Advanced Water Treatment Facility
Alternative Project Delivery... A Better Way...
Service Area = 420 Square Miles

43 Cities

Population = 4 Million

720,000 acre feet used per year

40% Groundwater from local water wells

60% Imported water

WRD supplements natural groundwater recharge
Goal to replace imported water with locally available water (e.g. recycled water) for aquifer replenishment.

Benefits of recycled water over imported water:

- increased reliability
- cost-effective
- locally controlled
- drought proof
Advanced Water Treatment Facility
Why Consider Alternative Project Delivery?

- Prior DBB project was stalled
- Schedule control
- Limited staff
- Desire to have more control
- Future operational optionality
- Price control
- Master Plan and other project alignment(s)
“Traditional” Design-Bid-Build (DBB)

- Owner always *owns* the risk
D-B-B: What’s really the Difference?

- Owner always **owns** the risk
- Transferred/assigned risk (myth versus reality)
- Owner must be willing to accept consequences for decision making
D-B-B: What’s the really the point?

- Owner always **owns** the risk
- Transferred/assigned risk (myth versus reality)
- Owner must be willing to accept consequences for decision making
- **Does partnering under D-B-B really make a difference?**
Key Points: Other Delivery Options

- There are multiple forms of allowable alternative project delivery formats
- Each form has strengths and weaknesses
- Owner must pick the best approach for individual project needs
Alternative Project Delivery Methods

**“Traditional”**
Design-Bid-Build (DBB)

**“CM@Risk”**
Construction Management at Risk

**“Progressive”**
Design-Build-Operate (GMP)

**“Lump Sum”**
Design-Build-Operate (LS)

**Traditional Delivery**

**Alternative Delivery**
Key Points: Prescriptive vs. Non-Prescriptive

“Lump Sum” Design-Build-Operate (LS)

Owner

Design Builder Operator

Local Subconsultants/Subcontractors

Lump Sum Design-Build-Operate: “Performance-based” or “Prescriptive”
Key Points: Prescriptive vs. Non-Prescriptive

"Progressive" Design-Build-Operate (GMP)

- Owner
- Design
- Builder
- Operator
- Local Subconsultants/Subcontractors

"Lump Sum" Design-Build-Operate (LS)

- Owner
- Design
- Builder
- Operator
- Local Subconsultants/Subcontractors

Progressive Design-Build-Operate: "Qualifications-based" or "Non-Prescriptive"

Lump Sum Design-Build-Operate: "Performance-based" or "Prescriptive"

Maximum flexibility for Owners
Key Points: Managed Risk

• Owner enjoys maximum flexibility/opportunity to collaborate on permitting/design
• Adds flexibility for budget constraints
• Owner has multiple “off-ramps” in case of permitting issues or if GMP can’t be successfully negotiated
• Progressive (non-prescriptive) Design-Build-Operate reduces the time it takes to select a Design-Builder-Operator
• Procurement can run in tandem with other critical path efforts (e.g., permits)
• Accelerates concept development evaluation and pricing
Key Points: Managed Risk

The Delivery Process is Less Likely to Drive Project Success than the Resolve of the Owner Managing it
Key Points: Managed Risk

**Client**
- Buyer of services
- Defines project
- Defines success
- Creates contract
- Establishes scope
- Determines schedule
- **Accurate risk assignment**
- Determines rules of engagement
- Has the “end in mind”

**Service Provider**
- Stewards of public trust and resources
- Share all relevant project data/info
- Administer contract fairly
- Make timely decisions
- Pay timely
- Communicate with third party stakeholders
- Secure funding
- “In-House” needs
- Community politics/issues

**Teammate**
- **Create opportunity for innovation**
- Participate in development of team rules
- Comply with team rules
- Sets tone
- Determines “best value”
- Enables completion
  - Staff trained
  - Receive docs
  - Punch out
  - Assume ownership
Key Points: Managed Risk

• Accurate risk assignment

• Establishing rules of engagement

• Create environment for collaboration and innovation
Key Points: Owner’s Choosing APD

Water/Wastewater Projects


APD Traditional DBB
Key Points: APD Saves Money

Traditional Approach – Time to Completion

Select Designer  Design  Bid & Award  Construction

APD Approach – Time to Completion

Select DB  Design  Construction

APD Savings

Savings in Time and Money Realized Using APD Approach
Key Points: Collaboration Encourages Innovation

Collaboration among the designer/builder/operator and owner
Key Advantages

• Invest in Projects not Procurements
• Schedule
• Progressive costs estimates address Owners’ financing challenges
• Better opportunities for local subconsultant and subcontractor support
• Owner is completely engaged and part of collaborative project delivery team
Keys to Achieving Success

• Need a project champion/advocate
• Stakeholder buy-in an absolute must
• Must be willing to share risk and work harder/differently
• OE/OA is part of the overall team
  – Extension of staff and not a “first” line-of-defense
  – Provide programmatic management and technical advisory services
  – Collocation is critical to facilitating the collaborative process
  – Must be a facilitator and team leader
Benefits of APD (D-B-O)

• **Selection methodology focuses on traditional evaluation criteria**
  – Primarily qualifications based allowing owner to select team that offers best innovations, approach, and value
  – Excellent approach when considering cost, schedule, and operational impacts associated with various process and design configurations
  – Selection criteria can be tailored to support owner’s project-specific needs

• **More flexibility after design-builder-operator selection**
  – Supports a “best value” approach where design-builder-operator works hand-in-hand with owner to make critical design and process decisions
  – Owner can provide input on preferred specialty firms/manufacturers/equipment providers
    • Design-builder-operator can still secure bids to ensure competitive pricing
    • Easier to integrate PLA and monitor labor compliance
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