



## CITY OF REDMOND

**CITY HALL**  
411 SW 9<sup>th</sup> STREET  
REDMOND, OR 97756  
541.923.7710  
FAX: 541.548.0706  
[info@redmondoregon.gov](mailto:info@redmondoregon.gov)  
[redmondoregon.gov](http://redmondoregon.gov)

**REVISED**  
**CITY COUNCIL**  
January 12, 2021  
Council Chambers • 411 SW 9th Street

### COUNCIL MEMBERS

George Endicott  
*Mayor*

Jay Patrick  
*Council President*

Jon Bullock  
*Councilor*

Krisanna  
Clark-Endicott  
*Councilor*

Clifford Evelyn  
*Councilor*

Ed Fitch  
*Councilor*

Shannon  
Wedding  
*Councilor*

**JANUARY 12, 2021**

**REGULAR MEETING AGENDA**

**6:00 PM**

**I. CALL TO ORDER / ESTABLISH A QUORUM**

**II. BLESSING - Pastor Mike Ferry, Cornerstone Christian Fellowship**

**III. PLEDGE OF ALLEGIANCE**

**IV. ELECTION OF COUNCIL PRESIDENT**

**V. COMMENTS FROM CITIZENS AT THE MEETING**

**VI. CONSENT AGENDA**

- A. Department of Justice Bulletproof Vest Partnership Grant Acceptance: \$1,265
- B. Purchase Authorization for Used 2011 772GP John Deere Motor Grader: \$143,550

**VII. BID AWARDS / BID REJECTIONS**

- A. Investment Advisor Services RFP - PFM Asset Management

**VIII. ACTION ITEMS**

- A. Discussion of Letter to Governor Brown in Support of Redmond's Small Businesses
- B. Amendment #1 to Addendum #24 for City Contract #2015-39 with Morrison Maierle, Inc. for the Taxiway F Rehabilitation Project (AP4700): Revised Scope and Cost Reduction from \$1,047,000 to \$812,000
- C. Right-of-Way Vacation Initiation for SW Salmon Avenue between SW 1st and SW 6th Streets
- D. Res. #2021-01 - A resolution adopting amendments to the Community Development Block Grant (CDBG) 2019 Annual Action Plan to reflect CDBG-CV3 (COVID-19) Cares Act funding and HUD waivers and authorizing the submission of the amended Annual Action Plan to the United States Department of Housing and Urban Development.

- E. Guaranteed Maximum Price Amendment to the Construction Manager/General Contractor Contract in the amount \$16,235,431.88; South Redmond Water Facility Reservoir Construction: (WA1902).

**IX. MAYOR'S COMMENTS**

- A. Reappointment of Charlie Rucker to the Historic Landmarks Commission, term expiring December 31, 2022.

**X. COUNCIL COMMENTS**

**XI. CITY MANAGER COMMENTS**

**XII. ADDITIONAL COMMENTS FROM CITIZENS AT THE MEETING**

**XIII. ADJOURN**

Regular Council meetings are broadcast live on COTV11 – BendBroadband Channel 11 beginning at 6:00 p.m. on the 2<sup>nd</sup> and 4<sup>th</sup> Tuesdays of each month. Rebroadcasts are scheduled for the non-meeting Tuesdays at 6:00 p.m.

The City of Redmond encourages all citizens to participate in its programs and activities. This meeting location is accessible to people with disabilities. Requests for accommodation may include sign language interpreter service, assistive listening devices, materials in an alternate format or any other accommodation. If any accommodations are needed, please contact the ADA Coordinator at 541-504-3036 or [access@redmondoregon.gov](mailto:access@redmondoregon.gov). Requests should be made as soon as possible, but at least 3 business days prior to the scheduled meeting.

The City of Redmond does not discriminate on the basis of disability status in the admission or access to, or treatment, or employment in, its programs or activities



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# STAFF REPORT

**DATE:** January 12, 2021  
**TO:** Redmond City Mayor and Council  
**THROUGH:** Keith Witcosky, City Manager  
Dave Tarbet, Police Chief  
**FROM:** Devin Lewis, Police Captain  
**SUBJECT:** Department of Justice Bulletproof Vest Partnership Grant Acceptance: \$1,265

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### Addresses Council Goal:

1. Sustain Operations
- C. Explore Opportunities to augment revenues to support existing operations.

### Report in Brief:

The action requests City Council authorize acceptance of a \$1,265 U.S. Department of Justice (DOJ) grant for the purchase of protective vests for the Redmond Police Department (RPD).

### Background:

On April 23, 2020, the RPD submitted a grant application to DOJ for the purchase of ballistic vests. Formal acceptance of these grants require City Council approval. The grant has been awarded in the amount of \$1,265. These on-going grant monies will be used to purchase bulletproof vests for current and new-hire officers.

### Discussion:

The RPD replaces vests approximately every five years. To offset the cost of vest replacement, the department annually leverages DOJ resources. The current cost of one vest is \$625. In this current fiscal year RPD will replace up to 14 vests at an estimated cost of \$8,750. The grant reimburses each vest purchase at 50% of its cost (only panels – carrier not included). Therefore, each vest panel purchased by RPD costs the department \$313 and the remaining \$312 is drawn from the DOJ grant.

### Fiscal Impact:

The resources listed below represent a maximum amount that can be received for vest purchases. Grant monies are reimbursed after vests are purchased.

Grant funds are available for purchases made between April 1, 2020 and August 31, 2022. Funding for vest purchases is included in the FY2020-21 budget.

Grant Reimbursement Amount = \$1,265 (vest carrier not included in grant)

Anticipated Expenditures in Adopted Budget (Including vest carriers) = \$12,100 (minus the \$1,265 grant).

Remaining Amount in Budget = \$10,835

### Alternative Courses of Action:

1. Authorize acceptance of the grant.
2. Do not authorize acceptance.
3. Request more information

### Recommendation / Suggested Motion:

"I move to authorize the City Manager to accept the Department of Justice Bulletproof Vest Partnership grant in the amount of \$1,265"



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# STAFF REPORT

**DATE:** January 12, 2021  
**TO:** Redmond City Council  
Keith Witcosky, City Manager  
**THROUGH:** John Roberts, Deputy City Manager  
Bill Duerden, Public Works Director  
**FROM:** Brad Haynes, Street Operations Manager  
**SUBJECT:** Purchase Authorization for Used 2011 772GP John Deere Motor Grader: \$143,550

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### Addresses Council Goal:

1. Sustain Operations - Provide or enhance current levels of operations in all facets of municipal service delivery.

### Report in Brief:

This item requests authorization to purchase a used 2011 John Deere motor grader for \$143,550 from RDO Equipment Company.

### Background:

Public Works Transportation Division crews perform various functions in and around streets and pathways to include shoulder maintenance, blading alley ways, snow and ice control, and moving materials. A 1977 John Deere motor grader is currently used to accomplish these tasks, which is outdated and inefficient.

Staff compared the capabilities of current makes and models of graders to used equipment and determined that a used John Deere motor grader best met the criteria for parts availability, performance and maintenance, attachments, and price. A new motor grader with attachments costs approximately \$350,000.

### Discussion:

Staff conducted nationwide search for used motor graders with attachments and solicited four informal price quotes listed below.

|                                |           |
|--------------------------------|-----------|
| Wyoming Machinery Company      | \$141,650 |
| RDO Equipment Company (Oregon) | \$143,550 |
| Worldwide Machinery (Texas)    | \$204,500 |
| Worldwide Machinery (Utah)     | \$202,900 |

The quote from RDO Equipment Company was slightly above the lowest bidder, but it is the only motor grader that included a snow wing attachment (approximately \$20,000 new). The equipment will be inspected and tested by a third party prior to purchase and delivery to the City.

### Fiscal Impact:

Funding for this expenditure is included in the FY 2020/2021 budget within the Streets – Capital Vehicle and Equipment sub-fund, 22163-01-000-07-00-04 (see attached).

### Alternative Courses of Action:

1. Approve the purchase.
2. Reject the purchase.
3. Take no action and request additional information.

### Recommendation / Suggested Motion:

"I move to approve the purchase of a used 2011 772GP John Deere Motor Grader from RDO Equipment Company in the amount of \$143,550 and authorize the City Manager to execute the contract."







## Investment Proposal (Quote)

RDO Equipment Co.  
6565 Gateway Drive  
Grand Forks ND, 58203  
Phone: (701) 772-4842 - Fax: (701) 772-9620

Proposal for:  
CITY OF REDMOND (WASTEWATER)  
3100 NW 19TH ST  
REDMOND, OR, 977567618  
DESCHUTES

Investment Proposal Date: 12/16/2020  
Pricing Valid Until: 1/15/2021  
Deal Number: 1393175  
Customer Account#: 5073016  
Remarketing Sales Professional: Curtis Tuttle  
Phone: (602) 415-4700  
Fax: (602) 233-0383  
Email: CTuttle@rdoequipment.com

### Comments

Unit can be held for City of Redmond until Jan. 2021 with letter of on intent to purchase.

### Equipment Information

| Quantity            | Serial Number<br>Stock Number | Hours<br>(approx.) | Status / Year / Make / Model<br>Additional Items | Cash Price   |
|---------------------|-------------------------------|--------------------|--------------------------------------------------|--------------|
| 1                   | 1DW772GPVA0632423<br>X959950  | 6999               | Used 2011 JOHN DEERE 772G                        | \$136,650.00 |
|                     |                               |                    | Other RDO Grand Forks                            | \$0.00       |
|                     |                               |                    | Freight Out Delivery                             | \$6,900.00   |
| Equipment Subtotal: |                               |                    |                                                  | \$143,550.00 |

### Purchase Order Totals

|                       |              |
|-----------------------|--------------|
| Balance:              | \$143,550.00 |
| Tax Rate 3: (NDEO 0%) | \$0.00       |
| Sales Tax Total:      | \$0.00       |
| Sub Total:            | \$143,550.00 |
| Cash with Order:      | \$0.00       |
| Balance Due:          | \$143,550.00 |

## Equipment Options

| Qty | Serial Number     | Year / Make / Model  | Description                                                                                                                                                                                                                                                                                                                    |
|-----|-------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | 1DW772GPVA0632423 | 2011 JOHN DEERE 772G | A004 CAB/AC/HEAT<br>B001 LOW CAB<br>C002 AIR SEAT<br>D002 CLOTH SEAT<br>E003 TC/PS TRANS<br>F001 DIFF LOC<br>G001 FWD<br>H004 17.5X25<br>I002 RADIALS<br>J002 3 PIECE RIMS<br>K003 14 BLD<br>L005 FRT HYD<br>L006 R HYD<br>L007 SNOW WING<br>L010 FRT HTCH<br>L012 2REXT<br>L014 DRAWBAR<br>L016 CIRCLE SLIP CLU<br>L017 RADIO |

2011 DEERE 772G For Sale In GRAND FORKS, North Dakota



For Sale Price: \$147,900

Contact Information

RDO Equipment Co.  
9 GRAND FORKS, North Dakota 58206  
Phone: (866) 423-4514  
Video Chat With This Dealer  
Contact: Sales



Description

CAB/AC/HEAT | LOW CAB | AIR SEAT | CLOTH SEAT | TC/PS TRANS | DIFF LOC | FWD | 17.5X25 | RADIALS | 3 PIECE RIMS | 14 BLD | FRT HYD | R HYD | SNOW WING | FRT HTCH | 2REXT | DRAWBAR | CIRCLE SLIP CLU | RADIO  
Tires: 17.50 Tires, Radials

Specifications

|                  |          |                      |                   |
|------------------|----------|----------------------|-------------------|
| Year             | 2011     | Manufacturer         | DEERE             |
| Model            | 772G     | Serial Number        | 1DW772GPVA0632423 |
| Condition        | Used     | Hours                | 6999              |
| Moldboard Length | 14 ft    | A/C                  | Yes               |
| ROPS             | Enclosed | Auxiliary Hydraulics | Yes               |
| Stock Number     | X959950  |                      |                   |



## NOTES ON THE FISCAL YEAR 2020/21 BUDGET

The budget includes the following notable items for FY 2020/21:

- A transfer of \$225,000 to the Capital Vehicle and Equipment sub-fund adding to the funds held in reserve. Major equipment purchases planned in FY 2020/21 include a Skid Steer (\$60,000) and a used Motor Grader (\$165,000). The table below lists the major equipment planned to be purchased in the near term.

| Equipment - New and Replacement, Near-Term List | Main Use         |           | Cost           |
|-------------------------------------------------|------------------|-----------|----------------|
| Road Grader - Used (FY 20/21)                   | Replace existing | \$        | 165,000        |
| Skid Steer (FY 20/21)                           | New              | \$        | 60,000         |
| Mechanical Street Sweeper (FY 21/22)            | Replace existing | \$        | 325,000        |
| Crack Sealer (FY 22/23)                         | Replace existing | \$        | 70,000         |
| 5-Yard Dump Truck (FY 22/23)                    | Replace existing | \$        | 180,000        |
| 5-Yard Dump Truck (FY 23/24)                    | New              | \$        | 180,000        |
| <b>Total</b>                                    |                  | <b>\$</b> | <b>980,000</b> |

- A \$104,264 lease payment to the Water Fund to support debt service associated with improvements to the Public Works Facility (in 2012), including energy efficiency improvements made in 2014.
- The Transportation Operations sub-fund maintains a contingency of \$548,860 equal to approximately 60 days of operations (Council Goal 1D).







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# STAFF REPORT

**DATE:** January 12, 2021  
**TO:** Redmond City Council  
**THROUGH:** Keith Witcosky, City Manager  
**FROM:** Jason Neff, Chief Financial Officer  
**SUBJECT:** Investment Advisor Services RFP - PFM Asset Management

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### Addresses Council Goal:

1. Sustain Operations: Provide or enhance current levels of operations in all facets of municipal service delivery.

### Report in Brief:

The action requests City Council authorization to enter into a three-year contract with PFM Asset Management for investment advisor services, with two optional one-year extensions (City's option).

### Background:

As of the 1st Quarter Fiscal Year (FY) 2020/21, the City has \$76 million in cash and investments which is spread between 3 accounts; a checking account (\$9 million), the Oregon Local Government Investment Pool (LGIP) (\$44 million), and an investment account (\$23 million), which is managed by an investment advisor. The checking and LGIP accounts can be accessed immediately while the investment account currently holds an average maturity of 6 months and are funds that are not anticipated to be needed (i.e. for operational expense or projects) in the short-term. The \$76 million of cash and investments can be broken approximately into the following categories:

|     |                                                                            |
|-----|----------------------------------------------------------------------------|
| 43% | Capital Improvement Projects (CIP)                                         |
| 33% | Enterprise (Utilities, Airport, etc.) Operating Contingencies and Reserves |
| 9%  | General Operating Funds Contingencies and Reserves                         |
| 9%  | Urban Renewal Projects and Programs                                        |
| 2%  | Debt Service Reserves                                                      |
| 2%  | Internal Service Funds (Facilities, Central, IT, etc.)                     |
| 2%  | Vehicle and Equipment Reserves                                             |

The City continues to utilize an investment advisor for the following reasons:

**Improved Returns on Investment** – The City looks to an investment advisor to meet or exceed a benchmark where funds can otherwise be invested. As an example, over the past 3 years the City's investment portfolio had an average annual return of 2.56% versus the 0-3 year Treasury benchmark which averaged 2.43%. The difference between the portfolio and benchmark returns exceed the fees for investment advisor services. Moreover, within the last year the City has reached the maximum balance allowed in the LGIP further necessitating other types of investments as achieved through the use of an investment advisor.

**Increased Efficiency** – An investment advisor brings extensive resources to the City's investment program. The investment advisor team comprises experts across various disciplines, including portfolio management, credit research, and governmental accounting. This team works collaboratively with staff to develop and implement a sound investment strategy designed to meet the City's investment objectives while saving staff time. The investment advisor takes on the time-consuming tasks of monitoring the markets for opportunities and executing trades on the City's behalf. In addition, the investment advisor monitors the securities in the City's portfolio daily and provide comprehensive reporting, consistent and compliant with the City's Investment Policy and government accounting standards. The investment advisor also serves as a resource to the City, ensuring staff and City Council are kept apprised of market events and legislation impacting the City's investments.

**Proactive Management** – While the investment advisor will purchase all securities in the City's portfolio with intent to hold

to maturity, over time investment advisor may identify and recommend a security be sold prior to its maturity to purchase an investment that will generate greater long-term value for the City. This proactive approach provides for greater flexibility in the City's portfolio.

Services associated with the contract include:

- Provide full-time non-discretionary management of assets held in the City's safekeeping investment account, in accordance with Oregon Revised Statutes and the City's investment policy. Investment recommendations will be brought forward to the City's Investment Officer for approval. After such approval advisor will buy or sell securities and place orders for the execution of such transactions and assist with trade settlement.
- Develop and implement investment strategies that seek to enhance portfolio performance under current and future market conditions within the parameters of the investment policy and cash flow needs.
- Conduct technical and fundamental market research, including yield curve analysis. Provide timely assessments of the market including market reaction to economic events.
- Establish appropriate benchmarks. Include benchmark performance in reporting and reviews.
- Conduct credit and risk management analysis of the investments in the portfolio.
- Provide monthly investment reports for the portfolio detailing securities holdings, portfolio composition and sector analysis, and portfolio return. Provide online access to City's investment portfolio reports.
- Review and provide recommended revisions of the City's investment policy as needed. Provide assistance with investment policy discussions and/or meetings with the City Council and/or Oregon Short-Term Investment Board.
- Work with City Staff to develop cash flow projections to ensure that the investment strategy is consistent with the City's cash requirements and provide recommendations of change.
- Review the City's investment program and portfolio performance with the City Staff and City Council, as needed. Upon City request, provide an annual presentation to City Council regarding market conditions, the City's investment program and portfolio performance.

#### **Discussion:**

In October 2020, staff solicited proposals for an investment advisor. Four responses were received:

- Chandler Asset Management
- Government Portfolio Advisors (GPM)
- Moreton Asset Management
- PFM Asset Management (the City's current Investment Advisor)

The proposals were evaluated on 6 categories: experience specific to Oregon public entities and cities, investment policy experience, investment performance relative to benchmarks, firm structure, staff background and fee structure.

Total scoring results (out of 10):

- Chandler = 7.5
- GPA = 7.7
- Moreton = 5.5
- PFM = 8.5

PFM was ranked 1st in 3 of the 6 categories. PFM had the 2nd highest fee, however, PFM's past investment performance was ranked 1st. As a comparison, a \$25 million investment portfolio with PFM over the past 5 years would have yielded about \$2.6 million in investment returns and \$123,000 in fees.

PFM is being recommended based on its experience with Oregon clients/investment policies, the expected customer service to the City, its breadth of resources and historical investment performance.

PFM has been in the business of providing investment advisory services for 40 years. The firm's primary focus is the management of public sector funds, including the management of over 172 cities (\$17.8 billion in assets). Public entity

clients in Oregon include the City of Salem, Tualatin Valley Fire & Rescue, City County Insurance Services (CIS) and the Oregon State Treasury. PFM has been the City's Investment Advisor for the past 5 years.

**Fiscal Impact:**

The City will pay 10 basis points (0.10%) for the first \$25 million invested. Currently, the City's investment account is approximately \$23 million which would equate to an annual fee of \$23,000. Over the life of the contract, the minimum annual fee for these services is \$15,000. The FY 2020/21 budget includes \$25,000 for these services.

**Alternative Courses of Action:**

1. Award Investment Advisor Services contract to PFM Asset Management
2. Reject all proposals.
3. Request additional information.

**Recommendation / Suggested Motion:**

"I move to award the Investment Advisor Services RFP to PFM Asset Management and authorize the City Manager to sign a three-year contract with two optional one-year extensions."





**CITY OF REDMOND**  
**City Council**

**DISCUSSION DRAFT**

411 SW Ninth Street  
Redmond, OR 97756

January 12, 2021

Office of Governor Kate Brown  
900 Court Street, Suite 254  
Salem, OR 97301-4047

Dear Governor Brown;

On behalf of the many small and locally owned businesses in Redmond, Oregon, we request to be given the same re-opening consideration you have granted our school district which allows communities to re-open commerce in a safe manner, following CDC guidelines and demonstrates trust in the wisdom of our small businesses.

Redmond, Oregon, has more than 1,700 businesses throughout our Central Oregon community. Many of these are small and locally owned. They serve as the backbone of our city, a place where the entrepreneurial spirit runs strong. Their economic livelihood is reaching extinction as the public health pandemic continues into its 11th month.

People are scared, angry, frustrated and confused. They feel they have been abandoned by our state government, selectively eliminated from the economy, and left to survive by their own devices. Meanwhile, larger chain and big box stores are able to unfairly steal their customer base and their revenues, while these hardworking women and men are left to wither through no fault of their own.

It has reached a breaking point.

We as local elected officials must respond to their pleas for help and that is why we ask you to put in place a blueprint that allows them to more fully participate in the economy in a manner that respects the public health emergency but allows our sole proprietors to revive the businesses they have worked so hard to build and sustain. We stand with them.

To that end, we request you consider the following:

- ✓ Adjust guidance for Counties in the “Extreme” category to allow them the flexibility to re-open with the schools.
- ✓ Trust our communities and businesses to re-open in a manner that requires masks and physical distancing measures and frequent hand washing.
- ✓ Allow our small businesses to tackle the safety measures with the same spirit they used to carve out their niche in private enterprise.

The Redmond City Council thanks you for the consideration of our request and we stand ready to meet with you and your team to discuss this further.

Time is of the utmost essence, please help us as we strive to champion our local and small businesses.

With warm regards.

Members of the Redmond City Council  
Redmond, Oregon

Mayor Endicott, Councilor Bullock, Councilor Clark-Endicott, Councilor Evelyn, Councilor Fitch, Councilor Patrick, and Councilor Wedding

We are writing to express concern about the letter you are considering sending to Governor Brown regarding COVID business operation mandates, and its impact on Redmond small businesses.

Points we'd like you to consider before deciding are:

1. Health and safety concerns, for us individually and collectively, come first;
2. The reasoning behind the governor's mandate is sound;
3. How the mandates effect small businesses varies widely;
4. Legitimate concerns about the economic survival of small business needs to be balanced with the above concerns.

1. Health and Safety: We are in the midst of a pandemic that effects all of us. Deschutes County is in the "extreme risk" category based on the best information reported to the Oregon Health Authority. In our county this past week over 60 COVID cases were reported, and the trend is for a likely increase, given the increased Christmas holiday travel and visiting. There is no bubble around the City of Redmond. COVID moves around our county, region, state, nation, world. We think the first responsibility of City Council is to consider the health and safety needs of all. When you say you are speaking for the people of Redmond, please consider that many of us think this is the first priority. Please don't pretend that you speak for our community by addressing business needs only.

2. Risk Matrix: Some of you talked as though the governor has picked out of thin air, all small businesses, to restrict. You repeatedly referred to the unfairness of this supposedly arbitrary choice. This is not accurate. The businesses that mandates currently do not allow have in house customer service/transaction, are those deemed most risky. We know that COVID is transmitted primarily via droplets traveling through the air from one person to another. It follows that certain kinds of businesses present a high transmission risk because of the way people interact in those settings. At restaurants and bars, for example, people spend longer time periods visiting while eating and drinking. We don't leave our masks on when eating or drinking, and some times we get excited while talking, and unintentionally project more air. Therefore, these establishments are restricted to take out only. It is not a perfect system and we can debate specific situations, but don't pretend that all small businesses are restricted for no reason. Also, think of the difference in allowing 20 people to gather in the enclosed room of a small restaurant. People are packed more closely together than in a big box store. This may seem unfair, but is based on the likelihood that it is harder to keep 6 feet apart in smaller. So please don't pretend like the current mandates consist of being mean to all of our small businesses.

3. Variable Effect: As suggested above, not all of Redmond's small businesses are in dire straights. If you own a drive through coffee stand you might be doing well. Clearly bars and restaurants are not. Some restaurants are coping better than others. We ordered tamales from a small Redmond restaurant for Christmas. When I called around noon to arrange pickup, they asked me to call back; they were extremely busy with take out orders. While they'd also seen a reduction in their business, they were coping by doing carry out with a well established customer base. We agree that some small businesses are hurting deeply, and we make a sustained effort, while remaining inside the mandate guidelines, to patronize them. We can debate the gray areas and inconsistencies of the current mandate restrictions. The assertion that that all small business are going bankrupt and that there is no fact based rationale for the current restrictions, would appear to be inaccurate.

4. Finding the Balance: Instead of blaming the governor for our current difficult situation, let's take a deep breath. This is a complicated situation with health, safety, and business needs all needing consideration. COVID doesn't care what our zip code is; it treats us all as equal opportunity targets. Let's work together to address these needs.

We have heard almost nightly on the news, stories of health care workers getting off duty(often having pulled two shifts/watched people die) on their drive home, noticing folks unmasked in bars and restaurants and the dismay they felt. Let us respect those we are asking to care for us when we become unwell. They are asking us to follow the protocols of masking, distancing and to avoid creating situations which raise the risk of COVID spreading.

Sincerely,

Richard Lance

Leanne K. Latterell

[REDACTED]  
Redmond, OR  
[REDACTED]

[REDACTED]  
Redmond, OR.  
[REDACTED]

**From:** Gloria [REDACTED]  
**Sent:** Sunday, January 10, 2021 11:23 AM  
**To:** Keith Witcosky  
**Subject:** Next Council Meeting

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Administrator Witcosky: Here is my thinking being sent to council members about the next meeting of City Council

Subject: City Council COVID response: Please make a plan that will help members of our community get vaccinated so we can safely enjoy going to a local restaurant or bar.

I must offer some observations about your conversation about asking the governor to relax some current standards to protect the public and reduce COVID illness. First, this virus is here and impacting the health of our communities with a reported 80 new cases for Deschutes County just last Saturday. (This trend has been in place for some time) According to CDC; COVID-19 is thought to spread mainly through close contact from person to person, including between people who are physically near each other (within about 6 feet). People who are infected but do not show symptoms can also spread the virus to others. We shouldn't need enter a 14 day quarantine after being in an open and non-masked restaurant or bar.

I am not in favor of an "ask" being sent our governor for changing requirements/metrics for restaurants and bars to open their doors. Instead, I suggest the city council assume a proactive role and become a partner with the Deschutes County Health Department under the leadership of director George Conway to better inform the public about gaining access to vaccinations. The public needs some necessary vaccination information for those who are not included in the top priorities as established by CDC. (Health care workers, essential workers, teachers, nursing home etc.) All of us need to know when and where vaccine is available. Can the city work in partnership with the county health department to inform and have vaccine clinics at public buildings such as the Senior Center, Library and City Hall?

This is an unprecedented situation and requires new measures to push back the virus. COVID19 is the enemy. Not the Governor. As you may know the virus is mutating, as the numbers increase and spike and it is our responsibility to do our part to keep this virus in "check". To help the community open doors for business city council needs to put attention and energy to combating COVID; getting vaccinated, and more aggressively address the recommended protections for reducing the "spread".

You were elected to city council to represent the total of all who call Redmond home. During the recent meeting very little conversation was devoted to the health and safety needs of the public. Most of the consideration was focused on financial impact of closures of restaurants and bars. I acknowledge this is a huge reality however it isn't the only reality. All of us, including health Care professionals, elderly, and those with underlying conditions are at great risk for illness and/or death.

During your deliberations please understand the health, safety and well-being needs of everyone. This includes health care workers, business owners and community members young and old. In my opinion, your first response we need to remember that we are living during a worldwide pandemic with the virus is ready to invade those who are not masked and come in contact with a load of that virus. To be safe we have been advised to wear masks, distance 6 feet and sanitize hands on a regular basis. There was reference to "big box" stores having different requirements. Yes, a "big box" store is a much different environment. To have access to these properties we need to be masked and are expected to keep the 6 foot distance and at no time are the masks removed while in that environment. Often there is hand sanitizer plus wipes for carts at door. Restaurants and bars require mask removal and subject's business owners to a huge level of sanitation measures.

Yes, your first job is to make a plan that will help members of our community get vaccinated so we can safely enjoy going to a local restaurant or bar.

Thank you for your service. Gloria Olson, Redmond

Lady and Gentlemen,

The Supreme Court of the United States has an opinion recorded in the Sixteenth American Jurisprudence, Second Edition, Section 177 (late 2nd Ed. Section 256). It speaks on the topic of the duty to an unconstitutional law. It reads as follows:

“The general misconception is that any statute passed by legislators bearing the appearance of law constitutes the law of the land. The Constitution of the United States is the supreme law of the land, and any statute, to be valid, must agree. It is impossible for both the Constitution and a law violating it to be valid; one must prevail.

This is succinctly stated as follows:

The general rule is that an unconstitutional statute, though having the form and name of law, is in reality no law, but is wholly void, and ineffective for any purpose; since unconstitutionality dates from the time of its enactment, and not merely from the date of the decision so branding it.

An unconstitutional law, in legal contemplation, is as inoperative as if it had never been passed.

Such a statute leaves the question that it purports to settle just as it would be had the statute not been enacted.

Since an unconstitutional law is void, the general principals follow that it imposes no duties, confers no rights, creates no office, bestows no power or authority on anyone, affords no protection, and justifies no acts performed under it . . .

A void act cannot be legally consistent with a valid one.

An unconstitutional law cannot operate to supersede any existing valid law.

Indeed, insofar as a statute runs counter to the fundamental law of the land, it is superseded thereby.

No one is bound to obey an unconstitutional law and no courts are bound to enforce it.”

*I am going to show to you and a candid State that the executive orders used by Kate Brown to rule over the Oregon People are in at least 9 instances complete violations to our Oregon Constitution. As you have read above, no law can be valid when it is contrary to the constitution. So, let us begin.*

*Article X-A lays out the duty of the governor and government when an emergency is declared. You will see that in section 1, clause 2 (d) Public Health Emergencies are enumerated in its authority. I have attached the article as an exhibit for you to reference, so you will see 4 clear violations of this article.*

**Article X-A Section 1 Clause (4) At the time the Governor invokes the provisions of this Article under subsection (3) of this section, the Governor shall issue a proclamation convening the Legislative Assembly under section 12, Article V of this Constitution, unless:**

*If you choose to research this article for yourselves, you will find that the “Unless” reasons are not valid to the timeline that Brown has acted within. We have not had the legislature convened for the purpose to satisfy this constitutional*



*obligation, and hence the people have been left to the hands of one and void of representation in our government.*

**Article X-A Section 6. Termination of operation of this Article; extension by Legislative Assembly;**

- (1) the provisions of sections 1 to 5 of this Article, once invoked, **shall cease to be operative not later than 30 days following the date the Governor invoked the provisions of sections 1 to 5 of this Article**, or on an earlier date recommended by the Governor and determined by the Legislative Assembly
- (2) Prior to expiration of the 30-day limit established in subsection (1) of this section, **the Legislative Assembly may extend the operation of sections 1 to 5 of this Article beyond the 30-day limit upon the approval of three-fifths of the members of each house**
- (5) **The Governor may not invoke the provisions of sections 1 to 5 of this Article more than one time** with respect to the same catastrophic disaster

*This illegal executive action began in March 2020, far beyond the 30 or even 60-day limits IF Brown had bothered to convene the legislature. Now, none of the orders have been for 30 days AND there have clearly been extensions issued for which none have been by the legislature. I have listed 4 clear violations of just one Article in our Constitution SO FAR.*

**Article 4 Section 14. Deliberations to be open; rules to implement requirement.** The deliberations of each house, of committees of each house or joint committees and of committees of the whole, shall be open.

*December's emergency session of the legislature was CLOSED to the public, due to the executive order issued by Brown. The State Police used heavy force to ensure the public was kept out of the building the Oregon Constitution reaffirmed MUST be open.*

**Article 3 Section 1. Separation of powers.** The powers of the Government shall be divided into three separate branches, the Legislative, the Executive, including the administrative, and the Judicial; and no person charged with official duties under one of these branches, shall exercise any of the functions of another, except as in this Constitution expressly provided.

*This article is noticeably clear and distinct in purpose, to prevent power from being assumed that is not delegated. It is not a power of the executive branch to make law. The executive's sole authority is to execute the law as written by the legislative branch, not write her own or remove what is inconvenient. ORS 401.192 is being used in clear violation of Article 3 Section 1. Brown relies heavily on this statute to push her executive order upon the People of Oregon. The legislature's intent here was for the legislature to be passing the rules and*

*orders discussed in this Statute, as that is the process described in Article X-A, the very reason why the legislature was to be convened.*

**ORS 401.192**

All rules and orders issued under authority conferred by ORS [401.165 \(Declaration of state of emergency\)](#) to [401.236 \(Rules\)](#) shall have the full force and effect of law both during and after the declaration of a state of emergency. All existing laws, ordinances, rules and orders inconsistent with ORS [401.165 \(Declaration of state of emergency\)](#) to [401.236 \(Rules\)](#) shall be inoperative during the period of time and to the extent such inconsistencies exist.

**Article 1 Section 26.** Assemblages of people; instruction of representatives; application to legislature. No law shall be passed restraining any of the inhabitants of the State from assembling together in a peaceable manner to consult for their common good; nor from instructing their Representatives; nor from applying to the Legislature for redress of grievances.

*Not only is Brown using 401.192 as the authority in her EO to usurp A3S1, but she has also usurped the Rights enumerated in Article 1 Section 26 with her gathering limits and again limiting access to every single government building in this State. I am forced to write a damn letter to address my elected officials or register for a zoom meeting. This is not the intent of this article and under no circumstance, emergency or not, does the State have any authority to suspend an unalienable right.*

**Article 1 Section 22. Suspension of operation of laws.** The operation of the laws shall never be suspended, except by the Authority of the Legislative Assembly.

*Once again, this executive order through unconstitutionally applied revised statutes claiming authority to dictate to the People the how, when and who they can live their lives with goes beyond the constitutional barrier that every law must adhere. I would like to reference the words above. SHALL NEVER BE SUSPENDED. This is clear, and no interpretation required. NEVER is definitive. It does not say SOMETIMES, or when necessary, it says NEVER. Now refer to 401.192 above. Does that fit the definition of NEVER?*

**Article 1 Section 21. Ex-post facto laws; laws impairing contracts; laws depending on authorization in order to take effect; laws submitted to electors.** No ex-post facto law, or law impairing the obligation of contracts shall ever be passed, nor shall any law be passed, the taking effect of which shall be made to depend upon any authority, except as provided in this Constitution.

*Brown's use of executive agencies such as OSHA and OLCC constitute a willful violation of this Article. A license is a contract to operate, for which the terms may not be changed midstream without the consent of both parties to the*

*agreement. Moving the flagpoles and adding requirements that businesses become the “WEAPON OF THE STATE” to enforce these draconian orders is not only cowardly, but a huge misuse of power NOT delegated. Secondly, the next provision expressly rejects that application of revised statutes such as 401.192 can be valid as they arbitrarily create rule and regulation that did not exist prior to this executive order, AND the constitution, expressly article X-A which we have reviewed above gives no such authority to create any rule, law, or regulation that Brown sees fit.*

**Section 20. Equality of privileges and immunities of citizens.** No law shall be passed granting to any citizen or class of citizens privileges, or immunities, which, upon the same terms, shall not equally belong to all citizens. —

*Simply put, the law is mandated to be equally applied to every person of this State. Our local restaurants and stores do not have the same immunities, privileges as stores such as Walmart, Best Buy or Home Depot. Stores like these are fully open, flocked with people touching every item on every isle, while local shops and restaurants are forced shut or at minimum capacity, threatened by Brown’s army, her executive agents. There is nothing equal about the application of this EO.*

**Article 1 Section 2. Freedom of worship.** All men shall be secure in the Natural right, to worship Almighty God according to the dictates of their own consciences.

**Article 1 Section 3. Freedom of religious opinion.** No law shall in any case whatever control the free exercise, and enjoyment of religious opinions, or interfere with the rights of conscience.

*Our churches have suffered immensely; they have been forced to close, reduce attendance, all without valid authority, done under threat of force and extortion. These 2 articles are truly clear, that the State has no business or authority in the operation of Church. People are free to choose the how and when they worship without influence from an abusive government.*

*Commissioners and Sheriff, these disclosures are just the mere beginning to the issues within the Executive Order. I have only addressed one ORS within that has been used to abuse the people of this State. I can go on about how many others are misapplied, misconstrued and cherry picked to push this agenda. For instance, Chapter 401 of the Revised Statutes was clearly written to*

*address MANAGEMENT of major disasters such as floods, fire, earthquake, tsunami, etc. These are all detailed out not only in Chapter 401 but also in Article X-A. The authorities delegated here were intended to restore the State to order and help the victims in recovery, NOT instill draconian measures on questionable data and science. In fact, chapter 433, specifically 433.441 hits directly on public health emergencies, yet Brown refuses to acknowledge the 14-day limit instilled within the statute. As stated above, no law can be unconstitutional and lawfully forced on the People of the State. If a simple pig farmer can read and figure this out, I know you can see the same. One constitutional conflict is enough to invalidate a law or rule, I have shown you at least nine. What we all need to find interesting is Brown has included a "Severability" clause in her executive order. This is not only proof that she blatantly knows she is working outside of the law, but also shows that she intends to continue to do so without regard to our foundational principles that all law is founded upon. Secondly, on this issue, severability clauses are reserved for contracts, an executive order is NOT a contract. A contract requires at least 2 parties, of which all agree to the terms set forth. This executive order is no contract, it's more of a proclamation from a self-appointed queen instead. She is basically saying, "I will do as I please, and if something turns out to be illegal, well the rest is still OK until it is found to be illegal too..." That is not the purpose of executive orders. Executive orders direct executive agencies on the process and plan of how the executive branch intends to execute the law AS WRITTEN.*

*I will be taking this information, along with more, regarding the revised statutes to every business that is willing to listen. I will be offering our complete support and protection if they choose to open back to our neighborhoods. The People and our community specifically have had enough, and it is time that we stand up to this overreaching NON-AUTHORITY. You can do with this information as you wish, take it, or leave it. Article 1 Section 1 clearly defines what the role of the People is when governments act unjustly. The constitution is the consent of the people to be governed, and the terms within the contract between Us and You. I hope you choose to stand up and interpose. That is the proper role of jurisdictional governments. One protects the people from the*

other, and vice versa, creating layers of protection from overreach and unjust actions.

The declaration of Independence states:

***We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness. --That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed***

Lastly, there is a reason your oath taken was to support and defend the Constitutions. The very reason is clearly laid out here. ***“That to secure these rights...”*** Not all laws and rules adhere to the constitution, and the constitution is our consent to be governed; we agreed only to be governed by rules and laws that meet those qualifications and protect our rights. Ultimately, your Oath is to the People, because without that beautiful document, you would not have our consent.

In conclusion, I hope this has opened your eyes to what is important. I hope you choose to stand with the People and not with a governor turned tyrant. The answer is quite simple, yet never easy. This is the beauty of a self-governing society. Solutions exist when abuses of power take place. We are not Subjects to a crown; we are free people that choose to be governed in a specific predetermined manner, not subject to the whims and ambitions of a single individual. You have a duty; we all hope you choose the right path. It is time to make that choice.

Sincerely,

BJ Soper

## Kelly Morse

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**From:** Holly Hoeksema [REDACTED]  
**Sent:** Monday, January 11, 2021 4:42 PM  
**To:** Mayor-Council; Public Testimony  
**Subject:** Public Comment for 1/12/21 City Council Meeting

: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content.

Hello Mayor and Council Members,

I am so grateful for the commitment that each of you displays to the diverse needs of our Redmond community, as you seek to lead us with integrity and a direction that is beneficial to ALL of us. Thank you for your hard work!

I have read the proposed letter to Gov. Brown on the Council webpage, and I am writing to let you know that as a Redmond resident, I strongly oppose asking for an exemption for our business to open up further. I am opposed to this for several reasons:

1. COVID 19 continues to explode in the Redmond area. This exponential growth of a life-ending, highly-infectious virus is 100% due to the fact that many in our town do not follow basic CDC guidelines for masking and distancing. Opening up our local businesses further while this massive increase in cases is occurring is a way of displaying blatant disregard for scientific facts as they relate to community and public safety.

2. In the letter, Gov Brown is asked many times to 'trust our Redmond businesses'. Unfortunately, many of our Redmond businesses have already shown that they are NOT trustworthy at our current level of restrictions, as they are not enforcing mask mandates, social distancing, or limited patron numbers inside their stores. There are thousands of us in Redmond who no longer feel safe shopping at local businesses, due to their flagrant and intentional disregard for basic safety procedures. I do not see any positive outcomes for community health and safety by asking the Governor to 'trust' our businesses to 'be safe about opening up further', when we've already displayed that we are unable or unwilling to follow current guidelines.

Please feel free to contact me at any time if you have questions.

Again, I thank each of you for all that you do, and I request that you do NOT send that letter to Governor Brown, in the light of the current epidemic and it's threat to the lives of thousands of people here in Redmond.

Respectfully,  
Holly Hoeksema



## CITY OF REDMOND

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# STAFF REPORT

**DATE:** January 12, 2021  
**TO:** Redmond City Council  
**THROUGH:** Keith Witcosky, City Manager  
**FROM:** Zachary Bass, Airport Director  
**SUBJECT:** Amendment #1 to Addendum #24 for City Contract #2015-39 with Morrison Maierle, Inc. for the Taxiway F Rehabilitation Project (AP4700): Revised Scope and Cost Reduction from \$1,047,000 to \$812,000

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### Addresses Council Goal:

5b.iii. Aggressively pursue physical improvements to airport facilities, increase amenities and enhance the customer experience.

### Report in Brief:

The item requests City Council approval of Amendment No 1 to Addendum No. 24 for City Contract #2015-39 with Morrison Maierle, Inc. for professional services related to the rehabilitation of Taxiway F. The changes reflect a revised scope and reduced fee for the design and construction management services from \$1,047,000 to a maximum amount of \$812,000.

### Background:

On June 30, 2020, the Redmond City Council approved contract #2015-39 with Morrison Maierle, Inc. to provide design, engineering, and construction administration services to construct the Redmond Airport Taxiway F Rehabilitation Project in the amount of \$1,047,000.

Since that time, a revised project scope was approved by the Federal Aviation Administration (FAA) which substantially lowered the engineering design and construction management effort for the project.

### Discussion:

Taxiway F is the full parallel taxiway to the primary runway 5-23 at RDM. Originally, this project included widening the existing taxiway by 25 feet (from 50 feet to 75 feet).

However, this effort has now been removed from the project scope. Other items that remain include the relocation of the existing taxiway H to meet current FAA design criteria. Also, per FAA requirements, a taxiway designation change will be made on this project, and this taxiway will be re-named to taxiway A.

Multiple new airfield signs will also be installed to reflect the name change. A completely new edge lighting system will be installed as well. Finally, the existing entire airfield electrical lighting and signage equipment system will be updated as needed to keep the system operationally reliable for the next twenty years.

### Fiscal Impact:

This project is the FAA 2021 AIP funded project. The preliminary cost estimate for this project is now estimated at \$7,360,000. Federal funding will include the Fiscal Year (FY) 2021 primary entitlement grant of approximately \$3,000,000. The FAA has also indicated they will provide a discretionary grant for the approximate amount of \$3,900,000, for a total of \$6,900,000. The Airport is required to provide a local match of 6.25% or approximately \$460,000 of the total project cost. A \$300,000 local match was included in the FY 2020/21 budget (\$600,000 planned for overall project). The project will span FY 2020/21 and FY 2021/22.

### Alternative Courses of Action:

1. Approve Amendment No. 1 to Addendum No. 24 to City Contract #2015-39 with Morrison Maierle, Inc.
2. Request more information.
3. Do not authorize Amendment No.1 to Addendum No. 24.

**Recommendation / Suggested Motion:**

"I move to approve Amendment No. 1 to Addendum No. 24 for City Contract 2015-39 with Morrison Maierle, Inc. in the maximum amount of \$812,000 and authorize the City Manager to sign the amendment."



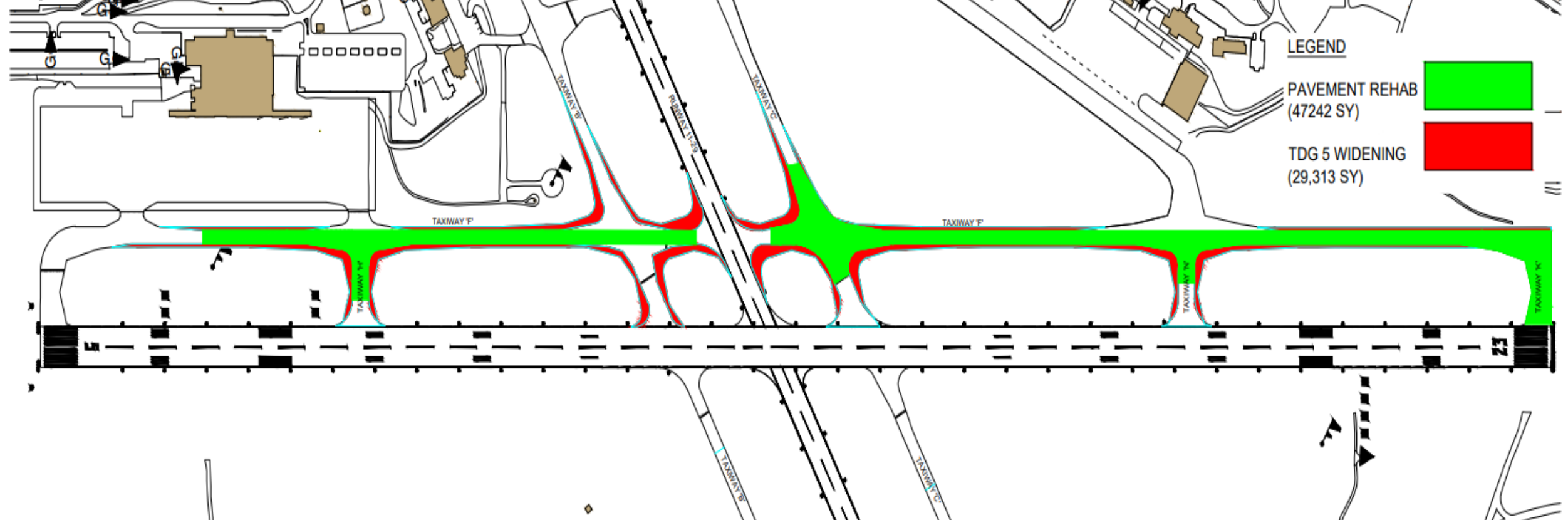


# TAXIWAY FOXTROT RECONSTRUCTION AMENDMENT #1

## REVISED SCOPE AND COST REDUCTION

Redmond City Council  
January 12, 2021





# TAXIWAY FOXTROT RECONSTRUCTION QUICK REVIEW

CONSTRUCTION COST ESTIMATE: \$7,360,000

CONSTRUCTION TO BEGIN **SUMMER 2021**  
RECONSTRUCT PRIMARY PARALLEL TAXIWAY

**93.75% FUNDED BY FAA AND 6.25% BY AIRPORT**  
LAST MAJOR PAVEMENT PROJECT FOR 10 YEARS

# MORE THAN \$75M IN CAPITAL IMPROVEMENTS SINCE 2015

| FAA FUNDED PROJECTS             | APPROX. COST (in millions) |
|---------------------------------|----------------------------|
| RUNWAY 5-23 RECONSTRUCTION      | \$ 20.0                    |
| TAXIWAY DELTA RECONSTRUCTION    | \$ 5.0                     |
| TERMINAL RAMP EXPANSION         | \$ 7.5                     |
| RUNWAY 11-19 RECONSTRUCTION     | \$ 11.0                    |
| SNOW REMOVAL EQUIPMENT BUILDING | \$ 14.0 (Estimated)        |
| TAXIWAY FOXTROT RECONSTRUCTION  | \$ 7.4 (Estimated)         |
| AIRPORT FUNDED PROJECTS         | APPROX. COST (in millions) |
| CENTRAL OREGON DISPATCH CENTER  | \$ 4.2 (Built for USFS)    |
| 3 SNOW REMOVAL VEHICLES         | \$ 2.1                     |
| EMPLOYEE PARKING LOT            | \$ 2.9                     |
| NORTH-SIDE WATER LOOP EXPANSION | \$ 0.8                     |
| FUEL FARM EXPANSION             | \$ 0.5                     |
| <b>TOTAL</b>                    | <b>\$ 75.4M</b>            |

# ORIGINAL CONTRACT FOR PROJECT #24: \$1,047,000

- AIRPORT ENGINEER OF RECORD: MORRISON-MAIERLE
- CURRENT SERVICE SCOPE: DESIGN & CONSTRUCTION MANAGEMENT
- SCOPE APPROVED BY COUNCIL: JUNE 30, 2020

## PRIMARY SCOPE REVISION

- REDUCE WIDTH OF TAXIWAY FROM 75FT TO 50FT (PER FAA GUIDANCE)

## COST REDUCTION

- TOTAL ESTIMATED DESIGN/ CONST. MNGMT COST: \$812,000
- NET DECREASE: \$235,000 (\$1,047,000 - \$812,000)
- TOTAL ESTIMATED CAPITAL COST: \$7,360,000

### SOURCES OF \$7,360,000:

- AIRPORT MATCH (6.25%) = \$460,000 (PREVIOUSLY \$600,000)
- FAA (93.75%) = \$6,900,000





QUESTIONS





## CITY OF REDMOND

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# STAFF REPORT

**DATE:** January 12, 2021  
**TO:** Redmond City Council  
**THROUGH:** Keith Witcosky, City Manager  
John Roberts, Deputy City Manager  
**FROM:** Mike Caccavano, City Engineer  
**SUBJECT:** Right-of-Way Vacation Initiation for SW Salmon Avenue between SW 1st and SW 6th Streets

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### Addresses Council Goal:

4.B.iii. Provide well planned, maintained, high quality infrastructure that create competitive advantages for business and community growth.

### Report in Brief:

This action item authorizes the initiation of a vacation of right-of-way located on SW Salmon Avenue between SW 6th Street and SW 1st Street. This is the first of the required two City Council actions to vacate a right-of-way.

### Background:

Right-of-way is typically a long strip of land used as a road for public access. In Oregon, a right-of-way allows a City or other entity to use land for public purposes. A City does not own the land outright, but does own the right to control its use. Right-of-way vacation is a process governed by Oregon Revised Statutes that allows a City to give up the right to use the land and return control to the original owner or their successor.

In this situation, thirty feet of right-of-way on SW Salmon Avenue between SW 6th and SW 1st Street was created with an undated survey (County Survey 11106); map attached. This survey dedicated right-of-way along section and quarter section lines as required for Redmond's street grid. However, street rights-of-way are typically 60 feet wide. The other 30 feet needed for a full Salmon Avenue right-of-way is located on City owned airport property, but has not been dedicated.

There are no existing street improvements between SW 6th and SW 1st Streets. This will enable the City to dedicate the needed 60 feet of right-of-way in a more appropriate and planned location.

### Discussion:

The existing right-of-way creates alignment issues and inconsistency with the Transportation System Plan envisioned connectivity with Quartz Avenue to the west.

The right-of-way for Salmon Avenue west of SW 1st Street does not align with existing SE Salmon Drive to the east, which is 290 feet to the south. The Transportation System Plan shows Salmon Avenue continuing to the west beyond SW 6th Street, curving north, crossing the railroad tracks and connecting to a planned new traffic signal at SW Quartz Avenue and Highway 97. This collector will provide an important connection from Highway 97 to industrial areas and the airport. The connection will carry some of the traffic volume that currently creates congestion at the intersection of SW Veterans Way and Highway 97.

The future Quartz-Salmon Avenue collector will function better with a continuous alignment from Highway 97 to Airport Way, which means that it needs to move from the north side of the airport owned parcel to the south. To accomplish this the City will need to dedicate 60 feet of right of way on the south side of the parcel rather than 30 feet on the north. The 60-foot strip of land was left vacant when the Neighbor Impact building was constructed on airport property in anticipation of the future right of way relocation.

Typically, a vacated right-of-way is split down the middle with half going to each side or property owner. In this instance, the right-of-way was dedicated by the property to the north and the vacated right-of-way will accrue to those parcels that have since been created on the north side.

Oregon Revised Statutes have requirements for the right-of-way vacation process:

- All property owners immediately adjacent to the right-of-way to be vacated must give their consent. All of the adjacent parcels (listed below) have provided consent:
  - Tax lot 151321AD 01200, 2511 342 SW Reindeer Ave. Lawrence R. and Trisa Lindsay.
  - Tax lot 151321AD 01400, 2235 SW 2nd Ct., Ralph J. Affatati Revocable Living Trust.
  - Tax lot 151321AD 01500, 2234 SW 2nd Vt., Ralph J. Affatati.
  - Tax lot 151321AD 02200, 2241 SW 1st St., L&M Weaver Trust et al.
  - Tax lot 151321D0 00100, 2303 SW 1st St., City of Redmond.
- Two-thirds of the property owners within 200 feet of either side and 400 feet of either end of the proposed right-of-way vacation must give their consent. Consent has been obtained from all but one of the property owners in the vicinity of the proposed vacation. One property owner did not respond.
- Utilities must be contacted to determine if they have facilities within the right of way. All private utilities were contacted and there were no objections to the proposed vacation. There are no City water, sewer or storm drainage facilities in the right-of-way proposed for vacation.

There are two required steps for a City to legally vacate a right-of-way:

- Step 1 - "Initiation". This step determines if the City is willing to relinquish the right-of-way and if so, set a public hearing date.
- Step 2 - "Public hearing". This step the City Council conducts a public hearing to decide to proceed to adopt an ordinance vacating the subject right-of-way.

This action meets the requirements of Step 1 and seeks to set a public hearing date.

**Fiscal Impact:**

The City will dedicate 60 feet of right-of-way along the south boundary of Tax Lot 151321D0 00100, rather than 30 feet on the north property line.

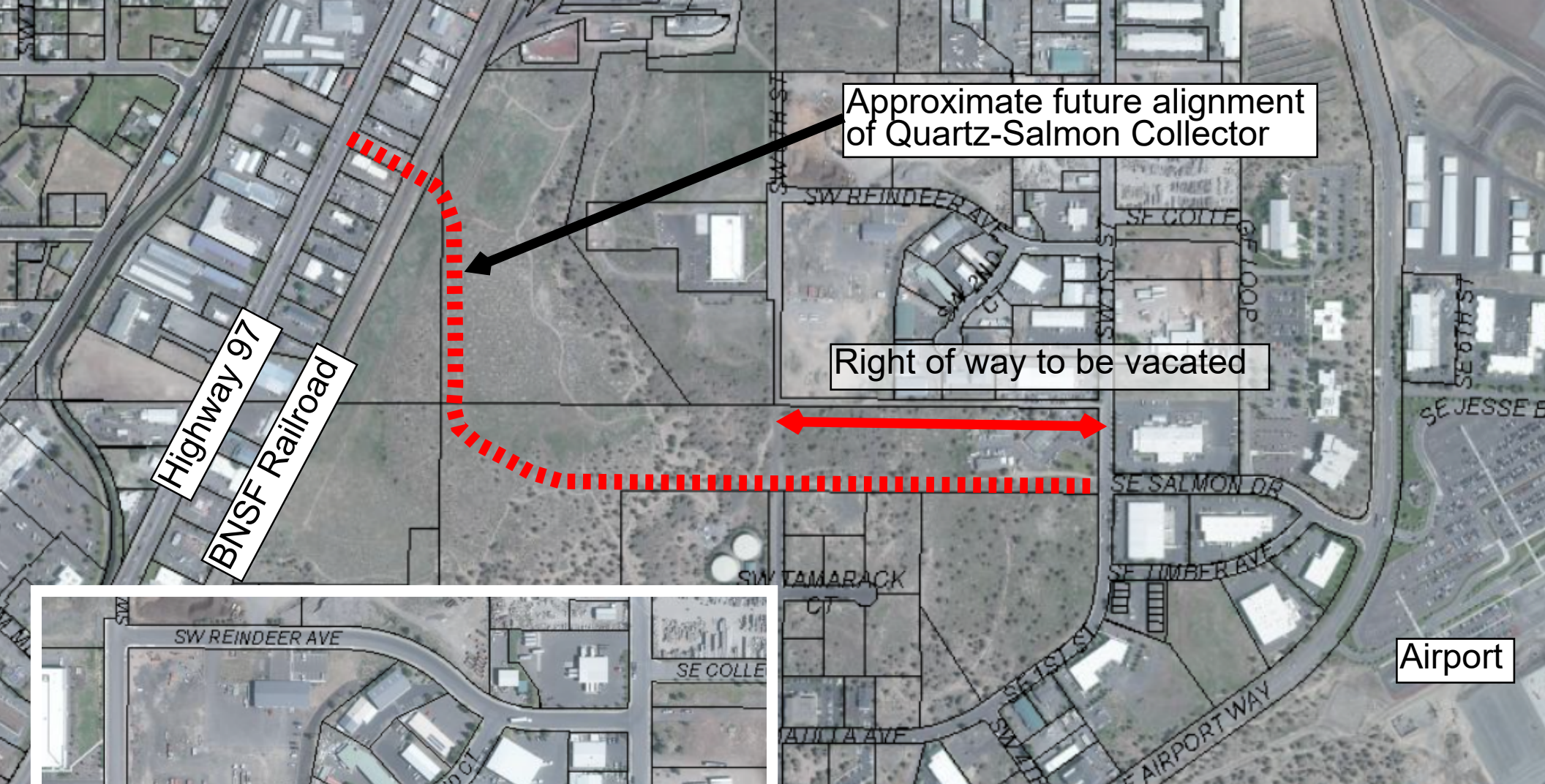
**Alternative Courses of Action:**

1. Initiate right-of-way vacation proceedings and establish a public hearing date of February 23, 2021.
2. Do not initiate right-of-way vacation proceedings.
3. Request additional information.

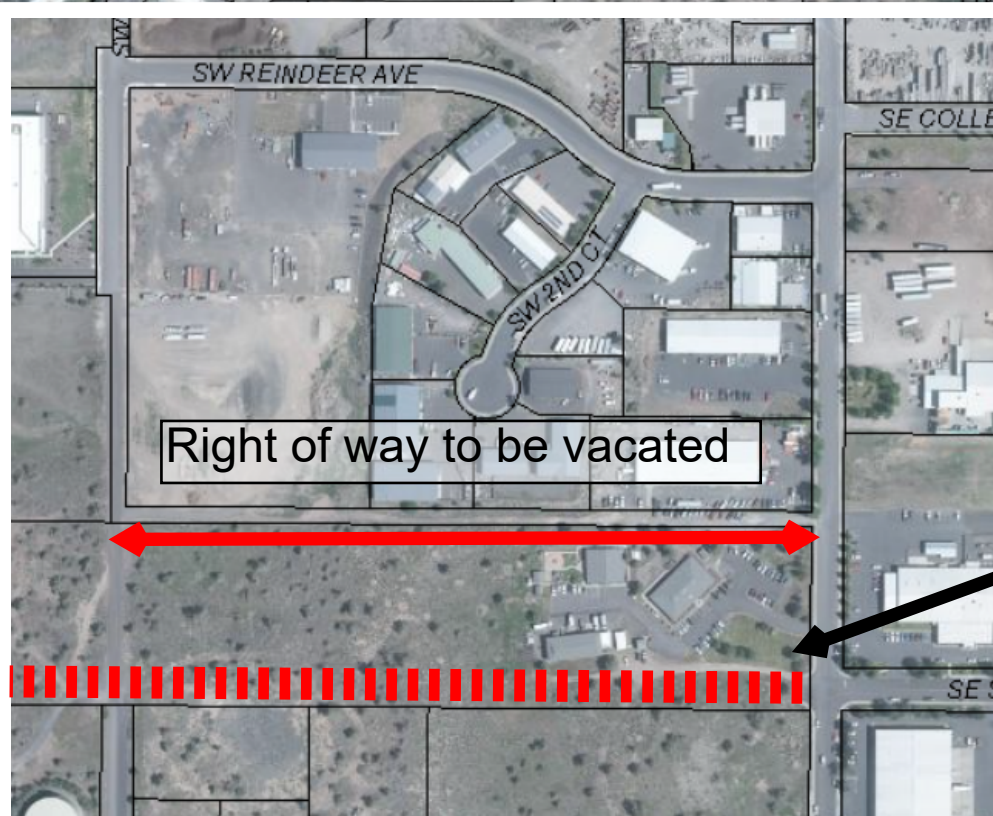
**Recommendation / Suggested Motion:**

Option #1. "I move to initiate right-of-way vacation proceedings for SW Salmon Avenue between SW 6th Street and SW 1st Street and establish a public hearing date of February 23, 2021, at the regularly scheduled City Council meeting."





Overview



Closer view





## CITY OF REDMOND

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# STAFF REPORT

**DATE:** January 12, 2021  
**TO:** Redmond City Council  
**THROUGH:** Keith Witcosky, City Manager  
John Roberts, Deputy City Manager  
**FROM:** Rebecca Batzel, Housing Programs Analyst  
**SUBJECT:** Res. #2021-01 - A resolution adopting amendments to the Community Development Block Grant (CDBG) 2019 Annual Action Plan to reflect CDBG-CV3 (COVID-19) Cares Act funding and HUD waivers and authorizing the submission of the amended Annual Action Plan to the United States Department of Housing and Urban Development.

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### Addresses Council Goal:

6. Community Enhancement and Participation – Create an image and identity that generates a sense of community pride and ensures a high level of livability.

7.E. Comprehensive Planning - Identify housing objectives, policies, and implementation strategies to diversify the range of housing choices.

### Report in Brief:

This item requests City Council approve Resolution No. 2021-01, which adopts amendments to the Community Development Block Grant (CDBG) 2019 Annual Action Plan to reflect CDBG-CV3 (COVID-19) CARES Act funding and HUD waivers.

### Background:

On September 27, 2013, the City accepted entitlement status in the federal Housing and Urban Development CDBG program. The status as an entitlement community afforded the City the opportunity to receive an annual financial allocation to undertake a wide range of community-based activities directed toward neighborhood revitalization, economic development, community services, facilities, and improvements which benefit primarily low-income census tracts and populations.

As an entitlement community, the City is required to develop 1) a Five-Year Consolidated Plan and 2) Annual Action Plan to receive the CDBG funds. The annual Action Plan describes how the City will distribute their annual allocation of funds or additional fund provided (e.g., CARES Act funding).

If amendments are required, the City must determine if it is a Substantial or Minor amendment. The additional funding provided by the CARES Act requires a Substantial Amendment and City Council approval of an updated 2019 Annual Action Plan.

This is the second allocation of CDBG-CV funding. The first allocation (COVID-CV1) of \$151,013 was approved by Council on June 23, 2020. COVID-CV1 and CV3 combined total \$346,930.

The required amendment process for allocating COVID-CV3 funds follows the same one used for allocation of COVID-CV1 funds.

### Amendment Process (COVID-CV3)

Due to CARES Act waivers of standard notice and comment period requirements, a five-day public comment period was provided. Comment period ended November 18, culminating in a public hearing during the Housing and Community Development Committee (HCDC) meeting. A legal notice was provided, in accordance with waiver requirements, and a clear opportunity to provide comment was provided.

A grant agreement with HUD to accept additional CDBG-CV3 funding requires Council approval of amendments to the 2019 Annual Action Plan utilizing waivers provided by the CARES Act.

Notice that waivers would be utilized was provided to HUD. Acknowledgement from the Portland HUD office has been received.

Feedback from the outreach to non-profit community partners and direction received from the HCDC was incorporated into the amended plan.

#### CDBG-CV3 Allocation and Goals

The CDBG-CV3 allocation totals \$195,917. The public service cap of 15% was waived in acknowledgement that this funding would be vital to assist those most in need or vulnerable within the City.

The primary goals for CDBG-CV3 funding are:

#### **Goal 1: Homelessness Prevention.**

Provide support to community partners to ensure low-moderate income Redmond residents adversely affected by COVID-19 can maintain suitable living environments. This will be accomplished by providing short term (up to 90 days) of rental, mortgage, and/or utility assistance. Identified Service Providers include Thrive Central Oregon and Latino Community Association.

#### **Goal 2: Food Security for Seniors and at-risk residents.**

Provide support to the Redmond Senior Center Meals on Wheels program. Meals on Wheels has seen a significant increase in requests for services from senior and disabled Redmond residents. This funding will allow them to meet increased demand for services and provide nutritious meals to senior and disabled Redmond residents.

#### **Goal 3: Behavioral Health Services.**

Identified as a significant barrier to services and success are behavioral health needs. In discussions with local service providers many seniors are struggling mentally and coping with loneliness or isolation. The funding for the Redmond Senior Center will allow them to hire a part-time Licensed Clinical Social Worker to work with seniors in need.

#### **Goal 4: Provide Referrals and Case Management.**

Support to assist Redmond residents to access services as they navigate COVID-19 challenges. This will include intensive case management to align residents with available community services. Thrive Central Oregon will provide these services.

#### **Goal 5: Homeless Shelter Services.**

Shepherd's House Ministries will use funding to hire personnel and purchase equipment and supplies that will protect guests, volunteers, staff and all others at Redmond homeless shelter from infection and illness due to COVID-19. In addition, funding will be used to hire a part-time Nurse to staff one of the shelter locations.

A summary of the expenditure of CDBG-CV3 funds is attached as Exhibit A. The allocation includes a maximum of 20% for administration and planning efforts related to the funding. Each CDBG activity must meet a CDBG national objective and be an eligible activity as noted above under goals. It has been determined that each of the identified activities meets this requirement.

#### **Discussion:**

The breakdown of the proposed 2019 CDBG CV3 Annual Action Plan funds and amounts are provided in Exhibit A.

The selection process for distributing the CDBG-CV3 funds included a survey of high priority needs (immediate and 12-month projection) sent to Redmond non-profit community partners. A HCDC meeting was conducted October 21, 2020 to consider recommendations. Another subsequent HCDC meeting, and required public hearing, was conducted November 18, 2020 to accept public comment and consider final amendment recommendations. HCDC approved the 2019 Annual Action Plan amendment at this public hearing.

As of the date of this report, no public comments on the proposed amendments and allocation of CDBG CV3 funds has been received.

#### **Fiscal Impact:**

This is a grant-funded program entirely funded by HUD CDBG-CV allocation and the CARES Act. There are no budget impacts to the City.

This is the second allocation of CDBG-CV funding. The first allocation (COVID-CV1) of \$151,013 was approved by Council on June 23, 2020. COVID-CV1 and CV3 funding combined totals \$346,930.

**Alternative Courses of Action:**

1. Approve Resolution #2021-01.
2. Request additional information.
3. Do not approve resolution.

**Recommendation / Suggested Motion:**

"I move to adopt Res. #2021-01."

**CITY OF REDMOND  
RESOLUTION NO. 2021-01**

**A RESOLUTION ADOPTING AMENDMENTS TO THE COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) 2019 ANNUAL ACTION PLAN TO REFLECT CDBG-CV3 (COVID-19) CARES ACT FUNDING AND HUD WAIVERS AND AUTHORIZING THE SUBMISSION OF THE AMENDED ANNUAL ACTION PLAN TO THE UNITED STATES DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.**

**WHEREAS**, the U.S. Department of Housing and Urban Development (“HUD”) requires local governments seeking federal assistance, through the Community Development Block Grant (“CDBG”), to develop an Annual Action Plan for Housing and Community Development; and

**WHEREAS**, the City of Redmond is eligible for the CDBG entitlement program; and

**WHEREAS**, the 2020 CARES Act provided an additional CDBG allocation to be used in direct response to the COVID-19 crisis; and

**WHEREAS**, the CARES Act CDBG-CV3 funding necessitates a substantial amendment to the 2019 CDBG Annual Action Plan that has been previously submitted and approved by HUD; and

**WHEREAS**, the public comment period for the proposed amendments ended on November 18, 2020, and a public hearing was conducted during a Housing and Community Development Committee meeting on November 18, 2020; and

**WHEREAS**, the Housing and Community Development Committee, during their November 18, 2020, meeting considered and approved amendments to the 2019 Annual Action Plan.

**NOW, THEREFORE, THE CITY OF REDMOND ORDAINS AS FOLLOWS:**

**SECTION ONE:** The City of Redmond hereby adopts the 2019 Annual Action Plan amendment, attached hereto as Exhibit A, authorizing the Redmond City Council to submit said amendments to the HUD, when required; and

**SECTION TWO:** That substantial amendments to the Annual Action Plan, as defined in the City of Redmond Housing and Community Development Citizen Participation Plan, may be approved by Resolution adopted by the Redmond City Council.

**ADOPTED** by the City Council and **SIGNED** by the Mayor this 12<sup>th</sup> day of January 2021.

\_\_\_\_\_  
George Endicott, Mayor

ATTEST:

\_\_\_\_\_  
Kelly Morse, City Recorder

## Exhibit A

### **2019 Action Plan CDBG-CV3 Amendment Summary**

Total funding available = \$195,917  
Administration of CDBG COVID response funds = \$39,017

\$156,900 for funding with public service cap waived

| Community Partner                                                                                 | National Objective<br>Eligible Activity                                                                         | Funding                                                                                                           |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Thrive Central Oregon                                                                             | Low/Mod Clientele<br>Referral and Case<br>Management Services<br><br>05Z                                        | <b>\$13,900</b><br>Case management and<br>service referrals for COVID<br>affected residents                       |
| Thrive Central Oregon                                                                             | Low/Mod Clientele<br>Rental and utility<br>assistance –<br>up to 90 days per<br>household in need<br><br>05Q    | <b>\$60,000</b><br>Homelessness Prevention<br>Rent/Mortgage/utility<br>arrears                                    |
| Redmond Senior Center<br>Meals on Wheels                                                          | Low/Mod Clientele<br>Senior Services<br><br>05A<br>or<br>05Z other – if<br>expanded to meet<br>additional needs | <b>\$15,000</b><br>expansion to meet food<br>insecurity increased needs<br>in Redmond for those<br>COVID affected |
| Redmond Senior Center –<br>Licensed Clinical Social Worker<br>(LCSW) work with seniors in<br>need | Low/Mod Clientele<br>Senior Services<br>Mental Health<br>Services<br><br>05O                                    | <b>\$18,000</b><br>6 months/20-hrs wk                                                                             |
| Latino Community<br>Association                                                                   | Low/Mod Clientele<br>Rental and utility<br>assistance –<br>up to 90 days per<br>household in need<br><br>05Q    | <b>\$15,000</b><br>Homelessness Prevention<br>Rent/utility arrears                                                |
| Shelter Services<br>(Shepherd's House)                                                            | Low/Mod Clientele<br>Homeless Programs<br>03T                                                                   | <b>\$35,000</b><br>\$7,500 nurse (Mid-March)<br>\$17,000/staff (Mid-March)                                        |





# COMMUNITY DEVELOPMENT BLOCK GRANT CARES ACT

**REDMOND CITY COUNCIL**  
**JANUARY 12, 2021**



# COMMUNITY DEVELOPMENT BLOCK GRANT



SLIDE / 2



**SOURCE: US DEPARTMENT OF HOUSING &  
URBAN DEVELOPMENT (HUD)**



**REDMOND IS AN ENTITLEMENT COMMUNITY**



**HIGHLY COMPLEX WITH RESTRICTIVE USES**



**OVERSEEN BY REDMOND HOUSING &  
COMMUNITY DEVELOPMENT COMMITTEE**



# CDBG: USES AND OBJECTIVES



## ASSIST LOW INCOME PERSONS

Low and moderate income persons are those making less than 80% of the area median income (\$55k for a family of four)



## ELIMINATION OF SLUM OR BLIGHT

Can be specific locations or in an urban renewal area



## URGENT NEED

Damages from natural disasters



# 2019-2023 CDBG 5-YEAR CONSOLIDATED PLAN GOALS

**#1**

**AFFORDABLE HOUSING PRODUCTION AND PRESERVATION**

**#2**

**HOMELESSNESS PREVENTION, SHELTER, AND SERVICES**

**#3**

**PROVIDE SUPPORT TO NECESSARY PUBLIC SERVICES**

**#4**

**INFRASTRUCTURE AND ACCESSIBILITY IMPROVEMENTS**



## USES FOR CDBG-CV3

# HUD – CDBG OBJECTIVES



**PREVENT**

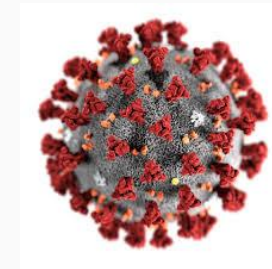


**PREPARE FOR**



**RESPOND TO**

# COVID-19





# KEY RECIPIENTS





## 2019 Action Plan CDBG-CV3 Amendment Summary

**Total funding available = \$195,917**

Administration of CDBG COVID response funds = \$39,017

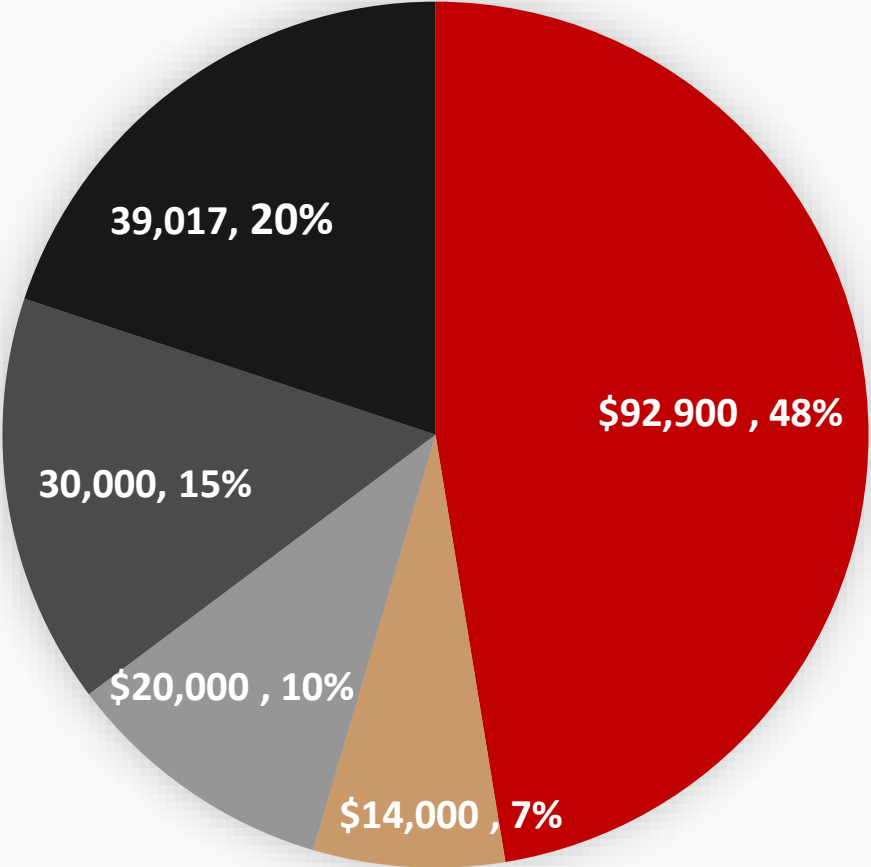
\$156,900 for funding with public service cap waived

| Community Partner                                                                                    | National Objective<br>Eligible Activity                                                                  | Funding                                                                                                           |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Thrive Central Oregon                                                                                | Low/Mod Clientele<br>Referral and Case<br>Management Services<br><br>05Z                                 | <b>\$13,900</b><br>Case management and service<br>referrals for COVID affected<br>residents                       |
| Thrive Central Oregon                                                                                | Low/Mod Clientele<br>Rental and utility<br>assistance –<br>up to 90 days per<br>household in need<br>05Q | <b>\$60,000</b><br>for<br>Homelessness Prevention<br>Rent/Mortgage/Utility arrears                                |
| Redmond Senior Center<br>Meals on Wheels                                                             | Low/Mod Clientele<br>Senior Services<br>05A<br>or<br>05Z other – if expanded<br>to meet additional needs | <b>\$15,000</b><br>expansion to meet food<br>insecurity increased needs in<br>Redmond for those COVID<br>affected |
| Redmond Senior Center –<br>Licensed Clinical Social Worker<br>(LCSW) to work with seniors in<br>need | Low/Mod Clientele<br>Senior Services<br>Mental Health Services<br><br>05O                                | <b>\$18,000</b><br>6 months/20-hrs week                                                                           |
| Latino Community Association                                                                         | 05Q<br><br>See above for description                                                                     | <b>\$15,000</b><br>for<br>Homelessness Prevention<br>Rent/Mortgage/Utility arrears                                |
| Shepherd's House – Shelter<br>Services                                                               | Low/Mod Clientele<br><br>Homeless Programs<br>03T                                                        | <b>\$35,000</b><br>\$7,500/nurse<br>\$17,000/staff                                                                |



**\$196,000  
EXPENDED  
CDBG-CV3 FUNDS**

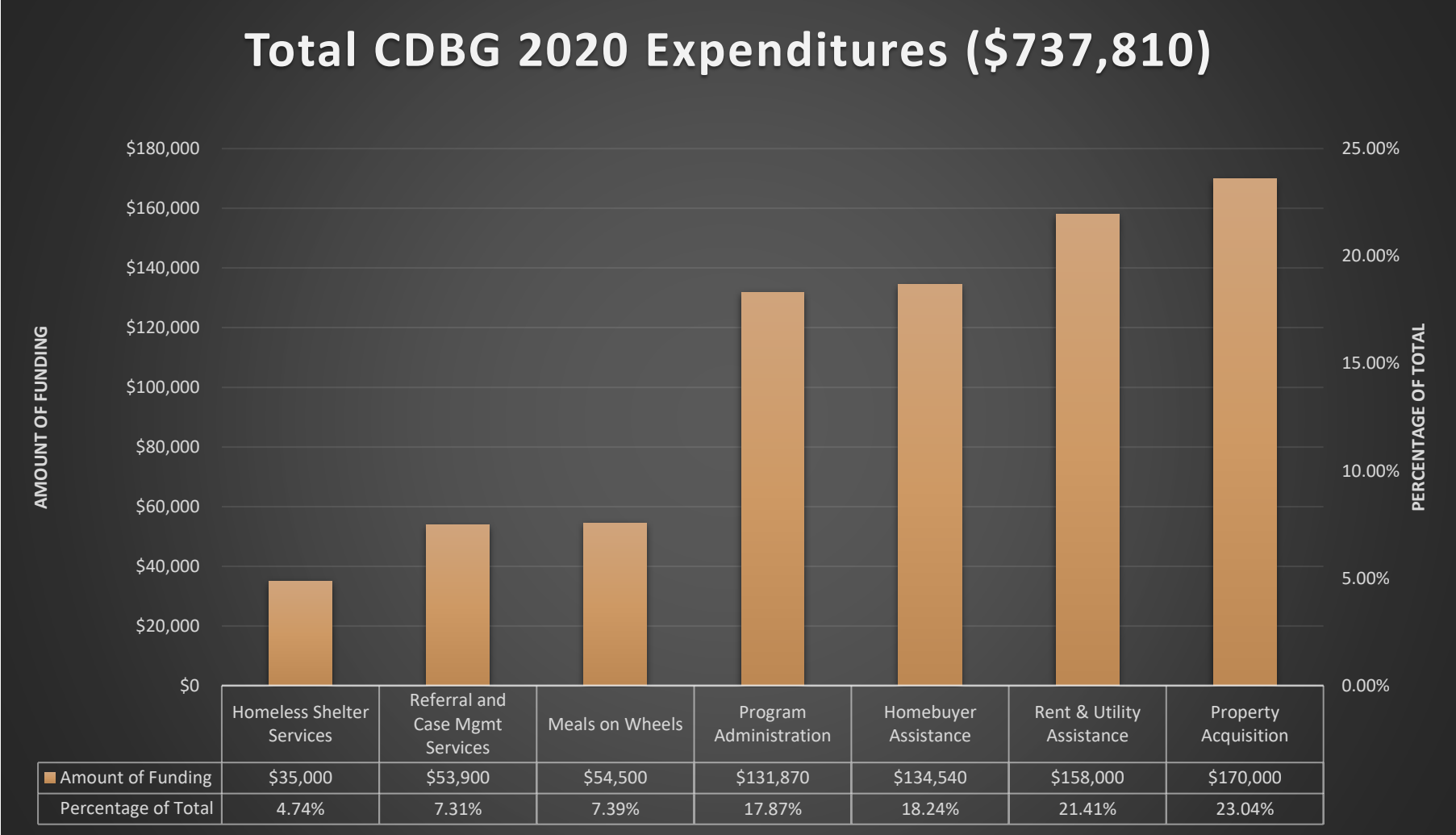
**CDBG-CV3 Expenditures (\$195,917)**



- Homelessness Prevention Rent/Mortgage/Utility Arrears
- Food security for seniors and at-risk residents
- Behavioral health services
- Homeless shelter services
- Program Administration



\$747,000 IN  
CDBG  
EXPENDED IN 2020





# RESOLUTION 2021-01

## Adopt Amendments to the 2019 Annual Action Plan:

- CARES ACT Funding
- HUD Waivers
  - i. Public Service Waiver
  - ii. 5-Day Public Comment Period





QUESTIONS?



COMMUNITY DEVELOPMENT  
BLOCK GRANT



## CITY OF REDMOND

**CITY HALL**  
411 SW 9<sup>th</sup> STREET  
REDMOND, OR 97756  
541.923.7710  
FAX: 541.548.0706  
[info@redmondoregon.gov](mailto:info@redmondoregon.gov)  
[redmondoregon.gov](http://redmondoregon.gov)

# STAFF REPORT

**DATE:** January 12, 2021  
**TO:** Redmond City Council  
**THROUGH:** Keith Witcosky, City Manager  
John Roberts, Deputy City Manager  
**FROM:** Mike Caccavano, City Engineer  
**SUBJECT:** Guaranteed Maximum Price Amendment to the Construction Manager/General Contractor Contract in the amount \$16,235,431.88; South Redmond Water Facility Reservoir Construction: (WA1902).

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### Addresses Council Goal:

3.D. Develop the City's infrastructure pursuant to the priorities identified in the City's infrastructure systems plans.

4.C.i. Take necessary steps required to increase water and sewer service to strategic lands that are currently unserved or underserved.

### Report in Brief:

This item requests City Council approve Amendment 3 to the Construction Manager/General Contractor (CM/GC) contract with Emery & Sons Construction Group, LLC (Emery) for the South Redmond Water Facility (SRWF) to set the Guaranteed Maximum Price at \$16,235,431.88.

### Background:

The SRWF is currently under construction at the intersection of SW Reservoir Drive, SW Volcano Avenue and SW 43rd Street. The three components of the SRWF include: 1) Well 8, 2) a four-million-gallon Reservoir 7, and 3) a booster pump station. The SRWF will supply drinking water and fire flows to the southern portion of Redmond, including the recently annexed Large Lot Industrial area east of Highway 97.

On October 29, 2019, instead of using a standard low bid contract, City Council approved the CM/GC process to construct the SRWF. The CM/GC process allowed the contractor to be more involved in the design. The CM/GC process also allowed for early construction while design was being finalized, thus shortening the overall construction timeline.

Emery & Sons was selected from a group of three proposers and an initial \$38,500 contract was approved by City Council, May 12, 2020.

On July 14, 2020, Council approved Amendment 1 to the SRWF contract with Emery. The amendment allowed site work to begin, totaled \$3,360,620.00, and included:

- Site preparation and excavation of approximately 30,000 cubic yards of soil, rock and boulders. Estimated Cost: \$1,703,919.50
- Well drilling by Western Water Development. Estimated Cost: \$1,656,700.50.

On October 13, 2020, Council approved Amendment 2 to the SRWF contract with Emery. The amendment allowed work to begin on the reservoir, totaled \$2,560,443.91, and included:

- Reservoir base preparation. Estimated Cost: \$477,063. This work has been completed.
- Reservoir floor construction. Estimated Cost: \$1,282,600. This work will start in January 2021.
- Quartz Ave, Park fill to be paid from the Parks SDC Fund. Cost \$75,586. Work is complete.
- CM/GC Fee (6% of construction cost) and insurance/bonding fees (2.25% of construction cost) for Amendments 1 and 2. These fees were not included in Amendment 1, but were agreed to in the original contract. Estimated Cost: \$725,194.91.



**Discussion:**

The next step in the CM/GC contracting process is development of the guaranteed maximum price (GMP). The GMP is based on final construction plans. Up to this point, cost estimates for the project have been at a moderate-high level, but with final plans Emery had the ability to develop an 'optimal' confidence level construction cost. The Construction Confidence Index sheet is attached.

In accordance with the CM/GC contract, the GMP is the maximum amount that the City will pay for the project as scoped. If the City chooses to change the scope, a change to the GMP will be negotiated and brought to City Council for approval. Since the Water Operations staff, design engineer, City Engineer and contractor have all been involved in development of the final plans, no significant changes are anticipated at this time. All savings will accrue to the City.

Benefits of CM/GC contracting method have already been realized. For example, an allowance for over-excavation of the reservoir subgrade was included in Amendment 1. This was not needed and the savings passed to the City reducing the cost of Amendment 1 by \$340,039. During value engineering, Emery pointed out the high cost of 30-inch diameter valves on the reservoir outflow. Design engineer Murraysmith re-analyzed the pipe system and determined that 24-inch valves and lines would function as well as the 30-inch saving roughly \$100,000.

Emery's GMP is \$16,235,431.88 and includes previous work at the new Quartz Park. The SRWF cost without Quartz Park improvements is \$16,159,845.88. The GMP is 0.8% higher than the moderate-high 60 percent estimate of \$16,031,903 provided to City Council on October 13. In October, it was hoped there would be opportunities to reduce the total project costs, but anticipated savings were offset by the addition of necessary offsite work on SW Volcano Avenue including street frontage improvements and extension of 8-inch and 18-inch waterlines. Exhibit D to the contract amendment details the differences between the 60 percent cost estimate and the GMP.

There is still a potential to reduce the final cost of the project upwards to \$250,000. Specific opportunities include:

- Cost of components of the pumphouse building were estimated by subcontractors for the GMP, but this work will be bid closer to time of construction, which is likely to reduce the cost.
- A \$250,000 contingency is included in the GMP and will not be charged if there is not a need.

One item that could increase the cost is an extended period of very low temperatures during concrete reservoir floor pours. Concrete blankets are included in the GMP, but measures to heat the subgrade or keep the concrete warm while it cures are not. Cost depends on the temperature and timing, but could be approximately \$170,000. The alternative is to wait for warmer temperatures, but this will impact the project schedule and could cause conflicts with pumphouse construction. Emery and Skaar (the reservoir contractor) are developing options and Council will be informed before a decision needs to be made.

Attachments include: Confidence level ratings for projects, Contract Amendment 3, Exhibit A (GMP detail), Exhibit B (Revised GMP Summary) and Exhibit C (Revised Letter Explaining GMP).

**Fiscal Impact:**

The SRWF project began in FY 18/19 and will be completed in FY 21/22. The project (including \$1.4 million for associated water lines and \$1.5 million for design/construction management which were approved by City Council) is estimated at \$19.1 million (at moderate-high confidence level).

To date, approximately \$3.8 million has been spent on the SRWF. Funding for the project will come from the following resources:

Bond Proceeds & Interest (secured in FY 18/19) \$ 11.3m  
Water Operating Funds \$ 6.6m  
System Development Charges \$ 1.2m  
TOTAL \$ 19.1m

The Water Operating Funds will come from deferring future water line replacement projects to FY 22/23. Annual funding for water replacement is approximately \$1.9 million. Staff is comfortable utilizing these funds because the SRWF project is critical to accommodating the growth in water demand and is a higher priority than continued water line replacement.

**Alternative Courses of Action:**

1. Authorize the City Manager to sign CM/GC Contract Amendment 3 with Emery & Sons Construction Group to set a guaranteed maximum price of \$16,235,431.88.

2. Request more information.
3. Do not approve.

**Recommendation / Suggested Motion:**

"I move to authorize the City Manager to sign Amendment 3 to the CM/GC contract with Emery & Sons Construction Group to set a guaranteed maximum price of \$16,235,431.88."

## Project Estimate Confidence Level Rating Index Defined

### **COMPLETE**

- o Final payment made.
- o Post project assessment completed comparing project estimate, amount of contract award and total amount of change orders issued during project.
- o Total project costs reported.

### **OPTIMAL**

- o Project scope and specifications clearly understood and well defined.
- o Clear understanding of materials, size and quantities needed to execute job.
- o Schedule and special site conditions understood.
- o Project estimate unlikely to change (generally at 90% or greater design and engineering phase).
- o Total Project contingencies (including project management, design, engineering, plus construction) range between 10%-15%.

### **HIGH**

- o Project scope and specifications nearly complete but still subject to change (70%–90% design and engineering phase)
- o Materials, size and quantities needed to execute job have been defined but subject to minor changes.
- o Schedule understood.
- o Total Project contingencies (including project management, design, engineering, plus construction) may range between 20%-30%.

### **MODERATE**

- o Project scope defined but lacks details.
- o Project specifications incomplete (60%-70% design and engineering phase).
- o Total Project contingencies (including project management, design, engineering, plus construction) may range between 30%-40%.

### **LOW**

- o Project scope is a conceptual “vision” with limited detail.
- o Project cost is an educated guesstimate. Limited technical information available and/or limited analysis performed.
- o Specifications still in infancy stage. (Less than 50% design and engineering phase).
- o Total Project contingencies (including project management, design, engineering, plus construction) may range up to or exceed 50%.



**Amendment No. 3: Guaranteed Maximum Price  
City of Redmond, Oregon CM/GC Contract  
South Redmond Water Facilities Project WA1902**

This Amendment No. 3 to Public Improvement Contract is entered into between the City of Redmond, Oregon ("City") and Emery & Sons Construction Group, LLC ("CM/GC Contractor") amends the Public Improvement Contract ("the Contract") between City and CM/GC Contractor effective June 18, 2020 for Construction Manager/General Contractor (CM/GC) Services for the South Redmond Water Facilities Project ("the Project"). It is effective on that date that all parties have signed.

The City and CM/GC Contractor ("Parties") agree to amend the Contract to add the Guaranteed Maximum Price of \$16,235,431.88 for work performed by the CM/GC Contractor and paid for by City.

Exhibit A: South Redmond Water Facilities Project: 100% Estimate and Draft GMP dated December 14, 2020.

Exhibit B: Draft Final GMP – 100% Design Revised 12-30-2020

Exhibit C: South Redmond Water Facility – 100% Construction Estimate & GMP Summary Letter Revised 12-30-2020

THE PARTIES SIGNING BELOW WARRANT, REPRESENT AND AGREE THAT THEY HAVE THE AUTHORITY TO SIGN THIS AMENDMENT AND AGREE TO ALL TERMS:

City of Redmond, Oregon

Emery & Sons Construction Group, LLC

BY: \_\_\_\_\_  
Keith Witcosky, City Manager

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

APPROVED AS TO LEGAL FORM:

\_\_\_\_\_  
Keith Leitz, City Attorney

# 100%

**PRECONSTRUCTION SERVICES FOR**  
**SOUTH REDMOND WATER FACILITIES PROJECT**  
**100% ESTIMATE & DRAFT**  
**GMP**



---

## **PREPARED BY**

Project Manager - Arin Atiyeh  
Assistant Project Manager - Brian Vinson

---

## **PREPARED FOR**

Mike Caccavano • City Engineer • City of Redmond, OR

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## **DATE SUBMITTED**

December 14, 2020

# South Redmond Water Facilities Project – Well 8 & Reservoir 7

## 100% Estimate & GMP

Emery & Sons has been retained by the City of Redmond as the CM/GC Contractor to perform Pre-Construction Services for the Project consisting of design phase assistance, constructability reviews, value engineering, construction cost estimating, construction scheduling and phasing, site safety and logistics, risk identification and mitigation, and construction planning/subcontractor management.

In the past several months since execution of the CM/GC Contract, we have performed extensive in-house design review and cost estimating to help advance the project. We have also coordinated with the City and Consultants to accelerate the project schedule by soliciting the Well 8 bid package and providing self-performed work budgeting for early work (Amendment No. 1 and Amendment No. 2).

### Our 100% GMP includes the following documentation:

#### 1. PROJECT SCHEDULE

Emery & Sons has updated the project schedule based on the currently available information. The schedule is located in Tab A.

#### 2. SITE LOGISTICS AND STAGING PLAN

A site logistics plan will be provided at each phase of the project that introduces more subcontractors to the site. Currently our site logistics plan from the 60% GMP is still in effect.

#### 3. PROJECT ESTIMATE

Based on the 100% plans and specifications, and conversations with the City and Consultant, our team has created a detailed estimate for the entire project (see Tab B). Our cost reporting generally includes the following:

- Summary Roll-Up of all work, including Pre-construction fee, CM/GC fee %, CM/GC General Conditions fee, Bonding and Insurance, Cost of the Work (including early bid packages), and Project Contingency.
- Summary estimate by major construction activity, including the “actual” work completed for Amendment No. 1: Well 8 Construction and Testing and Early Site Work. The estimate also includes Amendment No. 2 work.
- Comparison of costs from Early GMP Estimate to Final GMP. This document outlines the bid items and associated cost changes over time. Cost increases are noted at the end of this report but are further explained in the Clarification Letter (Tab C)
- Detailed cost report by bid item. This report presents detailed labor, equipment, materials, and subcontractor pricing for the work.

#### 4. CLARIFICATION LETTER (Revised)

After careful review of all the 100% plans and conversations with the City and Consultants, we have provided a comprehensive list of clarifications and assumptions to support our 100% GMP. The clarifications and assumptions are included as Tab C.

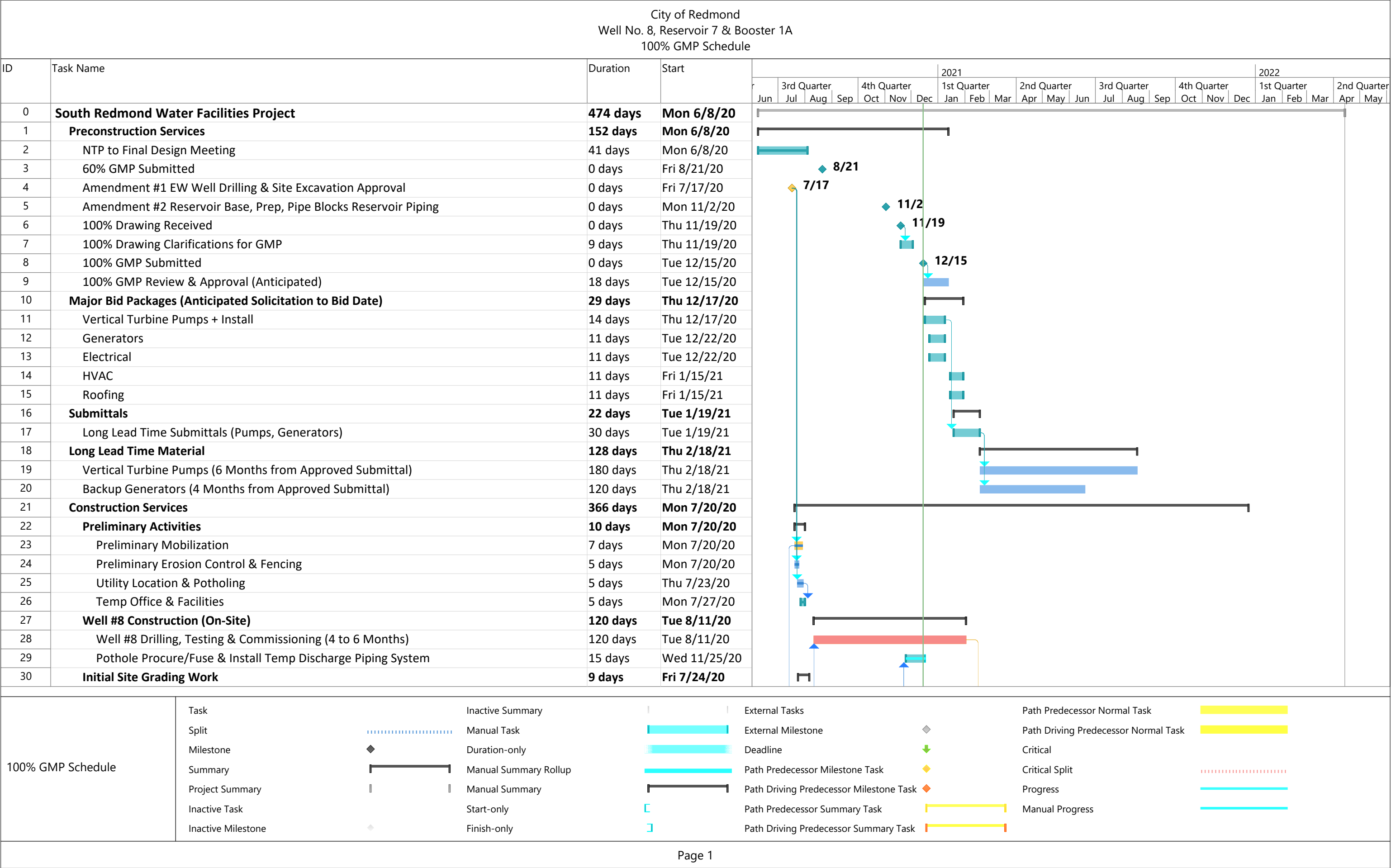


# TAB A

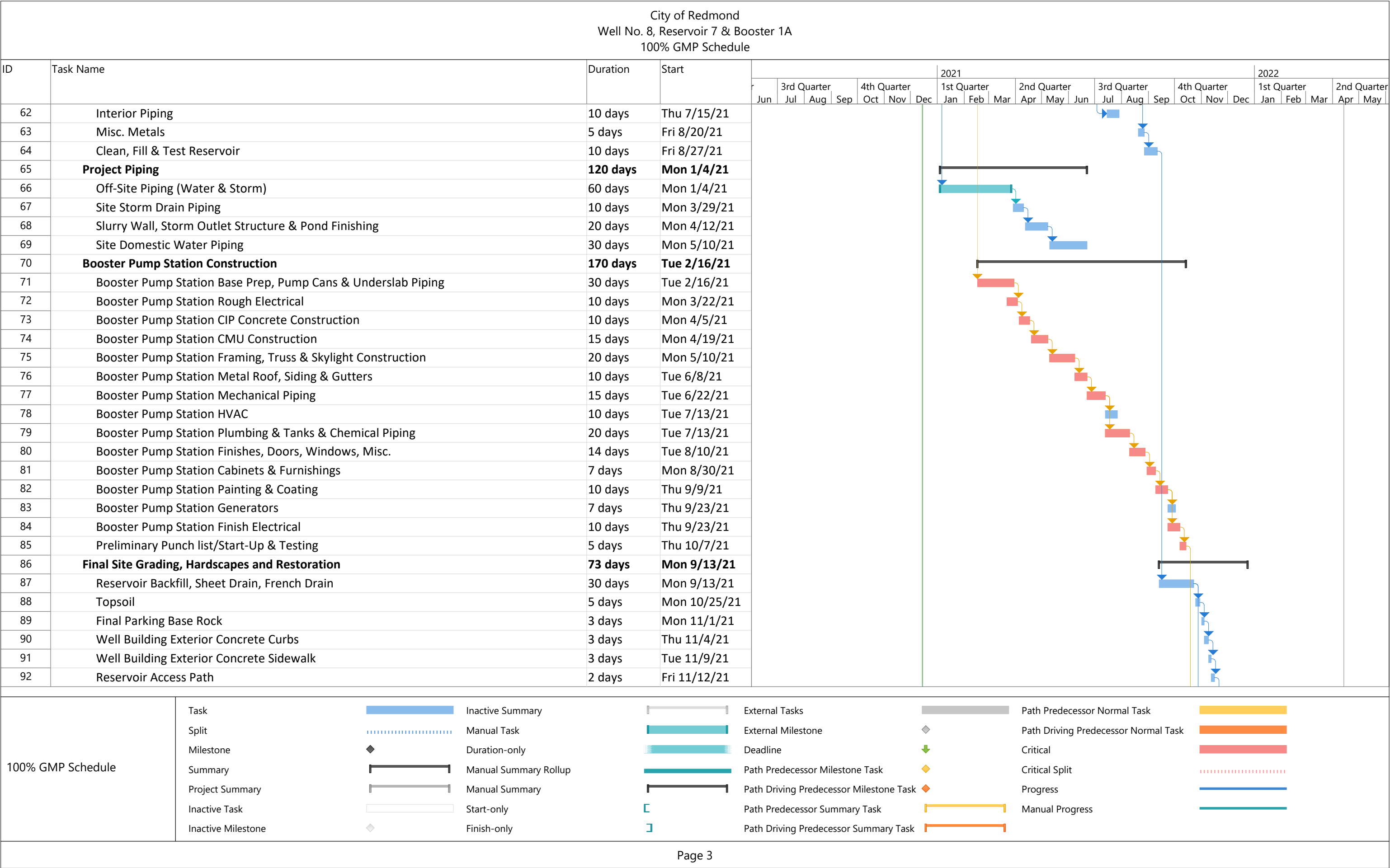
## PROJECT SCHEDULE

| Task                                                             | Duration | Start        | End |
|------------------------------------------------------------------|----------|--------------|-----|
| Redmond Water Facilities Project                                 | 396 days |              |     |
| Construction Services                                            | 41 days  | Mon 6/8/20   |     |
| Submittals                                                       | 22 days  | Tue 8/4/20   |     |
| Long Lead Time Submittals                                        | 30 days  | Tue 8/4/20   |     |
| Long Lead Time Material                                          | 127 days | Thu 9/3/20   |     |
| Vertical Turbine Pumps (6 Months from Approved Submittal)        | 180 days | Thu 9/3/20   |     |
| Backup Generators (4 Months from Approved Submittal)             | 120 days | Thu 9/3/20   |     |
| Valves (4 to 6 Months from Approved Submittals)                  | 180 days | Thu 9/3/20   |     |
| Castile Iron Pipe & Fittings (2 Months from Approved Submittals) | 60 days  | Thu 9/3/20   |     |
| Reflex Mixing System (6 Months from Approved Submittals)         | 180 days | Thu 9/3/20   |     |
| Construction Services                                            | 355 days | Tue 8/4/20   |     |
| Preliminary Activities                                           | 22 days  | Tue 8/4/20   |     |
| Preliminary Mobilization                                         | 7 days   | Tue 8/4/20   |     |
| Preliminary Erosion Control & Fencing                            | 5 days   | Thu 8/13/20  |     |
| Temp Office & Facilities                                         | 5 days   | Thu 8/20/20  |     |
| Utility Location & Potholing                                     | 5 days   | Thu 8/27/20  |     |
| Well #8 Construction (On-Site)                                   | 120 days | Tue 8/4/20   |     |
| Well #8 Drilling, Testing & Commissioning (4 to 6 Months)        | 120 days | Tue 8/4/20   |     |
| Well #9 Construction (SW Black Butte Rd & SW 15th St.)           | 120 days | Tue 1/26/21  |     |
| Well #9 Drilling, Testing & Commissioning (4 to 6 Months)        | 120 days | Tue 1/26/21  |     |
| Final Site Grading Work                                          | 9 days   | Thu 9/3/20   |     |
| Site Stripping (1,547 CY)                                        | 2 days   | Thu 9/3/20   |     |
| General Grading Pond/Site (3,081 CY Cut/3,570 CY Fill)           | 7 days   | Tue 9/8/20   |     |
| Reservoir Construction                                           | 225 days | Thu 9/17/20  |     |
| Reservoir Excavation/Sloping to Subgrade (25,546 CY)             | 25 days  | Thu 9/17/20  |     |
| Pipe Encasements                                                 | 9 days   | Thu 10/22/20 |     |
| Inlet & Underdrains                                              | 11 days  | Thu 10/22/20 |     |
| Final Base Rock Prep                                             | 11 days  | Fri 11/6/20  |     |
| 1st and 2nd Qtr Floor                                            | 13 days  | Mon 11/23/20 |     |
| 3rd and 4th Qtr Floor                                            | 10 days  | Fri 12/11/20 |     |

|              |                    |                                                                                     |                       |                                                                                       |                                  |
|--------------|--------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|----------------------------------|
| st. Schedule | Task               |  | Inactive Summary      |  | External Tasks                   |
|              | Split              |  | Manual Task           |  | External Milestone               |
|              | Milestone          |  | Duration-only         |  | Deadline                         |
|              | Summary            |  | Manual Summary Rollup |  | Path Predecessor Milestone       |
|              | Project Summary    |  | Manual Summary        |  | Path Driving Predecessor         |
|              | Inactive Task      |  | Start-only            |  | Path Predecessor Summary         |
|              | Inactive Milestone |  | Finish-only           |  | Path Driving Predecessor Summary |
|              |                    |                                                                                     |                       |                                                                                       |                                  |



| City of Redmond<br>Well No. 8, Reservoir 7 & Booster 1A<br>100% GMP Schedule |                                            |          |              |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
|------------------------------------------------------------------------------|--------------------------------------------|----------|--------------|--------------------|--------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------|-----|-----|-------------|-----|------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|--|--|
| ID                                                                           | Task Name                                  | Duration | Start        | 2021               |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     | 2022 |             |     |     |             |     |     |             |     |     |             |     |  |  |
|                                                                              |                                            |          |              | Jun                | 3rd Quarter                                                                          |                       |                                                                                       | 4th Quarter                             |                                                                                       |                                      | 1st Quarter                                                                           |     |     | 2nd Quarter |     |      | 3rd Quarter |     |     | 4th Quarter |     |     | 1st Quarter |     |     | 2nd Quarter |     |  |  |
|                                                                              |                                            |          |              |                    | Jul                                                                                  | Aug                   | Sep                                                                                   | Oct                                     | Nov                                                                                   | Dec                                  | Jan                                                                                   | Feb | Mar | Apr         | May | Jun  | Jul         | Aug | Sep | Oct         | Nov | Dec | Jan         | Feb | Mar | Apr         | May |  |  |
| 31                                                                           | Clearing & Grubbing                        | 1 day    | Fri 7/24/20  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 32                                                                           | Site Stripping                             | 2 days   | Mon 7/27/20  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 33                                                                           | General Grading Pond/Site Ex to Stockpile  | 6 days   | Wed 7/29/20  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 34                                                                           | Well Laydown Area Construction             | 2 days   | Tue 8/4/20   |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 35                                                                           | Reservoir Construction                     | 280 days | Thu 8/6/20   |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 36                                                                           | Reservoir Excavation/Sloping to Subgrade   | 44 days  | Thu 8/6/20   |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 37                                                                           | Crushed Rock Fill Over/Ex Areas            | 3 days   | Thu 9/24/20  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 38                                                                           | Screening/Ex to Haul Away/Quartz Park Fill | 26 days  | Tue 9/29/20  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 39                                                                           | Pipe Encasements Excavation                | 2 days   | Wed 11/4/20  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 40                                                                           | Install K Rail On Reservoir Drive          | 1 day    | Mon 11/9/20  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 41                                                                           | Layout/Form/Set Pipe/Pour Pipe Blocks      | 6 days   | Tue 11/17/20 |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 42                                                                           | Backfill Pipe Blocks                       | 3 days   | Wed 11/25/20 |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 43                                                                           | Liner & Underdrains                        | 10 days  | Tue 12/1/20  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 44                                                                           | Install Drain Rock Base                    | 6 days   | Mon 12/7/20  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 45                                                                           | Install Fabric Base Rock & Final Prep      | 11 days  | Tue 12/15/20 |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 46                                                                           | 1st and 2nd Qtr Floor                      | 13 days  | Mon 1/4/21   |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 47                                                                           | 3rd and 4th Qtr Floor                      | 10 days  | Thu 1/21/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 48                                                                           | Wall Rubber                                | 5 days   | Thu 2/4/21   |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 49                                                                           | Fabricated Wall Panels                     | 10 days  | Thu 2/4/21   |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 50                                                                           | Walls 1-12                                 | 23 days  | Thu 2/18/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 51                                                                           | Columns 1-48                               | 25 days  | Thu 2/18/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 52                                                                           | Shore & Deck 1 & 2                         | 20 days  | Fri 3/19/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 53                                                                           | FRP-VPT R1 & R2                            | 10 days  | Mon 4/12/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 54                                                                           | FRP Wall 13                                | 2 days   | Mon 4/26/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 55                                                                           | Columns 49-52                              | 2 days   | Wed 4/28/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 56                                                                           | Cure R1 & R2                               | 7 days   | Mon 4/26/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 57                                                                           | Strip & Move R1 & R2                       | 15 days  | Wed 5/5/21   |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 58                                                                           | FRP-VPT R3-R4                              | 10 days  | Wed 5/26/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 59                                                                           | Cure R3 & R4                               | 7 days   | Thu 6/10/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 60                                                                           | Strip R3 & R4                              | 14 days  | Mon 6/21/21  |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 61                                                                           | DN Tanks                                   | 30 days  | Fri 7/9/21   |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| 100% GMP Schedule                                                            |                                            |          |              | Task               |  | Inactive Summary      |  | External Tasks                          |  | Path Predecessor Normal Task         |  |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
|                                                                              |                                            |          |              | Split              |  | Manual Task           |  | External Milestone                      |  | Path Driving Predecessor Normal Task |  |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
|                                                                              |                                            |          |              | Milestone          |   | Duration-only         |  | Deadline                                |  | Critical                             |  |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
|                                                                              |                                            |          |              | Summary            |  | Manual Summary Rollup |  | Path Predecessor Milestone Task         |  | Critical Split                       |  |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
|                                                                              |                                            |          |              | Project Summary    |  | Manual Summary        |  | Path Driving Predecessor Milestone Task |  | Progress                             |  |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
|                                                                              |                                            |          |              | Inactive Task      |  | Start-only            |  | Path Predecessor Summary Task           |  | Manual Progress                      |  |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
|                                                                              |                                            |          |              | Inactive Milestone |   | Finish-only           |  | Path Driving Predecessor Summary Task   |  |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |
| Page 2                                                                       |                                            |          |              |                    |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |  |  |



| City of Redmond<br>Well No. 8, Reservoir 7 & Booster 1A<br>100% GMP Schedule |                                                            |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
|------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------|-----|-----|-------------|-----|-----|-------------|-----|------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|------|--|--|--|--|--|
| ID                                                                           | Task Name                                                  | Duration                                                                             | Start                 |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     | 2021 |             |     |     |             |     |     |             |     |     |             |     | 2022 |  |  |  |  |  |
|                                                                              |                                                            |                                                                                      |                       |                                                                                       | 3rd Quarter                             |                                                                                       |                                      | 4th Quarter                                                                           |     |     | 1st Quarter |     |     | 2nd Quarter |     |      | 3rd Quarter |     |     | 4th Quarter |     |     | 1st Quarter |     |     | 2nd Quarter |     |      |  |  |  |  |  |
|                                                                              |                                                            |                                                                                      |                       | Jun                                                                                   | Jul                                     | Aug                                                                                   | Sep                                  | Oct                                                                                   | Nov | Dec | Jan         | Feb | Mar | Apr         | May | Jun  | Jul         | Aug | Sep | Oct         | Nov | Dec | Jan         | Feb | Mar | Apr         | May |      |  |  |  |  |  |
| 93                                                                           | Parking Lot Paving                                         | 2 days                                                                               | Tue 11/16/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 94                                                                           | Permanent Slope Stabilization                              | 5 days                                                                               | Thu 11/18/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 95                                                                           | Landscaping                                                | 20 days                                                                              | Fri 11/26/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 96                                                                           | Off-Site Roadway Improvements                              | 20 days                                                                              | Mon 10/25/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 97                                                                           | Frontage Roadway Excavation                                | 5 days                                                                               | Mon 10/25/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 98                                                                           | Frontage Roadway Base Rock                                 | 3 days                                                                               | Mon 11/1/21           |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 99                                                                           | Frontage Roadway Curb                                      | 5 days                                                                               | Thu 11/4/21           |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 100                                                                          | Frontage Roadway Sidewalk                                  | 5 days                                                                               | Thu 11/11/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 101                                                                          | Frontage Reinforced Driveway Entrance                      | 5 days                                                                               | Thu 11/11/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 102                                                                          | Frontage Roadway Paving                                    | 2 days                                                                               | Thu 11/18/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 103                                                                          | Project Substantial Completion (On-Line Ready For Service) | 0 days                                                                               | Wed 10/13/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 104                                                                          | Anticipated Substantial Completion (System On-Line)        | 0 days                                                                               | Wed 10/13/21          |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 105                                                                          | Project Final Completion (Punch List/Project Close Out)    | 0 days                                                                               | Wed 4/13/22           |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 106                                                                          | Anticipated Final Completion                               | 0 days                                                                               | Wed 4/13/22           |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
|                                                                              |                                                            |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| 100% GMP Schedule                                                            | Task                                                       |  | Inactive Summary      |  | External Tasks                          |  | Path Predecessor Normal Task         |  |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
|                                                                              | Split                                                      |  | Manual Task           |  | External Milestone                      |  | Path Driving Predecessor Normal Task |  |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
|                                                                              | Milestone                                                  |   | Duration-only         |  | Deadline                                |  | Critical                             |  |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
|                                                                              | Summary                                                    |  | Manual Summary Rollup |  | Path Predecessor Milestone Task         |  | Critical Split                       |  |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
|                                                                              | Project Summary                                            |  | Manual Summary        |  | Path Driving Predecessor Milestone Task |  | Progress                             |  |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
|                                                                              | Inactive Task                                              |  | Start-only            |  | Path Predecessor Summary Task           |  | Manual Progress                      |  |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
|                                                                              | Inactive Milestone                                         |   | Finish-only           |  | Path Driving Predecessor Summary Task   |  |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |
| Page 4                                                                       |                                                            |                                                                                      |                       |                                                                                       |                                         |                                                                                       |                                      |                                                                                       |     |     |             |     |     |             |     |      |             |     |     |             |     |     |             |     |     |             |     |      |  |  |  |  |  |



# TAB B

## 100% ESTIMATE





**Draft Final GMP - 100% Design**  
**City of Redmond**  
South Redmond Water Facilities Project

| Item Description                          | Amount         | Totals                 | Rate | Comments          |
|-------------------------------------------|----------------|------------------------|------|-------------------|
|                                           |                |                        |      |                   |
| <b>Cost of the Work</b>                   |                | <b>\$14,616,795.30</b> |      |                   |
|                                           |                |                        |      |                   |
| <b>Early Work Amendment #1</b>            |                | <b>\$3,020,580.50</b>  |      |                   |
| Early Site Work                           | \$1,703,919.00 |                        |      |                   |
| Well 8 Construction                       | \$1,562,925.00 |                        |      |                   |
| CM/GC Fee (6% on Subs)                    | \$93,775.50    |                        |      |                   |
| Early Site Work Savings                   | -\$340,039.00  |                        |      |                   |
|                                           |                |                        |      |                   |
| <b>Early Work Amendment #2</b>            |                | <b>\$2,484,857.91</b>  |      |                   |
| Reservoir Base Preparation                | \$477,063.00   |                        |      |                   |
| Reservoir Construction                    | \$1,210,000.00 |                        |      |                   |
| General Conditions                        | \$613,732.00   |                        |      |                   |
| Bonds/Insurances                          | \$111,462.91   |                        |      |                   |
| CM/GC Fee (6% on Subs)                    | \$72,600.00    |                        |      |                   |
|                                           |                |                        |      |                   |
| <b>Balance of Work</b>                    |                | <b>\$10,544,949.16</b> |      |                   |
| Emery Self-Performed Work                 | \$4,517,226.77 |                        |      |                   |
| Quartz Park Work                          | \$75,586.00    |                        |      |                   |
| Balance of Reservoir Construction (Skaar) | \$3,624,000.00 |                        |      |                   |
| Subcontracted Work                        | \$1,786,114.53 |                        |      |                   |
| CM/GC Fee (6% on Subs)                    | \$324,606.87   |                        |      |                   |
| Bonds & Insurance on Balance of Work      | \$217,414.98   |                        |      |                   |
|                                           |                |                        |      |                   |
| <b>Construction Contingency</b>           | \$250,000.00   | <b>\$250,000.00</b>    |      | 1.69% Contingency |
|                                           |                |                        |      |                   |
| <b>Pre-Construction Fee</b>               | \$38,500.00    | <b>\$38,500.00</b>     |      |                   |
|                                           |                |                        |      |                   |
|                                           |                |                        |      |                   |
| <b>TOTAL CONSTRUCTION</b>                 |                | <b>\$16,338,887.57</b> |      |                   |

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Redmond Well 8, Res 7 Draft Final GMP

**BID TOTALS**

| <u>Biditem</u> | <u>Description</u>                          | <u>Status - Rnd</u> | <u>Quantity</u> | <u>Units</u> | <u>Unit Price</u> | <u>Bid Total</u> |
|----------------|---------------------------------------------|---------------------|-----------------|--------------|-------------------|------------------|
| 1010           | Heavy Equipment Mobilization                | F - New             | 1.000           | EA           | 29,425.00         | 29,425.00        |
| 1020           | Crew Subsistence/Lodging                    | F - New             | 9.000           | WK           | 3,200.00          | 28,800.00        |
| 1030           | Storage Containers                          | F - New             | 3.000           | MO           | 550.00            | 1,650.00         |
| 1040           | Construction Survey/GPS Set-Up              | F - New             | 1.000           | LS           | 19,200.00         | 19,200.00        |
| 1050           | Construction Fence                          | F - New             | 600.000         | LF           | 3.00              | 1,800.00         |
| 1060           | Site & Frontage Road Potholing              | F - New             | 10.000          | EA           | 500.00            | 5,000.00         |
| 1070           | Erosion Control Maintenace                  | F - New             | 9.000           | WK           | 750.00            | 6,750.00         |
| 1080           | Construction Entrance                       | F - New             | 1.000           | EA           | 8,000.00          | 8,000.00         |
| 1090           | Silt Fence (Supported)                      | F - New             | 1,750.000       | LF           | 5.00              | 8,750.00         |
| 1100           | Hydroseed/Temp Mulch (Temp Erosion Control) | F - New             | 3.000           | AC           | 3,320.00          | 9,960.00         |
| 1110           | Street Sweeping                             | F - New             | 9.000           | WK           | 1,270.00          | 11,430.00        |
| 1120           | Dust Control (Water Truck)                  | F - New             | 9.000           | WK           | 1,135.00          | 10,215.00        |
| 1130           | Temp Irrigation Dust Control                | F - New             | 1.000           | EA           | 17,750.00         | 17,750.00        |
| 1140           | Signing & Traffic Control                   | F - New             | 192.000         | SF           | 37.00             | 7,104.00         |
| 1150           | Clearing, Grubbing & Tree Removal           | F - New             | 1.000           | EA           | 7,600.00          | 7,600.00         |
| 1160           | Well Laydown Area (200 x 200)               | F - New             | 1,481.000       | TN           | 36.00             | 53,316.00        |
| 1170           | Stripping to Stockpile (For Reuse)          | F - New             | 2,326.000       | CY           | 13.00             | 30,238.00        |
| 1175           | Excavation to Embankment On-Site            | F - New             | 5,000.000       | CY           | 24.00             | 120,000.00       |
| 1180           | Excavation to Off-Site Disposal             | F - New             | 11,385.000      | CY           | 32.00             | 364,320.00       |
| 1190           | Excavation to Stockpile (For Reuse)         | F - New             | 14,627.000      | CY           | 22.00             | 321,794.00       |
| 1200           | Boulder Processing For Removal              | F - New             | 4,977.000       | CY           | 26.00             | 129,402.00       |
| 1205           | Boulder Processing Not Needed               | F - New             | -4,297.000      | CY           | 26.00             | -111,722.00      |
| 1210           | Foundation Over-Ex                          | F - New             | 2,576.000       | CY           | 46.00             | 118,496.00       |
| 1215           | Foundation Over-Ex Not Needed               | F - New             | -1,973.000      | CY           | 46.00             | -90,758.00       |
| 1220           | Foundation Over-Ex Backfill                 | F - New             | 5,153.000       | TN           | 25.00             | 128,825.00       |
| 1225           | Foundation Over-Ex Backfill Not Needed      | F - New             | -3,947.000      | TN           | 25.00             | -98,675.00       |

Mass Site Grading & Prep Subtotal

\$1,138,670.00

|      |                                                    |         |           |    |          |           |
|------|----------------------------------------------------|---------|-----------|----|----------|-----------|
| 2010 | Potholing for well Discharge Piping                | F - New | 10.000    | EA | 500.00   | 5,000.00  |
| 2020 | Procure, Deliver & String Discharge Piping         | F - New | 1,400.000 | LF | 43.00    | 60,200.00 |
| 2030 | Fuse 18-inch HDPE Discharge Piping                 | F - New | 1,400.000 | LF | 20.25    | 28,350.00 |
| 2040 | AC Sawcutting Discharge Piping                     | F - New | 200.000   | LF | 5.00     | 1,000.00  |
| 2050 | Surface Installed Discharge Piping                 | F - New | 1,035.000 | LF | 8.00     | 8,280.00  |
| 2060 | Buried Discharge Piping                            | F - New | 365.000   | LF | 85.00    | 31,025.00 |
| 2070 | Connect to Exist 18-IN DI (SW Volcano Ave)         | F - New | 1.000     | EA | 6,930.00 | 6,930.00  |
| 2080 | Connect to Exist 18-inch DI (SW Wickiup & SW 49th) | F - New | 1.000     | EA | 7,000.00 | 7,000.00  |

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**BID TOTALS**

| <b><u>Biditem</u></b>                         | <b><u>Description</u></b>                        | <b><u>Status - Rnd</u></b> | <b><u>Quantity</u></b> | <b><u>Units</u></b> | <b><u>Unit Price</u></b> | <b><u>Bid Total</u></b> |
|-----------------------------------------------|--------------------------------------------------|----------------------------|------------------------|---------------------|--------------------------|-------------------------|
| 2090                                          | Removal of Discharge System/Permanent AC Patch   | F - New                    | 1,400.000              | LF                  | 14.00                    | 19,600.00               |
| 2100                                          | Blow-Off and Chlorination of Existing 18-inch DI | F - New                    | 1.000                  | EA                  | 7,825.00                 | 7,825.00                |
| Well Discharge Piping Subtotal                |                                                  |                            |                        |                     |                          | \$175,210.00            |
| 3000                                          | Well Discharge Line Pump Contingency             | F - New                    | 1.000                  | LS                  | 50,000.00                | 50,000.00               |
| Well Discharge Line Pump Contingency Subtotal |                                                  |                            |                        |                     |                          | \$50,000.00             |
| 3100                                          | Well Development                                 | F - New                    | 1.000                  | LS                  | 1,562,925.00             | 1,562,925.00            |
| Well Development Subtotal                     |                                                  |                            |                        |                     |                          | \$1,562,925.00          |
| Amendment #1 Subtotal                         |                                                  |                            |                        |                     |                          | \$2,926,805.00          |
| 4010                                          | Heavy Equipment Mobilization                     | F - New                    | 1.000                  | LS                  | 24,300.00                | 24,300.00               |
| 4020                                          | Subcontractor Mobilization                       | F - New                    | 1.000                  | LS                  | 210,630.00               | 210,630.00              |
| 4030                                          | Crew Subistence/Lodging                          | F - New                    | 61.000                 | WK                  | 1,560.00                 | 95,160.00               |
| 4040                                          | Storage Containers                               | F - New                    | 14.000                 | MO                  | 560.00                   | 7,840.00                |
| 4050                                          | Construction Survey                              | F - New                    | 1.000                  | LS                  | 18,250.00                | 18,250.00               |
| 4060                                          | Erosion Control Maintenance                      | F - New                    | 61.000                 | WK                  | 300.00                   | 18,300.00               |
| 4070                                          | Street Sweeping                                  | F - New                    | 61.000                 | WK                  | 255.00                   | 15,555.00               |
| 4080                                          | Dust Control (Water Truck)                       | F - New                    | 61.000                 | WK                  | 345.00                   | 21,045.00               |
| 4090                                          | Removal of Well Laydown Area                     | F - New                    | 1,481.000              | TN                  | 17.00                    | 25,177.00               |
| 4100                                          | Excavation Stockpile to Reservoir Backfill       | F - New                    | 14,627.000             | CY                  | 13.25                    | 193,807.75              |
| 4110                                          | Stripping Stockpile to Reservoir Backfill        | F - New                    | 2,326.000              | CY                  | 11.00                    | 25,586.00               |
| 4120                                          | Site Slope/Fine Grading                          | F - New                    | 2.500                  | AC                  | 3,600.00                 | 9,000.00                |
| Phase II Mass Grading & Prep Subtotal         |                                                  |                            |                        |                     |                          | \$664,650.75            |

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# **BID TOTALS**

| <b><u>Biditem</u></b> | <b><u>Description</u></b>                        | <b><u>Status - Rnd</u></b> | <b><u>Quantity</u></b> | <b><u>Units</u></b> | <b><u>Unit Price</u></b> | <b><u>Bid Total</u></b> |
|-----------------------|--------------------------------------------------|----------------------------|------------------------|---------------------|--------------------------|-------------------------|
| 5010                  | Reservoir Base Prep (Aggregate Sections)         | F - New                    | 6,324.000              | TN                  | 41.50                    | 262,446.00              |
| 5020                  | Reservoir 30 Mil Liner                           | F - New                    | 1.000                  | LS                  | 78,100.00                | 78,100.00               |
| 5025                  | Reservoir 30 Mil Liner Savings                   | F - New                    | -1.000                 | LS                  | 5,025.00                 | -5,025.00               |
| 5030                  | Reservoir Foundation, Underdrain, & French Drain | F - New                    | 2,540.000              | LF                  | 11.00                    | 27,940.00               |
| 5040                  | Res Surface & Footing French Drain Rock Section  | F - New                    | 819.000                | TN                  | 38.00                    | 31,122.00               |
| 5045                  | Miradrain 6200 Drainage Panels                   | F - New                    | 767.000                | SY                  | 30.00                    | 23,010.00               |
| 5050                  | Reservoir Fabric Envelope                        | F - New                    | 4,968.000              | SY                  | 2.60                     | 12,916.80               |
| 5060                  | Reservoir Construction                           | F - New                    | 1.000                  | LS                  | 4,400,000.00             | 4,400,000.00            |
| 5070                  | Reservoir Inlet Mixing System                    | F - New                    | 1.000                  | LS                  | 71,990.00                | 71,990.00               |
| 5080                  | Reservoir 12-inch Overflow                       | F - New                    | 1.000                  | LS                  | 28,000.00                | 28,000.00               |
| 5090                  | Reservoir 8-inch Drain                           | F - New                    | 1.000                  | LS                  | 8,320.00                 | 8,320.00                |
| 5100                  | Reservoir 24-inch Outlet System                  | F - New                    | 1.000                  | LS                  | 43,380.00                | 43,380.00               |
| 5110                  | Reservoir Painting & Coating                     | F - New                    | 1.000                  | LS                  | 154,682.00               | 154,682.00              |

Reservoir Construction Subtotal

\$5,136,881.80

|      |                                                  |         |           |    |            |            |
|------|--------------------------------------------------|---------|-----------|----|------------|------------|
| 6010 | BPS Base Prep (Aggregate Sections)               | F - New | 3,467.000 | SF | 7.50       | 26,002.50  |
| 6020 | BPS CIP Foundation                               | F - New | 1.000     | LS | 220,000.00 | 220,000.00 |
| 6030 | BPS Masonry                                      | F - New | 1.000     | LS | 163,959.00 | 163,959.00 |
| 6035 | BPS Masonry Door Framing                         | F - New | 1.000     | LS | 2,075.00   | 2,075.00   |
| 6040 | BPS Framing, Sheeting, Siding & Insulation       | F - New | 1.000     | LS | 141,095.00 | 141,095.00 |
| 6050 | BPS Canopy                                       | F - New | 1.000     | LS | 21,360.00  | 21,360.00  |
| 6060 | BPS Roofing Gutters & Downspouts                 | F - New | 1.000     | LS | 94,520.00  | 94,520.00  |
| 6070 | BPS Doors/Windows                                | F - New | 1.000     | LS | 74,050.00  | 74,050.00  |
| 6080 | BPS Skylight/Pump Access Hatches                 | F - New | 1.000     | LS | 12,943.00  | 12,943.00  |
| 6100 | BPS HVAC                                         | F - New | 1.000     | LS | 69,500.00  | 69,500.00  |
| 6110 | BPS Electrical                                   | F - New | 1.000     | LS | 713,335.00 | 713,335.00 |
| 6120 | BPS Electrical Trenching & Backfill              | F - New | 1,500.000 | LF | 45.50      | 68,250.00  |
| 6130 | BPS Excavate/Set Electrical Vaults               | F - New | 3.000     | EA | 3,095.00   | 9,285.00   |
| 6140 | BPS Excavate/Set Light Pole Bases                | F - New | 9.000     | EA | 430.00     | 3,870.00   |
| 6150 | BPS Standby Generators 24 HR Internal Fuel Tanks | F - New | 1.000     | LS | 584,995.00 | 584,995.00 |
| 6160 | BPS Controls                                     | F - New | 1.000     | LS | 517,610.00 | 517,610.00 |
| 6170 | BPS Painting & Coating                           | F - New | 1.000     | LS | 58,940.00  | 58,940.00  |
| 6180 | BPS Vertical Turbine Pumps/Cans                  | F - New | 1.000     | LS | 840,888.00 | 840,888.00 |
| 6190 | BPS Large Diameter Piping & Valves               | F - New | 1.000     | LS | 403,610.00 | 403,610.00 |
| 6200 | BPS Plumbing (Domestic Water/Drains)             | F - New | 1.000     | LS | 33,590.00  | 33,590.00  |
| 6210 | BPS Chlorine System                              | F - New | 1.000     | LS | 82,365.00  | 82,365.00  |

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**BID TOTALS**

| <u>Biditem</u>                | <u>Description</u>                               | <u>Status - Rnd</u> | <u>Quantity</u> | <u>Units</u> | <u>Unit Price</u> | <u>Bid Total</u> |
|-------------------------------|--------------------------------------------------|---------------------|-----------------|--------------|-------------------|------------------|
| 6230                          | BPS Fabricated Metals                            | F - New             | 1.000           | LS           | 11,375.00         | 11,375.00        |
| Booster Pump Station Subtotal |                                                  |                     |                 |              |                   | \$4,153,617.50   |
| 7010                          | Procure & String Inlet/Outlet/Header Pipe        | F - New             | 1.000           | LS           | 290,715.00        | 290,715.00       |
| 7020                          | Excavate & Lay Inlet/Outlet/Header Pipe          | F - New             | 407.000         | LF           | 171.00            | 69,597.00        |
| 7030                          | Install Inlet/Outlet & Header Valves             | F - New             | 12.000          | EA           | 1,660.00          | 19,920.00        |
| 7040                          | Inlet/Outlet & Header Fitting Bolt Ups           | F - New             | 55.000          | EA           | 840.00            | 46,200.00        |
| 7045                          | Install Yard Hydrant                             | F - New             | 1.000           | EA           | 985.00            | 985.00           |
| 7050                          | Procure & Install 18 IN Zone 2 Pipe              | F - New             | 140.000         | LF           | 297.00            | 41,580.00        |
| 7060                          | Procure & Install 24 IN Zone 1A Pipe             | F - New             | 150.000         | LF           | 329.00            | 49,350.00        |
| 7070                          | Procure & Install 8 IN DI Pipe                   | F - New             | 65.000          | LF           | 172.00            | 11,180.00        |
| 7080                          | Procure & Install Control Vaults & Piping        | F - New             | 2.000           | EA           | 64,325.00         | 128,650.00       |
| 7090                          | Procure & Install 4 IN Washdown Pipe             | F - New             | 1.000           | LS           | 24,785.00         | 24,785.00        |
| 7095                          | Procure & Install Buried Water Analysis Piping   | F - New             | 210.000         | LF           | 67.00             | 14,070.00        |
| 7100                          | Procure & Install 2 IN Water Service             | F - New             | 30.000          | LF           | 270.00            | 8,100.00         |
| Site Water System Subtotal    |                                                  |                     |                 |              |                   | \$705,132.00     |
| 8010                          | Procure & Install Precast Storm Structures       | F - New             | 1.000           | LS           | 18,365.00         | 18,365.00        |
| 8020                          | Procure & String Storm Drain Piping              | F - New             | 372.000         | LF           | 75.00             | 27,900.00        |
| 8025                          | Fuse & Install 4 IN Storm Drain                  | F - New             | 30.000          | LF           | 110.00            | 3,300.00         |
| 8026                          | Fuse Install 6 IN Storm Drain                    | F - New             | 25.000          | LF           | 125.00            | 3,125.00         |
| 8027                          | Install 8 IN C-900 PVC Storm Drain               | F - New             | 40.000          | LF           | 145.00            | 5,800.00         |
| 8030                          | Install 18 IN Storm Drain                        | F - New             | 35.000          | LF           | 120.00            | 4,200.00         |
| 8040                          | Install 24 IN Alignment E Overflow Piping        | F - New             | 170.000         | LF           | 158.00            | 26,860.00        |
| 8045                          | 24 IN Pond Discharge                             | F - New             | 1.000           | LS           | 14,125.00         | 14,125.00        |
| 8050                          | Site Stormwater Pond Finish & Slurry Cutoff Wall | F - New             | 1.000           | LS           | 68,910.00         | 68,910.00        |
| 8053                          | Site Stormwater Pond Fabric                      | F - New             | 475.000         | SY           | 2.25              | 1,068.75         |
| 8055                          | Site Stormwater Pond 10 IN Open Rock Surfacing   | F - New             | 4,276.000       | SF           | 3.00              | 12,828.00        |
| Site Stormwater Subtotal      |                                                  |                     |                 |              |                   | \$186,481.75     |

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**BID TOTALS**

| <u>Biditem</u>                                | <u>Description</u>                               | <u>Status - Rnd</u> | <u>Quantity</u> | <u>Units</u> | <u>Unit Price</u> | <u>Bid Total</u> |
|-----------------------------------------------|--------------------------------------------------|---------------------|-----------------|--------------|-------------------|------------------|
| 8060                                          | Pipe Testing (Water & Storm)                     | F - New             | 1.000           | LS           | 17,275.00         | 17,275.00        |
| Pipe Testing Subtotal                         |                                                  |                     |                 |              |                   | \$17,275.00      |
| 9010                                          | Site Base/Shoulder Rock                          | F - New             | 589.000         | TN           | 46.00             | 27,094.00        |
| 9015                                          | Site Subgrade Fabric                             | F - New             | 1,189.000       | SY           | 1.75              | 2,080.75         |
| 9020                                          | Site Concrete Flatwork                           | F - New             | 420.000         | SF           | 11.50             | 4,830.00         |
| 9040                                          | Site Paving                                      | F - New             | 210.000         | TN           | 105.00            | 22,050.00        |
| 9050                                          | Site Reservoir Gravel Access Path                | F - New             | 1,180.000       | SF           | 5.25              | 6,195.00         |
| Site Surfacing Subtotal                       |                                                  |                     |                 |              |                   | \$62,249.75      |
| 10010                                         | Site Security Fencing                            | F - New             | 1,365.000       | LF           | 47.00             | 64,155.00        |
| 10020                                         | Landscaping & Irrigation                         | F - New             | 1.000           | LS           | 179,858.00        | 179,858.00       |
| 10030                                         | Project Signing                                  | F - New             | 1.000           | LS           | 2,500.00          | 2,500.00         |
| 10040                                         | Parking Lot Striping                             | F - New             | 1.000           | LS           | 2,500.00          | 2,500.00         |
| Site Security, Landscaping & Signing Subtotal |                                                  |                     |                 |              |                   | \$249,013.00     |
| 11010                                         | Off-Site 18 IN Zone 2 Pipe, Fittings & Valves    | F - New             | 385.000         | LF           | 265.00            | 102,025.00       |
| 11015                                         | Off-Site Restore Shoulder Drainage (Hyd to 45th) | F - New             | 120.000         | LF           | 16.00             | 1,920.00         |
| 11020                                         | Off-Site 24 IN Zone 1A Pipe, Fittings & Valves   | F - New             | 305.000         | LF           | 387.00            | 118,035.00       |
| 11030                                         | Off-Site 8 & 6 IN DI Pipe, Fitting, VLV's & Hyd  | F - New             | 610.000         | LF           | 193.00            | 117,730.00       |
| 11032                                         | Off-Site Catch Basins                            | F - New             | 2.000           | EA           | 2,128.00          | 4,256.00         |
| 11033                                         | Off-Site 8-inch PVC Storm                        | F - New             | 35.000          | LF           | 162.50            | 5,687.50         |
| 11034                                         | Off-Site Storm & Domestic Water Testing          | F - New             | 1.000           | LS           | 16,325.00         | 16,325.00        |
| 11040                                         | Off-Site AC Sawcutting                           | F - New             | 2,530.000       | LF           | 2.25              | 5,692.50         |
| 11050                                         | Off-Site AC Removal                              | F - New             | 9,264.000       | SF           | 1.00              | 9,264.00         |
| 11060                                         | Off-Site Base Rock                               | F - New             | 515.000         | TN           | 47.00             | 24,205.00        |
| 11070                                         | Off-Site Sidewalk                                | F - New             | 4,075.000       | SF           | 10.00             | 40,750.00        |
| 11075                                         | Off-Site ADA Ramp Reservoir Drive                | F - New             | 1.000           | EA           | 3,500.00          | 3,500.00         |
| 11080                                         | Off-Site Curb                                    | F - New             | 465.000         | LF           | 32.50             | 15,112.50        |
| 11090                                         | Off-Site Reinforced Concrete Driveway Entrance   | F - New             | 315.000         | SF           | 18.75             | 5,906.25         |



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**BID TOTALS**

| <u>Biditem</u>                                 | <u>Description</u>               | <u>Status - Rnd</u> | <u>Quantity</u> | <u>Units</u> | <u>Unit Price</u> | <u>Bid Total</u> |
|------------------------------------------------|----------------------------------|---------------------|-----------------|--------------|-------------------|------------------|
| 11100                                          | Off-Site Street Paving           | F - New             | 180.000         | TN           | 105.00            | 18,900.00        |
| 11110                                          | Off-Site Temp Trench Paving      | F - New             | 30.000          | TN           | 263.00            | 7,890.00         |
| 11120                                          | Off-Site Permanent Trench Paving | F - New             | 60.000          | TN           | 291.50            | 17,490.00        |
| Off-Site Construction Subtotal                 |                                  |                     |                 |              |                   | \$514,688.75     |
| Cost of Work (Excluding Amendment #1) Subtotal |                                  |                     |                 |              |                   | \$11,689,990.30  |
| Bid Total                                      |                                  |                     |                 |              |                   | \$14,616,795.30  |

## SOUTH REDMOND WATER FACILITY - BUDGET COMPARISON FROM EARLY GMP THROUGH FINAL GMP

|       |                                             |       |      | EARLY GMP    | EARLY GMP     | 60% GMP      | 60% GMP       | FINAL GMP    | FINAL GMP       |
|-------|---------------------------------------------|-------|------|--------------|---------------|--------------|---------------|--------------|-----------------|
| ITEM  | DESCRIPTION                                 | QTY   | UNIT | UNIT PRICE   | TOTAL         | UNIT PRICE   | TOTAL         | UNIT PRICE   | TOTAL           |
| 1010  | Heavy Equipment Mobilization                | 1     | EA   | \$ 29,425.00 | \$ 29,425.00  | \$ 29,425.00 | \$ 29,425.00  | \$ 29,425.00 | \$ 29,425.00    |
| 1020  | Crew Subsistence/Lodging                    | 9     | WK   | \$ 3,200.00  | \$ 28,800.00  | \$ 3,200.00  | \$ 28,800.00  | \$ 3,200.00  | \$ 28,800.00    |
| 1030  | Storage Containers                          | 3     | MO   | \$ 550.00    | \$ 1,650.00   | \$ 550.00    | \$ 1,650.00   | \$ 550.00    | \$ 1,650.00     |
| 1040  | Construction Survey/GPS Set-UP              | 1     | LS   | \$ 19,200.00 | \$ 19,200.00  | \$ 19,200.00 | \$ 19,200.00  | \$ 19,200.00 | \$ 19,200.00    |
| 1050  | Construction Fence (Orange)                 | 600   | LF   | \$ 3.00      | \$ 1,800.00   | \$ 3.00      | \$ 1,800.00   | \$ 3.00      | \$ 1,800.00     |
| 1060  | Site & Frontage Potholing                   | 10    | EA   | \$ 500.00    | \$ 5,000.00   | \$ 500.00    | \$ 5,000.00   | \$ 500.00    | \$ 5,000.00     |
| 1070  | Erosion Control Maintenance                 | 9     | WK   | \$ 750.00    | \$ 6,750.00   | \$ 750.00    | \$ 6,750.00   | \$ 750.00    | \$ 6,750.00     |
| 1080  | Construction Entrance                       | 1     | EA   | \$ 8,000.00  | \$ 8,000.00   | \$ 8,000.00  | \$ 8,000.00   | \$ 8,000.00  | \$ 8,000.00     |
| 1090  | Silt Fence (Supported)                      | 1750  | LF   | \$ 5.00      | \$ 8,750.00   | \$ 5.00      | \$ 8,750.00   | \$ 5.00      | \$ 8,750.00     |
| 1100  | Hydroseed/Temp Mulch (Temp Erosion Control) | 3     | AC   | \$ 3,320.00  | \$ 9,960.00   | \$ 3,320.00  | \$ 9,960.00   | \$ 3,320.00  | \$ 9,960.00     |
| 1110  | Street Sweeping                             | 9     | WK   | \$ 1,270.00  | \$ 11,430.00  | \$ 1,270.00  | \$ 11,430.00  | \$ 1,270.00  | \$ 11,430.00    |
| 1120  | Dust Control (Water Truck)                  | 9     | WK   | \$ 1,135.00  | \$ 10,215.00  | \$ 1,135.00  | \$ 10,215.00  | \$ 1,135.00  | \$ 10,215.00    |
| 1130  | Temporary Irrigation Dust Control           | 1     | EA   | \$ 17,750.00 | \$ 17,750.00  | \$ 17,750.00 | \$ 17,750.00  | \$ 17,750.00 | \$ 17,750.00    |
| 1140  | Signing & Traffic Control                   | 192   | SF   | \$ 37.00     | \$ 7,104.00   | \$ 37.00     | \$ 7,104.00   | \$ 37.00     | \$ 7,104.00     |
| 1150  | Clearing, Grubbing & Tree Removal           | 1     | EA   | \$ 7,600.00  | \$ 7,600.00   | \$ 7,600.00  | \$ 7,600.00   | \$ 7,600.00  | \$ 7,600.00     |
| 1160  | Well Laydown Area (200 x 200)               | 1481  | TN   | \$ 36.00     | \$ 53,316.00  | \$ 36.00     | \$ 53,316.00  | \$ 36.00     | \$ 53,316.00    |
| 1170a | Stripping to Stockpile (For Reuse)          | 2090  | CY   | \$ 13.00     | \$ 27,170.00  |              | \$ -          |              | \$ -            |
| 1170b | Stripping to Stockpile (For Reuse)          | 2326  | CY   |              | \$ -          | \$ 13.00     | \$ 30,238.00  | \$ 13.00     | \$ 30,238.00    |
| 1175  | Excavation to Embankment On-Site            | 5000  | CY   |              | \$ -          | \$ 24.00     | \$ 120,000.00 | \$ 24.00     | \$ 120,000.00   |
| 1180a | Excavation to Off-Site Disposal             | 17766 | CY   | \$ 32.00     | \$ 568,512.00 |              | \$ -          |              | \$ -            |
| 1180b | Excavation to Off-Site Disposal             | 11385 | CY   |              |               | \$ 32.00     | \$ 364,320.00 | \$ 32.00     | \$ 364,320.00   |
| 1190a | Excavation to Stockpile (For Reuse)         | 12707 | CY   | \$ 22.00     | \$ 279,554.00 |              | \$ -          |              | \$ -            |
| 1190b | Excavation to Stockpile (For Reuse)         | 14627 | CY   |              |               | \$ 22.00     | \$ 321,794.00 | \$ 22.00     | \$ 321,794.00   |
| 1200  | Boulder Processing                          | 4977  | CY   | \$ 26.00     | \$ 129,402.00 | \$ 26.00     | \$ 129,402.00 | \$ 26.00     | \$ 129,402.00   |
| 1205  | Boulder Processing Not Needed               | -4297 | CY   |              | \$ -          |              | \$ -          | \$ 26.00     | \$ (111,722.00) |
| 1210  | Foundation Over-Ex                          | 2576  | CY   | \$ 46.00     | \$ 118,496.00 | \$ 46.00     | \$ 118,496.00 | \$ 46.00     | \$ 118,496.00   |
| 1215  | Foundation Over-Ex Not Needed               | -1973 | CY   |              | \$ -          |              | \$ -          | \$ 46.00     | \$ (90,758.00)  |
| 1220  | Foundation Over-Ex Backfill                 | 5153  | TN   | \$ 25.00     | \$ 128,825.00 | \$ 25.00     | \$ 128,825.00 | \$ 25.00     | \$ 128,825.00   |

|                                              |                                                        |                                        |       |                 |                        |                        |                        |                        |                 |                 |
|----------------------------------------------|--------------------------------------------------------|----------------------------------------|-------|-----------------|------------------------|------------------------|------------------------|------------------------|-----------------|-----------------|
| 2                                            | 1225                                                   | Foundation Over-Ex Backfill Not Needed | -3947 | TN              |                        | \$ -                   |                        | \$ -                   | \$ 25.00        | \$ (98,675.00)  |
| <b>MASS SITE GRADING &amp; PREP SUBTOTAL</b> |                                                        |                                        |       |                 | <b>\$ 1,478,709.00</b> | <b>\$ 1,439,825.00</b> | <b>\$ 1,138,670.00</b> |                        |                 |                 |
| <b>Difference From 60% Budget =</b>          |                                                        |                                        |       |                 |                        |                        |                        | <b>\$ (301,155.00)</b> |                 |                 |
| 1500                                         | Grading VE. Changes After EWA#1                        | 1                                      | LS    | \$ 38,848.00    |                        | \$ 38,848.00           | \$ 38,848.00           | \$ 38,848.00           | \$ 38,848.00    | \$ 38,848.00    |
| 2010                                         | Potholing for Well Discharge Piping                    | 10                                     | EA    | \$ 500.00       | \$ 5,000.00            | \$ 500.00              | \$ 5,000.00            | \$ 500.00              | \$ 5,000.00     | \$ 5,000.00     |
| 2020                                         | Procure, Deliver & String Discharge Piping             | 1400                                   | LF    | \$ 43.00        | \$ 60,200.00           | \$ 43.00               | \$ 60,200.00           | \$ 43.00               | \$ 60,200.00    | \$ 60,200.00    |
| 2030                                         | Fuse 18-inch Discharge Piping                          | 1400                                   | LF    | \$ 20.25        | \$ 28,350.00           | \$ 20.25               | \$ 28,350.00           | \$ 20.25               | \$ 28,350.00    | \$ 28,350.00    |
| 2040                                         | AC Sawcutting Discharge Piping                         | 200                                    | LF    | \$ 5.00         | \$ 1,000.00            | \$ 5.00                | \$ 1,000.00            | \$ 5.00                | \$ 1,000.00     | \$ 1,000.00     |
| 2050                                         | Surface Installed Discharge Piping                     | 1035                                   | LF    | \$ 8.00         | \$ 8,280.00            | \$ 8.00                | \$ 8,280.00            | \$ 8.00                | \$ 8,280.00     | \$ 8,280.00     |
| 2060                                         | Buried Discharge Piping                                | 365                                    | LF    | \$ 85.00        | \$ 31,025.00           | \$ 85.00               | \$ 31,025.00           | \$ 85.00               | \$ 31,025.00    | \$ 31,025.00    |
| 2070                                         | Connect to Exist 18-inch DI (SW Volcano)               | 1                                      | EA    | \$ 6,930.00     | \$ 6,930.00            | \$ 6,930.00            | \$ 6,930.00            | \$ 6,930.00            | \$ 6,930.00     | \$ 6,930.00     |
| 2080                                         | Connect to Exist 18-inch DI (SW Wickiup & SW 49th)     | 1                                      | EA    | \$ 7,000.00     | \$ 7,000.00            | \$ 7,000.00            | \$ 7,000.00            | \$ 7,000.00            | \$ 7,000.00     | \$ 7,000.00     |
| 2090                                         | Removal of Discharge System + Permanent AC Restoration | 1400                                   | LF    | \$ 14.00        | \$ 19,600.00           | \$ 14.00               | \$ 19,600.00           | \$ 14.00               | \$ 19,600.00    | \$ 19,600.00    |
| 2100                                         | Blow-Off and Chlorination of Existing 18-inch DI       | 1                                      | EA    | \$ 7,825.00     | \$ 7,825.00            | \$ 7,825.00            | \$ 7,825.00            | \$ 7,825.00            | \$ 7,825.00     | \$ 7,825.00     |
| <b>WELL DISCHARGE PIPING SUBTOTAL</b>        |                                                        |                                        |       |                 | <b>\$ 175,210.00</b>   | <b>\$ 175,210.00</b>   | <b>\$ 175,210.00</b>   | <b>\$ 175,210.00</b>   |                 |                 |
| <b>Difference From 60% Budget =</b>          |                                                        |                                        |       |                 |                        |                        |                        | <b>\$ -</b>            |                 |                 |
| 3000                                         | Well Discharge Line Pump Contingency                   | 1                                      | LS    | \$ 50,000.00    | \$ 50,000.00           | \$ 50,000.00           | \$ 50,000.00           | \$ 50,000.00           | \$ 50,000.00    | \$ 50,000.00    |
| 3100                                         | Well Development                                       | 1                                      | LS    | \$ 1,562,925.00 | \$ 1,562,925.00        | \$ 1,562,925.00        | \$ 1,562,925.00        | \$ 1,562,925.00        | \$ 1,562,925.00 | \$ 1,562,925.00 |
| 3010                                         | Quartz Park Fill Mobilization                          | 1                                      | LS    |                 | \$ -                   | \$ 2,500.00            | \$ 2,500.00            | \$ 2,500.00            | \$ 2,500.00     | \$ 2,500.00     |
| 3020                                         | Quartz Park Fill Construction Entrance                 | 1                                      | EA    |                 | \$ -                   | \$ 3,400.00            | \$ 3,400.00            | \$ 3,400.00            | \$ 3,400.00     | \$ 3,400.00     |
| 3030                                         | Quartz Park Fill Silt Fence                            | 1000                                   | LF    |                 | \$ -                   | \$ 5.00                | \$ 5,000.00            | \$ 5.00                | \$ 5,000.00     | \$ 5,000.00     |
| 3040                                         | Quartz Park Fill Erosion Control Maintenace            | 1                                      | LS    |                 | \$ -                   | \$ 2,000.00            | \$ 2,000.00            | \$ 2,000.00            | \$ 2,000.00     | \$ 2,000.00     |
| 3050                                         | Quartz Park Fill Site Stripping to On-Site Stockpile   | 1035                                   | CY    |                 | \$ -                   | \$ 13.00               | \$ 13,455.00           | \$ 13.00               | \$ 13,455.00    | \$ 13,455.00    |

|   |                                       |                                            |       |      |                         |                    |                       |                  |                         |                    |
|---|---------------------------------------|--------------------------------------------|-------|------|-------------------------|--------------------|-----------------------|------------------|-------------------------|--------------------|
|   | 3060                                  | Quartz Park Embankment of Import Material  | 3787  | CY   |                         | \$ -               | \$ 13.00              | \$ 49,231.00     | \$ 13.00                | \$ 49,231.00       |
| 3 | QUARTZ PARK FILL SUBTOTAL             |                                            |       |      | \$ -                    | \$ 75,586.00       | \$ 75,586.00          |                  |                         |                    |
|   |                                       |                                            |       |      |                         |                    |                       |                  |                         |                    |
|   | ITEM                                  | DESCRIPTION                                | QTY   | UNIT | EARLY GMP<br>UNIT PRICE | EARLY GMP<br>TOTAL | 60% GMP<br>UNIT PRICE | 60% GMP<br>TOTAL | FINAL GMP<br>UNIT PRICE | FINAL GMP<br>TOTAL |
|   | 4010                                  | Heavy Equipment Mobilization               | 1     | LS   | \$ 24,300.00            | \$ 24,300.00       | \$ 24,300.00          | \$ 24,300.00     | \$ 24,300.00            | \$ 24,300.00       |
|   | 4020                                  | Subcontractor Mobilization                 | 1     | LS   | \$ 210,630.00           | \$ 210,630.00      | \$ 210,630.00         | \$ 210,630.00    | \$ 210,630.00           | \$ 210,630.00      |
|   | 4030                                  | EW#2 Crew Subsistence/Lodging              | 61    | WK   | \$ 1,560.00             | \$ 95,160.00       | \$ 1,560.00           | \$ 95,160.00     | \$ 1,560.00             | \$ 95,160.00       |
|   | 4040                                  | Storage Containers                         | 14    | MO   | \$ 560.00               | \$ 7,840.00        | \$ 560.00             | \$ 7,840.00      | \$ 560.00               | \$ 7,840.00        |
|   | 4050                                  | Construction Survey                        | 1     | LS   | \$ 25,135.00            | \$ 25,135.00       | \$ 25,135.00          | \$ 25,135.00     | \$ 18,250.00            | \$ 18,250.00       |
|   | 4060                                  | Erosion Control Maintenance                | 61    | WK   | \$ 300.00               | \$ 18,300.00       | \$ 300.00             | \$ 18,300.00     | \$ 300.00               | \$ 18,300.00       |
|   | 4070                                  | Street Sweeping                            | 61    | WK   | \$ 255.00               | \$ 15,555.00       | \$ 255.00             | \$ 15,555.00     | \$ 255.00               | \$ 15,555.00       |
|   | 4080                                  | Dust Control (Water Truck)                 | 61    | WK   | \$ 345.00               | \$ 21,045.00       | \$ 345.00             | \$ 21,045.00     | \$ 345.00               | \$ 21,045.00       |
|   | 4090                                  | Removal of Well Laydown Area               | 1481  | TN   | \$ 17.00                | \$ 25,177.00       | \$ 17.00              | \$ 25,177.00     | \$ 17.00                | \$ 25,177.00       |
|   | 4100a                                 | Excavation Stockpile to Reservoir Backfill | 12707 | CY   | \$ 16.50                | \$ 209,665.50      |                       | \$ -             |                         | \$ -               |
|   | 4100b                                 | Excavation Stockpile to Reservoir Backfill | 14627 | CY   |                         | \$ -               | \$ 13.25              | \$ 193,807.75    | \$ 13.25                | \$ 193,807.75      |
|   | 4110a                                 | Stripping Stockpile to Reservoir Backfill  | 2090  | CY   | \$ 14.00                | \$ 29,260.00       |                       | \$ -             |                         | \$ -               |
|   | 4110b                                 | Stripping Stockpile to Reservoir Backfill  | 2326  | CY   |                         | \$ -               | \$ 11.00              | \$ 25,586.00     | \$ 11.00                | \$ 25,586.00       |
|   | 4120                                  | Site Slope/Fine Grading                    | 2.50  | AC   | \$ 3,600.00             | \$ 9,000.00        | \$ 3,600.00           | \$ 9,000.00      | \$ 3,600.00             | \$ 9,000.00        |
|   | PHASE II MASS GRADING & PREP SUBTOTAL |                                            |       |      | \$ 691,067.50           | \$ 671,535.75      | \$ 664,650.75         |                  |                         |                    |
|   | Difference From 60% Budget =          |                                            |       |      |                         |                    |                       |                  | \$ (6,885.00)           |                    |
|   | ITEM                                  | DESCRIPTION                                | QTY   | UNIT | EARLY GMP<br>UNIT PRICE | EARLY GMP<br>TOTAL | 60% GMP<br>UNIT PRICE | 60% GMP<br>TOTAL | FINAL GMP<br>UNIT PRICE | FINAL GMP<br>TOTAL |
|   | 5010a                                 | Reservoir Base Prep (Aggregate Sections)   | 8391  | TN   | \$ 43.50                | \$ 365,008.50      |                       | \$ -             |                         | \$ -               |
|   | 5010b                                 | Reservoir Base Prep (Aggregate Sections)   | 5716  | TN   |                         | \$ -               | \$ 43.50              | \$ 248,646.00    |                         | \$ -               |
| 3 | 5010c                                 | Reservoir Base Prep (Aggregate Sections)   | 6324  | TN   |                         | \$ -               |                       | \$ -             | \$ 41.50                | \$ 262,446.00      |
|   | 5020                                  | Reservoir 30 Mil Liner                     | 1     | LS   | \$ 78,100.00            | \$ 78,100.00       | \$ 78,100.00          | \$ 78,100.00     | \$ 78,100.00            | \$ 78,100.00       |
| 2 | 5025                                  | Reservoir 30 Mil Liner Savings             | 1     | LS   |                         | \$ -               |                       | \$ -             | \$ (5,025.00)           | \$ (5,025.00)      |

|                                 |       |                                                  |      |      |                 |                 |                 |                 |                 |                 |
|---------------------------------|-------|--------------------------------------------------|------|------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                 | 5030a | Reservoir Foundation, Underdrain, & French Drain | 1960 | LF   | \$ 13.00        | \$ 25,480.00    | \$ 13.00        | \$ 25,480.00    |                 | \$ -            |
|                                 | 5030b | Reservoir Foundation, Underdrain, & French Drain | 2540 | LF   |                 | \$ -            |                 | \$ -            | \$ 11.00        | \$ 27,940.00    |
| 3                               | 5040a | Reservoir Drain Rock Envelope                    | 2350 | TN   | \$ 38.00        | \$ 89,300.00    |                 | \$ -            |                 |                 |
|                                 | 5040b | Reservoir Drain Rock Envelope                    | 267  | TN   |                 | \$ -            | \$ 38.00        | \$ 10,146.00    |                 |                 |
|                                 | 5040c | Reservoir Drain Rock Envelope                    | 819  | TN   |                 | \$ -            |                 | \$ -            | \$ 38.00        | \$ 31,122.00    |
|                                 | 5045  | Miradrain 6200 Drainage Panels                   | 767  | SY   |                 | \$ -            | \$ 30.00        | \$ 23,010.00    | \$ 30.00        | \$ 23,010.00    |
|                                 | 5050a | Reservoir Fabric Envelope                        | 8870 | SY   | \$ 2.60         | \$ 23,062.00    | \$ 2.60         | \$ 23,062.00    |                 | \$ -            |
|                                 | 5050b | Reservoir Fabric Envelope                        | 4968 | SY   |                 | \$ -            |                 | \$ -            | \$ 2.60         | \$ 12,916.80    |
| 3                               | 5060  | Reservoir Construction                           | 1    | LS   | \$ 4,423,700.00 | \$ 4,423,700.00 | \$ 4,423,700.00 | \$ 4,423,700.00 | \$ 4,400,000.00 | \$ 4,400,000.00 |
|                                 | 5070  | Reservoir Inlet Mixing System                    | 1    | LS   | \$ 134,200.00   | \$ 134,200.00   | \$ 124,720.00   | \$ 124,720.00   | \$ 71,990.00    | \$ 71,990.00    |
|                                 | 5080a | Reservoir 12-inch Overflow                       | 1    | LS   | \$ 13,750.00    | \$ 13,750.00    | \$ 13,750.00    | \$ 13,750.00    |                 | \$ -            |
|                                 | 5080b | Reservoir 12-inch Overflow                       | 1    | LS   |                 | \$ -            |                 | \$ -            | \$ 28,000.00    | \$ 28,000.00    |
|                                 | 5090a | Reservoir 8-inch Drain                           | 1    | LS   | \$ 10,900.00    | \$ 10,900.00    |                 | \$ -            |                 | \$ -            |
|                                 | 5090b | Reservoir 8-inch Drain                           | 1    | LS   |                 | \$ -            | \$ 6,715.00     | \$ 6,715.00     |                 | \$ -            |
|                                 | 5090c | Reservoir 8-inch Drain                           | 1    | LS   |                 | \$ -            |                 | \$ -            | \$ 8,320.00     | \$ 8,320.00     |
|                                 | 5100a | Reservoir 24-inch Outlet System                  | 1    | LS   | \$ 113,800.00   | \$ 113,800.00   |                 | \$ -            |                 | \$ -            |
|                                 | 5100b | Reservoir 24-inch Outlet System                  | 1    | LS   |                 | \$ -            | \$ 65,710.00    | \$ 65,710.00    |                 | \$ -            |
|                                 | 5100c | Reservoir 24-inch Outlet System                  | 1    | LS   |                 | \$ -            |                 | \$ -            | \$ 43,380.00    | \$ 43,380.00    |
| 6                               | 5110  | Reservoir Painting & Coating                     | 1    | LS   | \$ 50,270.00    | \$ 50,270.00    | \$ 50,270.00    | \$ 50,270.00    | \$ 155,515.00   | \$ 154,682.00   |
| RESERVOIR CONSTRUCTION SUBTOTAL |       |                                                  |      |      | \$              | 5,327,570.50    | \$              | 5,093,309.00    | \$              | 5,136,881.80    |
| Difference From 60% Budget =    |       |                                                  |      |      |                 |                 |                 | \$              | 43,572.80       |                 |
|                                 |       |                                                  |      |      | EARLY GMP       | EARLY GMP       | 60% GMP         | 60% GMP         | FINAL GMP       | FINAL GMP       |
|                                 | ITEM  | DESCRIPTION                                      | QTY  | UNIT | UNIT PRICE      | TOTAL           | UNIT PRICE      | TOTAL           | UNIT PRICE      | TOTAL           |
| 4                               | 6010a | BPS Base Prep (Aggregate Sections)               | 3629 | SF   | \$ 7.00         | \$ 25,403.00    | \$ 7.00         | \$ 25,403.00    |                 | \$ -            |
|                                 | 6010b | BPS Base Prep (Aggregate Sections)               | 3467 | SF   |                 | \$ -            |                 | \$ -            | \$ 7.50         | \$ 26,002.50    |
|                                 | 6020  | BPS CIP Foundation                               | 1    | LS   | \$ 180,970.00   | \$ 180,970.00   | \$ 180,970.00   | \$ 180,970.00   | \$ 220,000.00   | \$ 220,000.00   |
|                                 | 6030  | BPS Masonry                                      | 1    | LS   | \$ 158,350.00   | \$ 158,350.00   | \$ 133,310.00   | \$ 133,310.00   | \$ 163,959.00   | \$ 163,959.00   |
|                                 | 6035  | BPS Masonry Door Framing                         | 1    | LS   |                 | \$ -            |                 | \$ -            | \$ 2,075.00     | \$ 2,075.00     |
|                                 | 6040  | BPS Framing, Sheeting, Siding, & Insulation      | 1    | LS   | \$ 207,100.00   | \$ 207,100.00   | \$ 158,675.00   | \$ 158,675.00   | \$ 141,095.00   | \$ 141,095.00   |
|                                 | 6050  | BPS Canopy                                       | 1    | LS   | \$ 25,135.00    | \$ 25,135.00    | \$ 25,135.00    | \$ 25,135.00    | \$ 21,360.00    | \$ 21,360.00    |
|                                 | 6060  | BPS Roofing, Gutters & Downs                     | 1    | LS   | \$ 89,680.00    | \$ 89,680.00    | \$ 67,260.00    | \$ 67,260.00    | \$ 94,520.00    | \$ 94,520.00    |
|                                 | 6070  | BPS Doors/Windows                                | 1    | LS   | \$ 69,600.00    | \$ 69,600.00    | \$ 69,600.00    | \$ 69,600.00    | \$ 74,050.00    | \$ 74,050.00    |

|                                      |             |                                                  |            |             |                   |                     |                   |                     |                   |                     |
|--------------------------------------|-------------|--------------------------------------------------|------------|-------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|
|                                      | 6080        | BPS Skylight/Pump Access Hatches                 | 1          | LS          | \$ 46,500.00      | \$ 46,500.00        | \$ 46,500.00      | \$ 46,500.00        | \$ 12,943.00      | \$ 12,943.00        |
|                                      | 6090        | BPS Interior Finishes                            | 1          | LS          | \$ 20,250.00      | \$ 20,250.00        | \$ 20,250.00      | \$ 20,250.00        |                   | \$ -                |
|                                      | 6100        | BPS HVAC                                         | 1          | LS          | \$ 150,810.00     | \$ 150,810.00       | \$ 125,670.00     | \$ 125,670.00       | \$ 69,500.00      | \$ 69,500.00        |
| 4                                    | 6110        | BPS Electrical                                   | 1          | LS          | \$ 615,300.00     | \$ 615,300.00       | \$ 615,300.00     | \$ 615,300.00       | \$ 713,335.00     | \$ 713,335.00       |
|                                      | 6120a       | BPS Electrical Trenching & Backfill              | 1400       | LF          | \$ 46.00          | \$ 64,400.00        | \$ 46.00          | \$ 64,400.00        |                   | \$ -                |
|                                      | 6120b       | BPS Electrical Trenching & Backfill              | 1500       | LF          |                   | \$ -                |                   | \$ -                | \$ 45.50          | \$ 68,250.00        |
|                                      | 6130a       | BPS Excavation/Set Electrical Vaults             | 1          | EA          | \$ 3,100.00       | \$ 3,100.00         | \$ 3,100.00       | \$ 3,100.00         |                   | \$ -                |
|                                      | 6130b       | BPS Excavation/Set Electrical Vaults             | 3          | EA          |                   | \$ -                |                   | \$ -                | \$ 3,095.00       | \$ 9,285.00         |
|                                      | 6140        | BPS Excavate/Set Light Pole Bases                | 9          | EA          | \$ 500.00         | \$ 4,500.00         | \$ 500.00         | \$ 4,500.00         | \$ 430.00         | \$ 3,870.00         |
|                                      | 6150a       | BPS Standby Generators 24 Hr Internal Fuel Tanks | 1          | LS          | \$ 537,200.00     | \$ 537,200.00       | \$ 577,580.00     | \$ 577,580.00       |                   | \$ -                |
|                                      | 6150b       | BPS Standby Generators & ATS                     | 1          | LS          |                   | \$ -                |                   | \$ -                | \$ 584,995.00     | \$ 584,995.00       |
|                                      | 6160        | BPS Controls                                     | 1          | LS          | \$ 452,300.00     | \$ 452,300.00       | \$ 452,300.00     | \$ 452,300.00       | \$ 517,610.00     | \$ 517,610.00       |
|                                      | 6170        | BPS Painting & Coatings                          | 1          | LS          | \$ 75,400.00      | \$ 75,400.00        | \$ 75,400.00      | \$ 75,400.00        | \$ 58,940.00      | \$ 58,940.00        |
|                                      | 6180        | BPS Vertical Turbine Pumps/Cans                  | 1          | LS          | \$ 787,000.00     | \$ 787,000.00       | \$ 787,000.00     | \$ 787,000.00       | \$ 840,888.00     | \$ 840,888.00       |
|                                      | 6190        | BPS Large Diameter Piping & Valves               | 1          | LS          | \$ 420,025.00     | \$ 420,025.00       | \$ 420,025.00     | \$ 420,025.00       | \$ 403,610.00     | \$ 403,610.00       |
| 3                                    | 6200        | BPS Plumbing (Domestic Water/Drains)             | 1          | LS          | \$ 25,135.00      | \$ 25,135.00        | \$ 25,135.00      | \$ 25,135.00        | \$ 33,590.00      | \$ 33,590.00        |
|                                      | 6210        | BPS Chlorine System                              | 1          | LS          | \$ 39,250.00      | \$ 39,250.00        | \$ 39,250.00      | \$ 39,250.00        | \$ 82,365.00      | \$ 82,365.00        |
|                                      | 6230        | BPS Fabricated Metals                            | 1          | LS          | \$ 30,500.00      | \$ 30,500.00        | \$ 30,500.00      | \$ 30,500.00        | \$ 11,375.00      | \$ 11,375.00        |
| <b>BOOSTER PUMP STATION SUBTOTAL</b> |             |                                                  |            |             | <b>\$</b>         | <b>4,027,908.00</b> | <b>\$</b>         | <b>3,947,263.00</b> | <b>\$</b>         | <b>4,153,617.50</b> |
| <b>Difference From 60% Budget =</b>  |             |                                                  |            |             |                   |                     |                   |                     | <b>\$</b>         | <b>206,354.50</b>   |
|                                      |             |                                                  |            |             | <b>EARLY GMP</b>  | <b>EARLY GMP</b>    | <b>60% GMP</b>    | <b>60% GMP</b>      | <b>FINAL GMP</b>  | <b>FINAL GMP</b>    |
|                                      | <b>ITEM</b> | <b>DESCRIPTION</b>                               | <b>QTY</b> | <b>UNIT</b> | <b>UNIT PRICE</b> | <b>TOTAL</b>        | <b>UNIT PRICE</b> | <b>TOTAL</b>        | <b>UNIT PRICE</b> | <b>TOTAL</b>        |
| 3                                    | 7010        | Procure & String Inlet/Outlet/Header Pipe        | 1          | LS          | \$ 375,775.00     | \$ 375,775.00       | \$ 380,385.00     | \$ 380,385.00       | \$ 290,715.00     | \$ 290,715.00       |
|                                      | 7020a       | Excavate & Lay Inlet/Outlet/Header Pipe          | 280        | LF          | \$ 162.00         | \$ 45,360.00        | \$ 162.00         | \$ 45,360.00        |                   | \$ -                |
|                                      | 7020b       | Excavate & Lay Inlet/Outlet/Header Pipe          | 407        | LF          |                   | \$ -                |                   | \$ -                | \$ 171.00         | \$ 69,597.00        |
|                                      | 7030a       | Install Inlet/Outlet/Header Valves               | 11         | EA          | \$ 1,370.00       | \$ 15,070.00        | \$ 1,370.00       | \$ 15,070.00        |                   | \$ -                |
|                                      | 7030b       | Install Inlet/Outlet/Header Valves               | 12         | EA          |                   | \$ -                |                   | \$ -                | \$ 1,660.00       | \$ 19,920.00        |
|                                      | 7040a       | Inlet/Outlet & Header Fitting Bolt Up            | 29         | EA          | \$ 1,600.00       | \$ 46,400.00        | \$ 1,600.00       | \$ 46,400.00        |                   | \$ -                |
|                                      | 7040b       | Inlet/Outlet & Header Fitting Bolt Up            | 55         | EA          |                   | \$ -                |                   | \$ -                | \$ 840.00         | \$ 46,200.00        |
|                                      | 7045        | Install Hard Hydrant                             | 1          | EA          |                   | \$ -                |                   | \$ -                | \$ 985.00         | \$ 985.00           |



|                              |       |                                                  |      |      |               |               |               |              |              |               |
|------------------------------|-------|--------------------------------------------------|------|------|---------------|---------------|---------------|--------------|--------------|---------------|
|                              | 7050a | Procure & Install 18 IN Zone 2 Pipe              | 125  | LF   | \$ 325.00     | \$ 40,625.00  | \$ 325.00     | \$ 40,625.00 |              | \$ -          |
|                              | 7050b | Procure & Install 18 IN Zone 2 Pipe              | 140  | LF   |               | \$ -          |               | \$ -         | \$ 297.00    | \$ 41,580.00  |
|                              | 7060a | Procure & Install 24 IN Zone 1A Pipe             | 125  | LF   | \$ 387.00     | \$ 48,375.00  | \$ 387.00     | \$ 48,375.00 |              | \$ -          |
|                              | 7060b | Procure & Install 24 IN Zone 1A Pipe             | 150  | LF   |               | \$ -          |               | \$ -         | \$ 329.00    | \$ 49,350.00  |
|                              | 7070a | Procure & Install 8 IN DI Pipe                   | 120  | LF   | \$ 170.00     | \$ 20,400.00  | \$ 170.00     | \$ 20,400.00 |              | \$ -          |
|                              | 7070b | Procure & Install 8 IN DI Pipe                   | 65   | LF   |               | \$ -          |               | \$ -         | \$ 172.00    | \$ 11,180.00  |
| 4                            | 7080  | Procure & Install Control Vaults & Piping        | 2    | EA   | \$ 40,880.00  | \$ 81,760.00  | \$ 40,880.00  | \$ 81,760.00 | \$ 64,325.00 | \$ 128,650.00 |
| 3                            | 7090  | Procure & Install 4 IN Washdown Pipe             | 1    | LS   | \$ -          | \$ -          |               | \$ -         | \$ 24,785.00 | \$ 24,785.00  |
| 3                            | 7095  | Procure & Install Buried Water Analysis Piping   | 210  | LF   | \$ -          | \$ -          |               | \$ -         | \$ 67.00     | \$ 14,070.00  |
| 3                            | 7100  | Procure & Install 2 IN Water Service             | 30   | LF   | \$ -          | \$ -          |               | \$ -         | \$ 270.00    | \$ 8,100.00   |
| SITE WATER SYSTEM SUBTOTAL   |       |                                                  |      |      | \$ 673,765.00 | \$ 678,375.00 | \$ 705,132.00 |              |              |               |
| Difference From 60% Budget = |       |                                                  |      |      |               |               |               |              | \$ 26,757.00 |               |
|                              |       |                                                  |      |      | EARLY GMP     | EARLY GMP     | 60% GMP       | 60% GMP      | FINAL GMP    | FINAL GMP     |
|                              | ITEM  | DESCRIPTION                                      | QTY  | UNIT | UNIT PRICE    | TOTAL         | UNIT PRICE    | TOTAL        | UNIT PRICE   | TOTAL         |
|                              | 8010  | Procure & Install Precast Storm Structures       | 1    | LS   | \$ 24,500.00  | \$ 24,500.00  | \$ 24,500.00  | \$ 24,500.00 | \$ 18,365.00 | \$ 18,365.00  |
|                              | 8020a | Procure & String Storm Drain Piping              | 1    | LS   | \$ 35,530.00  | \$ 35,530.00  | \$ 35,530.00  | \$ 35,530.00 |              | \$ -          |
|                              | 8020b | Procure & String Storm Drain Piping              | 372  | LF   |               | \$ -          |               | \$ -         | \$ 75.00     | \$ 27,900.00  |
| 3                            | 8025  | Fuse & Install 4 IN Storm Drain                  | 30   | LF   |               | \$ -          |               | \$ -         | \$ 110.00    | \$ 3,300.00   |
| 3                            | 8026  | Fuse & Install 6 IN Storm Drain                  | 25   | LF   |               | \$ -          |               | \$ -         | \$ 125.00    | \$ 3,125.00   |
| 3                            | 8027  | Install 8 IN C-900 PVC Storm Drain               | 40   | LF   |               | \$ -          |               | \$ -         | \$ 145.00    | \$ 5,800.00   |
|                              | 8030a | Install 18 IN Storm Drain                        | 50   | LF   | \$ 121.00     | \$ 6,050.00   | \$ 121.00     | \$ 6,050.00  |              | \$ -          |
|                              | 8030b | Install 18 IN Storm Drain                        | 35   | LF   |               | \$ -          |               | \$ -         | \$ 120.00    | \$ 4,200.00   |
|                              | 8040a | Install 24 IN Alignment E Overflow Piping        | 175  | LF   | \$ 138.00     | \$ 24,150.00  | \$ 138.00     | \$ 24,150.00 |              | \$ -          |
|                              | 8040b | Install 24 IN Alignment E Overflow Piping        | 170  | LF   |               | \$ -          |               | \$ -         | \$ 158.00    | \$ 26,860.00  |
| 3                            | 8045  | 24 IN Pond Discharge                             | 1    | LS   |               | \$ -          |               | \$ -         | \$ 14,125.00 | \$ 14,125.00  |
|                              | 8050  | Site Stormwater Pond Finish & Slurry Cutoff Wall | 1    | LS   | \$ 88,925.00  | \$ 88,925.00  | \$ 66,240.00  | \$ 66,240.00 | \$ 68,910.00 | \$ 68,910.00  |
|                              | 8053  | Site Stormwater Pond Fabric                      | 475  | SY   |               | \$ -          |               | \$ -         | \$ 2.25      | \$ 1,068.75   |
| 3                            | 8055  | Site Stormwater Pond 10 IN Open Rock Surfacing   | 4276 | SF   |               | \$ -          |               | \$ -         | \$ 3.00      | \$ 12,828.00  |

|                                                   |                                                  |      |      |              |               |              |               |               |               |
|---------------------------------------------------|--------------------------------------------------|------|------|--------------|---------------|--------------|---------------|---------------|---------------|
| SITE STORMWATER SUBTOTAL                          |                                                  |      |      | \$           | 179,155.00    | \$           | 156,470.00    | \$            | 186,481.75    |
| Difference From 60% Budget =                      |                                                  |      |      |              |               |              |               | \$            | 30,011.75     |
| 8060                                              | Pipe Testing (Water & Storm)                     | 1    | LS   | \$           | 18,000.00     | \$           | 18,000.00     | \$            | 17,275.00     |
| Difference From 60% Budget =                      |                                                  |      |      |              |               |              |               | \$            | (725.00)      |
|                                                   |                                                  |      |      | EARLY GMP    | EARLY GMP     | 60% GMP      | 60% GMP       | FINAL GMP     | FINAL GMP     |
| ITEM                                              | DESCRIPTION                                      | QTY  | UNIT | UNIT PRICE   | TOTAL         | UNIT PRICE   | TOTAL         | UNIT PRICE    | TOTAL         |
| 9010a                                             | Site Base/Shoulder Rock                          | 578  | TN   | \$ 45.50     | \$ 26,299.00  | \$ 45.50     | \$ 26,299.00  |               | \$ -          |
| 9010b                                             | Site Base/Shoulder Rock                          | 589  | TN   |              | \$ -          |              | \$ -          | \$ 46.00      | \$ 27,094.00  |
| 9015                                              | Site Subgrade Fabric                             | 1189 | SY   |              | \$ -          |              | \$ -          | \$ 1.75       | \$ 2,080.75   |
| 9020a                                             | Site Concrete Flatwork                           | 390  | SF   | \$ 10.00     | \$ 3,900.00   | \$ 10.00     | \$ 3,900.00   |               | \$ -          |
| 9020b                                             | Site Concrete Flatwork                           | 420  | SF   | \$ 10.00     |               | \$ 10.00     |               | \$ 11.50      | \$ 4,830.00   |
| 9030                                              | Site Curb                                        | 77   | LF   | \$ 32.50     | \$ 2,502.50   | \$ 32.50     | \$ 2,502.50   | \$ -          | \$ -          |
| 9040                                              | Site Paving                                      | 210  | TN   | \$ 150.00    | \$ 31,500.00  | \$ 150.00    | \$ 31,500.00  | \$ 105.00     | \$ 22,050.00  |
| 9050                                              | Site Reservoir Gravel Access Path                | 1180 | SF   | \$ 5.25      | \$ 6,195.00   | \$ 5.25      | \$ 6,195.00   | \$ 5.25       | \$ 6,195.00   |
| SITE SURFACING SUBTOTAL                           |                                                  |      |      | \$           | 70,396.50     | \$           | 70,396.50     | \$            | 62,249.75     |
| Difference From 60% Budget =                      |                                                  |      |      |              |               |              |               | \$            | (8,146.75)    |
|                                                   |                                                  |      |      | EARLY GMP    | EARLY GMP     | 60% GMP      | 60% GMP       | FINAL GMP     | FINAL GMP     |
| ITEM                                              | DESCRIPTION                                      | QTY  | UNIT | UNIT PRICE   | TOTAL         | UNIT PRICE   | TOTAL         | UNIT PRICE    | TOTAL         |
| 10010                                             | Site Security Fencing                            | 1365 | LF   | \$ 85.00     | \$ 116,025.00 | \$ 85.00     | \$ 116,025.00 | \$ 47.00      | \$ 64,155.00  |
| 10020                                             | Landscaping & Irrigation                         | 1    | LS   | \$ 75,400.00 | \$ 75,400.00  | \$ 75,400.00 | \$ 75,400.00  | \$ 179,858.00 | \$ 179,858.00 |
| 10030                                             | Project Signing                                  | 1    | LS   | \$ 2,515.00  | \$ 2,515.00   | \$ 2,515.00  | \$ 2,515.00   | \$ 2,500.00   | \$ 2,500.00   |
| 10040                                             | Parking Lot Striping                             | 1    | LS   |              | \$ -          |              | \$ -          | \$ 2,500.00   | \$ 2,500.00   |
| SITE SECURITY, LANDSCAPING & SIGNING/STRIPING SUB |                                                  |      |      | \$           | 193,940.00    | \$           | 193,940.00    | \$            | 249,013.00    |
| Difference From 60% Budget =                      |                                                  |      |      |              |               |              |               | \$            | 55,073.00     |
|                                                   |                                                  |      |      | EARLY GMP    | EARLY GMP     | 60% GMP      | 60% GMP       | FINAL GMP     | FINAL GMP     |
| ITEM                                              | DESCRIPTION                                      | QTY  | UNIT | UNIT PRICE   | TOTAL         | UNIT PRICE   | TOTAL         | UNIT PRICE    | TOTAL         |
| 11010a                                            | Off-Site 18 IN Zone 2 Pipe, Fittings & Valves    | 120  | LS   | \$ 300.00    | \$ 36,000.00  | \$ 300.00    | \$ 36,000.00  |               | \$ -          |
| 11010b                                            | Off-Site 18 IN Zone 2 Pipe, Fittings & Valves    | 385  | LS   |              | \$ -          |              | \$ -          | \$ 265.00     | \$ 102,025.00 |
| 11015                                             | Off-Site Restore Shoulder Drainage (Hyd to 45th) | 120  | LS   |              | \$ -          |              | \$ -          | \$ 16.00      | \$ 1,920.00   |
| 11020a                                            | Off-Site 24 IN Zone 1A Pipe, Fittings & Valves   | 60   | LF   | \$ 410.00    | \$ 24,600.00  | \$ 410.00    | \$ 24,600.00  |               | \$ -          |

|                                |        |                                                     |      |    |           |              |           |              |              |               |
|--------------------------------|--------|-----------------------------------------------------|------|----|-----------|--------------|-----------|--------------|--------------|---------------|
| 3                              | 11020b | Off-Site 24 IN Zone 1A Pipe, Fittings & Valves      | 305  | LF |           | \$ -         |           | \$ -         | \$ 387.00    | \$ 118,035.00 |
|                                | 11030a | Off-Site 8 & 6 IN DI Pipe, Fitting, VLV's & Hydrant | 100  | LF | \$ 250.00 | \$ 25,000.00 | \$ 250.00 | \$ 25,000.00 |              | \$ -          |
|                                | 11030b | Off-Site 8 & 6 IN DI Pipe, Fitting, VLV's & Hydrant | 610  | LF |           | \$ -         |           | \$ -         | \$ 193.00    | \$ 117,730.00 |
| 3                              | 11032  | Off-Site Catch Basins                               | 2    | LF |           | \$ -         |           | \$ -         | \$ 2,128.00  | \$ 4,256.00   |
| 3                              | 11033  | Off-Site 8 IN PVC Storm                             | 35   | LF |           | \$ -         |           | \$ -         | \$ 162.50    | \$ 5,687.50   |
| 3                              | 11034  | Off-Site Storm & Domestic Water Testing             | 1    | LF |           | \$ -         |           | \$ -         | \$ 16,325.00 | \$ 16,325.00  |
|                                | 11040a | Off-Site AC Sawcutting                              | 430  | LF | \$ 5.00   | \$ 2,150.00  | \$ 5.00   | \$ 2,150.00  |              | \$ -          |
|                                | 11040b | Off-Site AC Sawcutting                              | 2530 | LF |           | \$ -         |           | \$ -         | \$ 2.25      | \$ 5,692.50   |
|                                | 11050  | Off-Site AC Removal                                 | 9264 | LF | \$ 1.00   | \$ 9,264.00  | \$ 1.00   | \$ 9,264.00  | \$ 1.00      | \$ 9,264.00   |
| 3                              | 11060  | Off-Site Base Rock                                  | 515  | LF | \$ 45.00  | \$ 23,175.00 | \$ 45.00  | \$ 23,175.00 | \$ 47.00     | \$ 24,205.00  |
|                                | 11070a | Off-Site Sidewalk                                   | 2125 | SF | \$ 10.00  | \$ 21,250.00 | \$ 10.00  | \$ 21,250.00 |              | \$ -          |
|                                | 11070b | Off-Site Sidewalk                                   | 4075 | SF |           | \$ -         |           | \$ -         | \$ 10.00     | \$ 40,750.00  |
|                                | 11075  | Off-Site ADA Ramp Reservoir Drive                   | 1    | LS |           | \$ -         |           | \$ -         | \$ 3,500.00  | \$ 3,500.00   |
|                                | 11080a | Off-Site Curb                                       | 450  | SY | \$ 32.50  | \$ 14,625.00 | \$ 32.50  | \$ 14,625.00 |              | \$ -          |
|                                | 11080b | Off-Site Curb                                       | 465  | SY |           | \$ -         |           | \$ -         | \$ 32.50     | \$ 15,112.50  |
|                                | 11090  | Off-Site Reinforced Concrete Driveway Entrance      | 315  | SF | \$ 19.00  | \$ 5,985.00  | \$ 19.00  | \$ 5,985.00  | \$ 18.75     | \$ 5,906.25   |
|                                | 11100  | Off-Site Street Paving                              | 180  | TN | \$ 150.00 | \$ 27,000.00 | \$ 150.00 | \$ 27,000.00 | \$ 105.00    | \$ 18,900.00  |
| 3                              | 11110  | Off-Site Temp Trench Patching                       | 30   | TN |           | \$ -         |           | \$ -         | \$ 263.00    | \$ 7,890.00   |
| 3                              | 11120  | Off-Site Permanent Trench Paving                    | 60   | TN |           | \$ -         |           | \$ -         | \$ 291.50    | \$ 17,490.00  |
| OFF-SITE CONSTRUCTION SUBTOTAL |        |                                                     |      |    | \$        | 189,049.00   | \$        | 189,049.00   | \$           | 514,688.75    |
| Difference From 60% Budget =   |        |                                                     |      |    |           |              |           |              | \$           | 325,639.75    |

|                      |    |            |
|----------------------|----|------------|
| OVERALL DIFFERENCE = | \$ | 370,497.05 |
|----------------------|----|------------|

| COST OF THE WORK | EARLY GMP | EARLY GMP     | 60% GMP | 60% GMP       | FINAL GMP | FINAL GMP     |
|------------------|-----------|---------------|---------|---------------|-----------|---------------|
|                  | \$        | 14,637,695.50 | \$      | 14,321,884.25 | \$        | 14,692,381.30 |

|  |                                                                        |
|--|------------------------------------------------------------------------|
|  | Constitutes items that have reduced in cost                            |
|  | Constitutes items that have increased in cost due to increase in scope |

**NOTES:**

- 1** Changes were made to these bid items to reflect some of the early grading revisions. These changes were necessary to reflect how we were actually processing the materials. This resulted in a savings of \$38,884.00
- 2** These bid items reflect savings due to reduced scope of work (work not completed). Savings = \$301,159.00
- 3** These bid items reflect significant increases to scope of work from the 60% GMP. These items reflect an increase of \$581,496
- 4** These items reflect significant increases in pricing from our trade partners. Some increases are due to material price increases while others are due to an increase in the scope of work assumed at the time of pricing. These items reflect an increase of \$217,000
- 5** These items reflect the VE savings discussed early on in the design. A list of the items and their associated savings are listed below.
  - a Reduce Drain Rock section to 12" instead of 24" = \$89,915.00
  - b Eliminate reservoir drain rock envelope and replace with drain board = \$66,290.00
  - c Move generators outside with enclosures = \$56,075.00
  - d Alternative to concrete for slurry cut-off wall = \$22,685.00
  - e Delete Flex-tends = \$62,828.00
  - f Change reservoir outlet pipe from 30" to 24" = \$48,090.00
  - g Contractor alternative to proprietary Tideflex Mixing System = \$63,015.00
- 6** These items reflect pricing increases due to lack of information at the time of pricing proposals. Lacking information was due to missing specifications and/or lack of information on plans. These items reflect an increase of \$209,000.00

**Difference Between Savings and Added Scope Costs = \$258,554.00**

**60% GMP = \$16,031,872.82**

**100% GMP = \$16,338,887.57**

**Difference = \$307,014.75** See clarification letter for additional information.

# Cost Report

Emery &amp; Sons Construction Group 9

Arin Atiyeh

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20E-136-4

Redmond Well 8, Res 7 Draft Final GMP

12/14/2020 4:16 PM

**Biditem****Heavy Equipment Mobilization****1010**

Takeoff Qty: 1.000 EA

Bid Qty: 1.000 EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 4,032.12   | 1,938.81 | 5,970.93    | 7,680.00  | 0.00       | 0.00        | 12,000.00 | 0.00       | 0.00     | 0.00     | 25,650.93 |
| Total   | 4,032.12   | 1,938.81 | 5,970.93    | 7,680.00  | 0.00       | 0.00        | 12,000.00 | 0.00       | 0.00     | 0.00     | 25,650.93 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 128.0000 | 0.0078  | 128.0000 | 200.3979 | 31.5009       | 46.6479        | 0.0078  |

**Activity: 002100100 Mobilization (E&S/Sub/Freight) (Unreviewed) Quantity: 16 Unit: EA**

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 252.01     | 121.18   | 373.18      | 480.00    | 0.00       | 0.00        | 750.00    | 0.00       | 0.00     | 0.00     | 1,603.18  |
| Total   | 4,032.12   | 1,938.81 | 5,970.93    | 7,680.00  | 0.00       | 0.00        | 12,000.00 | 0.00       | 0.00     | 0.00     | 25,650.93 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|------------|
| 853.1831     | 8.0000        | 0.1250        | 106.6479     | 12.8000 | 1.2500      | 0.8000      | 2,003.9789 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 128.0000 | 0.1250  | 8.0000  | 46.6479        | 252.0075        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR7219 TRUCKERS - DRIVERS

Crew: MOLO Lowboy Mob Prod: HU 8 Eff: 100.00 Crew Hrs: 128.00 Labor Pcs: 1.00 Equipment Pcs: 1.00

Notes: (1) 328 Size Excavator  
(1) 290 Size Excavator  
(1) 130 Size Excavator  
(1) D6 Size Dozer  
(1) Loader  
(1) Backhoe  
(1) Roller  
(1) 815 Compactor  
(1) Water Truck  
(1) Office Trailer  
(1) (1) Shoring  
(2) Steel Sheets  
(1) Concrete Barricades  
(1) Grader  
(1) Grade Maker

16 Moves @ 8 hour rounds = 128 hours lowboy

(4) Heavy Hauls for the 670 Excavator, D8 Dozer to and from the site @ \$3,000.00 each.

| Resource   | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|------------|--------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4HEAVYHAUL | Heavy Haul Subcontractor | 1.00     | 4.00     | EA   | 3,000.00  | 100.00   | 3,000.00  | 12,000.00 |
| 8TRLO      | Truck - Lowboy           | 1.00     | 128.00   | HR   | 60.00     | 100.00   | 60.00     | 7,680.00  |
| TLBOY      | Teamster - Lowboy        | 1.00     | 128.00   | MH   | 27.00     | 116.67   | 46.65     | 5,970.93  |

**Biditem****Crew Subsistence/Lodging****1020**

Takeoff Qty: 9.000 WK

Bid Qty: 9.000 WK

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond  | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|-----------|-----------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 2,875.00  | 2,875.00  |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 25,875.00 | 25,875.00 |

**Activity: 001000080 Subsistence/Travel Costs (Unreviewed) Quantity: 2 Unit: MO**

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond  | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|-----------|-----------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 12,937.50 | 12,937.50 |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 25,875.00 | 25,875.00 |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Notes: Assuming 2 months worth of work with general excavation/grading crew:

(1 Foreman)  
(1 Grade Checker)  
(5 Operators)

7 Total on crew. Assume (2) guys per room and Foreman in single room. (4) Rooms at (4) nights per room, Monday, Tuesday, Wednesday, Thursday = 16 room nights per week x 9 weeks = 144 Room Nights.

Assume \$125.00 per room night (this will include tax) = 144 x \$125.00 = \$18,000

Per Diem: \$25.00 per day x (7) crew members = \$175.00 per day x 45.00 Days = \$7,875.00

| Resource | Description        | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|--------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 9TR10    | Travel - Lump Sum  | 1.00     | 1.00     | LS   | 18,000.00 | 100.00   | 18,000.00 | 18,000.00 |
| 9TR20    | Per Diem - Per Day | 1.00     | 45.00    | DAY  | 175.00    | 100.00   | 175.00    | 7,875.00  |

## Biditem

### Storage Containers

# 1030

Takeoff Qty: 3.000 MO

Bid Qty: 3.000 MO

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 500.00   | 500.00   |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 1,500.00 | 1,500.00 |

Activity: 001000010 Storage Containers (Unreviewed) Quantity: 3 Unit: MO

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 500.00   | 500.00   |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 1,500.00 | 1,500.00 |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

| Resource | Description       | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|-------------------|----------|----------|------|-----------|----------|-----------|--------|
| 9FA16    | Storage Trailer   | 1.00     | 3.00     | MO   | 250.00    | 100.00   | 250.00    | 750.00 |
| 9FA18    | Storage Container | 1.00     | 3.00     | MO   | 250.00    | 100.00   | 250.00    | 750.00 |

## Biditem

### Construction Survey/GPS Set-Up

# 1040

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 1,271.01   | 654.21 | 1,925.22    | 200.00    | 0.00       | 0.00        | 16,500.00 | 0.00       | 0.00     | 0.00     | 18,625.22 |
| Total   | 1,271.01   | 654.21 | 1,925.22    | 200.00    | 0.00       | 0.00        | 16,500.00 | 0.00       | 0.00     | 0.00     | 18,625.22 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 30.0000  | 0.0333  | 30.0000 | 620.8407 | 42.3670       | 64.1740        | 0.0500  |

Activity: 001000200 Project Survey/Staking (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 1,271.01   | 654.21 | 1,925.22    | 200.00    | 0.00       | 0.00        | 16,500.00 | 0.00       | 0.00     | 0.00     | 18,625.22 |
| Total   | 1,271.01   | 654.21 | 1,925.22    | 200.00    | 0.00       | 0.00        | 16,500.00 | 0.00       | 0.00     | 0.00     | 18,625.22 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 2,125.2200   | 20.0000       | 0.0500        | 106.2610     | 2.0000 | 0.5000      | 2.0000      | 9,312.6100 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 30.0000  | 0.0333  | 30.0000 | 64.1740        | 1,271.0100      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAGPS GPS Setup Crew Prod: CH 20 Eff: 100.00 Crew Hrs: 20.00 Labor Pcs: 1.50 Equipment Pcs: 1.00

| Resource | Description | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total |
|----------|-------------|----------|----------|------|-----------|----------|-----------|-------|
|----------|-------------|----------|----------|------|-----------|----------|-----------|-------|



|       |                              |      |       |    |           |        |           |           |
|-------|------------------------------|------|-------|----|-----------|--------|-----------|-----------|
| 4SURV | Surveying Sub                | 1.00 | 1.00  | LS | 16,500.00 | 100.00 | 16,500.00 | 16,500.00 |
| 8TRPI | Truck - Pickup               | 1.00 | 20.00 | HR | 10.00     | 100.00 | 10.00     | 200.00    |
| FORE  | Foreman                      | 0.50 | 10.00 | MH | 45.00     | 116.67 | 75.91     | 759.07    |
| L4    | Labor -Group 2 Pipe Layer/GC | 1.00 | 20.00 | MH | 31.97     | 116.67 | 58.31     | 1,166.15  |

**Biditem****Construction Fence****1050**

Takeoff Qty: 600.000 LF

Bid Qty: 600.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.60       | 0.34   | 0.94        | 0.08      | 1.65       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2.67     |
| Total   | 358.14     | 206.94 | 565.08      | 49.80     | 990.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,604.88 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|---------|---------|----------|---------------|----------------|----------|
| 9.9600   | 60.2410 | 0.0166  | 161.1325 | 35.9578       | 56.7349        | 120.4819 |

|                     |                    |              |               |          |
|---------------------|--------------------|--------------|---------------|----------|
| Activity: 001000030 | Construction Fence | (Unreviewed) | Quantity: 600 | Unit: LF |
|---------------------|--------------------|--------------|---------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.60       | 0.34   | 0.94        | 0.08      | 1.65       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2.67     |
| Total   | 358.14     | 206.94 | 565.08      | 49.80     | 990.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,604.88 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1.0248       | 0.0083        | 120.4819      | 123.4699     | 0.4980 | 1,204.8193  | 0.0008      | 3,222.6506 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 9.9600   | 60.2410 | 0.0166  | 56.7349        | 0.5969          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ERCF Construction Fence Crew Prod: UH 120.4819 Eff: 100.00 Crew Hrs: 4.98 Labor Pcs: 2.00 Equipment Pcs: 1.00

Notes: This will be Orange Mesh Fence that will go around the top of the reservoir excavation slope. This is not shown on the plans but will be needed for safety.

| Resource   | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|------------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2FESAFETY  | Orange Mesh Safety Fence     | 1.00     | 600.00   | LF   | 1.00      | 100.00   | 1.00      | 600.00 |
| 2FESTPOSTT | Fence Posts - Steel inTin    | 1.00     | 78.00    | EA   | 5.00      | 100.00   | 5.00      | 390.00 |
| 8TRPI      | Truck - Pickup               | 1.00     | 4.98     | HR   | 10.00     | 100.00   | 10.00     | 49.80  |
| L1         | Labor -Group 1 Genl/Carp Tnd | 2.00     | 9.96     | MH   | 30.82     | 116.67   | 56.73     | 565.08 |

**Biditem****Site & Frontage Road Potholing****1060**

Takeoff Qty: 10.000 EA

Bid Qty: 10.000 EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 190.30     | 100.09   | 290.39      | 144.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 434.39   |
| Total   | 1,903.00   | 1,000.85 | 2,903.85    | 1,440.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,343.85 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 50.0000  | 0.2000  | 5.0000  | 86.8770 | 38.0600       | 58.0770        | 0.5000  |

|                     |                         |              |              |          |
|---------------------|-------------------------|--------------|--------------|----------|
| Activity: 001000190 | Pothole Utilities (All) | (Unreviewed) | Quantity: 10 | Unit: EA |
|---------------------|-------------------------|--------------|--------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 190.30     | 100.09   | 290.39      | 144.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 434.39   |
| Total   | 1,903.00   | 1,000.85 | 2,903.85    | 1,440.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,343.85 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 434.3850     | 2.0000        | 0.5000        | 217.1925     | 2.0000 | 5.0000      | 0.2000      | 2,171.9250 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 50.0000  | 0.2000  | 5.0000  | 58.0770        | 190.3000        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: STPH Pothole Crew Prod: HU 2 Eff: 100.00 Crew Hrs: 20.00 Labor Pcs: 2.50 Equipment Pcs: 1.50

**Notes:** This item is for potholing any potential conflict within the reservoir excavation site to verify there is no conflicts with existing utilities.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8EX130   | Excavator - 130              | 1.00     | 20.00    | HR   | 52.00     | 100.00   | 52.00     | 1,040.00 |
| 8TRD05   | Truck - Dump (5 CY)          | 0.50     | 10.00    | HR   | 40.00     | 100.00   | 40.00     | 400.00   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 20.00    | MH   | 30.82     | 116.67   | 56.73     | 1,134.69 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 20.00    | MH   | 39.01     | 116.67   | 67.97     | 1,359.30 |
| TEAM1    | Teamster - 5 CY/3KWater      | 0.50     | 10.00    | MH   | 23.45     | 116.67   | 40.99     | 409.86   |

**Biditem****Erosion Control Maintenance****1070**

Takeoff Qty: 9.000 WK

Bid Qty: 9.000 WK

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 359.58     | 207.77   | 567.34      | 50.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 617.34   |
| Total   | 3,236.19   | 1,869.91 | 5,106.10    | 450.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 5,556.10 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 90.0000  | 0.1000  | 10.0000 | 61.7344 | 35.9577       | 56.7344        | 0.2000  |

Activity: 002800020 Erosion Control Maintenance (Unreviewed) Quantity: 9 Unit: WEEK

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 359.58     | 207.77   | 567.34      | 50.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 617.34   |
| Total   | 3,236.19   | 1,869.91 | 5,106.10    | 450.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 5,556.10 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 617.3444     | 5.0000        | 0.2000        | 123.4689     | 4.5000 | 2.0000      | 0.5000      | 1,234.6889 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 90.0000  | 0.1000  | 10.0000 | 56.7344        | 359.5767        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ER02 2-Man Erosion Control Crew Prod: HU 5 Eff: 100.00 Crew Hrs: 45.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

**Notes:** Initial Earthwork for the site excavation (including the reservoir) will take approximately two months. We will be hauling approximately 2,090 CY or strippings to stockpile for reuse, then 14,797 CY of excavation to stockpile for reuse. In addition we will have 17,766 CY of haul away to disposal.

Total estimated mass excavation = 32,563 CY

This will take approximately (2) months to perform and will require constant dust control (part time water truck) and a sprinkler system for stockpiles and problematic areas. Per the EC Plan we need to keep the streets clean during this work as well. We will budget the following:

Water Truck (2) hrs per day during mass excavation  
Sweeper (2) hours per day for cleanup after each shift  
Irrigation/site water connection (see individual activity)  
Small two man EC crew (1) hr per day.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8TRPI    | Truck - Pickup               | 1.00     | 45.00    | HR   | 10.00     | 100.00   | 10.00     | 450.00   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 90.00    | MH   | 30.82     | 116.67   | 56.73     | 5,106.10 |

**Biditem****Construction Entrance****1080**

Takeoff Qty: 1.000 EA

Bid Qty: 1.000 EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 651.76     | 345.84 | 997.60      | 456.00    | 325.00     | 0.00        | 0.00 | 2,700.00   | 2,352.00 | 0.00     | 6,830.60 |
| Total   | 651.76     | 345.84 | 997.60      | 456.00    | 325.00     | 0.00        | 0.00 | 2,700.00   | 2,352.00 | 0.00     | 6,830.60 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 16.0000  | 0.0625  | 16.0000 | 426.9125 | 40.7350       | 62.3500        | 0.1250  |

Activity: 002800108 8in Thick Construction Entrance (Unreviewed) Quantity: 400 Unit: SY

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1.63       | 0.86   | 2.49        | 1.14      | 0.81       | 0.00        | 0.00 | 6.75       | 5.88     | 0.00     | 17.08    |
| Total   | 651.76     | 345.84 | 997.60      | 456.00    | 325.00     | 0.00        | 0.00 | 2,700.00   | 2,352.00 | 0.00     | 6,830.60 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 3.6340       | 0.0200        | 50.0000       | 181.7000     | 0.8000 | 500.0000    | 0.0020      | 8,538.2500 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 16.0000  | 25.0000 | 0.0400  | 62.3500        | 1.6294          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ERCO Construction Entrance Crew Prod: UH 50 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

Notes: This is an 8-inch thick construction entrance and is extra large 100 x 35 or 389 SY + wings at road so we will round it to 400 SY. (Sheet ESC-2)

Number of Trucks Routine  
Description Unit Quantity  
-----  
Total Units Per Day 180.0000  
Hours Per Day 8.0000  
Hours Per Round 1.2500  
Units Per Load 14.0000  
Trucks Required Per Day 3.0089

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2ER02    | Geo-Textile Fabric           | 1.18     | 500.00   | SY   | 0.65      | 100.00   | 0.65      | 325.00   |
| 550      | Trucking - Solo              | 1.00     | 24.00    | HR   | 98.00     | 100.00   | 98.00     | 2,352.00 |
| 6AGCB200 | Crushed - 2in Ballast (PU)   | 1.00     | 180.00   | TON  | 15.00     | 100.00   | 15.00     | 2,700.00 |
| 8DO850   | 850 DOZER                    | 1.00     | 8.00     | HR   | 45.00     | 100.00   | 45.00     | 360.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 8.00     | HR   | 12.00     | 100.00   | 12.00     | 96.00    |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 8.00     | MH   | 30.82     | 116.67   | 56.74     | 453.88   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 8.00     | MH   | 39.01     | 116.67   | 67.97     | 543.72   |

## Biditem

## Silt Fence (Supported)

# 1090

Takeoff Qty: 1,750.000 LF

Bid Qty: 1,750.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1.60       | 0.86     | 2.46        | 0.54      | 1.10       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4.10     |
| Total   | 2,800.84   | 1,504.29 | 4,305.13    | 945.00    | 1,929.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 7,179.13 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 70.0000  | 25.0000 | 0.0400  | 102.5590 | 40.0120       | 61.5019        | 50.0000 |

Activity: 002800180 Supported Silt Fence (Unreviewed) Quantity: 1750 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1.60       | 0.86     | 2.46        | 0.54      | 1.10       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4.10     |
| Total   | 2,800.84   | 1,504.29 | 4,305.13    | 945.00    | 1,929.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 7,179.13 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 3.0001       | 0.0200        | 50.0000       | 150.0037     | 3.5000 | 500.0000    | 0.0020      | 2,051.1800 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 70.0000  | 25.0000 | 0.0400  | 61.5019        | 1.6005          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ERSI Silt Fence Crew Prod: UH 50 Eff: 100.00 Crew Hrs: 35.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

Notes: Per detail 2 on sheet ESC-2 supported silt fence is required for this project. Recived a verbal quote from Floyd with ACF West on 6/23/20 at 10:00 AM for \$58.00 per roll for the wire/fabric fence and another \$2.95 per post. Post to be placed at 6 FT OC.

In addition to the 750 LF of silt fence shown on the project, we will need to place it around our temporary stockpile on Hayden's property. This stockpile will be 250 x 250 = 1,000 LF silt fence.

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2ERSSF    | Supported Silt Fence         | 1.00     | 1,800.00 | LF   | 0.58      | 100.00   | 0.58      | 1,044.00 |
| 2ERTPOST  | Supported Silt Fence T-Posts | 1.00     | 300.00   | EA   | 2.95      | 100.00   | 2.95      | 885.00   |
| 8MITR1420 | Misc - 1420 Trencher         | 1.00     | 35.00    | HR   | 15.00     | 100.00   | 15.00     | 525.00   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 35.00    | HR   | 12.00     | 100.00   | 12.00     | 420.00   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 35.00    | MH   | 30.82     | 116.67   | 56.73     | 1,985.71 |
| OP5       | Operator - Mini, Roller, BH  | 1.00     | 35.00    | MH   | 37.77     | 116.67   | 66.27     | 2,319.42 |

**Biditem****Hydroseed/Temp Mulch (Temp Erosion Control)****1100**

Takeoff Qty: 3.000 AC

Bid Qty: 3.000 AC

|                     |           |              |             |          |
|---------------------|-----------|--------------|-------------|----------|
| Activity: 002800130 | Hydroseed | (Unreviewed) | Quantity: 3 | Unit: AC |
|---------------------|-----------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Notes: Hydroseed is for covering covering soil stockpiles:

Stockpile will need to be 200 x 200 x 10 for the 14,797 CY of material, figure we will need to hydroseed or tackify pile to reduce dust on pile. This is approximatley 1 Acre of area + we will do the slopes around the reservoir since they will be open for a year, so we will estimate another acre to stabilize:

Total = 2 acres.

| Resource | Description   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------|----------|----------|------|-----------|----------|-----------|----------|
| 4LAND    | Landscape Sub | 1.00     | 3.00     | AC   | 3,000.00  | 100.00   | 3,000.00  | 9,000.00 |

**Biditem****Street Sweeping****1110**

Takeoff Qty: 9.000 WK

Bid Qty: 9.000 WK

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 440.66     | 222.03   | 662.69      | 400.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,062.69 |
| Total   | 3,965.96   | 1,998.24 | 5,964.20    | 3,600.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 9,564.20 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 90.0000  | 0.1000  | 10.0000 | 106.2689 | 44.0662       | 66.2689        | 0.1000  |

|                       |                 |              |             |            |
|-----------------------|-----------------|--------------|-------------|------------|
| Activity: 002800020.1 | Street Sweeping | (Unreviewed) | Quantity: 9 | Unit: WEEK |
|-----------------------|-----------------|--------------|-------------|------------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 440.66     | 222.03   | 662.69      | 400.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,062.69 |
| Total   | 3,965.96   | 1,998.24 | 5,964.20    | 3,600.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 9,564.20 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,062.6889   | 10.0000       | 0.1000        | 106.2689     | 9.0000 | 1.0000      | 1.0000      | 1,062.6889 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 90.0000  | 0.1000  | 10.0000 | 66.2689        | 440.6622        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ER01 1-Man Erosion Control Crew Prod: HU 10 Eff: 100.00 Crew Hrs: 90.00 Labor Pcs: 1.00 Equipment Pcs: 2.00

Notes: See notes bid item 1070

| Resource | Description                 | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-----------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8MISW    | Misc - Rosco Sweeper        | 1.00     | 90.00    | HR   | 30.00     | 100.00   | 30.00     | 2,700.00 |
| 8TRPI    | Truck - Pickup              | 1.00     | 90.00    | HR   | 10.00     | 100.00   | 10.00     | 900.00   |
| OP5      | Operator - Mini, Roller, BH | 1.00     | 90.00    | MH   | 37.77     | 116.67   | 66.27     | 5,964.20 |

## Biditem

## Dust Control (Water Truck)

1120

Takeoff Qty: 9.000 WK

Bid Qty: 9.000 WK

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 273.59     | 136.27   | 409.86      | 550.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 959.86   |
| Total   | 2,462.32   | 1,226.40 | 3,688.72    | 4,950.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 8,638.72 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 90.0000  | 0.1000  | 10.0000 | 95.9858 | 27.3591       | 40.9858        | 0.1000  |

Activity: 002800020.2 Dust Control (Water Truck) (Unreviewed) Quantity: 9 Unit: WEEK

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 273.59     | 136.27   | 409.86      | 550.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 959.86   |
| Total   | 2,462.32   | 1,226.40 | 3,688.72    | 4,950.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 8,638.72 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|----------|
| 959.8578     | 10.0000       | 0.1000        | 95.9858      | 9.0000 | 1.0000      | 1.0000      | 959.8578 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 90.0000  | 0.1000  | 10.0000 | 40.9858        | 273.5911        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ER01 1-Man Erosion Control Crew Prod: HU 10 Eff: 100.00 Crew Hrs: 90.00 Labor Pcs: 1.00 Equipment Pcs: 1.00

Notes: See notes bid item 1070

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8TRW     | Truck - Water                   | 1.00     | 90.00    | HR   | 55.00     | 100.00   | 55.00     | 4,950.00 |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 1.00     | 90.00    | MH   | 23.45     | 116.67   | 40.99     | 3,688.72 |

## Biditem

## Temp Irrigation Dust Control

1130

Takeoff Qty: 1.000 EA

Bid Qty: 1.000 EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 4,059.42   | 2,005.94 | 6,065.36    | 1,920.00  | 3,000.00   | 0.00        | 0.00 | 1,026.00   | 2,940.00 | 0.00     | 14,951.36 |
| Total   | 4,059.42   | 2,005.94 | 6,065.36    | 1,920.00  | 3,000.00   | 0.00        | 0.00 | 1,026.00   | 2,940.00 | 0.00     | 14,951.36 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 90.0000  | 0.0111  | 90.0000 | 166.1262 | 45.1047       | 67.3929        | 0.0333  |

Activity: 002800020.3 Temp Dust Irrigation (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 4,059.42   | 2,005.94 | 6,065.36    | 1,920.00  | 3,000.00   | 0.00        | 0.00 | 1,026.00   | 2,940.00 | 0.00     | 14,951.36 |
| Total   | 4,059.42   | 2,005.94 | 6,065.36    | 1,920.00  | 3,000.00   | 0.00        | 0.00 | 1,026.00   | 2,940.00 | 0.00     | 14,951.36 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 7,985.3600   | 30.0000       | 0.0333        | 266.1787     | 3.0000 | 0.3333      | 3.0000      | 4,983.7867 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 90.0000  | 0.0111  | 90.0000 | 67.3929        | 4,059.4200      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ST130 Misc 130 Crew Prod: CH 30 Eff: 100.00 Crew Hrs: 30.00 Labor Pcs: 3.00 Equipment Pcs: 2.00

Notes: This item includes installing a below grade PVC line from the Hydrant located at the intersection of SW Volcano & SW Reservoir Drive, across SW Volcano Ave to the site, then branching off with smaller PVC irrigation lines for dust control. The mainline PVC will be available for the Well Contractor to pull water off of.

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2MISCTEMPIRR | Misc. Temp Irrigation Piping | 1.00     | 1.00     | LS   | 3,000.00  | 100.00   | 3,000.00  | 3,000.00 |

|          |                              |      |       |     |       |        |       |          |
|----------|------------------------------|------|-------|-----|-------|--------|-------|----------|
| 5SO      | Trucking - Solo              | 1.00 | 30.00 | HR  | 98.00 | 100.00 | 98.00 | 2,940.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00 | 75.00 | TON | 12.00 | 100.00 | 12.00 | 900.00   |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00 | 42.00 | CY  | 3.00  | 100.00 | 3.00  | 126.00   |
| 8EX130   | Excavator - 130              | 1.00 | 30.00 | HR  | 52.00 | 100.00 | 52.00 | 1,560.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00 | 30.00 | HR  | 12.00 | 100.00 | 12.00 | 360.00   |
| FORE     | Foreman                      | 1.00 | 30.00 | MH  | 45.00 | 116.67 | 75.91 | 2,277.20 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00 | 30.00 | MH  | 31.97 | 116.67 | 58.31 | 1,749.22 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00 | 30.00 | MH  | 39.01 | 116.67 | 67.96 | 2,038.94 |

## Biditem

## Signing &amp; Traffic Control

1140

Takeoff Qty: 192.000 SF

Bid Qty: 192.000 SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 5.19       | 2.79   | 7.98        | 0.68      | 22.46      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 31.12    |
| Total   | 996.25     | 536.52 | 1,532.77    | 130.00    | 4,312.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 5,974.77 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 25.0000  | 7.6800  | 0.1302  | 238.9908 | 39.8500       | 61.3108        | 14.7692 |

|                     |            |              |               |          |
|---------------------|------------|--------------|---------------|----------|
| Activity: 002250130 | Temp Signs | (Unreviewed) | Quantity: 192 | Unit: SF |
|---------------------|------------|--------------|---------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 5.00       | 2.69   | 7.69        | 0.63      | 17.25      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 25.56    |
| Total   | 960.29     | 515.74 | 1,476.03    | 120.00    | 3,312.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,908.03 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 8.3127       | 0.0625        | 16.0000       | 133.0025     | 1.2000 | 160.0000    | 0.0063      | 4,090.0250 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 24.0000  | 8.0000  | 0.1250  | 61.5013        | 5.0015          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TCSIG Traffic Control Sign Crew Prod: UH 16 Eff: 100.00 Crew Hrs: 12.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

Notes: During the mass excavation we will need to post both SW Reservoir Drive (Each way) and SW Volcano Ave (Each way) with Road Work Ahead, Be Prepared to Stop and Trucks signs. Flagging will not be needed because haul trucks will utilize the construction entrance and existing roads.

(3) signs each way on two roads or 12 total signs (4ft x 4ft) or 16 SF each. Total SF = 192 SF and 12 posts

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2TR02    | SP TP Traffic Sign           | 1.00     | 192.00   | SF   | 16.00     | 100.00   | 16.00     | 3,072.00 |
| 2TR04    | 4in x 4in Post               | 1.00     | 12.00    | EA   | 20.00     | 100.00   | 20.00     | 240.00   |
| 8TRPI    | Truck - Pickup               | 1.00     | 12.00    | HR   | 10.00     | 100.00   | 10.00     | 120.00   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 12.00    | MH   | 30.82     | 116.67   | 56.73     | 680.81   |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 12.00    | MH   | 37.77     | 116.67   | 66.27     | 795.22   |

|                     |                            |              |             |          |
|---------------------|----------------------------|--------------|-------------|----------|
| Activity: 002250142 | Temp Barricades - Type III | (Unreviewed) | Quantity: 4 | Unit: EA |
|---------------------|----------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 8.99       | 5.20   | 14.19       | 2.50      | 250.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 266.69   |
| Total   | 35.96      | 20.78  | 56.74       | 10.00     | 1,000.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,066.74 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 16.6850      | 0.2500        | 4.0000        | 66.7400      | 0.1000 | 40.0000     | 0.0250      | 10,667.4000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 1.0000   | 4.0000  | 0.2500  | 56.7400        | 8.9900          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TCONEP TC One Man Crew w/ PU Prod: UH 4 Eff: 100.00 Crew Hrs: 1.00 Labor Pcs: 1.00 Equipment Pcs: 1.00

| Resource | Description | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total |
|----------|-------------|----------|----------|------|-----------|----------|-----------|-------|
|----------|-------------|----------|----------|------|-----------|----------|-----------|-------|



|       |                              |      |      |    |        |        |        |          |
|-------|------------------------------|------|------|----|--------|--------|--------|----------|
| 2TR06 | Type III Baricade            | 1.00 | 4.00 | EA | 250.00 | 100.00 | 250.00 | 1,000.00 |
| 8TRPI | Truck - Pickup               | 1.00 | 1.00 | HR | 10.00  | 100.00 | 10.00  | 10.00    |
| L1    | Labor -Group 1 Genl/Carp Tnd | 1.00 | 1.00 | MH | 30.82  | 116.67 | 56.74  | 56.74    |

**Biditem****Clearing, Grubbing & Tree Removal****1150**

Takeoff Qty: 1.000 EA

Bid Qty: 1.000 EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,783.26   | 931.06 | 2,714.32    | 2,135.17  | 0.00       | 0.00        | 0.00 | 0.00       | 1,576.30 | 0.00     | 6,425.79 |
| Total   | 1,783.26   | 931.06 | 2,714.32    | 2,135.17  | 0.00       | 0.00        | 0.00 | 0.00       | 1,576.30 | 0.00     | 6,425.79 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 43.0000  | 0.0233  | 43.0000 | 149.4370 | 41.4712       | 63.1237        | 0.0698  |

Activity: 003200112 Tree Removal (Unreviewed) Quantity: 43 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 41.47      | 21.65  | 63.12       | 49.66     | 0.00       | 0.00        | 0.00 | 0.00       | 36.66    | 0.00     | 149.44   |
| Total   | 1,783.26   | 931.06 | 2,714.32    | 2,135.17  | 0.00       | 0.00        | 0.00 | 0.00       | 1,576.30 | 0.00     | 6,425.79 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 112.7788     | 0.3333        | 3.0000        | 338.3373     | 1.4333 | 30.0001     | 0.0333      | 4,483.1197 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 43.0000  | 1.0000  | 1.0000  | 63.1237        | 41.4712         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: CLL Clear & Grub Light Crew Prod: UH 3 Eff: 100.00 Crew Hrs: 14.33 Labor Pcs: 3.00 Equipment Pcs: 4.00

Notes: It looks like we will need to remove 43 each small Juniper trees. We will plan on pulling them out with a 130 class excavator, then chipping the branches and hauling off the trunks.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5TU      | Trucking - Tub               | 1.00     | 14.33    | HR   | 110.00    | 100.00   | 110.00    | 1,576.30 |
| 8EX130   | Excavator - 130              | 1.00     | 14.33    | HR   | 52.00     | 100.00   | 52.00     | 745.16   |
| 8MI3     | Misc - SUP EQ(2-PK/MISC)     | 1.00     | 14.33    | HR   | 30.00     | 100.00   | 30.00     | 429.90   |
| 8TRDSI   | Truck - Dump (Side)          | 1.00     | 14.33    | HR   | 55.00     | 100.00   | 55.00     | 788.15   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 14.33    | HR   | 12.00     | 100.00   | 12.00     | 171.96   |
| FORE     | Foreman                      | 1.00     | 14.33    | MH   | 45.00     | 116.67   | 75.91     | 1,087.74 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 28.67    | MH   | 30.82     | 116.67   | 56.73     | 1,626.58 |

**Biditem****Well Laydown Area (200 x 200)****1160**

Takeoff Qty: 1,481.000 TN

Bid Qty: 1,481.000 TN

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|-----------|
| U. Cost | 2.51       | 1.25     | 3.76        | 2.92      | 0.00       | 0.00        | 0.00 | 12.00      | 11.76     | 0.00     | 30.44     |
| Total   | 3,717.71   | 1,846.13 | 5,563.84    | 4,324.52  | 0.00       | 0.00        | 0.00 | 17,772.00  | 17,416.56 | 0.00     | 45,076.92 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 88.8600  | 16.6667 | 0.0600  | 507.2802 | 41.8378       | 62.6135        | 50.0000 |

Activity: 006400110 Procure/Place Agg Base (Unreviewed) Quantity: 1481 Unit: TN

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|-----------|
| U. Cost | 2.51       | 1.25     | 3.76        | 2.92      | 0.00       | 0.00        | 0.00 | 12.00      | 11.76     | 0.00     | 30.44     |
| Total   | 3,717.71   | 1,846.13 | 5,563.84    | 4,324.52  | 0.00       | 0.00        | 0.00 | 17,772.00  | 17,416.56 | 0.00     | 45,076.92 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 6.6768       | 0.0200        | 50.0000       | 333.8406     | 2.9620 | 500.0000    | 0.0020      | 15,218.4065 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 88.8600  | 16.6667 | 0.0600  | 62.6135        | 2.5103          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: GRCRB Place Cr. Rock Base Prod: UH 50 Eff: 100.00 Crew Hrs: 29.62 Labor Pcs: 3.00 Equipment Pcs: 3.00

**Notes:** Well contractor will need approximately 200 x 200 area for their operation. Assume we will put 6-inch of crushed rock down to make an all weather pad. This pad will reduce mud and or dust and dirt from being tracked out from the site.

200 x 200 x 6-inch = 1,481 Tons

Number of Trucks Routine  
 Description Unit Quantity  
 -----  
 Total Units Per Day 500.0000  
 Hours Per Day 9.0000  
 Hours Per Round 1.2500  
 Units Per Load 14.0000  
 Trucks Required Per Day 5.9603

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 550      | Trucking - Solo                 | 1.00     | 177.72   | HR   | 98.00     | 100.00   | 98.00     | 17,416.56 |
| 6AGC075P | Crushed - 3/4in (PU)            | 1.00     | 1,481.00 | TON  | 12.00     | 100.00   | 12.00     | 17,772.00 |
| 8BL140   | 140 GRADER                      | 1.00     | 29.62    | HR   | 74.00     | 100.00   | 74.00     | 2,191.88  |
| 8ROSD    | Roller - 84in Single Drum       | 0.50     | 14.81    | HR   | 65.00     | 100.00   | 65.00     | 962.65    |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 29.62    | HR   | 12.00     | 100.00   | 12.00     | 355.44    |
| 8TRW     | Truck - Water                   | 0.50     | 14.81    | HR   | 55.00     | 100.00   | 55.00     | 814.55    |
| FORE     | Foreman                         | 1.00     | 29.62    | MH   | 45.00     | 116.67   | 75.91     | 2,248.34  |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | 29.62    | MH   | 31.97     | 116.67   | 58.31     | 1,727.06  |
| OP5      | Operator - Mini, Roller, BH     | 0.50     | 14.81    | MH   | 37.77     | 116.67   | 66.27     | 981.44    |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 14.81    | MH   | 23.45     | 116.67   | 40.99     | 607.00    |

## Biditem

## Stripping to Stockpile (For Reuse)

# 1170

Takeoff Qty: 2,326.000 CY

Bid Qty: 2,326.000 CY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3.08       | 1.50     | 4.58        | 6.59      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 11.17     |
| Total   | 7,170.67   | 3,481.91 | 10,652.58   | 15,338.60 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 25,991.18 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 159.9300 | 14.5439 | 0.0688  | 162.5160 | 44.8363       | 66.6078        | 80.0000 |

Activity: 003300101 Strip Site - Excavator (Unreviewed) Quantity: 2326 Unit: CY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3.08       | 1.50     | 4.58        | 6.59      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 11.17     |
| Total   | 7,170.67   | 3,481.91 | 10,652.58   | 15,338.60 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 25,991.18 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 11.1742      | 0.0125        | 80.0000       | 893.9357     | 2.9075 | 800.0000    | 0.0013      | 8,939.3568 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 159.9300 | 14.5439 | 0.0688  | 66.6078        | 3.0828          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EASTEX Stripping Crew with Exc Prod: UH 80 Eff: 100.00 Crew Hrs: 29.08 Labor Pcs: 5.50 Equipment Pcs: 5.50

**Notes:** This material will be stripped then stockpiled for reuse at the end of the project in the native areas.

| Resource | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|--------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8DOD06   | Dozer - D6               | 1.00     | 29.08    | HR   | 75.00     | 100.00   | 75.00     | 2,181.00 |
| 8EX400   | Excavator - 400          | 1.00     | 29.08    | HR   | 175.00    | 100.00   | 175.00    | 5,089.00 |
| 8MI3     | Misc - SUP EQ(2-PK/MISC) | 1.00     | 29.08    | HR   | 30.00     | 100.00   | 30.00     | 872.40   |

|         |                                 |      |       |    |        |        |        |          |
|---------|---------------------------------|------|-------|----|--------|--------|--------|----------|
| 8TRO35V | Truck - Offroad (Volvo 35T)     | 2.00 | 58.15 | HR | 110.00 | 100.00 | 110.00 | 6,396.50 |
| 8TRW    | Truck - Water                   | 0.50 | 14.54 | HR | 55.00  | 100.00 | 55.00  | 799.70   |
| FORE    | Foreman                         | 1.00 | 29.08 | MH | 45.00  | 116.67 | 75.91  | 2,207.35 |
| OP3     | Operator-Hvy Dozer/Excavator    | 1.00 | 29.08 | MH | 40.09  | 116.67 | 69.44  | 2,019.36 |
| OP4     | Operator-Doz, Exc, Bld, Ldr     | 1.00 | 29.08 | MH | 39.01  | 116.67 | 67.96  | 1,976.41 |
| OP5     | Operator - Mini, Roller, BH     | 2.00 | 58.15 | MH | 37.77  | 116.67 | 66.27  | 3,853.53 |
| TEAM2   | Teamster 10<br>CY/4KWater/LowBd | 0.50 | 14.54 | MH | 23.45  | 116.67 | 40.99  | 595.93   |

**Biditem****Excavation to Embankment On-Site****1175**

Takeoff Qty: 5,000.000 CY

Bid Qty: 5,000.000 CY

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 5.26       | 2.59      | 7.85        | 12.37     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 20.22      |
| Total   | 26,310.87  | 12,937.67 | 39,248.54   | 61,831.96 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 101,080.50 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 583.3300 | 8.5715  | 0.1167  | 173.2818 | 45.1046       | 67.2836        | 60.0001 |

Activity: 003300104 Excavate to Embankment (Unreviewed) Quantity: 5000 Unit: CY

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 5.26       | 2.59      | 7.85        | 12.37     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 20.22      |
| Total   | 26,310.87  | 12,937.67 | 39,248.54   | 61,831.96 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 101,080.50 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 20.2161      | 0.0167        | 60.0001       | 1,212.9679   | 8.3333 | 600.0010    | 0.0017      | 12,129.6794 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 583.3300 | 8.5715  | 0.1167  | 67.2836        | 5.2622          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: EAEXE Exc. w/Excvtor to Embankment Prod: UH 60.0001 Eff: 100.00 Crew Hrs: 83.33 Labor Pcs: 7.00 Equipment Pcs: 8.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 8DOD06   | Dozer - D6                   | 1.00     | 83.33    | HR   | 75.00     | 100.00   | 75.00     | 6,249.75  |
| 8EX600   | Excavator - 600              | 1.00     | 83.33    | HR   | 230.00    | 100.00   | 230.00    | 19,165.90 |
| 8MIGPS   | Misc - GPS Control Equip     | 1.00     | 83.33    | HR   | 30.00     | 100.00   | 30.00     | 2,499.90  |
| 8RO816   | Roller - 816 Pad Foot        | 1.00     | 83.33    | HR   | 120.00    | 100.00   | 120.00    | 9,999.60  |
| 8TRO35V  | Truck - Offroad (Volvo 35T)  | 2.00     | 166.67   | HR   | 110.00    | 100.00   | 110.00    | 18,333.70 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 83.33    | HR   | 12.00     | 100.00   | 12.00     | 999.96    |
| 8TRW     | Truck - Water                | 1.00     | 83.33    | HR   | 55.00     | 100.00   | 55.00     | 4,583.15  |
| FORE     | Foreman                      | 1.00     | 83.33    | MH   | 45.00     | 116.67   | 75.72     | 6,309.51  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 83.33    | MH   | 31.97     | 116.67   | 58.17     | 4,847.54  |
| OP3      | Operator-Hvy Dozer/Excavator | 1.00     | 83.33    | MH   | 40.09     | 116.67   | 69.27     | 5,772.52  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 166.67   | MH   | 39.01     | 116.67   | 67.80     | 11,300.37 |
| OP5      | Operator - Mini, Roller, BH  | 2.00     | 166.67   | MH   | 37.77     | 116.67   | 66.11     | 11,018.60 |

**Biditem****Excavation to Off-Site Disposal****1180**

Takeoff Qty: 11,385.000 CY

Bid Qty: 11,385.000 CY

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking   | Gen Cond | Total      |
|---------|------------|-----------|-------------|-----------|------------|-------------|------|------------|------------|----------|------------|
| U. Cost | 2.81       | 1.38      | 4.19        | 6.78      | 0.00       | 0.00        | 0.00 | 3.75       | 12.57      | 0.00     | 27.29      |
| Total   | 32,044.84  | 15,705.22 | 47,750.06   | 77,172.68 | 0.00       | 0.00        | 0.00 | 42,694.71  | 143,125.40 | 0.00     | 310,742.85 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 731.8900 | 15.5556 | 0.0643  | 424.5759 | 43.7837       | 65.2421        | 70.0000 |

|                     |                                 |              |                 |          |
|---------------------|---------------------------------|--------------|-----------------|----------|
| Activity: 003300106 | Excavate to Disposal (Off Site) | (Unreviewed) | Quantity: 11385 | Unit: CY |
|---------------------|---------------------------------|--------------|-----------------|----------|

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking   | Gen Cond | Total      |
|---------|------------|-----------|-------------|-----------|------------|-------------|------|------------|------------|----------|------------|
| U. Cost | 2.81       | 1.38      | 4.19        | 6.78      | 0.00       | 0.00        | 0.00 | 3.75       | 12.57      | 0.00     | 27.29      |
| Total   | 32,044.84  | 15,705.22 | 47,750.06   | 77,172.68 | 0.00       | 0.00        | 0.00 | 42,694.71  | 143,125.40 | 0.00     | 310,742.85 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|-------------|
| 10.9726      | 0.0143        | 70.0000       | 768.0799     | 16.2643 | 699.9998    | 0.0014      | 19,105.8355 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 731.8900 | 15.5556 | 0.0643  | 65.2421        | 2.8147          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEXH Exc. w/Excvtor to Haul Away Prod: UH 70 Eff: 100.00 Crew Hrs: 162.64 Labor Pcs: 4.50 Equipment Pcs: 4.50

Notes: Based on the earthwork model this site will have 17,766 bank CY of material that will need to be hauled off to make the site balance. This will equate to 22,208 truck yards of disposal.

Number of Trucks Routine  
Description Unit Quantity  
-----  
Total Units Per Day 700.0000  
Hours Per Day 9.0000  
Hours Per Round 1.2500  
Units Per Load 15.0000  
Trucks Required Per Day 7.4814

| Resource | Description                     | Pcs/Wste | Quantity  | Unit | Unit Cost | Tax/OT % | Actual UC | Total      |
|----------|---------------------------------|----------|-----------|------|-----------|----------|-----------|------------|
| 5TU      | Trucking - Tub                  | 1.00     | 1,301.14  | HR   | 110.00    | 100.00   | 110.00    | 143,125.40 |
| 6DEDU02  | DUMP FEES - (CY)                | 1.00     | 14,231.57 | CY   | 3.00      | 100.00   | 3.00      | 42,694.71  |
| 8EX400   | Excavator - 400                 | 1.00     | 162.64    | HR   | 175.00    | 100.00   | 175.00    | 28,462.00  |
| 8EX600   | Excavator - 600                 | 1.00     | 162.64    | HR   | 230.00    | 100.00   | 230.00    | 37,407.20  |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 162.64    | HR   | 30.00     | 100.00   | 30.00     | 4,879.20   |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 162.64    | HR   | 12.00     | 100.00   | 12.00     | 1,951.68   |
| 8TRW     | Truck - Water                   | 0.50     | 81.32     | HR   | 55.00     | 100.00   | 55.00     | 4,472.60   |
| FORE     | Foreman                         | 1.00     | 162.64    | MH   | 45.00     | 116.67   | 75.91     | 12,345.38  |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | 162.64    | MH   | 31.97     | 116.67   | 58.31     | 9,483.07   |
| OP3      | Operator-Hvy Dozer/Excavator    | 2.00     | 325.29    | MH   | 40.09     | 116.67   | 69.44     | 22,588.65  |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 81.32     | MH   | 23.45     | 116.67   | 40.99     | 3,332.96   |

## Biditem

## Excavation to Stockpile (For Reuse)

# 1190

Takeoff Qty: 14,627.000 CY

Bid Qty: 14,627.000 CY

|         | Base Labor | Burden    | Total Labor | Equipment  | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|------------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 4.98       | 2.46      | 7.44        | 11.17      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 18.61      |
| Total   | 72,851.78  | 36,026.65 | 108,878.43  | 163,333.70 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 272,212.13 |

| Manhours   | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|------------|---------|---------|----------|---------------|----------------|---------|
| 1,706.4800 | 8.5714  | 0.1167  | 159.5167 | 42.6913       | 63.8029        | 60.0000 |

|                     |                       |              |                 |          |
|---------------------|-----------------------|--------------|-----------------|----------|
| Activity: 003300108 | Excavate to Stockpile | (Unreviewed) | Quantity: 14627 | Unit: CY |
|---------------------|-----------------------|--------------|-----------------|----------|

|         | Base Labor | Burden    | Total Labor | Equipment  | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|------------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 4.98       | 2.46      | 7.44        | 11.17      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 18.61      |
| Total   | 72,851.78  | 36,026.65 | 108,878.43  | 163,333.70 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 272,212.13 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|-------------|
| 18.6103      | 0.0167        | 60.0000       | 1,116.6152   | 24.3783 | 600.0001    | 0.0017      | 11,166.1517 |

| Manhours   | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|------------|---------|---------|----------------|-----------------|
| 1,706.4800 | 8.5714  | 0.1167  | 63.8029        | 4.9806          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEXS Exc. w/Excvtor to Stockpile Prod: UH 60 Eff: 100.00 Crew Hrs: 243.78 Labor Pcs: 7.00 Equipment Pcs: 6.00

Notes: This is the material that will be stockpiled adjacent to the site on the Hayden property for reuse in the reservoir backfill.  
12,707 Bank Cubic Yards

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 8DOD08   | Dozer - D8                      | 1.00     | 243.78   | HR   | 135.00    | 100.00   | 135.00    | 32,910.30 |
| 8EX600   | Excavator - 600                 | 1.00     | 243.78   | HR   | 230.00    | 100.00   | 230.00    | 56,069.40 |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 243.78   | HR   | 30.00     | 100.00   | 30.00     | 7,313.40  |
| 8TRO35V  | Truck - Offroad (Volvo 35T)     | 2.00     | 487.57   | HR   | 110.00    | 100.00   | 110.00    | 53,632.70 |
| 8TRW     | Truck - Water                   | 1.00     | 243.78   | HR   | 55.00     | 100.00   | 55.00     | 13,407.90 |
| FORE     | Foreman                         | 1.00     | 243.78   | MH   | 45.00     | 116.67   | 75.91     | 18,504.42 |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | 243.78   | MH   | 31.97     | 116.67   | 58.31     | 14,214.13 |
| OP3      | Operator-Hvy Dozer/Excavator    | 2.00     | 487.57   | MH   | 40.09     | 116.67   | 69.44     | 33,857.63 |
| OP5      | Operator - Mini, Roller, BH     | 2.00     | 487.57   | MH   | 37.77     | 116.67   | 66.27     | 32,310.73 |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 1.00     | 243.78   | MH   | 23.45     | 116.67   | 40.99     | 9,991.52  |

**Biditem****Boulder Processing For Removal****1200**

Takeoff Qty: 4,977.000 CY

Bid Qty: 4,977.000 CY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 3.12       | 1.51     | 4.63        | 18.01     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 22.64      |
| Total   | 15,519.28  | 7,521.44 | 23,040.72   | 89,618.18 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 112,658.90 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 331.8000 | 15.0000 | 0.0667  | 339.5386 | 46.7730       | 69.4416        | 15.0000 |

Activity: 003300128 Boulder Processing (Unreviewed) Quantity: 4977 Unit: CY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 3.12       | 1.51     | 4.63        | 18.01     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 22.64      |
| Total   | 15,519.28  | 7,521.44 | 23,040.72   | 89,618.18 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 112,658.90 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|------------|
| 22.6359      | 0.0667        | 15.0000       | 339.5386     | 33.1800 | 150.0000    | 0.0067      | 3,395.3858 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 331.8000 | 15.0000 | 0.0667  | 69.4416        | 3.1182          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEXR Exc. w/Excavator-Rock Prod: UH 15 Eff: 100.00 Crew Hrs: 331.80 Labor Pcs: 1.00 Equipment Pcs: 3.00

Notes: According to the Geotech report we will hit the layer of andesite boulders during excavation. Based on our earthwork model in conjunction with the Geotech report this layer accounts for 9,953 CY of the excavation. This layer is a mix of boulders, weathered rock and volcaniclastic infilling with clay. The report does not break out the percentage of what each material is. Based on conversations with an excavation contractor that dug around the corner from this project they said the boulder make up 30% to 50% of this layer. We will use 50% to be safe in our bid item or 4,977 CY.

This item is only for breaking/processing the rock, the loading and hauling quantity is included in the other bid items.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 8EX400   | Excavator - 400              | 1.00     | 331.80   | HR   | 175.00    | 100.00   | 175.00    | 58,065.00 |
| 8MIBRL   | Misc - Large Hyd Hammer/Brkr | 1.00     | 331.80   | HR   | 83.10     | 100.00   | 83.10     | 27,571.58 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 331.80   | HR   | 12.00     | 100.00   | 12.00     | 3,981.60  |
| OP3      | Operator-Hvy Dozer/Excavator | 1.00     | 331.80   | MH   | 40.09     | 116.67   | 69.44     | 23,040.72 |

**Biditem****Boulder Processing Not Needed****1205**

Takeoff Qty: -4,297.000 CY

Bid Qty: -4,297.000 CY

| Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |            |           |            |            |      |      |      |      |      |      |            |
|---------|------------|-----------|------------|------------|------|------|------|------|------|------|------------|
| U. Cost | 3.12       | 1.51      | 4.63       | 18.01      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 22.64      |
| Total   | -13,399.06 | -6,493.87 | -19,892.93 | -77,374.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -97,267.62 |

| Manhours  | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|-----------|---------|---------|----------|---------------|----------------|---------|
| -286.4700 | 14.9998 | 0.0667  | 339.5386 | 46.7730       | 69.4416        | 15.0000 |

Activity: 003300128 Boulder Processing (Unreviewed) Quantity: -4297 Unit: CY

|         | Base Labor | Burden    | Total Labor | Equipment  | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|------------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 3.12       | 1.51      | 4.63        | 18.01      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 22.64      |
| Total   | -13,399.06 | -6,493.87 | -19,892.93  | -77,374.69 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | -97,267.62 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts   | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|----------|-------------|-------------|------------|
| 22.6362      | 0.0667        | 15.0000       | 339.5425     | -28.6467 | 150.0000    | 0.0067      | 3,395.4250 |

| Manhours  | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|-----------|---------|---------|----------------|-----------------|
| -286.4700 | 14.9998 | 0.0667  | 69.4416        | 3.1182          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEXR Exc. w/Excavator-Rock Prod: UH 15 Eff: 100.00 Crew Hrs: -286.47 Labor Pcs: 1.00 Equipment Pcs: 3.00

**Notes:** According to the Geotech report we will hit the layer of andesite boulders during excavation. Based on our earthwork model in conjunction with the Geotech report this layer accounts for 9,953 CY of the excavation. This layer is a mix of boulders, weathered rock and volcaniclastic infilling with clay. The report does not break out the percentage of what each material is. Based on conversations with an excavation contractor that dug around the corner from this project they said the boulder make up 30% to 50% of this layer. We will use 50% to be safe in our bid item or 4,977 CY.

This item is only for breaking/processing the rock, the loading and hauling quantity is included in the other bid items.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total      |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|------------|
| 8EX400   | Excavator - 400              | 1.00     | -286.47  | HR   | 175.00    | 100.00   | 175.00    | -50,132.25 |
| 8MIBRL   | Misc - Large Hyd Hammer/Brkr | 1.00     | -286.47  | HR   | 83.10     | 100.00   | 83.10     | -23,804.80 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | -286.47  | HR   | 12.00     | 100.00   | 12.00     | -3,437.64  |
| OP3      | Operator-Hvy Dozer/Excavator | 1.00     | -286.47  | MH   | 40.09     | 116.67   | 69.44     | -19,892.93 |

## Biditem

## Foundation Over-Ex

# 1210

Takeoff Qty: 2,576.000 CY

Bid Qty: 2,576.000 CY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|------------|
| U. Cost | 3.12       | 1.51     | 4.63        | 16.67     | 0.00       | 0.00        | 0.00 | 3.75       | 14.67     | 0.00     | 39.72      |
| Total   | 8,032.33   | 3,892.88 | 11,925.21   | 42,943.33 | 0.00       | 0.00        | 0.00 | 9,660.00   | 37,781.70 | 0.00     | 102,310.24 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 171.7300 | 15.0003 | 0.0667  | 595.7622 | 46.7730       | 69.4416        | 30.0000 |

Activity: 003300105 Overexcavation/Stabilization (Unreviewed) Quantity: 2576 Unit: CY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|------------|
| U. Cost | 3.12       | 1.51     | 4.63        | 16.67     | 0.00       | 0.00        | 0.00 | 3.75       | 14.67     | 0.00     | 39.72      |
| Total   | 8,032.33   | 3,892.88 | 11,925.21   | 42,943.33 | 0.00       | 0.00        | 0.00 | 9,660.00   | 37,781.70 | 0.00     | 102,310.24 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 21.2999      | 0.0333        | 30.0000       | 638.9967     | 8.5867 | 299.9999    | 0.0033      | 11,915.0078 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 171.7300 | 15.0003 | 0.0667  | 69.4416        | 3.1181          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEXR Exc. w/Excavator-Rock Prod: UH 30 Eff: 100.00 Crew Hrs: 85.87 Labor Pcs: 2.00 Equipment Pcs: 4.00

**Notes:** Per the Geotechnical Report we will be into Anestite Boulders at the bottom of the reservoir excavation. These boulder can as large as 7 Feet in diameter. When we remove these boulders at the bottom of our subgrade it will leave voids that will need filled back the designed subgrade elevation prior to beginning reservoir base rock sections. Since there is no way to know this exact quantity we will figure the following budget:

Reservoir diameter to OD of walls = 190.5 Feet. We need a minium of 10 Feet outside the outside wall for DN Tanks, so the bottom of the exccavation will be 210.50. Assmume worst case scenario that we will need to remove and replace on average 3 Feet of boulders. So quantity as follows:

$3.14 \times (105.25 \times 105.25) \times 2 = 104,350 \text{ CF}/27 = 2,576 \text{ CY of ex and } 5,153 \text{ tons of crushed rock backfil.}$

| Number of Trucks Routine<br>Description | Unit | Quantity |
|-----------------------------------------|------|----------|
| -----                                   |      |          |
| Total Units Per Day                     |      | 270.0000 |
| Hours Per Day                           |      | 9.0000   |
| Hours Per Round                         |      | 1.2500   |
| Units Per Load                          |      | 15.0000  |
| Trucks Required Per Day                 |      | 3.5000   |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 5TU      | Trucking - Tub               | 1.00     | 343.47   | HR   | 110.00    | 100.00   | 110.00    | 37,781.70 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 3,220.00 | CY   | 3.00      | 100.00   | 3.00      | 9,660.00  |
| 8EX400   | Excavator - 400              | 1.00     | 85.87    | HR   | 175.00    | 100.00   | 175.00    | 15,027.25 |
| 8EX600   | Excavator - 600              | 1.00     | 85.87    | HR   | 230.00    | 100.00   | 230.00    | 19,750.10 |
| 8MIBRL   | Misc - Large Hyd Hammer/Brkr | 1.00     | 85.87    | HR   | 83.10     | 100.00   | 83.10     | 7,135.54  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 85.87    | HR   | 12.00     | 100.00   | 12.00     | 1,030.44  |
| OP3      | Operator-Hvy Dozer/Excavator | 2.00     | 171.73   | MH   | 40.09     | 116.67   | 69.44     | 11,925.21 |

**Biditem****Foundation Over-Ex Not Needed****1215**

Takeoff Qty: -1,973.000 CY

Bid Qty: -1,973.000 CY

|         | Base Labor | Burden    | Total Labor | Equipment  | Perm Matls | Const Matls | Sub  | Aggregates | Trucking   | Gen Cond | Total      |
|---------|------------|-----------|-------------|------------|------------|-------------|------|------------|------------|----------|------------|
| U. Cost | 3.12       | 1.51      | 4.63        | 16.67      | 0.00       | 0.00        | 0.00 | 3.75       | 14.67      | 0.00     | 39.72      |
| Total   | -6,152.05  | -2,981.60 | -9,133.65   | -32,891.38 | 0.00       | 0.00        | 0.00 | -7,398.75  | -28,937.70 | 0.00     | -78,361.48 |

| Manhours  | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|-----------|---------|---------|----------|---------------|----------------|---------|
| -131.5300 | 15.0004 | 0.0667  | 595.7689 | 46.7730       | 69.4416        | 30.0000 |

|                     |                              |              |                 |          |
|---------------------|------------------------------|--------------|-----------------|----------|
| Activity: 003300105 | Overexcavation/Stabilization | (Unreviewed) | Quantity: -1973 | Unit: CY |
|---------------------|------------------------------|--------------|-----------------|----------|

|         | Base Labor | Burden    | Total Labor | Equipment  | Perm Matls | Const Matls | Sub  | Aggregates | Trucking   | Gen Cond | Total      |
|---------|------------|-----------|-------------|------------|------------|-------------|------|------------|------------|----------|------------|
| U. Cost | 3.12       | 1.51      | 4.63        | 16.67      | 0.00       | 0.00        | 0.00 | 3.75       | 14.67      | 0.00     | 39.72      |
| Total   | -6,152.05  | -2,981.60 | -9,133.65   | -32,891.38 | 0.00       | 0.00        | 0.00 | -7,398.75  | -28,937.70 | 0.00     | -78,361.48 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|-------------|
| 21.3001      | 0.0333        | 30.0000       | 639.0017     | -6.5767 | 299.9998    | 0.0033      | 11,915.0695 |

| Manhours  | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|-----------|---------|---------|----------------|-----------------|
| -131.5300 | 15.0004 | 0.0667  | 69.4416        | 3.1181          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEXR Exc. w/Excavator-Rock Prod: UH 30 Eff: 100.00 Crew Hrs: -65.77 Labor Pcs: 2.00 Equipment Pcs: 4.00

**Notes:** Per the Geotechnical Report we will be into Anestite Boulders at the bottom of the reservoir excavation. These boulder can as large as 7 Feet in diameter. When we remove these boulders at the bottom of our subgrade it will leave voids that will need filled back the designed subgrade elevation prior to beginning reservoir base rock sections. Since there is no way to know this exact quantity we will figure the following budget:

Reservoir diameter to OD of walls = 190.5 Feet. We need a minium of 10 Feet outside the outside wall for DN Tanks, so the bottom of the excavation will be 210.50. Asssume worst case scenario that we will need to remove and replace on average 3 Feet of boulders. So quantity as follows:

$3.14 \times (105.25 \times 105.25) \times 2 = 104,350 \text{ CF}/27 = 2,576 \text{ CY of ex and } 5,153 \text{ tons of crushed rock backfil.}$

| Number of Trucks Routine<br>Description | Unit | Quantity |
|-----------------------------------------|------|----------|
| -----                                   |      |          |
| Total Units Per Day                     |      | 270.0000 |
| Hours Per Day                           |      | 9.0000   |
| Hours Per Round                         |      | 1.2500   |
| Units Per Load                          |      | 15.0000  |
| Trucks Required Per Day                 |      | 3.5000   |

| Resource | Description      | Pcs/Wste | Quantity  | Unit | Unit Cost | Tax/OT % | Actual UC | Total      |
|----------|------------------|----------|-----------|------|-----------|----------|-----------|------------|
| 5TU      | Trucking - Tub   | 1.00     | -263.07   | HR   | 110.00    | 100.00   | 110.00    | -28,937.70 |
| 6DEDU02  | DUMP FEES - (CY) | 1.00     | -2,466.25 | CY   | 3.00      | 100.00   | 3.00      | -7,398.75  |
| 8EX400   | Excavator - 400  | 1.00     | -65.77    | HR   | 175.00    | 100.00   | 175.00    | -11,509.75 |
| 8EX600   | Excavator - 600  | 1.00     | -65.77    | HR   | 230.00    | 100.00   | 230.00    | -15,127.10 |



|        |                              |      |         |    |       |        |       |           |
|--------|------------------------------|------|---------|----|-------|--------|-------|-----------|
| 8MIBRL | Misc - Large Hyd Hammer/Brkr | 1.00 | -65.77  | HR | 83.10 | 100.00 | 83.10 | -5,465.29 |
| 8TRUT1 | Truck - 1 Ton                | 1.00 | -65.77  | HR | 12.00 | 100.00 | 12.00 | -789.24   |
| OP3    | Operator-Hvy Dozer/Excavator | 2.00 | -131.53 | MH | 40.09 | 116.67 | 69.44 | -9,133.65 |

## Biditem

## Foundation Over-Ex Backfill

1220

Takeoff Qty: 5,153.000 TN

Bid Qty: 5,153.000 TN

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 2.69       | 1.34     | 4.02        | 3.95      | 0.00       | 0.00        | 0.00 | 12.00      | 0.00     | 0.00     | 19.97      |
| Total   | 13,846.11  | 6,891.15 | 20,737.26   | 20,353.56 | 0.00       | 0.00        | 0.00 | 61,836.00  | 0.00     | 0.00     | 102,926.82 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 343.5200 | 15.0006 | 0.0667  | 299.6240 | 40.3066       | 60.3670        | 60.0000 |

Activity: 003300105.1 Stabilization Rock/Placement (Unreviewed) Quantity: 5153 Unit: TN

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 2.69       | 1.34     | 4.02        | 3.95      | 0.00       | 0.00        | 0.00 | 12.00      | 0.00     | 0.00     | 19.97      |
| Total   | 13,846.11  | 6,891.15 | 20,737.26   | 20,353.56 | 0.00       | 0.00        | 0.00 | 61,836.00  | 0.00     | 0.00     | 102,926.82 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 7.9742       | 0.0167        | 60.0000       | 478.4495     | 8.5883 | 600.0002    | 0.0017      | 11,984.4976 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 343.5200 | 15.0006 | 0.0667  | 60.3670        | 2.6870          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEMG Embnkmnt On-Site, Granular Prod: UH 60 Eff: 100.00 Crew Hrs: 85.88 Labor Pcs: 4.00 Equipment Pcs: 5.00

Notes: Stabilization rock to be backhauled with haul away trucks.

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 6AGC075P | Crushed - 3/4in (PU)            | 1.00     | 5,153.00 | TON  | 12.00     | 100.00   | 12.00     | 61,836.00 |
| 8DOD06   | Dozer - D6                      | 1.00     | 85.88    | HR   | 75.00     | 100.00   | 75.00     | 6,441.00  |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 85.88    | HR   | 30.00     | 100.00   | 30.00     | 2,576.40  |
| 8ROSD    | Roller - 84in Single Drum       | 1.00     | 85.88    | HR   | 65.00     | 100.00   | 65.00     | 5,582.20  |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 85.88    | HR   | 12.00     | 100.00   | 12.00     | 1,030.56  |
| 8TRW     | Truck - Water                   | 1.00     | 85.88    | HR   | 55.00     | 100.00   | 55.00     | 4,723.40  |
| FORE     | Foreman                         | 1.00     | 85.88    | MH   | 45.00     | 116.67   | 75.91     | 6,518.82  |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | 85.88    | MH   | 31.97     | 116.67   | 58.31     | 5,007.41  |
| OP5      | Operator - Mini, Roller, BH     | 1.00     | 85.88    | MH   | 37.77     | 116.67   | 66.27     | 5,691.17  |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 1.00     | 85.88    | MH   | 23.45     | 116.67   | 40.99     | 3,519.86  |

## Biditem

## Foundation Over-Ex Backfill Not Needed

1225

Takeoff Qty: -3,947.000 TN

Bid Qty: -3,947.000 TN

|         | Base Labor | Burden    | Total Labor | Equipment  | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|------------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 2.69       | 1.34      | 4.02        | 3.95       | 0.00       | 0.00        | 0.00 | 12.00      | 0.00     | 0.00     | 19.97      |
| Total   | -10,605.46 | -5,278.30 | -15,883.76  | -15,589.86 | 0.00       | 0.00        | 0.00 | -47,364.00 | 0.00     | 0.00     | -78,837.62 |

| Manhours  | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|-----------|---------|---------|----------|---------------|----------------|---------|
| -263.1200 | 15.0008 | 0.0667  | 299.6261 | 40.3066       | 60.3670        | 60.0000 |

Activity: 003300105.1 Stabilization Rock/Placement (Unreviewed) Quantity: -3947 Unit: TN

|         | Base Labor | Burden    | Total Labor | Equipment  | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|------------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 2.69       | 1.34      | 4.02        | 3.95       | 0.00       | 0.00        | 0.00 | 12.00      | 0.00     | 0.00     | 19.97      |
| Total   | -10,605.46 | -5,278.30 | -15,883.76  | -15,589.86 | 0.00       | 0.00        | 0.00 | -47,364.00 | 0.00     | 0.00     | -78,837.62 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour   | Shifts          | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|----------------|-----------------|-------------|-------------|-------------|
| 7.9741       | 0.0167        | 60.0000       | 478.4439       | -6.5783         | 600.0003    | 0.0017      | 11,984.4429 |
| Manhours     | Unit/MH       | MH/Unit       | Total Labor/MH | Base Labor/Unit |             |             |             |
| -263.1200    | 15.0008       | 0.0667        | 60.3670        | 2.6870          |             |             |             |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEMG Embnkmnt On-Site, Granular Prod: UH 60 Eff: 100.00 Crew Hrs: -65.78 Labor Pcs: 4.00 Equipment Pcs: 5.00

Notes: Stabilization rock to be backhauled with haul away trucks.

| Resource | Description                     | Pcs/Wste | Quantity  | Unit | Unit Cost | Tax/OT % | Actual UC | Total      |
|----------|---------------------------------|----------|-----------|------|-----------|----------|-----------|------------|
| 6AGC075P | Crushed - 3/4in (PU)            | 1.00     | -3,947.00 | TON  | 12.00     | 100.00   | 12.00     | -47,364.00 |
| 8DOD06   | Dozer - D6                      | 1.00     | -65.78    | HR   | 75.00     | 100.00   | 75.00     | -4,933.50  |
| 8MIGP5   | Misc - GPS Control Equip        | 1.00     | -65.78    | HR   | 30.00     | 100.00   | 30.00     | -1,973.40  |
| 8ROSD    | Roller - 84in Single Drum       | 1.00     | -65.78    | HR   | 65.00     | 100.00   | 65.00     | -4,275.70  |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | -65.78    | HR   | 12.00     | 100.00   | 12.00     | -789.36    |
| 8TRW     | Truck - Water                   | 1.00     | -65.78    | HR   | 55.00     | 100.00   | 55.00     | -3,617.90  |
| FORE     | Foreman                         | 1.00     | -65.78    | MH   | 45.00     | 116.67   | 75.91     | -4,993.11  |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | -65.78    | MH   | 31.97     | 116.67   | 58.31     | -3,835.44  |
| OP5      | Operator - Mini, Roller, BH     | 1.00     | -65.78    | MH   | 37.77     | 116.67   | 66.27     | -4,359.17  |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 1.00     | -65.78    | MH   | 23.45     | 116.67   | 40.99     | -2,696.04  |

## Subtotal

# Mass Site Grading & Prep Subtotal

|       | Base Labor | Burden    | Total Labor | Equipment  | Perm Matls | Const Matls | Sub       | Aggregates | Trucking   | Gen Cond  | Total      |
|-------|------------|-----------|-------------|------------|------------|-------------|-----------|------------|------------|-----------|------------|
| Total | 176,857.29 | 87,768.29 | 264,625.58  | 373,016.57 | 10,556.00  | 0.00        | 37,500.00 | 80,925.96  | 176,254.26 | 27,375.00 | 970,253.37 |

## Biditem

## Potholing for well Discharge Piping

# 2010

Takeoff Qty: 10.000 EA

Bid Qty: 10.000 EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 190.30     | 100.09   | 290.39      | 144.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 434.39   |
| Total   | 1,903.00   | 1,000.85 | 2,903.85    | 1,440.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,343.85 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 50.0000  | 0.2000  | 5.0000  | 86.8770 | 38.0600       | 58.0770        | 0.5000  |

Activity: 001000190 Pothole Utilities (All) (Unreviewed) Quantity: 10 Unit: EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 190.30     | 100.09   | 290.39      | 144.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 434.39   |
| Total   | 1,903.00   | 1,000.85 | 2,903.85    | 1,440.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,343.85 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 434.3850     | 2.0000        | 0.5000        | 217.1925     | 2.0000 | 5.0000      | 0.2000      | 2,171.9250 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 50.0000  | 0.2000  | 5.0000  | 58.0770        | 190.3000        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: STPH Pothole Crew Prod: HU 2 Eff: 100.00 Crew Hrs: 20.00 Labor Pcs: 2.50 Equipment Pcs: 1.50

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8EX130   | Excavator - 130              | 1.00     | 20.00    | HR   | 52.00     | 100.00   | 52.00     | 1,040.00 |
| 8TRD05   | Truck - Dump (5 CY)          | 0.50     | 10.00    | HR   | 40.00     | 100.00   | 40.00     | 400.00   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 20.00    | MH   | 30.82     | 116.67   | 56.73     | 1,134.69 |

|       |                             |      |       |    |       |        |       |          |
|-------|-----------------------------|------|-------|----|-------|--------|-------|----------|
| OP4   | Operator-Doz, Exc, Bld, Ldr | 1.00 | 20.00 | MH | 39.01 | 116.67 | 67.97 | 1,359.30 |
| TEAM1 | Teamster - 5 CY/3KWater     | 0.50 | 10.00 | MH | 23.45 | 116.67 | 40.99 | 409.86   |

## Biditem

## Procure, Deliver &amp; String Discharge Piping

2020

Takeoff Qty: 1,400.000 LF

Bid Qty: 1,400.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.81       | 0.43   | 1.25        | 0.50      | 39.98      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 41.72     |
| Total   | 1,140.59   | 605.21 | 1,745.80    | 700.00    | 55,967.44  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 58,413.24 |

| Manhours | Unit/MH | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|---------|---------|------------|---------------|----------------|----------|
| 28.0000  | 50.0000 | 0.0200  | 2,086.1871 | 40.7354       | 62.3500        | 100.0000 |

Activity: 011400056 Procure/String HDPE Pipe (Unreviewed) Quantity: 1400 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.81       | 0.43   | 1.25        | 0.50      | 39.98      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 41.72     |
| Total   | 1,140.59   | 605.21 | 1,745.80    | 700.00    | 55,967.44  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 58,413.24 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 1.7470       | 0.0100        | 100.0000      | 174.7000     | 1.4000 | 1,000.0000  | 0.0010      | 41,723.7429 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 28.0000  | 50.0000 | 0.0200  | 62.3500        | 0.8147          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: STST Pipe String Crew Prod: UH 100 Eff: 100.00 Crew Hrs: 14.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2ECOBLOCK    | Concrete Eco Block           | 1.00     | 3.00     | EA   | 100.00    | 100.00   | 100.00    | 300.00    |
| 2MISCEBREST  | Misc. Eco Block Restraints   | 1.00     | 1.00     | LS   | 250.00    | 100.00   | 250.00    | 250.00    |
| 2PI18DIFLGTE | 18 IN DI FLG Tee             | 1.00     | 1.00     | EA   | 5,969.98  | 100.00   | 5,969.98  | 5,969.98  |
| 2PI18DR1145  | 18 IN DR11 45 Bend           | 1.00     | 3.00     | EA   | 296.47    | 100.00   | 296.47    | 889.41    |
| 2PI18DR1190  | 18 IN DR11 90 Bend           | 1.00     | 2.00     | EA   | 434.57    | 100.00   | 434.57    | 869.14    |
| 2PI18DR17BKR | 18 IN HDPE Backing Ring      | 1.00     | 3.00     | EA   | 109.37    | 100.00   | 109.37    | 328.11    |
| 2PI18DR17FAD | 18 IN DR17 FLG APDT          | 1.00     | 3.00     | EA   | 246.54    | 100.00   | 246.54    | 739.62    |
| 2PI18DR17HDP | 18 IN DR17 HDPE              | 1.00     | 1,400.00 | LF   | 22.97     | 100.00   | 22.97     | 32,151.00 |
| 2PI18MEG     | 18 IN Megalug                | 1.00     | 1.00     | EA   | 256.88    | 100.00   | 256.88    | 256.88    |
| 2PI18MJXFLGA | 18 IN MJ x FLG ADPT          | 1.00     | 1.00     | EA   | 963.64    | 100.00   | 963.64    | 963.64    |
| 2PI18NBGK    | 18 IN NBGK                   | 1.00     | 4.00     | EA   | 245.29    | 100.00   | 245.29    | 981.16    |
| 2PI18X8FCR   | 18 x 8 FLG CONC RED          | 1.00     | 1.00     | EA   | 1,830.96  | 100.00   | 1,830.96  | 1,830.96  |
| 2PI6MEG      | 6 IN Megalug                 | 1.00     | 3.00     | EA   | 36.02     | 100.00   | 36.02     | 108.06    |
| 2PI6MJLONG   | 6 IN MJ Long Sleeve          | 1.00     | 1.00     | EA   | 114.88    | 100.00   | 114.88    | 114.88    |
| 2PI8NBGK     | 8 IN NBGK                    | 1.00     | 1.00     | EA   | 52.80     | 100.00   | 52.80     | 52.80     |
| 2PI8X6FCR    | 8 x 6 FLG CONC RED           | 1.00     | 1.00     | EA   | 161.80    | 100.00   | 161.80    | 161.80    |
| 2PIHDPFREIG  | HDPE Freight Charge          | 1.00     | 2.00     | EA   | 2,500.00  | 100.00   | 2,500.00  | 5,000.00  |
| 2PIMISCDIS   | Misc. Discharge Material     | 1.00     | 1.00     | LS   | 5,000.00  | 100.00   | 5,000.00  | 5,000.00  |
| 8LO544       | Loader - 544                 | 1.00     | 14.00    | HR   | 50.00     | 100.00   | 50.00     | 700.00    |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 14.00    | MH   | 30.82     | 116.67   | 56.74     | 794.29    |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 14.00    | MH   | 39.01     | 116.67   | 67.97     | 951.51    |

## Biditem

## Fuse 18-inch HDPE Discharge Piping

2030

Takeoff Qty: 1,400.000 LF

Bid Qty: 1,400.000 LF

| Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |          |          |           |           |      |      |      |      |      |      |           |
|---------|----------|----------|-----------|-----------|------|------|------|------|------|------|-----------|
| U. Cost | 6.27     | 3.07     | 9.34      | 7.71      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.06     |
| Total   | 8,775.16 | 4,304.33 | 13,079.49 | 10,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23,879.49 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 192.0000 | 7.2917  | 0.1371  | 124.3723 | 45.7040       | 68.1223        | 29.1667 |

Activity: 011500040 HDPE Fuse/Butt Weld Pipe (Unreviewed) Quantity: 48 Unit: EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 182.82     | 89.67    | 272.49      | 225.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 497.49    |
| Total   | 8,775.16   | 4,304.33 | 13,079.49   | 10,800.00 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 23,879.49 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 497.4894     | 1.0000        | 1.0000        | 497.4894     | 4.8000 | 10.0000     | 0.1000      | 4,974.8938 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 192.0000 | 0.2500  | 4.0000  | 68.1223        | 182.8158        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: WEHDL Fusion Large Diameter HDPE Prod: HU 1 Eff: 100.00 Crew Hrs: 48.00 Labor Pcs: 4.00 Equipment Pcs: 5.00

Notes: 18 IN HDPE will come in 40 FT sticks, so 1,400/40 = 35 joints to weld. We will have two fused 90 bends (one for the crossing of SW Volcano and one to go from South to West down SW Wickiup Ave). We will have 3 fused 45 bends (one to change directions on-site going to the Baker Tanks, one to cut across the field to the irrigation canal and another one to downturn the discharge pipe into the canal). We will also have 3 HDPE FLG adapters (one for the SW Volcano connection, One for the SW Wickiup Ave connection and one to connect to the Baker tank connection).

Total fuses joints = 35+13 = 48 Each

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8EX225   | Excavator - 225RTS           | 1.00     | 48.00    | HR   | 70.00     | 100.00   | 70.00     | 3,360.00 |
| 8GE040   | Generator - 40KW             | 1.00     | 48.00    | HR   | 25.00     | 100.00   | 25.00     | 1,200.00 |
| 8LO544   | Loader - 544                 | 1.00     | 48.00    | HR   | 50.00     | 100.00   | 50.00     | 2,400.00 |
| 8MI3     | Misc - SUP EQ(2-PK/MISC)     | 1.00     | 48.00    | HR   | 30.00     | 100.00   | 30.00     | 1,440.00 |
| 8WEH36   | Misc - 36in McElroy Fusion   | 1.00     | 48.00    | HR   | 50.00     | 100.00   | 50.00     | 2,400.00 |
| FORE     | Foreman                      | 1.00     | 48.00    | MH   | 45.00     | 116.67   | 75.91     | 3,643.50 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 0.50     | 24.00    | MH   | 30.82     | 116.67   | 56.73     | 1,361.63 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.50     | 72.00    | MH   | 39.01     | 116.67   | 67.96     | 4,893.45 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 48.00    | MH   | 37.77     | 116.67   | 66.27     | 3,180.91 |

## Biditem

## AC Sawcutting Discharge Piping

# 2040

Takeoff Qty: 200.000 LF

Bid Qty: 200.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 1.53       | 0.85   | 2.37        | 1.48      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3.85   |
| Total   | 305.07     | 169.34 | 474.41      | 296.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 770.41 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 8.0000   | 25.0000 | 0.0400  | 96.3013 | 38.1338       | 59.3013        | 50.0000 |

Activity: 004950104 Sawcutting - Asphalt (Unreviewed) Quantity: 200 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 1.53       | 0.85   | 2.37        | 1.48      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3.85   |
| Total   | 305.07     | 169.34 | 474.41      | 296.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 770.41 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 3.8521       | 0.0200        | 50.0000       | 192.6025     | 0.4000 | 500.0000    | 0.0020      | 1,926.0250 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 8.0000   | 25.0000 | 0.0400  | 59.3013        | 1.5254          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: DESA Sawcutting Prod: UH 50 Eff: 100.00 Crew Hrs: 4.00 Labor Pcs: 2.00 Equipment Pcs: 3.00

Notes: This item is for AC Cutting and accounts for each side of the trench.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8DES     | CONC SAW /VAN                | 1.00     | 4.00     | HR   | 32.00     | 100.00   | 32.00     | 128.00 |
| 8MIVA    | Misc - Tow Behind Vac Traile | 1.00     | 4.00     | HR   | 30.00     | 100.00   | 30.00     | 120.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 4.00     | HR   | 12.00     | 100.00   | 12.00     | 48.00  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 4.00     | MH   | 30.82     | 116.67   | 56.74     | 226.94 |
| OP6      | Operator - Sawcutter/Skdstr  | 1.00     | 4.00     | MH   | 34.55     | 116.67   | 61.87     | 247.47 |

**Biditem****Surface Installed Discharge Piping****2050**

Takeoff Qty: 1,035.000 LF

Bid Qty: 1,035.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 2.71       | 1.38     | 4.09        | 2.03      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6.11     |
| Total   | 2,805.19   | 1,424.61 | 4,229.80    | 2,096.28  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6,326.08 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 64.7000  | 15.9969 | 0.0625  | 97.7756 | 43.3569       | 65.3756        | 80.0000 |

Activity: 011400418 18-inch Surface Installed HDPE Discharge (Unreviewed) Quantity: 1035 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 2.71       | 1.38     | 4.09        | 2.03      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6.11     |
| Total   | 2,805.19   | 1,424.61 | 4,229.80    | 2,096.28  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6,326.08 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 6.1122       | 0.0125        | 80.0000       | 488.9724     | 1.2938 | 800.0000    | 0.0013      | 4,889.7237 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 64.7000  | 15.9969 | 0.0625  | 65.3756        | 2.7103          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: STM Medium Pipe Crew Prod: UH 80 Eff: 100.00 Crew Hrs: 12.94 Labor Pcs: 5.00 Equipment Pcs: 3.00

Notes: A portion of this pipe will be on-site and the balance will be across the lower private field to the canal.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8EX328   | Excavator - 328              | 1.00     | 12.94    | HR   | 100.00    | 100.00   | 100.00    | 1,294.00 |
| 8LO544   | Loader - 544                 | 1.00     | 12.94    | HR   | 50.00     | 100.00   | 50.00     | 647.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 12.94    | HR   | 12.00     | 100.00   | 12.00     | 155.28   |
| FORE     | Foreman                      | 1.00     | 12.94    | MH   | 45.00     | 116.67   | 75.91     | 982.23   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 12.94    | MH   | 30.82     | 116.67   | 56.73     | 734.15   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 12.94    | MH   | 31.97     | 116.67   | 58.31     | 754.49   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 25.88    | MH   | 39.01     | 116.67   | 67.96     | 1,758.93 |

**Biditem****Buried Discharge Piping****2060**

Takeoff Qty: 365.000 LF

Bid Qty: 365.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|-----------|
| U. Cost | 21.68      | 11.01    | 32.69       | 16.20     | 0.00       | 0.00        | 6.00     | 16.40      | 0.00     | 0.00     | 71.28     |
| Total   | 7,912.64   | 4,018.38 | 11,931.02   | 5,913.00  | 0.00       | 0.00        | 2,190.00 | 5,985.00   | 0.00     | 0.00     | 26,019.02 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 182.5000 | 2.0000  | 0.5000  | 142.5700 | 43.3569       | 65.3755        | 10.0000 |

Activity: 011400418 Buried 18-inch HDPE Discharge (Unreviewed) Quantity: 365 Unit: LF

|  | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |          |          |           |          |      |      |          |          |      |      |           |
|---------|----------|----------|-----------|----------|------|------|----------|----------|------|------|-----------|
| U. Cost | 21.68    | 11.01    | 32.69     | 16.20    | 0.00 | 0.00 | 6.00     | 16.40    | 0.00 | 0.00 | 71.28     |
| Total   | 7,912.64 | 4,018.38 | 11,931.02 | 5,913.00 | 0.00 | 0.00 | 2,190.00 | 5,985.00 | 0.00 | 0.00 | 26,019.02 |

|              |               |               |              |        |             |             |            |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
| 48.8877      | 0.1000        | 10.0000       | 488.8773     | 3.6500 | 100.0000    | 0.0100      | 7,128.4986 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 182.5000 | 2.0000  | 0.5000  | 65.3755        | 21.6785         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: STM Medium Pipe Crew Prod: UH 10 Eff: 100.00 Crew Hrs: 36.50 Labor Pcs: 5.00 Equipment Pcs: 3.00

Notes: One flagger has been added to this item for the work along SW Wickiup Ave.

|                                |      |          |
|--------------------------------|------|----------|
| Cut Fill with Bedding Routine  |      |          |
| Description                    | Unit | Quantity |
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.5000   |
| Bedding 2 Depth                | LF   | 2.5000   |
| Object Height (Dia. if circle) | LF   | 1.5000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 3.5000   |
| Trench Depth                   | LF   | 5.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 365.0000 |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 236.5740 |
| Bedding 1 Volume               | CY   | 94.3984  |
| Bedding 2 Volume               | CY   | 118.2870 |
| Bedding 1 + Bedding 2          | CY   | 212.6854 |
| Net Excess                     | CY   | 236.5739 |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 4FLAG    | Flagging Sub                 | 1.00     | 36.50    | HR   | 60.00     | 100.00   | 60.00     | 2,190.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 425.00   | TON  | 12.00     | 100.00   | 12.00     | 5,100.00 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 295.00   | CY   | 3.00      | 100.00   | 3.00      | 885.00   |
| 8EX328   | Excavator - 328              | 1.00     | 36.50    | HR   | 100.00    | 100.00   | 100.00    | 3,650.00 |
| 8LO544   | Loader - 544                 | 1.00     | 36.50    | HR   | 50.00     | 100.00   | 50.00     | 1,825.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 36.50    | HR   | 12.00     | 100.00   | 12.00     | 438.00   |
| FORE     | Foreman                      | 1.00     | 36.50    | MH   | 45.00     | 116.67   | 75.91     | 2,770.57 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 36.50    | MH   | 30.82     | 116.67   | 56.73     | 2,070.81 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 36.50    | MH   | 31.97     | 116.67   | 58.31     | 2,128.22 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 73.00    | MH   | 39.01     | 116.67   | 67.96     | 4,961.42 |

## Biditem

## Connect to Exist 18-IN DI (SW Volcano Ave)

# 2070

Takeoff Qty: 1.000 EA

Bid Qty: 1.000 EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 2,167.85   | 1,100.93 | 3,268.78    | 1,570.00  | 0.00       | 0.00        | 0.00 | 0.00       | 980.00   | 0.00     | 5,818.78 |
| Total   | 2,167.85   | 1,100.93 | 3,268.78    | 1,570.00  | 0.00       | 0.00        | 0.00 | 0.00       | 980.00   | 0.00     | 5,818.78 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 50.0000  | 0.0200  | 50.0000 | 116.3756 | 43.3570       | 65.3756        | 0.1000  |

Activity: 011500075 Connect to Existing Waterline (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 2,167.85   | 1,100.93 | 3,268.78    | 1,570.00  | 0.00       | 0.00        | 0.00 | 0.00       | 980.00   | 0.00     | 5,818.78 |
| Total   | 2,167.85   | 1,100.93 | 3,268.78    | 1,570.00  | 0.00       | 0.00        | 0.00 | 0.00       | 980.00   | 0.00     | 5,818.78 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 4,838.7800   | 10.0000       | 0.1000        | 483.8780     | 1.0000 | 1.0000      | 1.0000      | 5,818.7800 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 50.0000  | 0.0200  | 50.0000 | 65.3756        | 2,167.8500      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: STMH Medium Pipe Crew, Haul Away Prod: CH 10 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

**Notes:** Per our site visit on 6/25/20 the existing connection for the well discharge pipe will be to the 18-inch DI pipe that ends at the existing fire hydrant. It is believed that the end of the 18-inch pipe has a 90 degree bend, with a reducer to 6 in going to the hydrant. We will want to use the existing fire hydrant as an ARV to vent during discharge so we will at the following fittings:

- (1) 18-inch FLG Tee
- (1) 18-inch MJ x FLG ADPT
- (1) 18-inch x 6-inch FLG x MJ Reducer
- (1) 6-inch MJ Long Sleeve
- (2) 18-inch Nut Bolt & Gasket Kits
- (1) 18-inch Megalug Restraint
- (3) 6-inch Megalug Restraints
- (1) 6-inch Nut Bolt & Gasket Kit

The HDPE pipe will be connected with a 18-inch FLG Adpt and backing ring.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 10.00    | HR   | 98.00     | 100.00   | 98.00     | 980.00   |
| 8EX225   | Excavator - 225RTS           | 1.00     | 10.00    | HR   | 70.00     | 100.00   | 70.00     | 700.00   |
| 8LO544   | Loader - 544                 | 1.00     | 10.00    | HR   | 50.00     | 100.00   | 50.00     | 500.00   |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 10.00    | HR   | 10.00     | 100.00   | 10.00     | 100.00   |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 10.00    | HR   | 15.00     | 100.00   | 15.00     | 150.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 10.00    | HR   | 12.00     | 100.00   | 12.00     | 120.00   |
| FORE     | Foreman                      | 1.00     | 10.00    | MH   | 45.00     | 116.67   | 75.91     | 759.07   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 10.00    | MH   | 30.82     | 116.67   | 56.73     | 567.34   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 10.00    | MH   | 31.97     | 116.67   | 58.31     | 583.07   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 20.00    | MH   | 39.01     | 116.67   | 67.97     | 1,359.30 |

**Biditem****Connect to Exist 18-inch DI (SW Wickiup & SW 49th)****2080**

Takeoff Qty: 1.000 EA

Bid Qty: 1.000 EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|----------|------------|----------|----------|----------|
| U. Cost | 1,734.28   | 880.75 | 2,615.03    | 1,256.00  | 0.00       | 0.00        | 1,440.00 | 0.00       | 784.00   | 0.00     | 6,095.03 |
| Total   | 1,734.28   | 880.75 | 2,615.03    | 1,256.00  | 0.00       | 0.00        | 1,440.00 | 0.00       | 784.00   | 0.00     | 6,095.03 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 40.0000  | 0.0250  | 40.0000 | 152.3758 | 43.3570       | 65.3758        | 0.1250  |

Activity: 011500075 Connect to Existing Waterline (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|----------|------------|----------|----------|----------|
| U. Cost | 1,734.28   | 880.75 | 2,615.03    | 1,256.00  | 0.00       | 0.00        | 1,440.00 | 0.00       | 784.00   | 0.00     | 6,095.03 |
| Total   | 1,734.28   | 880.75 | 2,615.03    | 1,256.00  | 0.00       | 0.00        | 1,440.00 | 0.00       | 784.00   | 0.00     | 6,095.03 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 3,871.0300   | 8.0000        | 0.1250        | 483.8788     | 0.8000 | 1.2500      | 0.8000      | 7,618.7875 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 40.0000  | 0.0250  | 40.0000 | 65.3758        | 1,734.2800      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: STMH Medium Pipe Crew, Haul Away Prod: CH 8 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

**Notes:** Per our site visit on 6/25/20 the existing connection for the well discharge pipe will be to the 18-inch DI Tee that is located in the south lane of SW Wickiup Ave at the intersection of SW 49th St. It appears this tee has a BFV on the west leg and on the south leg. The operators believe the south valve is FLG so we will connect to it with a 18inch HDPE FLG ADPT/Backing ring, a stub of 18-inch HDPE then a fused 90 bend facing west down the ditch line. This line will then run west then 45 across the private field to the canal for discharge

- (1) 18-inch MJ x FLG ADPT
- (1) 18-inch Nut Bolt & Gasket Kit

| Resource | Description     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-----------------|----------|----------|------|-----------|----------|-----------|----------|
| 4FLAG    | Flagging Sub    | 1.00     | 24.00    | HR   | 60.00     | 100.00   | 60.00     | 1,440.00 |
| 5SO      | Trucking - Solo | 1.00     | 8.00     | HR   | 98.00     | 100.00   | 98.00     | 784.00   |



|         |                              |      |       |    |       |        |       |          |
|---------|------------------------------|------|-------|----|-------|--------|-------|----------|
| 8EX225  | Excavator - 225RTS           | 1.00 | 8.00  | HR | 70.00 | 100.00 | 70.00 | 560.00   |
| 8LO544  | Loader - 544                 | 1.00 | 8.00  | HR | 50.00 | 100.00 | 50.00 | 400.00   |
| 8MIHP   | Misc - Backhoe Hoepac        | 1.00 | 8.00  | HR | 10.00 | 100.00 | 10.00 | 80.00    |
| 8SHTR10 | Shoring - Trench Box 10'     | 1.00 | 8.00  | HR | 15.00 | 100.00 | 15.00 | 120.00   |
| 8TRUT1  | Truck - 1 Ton                | 1.00 | 8.00  | HR | 12.00 | 100.00 | 12.00 | 96.00    |
| FORE    | Foreman                      | 1.00 | 8.00  | MH | 45.00 | 116.67 | 75.91 | 607.26   |
| L1      | Labor -Group 1 Genl/Carp Tnd | 1.00 | 8.00  | MH | 30.82 | 116.67 | 56.74 | 453.88   |
| L4      | Labor -Group 2 Pipe Layer/GC | 1.00 | 8.00  | MH | 31.97 | 116.67 | 58.31 | 466.46   |
| OP4     | Operator-Doz, Exc, Bld, Ldr  | 2.00 | 16.00 | MH | 39.01 | 116.67 | 67.96 | 1,087.43 |

## Biditem

## Removal of Discharge System/Permanent AC Patch

2090

Takeoff Qty: 1,400.000 LF

Bid Qty: 1,400.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3.91       | 1.99     | 5.90        | 2.60      | 0.61       | 0.00        | 0.00 | 0.00       | 2.83     | 0.00     | 11.94     |
| Total   | 5,476.30   | 2,787.98 | 8,264.28    | 3,643.80  | 850.00     | 0.00        | 0.00 | 0.00       | 3,959.20 | 0.00     | 16,717.28 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 133.0000 | 10.5263 | 0.0950  | 125.6938 | 41.1752       | 62.1374        | 57.3770 |

Activity: 002450200 Remove Temporary Discharge System (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3,906.29   | 1,979.49 | 5,885.78    | 2,864.00  | 0.00       | 0.00        | 0.00 | 0.00       | 3,136.00 | 0.00     | 11,885.78 |
| Total   | 3,906.29   | 1,979.49 | 5,885.78    | 2,864.00  | 0.00       | 0.00        | 0.00 | 0.00       | 3,136.00 | 0.00     | 11,885.78 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 8,749.7800   | 16.0000       | 0.0625        | 546.8613     | 1.6000 | 0.6250      | 1.6000      | 7,428.6125 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 96.0000  | 0.0104  | 96.0000 | 61.3102        | 3,906.2900      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: STMH Medium Pipe Crew, Haul Away Prod: CH 16 Eff: 100.00 Crew Hrs: 16.00 Labor Pcs: 6.00 Equipment Pcs: 6.00

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo                 | 1.00     | 32.00    | HR   | 98.00     | 100.00   | 98.00     | 3,136.00 |
| 8EX225   | Excavator - 225RTS              | 1.00     | 16.00    | HR   | 70.00     | 100.00   | 70.00     | 1,120.00 |
| 8LO544   | Loader - 544                    | 1.00     | 16.00    | HR   | 50.00     | 100.00   | 50.00     | 800.00   |
| 8MIHP    | Misc - Backhoe Hoepac           | 1.00     | 16.00    | HR   | 10.00     | 100.00   | 10.00     | 160.00   |
| 8SHTR10  | Shoring - Trench Box 10'        | 1.00     | 16.00    | HR   | 15.00     | 100.00   | 15.00     | 240.00   |
| 8TRFL1   | Truck - Flatbed                 | 1.00     | 16.00    | HR   | 22.00     | 100.00   | 22.00     | 352.00   |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 16.00    | HR   | 12.00     | 100.00   | 12.00     | 192.00   |
| FORE     | Foreman                         | 1.00     | 16.00    | MH   | 45.00     | 116.67   | 75.91     | 1,214.49 |
| L1       | Labor -Group 1 Genl/Carp Tnd    | 1.00     | 16.00    | MH   | 30.82     | 116.67   | 56.73     | 907.74   |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | 16.00    | MH   | 31.97     | 116.67   | 58.31     | 932.92   |
| OP4      | Operator-Doz, Exc, Bld, Ldr     | 2.00     | 32.00    | MH   | 39.01     | 116.67   | 67.96     | 2,174.86 |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 1.00     | 16.00    | MH   | 23.45     | 116.67   | 40.99     | 655.77   |

Activity: 004950200 Trench Prep for Paving (Unreviewed) Quantity: 340 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 2.14       | 1.10   | 3.24        | 0.97      | 0.00       | 0.00        | 0.00 | 0.00       | 0.98     | 0.00     | 5.19     |
| Total   | 727.59     | 372.68 | 1,100.27    | 329.80    | 0.00       | 0.00        | 0.00 | 0.00       | 333.20   | 0.00     | 1,763.27 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 4.2061       | 0.0100        | 100.0000      | 420.6088     | 0.3400 | 1,000.0000  | 0.0010      | 5,186.0882 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 17.0000  | 20.0000 | 0.0500  | 64.7218        | 2.1400          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TR1 Trench Preping Crew Prod: UH 100 Eff: 100.00 Crew Hrs: 3.40 Labor Pcs: 5.00 Equipment Pcs: 2.50

**Notes:** We will have approximately 55 LF of trench that will need repaved on SW Volcano Ave and 30 LF for the private driveway crossing on SW Wickiup Ave.

Total of 85 LF of trench, assume we will permanent pave 4-inch deep at both crossings and 4-feet wide:

$85 \times 4 = 340 \text{ SF}/40 = 8.5 \text{ tons of AC} + \text{waste} = 10 \text{ Tons}$

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 3.40     | HR   | 98.00     | 100.00   | 98.00     | 333.20 |
| 8EX130   | Excavator - 130              | 1.00     | 3.40     | HR   | 52.00     | 100.00   | 52.00     | 176.80 |
| 8MI3     | Misc - SUP EQ(2-PK/MISC)     | 1.00     | 3.40     | HR   | 30.00     | 100.00   | 30.00     | 102.00 |
| 8ROS     | Roller - Small Paving        | 0.50     | 1.70     | HR   | 30.00     | 100.00   | 30.00     | 51.00  |
| FORE     | Foreman                      | 1.00     | 3.40     | MH   | 45.00     | 116.67   | 75.91     | 258.08 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 6.80     | MH   | 30.82     | 116.67   | 56.73     | 385.79 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 3.40     | MH   | 39.01     | 116.67   | 67.96     | 231.08 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 3.40     | MH   | 37.77     | 116.67   | 66.27     | 225.32 |

Activity: 004950204 Permanent AC Patch - 4 inch Deep (Unreviewed) Quantity: 10 Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 84.24      | 43.58  | 127.82      | 45.00     | 85.00      | 0.00        | 0.00 | 0.00       | 49.00    | 0.00     | 306.82   |
| Total   | 842.42     | 435.81 | 1,278.23    | 450.00    | 850.00     | 0.00        | 0.00 | 0.00       | 490.00   | 0.00     | 3,068.23 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 172.8230     | 0.5000        | 2.0000        | 345.6460     | 0.5000 | 20.0000     | 0.0500      | 6,136.4600 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 20.0000  | 0.5000  | 2.0000  | 63.9115        | 84.2420         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TR2 Trench Patching Crew Prod: UH 2 Eff: 100.00 Crew Hrs: 5.00 Labor Pcs: 4.00 Equipment Pcs: 3.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2AS1WIB  | Buy Cl B Asphalt             | 1.00     | 10.00    | TON  | 85.00     | 100.00   | 85.00     | 850.00 |
| 5SO      | Trucking - Solo              | 1.00     | 5.00     | HR   | 98.00     | 100.00   | 98.00     | 490.00 |
| 8MI3     | Misc - SUP EQ(2-PK/MISC)     | 1.00     | 5.00     | HR   | 30.00     | 100.00   | 30.00     | 150.00 |
| 8MITA    | Misc - Tack Trailer          | 1.00     | 5.00     | HR   | 30.00     | 100.00   | 30.00     | 150.00 |
| 8ROS     | Roller - Small Paving        | 1.00     | 5.00     | HR   | 30.00     | 100.00   | 30.00     | 150.00 |
| FORE     | Foreman                      | 1.00     | 5.00     | MH   | 45.00     | 116.67   | 75.91     | 379.54 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 10.00    | MH   | 30.82     | 116.67   | 56.73     | 567.34 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 5.00     | MH   | 37.77     | 116.67   | 66.27     | 331.35 |

## Biditem

## Blow-Off and Chlorination of Existing 18-inch DI

# 2100

Takeoff Qty: 1.000 EA

Bid Qty: 1.000 EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,963.32   | 1,065.13 | 3,028.45    | 840.00    | 2,750.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6,618.45 |
| Total   | 1,963.32   | 1,065.13 | 3,028.45    | 840.00    | 2,750.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6,618.45 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 50.0000  | 0.0200  | 50.0000 | 132.3690 | 39.2664       | 60.5690        | 0.0500  |

Activity: 011500060 Blow-Off Exsting 18-Inch DI Line (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,244.17   | 649.59 | 1,893.76    | 270.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,163.76 |
| Total   | 1,244.17   | 649.59 | 1,893.76    | 270.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,163.76 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|----------|
|--------------|---------------|---------------|--------------|--------|-------------|-------------|----------|

|            |         |        |          |        |        |        |            |
|------------|---------|--------|----------|--------|--------|--------|------------|
| 2,163.7600 | 10.0000 | 0.1000 | 216.3760 | 1.0000 | 1.0000 | 1.0000 | 2,163.7600 |
|------------|---------|--------|----------|--------|--------|--------|------------|

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 30.0000  | 0.0333  | 30.0000 | 63.1253        | 1,244.1700      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TEPI Pipe Test Crew Prod: CH 10 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 3.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8MI2     | Misc - Daily Cost            | 1.00     | 10.00    | HR   | 15.00     | 100.00   | 15.00     | 150.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 10.00    | HR   | 12.00     | 100.00   | 12.00     | 120.00   |
| FORE     | Foreman                      | 1.00     | 10.00    | MH   | 45.00     | 116.67   | 75.91     | 759.07   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 20.00    | MH   | 30.82     | 116.67   | 56.73     | 1,134.69 |

Activity: 011500070 Chlorination/Disinfection/Dechlorination (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 719.15     | 415.54 | 1,134.69    | 570.00    | 2,750.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,454.69 |
| Total   | 719.15     | 415.54 | 1,134.69    | 570.00    | 2,750.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,454.69 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,704.6900   | 10.0000       | 0.1000        | 170.4690     | 1.0000 | 1.0000      | 1.0000      | 4,454.6900 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 20.0000  | 0.0500  | 20.0000 | 56.7345        | 719.1500        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TEPI Pipe Test Crew Prod: CH 10 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 2.00 Equipment Pcs: 3.00

**Notes:** We will need to purchase (2) 18-inch blind flanges with double taps for capping off the lower connection and upper connection. Chlorine will be injected through the lower connection as the line fills and tested at the top connection. We will also need a testing tree and misc piping, water will need to be dechlorinated prior to dumping into the sanitary sewer system.

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2CHLORINE | 12.5% Liquid Chlorine        | 1.00     | 1.00     | LS   | 250.00    | 100.00   | 250.00    | 250.00   |
| 2MISCTEST | Misc. Testing Material       | 1.00     | 1.00     | LS   | 2,500.00  | 100.00   | 2,500.00  | 2,500.00 |
| 8MI2      | Misc - Daily Cost            | 1.00     | 10.00    | HR   | 15.00     | 100.00   | 15.00     | 150.00   |
| 8MI3      | Misc - SUP EQ(2-PK/MISC)     | 1.00     | 10.00    | HR   | 30.00     | 100.00   | 30.00     | 300.00   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 10.00    | HR   | 12.00     | 100.00   | 12.00     | 120.00   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 2.00     | 20.00    | MH   | 30.82     | 116.67   | 56.73     | 1,134.69 |

## Subtotal

# Well Discharge Piping Subtotal

|       | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total      |
|-------|------------|-----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|------------|
| Total | 34,183.40  | 17,357.51 | 51,540.91   | 28,555.08 | 59,567.44  | 0.00        | 3,630.00 | 5,985.00   | 5,723.20 | 0.00     | 155,001.63 |

## Biditem

## Well Discharge Line Pump Contingency

# 3000

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

Activity: 002900010 Well Discharge Line Pump (Unreviewed) Quantity: 1 Unit: LS

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

| Resource  | Description                   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|-----------|-------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 3WELLDUMP | Well Discharge Pump Allowance | 1.00     | 1.00     | LS   | 50,000.00 | 100.00   | 50,000.00 | 50,000.00 |

## Subtotal

# Well Discharge Line Pump Contingency Subtotal

|       | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|-------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| Total | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 50,000.00   | 0.00 | 0.00       | 0.00     | 0.00     | 50,000.00 |

## Biditem

## Well Development

## 3100

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|                     |                                 |              |             |          |
|---------------------|---------------------------------|--------------|-------------|----------|
| Activity: 002900032 | Domestic Water Well Development | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|---------------------------------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description                 | Pcs/Wste | Quantity | Unit | Unit Cost    | Tax/OT % | Actual UC    | Total        |
|----------|-----------------------------|----------|----------|------|--------------|----------|--------------|--------------|
| 4WELL    | Well Drilling Subcontractor | 1.00     | 1.00     | LS   | 1,562,925.00 | 100.00   | 1,562,925.00 | 1,562,925.00 |

## Subtotal

# Well Development Subtotal

|       | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub          | Aggregates | Trucking | Gen Cond | Total        |
|-------|------------|--------|-------------|-----------|------------|-------------|--------------|------------|----------|----------|--------------|
| Total | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 1,562,925.00 | 0.00       | 0.00     | 0.00     | 1,562,925.00 |

## Subtotal

# Amendment #1 Subtotal

|       | Base Labor | Burden     | Total Labor | Equipment  | Perm Matls | Const Matls | Sub          | Aggregates | Trucking   | Gen Cond  | Total        |
|-------|------------|------------|-------------|------------|------------|-------------|--------------|------------|------------|-----------|--------------|
| Total | 211,040.69 | 105,125.80 | 316,166.49  | 401,571.65 | 70,123.44  | 50,000.00   | 1,604,055.00 | 86,910.96  | 181,977.46 | 27,375.00 | 2,738,180.00 |

## Biditem

## Heavy Equipment Mobilization

## 4010

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|-----------|
| U. Cost | 4,536.13   | 2,181.15 | 6,717.28    | 8,640.00  | 0.00       | 0.00        | 6,000.00 | 0.00       | 0.00     | 0.00     | 21,357.28 |
| Total   | 4,536.13   | 2,181.15 | 6,717.28    | 8,640.00  | 0.00       | 0.00        | 6,000.00 | 0.00       | 0.00     | 0.00     | 21,357.28 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 144.0000 | 0.0069  | 144.0000 | 148.3144 | 31.5009       | 46.6478        | 0.0069  |

|                     |                                |              |              |          |
|---------------------|--------------------------------|--------------|--------------|----------|
| Activity: 002100100 | Mobilization (E&S/Sub/Freight) | (Unreviewed) | Quantity: 18 | Unit: EA |
|---------------------|--------------------------------|--------------|--------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|-----------|
| U. Cost | 252.01     | 121.18   | 373.18      | 480.00    | 0.00       | 0.00        | 333.33   | 0.00       | 0.00     | 0.00     | 1,186.52  |
| Total   | 4,536.13   | 2,181.15 | 6,717.28    | 8,640.00  | 0.00       | 0.00        | 6,000.00 | 0.00       | 0.00     | 0.00     | 21,357.28 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|------------|
| 853.1822     | 8.0000        | 0.1250        | 106.6478     | 14.4000 | 1.2500      | 0.8000      | 1,483.1444 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 144.0000 | 0.1250  | 8.0000  | 46.6478        | 252.0072        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR7219 TRUCKERS - DRIVERS

Crew: MOLO Lowboy Mob Prod: HU 8 Eff: 100.00 Crew Hrs: 144.00 Labor Pcs: 1.00 Equipment Pcs: 1.00

Notes: As part of the balance of the site work we will need to move in the following piping equipment and then the backfill equipment

----- when it is time to finish the eathwork:

- (1) 290 Size Excavator
- (1) 130 Size Excavator
- (1) D6 Size Dozer
- (1) Loader
- (1) Backhoe
- (1) Roller
- (1) 815 Compactor
- (1) Water Truck
- (2) (1) Shoring
- (1) Steel Sheets
- (1) Grader
- (1) Grade Maker
- (2) Off-Road Trucks
- (3) Misc.

18 Moves @ 8 hour rounds = 144 hours lowboy

(2) Heavy Hauls for the 670 Excavator, to and from the site @ \$3,000.00 each.

| Resource   | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|------------|--------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 4HEAVYHAUL | Heavy Haul Subcontractor | 1.00     | 2.00     | EA   | 3,000.00  | 100.00   | 3,000.00  | 6,000.00 |
| 8TRLO      | Truck - Lowboy           | 1.00     | 144.00   | HR   | 60.00     | 100.00   | 60.00     | 8,640.00 |
| TLBOY      | Teamster - Lowboy        | 1.00     | 144.00   | MH   | 27.00     | 116.67   | 46.65     | 6,717.28 |

## Biditem

## Subcontractor Mobilization

# 4020

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub        | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|--------|-------------|-----------|------------|-------------|------------|------------|----------|----------|------------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 200,000.00 | 0.00       | 0.00     | 0.00     | 200,000.00 |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 200,000.00 | 0.00       | 0.00     | 0.00     | 200,000.00 |

Activity: 002100100 Subcontractor Mobilization (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub        | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|--------|-------------|-----------|------------|-------------|------------|------------|----------|----------|------------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 200,000.00 | 0.00       | 0.00     | 0.00     | 200,000.00 |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 200,000.00 | 0.00       | 0.00     | 0.00     | 200,000.00 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift       |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|----------------|
| 0.0000       | 1.0000        | 1.0000        | 0.0000       | 0.1000 | 10.0000     | 0.1000      | 2,000,000.0000 |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: MOLO Lowboy Mob Prod: HU 1 Eff: 100.00 Crew Hrs: 1.00 Labor Pcs: 0.00 Equipment Pcs: 0.00

| Resource | Description             | Pcs/Wste | Quantity | Unit | Unit Cost  | Tax/OT % | Actual UC  | Total      |
|----------|-------------------------|----------|----------|------|------------|----------|------------|------------|
| 4CONCS   | Structural Concrete Sub | 1.00     | 1.00     | LS   | 200,000.00 | 100.00   | 200,000.00 | 200,000.00 |
| 4ELEC    | Electrical Sub          | 1.00     | 1.00     | LS   | 0.00       | 100.00   | 0.00       | 0.00       |
| 4FENC    | Fencing Subcontractor   | 1.00     | 1.00     | LS   | 0.00       | 100.00   | 0.00       | 0.00       |
| 4HVAC    | HVAC Sub                | 1.00     | 1.00     | LS   | 0.00       | 100.00   | 0.00       | 0.00       |
| 4MASON   | Masonry Subcontractor   | 1.00     | 1.00     | LS   | 0.00       | 100.00   | 0.00       | 0.00       |
| 4PAVA    | AC Paving Sub           | 1.00     | 1.00     | LS   | 0.00       | 100.00   | 0.00       | 0.00       |
| 4ROOF    | Roofing Subcontractor   | 1.00     | 1.00     | LS   | 0.00       | 100.00   | 0.00       | 0.00       |

## Biditem

## Crew Subsistence/Lodging

# 4030

Takeoff Qty: 61.000 WK

Bid Qty: 61.000 WK

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond  | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|-----------|-----------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 1,400.00  | 1,400.00  |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 85,400.00 | 85,400.00 |

Activity: 001000080 Subsistence/Travel Costs (Unreviewed) Quantity: 14 Unit: MO

|  | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |      |      |      |      |      |      |      |      |      |           |           |
|---------|------|------|------|------|------|------|------|------|------|-----------|-----------|
| U. Cost | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6,100.00  | 6,100.00  |
| Total   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 85,400.00 | 85,400.00 |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

**Notes:** Balance of project is 14 months long. During different phases their will be different crews ranging from 8 man grading crews to, to 5 man pipe crews to 3 man mechanical crews. We will assume for the balance of the project we need to carry 2 rooms.  
14 MO x 4.33 Weeks = 61 weeks

(2) Rooms at (4) nights per room, Monday, Tuesday, Wednesday, Thursday = 8 room nights per week x 61 weeks = 488 Room Nights.

Assume \$125.00 per room night (this will include tax) = 488 x \$125.00 = \$61,000

Per Diem: \$25.00 per day x (4) crew members = \$100.00 per day x 244 Days = \$2,440

| Resource | Description        | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|--------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 9TR10    | Travel - Lump Sum  | 1.00     | 1.00     | LS   | 61,000.00 | 100.00   | 61,000.00 | 61,000.00 |
| 9TR20    | Per Diem - Per Day | 1.00     | 244.00   | DAY  | 100.00    | 100.00   | 100.00    | 24,400.00 |

**Biditem****Storage Containers****4040**

Takeoff Qty: 14.000 MO

Bid Qty: 14.000 MO

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 500.00   | 500.00   |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 7,000.00 | 7,000.00 |

Activity: 001000010 Storage Containers (Unreviewed) Quantity: 14 Unit: MO

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 500.00   | 500.00   |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 7,000.00 | 7,000.00 |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

| Resource | Description       | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-------------------|----------|----------|------|-----------|----------|-----------|----------|
| 9FA16    | Storage Trailer   | 1.00     | 14.00    | MO   | 250.00    | 100.00   | 250.00    | 3,500.00 |
| 9FA18    | Storage Container | 1.00     | 14.00    | MO   | 250.00    | 100.00   | 250.00    | 3,500.00 |

**Biditem****Construction Survey****4050**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

Activity: 001000200 Project Survey/Staking (Unreviewed) Quantity: 1 Unit: LS

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

| Resource | Description   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4SURV    | Surveying Sub | 1.00     | 1.00     | LS   | 18,150.00 | 100.00   | 18,150.00 | 18,150.00 |

**Biditem****Erosion Control Maintenance****4060**

Takeoff Qty: 61.000 WK

Bid Qty: 61.000 WK

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 143.83     | 83.11    | 226.94      | 20.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 246.94    |
| Total   | 8,773.68   | 5,069.55 | 13,843.23   | 1,220.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 15,063.23 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 244.0000 | 0.2500  | 4.0000  | 61.7345 | 35.9577       | 56.7345        | 0.5000  |

Activity: 002800020 Erosion Control Maintenance (Unreviewed) Quantity: 61 Unit: WEEK

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 143.83     | 83.11    | 226.94      | 20.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 246.94    |
| Total   | 8,773.68   | 5,069.55 | 13,843.23   | 1,220.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 15,063.23 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|------------|
| 246.9382     | 2.0000        | 0.5000        | 123.4691     | 12.2000 | 5.0000      | 0.2000      | 1,234.6910 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 244.0000 | 0.2500  | 4.0000  | 56.7345        | 143.8308        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ER02 2-Man Erosion Control Crew Prod: HU 2 Eff: 100.00 Crew Hrs: 122.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

Notes: Balace of work will be on site and require less road cleaning and maintenace + will require less dust control:

14 Months

Water Truck (3) hrs per week average

Sweeper (2) hours per week average

Small two man EC crew (2) hr per week average

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 8TRPI    | Truck - Pickup               | 1.00     | 122.00   | HR   | 10.00     | 100.00   | 10.00     | 1,220.00  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 244.00   | MH   | 30.82     | 116.67   | 56.73     | 13,843.23 |

## Biditem

## Street Sweeping

# 4070

Takeoff Qty: 61.000 WK

Bid Qty: 61.000 WK

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 88.13      | 44.41    | 132.54      | 80.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 212.54    |
| Total   | 5,376.08   | 2,708.72 | 8,084.80    | 4,880.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 12,964.80 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 122.0000 | 0.5000  | 2.0000  | 106.2689 | 44.0662       | 66.2689        | 0.5000  |

Activity: 002800020.1 Street Sweeping (Unreviewed) Quantity: 61 Unit: WEEK

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 88.13      | 44.41    | 132.54      | 80.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 212.54    |
| Total   | 5,376.08   | 2,708.72 | 8,084.80    | 4,880.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 12,964.80 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|------------|
| 212.5377     | 2.0000        | 0.5000        | 106.2689     | 12.2000 | 5.0000      | 0.2000      | 1,062.6885 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 122.0000 | 0.5000  | 2.0000  | 66.2689        | 88.1325         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ER01 1-Man Erosion Control Crew Prod: HU 2 Eff: 100.00 Crew Hrs: 122.00 Labor Pcs: 1.00 Equipment Pcs: 2.00

Notes: See notes bid item 1070

| Resource | Description                 | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-----------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8MISW    | Misc - Rosco Sweeper        | 1.00     | 122.00   | HR   | 30.00     | 100.00   | 30.00     | 3,660.00 |
| 8TRPI    | Truck - Pickup              | 1.00     | 122.00   | HR   | 10.00     | 100.00   | 10.00     | 1,220.00 |
| OP5      | Operator - Mini, Roller, BH | 1.00     | 122.00   | MH   | 37.77     | 116.67   | 66.27     | 8,084.80 |

## Biditem

## Dust Control (Water Truck)

# 4080

Takeoff Qty: 61.000 WK

Bid Qty: 61.000 WK

|  | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|



|         |          |          |          |           |      |      |      |      |      |      |           |
|---------|----------|----------|----------|-----------|------|------|------|------|------|------|-----------|
| U. Cost | 82.08    | 40.88    | 122.96   | 165.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 287.96    |
| Total   | 5,006.72 | 2,493.68 | 7,500.40 | 10,065.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17,565.40 |

|          |         |         |         |               |                |         |
|----------|---------|---------|---------|---------------|----------------|---------|
| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
| 183.0000 | 0.3333  | 3.0000  | 95.9858 | 27.3591       | 40.9858        | 0.3333  |

Activity: 002800020.2 Dust Control (Water Truck) (Unreviewed) Quantity: 61 Unit: WEEK

|            |          |             |           |            |             |      |            |          |          |           |
|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
| 82.08      | 40.88    | 122.96      | 165.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 287.96    |
| 5,006.72   | 2,493.68 | 7,500.40    | 10,065.00 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 17,565.40 |

|              |               |               |              |         |             |             |          |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|----------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift |
| 287.9574     | 3.0000        | 0.3333        | 95.9858      | 18.3000 | 3.3333      | 0.3000      | 959.8579 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 183.0000 | 0.3333  | 3.0000  | 40.9858        | 82.0774         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: ER01 1-Man Erosion Control Crew Prod: HU 3 Eff: 100.00 Crew Hrs: 183.00 Labor Pcs: 1.00 Equipment Pcs: 1.00

Notes: See notes bid item 1070

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 8TRW     | Truck - Water                   | 1.00     | 183.00   | HR   | 55.00     | 100.00   | 55.00     | 10,065.00 |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 1.00     | 183.00   | MH   | 23.45     | 116.67   | 40.99     | 7,500.40  |

## Biditem

## Removal of Well Laydown Area

# 4090

Takeoff Qty: 1,481.000 TN

Bid Qty: 1,481.000 TN

|            |        |             |           |            |             |      |            |           |          |           |
|------------|--------|-------------|-----------|------------|-------------|------|------------|-----------|----------|-----------|
| Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total     |
| 0.53       | 0.23   | 0.76        | 2.15      | 0.00       | 0.00        | 0.00 | 0.00       | 11.76     | 0.00     | 14.67     |
| 777.55     | 346.62 | 1,124.17    | 3,184.15  | 0.00       | 0.00        | 0.00 | 0.00       | 17,416.56 | 0.00     | 21,724.88 |

|          |          |         |            |               |                |         |
|----------|----------|---------|------------|---------------|----------------|---------|
| Manhours | Unit/MH  | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH |
| 14.8100  | 100.0000 | 0.0100  | 1,466.9061 | 52.5017       | 75.9061        | 50.0000 |

Activity: 006400110 Procure/Place Agg Base (Unreviewed) Quantity: 1481 Unit: TN

|            |        |             |           |            |             |      |            |           |          |           |
|------------|--------|-------------|-----------|------------|-------------|------|------------|-----------|----------|-----------|
| Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total     |
| 0.53       | 0.23   | 0.76        | 2.15      | 0.00       | 0.00        | 0.00 | 0.00       | 11.76     | 0.00     | 14.67     |
| 777.55     | 346.62 | 1,124.17    | 3,184.15  | 0.00       | 0.00        | 0.00 | 0.00       | 17,416.56 | 0.00     | 21,724.88 |

|              |               |               |              |        |             |             |            |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
| 2.9091       | 0.0200        | 50.0000       | 145.4531     | 2.9620 | 500.0000    | 0.0020      | 7,334.5307 |

|          |          |         |                |                 |
|----------|----------|---------|----------------|-----------------|
| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 14.8100  | 100.0000 | 0.0100  | 75.9061        | 0.5250          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: GRCRB Place Cr. Rock Base Prod: UH 50 Eff: 100.00 Crew Hrs: 29.62 Labor Pcs: 0.50 Equipment Pcs: 1.50

Notes: This is for removing the well laydown area rock

200 x 200 x 6-inch = 1,481 Tons

Assume we can get rid of the rock with not dump charge...

Number of Trucks Routine  
 Description Unit Quantity  
 -----  
 Total Units Per Day 500.0000  
 Hours Per Day 9.0000  
 Hours Per Round 1.2500  
 Units Per Load 14.0000  
 Trucks Required Per Day 5.9603

| Resource | Description        | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|--------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 5SO      | Trucking - Solo    | 1.00     | 177.72   | HR   | 98.00     | 100.00   | 98.00     | 17,416.56 |
| 8DOD06   | Dozer - D6         | 0.50     | 14.81    | HR   | 75.00     | 100.00   | 75.00     | 1,110.75  |
| 8EX225   | Excavator - 225RTS | 1.00     | 29.62    | HR   | 70.00     | 100.00   | 70.00     | 2,073.40  |
| FORE     | Foreman            | 0.50     | 14.81    | MH   | 45.00     | 116.67   | 75.91     | 1,124.17  |

**Biditem****Excavation Stockpile to Reservoir Backfill****4100**

Takeoff Qty: 14,627.000 CY

Bid Qty: 14,627.000 CY

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 3.14       | 1.56      | 4.70        | 6.40      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 11.10      |
| Total   | 45,970.56  | 22,838.70 | 68,809.26   | 93,539.94 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 162,349.20 |

| Manhours   | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH  |
|------------|---------|---------|----------|---------------|----------------|----------|
| 1,023.8900 | 14.2857 | 0.0700  | 158.5612 | 44.8979       | 67.2038        | 100.0000 |

Activity: 003300108 Excavate to Stockpile to Reservoir Backfill (Unreviewed) Quantity: 14627 Unit: CY

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 3.14       | 1.56      | 4.70        | 6.40      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 11.10      |
| Total   | 45,970.56  | 22,838.70 | 68,809.26   | 93,539.94 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 162,349.20 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|-------------|
| 11.0993      | 0.0100        | 100.0000      | 1,109.9282   | 14.6270 | 1,000.0000  | 0.0010      | 11,099.2821 |

| Manhours   | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|------------|---------|---------|----------------|-----------------|
| 1,023.8900 | 14.2857 | 0.0700  | 67.2038        | 3.1429          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEXE Exc. w/Excvtor to Embankment Prod: UH 100 Eff: 100.00 Crew Hrs: 146.27 Labor Pcs: 7.00 Equipment Pcs: 7.50

Notes: This is for loading the material from the stockpile on the Hayden Property and bacfilling the reservoir.

12,707 Bank Cubic Yards

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 8DOD06   | Dozer - D6                   | 1.00     | 146.27   | HR   | 75.00     | 100.00   | 75.00     | 10,970.25 |
| 8EX400   | Excavator - 400              | 1.00     | 146.27   | HR   | 175.00    | 100.00   | 175.00    | 25,597.25 |
| 8MIGPS   | Misc - GPS Control Equip     | 1.00     | 146.27   | HR   | 30.00     | 100.00   | 30.00     | 4,388.10  |
| 8RO816   | Roller - 816 Pad Foot        | 1.00     | 146.27   | HR   | 120.00    | 100.00   | 120.00    | 17,552.40 |
| 8TRO30V  | Truck - Offroad (Volvo 30T)  | 2.00     | 292.54   | HR   | 100.00    | 100.00   | 100.00    | 29,254.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 146.27   | HR   | 12.00     | 100.00   | 12.00     | 1,755.24  |
| 8TRW     | Truck - Water                | 0.50     | 73.14    | HR   | 55.00     | 100.00   | 55.00     | 4,022.70  |
| FORE     | Foreman                      | 1.00     | 146.27   | MH   | 45.00     | 116.67   | 75.91     | 11,102.79 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 146.27   | MH   | 31.97     | 116.67   | 58.31     | 8,528.59  |
| OP3      | Operator-Hvy Dozer/Excavator | 1.00     | 146.27   | MH   | 40.09     | 116.67   | 69.44     | 10,157.23 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 146.27   | MH   | 39.01     | 116.67   | 67.96     | 9,941.19  |
| OP5      | Operator - Mini, Roller, BH  | 3.00     | 438.81   | MH   | 37.77     | 116.67   | 66.27     | 29,079.46 |

**Biditem****Stripping Stockpile to Reservoir Backfill****4110**

Takeoff Qty: 2,326.000 CY

Bid Qty: 2,326.000 CY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 2.70       | 1.34     | 4.04        | 5.20      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 9.24      |
| Total   | 6,285.29   | 3,115.39 | 9,400.68    | 12,083.57 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 21,484.25 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|---------|---------|----------|---------------|----------------|----------|
| 139.5600 | 16.6667 | 0.0600  | 153.9427 | 45.0365       | 67.3594        | 100.0000 |

|                     |                                             |              |                |          |
|---------------------|---------------------------------------------|--------------|----------------|----------|
| Activity: 003300108 | Excavate to Stockpile to Reservoir Backfill | (Unreviewed) | Quantity: 2326 | Unit: CY |
|---------------------|---------------------------------------------|--------------|----------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 2.70       | 1.34     | 4.04        | 5.20      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 9.24      |
| Total   | 6,285.29   | 3,115.39 | 9,400.68    | 12,083.57 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 21,484.25 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 9.2366       | 0.0100        | 100.0000      | 923.6565     | 2.3260 | 1,000.0000  | 0.0010      | 9,236.5649 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 139.5600 | 16.6667 | 0.0600  | 67.3594        | 2.7022          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: EAEXE Exc. w/Excvtor to Embankment Prod: UH 100 Eff: 100.00 Crew Hrs: 23.26 Labor Pcs: 6.00 Equipment Pcs: 6.50

Notes: This is for loading the material from the stockpile on the Hayden Property and bacfilling the reservoir.

12,707 Bank Cubic Yards

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8DOD06   | Dozer - D6                   | 1.00     | 23.26    | HR   | 75.00     | 100.00   | 75.00     | 1,744.50 |
| 8EX400   | Excavator - 400              | 1.00     | 23.26    | HR   | 175.00    | 100.00   | 175.00    | 4,070.50 |
| 8MIGPS   | Misc - GPS Control Equip     | 1.00     | 23.26    | HR   | 30.00     | 100.00   | 30.00     | 697.80   |
| 8TRO30V  | Truck - Offroad (Volvo 30T)  | 2.00     | 46.52    | HR   | 100.00    | 100.00   | 100.00    | 4,652.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 23.26    | HR   | 12.00     | 100.00   | 12.00     | 279.12   |
| 8TRW     | Truck - Water                | 0.50     | 11.63    | HR   | 55.00     | 100.00   | 55.00     | 639.65   |
| FORE     | Foreman                      | 1.00     | 23.26    | MH   | 45.00     | 116.67   | 75.91     | 1,765.57 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 23.26    | MH   | 31.97     | 116.67   | 58.31     | 1,356.22 |
| OP3      | Operator-Hvy Dozer/Excavator | 1.00     | 23.26    | MH   | 40.09     | 116.67   | 69.44     | 1,615.21 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 23.26    | MH   | 39.01     | 116.67   | 67.96     | 1,580.86 |
| OP5      | Operator - Mini, Roller, BH  | 2.00     | 46.52    | MH   | 37.77     | 116.67   | 66.27     | 3,082.82 |

## Biditem

## Site Slope/Fine Grading

# 4120

Takeoff Qty: 2.500 AC

Bid Qty: 2.500 AC

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 911.82     | 432.89   | 1,344.71    | 1,668.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,012.71 |
| Total   | 2,279.55   | 1,082.23 | 3,361.78    | 4,170.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 7,531.78 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 52.0000  | 0.0481  | 20.8000 | 144.8419 | 43.8375       | 64.6496        | 0.1250  |

|                     |               |              |               |          |
|---------------------|---------------|--------------|---------------|----------|
| Activity: 003700104 | Finish Slopes | (Unreviewed) | Quantity: 2.5 | Unit: AC |
|---------------------|---------------|--------------|---------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 911.82     | 432.89   | 1,344.71    | 1,668.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,012.71 |
| Total   | 2,279.55   | 1,082.23 | 3,361.78    | 4,170.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 7,531.78 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 3,012.7120   | 8.0000        | 0.1250        | 376.5890     | 2.0000 | 1.2500      | 0.8000      | 3,765.8900 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 52.0000  | 0.0481  | 20.8000 | 64.6496        | 911.8200        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRF11 Fine Grade SG Crew Prod: HU 8 Eff: 100.00 Crew Hrs: 20.00 Labor Pcs: 2.60 Equipment Pcs: 4.50

| Resource | Description               | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8BL140   | 140 GRADER                | 1.00     | 20.00    | HR   | 74.00     | 100.00   | 74.00     | 1,480.00 |
| 8MIGPS   | Misc - GPS Control Equip  | 1.00     | 20.00    | HR   | 30.00     | 100.00   | 30.00     | 600.00   |
| 8ROSD    | Roller - 84in Single Drum | 1.00     | 20.00    | HR   | 65.00     | 100.00   | 65.00     | 1,300.00 |
| 8TRUT1   | Truck - 1 Ton             | 1.00     | 20.00    | HR   | 12.00     | 100.00   | 12.00     | 240.00   |

|       |                                 |      |       |    |       |        |       |          |
|-------|---------------------------------|------|-------|----|-------|--------|-------|----------|
| 8TRW  | Truck - Water                   | 0.50 | 10.00 | HR | 55.00 | 100.00 | 55.00 | 550.00   |
| FORE  | Foreman                         | 1.00 | 20.00 | MH | 45.00 | 116.67 | 75.72 | 1,514.34 |
| L4    | Labor -Group 2 Pipe Layer/GC    | 0.10 | 2.00  | MH | 31.97 | 116.67 | 58.18 | 116.35   |
| OP5   | Operator - Mini, Roller, BH     | 1.00 | 20.00 | MH | 37.77 | 116.67 | 66.11 | 1,322.22 |
| TEAM2 | Teamster 10<br>CY/4KWater/LowBd | 0.50 | 10.00 | MH | 23.45 | 116.67 | 40.89 | 408.87   |

## Subtotal

# Phase II Mass Grading & Prep Subtotal

|              | Base Labor | Burden    | Total Labor | Equipment  | Perm Matls | Const Matls | Sub        | Aggregates | Trucking  | Gen Cond  | Total      |
|--------------|------------|-----------|-------------|------------|------------|-------------|------------|------------|-----------|-----------|------------|
| <b>Total</b> | 79,005.56  | 39,836.04 | 118,841.60  | 137,782.66 | 0.00       | 0.00        | 224,150.00 | 0.00       | 17,416.56 | 92,400.00 | 590,590.82 |

## Biditem

## Reservoir Base Prep (Aggregate Sections)

5010

Takeoff Qty: 6,324.000 TN

Bid Qty: 6,324.000 TN

|                | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total      |
|----------------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|------------|
| <b>U. Cost</b> | 2.82       | 1.46     | 4.28        | 5.31      | 0.00       | 0.00        | 0.00 | 14.75      | 12.00     | 0.00     | 36.34      |
| <b>Total</b>   | 17,844.11  | 9,220.09 | 27,064.20   | 33,582.59 | 0.00       | 0.00        | 0.00 | 93,282.00  | 75,888.00 | 0.00     | 229,816.79 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 455.9600 | 13.8696 | 0.0721  | 504.0284 | 39.1353       | 59.3565        | 38.2149 |

Activity: 003300124 Finegrade Reservoir Subgrade (Unreviewed) Quantity: 36118 Unit: SF

|                | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|----------------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| <b>U. Cost</b> | 0.05       | 0.03   | 0.08        | 0.10      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 0.18     |
| <b>Total</b>   | 1,862.55   | 950.82 | 2,813.37    | 3,783.57  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6,596.94 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.1826       | 0.0005        | 2,000.0000    | 365.2993     | 2.0066 | 18,000.0000 | 0.0001      | 3,287.6937 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 46.9600  | 769.1227 | 0.0013  | 59.9099        | 0.0516          |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: GRF11 Fine Grade SG Crew Prod: UH 2000 Eff: 100.00 Crew Hrs: 18.06 Labor Pcs: 2.60 Equipment Pcs: 4.50

Notes: Reservoir outside of the footing is 194.5 FT in Diameter + another 10 Ft Each side to the extent of the foundation drain.  
Total diameter = 214.5

Total Diameter = 214.5 LF or 36,118 SF of subgrade to finegrade.

Foundation will be rough due to the boulder breaking, so we will figure using a dozer or excavator to get it close.

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8DOD06   | Dozer - D6                      | 1.00     | 18.06    | HR   | 75.00     | 100.00   | 75.00     | 1,354.50 |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 18.06    | HR   | 30.00     | 100.00   | 30.00     | 541.80   |
| 8ROSD    | Roller - 84in Single Drum       | 1.00     | 18.06    | HR   | 65.00     | 100.00   | 65.00     | 1,173.90 |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 18.06    | HR   | 12.00     | 100.00   | 12.00     | 216.72   |
| 8TRW     | Truck - Water                   | 0.50     | 9.03     | HR   | 55.00     | 100.00   | 55.00     | 496.65   |
| FORE     | Foreman                         | 1.00     | 18.06    | MH   | 45.00     | 105.56   | 70.04     | 1,264.96 |
| L4       | Labor -Group 2 Pipe Layer/GC    | 0.10     | 1.81     | MH   | 31.97     | 105.56   | 54.14     | 97.99    |
| OP5      | Operator - Mini, Roller, BH     | 1.00     | 18.06    | MH   | 37.77     | 105.56   | 61.35     | 1,107.91 |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 9.03     | MH   | 23.45     | 105.56   | 37.93     | 342.51   |

Activity: 006400110 Procure/Place Drain Rock Base (Unreviewed) Quantity: 2676 Unit: TN

|                | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total      |
|----------------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|------------|
| <b>U. Cost</b> | 2.22       | 1.18     | 3.41        | 3.48      | 0.00       | 0.00        | 0.00 | 18.50      | 12.00     | 0.00     | 37.38      |
| <b>Total</b>   | 5,953.94   | 3,166.49 | 9,120.43    | 9,299.10  | 0.00       | 0.00        | 0.00 | 49,506.00  | 32,112.00 | 0.00     | 100,037.53 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 6.8832       | 0.0167        | 60.0000       | 412.9939     | 4.9556 | 540.0000    | 0.0019      | 20,186.9455 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 156.1000 | 17.1429 | 0.0583  | 58.4268        | 2.2249          |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: GRCRB Place Cr. Rock Base Prod: UH 60 Eff: 100.00 Crew Hrs: 44.60 Labor Pcs: 3.50 Equipment Pcs: 4.50

**Notes:** Reservoir outside of the footing is 194.5 FT in Diameter + another 10 Ft Each side to the extent of the foundation drain.  
Total diameter = 214.5

Total Diameter = 214.5 LF or 36,118 SF of subgrade to finegrade.

Drain Rock section was originally 2 Feet which equated to 5,351 tons but has been reduced to 1 Foot with value engineering so the new quantity is 2,676 Tons

Number of Trucks Routine  
Description Unit Quantity  
-----  
Total Units Per Day 600.0000  
Hours Per Day 9.0000  
Hours Per Round 1.5000  
Units Per Load 23.0000  
Trucks Required Per Day 5.3478

| Resource     | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|--------------|---------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 5SOS         | Trucking - Super Solo           | 1.00     | 267.60   | HR   | 120.00    | 100.00   | 120.00    | 32,112.00 |
| 6AG1.5X.75DP | 1.5 x .75 Drain Rock Picked Up  | 1.00     | 2,676.00 | TN   | 18.50     | 100.00   | 18.50     | 49,506.00 |
| 8BL140       | 140 GRADER                      | 1.00     | 44.60    | HR   | 74.00     | 100.00   | 74.00     | 3,300.40  |
| 8MIGPS       | Misc - GPS Control Equip        | 1.00     | 44.60    | HR   | 30.00     | 100.00   | 30.00     | 1,338.00  |
| 8ROSD        | Roller - 84in Single Drum       | 1.00     | 44.60    | HR   | 65.00     | 100.00   | 65.00     | 2,899.00  |
| 8TRUT1       | Truck - 1 Ton                   | 1.00     | 44.60    | HR   | 12.00     | 100.00   | 12.00     | 535.20    |
| 8TRW         | Truck - Water                   | 0.50     | 22.30    | HR   | 55.00     | 100.00   | 55.00     | 1,226.50  |
| FORE         | Foreman                         | 1.00     | 44.60    | MH   | 45.00     | 105.56   | 70.04     | 3,123.86  |
| L4           | Labor -Group 2 Pipe Layer/GC    | 1.00     | 44.60    | MH   | 31.97     | 105.56   | 54.14     | 2,414.68  |
| OP5          | Operator - Mini, Roller, BH     | 1.00     | 44.60    | MH   | 37.77     | 105.56   | 61.35     | 2,736.06  |
| TEAM2        | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 22.30    | MH   | 23.45     | 105.56   | 37.93     | 845.83    |

Activity: 006400130 Fine Grade Drain Rock Base (Unreviewed) Quantity: 72236 Unit: SF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.03       | 0.02     | 0.05        | 0.07      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 0.12     |
| Total   | 2,403.67   | 1,210.84 | 3,614.51    | 5,085.24  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 8,699.75 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.1204       | 0.0004        | 2,500.0000    | 301.0878     | 3.2105 | 22,500.0001 | 0.0000      | 2,709.7898 |

| Manhours | Unit/MH    | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|------------|---------|----------------|-----------------|
| 60.6800  | 1,190.4417 | 0.0008  | 59.5667        | 0.0333          |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: GRFI Fine Grade Rock Crew Prod: UH 2500 Eff: 100.00 Crew Hrs: 28.89 Labor Pcs: 2.10 Equipment Pcs: 4.00

**Notes:** Reservoir outside of the footing is 194.5 FT in Diameter + another 10 Ft Each side to the extent of the foundation drain.  
Total diameter = 214.5

Total Diameter = 214.5 LF or 36,118 SF of subgrade to finegrade.

We will have to finish grade the drain rock prior to liner and then the lift above the liner, so 72,236 SF total.

| Resource | Description               | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8BL140   | 140 GRADER                | 1.00     | 28.89    | HR   | 74.00     | 100.00   | 74.00     | 2,137.86 |
| 8MIGPS   | Misc - GPS Control Equip  | 1.00     | 28.89    | HR   | 30.00     | 100.00   | 30.00     | 866.70   |
| 8ROSD    | Roller - 84in Single Drum | 0.50     | 14.45    | HR   | 65.00     | 100.00   | 65.00     | 939.25   |
| 8TRUT1   | Truck - 1 Ton             | 1.00     | 28.89    | HR   | 12.00     | 100.00   | 12.00     | 346.68   |
| 8TRW     | Truck - Water             | 0.50     | 14.45    | HR   | 55.00     | 100.00   | 55.00     | 794.75   |
| FORE     | Foreman                   | 1.00     | 28.89    | MH   | 45.00     | 105.56   | 70.04     | 2,023.50 |

|       |                                 |      |       |    |       |        |       |        |
|-------|---------------------------------|------|-------|----|-------|--------|-------|--------|
| L4    | Labor -Group 2 Pipe Layer/GC    | 0.10 | 2.89  | MH | 31.97 | 105.56 | 54.14 | 156.47 |
| OP5   | Operator - Mini, Roller, BH     | 0.50 | 14.45 | MH | 37.77 | 105.56 | 61.35 | 886.46 |
| TEAM2 | Teamster 10<br>CY/4KWater/LowBd | 0.50 | 14.45 | MH | 23.45 | 105.56 | 37.93 | 548.08 |

Activity: 006400110.1 Procure & Place 3/4-0 Leveling Base (Unreviewed) Quantity: 3648 Unit: TN

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|------------|
| U. Cost | 1.72       | 0.88     | 2.60        | 3.48      | 0.00       | 0.00        | 0.00 | 12.00      | 12.00     | 0.00     | 30.07      |
| Total   | 6,269.92   | 3,200.73 | 9,470.65    | 12,676.80 | 0.00       | 0.00        | 0.00 | 43,776.00  | 43,776.00 | 0.00     | 109,699.45 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 6.0711       | 0.0167        | 60.0000       | 364.2673     | 6.7556 | 540.0000    | 0.0019      | 16,238.4054 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 158.0800 | 23.0769 | 0.0433  | 59.9105        | 1.7187          |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: GRCRB Place Cr. Rock Base Prod: UH 60 Eff: 100.00 Crew Hrs: 60.80 Labor Pcs: 2.60 Equipment Pcs: 4.50

Notes: Reservoir outside of the footing is 194.5 FT in Diameter + another 5 FT on each side for securing the footing form supports.  
With the 100% drawings the base rock changed from 15-inch to 18-inch depth

Total Diameter = 204.5 LF or 32,829 SF @ average 18-inch depth = 3,648 tons 3/4-inch leveling rock

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 5SOS     | Trucking - Super Solo           | 1.00     | 364.80   | HR   | 120.00    | 100.00   | 120.00    | 43,776.00 |
| 6AGC075P | Crushed - 3/4in (PU)            | 1.00     | 3,648.00 | TON  | 12.00     | 100.00   | 12.00     | 43,776.00 |
| 8BL140   | 140 GRADER                      | 1.00     | 60.80    | HR   | 74.00     | 100.00   | 74.00     | 4,499.20  |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 60.80    | HR   | 30.00     | 100.00   | 30.00     | 1,824.00  |
| 8ROSD    | Roller - 84in Single Drum       | 1.00     | 60.80    | HR   | 65.00     | 100.00   | 65.00     | 3,952.00  |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 60.80    | HR   | 12.00     | 100.00   | 12.00     | 729.60    |
| 8TRW     | Truck - Water                   | 0.50     | 30.40    | HR   | 55.00     | 100.00   | 55.00     | 1,672.00  |
| FORE     | Foreman                         | 1.00     | 60.80    | MH   | 45.00     | 105.56   | 70.04     | 4,258.53  |
| L4       | Labor -Group 2 Pipe Layer/GC    | 0.10     | 6.08     | MH   | 31.97     | 105.56   | 54.14     | 329.17    |
| OP5      | Operator - Mini, Roller, BH     | 1.00     | 60.80    | MH   | 37.77     | 105.56   | 61.35     | 3,729.88  |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 30.40    | MH   | 23.45     | 105.56   | 37.93     | 1,153.07  |

Activity: 006400130.1 Fine Grade 3/4-0 Leveling Base (Unreviewed) Quantity: 32829 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.04       | 0.02   | 0.06        | 0.08      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 0.15     |
| Total   | 1,354.03   | 691.21 | 2,045.24    | 2,737.88  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,783.12 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.1457       | 0.0004        | 2,500.0000    | 364.2450     | 1.4591 | 22,500.0001 | 0.0000      | 3,278.2053 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 34.1400  | 961.5993 | 0.0010  | 59.9074        | 0.0412          |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: GRF11 Fine Grade SG Crew Prod: UH 2500 Eff: 100.00 Crew Hrs: 13.13 Labor Pcs: 2.60 Equipment Pcs: 4.50

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BL140   | 140 GRADER                      | 1.00     | 13.13    | HR   | 74.00     | 100.00   | 74.00     | 971.62 |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 13.13    | HR   | 30.00     | 100.00   | 30.00     | 393.90 |
| 8ROSD    | Roller - 84in Single Drum       | 1.00     | 13.13    | HR   | 65.00     | 100.00   | 65.00     | 853.45 |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 13.13    | HR   | 12.00     | 100.00   | 12.00     | 157.56 |
| 8TRW     | Truck - Water                   | 0.50     | 6.57     | HR   | 55.00     | 100.00   | 55.00     | 361.35 |
| FORE     | Foreman                         | 1.00     | 13.13    | MH   | 45.00     | 105.56   | 70.04     | 919.64 |
| L4       | Labor -Group 2 Pipe Layer/GC    | 0.10     | 1.31     | MH   | 31.97     | 105.56   | 54.15     | 70.93  |
| OP5      | Operator - Mini, Roller, BH     | 1.00     | 13.13    | MH   | 37.77     | 105.56   | 61.35     | 805.48 |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 6.57     | MH   | 23.45     | 105.56   | 37.93     | 249.19 |

## Biditem

## Reservoir 30 Mil Liner

5020

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 589.70     | 335.10 | 924.80      | 400.00    | 0.00       | 0.00        | 64,879.10 | 0.00       | 0.00     | 0.00     | 66,203.90 |
| Total   | 589.70     | 335.10 | 924.80      | 400.00    | 0.00       | 0.00        | 64,879.10 | 0.00       | 0.00     | 0.00     | 66,203.90 |

| Manhours | Unit/MH | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|------------|---------------|----------------|---------|
| 16.0000  | 0.0625  | 16.0000 | 4,137.7438 | 36.8563       | 57.8000        | 0.1250  |

Activity: 003500108 Procure/Place Liner (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 589.70     | 335.10 | 924.80      | 400.00    | 0.00       | 0.00        | 64,879.10 | 0.00       | 0.00     | 0.00     | 66,203.90 |
| Total   | 589.70     | 335.10 | 924.80      | 400.00    | 0.00       | 0.00        | 64,879.10 | 0.00       | 0.00     | 0.00     | 66,203.90 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 1,324.8000   | 8.0000        | 0.1250        | 165.6000     | 0.8889 | 1.1250      | 0.8889      | 74,479.3882 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 16.0000  | 0.0625  | 16.0000 | 57.8000        | 589.7000        |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 8 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

Notes: Crew is to unoad and lay out liner.

(This is based on the Cooper Mountain Project)

Liner Penetrations:

- (3) 6 IN Underdrain
- (1) 16 IN Inlet
- (1) 30 IN Outlet
- (1) 8 In Drain
- (1) 18 IN Overflow

7 Total Liner Pentetrations

| Resource      | Description                   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|---------------|-------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 430MILPVCCLIN | 30 Mil PVC Liner              | 1.00     | 1.00     | LS   | 58,174.60 | 100.00   | 58,174.60 | 58,174.60 |
| 4PVCLINECATC  | PVC Liner Concrete Attachment | 1.00     | 128.00   | LF   | 41.25     | 100.00   | 41.25     | 5,280.00  |
| 4PVCLINEPEN   | PVC Liner Penetrations        | 1.00     | 7.00     | EA   | 203.50    | 100.00   | 203.50    | 1,424.50  |
| 8LO544        | Loader - 544                  | 1.00     | 8.00     | HR   | 50.00     | 100.00   | 50.00     | 400.00    |
| L1            | Labor -Group 1 Genl/Carp Tnd  | 1.00     | 8.00     | MH   | 30.82     | 105.56   | 52.72     | 421.75    |
| OP4           | Operator-Doz, Exc, Bld, Ldr   | 1.00     | 8.00     | MH   | 39.01     | 105.56   | 62.88     | 503.05    |

## Biditem

## Reservoir 30 Mil Liner Savings

5025

Takeoff Qty: -1.000 LS

Bid Qty: -1.000 LS

Activity: 003500108 Procure/Place Liner (Unreviewed) Quantity: -1 Unit: LS

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Notes: Crew is to unoad and lay out liner.

(This is based on the Cooper Mountain Project)

Liner Penetrations:

- (3) 6 IN Underdrain
- (1) 16 IN Inlet
- (1) 30 IN Outlet
- (1) 8 In Drain
- (1) 18 IN Overflow

7 Total Liner Pentetrations



| Resource   | Description             | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|------------|-------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4LINERSAVE | Estimated Liner Savings | 1.00     | 1.00     | LS   | -5,000.00 | 100.00   | -5,000.00 | -5,000.00 |

## Biditem

## Reservoir Foundation, Underdrain, &amp; French Drain

5030

Takeoff Qty: 2,540.000 LF

Bid Qty: 2,540.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3.73       | 2.17     | 5.90        | 1.18      | 2.03       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 9.12      |
| Total   | 9,476.64   | 5,511.74 | 14,988.38   | 3,009.44  | 5,155.94   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 23,153.76 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 266.0100 | 9.5485  | 0.1047  | 87.0409 | 35.6251       | 56.3452        | 28.0147 |

|                      |                                                                  |              |             |          |
|----------------------|------------------------------------------------------------------|--------------|-------------|----------|
| Activity: 0040101003 | Procure & String Reservoir Foundation, Underdrain & French Drain | (Unreviewed) | Quantity: 1 | Unit: LS |
|----------------------|------------------------------------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 488.83     | 257.60 | 746.43      | 300.00    | 5,155.94   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6,202.37 |
| Total   | 488.83     | 257.60 | 746.43      | 300.00    | 5,155.94   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6,202.37 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 1,046.4300   | 6.0000        | 0.1667        | 174.4050     | 0.6000 | 1.6667      | 0.6000      | 10,337.2833 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 12.0000  | 0.0833  | 12.0000 | 62.2025        | 488.8300        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 6 Eff: 100.00 Crew Hrs: 6.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource    | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-------------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2PI4N12CAP  | 4 IN N-12 Cap                | 1.00     | 1.00     | EA   | 5.00      | 100.00   | 5.00      | 5.00     |
| 2PI4N12PERF | 4 IN N-12 Perf Pipe          | 1.00     | 1,280.00 | LF   | 1.50      | 100.00   | 1.50      | 1,920.00 |
| 2PI4N12TEE  | 4 IN N-12 Tee                | 1.00     | 2.00     | EA   | 21.04     | 100.00   | 21.04     | 42.08    |
| 2PI6N1245   | 6 IN N-12 45                 | 1.00     | 1.00     | EA   | 35.00     | 100.00   | 35.00     | 35.00    |
| 2PI6N1290   | 6 IN N-12 90                 | 1.00     | 1.00     | EA   | 45.00     | 100.00   | 45.00     | 45.00    |
| 2PI6N12CAP  | 6 IN N-12 Cap                | 1.00     | 2.00     | EA   | 7.64      | 100.00   | 7.64      | 15.28    |
| 2PI6N12PERF | 6 IN N-12 Perf Pipe          | 1.00     | 1,260.00 | LF   | 2.40      | 100.00   | 2.40      | 3,024.00 |
| 2PI6N12TEE  | 6 IN N-12 Tee                | 1.00     | 2.00     | EA   | 34.79     | 100.00   | 34.79     | 69.58    |
| 8LO544      | Loader - 544                 | 1.00     | 6.00     | HR   | 50.00     | 100.00   | 50.00     | 300.00   |
| L1          | Labor -Group 1 Genl/Carp Tnd | 1.00     | 6.00     | MH   | 30.82     | 116.67   | 56.61     | 339.63   |
| OP4         | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 6.00     | MH   | 39.01     | 116.67   | 67.80     | 406.80   |

|                     |                                       |              |                |          |
|---------------------|---------------------------------------|--------------|----------------|----------|
| Activity: 004460806 | Install 6 IN Foundation & Underdrains | (Unreviewed) | Quantity: 2540 | Unit: LF |
|---------------------|---------------------------------------|--------------|----------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3.54       | 2.07     | 5.61        | 1.07      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6.67      |
| Total   | 8,987.81   | 5,254.14 | 14,241.95   | 2,709.44  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 16,951.39 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 6.6738       | 0.0333        | 30.0000       | 200.2134     | 9.4074 | 270.0002    | 0.0037      | 1,801.9208 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 254.0100 | 9.9996  | 0.1000  | 56.0685        | 3.5385          |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: STLA1 Lateral Crew - Shallow Depth Prod: UH 30 Eff: 100.00 Crew Hrs: 84.67 Labor Pcs: 3.00 Equipment Pcs: 2.00

Notes: All of these lines will be dug back into the 1-1/2-3/4 In drain rock sections while they are shallow. No additional trucking or aggregates will be required.

| Resource | Description          | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|----------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8EX050   | Excavator - 050 Mini | 1.00     | 84.67    | HR   | 20.00     | 100.00   | 20.00     | 1,693.40 |

|        |                              |      |       |    |       |        |       |          |
|--------|------------------------------|------|-------|----|-------|--------|-------|----------|
| 8TRUT1 | Truck - 1 Ton                | 1.00 | 84.67 | HR | 12.00 | 100.00 | 12.00 | 1,016.04 |
| L1     | Labor -Group 1 Genl/Carp Tnd | 1.00 | 84.67 | MH | 30.82 | 105.56 | 52.72 | 4,463.63 |
| L4     | Labor -Group 2 Pipe Layer/GC | 1.00 | 84.67 | MH | 31.97 | 105.56 | 54.14 | 4,584.10 |
| OP5    | Operator - Mini, Roller, BH  | 1.00 | 84.67 | MH | 37.77 | 105.56 | 61.35 | 5,194.22 |

## Biditem

## Res Surface &amp; Footing French Drain Rock Section

5040

Takeoff Qty: 819.000 TN

Bid Qty: 819.000 TN

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3.20       | 1.71     | 4.91        | 1.84      | 0.00       | 0.00        | 0.00 | 18.50      | 7.20     | 0.00     | 32.45     |
| Total   | 2,617.12   | 1,403.40 | 4,020.52    | 1,506.96  | 0.00       | 0.00        | 0.00 | 15,151.50  | 5,896.80 | 0.00     | 26,575.78 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 65.5200  | 12.5000 | 0.0800  | 405.6132 | 39.9438       | 61.3632        | 50.0000 |

Activity: 005100100.3 Backfill Reservoir Drain Rock Envelope (Unreviewed) Quantity: 819 Unit: TN

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3.20       | 1.71     | 4.91        | 1.84      | 0.00       | 0.00        | 0.00 | 18.50      | 7.20     | 0.00     | 32.45     |
| Total   | 2,617.12   | 1,403.40 | 4,020.52    | 1,506.96  | 0.00       | 0.00        | 0.00 | 15,151.50  | 5,896.80 | 0.00     | 26,575.78 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 6.7491       | 0.0200        | 50.0000       | 337.4530     | 1.8200 | 450.0000    | 0.0022      | 14,602.0769 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 65.5200  | 12.5000 | 0.0800  | 61.3632        | 3.1955          |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: EASSB Structural Backfill Crew Prod: UH 50 Eff: 100.00 Crew Hrs: 16.38 Labor Pcs: 4.00 Equipment Pcs: 3.00

Notes: Upper french Drain:

614 x 2 x 2 = 182 Tons

Lower french drain:

614 x 4 x 3.5 = 637 Tons

Total = 819

| Resource     | Description                    | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|--------------|--------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 5SOS         | Trucking - Super Solo          | 1.00     | 49.14    | HR   | 120.00    | 100.00   | 120.00    | 5,896.80  |
| 6AG1.5X.75DP | 1.5 x .75 Drain Rock Picked Up | 1.00     | 819.00   | TN   | 18.50     | 100.00   | 18.50     | 15,151.50 |
| 8LOTR        | Loader - Takeuchi TL150        | 2.00     | 32.76    | HR   | 40.00     | 100.00   | 40.00     | 1,310.40  |
| 8TRUT1       | Truck - 1 Ton                  | 1.00     | 16.38    | HR   | 12.00     | 100.00   | 12.00     | 196.56    |
| FORE         | Foreman                        | 1.00     | 16.38    | MH   | 45.00     | 105.56   | 70.04     | 1,147.28  |
| L1           | Labor -Group 1 Genl/Carp Tnd   | 1.00     | 16.38    | MH   | 30.82     | 105.56   | 52.72     | 863.53    |
| OP5          | Operator - Mini, Roller, BH    | 2.00     | 32.76    | MH   | 37.77     | 105.56   | 61.35     | 2,009.71  |

## Biditem

## Miradrain 6200 Drainage Panels

5045

Takeoff Qty: 767.000 SY

Bid Qty: 767.000 SY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 6.22       | 3.23     | 9.45        | 0.50      | 15.34      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 25.29     |
| Total   | 4,771.39   | 2,473.98 | 7,245.37    | 383.50    | 11,767.00  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 19,395.87 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 115.0500 | 6.6667  | 0.1500  | 168.5864 | 41.4723       | 62.9758        | 20.0000 |

Activity: 090000099 Drainage Panels (Unreviewed) Quantity: 767 Unit: SY

|  | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |          |          |          |        |           |      |      |      |      |      |           |
|---------|----------|----------|----------|--------|-----------|------|------|------|------|------|-----------|
| U. Cost | 6.22     | 3.23     | 9.45     | 0.50   | 15.34     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.29     |
| Total   | 4,771.39 | 2,473.98 | 7,245.37 | 383.50 | 11,767.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19,395.87 |

|              |               |               |              |        |             |             |            |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
| 9.9464       | 0.0500        | 20.0000       | 198.9275     | 3.8350 | 200.0000    | 0.0050      | 5,057.5932 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 115.0500 | 6.6667  | 0.1500  | 62.9758        | 6.2208          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: ER02 2-Man Erosion Control Crew Prod: UH 20 Eff: 100.00 Crew Hrs: 38.35 Labor Pcs: 3.00 Equipment Pcs: 1.00

Notes: Rolls come in 4 x 50 foot or 200 SF per roll. Based on my take off we have 6,900 SF or 767 SY of panel to install. We will loose approximatley 25% by cutting angles and overlaps so we need 959 SY. We will call it 1,000 SY

| Resource    | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|-------------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2ERDRAINPAN | Draiage Panels               | 1.00     | 1,000.00 | SY   | 11.00     | 100.00   | 11.00     | 11,000.00 |
| 2ERDRPANADH | Drainage Panel Adhesive      | 1.00     | 767.00   | SY   | 1.00      | 100.00   | 1.00      | 767.00    |
| 8TRPI       | Truck - Pickup               | 1.00     | 38.35    | HR   | 10.00     | 100.00   | 10.00     | 383.50    |
| FORE        | Foreman                      | 1.00     | 38.35    | MH   | 45.00     | 116.67   | 75.72     | 2,903.75  |
| L1          | Labor -Group 1 Genl/Carp Tnd | 2.00     | 76.70    | MH   | 30.82     | 116.67   | 56.61     | 4,341.62  |

## Biditem

## Reservoir Fabric Envelope

# 5050

Takeoff Qty: 4,968.000 SY

Bid Qty: 4,968.000 SY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.38       | 0.21     | 0.58        | 0.10      | 1.50       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2.18      |
| Total   | 1,864.14   | 1,041.77 | 2,905.91    | 496.80    | 7,452.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 10,854.71 |

| Manhours | Unit/MH  | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|----------|---------|----------|---------------|----------------|----------|
| 49.6800  | 100.0000 | 0.0100  | 218.4926 | 37.5229       | 58.4926        | 300.0000 |

Activity: 003500102 Procure/Place Non Woven Geotextile (Unreviewed) Quantity: 4968 Unit: SY

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.38       | 0.21     | 0.58        | 0.10      | 1.50       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2.18      |
| Total   | 1,864.14   | 1,041.77 | 2,905.91    | 496.80    | 7,452.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 10,854.71 |

|              |               |               |              |        |             |             |            |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
| 0.6849       | 0.0033        | 300.0000      | 205.4777     | 1.8400 | 2,700.0000  | 0.0004      | 5,899.2989 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 49.6800  | 100.0000 | 0.0100  | 58.4926        | 0.3752          |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: ER02 2-Man Erosion Control Crew Prod: UH 300 Eff: 100.00 Crew Hrs: 16.56 Labor Pcs: 3.00 Equipment Pcs: 2.00

Notes: This item includes the layer of 140N fabric under the reservoir and the layer going vertical on the outside of the reservoir around the drain rock:

Top Layer:

194.5 Feet Diameter = 3,300 SY

Upper Surface French Drain Wrap = 580 SY

Lower Footing French Drain Wrap = 1,088 SY

Total SY = 4,968 SY + 50% waste = 7,452 SY

| Resource     | Description                   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|-------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2ERMIRAF1140 | Mirafi 140 N Non Woven Fabric | 1.00     | 7,452.00 | SY   | 1.00      | 100.00   | 1.00      | 7,452.00 |
| 8EX050       | Excavator - 050 Mini          | 1.00     | 16.56    | HR   | 20.00     | 100.00   | 20.00     | 331.20   |
| 8TRPI        | Truck - Pickup                | 1.00     | 16.56    | HR   | 10.00     | 100.00   | 10.00     | 165.60   |
| FORE         | Foreman                       | 1.00     | 16.56    | MH   | 45.00     | 105.56   | 70.04     | 1,159.89 |

|    |                              |      |       |    |       |        |       |          |
|----|------------------------------|------|-------|----|-------|--------|-------|----------|
| L1 | Labor -Group 1 Genl/Carp Tnd | 2.00 | 33.12 | MH | 30.82 | 105.56 | 52.72 | 1,746.02 |
|----|------------------------------|------|-------|----|-------|--------|-------|----------|

## Biditem

## Reservoir Construction

5060

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|                     |                                   |              |             |          |
|---------------------|-----------------------------------|--------------|-------------|----------|
| Activity: 005400150 | Structural Concrete Subcontractor | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|-----------------------------------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description             | Pcs/Wste | Quantity | Unit | Unit Cost    | Tax/OT % | Actual UC    | Total        |
|----------|-------------------------|----------|----------|------|--------------|----------|--------------|--------------|
| 4CONCS   | Structural Concrete Sub | 1.00     | 1.00     | LS   | 4,400,000.00 | 100.00   | 4,400,000.00 | 4,400,000.00 |

## Biditem

## Reservoir Inlet Mixing System

5070

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 1,859.73   | 1,010.09 | 2,869.82    | 943.00    | 57,090.69  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 60,903.51 |
| Total   | 1,859.73   | 1,010.09 | 2,869.82    | 943.00    | 57,090.69  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 60,903.51 |

|  | Manhours | Unit/MH | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH |
|--|----------|---------|---------|------------|---------------|----------------|---------|
|  | 47.5000  | 0.0211  | 47.5000 | 1,282.1792 | 39.1522       | 60.4173        | 0.0174  |

|                       |                                                       |              |             |          |
|-----------------------|-------------------------------------------------------|--------------|-------------|----------|
| Activity: 011400056.2 | Procure & String Mixing System (Not Compete Tideflex) | (Unreviewed) | Quantity: 1 | Unit: LS |
|-----------------------|-------------------------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 294.85     | 167.55 | 462.40      | 200.00    | 57,090.69  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 57,753.09 |
| Total   | 294.85     | 167.55 | 462.40      | 200.00    | 57,090.69  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 57,753.09 |

|  | Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
|--|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
|  | 662.4000     | 4.0000        | 0.2500        | 165.6000     | 0.4444 | 2.2500      | 0.4444      | 129,944.4538 |

|  | Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|--|----------|---------|---------|----------------|-----------------|
|  | 8.0000   | 0.1250  | 8.0000  | 57.8000        | 294.8500        |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 4 Eff: 100.00 Crew Hrs: 4.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

Notes: Deleted Flextend and added (2) MJ Long Sleeve

| Resource     | Description                        | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|--------------|------------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2PI10TIDEFLE | 10 IN Tideflex Valves              | 1.00     | 6.00     | EA   | 2,505.88  | 100.00   | 2,505.88  | 15,035.28 |
| 2PI12BLIND   | 12 IN Blind Flange                 | 1.00     | 1.00     | EA   | 264.33    | 100.00   | 264.33    | 264.33    |
| 2PI12FGSKT   | 12 IN FLG GSKT                     | 1.00     | 8.00     | EA   | 55.62     | 100.00   | 55.62     | 444.96    |
| 2PI12X20HFXF | 12 x 20 HDPE FLG Spool             | 1.00     | 1.00     | EA   | 1,768.92  | 100.00   | 1,768.92  | 1,768.92  |
| 2PI12X20HWO  | 12 x 20 FLG x FLG HDPE SP W/10 Out | 1.00     | 6.00     | EA   | 2,796.59  | 100.00   | 2,796.59  | 16,779.54 |
| 2PI16FGSKT   | 16 IN FLG GSKT                     | 1.00     | 2.00     | EA   | 94.75     | 100.00   | 94.75     | 189.50    |
| 2PI16FIKCOM  | 16 IN FLG Insulating Kit Complete  | 1.00     | 1.00     | EA   | 570.17    | 100.00   | 570.17    | 570.17    |
| 2PI16FINSU   | 12 IN FLG Insulating Kit           | 1.00     | 1.00     | EA   | 289.92    | 100.00   | 289.92    | 289.92    |
| 2PI16FLG90   | 16 IN FLG 90                       | 1.00     | 2.00     | EA   | 3,959.29  | 100.00   | 3,959.29  | 7,918.58  |
| 2PI16FXMJBVF | 16 IN FLG x MJ BFF                 | 1.00     | 1.00     | EA   | 3,902.44  | 100.00   | 3,902.44  | 3,902.44  |
| 2PI16MEG     | 16 IN Megalug                      | 1.00     | 5.00     | EA   | 183.39    | 100.00   | 183.39    | 916.95    |
| 2PI16MEGAEP  | 16 IN Epoxy Megaflange W/SS        | 1.00     | 1.00     | EA   | 1,277.11  | 100.00   | 1,277.11  | 1,277.11  |
| 2PI16MJLONG  | 16 IN MJ Long Sleeve               | 1.00     | 2.00     | EA   | 715.62    | 100.00   | 715.62    | 1,431.24  |
| 2PI16NBK     | 16 IN Nut Bolt Kit                 | 1.00     | 2.00     | EA   | 113.33    | 100.00   | 113.33    | 226.66    |
| 2PI16SSNBK   | 16 IN SS NBK                       | 1.00     | 1.00     | EA   | 126.14    | 100.00   | 126.14    | 126.14    |
| 2PI16X10FXF  | 16 x 10 FLG x FLG Spool            | 1.00     | 1.00     | EA   | 1,674.12  | 100.00   | 1,674.12  | 1,674.12  |

|              |                              |      |        |    |          |        |          |          |
|--------------|------------------------------|------|--------|----|----------|--------|----------|----------|
| 2PI16X12FCE  | 16 x 12 FLG Conc RED Epoxy   | 1.00 | 1.00   | EA | 1,640.78 | 100.00 | 1,640.78 | 1,640.78 |
| 2PI16X8.8FXF | 16 x 8.8 FLG x FLG Spool     | 1.00 | 1.00   | EA | 1,563.53 | 100.00 | 1,563.53 | 1,563.53 |
| 2PI7/8X5.5SS | 7/8 x 5.5 SS Studs           | 1.00 | 168.00 | EA | 5.33     | 100.00 | 5.33     | 895.44   |
| 2PI910VC&L   | 910 Valve Can & Lid          | 1.00 | 1.00   | EA | 175.08   | 100.00 | 175.08   | 175.08   |
| 8LO544       | Loader - 544                 | 1.00 | 4.00   | HR | 50.00    | 100.00 | 50.00    | 200.00   |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00 | 4.00   | MH | 30.82    | 105.56 | 52.72    | 210.87   |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00 | 4.00   | MH | 39.01    | 105.56 | 62.88    | 251.53   |

Activity: 011420163 Install 16-inch BFV (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 325.18     | 163.97 | 489.15      | 231.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 720.15 |
| Total   | 325.18     | 163.97 | 489.15      | 231.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 720.15 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 720.1500     | 1.5000        | 0.6667        | 480.1000     | 0.1500 | 6.6667      | 0.1500      | 4,801.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 7.5000   | 0.1333  | 7.5000  | 65.2200        | 325.1800        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STS Shallow Pipe Crew Prod: HU 1.5 Eff: 100.00 Crew Hrs: 1.50 Labor Pcs: 5.00 Equipment Pcs: 5.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BA580   | 580 BACKHOE                  | 1.00     | 1.50     | HR   | 30.00     | 100.00   | 30.00     | 45.00  |
| 8EX130   | Excavator - 130              | 1.00     | 1.50     | HR   | 52.00     | 100.00   | 52.00     | 78.00  |
| 8LO544   | Loader - 544                 | 1.00     | 1.50     | HR   | 50.00     | 100.00   | 50.00     | 75.00  |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 1.50     | HR   | 10.00     | 100.00   | 10.00     | 15.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.50     | HR   | 12.00     | 100.00   | 12.00     | 18.00  |
| FORE     | Foreman                      | 1.00     | 1.50     | MH   | 45.00     | 116.67   | 75.72     | 113.58 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.50     | MH   | 30.82     | 116.67   | 56.61     | 84.91  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.50     | MH   | 31.97     | 116.67   | 58.17     | 87.26  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 3.00     | MH   | 39.01     | 116.67   | 67.80     | 203.40 |

Activity: 011550024.2 Install MJ Long Sleeve & Spool (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 619.85     | 339.29 | 959.14      | 256.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,215.14 |
| Total   | 1,239.70   | 678.57 | 1,918.27    | 512.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,430.27 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,215.1350   | 4.0000        | 0.2500        | 303.7838     | 0.8889 | 2.2500      | 0.4444      | 2,734.0538 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 32.0000  | 0.0625  | 16.0000 | 59.9459        | 619.8500        |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: STS Shallow Pipe Crew Prod: HU 4 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8EX130   | Excavator - 130              | 1.00     | 8.00     | HR   | 52.00     | 100.00   | 52.00     | 416.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 8.00     | HR   | 12.00     | 100.00   | 12.00     | 96.00  |
| FORE     | Foreman                      | 1.00     | 8.00     | MH   | 45.00     | 105.56   | 70.04     | 560.34 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 8.00     | MH   | 30.82     | 105.56   | 52.72     | 421.75 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 8.00     | MH   | 31.97     | 105.56   | 54.14     | 433.13 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 8.00     | MH   | 39.01     | 105.56   | 62.88     | 503.05 |

Biditem

Reservoir 12-inch Overflow

5080

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 244.41     | 128.80 | 373.21      | 150.00    | 23,162.64  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 23,685.85 |
| Total   | 244.41     | 128.80 | 373.21      | 150.00    | 23,162.64  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 23,685.85 |

| Manhours | Unit/MH | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|------------|---------------|----------------|---------|
| 6.0000   | 0.1667  | 6.0000  | 3,947.6417 | 40.7350       | 62.2017        | 0.0303  |

Activity: 011400056 Procure & String 12-Inch Overflow Piping (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 244.41     | 128.80 | 373.21      | 150.00    | 23,162.64  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 23,685.85 |
| Total   | 244.41     | 128.80 | 373.21      | 150.00    | 23,162.64  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 23,685.85 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 523.2100     | 3.0000        | 0.3333        | 174.4033     | 0.3000 | 3.3333      | 0.3000      | 78,952.8333 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 6.0000   | 0.1667  | 6.0000  | 62.2017        | 244.4100        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 3 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description                              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|------------------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2FAB12WALLSP | 12 IN Fabricated Res Overflow Wall Spool | 1.00     | 1.00     | EA   | 6,100.00  | 100.00   | 6,100.00  | 6,100.00 |
| 2PI12FLG90   | 12 IN FLG 90 BIT                         | 1.00     | 1.00     | EA   | 1,167.72  | 100.00   | 1,167.72  | 1,167.72 |
| 2PI12FLG90PC | 12 IN FLG 90 PC                          | 1.00     | 1.00     | EA   | 1,167.72  | 100.00   | 1,167.72  | 1,167.72 |
| 2PI12FLGGSKT | 12 IN FLG Gasket                         | 1.00     | 6.00     | EA   | 55.62     | 100.00   | 55.62     | 333.72   |
| 2PI12FLGINS  | 12 IN FLG Insulating Kit                 | 1.00     | 2.00     | EA   | 289.92    | 100.00   | 289.92    | 579.84   |
| 2PI12HDPEFOF | 12 IN HDPE FAB Overflow                  | 1.00     | 1.00     | EA   | 3,894.30  | 100.00   | 3,894.30  | 3,894.30 |
| 2PI12SSGNBK  | 12 IN SS FLG NBK                         | 1.00     | 5.00     | EA   | 90.62     | 100.00   | 90.62     | 453.10   |
| 2PI12SSPS    | 12 IN SS Pipe Support                    | 1.00     | 1.00     | EA   | 211.11    | 100.00   | 211.11    | 211.11   |
| 2PI12SSSTUD  | 12 IN SS Stud Kit                        | 1.00     | 2.00     | EA   | 200.00    | 100.00   | 200.00    | 400.00   |
| 2PI12TFCV    | 12 IN FLG Tideflex Check Valve           | 1.00     | 1.00     | EA   | 2,456.25  | 100.00   | 2,456.25  | 2,456.25 |
| 2PI12X10FXFH | 12 x 10 FLG x FLG HDPE Spool             | 1.00     | 1.00     | EA   | 1,634.62  | 100.00   | 1,634.62  | 1,634.62 |
| 2PI12X3FXFSP | 12 x 3 FLG x FLG Spool                   | 1.00     | 1.00     | EA   | 1,000.00  | 100.00   | 1,000.00  | 1,000.00 |
| 2PI12X4FXFSP | 12 x 4 FLG x FLG Spool                   | 1.00     | 1.00     | EA   | 1,200.00  | 100.00   | 1,200.00  | 1,200.00 |
| 2PI12X4TAPSL | 12 x 4 Tapping Sleeve                    | 1.00     | 1.00     | EA   | 995.45    | 100.00   | 995.45    | 995.45   |
| 2PI2SSS40    | 2 IN SS S40 Pipe                         | 1.00     | 20.00    | LF   | 10.83     | 100.00   | 10.83     | 216.60   |
| 2PI4FGSKT    | 4 IN FLG GSKT                            | 1.00     | 1.00     | EA   | 21.25     | 100.00   | 21.25     | 21.25    |
| 2PI4FLGARV   | 4 IN FLG ARV Assembly                    | 1.00     | 1.00     | EA   | 1,310.59  | 100.00   | 1,310.59  | 1,310.59 |
| 2PI4SSNBK    | 4 IN SS NBK                              | 1.00     | 1.00     | EA   | 20.37     | 100.00   | 20.37     | 20.37    |
| 8LO544       | Loader - 544                             | 1.00     | 3.00     | HR   | 50.00     | 100.00   | 50.00     | 150.00   |
| L1           | Labor -Group 1 Genl/Carp Tnd             | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81   |
| OP4          | Operator-Doz, Exc, Bld, Ldr              | 1.00     | 3.00     | MH   | 39.01     | 116.67   | 67.80     | 203.40   |

## Biditem

## Reservoir 8-inch Drain

# 5090

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,573.92   | 851.46 | 2,425.38    | 676.00    | 3,938.42   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 7,039.80 |
| Total   | 1,573.92   | 851.46 | 2,425.38    | 676.00    | 3,938.42   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 7,039.80 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 40.0000  | 0.0250  | 40.0000 | 175.9950 | 39.3480       | 60.6345        | 0.0244  |

Activity: 011400054 Procure & String 8-inch Drain Pipe (Unreviewed) Quantity: 1 Unit: LS

|  | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |        |       |        |        |          |      |      |      |      |      |          |
|---------|--------|-------|--------|--------|----------|------|------|------|------|------|----------|
| U. Cost | 162.95 | 85.86 | 248.81 | 100.00 | 3,938.42 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4,287.23 |
| Total   | 162.95 | 85.86 | 248.81 | 100.00 | 3,938.42 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4,287.23 |

|              |               |               |              |        |             |             |             |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
| 348.8100     | 2.0000        | 0.5000        | 174.4050     | 0.2000 | 5.0000      | 0.2000      | 21,436.1500 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 4.0000   | 0.2500  | 4.0000  | 62.2025        | 162.9500        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 2 Eff: 100.00 Crew Hrs: 2.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2PI1208      | 8in DI CL52 Pipe             | 1.00     | 20.00    | LF   | 25.92     | 100.00   | 25.92     | 518.40 |
| 2PI8FGSKT    | 8 IN FLG GSKT                | 1.00     | 3.00     | EA   | 39.38     | 100.00   | 39.38     | 118.14 |
| 2PI8FLG90    | 8 IN FLG 90 Bend             | 1.00     | 1.00     | EA   | 459.58    | 100.00   | 459.58    | 459.58 |
| 2PI8FLGINS   | 8 IN FLG Insulating Kit      | 1.00     | 1.00     | EA   | 146.25    | 100.00   | 146.25    | 146.25 |
| 2PI8MEG      | 8 IN Megalug                 | 1.00     | 5.00     | EA   | 46.68     | 100.00   | 46.68     | 233.40 |
| 2PI8MJ45     | 8 IN MJ 45                   | 1.00     | 1.00     | EA   | 144.26    | 100.00   | 144.26    | 144.26 |
| 2PI8MJLONG   | 8 IN MJ Long Sleeve          | 1.00     | 2.00     | EA   | 141.04    | 100.00   | 141.04    | 282.08 |
| 2PI8MJXFLGGV | 8 IN MJ x FLG GV             | 1.00     | 1.00     | EA   | 905.93    | 100.00   | 905.93    | 905.93 |
| 2PI8NBK      | 8 IN NBK                     | 1.00     | 3.00     | EA   | 13.42     | 100.00   | 13.42     | 40.26  |
| 2PI8X10FXFSP | 8 x 10 FLG x FLG Spool       | 1.00     | 1.00     | EA   | 710.00    | 100.00   | 710.00    | 710.00 |
| 2PI8X2.5FXPE | 8 x 2.5 FLG x PE Spool       | 1.00     | 1.00     | EA   | 211.76    | 100.00   | 211.76    | 211.76 |
| 2PIVC&LID    | Valve Can & Lid              | 1.00     | 1.00     | EA   | 168.36    | 100.00   | 168.36    | 168.36 |
| 8LO544       | Loader - 544                 | 1.00     | 2.00     | HR   | 50.00     | 100.00   | 50.00     | 100.00 |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 2.00     | MH   | 30.82     | 116.67   | 56.61     | 113.21 |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 2.00     | MH   | 39.01     | 116.67   | 67.80     | 135.60 |

Activity: 011550024.2 Install MJ Long Sleeve & Spool (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 619.85     | 339.29 | 959.14      | 256.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,215.14 |
| Total   | 1,239.70   | 678.57 | 1,918.27    | 512.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,430.27 |

|              |               |               |              |        |             |             |            |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
| 1,215.1350   | 4.0000        | 0.2500        | 303.7838     | 0.8889 | 2.2500      | 0.4444      | 2,734.0538 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 32.0000  | 0.0625  | 16.0000 | 59.9459        | 619.8500        |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: STS Shallow Pipe Crew Prod: HU 4 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8EX130   | Excavator - 130              | 1.00     | 8.00     | HR   | 52.00     | 100.00   | 52.00     | 416.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 8.00     | HR   | 12.00     | 100.00   | 12.00     | 96.00  |
| FORE     | Foreman                      | 1.00     | 8.00     | MH   | 45.00     | 105.56   | 70.04     | 560.34 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 8.00     | MH   | 30.82     | 105.56   | 52.72     | 421.75 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 8.00     | MH   | 31.97     | 105.56   | 54.14     | 433.13 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 8.00     | MH   | 39.01     | 105.56   | 62.88     | 503.05 |

Activity: 011430082 Install 8 IN GV (Unreviewed) Quantity: 1 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 171.27     | 87.03  | 258.30      | 64.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 322.30 |
| Total   | 171.27     | 87.03  | 258.30      | 64.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 322.30 |

|              |               |               |              |        |             |             |            |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
| 322.3000     | 1.0000        | 1.0000        | 322.3000     | 0.1000 | 10.0000     | 0.1000      | 3,223.0000 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 4.0000   | 0.2500  | 4.0000  | 64.5750        | 171.2700        |



Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION  
 Crew: STS Shallow Pipe Crew Prod: HU 1 Eff: 100.00 Crew Hrs: 1.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-------|
| 8EX130   | Excavator - 130              | 1.00     | 1.00     | HR   | 52.00     | 100.00   | 52.00     | 52.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.00     | HR   | 12.00     | 100.00   | 12.00     | 12.00 |
| FORE     | Foreman                      | 1.00     | 1.00     | MH   | 45.00     | 116.67   | 75.72     | 75.72 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.00     | MH   | 30.82     | 116.67   | 56.61     | 56.61 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.00     | MH   | 31.97     | 116.67   | 58.17     | 58.17 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 1.00     | MH   | 39.01     | 116.67   | 67.80     | 67.80 |

**Biditem****Reservoir 24-inch Outlet System****5100**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3,279.41   | 1,659.16 | 4,938.57    | 2,068.00  | 29,693.14  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 36,699.71 |
| Total   | 3,279.41   | 1,659.16 | 4,938.57    | 2,068.00  | 29,693.14  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 36,699.71 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 76.0000  | 0.0132  | 76.0000 | 482.8909 | 43.1501       | 64.9812        | 0.0588  |

Activity: 011400054 Procure & String 24 IN Outlet System (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 244.41     | 128.80 | 373.21      | 150.00    | 29,693.14  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 30,216.35 |
| Total   | 244.41     | 128.80 | 373.21      | 150.00    | 29,693.14  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 30,216.35 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
| 523.2100     | 3.0000        | 0.3333        | 174.4033     | 0.3000 | 3.3333      | 0.3000      | 100,721.1667 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 6.0000   | 0.1667  | 6.0000  | 62.2017        | 244.4100        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 3 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2PI24FLG90   | 24 IN FLG 90                 | 1.00     | 1.00     | EA   | 8,675.32  | 100.00   | 8,675.32  | 8,675.32 |
| 2PI24FLGGSKT | 24 IN FLG GSKT               | 1.00     | 1.00     | EA   | 184.12    | 100.00   | 184.12    | 184.12   |
| 2PI24FLGINS  | 24 IN FLG Insulating Kit     | 1.00     | 1.00     | EA   | 808.25    | 100.00   | 808.25    | 808.25   |
| 2PI24FXMJBV  | 24 IN FLG x MJ BFV           | 1.00     | 1.00     | EA   | 8,414.63  | 100.00   | 8,414.63  | 8,414.63 |
| 2PI24MEG     | 24 IN Megalug                | 1.00     | 5.00     | EA   | 402.94    | 100.00   | 402.94    | 2,014.70 |
| 2PI24MEGA    | 24 IN Megaflange Adpt        | 1.00     | 1.00     | EA   | 1,146.68  | 100.00   | 1,146.68  | 1,146.68 |
| 2PI24MJLONG  | 24 IN MJ Long Sleeve         | 1.00     | 2.00     | EA   | 1,582.75  | 100.00   | 1,582.75  | 3,165.50 |
| 2PI24NBK     | 24 IN Nut Bolt Kit           | 1.00     | 3.00     | EA   | 149.23    | 100.00   | 149.23    | 447.69   |
| 2PI24X10FXFS | 24 x 10 FLG x FLG Spool      | 1.00     | 1.00     | EA   | 2,802.35  | 100.00   | 2,802.35  | 2,802.35 |
| 2PI24X7.5FXP | 24 x 7.5 FLG x PE Spool      | 1.00     | 1.00     | EA   | 1,858.82  | 100.00   | 1,858.82  | 1,858.82 |
| 2PI910VC&L   | 910 Valve Can & Lid          | 1.00     | 1.00     | EA   | 175.08    | 100.00   | 175.08    | 175.08   |
| 8LO544       | Loader - 544                 | 1.00     | 3.00     | HR   | 50.00     | 100.00   | 50.00     | 150.00   |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81   |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 3.00     | MH   | 39.01     | 116.67   | 67.80     | 203.40   |

Activity: 011550030 Install MJ Long Sleeve & Spool (Unreviewed) Quantity: 1 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,734.28   | 874.50 | 2,608.78    | 1,096.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,704.78 |
| Total   | 1,734.28   | 874.50 | 2,608.78    | 1,096.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,704.78 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 3,704.7800   | 8.0000        | 0.1250        | 463.0975     | 0.8000 | 1.2500      | 0.8000      | 4,630.9750 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 40.0000  | 0.0250  | 40.0000 | 65.2195        | 1,734.2800      |

Calendar: 61060 Hour Week - (6@10)Hrs/Shift: 10WC: OR6306SEWER CONSTRUCTION

Crew: STMMedium Pipe CrewProd: CH 8Eff: 100.00Crew Hrs: 8.00Labor Pcs: 5.00Equipment Pcs: 2.50

Notes: Bolts on a 30 IN FLG will need to be torqued then re-torqued the following day.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8EX328   | Excavator - 328              | 1.00     | 8.00     | HR   | 100.00    | 100.00   | 100.00    | 800.00   |
| 8LO544   | Loader - 544                 | 0.50     | 4.00     | HR   | 50.00     | 100.00   | 50.00     | 200.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 8.00     | HR   | 12.00     | 100.00   | 12.00     | 96.00    |
| FORE     | Foreman                      | 1.00     | 8.00     | MH   | 45.00     | 116.67   | 75.72     | 605.74   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 8.00     | MH   | 30.82     | 116.67   | 56.61     | 452.84   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 8.00     | MH   | 31.97     | 116.67   | 58.17     | 465.39   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 16.00    | MH   | 39.01     | 116.67   | 67.80     | 1,084.81 |

Activity: 011420243Install 24 IN MJ x FLG BFV(Unreviewed)Quantity: 1Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,300.72   | 655.86 | 1,956.58    | 822.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,778.58 |
| Total   | 1,300.72   | 655.86 | 1,956.58    | 822.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,778.58 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 2,778.5800   | 6.0000        | 0.1667        | 463.0967     | 0.6000 | 1.6667      | 0.6000      | 4,630.9667 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 30.0000  | 0.0333  | 30.0000 | 65.2193        | 1,300.7200      |

Calendar: 61060 Hour Week - (6@10)Hrs/Shift: 10WC: OR6306SEWER CONSTRUCTION

Crew: STMMedium Pipe CrewProd: HU 6Eff: 100.00Crew Hrs: 6.00Labor Pcs: 5.00Equipment Pcs: 2.50

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8EX328   | Excavator - 328              | 1.00     | 6.00     | HR   | 100.00    | 100.00   | 100.00    | 600.00 |
| 8LO544   | Loader - 544                 | 0.50     | 3.00     | HR   | 50.00     | 100.00   | 50.00     | 150.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 6.00     | HR   | 12.00     | 100.00   | 12.00     | 72.00  |
| FORE     | Foreman                      | 1.00     | 6.00     | MH   | 45.00     | 116.67   | 75.72     | 454.30 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 6.00     | MH   | 30.82     | 116.67   | 56.61     | 339.63 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 6.00     | MH   | 31.97     | 116.67   | 58.17     | 349.04 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 12.00    | MH   | 39.01     | 116.67   | 67.80     | 813.61 |

Biditem

5110

Reservoir Painting & Coating

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

Activity: 090000099Paintings & Coatings(Unreviewed)Quantity: 1Unit: LS

Calendar: 61060 Hour Week - (6@10)Hrs/Shift: 10WC: OR6306SEWER CONSTRUCTION

| Resource | Description  | Pcs/Wste | Quantity | Unit | Unit Cost  | Tax/OT % | Actual UC  | Total      |
|----------|--------------|----------|----------|------|------------|----------|------------|------------|
| 4PAIN    | Painting Sub | 1.00     | 1.00     | LS   | 154,682.00 | 100.00   | 154,682.00 | 154,682.00 |

Subtotal

# Reservoir Construction Subtotal

|       | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub          | Aggregates | Trucking  | Gen Cond | Total        |
|-------|------------|-----------|-------------|-----------|------------|-------------|--------------|------------|-----------|----------|--------------|
| Total | 44,120.57  | 23,635.59 | 67,756.16   | 43,216.29 | 138,259.83 | 0.00        | 4,614,561.10 | 108,433.50 | 81,784.80 | 0.00     | 5,054,011.68 |

# 6010

Takeoff Qty: 3,467.000 SF

Bid Qty: 3,467.000 SF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 1.56       | 0.77     | 2.33        | 1.02      | 0.00       | 0.00        | 0.00 | 0.80       | 2.17     | 0.00     | 6.32      |
| Total   | 5,399.74   | 2,677.27 | 8,077.01    | 3,542.40  | 0.00       | 0.00        | 0.00 | 2,760.00   | 7,536.20 | 0.00     | 21,915.61 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 130.6600 | 26.5345 | 0.0377  | 167.7301 | 41.3266       | 61.8170        | 90.1770 |

Activity: 005400138 Slab on Grade Subgrade Prep (Unreviewed) Quantity: 3467 Unit: SF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.78       | 0.38     | 1.17        | 0.43      | 0.00       | 0.00        | 0.00 | 0.00       | 1.31     | 0.00     | 2.90      |
| Total   | 2,707.57   | 1,331.53 | 4,039.10    | 1,479.04  | 0.00       | 0.00        | 0.00 | 0.00       | 4,530.54 | 0.00     | 10,048.68 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1.5916       | 0.0067        | 150.0002      | 238.7431     | 2.3113 | 1,500.0022  | 0.0007      | 4,347.5748 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 69.3300  | 50.0072 | 0.0200  | 58.2591        | 0.7810          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: EAFEX Footing Excavation Prod: UH 150.0002 Eff: 100.00 Crew Hrs: 23.11 Labor Pcs: 3.00 Equipment Pcs: 2.00

Notes: Approx. Building dimensions as follows:

31 Feet x 32 (Generator Slab) Feet = 992 SF

45 Feet x 55 Feet = 2,475 SF

Total = 3,467 SF

We need to add an additional 2 Foot perimeter around the building for form work and bracing:

270 LF x 2 = 540 SF

No base rock section shown but the ground will be rocky so we will assume 6-inch leveling course under concrete.

Total Footprint 3,467 SF + 540 SF = 4,007 SF x .5 = 150 Tons of Base Rock

Backfill of slab will be 540 SF x 2 FT = 80 Tons of rock

Total Base and backfill rock = 230 Tons

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| SSO      | Trucking - Solo                 | 1.00     | 46.23    | HR   | 98.00     | 100.00   | 98.00     | 4,530.54 |
| 8EX130   | Excavator - 130                 | 1.00     | 23.11    | HR   | 52.00     | 100.00   | 52.00     | 1,201.72 |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 23.11    | HR   | 12.00     | 100.00   | 12.00     | 277.32   |
| FORE     | Foreman                         | 1.00     | 23.11    | MH   | 45.00     | 116.67   | 75.72     | 1,749.82 |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | 23.11    | MH   | 31.97     | 116.67   | 58.17     | 1,344.38 |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 1.00     | 23.11    | MH   | 23.45     | 116.67   | 40.89     | 944.90   |

Activity: 005400138.1 Place Slab On Grade Leveling Rock (Unreviewed) Quantity: 150 Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 11.96      | 5.89   | 17.85       | 6.93      | 0.00       | 0.00        | 0.00 | 12.00      | 13.07    | 0.00     | 49.85    |
| Total   | 1,793.80   | 884.21 | 2,678.01    | 1,040.00  | 0.00       | 0.00        | 0.00 | 1,800.00   | 1,960.00 | 0.00     | 7,478.01 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 24.7867      | 0.0667        | 15.0000       | 371.8010     | 1.0000 | 150.0000    | 0.0067      | 7,478.0100 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 40.0000  | 3.7500  | 0.2667  | 66.9503        | 11.9587         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRSI Sidewalk Prep. Prod: UH 15 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 4.00 Equipment Pcs: 3.50

Notes: Number of Trucks Routine  
Description Unit Quantity  
-----

Total Units Per Day 135.0000  
 Hours Per Day 9.0000  
 Hours Per Round 1.2500  
 Units Per Load 14.0000  
 Trucks Required Per Day 2.3392

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 20.00    | HR   | 98.00     | 100.00   | 98.00     | 1,960.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 150.00   | TON  | 12.00     | 100.00   | 12.00     | 1,800.00 |
| 8EX130   | Excavator - 130              | 1.00     | 10.00    | HR   | 52.00     | 100.00   | 52.00     | 520.00   |
| 8ROS     | Roller - Small Paving        | 0.50     | 5.00     | HR   | 30.00     | 100.00   | 30.00     | 150.00   |
| 8SKBL    | Skidsteer - Loader           | 1.00     | 10.00    | HR   | 25.00     | 100.00   | 25.00     | 250.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 10.00    | HR   | 12.00     | 100.00   | 12.00     | 120.00   |
| FORE     | Foreman                      | 1.00     | 10.00    | MH   | 45.00     | 116.67   | 75.72     | 757.18   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 10.00    | MH   | 31.97     | 116.67   | 58.17     | 581.73   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 10.00    | MH   | 39.01     | 116.67   | 67.80     | 678.00   |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 10.00    | MH   | 37.77     | 116.67   | 66.11     | 661.10   |

Activity: 005400136 Backfill Slab on Grade Perimeter (Unreviewed) Quantity: 80 Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 11.23      | 5.77   | 17.00       | 12.79     | 0.00       | 0.00        | 0.00 | 12.00      | 13.07    | 0.00     | 54.86    |
| Total   | 898.37     | 461.53 | 1,359.90    | 1,023.36  | 0.00       | 0.00        | 0.00 | 960.00     | 1,045.66 | 0.00     | 4,388.92 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 29.7908      | 0.0667        | 15.0001       | 446.8640     | 0.5333 | 150.0009    | 0.0067      | 8,229.2764 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 21.3300  | 3.7506  | 0.2666  | 63.7553        | 11.2296         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRSI Sidewalk Prep. Prod: UH 15 Eff: 100.00 Crew Hrs: 5.33 Labor Pcs: 4.00 Equipment Pcs: 4.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 10.67    | HR   | 98.00     | 100.00   | 98.00     | 1,045.66 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 80.00    | TON  | 12.00     | 100.00   | 12.00     | 960.00   |
| 8ROS     | Roller - Small Paving        | 1.00     | 5.33     | HR   | 30.00     | 100.00   | 30.00     | 159.90   |
| 8SKBL    | Skidsteer - Loader           | 1.00     | 5.33     | HR   | 25.00     | 100.00   | 25.00     | 133.25   |
| 8TREZ    | Truck - EZ Grade (Rent)      | 1.00     | 5.33     | HR   | 125.00    | 100.00   | 125.00    | 666.25   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 5.33     | HR   | 12.00     | 100.00   | 12.00     | 63.96    |
| FORE     | Foreman                      | 1.00     | 5.33     | MH   | 45.00     | 116.67   | 75.72     | 403.57   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 10.67    | MH   | 30.82     | 116.67   | 56.60     | 603.97   |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 5.33     | MH   | 37.77     | 116.67   | 66.11     | 352.36   |

## Biditem

## BPS CIP Foundation

# 6020

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

Activity: 005400150 Structural Concrete Subcontractor (Unreviewed) Quantity: 1 Unit: LS

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Notes: This price includes the massive pipe blocks that were added since the last GMP.

| Resource | Description             | Pcs/Wste | Quantity | Unit | Unit Cost  | Tax/OT % | Actual UC  | Total      |
|----------|-------------------------|----------|----------|------|------------|----------|------------|------------|
| 4CONCS   | Structural Concrete Sub | 1.00     | 1.00     | LS   | 220,000.00 | 100.00   | 220,000.00 | 220,000.00 |

## Biditem

## BPS Masonry

# 6030

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

Activity: 040000100 Masonry (Unreviewed) Quantity: 1 Unit: LS

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Notes: Crew hours is for laying out door blockouts for Masonry sub by building Foreman.

| Resource | Description           | Pcs/Wste | Quantity | Unit | Unit Cost  | Tax/OT % | Actual UC  | Total      |
|----------|-----------------------|----------|----------|------|------------|----------|------------|------------|
| 4MASON   | Masonry Subcontractor | 1.00     | 1.00     | LS   | 163,959.00 | 100.00   | 163,959.00 | 163,959.00 |

## Biditem

## BPS Masonry Door Framing

# 6035

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,050.03   | 464.31 | 1,514.34    | 240.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,754.34 |
| Total   | 1,050.03   | 464.31 | 1,514.34    | 240.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,754.34 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 20.0000  | 0.0500  | 20.0000 | 87.7170 | 52.5015       | 75.7170        | 0.0500  |

Activity: 040000100 Masonry (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,050.03   | 464.31 | 1,514.34    | 240.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,754.34 |
| Total   | 1,050.03   | 464.31 | 1,514.34    | 240.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,754.34 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|----------|
| 1,754.3400   | 20.0000       | 0.0500        | 87.7170      | 2.0000 | 0.5000      | 2.0000      | 877.1700 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 20.0000  | 0.0500  | 20.0000 | 75.7170        | 1,050.0300      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: MI1M 1-Man Misc Crew Prod: CH 20 Eff: 100.00 Crew Hrs: 20.00 Labor Pcs: 1.00 Equipment Pcs: 1.00

Notes: Crew hours is for laying out door blockouts for Masonry sub by building Foreman.

| Resource | Description   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------|----------|----------|------|-----------|----------|-----------|----------|
| 8TRUT1   | Truck - 1 Ton | 1.00     | 20.00    | HR   | 12.00     | 100.00   | 12.00     | 240.00   |
| FORE     | Foreman       | 1.00     | 20.00    | MH   | 45.00     | 116.67   | 75.72     | 1,514.34 |

## Biditem

## BPS Framing, Sheeting, Siding & Insulation

# 6040

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|------------|
| U. Cost | 26,425.46  | 14,583.00 | 41,008.46   | 17,120.00 | 42,882.11  | 0.00        | 21,699.75 | 0.00       | 0.00     | 0.00     | 122,710.32 |
| Total   | 26,425.46  | 14,583.00 | 41,008.46   | 17,120.00 | 42,882.11  | 0.00        | 21,699.75 | 0.00       | 0.00     | 0.00     | 122,710.32 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 640.0000 | 0.0016  | 640.0000 | 191.7349 | 41.2898       | 64.0757        | 0.0063  |

Activity: 060000101.1 Building Framing/Sheeting (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|------------|
| U. Cost | 26,425.46  | 14,583.00 | 41,008.46   | 17,120.00 | 42,882.11  | 0.00        | 21,699.75 | 0.00       | 0.00     | 0.00     | 122,710.32 |
| Total   | 26,425.46  | 14,583.00 | 41,008.46   | 17,120.00 | 42,882.11  | 0.00        | 21,699.75 | 0.00       | 0.00     | 0.00     | 122,710.32 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts  | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|---------|-------------|-------------|------------|
| 58,128.4600  | 160.0000      | 0.0063        | 363.3029     | 17.7778 | 0.0563      | 17.7778     | 6,902.4555 |

| Manhours | Unit/MH | MH/Unit  | Total Labor/MH | Base Labor/Unit |
|----------|---------|----------|----------------|-----------------|
| 640.0000 | 0.0016  | 640.0000 | 64.0757        | 26,425.4600     |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: FRAME Building Framing Crew Prod: CH 160 Eff: 100.00 Crew Hrs: 160.00 Labor Pcs: 4.00 Equipment Pcs: 4.00

| Resource    | Description                           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|-------------|---------------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2FRAMEBPS   | Booster Pump Station Framing Material | 1.00     | 1.00     | LS   | 22,355.76 | 100.00   | 22,355.76 | 22,355.76 |
| 2TRUSSBPS   | Booster Pump Station Trusses          | 1.00     | 1.00     | LS   | 20,526.35 | 100.00   | 20,526.35 | 20,526.35 |
| 4CMUINSULAT | CMU Insulation                        | 1.00     | 1.00     | LS   | 10,461.00 | 100.00   | 10,461.00 | 10,461.00 |
| 4INSULATION | Insulation Subcontractor              | 1.00     | 1.00     | LS   | 5,494.50  | 100.00   | 5,494.50  | 5,494.50  |
| 4SHEETROCK  | Sheet Rock Subcontractor              | 1.00     | 1.00     | LS   | 5,744.25  | 100.00   | 5,744.25  | 5,744.25  |
| 8FOR        | Forklift - Reach                      | 1.00     | 160.00   | HR   | 50.00     | 100.00   | 50.00     | 8,000.00  |
| 8MAS        | Manlift - Genie 2668RT                | 1.00     | 160.00   | HR   | 15.00     | 100.00   | 15.00     | 2,400.00  |
| 8MI3        | Misc - SUP EQ(2-PK/MISC)              | 1.00     | 160.00   | HR   | 30.00     | 100.00   | 30.00     | 4,800.00  |
| 8TRUT1      | Truck - 1 Ton                         | 1.00     | 160.00   | HR   | 12.00     | 100.00   | 12.00     | 1,920.00  |
| CARP        | Carpenter                             | 2.00     | 320.00   | MH   | 40.32     | 105.56   | 66.77     | 21,366.90 |
| FORE        | Foreman                               | 1.00     | 160.00   | MH   | 45.00     | 105.56   | 70.04     | 11,206.68 |
| L1          | Labor -Group 1 Genl/Carp Tnd          | 1.00     | 160.00   | MH   | 30.82     | 105.56   | 52.72     | 8,434.88  |

**Biditem****BPS Canopy****6050**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 5,476.26   | 2,804.83 | 8,281.09    | 1,410.00  | 8,380.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 18,071.09 |
| Total   | 5,476.26   | 2,804.83 | 8,281.09    | 1,410.00  | 8,380.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 18,071.09 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 120.0000 | 0.0083  | 120.0000 | 150.5924 | 45.6355       | 69.0091        | 0.0333  |

Activity: 100 BPS Metal Canopy Structures (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 5,476.26   | 2,804.83 | 8,281.09    | 1,410.00  | 8,380.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 18,071.09 |
| Total   | 5,476.26   | 2,804.83 | 8,281.09    | 1,410.00  | 8,380.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 18,071.09 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 9,691.0900   | 30.0000       | 0.0333        | 323.0363     | 3.0000 | 0.3333      | 3.0000      | 6,023.6967 |

| Manhours | Unit/MH | MH/Unit  | Total Labor/MH | Base Labor/Unit |
|----------|---------|----------|----------------|-----------------|
| 120.0000 | 0.0083  | 120.0000 | 69.0091        | 5,476.2600      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: TKMECH Tank Mechanical Crew Prod: CH 30 Eff: 100.00 Crew Hrs: 30.00 Labor Pcs: 4.00 Equipment Pcs: 3.00

| Resource     | Description                    | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|--------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2CANMISCOUN  | Misc. Canopy Mounting Material | 1.00     | 1.00     | LS   | 1,000.00  | 100.00   | 1,000.00  | 1,000.00 |
| 2FABMETALCAN | BPS Fabricated Metal Canopy    | 1.00     | 1.00     | LS   | 7,380.00  | 100.00   | 7,380.00  | 7,380.00 |
| 8FOS         | Forklift - Small               | 1.00     | 30.00    | HR   | 20.00     | 100.00   | 20.00     | 600.00   |
| 8MI2         | Misc - Daily Cost              | 1.00     | 30.00    | HR   | 15.00     | 100.00   | 15.00     | 450.00   |
| 8TRUT1       | Truck - 1 Ton                  | 1.00     | 30.00    | HR   | 12.00     | 100.00   | 12.00     | 360.00   |
| CARP         | Carpenter                      | 2.00     | 60.00    | MH   | 40.32     | 116.67   | 71.86     | 4,311.41 |
| FORE         | Foreman                        | 1.00     | 30.00    | MH   | 45.00     | 116.67   | 75.72     | 2,271.53 |
| L1           | Labor -Group 1 Genl/Carp Tnd   | 1.00     | 30.00    | MH   | 30.82     | 116.67   | 56.61     | 1,698.15 |

**Biditem****BPS Roofing Gutters & Downspouts****6060**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

Activity: 070000740 Metal Roofing & Soffit (Unreviewed) Quantity: 1 Unit: LS

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|-----------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4ROOF    | Roofing Subcontractor | 1.00     | 1.00     | LS   | 94,520.00 | 100.00   | 94,520.00 | 94,520.00 |

**Biditem****BPS Doors/Windows****6070**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 6,606.36   | 3,645.76 | 10,252.12   | 1,680.00  | 31,842.00  | 0.00        | 22,306.00 | 0.00       | 0.00     | 0.00     | 66,080.12 |
| Total   | 6,606.36   | 3,645.76 | 10,252.12   | 1,680.00  | 31,842.00  | 0.00        | 22,306.00 | 0.00       | 0.00     | 0.00     | 66,080.12 |

|  | Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|--|----------|---------|----------|----------|---------------|----------------|---------|
|  | 160.0000 | 0.0063  | 160.0000 | 413.0008 | 41.2898       | 64.0758        | 0.0250  |

Activity: 060000101 Procure & Install Doors & Windows (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 6,606.36   | 3,645.76 | 10,252.12   | 1,680.00  | 31,842.00  | 0.00        | 22,306.00 | 0.00       | 0.00     | 0.00     | 66,080.12 |
| Total   | 6,606.36   | 3,645.76 | 10,252.12   | 1,680.00  | 31,842.00  | 0.00        | 22,306.00 | 0.00       | 0.00     | 0.00     | 66,080.12 |

|  | Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
|  | 11,932.1200  | 40.0000       | 0.0250        | 298.3030     | 4.4444 | 0.2250      | 4.4444      | 14,868.0270 |

|  | Manhours | Unit/MH | MH/Unit  | Total Labor/MH | Base Labor/Unit |
|--|----------|---------|----------|----------------|-----------------|
|  | 160.0000 | 0.0063  | 160.0000 | 64.0758        | 6,606.3600      |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: FRAME Building Framing Crew Prod: CH 40 Eff: 100.00 Crew Hrs: 40.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

Notes: BPS Building includes the following doors and windows:

Windows:

Exterior:

(2) 3 x 3 Windows  
(2) 6 x 3 Window

Interior:

(1) 3 x 3 Window

Doors:

Exterior:

- D1 (Single Man Door)  
- D2 (Double Man Door)  
- D6 (Single Man Door)  
- D7 (8Wx10H) Roll-Up  
- D8 (Double Man Door)

Interior:

- D3 (Single Man Door)  
- D4 (Single Man Door)  
- D5 (Single Man Door)  
- D9 (Single Man Door)

Figure 1 Hr per window to hang, 3 hrs per single Door and 5 hrs per double door. Will have a subcontractor do the roll up door.

Total time: 33 Hrs.

| Resource   | Description                | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|------------|----------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2BPSSDOORS | BPS Door Package           | 1.00     | 1.00     | LS   | 31,842.00 | 100.00   | 31,842.00 | 31,842.00 |
| 4ROLLDOOR  | Roll Up Door Subcontractor | 1.00     | 1.00     | LS   | 11,450.00 | 100.00   | 11,450.00 | 11,450.00 |
| 4WINDOW    | Window Subcontractor       | 1.00     | 1.00     | LS   | 10,856.00 | 100.00   | 10,856.00 | 10,856.00 |
| 8MI3       | Misc - SUP EQ(2-PK/MISC)   | 1.00     | 40.00    | HR   | 30.00     | 100.00   | 30.00     | 1,200.00  |
| 8TRUT1     | Truck - 1 Ton              | 1.00     | 40.00    | HR   | 12.00     | 100.00   | 12.00     | 480.00    |
| CARP       | Carpenter                  | 2.00     | 80.00    | MH   | 40.32     | 105.56   | 66.77     | 5,341.73  |



|      |                              |      |       |    |       |        |       |          |
|------|------------------------------|------|-------|----|-------|--------|-------|----------|
| FORE | Foreman                      | 1.00 | 40.00 | MH | 45.00 | 105.56 | 70.04 | 2,801.67 |
| L1   | Labor -Group 1 Genl/Carp Tnd | 1.00 | 40.00 | MH | 30.82 | 105.56 | 52.72 | 2,108.72 |

## Biditem

## BPS Skylight/Pump Access Hatches

6080

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 1,277.79   | 654.46 | 1,932.25    | 749.00    | 8,268.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 10,949.25 |
| Total   | 1,277.79   | 654.46 | 1,932.25    | 749.00    | 8,268.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 10,949.25 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 28.0000  | 0.0357  | 28.0000 | 391.0446 | 45.6354       | 69.0089        | 0.1429  |

|                     |                                         |              |             |          |
|---------------------|-----------------------------------------|--------------|-------------|----------|
| Activity: 080000104 | Furnish & Install Access Hatch/Skylight | (Unreviewed) | Quantity: 7 | Unit: EA |
|---------------------|-----------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 182.54     | 93.49  | 276.04      | 107.00    | 1,181.14   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,564.18  |
| Total   | 1,277.79   | 654.46 | 1,932.25    | 749.00    | 8,268.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 10,949.25 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 383.0357     | 1.0000        | 1.0000        | 383.0357     | 0.7000 | 10.0000     | 0.1000      | 15,641.7857 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 28.0000  | 0.2500  | 4.0000  | 69.0089        | 182.5414        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: FRAME Building Framing Crew Prod: HU 1 Eff: 100.00 Crew Hrs: 7.00 Labor Pcs: 4.00 Equipment Pcs: 4.00

Notes: Roofing subcontractor to install Skylights, crew time is for the additional framing.

| Resource    | Description                             | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-------------|-----------------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2BPSBPATCH  | Booster Pump Station Booster Pump Hatch | 1.00     | 6.00     | EA   | 1,150.83  | 100.00   | 1,150.83  | 6,904.96 |
| 2BPSVTPATCH | Booster Pump Station VTP Hatch          | 1.00     | 1.00     | EA   | 1,363.04  | 100.00   | 1,363.04  | 1,363.04 |
| 8FOR        | Forklift - Reach                        | 1.00     | 7.00     | HR   | 50.00     | 100.00   | 50.00     | 350.00   |
| 8MAS        | Manlift - Genie 2668RT                  | 1.00     | 7.00     | HR   | 15.00     | 100.00   | 15.00     | 105.00   |
| 8MI3        | Misc - SUP EQ(2-PK/MISC)                | 1.00     | 7.00     | HR   | 30.00     | 100.00   | 30.00     | 210.00   |
| 8TRUT1      | Truck - 1 Ton                           | 1.00     | 7.00     | HR   | 12.00     | 100.00   | 12.00     | 84.00    |
| CARP        | Carpenter                               | 2.00     | 14.00    | MH   | 40.32     | 116.67   | 71.86     | 1,006.00 |
| FORE        | Foreman                                 | 1.00     | 7.00     | MH   | 45.00     | 116.67   | 75.72     | 530.02   |
| L1          | Labor -Group 1 Genl/Carp Tnd            | 1.00     | 7.00     | MH   | 30.82     | 116.67   | 56.60     | 396.23   |

## Biditem

## BPS HVAC

6100

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|                     |      |              |             |          |
|---------------------|------|--------------|-------------|----------|
| Activity: 150001570 | HVAC | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|-------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4HVAC    | HVAC Sub    | 1.00     | 1.00     | LS   | 69,500.00 | 100.00   | 69,500.00 | 69,500.00 |

## Biditem

## BPS Electrical

6110

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|                     |                           |              |             |          |
|---------------------|---------------------------|--------------|-------------|----------|
| Activity: 160001620 | Building/Plant Electrical | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|---------------------------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description    | Pcs/Wste | Quantity | Unit | Unit Cost  | Tax/OT % | Actual UC  | Total      |
|----------|----------------|----------|----------|------|------------|----------|------------|------------|
| 4ELEC    | Electrical Sub | 1.00     | 1.00     | LS   | 713,335.00 | 100.00   | 713,335.00 | 713,335.00 |

**Biditem****BPS Electrical Trenching & Backfill****6120**

Takeoff Qty: 1,500.000 LF

Bid Qty: 1,500.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking  | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|----------|------------|-----------|----------|-----------|
| U. Cost | 9.33       | 4.76     | 14.09       | 4.31      | 0.28       | 0.00        | 3.16     | 10.27      | 6.83      | 0.00     | 38.94     |
| Total   | 13,999.63  | 7,133.32 | 21,132.95   | 6,465.00  | 425.00     | 0.00        | 4,740.00 | 15,402.87  | 10,241.00 | 0.00     | 58,406.82 |

|  | Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|--|----------|---------|---------|----------|---------------|----------------|---------|
|  | 328.0000 | 4.5732  | 0.2187  | 178.0696 | 42.6818       | 64.4297        | 17.9641 |

Activity: 004950104 Sawcutting - Asphalt (Unreviewed) Quantity: 200 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 1.53       | 0.85   | 2.37        | 1.48      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3.85   |
| Total   | 305.07     | 169.34 | 474.41      | 296.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 770.41 |

|  | Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
|  | 3.8521       | 0.0200        | 50.0000       | 192.6025     | 0.4000 | 500.0000    | 0.0020      | 1,926.0250 |

|  | Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|--|----------|---------|---------|----------------|-----------------|
|  | 8.0000   | 25.0000 | 0.0400  | 59.3013        | 1.5254          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: DESA Sawcutting Prod: UH 50 Eff: 100.00 Crew Hrs: 4.00 Labor Pcs: 2.00 Equipment Pcs: 3.00

Notes: This item is for AC Cutting and accounts for each side of the trench.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8DES     | CONC SAW /VAN                | 1.00     | 4.00     | HR   | 32.00     | 100.00   | 32.00     | 128.00 |
| 8MIVA    | Misc - Tow Behind Vac Traile | 1.00     | 4.00     | HR   | 30.00     | 100.00   | 30.00     | 120.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 4.00     | HR   | 12.00     | 100.00   | 12.00     | 48.00  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 4.00     | MH   | 30.82     | 116.67   | 56.74     | 226.94 |
| OP6      | Operator - Sawcutter/Skdstr  | 1.00     | 4.00     | MH   | 34.55     | 116.67   | 61.87     | 247.47 |

Activity: 160001690 Electrical Trenching (Unreviewed) Quantity: 1500 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|-----------|
| U. Cost | 5.71       | 2.90     | 8.61        | 2.13      | 0.00       | 0.00        | 2.00     | 1.39       | 6.53     | 0.00     | 20.67     |
| Total   | 8,563.58   | 4,351.21 | 12,914.79   | 3,200.00  | 0.00       | 0.00        | 3,000.00 | 2,082.87   | 9,800.00 | 0.00     | 30,997.66 |

|  | Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
|  | 10.7432      | 0.0333        | 30.0000       | 322.2958     | 5.0000 | 300.0000    | 0.0033      | 6,199.5320 |

|  | Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|--|----------|---------|---------|----------------|-----------------|
|  | 200.0000 | 7.5000  | 0.1333  | 64.5740        | 5.7091          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: UH 30 Eff: 100.00 Crew Hrs: 50.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity  |
|--------------------------------|------|-----------|
| Distance to object             | LF   | 0.5000    |
| Bedding 1 Depth                | LF   | 1.0000    |
| Bedding 2 Depth                | LF   | 3.0000    |
| Object Height (Dia. if circle) | LF   | 0.0000    |
| Object Width (0 if circle)     | LF   | 0.0000    |
| Trench Width                   | LF   | 2.5000    |
| Trench Depth                   | LF   | 4.0000    |
| Flare Width                    | LF   | 0.0000    |
| Flare Depth                    | LF   | 0.0000    |
| Trench Length                  | LF   | 1400.0000 |

|                               |    |          |
|-------------------------------|----|----------|
| Compaction Factor - Bedding 1 | %  | 0.0000   |
| Compaction Factor - Bedding 2 | %  | 0.0000   |
| Excavated Volume              | CY | 518.5185 |
| Bedding 1 Volume              | CY | 129.6296 |
| Bedding 2 Volume              | CY | 388.8888 |
| Bedding 1 + Bedding 2         | CY | 518.5184 |
| Net Excess                    | CY | 518.5184 |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 4FLAG    | Flagging Sub                 | 1.00     | 50.00    | HR   | 60.00     | 100.00   | 60.00     | 3,000.00 |
| 5SO      | Trucking - Solo              | 1.00     | 100.00   | HR   | 98.00     | 100.00   | 98.00     | 9,800.00 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 694.29   | CY   | 3.00      | 100.00   | 3.00      | 2,082.87 |
| 8EX130   | Excavator - 130              | 1.00     | 50.00    | HR   | 52.00     | 100.00   | 52.00     | 2,600.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 50.00    | HR   | 12.00     | 100.00   | 12.00     | 600.00   |
| FORE     | Foreman                      | 1.00     | 50.00    | MH   | 45.00     | 116.67   | 75.72     | 3,785.87 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 50.00    | MH   | 30.82     | 116.67   | 56.60     | 2,830.24 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 50.00    | MH   | 31.97     | 116.67   | 58.17     | 2,908.64 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 50.00    | MH   | 39.01     | 116.67   | 67.80     | 3,390.04 |

Activity: 160001690.1 Electrical Trenching Backfill (Unreviewed) Quantity: 1500 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|-----------|
| U. Cost | 2.85       | 1.45     | 4.30        | 1.70      | 0.00       | 0.00        | 1.00     | 8.88       | 0.00     | 0.00     | 15.88     |
| Total   | 4,281.78   | 2,175.63 | 6,457.41    | 2,550.00  | 0.00       | 0.00        | 1,500.00 | 13,320.00  | 0.00     | 0.00     | 23,827.41 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 6.0049       | 0.0167        | 60.0000       | 360.2964     | 2.5000 | 600.0000    | 0.0017      | 9,530.9640 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 100.0000 | 15.0000 | 0.0667  | 64.5741        | 2.8545          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: UH 60 Eff: 100.00 Crew Hrs: 25.00 Labor Pcs: 4.00 Equipment Pcs: 4.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4FLAG    | Flagging Sub                 | 1.00     | 25.00    | LF   | 60.00     | 100.00   | 60.00     | 1,500.00  |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 1,110.00 | TON  | 12.00     | 100.00   | 12.00     | 13,320.00 |
| 8BA580   | 580 BACKHOE                  | 1.00     | 25.00    | HR   | 30.00     | 100.00   | 30.00     | 750.00    |
| 8LO544   | Loader - 544                 | 1.00     | 25.00    | HR   | 50.00     | 100.00   | 50.00     | 1,250.00  |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 25.00    | HR   | 10.00     | 100.00   | 10.00     | 250.00    |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 25.00    | HR   | 12.00     | 100.00   | 12.00     | 300.00    |
| FORE     | Foreman                      | 1.00     | 25.00    | MH   | 45.00     | 116.67   | 75.72     | 1,892.94  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 25.00    | MH   | 30.82     | 116.67   | 56.61     | 1,415.13  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 25.00    | MH   | 31.97     | 116.67   | 58.17     | 1,454.32  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 25.00    | MH   | 39.01     | 116.67   | 67.80     | 1,695.02  |

Activity: 004950200 Trench Prep for Paving (Unreviewed) Quantity: 200 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub    | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|--------|------------|----------|----------|----------|
| U. Cost | 2.14       | 1.10   | 3.24        | 0.97      | 0.00       | 0.00        | 1.20   | 0.00       | 0.98     | 0.00     | 6.39     |
| Total   | 427.99     | 219.23 | 647.22      | 194.00    | 0.00       | 0.00        | 240.00 | 0.00       | 196.00   | 0.00     | 1,277.22 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 4.2061       | 0.0100        | 100.0000      | 420.6100     | 0.2000 | 1,000.0000  | 0.0010      | 6,386.1000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 10.0000  | 20.0000 | 0.0500  | 64.7220        | 2.1400          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TR1 Trench Preping Crew Prod: UH 100 Eff: 100.00 Crew Hrs: 2.00 Labor Pcs: 5.00 Equipment Pcs: 2.50

| Resource | Description     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|-----------------|----------|----------|------|-----------|----------|-----------|--------|
| 4FLAG    | Flagging Sub    | 1.00     | 4.00     | HR   | 60.00     | 100.00   | 60.00     | 240.00 |
| 5SO      | Trucking - Solo | 1.00     | 2.00     | HR   | 98.00     | 100.00   | 98.00     | 196.00 |
| 8EX130   | Excavator - 130 | 1.00     | 2.00     | HR   | 52.00     | 100.00   | 52.00     | 104.00 |

|      |                              |      |      |    |       |        |       |        |
|------|------------------------------|------|------|----|-------|--------|-------|--------|
| 8MI3 | Misc - SUP EQ(2-PK/MISC)     | 1.00 | 2.00 | HR | 30.00 | 100.00 | 30.00 | 60.00  |
| 8ROS | Roller - Small Paving        | 0.50 | 1.00 | HR | 30.00 | 100.00 | 30.00 | 30.00  |
| FORE | Foreman                      | 1.00 | 2.00 | MH | 45.00 | 116.67 | 75.91 | 151.81 |
| L1   | Labor -Group 1 Genl/Carp Tnd | 2.00 | 4.00 | MH | 30.82 | 116.67 | 56.74 | 226.94 |
| OP4  | Operator-Doz, Exc, Bld, Ldr  | 1.00 | 2.00 | MH | 39.01 | 116.67 | 67.97 | 135.93 |
| OP5  | Operator - Mini, Roller, BH  | 1.00 | 2.00 | MH | 37.77 | 116.67 | 66.27 | 132.54 |

Activity: 004950204 Permanent AC Patch - 4 inch Deep (Unreviewed) Quantity: 5 Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 84.24      | 43.58  | 127.82      | 45.00     | 85.00      | 0.00        | 0.00 | 0.00       | 49.00    | 0.00     | 306.82   |
| Total   | 421.21     | 217.91 | 639.12      | 225.00    | 425.00     | 0.00        | 0.00 | 0.00       | 245.00   | 0.00     | 1,534.12 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 172.8240     | 0.5000        | 2.0000        | 345.6480     | 0.2500 | 20.0000     | 0.0500      | 6,136.4800 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 10.0000  | 0.5000  | 2.0000  | 63.9120        | 84.2420         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TR2 Trench Patching Crew Prod: UH 2 Eff: 100.00 Crew Hrs: 2.50 Labor Pcs: 4.00 Equipment Pcs: 3.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2AS1WIB  | Buy Cl B Asphalt             | 1.00     | 5.00     | TON  | 85.00     | 100.00   | 85.00     | 425.00 |
| 5SO      | Trucking - Solo              | 1.00     | 2.50     | HR   | 98.00     | 100.00   | 98.00     | 245.00 |
| 8MI3     | Misc - SUP EQ(2-PK/MISC)     | 1.00     | 2.50     | HR   | 30.00     | 100.00   | 30.00     | 75.00  |
| 8MITA    | Misc - Tack Trailer          | 1.00     | 2.50     | HR   | 30.00     | 100.00   | 30.00     | 75.00  |
| 8ROS     | Roller - Small Paving        | 1.00     | 2.50     | HR   | 30.00     | 100.00   | 30.00     | 75.00  |
| FORE     | Foreman                      | 1.00     | 2.50     | MH   | 45.00     | 116.67   | 75.91     | 189.77 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 5.00     | MH   | 30.82     | 116.67   | 56.74     | 283.68 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 2.50     | MH   | 37.77     | 116.67   | 66.27     | 165.67 |

## Biditem

## BPS Excavate/Set Electrical Vaults

# 6130

Takeoff Qty: 3.000 EA

Bid Qty: 3.000 EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 650.35     | 327.93 | 978.28      | 462.00    | 0.00       | 0.00        | 0.00 | 0.00       | 1,176.00 | 0.00     | 2,616.28 |
| Total   | 1,951.05   | 983.79 | 2,934.84    | 1,386.00  | 0.00       | 0.00        | 0.00 | 0.00       | 3,528.00 | 0.00     | 7,848.84 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 45.0000  | 0.0667  | 15.0000 | 174.4187 | 43.3567       | 65.2187        | 0.3333  |

Activity: 16000169.2 Excavate & Set Electrical Vaults (Unreviewed) Quantity: 3 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 650.35     | 327.93 | 978.28      | 462.00    | 0.00       | 0.00        | 0.00 | 0.00       | 1,176.00 | 0.00     | 2,616.28 |
| Total   | 1,951.05   | 983.79 | 2,934.84    | 1,386.00  | 0.00       | 0.00        | 0.00 | 0.00       | 3,528.00 | 0.00     | 7,848.84 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,440.2800   | 3.0000        | 0.3333        | 480.0933     | 0.9000 | 3.3333      | 0.3000      | 8,720.9333 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 45.0000  | 0.0667  | 15.0000 | 65.2187        | 650.3500        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: CH 9 Eff: 100.00 Crew Hrs: 9.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

| Resource | Description     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-----------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo | 1.00     | 36.00    | HR   | 98.00     | 100.00   | 98.00     | 3,528.00 |
| 8BA580   | 580 BACKHOE     | 1.00     | 9.00     | HR   | 30.00     | 100.00   | 30.00     | 270.00   |
| 8EX130   | Excavator - 130 | 1.00     | 9.00     | HR   | 52.00     | 100.00   | 52.00     | 468.00   |

|        |                              |      |       |    |       |        |       |          |
|--------|------------------------------|------|-------|----|-------|--------|-------|----------|
| 8LO544 | Loader - 544                 | 1.00 | 9.00  | HR | 50.00 | 100.00 | 50.00 | 450.00   |
| 8MIHP  | Misc - Backhoe Hoepac        | 1.00 | 9.00  | HR | 10.00 | 100.00 | 10.00 | 90.00    |
| 8TRUT1 | Truck - 1 Ton                | 1.00 | 9.00  | HR | 12.00 | 100.00 | 12.00 | 108.00   |
| FORE   | Foreman                      | 1.00 | 9.00  | MH | 45.00 | 116.67 | 75.72 | 681.44   |
| L1     | Labor -Group 1 Genl/Carp Tnd | 1.00 | 9.00  | MH | 30.82 | 116.67 | 56.60 | 509.44   |
| L4     | Labor -Group 2 Pipe Layer/GC | 1.00 | 9.00  | MH | 31.97 | 116.67 | 58.17 | 523.55   |
| OP4    | Operator-Doz, Exc, Bld, Ldr  | 2.00 | 18.00 | MH | 39.01 | 116.67 | 67.80 | 1,220.41 |

## Biditem

## BPS Excavate/Set Light Pole Bases

6140

Takeoff Qty: 9.000 EA

Bid Qty: 9.000 EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 135.31     | 66.38  | 201.69      | 64.00     | 0.00       | 0.00        | 0.00 | 0.00       | 98.00    | 0.00     | 363.69   |
| Total   | 1,217.82   | 597.38 | 1,815.20    | 576.00    | 0.00       | 0.00        | 0.00 | 0.00       | 882.00   | 0.00     | 3,273.20 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 27.0000  | 0.3333  | 3.0000  | 121.2296 | 45.1044       | 67.2296        | 1.0000  |

Activity: 160001690.3 Excavate & Set Light Pole Bases (Unreviewed) Quantity: 9 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 135.31     | 66.38  | 201.69      | 64.00     | 0.00       | 0.00        | 0.00 | 0.00       | 98.00    | 0.00     | 363.69   |
| Total   | 1,217.82   | 597.38 | 1,815.20    | 576.00    | 0.00       | 0.00        | 0.00 | 0.00       | 882.00   | 0.00     | 3,273.20 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 265.6889     | 1.0000        | 1.0000        | 265.6889     | 0.9000 | 10.0000     | 0.1000      | 3,636.8889 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 27.0000  | 0.3333  | 3.0000  | 67.2296        | 135.3133        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: ST130 Misc 130 Crew Prod: HU 1 Eff: 100.00 Crew Hrs: 9.00 Labor Pcs: 3.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 9.00     | HR   | 98.00     | 100.00   | 98.00     | 882.00 |
| 8EX130   | Excavator - 130              | 1.00     | 9.00     | HR   | 52.00     | 100.00   | 52.00     | 468.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 9.00     | HR   | 12.00     | 100.00   | 12.00     | 108.00 |
| FORE     | Foreman                      | 1.00     | 9.00     | MH   | 45.00     | 116.67   | 75.72     | 681.44 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 9.00     | MH   | 31.97     | 116.67   | 58.17     | 523.55 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 9.00     | MH   | 39.01     | 116.67   | 67.80     | 610.21 |

## Biditem

## BPS Standby Generators 24 HR Internal Fuel Tanks

6150

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 5,628.75   | 3,837.72 | 9,466.47    | 2,835.00  | 482,607.00 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 494,908.47 |
| Total   | 5,628.75   | 3,837.72 | 9,466.47    | 2,835.00  | 482,607.00 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 494,908.47 |

| Manhours | Unit/MH | MH/Unit  | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|------------|---------------|----------------|---------|
| 127.5000 | 0.0078  | 127.5000 | 3,881.6351 | 44.1471       | 74.2468        | 0.0333  |

Activity: 160001630 Furnish & Install Generator (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 5,628.75   | 3,837.72 | 9,466.47    | 2,835.00  | 482,607.00 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 494,908.47 |
| Total   | 5,628.75   | 3,837.72 | 9,466.47    | 2,835.00  | 482,607.00 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 494,908.47 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
| 12,301.4700  | 30.0000       | 0.0333        | 410.0490     | 3.3333 | 0.3000      | 3.3333      | 148,472.5411 |

| Manhours | Unit/MH | MH/Unit  | Total Labor/MH | Base Labor/Unit |
|----------|---------|----------|----------------|-----------------|
| 127.5000 | 0.0078  | 127.5000 | 74.2468        | 5,628.7500      |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: TKMECH Tank Mechanical Crew Prod: CH 30 Eff: 100.00 Crew Hrs: 30.00 Labor Pcs: 4.25 Equipment Pcs: 2.75

| Resource     | Description                       | Pcs/Wste | Quantity | Unit | Unit Cost  | Tax/OT % | Actual UC  | Total      |
|--------------|-----------------------------------|----------|----------|------|------------|----------|------------|------------|
| 2DIESEL      | Diesel Fuel                       | 1.00     | 3,500.00 | GAL  | 3.50       | 100.00   | 3.50       | 12,250.00  |
| 2GENTRANS    | Generator Transfer Switches       | 1.00     | 2.00     | EA   | 25,000.00  | 100.00   | 25,000.00  | 50,000.00  |
| 2MISGENCONN  | Misc. Generator Connection Pieces | 1.00     | 1.00     | LS   | 2,500.00   | 100.00   | 2,500.00   | 2,500.00   |
| 2SBGENERATOR | Standby Generator                 | 1.00     | 2.00     | EA   | 208,928.50 | 100.00   | 208,928.50 | 417,857.00 |
| 8EX600       | Excavator - 600                   | 0.25     | 7.50     | HR   | 230.00     | 100.00   | 230.00     | 1,725.00   |
| 8FOS         | Forklift - Small                  | 0.50     | 15.00    | HR   | 20.00      | 100.00   | 20.00      | 300.00     |
| 8MI2         | Misc - Daily Cost                 | 1.00     | 30.00    | HR   | 15.00      | 100.00   | 15.00      | 450.00     |
| 8TRUT1       | Truck - 1 Ton                     | 1.00     | 30.00    | HR   | 12.00      | 100.00   | 12.00      | 360.00     |
| FORE         | Foreman                           | 1.00     | 30.00    | MH   | 45.00      | 105.56   | 70.04      | 2,101.26   |
| L1           | Labor -Group 1 Genl/Carp Tnd      | 1.00     | 30.00    | MH   | 30.82      | 105.56   | 52.72      | 1,581.55   |
| OP3          | Operator-Hvy Dozer/Excavator      | 0.25     | 7.50     | MH   | 40.09      | 105.56   | 64.22      | 481.63     |
| PLUMBER      | Plumber/Pipefitter                | 2.00     | 60.00    | MH   | 45.95      | 105.56   | 88.37      | 5,302.03   |

**Biditem****BPS Controls****6160**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|                     |                           |              |             |          |
|---------------------|---------------------------|--------------|-------------|----------|
| Activity: 160001620 | Building/Plant Electrical | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|---------------------------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description  | Pcs/Wste | Quantity | Unit | Unit Cost  | Tax/OT % | Actual UC  | Total      |
|----------|--------------|----------|----------|------|------------|----------|------------|------------|
| 2I&C     | I&C Supplier | 1.00     | 1.00     | LS   | 437,902.50 | 100.00   | 437,902.50 | 437,902.50 |

**Biditem****BPS Painting & Coating****6170**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|                     |                      |              |             |          |
|---------------------|----------------------|--------------|-------------|----------|
| Activity: 090000099 | Paintings & Coatings | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|----------------------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|--------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4PAIN    | Painting Sub | 1.00     | 1.00     | LS   | 58,940.00 | 100.00   | 58,940.00 | 58,940.00 |

**Biditem****BPS Vertical Turbine Pumps/Cans****6180**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|------------|
| U. Cost | 15,312.00  | 9,940.14 | 25,252.14   | 3,212.00  | 651,800.04 | 0.00        | 36,800.00 | 0.00       | 0.00     | 0.00     | 717,064.18 |
| Total   | 15,312.00  | 9,940.14 | 25,252.14   | 3,212.00  | 651,800.04 | 0.00        | 36,800.00 | 0.00       | 0.00     | 0.00     | 717,064.18 |

| Manhours | Unit/MH | MH/Unit  | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|------------|---------------|----------------|---------|
| 328.0000 | 0.0030  | 328.0000 | 2,186.1713 | 46.6829       | 76.9882        | 0.0081  |

|               |                                             |              |             |          |
|---------------|---------------------------------------------|--------------|-------------|----------|
| Activity: 100 | Procure Mounting & Unload Pump Can Material | (Unreviewed) | Quantity: 7 | Unit: EA |
|---------------|---------------------------------------------|--------------|-------------|----------|

|  | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |        |       |        |        |          |      |      |      |      |      |          |
|---------|--------|-------|--------|--------|----------|------|------|------|------|------|----------|
| U. Cost | 21.06  | 11.97 | 33.03  | 14.29  | 400.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 447.31   |
| Total   | 147.43 | 83.76 | 231.19 | 100.00 | 2,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3,131.19 |

|              |               |               |              |        |             |             |             |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
| 47.3129      | 0.2857        | 3.5000        | 165.5950     | 0.2222 | 31.5000     | 0.0317      | 14,090.3551 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 4.0000   | 1.7500  | 0.5714  | 57.7975        | 21.0614         |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 2 Eff: 100.00 Crew Hrs: 2.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

Notes: Cans are included in the supplier Budget with the pumps

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2PCMHardware | Pump Can Mounting Hardware   | 1.00     | 28.00    | EA   | 100.00    | 100.00   | 100.00    | 2,800.00 |
| 8LO544       | Loader - 544                 | 1.00     | 2.00     | HR   | 50.00     | 100.00   | 50.00     | 100.00   |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 2.00     | MH   | 30.82     | 105.56   | 52.72     | 105.44   |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 2.00     | MH   | 39.01     | 105.56   | 62.88     | 125.75   |

Activity: 200 Set & Align Pump Cans (Unreviewed) Quantity: 7 Unit: EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 708.18     | 489.80   | 1,197.98    | 188.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,385.98 |
| Total   | 4,957.27   | 3,428.57 | 8,385.84    | 1,316.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 9,701.84 |

|              |               |               |              |        |             |             |            |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
| 1,385.9771   | 4.0000        | 0.2500        | 346.4943     | 3.1111 | 2.2500      | 0.4444      | 3,118.4486 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 112.0000 | 0.0625  | 16.0000 | 74.8736        | 708.1814        |

Calendar: 509 45 Hour Week - (5@9) Hrs/Shift: 9 WC: OR6306 SEWER CONSTRUCTION

Crew: TKMECH Tank Mechanical Crew Prod: HU 4 Eff: 100.00 Crew Hrs: 28.00 Labor Pcs: 4.00 Equipment Pcs: 3.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8FOS     | Forklift - Small             | 1.00     | 28.00    | HR   | 20.00     | 100.00   | 20.00     | 560.00   |
| 8MI2     | Misc - Daily Cost            | 1.00     | 28.00    | HR   | 15.00     | 100.00   | 15.00     | 420.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 28.00    | HR   | 12.00     | 100.00   | 12.00     | 336.00   |
| FORE     | Foreman                      | 1.00     | 28.00    | MH   | 45.00     | 105.56   | 70.04     | 1,961.17 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 28.00    | MH   | 30.82     | 105.56   | 52.72     | 1,476.11 |
| PLUMBER  | Plumber/Pipefitter           | 2.00     | 56.00    | MH   | 45.95     | 105.56   | 88.37     | 4,948.56 |

Activity: 400 Procure/ Unload VTP (Unreviewed) Quantity: 7 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 116.39     | 61.33  | 177.72      | 71.43     | 92,714.29  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 92,963.44  |
| Total   | 814.71     | 429.34 | 1,244.05    | 500.00    | 649,000.04 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 650,744.09 |

|              |               |               |              |        |             |             |              |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
| 249.1500     | 1.4286        | 0.7000        | 174.4050     | 1.0000 | 7.0000      | 0.1429      | 650,744.0900 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 20.0000  | 0.3500  | 2.8571  | 62.2025        | 116.3871        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 10 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|--------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2VTP#1   | Vertical Turbine Pump #1 | 1.00     | 1.00     | LS   | 67,833.34 | 100.00   | 67,833.34 | 67,833.34 |
| 2VTP#2   | Vertical Turbine Pump #2 | 1.00     | 1.00     | LS   | 67,833.34 | 100.00   | 67,833.34 | 67,833.34 |
| 2VTP#3   | Vertical Turbine Pump #3 | 1.00     | 1.00     | LS   | 67,833.34 | 100.00   | 67,833.34 | 67,833.34 |
| 2VTP#4   | Vertical Turbine Pump #4 | 1.00     | 1.00     | LS   | 67,833.34 | 100.00   | 67,833.34 | 67,833.34 |
| 2VTP#5   | Vertical Turbine Pump #5 | 1.00     | 1.00     | LS   | 67,833.34 | 100.00   | 67,833.34 | 67,833.34 |



|             |                                 |      |       |     |            |        |            |            |
|-------------|---------------------------------|------|-------|-----|------------|--------|------------|------------|
| 2VTP#6      | Vertical Turbine Pump #6        | 1.00 | 1.00  | LS  | 67,833.34  | 100.00 | 67,833.34  | 67,833.34  |
| 2VTPDW      | Vertical Turbine Pump Deep Well | 1.00 | 1.00  | EA  | 242,000.00 | 100.00 | 242,000.00 | 242,000.00 |
| 2VTPFREIGHT | Vertical Turbine Pump Freight   | 1.00 | 1.00  | LS  | 0.00       | 100.00 | 0.00       | 0.00       |
| 2VTPSTARTUP | Vertical Turbine Pump Start-Up  | 1.00 | 5.00  | DAY | 0.00       | 100.00 | 0.00       | 0.00       |
| 8LO544      | Loader - 544                    | 1.00 | 10.00 | HR  | 50.00      | 100.00 | 50.00      | 500.00     |
| L1          | Labor -Group 1 Genl/Carp Tnd    | 1.00 | 10.00 | MH  | 30.82      | 116.67 | 56.61      | 566.05     |
| OP4         | Operator-Doz, Exc, Bld, Ldr     | 1.00 | 10.00 | MH  | 39.01      | 116.67 | 67.80      | 678.00     |

Activity: 500 Set Vertical Turbine Pumps (Unreviewed) Quantity: 6 Unit: EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 1,565.43   | 999.75   | 2,565.18    | 216.00    | 0.00       | 0.00        | 2,800.00  | 0.00       | 0.00     | 0.00     | 5,581.18  |
| Total   | 9,392.59   | 5,998.47 | 15,391.06   | 1,296.00  | 0.00       | 0.00        | 16,800.00 | 0.00       | 0.00     | 0.00     | 33,487.06 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 2,781.1767   | 8.0000        | 0.1250        | 347.6471     | 4.8000 | 1.2500      | 0.8000      | 6,976.4708 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 192.0000 | 0.0313  | 32.0000 | 80.1618        | 1,565.4317      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: TKMECH Tank Mechanical Crew Prod: HU 8 Eff: 100.00 Crew Hrs: 48.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4CRANE   | Crane Rental                 | 1.00     | 48.00    | HR   | 350.00    | 100.00   | 350.00    | 16,800.00 |
| 8MI2     | Misc - Daily Cost            | 1.00     | 48.00    | HR   | 15.00     | 100.00   | 15.00     | 720.00    |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 48.00    | HR   | 12.00     | 100.00   | 12.00     | 576.00    |
| FORE     | Foreman                      | 1.00     | 48.00    | MH   | 45.00     | 116.67   | 75.72     | 3,634.42  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 48.00    | MH   | 30.82     | 116.67   | 56.61     | 2,717.05  |
| PLUMBER  | Plumber/Pipefitter           | 2.00     | 96.00    | MH   | 45.95     | 116.67   | 94.16     | 9,039.59  |

Activity: 600 Set Deep Well VTP (Unreviewed) Quantity: 1 Unit: EA

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4VTPSUB  | Vertical Turbine Pump Installer | 1.00     | 1.00     | LS   | 20,000.00 | 100.00   | 20,000.00 | 20,000.00 |

## Biditem BPS Large Diameter Piping & Valves

# 6190

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|-----------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 40,765.21  | 25,852.30 | 66,617.51   | 10,400.00 | 264,439.44 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 341,456.95 |
| Total   | 40,765.21  | 25,852.30 | 66,617.51   | 10,400.00 | 264,439.44 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 341,456.95 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 840.0000 | 0.0012  | 840.0000 | 406.4964 | 48.5300       | 79.3066        | 0.0045  |

Activity: 011400054 Procure & String PS Well & Chlorine Room Mech Piping (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 814.71     | 429.34 | 1,244.05    | 500.00    | 83,183.59  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 84,927.64 |
| Total   | 814.71     | 429.34 | 1,244.05    | 500.00    | 83,183.59  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 84,927.64 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 1,744.0500   | 10.0000       | 0.1000        | 174.4050     | 1.0000 | 1.0000      | 1.0000      | 84,927.6400 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 20.0000  | 0.0500  | 20.0000 | 62.2025        | 814.7100        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Crew:        | STST                                      | Pipe String Crew | Prod: CH | 10   | Eff: 100.00 | Crew Hrs: 10.00 | Labor Pcs: 2.00 | Equipment Pcs: 1.00 |
|--------------|-------------------------------------------|------------------|----------|------|-------------|-----------------|-----------------|---------------------|
| Resource     | Description                               | Pcs/Wste         | Quantity | Unit | Unit Cost   | Tax/OT %        | Actual UC       | Total               |
| 2PI12ADJPS   | 12 IN ADJ Pipe Support                    | 1.00             | 1.00     | EA   | 141.62      | 100.00          | 141.62          | 141.62              |
| 2PI12FBFVWHW | 12 IN FLG BFV W/HW                        | 1.00             | 1.00     | EA   | 2,317.07    | 100.00          | 2,317.07        | 2,317.07            |
| 2PI12FGSKT   | 12 IN FLG GSKT                            | 1.00             | 9.00     | EA   | 55.62       | 100.00          | 55.62           | 500.58              |
| 2PI12FLG90   | 12 IN FLG 90 BIT                          | 1.00             | 1.00     | EA   | 1,167.72    | 100.00          | 1,167.72        | 1,167.72            |
| 2PI12FPCVLV  | 12 IN FLG Pump Control Valve              | 1.00             | 1.00     | EA   | 32,372.94   | 100.00          | 32,372.94       | 32,372.94           |
| 2PI12MEGA    | 12 IN Megaflange ADPT                     | 1.00             | 3.00     | EA   | 304.29      | 100.00          | 304.29          | 912.87              |
| 2PI12NBK     | 12 IN NBK                                 | 1.00             | 9.00     | EA   | 29.25       | 100.00          | 29.25           | 263.25              |
| 2PI12X12FXPE | 12 x 12 FLG x PE Spool                    | 1.00             | 1.00     | EA   | 1,282.50    | 100.00          | 1,282.50        | 1,282.50            |
| 2PI12X2FXFSP | 12 x 2 FLG x FLG Spool                    | 1.00             | 1.00     | EA   | 750.58      | 100.00          | 750.58          | 750.58              |
| 2PI12X2FXPES | 12 x 2 Flg x PE Spool                     | 1.00             | 1.00     | EA   | 372.50      | 100.00          | 372.50          | 372.50              |
| 2PI12X6FXPE  | 12 x 6 FLG x PE Spool                     | 1.00             | 1.00     | EA   | 736.50      | 100.00          | 736.50          | 736.50              |
| 2PI12X8FXPE  | 12 x 8 FLG x PE Spool                     | 1.00             | 1.00     | EA   | 918.50      | 100.00          | 918.50          | 918.50              |
| 2PI16ADJPS   | 16 IN ADJ Pipe Support                    | 1.00             | 2.00     | EA   | 273.00      | 100.00          | 273.00          | 546.00              |
| 2PI16FBFVWHW | 16 IN FLG BFV W/HW                        | 1.00             | 1.00     | EA   | 3,902.44    | 100.00          | 3,902.44        | 3,902.44            |
| 2PI16FGSKT   | 16 IN FLG GSKT                            | 1.00             | 9.00     | EA   | 94.75       | 100.00          | 94.75           | 852.75              |
| 2PI16FLGTEE  | 16 IN FLG Tee                             | 1.00             | 1.00     | EA   | 4,659.61    | 100.00          | 4,659.61        | 4,659.61            |
| 2PI16FMET    | 16 IN Flow Meter                          | 1.00             | 1.00     | EA   | 6,495.00    | 100.00          | 6,495.00        | 6,495.00            |
| 2PI16KSCHVLV | 16 IN Silent Check Valve                  | 1.00             | 1.00     | EA   | 7,058.82    | 100.00          | 7,058.82        | 7,058.82            |
| 2PI16MEGA    | 16 IN Megalflange ADPT                    | 1.00             | 1.00     | EA   | 760.78      | 100.00          | 760.78          | 760.78              |
| 2PI16NBK     | 16 IN Nut Bolt Kit                        | 1.00             | 9.00     | EA   | 113.33      | 100.00          | 113.33          | 1,019.97            |
| 2PI16X12FCRE | 16 x 12 FLG Concentric Reducer            | 1.00             | 1.00     | EA   | 1,424.00    | 100.00          | 1,424.00        | 1,424.00            |
| 2PI16X12FTEE | 16 x 12 FLG Tee                           | 1.00             | 1.00     | EA   | 4,375.94    | 100.00          | 4,375.94        | 4,375.94            |
| 2PI16X3FXFSP | 16 x 3 FLG x FLG Spool                    | 1.00             | 1.00     | EA   | 1,066.25    | 100.00          | 1,066.25        | 1,066.25            |
| 2PI16X7FXPE  | 16 x 7 FLG x PE Spool                     | 1.00             | 1.00     | EA   | 1,255.00    | 100.00          | 1,255.00        | 1,255.00            |
| 2PI18X8FCRED | 18 x 8 FLG CONC RED                       | 1.00             | 1.00     | EA   | 1,830.96    | 100.00          | 1,830.96        | 1,830.96            |
| 2PI2WVWSC    | 2 IN Well Vent W/Screen                   | 1.00             | 1.00     | LS   | 1,352.04    | 100.00          | 1,352.04        | 1,352.04            |
| 2PI2X36GRCP  | 2 x 36 GALV Ready Cut Pipe                | 1.00             | 3.00     | EA   | 33.97       | 100.00          | 33.97           | 101.91              |
| 2PI3X36GRCP  | 3 x 36 GALV Ready Cut Pipe                | 1.00             | 2.00     | EA   | 51.64       | 100.00          | 51.64           | 103.28              |
| 2PIW&CRARV   | Well & Chlorine Room ARV's                | 1.00             | 1.00     | LS   | 3,503.70    | 100.00          | 3,503.70        | 3,503.70            |
| 2PIW&CRGASS  | Well & Chlorine Room Gauge Assembly       | 1.00             | 1.00     | EA   | 606.47      | 100.00          | 606.47          | 606.47              |
| 2PIW&CRPGTA  | Well & Chlorine RM Pressure Gauge & Trans | 1.00             | 1.00     | LS   | 532.04      | 100.00          | 532.04          | 532.04              |
| 8LO544       | Loader - 544                              | 1.00             | 10.00    | HR   | 50.00       | 100.00          | 50.00           | 500.00              |
| L1           | Labor -Group 1 Genl/Carp Tnd              | 1.00             | 10.00    | MH   | 30.82       | 116.67          | 56.61           | 566.05              |
| OP4          | Operator-Doz, Exc, Bld, Ldr               | 1.00             | 10.00    | MH   | 39.01       | 116.67          | 67.80           | 678.00              |

Activity: 011400054.1 Procure & String BPS Pump & Header Piping (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 814.71     | 429.34 | 1,244.05    | 500.00    | 181,255.85 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 182,999.90 |
| Total   | 814.71     | 429.34 | 1,244.05    | 500.00    | 181,255.85 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 182,999.90 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
| 1,744.0500   | 10.0000       | 0.1000        | 174.4050     | 1.0000 | 1.0000      | 1.0000      | 182,999.9000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 20.0000  | 0.0500  | 20.0000 | 62.2025        | 814.7100        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 10 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource   | Description            | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|------------|------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2PI18ADJPS | 18 IN ADJ Pipe Support | 1.00     | 5.00     | EA   | 325.00    | 100.00   | 325.00    | 1,625.00 |
| 2PI18BLIND | 18 IN Blind Flange     | 1.00     | 1.00     | EA   | 835.69    | 100.00   | 835.69    | 835.69   |
| 2PI18DMJ   | 18 IN DMJ              | 1.00     | 2.00     | EA   | 2,466.07  | 100.00   | 2,466.07  | 4,932.14 |

|              |                                     |      |       |    |           |        |           |           |
|--------------|-------------------------------------|------|-------|----|-----------|--------|-----------|-----------|
| 2PI18FBVWHW  | 18 IN FLG BFV W/HW                  | 1.00 | 2.00  | EA | 4,878.05  | 100.00 | 4,878.05  | 9,756.10  |
| 2PI18FGSKT   | 18 IN FLG GSKT                      | 1.00 | 22.00 | EA | 113.62    | 100.00 | 113.62    | 2,499.64  |
| 2PI18FLGTEE  | 18 IN FLG Tee                       | 1.00 | 1.00  | EA | 5,969.98  | 100.00 | 5,969.98  | 5,969.98  |
| 2PI18FLMET   | 18 IN Flow Meter                    | 1.00 | 1.00  | EA | 7,659.00  | 100.00 | 7,659.00  | 7,659.00  |
| 2PI18MEGA    | 18 IN Megaflange                    | 1.00 | 2.00  | EA | 852.08    | 100.00 | 852.08    | 1,704.16  |
| 2PI18NBK     | 18 IN NBK                           | 1.00 | 22.00 | EA | 131.67    | 100.00 | 131.67    | 2,896.74  |
| 2PI18X10FTEE | 18 x 10 FLG Tee                     | 1.00 | 2.00  | EA | 4,038.28  | 100.00 | 4,038.28  | 8,076.56  |
| 2PI18X12FTEE | 18 x 12 FLG Tee                     | 1.00 | 1.00  | EA | 4,404.14  | 100.00 | 4,404.14  | 4,404.14  |
| 2PI18X16FTEE | 18 x 16 FLG Tee                     | 1.00 | 2.00  | EA | 5,977.24  | 100.00 | 5,977.24  | 11,954.48 |
| 2PI18X1FXF   | 18 x 1 FLG x FLG Spool              | 1.00 | 1.00  | EA | 1,200.00  | 100.00 | 1,200.00  | 1,200.00  |
| 2PI18X3.5FXF | 18 x 3.5 FLG x FLG Spool            | 1.00 | 3.00  | EA | 1,326.00  | 100.00 | 1,326.00  | 3,978.00  |
| 2PI18X4FXF   | 18 x 4 FLG x FLG Spool              | 1.00 | 1.00  | EA | 1,401.00  | 100.00 | 1,401.00  | 1,401.00  |
| 2PI18X4FXPE  | 18 x 4 FLG x PE Spool               | 1.00 | 1.00  | EA | 1,007.00  | 100.00 | 1,007.00  | 1,007.00  |
| 2PI18X6FTEE  | 18 x 6 FLG Tee                      | 1.00 | 1.00  | EA | 5,384.91  | 100.00 | 5,384.91  | 5,384.91  |
| 2PI18X7.5FXF | 18 x 7.5 FLG x FLG Spool            | 1.00 | 1.00  | EA | 1,926.00  | 100.00 | 1,926.00  | 1,926.00  |
| 2PI18X8FCRED | 18 x 8 FLG CONC RED                 | 1.00 | 1.00  | EA | 1,830.96  | 100.00 | 1,830.96  | 1,830.96  |
| 2PI18X8FTEE  | 18 x 8 FLG Tee                      | 1.00 | 1.00  | EA | 4,205.09  | 100.00 | 4,205.09  | 4,205.09  |
| 2PI24MEGA    | 24 IN Megaflange Adpt               | 1.00 | 1.00  | EA | 1,146.68  | 100.00 | 1,146.68  | 1,146.68  |
| 2PI4X36GRCP  | 4 x 36 GALV Ready Cut Pipe          | 1.00 | 5.00  | EA | 74.84     | 100.00 | 74.84     | 374.20    |
| 2PI6FLG90    | 6 IN FLG 90 Bend                    | 1.00 | 1.00  | EA | 236.93    | 100.00 | 236.93    | 236.93    |
| 2PI8ADJPS    | 8 IN ADJ Pipe Support               | 1.00 | 2.00  | EA | 144.60    | 100.00 | 144.60    | 289.20    |
| 2PI8FBVWHW   | 8 IN FLG BFV W/HW                   | 1.00 | 2.00  | EA | 1,463.41  | 100.00 | 1,463.41  | 2,926.82  |
| 2PI8FLG90    | 8 IN FLG 90 Bend                    | 1.00 | 3.00  | EA | 459.58    | 100.00 | 459.58    | 1,378.74  |
| 2PI8FLGGSKT  | 8 IN FLG GSKT                       | 1.00 | 16.00 | EA | 25.57     | 100.00 | 25.57     | 409.12    |
| 2PI8FLGTEE   | 8 IN FLG Tee                        | 1.00 | 2.00  | EA | 834.09    | 100.00 | 834.09    | 1,668.18  |
| 2PI8NBK      | 8 IN NBK                            | 1.00 | 16.00 | EA | 13.42     | 100.00 | 13.42     | 214.72    |
| 2PI8X11FXPE  | 8 x 11 FLG x PE Spool               | 1.00 | 1.00  | EA | 725.50    | 100.00 | 725.50    | 725.50    |
| 2PI8X2.3FXF  | 8 x 2.3 FLG x FLG Spool             | 1.00 | 1.00  | EA | 249.50    | 100.00 | 249.50    | 249.50    |
| 2PI8X2FXPE   | 8 x 2 FLG x PE Spool                | 1.00 | 1.00  | EA | 900.00    | 100.00 | 900.00    | 900.00    |
| 2PI8X2TBLIND | 8 x 2 Tapped Blind Flange           | 1.00 | 1.00  | EA | 176.49    | 100.00 | 176.49    | 176.49    |
| 2PI8X5.9FXF  | 8 x 5.9 FLG x FLG Spool             | 1.00 | 2.00  | EA | 565.00    | 100.00 | 565.00    | 1,130.00  |
| 2PI8X6FTEE   | 8 x 6 FLG Tee                       | 1.00 | 1.00  | EA | 838.12    | 100.00 | 838.12    | 838.12    |
| 2PI8X6FXPE   | 8 x 6 FLG x PE Spool                | 1.00 | 1.00  | EA | 445.50    | 100.00 | 445.50    | 445.50    |
| 2PIP&H2ARV   | Pump & Header Room ARV Assemblby    | 1.00 | 1.00  | LS | 1,511.94  | 100.00 | 1,511.94  | 1,511.94  |
| 2PIP&HGASS   | Pump & Header Gauge Assembly        | 1.00 | 1.00  | LS | 423.92    | 100.00 | 423.92    | 423.92    |
| 2PIP1ASSEMB  | Pump #1 Pipe Assembly Complete      | 1.00 | 1.00  | LS | 4,396.83  | 100.00 | 4,396.83  | 4,396.83  |
| 2PIP2ASSEMB  | Pump #2 Pipe Assembly Complete      | 1.00 | 1.00  | LS | 5,213.81  | 100.00 | 5,213.81  | 5,213.81  |
| 2PIP3ASSEMB  | Pump #3 Pipe Assembly Complete      | 1.00 | 1.00  | LS | 8,487.05  | 100.00 | 8,487.05  | 8,487.05  |
| 2PIP4ASSEMB  | Pump #4 Pipe Assembly Complete      | 1.00 | 1.00  | LS | 11,573.22 | 100.00 | 11,573.22 | 11,573.22 |
| 2PIP5ASSEMB  | Pump #5 Assembly Complete           | 1.00 | 1.00  | LS | 19,977.16 | 100.00 | 19,977.16 | 19,977.16 |
| 2PIP6ASSEMB  | Pump #6 Pipe Assembly Complete      | 1.00 | 1.00  | LS | 19,977.16 | 100.00 | 19,977.16 | 19,977.16 |
| 2PIPRASSEM   | Pressure Release Assemblby Complete | 1.00 | 1.00  | LS | 13,338.47 | 100.00 | 13,338.47 | 13,338.47 |
| 8LO544       | Loader - 544                        | 1.00 | 10.00 | HR | 50.00     | 100.00 | 50.00     | 500.00    |
| L1           | Labor -Group 1 Genl/Carp Tnd        | 1.00 | 10.00 | MH | 30.82     | 116.67 | 56.61     | 566.05    |
| OP4          | Operator-Doz, Exc, Bld, Ldr         | 1.00 | 10.00 | MH | 39.01     | 116.67 | 67.80     | 678.00    |

Activity: 030000132 BPS Mechanical Piping Install (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|-----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 39,135.79  | 24,993.62 | 64,129.41   | 9,400.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 73,529.41 |
| Total   | 39,135.79  | 24,993.62 | 64,129.41   | 9,400.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 73,529.41 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour   | Shifts          | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|----------------|-----------------|-------------|-------------|------------|
| 73,529.4100  | 200.0000      | 0.0050        | 367.6471       | 20.0000         | 0.0500      | 20.0000     | 3,676.4705 |
| Manhours     | Unit/MH       | MH/Unit       | Total Labor/MH | Base Labor/Unit |             |             |            |
| 800.0000     | 0.0013        | 800.0000      | 80.1618        | 39,135.7900     |             |             |            |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: TKMECH Tank Mechanical Crew Prod: CH 200 Eff: 100.00 Crew Hrs: 200.00 Labor Pcs: 4.00 Equipment Pcs: 3.00

**Notes:** This item is for installation of all of the BPS Mechanical Piping (Does not include the installation of the pumps and cans)

Figure 4 weeks with the mechanical crew for all of the header pipes, pump legs, floor penetrations and pipe supports.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 8FOS     | Forklift - Small             | 1.00     | 200.00   | HR   | 20.00     | 100.00   | 20.00     | 4,000.00  |
| 8MI2     | Misc - Daily Cost            | 1.00     | 200.00   | HR   | 15.00     | 100.00   | 15.00     | 3,000.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 200.00   | HR   | 12.00     | 100.00   | 12.00     | 2,400.00  |
| FORE     | Foreman                      | 1.00     | 200.00   | MH   | 45.00     | 116.67   | 75.72     | 15,143.44 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 200.00   | MH   | 30.82     | 116.67   | 56.61     | 11,321.02 |
| PLUMBER  | Plumber/Pipefitter           | 2.00     | 400.00   | MH   | 45.95     | 116.67   | 94.16     | 37,664.95 |

**Biditem****BPS Plumbing (Domestic Water/Drains)****6200**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|                     |                               |              |             |          |
|---------------------|-------------------------------|--------------|-------------|----------|
| Activity: 150001540 | Plumbing Fixtures & Equipment | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|-------------------------------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|--------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4PLUM    | Plumbing Sub | 1.00     | 1.00     | LS   | 33,590.00 | 100.00   | 33,590.00 | 33,590.00 |

**Biditem****BPS Chlorine System****6210**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 4,696.29   | 2,999.25 | 7,695.54    | 648.00    | 61,337.25  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 69,680.79 |
| Total   | 4,696.29   | 2,999.25 | 7,695.54    | 648.00    | 61,337.25  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 69,680.79 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 96.0000  | 0.0104  | 96.0000 | 725.8416 | 48.9197       | 80.1619        | 0.0417  |

|               |                                   |              |             |          |
|---------------|-----------------------------------|--------------|-------------|----------|
| Activity: 100 | Procure & Install Chlorine System | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------|-----------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 4,696.29   | 2,999.25 | 7,695.54    | 648.00    | 61,337.25  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 69,680.79 |
| Total   | 4,696.29   | 2,999.25 | 7,695.54    | 648.00    | 61,337.25  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 69,680.79 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 8,343.5400   | 24.0000       | 0.0417        | 347.6475     | 2.4000 | 0.4167      | 2.4000      | 29,033.6625 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 96.0000  | 0.0104  | 96.0000 | 80.1619        | 4,696.2900      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: TKMECH Tank Mechanical Crew Prod: CH 24 Eff: 100.00 Crew Hrs: 24.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

| Resource  | Description            | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|-----------|------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2CHLSYS   | Chlorine System        | 1.00     | 1.00     | LS   | 49,767.00 | 100.00   | 49,767.00 | 49,767.00 |
| 2PICHPIPE | Chlorine System Piping | 1.00     | 1.00     | LS   | 11,570.25 | 100.00   | 11,570.25 | 11,570.25 |
| 8MI2      | Misc - Daily Cost      | 1.00     | 24.00    | HR   | 15.00     | 100.00   | 15.00     | 360.00    |

|         |                              |      |       |    |       |        |       |          |
|---------|------------------------------|------|-------|----|-------|--------|-------|----------|
| 8TRUT1  | Truck - 1 Ton                | 1.00 | 24.00 | HR | 12.00 | 100.00 | 12.00 | 288.00   |
| FORE    | Foreman                      | 1.00 | 24.00 | MH | 45.00 | 116.67 | 75.72 | 1,817.22 |
| L1      | Labor -Group 1 Genl/Carp Tnd | 1.00 | 24.00 | MH | 30.82 | 116.67 | 56.61 | 1,358.52 |
| PLUMBER | Plumber/Pipefitter           | 2.00 | 48.00 | MH | 45.95 | 116.67 | 94.16 | 4,519.80 |

Biditem

6230

BPS Fabricated Metals

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 3,130.86   | 1,999.48 | 5,130.34    | 752.00    | 3,740.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 9,622.34 |
| Total   | 3,130.86   | 1,999.48 | 5,130.34    | 752.00    | 3,740.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 9,622.34 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 64.0000  | 0.0156  | 64.0000 | 150.3491 | 48.9197       | 80.1616        | 0.0625  |

Activity: 050000100

Procure Misc. Metals

(Unreviewed)

Quantity: 1

Unit: LS

Calendar: 610

60 Hour Week - (6@10)

Hrs/Shift: 10

WC: OR6306

SEWER CONSTRUCTION

Notes: Fabricated metals for the BPS include the following:

Straps for concrete pipe supports: (2) EA @ \$175.00 = \$350.00  
Hose Rack: (1) EA @ \$350.00 (vebal quote from Mid Valley 12/10/20 @ 11:30 AM)  
4 IN Removable Bollards: (2) EA @ \$350.00 = \$700.00  
Expanded metal waste line cage: (1) EA @ \$1,970.00

Total BPS Fabricated Metals = \$3,370

| Resource | Description           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-----------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2FABBPS  | BPS Fabricated Metals | 1.00     | 1.00     | LS   | 3,370.00  | 100.00   | 3,370.00  | 3,370.00 |

Activity: 050000101

Install Misc. Metals

(Unreviewed)

Quantity: 1

Unit: LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 3,130.86   | 1,999.48 | 5,130.34    | 752.00    | 370.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6,252.34 |
| Total   | 3,130.86   | 1,999.48 | 5,130.34    | 752.00    | 370.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 6,252.34 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 5,882.3400   | 16.0000       | 0.0625        | 367.6463     | 1.6000 | 0.6250      | 1.6000      | 3,907.7125 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 64.0000  | 0.0156  | 64.0000 | 80.1616        | 3,130.8600      |

Calendar: 610

60 Hour Week - (6@10)

Hrs/Shift: 10

WC: OR6306

SEWER CONSTRUCTION

Crew: TKMECH

Tank Mechanical Crew

Prod: CH 16

Eff: 100.00

Crew Hrs: 16.00

Labor Pcs: 4.00

Equipment Pcs: 3.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2COB         | BAGGED CONCRETE              | 1.00     | 8.00     | EA   | 15.00     | 100.00   | 15.00     | 120.00   |
| 2MISCBPSMOUN | BPS Fab Metal Anchors        | 1.00     | 1.00     | LS   | 250.00    | 100.00   | 250.00    | 250.00   |
| 8FOS         | Forklift - Small             | 1.00     | 16.00    | HR   | 20.00     | 100.00   | 20.00     | 320.00   |
| 8MI2         | Misc - Daily Cost            | 1.00     | 16.00    | HR   | 15.00     | 100.00   | 15.00     | 240.00   |
| 8TRUT1       | Truck - 1 Ton                | 1.00     | 16.00    | HR   | 12.00     | 100.00   | 12.00     | 192.00   |
| FORE         | Foreman                      | 1.00     | 16.00    | MH   | 45.00     | 116.67   | 75.72     | 1,211.47 |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 16.00    | MH   | 30.82     | 116.67   | 56.60     | 905.67   |
| PLUMBER      | Plumber/Pipefitter           | 2.00     | 32.00    | MH   | 45.95     | 116.67   | 94.16     | 3,013.20 |

Subtotal

Booster Pump Station Subtotal

|       | Base Labor | Burden    | Total Labor | Equipment | Perm Matls   | Const Matls | Sub          | Aggregates | Trucking  | Gen Cond | Total        |
|-------|------------|-----------|-------------|-----------|--------------|-------------|--------------|------------|-----------|----------|--------------|
| Total | 132,937.25 | 78,173.01 | 211,110.26  | 51,015.40 | 1,993,623.34 | 0.00        | 1,439,389.75 | 18,162.87  | 22,187.20 | 0.00     | 3,735,488.82 |

## Biditem

## Procure &amp; String Inlet/Outlet/Header Pipe

7010

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 1,629.41   | 858.71 | 2,488.12    | 1,000.00  | 242,457.53 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 245,945.65 |
| Total   | 1,629.41   | 858.71 | 2,488.12    | 1,000.00  | 242,457.53 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 245,945.65 |

| Manhours | Unit/MH | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|------------|---------------|----------------|---------|
| 40.0000  | 0.0250  | 40.0000 | 6,148.6413 | 40.7353       | 62.2030        | 0.0500  |

|                     |                                                  |              |             |          |
|---------------------|--------------------------------------------------|--------------|-------------|----------|
| Activity: 011400054 | Procure & String Site Inlet/Outlet/Header Piping | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|--------------------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|------------|
| U. Cost | 1,629.41   | 858.71 | 2,488.12    | 1,000.00  | 242,457.53 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 245,945.65 |
| Total   | 1,629.41   | 858.71 | 2,488.12    | 1,000.00  | 242,457.53 | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 245,945.65 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
| 3,488.1200   | 20.0000       | 0.0500        | 174.4060     | 2.0000 | 0.5000      | 2.0000      | 122,972.8250 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 40.0000  | 0.0250  | 40.0000 | 62.2030        | 1,629.4100      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 20 Eff: 100.00 Crew Hrs: 20.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

Notes: This piping will include pipe up to and including the floor penetration vertical spools in the BPS to and including the valves at the reservoir.

| Resource      | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|---------------|--------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2PI1106       | 6in PVC 3034 Pipe        | 1.00     | 84.00    | LF   | 2.50      | 100.00   | 2.50      | 210.00    |
| 2PI12CL52DI   | 12 IN CL 52 DI           | 1.00     | 40.00    | LF   | 42.79     | 100.00   | 42.79     | 1,711.60  |
| 2PI12FGSKT    | 12 IN FLG GSKT           | 1.00     | 4.00     | EA   | 55.62     | 100.00   | 55.62     | 222.48    |
| 2PI12FXMJBFBV | 12 IN FLG x MJ BFBV      | 1.00     | 2.00     | EA   | 2,317.07  | 100.00   | 2,317.07  | 4,634.14  |
| 2PI12MEG      | 12 IN Megalug            | 1.00     | 2.00     | EA   | 89.78     | 100.00   | 89.78     | 179.56    |
| 2PI12NBK      | 12 IN NBK                | 1.00     | 4.00     | EA   | 29.25     | 100.00   | 29.25     | 117.00    |
| 2PI16ADJPS    | 16 IN ADJ Pipe Support   | 1.00     | 2.00     | EA   | 273.00    | 100.00   | 273.00    | 546.00    |
| 2PI16CL50DI   | 16 IN CL 50 DI Pipe      | 1.00     | 140.00   | LF   | 53.36     | 100.00   | 53.36     | 7,470.40  |
| 2PI16EAFBFBV  | 16 IN EA FLG BFBV        | 1.00     | 2.00     | EA   | 16,387.73 | 100.00   | 16,387.73 | 32,775.46 |
| 2PI16FGSKT    | 16 IN FLG GSKT           | 1.00     | 7.00     | EA   | 94.75     | 100.00   | 94.75     | 663.25    |
| 2PI16FLGTEE   | 16 IN FLG Tee            | 1.00     | 1.00     | EA   | 4,659.61  | 100.00   | 4,659.61  | 4,659.61  |
| 2PI16FXMJBFBV | 16 IN FLG x MJ BFBV      | 1.00     | 1.00     | EA   | 3,902.44  | 100.00   | 3,902.44  | 3,902.44  |
| 2PI16MEG      | 16 IN Megalug            | 1.00     | 10.00    | EA   | 183.39    | 100.00   | 183.39    | 1,833.90  |
| 2PI16MEGA     | 16 IN Megalflange ADPT   | 1.00     | 5.00     | EA   | 760.78    | 100.00   | 760.78    | 3,803.90  |
| 2PI16MJ90     | 16 IN MJ 90              | 1.00     | 2.00     | EA   | 1,036.36  | 100.00   | 1,036.36  | 2,072.72  |
| 2PI16NBK      | 16 IN Nut Bolt Kit       | 1.00     | 7.00     | EA   | 113.33    | 100.00   | 113.33    | 793.31    |
| 2PI16RFCA     | 16 IN RFCA               | 1.00     | 4.00     | EA   | 1,277.11  | 100.00   | 1,277.11  | 5,108.44  |
| 2PI16X10FXPE  | 16 x 10 FLG x PE Spool   | 1.00     | 1.00     | EA   | 1,644.50  | 100.00   | 1,644.50  | 1,644.50  |
| 2PI18FGSKT    | 18 IN FLG GSKT           | 1.00     | 1.00     | EA   | 113.62    | 100.00   | 113.62    | 113.62    |
| 2PI18NBK      | 18 IN NBK                | 1.00     | 1.00     | EA   | 131.67    | 100.00   | 131.67    | 131.67    |
| 2PI18X6.5FXF  | 18 x 6.5 FLG x FLG Spool | 1.00     | 1.00     | EA   | 1,900.00  | 100.00   | 1,900.00  | 1,900.00  |
| 2PI20CL50DI   | 20 IN CL 50 DI           | 1.00     | 20.00    | LF   | 70.22     | 100.00   | 70.22     | 1,404.40  |
| 2PI20FGSKT    | 20 IN FLG GSKT           | 1.00     | 4.00     | EA   | 115.75    | 100.00   | 115.75    | 463.00    |
| 2PI20FXMJBFBV | 20 IN FLG x MJ BFBV      | 1.00     | 2.00     | EA   | 6,097.56  | 100.00   | 6,097.56  | 12,195.12 |
| 2PI20MEGA     | 20 IN Megaflange         | 1.00     | 4.00     | EA   | 940.34    | 100.00   | 940.34    | 3,761.36  |
| 2PI20NBK      | 20 IN NBK                | 1.00     | 4.00     | EA   | 105.88    | 100.00   | 105.88    | 423.52    |
| 2PI24ADJPS    | 24 IN ADJ Pipe Support   | 1.00     | 2.00     | EA   | 394.37    | 100.00   | 394.37    | 788.74    |
| 2PI24CL50DI   | 24 IN CL 50 DI Pipe      | 1.00     | 80.00    | LF   | 88.64     | 100.00   | 88.64     | 7,091.20  |
| 2PI24FGSKT    | 24 IN FLG GSKT           | 1.00     | 13.00    | EA   | 184.12    | 100.00   | 184.12    | 2,393.56  |



|              |                                  |      |        |    |           |        |           |           |
|--------------|----------------------------------|------|--------|----|-----------|--------|-----------|-----------|
| 2PI24FLG90   | 24 IN FLG 90                     | 1.00 | 1.00   | EA | 8,675.32  | 100.00 | 8,675.32  | 8,675.32  |
| 2PI24FLGBFV  | 24 IN FLG BFV                    | 1.00 | 1.00   | EA | 8,414.63  | 100.00 | 8,414.63  | 8,414.63  |
| 2PI24FLGTEE  | 24 IN FLG TEE                    | 1.00 | 1.00   | EA | 8,737.38  | 100.00 | 8,737.38  | 8,737.38  |
| 2PI24MEG     | 24 IN Megalug                    | 1.00 | 18.00  | EA | 402.94    | 100.00 | 402.94    | 7,252.92  |
| 2PI24MEGA    | 24 IN Megaflange Adpt            | 1.00 | 1.00   | EA | 1,146.68  | 100.00 | 1,146.68  | 1,146.68  |
| 2PI24NBK     | 24 IN Nut Bolt Kit               | 1.00 | 13.00  | EA | 149.23    | 100.00 | 149.23    | 1,939.99  |
| 2PI24RFCA    | 24 IN RFCA                       | 1.00 | 5.00   | EA | 1,146.68  | 100.00 | 1,146.68  | 5,733.40  |
| 2PI24SCVLV   | 24 IN Silent Check Valve         | 1.00 | 1.00   | EA | 30,941.18 | 100.00 | 30,941.18 | 30,941.18 |
| 2PI24X12MXFT | 24 x 12 MJ x FLG Tee             | 1.00 | 2.00   | EA | 2,709.38  | 100.00 | 2,709.38  | 5,418.76  |
| 2PI24X16FCRE | 24 x 16 FLG CONC RED             | 1.00 | 1.00   | LS | 4,210.74  | 100.00 | 4,210.74  | 4,210.74  |
| 2PI24X16MXFT | 24 x 16 MJ x FLG Tee             | 1.00 | 1.00   | EA | 3,410.49  | 100.00 | 3,410.49  | 3,410.49  |
| 2PI24X18FCRE | 24 x 18 FLG CONC RED             | 1.00 | 2.00   | EA | 4,454.12  | 100.00 | 4,454.12  | 8,908.24  |
| 2PI24X20FTEE | 24 x 20 FLG TEE                  | 1.00 | 2.00   | EA | 12,570.15 | 100.00 | 12,570.15 | 25,140.30 |
| 2PI24X6MJTEE | 24 x 6 MJ Tee                    | 1.00 | 1.00   | EA | 1,952.66  | 100.00 | 1,952.66  | 1,952.66  |
| 2PI24X8MJXFT | 24 x 8 MJ x FLG TEE              | 1.00 | 1.00   | EA | 6,050.56  | 100.00 | 6,050.56  | 6,050.56  |
| 2PI2YARDHYD  | 2 IN Yard Hydrant & Tee Complete | 1.00 | 1.00   | EA | 1,051.87  | 100.00 | 1,051.87  | 1,051.87  |
| 2PI3X36GRCP  | 3 x 36 GALV Ready Cut Pipe       | 1.00 | 2.00   | EA | 51.64     | 100.00 | 51.64     | 103.28    |
| 2PI4FGSKT    | 4 IN FLG GSKT                    | 1.00 | 1.00   | EA | 21.25     | 100.00 | 21.25     | 21.25     |
| 2PI4FLGBK    | 4 IN FLG Bolt Kit                | 1.00 | 1.00   | EA | 5.45      | 100.00 | 5.45      | 5.45      |
| 2PI4FLGGSKT  | 4 IN FLG GSKT                    | 1.00 | 1.00   | EA | 15.37     | 100.00 | 15.37     | 15.37     |
| 2PI4MEG      | 4 IN Megalug                     | 1.00 | 9.00   | EA | 32.38     | 100.00 | 32.38     | 291.42    |
| 2PI4MJ90     | 4 IN MJ 90                       | 1.00 | 2.00   | EA | 78.18     | 100.00 | 78.18     | 156.36    |
| 2PI4MJLONG   | 4 IN MJ Long Sleeve              | 1.00 | 2.00   | EA | 77.16     | 100.00 | 77.16     | 154.32    |
| 2PI4MJXLGGV  | 4 IN MJ x FLG GV                 | 1.00 | 1.00   | EA | 433.67    | 100.00 | 433.67    | 433.67    |
| 2PI4NBK      | 4 IN Nut Bolt Kit                | 1.00 | 1.00   | EA | 9.68      | 100.00 | 9.68      | 9.68      |
| 2PI4X24GRCP  | 4 x 24 Galv Ready Cut Pipe       | 1.00 | 2.00   | EA | 38.39     | 100.00 | 38.39     | 76.78     |
| 2PI6CL52DI   | 6 IN CL 52 DI                    | 1.00 | 40.00  | LF | 18.38     | 100.00 | 18.38     | 735.20    |
| 2PI6MEG      | 6 IN Megalug                     | 1.00 | 5.00   | EA | 36.02     | 100.00 | 36.02     | 180.10    |
| 2PI6MEGA     | 6 IN Megaflange                  | 1.00 | 1.00   | EA | 150.00    | 100.00 | 150.00    | 150.00    |
| 2PI6MJ90     | 6 IN MJ 90                       | 1.00 | 2.00   | EA | 123.29    | 100.00 | 123.29    | 246.58    |
| 2PI8CL52DI   | 8 IN CL 52 DI                    | 1.00 | 20.00  | LF | 25.92     | 100.00 | 25.92     | 518.40    |
| 2PI8FGSKT    | 8 IN FLG GSKT                    | 1.00 | 2.00   | EA | 39.38     | 100.00 | 39.38     | 78.76     |
| 2PI8FXMJBFV  | 8 IN FLG x MJ BFV                | 1.00 | 1.00   | EA | 1,463.41  | 100.00 | 1,463.41  | 1,463.41  |
| 2PI8MEG      | 8 IN Megalug                     | 1.00 | 9.00   | EA | 46.68     | 100.00 | 46.68     | 420.12    |
| 2PI8MEGA     | 8 IN Megaflange                  | 1.00 | 3.00   | EA | 167.34    | 100.00 | 167.34    | 502.02    |
| 2PI8MJ90     | 8 IN MJ 90                       | 1.00 | 1.00   | EA | 250.00    | 100.00 | 250.00    | 250.00    |
| 2PI8MJTEE    | 8 IN MJ Tee                      | 1.00 | 1.00   | EA | 265.13    | 100.00 | 265.13    | 265.13    |
| 2PI8NBK      | 8 IN NBK                         | 1.00 | 2.00   | EA | 13.42     | 100.00 | 13.42     | 26.84     |
| 2PI8X4MJCRED | 8 x 4 MJ CONC RED                | 1.00 | 1.00   | EA | 110.41    | 100.00 | 110.41    | 110.41    |
| 2PICL52DI    | 4 IN CL 52 DI                    | 1.00 | 100.00 | LF | 23.91     | 100.00 | 23.91     | 2,391.00  |
| 2PIVC&LID    | Valve Can & Lid                  | 1.00 | 11.00  | EA | 168.36    | 100.00 | 168.36    | 1,851.96  |
| 8LO544       | Loader - 544                     | 1.00 | 20.00  | HR | 50.00     | 100.00 | 50.00     | 1,000.00  |
| L1           | Labor -Group 1 Genl/Carp Tnd     | 1.00 | 20.00  | MH | 30.82     | 116.67 | 56.61     | 1,132.10  |
| OP4          | Operator-Doz, Exc, Bld, Ldr      | 1.00 | 20.00  | MH | 39.01     | 116.67 | 67.80     | 1,356.02  |

## Biditem

## Excavate &amp; Lay Inlet/Outlet/Header Pipe

7020

Takeoff Qty: 407.000 LF

Bid Qty: 407.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|-----------|
| U. Cost | 23.57      | 11.89    | 35.46       | 35.62     | 0.00       | 0.00        | 0.00 | 46.57      | 27.57     | 0.00     | 145.21    |
| Total   | 9,593.98   | 4,837.72 | 14,431.70   | 14,495.69 | 0.00       | 0.00        | 0.00 | 18,954.00  | 11,221.00 | 0.00     | 59,102.39 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 221.2800 | 1.8393  | 0.5437  | 267.0932 | 43.3567       | 65.2192        | 9.1977  |



|                     |                                       |              |              |          |
|---------------------|---------------------------------------|--------------|--------------|----------|
| Activity: 011400524 | Gran-24 inch Outlet (Outlet & Header) | (Unreviewed) | Quantity: 80 | Unit: LF |
|---------------------|---------------------------------------|--------------|--------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 27.10      | 13.66    | 40.76       | 41.13     | 0.00       | 0.00        | 0.00 | 58.69      | 36.75    | 0.00     | 177.32    |
| Total   | 2,167.85   | 1,093.13 | 3,260.98    | 3,290.00  | 0.00       | 0.00        | 0.00 | 4,695.00   | 2,940.00 | 0.00     | 14,185.98 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 81.8873      | 0.1250        | 8.0000        | 655.0980     | 1.0000 | 80.0000     | 0.0125      | 14,185.9800 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 50.0000  | 1.6000  | 0.6250  | 65.2196        | 27.0981         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 8 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 5.00 Equipment Pcs: 7.50

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 3.5000   |
| Bedding 2 Depth                | LF   | 6.5000   |
| Object Height (Dia. if circle) | LF   | 2.0000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 6.0000   |
| Trench Depth                   | LF   | 10.0000  |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 80.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 177.7777 |
| Bedding 1 Volume               | CY   | 52.9140  |
| Bedding 2 Volume               | CY   | 115.5555 |
| Bedding 1 + Bedding 2          | CY   | 168.4695 |
| Net Excess                     | CY   | 177.7776 |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO       | Trucking - Solo              | 1.00     | 30.00    | HR   | 98.00     | 100.00   | 98.00     | 2,940.00 |
| 6AGC075P  | Crushed - 3/4in (PU)         | 1.00     | 336.00   | TON  | 12.00     | 100.00   | 12.00     | 4,032.00 |
| 6DEDU02   | DUMP FEES - (CY)             | 1.00     | 221.00   | CY   | 3.00      | 100.00   | 3.00      | 663.00   |
| 8EX130    | Excavator - 130              | 1.00     | 10.00    | HR   | 52.00     | 100.00   | 52.00     | 520.00   |
| 8EX308BRK | Excavator - 308 w/ Brk       | 0.50     | 5.00     | HR   | 150.00    | 100.00   | 150.00    | 750.00   |
| 8EX328    | Excavator - 328              | 1.00     | 10.00    | HR   | 100.00    | 100.00   | 100.00    | 1,000.00 |
| 8LO544    | Loader - 544                 | 1.00     | 10.00    | HR   | 50.00     | 100.00   | 50.00     | 500.00   |
| 8MIHP     | Misc - Backhoe Hoepac        | 1.00     | 10.00    | HR   | 10.00     | 100.00   | 10.00     | 100.00   |
| 8SHTR10   | Shoring - Trench Box 10'     | 2.00     | 20.00    | HR   | 15.00     | 100.00   | 15.00     | 300.00   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 10.00    | HR   | 12.00     | 100.00   | 12.00     | 120.00   |
| FORE      | Foreman                      | 1.00     | 10.00    | MH   | 45.00     | 116.67   | 75.72     | 757.18   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 10.00    | MH   | 30.82     | 116.67   | 56.61     | 566.05   |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 10.00    | MH   | 31.97     | 116.67   | 58.17     | 581.73   |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 20.00    | MH   | 39.01     | 116.67   | 67.80     | 1,356.02 |

|                     |                             |              |              |          |
|---------------------|-----------------------------|--------------|--------------|----------|
| Activity: 011400520 | Gran-20 inch (Pump #5 & #6) | (Unreviewed) | Quantity: 36 | Unit: LF |
|---------------------|-----------------------------|--------------|--------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 27.10      | 13.66  | 40.76       | 41.13     | 0.00       | 0.00        | 0.00 | 54.58      | 36.75    | 0.00     | 173.22   |
| Total   | 975.54     | 491.91 | 1,467.45    | 1,480.50  | 0.00       | 0.00        | 0.00 | 1,965.00   | 1,323.00 | 0.00     | 6,235.95 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 81.8875      | 0.1250        | 8.0000        | 655.1000     | 0.4500 | 80.0000     | 0.0125      | 13,857.6667 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 22.5000  | 1.6000  | 0.6250  | 65.2200        | 27.0983         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 8 Eff: 100.00 Crew Hrs: 4.50 Labor Pcs: 5.00 Equipment Pcs: 7.50

Notes: Cut Fill with Bedding Routine

| Description        | Unit | Quantity |
|--------------------|------|----------|
| Distance to object | LF   | 0.5000   |
| Bedding 1 Depth    | LF   | 3.1700   |

|                                |    |         |
|--------------------------------|----|---------|
| Bedding 2 Depth                | LF | 6.8300  |
| Object Height (Dia. if circle) | LF | 1.6700  |
| Object Width (0 if circle)     | LF | 0.0000  |
| Trench Width                   | LF | 5.5000  |
| Trench Depth                   | LF | 10.0000 |
| Flare Width                    | LF | 0.0000  |
| Flare Depth                    | LF | 0.0000  |
| Trench Length                  | LF | 36.0000 |
| Compaction Factor - Bedding 1  | %  | 0.0000  |
| Compaction Factor - Bedding 2  | %  | 0.0000  |
| Excavated Volume               | CY | 73.3333 |
| Bedding 1 Volume               | CY | 20.3262 |
| Bedding 2 Volume               | CY | 50.0866 |
| Bedding 1 + Bedding 2          | CY | 70.4128 |
| Net Excess                     | CY | 73.3332 |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO       | Trucking - Solo              | 1.00     | 13.50    | HR   | 98.00     | 100.00   | 98.00     | 1,323.00 |
| 6AGC075P  | Crushed - 3/4in (PU)         | 1.00     | 141.00   | TON  | 12.00     | 100.00   | 12.00     | 1,692.00 |
| 6DEDU02   | DUMP FEES - (CY)             | 1.00     | 91.00    | CY   | 3.00      | 100.00   | 3.00      | 273.00   |
| 8EX130    | Excavator - 130              | 1.00     | 4.50     | HR   | 52.00     | 100.00   | 52.00     | 234.00   |
| 8EX308BRK | Excavator - 308 w/ Brk       | 0.50     | 2.25     | HR   | 150.00    | 100.00   | 150.00    | 337.50   |
| 8EX328    | Excavator - 328              | 1.00     | 4.50     | HR   | 100.00    | 100.00   | 100.00    | 450.00   |
| 8LO544    | Loader - 544                 | 1.00     | 4.50     | HR   | 50.00     | 100.00   | 50.00     | 225.00   |
| 8MIHP     | Misc - Backhoe Hoepac        | 1.00     | 4.50     | HR   | 10.00     | 100.00   | 10.00     | 45.00    |
| 8SHTR10   | Shoring - Trench Box 10'     | 2.00     | 9.00     | HR   | 15.00     | 100.00   | 15.00     | 135.00   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 4.50     | HR   | 12.00     | 100.00   | 12.00     | 54.00    |
| FORE      | Foreman                      | 1.00     | 4.50     | MH   | 45.00     | 116.67   | 75.72     | 340.73   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 4.50     | MH   | 30.82     | 116.67   | 56.61     | 254.73   |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 4.50     | MH   | 31.97     | 116.67   | 58.17     | 261.78   |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 9.00     | MH   | 39.01     | 116.67   | 67.80     | 610.21   |

Activity: 011400516 Gran-16 inch (Inlet, Header & Pump #4) (Unreviewed) Quantity: 115 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 21.68      | 10.93    | 32.61       | 32.90     | 0.00       | 0.00        | 0.00 | 50.14      | 29.40    | 0.00     | 145.05    |
| Total   | 2,493.02   | 1,257.09 | 3,750.11    | 3,783.50  | 0.00       | 0.00        | 0.00 | 5,766.00   | 3,381.00 | 0.00     | 16,680.61 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 65.5097      | 0.1000        | 10.0000       | 655.0965     | 1.1500 | 100.0000    | 0.0100      | 14,504.8783 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 57.5000  | 2.0000  | 0.5000  | 65.2193        | 21.6784         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 11.50 Labor Pcs: 5.00 Equipment Pcs: 7.50

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.8330   |
| Bedding 2 Depth                | LF   | 7.1670   |
| Object Height (Dia. if circle) | LF   | 1.3300   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 5.0000   |
| Trench Depth                   | LF   | 10.0000  |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 115.0000 |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 212.9629 |
| Bedding 1 Volume               | CY   | 54.4154  |
| Bedding 2 Volume               | CY   | 152.6305 |
| Bedding 1 + Bedding 2          | CY   | 207.0459 |
| Net Excess                     | CY   | 212.9628 |

| Resource  | Description            | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO       | Trucking - Solo        | 1.00     | 34.50    | HR   | 98.00     | 100.00   | 98.00     | 3,381.00 |
| 6AGC075P  | Crushed - 3/4in (PU)   | 1.00     | 414.00   | TON  | 12.00     | 100.00   | 12.00     | 4,968.00 |
| 6DEDU02   | DUMP FEES - (CY)       | 1.00     | 266.00   | CY   | 3.00      | 100.00   | 3.00      | 798.00   |
| 8EX130    | Excavator - 130        | 1.00     | 11.50    | HR   | 52.00     | 100.00   | 52.00     | 598.00   |
| 8EX308BRK | Excavator - 308 w/ Brk | 0.50     | 5.75     | HR   | 150.00    | 100.00   | 150.00    | 862.50   |

|         |                              |      |       |    |        |        |        |          |
|---------|------------------------------|------|-------|----|--------|--------|--------|----------|
| 8EX328  | Excavator - 328              | 1.00 | 11.50 | HR | 100.00 | 100.00 | 100.00 | 1,150.00 |
| 8LO544  | Loader - 544                 | 1.00 | 11.50 | HR | 50.00  | 100.00 | 50.00  | 575.00   |
| 8MIHP   | Misc - Backhoe Hoepac        | 1.00 | 11.50 | HR | 10.00  | 100.00 | 10.00  | 115.00   |
| 8SHTR10 | Shoring - Trench Box 10'     | 2.00 | 23.00 | HR | 15.00  | 100.00 | 15.00  | 345.00   |
| 8TRUT1  | Truck - 1 Ton                | 1.00 | 11.50 | HR | 12.00  | 100.00 | 12.00  | 138.00   |
| FORE    | Foreman                      | 1.00 | 11.50 | MH | 45.00  | 116.67 | 75.72  | 870.75   |
| L1      | Labor -Group 1 Genl/Carp Tnd | 1.00 | 11.50 | MH | 30.82  | 116.67 | 56.61  | 650.96   |
| L4      | Labor -Group 2 Pipe Layer/GC | 1.00 | 11.50 | MH | 31.97  | 116.67 | 58.17  | 668.98   |
| OP4     | Operator-Doz, Exc, Bld, Ldr  | 2.00 | 23.00 | MH | 39.01  | 116.67 | 67.80  | 1,559.42 |

Activity: 011400512 Gran-12 inch (Pump #2 & #3) (Unreviewed) Quantity: 36 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 27.10      | 13.66  | 40.76       | 41.13     | 0.00       | 0.00        | 0.00 | 27.17      | 24.50    | 0.00     | 133.55   |
| Total   | 975.54     | 491.91 | 1,467.45    | 1,480.50  | 0.00       | 0.00        | 0.00 | 978.00     | 882.00   | 0.00     | 4,807.95 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 81.8875      | 0.1250        | 8.0000        | 655.1000     | 0.4500 | 80.0000     | 0.0125      | 10,684.3333 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 22.5000  | 1.6000  | 0.6250  | 65.2200        | 27.0983         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 8 Eff: 100.00 Crew Hrs: 4.50 Labor Pcs: 5.00 Equipment Pcs: 7.50

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.5000   |
| Bedding 2 Depth                | LF   | 7.5000   |
| Object Height (Dia. if circle) | LF   | 1.0000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 4.0000   |
| Trench Depth                   | LF   | 10.0000  |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 36.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 53.3333  |
| Bedding 1 Volume               | CY   | 12.2862  |
| Bedding 2 Volume               | CY   | 40.0000  |
| Bedding 1 + Bedding 2          | CY   | 52.2862  |
| Net Excess                     | CY   | 53.3332  |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO       | Trucking - Solo              | 1.00     | 9.00     | HR   | 98.00     | 100.00   | 98.00     | 882.00 |
| 6AGC075P  | Crushed - 3/4in (PU)         | 1.00     | 65.00    | TON  | 12.00     | 100.00   | 12.00     | 780.00 |
| 6DEDU02   | DUMP FEES - (CY)             | 1.00     | 66.00    | CY   | 3.00      | 100.00   | 3.00      | 198.00 |
| 8EX130    | Excavator - 130              | 1.00     | 4.50     | HR   | 52.00     | 100.00   | 52.00     | 234.00 |
| 8EX308BRK | Excavator - 308 w/ Brk       | 0.50     | 2.25     | HR   | 150.00    | 100.00   | 150.00    | 337.50 |
| 8EX328    | Excavator - 328              | 1.00     | 4.50     | HR   | 100.00    | 100.00   | 100.00    | 450.00 |
| 8LO544    | Loader - 544                 | 1.00     | 4.50     | HR   | 50.00     | 100.00   | 50.00     | 225.00 |
| 8MIHP     | Misc - Backhoe Hoepac        | 1.00     | 4.50     | HR   | 10.00     | 100.00   | 10.00     | 45.00  |
| 8SHTR10   | Shoring - Trench Box 10'     | 2.00     | 9.00     | HR   | 15.00     | 100.00   | 15.00     | 135.00 |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 4.50     | HR   | 12.00     | 100.00   | 12.00     | 54.00  |
| FORE      | Foreman                      | 1.00     | 4.50     | MH   | 45.00     | 116.67   | 75.72     | 340.73 |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 4.50     | MH   | 30.82     | 116.67   | 56.61     | 254.73 |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 4.50     | MH   | 31.97     | 116.67   | 58.17     | 261.78 |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 9.00     | MH   | 39.01     | 116.67   | 67.80     | 610.21 |

Activity: 011400508 Gran-8 inch (Pump #1 & Fire Line) (Unreviewed) Quantity: 15 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 27.14      | 13.68  | 40.82       | 41.22     | 0.00       | 0.00        | 0.00 | 40.80      | 24.50    | 0.00     | 147.35   |
| Total   | 407.09     | 205.27 | 612.36      | 618.37    | 0.00       | 0.00        | 0.00 | 612.00     | 367.50   | 0.00     | 2,210.23 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|----------|
|--------------|---------------|---------------|--------------|--------|-------------|-------------|----------|

|         |        |        |          |        |         |        |             |
|---------|--------|--------|----------|--------|---------|--------|-------------|
| 82.0487 | 0.1250 | 8.0000 | 656.3893 | 0.1875 | 80.0000 | 0.0125 | 11,787.8933 |
|---------|--------|--------|----------|--------|---------|--------|-------------|

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 9.3900   | 1.5974  | 0.6260  | 65.2141        | 27.1393         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 8 Eff: 100.00 Crew Hrs: 1.88 Labor Pcs: 5.00 Equipment Pcs: 7.50

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.1700   |
| Bedding 2 Depth                | LF   | 7.8300   |
| Object Height (Dia. if circle) | LF   | 0.6600   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 4.0000   |
| Trench Depth                   | LF   | 10.0000  |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 15.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 22.2222  |
| Bedding 1 Volume               | CY   | 4.6321   |
| Bedding 2 Volume               | CY   | 17.4000  |
| Bedding 1 + Bedding 2          | CY   | 22.0321  |
| Net Excess                     | CY   | 22.2221  |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO       | Trucking - Solo              | 1.00     | 3.75     | HR   | 98.00     | 100.00   | 98.00     | 367.50 |
| 6AGC075P  | Crushed - 3/4in (PU)         | 1.00     | 44.00    | TON  | 12.00     | 100.00   | 12.00     | 528.00 |
| 6DEDU02   | DUMP FEES - (CY)             | 1.00     | 28.00    | CY   | 3.00      | 100.00   | 3.00      | 84.00  |
| 8EX130    | Excavator - 130              | 1.00     | 1.88     | HR   | 52.00     | 100.00   | 52.00     | 97.76  |
| 8EX308BRK | Excavator - 308 w/ Brk       | 0.50     | 0.94     | HR   | 150.00    | 100.00   | 150.00    | 141.00 |
| 8EX328    | Excavator - 328              | 1.00     | 1.88     | HR   | 100.00    | 100.00   | 100.00    | 188.00 |
| 8LO544    | Loader - 544                 | 1.00     | 1.88     | HR   | 50.00     | 100.00   | 50.00     | 94.00  |
| 8MIHP     | Misc - Backhoe Hoepac        | 1.00     | 1.88     | HR   | 10.00     | 100.00   | 10.00     | 18.80  |
| 8SHTR10   | Shoring - Trench Box 10'     | 2.00     | 3.75     | HR   | 15.00     | 100.00   | 15.00     | 56.25  |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 1.88     | HR   | 12.00     | 100.00   | 12.00     | 22.56  |
| FORE      | Foreman                      | 1.00     | 1.88     | MH   | 45.00     | 116.67   | 75.71     | 142.34 |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.88     | MH   | 30.82     | 116.67   | 56.60     | 106.41 |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.88     | MH   | 31.97     | 116.67   | 58.17     | 109.36 |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 3.75     | MH   | 39.01     | 116.67   | 67.80     | 254.25 |

Activity: 011400506 Gran-6 inch (Pressure Relief) (Unreviewed) Quantity: 35 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 27.12      | 13.67  | 40.79       | 39.29     | 0.00       | 0.00        | 0.00 | 35.66      | 24.50    | 0.00     | 140.24   |
| Total   | 949.06     | 478.57 | 1,427.63    | 1,375.32  | 0.00       | 0.00        | 0.00 | 1,248.00   | 857.50   | 0.00     | 4,908.45 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 80.0843      | 0.1250        | 8.0000        | 640.6743     | 0.4375 | 80.0000     | 0.0125      | 11,219.3143 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 21.8900  | 1.5989  | 0.6254  | 65.2184        | 27.1160         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 8 Eff: 100.00 Crew Hrs: 4.38 Labor Pcs: 5.00 Equipment Pcs: 6.50

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.0000   |
| Bedding 2 Depth                | LF   | 8.0000   |
| Object Height (Dia. if circle) | LF   | 0.5000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 3.5000   |
| Trench Depth                   | LF   | 10.0000  |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 35.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |

|                               |    |         |
|-------------------------------|----|---------|
| Compaction Factor - Bedding 2 | %  | 0.0000  |
| Excavated Volume              | CY | 45.3703 |
| Bedding 1 Volume              | CY | 8.8196  |
| Bedding 2 Volume              | CY | 36.2962 |
| Bedding 1 + Bedding 2         | CY | 45.1158 |
| Net Excess                    | CY | 45.3702 |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO       | Trucking - Solo              | 1.00     | 8.75     | HR   | 98.00     | 100.00   | 98.00     | 857.50   |
| 6AGC075P  | Crushed - 3/4in (PU)         | 1.00     | 90.00    | TON  | 12.00     | 100.00   | 12.00     | 1,080.00 |
| 6DEDU02   | DUMP FEES - (CY)             | 1.00     | 56.00    | CY   | 3.00      | 100.00   | 3.00      | 168.00   |
| 8EX130    | Excavator - 130              | 1.00     | 4.38     | HR   | 52.00     | 100.00   | 52.00     | 227.76   |
| 8EX308BRK | Excavator - 308 w/ Brk       | 0.50     | 2.19     | HR   | 150.00    | 100.00   | 150.00    | 328.50   |
| 8EX328    | Excavator - 328              | 1.00     | 4.38     | HR   | 100.00    | 100.00   | 100.00    | 438.00   |
| 8LO544    | Loader - 544                 | 1.00     | 4.38     | HR   | 50.00     | 100.00   | 50.00     | 219.00   |
| 8MIHP     | Misc - Backhoe Hoepac        | 1.00     | 4.38     | HR   | 10.00     | 100.00   | 10.00     | 43.80    |
| 8SHTR10   | Shoring - Trench Box 10'     | 1.00     | 4.38     | HR   | 15.00     | 100.00   | 15.00     | 65.70    |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 4.38     | HR   | 12.00     | 100.00   | 12.00     | 52.56    |
| FORE      | Foreman                      | 1.00     | 4.38     | MH   | 45.00     | 116.67   | 75.72     | 331.65   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 4.38     | MH   | 30.82     | 116.67   | 56.60     | 247.92   |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 4.38     | MH   | 31.97     | 116.67   | 58.17     | 254.80   |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 8.75     | MH   | 39.01     | 116.67   | 67.80     | 593.26   |

Activity: 011400504 Gran-4 inch (Fire Line) (Unreviewed) Quantity: 90 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 18.07      | 9.11   | 27.17       | 27.42     | 0.00       | 0.00        | 0.00 | 41.00      | 16.33    | 0.00     | 111.92    |
| Total   | 1,625.88   | 819.84 | 2,445.72    | 2,467.50  | 0.00       | 0.00        | 0.00 | 3,690.00   | 1,470.00 | 0.00     | 10,073.22 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 54.5913      | 0.0833        | 12.0000       | 655.0960     | 0.7500 | 120.0000    | 0.0083      | 13,430.9600 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 37.5000  | 2.4000  | 0.4167  | 65.2192        | 18.0653         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 12 Eff: 100.00 Crew Hrs: 7.50 Labor Pcs: 5.00 Equipment Pcs: 7.50

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 1.8400   |
| Bedding 2 Depth                | LF   | 8.1600   |
| Object Height (Dia. if circle) | LF   | 0.3300   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 4.0000   |
| Trench Depth                   | LF   | 10.0000  |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 90.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 133.3333 |
| Bedding 1 Volume               | CY   | 24.2483  |
| Bedding 2 Volume               | CY   | 108.8000 |
| Bedding 1 + Bedding 2          | CY   | 133.0483 |
| Net Excess                     | CY   | 133.3333 |

| Resource  | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|--------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO       | Trucking - Solo          | 1.00     | 15.00    | HR   | 98.00     | 100.00   | 98.00     | 1,470.00 |
| 6AGC075P  | Crushed - 3/4in (PU)     | 1.00     | 266.00   | TON  | 12.00     | 100.00   | 12.00     | 3,192.00 |
| 6DEDU02   | DUMP FEES - (CY)         | 1.00     | 166.00   | CY   | 3.00      | 100.00   | 3.00      | 498.00   |
| 8EX130    | Excavator - 130          | 1.00     | 7.50     | HR   | 52.00     | 100.00   | 52.00     | 390.00   |
| 8EX308BRK | Excavator - 308 w/ Brk   | 0.50     | 3.75     | HR   | 150.00    | 100.00   | 150.00    | 562.50   |
| 8EX328    | Excavator - 328          | 1.00     | 7.50     | HR   | 100.00    | 100.00   | 100.00    | 750.00   |
| 8LO544    | Loader - 544             | 1.00     | 7.50     | HR   | 50.00     | 100.00   | 50.00     | 375.00   |
| 8MIHP     | Misc - Backhoe Hoepac    | 1.00     | 7.50     | HR   | 10.00     | 100.00   | 10.00     | 75.00    |
| 8SHTR10   | Shoring - Trench Box 10' | 2.00     | 15.00    | HR   | 15.00     | 100.00   | 15.00     | 225.00   |
| 8TRUT1    | Truck - 1 Ton            | 1.00     | 7.50     | HR   | 12.00     | 100.00   | 12.00     | 90.00    |

|      |                              |      |       |    |       |        |       |          |
|------|------------------------------|------|-------|----|-------|--------|-------|----------|
| FORE | Foreman                      | 1.00 | 7.50  | MH | 45.00 | 116.67 | 75.72 | 567.88   |
| L1   | Labor -Group 1 Genl/Carp Tnd | 1.00 | 7.50  | MH | 30.82 | 116.67 | 56.60 | 424.53   |
| L4   | Labor -Group 2 Pipe Layer/GC | 1.00 | 7.50  | MH | 31.97 | 116.67 | 58.17 | 436.30   |
| OP4  | Operator-Doz, Exc, Bld, Ldr  | 2.00 | 15.00 | MH | 39.01 | 116.67 | 67.80 | 1,017.01 |

## Biditem

## Install Inlet/Outlet &amp; Header Valves

7030

Takeoff Qty: 12.000 EA

Bid Qty: 12.000 EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 636.81     | 321.10   | 957.91      | 446.52    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,404.43  |
| Total   | 7,641.66   | 3,853.25 | 11,494.91   | 5,358.25  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 16,853.16 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 176.2500 | 0.0681  | 14.6875 | 95.6208 | 43.3569       | 65.2193        | 0.3404  |

|                     |                                                  |              |             |          |
|---------------------|--------------------------------------------------|--------------|-------------|----------|
| Activity: 011420243 | Install 24 inch MJ X Flg Butterfly Valve Assembl | (Unreviewed) | Quantity: 2 | Unit: EA |
|---------------------|--------------------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,083.93   | 546.57   | 1,630.49    | 760.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,390.49 |
| Total   | 2,167.85   | 1,093.13 | 3,260.98    | 1,520.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,780.98 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 2,390.4900   | 5.0000        | 0.2000        | 478.0980     | 1.0000 | 2.0000      | 0.5000      | 4,780.9800 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 50.0000  | 0.0400  | 25.0000 | 65.2196        | 1,083.9250      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STM Medium Pipe Crew Prod: HU 5 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 5.00 Equipment Pcs: 3.50

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8EX328   | Excavator - 328              | 1.00     | 10.00    | HR   | 100.00    | 100.00   | 100.00    | 1,000.00 |
| 8LO544   | Loader - 544                 | 0.50     | 5.00     | HR   | 50.00     | 100.00   | 50.00     | 250.00   |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 10.00    | HR   | 15.00     | 100.00   | 15.00     | 150.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 10.00    | HR   | 12.00     | 100.00   | 12.00     | 120.00   |
| FORE     | Foreman                      | 1.00     | 10.00    | MH   | 45.00     | 116.67   | 75.72     | 757.18   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 10.00    | MH   | 30.82     | 116.67   | 56.61     | 566.05   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 10.00    | MH   | 31.97     | 116.67   | 58.17     | 581.73   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 20.00    | MH   | 39.01     | 116.67   | 67.80     | 1,356.02 |

|                     |                                                  |              |             |          |
|---------------------|--------------------------------------------------|--------------|-------------|----------|
| Activity: 011420203 | Install 20 inch MJ X Flg Butterfly Valve Assembl | (Unreviewed) | Quantity: 2 | Unit: EA |
|---------------------|--------------------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 867.14     | 437.25 | 1,304.39    | 608.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,912.39 |
| Total   | 1,734.28   | 874.50 | 2,608.78    | 1,216.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,824.78 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,912.3900   | 4.0000        | 0.2500        | 478.0975     | 0.8000 | 2.5000      | 0.4000      | 4,780.9750 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 40.0000  | 0.0500  | 20.0000 | 65.2195        | 867.1400        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STM Medium Pipe Crew Prod: HU 4 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 5.00 Equipment Pcs: 3.50

| Resource | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|--------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8EX328   | Excavator - 328          | 1.00     | 8.00     | HR   | 100.00    | 100.00   | 100.00    | 800.00 |
| 8LO544   | Loader - 544             | 0.50     | 4.00     | HR   | 50.00     | 100.00   | 50.00     | 200.00 |
| 8SHTR10  | Shoring - Trench Box 10' | 1.00     | 8.00     | HR   | 15.00     | 100.00   | 15.00     | 120.00 |

|        |                              |      |       |    |       |        |       |          |
|--------|------------------------------|------|-------|----|-------|--------|-------|----------|
| 8TRUT1 | Truck - 1 Ton                | 1.00 | 8.00  | HR | 12.00 | 100.00 | 12.00 | 96.00    |
| FORE   | Foreman                      | 1.00 | 8.00  | MH | 45.00 | 116.67 | 75.72 | 605.74   |
| L1     | Labor -Group 1 Genl/Carp Tnd | 1.00 | 8.00  | MH | 30.82 | 116.67 | 56.61 | 452.84   |
| L4     | Labor -Group 2 Pipe Layer/GC | 1.00 | 8.00  | MH | 31.97 | 116.67 | 58.17 | 465.39   |
| OP4    | Operator-Doz, Exc, Bld, Ldr  | 2.00 | 16.00 | MH | 39.01 | 116.67 | 67.80 | 1,084.81 |

|                     |                                                  |              |             |          |
|---------------------|--------------------------------------------------|--------------|-------------|----------|
| Activity: 011420163 | Install 16 inch MJ X Flg Butterfly Valve Assembl | (Unreviewed) | Quantity: 4 | Unit: EA |
|---------------------|--------------------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 650.35     | 327.94   | 978.29      | 456.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,434.29 |
| Total   | 2,601.41   | 1,311.74 | 3,913.15    | 1,824.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 5,737.15 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,434.2875   | 3.0000        | 0.3333        | 478.0958     | 1.2000 | 3.3333      | 0.3000      | 4,780.9583 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 60.0000  | 0.0667  | 15.0000 | 65.2192        | 650.3525        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STM Medium Pipe Crew Prod: HU 3 Eff: 100.00 Crew Hrs: 12.00 Labor Pcs: 5.00 Equipment Pcs: 3.50

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8EX328   | Excavator - 328              | 1.00     | 12.00    | HR   | 100.00    | 100.00   | 100.00    | 1,200.00 |
| 8LO544   | Loader - 544                 | 0.50     | 6.00     | HR   | 50.00     | 100.00   | 50.00     | 300.00   |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 12.00    | HR   | 15.00     | 100.00   | 15.00     | 180.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 12.00    | HR   | 12.00     | 100.00   | 12.00     | 144.00   |
| FORE     | Foreman                      | 1.00     | 12.00    | MH   | 45.00     | 116.67   | 75.72     | 908.61   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 12.00    | MH   | 30.82     | 116.67   | 56.61     | 679.26   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 12.00    | MH   | 31.97     | 116.67   | 58.17     | 698.06   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 24.00    | MH   | 39.01     | 116.67   | 67.80     | 1,627.22 |

|                     |                                                  |              |             |          |
|---------------------|--------------------------------------------------|--------------|-------------|----------|
| Activity: 011420123 | Install 12 inch MJ X Flg Butterfly Valve Assembl | (Unreviewed) | Quantity: 2 | Unit: EA |
|---------------------|--------------------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 325.18     | 163.96 | 489.14      | 228.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 717.14   |
| Total   | 650.35     | 327.92 | 978.27      | 456.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,434.27 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 717.1350     | 1.5000        | 0.6667        | 478.0900     | 0.3000 | 6.6667      | 0.1500      | 4,780.9000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 15.0000  | 0.1333  | 7.5000  | 65.2180        | 325.1750        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STM Medium Pipe Crew Prod: HU 1.5 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 5.00 Equipment Pcs: 3.50

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8EX328   | Excavator - 328              | 1.00     | 3.00     | HR   | 100.00    | 100.00   | 100.00    | 300.00 |
| 8LO544   | Loader - 544                 | 0.50     | 1.50     | HR   | 50.00     | 100.00   | 50.00     | 75.00  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 3.00     | HR   | 15.00     | 100.00   | 15.00     | 45.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00  |
| FORE     | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 3.00     | MH   | 31.97     | 116.67   | 58.17     | 174.52 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 6.00     | MH   | 39.01     | 116.67   | 67.80     | 406.80 |

|                     |                                                  |              |             |          |
|---------------------|--------------------------------------------------|--------------|-------------|----------|
| Activity: 011420083 | Install 8 inch MJ X Flg Butterfly Valve Assembly | (Unreviewed) | Quantity: 1 | Unit: EA |
|---------------------|--------------------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 325.18     | 163.97 | 489.15      | 228.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 717.15 |
| Total   | 325.18     | 163.97 | 489.15      | 228.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 717.15 |



| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour   | Shifts          | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|----------------|-----------------|-------------|-------------|------------|
| 717.1500     | 1.5000        | 0.6667        | 478.1000       | 0.1500          | 6.6667      | 0.1500      | 4,781.0000 |
| Manhours     | Unit/MH       | MH/Unit       | Total Labor/MH | Base Labor/Unit |             |             |            |
| 7.5000       | 0.1333        | 7.5000        | 65.2200        | 325.1800        |             |             |            |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STM Medium Pipe Crew Prod: HU 1.5 Eff: 100.00 Crew Hrs: 1.50 Labor Pcs: 5.00 Equipment Pcs: 3.50

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8EX328   | Excavator - 328              | 1.00     | 1.50     | HR   | 100.00    | 100.00   | 100.00    | 150.00 |
| 8LO544   | Loader - 544                 | 0.50     | 0.75     | HR   | 50.00     | 100.00   | 50.00     | 37.50  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 1.50     | HR   | 15.00     | 100.00   | 15.00     | 22.50  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.50     | HR   | 12.00     | 100.00   | 12.00     | 18.00  |
| FORE     | Foreman                      | 1.00     | 1.50     | MH   | 45.00     | 116.67   | 75.72     | 113.58 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.50     | MH   | 30.82     | 116.67   | 56.61     | 84.91  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.50     | MH   | 31.97     | 116.67   | 58.17     | 87.26  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 3.00     | MH   | 39.01     | 116.67   | 67.80     | 203.40 |

|                     |                                                  |              |             |          |
|---------------------|--------------------------------------------------|--------------|-------------|----------|
| Activity: 011420043 | Install 4 inch MJ X Flg Butterfly Valve Assembly | (Unreviewed) | Quantity: 1 | Unit: EA |
|---------------------|--------------------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 162.59     | 81.99  | 244.58      | 114.25    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 358.83 |
| Total   | 162.59     | 81.99  | 244.58      | 114.25    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 358.83 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour   | Shifts          | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|----------------|-----------------|-------------|-------------|------------|
| 358.8300     | 0.7500        | 1.3333        | 478.4400       | 0.0750          | 13.3333     | 0.0750      | 4,784.4000 |
| Manhours     | Unit/MH       | MH/Unit       | Total Labor/MH | Base Labor/Unit |             |             |            |
| 3.7500       | 0.2667        | 3.7500        | 65.2213        | 162.5900        |             |             |            |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STM Medium Pipe Crew Prod: HU 0.75 Eff: 100.00 Crew Hrs: 0.75 Labor Pcs: 5.00 Equipment Pcs: 3.50

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8EX328   | Excavator - 328              | 1.00     | 0.75     | HR   | 100.00    | 100.00   | 100.00    | 75.00  |
| 8LO544   | Loader - 544                 | 0.50     | 0.38     | HR   | 50.00     | 100.00   | 50.00     | 19.00  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 0.75     | HR   | 15.00     | 100.00   | 15.00     | 11.25  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 0.75     | HR   | 12.00     | 100.00   | 12.00     | 9.00   |
| FORE     | Foreman                      | 1.00     | 0.75     | MH   | 45.00     | 116.67   | 75.72     | 56.79  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 0.75     | MH   | 30.82     | 116.67   | 56.61     | 42.46  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 0.75     | MH   | 31.97     | 116.67   | 58.16     | 43.62  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 1.50     | MH   | 39.01     | 116.67   | 67.81     | 101.71 |

## Biditem

## Inlet/Outlet & Header Fitting Bolt Ups

# 7040

Takeoff Qty: 55.000 EA

Bid Qty: 55.000 EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 321.24     | 161.98   | 483.22      | 225.24    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 708.45    |
| Total   | 17,667.93  | 8,908.95 | 26,576.88   | 12,388.00 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 38,964.88 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|---------|---------------|----------------|---------|
| 407.5000 | 0.1350  | 7.4091  | 95.6193 | 43.3569       | 65.2193        | 0.6748  |

|                 |                      |              |              |          |
|-----------------|----------------------|--------------|--------------|----------|
| Activity: 01141 | Flange & MJ Bolt Ups | (Unreviewed) | Quantity: 55 | Unit: EA |
|-----------------|----------------------|--------------|--------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 321.24     | 161.98   | 483.22      | 225.24    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 708.45    |
| Total   | 17,667.93  | 8,908.95 | 26,576.88   | 12,388.00 | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 38,964.88 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 708.4524     | 1.4818        | 0.6748        | 478.0967     | 8.1500 | 6.7485      | 0.1482      | 4,780.9669 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 407.5000 | 0.1350  | 7.4091  | 65.2193        | 321.2351        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STM Medium Pipe Crew Prod: CH 81.5 Eff: 100.00 Crew Hrs: 81.50 Labor Pcs: 5.00 Equipment Pcs: 3.50

**Notes:** Not including the valves we will have 55 FLG x MJ bolt ups in this section of piping.

Bolt Up by size:

(22) 24-inch  
(2) 20-inch  
(1) 18-inch  
(9) 16-inch  
(6) 8-inch  
(5) 6-inch  
(8) 4-inch

Since part are MJ and Part are FLG assume the following for time:

24-inch MJ: 2 hrs x 14 = 28 Hours  
24-inch FLG: 3 hrs x 8 = 24 Hours  
18-inch FLG: 2 hrs x 1 = 2 Hours  
16-inch MJ: 1.5 hrs x 8 = 12 Hours  
12-inch FLG: 1.5 hrs x 2 = 3 Hours  
8-inch MJ: 1 hrs x 6 = 6 Hours  
6-inch MJ: .5 hrs x 5 = 2.50 Hours  
4-inch MJ: .5 hrs x 8 = 4 hrs

Total of 81.5 hrs of bolt up

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 8EX328   | Excavator - 328              | 1.00     | 81.50    | HR   | 100.00    | 100.00   | 100.00    | 8,150.00  |
| 8LO544   | Loader - 544                 | 0.50     | 40.75    | HR   | 50.00     | 100.00   | 50.00     | 2,037.50  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 81.50    | HR   | 15.00     | 100.00   | 15.00     | 1,222.50  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 81.50    | HR   | 12.00     | 100.00   | 12.00     | 978.00    |
| FORE     | Foreman                      | 1.00     | 81.50    | MH   | 45.00     | 116.67   | 75.72     | 6,170.95  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 81.50    | MH   | 30.82     | 116.67   | 56.61     | 4,613.31  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 81.50    | MH   | 31.97     | 116.67   | 58.17     | 4,741.09  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 163.00   | MH   | 39.01     | 116.67   | 67.80     | 11,051.53 |

## Biditem

## Install Yard Hydrant

# 7045

Takeoff Qty: 1.000 EA

Bid Qty: 1.000 EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 331.25     | 172.64 | 503.89      | 256.00    | 75.00      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 834.89 |
| Total   | 331.25     | 172.64 | 503.89      | 256.00    | 75.00      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 834.89 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 8.0000   | 0.1250  | 8.0000  | 104.3613 | 41.4063       | 62.9863        | 0.2500  |

Activity: 011490150 Install Yard Hydrant Assembly (Unreviewed) Quantity: 1 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 331.25     | 172.64 | 503.89      | 256.00    | 75.00      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 834.89 |
| Total   | 331.25     | 172.64 | 503.89      | 256.00    | 75.00      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 834.89 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 759.8900     | 4.0000        | 0.2500        | 189.9725     | 0.4000 | 2.5000      | 0.4000      | 2,087.2250 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 8.0000   | 0.1250  | 8.0000  | 62.9863        | 331.2500        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: ST130 Misc 130 Crew Prod: CH 4 Eff: 100.00 Crew Hrs: 4.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2COB     | BAGGED CONCRETE              | 1.00     | 5.00     | EA   | 15.00     | 100.00   | 15.00     | 75.00  |
| 8EX130   | Excavator - 130              | 1.00     | 4.00     | HR   | 52.00     | 100.00   | 52.00     | 208.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 4.00     | HR   | 12.00     | 100.00   | 12.00     | 48.00  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 4.00     | MH   | 31.97     | 116.67   | 58.17     | 232.69 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 4.00     | MH   | 39.01     | 116.67   | 67.80     | 271.20 |

## Biditem

## Procure &amp; Install 18 IN Zone 2 Pipe

7050

Takeoff Qty: 140.000 LF

Bid Qty: 140.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 23.53      | 11.88    | 35.41       | 30.58     | 108.62     | 0.00        | 0.00 | 44.64      | 32.20    | 0.00     | 251.44    |
| Total   | 3,293.84   | 1,663.47 | 4,957.31    | 4,280.63  | 15,206.52  | 0.00        | 0.00 | 6,249.00   | 4,508.00 | 0.00     | 35,201.46 |

|  | Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|--|----------|---------|---------|----------|---------------|----------------|---------|
|  | 76.1400  | 1.8387  | 0.5439  | 462.3255 | 43.2603       | 65.1078        | 8.7137  |

Activity: 011400054 Procure &amp; String 18-inch Zone 2 Pipe (Unreviewed) Quantity: 140 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.81       | 0.43   | 1.24        | 0.50      | 108.62     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 110.36    |
| Total   | 114.06     | 60.10  | 174.16      | 70.00     | 15,206.52  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 15,450.68 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
| 1.7440       | 0.0100        | 100.0000      | 174.4000     | 0.1400 | 1,000.0000  | 0.0010      | 110,362.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 2.8000   | 50.0000 | 0.0200  | 62.2000        | 0.8147          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 100 Eff: 100.00 Crew Hrs: 1.40 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2PI1218      | 18in DI CL52 Pipe            | 1.00     | 160.00   | LF   | 61.41     | 100.00   | 61.41     | 9,825.60 |
| 2PI18FIELDLO | 18 IN Field Lok Gasket       | 1.00     | 8.00     | EA   | 293.71    | 100.00   | 293.71    | 2,349.68 |
| 2PI18FLGGSKT | 18 IN FLG GSKT               | 1.00     | 1.00     | EA   | 113.62    | 100.00   | 113.62    | 113.62   |
| 2PI18FLGNBK  | 18 IN FLG NBK                | 1.00     | 1.00     | EA   | 131.67    | 100.00   | 131.67    | 131.67   |
| 2PI18MEG     | 18 IN Megalug                | 1.00     | 3.00     | EA   | 256.88    | 100.00   | 256.88    | 770.64   |
| 2PI18MJ45    | 18 IN MJ 45                  | 1.00     | 1.00     | EA   | 1,051.67  | 100.00   | 1,051.67  | 1,051.67 |
| 2PI18MJXFADP | 18 IN MJ x FLG Adpt          | 1.00     | 1.00     | EA   | 963.64    | 100.00   | 963.64    | 963.64   |
| 8LO544       | Loader - 544                 | 1.00     | 1.40     | HR   | 50.00     | 100.00   | 50.00     | 70.00    |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.40     | MH   | 30.82     | 116.67   | 56.61     | 79.25    |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 1.40     | MH   | 39.01     | 116.67   | 67.79     | 94.91    |

Activity: 011400518 Gran-18 inch Waterline-Medium (Unreviewed) Quantity: 140 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 18.07      | 9.11     | 27.18       | 26.17     | 0.00       | 0.00        | 0.00 | 44.64      | 24.50    | 0.00     | 122.48    |
| Total   | 2,529.42   | 1,275.44 | 3,804.86    | 3,663.63  | 0.00       | 0.00        | 0.00 | 6,249.00   | 3,430.00 | 0.00     | 17,147.49 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 53.3464      | 0.0833        | 12.0000       | 640.1545     | 1.1667 | 119.9997    | 0.0083      | 14,697.8066 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 58.3400  | 2.3997  | 0.4167  | 65.2187        | 18.0673         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 12 Eff: 100.00 Crew Hrs: 11.67 Labor Pcs: 5.00 Equipment Pcs: 6.50

Notes: Cut Fill with Bedding Routine  
 Description Unit Quantity

|                                |    |          |
|--------------------------------|----|----------|
| Distance to object             | LF | 0.5000   |
| Bedding 1 Depth                | LF | 3.0000   |
| Bedding 2 Depth                | LF | 7.0000   |
| Object Height (Dia. if circle) | LF | 1.5000   |
| Object Width (0 if circle)     | LF | 0.0000   |
| Trench Width                   | LF | 4.5000   |
| Trench Depth                   | LF | 10.0000  |
| Flare Width                    | LF | 0.0000   |
| Flare Depth                    | LF | 0.0000   |
| Trench Length                  | LF | 140.0000 |
| Compaction Factor - Bedding 1  | %  | 0.0000   |
| Compaction Factor - Bedding 2  | %  | 0.0000   |
| Excavated Volume               | CY | 233.3333 |
| Bedding 1 Volume               | CY | 60.8372  |
| Bedding 2 Volume               | CY | 163.3333 |
| Bedding 1 + Bedding 2          | CY | 224.1705 |
| Net Excess                     | CY | 233.3332 |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO       | Trucking - Solo              | 1.00     | 35.00    | HR   | 98.00     | 100.00   | 98.00     | 3,430.00 |
| 6AGC075P  | Crushed - 3/4in (PU)         | 1.00     | 448.00   | TON  | 12.00     | 100.00   | 12.00     | 5,376.00 |
| 6DEDU02   | DUMP FEES - (CY)             | 1.00     | 291.00   | CY   | 3.00      | 100.00   | 3.00      | 873.00   |
| 8EX130    | Excavator - 130              | 1.00     | 11.67    | HR   | 52.00     | 100.00   | 52.00     | 606.84   |
| 8EX308BRK | Excavator - 308 w/ Brk       | 0.50     | 5.83     | HR   | 150.00    | 100.00   | 150.00    | 874.50   |
| 8EX328    | Excavator - 328              | 1.00     | 11.67    | HR   | 100.00    | 100.00   | 100.00    | 1,167.00 |
| 8LO544    | Loader - 544                 | 1.00     | 11.67    | HR   | 50.00     | 100.00   | 50.00     | 583.50   |
| 8MIHP     | Misc - Backhoe Hoepac        | 1.00     | 11.67    | HR   | 10.00     | 100.00   | 10.00     | 116.70   |
| 8SHTR10   | Shoring - Trench Box 10'     | 1.00     | 11.67    | HR   | 15.00     | 100.00   | 15.00     | 175.05   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 11.67    | HR   | 12.00     | 100.00   | 12.00     | 140.04   |
| FORE      | Foreman                      | 1.00     | 11.67    | MH   | 45.00     | 116.67   | 75.72     | 883.62   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 11.67    | MH   | 30.82     | 116.67   | 56.60     | 660.58   |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 11.67    | MH   | 31.97     | 116.67   | 58.17     | 678.87   |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 23.33    | MH   | 39.01     | 116.67   | 67.80     | 1,581.79 |

Activity: 011411810 18 inch Mechanical Joint Fittings (Unreviewed) Quantity: 1 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 216.79     | 109.31 | 326.10      | 239.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 859.10 |
| Total   | 216.79     | 109.31 | 326.10      | 239.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 859.10 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 565.1000     | 1.0000        | 1.0000        | 565.1000     | 0.1000 | 10.0000     | 0.1000      | 8,591.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 5.0000   | 0.2000  | 5.0000  | 65.2200        | 216.7900        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 1 Eff: 100.00 Crew Hrs: 1.00 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 3.00     | HR   | 98.00     | 100.00   | 98.00     | 294.00 |
| 8EX130   | Excavator - 130              | 1.00     | 1.00     | HR   | 52.00     | 100.00   | 52.00     | 52.00  |
| 8EX328   | Excavator - 328              | 1.00     | 1.00     | HR   | 100.00    | 100.00   | 100.00    | 100.00 |
| 8LO544   | Loader - 544                 | 1.00     | 1.00     | HR   | 50.00     | 100.00   | 50.00     | 50.00  |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 1.00     | HR   | 10.00     | 100.00   | 10.00     | 10.00  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 1.00     | HR   | 15.00     | 100.00   | 15.00     | 15.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.00     | HR   | 12.00     | 100.00   | 12.00     | 12.00  |
| FORE     | Foreman                      | 1.00     | 1.00     | MH   | 45.00     | 116.67   | 75.72     | 75.72  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.00     | MH   | 30.82     | 116.67   | 56.61     | 56.61  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.00     | MH   | 31.97     | 116.67   | 58.17     | 58.17  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 2.00     | MH   | 39.01     | 116.67   | 67.80     | 135.60 |

Activity: 011500075 Connect to Existing Waterline (Unreviewed) Quantity: 1 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 433.57     | 218.62 | 652.19      | 308.00    | 0.00       | 0.00        | 0.00 | 0.00       | 784.00   | 0.00     | 1,744.19 |
| Total   | 433.57     | 218.62 | 652.19      | 308.00    | 0.00       | 0.00        | 0.00 | 0.00       | 784.00   | 0.00     | 1,744.19 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour   | Shifts          | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|----------------|-----------------|-------------|-------------|------------|
| 960.1900     | 2.0000        | 0.5000        | 480.0950       | 0.2000          | 5.0000      | 0.2000      | 8,720.9500 |
| Manhours     | Unit/MH       | MH/Unit       | Total Labor/MH | Base Labor/Unit |             |             |            |
| 10.0000      | 0.1000        | 10.0000       | 65.2190        | 433.5700        |             |             |            |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: CH 2 Eff: 100.00 Crew Hrs: 2.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 8.00     | HR   | 98.00     | 100.00   | 98.00     | 784.00 |
| 8BA580   | 580 BACKHOE                  | 1.00     | 2.00     | HR   | 30.00     | 100.00   | 30.00     | 60.00  |
| 8EX130   | Excavator - 130              | 1.00     | 2.00     | HR   | 52.00     | 100.00   | 52.00     | 104.00 |
| 8LO544   | Loader - 544                 | 1.00     | 2.00     | HR   | 50.00     | 100.00   | 50.00     | 100.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 2.00     | HR   | 10.00     | 100.00   | 10.00     | 20.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 2.00     | HR   | 12.00     | 100.00   | 12.00     | 24.00  |
| FORE     | Foreman                      | 1.00     | 2.00     | MH   | 45.00     | 116.67   | 75.72     | 151.43 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 2.00     | MH   | 30.82     | 116.67   | 56.61     | 113.21 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 2.00     | MH   | 31.97     | 116.67   | 58.18     | 116.35 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 4.00     | MH   | 39.01     | 116.67   | 67.80     | 271.20 |

## Biditem

## Procure & Install 24 IN Zone 1A Pipe

# 7060

Takeoff Qty: 150.000 LF

Bid Qty: 150.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 23.22      | 11.73    | 34.94       | 31.45     | 153.20     | 0.00        | 0.00 | 28.02      | 30.38    | 0.00     | 277.99    |
| Total   | 3,482.36   | 1,758.76 | 5,241.12    | 4,717.00  | 22,980.12  | 0.00        | 0.00 | 4,203.00   | 4,557.00 | 0.00     | 41,698.24 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 80.5000  | 1.8634  | 0.5367  | 517.9906 | 43.2591       | 65.1071        | 8.8235  |

Activity: 011400054 Procure & String 24 IN Zone 1A Pipe (Unreviewed) Quantity: 150 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.81       | 0.43   | 1.24        | 0.50      | 153.20     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 154.94    |
| Total   | 122.21     | 64.41  | 186.62      | 75.00     | 22,980.12  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 23,241.74 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
| 1.7441       | 0.0100        | 100.0000      | 174.4133     | 0.1500 | 1,000.0000  | 0.0010      | 154,944.9333 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 3.0000   | 50.0000 | 0.0200  | 62.2067        | 0.8147          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 100 Eff: 100.00 Crew Hrs: 1.50 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2PI1224      | 24in DI CL52 Pipe            | 1.00     | 160.00   | LF   | 88.84     | 100.00   | 88.84     | 14,214.40 |
| 2PI24FIELDLO | 24 IN Field Lok Gasket       | 1.00     | 8.00     | EA   | 471.46    | 100.00   | 471.46    | 3,771.68  |
| 2PI24MEG     | 24 IN Megalug                | 1.00     | 4.00     | EA   | 402.94    | 100.00   | 402.94    | 1,611.76  |
| 2PI24MJ45    | 24 IN MJ 45                  | 1.00     | 1.00     | EA   | 1,799.53  | 100.00   | 1,799.53  | 1,799.53  |
| 2PI24MJLONG  | 24 IN MJ Long Sleeve         | 1.00     | 1.00     | EA   | 1,582.75  | 100.00   | 1,582.75  | 1,582.75  |
| 8LO544       | Loader - 544                 | 1.00     | 1.50     | HR   | 50.00     | 100.00   | 50.00     | 75.00     |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.50     | MH   | 30.82     | 116.67   | 56.61     | 84.91     |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 1.50     | MH   | 39.01     | 116.67   | 67.81     | 101.71    |

Activity: 011400524 Gran-24 inch Waterline-Medium (Unreviewed) Quantity: 150 Unit: LF

| Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |          |          |          |          |      |      |      |          |          |      |           |
|---------|----------|----------|----------|----------|------|------|------|----------|----------|------|-----------|
| U. Cost | 18.07    | 9.11     | 27.17    | 26.17    | 0.00 | 0.00 | 0.00 | 28.02    | 24.50    | 0.00 | 105.86    |
| Total   | 2,709.80 | 1,366.43 | 4,076.23 | 3,925.00 | 0.00 | 0.00 | 0.00 | 4,203.00 | 3,675.00 | 0.00 | 15,879.23 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 53.3415      | 0.0833        | 12.0000       | 640.0984     | 1.2500 | 120.0000    | 0.0083      | 12,703.3840 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 62.5000  | 2.4000  | 0.4167  | 65.2197        | 18.0653         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 12 Eff: 100.00 Crew Hrs: 12.50 Labor Pcs: 5.00 Equipment Pcs: 6.50

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 3.5000   |
| Bedding 2 Depth                | LF   | 2.5000   |
| Object Height (Dia. if circle) | LF   | 2.0000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 5.0000   |
| Trench Depth                   | LF   | 6.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 150.0000 |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 166.6666 |
| Bedding 1 Volume               | CY   | 79.7694  |
| Bedding 2 Volume               | CY   | 69.4444  |
| Bedding 1 + Bedding 2          | CY   | 149.2138 |
| Net Excess                     | CY   | 166.6665 |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO       | Trucking - Solo              | 1.00     | 37.50    | HR   | 98.00     | 100.00   | 98.00     | 3,675.00 |
| 6AGC075P  | Crushed - 3/4in (PU)         | 1.00     | 298.00   | TON  | 12.00     | 100.00   | 12.00     | 3,576.00 |
| 6DEDU02   | DUMP FEES - (CY)             | 1.00     | 209.00   | CY   | 3.00      | 100.00   | 3.00      | 627.00   |
| 8EX130    | Excavator - 130              | 1.00     | 12.50    | HR   | 52.00     | 100.00   | 52.00     | 650.00   |
| 8EX308BRK | Excavator - 308 w/ Brk       | 0.50     | 6.25     | HR   | 150.00    | 100.00   | 150.00    | 937.50   |
| 8EX328    | Excavator - 328              | 1.00     | 12.50    | HR   | 100.00    | 100.00   | 100.00    | 1,250.00 |
| 8LO544    | Loader - 544                 | 1.00     | 12.50    | HR   | 50.00     | 100.00   | 50.00     | 625.00   |
| 8MIHP     | Misc - Backhoe Hoepac        | 1.00     | 12.50    | HR   | 10.00     | 100.00   | 10.00     | 125.00   |
| 8SHTR10   | Shoring - Trench Box 10'     | 1.00     | 12.50    | HR   | 15.00     | 100.00   | 15.00     | 187.50   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 12.50    | HR   | 12.00     | 100.00   | 12.00     | 150.00   |
| FORE      | Foreman                      | 1.00     | 12.50    | MH   | 45.00     | 116.67   | 75.72     | 946.47   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 12.50    | MH   | 30.82     | 116.67   | 56.61     | 707.57   |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 12.50    | MH   | 31.97     | 116.67   | 58.17     | 727.17   |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 25.00    | MH   | 39.01     | 116.67   | 67.80     | 1,695.02 |

Activity: 011412410 24 inch Mechanical Joint Fittings (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 325.18     | 163.96 | 489.14      | 358.50    | 0.00       | 0.00        | 0.00 | 0.00       | 441.00   | 0.00     | 1,288.64 |
| Total   | 650.35     | 327.92 | 978.27      | 717.00    | 0.00       | 0.00        | 0.00 | 0.00       | 882.00   | 0.00     | 2,577.27 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 847.6350     | 1.5000        | 0.6667        | 565.0900     | 0.3000 | 6.6667      | 0.1500      | 8,590.9000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 15.0000  | 0.1333  | 7.5000  | 65.2180        | 325.1750        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 1.5 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|-----------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo | 1.00     | 9.00     | HR   | 98.00     | 100.00   | 98.00     | 882.00 |
| 8EX130   | Excavator - 130 | 1.00     | 3.00     | HR   | 52.00     | 100.00   | 52.00     | 156.00 |
| 8EX328   | Excavator - 328 | 1.00     | 3.00     | HR   | 100.00    | 100.00   | 100.00    | 300.00 |
| 8LO544   | Loader - 544    | 1.00     | 3.00     | HR   | 50.00     | 100.00   | 50.00     | 150.00 |

|         |                              |      |      |    |       |        |       |        |
|---------|------------------------------|------|------|----|-------|--------|-------|--------|
| 8MIHP   | Misc - Backhoe Hoepac        | 1.00 | 3.00 | HR | 10.00 | 100.00 | 10.00 | 30.00  |
| 8SHTR10 | Shoring - Trench Box 10'     | 1.00 | 3.00 | HR | 15.00 | 100.00 | 15.00 | 45.00  |
| 8TRUT1  | Truck - 1 Ton                | 1.00 | 3.00 | HR | 12.00 | 100.00 | 12.00 | 36.00  |
| FORE    | Foreman                      | 1.00 | 3.00 | MH | 45.00 | 116.67 | 75.71 | 227.14 |
| L1      | Labor -Group 1 Genl/Carp Tnd | 1.00 | 3.00 | MH | 30.82 | 116.67 | 56.60 | 169.81 |
| L4      | Labor -Group 2 Pipe Layer/GC | 1.00 | 3.00 | MH | 31.97 | 116.67 | 58.17 | 174.52 |
| OP4     | Operator-Doz, Exc, Bld, Ldr  | 2.00 | 6.00 | MH | 39.01 | 116.67 | 67.80 | 406.80 |

## Biditem

## Procure &amp; Install 8 IN DI Pipe

7070

Takeoff Qty: 65.000 LF

Bid Qty: 65.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 22.66      | 11.45  | 34.11       | 23.91     | 41.06      | 0.00        | 0.00 | 17.58      | 29.02    | 0.00     | 145.69   |
| Total   | 1,472.78   | 744.49 | 2,217.27    | 1,554.38  | 2,668.66   | 0.00        | 0.00 | 1,143.00   | 1,886.50 | 0.00     | 9,469.81 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 34.0900  | 1.9067  | 0.5245  | 277.7885 | 43.2027       | 65.0417        | 8.7615  |

Activity: 011400054 Procure & String 8 IN DI Pipe (Unreviewed) Quantity: 65 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1.25       | 0.66   | 1.91        | 0.77      | 41.06      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 43.74    |
| Total   | 81.47      | 42.94  | 124.41      | 50.00     | 2,668.66   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,843.07 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 2.6832       | 0.0154        | 64.8638       | 174.0445     | 0.1002 | 648.6379    | 0.0015      | 28,371.1206 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 2.0000   | 32.5000 | 0.0308  | 62.2050        | 1.2534          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 64.8638 Eff: 100.00 Crew Hrs: 1.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2PI1208      | 8in DI CL52 Pipe             | 1.00     | 80.00    | LF   | 25.92     | 100.00   | 25.92     | 2,073.60 |
| 2PI3X1000DET | 3 x 1000 Detect Tape         | 1.00     | 1.00     | EA   | 41.22     | 100.00   | 41.22     | 41.22    |
| 2PI8FIELDLOK | 8 IN Field Lok Gskt          | 1.00     | 4.00     | EA   | 79.86     | 100.00   | 79.86     | 319.44   |
| 2PI8MEG      | 8 IN Megalug                 | 1.00     | 2.00     | EA   | 46.68     | 100.00   | 46.68     | 93.36    |
| 2PI8MJLONG   | 8 IN MJ Long Sleeve          | 1.00     | 1.00     | EA   | 141.04    | 100.00   | 141.04    | 141.04   |
| 8LO544       | Loader - 544                 | 1.00     | 1.00     | HR   | 50.00     | 100.00   | 50.00     | 50.00    |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.00     | MH   | 30.82     | 116.67   | 56.61     | 56.61    |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 1.00     | MH   | 39.01     | 116.67   | 67.80     | 67.80    |

Activity: 011400508 Gran-8 inch Waterline-Medium (Unreviewed) Quantity: 65 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 18.07      | 9.11   | 27.18       | 19.93     | 0.00       | 0.00        | 0.00 | 17.58      | 24.50    | 0.00     | 89.19    |
| Total   | 1,174.52   | 592.24 | 1,766.76    | 1,295.38  | 0.00       | 0.00        | 0.00 | 1,143.00   | 1,592.50 | 0.00     | 5,797.64 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 47.1098      | 0.0833        | 11.9999       | 565.3147     | 0.5417 | 119.9993    | 0.0083      | 10,703.2695 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 27.0900  | 2.3994  | 0.4168  | 65.2182        | 18.0695         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 12 Eff: 100.00 Crew Hrs: 5.42 Labor Pcs: 5.00 Equipment Pcs: 6.00

Notes: Cut Fill with Bedding Routine

| Description        | Unit | Quantity |
|--------------------|------|----------|
| Distance to object | LF   | 0.5000   |
| Bedding 1 Depth    | LF   | 2.1700   |



|                                |    |         |
|--------------------------------|----|---------|
| Bedding 2 Depth                | LF | 2.8300  |
| Object Height (Dia. if circle) | LF | 0.6700  |
| Object Width (0 if circle)     | LF | 0.0000  |
| Trench Width                   | LF | 3.5000  |
| Trench Depth                   | LF | 5.0000  |
| Flare Width                    | LF | 0.0000  |
| Flare Depth                    | LF | 0.0000  |
| Trench Length                  | LF | 65.0000 |
| Compaction Factor - Bedding 1  | %  | 0.0000  |
| Compaction Factor - Bedding 2  | %  | 0.0000  |
| Excavated Volume               | CY | 42.1296 |
| Bedding 1 Volume               | CY | 17.4356 |
| Bedding 2 Volume               | CY | 23.8453 |
| Bedding 1 + Bedding 2          | CY | 41.2809 |
| Net Excess                     | CY | 42.1295 |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 16.25    | HR   | 98.00     | 100.00   | 98.00     | 1,592.50 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 82.00    | TON  | 12.00     | 100.00   | 12.00     | 984.00   |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 53.00    | CY   | 3.00      | 100.00   | 3.00      | 159.00   |
| 8EX130   | Excavator - 130              | 1.00     | 5.42     | HR   | 52.00     | 100.00   | 52.00     | 281.84   |
| 8EX328   | Excavator - 328              | 1.00     | 5.42     | HR   | 100.00    | 100.00   | 100.00    | 542.00   |
| 8LO544   | Loader - 544                 | 1.00     | 5.42     | HR   | 50.00     | 100.00   | 50.00     | 271.00   |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 5.42     | HR   | 10.00     | 100.00   | 10.00     | 54.20    |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 5.42     | HR   | 15.00     | 100.00   | 15.00     | 81.30    |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 5.42     | HR   | 12.00     | 100.00   | 12.00     | 65.04    |
| FORE     | Foreman                      | 1.00     | 5.42     | MH   | 45.00     | 116.67   | 75.72     | 410.39   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 5.42     | MH   | 30.82     | 116.67   | 56.61     | 306.80   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 5.42     | MH   | 31.97     | 116.67   | 58.17     | 315.29   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 10.83    | MH   | 39.01     | 116.67   | 67.80     | 734.28   |

Activity: 011410810 8 inch Mechanical Joint Fittings (Unreviewed) Quantity: 1 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 216.79     | 109.31 | 326.10      | 209.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 829.10 |
| Total   | 216.79     | 109.31 | 326.10      | 209.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 829.10 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 535.1000     | 1.0000        | 1.0000        | 535.1000     | 0.1000 | 10.0000     | 0.1000      | 8,291.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 5.0000   | 0.2000  | 5.0000  | 65.2200        | 216.7900        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 1 Eff: 100.00 Crew Hrs: 1.00 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 3.00     | HR   | 98.00     | 100.00   | 98.00     | 294.00 |
| 8EX130   | Excavator - 130              | 1.00     | 1.00     | HR   | 52.00     | 100.00   | 52.00     | 52.00  |
| 8EX225   | Excavator - 225RTS           | 1.00     | 1.00     | HR   | 70.00     | 100.00   | 70.00     | 70.00  |
| 8LO544   | Loader - 544                 | 1.00     | 1.00     | HR   | 50.00     | 100.00   | 50.00     | 50.00  |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 1.00     | HR   | 10.00     | 100.00   | 10.00     | 10.00  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 1.00     | HR   | 15.00     | 100.00   | 15.00     | 15.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.00     | HR   | 12.00     | 100.00   | 12.00     | 12.00  |
| FORE     | Foreman                      | 1.00     | 1.00     | MH   | 45.00     | 116.67   | 75.72     | 75.72  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.00     | MH   | 30.82     | 116.67   | 56.61     | 56.61  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.00     | MH   | 31.97     | 116.67   | 58.17     | 58.17  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 2.00     | MH   | 39.01     | 116.67   | 67.80     | 135.60 |

Biditem

Procure & Install Control Vaults & Piping

7080

Takeoff Qty: 2.000 EA

Bid Qty: 2.000 EA

| Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |           |          |           |          |           |      |          |          |          |      |            |
|---------|-----------|----------|-----------|----------|-----------|------|----------|----------|----------|------|------------|
| U. Cost | 5,759.48  | 3,309.14 | 9,068.62  | 3,475.00 | 37,845.00 | 0.00 | 1,050.00 | 1,375.50 | 1,764.00 | 0.00 | 54,578.12  |
| Total   | 11,518.95 | 6,618.28 | 18,137.23 | 6,950.00 | 75,690.00 | 0.00 | 2,100.00 | 2,751.00 | 3,528.00 | 0.00 | 109,156.23 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 247.0000 | 0.0081  | 123.5000 | 441.9281 | 46.6354       | 73.4301        | 0.0385  |

Activity: 030000130 Procure Valve Vault (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 37,620.00  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 37,620.00 |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 75,240.00  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 75,240.00 |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description               | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2PRMICVV | Inlet Control Valve Vault | 1.00     | 1.00     | EA   | 36,340.00 | 100.00   | 36,340.00 | 36,340.00 |
| 2PRMOVV  | Outlet Valve Vault        | 1.00     | 1.00     | EA   | 38,900.00 | 100.00   | 38,900.00 | 38,900.00 |

Activity: 030000130.1 Excavate & Set Vaults (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|-----------|
| U. Cost | 1,370.87   | 689.62   | 2,060.49    | 1,347.00  | 0.00       | 0.00        | 1,050.00 | 439.50     | 1,764.00 | 0.00     | 6,660.99  |
| Total   | 2,741.73   | 1,379.24 | 4,120.97    | 2,694.00  | 0.00       | 0.00        | 2,100.00 | 879.00     | 3,528.00 | 0.00     | 13,321.97 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 3,407.4850   | 6.0000        | 0.1667        | 567.9142     | 1.2000 | 1.6667      | 0.6000      | 11,101.6417 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 63.0000  | 0.0317  | 31.5000 | 65.4122        | 1,370.8650      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 6 Eff: 100.00 Crew Hrs: 12.00 Labor Pcs: 5.25 Equipment Pcs: 5.00

Notes: Assume the following for excavation:

24-inch outlet vault:

14 x 14 x 12 = 87 CY

16-inch inlet vault:

12 x 12 x 12 = 64 CY

Base Rock: 14 x 14 x 1 = 15 tons

Base Rock: 12 x 12 x 1 = 11 tons

Backfill will be the delta between the excavation and the vaults so:

Excavation: 151 CY

Vaults: 73 CY

Delta for backfil: 78 CY or 156 tons

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 4CRANE   | Crane Rental                 | 1.00     | 6.00     | HR   | 350.00    | 100.00   | 350.00    | 2,100.00 |
| 5SO      | Trucking - Solo              | 1.00     | 36.00    | HR   | 98.00     | 100.00   | 98.00     | 3,528.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 26.00    | TON  | 12.00     | 100.00   | 12.00     | 312.00   |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 189.00   | CY   | 3.00      | 100.00   | 3.00      | 567.00   |
| 8EX328   | Excavator - 328              | 0.75     | 9.00     | HR   | 100.00    | 100.00   | 100.00    | 900.00   |
| 8EX600   | Excavator - 600              | 0.25     | 3.00     | HR   | 230.00    | 100.00   | 230.00    | 690.00   |
| 8LO544   | Loader - 544                 | 1.00     | 12.00    | HR   | 50.00     | 100.00   | 50.00     | 600.00   |
| 8SHTR10  | Shoring - Trench Box 10'     | 2.00     | 24.00    | HR   | 15.00     | 100.00   | 15.00     | 360.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 12.00    | HR   | 12.00     | 100.00   | 12.00     | 144.00   |
| FORE     | Foreman                      | 1.00     | 12.00    | MH   | 45.00     | 116.67   | 75.72     | 908.61   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 12.00    | MH   | 30.82     | 116.67   | 56.61     | 679.26   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 12.00    | MH   | 31.97     | 116.67   | 58.17     | 698.06   |
| OP3      | Operator-Hvy Dozer/Excavator | 0.25     | 3.00     | MH   | 40.09     | 116.67   | 69.27     | 207.82   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 24.00    | MH   | 39.01     | 116.67   | 67.80     | 1,627.22 |

Activity: 030000132 Valve Vault Mechanical Piping (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3,521.47   | 2,182.27 | 5,703.74    | 1,320.00  | 225.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 7,248.74  |
| Total   | 7,042.94   | 4,364.54 | 11,407.48   | 2,640.00  | 450.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 14,497.48 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 7,023.7400   | 16.0000       | 0.0625        | 438.9838     | 3.2000 | 0.6250      | 1.6000      | 4,530.4625 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 144.0000 | 0.0139  | 72.0000 | 79.2186        | 3,521.4700      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STS Shallow Pipe Crew Prod: HU 16 Eff: 100.00 Crew Hrs: 32.00 Labor Pcs: 4.50 Equipment Pcs: 1.50

Notes: This item is for installing the (2) 16-inch EMO valves, the 24-inch swing check valve, the (5) RFCA's and pipe stands in the vaults + the ladders and misc.

| Resource    | Description                        | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-------------|------------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2GROUT      | Construction Grout                 | 1.00     | 10.00    | EA   | 20.00     | 100.00   | 20.00     | 200.00   |
| 2MISCPMOUNT | Misc. Pipe Stand Mounting Material | 1.00     | 1.00     | LS   | 250.00    | 100.00   | 250.00    | 250.00   |
| 8EX130      | Excavator - 130                    | 0.25     | 8.00     | HR   | 52.00     | 100.00   | 52.00     | 416.00   |
| 8EX600      | Excavator - 600                    | 0.25     | 8.00     | HR   | 230.00    | 100.00   | 230.00    | 1,840.00 |
| 8TRUT1      | Truck - 1 Ton                      | 1.00     | 32.00    | HR   | 12.00     | 100.00   | 12.00     | 384.00   |
| FORE        | Foreman                            | 1.00     | 32.00    | MH   | 45.00     | 116.67   | 75.72     | 2,422.95 |
| L4          | Labor -Group 2 Pipe Layer/GC       | 1.00     | 32.00    | MH   | 31.97     | 116.67   | 58.17     | 1,861.53 |
| OP3         | Operator-Hvy Dozer/Excavator       | 0.25     | 8.00     | MH   | 40.09     | 116.67   | 69.27     | 554.19   |
| OP4         | Operator-Doz, Exc, Bld, Ldr        | 0.25     | 8.00     | MH   | 39.01     | 116.67   | 67.80     | 542.41   |
| PLUMBER     | Plumber/Pipefitter                 | 2.00     | 64.00    | MH   | 45.95     | 116.67   | 94.16     | 6,026.40 |

Activity: 030000130.2 Backfill Vaults (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 867.14     | 437.25 | 1,304.39    | 808.00    | 0.00       | 0.00        | 0.00 | 936.00     | 0.00     | 0.00     | 3,048.39 |
| Total   | 1,734.28   | 874.50 | 2,608.78    | 1,616.00  | 0.00       | 0.00        | 0.00 | 1,872.00   | 0.00     | 0.00     | 6,096.78 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 2,112.3900   | 4.0000        | 0.2500        | 528.0975     | 0.8000 | 2.5000      | 0.4000      | 7,620.9750 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 40.0000  | 0.0500  | 20.0000 | 65.2195        | 867.1400        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 4 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 156.00   | TON  | 12.00     | 100.00   | 12.00     | 1,872.00 |
| 8EX328   | Excavator - 328              | 1.00     | 8.00     | HR   | 100.00    | 100.00   | 100.00    | 800.00   |
| 8LO544   | Loader - 544                 | 1.00     | 8.00     | HR   | 50.00     | 100.00   | 50.00     | 400.00   |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 8.00     | HR   | 10.00     | 100.00   | 10.00     | 80.00    |
| 8SHTR10  | Shoring - Trench Box 10'     | 2.00     | 16.00    | HR   | 15.00     | 100.00   | 15.00     | 240.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 8.00     | HR   | 12.00     | 100.00   | 12.00     | 96.00    |
| FORE     | Foreman                      | 1.00     | 8.00     | MH   | 45.00     | 116.67   | 75.72     | 605.74   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 8.00     | MH   | 30.82     | 116.67   | 56.61     | 452.84   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 8.00     | MH   | 31.97     | 116.67   | 58.17     | 465.39   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 16.00    | MH   | 39.01     | 116.67   | 67.80     | 1,084.81 |

Biditem

Procure & Install 4 IN Washdown Pipe

7090

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|  | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |        |        |        |        |          |      |           |      |      |      |           |
|---------|--------|--------|--------|--------|----------|------|-----------|------|------|------|-----------|
| U. Cost | 325.88 | 171.75 | 497.63 | 200.00 | 8,424.74 | 0.00 | 14,000.00 | 0.00 | 0.00 | 0.00 | 23,122.37 |
| Total   | 325.88 | 171.75 | 497.63 | 200.00 | 8,424.74 | 0.00 | 14,000.00 | 0.00 | 0.00 | 0.00 | 23,122.37 |

|          |         |         |            |               |                |         |
|----------|---------|---------|------------|---------------|----------------|---------|
| Manhours | Unit/MH | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH |
| 8.0000   | 0.1250  | 8.0000  | 2,890.2963 | 40.7350       | 62.2038        | 0.2500  |

Activity: 011400054 Procure & String Washdown Pipe (Unreviewed) Quantity: 1 Unit: LS

|         |            |        |             |           |            |             |           |            |          |          |           |
|---------|------------|--------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
| U. Cost | 325.88     | 171.75 | 497.63      | 200.00    | 8,424.74   | 0.00        | 14,000.00 | 0.00       | 0.00     | 0.00     | 23,122.37 |
| Total   | 325.88     | 171.75 | 497.63      | 200.00    | 8,424.74   | 0.00        | 14,000.00 | 0.00       | 0.00     | 0.00     | 23,122.37 |

|              |               |               |              |        |             |             |             |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
| 697.6300     | 4.0000        | 0.2500        | 174.4075     | 0.4000 | 2.5000      | 0.4000      | 57,805.9250 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 8.0000   | 0.1250  | 8.0000  | 62.2038        | 325.8800        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: CH 4 Eff: 100.00 Crew Hrs: 4.00 Labor Pcs: 2.00 Equipment Pcs: 1.00

Notes: I have added the cost for Skaar to procure the washdown hanger brackets and install the washdown pipe that was not in the original budget. Received a quote from Joel on 12/29/20 at 12:52 PM for \$14,000.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2PI2FLGGSKT  | 2 IN FLG GSKT                | 1.00     | 3.00     | EA   | 1.13      | 100.00   | 1.13      | 3.39      |
| 2PI2HDFLGADP | 2 IN HDPE FLG ADPT           | 1.00     | 3.00     | EA   | 9.39      | 100.00   | 9.39      | 28.17     |
| 2PI2HDSSBR   | 2 IN HDPE SS Backing Ring    | 1.00     | 3.00     | EA   | 63.28     | 100.00   | 63.28     | 189.84    |
| 2PI2SSFLGBV  | 2 IN SS FLG Ball Valve       | 1.00     | 3.00     | EA   | 856.47    | 100.00   | 856.47    | 2,569.41  |
| 2PI2SSFLGNBK | 2 IN SS NBK                  | 1.00     | 3.00     | EA   | 7.58      | 100.00   | 7.58      | 22.74     |
| 2PI4FLG90    | 4 IN FLG 90                  | 1.00     | 1.00     | EA   | 161.18    | 100.00   | 161.18    | 161.18    |
| 2PI4FLG90EPO | 4 N FLG 90 Epoxy Coated      | 1.00     | 1.00     | EA   | 335.29    | 100.00   | 335.29    | 335.29    |
| 2PI4FLGGSKT  | 4 IN FLG GSKT                | 1.00     | 10.00    | EA   | 15.37     | 100.00   | 15.37     | 153.70    |
| 2PI4FLGINS   | 4 IN FLG Insulating Kit      | 1.00     | 1.00     | EA   | 94.17     | 100.00   | 94.17     | 94.17     |
| 2PI4HDFLGADP | 4 IN HDPE FLG ADPT           | 1.00     | 1.00     | EA   | 16.64     | 100.00   | 16.64     | 16.64     |
| 2PI4HDSSBR   | 4 IN HDPE SS Backing Ring    | 1.00     | 1.00     | EA   | 127.24    | 100.00   | 127.24    | 127.24    |
| 2PI4NBK      | 4 IN Nut Bolt Kit            | 1.00     | 3.00     | EA   | 9.68      | 100.00   | 9.68      | 29.04     |
| 2PI4SDR1745  | 4 IN SDR17 BF 45             | 1.00     | 1.00     | EA   | 20.21     | 100.00   | 20.21     | 20.21     |
| 2PI4SSNBK    | 4 IN SS NBK                  | 1.00     | 6.00     | EA   | 20.37     | 100.00   | 20.37     | 122.22    |
| 2PI4X10FXFS  | 4 x 10 FLG x FLG Spool       | 1.00     | 1.00     | EA   | 405.00    | 100.00   | 405.00    | 405.00    |
| 2PI4X20FXFHD | 4 x 20 HDPE FLG x FLG Spools | 1.00     | 6.00     | EA   | 365.81    | 100.00   | 365.81    | 2,194.86  |
| 2PI4X2DR17SS | 4 x 2 SDR17 Side Saddle      | 1.00     | 3.00     | EA   | 25.41     | 100.00   | 25.41     | 76.23     |
| 2PI4X5.5FXFS | 4 x 5.5 FLG x FLG Spool      | 1.00     | 1.00     | EA   | 255.29    | 100.00   | 255.29    | 255.29    |
| 2PISSFXCLADP | 2 IN SS FLG x CAM Lock Adpt  | 1.00     | 3.00     | EA   | 540.04    | 100.00   | 540.04    | 1,620.12  |
| 4CONCS       | Structural Concrete Sub      | 1.00     | 1.00     | LS   | 14,000.00 | 100.00   | 14,000.00 | 14,000.00 |
| 8LO544       | Loader - 544                 | 1.00     | 4.00     | HR   | 50.00     | 100.00   | 50.00     | 200.00    |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 4.00     | MH   | 30.82     | 116.67   | 56.61     | 226.43    |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 4.00     | MH   | 39.01     | 116.67   | 67.80     | 271.20    |

## Biditem

## Procure & Install Buried Water Analysis Piping

# 7095

Takeoff Qty: 210.000 LF

Bid Qty: 210.000 LF

|         |            |          |             |           |            |             |      |            |          |          |           |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
| U. Cost | 14.86      | 7.50     | 22.36       | 10.52     | 8.84       | 0.00        | 0.00 | 8.20       | 6.53     | 0.00     | 56.45     |
| Total   | 3,120.53   | 1,575.45 | 4,695.98    | 2,208.50  | 1,856.31   | 0.00        | 0.00 | 1,722.00   | 1,372.00 | 0.00     | 11,854.79 |

|          |         |         |          |               |                |         |
|----------|---------|---------|----------|---------------|----------------|---------|
| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
| 72.1000  | 2.9126  | 0.3433  | 164.4215 | 43.2806       | 65.1315        | 13.9535 |

|                     |                                                      |              |               |          |
|---------------------|------------------------------------------------------|--------------|---------------|----------|
| Activity: 011400050 | Procure & String Analysis Pipe & Connection Fittings | (Unreviewed) | Quantity: 210 | Unit: LF |
|---------------------|------------------------------------------------------|--------------|---------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.41       | 0.21   | 0.62        | 0.25      | 8.84       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 9.71     |
| Total   | 85.55      | 45.08  | 130.63      | 52.50     | 1,856.31   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,039.44 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 0.8720       | 0.0050        | 200.0000      | 174.4095     | 0.1050 | 2,000.0000  | 0.0005      | 19,423.2381 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 2.1000   | 100.0000 | 0.0100  | 62.2048        | 0.4074          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 200 Eff: 100.00 Crew Hrs: 1.05 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2PI.5CTSCMIP | 1/2 IN CTS x MIP Coupling    | 1.00     | 3.00     | EA   | 16.24     | 100.00   | 16.24     | 48.72  |
| 2PI.75CORP   | 3/4 IN Corp                  | 1.00     | 3.00     | EA   | 50.75     | 100.00   | 50.75     | 152.25 |
| 2PI.75CTSXF1 | 3/4 IN CTS x FIP Coupling    | 1.00     | 3.00     | EA   | 16.24     | 100.00   | 16.24     | 48.72  |
| 2PI.75KSOFT  | 3/4 IN K Soft Coper          | 1.00     | 240.00   | LF   | 3.20      | 100.00   | 3.20      | 768.00 |
| 2PI.75X.5BUS | 3/4 x 1/2 Brass Bushing      | 1.00     | 3.00     | EA   | 2.06      | 100.00   | 2.06      | 6.18   |
| 2PI24X2SSAD  | 24 x 2 Service Saddle        | 1.00     | 2.00     | EA   | 363.01    | 100.00   | 363.01    | 726.02 |
| 2PI2X.75BUSH | 2 x .75 Brass Bushing        | 1.00     | 2.00     | EA   | 16.81     | 100.00   | 16.81     | 33.62  |
| 2PI4X.75SSAD | 4 x 3/4 IN Service Saddle    | 1.00     | 1.00     | EA   | 72.80     | 100.00   | 72.80     | 72.80  |
| 8LO544       | Loader - 544                 | 1.00     | 1.05     | HR   | 50.00     | 100.00   | 50.00     | 52.50  |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.05     | MH   | 30.82     | 116.67   | 56.61     | 59.44  |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 1.05     | MH   | 39.01     | 116.67   | 67.80     | 71.19  |

|                       |                                       |              |               |          |
|-----------------------|---------------------------------------|--------------|---------------|----------|
| Activity: 01140080.75 | Install 3/4 IN Copper Analysis Piping | (Unreviewed) | Quantity: 210 | Unit: LF |
|-----------------------|---------------------------------------|--------------|---------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 14.45      | 7.29     | 21.74       | 10.27     | 0.00       | 0.00        | 0.00 | 8.20       | 6.53     | 0.00     | 46.74    |
| Total   | 3,034.98   | 1,530.37 | 4,565.35    | 2,156.00  | 0.00       | 0.00        | 0.00 | 1,722.00   | 1,372.00 | 0.00     | 9,815.35 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 32.0064      | 0.0667        | 15.0000       | 480.0964     | 1.4000 | 150.0000    | 0.0067      | 7,010.9643 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 70.0000  | 3.0000  | 0.3333  | 65.2193        | 14.4523         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: UH 15 Eff: 100.00 Crew Hrs: 14.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 1.5000   |
| Bedding 2 Depth                | LF   | 2.5000   |
| Object Height (Dia. if circle) | LF   | 0.0000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 2.0000   |
| Trench Depth                   | LF   | 4.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 210.0000 |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 62.2222  |
| Bedding 1 Volume               | CY   | 23.3333  |
| Bedding 2 Volume               | CY   | 38.8888  |
| Bedding 1 + Bedding 2          | CY   | 62.2221  |
| Net Excess                     | CY   | 62.2221  |

| Resource | Description          | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|----------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo      | 1.00     | 14.00    | HR   | 98.00     | 100.00   | 98.00     | 1,372.00 |
| 6AGC075P | Crushed - 3/4in (PU) | 1.00     | 124.00   | TON  | 12.00     | 100.00   | 12.00     | 1,488.00 |
| 6DEDU02  | DUMP FEES - (CY)     | 1.00     | 78.00    | CY   | 3.00      | 100.00   | 3.00      | 234.00   |
| 8BA580   | 580 BACKHOE          | 1.00     | 14.00    | HR   | 30.00     | 100.00   | 30.00     | 420.00   |

|        |                              |      |       |    |       |        |       |          |
|--------|------------------------------|------|-------|----|-------|--------|-------|----------|
| 8EX130 | Excavator - 130              | 1.00 | 14.00 | HR | 52.00 | 100.00 | 52.00 | 728.00   |
| 8LO544 | Loader - 544                 | 1.00 | 14.00 | HR | 50.00 | 100.00 | 50.00 | 700.00   |
| 8MIHP  | Misc - Backhoe Hoepac        | 1.00 | 14.00 | HR | 10.00 | 100.00 | 10.00 | 140.00   |
| 8TRUT1 | Truck - 1 Ton                | 1.00 | 14.00 | HR | 12.00 | 100.00 | 12.00 | 168.00   |
| FORE   | Foreman                      | 1.00 | 14.00 | MH | 45.00 | 116.67 | 75.72 | 1,060.04 |
| L1     | Labor -Group 1 Genl/Carp Tnd | 1.00 | 14.00 | MH | 30.82 | 116.67 | 56.61 | 792.47   |
| L4     | Labor -Group 2 Pipe Layer/GC | 1.00 | 14.00 | MH | 31.97 | 116.67 | 58.17 | 814.42   |
| OP4    | Operator-Doz, Exc, Bld, Ldr  | 2.00 | 28.00 | MH | 39.01 | 116.67 | 67.80 | 1,898.42 |

## Biditem

## Procure &amp; Install 2 IN Water Service

7100

Takeoff Qty: 30.000 LF

Bid Qty: 30.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 22.09      | 11.15  | 33.23       | 15.65     | 161.20     | 0.00        | 0.00 | 8.40       | 9.80     | 0.00     | 228.28   |
| Total   | 662.57     | 334.36 | 996.93      | 469.50    | 4,835.98   | 0.00        | 0.00 | 252.00     | 294.00   | 0.00     | 6,848.41 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 15.3000  | 1.9608  | 0.5100  | 447.6085 | 43.3052       | 65.1588        | 9.5238  |

|                     |                                                |              |              |          |
|---------------------|------------------------------------------------|--------------|--------------|----------|
| Activity: 011400050 | Procure & String Water Service Pipe & Fittings | (Unreviewed) | Quantity: 30 | Unit: LF |
|---------------------|------------------------------------------------|--------------|--------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.41       | 0.21   | 0.62        | 0.25      | 161.20     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 162.07   |
| Total   | 12.22      | 6.44   | 18.66       | 7.50      | 4,835.98   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,862.14 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
| 0.8720       | 0.0050        | 200.0000      | 174.4000     | 0.0150 | 2,000.0000  | 0.0005      | 324,142.6667 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 0.3000   | 100.0000 | 0.0100  | 62.2000        | 0.4073          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 200 Eff: 100.00 Crew Hrs: 0.15 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource      | Description                   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|---------------|-------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2PI2CORP      | 2 IN Corp Stop                | 1.00     | 14.00    | EA   | 257.55    | 100.00   | 257.55    | 3,605.70 |
| 2PI2CTS90     | 2 IN CTS 90                   | 1.00     | 3.00     | EA   | 212.62    | 100.00   | 212.62    | 637.86   |
| 2PI2CUNI      | 2 IN Copper Compression Union | 1.00     | 1.00     | EA   | 101.87    | 100.00   | 101.87    | 101.87   |
| 2PI2KHARD COP | 2 IN K Hard Copper            | 1.00     | 40.00    | LF   | 9.43      | 100.00   | 9.43      | 377.20   |
| 2PI8X2SSAD    | 8 x 2 Service Saddle          | 1.00     | 1.00     | EA   | 113.35    | 100.00   | 113.35    | 113.35   |
| 8LO544        | Loader - 544                  | 1.00     | 0.15     | HR   | 50.00     | 100.00   | 50.00     | 7.50     |
| L1            | Labor -Group 1 Genl/Carp Tnd  | 1.00     | 0.15     | MH   | 30.82     | 116.67   | 56.60     | 8.49     |
| OP4           | Operator-Doz, Exc, Bld, Ldr   | 1.00     | 0.15     | MH   | 39.01     | 116.67   | 67.80     | 10.17    |

|                     |                                   |              |              |          |
|---------------------|-----------------------------------|--------------|--------------|----------|
| Activity: 011400802 | Install 2 IN Copper Water Service | (Unreviewed) | Quantity: 30 | Unit: LF |
|---------------------|-----------------------------------|--------------|--------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 21.68      | 10.93  | 32.61       | 15.40     | 0.00       | 0.00        | 0.00 | 8.40       | 9.80     | 0.00     | 66.21    |
| Total   | 650.35     | 327.92 | 978.27      | 462.00    | 0.00       | 0.00        | 0.00 | 252.00     | 294.00   | 0.00     | 1,986.27 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 48.0090      | 0.1000        | 10.0000       | 480.0900     | 0.3000 | 100.0000    | 0.0100      | 6,620.9000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 15.0000  | 2.0000  | 0.5000  | 65.2180        | 21.6783         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

Notes: Cut Fill with Bedding Routine

| Description                    | Unit  | Quantity |
|--------------------------------|-------|----------|
| -----                          | ----- | -----    |
| .                              | LF    | 0.5000   |
| Bedding 1 Depth                | LF    | 1.5000   |
| Bedding 2 Depth                | LF    | 2.5000   |
| Object Height (Dia. if circle) | LF    | 0.0000   |
| Object Width (0 if circle)     | LF    | 0.0000   |
| Trench Width                   | LF    | 2.0000   |
| Trench Depth                   | LF    | 4.0000   |
| Flare Width                    | LF    | 0.0000   |
| Flare Depth                    | LF    | 0.0000   |
| Trench Length                  | LF    | 30.0000  |
| Compaction Factor - Bedding 1  | %     | 0.0000   |
| Compaction Factor - Bedding 2  | %     | 0.0000   |
| Excavated Volume               | CY    | 8.8888   |
| Bedding 1 Volume               | CY    | 3.3333   |
| Bedding 2 Volume               | CY    | 5.5555   |
| Bedding 1 + Bedding 2          | CY    | 8.8888   |
| Net Excess                     | CY    | 8.8888   |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 3.00     | HR   | 98.00     | 100.00   | 98.00     | 294.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 18.00    | TON  | 12.00     | 100.00   | 12.00     | 216.00 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 12.00    | CY   | 3.00      | 100.00   | 3.00      | 36.00  |
| 8BA580   | 580 BACKHOE                  | 1.00     | 3.00     | HR   | 30.00     | 100.00   | 30.00     | 90.00  |
| 8EX130   | Excavator - 130              | 1.00     | 3.00     | HR   | 52.00     | 100.00   | 52.00     | 156.00 |
| 8LO544   | Loader - 544                 | 1.00     | 3.00     | HR   | 50.00     | 100.00   | 50.00     | 150.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 3.00     | HR   | 10.00     | 100.00   | 10.00     | 30.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00  |
| FORE     | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 3.00     | MH   | 31.97     | 116.67   | 58.17     | 174.52 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 6.00     | MH   | 39.01     | 116.67   | 67.80     | 406.80 |

Subtotal

# Site Water System Subtotal

|       | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking  | Gen Cond | Total      |
|-------|------------|-----------|-------------|-----------|------------|-------------|-----------|------------|-----------|----------|------------|
| Total | 60,741.14  | 31,497.83 | 92,238.97   | 53,877.95 | 374,194.86 | 0.00        | 16,100.00 | 35,274.00  | 27,366.50 | 0.00     | 599,052.28 |

Biditem

Procure & Install Precast Storm Structures

8010

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 3,228.04   | 1,620.36 | 4,848.40    | 2,173.00  | 6,850.41   | 0.00        | 0.00 | 0.00       | 1,666.00 | 0.00     | 15,537.81 |
| Total   | 3,228.04   | 1,620.36 | 4,848.40    | 2,173.00  | 6,850.41   | 0.00        | 0.00 | 0.00       | 1,666.00 | 0.00     | 15,537.81 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 74.0000  | 0.0135  | 74.0000 | 209.9704 | 43.6222       | 65.5189        | 0.0556  |

Activity: 004712060

60 inch Reservoir Monitoring Manhole

(Unreviewed)

Quantity: 1

Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 867.14     | 437.26 | 1,304.40    | 748.00    | 1,980.00   | 0.00        | 0.00 | 0.00       | 784.00   | 0.00     | 4,816.40 |
| Total   | 867.14     | 437.26 | 1,304.40    | 748.00    | 1,980.00   | 0.00        | 0.00 | 0.00       | 784.00   | 0.00     | 4,816.40 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 2,052.4000   | 4.0000        | 0.2500        | 513.1000     | 0.4000 | 2.5000      | 0.4000      | 12,041.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 20.0000  | 0.0500  | 20.0000 | 65.2200        | 867.1400        |

Calendar: 610

60 Hour Week - (6@10)

Hrs/Shift: 10

WC: OR6306

SEWER CONSTRUCTION

Crew: STMH

Medium Pipe Crew, Haul Away

Prod: HU 4

Eff: 100.00

Crew Hrs: 4.00

Labor Pcs: 5.00

Equipment Pcs: 5.00



| Resource     | Description                   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|-------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2PR60CHANNEL | Channel 60 IN MH              | 1.00     | 1.00     | EA   | 350.00    | 100.00   | 350.00    | 350.00   |
| 2PRM60RMM    | 60 IN Reservoir Monitoring MH | 1.00     | 1.00     | EA   | 1,630.00  | 100.00   | 1,630.00  | 1,630.00 |
| 5SO          | Trucking - Solo               | 1.00     | 8.00     | HR   | 98.00     | 100.00   | 98.00     | 784.00   |
| 8EX328       | Excavator - 328               | 1.00     | 4.00     | HR   | 100.00    | 100.00   | 100.00    | 400.00   |
| 8LO544       | Loader - 544                  | 1.00     | 4.00     | HR   | 50.00     | 100.00   | 50.00     | 200.00   |
| 8MIHP        | Misc - Backhoe Hoepac         | 1.00     | 4.00     | HR   | 10.00     | 100.00   | 10.00     | 40.00    |
| 8SHTR10      | Shoring - Trench Box 10'      | 1.00     | 4.00     | HR   | 15.00     | 100.00   | 15.00     | 60.00    |
| 8TRUT1       | Truck - 1 Ton                 | 1.00     | 4.00     | HR   | 12.00     | 100.00   | 12.00     | 48.00    |
| FORE         | Foreman                       | 1.00     | 4.00     | MH   | 45.00     | 116.67   | 75.72     | 302.87   |
| L1           | Labor -Group 1 Genl/Carp Tnd  | 1.00     | 4.00     | MH   | 30.82     | 116.67   | 56.61     | 226.43   |
| L4           | Labor -Group 2 Pipe Layer/GC  | 1.00     | 4.00     | MH   | 31.97     | 116.67   | 58.17     | 232.69   |
| OP4          | Operator-Doz, Exc, Bld, Ldr   | 2.00     | 8.00     | MH   | 39.01     | 116.67   | 67.80     | 542.41   |

Activity: 004712060.1 Install 8 & 6 IN Flap Valves (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 530.10     | 263.63 | 793.73      | 168.00    | 897.21     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,858.94 |
| Total   | 1,060.20   | 527.26 | 1,587.46    | 336.00    | 1,794.41   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,717.87 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 961.7300     | 4.0000        | 0.2500        | 240.4325     | 0.8000 | 2.5000      | 0.4000      | 4,647.3375 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 24.0000  | 0.0833  | 12.0000 | 66.1442        | 530.1000        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMI Misc 580 Crew Prod: HU 4 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 3.00 Equipment Pcs: 2.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2GROUT       | Construction Grout           | 1.00     | 2.00     | EA   | 20.00     | 100.00   | 20.00     | 40.00  |
| 2PI6FFLAPVLV | 6 IN FLG Flap Valve          | 1.00     | 1.00     | EA   | 692.71    | 100.00   | 692.71    | 692.71 |
| 2PI6FLGGSKT  | 6 IN FLG GSKT                | 1.00     | 1.00     | EA   | 30.00     | 100.00   | 30.00     | 30.00  |
| 2PI6HDPEBR   | 6 IN HDPE Backing Ring       | 1.00     | 1.00     | EA   | 127.24    | 100.00   | 127.24    | 127.24 |
| 2PI6HDPEFADP | 6 IN HDPE FLG Adpt           | 1.00     | 1.00     | EA   | 25.13     | 100.00   | 25.13     | 25.13  |
| 2PI6SSNBK    | 6 IN SS NBK                  | 1.00     | 1.00     | EA   | 113.33    | 100.00   | 113.33    | 113.33 |
| 2PI8FFLAPVLV | 8 IN FLG Flap Valve          | 1.00     | 1.00     | EA   | 280.85    | 100.00   | 280.85    | 280.85 |
| 2PI8FLGGSKT  | 8 IN FLG GSKT                | 1.00     | 1.00     | EA   | 25.57     | 100.00   | 25.57     | 25.57  |
| 2PI8MEG      | 8 IN Megalug                 | 1.00     | 2.00     | EA   | 46.68     | 100.00   | 46.68     | 93.36  |
| 2PI8MJLONG   | 8 IN MJ Long Sleeve          | 1.00     | 1.00     | EA   | 141.04    | 100.00   | 141.04    | 141.04 |
| 2PI8NBK      | 8 IN NBK                     | 1.00     | 1.00     | EA   | 13.42     | 100.00   | 13.42     | 13.42  |
| 2PI8X2.5FXPE | 8 x 2.5 FLG x PE Spool       | 1.00     | 1.00     | EA   | 211.76    | 100.00   | 211.76    | 211.76 |
| 8BA580       | 580 BACKHOE                  | 1.00     | 8.00     | HR   | 30.00     | 100.00   | 30.00     | 240.00 |
| 8TRUT1       | Truck - 1 Ton                | 1.00     | 8.00     | HR   | 12.00     | 100.00   | 12.00     | 96.00  |
| FORE         | Foreman                      | 1.00     | 8.00     | MH   | 45.00     | 116.67   | 75.72     | 605.74 |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 8.00     | MH   | 30.82     | 116.67   | 56.61     | 452.84 |
| OP5          | Operator - Mini, Roller, BH  | 1.00     | 8.00     | MH   | 37.77     | 116.67   | 66.11     | 528.88 |

Activity: 004720102 Concrete Inlets Type G-2 (Unreviewed) Quantity: 1 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 650.35     | 327.92 | 978.27      | 462.00    | 935.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,375.27 |
| Total   | 650.35     | 327.92 | 978.27      | 462.00    | 935.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,375.27 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,440.2700   | 3.0000        | 0.3333        | 480.0900     | 0.3000 | 3.3333      | 0.3000      | 7,917.5667 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 15.0000  | 0.0667  | 15.0000 | 65.2180        | 650.3500        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STS Shallow Pipe Crew Prod: HU 3 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2GROUT   | Construction Grout           | 1.00     | 2.00     | EA   | 20.00     | 100.00   | 20.00     | 40.00  |
| 2PRMCBE8 | Catch Basin E8               | 1.00     | 1.00     | EA   | 895.00    | 100.00   | 895.00    | 895.00 |
| 8BA580   | 580 BACKHOE                  | 1.00     | 3.00     | HR   | 30.00     | 100.00   | 30.00     | 90.00  |
| 8EX130   | Excavator - 130              | 1.00     | 3.00     | HR   | 52.00     | 100.00   | 52.00     | 156.00 |
| 8LO544   | Loader - 544                 | 1.00     | 3.00     | HR   | 50.00     | 100.00   | 50.00     | 150.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 3.00     | HR   | 10.00     | 100.00   | 10.00     | 30.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00  |
| FORE     | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 3.00     | MH   | 31.97     | 116.67   | 58.17     | 174.52 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 6.00     | MH   | 39.01     | 116.67   | 67.80     | 406.80 |

Activity: 004712060.2 60 IN Storm Drain Manhole E2 (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 650.35     | 327.92 | 978.27      | 627.00    | 2,141.00   | 0.00        | 0.00 | 0.00       | 882.00   | 0.00     | 4,628.27 |
| Total   | 650.35     | 327.92 | 978.27      | 627.00    | 2,141.00   | 0.00        | 0.00 | 0.00       | 882.00   | 0.00     | 4,628.27 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 1,605.2700   | 3.0000        | 0.3333        | 535.0900     | 0.3000 | 3.3333      | 0.3000      | 15,427.5667 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 15.0000  | 0.0667  | 15.0000 | 65.2180        | 650.3500        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 3 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2GROUT       | Construction Grout           | 1.00     | 2.00     | EA   | 20.00     | 100.00   | 20.00     | 40.00    |
| 2PRM60SDMHE2 | 60 IN Storm Drain Manhole E2 | 1.00     | 1.00     | EA   | 2,101.00  | 100.00   | 2,101.00  | 2,101.00 |
| 5SO          | Trucking - Solo              | 1.00     | 9.00     | HR   | 98.00     | 100.00   | 98.00     | 882.00   |
| 8EX130       | Excavator - 130              | 1.00     | 3.00     | HR   | 52.00     | 100.00   | 52.00     | 156.00   |
| 8EX225       | Excavator - 225RTS           | 1.00     | 3.00     | HR   | 70.00     | 100.00   | 70.00     | 210.00   |
| 8LO544       | Loader - 544                 | 1.00     | 3.00     | HR   | 50.00     | 100.00   | 50.00     | 150.00   |
| 8MIHP        | Misc - Backhoe Hoepac        | 1.00     | 3.00     | HR   | 10.00     | 100.00   | 10.00     | 30.00    |
| 8SHTR10      | Shoring - Trench Box 10'     | 1.00     | 3.00     | HR   | 15.00     | 100.00   | 15.00     | 45.00    |
| 8TRUT1       | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00    |
| FORE         | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14   |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81   |
| L4           | Labor -Group 2 Pipe Layer/GC | 1.00     | 3.00     | MH   | 31.97     | 116.67   | 58.17     | 174.52   |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 6.00     | MH   | 39.01     | 116.67   | 67.80     | 406.80   |

## Biditem

## Procure & String Storm Drain Piping

# 8020

Takeoff Qty: 372.000 LF

Bid Qty: 372.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.81       | 0.43   | 1.24        | 0.50      | 61.36      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 63.11     |
| Total   | 303.07     | 159.72 | 462.79      | 186.00    | 22,827.35  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 23,476.14 |

| Manhours | Unit/MH | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|---------|---------|------------|---------------|----------------|----------|
| 7.4400   | 50.0000 | 0.0200  | 3,155.3952 | 40.7352       | 62.2030        | 100.0000 |

Activity: 0040101004 Procure & String Storm Drain Piping (Unreviewed) Quantity: 372 Unit: LF

|  | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |        |        |        |        |           |      |      |      |      |      |           |
|---------|--------|--------|--------|--------|-----------|------|------|------|------|------|-----------|
| U. Cost | 0.81   | 0.43   | 1.24   | 0.50   | 61.36     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 63.11     |
| Total   | 303.07 | 159.72 | 462.79 | 186.00 | 22,827.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23,476.14 |

|              |               |               |              |        |             |             |             |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
| 1.7441       | 0.0100        | 100.0000      | 174.4059     | 0.3720 | 1,000.0000  | 0.0010      | 63,107.9032 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 7.4400   | 50.0000 | 0.0200  | 62.2030        | 0.8147          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 100 Eff: 100.00 Crew Hrs: 3.72 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|--------------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2PI1104      | 4in PVC 3034 Pipe            | 1.00     | 14.00    | LF   | 1.32      | 100.00   | 1.32      | 18.48    |
| 2PI1118      | 18in PVC 3034 Pipe           | 1.00     | 56.00    | LF   | 27.84     | 100.00   | 27.84     | 1,559.04 |
| 2PI1124      | 24in PVC 3034 Pipe           | 1.00     | 182.00   | LF   | 48.94     | 100.00   | 48.94     | 8,907.08 |
| 2PI1308      | 8in C-900 CL150 Pipe         | 1.00     | 40.00    | LF   | 11.22     | 100.00   | 11.22     | 448.80   |
| 2PI18PVC45   | 18 IN PVC 45 Bend            | 1.00     | 2.00     | EA   | 1,002.10  | 100.00   | 1,002.10  | 2,004.20 |
| 2PI24FFLAPVL | 24 IN FLG Flap Valve         | 1.00     | 1.00     | EA   | 2,158.00  | 100.00   | 2,158.00  | 2,158.00 |
| 2PI24FLGGSKT | 24 IN FLG GSKT               | 1.00     | 1.00     | EA   | 184.12    | 100.00   | 184.12    | 184.12   |
| 2PI24MEG     | 24 IN Megalug                | 1.00     | 1.00     | EA   | 402.94    | 100.00   | 402.94    | 402.94   |
| 2PI24MJACC   | 24 IN MJ ACC Pack            | 1.00     | 1.00     | EA   | 160.38    | 100.00   | 160.38    | 160.38   |
| 2PI24MJONG   | 24 IN MJ Long Sleeve         | 1.00     | 1.00     | EA   | 1,582.75  | 100.00   | 1,582.75  | 1,582.75 |
| 2PI24MJTRANS | 24 IN MJ Trans GSKT          | 1.00     | 1.00     | EA   | 45.26     | 100.00   | 45.26     | 45.26    |
| 2PI24SSNBK   | 24 IN SS NBK                 | 1.00     | 1.00     | EA   | 436.00    | 100.00   | 436.00    | 436.00   |
| 2PI24X4PVCWY | 24 x 4 PVC Wye               | 1.00     | 1.00     | EA   | 2,512.19  | 100.00   | 2,512.19  | 2,512.19 |
| 2PI24X5FXPE  | 24 x 5 FLG x PE Spool        | 1.00     | 1.00     | EA   | 1,876.00  | 100.00   | 1,876.00  | 1,876.00 |
| 2PI4BFHDPE45 | 4 IN BF HDPE 45              | 1.00     | 2.00     | EA   | 18.23     | 100.00   | 18.23     | 36.46    |
| 2PI4CIXPVCCO | 4 IN PVC x CI Coupling       | 1.00     | 1.00     | EA   | 5.54      | 100.00   | 5.54      | 5.54     |
| 2PI4IPSSDR11 | 4 IN IPS SDR 11 HDPE         | 1.00     | 40.00    | LF   | 1.90      | 100.00   | 1.90      | 76.00    |
| 2PI4N12XPVC  | 4 IN N-12 x PVC Fernco       | 1.00     | 1.00     | EA   | 11.99     | 100.00   | 11.99     | 11.99    |
| 2PI4PVCXS45  | 4 IN PVC GxS 45              | 1.00     | 1.00     | EA   | 11.74     | 100.00   | 11.74     | 11.74    |
| 2PI6BFHDPE45 | 6 IN BF HDPE 45              | 1.00     | 1.00     | EA   | 48.01     | 100.00   | 48.01     | 48.01    |
| 2PI6IPSSDR11 | 6 IN IPS SDR 11 HDPE         | 1.00     | 40.00    | LF   | 7.46      | 100.00   | 7.46      | 298.40   |
| 2PI6N12XPVC  | 6 IN N-12 x PVC Fernco       | 1.00     | 1.00     | EA   | 43.97     | 100.00   | 43.97     | 43.97    |
| 8LO544       | Loader - 544                 | 1.00     | 3.72     | HR   | 50.00     | 100.00   | 50.00     | 186.00   |
| L1           | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.72     | MH   | 30.82     | 116.67   | 56.60     | 210.56   |
| OP4          | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 3.72     | MH   | 39.01     | 116.67   | 67.80     | 252.23   |

## Biditem

## Fuse & Install 4 IN Storm Drain

# 8025

Takeoff Qty: 30.000 LF

Bid Qty: 30.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 31.58      | 15.99  | 47.57       | 19.87     | 0.00       | 0.00        | 0.00 | 15.40      | 9.80     | 0.00     | 92.64    |
| Total   | 947.38     | 479.68 | 1,427.06    | 596.00    | 0.00       | 0.00        | 0.00 | 462.00     | 294.00   | 0.00     | 2,779.06 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 22.0000  | 1.3636  | 0.7333  | 126.3209 | 43.0627       | 64.8664        | 6.0000  |

Activity: 004460804 Gran-4 inch Storm Sewer-Shallow (Unreviewed) Quantity: 30 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 17.13      | 8.70   | 25.83       | 10.40     | 0.00       | 0.00        | 0.00 | 15.40      | 9.80     | 0.00     | 61.43    |
| Total   | 513.81     | 261.06 | 774.87      | 312.00    | 0.00       | 0.00        | 0.00 | 462.00     | 294.00   | 0.00     | 1,842.87 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 36.2290      | 0.1000        | 10.0000       | 362.2900     | 0.3000 | 100.0000    | 0.0100      | 6,142.9000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
|----------|---------|---------|----------------|-----------------|

|         |        |        |         |         |
|---------|--------|--------|---------|---------|
| 12.0000 | 2.5000 | 0.4000 | 64.5725 | 17.1270 |
|---------|--------|--------|---------|---------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 4.00 Equipment Pcs: 4.00

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 1.8330   |
| Bedding 2 Depth                | LF   | 3.1670   |
| Object Height (Dia. if circle) | LF   | 0.3300   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 3.0000   |
| Trench Depth                   | LF   | 5.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 30.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 16.6666  |
| Bedding 1 Volume               | CY   | 6.0150   |
| Bedding 2 Volume               | CY   | 10.5566  |
| Bedding 1 + Bedding 2          | CY   | 16.5716  |
| Net Excess                     | CY   | 16.6666  |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 3.00     | HR   | 98.00     | 100.00   | 98.00     | 294.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 33.00    | TON  | 12.00     | 100.00   | 12.00     | 396.00 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 22.00    | CY   | 3.00      | 100.00   | 3.00      | 66.00  |
| 8BA580   | 580 BACKHOE                  | 1.00     | 3.00     | HR   | 30.00     | 100.00   | 30.00     | 90.00  |
| 8EX130   | Excavator - 130              | 1.00     | 3.00     | HR   | 52.00     | 100.00   | 52.00     | 156.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 3.00     | HR   | 10.00     | 100.00   | 10.00     | 30.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00  |
| FORE     | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 3.00     | MH   | 31.97     | 116.67   | 58.17     | 174.52 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 3.00     | MH   | 39.01     | 116.67   | 67.80     | 203.40 |

Activity: 011500040 HDPE Fuse/Butt Weld Pipe (Unreviewed) Quantity: 4 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 108.39     | 54.66  | 163.05      | 71.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 234.05 |
| Total   | 433.57     | 218.62 | 652.19      | 284.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 936.19 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 234.0475     | 0.5000        | 2.0000        | 468.0950     | 0.2000 | 20.0000     | 0.0500      | 4,680.9500 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 10.0000  | 0.4000  | 2.5000  | 65.2190        | 108.3925        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: WEHDL Fusion Large Diameter HDPE Prod: HU 0.5 Eff: 100.00 Crew Hrs: 2.00 Labor Pcs: 5.00 Equipment Pcs: 4.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BA580   | 580 BACKHOE                  | 1.00     | 2.00     | HR   | 30.00     | 100.00   | 30.00     | 60.00  |
| 8EX130   | Excavator - 130              | 1.00     | 2.00     | HR   | 52.00     | 100.00   | 52.00     | 104.00 |
| 8MI3     | Misc - SUP EQ(2-PK/MISC)     | 2.00     | 4.00     | HR   | 30.00     | 100.00   | 30.00     | 120.00 |
| FORE     | Foreman                      | 1.00     | 2.00     | MH   | 45.00     | 116.67   | 75.72     | 151.43 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 2.00     | MH   | 30.82     | 116.67   | 56.61     | 113.21 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 2.00     | MH   | 31.97     | 116.67   | 58.18     | 116.35 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 4.00     | MH   | 39.01     | 116.67   | 67.80     | 271.20 |

Biditem

Fuse Install 6 IN Storm Drain

8026

Takeoff Qty: 25.000 LF

Bid Qty: 25.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 30.13      | 15.26  | 45.40       | 18.92     | 0.00       | 0.00        | 0.00 | 21.72      | 19.60    | 0.00     | 105.64   |
| Total   | 753.35     | 381.54 | 1,134.89    | 473.00    | 0.00       | 0.00        | 0.00 | 543.00     | 490.00   | 0.00     | 2,640.89 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 17.5000  | 1.4286  | 0.7000  | 150.9080 | 43.0486       | 64.8509        | 6.2500  |

Activity: 004460806 Gran-6 inch Storm Sewer-Shallow (Unreviewed) Quantity: 25 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 17.13      | 8.70   | 25.83       | 10.40     | 0.00       | 0.00        | 0.00 | 21.72      | 19.60    | 0.00     | 77.55    |
| Total   | 428.17     | 217.57 | 645.74      | 260.00    | 0.00       | 0.00        | 0.00 | 543.00     | 490.00   | 0.00     | 1,938.74 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 36.2296      | 0.1000        | 10.0000       | 362.2960     | 0.2500 | 100.0000    | 0.0100      | 7,754.9600 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 10.0000  | 2.5000  | 0.4000  | 64.5740        | 17.1268         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 2.50 Labor Pcs: 4.00 Equipment Pcs: 4.00

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.0000   |
| Bedding 2 Depth                | LF   | 4.0000   |
| Object Height (Dia. if circle) | LF   | 0.5000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 3.5000   |
| Trench Depth                   | LF   | 6.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 25.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 19.4444  |
| Bedding 1 Volume               | CY   | 6.2997   |
| Bedding 2 Volume               | CY   | 12.9629  |
| Bedding 1 + Bedding 2          | CY   | 19.2626  |
| Net Excess                     | CY   | 19.4443  |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 5.00     | HR   | 98.00     | 100.00   | 98.00     | 490.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 39.00    | TON  | 12.00     | 100.00   | 12.00     | 468.00 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 25.00    | CY   | 3.00      | 100.00   | 3.00      | 75.00  |
| 8BA580   | 580 BACKHOE                  | 1.00     | 2.50     | HR   | 30.00     | 100.00   | 30.00     | 75.00  |
| 8EX130   | Excavator - 130              | 1.00     | 2.50     | HR   | 52.00     | 100.00   | 52.00     | 130.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 2.50     | HR   | 10.00     | 100.00   | 10.00     | 25.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 2.50     | HR   | 12.00     | 100.00   | 12.00     | 30.00  |
| FORE     | Foreman                      | 1.00     | 2.50     | MH   | 45.00     | 116.67   | 75.72     | 189.30 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 2.50     | MH   | 30.82     | 116.67   | 56.60     | 141.51 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 2.50     | MH   | 31.97     | 116.67   | 58.18     | 145.44 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 2.50     | MH   | 39.01     | 116.67   | 67.80     | 169.49 |

Activity: 011500040 HDPE Fuse/Butt Weld Pipe (Unreviewed) Quantity: 3 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 108.39     | 54.66  | 163.05      | 71.00     | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 234.05 |
| Total   | 325.18     | 163.97 | 489.15      | 213.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 702.15 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 234.0500     | 0.5000        | 2.0000        | 468.1000     | 0.1500 | 20.0000     | 0.0500      | 4,681.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 7.5000   | 0.4000  | 2.5000  | 65.2200        | 108.3933        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: WEHDL Fusion Large Diameter HDPE Prod: HU 0.5 Eff: 100.00 Crew Hrs: 1.50 Labor Pcs: 5.00 Equipment Pcs: 4.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BA580   | 580 BACKHOE                  | 1.00     | 1.50     | HR   | 30.00     | 100.00   | 30.00     | 45.00  |
| 8EX130   | Excavator - 130              | 1.00     | 1.50     | HR   | 52.00     | 100.00   | 52.00     | 78.00  |
| 8MI3     | Misc - SUP EQ(2-PK/MISC)     | 2.00     | 3.00     | HR   | 30.00     | 100.00   | 30.00     | 90.00  |
| FORE     | Foreman                      | 1.00     | 1.50     | MH   | 45.00     | 116.67   | 75.72     | 113.58 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.50     | MH   | 30.82     | 116.67   | 56.61     | 84.91  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.50     | MH   | 31.97     | 116.67   | 58.17     | 87.26  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 3.00     | MH   | 39.01     | 116.67   | 67.80     | 203.40 |

## Biditem

## Install 8 IN C-900 PVC Storm Drain

8027

Takeoff Qty: 40.000 LF

Bid Qty: 40.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 21.68      | 10.93  | 32.61       | 20.20     | 0.00       | 0.00        | 0.00 | 41.40      | 29.40    | 0.00     | 123.61   |
| Total   | 867.14     | 437.26 | 1,304.40    | 808.00    | 0.00       | 0.00        | 0.00 | 1,656.03   | 1,176.00 | 0.00     | 4,944.43 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 20.0000  | 2.0000  | 0.5000  | 247.2215 | 43.3570       | 65.2200        | 10.0000 |

Activity: 004460808 Gran-8 inch Storm Sewer-Shallow (Unreviewed) Quantity: 40 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 21.68      | 10.93  | 32.61       | 20.20     | 0.00       | 0.00        | 0.00 | 41.40      | 29.40    | 0.00     | 123.61   |
| Total   | 867.14     | 437.26 | 1,304.40    | 808.00    | 0.00       | 0.00        | 0.00 | 1,656.03   | 1,176.00 | 0.00     | 4,944.43 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 52.8100      | 0.1000        | 10.0000       | 528.1000     | 0.4000 | 100.0000    | 0.0100      | 12,361.0750 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 20.0000  | 2.0000  | 0.5000  | 65.2200        | 21.6785         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 4.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

## Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.1700   |
| Bedding 2 Depth                | LF   | 2.8300   |
| Object Height (Dia. if circle) | LF   | 0.6600   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 3.5600   |
| Trench Depth                   | LF   | 5.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 35.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 23.0740  |
| Bedding 1 Volume               | CY   | 9.5706   |
| Bedding 2 Volume               | CY   | 13.0599  |
| Bedding 1 + Bedding 2          | CY   | 22.6305  |
| Net Excess                     | CY   | 23.0739  |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 12.00    | HR   | 98.00     | 100.00   | 98.00     | 1,176.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 51.43    | TON  | 12.00     | 100.00   | 12.00     | 617.16   |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 346.29   | CY   | 3.00      | 100.00   | 3.00      | 1,038.87 |
| 8BA580   | 580 BACKHOE                  | 1.00     | 4.00     | HR   | 30.00     | 100.00   | 30.00     | 120.00   |
| 8EX328   | Excavator - 328              | 1.00     | 4.00     | HR   | 100.00    | 100.00   | 100.00    | 400.00   |
| 8LO544   | Loader - 544                 | 1.00     | 4.00     | HR   | 50.00     | 100.00   | 50.00     | 200.00   |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 4.00     | HR   | 10.00     | 100.00   | 10.00     | 40.00    |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 4.00     | HR   | 12.00     | 100.00   | 12.00     | 48.00    |
| FORE     | Foreman                      | 1.00     | 4.00     | MH   | 45.00     | 116.67   | 75.72     | 302.87   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 4.00     | MH   | 30.82     | 116.67   | 56.61     | 226.43   |

|     |                              |      |      |    |       |        |       |        |
|-----|------------------------------|------|------|----|-------|--------|-------|--------|
| L4  | Labor -Group 2 Pipe Layer/GC | 1.00 | 4.00 | MH | 31.97 | 116.67 | 58.17 | 232.69 |
| OP4 | Operator-Doz, Exc, Bld, Ldr  | 2.00 | 8.00 | MH | 39.01 | 116.67 | 67.80 | 542.41 |

## Biditem

## Install 18 IN Storm Drain

8030

Takeoff Qty: 35.000 LF

Bid Qty: 35.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 21.68      | 10.93  | 32.61       | 23.90     | 0.00       | 0.00        | 0.00 | 25.71      | 19.60    | 0.00     | 101.82   |
| Total   | 758.75     | 382.58 | 1,141.33    | 836.50    | 0.00       | 0.00        | 0.00 | 900.00     | 686.00   | 0.00     | 3,563.83 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 17.5000  | 2.0000  | 0.5000  | 203.6474 | 43.3571       | 65.2189        | 10.0000 |

Activity: 004460518 Gran-18 inch Storm Sewer-Medium (Unreviewed) Quantity: 35 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 21.68      | 10.93  | 32.61       | 23.90     | 0.00       | 0.00        | 0.00 | 25.71      | 19.60    | 0.00     | 101.82   |
| Total   | 758.75     | 382.58 | 1,141.33    | 836.50    | 0.00       | 0.00        | 0.00 | 900.00     | 686.00   | 0.00     | 3,563.83 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 56.5094      | 0.1000        | 10.0000       | 565.0943     | 0.3500 | 100.0000    | 0.0100      | 10,182.3714 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 17.5000  | 2.0000  | 0.5000  | 65.2189        | 21.6786         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 3.50 Labor Pcs: 5.00 Equipment Pcs: 6.00

## Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.5000   |
| Bedding 2 Depth                | LF   | 3.5000   |
| Object Height (Dia. if circle) | LF   | 1.5000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 4.5000   |
| Trench Depth                   | LF   | 7.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 35.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 40.8333  |
| Bedding 1 Volume               | CY   | 12.2926  |
| Bedding 2 Volume               | CY   | 20.4166  |
| Bedding 1 + Bedding 2          | CY   | 32.7092  |
| Net Excess                     | CY   | 34.9998  |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 7.00     | HR   | 98.00     | 100.00   | 98.00     | 686.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 64.00    | TON  | 12.00     | 100.00   | 12.00     | 768.00 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 44.00    | CY   | 3.00      | 100.00   | 3.00      | 132.00 |
| 8EX130   | Excavator - 130              | 1.00     | 3.50     | HR   | 52.00     | 100.00   | 52.00     | 182.00 |
| 8EX328   | Excavator - 328              | 1.00     | 3.50     | HR   | 100.00    | 100.00   | 100.00    | 350.00 |
| 8LO544   | Loader - 544                 | 1.00     | 3.50     | HR   | 50.00     | 100.00   | 50.00     | 175.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 3.50     | HR   | 10.00     | 100.00   | 10.00     | 35.00  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 3.50     | HR   | 15.00     | 100.00   | 15.00     | 52.50  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.50     | HR   | 12.00     | 100.00   | 12.00     | 42.00  |
| FORE     | Foreman                      | 1.00     | 3.50     | MH   | 45.00     | 116.67   | 75.72     | 265.01 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.50     | MH   | 30.82     | 116.67   | 56.61     | 198.12 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 3.50     | MH   | 31.97     | 116.67   | 58.17     | 203.60 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 7.00     | MH   | 39.01     | 116.67   | 67.80     | 474.60 |

## Biditem

## Install 24 IN Alignment E Overflow Piping



**8040**

Takeoff Qty: 170.000 LF

Bid Qty: 170.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 21.68      | 10.93    | 32.61       | 31.40     | 0.00       | 0.00        | 0.00 | 40.29      | 29.40    | 0.00     | 133.70    |
| Total   | 3,685.34   | 1,858.31 | 5,543.65    | 5,338.00  | 0.00       | 0.00        | 0.00 | 6,849.00   | 4,998.00 | 0.00     | 22,728.65 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 85.0000  | 2.0000  | 0.5000  | 267.3959 | 43.3569       | 65.2194        | 10.0000 |

Activity: 004460524 Gran-24 inch Storm Sewer-Medium (Unreviewed) Quantity: 170 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 21.68      | 10.93    | 32.61       | 31.40     | 0.00       | 0.00        | 0.00 | 40.29      | 29.40    | 0.00     | 133.70    |
| Total   | 3,685.34   | 1,858.31 | 5,543.65    | 5,338.00  | 0.00       | 0.00        | 0.00 | 6,849.00   | 4,998.00 | 0.00     | 22,728.65 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 64.0097      | 0.1000        | 10.0000       | 640.0971     | 1.7000 | 100.0000    | 0.0100      | 13,369.7941 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 85.0000  | 2.0000  | 0.5000  | 65.2194        | 21.6785         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 17.00 Labor Pcs: 5.00 Equipment Pcs: 6.50

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Bedding 1 Depth                | LF   | 0.5000   |
| Bedding 2 Depth                | LF   | 3.5000   |
| Object Height (Dia. if circle) | LF   | 3.5000   |
| Object Width (0 if circle)     | LF   | 2.0000   |
| Trench Width                   | LF   | 0.0000   |
| Trench Depth                   | LF   | 6.0000   |
| Flare Width                    | LF   | 7.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 0.0000   |
| Compaction Factor - Bedding 1  | %    | 170.0000 |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 0.0000   |
| Bedding 1 Volume               | CY   | 264.4444 |
| Bedding 2 Volume               | CY   | 112.4424 |
| Bedding 1 + Bedding 2          | CY   | 132.2222 |
| Net Excess                     | CY   | 244.6646 |
|                                | CY   | 264.4444 |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO       | Trucking - Solo              | 1.00     | 51.00    | HR   | 98.00     | 100.00   | 98.00     | 4,998.00 |
| 6AGC075P  | Crushed - 3/4in (PU)         | 1.00     | 488.00   | TON  | 12.00     | 100.00   | 12.00     | 5,856.00 |
| 6DEDU02   | DUMP FEES - (CY)             | 1.00     | 331.00   | CY   | 3.00      | 100.00   | 3.00      | 993.00   |
| 8EX130    | Excavator - 130              | 1.00     | 17.00    | HR   | 52.00     | 100.00   | 52.00     | 884.00   |
| 8EX308BRK | Excavator - 308 w/ Brk       | 0.50     | 8.50     | HR   | 150.00    | 100.00   | 150.00    | 1,275.00 |
| 8EX328    | Excavator - 328              | 1.00     | 17.00    | HR   | 100.00    | 100.00   | 100.00    | 1,700.00 |
| 8LO544    | Loader - 544                 | 1.00     | 17.00    | HR   | 50.00     | 100.00   | 50.00     | 850.00   |
| 8MIHP     | Misc - Backhoe Hoepac        | 1.00     | 17.00    | HR   | 10.00     | 100.00   | 10.00     | 170.00   |
| 8SHTR10   | Shoring - Trench Box 10'     | 1.00     | 17.00    | HR   | 15.00     | 100.00   | 15.00     | 255.00   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 17.00    | HR   | 12.00     | 100.00   | 12.00     | 204.00   |
| FORE      | Foreman                      | 1.00     | 17.00    | MH   | 45.00     | 116.67   | 75.72     | 1,287.20 |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 17.00    | MH   | 30.82     | 116.67   | 56.61     | 962.29   |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 17.00    | MH   | 31.97     | 116.67   | 58.17     | 988.94   |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 34.00    | MH   | 39.01     | 116.67   | 67.80     | 2,305.22 |

**Biditem****24 IN Pond Discharge****8045**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

| Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |          |          |          |          |          |      |      |        |        |      |           |
|---------|----------|----------|----------|----------|----------|------|------|--------|--------|------|-----------|
| U. Cost | 4,932.66 | 2,670.43 | 7,603.09 | 1,660.00 | 1,950.00 | 0.00 | 0.00 | 245.00 | 490.00 | 0.00 | 11,948.09 |
| Total   | 4,932.66 | 2,670.43 | 7,603.09 | 1,660.00 | 1,950.00 | 0.00 | 0.00 | 245.00 | 490.00 | 0.00 | 11,948.09 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 110.0000 | 0.0091  | 110.0000 | 108.6190 | 44.8424       | 69.1190        | 0.0333  |

Activity: 004450036 Grade & Prep Concrete Outfall (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 359.21     | 176.35 | 535.56      | 256.00    | 0.00       | 0.00        | 0.00 | 120.00     | 392.00   | 0.00     | 1,303.56 |
| Total   | 359.21     | 176.35 | 535.56      | 256.00    | 0.00       | 0.00        | 0.00 | 120.00     | 392.00   | 0.00     | 1,303.56 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 791.5600     | 4.0000        | 0.2500        | 197.8900     | 0.4000 | 2.5000      | 0.4000      | 3,258.9000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 8.0000   | 0.1250  | 8.0000  | 66.9450        | 359.2100        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: ST90 Misc. 9010 Crew Prod: CH 4 Eff: 100.00 Crew Hrs: 4.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 4.00     | HR   | 98.00     | 100.00   | 98.00     | 392.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 10.00    | TON  | 12.00     | 100.00   | 12.00     | 120.00 |
| 8EX130   | Excavator - 130              | 1.00     | 4.00     | HR   | 52.00     | 100.00   | 52.00     | 208.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 4.00     | HR   | 12.00     | 100.00   | 12.00     | 48.00  |
| FORE     | Foreman                      | 1.00     | 4.00     | MH   | 45.00     | 116.67   | 75.72     | 302.87 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 4.00     | MH   | 31.97     | 116.67   | 58.17     | 232.69 |

Activity: 004450036.1 Form Concrete Outfall (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,825.43   | 934.94 | 2,760.37    | 620.00    | 500.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,880.37 |
| Total   | 1,825.43   | 934.94 | 2,760.37    | 620.00    | 500.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,880.37 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 3,380.3700   | 10.0000       | 0.1000        | 338.0370     | 1.0000 | 1.0000      | 1.0000      | 3,880.3700 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 40.0000  | 0.0250  | 40.0000 | 69.0093        | 1,825.4300      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: COF Conc Form & Strip Crew Prod: CH 10 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2OUTFORM | Outfall Forming Material     | 1.00     | 1.00     | LS   | 500.00    | 100.00   | 500.00    | 500.00   |
| 8FOR     | Forklift - Reach             | 1.00     | 10.00    | HR   | 50.00     | 100.00   | 50.00     | 500.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 10.00    | HR   | 12.00     | 100.00   | 12.00     | 120.00   |
| CARP     | Carpenter                    | 2.00     | 20.00    | MH   | 40.32     | 116.67   | 71.86     | 1,437.14 |
| FORE     | Foreman                      | 1.00     | 10.00    | MH   | 45.00     | 116.67   | 75.72     | 757.18   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 10.00    | MH   | 30.82     | 116.67   | 56.61     | 566.05   |

Activity: 004450036.2 Install Concrete Outfall Rebar (Unreviewed) Quantity: 150 Unit: LB

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 7.43       | 4.56   | 12.00       | 2.48      | 3.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 17.48    |
| Total   | 1,115.07   | 684.36 | 1,799.43    | 372.00    | 450.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,621.43 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 14.4762      | 0.0400        | 25.0000       | 361.9050     | 0.6000 | 250.0000    | 0.0040      | 4,369.0500 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 24.0000  | 6.2500  | 0.1600  | 74.9763        | 7.4338          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: COR Iron/Rebar Crew Prod: CH 6 Eff: 100.00 Crew Hrs: 6.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

| Resource | Description                 | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|-----------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2STR     | STEEL - REINFORCING         | 1.00     | 150.00   | LB   | 3.00      | 100.00   | 3.00      | 450.00 |
| 8FOR     | Forklift - Reach            | 1.00     | 6.00     | HR   | 50.00     | 100.00   | 50.00     | 300.00 |
| 8TRUT1   | Truck - 1 Ton               | 1.00     | 6.00     | HR   | 12.00     | 100.00   | 12.00     | 72.00  |
| FORE     | Foreman                     | 1.00     | 6.00     | MH   | 45.00     | 116.67   | 75.72     | 454.30 |
| IRON     | Ironworker - Rebar Tier     | 2.00     | 12.00    | MH   | 38.26     | 116.67   | 79.04     | 948.46 |
| OP5      | Operator - Mini, Roller, BH | 1.00     | 6.00     | MH   | 37.77     | 116.67   | 66.11     | 396.67 |

Activity: 004450036.3 Pour Concrete Outfall (Unreviewed) Quantity: 3 Unit: CY

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 199.32     | 117.50 | 316.82      | 12.00     | 333.33     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 662.16   |
| Total   | 597.96     | 352.51 | 950.47      | 36.00     | 1,000.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,986.47 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 328.8233     | 1.0000        | 1.0000        | 328.8233     | 0.3000 | 10.0000     | 0.1000      | 6,621.5667 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 15.0000  | 0.2000  | 5.0000  | 63.3647        | 199.3200        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: COPF Place/Finish Conc Crew Prod: UH 1 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 5.00 Equipment Pcs: 1.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2CORP40  | 4,000# Concrete(Private)     | 1.00     | 5.00     | CY   | 200.00    | 100.00   | 200.00    | 1,000.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00    |
| CFINISH  | Cement Mason - Conc Finisher | 2.00     | 6.00     | MH   | 32.10     | 116.67   | 63.95     | 383.70   |
| FORE     | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 6.00     | MH   | 30.82     | 116.67   | 56.61     | 339.63   |

Activity: 004450036.4 Strip Concrete Outfall (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 547.62     | 280.47 | 828.09      | 186.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,014.09 |
| Total   | 547.62     | 280.47 | 828.09      | 186.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,014.09 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,014.0900   | 3.0000        | 0.3333        | 338.0300     | 0.3000 | 3.3333      | 0.3000      | 3,380.3000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 12.0000  | 0.0833  | 12.0000 | 69.0075        | 547.6200        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: COF Conc Form & Strip Crew Prod: CH 3 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 4.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8FOR     | Forklift - Reach             | 1.00     | 3.00     | HR   | 50.00     | 100.00   | 50.00     | 150.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00  |
| CARP     | Carpenter                    | 2.00     | 6.00     | MH   | 40.32     | 116.67   | 71.86     | 431.14 |
| FORE     | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81 |

Activity: 004450036.5 Install Outfall Riprap (Unreviewed) Quantity: 5 Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 17.96      | 8.82   | 26.78       | 12.80     | 0.00       | 0.00        | 0.00 | 25.00      | 19.60    | 0.00     | 84.18  |
| Total   | 89.80      | 44.09  | 133.89      | 64.00     | 0.00       | 0.00        | 0.00 | 125.00     | 98.00    | 0.00     | 420.89 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 39.5780      | 0.2000        | 5.0000        | 197.8900     | 0.1000 | 50.0000     | 0.0200      | 4,208.9000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 2.0000   | 2.5000  | 0.4000  | 66.9450        | 17.9600         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: ST90 Misc. 9010 Crew Prod: UH 5 Eff: 100.00 Crew Hrs: 1.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 1.00     | HR   | 98.00     | 100.00   | 98.00     | 98.00  |
| 6AGR050P | Riprap - CL50 (PU)           | 1.00     | 5.00     | TON  | 25.00     | 100.00   | 25.00     | 125.00 |
| 8EX130   | Excavator - 130              | 1.00     | 1.00     | HR   | 52.00     | 100.00   | 52.00     | 52.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.00     | HR   | 12.00     | 100.00   | 12.00     | 12.00  |
| FORE     | Foreman                      | 1.00     | 1.00     | MH   | 45.00     | 116.67   | 75.72     | 75.72  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.00     | MH   | 31.97     | 116.67   | 58.17     | 58.17  |

Activity: 004450036.6 Install Outfall 24 IN Flap Vave (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 397.57     | 197.71 | 595.28      | 126.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 721.28 |
| Total   | 397.57     | 197.71 | 595.28      | 126.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 721.28 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 721.2800     | 3.0000        | 0.3333        | 240.4267     | 0.3000 | 3.3333      | 0.3000      | 2,404.2667 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 9.0000   | 0.1111  | 9.0000  | 66.1422        | 397.5700        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMI Misc 580 Crew Prod: CH 3 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 3.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BA580   | 580 BACKHOE                  | 1.00     | 3.00     | HR   | 30.00     | 100.00   | 30.00     | 90.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00  |
| FORE     | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 3.00     | MH   | 37.77     | 116.67   | 66.11     | 198.33 |

## Biditem

## Site Stormwater Pond Finish &amp; Slurry Cutoff Wall

8050

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 5,297.87   | 2,680.87 | 7,978.74    | 3,837.52  | 40,200.00  | 0.00        | 0.00 | 990.00     | 5,292.00 | 0.00     | 58,298.26 |
| Total   | 5,297.87   | 2,680.87 | 7,978.74    | 3,837.52  | 40,200.00  | 0.00        | 0.00 | 990.00     | 5,292.00 | 0.00     | 58,298.26 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 124.8600 | 0.0080  | 124.8600 | 466.9090 | 42.4305       | 63.9015        | 0.0271  |

Activity: 003700104 Finish Slopes (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,475.47   | 728.98 | 2,204.45    | 1,520.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,724.45 |
| Total   | 1,475.47   | 728.98 | 2,204.45    | 1,520.00  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,724.45 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 3,724.4500   | 10.0000       | 0.1000        | 372.4450     | 1.0000 | 1.0000      | 1.0000      | 3,724.4500 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 35.0000  | 0.0286  | 35.0000 | 62.9843        | 1,475.4700      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRF11 Fine Grade SG Crew Prod: CH 10 Eff: 100.00 Crew Hrs: 10.00 Labor Pcs: 3.50 Equipment Pcs: 4.00

| Resource | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|--------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8MIGPS   | Misc - GPS Control Equip | 1.00     | 10.00    | HR   | 30.00     | 100.00   | 30.00     | 300.00 |
| 8MIGR    | Misc - Grade Maker       | 1.00     | 10.00    | HR   | 50.00     | 100.00   | 50.00     | 500.00 |

|        |                                 |      |       |    |       |        |       |        |
|--------|---------------------------------|------|-------|----|-------|--------|-------|--------|
| 8ROSD  | Roller - 84in Single Drum       | 0.50 | 5.00  | HR | 65.00 | 100.00 | 65.00 | 325.00 |
| 8TRUT1 | Truck - 1 Ton                   | 1.00 | 10.00 | HR | 12.00 | 100.00 | 12.00 | 120.00 |
| 8TRW   | Truck - Water                   | 0.50 | 5.00  | HR | 55.00 | 100.00 | 55.00 | 275.00 |
| FORE   | Foreman                         | 1.00 | 10.00 | MH | 45.00 | 116.67 | 75.72 | 757.18 |
| L4     | Labor -Group 2 Pipe Layer/GC    | 1.00 | 10.00 | MH | 31.97 | 116.67 | 58.17 | 581.73 |
| OP5    | Operator - Mini, Roller, BH     | 1.00 | 10.00 | MH | 37.77 | 116.67 | 66.11 | 661.10 |
| TEAM2  | Teamster 10<br>CY/4KWater/LowBd | 0.50 | 5.00  | MH | 23.45 | 116.67 | 40.89 | 204.44 |

Activity: 004420200 Slurry Cutoff Wall Excavation (Unreviewed) Quantity: 180 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 17.13      | 8.70     | 25.83       | 9.70      | 0.00       | 0.00        | 0.00 | 5.50       | 29.40    | 0.00     | 70.43     |
| Total   | 3,082.89   | 1,566.46 | 4,649.35    | 1,746.00  | 0.00       | 0.00        | 0.00 | 990.00     | 5,292.00 | 0.00     | 12,677.35 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 35.5297      | 0.1000        | 10.0000       | 355.2972     | 1.8000 | 100.0000    | 0.0100      | 7,042.9722 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 72.0000  | 2.5000  | 0.4000  | 64.5743        | 17.1272         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 18.00 Labor Pcs: 4.00 Equipment Pcs: 3.00

Notes: This trench is 180 FT Long x 2 FT wide x 10 FT deep = 134 BCY. This will most likely not dig neatline so we should figure double overdig with the quantity for ex/bkfl (it will be a boulder patch)

134 x 2 = 264 CY and 264 CY Cement-Bentonite Slurry.

No spec provided on the slurry, so we will plug \$200.00 CY

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 54.00    | HR   | 98.00     | 100.00   | 98.00     | 5,292.00 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 330.00   | CY   | 3.00      | 100.00   | 3.00      | 990.00   |
| 8EX225   | Excavator - 225RTS           | 1.00     | 18.00    | HR   | 70.00     | 100.00   | 70.00     | 1,260.00 |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 18.00    | HR   | 15.00     | 100.00   | 15.00     | 270.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 18.00    | HR   | 12.00     | 100.00   | 12.00     | 216.00   |
| FORE     | Foreman                      | 1.00     | 18.00    | MH   | 45.00     | 116.67   | 75.72     | 1,362.92 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 18.00    | MH   | 30.82     | 116.67   | 56.61     | 1,018.90 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 18.00    | MH   | 31.97     | 116.67   | 58.17     | 1,047.12 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 18.00    | MH   | 39.01     | 116.67   | 67.80     | 1,220.41 |

Activity: 004420200.1 Pour Slurry Cutoff Wall (Unreviewed) Quantity: 268 Unit: CY

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 2.76       | 1.44   | 4.20        | 2.13      | 150.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 156.33    |
| Total   | 739.51     | 385.43 | 1,124.94    | 571.52    | 40,200.00  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 41,896.46 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 6.3301       | 0.0333        | 30.0001       | 189.9029     | 0.8933 | 300.0011    | 0.0033      | 46,899.1974 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 17.8600  | 15.0056 | 0.0666  | 62.9866        | 2.7594          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: ST130 Misc 130 Crew Prod: UH 30 Eff: 100.00 Crew Hrs: 8.93 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2CORPCDF | Controlled density fill(Priv | 1.00     | 268.00   | CY   | 150.00    | 100.00   | 150.00    | 40,200.00 |
| 8EX130   | Excavator - 130              | 1.00     | 8.93     | HR   | 52.00     | 100.00   | 52.00     | 464.36    |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 8.93     | HR   | 12.00     | 100.00   | 12.00     | 107.16    |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 8.93     | MH   | 31.97     | 116.67   | 58.17     | 519.48    |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 8.93     | MH   | 39.01     | 116.67   | 67.80     | 605.46    |

## Biditem

## Site Stormwater Pond Fabric

8053

Takeoff Qty: 475.000 SY

Bid Qty: 475.000 SY

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 0.32       | 0.17   | 0.49        | 0.17      | 1.25       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1.91   |
| Total   | 152.05     | 81.12  | 233.17      | 79.80     | 594.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 906.97 |

| Manhours | Unit/MH  | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|----------|---------|----------|---------------|----------------|----------|
| 3.8000   | 125.0000 | 0.0080  | 238.6763 | 40.0132       | 61.3605        | 250.0000 |

Activity: 003500104 Procure/Place Woven Geotextile (Unreviewed) Quantity: 475 Unit: SY

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 0.32       | 0.17   | 0.49        | 0.17      | 1.25       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1.91   |
| Total   | 152.05     | 81.12  | 233.17      | 79.80     | 594.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 906.97 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.6589       | 0.0040        | 250.0000      | 164.7211     | 0.1900 | 2,500.0000  | 0.0004      | 4,773.5263 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 3.8000   | 125.0000 | 0.0080  | 61.3605        | 0.3201          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMI Misc 580 Crew Prod: UH 250 Eff: 100.00 Crew Hrs: 1.90 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource    | Description                   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|-------------|-------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| ZERMIRAF140 | Mirafi 140 N Non Woven Fabric | 1.00     | 594.00   | SY   | 1.00      | 100.00   | 1.00      | 594.00 |
| 8BA580      | 580 BACKHOE                   | 1.00     | 1.90     | HR   | 30.00     | 100.00   | 30.00     | 57.00  |
| 8TRUT1      | Truck - 1 Ton                 | 1.00     | 1.90     | HR   | 12.00     | 100.00   | 12.00     | 22.80  |
| L1          | Labor -Group 1 Genl/Carp Tnd  | 1.00     | 1.90     | MH   | 30.82     | 116.67   | 56.61     | 107.56 |
| OP5         | Operator - Mini, Roller, BH   | 1.00     | 1.90     | MH   | 37.77     | 116.67   | 66.11     | 125.61 |

## Biditem

## Site Stormwater Pond 10 IN Open Rock Surfacing

8055

Takeoff Qty: 4,276.000 SF

Bid Qty: 4,276.000 SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.44       | 0.22   | 0.66        | 0.63      | 0.00       | 0.00        | 0.00 | 1.36       | 0.00     | 0.00     | 2.65      |
| Total   | 1,894.26   | 933.74 | 2,828.00    | 2,687.52  | 0.00       | 0.00        | 0.00 | 5,821.20   | 0.00     | 0.00     | 11,336.72 |

| Manhours | Unit/MH  | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|----------|---------|----------|---------------|----------------|----------|
| 42.2400  | 101.2311 | 0.0099  | 268.3883 | 44.8452       | 66.9508        | 404.9242 |

Activity: 002850100 Stormwater Pond Rock Surfacing (Unreviewed) Quantity: 264 Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 7.18       | 3.54   | 10.71       | 10.18     | 0.00       | 0.00        | 0.00 | 22.05      | 0.00     | 0.00     | 42.94     |
| Total   | 1,894.26   | 933.74 | 2,828.00    | 2,687.52  | 0.00       | 0.00        | 0.00 | 5,821.20   | 0.00     | 0.00     | 11,336.72 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 20.8921      | 0.0400        | 25.0000       | 522.3030     | 1.0560 | 250.0000    | 0.0040      | 10,735.5303 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 42.2400  | 6.2500  | 0.1600  | 66.9508        | 7.1752          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: EAEMG Embnkmnt On-Site, Granular Prod: UH 25 Eff: 100.00 Crew Hrs: 10.56 Labor Pcs: 4.00 Equipment Pcs: 5.50

| Resource    | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-------------|--------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 6AG4-60PDEL | 4 to 6 IN Open Delivered | 1.00     | 264.00   | TN   | 22.05     | 100.00   | 22.05     | 5,821.20 |
| 8DOD06      | Dozer - D6               | 1.00     | 10.56    | HR   | 75.00     | 100.00   | 75.00     | 792.00   |

|        |                              |      |       |    |       |        |       |        |
|--------|------------------------------|------|-------|----|-------|--------|-------|--------|
| 8LO544 | Loader - 544                 | 1.00 | 10.56 | HR | 50.00 | 100.00 | 50.00 | 528.00 |
| 8MIGPS | Misc - GPS Control Equip     | 1.00 | 10.56 | HR | 30.00 | 100.00 | 30.00 | 316.80 |
| 8ROSD  | Roller - 84in Single Drum    | 0.50 | 5.28  | HR | 65.00 | 100.00 | 65.00 | 343.20 |
| 8TRUT1 | Truck - 1 Ton                | 1.00 | 10.56 | HR | 12.00 | 100.00 | 12.00 | 126.72 |
| 8TRW   | Truck - Water                | 1.00 | 10.56 | HR | 55.00 | 100.00 | 55.00 | 580.80 |
| FORE   | Foreman                      | 1.00 | 10.56 | MH | 45.00 | 116.67 | 75.72 | 799.59 |
| L4     | Labor -Group 2 Pipe Layer/GC | 1.00 | 10.56 | MH | 31.97 | 116.67 | 58.17 | 614.30 |
| OP4    | Operator-Doz, Exc, Bld, Ldr  | 1.00 | 10.56 | MH | 39.01 | 116.67 | 67.80 | 715.98 |
| OP5    | Operator - Mini, Roller, BH  | 1.00 | 10.56 | MH | 37.77 | 116.67 | 66.11 | 698.13 |

Subtotal

# Site Stormwater Subtotal

|              | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total      |
|--------------|------------|-----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|------------|
| <b>Total</b> | 22,819.91  | 11,685.61 | 34,505.52   | 18,675.34 | 72,421.76  | 0.00        | 0.00 | 17,466.23  | 15,092.00 | 0.00     | 158,160.85 |

Biditem

Pipe Testing (Water &amp; Storm)

8060

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|              | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total     |
|--------------|------------|----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|-----------|
| U. Cost      | 4,314.93   | 2,477.69 | 6,792.62    | 1,620.00  | 5,250.00   | 0.00        | 1,125.00 | 0.00       | 0.00     | 0.00     | 14,787.62 |
| <b>Total</b> | 4,314.93   | 2,477.69 | 6,792.62    | 1,620.00  | 5,250.00   | 0.00        | 1,125.00 | 0.00       | 0.00     | 0.00     | 14,787.62 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 120.0000 | 0.0083  | 120.0000 | 123.2302 | 35.9578       | 56.6052        | 0.0167  |

|                     |                                 |              |               |          |
|---------------------|---------------------------------|--------------|---------------|----------|
| Activity: 004450026 | Video San/Storm Pipe Inspection | (Unreviewed) | Quantity: 225 | Unit: LF |
|---------------------|---------------------------------|--------------|---------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-------------|----------|----------|------|-----------|----------|-----------|----------|
| 4TEST5   | Flush & TV  | 1.00     | 225.00   | LF   | 5.00      | 100.00   | 5.00      | 1,125.00 |

|                     |                              |              |             |          |
|---------------------|------------------------------|--------------|-------------|----------|
| Activity: 011500060 | Hydrostatic Pressure Testing | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|------------------------------|--------------|-------------|----------|

|              | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|--------------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost      | 2,876.62   | 1,651.79 | 4,528.41    | 1,080.00  | 5,000.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 10,608.41 |
| <b>Total</b> | 2,876.62   | 1,651.79 | 4,528.41    | 1,080.00  | 5,000.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 10,608.41 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 5,608.4100   | 40.0000       | 0.0250        | 140.2103     | 4.0000 | 0.2500      | 4.0000      | 2,652.1025 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 80.0000  | 0.0125  | 80.0000 | 56.6051        | 2,876.6200      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: TEPI Pipe Test Crew Prod: CH 40 Eff: 100.00 Crew Hrs: 40.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2MISCTEST | Misc. Testing Material       | 1.00     | 1.00     | LS   | 5,000.00  | 100.00   | 5,000.00  | 5,000.00 |
| 8MI2      | Misc - Daily Cost            | 1.00     | 40.00    | HR   | 15.00     | 100.00   | 15.00     | 600.00   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 40.00    | HR   | 12.00     | 100.00   | 12.00     | 480.00   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 2.00     | 80.00    | MH   | 30.82     | 116.67   | 56.61     | 4,528.41 |

|                     |                                          |              |             |          |
|---------------------|------------------------------------------|--------------|-------------|----------|
| Activity: 011500070 | Chlorination/Disinfection/Dechlorination | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|------------------------------------------|--------------|-------------|----------|

|              | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|--------------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost      | 1,438.31   | 825.90 | 2,264.21    | 540.00    | 250.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,054.21 |
| <b>Total</b> | 1,438.31   | 825.90 | 2,264.21    | 540.00    | 250.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,054.21 |



| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour   | Shifts          | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|----------------|-----------------|-------------|-------------|------------|
| 2,804.2100   | 20.0000       | 0.0500        | 140.2105       | 2.0000          | 0.5000      | 2.0000      | 1,527.1050 |
| Manhours     | Unit/MH       | MH/Unit       | Total Labor/MH | Base Labor/Unit |             |             |            |
| 40.0000      | 0.0250        | 40.0000       | 56.6053        | 1,438.3100      |             |             |            |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: TEPI Pipe Test Crew Prod: CH 20 Eff: 100.00 Crew Hrs: 20.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2CHLORINE | 12.5% Liquid Chlorine        | 1.00     | 1.00     | LS   | 250.00    | 100.00   | 250.00    | 250.00   |
| 8MI2      | Misc - Daily Cost            | 1.00     | 20.00    | HR   | 15.00     | 100.00   | 15.00     | 300.00   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 20.00    | HR   | 12.00     | 100.00   | 12.00     | 240.00   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 2.00     | 40.00    | MH   | 30.82     | 116.67   | 56.61     | 2,264.21 |

Subtotal

# Pipe Testing Subtotal

|       | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total     |
|-------|------------|----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|-----------|
| Total | 4,314.93   | 2,477.69 | 6,792.62    | 1,620.00  | 5,250.00   | 0.00        | 1,125.00 | 0.00       | 0.00     | 0.00     | 14,787.62 |

Biditem

Site Base/Shoulder Rock

9010

Takeoff Qty: 589.000 TN

Bid Qty: 589.000 TN

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 5.67       | 2.77     | 8.44        | 8.58      | 0.00       | 0.00        | 0.00 | 12.18      | 9.95     | 0.00     | 39.16     |
| Total   | 3,338.03   | 1,633.50 | 4,971.53    | 5,055.85  | 0.00       | 0.00        | 0.00 | 7,176.00   | 5,860.40 | 0.00     | 23,063.78 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 78.4400  | 7.5089  | 0.1332  | 294.0309 | 42.5552       | 63.3800        | 24.3015 |

Activity: 006410130 Fine Grade Agg Subbase (Unreviewed) Quantity: 10703 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.10       | 0.05   | 0.15        | 0.14      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 0.29     |
| Total   | 1,053.48   | 520.50 | 1,573.98    | 1,488.69  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,062.67 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.2862       | 0.0007        | 1,500.0070    | 429.2279     | 0.7135 | 15,000.0701 | 0.0001      | 4,292.2792 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 24.9900  | 428.2913 | 0.0023  | 62.9844        | 0.0984          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRF11 Fine Grade SG Crew Prod: UH 1500 Eff: 100.00 Crew Hrs: 7.14 Labor Pcs: 3.50 Equipment Pcs: 4.50

Notes: AutoCad shows 10,703 SF of 3-inch on-site paving with an 8-inch rock section.

10,703 SF x .67 = 531 tons.

Shoulder rock 370 LF x 2 x 8-inch = 37 tons  
Base to under building walk = 420 SF x 8 IN = 21

Total parking lot rock = 531+10+37 = 589 tons

| Resource | Description               | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|---------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BL140   | 140 GRADER                | 1.00     | 7.14     | HR   | 74.00     | 100.00   | 74.00     | 528.36 |
| 8MIGPS   | Misc - GPS Control Equip  | 1.00     | 7.14     | HR   | 30.00     | 100.00   | 30.00     | 214.20 |
| 8ROSD    | Roller - 84in Single Drum | 1.00     | 7.14     | HR   | 65.00     | 100.00   | 65.00     | 464.10 |
| 8TRUT1   | Truck - 1 Ton             | 1.00     | 7.14     | HR   | 12.00     | 100.00   | 12.00     | 85.68  |
| 8TRW     | Truck - Water             | 0.50     | 3.57     | HR   | 55.00     | 100.00   | 55.00     | 196.35 |
| FORE     | Foreman                   | 1.00     | 7.14     | MH   | 45.00     | 116.67   | 75.72     | 540.62 |

|       |                                 |      |      |    |       |        |       |        |
|-------|---------------------------------|------|------|----|-------|--------|-------|--------|
| L4    | Labor -Group 2 Pipe Layer/GC    | 1.00 | 7.14 | MH | 31.97 | 116.67 | 58.17 | 415.36 |
| OP5   | Operator - Mini, Roller, BH     | 1.00 | 7.14 | MH | 37.77 | 116.67 | 66.11 | 472.03 |
| TEAM2 | Teamster 10<br>CY/4KWater/LowBd | 0.50 | 3.57 | MH | 23.45 | 116.67 | 40.89 | 145.97 |

Activity: 006400110 Procure/Place Agg Base (Unreviewed) Quantity: 598 Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 2.46       | 1.22   | 3.67        | 3.48      | 0.00       | 0.00        | 0.00 | 12.00      | 9.80     | 0.00     | 28.95     |
| Total   | 1,470.91   | 726.72 | 2,197.63    | 2,078.47  | 0.00       | 0.00        | 0.00 | 7,176.00   | 5,860.40 | 0.00     | 17,312.50 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 7.1507       | 0.0167        | 60.0004       | 429.0430     | 0.9967 | 600.0040    | 0.0017      | 17,370.5175 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 34.8900  | 17.1396 | 0.0583  | 62.9874        | 2.4597          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRCRB Place Cr. Rock Base Prod: UH 60.0004 Eff: 100.00 Crew Hrs: 9.97 Labor Pcs: 3.50 Equipment Pcs: 4.50

Notes: Number of Trucks Routine  
Description Unit Quantity  
-----  
Total Units Per Day 540.0000  
Hours Per Day 9.0000  
Hours Per Round 1.2500  
Units Per Load 14.0000  
Trucks Required Per Day 6.3571

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo                 | 1.00     | 59.80    | HR   | 98.00     | 100.00   | 98.00     | 5,860.40 |
| 6AGC075P | Crushed - 3/4in (PU)            | 1.00     | 598.00   | TON  | 12.00     | 100.00   | 12.00     | 7,176.00 |
| 8BL140   | 140 GRADER                      | 1.00     | 9.97     | HR   | 74.00     | 100.00   | 74.00     | 737.78   |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 9.97     | HR   | 30.00     | 100.00   | 30.00     | 299.10   |
| 8ROSD    | Roller - 84in Single Drum       | 1.00     | 9.97     | HR   | 65.00     | 100.00   | 65.00     | 648.05   |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 9.97     | HR   | 12.00     | 100.00   | 12.00     | 119.64   |
| 8TRW     | Truck - Water                   | 0.50     | 4.98     | HR   | 55.00     | 100.00   | 55.00     | 273.90   |
| FORE     | Foreman                         | 1.00     | 9.97     | MH   | 45.00     | 116.67   | 75.72     | 754.90   |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | 9.97     | MH   | 31.97     | 116.67   | 58.17     | 579.99   |
| OP5      | Operator - Mini, Roller, BH     | 1.00     | 9.97     | MH   | 37.77     | 116.67   | 66.11     | 659.12   |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 4.98     | MH   | 23.45     | 116.67   | 40.89     | 203.62   |

Activity: 006400130 Fine Grade Agg Base (Unreviewed) Quantity: 10703 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.08       | 0.04   | 0.11        | 0.14      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 0.25     |
| Total   | 813.64     | 386.28 | 1,199.92    | 1,488.69  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,688.61 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.2512       | 0.0007        | 1,500.0070    | 376.8041     | 0.7135 | 15,000.0701 | 0.0001      | 3,768.0406 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 18.5600  | 576.6703 | 0.0017  | 64.6509        | 0.0760          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRF11 Fine Grade SG Crew Prod: UH 1500 Eff: 100.00 Crew Hrs: 7.14 Labor Pcs: 2.60 Equipment Pcs: 4.50

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BL140   | 140 GRADER                   | 1.00     | 7.14     | HR   | 74.00     | 100.00   | 74.00     | 528.36 |
| 8MIGPS   | Misc - GPS Control Equip     | 1.00     | 7.14     | HR   | 30.00     | 100.00   | 30.00     | 214.20 |
| 8ROSD    | Roller - 84in Single Drum    | 1.00     | 7.14     | HR   | 65.00     | 100.00   | 65.00     | 464.10 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 7.14     | HR   | 12.00     | 100.00   | 12.00     | 85.68  |
| 8TRW     | Truck - Water                | 0.50     | 3.57     | HR   | 55.00     | 100.00   | 55.00     | 196.35 |
| FORE     | Foreman                      | 1.00     | 7.14     | MH   | 45.00     | 116.67   | 75.72     | 540.62 |
| L4       | Labor -Group 2 Pipe Layer/GC | 0.10     | 0.71     | MH   | 31.97     | 116.67   | 58.17     | 41.30  |

|       |                                 |      |      |    |       |        |       |        |
|-------|---------------------------------|------|------|----|-------|--------|-------|--------|
| OP5   | Operator - Mini, Roller, BH     | 1.00 | 7.14 | MH | 37.77 | 116.67 | 66.11 | 472.03 |
| TEAM2 | Teamster 10<br>CY/4KWater/LowBd | 0.50 | 3.57 | MH | 23.45 | 116.67 | 40.89 | 145.97 |

**Biditem****Site Subgrade Fabric****9015**

Takeoff Qty: 1,189.000 SY

Bid Qty: 1,189.000 SY

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.32       | 0.17   | 0.49        | 0.17      | 0.81       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1.47     |
| Total   | 380.92     | 203.21 | 584.13      | 199.92    | 965.90     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,749.95 |

| Manhours | Unit/MH  | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|----------|---------|----------|---------------|----------------|----------|
| 9.5200   | 124.8950 | 0.0080  | 183.8183 | 40.0126       | 61.3582        | 250.0000 |

Activity: 003500104 Procure/Place Woven Geotextile (Unreviewed) Quantity: 1189 Unit: SY

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.32       | 0.17   | 0.49        | 0.17      | 0.81       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1.47     |
| Total   | 380.92     | 203.21 | 584.13      | 199.92    | 965.90     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,749.95 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.6594       | 0.0040        | 250.0000      | 164.8549     | 0.4756 | 2,500.0000  | 0.0004      | 3,679.4575 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 9.5200   | 124.8950 | 0.0080  | 61.3582        | 0.3204          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMI Misc 580 Crew Prod: UH 250 Eff: 100.00 Crew Hrs: 4.76 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2ER02    | Geo-Textile Fabric           | 1.00     | 1,486.00 | SY   | 0.65      | 100.00   | 0.65      | 965.90 |
| 8BA580   | 580 BACKHOE                  | 1.00     | 4.76     | HR   | 30.00     | 100.00   | 30.00     | 142.80 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 4.76     | HR   | 12.00     | 100.00   | 12.00     | 57.12  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 4.76     | MH   | 30.82     | 116.67   | 56.61     | 269.44 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 4.76     | MH   | 37.77     | 116.67   | 66.11     | 314.69 |

**Biditem****Site Concrete Flatwork****9020**

Takeoff Qty: 420.000 SF

Bid Qty: 420.000 SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|----------|------------|----------|----------|----------|
| U. Cost | 0.67       | 0.35   | 1.03        | 0.77      | 0.00       | 0.00        | 8.00     | 0.40       | 0.78     | 0.00     | 10.98    |
| Total   | 283.05     | 148.93 | 431.98      | 322.56    | 0.00       | 0.00        | 3,360.00 | 168.00     | 329.28   | 0.00     | 4,611.82 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|---------|---------|----------|---------------|----------------|----------|
| 6.7200   | 62.5000 | 0.0160  | 686.2827 | 42.1205       | 64.2827        | 250.0000 |

Activity: 007590110 Prep/Grade Sidewalk (Unreviewed) Quantity: 420 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.67       | 0.35   | 1.03        | 0.77      | 0.00       | 0.00        | 0.00 | 0.40       | 0.78     | 0.00     | 2.98     |
| Total   | 283.05     | 148.93 | 431.98      | 322.56    | 0.00       | 0.00        | 0.00 | 168.00     | 329.28   | 0.00     | 1,251.82 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1.7965       | 0.0040        | 250.0000      | 449.1310     | 0.1680 | 2,500.0000  | 0.0004      | 7,451.3095 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 6.7200   | 62.5000 | 0.0160  | 64.2827        | 0.6739          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR5221 PAVING/GRADING WALK-DWYS-LOT

Crew: GRSI Sidewalk Prep. Prod: UH 250 Eff: 100.00 Crew Hrs: 1.68 Labor Pcs: 4.00 Equipment Pcs: 4.00

**Notes:** There is 105 LF of sidewalk shown on C-2 at 4 Feet wide= 420 SF

420 SF @ 4-inch depth base rock = 11 tons. Assume 25% waste for outside the forms = 14 tons

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 3.36     | HR   | 98.00     | 100.00   | 98.00     | 329.28 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 14.00    | TON  | 12.00     | 100.00   | 12.00     | 168.00 |
| 8ROS     | Roller - Small Paving        | 1.00     | 1.68     | HR   | 30.00     | 100.00   | 30.00     | 50.40  |
| 8SKBL    | Skidsteer - Loader           | 1.00     | 1.68     | HR   | 25.00     | 100.00   | 25.00     | 42.00  |
| 8TREZ    | Truck - EZ Grade (Rent)      | 1.00     | 1.68     | HR   | 125.00    | 100.00   | 125.00    | 210.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.68     | HR   | 12.00     | 100.00   | 12.00     | 20.16  |
| FORE     | Foreman                      | 1.00     | 1.68     | MH   | 45.00     | 116.67   | 76.37     | 128.30 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 3.36     | MH   | 30.82     | 116.67   | 57.05     | 191.69 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 1.68     | MH   | 37.77     | 116.67   | 66.66     | 111.99 |

Activity: 007590120 Form/Pour Sidewalk (Unreviewed) Quantity: 420 Unit: SF

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-----------------------|----------|----------|------|-----------|----------|-----------|----------|
| 4CONCF   | Flatwork Concrete Sub | 1.00     | 420.00   | SF   | 8.00      | 100.00   | 8.00      | 3,360.00 |

**Biditem**

**Site Paving**

**9040**

Takeoff Qty: 210.000 TN

Bid Qty: 210.000 TN

Activity: 007450200 PG 64-22 Asphalt in HMAC (Unreviewed) Quantity: 210 Unit: TN

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

**Notes:** Per the AutoCad File the off-site paving is 10,703 SF and the section shown on sheet C-19 of the plans is 3-inch of AC over 8 -inches of base rock.

10,703 SF @ 3 IN Depth = 201 Tons of AC, we will assume 210 tons to account for clean-up /waste.

| Resource | Description   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4PAVA    | AC Paving Sub | 1.00     | 210.00   | TN   | 104.10    | 100.00   | 104.10    | 21,861.00 |

**Biditem**

**Site Reservoir Gravel Access Path**

**9050**

Takeoff Qty: 1,180.000 SF

Bid Qty: 1,180.000 SF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1.70       | 0.88     | 2.58        | 0.75      | 0.00       | 0.00        | 0.00 | 0.61       | 0.50     | 0.00     | 4.44     |
| Total   | 2,004.95   | 1,042.37 | 3,047.32    | 887.80    | 0.00       | 0.00        | 0.00 | 720.00     | 588.00   | 0.00     | 5,243.12 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 47.6000  | 24.7899 | 0.0403  | 110.1496 | 42.1208       | 64.0193        | 99.1597 |

Activity: 007590110 Prep/Grade Access Path Subgrade (Unreviewed) Quantity: 1180 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.84       | 0.44   | 1.29        | 0.31      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1.60     |
| Total   | 994.05     | 523.04 | 1,517.09    | 365.80    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,882.89 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1.5957       | 0.0050        | 200.0000      | 319.1339     | 0.5900 | 2,000.0000  | 0.0005      | 3,191.3390 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 23.6000  | 50.0000 | 0.0200  | 64.2835        | 0.8424          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR5221 PAVING/GRADING WALK-DWYS-LOT

Crew: GRSI Sidewalk Prep. Prod: UH 200 Eff: 100.00 Crew Hrs: 5.90 Labor Pcs: 4.00 Equipment Pcs: 3.00

**Notes:** Access path is shown from the parking lot to the top of the reservoir. The path is 4-feet wide with a larger landing at the reservoir. No rock sections are shown so we will assume 8-inch of 3/4-0.

1,180 SF @ 8-inch = 60 tons of rock

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8EX050   | Excavator - 050 Mini         | 1.00     | 5.90     | HR   | 20.00     | 100.00   | 20.00     | 118.00 |
| 8ROS     | Roller - Small Paving        | 1.00     | 5.90     | HR   | 30.00     | 100.00   | 30.00     | 177.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 5.90     | HR   | 12.00     | 100.00   | 12.00     | 70.80  |
| FORE     | Foreman                      | 1.00     | 5.90     | MH   | 45.00     | 116.67   | 76.37     | 450.59 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 11.80    | MH   | 30.82     | 116.67   | 57.05     | 673.22 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 5.90     | MH   | 37.77     | 116.67   | 66.66     | 393.28 |

Activity: 007590120.1

Place Access Path Gravel Surfacing

(Unreviewed)

Quantity: 60

Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 16.85      | 8.66   | 25.50       | 8.70      | 0.00       | 0.00        | 0.00 | 12.00      | 9.80     | 0.00     | 56.00    |
| Total   | 1,010.90   | 519.33 | 1,530.23    | 522.00    | 0.00       | 0.00        | 0.00 | 720.00     | 588.00   | 0.00     | 3,360.23 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 34.2038      | 0.1000        | 10.0000       | 342.0383     | 0.6000 | 100.0000    | 0.0100      | 5,600.3833 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 24.0000  | 2.5000  | 0.4000  | 63.7596        | 16.8483         |

Calendar: 610

60 Hour Week - (6@10)

Hrs/Shift: 10

WC: OR6306

SEWER CONSTRUCTION

Crew: GRSI

Sidewalk Prep.

Prod: UH 10

Eff: 100.00

Crew Hrs: 6.00

Labor Pcs: 4.00

Equipment Pcs: 4.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 6.00     | HR   | 98.00     | 100.00   | 98.00     | 588.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 60.00    | TON  | 12.00     | 100.00   | 12.00     | 720.00 |
| 8EX050   | Excavator - 050 Mini         | 1.00     | 6.00     | HR   | 20.00     | 100.00   | 20.00     | 120.00 |
| 8ROS     | Roller - Small Paving        | 1.00     | 6.00     | HR   | 30.00     | 100.00   | 30.00     | 180.00 |
| 8SKBL    | Skidsteer - Loader           | 1.00     | 6.00     | HR   | 25.00     | 100.00   | 25.00     | 150.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 6.00     | HR   | 12.00     | 100.00   | 12.00     | 72.00  |
| FORE     | Foreman                      | 1.00     | 6.00     | MH   | 45.00     | 116.67   | 75.72     | 454.30 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 12.00    | MH   | 30.82     | 116.67   | 56.61     | 679.26 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 6.00     | MH   | 37.77     | 116.67   | 66.11     | 396.67 |

Subtotal

# Site Surfacing Subtotal

|       | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|-------|------------|----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| Total | 6,006.95   | 3,028.01 | 9,034.96    | 6,466.13  | 965.90     | 0.00        | 25,221.00 | 8,064.00   | 6,777.68 | 0.00     | 56,529.67 |

Biditem

10010

Site Security Fencing

Takeoff Qty: 1,365.000 LF

Bid Qty: 1,365.000 LF

Activity: 010500100

Fences & Gates

(Unreviewed)

Quantity: 1365

Unit: LF

Calendar: 610

60 Hour Week - (6@10)

Hrs/Shift: 10

WC: OR6306

SEWER CONSTRUCTION

| Resource | Description           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|-----------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4FENC    | Fencing Subcontractor | 1.00     | 1,365.00 | LF   | 47.06     | 100.00   | 47.06     | 64,240.18 |

Biditem

10020

Landscaping & Irrigation

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total      |
|---------|------------|----------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|------------|
| U. Cost | 7,272.03   | 3,567.44 | 10,839.47   | 8,942.72  | 500.00     | 0.00        | 98,783.30 | 47,719.20  | 588.00   | 0.00     | 167,372.69 |
| Total   | 7,272.03   | 3,567.44 | 10,839.47   | 8,942.72  | 500.00     | 0.00        | 98,783.30 | 47,719.20  | 588.00   | 0.00     | 167,372.69 |

| Manhours | Unit/MH | MH/Unit  | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|------------|---------------|----------------|---------|
| 161.2800 | 0.0062  | 161.2800 | 1,037.7771 | 45.0895       | 67.2090        | 0.0179  |

|                     |                      |              |             |          |
|---------------------|----------------------|--------------|-------------|----------|
| Activity: 010400100 | Planting/Landscaping | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|----------------------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4LAND    | Landscape Sub | 1.00     | 1.00     | LS   | 98,783.30 | 100.00   | 98,783.30 | 98,783.30 |

|                     |                    |              |              |          |
|---------------------|--------------------|--------------|--------------|----------|
| Activity: 011200100 | Irrigation Sleeves | (Unreviewed) | Quantity: 90 | Unit: LF |
|---------------------|--------------------|--------------|--------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 5.99       | 2.94   | 8.93        | 4.27      | 5.56       | 0.00        | 0.00 | 7.73       | 6.53     | 0.00     | 33.01    |
| Total   | 538.81     | 264.53 | 803.34      | 384.00    | 500.00     | 0.00        | 0.00 | 696.00     | 588.00   | 0.00     | 2,971.34 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 13.1927      | 0.0667        | 15.0000       | 197.8900     | 0.6000 | 150.0000    | 0.0067      | 4,952.2333 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 12.0000  | 7.5000  | 0.1333  | 66.9450        | 5.9868          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: ST90 Misc. 9010 Crew Prod: UH 15 Eff: 100.00 Crew Hrs: 6.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2PI3S40  | 3 IN S40 Irrigation Sleeve   | 1.00     | 100.00   | LF   | 5.00      | 100.00   | 5.00      | 500.00 |
| 5SO      | Trucking - Solo              | 1.00     | 6.00     | HR   | 98.00     | 100.00   | 98.00     | 588.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 50.00    | TON  | 12.00     | 100.00   | 12.00     | 600.00 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 32.00    | CY   | 3.00      | 100.00   | 3.00      | 96.00  |
| 8EX130   | Excavator - 130              | 1.00     | 6.00     | HR   | 52.00     | 100.00   | 52.00     | 312.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 6.00     | HR   | 12.00     | 100.00   | 12.00     | 72.00  |
| FORE     | Foreman                      | 1.00     | 6.00     | MH   | 45.00     | 116.67   | 75.72     | 454.30 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 6.00     | MH   | 31.97     | 116.67   | 58.17     | 349.04 |

|                     |                         |              |                |          |
|---------------------|-------------------------|--------------|----------------|----------|
| Activity: 003300122 | Procure & Place Topsoil | (Unreviewed) | Quantity: 1244 | Unit: CY |
|---------------------|-------------------------|--------------|----------------|----------|

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 5.41       | 2.66     | 8.07        | 6.88      | 0.00       | 0.00        | 0.00 | 37.80      | 0.00     | 0.00     | 52.75     |
| Total   | 6,733.22   | 3,302.91 | 10,036.13   | 8,558.72  | 0.00       | 0.00        | 0.00 | 47,023.20  | 0.00     | 0.00     | 65,618.05 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 14.9476      | 0.0400        | 25.0000       | 373.6907     | 4.9760 | 250.0000    | 0.0040      | 13,186.9072 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 149.2800 | 8.3333  | 0.1200  | 67.2302        | 5.4126          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: EAEMN Embnkmnt On-Site, Native Prod: UH 25 Eff: 100.00 Crew Hrs: 49.76 Labor Pcs: 3.00 Equipment Pcs: 4.00

Notes: There is 67,200 SF of area needing 6 IN of topsoil or 1,244 BCY x 1.75 = 2,177 tons

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 6AGSTSDEL | Screened Topsoil Delivered   | 1.00     | 2,177.00 | TN   | 21.60     | 100.00   | 21.60     | 47,023.20 |
| 8DOD06    | Dozer - D6                   | 1.00     | 49.76    | HR   | 75.00     | 100.00   | 75.00     | 3,732.00  |
| 8MIGPS    | Misc - GPS Control Equip     | 1.00     | 49.76    | HR   | 30.00     | 100.00   | 30.00     | 1,492.80  |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 49.76    | HR   | 12.00     | 100.00   | 12.00     | 597.12    |
| 8TRW      | Truck - Water                | 1.00     | 49.76    | HR   | 55.00     | 100.00   | 55.00     | 2,736.80  |
| FORE      | Foreman                      | 1.00     | 49.76    | MH   | 45.00     | 116.67   | 75.72     | 3,767.68  |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 49.76    | MH   | 31.97     | 116.67   | 58.17     | 2,894.68  |

|     |                             |      |       |    |       |        |       |          |
|-----|-----------------------------|------|-------|----|-------|--------|-------|----------|
| OP4 | Operator-Doz, Exc, Bld, Ldr | 1.00 | 49.76 | MH | 39.01 | 116.67 | 67.80 | 3,373.77 |
|-----|-----------------------------|------|-------|----|-------|--------|-------|----------|

**Biditem****10030****Project Signing**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|                     |                 |              |             |          |
|---------------------|-----------------|--------------|-------------|----------|
| Activity: 009400100 | Project Signing | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|-----------------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-------------|----------|----------|------|-----------|----------|-----------|----------|
| 4SIGN    | Signing Sub | 1.00     | 1.00     | LS   | 2,500.00  | 100.00   | 2,500.00  | 2,500.00 |

**Biditem****10040****Parking Lot Striping**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|                     |                                       |              |             |          |
|---------------------|---------------------------------------|--------------|-------------|----------|
| Activity: 008600100 | Longitudnal Pavement Markings - Paint | (Unreviewed) | Quantity: 1 | Unit: LS |
|---------------------|---------------------------------------|--------------|-------------|----------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

**Notes:** We will need to install painted striping for the parking stalls and the ped access accross the parking lot.Stalls = 75 LF  
Ped Access = 190 LF

Total Stripe = 265 LF

This is not enough striping to justify a move without a minimum mob. I am going to budget \$2,500.00 to include the mob and the striping.

| Resource | Description  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|--------------|----------|----------|------|-----------|----------|-----------|----------|
| 4STRI    | Striping Sub | 1.00     | 1.00     | LS   | 2,500.00  | 100.00   | 2,500.00  | 2,500.00 |

**Subtotal****Site Security, Landscaping & Signing Subtotal**

|              | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub        | Aggregates | Trucking | Gen Cond | Total      |
|--------------|------------|----------|-------------|-----------|------------|-------------|------------|------------|----------|----------|------------|
| <b>Total</b> | 7,272.03   | 3,567.44 | 10,839.47   | 8,942.72  | 500.00     | 0.00        | 168,023.48 | 47,719.20  | 588.00   | 0.00     | 236,612.87 |

**Biditem****11010****Off-Site 18 IN Zone 2 Pipe, Fittings & Valves**

Takeoff Qty: 385.000 LF

Bid Qty: 385.000 LF

|              | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total     |
|--------------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|-----------|
| U. Cost      | 21.72      | 10.97    | 32.69       | 30.49     | 87.58      | 0.00        | 0.00 | 44.65      | 28.99     | 0.00     | 224.39    |
| <b>Total</b> | 8,361.14   | 4,223.20 | 12,584.34   | 11,737.33 | 33,717.39  | 0.00        | 0.00 | 17,188.68  | 11,161.22 | 0.00     | 86,388.96 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 193.3100 | 1.9916  | 0.5021  | 446.8934 | 43.2525       | 65.0993        | 9.3964  |

|                     |                                      |              |               |          |
|---------------------|--------------------------------------|--------------|---------------|----------|
| Activity: 011400054 | Procure & String 18-inch Zone 2 Pipe | (Unreviewed) | Quantity: 385 | Unit: LF |
|---------------------|--------------------------------------|--------------|---------------|----------|

|              | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|--------------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost      | 0.81       | 0.43   | 1.24        | 0.50      | 87.58      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 89.32     |
| <b>Total</b> | 313.66     | 165.31 | 478.97      | 192.50    | 33,717.39  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 34,388.86 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 1.7441       | 0.0100        | 100.0000      | 174.4078     | 0.3850 | 1,000.0000  | 0.0010      | 89,321.7143 |



| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 7.7000   | 50.0000 | 0.0200  | 62.2039        | 0.8147          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 100 Eff: 100.00 Crew Hrs: 3.85 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource    | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|-------------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2P18MJLONG  | 18 IN MJ Long Sleeve         | 1.00     | 1.00     | EA   | 1,200.00  | 100.00   | 1,200.00  | 1,200.00  |
| 2P1218      | 18in DI CL52 Pipe            | 1.00     | 400.00   | LF   | 61.41     | 100.00   | 61.41     | 24,564.00 |
| 2P18FIELDLO | 18 IN Field Lok Gasket       | 1.00     | 20.00    | EA   | 293.71    | 100.00   | 293.71    | 5,874.20  |
| 2P18MEG     | 18 IN Megalug                | 1.00     | 4.00     | EA   | 256.88    | 100.00   | 256.88    | 1,027.52  |
| 2P18MJ45    | 18 IN MJ 45                  | 1.00     | 1.00     | EA   | 1,051.67  | 100.00   | 1,051.67  | 1,051.67  |
| 8LO544      | Loader - 544                 | 1.00     | 3.85     | HR   | 50.00     | 100.00   | 50.00     | 192.50    |
| L1          | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.85     | MH   | 30.82     | 116.67   | 56.61     | 217.94    |
| OP4         | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 3.85     | MH   | 39.01     | 116.67   | 67.80     | 261.03    |

Activity: 011400518 Gran-18 inch Waterline-Medium (Unreviewed) Quantity: 385 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 18.06      | 9.11     | 27.17       | 27.41     | 0.00       | 0.00        | 0.00 | 44.65      | 24.50    | 0.00     | 123.73    |
| Total   | 6,954.90   | 3,506.97 | 10,461.87   | 10,554.47 | 0.00       | 0.00        | 0.00 | 17,188.68  | 9,432.50 | 0.00     | 47,637.52 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 54.5879      | 0.0833        | 12.0000       | 655.0554     | 3.2083 | 120.0001    | 0.0083      | 14,848.0736 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 160.4100 | 2.4001  | 0.4166  | 65.2196        | 18.0647         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 12 Eff: 100.00 Crew Hrs: 32.08 Labor Pcs: 5.00 Equipment Pcs: 7.50

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 3.0000   |
| Bedding 2 Depth                | LF   | 7.0000   |
| Object Height (Dia. if circle) | LF   | 1.5000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 4.5000   |
| Trench Depth                   | LF   | 10.0000  |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 305.0000 |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 508.3333 |
| Bedding 1 Volume               | CY   | 132.5383 |
| Bedding 2 Volume               | CY   | 355.8333 |
| Bedding 1 + Bedding 2          | CY   | 488.3716 |
| Net Excess                     | CY   | 508.3332 |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 5SO       | Trucking - Solo              | 1.00     | 96.25    | HR   | 98.00     | 100.00   | 98.00     | 9,432.50  |
| 6AGC075P  | Crushed - 3/4in (PU)         | 1.00     | 1,232.00 | TON  | 12.00     | 100.00   | 12.00     | 14,784.00 |
| 6DEDU02   | DUMP FEES - (CY)             | 1.00     | 801.56   | CY   | 3.00      | 100.00   | 3.00      | 2,404.68  |
| 8EX130    | Excavator - 130              | 1.00     | 32.08    | HR   | 52.00     | 100.00   | 52.00     | 1,668.16  |
| 8EX308BRK | Excavator - 308 w/ Brk       | 0.50     | 16.04    | HR   | 150.00    | 100.00   | 150.00    | 2,406.00  |
| 8EX328    | Excavator - 328              | 1.00     | 32.08    | HR   | 100.00    | 100.00   | 100.00    | 3,208.00  |
| 8LO544    | Loader - 544                 | 1.00     | 32.08    | HR   | 50.00     | 100.00   | 50.00     | 1,604.00  |
| 8MIHP     | Misc - Backhoe Hoepac        | 1.00     | 32.08    | HR   | 10.00     | 100.00   | 10.00     | 320.80    |
| 8SHTR10   | Shoring - Trench Box 10'     | 2.00     | 64.17    | HR   | 15.00     | 100.00   | 15.00     | 962.55    |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 32.08    | HR   | 12.00     | 100.00   | 12.00     | 384.96    |
| FORE      | Foreman                      | 1.00     | 32.08    | MH   | 45.00     | 116.67   | 75.72     | 2,429.01  |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 32.08    | MH   | 30.82     | 116.67   | 56.61     | 1,815.89  |
| L4        | Labor -Group 2 Pipe Layer/GC | 1.00     | 32.08    | MH   | 31.97     | 116.67   | 58.17     | 1,866.19  |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 64.17    | MH   | 39.01     | 116.67   | 67.80     | 4,350.78  |

Activity: 011411810 18 inch Mechanical Joint Fittings (Unreviewed) Quantity: 2.52 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 216.78     | 109.31 | 326.09      | 239.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 859.09   |
| Total   | 546.29     | 275.46 | 821.75      | 602.28    | 0.00       | 0.00        | 0.00 | 0.00       | 740.88   | 0.00     | 2,164.91 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 565.0913     | 1.0000        | 1.0000        | 565.0913     | 0.2520 | 10.0000     | 0.1000      | 8,590.9127 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 12.6000  | 0.2000  | 5.0000  | 65.2183        | 216.7817        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 1 Eff: 100.00 Crew Hrs: 2.52 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 7.56     | HR   | 98.00     | 100.00   | 98.00     | 740.88 |
| 8EX130   | Excavator - 130              | 1.00     | 2.52     | HR   | 52.00     | 100.00   | 52.00     | 131.04 |
| 8EX328   | Excavator - 328              | 1.00     | 2.52     | HR   | 100.00    | 100.00   | 100.00    | 252.00 |
| 8LO544   | Loader - 544                 | 1.00     | 2.52     | HR   | 50.00     | 100.00   | 50.00     | 126.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 2.52     | HR   | 10.00     | 100.00   | 10.00     | 25.20  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 2.52     | HR   | 15.00     | 100.00   | 15.00     | 37.80  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 2.52     | HR   | 12.00     | 100.00   | 12.00     | 30.24  |
| FORE     | Foreman                      | 1.00     | 2.52     | MH   | 45.00     | 116.67   | 75.71     | 190.80 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 2.52     | MH   | 30.82     | 116.67   | 56.60     | 142.64 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 2.52     | MH   | 31.97     | 116.67   | 58.17     | 146.59 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 5.04     | MH   | 39.01     | 116.67   | 67.80     | 341.72 |

Activity: 011500075 Connect to Existing Waterline (Unreviewed) Quantity: 1.26 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 433.56     | 218.62 | 652.18      | 308.00    | 0.00       | 0.00        | 0.00 | 0.00       | 784.00   | 0.00     | 1,744.18 |
| Total   | 546.29     | 275.46 | 821.75      | 388.08    | 0.00       | 0.00        | 0.00 | 0.00       | 987.84   | 0.00     | 2,197.67 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 960.1825     | 2.0000        | 0.5000        | 480.0913     | 0.2520 | 5.0000      | 0.2000      | 8,720.9127 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 12.6000  | 0.1000  | 10.0000 | 65.2183        | 433.5635        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: CH 2.52 Eff: 100.00 Crew Hrs: 2.52 Labor Pcs: 5.00 Equipment Pcs: 5.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 10.08    | HR   | 98.00     | 100.00   | 98.00     | 987.84 |
| 8BA580   | 580 BACKHOE                  | 1.00     | 2.52     | HR   | 30.00     | 100.00   | 30.00     | 75.60  |
| 8EX130   | Excavator - 130              | 1.00     | 2.52     | HR   | 52.00     | 100.00   | 52.00     | 131.04 |
| 8LO544   | Loader - 544                 | 1.00     | 2.52     | HR   | 50.00     | 100.00   | 50.00     | 126.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 2.52     | HR   | 10.00     | 100.00   | 10.00     | 25.20  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 2.52     | HR   | 12.00     | 100.00   | 12.00     | 30.24  |
| FORE     | Foreman                      | 1.00     | 2.52     | MH   | 45.00     | 116.67   | 75.71     | 190.80 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 2.52     | MH   | 30.82     | 116.67   | 56.60     | 142.64 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 2.52     | MH   | 31.97     | 116.67   | 58.17     | 146.59 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 5.04     | MH   | 39.01     | 116.67   | 67.80     | 341.72 |

Biditem

Off-Site Restore Shoulder Drainage (Hyd to 45th)

11015

Takeoff Qty: 120.000 LF

Bid Qty: 120.000 LF

|  | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub | Aggregates | Trucking | Gen Cond | Total |
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|
|--|------------|--------|-------------|-----------|------------|-------------|-----|------------|----------|----------|-------|

|         |        |        |          |        |        |      |      |      |      |      |          |
|---------|--------|--------|----------|--------|--------|------|------|------|------|------|----------|
| U. Cost | 5.52   | 2.88   | 8.40     | 4.27   | 0.89   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.56    |
| Total   | 662.50 | 345.30 | 1,007.80 | 512.00 | 107.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,627.05 |

|          |         |         |          |               |                |         |
|----------|---------|---------|----------|---------------|----------------|---------|
| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
| 16.0000  | 7.5000  | 0.1333  | 101.6906 | 41.4063       | 62.9875        | 15.0000 |

Activity: 002850100 Stormwater Swale Restoration (Unreviewed) Quantity: 120 Unit: LF

|         |            |        |             |           |            |             |      |            |          |          |          |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
| U. Cost | 5.52       | 2.88   | 8.40        | 4.27      | 0.89       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 13.56    |
| Total   | 662.50     | 345.30 | 1,007.80    | 512.00    | 107.25     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,627.05 |

|              |               |               |              |        |             |             |            |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
| 12.6650      | 0.0667        | 15.0000       | 189.9750     | 0.8000 | 150.0000    | 0.0067      | 2,033.8125 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 16.0000  | 7.5000  | 0.1333  | 62.9875        | 5.5208          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: ST130 Misc 130 Crew Prod: UH 15 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

Notes: We will save and reuse the existing open rock and purchase new fabric.

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2ER02    | Geo-Textile Fabric           | 1.00     | 165.00   | SY   | 0.65      | 100.00   | 0.65      | 107.25 |
| 8EX130   | Excavator - 130              | 1.00     | 8.00     | HR   | 52.00     | 100.00   | 52.00     | 416.00 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 8.00     | HR   | 12.00     | 100.00   | 12.00     | 96.00  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 8.00     | MH   | 31.97     | 116.67   | 58.17     | 465.39 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 8.00     | MH   | 39.01     | 116.67   | 67.80     | 542.41 |

## Biditem

## Off-Site 24 IN Zone 1A Pipe, Fittings & Valves

# 11020

Takeoff Qty: 305.000 LF

Bid Qty: 305.000 LF

|         |            |          |             |           |            |             |          |            |           |          |            |
|---------|------------|----------|-------------|-----------|------------|-------------|----------|------------|-----------|----------|------------|
|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking  | Gen Cond | Total      |
| U. Cost | 30.33      | 15.33    | 45.66       | 32.13     | 166.53     | 0.00        | 12.00    | 33.88      | 39.20     | 0.00     | 329.39     |
| Total   | 9,251.11   | 4,676.09 | 13,927.20   | 9,798.50  | 50,790.48  | 0.00        | 3,660.00 | 10,332.00  | 11,956.00 | 0.00     | 100,464.18 |

|          |         |         |          |               |                |         |
|----------|---------|---------|----------|---------------|----------------|---------|
| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
| 214.1000 | 1.4246  | 0.7020  | 469.2395 | 43.2093       | 65.0500        | 6.4825  |

Activity: 011400054 Procure & String 24 IN Zone 1A Pipe (Unreviewed) Quantity: 305 Unit: LF

|         |            |        |             |           |            |             |      |            |          |          |           |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
| U. Cost | 0.81       | 0.43   | 1.24        | 0.50      | 159.94     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 161.69    |
| Total   | 248.48     | 130.96 | 379.44      | 152.50    | 48,782.43  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 49,314.37 |

|              |               |               |              |        |             |             |              |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|--------------|
| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift     |
| 1.7441       | 0.0100        | 100.0000      | 174.4066     | 0.3050 | 1,000.0000  | 0.0010      | 161,686.4590 |

|          |         |         |                |                 |
|----------|---------|---------|----------------|-----------------|
| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
| 6.1000   | 50.0000 | 0.0200  | 62.2033        | 0.8147          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 100 Eff: 100.00 Crew Hrs: 3.05 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description            | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|--------------|------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 2PI1224      | 24in DI CL52 Pipe      | 1.00     | 320.00   | LF   | 88.84     | 100.00   | 88.84     | 28,428.80 |
| 2PI24FIELDLO | 24 IN Field Lok Gasket | 1.00     | 16.00    | EA   | 471.46    | 100.00   | 471.46    | 7,543.36  |
| 2PI24MEG     | 24 IN Megalug          | 1.00     | 10.00    | EA   | 402.94    | 100.00   | 402.94    | 4,029.40  |
| 2PI24MJ45    | 24 IN MJ 45            | 1.00     | 4.00     | EA   | 1,799.53  | 100.00   | 1,799.53  | 7,198.12  |
| 2PI24MJLONG  | 24 IN MJ Long Sleeve   | 1.00     | 1.00     | EA   | 1,582.75  | 100.00   | 1,582.75  | 1,582.75  |
| 8LO544       | Loader - 544           | 1.00     | 3.05     | HR   | 50.00     | 100.00   | 50.00     | 152.50    |

|     |                              |      |      |    |       |        |       |        |
|-----|------------------------------|------|------|----|-------|--------|-------|--------|
| L1  | Labor -Group 1 Genl/Carp Tnd | 1.00 | 3.05 | MH | 30.82 | 116.67 | 56.61 | 172.65 |
| OP4 | Operator-Doz, Exc, Bld, Ldr  | 1.00 | 3.05 | MH | 39.01 | 116.67 | 67.80 | 206.79 |

Activity: 011400524 Gran-24 inch Waterline-Medium (Unreviewed) Quantity: 305 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|----------|------------|----------|----------|-----------|
| U. Cost | 21.68      | 10.93    | 32.61       | 23.90     | 0.00       | 0.00        | 12.00    | 33.19      | 29.40    | 0.00     | 131.10    |
| Total   | 6,611.93   | 3,334.03 | 9,945.96    | 7,289.50  | 0.00       | 0.00        | 3,660.00 | 10,122.00  | 8,967.00 | 0.00     | 39,984.46 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 56.5097      | 0.1000        | 10.0000       | 565.0970     | 3.0500 | 100.0000    | 0.0100      | 13,109.6590 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 152.5000 | 2.0000  | 0.5000  | 65.2194        | 21.6785         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 30.50 Labor Pcs: 5.00 Equipment Pcs: 6.00

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 3.5000   |
| Bedding 2 Depth                | LF   | 3.5000   |
| Object Height (Dia. if circle) | LF   | 2.0000   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 5.0000   |
| Trench Depth                   | LF   | 7.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 305.0000 |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 395.3703 |
| Bedding 1 Volume               | CY   | 162.1978 |
| Bedding 2 Volume               | CY   | 197.6851 |
| Bedding 1 + Bedding 2          | CY   | 359.8829 |
| Net Excess                     | CY   | 395.3702 |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 4FLAG    | Flagging Sub                 | 1.00     | 61.00    | HR   | 60.00     | 100.00   | 60.00     | 3,660.00 |
| 5SO      | Trucking - Solo              | 1.00     | 91.50    | HR   | 98.00     | 100.00   | 98.00     | 8,967.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 720.00   | TON  | 12.00     | 100.00   | 12.00     | 8,640.00 |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 494.00   | CY   | 3.00      | 100.00   | 3.00      | 1,482.00 |
| 8EX130   | Excavator - 130              | 1.00     | 30.50    | HR   | 52.00     | 100.00   | 52.00     | 1,586.00 |
| 8EX328   | Excavator - 328              | 1.00     | 30.50    | HR   | 100.00    | 100.00   | 100.00    | 3,050.00 |
| 8LO544   | Loader - 544                 | 1.00     | 30.50    | HR   | 50.00     | 100.00   | 50.00     | 1,525.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 30.50    | HR   | 10.00     | 100.00   | 10.00     | 305.00   |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 30.50    | HR   | 15.00     | 100.00   | 15.00     | 457.50   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 30.50    | HR   | 12.00     | 100.00   | 12.00     | 366.00   |
| FORE     | Foreman                      | 1.00     | 30.50    | MH   | 45.00     | 116.67   | 75.72     | 2,309.38 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 30.50    | MH   | 30.82     | 116.67   | 56.61     | 1,726.46 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 30.50    | MH   | 31.97     | 116.67   | 58.17     | 1,774.27 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 61.00    | MH   | 39.01     | 116.67   | 67.80     | 4,135.85 |

Activity: 011412410 24 inch Mechanical Joint Fittings (Unreviewed) Quantity: 5 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 325.18     | 163.97 | 489.14      | 358.50    | 0.00       | 0.00        | 0.00 | 0.00       | 441.00   | 0.00     | 1,288.64 |
| Total   | 1,625.88   | 819.84 | 2,445.72    | 1,792.50  | 0.00       | 0.00        | 0.00 | 0.00       | 2,205.00 | 0.00     | 6,443.22 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 847.6440     | 1.5000        | 0.6667        | 565.0960     | 0.7500 | 6.6667      | 0.1500      | 8,590.9600 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 37.5000  | 0.1333  | 7.5000  | 65.2192        | 325.1760        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 1.5 Eff: 100.00 Crew Hrs: 7.50 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 22.50    | HR   | 98.00     | 100.00   | 98.00     | 2,205.00 |
| 8EX130   | Excavator - 130              | 1.00     | 7.50     | HR   | 52.00     | 100.00   | 52.00     | 390.00   |
| 8EX328   | Excavator - 328              | 1.00     | 7.50     | HR   | 100.00    | 100.00   | 100.00    | 750.00   |
| 8LO544   | Loader - 544                 | 1.00     | 7.50     | HR   | 50.00     | 100.00   | 50.00     | 375.00   |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 7.50     | HR   | 10.00     | 100.00   | 10.00     | 75.00    |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 7.50     | HR   | 15.00     | 100.00   | 15.00     | 112.50   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 7.50     | HR   | 12.00     | 100.00   | 12.00     | 90.00    |
| FORE     | Foreman                      | 1.00     | 7.50     | MH   | 45.00     | 116.67   | 75.72     | 567.88   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 7.50     | MH   | 30.82     | 116.67   | 56.60     | 424.53   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 7.50     | MH   | 31.97     | 116.67   | 58.17     | 436.30   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 15.00    | MH   | 39.01     | 116.67   | 67.80     | 1,017.01 |

Activity: 011500075 Connect to Existing Waterline (Unreviewed) Quantity: 1 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 433.57     | 218.62 | 652.19      | 308.00    | 0.00       | 0.00        | 0.00 | 0.00       | 784.00   | 0.00     | 1,744.19 |
| Total   | 433.57     | 218.62 | 652.19      | 308.00    | 0.00       | 0.00        | 0.00 | 0.00       | 784.00   | 0.00     | 1,744.19 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 960.1900     | 2.0000        | 0.5000        | 480.0950     | 0.2000 | 5.0000      | 0.2000      | 8,720.9500 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 10.0000  | 0.1000  | 10.0000 | 65.2190        | 433.5700        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: CH 2 Eff: 100.00 Crew Hrs: 2.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 8.00     | HR   | 98.00     | 100.00   | 98.00     | 784.00 |
| 8BA580   | 580 BACKHOE                  | 1.00     | 2.00     | HR   | 30.00     | 100.00   | 30.00     | 60.00  |
| 8EX130   | Excavator - 130              | 1.00     | 2.00     | HR   | 52.00     | 100.00   | 52.00     | 104.00 |
| 8LO544   | Loader - 544                 | 1.00     | 2.00     | HR   | 50.00     | 100.00   | 50.00     | 100.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 2.00     | HR   | 10.00     | 100.00   | 10.00     | 20.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 2.00     | HR   | 12.00     | 100.00   | 12.00     | 24.00  |
| FORE     | Foreman                      | 1.00     | 2.00     | MH   | 45.00     | 116.67   | 75.72     | 151.43 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 2.00     | MH   | 30.82     | 116.67   | 56.61     | 113.21 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 2.00     | MH   | 31.97     | 116.67   | 58.18     | 116.35 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 4.00     | MH   | 39.01     | 116.67   | 67.80     | 271.20 |

Activity: 011470101 1 inch CARV Assembly (Unreviewed) Quantity: 305 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1.09       | 0.57   | 1.65        | 0.84      | 6.58       | 0.00        | 0.00 | 0.69       | 0.00     | 0.00     | 9.76     |
| Total   | 331.25     | 172.64 | 503.89      | 256.00    | 2,008.05   | 0.00        | 0.00 | 210.00     | 0.00     | 0.00     | 2,977.94 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 2.4914       | 0.0131        | 76.2500       | 189.9725     | 0.4000 | 762.5000    | 0.0013      | 7,444.8500 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 8.0000   | 38.1250 | 0.0262  | 62.9863        | 1.0861          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: ST130 Misc 130 Crew Prod: CH 4 Eff: 100.00 Crew Hrs: 4.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource     | Description           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|--------------|-----------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2PI.75CORP   | 3/4 IN Corp           | 1.00     | 1.00     | EA   | 50.75     | 100.00   | 50.75     | 50.75  |
| 2PI.75KSOFT  | 3/4 IN K Soft Coper   | 1.00     | 60.00    | LF   | 3.20      | 100.00   | 3.20      | 192.00 |
| 2PI1ARV      | 1 IN ARV Assembly     | 1.00     | 1.00     | EA   | 750.00    | 100.00   | 750.00    | 750.00 |
| 2PI24X2SAD   | 24 x 2 Tapping Saddle | 1.00     | 1.00     | EA   | 998.49    | 100.00   | 998.49    | 998.49 |
| 2PI2X.75BUSH | 2 x .75 Brass Bushing | 1.00     | 1.00     | EA   | 16.81     | 100.00   | 16.81     | 16.81  |
| 6AGC075P     | Crushed - 3/4in (PU)  | 1.00     | 15.00    | TON  | 12.00     | 100.00   | 12.00     | 180.00 |

|         |                              |      |       |    |       |        |       |        |
|---------|------------------------------|------|-------|----|-------|--------|-------|--------|
| 6DEDU02 | DUMP FEES - (CY)             | 1.00 | 10.00 | CY | 3.00  | 100.00 | 3.00  | 30.00  |
| 8EX130  | Excavator - 130              | 1.00 | 4.00  | HR | 52.00 | 100.00 | 52.00 | 208.00 |
| 8TRUT1  | Truck - 1 Ton                | 1.00 | 4.00  | HR | 12.00 | 100.00 | 12.00 | 48.00  |
| L4      | Labor -Group 2 Pipe Layer/GC | 1.00 | 4.00  | MH | 31.97 | 116.67 | 58.17 | 232.69 |
| OP4     | Operator-Doz, Exc, Bld, Ldr  | 1.00 | 4.00  | MH | 39.01 | 116.67 | 67.80 | 271.20 |

## Biditem

## Off-Site 8 &amp; 6 IN DI Pipe, Fitting, VLV's &amp; Hyd

11030

Takeoff Qty: 610.000 LF

Bid Qty: 610.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|-----------|
| U. Cost | 25.99      | 13.12    | 39.11       | 26.24     | 47.01      | 0.00        | 0.00 | 17.66      | 33.34     | 0.00     | 163.35    |
| Total   | 15,852.28  | 8,004.69 | 23,856.97   | 16,008.37 | 28,673.76  | 0.00        | 0.00 | 10,770.00  | 20,335.00 | 0.00     | 99,644.10 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 366.3600 | 1.6650  | 0.6006  | 271.9841 | 43.2697       | 65.1189        | 7.9289  |

|                     |                                   |              |               |          |
|---------------------|-----------------------------------|--------------|---------------|----------|
| Activity: 011400054 | Procure & String 8 & 6 IN DI Pipe | (Unreviewed) | Quantity: 610 | Unit: LF |
|---------------------|-----------------------------------|--------------|---------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 0.81       | 0.43   | 1.24        | 0.50      | 47.01      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 48.75     |
| Total   | 496.97     | 261.91 | 758.88      | 305.00    | 28,673.76  | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 29,737.64 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 1.7441       | 0.0100        | 100.0000      | 174.4066     | 0.6100 | 1,000.0000  | 0.0010      | 48,750.2295 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 12.2000  | 50.0000 | 0.0200  | 62.2033        | 0.8147          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 100 Eff: 100.00 Crew Hrs: 6.10 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource     | Description          | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|--------------|----------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 28FLGTEE     | 8 IN FLG Tee         | 1.00     | 1.00     | EA   | 300.00    | 100.00   | 300.00    | 300.00    |
| 2PI1206      | 6in DI CL52 Pipe     | 1.00     | 40.00    | LF   | 18.38     | 100.00   | 18.38     | 735.20    |
| 2PI1208      | 8in DI CL52 Pipe     | 1.00     | 600.00   | LF   | 25.92     | 100.00   | 25.92     | 15,552.00 |
| 2PI3X1000DET | 3 x 1000 Detect Tape | 1.00     | 1.00     | EA   | 41.22     | 100.00   | 41.22     | 41.22     |
| 2PI4.5STOZ   | 4.5 IN Storz Adpt    | 1.00     | 1.00     | EA   | 177.03    | 100.00   | 177.03    | 177.03    |
| 2PI6501COUP  | 6 IN 501 Coupling    | 1.00     | 1.00     | EA   | 161.57    | 100.00   | 161.57    | 161.57    |
| 2PI6FIEDLOK  | 6 IN Field Lok Gskt  | 1.00     | 1.00     | EA   | 56.41     | 100.00   | 56.41     | 56.41     |
| 2PI6FLGGSKT  | 6 IN FLG GSKT        | 1.00     | 1.00     | EA   | 30.00     | 100.00   | 30.00     | 30.00     |
| 2PI6FLGNBK   | 6 IN FLG NBK         | 1.00     | 1.00     | EA   | 13.12     | 100.00   | 13.12     | 13.12     |
| 2PI6MEG      | 6 IN Megalug         | 1.00     | 3.00     | EA   | 36.02     | 100.00   | 36.02     | 108.06    |
| 2PI6MJXFGV   | 6 IN MJ x FLG GV     | 1.00     | 1.00     | EA   | 579.74    | 100.00   | 579.74    | 579.74    |
| 2PI8FIELDLOK | 8 IN Field Lok Gskt  | 1.00     | 30.00    | EA   | 79.86     | 100.00   | 79.86     | 2,395.80  |
| 2PI8FLGGSKT  | 8 IN FLG GSKT        | 1.00     | 3.00     | EA   | 25.57     | 100.00   | 25.57     | 76.71     |
| 2PI8FLGNBK   | 8 IN FLG NBK         | 1.00     | 3.00     | EA   | 13.42     | 100.00   | 13.42     | 40.26     |
| 2PI8FLGTEE   | 8 IN FLG Tee         | 1.00     | 1.00     | EA   | 834.09    | 100.00   | 834.09    | 834.09    |
| 2PI8MEG      | 8 IN Megalug         | 1.00     | 16.00    | EA   | 46.68     | 100.00   | 46.68     | 746.88    |
| 2PI8MJ45     | 8 IN MJ 45           | 1.00     | 3.00     | EA   | 144.26    | 100.00   | 144.26    | 432.78    |
| 2PI8MJCAP    | 8 IN MJ Cap          | 1.00     | 1.00     | EA   | 82.31     | 100.00   | 82.31     | 82.31     |
| 2PI8MJLONG   | 8 IN MJ Long Sleeve  | 1.00     | 2.00     | EA   | 141.04    | 100.00   | 141.04    | 282.08    |
| 2PI8MJTEE    | 8 IN MJ Tee          | 1.00     | 1.00     | EA   | 265.13    | 100.00   | 265.13    | 265.13    |
| 2PI8MJFLGGV  | 8 IN MJ x FLG GV     | 1.00     | 3.00     | EA   | 905.93    | 100.00   | 905.93    | 2,717.79  |
| 2PI8X6MJRED  | 8 x 6 MJ Reducer     | 1.00     | 1.00     | EA   | 118.47    | 100.00   | 118.47    | 118.47    |
| 2PI8X6MJXFT  | 8 x 6 MJ x FLG Tee   | 1.00     | 1.00     | EA   | 244.99    | 100.00   | 244.99    | 244.99    |
| 2PI910VC&L   | 910 Valve Can & Lid  | 1.00     | 2.00     | EA   | 175.08    | 100.00   | 175.08    | 350.16    |
| 2PIFIREHYD   | 6 IN Fire Hydrant    | 1.00     | 1.00     | EA   | 2,066.96  | 100.00   | 2,066.96  | 2,066.96  |
| 2PIPIERBLOCK | Conc Pier Block      | 1.00     | 1.00     | EA   | 15.00     | 100.00   | 15.00     | 15.00     |

|         |                              |      |      |    |        |        |        |        |
|---------|------------------------------|------|------|----|--------|--------|--------|--------|
| 2THRUST | Thrust Block                 | 1.00 | 1.00 | EA | 250.00 | 100.00 | 250.00 | 250.00 |
| 8LO544  | Loader - 544                 | 1.00 | 6.10 | HR | 50.00  | 100.00 | 50.00  | 305.00 |
| L1      | Labor -Group 1 Genl/Carp Tnd | 1.00 | 6.10 | MH | 30.82  | 116.67 | 56.60  | 345.29 |
| OP4     | Operator-Doz, Exc, Bld, Ldr  | 1.00 | 6.10 | MH | 39.01  | 116.67 | 67.80  | 413.59 |

Activity: 011400508 Gran-8 inch Waterline-Medium (Unreviewed) Quantity: 610 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking  | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|-----------|----------|-----------|
| U. Cost | 18.06      | 9.11     | 27.17       | 19.92     | 0.00       | 0.00        | 0.00 | 17.66      | 24.50     | 0.00     | 89.25     |
| Total   | 11,019.61  | 5,556.56 | 16,576.17   | 12,148.37 | 0.00       | 0.00        | 0.00 | 10,770.00  | 14,945.00 | 0.00     | 54,439.54 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 47.0894      | 0.0833        | 12.0000       | 565.0733     | 5.0833 | 120.0001    | 0.0083      | 10,709.4247 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 254.1600 | 2.4001  | 0.4167  | 65.2194        | 18.0649         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: UH 12 Eff: 100.00 Crew Hrs: 50.83 Labor Pcs: 5.00 Equipment Pcs: 6.00

Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.1700   |
| Bedding 2 Depth                | LF   | 2.8300   |
| Object Height (Dia. if circle) | LF   | 0.6700   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 3.5000   |
| Trench Depth                   | LF   | 5.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 610.0000 |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 395.3703 |
| Bedding 1 Volume               | CY   | 163.6268 |
| Bedding 2 Volume               | CY   | 223.7796 |
| Bedding 1 + Bedding 2          | CY   | 387.4064 |
| Net Excess                     | CY   | 395.3702 |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 5SO      | Trucking - Solo              | 1.00     | 152.50   | HR   | 98.00     | 100.00   | 98.00     | 14,945.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 774.00   | TON  | 12.00     | 100.00   | 12.00     | 9,288.00  |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 494.00   | CY   | 3.00      | 100.00   | 3.00      | 1,482.00  |
| 8EX130   | Excavator - 130              | 1.00     | 50.83    | HR   | 52.00     | 100.00   | 52.00     | 2,643.16  |
| 8EX328   | Excavator - 328              | 1.00     | 50.83    | HR   | 100.00    | 100.00   | 100.00    | 5,083.00  |
| 8LO544   | Loader - 544                 | 1.00     | 50.83    | HR   | 50.00     | 100.00   | 50.00     | 2,541.50  |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 50.83    | HR   | 10.00     | 100.00   | 10.00     | 508.30    |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 50.83    | HR   | 15.00     | 100.00   | 15.00     | 762.45    |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 50.83    | HR   | 12.00     | 100.00   | 12.00     | 609.96    |
| FORE     | Foreman                      | 1.00     | 50.83    | MH   | 45.00     | 116.67   | 75.72     | 3,848.70  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 50.83    | MH   | 30.82     | 116.67   | 56.61     | 2,877.24  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 50.83    | MH   | 31.97     | 116.67   | 58.17     | 2,956.93  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 101.67   | MH   | 39.01     | 116.67   | 67.80     | 6,893.30  |

Activity: 011490120 Furnish & Install Fire Hydrant Assembly (Unreviewed) Quantity: 1 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 650.35     | 327.92 | 978.27      | 222.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,200.27 |
| Total   | 650.35     | 327.92 | 978.27      | 222.00    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,200.27 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,200.2700   | 3.0000        | 0.3333        | 400.0900     | 0.3000 | 3.3333      | 0.3000      | 4,000.9000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 15.0000  | 0.0667  | 15.0000 | 65.2180        | 650.3500        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STS Shallow Pipe Crew Prod: HU 3 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 5.00 Equipment Pcs: 3.00



| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8EX130   | Excavator - 130              | 1.00     | 3.00     | HR   | 52.00     | 100.00   | 52.00     | 156.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 3.00     | HR   | 10.00     | 100.00   | 10.00     | 30.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00  |
| FORE     | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 3.00     | MH   | 31.97     | 116.67   | 58.17     | 174.52 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 6.00     | MH   | 39.01     | 116.67   | 67.80     | 406.80 |

Activity: 011430083 8 inch MJ X Flg Gate Valve Assembly (Unreviewed) Quantity: 3 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 216.78     | 109.31 | 326.09      | 209.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 829.09   |
| Total   | 650.35     | 327.92 | 978.27      | 627.00    | 0.00       | 0.00        | 0.00 | 0.00       | 882.00   | 0.00     | 2,487.27 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 535.0900     | 1.0000        | 1.0000        | 535.0900     | 0.3000 | 10.0000     | 0.1000      | 8,290.9000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 15.0000  | 0.2000  | 5.0000  | 65.2180        | 216.7833        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 1 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 9.00     | HR   | 98.00     | 100.00   | 98.00     | 882.00 |
| 8EX130   | Excavator - 130              | 1.00     | 3.00     | HR   | 52.00     | 100.00   | 52.00     | 156.00 |
| 8EX225   | Excavator - 225RTS           | 1.00     | 3.00     | HR   | 70.00     | 100.00   | 70.00     | 210.00 |
| 8LO544   | Loader - 544                 | 1.00     | 3.00     | HR   | 50.00     | 100.00   | 50.00     | 150.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 3.00     | HR   | 10.00     | 100.00   | 10.00     | 30.00  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 3.00     | HR   | 15.00     | 100.00   | 15.00     | 45.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.00     | HR   | 12.00     | 100.00   | 12.00     | 36.00  |
| FORE     | Foreman                      | 1.00     | 3.00     | MH   | 45.00     | 116.67   | 75.71     | 227.14 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.00     | MH   | 30.82     | 116.67   | 56.60     | 169.81 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 3.00     | MH   | 31.97     | 116.67   | 58.17     | 174.52 |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 6.00     | MH   | 39.01     | 116.67   | 67.80     | 406.80 |

Activity: 011500075 Connect to Existing Waterline (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 433.57     | 218.63 | 652.20      | 308.00    | 0.00       | 0.00        | 0.00 | 0.00       | 784.00   | 0.00     | 1,744.20 |
| Total   | 867.14     | 437.26 | 1,304.40    | 616.00    | 0.00       | 0.00        | 0.00 | 0.00       | 1,568.00 | 0.00     | 3,488.40 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 960.2000     | 2.0000        | 0.5000        | 480.1000     | 0.4000 | 5.0000      | 0.2000      | 8,721.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 20.0000  | 0.1000  | 10.0000 | 65.2200        | 433.5700        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: CH 4 Eff: 100.00 Crew Hrs: 4.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 16.00    | HR   | 98.00     | 100.00   | 98.00     | 1,568.00 |
| 8BA580   | 580 BACKHOE                  | 1.00     | 4.00     | HR   | 30.00     | 100.00   | 30.00     | 120.00   |
| 8EX130   | Excavator - 130              | 1.00     | 4.00     | HR   | 52.00     | 100.00   | 52.00     | 208.00   |
| 8LO544   | Loader - 544                 | 1.00     | 4.00     | HR   | 50.00     | 100.00   | 50.00     | 200.00   |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 4.00     | HR   | 10.00     | 100.00   | 10.00     | 40.00    |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 4.00     | HR   | 12.00     | 100.00   | 12.00     | 48.00    |
| FORE     | Foreman                      | 1.00     | 4.00     | MH   | 45.00     | 116.67   | 75.72     | 302.87   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 4.00     | MH   | 30.82     | 116.67   | 56.61     | 226.43   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 4.00     | MH   | 31.97     | 116.67   | 58.17     | 232.69   |

|     |                             |      |      |    |       |        |       |        |
|-----|-----------------------------|------|------|----|-------|--------|-------|--------|
| OP4 | Operator-Doz, Exc, Bld, Ldr | 2.00 | 8.00 | MH | 39.01 | 116.67 | 67.80 | 542.41 |
|-----|-----------------------------|------|------|----|-------|--------|-------|--------|

|                     |                                     |              |             |          |
|---------------------|-------------------------------------|--------------|-------------|----------|
| Activity: 011430063 | 6 inch MJ X Flg Gate Valve Assembly | (Unreviewed) | Quantity: 1 | Unit: EA |
|---------------------|-------------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 216.79     | 109.31 | 326.10      | 209.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 829.10 |
| Total   | 216.79     | 109.31 | 326.10      | 209.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 829.10 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 535.1000     | 1.0000        | 1.0000        | 535.1000     | 0.1000 | 10.0000     | 0.1000      | 8,291.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 5.0000   | 0.2000  | 5.0000  | 65.2200        | 216.7900        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 1 Eff: 100.00 Crew Hrs: 1.00 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 3.00     | HR   | 98.00     | 100.00   | 98.00     | 294.00 |
| 8EX130   | Excavator - 130              | 1.00     | 1.00     | HR   | 52.00     | 100.00   | 52.00     | 52.00  |
| 8EX225   | Excavator - 225RTS           | 1.00     | 1.00     | HR   | 70.00     | 100.00   | 70.00     | 70.00  |
| 8LO544   | Loader - 544                 | 1.00     | 1.00     | HR   | 50.00     | 100.00   | 50.00     | 50.00  |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 1.00     | HR   | 10.00     | 100.00   | 10.00     | 10.00  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 1.00     | HR   | 15.00     | 100.00   | 15.00     | 15.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.00     | HR   | 12.00     | 100.00   | 12.00     | 12.00  |
| FORE     | Foreman                      | 1.00     | 1.00     | MH   | 45.00     | 116.67   | 75.72     | 75.72  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.00     | MH   | 30.82     | 116.67   | 56.61     | 56.61  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.00     | MH   | 31.97     | 116.67   | 58.17     | 58.17  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 2.00     | MH   | 39.01     | 116.67   | 67.80     | 135.60 |

|                     |                                  |              |             |          |
|---------------------|----------------------------------|--------------|-------------|----------|
| Activity: 011410810 | 8 inch Mechanical Joint Fittings | (Unreviewed) | Quantity: 8 | Unit: EA |
|---------------------|----------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 216.79     | 109.31 | 326.10      | 209.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 829.10   |
| Total   | 1,734.28   | 874.50 | 2,608.78    | 1,672.00  | 0.00       | 0.00        | 0.00 | 0.00       | 2,352.00 | 0.00     | 6,632.78 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 535.0975     | 1.0000        | 1.0000        | 535.0975     | 0.8000 | 10.0000     | 0.1000      | 8,290.9750 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 40.0000  | 0.2000  | 5.0000  | 65.2195        | 216.7850        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 1 Eff: 100.00 Crew Hrs: 8.00 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 24.00    | HR   | 98.00     | 100.00   | 98.00     | 2,352.00 |
| 8EX130   | Excavator - 130              | 1.00     | 8.00     | HR   | 52.00     | 100.00   | 52.00     | 416.00   |
| 8EX225   | Excavator - 225RTS           | 1.00     | 8.00     | HR   | 70.00     | 100.00   | 70.00     | 560.00   |
| 8LO544   | Loader - 544                 | 1.00     | 8.00     | HR   | 50.00     | 100.00   | 50.00     | 400.00   |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 8.00     | HR   | 10.00     | 100.00   | 10.00     | 80.00    |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 8.00     | HR   | 15.00     | 100.00   | 15.00     | 120.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 8.00     | HR   | 12.00     | 100.00   | 12.00     | 96.00    |
| FORE     | Foreman                      | 1.00     | 8.00     | MH   | 45.00     | 116.67   | 75.72     | 605.74   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 8.00     | MH   | 30.82     | 116.67   | 56.61     | 452.84   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 8.00     | MH   | 31.97     | 116.67   | 58.17     | 465.39   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 16.00    | MH   | 39.01     | 116.67   | 67.80     | 1,084.81 |

|                     |                                  |              |             |          |
|---------------------|----------------------------------|--------------|-------------|----------|
| Activity: 011410610 | 6 inch Mechanical Joint Fittings | (Unreviewed) | Quantity: 1 | Unit: EA |
|---------------------|----------------------------------|--------------|-------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 216.79     | 109.31 | 326.10      | 209.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 829.10 |
| Total   | 216.79     | 109.31 | 326.10      | 209.00    | 0.00       | 0.00        | 0.00 | 0.00       | 294.00   | 0.00     | 829.10 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour   | Shifts          | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|----------------|-----------------|-------------|-------------|------------|
| 535.1000     | 1.0000        | 1.0000        | 535.1000       | 0.1000          | 10.0000     | 0.1000      | 8,291.0000 |
| Manhours     | Unit/MH       | MH/Unit       | Total Labor/MH | Base Labor/Unit |             |             |            |
| 5.0000       | 0.2000        | 5.0000        | 65.2200        | 216.7900        |             |             |            |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STMH Medium Pipe Crew, Haul Away Prod: HU 1 Eff: 100.00 Crew Hrs: 1.00 Labor Pcs: 5.00 Equipment Pcs: 6.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 3.00     | HR   | 98.00     | 100.00   | 98.00     | 294.00 |
| 8EX130   | Excavator - 130              | 1.00     | 1.00     | HR   | 52.00     | 100.00   | 52.00     | 52.00  |
| 8EX225   | Excavator - 225RTS           | 1.00     | 1.00     | HR   | 70.00     | 100.00   | 70.00     | 70.00  |
| 8LO544   | Loader - 544                 | 1.00     | 1.00     | HR   | 50.00     | 100.00   | 50.00     | 50.00  |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 1.00     | HR   | 10.00     | 100.00   | 10.00     | 10.00  |
| 8SHTR10  | Shoring - Trench Box 10'     | 1.00     | 1.00     | HR   | 15.00     | 100.00   | 15.00     | 15.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.00     | HR   | 12.00     | 100.00   | 12.00     | 12.00  |
| FORE     | Foreman                      | 1.00     | 1.00     | MH   | 45.00     | 116.67   | 75.72     | 75.72  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 1.00     | MH   | 30.82     | 116.67   | 56.61     | 56.61  |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 1.00     | MH   | 31.97     | 116.67   | 58.17     | 58.17  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 2.00     | MH   | 39.01     | 116.67   | 67.80     | 135.60 |

## Biditem

## Off-Site Catch Basins

# 11032

Takeoff Qty: 2.000 EA

Bid Qty: 2.000 EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 541.97     | 273.28 | 815.25      | 385.00    | 600.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,800.25 |
| Total   | 1,083.93   | 546.56 | 1,630.49    | 770.00    | 1,200.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,600.49 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 25.0000  | 0.0800  | 12.5000 | 144.0196 | 43.3572       | 65.2196        | 0.4000  |

Activity: 004720103 Concrete Inlets (Unreviewed) Quantity: 2 Unit: EA

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 541.97     | 273.28 | 815.25      | 385.00    | 600.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1,800.25 |
| Total   | 1,083.93   | 546.56 | 1,630.49    | 770.00    | 1,200.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,600.49 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1,200.2450   | 2.5000        | 0.4000        | 480.0980     | 0.5000 | 4.0000      | 0.2500      | 7,200.9800 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 25.0000  | 0.0800  | 12.5000 | 65.2196        | 541.9650        |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STS Shallow Pipe Crew Prod: HU 2.5 Eff: 100.00 Crew Hrs: 5.00 Labor Pcs: 5.00 Equipment Pcs: 5.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2GROUT   | Construction Grout           | 1.00     | 4.00     | EA   | 20.00     | 100.00   | 20.00     | 80.00  |
| 2PRMCG1  | Off-Site CB G1               | 1.00     | 1.00     | EA   | 525.00    | 100.00   | 525.00    | 525.00 |
| 2PRMCG4  | Off-Site CB G4               | 1.00     | 1.00     | EA   | 595.00    | 100.00   | 595.00    | 595.00 |
| 8BA580   | 580 BACKHOE                  | 1.00     | 5.00     | HR   | 30.00     | 100.00   | 30.00     | 150.00 |
| 8EX130   | Excavator - 130              | 1.00     | 5.00     | HR   | 52.00     | 100.00   | 52.00     | 260.00 |
| 8LO544   | Loader - 544                 | 1.00     | 5.00     | HR   | 50.00     | 100.00   | 50.00     | 250.00 |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 5.00     | HR   | 10.00     | 100.00   | 10.00     | 50.00  |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 5.00     | HR   | 12.00     | 100.00   | 12.00     | 60.00  |
| FORE     | Foreman                      | 1.00     | 5.00     | MH   | 45.00     | 116.67   | 75.72     | 378.59 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 5.00     | MH   | 30.82     | 116.67   | 56.61     | 283.03 |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 5.00     | MH   | 31.97     | 116.67   | 58.17     | 290.87 |

|     |                             |      |       |    |       |        |       |        |
|-----|-----------------------------|------|-------|----|-------|--------|-------|--------|
| OP4 | Operator-Doz, Exc, Bld, Ldr | 2.00 | 10.00 | MH | 39.01 | 116.67 | 67.80 | 678.00 |
|-----|-----------------------------|------|-------|----|-------|--------|-------|--------|

## Biditem

## Off-Site 8-inch PVC Storm

11033

Takeoff Qty: 35.000 LF

Bid Qty: 35.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 22.10      | 11.15  | 33.25       | 20.46     | 12.97      | 0.00        | 0.00 | 41.40      | 29.40    | 0.00     | 137.48   |
| Total   | 773.41     | 390.32 | 1,163.73    | 716.00    | 454.05     | 0.00        | 0.00 | 1,449.00   | 1,029.00 | 0.00     | 4,811.78 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 17.8600  | 1.9597  | 0.5103  | 269.4166 | 43.3040       | 65.1585        | 9.5238  |

Activity: 004010100408 String C900 - 8in (Unreviewed) Quantity: 35 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 0.42       | 0.22   | 0.64        | 0.26      | 12.97      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 13.87  |
| Total   | 14.66      | 7.74   | 22.40       | 9.00      | 454.05     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 485.45 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 0.8971       | 0.0050        | 200.0000      | 179.4286     | 0.0175 | 2,000.0000  | 0.0005      | 27,740.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 0.3600   | 97.2222 | 0.0103  | 62.2222        | 0.4189          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STST Pipe String Crew Prod: UH 200 Eff: 100.00 Crew Hrs: 0.18 Labor Pcs: 2.00 Equipment Pcs: 1.00

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 2PI1308  | 8in C-900 CL150 Pipe         | 1.00     | 40.00    | LF   | 11.22     | 100.00   | 11.22     | 448.80 |
| 2PI901   | Tracer Wire                  | 1.00     | 35.00    | LF   | 0.15      | 100.00   | 0.15      | 5.25   |
| 8LO544   | Loader - 544                 | 1.00     | 0.18     | HR   | 50.00     | 100.00   | 50.00     | 9.00   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 0.18     | MH   | 30.82     | 116.67   | 56.67     | 10.20  |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 0.18     | MH   | 39.01     | 116.67   | 67.78     | 12.20  |

Activity: 004460808 Gran-8 inch Storm Sewer-Shallow (Unreviewed) Quantity: 35 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 21.68      | 10.93  | 32.61       | 20.20     | 0.00       | 0.00        | 0.00 | 41.40      | 29.40    | 0.00     | 123.61   |
| Total   | 758.75     | 382.58 | 1,141.33    | 707.00    | 0.00       | 0.00        | 0.00 | 1,449.00   | 1,029.00 | 0.00     | 4,326.33 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 52.8094      | 0.1000        | 10.0000       | 528.0943     | 0.3500 | 100.0000    | 0.0100      | 12,360.9429 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 17.5000  | 2.0000  | 0.5000  | 65.2189        | 21.6786         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: STSH Shallow Pipe Crew, Haul Away Prod: UH 10 Eff: 100.00 Crew Hrs: 3.50 Labor Pcs: 5.00 Equipment Pcs: 5.00

## Notes: Cut Fill with Bedding Routine

| Description                    | Unit | Quantity |
|--------------------------------|------|----------|
| Distance to object             | LF   | 0.5000   |
| Bedding 1 Depth                | LF   | 2.1700   |
| Bedding 2 Depth                | LF   | 2.8300   |
| Object Height (Dia. if circle) | LF   | 0.6600   |
| Object Width (0 if circle)     | LF   | 0.0000   |
| Trench Width                   | LF   | 3.5600   |
| Trench Depth                   | LF   | 5.0000   |
| Flare Width                    | LF   | 0.0000   |
| Flare Depth                    | LF   | 0.0000   |
| Trench Length                  | LF   | 35.0000  |
| Compaction Factor - Bedding 1  | %    | 0.0000   |
| Compaction Factor - Bedding 2  | %    | 0.0000   |
| Excavated Volume               | CY   | 23.0740  |
| Bedding 1 Volume               | CY   | 9.5706   |
| Bedding 2 Volume               | CY   | 13.0599  |
| Bedding 1 + Bedding 2          | CY   | 22.6305  |
| Net Excess                     | CY   | 23.0739  |

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 10.50    | HR   | 98.00     | 100.00   | 98.00     | 1,029.00 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 45.00    | TON  | 12.00     | 100.00   | 12.00     | 540.00   |
| 6DEDU02  | DUMP FEES - (CY)             | 1.00     | 303.00   | CY   | 3.00      | 100.00   | 3.00      | 909.00   |
| 8BA580   | 580 BACKHOE                  | 1.00     | 3.50     | HR   | 30.00     | 100.00   | 30.00     | 105.00   |
| 8EX328   | Excavator - 328              | 1.00     | 3.50     | HR   | 100.00    | 100.00   | 100.00    | 350.00   |
| 8LO544   | Loader - 544                 | 1.00     | 3.50     | HR   | 50.00     | 100.00   | 50.00     | 175.00   |
| 8MIHP    | Misc - Backhoe Hoepac        | 1.00     | 3.50     | HR   | 10.00     | 100.00   | 10.00     | 35.00    |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 3.50     | HR   | 12.00     | 100.00   | 12.00     | 42.00    |
| FORE     | Foreman                      | 1.00     | 3.50     | MH   | 45.00     | 116.67   | 75.72     | 265.01   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 3.50     | MH   | 30.82     | 116.67   | 56.61     | 198.12   |
| L4       | Labor -Group 2 Pipe Layer/GC | 1.00     | 3.50     | MH   | 31.97     | 116.67   | 58.17     | 203.60   |
| OP4      | Operator-Doz, Exc, Bld, Ldr  | 2.00     | 7.00     | MH   | 39.01     | 116.67   | 67.80     | 474.60   |

**Biditem****Off-Site Storm & Domestic Water Testing****11034**

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub    | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|--------|------------|----------|----------|-----------|
| U. Cost | 4,314.93   | 2,477.69 | 6,792.62    | 1,620.00  | 5,250.00   | 0.00        | 175.00 | 0.00       | 0.00     | 0.00     | 13,837.62 |
| Total   | 4,314.93   | 2,477.69 | 6,792.62    | 1,620.00  | 5,250.00   | 0.00        | 175.00 | 0.00       | 0.00     | 0.00     | 13,837.62 |

| Manhours | Unit/MH | MH/Unit  | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|----------|----------|---------------|----------------|---------|
| 120.0000 | 0.0083  | 120.0000 | 115.3135 | 35.9578       | 56.6052        | 0.0167  |

Activity: 004450026 Video San/Storm Pipe Inspection (Unreviewed) Quantity: 35 Unit: LF

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|-------------|----------|----------|------|-----------|----------|-----------|--------|
| 4TEST5   | Flush & TV  | 1.00     | 35.00    | LF   | 5.00      | 100.00   | 5.00      | 175.00 |

Activity: 011500060 Hydrostatic Pressure Testing (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 2,876.62   | 1,651.79 | 4,528.41    | 1,080.00  | 5,000.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 10,608.41 |
| Total   | 2,876.62   | 1,651.79 | 4,528.41    | 1,080.00  | 5,000.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 10,608.41 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 5,608.4100   | 40.0000       | 0.0250        | 140.2103     | 4.0000 | 0.2500      | 4.0000      | 2,652.1025 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 80.0000  | 0.0125  | 80.0000 | 56.6051        | 2,876.6200      |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: TEPI Pipe Test Crew Prod: CH 40 Eff: 100.00 Crew Hrs: 40.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2MISCTEST | Misc. Testing Material       | 1.00     | 1.00     | LS   | 5,000.00  | 100.00   | 5,000.00  | 5,000.00 |
| 8MI2      | Misc - Daily Cost            | 1.00     | 40.00    | HR   | 15.00     | 100.00   | 15.00     | 600.00   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 40.00    | HR   | 12.00     | 100.00   | 12.00     | 480.00   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 2.00     | 80.00    | MH   | 30.82     | 116.67   | 56.61     | 4,528.41 |

Activity: 011500070 Chlorination/Disinfection/Dechlorination (Unreviewed) Quantity: 1 Unit: LS

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 1,438.31   | 825.90 | 2,264.21    | 540.00    | 250.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,054.21 |
| Total   | 1,438.31   | 825.90 | 2,264.21    | 540.00    | 250.00     | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 3,054.21 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 2,804.2100   | 20.0000       | 0.0500        | 140.2105     | 2.0000 | 0.5000      | 2.0000      | 1,527.1050 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
|----------|---------|---------|----------------|-----------------|

|         |        |         |         |            |
|---------|--------|---------|---------|------------|
| 40.0000 | 0.0250 | 40.0000 | 56.6053 | 1,438.3100 |
|---------|--------|---------|---------|------------|

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: TEPI Pipe Test Crew Prod: CH 20 Eff: 100.00 Crew Hrs: 20.00 Labor Pcs: 2.00 Equipment Pcs: 2.00

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2CHLORINE | 12.5% Liquid Chlorine        | 1.00     | 1.00     | LS   | 250.00    | 100.00   | 250.00    | 250.00   |
| 8MI2      | Misc - Daily Cost            | 1.00     | 20.00    | HR   | 15.00     | 100.00   | 15.00     | 300.00   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 20.00    | HR   | 12.00     | 100.00   | 12.00     | 240.00   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 2.00     | 40.00    | MH   | 30.82     | 116.67   | 56.61     | 2,264.21 |

**Biditem****Off-Site AC Sawcutting****11040**

Takeoff Qty: 2,530.000 LF

Bid Qty: 2,530.000 LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.76       | 0.42     | 1.19        | 0.74      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1.93     |
| Total   | 1,929.56   | 1,071.02 | 3,000.58    | 1,872.20  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,872.78 |

| Manhours | Unit/MH | MH/Unit | \$/MH   | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|---------|---------|---------|---------------|----------------|----------|
| 50.6000  | 50.0000 | 0.0200  | 96.3000 | 38.1336       | 59.3000        | 100.0000 |

Activity: 004950104 Sawcutting - Asphalt (Unreviewed) Quantity: 2530 Unit: LF

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.76       | 0.42     | 1.19        | 0.74      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1.93     |
| Total   | 1,929.56   | 1,071.02 | 3,000.58    | 1,872.20  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,872.78 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1.9260       | 0.0100        | 100.0000      | 192.6000     | 2.5300 | 1,000.0000  | 0.0010      | 1,926.0000 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 50.6000  | 50.0000 | 0.0200  | 59.3000        | 0.7627          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: DESA Sawcutting Prod: UH 100 Eff: 100.00 Crew Hrs: 25.30 Labor Pcs: 2.00 Equipment Pcs: 3.00

Notes: AC Sawcutting will include the following:

80 LF at the intersection of SW Reservoir and SW Vocano Ave.

30 LF for the new road construction on Volcano Ave.

2320 LF for the trench cutting of Volcano and SW Reservoir for the 8-inch and 24-inch watermain crossing Including T-Cut

100 LF for the electrical trenching accross SW Reservoir Ave + T-Cut for paving or 160 LF

Total AC Sawcutting = 2,530 LF

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 8DES     | CONC SAW /VAN                | 1.00     | 25.30    | HR   | 32.00     | 100.00   | 32.00     | 809.60   |
| 8MIVA    | Misc - Tow Behind Vac Traile | 1.00     | 25.30    | HR   | 30.00     | 100.00   | 30.00     | 759.00   |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 25.30    | HR   | 12.00     | 100.00   | 12.00     | 303.60   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 1.00     | 25.30    | MH   | 30.82     | 116.67   | 56.73     | 1,435.39 |
| OP6      | Operator - Sawcutter/Skdstr  | 1.00     | 25.30    | MH   | 34.55     | 116.67   | 61.87     | 1,565.19 |

**Biditem****Off-Site AC Removal****11050**

Takeoff Qty: 9,264.000 SF

Bid Qty: 9,264.000 SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.18       | 0.09   | 0.27        | 0.16      | 0.00       | 0.00        | 0.00 | 0.02       | 0.39     | 0.00     | 0.84     |
| Total   | 1,651.87   | 815.64 | 2,467.51    | 1,473.06  | 0.00       | 0.00        | 0.00 | 231.00     | 3,624.43 | 0.00     | 7,796.00 |

| Manhours | Unit/MH  | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|----------|---------|----------|---------------|----------------|----------|
| 36.9900  | 250.4461 | 0.0040  | 210.7597 | 44.6572       | 66.7075        | 751.4601 |

|                     |                           |              |                |          |
|---------------------|---------------------------|--------------|----------------|----------|
| Activity: 003100114 | Demo Existing AC Pavement | (Unreviewed) | Quantity: 9246 | Unit: SF |
|---------------------|---------------------------|--------------|----------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.18       | 0.09   | 0.27        | 0.16      | 0.00       | 0.00        | 0.00 | 0.02       | 0.39     | 0.00     | 0.84     |
| Total   | 1,651.87   | 815.64 | 2,467.51    | 1,473.06  | 0.00       | 0.00        | 0.00 | 231.00     | 3,624.43 | 0.00     | 7,796.00 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.4262       | 0.0013        | 750.0000      | 319.6439     | 1.2328 | 7,500.0000  | 0.0001      | 6,323.8157 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 36.9900  | 249.9594 | 0.0040  | 66.7075        | 0.1787          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: DEEXM Demo w/ Excavator - Medium Prod: UH 750 Eff: 100.00 Crew Hrs: 12.33 Labor Pcs: 3.00 Equipment Pcs: 2.50

Notes: According the the AutoCad File we have 5,761 SF of AC removal for the new street construction on SW Reservoir Drive. In addition to this quantity we have 3,485 SF shown on sheet C-7 as being removed.

Assume a depth of 4-inch for the AC so 9,246 SF x .34 = 116 BCY AC for Removal

AC per ton will be 9,246 SF/40 = 231 tons.

| Description             | Unit | Quantity |
|-------------------------|------|----------|
| Total Units Per Day     |      | 170.0000 |
| Hours Per Day           |      | 9.0000   |
| Hours Per Round         |      | 1.2500   |
| Units Per Load          |      | 14.0000  |
| Trucks Required Per Day |      | 2.6865   |

| Resource  | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|-----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO       | Trucking - Solo              | 1.00     | 36.98    | HR   | 98.00     | 100.00   | 98.00     | 3,624.43 |
| 6DEDU0102 | Clean Asphalt dump fees      | 1.00     | 231.00   | TON  | 1.00      | 100.00   | 1.00      | 231.00   |
| 8DOD06    | Dozer - D6                   | 0.50     | 6.16     | HR   | 75.00     | 100.00   | 75.00     | 462.00   |
| 8EX225    | Excavator - 225RTS           | 1.00     | 12.33    | HR   | 70.00     | 100.00   | 70.00     | 863.10   |
| 8TRUT1    | Truck - 1 Ton                | 1.00     | 12.33    | HR   | 12.00     | 100.00   | 12.00     | 147.96   |
| FORE      | Foreman                      | 1.00     | 12.33    | MH   | 45.00     | 116.67   | 75.72     | 933.59   |
| L1        | Labor -Group 1 Genl/Carp Tnd | 1.00     | 12.33    | MH   | 30.82     | 116.67   | 56.61     | 697.94   |
| OP4       | Operator-Doz, Exc, Bld, Ldr  | 1.00     | 12.33    | MH   | 39.01     | 116.67   | 67.80     | 835.98   |

## Biditem

## Off-Site Base Rock

# 11060

Takeoff Qty: 515.000 TN

Bid Qty: 515.000 TN

|         | Base Labor | Burden   | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|----------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 6.05       | 2.96     | 9.01        | 9.22      | 0.00       | 0.00        | 0.00 | 12.00      | 9.80     | 0.00     | 40.03     |
| Total   | 3,115.56   | 1,523.31 | 4,638.87    | 4,747.27  | 0.00       | 0.00        | 0.00 | 6,180.00   | 5,046.98 | 0.00     | 20,613.12 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 73.1500  | 7.0403  | 0.1420  | 281.7925 | 42.5914       | 63.4159        | 22.6155 |

|                     |                        |              |                 |          |
|---------------------|------------------------|--------------|-----------------|----------|
| Activity: 006410130 | Fine Grade Agg Subbase | (Unreviewed) | Quantity: 10382 | Unit: SF |
|---------------------|------------------------|--------------|-----------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.10       | 0.05   | 0.15        | 0.14      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 0.29     |
| Total   | 1,021.02   | 504.46 | 1,525.48    | 1,442.82  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,968.30 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.2859       | 0.0007        | 1,500.0072    | 428.8645     | 0.6921 | 15,000.0722 | 0.0001      | 4,288.6452 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 24.2200  | 428.6540 | 0.0023  | 62.9843        | 0.0983          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRF11 Fine Grade SG Crew Prod: UH 1500 Eff: 100.00 Crew Hrs: 6.92 Labor Pcs: 3.50 Equipment Pcs: 4.50

Notes: Based on the AutoCad file there is 9,257 SF of AC Pavement with an 8-inch base rock section of 3/4-0. This does not include



----- the base rock that will be required to go under the curb and the 1.5 feet behind the curb that we need to support it.

Total 16-inch Type-C curb = 450 LF

Curb has a 10-inch base and we need 1.5 feet behind it for support so we will say 2.5-feet total

$450 \times 2.5 = 1,125$  SF

$9,257 + 1,125 = 10,382$  SF @ 8-inch depth = 515 tons base rock.

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BL140   | 140 GRADER                      | 1.00     | 6.92     | HR   | 74.00     | 100.00   | 74.00     | 512.08 |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 6.92     | HR   | 30.00     | 100.00   | 30.00     | 207.60 |
| 8ROSD    | Roller - 84in Single Drum       | 1.00     | 6.92     | HR   | 65.00     | 100.00   | 65.00     | 449.80 |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 6.92     | HR   | 12.00     | 100.00   | 12.00     | 83.04  |
| 8TRW     | Truck - Water                   | 0.50     | 3.46     | HR   | 55.00     | 100.00   | 55.00     | 190.30 |
| FORE     | Foreman                         | 1.00     | 6.92     | MH   | 45.00     | 116.67   | 75.72     | 523.96 |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | 6.92     | MH   | 31.97     | 116.67   | 58.17     | 402.56 |
| OP5      | Operator - Mini, Roller, BH     | 1.00     | 6.92     | MH   | 37.77     | 116.67   | 66.11     | 457.49 |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 3.46     | MH   | 23.45     | 116.67   | 40.89     | 141.47 |

Activity: 006400110 Procure/Place Agg Base (Unreviewed) Quantity: 515 Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|-----------|
| U. Cost | 2.46       | 1.21   | 3.67        | 3.47      | 0.00       | 0.00        | 0.00 | 12.00      | 9.80     | 0.00     | 28.95     |
| Total   | 1,265.95   | 625.46 | 1,891.41    | 1,788.93  | 0.00       | 0.00        | 0.00 | 6,180.00   | 5,046.98 | 0.00     | 14,907.32 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 7.1463       | 0.0167        | 60.0002       | 428.7791     | 0.8583 | 600.0023    | 0.0017      | 17,367.8189 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 30.0300  | 17.1495 | 0.0583  | 62.9840        | 2.4582          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRCRB Place Cr. Rock Base Prod: UH 60 Eff: 100.00 Crew Hrs: 8.58 Labor Pcs: 3.50 Equipment Pcs: 4.50

Notes: Number of Trucks Routine

| Description             | Unit  | Quantity |
|-------------------------|-------|----------|
| -----                   | ----- | -----    |
| Total Units Per Day     |       | 540.0000 |
| Hours Per Day           |       | 9.0000   |
| Hours Per Round         |       | 1.2500   |
| Units Per Load          |       | 14.0000  |
| Trucks Required Per Day |       | 6.3571   |

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo                 | 1.00     | 51.50    | HR   | 98.00     | 100.00   | 98.00     | 5,046.98 |
| 6AGC075P | Crushed - 3/4in (PU)            | 1.00     | 515.00   | TON  | 12.00     | 100.00   | 12.00     | 6,180.00 |
| 8BL140   | 140 GRADER                      | 1.00     | 8.58     | HR   | 74.00     | 100.00   | 74.00     | 634.92   |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 8.58     | HR   | 30.00     | 100.00   | 30.00     | 257.40   |
| 8ROSD    | Roller - 84in Single Drum       | 1.00     | 8.58     | HR   | 65.00     | 100.00   | 65.00     | 557.70   |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 8.58     | HR   | 12.00     | 100.00   | 12.00     | 102.96   |
| 8TRW     | Truck - Water                   | 0.50     | 4.29     | HR   | 55.00     | 100.00   | 55.00     | 235.95   |
| FORE     | Foreman                         | 1.00     | 8.58     | MH   | 45.00     | 116.67   | 75.72     | 649.65   |
| L4       | Labor -Group 2 Pipe Layer/GC    | 1.00     | 8.58     | MH   | 31.97     | 116.67   | 58.17     | 499.13   |
| OP5      | Operator - Mini, Roller, BH     | 1.00     | 8.58     | MH   | 37.77     | 116.67   | 66.11     | 567.23   |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 4.29     | MH   | 23.45     | 116.67   | 40.89     | 175.40   |

Activity: 006400130 Fine Grade Agg Base (Unreviewed) Quantity: 10382 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.08       | 0.04   | 0.12        | 0.15      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 0.26     |
| Total   | 828.59     | 393.39 | 1,221.98    | 1,515.52  | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 2,737.50 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.2637       | 0.0007        | 1,428.5714    | 376.6822     | 0.7267 | 14,285.7143 | 0.0001      | 3,766.8217 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 18.9000  | 549.3122 | 0.0018  | 64.6550        | 0.0798          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: GRF11 Fine Grade SG Crew Prod: UH 1428.5714 Eff: 100.00 Crew Hrs: 7.27 Labor Pcs: 2.60 Equipment Pcs: 4.50

| Resource | Description                     | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|---------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BL140   | 140 GRADER                      | 1.00     | 7.27     | HR   | 74.00     | 100.00   | 74.00     | 537.98 |
| 8MIGPS   | Misc - GPS Control Equip        | 1.00     | 7.27     | HR   | 30.00     | 100.00   | 30.00     | 218.10 |
| 8ROSD    | Roller - 84in Single Drum       | 1.00     | 7.27     | HR   | 65.00     | 100.00   | 65.00     | 472.55 |
| 8TRUT1   | Truck - 1 Ton                   | 1.00     | 7.27     | HR   | 12.00     | 100.00   | 12.00     | 87.24  |
| 8TRW     | Truck - Water                   | 0.50     | 3.63     | HR   | 55.00     | 100.00   | 55.00     | 199.65 |
| FORE     | Foreman                         | 1.00     | 7.27     | MH   | 45.00     | 116.67   | 75.72     | 550.47 |
| L4       | Labor -Group 2 Pipe Layer/GC    | 0.10     | 0.73     | MH   | 31.97     | 116.67   | 58.18     | 42.47  |
| OP5      | Operator - Mini, Roller, BH     | 1.00     | 7.27     | MH   | 37.77     | 116.67   | 66.11     | 480.62 |
| TEAM2    | Teamster 10<br>CY/4KWater/LowBd | 0.50     | 3.63     | MH   | 23.45     | 116.67   | 40.89     | 148.42 |

**Biditem****Off-Site Sidewalk****11070**

Takeoff Qty: 4,075.000 SF

Bid Qty: 4,075.000 SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 0.34       | 0.18   | 0.51        | 0.38      | 0.00       | 0.00        | 8.00      | 0.38       | 0.39     | 0.00     | 9.67      |
| Total   | 1,373.14   | 722.49 | 2,095.63    | 1,564.80  | 0.00       | 0.00        | 32,600.00 | 1,560.00   | 1,597.40 | 0.00     | 39,417.83 |

| Manhours | Unit/MH  | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|----------|---------|------------|---------------|----------------|----------|
| 32.6000  | 125.0000 | 0.0080  | 1,209.1359 | 42.1209       | 64.2831        | 500.0000 |

Activity: 007590110 Prep/Grade Sidewalk (Unreviewed) Quantity: 4075 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 0.34       | 0.18   | 0.51        | 0.38      | 0.00       | 0.00        | 0.00 | 0.38       | 0.39     | 0.00     | 1.67     |
| Total   | 1,373.14   | 722.49 | 2,095.63    | 1,564.80  | 0.00       | 0.00        | 0.00 | 1,560.00   | 1,597.40 | 0.00     | 6,817.83 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.8983       | 0.0020        | 500.0000      | 449.1325     | 0.8150 | 5,000.0000  | 0.0002      | 8,365.4356 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 32.6000  | 125.0000 | 0.0080  | 64.2831        | 0.3370          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR5221 PAVING/GRADING WALK-DWYS-LOT

Crew: GR51 Sidewalk Prep. Prod: UH 500 Eff: 100.00 Crew Hrs: 8.15 Labor Pcs: 4.00 Equipment Pcs: 4.00

**Notes:** The AutoCad drawing does not match the PDF for sidewalk. Based on hand take-off quantities as follows:

Sidewalk @ Street/Hammerhead: 550 LF @ 5 FT Wide = 2,750 SF  
Sidewalk to Reservoir Draive: 1,325 SF

4,075 SF @ 4-inch depth base rock = 103 tons. Assume 25% waste for outside the forms = 128 tons

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 5SO      | Trucking - Solo              | 1.00     | 16.30    | HR   | 98.00     | 100.00   | 98.00     | 1,597.40 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 130.00   | TON  | 12.00     | 100.00   | 12.00     | 1,560.00 |
| 8ROS     | Roller - Small Paving        | 1.00     | 8.15     | HR   | 30.00     | 100.00   | 30.00     | 244.50   |
| 8SKBL    | Skidsteer - Loader           | 1.00     | 8.15     | HR   | 25.00     | 100.00   | 25.00     | 203.75   |
| 8TREZ    | Truck - EZ Grade (Rent)      | 1.00     | 8.15     | HR   | 125.00    | 100.00   | 125.00    | 1,018.75 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 8.15     | HR   | 12.00     | 100.00   | 12.00     | 97.80    |
| FORE     | Foreman                      | 1.00     | 8.15     | MH   | 45.00     | 116.67   | 76.37     | 622.41   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 16.30    | MH   | 30.82     | 116.67   | 57.05     | 929.95   |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 8.15     | MH   | 37.77     | 116.67   | 66.66     | 543.27   |

Activity: 007590120 Form/Pour Sidewalk (Unreviewed) Quantity: 4075 Unit: SF

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|-----------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4CONCF   | Flatwork Concrete Sub | 1.00     | 4,075.00 | SF   | 8.00      | 100.00   | 8.00      | 32,600.00 |

**Biditem****Off-Site ADA Ramp Reservoir Drive****11075**

Takeoff Qty: 1.000 EA

Bid Qty: 1.000 EA

Activity: 007590210 Handicap Ramp Construction (Unreviewed) Quantity: 1 Unit: EA

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-----------------------|----------|----------|------|-----------|----------|-----------|----------|
| 4CONCF   | Flatwork Concrete Sub | 1.00     | 1.00     | EA   | 3,500.00  | 100.00   | 3,500.00  | 3,500.00 |

**Biditem****Off-Site Curb****11080**

Takeoff Qty: 465.000 LF

Bid Qty: 465.000 LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 0.64       | 0.31   | 0.95        | 1.01      | 0.00       | 0.00        | 30.00     | 0.00       | 0.00     | 0.00     | 31.96     |
| Total   | 299.36     | 144.41 | 443.77      | 468.10    | 0.00       | 0.00        | 13,950.00 | 0.00       | 0.00     | 0.00     | 14,861.87 |

| Manhours | Unit/MH | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|---------|---------|------------|---------------|----------------|----------|
| 6.2000   | 75.0000 | 0.0133  | 2,397.0758 | 48.2839       | 71.5758        | 150.0000 |

Activity: 007590410 Prep/Grade Curb (Unreviewed) Quantity: 465 Unit: LF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 0.64       | 0.31   | 0.95        | 1.01      | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 1.96   |
| Total   | 299.36     | 144.41 | 443.77      | 468.10    | 0.00       | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 911.87 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1.9610       | 0.0067        | 150.0000      | 294.1516     | 0.3100 | 1,500.0000  | 0.0007      | 2,941.5161 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 6.2000   | 75.0000 | 0.0133  | 71.5758        | 0.6438          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR5506 FINEGRADE/PAVE

Crew: GRCU Curb Prep. Prod: UH 150 Eff: 100.00 Crew Hrs: 3.10 Labor Pcs: 2.00 Equipment Pcs: 3.00

| Resource | Description                 | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|-----------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 8BL140   | 140 GRADER                  | 1.00     | 3.10     | HR   | 74.00     | 100.00   | 74.00     | 229.40 |
| 8ROSD    | Roller - 84in Single Drum   | 1.00     | 3.10     | HR   | 65.00     | 100.00   | 65.00     | 201.50 |
| 8TRUT1   | Truck - 1 Ton               | 1.00     | 3.10     | HR   | 12.00     | 100.00   | 12.00     | 37.20  |
| FORE     | Foreman                     | 1.00     | 3.10     | MH   | 45.00     | 116.67   | 76.44     | 236.95 |
| OP5      | Operator - Mini, Roller, BH | 1.00     | 3.10     | MH   | 37.77     | 116.67   | 66.72     | 206.82 |

Activity: 007590420 Type C Curb (Unreviewed) Quantity: 465 Unit: LF

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Notes: Since the bulk of this curb is on a tight hammerhead we will assume that this will be all hand set curb.

| Resource | Description           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|-----------------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4CONCF   | Flatwork Concrete Sub | 1.00     | 465.00   | LF   | 30.00     | 100.00   | 30.00     | 13,950.00 |

**Biditem****Off-Site Reinforced Concrete Driveway Entrance****11090**

Takeoff Qty: 315.000 SF

Bid Qty: 315.000 SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub      | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|----------|------------|----------|----------|----------|
| U. Cost | 0.67       | 0.35   | 1.03        | 0.77      | 0.00       | 0.00        | 15.00    | 0.57       | 0.78     | 0.00     | 18.15    |
| Total   | 212.28     | 111.70 | 323.98      | 241.92    | 0.00       | 0.00        | 4,725.00 | 180.00     | 246.96   | 0.00     | 5,717.86 |

| Manhours | Unit/MH | MH/Unit | \$/MH      | Base Labor/MH | Total Labor/MH | Unit/CH  |
|----------|---------|---------|------------|---------------|----------------|----------|
| 5.0400   | 62.5000 | 0.0160  | 1,134.4960 | 42.1190       | 64.2817        | 250.0000 |

Activity: 007590110 Prep/Grade Entrance (Unreviewed) Quantity: 315 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total  |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|--------|
| U. Cost | 0.67       | 0.35   | 1.03        | 0.77      | 0.00       | 0.00        | 0.00 | 0.57       | 0.78     | 0.00     | 3.15   |
| Total   | 212.28     | 111.70 | 323.98      | 241.92    | 0.00       | 0.00        | 0.00 | 180.00     | 246.96   | 0.00     | 992.86 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1.7965       | 0.0040        | 250.0000      | 449.1270     | 0.1260 | 2,500.0000  | 0.0004      | 7,879.8413 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 5.0400   | 62.5000 | 0.0160  | 64.2817        | 0.6739          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR5221 PAVING/GRADING WALK-DWYS-LOT

Crew: GRSI Sidewalk Prep. Prod: UH 250 Eff: 100.00 Crew Hrs: 1.26 Labor Pcs: 4.00 Equipment Pcs: 4.00

Notes: 315 SF with 6-inch of crushed rock base = 12 tons, assume 25% waste for outside of forms = 15 tons

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 5SO      | Trucking - Solo              | 1.00     | 2.52     | HR   | 98.00     | 100.00   | 98.00     | 246.96 |
| 6AGC075P | Crushed - 3/4in (PU)         | 1.00     | 15.00    | TON  | 12.00     | 100.00   | 12.00     | 180.00 |
| 8ROS     | Roller - Small Paving        | 1.00     | 1.26     | HR   | 30.00     | 100.00   | 30.00     | 37.80  |
| 8SKBL    | Skidsteer - Loader           | 1.00     | 1.26     | HR   | 25.00     | 100.00   | 25.00     | 31.50  |
| 8TREZ    | Truck - EZ Grade (Rent)      | 1.00     | 1.26     | HR   | 125.00    | 100.00   | 125.00    | 157.50 |
| 8TRUT1   | Truck - 1 Ton                | 1.00     | 1.26     | HR   | 12.00     | 100.00   | 12.00     | 15.12  |
| FORE     | Foreman                      | 1.00     | 1.26     | MH   | 45.00     | 116.67   | 76.37     | 96.22  |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 2.52     | MH   | 30.82     | 116.67   | 57.05     | 143.77 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 1.26     | MH   | 37.77     | 116.67   | 66.66     | 83.99  |

Activity: 007590320 Form/Pour Driveways (Unreviewed) Quantity: 315 Unit: SF

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Notes: Driveway will be 6-inch thick and is shown as reinforced with #4 rebar.

| Resource | Description           | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|-----------------------|----------|----------|------|-----------|----------|-----------|----------|
| 4CONCF   | Flatwork Concrete Sub | 1.00     | 315.00   | SF   | 15.00     | 100.00   | 15.00     | 4,725.00 |

## Biditem

### Off-Site Street Paving

# 11100

Takeoff Qty: 180.000 TN

Bid Qty: 180.000 TN

Activity: 007450200 PG 64-22 Asphalt in HMAC (Unreviewed) Quantity: 180 Unit: TN

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Notes: Per the AutoCad File the off-site paving is 9,257 SF and the section shown on sheet C-19 of the plans is 3-inch of AC over 8-inches of base rock.

9,257 SF @ 3 IN Depth = 174 Tons of AC, we will assume 180 tons to account for clean-up /waste.

| Resource | Description   | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total     |
|----------|---------------|----------|----------|------|-----------|----------|-----------|-----------|
| 4PAVA    | AC Paving Sub | 1.00     | 180.00   | TN   | 104.10    | 100.00   | 104.10    | 18,738.00 |

## Biditem

### Off-Site Temp Trench Paving

# 11110

Takeoff Qty: 30.000 TN

Bid Qty: 30.000 TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub    | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|--------|------------|----------|----------|----------|
| U. Cost | 53.42      | 27.45  | 80.87       | 37.91     | 85.00      | 0.00        | 22.14  | 0.00       | 0.00     | 0.00     | 225.92   |
| Total   | 1,602.64   | 823.47 | 2,426.11    | 1,137.38  | 2,550.00   | 0.00        | 664.20 | 0.00       | 0.00     | 0.00     | 6,777.69 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 40.1500  | 0.7472  | 1.3383  | 168.8092 | 39.9163       | 60.4262        | 3.5141  |

|                     |                        |              |                |          |
|---------------------|------------------------|--------------|----------------|----------|
| Activity: 004950200 | Trench Prep for Paving | (Unreviewed) | Quantity: 2215 | Unit: SF |
|---------------------|------------------------|--------------|----------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub    | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|--------|------------|----------|----------|----------|
| U. Cost | 0.42       | 0.22   | 0.64        | 0.24      | 0.00       | 0.00        | 0.30   | 0.00       | 0.00     | 0.00     | 1.18     |
| Total   | 933.04     | 482.66 | 1,415.70    | 537.38    | 0.00       | 0.00        | 664.20 | 0.00       | 0.00     | 0.00     | 2,617.28 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 0.8818       | 0.0025        | 400.0361      | 352.7325     | 0.5537 | 4,000.3612  | 0.0002      | 4,726.8918 |

| Manhours | Unit/MH  | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|----------|---------|----------------|-----------------|
| 22.1500  | 100.0000 | 0.0100  | 63.9142        | 0.4212          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TR1 Trench Preping Crew Prod: UH 400.0361 Eff: 100.00 Crew Hrs: 5.54 Labor Pcs: 4.00 Equipment Pcs: 2.50

Notes: Off-Site paving will include teh 24 IN crossing and connection at SW 43rd Street, the 18 IN line outside of our new street improvements going west on SW Volcano and the 8 IN Line going west on volcano.

Pavement as follows:

24 IN = 80 LF x 5 FT @ 2 IN for temp paving = 5 Tons

24 IN = 80 LF x 7 FT @ 6 IN for permanent paving = 21 Tons

18 IN = 30 LF x 4.50 @ 2 IN for temp paving = 2 Tons

No Pemmanent paving, it is on the shoulder ane the new stree construction will cover the crossing

8 IN = 480 LF x 3.5 @ 2 IN for temp paving = 21 Tons

8 IN = 255 LF x 5.5 @ 4 In for pemanent paving = 35 Tons

Total temp paving = 28 tons

Total permanent paving = 56 tons

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total  |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|--------|
| 4FLAG    | Flagging Sub                 | 1.00     | 11.07    | HR   | 60.00     | 100.00   | 60.00     | 664.20 |
| 8EX130   | Excavator - 130              | 1.00     | 5.54     | HR   | 52.00     | 100.00   | 52.00     | 288.08 |
| 8MI3     | Misc - SUP EQ(2-PK/MISC)     | 1.00     | 5.54     | HR   | 30.00     | 100.00   | 30.00     | 166.20 |
| 8ROS     | Roller - Small Paving        | 0.50     | 2.77     | HR   | 30.00     | 100.00   | 30.00     | 83.10  |
| FORE     | Foreman                      | 1.00     | 5.54     | MH   | 45.00     | 116.67   | 75.90     | 420.51 |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 11.07    | MH   | 30.82     | 116.67   | 56.73     | 628.05 |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 5.54     | MH   | 37.77     | 116.67   | 66.27     | 367.14 |

|                     |                              |              |              |          |
|---------------------|------------------------------|--------------|--------------|----------|
| Activity: 004950202 | Temporary Patch with Hot Mix | (Unreviewed) | Quantity: 30 | Unit: TN |
|---------------------|------------------------------|--------------|--------------|----------|

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub  | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|------|------------|----------|----------|----------|
| U. Cost | 22.32      | 11.36  | 33.68       | 20.00     | 85.00      | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 138.68   |
| Total   | 669.60     | 340.81 | 1,010.41    | 600.00    | 2,550.00   | 0.00        | 0.00 | 0.00       | 0.00     | 0.00     | 4,160.41 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift    |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|-------------|
| 53.6803      | 0.1000        | 10.0000       | 536.8033     | 0.3000 | 100.0000    | 0.0100      | 13,868.0333 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 18.0000  | 1.6667  | 0.6000  | 56.1339        | 22.3200         |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

Crew: TR2 Trench Patching Crew Prod: UH 10 Eff: 100.00 Crew Hrs: 3.00 Labor Pcs: 6.00 Equipment Pcs: 5.00

| Resource | Description              | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|--------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 2AS1WIB  | Buy Cl B Asphalt         | 1.00     | 30.00    | TON  | 85.00     | 100.00   | 85.00     | 2,550.00 |
| 8MI3     | Misc - SUP EQ(2-PK/MISC) | 1.00     | 3.00     | HR   | 30.00     | 100.00   | 30.00     | 90.00    |
| 8MITA    | Misc - Tack Trailer      | 1.00     | 3.00     | HR   | 30.00     | 100.00   | 30.00     | 90.00    |
| 8ROS     | Roller - Small Paving    | 1.00     | 3.00     | HR   | 30.00     | 100.00   | 30.00     | 90.00    |
| 8TRD10   | Truck - Dump (10 CY)     | 2.00     | 6.00     | HR   | 55.00     | 100.00   | 55.00     | 330.00   |

|       |                                 |      |      |    |       |        |       |        |
|-------|---------------------------------|------|------|----|-------|--------|-------|--------|
| FORE  | Foreman                         | 1.00 | 3.00 | MH | 45.00 | 116.67 | 75.71 | 227.14 |
| L1    | Labor -Group 1 Genl/Carp Tnd    | 2.00 | 6.00 | MH | 30.82 | 116.67 | 56.61 | 339.63 |
| OP5   | Operator - Mini, Roller, BH     | 1.00 | 3.00 | MH | 37.77 | 116.67 | 66.11 | 198.33 |
| TEAM2 | Teamster 10<br>CY/4KWater/LowBd | 2.00 | 6.00 | MH | 23.45 | 116.67 | 40.89 | 245.31 |

**Biditem****Off-Site Permanent Trench Paving****11120**

Takeoff Qty: 60.000 TN

Bid Qty: 60.000 TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 22.04      | 11.40  | 33.45       | 12.69     | 0.00       | 0.00        | 206.70    | 0.00       | 25.64    | 0.00     | 278.48    |
| Total   | 1,322.60   | 684.22 | 2,006.82    | 761.60    | 0.00       | 0.00        | 12,402.00 | 0.00       | 1,538.60 | 0.00     | 16,709.02 |

| Manhours | Unit/MH | MH/Unit | \$/MH    | Base Labor/MH | Total Labor/MH | Unit/CH |
|----------|---------|---------|----------|---------------|----------------|---------|
| 31.4000  | 1.9108  | 0.5233  | 532.1344 | 42.1210       | 63.9115        | 7.6414  |

Activity: 004950200 Trench Prep for Paving (Unreviewed) Quantity: 1963 Unit: SF

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub    | Aggregates | Trucking | Gen Cond | Total    |
|---------|------------|--------|-------------|-----------|------------|-------------|--------|------------|----------|----------|----------|
| U. Cost | 0.67       | 0.35   | 1.02        | 0.39      | 0.00       | 0.00        | 0.48   | 0.00       | 0.78     | 0.00     | 2.67     |
| Total   | 1,322.60   | 684.22 | 2,006.82    | 761.60    | 0.00       | 0.00        | 942.00 | 0.00       | 1,538.60 | 0.00     | 5,249.02 |

| Crew \$/Unit | Crew Hrs/Unit | Units/Crew Hr | \$/Crew Hour | Shifts | Units/Shift | Shifts/Unit | \$/Shift   |
|--------------|---------------|---------------|--------------|--------|-------------|-------------|------------|
| 1.4103       | 0.0040        | 250.0000      | 352.5751     | 0.7852 | 2,500.0000  | 0.0004      | 6,684.9465 |

| Manhours | Unit/MH | MH/Unit | Total Labor/MH | Base Labor/Unit |
|----------|---------|---------|----------------|-----------------|
| 31.4000  | 62.5159 | 0.0160  | 63.9115        | 0.6738          |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6217 SITE EXCAVATION

Crew: TR1 Trench Preping Crew Prod: UH 250 Eff: 100.00 Crew Hrs: 7.85 Labor Pcs: 4.00 Equipment Pcs: 2.50

**Notes:** Off-Site paving will include teh 24 IN crossing and connection at SW 43rd Street, the 18 IN line outside of our new street improvements going west on SW Volcano and the 8 IN Line going west on volcano.

Pavement as follows:

24 IN = 80 LF x 5 FT @ 2 IN for temp paving = 5 Tons

24 IN = 80 LF x 7 FT @ 6 IN for permanent paving = 21 Tons

18 IN = 30 LF x 4.50 @ 2 IN for temp paving = 2 Tons

No Pemmanent paving, it is on the shoulder ane the new stree construction will cover the crossing

8 IN = 480 LF x 3.5 @ 2 IN for temp paving = 21 Tons

8 IN = 255 LF x 5.5 @ 4 In for pemanent paving = 35 Tons

Total temp paving = 28 tons

Total permanent paving = 56 tons

| Resource | Description                  | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total    |
|----------|------------------------------|----------|----------|------|-----------|----------|-----------|----------|
| 4FLAG    | Flagging Sub                 | 1.00     | 15.70    | HR   | 60.00     | 100.00   | 60.00     | 942.00   |
| 5SO      | Trucking - Solo              | 1.00     | 15.70    | HR   | 98.00     | 100.00   | 98.00     | 1,538.60 |
| 8EX130   | Excavator - 130              | 1.00     | 7.85     | HR   | 52.00     | 100.00   | 52.00     | 408.20   |
| 8MI3     | Misc - SUP EQ(2-PK/MISC)     | 1.00     | 7.85     | HR   | 30.00     | 100.00   | 30.00     | 235.50   |
| 8ROS     | Roller - Small Paving        | 0.50     | 3.93     | HR   | 30.00     | 100.00   | 30.00     | 117.90   |
| FORE     | Foreman                      | 1.00     | 7.85     | MH   | 45.00     | 116.67   | 75.91     | 595.87   |
| L1       | Labor -Group 1 Genl/Carp Tnd | 2.00     | 15.70    | MH   | 30.82     | 116.67   | 56.74     | 890.74   |
| OP5      | Operator - Mini, Roller, BH  | 1.00     | 7.85     | MH   | 37.77     | 116.67   | 66.27     | 520.21   |

Activity: 004950204 Permanent AC Patch - 4 inch Deep (Unreviewed) Quantity: 60 Unit: TN

|         | Base Labor | Burden | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total     |
|---------|------------|--------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|-----------|
| U. Cost | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 191.00    | 0.00       | 0.00     | 0.00     | 191.00    |
| Total   | 0.00       | 0.00   | 0.00        | 0.00      | 0.00       | 0.00        | 11,460.00 | 0.00       | 0.00     | 0.00     | 11,460.00 |

Calendar: 610 60 Hour Week - (6@10) Hrs/Shift: 10 WC: OR6306 SEWER CONSTRUCTION

| Resource | Description | Pcs/Wste | Quantity | Unit | Unit Cost | Tax/OT % | Actual UC | Total |
|----------|-------------|----------|----------|------|-----------|----------|-----------|-------|
|----------|-------------|----------|----------|------|-----------|----------|-----------|-------|

|       |               |      |       |    |        |        |        |           |
|-------|---------------|------|-------|----|--------|--------|--------|-----------|
| 4FLAG | Flagging Sub  | 1.00 | 16.00 | HR | 60.00  | 100.00 | 60.00  | 960.00    |
| 4PAVA | AC Paving Sub | 1.00 | 60.00 | TN | 175.00 | 100.00 | 175.00 | 10,500.00 |

Subtotal

## Off-Site Construction Subtotal

|              | Base Labor | Burden    | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking  | Gen Cond | Total      |
|--------------|------------|-----------|-------------|-----------|------------|-------------|-----------|------------|-----------|----------|------------|
| <b>Total</b> | 51,806.31  | 26,560.11 | 78,366.42   | 53,428.53 | 122,742.93 | 0.00        | 90,414.20 | 47,890.68  | 56,535.59 | 0.00     | 449,378.35 |

Subtotal

## Cost of Work (Excluding Amendment #1) Subtotal

|              | Base Labor | Burden     | Total Labor | Equipment  | Perm Matls   | Const Matls | Sub          | Aggregates | Trucking   | Gen Cond  | Total         |
|--------------|------------|------------|-------------|------------|--------------|-------------|--------------|------------|------------|-----------|---------------|
| <b>Total</b> | 409,024.65 | 220,461.33 | 629,485.98  | 375,025.02 | 2,707,958.62 | 0.00        | 6,578,984.53 | 283,010.48 | 227,748.33 | 92,400.00 | 10,894,612.96 |

### Report Summary

|              | Base Labor | Burden  | Total Labor | Equipment | Perm Matls | Const Matls | Sub       | Aggregates | Trucking | Gen Cond | Total      |
|--------------|------------|---------|-------------|-----------|------------|-------------|-----------|------------|----------|----------|------------|
| <b>Total</b> | 620,065    | 325,587 | 945,652     | 776,597   | 2,778,082  | 50,000      | 8,183,040 | 369,921    | 409,726  | 119,775  | 13,632,793 |

### Calendars Used In Estimate

610                      60 Hour Week - (6@10)  
509                      45 Hour Week - (5@9)





# **TAB C**

## **CLARIFICATION LETTER**



December 15, 2020

TO: Mike Caccavano, P.E., City Engineer  
City of Redmond Public Works Department  
243 E. Antler Avenue  
Redmond OR 97756

**RE: South Redmond Water Facilities Project – 100% Construction Estimate & GMP**

Mr. Caccavano,

Based on the 100% Design Plans & Specifications, subcontractor bid for the Well 8 Construction & Testing, Emery & Sons Amendment No's 1 & 2, subcontractor budgetary pricing, and the clarifications below, Emery & Sons Construction believes the probable cost of the project is **\$16,338,887.57**. This total project cost includes our pre-construction fee, the approved Early Work Amendment No's 1 & 2, the Quartz Park work, remainder of work not yet contracted, and a \$250,000.00 construction contingency.

**Budget Summary:**

While the project cost noted above is still well over what was anticipated for the Target GMP (\$13,000,000.00 - \$14,000,000.00), please consider the following discussion points:

1. While we normally expect costs to decrease from the 60% estimate to the 100% estimate, this assumption is based on no increases in scope of work. In this case however, the project scope has been increased. The significant items contributing to this cost increase from 60% to 100% GMP are as follows:
  - a. Quartz Park Fill – Emery & Sons was asked to use reservoir excavated material for fill at the Quartz Park site. While this was an excellent idea, and a good use of the material, it resulted in an increase to the overall project budget. This was an increase of \$75,586. This resulted in a future direct cost savings to the City of Redmond of approximately \$70,000.00.
  - b. Reservoir Rock Section – While the reservoir aggregate rock section was initially revised to eliminate half of the drain rock, the crushed rock section was increased from 15-inches to 18-inches after. This was an increase of approximately \$14,000.00
  - c. The BPS Chlorine System – The chlorine system increased significantly due to a lack of design detail (plans and specs) at the time of pricing. This was an increase of approximately \$42,000.00
  - d. Wash-down Piping – The reservoir wash-down piping was an addition from earlier plan sets. This was an increase of approximately \$24,700.00
  - e. On-Site Storm – Previous estimates did not include the 4-inch, 6-inch, and 8-inch storm drain work. This was an increase of approximately \$12,000.00



- f. Pond Discharge Work – Previous estimates did not include the 24-inch pond discharge detail (concrete headwall), the pond fabric, or the 10-inch open rock section. This was an increase of approximately \$27,000.00
  - g. Site Surfacing – Previous estimates did not include the reservoir access path and some quantities of site concrete. This was an increase of approximately \$14,000.00.
  - h. Off-Site Work – There were several items within this category that experienced significant scope increases from previous budgets. This was an increase of approximately \$332,758.00.
  - i. BPS Foundation – This item has increased significantly due to additional detail added for the pipe encasement. This was an increase of approximately \$40,000.00
  - j. BPS Masonry – We are unsure why this item has fluctuated so much over the last few months. We are expecting this number to come down slightly once we bid this work out. This was an increase of approximately \$30,000.00.
  - k. BPS Electrical – We always find that it is hard to get good electrical pricing before the final plans have been completed. Now that we have final plans, we fully expect this item to come down in price when the work is bid out. This was an increase of approximately \$98,035.00.
  - l. BPS Controls – The work of this item in being performed by the Owner's preferred instrumentation and controls engineer, therefore we are assuming the scope has increased for them from what was expected at the 60% design phase. This was an increase of approximately \$65,000.00.
  - m. Vertical Turbine Pumps – While this item has increased from the 60% GMP, we fully expect this item to come back down during bidding. This was an increase of approximately \$53,000.00.
  - n. Control Vaults – This item has increased due to a lack of detail at the 60% GMP. This was an increase of approximately \$47,000.00.
  - o. Reservoir Painting/Coating – This item has increased due to a lack of information at the time of 60% GMP. This was an increase of approximately \$104,000.00.
  - p. Landscaping & Irrigation – This item has significantly increased in scope from the 60% GMP. In addition, the plans and specifications were not far enough along at the 60% GMP to get good pricing. It should be noted that this item may be arbitrarily high, as we have added significant cost to provide 6 inches of topsoil over the entire site. We did this because we could not tell what the requirement for topsoil was in the 100% plans. This was an increase of approximately \$104,000.00.
- 2. Our cost estimate includes a \$250,000.00 construction contingency. We feel this is a small contingency for a project of this size, however we feel at this point in the design process it is more than adequate for the expected amount of risk.
  - 3. As indicated in item #1 above, the original design did not include much of the off-site construction that is now shown on the plans.
  - 4. The current cost estimate does not include reconstructing/lowering the existing 18-inch waterline within Volcano Avenue for Hayden Homes.
  - 5. It should be noted that construction materials are expected to experience significant price increases over the next 6-10 months. To counteract this, Emery & Sons will be procuring materials and subcontractors as soon as possible in order to alleviate some of this concern.



6. It should be noted that the teams' efforts to finalize the design has resulted in the project being approximately 3 months behind schedule. Therefore, we currently show the booster pump station being on line on or about "date" and the reservoir being completed and ready for use on or about "date". With the project being substantially complete in the late fall and early winter, we fully expect that final completion of the landscaping and hard surfacing to be delayed until the spring of 2021.
7. With the project being delayed as described above, there is a potential that cold weather could prevent the construction of the reservoir base slab. If we end up getting a cold snap, we will have to discuss alternatives to completing the project. One idea would be to wait until spring to begin installation of the based slab, while the other solution would be to implement some cold-weather concrete controls that may allow us to construct the base slab this winter. This will be an ongoing discussion as we move forward into the coldest part of winter (January and February).
8. In the event reservoir construction is delayed until spring due to cold weather, there will be a significant conflict created between the reservoir construction and the booster pump station construction. Therefore Emery & Sons will be working on a plan to alleviate as much conflict between the two work activities as possible.
9. It should also be noted regarding schedule that we will need GMP approval ASAP so that we can begin procurement of the vertical turbine pumps. This is important, as we will need the pump cans ASAP to incorporate into the booster pump station foundation. At this time, the pump cans are on the critical path to completing the booster pump station.
10. Similar to item #8 above, we will also need to get the generators and electrical gear ordered ASAP in order to maintain our current schedule. Significant delays in GMP approval will affect the overall project completion date.

### **Budget Narrative:**

Now that we have 100% plans and specifications, we fully expect that bid pricing will come in under what we have captured in our budget. The reason for this is that once we competitively bid the work, subcontractors will sharpen their pencils. The other thing we have going in our favor is that winter time is a good time to be putting out bid packages, as this is an opportunity for subcontractors to look at the work before their schedule gets full for the summer.

The 100% cost estimate and GMP has been calculated assuming Emery & Sons will self-perform an additional \$4.5-million of work above and beyond that of Amendment No. 1 – Early Site Work and Amendment No. 2 – Reservoir Base Preparation Work. Self-performing work will result in a cost savings to the project.

The following bid item descriptions further explain how we arrived at the GMP Cost and how we plan on bringing the project in under the stated GMP.

**Items 1010-1225:** These items are related to Amendment No. 1 – Early Site Work. This work has already been completed, and has come in approximately \$300,000 under our initial budget.

**Items 2010-2100:** These items are related to Amendment No. 1 – Well Discharge Line Construction, and we feel comfortable that this work will not increase as we move forward.



**Item 3000:** This item is related to Amendment No. 1 – Well Discharge Line Construction. This item is related to the well discharge during well flow testing. This item is an estimated costs to provide pumping in the event discharge water cannot gravity flow through the City’s existing 18-inch water line. Compensation for this item, if used, will only be for actual costs incurred. At this time we do not expect this item to be used.

**Item 3100:** This item is related to Amendment No. 1 – Well 8 Construction & Testing. This includes all work necessary to construct, develop, and testing the municipal water well. Barring any unforeseen circumstances, this is a not to exceed price based on the bid from Western Water Development Corporation. As we are approximately 50% complete with the well construction, we do not foresee any significant issues with the existing budget for this work.

**Item 3110- 3060:** These items related to the fill dirt that was placed at the Quartz Park site. This work is now complete, and no cost increases will be experienced with this item.

**Items 4010-4120:** These items include “Mobilization” type items and earthwork items in support of what we are calling the Phase II mass grading and site preparation. We feel the estimate for this work is adequate. Please note that all of these items, with the exception of Item 4020 have been treated as Emery & Sons self-performed work items. This simply means that we have not applied the CM/GC fee to these items. Instead, these items are based on an “as bid” cost, which includes industry standard overhead and profit.

**Items 5010-5110:** These items are specifically related to the construction of the reservoir. This work is anticipated to be considered self-performed work by our teaming partner Skaar Construction. Please also note that Items 5020-5050 and 5070-5100 have been treated as Emery & Sons self-performed work items. Item 5110 is for the painting/coating of the reservoir. Initially this item had a budget of approximately \$50,000 as we did not have any information at the time. With the completion of design documents, this item has increased to approximately \$155,500. We feel these items are very representative of the cost to complete, therefore we do not see any saving to be had in this area.

**Items 6010-6230:** These items are strictly related to work associated with the well/booster pump station construction, including the buried inlet/discharge header and the outdoor generator sets. The items within this category of work have increased in cost by approximately \$206,350.00 from the 60% GMP. We feel these increases are a direct reflection of inflated subcontractor pricing. Once this work is put out to bid, we fully expect these numbers to decrease. Specifically, we feel that Items 6030, 6110, and 6180 could experience costs savings by competitively bidding the work out. Please also note that many of the items within this category have been treated as Emery & Sons self-performed work activities. This will further help to prevent unanticipated price increases.





**Items 7010-7080:** These items are specifically related to the site water system for the project. The items within this category of work have increased in cost by approximately \$26,700. This is due to increased scope since the 60% GMP. We feel the estimate for this work is adequate, therefore no unanticipated price increases are expected.

**Items 8010-8060:** These items are specifically related to the site storm system for the project. The items within this category of work have increased in cost by approximately \$30,000. This is due to increased scope since the 60% GMP. We feel the estimate for this work is adequate, therefore no unanticipated price increases are expected.

**Items 9010-9050:** These items are related to the site surfacing work. This category of work has actually decreased from the 60% GMP. We feel the estimate for this work is adequate, therefore no unanticipated price increases are expected.

**Items 10010-10040:** These items are related to the site security, landscape and irrigation, and project signing and striping work. The items within this category of work have increased in cost by approximately \$55,000 overall. While we could not figure out what is being expected for the topsoil at the site, we have included 6-inches of topsoil over the entire site. In the event this amount of topsoil is not needed, there could be some significant saving to the landscaping item. It should also be noted that there are additional costs due to an increase in scope for the landscape plantings.

**Items 11010-11120:** These items are related to off-site work (waterline and roadway improvements). The items within this category of work have increased in cost by approximately \$325,600 overall. This is mostly due to the significant increase in scope of the waterline work and the off-site roadway improvements from what was anticipated at the 60% GMP. We now feel these costs are accurate, therefore no future price increases are expected if the scope remains the same.

***\*Please note that the re-construction of the existing 18-inch waterline is not included in the scope of this GMP.***

**Summary of Major Work Items:** Below is a list of the major work items that are contributing to the increase in costs:

|                            |   |              |
|----------------------------|---|--------------|
| 1. Quartz Park Fill        | = | \$ 75,586.00 |
| 2. BPS Chlorine System     | = | \$ 42,000.00 |
| 3. 4-Inch Wash-down Piping | = | \$ 24,700.00 |
| 4. Pond Work               | = | \$ 27,000.00 |
| 5. Off-Site Work           | = | \$332,758.00 |
| 6. BPS Foundation          | = | \$ 40,000.00 |
| 7. BPS Masonry             | = | \$ 30,000.00 |



## Emery & Sons Construction Group, LLC

|                                |   |               |
|--------------------------------|---|---------------|
| 8. BPS Electrical              | = | \$ 98,035.00  |
| 9. BPS Controls                | = | \$ 65,000.00  |
| 10. Vertical Turbine Pumps     | = | \$ 53,000.00  |
| 11. Control Vaults             | = | \$ 47,000.00  |
| 12. Reservoir Painting/Coating | = | \$ 104,000.00 |
| 13. Landscaping & Irrigation   | = | \$ 104,000.00 |

**TOTAL = \$1,043,079.00**

Price Reductions from 60% GMP (approximate) = \$ 736,079.00

**RISIDUAL IMPACT = \$ 307,000.00**

While there have been significant price increases due to an increase in scope, it should be noted that there have been price reductions as well. Considering the price reductions, we feel very good that the overall project costs have only increased by approximately \$307,000.00

We recommend holding a meeting as soon as possible to help the project team understand how our budget was established, and to help answer any questions the team may have. At this point in the project, we feel very comfortable with the GMP pricing and also feel that the \$250,000 in project contingency is adequate.

### **Budget Clarifications/Assumptions:**

- Labor rates used in preparation of the GMP are based on the July 1, 2020 BOLI amendments.
- The budget represents information contained within the current 100% plans and specifications.
- Excludes any escalation due to tariffs.
- Excludes strict American Iron and Steel (AIS) requirements, however we will make every attempt to comply with the City of Redmond "Buy America" requirements.
- Excludes handling and disposal of hazardous materials.
- All parties acknowledge that the project is being constructed during the COVID-19 pandemic, and that government imposed restrictions may affect the project. In addition, Contractor may face labor shortages, material shortages, and material price escalations beyond the reasonable control of the Contractor. Contractor will use all reasonable means to mitigate these potential impacts, and will provide timely notice to Owner of any such impacts that are likely to occur.
- Excavation work has been based on the information provided in the Geotechnical Report by the Wallace Group. Subsurface conditions which vary significantly from that indicated by the geotechnical report could affect the project costs (positively or negatively).





**Emery & Sons**  
Construction Group, LLC

However, after performing significant work at the site, we do not expect any differing site conditions.

- Our current project schedule accounts for normal Central Oregon weather. Any weather conditions that vary significantly from what is normally expected may affect project completion (positively or negatively). Specifically, the cold weather could potentially affect the reservoir construction as construction in the dead of winter was not originally expected.
- The GMP is based on theoretical bid prices for trade work that has not been bid out yet. Bid prices may increase or decrease depending on a variety of reasons. At this time we do not expect prices to increase however. In fact we fully expect that prices will decrease due to competitive bidding of the work. In the event bid prices come in higher than anticipated, we plan on using project contingency to cover any overages.
- Our current schedule is based on work progressing as indicated. At this point an adverse weather condition would be the only impact we see affecting the schedule. In the event weather conditions prevent work from progressing as indicated, we will convene with the project team to figure out a plan to recover the schedule as much as possible.

Sincerely,

Brian A. Vinson, P.E.

Senior Project Manager/Alternative Delivery Manager

Revised 12-30-20

EXHIBIT B

**Draft Final GMP - 100% Design**  
**City of Redmond**  
South Redmond Water Facilities Project

| Item Description                          | Amount              | Totals                 | Rate | Comments                |
|-------------------------------------------|---------------------|------------------------|------|-------------------------|
| <b>Cost of the Work</b>                   |                     | <b>\$14,522,795.30</b> |      |                         |
| <b>Early Work Amendment #1</b>            |                     | <b>\$3,020,580.50</b>  |      | Information Revised     |
| Early Site Work                           | \$1,703,919.00      |                        |      |                         |
| Well 8 Construction                       | \$1,562,925.00      |                        |      |                         |
| CM/GC Fee (6% on Subs)                    | \$93,775.50         |                        |      |                         |
| Early Site Work Savings                   | -\$340,039.00       |                        |      |                         |
| <b>Early Work Amendment #2</b>            |                     | <b>\$2,484,857.91</b>  |      |                         |
| Reservoir Base Preparation                | \$477,063.00        |                        |      |                         |
| Reservoir Construction                    | \$1,210,000.00      |                        |      |                         |
| General Conditions                        | \$613,732.00        |                        |      |                         |
| Bonds/Insurances                          | \$111,462.91        |                        |      |                         |
| CM/GC Fee (6% on Subs)                    | \$72,600.00         |                        |      |                         |
| <b>Balance of Work</b>                    |                     | <b>\$10,441,493.47</b> |      |                         |
| Emery Self-Performed Work                 | \$4,517,226.77      |                        |      |                         |
| Quartz Park Work                          | \$75,586.00         |                        |      | Information Revised     |
| Balance of Reservoir Construction (Skaar) | \$3,624,000.00      |                        |      |                         |
| Subcontracted Work                        | \$1,786,114.53      |                        |      |                         |
| Reservoir Painting/Coating Savings        | -\$94,000.00        |                        |      | Subcontracted Work item |
| CM/GC Fee (6% on Subs)                    | \$318,966.87        |                        |      |                         |
| Bonds & Insurance on Balance of Work      | \$213,599.30        |                        |      | Information Revised     |
| <b>Construction Contingency</b>           | <b>\$250,000.00</b> | <b>\$250,000.00</b>    |      | 1.69% Contingency       |
| <b>Pre-Construction Fee</b>               | <b>\$38,500.00</b>  | <b>\$38,500.00</b>     |      |                         |
| <b>TOTAL CONSTRUCTION</b>                 |                     | <b>\$16,235,431.88</b> |      |                         |



Revised 12-30-20

← December 15, 2020

TO: Mike Caccavano, P.E., City Engineer  
City of Redmond Public Works Department  
243 E. Antler Avenue  
Redmond OR 97756

**RE: South Redmond Water Facilities Project – 100% Construction Estimate & GMP**

Mr. Caccavano,

Reduction due to revised reservoir  
painting/coating estimate  
= \$16,235,431.88

Based on the 100% Design Plans & Specifications, subcontractor bid for the Well 8 Construction & Testing, Emery & Sons Amendment No's 1 & 2, subcontractor budgetary pricing, and the clarifications below, Emery & Sons Construction believes the probable cost of the project is **\$16,338,887.57**. This total project cost includes our pre-construction fee, the approved Early Work Amendment No's 1 & 2, the Quartz Park work, remainder of work not yet contracted, and a \$250,000.00 construction contingency.

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### **Budget Narrative:**

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This scope has been reduced by \$94,000.00

**Items 6010-6230:** These items are strictly related to work associated with the well/booster pump station construction, including the buried inlet/discharge header and the outdoor generator sets. The items within this category of work have increased in cost by approximately \$206,350.00 from the 60% GMP. We feel these increases are a direct reflection of inflated subcontractor pricing. Once this work is put out to bid, we fully expect these numbers to decrease. Specifically, we feel that Items 6030, 6110, and 6180 could experience costs savings by competitively bidding the work out. Please also note that many of the items within this category have been treated as Emery & Sons self-performed work activities. This will further help to prevent unanticipated price increases.





**Items 7010-7080:** These items are specifically related to the site water system for the project. The items within this category of work have increased in cost by approximately \$26,700. This is due to increased scope since the 60% GMP. We feel the estimate for this work is adequate, therefore no unanticipated price increases are expected.

**Items 8010-8060:** These items are specifically related to the site storm system for the project. The items within this category of work have increased in cost by approximately \$30,000. This is due to increased scope since the 60% GMP. We feel the estimate for this work is adequate, therefore no unanticipated price increases are expected.

**Items 9010-9050:** These items are related to the site surfacing work. This category of work has actually decreased from the 60% GMP. We feel the estimate for this work is adequate, therefore no unanticipated price increases are expected.

**Items 10010-10040:** These items are related to the site security, landscape and irrigation, and project signing and striping work. The items within this category of work have increased in cost by approximately \$55,000 overall. While we could not figure out what is being expected for the topsoil at the site, we have included 6-inches of topsoil over the entire site. In the event this amount of topsoil is not needed, there could be some significant saving to the landscaping item. It should also be noted that there are additional costs due to an increase in scope for the landscape plantings.

**Items 11010-11120:** These items are related to off-site work (waterline and roadway improvements). The items within this category of work have increased in cost by approximately \$325,600 overall. This is mostly due to the significant increase in scope of the waterline work and the off-site roadway improvements from what was anticipated at the 60% GMP. We now feel these costs are accurate, therefore no future price increases are expected if the scope remains the same.

***\*Please note that the re-construction of the existing 18-inch waterline is not included in the scope of this GMP.***

**Summary of Major Work Items:** Below is a list of the major work items that are contributing to the increase in costs:

|                            |   |              |
|----------------------------|---|--------------|
| 1. Quartz Park Fill        | = | \$ 75,586.00 |
| 2. BPS Chlorine System     | = | \$ 42,000.00 |
| 3. 4-Inch Wash-down Piping | = | \$ 24,700.00 |
| 4. Pond Work               | = | \$ 27,000.00 |
| 5. Off-Site Work           | = | \$332,758.00 |
| 6. BPS Foundation          | = | \$ 40,000.00 |
| 7. BPS Masonry             | = | \$ 30,000.00 |





## Emery & Sons Construction Group, LLC

|                                |   |               |
|--------------------------------|---|---------------|
| 8. BPS Electrical              | = | \$ 98,035.00  |
| 9. BPS Controls                | = | \$ 65,000.00  |
| 10. Vertical Turbine Pumps     | = | \$ 53,000.00  |
| 11. Control Vaults             | = | \$ 47,000.00  |
| 12. Reservoir Painting/Coating | = | \$ 104,000.00 |
| 13. Landscaping & Irrigation   | = | \$ 104,000.00 |

**TOTAL = \$1,043,079.00**

Price Reductions from 60% GMP (approximate) = \$ 736,079.00

**RISIDUAL IMPACT = \$ 307,000.00**

While there have been significant price increases due to an increase in scope, it should be noted that there have been price reductions as well. Considering the price reductions, we feel very good that the overall project costs have only increased by approximately \$307,000.00

We recommend holding a meeting as soon as possible to help the project team understand how our budget was established, and to help answer any questions the team may have. At this point in the project, we feel very comfortable with the GMP pricing and also feel that the \$250,000 in project contingency is adequate.

### **Budget Clarifications/Assumptions:**

- Labor rates used in preparation of the GMP are based on the July 1, 2020 BOLI amendments.
- The budget represents information contained within the current 100% plans and specifications.
- Excludes any escalation due to tariffs.
- Excludes strict American Iron and Steel (AIS) requirements, however we will make every attempt to comply with the City of Redmond "Buy America" requirements.
- Excludes handling and disposal of hazardous materials.
- All parties acknowledge that the project is being constructed during the COVID-19 pandemic, and that government imposed restrictions may affect the project. In addition, Contractor may face labor shortages, material shortages, and material price escalations beyond the reasonable control of the Contractor. Contractor will use all reasonable means to mitigate these potential impacts, and will provide timely notice to Owner of any such impacts that are likely to occur.
- Excavation work has been based on the information provided in the Geotechnical Report by the Wallace Group. Subsurface conditions which vary significantly from that indicated by the geotechnical report could affect the project costs (positively or negatively).



**Emery & Sons**  
Construction Group, LLC

However, after performing significant work at the site, we do not expect any differing site conditions.

- Our current project schedule accounts for normal Central Oregon weather. Any weather conditions that vary significantly from what is normally expected may affect project completion (positively or negatively). Specifically, the cold weather could potentially affect the reservoir construction as construction in the dead of winter was not originally expected.
- The GMP is based on theoretical bid prices for trade work that has not been bid out yet. Bid prices may increase or decrease depending on a variety of reasons. At this time we do not expect prices to increase however. In fact we fully expect that prices will decrease due to competitive bidding of the work. In the event bid prices come in higher than anticipated, we plan on using project contingency to cover any overages.
- Our current schedule is based on work progressing as indicated. At this point an adverse weather condition would be the only impact we see affecting the schedule. In the event weather conditions prevent work from progressing as indicated, we will convene with the project team to figure out a plan to recover the schedule as much as possible.

Sincerely,

Brian A. Vinson, P.E.

Senior Project Manager/Alternative Delivery Manager



# SOUTH REDMOND WATER FACILITY (SRWF)

CM/GC CONTRACT AMENDMENT 3 GUARANTEED MAXIMUM PRICE

REDMOND CITY COUNCIL

JANUARY 12, 2021



# REASONS FOR PROJECT:

## ADDING INFRASTRUCTURE TO RESPOND TO GROWTH

### CITYWIDE WATER SYSTEM

- INCREASED SUPPLY
- INCREASED WATER STORAGE

### SOUTH REDMOND

- WATER PRESSURE TO SERVE HIGHER ELEVATIONS
- INDUSTRIAL FIRE FLOWS FOR COMMERCIAL AND LARGE LOT INDUSTRIAL IN SE REDMOND
- WATER SUPPLY FOR FAST GROWING RESIDENTIAL AREA



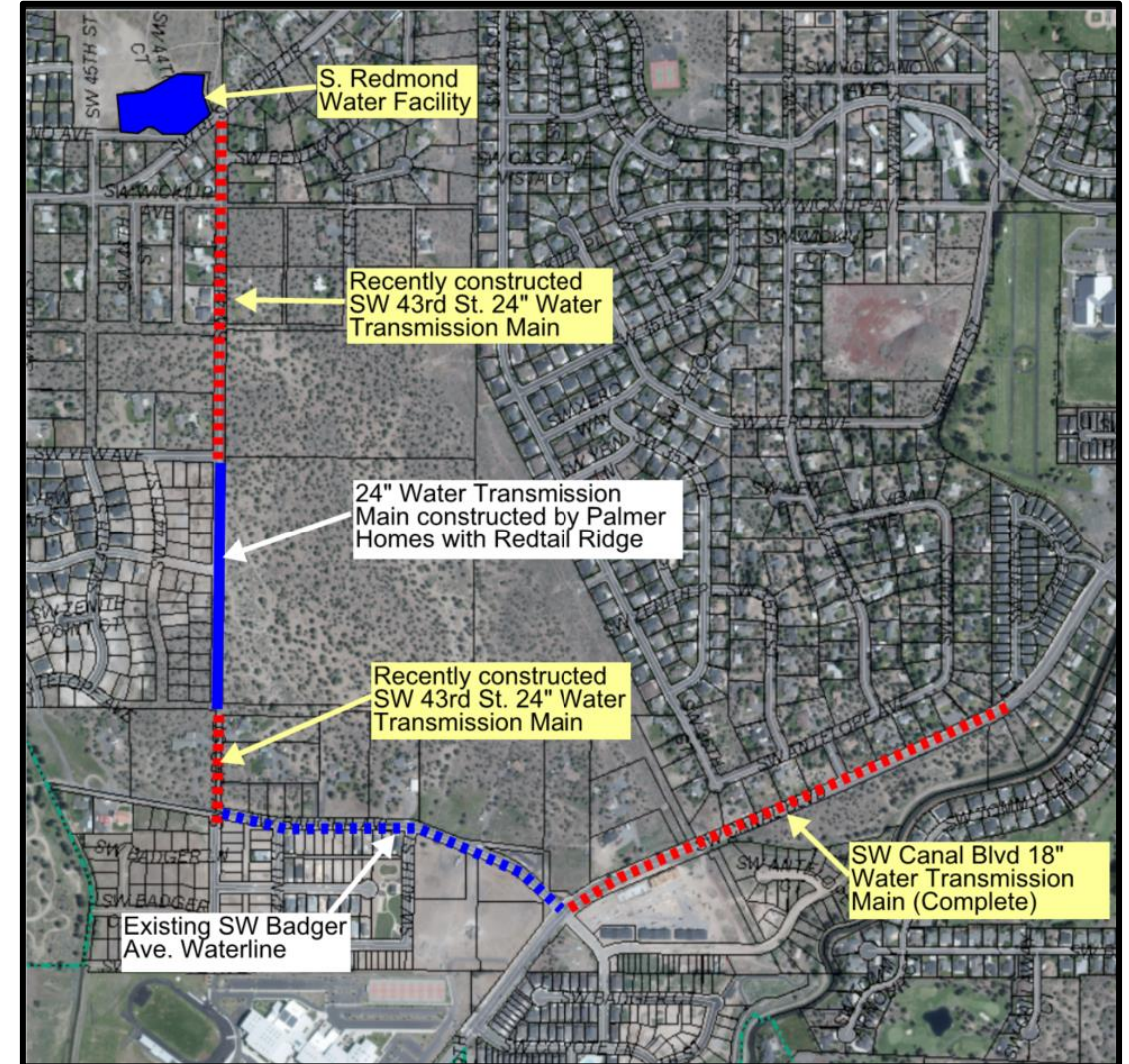
## PROJECT COMPONENTS:

## FACILITY INFRASTRUCTURE

- 4.0 MILLION GALLON CONCRETE RESERVOIR
- 3,000 GALLON/MINUTE WELL
- 7,000 GALLON/MINUTE BOOSTER PUMP STATION

## RELATED INFRASTRUCTURE

- SW 43<sup>RD</sup> ST. 24" WATER TRANSMISSION MAIN
- SW CANAL BLVD. 18" WATER MAIN





# TIMING / PROGRESS:

## SOUTH REDMOND WATER FACILITY

- STARTED: 7/2020
- OPERATIONAL EXPECTATION: FALL 2021

## SW CANAL BLVD WATERLINE

- ✓ COMPLETED 8/20

## SW 43RD WATER TRANSMISSION MAIN

- ✓ 1<sup>ST</sup> TWO PHASES COMPLETED BY DEVELOPER: 6/2020
- 3<sup>RD</sup> PHASE CONSTRUCTION START: 9/2020
- PIPE INSTALLED: COMPLETE 4/2021



# PAST CITY COUNCIL DECISIONS

## CONTRACT HISTORY

**MAY 12, 2020: \$38,500**

CM/GC Contract awarded to Emery & Sons  
Purpose: Pre-Construction Svcs.

**JULY 14, 2020: \$3,360,620**

Amendment 1 approved  
Purpose: Site Prep and Well drilling

**OCTOBER 13, 2020: \$2,560,444**

Amendment 2 approved  
Purpose:  
Reservoir base preparation  
Reservoir floor construction  
Quartz Park Fill  
CM/GC and Insurance/Bond Fees



# CONSTRUCTION CONFIDENCE INDEX



Fall 2021

## COMPLETE

- Final payment made.
- Post project assessment completed comparing project estimate, amount of contract award and total amount of change orders issued during project.
- Total project costs reported.



JAN. 2021

## OPTIMAL

- Project scope and specifications clearly understood and well defined.
- Clear understanding of materials, size and quantities needed to execute job.
- Schedule and special site conditions understood.
- Project estimate unlikely to change (generally at 90% or greater design and engineering phase).
- Total Project contingencies (including project management, design, engineering, plus construction) range between 10%-15%.



OCT. 2020

## HIGH

- Project scope and specifications nearly complete but still subject to change (70%–90% design and engineering phase)
- Materials, size and quantities needed to execute job have been defined but subject to minor changes.
- Schedule understood.
- Total Project contingencies (including project management, design, engineering, plus construction) may range between 20%-30%.



AUG. 2020

## MODERATE

- Project scope defined but lacks details.
- Project specifications incomplete (60%-70% design and engineering phase).
- Total Project contingencies (including project management, design, engineering, plus construction) may range between 30%-40%.

## LOW

- Project scope is a conceptual “vision” with limited detail.
- Project cost is an educated guesstimate. Limited technical information available and/or limited analysis performed.
- Specifications still in infancy stage. (Less than 50% design and engineering phase).
- Total Project contingencies (including project management, design, engineering, plus construction) may range up to or exceed 50%.

**GUARANTEED  
MAXIMUM  
PRICE (GMP)**  
**\$16,235,431**

## **KEY VARIABLES**

- BASED ON 100% CONSTRUCTION PLANS
- OPTIMUM COST CONFIDENCE
- INCLUDES \$250,000 CONTINGENCY
- SAVINGS ACCRUE TO CITY

## POTENTIAL CHANGES

- SUBCONTRACTOR BID COMPETITION COULD REDUCE PUMPHOUSE COSTS
- EXTENDED COLD WEATHER COULD INCREASE RESERVOIR CONCRETE COST

# FUNDING



| SOURCE                                         | AMOUNT  |
|------------------------------------------------|---------|
| Bond Proceeds & Interest (secured in FY 18/19) | \$11.3M |
| Water Operating Funds                          | \$6.6M  |
| System Development Charges                     | \$1.2M  |
| TOTAL                                          | \$19.1M |

- Total Project Cost includes \$1.4M for associated water transmission mains and \$1.5M for design
- Water Operating Funds come from deferring waterline replacement projects to FY 22/23. Annual waterline replacement funding is \$1.9M.





QUESTIONS?