY | | 8,077 | 634,572 | 983,279 | | | | 1,617,851 |
| | | | | | 0.04 | 3.48 | 5.39 | | | | 8.87 |
| 30 | Excavation to Embankment | 182,414.00 | CY | | 8,077 | 634,572 | 983,279 | | | | 1,617,851 |
| | | | | | 0.04 | 3.48 | 5.39 | | | | 8.87 |
| 20 | Load Haul to Embankment | 182,414.00 | CY | | 8,077 | 634,572 | 983,279 | | | | 1,617,851 |
| | | | | | 0.04 | 3.48 | 5.39 | | | | 8.87 |
| | Prod=271.00 CY/hour (5,420.00 CY/ day), 0.044MH/CY, 22.58 CY/MH, 673.11 hour (33.66 days) | | | | | | | | | | |
| | Load Haul to Road Emankment | 1.00 | EA | 2403.53 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 53,849 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 54,421 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 54,421 | | | | | |
| | Dozer Operator | 2.0 | | 80.85 | | 108,843 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 51,089 | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 77.24 | | 311,948 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 194,840 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 73,188 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 67,971 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 114.25 | | | 384,517 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 134,636 | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 174.24 | | | 117,283 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 10,844 | | | | |
| 336.303 | Gravel Surfacing | 45,768.00 | CY | | 4,169 | 324,496 | 425,702 | | | | 750,199 |
| | | | | | 4,169 | 324,496 | 425,702 | | | | 750,199 |
| | | | | | 0.09 | 7.09 | 9.30 | | | | 16.39 |
| 10 | Fine Grade Areas | 40,000.00 | SY | | 444 | 34,730 | 22,992 | | | | 57,722 |
| | | | | | 0.01 | 0.87 | 0.57 | | | | 1.44 |
| | Prod=450.00 SY/hour (4,500.00 SY/ day), 0.011MH/SY, 90.00 SY/MH, 88.89 hour (8.89 days) | | | | | | | | | | |
| | Grade & Compact Subgrade | 1.00 | EA | 649.37 | | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 7,187 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 6,747 | | | | | |
| | Scraper Operator | 1.0 | | 78.17 | | 6,948 | | | | | |
| | Grademan | 1.0 | | 76.04 | | 6,759 | | | | | |
| | Water Truck Driver | 1.0 | | 79.75 | | 7,089 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 8,976 | | | | |
| | 11 CY Elevated Scraper 175 Hsp (Cat 613) | 1.0 | | 73.57 | | | 6,540 | | | | |
| | 10 Ton Compactor 120 hsp (Dyn CA25) | 1.0 | | 45.52 | | | 4,046 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 3,430 | | | | |
| 20 | Gravel Surfacing | 45,768.00 | CY | | 3,725 | 289,766 | 402,710 | | | | 692,477 |
| | | | | | 0.08 | 6.33 | 8.80 | | | | 15.13 |
| 20 | Crush Road Base from Excavation | 109,843.20 | TN | | 1,449 | 110,889 | 157,250 | | | | 268,139 |

Estimate Line Detail

Estimate: CONTRACT 1 - CAMP & AIRSTRIP CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|---------|---------------|------------------|------------------|---------|------------------|---------------|------------------|
| | Prod=379.00 TN/hour (3,790.00 TN/ day), 0.013MH/TN, 75.80 TN/MH, 289.82 hour (28.98 days) | | | | 0.01 | 1.01 | 1.43 | | | | 2.44 |
| | <i>Secondary Crushing</i> | 1.00 | EA | 925.18 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 23,232 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 23,432 | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 22,971 | | | | | |
| | Labourer | 2.0 | | 71.17 | | 41,254 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 31,513 | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 292.82 | | | 84,866 | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 124.91 | | | 36,202 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 4,669 | | | | |
| 30 | Load Haul Place Road Base from Crusher | 45,768.00 | CY | | 2,276 | 178,877 | 245,461 | | | | 424,338 |
| | Prod=181.00 CY/hour (1,810.00 CY/ day), 0.050MH/CY, 20.11 CY/MH, 252.86 hour (25.29 days) | | | | 0.05 | 3.91 | 5.36 | | | | 9.27 |
| | <i>Load Haul to Place Road Base</i> | 1.00 | EA | 1678.14 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 20,229 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 20,444 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 20,444 | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 20,444 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 19,192 | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 77.24 | | 78,124 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 36,597 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 27,494 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 25,534 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 86,668 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 50,577 | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 14,517 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 4,074 | | | | |
| 336.304 | Site Drainage | 1.00 | LS | | | | | | 300,000 | | 300,000 |
| | | | | | | | | | 300,000.00 | | 300,000.00 |
| 336.305 | Sports Fields | 360,000.00 | SF | | 444 | 34,730 | 22,992 | | | 48,000 | 105,722 |
| | | | | | 0.00 | 0.10 | 0.06 | | | 0.13 | 0.29 |
| 10 | Fine Grade Areas | 40,000.00 | SY | | 444 | 34,730 | 22,992 | | | | 57,722 |
| | Prod=450.00 SY/hour (4,500.00 SY/ day), 0.011MH/SY, 90.00 SY/MH, 88.89 hour (8.89 days) | | | | 0.01 | 0.87 | 0.57 | | | | 1.44 |
| | <i>Grade & Compact Subgrade</i> | 1.00 | EA | 649.37 | | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 7,187 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 6,747 | | | | | |
| | Scraper Operator | 1.0 | | 78.17 | | 6,948 | | | | | |
| | Grademan | 1.0 | | 76.04 | | 6,759 | | | | | |
| | Water Truck Driver | 1.0 | | 79.75 | | 7,089 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 8,976 | | | | |
| | 11 CY Elevated Scraper 175 Hsp (Cat 613) | 1.0 | | 73.57 | | | 6,540 | | | | |
| | 10 Ton Compactor 120 hsp (Dyn CA25) | 1.0 | | 45.52 | | | 4,046 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 3,430 | | | | |
| 20 | Sports Fields Seeding | 360,000.00 | SF | | | | | | 18,000 | | 18,000 |
| | Seeding & Wood Fibre Mulch | 360,000.0 | SF | 0.05 | | | | | 18,000 | | 0.05 |
| 30 | Sports Fields Misc Equipment | 1.00 | LS | | | | | | 30,000 | | 30,000 |
| | | | | | | | | | 30,000.00 | | 30,000.00 |
| 336.306 | Fencing | 15,666.00 | LF | | | | | | 704,970 | | 704,970 |
| | | | | | | | | | 45.00 | | 45.00 |
| 10 | Fencing | 15,666.00 | LF | | | | | | 704,970 | | 704,970 |
| | 1800mm High Chainlink Fence | 15,666.0 | LF | 45.00 | | | | | 45.00 | | 45.00 |
| | | | | | | | | | 704,970 | | 704,970 |
| | Airstrip | 1.00 | LS | | 29,740 | 2,329,753 | 3,233,526 | | 4,248,888 | | 9,812,168 |
| | | | | | 29,739.51 | 2,329,753.27 | 3,233,526.30 | | 4,248,888.00 | | 9,812,167.57 |
| 336.401 | Grubbing | 159.70 | AC | | 5,081 | 395,156 | 452,568 | | | | 847,724 |

Estimate Line Detail

Estimate: CONTRACT 1 - CAMP & AIRSTRIP CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|---------|---------------|------------------|------------------|---------|----------|----------|------------------|
| 10 | Grubbing | 159.70 | AC | | 31.82 | 2,474.36 | 2,833.86 | | | | 5,308.23 |
| | Prod=0.22 AC/hour (4.40 AC/ day), 31.818MH/AC, 0.03 AC/MH, 725.91 hour (36.30 days) | | | | 5,081 | 395,156 | 452,568 | | | | 847,724 |
| | <i>Grubb Heavy Tree Roots & Haul On Site</i> | 1.00 | EA | 1167.81 | | | | | | | 5,308.23 |
| | Backhoe Operator | 1.0 | | 80.85 | | 58,690 | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 58,690 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 54,443 | | | | | |
| | Labourer | 1.0 | | 68.41 | | 49,659 | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 79.75 | | 173,674 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 105,061 | | | | |
| | 2.6 CY Backhoe (Cat 350) | 1.0 | | 118.77 | | | 86,216 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 248,805 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 12,486 | | | | |
| 336.402 | Eathworks | 450,000.00 | CY | | 19,926 | 1,565,435 | 2,425,666 | | | | 3,991,101 |
| | | | | | 0.04 | 3.48 | 5.39 | | | | 8.87 |
| 15 | Common Excavation to Embankment | 450,000.00 | CY | | 19,926 | 1,565,435 | 2,425,666 | | | | 3,991,101 |
| | | | | | 0.04 | 3.48 | 5.39 | | | | 8.87 |
| 30 | Excavation to Embankment | 450,000.00 | CY | | 19,926 | 1,565,435 | 2,425,666 | | | | 3,991,101 |
| | | | | | 0.04 | 3.48 | 5.39 | | | | 8.87 |
| 20 | Load Haul to Embankment | 450,000.00 | CY | | 19,926 | 1,565,435 | 2,425,666 | | | | 3,991,101 |
| | | | | | 0.04 | 3.48 | 5.39 | | | | 8.87 |
| | Prod=271.00 CY/hour (5,420.00 CY/ day), 0.044MH/CY, 22.58 CY/MH, 1,660.52 hour (83.03 days) | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | 1.00 | EA | 2403.53 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 132,841 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 134,253 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 134,253 | | | | | |
| | Dozer Operator | 2.0 | | 80.85 | | 268,506 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 126,033 | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 77.24 | | 769,550 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 480,653 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 180,548 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 167,679 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 114.25 | | | 948,570 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 332,137 | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 174.24 | | | 289,328 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 26,751 | | | | |
| 336.403 | Gravel Surfacing | 24,074.00 | CY | | 3,349 | 261,112 | 283,760 | | | | 544,872 |
| | | | | | 0.14 | 10.85 | 11.79 | | | | 22.63 |
| 10 | Fine Grade Roadway | 125,000.00 | SY | | 1,389 | 108,531 | 71,850 | | | | 180,381 |
| | | | | | 0.01 | 0.87 | 0.57 | | | | 1.44 |
| | Prod=450.00 SY/hour (4,500.00 SY/ day), 0.011MH/SY, 90.00 SY/MH, 277.78 hour (27.78 days) | | | | | | | | | | |
| | <i>Grade & Compact Subgrade</i> | 1.00 | EA | 649.37 | | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 22,458 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 21,083 | | | | | |
| | Scraper Operator | 1.0 | | 78.17 | | 21,714 | | | | | |
| | Grademan | 1.0 | | 76.04 | | 21,122 | | | | | |
| | Water Truck Driver | 1.0 | | 79.75 | | 22,153 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 28,050 | | | | |
| | 11 CY Elevated Scraper 175 Hsp (Cat 613) | 1.0 | | 73.57 | | | 20,436 | | | | |
| | 10 Ton Compactor 120 hsp (Dyn CA25) | 1.0 | | 45.52 | | | 12,644 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 10,719 | | | | |
| 20 | Gravel Surfacing | 24,074.00 | CY | | 1,960 | 152,581 | 211,910 | | | | 364,491 |
| | | | | | 0.08 | 6.34 | 8.80 | | | | 15.14 |
| 20 | Crush Road Base from Excavation | 57,777.60 | TN | | 722 | 55,266 | 78,371 | | | | 133,637 |
| | | | | | 0.01 | 0.96 | 1.36 | | | | 2.31 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 144.44 hour (14.44 days) | | | | | | | | | | |
| | <i>Secondary Crushing</i> | 1.00 | EA | 925.18 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 11,579 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 11,678 | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 11,449 | | | | | |
| | Labourer | 2.0 | | 71.17 | | 20,560 | | | | | |

Estimate Line Detail

Estimate: CONTRACT 1 - CAMP & AIRSTRIP CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|----------------|---|-------------------|--------------|-----------|---------------|------------------|----------------|------------------|----------|------------------|------------------|
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 15,705 | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 292.82 | | | 42,296 | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 124.91 | | | 18,043 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 2,327 | | | | |
| 30 | Load Haul Place Road Base from Crusher | 24,074.00 | CY | | 1,238 | 97,315 | 133,539 | | | | 230,855 |
| | | | | | 0.05 | 4.04 | 5.55 | | | | 9.59 |
| | Prod=175.00 CY/hour (1,750.00 CY/ day), 0.051MH/CY, 19.44 CY/MH, 137.57 hour (13.76 days) | | | | | | | | | | |
| | Load Haul to Place Road Base | 1.00 | EA | 1678.14 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 11,005 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 11,122 | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 11,122 | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 11,122 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 10,441 | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 77.24 | | 42,502 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 19,910 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 108.73 | | | 14,958 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 13,891 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 47,151 | | | | |
| | 26 CY Scraper 450 hsp (Cat 631) | 1.0 | | 200.02 | | | 27,516 | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 7,898 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 2,216 | | | | |
| 336.404 | Paving | 12,244.00 | SY | | 1,383 | 108,050 | 71,532 | | | 1,248,888 | 1,428,470 |
| | | | | | 0.11 | 8.82 | 5.84 | | | 102.00 | 116.67 |
| 10 | Fine Grade | 125,000.00 | SY | | 1,383 | 108,050 | 71,532 | | | | 179,582 |
| | | | | | 0.01 | 0.86 | 0.57 | | | | 1.44 |
| | Prod=452.00 SY/hour (4,520.00 SY/ day), 0.011MH/SY, 90.40 SY/MH, 276.55 hour (27.65 days) | | | | | | | | | | |
| | Grade & Compact Subgrade | 1.00 | EA | 649.37 | | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 22,359 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 20,990 | | | | | |
| | Scraper Operator | 1.0 | | 78.17 | | 21,618 | | | | | |
| | Grademan | 1.0 | | 76.04 | | 21,029 | | | | | |
| | Water Truck Driver | 1.0 | | 79.75 | | 22,055 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 27,926 | | | | |
| | 11 CY Elevated Scraper 175 Hsp (Cat 613) | 1.0 | | 73.57 | | | 20,346 | | | | |
| | 10 Ton Compactor 120 hsp (Dyn CA25) | 1.0 | | 45.52 | | | 12,588 | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 10,672 | | | | |
| 20 | Paving 12In Concrete | 12,244.00 | SY | | | | | | | 1,248,888 | 1,248,888 |
| | | | | | | | | | | 102.00 | 102.00 |
| 336.405 | Ancillaries-Lights,Radar,Etc | 1.00 | LS | | | | | | | 3,000,000 | 3,000,000 |
| | | | | | | | | | | 3,000,000.00 | 3,000,000.00 |
| | Project Overhead | 12.00 | Month | | 60,923 | 4,718,890 | 972,083 | 2,173,296 | | 97,920 | 7,962,190 |
| | | | | | 5,076.89 | 393,240.85 | 81,006.93 | 181,108.01 | | 8,160.00 | 663,515.80 |
| | Project Indirect Costs | 12.00 | MO | | 60,923 | 4,718,890 | 972,083 | 2,173,296 | | 97,920 | 7,962,190 |
| | | | | | 5,076.89 | 393,240.85 | 81,006.93 | 181,108.01 | | 8,160.00 | 663,515.80 |
| 900 | Project Mangement Full Operation | 12.00 | Month | | 7,200 | 726,000 | 619 | | | | 726,619 |
| | | | | | 600.00 | 60,500.00 | 51.60 | | | | 60,551.60 |
| | Project Manager III | 1.0 | EA | 24,500.00 | | 12.00 month | | | | | |
| | General Superintendent | 2.0 | EA | 18,000.00 | | 12.00 month | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 3.0 | EA | 17.20 | | | | 12.00 month | | | |
| 905 | Field Engineering | 12.00 | month | | 3,840 | 324,000 | 619 | | | | 324,619 |
| | | | | | 320.00 | 27,000.00 | 51.60 | | | | 27,051.60 |
| | Field Engineer II | 1.0 | EA | 15,000.00 | | 7.20 month | | | | | |
| | Project Engineer II | 1.0 | EA | 18,000.00 | | 12.00 month | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 3.0 | EA | 17.20 | | | | 12.00 hour | | | |
| 910 | Surveying | 9.60 | Month | | 14,964 | 1,132,675 | 134,377 | 22,560 | | | 1,289,612 |
| | | | | | 1,558.75 | 117,986.98 | 13,997.58 | 2,350.00 | | | 134,334.56 |

Estimate Line Detail

Estimate: CONTRACT 1 - CAMP & AIRSTRIP CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------------|--|-------------|--------------|----------|--------------|----------------|---------------|------------------|----------|---------------|------------------|
| | <i>Equipment Service</i> | 1.00 | EA | 340.61 | | | | | | | |
| | Serviceman | 2.0 | | 66.44 | | 765,389 | | | | | |
| | Lube/Service Operator | 2.0 | | 66.44 | | 765,389 | | | | | |
| | Lube Truck | 1.0 | | 36.33 | | | 209,261 | | | | |
| | Fuel Truck (Tandem Axle 20000 litres) | 1.0 | | 38.52 | | | 221,875 | | | | |
| 940 | Administration Costs | 9.60 | Month | | | | | 317,031 | | 97,920 | 414,951 |
| | | | | | | | | 33,024.02 | | 10,200.00 | 43,224.02 |
| | Drug Testing | 124.8 | EA | 100.00 | | | | 12,480 | | | |
| | Vehicle Licenses | 9.6 | Month | 100.00 | | | | 960 | | | |
| | Office Supplies | 9.6 | Month | 4,000.00 | | | | 38,400 | | | |
| | Engineering Supplies | 9.6 | Month | 2,500.00 | | | | 24,000 | | | |
| | Photographs | 9.6 | Month | 300.00 | | | | 2,880 | | | |
| | Donation and subscriptions | 9.6 | Month | 300.00 | | | | 2,880 | | | |
| | Permits | 2.4 | LS | 1,500.00 | | | | 3,600 | | | |
| | Staff Office Furniture (per person) | 9.6 | EA | 800.00 | | | | 7,680 | | | |
| | General Office Furniture | 7.2 | SET | 5,400.00 | | | | 38,880 | | | |
| | Laptop Computer | 7.2 | EA | 3,132.02 | | | | 22,551 | | | |
| | Office Printer | 2.4 | EA | 2,400.00 | | | | 5,760 | | | |
| | Office Software (per user) | 7.2 | EA | 900.00 | | | | 6,480 | | | |
| | Office PhotoCopy Machine | 2.4 | EA | 2,700.00 | | | | 6,480 | | | |
| | Small Tool Allowance | 96,000.0 | MH | 1.50 | | | | 144,000 | | | |
| | Office Cleaning Service | 9.6 | MO | 5,200.00 | | | | | | 49,920 | |
| | Toilet Compartments | 9.6 | MO | 5,000.00 | | | | | | 48,000 | |
| 945 | Office Shop Setup | 2.40 | LS | | 2,454 | 178,818 | 54,316 | 1,372,800 | | | 1,605,933 |
| | | | | | 1,022.64 | 74,507.34 | 22,631.56 | 572,000.00 | | | 669,138.90 |
| 10 | Fuel Storage Setup | 2.40 | LS | | 486 | 37,981 | 30,952 | | | | 68,933 |
| | | | | | 202.64 | 15,825.26 | 12,896.84 | | | | 28,722.10 |
| | Prod=2,690.98 SF/hour (21,527.82 SF/ day), 0.001MH/SF, 768.85 SF/MH, 89.19 hour (11.15 days) | | | | | | | | | | |
| | <i>Grade Yard</i> | 1.00 | EA | 448.38 | | | | | | | |
| | Foreman Roadwork | 0.5 | | 80.00 | | 3,567 | | | | | |
| | Grademan Roadwork | 1.0 | | 76.04 | | 6,782 | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 7,211 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 6,769 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 9,006 | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 5,120 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,534 | | | | |
| | Prod=77.16 TN/hour (617.29 TN/ day), 0.026MH/TN, 38.58 TN/MH, 87.09 hour (10.89 days) | | | | | | | | | | |
| | <i>Place Granular in Yard</i> | 1.00 | EA | 332.34 | | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 7,041 | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 6,610 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 8,794 | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 5,000 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,498 | | | | |
| 10 | Office Site Prep & Reclaim | 2.40 | LS | | 1,968 | 140,837 | 23,363 | 1,372,800 | | | 1,537,000 |
| | | | | | 820.00 | 58,682.08 | 9,734.72 | 572,000.00 | | | 640,416.80 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 5.000MH/HR, 0.20 HR/MH, 48.00 hour (4.80 days) | | | | | | | | | | |
| | <i>Install Electrical Services</i> | 1.00 | EA | 397.2 | | | | | | | |
| | Electrical Foreman | 1.0 | | 80.00 | | 3,840 | | | | | |
| | Electrician | 4.0 | | 75.00 | | 14,400 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 826 | | | | |
| | Prod=0.71 HRS/hour (7.14 HRS/ day), 7.000MH/HRS, 0.14 HRS/MH, 67.20 hour (6.72 days) | | | | | | | | | | |
| | <i>Install Water Services</i> | 1.00 | EA | 485.81 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 5,433 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 5,433 | | | | | |
| | Labourer | 3.0 | | 68.41 | | 13,791 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 6,273 | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | 560 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,156 | | | | |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 5.000MH/HRS, 0.20 HRS/MH, 48.00 hour (4.80 days) | | | | | | | | | | |
| | <i>Install Sanitary Services</i> | 1.00 | EA | 485.81 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 3,881 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 3,881 | | | | | |

Estimate Line Detail

Estimate: CONTRACT 1 - CAMP & AIRSTRIP CONSTRUCTION

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------|--|----------|-----|--------|--------|--------|-------|-----------|----------|----------|------------|
| | Labourer | 3.0 | | 68.41 | | 9,851 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 4,481 | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | 400 | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 826 | | | | |
| | Prod=1.08 HR/hour (8.61 HR/ day), 4.645MH/HR, 0.22 HR/MH, 230.40 hour (28.80 days) | | | | | | | | | | |
| | Setup Office Equipment | 1.00 | EA | 387.02 | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 17,280 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 63,047 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 3,963 | | | | |
| | 1 Ton Flat Bed Truck 4x4 | 1.0 | | 21.18 | | | 4,880 | | | | |
| | Office Complex Contractor | 5,280.0 | SF | 260.00 | | | | 1,372.800 | | | |

| | | | | | | | | | | | |
|------------|----------------------------------|-------------|-----------|------------|--|--|--|----------------|--|--|----------------|
| 955 | As-Builts/O&M Manuals | 2.40 | LS | | | | | 240,000 | | | 240,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| 10 | As-Builts/O&M Manuals | 2.40 | LS | | | | | 240,000 | | | 240,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| | As-Builts/O&M Manuals | 2.4 | LS | 100,000.00 | | | | 240,000 | | | |

SUSITNA-WATANA HYDROELECTRIC PROJECT
 CAMP & AIRSTRIP BUILDINGS CONTRACT
 RCC Dam 600 MW

Opinion of Probable Construction Costs

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | \$ | 178,400,154 | |
|--------------------|---|----------|-----------|--------------------------|-----------------------|--------------|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments | |
| 399 | General Plant | 1 | LS | | \$ 153,700,000 | | |
| ##### | Construction Facilities | 1 | LS | | \$ 153,700,000 | | |
| 399.110 | Construction Camp, inc removal | 1,500 | man | 40,000.00 | \$ 60,000,000 | | |
| 399.150 | Owner Camp & Permanent Village inc partial removal | 1 | LS | | \$ 45,000,000 | | |
| 399.180 | Railhead Camp inc. partial relocation | 1 | LS | | \$ 22,250,000 | | |
| 399.181 | 350 beds in single occupancy rooms with private bathing facilities. | 1 | LS | | \$ 22,000,000 | | |
| 399.182 | Move 250 Man Camp to Site & Setup | 1 | LS | 250,000.00 | \$ 250,000 | | |
| 399.190 | Airport Buildings | 1 | LS | | \$ 4,200,000 | | |
| | | | | Running Subtotal: | \$ 131,450,000 | | |
| | Mobilization/Field Oversight Expenses | | | | \$ - | | |
| 1 | Contractor General Conditions (Prime) | 1 | LS | | \$ - | | |
| | Unidentified Required Items | | | | \$ 10,516,000 | | |
| 1 | Unlisted Items Allowance | 8% | LS | | \$ 10,516,000 | | |
| | | | | Running Subtotal: | \$ 141,966,000 | | |
| | Markups | | | | \$ 20,215,958 | | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included | |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included | |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 12.0% | \$ 17,035,920 | | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 3,180,038 | | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included | |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included | |
| | | | | Running Subtotal: | \$ 162,181,958 | | |
| | Project Administration & Management | | | | \$ 16,218,196 | | |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included | |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included | |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included | |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 10% | \$ 16,218,196 | | |
| 5 | Construction Contingency/Management Reserve | 1 | LS | 0% | \$ - | not included | |
| | Grand Total: | | | | \$ 178,400,154 | | |

Cost Range: **\$142,720,123** - **\$223,000,193** Per AACE cost estimate guidelines
 -20% 25%

Notes:

- 1 This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- 2 Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- 3 Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- 4 Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC.

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

SUSITNA-WATANA HYDROELECTRIC PROJECT
MAIN CIVIL CONTRACT
RCC Dam 600 MW

Opinion of Probable Construction Costs

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | \$ 2,878,841,277 | |
|--------------------|---|----------|-----------|---------------|-------------------------|---|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
| 331 | Powerhouse | 1 | LS | | \$ 60,248,110 | |
| 311.100 | Aboveground Powerhouse | 1 | LS | | \$ 60,248,110 | |
| 331.110 | Powerhouse | 1 | LS | | \$ 60,248,110 | |
| 331.111 | Powerhouse - Common Excavation | 55,166 | CY | 6.56 | \$ 361,678 | |
| 331.111A | Powerhouse - Rock Excavation | 285,586 | CY | 22.35 | \$ 6,382,525 | |
| 331.112 | Concrete | 55,100 | CY | 736.07 | \$ 40,557,283 | |
| 331.113 | Metal Roof | 31,750 | SF | 55.58 | \$ 1,764,588 | |
| 331.114 | Insulated metal cladding | 30,100 | SF | 17.10 | \$ 514,853 | |
| 331.115 | Steel Superstructure | 504.9 | TNS | 3,450.55 | \$ 1,742,183 | |
| 331.116 | Metal Work | 1 | LS | 4,700,000.00 | \$ 4,700,000 | Allowance |
| 331.117 | Architectural | 1 | LS | 2,000,000.00 | \$ 2,000,000 | Allowance |
| 331.118 | SCADA | 1 | LS | 300,000.00 | \$ 300,000 | Allowance |
| 331.119 | Hardware | 1 | LS | 75,000.00 | \$ 75,000 | Allowance |
| 331.120 | Stairs & Handrail | 1 | LS | 200,000.00 | \$ 200,000 | Allowance |
| 331.121 | Care of Water | 1 | LS | 100,000.00 | \$ 100,000 | Allowance |
| 331.122 | Instrumentation | 1 | LS | 1,000,000.00 | \$ 1,000,000 | Allowance |
| 331.123 | Service Elevator | 1 | LS | 550,000.00 | \$ 550,000 | Allowance |
| 332 | Reservoirs, Dams & Waterways | 1 | LS | | \$ 1,149,737,356 | |
| 332.150 | Relict Channel | 1 | LS | | \$ 31,187,500 | |
| 332.151 | Relict channel remedial measures | 1 | LS | 31,187,500.00 | \$ 31,187,500 | Cutoff wall 311,875 sf |
| 332.200 | Diversion Tunnels | 1 | LS | | \$ 126,439,633 | |
| 332.210 | Sluice through RCC | 1 | LS | | \$ 18,213,790 | |
| 332.211 | Sluice 42 x 42 Forms 540 LF | 68,000 | SF | 16.30 | \$ 1,108,458 | Roof: 22,680 sf, walls: 22680 sf each. |
| 332.212 | Concrete - Inlet Portal | 2,800 | CY | 781.56 | \$ 2,188,375 | |
| 332.213 | Concrete - Sluice outlet channel | 0 | CY | 428.74 | \$ - | Channel no longer concreted upon plugging of the sluice |
| 332.214 | Sluice - grout plug | 37,000 | CY | 397.76 | \$ 14,716,957 | |
| 332.215 | Gate guides - temporary | 1 | LS | 200,000.00 | \$ 200,000 | Allowance |
| 332.220 | Diversion Tunnel | 1 | LS | | \$ 44,952,858 | |
| 332.221 | Initial rock excavation 39 ft diameter modified horseshoe us of basin 1221 LF | 47,897 | CY | 158.65 | \$ 7,599,500 | Finished 36ft wide by 36ft high |
| 332.222 | Initial rock excavation 39 ft diameter modified horseshoe ds of basin 321 LF | 15,375 | CY | 158.65 | \$ 2,439,244 | Finished 36ft wide by 41ft high |
| 332.223 | Initial rock Excavation 48 ft diameter modified horseshoe 490 LF | 27,750 | CY | 144.20 | \$ 4,001,615 | Finished 45ft wide by average 38.5ft high |
| 332.224 | Rock Excavation 39 ft - 48 ft diameter modified horseshoe transition 30 LF | 12,280 | CY | 151.82 | \$ 1,864,319 | |
| 332.225 | Concrete Lining 36 ft diameter modified horseshoe tunnel - 1 ft thick us of basin | 6,150 | CY | 1,039.48 | \$ 6,392,829 | |
| 332.226 | Concrete Lining 36 ft diameter modified horseshoe tunnel - 1 ft thick ds of basin | 1,750 | CY | 813.79 | \$ 1,424,133 | |
| 332.227 | Concrete Lining 45 ft diameter modified horseshoe tunnel - 1.5 ft thick | 6,407 | CY | 894.42 | \$ 5,730,549 | |
| 332.228 | Concrete Lining 36 - 45 ft diameter transition - 1.5 ft thick | 1,420 | CY | 813.79 | \$ 1,155,582 | |
| 332.229 | Concrete Plugs Gate Chambers for Low Level | 12,680 | CY | 339.32 | \$ 4,302,602 | |
| 332.230 | Secondary excavation for basin | 33,293 | CY | 151.82 | \$ 5,054,543 | |
| 332.231 | Shotcrete (4 inch thick) | 250,428 | SF | 8.93 | \$ 2,237,528 | |
| 332.232 | Dowels #8 12 ft | 1,815 | EA | 444.55 | \$ 806,849 | |
| 332.233 | Dowels #8 15 ft | 1,540 | EA | 539.82 | \$ 831,321 | |
| 332.234 | Dowels #8 18 ft | 1,230 | EA | 645.78 | \$ 794,312 | |
| 332.235 | Drains | 1,030 | EA | 78.96 | \$ 81,325 | |
| 332.236 | Tunnel Support Steel Ribs - 39 ft tunnel | 20 | EA | 6,358.00 | \$ 127,160 | |
| 332.237 | Tunnel Support Steel Ribs - 48 ft tunnel | 12 | EA | 9,158.12 | \$ 109,897 | |
| 332.240 | Access Tunnel to Diversion Tunnel 1200LF | | | | \$ 8,589,392 | |
| 332.241 | Access Tunnel Excavation 21 ft x 31.5 ft high Mod Horseshoe | 27,297 | CY | 211.83 | \$ 5,782,207 | |
| 332.242 | Access Tunnel Concrete Floor 1 ft thick | 933 | CY | 431.93 | \$ 402,988 | |
| 332.243 | Access Tunnel Rock Bolts #8 8ft | 3,120 | EA | 348.86 | \$ 1,088,451 | |
| 332.244 | Access Tunnel Shotcrete 6 inches Fibre Reinforced | 90,927 | SF | 13.95 | \$ 1,268,372 | |
| 332.245 | Drains | 600 | EA | 78.96 | \$ 47,374 | |
| 332.250 | Valve Chamber Upstream | | | | \$ 18,944,610 | |
| 332.251 | Upstream Valve Chamber - Excavation | 7,585 | CY | 155.29 | \$ 1,177,870 | |
| 332.252 | Upstream Valve Chamber - Concrete Slab & Infill | 675 | CY | 353.32 | \$ 238,493 | |
| 332.253 | Upstream Valve Chamber - Rockbolts. #8 18 ft. long in ceiling | 180 | EA | 824.50 | \$ 148,409 | |
| 332.254 | Upstream Valve Chamber - Rock dowels. #8 10 ft. long in walls | 250 | EA | 462.50 | \$ 115,624 | |
| 332.255 | Upstream Valve Chamber - Shotcrete 6inches | 14,000 | SF | 13.53 | \$ 189,379 | |
| 332.256 | Bridge Crane 50 TN Supports & Rail | 1 | LS | 800,000.00 | \$ 800,000 | Allowance |
| 332.257 | Bridge Crane 50 TN Strand Anchors | 12 | EA | 8,500.00 | \$ 102,000 | |
| 332.258 | Bonneted Guard Gates 7.5ft x 26 ft Cyl/HPU | 3 | EA | 2,000,000.00 | \$ 6,000,000 | |
| 332.259 | Bonneted Service Gates 7.5ft x 26 ft Cyl/HPU | 3 | EA | 2,000,000.00 | \$ 6,000,000 | t= 1in |
| 332.260 | Upstream Steel Liner 3 EA 7.5 FT x 26 FT 160 LF | 723 | TNS | 5,246.45 | \$ 3,793,183 | |
| 332.261 | Valve Chamber Upstream Sus Metal Roof | 5,000 | SF | 75.93 | \$ 379,650 | |
| 332.280 | Valve Chamber Air Supply | | | | \$ 4,094,388 | |
| 332.281 | Air Supply 8ft Dia Supported by hangers from crown of tunnel | 880 | LF | 1,494.60 | \$ 1,315,249 | t=.5in |
| 332.282 | Air Supply 8ft Dia In shaft, concrete encased | 275 | LF | 2,642.96 | \$ 726,814 | t=.5in |
| 332.283 | Air Supply 8ft Dia Attached to downstream face of dam | 280 | LF | 1,334.26 | \$ 373,593 | t=.5in |
| 332.284 | US Chamber Air Supply Rock Excavation 9ft Dia shaft 275 ft long | 695 | CY | 2,415.44 | \$ 1,678,732 | |
| 332.290 | Upstream & Downstream Portals | | | | \$ 31,644,595 | |
| 332.291 | Upstream Portal - Common Excavation | 21,738 | CY | 9.04 | \$ 196,474 | |
| 332.292 | Upstream Portal - Rock Excavation | 52,134 | CY | 13.51 | \$ 704,292 | |
| 332.293 | Temporary Cofferdam Fill for Upstream Portals | 17,300 | CY | 14.21 | \$ 245,890 | |
| 332.294 | Upstream Portal - Concrete | 4,600 | CY | 718.79 | \$ 3,306,447 | |
| 332.295 | Mass Concrete | 200 | CY | 368.03 | \$ 73,606 | |
| 332.296 | Upstream Portal - Mechanical Electrical | 1 | LS | 3,000,000.00 | \$ 3,000,000 | Allowance |
| 332.297 | Upstream Portal - Bulkhead Gate 2ea | 2 | EA | 9,000,000.00 | \$ 18,000,000 | Allowance |
| 332.298 | Upstream Portal - Trash racks | 2 | EA | 362,500.00 | \$ 725,000 | Allowance |
| 332.299 | Downstream Portal - Common Excavation | 3,293 | CY | 9.04 | \$ 29,763 | |
| 332.300 | Downstream Portal - Rock Excavation | 28,870 | CY | 13.51 | \$ 390,005 | |
| 332.301 | Downstream Portal - Concrete | 5,280 | CY | 718.79 | \$ 3,795,225 | |
| 332.302 | Downstream Portal - Bridge Deck Concrete | 125 | CY | 1,113.95 | \$ 139,244 | Deck Dimension span 36 ft x 27 ft |
| 332.303 | Downstream Portal - Flip Bucket Concrete | 1,690 | CY | 507.08 | \$ 856,970 | |
| 332.306 | Granular Backfill | 4,500 | CY | 40.37 | \$ 181,679 | |
| 332.350 | Upstream Cofferdam | 1 | LS | | \$ 15,499,306 | |
| 332.351 | Common Excavation | 45,200 | CY | 6.77 | \$ 305,960 | |

| Grand Total Price: | | | | | \$ 2,878,841,277 | | |
|--------------------|---|------------|-----------|---------------|-----------------------|--|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments | |
| 332.352 | Rock Excavation | 6,100 | CY | 22.35 | \$ 136,335 | | |
| 332.353 | Impervious Fill | 35,400 | CY | 9.30 | \$ 329,388 | | |
| 332.354 | Rock & Gravel Fill | 533,000 | CY | 25.10 | \$ 13,380,098 | | |
| 332.355 | Filters | 12,500 | CY | 25.77 | \$ 322,125 | | |
| 332.356 | Cut Off Wall Up Stream 605LF | 36,700 | SF | 12.00 | \$ 440,400 | | |
| 332.357 | Care of Water | 1 | LS | 585,000.00 | \$ 585,000 | Allowance | |
| 332.400 | Downstream Cofferdam | 1 | LS | | \$ 2,393,695 | | |
| 332.401 | Common Excavation | 16,900 | CY | 6.77 | \$ 114,397 | | |
| 332.402 | Impervious Fill | 5,700 | CY | 9.30 | \$ 53,037 | | |
| 332.403 | Rock & Gravel Fill | 54,800 | CY | 25.10 | \$ 1,375,665 | | |
| 332.404 | Filters | 3,500 | CY | 25.10 | \$ 87,862 | | |
| 332.405 | Cut Off Wall 450 LF | 18,400 | SF | 12.00 | \$ 220,800 | | |
| 332.406 | Removal of Cofferdam | 64,000 | CY | 8.47 | \$ 541,935 | | |
| 332.445 | Main Dam | 1 | LS | | \$ 567,348,658 | | |
| 332.450 | Main Dam Civil | | | | \$ 565,062,031 | | |
| 332.451 | Erosion & Sediment Controls All Site | 1 | LS | 10,000,000.00 | \$ 10,000,000 | Allowance | |
| 332.452 | Grubbing all Site | 469 | AC | 3,262.97 | \$ 1,530,331 | | |
| 332.453 | Common Excavation | 658,200 | CY | 7.23 | \$ 4,761,694 | | |
| 332.454 | Rock Excavation | 642,000 | CY | 9.53 | \$ 6,117,187 | | |
| 332.455 | Foundation Preparation | 101,937 | SY | 24.40 | \$ 2,486,938 | | |
| 332.456 | Dam Dental Concrete | 25,000 | CY | 184.14 | \$ 4,603,409 | | |
| 332.457 | Earthwork for Crushing and RCC Batch Plant | 502,000 | CY | 6.50 | \$ 3,265,485 | 48,000 Embankment | |
| 332.458 | Quarry Overburden Removal | 482,694 | CY | 6.56 | \$ 3,164,630 | | |
| 332.459 | Excavate & Produce and Stockpile Aggregates | 12,359,550 | TN | 11.11 | \$ 137,314,601 | RCC aggregates | |
| 332.460 | Cement for RCC | 325,950 | TN | 191.14 | \$ 62,303,625 | 125lb/cy | |
| 332.461 | Pozzolan for RCC | 521,500 | TN | 168.00 | \$ 87,612,000 | 200lb/cy | |
| 332.462 | Retarding Admixture for RCC | 521,500 | GAL | 6.00 | \$ 3,129,000 | .1 gal /cy | |
| 332.463 | Mix, Convey and Place RCC 29 months | 5,215,000 | CY | 18.70 | \$ 97,520,500 | 340 cy/hr, 203,000 Month | |
| 332.464 | Bedding Mix | 22,500 | CY | 121.72 | \$ 2,738,679 | Assumes 0.5in thick layer every 10 ft elevation increment | |
| 332.465 | Upstream Forming & 2 ft Concrete Facing | 737,600 | SF | 98.97 | \$ 72,997,468 | Vertical: 488,000 sf, Sloping (0.1H:1V) 249,600 sf. | |
| 332.466 | Downstream Forming & Internal Forming gallery 90570sf, stairwell 336 | 1,165,000 | SF | 30.80 | \$ 35,887,273 | | |
| 332.467 | Consolidation Drill & Grouting Left Abutment Ice Filled Joints | 25,100 | LF | 90.00 | \$ 2,259,000 | | |
| 332.467A | Consolidation Drill & Grouting Center and Right | 55,227 | LF | 66.00 | \$ 3,644,982 | | |
| 332.468 | Drain Holes 60 deep | 40,130 | LF | 8.14 | \$ 326,484 | | |
| 332.469 | Curtain Drill & Grout 700 Holes | 92,300 | LF | 80.00 | \$ 7,384,000 | | |
| 332.470 | Vertical construction joints - including shear keys and grouting provisions | 164,200 | SF | 56.59 | \$ 9,291,651 | Assumes joints at change in radius | |
| 332.471 | Crest road - Upstream parapet wall - reinforced concrete. 2810 ft | 490 | CY | 1,412.44 | \$ 692,096 | | |
| 332.472 | Crest road - Downstream guard rail | 2,810 | LF | 100.00 | \$ 281,000 | | |
| 332.473 | Ancillaries - Security cameras and lighting | 1 | LS | 250,000.00 | \$ 250,000 | Allowance | |
| 332.474 | Dam Instrumentation | 1 | LS | 5,500,000.00 | \$ 5,500,000 | Allowance | |
| 332.490 | Main Dam Drainage Provisions | | | | \$ 2,286,627 | | |
| 332.491 | Gallery Sump stations-grating | 400 | SF | 200.00 | \$ 80,000 | | |
| 332.492 | Gallery sump-115 HP, 120' | 3 | EA | 55,000.00 | \$ 165,000 | | |
| 332.493 | Gallery sump-115 HP, 120' --spares | 1 | EA | 45,000.00 | \$ 45,000 | | |
| 332.494 | Gallery sump-piping, valves | 1 | LS | 30,000.00 | \$ 30,000 | | |
| 332.495 | Gallery sump-electrical system, lighting, level sensor | 1 | LS | 1,750,000.00 | \$ 1,750,000 | Allowance | |
| 332.496 | Gallery Drainage 12in Discharge Pipes | 1,800 | LF | 120.35 | \$ 216,627 | | |
| 332.500 | Grout Galleries & Portals | 1 | LS | | \$ 16,871,027 | | |
| 332.510 | Grout Galleries & Portals | | | | \$ 8,301,450 | | |
| 332.511 | Horizontal Gallery 10 ft x 10 ft Precast Segments including d/s access | 9,060 | LF | 729.68 | \$ 6,610,874 | | |
| 332.512 | Tunnel Gallery in abutments 10 ft x 10 ft | 2,075 | LF | 573.38 | \$ 1,189,756 | | |
| 332.513 | Common Excavation - Portal | 3,600 | CY | 10.66 | \$ 38,377 | | |
| 332.514 | Rock Excavation - Portals | 1,000 | CY | 50.94 | \$ 50,938 | | |
| 332.515 | Concrete - Tunnel Floor Slabs | 700 | CY | 424.67 | \$ 297,269 | | |
| 332.516 | Concrete - Portal | 20 | CY | 901.79 | \$ 18,036 | | |
| 332.517 | Portal Doors | 2 | EA | 48,100.00 | \$ 96,200 | | |
| 332.520 | Access Tunnel to Powerhouse 830 LF | | | | \$ 8,569,577 | | |
| 332.521 | Access Tunnel Excavation - 36 ft wide modified horseshoe | 36,118 | CY | 174.86 | \$ 6,315,503 | | |
| 332.522 | Access Tunnel Concrete Floor - 1 ft thick | 1,107 | CY | 438.65 | \$ 485,590 | | |
| 332.523 | Access Tunnel Rock Bolts #8 12 ft | 1,522 | EA | 444.55 | \$ 676,598 | 5 ft x 5 ft pattern | |
| 332.524 | Access Tunnel Shotcrete 6 inches Fibre Reinforced | 78,297 | SF | 13.53 | \$ 1,059,120 | | |
| 332.525 | Drains | 415 | EA | 78.96 | \$ 32,767 | | |
| 332.550 | Low Level Outlet Facilities | 1 | LS | | \$ 60,991,707 | | |
| 332.551 | Excavation twin pipes beneath spillway | 8,500 | CY | 27.56 | \$ 234,300 | | |
| 332.552 | Rock Excavation - Manifold Open Cut | 15,600 | CY | 25.62 | \$ 399,656 | | |
| 332.553 | Steel pipe Low Level Outlets 2 pipe 900 lf Each 23 ft dia T=1.75in | 4,700 | TNS | 7,026.08 | \$ 33,022,576 | t=1.75 | |
| 332.555 | Steel Pipe Low Level Outlet 8 ea. 8ft Dia Total length 700 ft T= 1 inch | 363.0 | TNS | 5,765.21 | \$ 2,092,771 | t=1 | |
| 332.557 | LLO Pipe Concrete Encasement (23-ft dia pipe) | 22,795 | CY | 405.46 | \$ 9,242,404 | 65lb/cy Rebar see to sheet for forms | |
| 332.561 | Mechanical Outlet | 1 | LS | 16,000,000.00 | \$ 16,000,000 | | |
| 332.600 | Main Spillway Inc Civil Works for Outlet Facilities | 1 | LS | | \$ 2,439,266 | | |
| 332.601 | Common Excavation Chute, Bucket, & Outfall | 282,233 | CY | 8.22 | \$ 2,320,350 | | |
| 332.602 | Rock Excavation Chute, Flip Bucket, & Outfall | 10,000 | CY | 11.89 | \$ 118,915 | | |
| 332.650 | Drill & Grout Consolidation Spillway | 1 | LS | | \$ 776,000 | | |
| 332.651 | Drill & Grout Consolidation | 9,700 | LF | 80.00 | \$ 776,000 | | |
| 332.675 | Spillway | 1 | LS | | \$ 111,698,926 | | |
| 332.700 | Spillway Concrete | | | | \$ 101,968,926 | | |
| 332.701 | Piers | 44,444 | CY | 771.80 | \$ 34,301,935 | 5 piers | |
| 332.702 | Deck | 1,000 | CY | 835.89 | \$ 835,887 | | |
| 332.703 | Guide Walls | 9,669 | CY | 857.51 | \$ 8,291,231 | | |
| 332.704 | Slab | 27,672 | CY | 908.83 | \$ 25,149,144 | | |
| 332.705 | Ogee | 17,920 | CY | 716.78 | \$ 12,844,780 | | |
| 332.706 | Flip Bucket & Outlet Discharge Structure | 25,350 | CY | 644.74 | \$ 16,344,073 | | |
| 332.707 | Drain Gallery & Aeration Gallery Concrete | 2,330 | CY | 811.74 | \$ 1,891,354 | | |
| 332.708 | Rockbolts 10 ft | 7,300 | EA | 270.58 | \$ 1,975,216 | | |
| 332.709 | Drain Pipe to Drainage Gallery | 6,300 | LF | 36.24 | \$ 228,309 | 9in PVC, Exc in Rock 1170cy, 9700 sf Geotex, Drain Rock 1100cy | |
| 332.710 | Gate Control Building | 66 | CY | 1,621.19 | \$ 106,998 | | |
| 332.720 | Spillway Mechanical & Electrical | | | | \$ 9,730,000 | | |
| 332.721 | Tainter Gates | 4 | EA | 1,450,000.00 | \$ 5,800,000 | Allowance | |
| 332.722 | Gantry Crane | 1 | EA | 1,400,000.00 | \$ 1,400,000 | Allowance | |
| 332.723 | Bulkhead | 1 | EA | 1,930,000.00 | \$ 1,930,000 | Allowance | |
| 332.724 | Lighting and Security Cameras | 1 | LS | 250,000.00 | \$ 250,000 | Allowance | |
| 332.725 | Standby Generator 500KW | 1 | EA | 200,000.00 | \$ 200,000 | Allowance | |
| 332.726 | Stoplog storage facility | 1 | LS | 150,000.00 | \$ 150,000 | Allowance | |
| 332.750 | Power Intakes & Low Level Outlet Inlet | 1 | LS | | \$ 164,972,011 | | |

| Grand Total Price: | | | | | \$ 2,878,841,277 | |
|--------------------|--|----------|-----------|------------------|-----------------------|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
| 332.760 | Power Intakes concrete | | | | \$ 127,559,719 | |
| 332.762 | Walls - Concrete | 77,556 | CY | 1,047.39 | \$ 81,231,738 | |
| 332.763 | Center Pier in Water Passage Concrete | 1,005 | CY | 1,127.27 | \$ 1,132,911 | |
| 332.764 | Base Slab Concrete | 4,729 | CY | 1,589.25 | \$ 7,515,553 | |
| 332.765 | Beams - Concrete | 1,564 | CY | 948.10 | \$ 1,482,825 | |
| 332.766 | Roof Concrete | 3,111 | CY | 418.19 | \$ 1,301,001 | |
| 332.767 | Dam crest | 6,000 | CY | 638.22 | \$ 3,829,290 | |
| 332.768 | Intake Mechanical Electrical | 1 | LS | 530,000.00 | \$ 530,000 | Allowance |
| 332.769 | Gantry Crane | 1 | EA | 1,400,000.00 | \$ 1,400,000 | Allowance |
| 332.770 | Intake Gate 6 ea | 6 | EA | 805,000.00 | \$ 4,830,000 | Allowance |
| 332.771 | Bulkhead Gate 8 ea | 8 | EA | 587,500.00 | \$ 4,700,000 | Allowance |
| 332.772 | Trash rack 48 ea | 48 | EA | 310,000.00 | \$ 14,880,000 | Allowance |
| 332.773 | Steel Shutters 30 ea | 211 | TN | 22,400.00 | \$ 4,728,400 | Each shutter is 25ft H x 22 ft W. Total weight 211 TN |
| 332.780 | Low Level Outlet intake | | | | \$ 37,412,293 | |
| 332.782 | Walls - Concrete | 15,396 | CY | 844.08 | \$ 12,995,409 | |
| 332.783 | Center Pier Concrete | 3,823 | CY | 697.36 | \$ 2,665,991 | |
| 332.784 | Base - Concrete | 1,990 | CY | 634.74 | \$ 1,263,135 | |
| 332.785 | Trash rack columns - Concrete | 244 | CY | 1,138.58 | \$ 277,814 | |
| 332.786 | Corbel beneath Intakes | 2,267 | CY | 533.72 | \$ 1,209,943 | |
| 332.787 | Intake Mechanical Electrical | 1 | LS | 800,000.00 | \$ 800,000 | Allowance |
| 332.788 | Intake Gate 2 ea 21 ft x 23 ft | 1 | LS | 4,500,000.00 | \$ 4,500,000 | Allowance |
| 332.789 | Bulkhead Gate 2 ea 21 ft x 23 ft | 1 | LS | 1,900,000.00 | \$ 1,900,000 | Allowance |
| 332.790 | Trashracks 2 ea 32 ft x 38 ft | 1 | LS | 11,800,000.00 | \$ 11,800,000 | Allowance |
| 332.800 | Penstocks | 1 | LS | | \$ 49,119,626 | |
| 332.801 | Steel liner in dam - horizontal. 19 ft ID. 480 LF | 514 | TNS | 7,536.21 | \$ 3,873,612 | t=0.875 in; 4 each 120 ft long |
| 332.802 | Steel liner - inclined on dam face. 19 ft ID 1380 LF | 1,796 | TNS | 7,829.39 | \$ 14,061,584 | 3 ea 460 ft long; 230 ft @t=0.875 in; 230 ft @ t=1.25 in |
| 332.803 | Steel liner below EL 1475 - horizontal. 19 ft ID. 330 LF | 658 | TNS | 8,240.00 | \$ 5,421,920 | t=1.625; 3 each 110 ft long |
| 332.804 | Concrete surround to penstock on downstream face of dam | 14,700 | CY | 511.40 | \$ 7,517,636 | 65lb/cy Rebar |
| 332.805 | Concrete surround to penstock in dam - horizontal | 6,000 | CY | 511.40 | \$ 3,068,423 | mass concrete |
| 332.806 | Concrete surround to penstocks at downstream toe of dam - horizontal | 15,300 | CY | 511.40 | \$ 7,824,479 | mass concrete |
| 332.807 | Forms to RCC for horizontal penstock in dam. 480 LF | 19,700 | SF | 60.71 | \$ 1,195,947 | mass concrete |
| 332.808 | Forms to RCC for horizontal penstock below EL 1475. 330 LF | 44,200 | SF | 60.71 | \$ 2,683,346 | |
| 332.809 | Forms to penstock concrete surround on downstream face of dam. 1380 | 57,200 | SF | 60.71 | \$ 3,472,679 | |
| 333 | Waterwheels, Turbine, Generator | | | | \$ 22,152,875 | |
| 333.100 | Hydromechanical Equipment | | | | \$ 8,843,404 | |
| 333.101 | Installation and Testing | 13% | A | \$ 68,026,183.94 | \$ 8,843,404 | Includes 333.100 Items in T & G Supply Contract |
| 333.120 | Generator | | | | \$ 13,309,471 | |
| 333.121 | Installation and Testing | 18% | A | \$ 73,941,504.28 | \$ 13,309,471 | Includes 333.120 Items in T & G Supply Contract |
| 334 | Accessory Electrical Equipment | 1 | LS | | \$ 53,747,371 | |
| 334.100 | Essential Electrical Systems | | | | \$ 19,072,500 | |
| 334.110 | Station Service | | | | \$ 2,850,000 | |
| 334.111 | Main Station Service Transformers | 2.00 | EA | \$ 300,000.00 | \$ 600,000 | |
| 334.112 | 3.3 kV Station Service Switchgear | 2.00 | EA | \$ 250,000.00 | \$ 500,000 | |
| 334.113 | 400 V Station Service Substations | 6.00 | EA | \$ 125,000.00 | \$ 750,000 | |
| 334.114 | Motor Control Centers and Power Distribution Swbds. | 1.00 | LS | \$ 1,000,000.00 | \$ 1,000,000 | |
| 334.120 | Essential AC and DC Distribution Systems | | | | \$ 1,100,000 | |
| 334.121 | Batteries and Battery Charger Systems | 2.00 | EA | \$ 250,000.00 | \$ 500,000 | |
| 334.122 | Uninterruptible Power Supply Systems | 2.00 | EA | \$ 300,000.00 | \$ 600,000 | |
| 334.130 | Protection and Controls | | | | \$ 9,700,000 | |
| 334.131 | Protective Relay Panels (LPPs) | 4.00 | EA | \$ 300,000.00 | \$ 1,200,000 | |
| 334.132 | Plant Control System | 1.00 | LS | \$ 8,500,000.00 | \$ 8,500,000 | |
| 334.140 | Preliminary and General Costs | | | | \$ 5,422,500 | |
| 334.141 | G&A on Procured Items | 12% | | \$ 13,650,000.00 | \$ 1,638,000 | |
| 334.142 | Installation of Essential Electrical Systems | 15% | | \$ 25,230,000.00 | \$ 3,784,500 | Includes 334.100 Items in T & G Supply Contract |
| 334.200 | Transformer | | | | \$ 3,900,000 | |
| 334.220 | Preliminary and general costs | | | | \$ 3,900,000 | |
| 334.222 | Installation of Transformers& HV interconnect | 25% | % | \$ 15,600,000.00 | \$ 3,900,000 | |
| 334.300 | Lighting, Security, Fire, Comms, Cable Systems | | | | \$ 7,788,000 | |
| 334.310 | Lighting, Security, Fire, Comms, Cable Systems | | | | \$ 5,900,000 | |
| 334.311 | Earthing System | 1 | LS | \$ 500,000.00 | \$ 500,000 | |
| 334.312 | Lighting System | 1 | LS | \$ 450,000.00 | \$ 450,000 | |
| 334.313 | Security Surveillance System | 1 | LS | \$ 250,000.00 | \$ 250,000 | |
| 334.314 | Communications System | 1 | LS | \$ 400,000.00 | \$ 400,000 | |
| 334.315 | Fire Detection System | 1 | LS | \$ 300,000.00 | \$ 300,000 | |
| 334.316 | Cable Systems | 1 | LS | \$ 2,000,000.00 | \$ 2,000,000 | |
| 334.317 | Raceway and Enclosures | 1 | LS | \$ 2,000,000.00 | \$ 2,000,000 | |
| 334.320 | Preliminary and general costs | | | | \$ 1,888,000 | |
| 334.321 | G&A on Procured Items | 12% | % | \$ 5,900,000.00 | \$ 708,000 | |
| 334.322 | Installation of Essential Electrical Systems | 20% | % | \$ 5,900,000.00 | \$ 1,180,000 | |
| 334.400 | Electrical Spares | | | | \$ 7,307,500 | |
| 334.401 | Disconnecting Switches | 1 | LS | \$ 175,000.00 | \$ 175,000 | |
| 334.402 | Unit Circuit Breakers | 1 | LS | \$ 750,000.00 | \$ 750,000 | |
| 334.403 | Batteries and Battery Charger Systems | 1 | LS | \$ 25,000.00 | \$ 25,000 | |
| 334.404 | Uninterruptible Power Supply Systems | 1 | LS | \$ 30,000.00 | \$ 30,000 | |
| 334.405 | Protective Relay Panels (LPPs) | 1 | LS | \$ 37,500.00 | \$ 37,500 | |
| 334.406 | Plant Control System | 1 | LS | \$ 750,000.00 | \$ 750,000 | |
| 334.407 | GTU Air Cooled 3 Phase | 1 | LS | \$ 5,200,000.00 | \$ 5,200,000 | |
| 334.408 | Lighting System | 1 | LS | \$ 45,000.00 | \$ 45,000 | |
| 334.409 | Security Surveillance System | 1 | LS | \$ 25,000.00 | \$ 25,000 | |
| 334.410 | Communications System | 1 | LS | \$ 40,000.00 | \$ 40,000 | |
| 334.411 | Fire Detection System | 1 | LS | \$ 30,000.00 | \$ 30,000 | |
| 334.412 | Misc not identified | 1 | LS | \$ 200,000.00 | \$ 200,000 | |
| 334.500 | Ancillary | | | | \$ 1,250,000 | |
| 334.501 | Station Control Equipment, Software, Tailwater monitor, SCADA Links | 1 | LS | 1,250,000.00 | \$ 1,250,000 | Includes engineering, shipping, installation |
| 334.600 | High Voltage Interconnect | | | | \$ 472,800 | |
| 334.610 | HV Cables | | | | \$ 394,000 | |
| 334.611 | 230 kV HV Cable | 600 | 3-ph ft | 300.00 | \$ 180,000 | |
| 334.612 | Terminations | 6 | EA | 3,000.00 | \$ 18,000 | |
| 334.613 | Control/Communication Cable to Switchyard | 8,000 | FT | 20.00 | \$ 160,000 | |
| 334.614 | Misc incl Hardware | 1 | LS | 36,000.00 | \$ 36,000 | |
| 334.620 | Preliminary and General Costs | | | | \$ 78,800 | |
| 334.621 | G&A on Procured Items | 10% | | 394,000.00 | \$ 39,400 | |

| Grand Total Price: | | | | | \$ 2,878,841,277 | |
|--------------------|--|----------|-----------|-----------------|----------------------|-------------------------------------|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
| 334.622 | Installation of HV interconnect | 10% | | 394,000.00 | \$ 39,400 | |
| 334.700 | Switchyard | 1 | LS | | \$ 11,014,571 | |
| 334.710 | Switchyard Civil | 1 | LS | | \$ 392,531 | |
| 334.711 | Switchyard - Bulk Earthworks | 37,300 | CY | \$ 9.76 | \$ 364,048 | |
| 334.712 | Switchyard - other Civil works | 1 | LS | \$ 28,483.46 | \$ 28,483 | Fence 720, conc 500cy, 250cy gravel |
| 334.720 | Switchyard Equipment | | | | \$ 8,047,000 | |
| 334.721 | SF6, 230 kV Breakers | 6 | EA | 400,000.00 | \$ 2,400,000 | |
| 334.722 | 230 kV manual Disconnects | 12 | EA | 50,000.00 | \$ 600,000 | |
| 334.723 | motor operated 230kV Disconnects | 2 | EA | 75,000.00 | \$ 150,000 | |
| 334.724 | Surge Arrestors | 4 | EA | 8,000.00 | \$ 32,000 | |
| 334.725 | PTs | 4 | EA | 10,000.00 | \$ 40,000 | |
| 334.726 | Accessories, bus work, | 1 | LS | 200,000.00 | \$ 200,000 | |
| 334.727 | Grounding Grid | 1 | LS | 75,000.00 | \$ 75,000 | |
| 334.728 | Controls and instrumentaion incl enclosure w HVAC | 1 | LS | 400,000.00 | \$ 400,000 | |
| 334.729 | Steel Structures | 1 | LS | 1,000,000.00 | \$ 1,000,000 | |
| 334.730 | Control Building with HVAC etc.. | 1 | LS | 150,000.00 | \$ 150,000 | |
| 334.731 | Allocation for addition cost for COLD region | 1 | LS | 3,000,000.00 | \$ 3,000,000 | |
| 334.730 | Preliminary and General Costs on Switchyard Equipment | | | | \$ 2,575,040 | |
| 334.731 | G&A on Procured Items | 12% | | \$ 8,047,000.00 | \$ 965,640 | |
| 334.732 | Installation of Switchyard | 20% | | \$ 8,047,000.00 | \$ 1,609,400 | |
| 334.800 | On Site Power Distribution | | | | \$ 2,942,000 | |
| 334.810 | Dam | | | | \$ 1,785,000 | |
| 334.811 | Cable and Poles from Switchyard to Dam | 5 | km | 200,000.00 | \$ 1,000,000 | |
| 334.812 | Transformers | 1 | LS | 150,000.00 | \$ 150,000 | |
| 334.813 | Diesel generator | 1 | LS | 150,000.00 | \$ 150,000 | |
| 334.814 | Communication Cable | 5 | km | 25,000.00 | \$ 125,000 | |
| 334.815 | Radio Communicaitons Systems | 1 | LS | 250,000.00 | \$ 250,000 | |
| 334.816 | Transformers at Dam | 1 | LS | 100,000.00 | \$ 100,000 | |
| 334.817 | Auto Switching | 1 | LS | 10,000.00 | \$ 10,000 | |
| 334.820 | Other Miscellaneous Locations | | | | \$ 800,000 | |
| 334.821 | Other Misc Locations | 1 | LS | \$ 800,000 | \$ 800,000 | |
| 334.830 | Preliminary and General Costs | | | | \$ 357,000 | |
| 334.831 | G&A on Procured Items | 5% | % | \$ 1,785,000.00 | \$ 89,250 | |
| 334.832 | Installation | 10% | % | \$ 2,677,500.00 | \$ 267,750 | |
| 335 | Miscellaneous Power Plant Equipment | 1 | LS | | \$ 28,531,700 | |
| 335.100 | Main and Auxiliary Cranes | | | | \$ 9,832,500 | |
| 335.101 | 600T (metric) Main crane, span 23m, lifting height 25m | 1 | EA | \$ 8,000,000.00 | \$ 8,000,000 | |
| 335.102 | Auxiliary powerhouse crane 20t, span 23m lifting height 43m | 1 | EA | \$ 500,000.00 | \$ 500,000 | |
| 335.103 | 10t Machine shop crane in , span 12m, lifting height 8m | 1 | EA | \$ 50,000.00 | \$ 50,000 | |
| 335.104 | Crane Installation | 15% | | \$ 8,550,000.00 | \$ 1,282,500 | |
| 335.200 | Essential Mechanical Services | | | | \$ 10,259,800 | |
| 335.210 | Dewatering and seepage pumps | | | | \$ 1,525,000 | |
| 335.211 | Dewatering and seepage pumps | 6.00 | EA | \$ 40,000.00 | \$ 240,000 | |
| 335.212 | Piping and Valves Dewatering | 3.00 | EA | \$ 400,000.00 | \$ 1,200,000 | |
| 335.213 | Electrical Dewatering | 1.00 | LS | \$ 85,000.00 | \$ 85,000 | |
| 335.220 | Cooling water systems (pumped from tailrace) | | | | \$ 1,405,000 | |
| 335.221 | Pumps VFDs Cooling Water | 3.00 | EA | \$ 30,000.00 | \$ 90,000 | |
| 335.222 | Strainers self cleaning | 3.00 | EA | \$ 10,000.00 | \$ 30,000 | |
| 335.223 | Piping and valves Cooling Water | 3.00 | EA | \$ 400,000.00 | \$ 1,200,000 | |
| 335.224 | Electrical Cooling Water | 1.00 | LS | \$ 85,000.00 | \$ 85,000 | |
| 335.230 | Compressed air system | | | | \$ 380,000 | |
| 335.231 | Air Compressors | 2.00 | EA | \$ 60,000.00 | \$ 120,000 | |
| 335.232 | Piping and valves Compressed Air | 1.00 | LS | \$ 240,000.00 | \$ 240,000 | |
| 335.233 | Electrical Compressed Air | 1.00 | LS | \$ 20,000.00 | \$ 20,000 | |
| 335.240 | Fire protection system | | | | \$ 1,170,000 | |
| 335.241 | Clean agent gas | 1.00 | LS | \$ 80,000.00 | \$ 80,000 | |
| 335.242 | Portable extinguishers | 1.00 | LS | \$ 15,000.00 | \$ 15,000 | |
| 335.243 | Hose reels and hydrant | 1.00 | LS | \$ 25,000.00 | \$ 25,000 | |
| 335.244 | Fire deluge system | 3.00 | EA | \$ 150,000.00 | \$ 450,000 | |
| 335.245 | Piping and plumbing Fire Protection | 3.00 | EA | \$ 200,000.00 | \$ 600,000 | |
| 335.250 | Diesel generators | | | | \$ 1,035,000 | |
| 335.251 | 600 kV generators | 2.00 | EA | \$ 450,000.00 | \$ 900,000 | |
| 335.252 | Electrical Diesel Generators | 1.00 | LS | \$ 135,000.00 | \$ 135,000 | |
| 335.260 | Oil storage and purification system | | | | \$ 450,000 | |
| 335.261 | Oil storage and purification system | 1.00 | LS | \$ 450,000.00 | \$ 450,000 | |
| 335.270 | Preliminary and general costs | | | | \$ 4,294,800 | |
| 335.271 | G&A on procured items Essential Mechanical Systems | 12% | % | \$ 5,965,000.00 | \$ 715,800 | |
| 335.272 | Installation of Essential Mechanical Systems | 60% | % | \$ 5,965,000.00 | \$ 3,579,000 | |
| 335.300 | Station Mechanical Services | | | | \$ 4,286,400 | |
| 335.310 | Air ventilation system | | | | \$ 880,000 | |
| 335.311 | Fans | 1.00 | LS | \$ 350,000.00 | \$ 350,000 | |
| 335.312 | Ducting | 1.00 | LS | \$ 300,000.00 | \$ 300,000 | |
| 335.313 | Diffusers | 1.00 | LS | \$ 80,000.00 | \$ 80,000 | |
| 335.314 | Electrical Air Ventilation | 1.00 | LS | \$ 150,000.00 | \$ 150,000 | |
| 335.320 | Heating Systems | | | | \$ 950,000 | |
| 335.321 | Boilers | 2.00 | EA | \$ 150,000.00 | \$ 300,000 | |
| 335.322 | Heating System PumpsPumps | 1.00 | LS | \$ 100,000.00 | \$ 100,000 | |
| 335.323 | Heating System Piping & Valves | 1.00 | LS | \$ 300,000.00 | \$ 300,000 | |
| 335.324 | Electrical Heating System | 1.00 | LS | \$ 250,000.00 | \$ 250,000 | |
| 335.330 | Air Handling Units | | | | \$ 670,000 | |
| 335.331 | Air Handling Units Above Ground | 4.00 | EA | \$ 30,000.00 | \$ 120,000 | |
| 335.332 | Air Ducts | 1.00 | LS | \$ 200,000.00 | \$ 200,000 | |
| 335.333 | Diffusers | 1.00 | LS | \$ 200,000.00 | \$ 200,000 | |
| 335.334 | Electrical Air Handling | 1.00 | LS | \$ 150,000.00 | \$ 150,000 | |
| 335.340 | Potable water system | | | | \$ 160,000 | |
| 335.341 | Potable water system Pumps | 1.00 | LS | \$ 70,000.00 | \$ 70,000 | |
| 335.342 | Piping & Valves Potable Water | 1.00 | LS | \$ 50,000.00 | \$ 50,000 | |
| 335.343 | Electrical Potable Water System | 1.00 | LS | \$ 40,000.00 | \$ 40,000 | |
| 335.350 | Sanitary Sewer Ejection system | | | | \$ 160,000 | |
| 335.351 | Sanitary Sewer Ejection system Pumps | 1.00 | LS | \$ 70,000.00 | \$ 70,000 | |
| 335.352 | Piping & Valves Sewer System | 1.00 | LS | \$ 50,000.00 | \$ 50,000 | |
| 335.353 | Electrical Sewer System | 1.00 | LS | \$ 40,000.00 | \$ 40,000 | |
| 335.360 | Preliminary and General Costs | | | | \$ 1,466,400 | |
| 335.361 | G&A on Procured Items | 12% | | \$ 2,820,000.00 | \$ 338,400 | |

| Grand Total Price: | | | | | \$ 2,878,841,277 | |
|--------------------|--|-----------|-----------|--------------------------|-------------------------|---|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
| 335.362 | Installation of Station Mechanical | 40% | | \$ 2,820,000.00 | \$ 1,128,000 | |
| 335.400 | Mechanical Spare Parts | | | | \$ 253,000 | |
| 335.401 | Dewatering and seepage pumps including piping & valves | 1.00 | LS | \$ 30,000.00 | \$ 30,000 | |
| 335.402 | Compressed air system Spare Parts | 1.00 | LS | \$ 2,000.00 | \$ 2,000 | |
| 335.403 | Fire protection system Spare Parts | 1.00 | LS | \$ 10,000.00 | \$ 10,000 | |
| 335.404 | Diesel Generators Spare Parts | 1.00 | LS | \$ 45,000.00 | \$ 45,000 | |
| 335.405 | Oil storage and purification system | 1.00 | LS | \$ 45,000.00 | \$ 45,000 | |
| 335.406 | Air ventilation system | 1.00 | LS | \$ 42,000.00 | \$ 42,000 | |
| 335.407 | Chilled water system | 1.00 | LS | \$ 35,000.00 | \$ 35,000 | |
| 335.408 | Air Handling Units | 1.00 | LS | \$ 30,000.00 | \$ 30,000 | |
| 335.409 | Potable water system | 1.00 | LS | \$ 7,000.00 | \$ 7,000 | |
| 335.410 | Sanitary Sewer Ejection system | 1.00 | LS | \$ 7,000.00 | \$ 7,000 | |
| 335.500 | Equipment | 1 | LS | | \$ 3,900,000 | |
| 335.501 | Draft Tube Stoplogs | 1 | LS | \$ 1,800,000.00 | \$ 1,800,000.00 | |
| 335.502 | Cranes | 1 | LS | \$ 1,100,000.00 | \$ 1,100,000.00 | |
| 335.503 | Miscellaneous Power Plant Equipment | 1 | LS | \$ 1,000,000.00 | \$ 1,000,000.00 | Allowance for machine tools, diesel generator, misc. |
| 336 | Roads, Rail & Air Facilities | 1 | LS | | \$ 12,916,194 | |
| 336.500 | Site Roads | | | | \$ 12,916,194 | |
| 336.501 | Site Roads S1 Excavation Rock | 45,343 | CY | 22.35 | \$ 1,013,354 | 7389LF |
| 336.502 | Site Roads S1 Excavation Overburden | 94,906 | CY | 6.50 | \$ 616,772 | Includes Topsoil Exc 26,740cy |
| 336.503 | Site Roads S1 Embankment | 36,612 | CY | 5.81 | \$ 212,636 | Includes Gravel Surfacing 6inches 4790 cy |
| 336.504 | Site Roads S2 Excavation Overburden | 65,695 | CY | 6.45 | \$ 423,495 | 6637LF Includes Topsoil Exc 21,780 cy |
| 336.505 | Site Roads S2 Embankment | 10,615 | CY | 8.33 | \$ 88,374 | Includes Gravel Surfacing 6inches 4300 cy |
| 336.506 | Site Roads S3 Excavation Rock | 4,474 | CY | 23.60 | \$ 105,567 | 4955LF |
| 336.507 | Site Roads S3 Excavation Overburden | 24,186 | CY | 5.70 | \$ 137,935 | Includes Topsoil Exc 23,150cy |
| 336.508 | Site Roads S3 Embankment | 130,644 | CY | 3.81 | \$ 497,315 | Includes Gravel Surfacing 3200cy |
| 336.509 | Site Roads S4 Excavation Rock | 9,707 | CY | 24.34 | \$ 236,242 | 1600LF |
| 336.510 | Site Roads S4 Embankment | 2,470 | CY | 8.95 | \$ 22,098 | Includes Gravel Surfacing 6inches 1050cy |
| 336.511 | Site Roads S5 Excavation Rock | 94,083 | CY | 14.71 | \$ 1,383,963 | 3042LF adjusted QTY for Road Balance |
| 336.512 | Site Roads S5 Embankment | 110,792 | CY | 4.65 | \$ 514,830 | Includes Gravel Surfacing 6inches 1970cy |
| 336.513 | Site Roads S6 Excavation Rock | 11,629 | CY | 20.36 | \$ 236,795 | 1227LF |
| 336.514 | Site Roads S6 Embankment | 15,335 | CY | 4.31 | \$ 66,039 | Includes Gravel Surfacing 6inches 800cy Embankment adj for road |
| 336.515 | Site Roads S7 Excavation Rock | 10,210 | CY | 15.98 | \$ 163,176 | 2500LF excavation adjusted for road Balance |
| 336.516 | Site Roads S7 Excavation Overburden | 3,485 | CY | 4.71 | \$ 16,422 | Includes Topsoil Exc 3485cy All |
| 336.517 | Site Roads S7 Embankment | 14,383 | CY | 4.56 | \$ 65,641 | Includes Gravel Surfacing 6inches 1620cy |
| 336.518 | Site Roads N1 Excavation Overburden | 94 | CY | 5.40 | \$ 508 | 434LF |
| 336.519 | Site Roads N1 Embankment | 3,230 | CY | 3.99 | \$ 12,876 | Includes Gravel Surfacing 6inches 280cy |
| 336.520 | Site Roads N2 Excavation Rock | 46,886 | CY | 21.84 | \$ 1,024,057 | 9474LF |
| 336.521 | Site Roads N2 Excavation Overburden | 17,954 | CY | 5.49 | \$ 98,537 | Includes Topsoil Exc 17954cy All |
| 336.522 | Site Roads N2 Embankment | 71,941 | CY | 3.87 | \$ 278,227 | Includes Gravel Surfacing 6inches 6150cy |
| 336.523 | Site Roads N3 Excavation Rock | 55,374 | CY | 21.72 | \$ 1,202,546 | 2822LF |
| 336.524 | Site Roads N3 Embankment | 7,284 | CY | 6.17 | \$ 44,960 | Includes Gravel Surfacing 6inches 1830 cy |
| 336.525 | Site Roads N4 Excavation Rock | 1,475 | CY | 19.22 | \$ 28,343 | 261LF |
| 336.526 | Site Roads N4 Embankment | 1,110 | CY | 7.64 | \$ 8,486 | Includes Gravel Surfacing 6inches 170cy |
| 336.527 | Site Roads N5 Excavation Rock | 27,986 | CY | 19.47 | \$ 544,870 | 5049LF |
| 336.528 | Site Roads N5 Excavation Overburden | 144,233 | CY | 6.04 | \$ 871,747 | Includes Topsoil Exc 31035 cy |
| 336.529 | Site Roads N5 Embankment | 140,132 | CY | 3.89 | \$ 545,451 | Includes Gravel Surfacing 6inches 3275cy |
| 336.530 | Site Roads N6 Excavation Overburden | 3,301 | CY | 5.40 | \$ 17,841 | 860LF Includes Topsoil 3301cy All |
| 336.531 | Site Roads N6 Embankment | 1,301 | CY | 8.56 | \$ 11,137 | Includes Gravel Surfacing 6inches 560cy |
| 336.532 | Site Roads N7 Excavation Rock | 94,765 | CY | 20.20 | \$ 1,914,335 | 1110LF |
| 336.533 | Site Roads N7 Embankment | 918 | CY | 12.66 | \$ 11,620 | Includes Gravel Surfacing 6inches 720cy |
| 336.534 | Site Road Drainage | 1 | LS | 500,000.00 | \$ 500,000 | Allowance |
| 399 | General Plant | 1 | LS | | \$ 150,618,492 | |
| 399.200 | Electrical power | 1 | LS | | \$ 9,386,640 | |
| 399.203 | Construction Power Winter Concrete | 18,000 | HR | 521.48 | \$ 9,386,640 | |
| 399.300 | Construction Heating & Ventilation | 1 | LS | | \$ 25,615,000 | |
| 399.301 | Powerhouse, Spillway, Intake \$50/cy in concrete costs, Misc. is | 1 | LS | 20,400,000.00 | \$ 20,400,000 | Allowance |
| 399.302 | RCC winter costs 20% at \$5/cy | 1 | LS | 5,215,000.00 | \$ 5,215,000 | Allowance |
| 399.500 | Indirect Costs | 1 | LS | | \$ 115,616,852 | |
| 399.501 | Powder House | 1 | LS | 30,000.00 | \$ 30,000 | |
| 399.502 | Cap House | 1 | LS | 15,000.00 | \$ 15,000 | |
| 399.503 | Construction Lighting | 1 | LS | 3,243,600.00 | \$ 3,243,600 | |
| 399.504 | Snow Removal | 35 | MO | 338,580.00 | \$ 11,850,300 | |
| 399.505 | Haul Roads Misc. | 1 | LS | 1,500,000.00 | \$ 1,500,000 | Allowance |
| 399.506 | Site Reclamation Including Camp Removal | 253 | AC | \$ 9,192.96 | \$ 2,325,819 | |
| 399.507 | Main Civil Camp Living Cost | 1,179,000 | Man Day | \$ - | \$ - | in camp cost |
| 399.530 | Rail Yard Operation | | | | \$ 27,577,146 | |
| 399.531 | Management Staff | 76 | MO | 65,811.00 | \$ 5,001,636 | |
| 399.532 | Rail yard Staff Living Cost | 1,179,000 | Man Day | \$ - | \$ - | in camp cost |
| 399.533 | Rail Yard & Permanent Access Road Snow Removal | 35 | MO | 156,834.00 | \$ 5,489,190 | |
| 399.534 | Maintenance Staff | 76 | MO | 224,820.00 | \$ 17,086,320 | |
| 399.540 | Container & Supply Transport | 1 | LS | | \$ 69,074,987 | |
| 399.541 | Container & Supply Transport | 76 | MO | 908,881.41 | \$ 69,074,987 | |
| | | | | Running Subtotal: | \$ 1,477,952,098 | |
| | Mobilization/Field Oversight Expenses | | | | \$ 461,117,536 | |
| 1 | Contractor General Conditions (Prime) | 76 | Months | \$6,067,336.00 | \$ 461,117,536 | \$ 1,939,069,634 |
| | Unidentified Required Items | | | | \$ 147,795,210 | |
| 1 | Unlisted Items Allowance | 1 | LS | 10% | \$ 147,795,210 | |
| | | | | Running Subtotal: | \$ 2,086,864,844 | |
| | Markups | | | | \$ 297,169,554 | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 12.0% | \$ 250,423,781 | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 46,745,772 | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included |

| Grand Total Price: | | | | | \$ 2,878,841,277 | |
|--|---|-----------|-----|------------|-------------------------|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
| | | | | | Running Subtotal: | \$ 2,384,034,397 |
| Project Administration & Management | | | | | | \$ 494,806,879 |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 20% | \$ 476,806,879 | |
| 5 | Construction Contingency/Management Reserve | 1 | LS | 0% | \$ - | not included |
| 6 | Royalty | 9,000,000 | cy | \$ 2.00 | \$ 18,000,000 | |
| Grand Total: | | | | | \$ 2,878,841,277 | Total Estimated Constr Costs w/ Contingency |
| Cost Range: | | | | | \$2,303,070,000 | \$3,598,550,000 |
| | | | | | -20% | 25% |

per AACE cost estimate guidelines

Notes:

- 1 This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- 2 Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- 3 Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- 4 Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-------------------------------|--|-------------------|-----------|----------------|------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|----------------------|
| Direct Cost | | 1.00 | LS | | 8,262,636 | 677,673,243 | 458,905,763 | 259,176,694 | 196,524,067 | 42,971,500 | 303,786,711 | 1,939,037,977 |
| | | | | | 8,262,635.70 | 677,673,243.31 | 458,905,762.56 | 259,176,693.55 | 196,524,066.79 | 42,971,500.00 | 303,786,710.97 | 1,939,037,977.17 |
| Powerhouse | | 1.00 | LS | | 304,189 | 23,045,218 | 10,537,874 | 4,134,889 | 13,605,129 | | 8,925,000 | 60,248,110 |
| | | | | | 304,188.69 | 23,045,218.32 | 10,537,873.61 | 4,134,888.99 | 13,605,128.63 | | 8,925,000.00 | 60,248,109.56 |
| Aboveground Powerhouse | | 1.00 | LS | | 304,189 | 23,045,218 | 10,537,874 | 4,134,889 | 13,605,129 | | 8,925,000 | 60,248,110 |
| | | | | | 304,188.69 | 23,045,218.32 | 10,537,873.61 | 4,134,888.99 | 13,605,128.63 | | 8,925,000.00 | 60,248,109.56 |
| Powerhouse | | 1.00 | LS | | 304,189 | 23,045,218 | 10,537,874 | 4,134,889 | 13,605,129 | | 8,925,000 | 60,248,110 |
| | | | | | 304,188.69 | 23,045,218.32 | 10,537,873.61 | 4,134,888.99 | 13,605,128.63 | | 8,925,000.00 | 60,248,109.56 |
| 331.111 | Powerhouse Excavation Common | 55,166.00 | CY | | 1,702 | 135,357 | 226,322 | | | | | 361,678 |
| | | | | | 0.03 | 2.45 | 4.10 | | | | | 6.56 |
| 20 | Powerhouse Common Excavation | 55,166.00 | CY | | 1,702 | 135,357 | 226,322 | | | | | 361,678 |
| | | | | | 0.03 | 2.45 | 4.10 | | | | | 6.56 |
| | Prod=291.67 CY/hour (2,916.67 CY/ day), 0.031MH/CY, 32.41 CY/MH, 189.14 hour (18.91 days) | | | | | | | | | | | |
| | <i>Powerhouse Excavation</i> | <i>1.00</i> | <i>EA</i> | <i>1912.22</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 15,131 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 14,991 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 14,991 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 29,075 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 61,168 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 193.10 | | | 73,046 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 25,880 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 16,597 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 84,103 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 24,588 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,107 | | | | | |
| 331.111A | Powerhouse Excavation Rock | 285,586.00 | CY | | 27,948 | 2,112,055 | 1,808,380 | 2,462,091 | | | | 6,382,525 |
| | | | | | 0.10 | 7.40 | 6.33 | 8.62 | | | | 22.35 |
| 10 | Rock Excavation | 285,586.00 | CY | | 27,948 | 2,112,055 | 1,808,380 | 2,462,091 | | | | 6,382,525 |
| | | | | | 0.10 | 7.40 | 6.33 | 8.62 | | | | 22.35 |
| 10 | Presplit Face | 300,985.00 | SF | | 7,882 | 575,030 | 179,386 | 1,869,017 | | | | 2,623,432 |
| | | | | | 0.03 | 1.91 | 0.60 | 6.21 | | | | 8.72 |
| | Prod=210.00 LF/hour (2,100.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 716.51 hour (71.65 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | <i>1.00</i> | <i>EA</i> | <i>1052.9</i> | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 53,738 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 152,982 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 109,555 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 152,982 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 50,994 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 54,777 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 158,743 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 7,982 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 12,661 | | | | | |
| | Lead in Line | 661.3 | EA | 200.00 | | | | 132,265 | | | | |
| | Drill Steel | 755.8 | EA | 1,000.00 | | | | 755,802 | | | | |
| | Drill Bits | 1,505.3 | EA | 350.00 | | | | 526,857 | | | | |
| | RED E-SPLIT PRESPLIT | 75,233.8 | EA | 5.78 | | | | 434,851 | | | | |
| | Non Elec Detonators | 2,960.2 | EA | 6.50 | | | | 19,241 | | | | |
| 20 | Drill and Shoot | 285,586.00 | CY | | 9,674 | 708,156 | 311,801 | 593,074 | | | | 1,613,032 |
| | | | | | 0.03 | 2.48 | 1.09 | 2.08 | | | | 5.65 |
| 10 | Drill and Shoot Production | 285,586.00 | CY | | 9,674 | 708,156 | 311,801 | 593,074 | | | | 1,613,032 |
| | | | | | 0.03 | 2.48 | 1.09 | 2.08 | | | | 5.65 |
| | Prod=174.54 FT/hour (1,745.37 FT/ day), 0.046MH/FT, 21.82 FT/MH, 1,209.28 hour (120.93 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | <i>1.00</i> | <i>EA</i> | <i>843.44</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 99,318 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|----------|----------------|-------------------|------------------|------------------|-------------------|--------------|----------|-------------------|
| | Labourer | 2.0 | | 71.17 | | 172,129 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 92,450 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 258,194 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 86,065 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 267,917 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 22,517 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 21,368 | | | | | |
| | Between Holes QRC 1 for every 4 holes | 4,079.8 | EA | 4.75 | | | | 19,379 | | | | |
| | Shoot Line | 204.0 | EA | 52.00 | | | | 10,607 | | | | |
| | Caps | 16,237.6 | EA | 7.20 | | | | 116,911 | | | | |
| | Booster | 16,237.6 | EA | 7.88 | | | | 127,952 | | | | |
| | Anfo | 285,586.0 | LB | 0.72 | | | | 205,622 | | | | |
| | Drill Bits | 138.7 | EA | 400.00 | | | | 55,485 | | | | |
| | Drill Steel | 57.1 | EA | 1,000.00 | | | | 57,117 | | | | |
| 30 | Rock Excavation to Stockpile | 285,586.00 | CY | | 10,392 | 828,869 | 1,317,192 | | | | | 2,146,061 |
| | | | | | 0.04 | 2.90 | 4.61 | | | | | 7.51 |
| 20 | Load Haul to Waste | 285,586.00 | CY | | 10,392 | 828,869 | 1,317,192 | | | | | 2,146,061 |
| | | | | | 0.04 | 2.90 | 4.61 | | | | | 7.51 |
| | Prod=302.29 CY/hour (3,022.87 CY/ day), 0.036MH/CY, 27.48 CY/MH, 944.75 hour (94.48 days) | | | | | | | | | | | |
| | Load Haul to Stockpile | 1.00 | EA | 2271.56 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 75,580 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 74,881 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 74,881 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 145,227 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 458,299 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 89,090 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 182,432 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 129,270 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 82,902 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 700,156 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 122,818 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 10,525 | | | | | |
| 331.112 | Concrete | 55,100.00 | CY | | 266,654 | 20,172,518 | 8,339,729 | 1,672,798 | 10,372,238 | | | 40,557,283 |
| | | | | | 4.84 | 366.11 | 151.36 | 30.36 | 188.24 | | | 736.07 |
| 10 | Concrete Powerhouse | 55,100.00 | CY | | 266,654 | 20,172,518 | 8,339,729 | 1,672,798 | 10,372,238 | | | 40,557,283 |
| | | | | | 4.84 | 366.11 | 151.36 | 30.36 | 188.24 | | | 736.07 |
| 12 | Concrete Powerhouse Suspended Slabs | 7,990.00 | CY | | 34,705 | 2,628,598 | 726,627 | 361,151 | 525,300 | | | 4,241,677 |
| | | | | | 4.34 | 328.99 | 90.94 | 45.20 | 65.74 | | | 530.87 |
| 15 | Concrete Floor Slabs | 7,990.00 | CY | | 29,451 | 2,226,643 | 311,696 | 361,151 | | | | 2,899,490 |
| | | | | | 3.69 | 278.68 | 39.01 | 45.20 | | | | 362.89 |
| 20 | Build Set, Strip & Move Support Forms | 77,320.00 | SF | | 25,773 | 1,962,897 | 164,876 | 361,151 | | | | 2,488,924 |
| | | | | | 0.33 | 25.39 | 2.13 | 4.67 | | | | 32.19 |
| | Prod=31.50 SF/hour (315.00 SF/ day), 0.333MH/SF, 3.00 SF/MH, 2,454.60 hour (245.46 days) | | | | | | | | | | | |
| | Set Strip Support Forms | 1.00 | EA | 866.85 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 100,761 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 524,082 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 196,368 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 1,141,685 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 76,878 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 44,625 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 43,373 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 32,259.3 | SF | 5.60 | | | | 180,652 | | | | |
| | Set Strip Form Material | 77,320.0 | SF | 1.50 | | | | 115,980 | | | | |
| | Hi-Load Scaffolds | 129,037.4 | CF | 0.50 | | | | 64,519 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|------------------|-----------|--------|---------------|------------------|----------------|---------------|------------------|--------------|----------|------------------|
| 30 | Place Concrete | 7,990.00 | CY | | 3,678 | 263,746 | 146,820 | | | | | 410,566 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.460MH/CY, 2.17 CY/MH, 525.37 hour (52.54 days) | | | | 0.46 | 33.01 | 18.38 | | | | | 51.38 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 39,403 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 224,343 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 131,342 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 746 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 5,180 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 9,551 | | | | | |
| 16 | Batch & Haul Concrete | 7,990.00 | CY | | 2,101 | 162,702 | 260,914 | | 525,300 | | | 948,916 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.263MH/CY, 3.80 CY/MH, 525.37 hour (52.54 days) | | | | 0.26 | 20.36 | 32.66 | | 65.74 | | | 118.76 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 41,641 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 42,030 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 41,641 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 37,391 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 71,886 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 95,717 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 3,347 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 6,084 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 7,839 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 68,571 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 7,471 | | | | | |
| | Flyash | 766.9 | TN | 160.00 | | | | | 122,712 | | | |
| | Portland Cement Bulk | 1,437.2 | TN | 180.00 | | | | | 258,702 | | | |
| | Concrete Sand (Fine Aggregate) | 3,306.9 | TN | 10.00 | | | | | 33,069 | | | |
| | 2" (50 mm) Coarse Aggregate | 9,920.7 | TN | 10.00 | | | | | 99,207 | | | |
| | Water Reducer | 3,594.4 | GAL | 3.23 | | | | | 11,610 | | | |
| 17 | Deliver Concrete | 7,990.00 | CY | | 3,152 | 239,253 | 154,017 | | | | | 393,271 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.395MH/CY, 2.53 CY/MH, 525.37 hour (52.54 days) | | | | 0.39 | 29.94 | 19.28 | | | | | 49.22 |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 239,253 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 154,017 | | | | | |
| 12 | Concrete Powerhouse Beams & Columns | 1,240.00 | CY | | 18,186 | 1,375,357 | 488,146 | 85,690 | 1,431,430 | | | 3,380,623 |
| | | | | | 14.67 | 1,109.16 | 393.67 | 69.10 | 1,154.38 | | | 2,726.31 |
| 15 | Concrete Beams & Columns | 1,240.00 | CY | | 14,686 | 1,107,575 | 211,719 | 85,690 | 1,349,907 | | | 2,754,892 |
| | | | | | 11.84 | 893.21 | 170.74 | 69.10 | 1,088.63 | | | 2,221.69 |
| 20 | Build Set, Strip & Move Beams & Columns | 36,707.00 | SF | | 12,236 | 931,868 | 113,908 | 85,690 | 1,349,907 | | | 2,481,374 |
| | Prod=31.50 SF/hour (315.00 SF/ day), 0.333MH/SF, 3.00 SF/MH, 1,165.30 hour (116.53 days) | | | | 0.33 | 25.39 | 3.10 | 2.33 | 36.78 | | | 67.60 |
| | <i>Set Strip Support Forms</i> | 1.00 | EA | 897.43 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 47,836 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 248,804 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 93,224 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 542,005 | | | | | | |
| | 100 Ton Truck Crane (Linkbelt 218) | 0.5 | | 123.80 | | | 72,132 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 21,185 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 20,591 | | | | | |
| | Set Strip Form Material | 36,707.0 | SF | 1.50 | | | | 55,061 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|------------------|-----------|--------|----------------|------------------|------------------|------------------|------------------|---------------|----------|-------------------|
| | Hi-Load Scaffolds | 61,259.4 | CF | 0.50 | | | | 30,630 | | | | |
| | Supply Circular Column Form | 36,707.0 | sf | 28.27 | | | | | 1,037,707 | | | |
| | Supply Steel Form Panel | 10,000.0 | sf | 31.22 | | | | | 312,200 | | | |
| 30 | Place Concrete | 1,240.00 | CY | | 2,450 | 175,707 | 97,811 | | | | | 273,518 |
| | Prod=3.54 CY/hour (35.43 CY/ day), 1.976MH/CY, 0.51 CY/MH, 350.00 hour (35.00 days) | | | | 1.98 | 141.70 | 78.88 | | | | | 220.58 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 26,250 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 149,457 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 87,500 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 497 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 3,451 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 6,363 | | | | | |
| 16 | Batch & Haul Concrete | 1,240.00 | CY | | 1,400 | 108,392 | 173,821 | | | 81,523 | | 363,735 |
| | Prod=3.54 CY/hour (35.43 CY/ day), 1.129MH/CY, 0.89 CY/MH, 350.00 hour (35.00 days) | | | | 1.13 | 87.41 | 140.18 | | | 65.74 | | 293.33 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 27,741 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 28,000 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 27,741 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 24,910 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 47,891 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 63,767 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 2,230 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 4,053 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 5,222 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 45,682 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 4,977 | | | | | |
| | Flyash | 119.0 | TN | 160.00 | | | | | | 19,044 | | |
| | Portland Cement Bulk | 223.0 | TN | 180.00 | | | | | | 40,149 | | |
| | Concrete Sand (Fine Aggregate) | 513.2 | TN | 10.00 | | | | | | 5,132 | | |
| | 2" (50 mm) Coarse Aggregate | 1,539.6 | TN | 10.00 | | | | | | 15,396 | | |
| | Water Reducer | 557.8 | GAL | 3.23 | | | | | | 1,802 | | |
| 17 | Deliver Concrete | 1,240.00 | CY | | 2,100 | 159,390 | 102,606 | | | | | 261,996 |
| | Prod=3.54 CY/hour (35.43 CY/ day), 1.694MH/CY, 0.59 CY/MH, 350.00 hour (35.00 days) | | | | 1.69 | 128.54 | 82.75 | | | | | 211.29 |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 159,390 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 102,606 | | | | | |
| 14 | Concrete Powerhouse Walls | 31,868.00 | CY | | 128,343 | 9,655,526 | 5,350,297 | 1,025,242 | 2,095,151 | | | 18,126,216 |
| | | | | | 4.03 | 302.98 | 167.89 | 32.17 | 65.74 | | | 568.79 |
| 15 | Concrete Wall | 13,615.94 | CY | | 82,643 | 6,159,065 | 1,740,957 | 1,025,242 | | | | 8,925,264 |
| | | | | | 6.07 | 452.34 | 127.86 | 75.30 | | | | 655.50 |
| 15 | Build Wall Forms | 92,200.00 | SF | | 7,683 | 588,543 | 67,833 | 516,320 | | | | 1,172,696 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 1,097.62 hour (137.20 days) | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 82,267 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 78,118 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 87,810 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 340,350 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 19,955 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|-------------------|-----------|--------|---------------|------------------|------------------|----------------|------------------|--------------|----------|------------------|
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 47,878 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 92,200.0 | SF | 5.60 | | | | 516,320 | | | | |
| 15 | Build Wall Curved Forms | 16,794.00 | SF | | 8,397 | 643,210 | 74,134 | 94,046 | | | | 811,390 |
| | Prod=14.00 SF/hour (112.00 SF/ day), 0.500MH/SF, 2.00 SF/MH, 1,199.57 hour (149.95 days) | | | | 0.50 | 38.30 | 4.41 | 5.60 | | | | 48.31 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 89,908 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 85,373 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 95,966 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 371,963 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 21,808 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 52,325 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 16,794.0 | SF | 5.60 | | | | 94,046 | | | | |
| 20 | Set, Strip & Move Wall Forms | 276,584.00 | SF | | 34,573 | 2,633,080 | 321,858 | 414,876 | | | | 3,369,814 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 3,292.67 hour (411.58 days) | | | | 0.13 | 9.52 | 1.16 | 1.50 | | | | 12.18 |
| | <i>Set Strip Retaining Walls</i> | 1.00 | EA | 897.43 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 135,164 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 703,017 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 263,413 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 1,531,485 | | | | | | |
| | 100 Ton Truck Crane (Linkbelt 218) | 0.5 | | 123.80 | | | 203,816 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 59,861 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 58,181 | | | | | |
| | Set Strip Form Material | 276,584.0 | SF | 1.50 | | | | 414,876 | | | | |
| 30 | Place Concrete Wall | 31,868.00 | CY | | 31,990 | 2,294,231 | 1,277,132 | | | | | 3,571,364 |
| | Prod=6.97 CY/hour (69.73 CY/ day), 1.004MH/CY, 1.00 CY/MH, 4,570.00 hour (457.00 days) | | | | 1.00 | 71.99 | 40.08 | | | | | 112.07 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 342,750 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 1,951,481 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 1,142,500 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 6,489 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 45,060 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 83,083 | | | | | |
| 16 | Batch & Haul Concrete | 31,868.00 | CY | | 18,280 | 1,415,283 | 2,269,599 | | 2,095,151 | | | 5,780,033 |
| | Prod=6.97 CY/hour (69.73 CY/ day), 0.574MH/CY, 1.74 CY/MH, 4,570.00 hour (457.00 days) | | | | 0.57 | 44.41 | 71.22 | | 65.74 | | | 181.37 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 362,218 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 365,600 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 362,218 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 325,247 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 625,313 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 832,608 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 29,111 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 52,921 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 68,184 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 596,476 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 64,985 | | | | | |
| | Flyash | 3,059.0 | TN | 160.00 | | | | | 489,434 | | | |
| | Portland Cement Bulk | 5,732.4 | TN | 180.00 | | | | | 1,031,829 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|-----------|-----|--------|--------|-----------|-----------|---------|----------|--------------|----------|------------|
| | Concrete Sand (Fine Aggregate) | 13,189.6 | TN | 10.00 | | | | | 131,896 | | | |
| | 2" (50 mm) Coarse Aggregate | 39,568.7 | TN | 10.00 | | | | | 395,687 | | | |
| | Water Reducer | 14,336.0 | GAL | 3.23 | | | | | 46,305 | | | |
| 17 | Deliver Concrete | 31,868.00 | CY | | 27,420 | 2,081,178 | 1,339,741 | | | | | 3,420,919 |
| | | | | | 0.86 | 65.31 | 42.04 | | | | | 107.35 |
| | Prod=6.97 CY/hour (69.73 CY/ day), 0.860MH/CY, 1.16 CY/MH, 4,570.00 hour (457.00 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 2,081,178 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 1,339,741 | | | | | |
| 16 | Concrete Powerhouse Mass | 14,002.00 | CY | | 15,933 | 1,197,405 | 694,360 | 141,420 | 920,557 | | | 2,953,742 |
| | | | | | 1.14 | 85.52 | 49.59 | 10.10 | 65.74 | | | 210.95 |
| 15 | Concrete Mass | 14,002.00 | CY | | 9,933 | 738,351 | 220,486 | 141,420 | | | | 1,100,257 |
| | | | | | 0.71 | 52.73 | 15.75 | 10.10 | | | | 78.58 |
| 15 | Build Forms | 14,002.00 | SF | | 1,167 | 89,379 | 10,301 | 78,411 | | | | 178,092 |
| | | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 166.69 hour (16.67 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 12,493 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 11,863 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 13,335 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 51,687 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,030 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 7,271 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 14,002.0 | SF | 5.60 | | | | 78,411 | | | | |
| 20 | Set, Strip & Move Forms | 42,006.00 | SF | | 4,566 | 347,759 | 42,509 | 63,009 | | | | 453,277 |
| | | | | | 0.11 | 8.28 | 1.01 | 1.50 | | | | 10.79 |
| | Prod=96.59 SF/hour (965.94 SF/ day), 0.109MH/SF, 9.20 SF/MH, 434.87 hour (43.49 days) | | | | | | | | | | | |
| | Set Strip | 1.00 | EA | 897.43 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 17,852 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 92,850 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 34,790 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 202,268 | | | | | | |
| | 100 Ton Truck Crane (Linkbelt 218) | 0.5 | | 123.80 | | | 26,919 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 7,906 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 7,684 | | | | | |
| | Set Strip Form Material | 42,006.0 | SF | 1.50 | | | | 63,009 | | | | |
| 30 | Place Concrete | 14,002.00 | CY | | 4,200 | 301,212 | 167,676 | | | | | 468,888 |
| | | | | | 0.30 | 21.51 | 11.98 | | | | | 33.49 |
| | Prod=23.34 CY/hour (233.37 CY/ day), 0.300MH/CY, 3.33 CY/MH, 600.00 hour (60.00 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 45,000 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 256,212 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 150,000 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 852 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 5,916 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 10,908 | | | | | |
| 16 | Batch & Haul Concrete | 14,002.00 | CY | | 2,400 | 185,814 | 297,978 | | 920,557 | | | 1,404,349 |
| | | | | | 0.17 | 13.27 | 21.28 | | 65.74 | | | 100.30 |
| | Prod=23.34 CY/hour (233.37 CY/ day), 0.171MH/CY, 5.83 CY/MH, 600.00 hour (60.00 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 47,556 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|---------------------|-----------|--------|---------------|------------------|------------------|---------------|------------------|--------------|----------|-------------------|
| | Batch Plant Foreman | 1.0 | | 80.00 | | 48,000 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 47,556 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 42,702 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 82,098 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 109,314 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 3,822 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 6,948 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 8,952 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 78,312 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 8,532 | | | | | |
| | Flyash | 1,344.0 | TN | 160.00 | | | | | 215,045 | | | |
| | Portland Cement Bulk | 2,518.7 | TN | 180.00 | | | | | 453,360 | | | |
| | Concrete Sand (Fine Aggregate) | 5,795.2 | TN | 10.00 | | | | | 57,952 | | | |
| | 2" (50 mm) Coarse Aggregate | 17,385.5 | TN | 10.00 | | | | | 173,855 | | | |
| | Water Reducer | 6,298.9 | GAL | 3.23 | | | | | 20,345 | | | |
| 17 | Deliver Concrete | 14,002.00 | CY | | 3,600 | 273,240 | 175,896 | | | | | 449,136 |
| | | | | | 0.26 | 19.51 | 12.56 | | | | | 32.08 |
| | Prod=23.34 CY/hour (233.37 CY/ day), 0.257MH/CY, 3.89 CY/MH, 600.00 hour (60.00 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 273,240 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 175,896 | | | | | |
| 25 | Place Reinforcing Steel | 9,642,500.00 | LB | | 60,900 | 4,693,834 | 1,080,298 | | 5,399,800 | | | 11,173,932 |
| | | | | | 0.01 | 0.49 | 0.11 | | 0.56 | | | 1.16 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 12.632MH/ton, 0.08 ton/MH, 6,766.67 hour (676.67 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 853.32 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 80.85 | | 547,085 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 481,584 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 541,333 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 2,602,798 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 521,033 | | | | | | |
| | 100 Ton Truck Crane (Linkbelt 218) | 1.0 | | 123.80 | | | 837,713 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 123,018 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 119,567 | | | | | |
| | Supply Fabricated Rebar | 9,642,500.0 | LB | 0.56 | | | | | 5,399,800 | | | |
| 35 | Finish All | 160,330.00 | SF | | 1,419 | 102,739 | | | | | | 102,739 |
| | | | | | 0.01 | 0.64 | | | | | | 0.64 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 709.42 hour (70.94 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 102,739 | | | | | | |
| 37 | Patch & Point ALL | 432,617.00 | SF | | 4,326 | 313,258 | | | | | | 313,258 |
| | | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 2,163.09 hour (270.39 days) | | | | | | | | | | | |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 313,258 | | | | | | |
| 40 | Cure ALL | 592,947.00 | SF | | 2,842 | 205,801 | | 59,295 | | | | 265,096 |
| | | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1,421.08 hour (142.11 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 205,801 | | | | | | |
| | Curing Agent per sf | 592,947.0 | SF | 0.10 | | | | 59,295 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|--------|--------------|----------------|----------------|---------|------------------|--------------|----------|------------------|
| 331.113 | Metal Roof | 31,750.00 | SF | | 2,032 | 158,666 | 7,841 | | 1,598,081 | | | 1,764,588 |
| | | | | | 0.06 | 5.00 | 0.25 | | 50.33 | | | 55.58 |
| 10 | Metal Roof | 31,750.00 | SF | | 2,032 | 158,666 | 7,841 | | 1,598,081 | | | 1,764,588 |
| | | | | | 0.06 | 5.00 | 0.25 | | 50.33 | | | 55.58 |
| 10 | Metal Roof | 1.24 | LS | | | | | | 1,598,081 | | | 1,598,081 |
| | | | | | | | | | 1,293,564.58 | | | 1,293,564.58 |
| | 3/8in x 6in Plate | 15,500.0 | LB | 6.50 | | | | | 100,750 | | | |
| | 3/8in x 4in Plate | 20,600.0 | LB | 6.50 | | | | | 133,900 | | | |
| | TS 8 x 6 x 3/8 in Gutter | 120,900.0 | LB | 6.50 | | | | | 785,850 | | | |
| | 3/8in x 9in Bent Plate | 840.0 | EA | 52.00 | | | | | 43,680 | | | |
| | 3/8in Gusset Plate | 840.0 | EA | 23.00 | | | | | 19,320 | | | |
| | 1/2in x9in x1.5ft Plate | 19,300.0 | EA | 6.00 | | | | | 115,800 | | | |
| | Drip Ceiling GAL Steel Sheets 4ft X 10ft | 31,750.0 | SF | 6.30 | | | | | 200,025 | | | |
| | Hex Nuts Galvanized | 5,065.0 | EA | 4.15 | | | | | 21,020 | | | |
| | Down Spouts 4in HDPE | 2,446.0 | LF | 3.00 | | | | | 7,338 | | | |
| | W8 x 31 | 62,540.0 | LB | 1.70 | | | | | 106,318 | | | |
| | MC 8 x 21.4 by 2ft | 17,800.0 | LB | 3.60 | | | | | 64,080 | | | |
| 16 | Install Metal Roof | 31,750.00 | SF | | 2,032 | 158,666 | 7,841 | | | | | 166,507 |
| | | | | | 0.06 | 5.00 | 0.25 | | | | | 5.24 |
| | Prod=125.00 SF/hour (1,250.00 SF/ day), 0.064MH/SF, 15.63 SF/MH, 254.00 hour (25.40 days) | | | | | | | | | | | |
| | Install Metal Roof | 1.00 | EA | 655.54 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 19,050 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 18,077 | | | | | | |
| | Ironworker | 6.0 | | 79.75 | | 121,539 | | | | | | |
| | 300 Amp Electric Welder | 1.0 | | 9.99 | | | 2,537 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 20.88 | | | 5,304 | | | | | |
| 331.114 | Insulated Metal Cladding | 30,100.00 | SF | | 1,813 | 144,573 | 48,210 | | 322,070 | | | 514,853 |
| | | | | | 0.06 | 4.80 | 1.60 | | 10.70 | | | 17.10 |
| 10 | Insulated Metal Cladding | 30,100.00 | SF | | 1,813 | 144,573 | 48,210 | | 322,070 | | | 514,853 |
| | | | | | 0.06 | 4.80 | 1.60 | | 10.70 | | | 17.10 |
| | Prod=132.80 SF/hour (1,328.00 SF/ day), 0.060MH/SF, 16.60 SF/MH, 226.66 hour (22.67 days) | | | | | | | | | | | |
| | Install Insulated Metal Cladding | 1.00 | EA | 850.55 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 18,609 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 18,133 | | | | | | |
| | Ironworker | 5.0 | | 79.75 | | 90,379 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 17,453 | | | | | | |
| | 250 Amp Diesel Welder | 1.0 | | 7.18 | | | 1,627 | | | | | |
| | Acetylene Cutting Torch | 1.0 | | 2.60 | | | 589 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 41,773 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 4,220 | | | | | |
| | Metal Cladding Support | 30,100.0 | SF | 3.25 | | | | | 97,825 | | | |
| | Insulated Metal Cladding | 30,100.0 | SF | 7.45 | | | | | 224,245 | | | |
| 331.115 | Steel Superstructure | 504.90 | TN | | 4,039 | 322,050 | 107,392 | | 1,312,740 | | | 1,742,183 |
| | | | | | 8.00 | 637.85 | 212.70 | | 2,600.00 | | | 3,450.55 |
| 10 | Steel Superstructure | 504.90 | TN | | 4,039 | 322,050 | 107,392 | | 1,312,740 | | | 1,742,183 |
| | | | | | 8.00 | 637.85 | 212.70 | | 2,600.00 | | | 3,450.55 |
| | Prod=1.00 TN/hour (10.00 TN/ day), 8.000MH/TN, 0.13 TN/MH, 504.90 hour (50.49 days) | | | | | | | | | | | |
| | Erect Structural Steel for Powerhouse | 1.00 | EA | 850.55 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 41,452 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 40,392 | | | | | | |
| | Ironworker | 5.0 | | 79.75 | | 201,329 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 38,877 | | | | | | |
| | 250 Amp Diesel Welder | 1.0 | | 7.18 | | | 3,625 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------|--------------------|----------------------|
| | Acetylene Cutting Torch | 1.0 | | 2.60 | | | 1,313 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 93,053 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 9,401 | | | | | |
| | Structural Steel | 504.9 TN | | 2,600.00 | | | | | 1,312,740 | | | |
| 331.116 | Metal Work | 1.00 | LS | | | | | | | | 4,700,000 | 4,700,000 |
| | | | | | | | | | | | 4,700,000.00 | 4,700,000.00 |
| 331.117 | Architectural | 1.00 | LS | | | | | | | | 2,000,000 | 2,000,000 |
| | | | | | | | | | | | 2,000,000.00 | 2,000,000.00 |
| 331.118 | SCADA | 1.00 | LS | | | | | | | | 300,000 | 300,000 |
| | | | | | | | | | | | 300,000.00 | 300,000.00 |
| 331.119 | Hardware | 1.00 | LS | | | | | | | | 75,000 | 75,000 |
| | | | | | | | | | | | 75,000.00 | 75,000.00 |
| 331.120 | Stairs & Handrail | 1.00 | LS | | | | | | | | 200,000 | 200,000 |
| | | | | | | | | | | | 200,000.00 | 200,000.00 |
| 331.121 | Care of Water | 1.00 | LS | | | | | | | | 100,000 | 100,000 |
| | | | | | | | | | | | 100,000.00 | 100,000.00 |
| 331.122 | Instrumentation | 1.00 | LS | | | | | | | | 1,000,000 | 1,000,000 |
| | | | | | | | | | | | 1,000,000.00 | 1,000,000.00 |
| 331.123 | Service Elevator | 1.00 | LS | | | | | | | | 550,000 | 550,000 |
| | | | | | | | | | | | 550,000.00 | 550,000.00 |
| | Reservoirs,Dams & Waterways | 1.00 | LS | | 4,356,273 | 337,498,449 | 251,819,021 | 210,694,755 | 174,068,938 | | 175,624,397 | 1,149,705,560 |
| | | | | | 4,356,272.71 | 337,498,448.57 | 251,819,020.89 | 210,694,755.40 | 174,068,938.15 | | 175,624,396.97 | 1,149,705,559.99 |
| | Relict Channel Remediation | 1.00 | LS | | | | | | | | 31,187,500 | 31,187,500 |
| | | | | | | | | | | | 31,187,500.00 | 31,187,500.00 |
| 332.151 | Relict Channel Remediation Measures | 1.00 | LS | | | | | | | | 31,187,500 | 31,187,500 |
| | | | | | | | | | | | 31,187,500.00 | 31,187,500.00 |
| | Diversion Tunnels | 1.00 | LS | | 613,856 | 47,278,838 | 22,425,780 | 5,335,750 | 16,572,204 | | 34,832,376 | 126,444,948 |
| | | | | | 613,855.64 | 47,278,838.18 | 22,425,779.68 | 5,335,749.88 | 16,572,203.86 | | 34,832,376.00 | 126,444,947.59 |
| | Sluice through RCC | 1.00 | LS | | 131,186 | 9,855,015 | 4,865,501 | 402,237 | 2,891,038 | | 200,000 | 18,213,790 |
| | | | | | 131,185.96 | 9,855,015.10 | 4,865,500.53 | 402,237.00 | 2,891,037.63 | | 200,000.00 | 18,213,790.27 |
| 332.211 | Sluice 42 x 42 X 30 Forms 520FT | 68,000.00 | SF | | 10,660 | 826,566 | 136,693 | 145,200 | | | | 1,108,458 |
| | | | | | 0.16 | 12.16 | 2.01 | 2.14 | | | | 16.30 |
| 10 | Build Forming System | 8,640.00 | SF | | 2,160 | 167,484 | 22,019 | 43,200 | | | | 232,703 |
| | | | | | 0.25 | 19.38 | 2.55 | 5.00 | | | | 26.93 |
| | Prod=40.00 SF/hour (320.00 SF/ day), 0.250MH/SF, 4.00 SF/MH, 216.00 hour (27.00 days) | | | | | | | | | | | |
| | <i>Build Forming System</i> | <i>1.00</i> | <i>EA</i> | <i>877.33</i> | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 17,734 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 15,373 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 17,280 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 100,466 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 16,632 | | | | | | |
| | 50 Ton Crawler Crane (Linkbelt108) | 1.0 | | 84.74 | | | 18,304 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 3,715 | | | | | |
| | Form Materials | 8,640.0 SF | | 5.00 | | | | 43,200 | | | | |
| 20 | SSM Forming System | 68,000.00 | SF | | 8,500 | 659,082 | 114,674 | 102,000 | | | | 875,755 |
| | | | | | 0.13 | 9.69 | 1.69 | 1.50 | | | | 12.88 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|---------|---------------|------------------|----------------|----------------|----------------|--------------|----------|------------------|
| | Prod=80.00 SF/hour (640.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 850.00 hour (106.25 days) | | | | | | | | | | | |
| | SSM Forming System | 1.00 | EA | 910.3 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 69,785 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 60,495 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 68,000 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 395,352 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 65,450 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 100,054 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 14,620 | | | | | |
| | Form Supplies | 68,000.0 | SF | 1.50 | | | | | | 102,000 | | |
| 332.212 | Concrete- Inlet Portal | 2,800.00 | CY | | 15,439 | 1,167,022 | 455,832 | 107,037 | 458,485 | | | 2,188,375 |
| | | | | | 5.51 | 416.79 | 162.80 | 38.23 | 163.74 | | | 781.56 |
| 18 | Wall Concrete | 2,800.00 | CY | | 15,439 | 1,167,022 | 455,832 | 107,037 | 458,485 | | | 2,188,375 |
| | | | | | 5.51 | 416.79 | 162.80 | 38.23 | 163.74 | | | 781.56 |
| 15 | Concrete Wall | 2,800.00 | CY | | 11,827 | 890,427 | 158,472 | 107,037 | 274,400 | | | 1,430,336 |
| | | | | | 4.22 | 318.01 | 56.60 | 38.23 | 98.00 | | | 510.83 |
| 15 | Build Wall Forms | 10,280.00 | SF | | 857 | 65,621 | 7,563 | 57,568 | | | | 130,752 |
| | | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 122.38 hour (15.30 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 9,172 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 8,710 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 9,790 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 37,948 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,225 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 5,338 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 10,280.0 | SF | 5.60 | | | | | | 57,568 | | |
| 20 | Set, Strip & Move Wall Forms | 30,850.00 | SF | | 4,407 | 337,047 | 56,397 | 46,275 | | | | 439,719 |
| | | | | | 0.14 | 10.93 | 1.83 | 1.50 | | | | 14.25 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.143MH/SF, 7.00 SF/MH, 367.26 hour (45.91 days) | | | | | | | | | | | |
| | Set Strip Retaining Walls | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 30,152 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 78,414 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 29,381 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 170,821 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 28,279 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 43,230 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 6,677 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 6,490 | | | | | |
| | Set Strip Form Material | 30,850.0 | SF | 1.50 | | | | | | 46,275 | | |
| 25 | Place Reinforcing Steel | 490,000.00 | LB | | 3,095 | 238,955 | 52,803 | | 274,400 | | | 566,158 |
| | | | | | 0.01 | 0.49 | 0.11 | | 0.56 | | | 1.16 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 12.632MH/ton, 0.08 ton/MH, 343.86 hour (42.98 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 28,231 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 24,472 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 27,509 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 132,266 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 26,477 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 40,476 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 6,251 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 6,076 | | | | | |
| | Supply Fabricated Rebar | 490,000.0 | LB | 0.56 | | | | | | 274,400 | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|-----------|-----|--------|--------|---------|---------|---------|----------|--------------|----------|------------|
| 30 | Place Concrete | 2,800.00 | CY | | 2,800 | 200,468 | 40,793 | | | | | 241,260 |
| | Prod=9.00 CY/hour (90.00 CY/ day), 1.000MH/CY, 1.00 CY/MH, 311.11 hour (31.11 days) | | | | 1.00 | 71.60 | 14.57 | | | | | 86.16 |
| | <i>Place Concrete</i> | 1.00 | EA | 775.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 23,333 | | | | | | |
| | Labourer | 8.0 | | 71.17 | | 177,134 | | | | | | |
| | 150 YPH Truck Mounted Concrete Pump | 1.0 | | 130.00 | | | 40,444 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 348 | | | | | |
| 32 | Joint Prep on Wall | 4,350.00 | SF | | 77 | 5,479 | 916 | | | | | 6,395 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 38.50 hour (4.81 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | <i>Joint Prep on Slab</i> | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 5,479 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 916 | | | | | |
| 35 | Finish Concrete Wall | 1,090.00 | SF | | 130 | 9,433 | | | | | | 9,433 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 65.13 hour (8.14 days) | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 9,433 | | | | | | |
| 40 | Cure Concrete Wall | 31,940.00 | SF | | 153 | 11,086 | | 3,194 | | | | 14,280 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 76.55 hour (9.57 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 11,086 | | | | | | |
| | Curing Agent per sf | 31,940.0 | SF | 0.10 | | | | 3,194 | | | | |
| 45 | Patch & Point Walls | 30,850.00 | SF | | 309 | 22,338 | | | | | | 22,338 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 154.25 hour (19.28 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 22,338 | | | | | | |
| 16 | Batch & Haul Concrete | 2,800.00 | CY | | 1,605 | 124,289 | 199,314 | | 184,085 | | | 507,688 |
| | Prod=6.98 CY/hour (69.77 CY/ day), 0.573MH/CY, 1.74 CY/MH, 401.33 hour (40.13 days) | | | | 0.57 | 44.39 | 71.18 | | 65.74 | | | 181.32 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 31,810 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 32,107 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 31,810 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 28,563 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 54,914 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 73,119 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 2,556 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 4,647 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 5,988 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 52,382 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 5,707 | | | | | |
| | Flyash | 268.8 | TN | 160.00 | | | | | 43,003 | | | |
| | Portland Cement Bulk | 503.7 | TN | 180.00 | | | | | 90,659 | | | |
| | Concrete Sand (Fine Aggregate) | 1,158.9 | TN | 10.00 | | | | | 11,589 | | | |
| | 2" (50 mm) Coarse Aggregate | 3,476.6 | TN | 10.00 | | | | | 34,766 | | | |
| | Water Reducer | 1,259.6 | GAL | 3.23 | | | | | 4,069 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|------------------|-----------|--------|----------------|------------------|------------------|----------------|------------------|--------------|----------|-------------------|
| 17 | Deliver Concrete | 2,800.00 | CY | | 2,007 | 152,306 | 98,046 | | | | | 250,352 |
| | | | | | 0.72 | 54.39 | 35.02 | | | | | 89.41 |
| | Prod=6.98 CY/hour (69.77 CY/ day), 0.717MH/CY, 1.40 CY/MH, 401.33 hour (40.13 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 623.8 | | | | | | | | |
| | Concrete Truck Driver | 5.0 | | 75.90 | | 152,306 | | | | | | |
| | Concrete Agitator Car 8CY | 5.0 | | 48.86 | | | 98,046 | | | | | |
| 332.213 | Concrete Sluice Outlet Channel | 0.00 | CY | | | | | | | | | |
| 332.214 | Sluice Grout Plug | 37,000.00 | CY | | 105,087 | 7,861,428 | 4,272,976 | 150,000 | 2,432,553 | | | 14,716,957 |
| | | | | | 2.84 | 212.47 | 115.49 | 4.05 | 65.74 | | | 397.76 |
| 20 | Concrete Tunnel Plug | 37,000.00 | CY | | 105,087 | 7,861,428 | 4,272,976 | 150,000 | 2,432,553 | | | 14,716,957 |
| | | | | | 2.84 | 212.47 | 115.49 | 4.05 | 65.74 | | | 397.76 |
| 10 | Concrete Formwork | 83,250.00 | SF | | 27,254 | 2,087,716 | 173,885 | 150,000 | | | | 2,411,601 |
| | | | | | 0.33 | 25.08 | 2.09 | 1.80 | | | | 28.97 |
| 10 | Purchase Steel Forms | 2,000.00 | SF | | | | | 150,000 | | | | 150,000 |
| | | | | | | | | 75.00 | | | | 75.00 |
| | Purchase Steel Forms | 2,000.0 | SF | 75.00 | | | | 150,000 | | | | |
| 15 | Assemble Steel Forms | 2,000.00 | SF | | 495 | 38,815 | 7,445 | | | | | 46,260 |
| | | | | | 0.25 | 19.41 | 3.72 | | | | | 23.13 |
| | Prod=32.29 SF/hour (322.92 SF/ day), 0.248MH/SF, 4.04 SF/MH, 61.94 hour (6.19 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 746.9 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 5,085 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 4,955 | | | | | | |
| | Carpenter | 5.0 | | 77.52 | | 24,006 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 4,769 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 91.39 | | | 5,660 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 690 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,094 | | | | | |
| 20 | SSM Form | 83,250.00 | SF | | 26,759 | 2,048,901 | 166,441 | | | | | 2,215,342 |
| | | | | | 0.32 | 24.61 | 2.00 | | | | | 26.61 |
| | Prod=28.00 SF/hour (280.00 SF/ day), 0.321MH/SF, 3.11 SF/MH, 2,973.21 hour (297.32 days) | | | | | | | | | | | |
| | SSM Formwork | 1.00 | EA | 745.1 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 237,857 | | | | | | |
| | Miner | 8.0 | | 76.14 | | 1,811,044 | | | | | | |
| | Tunnel Concrete Form Gantry | 1.0 | | 44.84 | | | 133,319 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 33,122 | | | | | |
| 16 | Batch & Haul Concrete | 37,000.00 | CY | | 16,386 | 1,268,623 | 2,034,409 | | 2,432,553 | | | 5,735,585 |
| | | | | | 0.44 | 34.29 | 54.98 | | 65.74 | | | 155.02 |
| | Prod=9.03 CY/hour (90.32 CY/ day), 0.443MH/CY, 2.26 CY/MH, 4,096.43 hour (409.64 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 324,683 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 327,714 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 324,683 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 291,543 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 560,514 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 746,328 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 26,094 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 47,437 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 61,119 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 534,666 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 58,251 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|----------------|-------------------|-------------------|------------------|------------------|--------------|----------------|-------------------|
| | Flyash | 3,551.6 | TN | 160.00 | | | | | | 568,252 | | |
| | Portland Cement Bulk | 6,655.5 | TN | 180.00 | | | | | 1,197,994 | | | |
| | Concrete Sand (Fine Aggregate) | 15,313.6 | TN | 10.00 | | | | | 153,136 | | | |
| | 2" (50 mm) Coarse Aggregate | 45,940.8 | TN | 10.00 | | | | | 459,408 | | | |
| | Water Reducer | 16,644.7 | GAL | 3.23 | | | | | 53,762 | | | |
| 17 | Deliver Concrete | 37,000.00 | CY | | 24,579 | 1,865,514 | 1,200,909 | | | | | 3,066,423 |
| | | | | | 0.66 | 50.42 | 32.46 | | | | | 82.88 |
| | Prod=9.03 CY/hour (90.32 CY/ day), 0.664MH/CY, 1.51 CY/MH, 4,096.43 hour (409.64 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 1,865,514 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 1,200,909 | | | | | |
| 24 | Place Concrete | 37,000.00 | CY | | 36,868 | 2,639,575 | 863,773 | | | | | 3,503,348 |
| | | | | | 1.00 | 71.34 | 23.35 | | | | | 94.69 |
| | Prod=9.03 CY/hour (90.32 CY/ day), 0.996MH/CY, 1.00 CY/MH, 4,096.43 hour (409.64 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 855.22 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 307,232 | | | | | | |
| | Labourer | 8.0 | | 71.17 | | 2,332,343 | | | | | | |
| | 150 YPH Truck Mounted Concrete Pump | 1.0 | | 150.00 | | | 614,464 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 4,588 | | | | | |
| | 150 KW Diesel Generator Set | 1.0 | | 37.70 | | | 154,435 | | | | | |
| | 185 CFM Diesel Compressor | 1.0 | | 22.04 | | | 90,285 | | | | | |
| 332.215 | Gate Guides - Temporary | 1.00 | LS | | | | | | | | 200,000 | 200,000 |
| | | | | | | | | | | | 200,000.00 | 200,000.00 |
| | Diversion Tunnel | 1.00 | LS | | 315,630 | 24,563,747 | 11,185,160 | 3,053,014 | 6,150,894 | | | 44,952,815 |
| | | | | | 315,629.87 | 24,563,746.65 | 11,185,160.30 | 3,053,014.14 | 6,150,893.91 | | | 44,952,815.00 |
| 332.221 | Initial rock excavation 39ft diameter modified horseshoe US iof basir | 47,897.00 | CY | | 53,505 | 4,232,142 | 2,275,885 | 1,091,024 | | | | 7,599,050 |
| | | | | | 1.12 | 88.36 | 47.52 | 22.78 | | | | 158.65 |
| 300 | Tunnel Excavation | 47,897.00 | CY | | 53,505 | 4,232,142 | 2,275,885 | 1,091,024 | | | | 7,599,050 |
| | | | | | 1.12 | 88.36 | 47.52 | 22.78 | | | | 158.65 |
| 15 | Tunnel Excavation | 47,897.00 | CY | | 49,361 | 3,902,833 | 1,824,768 | 1,091,024 | | | | 6,818,624 |
| | | | | | 1.03 | 81.48 | 38.10 | 22.78 | | | | 142.36 |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 3,797.09 hour (158.21 days) | | | | | | | | | | | |
| | Tunnel Crew Excavation | 1.00 | EA | 1335.42 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 303,768 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 911,417 | | | | | | |
| | Miner Operator | 2.0 | | 83.93 | | 637,380 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 867,332 | | | | | | |
| | Electrician | 1.0 | | 80.00 | | 303,768 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 83.27 | | 316,184 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 396,075 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 160,579 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 237,280 | | | | | |
| | Tunnel 5 CY Scoop Tram | 2.0 | | 111.19 | | | 844,398 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 27,225 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 65,310 | | | | | |
| | Prod=1.00 HRS/hour (24.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 1,898.12 hour (79.09 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 150,445 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 142,359 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 270,179 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 72,755 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------------|---------------|------------------|----------------|----------------|----------|--------------|----------|------------------|
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 21,145 | | | | | |
| | Emulex 927 | 149,627.2 | LB | 3.80 | | | | 568,583 | | | | |
| | Drill Bits Jumbo | 263,339.7 | LF | 0.04 | | | | 9,875 | | | | |
| | Presplit Powder | 16,404.2 | LB | 6.02 | | | | 98,753 | | | | |
| | Caps 16ft | 26,333.6 | EA | 6.10 | | | | 160,635 | | | | |
| | Shoot Line | 116.7 | EA | 52.00 | | | | 6,067 | | | | |
| | Booster Emulex 927 Stick | 26,333.6 | Holes | 3.26 | | | | 85,848 | | | | |
| | Drill Steel | 91.3 | EA | 1,000.00 | | | | 91,313 | | | | |
| | Victaulic Service Pipe 50mm (4") (used) | 993.5 | FT | 4.64 | | | | 4,610 | | | | |
| | Telephone Signal Cable | 993.5 | FT | 2.81 | | | | 2,792 | | | | |
| | Tunnel Lighting Power Supply Cable | 993.5 | FT | 4.21 | | | | 4,182 | | | | |
| | Jumbo Power Supply Cable | 993.5 | FT | 12.37 | | | | 12,289 | | | | |
| | Tunnel Ventilation Line 1200mm (48") | 993.5 | FT | 46.38 | | | | 46,076 | | | | |
| 25 | Load Haul Excavation to Stockpile | 69,077.37 | CY | | 4,145 | 329,309 | 451,117 | | | | | 780,426 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 345.39 hour (34.54 days) | | | | 0.06 | 4.77 | 6.53 | | | | | 11.30 |
| | <i>Load Haul 980 Loader</i> | <i>1.00</i> | <i>EA</i> | <i>2259.57</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 27,631 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 27,375 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 27,375 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 26,546 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 26,546 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 26,287 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 167,547 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 66,694 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 47,259 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 30,308 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 258,108 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 44,900 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 3,848 | | | | | |
| 332.222 | Initial rock excavation 39ft diameter modified horseshoe DS of basin | 15,375.00 | CY | | 17,175 | 1,358,523 | 730,562 | 350,220 | | | | 2,439,305 |
| | | | | | 1.12 | 88.36 | 47.52 | 22.78 | | | | 158.65 |
| 300 | Tunnel Excavation | 15,375.00 | CY | | 17,175 | 1,358,523 | 730,562 | 350,220 | | | | 2,439,305 |
| | | | | | 1.12 | 88.36 | 47.52 | 22.78 | | | | 158.65 |
| 15 | Tunnel Excavation | 15,375.00 | CY | | 15,845 | 1,252,814 | 585,753 | 350,220 | | | | 2,188,787 |
| | Prod=1.00 HRS/hour (24.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 609.30 hour (25.39 days) | | | | 1.03 | 81.48 | 38.10 | 22.78 | | | | 142.36 |
| | <i>Day Shift Service Crew</i> | <i>1.00</i> | <i>EA</i> | <i>346.07</i> | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 48,293 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 45,698 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 86,728 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 23,354 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 6,788 | | | | | |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 1,218.87 hour (50.79 days) | | | | | | | | | | | |
| | <i>Tunnel Crew Excavation</i> | <i>1.00</i> | <i>EA</i> | <i>1335.42</i> | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 97,510 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 292,566 | | | | | | |
| | Miner Operator | 2.0 | | 83.93 | | 204,600 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 278,415 | | | | | | |
| | Electrician | 1.0 | | 80.00 | | 97,510 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 83.27 | | 101,496 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 127,141 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 51,546 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 76,167 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|---------------------|-----|----------|---------------|------------------|------------------|----------------|----------|--------------|----------|------------------|
| | Tunnel 5 CY Scoop Tram | 2.0 | | 111.19 | | | 271,053 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 8,739 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 20,965 | | | | | |
| | Drill Steel | 29.3 EA | | 1,000.00 | | | | | 29,312 | | | |
| | Booster Emulex 927 Stick | 8,453.1 Holes | | 3.26 | | | | | 27,557 | | | |
| | Shoot Line | 37.5 EA | | 52.00 | | | | | 1,948 | | | |
| | Caps 16ft | 8,453.1 EA | | 6.10 | | | | | 51,564 | | | |
| | Presplit Powder | 5,265.8 LB | | 6.02 | | | | | 31,700 | | | |
| | Drill Bits Jumbo | 84,532.4 LF | | 0.04 | | | | | 3,170 | | | |
| | Emulex 927 | 48,030.5 LB | | 3.80 | | | | | 182,516 | | | |
| | Victaulic Service Pipe 50mm (4") (used) | 318.9 FT | | 4.64 | | | | | 1,480 | | | |
| | Telephone Signal Cable | 318.9 FT | | 2.81 | | | | | 896 | | | |
| | Tunnel Lighting Power Supply Cable | 318.9 FT | | 4.21 | | | | | 1,343 | | | |
| | Jumbo Power Supply Cable | 318.9 FT | | 12.37 | | | | | 3,945 | | | |
| | Tunnel Ventilation Line 1200mm (48") | 318.9 FT | | 46.38 | | | | | 14,791 | | | |
| 25 | Load Haul Excavation to Stockpile | 22,173.93 CY | | | 1,330 | 105,709 | 144,809 | | | | | 250,518 |
| | | | | | 0.06 | 4.77 | 6.53 | | | | | 11.30 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 110.87 hour (11.09 days) | | | | | | | | | | | |
| | Load Haul 980 Loader | 1.00 EA | | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 8,870 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 8,788 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 8,788 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 8,521 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 8,521 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 8,438 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 53,783 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 21,409 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 15,170 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 9,729 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 82,853 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 14,413 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,235 | | | | | |
| 332.223 | Initial rock excavation 48ft diameter modified horseshoe 490LF | 27,750.00 CY | | | 28,152 | 2,226,775 | 1,202,517 | 572,324 | | | | 4,001,615 |
| | | | | | 1.01 | 80.24 | 43.33 | 20.62 | | | | 144.20 |
| 300 | Tunnel Excavation | 27,750.00 CY | | | 28,152 | 2,226,775 | 1,202,517 | 572,324 | | | | 4,001,615 |
| | | | | | 1.01 | 80.24 | 43.33 | 20.62 | | | | 144.20 |
| 15 | Tunnel Excavation | 27,750.00 CY | | | 25,901 | 2,047,896 | 957,473 | 572,324 | | | | 3,577,693 |
| | | | | | 0.93 | 73.80 | 34.50 | 20.62 | | | | 128.93 |
| | Prod=1.00 HRS/hour (24.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 996.17 hour (41.51 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 EA | | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 78,957 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 74,713 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 141,795 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 38,183 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 11,097 | | | | | |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 1,992.35 hour (83.01 days) | | | | | | | | | | | |
| | Tunnel Crew Excavation | 1.00 EA | | 1335.42 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 159,388 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 478,224 | | | | | | |
| | Miner Operator | 2.0 | | 83.93 | | 334,436 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 455,092 | | | | | | |
| | Electrician | 1.0 | | 80.00 | | 159,388 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 83.27 | | 165,903 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 207,822 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|---------------------|-----|----------------|---------------|------------------|----------------|----------------|----------|--------------|----------|------------------|
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 84,256 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 124,502 | | | | | |
| | Tunnel 5 CY Scoop Tram | 2.0 | | 111.19 | | | 443,059 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 14,285 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 34,268 | | | | | |
| | Drill Steel | 53.3 EA | | 1,000.00 | | | | 53,280 | | | | |
| | Booster Emulex 927 Stick | 13,822.9 Holes | | 3.26 | | | | 45,063 | | | | |
| | Shoot Line | 42.4 EA | | 52.00 | | | | 2,204 | | | | |
| | Caps 16ft | 13,822.9 EA | | 6.10 | | | | 84,320 | | | | |
| | Presplit Powder | 7,332.1 LB | | 6.02 | | | | 44,139 | | | | |
| | Drill Bits Jumbo | 138,230.5 LF | | 0.04 | | | | 5,184 | | | | |
| | Emulex 927 | 82,326.5 LB | | 3.80 | | | | 312,841 | | | | |
| | Victaulic Service Pipe 50mm (4") (used) | 359.2 FT | | 4.64 | | | | 1,667 | | | | |
| | Telephone Signal Cable | 359.2 FT | | 2.81 | | | | 1,009 | | | | |
| | Tunnel Lighting Power Supply Cable | 359.2 FT | | 4.21 | | | | 1,512 | | | | |
| | Jumbo Power Supply Cable | 359.2 FT | | 12.37 | | | | 4,444 | | | | |
| | Tunnel Ventilation Line 1200mm (48") | 359.2 FT | | 46.38 | | | | 16,661 | | | | |
| 25 | Load Haul Excavation to Stockpile | 37,522.44 CY | | | 2,251 | 178,879 | 245,044 | | | | | 423,923 |
| | | | | | 0.06 | 4.77 | 6.53 | | | | | 11.30 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 187.61 hour (18.76 days) | | | | | | | | | | | |
| | <i>Load Haul 980 Loader</i> | <i>1.00 EA</i> | | <i>2259.57</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 15,009 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 14,870 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 14,870 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 14,420 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 14,420 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 14,279 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 91,011 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 36,228 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 25,671 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 16,463 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 140,203 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 24,390 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,090 | | | | | |
| 332.224 | Rock Excavation 39ft -45ft Diameter Mod Horseshoe Transition 30 LI | 12,280.00 CY | | | 13,096 | 1,035,841 | 558,261 | 270,218 | | | | 1,864,319 |
| | | | | | 1.07 | 84.35 | 45.46 | 22.00 | | | | 151.82 |
| 300 | Tunnel Excavation | 12,280.00 CY | | | 13,096 | 1,035,841 | 558,261 | 270,218 | | | | 1,864,319 |
| | | | | | 1.07 | 84.35 | 45.46 | 22.00 | | | | 151.82 |
| 15 | Tunnel Excavation | 12,280.00 CY | | | 12,064 | 953,873 | 445,974 | 270,218 | | | | 1,670,064 |
| | | | | | 0.98 | 77.68 | 36.32 | 22.00 | | | | 136.00 |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 928.00 hour (38.67 days) | | | | | | | | | | | |
| | <i>Tunnel Crew Excavation</i> | <i>1.00 EA</i> | | <i>1335.42</i> | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 74,240 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 222,748 | | | | | | |
| | Miner Operator | 2.0 | | 83.93 | | 155,774 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 211,974 | | | | | | |
| | Electrician | 1.0 | | 80.00 | | 74,240 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 83.27 | | 77,275 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 96,800 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 39,245 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 57,991 | | | | | |
| | Tunnel 5 CY Scoop Tram | 2.0 | | 111.19 | | | 206,369 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 6,654 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 15,962 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|---------------|------------------|------------------|---------------|------------------|--------------|----------|------------------|
| | Prod=1.00 HRS/hour (24.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 464.00 hour (19.33 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 36,777 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 34,800 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 66,046 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 17,785 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 5,169 | | | | | |
| | Emulex 927 | 38,290.0 | LB | 3.80 | | | | 145,502 | | | | |
| | Drill Bits Jumbo | 64,438.0 | LF | 0.04 | | | | 2,416 | | | | |
| | Presplit Powder | 3,763.0 | LB | 6.02 | | | | 22,653 | | | | |
| | Caps 16ft | 6,444.0 | EA | 6.10 | | | | 39,308 | | | | |
| | Shoot Line | 24.0 | EA | 52.00 | | | | 1,248 | | | | |
| | Booster Emulex 927 Stick | 6,444.0 | Holes | 3.26 | | | | 21,007 | | | | |
| | Drill Steel | 24.0 | EA | 1,000.00 | | | | 24,000 | | | | |
| | Victaulic Service Pipe 50mm (4") (used) | 200.0 | FT | 4.64 | | | | 928 | | | | |
| | Telephone Signal Cable | 200.0 | FT | 2.81 | | | | 562 | | | | |
| | Tunnel Lighting Power Supply Cable | 200.0 | FT | 4.21 | | | | 842 | | | | |
| | Jumbo Power Supply Cable | 200.0 | FT | 12.37 | | | | 2,474 | | | | |
| | Tunnel Ventilation Line 1200mm (48") | 200.0 | FT | 46.38 | | | | 9,276 | | | | |
| 25 | Load Haul Excavation to Stockpile | 17,194.00 | CY | | 1,032 | 81,968 | 112,287 | | | | | 194,255 |
| | | | | | 0.06 | 4.77 | 6.53 | | | | | 11.30 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 85.97 hour (8.60 days) | | | | | | | | | | | |
| | Load Haul 980 Loader | 1.00 | EA | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 6,878 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 6,814 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 6,814 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 6,608 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 6,608 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 6,543 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 41,704 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 16,601 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 11,763 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 7,544 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 64,245 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 11,176 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 958 | | | | | |
| 332.225 | Concrete Lining 36ft dia ID 1ft thick | 6,150.00 | CY | | 46,749 | 3,571,551 | 1,737,782 | 17,911 | 1,065,585 | | | 6,392,829 |
| | | | | | 7.60 | 580.74 | 282.57 | 2.91 | 173.27 | | | 1,039.48 |
| 16 | Batch Concrete Contact | 66.18 | CY | | 460 | 35,632 | 57,141 | | 4,351 | | | 97,125 |
| | | | | | 6.95 | 538.38 | 863.37 | | 65.74 | | | 1,467.50 |
| | Prod=0.58 CY/hour (5.75 CY/ day), 6.954MH/CY, 0.14 CY/MH, 115.06 hour (11.51 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 9,119 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 9,205 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 9,119 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 8,189 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 15,743 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 20,962 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 733 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 1,332 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 1,717 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 15,017 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 1,636 | | | | | |
| | Flyash | 6.4 | TN | 160.00 | | | | | 1,016 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|-------------------|-----------|--------|---------------|------------------|------------------|---------------|----------------|--------------|----------|------------------|
| | Portland Cement Bulk | 11.9 | TN | 180.00 | | | | | 2,143 | | | |
| | Concrete Sand (Fine Aggregate) | 27.4 | TN | 10.00 | | | | | 274 | | | |
| | 2" (50 mm) Coarse Aggregate | 82.2 | TN | 10.00 | | | | | 822 | | | |
| | Water Reducer | 29.8 | GAL | 3.23 | | | | | 96 | | | |
| 17 | Deliver Concrete Contact | 66.18 | CY | | 690 | 52,397 | 33,730 | | | | | 86,128 |
| | Prod=0.58 CY/hour (5.75 CY/ day), 10.431MH/CY, 0.10 CY/MH, 115.06 hour (11.51 days) | | | | 10.43 | 791.70 | 509.65 | | | | | 1,301.34 |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 52,397 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 33,730 | | | | | |
| 20 | Concrete Tunnel Lining | 4,421.08 | CY | | 39,088 | 3,007,420 | 1,437,464 | 11,994 | 868,828 | | | 5,325,706 |
| | | | | | 8.84 | 680.25 | 325.14 | 2.71 | 196.52 | | | 1,204.62 |
| 10 | Concrete Formwork | 119,938.24 | SF | | 17,526 | 1,348,275 | 923,500 | | | | | 2,271,776 |
| | | | | | 0.15 | 11.24 | 7.70 | | | | | 18.94 |
| 10 | Purchase Steel Forms | 10,207.57 | SF | | | | 765,568 | | | | | 765,568 |
| | | | | | | | 75.00 | | | | | 75.00 |
| | Tunnel Concrete Forms | 1.0 | EA | 75.00 | | | 10,207.57 hour | | | | | |
| 15 | Assemble Steel Forms | 10,207.57 | SF | | 2,529 | 198,103 | 37,996 | | | | | 236,099 |
| | Prod=32.29 SF/hour (322.92 SF/ day), 0.248MH/SF, 4.04 SF/MH, 316.10 hour (31.61 days) | | | | 0.25 | 19.41 | 3.72 | | | | | 23.13 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 746.9 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 25,952 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 25,288 | | | | | | |
| | Carpenter | 5.0 | | 77.52 | | 122,522 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 24,340 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 91.39 | | | 28,889 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 3,521 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 5,586 | | | | | |
| 20 | SSM Form | 119,938.24 | SF | | 14,997 | 1,150,172 | 119,936 | | | | | 1,270,109 |
| | Prod=55.98 SF/hour (559.81 SF/ day), 0.125MH/SF, 8.00 SF/MH, 2,142.49 hour (214.25 days) | | | | 0.13 | 9.59 | 1.00 | | | | | 10.59 |
| | <i>SSM Formwork</i> | 1.00 | EA | 592.82 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 171,399 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 978,774 | | | | | | |
| | Tunnel Concrete Form Gantry | 1.0 | | 44.84 | | | 96,069 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 23,867 | | | | | |
| 15 | Reinforcement Steel | 663,161.42 | LB | | 4,698 | 364,143 | 18,061 | | 371,370 | | | 753,575 |
| | Prod=6,000.00 LB/hour (60,000.00 LB/ day), 0.001MH/LB, 1,500.00 LB/MH, 110.53 hour (11.05 days) | | | | 0.01 | 0.55 | 0.03 | | 0.56 | | | 1.14 |
| | <i>Handle Reinforcing Steel</i> | 1.00 | EA | 414.32 | | | | | | | | |
| | Ironworker | 2.0 | | 76.93 | | 17,006 | | | | | | |
| | Crane Operator Class A | 1.0 | | 82.10 | | 9,074 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 8,511 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 101.36 | | | 11,203 | | | | | |
| | Prod=935.02 LB/hour (9,350.18 LB/ day), 0.006MH/LB, 155.84 LB/MH, 709.25 hour (70.92 days) | | | | | | | | | | | |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 474.32 | | | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 56,740 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 272,813 | | | | | | |
| | Tunnel Concrete Rebar Gantry | 1.0 | | 9.67 | | | 6,858 | | | | | |
| | Supply Rebar | 663,161.4 | LB | 0.56 | | | | | 371,370 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|------------------|-----------|--------|--------------|----------------|----------------|--------------|----------------|--------------|----------|----------------|
| | Miner Foreman | 1.0 | | 80.00 | | 46,987 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 268,317 | | | | | | |
| | Tunnel Concrete Finishing Gantry | 1.0 | | 11.40 | | | 6,696 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 6,543 | | | | | |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 5.000MH/HRS, 0.20 HRS/MH, 587.33 hour (58.73 days) | | | | | | | | | | | |
| | Surface Hoist Crew Head Frame | 1.00 | EA | 393.48 | | | | | | | | |
| | Crane Operator Class-A | 2.0 | | 82.10 | | 96,440 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 89,439 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 45,225 | | | | | | |
| | Patch Supplies | 119,938.2 | SF | 0.10 | | | | | 11,994 | | | |
| 30 | Concrete Tunnel Floor | 1,727.91 | CY | | 5,365 | 408,151 | 176,816 | 5,917 | 186,232 | | | 777,115 |
| | | | | | 3.10 | 236.21 | 102.33 | 3.42 | 107.78 | | | 449.74 |
| 10 | Place Tunnel Concrete Floor | 2,591.35 | CY | | 5,365 | 408,151 | 176,816 | 5,917 | 186,232 | | | 777,115 |
| | | | | | 2.07 | 157.51 | 68.23 | 2.28 | 71.87 | | | 299.89 |
| 10 | Foundation Prep Tunnel Floor | 46,659.56 | SF | | 897 | 70,411 | 28,830 | | | | | 99,241 |
| | | | | | 0.02 | 1.51 | 0.62 | | | | | 2.13 |
| | Prod=260.00 SF/hour (2,600.00 SF/ day), 0.019MH/SF, 52.00 SF/MH, 179.46 hour (17.95 days) | | | | | | | | | | | |
| | Foundation Prep Tunnel Floor | 1.00 | EA | 553 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 14,357 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 40,992 | | | | | | |
| | Miner Operator | 1.0 | | 83.93 | | 15,062 | | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 7,589 | | | | | |
| | Tunnel 5 CY Scoop Tram | 1.0 | | 111.19 | | | 19,954 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 1,287 | | | | | |
| 16 | Batch Concrete | 2,591.35 | CY | | 713 | 55,173 | 88,477 | | 170,367 | | | 314,018 |
| | | | | | 0.28 | 21.29 | 34.14 | | 65.74 | | | 121.18 |
| | Prod=14.55 CY/hour (145.45 CY/ day), 0.275MH/CY, 3.64 CY/MH, 178.16 hour (17.82 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 14,121 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 14,252 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 14,121 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 12,679 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 24,377 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 32,458 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 1,135 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 2,063 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 2,658 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 23,253 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 2,533 | | | | | |
| | Flyash | 248.7 | TN | 160.00 | | | | | 39,798 | | | |
| | Portland Cement Bulk | 466.1 | TN | 180.00 | | | | | 83,903 | | | |
| | Concrete Sand (Fine Aggregate) | 1,072.5 | TN | 10.00 | | | | | 10,725 | | | |
| | 2" (50 mm) Coarse Aggregate | 3,217.5 | TN | 10.00 | | | | | 32,175 | | | |
| | Water Reducer | 1,165.7 | GAL | 3.23 | | | | | 3,765 | | | |
| 17 | Deliver Concrete | 2,591.35 | CY | | 1,069 | 81,132 | 52,228 | | | | | 133,360 |
| | | | | | 0.41 | 31.31 | 20.15 | | | | | 51.46 |
| | Prod=14.55 CY/hour (145.45 CY/ day), 0.413MH/CY, 2.42 CY/MH, 178.16 hour (17.82 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 81,132 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 52,228 | | | | | |
| 20 | Set, Strip & Paving Forms | 714.78 | SF | | 89 | 6,488 | 226 | 1,251 | | | | 7,964 |
| | | | | | 0.13 | 9.08 | 0.32 | 1.75 | | | | 11.14 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|------------------|-------------|--------|--------------|----------------|---------------|--------------|---------------|--------------|----------|----------------|
| | Prod=56.00 SF/hour (448.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 12.76 hour (1.60 days) | | | | | | | | | | | |
| | Set Strip Paving Forms | 1.00 | EA | 525.95 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | | | | | | | |
| | Miner | 6.0 | | 71.38 | | 5,467 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 226 | | | | | |
| | Set Strip Form Material | 714.8 | SF | 1.75 | | | | 1,251 | | | | |
| 21 | Place Wire Mesh | 46,659.56 | SF | | 216 | 15,915 | 1,396 | | 15,864 | | | 33,175 |
| | Prod=862.38 SF/hour (8,623.80 SF/ day), 0.005MH/SF, 215.60 SF/MH, 54.11 hour (5.41 days) | | | | 0.00 | 0.34 | 0.03 | | 0.34 | | | 0.71 |
| | Place Wire Mesh | 1.00 | EA | 319.95 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 4,328 | | | | | | |
| | Miner | 3.0 | | 71.38 | | 11,586 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 25.81 | | | 1,396 | | | | | |
| | Welded Wire Mesh | 46,659.6 | SF | 0.34 | | | | | 15,864 | | | |
| 22 | Place Concrete | 2,591.35 | CY | | 1,603 | 122,770 | 5,658 | | | | | 128,429 |
| | Prod=14.55 CY/hour (145.45 CY/ day), 0.619MH/CY, 1.62 CY/MH, 178.16 hour (17.82 days) | | | | 0.62 | 47.38 | 2.18 | | | | | 49.56 |
| | Place Concrete | 1.00 | EA | 720.88 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 14,252 | | | | | | |
| | Miner | 8.0 | | 76.14 | | 108,518 | | | | | | |
| | 3D Roller Screed | 1.0 | | 30.64 | | | 5,459 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 200 | | | | | |
| 35 | Finish Concrete Base Slab | 46,659.56 | SF | | 483 | 34,957 | | | | | | 34,957 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 241.38 hour (30.17 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 34,957 | | | | | | |
| 40 | Cure Concrete Base Slab | 46,659.56 | SF | | 294 | 21,305 | | 4,666 | | | | 25,971 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 147.11 hour (18.39 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 21,305 | | | | | | |
| | Curing Agent per sf | 46,659.6 | SF | 0.10 | | | | 4,666 | | | | |
| 40 | Contact Grout | 66.18 | CY | | 575 | 34,160 | 12,582 | | | | | 46,741 |
| | Prod=2.00 LOC/hour (20.00 LOC/ day), 2.500MH/LOC, 0.40 LOC/MH, 115.06 hour (11.51 days) | | | | 8.69 | 516.13 | 190.10 | | | | | 706.23 |
| | Mix & Place Grout per m3 | 1.00 | EA | 406.24 | | | | | | | | |
| | Labour Foreman | 1.0 | | 61.01 | | 7,020 | | | | | | |
| | Labourer | 3.0 | | 58.97 | | 20,355 | | | | | | |
| | Driller | 1.0 | | 58.97 | | 6,785 | | | | | | |
| | 5 Ton Flatbed Truck | 1.0 | | 24.88 | | | 2,863 | | | | | |
| | Concrete Pump Hopper | 1.0 | | 19.26 | | | 2,216 | | | | | |
| | Concrete Pump Multi-Z boom | 1.0 | | 25.36 | | | 2,918 | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 24.17 | | | 2,781 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 15.68 | | | 1,804 | | | | | |
| 50 | Water Control Grouting | 814.57 | SACK | | 570 | 33,791 | 20,049 | | 6,174 | | | 60,014 |
| | Prod=10.00 EA/hour (100.00 EA/ day), 0.700MH/EA, 1.43 EA/MH, 81.46 hour (8.15 days) | | | | 0.70 | 41.48 | 24.61 | | 7.58 | | | 73.68 |
| | Mix & Place Grout per Bag | 1.00 | EA | 660.96 | | | | | | | | |
| | Labour Foreman | 1.0 | | 61.01 | | 4,970 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|--------|--------------|----------------|----------------|--------------|----------------|--------------|----------|------------------|
| | Labourer | 4.0 | | 58.97 | | 19,214 | | | | | | |
| | Driller | 2.0 | | 58.97 | | 9,607 | | | | | | |
| | 5 Ton Flatbed Truck | 1.0 | | 24.88 | | | 2,027 | | | | | |
| | Grout Plant | 1.0 | | 30.20 | | | 2,460 | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 24.17 | | | 1,969 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 15.68 | | | 1,277 | | | | | |
| | Hydraulic Drill 2" (AC1032) | 2.0 | | 75.60 | | | 12,316 | | | | | |
| | Cement Bag (40 kg) portland type 10 | 814.6 | Bag | 7.58 | | | | | | 6,174 | | |
| 332.226 | Concrete Lining 36ft dia Mod 1ft Thick | 1,750.00 | CY | | 9,768 | 750,889 | 396,104 | 3,451 | 273,680 | | | 1,424,124 |
| | | | | | 5.58 | 429.08 | 226.34 | 1.97 | 156.39 | | | 813.79 |
| 20 | Concrete Tunnel Lining | 1,261.44 | CY | | 8,550 | 658,116 | 354,035 | 2,260 | 227,863 | | | 1,242,275 |
| | | | | | 6.78 | 521.72 | 280.66 | 1.79 | 180.64 | | | 984.81 |
| 10 | Concrete Formwork | 22,603.82 | SF | | 3,464 | 266,710 | 225,198 | | | | | 491,907 |
| | | | | | 0.15 | 11.80 | 9.96 | | | | | 21.76 |
| 10 | Purchase Steel Forms | 2,573.53 | SF | | | | 193,015 | | | | | 193,015 |
| | | | | | | | 75.00 | | | | | 75.00 |
| | Tunnel Concrete Forms | 1.0 | EA | 75.00 | | | 2,573.53 | hour | | | | |
| 15 | Assemble Steel Forms | 2,573.53 | SF | | 638 | 49,946 | 9,579 | | | | | 59,525 |
| | | | | | 0.25 | 19.41 | 3.72 | | | | | 23.13 |
| | Prod=32.29 SF/hour (322.92 SF/ day), 0.248MH/SF, 4.04 SF/MH, 79.70 hour (7.97 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 746.9 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 6,543 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 6,376 | | | | | | |
| | Carpenter | 5.0 | | 77.52 | | 30,890 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 6,137 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 91.39 | | | 7,283 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 888 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,408 | | | | | |
| 20 | SSM Form | 22,603.82 | SF | | 2,826 | 216,764 | 22,603 | | | | | 239,367 |
| | | | | | 0.13 | 9.59 | 1.00 | | | | | 10.59 |
| | Prod=55.98 SF/hour (559.81 SF/ day), 0.125MH/SF, 8.00 SF/MH, 403.78 hour (40.38 days) | | | | | | | | | | | |
| | SSM Formwork | 1.00 | EA | 592.82 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 32,302 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 184,462 | | | | | | |
| | Tunnel Concrete Form Gantry | 1.0 | | 44.84 | | | 18,105 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 4,498 | | | | | |
| 15 | Reinforcement Steel | 189,216.18 | LB | | 1,340 | 103,899 | 5,153 | | 105,961 | | | 215,013 |
| | | | | | 0.01 | 0.55 | 0.03 | | 0.56 | | | 1.14 |
| | Prod=6,000.00 LB/hour (60,000.00 LB/ day), 0.001MH/LB, 1,500.00 LB/MH, 31.54 hour (3.15 days) | | | | | | | | | | | |
| | Handle Reinforcing Steel | 1.00 | EA | 414.32 | | | | | | | | |
| | Ironworker | 2.0 | | 76.93 | | 4,852 | | | | | | |
| | Crane Operator Class A | 1.0 | | 82.10 | | 2,589 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 2,428 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 101.36 | | | 3,196 | | | | | |
| | Prod=935.02 LB/hour (9,350.18 LB/ day), 0.006MH/LB, 155.84 LB/MH, 202.37 hour (20.24 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 474.32 | | | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 16,189 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 77,840 | | | | | | |
| | Tunnel Concrete Rebar Gantry | 1.0 | | 9.67 | | | 1,957 | | | | | |
| | Supply Rebar | 189,216.2 | LB | 0.56 | | | | | 105,961 | | | |
| 16 | Batch Concrete | 1,819.79 | CY | | 535 | 41,439 | 66,453 | | 119,642 | | | 227,534 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|------------------|-----------|--------|--------------|----------------|---------------|--------------|--------------|--------------|----------|----------------|
| | Prod=13.60 CY/hour (136.00 CY/ day), 0.294MH/CY, 3.40 CY/MH, 133.81 hour (13.38 days) | | | | 0.29 | 22.77 | 36.52 | | 65.74 | | | 125.03 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 10,606 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 10,705 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 10,606 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 9,523 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 18,309 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 24,379 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 852 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 1,550 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 1,996 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 17,465 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 1,903 | | | | | |
| | Flyash | 174.7 | TN | 160.00 | | | | | 27,949 | | | |
| | Portland Cement Bulk | 327.3 | TN | 180.00 | | | | | 58,922 | | | |
| | Concrete Sand (Fine Aggregate) | 753.2 | TN | 10.00 | | | | | 7,532 | | | |
| | 2" (50 mm) Coarse Aggregate | 2,259.5 | TN | 10.00 | | | | | 22,595 | | | |
| | Water Reducer | 818.6 | GAL | 3.23 | | | | | 2,644 | | | |
| 17 | Deliver Concrete | 1,819.79 | CY | | 803 | 60,936 | 39,227 | | | | | 100,164 |
| | Prod=13.60 CY/hour (136.00 CY/ day), 0.441MH/CY, 2.27 CY/MH, 133.81 hour (13.38 days) | | | | 0.44 | 33.49 | 21.56 | | | | | 55.04 |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 60,936 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 39,227 | | | | | |
| 25 | Cast in Place Concrete | 1,819.79 | CY | | 937 | 71,834 | 15,508 | | | | | 87,342 |
| | Prod=13.60 CY/hour (136.00 CY/ day), 0.515MH/CY, 1.94 CY/MH, 133.81 hour (13.38 days) | | | | 0.51 | 39.47 | 8.52 | | | | | 48.00 |
| | <i>Place Concrete</i> | 1.00 | EA | 652.74 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 10,705 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 61,129 | | | | | | |
| | 90 YPH Trailer Mounted Concrete Pump | 1.0 | | 48.81 | | | 6,531 | | | | | |
| | 3-CY Concrete Bucket (Gravity) | 3.0 | | 1.26 | | | 506 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 150 | | | | | |
| | Tunnel Concrete Form Gantry | 1.0 | | 44.84 | | | 6,000 | | | | | |
| | Tunnel Concrete Placing Bridge | 1.0 | | 6.21 | | | 831 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,491 | | | | | |
| 27 | Cure Concrete | 22,603.82 | SF | | 143 | 10,321 | | 2,260 | | | | 12,581 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 71.27 hour (8.91 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 10,321 | | | | | | |
| | Curing Agent per sf | 22,603.8 | SF | 0.10 | | | | 2,260 | | | | |
| 30 | Concrete Repair | 22,603.82 | SF | | 1,328 | 102,977 | 2,495 | | 2,260 | | | 107,732 |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 5.000MH/HRS, 0.20 HRS/MH, 110.69 hour (11.07 days) | | | | 0.06 | 4.56 | 0.11 | | 0.10 | | | 4.77 |
| | <i>Surface Hoist Crew Head Frame</i> | 1.00 | EA | 393.48 | | | | | | | | |
| | Crane Operator Class-A | 2.0 | | 82.10 | | 18,175 | | | | | | |
| 10 | Patch & Point | 22,603.82 | SF | | 1,328 | 102,977 | 2,495 | | 2,260 | | | 107,732 |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 5.000MH/HRS, 0.20 HRS/MH, 110.69 hour (11.07 days) | | | | 0.06 | 4.56 | 0.11 | | 0.10 | | | 4.77 |
| | <i>Surface Hoist Crew Head Frame</i> | 1.00 | EA | 393.48 | | | | | | | | |
| | Crane Operator Class-A | 2.0 | | 82.10 | | 18,175 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|-----------------|-----------|--------|--------------|---------------|---------------|--------------|---------------|--------------|----------|----------------|
| | Miner | 2.0 | | 76.14 | | 16,856 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 8,523 | | | | | | |
| | Prod=204.21 SF/hour (2,042.08 SF/ day), 0.034MH/SF, 29.17 SF/MH, 110.69 hour (11.07 days) | | | | | | | | | | | |
| | Patch Concrete | 1.00 | EA | 559.38 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 8,855 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 50,568 | | | | | | |
| | Tunnel Concrete Finishing Gantry | 1.0 | | 11.40 | | | | 1,262 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | | 1,233 | | | | |
| | Patch Supplies | 22,603.8 | SF | 0.10 | | | | | | 2,260 | | |
| 30 | Concrete Tunnel Floor | 488.56 | CY | | 1,218 | 92,773 | 42,069 | 1,191 | 45,817 | | | 181,849 |
| | | | | | 2.49 | 189.89 | 86.11 | 2.44 | 93.78 | | | 372.22 |
| 10 | Place Tunnel Concrete Floor | 651.41 | CY | | 1,218 | 92,773 | 42,069 | 1,191 | 45,817 | | | 181,849 |
| | | | | | 1.87 | 142.42 | 64.58 | 1.83 | 70.34 | | | 279.16 |
| 10 | Foundation Prep Tunnel Floor | 8,795.29 | SF | | 169 | 13,272 | 5,434 | | | | | 18,707 |
| | | | | | 0.02 | 1.51 | 0.62 | | | | | 2.13 |
| | Prod=260.00 SF/hour (2,600.00 SF/ day), 0.019MH/SF, 52.00 SF/MH, 33.83 hour (3.38 days) | | | | | | | | | | | |
| | Foundation Prep Tunnel Floor | 1.00 | EA | 553 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 2,706 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 7,727 | | | | | | |
| | Miner Operator | 1.0 | | 83.93 | | 2,839 | | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | | 1,431 | | | | |
| | Tunnel 5 CY Scoop Tram | 1.0 | | 111.19 | | | | 3,761 | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | | 243 | | | | |
| 16 | Batch Concrete | 651.41 | CY | | 177 | 13,689 | 21,953 | | 42,827 | | | 78,469 |
| | | | | | 0.27 | 21.01 | 33.70 | | 65.74 | | | 120.46 |
| | Prod=14.74 CY/hour (147.37 CY/ day), 0.271MH/CY, 3.68 CY/MH, 44.20 hour (4.42 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 3,504 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 3,536 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 3,504 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 3,146 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | | 6,048 | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | | 8,053 | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | | 282 | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | | 512 | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | | 660 | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | | 5,769 | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | | 629 | | | | |
| | Flyash | 62.5 | TN | 160.00 | | | | | | 10,004 | | |
| | Portland Cement Bulk | 117.2 | TN | 180.00 | | | | | | 21,092 | | |
| | Concrete Sand (Fine Aggregate) | 269.6 | TN | 10.00 | | | | | | 2,696 | | |
| | 2" (50 mm) Coarse Aggregate | 808.8 | TN | 10.00 | | | | | | 8,088 | | |
| | Water Reducer | 293.0 | GAL | 3.23 | | | | | | 947 | | |
| 17 | Deliver Concrete | 651.41 | CY | | 265 | 20,130 | 12,959 | | | | | 33,089 |
| | | | | | 0.41 | 30.90 | 19.89 | | | | | 50.80 |
| | Prod=14.74 CY/hour (147.37 CY/ day), 0.407MH/CY, 2.46 CY/MH, 44.20 hour (4.42 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 20,130 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | | 12,959 | | | | |
| 20 | Set, Strip & Paving Forms | 177.88 | SF | | 22 | 1,615 | 56 | 311 | | | | 1,982 |
| | | | | | 0.13 | 9.08 | 0.32 | 1.75 | | | | 11.14 |
| | Prod=56.00 SF/hour (448.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 3.18 hour (0.40 days) | | | | | | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|--------|---------------|------------------|----------------|---------------|------------------|--------------|----------|------------------|
| | Set Strip Paving Forms | 1.00 | EA | 525.95 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 254 | | | | | | |
| | Miner | 6.0 | | 71.38 | | 1,360 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 56 | | | | | |
| | Set Strip Form Material | 177.9 | SF | 1.75 | | | | 311 | | | | |
| 21 | Place Wire Mesh | 8,795.29 | SF | | 41 | 3,000 | 263 | | 2,990 | | | 6,254 |
| | Prod=862.38 SF/hour (8,623.80 SF/ day), 0.005MH/SF, 215.60 SF/MH, 10.20 hour (1.02 days) | | | | 0.00 | 0.34 | 0.03 | | 0.34 | | | 0.71 |
| | Place Wire Mesh | 1.00 | EA | 319.95 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 816 | | | | | | |
| | Miner | 3.0 | | 71.38 | | 2,184 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 25.81 | | | 263 | | | | | |
| | Welded Wire Mesh | 8,795.3 | SF | 0.34 | | | | | 2,990 | | | |
| 22 | Place Concrete | 651.41 | CY | | 398 | 30,461 | 1,404 | | | | | 31,865 |
| | Prod=14.74 CY/hour (147.37 CY/ day), 0.611MH/CY, 1.64 CY/MH, 44.20 hour (4.42 days) | | | | 0.61 | 46.76 | 2.16 | | | | | 48.92 |
| | Place Concrete | 1.00 | EA | 720.88 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 3,536 | | | | | | |
| | Miner | 8.0 | | 76.14 | | 26,925 | | | | | | |
| | 3D Roller Screed | 1.0 | | 30.64 | | | 1,354 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 50 | | | | | |
| 35 | Finish Concrete Base Slab | 8,795.29 | SF | | 91 | 6,589 | | | | | | 6,589 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 45.50 hour (5.69 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 6,589 | | | | | | |
| 40 | Cure Concrete Base Slab | 8,795.29 | SF | | 55 | 4,016 | | 880 | | | | 4,896 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 27.73 hour (3.47 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 4,016 | | | | | | |
| | Curing Agent per sf | 8,795.3 | SF | 0.10 | | | | 880 | | | | |
| 332.227 | Concrete Lining 45ft diameter modified horseshoe 1.5 ft thick | 6,407.00 | CY | | 48,094 | 3,710,679 | 942,377 | 11,790 | 1,065,696 | | | 5,730,543 |
| | | | | | 7.51 | 579.16 | 147.09 | 1.84 | 166.33 | | | 894.42 |
| 20 | Concrete Tunnel Lining | 4,227.72 | CY | | 42,725 | 3,301,895 | 757,554 | 6,491 | 861,315 | | | 4,927,255 |
| | | | | | 10.11 | 781.01 | 179.19 | 1.54 | 203.73 | | | 1,165.46 |
| 10 | Concrete Formwork | 100,883.18 | SF | | 24,933 | 1,932,541 | 286,589 | | | | | 2,219,130 |
| | | | | | 0.25 | 19.16 | 2.84 | | | | | 22.00 |
| 15 | Assemble Steel Forms | 50,082.89 | SF | | 12,408 | 971,981 | 186,424 | | | | | 1,158,405 |
| | | | | | 0.25 | 19.41 | 3.72 | | | | | 23.13 |
| | Prod=32.29 SF/hour (322.92 SF/ day), 0.248MH/SF, 4.04 SF/MH, 1,550.95 hour (155.10 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 746.9 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 127,333 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 124,076 | | | | | | |
| | Carpenter | 5.0 | | 77.52 | | 601,149 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 119,423 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 91.39 | | | 141,741 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 17,278 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 27,405 | | | | | |
| 20 | SSM Form | 100,165.77 | SF | | 12,525 | 960,560 | 100,164 | | | | | 1,060,725 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|-----------|-----|--------|--------|---------|---------|---------|----------|--------------|----------|------------|
| | <i>Place Concrete</i> | 1.00 | EA | 652.74 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 39,188 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 223,782 | | | | | | |
| | 90 YPH Trailer Mounted Concrete Pump | 1.0 | | 48.81 | | | 23,910 | | | | | |
| | 3-CY Concrete Bucket (Gravity) | 3.0 | | 1.26 | | | 1,852 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 549 | | | | | |
| | Tunnel Concrete Form Gantry | 1.0 | | 44.84 | | | 21,965 | | | | | |
| | Tunnel Concrete Placing Bridge | 1.0 | | 6.21 | | | 3,042 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 5,457 | | | | | |
| 27 | Cure Concrete | 64,910.07 | SF | | 409 | 29,638 | | 6,491 | | | | 36,129 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 204.66 hour (25.58 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 29,638 | | | | | | |
| | Curing Agent per sf | 64,910.1 | SF | 0.10 | | | | 6,491 | | | | |
| 30 | Concrete Repair | 64,910.07 | SF | | 3,814 | 295,713 | 7,165 | | 6,491 | | | 309,369 |
| | | | | | 0.06 | 4.56 | 0.11 | | 0.10 | | | 4.77 |
| 10 | Patch & Point | 64,910.07 | SF | | 3,814 | 295,713 | 7,165 | | 6,491 | | | 309,369 |
| | | | | | 0.06 | 4.56 | 0.11 | | 0.10 | | | 4.77 |
| | Prod=204.21 SF/hour (2,042.08 SF/ day), 0.034MH/SF, 29.17 SF/MH, 317.86 hour (31.79 days) | | | | | | | | | | | |
| | <i>Patch Concrete</i> | 1.00 | EA | 559.38 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 25,429 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 145,212 | | | | | | |
| | Tunnel Concrete Finishing Gantry | 1.0 | | 11.40 | | | 3,624 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 3,541 | | | | | |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 5.000MH/HRS, 0.20 HRS/MH, 317.86 hour (31.79 days) | | | | | | | | | | | |
| | <i>Surface Hoist Crew Head Frame</i> | 1.00 | EA | 393.48 | | | | | | | | |
| | Crane Operator Class-A | 2.0 | | 82.10 | | 52,193 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 48,404 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 24,475 | | | | | | |
| | Patch Supplies | 64,910.1 | SF | 0.10 | | | | 6,491 | | | | |
| 30 | Concrete Tunnel Floor | 2,179.28 | CY | | 5,369 | 408,784 | 184,823 | 5,299 | 204,381 | | | 803,288 |
| | | | | | 2.46 | 187.58 | 84.81 | 2.43 | 93.78 | | | 368.60 |
| 10 | Place Tunnel Concrete Floor | 2,905.71 | CY | | 5,369 | 408,784 | 184,823 | 5,299 | 204,381 | | | 803,288 |
| | | | | | 1.85 | 140.68 | 63.61 | 1.82 | 70.34 | | | 276.45 |
| 10 | Foundation Prep Tunnel Floor | 39,254.15 | SF | | 755 | 59,236 | 24,255 | | | | | 83,491 |
| | | | | | 0.02 | 1.51 | 0.62 | | | | | 2.13 |
| | Prod=260.00 SF/hour (2,600.00 SF/ day), 0.019MH/SF, 52.00 SF/MH, 150.98 hour (15.10 days) | | | | | | | | | | | |
| | <i>Foundation Prep Tunnel Floor</i> | 1.00 | EA | 553 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 12,078 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 34,486 | | | | | | |
| | Miner Operator | 1.0 | | 83.93 | | 12,672 | | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 6,385 | | | | | |
| | Tunnel 5 CY Scoop Tram | 1.0 | | 111.19 | | | 16,787 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 1,083 | | | | | |
| 16 | Batch Concrete | 2,905.71 | CY | | 775 | 59,991 | 96,204 | | 191,035 | | | 347,230 |
| | | | | | 0.27 | 20.65 | 33.11 | | 65.74 | | | 119.50 |
| | Prod=15.00 CY/hour (150.00 CY/ day), 0.267MH/CY, 3.75 CY/MH, 193.71 hour (19.37 days) | | | | | | | | | | | |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 15,354 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 15,497 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 15,354 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|--------------|-----|--------|--------|---------|--------|---------|----------|--------------|----------|------------|
| | Labourer | 1.0 | | 71.17 | | 13,787 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 26,506 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 35,293 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 1,234 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 2,243 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 2,890 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 25,284 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 2,755 | | | | | |
| | Flyash | 278.9 TN | | 160.00 | | | | | 44,626 | | | |
| | Portland Cement Bulk | 522.7 TN | | 180.00 | | | | | 94,082 | | | |
| | Concrete Sand (Fine Aggregate) | 1,202.6 TN | | 10.00 | | | | | 12,026 | | | |
| | 2" (50 mm) Coarse Aggregate | 3,607.9 TN | | 10.00 | | | | | 36,079 | | | |
| | Water Reducer | 1,307.2 GAL | | 3.23 | | | | | 4,222 | | | |
| 17 | Deliver Concrete | 2,905.71 CY | | | 1,162 | 88,217 | 56,789 | | | | | 145,007 |
| | Prod=15.00 CY/hour (150.00 CY/ day), 0.400MH/CY, 2.50 CY/MH, 193.71 hour (19.37 days) | | | | 0.40 | 30.36 | 19.54 | | | | | 49.90 |
| | Deliver Concrete (9 m3 truck) | 1.00 EA | | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 88,217 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 56,789 | | | | | |
| 20 | Set, Strip & Paving Forms | 785.08 SF | | | 98 | 7,126 | 248 | 1,374 | | | | 8,747 |
| | Prod=56.00 SF/hour (448.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 14.02 hour (1.75 days) | | | | 0.13 | 9.08 | 0.32 | 1.75 | | | | 11.14 |
| | Set Strip Paving Forms | 1.00 EA | | 525.95 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 1,122 | | | | | | |
| | Miner | 6.0 | | 71.38 | | 6,004 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 248 | | | | | |
| | Set Strip Form Material | 785.1 SF | | 1.75 | | | | 1,374 | | | | |
| 21 | Place Wire Mesh | 39,254.15 SF | | | 182 | 13,389 | 1,175 | | 13,346 | | | 27,910 |
| | Prod=862.38 SF/hour (8,623.80 SF/ day), 0.005MH/SF, 215.60 SF/MH, 45.52 hour (4.55 days) | | | | 0.00 | 0.34 | 0.03 | | 0.34 | | | 0.71 |
| | Place Wire Mesh | 1.00 EA | | 319.95 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 3,641 | | | | | | |
| | Miner | 3.0 | | 71.38 | | 9,747 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 25.81 | | | 1,175 | | | | | |
| | Welded Wire Mesh | 39,254.2 SF | | 0.34 | | | | | 13,346 | | | |
| 22 | Place Concrete | 2,905.71 CY | | | 1,743 | 133,492 | 6,152 | | | | | 139,645 |
| | Prod=15.00 CY/hour (150.00 CY/ day), 0.600MH/CY, 1.67 CY/MH, 193.71 hour (19.37 days) | | | | 0.60 | 45.94 | 2.12 | | | | | 48.06 |
| | Place Concrete | 1.00 EA | | 720.88 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 15,497 | | | | | | |
| | Miner | 8.0 | | 76.14 | | 117,995 | | | | | | |
| | 3D Roller Screed | 1.0 | | 30.64 | | | 5,935 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 217 | | | | | |
| 35 | Finish Concrete Base Slab | 39,254.15 SF | | | 406 | 29,409 | | | | | | 29,409 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 203.07 hour (25.38 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Finish Concrete with Trowel | 1.00 EA | | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 29,409 | | | | | | |
| 40 | Cure Concrete Base Slab | 39,254.15 SF | | | 248 | 17,924 | | 3,925 | | | | 21,849 |
| | | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------------|---|-------------------|-----------|--------|--------------|----------------|----------------|--------------|----------------|--------------|----------|------------------|
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 123.77 hour (15.47 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 17,924 | | | | | | |
| | Curing Agent per sf | 39,254.2 | SF | 0.10 | | | | 3,925 | | | | |
| 332.228a | Concrete Lining 36-45ft diameter transition 1.5ft thick | 1,420.00 | CY | | 7,926 | 609,292 | 321,410 | 2,800 | 222,072 | | | 1,155,575 |
| | | | | | 5.58 | 429.08 | 226.34 | 1.97 | 156.39 | | | 813.79 |
| 20 | Concrete Tunnel Lining | 1,023.57 | CY | | 6,938 | 534,014 | 287,274 | 1,834 | 184,895 | | | 1,008,017 |
| | | | | | 6.78 | 521.72 | 280.66 | 1.79 | 180.64 | | | 984.81 |
| 10 | Concrete Formwork | 18,341.39 | SF | | 2,811 | 216,416 | 182,732 | | | | | 399,148 |
| | | | | | 0.15 | 11.80 | 9.96 | | | | | 21.76 |
| 10 | Purchase Steel Forms | 2,088.24 | SF | | | | 156,618 | | | | | 156,618 |
| | | | | | | | 75.00 | | | | | 75.00 |
| | Tunnel Concrete Forms | 1.0 | EA | 75.00 | | 2,088.24 | hour | | | | | |
| 15 | Assemble Steel Forms | 2,088.24 | SF | | 517 | 40,527 | 7,773 | | | | | 48,300 |
| | | | | | 0.25 | 19.41 | 3.72 | | | | | 23.13 |
| | Prod=32.29 SF/hour (322.92 SF/ day), 0.248MH/SF, 4.04 SF/MH, 64.67 hour (6.47 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 746.9 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 5,309 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 5,173 | | | | | | |
| | Carpenter | 5.0 | | 77.52 | | 25,065 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 4,979 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 91.39 | | | 5,910 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 720 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,143 | | | | | |
| 20 | SSM Form | 18,341.39 | SF | | 2,293 | 175,889 | 18,341 | | | | | 194,230 |
| | | | | | 0.13 | 9.59 | 1.00 | | | | | 10.59 |
| | Prod=55.98 SF/hour (559.81 SF/ day), 0.125MH/SF, 8.00 SF/MH, 327.64 hour (32.76 days) | | | | | | | | | | | |
| | SSM Formwork | 1.00 | EA | 592.82 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 26,211 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 149,678 | | | | | | |
| | Tunnel Concrete Form Gantry | 1.0 | | 44.84 | | | 14,691 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 3,650 | | | | | |
| 15 | Reinforcement Steel | 153,535.41 | LB | | 1,088 | 84,307 | 4,182 | | 85,980 | | | 174,468 |
| | | | | | 0.01 | 0.55 | 0.03 | | 0.56 | | | 1.14 |
| | Prod=6,000.00 LB/hour (60,000.00 LB/ day), 0.001MH/LB, 1,500.00 LB/MH, 25.59 hour (2.56 days) | | | | | | | | | | | |
| | Handle Reinforcing Steel | 1.00 | EA | 414.32 | | | | | | | | |
| | Ironworker | 2.0 | | 76.93 | | 3,937 | | | | | | |
| | Crane Operator Class A | 1.0 | | 82.10 | | 2,101 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 1,970 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 101.36 | | | 2,594 | | | | | |
| | Prod=935.02 LB/hour (9,350.18 LB/ day), 0.006MH/LB, 155.84 LB/MH, 164.21 hour (16.42 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 474.32 | | | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 13,136 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 63,162 | | | | | | |
| | Tunnel Concrete Rebar Gantry | 1.0 | | 9.67 | | | 1,588 | | | | | |
| | Supply Rebar | 153,535.4 | LB | 0.56 | | | | | 85,980 | | | |
| 16 | Batch Concrete | 1,476.63 | CY | | 434 | 33,625 | 53,922 | | 97,081 | | | 184,628 |
| | | | | | 0.29 | 22.77 | 36.52 | | 65.74 | | | 125.03 |
| | Prod=13.60 CY/hour (136.00 CY/ day), 0.294MH/CY, 3.40 CY/MH, 108.58 hour (10.86 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 8,606 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|---------------|-----------|--------|------------|---------------|---------------|------------|---------------|--------------|----------|----------------|
| | <i>Surface Hoist Crew Head Frame</i> | 1.00 | EA | 393.48 | | | | | | | | |
| | Crane Operator Class-A | 2.0 | | 82.10 | | 14,748 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 13,677 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 6,916 | | | | | | |
| | Patch Supplies | 18,341.4 | SF | 0.10 | | | | | | 1,834 | | |
| 30 | Concrete Tunnel Floor | 396.43 | CY | | 989 | 75,278 | 34,136 | 966 | 37,177 | | | 147,558 |
| | | | | | 2.49 | 189.89 | 86.11 | 2.44 | 93.78 | | | 372.22 |
| 10 | Place Tunnel Concrete Floor | 528.57 | CY | | 989 | 75,278 | 34,136 | 966 | 37,177 | | | 147,558 |
| | | | | | 1.87 | 142.42 | 64.58 | 1.83 | 70.34 | | | 279.16 |
| 10 | Foundation Prep Tunnel Floor | 7,136.75 | SF | | 137 | 10,770 | 4,410 | | | | | 15,179 |
| | | | | | 0.02 | 1.51 | 0.62 | | | | | 2.13 |
| | Prod=260.00 SF/hour (2,600.00 SF/ day), 0.019MH/SF, 52.00 SF/MH, 27.45 hour (2.74 days) | | | | | | | | | | | |
| | <i>Foundation Prep Tunnel Floor</i> | 1.00 | EA | 553 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 2,196 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 6,270 | | | | | | |
| | Miner Operator | 1.0 | | 83.93 | | 2,304 | | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 1,161 | | | | | |
| | Tunnel 5 CY Scoop Tram | 1.0 | | 111.19 | | | 3,052 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 197 | | | | | |
| 16 | Batch Concrete | 528.57 | CY | | 143 | 11,108 | 17,813 | | 34,751 | | | 63,672 |
| | | | | | 0.27 | 21.01 | 33.70 | | 65.74 | | | 120.46 |
| | Prod=14.74 CY/hour (147.37 CY/ day), 0.271MH/CY, 3.68 CY/MH, 35.87 hour (3.59 days) | | | | | | | | | | | |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 2,843 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 2,869 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 2,843 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 2,553 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 4,908 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 6,535 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 228 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 415 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 535 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 4,681 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 510 | | | | | |
| | Flyash | 50.7 | TN | 160.00 | | | | | | 8,118 | | |
| | Portland Cement Bulk | 95.1 | TN | 180.00 | | | | | | 17,114 | | |
| | Concrete Sand (Fine Aggregate) | 218.8 | TN | 10.00 | | | | | | 2,188 | | |
| | 2" (50 mm) Coarse Aggregate | 656.3 | TN | 10.00 | | | | | | 6,563 | | |
| | Water Reducer | 237.8 | GAL | 3.23 | | | | | | 768 | | |
| 17 | Deliver Concrete | 528.57 | CY | | 215 | 16,334 | 10,515 | | | | | 26,849 |
| | | | | | 0.41 | 30.90 | 19.89 | | | | | 50.80 |
| | Prod=14.74 CY/hour (147.37 CY/ day), 0.407MH/CY, 2.46 CY/MH, 35.87 hour (3.59 days) | | | | | | | | | | | |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 16,334 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 10,515 | | | | | |
| 20 | Set, Strip & Paving Forms | 144.34 | SF | | 18 | 1,310 | 46 | 253 | | | | 1,608 |
| | | | | | 0.13 | 9.08 | 0.32 | 1.75 | | | | 11.14 |
| | Prod=56.00 SF/hour (448.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 2.58 hour (0.32 days) | | | | | | | | | | | |
| | <i>Set Strip Paving Forms</i> | 1.00 | EA | 525.95 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 206 | | | | | | |
| | Miner | 6.0 | | 71.38 | | 1,104 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 46 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------------|--|------------------|-----------|--------|---------------|------------------|----------------|------------|------------------|--------------|----------|------------------|
| | Set Strip Form Material | 144.3 | SF | 1.75 | | | | 253 | | | | |
| 21 | Place Wire Mesh | 7,136.75 | SF | | 33 | 2,434 | 214 | | 2,426 | | | 5,074 |
| | Prod=862.38 SF/hour (8,623.80 SF/ day), 0.005MH/SF, 215.60 SF/MH, 8.28 hour (0.83 days) | | | | 0.00 | 0.34 | 0.03 | | 0.34 | | | 0.71 |
| | Place Wire Mesh | 1.00 | EA | 319.95 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 662 | | | | | | |
| | Miner | 3.0 | | 71.38 | | 1,772 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 25.81 | | | 214 | | | | | |
| | Welded Wire Mesh | 7,136.8 | SF | 0.34 | | | | | 2,426 | | | |
| 22 | Place Concrete | 528.57 | CY | | 323 | 24,717 | 1,139 | | | | | 25,856 |
| | Prod=14.74 CY/hour (147.37 CY/ day), 0.611MH/CY, 1.64 CY/MH, 35.87 hour (3.59 days) | | | | 0.61 | 46.76 | 2.16 | | | | | 48.92 |
| | Place Concrete | 1.00 | EA | 720.88 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 2,869 | | | | | | |
| | Miner | 8.0 | | 76.14 | | 21,848 | | | | | | |
| | 3D Roller Screed | 1.0 | | 30.64 | | | 1,099 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 40 | | | | | |
| 35 | Finish Concrete Base Slab | 7,136.75 | SF | | 74 | 5,347 | | | | | | 5,347 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 36.92 hour (4.62 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 5,347 | | | | | | |
| 40 | Cure Concrete Base Slab | 7,136.75 | SF | | 45 | 3,259 | | 714 | | | | 3,972 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 22.50 hour (2.81 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 3,259 | | | | | | |
| | Curing Agent per sf | 7,136.8 | SF | 0.10 | | | | 714 | | | | |
| 332.228b | Concrete Plugs Gate Chambers for Low Level | 12,680.00 | CY | | 23,341 | 1,797,715 | 959,814 | 675 | 1,544,397 | | | 4,302,602 |
| | | | | | 1.84 | 141.78 | 75.70 | 0.05 | 121.80 | | | 339.32 |
| 20 | Concrete Tunnel Plugs | 12,680.00 | CY | | 23,341 | 1,797,715 | 959,814 | 675 | 1,544,397 | | | 4,302,602 |
| | | | | | 1.84 | 141.78 | 75.70 | 0.05 | 121.80 | | | 339.32 |
| 10 | Concrete Formwork | 6,750.00 | SF | | 1,680 | 130,231 | 272,438 | | | | | 402,668 |
| | | | | | 0.25 | 19.29 | 40.36 | | | | | 59.65 |
| 10 | Purchase Steel Forms | 3,375.00 | SF | | | | 253,125 | | | | | 253,125 |
| | | | | | | | 75.00 | | | | | 75.00 |
| | Tunnel Concrete Forms | 1.0 | EA | 75.00 | | | 3,375.00 | hour | | | | |
| 15 | Assemble Steel Forms | 3,375.00 | SF | | 836 | 65,500 | 12,563 | | | | | 78,063 |
| | Prod=32.29 SF/hour (322.92 SF/ day), 0.248MH/SF, 4.04 SF/MH, 104.52 hour (10.45 days) | | | | 0.25 | 19.41 | 3.72 | | | | | 23.13 |
| | Fabricate Gang Formwork | 1.00 | EA | 746.9 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 8,581 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 8,361 | | | | | | |
| | Carpenter | 5.0 | | 77.52 | | 40,510 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 8,048 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 91.39 | | | 9,552 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,164 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,847 | | | | | |
| 20 | SSM Form | 6,750.00 | SF | | 844 | 64,731 | 6,750 | | | | | 71,480 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------------|---|------------------|-----------|---------|---------------|------------------|------------------|----------------|----------|--------------|----------|------------------|
| | <i>Place Concrete</i> | 1.00 | EA | 652.74 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 57,600 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 328,925 | | | | | | |
| | 90 YPH Trailer Mounted Concrete Pump | 1.0 | | 48.81 | | | 35,143 | | | | | |
| | 3-CY Concrete Bucket (Gravity) | 3.0 | | 1.26 | | | 2,722 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 806 | | | | | |
| | Tunnel Concrete Form Gantry | 1.0 | | 44.84 | | | 32,285 | | | | | |
| | Tunnel Concrete Placing Bridge | 1.0 | | 6.21 | | | 4,471 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 8,021 | | | | | |
| 27 | Cure Concrete | 6,750.00 | SF | | 43 | 3,082 | | 675 | | | | 3,757 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 21.28 hour (2.66 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 3,082 | | | | | | |
| | Curing Agent per sf | 6,750.0 | SF | 0.10 | | | | 675 | | | | |
| 30 | Concrete Repair | 6,750.00 | SF | | 397 | 30,751 | 745 | | | 675 | | 32,171 |
| | Prod=204.21 SF/hour (2,042.08 SF/ day), 0.034MH/SF, 29.17 SF/MH, 33.05 hour (3.31 days) | | | | 0.06 | 4.56 | 0.11 | | | 0.10 | | 4.77 |
| 10 | Patch & Point | 6,750.00 | SF | | 397 | 30,751 | 745 | | | 675 | | 32,171 |
| | Prod=204.21 SF/hour (2,042.08 SF/ day), 0.034MH/SF, 29.17 SF/MH, 33.05 hour (3.31 days) | | | | 0.06 | 4.56 | 0.11 | | | 0.10 | | 4.77 |
| | <i>Patch Concrete</i> | 1.00 | EA | 559.38 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 2,644 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 15,101 | | | | | | |
| | Tunnel Concrete Finishing Gantry | 1.0 | | 11.40 | | | 377 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 368 | | | | | |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 5.000MH/HRS, 0.20 HRS/MH, 33.05 hour (3.31 days) | | | | | | | | | | | |
| | <i>Surface Hoist Crew Head Frame</i> | 1.00 | EA | 393.48 | | | | | | | | |
| | Crane Operator Class-A | 2.0 | | 82.10 | | 5,428 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 5,034 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 2,545 | | | | | | |
| | Patch Supplies | 6,750.0 | SF | 0.10 | | | | | 675 | | | |
| 332.228c | Secondary Excavation for Basin | 33,293.00 | CY | | 35,504 | 2,808,326 | 1,513,532 | 732,602 | | | | 5,054,460 |
| | Prod=1.00 HRS/hour (24.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 1,257.98 hour (52.42 days) | | | | 1.07 | 84.35 | 45.46 | 22.00 | | | | 151.82 |
| 300 | Tunnel Excavation | 33,293.00 | CY | | 35,504 | 2,808,326 | 1,513,532 | 732,602 | | | | 5,054,460 |
| | Prod=1.00 HRS/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 2,515.95 hour (104.83 days) | | | | 1.07 | 84.35 | 45.46 | 22.00 | | | | 151.82 |
| 15 | Tunnel Excavation | 33,293.00 | CY | | 32,707 | 2,586,098 | 1,209,104 | 732,602 | | | | 4,527,804 |
| | Prod=1.00 HRS/hour (24.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 1,257.98 hour (52.42 days) | | | | 0.98 | 77.68 | 36.32 | 22.00 | | | | 136.00 |
| | <i>Day Shift Service Crew</i> | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 99,707 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 94,348 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 179,060 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 48,218 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 14,014 | | | | | |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 2,515.95 hour (104.83 days) | | | | | | | | | | | |
| | <i>Tunnel Crew Excavation</i> | 1.00 | EA | 1335.42 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 201,276 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 603,904 | | | | | | |
| | Miner Operator | 2.0 | | 83.93 | | 422,328 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 574,694 | | | | | | |
| | Electrician | 1.0 | | 80.00 | | 201,276 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 83.27 | | 209,503 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 262,439 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|----------------------|-----|----------|---------------|------------------|----------------|---------|----------------|--------------|----------|------------------|
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 106,400 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 157,222 | | | | | |
| | Tunnel 5 CY Scoop Tram | 2.0 | | 111.19 | | | 559,498 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 18,039 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 43,274 | | | | | |
| | Drill Steel | 65.1 EA | | 1,000.00 | | | | 65,068 | | | | |
| | Booster Emulex 927 Stick | 17,470.7 Holes | | 3.26 | | | | 56,954 | | | | |
| | Shoot Line | 65.1 EA | | 52.00 | | | | 3,384 | | | | |
| | Caps 16ft | 17,470.7 EA | | 6.10 | | | | 106,571 | | | | |
| | Presplit Powder | 10,202.1 LB | | 6.02 | | | | 61,417 | | | | |
| | Drill Bits Jumbo | 174,701.5 LF | | 0.04 | | | | 6,551 | | | | |
| | Emulex 927 | 103,810.2 LB | | 3.80 | | | | 394,479 | | | | |
| | Victaulic Service Pipe 50mm (4") (used) | 542.2 FT | | 4.64 | | | | 2,516 | | | | |
| | Telephone Signal Cable | 542.2 FT | | 2.81 | | | | 1,524 | | | | |
| | Tunnel Lighting Power Supply Cable | 542.2 FT | | 4.21 | | | | 2,283 | | | | |
| | Jumbo Power Supply Cable | 542.2 FT | | 12.37 | | | | 6,707 | | | | |
| | Tunnel Ventilation Line 1200mm (48") | 542.2 FT | | 46.38 | | | | 25,149 | | | | |
| 25 | Load Haul Excavation to Stockpile | 46,615.62 CY | | | 2,797 | 222,228 | 304,428 | | | | | 526,656 |
| | | | | | 0.06 | 4.77 | 6.53 | | | | | 11.30 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 233.08 hour (23.31 days) | | | | | | | | | | | |
| | <i>Load Haul 980 Loader</i> | 1.00 EA | | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 18,646 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 18,474 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 18,474 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 17,914 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 17,914 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 17,740 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 113,066 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 45,007 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 31,892 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 20,453 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 174,179 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 30,300 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,596 | | | | | |
| 332.229 | Shotcrete 4 inches Fibre Reinforced | 250,428.00 SF | | | 19,140 | 1,456,051 | 206,449 | | 575,029 | | | 2,237,528 |
| | | | | | 0.08 | 5.81 | 0.82 | | 2.30 | | | 8.93 |
| 10 | Shotcrete | 3,828.09 CY | | | 19,140 | 1,456,051 | 206,449 | | 575,029 | | | 2,237,528 |
| | | | | | 5.00 | 380.36 | 53.93 | | 150.21 | | | 584.50 |
| 10 | Shotcrete | 3,828.09 CY | | | 19,140 | 1,456,051 | 206,449 | | 575,029 | | | 2,237,528 |
| | | | | | 5.00 | 380.36 | 53.93 | | 150.21 | | | 584.50 |
| 10 | Tunnel Shotcrete | 3,828.09 CY | | | 19,140 | 1,456,051 | 206,449 | | 575,029 | | | 2,237,528 |
| | | | | | 5.00 | 380.36 | 53.93 | | 150.21 | | | 584.50 |
| | Prod=1.00 CY/hour (10.00 CY/ day), 5.000MH/CY, 0.20 CY/MH, 3,828.09 hour (382.81 days) | | | | | | | | | | | |
| | <i>Place Shotcrete in Tunnel</i> | 1.00 EA | | 434.29 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 306,247 | | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | 291,470 | | | | | | |
| | Miner | 3.0 | | 74.74 | | 858,333 | | | | | | |
| | 8 YPH Wet Shotcrete Pump (Swing 750) | 1.0 | | 18.83 | | | 72,083 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 20.88 | | | 79,930 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 54,435 | | | | | |
| | Concrete Sand (Fine Aggregate) | 3,761.1 TN | | 10.00 | | | | | 37,611 | | | |
| | 1/2" (12 mm) Coarse Aggregate | 1,622.8 TN | | 10.00 | | | | | 16,228 | | | |
| | Water Reducer | 1,148.4 GAL | | 3.23 | | | | | 3,709 | | | |
| | Super Plasticizer | 3,828.1 GAL | | 9.51 | | | | | 36,405 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|--------|--------------|----------------|----------------|---------|----------------|--------------|----------|----------------|
| | Air Entrainment | 1,914.0 | GAL | 5.00 | | | | | 9,570 | | | |
| | Fibre Reinforcement | 3,828.1 | CY | 70.37 | | | | | 269,382 | | | |
| | Shotcrete Bag 70 LB (30 kg) | 40,424.6 | Bag | 5.00 | | | | | 202,123 | | | |
| 332.230 | Access Tunnel Dowels #8 12ft | 1,815.00 | EA | | 3,610 | 274,780 | 99,156 | | 432,914 | | | 806,849 |
| | | | | | 1.99 | 151.39 | 54.63 | | 238.52 | | | 444.55 |
| 301 | Rock Bolts | 21,780.00 | LF | | 3,610 | 274,780 | 99,156 | | 432,914 | | | 806,849 |
| | | | | | 0.17 | 12.62 | 4.55 | | 19.88 | | | 37.05 |
| 10 | Rock Bolts | 21,780.00 | LF | | 3,610 | 274,780 | 99,156 | | 432,914 | | | 806,849 |
| | | | | | 0.17 | 12.62 | 4.55 | | 19.88 | | | 37.05 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 401.11 hour (50.14 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | | 31,792 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | | 30,084 | | | | | |
| | Labourer | 2.0 | | 71.17 | | | 57,095 | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | | 15,375 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | | 4,468 | | | | |
| | Prod=54.30 FT/hour (434.39 FT/ day), 0.092MH/FT, 10.86 FT/MH, 401.11 hour (50.14 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 586.17 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | | 64,186 | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | | 30,541 | | | | | |
| | Miner | 2.0 | | 76.14 | | | 61,082 | | | | | |
| | Post-tensioning Jack | 1.0 | | 4.81 | | | | 1,929 | | | | |
| | Grout Pump | 1.0 | | 10.52 | | | | 4,220 | | | | |
| | Grout Plant | 1.0 | | 20.96 | | | | 8,407 | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | | 5,511 | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | | 59,245 | | | | |
| | Resin Cartrage | 3,811.5 | EA | 2.00 | | | | | 7,623 | | | |
| | Nut Bolt Washer Plate | 3,630.0 | EA | 10.00 | | | | | 36,300 | | | |
| | Rockbolts 1" (25 mm) 517/690 Mpa | 21,780.0 | FT | 17.86 | | | | | 388,991 | | | |
| 332.231 | Access Tunnel Dowels #8 15ft | 1,540.00 | EA | | 3,816 | 290,457 | 104,813 | | 436,051 | | | 831,321 |
| | | | | | 2.48 | 188.61 | 68.06 | | 283.15 | | | 539.82 |
| 301 | Rock Bolts | 23,100.00 | LF | | 3,816 | 290,457 | 104,813 | | 436,051 | | | 831,321 |
| | | | | | 0.17 | 12.57 | 4.54 | | 18.88 | | | 35.99 |
| 10 | Rock Bolts | 23,100.00 | LF | | 3,816 | 290,457 | 104,813 | | 436,051 | | | 831,321 |
| | | | | | 0.17 | 12.57 | 4.54 | | 18.88 | | | 35.99 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 424.00 hour (53.00 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | | 33,606 | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | | 31,800 | | | | | |
| | Labourer | 2.0 | | 71.17 | | | 60,352 | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | | 16,252 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | | 4,723 | | | | |
| | Prod=54.48 FT/hour (435.85 FT/ day), 0.092MH/FT, 10.90 FT/MH, 424.00 hour (53.00 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 586.17 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | | 67,848 | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | | 32,283 | | | | | |
| | Miner | 2.0 | | 76.14 | | | 64,567 | | | | | |
| | Post-tensioning Jack | 1.0 | | 4.81 | | | | 2,039 | | | | |
| | Grout Pump | 1.0 | | 10.52 | | | | 4,460 | | | | |
| | Grout Plant | 1.0 | | 20.96 | | | | 8,887 | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | | 5,826 | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | | 62,625 | | | | |
| | Resin Cartrage | 4,042.5 | EA | 2.00 | | | | | 8,085 | | | |
| | Nut Bolt Washer Plate | 1,540.0 | EA | 10.00 | | | | | 15,400 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|----------|--------------|----------------|----------------|---------|----------|----------------|----------|----------------|
| | Rockbolts 1" (25 mm) 517/690 Mpa | 23,100.0 | FT | 17.86 | | | | | | 412,566 | | |
| 332.232 | Access Tunnel Dowels #8 18ft | 1,230.00 | EA | | 3,657 | 278,386 | 100,457 | | | 415,469 | | 794,312 |
| | | | | | 2.97 | 226.33 | 81.67 | | | 337.78 | | 645.78 |
| 301 | Rock Bolts | 22,140.00 | LF | | 3,657 | 278,386 | 100,457 | | | 415,469 | | 794,312 |
| | | | | | 0.17 | 12.57 | 4.54 | | | 18.77 | | 35.88 |
| 10 | Rock Bolts | 22,140.00 | LF | | 3,657 | 278,386 | 100,457 | | | 415,469 | | 794,312 |
| | | | | | 0.17 | 12.57 | 4.54 | | | 18.77 | | 35.88 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 406.38 hour (50.80 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 32,210 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 30,478 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 57,844 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 15,577 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 4,527 | | | | | |
| | Prod=54.48 FT/hour (435.85 FT/ day), 0.092MH/FT, 10.90 FT/MH, 406.38 hour (50.80 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 586.17 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | 65,029 | | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | 30,942 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 61,883 | | | | | | |
| | Post-tensioning Jack | 1.0 | | 4.81 | | | 1,955 | | | | | |
| | Grout Pump | 1.0 | | 10.52 | | | 4,275 | | | | | |
| | Grout Plant | 1.0 | | 20.96 | | | 8,518 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | 5,584 | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | 60,022 | | | | | |
| | Nut Bolt Washer Plate | 1,230.0 | EA | 10.00 | | | | | 12,300 | | | |
| | Resin Cartridge | 3,874.5 | EA | 2.00 | | | | | 7,749 | | | |
| | Rockbolts 1" (25 mm) 517/690 Mpa | 22,140.0 | FT | 17.86 | | | | | 395,420 | | | |
| 332.233 | Drains | 1,030.00 | EA | | 687 | 53,612 | 27,714 | | | | | 81,325 |
| | | | | | 0.67 | 52.05 | 26.91 | | | | | 78.96 |
| 10 | Drill Drains | 1,030.00 | EA | | 687 | 53,612 | 27,714 | | | | | 81,325 |
| | | | | | 0.67 | 52.05 | 26.91 | | | | | 78.96 |
| | Prod=6.00 EA/hour (48.00 EA/ day), 0.667MH/EA, 1.50 EA/MH, 171.67 hour (21.46 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 473.74 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | 27,470 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 26,141 | | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | 2,359 | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | 25,355 | | | | | |
| 332.234 | Tunnel Support Steel Ribs- 39ft Tunnel | 20.00 | EA | | 880 | 67,954 | 5,206 | | | 54,000 | | 127,160 |
| | | | | | 44.00 | 3,397.72 | 260.28 | | | 2,700.00 | | 6,358.00 |
| 14 | Install Steel Sets | 20.00 | EA | | 640 | 49,676 | 4,406 | | | 54,000 | | 108,082 |
| | | | | | 32.00 | 2,483.80 | 220.32 | | | 2,700.00 | | 5,404.12 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 80.00 hour (10.00 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 371.35 | | | | | | | | |
| | Loader Operator | 1.0 | | 83.93 | | 6,714 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 6,400 | | | | | | |
| | Labourer | 2.0 | | 76.17 | | 12,187 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.97 | | | 3,118 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 1,289 | | | | | |
| | Prod=0.25 EA/hour (2.00 EA/ day), 16.000MH/EA, 0.06 EA/MH, 80.00 hour (10.00 days) | | | | | | | | | | | |
| | Steel Set Crew | 1.00 | EA | 304.68 | | | | | | | | |
| | Miner | 4.0 | | 76.17 | | 24,374 | | | | | | |
| | Furnish Steel Ribs 100 LF | 20.0 | Sets | 2,700.00 | | | | | 54,000 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|---------------|------------------|------------------|----------------|----------------|--------------|----------|------------------|
| 16 | Weld Steel Sets | 20.00 | EA | | 240 | 18,278 | 799 | | | | | 19,078 |
| | Prod=0.25 EA/hour (2.50 EA/ day), 12.000MH/EA, 0.08 EA/MH, 80.00 hour (8.00 days) | | | | 12.00 | 913.92 | 39.96 | | | | | 953.88 |
| | Weld Steel Sets | 1.00 | EA | 238.47 | | | | | | | | |
| | Miner | 2.0 | | 76.17 | | 12,187 | | | | | | |
| | Welder Journeyman | 1.0 | | 76.14 | | 6,091 | | | | | | |
| | 300 Amp Electric Welder | 1.0 | | 9.99 | | | 799 | | | | | |
| 332.235 | Tunnel Support Steel Ribs- 48ft Tunnel | 12.00 | EA | | 528 | 40,774 | 3,123 | | 66,000 | | | 109,897 |
| | Prod=0.25 EA/hour (2.00 EA/ day), 16.000MH/EA, 0.06 EA/MH, 48.00 hour (6.00 days) | | | | 44.00 | 3,397.84 | 260.28 | | 5,500.00 | | | 9,158.12 |
| 14 | Install Steel Sets | 12.00 | EA | | 384 | 29,806 | 2,644 | | 66,000 | | | 98,449 |
| | Prod=0.25 EA/hour (2.00 EA/ day), 16.000MH/EA, 0.06 EA/MH, 48.00 hour (6.00 days) | | | | 32.00 | 2,483.80 | 220.32 | | 5,500.00 | | | 8,204.12 |
| | Steel Set Crew | 1.00 | EA | 304.68 | | | | | | | | |
| | Miner | 4.0 | | 76.17 | | 14,625 | | | | | | |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 48.00 hour (6.00 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 371.35 | | | | | | | | |
| | Loader Operator | 1.0 | | 83.93 | | 4,029 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 3,840 | | | | | | |
| | Labourer | 2.0 | | 76.17 | | 7,312 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.97 | | | 1,871 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 773 | | | | | |
| | Furnish Steel Ribs | 12.0 | Sets | 5,500.00 | | | | | 66,000 | | | |
| 16 | Weld Steel Sets | 12.00 | EA | | 144 | 10,968 | 480 | | | | | 11,448 |
| | Prod=0.25 EA/hour (2.50 EA/ day), 12.000MH/EA, 0.08 EA/MH, 48.00 hour (4.80 days) | | | | 12.00 | 914.04 | 39.96 | | | | | 954.00 |
| | Weld Steel Sets | 1.00 | EA | 238.5 | | | | | | | | |
| | Miner | 2.0 | | 76.17 | | 7,312 | | | | | | |
| | Welder Journeyman | 1.0 | | 76.17 | | 3,656 | | | | | | |
| | 300 Amp Electric Welder | 1.0 | | 9.99 | | | 480 | | | | | |
| | Access Tunnel to Diversion Tunnel | 1.00 | LS | | 61,848 | 4,836,988 | 2,130,712 | 711,581 | 910,111 | | | 8,589,392 |
| | | | | | 61,847.64 | 4,836,988.02 | 2,130,712.02 | 711,581.04 | 910,110.62 | | | 8,589,391.71 |
| 332.241 | Access Tunnel Excavation | 27,297.00 | CY | | 42,275 | 3,343,484 | 1,730,902 | 707,820 | | | | 5,782,207 |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 3,072.00 hour (128.00 days) | | | | 1.55 | 122.49 | 63.41 | 25.93 | | | | 211.83 |
| 300 | Tunnel Excavation | 27,297.00 | CY | | 42,275 | 3,343,484 | 1,730,902 | 707,820 | | | | 5,782,207 |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 3,072.00 hour (128.00 days) | | | | 1.55 | 122.49 | 63.41 | 25.93 | | | | 211.83 |
| 15 | Tunnel Excavation | 27,297.00 | CY | | 39,936 | 3,157,647 | 1,476,326 | 707,820 | | | | 5,341,794 |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 3,072.00 hour (128.00 days) | | | | 1.46 | 115.68 | 54.08 | 25.93 | | | | 195.69 |
| | Tunnel Crew Excavation | 1.00 | EA | 1335.42 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 245,760 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 737,372 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 701,706 | | | | | | |
| | Miner Operator | 2.0 | | 83.93 | | 515,666 | | | | | | |
| | Electrician | 1.0 | | 80.00 | | 245,760 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 83.27 | | 255,805 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 320,440 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 129,915 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 191,969 | | | | | |
| | Tunnel 5 CY Scoop Tram | 2.0 | | 111.19 | | | 683,151 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 22,026 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 52,838 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|--------------|----------------|--------------|----------|----------------|
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 1,536.00 hour (192.00 days) | | | | | | | | | | | |
| | <i>Day Shift Service Crew</i> | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 121,743 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 115,200 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 218,634 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 58,875 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 17,111 | | | | | |
| | Emulex 927 | 81,935.0 | LB | 3.80 | | | | 311,353 | | | | |
| | Drill Bits Jumbo | 164,801.0 | LF | 0.04 | | | | 6,180 | | | | |
| | Presplit Powder | 14,819.0 | LB | 6.02 | | | | 89,210 | | | | |
| | Caps 16ft | 16,480.0 | EA | 6.10 | | | | 100,528 | | | | |
| | Shoot Line | 141.0 | EA | 52.00 | | | | 7,332 | | | | |
| | Booster Emulex 927 Stick | 16,480.0 | Holes | 3.26 | | | | 53,725 | | | | |
| | Drill Steel | 55.0 | EA | 1,000.00 | | | | 55,000 | | | | |
| | Victaulic Service Pipe 50mm (4") (used) | 1,200.0 | FT | 4.64 | | | | 5,568 | | | | |
| | Telephone Signal Cable | 1,200.0 | FT | 2.81 | | | | 3,372 | | | | |
| | Tunnel Lighting Power Supply Cable | 1,200.0 | FT | 4.21 | | | | 5,052 | | | | |
| | Jumbo Power Supply Cable | 1,200.0 | FT | 12.37 | | | | 14,844 | | | | |
| | Tunnel Ventilation Line 1200mm (48") | 1,200.0 | FT | 46.38 | | | | 55,656 | | | | |
| 25 | Load Haul Excavation to Stockpile | 38,982.00 | CY | | 2,339 | 185,837 | 254,576 | | | | | 440,413 |
| | | | | | 0.06 | 4.77 | 6.53 | | | | | 11.30 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 194.91 hour (19.49 days) | | | | | | | | | | | |
| | <i>Load Haul 980 Loader</i> | 1.00 | EA | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 15,593 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 15,449 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 15,449 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 14,981 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 14,981 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 14,835 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 94,551 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 37,637 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 26,670 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 17,103 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 145,656 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 25,338 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,171 | | | | | |
| 332.242 | Access Tunnel Concrete Floor | 933.00 | CY | | 2,746 | 209,259 | 89,358 | 3,761 | 100,611 | | | 402,988 |
| | | | | | 2.94 | 224.29 | 95.77 | 4.03 | 107.84 | | | 431.93 |
| 303 | Concrete Tunnel Floor | 1,400.00 | CY | | 2,746 | 209,259 | 89,358 | 3,761 | 100,611 | | | 402,988 |
| | | | | | 1.96 | 149.47 | 63.83 | 2.69 | 71.86 | | | 287.85 |
| 10 | Place Tunnel Concrete Floor | 1,400.00 | CY | | 2,746 | 209,259 | 89,358 | 3,761 | 100,611 | | | 402,988 |
| | | | | | 1.96 | 149.47 | 63.83 | 2.69 | 71.86 | | | 287.85 |
| 10 | Foundation Prep Tunnel Floor | 25,200.00 | SF | | 485 | 38,028 | 15,571 | | | | | 53,598 |
| | | | | | 0.02 | 1.51 | 0.62 | | | | | 2.13 |
| | Prod=260.00 SF/hour (2,600.00 SF/ day), 0.019MH/SF, 52.00 SF/MH, 96.92 hour (9.69 days) | | | | | | | | | | | |
| | <i>Foundation Prep Tunnel Floor</i> | 1.00 | EA | 553 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 7,754 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 22,139 | | | | | | |
| | Miner Operator | 1.0 | | 83.93 | | 8,135 | | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 4,099 | | | | | |
| | Tunnel 5 CY Scoop Tram | 1.0 | | 111.19 | | | 10,777 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 695 | | | | | |
| 16 | Batch Concrete | 1,400.00 | CY | | 355 | 27,494 | 44,091 | | 92,043 | | | 163,628 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|--------|---------------|----------------|----------------|---------|----------|----------------|----------|------------------|
| | | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 130.37 hour (16.30 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 18,880 | | | | | | |
| 40 | Cure Concrete Base Slab | 25,200.00 | SF | | 159 | 11,506 | | 2,520 | | | | 14,026 |
| | | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 79.45 hour (9.93 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 11,506 | | | | | | |
| | Curing Agent per sf | 25,200.00 | SF | 0.10 | | | | 2,520 | | | | |
| 332.243 | Access Tunnel Dowels #8 8FT | 3,120.00 | EA | | 5,577 | 427,633 | 177,280 | | | 483,538 | | 1,088,451 |
| | | | | | 1.79 | 137.06 | 56.82 | | | 154.98 | | 348.86 |
| 301 | Rock Bolts | 24,960.00 | LF | | 5,577 | 427,633 | 177,280 | | | 483,538 | | 1,088,451 |
| | | | | | 0.22 | 17.13 | 7.10 | | | 19.37 | | 43.61 |
| 10 | Rock Bolts | 24,960.00 | LF | | 5,577 | 427,633 | 177,280 | | | 483,538 | | 1,088,451 |
| | | | | | 0.22 | 17.13 | 7.10 | | | 19.37 | | 43.61 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 398.00 hour (49.75 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 31,545 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 29,850 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 56,651 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 15,255 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 4,434 | | | | | |
| | Prod=31.32 FT/hour (250.54 FT/ day), 0.160MH/FT, 6.26 FT/MH, 797.00 hour (99.63 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 586.17 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | 127,536 | | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | 60,684 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 121,367 | | | | | | |
| | Post-tensioning Jack | 1.0 | | 4.81 | | | 3,834 | | | | | |
| | Grout Pump | 1.0 | | 10.52 | | | 8,384 | | | | | |
| | Grout Plant | 1.0 | | 20.96 | | | 16,705 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | 10,951 | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | 117,717 | | | | | |
| | Nut Bolt Washer Plate | 3,120.00 | EA | 10.00 | | | | | 31,200 | | | |
| | Resin Cartrage | 3,276.00 | EA | 2.00 | | | | | 6,552 | | | |
| | Rockbolts 1" (25 mm) 517/690 Mpa | 24,960.00 | FT | 17.86 | | | | | 445,786 | | | |
| 332.244 | Access Tunnel Shotcrete 6 inches | 90,927.00 | SF | | 10,850 | 825,381 | 117,028 | | | 325,962 | | 1,268,372 |
| | | | | | 0.12 | 9.08 | 1.29 | | | 3.58 | | 13.95 |
| 302 | Shotcrete | 2,170.00 | CY | | 10,850 | 825,381 | 117,028 | | | 325,962 | | 1,268,372 |
| | | | | | 5.00 | 380.36 | 53.93 | | | 150.21 | | 584.50 |
| 10 | Shotcrete | 2,170.00 | CY | | 10,850 | 825,381 | 117,028 | | | 325,962 | | 1,268,372 |
| | | | | | 5.00 | 380.36 | 53.93 | | | 150.21 | | 584.50 |
| 10 | Tunnel Shotcrete | 2,170.00 | CY | | 10,850 | 825,381 | 117,028 | | | 325,962 | | 1,268,372 |
| | | | | | 5.00 | 380.36 | 53.93 | | | 150.21 | | 584.50 |
| | Prod=1.00 CY/hour (10.00 CY/ day), 5.000MH/CY, 0.20 CY/MH, 2,170.00 hour (217.00 days) | | | | | | | | | | | |
| | Place Shotcrete in Tunnel | 1.00 | EA | 434.29 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 173,600 | | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | 165,224 | | | | | | |
| | Miner | 3.0 | | 74.74 | | 486,557 | | | | | | |
| | 8 YPH Wet Shotcrete Pump (Swing 750) | 1.0 | | 18.83 | | | 40,861 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 20.88 | | | 45,310 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 30,857 | | | | | |
| | Concrete Sand (Fine Aggregate) | 2,132.00 | TN | 10.00 | | | | | 21,320 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|----------|---------------|------------------|----------------|----------------|------------------|--------------|-------------------|-------------------|
| | 1/2" (12 mm) Coarse Aggregate | 919.9 | TN | 10.00 | | | | | | 9,199 | | |
| | Water Reducer | 651.0 | GAL | 3.23 | | | | | | 2,103 | | |
| | Super Plasticizer | 2,170.0 | GAL | 9.51 | | | | | | 20,637 | | |
| | Air Entrainment | 1,085.0 | GAL | 5.00 | | | | | | 5,425 | | |
| | Fibre Reinforcement | 2,170.0 | CY | 70.37 | | | | | | 152,703 | | |
| | Shotcrete Bag 70 LB (30 kg) | 22,915.2 | Bag | 5.00 | | | | | | 114,576 | | |
| 332.245 | Drains | 600.00 | EA | | 400 | 31,230 | 16,144 | | | | | 47,374 |
| | | | | | 0.67 | 52.05 | 26.91 | | | | | 78.96 |
| 10 | Drill Drains | 600.00 | EA | | 400 | 31,230 | 16,144 | | | | | 47,374 |
| | | | | | 0.67 | 52.05 | 26.91 | | | | | 78.96 |
| | Prod=6.00 EA/hour (48.00 EA/ day), 0.667MH/EA, 1.50 EA/MH, 100.00 hour (12.50 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 473.74 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | 16,002 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 15,228 | | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | | 1,374 | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | | 14,770 | | | | |
| | Valve Chamber Upstream | 1.00 | LS | | 26,825 | 2,087,451 | 747,752 | 239,834 | 2,967,554 | | 12,907,376 | 18,949,967 |
| | | | | | 26,824.91 | 2,087,451.18 | 747,752.02 | 239,833.73 | 2,967,554.09 | | 12,907,376.00 | 18,949,967.03 |
| 332.251 | Valve Chamber Upstream Excavation | 7,585.00 | CY | | 7,943 | 628,218 | 326,346 | 223,306 | | | | 1,177,870 |
| | | | | | 1.05 | 82.82 | 43.03 | 29.44 | | | | 155.29 |
| 300 | Tunnel Excavation | 7,585.00 | CY | | 7,943 | 628,218 | 326,346 | 223,306 | | | | 1,177,870 |
| | | | | | 1.05 | 82.82 | 43.03 | 29.44 | | | | 155.29 |
| 15 | Tunnel Excavation | 7,585.00 | CY | | 7,488 | 592,059 | 276,811 | 223,306 | | | | 1,092,176 |
| | | | | | 0.99 | 78.06 | 36.49 | 29.44 | | | | 143.99 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 288.00 hour (36.00 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 22,827 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 21,600 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 40,994 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 11,039 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 3,208 | | | | | |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 576.00 hour (24.00 days) | | | | | | | | | | | |
| | Tunnel Crew Excavation | 1.00 | EA | 1335.42 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 46,080 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 138,257 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 131,570 | | | | | | |
| | Miner Operator | 2.0 | | 83.93 | | 96,687 | | | | | | |
| | Electrician | 1.0 | | 80.00 | | 46,080 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 83.27 | | 47,964 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 60,083 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 24,359 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 35,994 | | | | | |
| | Tunnel 5 CY Scoop Tram | 2.0 | | 111.19 | | | 128,091 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 4,130 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 9,907 | | | | | |
| | Drill Steel | 15.0 | EA | 1,000.00 | | | | 15,000 | | | | |
| | Booster Emulex 927 Stick | 3,885.0 | Holes | 3.26 | | | | 12,665 | | | | |
| | Shoot Line | 9.0 | EA | 52.00 | | | | 468 | | | | |
| | Caps 16ft | 3,885.0 | EA | 6.10 | | | | 23,699 | | | | |
| | Presplit Powder | 2,168.0 | LB | 6.02 | | | | 13,051 | | | | |
| | Drill Bits Jumbo | 38,848.0 | LF | 0.04 | | | | 1,457 | | | | |
| | Emulex 927 | 22,778.0 | LB | 3.80 | | | | 86,556 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|--------------|----------------|---------------|--------------|---------------|--------------|----------|----------------|
| | Victaulic Service Pipe 50mm (4") (used) | 1,000.0 | FT | 4.64 | | | | 4,640 | | | | |
| | Telephone Signal Cable | 1,000.0 | FT | 2.81 | | | | 2,810 | | | | |
| | Tunnel Lighting Power Supply Cable | 1,000.0 | FT | 4.21 | | | | 4,210 | | | | |
| | Jumbo Power Supply Cable | 1,000.0 | FT | 12.37 | | | | 12,370 | | | | |
| | Tunnel Ventilation Line 1200mm (48") | 1,000.0 | FT | 46.38 | | | | 46,380 | | | | |
| 25 | Load Haul Excavation to Stockpile | 7,585.00 | CY | | 455 | 36,160 | 49,535 | | | | | 85,694 |
| | | | | | 0.06 | 4.77 | 6.53 | | | | | 11.30 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 37.92 hour (3.79 days) | | | | | | | | | | | |
| | Load Haul 980 Loader | 1.00 | EA | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 3,034 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 3,006 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 3,006 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 2,915 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 2,915 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 2,886 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 18,397 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 7,323 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 5,189 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 3,328 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 28,341 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 4,930 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 422 | | | | | |
| 332.252 | Valve Chamber Upstream Concrete Slab & Infill | 675.00 | CY | | 1,743 | 132,560 | 47,751 | 7,424 | 50,759 | | | 238,493 |
| | | | | | 2.58 | 196.39 | 70.74 | 11.00 | 75.20 | | | 353.32 |
| 303 | Concrete Tunnel Floor | 675.00 | CY | | 1,743 | 132,560 | 47,751 | 7,424 | 50,759 | | | 238,493 |
| | | | | | 2.58 | 196.39 | 70.74 | 11.00 | 75.20 | | | 353.32 |
| 10 | Place Tunnel Concrete Floor | 675.00 | CY | | 1,743 | 132,560 | 47,751 | 7,424 | 50,759 | | | 238,493 |
| | | | | | 2.58 | 196.39 | 70.74 | 11.00 | 75.20 | | | 353.32 |
| 10 | Foundation Prep Tunnel Floor | 18,768.29 | SF | | 361 | 28,322 | 11,597 | | | | | 39,919 |
| | | | | | 0.02 | 1.51 | 0.62 | | | | | 2.13 |
| | Prod=260.00 SF/hour (2,600.00 SF/ day), 0.019MH/SF, 52.00 SF/MH, 72.19 hour (7.22 days) | | | | | | | | | | | |
| | Foundation Prep Tunnel Floor | 1.00 | EA | 553 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 5,775 | | | | | | |
| | Miner Operator | 1.0 | | 83.93 | | 6,059 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 16,489 | | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 3,053 | | | | | |
| | Tunnel 5 CY Scoop Tram | 1.0 | | 111.19 | | | 8,026 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 518 | | | | | |
| 16 | Batch Concrete | 675.00 | CY | | 171 | 13,256 | 21,258 | | 44,378 | | | 78,892 |
| | | | | | 0.25 | 19.64 | 31.49 | | 65.74 | | | 116.88 |
| | Prod=15.77 CY/hour (157.69 CY/ day), 0.254MH/CY, 3.94 CY/MH, 42.80 hour (4.28 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 3,393 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 3,424 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 3,393 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 3,046 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 5,857 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 7,799 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 273 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 496 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 639 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 5,587 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 609 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|--|-----------|-----|--------|--------|--------|--------|---------|----------|--------------|----------|------------|
| | Flyash | 64.8 | TN | 160.00 | | | | | | 10,367 | | |
| | Portland Cement Bulk | 121.4 | TN | 180.00 | | | | | 21,855 | | | |
| | Concrete Sand (Fine Aggregate) | 279.4 | TN | 10.00 | | | | | 2,794 | | | |
| | 2" (50 mm) Coarse Aggregate | 838.1 | TN | 10.00 | | | | | 8,381 | | | |
| | Water Reducer | 303.7 | GAL | 3.23 | | | | | 981 | | | |
| 17 | Deliver Concrete | 675.00 | CY | | 257 | 19,493 | 12,549 | | | | | 32,042 |
| | | | | | 0.38 | 28.88 | 18.59 | | | | | 47.47 |
| | Prod=15.77 CY/hour (157.69 CY/ day), 0.381MH/CY, 2.63 CY/MH, 42.80 hour (4.28 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 19,493 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 12,549 | | | | | |
| 20 | Set, Strip & Paving Forms | 1,350.00 | SF | | 169 | 12,739 | 426 | 5,547 | | | | 18,712 |
| | | | | | 0.13 | 9.44 | 0.32 | 4.11 | | | | 13.86 |
| | Prod=56.00 SF/hour (448.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 24.11 hour (3.01 days) | | | | | | | | | | | |
| | Set Strip Paving Forms | 1.00 | EA | 546.11 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 1,929 | | | | | | |
| | Miner | 6.0 | | 74.74 | | 10,811 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 426 | | | | | |
| | Steel Paving Form | 234.8 | LF | 15.00 | | | | 3,522 | | | | |
| | Set Strip Form Material | 1,350.0 | SF | 1.50 | | | | 2,025 | | | | |
| 21 | Place Wire Mesh | 18,768.29 | SF | | 87 | 6,621 | 562 | | | 6,381 | | 13,564 |
| | | | | | 0.00 | 0.35 | 0.03 | | | 0.34 | | 0.72 |
| | Prod=862.38 SF/hour (8,623.80 SF/ day), 0.005MH/SF, 215.60 SF/MH, 21.76 hour (2.18 days) | | | | | | | | | | | |
| | Place Wire Mesh | 1.00 | EA | 330.03 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 1,741 | | | | | | |
| | Miner | 3.0 | | 74.74 | | 4,880 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 25.81 | | | 562 | | | | | |
| | Welded Wire Mesh | 18,768.3 | SF | 0.34 | | | | | | 6,381 | | |
| 22 | Place Concrete | 675.00 | CY | | 385 | 29,498 | 1,359 | | | | | 30,857 |
| | | | | | 0.57 | 43.70 | 2.01 | | | | | 45.71 |
| | Prod=15.77 CY/hour (157.69 CY/ day), 0.571MH/CY, 1.75 CY/MH, 42.80 hour (4.28 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 720.88 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 3,424 | | | | | | |
| | Miner | 8.0 | | 76.14 | | 26,073 | | | | | | |
| | 3D Roller Screed | 1.0 | | 30.64 | | | 1,312 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 48 | | | | | |
| 35 | Finish Concrete Base Slab | 18,768.29 | SF | | 194 | 14,061 | | | | | | 14,061 |
| | | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 97.09 hour (12.14 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 14,061 | | | | | | |
| 40 | Cure Concrete Base Slab | 18,768.29 | SF | | 118 | 8,570 | | 1,877 | | | | 10,447 |
| | | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 59.17 hour (7.40 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 8,570 | | | | | | |
| | Curing Agent per sf | 18,768.3 | SF | 0.10 | | | | 1,877 | | | | |
| 332.253 | Valve Chamber Upstream Rockbolts #8 18 ft | 180.00 | EA | | 848 | 64,538 | 23,071 | | | 60,800 | | 148,409 |
| | | | | | 4.71 | 358.54 | 128.17 | | | 337.78 | | 824.50 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|---|-----------|-----|--------|--------|---------|--------|---------|----------|--------------|----------|------------|
| 301 | Rock Bolts | 3,240.00 | LF | | 848 | 64,538 | 23,071 | | 60,800 | | | 148,409 |
| | | | | | 0.26 | 19.92 | 7.12 | | 18.77 | | | 45.81 |
| 10 | Rock Bolts | 3,240.00 | LF | | 848 | 64,538 | 23,071 | | 60,800 | | | 148,409 |
| | | | | | 0.26 | 19.92 | 7.12 | | 18.77 | | | 45.81 |
| | Prod=0.62 HRS/hour (4.95 HRS/ day), 6.459MH/HRS, 0.15 HRS/MH, 96.36 hour (12.04 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 5,893 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 5,576 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 10,583 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 2,850 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 828 | | | | | |
| | Prod=35.00 FT/hour (280.00 FT/ day), 0.143MH/FT, 7.00 FT/MH, 92.57 hour (11.57 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 586.17 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | 14,813 | | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | 7,048 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 14,097 | | | | | | |
| | Post-tensioning Jack | 1.0 | | 4.81 | | | | 445 | | | | |
| | Grout Pump | 1.0 | | 10.52 | | | | 974 | | | | |
| | Grout Plant | 1.0 | | 20.96 | | | | 1,940 | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | | 1,272 | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | 13,673 | | | | | |
| | Nut Bolt Washer Plate | 180.0 | EA | 10.00 | | | | | 1,800 | | | |
| | Resin Cartrage | 567.0 | EA | 2.00 | | | | | 1,134 | | | |
| | Rockbolts 1" (25 mm) 517/690 Mpa | 3,240.0 | FT | 17.86 | | | | | 57,866 | | | |
| 332.254 | Valve Chamber Upstream Rockbolts #8 10 ft | 250.00 | EA | | 655 | 49,798 | 17,802 | | 48,025 | | | 115,624 |
| | | | | | 2.62 | 199.19 | 71.21 | | 192.10 | | | 462.50 |
| 301 | Rock Bolts | 2,500.00 | LF | | 655 | 49,798 | 17,802 | | 48,025 | | | 115,624 |
| | | | | | 0.26 | 19.92 | 7.12 | | 19.21 | | | 46.25 |
| 10 | Rock Bolts | 2,500.00 | LF | | 655 | 49,798 | 17,802 | | 48,025 | | | 115,624 |
| | | | | | 0.26 | 19.92 | 7.12 | | 19.21 | | | 46.25 |
| | Prod=0.62 HRS/hour (4.95 HRS/ day), 6.459MH/HRS, 0.15 HRS/MH, 74.35 hour (9.29 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 5,893 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 5,576 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 10,583 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 2,850 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 828 | | | | | |
| | Prod=35.00 FT/hour (280.00 FT/ day), 0.143MH/FT, 7.00 FT/MH, 71.43 hour (8.93 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 586.17 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | 11,430 | | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | 5,439 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 10,877 | | | | | | |
| | Post-tensioning Jack | 1.0 | | 4.81 | | | | 344 | | | | |
| | Grout Pump | 1.0 | | 10.52 | | | | 751 | | | | |
| | Grout Plant | 1.0 | | 20.96 | | | | 1,497 | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | | 981 | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | 10,550 | | | | | |
| | Resin Cartrage | 437.5 | EA | 2.00 | | | | | 875 | | | |
| | Nut Bolt Washer Plate | 250.0 | EA | 10.00 | | | | | 2,500 | | | |
| | Rockbolts 1" (25 mm) 517/690 Mpa | 2,500.0 | FT | 17.86 | | | | | 44,650 | | | |
| 332.255 | Valve Chamber Upstream Shotcrete | 14,000.00 | SF | | 1,620 | 123,237 | 17,473 | | 48,669 | | | 189,379 |
| | | | | | 0.12 | 8.80 | 1.25 | | 3.48 | | | 13.53 |
| 302 | Shotcrete | 324.00 | CY | | 1,620 | 123,237 | 17,473 | | 48,669 | | | 189,379 |
| | | | | | 5.00 | 380.36 | 53.93 | | 150.21 | | | 584.50 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|--|--------------|-----|--------|--------|----------|---------|---------|-----------|--------------|--------------|--------------|
| 10 | Shotcrete | 324.00 | CY | | 1,620 | 123,237 | 17,473 | | | 48,669 | | 189,379 |
| | | | | | 5.00 | 380.36 | 53.93 | | | 150.21 | | 584.50 |
| 10 | Tunnel Shotcrete | 324.00 | CY | | 1,620 | 123,237 | 17,473 | | | 48,669 | | 189,379 |
| | | | | | 5.00 | 380.36 | 53.93 | | | 150.21 | | 584.50 |
| | Prod=1.00 CY/hour (10.00 CY/ day), 5.000MH/CY, 0.20 CY/MH, 324.00 hour (32.40 days) | | | | | | | | | | | |
| | Place Shotcrete in Tunnel | 1.00 | EA | 434.29 | | | | | | | | |
| | Miner Foreman | 1.0 | | | | 80.00 | 25,920 | | | | | |
| | Miner Nozzleman | 1.0 | | | | 76.14 | 24,669 | | | | | |
| | Miner | 3.0 | | | | 74.74 | 72,647 | | | | | |
| | 8 YPH Wet Shotcrete Pump (Swing 750) | 1.0 | | | | 18.83 | | 6,101 | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | | | 20.88 | | 6,765 | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | | | 14.22 | | 4,607 | | | | |
| | Concrete Sand (Fine Aggregate) | 318.3 | TN | | | 10.00 | | | | 3,183 | | |
| | 1/2" (12 mm) Coarse Aggregate | 137.3 | TN | | | 10.00 | | | | 1,373 | | |
| | Water Reducer | 97.2 | GAL | | | 3.23 | | | | 314 | | |
| | Super Plasticizer | 324.0 | GAL | | | 9.51 | | | | 3,081 | | |
| | Air Entrainment | 162.0 | GAL | | | 5.00 | | | | 810 | | |
| | Fibre Reinforcement | 324.0 | CY | | | 70.37 | | | | 22,800 | | |
| | Shotcrete Bag 70 LB (30 kg) | 3,421.4 | Bag | | | 5.00 | | | | 17,107 | | |
| 332.256 | Bridge Crane 50TN Supports /Rail | 1.00 | LS | | | | | | | | 800,000 | 800,000 |
| | | | | | | | | | | | 800,000.00 | 800,000.00 |
| 332.257 | Bridge Crane 50 Tn Strand Anchors | 12.00 | EA | | | | | | | | 102,000 | 102,000 |
| | | | | | | | | | | | 8,500.00 | 8,500.00 |
| 332.258 | Bonneted Guard Gates 7.5ft x 26 ft Cyl/ HPU | 3.00 | EA | | | | | | | | 6,000,000 | 6,000,000 |
| | | | | | | | | | | | 2,000,000.00 | 2,000,000.00 |
| 332.259 | Bonneted Service Gates 7.5ft x 26 ft Cyl/HPU | 3.00 | EA | | | | | | | | 6,000,000 | 6,000,000 |
| | | | | | | | | | | | 2,000,000.00 | 2,000,000.00 |
| 332.260 | Upstream Steel Liner 3 EA 7.5 ft x 26 ft , 160 LF | 723.00 | TNS | | 12,224 | 954,641 | 277,496 | 9,104 | 2,551,940 | | 5,376 | 3,798,558 |
| | | | | | 16.91 | 1,320.39 | 383.81 | 12.59 | 3,529.65 | | 7.44 | 5,253.88 |
| 10 | Steel Tunnel Lining | 723.00 | TN | | 12,224 | 954,641 | 277,496 | 9,104 | 2,551,940 | | 5,376 | 3,798,558 |
| | | | | | 16.91 | 1,320.39 | 383.81 | 12.59 | 3,529.65 | | 7.44 | 5,253.88 |
| 15 | Purchase Steel Liner | 1,446,000.00 | LB | | | | | | 2,551,940 | | | 2,551,940 |
| | | | | | | | | | 1.76 | | | 1.76 |
| | Epoxy Coating | 10,720.0 | SF | 2.00 | | | | | 21,440 | | | |
| | Purchase Steel Liner | 1,446,000.0 | LB | 1.75 | | | | | 2,530,500 | | | |
| 20 | Place Steel Tunnel Lining | 1,446,000.00 | LB | | 10,666 | 838,433 | 252,051 | 9,104 | | | | 1,099,588 |
| | | | | | 0.01 | 0.58 | 0.17 | 0.01 | | | | 0.76 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 6.000MH/HR, 0.17 HR/MH, 448.00 hour (44.80 days) | | | | | | | | | | | |
| | Tunnel Crew | 1.00 | EA | 726.8 | | | | | | | | |
| | Miner Foreman | 1.0 | | | | 80.00 | 35,840 | | | | | |
| | Miner Operator | 1.0 | | | | 83.93 | 37,601 | | | | | |
| | Miner | 3.0 | | | | 76.14 | 102,332 | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | | | 69.49 | 31,132 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | | | 104.31 | | 46,731 | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | | | 42.29 | | 18,946 | | | | |
| | Tunnel 5 CY Scoop Tram | 1.0 | | | | 111.19 | | 49,813 | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | | | 7.17 | | 3,212 | | | | |
| | Prod=3.99 LB/hour (39.94 LB/ day), 1.753MH/LB, 0.57 LB/MH, 1,139.74 hour (113.97 days) | | | | | | | | | | | |
| | Weld Steel Plate | 1.00 | EA | 671.1 | | | | | | | | |
| | Welder Foreman | 1.0 | | | | 84.82 | 96,673 | | | | | |
| | Welder Journeyman | 4.0 | | | | 84.82 | 386,690 | | | | | |
| | Welders Helper | 2.0 | | | | 65.00 | 148,166 | | | | | |
| | 400 Amp Diesel Welder | 4.0 | | | | 16.46 | | 75,040 | | | | |
| | 185 CFM Diesel Compressor | 1.0 | | | | 22.04 | | 25,120 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|---------------|----------------|--------------|----------------|---------------|---------|----------------|--------------|--------------|----------------|
| | Tunnel Ventilation Fan 42" | 1.0 | | 11.92 | | | 13,586 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 19,603 | | | | | |
| | Welding Rod | 4,552.0 | LB | 2.00 | | | | 9,104 | | | | |
| 30 | Load Unload Steel Liner | 112.00 | Sheets | | 1,558 | 116,209 | 25,445 | | | | | 141,654 |
| | Prod=0.86 EA/hour (8.63 EA/ day), 13.913MH/EA, 0.07 EA/MH, 129.86 hour (12.99 days) | | | | 13.91 | 1,037.58 | 227.19 | | | | | 1,264.77 |
| | <i>Load & Unload Steel Liner</i> | <i>1.00</i> | <i>EA</i> | <i>1090.86</i> | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 10,661 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 27,725 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 10,388 | | | | | | |
| | Ironworker | 4.0 | | 76.93 | | 39,959 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 10,388 | | | | | | |
| | Off Hwy Truck Driver | 1.0 | | 54.58 | | 7,087 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 9,999 | | | | | | |
| | 12 Ton Flatbed Truck | 1.0 | | 42.39 | | | 5,505 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 15,285 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,361 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 2,295 | | | | | |
| 40 | Epoxy Welded Joints | 2,688.00 | SF | | | | | | | | 5,376 | 5,376 |
| | | | | | | | | | | | 2.00 | 2.00 |
| 332.261 | Valve Chamber Upstream Sus Metal Roof | 5,000.00 | SF | | 1,792 | 134,459 | 37,813 | | 207,361 | | | 379,633 |
| | | | | | 0.36 | 26.89 | 7.56 | | 41.47 | | | 75.93 |
| 80 | Drip Ceiling | 5,000.00 | SF | | 1,792 | 134,459 | 37,813 | | 207,361 | | | 379,633 |
| | | | | | 0.36 | 26.89 | 7.56 | | 41.47 | | | 75.93 |
| 10 | Drip Ceiling Materials | 5,000.00 | SF | | | | | | 207,361 | | | 207,361 |
| | | | | | | | | | 41.47 | | | 41.47 |
| | 3/8in x 6in Plate | 1,788.9 | LB | 6.50 | | | | | 11,628 | | | |
| | 3/8in x 4in Plate | 2,385.1 | LB | 6.50 | | | | | 15,503 | | | |
| | TS 8 x 6 x 3/8 in Gutter | 13,976.9 | LB | 6.50 | | | | | 90,850 | | | |
| | 3/8in x 9in Bent Plate | 97.1 | EA | 52.00 | | | | | 5,051 | | | |
| | 3/8in Gusset Plate | 97.1 | EA | 23.00 | | | | | 2,234 | | | |
| | 1/2in x9in x1.5ft Plate | 2,229.4 | EA | 6.00 | | | | | 13,377 | | | |
| | Drip Ceiling GAL Steel Sheets 4ft X 10ft | 5,000.0 | SF | 6.30 | | | | | 31,500 | | | |
| | 3/4 in SS Rod | 48.6 | EA | 30.00 | | | | | 1,457 | | | |
| | No. 8 Anchor Bolts Galvanized 4ft long | 291.4 | EA | 12.72 | | | | | 3,707 | | | |
| | Resin for Anchorage | 874.3 | EA | 1.74 | | | | | 1,521 | | | |
| | Hex Nuts Galvanized | 585.7 | EA | 4.15 | | | | | 2,431 | | | |
| | Down Spouts 4in HDPE | 282.9 | LF | 3.00 | | | | | 849 | | | |
| | W8 x 31 | 7,231.9 | LB | 1.70 | | | | | 12,294 | | | |
| | HSS 6 x 4 x 3/8 steel tubing | 532.9 | LB | 14.00 | | | | | 7,460 | | | |
| | MC 8 x 21.4 by 2ft | 2,078.9 | LB | 3.60 | | | | | 7,484 | | | |
| | Euclid NS Grout | 1.4 | Bag | 10.65 | | | | | 15 | | | |
| 14 | Install Anchors | 875.00 | LF | | 292 | 20,249 | 30,096 | | | | | 50,344 |
| | Prod=4.00 EA/hour (40.00 EA/ day), 1.000MH/EA, 1.00 EA/MH, 73.00 hour (7.30 days) | | | | 0.33 | 23.14 | 34.40 | | | | | 57.54 |
| | <i>Drill & Install Rock Anchors</i> | <i>1.00</i> | <i>EA</i> | <i>689.65</i> | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | 11,681 | | | | | | |
| | Miner | 2.0 | | 58.68 | | 8,567 | | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 20.88 | | | 1,524 | | | | | |
| | Handheld Rock Drill 30 LB | 1.0 | | 1.31 | | | 96 | | | | | |
| | Hydraulic Jumbo 2-Boom(Tamroc) | 2.0 | | 195.04 | | | 28,476 | | | | | |
| 16 | Install Drip Ceiling | 5,000.00 | SF | | 1,500 | 114,210 | 7,718 | | | | | 121,928 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|---------------|------------|-----------|---------------|------------------|----------------|----------------|------------------|--------------|----------|------------------|
| | | | | | 0.30 | 22.84 | 1.54 | | | | | 24.39 |
| | Prod=20.00 SF/hour (200.00 SF/ day), 0.300MH/SF, 3.33 SF/MH, 250.00 hour (25.00 days) | | | | | | | | | | | |
| | <i>Install Drip Ceiling</i> | 1.00 | EA | 487.71 | | | | | | | | |
| | Miner | 6.0 | | 76.14 | | 114,210 | | | | | | |
| | 300 Amp Electric Welder | 1.0 | | 9.99 | | | | 2,498 | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 20.88 | | | | 5,220 | | | | |
| | Valve Chamber Air Supply | 1.00 | LS | | 12,980 | 1,005,035 | 901,178 | 214,622 | 1,973,555 | | | 4,094,388 |
| | | | | | 12,979.62 | 1,005,034.53 | 901,177.62 | 214,621.72 | 1,973,554.53 | | | 4,094,388.40 |
| 332.281 | Air Supply Pipe 8 ft Dia Sup From Hanger Tunnel | 880.00 | LF | | 2,474 | 194,553 | 54,115 | 51,936 | 1,014,646 | | | 1,315,249 |
| | | | | | 2.81 | 221.08 | 61.49 | 59.02 | 1,153.01 | | | 1,494.60 |
| 10 | Load Unload Set Steel Pipe | 880.00 | LF | | 648 | 49,355 | 16,839 | | 1,014,646 | | | 1,080,839 |
| | | | | | 0.74 | 56.08 | 19.13 | | 1,153.01 | | | 1,228.23 |
| | Prod=12.22 LF/hour (97.78 LF/ day), 0.736MH/LF, 1.36 LF/MH, 72.00 hour (9.00 days) | | | | | | | | | | | |
| | <i>Load & Unload Set Steel Pipe</i> | 1.00 | EA | 919.35 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 5,911 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 5,760 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 20,497 | | | | | | |
| | Off Hwy Truck Driver | 1.0 | | 80.85 | | 5,821 | | | | | | |
| | Mechanic Welder | 1.0 | | 80.85 | | 5,821 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 5,544 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 8,475 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,238 | | | | | |
| | 2-Ton Mechanic Truck | 1.0 | | 38.80 | | | 2,794 | | | | | |
| | Tractor & Trailer | 1.0 | | 60.16 | | | 4,332 | | | | | |
| | Steel Pipe | 450,953.8 | LB | 2.25 | | | | | 1,014,646 | | | |
| 10 | Set Steel Pipe In Tunnel | 880.00 | LF | | 616 | 46,182 | 24,953 | 50,000 | | | | 121,135 |
| | | | | | 0.70 | 52.48 | 28.36 | 56.82 | | | | 137.65 |
| | Prod=10.00 LF/hour (80.00 LF/ day), 0.700MH/LF, 1.43 LF/MH, 88.00 hour (11.00 days) | | | | | | | | | | | |
| | <i>Set Steel Pipe in Tunnel</i> | 1.00 | EA | 808.35 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 6,975 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 7,040 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 25,052 | | | | | | |
| | Mechanic Welder | 1.0 | | 80.85 | | 7,115 | | | | | | |
| | 4.5 CY Loader (Cat 966) | 1.0 | | 76.36 | | | 6,720 | | | | | |
| | Hydraulic Drill 2" (AC1032) | 2.0 | | 75.60 | | | 13,306 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,514 | | | | | |
| | 2-Ton Mechanic Truck | 1.0 | | 38.80 | | | 3,414 | | | | | |
| | Pipe Hangers Material | 1.0 | LS | 50,000.00 | | | | 50,000 | | | | |
| 20 | Weld Steel Pipe | 968.00 | LBS | | 1,210 | 99,017 | 12,323 | 1,936 | | | | 113,275 |
| | | | | | 1.25 | 102.29 | 12.73 | 2.00 | | | | 117.02 |
| | Prod=4.00 LBS/hour (32.00 LBS/ day), 1.250MH/LBS, 0.80 LBS/MH, 242.00 hour (30.25 days) | | | | | | | | | | | |
| | <i>Weld Steel Pipe</i> | 1.00 | EA | 460.08 | | | | | | | | |
| | Welder Foreman | 1.0 | | 84.82 | | 20,526 | | | | | | |
| | Welder Journeyman | 2.0 | | 84.82 | | 41,053 | | | | | | |
| | Welders Helper | 2.0 | | 77.35 | | 37,437 | | | | | | |
| | 400 Amp Gas Welder | 2.0 | | 16.86 | | | 8,160 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 4,162 | | | | | |
| | Weld Supplies | 1.0 | LS | 1,936.00 | | | | 1,936 | | | | |
| 332.282 | Air Supply 8ft Dia in Shaft Conc Encased | 275.00 | FT | | 1,606 | 125,576 | 9,250 | 616 | 591,372 | | | 726,814 |
| | | | | | 5.84 | 456.64 | 33.64 | 2.24 | 2,150.44 | | | 2,642.96 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|--|-----------|-----|--------|--------|--------|-------|---------|----------|--------------|----------|------------|
| 10 | Load Unload Set Steel Pipe | 275.00 | LF | | 144 | 10,968 | 3,742 | | | 317,076 | | 331,786 |
| | Prod=4.40 TNS/hour (35.23 TNS/ day), 2.044MH/TNS, 0.49 TNS/MH, 16.00 hour (2.00 days) | | | | 0.52 | 39.88 | 13.61 | | | 1,153.00 | | 1,206.49 |
| | Load & Unload Set Steel Pipe | 1.00 | EA | 919.35 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 1,314 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 1,280 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 4,555 | | | | | | |
| | Off Hwy Truck Driver | 1.0 | | 80.85 | | 1,294 | | | | | | |
| | Mechanic Welder | 1.0 | | 80.85 | | 1,294 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 1,232 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 1,883 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 275 | | | | | |
| | 2-Ton Mechanic Truck | 1.0 | | 38.80 | | | 621 | | | | | |
| | Tractor & Trailer | 1.0 | | 60.16 | | | 963 | | | | | |
| | Steel Pipe | 140,922.8 | LB | 2.25 | | | | | | 317,076 | | |
| 20 | Weld Steel Pipe | 302.50 | LBS | | 400 | 32,733 | 4,074 | 616 | | | | 37,422 |
| | Prod=3.78 LBS/hour (30.25 LBS/ day), 1.322MH/LBS, 0.76 LBS/MH, 80.00 hour (10.00 days) | | | | 1.32 | 108.21 | 13.47 | 2.04 | | | | 123.71 |
| | Weld Steel Pipe | 1.00 | EA | 460.08 | | | | | | | | |
| | Welder Foreman | 1.0 | | 84.82 | | 6,786 | | | | | | |
| | Welder Journeyman | 2.0 | | 84.82 | | 13,571 | | | | | | |
| | Welders Helper | 2.0 | | 77.35 | | 12,376 | | | | | | |
| | 400 Amp Gas Welder | 2.0 | | 16.86 | | | 2,698 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,376 | | | | | |
| | Weld Supplies | 1.0 | LS | 616.00 | | | | 616 | | | | |
| 30 | Concrete Shaft | 275.00 | LF | | 1,062 | 81,876 | 1,434 | | 274,296 | | | 357,606 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 96.53 hour (12.07 days) | | | | 3.86 | 297.73 | 5.22 | | 997.44 | | | 1,300.39 |
| 3300 | Cast in Place Concrete | 2,078.00 | CY | | 1,062 | 81,876 | 1,434 | | 274,296 | | | 357,606 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 96.53 hour (12.07 days) | | | | 0.51 | 39.40 | 0.69 | | 132.00 | | | 172.09 |
| 10 | Place Concrete | 2,078.00 | CY | | 1,062 | 81,876 | 1,434 | | 274,296 | | | 357,606 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 96.53 hour (12.07 days) | | | | 0.51 | 39.40 | 0.69 | | 132.00 | | | 172.09 |
| | Surface Hoist Crew HeadFrame | 1.00 | EA | 325.12 | | | | | | | | |
| | Crane Oper Cl 1 (+100T) | 1.0 | | 82.10 | | 7,925 | | | | | | |
| | Crane Oiler | 1.0 | | 77.00 | | 7,433 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 14,699 | | | | | | |
| | Hoist | 1.0 | | 13.74 | | | 1,326 | | | | | |
| | Prod=21.53 CY/hour (172.22 CY/ day), 0.325MH/CY, 3.08 CY/MH, 96.53 hour (12.07 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 537.96 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 7,722 | | | | | | |
| | Miner | 6.0 | | 76.14 | | 44,097 | | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 108 | | | | | |
| | Concrete Buy | 2,285.8 | CY | 120.00 | | | | | 274,296 | | | |
| 332.283 | Air Supply Excavation 8ft Dia. attached to Face of Dam | 280.00 | LF | | 529 | 42,473 | 7,663 | 616 | 322,841 | | | 373,593 |
| | Prod=4.48 TNS/hour (35.87 TNS/ day), 2.007MH/TNS, 0.50 TNS/MH, 16.00 hour (2.00 days) | | | | 1.89 | 151.69 | 27.37 | 2.20 | 1,153.00 | | | 1,334.26 |
| 10 | Load Unload Set Steel Pipe | 280.00 | LF | | 144 | 10,968 | 3,742 | | | 322,841 | | 337,551 |
| | Prod=4.48 TNS/hour (35.87 TNS/ day), 2.007MH/TNS, 0.50 TNS/MH, 16.00 hour (2.00 days) | | | | 0.51 | 39.17 | 13.36 | | 1,153.00 | | | 1,205.54 |
| | Load & Unload Set Steel Pipe | 1.00 | EA | 919.35 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 1,314 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 1,280 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 4,555 | | | | | | |
| | Off Hwy Truck Driver | 1.0 | | 80.85 | | 1,294 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|----------|-----|------------|----------|------------|------------|-----------|-----------|--------------|----------|------------|
| | <i>Shaft Sinking Crew</i> | 1.00 | EA | 873.03 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 800 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 2,400 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 2,284 | | | | | | |
| | Miner Backhoe Operator | 1.0 | | 83.93 | | 839 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 69.49 | | 695 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 1,043 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 423 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 72 | | | | | |
| | 1/4 CY Crawler Backhoe | 1.0 | | 17.39 | | | 174 | | | | | |
| 15 | Shaft Plant | 1.00 | LS | | | | 587,063 | | | | | 587,063 |
| | | | | | | | 587,062.50 | | | | | 587,062.50 |
| | 48 in Fan Hardline | 275.0 | LF | 20.00 | | | 5,500 | | | | | |
| | Light Stringers | 275.0 | LF | 16.00 | | | 4,400 | | | | | |
| | Mine Phones | 1.0 | EA | 450.00 | | | 450 | | | | | |
| | Phone Lines | 275.0 | LF | 0.50 | | | 138 | | | | | |
| | 8in Steel Pipe w Victaulic Couplings | 275.0 | LF | 12.00 | | | 3,300 | | | | | |
| | 6in Steel Pipe W Victaulic Couplings | 275.0 | LF | 8.00 | | | 2,200 | | | | | |
| | 4in Steel Pipe W Victaulic Couplings | 275.0 | LF | 5.00 | | | 1,375 | | | | | |
| | Shaft Sinking Muck Bucket | 2.0 | EA | 12,000.00 | | | 24,000 | | | | | |
| | Galloway Winch | 2.0 | EA | 160,000.00 | | | 320,000 | | | | | |
| | Water Supply Tank | 1.0 | LS | 10,000.00 | | | 10,000 | | | | | |
| | Hoist Rope 1.5 in | 500.0 | LF | 6.30 | | | 3,150 | | | | | |
| | Hoist Rope 1.25in | 500.0 | LF | 5.50 | | | 2,750 | | | | | |
| | Hoist Hook | 2.0 | EA | 3,600.00 | | | 7,200 | | | | | |
| | Collar Doors | 1.0 | LS | 20,000.00 | | | 20,000 | | | | | |
| | Cross Head | 1.0 | LS | 13,000.00 | | | 13,000 | | | | | |
| | Galloway Work Deck | 39,000.0 | LB | 4.00 | | | 156,000 | | | | | |
| | Bell System | 1.0 | LS | 2,000.00 | | | 2,000 | | | | | |
| | Deck Sheave 2ft Dia | 2.0 | EA | 1,500.00 | | | 3,000 | | | | | |
| | Swivel 45TN | 1.0 | EA | 3,600.00 | | | 3,600 | | | | | |
| | Hoist Sheave | 1.0 | EA | 5,000.00 | | | 5,000 | | | | | |
| 20 | Shaft Head Frame & Collar Set Up | 1.00 | LS | | 3,425 | 260,193 | 79,041 | 92,721 | 44,695 | | | 476,650 |
| | | | | | 3,424.82 | 260,193.30 | 79,040.77 | 92,720.83 | 44,695.00 | | | 476,649.90 |
| 10 | Shaft Collar | 35.00 | CY | | 588 | 44,319 | 11,495 | 10,401 | 4,594 | | | 70,809 |
| | | | | | 16.80 | 1,266.26 | 328.43 | 297.17 | 131.25 | | | 2,023.11 |
| | Prod=1.00 HR/hour (8.00 HR/ day), 9.000MH/HR, 0.11 HR/MH, 42.00 hour (5.25 days) | | | | | | | | | | | |
| | <i>Shaft Sinking Crew</i> | 1.00 | EA | 873.03 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 3,360 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 10,081 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 9,594 | | | | | | |
| | Miner Backhoe Operator | 1.0 | | 83.93 | | 3,525 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 69.49 | | 2,919 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 4,381 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 1,776 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 301 | | | | | |
| | 1/4 CY Crawler Backhoe | 1.0 | | 17.39 | | | 730 | | | | | |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 5.000MH/HRS, 0.20 HRS/MH, 42.00 hour (5.25 days) | | | | | | | | | | | |
| | <i>Day Shift Service Crew</i> | 1.00 | EA | 455.88 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 3,448 | | | | | | |
| | Labour Foreman | 1.0 | | 51.91 | | 2,180 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 5,978 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 3,234 | | | | | | |
| | 60 Ton Crawler Crane (Linkbelt118) | 1.0 | | 91.39 | | | 3,838 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|---------------|-----------|----------|--------------|----------------|----------------|---------------|----------|--------------|----------|----------------|
| | Labourer | 1.0 | | 71.17 | | 1,879 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 2,112 | | | | | | |
| | Ironworker | 5.0 | | 73.25 | | 9,670 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 480 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 467 | | | | | |
| | Supply Fabricated Rebar | 37,625.0 | LB | 0.56 | | | | | | 21,070 | | |
| 25 | Shaft Excavation | 800.00 | CY | | 4,296 | 332,545 | 139,490 | 68,733 | | | | 540,767 |
| | | | | | 5.37 | 415.68 | 174.36 | 85.92 | | | | 675.96 |
| 15 | Excavate Shaft | 275.00 | VF | | 4,264 | 330,131 | 136,258 | 68,733 | | | | 535,122 |
| | | | | | 15.51 | 1,200.48 | 495.48 | 249.94 | | | | 1,945.90 |
| | Prod=1.00 HRS/hour (24.00 HRS/ day), 5.000MH/HRS, 0.20 HRS/MH, 296.00 hour (12.33 days) | | | | | | | | | | | |
| | <i>Surface Hoist Crew</i> | 1.00 | EA | 602.78 | | | | | | | | |
| | Crane Operator Class-A | 2.0 | | 82.10 | | 48,603 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 45,075 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 22,792 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 54,553 | | | | | |
| | Hoist | 1.0 | | 25.00 | | | 7,400 | | | | | |
| | Prod=1.00 HR/hour (24.00 HR/ day), 8.000MH/HR, 0.13 HR/MH, 296.00 hour (12.33 days) | | | | | | | | | | | |
| | <i>Shaft Sinking Crew</i> | 1.00 | EA | 859.38 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 23,680 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 71,049 | | | | | | |
| | Miner Backhoe Operator | 1.0 | | 83.93 | | 24,843 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 45,075 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 69.49 | | 20,569 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 30,876 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 12,518 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 18,497 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 2,122 | | | | | |
| | 1/4 CY Crawler Backhoe | 1.0 | | 17.39 | | | 5,147 | | | | | |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 104.00 hour (13.00 days) | | | | | | | | | | | |
| | <i>Day Shift Service Crew</i> | 1.00 | EA | 322.98 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 8,243 | | | | | | |
| | Labour Foreman | 1.0 | | 51.91 | | 5,399 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 14,803 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 3,986 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,159 | | | | | |
| | Emulex 927 | 2,085.0 | LB | 3.80 | | | | | | 7,923 | | |
| | Drill Steel | 15.0 | EA | 1,000.00 | | | | | | 15,000 | | |
| | Shoot Line | 28.0 | EA | 52.00 | | | | | | 1,456 | | |
| | Caps 16ft | 6,440.0 | EA | 5.40 | | | | | | 34,776 | | |
| | Presplit Powder | 1,542.0 | LB | 6.02 | | | | | | 9,283 | | |
| | Drill Bits Jumbo | 7,868.0 | LF | 0.04 | | | | | | 295 | | |
| 25 | Load Haul Excavation to Stockpile | 800.00 | CY | | 32 | 2,414 | 3,232 | | | | | 5,645 |
| | | | | | 0.04 | 3.02 | 4.04 | | | | | 7.06 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.040MH/CY, 25.00 CY/MH, 4.00 hour (0.40 days) | | | | | | | | | | | |
| | <i>Load Haul 980 Loader</i> | 1.00 | EA | 1411.32 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 70.49 | | 282 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 317 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 317 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 307 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 307 | | | | | | |
| | Grademan | 1.0 | | 58.97 | | 236 | | | | | | |
| | Articulated Dump Driver | 2.0 | | 80.85 | | 647 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 772 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|--|---|------------------|-----------|----------|----------------|----------------|------------------|------------------|----------------|------------------|-------------------|-------------------|
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 547 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 351 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 2.0 | | 124.55 | | | 996 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 520 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 45 | | | | | |
| Upstream & Downstream Portals | | | | | 1.00 LS | 65,388 | 4,930,603 | 2,595,477 | 714,462 | 1,679,053 | 21,725,000 | 31,644,595 |
| | | | | | | 65,387.65 | 4,930,602.69 | 2,595,477.18 | 714,462.25 | 1,679,053.07 | 21,725,000.00 | 31,644,595.18 |
| 332.291 | Upstream Portal Common Excavation | 21,738.00 | CY | | 1,043 | 82,904 | 113,570 | | | | | 196,474 |
| | | | | | 0.05 | 3.81 | 5.22 | | | | | 9.04 |
| 25 | Load Haul Excavation to Stockpile | 21,738.00 | CY | | 1,043 | 82,904 | 113,570 | | | | | 196,474 |
| | | | | | 0.05 | 3.81 | 5.22 | | | | | 9.04 |
| | Prod=250.00 CY/hour (2,500.00 CY/ day), 0.048MH/CY, 20.83 CY/MH, 86.95 hour (8.70 days) | | | | | | | | | | | |
| | Load Haul 980 Loader | 1.00 | EA | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 6,956 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 6,892 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 6,892 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 6,683 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 6,683 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 6,618 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 42,180 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 16,790 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 11,898 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 7,630 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 64,979 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 11,304 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 969 | | | | | |
| 332.292 | Upstream Portal Rock Excavation | 52,134.00 | CY | | 2,593 | 197,779 | 399,010 | 107,504 | | | | 704,292 |
| | | | | | 0.05 | 3.79 | 7.65 | 2.06 | | | | 13.51 |
| 22 | Rock Excavation to Stockpile | 52,134.00 | CY | | 2,593 | 197,779 | 399,010 | 107,504 | | | | 704,292 |
| | | | | | 0.05 | 3.79 | 7.65 | 2.06 | | | | 13.51 |
| 10 | Presplit Face | 3,660.00 | SF | | 96 | 6,994 | 2,182 | 25,527 | | | | 34,702 |
| | | | | | 0.03 | 1.91 | 0.60 | 6.97 | | | | 9.48 |
| | Prod=210.00 LF/hour (1,680.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 8.71 hour (1.09 days) | | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 654 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 1,861 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 1,332 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 1,861 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 620 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 666 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 1,931 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 97 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 154 | | | | | |
| | Drill Steel | 10.0 | EA | 1,000.00 | | | | 10,000 | | | | |
| | Drill Bits | 20.0 | EA | 350.00 | | | | 7,000 | | | | |
| | RED E-SPLIT PRESPLIT | 915.0 | EA | 5.78 | | | | 5,289 | | | | |
| | Non Elec Detonators | 36.6 | EA | 6.50 | | | | 238 | | | | |
| | Lead in Line | 15.0 | EA | 200.00 | | | | 3,000 | | | | |
| 12 | Drill and Shoot | 52,134.00 | CY | | 1,106 | 80,700 | 34,628 | 81,977 | | | | 197,305 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| 12 | Drill and Shoot Production | 52,134.00 | CY | | 1,106 | 80,700 | 34,628 | 81,977 | | | | 197,305 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| | Prod=210.00 FT/hour (1,680.00 FT/ day), 0.038MH/FT, 26.25 FT/MH, 138.31 hour (17.29 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 833.83 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 11,065 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 19,687 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 10,574 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 29,531 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 9,844 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 30,643 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | | | | 1,541 | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 2,444 | | | | | |
| | Caps | 1,383.5 | EA | 6.10 | | | | | 8,439 | | | |
| | Booster | 1,383.5 | EA | 6.63 | | | | | 9,172 | | | |
| | Anfo | 52,134.0 | LB | 0.70 | | | | | 36,494 | | | |
| | Drill Bits | 19.3 | EA | 400.00 | | | | | 7,724 | | | |
| | Drill Steel | 8.3 | EA | 1,000.00 | | | | | 8,303 | | | |
| | Between Holes QRC 1 for every 4 holes | 345.8 | EA | 4.75 | | | | | 1,642 | | | |
| | Shoot Line | 7.7 | EA | 52.00 | | | | | 402 | | | |
| | Hydromite 880 Wet Holes 10% | 5,213.4 | LB | 1.88 | | | | | 9,801 | | | |
| 22 | Reservoir Rock Excavation to Stockpile at Crusher | 52,134.00 | CY | | 1,390 | 110,085 | 362,200 | | | | | 472,285 |
| | | | | | 0.03 | 2.11 | 6.95 | | | | | 9.06 |
| 20 | Rock Excavation 992 | 52,134.00 | CY | | 1,390 | 110,085 | 362,200 | | | | | 472,285 |
| | | | | | 0.03 | 2.11 | 6.95 | | | | | 9.06 |
| | Prod=450.00 CY/hour (4,500.00 CY/ day), 0.027MH/CY, 37.50 CY/MH, 115.85 hour (11.59 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile Backhoe</i> | 1.00 | EA | 4076.58 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 9,268 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 9,183 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 9,183 | | | | | | |
| | Dozer Operator | 3.0 | | 76.86 | | 26,713 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 8,904 | | | | | | |
| | Off Hwy Truck Driver | 5.0 | | 80.85 | | 46,834 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 22,371 | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 2.0 | | 327.65 | | | 75,919 | | | | | |
| | Ripper Attachment D10 | 1.0 | | 13.76 | | | 1,594 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 10,166 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 28,549 | | | | | |
| | 95 Ton Off Hwy Truck 870 Hsp (Cat 777) | 5.0 | | 357.78 | | | 207,250 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 15,061 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,291 | | | | | |
| 332.293 | Temporary Cofferdam Fill for Upstream Portals | 17,300.00 | CY | | 1,384 | 108,575 | 137,315 | | | | | 245,890 |
| | | | | | 0.08 | 6.28 | 7.94 | | | | | 14.21 |
| 25 | Load Haul Excavation from Stockpile | 17,300.00 | CY | | 952 | 75,890 | 112,979 | | | | | 188,869 |
| | | | | | 0.06 | 4.39 | 6.53 | | | | | 10.92 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.055MH/CY, 18.18 CY/MH, 86.50 hour (8.65 days) | | | | | | | | | | | |
| | <i>Load Haul 980 Loader</i> | 1.00 | EA | 2183.46 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 6,920 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 6,856 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 6,856 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 6,648 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 6,648 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 41,961 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 16,703 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 11,836 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 7,590 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|---------------|------------------|----------------|----------------|----------------|--------------|----------|------------------|
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 64,641 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 11,245 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 964 | | | | | |
| 30 | Place Compact Backfill | 17,300.00 | CY | | 433 | 32,685 | 24,336 | | | | | 57,021 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.025MH/CY, 40.00 CY/MH, 86.50 hour (8.65 days) | | | | 0.03 | 1.89 | 1.41 | | | | | 3.30 |
| | <i>Place Compact Backfill</i> | 1.00 | EA | 659.2 | | | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 13,297 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 6,648 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 6,156 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 6,584 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 74.46 | | | 6,441 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 12,519 | | | | | |
| | 15 Ton Compactor 84" (Cat 563) | 1.0 | | 62.15 | | | 5,376 | | | | | |
| 332.294 | Upstream Portal Concrete | 4,600.00 | CY | | 23,831 | 1,792,361 | 669,599 | 243,127 | 601,360 | | | 3,306,447 |
| | | | | | 5.18 | 389.64 | 145.57 | 52.85 | 130.73 | | | 718.79 |
| 10 | Base Slab | 845.00 | CY | | 2,647 | 197,816 | 87,857 | 8,690 | 144,208 | | | 438,572 |
| | | | | | 3.13 | 234.10 | 103.97 | 10.28 | 170.66 | | | 519.02 |
| 10 | Base Prep | 16,500.00 | SF | | 347 | 25,244 | 5,155 | | 5,844 | | | 36,244 |
| | Prod=237.88 SF/hour (1,903.00 SF/ day), 0.021MH/SF, 47.58 SF/MH, 69.36 hour (8.67 days) | | | | 0.02 | 1.53 | 0.31 | | 0.35 | | | 2.20 |
| | <i>Foundation Preparation</i> | 1.00 | EA | 438.26 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 5,498 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 19,747 | | | | | | |
| | 2.1 CY Track Loader (Cat 939) | 1.0 | | 57.90 | | | 4,016 | | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 2.0 | | 8.21 | | | 1,139 | | | | | |
| | Gravel Road Base | 974.0 | TN | 6.00 | | | | | 5,844 | | | |
| 15 | Build Footing Forms | 230.00 | SF | | 23 | 1,761 | 155 | 1,171 | | | | 3,087 |
| | Prod=40.00 SF/hour (320.00 SF/ day), 0.100MH/SF, 10.00 SF/MH, 5.75 hour (0.72 days) | | | | 0.10 | 7.66 | 0.68 | 5.09 | | | | 13.42 |
| | <i>Fabricate Light Formwork</i> | 1.00 | EA | 333.225 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 409 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 460 | | | | | | |
| | Carpenter | 2.0 | | 77.52 | | 891 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 105 | | | | | |
| | 5 Ton Flat Bed Truck | 0.5 | | 17.67 | | | 51 | | | | | |
| | Supply Light Wood Form | 230.0 | SF | 5.09 | | | | 1,171 | | | | |
| 16 | Batch & Haul Concrete | 845.00 | CY | | 360 | 27,904 | 44,748 | | 55,554 | | | 128,206 |
| | Prod=9.38 CY/hour (93.78 CY/ day), 0.427MH/CY, 2.34 CY/MH, 90.10 hour (9.01 days) | | | | 0.43 | 33.02 | 52.96 | | 65.74 | | | 151.72 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 7,142 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 7,208 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 7,142 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 6,413 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 12,329 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 16,416 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 574 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 1,043 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 1,344 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 11,760 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 1,281 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|----------------------|-----|--------|---------------|------------------|----------------|----------------|----------------|--------------|----------|------------------|
| | Labourer | 2.0 | | 71.17 | | 270 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 45 | | | | | |
| 40 | Cure Concrete Base Slab | 17,166.00 SF | | | 108 | 7,838 | | 1,717 | | | | 9,555 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 54.12 hour (6.77 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Apply Concrete Curing Agent | 1.00 EA | | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 7,838 | | | | | | |
| | Curing Agent per sf | 17,166.0 SF | | 0.10 | | | | 1,717 | | | | |
| 14 | Portal Concrete | 3,755.00 CY | | | 21,183 | 1,594,544 | 581,742 | 234,437 | 457,151 | | | 2,867,875 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 268.21 hour (33.53 days) | | | | 5.64 | 424.65 | 154.92 | 62.43 | 121.74 | | | 763.75 |
| 15 | Concrete Wall | 3,755.00 CY | | | 17,404 | 1,304,428 | 234,498 | 234,437 | 210,280 | | | 1,983,643 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 268.21 hour (33.53 days) | | | | 4.63 | 347.38 | 62.45 | 62.43 | 56.00 | | | 528.27 |
| 15 | Build Wall Forms | 22,530.00 SF | | | 1,878 | 143,817 | 16,576 | 126,168 | | | | 286,560 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 268.21 hour (33.53 days) | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | Fabricate Gang Formwork | 1.00 EA | | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 20,103 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 19,089 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 21,457 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 83,168 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,876 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 11,700 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 22,530.0 SF | | 5.60 | | | | 126,168 | | | | |
| 20 | Set, Strip & Move Wall Forms | 67,590.00 SF | | | 8,449 | 643,457 | 54,048 | 101,385 | | | | 798,890 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 804.64 hour (100.58 days) | | | | 0.13 | 9.52 | 0.80 | 1.50 | | | | 11.82 |
| | Set Strip Retaining Walls | 1.00 EA | | 866.85 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 33,031 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 171,799 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 64,371 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 374,255 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 25,201 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 14,628 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 14,218 | | | | | |
| | Set Strip Form Material | 67,590.0 SF | | 1.50 | | | | 101,385 | | | | |
| 25 | Place Reinforcing Steel | 375,500.00 LB | | | 1,845 | 141,193 | 9,447 | | 210,280 | | | 360,920 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 9.825MH/ton, 0.10 ton/MH, 263.51 hour (32.94 days) | | | | 0.00 | 0.38 | 0.03 | | 0.56 | | | 0.96 |
| | Place Reinforcing Steel | 1.00 EA | | 571.67 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 18,754 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 21,081 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 101,359 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,791 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 4,656 | | | | | |
| | Supply Fabricated Rebar | 375,500.0 LB | | 0.56 | | | | | 210,280 | | | |
| 30 | Place Concrete Wall | 3,755.00 CY | | | 3,779 | 271,021 | 150,870 | | | | | 421,891 |
| | Prod=6.96 CY/hour (69.55 CY/ day), 1.006MH/CY, 0.99 CY/MH, 539.86 hour (53.99 days) | | | | 1.01 | 72.18 | 40.18 | | | | | 112.35 |
| | Place Concrete | 1.00 EA | | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 40,490 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 230,532 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|---------------|-----------|---------|------------|---------------|---------------|--------------|---------------|--------------|----------|---------------|
| | Concrete Truck Driver | 3.0 | | 75.90 | | 122,926 | | | | | | |
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 79,133 | | | | | |
| 332.295 | Mass Concrete | 200.00 | CY | | 430 | 32,081 | 17,922 | 2,055 | 21,549 | | | 73,606 |
| | | | | | 2.15 | 160.41 | 89.61 | 10.27 | 107.74 | | | 368.03 |
| 10 | Base Slab | 200.00 | CY | | 430 | 32,081 | 17,922 | 2,055 | 21,549 | | | 73,606 |
| | | | | | 2.15 | 160.41 | 89.61 | 10.27 | 107.74 | | | 368.03 |
| 15 | Build Footing Forms | 53.85 | SF | | 5 | 412 | 36 | 274 | | | | 723 |
| | | | | | 0.10 | 7.66 | 0.68 | 5.09 | | | | 13.42 |
| | Prod=40.00 SF/hour (320.00 SF/ day), 0.100MH/SF, 10.00 SF/MH, 1.35 hour (0.17 days) | | | | | | | | | | | |
| | <i>Fabricate Light Formwork</i> | 1.00 | EA | 333.225 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 96 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 108 | | | | | | |
| | Carpenter | 2.0 | | 77.52 | | 209 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 24 | | | | | |
| | 5 Ton Flat Bed Truck | 0.5 | | 17.67 | | | 12 | | | | | |
| | Supply Light Wood Form | 53.8 | SF | 5.09 | | | | 274 | | | | |
| 16 | Batch & Haul Concrete | 200.00 | CY | | 80 | 6,194 | 9,933 | | 13,149 | | | 29,275 |
| | | | | | 0.40 | 30.97 | 49.66 | | 65.74 | | | 146.38 |
| | Prod=10.00 CY/hour (100.00 CY/ day), 0.400MH/CY, 2.50 CY/MH, 20.00 hour (2.00 days) | | | | | | | | | | | |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 1,600 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 1,423 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,737 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 3,644 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 127 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 232 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 298 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 2,610 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 284 | | | | | |
| | Flyash | 19.2 | TN | 160.00 | | | | | 3,072 | | | |
| | Portland Cement Bulk | 36.0 | TN | 180.00 | | | | | 6,476 | | | |
| | Concrete Sand (Fine Aggregate) | 82.8 | TN | 10.00 | | | | | 828 | | | |
| | 2" (50 mm) Coarse Aggregate | 248.3 | TN | 10.00 | | | | | 2,483 | | | |
| | Water Reducer | 90.0 | GAL | 3.23 | | | | | 291 | | | |
| 17 | Deliver Concrete | 200.00 | CY | | 60 | 4,554 | 2,932 | | | | | 7,486 |
| | | | | | 0.30 | 22.77 | 14.66 | | | | | 37.43 |
| | Prod=10.00 CY/hour (100.00 CY/ day), 0.300MH/CY, 3.33 CY/MH, 20.00 hour (2.00 days) | | | | | | | | | | | |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 374.28 | | | | | | | | |
| | Concrete Truck Driver | 3.0 | | 75.90 | | 4,554 | | | | | | |
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 2,932 | | | | | |
| 20 | Set, Strip & Move Forms | 157.69 | SF | | 32 | 2,399 | 162 | 1,374 | | | | 3,934 |
| | | | | | 0.20 | 15.21 | 1.02 | 8.71 | | | | 24.95 |
| | Prod=35.00 SF/hour (280.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 4.51 hour (0.56 days) | | | | | | | | | | | |
| | <i>Set Strip Slab on Grade Edge Forms</i> | 1.00 | EA | 568.27 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 641 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 360 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 1,397 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 82 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 80 | | | | | |
| | Set Strip Form Material | 915.9 | SF | 1.50 | | | | 1,374 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|--|-----------|-----|---------|--------|--------|--------|---------|----------|--------------|--------------|--------------|
| 25 | Place Slab Concrete | 200.00 | CY | | 112 | 8,032 | 4,471 | | | | | 12,504 |
| | Prod=12.50 CY/hour (100.00 CY/ day), 0.560MH/CY, 1.79 CY/MH, 16.00 hour (2.00 days) | | | | 0.56 | 40.16 | 22.36 | | | | | 62.52 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 1,200 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 6,832 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 4,000 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 23 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 158 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 291 | | | | | |
| 30 | Place Reinforcing Steel | 15,000.00 | LB | | 74 | 5,640 | 377 | | 8,400 | | | 14,418 |
| | Prod=0.71 TN/hour (5.70 TN/ day), 9.825MH/TN, 0.10 TN/MH, 10.53 hour (1.32 days) | | | | 0.00 | 0.38 | 0.03 | | 0.56 | | | 0.96 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 571.67 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 749 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 842 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 4,049 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 191 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 186 | | | | | |
| | Supply Fabricated Rebar | 15,000.0 | LB | 0.56 | | | | | 8,400 | | | |
| 35 | Finish Concrete Base Slab | 3,909.23 | SF | | 40 | 2,929 | | | | | | 2,929 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 20.22 hour (2.53 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 2,929 | | | | | | |
| 36 | Joint Prep on Slab | 50.77 | SF | | 1 | 64 | 11 | | | | | 75 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 0.45 hour (0.06 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | <i>Joint Prep on Slab</i> | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 64 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 11 | | | | | |
| 40 | Cure Concrete Base Slab | 4,066.92 | SF | | 26 | 1,857 | | 407 | | | | 2,264 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 12.82 hour (1.60 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 1,857 | | | | | | |
| | Curing Agent per sf | 4,066.9 | SF | 0.10 | | | | 407 | | | | |
| 332.296 | Upstream Portal -Mechanical Electrical | 1.00 | LS | | | | | | | | 3,000,000 | 3,000,000 |
| | | | | | | | | | | | 3,000,000.00 | 3,000,000.00 |
| 332.297 | Upstream Portal Bulkhead Gates | 2.00 | EA | | | | | | | | 18,000,000 | 18,000,000 |
| | | | | | | | | | | | 9,000,000.00 | 9,000,000.00 |
| 332.298 | Upstream Portal Trashracks | 2.00 | EA | | | | | | | | 725,000 | 725,000 |
| | | | | | | | | | | | 362,500.00 | 362,500.00 |
| 332.299 | Downstream Portal Common Excavation | 3,293.00 | CY | | 158 | 12,559 | 17,204 | | | | | 29,763 |
| | | | | | 0.05 | 3.81 | 5.22 | | | | | 9.04 |
| 25 | Load Haul Excavation to Stockpile | 3,293.00 | CY | | 158 | 12,559 | 17,204 | | | | | 29,763 |
| | Prod=250.00 CY/hour (2,500.00 CY/ day), 0.048MH/CY, 20.83 CY/MH, 13.17 hour (1.32 days) | | | | 0.05 | 3.81 | 5.22 | | | | | 9.04 |
| | <i>Load Haul 980 Loader</i> | 1.00 | EA | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,054 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|---------------|----------|--------------|----------|----------------|
| | Grader Operator | 1.0 | | 79.26 | | 1,044 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,044 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 1,012 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 1,012 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 1,003 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 6,390 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 2,544 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,802 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,156 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 9,843 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 1,712 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 147 | | | | | |
| 332.300 | Downstream Portal Rock Excavation | 28,870.00 | CY | | 1,436 | 109,522 | 220,957 | 59,526 | | | | 390,005 |
| | | | | | 0.05 | 3.79 | 7.65 | 2.06 | | | | 13.51 |
| 22 | Rock Excavation to Stockpile | 28,870.00 | CY | | 1,436 | 109,522 | 220,957 | 59,526 | | | | 390,005 |
| | | | | | 0.05 | 3.79 | 7.65 | 2.06 | | | | 13.51 |
| 10 | Presplit Face | 2,026.00 | SF | | 53 | 3,871 | 1,208 | 14,130 | | | | 19,209 |
| | | | | | 0.03 | 1.91 | 0.60 | 6.97 | | | | 9.48 |
| | Prod=210.00 LF/hour (1,680.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 4.82 hour (0.60 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 362 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 1,030 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 738 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 1,030 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 343 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 369 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 1,069 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 54 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 85 | | | | | |
| | Lead in Line | 8.3 | EA | 200.00 | | | | | 1,661 | | | |
| | Non Elec Detonators | 20.3 | EA | 6.50 | | | | | 132 | | | |
| | RED E-SPLIT PRESPLIT | 506.5 | EA | 5.78 | | | | | 2,928 | | | |
| | Drill Bits | 11.1 | EA | 350.00 | | | | | 3,875 | | | |
| | Drill Steel | 5.5 | EA | 1,000.00 | | | | | 5,536 | | | |
| 12 | Drill and Shoot | 28,870.00 | CY | | 613 | 44,689 | 19,176 | 45,396 | | | | 109,261 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| 12 | Drill and Shoot Production | 28,870.00 | CY | | 613 | 44,689 | 19,176 | 45,396 | | | | 109,261 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| | Prod=210.00 FT/hour (1,680.00 FT/ day), 0.038MH/FT, 26.25 FT/MH, 76.59 hour (9.57 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 833.83 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 6,127 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 10,902 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 5,855 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 16,353 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 5,451 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 16,969 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 853 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,353 | | | | | |
| | Hydromite 880 Wet Holes 10% | 2,887.0 | LB | 1.88 | | | | | 5,428 | | | |
| | Shoot Line | 4.3 | EA | 52.00 | | | | | 222 | | | |
| | Between Holes QRC 1 for every 4 holes | 191.5 | EA | 4.75 | | | | | 910 | | | |
| | Drill Steel | 4.6 | EA | 1,000.00 | | | | | 4,598 | | | |
| | Drill Bits | 10.7 | EA | 400.00 | | | | | 4,277 | | | |
| | Anfo | 28,870.0 | LB | 0.70 | | | | | 20,209 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|---------------|------------------|----------------|----------------|----------------|--------------|----------|------------------|
| | Booster | 766.1 | EA | 6.63 | | | | 5,079 | | | | |
| | Caps | 766.1 | EA | 6.10 | | | | 4,673 | | | | |
| 22 | Reservoir Rock Excavation to Stockpile at Crusher | 28,870.00 | CY | | 770 | 60,961 | 200,574 | | | | | 261,535 |
| | | | | | 0.03 | 2.11 | 6.95 | | | | | 9.06 |
| 20 | Rock Excavation 992 | 28,870.00 | CY | | 770 | 60,961 | 200,574 | | | | | 261,535 |
| | | | | | 0.03 | 2.11 | 6.95 | | | | | 9.06 |
| | Prod=450.00 CY/hour (4,500.00 CY/ day), 0.027MH/CY, 37.50 CY/MH, 64.16 hour (6.42 days) | | | | | | | | | | | |
| | Load Haul to Stockpile Backhoe | 1.00 | EA | 4076.58 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 5,132 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 5,085 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 5,085 | | | | | | |
| | Dozer Operator | 3.0 | | 76.86 | | 14,793 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 4,931 | | | | | | |
| | Off Hwy Truck Driver | 5.0 | | 80.85 | | 25,935 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 12,388 | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 2.0 | | 327.65 | | | 42,041 | | | | | |
| | Ripper Attachment D10 | 1.0 | | 13.76 | | | 883 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 5,630 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 15,809 | | | | | |
| | 95 Ton Off Hwy Truck 870 Hsp (Cat 777) | 5.0 | | 357.78 | | | 114,768 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 8,340 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 715 | | | | | |
| 332.301 | Downstream Portal Concrete | 5,280.00 | CY | | 27,353 | 2,057,314 | 768,580 | 279,070 | 690,260 | | | 3,795,225 |
| | | | | | 5.18 | 389.64 | 145.56 | 52.85 | 130.73 | | | 718.79 |
| 10 | Base Slab | 970.00 | CY | | 3,039 | 227,092 | 100,855 | 9,984 | 165,541 | | | 503,471 |
| | | | | | 3.13 | 234.12 | 103.97 | 10.29 | 170.66 | | | 519.04 |
| 10 | Base Prep | 18,940.00 | SF | | 398 | 28,978 | 5,917 | | 6,708 | | | 41,603 |
| | | | | | 0.02 | 1.53 | 0.31 | | 0.35 | | | 2.20 |
| | Prod=237.88 SF/hour (1,903.00 SF/ day), 0.021MH/SF, 47.58 SF/MH, 79.62 hour (9.95 days) | | | | | | | | | | | |
| | Foundation Preparation | 1.00 | EA | 438.26 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 6,311 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 22,667 | | | | | | |
| | 2.1 CY Track Loader (Cat 939) | 1.0 | | 57.90 | | | 4,610 | | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 2.0 | | 8.21 | | | 1,307 | | | | | |
| | Gravel Road Base | 1,118.1 | TN | 6.00 | | | | | 6,708 | | | |
| 15 | Build Footing Forms | 265.00 | SF | | 27 | 2,029 | 179 | 1,349 | | | | 3,556 |
| | | | | | 0.10 | 7.66 | 0.68 | 5.09 | | | | 13.42 |
| | Prod=40.00 SF/hour (320.00 SF/ day), 0.100MH/SF, 10.00 SF/MH, 6.63 hour (0.83 days) | | | | | | | | | | | |
| | Fabricate Light Formwork | 1.00 | EA | 333.225 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 472 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 530 | | | | | | |
| | Carpenter | 2.0 | | 77.52 | | 1,027 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 120 | | | | | |
| | 5 Ton Flat Bed Truck | 0.5 | | 17.67 | | | 59 | | | | | |
| | Supply Light Wood Form | 265.0 | SF | 5.09 | | | | 1,349 | | | | |
| 16 | Batch & Haul Concrete | 970.00 | CY | | 414 | 32,032 | 51,367 | | 63,772 | | | 147,171 |
| | | | | | 0.43 | 33.02 | 52.96 | | 65.74 | | | 151.72 |
| | Prod=9.38 CY/hour (93.78 CY/ day), 0.427MH/CY, 2.34 CY/MH, 103.43 hour (10.34 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 8,198 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 8,275 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 8,198 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|----------------------|-----|--------|------------|---------------|---------------|--------------|---------------|--------------|----------|----------------|
| | Labourer | 1.0 | | 71.17 | | 7,361 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 14,153 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 18,844 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 659 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 1,198 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 1,543 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 13,500 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 1,471 | | | | | |
| | Flyash | 93.1 TN | | 160.00 | | | | | 14,897 | | | |
| | Portland Cement Bulk | 174.5 TN | | 180.00 | | | | | 31,407 | | | |
| | Concrete Sand (Fine Aggregate) | 401.5 TN | | 10.00 | | | | | 4,015 | | | |
| | 2" (50 mm) Coarse Aggregate | 1,204.4 TN | | 10.00 | | | | | 12,044 | | | |
| | Water Reducer | 436.4 GAL | | 3.23 | | | | | 1,409 | | | |
| 17 | Deliver Concrete | 970.00 CY | | | 310 | 23,551 | 15,161 | | | | | 38,712 |
| | Prod=9.38 CY/hour (93.78 CY/ day), 0.320MH/CY, 3.13 CY/MH, 103.43 hour (10.34 days) | | | | 0.32 | 24.28 | 15.63 | | | | | 39.91 |
| | Deliver Concrete (9 m3 truck) | 1.00 EA | | 374.28 | | | | | | | | |
| | Concrete Truck Driver | 3.0 | | 75.90 | | 23,551 | | | | | | |
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 15,161 | | | | | |
| 20 | Set, Strip & Move Forms | 765.00 SF | | | 153 | 11,637 | 784 | 6,665 | | | | 19,086 |
| | Prod=35.00 SF/hour (280.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 21.86 hour (2.73 days) | | | | 0.20 | 15.21 | 1.02 | 8.71 | | | | 24.95 |
| | Set Strip Slab on Grade Edge Forms | 1.00 EA | | 568.27 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 3,111 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,749 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 6,777 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 397 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 386 | | | | | |
| | Set Strip Form Material | 4,443.3 SF | | 1.50 | | | | 6,665 | | | | |
| 25 | Place Slab Concrete | 970.00 CY | | | 579 | 41,540 | 23,124 | | | | | 64,664 |
| | Prod=11.72 CY/hour (93.78 CY/ day), 0.597MH/CY, 1.67 CY/MH, 82.75 hour (10.34 days) | | | | 0.60 | 42.82 | 23.84 | | | | | 66.66 |
| | Place Concrete | 1.00 EA | | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 6,206 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 35,334 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 20,686 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 117 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 816 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,504 | | | | | |
| 30 | Place Reinforcing Steel | 169,750.00 LB | | | 834 | 63,828 | 4,271 | | 95,060 | | | 163,159 |
| | Prod=0.71 TN/hour (5.70 TN/ day), 9.825MH/TN, 0.10 TN/MH, 119.12 hour (14.89 days) | | | | 0.00 | 0.38 | 0.03 | | 0.56 | | | 0.96 |
| | Place Reinforcing Steel | 1.00 EA | | 571.67 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 8,478 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 9,530 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 45,821 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,166 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 2,105 | | | | | |
| | Supply Fabricated Rebar | 169,750.0 LB | | 0.56 | | | | | 95,060 | | | |
| 35 | Finish Concrete Base Slab | 18,940.00 SF | | | 196 | 14,190 | | | | | | 14,190 |
| | | | | | 0.01 | 0.75 | | | | | | 0.75 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|------------|-----|--------|--------|-----------|---------|---------|----------|--------------|----------|------------|
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 97.98 hour (12.25 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 14,190 | | | | | | |
| 36 | Joint Prep on Slab | 246.00 | SF | | 4 | 310 | 52 | | | | | 362 |
| | | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 2.18 hour (0.27 days) | | | | | | | | | | | |
| | Joint Prep on Slab | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 310 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 52 | | | | | |
| 40 | Cure Concrete Base Slab | 19,705.00 | SF | | 124 | 8,997 | | 1,971 | | | | 10,968 |
| | | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 62.13 hour (7.77 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 8,997 | | | | | | |
| | Curing Agent per sf | 19,705.0 | SF | 0.10 | | | | 1,971 | | | | |
| 14 | Portal Concrete | 4,310.00 | CY | | 24,314 | 1,830,222 | 667,726 | 269,086 | 524,720 | | | 3,291,754 |
| | | | | | 5.64 | 424.65 | 154.92 | 62.43 | 121.74 | | | 763.75 |
| 15 | Concrete Wall | 4,310.00 | CY | | 19,977 | 1,497,226 | 269,158 | 269,086 | 241,360 | | | 2,276,830 |
| | | | | | 4.63 | 347.38 | 62.45 | 62.43 | 56.00 | | | 528.27 |
| 15 | Build Wall Forms | 25,860.00 | SF | | 2,155 | 165,073 | 19,026 | 144,816 | | | | 328,915 |
| | | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 307.86 hour (38.48 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 23,074 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 21,910 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 24,629 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 95,460 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,597 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 13,429 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 25,860.0 | SF | 5.60 | | | | 144,816 | | | | |
| 20 | Set, Strip & Move Wall Forms | 77,580.00 | SF | | 9,698 | 738,562 | 62,036 | 116,370 | | | | 916,968 |
| | | | | | 0.13 | 9.52 | 0.80 | 1.50 | | | | 11.82 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 923.57 hour (115.45 days) | | | | | | | | | | | |
| | Set Strip Retaining Walls | 1.00 | EA | 866.85 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 37,913 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 197,192 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 73,886 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 429,572 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 28,926 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 16,791 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 16,320 | | | | | |
| | Set Strip Form Material | 77,580.0 | SF | 1.50 | | | | 116,370 | | | | |
| 25 | Place Reinforcing Steel | 431,000.00 | LB | | 2,117 | 162,062 | 10,843 | | 241,360 | | | 414,265 |
| | | | | | 0.00 | 0.38 | 0.03 | | 0.56 | | | 0.96 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 9.825MH/ton, 0.10 ton/MH, 302.46 hour (37.81 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 571.67 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 21,526 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 24,196 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 116,340 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,499 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 5,344 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|-----------|-----|--------|--------|---------|---------|---------|----------|--------------|----------|------------|
| | Supply Fabricated Rebar | 431,000.0 | LB | 0.56 | | | | | 241,360 | | | |
| 30 | Place Concrete Wall | 4,310.00 | CY | | 4,338 | 311,079 | 173,169 | | | | | 484,248 |
| | Prod=6.96 CY/hour (69.55 CY/ day), 1.006MH/CY, 0.99 CY/MH, 619.65 hour (61.97 days) | | | | 1.01 | 72.18 | 40.18 | | | | | 112.35 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 46,474 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 264,605 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 154,914 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 880 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 6,110 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 11,265 | | | | | |
| 32 | Joint Prep on Wall | 19,400.00 | SF | | 343 | 24,437 | 4,084 | | | | | 28,521 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 171.68 hour (21.46 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | <i>Joint Prep on Slab</i> | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 24,437 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 4,084 | | | | | |
| 35 | Finish Concrete Wall | 1,435.00 | SF | | 171 | 12,418 | | | | | | 12,418 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 85.75 hour (10.72 days) | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 12,418 | | | | | | |
| 40 | Cure Concrete Wall | 79,000.00 | SF | | 379 | 27,419 | | 7,900 | | | | 35,319 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 189.33 hour (23.67 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 27,419 | | | | | | |
| | Curing Agent per sf | 79,000.0 | SF | 0.10 | | | | 7,900 | | | | |
| 45 | Patch & Point Walls | 77,580.00 | SF | | 776 | 56,176 | | | | | | 56,176 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 387.90 hour (48.49 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 56,176 | | | | | | |
| 16 | Batch & Haul Concrete | 4,310.00 | CY | | 2,479 | 191,901 | 307,739 | | 283,360 | | | 782,999 |
| | Prod=6.96 CY/hour (69.55 CY/ day), 0.575MH/CY, 1.74 CY/MH, 619.65 hour (61.97 days) | | | | 0.58 | 44.52 | 71.40 | | 65.74 | | | 181.67 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 49,114 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 49,572 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 49,114 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 44,101 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 84,787 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 112,895 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 3,947 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 7,176 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 9,245 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 80,877 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 8,811 | | | | | |
| | Flyash | 413.7 | TN | 160.00 | | | | | 66,194 | | | |
| | Portland Cement Bulk | 775.3 | TN | 180.00 | | | | | 139,550 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|--------|--------------|----------------|---------------|--------------|---------------|--------------|----------|----------------|
| | Concrete Sand (Fine Aggregate) | 1,783.8 | TN | 10.00 | | | | | 17,838 | | | |
| | 2" (50 mm) Coarse Aggregate | 5,351.5 | TN | 10.00 | | | | | 53,515 | | | |
| | Water Reducer | 1,938.9 | GAL | 3.23 | | | | | 6,263 | | | |
| 17 | Deliver Concrete | 4,310.00 | CY | | 1,859 | 141,095 | 90,829 | | | | | 231,924 |
| | | | | | 0.43 | 32.74 | 21.07 | | | | | 53.81 |
| | Prod=6.96 CY/hour (69.55 CY/ day), 0.431MH/CY, 2.32 CY/MH, 619.65 hour (61.97 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 374.28 | | | | | | | | |
| | Concrete Truck Driver | 3.0 | | 75.90 | | 141,095 | | | | | | |
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 90,829 | | | | | |
| 332.302 | Downstream Portal Bridge Deck Concrete | 125.00 | CY | | 1,151 | 86,731 | 36,026 | 5,819 | 10,668 | | | 139,244 |
| | | | | | 9.20 | 693.85 | 288.21 | 46.55 | 85.34 | | | 1,113.95 |
| 12 | Concrete Deck | 125.00 | CY | | 1,151 | 86,731 | 36,026 | 5,819 | 10,668 | | | 139,244 |
| | | | | | 9.20 | 693.85 | 288.21 | 46.55 | 85.34 | | | 1,113.95 |
| 15 | Concrete Floor Slabs | 125.00 | CY | | 851 | 63,778 | 12,332 | 5,819 | 2,450 | | | 84,379 |
| | | | | | 6.80 | 510.23 | 98.66 | 46.55 | 19.60 | | | 675.03 |
| 20 | Build Set, Strip & Move Support Forms | 1,200.00 | SF | | 600 | 45,696 | 3,838 | 5,601 | | | | 55,136 |
| | | | | | 0.50 | 38.08 | 3.20 | 4.67 | | | | 45.95 |
| | Prod=21.00 SF/hour (210.00 SF/ day), 0.500MH/SF, 2.00 SF/MH, 57.14 hour (5.71 days) | | | | | | | | | | | |
| | Set Strip Support Forms | 1.00 | EA | 866.85 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 2,346 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 12,201 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 4,571 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 26,578 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 1,790 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,039 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,010 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 500.0 | SF | 5.60 | | | | 2,800 | | | | |
| | Set Strip Form Material | 1,200.0 | SF | 1.50 | | | | 1,800 | | | | |
| | Hi-Load Scaffolds | 2,002.6 | CF | 0.50 | | | | 1,001 | | | | |
| 25 | Place Reinforcing Steel | 4,375.00 | LB | | 21 | 1,645 | 110 | | 2,450 | | | 4,205 |
| | | | | | 0.00 | 0.38 | 0.03 | | 0.56 | | | 0.96 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 9.825MH/ton, 0.10 ton/MH, 3.07 hour (0.31 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 571.67 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 219 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 246 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 1,181 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 56 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 54 | | | | | |
| | Supply Fabricated Rebar | 4,375.0 | LB | 0.56 | | | | | 2,450 | | | |
| 30 | Place Concrete | 125.00 | CY | | 210 | 15,061 | 8,384 | | | | | 23,444 |
| | | | | | 1.68 | 120.48 | 67.07 | | | | | 187.56 |
| | Prod=4.17 CY/hour (41.67 CY/ day), 1.680MH/CY, 0.60 CY/MH, 30.00 hour (3.00 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 2,250 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 12,811 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 7,500 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 43 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 296 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 545 | | | | | |
| 35 | Finish Concrete Top | 972.00 | SF | | 9 | 623 | | | | | | 623 |
| | | | | | 0.01 | 0.64 | | | | | | 0.64 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|-----------------|-----------|---------|------------|---------------|---------------|---------------|----------------|--------------|----------|----------------|
| | <i>Fabricate Light Formwork</i> | 1.00 | EA | 333.225 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 810 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 910 | | | | | | |
| | Carpenter | 2.0 | | 77.52 | | 1,764 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 207 | | | | | |
| | 5 Ton Flat Bed Truck | 0.5 | | 17.67 | | | 100 | | | | | |
| | Supply Light Wood Form | 455.0 | SF | 5.09 | | | | 2,316 | | | | |
| 16 | Batch & Haul Concrete | 1,690.00 | CY | | 676 | 52,338 | 83,930 | | 111,108 | | | 247,377 |
| | Prod=10.00 CY/hour (100.00 CY/ day), 0.400MH/CY, 2.50 CY/MH, 169.00 hour (16.90 days) | | | | 0.40 | 30.97 | 49.66 | | 65.74 | | | 146.38 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 13,395 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 13,520 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 13,395 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 12,028 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 23,124 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 30,790 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 1,077 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 1,957 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 2,521 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 22,058 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 2,403 | | | | | |
| | Flyash | 162.2 | TN | 160.00 | | | | | 25,955 | | | |
| | Portland Cement Bulk | 304.0 | TN | 180.00 | | | | | 54,719 | | | |
| | Concrete Sand (Fine Aggregate) | 699.5 | TN | 10.00 | | | | | 6,995 | | | |
| | 2" (50 mm) Coarse Aggregate | 2,098.4 | TN | 10.00 | | | | | 20,984 | | | |
| | Water Reducer | 760.3 | GAL | 3.23 | | | | | 2,456 | | | |
| 17 | Deliver Concrete | 1,690.00 | CY | | 507 | 38,481 | 24,772 | | | | | 63,253 |
| | Prod=10.00 CY/hour (100.00 CY/ day), 0.300MH/CY, 3.33 CY/MH, 169.00 hour (16.90 days) | | | | 0.30 | 22.77 | 14.66 | | | | | 37.43 |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 374.28 | | | | | | | | |
| | Concrete Truck Driver | 3.0 | | 75.90 | | 38,481 | | | | | | |
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 24,772 | | | | | |
| 20 | Set, Strip & Move Forms | 1,332.50 | SF | | 267 | 20,270 | 1,365 | 11,609 | | | | 33,244 |
| | Prod=35.00 SF/hour (280.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 38.07 hour (4.76 days) | | | | 0.20 | 15.21 | 1.02 | 8.71 | | | | 24.95 |
| | <i>Set Strip Slab on Grade Edge Forms</i> | 1.00 | EA | 568.27 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 5,419 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 3,046 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 11,805 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 692 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 673 | | | | | |
| | Set Strip Form Material | 7,739.5 | SF | 1.50 | | | | 11,609 | | | | |
| 25 | Place Slab Concrete | 1,690.00 | CY | | 946 | 67,873 | 37,783 | | | | | 105,656 |
| | Prod=12.50 CY/hour (100.00 CY/ day), 0.560MH/CY, 1.79 CY/MH, 135.20 hour (16.90 days) | | | | 0.56 | 40.16 | 22.36 | | | | | 62.52 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 10,140 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 57,733 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 33,800 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 192 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 1,333 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|---------|------------|---------------|---------------|---------|---------------|--------------|----------|----------------|
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,458 | | | | | |
| 30 | Place Reinforcing Steel | 295,750.00 | LB | | 1,453 | 111,206 | 7,440 | | 165,620 | | | 284,267 |
| | Prod=0.71 TN/hour (5.70 TN/ day), 9.825MH/TN, 0.10 TN/MH, 207.54 hour (25.94 days) | | | | 0.00 | 0.38 | 0.03 | | 0.56 | | | 0.96 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 571.67 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 14,771 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 16,604 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 79,832 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,773 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 3,667 | | | | | |
| | Supply Fabricated Rebar | 295,750.00 | LB | 0.56 | | | | | 165,620 | | | |
| 35 | Finish Concrete Base Slab | 33,033.00 | SF | | 342 | 24,748 | | | | | | 24,748 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 170.89 hour (21.36 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 24,748 | | | | | | |
| 36 | Joint Prep on Slab | 429.00 | SF | | 8 | 540 | 90 | | | | | 631 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 3.80 hour (0.47 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | <i>Joint Prep on Slab</i> | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 540 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 90 | | | | | |
| 40 | Cure Concrete Base Slab | 34,365.50 | SF | | 217 | 15,691 | | 3,437 | | | | 19,128 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 108.35 hour (13.54 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 15,691 | | | | | | |
| | Curing Agent per sf | 34,365.50 | SF | 0.10 | | | | 3,437 | | | | |
| 332.306 | Granular Backfill | 4,500.00 | CY | | 855 | 65,607 | 49,285 | | 66,788 | | | 181,679 |
| | | | | | 0.19 | 14.58 | 10.95 | | 14.84 | | | 40.37 |
| 25 | Load Haul Excavation from Stockpile | 4,500.00 | CY | | 270 | 21,453 | 29,388 | | 66,788 | | | 117,628 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 22.50 hour (2.25 days) | | | | 0.06 | 4.77 | 6.53 | | 14.84 | | | 26.14 |
| | <i>Load Haul 980 Loader</i> | 1.00 | EA | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,783 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,783 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 1,729 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 1,729 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 1,712 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 10,915 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 4,345 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 3,079 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,974 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 16,814 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,925 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 251 | | | | | |
| | Granular Backfill | 6,678.8 | TN | 10.00 | | | | | 66,788 | | | |
| 30 | Place Compact Backfill | 4,500.00 | CY | | 585 | 44,154 | 19,897 | | | | | 64,051 |
| | | | | | 0.13 | 9.81 | 4.42 | | | | | 14.23 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------------------------|---|------------------|-----------|---------|---------------|------------------|------------------|---------------|----------|--------------|------------------|-------------------|
| | Prod=50.00 CY/hour (500.00 CY/ day), 0.130MH/CY, 7.69 CY/MH, 90.00 hour (9.00 days) | | | | | | | | | | | |
| | <i>Place Compact Backfill</i> | 1.00 | EA | 711.68 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 7,200 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 6,917 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 6,917 | | | | | | |
| | Scraper Operator Water Wagon | 0.5 | | 76.86 | | 3,459 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 12,811 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 6,850 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 74.46 | | | 6,701 | | | | | |
| | 631 Water Wagon | 0.5 | | 130.00 | | | 5,850 | | | | | |
| | 22" Smooth Drum Manual (Bomag 55) | 1.0 | | 8.33 | | | 750 | | | | | |
| | 15 Ton Compactor 84" (Cat 563) | 1.0 | | 62.15 | | | 5,594 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,003 | | | | | |
| Upstream Cofferdam | | 1.00 | LS | | 68,204 | 5,347,409 | 9,073,905 | 52,589 | | | 1,025,400 | 15,499,304 |
| | | | | | 68,204.26 | 5,347,409.25 | 9,073,905.09 | 52,589.25 | | | 1,025,400.00 | 15,499,303.59 |
| 332.351 | Common Excavation | 45,200.00 | CY | | 1,550 | 123,131 | 182,829 | | | | | 305,960 |
| | | | | | 0.03 | 2.72 | 4.04 | | | | | 6.77 |
| 25 | Load Haul Excavation to Stockpile | 45,200.00 | CY | | 1,550 | 123,131 | 182,829 | | | | | 305,960 |
| | | | | | 0.03 | 2.72 | 4.04 | | | | | 6.77 |
| | Prod=350.00 CY/hour (3,500.00 CY/ day), 0.034MH/CY, 29.17 CY/MH, 129.14 hour (12.91 days) | | | | | | | | | | | |
| | <i>Load Haul Backhoe</i> | 1.00 | EA | 2369.16 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 10,331 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 10,236 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 10,236 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 9,926 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 9,926 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 9,829 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 62,647 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 24,937 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 11,332 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 31,823 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 96,508 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 16,789 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,439 | | | | | |
| 332.352 | Rock Excavation | 6,100.00 | CY | | 597 | 45,113 | 38,626 | 52,589 | | | | 136,328 |
| | | | | | 0.10 | 7.40 | 6.33 | 8.62 | | | | 22.35 |
| 10 | Rock Excavation | 6,100.00 | CY | | 597 | 45,113 | 38,626 | 52,589 | | | | 136,328 |
| | | | | | 0.10 | 7.40 | 6.33 | 8.62 | | | | 22.35 |
| 10 | Presplit Face | 6,428.92 | SF | | 168 | 12,282 | 3,832 | 39,921 | | | | 56,035 |
| | | | | | 0.03 | 1.91 | 0.60 | 6.21 | | | | 8.72 |
| | Prod=210.00 LF/hour (2,100.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 15.30 hour (1.53 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 1,148 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 3,268 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 2,340 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 3,268 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 1,089 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 1,170 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 3,391 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 170 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|---------------|----------|--------------|----------|----------------|
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 270 | | | | | |
| | Non Elec Detonators | 63.2 | EA | 6.50 | | | | 411 | | | | |
| | RED E-SPLIT PRESPLIT | 1,607.0 | EA | 5.78 | | | | 9,288 | | | | |
| | Drill Bits | 32.2 | EA | 350.00 | | | | 11,253 | | | | |
| | Drill Steel | 16.1 | EA | 1,000.00 | | | | 16,144 | | | | |
| | Lead in Line | 14.1 | EA | 200.00 | | | | 2,825 | | | | |
| 20 | Drill and Shoot | 6,100.00 | CY | | 207 | 15,126 | 6,660 | 12,668 | | | | 34,454 |
| | | | | | 0.03 | 2.48 | 1.09 | 2.08 | | | | 5.65 |
| 10 | Drill and Shoot Production | 6,100.00 | CY | | 207 | 15,126 | 6,660 | 12,668 | | | | 34,454 |
| | | | | | 0.03 | 2.48 | 1.09 | 2.08 | | | | 5.65 |
| | Prod=174.54 FT/hour (1,745.37 FT/ day), 0.046MH/FT, 21.82 FT/MH, 25.83 hour (2.58 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 2,121 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 3,677 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 1,975 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 5,515 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 1,838 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 5,723 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 481 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 456 | | | | | |
| | Drill Steel | 1.2 | EA | 1,000.00 | | | | 1,220 | | | | |
| | Drill Bits | 3.0 | EA | 400.00 | | | | 1,185 | | | | |
| | Anfo | 6,100.0 | LB | 0.72 | | | | 4,392 | | | | |
| | Booster | 346.8 | EA | 7.88 | | | | 2,733 | | | | |
| | Caps | 346.8 | EA | 7.20 | | | | 2,497 | | | | |
| | Shoot Line | 4.4 | EA | 52.00 | | | | 227 | | | | |
| | Between Holes QRC 1 for every 4 holes | 87.1 | EA | 4.75 | | | | 414 | | | | |
| 30 | Rock Excavation to Stockpile | 6,100.00 | CY | | 222 | 17,704 | 28,135 | | | | | 45,839 |
| | | | | | 0.04 | 2.90 | 4.61 | | | | | 7.51 |
| 20 | Load Haul to Waste | 6,100.00 | CY | | 222 | 17,704 | 28,135 | | | | | 45,839 |
| | | | | | 0.04 | 2.90 | 4.61 | | | | | 7.51 |
| | Prod=302.29 CY/hour (3,022.87 CY/ day), 0.036MH/CY, 27.48 CY/MH, 20.18 hour (2.02 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile</i> | 1.00 | EA | 2271.56 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,614 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,599 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,599 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 3,102 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 9,789 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 1,903 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 3,897 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,761 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,771 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 14,955 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,623 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 225 | | | | | |
| 332.353 | Impervious Fill | 35,400.00 | CY | | 1,652 | 130,646 | 198,742 | | | | | 329,388 |
| | | | | | 0.05 | 3.69 | 5.61 | | | | | 9.30 |
| 25 | Load Haul Excavation to Fill and Place | 35,400.00 | CY | | 1,652 | 130,646 | 198,742 | | | | | 329,388 |
| | | | | | 0.05 | 3.69 | 5.61 | | | | | 9.30 |
| | Prod=300.00 CY/hour (3,000.00 CY/ day), 0.047MH/CY, 21.43 CY/MH, 118.00 hour (11.80 days) | | | | | | | | | | | |
| | <i>Load Haul Place Backhoe</i> | 1.00 | EA | 2791.42 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 9,440 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 9,353 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | Equipment Foreman | 1.0 | | 80.00 | | 121,829 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 120,702 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 120,702 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 234,094 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 117,047 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 117,047 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 115,905 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 738,738 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 143,605 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 294,064 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 208,373 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 133,631 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 1,138,031 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 197,971 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 87,427 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 16,965 | | | | | |
| 332.355 | Filters | 12,500.00 | CY | | 1,512 | 118,475 | 203,654 | | | | | 322,129 |
| | | | | | 0.12 | 9.48 | 16.29 | | | | | 25.77 |
| 15 | Load Haul Material to Crushing Screen Plant | 15,562.85 | CY | | 623 | 49,231 | 69,696 | | | | | 118,926 |
| | | | | | 0.04 | 3.16 | 4.48 | | | | | 7.64 |
| | Prod=350.00 CY/hour (3,500.00 CY/ day), 0.040MH/CY, 25.00 CY/MH, 44.47 hour (4.45 days) | | | | | | | | | | | |
| | Load Haul Place Backhoe | 1.00 | EA | 2674.59 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 3,557 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 3,524 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 3,524 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 6,835 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 3,418 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 3,418 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 3,384 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 21,570 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 4,193 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 8,586 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 3,902 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 10,957 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 33,229 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 5,780 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 2,553 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 495 | | | | | |
| 20 | Rock & Gravel Fill Screening | 15,562.85 | CY | | 389 | 29,702 | 81,893 | | | | | 111,596 |
| | | | | | 0.03 | 1.91 | 5.26 | | | | | 7.17 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.025MH/CY, 40.00 CY/MH, 77.81 hour (7.78 days) | | | | | | | | | | | |
| | Crush & Screen Gravel & Sands | 1.00 | EA | 1434.13 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 6,168 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 6,168 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 11,076 | | | | | | |
| | Heavy Duty Mechanic | 1.0 | | 80.85 | | 6,291 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 10,647 | | | | | |
| | Single Screw Washer 48" 20 Hsp | 1.0 | | 31.50 | | | 2,451 | | | | | |
| | Radial Stacker 30"x90 25 Hsp | 2.0 | | 25.50 | | | 3,969 | | | | | |
| | Conveyor 30"x50 20Hsp | 5.0 | | 18.16 | | | 7,066 | | | | | |
| | Large Capacity Crushing Spread & Generator | 1.0 | | 742.29 | | | 57,761 | | | | | |
| 30 | Load Haul Processed Material to Fill and Place | 12,500.00 | CY | | 500 | 39,542 | 52,065 | | | | | 91,607 |
| | | | | | 0.04 | 3.16 | 4.17 | | | | | 7.33 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|--------------|----------------|----------------|---------|----------|--------------|----------|------------------|
| | <i>Load Haul Place Backhoe</i> | 1.00 | EA | 2791.42 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,520 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 1,506 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,506 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 2,921 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 1,460 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 1,460 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 1,446 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 9,217 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 1,792 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 3,669 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,667 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 4,682 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 14,199 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,470 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 174.24 | | | 3,311 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 212 | | | | | |
| 332.403 | Rock & Gravel Fill | 54,800.00 | CY | | 6,466 | 506,879 | 868,786 | | | | | 1,375,665 |
| | | | | | 0.12 | 9.25 | 15.85 | | | | | 25.10 |
| 15 | Load Haul Material to Crushing Screen Plant | 65,760.00 | CY | | 2,630 | 208,021 | 294,496 | | | | | 502,517 |
| | | | | | 0.04 | 3.16 | 4.48 | | | | | 7.64 |
| | Prod=350.00 CY/hour (3,500.00 CY/ day), 0.040MH/CY, 25.00 CY/MH, 187.89 hour (18.79 days) | | | | | | | | | | | |
| | <i>Load Haul Place Backhoe</i> | 1.00 | EA | 2674.59 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 15,031 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 14,892 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 14,892 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 28,882 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 14,441 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 14,441 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 14,300 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 91,143 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 17,718 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 36,281 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 16,487 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 46,299 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 140,407 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 24,425 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 10,787 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,093 | | | | | |
| 20 | Rock & Gravel Fill Screening | 65,760.00 | CY | | 1,644 | 125,506 | 346,036 | | | | | 471,542 |
| | | | | | 0.03 | 1.91 | 5.26 | | | | | 7.17 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.025MH/CY, 40.00 CY/MH, 328.80 hour (32.88 days) | | | | | | | | | | | |
| | <i>Crush & Screen Gravel & Sands</i> | 1.00 | EA | 1434.13 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 26,061 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 26,061 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 46,801 | | | | | | |
| | Heavy Duty Mechanic | 1.0 | | 80.85 | | 26,583 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 44,990 | | | | | |
| | Single Screw Washer 48" 20 Hsp | 1.0 | | 31.50 | | | 10,357 | | | | | |
| | Radial Stacker 30"x90 25 Hsp | 2.0 | | 25.50 | | | 16,769 | | | | | |
| | Conveyor 30"x50 20Hsp | 5.0 | | 18.16 | | | 29,855 | | | | | |
| | Large Capacity Crushing Spread & Generator | 1.0 | | 742.29 | | | 244,065 | | | | | |
| 30 | Load Haul Processed Material to Fill and Place | 54,800.00 | CY | | 2,192 | 173,351 | 228,255 | | | | | 401,606 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|---------|------------|---------------|---------------|---------|----------|--------------|----------|---------------|
| | | | | | 0.04 | 3.16 | 4.17 | | | | | 7.33 |
| | Prod=350.00 CY/hour (3,500.00 CY/ day), 0.040MH/CY, 25.00 CY/MH, 156.57 hour (15.66 days) | | | | | | | | | | | |
| | Load Haul Place Loader | 1.00 | EA | 2565 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 12,526 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 12,410 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 12,410 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 24,068 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 12,034 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 12,034 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 11,917 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 75,953 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 14,765 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 30,234 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 21,424 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 13,739 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 117,006 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 20,354 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 8,989 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,744 | | | | | |
| 332.404 | Filters | 3,500.00 | CY | | 413 | 32,374 | 55,488 | | | | | 87,862 |
| | | | | | 0.12 | 9.25 | 15.85 | | | | | 25.10 |
| 15 | Load Haul Material to Crushing Screen Plant | 4,200.00 | CY | | 168 | 13,286 | 18,809 | | | | | 32,095 |
| | | | | | 0.04 | 3.16 | 4.48 | | | | | 7.64 |
| | Prod=350.00 CY/hour (3,500.00 CY/ day), 0.040MH/CY, 25.00 CY/MH, 12.00 hour (1.20 days) | | | | | | | | | | | |
| | Load Haul Place Backhoe | 1.00 | EA | 2674.59 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 960 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 951 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 951 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 1,845 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 922 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 922 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 913 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 5,821 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 1,132 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 2,317 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,053 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 2,957 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 8,968 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 1,560 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 689 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 134 | | | | | |
| 20 | Rock & Gravel Fill Screening | 4,200.00 | CY | | 105 | 8,016 | 22,101 | | | | | 30,117 |
| | | | | | 0.03 | 1.91 | 5.26 | | | | | 7.17 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.025MH/CY, 40.00 CY/MH, 21.00 hour (2.10 days) | | | | | | | | | | | |
| | Crush & Screen Gravel & Sands | 1.00 | EA | 1434.13 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,664 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 1,664 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 2,989 | | | | | | |
| | Heavy Duty Mechanic | 1.0 | | 80.85 | | 1,698 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,873 | | | | | |
| | Single Screw Washer 48" 20 Hsp | 1.0 | | 31.50 | | | 661 | | | | | |
| | Radial Stacker 30"x90 25 Hsp | 2.0 | | 25.50 | | | 1,071 | | | | | |
| | Conveyor 30"x50 20Hsp | 5.0 | | 18.16 | | | 1,907 | | | | | |
| | Large Capacity Crushing Spread & Generator | 1.0 | | 742.29 | | | 15,588 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|---|-------------|-----------|---------|------------------|--------------------|--------------------|--------------------|-------------------|--------------|-------------------|--------------------|
| 30 | Load Haul Processed Material to Fill and Place | 3,500.00 | CY | | 140 | 11,072 | 14,578 | | | | | 25,650 |
| | Prod=350.00 CY/hour (3,500.00 CY/ day), 0.040MH/CY, 25.00 CY/MH, 10.00 hour (1.00 days) | | | | 0.04 | 3.16 | 4.17 | | | | | 7.33 |
| | Load Haul Place Loader | 1.00 | EA | 2565 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 793 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 793 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 1,537 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 769 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 769 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 761 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 4,851 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 943 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 1,931 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,368 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 877 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 7,473 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 1,300 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 57.41 | | | 574 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 111 | | | | | |
| 332.405 | Cut Off Wall 430 LF | 18,400.00 | SF | | | | | | | | 220,800 | 220,800 |
| | | | | | | | | | | | 12.00 | 12.00 |
| 10 | Cut Off Wal Down Stream | 18,400.00 | SF | | | | | | | | 220,800 | 220,800 |
| | Slurry Wall Subcontract | 18,400.0 | SF | 12.00 | | | | | | | 220,800 | 12.00 |
| 332.406 | Removal of Cofferdam | 64,000.00 | CY | | 2,773 | 219,799 | 322,135 | | | | | 541,935 |
| | Prod=300.00 CY/hour (3,000.00 CY/ day), 0.043MH/CY, 23.08 CY/MH, 213.33 hour (21.33 days) | | | | 0.04 | 3.43 | 5.03 | | | | | 8.47 |
| 25 | Load Haul Excavation to Stockpile | 64,000.00 | CY | | 2,773 | 219,799 | 322,135 | | | | | 541,935 |
| | Prod=300.00 CY/hour (3,000.00 CY/ day), 0.043MH/CY, 23.08 CY/MH, 213.33 hour (21.33 days) | | | | 0.04 | 3.43 | 5.03 | | | | | 8.47 |
| | Load Haul Backhoe | 1.00 | EA | 2540.32 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 17,067 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 16,909 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 16,909 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 32,794 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 16,397 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 16,237 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 103,488 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 20,117 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 41,195 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 18,720 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 52,570 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 159,424 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 27,733 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,377 | | | | | |
| | Main Dam | 1.00 | LS | | 1,903,786 | 145,418,818 | 152,989,987 | 169,855,863 | 67,329,577 | | 31,717,400 | 567,311,645 |
| | | | | | 1,903,786.29 | 145,418,817.72 | 152,989,987.49 | 169,855,863.12 | 67,329,576.65 | | 31,717,400.00 | 567,311,644.98 |
| | Main Dam | 1.00 | LS | | 1,903,005 | 145,359,303 | 152,967,875 | 169,855,863 | 67,194,577 | | 29,647,400 | 565,025,018 |
| | | | | | 1,903,005.27 | 145,359,303.25 | 152,967,874.94 | 169,855,863.12 | 67,194,576.65 | | 29,647,400.00 | 565,025,017.97 |
| 332.451 | Erosion & Sediment Controls All Site | 1.00 | LS | | | | | | | | 10,000,000 | 10,000,000 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-------------------|-----------|----------|---------------|------------------|------------------|------------------|----------|--------------|---------------|------------------|
| | | | | | | | | | | | 10,000,000.00 | 10,000,000.00 |
| 332.452 | Grubbing All Site | 469.00 | AC | | 7,565 | 595,937 | 934,394 | | | | | 1,530,331 |
| | | | | | 16.13 | 1,270.66 | 1,992.31 | | | | | 3,262.97 |
| 25 | Grubbing | 378,248.00 | CY | | 7,565 | 595,937 | 934,394 | | | | | 1,530,331 |
| | | | | | 0.02 | 1.58 | 2.47 | | | | | 4.05 |
| | Prod=500.00 CY/hour (5,000.00 CY/ day), 0.020MH/CY, 50.00 CY/MH, 756.50 hour (75.65 days) | | | | | | | | | | | |
| | Grubbing | 1.00 | EA | 2022.92 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 60,520 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 59,960 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 59,960 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 116,289 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 58,144 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 57,577 | | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 80.85 | | 183,488 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 193.10 | | | 292,159 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 66,383 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 186,416 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 3.0 | | 124.55 | | | 282,665 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 98,344 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 8,427 | | | | | |
| 332.453 | Common Excavation | 658,200.00 | CY | | 12,777 | 1,020,001 | 3,741,693 | | | | | 4,761,694 |
| | | | | | 0.02 | 1.55 | 5.68 | | | | | 7.23 |
| 20 | Common Excavation to Stockpile | 658,200.00 | CY | | 12,777 | 1,020,001 | 3,741,693 | | | | | 4,761,694 |
| | | | | | 0.02 | 1.55 | 5.68 | | | | | 7.23 |
| | Prod=850.00 CY/hour (8,500.00 CY/ day), 0.019MH/CY, 51.52 CY/MH, 774.35 hour (77.44 days) | | | | | | | | | | | |
| | Load Haul to Stockpile 992 & 777 | 1.00 | EA | 6149.255 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 61,948 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 61,375 | | | | | | |
| | Grader Operator | 0.5 | | 79.26 | | 30,688 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 61,375 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 119,034 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 59,517 | | | | | | |
| | Off Hwy Truck Driver | 10.0 | | 80.85 | | 626,064 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 149,528 | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 327.65 | | | 253,717 | | | | | |
| | Ripper Attachment D10 | 1.0 | | 13.76 | | | 10,655 | | | | | |
| | 13.5 CY Loader (Cat 992) | 1.0 | | 380.91 | | | 294,959 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 0.5 | | 87.75 | | | 33,975 | | | | | |
| | 5.2 CY Backhoe (Cat 365) | 1.0 | | 146.31 | | | 113,296 | | | | | |
| | 95 Ton Off Hwy Truck 870 Hsp (Cat 777) | 10.0 | | 357.78 | | | 2,770,480 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 100,666 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 14,418 | | | | | |
| 332.454 | Rock Excavation | 642,000.00 | CY | | 24,200 | 1,832,395 | 3,275,712 | 1,009,080 | | | | 6,117,187 |
| | | | | | 0.04 | 2.85 | 5.10 | 1.57 | | | | 9.53 |
| 22 | Rock Excavation to Stockpile | 642,000.00 | CY | | 24,200 | 1,832,395 | 3,275,712 | 1,009,080 | | | | 6,117,187 |
| | | | | | 0.04 | 2.85 | 5.10 | 1.57 | | | | 9.53 |
| 12 | Drill and Shoot | 642,000.00 | CY | | 13,626 | 993,777 | 426,418 | 1,009,080 | | | | 2,429,275 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| 12 | Drill and Shoot Production | 642,000.00 | CY | | 13,626 | 993,777 | 426,418 | 1,009,080 | | | | 2,429,275 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| | Prod=210.00 FT/hour (1,680.00 FT/ day), 0.038MH/FT, 26.25 FT/MH, 1,703.22 hour (212.90 days) | | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 833.83 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 136,257 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 242,436 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|----------|---------------|------------------|------------------|---------|------------------|--------------|----------|------------------|
| | Powderman | 1.0 | | 76.45 | | 130,211 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 363,654 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 121,218 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 377,348 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 18,974 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 30,096 | | | | | |
| | Anfo | 642,000.0 | LB | 0.70 | | | | 449,400 | | | | |
| | Drill Bits | 238.4 | EA | 400.00 | | | | 95,376 | | | | |
| | Drill Steel | 102.2 | EA | 1,000.00 | | | | 102,173 | | | | |
| | Between Holes QRC 1 for every 4 holes | 4,258.0 | EA | 4.75 | | | | 20,226 | | | | |
| | Shoot Line | 84.4 | EA | 52.00 | | | | 4,390 | | | | |
| | Hydromite 880 Wet Holes 10% | 64,200.0 | LB | 1.88 | | | | 120,696 | | | | |
| | Caps | 17,032.2 | EA | 6.10 | | | | 103,896 | | | | |
| | Booster | 17,032.2 | EA | 6.63 | | | | 112,923 | | | | |
| 22 | Foundation Rock Excavation to Stockpile | 642,000.00 | CY | | 10,574 | 838,618 | 2,849,294 | | | | | 3,687,912 |
| | | | | | 0.02 | 1.31 | 4.44 | | | | | 5.74 |
| 20 | Reservoir Rock Excavation 992 | 642,000.00 | CY | | 10,574 | 838,618 | 2,849,294 | | | | | 3,687,912 |
| | | | | | 0.02 | 1.31 | 4.44 | | | | | 5.74 |
| | Prod=850.00 CY/hour (8,500.00 CY/ day), 0.017MH/CY, 60.71 CY/MH, 755.29 hour (75.53 days) | | | | | | | | | | | |
| | Load Haul to Stockpile 992 | 1.00 | EA | 4882.75 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 60,424 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 59,865 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 59,865 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 59,865 | | | | | | |
| | Dozer Operator | 3.0 | | 76.86 | | 174,156 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 58,052 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 366,393 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 145,847 | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 2.0 | | 327.65 | | | 494,944 | | | | | |
| | Ripper Attachment D10 | 1.0 | | 13.76 | | | 10,393 | | | | | |
| | 13.5 CY Loader (Cat 992) | 1.0 | | 380.91 | | | 287,699 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 66,277 | | | | | |
| | 5.2 CY Backhoe (Cat 365) | 1.0 | | 146.31 | | | 110,507 | | | | | |
| | 95 Ton Off Hwy Truck 870 Hsp (Cat 777) | 6.0 | | 357.78 | | | 1,621,375 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 98,188 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 14,064 | | | | | |
| 332.455 | Foundation Preparation | 101,937.00 | SY | | 25,484 | 1,881,549 | 605,390 | | | | | 2,486,938 |
| | | | | | 0.25 | 18.46 | 5.94 | | | | | 24.40 |
| 10 | Foundation Preparation | 101,937.00 | SY | | 25,484 | 1,881,549 | 605,390 | | | | | 2,486,938 |
| | | | | | 0.25 | 18.46 | 5.94 | | | | | 24.40 |
| | Prod=44.00 SY/hour (440.00 SY/ day), 0.250MH/SY, 4.00 SY/MH, 2,316.75 hour (231.68 days) | | | | | | | | | | | |
| | Foundation Preparation | 1.00 | EA | 1073.46 | | | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 183,626 | | | | | | |
| | Farm Tractor Operator | 2.0 | | 76.86 | | 356,131 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 173,756 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 989,299 | | | | | | |
| | Water Truck Driver | 1.0 | | 77.15 | | 178,737 | | | | | | |
| | 1.7 CY Backhoe (JD 790) | 1.0 | | 78.51 | | | 181,888 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 62.61 | | | 145,052 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 39,848 | | | | | |
| | Vacuum Sweeper with Broom | 1.0 | | 64.40 | | | 149,199 | | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 89,403 | | | | | |
| 332.456 | Dental Concrete | 25,000.00 | CY | | 24,000 | 1,784,496 | 1,175,296 | | 1,643,617 | | | 4,603,409 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|--|------------|-----|---------|--------|-----------|-----------|---------|-----------|--------------|----------|------------|
| | | | | | 0.96 | 71.38 | 47.01 | | 65.74 | | | 184.14 |
| 20 | Batch & Haul Concrete | 25,000.00 | CY | | 6,400 | 495,504 | 794,608 | | 1,643,617 | | | 2,933,729 |
| | | | | | 0.26 | 19.82 | 31.78 | | 65.74 | | | 117.35 |
| | Prod=15.63 CY/hour (156.25 CY/ day), 0.256MH/CY, 3.91 CY/MH, 1,600.00 hour (160.00 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 126,816 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 128,000 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 126,816 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 113,872 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 218,928 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 291,504 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 10,192 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 18,528 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 23,872 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 208,832 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 22,752 | | | | | |
| | Flyash | 2,399.7 | TN | 160.00 | | | | | 383,954 | | | |
| | Portland Cement Bulk | 4,497.0 | TN | 180.00 | | | | | 809,456 | | | |
| | Concrete Sand (Fine Aggregate) | 10,347.0 | TN | 10.00 | | | | | 103,470 | | | |
| | 2" (50 mm) Coarse Aggregate | 31,041.1 | TN | 10.00 | | | | | 310,411 | | | |
| | Water Reducer | 11,246.4 | GAL | 3.23 | | | | | 36,326 | | | |
| 22 | Deliver Concrete | 25,000.00 | CY | | 6,400 | 485,760 | 312,704 | | | | | 798,464 |
| | | | | | 0.26 | 19.43 | 12.51 | | | | | 31.94 |
| | Prod=15.63 CY/hour (156.25 CY/ day), 0.256MH/CY, 3.91 CY/MH, 1,600.00 hour (160.00 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 499.04 | | | | | | | | |
| | Concrete Truck Driver | 4.0 | | 75.90 | | 485,760 | | | | | | |
| | Concrete Agitator Car 8CY | 4.0 | | 48.86 | | | 312,704 | | | | | |
| 24 | Place Concrete | 25,000.00 | CY | | 11,200 | 803,232 | 67,984 | | | | | 871,216 |
| | | | | | 0.45 | 32.13 | 2.72 | | | | | 34.85 |
| | Prod=15.63 CY/hour (156.25 CY/ day), 0.448MH/CY, 2.23 CY/MH, 1,600.00 hour (160.00 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 544.51 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 120,000 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 683,232 | | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 1,792 | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 24.17 | | | 38,672 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 27,520 | | | | | |
| 332.457 | Earthwork for Crushing & RCC Batch Plant | 502,000.00 | CY | | 15,392 | 1,224,127 | 2,041,358 | | | | | 3,265,485 |
| | | | | | 0.03 | 2.44 | 4.07 | | | | | 6.50 |
| 10 | Topsoil to Stockpile | 25,000.00 | CY | | 673 | 53,749 | 84,436 | | | | | 138,186 |
| | | | | | 0.03 | 2.15 | 3.38 | | | | | 5.53 |
| 20 | Load Haul to Stockpile | 25,000.00 | CY | | 673 | 53,749 | 84,436 | | | | | 138,186 |
| | | | | | 0.03 | 2.15 | 3.38 | | | | | 5.53 |
| | Prod=297.11 CY/hour (2,971.11 CY/ day), 0.027MH/CY, 37.14 CY/MH, 84.14 hour (8.41 days) | | | | | | | | | | | |
| | Load Haul to Stockpile | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 6,731 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 6,669 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 6,669 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 6,467 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 27,212 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 16,248 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 11,513 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 7,384 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 37,415 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|----------------------|-----------|-----------|----------------|-------------------|-------------------|-------------------|----------|--------------|----------|--------------------|
| | 631 Water Wagon | 1.0 | | 130.00 | | | 10,939 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 937 | | | | | |
| 12 | Common Excavation to Stockpile | 477,000.00 | CY | | 14,719 | 1,170,378 | 1,956,921 | | | | | 3,127,299 |
| | | | | | 0.03 | 2.45 | 4.10 | | | | | 6.56 |
| 20 | Excavation to Stockpile Waste | 477,000.00 | CY | | 14,719 | 1,170,378 | 1,956,921 | | | | | 3,127,299 |
| | | | | | 0.03 | 2.45 | 4.10 | | | | | 6.56 |
| | Prod=291.67 CY/hour (2,916.67 CY/ day), 0.031MH/CY, 32.41 CY/MH, 1,635.43 hour (163.54 days) | | | | | | | | | | | |
| | Load Haul to Waste | 1.00 | EA | 1912.22 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 130,834 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 129,624 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 129,624 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 251,398 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 528,898 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 193.10 | | | 631,603 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 223,776 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 143,509 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 727,210 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 212,606 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 18,219 | | | | | |
| 332.458 | Quarry Overburden Removal | 482,694.00 | CY | | 14,895 | 1,184,349 | 1,980,281 | | | | | 3,164,630 |
| | | | | | 0.03 | 2.45 | 4.10 | | | | | 6.56 |
| 12 | Common Excavation to Stockpile | 482,694.00 | CY | | 14,895 | 1,184,349 | 1,980,281 | | | | | 3,164,630 |
| | | | | | 0.03 | 2.45 | 4.10 | | | | | 6.56 |
| 20 | Excavation to Stockpile Waste | 482,694.00 | CY | | 14,895 | 1,184,349 | 1,980,281 | | | | | 3,164,630 |
| | | | | | 0.03 | 2.45 | 4.10 | | | | | 6.56 |
| | Prod=291.67 CY/hour (2,916.67 CY/ day), 0.031MH/CY, 32.41 CY/MH, 1,654.95 hour (165.50 days) | | | | | | | | | | | |
| | Load Haul to Waste | 1.00 | EA | 1912.22 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 132,396 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 131,171 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 131,171 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 254,399 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 535,211 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 193.10 | | | 639,142 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 226,447 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 145,222 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 735,890 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 215,144 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 18,436 | | | | | |
| 332.459 | Excavate & Produce and Stockpile Aggregates | 12,359,550.00 | TN | | 456,722 | 34,385,171 | 89,326,717 | 13,562,139 | | | | 137,274,027 |
| | | | | | 0.04 | 2.78 | 7.23 | 1.10 | | | | 11.11 |
| 03 | Setup Crushing Plant | 6.00 | MO | | 11,520 | 872,539 | 222,674 | 90,000 | | | | 1,185,214 |
| | | | | | 1,920.00 | 145,423.20 | 37,112.40 | 15,000.00 | | | | 197,535.60 |
| | Prod=1.00 HR/hour (8.00 HR/ day), 8.000MH/HR, 0.13 HR/MH, 1,440.00 hour (180.00 days) | | | | | | | | | | | |
| | Setup & Tear Down Crusher | 1.00 | EA | 760.565 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 115,200 | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 59,112 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 409,939 | | | | | | |
| | Heavy Duty Mechanic | 2.0 | | 80.85 | | 232,848 | | | | | | |
| | Oiler | 0.5 | | 77.00 | | 55,440 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 84,751 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 26,179 | | | | | |
| | 2-Ton Mechanic Truck | 2.0 | | 38.80 | | | 111,744 | | | | | |
| | Setup Crushing Plant Materials | 1.2 | LS | 75,000.00 | | | | 90,000 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|---------------|-----|----------|---------|------------|------------|------------|----------|--------------|----------|------------|
| 20 | Process Materials | 12,359,550.00 | TN | | 222,472 | 16,730,134 | 62,453,548 | | | | | 79,183,682 |
| | | | | | 0.02 | 1.35 | 5.05 | | | | | 6.41 |
| 20 | Screen Crush Convey | 6,866,416.67 | CY | | 222,472 | 16,730,134 | 62,453,548 | | | | | 79,183,682 |
| | | | | | 0.03 | 2.44 | 9.10 | | | | | 11.53 |
| | Prod=500.00 TN/hour (5,000.00 TN/ day), 0.018MH/TN, 55.56 TN/MH, 24,719.10 hour (2,471.91 days) | | | | | | | | | | | |
| | Crush Screen Stockpile Aggregates | 1.00 | EA | 3203.34 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,977,528 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,959,236 | | | | | | |
| | Labourer | 5.0 | | 71.17 | | 8,796,292 | | | | | | |
| | Heavy Duty Mechanic | 2.0 | | 80.85 | | 3,997,078 | | | | | | |
| | Bobcat | 1.0 | | 15.00 | | | 370,787 | | | | | |
| | Jaw Crusher 55 x 66 | 1.0 | | 250.00 | | | 6,179,775 | | | | | |
| | Jaw Crusher 30x42 215 Hsp | 2.0 | | 145.07 | | | 7,172,000 | | | | | |
| | Impact Crusher 43x36 800 Hsp | 1.0 | | 175.00 | | | 4,325,843 | | | | | |
| | Double Screw Washer 60" 60 Hsp | 1.0 | | 54.18 | | | 1,339,281 | | | | | |
| | Impact Crusher 43x40 600 Hsp | 2.0 | | 200.00 | | | 9,887,640 | | | | | |
| | 3 Deck 7x20 Screen | 6.0 | | 26.10 | | | 3,871,011 | | | | | |
| | Apron Feeder 54inx12Ft | 3.0 | | 22.09 | | | 1,638,135 | | | | | |
| | Radial Stacker 30"x120 30 Hsp | 4.0 | | 19.03 | | | 1,881,618 | | | | | |
| | Conveyor 30"x60 20Hsp | 25.0 | | 15.00 | | | 9,269,662 | | | | | |
| | Belt Scales | 4.0 | | 7.00 | | | 692,135 | | | | | |
| | Switch Van | 1.0 | | 35.00 | | | 865,168 | | | | | |
| | 1000 KW Generator Set | 3.0 | | 190.53 | | | 14,129,190 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 275,371 | | | | | |
| | 1- Ton Mechanic Truck | 1.0 | | 22.49 | | | 555,933 | | | | | |
| 22 | Rock Excavation to Stockpile | 5,617,918.81 | CY | | 222,730 | 16,782,497 | 26,650,495 | 13,472,139 | | | | 56,905,131 |
| | | | | | 0.04 | 2.99 | 4.74 | 2.40 | | | | 10.13 |
| 10 | Presplit Face | 873,898.48 | SF | | 17,575 | 1,282,209 | 399,997 | 4,638,346 | | | | 6,320,553 |
| | | | | | 0.02 | 1.47 | 0.46 | 5.31 | | | | 7.23 |
| | Prod=210.00 LF/hour (1,680.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 1,597.69 hour (199.71 days) | | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 119,827 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 341,122 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 244,287 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 341,122 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 113,707 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 122,143 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 353,968 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 17,798 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 28,231 | | | | | |
| | Drill Steel | 2,147.3 | EA | 1,000.00 | | | | 2,147,293 | | | | |
| | Drill Bits | 4,294.6 | EA | 350.00 | | | | 1,503,105 | | | | |
| | RED E-SPLIT PRESPLIT | 167,757.3 | EA | 5.78 | | | | 969,637 | | | | |
| | Non Elec Detonators | 416.1 | EA | 6.50 | | | | 2,705 | | | | |
| | Lead in Line | 52.0 | EA | 200.00 | | | | 10,404 | | | | |
| | Delivery Cost | 5.2 | EA | 1,000.00 | | | | 5,202 | | | | |
| 12 | Drill and Shoot | 5,617,918.81 | CY | | 119,234 | 8,696,196 | 3,731,434 | 8,833,793 | | | | 21,261,422 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| 12 | Drill and Shoot Production | 5,617,918.81 | CY | | 119,234 | 8,696,196 | 3,731,434 | 8,833,793 | | | | 21,261,422 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| | Prod=210.00 FT/hour (1,680.00 FT/ day), 0.038MH/FT, 26.25 FT/MH, 14,904.27 hour (1,863.03 days) | | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 833.83 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,192,342 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|---------------------|------------|----------|---------------|------------------|-------------------|-------------------|----------|--------------|----------|-------------------|
| | Labourer | 2.0 | | 71.17 | | 2,121,474 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 1,139,432 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 3,182,211 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 1,060,737 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 3,302,042 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 166,034 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 263,358 | | | | | |
| | Caps | 149,082.9 | EA | 6.10 | | | | 909,406 | | | | |
| | Booster | 149,082.9 | EA | 6.63 | | | | 988,420 | | | | |
| | Anfo | 5,617,918.8 | LB | 0.70 | | | | 3,932,543 | | | | |
| | Drill Bits | 2,080.7 | EA | 400.00 | | | | 832,284 | | | | |
| | Drill Steel | 894.7 | EA | 1,000.00 | | | | 894,706 | | | | |
| | Between Holes QRC 1 for every 4 holes | 37,260.3 | EA | 4.75 | | | | 176,987 | | | | |
| | Shoot Line | 832.3 | EA | 52.00 | | | | 43,279 | | | | |
| | Hydromite 880 Wet Holes 10% | 561,791.9 | LB | 1.88 | | | | 1,056,169 | | | | |
| 22 | Reservoir Rock Excavation to Stockpile at Crusher | 5,617,918.81 | CY | | 85,921 | 6,804,093 | 22,519,064 | | | | | 29,323,157 |
| | | | | | 0.02 | 1.21 | 4.01 | | | | | 5.22 |
| 20 | Quarry Rock Excavation 992 | 5,617,918.81 | CY | | 85,921 | 6,804,093 | 22,519,064 | | | | | 29,323,157 |
| | | | | | 0.02 | 1.21 | 4.01 | | | | | 5.22 |
| | Prod=850.00 CY/hour (8,500.00 CY/ day), 0.015MH/CY, 65.38 CY/MH, 6,609.32 hour (660.93 days) | | | | | | | | | | | |
| | Load Haul to Stockpile 992 | 1.00 | EA | 4436.64 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 528,745 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 523,854 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 523,854 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 523,854 | | | | | | |
| | Dozer Operator | 3.0 | | 76.86 | | 1,523,976 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 507,992 | | | | | | |
| | Off Hwy Truck Driver | 5.0 | | 80.85 | | 2,671,816 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 1,276,259 | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 2.0 | | 327.65 | | | 4,331,085 | | | | | |
| | Ripper Attachment D10 | 1.0 | | 13.76 | | | 90,944 | | | | | |
| | 13.5 CY Loader (Cat 992) | 1.0 | | 380.91 | | | 2,517,555 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 579,968 | | | | | |
| | 5.2 CY Backhoe (Cat 365) | 1.0 | | 146.31 | | | 967,009 | | | | | |
| | 95 Ton Off Hwy Truck 870 Hsp (Cat 777) | 5.0 | | 357.78 | | | 11,823,406 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 859,211 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 73,628 | | | | | |
| 332.460 | RCC Cement | 325,950.00 | TN | | | | | 62,303,625 | | | | 62,303,625 |
| | | | | | | | | 191.14 | | | | 191.14 |
| 10 | RCC Cement | 329,648.81 | TN | | | | | 62,303,625 | | | | 62,303,625 |
| | | | | | | | | 189.00 | | | | 189.00 |
| | RCC Cement | 346,131.3 | TN | 180.00 | | | | 62,303,625 | | | | |
| 332.461 | RCC Pozzolan | 521,500.00 | TN | | | | | 87,612,000 | | | | 87,612,000 |
| | | | | | | | | 168.00 | | | | 168.00 |
| 10 | RCC Pozzolan | 521,500.00 | TN | | | | | 87,612,000 | | | | 87,612,000 |
| | | | | | | | | 168.00 | | | | 168.00 |
| | RCC Pozzolan | 547,575.0 | TN | 160.00 | | | | 87,612,000 | | | | |
| 332.462 | Retarding Admixture for RCC | 521,500.00 | GAL | | | | | 3,129,000 | | | | 3,129,000 |
| | | | | | | | | 6.00 | | | | 6.00 |
| 10 | Retarding Admixture for RCC | 521,500.00 | GAL | | | | | 3,129,000 | | | | 3,129,000 |
| | | | | | | | | 6.00 | | | | 6.00 |
| | Retarding Admixture for RCC | 521,500.0 | GAL | 6.00 | | | | 3,129,000 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|---------------------|-----------|-----------|----------------|-------------------|-------------------|-------------------|----------|--------------|----------|-------------------|
| 332.463 | Mix, Convey and Place RCC | 5,215,000.00 | CY | | 555,464 | 41,953,146 | 38,225,377 | 17,345,520 | | | | 97,524,043 |
| | | | | | 0.11 | 8.04 | 7.33 | 3.33 | | | | 18.70 |
| 10 | Batch RCC | 5,215,000.00 | CY | | 184,059 | 14,152,283 | 18,827,224 | | | | | 32,979,507 |
| | | | | | 0.04 | 2.71 | 3.61 | | | | | 6.32 |
| | Prod=340.00 CY/hour (2,720.00 CY/ day), 0.035MH/CY, 28.33 CY/MH, 15,338.24 hour (1,917.28 days) | | | | | | | | | | | |
| | Batch RCC | 1.00 | EA | 2150.15 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,227,059 | | | | | | |
| | Loader Operator | 3.0 | | 79.26 | | 3,647,126 | | | | | | |
| | Batch Plant Operator | 2.0 | | 79.26 | | 2,431,417 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 4,366,489 | | | | | | |
| | Mechanic Welder | 2.0 | | 80.85 | | 2,480,193 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 3.0 | | 136.83 | | | 6,296,192 | | | | | |
| | 350 YPH RCC Batch Plant | 2.0 | | 147.26 | | | 4,517,417 | | | | | |
| | 800 KW Diesel Generator Set | 2.0 | | 208.88 | | | 6,407,701 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 263,818 | | | | | |
| | 2-Ton Mechanic Truck | 2.0 | | 43.75 | | | 1,342,096 | | | | | |
| 20 | Place RCC | 5,215,000.00 | CY | | 245,412 | 18,449,290 | 14,249,067 | | | | | 32,698,357 |
| | | | | | 0.05 | 3.54 | 2.73 | | | | | 6.27 |
| | Prod=340.00 CY/hour (2,720.00 CY/ day), 0.047MH/CY, 21.25 CY/MH, 15,338.24 hour (1,917.28 days) | | | | | | | | | | | |
| | Place RCC | 1.00 | EA | 2131.82 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,227,059 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 1,215,709 | | | | | | |
| | Dozer Operator | 3.0 | | 76.86 | | 3,536,690 | | | | | | |
| | Packer Operator | 2.0 | | 66.87 | | 2,051,336 | | | | | | |
| | Labourer | 5.0 | | 71.17 | | 5,458,111 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 4,960,385 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 3.0 | | 68.57 | | | 3,155,228 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 80.43 | | | 1,233,654 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 4.0 | | 110.10 | | | 6,754,959 | | | | | |
| | 10 Ton Compactor 120 hsp (Dyn CA25) | 3.0 | | 35.17 | | | 1,618,337 | | | | | |
| | Surge Bin | 1.0 | | 6.00 | | | 92,029 | | | | | |
| | 2000 PSI Pressure Washer | 1.0 | | 2.51 | | | 38,499 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 170,868 | | | | | |
| | Vacuum Truck | 1.0 | | 77.29 | | | 1,185,492 | | | | | |
| 30 | Operation of Belts | 5,215,000.00 | CY | | 76,691 | 5,785,429 | 4,983,546 | | | | | 10,768,975 |
| | | | | | 0.01 | 1.11 | 0.96 | | | | | 2.07 |
| | Prod=340.00 CY/hour (2,720.00 CY/ day), 0.015MH/CY, 68.00 CY/MH, 15,338.24 hour (1,917.28 days) | | | | | | | | | | | |
| | Operation of Conveyor System | 1.00 | EA | 702.1 | | | | | | | | |
| | Belt Operator | 1.0 | | 77.00 | | 1,181,044 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 2,183,244 | | | | | | |
| | Mechanic Welder | 1.0 | | 80.85 | | 1,240,096 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 1,181,044 | | | | | | |
| | Conveyor System | 1.0 | | 200.00 | | | 3,067,647 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 124.91 | | | 1,915,899 | | | | | |
| 50 | Cure RCC | 6,417,000.00 | SF | | 38,502 | 2,740,187 | 27,336 | 345,520 | | | | 3,113,043 |
| | | | | | 0.01 | 0.43 | 0.00 | 0.05 | | | | 0.49 |
| | Prod=500.00 SF/hour (4,000.00 SF/ day), 0.006MH/SF, 166.67 SF/MH, 12,834.00 hour (1,604.25 days) | | | | | | | | | | | |
| | Cure RCC | 1.00 | EA | 215.64 | | | | | | | | |
| | Labor Cl 1 (Genl) | 3.0 | | 71.17 | | 2,740,187 | | | | | | |
| | 2" Diesel Water Pump 8,000 gph | 1.0 | | 2.13 | | | 27,336 | | | | | |
| | Sprinklers & Supplies | 1.0 | LS | 25,000.00 | | | | 24,670 | | | | |
| | Water Cure Supply | 6,417,000.0 | SF | 0.05 | | | | 320,850 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|---|------------|-----|---------------|-----------|------------|------------|---------------|-----------|--------------|----------|---------------|
| 60 | Purchase Conveyor & Erect System | 1.00 | LS | | | | | 17,000,000 | | | | 17,000,000 |
| | Purchase Conveyor System | 1.0 | LS | 17,000,000.00 | | | | 17,000,000.00 | | | | 17,000,000.00 |
| 70 | Move Conveyor System | 1.00 | LS | | 10,800 | 825,957 | 138,204 | | | | | 964,161 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 12.000MH/HR, 0.08 HR/MH, 900.00 hour (90.00 days) | | | | 10,800.00 | 825,957.00 | 138,204.00 | | | | | 964,161.00 |
| | Erect & Move Conveyor System | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 73,890 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 192,159 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 72,000 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 418,608 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 69,300 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 105,939 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | | 16,362 | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | | 15,903 | | | | |
| 332.464 | Bedding Mix | 22,500.00 | CY | | 15,000 | 1,122,386 | 153,793 | | 1,462,500 | | | 2,738,679 |
| | | | | | 0.67 | 49.88 | 6.84 | | 65.00 | | | 121.72 |
| 10 | Batch and Place Bedding Motar | 22,500.00 | CY | | 15,000 | 1,122,386 | 153,793 | | 1,462,500 | | | 2,738,679 |
| | Prod=10.50 CY/hour (84.00 CY/ day), 0.667MH/CY, 1.50 CY/MH, 2,142.86 hour (267.86 days) | | | | 0.67 | 49.88 | 6.84 | | 65.00 | | | 121.72 |
| | Batch & Place Bedding Motar | 1.00 | EA | 595.55 | | | | | | | | |
| | Crane Oiler | 1.0 | | 77.00 | | 165,000 | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 171,429 | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 175,929 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 610,029 | | | | | | |
| | Mortar Mixer 8cf 7 Hsp | 1.0 | | 2.87 | | | 6,150 | | | | | |
| | 30 Ton Hydraulic Crane (Grove500) | 1.0 | | 57.76 | | | 123,771 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 23,871 | | | | | |
| | Cement | 5,625.0 | TN | 180.00 | | | | | 1,012,500 | | | |
| | Motar Sand | 45,000.0 | TN | 10.00 | | | | | 450,000 | | | |
| 332.465 | Upstream Forming & 2ft Enrised Mix | 737,600.00 | SF | | 334,023 | 25,789,850 | 4,497,866 | 41,233,752 | 1,476,000 | | | 72,997,468 |
| | | | | | 0.45 | 34.96 | 6.10 | 55.90 | 2.00 | | | 98.97 |
| 10 | Build Forming System Upstream | 30,000.00 | SF | | 7,500 | 581,543 | 76,455 | 39,000,000 | | | | 39,657,998 |
| | Prod=40.00 SF/hour (320.00 SF/ day), 0.250MH/SF, 4.00 SF/MH, 750.00 hour (93.75 days) | | | | 0.25 | 19.38 | 2.55 | 1,300.00 | | | | 1,321.93 |
| | Build Forming System | 1.00 | EA | 877.33 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 61,575 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 53,377 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 60,000 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 348,840 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 57,750 | | | | | | |
| | 50 Ton Crawler Crane (Linkbelt108) | 1.0 | | 84.74 | | | 63,555 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 12,900 | | | | | |
| | Symons Jump Form 10Ft High | 30,000.0 | LF | 1,300.00 | | | | 39,000,000 | | | | |
| 15 | Safety Net | 1.00 | LS | | | | | 25,000 | | | | 25,000 |
| | Safety Net | 1.0 | LS | 25,000.00 | | | | 25,000.00 | | | | 25,000.00 |
| 20 | SSM Forming System Upstream | 737,600.00 | SF | | 307,333 | 23,830,319 | 4,146,234 | 1,290,800 | | | | 29,267,353 |
| | Prod=24.00 SF/hour (192.00 SF/ day), 0.417MH/SF, 2.40 SF/MH, 30,733.33 hour (3,841.67 days) | | | | 0.42 | 32.31 | 5.62 | 1.75 | | | | 39.68 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|---------------------|-----------|---------|----------------|-------------------|------------------|------------------|------------------|--------------|----------|-------------------|
| | <i>SSM Forming System</i> | 1.00 | EA | 910.3 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 2,523,207 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 2,187,291 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 2,458,667 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 14,294,688 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 2,366,467 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 3,617,621 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 528,613 | | | | | |
| | Form Supplies | 737,600.0 | SF | 1.75 | | | | 1,290,800 | | | | |
| 25 | 2Ft Concrete Face | 54,640.00 | CY | | 19,190 | 1,377,988 | 275,177 | 917,952 | 1,476,000 | | | 4,047,117 |
| | | | | | 0.35 | 25.22 | 5.04 | 16.80 | 27.01 | | | 74.07 |
| 10 | Batch RCC Enriched Mix | 54,640.00 | CY | | 2,115 | 162,760 | 195,266 | 917,952 | 1,476,000 | | | 2,751,978 |
| | | | | | 0.04 | 2.98 | 3.57 | 16.80 | 27.01 | | | 50.37 |
| | Prod=155.00 CY/hour (1,240.00 CY/ day), 0.039MH/CY, 25.83 CY/MH, 352.52 hour (44.06 days) | | | | | | | | | | | |
| | <i>Batch RCC</i> | 1.00 | EA | 1015.63 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 28,201 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 27,940 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 27,940 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 50,177 | | | | | | |
| | Mechanic Welder | 1.0 | | 80.85 | | 28,501 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 48,235 | | | | | |
| | 350 YPH RCC Batch Plant | 1.0 | | 147.26 | | | 51,912 | | | | | |
| | 800 KW Diesel Generator Set | 1.0 | | 208.88 | | | 73,634 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 6,063 | | | | | |
| | 2-Ton Mechanic Truck | 1.0 | | 43.75 | | | 15,423 | | | | | |
| | RCC Pozzolan | 5,737.2 | TN | 160.00 | | | | 917,952 | | | | |
| | RCC Enriched Mix Cement | 8,200.0 | TN | 180.00 | | | | | 1,476,000 | | | |
| 40 | Place 2 Ft Concrete Upstream | 54,640.00 | CY | | 17,075 | 1,215,228 | 79,911 | | | | | 1,295,139 |
| | | | | | 0.31 | 22.24 | 1.46 | | | | | 23.70 |
| | Prod=12.80 CY/hour (102.40 CY/ day), 0.313MH/CY, 3.20 CY/MH, 4,268.75 hour (533.59 days) | | | | | | | | | | | |
| | <i>Place 2ft Concrete</i> | 1.00 | EA | 303.4 | | | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 1,215,228 | | | | | | |
| | Concrete Vibrator-2.5 inch | 2.0 | | 0.76 | | | 6,489 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 73,423 | | | | | |
| 332.466 | Downstream Forming & Internal Forming | 1,165,000.00 | SF | | 322,426 | 25,228,786 | 5,513,073 | 5,145,414 | | | | 35,887,273 |
| | | | | | 0.28 | 21.66 | 4.73 | 4.42 | | | | 30.80 |
| 10 | Build Assemble Forms Downstream | 334,433.00 | SF | | 55,739 | 4,361,378 | 414,821 | 2,675,464 | | | | 7,451,663 |
| | | | | | 0.17 | 13.04 | 1.24 | 8.00 | | | | 22.28 |
| | Prod=54.00 SF/hour (432.00 SF/ day), 0.167MH/SF, 6.00 SF/MH, 6,193.20 hour (774.15 days) | | | | | | | | | | | |
| | <i>Build Downstream Forms</i> | 1.00 | EA | 771.2 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 495,456 | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 508,462 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 2,880,583 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 476,877 | | | | | | |
| | 30 Ton Crawler Crane (Linkbelt98) | 1.0 | | 55.84 | | | 345,828 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 68,992 | | | | | |
| | Form Material | 334,433.0 | SF | 8.00 | | | | 2,675,464 | | | | |
| 12 | SSM Forms Downstream | 1,003,300.00 | SF | | 200,660 | 15,700,976 | 3,884,332 | 1,755,775 | | | | 21,341,083 |
| | | | | | 0.20 | 15.65 | 3.87 | 1.75 | | | | 21.27 |
| | Prod=45.00 SF/hour (360.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 22,295.56 hour (2,786.94 days) | | | | | | | | | | | |
| | <i>SSM Downstream Forms</i> | 1.00 | EA | 878.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,783,644 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|--------|---------------|------------------|------------------|----------------|----------|--------------|------------------|------------------|
| | Crane Operator Class-A | 1.0 | | 82.10 | | 1,830,465 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 10,370,109 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 1,716,758 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 163.08 | | | 3,635,959 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 248,372 | | | | | |
| | Form Accessories | 1,003,300.0 | SF | 1.75 | | | | | | | 1,755,775 | |
| 22 | Internal Forming | 161,700.00 | SF | | 66,028 | 5,166,432 | 1,213,921 | 714,175 | | | | 7,094,528 |
| | | | | | 0.41 | 31.95 | 7.51 | 4.42 | | | | 43.87 |
| 10 | Build Assemble Forms Downstream | 53,900.00 | SF | | 5,390 | 421,750 | 40,114 | 431,200 | | | | 893,063 |
| | | | | | 0.10 | 7.82 | 0.74 | 8.00 | | | | 16.57 |
| | Prod=90.00 SF/hour (720.00 SF/ day), 0.100MH/SF, 10.00 SF/MH, 598.89 hour (74.86 days) | | | | | | | | | | | |
| | Build Internal Forms | 1.00 | EA | 771.2 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 47,911 | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 49,169 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 278,555 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 46,114 | | | | | | |
| | 30 Ton Crawler Crane (Linkbelt98) | 1.0 | | 55.84 | | | 33,442 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 6,672 | | | | | |
| | Form Material | 53,900.0 | SF | 8.00 | | | | | | | 431,200 | |
| 12 | SSM Forms Downstream | 161,700.00 | SF | | 60,638 | 4,744,682 | 1,173,807 | 282,975 | | | | 6,201,465 |
| | | | | | 0.38 | 29.34 | 7.26 | 1.75 | | | | 38.35 |
| | Prod=24.00 SF/hour (192.00 SF/ day), 0.375MH/SF, 2.67 SF/MH, 6,737.50 hour (842.19 days) | | | | | | | | | | | |
| | SSM Internal Forms | 1.00 | EA | 878.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 539,000 | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 553,149 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 3,133,746 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 518,787 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 163.08 | | | 1,098,752 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 75,056 | | | | | |
| | Form Accessories | 161,700.0 | SF | 1.75 | | | | | | | 282,975 | |
| 332.467 | Consolidation Drill & Grout | 73,800.00 | LF | | | | | | | | 5,904,000 | 5,904,000 |
| | | | | | | | | | | | 80.00 | 80.00 |
| 10 | Consolidation Drill & Grout | 73,800.00 | LF | | | | | | | | 5,904,000 | 5,904,000 |
| | | | | | | | | | | | 80.00 | 80.00 |
| | Grout Subcontract | 73,800.0 | LF | 80.00 | | | | | | | 5,904,000 | |
| 332.468 | Drain Holes 60 Feet Deep | 40,130.00 | LF | | 2,970 | 215,247 | 111,237 | | | | | 326,484 |
| | | | | | 0.07 | 5.36 | 2.77 | | | | | 8.14 |
| 10 | Drill Drain Holes | 40,130.00 | LF | | 2,970 | 215,247 | 111,237 | | | | | 326,484 |
| | | | | | 0.07 | 5.36 | 2.77 | | | | | 8.14 |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 270.00 hour (27.00 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 342.14 | | | | | | | | |
| | Loader Operator | 1.0 | | 80.85 | | 21,830 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 20,250 | | | | | | |
| | Labourer | 2.0 | | 68.41 | | 36,941 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 10,349 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 3,008 | | | | | |
| | Prod=148.63 FT/hour (1,486.30 FT/ day), 0.047MH/FT, 21.23 FT/MH, 270.00 hour (27.00 days) | | | | | | | | | | | |
| | Drill Drain Holes | 1.00 | EA | 867.06 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 20,250 | | | | | | |
| | Labourer | 3.0 | | 68.41 | | 55,412 | | | | | | |
| | Driller | 3.0 | | 74.77 | | 60,564 | | | | | | |
| | Hydraulic Drill 4" (AC812/Tam600) | 3.0 | | 115.47 | | | 93,531 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-------------------|-----------|--------|---------------|------------------|------------------|----------------|----------------|--------------|------------------|------------------|
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 4,350 | | | | | |
| 332.469 | Curtain Drill & Grout 700 Holes | 92,300.00 | LF | | | | | | | | 7,384,000 | 7,384,000 |
| | | | | | | | | | | | 80.00 | 80.00 |
| 10 | Curtain Drill & Grout 1365 Holes | 92,300.00 | LF | | | | | | | | 7,384,000 | 7,384,000 |
| | | | | | | | | | | | 80.00 | 80.00 |
| | Grout Subcontract | 92,300.0 | LF | 80.00 | | | | | | | 7,384,000 | |
| 332.470 | Vertical Construction Joints-Including Shear Keys & Grouting Provis | 164,200.00 | SF | | 86,590 | 6,725,828 | 1,283,606 | 725,217 | 228,600 | | 328,400 | 9,291,651 |
| | | | | | 0.53 | 40.96 | 7.82 | 4.42 | 1.39 | | 2.00 | 56.59 |
| 10 | Place Waterstop | 25,400.00 | LF | | 12,700 | 944,182 | | | 228,600 | | | 1,172,782 |
| | | | | | 0.50 | 37.17 | | | 9.00 | | | 46.17 |
| | Prod=4.00 LF/hour (32.00 LF/ day), 0.500MH/LF, 2.00 LF/MH, 6,350.00 hour (793.75 days) | | | | | | | | | | | |
| | Place Waterstop RCC | 1.00 | EA | 148.69 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 451,929 | | | | | | |
| | Carpenter | 1.0 | | 77.52 | | 492,252 | | | | | | |
| | Purchase RCC Waterstop | 25,400.0 | LF | 9.00 | | | | | 228,600 | | | |
| 22 | Internal Forming | 164,200.00 | SF | | 73,890 | 5,781,646 | 1,283,606 | 725,217 | | | | 7,790,469 |
| | | | | | 0.45 | 35.21 | 7.82 | 4.42 | | | | 47.45 |
| 10 | Build Assemble Forms Downstream | 54,733.33 | SF | | 12,315 | 963,608 | 91,651 | 437,867 | | | | 1,493,125 |
| | | | | | 0.23 | 17.61 | 1.67 | 8.00 | | | | 27.28 |
| | Prod=40.00 SF/hour (320.00 SF/ day), 0.225MH/SF, 4.44 SF/MH, 1,368.33 hour (171.04 days) | | | | | | | | | | | |
| | Build Downstream Forms | 1.00 | EA | 771.2 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 109,467 | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 112,340 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 636,439 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 105,362 | | | | | | |
| | 30 Ton Crawler Crane (Linkbelt98) | 1.0 | | 55.84 | | | 76,408 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 15,243 | | | | | |
| | Form Material | 54,733.3 | SF | 8.00 | | | | 437,867 | | | | |
| 12 | SSM Forms Downstream | 164,200.00 | SF | | 61,575 | 4,818,039 | 1,191,955 | 287,350 | | | | 6,297,344 |
| | | | | | 0.38 | 29.34 | 7.26 | 1.75 | | | | 38.35 |
| | Prod=24.00 SF/hour (192.00 SF/ day), 0.375MH/SF, 2.67 SF/MH, 6,841.67 hour (855.21 days) | | | | | | | | | | | |
| | SSM Downstream Forms | 1.00 | EA | 878.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 547,333 | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 561,701 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 3,182,196 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 526,808 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 163.08 | | | 1,115,739 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 76,216 | | | | | |
| | Form Accessories | 164,200.0 | SF | 1.75 | | | | 287,350 | | | | |
| 32 | Grouting Joints | 164,200.00 | SF | | | | | | | | 328,400 | 328,400 |
| | | | | | | | | | | | 2.00 | 2.00 |
| 332.471 | Crest Road- Upstream Parapet Wall Reinforced Concrete 2810FT | 490.00 | CY | | 5,498 | 416,037 | 102,082 | 93,742 | 80,235 | | | 692,096 |
| | | | | | 11.22 | 849.05 | 208.33 | 191.31 | 163.74 | | | 1,412.44 |
| 20 | Concrete Back Wall & Wings | 490.00 | CY | | 5,498 | 416,037 | 102,082 | 93,742 | 80,235 | | | 692,096 |
| | | | | | 11.22 | 849.05 | 208.33 | 191.31 | 163.74 | | | 1,412.44 |
| 15 | Build Forms | 10,633.00 | SF | | 886 | 67,874 | 7,823 | 59,545 | | | | 135,242 |
| | | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 126.58 hour (15.82 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 9,487 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 9,009 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|-----------|-----|--------|--------|---------|--------|---------|----------|--------------|----------|------------|
| | Carpenter Foreman | 1.0 | | 80.00 | | 10,127 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 39,251 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,301 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 5,522 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 10,633.0 | SF | 5.60 | | | | 59,545 | | | | |
| 20 | Set, Strip & Move Forms | 21,266.00 | SF | | 2,658 | 202,452 | 17,005 | 31,899 | | | | 251,357 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 253.17 hour (31.65 days) | | | | 0.13 | 9.52 | 0.80 | 1.50 | | | | 11.82 |
| | Set Strip Retaining Walls | 1.00 | EA | 866.85 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 10,392 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 54,054 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 20,253 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 117,753 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 7,929 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,603 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 4,473 | | | | | |
| | Set Strip Form Material | 21,266.0 | SF | 1.50 | | | | 31,899 | | | | |
| 25 | Place Reinforcing Steel | 85,750.00 | LB | | 421 | 32,243 | 2,157 | | 48,020 | | | 82,420 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 9.825MH/ton, 0.10 ton/MH, 60.18 hour (7.52 days) | | | | 0.00 | 0.38 | 0.03 | | 0.56 | | | 0.96 |
| | Place Reinforcing Steel | 1.00 | EA | 571.67 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 4,283 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 4,814 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 23,146 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,094 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,063 | | | | | |
| | Supply Fabricated Rebar | 85,750.0 | LB | 0.56 | | | | | 48,020 | | | |
| 26 | Batch & Haul Concrete | 490.00 | CY | | 281 | 21,751 | 34,880 | | 32,215 | | | 88,845 |
| | Prod=6.98 CY/hour (69.77 CY/ day), 0.573MH/CY, 1.74 CY/MH, 70.23 hour (7.02 days) | | | | 0.57 | 44.39 | 71.18 | | 65.74 | | | 181.32 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 5,567 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 5,619 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 5,567 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 4,999 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 9,610 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 12,796 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 447 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 813 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 1,048 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 9,167 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 999 | | | | | |
| | Flyash | 47.0 | TN | 160.00 | | | | | 7,526 | | | |
| | Portland Cement Bulk | 88.1 | TN | 180.00 | | | | | 15,865 | | | |
| | Concrete Sand (Fine Aggregate) | 202.8 | TN | 10.00 | | | | | 2,028 | | | |
| | 2" (50 mm) Coarse Aggregate | 608.4 | TN | 10.00 | | | | | 6,084 | | | |
| | Water Reducer | 220.4 | GAL | 3.23 | | | | | 712 | | | |
| 27 | Deliver Concrete | 490.00 | CY | | 421 | 31,984 | 20,590 | | | | | 52,574 |
| | Prod=6.98 CY/hour (69.77 CY/ day), 0.860MH/CY, 1.16 CY/MH, 70.23 hour (7.02 days) | | | | 0.86 | 65.27 | 42.02 | | | | | 107.29 |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 31,984 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|--------|------------|---------------|---------------|---------|----------------|--------------|------------------|------------------|
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 20,590 | | | | | |
| 30 | Place Concrete | 490.00 | CY | | 492 | 35,259 | 19,627 | | | | | 54,886 |
| | Prod=6.98 CY/hour (69.77 CY/ day), 1.003MH/CY, 1.00 CY/MH, 70.23 hour (7.02 days) | | | | 1.00 | 71.96 | 40.06 | | | | | 112.01 |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 5,268 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 29,991 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 17,558 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 100 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 693 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,277 | | | | | |
| 35 | Finish Concrete | 1,715.00 | SF | | 15 | 1,099 | | | | | | 1,099 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 7.59 hour (0.95 days) | | | | 0.01 | 0.64 | | | | | | 0.64 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 1,099 | | | | | | |
| 40 | Cure Concrete | 22,981.00 | SF | | 110 | 7,976 | | 2,298 | | | | 10,274 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 55.08 hour (6.88 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 7,976 | | | | | | |
| | Curing Agent per sf | 22,981.0 | SF | 0.10 | | | | 2,298 | | | | |
| 45 | Patch & Point | 21,266.00 | SF | | 213 | 15,399 | | | | | | 15,399 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 106.33 hour (13.29 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 15,399 | | | | | | |
| 332.472 | Crest Road- Downstream Guard Rail | 2,810.00 | LF | | | | | | | | 281,000 | 281,000 |
| | | | | | | | | | | | 100.00 | 100.00 |
| 10 | Crest Road- Downstream Guard Rail | 2,810.00 | LF | | | | | | | | 281,000 | 281,000 |
| | Double Rail Steel Beam Guide Rail | 2,810.0 | FT | 100.00 | | | | | | | 100.00 | 100.00 |
| | | | | | | | | | | | 281,000 | |
| 332.473 | Ancillaries-Security Cameras & Lighting | 1.00 | LS | | | | | | | | 250,000 | 250,000 |
| | | | | | | | | | | | 250,000.00 | 250,000.00 |
| 332.474 | Dam Instrumentation | 1.00 | LS | | | | | | | | 5,500,000 | 5,500,000 |
| | | | | | | | | | | | 5,500,000.00 | 5,500,000.00 |
| | Main Dam Drainage Provisions | 1.00 | LS | | 781 | 59,514 | 22,113 | | 135,000 | | 2,070,000 | 2,286,627 |
| | | | | | 781.02 | 59,514.47 | 22,112.54 | | 135,000.00 | | 2,070,000.00 | 2,286,627.01 |
| 332.491 | Gallery Sump Stations Grating | 400.00 | SF | | | | | | | | 80,000 | 80,000 |
| | | | | | | | | | | | 200.00 | 200.00 |
| 332.492 | Gallery Sump- 115 HP 120' | 3.00 | EA | | | | | | | | 165,000 | 165,000 |
| | | | | | | | | | | | 55,000.00 | 55,000.00 |
| 332.493 | Gallery Sump- 115 HP, 120' Spares | 1.00 | EA | | | | | | | | 45,000 | 45,000 |
| | | | | | | | | | | | 45,000.00 | 45,000.00 |
| 332.494 | Gallery Sump- Piping, Valves | 1.00 | LS | | | | | | | | 30,000 | 30,000 |
| | | | | | | | | | | | 30,000.00 | 30,000.00 |
| 332.495 | Gallery Sump- Elec System,Lighting,Lever Sensor | 1.00 | LS | | | | | | | | 1,750,000 | 1,750,000 |
| | | | | | | | | | | | 1,750,000.00 | 1,750,000.00 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|---------------|---------------|------------------|------------------|------------------|------------------|--------------|----------|-------------------|
| 332.496 | Gallery Drainage 12in Discharge Pipe | 1,800.00 | LF | | 781 | 59,514 | 22,113 | | 135,000 | | | 216,627 |
| | | | | | 0.43 | 33.06 | 12.28 | | 75.00 | | | 120.35 |
| 10 | Load Unload Set Steel Pipe | 1,800.00 | LF | | 781 | 59,514 | 22,113 | | 135,000 | | | 216,627 |
| | | | | | 0.43 | 33.06 | 12.28 | | 75.00 | | | 120.35 |
| | Prod=18.44 LF/hour (147.50 LF/ day), 0.434MH/LF, 2.30 LF/MH, 97.63 hour (12.20 days) | | | | | | | | | | | |
| | <i>Load & Unload Set Steel Pipe</i> | <i>1.00</i> | <i>EA</i> | <i>836.11</i> | | | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 7,738 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 7,810 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 27,792 | | | | | | |
| | Welder Journeyman | 1.0 | | 84.82 | | 8,281 | | | | | | |
| | Off Hwy Truck Driver | 1.0 | | 80.85 | | 7,893 | | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 9,113 | | | | | |
| | 400 Amp Diesel Welder | 1.0 | | 16.99 | | | 1,659 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 1,679 | | | | | |
| | 2-Ton Mechanic Truck | 1.0 | | 38.80 | | | 3,788 | | | | | |
| | Tractor & Trailer | 1.0 | | 60.16 | | | 5,873 | | | | | |
| | Carbon Steel 300mm (12") Welded Sch 40 | 1,800.0 | FT | 75.00 | | | | | 135,000 | | | |
| | Grout Galleries & Portals | 1.00 | LS | | 78,042 | 6,093,912 | 2,757,398 | 1,204,494 | 6,815,224 | | | 16,871,027 |
| | | | | | 78,041.51 | 6,093,912.08 | 2,757,397.56 | 1,204,494.31 | 6,815,223.53 | | | 16,871,027.48 |
| | Grout Galleries & Portals | 1.00 | LS | | 16,806 | 1,296,895 | 559,176 | 384,664 | 6,060,715 | | | 8,301,450 |
| | | | | | 16,805.99 | 1,296,895.34 | 559,176.47 | 384,663.97 | 6,060,714.56 | | | 8,301,450.33 |
| 332.511 | Horizontal Gallery 10 ft x 10 ft Precast Segments | 9,060.00 | LF | | 7,221 | 545,788 | 176,086 | | 5,889,000 | | | 6,610,874 |
| | | | | | 0.80 | 60.24 | 19.44 | | 650.00 | | | 729.68 |
| 10 | Load Unload Set Precast Segments | 9,060.00 | LF | | 7,221 | 545,788 | 176,086 | | 5,889,000 | | | 6,610,874 |
| | | | | | 0.80 | 60.24 | 19.44 | | 650.00 | | | 729.68 |
| | Prod=10.04 LF/hour (80.29 LF/ day), 0.797MH/LF, 1.25 LF/MH, 902.68 hour (112.84 days) | | | | | | | | | | | |
| | <i>Load & Unload Set Precast Segments</i> | <i>1.00</i> | <i>EA</i> | <i>799.7</i> | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 74,110 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 72,215 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 256,975 | | | | | | |
| | Off Hwy Truck Driver | 1.0 | | 80.85 | | 72,982 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 69,506 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 106,255 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 15,526 | | | | | |
| | Tractor & Trailer | 1.0 | | 60.16 | | | 54,305 | | | | | |
| | Precast Tunnel Segments | 9,060.0 | LF | 650.00 | | | | | 5,889,000 | | | |
| 332.512 | Tunnel Gallery in Abutments 10 ft x 10 ft | 2,075.00 | LF | | 7,005 | 554,095 | 292,299 | 343,363 | | | | 1,189,756 |
| | | | | | 3.38 | 267.03 | 140.87 | 165.48 | | | | 573.38 |
| 300 | Tunnel Excavation | 6,858.00 | CY | | 7,005 | 554,095 | 292,299 | 343,363 | | | | 1,189,756 |
| | | | | | 1.02 | 80.80 | 42.62 | 50.07 | | | | 173.48 |
| 15 | Tunnel Excavation | 6,858.00 | CY | | 6,544 | 517,458 | 242,111 | 343,363 | | | | 1,102,932 |
| | | | | | 0.95 | 75.45 | 35.30 | 50.07 | | | | 160.82 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 250.00 hour (31.25 days) | | | | | | | | | | | |
| | <i>Day Shift Service Crew</i> | <i>1.00</i> | <i>EA</i> | <i>346.07</i> | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 19,815 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 18,750 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 35,585 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 9,583 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,785 | | | | | |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 504.00 hour (21.00 days) | | | | | | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|----------|------------|---------------|---------------|---------|----------|--------------|----------|---------------|
| | <i>Tunnel Crew Excavation</i> | 1.00 | EA | 1335.42 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 40,320 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 120,975 | | | | | | |
| | Miner Operator | 2.0 | | 83.93 | | 84,601 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 115,124 | | | | | | |
| | Electrician | 1.0 | | 80.00 | | 40,320 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 83.27 | | 41,968 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 52,572 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 21,314 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 31,495 | | | | | |
| | Tunnel 5 CY Scoop Tram | 2.0 | | 111.19 | | | 112,080 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 3,614 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 8,669 | | | | | |
| | Drill Steel | 16.0 | EA | 1,000.00 | | | | 16,000 | | | | |
| | Booster Emulex 927 Stick | 6,100.0 | Holes | 3.26 | | | | 19,886 | | | | |
| | Shoot Line | 244.0 | EA | 52.00 | | | | 12,688 | | | | |
| | Caps 16ft | 6,100.0 | EA | 6.10 | | | | 37,210 | | | | |
| | Presplit Powder | 8,100.0 | LB | 6.02 | | | | 48,762 | | | | |
| | Drill Bits Jumbo | 61,029.0 | LF | 0.04 | | | | 2,289 | | | | |
| | Emulex 927 | 15,902.0 | LB | 3.80 | | | | 60,428 | | | | |
| | Victaulic Service Pipe 50mm (4") (used) | 2,075.0 | FT | 4.64 | | | | 9,628 | | | | |
| | Telephone Signal Cable | 2,075.0 | FT | 2.81 | | | | 5,831 | | | | |
| | Tunnel Lighting Power Supply Cable | 2,075.0 | FT | 4.21 | | | | 8,736 | | | | |
| | Jumbo Power Supply Cable | 2,075.0 | FT | 12.37 | | | | 25,668 | | | | |
| | Tunnel Ventilation Line 1200mm (48") | 2,075.0 | FT | 46.38 | | | | 96,239 | | | | |
| 25 | Load Haul Excavation to Stockpile | 7,685.00 | CY | | 461 | 36,636 | 50,188 | | | | | 86,824 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 38.43 hour (3.84 days) | | | | 0.06 | 4.77 | 6.53 | | | | | 11.30 |
| | <i>Load Haul 980 Loader</i> | 1.00 | EA | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 3,074 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 3,046 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 3,046 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 2,953 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 2,953 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 2,925 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 18,640 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 7,420 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 5,258 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 3,372 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 28,715 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 4,995 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 428 | | | | | |
| 332.513 | Common Excavation Portal | 3,600.00 | CY | | 216 | 17,182 | 21,194 | | | | | 38,377 |
| | Prod=150.00 CY/hour (1,500.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 24.00 hour (2.40 days) | | | | 0.06 | 4.77 | 5.89 | | | | | 10.66 |
| | <i>Backhoe & Truck Excavation</i> | 1.00 | EA | 1599.03 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,920 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 1,902 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,902 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 1,845 | | | | | | |
| | Water Truck Driver | 1.0 | | 77.15 | | 1,852 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 7,762 | | | | | | |
| 10 | Access Portal & Road Common | 3,600.00 | CY | | 216 | 17,182 | 21,194 | | | | | 38,377 |
| | Prod=150.00 CY/hour (1,500.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 24.00 hour (2.40 days) | | | | 0.06 | 4.77 | 5.89 | | | | | 10.66 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|----------|------------|---------------|--------------|---------------|----------|--------------|----------|---------------|
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 3,474 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 2,424 | | | | | |
| | 2.6 CY Backhoe (Cat 350) | 1.0 | | 118.77 | | | 2,850 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 4.0 | | 114.25 | | | 10,968 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 387 | | | | | |
| | 5000 Gallon Watertanker | 1.0 | | 45.51 | | | 1,092 | | | | | |
| 332.514 | Rock Excavation Portals | 1,000.00 | CY | | 151 | 11,378 | 7,948 | 31,612 | | | | 50,938 |
| | | | | | 0.15 | 11.38 | 7.95 | 31.61 | | | | 50.94 |
| 10 | Access Portal & Road Rock | 1,000.00 | CY | | 60 | 4,773 | 5,887 | | | | | 10,660 |
| | | | | | 0.06 | 4.77 | 5.89 | | | | | 10.66 |
| | Prod=150.00 CY/hour (1,500.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 6.67 hour (0.67 days) | | | | | | | | | | | |
| | <i>Backhoe & Truck Excavation</i> | 1.00 | EA | 1599.03 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 533 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 528 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 528 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 512 | | | | | | |
| | Water Truck Driver | 1.0 | | 77.15 | | 514 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 2,156 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 965 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 673 | | | | | |
| | 2.6 CY Backhoe (Cat 350) | 1.0 | | 118.77 | | | 792 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 4.0 | | 114.25 | | | 3,047 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 107 | | | | | |
| | 5000 Gallon Watertanker | 1.0 | | 45.51 | | | 303 | | | | | |
| 15 | Drill and Shoot | 1,000.00 | CY | | 91 | 6,605 | 2,061 | 31,612 | | | | 40,278 |
| | | | | | 0.09 | 6.61 | 2.06 | 31.61 | | | | 40.28 |
| 15 | Drill and Shoot Production | 1,000.00 | CY | | 25 | 1,828 | 570 | 1,402 | | | | 3,801 |
| | | | | | 0.03 | 1.83 | 0.57 | 1.40 | | | | 3.80 |
| | Prod=210.00 FT/hour (1,680.00 FT/ day), 0.052MH/FT, 19.09 FT/MH, 2.28 hour (0.28 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 171 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 486 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 348 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 486 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 162 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 174 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 505 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 25 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 40 | | | | | |
| | Drill Steel | 0.1 | EA | 1,000.00 | | | | 139 | | | | |
| | Drill Bits | 0.3 | EA | 350.00 | | | | 122 | | | | |
| | AUSTINITE | 1,000.0 | LB | 0.70 | | | | 700 | | | | |
| | Booster | 26.6 | EA | 6.63 | | | | 176 | | | | |
| | Non Elec Detonators | 26.6 | EA | 6.50 | | | | 173 | | | | |
| | Lead in Line | 0.3 | EA | 200.00 | | | | 50 | | | | |
| | Delivery Cost | 0.0 | EA | 1,000.00 | | | | 42 | | | | |
| 15 | Presplit Face | 2,500.00 | SF | | 65 | 4,777 | 1,490 | 30,210 | | | | 36,477 |
| | | | | | 0.03 | 1.91 | 0.60 | 12.08 | | | | 14.59 |
| | Prod=210.00 LF/hour (1,680.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 5.95 hour (0.74 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 446 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 1,271 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 910 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|---------------|--------------|---------------|--------------|----------|----------------|
| | Driller | 3.0 | | 71.17 | | 1,271 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 424 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 455 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 1,319 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 66 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 105 | | | | | |
| | Delivery Cost | 2.1 EA | | 1,000.00 | | | | 2,083 | | | | |
| | Lead in Line | 12.5 EA | | 200.00 | | | | 2,500 | | | | |
| | Non Elec Detonators | 1,325.0 EA | | 6.50 | | | | 8,613 | | | | |
| | Emulex 927 | 939.6 EA | | 4.25 | | | | 3,993 | | | | |
| | Drill Bits | 17.4 EA | | 350.00 | | | | 6,076 | | | | |
| | Drill Steel | 6.9 EA | | 1,000.00 | | | | 6,944 | | | | |
| 332.515 | Concrete Tunnel Slabs | 700.00 | CY | | 2,076 | 158,137 | 57,947 | 8,386 | 72,800 | | | 297,269 |
| | | | | | 2.97 | 225.91 | 82.78 | 11.98 | 104.00 | | | 424.67 |
| 303 | Concrete Tunnel Floor | 700.00 | CY | | 2,076 | 158,137 | 57,947 | 8,386 | 72,800 | | | 297,269 |
| | | | | | 2.97 | 225.91 | 82.78 | 11.98 | 104.00 | | | 424.67 |
| 10 | Place Tunnel Concrete Floor | 1,000.00 | CY | | 2,076 | 158,137 | 57,947 | 8,386 | 72,800 | | | 297,269 |
| | | | | | 2.08 | 158.14 | 57.95 | 8.39 | 72.80 | | | 297.27 |
| 10 | Foundation Prep Tunnel Floor | 20,750.00 | SF | | 399 | 31,313 | 12,821 | | | | | 44,134 |
| | | | | | 0.02 | 1.51 | 0.62 | | | | | 2.13 |
| | Prod=260.00 SF/hour (2,600.00 SF/ day), 0.019MH/SF, 52.00 SF/MH, 79.81 hour (7.98 days) | | | | | | | | | | | |
| | Foundation Prep Tunnel Floor | 1.00 | EA | 553 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 6,385 | | | | | | |
| | Miner Operator | 1.0 | | 83.93 | | 6,698 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 18,230 | | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 3,375 | | | | | |
| | Tunnel 5 CY Scoop Tram | 1.0 | | 111.19 | | | 8,874 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 572 | | | | | |
| 16 | Batch Concrete | 1,000.00 | CY | | 261 | 20,197 | 32,389 | | 65,745 | | | 118,331 |
| | | | | | 0.26 | 20.20 | 32.39 | | 65.74 | | | 118.33 |
| | Prod=15.33 CY/hour (153.33 CY/ day), 0.261MH/CY, 3.83 CY/MH, 65.22 hour (6.52 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 5,169 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 5,217 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 5,169 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 4,642 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 8,924 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 11,882 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 415 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 755 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 973 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 8,512 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 927 | | | | | |
| | Flyash | 96.0 | TN | 160.00 | | | | | 15,358 | | | |
| | Portland Cement Bulk | 179.9 | TN | 180.00 | | | | | 32,378 | | | |
| | Concrete Sand (Fine Aggregate) | 413.9 | TN | 10.00 | | | | | 4,139 | | | |
| | 2" (50 mm) Coarse Aggregate | 1,241.6 | TN | 10.00 | | | | | 12,416 | | | |
| | Water Reducer | 449.9 | GAL | 3.23 | | | | | 1,453 | | | |
| 17 | Deliver Concrete | 1,000.00 | CY | | 196 | 14,850 | 9,560 | | | | | 24,410 |
| | | | | | 0.20 | 14.85 | 9.56 | | | | | 24.41 |
| | Prod=15.33 CY/hour (153.33 CY/ day), 0.196MH/CY, 5.11 CY/MH, 65.22 hour (6.52 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 374.28 | | | | | | | | |
| | Concrete Truck Driver | 3.0 | | 75.90 | | 14,850 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|--------------|-----------|--------|------------|---------------|--------------|--------------|--------------|--------------|----------|---------------|
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 9,560 | | | | | |
| 20 | Set, Strip & Paving Forms | 1,536.00 | SF | | 192 | 14,494 | 485 | 6,311 | | | | 21,290 |
| | | | | | 0.13 | 9.44 | 0.32 | 4.11 | | | | 13.86 |
| | Prod=56.00 SF/hour (448.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 27.43 hour (3.43 days) | | | | | | | | | | | |
| | Set Strip Paving Forms | 1.00 | EA | 546.11 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 2,194 | | | | | | |
| | Miner | 6.0 | | 74.74 | | 12,300 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 485 | | | | | |
| | Steel Paving Form | 267.1 | LF | 15.00 | | | | 4,007 | | | | |
| | Set Strip Form Material | 1,536.0 | SF | 1.50 | | | | 2,304 | | | | |
| 21 | Place Wire Mesh | 20,750.00 | SF | | 96 | 7,320 | 621 | | 7,055 | | | 14,996 |
| | | | | | 0.00 | 0.35 | 0.03 | | 0.34 | | | 0.72 |
| | Prod=862.38 SF/hour (8,623.80 SF/ day), 0.005MH/SF, 215.60 SF/MH, 24.06 hour (2.41 days) | | | | | | | | | | | |
| | Place Wire Mesh | 1.00 | EA | 330.03 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 1,925 | | | | | | |
| | Miner | 3.0 | | 74.74 | | 5,395 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 25.81 | | | 621 | | | | | |
| | Welded Wire Mesh | 20,750.0 | SF | 0.34 | | | | | 7,055 | | | |
| 22 | Place Concrete | 1,000.00 | CY | | 587 | 44,943 | 2,071 | | | | | 47,014 |
| | | | | | 0.59 | 44.94 | 2.07 | | | | | 47.01 |
| | Prod=15.33 CY/hour (153.33 CY/ day), 0.587MH/CY, 1.70 CY/MH, 65.22 hour (6.52 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 720.88 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 5,217 | | | | | | |
| | Miner | 8.0 | | 76.14 | | 39,725 | | | | | | |
| | 3D Roller Screed | 1.0 | | 30.64 | | | 1,998 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 73 | | | | | |
| 35 | Finish Concrete Base Slab | 20,750.00 | SF | | 215 | 15,546 | | | | | | 15,546 |
| | | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 107.35 hour (13.42 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 15,546 | | | | | | |
| 40 | Cure Concrete Base Slab | 20,750.00 | SF | | 131 | 9,475 | | 2,075 | | | | 11,550 |
| | | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 65.42 hour (8.18 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 9,475 | | | | | | |
| | Curing Agent per sf | 20,750.0 | SF | 0.10 | | | | 2,075 | | | | |
| 332.516 | Concrete Portal | 20.00 | CY | | 137 | 10,315 | 3,703 | 1,303 | 2,715 | | | 18,036 |
| | | | | | 6.83 | 515.74 | 185.15 | 65.16 | 135.74 | | | 901.79 |
| 14 | Concrete Portal | 20.00 | CY | | 137 | 10,315 | 3,703 | 1,303 | 2,715 | | | 18,036 |
| | | | | | 6.83 | 515.74 | 185.15 | 65.16 | 135.74 | | | 901.79 |
| 15 | Concrete Wall | 20.00 | CY | | 117 | 8,774 | 1,859 | 1,303 | 1,400 | | | 13,337 |
| | | | | | 5.83 | 438.72 | 92.96 | 65.16 | 70.00 | | | 666.83 |
| 15 | Build Wall Forms | 120.00 | SF | | 10 | 766 | 88 | 672 | | | | 1,526 |
| | | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 1.43 hour (0.18 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 107 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 102 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 114 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|-------------|-----|--------|--------|--------|-------|---------|----------|--------------|----------|------------|
| | Carpenter | 4.0 | | 77.52 | | 443 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 26 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 62 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 120.0 SF | | 5.60 | | | | 672 | | | | |
| 20 | Set, Strip & Move Wall Forms | 360.00 SF | | | 45 | 3,427 | 288 | 540 | | | | 4,255 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 4.29 hour (0.54 days) | | | | 0.13 | 9.52 | 0.80 | 1.50 | | | | 11.82 |
| | Set Strip Retaining Walls | 1.00 EA | | 866.85 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 176 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 915 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 343 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 1,993 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 134 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 78 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 76 | | | | | |
| | Set Strip Form Material | 360.0 SF | | 1.50 | | | | 540 | | | | |
| 25 | Place Reinforcing Steel | 2,500.00 LB | | | 12 | 940 | 63 | | 1,400 | | | 2,403 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 9.825MH/ton, 0.10 ton/MH, 1.75 hour (0.22 days) | | | | 0.00 | 0.38 | 0.03 | | 0.56 | | | 0.96 |
| | Place Reinforcing Steel | 1.00 EA | | 571.67 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 125 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 140 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 675 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 32 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 31 | | | | | |
| | Supply Fabricated Rebar | 2,500.0 LB | | 0.56 | | | | | 1,400 | | | |
| 30 | Place Concrete Wall | 20.00 CY | | | 34 | 2,567 | 1,401 | | | | | 3,968 |
| | Prod=0.56 HRS/hour (13.40 HRS/ day), 8.958MH/HRS, 0.11 HRS/MH, 2.87 hour (0.12 days) | | | | 1.72 | 128.36 | 70.06 | | | | | 198.41 |
| | Surface Hoist Crew | 1.00 EA | | 602.78 | | | | | | | | |
| | Crane Operator Class-A | 2.0 | | 82.10 | | 471 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 437 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 221 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 528 | | | | | |
| | Hoist | 1.0 | | 25.00 | | | 72 | | | | | |
| | Prod=6.98 CY/hour (69.77 CY/ day), 1.003MH/CY, 1.00 CY/MH, 2.87 hour (0.29 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 EA | | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 215 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 1,224 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 717 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 4 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 28 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 52 | | | | | |
| 32 | Joint Prep on Wall | 90.03 SF | | | 2 | 113 | 19 | | | | | 132 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 0.80 hour (0.10 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | Joint Prep on Slab | 1.00 EA | | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 113 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 19 | | | | | |
| 35 | Finish Concrete Wall | 6.67 SF | | | 1 | 58 | | | | | | 58 |
| | | | | | 0.12 | 8.65 | | | | | | 8.65 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|-----------|---------------|------------------|------------------|----------------|----------------|--------------|----------|------------------|
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.40 hour (0.05 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 58 | | | | | | |
| 40 | Cure Concrete Wall | 911.04 | SF | | 4 | 316 | | 91 | | | | 407 |
| | | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 2.18 hour (0.27 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 316 | | | | | | |
| | Curing Agent per sf | 911.0 | SF | 0.10 | | | | 91 | | | | |
| 45 | Patch & Point Walls | 810.29 | SF | | 8 | 587 | | | | | | 587 |
| | | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 4.05 hour (0.51 days) | | | | | | | | | | | |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 587 | | | | | | |
| 16 | Batch & Haul Concrete | 20.00 | CY | | 11 | 888 | 1,424 | | 1,315 | | | 3,626 |
| | | | | | 0.57 | 44.39 | 71.18 | | 65.74 | | | 181.32 |
| | Prod=6.98 CY/hour (69.77 CY/ day), 0.573MH/CY, 1.74 CY/MH, 2.87 hour (0.29 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 227 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 229 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 227 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 204 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 392 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 522 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 18 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 33 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 43 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 374 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 41 | | | | | |
| | Flyash | 1.9 | TN | 160.00 | | | | | 307 | | | |
| | Portland Cement Bulk | 3.6 | TN | 180.00 | | | | | 648 | | | |
| | Concrete Sand (Fine Aggregate) | 8.3 | TN | 10.00 | | | | | 83 | | | |
| | 2" (50 mm) Coarse Aggregate | 24.8 | TN | 10.00 | | | | | 248 | | | |
| | Water Reducer | 9.0 | GAL | 3.23 | | | | | 29 | | | |
| 17 | Deliver Concrete | 20.00 | CY | | 9 | 653 | 420 | | | | | 1,073 |
| | | | | | 0.43 | 32.64 | 21.01 | | | | | 53.65 |
| | Prod=6.98 CY/hour (69.77 CY/ day), 0.430MH/CY, 2.33 CY/MH, 2.87 hour (0.29 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 374.28 | | | | | | | | |
| | Concrete Truck Driver | 3.0 | | 75.90 | | 653 | | | | | | |
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 420 | | | | | |
| 332.517 | Portal Doors | 2.00 | EA | | | | | | 96,200 | | | 96,200 |
| | | | | | | | | | 48,100.00 | | | 48,100.00 |
| 10 | Portal Doors | 2.00 | EA | | | | | | 96,200 | | | 96,200 |
| | | | | | | | | | 48,100.00 | | | 48,100.00 |
| | Portal Doors | 2.0 | EA | 48,100.00 | | | | | 96,200 | | | |
| | Access Tunnel to Powerhouse 830LF | 1.00 | LS | | 61,236 | 4,797,017 | 2,198,221 | 819,830 | 754,509 | | | 8,569,577 |
| | | | | | 61,235.52 | 4,797,016.75 | 2,198,221.09 | 819,830.34 | 754,508.97 | | | 8,569,577.14 |
| 332.521 | Access Tunnel Excavation | 36,118.00 | CY | | 45,546 | 3,602,377 | 1,900,055 | 813,071 | | | | 6,315,503 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|-----------|-------|----------|--------|-----------|-----------|---------|----------|--------------|----------|------------|
| | | | | | 1.26 | 99.74 | 52.61 | 22.51 | | | | 174.86 |
| 300 | Tunnel Excavation | 36,118.00 | CY | | 45,546 | 3,602,377 | 1,900,055 | 813,071 | | | | 6,315,503 |
| | | | | | 1.26 | 99.74 | 52.61 | 22.51 | | | | 174.86 |
| 15 | Tunnel Excavation | 36,118.00 | CY | | 42,536 | 3,363,223 | 1,572,441 | 813,071 | | | | 5,748,735 |
| | | | | | 1.18 | 93.12 | 43.54 | 22.51 | | | | 159.17 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 1,636.00 hour (204.50 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 129,669 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 122,700 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 232,868 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 62,708 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 18,225 | | | | | |
| | Prod=1.00 HR/hour (24.00 HR/ day), 11.000MH/HR, 0.09 HR/MH, 3,272.00 hour (136.33 days) | | | | | | | | | | | |
| | Tunnel Crew Excavation | 1.00 | EA | 1335.42 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 261,760 | | | | | | |
| | Miner Driller | 3.0 | | 80.01 | | 785,378 | | | | | | |
| | Miner Operator | 2.0 | | 83.93 | | 549,238 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 747,390 | | | | | | |
| | Electrician | 1.0 | | 80.00 | | 261,760 | | | | | | |
| | Heavy Duty Mechanic underground | 1.0 | | 83.27 | | 272,459 | | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 104.31 | | | 341,302 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 138,373 | | | | | |
| | Percussion Jumbo 3- Boom(GD-P123) | 1.0 | | 62.49 | | | 204,467 | | | | | |
| | Tunnel 5 CY Scoop Tram | 2.0 | | 111.19 | | | 727,627 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 23,460 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 56,278 | | | | | |
| | Drill Steel | 70.0 | EA | 1,000.00 | | | | 70,000 | | | | |
| | Booster Emulex 927 Stick | 19,404.0 | Holes | 3.26 | | | | 63,257 | | | | |
| | Shoot Line | 98.0 | EA | 52.00 | | | | 5,096 | | | | |
| | Caps 16ft | 19,404.0 | EA | 6.10 | | | | 118,364 | | | | |
| | Presplit Powder | 12,857.0 | LB | 6.02 | | | | 77,399 | | | | |
| | Drill Bits Jumbo | 193,698.0 | LF | 0.04 | | | | 7,264 | | | | |
| | Emulex 927 | 108,750.0 | LB | 3.80 | | | | 413,250 | | | | |
| | Victaulic Service Pipe 50mm (4") (used) | 830.0 | FT | 4.64 | | | | 3,851 | | | | |
| | Telephone Signal Cable | 830.0 | FT | 2.81 | | | | 2,332 | | | | |
| | Tunnel Lighting Power Supply Cable | 830.0 | FT | 4.21 | | | | 3,494 | | | | |
| | Jumbo Power Supply Cable | 830.0 | FT | 12.37 | | | | 10,267 | | | | |
| | Tunnel Ventilation Line 1200mm (48") | 830.0 | FT | 46.38 | | | | 38,495 | | | | |
| 25 | Load Haul Excavation to Stockpile | 50,166.00 | CY | | 3,010 | 239,154 | 327,614 | | | | | 566,768 |
| | | | | | 0.06 | 4.77 | 6.53 | | | | | 11.30 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.060MH/CY, 16.67 CY/MH, 250.83 hour (25.08 days) | | | | | | | | | | | |
| | Load Haul 980 Loader | 1.00 | EA | 2259.57 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 20,066 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 19,881 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 19,881 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 19,279 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 19,279 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 19,091 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 121,678 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 48,435 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 34,321 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 22,010 | | | | | |
| | 30 Ton Articulated Truck (Cat D300) | 6.0 | | 124.55 | | | 187,445 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 32,608 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,794 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|--------|--------------|----------------|----------------|--------------|----------------|--------------|----------|----------------|
| 332.522 | Access Tunnel Concrete Floor | 1,107.00 | CY | | 3,326 | 253,405 | 106,129 | 6,760 | 119,295 | | | 485,590 |
| | | | | | 3.00 | 228.91 | 95.87 | 6.11 | 107.76 | | | 438.65 |
| 303 | Concrete Tunnel Floor | 1,107.00 | CY | | 3,326 | 253,405 | 106,129 | 6,760 | 119,295 | | | 485,590 |
| | | | | | 3.00 | 228.91 | 95.87 | 6.11 | 107.76 | | | 438.65 |
| 10 | Place Tunnel Concrete Floor | 1,660.00 | CY | | 3,326 | 253,405 | 106,129 | 6,760 | 119,295 | | | 485,590 |
| | | | | | 2.00 | 152.65 | 63.93 | 4.07 | 71.86 | | | 292.52 |
| 10 | Foundation Prep Tunnel Floor | 29,880.00 | SF | | 575 | 45,090 | 18,462 | | | | | 63,552 |
| | | | | | 0.02 | 1.51 | 0.62 | | | | | 2.13 |
| | Prod=260.00 SF/hour (2,600.00 SF/ day), 0.019MH/SF, 52.00 SF/MH, 114.92 hour (11.49 days) | | | | | | | | | | | |
| | Foundation Prep Tunnel Floor | 1.00 | EA | 553 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 9,194 | | | | | | |
| | Miner | 3.0 | | 76.14 | | 26,251 | | | | | | |
| | Miner Operator | 1.0 | | 83.93 | | 9,645 | | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 42.29 | | | 4,860 | | | | | |
| | Tunnel 5 CY Scoop Tram | 1.0 | | 111.19 | | | 12,778 | | | | | |
| | Tunnel Ventilation Fan 42" | 1.0 | | 7.17 | | | 824 | | | | | |
| 16 | Batch Concrete | 1,660.00 | CY | | 421 | 32,601 | 52,279 | | 109,136 | | | 194,016 |
| | | | | | 0.25 | 19.64 | 31.49 | | 65.74 | | | 116.88 |
| | Prod=15.77 CY/hour (157.69 CY/ day), 0.254MH/CY, 3.94 CY/MH, 105.27 hour (10.53 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 8,344 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 8,421 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 8,344 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 7,492 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 14,404 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 19,179 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 671 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 1,219 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 1,571 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 13,740 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 1,497 | | | | | |
| | Flyash | 159.3 | TN | 160.00 | | | | | 25,495 | | | |
| | Portland Cement Bulk | 298.6 | TN | 180.00 | | | | | 53,748 | | | |
| | Concrete Sand (Fine Aggregate) | 687.0 | TN | 10.00 | | | | | 6,870 | | | |
| | 2" (50 mm) Coarse Aggregate | 2,061.1 | TN | 10.00 | | | | | 20,611 | | | |
| | Water Reducer | 746.8 | GAL | 3.23 | | | | | 2,412 | | | |
| 17 | Deliver Concrete | 1,660.00 | CY | | 632 | 47,939 | 30,860 | | | | | 78,800 |
| | | | | | 0.38 | 28.88 | 18.59 | | | | | 47.47 |
| | Prod=15.77 CY/hour (157.69 CY/ day), 0.381MH/CY, 2.63 CY/MH, 105.27 hour (10.53 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 47,939 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 30,860 | | | | | |
| 20 | Set, Strip & Paving Forms | 918.00 | SF | | 115 | 8,663 | 290 | 3,772 | | | | 12,724 |
| | | | | | 0.13 | 9.44 | 0.32 | 4.11 | | | | 13.86 |
| | Prod=56.00 SF/hour (448.00 SF/ day), 0.125MH/SF, 8.00 SF/MH, 16.39 hour (2.05 days) | | | | | | | | | | | |
| | Set Strip Paving Forms | 1.00 | EA | 546.11 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 1,311 | | | | | | |
| | Miner | 6.0 | | 74.74 | | 7,351 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 290 | | | | | |
| | Steel Paving Form | 159.7 | LF | 15.00 | | | | 2,395 | | | | |
| | Set Strip Form Material | 918.0 | SF | 1.50 | | | | 1,377 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|--------|--------------|----------------|---------------|---------|----------------|--------------|----------|----------------|
| 21 | Place Wire Mesh | 29,880.00 | SF | | 139 | 10,541 | 894 | | 10,159 | | | 21,594 |
| | Prod=862.38 SF/hour (8,623.80 SF/ day), 0.005MH/SF, 215.60 SF/MH, 34.65 hour (3.46 days) | | | | 0.00 | 0.35 | 0.03 | | 0.34 | | | 0.72 |
| | Place Wire Mesh | 1.00 | EA | 330.03 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 2,772 | | | | | | |
| | Miner | 3.0 | | 74.74 | | 7,769 | | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 25.81 | | | 894 | | | | | |
| | Welded Wire Mesh | 29,880.0 | SF | 0.34 | | | | | 10,159 | | | |
| 22 | Place Concrete | 1,660.00 | CY | | 947 | 72,542 | 3,343 | | | | | 75,886 |
| | Prod=15.77 CY/hour (157.69 CY/ day), 0.571MH/CY, 1.75 CY/MH, 105.27 hour (10.53 days) | | | | 0.57 | 43.70 | 2.01 | | | | | 45.71 |
| | Place Concrete | 1.00 | EA | 720.88 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | 8,421 | | | | | | |
| | Miner | 8.0 | | 76.14 | | 64,121 | | | | | | |
| | 3D Roller Screed | 1.0 | | 30.64 | | | 3,225 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 118 | | | | | |
| 35 | Finish Concrete Base Slab | 29,880.00 | SF | | 309 | 22,386 | | | | | | 22,386 |
| | Prod=193.30 SF/hour (1,546.40 SF/ day), 0.010MH/SF, 96.65 SF/MH, 154.58 hour (19.32 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 22,386 | | | | | | |
| 40 | Cure Concrete Base Slab | 29,880.00 | SF | | 188 | 13,643 | | 2,988 | | | | 16,631 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 94.21 hour (11.78 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 13,643 | | | | | | |
| | Curing Agent per sf | 29,880.0 | SF | 0.10 | | | | 2,988 | | | | |
| 332.523 | Access Tunnel Dowels #8 12ft | 1,522.00 | EA | | 3,027 | 230,421 | 83,149 | | 363,027 | | | 676,598 |
| | | | | | 1.99 | 151.39 | 54.63 | | 238.52 | | | 444.55 |
| 301 | Rock Bolts | 18,264.00 | LF | | 3,027 | 230,421 | 83,149 | | 363,027 | | | 676,598 |
| | | | | | 0.17 | 12.62 | 4.55 | | 19.88 | | | 37.05 |
| 10 | Rock Bolts | 18,264.00 | LF | | 3,027 | 230,421 | 83,149 | | 363,027 | | | 676,598 |
| | | | | | 0.17 | 12.62 | 4.55 | | 19.88 | | | 37.05 |
| | Prod=1.00 HRS/hour (8.00 HRS/ day), 4.000MH/HRS, 0.25 HRS/MH, 336.36 hour (42.05 days) | | | | | | | | | | | |
| | Day Shift Service Crew | 1.00 | EA | 346.07 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 26,660 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 25,227 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 47,878 | | | | | | |
| | 2.0 CY Loader (CAT IT28) | 1.0 | | 38.33 | | | 12,893 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 3,747 | | | | | |
| | Prod=54.30 FT/hour (434.39 FT/ day), 0.092MH/FT, 10.86 FT/MH, 336.36 hour (42.05 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 586.17 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | 53,825 | | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | 25,611 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 51,221 | | | | | | |
| | Post-tensioning Jack | 1.0 | | 4.81 | | | 1,618 | | | | | |
| | Grout Pump | 1.0 | | 10.52 | | | 3,539 | | | | | |
| | Grout Plant | 1.0 | | 20.96 | | | 7,050 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | 4,622 | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | 49,681 | | | | | |
| | Resin Cartrage | 3,196.2 | EA | 2.00 | | | | | 6,392 | | | |
| | Nut Bolt Washer Plate | 3,044.0 | EA | 10.00 | | | | | 30,440 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|--------|----------------|-------------------|------------------|----------------|-------------------|----------------|-------------------|-------------------|
| | Rockbolts 1" (25 mm) 517/690 Mpa | 18,264.0 | FT | 17.86 | | | | | | 326,195 | | |
| 332.524 | Shotcrete 6 inches Fibre Reinforced | 78,297.00 | SF | | 9,060 | 689,212 | 97,721 | | | 272,186 | | 1,059,120 |
| | | | | | 0.12 | 8.80 | 1.25 | | | 3.48 | | 13.53 |
| 10 | Shotcrete | 1,812.00 | CY | | 9,060 | 689,212 | 97,721 | | | 272,186 | | 1,059,120 |
| | | | | | 5.00 | 380.36 | 53.93 | | | 150.21 | | 584.50 |
| 10 | Shotcrete | 1,812.00 | CY | | 9,060 | 689,212 | 97,721 | | | 272,186 | | 1,059,120 |
| | | | | | 5.00 | 380.36 | 53.93 | | | 150.21 | | 584.50 |
| 10 | Tunnel Shotcrete | 1,812.00 | CY | | 9,060 | 689,212 | 97,721 | | | 272,186 | | 1,059,120 |
| | | | | | 5.00 | 380.36 | 53.93 | | | 150.21 | | 584.50 |
| | Prod=1.00 CY/hour (10.00 CY/ day), 5.000MH/CY, 0.20 CY/MH, 1,812.00 hour (181.20 days) | | | | | | | | | | | |
| | Place Shotcrete in Tunnel | 1.00 | EA | 434.29 | | | | | | | | |
| | Miner Foreman | 1.0 | | 80.00 | | | | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | | 144,960 | | | | | |
| | Miner | 3.0 | | 74.74 | | | 406,287 | | | | | |
| | 8 YPH Wet Shotcrete Pump (Swing 750) | 1.0 | | 18.83 | | | | 34,120 | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 20.88 | | | | 37,835 | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | | 25,767 | | | | |
| | Concrete Sand (Fine Aggregate) | 1,780.3 | TN | 10.00 | | | | | | 17,803 | | |
| | 1/2" (12 mm) Coarse Aggregate | 768.1 | TN | 10.00 | | | | | | 7,681 | | |
| | Water Reducer | 543.6 | GAL | 3.23 | | | | | | 1,756 | | |
| | Super Plasticizer | 1,812.0 | GAL | 9.51 | | | | | | 17,232 | | |
| | Air Entrainment | 906.0 | GAL | 5.00 | | | | | | 4,530 | | |
| | Fibre Reinforcement | 1,812.0 | CY | 70.37 | | | | | | 127,510 | | |
| | Shotcrete Bag 70 LB (30 kg) | 19,134.7 | Bag | 5.00 | | | | | | 95,674 | | |
| 332.525 | Drains | 415.00 | EA | | 277 | 21,601 | 11,166 | | | | | 32,767 |
| | | | | | 0.67 | 52.05 | 26.91 | | | | | 78.96 |
| 10 | Drill Drains | 415.00 | EA | | 277 | 21,601 | 11,166 | | | | | 32,767 |
| | | | | | 0.67 | 52.05 | 26.91 | | | | | 78.96 |
| | Prod=6.00 EA/hour (48.00 EA/ day), 0.667MH/EA, 1.50 EA/MH, 69.17 hour (8.65 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 473.74 | | | | | | | | |
| | Miner Driller | 2.0 | | 80.01 | | | 11,068 | | | | | |
| | Miner | 2.0 | | 76.14 | | | 10,533 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | | 950 | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 2.0 | | 73.85 | | | | 10,216 | | | | |
| | Outlet Facilities | 1.00 | LS | | 184,083 | 14,709,871 | 4,940,809 | 354,356 | 24,986,661 | | 16,000,000 | 60,991,696 |
| | | | | | 184,082.73 | 14,709,870.94 | 4,940,808.99 | 354,355.62 | 24,986,660.82 | | 16,000,000.00 | 60,991,696.38 |
| 332.551 | Excavation Twin Pipes Beneath Spillway | 8,500.00 | CY | | 1,233 | 91,940 | 76,696 | 65,664 | | | | 234,300 |
| | | | | | 0.15 | 10.82 | 9.02 | 7.73 | | | | 27.56 |
| 22 | Rock Excavation to Stockpile | 8,500.00 | CY | | 1,233 | 91,940 | 76,696 | 65,664 | | | | 234,300 |
| | | | | | 0.15 | 10.82 | 9.02 | 7.73 | | | | 27.56 |
| 10 | Presplit Face | 28,333.33 | SF | | 737 | 53,781 | 16,778 | 52,304 | | | | 122,863 |
| | | | | | 0.03 | 1.90 | 0.59 | 1.85 | | | | 4.34 |
| | Prod=210.00 LF/hour (1,680.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 67.01 hour (8.38 days) | | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | | 5,026 | | | | | |
| | Labourer | 3.0 | | 71.17 | | | 14,308 | | | | | |
| | Powderman | 2.0 | | 76.45 | | | 10,246 | | | | | |
| | Driller | 3.0 | | 71.17 | | | 14,308 | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | | 4,769 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|-----------------|-----------|----------|------------|---------------|---------------|---------------|----------|--------------|----------|---------------|
| | Blaster | 1.0 | | 76.45 | | 5,123 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 14,847 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 747 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,184 | | | | | |
| | Drill Steel | 4.7 EA | | 1,000.00 | | | | 4,691 | | | | |
| | Drill Bits | 9.4 EA | | 350.00 | | | | 3,284 | | | | |
| | RED E-SPLIT PRESPLIT | 7,036.4 EA | | 5.78 | | | | 40,671 | | | | |
| | Non Elec Detonators | 187.6 EA | | 6.50 | | | | 1,220 | | | | |
| | Lead in Line | 2.8 EA | | 200.00 | | | | 563 | | | | |
| | Delivery Cost | 1.9 EA | | 1,000.00 | | | | 1,876 | | | | |
| 12 | Drill and Shoot | 8,500.00 | CY | | 180 | 13,157 | 5,646 | 13,360 | | | | 32,163 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| 12 | Drill and Shoot Production | 8,500.00 | CY | | 180 | 13,157 | 5,646 | 13,360 | | | | 32,163 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| | Prod=210.00 FT/hour (1,680.00 FT/ day), 0.038MH/FT, 26.25 FT/MH, 22.55 hour (2.82 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 833.83 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,804 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 3,210 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 1,724 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 4,815 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 1,605 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 4,996 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 251 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 398 | | | | | |
| | Caps | 225.5 EA | | 6.10 | | | | 1,376 | | | | |
| | Booster | 225.5 EA | | 6.63 | | | | 1,495 | | | | |
| | Anfo | 8,500.0 LB | | 0.70 | | | | 5,950 | | | | |
| | Drill Bits | 3.2 EA | | 400.00 | | | | 1,263 | | | | |
| | Drill Steel | 1.4 EA | | 1,000.00 | | | | 1,353 | | | | |
| | Between Holes QRC 1 for every 4 holes | 56.4 EA | | 4.75 | | | | 268 | | | | |
| | Shoot Line | 1.1 EA | | 52.00 | | | | 58 | | | | |
| | Hydromite 880 Wet Holes 10% | 850.0 LB | | 1.88 | | | | 1,598 | | | | |
| 22 | Backhoe Trench Excavation | 8,500.00 | CY | | 316 | 25,001 | 54,273 | | | | | 79,274 |
| | | | | | 0.04 | 2.94 | 6.39 | | | | | 9.33 |
| 20 | Backhoe Trench Excavation | 8,500.00 | CY | | 316 | 25,001 | 54,273 | | | | | 79,274 |
| | | | | | 0.04 | 2.94 | 6.39 | | | | | 9.33 |
| | Prod=350.00 CY/hour (3,500.00 CY/ day), 0.037MH/CY, 26.92 CY/MH, 24.29 hour (2.43 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile Backhoe Trucks</i> | 1.00 | EA | 3264.24 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,943 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 1,925 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,925 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,925 | | | | | | |
| | Dozer Operator | 3.0 | | 76.86 | | 5,600 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 1,867 | | | | | | |
| | Off Hwy Truck Driver | 5.0 | | 80.85 | | 9,818 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 4,690 | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 2.0 | | 327.65 | | | 15,914 | | | | | |
| | Ripper Attachment D10 | 1.0 | | 13.76 | | | 334 | | | | | |
| | 13.5 CY Loader (Cat 992) | 1.0 | | 380.91 | | | 9,251 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 2,131 | | | | | |
| | 5.2 CY Backhoe (Cat 365) | 1.0 | | 146.31 | | | 3,553 | | | | | |
| | 40 Ton Articulated Truck (Cat D400) | 5.0 | | 123.30 | | | 14,972 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 3,157 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 271 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|----------------|----------|--------------|----------|----------------|
| 332.552 | Rock Excavation Manifold Opencut | 15,600.00 | CY | | 2,081 | 155,450 | 136,615 | 107,591 | | | | 399,656 |
| | | | | | 0.13 | 9.96 | 8.76 | 6.90 | | | | 25.62 |
| 22 | Rock Excavation to Stockpile | 15,600.00 | CY | | 2,081 | 155,450 | 136,615 | 107,591 | | | | 399,656 |
| | | | | | 0.13 | 9.96 | 8.76 | 6.90 | | | | 25.62 |
| 10 | Presplit Face | 45,000.00 | SF | | 1,171 | 85,417 | 26,647 | 83,071 | | | | 195,135 |
| | | | | | 0.03 | 1.90 | 0.59 | 1.85 | | | | 4.34 |
| | Prod=210.00 LF/hour (1,680.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 106.43 hour (13.30 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 7,982 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 22,725 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 16,274 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 22,725 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 7,575 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 8,137 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 23,580 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,186 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,881 | | | | | |
| | Delivery Cost | 3.0 | EA | 1,000.00 | | | | 2,980 | | | | |
| | Lead in Line | 4.5 | EA | 200.00 | | | | 894 | | | | |
| | Non Elec Detonators | 298.0 | EA | 6.50 | | | | 1,937 | | | | |
| | RED E-SPLIT PRESPLIT | 11,175.5 | EA | 5.78 | | | | 64,594 | | | | |
| | Drill Bits | 14.9 | EA | 350.00 | | | | 5,215 | | | | |
| | Drill Steel | 7.5 | EA | 1,000.00 | | | | 7,450 | | | | |
| 12 | Drill and Shoot | 15,600.00 | CY | | 331 | 24,148 | 10,362 | 24,520 | | | | 59,029 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| 12 | Drill and Shoot Production | 15,600.00 | CY | | 331 | 24,148 | 10,362 | 24,520 | | | | 59,029 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| | Prod=210.00 FT/hour (1,680.00 FT/ day), 0.038MH/FT, 26.25 FT/MH, 41.39 hour (5.17 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 833.83 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 3,311 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 5,891 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 3,164 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 8,836 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 2,945 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 9,169 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 461 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 731 | | | | | |
| | Hydromite 880 Wet Holes 10% | 1,560.0 | LB | 1.88 | | | | 2,933 | | | | |
| | Shoot Line | 2.1 | EA | 52.00 | | | | 107 | | | | |
| | Between Holes QRC 1 for every 4 holes | 103.5 | EA | 4.75 | | | | 491 | | | | |
| | Drill Steel | 2.5 | EA | 1,000.00 | | | | 2,483 | | | | |
| | Drill Bits | 5.8 | EA | 400.00 | | | | 2,318 | | | | |
| | Anfo | 15,600.0 | LB | 0.70 | | | | 10,920 | | | | |
| | Booster | 413.9 | EA | 6.63 | | | | 2,744 | | | | |
| | Caps | 413.9 | EA | 6.10 | | | | 2,525 | | | | |
| 22 | Backhoe Trench Excavation | 15,600.00 | CY | | 579 | 45,885 | 99,607 | | | | | 145,492 |
| | | | | | 0.04 | 2.94 | 6.39 | | | | | 9.33 |
| 20 | Backhoe Trench Excavation | 15,600.00 | CY | | 579 | 45,885 | 99,607 | | | | | 145,492 |
| | | | | | 0.04 | 2.94 | 6.39 | | | | | 9.33 |
| | Prod=350.00 CY/hour (3,500.00 CY/ day), 0.037MH/CY, 26.92 CY/MH, 44.57 hour (4.46 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile Backhoe Trucks</i> | 1.00 | EA | 3264.24 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 3,566 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 3,533 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|-------------------------------------|----------|-----|--------|--------|--------|--------|---------|----------|--------------|----------|------------|
| | Grader Operator | 1.0 | | 79.26 | | 3,533 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 3,533 | | | | | | |
| | Dozer Operator | 3.0 | | 76.86 | | 10,277 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 3,426 | | | | | | |
| | Off Hwy Truck Driver | 5.0 | | 80.85 | | 18,018 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 8,607 | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 2.0 | | 327.65 | | | 29,208 | | | | | |
| | Ripper Attachment D10 | 1.0 | | 13.76 | | | 613 | | | | | |
| | 13.5 CY Loader (Cat 992) | 1.0 | | 380.91 | | | 16,978 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 3,911 | | | | | |
| | 5.2 CY Backhoe (Cat 365) | 1.0 | | 146.31 | | | 6,521 | | | | | |
| | 40 Ton Articulated Truck (Cat D400) | 5.0 | | 123.30 | | | 27,478 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 5,794 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 497 | | | | | |

332.553 Steel Pipe LLO 2 Pipe 900LF Each 23 FT Dia T=1.75in 4,700.00 TN 119,273 9,813,431 1,906,365 25,000 21,277,768 33,022,564

25.38 2,087.96 405.61 5.32 4,527.18 7,026.08

10 Load Unload Set Steel Pipe 1,800.00 LF 7,476 569,427 194,275 21,150,000 21,913,702

4.15 316.35 107.93 11,750.00 12,174.28

Prod=5.66 TNS/hour (56.58 TNS/ day), 1.591MH/TNS, 0.63 TNS/MH, 830.70 hour (83.07 days)

Load & Unload Set Steel Pipe 1.00 EA 919.35

Crane Operator Class-A 1.0 82.10 68,200

Labour Foreman 1.0 80.00 66,456

Labourer 4.0 71.17 236,483

Off Hwy Truck Driver 1.0 80.85 67,162

Mechanic Welder 1.0 80.85 67,162

Oiler 1.0 77.00 63,964

150 Ton Crawler Crane (American 9260) 1.0 117.71 97,781

3/4 Ton Pickup Truck 4x4 1.0 17.20 14,288

2-Ton Mechanic Truck 1.0 38.80 32,231

Tractor & Trailer 1.0 60.16 49,975

Steel Pipe 9,400,000.0 LB 2.25 21,150,000

20 Weld Steel Pipe 63,883.93 LBS 111,797 9,244,005 1,712,089 25,000 127,768 11,108,862

1.75 144.70 26.80 0.39 2.00 173.89

Prod=4.00 LBS/hour (40.00 LBS/ day), 1.750MH/LBS, 0.57 LBS/MH, 15,970.98 hour (1,597.10 days)

Weld Steel Pipe 1.00 EA 686

Welder Foreman 1.0 84.82 1,354,659

Welder Journeyman 4.0 84.82 5,418,635

Welders Helper 2.0 77.35 2,470,711

400 Amp Diesel Welder 4.0 16.99 1,085,388

185 CFM Diesel Compressor 1.0 22.04 352,000

3/4 Ton Pickup Truck 4x4 1.0 17.20 274,701

Weld Preheat Supplies 1.0 LS 25,000.00 25,000

Welding Rod 63,883.9 LB 2.00 127,768

332.555 Steel Pipe LLO 8 Each 8ft Dia. Total Length 700FT T = 1in 363.00 TN 4,354 343,550 93,633 20,000 1,635,590 2,092,773

11.99 946.42 257.94 55.10 4,505.76 5,765.21

10 Load Unload Set Steel Pipe 700.00 LF 2,526 192,372 65,633 1,633,500 1,891,505

3.61 274.82 93.76 2,333.57 2,702.15

Prod=1.29 TNS/hour (12.93 TNS/ day), 6.958MH/TNS, 0.14 TNS/MH, 280.64 hour (28.06 days)

Load & Unload Set Steel Pipe 1.00 EA 919.35

Crane Operator Class-A 1.0 82.10 23,040

Labour Foreman 1.0 80.00 22,451

Labourer 4.0 71.17 79,892

Off Hwy Truck Driver 1.0 80.85 22,690

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|------------|-----------|---------------|------------------|------------------|----------------|------------------|--------------|----------|------------------|
| | Mechanic Welder | 1.0 | | 80.85 | | 22,690 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 21,609 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 33,034 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 4,827 | | | | | |
| | 2-Ton Mechanic Truck | 1.0 | | 38.80 | | | 10,889 | | | | | |
| | Tractor & Trailer | 1.0 | | 60.16 | | | 16,883 | | | | | |
| | Steel Pipe | 726,000.0 | LB | 2.25 | | | | | 1,633,500 | | | |
| 20 | Weld Steel Pipe | 1,044.77 | LBS | | 1,828 | 151,178 | 28,000 | 20,000 | 2,090 | | | 201,267 |
| | Prod=4.00 LBS/hour (40.00 LBS/ day), 1.750MH/LBS, 0.57 LBS/MH, 261.19 hour (26.12 days) | | | | 1.75 | 144.70 | 26.80 | 19.14 | 2.00 | | | 192.64 |
| | Weld Steel Pipe | 1.00 | EA | 686 | | | | | | | | |
| | Welder Foreman | 1.0 | | 84.82 | | 22,154 | | | | | | |
| | Welder Journeyman | 4.0 | | 84.82 | | 88,617 | | | | | | |
| | Welders Helper | 2.0 | | 77.35 | | 40,406 | | | | | | |
| | 400 Amp Diesel Welder | 4.0 | | 16.99 | | | 17,751 | | | | | |
| | 185 CFM Diesel Compressor | 1.0 | | 22.04 | | | 5,757 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 4,493 | | | | | |
| | Weld Preheat Supplies | 1.0 | LS | 20,000.00 | | | | 20,000 | | | | |
| | Welding Rod | 1,044.8 | LB | 2.00 | | | | | 2,090 | | | |
| 332.557 | Concrete Surround Manifold Pipes | 22,795.00 | CY | | 57,141 | 4,305,500 | 2,727,500 | 136,101 | 2,073,303 | | | 9,242,404 |
| | | | | | 2.51 | 188.88 | 119.65 | 5.97 | 90.95 | | | 405.46 |
| 20 | Concrete Trench Backfill | 22,795.00 | CY | | 57,141 | 4,305,500 | 2,727,500 | 136,101 | 2,073,303 | | | 9,242,404 |
| | | | | | 2.51 | 188.88 | 119.65 | 5.97 | 90.95 | | | 405.46 |
| 15 | Build Wall Forms | 13,307.42 | SF | | 1,331 | 101,935 | 11,749 | 74,522 | | | | 188,205 |
| | Prod=70.00 SF/hour (560.00 SF/ day), 0.100MH/SF, 10.00 SF/MH, 190.11 hour (23.76 days) | | | | 0.10 | 7.66 | 0.88 | 5.60 | | | | 14.14 |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 14,248 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 13,530 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 15,208 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 58,948 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,456 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 8,292 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 13,307.4 | SF | 5.60 | | | | 74,522 | | | | |
| 16 | Batch & Haul Concrete | 22,795.00 | CY | | 10,589 | 819,799 | 1,314,660 | | 1,160,570 | | | 3,295,029 |
| | Prod=8.61 CY/hour (86.11 CY/ day), 0.465MH/CY, 2.15 CY/MH, 2,647.16 hour (264.72 days) | | | | 0.46 | 35.96 | 57.67 | | 50.91 | | | 144.55 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 209,814 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 211,773 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 209,814 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 188,398 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 362,211 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 482,286 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 16,862 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 30,654 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 39,496 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 345,507 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 37,643 | | | | | |
| | Flyash | 2,188.1 | TN | 160.00 | | | | | 350,089 | | | |
| | Portland Cement Bulk | 2,132.1 | TN | 180.00 | | | | | 383,776 | | | |
| | Concrete Sand (Fine Aggregate) | 9,839.6 | TN | 10.00 | | | | | 98,396 | | | |
| | 2" (50 mm) Coarse Aggregate | 29,518.7 | TN | 10.00 | | | | | 295,187 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|--------------|-----|---------|--------|-----------|---------|---------|----------|--------------|----------|------------|
| | Water Reducer | 10,254.5 | GAL | 3.23 | | | | | | 33,122 | | |
| 17 | Deliver Concrete | 22,795.00 | CY | | 13,236 | 1,004,598 | 646,702 | | | | | 1,651,299 |
| | | | | | 0.58 | 44.07 | 28.37 | | | | | 72.44 |
| | Prod=8.61 CY/hour (86.11 CY/ day), 0.581MH/CY, 1.72 CY/MH, 2,647.16 hour (264.72 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 623.8 | | | | | | | | |
| | Concrete Truck Driver | 5.0 | | 75.90 | | 1,004,598 | | | | | | |
| | Concrete Agitator Car 8CY | 5.0 | | 48.86 | | | 646,702 | | | | | |
| 20 | Set, Strip & Move One Sided & Two Sided Forms | 39,922.26 | SF | | 5,703 | 436,165 | 72,982 | 59,883 | | | | 569,030 |
| | | | | | 0.14 | 10.93 | 1.83 | 1.50 | | | | 14.25 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.143MH/SF, 7.00 SF/MH, 475.26 hour (59.41 days) | | | | | | | | | | | |
| | Set Strip One & Two Sided Forms | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 39,019 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 101,474 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 38,021 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 221,055 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 36,595 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 55,943 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 8,640 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 8,398 | | | | | |
| | Set Strip Form Material | 39,922.3 | SF | 1.50 | | | | 59,883 | | | | |
| 20 | Place Reinforcing Steel | 1,481,709.54 | LB | | 10,293 | 794,731 | 175,616 | | 912,733 | | | 1,883,080 |
| | | | | | 0.01 | 0.54 | 0.12 | | 0.62 | | | 1.27 |
| | Prod=0.71 TN/hour (5.70 TN/ day), 12.632MH/TN, 0.08 TN/MH, 1,143.63 hour (142.95 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 93,892 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 81,392 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 91,490 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 439,897 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 88,059 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 134,617 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 20,791 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 20,208 | | | | | |
| | Supply Fabricated Rebar | 1,629,880.5 | LB | 0.56 | | | | | 912,733 | | | |
| 25 | Cast in Place Concrete | 22,795.00 | CY | | 15,883 | 1,140,529 | 505,793 | | | | | 1,646,323 |
| | | | | | 0.70 | 50.03 | 22.19 | | | | | 72.22 |
| 10 | Place Concrete | 22,795.00 | CY | | 15,883 | 1,140,529 | 505,793 | | | | | 1,646,323 |
| | | | | | 0.70 | 50.03 | 22.19 | | | | | 72.22 |
| | Prod=8.61 CY/hour (86.11 CY/ day), 0.697MH/CY, 1.44 CY/MH, 2,647.16 hour (264.72 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 621.92 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 198,537 | | | | | | |
| | Labourer | 5.0 | | 71.17 | | 941,992 | | | | | | |
| | 90 YPH Trailer Mounted Concrete Pump | 1.0 | | 48.81 | | | 129,208 | | | | | |
| | 150 YPH Truck Mounted Concrete Pump | 1.0 | | 130.00 | | | 344,131 | | | | | |
| | Concrete Vibrator-2.0 inch | 2.0 | | 0.56 | | | 2,965 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 29,489 | | | | | |
| 27 | Cure Concrete | 16,956.13 | SF | | 107 | 7,742 | | 1,696 | | | | 9,438 |
| | | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Prod=317.17 SF/hour (2,537.33 SF/ day), 0.006MH/SF, 158.58 SF/MH, 53.46 hour (6.68 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 7,742 | | | | | | |
| | Curing Agent per sf | 16,956.1 | SF | 0.10 | | | | 1,696 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|---------------|--------------|----------------|------------------|---------------|----------|--------------|-------------------|-------------------|
| 332.561 | Mechanical Outlet | 1.00 | LS | | | | | | | | 16,000,000 | 16,000,000 |
| | | | | | | | | | | | 16,000,000.00 | 16,000,000.00 |
| | Main Spillway Inc Civil Works for Outlet Facilities | 1.00 | LS | | 7,251 | 574,793 | 1,849,448 | 15,025 | | | | 2,439,266 |
| | | | | | 7,250.66 | 574,792.93 | 1,849,448.40 | 15,024.51 | | | | 2,439,265.84 |
| 332.601 | Common Excavation Chute Bucket & Outfall | 282,233.00 | CY | | 6,774 | 538,613 | 1,781,737 | | | | | 2,320,350 |
| | | | | | 0.02 | 1.91 | 6.31 | | | | | 8.22 |
| 20 | Common Excavation to Stockpile | 282,233.00 | CY | | 6,774 | 538,613 | 1,781,737 | | | | | 2,320,350 |
| | | | | | 0.02 | 1.91 | 6.31 | | | | | 8.22 |
| | Prod=500.00 CY/hour (5,000.00 CY/ day), 0.024MH/CY, 41.67 CY/MH, 564.47 hour (56.45 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile Backhoe</i> | <i>1.00</i> | <i>EA</i> | <i>4110.7</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 45,157 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 44,740 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 44,740 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 86,770 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 43,385 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 273,822 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 108,998 | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 327.65 | | | 184,947 | | | | | |
| | Ripper Attachment D10 | 1.0 | | 13.76 | | | 7,767 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 49,532 | | | | | |
| | 7.0 CY Backhoe (Cat 385) | 1.0 | | 246.42 | | | 139,096 | | | | | |
| | 95 Ton Off Hwy Truck 870 Hsp (Cat 777) | 6.0 | | 357.78 | | | 1,211,728 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 73,381 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 6,288 | | | | | |
| 332.602 | Rock Excavation Chute Flip Bucket & Outfall | 10,000.00 | CY | | 477 | 36,179 | 67,711 | 15,025 | | | | 118,915 |
| | | | | | 0.05 | 3.62 | 6.77 | 1.50 | | | | 11.89 |
| 12 | Drill and Shoot | 10,000.00 | CY | | 265 | 19,349 | 8,303 | 15,025 | | | | 42,676 |
| | | | | | 0.03 | 1.93 | 0.83 | 1.50 | | | | 4.27 |
| 12 | Drill and Shoot Production | 10,000.00 | CY | | 265 | 19,349 | 8,303 | 15,025 | | | | 42,676 |
| | | | | | 0.03 | 1.93 | 0.83 | 1.50 | | | | 4.27 |
| | Prod=168.00 FT/hour (1,680.00 FT/ day), 0.048MH/FT, 21.00 FT/MH, 33.16 hour (3.32 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | <i>1.00</i> | <i>EA</i> | <i>833.83</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 2,653 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 4,720 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 2,535 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 7,080 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 2,360 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 7,347 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 369 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 586 | | | | | |
| | Hydromite 880 Wet Holes 10% | 1,000.0 | LB | 0.93 | | | | 930 | | | | |
| | Shoot Line | 1.3 | EA | 52.00 | | | | 68 | | | | |
| | Between Holes QRC 1 for every 4 holes | 66.3 | EA | 4.75 | | | | 315 | | | | |
| | Drill Steel | 1.6 | EA | 1,000.00 | | | | 1,591 | | | | |
| | Drill Bits | 3.7 | EA | 400.00 | | | | 1,486 | | | | |
| | Anfo | 10,000.0 | LB | 0.70 | | | | 7,000 | | | | |
| | Booster | 265.8 | EA | 6.63 | | | | 1,762 | | | | |
| | Caps | 265.8 | EA | 6.10 | | | | 1,621 | | | | |
| | Delivery Costs | 0.3 | EA | 1,000.00 | | | | 250 | | | | |
| 20 | Rock Excavation 992 to Stockpile | 10,000.00 | CY | | 212 | 16,830 | 59,409 | | | | | 76,239 |
| | | | | | 0.02 | 1.68 | 5.94 | | | | | 7.62 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|---------|----------------|-------------------|-------------------|------------------|-------------------|--------------|------------------|--------------------|
| | Prod=850.00 CY/hour (8,500.00 CY/ day), 0.021MH/CY, 47.22 CY/MH, 11.76 hour (1.18 days) | | | | | | | | | | | |
| | Load HaulExcavation 992 to Stockpile | 1.00 | EA | 6480.33 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | | 941 | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | | 932 | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | | 932 | | | | | |
| | Dozer Operator | 3.0 | | 76.86 | | | 2,713 | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | | 904 | | | | | |
| | Grademan | 1.0 | | 76.11 | | | 895 | | | | | |
| | Off Hwy Truck Driver | 10.0 | | 80.85 | | | 9,512 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | | 2,272 | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 2.0 | | 327.65 | | | | 7,709 | | | | |
| | Ripper Attachment D10 | 1.0 | | 13.76 | | | | 162 | | | | |
| | 13.5 CY Loader (Cat 992) | 1.0 | | 380.91 | | | | 4,481 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | | 1,032 | | | | |
| | 95 Ton Off Hwy Truck 870 Hsp (Cat 777) | 10.0 | | 357.78 | | | | 42,092 | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | | 1,529 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | | 131 | | | | |
| | Drill & Grout Consolidation Spillway | 1.00 | LS | | | | | | | | 776,000 | 776,000 |
| | | | | | | | | | | | 776,000.00 | 776,000.00 |
| 332.651 | Drill & Grout Consolidation | 9,700.00 | LF | | | | | | | | 776,000 | 776,000 |
| | | | | | | | | | | | 80.00 | 80.00 |
| 10 | Drill & Grout Consolidation | 9,700.00 | LF | | | | | | | | 776,000 | 776,000 |
| | | | | | | | | | | | 80.00 | 80.00 |
| | Grout Subcontract | 9,700.0 | LF | 80.00 | | | | | | | 776,000 | |
| | Spillway | 1.00 | LS | | 667,000 | 50,211,229 | 26,346,518 | 2,562,956 | 22,848,137 | | 9,730,000 | 111,698,840 |
| | | | | | 666,999.67 | 50,211,228.67 | 26,346,518.19 | 2,562,956.45 | 22,848,136.62 | | 9,730,000.00 | 111,698,839.93 |
| | Spillway Concrete | 1.00 | LS | | 667,000 | 50,211,229 | 26,346,518 | 2,562,956 | 22,848,137 | | | 101,968,840 |
| | | | | | 666,999.67 | 50,211,228.67 | 26,346,518.19 | 2,562,956.45 | 22,848,136.62 | | | 101,968,839.93 |
| 332.701 | Piers | 44,444.00 | CY | | 232,982 | 17,481,148 | 8,726,241 | 1,066,016 | 7,028,530 | | | 34,301,935 |
| | | | | | 5.24 | 393.33 | 196.34 | 23.99 | 158.14 | | | 771.80 |
| 15 | Concrete Wall | 44,444.00 | CY | | 159,759 | 11,878,948 | 2,943,180 | 1,066,016 | 4,106,574 | | | 19,994,718 |
| | | | | | 3.59 | 267.28 | 66.22 | 23.99 | 92.40 | | | 449.89 |
| 15 | Build Wall Forms | 127,172.14 | SF | | 12,717 | 974,139 | 112,275 | 712,164 | | | | 1,798,577 |
| | | | | | 0.10 | 7.66 | 0.88 | 5.60 | | | | 14.14 |
| | Prod=70.00 SF/hour (560.00 SF/ day), 0.100MH/SF, 10.00 SF/MH, 1,816.74 hour (227.09 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | | 136,165 | | | | | |
| | Labourer | 1.0 | | 71.17 | | | 129,298 | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | | 145,340 | | | | | |
| | Carpenter | 4.0 | | 77.52 | | | 563,336 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 33,028 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 79,246 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 127,172.1 | SF | 5.60 | | | | | 712,164 | | | |
| 16 | Build Supported Forms | 2,762.44 | SF | | 552 | 42,321 | 4,878 | 46,719 | | | | 93,917 |
| | | | | | 0.20 | 15.32 | 1.77 | 16.91 | | | | 34.00 |
| | Prod=35.00 SF/hour (280.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 78.93 hour (9.87 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | | 5,916 | | | | | |
| | Labourer | 1.0 | | 71.17 | | | 5,617 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|----------------------|-----|-----------|---------------|------------------|----------------|----------------|----------|--------------|----------|------------------|
| | Carpenter Foreman | 1.0 | | 80.00 | | 6,314 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 24,474 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,435 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 3,443 | | | | | |
| | Scaffolding | 1.2 LS | | 25,000.00 | | | | 31,249 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 2,762.4 SF | | 5.60 | | | | 15,470 | | | | |
| 17 | Build Curved Forms | 12,949.71 SF | | | 6,475 | 495,974 | 57,164 | 72,518 | | | | 625,656 |
| | Prod=14.00 SF/hour (112.00 SF/ day), 0.500MH/SF, 2.00 SF/MH, 924.98 hour (115.62 days) | | | | 0.50 | 38.30 | 4.41 | 5.60 | | | | 48.31 |
| | <i>Fabricate Gang Formwork</i> | 1.00 EA | | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 69,327 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 65,831 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 73,998 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 286,818 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 16,816 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 40,348 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 12,949.7 SF | | 5.60 | | | | 72,518 | | | | |
| 20 | Set, Strip & Move One Sided & Two Sided Forms | 127,172.14 SF | | | 18,167 | 1,389,401 | 232,483 | 190,758 | | | | 1,812,642 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.143MH/SF, 7.00 SF/MH, 1,513.95 hour (189.24 days) | | | | 0.14 | 10.93 | 1.83 | 1.50 | | | | 14.25 |
| | <i>Set Strip One & Two Sided Forms</i> | 1.00 EA | | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 124,296 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 323,244 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 121,116 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 704,170 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 116,574 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 178,208 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 27,524 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 26,752 | | | | | |
| | Set Strip Form Material | 127,172.1 SF | | 1.50 | | | | 190,758 | | | | |
| 21 | Set, Strip & Move Supported Forms | 2,762.44 SF | | | 343 | 26,246 | 4,392 | 4,144 | | | | 34,781 |
| | Prod=96.59 SF/hour (772.75 SF/ day), 0.124MH/SF, 8.05 SF/MH, 28.60 hour (3.57 days) | | | | 0.12 | 9.50 | 1.59 | 1.50 | | | | 12.59 |
| | <i>Set Strip Supported Forms</i> | 1.00 EA | | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 2,348 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 6,106 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 2,288 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 13,302 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 2,202 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 3,366 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 520 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 505 | | | | | |
| | Set Strip Form Material | 2,762.4 SF | | 1.50 | | | | 4,144 | | | | |
| 22 | Set, Strip & Move Curved Forms | 12,949.71 SF | | | 7,400 | 565,921 | 94,693 | 19,425 | | | | 680,039 |
| | Prod=21.00 SF/hour (168.00 SF/ day), 0.571MH/SF, 1.75 SF/MH, 616.65 hour (77.08 days) | | | | 0.57 | 43.70 | 7.31 | 1.50 | | | | 52.51 |
| | <i>Set Strip Curved Forms</i> | 1.00 EA | | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 50,627 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 131,662 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 49,332 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 286,818 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 47,482 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|-----------------|-----------|--------|------------|---------------|---------------|------------|----------|---------------|----------|----------------|
| | Crane Operator Class-A | 1.0 | | 82.10 | | 11,538 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 10,002 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 11,243 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 54,059 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 10,822 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 16,543 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | | | | | | 2,555 |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 2,483 | | | | | |
| | Supply Fabricated Rebar | 200,270.1 | LB | 0.56 | | | | | | | 112,151 | |
| 30 | Place Concrete | 1,000.00 | CY | | 460 | 33,010 | 18,375 | | | | | 51,385 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.460MH/CY, 2.17 CY/MH, 65.75 hour (6.58 days) | | | | 0.46 | 33.01 | 18.38 | | | | | 51.38 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 4,932 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 28,078 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 16,438 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 93 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 648 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,195 | | | | | |
| 35 | Finish Concrete Top | 9,684.21 | SF | | 86 | 6,206 | | | | | | 6,206 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 42.85 hour (4.29 days) | | | | 0.01 | 0.64 | | | | | | 0.64 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 6,206 | | | | | | |
| 40 | Cure Concrete | 9,684.21 | SF | | 46 | 3,361 | | 968 | | | | 4,330 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 23.21 hour (2.32 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 3,361 | | | | | | |
| | Curing Agent per sf | 9,684.2 | SF | 0.10 | | | | 968 | | | | |
| 16 | Batch & Haul Concrete | 1,000.00 | CY | | 263 | 20,363 | 32,655 | | | 65,745 | | 118,763 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.263MH/CY, 3.80 CY/MH, 65.75 hour (6.58 days) | | | | 0.26 | 20.36 | 32.66 | | | 65.74 | | 118.76 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 5,212 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 5,260 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 5,212 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 4,680 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 8,997 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 11,980 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 419 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 761 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 981 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 8,582 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 935 | | | | | |
| | Flyash | 96.0 | TN | 160.00 | | | | | | 15,358 | | |
| | Portland Cement Bulk | 179.9 | TN | 180.00 | | | | | | 32,378 | | |
| | Concrete Sand (Fine Aggregate) | 413.9 | TN | 10.00 | | | | | | 4,139 | | |
| | 2" (50 mm) Coarse Aggregate | 1,241.6 | TN | 10.00 | | | | | | 12,416 | | |
| | Water Reducer | 449.9 | GAL | 3.23 | | | | | | 1,453 | | |
| 17 | Deliver Concrete | 1,000.00 | CY | | 395 | 29,944 | 19,276 | | | | | 49,220 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|-------------------|-----------|--------|--------------|----------------|----------------|---------------|----------|----------------|----------|------------------|
| | Labour Foreman | 1.0 | | 75.00 | | 103,596 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 589,837 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 345,321 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 1,961 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 13,619 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 25,112 | | | | | |
| 32 | Joint Prep on Wall | 10,464.29 | SF | | 185 | 13,181 | 2,203 | | | | | 15,384 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 92.60 hour (11.58 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | Joint Prep on Slab | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 13,181 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 2,203 | | | | | |
| 35 | Finish Concrete Wall | 7,911.00 | SF | | 945 | 68,461 | | | | | | 68,461 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 472.73 hour (59.09 days) | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 68,461 | | | | | | |
| 40 | Cure Concrete Wall | 166,873.16 | SF | | 800 | 57,919 | | 16,687 | | | | 74,606 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 399.94 hour (49.99 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 57,919 | | | | | | |
| | Curing Agent per sf | 166,873.2 | SF | 0.10 | | | | 16,687 | | | | |
| 45 | Patch & Point Walls | 148,497.87 | SF | | 1,485 | 107,527 | | | | | | 107,527 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 742.49 hour (92.81 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 107,527 | | | | | | |
| 16 | Batch & Haul Concrete | 9,669.00 | CY | | 5,525 | 427,770 | 685,988 | | | 635,685 | | 1,749,443 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 0.571MH/CY, 1.75 CY/MH, 1,381.29 hour (138.13 days) | | | | 0.57 | 44.24 | 70.95 | | | 65.74 | | 180.93 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 109,481 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 110,503 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 109,481 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 98,306 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 189,001 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 251,656 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 8,799 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 15,995 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 20,609 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 180,285 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 19,642 | | | | | |
| | Flyash | 928.1 | TN | 160.00 | | | | | 148,498 | | | |
| | Portland Cement Bulk | 1,739.3 | TN | 180.00 | | | | | 313,065 | | | |
| | Concrete Sand (Fine Aggregate) | 4,001.8 | TN | 10.00 | | | | | 40,018 | | | |
| | 2" (50 mm) Coarse Aggregate | 12,005.4 | TN | 10.00 | | | | | 120,054 | | | |
| | Water Reducer | 4,349.7 | GAL | 3.23 | | | | | 14,049 | | | |
| 17 | Deliver Concrete | 9,669.00 | CY | | 4,144 | 314,519 | 202,469 | | | | | 516,988 |
| | | | | | 0.43 | 32.53 | 20.94 | | | | | 53.47 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|-------------------|-----------|--------|---------------|------------------|------------------|---------------|------------------|--------------|----------|------------------|
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 843.82 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 77.44 | | 248,132 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 228,042 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 256,334 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 1,232,488 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 246,722 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 377,164 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 58,252 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 56,618 | | | | | |
| | Supply Fabricated Rebar | 4,565,939.0 | LB | 0.56 | | | | | 2,556,926 | | | |
| 30 | Place Concrete | 27,672.00 | CY | | 27,754 | 1,990,420 | 1,108,009 | | | | | 3,098,429 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 1.003MH/CY, 1.00 CY/MH, 3,964.82 hour (396.48 days) | | | | 1.00 | 71.93 | 40.04 | | | | | 111.97 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 297,362 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 1,693,058 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 991,205 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 5,630 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 39,093 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 72,080 | | | | | |
| 35 | Finish Concrete Base Slab | 163,136.33 | SF | | 1,688 | 122,221 | | | | | | 122,221 |
| | Prod=193.30 SF/hour (1,933.00 SF/ day), 0.010MH/SF, 96.65 SF/MH, 843.95 hour (84.40 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 122,221 | | | | | | |
| 40 | Cure Concrete Base Slab | 230,376.40 | SF | | 1,453 | 105,191 | | 23,038 | | | | 128,229 |
| | Prod=317.17 SF/hour (3,171.67 SF/ day), 0.006MH/SF, 158.58 SF/MH, 726.36 hour (72.64 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 105,191 | | | | | | |
| | Curing Agent per sf | 230,376.4 | SF | 0.10 | | | | 23,038 | | | | |
| 16 | Batch & Haul Concrete | 27,672.00 | CY | | 15,859 | 1,227,865 | 1,969,049 | | 1,819,286 | | | 5,016,201 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 0.573MH/CY, 1.74 CY/MH, 3,964.82 hour (396.48 days) | | | | 0.57 | 44.37 | 71.16 | | 65.74 | | | 181.27 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 314,252 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 317,186 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 314,252 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 282,176 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 542,506 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 722,351 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 25,256 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 45,913 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 59,155 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 517,488 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 56,380 | | | | | |
| | Flyash | 2,656.2 | TN | 160.00 | | | | | 424,991 | | | |
| | Portland Cement Bulk | 4,977.6 | TN | 180.00 | | | | | 895,970 | | | |
| | Concrete Sand (Fine Aggregate) | 11,452.9 | TN | 10.00 | | | | | 114,529 | | | |
| | 2" (50 mm) Coarse Aggregate | 34,358.7 | TN | 10.00 | | | | | 343,587 | | | |
| | Water Reducer | 12,448.4 | GAL | 3.23 | | | | | 40,208 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|---------------------|-----------|---------|---------------|------------------|----------------|----------------|------------------|--------------|----------|------------------|
| | Crane Operator Class-A | 1.0 | | 82.10 | | 1,235 | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 1,127 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 1,070 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,203 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 4,663 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 1,158 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 1,770 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 273 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 656 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 1,263.1 | SF | 6.00 | | | | 7,579 | | | | |
| 15 | Build Curve Forms | 24,156.48 | SF | | 12,078 | 933,111 | 240,907 | 144,939 | | | | 1,318,957 |
| | Prod=18.00 SF/hour (180.00 SF/ day), 0.500MH/SF, 2.00 SF/MH, 1,342.03 hour (134.20 days) | | | | 0.50 | 38.63 | 9.97 | 6.00 | | | | 54.60 |
| | <i>Build Curve Forms</i> | 1.00 | EA | 874.81 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 110,180 | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 100,585 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 95,512 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 107,362 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 416,136 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 103,336 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 157,970 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 24,398 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 58,539 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 24,156.5 | SF | 6.00 | | | | 144,939 | | | | |
| 16 | Set, Strip & Move Forms | 2,999.82 | SF | | 857 | 65,548 | 10,968 | 4,500 | | | | 81,016 |
| | Prod=42.00 SF/hour (420.00 SF/ day), 0.286MH/SF, 3.50 SF/MH, 71.42 hour (7.14 days) | | | | 0.29 | 21.85 | 3.66 | 1.50 | | | | 27.01 |
| | <i>Set Strip Forms</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 5,864 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 15,250 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 5,714 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 33,221 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 5,500 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 8,407 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,298 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,262 | | | | | |
| | Set Strip Form Material | 2,999.8 | SF | 1.50 | | | | 4,500 | | | | |
| 16 | Set, Strip & Move Curve Forms | 24,156.48 | SF | | 8,402 | 642,583 | 107,521 | 36,235 | | | | 786,339 |
| | Prod=34.50 SF/hour (345.00 SF/ day), 0.348MH/SF, 2.88 SF/MH, 700.19 hour (70.02 days) | | | | 0.35 | 26.60 | 4.45 | 1.50 | | | | 32.55 |
| | <i>Set Strip Forms</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 57,485 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 149,497 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 56,015 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 325,671 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 53,914 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 82,419 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 12,729 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 12,372 | | | | | |
| | Set Strip Form Material | 24,156.5 | SF | 1.50 | | | | 36,235 | | | | |
| 18 | Place Reinforcing Steel | 2,688,000.00 | LB | | 18,674 | 1,441,919 | 318,628 | | 1,655,808 | | | 3,416,355 |
| | | | | | 0.01 | 0.54 | 0.12 | | 0.62 | | | 1.27 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|------------------|-----------|--------|---------------|------------------|------------------|--------------|------------------|--------------|----------|------------------|
| | Prod=0.71 ton/hour (7.13 ton/ day), 12.632MH/ton, 0.08 ton/MH, 2,074.94 hour (207.49 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 170,353 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 147,674 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 165,995 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 798,127 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 159,771 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 244,241 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 37,722 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 36,664 | | | | | |
| | Supply Fabricated Rebar | 2,956,800.0 | LB | 0.56 | | | | | | 1,655,808 | | |
| 30 | Place Concrete | 17,920.00 | CY | | 18,007 | 1,291,390 | 718,879 | | | | | 2,010,269 |
| | Prod=6.97 CY/hour (69.66 CY/ day), 1.005MH/CY, 1.00 CY/MH, 2,572.39 hour (257.24 days) | | | | 1.00 | 72.06 | 40.12 | | | | | 112.18 |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 192,929 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 1,098,461 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 643,097 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 3,653 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 25,364 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 46,766 | | | | | |
| 35 | Finish Concrete Base Slab | 24,156.48 | SF | | 250 | 18,098 | | | | | | 18,098 |
| | Prod=193.30 SF/hour (1,933.00 SF/ day), 0.010MH/SF, 96.65 SF/MH, 124.97 hour (12.50 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 18,098 | | | | | | |
| 40 | Cure Concrete Base Slab | 27,156.30 | SF | | 171 | 12,400 | | 2,716 | | | | 15,115 |
| | Prod=317.17 SF/hour (3,171.67 SF/ day), 0.006MH/SF, 158.58 SF/MH, 85.62 hour (8.56 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 12,400 | | | | | | |
| | Curing Agent per sf | 27,156.3 | SF | 0.10 | | | | 2,716 | | | | |
| 16 | Batch & Haul Concrete | 17,920.00 | CY | | 10,290 | 796,643 | 1,277,525 | | 1,178,144 | | | 3,252,312 |
| | Prod=6.97 CY/hour (69.66 CY/ day), 0.574MH/CY, 1.74 CY/MH, 2,572.39 hour (257.24 days) | | | | 0.57 | 44.46 | 71.29 | | 65.74 | | | 181.49 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 203,887 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 205,791 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 203,887 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 183,077 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 351,980 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 468,663 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 16,386 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 29,788 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 38,380 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 335,748 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 36,579 | | | | | |
| | Flyash | 1,720.1 | TN | 160.00 | | | | | 275,218 | | | |
| | Portland Cement Bulk | 3,223.4 | TN | 180.00 | | | | | 580,218 | | | |
| | Concrete Sand (Fine Aggregate) | 7,416.7 | TN | 10.00 | | | | | 74,167 | | | |
| | 2" (50 mm) Coarse Aggregate | 22,250.2 | TN | 10.00 | | | | | 222,502 | | | |
| | Water Reducer | 8,061.4 | GAL | 3.23 | | | | | 26,038 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|------------------|-----------|---------|----------------|------------------|------------------|----------------|------------------|--------------|----------|-------------------|
| 17 | Deliver Concrete | 17,920.00 | CY | | 15,434 | 1,171,465 | 754,121 | | | | | 1,925,586 |
| | Prod=6.97 CY/hour (69.66 CY/ day), 0.861MH/CY, 1.16 CY/MH, 2,572.39 hour (257.24 days) | | | | 0.86 | 65.37 | 42.08 | | | | | 107.45 |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 1,171,465 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 754,121 | | | | | |
| 332.706 | Flip Bucket & Outlet Discharge Structure | 25,350.00 | CY | | 104,302 | 7,862,943 | 4,121,581 | 350,582 | 4,008,967 | | | 16,344,073 |
| | | | | | 4.11 | 310.18 | 162.59 | 13.83 | 158.14 | | | 644.74 |
| 14 | Flip & Outlet | 25,350.00 | CY | | 104,302 | 7,862,943 | 4,121,581 | 350,582 | 4,008,967 | | | 16,344,073 |
| | | | | | 4.11 | 310.18 | 162.59 | 13.83 | 158.14 | | | 644.74 |
| 15 | Concrete | 25,350.00 | CY | | 78,907 | 5,913,385 | 1,788,126 | 350,582 | 2,342,340 | | | 10,394,433 |
| | | | | | 3.11 | 233.27 | 70.54 | 13.83 | 92.40 | | | 410.04 |
| 15 | Build Forms | 22,913.00 | SF | | 1,909 | 146,261 | 16,857 | 128,313 | | | | 291,432 |
| | | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 272.77 hour (34.10 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 20,444 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 19,413 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 21,822 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 84,582 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,959 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 11,898 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 22,913.0 | SF | 5.60 | | | | 128,313 | | | | |
| 17 | Build Curve Forms | 6,560.00 | SF | | 3,280 | 253,398 | 65,421 | 39,360 | | | | 358,180 |
| | | | | | 0.50 | 38.63 | 9.97 | 6.00 | | | | 54.60 |
| | Prod=18.00 SF/hour (180.00 SF/ day), 0.500MH/SF, 2.00 SF/MH, 364.44 hour (36.44 days) | | | | | | | | | | | |
| | Build Curve Forms | 1.00 | EA | 874.81 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 29,921 | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 27,315 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 25,938 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 29,156 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 113,007 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 28,062 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 42,899 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 6,626 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 15,897 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 6,560.0 | SF | 6.00 | | | | 39,360 | | | | |
| 18 | Set, Strip & Move Forms | 68,470.00 | SF | | 9,781 | 748,059 | 125,170 | 102,705 | | | | 975,934 |
| | | | | | 0.14 | 10.93 | 1.83 | 1.50 | | | | 14.25 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.143MH/SF, 7.00 SF/MH, 815.12 hour (101.89 days) | | | | | | | | | | | |
| | Set Strip Retaining Walls | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 66,921 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 174,036 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 65,210 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 379,128 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 62,764 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 95,948 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 14,819 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 14,403 | | | | | |
| | Set Strip Form Material | 68,470.0 | SF | 1.50 | | | | 102,705 | | | | |
| 20 | Build Set, Strip & Move Support Forms | 12,900.00 | SF | | 4,914 | 375,832 | 62,886 | 60,254 | | | | 498,973 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|---------------------|-----------|---------|---------------|------------------|------------------|--------------|------------------|--------------|----------|------------------|
| | Prod=31.50 SF/hour (315.00 SF/ day), 0.381MH/SF, 2.63 SF/MH, 409.52 hour (40.95 days) | | | | 0.38 | 29.13 | 4.87 | 4.67 | | | | 38.68 |
| | <i>Build Forms in Place</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 33,622 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 87,437 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 32,762 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 190,478 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 31,533 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 48,205 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 7,445 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 7,236 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 5,382.1 | SF | 5.60 | | | | 30,140 | | | | |
| | Set Strip Form Material | 12,900.0 | SF | 1.50 | | | | | | | | 19,350 |
| | Hi-Load Scaffolds | 21,528.5 | CF | 0.50 | | | | | | | | 10,764 |
| 21 | Set, Strip & Move Curve Forms | 6,560.00 | SF | | 2,282 | 174,502 | 29,199 | 9,840 | | | | 213,540 |
| | Prod=34.50 SF/hour (345.00 SF/ day), 0.348MH/SF, 2.88 SF/MH, 190.14 hour (19.01 days) | | | | 0.35 | 26.60 | 4.45 | 1.50 | | | | 32.55 |
| | <i>Set Strip Forms</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 15,611 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 40,598 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 15,212 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 88,440 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 14,641 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 22,382 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,457 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 3,360 | | | | | |
| | Set Strip Form Material | 6,560.0 | SF | 1.50 | | | | 9,840 | | | | |
| 25 | Place Reinforcing Steel | 3,802,500.00 | LB | | 26,417 | 2,039,755 | 450,735 | | 2,342,340 | | | 4,832,830 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 12.632MH/ton, 0.08 ton/MH, 2,935.24 hour (366.90 days) | | | | 0.01 | 0.54 | 0.12 | | 0.62 | | | 1.27 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 240,983 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 208,901 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 234,819 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 1,129,039 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 226,013 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 345,507 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 53,363 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 51,866 | | | | | |
| | Supply Fabricated Rebar | 4,182,750.0 | LB | 0.56 | | | | | 2,342,340 | | | |
| 30 | Place Concrete | 25,350.00 | CY | | 25,395 | 1,821,242 | 1,013,832 | | | | | 2,835,074 |
| | Prod=6.99 CY/hour (69.88 CY/ day), 1.002MH/CY, 1.00 CY/MH, 3,627.83 hour (362.78 days) | | | | 1.00 | 71.84 | 39.99 | | | | | 111.84 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 272,087 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 1,549,155 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 906,957 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 5,152 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 35,770 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 65,954 | | | | | |
| 32 | Joint Prep | 114,115.76 | SF | | 2,020 | 143,745 | 24,025 | | | | | 167,770 |
| | | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|--------|---------------|------------------|----------------|----------------|----------------|--------------|----------|------------------|
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 1,009.87 hour (126.23 days) | | | | | | | | | | | |
| | Joint Prep on Slab | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 143,745 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 24,025 | | | | | |
| 35 | Finish Concrete | 12,900.00 | SF | | 1,542 | 111,635 | | | | | | 111,635 |
| | | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 770.85 hour (96.36 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 111,635 | | | | | | |
| 40 | Cure Concrete | 101,100.00 | SF | | 485 | 35,090 | | 10,110 | | | | 45,200 |
| | | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 242.30 hour (30.29 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 35,090 | | | | | | |
| | Curing Agent per sf | 101,100.00 | SF | 0.10 | | | | 10,110 | | | | |
| 45 | Patch & Point | 88,200.00 | SF | | 882 | 63,866 | | | | | | 63,866 |
| | | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 441.00 hour (55.13 days) | | | | | | | | | | | |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 63,866 | | | | | | |
| 16 | Batch & Haul Concrete | 25,350.00 | CY | | 14,511 | 1,123,502 | 1,801,688 | | 1,666,627 | | | 4,591,817 |
| | | | | | 0.57 | 44.32 | 71.07 | | 65.74 | | | 181.14 |
| | Prod=6.99 CY/hour (69.88 CY/ day), 0.572MH/CY, 1.75 CY/MH, 3,627.83 hour (362.78 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 287,542 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 290,226 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 287,542 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 258,192 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 496,396 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 660,954 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 23,109 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 42,010 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 54,127 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 473,504 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 51,588 | | | | | |
| | Flyash | 2,433.3 | TN | 160.00 | | | | | 389,330 | | | |
| | Portland Cement Bulk | 4,559.9 | TN | 180.00 | | | | | 820,788 | | | |
| | Concrete Sand (Fine Aggregate) | 10,491.9 | TN | 10.00 | | | | | 104,919 | | | |
| | 2" (50 mm) Coarse Aggregate | 31,475.6 | TN | 10.00 | | | | | 314,756 | | | |
| | Water Reducer | 11,403.9 | GAL | 3.23 | | | | | 36,834 | | | |
| 17 | Deliver Concrete | 25,350.00 | CY | | 10,883 | 826,056 | 531,767 | | | | | 1,357,823 |
| | | | | | 0.43 | 32.59 | 20.98 | | | | | 53.56 |
| | Prod=6.99 CY/hour (69.88 CY/ day), 0.429MH/CY, 2.33 CY/MH, 3,627.83 hour (362.78 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 374.28 | | | | | | | | |
| | Concrete Truck Driver | 3.0 | | 75.90 | | 826,056 | | | | | | |
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 531,767 | | | | | |
| 332.707 | Drain Gallery & Aeration Gallery Concrete | 2,330.00 | CY | | 13,532 | 1,021,647 | 415,863 | 104,939 | 348,905 | | | 1,891,354 |
| | | | | | 5.81 | 438.47 | 178.48 | 45.04 | 149.74 | | | 811.74 |
| 14 | Drain Gallery | 2,330.00 | CY | | 13,532 | 1,021,647 | 415,863 | 104,939 | 348,905 | | | 1,891,354 |
| | | | | | 5.81 | 438.47 | 178.48 | 45.04 | 149.74 | | | 811.74 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|------------|-----|---------|--------|---------|---------|---------|----------|--------------|----------|------------|
| 15 | Concrete Wall | 2,330.00 | CY | | 11,202 | 842,773 | 201,766 | 104,939 | 195,720 | | | 1,345,197 |
| | | | | | 4.81 | 361.70 | 86.59 | 45.04 | 84.00 | | | 577.34 |
| 15 | Build Wall Forms | 8,620.00 | SF | | 718 | 55,024 | 6,342 | 48,272 | | | | 109,638 |
| | | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 102.62 hour (12.83 days) | | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 7,691 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 7,303 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 8,210 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 31,820 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,866 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 4,476 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 8,620.0 | SF | 5.60 | | | | 48,272 | | | | |
| 16 | Build Set, Strip & Move Support Forms | 3,130.00 | SF | | 1,192 | 91,190 | 15,259 | 14,620 | | | | 121,069 |
| | | | | | 0.38 | 29.13 | 4.87 | 4.67 | | | | 38.68 |
| | Prod=31.50 SF/hour (315.00 SF/ day), 0.381MH/SF, 2.63 SF/MH, 99.37 hour (9.94 days) | | | | | | | | | | | |
| | <i>Build Forms in Place</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 8,158 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 21,215 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 7,949 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 46,217 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 7,651 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 11,696 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,806 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,756 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 1,305.9 | SF | 5.60 | | | | 7,313 | | | | |
| | Set Strip Form Material | 3,130.0 | SF | 1.50 | | | | 4,695 | | | | |
| | Hi-Load Scaffolds | 5,223.6 | CF | 0.50 | | | | 2,612 | | | | |
| 20 | Set, Strip & Move Wall Forms | 25,860.00 | SF | | 3,694 | 282,530 | 47,275 | 38,790 | | | | 368,594 |
| | | | | | 0.14 | 10.93 | 1.83 | 1.50 | | | | 14.25 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.143MH/SF, 7.00 SF/MH, 307.86 hour (38.48 days) | | | | | | | | | | | |
| | <i>Set Strip Retaining Walls</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 25,275 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 65,731 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 24,629 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 143,191 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 23,705 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 36,238 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,597 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 5,440 | | | | | |
| | Set Strip Form Material | 25,860.0 | SF | 1.50 | | | | 38,790 | | | | |
| 25 | Place Reinforcing Steel | 349,500.00 | LB | | 2,207 | 170,438 | 37,663 | | 195,720 | | | 403,821 |
| | | | | | 0.01 | 0.49 | 0.11 | | 0.56 | | | 1.16 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 12.632MH/ton, 0.08 ton/MH, 245.26 hour (30.66 days) | | | | | | | | | | | |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 20,136 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 17,455 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 19,621 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 94,340 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 18,885 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 28,870 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,459 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 4,334 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|-----------|-----|--------|--------|---------|---------|---------|----------|--------------|----------|------------|
| | Supply Fabricated Rebar | 349,500.0 | LB | 0.56 | | | | | 195,720 | | | |
| 30 | Place Concrete Wall | 2,330.00 | CY | | 2,330 | 167,101 | 93,020 | | | | | 260,121 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 1.000MH/CY, 1.00 CY/MH, 332.86 hour (33.29 days) | | | | 1.00 | 71.72 | 39.92 | | | | | 111.64 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 24,964 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 142,137 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 83,214 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 473 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 3,282 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 6,051 | | | | | |
| 32 | Joint Prep on Wall | 10,488.75 | SF | | 186 | 13,212 | 2,208 | | | | | 15,420 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 92.82 hour (11.60 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | <i>Joint Prep on Slab</i> | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 13,212 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 2,208 | | | | | |
| 35 | Finish Concrete Wall | 3,580.00 | SF | | 428 | 30,981 | | | | | | 30,981 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 213.93 hour (26.74 days) | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 30,981 | | | | | | |
| 40 | Cure Concrete Wall | 32,570.00 | SF | | 156 | 11,304 | | 3,257 | | | | 14,561 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 78.06 hour (9.76 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 11,304 | | | | | | |
| | Curing Agent per sf | 32,570.0 | SF | 0.10 | | | | 3,257 | | | | |
| 45 | Patch & Point Walls | 28,990.00 | SF | | 290 | 20,992 | | | | | | 20,992 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 144.95 hour (18.12 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 20,992 | | | | | | |
| 16 | Batch & Haul Concrete | 2,330.00 | CY | | 1,331 | 103,083 | 165,307 | | 153,185 | | | 421,574 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 0.571MH/CY, 1.75 CY/MH, 332.86 hour (33.29 days) | | | | 0.57 | 44.24 | 70.95 | | 65.74 | | | 180.93 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 26,382 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 26,629 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 26,382 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 23,689 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 45,545 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 60,643 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 2,120 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 3,854 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 4,966 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 43,445 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 4,733 | | | | | |
| | Flyash | 223.7 | TN | 160.00 | | | | | 35,785 | | | |
| | Portland Cement Bulk | 419.1 | TN | 180.00 | | | | | 75,441 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|--------|--------------|----------------|----------------|--------------|------------------|--------------|----------|------------------|
| | Concrete Sand (Fine Aggregate) | 964.3 | TN | 10.00 | | | | | 9,643 | | | |
| | 2" (50 mm) Coarse Aggregate | 2,893.0 | TN | 10.00 | | | | | 28,930 | | | |
| | Water Reducer | 1,048.2 | GAL | 3.23 | | | | | 3,386 | | | |
| 17 | Deliver Concrete | 2,330.00 | CY | | 999 | 75,792 | 48,790 | | | | | 124,582 |
| | | | | | 0.43 | 32.53 | 20.94 | | | | | 53.47 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 0.429MH/CY, 2.33 CY/MH, 332.86 hour (33.29 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 374.28 | | | | | | | | |
| | Concrete Truck Driver | 3.0 | | 75.90 | | 75,792 | | | | | | |
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 48,790 | | | | | |
| 332.708 | Rockbolts 10 ft | 7,300.00 | EA | | 5,395 | 416,015 | 167,091 | | 1,392,110 | | | 1,975,216 |
| | | | | | 0.74 | 56.99 | 22.89 | | 190.70 | | | 270.58 |
| 10 | Rock Bolts | 73,000.00 | LF | | 5,395 | 416,015 | 167,091 | | 1,392,110 | | | 1,975,216 |
| | | | | | 0.07 | 5.70 | 2.29 | | 19.07 | | | 27.06 |
| | Prod=54.12 FT/hour (432.97 FT/ day), 0.074MH/FT, 13.53 FT/MH, 1,348.81 hour (168.60 days) | | | | | | | | | | | |
| | Drill Install Rockbolts | 1.00 | EA | 432.31 | | | | | | | | |
| | Miner Driller | 1.0 | | 80.01 | | 107,919 | | | | | | |
| | Miner Nozzleman | 1.0 | | 76.14 | | 102,699 | | | | | | |
| | Miner | 2.0 | | 76.14 | | 205,397 | | | | | | |
| | Post-tensioning Jack | 1.0 | | 4.81 | | | 6,488 | | | | | |
| | Grout Pump | 1.0 | | 10.52 | | | 14,190 | | | | | |
| | Grout Plant | 1.0 | | 20.96 | | | 28,271 | | | | | |
| | Motorized Manlift 30 Ft | 1.0 | | 13.74 | | | 18,533 | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 1.0 | | 73.85 | | | 99,610 | | | | | |
| | Nut Bolt Washer Plate | 7,300.00 | EA | 10.00 | | | | | 73,000 | | | |
| | Resin Cartrage | 7,665.00 | EA | 2.00 | | | | | 15,330 | | | |
| | Rockbolts 1" (25 mm) 517/690 Mpa | 73,000.00 | FT | 17.86 | | | | | 1,303,780 | | | |
| 332.709 | Drain Pipe Drainage Gallery | 6,300.00 | LF | | 1,150 | 87,800 | 51,502 | 4,849 | 84,158 | | | 228,309 |
| | | | | | 0.18 | 13.94 | 8.17 | 0.77 | 13.36 | | | 36.24 |
| 10 | Drain Pipe | 6,300.00 | LF | | 1,008 | 76,782 | 42,900 | | 84,158 | | | 203,840 |
| | | | | | 0.16 | 12.19 | 6.81 | | 13.36 | | | 32.36 |
| | Prod=25.00 LF/hour (250.00 LF/ day), 0.160MH/LF, 6.25 LF/MH, 252.00 hour (25.20 days) | | | | | | | | | | | |
| | Drain Pipe Crew | 1.00 | EA | 474.93 | | | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 19,974 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 19,974 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 18,900 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 17,935 | | | | | | |
| | 3.5 CY Loader (Cat 950) | 1.0 | | 59.69 | | | 15,042 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 23,524 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 4,334 | | | | | |
| | Geotextile Fabric Woven | 9,700.00 | SF | 0.14 | | | | | 1,358 | | | |
| | Granular Filter Materials for Subdrain | 1,980.00 | TN | 10.00 | | | | | 19,800 | | | |
| | Horizontal Drains-lined | 6,300.00 | FT | 10.00 | | | | | 63,000 | | | |
| 22 | Rock Excavation to Stockpile | 1,100.00 | CY | | 142 | 11,019 | 8,601 | 4,849 | | | | 24,469 |
| | | | | | 0.13 | 10.02 | 7.82 | 4.41 | | | | 22.24 |
| 12 | Drill and Shoot | 1,100.00 | CY | | 23 | 1,703 | 731 | 1,729 | | | | 4,162 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| 12 | Drill and Shoot Production | 1,100.00 | CY | | 23 | 1,703 | 731 | 1,729 | | | | 4,162 |
| | | | | | 0.02 | 1.55 | 0.66 | 1.57 | | | | 3.78 |
| | Prod=210.00 FT/hour (1,680.00 FT/ day), 0.038MH/FT, 26.25 FT/MH, 2.92 hour (0.36 days) | | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 833.83 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 233 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 415 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|----------|------------|---------------|---------------|---------------|--------------|--------------|----------|----------------|
| | Powderman | 1.0 | | 76.45 | | 223 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 623 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 208 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 647 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 33 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 52 | | | | | |
| | Booster | 29.2 EA | | 6.63 | | | | | 193 | | | |
| | Caps | 29.2 EA | | 6.10 | | | | | 178 | | | |
| | Hydromite 880 Wet Holes 10% | 110.0 LB | | 1.88 | | | | | 207 | | | |
| | Shoot Line | 0.1 EA | | 52.00 | | | | | 8 | | | |
| | Between Holes QRC 1 for every 4 holes | 7.3 EA | | 4.75 | | | | | 35 | | | |
| | Drill Steel | 0.2 EA | | 1,000.00 | | | | | 175 | | | |
| | Drill Bits | 0.4 EA | | 400.00 | | | | | 163 | | | |
| | Anfo | 1,100.0 LB | | 0.70 | | | | | 770 | | | |
| 22 | Foundation Rock Excavation to Stockpile | 1,170.00 | CY | | 118 | 9,316 | 7,871 | 3,120 | | | | 20,307 |
| | | | | | 0.10 | 7.96 | 6.73 | 2.67 | | | | 17.36 |
| 12 | Drill and Shoot | 1,170.00 | CY | | 25 | 1,811 | 777 | 3,120 | | | | 5,708 |
| | | | | | 0.02 | 1.55 | 0.66 | 2.67 | | | | 4.88 |
| 12 | Drill and Shoot Production | 1,170.00 | CY | | 25 | 1,811 | 777 | 3,120 | | | | 5,708 |
| | | | | | 0.02 | 1.55 | 0.66 | 2.67 | | | | 4.88 |
| | Prod=210.00 FT/hour (1,680.00 FT/ day), 0.038MH/FT, 26.25 FT/MH, 3.10 hour (0.39 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 EA | | 833.83 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 248 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 442 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 237 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 663 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 221 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 688 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 35 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 55 | | | | | |
| | Booster | 31.0 EA | | 6.63 | | | | | 206 | | | |
| | Caps | 31.0 EA | | 6.10 | | | | | 189 | | | |
| | Hydromite 880 Wet Holes 10% | 117.0 LB | | 1.88 | | | | | 220 | | | |
| | Shoot Line | 0.2 EA | | 52.00 | | | | | 8 | | | |
| | Between Holes QRC 1 for every 4 holes | 7.8 EA | | 4.75 | | | | | 37 | | | |
| | Drill Steel | 0.2 EA | | 1,000.00 | | | | | 186 | | | |
| | Drill Bits | 0.4 EA | | 400.00 | | | | | 174 | | | |
| | Anfo | 3,000.0 LB | | 0.70 | | | | | 2,100 | | | |
| 20 | Reservoir Rock Excavation 992 | 1,170.00 | CY | | 94 | 7,505 | 7,094 | | | | | 14,598 |
| | | | | | 0.08 | 6.41 | 6.06 | | | | | 12.48 |
| | Prod=75.00 CY/hour (750.00 CY/ day), 0.080MH/CY, 12.50 CY/MH, 15.60 hour (1.56 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile 992</i> | 1.00 EA | | 935.79 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,248 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 1,236 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,236 | | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 80.85 | | 3,784 | | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 1,456 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 114.25 | | | 5,347 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 290 | | | | | |
| 332.710 | Gate Control Building | 66.00 | CY | | 892 | 67,694 | 17,541 | 11,880 | 9,883 | | | 106,998 |
| | | | | | 13.52 | 1,025.67 | 265.77 | 180.01 | 149.74 | | | 1,621.19 |
| 14 | Gate Control Building | 66.00 | CY | | 892 | 67,694 | 17,541 | 11,880 | 9,883 | | | 106,998 |
| | | | | | 13.52 | 1,025.67 | 265.77 | 180.01 | 149.74 | | | 1,621.19 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|----------|-----|---------|--------|--------|--------|---------|----------|--------------|----------|------------|
| 15 | Concrete Wall | 66.00 | CY | | 826 | 62,627 | 11,476 | 11,880 | 5,544 | | | 91,528 |
| | | | | | 12.52 | 948.90 | 173.88 | 180.01 | 84.00 | | | 1,386.79 |
| 15 | Build Wall Forms | 1,000.00 | SF | | 83 | 6,383 | 736 | 5,600 | | | | 12,719 |
| | | | | | 0.08 | 6.38 | 0.74 | 5.60 | | | | 12.72 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 11.90 hour (1.49 days) | | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 892 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 847 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 952 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 3,691 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 216 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 519 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 1,000.0 | SF | 5.60 | | | | 5,600 | | | | |
| 16 | Build Set, Strip & Move Support Forms | 270.00 | SF | | 103 | 7,866 | 1,316 | 1,261 | | | | 10,444 |
| | | | | | 0.38 | 29.13 | 4.87 | 4.67 | | | | 38.68 |
| | Prod=31.50 SF/hour (315.00 SF/ day), 0.381MH/SF, 2.63 SF/MH, 8.57 hour (0.86 days) | | | | | | | | | | | |
| | <i>Build Forms in Place</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 704 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 1,830 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 686 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 3,987 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 660 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 1,009 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 156 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 151 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 112.6 | SF | 5.60 | | | | 631 | | | | |
| | Set Strip Form Material | 270.0 | SF | 1.50 | | | | 405 | | | | |
| | Hi-Load Scaffolds | 450.6 | CF | 0.50 | | | | 225 | | | | |
| 20 | Set, Strip & Move Wall Forms | 3,096.00 | SF | | 442 | 33,825 | 5,660 | 4,644 | | | | 44,129 |
| | | | | | 0.14 | 10.93 | 1.83 | 1.50 | | | | 14.25 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.143MH/SF, 7.00 SF/MH, 36.86 hour (4.61 days) | | | | | | | | | | | |
| | <i>Set Strip Retaining Walls</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 3,026 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 7,869 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 2,949 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 17,143 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 2,838 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 4,338 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 670 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 651 | | | | | |
| | Set Strip Form Material | 3,096.0 | SF | 1.50 | | | | 4,644 | | | | |
| 25 | Place Reinforcing Steel | 9,900.00 | LB | | 63 | 4,828 | 1,067 | | 5,544 | | | 11,439 |
| | | | | | 0.01 | 0.49 | 0.11 | | 0.56 | | | 1.16 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 12.632MH/ton, 0.08 ton/MH, 6.95 hour (0.87 days) | | | | | | | | | | | |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 570 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 494 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 556 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 2,672 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 535 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 818 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 126 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 123 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|----------|-----|--------|--------|-------|-------|---------|----------|--------------|----------|------------|
| | Supply Fabricated Rebar | 9,900.0 | LB | 0.56 | | | | | | 5,544 | | |
| 30 | Place Concrete Wall | 66.00 | CY | | 66 | 4,733 | 2,635 | | | | | 7,368 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 1.000MH/CY, 1.00 CY/MH, 9.43 hour (0.94 days) | | | | 1.00 | 71.72 | 39.92 | | | | | 111.64 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 707 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 4,026 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 2,357 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 13 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 93 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 171 | | | | | |
| 32 | Joint Prep on Wall | 297.11 | SF | | 5 | 374 | 63 | | | | | 437 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 2.63 hour (0.33 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | <i>Joint Prep on Slab</i> | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 374 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 63 | | | | | |
| 35 | Finish Concrete Wall | 101.41 | SF | | 12 | 878 | | | | | | 878 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 6.06 hour (0.76 days) | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 878 | | | | | | |
| 40 | Cure Concrete Wall | 3,753.00 | SF | | 18 | 1,303 | | 375 | | | | 1,678 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 8.99 hour (1.12 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 1,303 | | | | | | |
| | Curing Agent per sf | 3,753.0 | SF | 0.10 | | | | 375 | | | | |
| 45 | Patch & Point Walls | 3,366.00 | SF | | 34 | 2,437 | | | | | | 2,437 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 16.83 hour (2.10 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 2,437 | | | | | | |
| 16 | Batch & Haul Concrete | 66.00 | CY | | 38 | 2,920 | 4,683 | | 4,339 | | | 11,942 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 0.571MH/CY, 1.75 CY/MH, 9.43 hour (0.94 days) | | | | 0.57 | 44.24 | 70.95 | | 65.74 | | | 180.93 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 747 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 754 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 747 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 671 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,290 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 1,718 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 60 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 109 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 141 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 1,231 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 134 | | | | | |
| | Flyash | 6.3 | TN | 160.00 | | | | | 1,014 | | | |
| | Portland Cement Bulk | 11.9 | TN | 180.00 | | | | | 2,137 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---|---|-------------|-----------|--------|----------------|-------------------|-------------------|-------------------|-------------------|--------------|-------------------|--------------------|
| | Concrete Sand (Fine Aggregate) | 27.3 | TN | 10.00 | | | | | | 273 | | |
| | 2" (50 mm) Coarse Aggregate | 81.9 | TN | 10.00 | | | | | | 819 | | |
| | Water Reducer | 29.7 | GAL | 3.23 | | | | | | 96 | | |
| 17 | Deliver Concrete | 66.00 | CY | | 28 | 2,147 | 1,382 | | | | | 3,529 |
| | | | | | 0.43 | 32.53 | 20.94 | | | | | 53.47 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 0.429MH/CY, 2.33 CY/MH, 9.43 hour (0.94 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 374.28 | | | | | | | | |
| | Concrete Truck Driver | 3.0 | | 75.90 | | 2,147 | | | | | | |
| | Concrete Agitator Car 8CY | 3.0 | | 48.86 | | | 1,382 | | | | | |
| Spillway Mechanical & Electrical | | 1.00 | LS | | | | | | | | 9,730,000 | 9,730,000 |
| | | | | | | | | | | | 9,730,000.00 | 9,730,000.00 |
| 332.721 | Tainer Gates | 4.00 | EA | | | | | | | | 5,800,000 | 5,800,000 |
| | | | | | | | | | | | 1,450,000.00 | 1,450,000.00 |
| 332.722 | Gantry Crane | 1.00 | EA | | | | | | | | 1,400,000 | 1,400,000 |
| | | | | | | | | | | | 1,400,000.00 | 1,400,000.00 |
| 332.723 | Bulkhead | 1.00 | EA | | | | | | | | 1,930,000 | 1,930,000 |
| | | | | | | | | | | | 1,930,000.00 | 1,930,000.00 |
| 332.724 | Lighting & Security Cameras | 1.00 | LS | | | | | | | | 250,000 | 250,000 |
| | | | | | | | | | | | 250,000.00 | 250,000.00 |
| 332.725 | Standby Generator | 1.00 | LS | | | | | | | | 200,000 | 200,000 |
| | | | | | | | | | | | 200,000.00 | 200,000.00 |
| 332.726 | Stoplog Storage Facility | 1.00 | LS | | | | | | | | 150,000 | 150,000 |
| | | | | | | | | | | | 150,000.00 | 150,000.00 |
| Power Intakes & Low Level Outlet / Inlet | | 1.00 | LS | | 581,133 | 48,279,518 | 22,225,875 | 25,797,066 | 18,603,152 | | 50,066,400 | 164,972,011 |
| | | | | | 581,133.15 | 48,279,517.92 | 22,225,874.51 | 25,797,066.37 | 18,603,152.44 | | 50,066,400.00 | 164,972,011.24 |
| Power Intakes Concrete | | 1.00 | LS | | 453,991 | 38,734,560 | 17,688,098 | 25,216,756 | 14,853,904 | | 31,066,400 | 127,559,719 |
| | | | | | 453,991.32 | 38,734,560.08 | 17,688,098.29 | 25,216,755.89 | 14,853,904.45 | | 31,066,400.00 | 127,559,718.71 |
| 332.762 | Walls | 77,556.00 | CY | | 385,028 | 29,082,554 | 15,005,331 | 24,878,827 | 12,265,026 | | | 81,231,738 |
| | | | | | 4.96 | 374.99 | 193.48 | 320.79 | 158.14 | | | 1,047.39 |
| 14 | Concrete Walls | 77,556.00 | CY | | 385,028 | 29,082,554 | 15,005,331 | 24,878,827 | 12,265,026 | | | 81,231,738 |
| | | | | | 4.96 | 374.99 | 193.48 | 320.79 | 158.14 | | | 1,047.39 |
| 15 | Concrete Wall | 77,556.00 | CY | | 273,913 | 20,581,250 | 6,229,573 | 24,878,827 | 7,166,133 | | | 58,855,783 |
| | | | | | 3.53 | 265.37 | 80.32 | 320.79 | 92.40 | | | 758.88 |
| 14 | Build Curve Forms | 10,339.00 | SF | | 5,170 | 399,373 | 103,109 | 62,034 | | | | 564,515 |
| | | | | | 0.50 | 38.63 | 9.97 | 6.00 | | | | 54.60 |
| | Prod=18.00 SF/hour (180.00 SF/ day), 0.500MH/SF, 2.00 SF/MH, 574.39 hour (57.44 days) | | | | | | | | | | | |
| | Build Curve Forms | 1.00 | EA | 874.81 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 47,157 | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 43,050 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 40,879 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 45,951 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 178,107 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 44,228 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 67,611 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 10,442 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 25,055 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 10,339.0 | SF | 6.00 | | | | 62,034 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|------------|-----|---------|--------|-----------|-----------|------------|----------|--------------|----------|------------|
| 15 | Build Wall Forms | 183,770.00 | SF | | 15,314 | 1,173,065 | 135,202 | 23,890,100 | | | | 25,198,367 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 2,187.74 hour (273.47 days) | | | | 0.08 | 6.38 | 0.74 | 130.00 | | | | 137.12 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 163,971 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 155,701 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 175,019 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 678,374 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 39,773 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 95,429 | | | | | |
| | Symons Jump Form 10Ft High | 183,770.0 | SF | 130.00 | | | | 23,890,100 | | | | |
| 16 | Set, Strip & Move Curve Forms | 10,339.00 | SF | | 3,596 | 275,026 | 46,019 | 15,509 | | | | 336,554 |
| | Prod=34.50 SF/hour (345.00 SF/ day), 0.348MH/SF, 2.88 SF/MH, 299.68 hour (29.97 days) | | | | 0.35 | 26.60 | 4.45 | 1.50 | | | | 32.55 |
| | <i>Set Strip Forms</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 24,604 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 63,985 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 23,974 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 139,388 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 23,075 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 35,275 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,448 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 5,295 | | | | | |
| | Set Strip Form Material | 10,339.0 | SF | 1.50 | | | | 15,509 | | | | |
| 20 | Build Set, Strip & Move Support Forms | 5,720.00 | SF | | 2,179 | 166,648 | 27,885 | 26,717 | | | | 221,250 |
| | Prod=31.50 SF/hour (315.00 SF/ day), 0.381MH/SF, 2.63 SF/MH, 181.59 hour (18.16 days) | | | | 0.38 | 29.13 | 4.87 | 4.67 | | | | 38.68 |
| | <i>Build Forms in Place</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 14,908 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 38,771 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 14,527 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 84,460 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 13,982 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 21,375 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,301 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 3,209 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 2,386.5 | SF | 5.60 | | | | 13,364 | | | | |
| | Set Strip Form Material | 5,720.0 | SF | 1.50 | | | | 8,580 | | | | |
| | Hi-Load Scaffolds | 9,546.0 | CF | 0.50 | | | | 4,773 | | | | |
| 20 | Set, Strip & Move Wall Forms | 551,312.00 | SF | | 75,179 | 5,749,495 | 1,379,220 | 826,968 | | | | 7,955,683 |
| | Prod=88.00 SF/hour (704.00 SF/ day), 0.136MH/SF, 7.33 SF/MH, 6,264.91 hour (783.11 days) | | | | 0.14 | 10.43 | 2.50 | 1.50 | | | | 14.43 |
| | <i>Set Strip Walls</i> | 1.00 | EA | 1137.88 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 514,349 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 1,337,621 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 501,193 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 2,913,935 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 482,398 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 1,154,623 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 113,896 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 110,701 | | | | | |
| | Set Strip Form Material | 551,312.0 | SF | 1.50 | | | | 826,968 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|---------------|-----|--------|--------|-----------|-----------|---------|-----------|--------------|----------|------------|
| 25 | Place Reinforcing Steel | 11,633,333.00 | LB | | 80,821 | 6,240,460 | 1,378,986 | | 7,166,133 | | | 14,785,579 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 12.632MH/ton, 0.08 ton/MH, 8,980.11 hour (1,122.51 days) | | | | 0.01 | 0.54 | 0.12 | | 0.62 | | | 1.27 |
| | Place Reinforcing Steel | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 737,267 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 639,115 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 718,409 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 3,454,200 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 691,469 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 1,057,049 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 163,258 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 158,679 | | | | | |
| | Supply Fabricated Rebar | 12,796,666.3 | LB | 0.56 | | | | | 7,166,133 | | | |
| 30 | Place Concrete Wall | 77,556.00 | CY | | 77,781 | 5,578,199 | 3,105,222 | | | | | 8,683,422 |
| | Prod=6.98 CY/hour (69.80 CY/ day), 1.003MH/CY, 1.00 CY/MH, 11,111.51 hour (1,111.15 days) | | | | 1.00 | 71.92 | 40.04 | | | | | 111.96 |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 833,363 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 4,744,836 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 2,777,877 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 15,778 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 109,559 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 202,007 | | | | | |
| 32 | Joint Prep on Wall | 256,163.52 | SF | | 4,534 | 322,675 | 53,930 | | | | | 376,606 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 2,266.93 hour (283.37 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | Joint Prep on Slab | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 322,675 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 53,930 | | | | | |
| 35 | Finish Concrete Wall | 7,616.00 | SF | | 910 | 65,908 | | | | | | 65,908 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 455.10 hour (56.89 days) | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 65,908 | | | | | | |
| 40 | Cure Concrete Wall | 574,987.00 | SF | | 2,756 | 199,568 | | 57,499 | | | | 257,066 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 1,378.04 hour (172.25 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 199,568 | | | | | | |
| | Curing Agent per sf | 574,987.0 | SF | 0.10 | | | | 57,499 | | | | |
| 45 | Patch & Point Walls | 567,371.00 | SF | | 5,674 | 410,833 | | | | | | 410,833 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 2,836.86 hour (354.61 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 410,833 | | | | | | |
| 16 | Batch & Haul Concrete | 77,556.00 | CY | | 44,446 | 3,441,123 | 5,518,308 | | 5,098,893 | | | 14,058,325 |
| | Prod=6.98 CY/hour (69.80 CY/ day), 0.573MH/CY, 1.74 CY/MH, 11,111.51 hour (1,111.15 days) | | | | 0.57 | 44.37 | 71.15 | | 65.74 | | | 181.27 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 880,698 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|--------|---------------|------------------|------------------|----------------|----------------|--------------|----------|------------------|
| | Batch Plant Foreman | 1.0 | | 80.00 | | 888,921 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 880,698 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 790,806 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,520,388 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 2,024,406 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 70,780 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 128,671 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 165,784 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 1,450,274 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 158,006 | | | | | |
| | Flyash | 7,444.5 | TN | 160.00 | | | | | | 1,191,118 | | |
| | Portland Cement Bulk | 13,950.7 | TN | 180.00 | | | | | | 2,511,126 | | |
| | Concrete Sand (Fine Aggregate) | 32,098.9 | TN | 10.00 | | | | | | 320,989 | | |
| | 2" (50 mm) Coarse Aggregate | 96,296.8 | TN | 10.00 | | | | | | 962,968 | | |
| | Water Reducer | 34,889.1 | GAL | 3.23 | | | | | | 112,692 | | |
| 17 | Deliver Concrete | 77,556.00 | CY | | 66,669 | 5,060,181 | 3,257,450 | | | | | 8,317,631 |
| | | | | | 0.86 | 65.25 | 42.00 | | | | | 107.25 |
| | Prod=6.98 CY/hour (69.80 CY/ day), 0.860MH/CY, 1.16 CY/MH, 11,111.51 hour (1,111.15 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 5,060,181 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 3,257,450 | | | | | |
| 332.763 | Center Pier Concrete | 1,005.00 | CY | | 7,311 | 555,539 | 232,554 | 185,853 | 158,966 | | | 1,132,911 |
| | | | | | 7.27 | 552.77 | 231.40 | 184.93 | 158.18 | | | 1,127.27 |
| 14 | Concrete Walls | 1,005.00 | CY | | 7,311 | 555,539 | 232,554 | 185,853 | 158,966 | | | 1,132,911 |
| | | | | | 7.27 | 552.77 | 231.40 | 184.93 | 158.18 | | | 1,127.27 |
| 15 | Concrete Wall | 1,005.00 | CY | | 5,871 | 445,376 | 118,834 | 185,853 | 92,893 | | | 842,955 |
| | | | | | 5.84 | 443.16 | 118.24 | 184.93 | 92.43 | | | 838.76 |
| 14 | Build Curve Forms | 3,529.00 | SF | | 1,765 | 136,317 | 35,194 | 21,174 | | | | 192,685 |
| | | | | | 0.50 | 38.63 | 9.97 | 6.00 | | | | 54.60 |
| | Prod=18.00 SF/hour (180.00 SF/ day), 0.500MH/SF, 2.00 SF/MH, 196.06 hour (19.61 days) | | | | | | | | | | | |
| | Build Curve Forms | 1.00 | EA | 874.81 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 16,096 | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 14,694 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 13,953 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 15,684 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 60,793 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 15,096 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 23,078 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,564 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 8,552 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 3,529.0 | SF | 6.00 | | | | | | 21,174 | | |
| 15 | Build Wall Forms | 1,179.00 | SF | | 98 | 7,526 | 867 | 153,270 | | | | 161,663 |
| | | | | | 0.08 | 6.38 | 0.74 | 130.00 | | | | 137.12 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 14.04 hour (1.75 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 1,052 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 999 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,123 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 4,352 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 255 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 612 | | | | | |
| | Symons Jump Form 10Ft High | 1,179.0 | SF | 130.00 | | | | | | 153,270 | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|------------|-----|---------|--------|--------|--------|---------|----------|--------------|----------|------------|
| 16 | Set, Strip & Move Curve Forms | 3,529.00 | SF | | 1,227 | 93,874 | 15,708 | 5,294 | | | | 114,876 |
| | Prod=34.50 SF/hour (345.00 SF/ day), 0.348MH/SF, 2.88 SF/MH, 102.29 hour (10.23 days) | | | | 0.35 | 26.60 | 4.45 | 1.50 | | | | 32.55 |
| | Set Strip Forms | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 8,398 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 21,840 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 8,183 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 47,577 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 7,876 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 12,041 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,860 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,807 | | | | | |
| | Set Strip Form Material | 3,529.0 | SF | 1.50 | | | | 5,294 | | | | |
| 20 | Set, Strip & Move Wall Forms | 3,536.00 | SF | | 482 | 36,876 | 8,846 | 5,304 | | | | 51,026 |
| | Prod=88.00 SF/hour (704.00 SF/ day), 0.136MH/SF, 7.33 SF/MH, 40.18 hour (5.02 days) | | | | 0.14 | 10.43 | 2.50 | 1.50 | | | | 14.43 |
| | Set Strip Walls | 1.00 | EA | 1137.88 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 3,299 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 8,579 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 3,215 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 18,689 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 3,094 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 7,406 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 731 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 710 | | | | | |
| | Set Strip Form Material | 3,536.0 | SF | 1.50 | | | | 5,304 | | | | |
| 25 | Place Reinforcing Steel | 150,800.00 | LB | | 1,048 | 80,894 | 17,875 | | | 92,893 | | 191,662 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 12.632MH/ton, 0.08 ton/MH, 116.41 hour (14.55 days) | | | | 0.01 | 0.54 | 0.12 | | | 0.62 | | 1.27 |
| | Place Reinforcing Steel | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 9,557 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 8,285 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 9,313 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 44,776 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 8,963 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 13,702 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,116 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 2,057 | | | | | |
| | Supply Fabricated Rebar | 165,880.0 | LB | 0.56 | | | | | | 92,893 | | |
| 30 | Place Concrete Wall | 1,005.00 | CY | | 1,008 | 72,284 | 40,239 | | | | | 112,523 |
| | Prod=6.98 CY/hour (69.80 CY/ day), 1.003MH/CY, 1.00 CY/MH, 143.99 hour (14.40 days) | | | | 1.00 | 71.92 | 40.04 | | | | | 111.96 |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 10,799 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 61,485 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 35,997 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 204 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 1,420 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,618 | | | | | |
| 32 | Joint Prep on Wall | 500.00 | SF | | 9 | 630 | 105 | | | | | 735 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 4.42 hour (0.55 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|--------|---------------|------------------|----------------|---------------|----------------|--------------|----------|------------------|
| | <i>Joint Prep on Slab</i> | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 630 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 105 | | | | | |
| 35 | Finish Concrete Wall | 1,045.00 | SF | | 125 | 9,043 | | | | | | 9,043 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 62.44 hour (7.81 days) | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 9,043 | | | | | | |
| 40 | Cure Concrete Wall | 8,110.00 | SF | | 39 | 2,815 | | 811 | | | | 3,626 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 19.44 hour (2.43 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 2,815 | | | | | | |
| | Curing Agent per sf | 8,110.0 | SF | 0.10 | | | | 811 | | | | |
| 45 | Patch & Point Walls | 7,065.00 | SF | | 71 | 5,116 | | | | | | 5,116 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 35.33 hour (4.42 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 5,116 | | | | | | |
| 16 | Batch & Haul Concrete | 1,005.00 | CY | | 576 | 44,591 | 71,508 | | 66,073 | | | 182,173 |
| | Prod=6.98 CY/hour (69.80 CY/ day), 0.573MH/CY, 1.74 CY/MH, 143.99 hour (14.40 days) | | | | 0.57 | 44.37 | 71.15 | | 65.74 | | | 181.27 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 11,412 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 11,519 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 11,412 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 10,248 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 19,702 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 26,233 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 917 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 1,667 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 2,148 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 18,793 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 2,047 | | | | | |
| | Flyash | 96.5 | TN | 160.00 | | | | | 15,435 | | | |
| | Portland Cement Bulk | 180.8 | TN | 180.00 | | | | | 32,540 | | | |
| | Concrete Sand (Fine Aggregate) | 416.0 | TN | 10.00 | | | | | 4,160 | | | |
| | 2" (50 mm) Coarse Aggregate | 1,247.9 | TN | 10.00 | | | | | 12,479 | | | |
| | Water Reducer | 452.1 | GAL | 3.23 | | | | | 1,460 | | | |
| 17 | Deliver Concrete | 1,005.00 | CY | | 864 | 65,572 | 42,211 | | | | | 107,783 |
| | Prod=6.98 CY/hour (69.80 CY/ day), 0.860MH/CY, 1.16 CY/MH, 143.99 hour (14.40 days) | | | | 0.86 | 65.25 | 42.00 | | | | | 107.25 |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 65,572 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 42,211 | | | | | |
| 332.764 | Base Concrete | 4,729.00 | CY | | 18,928 | 5,876,113 | 868,233 | 23,351 | 747,856 | | | 7,515,553 |
| | | | | | 4.00 | 1,242.57 | 183.60 | 4.94 | 158.14 | | | 1,589.25 |
| 10 | Slab | 4,729.00 | CY | | 18,928 | 5,876,113 | 868,233 | 23,351 | 747,856 | | | 7,515,553 |
| | | | | | 4.00 | 1,242.57 | 183.60 | 4.94 | 158.14 | | | 1,589.25 |
| 05 | Foundation Preparation | 2,391.00 | SY | | 598 | 44,133 | 14,200 | | | | | 58,333 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|------------|-----|----------|--------|-----------|---------|---------|----------|--------------|----------|------------|
| | Prod=44.00 SY/hour (440.00 SY/ day), 0.250MH/SY, 4.00 SY/MH, 54.34 hour (5.43 days) | | | | 0.25 | 18.46 | 5.94 | | | | | 24.40 |
| | <i>Foundation Preparation</i> | 1.00 | EA | 1073.46 | | | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 4,307 | | | | | | |
| | Farm Tractor Operator | 2.0 | | 76.86 | | 8,353 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 4,076 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 23,205 | | | | | | |
| | Water Truck Driver | 1.0 | | 77.15 | | 4,192 | | | | | | |
| | 1.7 CY Backhoe (JD 790) | 1.0 | | 78.51 | | | 4,266 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 62.61 | | | 3,402 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 935 | | | | | |
| | Vacuum Sweeper with Broom | 1.0 | | 64.40 | | | 3,500 | | | | | |
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 2,097 | | | | | |
| 10 | Slab | 4,729.00 | CY | | 11,555 | 5,313,580 | 318,898 | 23,351 | 436,949 | | | 6,092,778 |
| | | | | | 2.44 | 1,123.62 | 67.43 | 4.94 | 92.40 | | | 1,288.39 |
| 10 | Base Concrete | 4,729.00 | CY | | 11,555 | 5,313,580 | 318,898 | 23,351 | 436,949 | | | 6,092,778 |
| | | | | | 2.44 | 1,123.62 | 67.43 | 4.94 | 92.40 | | | 1,288.39 |
| 15 | Build Forms | 1,963.00 | SF | | 164 | 12,530 | 1,444 | 11,778 | | | | 25,753 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 23.37 hour (2.34 days) | | | | 0.08 | 6.38 | 0.74 | 6.00 | | | | 13.12 |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 1,752 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 1,663 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,870 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 7,246 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 425 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 1,019 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 1,963.0 | SF | 6.00 | | | | 11,778 | | | | |
| 16 | Set, Strip & Move Forms | 5,888.00 | SF | | 1,325 | 101,317 | 16,953 | 8,832 | | | | 127,102 |
| | Prod=53.33 SF/hour (533.33 SF/ day), 0.225MH/SF, 4.44 SF/MH, 110.40 hour (11.04 days) | | | | 0.23 | 17.21 | 2.88 | 1.50 | | | | 21.59 |
| | <i>Set Strip Forms</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 9,064 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 23,572 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 8,832 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 51,349 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 8,501 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 12,995 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,007 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,951 | | | | | |
| | Set Strip Form Material | 5,888.0 | SF | 1.50 | | | | 8,832 | | | | |
| 18 | Place Reinforcing Steel | 709,333.00 | LB | | 4,928 | 4,830,943 | 111,147 | | 436,949 | | | 5,379,039 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 12.632MH/ton, 0.08 ton/MH, 547.55 hour (54.76 days) | | | | 0.01 | 6.81 | 0.16 | | 0.62 | | | 7.58 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 9025.81 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 8,210.00 | | 4,495,393 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 38,969 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 43,804 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 210,615 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 42,161 | | | | | | |
| | 20 Ton Truck Crane | 1.0 | | 49.43 | | | 27,065 | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 64,452 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 9,954 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|--------|---------------|----------------|----------------|---------------|----------------|--------------|----------|------------------|
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 9,675 | | | | | |
| | Supply Fabricated Rebar | 780,266.3 | LB | 0.56 | | | | | | 436,949 | | |
| 30 | Place Concrete | 4,729.00 | CY | | 4,743 | 340,152 | 189,353 | | | | | 529,505 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 1.003MH/CY, 1.00 CY/MH, 677.57 hour (67.76 days) | | | | 1.00 | 71.93 | 40.04 | | | | | 111.97 |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 50,818 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 289,335 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 169,392 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 962 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 6,681 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 12,318 | | | | | |
| 35 | Finish Concrete Base Slab | 21,520.00 | SF | | 223 | 16,123 | | | | | | 16,123 |
| | Prod=193.30 SF/hour (1,933.00 SF/ day), 0.010MH/SF, 96.65 SF/MH, 111.33 hour (11.13 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 16,123 | | | | | | |
| 40 | Cure Concrete Base Slab | 27,408.00 | SF | | 173 | 12,515 | | 2,741 | | | | 15,255 |
| | Prod=317.17 SF/hour (3,171.67 SF/ day), 0.006MH/SF, 158.58 SF/MH, 86.42 hour (8.64 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 12,515 | | | | | | |
| | Curing Agent per sf | 27,408.0 | SF | 0.10 | | | | 2,741 | | | | |
| 16 | Batch & Haul Concrete | 4,729.00 | CY | | 2,710 | 209,836 | 336,500 | | 310,907 | | | 857,243 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 0.573MH/CY, 1.74 CY/MH, 677.57 hour (67.76 days) | | | | 0.57 | 44.37 | 71.16 | | 65.74 | | | 181.27 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 53,704 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 54,205 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 53,704 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 48,222 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 92,712 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 123,446 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 4,316 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 7,846 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 10,109 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 88,436 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 9,635 | | | | | |
| | Flyash | 453.9 | TN | 160.00 | | | | | 72,629 | | | |
| | Portland Cement Bulk | 850.6 | TN | 180.00 | | | | | 153,117 | | | |
| | Concrete Sand (Fine Aggregate) | 1,957.2 | TN | 10.00 | | | | | 19,572 | | | |
| | 2" (50 mm) Coarse Aggregate | 5,871.7 | TN | 10.00 | | | | | 58,717 | | | |
| | Water Reducer | 2,127.4 | GAL | 3.23 | | | | | 6,871 | | | |
| 17 | Deliver Concrete | 4,729.00 | CY | | 4,065 | 308,564 | 198,636 | | | | | 507,200 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 0.860MH/CY, 1.16 CY/MH, 677.57 hour (67.76 days) | | | | 0.86 | 65.25 | 42.00 | | | | | 107.25 |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 308,564 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 198,636 | | | | | |
| 332.765 | Beams | 1,564.00 | CY | | 10,885 | 824,857 | 335,701 | 50,795 | 271,472 | | | 1,482,825 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|------------|-----|---------|--------|---------|---------|---------|----------|--------------|----------|------------|
| | | | | | 6.96 | 527.40 | 214.64 | 32.48 | 173.58 | | | 948.10 |
| 12 | Concrete Beams | 1,564.00 | CY | | 10,885 | 824,857 | 335,701 | 50,795 | 271,472 | | | 1,482,825 |
| | | | | | 6.96 | 527.40 | 214.64 | 32.48 | 173.58 | | | 948.10 |
| 15 | Concrete Beams | 1,564.00 | CY | | 8,651 | 653,914 | 159,240 | 50,795 | 168,647 | | | 1,032,596 |
| | | | | | 5.53 | 418.10 | 101.82 | 32.48 | 107.83 | | | 660.23 |
| 20 | Build Set, Strip & Move Support Forms | 8,800.00 | SF | | 5,029 | 384,573 | 64,349 | 49,915 | | | | 498,837 |
| | | | | | 0.57 | 43.70 | 7.31 | 5.67 | | | | 56.69 |
| | Prod=21.00 SF/hour (210.00 SF/ day), 0.571MH/SF, 1.75 SF/MH, 419.05 hour (41.90 days) | | | | | | | | | | | |
| | Set Strip Support Forms | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 34,404 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 89,471 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 33,524 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 194,907 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 32,267 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 49,326 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 7,618 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 7,405 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 3,671.5 | SF | 10.00 | | | | 36,715 | | | | |
| | Set Strip Form Material | 8,800.0 | SF | 1.50 | | | | 13,200 | | | | |
| 25 | Place Reinforcing Steel | 273,778.00 | LB | | 1,902 | 145,870 | 32,451 | | 168,647 | | | 346,969 |
| | | | | | 0.01 | 0.53 | 0.12 | | 0.62 | | | 1.27 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 12.632MH/ton, 0.08 ton/MH, 211.33 hour (21.13 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 843.82 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 77.44 | | 16,365 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 15,040 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 16,906 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 81,287 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 16,272 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 24,875 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,842 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 3,734 | | | | | |
| | Supply Fabricated Rebar | 301,155.8 | LB | 0.56 | | | | | 168,647 | | | |
| 30 | Place Concrete | 1,564.00 | CY | | 1,564 | 112,166 | 62,439 | | | | | 174,605 |
| | | | | | 1.00 | 71.72 | 39.92 | | | | | 111.64 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 1.000MH/CY, 1.00 CY/MH, 223.43 hour (22.34 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 16,757 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 95,408 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 55,857 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 317 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 2,203 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,062 | | | | | |
| 35 | Finish Concrete Top | 2,933.00 | SF | | 26 | 1,879 | | | | | | 1,879 |
| | | | | | 0.01 | 0.64 | | | | | | 0.64 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 12.98 hour (1.30 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 1,879 | | | | | | |
| 40 | Cure Concrete | 8,800.00 | SF | | 42 | 3,054 | | 880 | | | | 3,934 |
| | | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 21.09 hour (2.11 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 3,054 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|---------|--------------|----------------|----------------|---------------|----------------|--------------|----------|------------------|
| | Curing Agent per sf | 8,800.0 | SF | 0.10 | | | | 880 | | | | |
| 45 | Patch & Point | 8,800.00 | SF | | 88 | 6,372 | | | | | | 6,372 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 44.00 hour (5.50 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 6,372 | | | | | | |
| 16 | Batch & Haul Concrete | 1,564.00 | CY | | 894 | 69,194 | 110,961 | | 102,825 | | | 282,980 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 0.571MH/CY, 1.75 CY/MH, 223.43 hour (22.34 days) | | | | 0.57 | 44.24 | 70.95 | | 65.74 | | | 180.93 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 17,709 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 17,874 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 17,709 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 15,901 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 30,572 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 40,706 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 1,423 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 2,587 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 3,334 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 29,162 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 3,177 | | | | | |
| | Flyash | 150.1 | TN | 160.00 | | | | | 24,020 | | | |
| | Portland Cement Bulk | 281.3 | TN | 180.00 | | | | | 50,640 | | | |
| | Concrete Sand (Fine Aggregate) | 647.3 | TN | 10.00 | | | | | 6,473 | | | |
| | 2" (50 mm) Coarse Aggregate | 1,941.9 | TN | 10.00 | | | | | 19,419 | | | |
| | Water Reducer | 703.6 | GAL | 3.23 | | | | | 2,273 | | | |
| 17 | Deliver Concrete | 1,564.00 | CY | | 1,341 | 101,749 | 65,500 | | | | | 167,250 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 0.857MH/CY, 1.17 CY/MH, 223.43 hour (22.34 days) | | | | 0.86 | 65.06 | 41.88 | | | | | 106.94 |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 101,749 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 65,500 | | | | | |
| 332.766 | Roof Concrete | 3,111.00 | CY | | 7,631 | 577,083 | 277,544 | 18,258 | 428,116 | | | 1,301,001 |
| | | | | | 2.45 | 185.50 | 89.21 | 5.87 | 137.61 | | | 418.19 |
| 12 | Concrete Suspended Slabs | 3,111.00 | CY | | 7,631 | 577,083 | 277,544 | 18,258 | 428,116 | | | 1,301,001 |
| | | | | | 2.45 | 185.50 | 89.21 | 5.87 | 137.61 | | | 418.19 |
| 15 | Concrete Floor Slabs | 3,111.00 | CY | | 5,585 | 420,577 | 115,985 | 18,258 | 223,585 | | | 778,404 |
| | | | | | 1.80 | 135.19 | 37.28 | 5.87 | 71.87 | | | 250.21 |
| 20 | Build Set, Strip & Move Support Forms | 3,240.00 | SF | | 1,234 | 94,395 | 15,795 | 15,134 | | | | 125,323 |
| | Prod=31.50 SF/hour (315.00 SF/ day), 0.381MH/SF, 2.63 SF/MH, 102.86 hour (10.29 days) | | | | 0.38 | 29.13 | 4.87 | 4.67 | | | | 38.68 |
| | Build Forms in Place | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 8,445 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 21,961 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 8,229 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 47,841 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 7,920 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 12,107 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,870 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,817 | | | | | |
| | Supply Wood Form Wood Walkers & Strongbacks | 1,351.8 | SF | 5.60 | | | | 7,570 | | | | |
| | Set Strip Form Material | 3,240.0 | SF | 1.50 | | | | 4,860 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|------------|-----|--------|--------|---------|---------|---------|----------|--------------|----------|------------|
| | Hi-Load Scaffolds | 5,407.2 | CF | 0.50 | | | | 2,704 | | | | |
| 25 | Place Reinforcing Steel | 299,040.00 | LB | | 2,522 | 194,704 | 43,025 | | 223,585 | | | 461,313 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 12.632MH/ton, 0.08 ton/MH, 280.18 hour (28.02 days) | | | | 0.01 | 0.65 | 0.14 | | 0.75 | | | 1.54 |
| | Place Reinforcing Steel | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | | | 23,003 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 19,941 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 22,415 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 107,772 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 21,574 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 32,980 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,094 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 4,951 | | | | | |
| | Supply Fabricated Rebar | 399,258.5 | LB | 0.56 | | | | | 223,585 | | | |
| 30 | Place Concrete | 3,111.00 | CY | | 1,432 | 102,693 | 57,166 | | | | | 159,859 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.460MH/CY, 2.17 CY/MH, 204.56 hour (20.46 days) | | | | 0.46 | 33.01 | 18.38 | | | | | 51.38 |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 15,342 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 87,351 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 51,140 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 290 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 2,017 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,719 | | | | | |
| 35 | Finish Concrete Top | 28,000.00 | SF | | 248 | 17,942 | | | | | | 17,942 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 123.89 hour (12.39 days) | | | | 0.01 | 0.64 | | | | | | 0.64 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 17,942 | | | | | | |
| 40 | Cure Concrete | 31,240.00 | SF | | 150 | 10,843 | | 3,124 | | | | 13,967 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 74.87 hour (7.49 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 10,843 | | | | | | |
| | Curing Agent per sf | 31,240.0 | SF | 0.10 | | | | 3,124 | | | | |
| 16 | Batch & Haul Concrete | 3,111.00 | CY | | 818 | 63,350 | 101,590 | | 204,532 | | | 369,472 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.263MH/CY, 3.80 CY/MH, 204.56 hour (20.46 days) | | | | 0.26 | 20.36 | 32.66 | | 65.74 | | | 118.76 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 16,213 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 16,365 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 16,213 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 14,558 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 27,990 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 37,269 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 1,303 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 2,369 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 3,052 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 26,699 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 2,909 | | | | | |
| | Flyash | 298.6 | TN | 160.00 | | | | | 47,779 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|--------|---------------|------------------|----------------|---------------|----------------|--------------|----------|------------------|
| | Portland Cement Bulk | 559.6 | TN | 180.00 | | | | | 100,729 | | | |
| | Concrete Sand (Fine Aggregate) | 1,287.6 | TN | 10.00 | | | | | 12,876 | | | |
| | 2" (50 mm) Coarse Aggregate | 3,862.8 | TN | 10.00 | | | | | 38,628 | | | |
| | Water Reducer | 1,399.5 | GAL | 3.23 | | | | | 4,520 | | | |
| 17 | Deliver Concrete | 3,111.00 | CY | | 1,227 | 93,156 | 59,968 | | | | | 153,125 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.395MH/CY, 2.53 CY/MH, 204.56 hour (20.46 days) | | | | 0.39 | 29.94 | 19.28 | | | | | 49.22 |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 93,156 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 59,968 | | | | | |
| 332.767 | Dam Crest | 6,000.00 | CY | | 24,208 | 1,818,414 | 968,735 | 59,673 | 982,468 | | | 3,829,290 |
| | | | | | 4.03 | 303.07 | 161.46 | 9.95 | 163.74 | | | 638.22 |
| 10 | Slab | 6,000.00 | CY | | 24,208 | 1,818,414 | 968,735 | 59,673 | 982,468 | | | 3,829,290 |
| | | | | | 4.03 | 303.07 | 161.46 | 9.95 | 163.74 | | | 638.22 |
| 10 | Slab | 6,000.00 | CY | | 15,611 | 1,160,685 | 289,772 | 59,673 | 588,000 | | | 2,098,131 |
| | | | | | 2.60 | 193.45 | 48.30 | 9.95 | 98.00 | | | 349.69 |
| 10 | Base Concrete | 6,000.00 | CY | | 15,611 | 1,160,685 | 289,772 | 59,673 | 588,000 | | | 2,098,131 |
| | | | | | 2.60 | 193.45 | 48.30 | 9.95 | 98.00 | | | 349.69 |
| 15 | Build Forms | 5,119.94 | SF | | 427 | 32,682 | 3,767 | 30,720 | | | | 67,169 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 60.95 hour (6.10 days) | | | | 0.08 | 6.38 | 0.74 | 6.00 | | | | 13.12 |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 4,568 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 4,338 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 4,876 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 18,900 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,108 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 2,659 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 5,119.9 | SF | 6.00 | | | | 30,720 | | | | |
| 16 | Set, Strip & Move Forms | 15,360.00 | SF | | 3,024 | 230,308 | 19,345 | 23,040 | | | | 272,693 |
| | Prod=53.33 SF/hour (533.33 SF/ day), 0.197MH/SF, 5.08 SF/MH, 288.00 hour (28.80 days) | | | | 0.20 | 14.99 | 1.26 | 1.50 | | | | 17.75 |
| | Set Strip Forms | 1.00 | EA | 866.85 | | | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 11,822 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 61,491 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 23,040 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 133,955 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 0.5 | | 62.64 | | | 9,020 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,236 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 5,089 | | | | | |
| | Set Strip Form Material | 15,360.0 | SF | 1.50 | | | | 23,040 | | | | |
| 18 | Place Reinforcing Steel | 1,050,000.00 | LB | | 5,158 | 394,815 | 26,416 | | 588,000 | | | 1,009,231 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 9.825MH/ton, 0.10 ton/MH, 736.84 hour (73.68 days) | | | | 0.00 | 0.38 | 0.03 | | 0.56 | | | 0.96 |
| | Place Reinforcing Steel | 1.00 | EA | 571.67 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 52,441 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 58,947 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 283,426 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 13,396 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 13,020 | | | | | |
| | Supply Fabricated Rebar | 1,050,000.0 | LB | 0.56 | | | | | 588,000 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|------------------|-----------|--------|--------------|----------------|----------------|--------------|----------------|--------------|------------------|------------------|
| 30 | Place Concrete | 6,000.00 | CY | | 6,018 | 431,574 | 240,245 | | | | | 671,819 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 1.003MH/CY, 1.00 CY/MH, 859.68 hour (85.97 days) | | | | 1.00 | 71.93 | 40.04 | | | | | 111.97 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 64,476 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 367,098 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 214,919 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 1,221 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 8,476 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 15,629 | | | | | |
| 35 | Finish Concrete Base Slab | 59,136.00 | SF | | 612 | 44,305 | | | | | | 44,305 |
| | Prod=193.30 SF/hour (1,933.00 SF/ day), 0.010MH/SF, 96.65 SF/MH, 305.93 hour (30.59 days) | | | | 0.01 | 0.75 | | | | | | 0.75 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 44,305 | | | | | | |
| 40 | Cure Concrete Base Slab | 59,136.00 | SF | | 373 | 27,002 | | 5,914 | | | | 32,915 |
| | Prod=317.17 SF/hour (3,171.67 SF/ day), 0.006MH/SF, 158.58 SF/MH, 186.45 hour (18.65 days) | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 27,002 | | | | | | |
| | Curing Agent per sf | 59,136.0 | SF | 0.10 | | | | 5,914 | | | | |
| 16 | Batch & Haul Concrete | 6,000.00 | CY | | 3,439 | 266,233 | 426,940 | | 394,468 | | | 1,087,641 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 0.573MH/CY, 1.74 CY/MH, 859.68 hour (85.97 days) | | | | 0.57 | 44.37 | 71.16 | | 65.74 | | | 181.27 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 68,138 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 68,774 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 68,138 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 61,183 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 117,629 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 156,624 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 5,476 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 9,955 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 12,826 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 112,205 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 12,225 | | | | | |
| | Flyash | 575.9 | TN | 160.00 | | | | | 92,149 | | | |
| | Portland Cement Bulk | 1,079.3 | TN | 180.00 | | | | | 194,269 | | | |
| | Concrete Sand (Fine Aggregate) | 2,483.3 | TN | 10.00 | | | | | 24,833 | | | |
| | 2" (50 mm) Coarse Aggregate | 7,449.9 | TN | 10.00 | | | | | 74,499 | | | |
| | Water Reducer | 2,699.1 | GAL | 3.23 | | | | | 8,718 | | | |
| 17 | Deliver Concrete | 6,000.00 | CY | | 5,158 | 391,496 | 252,022 | | | | | 643,518 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 0.860MH/CY, 1.16 CY/MH, 859.68 hour (85.97 days) | | | | 0.86 | 65.25 | 42.00 | | | | | 107.25 |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 391,496 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 252,022 | | | | | |
| 332.768 | Intake Mechanical Electrical | 1.00 | LS | | | | | | | | 530,000 | 530,000 |
| | | | | | | | | | | | 530,000.00 | 530,000.00 |
| 332.769 | Gantry Crane | 1.00 | LS | | | | | | | | 1,400,000 | 1,400,000 |
| | | | | | | | | | | | 1,400,000.00 | 1,400,000.00 |

| Estimate Line Detail | | | | | | | | | | | | |
|---|--|-----------|-----|-----------|------------|--------------|--------------|------------|--------------|--------------|---------------|---------------|
| Estimate: JULY 2014 - MAIN CIVIL CONTRACT | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
| 332.770 | Intake Gates | 6.00 | EA | | | | | | | | 4,830,000 | 4,830,000 |
| | | | | | | | | | | | 805,000.00 | 805,000.00 |
| 332.771 | Bulkheads | 8.00 | EA | | | | | | | | 4,700,000 | 4,700,000 |
| | | | | | | | | | | | 587,500.00 | 587,500.00 |
| 332.772 | Trashracks | 48.00 | EA | | | | | | | | 14,880,000 | 14,880,000 |
| | | | | | | | | | | | 310,000.00 | 310,000.00 |
| 332.773 | Steel Shutters 30 EA | 211.00 | TN | | | | | | | | 4,726,400 | 4,726,400 |
| | | | | | | | | | | | 22,400.00 | 22,400.00 |
| 10 | Steel Shutters 30 EA | 211.00 | TN | | | | | | | | 4,726,400 | 4,726,400 |
| | Sub Mechancial | 211.0 | TN | 22,400.00 | | | | | | | 4,726,400 | 22,400.00 |
| | | | | | | | | | | | | |
| | Low Level Outlet Intake | 1.00 | LS | | 127,142 | 9,544,958 | 4,537,776 | 580,310 | 3,749,248 | | 19,000,000 | 37,412,293 |
| | | | | | 127,141.83 | 9,544,957.84 | 4,537,776.22 | 580,310.48 | 3,749,247.99 | | 19,000,000.00 | 37,412,292.53 |
| 332.782 | Walls | 15,396.00 | CY | | 91,689 | 6,890,518 | 3,153,600 | 516,448 | 2,434,843 | | | 12,995,409 |
| | | | | | 5.96 | 447.55 | 204.83 | 33.54 | 158.15 | | | 844.08 |
| 15 | Concrete Wall | 15,396.00 | CY | | 66,324 | 4,949,840 | 1,150,270 | 516,448 | 1,422,638 | | | 8,039,196 |
| | | | | | 4.31 | 321.50 | 74.71 | 33.54 | 92.40 | | | 522.16 |
| 15 | Build Wall Forms | 44,054.14 | SF | | 4,405 | 337,455 | 38,894 | 246,703 | | | | 623,051 |
| | | | | | 0.10 | 7.66 | 0.88 | 5.60 | | | | 14.14 |
| | Prod=70.00 SF/hour (560.00 SF/ day), 0.100MH/SF, 10.00 SF/MH, 629.34 hour (78.67 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 47,169 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 44,790 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 50,348 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 195,147 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 11,441 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 27,452 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 44,054.1 | SF | 5.60 | | | | 246,703 | | | | |
| 16 | Build Supported Forms | 2,526.57 | SF | | 505 | 38,707 | 4,461 | 42,730 | | | | 85,898 |
| | | | | | 0.20 | 15.32 | 1.77 | 16.91 | | | | 34.00 |
| | Prod=35.00 SF/hour (280.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 72.19 hour (9.02 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 5,410 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 5,138 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 5,775 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 22,384 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,312 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 3,149 | | | | | |
| | Scaffolding | 1.1 | LS | 25,000.00 | | | | 28,581 | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 2,526.6 | SF | 5.60 | | | | 14,149 | | | | |
| 17 | Build Curved Forms | 1,134.81 | SF | | 567 | 43,463 | 5,009 | 6,355 | | | | 54,828 |
| | | | | | 0.50 | 38.30 | 4.41 | 5.60 | | | | 48.31 |
| | Prod=14.00 SF/hour (112.00 SF/ day), 0.500MH/SF, 2.00 SF/MH, 81.06 hour (10.13 days) | | | | | | | | | | | |
| | Fabricate Gang Formwork | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 6,075 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 5,769 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 6,485 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 25,135 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,474 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 3,536 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 1,134.8 | SF | 5.60 | | | | 6,355 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|--------------|-----|---------|--------|-----------|---------|---------|-----------|--------------|----------|------------|
| 20 | Set, Strip & Move One Sided & Two Sided Forms | 134,164.99 | SF | | 19,166 | 1,465,800 | 245,266 | 201,247 | | | | 1,912,314 |
| | | | | | 0.14 | 10.93 | 1.83 | 1.50 | | | | 14.25 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.143MH/SF, 7.00 SF/MH, 1,597.20 hour (199.65 days) | | | | | | | | | | | |
| | Set Strip One & Two Sided Forms | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 131,130 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 341,019 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 127,776 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 742,891 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 122,985 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 188,007 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 29,037 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 28,223 | | | | | |
| | Set Strip Form Material | 134,165.0 | SF | 1.50 | | | | 201,247 | | | | |
| 21 | Set, Strip & Move Supported Forms | 2,526.57 | SF | | 314 | 24,005 | 4,017 | 3,790 | | | | 31,811 |
| | | | | | 0.12 | 9.50 | 1.59 | 1.50 | | | | 12.59 |
| | Prod=96.59 SF/hour (772.75 SF/ day), 0.124MH/SF, 8.05 SF/MH, 26.16 hour (3.27 days) | | | | | | | | | | | |
| | Set Strip Supported Forms | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 2,147 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 5,585 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 2,093 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 12,166 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 2,014 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 3,079 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 476 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 462 | | | | | |
| | Set Strip Form Material | 2,526.6 | SF | 1.50 | | | | 3,790 | | | | |
| 22 | Set, Strip & Move Curved Forms | 1,134.81 | SF | | 648 | 49,593 | 8,298 | 1,702 | | | | 59,593 |
| | | | | | 0.57 | 43.70 | 7.31 | 1.50 | | | | 52.51 |
| | Prod=21.00 SF/hour (168.00 SF/ day), 0.571MH/SF, 1.75 SF/MH, 54.04 hour (6.75 days) | | | | | | | | | | | |
| | Set Strip Curved Forms | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 4,437 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 11,538 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 4,323 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 25,135 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 4,161 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 6,361 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 982 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 955 | | | | | |
| | Set Strip Form Material | 1,134.8 | SF | 1.50 | | | | 1,702 | | | | |
| 25 | Place Reinforcing Steel | 2,309,477.08 | LB | | 16,043 | 1,238,765 | 273,736 | | 1,422,638 | | | 2,935,139 |
| | | | | | 0.01 | 0.54 | 0.12 | | 0.62 | | | 1.27 |
| | Prod=0.71 TN/hour (5.70 TN/ day), 12.632MH/TN, 0.08 TN/MH, 1,782.60 hour (222.83 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 146,352 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 126,868 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 142,608 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 685,677 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 137,260 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 209,830 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 32,408 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 31,499 | | | | | |
| | Supply Fabricated Rebar | 2,540,424.8 | LB | 0.56 | | | | | 1,422,638 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|--|------------|-----|---------|--------|-----------|-----------|---------|-----------|--------------|----------|------------|
| 30 | Place Concrete | 15,396.00 | CY | | 22,322 | 1,582,108 | 567,088 | | | | | 2,149,196 |
| | Prod=7.59 CY/hour (60.70 CY/ day), 1.450MH/CY, 0.69 CY/MH, 2,029.23 hour (253.65 days) | | | | 1.45 | 102.76 | 36.83 | | | | | 139.59 |
| | Place Concrete | 1.00 | EA | 1059.12 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 77.44 | | 157,143 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 152,192 | | | | | | |
| | Labourer | 8.0 | | 71.17 | | 1,155,361 | | | | | | |
| | Carpenter | 1.0 | | 57.86 | | 117,411 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 507,307 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 2,882 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 20,008 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 36,891 | | | | | |
| 32 | Joint Prep | 16,627.47 | SF | | 294 | 20,945 | 3,501 | | | | | 24,445 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 147.15 hour (18.39 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | Joint Prep | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 20,945 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 3,501 | | | | | |
| 35 | Finish Concrete | 1,378.91 | SF | | 12 | 884 | | | | | | 884 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 6.10 hour (0.76 days) | | | | 0.01 | 0.64 | | | | | | 0.64 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 884 | | | | | | |
| 40 | Cure Concrete Wall | 139,205.28 | SF | | 667 | 48,316 | | 13,921 | | | | 62,236 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 333.63 hour (41.70 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 48,316 | | | | | | |
| | Curing Agent per sf | 139,205.3 | SF | 0.10 | | | | 13,921 | | | | |
| 45 | Patch & Point Walls | 137,826.37 | SF | | 1,378 | 99,800 | | | | | | 99,800 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 689.13 hour (86.14 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 99,800 | | | | | | |
| 16 | Batch Concrete | 15,396.00 | CY | | 10,146 | 785,540 | 1,259,719 | | 1,012,205 | | | 3,057,464 |
| | Prod=6.07 CY/hour (60.70 CY/ day), 0.659MH/CY, 1.52 CY/MH, 2,536.54 hour (253.65 days) | | | | 0.66 | 51.02 | 81.82 | | 65.74 | | | 198.59 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 201,046 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 202,923 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 201,046 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 180,525 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 347,074 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 462,131 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 16,158 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 29,373 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 37,845 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 331,069 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 36,070 | | | | | |
| | Flyash | 1,477.8 | TN | 160.00 | | | | | 236,454 | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|------------------|-----------|---------|---------------|------------------|----------------|---------------|----------------|--------------|----------|------------------|
| | Portland Cement Bulk | 2,769.4 | TN | 180.00 | | | | | 498,495 | | | |
| | Concrete Sand (Fine Aggregate) | 6,372.1 | TN | 10.00 | | | | | 63,721 | | | |
| | 2" (50 mm) Coarse Aggregate | 19,116.3 | TN | 10.00 | | | | | 191,163 | | | |
| | Water Reducer | 6,926.0 | GAL | 3.23 | | | | | 22,371 | | | |
| 17 | Deliver Concrete | 15,396.00 | CY | | 15,219 | 1,155,138 | 743,611 | | | | | 1,898,749 |
| | Prod=6.07 CY/hour (60.70 CY/ day), 0.989MH/CY, 1.01 CY/MH, 2,536.54 hour (253.65 days) | | | | 0.99 | 75.03 | 48.30 | | | | | 123.33 |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 1,155,138 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 743,611 | | | | | |
| 332.783 | Center Pier Concrete | 3,823.00 | CY | | 17,496 | 1,309,533 | 724,550 | 27,310 | 604,599 | | | 2,665,991 |
| | | | | | 4.58 | 342.54 | 189.52 | 7.14 | 158.15 | | | 697.36 |
| 15 | Concrete Wall | 3,823.00 | CY | | 11,197 | 827,641 | 227,101 | 27,310 | 353,257 | | | 1,435,308 |
| | | | | | 2.93 | 216.49 | 59.40 | 7.14 | 92.40 | | | 375.44 |
| 15 | Build Wall Forms | 2,475.00 | SF | | 248 | 18,959 | 2,185 | 13,860 | | | | 35,004 |
| | | | | | 0.10 | 7.66 | 0.88 | 5.60 | | | | 14.14 |
| | Prod=70.00 SF/hour (560.00 SF/ day), 0.100MH/SF, 10.00 SF/MH, 35.36 hour (4.42 days) | | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 2,650 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 2,516 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 2,829 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 10,964 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 643 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 1,542 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 2,475.0 | SF | 5.60 | | | | 13,860 | | | | |
| 17 | Build Curved Forms | 200.00 | SF | | 100 | 7,660 | 883 | 1,120 | | | | 9,663 |
| | | | | | 0.50 | 38.30 | 4.41 | 5.60 | | | | 48.31 |
| | Prod=14.00 SF/hour (112.00 SF/ day), 0.500MH/SF, 2.00 SF/MH, 14.29 hour (1.79 days) | | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 598 | | | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 1,071 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 1,017 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 1,143 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 4,430 | | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 260 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 623 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 200.0 | SF | 5.60 | | | | 1,120 | | | | |
| 20 | Set, Strip & Move One Sided & Two Sided Forms | 7,425.00 | SF | | 1,061 | 81,121 | 13,574 | 11,138 | | | | 105,832 |
| | | | | | 0.14 | 10.93 | 1.83 | 1.50 | | | | 14.25 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.143MH/SF, 7.00 SF/MH, 88.39 hour (11.05 days) | | | | | | | | | | | |
| | <i>Set Strip One & Two Sided Forms</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 7,257 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 18,873 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 7,071 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 41,113 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 6,806 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 10,405 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,607 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,562 | | | | | |
| | Set Strip Form Material | 7,425.0 | SF | 1.50 | | | | 11,138 | | | | |
| 22 | Set, Strip & Move Curved Forms | 200.00 | SF | | 114 | 8,740 | 1,462 | 300 | | | | 10,503 |
| | | | | | 0.57 | 43.70 | 7.31 | 1.50 | | | | 52.51 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|---------|--------------|----------------|----------------|--------------|----------------|----------------|----------|------------------|
| | Cement Finisher | 2.0 | | 72.41 | | 3,096 | | | | | | |
| | Curing Agent per sf | 8,920.0 | SF | 0.10 | | | | 892 | | | | |
| 45 | Patch & Point Walls | 7,625.00 | SF | | 76 | 5,521 | | | | | | 5,521 |
| | | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 38.13 hour (4.77 days) | | | | | | | | | | | |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 5,521 | | | | | | |
| 16 | Batch Concrete | 3,823.00 | CY | | 2,519 | 195,058 | 312,803 | | | 251,342 | | 759,203 |
| | | | | | 0.66 | 51.02 | 81.82 | | | 65.74 | | 198.59 |
| | Prod=6.07 CY/hour (60.70 CY/ day), 0.659MH/CY, 1.52 CY/MH, 629.85 hour (62.99 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 49,922 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 50,388 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 49,922 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 44,826 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 86,182 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 114,752 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 4,012 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 7,294 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 9,397 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 82,208 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 8,956 | | | | | |
| | Flyash | 367.0 | TN | 160.00 | | | | | | 58,714 | | |
| | Portland Cement Bulk | 687.7 | TN | 180.00 | | | | | | 123,782 | | |
| | Concrete Sand (Fine Aggregate) | 1,582.3 | TN | 10.00 | | | | | | 15,823 | | |
| | 2" (50 mm) Coarse Aggregate | 4,746.8 | TN | 10.00 | | | | | | 47,468 | | |
| | Water Reducer | 1,719.8 | GAL | 3.23 | | | | | | 5,555 | | |
| 17 | Deliver Concrete | 3,823.00 | CY | | 3,779 | 286,834 | 184,647 | | | | | 471,481 |
| | | | | | 0.99 | 75.03 | 48.30 | | | | | 123.33 |
| | Prod=6.07 CY/hour (60.70 CY/ day), 0.989MH/CY, 1.01 CY/MH, 629.85 hour (62.99 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 286,834 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 184,647 | | | | | |
| 332.784 | Base Concrete | 1,990.00 | CY | | 7,825 | 588,200 | 351,254 | 8,971 | 314,710 | | | 1,263,135 |
| | | | | | 3.93 | 295.58 | 176.51 | 4.51 | 158.15 | | | 634.74 |
| 10 | Slab | 1,990.00 | CY | | 4,974 | 370,053 | 126,065 | 8,971 | 183,878 | | | 688,968 |
| | | | | | 2.50 | 185.96 | 63.35 | 4.51 | 92.40 | | | 346.21 |
| 10 | Place Concrete Slab | 1,990.00 | CY | | 4,974 | 370,053 | 126,065 | 8,971 | 183,878 | | | 688,968 |
| | | | | | 2.50 | 185.96 | 63.35 | 4.51 | 92.40 | | | 346.21 |
| 05 | Foundation Preparation | 597.00 | SY | | 149 | 11,019 | 3,546 | | | | | 14,565 |
| | | | | | 0.25 | 18.46 | 5.94 | | | | | 24.40 |
| | Prod=44.00 SY/hour (440.00 SY/ day), 0.250MH/SY, 4.00 SY/MH, 13.57 hour (1.36 days) | | | | | | | | | | | |
| | Foundation Preparation | 1.00 | EA | 1073.46 | | | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 1,075 | | | | | | |
| | Farm Tractor Operator | 2.0 | | 76.86 | | 2,086 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 1,018 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 5,794 | | | | | | |
| | Water Truck Driver | 1.0 | | 77.15 | | 1,047 | | | | | | |
| | 1.7 CY Backhoe (JD 790) | 1.0 | | 78.51 | | | 1,065 | | | | | |
| | 750 CFM Diesel Compressor | 1.0 | | 62.61 | | | 850 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 233 | | | | | |
| | Vacuum Sweeper with Broom | 1.0 | | 64.40 | | | 874 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|------------|-----|---------|--------|---------|--------|---------|----------|--------------|----------|------------|
| | 3000 Gallon Watertruck | 1.0 | | 38.59 | | | 524 | | | | | |
| 15 | Build Forms | 753.00 | SF | | 63 | 4,871 | 1,116 | 4,518 | | | | 10,504 |
| | | | | | 0.08 | 6.47 | 1.48 | 6.00 | | | | 13.95 |
| | Prod=84.00 SF/hour (840.00 SF/ day), 0.083MH/SF, 12.00 SF/MH, 8.96 hour (0.90 days) | | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 667.79 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 736 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 638 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 717 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 2,780 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 562 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 163 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 391 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 753.0 | SF | 6.00 | | | | 4,518 | | | | |
| 16 | Set, Strip & Move Forms | 2,260.00 | SF | | 452 | 34,568 | 5,784 | 3,390 | | | | 43,742 |
| | | | | | 0.20 | 15.30 | 2.56 | 1.50 | | | | 19.35 |
| | Prod=60.00 SF/hour (600.00 SF/ day), 0.200MH/SF, 5.00 SF/MH, 37.67 hour (3.77 days) | | | | | | | | | | | |
| | <i>Set Strip Forms</i> | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 3,092 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 8,042 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 3,013 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 17,520 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 2,900 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 4,434 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 685 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 666 | | | | | |
| | Set Strip Form Material | 2,260.0 | SF | 1.50 | | | | 3,390 | | | | |
| 18 | Place Reinforcing Steel | 298,503.86 | LB | | 2,074 | 159,053 | 35,384 | | | 183,878 | | 378,316 |
| | | | | | 0.01 | 0.53 | 0.12 | | | 0.62 | | 1.27 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 12.632MH/ton, 0.08 ton/MH, 230.42 hour (23.04 days) | | | | | | | | | | | |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 843.82 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 77.44 | | 17,844 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 16,399 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 18,434 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 88,633 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 17,743 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 27,123 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,189 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 4,072 | | | | | |
| | Supply Fabricated Rebar | 328,354.2 | LB | 0.56 | | | | | | 183,878 | | |
| 30 | Place Concrete | 1,990.00 | CY | | 1,996 | 143,139 | 79,681 | | | | | 222,820 |
| | | | | | 1.00 | 71.93 | 40.04 | | | | | 111.97 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 1.003MH/CY, 1.00 CY/MH, 285.13 hour (28.51 days) | | | | | | | | | | | |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 21,384 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 121,754 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 71,281 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 405 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 2,811 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,184 | | | | | |
| 35 | Finish Concrete Base Slab | 8,374.00 | SF | | 173 | 12,548 | 555 | | | | | 13,102 |
| | | | | | 0.02 | 1.50 | 0.07 | | | | | 1.56 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|------------------|-----------|---------|--------------|----------------|----------------|---------------|----------------|--------------|----------|----------------|
| | Prod=193.30 SF/hour (1,933.00 SF/ day), 0.021MH/SF, 48.33 SF/MH, 43.32 hour (4.33 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 302.44 | | | | | | | | |
| | Cement Finisher | 4.0 | | 72.41 | | 12,548 | | | | | | |
| | Power Trowel 46" | 2.0 | | 6.40 | | | 555 | | | | | |
| 40 | Cure Concrete Base Slab | 10,634.00 | SF | | 67 | 4,856 | | 1,063 | | | | 5,919 |
| | | | | | 0.01 | 0.46 | | 0.10 | | | | 0.56 |
| | Prod=317.17 SF/hour (3,171.67 SF/ day), 0.006MH/SF, 158.58 SF/MH, 33.53 hour (3.35 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 4,856 | | | | | | |
| | Curing Agent per sf | 10,634.0 | SF | 0.10 | | | | 1,063 | | | | |
| 16 | Batch & Haul Concrete | 1,990.00 | CY | | 1,141 | 88,301 | 141,602 | | 130,832 | | | 360,734 |
| | | | | | 0.57 | 44.37 | 71.16 | | 65.74 | | | 181.27 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 0.573MH/CY, 1.74 CY/MH, 285.13 hour (28.51 days) | | | | | | | | | | | |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 22,599 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 22,810 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 22,599 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 20,292 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 39,014 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 51,947 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 1,816 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 3,302 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 4,254 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 37,215 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 4,054 | | | | | |
| | Flyash | 191.0 | TN | 160.00 | | | | | 30,563 | | | |
| | Portland Cement Bulk | 358.0 | TN | 180.00 | | | | | 64,433 | | | |
| | Concrete Sand (Fine Aggregate) | 823.6 | TN | 10.00 | | | | | 8,236 | | | |
| | 2" (50 mm) Coarse Aggregate | 2,470.9 | TN | 10.00 | | | | | 24,709 | | | |
| | Water Reducer | 895.2 | GAL | 3.23 | | | | | 2,892 | | | |
| 17 | Deliver Concrete | 1,990.00 | CY | | 1,711 | 129,846 | 83,587 | | | | | 213,434 |
| | | | | | 0.86 | 65.25 | 42.00 | | | | | 107.25 |
| | Prod=6.98 CY/hour (69.79 CY/ day), 0.860MH/CY, 1.16 CY/MH, 285.13 hour (28.51 days) | | | | | | | | | | | |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 129,846 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 83,587 | | | | | |
| 332.785 | Trashrack Columns | 244.00 | CY | | 2,224 | 168,899 | 58,580 | 13,760 | 36,575 | | | 277,814 |
| | | | | | 9.11 | 692.21 | 240.08 | 56.39 | 149.90 | | | 1,138.58 |
| 12 | Concrete Columns | 244.00 | CY | | 2,224 | 168,899 | 58,580 | 13,760 | 36,575 | | | 277,814 |
| | | | | | 9.11 | 692.21 | 240.08 | 56.39 | 149.90 | | | 1,138.58 |
| 15 | Concrete Columns | 244.00 | CY | | 1,875 | 142,230 | 31,050 | 13,760 | 20,534 | | | 207,573 |
| | | | | | 7.68 | 582.91 | 127.25 | 56.39 | 84.15 | | | 850.71 |
| 20 | Build Set, Strip & Move Support Forms | 2,373.74 | SF | | 1,356 | 103,736 | 17,358 | 13,464 | | | | 134,558 |
| | | | | | 0.57 | 43.70 | 7.31 | 5.67 | | | | 56.69 |
| | Prod=21.00 SF/hour (210.00 SF/ day), 0.571MH/SF, 1.75 SF/MH, 113.04 hour (11.30 days) | | | | | | | | | | | |
| | Set Strip Support Forms | 1.00 | EA | 1071.29 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 9,280 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 24,134 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 9,043 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 52,575 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 8,704 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 13,305 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|------------------|-----------|--------|------------|---------------|---------------|------------|---------------|--------------|----------|---------------|
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,055 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,997 | | | | | |
| | Supply Wood Form Wood Walers & Strongbacks | 990.4 | SF | 10.00 | | | | 9,904 | | | | |
| | Set Strip Form Material | 2,373.7 | SF | 1.50 | | | | 3,561 | | | | |
| 25 | Place Reinforcing Steel | 36,667.00 | LB | | 232 | 17,881 | 3,951 | | 20,534 | | | 42,366 |
| | Prod=0.71 ton/hour (7.13 ton/ day), 12.632MH/ton, 0.08 ton/MH, 25.73 hour (2.57 days) | | | | 0.01 | 0.49 | 0.11 | | 0.56 | | | 1.16 |
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 2,113 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 1,831 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 2,058 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 9,898 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 1,981 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 3,029 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 468 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 455 | | | | | |
| | Supply Fabricated Rebar | 36,667.0 | LB | 0.56 | | | | | 20,534 | | | |
| 30 | Place Concrete | 244.00 | CY | | 244 | 17,499 | 9,741 | | | | | 27,240 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 1.000MH/CY, 1.00 CY/MH, 34.86 hour (3.49 days) | | | | 1.00 | 71.72 | 39.92 | | | | | 111.64 |
| | <i>Place Concrete</i> | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 2,614 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 14,885 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 8,714 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 49 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 344 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 634 | | | | | |
| 35 | Finish Concrete Top | 578.43 | SF | | 5 | 371 | | | | | | 371 |
| | Prod=226.00 SF/hour (2,260.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 2.56 hour (0.26 days) | | | | 0.01 | 0.64 | | | | | | 0.64 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 371 | | | | | | |
| 40 | Cure Concrete | 2,952.17 | SF | | 14 | 1,025 | | 295 | | | | 1,320 |
| | Prod=417.25 SF/hour (4,172.50 SF/ day), 0.005MH/SF, 208.63 SF/MH, 7.08 hour (0.71 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 1,025 | | | | | | |
| | Curing Agent per sf | 2,952.2 | SF | 0.10 | | | | 295 | | | | |
| 45 | Patch & Point | 2,373.74 | SF | | 24 | 1,719 | | | | | | 1,719 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 11.87 hour (1.48 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 1,719 | | | | | | |
| 16 | Batch & Haul Concrete | 244.00 | CY | | 139 | 10,795 | 17,311 | | 16,042 | | | 44,148 |
| | Prod=7.00 CY/hour (70.00 CY/ day), 0.571MH/CY, 1.75 CY/MH, 34.86 hour (3.49 days) | | | | 0.57 | 44.24 | 70.95 | | 65.74 | | | 180.93 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 2,763 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 2,789 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 2,763 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|--|-----------------|-----------|---------|--------------|----------------|---------------|------------|----------------|--------------|----------|----------------|
| | <i>Place Reinforcing Steel</i> | 1.00 | EA | 848.48 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 21,550 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 18,681 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 20,998 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 100,963 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 20,211 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 30,897 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,772 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 4,638 | | | | | |
| | Supply Fabricated Rebar | 374,067.5 | LB | 0.56 | | | | | | 209,478 | | |
| 30 | Place Concrete | 2,267.00 | CY | | 3,287 | 232,959 | 83,501 | | | | | 316,461 |
| | Prod=7.59 CY/hour (60.70 CY/ day), 1.450MH/CY, 0.69 CY/MH, 298.80 hour (37.35 days) | | | | 1.45 | 102.76 | 36.83 | | | | | 139.59 |
| | <i>Place Concrete</i> | 1.00 | EA | 1059.12 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 77.44 | | 23,139 | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 22,410 | | | | | | |
| | Labourer | 8.0 | | 71.17 | | 170,122 | | | | | | |
| | Carpenter | 1.0 | | 57.86 | | 17,288 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 74,699 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 424 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 2,946 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,432 | | | | | |
| 32 | Joint Prep | 500.00 | SF | | 9 | 630 | 105 | | | | | 735 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 4.42 hour (0.55 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | <i>Joint Prep</i> | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 630 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 105 | | | | | |
| 35 | Finish Concrete | 200.00 | SF | | 2 | 128 | | | | | | 128 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 0.88 hour (0.11 days) | | | | 0.01 | 0.64 | | | | | | 0.64 |
| | <i>Finish Concrete with Trowel</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 128 | | | | | | |
| 40 | Cure Concrete Wall | 8,940.00 | SF | | 43 | 3,103 | | 894 | | | | 3,997 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 21.43 hour (2.68 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | <i>Apply Concrete Curing Agent</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 3,103 | | | | | | |
| | Curing Agent per sf | 8,940.00 | SF | 0.10 | | | | 894 | | | | |
| 45 | Patch & Point Walls | 3,840.00 | SF | | 38 | 2,781 | | | | | | 2,781 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 19.20 hour (2.40 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | <i>Point & Patch Concrete</i> | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 2,781 | | | | | | |
| 16 | Batch & Haul Concrete | 2,267.00 | CY | | 596 | 46,163 | 74,029 | | 149,043 | | | 269,236 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.263MH/CY, 3.80 CY/MH, 149.06 hour (14.91 days) | | | | 0.26 | 20.36 | 32.66 | | 65.74 | | | 118.76 |
| | <i>Operate Batch Plant (320 m3/hr)</i> | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 11,815 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 11,925 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|------------|--------|----------------|-------------------|------------------|------------------|-------------------|--------------|-------------------|-------------------|
| | Batch Plant Operator | 1.0 | | 79.26 | | 11,815 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 10,609 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 20,396 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 27,158 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 950 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 1,726 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 2,224 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 19,456 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 2,120 | | | | | |
| | Flyash | 217.6 TN | | 160.00 | | | | | 34,817 | | | |
| | Portland Cement Bulk | 407.8 TN | | 180.00 | | | | | 73,401 | | | |
| | Concrete Sand (Fine Aggregate) | 938.3 TN | | 10.00 | | | | | 9,383 | | | |
| | 2" (50 mm) Coarse Aggregate | 2,814.8 TN | | 10.00 | | | | | 28,148 | | | |
| | Water Reducer | 1,019.8 GAL | | 3.23 | | | | | 3,294 | | | |
| 17 | Deliver Concrete | 2,267.00 | CY | | 894 | 67,883 | 43,699 | | | | | 111,583 |
| | Prod=15.21 CY/hour (152.08 CY/ day), 0.395MH/CY, 2.53 CY/MH, 149.06 hour (14.91 days) | | | | 0.39 | 29.94 | 19.28 | | | | | 49.22 |
| | <i>Deliver Concrete (9 m3 truck)</i> | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 67,883 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 43,699 | | | | | |
| 332.787 | Intake Mechanical Electrical | 1.00 | LS | | | | | | | | 800,000 | 800,000 |
| | | | | | | | | | | | 800,000.00 | 800,000.00 |
| 332.788 | Intake Gates 2 EA 21FT x 23 FT | 1.00 | LS | | | | | | | | 4,500,000 | 4,500,000 |
| | | | | | | | | | | | 4,500,000.00 | 4,500,000.00 |
| 332.789 | Bulkhead Gates 2 EA 21FT x 23FT | 1.00 | LS | | | | | | | | 1,900,000 | 1,900,000 |
| | | | | | | | | | | | 1,900,000.00 | 1,900,000.00 |
| 332.790 | Trashracks 2EA 32FT x 38FT | 1.00 | LS | | | | | | | | 11,800,000 | 11,800,000 |
| | | | | | | | | | | | 11,800,000.00 | 11,800,000.00 |
| | Penstocks | 1.00 | LS | | 242,421 | 18,757,935 | 7,862,532 | 5,516,656 | 16,913,984 | | 68,521 | 49,119,628 |
| | | | | | 242,420.63 | 18,757,934.65 | 7,862,532.00 | 5,516,655.89 | 16,913,984.23 | | 68,520.97 | 49,119,627.74 |
| 332.801 | Steel Liner In Dam Horizontal 19ft ID 480 FEET | 514.00 | TNS | | 15,492 | 1,244,152 | 269,269 | 25,000 | 2,323,697 | | 11,493 | 3,873,611 |
| | | | | | 30.14 | 2,420.53 | 523.87 | 48.64 | 4,520.81 | | 22.36 | 7,536.21 |
| 10 | Load Unload Set Steel Pipe | 480.00 | LF | | 3,458 | 263,352 | 89,850 | | 2,313,000 | | | 2,666,202 |
| | Prod=1.34 TNS/hour (13.38 TNS/ day), 6.727MH/TNS, 0.15 TNS/MH, 384.19 hour (38.42 days) | | | | 7.20 | 548.65 | 187.19 | | 4,818.75 | | | 5,554.59 |
| | <i>Load & Unload Set Steel Pipe</i> | 1.00 | EA | 919.35 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 31,542 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 30,735 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 109,370 | | | | | | |
| | Off Hwy Truck Driver | 1.0 | | 80.85 | | 31,062 | | | | | | |
| | Mechanic Welder | 1.0 | | 80.85 | | 31,062 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 29,582 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 45,223 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 6,608 | | | | | |
| | 2-Ton Mechanic Truck | 1.0 | | 38.80 | | | 14,906 | | | | | |
| | Tractor & Trailer | 1.0 | | 60.16 | | | 23,113 | | | | | |
| | Steel Penstock Pipe | 1,028,000.0 | LB | 2.25 | | | | | 2,313,000 | | | |
| 20 | Weld Steel Pipe | 5,348.60 | LBS | | 12,034 | 980,800 | 179,419 | 25,000 | 10,697 | | | 1,195,916 |
| | | | | | 2.25 | 183.37 | 33.55 | 4.67 | 2.00 | | | 223.59 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|------------------|------------|-----------|---------------|------------------|----------------|---------------|------------------|--------------|---------------|-------------------|
| | Prod=4.00 LBS/hour (40.00 LBS/ day), 2.250MH/LBS, 0.44 LBS/MH, 1,337.15 hour (133.72 days) | | | | | | | | | | | |
| | Weld Steel Pipe | 1.00 | EA | 867.68 | | | | | | | | |
| | Welder Foreman | 1.0 | | 84.82 | | 113,417 | | | | | | |
| | Welder Journeyman | 4.0 | | 84.82 | | 453,668 | | | | | | |
| | Welders Helper | 4.0 | | 77.35 | | 413,714 | | | | | | |
| | 400 Amp Gas Welder | 4.0 | | 16.86 | | | 90,177 | | | | | |
| | 7 KW Generator Set (Gas) | 1.0 | | 4.78 | | | 6,392 | | | | | |
| | 185 CFM Diesel Compressor | 1.0 | | 22.04 | | | 29,471 | | | | | |
| | 60,000 BTU Propane Heater | 2.0 | | 11.36 | | | 30,380 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 22,999 | | | | | |
| | Weld Preheat Supplies | 1.0 | LS | 25,000.00 | | | | 25,000 | | | | |
| | Welding Rod | 5,348.6 | LB | 2.00 | | | | | | 10,697 | | |
| 40 | Epoxy Welded Joints | 5,746.29 | SF | | | | | | | | 11,493 | 11,493 |
| | | | | | | | | | | | 2.00 | 2.00 |
| 332.802 | Steel Liner Inclined on Dam Face 19 FT ID 1380 FEET | 1,796.00 | TNS | | 60,484 | 4,876,402 | 984,966 | 24,154 | 8,126,933 | | 49,132 | 14,061,588 |
| | | | | | 33.68 | 2,715.15 | 548.42 | 13.45 | 4,525.02 | | 27.36 | 7,829.39 |
| 10 | Load Unload Set Steel Pipe | 1,380.00 | LF | | 9,937 | 756,837 | 258,215 | | 8,082,000 | | | 9,097,053 |
| | | | | | 7.20 | 548.43 | 187.11 | | 5,856.52 | | | 6,592.07 |
| | Prod=1.63 TNS/hour (16.27 TNS/ day), 5.533MH/TNS, 0.18 TNS/MH, 1,104.10 hour (110.41 days) | | | | | | | | | | | |
| | Load & Unload Set Steel Pipe | 1.00 | EA | 919.35 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 90,646 | | | | | | |
| | Labour Foreman | 1.0 | | 80.00 | | 88,328 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 314,315 | | | | | | |
| | Off Hwy Truck Driver | 1.0 | | 80.85 | | 89,266 | | | | | | |
| | Mechanic Welder | 1.0 | | 80.85 | | 89,266 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 85,016 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 129,963 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 18,990 | | | | | |
| | 2-Ton Mechanic Truck | 1.0 | | 38.80 | | | 42,839 | | | | | |
| | Tractor & Trailer | 1.0 | | 60.16 | | | 66,423 | | | | | |
| | Steel Penstock Pipe | 3,592,000.0 | LB | 2.25 | | | | | | 8,082,000 | | |
| 20 | Weld Steel Pipe | 22,466.56 | LBS | | 50,547 | 4,119,565 | 726,751 | 24,154 | 44,933 | | | 4,915,403 |
| | | | | | 2.25 | 183.36 | 32.35 | 1.08 | 2.00 | | | 218.79 |
| | Prod=4.00 LBS/hour (40.00 LBS/ day), 2.250MH/LBS, 0.44 LBS/MH, 5,616.31 hour (561.63 days) | | | | | | | | | | | |
| | Weld Steel Pipe | 1.00 | EA | 862.9 | | | | | | | | |
| | Welder Foreman | 1.0 | | 84.82 | | 476,376 | | | | | | |
| | Welder Journeyman | 4.0 | | 84.82 | | 1,905,502 | | | | | | |
| | Welders Helper | 4.0 | | 77.35 | | 1,737,687 | | | | | | |
| | 400 Amp Gas Welder | 4.0 | | 16.86 | | | 378,764 | | | | | |
| | 185 CFM Diesel Compressor | 1.0 | | 22.04 | | | 123,784 | | | | | |
| | 60,000 BTU Propane Heater | 2.0 | | 11.36 | | | 127,603 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 96,601 | | | | | |
| | Weld Preheat Supplies | 1.0 | LS | 24,154.00 | | | | 24,154 | | | | |
| | Welding Rod | 22,466.6 | LB | 2.00 | | | | | | 44,933 | | |
| 40 | Epoxy Welded Joints | 24,566.19 | SF | | | | | | | | 49,132 | 49,132 |
| | | | | | | | | | | | 2.00 | 2.00 |
| 332.803 | Steel Liner Below EL 1475 Horizontal 19 FEET ID. 330FEET | 658.00 | TNS | | 28,368 | 2,299,315 | 435,449 | 24,154 | 2,655,106 | | 7,896 | 5,421,920 |
| | | | | | 43.11 | 3,494.40 | 661.78 | 36.71 | 4,035.12 | | 12.00 | 8,240.00 |
| 10 | Load Unload Set Steel Pipe | 330.00 | LF | | 2,376 | 180,967 | 61,742 | | 2,632,000 | | | 2,874,708 |
| | | | | | 7.20 | 548.38 | 187.10 | | 7,975.76 | | | 8,711.24 |
| | Prod=2.49 TNS/hour (19.94 TNS/ day), 3.611MH/TNS, 0.28 TNS/MH, 264.00 hour (33.00 days) | | | | | | | | | | | |
| | Load & Unload Set Steel Pipe | 1.00 | EA | 919.35 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 21,674 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-------------------|------------|-----------|---------------|------------------|------------------|---------------|------------------|--------------|--------------|------------------|
| | Labour Foreman | 1.0 | | 80.00 | | 21,120 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 75,156 | | | | | | |
| | Off Hwy Truck Driver | 1.0 | | 80.85 | | 21,344 | | | | | | |
| | Mechanic Welder | 1.0 | | 80.85 | | 21,344 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 20,328 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 31,075 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 4,541 | | | | | |
| | 2-Ton Mechanic Truck | 1.0 | | 38.80 | | | 10,243 | | | | | |
| | Tractor & Trailer | 1.0 | | 60.16 | | | 15,882 | | | | | |
| | Steel Penstock Pipe | 1,316,000.0 | LB | 2.00 | | | | | 2,632,000 | | | |
| 20 | Weld Steel Pipe | 11,553.00 | LBS | | 25,992 | 2,118,348 | 373,707 | 24,154 | 23,106 | | | 2,539,315 |
| | Prod=4.00 LBS/hour (40.00 LBS/ day), 2.250MH/LBS, 0.44 LBS/MH, 2,888.00 hour (288.80 days) | | | | 2.25 | 183.36 | 32.35 | 2.09 | 2.00 | | | 219.80 |
| | Weld Steel Pipe | 1.00 | EA | 862.9 | | | | | | | | |
| | Welder Foreman | 1.0 | | 84.82 | | 244,960 | | | | | | |
| | Welder Journeyman | 4.0 | | 84.82 | | 979,841 | | | | | | |
| | Welders Helper | 4.0 | | 77.35 | | 893,547 | | | | | | |
| | 400 Amp Gas Welder | 4.0 | | 16.86 | | | 194,767 | | | | | |
| | 185 CFM Diesel Compressor | 1.0 | | 22.04 | | | 63,652 | | | | | |
| | 60,000 BTU Propane Heater | 2.0 | | 11.36 | | | 65,615 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 49,674 | | | | | |
| | Weld Preheat Supplies | 1.0 | LS | 24,154.00 | | | | 24,154 | | | | |
| | Welding Rod | 11,553.0 | LB | 2.00 | | | | | | 23,106 | | |
| 40 | Epoxy Welded Joints | 3,948.00 | SF | | | | | | | | 7,896 | 7,896 |
| | | | | | | | | | | | 2.00 | 2.00 |
| 332.804 | Concrete Surround Penstock on Downstream Dam Face | 14,700.00 | CY | | 48,069 | 3,584,360 | 2,372,455 | 5,787 | 1,555,035 | | | 7,517,636 |
| | | | | | 3.27 | 243.83 | 161.39 | 0.39 | 105.78 | | | 511.40 |
| 14 | Concrete | 14,700.00 | CY | | 48,069 | 3,584,360 | 2,372,455 | 5,787 | 1,555,035 | | | 7,517,636 |
| | | | | | 3.27 | 243.83 | 161.39 | 0.39 | 105.78 | | | 511.40 |
| 15 | Concrete | 14,700.00 | CY | | 27,014 | 1,973,482 | 709,571 | 5,787 | 588,588 | | | 3,277,429 |
| | | | | | 1.84 | 134.25 | 48.27 | 0.39 | 40.04 | | | 222.95 |
| 25 | Place Reinforcing Steel | 955,500.00 | LB | | 6,638 | 509,121 | 113,263 | | 588,588 | | | 1,210,972 |
| | | | | | 0.01 | 0.53 | 0.12 | | 0.62 | | | 1.27 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 12.632MH/ton, 0.08 ton/MH, 737.58 hour (92.20 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 843.82 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 77.44 | | 57,118 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 52,493 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 59,006 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 283,710 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 56,794 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 86,820 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 13,409 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 13,033 | | | | | |
| | Supply Fabricated Rebar | 1,051,050.0 | LB | 0.56 | | | | | 588,588 | | | |
| 30 | Place Concrete Wall | 14,700.00 | CY | | 14,738 | 1,056,991 | 588,396 | | | | | 1,645,387 |
| | | | | | 1.00 | 71.90 | 40.03 | | | | | 111.93 |
| | Prod=6.98 CY/hour (69.82 CY/ day), 1.003MH/CY, 1.00 CY/MH, 2,105.48 hour (210.55 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 157,911 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 899,080 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 526,369 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 2,990 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 20,760 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|-----------|-----|--------|--------|---------|-----------|---------|----------|--------------|----------|------------|
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 38,278 | | | | | |
| 32 | Joint Prep on Wall | 37,584.52 | SF | | 665 | 47,343 | 7,913 | | | | | 55,256 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 332.61 hour (41.58 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | Joint Prep on Slab | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 47,343 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 7,913 | | | | | |
| 35 | Finish Concrete Wall | 37,584.52 | SF | | 4,492 | 325,251 | | | | | | 325,251 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 2,245.90 hour (280.74 days) | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 325,251 | | | | | | |
| 40 | Cure Concrete Wall | 57,871.76 | SF | | 277 | 20,086 | | 5,787 | | | | 25,873 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 138.70 hour (17.34 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 20,086 | | | | | | |
| | Curing Agent per sf | 57,871.8 | SF | 0.10 | | | | 5,787 | | | | |
| 45 | Patch & Point Walls | 20,287.24 | SF | | 203 | 14,690 | | | | | | 14,690 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 101.44 hour (12.68 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 14,690 | | | | | | |
| 16 | Batch & Haul Concrete | 14,700.00 | CY | | 8,422 | 652,045 | 1,045,642 | | 966,447 | | | 2,664,133 |
| | Prod=6.98 CY/hour (69.82 CY/ day), 0.573MH/CY, 1.75 CY/MH, 2,105.48 hour (210.55 days) | | | | 0.57 | 44.36 | 71.13 | | 65.74 | | | 181.23 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 166,880 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 168,438 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 166,880 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 149,847 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 288,092 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 383,597 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 13,412 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 24,381 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 31,414 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 274,807 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 29,940 | | | | | |
| | Flyash | 1,411.0 | TN | 160.00 | | | | | 225,765 | | | |
| | Portland Cement Bulk | 2,644.2 | TN | 180.00 | | | | | 475,960 | | | |
| | Concrete Sand (Fine Aggregate) | 6,084.0 | TN | 10.00 | | | | | 60,840 | | | |
| | 2" (50 mm) Coarse Aggregate | 18,252.1 | TN | 10.00 | | | | | 182,521 | | | |
| | Water Reducer | 6,612.9 | GAL | 3.23 | | | | | 21,360 | | | |
| 17 | Deliver Concrete | 14,700.00 | CY | | 12,633 | 958,833 | 617,241 | | | | | 1,576,075 |
| | Prod=6.98 CY/hour (69.82 CY/ day), 0.859MH/CY, 1.16 CY/MH, 2,105.48 hour (210.55 days) | | | | 0.86 | 65.23 | 41.99 | | | | | 107.22 |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 958,833 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 617,241 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|--------|---------------|------------------|----------------|--------------|----------------|--------------|----------|------------------|
| 332.805 | Concrete Surround Penstock in Dam- Horizontal | 6,000.00 | CY | | 19,620 | 1,463,004 | 968,349 | 2,362 | 634,708 | | | 3,068,423 |
| | | | | | 3.27 | 243.83 | 161.39 | 0.39 | 105.78 | | | 511.40 |
| 14 | Concrete | 6,000.00 | CY | | 19,620 | 1,463,004 | 968,349 | 2,362 | 634,708 | | | 3,068,423 |
| | | | | | 3.27 | 243.83 | 161.39 | 0.39 | 105.78 | | | 511.40 |
| 15 | Concrete | 6,000.00 | CY | | 11,026 | 805,503 | 289,621 | 2,362 | 240,240 | | | 1,337,726 |
| | | | | | 1.84 | 134.25 | 48.27 | 0.39 | 40.04 | | | 222.95 |
| 25 | Place Reinforcing Steel | 390,000.00 | LB | | 2,709 | 207,805 | 46,230 | | 240,240 | | | 494,274 |
| | | | | | 0.01 | 0.53 | 0.12 | | 0.62 | | | 1.27 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 12.632MH/ton, 0.08 ton/MH, 301.05 hour (37.63 days) | | | | | | | | | | | |
| | Place Reinforcing Steel | 1.00 | EA | 843.82 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 77.44 | | 23,314 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 21,426 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 24,084 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 115,800 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 23,181 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 35,437 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,473 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 5,320 | | | | | |
| | Supply Fabricated Rebar | 429,000.00 | LB | 0.56 | | | | | 240,240 | | | |
| 30 | Place Concrete Wall | 6,000.00 | CY | | 6,016 | 431,425 | 240,162 | | | | | 671,586 |
| | | | | | 1.00 | 71.90 | 40.03 | | | | | 111.93 |
| | Prod=6.98 CY/hour (69.82 CY/ day), 1.003MH/CY, 1.00 CY/MH, 859.38 hour (85.94 days) | | | | | | | | | | | |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 64,453 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 366,971 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 214,844 | | | | | |
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 1,220 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 8,473 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 15,623 | | | | | |
| 32 | Joint Prep on Wall | 15,340.62 | SF | | 272 | 19,324 | 3,230 | | | | | 22,553 |
| | | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 135.76 hour (16.97 days) | | | | | | | | | | | |
| | Joint Prep on Slab | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 19,324 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 3,230 | | | | | |
| 35 | Finish Concrete Wall | 15,340.62 | SF | | 1,833 | 132,755 | | | | | | 132,755 |
| | | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 916.69 hour (114.59 days) | | | | | | | | | | | |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 132,755 | | | | | | |
| 40 | Cure Concrete Wall | 23,621.13 | SF | | 113 | 8,198 | | 2,362 | | | | 10,561 |
| | | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 56.61 hour (7.08 days) | | | | | | | | | | | |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 8,198 | | | | | | |
| | Curing Agent per sf | 23,621.13 | SF | 0.10 | | | | 2,362 | | | | |
| 45 | Patch & Point Walls | 8,280.50 | SF | | 83 | 5,996 | | | | | | 5,996 |
| | | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 41.40 hour (5.18 days) | | | | | | | | | | | |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 5,996 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|--------|---------------|------------------|------------------|--------------|------------------|--------------|----------|------------------|
| 16 | Batch & Haul Concrete | 6,000.00 | CY | | 3,438 | 266,141 | 426,793 | | 394,468 | | | 1,087,401 |
| | Prod=6.98 CY/hour (69.82 CY/ day), 0.573MH/CY, 1.75 CY/MH, 859.38 hour (85.94 days) | | | | 0.57 | 44.36 | 71.13 | | 65.74 | | | 181.23 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 68,114 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 68,750 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 68,114 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 61,162 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 117,589 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 156,570 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 5,474 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 9,952 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 12,822 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 112,166 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 12,220 | | | | | |
| | Flyash | 575.9 | TN | 160.00 | | | | | 92,149 | | | |
| | Portland Cement Bulk | 1,079.3 | TN | 180.00 | | | | | 194,269 | | | |
| | Concrete Sand (Fine Aggregate) | 2,483.3 | TN | 10.00 | | | | | 24,833 | | | |
| | 2" (50 mm) Coarse Aggregate | 7,449.9 | TN | 10.00 | | | | | 74,499 | | | |
| | Water Reducer | 2,699.1 | GAL | 3.23 | | | | | 8,718 | | | |
| 17 | Deliver Concrete | 6,000.00 | CY | | 5,156 | 391,361 | 251,935 | | | | | 643,296 |
| | Prod=6.98 CY/hour (69.82 CY/ day), 0.859MH/CY, 1.16 CY/MH, 859.38 hour (85.94 days) | | | | 0.86 | 65.23 | 41.99 | | | | | 107.22 |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 391,361 | | | | | | |
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 251,935 | | | | | |
| 332.806 | Concrete Surround Penstock at Downstream Toe of Dam- Horizontal | 15,300.00 | CY | | 50,031 | 3,730,660 | 2,469,290 | 6,023 | 1,618,505 | | | 7,824,479 |
| | | | | | 3.27 | 243.83 | 161.39 | 0.39 | 105.78 | | | 511.40 |
| 14 | Concrete | 15,300.00 | CY | | 50,031 | 3,730,660 | 2,469,290 | 6,023 | 1,618,505 | | | 7,824,479 |
| | | | | | 3.27 | 243.83 | 161.39 | 0.39 | 105.78 | | | 511.40 |
| 15 | Concrete | 15,300.00 | CY | | 28,116 | 2,054,032 | 738,534 | 6,023 | 612,612 | | | 3,411,201 |
| | | | | | 1.84 | 134.25 | 48.27 | 0.39 | 40.04 | | | 222.95 |
| 25 | Place Reinforcing Steel | 994,500.00 | LB | | 6,909 | 529,902 | 117,886 | | 612,612 | | | 1,260,399 |
| | Prod=0.71 ton/hour (5.70 ton/ day), 12.632MH/ton, 0.08 ton/MH, 767.68 hour (95.96 days) | | | | 0.01 | 0.53 | 0.12 | | 0.62 | | | 1.27 |
| | Place Reinforcing Steel | 1.00 | EA | 843.82 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 77.44 | | 59,449 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 54,636 | | | | | | |
| | Ironworker Foreman | 1.0 | | 80.00 | | 61,415 | | | | | | |
| | Ironworker | 5.0 | | 76.93 | | 295,290 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 59,112 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 117.71 | | | 90,364 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 13,956 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 13,565 | | | | | |
| | Supply Fabricated Rebar | 1,093,950.0 | LB | 0.56 | | | | | 612,612 | | | |
| 30 | Place Concrete Wall | 15,300.00 | CY | | 15,340 | 1,100,133 | 612,412 | | | | | 1,712,545 |
| | Prod=6.98 CY/hour (69.82 CY/ day), 1.003MH/CY, 1.00 CY/MH, 2,191.41 hour (219.14 days) | | | | 1.00 | 71.90 | 40.03 | | | | | 111.93 |
| | Place Concrete | 1.00 | EA | 781.48 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 164,356 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 935,777 | | | | | | |
| | Truck Mounted Concrete Pump | 1.0 | | 250.00 | | | 547,853 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------|---|-----------|-----|--------|--------|---------|-----------|---------|-----------|--------------|----------|------------|
| | Concrete Vibrator-Normal | 2.0 | | 0.71 | | | 3,112 | | | | | |
| | 10 KW Generator Set (Gas) | 2.0 | | 4.93 | | | 21,607 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 39,840 | | | | | |
| 32 | Joint Prep on Wall | 39,118.59 | SF | | 692 | 49,276 | 8,236 | | | | | 57,511 |
| | Prod=113.00 SF/hour (904.00 SF/ day), 0.018MH/SF, 56.50 SF/MH, 346.18 hour (43.27 days) | | | | 0.02 | 1.26 | 0.21 | | | | | 1.47 |
| | Joint Prep on Slab | 1.00 | EA | 166.13 | | | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 49,276 | | | | | | |
| | 250 CFM Diesel Compressor | 1.0 | | 23.79 | | | 8,236 | | | | | |
| 35 | Finish Concrete Wall | 39,118.59 | SF | | 4,675 | 338,526 | | | | | | 338,526 |
| | Prod=226.00 SF/hour (1,808.00 SF/ day), 0.009MH/SF, 113.00 SF/MH, 2,337.56 hour (292.20 days) | | | | 0.12 | 8.65 | | | | | | 8.65 |
| | Finish Concrete with Trowel | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 338,526 | | | | | | |
| 40 | Cure Concrete Wall | 60,233.87 | SF | | 289 | 20,906 | | 6,023 | | | | 26,929 |
| | Prod=417.25 SF/hour (3,338.00 SF/ day), 0.005MH/SF, 208.63 SF/MH, 144.36 hour (18.04 days) | | | | 0.00 | 0.35 | | 0.10 | | | | 0.45 |
| | Apply Concrete Curing Agent | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 20,906 | | | | | | |
| | Curing Agent per sf | 60,233.9 | SF | 0.10 | | | | 6,023 | | | | |
| 45 | Patch & Point Walls | 21,115.29 | SF | | 211 | 15,290 | | | | | | 15,290 |
| | Prod=200.00 SF/hour (1,600.00 SF/ day), 0.010MH/SF, 100.00 SF/MH, 105.58 hour (13.20 days) | | | | 0.01 | 0.72 | | | | | | 0.72 |
| | Point & Patch Concrete | 1.00 | EA | 144.82 | | | | | | | | |
| | Cement Finisher | 2.0 | | 72.41 | | 15,290 | | | | | | |
| 16 | Batch & Haul Concrete | 15,300.00 | CY | | 8,766 | 678,659 | 1,088,321 | | 1,005,893 | | | 2,772,873 |
| | Prod=6.98 CY/hour (69.82 CY/ day), 0.573MH/CY, 1.75 CY/MH, 2,191.41 hour (219.14 days) | | | | 0.57 | 44.36 | 71.13 | | 65.74 | | | 181.23 |
| | Operate Batch Plant (320 m3/hr) | 1.00 | EA | 806.32 | | | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 173,691 | | | | | | |
| | Batch Plant Foreman | 1.0 | | 80.00 | | 175,313 | | | | | | |
| | Batch Plant Operator | 1.0 | | 79.26 | | 173,691 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 155,963 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 299,851 | | | | | |
| | 420 YPH RexCon Model S Structural Plant -1 drum | 1.0 | | 182.19 | | | 399,254 | | | | | |
| | Cement Additive System | 1.0 | | 6.37 | | | 13,959 | | | | | |
| | Cement Blower | 1.0 | | 11.58 | | | 25,377 | | | | | |
| | Cement Silo | 1.0 | | 14.92 | | | 32,696 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 286,023 | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 31,162 | | | | | |
| | Flyash | 1,468.6 | TN | 160.00 | | | | | 234,980 | | | |
| | Portland Cement Bulk | 2,752.1 | TN | 180.00 | | | | | 495,387 | | | |
| | Concrete Sand (Fine Aggregate) | 6,332.4 | TN | 10.00 | | | | | 63,324 | | | |
| | 2" (50 mm) Coarse Aggregate | 18,997.1 | TN | 10.00 | | | | | 189,971 | | | |
| | Water Reducer | 6,882.8 | GAL | 3.23 | | | | | 22,231 | | | |
| 17 | Deliver Concrete | 15,300.00 | CY | | 13,148 | 997,969 | 642,435 | | | | | 1,640,404 |
| | Prod=6.98 CY/hour (69.82 CY/ day), 0.859MH/CY, 1.16 CY/MH, 2,191.41 hour (219.14 days) | | | | 0.86 | 65.23 | 41.99 | | | | | 107.22 |
| | Deliver Concrete (9 m3 truck) | 1.00 | EA | 748.56 | | | | | | | | |
| | Concrete Truck Driver | 6.0 | | 75.90 | | 997,969 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|---------------------|-----|---------|--------------|----------------|----------------|------------------|-----------|--------------|----------|------------------|
| | Concrete Agitator Car 8CY | 6.0 | | 48.86 | | | 642,435 | | | | | |
| 332.808 | Forms for RCC for Horizontal Penstock in Dam 480 LF | 19,700.00 SF | | | 3,312 | 253,778 | 59,011 | 883,157 | | | | 1,195,947 |
| | | | | | 0.17 | 12.88 | 3.00 | 44.83 | | | | 60.71 |
| 15 | Build Wall Forms | 6,566.21 SF | | | 625 | 48,332 | 9,727 | 853,607 | | | | 911,667 |
| | | | | | 0.10 | 7.36 | 1.48 | 130.00 | | | | 138.84 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.095MH/SF, 10.50 SF/MH, 78.17 hour (9.77 days) | | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 EA | | 742.74 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 6,418 | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 5,859 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 5,563 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 6,254 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 24,239 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 4,897 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,421 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 3,410 | | | | | |
| | Symons Jump Form 10Ft High | 6,566.2 SF | | 130.00 | | | | | 853,607 | | | |
| 20 | Set, Strip & Move Wall Forms | 19,700.00 SF | | | 2,686 | 205,446 | 49,284 | 29,550 | | | | 284,280 |
| | | | | | 0.14 | 10.43 | 2.50 | 1.50 | | | | 14.43 |
| | Prod=88.00 SF/hour (704.00 SF/ day), 0.136MH/SF, 7.33 SF/MH, 223.86 hour (27.98 days) | | | | | | | | | | | |
| | <i>Set Strip Retaining Walls</i> | 1.00 EA | | 1137.88 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 18,379 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 47,797 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 17,909 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 104,123 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 17,238 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 41,258 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,070 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 3,956 | | | | | |
| | Set Strip Form Material | 19,700.0 SF | | 1.50 | | | | | 29,550 | | | |
| 332.809 | Forms for RCC Below EL 1475 for Horizontal Penstock 330 LF | 44,200.00 SF | | | 7,430 | 569,394 | 132,401 | 1,981,551 | | | | 2,683,346 |
| | | | | | 0.17 | 12.88 | 3.00 | 44.83 | | | | 60.71 |
| 15 | Build Wall Forms | 14,732.70 SF | | | 1,403 | 108,443 | 21,825 | 1,915,251 | | | | 2,045,520 |
| | | | | | 0.10 | 7.36 | 1.48 | 130.00 | | | | 138.84 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.095MH/SF, 10.50 SF/MH, 175.39 hour (21.92 days) | | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 EA | | 742.74 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 14,399 | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 13,145 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 12,482 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 14,031 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 54,385 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 10,986 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,189 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 7,650 | | | | | |
| | Symons Jump Form 10Ft High | 14,732.7 SF | | 130.00 | | | | | 1,915,251 | | | |
| 20 | Set, Strip & Move Wall Forms | 44,200.00 SF | | | 6,027 | 460,951 | 110,575 | 66,300 | | | | 637,826 |
| | | | | | 0.14 | 10.43 | 2.50 | 1.50 | | | | 14.43 |
| | Prod=88.00 SF/hour (704.00 SF/ day), 0.136MH/SF, 7.33 SF/MH, 502.27 hour (62.78 days) | | | | | | | | | | | |
| | <i>Set Strip Retaining Walls</i> | 1.00 EA | | 1137.88 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 41,237 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 107,240 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 40,182 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 233,617 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|------------------|-----------|---------|--------------|----------------|----------------|------------------|----------|--------------|-------------------|-------------------|
| | Oiler | 1.0 | | 77.00 | | 38,675 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 92,569 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 9,131 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 8,875 | | | | | |
| | Set Strip Form Material | 44,200.0 | SF | 1.50 | | | | 66,300 | | | | |
| 332.810 | Forms for Penstock Concrete Surround on Downstream Face of Dan | 57,200.00 | SF | | 9,616 | 736,869 | 171,343 | 2,564,467 | | | | 3,472,679 |
| | | | | | 0.17 | 12.88 | 3.00 | 44.83 | | | | 60.71 |
| 15 | Build Wall Forms | 19,066.67 | SF | | 1,816 | 140,344 | 28,246 | 2,478,667 | | | | 2,647,257 |
| | | | | | 0.10 | 7.36 | 1.48 | 130.00 | | | | 138.84 |
| | Prod=84.00 SF/hour (672.00 SF/ day), 0.095MH/SF, 10.50 SF/MH, 226.98 hour (28.37 days) | | | | | | | | | | | |
| | <i>Fabricate Gang Formwork</i> | 1.00 | EA | 742.74 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 18,635 | | | | | | |
| | Boomtruck Operator | 1.0 | | 74.95 | | 17,012 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 16,154 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 18,159 | | | | | | |
| | Carpenter | 4.0 | | 77.52 | | 70,383 | | | | | | |
| | 40 Ton Hydraulic Crane (Grove700) | 1.0 | | 62.64 | | | 14,218 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,127 | | | | | |
| | 15 Ton Pitman Boom Truck | 1.0 | | 43.62 | | | 9,901 | | | | | |
| | Symons Jump Form 10Ft High | 19,066.7 | SF | 130.00 | | | | 2,478,667 | | | | |
| 20 | Set, Strip & Move Wall Forms | 57,200.00 | SF | | 7,800 | 596,525 | 143,098 | 85,800 | | | | 825,422 |
| | | | | | 0.14 | 10.43 | 2.50 | 1.50 | | | | 14.43 |
| | Prod=88.00 SF/hour (704.00 SF/ day), 0.136MH/SF, 7.33 SF/MH, 650.00 hour (81.25 days) | | | | | | | | | | | |
| | <i>Set Strip Retaining Walls</i> | 1.00 | EA | 1137.88 | | | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 53,365 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 138,782 | | | | | | |
| | Carpenter Foreman | 1.0 | | 80.00 | | 52,000 | | | | | | |
| | Carpenter | 6.0 | | 77.52 | | 302,328 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 50,050 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 119,795 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 11,817 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 11,486 | | | | | |
| | Set Strip Form Material | 57,200.0 | SF | 1.50 | | | | 85,800 | | | | |
| | Waterwheels, Turbines & Generators | 1.00 | LS | | | | | | | | 22,152,874 | 22,152,874 |
| | | | | | | | | | | | 22,152,874.00 | 22,152,874.00 |
| | Hydromechanical Equipment | 1.00 | LS | | | | | | | | 8,843,403 | 8,843,403 |
| | | | | | | | | | | | 8,843,403.00 | 8,843,403.00 |
| 333.101 | Turbines 600 MW Installation & Testing | 3.00 | EA | | | | | | | | 8,843,403 | 8,843,403 |
| | | | | | | | | | | | 2,947,801.00 | 2,947,801.00 |
| | Generator | 1.00 | LS | | | | | | | | 13,309,471 | 13,309,471 |
| | | | | | | | | | | | 13,309,471.00 | 13,309,471.00 |
| 333.201 | Generator Installation & Testing | 1.00 | LS | | | | | | | | 13,309,471 | 13,309,471 |
| | | | | | | | | | | | 13,309,471.00 | 13,309,471.00 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---|---|-------------|-----------|--------------|--------------|----------------|----------------|--------------|----------|-------------------|-------------------|-------------------|
| Accessory Electrical Equipment | | 1.00 | LS | | 1,870 | 148,050 | 217,579 | 1,875 | | 33,933,500 | 19,446,540 | 53,747,545 |
| | | | | | 1,870.00 | 148,050.48 | 217,579.43 | 1,875.00 | | 33,933,500.00 | 19,446,540.00 | 53,747,544.91 |
| Essential Electrical Systems | | 1.00 | LS | | | | | | | 13,650,000 | 5,422,500 | 19,072,500 |
| | | | | | | | | | | 13,650,000.00 | 5,422,500.00 | 19,072,500.00 |
| Station Service | | 1.00 | LS | | | | | | | 2,850,000 | | 2,850,000 |
| | | | | | | | | | | 2,850,000.00 | | 2,850,000.00 |
| 334.111 | Main Station Service Transformers | 2.00 | EA | | | | | | | 600,000 | | 600,000 |
| | | | | | | | | | | 300,000.00 | | 300,000.00 |
| 10 | Main Station Service Transformers | 2.00 | EA | | | | | | | 600,000 | | 600,000 |
| | Main Station Service Transformers | 2.0 | EA | 300,000.00 | | | | | | 300,000.00 | | 300,000.00 |
| | | | | | | | | | | 600,000 | | 600,000 |
| 334.112 | 3.3 kV Station Service Switchgear | 2.00 | EA | | | | | | | 500,000 | | 500,000 |
| | | | | | | | | | | 250,000.00 | | 250,000.00 |
| 10 | 3.3 kV Station Service Switchgear | 2.00 | EA | | | | | | | 500,000 | | 500,000 |
| | 3.3 kV Station Service Switchgear | 2.0 | EA | 250,000.00 | | | | | | 250,000.00 | | 250,000.00 |
| | | | | | | | | | | 500,000 | | 500,000 |
| 334.113 | 400 V Stataion Service Substations | 6.00 | EA | | | | | | | 750,000 | | 750,000 |
| | | | | | | | | | | 125,000.00 | | 125,000.00 |
| 10 | 400 V Stataion Service Substations | 6.00 | EA | | | | | | | 750,000 | | 750,000 |
| | 400 V Stataion Service Substations | 6.0 | EA | 125,000.00 | | | | | | 125,000.00 | | 125,000.00 |
| | | | | | | | | | | 750,000 | | 750,000 |
| 334.114 | Motor Control Centers and Power Distribution | 1.00 | LS | | | | | | | 1,000,000 | | 1,000,000 |
| | | | | | | | | | | 1,000,000.00 | | 1,000,000.00 |
| 10 | Motor Control Centers and Power Distribution | 1.00 | LS | | | | | | | 1,000,000 | | 1,000,000 |
| | Motor Control Centers and Power Distribution | 1.0 | LS | 1,000,000.00 | | | | | | 1,000,000.00 | | 1,000,000.00 |
| | | | | | | | | | | 1,000,000 | | 1,000,000 |
| Essential AC and DC Distribution Systems | | 1.00 | LS | | | | | | | 1,100,000 | | 1,100,000 |
| | | | | | | | | | | 1,100,000.00 | | 1,100,000.00 |
| 334.121 | Batteries and Battery Charger Systems | 2.00 | EA | | | | | | | 500,000 | | 500,000 |
| | | | | | | | | | | 250,000.00 | | 250,000.00 |
| 10 | Batteries and Battery Charger Systems | 2.00 | EA | | | | | | | 500,000 | | 500,000 |
| | Batteries and Battery Charger Systems | 2.0 | EA | 250,000.00 | | | | | | 250,000.00 | | 250,000.00 |
| | | | | | | | | | | 500,000 | | 500,000 |
| 334.122 | Uninterruptible Power Supply Systems | 2.00 | EA | | | | | | | 600,000 | | 600,000 |
| | | | | | | | | | | 300,000.00 | | 300,000.00 |
| 10 | Uninterruptible Power Supply Systems | 2.00 | EA | | | | | | | 600,000 | | 600,000 |
| | Uninterruptible Power Supply Systems | 2.0 | EA | 300,000.00 | | | | | | 300,000.00 | | 300,000.00 |
| | | | | | | | | | | 600,000 | | 600,000 |
| Protection and Controls | | 1.00 | LS | | | | | | | 9,700,000 | | 9,700,000 |
| | | | | | | | | | | 9,700,000.00 | | 9,700,000.00 |
| 334.131 | Protective Relay Panels (LPPs) | 4.00 | EA | | | | | | | 1,200,000 | | 1,200,000 |
| | | | | | | | | | | 300,000.00 | | 300,000.00 |
| 10 | Protective Relay Panels (LPPs) | 4.00 | EA | | | | | | | 1,200,000 | | 1,200,000 |
| | Protective Relay Panels (LPPs) | 4.0 | EA | 300,000.00 | | | | | | 300,000.00 | | 300,000.00 |
| | | | | | | | | | | 1,200,000 | | 1,200,000 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-------------|-----------|--------------|--------|-------|-------|---------|----------|------------------|------------------|------------------|
| 334.132 | Plant and Control System | 1.00 | LS | | | | | | | 8,500,000 | | 8,500,000 |
| | | | | | | | | | | 8,500,000.00 | | 8,500,000.00 |
| 10 | Plant and Control System | 1.00 | LS | | | | | | | 8,500,000 | | 8,500,000 |
| | Plant and Control System | 1.0 | LS | 8,500,000.00 | | | | | | 8,500,000 | | 8,500,000.00 |
| | | | | | | | | | | 8,500,000 | | |
| | Preliminary and General Costs | 1.00 | LS | | | | | | | | 5,422,500 | 5,422,500 |
| | | | | | | | | | | | 5,422,500.00 | 5,422,500.00 |
| 334.141 | G & A on Procured Items Essential Electrical Systems | 1.00 | LS | | | | | | | | 1,638,000 | 1,638,000 |
| | | | | | | | | | | | 1,638,000.00 | 1,638,000.00 |
| 334.142 | Installation of Essential Electrical Systems | 1.00 | LS | | | | | | | | 3,784,500 | 3,784,500 |
| | | | | | | | | | | | 3,784,500.00 | 3,784,500.00 |
| | Electrical Subcontract | 1.0 | LS | 3,784,500.00 | | | | | | | 3,784,500 | |
| | | | | | | | | | | | 3,784,500 | |
| | Transformer | 1.00 | LS | | | | | | | | 3,900,000 | 3,900,000 |
| | | | | | | | | | | | 3,900,000.00 | 3,900,000.00 |
| 334.222 | Installation of Transformer and High Voltage Interconnect | 1.00 | LS | | | | | | | | 3,900,000 | 3,900,000 |
| | | | | | | | | | | | 3,900,000.00 | 3,900,000.00 |
| | Electrical Subcontract | 1.0 | LS | 3,900,000.00 | | | | | | | 3,900,000 | |
| | | | | | | | | | | | 3,900,000 | |
| | Lighting, Security, Fire Comms, Cable Systems | 1.00 | LS | | | | | | | 5,900,000 | 1,888,000 | 7,788,000 |
| | | | | | | | | | | 5,900,000.00 | 1,888,000.00 | 7,788,000.00 |
| | Lighting, Security, Fire, Comms,Cable Systems | 1.00 | LS | | | | | | | 5,900,000 | | 5,900,000 |
| | | | | | | | | | | 5,900,000.00 | | 5,900,000.00 |
| 334.311 | Earthing System | 1.00 | LS | | | | | | | | 500,000 | 500,000 |
| | | | | | | | | | | | 500,000.00 | 500,000.00 |
| 10 | Earthing System | 1.00 | LS | | | | | | | 500,000 | | 500,000 |
| | Earthing System | 1.0 | LS | 500,000.00 | | | | | | 500,000 | | 500,000.00 |
| | | | | | | | | | | 500,000 | | |
| 334.312 | Lighting System | 1.00 | LS | | | | | | | | 450,000 | 450,000 |
| | | | | | | | | | | | 450,000.00 | 450,000.00 |
| 10 | Lighting System | 1.00 | LS | | | | | | | 450,000 | | 450,000 |
| | Lighting System | 1.0 | LS | 450,000.00 | | | | | | 450,000 | | 450,000.00 |
| | | | | | | | | | | 450,000 | | |
| 334.313 | Security Surveillance System | 1.00 | LS | | | | | | | | 250,000 | 250,000 |
| | | | | | | | | | | | 250,000.00 | 250,000.00 |
| 10 | Security Surveillance System | 1.00 | LS | | | | | | | 250,000 | | 250,000 |
| | Security Surveillance System | 1.0 | LS | 250,000.00 | | | | | | 250,000 | | 250,000.00 |
| | | | | | | | | | | 250,000 | | |
| 334.314 | Communications System | 1.00 | LS | | | | | | | | 400,000 | 400,000 |
| | | | | | | | | | | | 400,000.00 | 400,000.00 |
| 10 | Communications System | 1.00 | LS | | | | | | | 400,000 | | 400,000 |
| | Communications System | 1.0 | LS | 400,000.00 | | | | | | 400,000 | | 400,000.00 |
| | | | | | | | | | | 400,000 | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------|-----------|--------------|--------|-------|-------|---------|----------|------------------|------------------|------------------|
| 334.315 | Fire Detection System | 1.00 | LS | | | | | | | 300,000 | | 300,000 |
| | | | | | | | | | | 300,000.00 | | 300,000.00 |
| 10 | Fire Detection System | 1.00 | LS | | | | | | | 300,000 | | 300,000 |
| | Fire Detection System | 1.0 | LS | 300,000.00 | | | | | | 300,000 | | 300,000.00 |
| 334.316 | Cable Systems | 1.00 | LS | | | | | | | 2,000,000 | | 2,000,000 |
| | | | | | | | | | | 2,000,000.00 | | 2,000,000.00 |
| 10 | Cable Systems | 1.00 | LS | | | | | | | 2,000,000 | | 2,000,000 |
| | Cable Systems | 1.0 | LS | 2,000,000.00 | | | | | | 2,000,000 | | 2,000,000.00 |
| 334.317 | Raceway and Enclosures | 1.00 | LS | | | | | | | 2,000,000 | | 2,000,000 |
| | | | | | | | | | | 2,000,000.00 | | 2,000,000.00 |
| 10 | Raceway and Enclosures | 1.00 | LS | | | | | | | 2,000,000 | | 2,000,000 |
| | Raceway and Enclosures | 1.0 | LS | 2,000,000.00 | | | | | | 2,000,000 | | 2,000,000.00 |
| | Preliminary and Genrel Costs on Essential Electrical Systems | 1.00 | LS | | | | | | | | 1,888,000 | 1,888,000 |
| | | | | | | | | | | | 1,888,000.00 | 1,888,000.00 |
| 334.321 | G & A on Procured Items Electrical Systems | 1.00 | LS | | | | | | | | 708,000 | 708,000 |
| | | | | | | | | | | | 708,000.00 | 708,000.00 |
| 334.322 | Installation of Essential Electrical Systems | 1.00 | LS | | | | | | | | 1,180,000 | 1,180,000 |
| | | | | | | | | | | | 1,180,000.00 | 1,180,000.00 |
| | Electrical Subcontract | 1.0 | LS | 1,180,000.00 | | | | | | | 1,180,000 | |
| | Electrical Spares | 1.00 | LS | | | | | | | 7,307,500 | | 7,307,500 |
| | | | | | | | | | | 7,307,500.00 | | 7,307,500.00 |
| 334.401 | Disconnecting Switches Spares | 1.00 | LS | | | | | | | 175,000 | | 175,000 |
| | | | | | | | | | | 175,000.00 | | 175,000.00 |
| 10 | Disconnecting Switches Spares | 1.00 | LS | | | | | | | 175,000 | | 175,000 |
| | Disconnecting Switches Spares | 1.0 | LS | 175,000.00 | | | | | | 175,000 | | 175,000.00 |
| 334.402 | Unit Circuit Breakers Spares | 1.00 | LS | | | | | | | 750,000 | | 750,000 |
| | | | | | | | | | | 750,000.00 | | 750,000.00 |
| 10 | Unit Circuit Breakers Spares | 1.00 | LS | | | | | | | 750,000 | | 750,000 |
| | Unit Circuit Breakers Spares | 1.0 | LS | 750,000.00 | | | | | | 750,000 | | 750,000.00 |
| 334.403 | Batteries and Battery Charger Systems Spares | 1.00 | LS | | | | | | | 25,000 | | 25,000 |
| | | | | | | | | | | 25,000.00 | | 25,000.00 |
| 10 | Batteries and Battery Charger Systems Spares | 1.00 | LS | | | | | | | 25,000 | | 25,000 |
| | Batteries and Battery Charger Systems Spares | 1.0 | LS | 25,000.00 | | | | | | 25,000 | | 25,000.00 |
| 334.404 | Uninterruptible Power Supply Systems Spares | 1.00 | LS | | | | | | | 30,000 | | 30,000 |
| | | | | | | | | | | 30,000.00 | | 30,000.00 |
| 10 | Uninterruptible Power Supply Systems Spares | 1.00 | LS | | | | | | | 30,000 | | 30,000 |
| | | | | | | | | | | 30,000.00 | | 30,000.00 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------|-----------|--------------|--------|-------|-------|---------|----------|------------------|------------------|------------------|
| | Uninterruptible Power Supply Systems Spares | 1.0 | LS | 30,000.00 | | | | | | 30,000 | | |
| 334.405 | Protective Relay Panels (Ipps) Spares | 1.00 | LS | | | | | | | 37,500 | | 37,500 |
| | | | | | | | | | | 37,500.00 | | 37,500.00 |
| 10 | Protective Relay Panels (Ipps) Spares | 1.00 | LS | | | | | | | 37,500 | | 37,500 |
| | Protective Relay Panels (Ipps) Spares | 1.0 | LS | 37,500.00 | | | | | | 37,500 | | 37,500.00 |
| 334.406 | Plant Control System Spares | 1.00 | LS | | | | | | | 750,000 | | 750,000 |
| | | | | | | | | | | 750,000.00 | | 750,000.00 |
| 10 | Plant Control System Spares | 1.00 | LS | | | | | | | 750,000 | | 750,000 |
| | Plant Control System Spares | 1.0 | LS | 750,000.00 | | | | | | 750,000 | | 750,000.00 |
| 334.407 | GTU Air Cooled 3 Phase Spares | 1.00 | LS | | | | | | | 5,200,000 | | 5,200,000 |
| | | | | | | | | | | 5,200,000.00 | | 5,200,000.00 |
| 10 | GTU Air Cooled 3 Phase Spares | 1.00 | LS | | | | | | | 5,200,000 | | 5,200,000 |
| | GTU Air Cooled 3 Phase Spares | 1.0 | LS | 5,200,000.00 | | | | | | 5,200,000 | | 5,200,000.00 |
| 334.408 | Lighting System Spares | 1.00 | LS | | | | | | | 45,000 | | 45,000 |
| | | | | | | | | | | 45,000.00 | | 45,000.00 |
| 10 | Lighting System Spares | 1.00 | LS | | | | | | | 45,000 | | 45,000 |
| | Lighting System Spares | 1.0 | LS | 45,000.00 | | | | | | 45,000 | | 45,000.00 |
| 334.409 | Security Surveillance System Spares | 1.00 | LS | | | | | | | 25,000 | | 25,000 |
| | | | | | | | | | | 25,000.00 | | 25,000.00 |
| 10 | Security Surveillance System Spares | 1.00 | LS | | | | | | | 25,000 | | 25,000 |
| | Security Surveillance System Spares | 1.0 | LS | 25,000.00 | | | | | | 25,000 | | 25,000.00 |
| 334.410 | Communications System Spares | 1.00 | LS | | | | | | | 40,000 | | 40,000 |
| | | | | | | | | | | 40,000.00 | | 40,000.00 |
| 10 | Communications System Spares | 1.00 | LS | | | | | | | 40,000 | | 40,000 |
| | Communications System Spares | 1.0 | LS | 40,000.00 | | | | | | 40,000 | | 40,000.00 |
| 334.411 | Fire Detection System Spares | 1.00 | LS | | | | | | | 30,000 | | 30,000 |
| | | | | | | | | | | 30,000.00 | | 30,000.00 |
| 10 | Fire Detection System Spares | 1.00 | LS | | | | | | | 30,000 | | 30,000 |
| | Fire Detection System Spares | 1.0 | LS | 30,000.00 | | | | | | 30,000 | | 30,000.00 |
| 334.412 | Miscellaneous Spare Parts | 1.00 | LS | | | | | | | 200,000 | | 200,000 |
| | | | | | | | | | | 200,000.00 | | 200,000.00 |
| 10 | Miscellaneous Spare Parts | 1.00 | LS | | | | | | | 200,000 | | 200,000 |
| | Miscellaneous Spare Parts | 1.0 | LS | 200,000.00 | | | | | | 200,000 | | 200,000.00 |
| | Ancillary | 1.00 | LS | | | | | | | | 1,250,000 | 1,250,000 |
| | | | | | | | | | | | 1,250,000.00 | 1,250,000.00 |
| 334.501 | Station Control Equipment,Software,Tailwater Monitor, SCADA Link | 1.00 | LS | | | | | | | | 1,250,000 | 1,250,000 |
| | | | | | | | | | | | 1,250,000.00 | 1,250,000.00 |

| Estimate Line Detail | | | | | | | | | | | | |
|---|---|------------------|-----------|-----------|--------------|----------------|----------------|--------------|----------|------------------|------------------|-------------------|
| Estimate: JULY 2014 - MAIN CIVIL CONTRACT | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
| | High Voltage Interconnect | 1.00 | LS | | | | | | | 394,000 | 78,800 | 472,800 |
| | | | | | | | | | | 394,000.00 | 78,800.00 | 472,800.00 |
| | HV Cables | 1.00 | LS | | | | | | | 394,000 | | 394,000 |
| | | | | | | | | | | 394,000.00 | | 394,000.00 |
| 334.611 | 230kV Cable 3PH | 600.00 | FT | | | | | | | 180,000 | | 180,000 |
| | | | | | | | | | | 300.00 | | 300.00 |
| 10 | 230kV Cable 3PH | 600.00 | FT | | | | | | | 180,000 | | 180,000 |
| | 230kV Cable 3PH | 600.0 | FT | 300.00 | | | | | | 300.00 | | 300.00 |
| | | | | | | | | | | 180,000 | | 180,000 |
| 334.612 | Cable Terminations | 6.00 | EA | | | | | | | 18,000 | | 18,000 |
| | | | | | | | | | | 3,000.00 | | 3,000.00 |
| 10 | Cable Terminations | 6.00 | EA | | | | | | | 18,000 | | 18,000 |
| | Cable Terminations | 6.0 | EA | 3,000.00 | | | | | | 3,000.00 | | 3,000.00 |
| | | | | | | | | | | 18,000 | | 18,000 |
| 334.613 | Control/ Communication Cable to Switchyard | 8,000.00 | FT | | | | | | | 160,000 | | 160,000 |
| | | | | | | | | | | 20.00 | | 20.00 |
| 10 | Control/ Communication Cable to Switchyard | 8,000.00 | FT | | | | | | | 160,000 | | 160,000 |
| | Control/ Communication Cable to Switchyard | 8,000.0 | FT | 20.00 | | | | | | 20.00 | | 20.00 |
| | | | | | | | | | | 160,000 | | 160,000 |
| 334.614 | High Voltage Interconnection Miscellaneous Hardware | 1.00 | LS | | | | | | | 36,000 | | 36,000 |
| | | | | | | | | | | 36,000.00 | | 36,000.00 |
| 10 | High Voltage Interconnection Miscellaneous Hardware | 1.00 | LS | | | | | | | 36,000 | | 36,000 |
| | High Voltage Interconnection Miscellaneous Hardware | 1.0 | LS | 36,000.00 | | | | | | 36,000.00 | | 36,000.00 |
| | | | | | | | | | | 36,000 | | 36,000 |
| | Preliminary and General Costs | 1.00 | LS | | | | | | | | 78,800 | 78,800 |
| | | | | | | | | | | | 78,800.00 | 78,800.00 |
| 10 | G&A on Procured Item HV Interconnect | 1.00 | LS | | | | | | | | 39,400 | 39,400 |
| | | | | | | | | | | | 39,400.00 | 39,400.00 |
| 20 | Installation on HV Interconnection | 1.00 | LS | | | | | | | | 39,400 | 39,400 |
| | Electrical Subcontract | 1.0 | LS | 39,400.00 | | | | | | | 39,400.00 | 39,400.00 |
| | | | | | | | | | | | 39,400 | 39,400 |
| | Switchyard | 1.00 | LS | | 1,870 | 148,050 | 217,579 | 1,875 | | 4,897,000 | 5,750,240 | 11,014,745 |
| | | | | | 1,870.00 | 148,050.48 | 217,579.43 | 1,875.00 | | 4,897,000.00 | 5,750,240.00 | 11,014,744.91 |
| | Switchyard Civil | 1.00 | LS | | 1,870 | 148,050 | 217,579 | 1,875 | | | 25,200 | 392,705 |
| | | | | | 1,870.00 | 148,050.48 | 217,579.43 | 1,875.00 | | | 25,200.00 | 392,704.91 |
| 334.711 | Switchyard Eathworks | 37,300.00 | CY | | 1,865 | 147,661 | 216,560 | | | | | 364,221 |
| | | | | | 0.05 | 3.96 | 5.81 | | | | | 9.76 |
| 10 | Excavation Switchyard | 37,300.00 | CY | | 1,865 | 147,661 | 216,560 | | | | | 364,221 |
| | | | | | 0.05 | 3.96 | 5.81 | | | | | 9.76 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.050MH/CY, 20.00 CY/MH, 186.50 hour (18.65 days) | | | | | | | | | | | |
| | Excavation Switchyard | 1.00 | EA | 1952.93 | | | | | | | | |
| | Equipment Foreman | 1.0 | | | | 80.00 | 14,920 | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | | 14,782 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------------|--|--------------|-----------|------------|----------|------------|--------------|--------------|----------|------------------|------------------|------------------|
| | Grader Operator | 1.0 | | 79.26 | | 14,782 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 14,334 | | | | | | |
| | Scraper Operator Water Wagon | 1.0 | | 76.86 | | 14,334 | | | | | | |
| | Grademan | 1.0 | | 76.11 | | 14,195 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 60,314 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 36,013 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 16,365 | | | | | |
| | 5.2 CY Backhoe (Cat 365) | 1.0 | | 146.31 | | | 27,287 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 4.0 | | 148.22 | | | 110,572 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 24,245 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,078 | | | | | |
| 334.712 | Switchyard -Other Civil Works | 1.00 | LS | | 5 | 389 | 1,019 | 1,875 | | | 25,200 | 28,483 |
| | | | | | 5.00 | 389.10 | 1,019.36 | 1,875.00 | | | 25,200.00 | 28,483.46 |
| 30 | Switchyard Civil Gravel Surfacing 6in | 250.00 | CY | | 5 | 389 | 1,019 | 1,875 | | | | 3,283 |
| | | | | | 0.02 | 1.56 | 4.08 | 7.50 | | | | 13.13 |
| 30 | Gravel Permanent Roads | 250.00 | CY | | 5 | 389 | 1,019 | 1,875 | | | | 3,283 |
| | | | | | 0.02 | 1.56 | 4.08 | 7.50 | | | | 13.13 |
| 20 | Gravel Permanent Roads | 250.00 | CY | | 5 | 389 | 1,019 | 1,875 | | | | 3,283 |
| | | | | | 0.02 | 1.56 | 4.08 | 7.50 | | | | 13.13 |
| | Prod=250.00 CY/hour (2,500.00 CY/ day), 0.020MH/CY, 50.00 CY/MH, 1.00 hour (0.10 days) | | | | | | | | | | | |
| | Gravel Roads | 1.00 | EA | 1408.46 | | | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 79 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 79 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 77 | | | | | | |
| | Packer Operator | 2.0 | | 76.86 | | 154 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 193 | | | | | |
| | 4.5 CY Loader (Cat 966) | 1.0 | | 76.36 | | | 76 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 88 | | | | | |
| | 20 Ton (10 CY) Tandem Truck-Operated | 6.0 | | 80.00 | | | 480 | | | | | |
| | Water Wagon 631 | 1.0 | | 120.00 | | | 120 | | | | | |
| | 15 Ton Compactor 84" (Cat 563) | 1.0 | | 62.15 | | | 62 | | | | | |
| | Gravel Permanent Roads | 375.0 | TN | 5.00 | | | | 1,875 | | | | |
| 40 | Switchyard Civil Fencing | 720.00 | LF | | | | | | | | 25,200 | 25,200 |
| | 2400mm high Chainlink Fence | 720.0 | FT | 35.00 | | | | | | | 35.00 | 35.00 |
| | | | | | | | | | | | 25,200 | |
| | Switchyard Equipment | 1.00 | LS | | | | | | | 4,897,000 | 3,150,000 | 8,047,000 |
| | | | | | | | | | | 4,897,000.00 | 3,150,000.00 | 8,047,000.00 |
| 334.3731 | Allowance for added Cost Cold Region | 1.00 | LS | | | | | | | | 3,000,000 | 3,000,000 |
| | | | | | | | | | | | 3,000,000.00 | 3,000,000.00 |
| 334.721 | SF6 230Kv Breakers | 6.00 | EA | | | | | | | 2,400,000 | | 2,400,000 |
| | | | | | | | | | | 400,000.00 | | 400,000.00 |
| 10 | SF6 230Kv Breakers | 6.00 | EA | | | | | | | 2,400,000 | | 2,400,000 |
| | SF6 230Kv Breakers | 6.0 | EA | 400,000.00 | | | | | | 400,000.00 | | 400,000.00 |
| | | | | | | | | | | 2,400,000 | | |
| 334.722 | 230Kv Manual Disconnects | 12.00 | EA | | | | | | | 600,000 | | 600,000 |
| | | | | | | | | | | 50,000.00 | | 50,000.00 |
| 10 | 230Kv Manual Disconnects | 12.00 | EA | | | | | | | 600,000 | | 600,000 |
| | 230Kv Manual Disconnects | 12.0 | EA | 50,000.00 | | | | | | 50,000.00 | | 50,000.00 |
| | | | | | | | | | | 600,000 | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------|-----------|--------------|--------|-------|-------|---------|----------|------------------|------------------|------------------|
| 334.723 | Motor Operated 230kV Disconnects | 2.00 | EA | | | | | | | 150,000 | | 150,000 |
| | | | | | | | | | | 75,000.00 | | 75,000.00 |
| 10 | Motor Operated 230kV Disconnects | 2.00 | EA | | | | | | | 150,000 | | 150,000 |
| | | | | | | | | | | 75,000.00 | | 75,000.00 |
| | Motor Operated 230kV Disconnects | 2.0 | EA | 75,000.00 | | | | | | 150,000 | | |
| 334.724 | Surge Arrestors | 4.00 | EA | | | | | | | 32,000 | | 32,000 |
| | | | | | | | | | | 8,000.00 | | 8,000.00 |
| 10 | Surge Arrestors | 4.00 | EA | | | | | | | 32,000 | | 32,000 |
| | | | | | | | | | | 8,000.00 | | 8,000.00 |
| | Surge Arrestors | 4.0 | EA | 8,000.00 | | | | | | 32,000 | | |
| 334.725 | PTs | 4.00 | EA | | | | | | | 40,000 | | 40,000 |
| | | | | | | | | | | 10,000.00 | | 10,000.00 |
| 10 | PTs | 4.00 | EA | | | | | | | 40,000 | | 40,000 |
| | | | | | | | | | | 10,000.00 | | 10,000.00 |
| | PTs | 4.0 | EA | 10,000.00 | | | | | | 40,000 | | |
| 334.726 | Accessories, Bus Work | 1.00 | LS | | | | | | | 200,000 | | 200,000 |
| | | | | | | | | | | 200,000.00 | | 200,000.00 |
| 10 | Accessories, Bus Work | 1.00 | LS | | | | | | | 200,000 | | 200,000 |
| | | | | | | | | | | 200,000.00 | | 200,000.00 |
| | Accessories, Bus Work | 1.0 | LS | 200,000.00 | | | | | | 200,000 | | |
| 334.727 | Grounding Grid | 1.00 | LS | | | | | | | 75,000 | | 75,000 |
| | | | | | | | | | | 75,000.00 | | 75,000.00 |
| 10 | Grounding Grid | 1.00 | LS | | | | | | | 75,000 | | 75,000 |
| | | | | | | | | | | 75,000.00 | | 75,000.00 |
| | Grounding Grid | 1.0 | LS | 75,000.00 | | | | | | 75,000 | | |
| 334.728 | Controls & Instrumentation & Inclosure with HVAC | 1.00 | LS | | | | | | | 400,000 | | 400,000 |
| | | | | | | | | | | 400,000.00 | | 400,000.00 |
| 10 | Controls & Instrumentation & Inclosure with HVAC | 1.00 | LS | | | | | | | 400,000 | | 400,000 |
| | | | | | | | | | | 400,000.00 | | 400,000.00 |
| | Controls & Instrumentation & Inclosure with HVAC | 1.0 | LS | 400,000.00 | | | | | | 400,000 | | |
| 334.729 | Steel Structures | 1.00 | LS | | | | | | | 1,000,000 | | 1,000,000 |
| | | | | | | | | | | 1,000,000.00 | | 1,000,000.00 |
| 10 | Steel Structures | 1.00 | LS | | | | | | | 1,000,000 | | 1,000,000 |
| | | | | | | | | | | 1,000,000.00 | | 1,000,000.00 |
| | Steel Structures | 1.0 | LS | 1,000,000.00 | | | | | | 1,000,000 | | |
| 334.730 | Control Building with HVAC | 1.00 | LS | | | | | | | | 150,000 | 150,000 |
| | | | | | | | | | | | 150,000.00 | 150,000.00 |
| | Preliminary and General Costs on Switchyard Equipment | 1.00 | LS | | | | | | | | 2,575,040 | 2,575,040 |
| | | | | | | | | | | | 2,575,040.00 | 2,575,040.00 |
| 10 | G & A on Procured Items Switchyard | 1.00 | LS | | | | | | | | 965,640 | 965,640 |
| | | | | | | | | | | | 965,640.00 | 965,640.00 |
| 20 | Installation of Switchyard Equipment | 1.00 | LS | | | | | | | | 1,609,400 | 1,609,400 |
| | | | | | | | | | | | 1,609,400.00 | 1,609,400.00 |
| | Electrical Subcontract | 1.0 | LS | 1,609,400.00 | | | | | | | 1,609,400 | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------|-----------|--------------|--------|-------|-------|---------|----------|------------------|------------------|------------------|
| | Onsite Power Distribution | 1.00 | LS | | | | | | | 1,785,000 | 1,157,000 | 2,942,000 |
| | | | | | | | | | | 1,785,000.00 | 1,157,000.00 | 2,942,000.00 |
| | Dam | 1.00 | LS | | | | | | | 1,785,000 | | 1,785,000 |
| | | | | | | | | | | 1,785,000.00 | | 1,785,000.00 |
| 334.811 | Cable and Poles from Switchyard to Dam | 1.00 | LS | | | | | | | 1,000,000 | | 1,000,000 |
| | | | | | | | | | | 1,000,000.00 | | 1,000,000.00 |
| 10 | Cable and Poles from Switchyard to Dam | 1.00 | LS | | | | | | | 1,000,000 | | 1,000,000 |
| | Cable and Poles from Switchyard to Dam | 1.0 | LS | 1,000,000.00 | | | | | | 1,000,000 | | 1,000,000 |
| 334.812 | Transformers | 1.00 | LS | | | | | | | 150,000 | | 150,000 |
| | | | | | | | | | | 150,000.00 | | 150,000.00 |
| 10 | Transformers | 1.00 | LS | | | | | | | 150,000 | | 150,000 |
| | Transformers | 1.0 | LS | 150,000.00 | | | | | | 150,000 | | 150,000 |
| 334.813 | Diesel Generator | 1.00 | LS | | | | | | | 150,000 | | 150,000 |
| | | | | | | | | | | 150,000.00 | | 150,000.00 |
| 10 | Diesel Generator | 1.00 | LS | | | | | | | 150,000 | | 150,000 |
| | Diesel Generator | 1.0 | LS | 150,000.00 | | | | | | 150,000 | | 150,000 |
| 334.814 | Communication Cable | 1.00 | LS | | | | | | | 125,000 | | 125,000 |
| | | | | | | | | | | 125,000.00 | | 125,000.00 |
| 10 | Communication Cable | 1.00 | LS | | | | | | | 125,000 | | 125,000 |
| | Communication Cable | 1.0 | LS | 125,000.00 | | | | | | 125,000 | | 125,000 |
| 334.815 | Radio Communication System | 1.00 | LS | | | | | | | 250,000 | | 250,000 |
| | | | | | | | | | | 250,000.00 | | 250,000.00 |
| 10 | Radio Communication System | 1.00 | LS | | | | | | | 250,000 | | 250,000 |
| | Radio Communication System | 1.0 | LS | 250,000.00 | | | | | | 250,000 | | 250,000 |
| 334.816 | Transformers at Dam | 1.00 | LS | | | | | | | 100,000 | | 100,000 |
| | | | | | | | | | | 100,000.00 | | 100,000.00 |
| 10 | Transformers at Dam | 1.00 | LS | | | | | | | 100,000 | | 100,000 |
| | Transformers at Dam | 1.0 | LS | 100,000.00 | | | | | | 100,000 | | 100,000 |
| 334.817 | Auto Switching | 1.00 | LS | | | | | | | 10,000 | | 10,000 |
| | | | | | | | | | | 10,000.00 | | 10,000.00 |
| 10 | Auto Switching | 1.00 | LS | | | | | | | 10,000 | | 10,000 |
| | Auto Switching | 1.0 | LS | 10,000.00 | | | | | | 10,000 | | 10,000 |
| | Other Miscellaneous Locations | 1.00 | LS | | | | | | | | 800,000 | 800,000 |
| | | | | | | | | | | | 800,000.00 | 800,000.00 |
| 10 | Other Misc Locations | 1.00 | LS | | | | | | | | 800,000 | 800,000 |
| | | | | | | | | | | | 800,000.00 | 800,000.00 |

| Estimate Line Detail | | | | | | | | | | | | |
|--|---|----------|-----|--------------|--------|-------|-------|---------|-----------|--------------|---------------|---------------|
| Estimate: JULY 2014 - MAIN CIVIL CONTRACT | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
| Preliminary & General Costs | | 1.00 LS | | | | | | | | | 357,000 | 357,000 |
| | | | | | | | | | | | 357,000.00 | 357,000.00 |
| 334.831 | G&A on Procured Items on Site Power | 1.00 | LS | | | | | | | | 89,250 | 89,250 |
| | | | | | | | | | | | 89,250.00 | 89,250.00 |
| 334.832 | Installation on Site Power Distribution | 1.00 | LS | | | | | | | | 267,750 | 267,750 |
| | | | | | | | | | | | 267,750.00 | 267,750.00 |
| | Electrical Subcontract | 1.0 | LS | 267,750.00 | | | | | | | 267,750 | |
| | | | | | | | | | | | | |
| Miscellaneous Power Plant Equipment | | 1.00 LS | | | | | | | 8,550,000 | 9,038,000 | 10,943,700 | 28,531,700 |
| | | | | | | | | | | | 8,550,000.00 | 9,038,000.00 |
| | | | | | | | | | | | 10,943,700.00 | 28,531,700.00 |
| Main & Auxiliary Cranes | | 1.00 LS | | | | | | | 8,550,000 | | 1,282,500 | 9,832,500 |
| | | | | | | | | | | | 8,550,000.00 | 1,282,500.00 |
| | | | | | | | | | | | 9,832,500.00 | 9,832,500.00 |
| 335.101 | 600MT Main Crane | 1.00 | EA | | | | | | 8,000,000 | | | 8,000,000 |
| | | | | | | | | | | | 8,000,000.00 | 8,000,000.00 |
| 10 | 600MT Main Crane | 1.00 | EA | | | | | | 8,000,000 | | | 8,000,000 |
| | | | | | | | | | | | 8,000,000.00 | 8,000,000.00 |
| | 600MT Main Crane | 1.0 | EA | 8,000,000.00 | | | | | 8,000,000 | | | |
| | | | | | | | | | | | 8,000,000.00 | |
| 335.102 | Auxiliary Powerhouse Crane 20 TN | 1.00 | EA | | | | | | 500,000 | | | 500,000 |
| | | | | | | | | | | | 500,000.00 | 500,000.00 |
| 10 | Auxiliary Powerhouse Crane 20 TN | 1.00 | EA | | | | | | 500,000 | | | 500,000 |
| | | | | | | | | | | | 500,000.00 | 500,000.00 |
| | Auxiliary Powerhouse Crane 20 TN | 1.0 | EA | 500,000.00 | | | | | 500,000 | | | |
| | | | | | | | | | | | 500,000.00 | |
| 335.103 | 10TN Machine Shop Crane | 1.00 | EA | | | | | | 50,000 | | | 50,000 |
| | | | | | | | | | | | 50,000.00 | 50,000.00 |
| 10 | 10TN Machine Shop Crane | 1.00 | EA | | | | | | 50,000 | | | 50,000 |
| | | | | | | | | | | | 50,000.00 | 50,000.00 |
| | 10TN Machine Shop Crane | 1.0 | EA | 50,000.00 | | | | | 50,000 | | | |
| | | | | | | | | | | | 50,000.00 | |
| 335.104 | Crane Installation | 1.00 | LS | | | | | | | | 1,282,500 | 1,282,500 |
| | | | | | | | | | | | 1,282,500.00 | 1,282,500.00 |
| 10 | Crane Installation | 1.00 | LS | | | | | | | | 1,282,500 | 1,282,500 |
| | | | | | | | | | | | 1,282,500.00 | 1,282,500.00 |
| | Crane Installation | 1.0 | LS | 1,282,500.00 | | | | | | | 1,282,500 | |
| | | | | | | | | | | | 1,282,500.00 | |
| Essential Mechanical Services | | 1.00 LS | | | | | | | | 5,965,000 | 4,294,800 | 10,259,800 |
| | | | | | | | | | | | 5,965,000.00 | 4,294,800.00 |
| | | | | | | | | | | | 10,259,800.00 | 10,259,800.00 |
| Dewatering & Seepage Pumps | | 1.00 LS | | | | | | | | 1,525,000 | | 1,525,000 |
| | | | | | | | | | | | 1,525,000.00 | 1,525,000.00 |
| 335.211 | Dewatering and Seepage Pumps | 6.00 | EA | | | | | | | 240,000 | | 240,000 |
| | | | | | | | | | | | 40,000.00 | 40,000.00 |
| 20 | Dewatering and Seepage Pumps | 6.00 | EA | | | | | | | 240,000 | | 240,000 |
| | | | | | | | | | | | 40,000.00 | 40,000.00 |
| | Dewatering and Seepage Pumps | 6.0 | EA | 40,000.00 | | | | | | 240,000 | | |
| | | | | | | | | | | | 240,000.00 | |
| 335.212 | Piping & Valves Dewatering | 3.00 | EA | | | | | | | 1,200,000 | | 1,200,000 |
| | | | | | | | | | | | 400,000.00 | 400,000.00 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-------------|-----------|------------|--------|-------|-------|---------|----------|------------------|----------|------------------|
| 10 | Piping & Valves Dewatering | 3.00 | EA | | | | | | | 1,200,000 | | 1,200,000 |
| | Piping & Valves Dewatering | 3.0 | EA | 400,000.00 | | | | | | 400,000.00 | | 400,000.00 |
| | | | | | | | | | | 1,200,000 | | |
| 335.213 | Electrical Dewatering | 1.00 | LS | | | | | | | 85,000 | | 85,000 |
| | | | | | | | | | | 85,000.00 | | 85,000.00 |
| 10 | Electrical Dewatering | 1.00 | LS | | | | | | | 85,000 | | 85,000 |
| | Electrical Dewatering | 1.0 | LS | 85,000.00 | | | | | | 85,000.00 | | 85,000.00 |
| | | | | | | | | | | 85,000 | | |
| | Cooling Water Systems (Pumped from Tailrace) | 1.00 | LS | | | | | | | 1,405,000 | | 1,405,000 |
| | | | | | | | | | | 1,405,000.00 | | 1,405,000.00 |
| 335.221 | Pumps VFD Cooling Water | 3.00 | EA | | | | | | | 90,000 | | 90,000 |
| | | | | | | | | | | 30,000.00 | | 30,000.00 |
| 10 | Pumps VFD Cooling Water | 3.00 | EA | | | | | | | 90,000 | | 90,000 |
| | Pumps VFD Cooling Water | 3.0 | EA | 30,000.00 | | | | | | 30,000.00 | | 30,000.00 |
| | | | | | | | | | | 90,000 | | |
| 335.222 | Strainers Self Cleaning | 3.00 | EA | | | | | | | 30,000 | | 30,000 |
| | | | | | | | | | | 10,000.00 | | 10,000.00 |
| 10 | Strainers Self Cleaning | 3.00 | EA | | | | | | | 30,000 | | 30,000 |
| | Strainers Self Cleaning | 3.0 | EA | 10,000.00 | | | | | | 10,000.00 | | 10,000.00 |
| | | | | | | | | | | 30,000 | | |
| 335.223 | Piping & Valves Cooling Water | 3.00 | EA | | | | | | | 1,200,000 | | 1,200,000 |
| | | | | | | | | | | 400,000.00 | | 400,000.00 |
| 10 | Piping & Valves Cooling Water | 3.00 | EA | | | | | | | 1,200,000 | | 1,200,000 |
| | Piping & Valves Cooling Water | 3.0 | EA | 400,000.00 | | | | | | 400,000.00 | | 400,000.00 |
| | | | | | | | | | | 1,200,000 | | |
| 335.224 | Electrical Cooling Water | 1.00 | LS | | | | | | | 85,000 | | 85,000 |
| | | | | | | | | | | 85,000.00 | | 85,000.00 |
| 10 | Electrical Cooling Water | 1.00 | LS | | | | | | | 85,000 | | 85,000 |
| | Electrical Cooling Water | 1.0 | LS | 85,000.00 | | | | | | 85,000.00 | | 85,000.00 |
| | | | | | | | | | | 85,000 | | |
| | Compressed Air System | 1.00 | LS | | | | | | | 380,000 | | 380,000 |
| | | | | | | | | | | 380,000.00 | | 380,000.00 |
| 335.231 | Air Compressors | 2.00 | EA | | | | | | | 120,000 | | 120,000 |
| | | | | | | | | | | 60,000.00 | | 60,000.00 |
| 10 | Air Compressors | 2.00 | EA | | | | | | | 120,000 | | 120,000 |
| | Air Compressors | 2.0 | EA | 60,000.00 | | | | | | 60,000.00 | | 60,000.00 |
| | | | | | | | | | | 120,000 | | |
| 335.232 | Piping and Valves Compressed Air | 1.00 | LS | | | | | | | 240,000 | | 240,000 |
| | | | | | | | | | | 240,000.00 | | 240,000.00 |
| 10 | Piping and Valves Compressed Air | 1.00 | LS | | | | | | | 240,000 | | 240,000 |
| | Piping and Valves Compressed Air | 1.0 | LS | 240,000.00 | | | | | | 240,000.00 | | 240,000.00 |
| | | | | | | | | | | 240,000 | | |
| 335.233 | Electrical Compressed Air | 1.00 | LS | | | | | | | 20,000 | | 20,000 |
| | | | | | | | | | | 20,000.00 | | 20,000.00 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-------------|-----------|------------|--------|-------|-------|---------|----------|------------------|----------|------------------|
| 10 | Electrical Compressed Air | 1.00 | LS | | | | | | | 20,000 | | 20,000 |
| | Electrical Compressed Air | 1.0 | LS | 20,000.00 | | | | | | 20,000.00 | | 20,000.00 |
| | | | | | | | | | | 20,000 | | |
| | Fire Protection System | 1.00 | LS | | | | | | | 1,170,000 | | 1,170,000 |
| | | | | | | | | | | 1,170,000.00 | | 1,170,000.00 |
| 335.241 | Clean Agent Gas | 1.00 | LS | | | | | | | 80,000 | | 80,000 |
| | | | | | | | | | | 80,000.00 | | 80,000.00 |
| 10 | Clean Agent Gas | 1.00 | LS | | | | | | | 80,000 | | 80,000 |
| | Clean Agent Gas | 1.0 | LS | 80,000.00 | | | | | | 80,000.00 | | 80,000.00 |
| | | | | | | | | | | 80,000 | | |
| 335.242 | Portable Extinguishers | 1.00 | LS | | | | | | | 15,000 | | 15,000 |
| | | | | | | | | | | 15,000.00 | | 15,000.00 |
| 10 | Portable Extinguishers | 1.00 | LS | | | | | | | 15,000 | | 15,000 |
| | Portable Extinguishers | 1.0 | LS | 15,000.00 | | | | | | 15,000.00 | | 15,000.00 |
| | | | | | | | | | | 15,000 | | |
| 335.243 | Hose Reels and Hydrants | 1.00 | LS | | | | | | | 25,000 | | 25,000 |
| | | | | | | | | | | 25,000.00 | | 25,000.00 |
| 10 | Hose Reels and Hydrants | 1.00 | LS | | | | | | | 25,000 | | 25,000 |
| | Hose Reels and Hydrants | 1.0 | LS | 25,000.00 | | | | | | 25,000.00 | | 25,000.00 |
| | | | | | | | | | | 25,000 | | |
| 335.244 | Fire Deluge System | 3.00 | EA | | | | | | | 450,000 | | 450,000 |
| | | | | | | | | | | 150,000.00 | | 150,000.00 |
| 10 | Fire Deluge System | 3.00 | EA | | | | | | | 450,000 | | 450,000 |
| | Fire Deluge System | 3.0 | EA | 150,000.00 | | | | | | 150,000.00 | | 150,000.00 |
| | | | | | | | | | | 450,000 | | |
| 335.245 | Piping & Plumbing Fire Protection | 3.00 | EA | | | | | | | 600,000 | | 600,000 |
| | | | | | | | | | | 200,000.00 | | 200,000.00 |
| 10 | Piping & Plumbing Fire Protection | 3.00 | EA | | | | | | | 600,000 | | 600,000 |
| | Piping & Plumbing Fire Protection | 3.0 | EA | 200,000.00 | | | | | | 200,000.00 | | 200,000.00 |
| | | | | | | | | | | 600,000 | | |
| | Diesel Generators | 1.00 | LS | | | | | | | 1,035,000 | | 1,035,000 |
| | | | | | | | | | | 1,035,000.00 | | 1,035,000.00 |
| 335.251 | 600kV Generators | 2.00 | EA | | | | | | | 900,000 | | 900,000 |
| | | | | | | | | | | 450,000.00 | | 450,000.00 |
| 10 | 600kV Generators | 2.00 | EA | | | | | | | 900,000 | | 900,000 |
| | 600kV Generators | 2.0 | EA | 450,000.00 | | | | | | 450,000.00 | | 450,000.00 |
| | | | | | | | | | | 900,000 | | |
| 335.252 | Electrical Diesel Generators | 1.00 | LS | | | | | | | 135,000 | | 135,000 |
| | | | | | | | | | | 135,000.00 | | 135,000.00 |
| 10 | Electrical Diesel Generators | 1.00 | LS | | | | | | | 135,000 | | 135,000 |
| | Electrical Diesel Generators | 1.0 | LS | 135,000.00 | | | | | | 135,000.00 | | 135,000.00 |
| | | | | | | | | | | 135,000 | | |

| Estimate Line Detail | | | | | | | | | | | | |
|---|---|-------------|-----------|--------------|--------|-------|-------|---------|----------|------------------|------------------|------------------|
| Estimate: JULY 2014 - MAIN CIVIL CONTRACT | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
| | Oil Storage & Purification System | 1.00 | LS | | | | | | | 450,000 | | 450,000 |
| | | | | | | | | | | 450,000.00 | | 450,000.00 |
| 335.261 | Oil Storage and Purification System | 1.00 | LS | | | | | | | 450,000 | | 450,000 |
| | | | | | | | | | | 450,000.00 | | 450,000.00 |
| 10 | Oil Storage and Purification System | 1.00 | LS | | | | | | | 450,000 | | 450,000 |
| | Oil Storage and Purification System | 1.0 | LS | 450,000.00 | | | | | | 450,000.00 | | 450,000.00 |
| | | | | | | | | | | 450,000 | | 450,000 |
| | Preliminary & General Costs | 1.00 | LS | | | | | | | | 4,294,800 | 4,294,800 |
| | | | | | | | | | | | 4,294,800.00 | 4,294,800.00 |
| 335.271 | G & A on Procured Items Essential Mechanical Systems | 1.00 | LS | | | | | | | | 715,800 | 715,800 |
| | | | | | | | | | | | 715,800.00 | 715,800.00 |
| 10 | G & A on Procured Items Essential Mechanical Systems | 1.00 | LS | | | | | | | | 715,800 | 715,800 |
| | | | | | | | | | | | 715,800.00 | 715,800.00 |
| 335.272 | Installation of Essential Mechanical Systems | 1.00 | LS | | | | | | | | 3,579,000 | 3,579,000 |
| | | | | | | | | | | | 3,579,000.00 | 3,579,000.00 |
| 10 | Installation of Essential Mechanical Systems | 1.00 | LS | | | | | | | | 3,579,000 | 3,579,000 |
| | Sub Mechancial | 1.0 | LS | 3,579,000.00 | | | | | | | 3,579,000 | 3,579,000 |
| | | | | | | | | | | | 3,579,000 | 3,579,000 |
| | Station Mechanical Services | 1.00 | LS | | | | | | | 2,820,000 | 1,466,400 | 4,286,400 |
| | | | | | | | | | | 2,820,000.00 | 1,466,400.00 | 4,286,400.00 |
| | Air Ventilation System | 1.00 | LS | | | | | | | 880,000 | | 880,000 |
| | | | | | | | | | | 880,000.00 | | 880,000.00 |
| 335.311 | Fans | 1.00 | LS | | | | | | | 350,000 | | 350,000 |
| | | | | | | | | | | 350,000.00 | | 350,000.00 |
| 10 | Fans | 1.00 | LS | | | | | | | 350,000 | | 350,000 |
| | Fans | 1.0 | LS | 350,000.00 | | | | | | 350,000.00 | | 350,000.00 |
| | | | | | | | | | | 350,000 | | 350,000 |
| 335.312 | Ducting | 1.00 | LS | | | | | | | 300,000 | | 300,000 |
| | | | | | | | | | | 300,000.00 | | 300,000.00 |
| 10 | Ducting | 1.00 | LS | | | | | | | 300,000 | | 300,000 |
| | Ducting | 1.0 | LS | 300,000.00 | | | | | | 300,000.00 | | 300,000.00 |
| | | | | | | | | | | 300,000 | | 300,000 |
| 335.313 | Diffusers | 1.00 | LS | | | | | | | 80,000 | | 80,000 |
| | | | | | | | | | | 80,000.00 | | 80,000.00 |
| 10 | Diffusers | 1.00 | LS | | | | | | | 80,000 | | 80,000 |
| | Diffusers | 1.0 | LS | 80,000.00 | | | | | | 80,000.00 | | 80,000.00 |
| | | | | | | | | | | 80,000 | | 80,000 |
| 336.314 | Electrical Air Ventilation | 1.00 | LS | | | | | | | 150,000 | | 150,000 |
| | | | | | | | | | | 150,000.00 | | 150,000.00 |
| 10 | Electrical Air Ventilation | 1.00 | LS | | | | | | | 150,000 | | 150,000 |
| | Electrical Air Ventilation | 1.0 | LS | 150,000.00 | | | | | | 150,000.00 | | 150,000.00 |
| | | | | | | | | | | 150,000 | | 150,000 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------------------------|---|----------------|-----|------------|--------|-------|-------|---------|----------|----------------|----------|----------------|
| Heating System | | 1.00 LS | | | | | | | | 950,000 | | 950,000 |
| | | | | | | | | | | 950,000.00 | | 950,000.00 |
| 335.321 | Boilers | 2.00 EA | | | | | | | | 300,000 | | 300,000 |
| | | | | | | | | | | 150,000.00 | | 150,000.00 |
| 10 | Boilers | 2.00 EA | | | | | | | | 300,000 | | 300,000 |
| | Boilers | 2.0 EA | | 150,000.00 | | | | | | 150,000.00 | | 150,000.00 |
| | | | | | | | | | | 300,000 | | 300,000 |
| 335.322 | Heating System Pumps | 1.00 LS | | | | | | | | 100,000 | | 100,000 |
| | | | | | | | | | | 100,000.00 | | 100,000.00 |
| 10 | Heating System Pumps | 1.00 LS | | | | | | | | 100,000 | | 100,000 |
| | Heating System Pumps | 1.0 LS | | 100,000.00 | | | | | | 100,000.00 | | 100,000.00 |
| | | | | | | | | | | 100,000 | | 100,000 |
| 335.323 | Heating System Piping & Valves | 1.00 LS | | | | | | | | 300,000 | | 300,000 |
| | | | | | | | | | | 300,000.00 | | 300,000.00 |
| 10 | Heating System Piping & Valves | 1.00 LS | | | | | | | | 300,000 | | 300,000 |
| | Heating System Piping & Valves | 1.0 LS | | 300,000.00 | | | | | | 300,000.00 | | 300,000.00 |
| | | | | | | | | | | 300,000 | | 300,000 |
| 335.324 | Electrical Heating System | 1.00 LS | | | | | | | | 250,000 | | 250,000 |
| | | | | | | | | | | 250,000.00 | | 250,000.00 |
| 10 | Electrical Heating System | 1.00 LS | | | | | | | | 250,000 | | 250,000 |
| | Electrical Heating System | 1.0 LS | | 250,000.00 | | | | | | 250,000.00 | | 250,000.00 |
| | | | | | | | | | | 250,000 | | 250,000 |
| Air Handling Units | | 1.00 LS | | | | | | | | 670,000 | | 670,000 |
| | | | | | | | | | | 670,000.00 | | 670,000.00 |
| 335.331 | Air Handling Units Above Ground | 4.00 EA | | | | | | | | 120,000 | | 120,000 |
| | | | | | | | | | | 30,000.00 | | 30,000.00 |
| 10 | Air Handling Units Above Ground | 4.00 EA | | | | | | | | 120,000 | | 120,000 |
| | Air Handling Units Above Ground | 4.0 EA | | 30,000.00 | | | | | | 30,000.00 | | 30,000.00 |
| | | | | | | | | | | 120,000 | | 120,000 |
| 335.332 | Air Ducts | 1.00 LS | | | | | | | | 200,000 | | 200,000 |
| | | | | | | | | | | 200,000.00 | | 200,000.00 |
| 10 | Air Ducts | 1.00 LS | | | | | | | | 200,000 | | 200,000 |
| | Air Ducts | 1.0 LS | | 200,000.00 | | | | | | 200,000.00 | | 200,000.00 |
| | | | | | | | | | | 200,000 | | 200,000 |
| 335.333 | Diffusers | 1.00 LS | | | | | | | | 200,000 | | 200,000 |
| | | | | | | | | | | 200,000.00 | | 200,000.00 |
| 10 | Diffusers | 1.00 LS | | | | | | | | 200,000 | | 200,000 |
| | Diffusers | 1.0 LS | | 200,000.00 | | | | | | 200,000.00 | | 200,000.00 |
| | | | | | | | | | | 200,000 | | 200,000 |
| 335.334 | Electrical Air Handling | 1.00 LS | | | | | | | | 150,000 | | 150,000 |
| | | | | | | | | | | 150,000.00 | | 150,000.00 |
| 10 | Electrical Air Handling | 1.00 LS | | | | | | | | 150,000 | | 150,000 |
| | Electrical Air Handling | 1.0 LS | | 150,000.00 | | | | | | 150,000.00 | | 150,000.00 |
| | | | | | | | | | | 150,000 | | 150,000 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|--|---|----------------|-----|--------------|--------|-------|-------|---------|----------|----------------|------------------|------------------|
| Potable Water System | | 1.00 LS | | | | | | | | 160,000 | | 160,000 |
| | | | | | | | | | | | 160,000.00 | 160,000.00 |
| 335.341 | Potable Water System Pumps | 1.00 LS | | | | | | | | 70,000 | | 70,000 |
| | | | | | | | | | | | 70,000.00 | 70,000.00 |
| 10 | Potable Water System Pumps | 1.00 LS | | | | | | | | 70,000 | | 70,000 |
| | | | | | | | | | | | 70,000.00 | 70,000.00 |
| | Potable Water System Pumps | 1.0 | LS | 70,000.00 | | | | | | 70,000 | | 70,000 |
| 335.342 | Piping & Valves Potable Water | 1.00 LS | | | | | | | | 50,000 | | 50,000 |
| | | | | | | | | | | | 50,000.00 | 50,000.00 |
| 10 | Piping & Valves Potable Water | 1.00 LS | | | | | | | | 50,000 | | 50,000 |
| | | | | | | | | | | | 50,000.00 | 50,000.00 |
| | Piping & Valves Potable Water | 1.0 | LS | 50,000.00 | | | | | | 50,000 | | 50,000 |
| 335.343 | Electrical Potable Water System | 1.00 LS | | | | | | | | 40,000 | | 40,000 |
| | | | | | | | | | | | 40,000.00 | 40,000.00 |
| 10 | Electrical Potable Water System | 1.00 LS | | | | | | | | 40,000 | | 40,000 |
| | | | | | | | | | | | 40,000.00 | 40,000.00 |
| | Electrical Potable Water System | 1.0 | LS | 40,000.00 | | | | | | 40,000 | | 40,000 |
| Sanitary Sewer Ejection System | | 1.00 LS | | | | | | | | 160,000 | | 160,000 |
| | | | | | | | | | | | 160,000.00 | 160,000.00 |
| 335.351 | Sanitary Sewer Ejection System Pumps | 1.00 LS | | | | | | | | 70,000 | | 70,000 |
| | | | | | | | | | | | 70,000.00 | 70,000.00 |
| 10 | Sanitary Sewer Ejection System Pumps | 1.00 LS | | | | | | | | 70,000 | | 70,000 |
| | | | | | | | | | | | 70,000.00 | 70,000.00 |
| | Sanitary Sewer Ejection System Pumps | 1.0 | LS | 70,000.00 | | | | | | 70,000 | | 70,000 |
| 335.352 | Piping & Valves Sewer System | 1.00 LS | | | | | | | | 50,000 | | 50,000 |
| | | | | | | | | | | | 50,000.00 | 50,000.00 |
| 10 | Piping & Valves Sewer System | 1.00 LS | | | | | | | | 50,000 | | 50,000 |
| | | | | | | | | | | | 50,000.00 | 50,000.00 |
| | Piping & Valves Sewer System | 1.0 | LS | 50,000.00 | | | | | | 50,000 | | 50,000 |
| 335.353 | Electrical Sewer System | 1.00 LS | | | | | | | | 40,000 | | 40,000 |
| | | | | | | | | | | | 40,000.00 | 40,000.00 |
| 10 | Electrical Sewer System | 1.00 LS | | | | | | | | 40,000 | | 40,000 |
| | | | | | | | | | | | 40,000.00 | 40,000.00 |
| | Electrical Sewer System | 1.0 | LS | 40,000.00 | | | | | | 40,000 | | 40,000 |
| Preliminary & General Costs | | 1.00 LS | | | | | | | | | 1,466,400 | 1,466,400 |
| | | | | | | | | | | | 1,466,400.00 | 1,466,400.00 |
| 335.361 | G & A on Procured Items Essential Mechanical Systems | 1.00 LS | | | | | | | | | 338,400 | 338,400 |
| | | | | | | | | | | | 338,400.00 | 338,400.00 |
| 10 | G & A on Procured Items Essential Mechanical Systems | 1.00 LS | | | | | | | | 338,400 | | 338,400 |
| | | | | | | | | | | | 338,400.00 | 338,400.00 |
| | G & A on Procured Items Essential Mechanical Systems | 1.0 | LS | | | | | | | 338,400 | | 338,400 |
| 335.362 | Installation of Essential Mechanical Systems | 1.00 LS | | | | | | | | | 1,128,000 | 1,128,000 |
| | | | | | | | | | | | 1,128,000.00 | 1,128,000.00 |
| 10 | Installation of Essential Mechanical Systems | 1.00 LS | | | | | | | | 1,128,000 | | 1,128,000 |
| | | | | | | | | | | | 1,128,000.00 | 1,128,000.00 |
| | Sub Mechancial | 1.0 | LS | 1,128,000.00 | | | | | | 1,128,000 | | 1,128,000 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost | |
|-------------------------------|---|----------------|-----|-----------|--------|-------|-------|---------|----------|---------------|----------------|----------------|----------------|
| Mechanical Spare Parts | | | | | | | | | | | 1.00 LS | 253,000 | 253,000 |
| | | | | | | | | | | | 253,000.00 | 253,000.00 | |
| 335.401 | Dewatering & Seepage pump & Piping Spare | 1.00 LS | | | | | | | | 30,000 | | 30,000 | |
| | | | | | | | | | | | 30,000.00 | 30,000.00 | |
| 10 | Dewatering & Seepage pump & Piping Spare | 1.00 LS | | | | | | | | 30,000 | | 30,000 | |
| | | | | | | | | | | | 30,000.00 | 30,000.00 | |
| | Dewatering & Seepage pump & Piping Spare | 1.0 LS | | 30,000.00 | | | | | | 30,000 | | | |
| 335.402 | Compressed Air Spare Parts | 1.00 LS | | | | | | | | 2,000 | | 2,000 | |
| | | | | | | | | | | | 2,000.00 | 2,000.00 | |
| 10 | Compressed Air Spare Parts | 1.00 LS | | | | | | | | 2,000 | | 2,000 | |
| | | | | | | | | | | | 2,000.00 | 2,000.00 | |
| | Compressed Air Spare Parts | 1.0 LS | | 2,000.00 | | | | | | 2,000 | | | |
| 335.403 | Fire Protection Spares | 1.00 LS | | | | | | | | 10,000 | | 10,000 | |
| | | | | | | | | | | | 10,000.00 | 10,000.00 | |
| 10 | Fire Protection Spares | 1.00 LS | | | | | | | | 10,000 | | 10,000 | |
| | | | | | | | | | | | 10,000.00 | 10,000.00 | |
| | Fire Protection Spares | 1.0 LS | | 10,000.00 | | | | | | 10,000 | | | |
| 335.404 | Diesel Generators Spare Parts | 1.00 LS | | | | | | | | 45,000 | | 45,000 | |
| | | | | | | | | | | | 45,000.00 | 45,000.00 | |
| 10 | Diesel Generators Spare Parts | 1.00 LS | | | | | | | | 45,000 | | 45,000 | |
| | | | | | | | | | | | 45,000.00 | 45,000.00 | |
| | Diesel Generators Spare Parts | 1.0 LS | | 45,000.00 | | | | | | 45,000 | | | |
| 335.405 | Oil Storage and Purification System Spares | 1.00 LS | | | | | | | | 45,000 | | 45,000 | |
| | | | | | | | | | | | 45,000.00 | 45,000.00 | |
| 10 | Oil Storage and Purification System Spares | 1.00 LS | | | | | | | | 45,000 | | 45,000 | |
| | | | | | | | | | | | 45,000.00 | 45,000.00 | |
| | Oil Storage and Purification System Spares | 1.0 LS | | 45,000.00 | | | | | | 45,000 | | | |
| 335.406 | Air Ventilation Spares | 1.00 LS | | | | | | | | 42,000 | | 42,000 | |
| | | | | | | | | | | | 42,000.00 | 42,000.00 | |
| 10 | Air Ventilation Spares | 1.00 LS | | | | | | | | 42,000 | | 42,000 | |
| | | | | | | | | | | | 42,000.00 | 42,000.00 | |
| | Air Ventilation Spares | 1.0 LS | | 42,000.00 | | | | | | 42,000 | | | |
| 335.407 | Chilled Water System Spares | 1.00 LS | | | | | | | | 35,000 | | 35,000 | |
| | | | | | | | | | | | 35,000.00 | 35,000.00 | |
| 10 | Chilled Water System Spares | 1.00 LS | | | | | | | | 35,000 | | 35,000 | |
| | | | | | | | | | | | 35,000.00 | 35,000.00 | |
| | Chilled Water System Spares | 1.0 LS | | 35,000.00 | | | | | | 35,000 | | | |
| 335.408 | Air Handling Unit Spares | 1.00 LS | | | | | | | | 30,000 | | 30,000 | |
| | | | | | | | | | | | 30,000.00 | 30,000.00 | |
| 10 | Air Handling Unit Spares | 1.00 LS | | | | | | | | 30,000 | | 30,000 | |
| | | | | | | | | | | | 30,000.00 | 30,000.00 | |
| | Air Handling Unit Spares | 1.0 LS | | 30,000.00 | | | | | | 30,000 | | | |
| 335.409 | Potable Water System Spares | 1.00 LS | | | | | | | | 7,000 | | 7,000 | |
| | | | | | | | | | | | 7,000.00 | 7,000.00 | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 15,769 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 27,329 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 14,678 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 40,994 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 13,665 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 42,538 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 3,575 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 3,393 | | | | | |
| | Drill Steel | 9.1 | EA | 1,000.00 | | | | 9,069 | | | | |
| | Drill Bits | 22.0 | EA | 400.00 | | | | 8,809 | | | | |
| | Anfo | 45,343.0 | LB | 0.72 | | | | 32,647 | | | | |
| | Booster | 2,578.1 | EA | 7.88 | | | | 20,315 | | | | |
| | Caps | 2,578.1 | EA | 7.20 | | | | 18,562 | | | | |
| | Shoot Line | 32.4 | EA | 52.00 | | | | 1,684 | | | | |
| | Between Holes QRC 1 for every 4 holes | 647.8 | EA | 4.75 | | | | 3,077 | | | | |
| 30 | Rock Excavation to Stockpile to S3 Embankment | 45,343.00 | CY | | 1,650 | 131,601 | 209,133 | | | | | 340,734 |
| | | | | | 0.04 | 2.90 | 4.61 | | | | | 7.51 |
| 20 | Load Haul to Waste | 45,343.00 | CY | | 1,650 | 131,601 | 209,133 | | | | | 340,734 |
| | | | | | 0.04 | 2.90 | 4.61 | | | | | 7.51 |
| | Prod=302.29 CY/hour (3,022.87 CY/ day), 0.036MH/CY, 27.48 CY/MH, 150.00 hour (15.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | 1.00 | EA | 2271.56 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 12,000 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 11,889 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 11,889 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 23,058 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 72,765 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 14,145 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 28,965 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 20,525 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 13,163 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 111,165 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 19,500 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,671 | | | | | |
| 336.502 | Site Roads S1 Excavation Overburden | 94,906.00 | CY | | 3,010 | 239,874 | 376,894 | | | | | 616,768 |
| | | | | | 0.03 | 2.53 | 3.97 | | | | | 6.50 |
| 10 | Topsoil to Stockpile | 26,740.00 | CY | | 720 | 57,490 | 90,313 | | | | | 147,803 |
| | | | | | 0.03 | 2.15 | 3.38 | | | | | 5.53 |
| 20 | Load Haul to Stockpile | 26,740.00 | CY | | 720 | 57,490 | 90,313 | | | | | 147,803 |
| | | | | | 0.03 | 2.15 | 3.38 | | | | | 5.53 |
| | Prod=297.11 CY/hour (2,971.11 CY/ day), 0.027MH/CY, 37.14 CY/MH, 90.00 hour (9.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile</i> | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 7,200 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 7,133 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 7,133 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 6,917 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 29,106 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 17,379 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 12,315 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 7,898 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 40,019 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 11,700 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,003 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|---|-----------|-----|---------|--------|--------|---------|---------|----------|--------------|----------|------------|
| 12 | Common Excavation to Embankment | 35,000.00 | CY | | 1,080 | 85,877 | 143,590 | | | | | 229,466 |
| | | | | | 0.03 | 2.45 | 4.10 | | | | | 6.56 |
| 20 | Load Haul to Embankment | 35,000.00 | CY | | 1,080 | 85,877 | 143,590 | | | | | 229,466 |
| | | | | | 0.03 | 2.45 | 4.10 | | | | | 6.56 |
| | Prod=291.67 CY/hour (2,916.67 CY/ day), 0.031MH/CY, 32.41 CY/MH, 120.00 hour (12.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Embankment</i> | 1.00 | EA | 1912.22 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 9,600 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 9,511 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 9,511 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 18,446 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 38,808 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 193.10 | | | 46,344 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 16,420 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 10,530 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 53,359 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 15,600 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,337 | | | | | |
| 15 | Common Excavation to S3 Embankment | 33,166.00 | CY | | 1,210 | 96,507 | 142,991 | | | | | 239,499 |
| | | | | | 0.04 | 2.91 | 4.31 | | | | | 7.22 |
| 20 | Load Haul to S3 Embankment | 33,166.00 | CY | | 1,210 | 96,507 | 142,991 | | | | | 239,499 |
| | | | | | 0.04 | 2.91 | 4.31 | | | | | 7.22 |
| | Prod=301.51 CY/hour (3,015.09 CY/ day), 0.037MH/CY, 27.41 CY/MH, 110.00 hour (11.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Embankment</i> | 1.00 | EA | 2177.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 8,800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 8,719 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 8,719 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 16,909 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 53,361 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 21,241 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 15,051 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 9,653 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 81,521 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 14,300 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,225 | | | | | |
| 336.503 | Site Roads S1 Embankment | 36,612.00 | CY | | 1,134 | 88,745 | 123,891 | | | | | 212,636 |
| | | | | | 0.03 | 2.42 | 3.38 | | | | | 5.81 |
| 10 | Embankment | 31,823.00 | CY | | 720 | 56,328 | 72,922 | | | | | 129,250 |
| | | | | | 0.02 | 1.77 | 2.29 | | | | | 4.06 |
| | Prod=265.19 CY/hour (2,651.92 CY/ day), 0.023MH/CY, 44.20 CY/MH, 120.00 hour (12.00 days) | | | | | | | | | | | |
| | <i>Place & Compact Embankment</i> | 1.00 | EA | 1077.08 | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 9,600 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 9,108 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 9,702 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 9,702 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 9,108 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 9,108 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 28,626 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 10,530 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 15,600 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 16,829 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,337 | | | | | |
| 20 | Gravel Surfacing | 4,789.00 | CY | | 414 | 32,417 | 50,969 | | | | | 83,387 |
| | | | | | 0.09 | 6.77 | 10.64 | | | | | 17.41 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| 20 | Crush Road Base from Excavation | 11,493.60 | TN | | 144 | 10,948 | 18,987 | | | | | 29,935 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 28.73 hour (2.87 days) | | | | 0.01 | 0.95 | 1.65 | | | | | 2.60 |
| | <i>Secondary Crushing</i> | 1.00 | EA | 1041.8 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 2,303 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 2,277 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 2,277 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 4,090 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 3,932 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 10,811 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 3,750 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 494 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 4,789.00 | CY | | 270 | 21,469 | 31,982 | | | | | 53,452 |
| | Prod=159.63 CY/hour (1,596.33 CY/ day), 0.056MH/CY, 17.74 CY/MH, 30.00 hour (3.00 days) | | | | 0.06 | 4.48 | 6.68 | | | | | 11.16 |
| | <i>Load Haul to Place Road Base</i> | 1.00 | EA | 1781.72 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 2,400 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 2,378 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 2,378 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 2,306 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 2,306 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 9,702 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 5,793 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 4,105 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 2,633 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 13,340 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 3,900 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 1,878 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 334 | | | | | |
| 336.504 | Site Roads S2 Excavation Overburden | 65,695.00 | CY | | 2,103 | 167,733 | 255,762 | | | | | 423,495 |
| | | | | | 0.03 | 2.55 | 3.89 | | | | | 6.45 |
| 10 | Common Excavation to Embankment | 6,945.00 | CY | | 207 | 16,460 | 27,521 | | | | | 43,981 |
| | | | | | 0.03 | 2.37 | 3.96 | | | | | 6.33 |
| 20 | Load Haul to Embankment | 6,945.00 | CY | | 207 | 16,460 | 27,521 | | | | | 43,981 |
| | Prod=301.96 CY/hour (3,019.57 CY/ day), 0.030MH/CY, 33.55 CY/MH, 23.00 hour (2.30 days) | | | | 0.03 | 2.37 | 3.96 | | | | | 6.33 |
| | <i>Load Haul to Road Emankment</i> | 1.00 | EA | 1912.22 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,840 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,823 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,823 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 3,536 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 7,438 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 193.10 | | | 8,883 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 3,147 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 2,018 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 10,227 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,990 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 256 | | | | | |
| 10 | Topsoil to Stockpile | 21,780.00 | CY | | 576 | 45,992 | 72,251 | | | | | 118,243 |
| | | | | | 0.03 | 2.11 | 3.32 | | | | | 5.43 |
| 20 | Load Haul to Stockpile | 21,780.00 | CY | | 576 | 45,992 | 72,251 | | | | | 118,243 |
| | Prod=302.50 CY/hour (3,025.00 CY/ day), 0.026MH/CY, 37.81 CY/MH, 72.00 hour (7.20 days) | | | | 0.03 | 2.11 | 3.32 | | | | | 5.43 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | <i>Load Haul to Stockpile</i> | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 5,760 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 5,707 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 5,707 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 5,534 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 23,285 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 13,903 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 9,852 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 6,318 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 32,016 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 9,360 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 802 | | | | | |
| 15 | Common Excavation to S3 Embankment | 36,970.00 | CY | | 1,320 | 105,281 | 155,990 | | | | | 261,271 |
| | | | | | 0.04 | 2.85 | 4.22 | | | | | 7.07 |
| 20 | Load Haul to S3 Embankment | 36,970.00 | CY | | 1,320 | 105,281 | 155,990 | | | | | 261,271 |
| | | | | | 0.04 | 2.85 | 4.22 | | | | | 7.07 |
| | Prod=308.08 CY/hour (3,080.83 CY/ day), 0.036MH/CY, 28.01 CY/MH, 120.00 hour (12.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Embankment</i> | 1.00 | EA | 2177.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 9,600 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 9,511 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 9,511 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 18,446 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 58,212 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 23,172 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 16,420 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 10,530 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 88,932 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 15,600 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,337 | | | | | |
| 336.505 | Site Roads S2 Embankment | 10,615.00 | CY | | 453 | 35,413 | 52,961 | | | | | 88,374 |
| | | | | | 0.04 | 3.34 | 4.99 | | | | | 8.33 |
| 10 | Embankment | 6,313.00 | CY | | 144 | 11,265 | 14,584 | | | | | 25,849 |
| | | | | | 0.02 | 1.78 | 2.31 | | | | | 4.09 |
| | Prod=263.05 CY/hour (2,630.54 CY/ day), 0.023MH/CY, 43.84 CY/MH, 24.00 hour (2.40 days) | | | | | | | | | | | |
| | <i>Place & Compact Embankment</i> | 1.00 | EA | 1077.08 | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 1,920 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 1,822 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 1,940 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 1,940 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 1,822 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 1,822 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 5,725 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 2,106 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 3,120 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 3,366 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 267 | | | | | |
| 20 | Gravel Surfacing | 4,302.00 | CY | | 309 | 24,148 | 38,378 | | | | | 62,525 |
| | | | | | 0.07 | 5.61 | 8.92 | | | | | 14.53 |
| 20 | Crush Road Base from Excavation | 10,324.80 | TN | | 129 | 9,835 | 17,056 | | | | | 26,891 |
| | | | | | 0.01 | 0.95 | 1.65 | | | | | 2.60 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 25.81 hour (2.58 days) | | | | | | | | | | | |
| | <i>Secondary Crushing</i> | 1.00 | EA | 1041.8 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 2,069 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|----------|------------|---------------|---------------|---------------|----------|--------------|----------|----------------|
| | Loader Operator | 1.0 | | 79.26 | | 2,046 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 2,046 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 3,674 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 3,532 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 9,711 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 3,369 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 444 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 4,302.00 | CY | | 180 | 14,313 | 21,322 | | | | | 35,634 |
| | Prod=215.10 CY/hour (2,151.00 CY/ day), 0.042MH/CY, 23.90 CY/MH, 20.00 hour (2.00 days) | | | | 0.04 | 3.33 | 4.96 | | | | | 8.28 |
| | Load Haul to Place Road Base | 1.00 | EA | 1781.72 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,600 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 1,537 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 1,537 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 6,468 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 3,862 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,737 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,755 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 8,893 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,600 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 1,252 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 223 | | | | | |
| 336.506 | Site Roads S3 Excavation Rock | 4,474.00 | CY | | 450 | 33,749 | 24,899 | 46,923 | | | | 105,571 |
| | | | | | 0.10 | 7.54 | 5.57 | 10.49 | | | | 23.60 |
| 10 | Rock Excavation | 4,474.00 | CY | | 450 | 33,749 | 24,899 | 46,923 | | | | 105,571 |
| | | | | | 0.10 | 7.54 | 5.57 | 10.49 | | | | 23.60 |
| 10 | Presplit Face | 6,184.00 | SF | | 162 | 11,816 | 3,686 | 37,632 | | | | 53,135 |
| | Prod=210.00 LF/hour (2,100.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 14.72 hour (1.47 days) | | | | 0.03 | 1.91 | 0.60 | 6.09 | | | | 8.59 |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 1,104 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 3,144 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 2,251 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 3,144 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 1,048 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 1,126 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 3,262 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 164 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 260 | | | | | |
| | Lead in Line | 14.0 | EA | 200.00 | | | | 2,800 | | | | |
| | Non Elec Detonators | 61.0 | EA | 6.50 | | | | 397 | | | | |
| | RED E-SPLIT PRESPLIT | 1,546.0 | EA | 5.78 | | | | 8,936 | | | | |
| | Drill Bits | 30.0 | EA | 350.00 | | | | 10,500 | | | | |
| | Drill Steel | 15.0 | EA | 1,000.00 | | | | 15,000 | | | | |
| 20 | Drill and Shoot | 4,474.00 | CY | | 160 | 11,712 | 5,157 | 9,291 | | | | 26,160 |
| | | | | | 0.04 | 2.62 | 1.15 | 2.08 | | | | 5.85 |
| 10 | Drill and Shoot Production | 4,474.00 | CY | | 160 | 11,712 | 5,157 | 9,291 | | | | 26,160 |
| | Prod=165.33 FT/hour (1,653.27 FT/ day), 0.048MH/FT, 20.67 FT/MH, 20.00 hour (2.00 days) | | | | 0.04 | 2.62 | 1.15 | 2.08 | | | | 5.85 |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 1,643 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|------------|---------------|---------------|---------|----------|--------------|----------|----------------|
| | Labourer | 2.0 | | 71.17 | | 2,847 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 1,529 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 4,270 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 1,423 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 4,431 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 372 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 353 | | | | | |
| | Drill Steel | 0.9 EA | | 1,000.00 | | | | 895 | | | | |
| | Drill Bits | 2.2 EA | | 400.00 | | | | 869 | | | | |
| | Anfo | 4,474.0 LB | | 0.72 | | | | 3,221 | | | | |
| | Booster | 254.4 EA | | 7.88 | | | | 2,005 | | | | |
| | Caps | 254.4 EA | | 7.20 | | | | 1,832 | | | | |
| | Shoot Line | 3.2 EA | | 52.00 | | | | 166 | | | | |
| | Between Holes QRC 1 for every 4 holes | 63.9 EA | | 4.75 | | | | 304 | | | | |
| 30 | Rock Excavation to Embankment | 4,474.00 | CY | | 128 | 10,220 | 16,056 | | | | | 26,276 |
| | | | | | 0.03 | 2.28 | 3.59 | | | | | 5.87 |
| 20 | Load Haul to Embankment | 4,474.00 | CY | | 128 | 10,220 | 16,056 | | | | | 26,276 |
| | | | | | 0.03 | 2.28 | 3.59 | | | | | 5.87 |
| | Prod=279.63 CY/hour (2,796.25 CY/ day), 0.029MH/CY, 34.95 CY/MH, 16.00 hour (1.60 days) | | | | | | | | | | | |
| | Load Haul to Road Emankment | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,280 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,268 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,268 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 1,230 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 5,174 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 3,090 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,189 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,404 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 7,115 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,080 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 178 | | | | | |
| 336.507 | Site Roads S3 Excavation Overburden | 24,186.00 | CY | | 671 | 53,555 | 84,379 | | | | | 137,934 |
| | | | | | 0.03 | 2.21 | 3.49 | | | | | 5.70 |
| 10 | Topsoil to Stockpile | 23,150.00 | CY | | 640 | 51,102 | 80,278 | | | | | 131,381 |
| | | | | | 0.03 | 2.21 | 3.47 | | | | | 5.68 |
| 20 | Load Haul to Stockpile | 23,150.00 | CY | | 640 | 51,102 | 80,278 | | | | | 131,381 |
| | | | | | 0.03 | 2.21 | 3.47 | | | | | 5.68 |
| | Prod=289.38 CY/hour (2,893.75 CY/ day), 0.028MH/CY, 36.17 CY/MH, 80.00 hour (8.00 days) | | | | | | | | | | | |
| | Load Haul to Stockpile | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 6,400 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 6,341 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 6,341 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 6,149 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 25,872 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 15,448 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 10,946 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 7,020 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 35,573 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 10,400 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 891 | | | | | |
| 15 | Common Excavation to Embankment | 1,036.00 | CY | | 31 | 2,452 | 4,100 | | | | | 6,553 |
| | | | | | 0.03 | 2.37 | 3.96 | | | | | 6.33 |
| 20 | Load Haul to Embankment | 1,036.00 | CY | | 31 | 2,452 | 4,100 | | | | | 6,553 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|---------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | Prod=302.33 CY/hour (3,023.25 CY/ day), 0.030MH/CY, 33.59 CY/MH, 3.43 hour (0.34 days) | | | | 0.03 | 2.37 | 3.96 | | | | | 6.33 |
| | <i>Load Haul to Road Emankment</i> | 1.00 | EA | 1912.22 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 274 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 272 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 272 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 527 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 1,108 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 193.10 | | | 1,323 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 469 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 301 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 1,524 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 445 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 38 | | | | | |
| 336.508 | Site Roads S3 Embankment | 130,644.00 | CY | | 2,736 | 214,110 | 283,205 | | | | | 497,315 |
| | | | | | 0.02 | 1.64 | 2.17 | | | | | 3.81 |
| 10 | Embankment | 127,432.00 | CY | | 2,460 | 192,454 | 249,149 | | | | | 441,603 |
| | Prod=310.81 CY/hour (3,108.10 CY/ day), 0.019MH/CY, 51.80 CY/MH, 410.00 hour (41.00 days) | | | | 0.02 | 1.51 | 1.96 | | | | | 3.47 |
| | <i>Place & Compact Embankment</i> | 1.00 | EA | 1077.08 | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 32,800 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 31,119 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 33,149 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 33,149 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 31,119 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 31,119 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 97,806 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 35,978 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 53,300 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 57,498 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 4,567 | | | | | |
| 20 | Gravel Surfacing | 3,212.00 | CY | | 276 | 21,656 | 34,056 | | | | | 55,712 |
| | | | | | 0.09 | 6.74 | 10.60 | | | | | 17.34 |
| 20 | Crush Road Base from Excavation | 7,708.80 | TN | | 96 | 7,343 | 12,735 | | | | | 20,078 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 19.27 hour (1.93 days) | | | | 0.01 | 0.95 | 1.65 | | | | | 2.60 |
| | <i>Secondary Crushing</i> | 1.00 | EA | 1041.8 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 1,545 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,527 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 1,527 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 2,743 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,637 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 7,251 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 2,515 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 331 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 3,212.00 | CY | | 180 | 14,313 | 21,322 | | | | | 35,634 |
| | Prod=160.60 CY/hour (1,606.00 CY/ day), 0.056MH/CY, 17.84 CY/MH, 20.00 hour (2.00 days) | | | | 0.06 | 4.46 | 6.64 | | | | | 11.09 |
| | <i>Load Haul to Place Road Base</i> | 1.00 | EA | 1781.72 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,600 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 1,537 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|----------|------------|---------------|---------------|---------------|----------|--------------|----------|----------------|
| | Packer Operator | 1.0 | | 76.86 | | 1,537 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 6,468 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 3,862 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,737 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,755 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 8,893 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,600 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 1,252 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 223 | | | | | |
| 336.509 | Site Roads S4 Rock Excavation | 9,707.00 | CY | | 992 | 74,844 | 61,925 | 99,473 | | | | 236,242 |
| | | | | | 0.10 | 7.71 | 6.38 | 10.25 | | | | 24.34 |
| 10 | Rock Excavation | 9,707.00 | CY | | 992 | 74,844 | 61,925 | 99,473 | | | | 236,242 |
| | | | | | 0.10 | 7.71 | 6.38 | 10.25 | | | | 24.34 |
| 10 | Presplit Face | 12,800.00 | SF | | 330 | 24,076 | 7,511 | 79,315 | | | | 110,902 |
| | | | | | 0.03 | 1.88 | 0.59 | 6.20 | | | | 8.66 |
| | Prod=213.33 LF/hour (2,133.33 LF/ day), 0.052MH/LF, 19.39 LF/MH, 30.00 hour (3.00 days) | | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 2,250 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 6,405 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 4,587 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 6,405 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 2,135 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 2,294 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 6,647 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 334 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 530 | | | | | |
| | Drill Steel | 32.0 | EA | 1,000.00 | | | | 32,000 | | | | |
| | Drill Bits | 64.0 | EA | 350.00 | | | | 22,400 | | | | |
| | RED E-SPLIT PRESPLIT | 3,200.0 | EA | 5.78 | | | | 18,496 | | | | |
| | Non Elec Detonators | 126.0 | EA | 6.50 | | | | 819 | | | | |
| | Lead in Line | 28.0 | EA | 200.00 | | | | 5,600 | | | | |
| 20 | Drill and Shoot | 9,707.00 | CY | | 320 | 23,424 | 10,314 | 20,158 | | | | 53,896 |
| | | | | | 0.03 | 2.41 | 1.06 | 2.08 | | | | 5.55 |
| 10 | Drill and Shoot Production | 9,707.00 | CY | | 320 | 23,424 | 10,314 | 20,158 | | | | 53,896 |
| | | | | | 0.03 | 2.41 | 1.06 | 2.08 | | | | 5.55 |
| | Prod=179.35 FT/hour (1,793.51 FT/ day), 0.045MH/FT, 22.42 FT/MH, 40.00 hour (4.00 days) | | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 3,285 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 5,694 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 3,058 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 8,540 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 2,847 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 8,862 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 745 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 707 | | | | | |
| | Between Holes QRC 1 for every 4 holes | 138.7 | EA | 4.75 | | | | 659 | | | | |
| | Shoot Line | 6.9 | EA | 52.00 | | | | 361 | | | | |
| | Caps | 551.9 | EA | 7.20 | | | | 3,974 | | | | |
| | Booster | 551.9 | EA | 7.88 | | | | 4,349 | | | | |
| | Anfo | 9,707.0 | LB | 0.72 | | | | 6,989 | | | | |
| | Drill Bits | 4.7 | EA | 400.00 | | | | 1,886 | | | | |
| | Drill Steel | 1.9 | EA | 1,000.00 | | | | 1,941 | | | | |
| 30 | Rock Excavation to Embankment | 1,790.00 | CY | | 42 | 3,329 | 5,103 | | | | | 8,432 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|---------|------------|--------------|---------------|---------|----------|--------------|----------|---------------|
| | | | | | 0.02 | 1.86 | 2.85 | | | | | 4.71 |
| 20 | Load Haul to Embankment | 1,790.00 | CY | | 42 | 3,329 | 5,103 | | | | | 8,432 |
| | | | | | 0.02 | 1.86 | 2.85 | | | | | 4.71 |
| | Prod=300.00 CY/hour (3,000.00 CY/ day), 0.023MH/CY, 42.86 CY/MH, 5.97 hour (0.60 days) | | | | | | | | | | | |
| | Load Haul to Road Emankment | 1.00 | EA | 1413.19 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 477 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 473 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 473 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 459 | | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 80.85 | | 1,447 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 1,152 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 816 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 524 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 2.0 | | 148.22 | | | 1,769 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 776 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 66 | | | | | |
| 40 | Rock Excavation to Crusher | 7,917.00 | CY | | 300 | 24,014 | 38,998 | | | | | 63,012 |
| | | | | | 0.04 | 3.03 | 4.93 | | | | | 7.96 |
| | Prod=263.90 CY/hour (2,639.00 CY/ day), 0.038MH/CY, 26.39 CY/MH, 30.00 hour (3.00 days) | | | | | | | | | | | |
| | Load Haul to Crusher | 1.00 | EA | 2100.4 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 2,400 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 2,378 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 2,378 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 2,306 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 14,553 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 5,793 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 4,105 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 2,633 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 22,233 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 3,900 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 334 | | | | | |
| 336.510 | Site Roads S4 Embankment | 2,470.00 | CY | | 113 | 8,861 | 13,237 | | | | | 22,098 |
| | | | | | 0.05 | 3.59 | 5.36 | | | | | 8.95 |
| 10 | Embankment | 1,433.00 | CY | | 36 | 2,780 | 3,598 | | | | | 6,378 |
| | | | | | 0.02 | 1.94 | 2.51 | | | | | 4.45 |
| | Prod=242.00 CY/hour (2,420.00 CY/ day), 0.025MH/CY, 40.33 CY/MH, 5.92 hour (0.59 days) | | | | | | | | | | | |
| | Place & Compact Embankment | 1.00 | EA | 1077.08 | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 474 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 449 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 479 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 479 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 449 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 449 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 1,413 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 520 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 770 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 830 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 66 | | | | | |
| 20 | Gravel Surfacing | 1,037.00 | CY | | 78 | 6,081 | 9,639 | | | | | 15,720 |
| | | | | | 0.08 | 5.86 | 9.30 | | | | | 15.16 |
| 20 | Crush Road Base from Excavation | 2,488.80 | TN | | 31 | 2,371 | 4,111 | | | | | 6,482 |
| | | | | | 0.01 | 0.95 | 1.65 | | | | | 2.60 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 6.22 hour (0.62 days) | | | | | | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|----------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 33,116 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 57,393 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 30,826 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 86,090 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 28,697 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 89,332 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 7,508 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 7,125 | | | | | |
| | Drill Steel | 18.8 | EA | 1,000.00 | | | | 18,817 | | | | |
| | Drill Bits | 45.7 | EA | 400.00 | | | | 18,279 | | | | |
| | Anfo | 94,083.0 | LB | 0.72 | | | | 67,740 | | | | |
| | Booster | 5,349.3 | EA | 7.88 | | | | 42,152 | | | | |
| | Caps | 5,349.3 | EA | 7.20 | | | | 38,515 | | | | |
| | Shoot Line | 67.2 | EA | 52.00 | | | | 3,495 | | | | |
| | Between Holes QRC 1 for every 4 holes | 1,344.0 | EA | 4.75 | | | | 6,384 | | | | |
| 30 | Rock Excavation to Embankment | 81,330.00 | CY | | 1,820 | 145,062 | 222,368 | | | | | 367,429 |
| | | | | | 0.02 | 1.78 | 2.73 | | | | | 4.52 |
| 20 | Load Haul to Embankment | 81,330.00 | CY | | 1,820 | 145,062 | 222,368 | | | | | 367,429 |
| | | | | | 0.02 | 1.78 | 2.73 | | | | | 4.52 |
| | Prod=312.81 CY/hour (3,128.08 CY/ day), 0.022MH/CY, 44.69 CY/MH, 260.00 hour (26.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Embankment</i> | 1.00 | EA | 1413.19 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 20,800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 20,608 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 20,608 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 19,984 | | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 80.85 | | 63,063 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 50,206 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 35,576 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 22,815 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 2.0 | | 148.22 | | | 77,074 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 33,800 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,896 | | | | | |
| 40 | Rock Excavation to Crusher | 12,753.00 | CY | | 400 | 32,019 | 51,997 | | | | | 84,016 |
| | | | | | 0.03 | 2.51 | 4.08 | | | | | 6.59 |
| | Prod=318.83 CY/hour (3,188.25 CY/ day), 0.031MH/CY, 31.88 CY/MH, 40.00 hour (4.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Crusher</i> | 1.00 | EA | 2100.4 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 3,200 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 3,170 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 3,170 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 3,074 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 19,404 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 7,724 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 5,473 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 3,510 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 29,644 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 5,200 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 446 | | | | | |
| 336.512 | Site Roads S5 Embankment | 110,792.00 | CY | | 2,849 | 222,895 | 291,935 | | | | | 514,830 |
| | | | | | 0.03 | 2.01 | 2.63 | | | | | 4.65 |
| 10 | Embankment | 108,820.00 | CY | | 2,700 | 211,230 | 273,456 | | | | | 484,686 |
| | | | | | 0.02 | 1.94 | 2.51 | | | | | 4.45 |
| | Prod=241.82 CY/hour (2,418.22 CY/ day), 0.025MH/CY, 40.30 CY/MH, 450.00 hour (45.00 days) | | | | | | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|---------|--------------|---------------|---------------|----------------|----------|--------------|----------|----------------|
| | <i>Place & Compact Embankment</i> | 1.00 | EA | 1077.08 | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 36,000 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 34,155 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 36,383 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 36,383 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 34,155 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 34,155 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 107,348 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 39,488 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 58,500 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 63,108 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 5,013 | | | | | |
| 20 | Gravel Surfacing | 1,972.00 | CY | | 149 | 11,665 | 18,479 | | | | | 30,144 |
| | | | | | 0.08 | 5.92 | 9.37 | | | | | 15.29 |
| 20 | Crush Road Base from Excavation | 4,732.80 | TN | | 59 | 4,508 | 7,818 | | | | | 12,327 |
| | | | | | 0.01 | 0.95 | 1.65 | | | | | 2.60 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 11.83 hour (1.18 days) | | | | | | | | | | | |
| | <i>Secondary Crushing</i> | 1.00 | EA | 1041.8 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 948 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 938 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 938 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 1,684 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,619 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 4,452 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 1,544 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 204 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 1,972.00 | CY | | 90 | 7,156 | 10,661 | | | | | 17,817 |
| | | | | | 0.05 | 3.63 | 5.41 | | | | | 9.04 |
| | Prod=197.20 CY/hour (1,972.00 CY/ day), 0.046MH/CY, 21.91 CY/MH, 10.00 hour (1.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Place Road Base</i> | 1.00 | EA | 1781.72 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 793 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 793 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 769 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 769 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 3,234 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 1,931 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,368 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 878 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 4,447 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 1,300 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 626 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 111 | | | | | |
| 336.513 | Site Roads S6 Rock Excavation | 11,629.00 | CY | | 1,010 | 75,673 | 54,613 | 106,508 | | | | 236,795 |
| | | | | | 0.09 | 6.51 | 4.70 | 9.16 | | | | 20.36 |
| 10 | Rock Excavation | 11,629.00 | CY | | 1,010 | 75,673 | 54,613 | 106,508 | | | | 236,795 |
| | | | | | 0.09 | 6.51 | 4.70 | 9.16 | | | | 20.36 |
| 10 | Presplit Face | 12,270.00 | SF | | 330 | 24,076 | 7,511 | 82,358 | | | | 113,945 |
| | | | | | 0.03 | 1.96 | 0.61 | 6.71 | | | | 9.29 |
| | Prod=204.50 LF/hour (2,045.00 LF/ day), 0.054MH/LF, 18.59 LF/MH, 30.00 hour (3.00 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 2,250 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 6,405 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------------|-------------|---------------|---------------|---------------|----------|--------------|----------|---------------|
| | Powderman | 2.0 | | 76.45 | | 4,587 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 6,405 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 2,135 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 2,294 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 6,647 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 334 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 530 | | | | | |
| | Lead in Line | 27.0 EA | | 200.00 | | | | 5,400 | | | | |
| | Non Elec Detonators | 1,212.0 EA | | 6.50 | | | | 7,878 | | | | |
| | RED E-SPLIT PRESPLIT | 3,067.5 EA | | 5.78 | | | | 17,730 | | | | |
| | Drill Bits | 61.0 EA | | 350.00 | | | | 21,350 | | | | |
| | Drill Steel | 30.0 EA | | 1,000.00 | | | | 30,000 | | | | |
| 20 | Drill and Shoot | 11,629.00 | CY | | 400 | 29,280 | 12,892 | 24,150 | | | | 66,322 |
| | | | | | 0.03 | 2.52 | 1.11 | 2.08 | | | | 5.70 |
| 10 | Drill and Shoot Production | 11,629.00 | CY | | 400 | 29,280 | 12,892 | 24,150 | | | | 66,322 |
| | | | | | 0.03 | 2.52 | 1.11 | 2.08 | | | | 5.70 |
| | Prod=171.89 FT/hour (1,718.90 FT/ day), 0.047MH/FT, 21.49 FT/MH, 50.00 hour (5.00 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | <i>1.00</i> | <i>EA</i> | <i>843.44</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 4,107 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 7,117 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 3,823 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 10,676 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 3,559 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 11,078 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 931 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 884 | | | | | |
| | Drill Steel | 2.3 EA | | 1,000.00 | | | | 2,326 | | | | |
| | Drill Bits | 5.6 EA | | 400.00 | | | | 2,259 | | | | |
| | Anfo | 11,629.0 LB | | 0.72 | | | | 8,373 | | | | |
| | Booster | 661.2 EA | | 7.88 | | | | 5,210 | | | | |
| | Caps | 661.2 EA | | 7.20 | | | | 4,761 | | | | |
| | Shoot Line | 8.3 EA | | 52.00 | | | | 432 | | | | |
| | Between Holes QRC 1 for every 4 holes | 166.1 EA | | 4.75 | | | | 789 | | | | |
| 30 | Rock Excavation to Embankment | 11,629.00 | CY | | 280 | 22,317 | 34,210 | | | | | 56,528 |
| | | | | | 0.02 | 1.92 | 2.94 | | | | | 4.86 |
| 20 | Load Haul to Embankment | 11,629.00 | CY | | 280 | 22,317 | 34,210 | | | | | 56,528 |
| | | | | | 0.02 | 1.92 | 2.94 | | | | | 4.86 |
| | Prod=290.73 CY/hour (2,325.80 CY/ day), 0.024MH/CY, 41.53 CY/MH, 40.00 hour (5.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | <i>1.00</i> | <i>EA</i> | <i>1413.19</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 3,200 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 3,170 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 3,170 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 3,074 | | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 80.85 | | 9,702 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 7,724 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 5,473 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 3,510 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 2.0 | | 148.22 | | | 11,858 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 5,200 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 446 | | | | | |
| 336.514 | Site Roads S6 Embankment | 15,335.00 | CY | | 360 | 28,190 | 37,849 | | | | | 66,039 |
| | | | | | 0.02 | 1.84 | 2.47 | | | | | 4.31 |
| 10 | Embankment | 14,540.00 | CY | | 301 | 23,528 | 30,459 | | | | | 53,988 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|------------|---------------|---------------|---------------|----------|--------------|----------|---------------|
| | Labour Foreman | 1.0 | | 75.00 | | 964 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 2,745 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 1,966 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 2,745 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 915 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 983 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 2,849 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 143 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 227 | | | | | |
| | Drill Steel | 13.0 EA | | 1,000.00 | | | | | 13,000 | | | |
| | Drill Bits | 27.0 EA | | 350.00 | | | | | 9,450 | | | |
| | RED E-SPLIT PRESPLIT | 1,350.0 EA | | 5.78 | | | | | 7,803 | | | |
| | Non Elec Detonators | 53.0 EA | | 6.50 | | | | | 345 | | | |
| | Lead in Line | 12.0 EA | | 200.00 | | | | | 2,400 | | | |
| 20 | Drill and Shoot | 10,210.00 | CY | | 360 | 26,352 | 11,603 | 21,207 | | | | 59,162 |
| | | | | | 0.04 | 2.58 | 1.14 | 2.08 | | | | 5.79 |
| 10 | Drill and Shoot Production | 10,210.00 | CY | | 360 | 26,352 | 11,603 | 21,207 | | | | 59,162 |
| | | | | | 0.04 | 2.58 | 1.14 | 2.08 | | | | 5.79 |
| | Prod=167.67 FT/hour (1,676.67 FT/ day), 0.048MH/FT, 20.96 FT/MH, 45.00 hour (4.50 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 3,696 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 6,405 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 3,440 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 9,608 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 3,203 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 9,970 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 838 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 795 | | | | | |
| | Between Holes QRC 1 for every 4 holes | 146.0 EA | | 4.75 | | | | | 694 | | | |
| | Shoot Line | 8.0 EA | | 52.00 | | | | | 416 | | | |
| | Caps | 580.0 EA | | 7.20 | | | | | 4,176 | | | |
| | Booster | 580.0 EA | | 7.88 | | | | | 4,570 | | | |
| | Anfo | 10,210.0 LB | | 0.72 | | | | | 7,351 | | | |
| | Drill Bits | 5.0 EA | | 400.00 | | | | | 2,000 | | | |
| | Drill Steel | 2.0 EA | | 1,000.00 | | | | | 2,000 | | | |
| 30 | Rock Excavation to Embankment | 10,210.00 | CY | | 280 | 22,357 | 35,122 | | | | | 57,479 |
| | | | | | 0.03 | 2.19 | 3.44 | | | | | 5.63 |
| 20 | Load Haul to Embankment | 10,210.00 | CY | | 280 | 22,357 | 35,122 | | | | | 57,479 |
| | | | | | 0.03 | 2.19 | 3.44 | | | | | 5.63 |
| | Prod=291.71 CY/hour (2,917.14 CY/ day), 0.027MH/CY, 36.46 CY/MH, 35.00 hour (3.50 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 2,800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 2,774 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 2,774 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 2,690 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 11,319 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 6,759 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 4,789 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 3,071 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 15,563 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 4,550 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 390 | | | | | |
| 336.516 | Site Roads S7 Excavation Overburden | 3,485.00 | CY | | 80 | 6,388 | 10,035 | | | | | 16,423 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|---------|-----------|--------------|--------------|---------|----------|--------------|----------|---------------|
| | Equipment Foreman | 1.0 | | 80.00 | | 800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 793 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 793 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 769 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 769 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 3,234 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 1,931 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,368 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 878 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 4,447 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 1,300 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 626 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 111 | | | | | |
| 336.518 | Site Roads N1 Excavation Overburden | 94.00 | CY | | 2 | 198 | 310 | | | | | 508 |
| | | | | | 0.03 | 2.10 | 3.30 | | | | | 5.40 |
| 10 | Topsoil to Stockpile | 94.00 | CY | | 2 | 198 | 310 | | | | | 508 |
| | | | | | 0.03 | 2.10 | 3.30 | | | | | 5.40 |
| 20 | Load Haul to Stockpile | 94.00 | CY | | 2 | 198 | 310 | | | | | 508 |
| | | | | | 0.03 | 2.10 | 3.30 | | | | | 5.40 |
| | Prod=303.86 CY/hour (3,038.64 CY/ day), 0.026MH/CY, 37.98 CY/MH, 0.31 hour (0.03 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile</i> | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 25 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 25 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 25 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 24 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 100 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 60 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 42 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 27 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 138 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 40 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 3 | | | | | |
| 336.519 | Site Roads N1 Embankment | 3,230.00 | CY | | 69 | 5,403 | 7,473 | | | | | 12,876 |
| | | | | | 0.02 | 1.67 | 2.31 | | | | | 3.99 |
| 10 | Embankment | 2,949.00 | CY | | 48 | 3,755 | 4,861 | | | | | 8,617 |
| | | | | | 0.02 | 1.27 | 1.65 | | | | | 2.92 |
| | Prod=368.63 CY/hour (3,686.25 CY/ day), 0.016MH/CY, 61.44 CY/MH, 8.00 hour (0.80 days) | | | | | | | | | | | |
| | <i>Place & Compact Embankment</i> | 1.00 | EA | 1077.08 | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 640 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 607 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 647 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 647 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 607 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 607 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 1,908 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 702 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 1,040 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 1,122 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 89 | | | | | |
| 20 | Gravel Surfacing | 281.00 | CY | | 21 | 1,648 | 2,612 | | | | | 4,260 |
| | | | | | 0.07 | 5.86 | 9.30 | | | | | 15.16 |
| 20 | Crush Road Base from Excavation | 674.40 | TN | | 8 | 642 | 1,114 | | | | | 1,756 |
| | | | | | 0.01 | 0.95 | 1.65 | | | | | 2.60 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|----------------|----------|--------------|----------|------------------|
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 1.69 hour (0.17 days) | | | | | | | | | | | |
| | Secondary Crushing | 1.00 | EA | 1041.8 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 135 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 134 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 134 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 240 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 231 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 634 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 220 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 29 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 281.00 | CY | | 13 | 1,005 | 1,498 | | | | | 2,503 |
| | | | | | 0.04 | 3.58 | 5.33 | | | | | 8.91 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.045MH/CY, 22.22 CY/MH, 1.41 hour (0.14 days) | | | | | | | | | | | |
| | Load Haul to Place Road Base | 1.00 | EA | 1781.72 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 112 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 111 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 111 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 108 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 108 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 454 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 271 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 192 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 123 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 625 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 183 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 88 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 16 | | | | | |
| 336.520 | Site Roads N2 Rock Excavation | 46,886.00 | CY | | 4,388 | 329,945 | 257,112 | 437,004 | | | | 1,024,061 |
| | | | | | 0.09 | 7.04 | 5.48 | 9.32 | | | | 21.84 |
| 10 | Rock Excavation | 46,886.00 | CY | | 4,388 | 329,945 | 257,112 | 437,004 | | | | 1,024,061 |
| | | | | | 0.09 | 7.04 | 5.48 | 9.32 | | | | 21.84 |
| 10 | Presplit Face | 54,800.00 | SF | | 1,430 | 104,330 | 32,547 | 339,636 | | | | 476,513 |
| | | | | | 0.03 | 1.90 | 0.59 | 6.20 | | | | 8.70 |
| | Prod=210.77 LF/hour (2,107.69 LF/ day), 0.052MH/LF, 19.16 LF/MH, 130.00 hour (13.00 days) | | | | | | | | | | | |
| | Drill & Blast Mass Rock with 3" Hydraulic Drill | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 9,750 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 27,756 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 19,877 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 27,756 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 9,252 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 9,939 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 28,802 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,448 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 2,297 | | | | | |
| | Lead in Line | 120.2 | EA | 200.00 | | | | | 24,035 | | | |
| | Non Elec Detonators | 540.8 | EA | 6.50 | | | | | 3,515 | | | |
| | RED E-SPLIT PRESPLIT | 13,700.0 | EA | 5.78 | | | | | 79,186 | | | |
| | Drill Bits | 274.0 | EA | 350.00 | | | | | 95,900 | | | |
| | Drill Steel | 137.0 | EA | 1,000.00 | | | | | 137,000 | | | |
| 20 | Drill and Shoot | 46,886.00 | CY | | 1,608 | 117,670 | 51,810 | 97,368 | | | | 266,849 |
| | | | | | 0.03 | 2.51 | 1.11 | 2.08 | | | | 5.69 |
| 10 | Drill and Shoot Production | 46,886.00 | CY | | 1,608 | 117,670 | 51,810 | 97,368 | | | | 266,849 |
| | | | | | 0.03 | 2.51 | 1.11 | 2.08 | | | | 5.69 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | Prod=172.45 FT/hour (1,724.47 FT/ day), 0.046MH/FT, 21.56 FT/MH, 200.94 hour (20.09 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 16,503 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 28,602 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 15,362 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 42,903 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 14,301 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 44,518 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 3,742 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 3,551 | | | | | |
| | Drill Steel | 9.4 | EA | 1,000.00 | | | | 9,377 | | | | |
| | Drill Bits | 22.8 | EA | 400.00 | | | | 9,109 | | | | |
| | Anfo | 46,886.0 | LB | 0.72 | | | | 33,758 | | | | |
| | Booster | 2,665.8 | EA | 7.88 | | | | 21,007 | | | | |
| | Caps | 2,665.8 | EA | 7.20 | | | | 19,194 | | | | |
| | Shoot Line | 33.5 | EA | 52.00 | | | | 1,741 | | | | |
| | Between Holes QRC 1 for every 4 holes | 669.8 | EA | 4.75 | | | | 3,182 | | | | |
| 30 | Rock Excavation to Embankment | 46,886.00 | CY | | 1,350 | 107,945 | 172,755 | | | | | 280,700 |
| | | | | | 0.03 | 2.30 | 3.68 | | | | | 5.99 |
| 20 | Load Haul to Embankment | 46,886.00 | CY | | 1,350 | 107,945 | 172,755 | | | | | 280,700 |
| | | | | | 0.03 | 2.30 | 3.68 | | | | | 5.99 |
| | Prod=312.57 CY/hour (3,125.73 CY/ day), 0.029MH/CY, 34.73 CY/MH, 150.00 hour (15.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | 1.00 | EA | 1871.33 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 12,000 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 11,889 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 11,889 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 11,529 | | | | | | |
| | Off Hwy Truck Driver | 5.0 | | 80.85 | | 60,638 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 28,965 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 20,525 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 13,163 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 4.0 | | 148.22 | | | 88,932 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 19,500 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,671 | | | | | |
| 336.521 | Site Roads N2 Excavtion Overburden | 17,954.00 | CY | | 480 | 38,327 | 60,209 | | | | | 98,536 |
| | | | | | 0.03 | 2.13 | 3.35 | | | | | 5.49 |
| 10 | Topsoil to Stockpile | 17,954.00 | CY | | 480 | 38,327 | 60,209 | | | | | 98,536 |
| | | | | | 0.03 | 2.13 | 3.35 | | | | | 5.49 |
| 20 | Load Haul to Stockpile | 17,954.00 | CY | | 480 | 38,327 | 60,209 | | | | | 98,536 |
| | | | | | 0.03 | 2.13 | 3.35 | | | | | 5.49 |
| | Prod=299.23 CY/hour (2,992.33 CY/ day), 0.027MH/CY, 37.40 CY/MH, 60.00 hour (6.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile</i> | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 4,800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 4,756 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 4,756 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 4,612 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 19,404 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 11,586 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 8,210 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 5,265 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 26,680 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 7,800 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 668 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------------|--------------|----------------|----------------|----------------|----------|--------------|----------|------------------|
| 336.522 | Site Roads N2 Embankment | 71,941.00 | CY | | 1,490 | 116,508 | 161,719 | | | | | 278,227 |
| | | | | | 0.02 | 1.62 | 2.25 | | | | | 3.87 |
| 10 | Embankment | 65,791.00 | CY | | 1,020 | 79,798 | 103,306 | | | | | 183,104 |
| | | | | | 0.02 | 1.21 | 1.57 | | | | | 2.78 |
| | Prod=387.01 CY/hour (3,870.06 CY/ day), 0.016MH/CY, 64.50 CY/MH, 170.00 hour (17.00 days) | | | | | | | | | | | |
| | <i>Place & Compact Embankment</i> | <i>1.00</i> | <i>EA</i> | <i>1077.08</i> | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 13,600 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 12,903 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 13,745 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 13,745 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 12,903 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 12,903 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 40,554 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 14,918 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 22,100 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 23,841 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,894 | | | | | |
| 20 | Gravel Surfacing | 6,150.00 | CY | | 470 | 36,710 | 58,414 | | | | | 95,124 |
| | | | | | 0.08 | 5.97 | 9.50 | | | | | 15.47 |
| 20 | Crush Road Base from Excavation | 14,760.00 | TN | | 200 | 15,241 | 26,431 | | | | | 41,672 |
| | | | | | 0.01 | 1.03 | 1.79 | | | | | 2.82 |
| | Prod=369.00 TN/hour (2,952.00 TN/ day), 0.014MH/TN, 73.80 TN/MH, 40.00 hour (5.00 days) | | | | | | | | | | | |
| | <i>Secondary Crushing</i> | <i>1.00</i> | <i>EA</i> | <i>1041.8</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 3,206 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 3,170 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 3,170 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 5,694 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 5,473 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 15,049 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 5,221 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 688 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 6,150.00 | CY | | 270 | 21,469 | 31,982 | | | | | 53,452 |
| | | | | | 0.04 | 3.49 | 5.20 | | | | | 8.69 |
| | Prod=205.00 CY/hour (2,050.00 CY/ day), 0.044MH/CY, 22.78 CY/MH, 30.00 hour (3.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Place Road Base</i> | <i>1.00</i> | <i>EA</i> | <i>1781.72</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 2,400 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 2,378 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 2,378 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 2,306 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 2,306 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 9,702 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 5,793 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 4,105 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 2,633 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 13,340 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 3,900 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 1,878 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 334 | | | | | |
| 336.523 | Site Roads N3 Rock Excavation | 55,374.00 | CY | | 5,301 | 400,304 | 337,402 | 464,841 | | | | 1,202,546 |
| | | | | | 0.10 | 7.23 | 6.09 | 8.39 | | | | 21.72 |
| 10 | Rock Excavation | 55,374.00 | CY | | 5,301 | 400,304 | 337,402 | 464,841 | | | | 1,202,546 |
| | | | | | 0.10 | 7.23 | 6.09 | 8.39 | | | | 21.72 |
| 10 | Presplit Face | 56,440.00 | SF | | 1,485 | 108,343 | 33,799 | 349,846 | | | | 491,988 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|------------------|-----------|----------|--------------|----------------|----------------|----------------|----------|--------------|----------|----------------|
| | | | | | 0.03 | 1.92 | 0.60 | 6.20 | | | | 8.72 |
| | Prod=209.04 LF/hour (2,090.37 LF/ day), 0.053MH/LF, 19.00 LF/MH, 135.00 hour (13.50 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 10,125 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 28,824 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 20,642 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 28,824 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 9,608 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 10,321 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 29,909 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,504 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 2,385 | | | | | |
| | Drill Steel | 141.1 | EA | 1,000.00 | | | | 141,100 | | | | |
| | Drill Bits | 282.2 | EA | 350.00 | | | | 98,770 | | | | |
| | RED E-SPLIT PRESPLIT | 14,110.0 | EA | 5.78 | | | | 81,556 | | | | |
| | Non Elec Detonators | 557.0 | EA | 6.50 | | | | 3,621 | | | | |
| | Lead in Line | 124.0 | EA | 200.00 | | | | 24,800 | | | | |
| 20 | Drill and Shoot | 55,374.00 | CY | | 1,920 | 140,544 | 61,882 | 114,995 | | | | 317,420 |
| | | | | | 0.03 | 2.54 | 1.12 | 2.08 | | | | 5.73 |
| 10 | Drill and Shoot Production | 55,374.00 | CY | | 1,920 | 140,544 | 61,882 | 114,995 | | | | 317,420 |
| | | | | | 0.03 | 2.54 | 1.12 | 2.08 | | | | 5.73 |
| | Prod=170.52 FT/hour (1,705.19 FT/ day), 0.047MH/FT, 21.31 FT/MH, 240.00 hour (24.00 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 19,711 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 34,162 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 18,348 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 51,242 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 17,081 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 53,172 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 4,469 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 4,241 | | | | | |
| | Between Holes QRC 1 for every 4 holes | 791.1 | EA | 4.75 | | | | 3,758 | | | | |
| | Shoot Line | 39.6 | EA | 52.00 | | | | 2,057 | | | | |
| | Caps | 3,148.4 | EA | 7.20 | | | | 22,669 | | | | |
| | Booster | 3,148.4 | EA | 7.88 | | | | 24,809 | | | | |
| | Anfo | 55,374.0 | LB | 0.72 | | | | 39,869 | | | | |
| | Drill Bits | 26.9 | EA | 400.00 | | | | 10,758 | | | | |
| | Drill Steel | 11.1 | EA | 1,000.00 | | | | 11,075 | | | | |
| 30 | Rock Excavation to Stockpile Waste | 26,400.00 | CY | | 990 | 78,961 | 125,480 | | | | | 204,440 |
| | | | | | 0.04 | 2.99 | 4.75 | | | | | 7.74 |
| 20 | Load Haul to Waste | 26,400.00 | CY | | 990 | 78,961 | 125,480 | | | | | 204,440 |
| | | | | | 0.04 | 2.99 | 4.75 | | | | | 7.74 |
| | Prod=293.33 CY/hour (2,933.33 CY/ day), 0.038MH/CY, 26.67 CY/MH, 90.00 hour (9.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | 1.00 | EA | 2271.56 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 7,200 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 7,133 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 7,133 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 13,835 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 43,659 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 8,487 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 17,379 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 12,315 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 7,898 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 66,699 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|-----------------|-----------|----------------|------------|---------------|---------------|---------|----------|--------------|----------|---------------|
| | 631 Water Wagon | 1.0 | | 130.00 | | | 11,700 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,003 | | | | | |
| 35 | Rock Excavation to Embankment N1 | 2,360.00 | CY | | 64 | 5,110 | 8,028 | | | | | 13,138 |
| | | | | | 0.03 | 2.17 | 3.40 | | | | | 5.57 |
| 20 | Load Haul to Embankment | 2,360.00 | CY | | 64 | 5,110 | 8,028 | | | | | 13,138 |
| | | | | | 0.03 | 2.17 | 3.40 | | | | | 5.57 |
| | Prod=295.00 CY/hour (2,950.00 CY/ day), 0.027MH/CY, 36.88 CY/MH, 8.00 hour (0.80 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | <i>1.00</i> | <i>EA</i> | <i>1642.26</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 640 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 634 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 634 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 615 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 2,587 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 1,545 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,095 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 702 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 3,557 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 1,040 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 89 | | | | | |
| 38 | Rock Excavation to Embankment N2 | 5,750.00 | CY | | 180 | 14,393 | 23,034 | | | | | 37,427 |
| | | | | | 0.03 | 2.50 | 4.01 | | | | | 6.51 |
| 20 | Load Haul to Embankment | 5,750.00 | CY | | 180 | 14,393 | 23,034 | | | | | 37,427 |
| | | | | | 0.03 | 2.50 | 4.01 | | | | | 6.51 |
| | Prod=287.50 CY/hour (2,875.00 CY/ day), 0.031MH/CY, 31.94 CY/MH, 20.00 hour (2.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | <i>1.00</i> | <i>EA</i> | <i>1871.33</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,600 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 1,537 | | | | | | |
| | Off Hwy Truck Driver | 5.0 | | 80.85 | | 8,085 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 3,862 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,737 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,755 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 4.0 | | 148.22 | | | 11,858 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,600 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 223 | | | | | |
| 40 | Rock Excavation to Embankment | 4,364.00 | CY | | 112 | 8,927 | 13,684 | | | | | 22,611 |
| | | | | | 0.03 | 2.05 | 3.14 | | | | | 5.18 |
| 20 | Load Haul to Embankment | 4,364.00 | CY | | 112 | 8,927 | 13,684 | | | | | 22,611 |
| | | | | | 0.03 | 2.05 | 3.14 | | | | | 5.18 |
| | Prod=272.75 CY/hour (2,727.50 CY/ day), 0.026MH/CY, 38.96 CY/MH, 16.00 hour (1.60 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | <i>1.00</i> | <i>EA</i> | <i>1413.19</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,280 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,268 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,268 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 1,230 | | | | | | |
| | Off Hwy Truck Driver | 3.0 | | 80.85 | | 3,881 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 3,090 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,189 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,404 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 2.0 | | 148.22 | | | 4,743 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,080 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 178 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-----------------|-----------|---------|------------|---------------|---------------|---------|----------|--------------|----------|---------------|
| 41 | Rock Excavation to Crusher | 16,500.00 | CY | | 550 | 44,026 | 71,496 | | | | | 115,522 |
| | Prod=300.00 CY/hour (3,000.00 CY/ day), 0.033MH/CY, 30.00 CY/MH, 55.00 hour (5.50 days) | | | | 0.03 | 2.67 | 4.33 | | | | | 7.00 |
| | Load Haul to Crusher | 1.00 | EA | 2100.4 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 4,400 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 4,359 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 4,359 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 4,227 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 26,680 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 10,621 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 7,526 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 4,826 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 40,760 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 7,150 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 613 | | | | | |
| 336.524 | Site Roads N3 Embankment | 7,284.00 | CY | | 233 | 18,236 | 26,724 | | | | | 44,960 |
| | | | | | 0.03 | 2.50 | 3.67 | | | | | 6.17 |
| 10 | Embankment | 5,455.00 | CY | | 96 | 7,510 | 9,723 | | | | | 17,233 |
| | Prod=340.94 CY/hour (3,409.38 CY/ day), 0.018MH/CY, 56.82 CY/MH, 16.00 hour (1.60 days) | | | | 0.02 | 1.38 | 1.78 | | | | | 3.16 |
| | Place & Compact Embankment | 1.00 | EA | 1077.08 | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 1,280 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 1,214 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 1,294 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 1,294 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 1,214 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 1,214 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 3,817 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,404 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,080 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 2,244 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 178 | | | | | |
| 20 | Gravel Surfacing | 1,829.00 | CY | | 137 | 10,726 | 17,001 | | | | | 27,727 |
| | | | | | 0.08 | 5.86 | 9.30 | | | | | 15.16 |
| 20 | Crush Road Base from Excavation | 4,389.60 | TN | | 55 | 4,181 | 7,251 | | | | | 11,433 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 10.97 hour (1.10 days) | | | | 0.01 | 0.95 | 1.65 | | | | | 2.60 |
| | Secondary Crushing | 1.00 | EA | 1041.8 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 880 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 870 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 870 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 1,562 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,502 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 4,129 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 1,432 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 189 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 1,829.00 | CY | | 82 | 6,545 | 9,749 | | | | | 16,294 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.045MH/CY, 22.22 CY/MH, 9.14 hour (0.91 days) | | | | 0.05 | 3.58 | 5.33 | | | | | 8.91 |
| | Load Haul to Place Road Base | 1.00 | EA | 1781.72 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 732 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 725 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|---------------|------------|--------------|--------------|---------------|----------|--------------|----------|---------------|
| | Loader Operator | 1.0 | | 79.26 | | 725 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 703 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 703 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 2,957 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 1,766 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,251 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 802 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 4,066 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 1,189 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 572 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 102 | | | | | |
| 336.525 | Site Roads N4 Excavation Rock | 1,475.00 | CY | | 113 | 8,493 | 6,695 | 13,154 | | | | 28,343 |
| | | | | | 0.08 | 5.76 | 4.54 | 8.92 | | | | 19.22 |
| 10 | Rock Excavation | 1,045.00 | CY | | 113 | 8,493 | 6,695 | 13,154 | | | | 28,343 |
| | | | | | 0.11 | 8.13 | 6.41 | 12.59 | | | | 27.12 |
| 10 | Presplit Face | 1,566.00 | SF | | 41 | 2,992 | 933 | 9,989 | | | | 13,915 |
| | | | | | 0.03 | 1.91 | 0.60 | 6.38 | | | | 8.89 |
| | Prod=210.00 LF/hour (2,100.00 LF/ day), 0.052MH/LF, 19.09 LF/MH, 3.73 hour (0.37 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | <i>1.00</i> | <i>EA</i> | <i>1052.9</i> | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 280 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 796 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 570 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 796 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 265 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 285 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 826 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 42 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 66 | | | | | |
| | Drill Steel | 3.8 | EA | 1,000.00 | | | | 3,846 | | | | |
| | Drill Bits | 7.7 | EA | 350.00 | | | | 2,693 | | | | |
| | RED E-SPLIT PRESPLIT | 391.1 | EA | 5.78 | | | | 2,260 | | | | |
| | Non Elec Detonators | 143.6 | EA | 6.50 | | | | 933 | | | | |
| | Lead in Line | 1.3 | EA | 200.00 | | | | 256 | | | | |
| 20 | Drill and Shoot | 1,045.00 | CY | | 36 | 2,623 | 1,155 | 3,165 | | | | 6,942 |
| | | | | | 0.03 | 2.51 | 1.11 | 3.03 | | | | 6.64 |
| 10 | Drill and Shoot Production | 1,045.00 | CY | | 36 | 2,623 | 1,155 | 3,165 | | | | 6,942 |
| | | | | | 0.03 | 2.51 | 1.11 | 3.03 | | | | 6.64 |
| | Prod=172.45 FT/hour (1,724.47 FT/ day), 0.046MH/FT, 21.56 FT/MH, 4.48 hour (0.45 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | <i>1.00</i> | <i>EA</i> | <i>843.44</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 368 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 637 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 342 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 956 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 319 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 992 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 83 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 79 | | | | | |
| | Between Holes QRC 1 for every 4 holes | 14.9 | EA | 4.75 | | | | 71 | | | | |
| | Shoot Line | 1.0 | EA | 52.00 | | | | 52 | | | | |
| | Caps | 59.0 | EA | 7.20 | | | | 425 | | | | |
| | Booster | 59.0 | EA | 7.88 | | | | 465 | | | | |
| | Anfo | 1,045.0 | LB | 0.72 | | | | 752 | | | | |
| | Drill Bits | 1.0 | EA | 400.00 | | | | 400 | | | | |
| | Drill Steel | 1.0 | EA | 1,000.00 | | | | 1,000 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|----------------|----------|--------------|----------|----------------|
| | Equipment Foreman | 1.0 | | 80.00 | | 68 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 67 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 67 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 65 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 65 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 273 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 163 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 116 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 74 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 376 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 110 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 53 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 9 | | | | | |
| 336.527 | Site Roads N5 Rock Excavation | 27,986.00 | CY | | 2,395 | 179,927 | 137,527 | 227,416 | | | | 544,871 |
| | | | | | 0.09 | 6.43 | 4.91 | 8.13 | | | | 19.47 |
| 10 | Rock Excavation | 27,986.00 | CY | | 2,395 | 179,927 | 137,527 | 227,416 | | | | 544,871 |
| | | | | | 0.09 | 6.43 | 4.91 | 8.13 | | | | 19.47 |
| 10 | Presplit Face | 27,400.00 | SF | | 715 | 52,165 | 16,273 | 169,298 | | | | 237,737 |
| | | | | | 0.03 | 1.90 | 0.59 | 6.18 | | | | 8.68 |
| | Prod=210.77 LF/hour (2,107.69 LF/ day), 0.052MH/LF, 19.16 LF/MH, 65.00 hour (6.50 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | | | | | | | | | | | |
| | | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 4,875 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 13,878 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 9,939 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 13,878 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 4,626 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 4,969 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 14,401 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 724 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 1,149 | | | | | |
| | Lead in Line | 60.0 | EA | 200.00 | | | | 12,000 | | | | |
| | Non Elec Detonators | 270.0 | EA | 6.50 | | | | 1,755 | | | | |
| | RED E-SPLIT PRESPLIT | 6,850.0 | EA | 5.78 | | | | 39,593 | | | | |
| | Drill Bits | 137.0 | EA | 350.00 | | | | 47,950 | | | | |
| | Drill Steel | 68.0 | EA | 1,000.00 | | | | 68,000 | | | | |
| 20 | Drill and Shoot | 27,986.00 | CY | | 960 | 70,272 | 30,941 | 58,118 | | | | 159,331 |
| | | | | | 0.03 | 2.51 | 1.11 | 2.08 | | | | 5.69 |
| 10 | Drill and Shoot Production | 27,986.00 | CY | | 960 | 70,272 | 30,941 | 58,118 | | | | 159,331 |
| | | | | | 0.03 | 2.51 | 1.11 | 2.08 | | | | 5.69 |
| | Prod=172.36 FT/hour (1,723.60 FT/ day), 0.046MH/FT, 21.55 FT/MH, 120.00 hour (12.00 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | | | | | | | | | | | |
| | | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 9,856 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 17,081 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 9,174 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 25,621 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 8,540 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 26,586 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 2,234 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 2,120 | | | | | |
| | Drill Steel | 5.6 | EA | 1,000.00 | | | | 5,597 | | | | |
| | Drill Bits | 13.6 | EA | 400.00 | | | | 5,437 | | | | |
| | Anfo | 27,986.0 | LB | 0.72 | | | | 20,150 | | | | |
| | Booster | 1,591.2 | EA | 7.88 | | | | 12,539 | | | | |
| | Caps | 1,591.2 | EA | 7.20 | | | | 11,457 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|---------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | Shoot Line | 20.0 | EA | 52.00 | | | | 1,039 | | | | 5.28 |
| | Between Holes QRC 1 for every 4 holes | 399.8 | EA | 4.75 | | | | 1,899 | | | | 5.28 |
| 30 | Rock Excavation to Embankment | 27,986.00 | CY | | 720 | 57,490 | 90,313 | | | | | 147,803 |
| | | | | | 0.03 | 2.05 | 3.23 | | | | | 5.28 |
| 20 | Load Haul to Embankment | 27,986.00 | CY | | 720 | 57,490 | 90,313 | | | | | 147,803 |
| | | | | | 0.03 | 2.05 | 3.23 | | | | | 5.28 |
| | Prod=310.96 CY/hour (3,109.56 CY/ day), 0.026MH/CY, 38.87 CY/MH, 90.00 hour (9.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | | 7,200 | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | | 7,133 | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | | 7,133 | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | | 6,917 | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | | 29,106 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | | 17,379 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | | 12,315 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | | 7,898 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | | 40,019 | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | | 11,700 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | | 1,003 | | | | |
| 336.528 | Site Roads N5 Excavation Overburden | 144,233.00 | CY | | 4,130 | 328,665 | 543,083 | | | | | 871,747 |
| | | | | | 0.03 | 2.28 | 3.77 | | | | | 6.04 |
| 05 | Topsoil to Stockpile | 31,035.00 | CY | | 800 | 63,878 | 100,348 | | | | | 164,226 |
| | | | | | 0.03 | 2.06 | 3.23 | | | | | 5.29 |
| 20 | Load Haul to Stockpile | 31,035.00 | CY | | 800 | 63,878 | 100,348 | | | | | 164,226 |
| | | | | | 0.03 | 2.06 | 3.23 | | | | | 5.29 |
| | Prod=310.35 CY/hour (3,103.50 CY/ day), 0.026MH/CY, 38.79 CY/MH, 100.00 hour (10.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Stockpile</i> | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | | 8,000 | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | | 7,926 | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | | 7,926 | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | | 7,686 | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | | 32,340 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | | 19,310 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | | 13,683 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | | 8,775 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | | 44,466 | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | | 13,000 | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | | 1,114 | | | | |
| 10 | Common Excavation to Embankment | 113,198.00 | CY | | 3,330 | 264,787 | 442,735 | | | | | 707,521 |
| | | | | | 0.03 | 2.34 | 3.91 | | | | | 6.25 |
| 20 | Load Haul to Embankment | 113,198.00 | CY | | 3,330 | 264,787 | 442,735 | | | | | 707,521 |
| | | | | | 0.03 | 2.34 | 3.91 | | | | | 6.25 |
| | Prod=305.94 CY/hour (3,059.41 CY/ day), 0.029MH/CY, 33.99 CY/MH, 370.00 hour (37.00 days) | | | | | | | | | | | |
| | <i>Load Haul to Road Emankment</i> | 1.00 | EA | 1912.22 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | | 29,600 | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | | 29,326 | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | | 29,326 | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | | 56,876 | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | | 119,658 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 193.10 | | | | 142,894 | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | | 50,627 | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | | 32,468 | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | | 164,524 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|-------------------|-----------|----------------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | 631 Water Wagon | 1.0 | | 130.00 | | | 48,100 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 4,122 | | | | | |
| 336.529 | Site Roads N5 Embankment | 140,132.00 | CY | | 3,007 | 235,256 | 310,195 | | | | | 545,451 |
| | | | | | 0.02 | 1.68 | 2.21 | | | | | 3.89 |
| 10 | Embankment | 136,860.00 | CY | | 2,760 | 215,924 | 279,533 | | | | | 495,457 |
| | | | | | 0.02 | 1.58 | 2.04 | | | | | 3.62 |
| | Prod=297.52 CY/hour (2,975.22 CY/ day), 0.020MH/CY, 49.59 CY/MH, 460.00 hour (46.00 days) | | | | | | | | | | | |
| | <i>Place & Compact Embankment</i> | <i>1.00</i> | <i>EA</i> | <i>1077.08</i> | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 36,800 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 34,914 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 37,191 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 37,191 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 34,914 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 34,914 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 109,733 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 40,365 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 59,800 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 64,510 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 5,124 | | | | | |
| 20 | Gravel Surfacing | 3,273.00 | CY | | 247 | 19,332 | 30,662 | | | | | 49,994 |
| | | | | | 0.08 | 5.91 | 9.37 | | | | | 15.27 |
| 20 | Crush Road Base from Excavation | 7,855.20 | TN | | 100 | 7,620 | 13,216 | | | | | 20,836 |
| | | | | | 0.01 | 0.97 | 1.68 | | | | | 2.65 |
| | Prod=392.76 TN/hour (3,927.60 TN/ day), 0.013MH/TN, 78.55 TN/MH, 20.00 hour (2.00 days) | | | | | | | | | | | |
| | <i>Secondary Crushing</i> | <i>1.00</i> | <i>EA</i> | <i>1041.8</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 1,603 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 1,585 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 2,847 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,737 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 7,525 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 2,610 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 344 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 3,273.00 | CY | | 147 | 11,711 | 17,446 | | | | | 29,158 |
| | | | | | 0.05 | 3.58 | 5.33 | | | | | 8.91 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.045MH/CY, 22.22 CY/MH, 16.37 hour (1.64 days) | | | | | | | | | | | |
| | <i>Load Haul to Place Road Base</i> | <i>1.00</i> | <i>EA</i> | <i>1781.72</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 1,309 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 1,297 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 1,297 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 1,258 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 1,258 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 5,292 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 3,160 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 2,239 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 1,436 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 7,277 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 2,127 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 1,024 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 182 | | | | | |
| 336.530 | Site Roads N6 Excavation Overburden | 3,301.00 | CY | | 87 | 6,939 | 10,901 | | | | | 17,841 |
| | | | | | 0.03 | 2.10 | 3.30 | | | | | 5.40 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---------|---|----------|-----|---------|--------|-------|--------|---------|----------|--------------|----------|------------|
| 05 | Topsoil to Stockpile | 3,301.00 | CY | | 87 | 6,939 | 10,901 | | | | | 17,841 |
| | | | | | 0.03 | 2.10 | 3.30 | | | | | 5.40 |
| 20 | Load Haul to Stockpile | 3,301.00 | CY | | 87 | 6,939 | 10,901 | | | | | 17,841 |
| | | | | | 0.03 | 2.10 | 3.30 | | | | | 5.40 |
| | Prod=303.86 CY/hour (3,038.64 CY/ day), 0.026MH/CY, 37.98 CY/MH, 10.86 hour (1.09 days) | | | | | | | | | | | |
| | Load Haul to Stockpile | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 869 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 861 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 861 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 835 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 3,513 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 2,098 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 1,486 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 953 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 4,831 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 1,412 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 121 | | | | | |
| 336.531 | Site Roads N6 Embankment | 1,301.00 | CY | | 57 | 4,440 | 6,697 | | | | | 11,137 |
| | | | | | 0.04 | 3.41 | 5.15 | | | | | 8.56 |
| 10 | Embankment | 744.00 | CY | | 15 | 1,174 | 1,520 | | | | | 2,693 |
| | | | | | 0.02 | 1.58 | 2.04 | | | | | 3.62 |
| | Prod=297.52 CY/hour (2,975.22 CY/ day), 0.020MH/CY, 49.59 CY/MH, 2.50 hour (0.25 days) | | | | | | | | | | | |
| | Place & Compact Embankment | 1.00 | EA | 1077.08 | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 200 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 190 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 202 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 202 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 190 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 190 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 597 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 219 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 325 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 351 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 28 | | | | | |
| 20 | Gravel Surfacing | 557.00 | CY | | 42 | 3,266 | 5,177 | | | | | 8,444 |
| | | | | | 0.08 | 5.86 | 9.30 | | | | | 15.16 |
| 20 | Crush Road Base from Excavation | 1,336.80 | TN | | 17 | 1,273 | 2,208 | | | | | 3,482 |
| | | | | | 0.01 | 0.95 | 1.65 | | | | | 2.60 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 3.34 hour (0.33 days) | | | | | | | | | | | |
| | Secondary Crushing | 1.00 | EA | 1041.8 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 268 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 265 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 265 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 476 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 457 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 1,257 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 436 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 57 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 557.00 | CY | | 25 | 1,993 | 2,969 | | | | | 4,962 |
| | | | | | 0.05 | 3.58 | 5.33 | | | | | 8.91 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.045MH/CY, 22.22 CY/MH, 2.78 hour (0.28 days) | | | | | | | | | | | |
| | Load Haul to Place Road Base | 1.00 | EA | 1781.72 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 223 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|---|------------------|-----------|----------|--------------|----------------|----------------|----------------|----------|--------------|----------|------------------|
| | Grader Operator | 1.0 | | 79.26 | | 221 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 221 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 214 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 214 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 901 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 538 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 381 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 244 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 1,238 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 362 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 174 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 31 | | | | | |
| 336.532 | Site Roads N7 Rock Excavation | 94,765.00 | CY | | 8,504 | 644,965 | 586,776 | 682,594 | | | | 1,914,335 |
| | | | | | 0.09 | 6.81 | 6.19 | 7.20 | | | | 20.20 |
| 10 | Rock Excavation | 94,765.00 | CY | | 8,504 | 644,965 | 586,776 | 682,594 | | | | 1,914,335 |
| | | | | | 0.09 | 6.81 | 6.19 | 7.20 | | | | 20.20 |
| 10 | Presplit Face | 66,600.00 | SF | | 1,760 | 128,406 | 40,058 | 485,796 | | | | 654,260 |
| | | | | | 0.03 | 1.93 | 0.60 | 7.29 | | | | 9.82 |
| | Prod=208.13 LF/hour (2,081.25 LF/ day), 0.053MH/LF, 18.92 LF/MH, 160.00 hour (16.00 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 1052.9 | | | | | | | | |
| | Labour Foreman | 1.0 | | 75.00 | | 12,000 | | | | | | |
| | Labourer | 3.0 | | 71.17 | | 34,162 | | | | | | |
| | Powderman | 2.0 | | 76.45 | | 24,464 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 34,162 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 11,387 | | | | | | |
| | Blaster | 1.0 | | 76.45 | | 12,232 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 35,448 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 1,782 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 2,827 | | | | | |
| | Drill Steel | 166.5 | EA | 1,000.00 | | | | 166,500 | | | | |
| | Drill Bits | 333.0 | EA | 350.00 | | | | 116,550 | | | | |
| | RED E-SPLIT PRESPLIT | 16,650.0 | EA | 5.78 | | | | 96,237 | | | | |
| | Non Elec Detonators | 657.2 | EA | 6.50 | | | | 4,272 | | | | |
| | Lead in Line | 146.1 | EA | 200.00 | | | | 29,211 | | | | |
| | Delivery Cost | 73.0 | EA | 1,000.00 | | | | 73,026 | | | | |
| 20 | Drill and Shoot | 94,765.00 | CY | | 3,280 | 240,096 | 105,714 | 196,798 | | | | 542,608 |
| | | | | | 0.03 | 2.53 | 1.12 | 2.08 | | | | 5.73 |
| 10 | Drill and Shoot Production | 94,765.00 | CY | | 3,280 | 240,096 | 105,714 | 196,798 | | | | 542,608 |
| | | | | | 0.03 | 2.53 | 1.12 | 2.08 | | | | 5.73 |
| | Prod=170.82 FT/hour (1,708.21 FT/ day), 0.047MH/FT, 21.35 FT/MH, 410.00 hour (41.00 days) | | | | | | | | | | | |
| | <i>Drill & Blast Mass Rock with 3" Hydraulic Drill</i> | 1.00 | EA | 843.44 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 82.13 | | 33,673 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 58,359 | | | | | | |
| | Powderman | 1.0 | | 76.45 | | 31,345 | | | | | | |
| | Driller | 3.0 | | 71.17 | | 87,539 | | | | | | |
| | Shotfirer | 1.0 | | 71.17 | | 29,180 | | | | | | |
| | Hydraulic Drill 3" (AC1238/Tam400) | 3.0 | | 73.85 | | | 90,836 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 7,634 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 17.67 | | | 7,245 | | | | | |
| | Between Holes QRC 1 for every 4 holes | 1,353.8 | EA | 4.75 | | | | 6,430 | | | | |
| | Shoot Line | 67.7 | EA | 52.00 | | | | 3,520 | | | | |
| | Caps | 5,388.1 | EA | 7.20 | | | | 38,794 | | | | |
| | Booster | 5,388.1 | EA | 7.88 | | | | 42,458 | | | | |
| | Anfo | 94,765.0 | LB | 0.72 | | | | 68,231 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|-----------|---|------------------|-----------|----------|--------------|----------------|----------------|---------|----------|--------------|----------|----------------|
| | Drill Bits | 46.0 | EA | 400.00 | | | | 18,411 | | | | |
| | Drill Steel | 19.0 | EA | 1,000.00 | | | | 18,953 | | | | |
| 30 | Rock Excavation to Stockpile Waste | 77,612.00 | CY | | 2,860 | 228,108 | 362,497 | | | | | 590,606 |
| | | | | | 0.04 | 2.94 | 4.67 | | | | | 7.61 |
| 20 | Load Haul to Waste | 77,612.00 | CY | | 2,860 | 228,108 | 362,497 | | | | | 590,606 |
| | | | | | 0.04 | 2.94 | 4.67 | | | | | 7.61 |
| | Prod=298.51 CY/hour (2,985.08 CY/ day), 0.037MH/CY, 27.14 CY/MH, 260.00 hour (26.00 days) | | | | | | | | | | | |
| | Load Haul to Road Emankment | 1.00 | EA | 2271.56 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 20,800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 20,608 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 20,608 | | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | 39,967 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 126,126 | | | | | | |
| | 170 Hsp Bulldozer (Cat D6) | 1.0 | | 94.30 | | | 24,518 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 50,206 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 35,576 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 22,815 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 192,686 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 33,800 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 2,896 | | | | | |
| 30 | Rock Excavation to Embankment | 153.00 | CY | | 4 | 326 | 512 | | | | | 838 |
| | | | | | 0.03 | 2.13 | 3.34 | | | | | 5.47 |
| 20 | Load Haul to Embankment | 153.00 | CY | | 4 | 326 | 512 | | | | | 838 |
| | | | | | 0.03 | 2.13 | 3.34 | | | | | 5.47 |
| | Prod=300.00 CY/hour (3,000.00 CY/ day), 0.027MH/CY, 37.50 CY/MH, 0.51 hour (0.05 days) | | | | | | | | | | | |
| | Load Haul to Road Emankment | 1.00 | EA | 1642.26 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 41 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 40 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 40 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 39 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 165 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 98 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 70 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 45 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 227 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 66 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 6 | | | | | |
| 40 | Rock Excavation to Crusher | 17,000.00 | CY | | 600 | 48,029 | 77,995 | | | | | 126,024 |
| | | | | | 0.04 | 2.83 | 4.59 | | | | | 7.41 |
| | Prod=283.33 CY/hour (2,833.33 CY/ day), 0.035MH/CY, 28.33 CY/MH, 60.00 hour (6.00 days) | | | | | | | | | | | |
| | Load Haul to Crusher | 1.00 | EA | 2100.4 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 4,800 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 4,756 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 4,756 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 4,612 | | | | | | |
| | Off Hwy Truck Driver | 6.0 | | 80.85 | | 29,106 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 11,586 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 8,210 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 5,265 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 5.0 | | 148.22 | | | 44,466 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 7,800 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 668 | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|----------------|--|-----------------|-----------|----------------|-----------|--------------|--------------|---------|----------|--------------|----------------|----------------|
| 336.533 | Site Roads N7 Embankment | 918.00 | CY | | 58 | 4,530 | 7,090 | | | | | 11,620 |
| | | | | | 0.06 | 4.94 | 7.72 | | | | | 12.66 |
| 10 | Embankment | 199.00 | CY | | 4 | 314 | 406 | | | | | 720 |
| | | | | | 0.02 | 1.58 | 2.04 | | | | | 3.62 |
| | Prod=297.52 CY/hour (2,975.22 CY/ day), 0.020MH/CY, 49.59 CY/MH, 0.67 hour (0.07 days) | | | | | | | | | | | |
| | <i>Place & Compact Embankment</i> | <i>1.00</i> | <i>EA</i> | <i>1077.08</i> | | | | | | | | |
| | Excavation Foreman | 1.0 | | 80.00 | | 54 | | | | | | |
| | Grade Checker | 1.0 | | 75.90 | | 51 | | | | | | |
| | Grader Operator | 1.0 | | 80.85 | | 54 | | | | | | |
| | Dozer Operator | 1.0 | | 80.85 | | 54 | | | | | | |
| | Packer Operator | 1.0 | | 75.90 | | 51 | | | | | | |
| | Water Wagon | 1.0 | | 75.90 | | 51 | | | | | | |
| | 570 Hsp Bulldozer (Cat D10) | 1.0 | | 238.55 | | | 160 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 59 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 87 | | | | | |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1.0 | | 140.24 | | | 94 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 7 | | | | | |
| 20 | Gravel Surfacing | 719.00 | CY | | 54 | 4,216 | 6,683 | | | | | 10,900 |
| | | | | | 0.08 | 5.86 | 9.30 | | | | | 15.16 |
| 20 | Crush Road Base from Excavation | 1,725.60 | TN | | 22 | 1,644 | 2,851 | | | | | 4,494 |
| | | | | | 0.01 | 0.95 | 1.65 | | | | | 2.60 |
| | Prod=400.00 TN/hour (4,000.00 TN/ day), 0.013MH/TN, 80.00 TN/MH, 4.31 hour (0.43 days) | | | | | | | | | | | |
| | <i>Secondary Crushing</i> | <i>1.00</i> | <i>EA</i> | <i>1041.8</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 346 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 342 | | | | | | |
| | Crusher Operator | 1.0 | | 79.26 | | 342 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 614 | | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 590 | | | | | |
| | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 1.0 | | 376.23 | | | 1,623 | | | | | |
| | 500 KW Diesel Generator Set | 1.0 | | 130.52 | | | 563 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 17.20 | | | 74 | | | | | |
| 30 | Load Haul Place Road Base from Crusher | 719.00 | CY | | 32 | 2,573 | 3,833 | | | | | 6,405 |
| | | | | | 0.05 | 3.58 | 5.33 | | | | | 8.91 |
| | Prod=200.00 CY/hour (2,000.00 CY/ day), 0.045MH/CY, 22.22 CY/MH, 3.60 hour (0.36 days) | | | | | | | | | | | |
| | <i>Load Haul to Place Road Base</i> | <i>1.00</i> | <i>EA</i> | <i>1781.72</i> | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 288 | | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | 285 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 285 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 276 | | | | | | |
| | Packer Operator | 1.0 | | 76.86 | | 276 | | | | | | |
| | Off Hwy Truck Driver | 4.0 | | 80.85 | | 1,163 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 694 | | | | | |
| | 6.5 CY Loader (Cat 980) | 1.0 | | 136.83 | | | 492 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 87.75 | | | 315 | | | | | |
| | 35 Ton Articulated Truck (Cat D350) | 3.0 | | 148.22 | | | 1,599 | | | | | |
| | 631 Water Wagon | 1.0 | | 130.00 | | | 467 | | | | | |
| | 13 Ton Compactor 72" (Cat 553) | 1.0 | | 62.60 | | | 225 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 11.14 | | | 40 | | | | | |
| 336.534 | Site Road Drainage | 1.00 | LS | | | | | | | | 500,000 | 500,000 |
| | | | | | | | | | | | 500,000.00 | 500,000.00 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|---|---|------------------|------------|-----------|---------------|------------------|-------------------|---------------|----------|--------------|-------------------|-------------------|
| General Plant | | | | | | | | | | | | |
| | | 1.00 | LS | | 873,956 | 66,805,407 | 55,844,045 | 50,000 | | | 27,919,000 | 150,618,452 |
| | | | | | 873,955.82 | 66,805,407.44 | 55,844,044.56 | 50,000.00 | | | 27,919,000.00 | 150,618,452.00 |
| Electrical Power | | | | | | | | | | | | |
| | | 1.00 | LS | | | | 9,336,600 | 50,000 | | | | 9,386,600 |
| | | | | | | | 9,336,600.00 | 50,000.00 | | | | 9,386,600.00 |
| 399.203 | Construction Power Winter | 18,000.00 | HRS | | | | 9,336,600 | 50,000 | | | | 9,386,600 |
| | | | | | | | 518.70 | 2.78 | | | | 521.48 |
| 18 | Concrete Winter Protection | 18,000.00 | HRS | | | | 9,336,600 | 50,000 | | | | 9,386,600 |
| | | | | | | | 518.70 | 2.78 | | | | 521.48 |
| | Prod=1.00 HR/hour (24.00 HR/ day), 0.000MH/HR, 0.00 HR/MH, 18,000.00 hour (750.00 days) | | | | | | | | | | | |
| | Concrete Winter Protection | 1.00 | EA | 518.7 | | | | | | | | |
| | 200 KW Diesel Generator Set | 5.0 | | 58.30 | | | 5,247,000 | | | | | |
| | 60,000 BTU Propane Heater | 20.0 | | 11.36 | | | 4,089,600 | | | | | |
| | Concrete Winter Protection Materials | 1.0 | LS | 50,000.00 | | | | 50,000 | | | | |
| Construction Heating & Ventilation | | | | | | | | | | | | |
| | | 1.00 | LS | | | | | | | | 25,615,000 | 25,615,000 |
| | | | | | | | | | | | 25,615,000.00 | 25,615,000.00 |
| 399.301 | Powerhouse, Spillway , Intake | 1.00 | LS | | | | 20,400,000 | | | | 20,400,000 | 20,400,000 |
| | | | | | | | 20,400,000.00 | | | | 20,400,000.00 | 20,400,000.00 |
| 399.302 | RCC Winter Costs 20% at \$5.00 CY | 1.00 | LS | | | | | | | | 5,215,000 | 5,215,000 |
| | | | | | | | | | | | 5,215,000.00 | 5,215,000.00 |
| Indirect Costs | | | | | | | | | | | | |
| | | 1.00 | LS | | 78,300 | 5,877,876 | 10,782,843 | | | | 2,304,000 | 18,964,719 |
| | | | | | 78,300.00 | 5,877,876.00 | 10,782,843.00 | | | | 2,304,000.00 | 18,964,719.00 |
| 399.501 | Powder House | 1.00 | LS | | | | | | | | 30,000 | 30,000 |
| | | | | | | | | | | | 30,000.00 | 30,000.00 |
| 399.502 | Cap House | 1.00 | LS | | | | | | | | 15,000 | 15,000 |
| | | | | | | | | | | | 15,000.00 | 15,000.00 |
| 399.503 | Construction Lighting | 1.00 | LS | | | | 3,243,600 | | | | | 3,243,600 |
| | | | | | | | 3,243,600.00 | | | | | 3,243,600.00 |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 0.000MH/HRS, 0.00 HRS/MH, 18,000.00 hour (1,800.00 days) | | | | | | | | | | | |
| | Construction Lighting | 1.00 | EA | 180.2 | | | | | | | | |
| | Tower 6-Lights 16 Hsp | 20.0 | | 9.01 | | | 3,243,600 | | | | | |
| 399.504 | Snow Removal | 35.00 | MO | | 63,000 | 4,950,750 | 6,899,550 | | | | | 11,850,300 |
| | | | | | 1,800.00 | 141,450.00 | 197,130.00 | | | | | 338,580.00 |
| 10 | Snow Removal | 35.00 | MO | | 63,000 | 4,950,750 | 6,899,550 | | | | | 11,850,300 |
| | | | | | 1,800.00 | 141,450.00 | 197,130.00 | | | | | 338,580.00 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 6.000MH/HR, 0.17 HR/MH, 10,500.00 hour (1,050.00 days) | | | | | | | | | | | |
| | Snow Removal | 1.00 | EA | 1128.6 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | | 840,000 | | | | | |
| | Grader Operator | 1.0 | | 79.26 | | | 832,230 | | | | | |
| | Loader Operator | 2.0 | | 79.26 | | | 1,664,460 | | | | | |
| | Dozer Operator | 2.0 | | 76.86 | | | 1,614,060 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 193.10 | | | 4,055,100 | | | | | |
| | 4.5 CY Loader (Cat 966) | 2.0 | | 76.36 | | | 1,603,560 | | | | | |
| | 200 Hsp Grader (Cat 14G) | 1.0 | | 100.98 | | | 1,060,290 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 180,600 | | | | | |
| 399.505 | Haul Roads | 1.00 | LS | | | | | | | | 1,500,000 | 1,500,000 |
| | | | | | | | | | | | 1,500,000.00 | 1,500,000.00 |
| 399.506 | Site Reclamation Including Camp Removal | 253.00 | AC | | 15,300 | 927,126 | 639,693 | | | | 759,000 | 2,325,819 |
| | | | | | 60.47 | 3,664.53 | 2,528.43 | | | | 3,000.00 | 9,192.96 |

| Estimate Line Detail | | | | | | | | | | | | |
|---|---|--------------|---------|----------|------------|---------------|--------------|---------|----------|--------------|----------|---------------|
| Estimate: JULY 2014 - MAIN CIVIL CONTRACT | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
| 10 | Site Reclamation | 253.00 | AC | | | | | | | | 759,000 | 759,000 |
| | Seeding & Wood Fibre Mulch | 253.0 | AC | 3,000.00 | | | | | | | 3,000.00 | 3,000.00 |
| | | | | | | | | | | | 759,000 | |
| 20 | Camp Removal | 1.00 | LS | | 15,300 | 927,126 | 639,693 | | | | | 1,566,819 |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 17.000MH/HRS, 0.06 HRS/MH, 900.00 hour (90.00 days) | | | | 15,300.00 | 927,126.00 | 639,693.00 | | | | | 1,566,819.00 |
| | Camp Removal | 1.00 | EA | 1740.91 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.16 | | 72,144 | | | | | | |
| | Crane Operator Class-A | 1.0 | | 77.44 | | 69,696 | | | | | | |
| | Labourer | 4.0 | | 58.97 | | 212,292 | | | | | | |
| | Carpenter | 4.0 | | 57.86 | | 208,296 | | | | | | |
| | Electrician | 2.0 | | 66.16 | | 119,088 | | | | | | |
| | Tractor Trailer Driver | 5.0 | | 54.58 | | 245,610 | | | | | | |
| | 100 Ton Truck Crane (Linkbelt 218) | 1.0 | | 123.80 | | | 111,420 | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 1.0 | | 16.11 | | | 14,499 | | | | | |
| | 5 Ton Flat Bed Truck | 1.0 | | 24.11 | | | 21,699 | | | | | |
| | Tractor Truck (Kenworth C500) | 5.0 | | 50.82 | | | 228,690 | | | | | |
| | 50 Ton Lowboy | 5.0 | | 58.53 | | | 263,385 | | | | | |
| 399.507 | Catering & Support | 1,179,000.00 | Manday | | | | | | | | | |
| | Rail Yard Operation | 1.00 | LS | | 282,300 | 21,621,456 | 5,955,690 | | | | | 27,577,146 |
| | | | | | 282,300.00 | 21,621,456.00 | 5,955,690.00 | | | | | 27,577,146.00 |
| 399.531 | Management Staff | 76.00 | MTH | | 68,400 | 4,609,476 | 392,160 | | | | | 5,001,636 |
| | | | | | 900.00 | 60,651.00 | 5,160.00 | | | | | 65,811.00 |
| 10 | Management Staff | 76.00 | MTH | | 68,400 | 4,609,476 | 392,160 | | | | | 5,001,636 |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 3.000MH/HRS, 0.33 HRS/MH, 22,800.00 hour (2,280.00 days) | | | | 900.00 | 60,651.00 | 5,160.00 | | | | | 65,811.00 |
| | Rail Yard Management | 1.00 | EA | 219.37 | | | | | | | | |
| | Project Manager | 1.0 | | 80.87 | | 1,843,836 | | | | | | |
| | Office Engineer | 2.0 | | 60.65 | | 2,765,640 | | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 392,160 | | | | | |
| 399.532 | Rail Yard & Staff Living Cost | 1,179,000.00 | Man Day | | | | | | | | | |
| 399.533 | Rail Yard & Permanent Access Road Snow Removal | 35.00 | MO | | 31,500 | 2,479,260 | 3,009,930 | | | | | 5,489,190 |
| | | | | | 900.00 | 70,836.00 | 85,998.00 | | | | | 156,834.00 |
| 10 | Snow Removal | 35.00 | MO | | 31,500 | 2,479,260 | 3,009,930 | | | | | 5,489,190 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 3.000MH/HR, 0.33 HR/MH, 10,500.00 hour (1,050.00 days) | | | | 900.00 | 70,836.00 | 85,998.00 | | | | | 156,834.00 |
| | Snow Removal | 1.00 | EA | 522.78 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 840,000 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 832,230 | | | | | | |
| | Dozer Operator | 1.0 | | 76.86 | | 807,030 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 193.10 | | | 2,027,550 | | | | | |
| | 4.5 CY Loader (Cat 966) | 1.0 | | 76.36 | | | 801,780 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 17.20 | | | 180,600 | | | | | |
| 399.534 | Maintenance Staff | 76.00 | MO | | 182,400 | 14,532,720 | 2,553,600 | | | | | 17,086,320 |
| | | | | | 2,400.00 | 191,220.00 | 33,600.00 | | | | | 224,820.00 |
| 10 | Yard Maintenance Staff | 76.00 | MO | | 182,400 | 14,532,720 | 2,553,600 | | | | | 17,086,320 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 8.000MH/HR, 0.13 HR/MH, 22,800.00 hour (2,280.00 days) | | | | 2,400.00 | 191,220.00 | 33,600.00 | | | | | 224,820.00 |

| Estimate Line Detail | | | | | | | | | | | | |
|---|---|--------------|--------------|-----------|------------------|--------------------|--------------------|-------------------|----------------|--------------|-------------------|--------------------|
| Estimate: JULY 2014 - MAIN CIVIL CONTRACT | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
| | Yard Staff | 2.00 | EA | 374.7 | | | | | | | | |
| | Mechanic Foreman | 2.0 | | 80.00 | | 3,648,000 | | | | | | |
| | Heavy Duty Mechanic | 2.0 | | 80.85 | | 3,686,760 | | | | | | |
| | Mechanic Welder | 2.0 | | 80.85 | | 3,686,760 | | | | | | |
| | Serviceman | 2.0 | | 77.00 | | 3,511,200 | | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 2.0 | | 17.20 | | | 784,320 | | | | | |
| | 2-Ton Mechanic Truck | 2.0 | | 38.80 | | | 1,769,280 | | | | | |
| | Container & Supply Transport | 1.00 | LS | | 513,356 | 39,306,075 | 29,768,912 | | | | | 69,074,987 |
| | | | | | 513,355.82 | 39,306,075.44 | 29,768,911.56 | | | | | 69,074,987.00 |
| 399.541 | Container Haul to Site | 76.00 | MO | | 513,356 | 39,306,075 | 29,768,912 | | | | | 69,074,987 |
| | | | | | 6,754.68 | 517,185.20 | 391,696.20 | | | | | 908,881.41 |
| 20 | Operate Rail Yard | 76.00 | MO | | 138,211 | 10,363,667 | 11,011,680 | | | | | 21,375,346 |
| | | | | | 1,818.57 | 136,364.04 | 144,890.52 | | | | | 281,254.56 |
| | Prod=2.00 HR/hour (20.00 HR/ day), 7.000MH/HR, 0.14 HR/MH, 9,872.23 hour (987.22 days) | | | | | | | | | | | |
| | Operate Rail Yard | 2.00 | EA | 1082.6 | | | | | | | | |
| | Crane Operator Class-A | 2.0 | | 82.10 | | 1,621,020 | | | | | | |
| | Loader Operator | 4.0 | | 79.26 | | 3,129,891 | | | | | | |
| | Labourer | 6.0 | | 71.17 | | 4,215,638 | | | | | | |
| | General Superintendent | 2.0 | | 70.76 | | 1,397,118 | | | | | | |
| | 125 Ton Truck Crane (Linkbelt 228) | 2.0 | | 259.26 | | | 5,118,947 | | | | | |
| | Container Handler | 4.0 | | 108.73 | | | 4,293,629 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 4.0 | | 18.62 | | | 735,283 | | | | | |
| | 2-Ton Mechanic Truck | 2.0 | | 43.75 | | | 863,820 | | | | | |
| 30 | Container Haul to Site | 76.00 | MO | | 375,145 | 28,942,409 | 18,757,232 | | | | | 47,699,641 |
| | | | | | 4,936.11 | 380,821.17 | 246,805.68 | | | | | 627,626.85 |
| | Prod=2.00 HR/hour (20.00 HR/ day), 19.000MH/HR, 0.05 HR/MH, 9,872.23 hour (987.22 days) | | | | | | | | | | | |
| | Container Haul to Site | 2.00 | EA | 2415.85 | | | | | | | | |
| | Tractor Trailer Driver | 38.0 | | 77.15 | | 28,942,409 | | | | | | |
| | Container Truck | 38.0 | | 50.00 | | | 18,757,232 | | | | | |
| | Project Overhead | 76.00 | Month | | 2,667,819 | 245,678,335 | 135,569,888 | 41,294,103 | 300,000 | | 38,275,200 | 461,117,527 |
| | | | | | 35,102.88 | 3,232,609.67 | 1,783,814.32 | 543,343.47 | 3,947.37 | | 503,621.05 | 6,067,335.88 |
| | Project Indirect Costs | 76.00 | Month | | 2,667,819 | 245,678,335 | 135,569,888 | 41,294,103 | 300,000 | | 38,275,200 | 461,117,527 |
| | | | | | 35,102.88 | 3,232,609.67 | 1,783,814.32 | 543,343.47 | 3,947.37 | | 503,621.05 | 6,067,335.88 |
| 900 | Project Mangement Full Operation | 76.00 | Month | | 258,400 | 22,420,000 | 4,522,000 | | | | | 26,942,000 |
| | | | | | 3,400.00 | 295,000.00 | 59,500.00 | | | | | 354,500.00 |
| | Project Manager III | 1.0 | EA | 23,000.00 | | 76.00 month | | | | | | |
| | General Superintendent | 16.0 | EA | 17,000.00 | | 76.00 month | | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 17.0 | EA | 3,500.00 | | | 76.00 month | | | | | |
| 901 | Project Mangement ANCHORAGE | 76.00 | Month | | 15,884 | 8,808,400 | 1,064,000 | | | | | 9,872,400 |
| | | | | | 209.00 | 115,900.00 | 14,000.00 | | | | | 129,900.00 |
| | Project Manager III | 1.0 | EA | 23,000.00 | | 76.00 month | | | | | | |
| | Office Engineer | 4.0 | EA | 12,000.00 | | 76.00 hour | | | | | | |
| | Cost Control Engineer | 1.0 | EA | 14,000.00 | | 76.00 hour | | | | | | |
| | Office Manager | 1.0 | EA | 10,000.00 | | 76.00 hour | | | | | | |
| | Project Accountant | 2.0 | EA | 8,200.00 | | 76.00 hour | | | | | | |
| | Project Secretary | 1.0 | EA | 4,500.00 | | 76.00 hour | | | | | | |

| Estimate Line Detail | | | | | | | | | | | | |
|---|---|--------------|--------------|-----------|----------------|-------------------|------------------|------------------|----------|--------------|------------------|-------------------|
| Estimate: JULY 2014 - MAIN CIVIL CONTRACT | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
| | 3/4 Ton Pickup Truck 4x4 | 4.0 | EA | 3,500.00 | | | 76.00 | month | | | | |
| 905 | Field Engineering | 76.00 | month | | 593,940 | 55,860,000 | 3,990,000 | | | | | 59,850,000 |
| | | | | | 7,815.00 | 735,000.00 | 52,500.00 | | | | | 787,500.00 |
| | Field Engineer II | 36.0 | EA | 14,000.00 | | 76.00 | month | | | | | |
| | Project Engineer II | 3.0 | EA | 17,000.00 | | 76.00 | month | | | | | |
| | Office Engineer | 15.0 | EA | 12,000.00 | | 76.00 | hour | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 15.0 | EA | 3,500.00 | | | 76.00 | hour | | | | |
| 910 | Surveying | 76.00 | Month | | 121,600 | 9,202,080 | 1,085,280 | 178,600 | | | | 10,465,960 |
| | | | | | 1,600.00 | 121,080.00 | 14,280.00 | 2,350.00 | | | | 137,710.00 |
| | Prod=1.00 hours/hour (10.00 hours/ day), 8.000MH/hours, 0.13 hours/MH, 15,200.00 hour (1,520.00 days) | | | | | | | | | | | |
| | Survey Crew | 2.00 | EA | 338.4 | | | | | | | | |
| | Survey Party Chief | 2.0 | | 75.00 | | 2,280,000 | | | | | | |
| | Survey Rodman | 6.0 | | 75.90 | | 6,922,080 | | | | | | |
| | 3/4 Ton Crew Cab Truck | 2.0 | | 22.00 | | | 668,800 | | | | | |
| | Survey Total Station | 2.0 | | 4.69 | | | 142,576 | | | | | |
| | Robotic Total Station | 2.0 | | 9.01 | | | 273,904 | | | | | |
| | Survey Equipment | 76.0 | Month | 1,200.00 | | | | 91,200 | | | | |
| | Survey Supplies | 76.0 | Month | 400.00 | | | | 30,400 | | | | |
| | Survey Stakes | 76.0 | Month | 750.00 | | | | 57,000 | | | | |
| 911 | Quality Control | 76.00 | Month | | 565,440 | 21,169,709 | 2,245,891 | 319,290 | | | | 23,734,890 |
| | | | | | 7,440.00 | 278,548.80 | 29,551.20 | 4,201.18 | | | | 312,301.18 |
| 10 | Quality Control | 76.00 | MO | | 565,440 | 21,169,709 | 2,245,891 | 319,290 | | | | 23,734,890 |
| | | | | | 7,440.00 | 278,548.80 | 29,551.20 | 4,201.18 | | | | 312,301.18 |
| | Prod=0.00 MO/hour (0.03 MO/ day), 7,440.000MH/MO, 0.00 MO/MH, 18,240.00 hour (2,280.00 days) | | | | | | | | | | | |
| | Quality Control | 1.00 | EA | 1283.75 | | | | | | | | |
| | Quality Control Manager | 1.0 | | 48.52 | | 885,005 | | | | | | |
| | Quality Control Engineer | 15.0 | | 40.44 | | 11,064,384 | | | | | | |
| | Quality Control Technician | 15.0 | | 33.70 | | 9,220,320 | | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 6.0 | | 18.62 | | | 2,037,773 | | | | | |
| | Testing Concrete Slump Equipment | 1.0 | | 0.72 | | | 13,133 | | | | | |
| | Testing Soil Compaction Equipment | 1.0 | | 1.06 | | | 19,334 | | | | | |
| | Testing Concrete Strength Equipment | 1.0 | | 2.96 | | | 53,990 | | | | | |
| | Instrumentation Electrical Test | 1.0 | | 0.72 | | | 13,133 | | | | | |
| | Instrumentation Air Measurement | 1.0 | | 1.06 | | | 19,334 | | | | | |
| | Instrumentation Pressure Test | 1.0 | | 1.41 | | | 25,718 | | | | | |
| | Instrumentation Slope Stability | 1.0 | | 3.48 | | | 63,475 | | | | | |
| | QC Staff Expenses | 76.0 | Month | 1,500.00 | | | | 114,000 | | | | |
| | QC Plan Development Cost | 0.9 | LS | 50,000.00 | | | | 43,182 | | | | |
| | Nuclear Gauge | 6,840.0 | Day | 23.70 | | | | 162,108 | | | | |
| 920 | Safety | 76.00 | Month | | 46,284 | 9,234,000 | 410,400 | 1,329,655 | | | | 10,974,055 |
| | | | | | 609.00 | 121,500.00 | 5,400.00 | 17,495.45 | | | | 144,395.45 |
| | Safety Manager | 3.0 | EA | 15,000.00 | | 76.00 | month | | | | | |
| | Safety Person | 9.0 | EA | 8,500.00 | | 76.00 | hour | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 2.0 | EA | 2,700.00 | | | 76.00 | hour | | | | |
| | Medical Exam | 1,295.5 | EA | 200.00 | | | | 259,091 | | | | |
| | First Aid Supplies | 76.0 | Month | 200.00 | | | | 15,200 | | | | |
| | Hardhats | 2,590.9 | EA | 60.00 | | | | 155,455 | | | | |
| | Safety Supplies | 76.0 | Month | 4,000.00 | | | | 304,000 | | | | |
| | Safety Training Course | 1,295.5 | EA | 400.00 | | | | 518,182 | | | | |
| | General Signs c/w Posts | 259.1 | EA | 300.00 | | | | 77,727 | | | | |
| 925 | Consultants | 1.00 | LS | | | | | 500,000 | | | 1,000,000 | 1,500,000 |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------------|--|--------------|--------------|--------------|----------------|-------------------|--------------------|-------------------|----------|--------------|----------------|--------------------|
| | | | | | | | | 500,000.00 | | | 1,000,000.00 | 1,500,000.00 |
| | Consultant Allowance | 1.0 | LS | 500,000.00 | | | | 500,000 | | | | |
| | Environmental Consultants | 1.0 | LS | 1,000,000.00 | | | | | | | 1,000,000 | |
| 930 | Administration | 76.00 | Month | | 68,552 | 6,315,600 | 205,200 | | | | | 6,520,800 |
| | | | | | 902.00 | 83,100.00 | 2,700.00 | | | | | 85,800.00 |
| | Project Timekeeper | 2.0 | EA | 11,000.00 | | 76.00 month | | | | | | |
| | Project Office Clerk | 2.0 | EA | 2,750.00 | | 76.00 week | | | | | | |
| | Project Secretary | 2.0 | EA | 11,000.00 | | 76.00 month | | | | | | |
| | Office Manager | 2.0 | EA | 16,800.00 | | 76.00 hour | | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | EA | 2,700.00 | | | 76.00 hour | | | | | |
| 935 | Equipment | 76.00 | Month | | 438,216 | 40,294,440 | 114,096,849 | 190,000 | | | | 154,581,289 |
| | | | | | 5,766.00 | 530,190.00 | 1,501,274.33 | 2,500.00 | | | | 2,033,964.33 |
| 10 | Equipment Management | 76.00 | Month | | 456 | 7,681,320 | 108,635,793 | 190,000 | | | | 116,507,113 |
| | | | | | 6.00 | 101,070.00 | 1,429,418.33 | 2,500.00 | | | | 1,532,988.33 |
| | Parts Runner | 3.0 | EA | 12,990.00 | | 76.00 month | | | | | | |
| | Equipment Superintendent | 3.0 | EA | 20,700.00 | | 76.00 hour | | | | | | |
| | 185 CFM Diesel Compressor | 1.0 | EA | 13.00 | | | 12,666.67 month | | | | | |
| | 250 Amp Diesel Welder | 1.0 | EA | 4.75 | | | 12,666.67 hour | | | | | |
| | 350 Amp Diesel Welder | 1.0 | EA | 6.25 | | | 12,666.67 hour | | | | | |
| | 2000 PSI Pressure Washer | 1.0 | EA | 2.51 | | | 12,666.67 hour | | | | | |
| | 3/4 Ton Pickup Truck 2x2 | 3.0 | EA | 2,700.00 | | | 12,666.67 hour | | | | | |
| | 2-Ton Mechanic Truck | 10.0 | EA | 45.00 | | | 12,666.67 hour | | | | | |
| | Shop Supplies | 76.0 | Month | 2,500.00 | | | | 190,000 | | | | |
| 20 | Equipment Service | 76.00 | MO | | 437,760 | 32,613,120 | 5,461,056 | | | | | 38,074,176 |
| | | | | | 5,760.00 | 429,120.00 | 71,856.00 | | | | | 500,976.00 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 24.000MH/HR, 0.04 HR/MH, 18,240.00 hour (1,824.00 days) | | | | | | | | | | | |
| | Equipment Service | 1.00 | EA | 2087.4 | | | | | | | | |
| | Serviceman | 12.0 | | 77.00 | | 16,853,760 | | | | | | |
| | Lube/Service Operator | 12.0 | | 72.00 | | 15,759,360 | | | | | | |
| | Lube Truck | 4.0 | | 36.33 | | | 2,650,637 | | | | | |
| | Fuel Truck (Tandem Axle 20000 litres) | 4.0 | | 38.52 | | | 2,810,419 | | | | | |
| 936 | Warehouse Operation | 76.00 | MO | | 364,800 | 26,487,216 | 3,797,568 | | | | | 30,284,784 |
| | | | | | 4,800.00 | 348,516.00 | 49,968.00 | | | | | 398,484.00 |
| 10 | Warehouse Operation | 76.00 | MO | | 364,800 | 26,487,216 | 3,797,568 | | | | | 30,284,784 |
| | | | | | 4,800.00 | 348,516.00 | 49,968.00 | | | | | 398,484.00 |
| | Prod=0.00 MO/hour (0.02 MO/ day), 4,800.000MH/MO, 0.00 MO/MH, 45,600.00 hour (4,560.00 days) | | | | | | | | | | | |
| | Warehouse | 1.00 | EA | 664.14 | | | | | | | | |
| | Loader Operator | 2.0 | | 79.26 | | 7,228,512 | | | | | | |
| | Labourer | 2.0 | | 71.17 | | 6,490,704 | | | | | | |
| | Engineering Clerk | 2.0 | | 60.00 | | 5,472,000 | | | | | | |
| | Warehouseman Class 1 | 2.0 | | 80.00 | | 7,296,000 | | | | | | |
| | 4 Tonne Forklift (JCB-8000lb) | 2.0 | | 21.97 | | | 2,003,664 | | | | | |
| | 1-Ton Crew Cab | 2.0 | | 19.67 | | | 1,793,904 | | | | | |
| 940 | Administration Costs | 76.00 | Month | | | | | 14,229,359 | | | 775,200 | 15,004,559 |
| | | | | | | | | 187,228.41 | | | 10,200.00 | 197,428.41 |
| | Drug Testing | 1,295.5 | EA | 100.00 | | | | 129,545 | | | | |
| | Employee Moves | 43.2 | EA | 10,000.00 | | | | 431,818 | | | | |
| | Vehicle Licenses | 76.0 | Month | 100.00 | | | | 7,600 | | | | |
| | Office Supplies | 76.0 | Month | 4,000.00 | | | | 304,000 | | | | |
| | Engineering Supplies | 76.0 | Month | 2,500.00 | | | | 190,000 | | | | |
| | Photographs | 76.0 | Month | 300.00 | | | | 22,800 | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------------|--|-------------|-----------|--------------|---------------|----------------|----------------|------------------|----------|--------------|------------------|------------------|
| | Donation and subscriptions | 76.0 | Month | 300.00 | | | | 22,800 | | | | |
| | Travel and conference | 76.0 | Month | 35,000.00 | | | | 2,660,000 | | | | |
| | Association Dues | 76.0 | Month | 350.00 | | | | 26,600 | | | | |
| | Permits | 0.9 | LS | 35,000.00 | | | | 30,227 | | | | |
| | Staff Office Furniture (per person) | 77.7 | EA | 800.00 | | | | 62,182 | | | | |
| | General Office Furniture | 13.0 | SET | 5,400.00 | | | | 69,955 | | | | |
| | Computers & Soft Ware | 0.9 | LS | 1,500,000.00 | | | | 1,295,455 | | | | |
| | Office Printer | 4.3 | EA | 2,400.00 | | | | 10,364 | | | | |
| | Networking Hardware | 41.5 | EA | 2,000.00 | | | | 82,909 | | | | |
| | Office Software (per user) | 41.5 | EA | 900.00 | | | | 37,309 | | | | |
| | Office PhotoCopy Machine | 4.3 | EA | 2,700.00 | | | | 11,659 | | | | |
| | Project Sign | 0.9 | EA | 5,000.00 | | | | 4,318 | | | | |
| | Small Tool Allowance | 5,886,545.5 | MH | 1.50 | | | | 8,829,818 | | | | |
| | Office Cleaning Service | 76.0 | MO | 5,200.00 | | | | | | | 395,200 | |
| | Toilet Compartments | 76.0 | MO | 5,000.00 | | | | | | | 380,000 | |
| 945 | Office Shop Setup | 1.00 | LS | | 10,222 | 773,956 | 143,471 | 4,447,200 | | | 3,500,000 | 8,864,627 |
| | | | | | 10,222.05 | 773,956.46 | 143,470.60 | 4,447,200.00 | | | 3,500,000.00 | 8,864,627.05 |
| 05 | Fuel Storage Setup | 1.00 | LS | | 2,173 | 168,355 | 16,683 | 75,200 | | | | 260,239 |
| | | | | | 2,173.27 | 168,355.41 | 16,683.20 | 75,200.00 | | | | 260,238.61 |
| | Prod=0.03 EA/hour (0.50 EA/ day), 160.000MH/EA, 0.01 EA/MH, 40.00 hour (2.00 days) | | | | | | | | | | | |
| | <i>Install Electrical Services</i> | 1.00 | EA | 319.22 | | | | | | | | |
| | Electrical Foreman | 1.0 | | 80.00 | | 3,200 | | | | | | |
| | Electrician | 3.0 | | 75.00 | | 9,000 | | | | | | |
| | 1/2 Ton Pickup Truck 4x4 | 1.0 | | 14.22 | | | 569 | | | | | |
| | Prod=0.03 EA/hour (0.22 EA/ day), 288.000MH/EA, 0.00 EA/MH, 144.00 hour (18.00 days) | | | | | | | | | | | |
| | <i>Fuel Tank Installation</i> | 1.00 | EA | 726.64 | | | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 10,248 | | | | | | |
| | Pipefitter Foreman | 1.0 | | 81.56 | | 11,745 | | | | | | |
| | Pipefitter | 4.0 | | 80.56 | | 46,403 | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 11,642 | | | | | | |
| | Mechanic Welder | 1.0 | | 80.85 | | 11,642 | | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 80.43 | | | 11,582 | | | | | |
| | 1/2 Ton Pickup Truck 2x2 | 1.0 | | 8.83 | | | 1,272 | | | | | |
| | Mechanic Trucks | 1.0 | | 0.71 | | | 102 | | | | | |
| | Fuel Storage Tank | 4.0 | EA | 9,000.00 | | | | 36,000 | | | | |
| | Chainlink Fence 1800mm (6 ft) | 1,400.0 | FT | 28.00 | | | | 39,200 | | | | |
| | General Labour Foreman | 1.0 | | 75.00 | | 16,149 | | | | | | |
| | General Labourer | 2.0 | | 71.17 | | 30,648 | | | | | | |
| | Auger Operator | 1.0 | | 82.10 | | 17,678 | | | | | | |
| | Truck Mounted Post Hole Auger | 1.0 | | 14.67 | | | 3,159 | | | | | |
| 10 | Office Site Prep & Reclaim | 1.00 | LS | | 6,729 | 503,920 | 102,437 | 2,762,000 | | | | 3,368,357 |
| | | | | | 6,728.78 | 503,920.25 | 102,437.00 | 2,762,000.00 | | | | 3,368,357.24 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 5.000MH/HR, 0.20 HR/MH, 180.00 hour (18.00 days) | | | | | | | | | | | |
| | <i>Install Electrical Services</i> | 1.00 | EA | 393.62 | | | | | | | | |
| | Electrical Foreman | 1.0 | | 80.00 | | 14,400 | | | | | | |
| | Electrician | 3.0 | | 75.00 | | 40,500 | | | | | | |
| | Electricians Helper | 1.0 | | 70.00 | | 12,600 | | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 3,352 | | | | | |
| | Prod=0.71 HRS/hour (7.14 HRS/ day), 8.400MH/HRS, 0.12 HRS/MH, 140.00 hour (14.00 days) | | | | | | | | | | | |
| | <i>Install Water Services</i> | 1.00 | EA | 617.23 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 11,200 | | | | | | |
| | Backhoe Operator | 1.0 | | 79.26 | | 11,096 | | | | | | |
| | Loader Operator | 1.0 | | 79.26 | | 11,096 | | | | | | |
| | Labourer | 1.0 | | 71.17 | | 9,964 | | | | | | |

Estimate Line Detail

Estimate: JULY 2014 - MAIN CIVIL CONTRACT

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
|------------|--|------------------|-----------|---------------|--------------|----------------|---------------|-------------------|----------|----------------|------------------|-------------------|
| | Equipment Foreman | 1.0 | | 80.16 | | 9,619 | | | | | | |
| | Crane Operator Class-A | 1.0 | | 82.10 | | 9,852 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 34,162 | | | | | | |
| | Heavy Duty Mechanic | 4.0 | | 80.85 | | 38,808 | | | | | | |
| | Oiler | 1.0 | | 77.00 | | 9,240 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 1.0 | | 184.30 | | | 22,116 | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | | 18.62 | | | 2,234 | | | | | |
| | Shop Equipment | 1.0 | LS | 50,000.00 | | | | 50,000 | | | | |
| | Shop Building 110ft x 120 ft | 13,200.0 | SF | 100.00 | | | | 1,320,000 | | | | |
| | Shop Concrete | 600.0 | CY | 400.00 | | | | 240,000 | | | | |
| 30 | Warehouse | 20,000.00 | SF | | | | | | | | 2,000,000 | 2,000,000 |
| | | | | | | | | | | | 100.00 | 100.00 |
| 950 | Mobilization | 1.00 | LS | | | | | 10,000,000 | | | | 10,000,000 |
| | Mobilization | 1.0 | LS | 10,000,000.00 | | | | 10,000,000.00 | | | | 10,000,000.00 |
| | | | | | | | | 10,000,000 | | | | |
| 951 | Demobilization | 1.00 | LS | | | | | 10,000,000 | | | | 10,000,000 |
| | Demobilization | 1.0 | LS | 10,000,000.00 | | | | 10,000,000.00 | | | | 10,000,000.00 |
| | | | | | | | | 10,000,000 | | | | |
| 955 | As-Builts/O&M Manuals | 1.00 | LS | | | | | | | 300,000 | | 300,000 |
| | Asbuilts & OM Manuals | 1.0 | LS | 300,000.00 | | | | | | 300,000.00 | | 300,000.00 |
| | | | | | | | | | | 300,000 | | |
| 965 | Setup Concrete Plant | 1.00 | LS | | 1,440 | 109,067 | 27,834 | 100,000 | | | | 236,902 |
| | | | | | 1,440.00 | 109,067.40 | 27,834.30 | 100,000.00 | | | | 236,901.70 |
| 10 | Setup Concrete Plant | 1.00 | LS | | 1,440 | 109,067 | 27,834 | 100,000 | | | | 236,902 |
| | | | | | 1,440.00 | 109,067.40 | 27,834.30 | 100,000.00 | | | | 236,901.70 |
| | Prod=1.00 HR/hour (8.00 HR/ day), 8.000MH/HR, 0.13 HR/MH, 180.00 hour (22.50 days) | | | | | | | | | | | |
| | Setup & Tear Down Concrete Plant | 1.00 | EA | 760.565 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 14,400 | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 7,389 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 51,242 | | | | | | |
| | Heavy Duty Mechanic | 2.0 | | 80.85 | | 29,106 | | | | | | |
| | Oiler | 0.5 | | 77.00 | | 6,930 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 10,594 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 3,272 | | | | | |
| | 2-Ton Mechanic Truck | 2.0 | | 38.80 | | | 13,968 | | | | | |
| | Building for Batch Plant | 1.0 | LS | 100,000.00 | | | | 100,000 | | | | |
| 966 | Setup RCC Plant | 1.00 | LS | | 640 | 48,474 | 12,371 | | | | | 60,845 |
| | | | | | 640.00 | 48,474.40 | 12,370.80 | | | | | 60,845.20 |
| 10 | Setup Concrete Plant | 1.00 | LS | | 640 | 48,474 | 12,371 | | | | | 60,845 |
| | | | | | 640.00 | 48,474.40 | 12,370.80 | | | | | 60,845.20 |
| | Prod=1.00 HR/hour (8.00 HR/ day), 8.000MH/HR, 0.13 HR/MH, 80.00 hour (10.00 days) | | | | | | | | | | | |
| | Setup & Tear Down Concrete Plant | 1.00 | EA | 760.565 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.00 | | 6,400 | | | | | | |
| | Crane Operator Class-A | 0.5 | | 82.10 | | 3,284 | | | | | | |
| | Labourer | 4.0 | | 71.17 | | 22,774 | | | | | | |
| | Heavy Duty Mechanic | 2.0 | | 80.85 | | 12,936 | | | | | | |
| | Oiler | 0.5 | | 77.00 | | 3,080 | | | | | | |
| | 150 Ton Crawler Crane (American 9260) | 0.5 | | 117.71 | | | 4,708 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,454 | | | | | |
| | 2-Ton Mechanic Truck | 2.0 | | 38.80 | | | 6,208 | | | | | |

| Estimate Line Detail | | | | | | | | | | | | |
|---|--|----------|-----|---------------|----------|---------------|-----------|---------|----------|--------------|---------------|---------------|
| Estimate: JULY 2014 - MAIN CIVIL CONTRACT | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Mech Elec Eq | Sub/Plug | Total Cost |
| 967 | Project Bussing | 76.00 | MO | | 182,400 | 9,955,392 | 3,969,024 | | | | | 13,924,416 |
| | | | | | 2,400.00 | 130,992.00 | 52,224.00 | | | | | 183,216.00 |
| 10 | Project Bussing | 76.00 | MO | | 182,400 | 9,955,392 | 3,969,024 | | | | | 13,924,416 |
| | | | | | 2,400.00 | 130,992.00 | 52,224.00 | | | | | 183,216.00 |
| | Prod=0.00 MO/hour (0.03 MO/ day), 2,400.000MH/MO, 0.00 MO/MH, 18,240.00 hour (2,280.00 days) | | | | | | | | | | | |
| | Bussing | 1.00 | EA | 763.4 | | | | | | | | |
| | Off Hwy Truck Driver | 10.0 | | 54.58 | | 9,955,392 | | | | | | |
| | 28 Person Bus | 10.0 | | 21.76 | | | 3,969,024 | | | | | |
| 977 | Offsite Land Purchase | 1.00 | LS | | | | | | | | 1,000,000 | 1,000,000 |
| | | | | | | | | | | | 1,000,000.00 | 1,000,000.00 |
| 987 | Onsite Power Hookups | 1.00 | LS | | | | | | | | 2,000,000 | 2,000,000 |
| | | | | | | | | | | | 2,000,000.00 | 2,000,000.00 |
| 988 | Training | 1.00 | LS | | | | | | | | 30,000,000 | 30,000,000 |
| | | | | | | | | | | | 30,000,000.00 | 30,000,000.00 |
| 997 | Unscheduled Overtime | 1.00 | LS | | 1 | 35,000,000 | | | | | | 35,000,000 |
| | | | | | 1.00 | 35,000,000.00 | | | | | | 35,000,000.00 |
| | Labor Overtime | 1.0 | EA | 35,000,000.00 | | 1.00 hour | | | | | | |

SUSITNA-WATANA HYDROELECTRIC PROJECT
TURBINE, GENERATOR, TRANSFORMER SUPPLY CONTRACT
RCC Dam 600 MW
Opinion of Probable Construction Cost

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | | \$ 201,792,198 |
|--------------------|---|----------|------------|----------------------|-----------------|--------------------------------|
| WBS | Description | Quantity | UOM | Unit Price | | Comments |
| | | | | Unit Price | Total | |
| 333 | Waterwheels, Turbine, Generator | | | | | \$ 153,946,073 |
| 333.100 | Hydromechanical Equipment | | | | | \$ 75,987,493 |
| 333.101 | Engineering, Specifications, and Coordination | 1 | LS | incl below | | |
| 333.102 | Model Test | 1 | LS | \$ 3,500,000.00 | \$ 3,500,000.00 | |
| 333.103 | Francis Turbine Supply (600MW @ ave Water Level) | 3 | EA | \$ 19,717,734.47 | \$ 59,153,203 | 3x270 MW 295MVA kVA/rpm 1638.9 |
| 333.104 | DT sections for Removable bottom runner | 3 | EA | \$ 300,000.00 | \$ 900,000.00 | |
| 333.105 | Governor | 3 | EA | incl above | | |
| 333.106 | Inlet Valve & Oper (uses Gov HPU) | 3 | EA | \$ 2,957,660.17 | \$ 8,872,981 | |
| 333.107 | Customs Handling, Clearance Logistics | 3 | % | \$ 68,026,183.94 | \$ 2,040,786 | |
| 333.108 | Ocean & Inland Transportation: | 40 | containers | \$ 4,000.00 | \$ 160,000 | |
| 333.109 | Installation and Testing | 2% | | \$ 68,026,183.94 | \$ 1,360,524 | On site Supervision |
| 333.120 | Generator | | | | | \$77,958,579 |
| 333.121 | Engineering, Specifications, and Coordination | 1 | LS | \$0 | incl below | |
| 333.122 | Generator & Exciter Supply | 3 | EA | \$ 24,647,168.09 | \$ 73,941,504 | |
| 333.123 | Customs Handling, Clearance Logistics | 3 | EA | \$ 73,941,504.28 | \$ 2,218,245 | |
| 333.124 | Ocean & Inland Transportation: | 80 | containers | \$ 4,000.00 | \$ 320,000 | |
| 333.125 | Installation and Testing | 2% | | \$ 73,941,504.28 | \$ 1,478,830 | On site Supervision |
| 334 | Accessory Electrical Equipment | | | | | \$ 31,767,600 |
| 334.100 | Essential Electrical Systems | | | | | \$14,607,600 |
| 334.110 | Generator Voltage Bus and Switchgear | | | | | \$ 11,580,000 |
| 334.111 | Generator Neutral Earthing Cubicle | 3.00 | EA | \$ 80,000.00 | \$ 240,000 | |
| 334.112 | Isolated Phase Bus Assemblies | 180.00 | 3-ph m | \$ 35,000.00 | \$ 6,300,000 | |
| 334.113 | Non-Segregated Phase Bus Assemblies | 75.00 | 3-ph m | \$ 7,000.00 | \$ 525,000 | |
| 334.114 | Disconnecting Switches | 3.00 | EA | \$ 225,000.00 | \$ 675,000 | |
| 334.115 | Potential Transformer and Surge Protection Cubicles | 3.00 | EA | \$ 60,000.00 | \$ 180,000 | |
| 334.116 | Unit Circuit Breakers | 3.00 | EA | \$ 1,100,000.00 | \$ 3,300,000 | |
| 334.117 | Current Limiting Reactors (single-phase) | 6.00 | EA | \$ 60,000.00 | \$ 360,000 | |
| 334.140 | Preliminary and General Costs | | | | | \$ 3,027,600 |
| 334.141 | G&A on Procured Items | 12% | | \$ 11,580,000.00 | \$ 3,027,600 | |
| 334.200 | Transformer | | | | | \$17,160,000 |
| 334.210 | Transformer | | | | | \$ 15,600,000 |
| 334.211 | GTU Air Cooled 3 Phase | 3.00 | EA | \$ 5,000,000.00 | \$ 15,000,000 | |
| 334.212 | Shipping to site | 3.00 | EA | \$ 200,000.00 | \$ 600,000 | |
| 334.220 | Preliminary and general costs | | | | | \$ 1,560,000 |
| 334.221 | G&A on Procured Items | 10% | % | \$ 15,600,000.00 | \$ 1,560,000 | |
| 335 | Miscellaneous Powerplant Equipment | | | | | \$ 2,000,000 |
| 335.400 | Mechanical Spare Parts | | | | | \$ 2,000,000 |
| 335.411 | Turbine Runner | 1.00 | LS | \$ 2,000,000.00 | \$ 2,000,000 | |
| | | | | | | |
| | | | | Subtotal direct cost | | \$ 187,713,673 |
| | | | | | | |
| | Indirect and Other General Costs | | | | | \$0 |
| 990 | Indirect costs | 0% | | | | Included |
| | Contractor's or supplier's engineering or detailing, if applicable | | | | | |
| | | | | | | |
| | Unidentified Required Items | | | | | \$14,078,525 |
| 996 | Unlisted items allowance | 0% | | \$187,713,673 | | Included |
| 997 | Unidentified scope, quantities, and market/regulatory allowa | 7.5% | | \$187,713,673 | \$14,078,525 | |
| | | | | | | |
| | Markups | | | | | \$0 |
| | Prime contractor HOH & fee (should reflect risk profile of delivery method) | | | | | included |
| | Contractor insurance program | | | | | included |
| | Escalation | | | | | Excluded |
| | | | | | | |
| | Total estimated construction or supply cost | | | | | \$ 201,792,198 |
| | | | | | | |
| | Project Engineering, Administration & Management | | | | | \$0 |
| | Design, including site investigation, if applicable | | | | | Excluded |
| | Procurement | | | | | Excluded |
| | Construction phase engineering | | | | | Excluded |
| | Construction phase monitoring | | | | | Excluded |
| | Land | | | | | Excluded |
| | Environmental studies and permits | | | | | Excluded |
| | Environmental compliance | | | | | Excluded |
| | Financing costs and interest | | | | | Excluded |
| | Other Owner internal or third party costs | | | | | Excluded |
| | Escalation on Owner's costs | | | | | Excluded |
| | Construction contingency/management reserve | | | | | Excluded |
| | | | | | | |
| | Total estimated project cost | | | | | \$ 201,792,198 |

| Notes: | | | |
|---|------|----------------|-----------------------------------|
| 1 This Cost Includes Installation | -20% | \$ 161,433,758 | Per AACE cost estimate guidelines |
| 2 This OPCC is classified as a Class 3 cost estimate per AACE guidelines. | 25% | \$ 252,240,248 | |
| 3 Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is <u>not</u> included. | | | |
| 4 Pricing assumes competitive market conditions at time of tender (+3 bidders/trade). | | | |
| 5 Owner soft costs and project management expenses excluded. | | | |
| Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs | | | |
| The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will | | | |
| AACE International CLASS 3 Cost Estimate - Class 3 estimates are generally prepared to form the basis for budget authorization, appropriation, and/or funding. Typically engineering is from 10% to 40% complete, and would comprise a minimum of process flow diagrams, utility flow diagrams, preliminary piping and instrumentation diagrams, plot plan, developed layout drawings, and essentially complete engineered process and utility equipment lists. They are typically prepared to support full project funding requests, and become the first of the project phase "control estimates" against which all actual costs and resources will be monitored for variation to budget. Most Class 3 estimates involve more deterministic estimating methods than stochastic methods. Typical accuracy ranges for Class 3 estimates are from +/- 10% to 30% (sometimes higher), depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination.(AACE | | | |

**SUSITNA-WATANA HYDROELECTRIC PROJECT
TRANSMISSION CONTRACT
RCC Dam 600 MW**

Opinion of Probable Construction Costs

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | | \$ 165,743,940 | |
|--------------------|--|----------|-----------|--------------------------|-----------------------|--|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments | |
| 350 | Transmission Plant | 1 | LS | | \$ 100,968,374 | | |
| 350.100 | Transmission | | | | \$ 100,968,374 | | |
| 350.110 | Gold Creek Transmission Route | | | | \$ 34,861,372 | | |
| 350.111 | Ground construction (from road) | 66 | CIRC MI | 156,822.00 | \$ 10,350,252 | | |
| 350.112 | Towers (2 circuits) | 350 | EA | 53,501.00 | \$ 18,725,350 | | |
| 350.113 | Helicopter construction | 12 | CIRC MI | 181,840.00 | \$ 2,182,080 | | |
| 350.114 | Towers | 54 | EA | 66,735.00 | \$ 3,603,690 | | |
| 350.120 | Denali Corridor - 1 circuit | | | | \$ 33,943,429 | | |
| 350.121 | Ground construction (from Road) | 19 | CIRC MI | 163,788.00 | \$ 3,111,972 | | |
| 350.122 | Towers | 101 | EA | 50,046.00 | \$ 5,054,646 | | |
| 350.123 | Helicopter construction | 44 | CIRC MI | 206,645.00 | \$ 9,092,380 | | |
| 350.124 | Towers | 233 | EA | 71,607.00 | \$ 16,684,431 | | |
| 350.130 | Interconnections | | | | \$ 32,163,573 | | |
| 350.131 | Interconnection Cantwell | 1 | LS | 6,952,928.00 | \$ 6,952,928 | | |
| 350.132 | Interconnection Gold Creek | 1 | LS | 25,210,645.00 | \$ 25,210,645 | | |
| 350.133 | 180 MW, 45MWH BESS | 0 | LS | 103,286,400.00 | \$ - | | |
| | | | | Running Subtotal: | \$ 100,968,374 | | |
| | Mobilization/Field Oversight Expenses | | | | \$ 19,183,991 | | |
| 1 | Contractor General Conditions (Prime) | 1 | LS | 19.0% | \$ 19,183,991 | | |
| 2 | Worker Camp Cost Transmission Line | 81,000 | Man Day | | \$ - | | |
| | Unidentified Required Items | | | | \$ 6,007,618 | | |
| 1 | Unlisted Items Allowance | 1 | LS | 5% | \$ 6,007,618 | | |
| | | | | Running Subtotal: | \$ 126,159,983 | | |
| | Markups | | | | \$ 17,965,182 | | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included | |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included | |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 12.0% | \$ 15,139,198 | | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 2,825,984 | | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included | |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included | |
| | | | | Running Subtotal: | \$ 144,125,165 | | |
| | Project Administration & Management | | | | \$ 21,618,775 | | |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included | |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included | |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included | |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 15% | \$ 21,618,775 | | |
| 5 | Construction Contingency/Management Reserve | 1 | LS | 0% | \$ - | not included | |
| | Grand Total: | | | | \$ 165,743,940 | Total Estimated Constr Costs w/ Contingency | |

Cost Range: **\$132,600,000** to **\$207,180,000** Per AACE cost estimate guidelines
-20% 25%

Notes:

- This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

Estimate Line Detail

Estimate: CONTRACT 2 - PROJECT CLEARING

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---|---|---------------|-----------|---------|--------------|----------------|----------------|---------|----------|----------|------------------|
| Reservoirs,Dams & Waterways | | 1.00 | LS | | 228,792 | 16,891,919 | 11,128,863 | | | | 28,020,782 |
| | | | | | 228,792.00 | 16,891,918.96 | ##### | | | | 28,020,781.88 |
| 332.110 | Contractor Camp & Contractor Yard Clearing | 80.70 | AC | | 5,348 | 394,342 | 250,313 | | | | 644,655 |
| | | | | | 66.27 | 4,886.52 | 3,101.77 | | | | 7,988.29 |
| 10 | Camp & Yard Clearing Heavy Tree Cover | 24.80 | AC | | 900 | 66,985 | 51,090 | | | | 118,075 |
| | | | | | 36.29 | 2,701.01 | 2,060.08 | | | | 4,761.09 |
| Prod=0.25 AC/hour (4.96 AC/ day), 36.290MH/AC, 0.03 AC/MH, 100.00 hour (5.00 days) | | | | | | | | | | | |
| <i>Heavy Density Clearing of Trees</i> | | | | | | | | | | | |
| | Equipment Foreman | 1.00 | EA | 1180.75 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 8,085 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 8,085 | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 7,817 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 15,634 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 27,364 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 28,946 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 9,335 | | | | |
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 10,991 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,818 | | | | |
| 20 | Contractor Camp & Contractor Yard Clearing Low Brush | 41.80 | AC | | 640 | 47,334 | 32,079 | | | | 79,414 |
| | | | | | 15.31 | 1,132.40 | 767.44 | | | | 1,899.85 |
| Prod=0.52 AC/hour (10.45 AC/ day), 15.311MH/AC, 0.07 AC/MH, 80.00 hour (4.00 days) | | | | | | | | | | | |
| <i>Clearing Brush</i> | | | | | | | | | | | |
| | Equipment Foreman | 1.0 | EA | 992.67 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 6,468 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 6,468 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 12,507 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 21,891 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 23,157 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 7,468 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,454 | | | | |
| 30 | Contractor Camp & Contractor Yard Clearing Woody Wetlands | 14.10 | AC | | 1,120 | 82,835 | 51,264 | | | | 134,099 |
| | | | | | 79.43 | 5,874.84 | 3,635.73 | | | | 9,510.57 |
| Prod=0.10 AC/hour (2.01 AC/ day), 79.433MH/AC, 0.01 AC/MH, 140.00 hour (7.00 days) | | | | | | | | | | | |
| <i>Woody Wetland Clearing</i> | | | | | | | | | | | |
| | Equipment Foreman | 1.0 | EA | 957.85 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 11,319 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 11,319 | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 10,944 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 10,944 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 38,310 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 20,262 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 13,069 | | | | |
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 15,387 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,545 | | | | |
| 40 | Fire Watch | 80.70 | AC | | 2,688 | 197,188 | 115,880 | | | | 313,068 |
| | | | | | 33.31 | 2,443.47 | 1,435.93 | | | | 3,879.40 |
| Prod=0.21 AC/hour (5.04 AC/ day), 33.309MH/AC, 0.03 AC/MH, 384.00 hour (16.00 days) | | | | | | | | | | | |
| <i>Fire Watch</i> | | | | | | | | | | | |
| | Equipment Foreman | 1.0 | EA | 815.28 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 31,046 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 31,046 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 30,017 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 105,078 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 55,576 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 35,846 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 6,981 | | | | |
| | 5000 Gallon Watertanker | 1.0 | | 45.51 | | | 17,476 | | | | |
| 332.130 | Site Access Roads Clearing | 141.90 | AC | | 8,888 | 656,245 | 433,601 | | | | 1,089,846 |
| | | | | | 62.64 | 4,624.70 | 3,055.68 | | | | 7,680.38 |
| 10 | Access Road N & S Clearing Heavy Tree Cover | 91.80 | AC | | 3,240 | 241,146 | 183,924 | | | | 425,070 |
| | | | | | 35.29 | 2,626.86 | 2,003.53 | | | | 4,630.39 |
| Prod=0.26 AC/hour (5.10 AC/ day), 35.294MH/AC, 0.03 AC/MH, 360.00 hour (18.00 days) | | | | | | | | | | | |
| <i>Heavy Density Clearing of Trees</i> | | | | | | | | | | | |
| | Equipment Foreman | 1.0 | EA | 1180.75 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 29,106 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 29,106 | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 28,141 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 56,282 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 98,510 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 104,206 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 33,606 | | | | |
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 39,568 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 6,545 | | | | |

Estimate Line Detail

Estimate: CONTRACT 2 - PROJECT CLEARING

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|---------|---|----------|-----|---------|--------|----------|----------|---------|----------|----------|------------|
| 20 | Site Access Roads N & S Low Brush Clearing | 41.90 | AC | | 640 | 47,334 | 32,079 | | | | 79,414 |
| | Prod=0.52 AC/hour (10.48 AC/ day), 15.275MH/AC, 0.07 AC/MH, 80.00 hour (4.00 days) | | | | 15.27 | 1,129.70 | 765.61 | | | | 1,895.31 |
| | Clearing Brush | 1.00 | EA | 992.67 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 6,468 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 6,468 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 12,507 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 21,891 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 23,157 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 7,468 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,454 | | | | |
| 30 | Site Roads Clearing N & S Woody Wetlands | 8.20 | AC | | 640 | 47,334 | 29,294 | | | | 76,628 |
| | Prod=0.10 AC/hour (2.05 AC/ day), 78.049MH/AC, 0.01 AC/MH, 80.00 hour (4.00 days) | | | | 78.05 | 5,772.49 | 3,572.39 | | | | 9,344.88 |
| | Woody Wetland Clearing | 1.00 | EA | 957.85 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 6,468 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 6,468 | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 6,254 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 6,254 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 21,891 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 11,578 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 7,468 | | | | |
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 8,793 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,454 | | | | |
| 40 | Fire Watch | 141.90 | AC | | 4,368 | 320,430 | 188,304 | | | | 508,735 |
| | Prod=0.23 AC/hour (5.46 AC/ day), 30.782MH/AC, 0.03 AC/MH, 624.00 hour (26.00 days) | | | | 30.78 | 2,258.14 | 1,327.02 | | | | 3,585.16 |
| | Fire Watch | 1.00 | EA | 815.28 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 50,450 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 50,450 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 48,778 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 170,751 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 90,312 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 58,250 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 11,344 | | | | |
| | 5000 Gallon Watertanker | 1.0 | | 45.51 | | | 28,398 | | | | |
| 332.140 | Permanent Village Area Clearing | 55.97 | AC | | 3,660 | 269,936 | 171,079 | | | | 441,014 |
| | Prod=0.23 AC/hour (4.63 AC/ day), 38.849MH/AC, 0.03 AC/MH, 60.00 hour (3.00 days) | | | | 65.39 | 4,822.87 | 3,056.61 | | | | 7,879.48 |
| 10 | Permanent Village Clearing Heavy Tree Cover | 13.90 | AC | | 540 | 40,191 | 30,654 | | | | 70,845 |
| | Prod=0.23 AC/hour (4.63 AC/ day), 38.849MH/AC, 0.03 AC/MH, 60.00 hour (3.00 days) | | | | 38.85 | 2,891.44 | 2,205.32 | | | | 5,096.76 |
| | Heavy Density Clearing of Trees | 1.00 | EA | 1180.75 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 4,690 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 9,380 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 16,418 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 17,368 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 5,601 | | | | |
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 6,595 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,091 | | | | |
| 20 | Permanent Village Area Brush Clearing | 30.05 | AC | | 480 | 35,501 | 24,059 | | | | 59,560 |
| | Prod=0.50 AC/hour (10.02 AC/ day), 15.973MH/AC, 0.06 AC/MH, 60.00 hour (3.00 days) | | | | 15.97 | 1,181.39 | 800.65 | | | | 1,982.04 |
| | Clearing Brush | 1.00 | EA | 992.67 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 9,380 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 16,418 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 17,368 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 5,601 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,091 | | | | |
| 30 | Permanent Village Clearing Woody Wetlands | 12.02 | AC | | 960 | 71,002 | 43,940 | | | | 114,942 |
| | Prod=0.10 AC/hour (2.00 AC/ day), 79.867MH/AC, 0.01 AC/MH, 120.00 hour (6.00 days) | | | | 79.87 | 5,906.96 | 3,655.61 | | | | 9,562.56 |
| | Woody Wetland Clearing | 1.00 | EA | 957.85 | | | | | | | |

Estimate Line Detail

Estimate: CONTRACT 2 - PROJECT CLEARING

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|----------------|--|------------------|-----|----------------|--------------|----------------|----------------|---------|----------|----------|----------------|
| | Equipment Foreman | 1.0 | | 80.85 | | 9,702 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 9,702 | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 9,380 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 9,380 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 32,837 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 17,368 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 11,202 | | | | |
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 13,189 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 2,182 | | | | |
| 40 | Fire Watch | 55.97 AC | | | 1,680 | 123,242 | 72,425 | | | | 195,667 |
| | Prod=0.23 AC/hour (5.60 AC/ day), 30.016MH/AC, 0.03 AC/MH, 240.00 hour (10.00 days) | | | | 30.02 | 2,201.94 | 1,293.99 | | | | 3,495.93 |
| | <i>Fire Watch</i> | <i>1.00 EA</i> | | <i>815.28</i> | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 19,404 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 19,404 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 18,761 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 65,674 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 34,735 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 22,404 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 4,363 | | | | |
| | 5000 Gallon Watertanker | 1.0 | | 45.51 | | | 10,922 | | | | |
| 332.150 | Airport Clearing | 159.70 AC | | | 6,620 | 487,847 | 309,751 | | | | 797,598 |
| | | | | | 41.45 | 3,054.77 | 1,939.58 | | | | 4,994.35 |
| 10 | Airport Clearing Heavy Tree Cover | 12.60 AC | | | 540 | 40,191 | 30,654 | | | | 70,845 |
| | Prod=0.21 AC/hour (4.20 AC/ day), 42.857MH/AC, 0.02 AC/MH, 60.00 hour (3.00 days) | | | | 42.86 | 3,189.76 | 2,432.86 | | | | 5,622.62 |
| | <i>Heavy Density Clearing of Trees</i> | <i>1.00 EA</i> | | <i>1180.75</i> | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 4,690 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 9,380 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 16,418 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 17,368 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 5,601 | | | | |
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 6,595 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,091 | | | | |
| 20 | Airport Clearing Brush Cover | 142.40 AC | | | 2,240 | 165,670 | 112,277 | | | | 277,948 |
| | Prod=0.51 AC/hour (10.17 AC/ day), 15.730MH/AC, 0.06 AC/MH, 280.00 hour (14.00 days) | | | | 15.73 | 1,163.42 | 788.46 | | | | 1,951.88 |
| | <i>Clearing Brush</i> | <i>1.00 EA</i> | | <i>992.67</i> | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 22,638 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 22,638 | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 43,775 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 76,619 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 81,049 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 26,138 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 5,090 | | | | |
| 30 | Airport Clearing Woody Wetlands | 4.70 AC | | | 480 | 35,501 | 21,970 | | | | 57,471 |
| | Prod=0.08 AC/hour (1.57 AC/ day), 102.128MH/AC, 0.01 AC/MH, 60.00 hour (3.00 days) | | | | 102.13 | 7,553.36 | 4,674.51 | | | | 12,227.87 |
| | <i>Woody Wetland Clearing</i> | <i>1.00 EA</i> | | <i>957.85</i> | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 4,851 | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 4,690 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 4,690 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 16,418 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 8,684 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 5,601 | | | | |
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 6,595 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,091 | | | | |
| 40 | Fire Watch | 159.70 AC | | | 3,360 | 246,485 | 144,850 | | | | 391,334 |
| | Prod=0.33 AC/hour (7.99 AC/ day), 21.039MH/AC, 0.05 AC/MH, 480.00 hour (20.00 days) | | | | 21.04 | 1,543.42 | 907.01 | | | | 2,450.43 |
| | <i>Fire Watch</i> | <i>1.00 EA</i> | | <i>815.28</i> | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 38,808 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 38,808 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 37,522 | | | | | |

| Estimate Line Detail | | | | | | | | | | | | |
|---|--|--------------------|-----|---------|----------------|-------------------|------------------|---------|----------|----------|-------------------|--|
| Estimate: CONTRACT 2 - PROJECT CLEARING | | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost | |
| | Labourer | 4.0 | | 68.41 | | 131,347 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 69,470 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 44,808 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 8,726 | | | | | |
| | 5000 Gallon Watertanker | 1.0 | | 45.51 | | | 21,845 | | | | | |
| 332.170 | Roads- Construction Camp & Permanent Village Clearing | 30.40 AC | | | 984 | 72,474 | 45,787 | | | | 118,260 | |
| | | | | | 32.37 | 2,384.00 | 1,506.15 | | | | 3,890.14 | |
| 10 | Roads- Construction Camp & Permanent Village Low Brush Clearing | 30.40 AC | | | 480 | 35,501 | 24,059 | | | | 59,560 | |
| | | | | | 15.79 | 1,167.79 | 791.43 | | | | 1,959.22 | |
| | Prod=0.51 AC/hour (10.13 AC/ day), 15.790MH/AC, 0.06 AC/MH, 60.00 hour (3.00 days) | | | | | | | | | | | |
| | <i>Clearing Brush</i> | 1.00 EA | | 992.67 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 4,851 | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 4,851 | | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 9,380 | | | | | | |
| | Labourer | 4.0 | | 68.41 | | 16,418 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 17,368 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 5,601 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,091 | | | | | |
| 40 | Fire Watch | 30.40 AC | | | 504 | 36,973 | 21,727 | | | | 58,700 | |
| | | | | | 16.58 | 1,216.21 | 714.72 | | | | 1,930.93 | |
| | Prod=0.42 AC/hour (10.13 AC/ day), 16.579MH/AC, 0.06 AC/MH, 72.00 hour (3.00 days) | | | | | | | | | | | |
| | <i>Fire Watch</i> | 1.00 EA | | 815.28 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 5,821 | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 5,821 | | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 5,628 | | | | | | |
| | Labourer | 4.0 | | 68.41 | | 19,702 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 10,421 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 6,721 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 1,309 | | | | | |
| | 5000 Gallon Watertanker | 1.0 | | 45.51 | | | 3,277 | | | | | |
| 332.180 | Dam Site & Reservoir Clearing | 2,937.00 AC | | | 203,292 | 15,011,075 | 9,918,333 | | | | 24,929,408 | |
| | | | | | 69.22 | 5,111.02 | 3,377.03 | | | | 8,488.05 | |
| 10 | Dam Site & Reservoir Clearing Heavy Tree Cover | 2,105.00 AC | | | 76,140 | 5,666,931 | 4,322,214 | | | | 9,989,145 | |
| | | | | | 36.17 | 2,692.13 | 2,053.31 | | | | 4,745.44 | |
| | Prod=0.25 AC/hour (4.98 AC/ day), 36.171MH/AC, 0.03 AC/MH, 8,460.00 hour (423.00 days) | | | | | | | | | | | |
| | <i>Heavy Density Clearing of Trees</i> | 1.00 EA | | 1180.75 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 683,991 | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 683,991 | | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 661,318 | | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 1,322,636 | | | | | | |
| | Labourer | 4.0 | | 68.41 | | 2,314,994 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 2,448,832 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 789,741 | | | | | |
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 929,839 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 153,803 | | | | | |
| 20 | Dam Site & Reservoir Clearing Brush Cover | 611.00 AC | | | 9,600 | 710,016 | 481,188 | | | | 1,191,204 | |
| | | | | | 15.71 | 1,162.06 | 787.54 | | | | 1,949.60 | |
| | Prod=0.51 AC/hour (10.18 AC/ day), 15.712MH/AC, 0.06 AC/MH, 1,200.00 hour (60.00 days) | | | | | | | | | | | |
| | <i>Clearing Brush</i> | 1.00 EA | | 992.67 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 97,020 | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 97,020 | | | | | | |
| | Dozer Operator | 2.0 | | 78.17 | | 187,608 | | | | | | |
| | Labourer | 4.0 | | 68.41 | | 328,368 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 2.0 | | 144.73 | | | 347,352 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 112,020 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 21,816 | | | | | |
| 30 | Dam Site & Reservoir Clearing Woody Wetlands | 221.00 AC | | | 17,760 | 1,313,530 | 812,897 | | | | 2,126,427 | |
| | | | | | 80.36 | 5,943.57 | 3,678.27 | | | | 9,621.84 | |
| | Prod=0.10 AC/hour (1.99 AC/ day), 80.362MH/AC, 0.01 AC/MH, 2,220.00 hour (111.00 days) | | | | | | | | | | | |
| | <i>Woody Wetland Clearing</i> | 1.00 EA | | 957.85 | | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 179,487 | | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 179,487 | | | | | | |
| | Loader Operator | 1.0 | | 78.17 | | 173,537 | | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 173,537 | | | | | | |
| | Labourer | 4.0 | | 68.41 | | 607,481 | | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 321,301 | | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 207,237 | | | | | |

Estimate Line Detail

Estimate: CONTRACT 2 - PROJECT CLEARING

Currency: USD-United States-Dollar

| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
|------------|---|-----------------|--------------|-----------|---------------|------------------|------------------|------------------|----------|----------------|-------------------|
| | 200 Hsp Wheel Skidder (Cat 545) | 1.0 | | 109.91 | | | 244,000 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 40,360 | | | | |
| 40 | Fire Watch | 2,937.00 | AC | | 99,792 | 7,320,599 | 4,302,033 | | | | 11,622,632 |
| | Prod=0.21 AC/hour (4.94 AC/ day), 33.978MH/AC, 0.03 AC/MH, 14,256.00 hour (594.00 days) | | | | 33.98 | 2,492.54 | 1,464.77 | | | | 3,957.31 |
| | Fire Watch | 1.00 | EA | 815.28 | | | | | | | |
| | Equipment Foreman | 1.0 | | 80.85 | | 1,152,598 | | | | | |
| | Backhoe Operator | 1.0 | | 80.85 | | 1,152,598 | | | | | |
| | Dozer Operator | 1.0 | | 78.17 | | 1,114,392 | | | | | |
| | Labourer | 4.0 | | 68.41 | | 3,901,012 | | | | | |
| | 305 Hsp Bulldozer (Cat D8) | 1.0 | | 144.73 | | | 2,063,271 | | | | |
| | 2.0 CY Backhoe (Cat 330) | 1.0 | | 93.35 | | | 1,330,798 | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 259,174 | | | | |
| | 5000 Gallon Watertanker | 1.0 | | 45.51 | | | 648,791 | | | | |
| | Project Overhead | 20.00 | Month | | 48,093 | 4,377,256 | 1,159,182 | 1,204,934 | | 204,000 | 6,945,372 |
| | | | | | 2,404.65 | 218,862.81 | 57,959.09 | 60,246.71 | | 10,200.00 | 347,268.61 |
| | Project Indirect Costs | 20.00 | MO | | 48,093 | 4,377,256 | 1,159,182 | 1,204,934 | | 204,000 | 6,945,372 |
| | | | | | 2,404.65 | 218,862.81 | 57,959.09 | 60,246.71 | | 10,200.00 | 347,268.61 |
| 900 | Project Mangement Full Operation | 22.00 | Month | | 13,200 | 1,331,000 | 1,135 | | | | 1,332,135 |
| | | | | | 600.00 | 60,500.00 | 51.60 | | | | 60,551.60 |
| | Project Manager III | 1.0 | EA | 24,500.00 | | 22.00 month | | | | | |
| | General Superintendent | 2.0 | EA | 18,000.00 | | 22.00 month | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 3.0 | EA | 17.20 | | | 22.00 month | | | | |
| 905 | Field Engineering | 20.00 | month | | 10,353 | 836,471 | 1,032 | | | | 837,503 |
| | | | | | 517.65 | 41,823.53 | 51.60 | | | | 41,875.13 |
| | Field Engineer II | 1.0 | EA | 15,000.00 | | 20.00 month | | | | | |
| | Field Engineer II | 1.0 | EA | 15,000.00 | | 11.76 month | | | | | |
| | Project Engineer II | 1.0 | EA | 18,000.00 | | 20.00 month | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 3.0 | EA | 17.20 | | | 20.00 hour | | | | |
| 910 | Surveying | 5.00 | Month | | 3,520 | 266,746 | 18,832 | 11,750 | | | 297,328 |
| | | | | | 704.00 | 53,349.12 | 3,766.40 | 2,350.00 | | | 59,465.52 |
| | Prod=1.00 hours/hour (10.00 hours/ day), 4.000MH/hours, 0.25 hours/MH, 880.00 hour (88.00 days) | | | | | | | | | | |
| | Survey Crew | 1.00 | EA | 324.52 | | | | | | | |
| | Survey Party Chief | 1.0 | | 75.00 | | 66,000 | | | | | |
| | Survey Rodman | 3.0 | | 76.04 | | 200,746 | | | | | |
| | 3/4 Ton Crew Cab Truck 4x4 | 1.0 | | 18.18 | | | 15,998 | | | | |
| | Survey Total Station | 1.0 | | 3.22 | | | 2,834 | | | | |
| | Survey Equipment | 5.0 | Month | 1,200.00 | | | | 6,000 | | | |
| | Survey Supplies | 5.0 | Month | 400.00 | | | | 2,000 | | | |
| | Survey Stakes | 5.0 | Month | 750.00 | | | | 3,750 | | | |
| 920 | Safety | 20.00 | Month | | 4,000 | 320,000 | 344 | 117,000 | | | 437,344 |
| | | | | | 200.00 | 16,000.00 | 17.20 | 5,850.00 | | | 21,867.20 |
| | Safety Manager | 1.0 | EA | 16,000.00 | | 20.00 month | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | EA | 17.20 | | | 20.00 hour | | | | |
| | Medical Exam | 50.0 | EA | 200.00 | | | | 10,000 | | | |
| | First Aid Supplies | 20.0 | Month | 200.00 | | | | 4,000 | | | |
| | Hardhats | 50.0 | EA | 60.00 | | | | 3,000 | | | |
| | Safety Supplies | 20.0 | Month | 4,000.00 | | | | 80,000 | | | |
| | Safety Training Course | 50.0 | EA | 400.00 | | | | 20,000 | | | |
| 930 | Administration | 20.00 | Month | | 1,000 | 120,000 | 344 | | | | 120,344 |
| | | | | | 50.00 | 6,000.00 | 17.20 | | | | 6,017.20 |
| | Project Office Clerk | 1.0 | EA | 6,000.00 | | 20.00 week | | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | EA | 17.20 | | | 20.00 hour | | | | |
| 935 | Equipment | 20.00 | Month | | 16,020 | 1,503,040 | 918,087 | 50,000 | | | 2,471,127 |
| | | | | | 801.00 | 75,152.00 | 45,904.33 | 2,500.00 | | | 123,556.33 |
| 10 | Equipment Management | 20.00 | Month | | 20 | 440,000 | 473,367 | 50,000 | | | 963,367 |
| | | | | | 1.00 | 22,000.00 | 23,668.33 | 2,500.00 | | | 48,168.33 |
| | Equipment Superintendent | 1.0 | EA | 22,000.00 | | 20.00 hour | | | | | |
| | 250 Amp Diesel Welder | 1.0 | EA | 7.66 | | | 3,333.33 hour | | | | |
| | 350 Amp Diesel Welder | 1.0 | EA | 10.15 | | | 3,333.33 hour | | | | |
| | 185 CFM Diesel Compressor | 1.0 | EA | 22.04 | | | 3,333.33 hour | | | | |
| | 2000 PSI Pressure Washer | 1.0 | EA | 3.92 | | | 3,333.33 hour | | | | |
| | 3/4 Ton Pickup Truck 4x4 | 1.0 | EA | 3,440.00 | | | 20.00 hour | | | | |

| Estimate Line Detail | | | | | | | | | | | |
|---|--|--------------|--------------|------------|---------------|------------------|----------------|----------------|----------|----------------|------------------|
| Estimate: CONTRACT 2 - PROJECT CLEARING | | | | | | | | | | | |
| Currency: USD-United States-Dollar | | | | | | | | | | | |
| Item | Description | Quantity | UOM | Rate | ManHrs | Labor | Equip | Job Mat | Perm Mat | Sub/Plug | Total Cost |
| | 2-Ton Mechanic Truck | 2.0 | EA | 38.80 | | | 3,333.33 hour | | | | |
| | Shop Supplies | 20.0 | Month | 2,500.00 | | | | 50,000 | | | |
| 20 | Equipment Service | 20.00 | MO | | 16,000 | 1,063,040 | 444,720 | | | | 1,507,760 |
| | Prod=1.00 HR/hour (10.00 HR/ day), 4.000MH/HR, 0.25 HR/MH, 4,000.00 hour (400.00 days) | | | | 800.00 | 53,152.00 | 22,236.00 | | | | 75,388.00 |
| | Equipment Service | 1.00 | EA | 376.94 | | | | | | | |
| | Serviceman | 2.0 | | 66.44 | | 531,520 | | | | | |
| | Lube/Service Operator | 2.0 | | 66.44 | | 531,520 | | | | | |
| | Lube Truck | 2.0 | | 36.33 | | | 290,640 | | | | |
| | Fuel Truck (Tandem Axle 20000 litres) | 1.0 | | 38.52 | | | 154,080 | | | | |
| 940 | Administration Costs | 20.00 | Month | | | | 32,000 | 826,184 | | 204,000 | 1,062,184 |
| | | | | | | | 1,600.00 | 41,309.21 | | 10,200.00 | 53,109.21 |
| | Office Complex 48x60 | 1.0 | EA | 1,600.00 | | | 20.00 hour | | | | |
| | Drug Testing | 50.0 | EA | 100.00 | | | | 5,000 | | | |
| | Photographs | 20.0 | Month | 300.00 | | | | 6,000 | | | |
| | Employee Moves | 20.0 | EA | 10,000.00 | | | | 200,000 | | | |
| | Vehicle Licenses | 20.0 | Month | 100.00 | | | | 2,000 | | | |
| | Engineering Supplies | 20.0 | Month | 2,500.00 | | | | 50,000 | | | |
| | Donation and subscriptions | 20.0 | Month | 300.00 | | | | 6,000 | | | |
| | Travel and conference | 20.0 | Month | 1,000.00 | | | | 20,000 | | | |
| | Office Supplies | 20.0 | Month | 4,000.00 | | | | 80,000 | | | |
| | Permits | 1.0 | LS | 20,000.00 | | | | 20,000 | | | |
| | General Office Furniture | 12.0 | SET | 5,400.00 | | | | 64,800 | | | |
| | Laptop Computer | 12.0 | EA | 3,132.02 | | | | 37,584 | | | |
| | Office Printer | 2.0 | EA | 2,400.00 | | | | 4,800 | | | |
| | Networking Hardware | 12.0 | EA | 2,000.00 | | | | 24,000 | | | |
| | Office Software (per user) | 12.0 | EA | 900.00 | | | | 10,800 | | | |
| | Office PhotoCopy Machine | 1.0 | EA | 2,700.00 | | | | 2,700 | | | |
| | Small Tool Allowance | 195,000.0 | MH | 1.50 | | | | 292,500 | | | |
| | Office Cleaning Service | 20.0 | MO | 5,200.00 | | | | | | 104,000 | |
| | Toilet Compartments | 20.0 | MO | 5,000.00 | | | | | | 100,000 | |
| 950 | Mobilization | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| 10 | Mobilization | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| | Mobilization | 1.0 | LS | 100,000.00 | | | | 100,000 | | | |
| 951 | Demobilization | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| 10 | Demobilization | 1.00 | LS | | | | | 100,000 | | | 100,000 |
| | | | | | | | | 100,000.00 | | | 100,000.00 |
| | Demobilization | 1.0 | LS | 100,000.00 | | | | 100,000 | | | |
| 995 | Light Plants | 20.00 | MO | | | | 187,408 | | | | 187,408 |
| | | | | | | | 9,370.40 | | | | 9,370.40 |
| 10 | Light Plants | 20.00 | MO | | | | 187,408 | | | | 187,408 |
| | | | | | | | 9,370.40 | | | | 9,370.40 |
| | Prod=1.00 HRS/hour (10.00 HRS/ day), 0.000MH/HRS, 0.00 HRS/MH, 5,200.00 hour (520.00 days) | | | | | | | | | | |
| | Light Plants | 1.00 | EA | 36.04 | | | | | | | |
| | Tower 6-Lights 16 Hsp | 4.0 | | 9.01 | | | 187,408 | | | | |

**SUSITNA-WATANA HYDROELECTRIC PROJECT
AIR SERVICE CONTRACT
RCC Dam 600 MW**

Opinion of Probable Construction Costs

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | \$ 130,361,141 | |
|--------------------|--|----------|-----------|--------------------------|-----------------------|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
| 399 | General Plant | 1 | LS | | \$ 107,580,000 | |
| 399.500 | Indirect Costs | 1 | LS | | | |
| 399.520 | Air Service | 1 | LS | | \$ 107,580,000 | |
| 399.523 | Fixed Wing Service | 364 | WK | 285,000.00 | \$ 103,740,000 | |
| 399.524 | Helicopter Operation | 364 | WK | 10,000.00 | \$ 3,640,000 | Allowance |
| 399.525 | Capitol Cost of Hanger | 1 | LS | | \$ 200,000 | |
| | | | | Running Subtotal: | \$ 107,580,000 | |
| | Mobilization/Field Oversight Expenses | | | | \$ - | |
| 1 | Contractor General Conditions (Prime) | 1 | LS | 0.0% | \$ - | |
| | Unidentified Required Items | | | | \$ 8,606,400 | |
| 1 | Unlisted Items Allowance | 1 | LS | 8% | \$ 8,606,400 | |
| | | | | Running Subtotal: | \$ 116,186,400 | |
| | Markups | | | | \$ 2,323,728 | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 0.0% | \$ - | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 2,323,728 | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included |
| | | | | Running Subtotal: | \$ 118,510,128 | |
| | Project Administration & Management | | | | \$ 11,851,013 | |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 10% | \$ 11,851,013 | |
| 5 | Construction Contingency/Management Rese | 1 | LS | 0% | \$ - | not included |
| | Grand Total: | | | | \$ 130,361,141 | Total Estimated Constr Costs w/ Cont. |

Cost Range: **\$104,288,913** to **\$162,951,426** Per AACE cost estimate guidelines
-20% to 25%

Notes:

- This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

**SUSITNA-WATANA HYDROELECTRIC PROJECT
RAILROAD OPERATION CONTRACT
RCC Dam 600 MW**

Opinion of Probable Construction Costs

Currency: US Dollar-3rd Quarter 2014

Grand Total Price: **\$ 59,508,577**

| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
|----------------|--|-----------|-----------|--------------------------|----------------------|--|
| 399 | General Plant | 1 | LS | | \$ 40,193,550 | |
| 399.500 | Indirect Costs | 1 | LS | | | |
| 399.530 | ARRC | | | | \$ 40,193,550 | |
| 399.531 | Freight Cost Permanent Access Road Contract | 28,600 | Tons | \$ 30.00 | \$ 858,000 | |
| 399.532 | Freight Cost Rail Siding Contract | 2,100 | Tons | \$ 30.00 | \$ 63,000 | |
| 399.533 | Freight Cost Clearing Contract | 3,180 | Tons | \$ 30.00 | \$ 95,400 | |
| 399.534 | Freight Cost Main Civil Contract | 1,200,000 | Tons | \$ 30.00 | \$ 36,000,000 | |
| 399.535 | Freight Cost Turbine & Generator Supply Contract | 4,905 | Tons | \$ 30.00 | \$ 147,150 | |
| 399.536 | Freight Cost Camp Construction | 2,300 | rail cars | \$ 1,200.00 | \$ 2,760,000 | |
| 399.537 | Freight Cost Transmission | 7,000 | Tons | \$ 30.00 | \$ 210,000 | |
| 399.538 | Freight Cost Camp & Airstrip Civil Works | 2,000 | Tons | \$ 30.00 | \$ 60,000 | |
| | | | | Running Subtotal: | \$ 40,193,550 | |
| | | 1,550,085 | | | | |
| | Mobilization/Field Oversight Expenses | | | | \$ - | |
| 1 | Contractor General Conditions (Prime) | 1 | LS | 0.0% | \$ - | |
| | | | | | | |
| | Unidentified Required Items | | | | \$ 3,215,484 | |
| 1 | Unlisted Items Allowance | 1 | LS | 8% | \$ 3,215,484 | |
| | | | | Running Subtotal: | \$ 43,409,034 | |
| | | | | | | |
| | Markups | | | | \$ 6,181,446 | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 12.0% | \$ 5,209,084 | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 972,362 | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included |
| | | | | Running Subtotal: | \$ 49,590,480 | |
| | | | | | | |
| | Project Administration & Management | | | | \$ 9,918,096 | |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 20% | \$ 9,918,096 | |
| 5 | Construction Contingency/Management Reserve | 1 | LS | 0% | \$ - | not included |
| | | | | | | |
| | Grand Total: | | | | \$ 59,508,577 | Total Estimated Constr Costs w/ Cont. |

Cost Range: **\$47,606,861** **\$74,385,721** Per AACE cost estimate guidelines
-20% 25%

- 1 This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- 2 Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- 3 Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- 4 Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

**SUSITNA-WATANA HYDROELECTRIC PROJECT
CAMP OPERATION & SECURITY CONTRACT
RCC Dam 600 MW**

Opinion of Probable Construction Costs

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | \$ 159,115,083 | |
|--------------------|--|----------|-----------|--------------------------|-----------------------|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
| 399 | General Plant | 1 | LS | | \$ 107,559,857 | |
| 399.600 | Indirect Costs | 1 | LS | | \$ 107,559,857 | |
| 399.610 | Project Site Camps Operation | | | | \$ 80,747,155 | |
| 399.611 | Camp Supplies | 70 | Months | 94,559.60 | \$ 6,619,172 | Half time after Substantial completion |
| 399.612 | Camp Food | 70 | Months | 444,018.99 | \$ 31,081,329 | Half time after Substantial completion |
| 399.613 | Camp Staff | 70 | Months | 496,453.92 | \$ 34,751,774 | Half time after Substantial completion |
| 399.614 | Camp Living Cost All Personnel | 0 | Man Day | | included | |
| 399.615 | Camp Vehicles | 70 | Months | 13,979.76 | \$ 978,583 | Half time after Substantial completion |
| 399.616 | Camp Maintenance | 70 | Months | 51,674.65 | \$ 3,617,226 | Half time after Substantial completion |
| 399.617 | Camp Power | 70 | Months | 32,890.30 | \$ 2,302,321 | Half time after Substantial completion |
| 399.618 | Camp Operation of Water and Wastewater System | 70 | Months | 19,953.56 | \$ 1,396,749 | Half time after Substantial completion |
| 399.620 | Rail Yard Camp Operation | | | | \$ 19,900,725 | |
| 399.621 | Camp Supplies | 78.00 | Months | 19,661.93 | \$ 1,533,631 | Half time after Substantial completion |
| 399.622 | Camp Food | 78.00 | Months | 92,325.58 | \$ 7,201,395 | Half time after Substantial completion |
| 399.623 | Camp Staff | 78.00 | Months | 119,301.83 | \$ 9,305,543 | Half time after Substantial completion |
| 399.624 | Camp Living Cost All Personnel | 0 | Man Day | | included | |
| 399.625 | Camp Vehicles | 78.00 | Months | 2,625.06 | \$ 204,755 | Half time after Substantial completion |
| 399.626 | Camp Maintenance | 78.00 | Months | 9,703.28 | \$ 756,856 | Half time after Substantial completion |
| 399.627 | Camp Power | 78.00 | Months | 6,838.93 | \$ 533,437 | Half time after Substantial completion |
| 399.628 | Camp Operation of Water and Wastewater System | 1.00 | LS | 365,109.88 | \$ 365,110 | |
| 399.630 | Project Security | | | | \$ 6,911,977 | |
| 399.631 | Security Personnel | 78.00 | Months | 77,545.76 | \$ 6,048,569 | Half time after Substantial completion |
| 399.632 | Security Vehicles | 78.00 | Months | 11,069.33 | \$ 863,408 | Half time after Substantial completion |
| | | | | Running Subtotal: | \$ 107,559,857 | |
| | Mobilization/Field Oversight Expenses | | | | \$ 9,680,387 | |
| 1 | Contractor General Conditions | 1 | LS | 9.0% | \$ 9,680,387 | |
| | Unidentified Required Items | | | | \$ 9,379,220 | |
| 1 | Unlisted Items Allowance | 1 | LS | 8% | \$ 9,379,220 | |
| | | | | Running Subtotal: | \$ 126,619,464 | |
| | Markups | | | | \$ 18,030,612 | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 12.0% | \$ 15,194,336 | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 2,836,276 | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included |
| | | | | Running Subtotal: | \$ 144,650,075 | |
| | Project Administration & Management | | | | \$ 14,465,008 | |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 10% | \$ 14,465,008 | |
| 5 | Construction Contingency/Management Reserve | 1 | LS | 0% | \$ - | not included |
| | Grand Total: | | | | \$ 159,115,083 | Total Estimated Constr Costs w/ Contingency |

Cost Range: **\$127,290,000** to **\$198,890,000** Per AACE cost estimate guidelines
 -20% 25%

Notes:

- This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC

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**SUSITNA-WATANA HYDROELECTRIC PROJECT
MEDICAL & EVACUATION CONTRACT
RCC Dam 600 MW**

Opinion of Probable Construction Costs

Currency: US Dollar-3rd Quarter 2014

| Grand Total Price: | | | | | \$ 20,721,785 | |
|---------------------------|--|----------|-----------|--------------------------|----------------------|--|
| Item | Description | Quantity | UOM | Unit Price | Total Price | Comments |
| 399 | General Plant | 1 | LS | | \$ 15,268,365 | |
| 399.500 | Indirect Costs | 1 | LS | | \$ 15,268,365 | |
| 399.570 | Medical Staff | | | | \$ 10,900,365 | |
| 399.571 | Medical Staff | 84 | Months | \$ 124,766.25 | \$ 10,480,365 | |
| 399.572 | Medical Staff Living Cost | | Man Day | | \$ - | In camp operation contract |
| 399.573 | Medical Equipment & Supplies | 84 | Months | \$ 5,000.00 | \$ 420,000 | |
| 399.580 | Air Service | 1 | LS | | \$ 4,368,000 | |
| 399.581 | Air Service | 364 | week | \$ 12,000.00 | \$ 4,368,000 | |
| | | | | Running Subtotal: | \$ 15,268,365 | |
| | Mobilization/Field Oversight Expenses | | | | \$ - | |
| 1 | Contractor General Conditions (Prime) | 1 | LS | NA | \$ - | |
| | Unidentified Required Items | | | | \$ 1,221,469 | |
| 1 | Unlisted Items Allowance | 1 | LS | 8% | \$ 1,221,469 | |
| | | | | Running Subtotal: | \$ 16,489,834 | |
| | Markups | | | | \$ 2,348,152 | |
| 1 | Subcontractor Markups | 1 | LS | 0.0% | \$ - | included |
| 2 | Prime Contractor OH&P on Subs | 1 | LS | 0.0% | \$ - | included |
| 3 | Prime Contractor OH&P on Self-Perform | 1 | LS | 12.0% | \$ 1,978,780 | |
| 4 | Contractor Insurance Program | 1 | LS | 2.0% | \$ 369,372 | |
| 5 | Taxes | 1 | LS | 0.0% | \$ - | included |
| 6 | Escalation | 1 | LS | 0.0% | \$ - | not included |
| | | | | Running Subtotal: | \$ 18,837,987 | |
| | Project Administration & Management | | | | \$ 1,883,799 | |
| 1 | Construction Oversight & Mgt | 1 | LS | 0% | \$ - | not included |
| 2 | Engineering | 1 | LS | 0% | \$ - | not included |
| 3 | Permitting/Planning/Procurement | 1 | LS | 0% | \$ - | not included |
| 4 | Scope Contingency/Market Conditions | 1 | LS | 10% | \$ 1,883,799 | |
| 5 | Construction Contingency/Management Reser | 1 | LS | 0% | \$ - | not included |
| | Grand Total: | | | | \$ 20,721,785 | Total Estimated Constr Costs w/ Cont. |

Cost Range: **\$16,577,428** to **\$25,902,232** Per AACE cost estimate guidelines
-20% to 25%

- This OPCC is classified as a Class 4 cost estimate per AACE guidelines.
- Pricing basis = 3rd Qtr 2014, escalation to midpoint of construction is not included.
- Pricing assumes competitive market conditions at time of tender (+3 bidders/trade).
- Owner soft costs and project management expenses excluded.

Estimating Disclaimer - Engineer's Opinion of Probable Construction Costs

The client hereby acknowledges that MWH has no control over the costs of labor, materials, competitive bidding environments, unidentified field conditions, financial and/or commodity market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of high market volatility attributable to Acts of God and other market forces or events beyond the control of the parties. As such, Client recognizes that this OPCC deliverable is based on normal market conditions, defined by stable resource supply/demand relationships, and does not account for extreme inflationary or deflationary market cycles. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 4 OPCC

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

Equipment Lists for all Construction Contracts

Equipment Hour Summary**Estimate: JULY 2014 - MAIN CIVIL CONTRACT**

Currency: USD-United States-Dollar

Equipment Classification & Description

| | Description | Equip Hours | Average Rate | Number of Units |
|--|--|-------------|--------------|-----------------|
| | Earthmoving Equipment | | | |
| | 170 Hsp Bulldozer (Cat D6) | 51,803 | 71.38 | 4 |
| | 305 Hsp Bulldozer (Cat D8) | 59,492 | 193.00 | 4 |
| | 570 Hsp Bulldozer (Cat D10) | 18,347 | 319.11 | 2 |
| | Ripper Attachment D10 | 8,964 | 13.76 | 2 |
| | 2.0 CY Loader (CAT IT28) | 11,827 | 38.34 | 1 |
| | Bobcat | 24,719 | 15.00 | 2 |
| | 4.5 CY Loader (Cat 966) | 31,589 | 76.36 | 3 |
| | 6.5 CY Loader (Cat 980) | 123,681 | 136.83 | 8 |
| | 13.5 CY Loader (Cat 992) | 8,220 | 380.91 | 2 |
| | 2.1 CY Track Loader (Cat 939) | 610 | 57.90 | 1 |
| | 200 Hsp Grader (Cat 14G) | 35,224 | 91.71 | 3 |
| | 1.7 CY Backhoe (JD 790) | 2,797 | 78.51 | 1 |
| | 2.0 CY Backhoe (Cat 330) | 15,847 | 80.73 | 2 |
| | 7.0 CY Backhoe (Cat 385) | 12,495 | 246.42 | 2 |
| | 12 Ton Flatbed Truck | 326 | 42.39 | 1 |
| | Container Truck | 375,145 | 50.00 | 25 |
| | 35 Ton Articulated Truck (Cat D350) | 87,456 | 121.41 | 6 |
| | 95 Ton Off Hwy Truck 870 Hsp (Cat 777) | 49,726 | 357.78 | 6 |
| | 631 Water Wagon | 24,925 | 130.00 | 2 |
| | 22" Smooth Drum Manual (Bomag 55) | 986 | 8.22 | 1 |
| | 10 Ton Compactor 120 hsp (Dyn CA25) | 46,015 | 35.17 | 3 |
| | 13 Ton Compactor 72" (Cat 553) | 3,960 | 57.62 | 1 |
| | 15 Ton Compactor 84" (Cat 563) | 178 | 62.15 | 1 |
| | 20 Ton Compactor 190 hsp (Bomag 217) | 200 | 53.10 | 1 |
| | 30 Ton Compactor 315 hsp (Cat 825) | 1,895 | 142.70 | 1 |
| | Paving Equipment | | | |
| | 3D Roller Screed | 754 | 30.64 | 1 |
| | Jaw Crusher 55 x 66 | 24,719 | 250.00 | 1 |
| | Jaw Crusher 30x42 215 Hsp | 49,438 | 145.07 | 1 |
| | Impact Crusher 43x36 800 Hsp | 24,719 | 175.00 | 1 |
| | Single Screw Washer 48" 20 Hsp | 3,626 | 31.50 | 1 |
| | Double Screw Washer 60" 60 Hsp | 24,719 | 54.18 | 1 |
| | Radial Stacker 30"x90 25 Hsp | 7,251 | 25.50 | 1 |
| | Conveyor System | 15,338 | 200.00 | 1 |
| | Conveyor 30"x50 20Hsp | 18,128 | 18.16 | 25 |
| | Large Capacity Crushing Spread & Generator | 3,626 | 742.29 | 1 |
| | Aggregate Processing Equipment | | | |
| | Impact Crusher 43x40 600 Hsp | 49,438 | 200.00 | 2 |
| | 3 Deck 7x20 Screen | 148,315 | 26.10 | 6 |
| | Surge Bin | 15,338 | 6.00 | 1 |
| | Apron Feeder 54inx12Ft | 74,157 | 22.09 | 3 |
| | Radial Stacker 30"x120 30 Hsp | 98,876 | 19.03 | 4 |
| | Conveyor 30"x60 20Hsp | 617,978 | 15.00 | 25 |
| | Belt Scales | 98,876 | 7.00 | 4 |
| | Switch Van | 24,719 | 35.00 | 1 |
| | 400 Amp Gas Welder | 40,164 | 16.86 | 2 |
| | 400 Amp Diesel Welder | 69,585 | 16.96 | 4 |
| | Concrete Equipment | | | |

| | | | |
|---|---------|--------|----|
| 350 YPH RCC Batch Plant | 31,029 | 147.26 | 1 |
| 420 YPH RexCon Model S Structural Plant -1 drum | 62,885 | 182.19 | 2 |
| Cement Additive System | 62,885 | 6.37 | 3 |
| Cement Blower | 62,885 | 11.58 | 3 |
| Cement Silo | 62,885 | 14.92 | 3 |
| Mortar Mixer 8cf 7 Hsp | 2,143 | 2.87 | 1 |
| Concrete Agitator Car 8CY | 350,179 | 48.86 | 23 |
| Concrete Pump Hopper | 115 | 19.26 | 1 |
| Concrete Pump Multi-Z boom | 115 | 25.36 | 1 |
| 90 YPH Trailer Mounted Concrete Pump | 4,632 | 48.81 | 1 |
| Truck Mounted Concrete Pump | 49,262 | 250.00 | 2 |
| 150 YPH Truck Mounted Concrete Pump | 7,055 | 141.61 | 1 |
| 3-CY Concrete Bucket (Gravity) | 5,955 | 1.26 | 1 |
| Concrete Vibrator-Normal | 98,523 | 0.71 | 8 |
| Concrete Vibrator-2.0 inch | 22,981 | 0.56 | 2 |
| Concrete Vibrator-2.5 inch | 8,538 | 0.76 | 1 |
| Post-tensioning Jack | 3,878 | 4.81 | 1 |
| Grout Pump | 3,878 | 10.52 | 1 |
| Grout Plant | 3,959 | 21.15 | 1 |
| 8 YPH Wet Shotcrete Pump (Swing 750) | 8,134 | 18.83 | 1 |
| Tunnel Concrete Forms | 18,244 | 75.00 | 1 |
| Tunnel Concrete Form Gantry | 9,742 | 44.84 | 1 |
| Tunnel Concrete Placing Bridge | 1,985 | 6.21 | 1 |
| Tunnel Concrete Rebar Gantry | 3,223 | 9.67 | 1 |
| Tunnel Concrete Finishing Gantry | 1,139 | 11.40 | 1 |
| Utility Equipment | | | |
| 7 KW Generator Set (Gas) | 1,337 | 4.78 | 1 |
| 10 KW Generator Set (Gas) | 98,523 | 4.93 | 7 |
| 150 KW Diesel Generator Set | 4,096 | 37.70 | 1 |
| 200 KW Diesel Generator Set | 90,000 | 58.30 | 6 |
| 500 KW Diesel Generator Set | 78,411 | 129.42 | 5 |
| 800 KW Diesel Generator Set | 31,029 | 208.88 | 2 |
| 500 KW Diesel Generator Set | 18,690 | 104.31 | 2 |
| 1000 KW Generator Set | 74,157 | 190.53 | 3 |
| Tower 6-Lights 16 Hsp | 360,000 | 9.01 | 23 |
| 2" Diesel Water Pump 8,000 gph | 12,834 | 2.13 | 1 |
| 185 CFM Diesel Compressor | 44,216 | 19.40 | 3 |
| 250 CFM Diesel Compressor | 7,034 | 23.89 | 1 |
| 750 CFM Diesel Compressor | 22,242 | 44.84 | 2 |
| 250 Amp Diesel Welder | 12,667 | 4.75 | 1 |
| 350 Amp Diesel Welder | 12,667 | 6.25 | 1 |
| 60,000 BTU Propane Heater | 379,683 | 11.36 | 25 |
| 2000 PSI Pressure Washer | 28,005 | 2.51 | 2 |
| Hoisting Equipment | | | |
| 125 Ton Truck Crane (Linkbelt 228) | 29,858 | 259.26 | 2 |
| 30 Ton Crawler Crane (Linkbelt98) | 8,160 | 55.84 | 1 |
| 60 Ton Crawler Crane (Linkbelt118) | 2,740 | 93.22 | 1 |
| 150 Ton Crawler Crane (American 9260) | 127,896 | 135.22 | 8 |
| 40 Ton Hydraulic Crane (Grove700) | 3,158 | 62.64 | 1 |
| 4 Tonne Forklift (JCB-8000lb) | 91,200 | 21.97 | 6 |
| Container Handler | 39,489 | 108.73 | 3 |
| Motorized Manlift 30 Ft | 13,126 | 18.51 | 1 |
| Foundation & Marine Equipment | | | |
| Truck Mounted Post Hole Auger | 831 | 14.67 | 1 |
| Drilling & Tunneling Equipment | | | |

| | | | |
|--|---------|--------|----|
| Hydraulic Drill 2" (AC1032) | 339 | 75.60 | 1 |
| Hydraulic Drill 3" (AC1238/Tam400) | 76,732 | 73.85 | 5 |
| Hydraulic Drill 4" (AC812/Tam600) | 810 | 115.47 | 1 |
| Handheld Rock Drill 30 LB | 73 | 1.31 | 1 |
| Percussion Jumbo 3- Boom(GD-P123) | 18,172 | 62.49 | 1 |
| Hydraulic Jumbo 2-Boom(Tamroc) | 146 | 195.04 | 1 |
| Tunnel 5 CY Scoop Tram | 36,956 | 111.19 | 3 |
| Tunnel Ventilation Fan 42" | 20,586 | 7.43 | 4 |
| Hoist | 299 | 25.00 | 1 |
| 1/4 CY Crawler Backhoe | 366 | 17.39 | 1 |
| Service & Maintenance Equipment | | | |
| 1/2 Ton Pickup Truck 4x4 | 71,059 | 14.22 | 5 |
| 3/4 Ton Pickup Truck 2x2 | 266,455 | 396.22 | 18 |
| 3/4 Ton Pickup Truck 4x4 | 284,621 | 53.60 | 20 |
| 3/4 Ton Crew Cab Truck | 30,400 | 22.00 | 2 |
| 3/4 Ton Crew Cab Truck 4x4 | 135,031 | 18.18 | 9 |
| 1-Ton Crew Cab | 91,200 | 19.67 | 6 |
| 28 Person Bus | 182,400 | 21.76 | 12 |
| 5 Ton Flat Bed Truck | 96,717 | 17.75 | 7 |
| 1- Ton Mechanic Truck | 24,719 | 22.49 | 2 |
| 2-Ton Mechanic Truck | 229,593 | 43.32 | 15 |
| Lube Truck | 72,960 | 36.33 | 5 |
| Vacuum Truck | 15,338 | 77.29 | 1 |
| Vacuum Sweeper with Broom | 2,797 | 64.40 | 1 |
| Fuel Truck (Tandem Axle 20000 litres) | 72,960 | 38.52 | 5 |
| 3000 Gallon Watertruck | 2,797 | 38.59 | 2 |
| 15 Ton Pitman Boom Truck | 13,966 | 43.62 | 1 |
| Tractor Truck (Kenworth C500) | 4,500 | 50.82 | 1 |
| Tractor & Trailer | 3,968 | 60.16 | 1 |
| 50 Ton Lowboy | 4,500 | 58.53 | 1 |
| Survey Total Station | 30,400 | 4.69 | 2 |
| Robotic Total Station | 30,400 | 9.01 | 1 |
| Testing Concrete Slump Equipment | 18,240 | 0.72 | 2 |
| Testing Soil Compaction Equipment | 18,240 | 1.06 | 2 |
| Testing Concrete Strength Equipment | 18,240 | 2.96 | 2 |
| Instrumentation Electrical Test | 18,240 | 0.72 | 2 |
| Instrumentation Air Measurement | 18,240 | 1.06 | 2 |
| Instrumentation Pressure Test | 18,240 | 1.41 | 2 |
| Instrumentation Slope Stability | 18,240 | 3.48 | 2 |

Equipment Hour Summary

Estimate: 10-1-2013 - PERMANENT ACCESS ROAD CONTRACT

Currency: USD-United States-Dollar

Equipment Classification & Description

| Description | Equip Hours | Average Rate | Number of Units |
|---------------------------------|-------------|--------------|-----------------|
| Earthmoving Equipment | | | |
| 305 Hsp Bulldozer (Cat D8) | 38,591 | 144.73 | 4 |
| 570 Hsp Bulldozer (Cat D10) | 8,140 | 242.24 | 1 |
| 3.5 CY Loader (Cat 950) | 6,264 | 59.69 | 1 |
| 6.5 CY Loader (Cat 980) | 13,355 | 108.73 | 1 |
| 3.0 CY Track Loader (Cat 963) | 620 | 75.16 | 1 |
| 200 Hsp Grader (Cat 14G) | 22,408 | 100.98 | 2 |
| 2.0 CY Backhoe (Cat 330) | 764 | 93.35 | 1 |
| 2.6 CY Backhoe (Cat 350) | 13,754 | 118.77 | 1 |

| | | | |
|--|--------|--------|---|
| 1.7 CY Backhoe Loader (Case680) | 550 | 40.76 | 1 |
| 35 Ton Articulated Truck (Cat D350) | 67,235 | 114.25 | 7 |
| 11 CY Elevated Scraper 175 Hsp (Cat 613) | 1,564 | 73.57 | 1 |
| 26 CY Scraper 450 hsp (Cat 631) | 20,570 | 200.02 | 2 |
| Jumping Jack Tamper | 6,264 | 2.94 | 1 |
| 22" Smooth Drum Manual (Bomag 55) | 6,584 | 8.33 | 1 |
| 10 Ton Compactor 120 hsp (Dyn CA25) | 1,564 | 45.52 | 1 |
| 13 Ton Compactor 72" (Cat 553) | 7,304 | 57.41 | 1 |
| 30 Ton Compactor 315 hsp (Cat 825) | 8,140 | 174.24 | 1 |
| Paving Equipment | | | |
| Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 925 | 292.82 | 1 |
| Pipeline Equipment | | | |
| 250 Amp Diesel Welder | 1,667 | 7.66 | 1 |
| 350 Amp Diesel Welder | 1,667 | 10.15 | 1 |
| 400 Amp Diesel Welder | 3,089 | 16.99 | 1 |
| Acetylene Cutting Torch | 3,089 | 4.85 | 1 |
| Concrete Equipment | | | |
| 8 CY Concrete Transit Mixer | 386 | 69.33 | 1 |
| 124 YPH Trailer Mounted Concrete Pump | 386 | 94.98 | 1 |
| 2-CY Concrete Bucket (Gravity) | 386 | 0.77 | 1 |
| Concrete Vibrator-Normal | 772 | 0.71 | 1 |
| Utility Equipment | | | |
| 10 KW Generator Set (Gas) | 3,861 | 6.99 | 1 |
| 500 KW Diesel Generator Set | 925 | 124.91 | 1 |
| 185 CFM Diesel Compressor | 1,667 | 22.04 | 1 |
| 375 CFM Diesel Compressor | 3,089 | 36.08 | 1 |
| 2000 PSI Pressure Washer | 1,667 | 3.92 | 1 |
| Hoisting Equipment | | | |
| 150 Ton Crawler Crane (American 9260) | 755 | 117.71 | 1 |
| 225 Ton Crawler Crane (American 9310) | 478 | 188.73 | 1 |
| 40 Ton Hydraulic Crane (Grove700) | 2,437 | 62.64 | 1 |
| Cat TH63 Forklift | 386 | 32.30 | 1 |
| Foundation & Marine Equipment | | | |
| Pile Auger 900mm (36") Soilmec R 825 Drill Track Mounted | 60 | 198.42 | 1 |
| Truck Mounted Post Hole Auger | 6,031 | 18.29 | 1 |
| Drilling & Tunneling Equipment | | | |
| Hydraulic Drill 3" (AC1238/Tam400) | 16,668 | 86.91 | 2 |
| Service & Maintenance Equipment | | | |
| 1/2 Ton Pickup Truck 4x4 | 60 | 13.45 | 1 |
| 3/4 Ton Pickup Truck 2x2 | 1,515 | 39.11 | 1 |
| 3/4 Ton Pickup Truck 4x4 | 73,016 | 17.20 | 7 |
| 3/4 Ton Crew Cab Truck 4x4 | 9,366 | 18.18 | 1 |
| 1 Ton Flat Bed Truck 4x4 | 96 | 21.18 | 1 |
| 5 Ton Flat Bed Truck | 9,886 | 24.11 | 1 |
| 2-Ton Mechanic Truck | 8,333 | 38.80 | 1 |
| Lube Truck | 12,000 | 36.33 | 1 |
| Fuel Truck (Tandem Axle 20000 litres) | 12,000 | 38.52 | 1 |
| 3000 Gallon Watertruck | 1,564 | 38.59 | 1 |
| 5000 Gallon Watertanker | 3,132 | 45.51 | 1 |
| 15 Ton Pitman Boom Truck | 188 | 38.52 | 1 |
| Tractor & Hi-Trailer | 489 | 64.87 | 1 |
| Survey Total Station | 5,196 | 3.22 | 1 |
| Robotic Total Station | 5,196 | 5.54 | 1 |
| Testing Concrete Slump Equipment | 2,598 | 1.08 | 1 |
| Testing Soil Compaction Equipment | 2,598 | 1.27 | 1 |

| | | | | |
|--|-------------------------------------|-------|------|---|
| | Testing Concrete Strength Equipment | 2,598 | 2.29 | 1 |
| | Instrumentation Electrical Test | 2,598 | 1.08 | 1 |
| | Instrumentation Air Measurement | 2,598 | 1.27 | 1 |
| | Instrumentation Pressure Test | 2,598 | 1.46 | 1 |
| | Instrumentation Slope Stability | 2,598 | 2.57 | 1 |

Equipment Hour Summary

Estimate: CONTRACT 1 - CAMP & AIRSTRIP CONSTRUCTION

Currency: USD-United States-Dollar

Equipment Classification & Description

| Code | Description | Equip Hours | Average Rate | Number of Units |
|-------------|--|-------------|--------------|-----------------|
| 810000 | Earthmoving Equipment | | | |
| D8 | 305 Hsp Bulldozer (Cat D8) | 6,544 | 144.73 | 2 |
| 980 | 6.5 CY Loader (Cat 980) | 3,158 | 108.73 | 1 |
| 14G | 200 Hsp Grader (Cat 14G) | 3,632 | 100.98 | 1 |
| 330 | 2.0 CY Backhoe (Cat 330) | 115 | 93.35 | 1 |
| 350 | 2.6 CY Backhoe (Cat 350) | 1,486 | 118.77 | 1 |
| Articulated | 35 Ton Articulated Truck (Cat D350) | 17,299 | 114.25 | 5 |
| 613 | 11 CY Elevated Scraper 175 Hsp (Cat 613) | 732 | 73.57 | 1 |
| 631 | 26 CY Scraper 450 hsp (Cat 631) | 2,724 | 200.02 | 1 |
| Compactor | 22" Smooth Drum Manual (Bomag 55) | 115 | 8.33 | 1 |
| Compactor | 10 Ton Compactor 120 hsp (Dyn CA25) | 732 | 45.52 | 1 |
| Compactor | 13 Ton Compactor 72" (Cat 553) | 567 | 57.41 | 1 |
| Compactor | 30 Ton Compactor 315 hsp (Cat 825) | 2,334 | 174.24 | 1 |
| 820000 | Paving Equipment | | | |
| CrushingSp | Secondary Plant-500hsp(72"x20ftScreen,50x40Hammermill) | 434 | 292.82 | 1 |
| 830000 | Pipeline Equipment | | | |
| WeldD250 | 250 Amp Diesel Welder | 1,600 | 7.66 | 1 |
| WeldD350 | 350 Amp Diesel Welder | 1,600 | 10.15 | 1 |
| 850000 | Utility Equipment | | | |
| Generator | 500 KW Diesel Generator Set | 434 | 124.91 | 1 |
| Compresso | 185 CFM Diesel Compressor | 1,600 | 22.04 | 1 |
| PressureW | 2000 PSI Pressure Washer | 1,600 | 3.92 | 1 |
| 890000 | Service & Maintenance Equipment | | | |
| Pickup50 | 3/4 Ton Pickup Truck 2x2 | 3,168 | 16.11 | 1 |
| Pickup60 | 3/4 Ton Pickup Truck 4x4 | 9,639 | 17.20 | 3 |
| Pickup80 | 3/4 Ton Crew Cab Truck 4x4 | 4,988 | 18.18 | 1 |
| Flatbed1 | 1 Ton Flat Bed Truck 4x4 | 230 | 21.18 | 1 |
| Mechanic2 | 2-Ton Mechanic Truck | 3,200 | 38.80 | 1 |
| Lube10 | Lube Truck | 5,760 | 36.33 | 2 |
| Fuel20 | Fuel Truck (Tandem Axle 20000 litres) | 5,760 | 38.52 | 2 |
| Water20 | 3000 Gallon Watertruck | 732 | 38.59 | 1 |
| Survey50 | Survey Total Station | 4,988 | 3.22 | 1 |
| Survey60 | Robotic Total Station | 4,988 | 5.54 | 1 |
| Testing10 | Testing Concrete Slump Equipment | 2,494 | 1.08 | 1 |
| Testing20 | Testing Soil Compaction Equipment | 2,494 | 1.27 | 1 |
| Testing30 | Testing Concrete Strength Equipment | 2,494 | 2.29 | 1 |
| Testing40 | Instrumentation Electrical Test | 2,494 | 1.08 | 1 |
| Testing50 | Instrumentation Air Measurement | 2,494 | 1.27 | 1 |
| Testing60 | Instrumentation Pressure Test | 2,494 | 1.46 | 1 |
| Testing70 | Instrumentation Slope Stability | 2,494 | 2.57 | 1 |

Equipment Hour Summary

Estimate: CONTRACT3 - RAIL YARD CONSTRUCTION

Currency: USD-United States-Dollar

| Equipment Classification & Description | | | | |
|--|--|-------------|--------------|-----------------|
| Code | Description | Equip Hours | Average Rate | Number of Units |
| 810000 | Earthmoving Equipment | | | |
| D8 | 305 Hsp Bulldozer (Cat D8) | 4,638 | 144.73 | 2 |
| 980 | 6.5 CY Loader (Cat 980) | 2,084 | 108.73 | 1 |
| 14G | 200 Hsp Grader (Cat 14G) | 3,455 | 100.98 | 1 |
| 350 | 2.6 CY Backhoe (Cat 350) | 342 | 118.77 | 1 |
| 680 | 1.7 CY Backhoe Loader (Case680) | 164 | 40.76 | 1 |
| Articulated | 35 Ton Articulated Truck (Cat D350) | 4,277 | 114.25 | 2 |
| 613 | 11 CY Elevated Scraper 175 Hsp (Cat 613) | 329 | 73.57 | 1 |
| Compactor | 22" Smooth Drum Manual (Bomag 55) | 137 | 8.33 | 1 |
| Compactor | 10 Ton Compactor 120 hsp (Dyn CA25) | 329 | 45.52 | 1 |
| Compactor | 13 Ton Compactor 72" (Cat 553) | 73 | 57.41 | 1 |
| Compactor | 30 Ton Compactor 315 hsp (Cat 825) | 1,808 | 174.24 | 1 |
| 830000 | Pipeline Equipment | | | |
| WeldD250 | 250 Amp Diesel Welder | 667 | 7.66 | 1 |
| WeldD350 | 350 Amp Diesel Welder | 667 | 10.15 | 1 |
| 840000 | Concrete Equipment | | | |
| TransitMix | 8 CY Concrete Transit Mixer | 301 | 69.33 | 1 |
| ConcretePu | 124 YPH Trailer Mounted Concrete Pump | 301 | 94.98 | 1 |
| VibratorNo | Concrete Vibrator-Normal | 602 | 0.71 | 1 |
| 850000 | Utility Equipment | | | |
| Generator | 10 KW Generator Set (Gas) | 602 | 6.99 | 1 |
| Compresso | 185 CFM Diesel Compressor | 667 | 22.04 | 1 |
| PressureW | 2000 PSI Pressure Washer | 667 | 3.92 | 1 |
| 860000 | Hoisting Equipment | | | |
| HydraulicC | 40 Ton Hydraulic Crane (Grove700) | 245 | 62.64 | 1 |
| Forklift8 | Cat TH63 Forklift | 301 | 32.30 | 1 |
| 890000 | Service & Maintenance Equipment | | | |
| Pickup60 | 3/4 Ton Pickup Truck 4x4 | 7,462 | 17.20 | 2 |
| Pickup80 | 3/4 Ton Crew Cab Truck 4x4 | 2,238 | 18.18 | 1 |
| Flatbed5 | 5 Ton Flat Bed Truck | 719 | 24.11 | 1 |
| Mechanic2 | 2-Ton Mechanic Truck | 1,333 | 38.80 | 1 |
| Lube10 | Lube Truck | 2,400 | 36.33 | 1 |
| Fuel20 | Fuel Truck (Tandem Axle 20000 litres) | 2,400 | 38.52 | 1 |
| Water20 | 3000 Gallon Watertruck | 3,381 | 38.59 | 1 |
| Water50 | 10000 Gallon Cat 631 Waterwagon | 968 | 75.31 | 1 |
| Survey50 | Survey Total Station | 2,078 | 3.22 | 1 |
| Survey60 | Robotic Total Station | 2,078 | 5.54 | 1 |
| Testing10 | Testing Concrete Slump Equipment | 1,039 | 1.08 | 1 |
| Testing20 | Testing Soil Compaction Equipment | 1,039 | 1.27 | 1 |
| Testing30 | Testing Concrete Strength Equipment | 1,039 | 2.29 | 1 |
| Testing40 | Instrumentation Electrical Test | 1,039 | 1.08 | 1 |
| Testing50 | Instrumentation Air Measurement | 1,039 | 1.27 | 1 |
| Testing60 | Instrumentation Pressure Test | 1,039 | 1.46 | 1 |
| Testing70 | Instrumentation Slope Stability | 1,039 | 2.57 | 1 |

Equipment Hour Summary

Estimate: CONTRACT 2 - PROJECT CLEARING

Currency: USD-United States-Dollar

| Equipment Classification & Description | | | | |
|--|-----------------------|-------------|--------------|-----------------|
| Code | Description | Equip Hours | Average Rate | Number of Units |
| 810000 | Earthmoving Equipment | | | |

| | | | | |
|-------------|---------------------------------------|--------|--------|---|
| D8 | 305 Hsp Bulldozer (Cat D8) | 40,276 | 144.73 | 3 |
| 330 | 2.0 CY Backhoe (Cat 330) | 29,476 | 93.35 | 2 |
| Skidder545 | 200 Hsp Wheel Skidder (Cat 545) | 11,660 | 109.91 | 1 |
| 830000 | Pipeline Equipment | | | |
| WeldD250 | 250 Amp Diesel Welder | 3,333 | 7.66 | 1 |
| WeldD350 | 350 Amp Diesel Welder | 3,333 | 10.15 | 1 |
| 850000 | Utility Equipment | | | |
| LightPlant3 | Tower 6-Lights 16 Hsp | 20,800 | 9.01 | 3 |
| Compresso | 185 CFM Diesel Compressor | 3,333 | 22.04 | 1 |
| PressureW | 2000 PSI Pressure Washer | 3,333 | 3.92 | 1 |
| 890000 | Service & Maintenance Equipment | | | |
| Pickup80 | 3/4 Ton Crew Cab Truck 4x4 | 30,356 | 18.18 | 4 |
| Mechanic2 | 2-Ton Mechanic Truck | 6,667 | 38.80 | 1 |
| Lube10 | Lube Truck | 8,000 | 36.33 | 1 |
| Fuel20 | Fuel Truck (Tandem Axle 20000 litres) | 4,000 | 38.52 | 1 |
| Water30 | 5000 Gallon Watertanker | 16,056 | 45.51 | 1 |
| Survey50 | Survey Total Station | 880 | 3.22 | 1 |

Equipment Hour Summary

Estimate: SERVICE CONTRACT 2 - CAMP OPERATION CONTRACT

Currency: USD-United States-Dollar

| Equipment Classification & Description | | | | |
|--|---------------------------------|-------------|--------------|-----------------|
| Code | Description | Equip Hours | Average Rate | Number of Units |
| 810000 | Earthmoving Equipment | | | |
| JD410 | 1.4 CY Backhoe Loader (JD 410) | 45,720 | 37.37 | 1 |
| 850000 | Utility Equipment | | | |
| Generator5 | 500 KW Diesel Generator Set | 63,360 | 124.91 | 1 |
| Generator1 | 1000 KW Diesel Generator Set | 63,360 | 251.53 | 1 |
| 890000 | Service & Maintenance Equipment | | | |
| Pickup60 | 3/4 Ton Pickup Truck 4x4 | 48,400 | 17.20 | 1 |
| Van60 | Police Van | 158,400 | 21.69 | 3 |
| Bus48 | 48 Person Bus | 22,860 | 25.30 | 2 |
| Flatbed1 | 1 Ton Flat Bed Truck 4x4 | 45,720 | 21.18 | 1 |
| Mechanic1 | 1- Ton Mechanic Truck | 91,440 | 29.26 | 2 |