Chambers Creek Regional Wastewater Treatment Plant Expansion
GC/CM Process Update

Pierce County
Sewer & Water Utilities

Tim Ramsaur
Wastewater Utility Manager
Public Works & Utilities

Presented to the Pierce County Council
May 14, 2012
<table>
<thead>
<tr>
<th>Presentation Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals &amp; Project Success</td>
</tr>
<tr>
<td>Reason for Expansion</td>
</tr>
<tr>
<td>Project Review</td>
</tr>
<tr>
<td>Current Work Activities</td>
</tr>
<tr>
<td>3D Modeling</td>
</tr>
<tr>
<td>Four Design Packages</td>
</tr>
<tr>
<td>Project Budget</td>
</tr>
<tr>
<td>Construction Schedule</td>
</tr>
<tr>
<td>Bonding &amp; Rates</td>
</tr>
</tbody>
</table>

Pierce County
Public Works and Utilities
Wastewater Treatment Plant: Reasons for Expansion

Capacity
Regulations
Preservation
Advantages of GC/CM Delivery Method

- Cost certainty
- Minimize change orders and plant impacts
- Optimize schedule
- Facilitate early procurement
- Risk register / cost management / design log
Project Review Continued

Owner-Designer-GC/CM Team
Current Work Activities

Working on 60% Design Plans

- Five week submittal cycle and estimate updates
- 3D modeling
- Four design packages
3D Modeling Example

Rotary Drum Thickeners
Why Four Design Packages?

- Start construction sooner
- Take advantage of current favorable construction market
- Package schedule matches project’s natural phased progression
- Optimize design / construction sequence
Design Package 2

Mass Excavation

Flare Relocation
Design Package 3

- Aeration Basins
- Reclaimed Water
- Secondary Clarifier
- New Digesters 4 - 5
- Digester Control Bldg 2
- Solids Thickening Bldg
- Existing Digesters
- Process Control Bldg 2 - Boilers
Design Package 4

- Process Control Bldg 3
  - Electrical Upgrades

- Process Control Bldg 1
  - RAS Pump Station

- Admin Bldg
  - Renovation

- Operations Bldg
  - Renovation

- Primary Clarifiers

- Equalization Basins/
  Sidestream Treatment

- Maintenance
  Warehouse Bldg
  Renovation
<table>
<thead>
<tr>
<th>Years</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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</thead>
<tbody>
<tr>
<td>Months</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
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</tbody>
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**Design Package 1**

**Design Package 2**

**Design Package 3**

**Design Package 4**
## Project Budget

<table>
<thead>
<tr>
<th>Amount</th>
<th>Item</th>
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<tbody>
<tr>
<td>$ 42.3 million</td>
<td>Design Phase</td>
</tr>
<tr>
<td>$ 6.1 million</td>
<td>Permits (All State, regional and local)</td>
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<tr>
<td>$ 33.1 million</td>
<td>Construction Support</td>
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<tr>
<td>$237.8 million</td>
<td>Construction</td>
</tr>
<tr>
<td>$319.3 million</td>
<td>Sub Total</td>
</tr>
<tr>
<td>$33.9 million</td>
<td>Contingencies</td>
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<tr>
<td>$ 353.2 million</td>
<td>Total</td>
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## Bonds

<table>
<thead>
<tr>
<th>Bond Interest Rates</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Original Financial Model</td>
<td>5.5%</td>
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<tr>
<td>2010 Bond</td>
<td>3.22%</td>
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<tr>
<td>2012 Bond (Projected)</td>
<td>3.85%</td>
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<tr>
<td>2014 Bond (Projected)</td>
<td>4.35%</td>
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</tbody>
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- Bond Issues projected to match Capital Facility Plan funding
- 2012 Bond Issue max acceptable within existing sewer rates
Rates

- 2009 Presentation
- 2010 Bond Issue Model
- 2012 Budget
- Current Projection
Fun Facts

• 6,000 concrete trucks
• 400 trade workers at peak
• $11.3M estimated sales tax revenue from direct construction activities
• $1.1M estimated sales tax revenue from worker spending
Questions?

Tim Ramsaur

*Wastewater Utility Manager*

Pierce County Public Works & Utilities