Seattle Public Utilities’ Design-Build-Operate Treatment Facility Projects

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Program Manager

Providing water, solid waste, drainage, engineering and customer services
Seattle Public Utilities

- Water Supply
- Drainage
- Wastewater
- Solid Waste
- Engineering Services

$500 million operating budget / 1,200 employees
Ten year capital program exceeds $1 billion
The Need for Enhanced Treatment on the Tolt & Cedar

**Tolt Treatment**
- Water Quality Improvements
- System Reliability Improvements
- Additional Water Supply

**Cedar Treatment**
- Regulatory Compliance (Agreed Order)
- Water Quality Improvements
- Improve Taste & Odor
The Conventional Approach

Mixed Incentives for Designers and Contractors

Little Control Over Costs of Construction and Future Operation
Why Consider an Alternative Approach?

- Lack of Project Type Experience
- Experienced Private Vendors
- Potential Cost Savings
- Organizational Needs
- State Statute
The DBO Model
Washington State Statute Projects Criteria

RCW Ch. 39.10 (Alternative Public Works Contracting Procedures)

Design-Build or general contractor/construction manager (GC/CM) can be used for public works contracts,...
  • by certain public entities (including Cities with pop greater than 150,000)
  • for projects greater than $10M
  • meeting certain criteria
  • before July 2001
  • also, demonstration projects for $3M-$10M (before July 1999)
Washington State Statute Governing Process

- No Simultaneous Negotiations Allowed
- Short List of 3 - 5 Firms Required
- Requires Payment of Honorarium
- Competitive Process, but Selection of Low Cost Proposal Not Essential
- Requirements for Solicitation Documents
- Public Notification & Public Review and Comment
Seattle’s DBO Project Philosophy

- Specify Performance Standards
  - Integrated Vendor Teams Respond
- Encourage Technical Innovation
  - Use Competition in Innovation & Price
- Assign Risk to Party Best Able to Manage It
FEATURES OF SEATTLE’S DBO PROCESS

- OVERALL PROCESS DEVELOPED IN ADVANCE WITH ELECTED OFFICIALS
  - Collaborative Relationship
  - Use of Benchmark Estimate
  - Threshold Determination Process
- DIVERSE CITY TEAM COMPLEMENTED BY SUPPORTING CONTRACTOR TEAM
- COMMUNICATIONS PROTOCOL
- HONORARIUM
Overview of Communications Protocol

- Develop protocol early
- All questions must be in writing
- No individual meetings with potential respondents (for Tolt)
- Individual work sessions at issuance of draft RFP (for Cedar)
- Periodic mailings and project web page established
- Single contact person designated
- Contact with elected officials strictly prohibited
Honorarium

**Tolt Honorarium** = $100,000
- Capital Cost Estimate = about $100 million
- Extensive Preliminary Design Type Proposal Requirements
- Two Alternate Proposals

**Cedar Honorarium** = $150,000
- Capital Cost Estimate = about $106 million
- Extensive Preliminary Design Type Proposal Requirements
- Two Alternate Proposals
- Two Proposal Sections Require Higher Level of Design (stormwater treatment and system hydraulics)
Other Provisions for Project Quality in the Procurement Process

- issued risk allocation matrix with RFQ
- sought vendor comments on process
- clarity of expectations (process for addressing vendor questions)
- Draft Service Agreement issued with RFP
<table>
<thead>
<tr>
<th>Risk/Responsibility</th>
<th>City</th>
<th>Company</th>
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<tbody>
<tr>
<td>Financing</td>
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<tr>
<td>Site Acquisition</td>
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<tr>
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<tr>
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<td>Treated Water Quality</td>
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Challenge in RFP Drafting

- Emphasis on Performance Specifications
- Limited Prescriptive Requirements
- Convey the Essence of Public Trust
  - Modest Financial Incentives for Exceptional Facility Performance
  - Substantial Liquidated Damages for Non-Performance
- Thoughtful Proposal Requirements
Desired Project Outcomes for Seattle’s DBO Projects

- Provide 50 Year Facility (High Quality Design and Construction)
- Meet Current and Future Water Quality Standards
- Provide Range of Water Quantities
- Assure High Quality and Reliable Operations through Performance Incentives
- Efficient Use of Power and Chemicals
- Environmental and Cultural Sensitivities
- Predictable Cash Flow
- Cost Effectiveness
- Durable Service Agreement
Description of Facility
Hydraulic Profile
Architectural Elevations and Rendering
Power and Electrical Systems
Structural Work
I & C Approach and Process Controls
Repair and Replacement Plans
Emergency Operations

Overall Approach to Meet Performance Specifications

Conceptual Drawings of Proposals A & B
Single guarantor to back all project phases (development, design, construction & operation)
EVALUATION CRITERIA

60% Technical
- Project implementability
- Technical viability / reliability
- Proposed staff and firm experience
- Environmental compliance
- W/MBE utilization (Tolt only)
- Project Sustainability (Cedar only)

40% Financial
- Cost effectiveness (net present value)
- Financial strength of guarantor
EVALUATION TEAM

Support Subcommittees

- Financial
- Business Issues
- Design/Build (treatment & infrastructure)
- Operations

Evaluation Committee

<table>
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<tr>
<th>Category</th>
<th>Members</th>
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<tr>
<td>SPU Representatives</td>
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<tr>
<td>Other City Departments</td>
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<tr>
<td>Purveyors’ Representative</td>
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<td>Consultants</td>
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<td>City Law Department</td>
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Voting Members: 10
Non-voting Members: 4
BEST AND FINAL OFFERS SOUGHT

Requests

Costs for Various Enhancements to Create Consistency Across Proposals

Restate Certain RFP Requirements to Eliminate Confusion

Clarifications and Corrections
DUE DILIGENCE CONDUCTED

Findings
invaluable
for formal
interviews
(4 hours each)

Telephones Calls
- Calls to Evaluate Firms
- Calls to Evaluate Personnel

Site Visits
- Visit and Inspect Facilities
- Interview Construction and Operations Personnel
EMPHASIS ON REPAIR AND REPLACEMENT

All R&R costs included as part of O&M fee*

Base Term 15 years

Extension 5 years

Extension 5 years

Return facility to City w/o need for major R&R

Proposals had to identify all equipment R&R above $10,000 over contract life (25 yrs.)

* Required proposers to initially include high quality equipment
## PROJECT COSTS

<table>
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<tr>
<th>SPU DBB Estimate</th>
<th>Tolt</th>
<th>Cedar</th>
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<td>$115 M</td>
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<td>Operational (25 yrs)</td>
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<td>Total</td>
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<table>
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<tr>
<th>DBO Contract</th>
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<td>$113 M</td>
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(appx 40% savings) (appx 30% savings)
COST SAVINGS THROUGH THE DBO APPROACH

- INCENTIVES / RISKS BETTER ASSIGNED
- DESIGN-OPERATE AND DESIGN-BUILD ECONOMIES
- OPERATIONAL EFFICIENCIES
- AVOIDANCE OF MULTIPLE PROCESSES AND NEGOTIATIONS
- COMPETITION FOR MARKET POSITION
Success requires:

- early and thorough understanding of project performance needs
- dedication
- commitment, and
- a willingness to move beyond traditional thinking and teach within the organization