



IMPLEMENTATION of the CITY of TAUNTON's DESIGN / BUILD / OPERATE WASTEWATER PROJECT

A Case History of Massachusetts' First D/B/O Wastewater Project

NEWEA Annual Conference
Session 15 - January 30, 2001



Need Gives Way to Innovation

- Federal and state funds no longer readily available
- WWTP's requiring significant capital repairs
- Correction of permit violations - band aid approach
- Competing demands for municipal funds
- Additional capacity required for growth



New Partnerships

- Needs defined new approaches for partnerships with private firms to provide:
 - Wastewater plant operation & maintenance services
 - Design engineering services
 - Construction of capital improvements
- Risks of liability and performance transferred
 - Private sector guarantee



Old Private Arrangement

- Publicly operated only for a few months
- Short-term operations contract executed in 1980
- Services for:
 - Plant and pump stations
 - Residuals disposal
 - Industrial pretreatment
- Capital items limited to items not exceeding \$3,0000
- Employees represented by Local 1144



Permit Compliance

- Worn out equipment, Capital improvements required
- Violations for BOD₅ and TSS to Taunton River
- Series of EPA Administrative Orders issued
- City commenced traditional facilities planning
- Started preparation of Plan of Study, I&I reduction plan and CSO abatement plan



Project Delivery in Massachusetts

Design/Bid/Construction Contracts

- Massachusetts General Law establishes and Inspector General's office enforces
- Chapter 7 (designer selection law)
- Chapter 149 (construction bidding law)

Operation Contracts

- Chapter 30B (supply and service)



Project Delivery in Massachusetts

✉ Chapter 30B

- ↓ Supply and service contracts
- ↓ Request for Proposals procurement document
- ↓ Evaluate the relative merits of proposals
- ↓ Award to most advantageous firm (merit & price)
- ↓ No restrictions requiring award to lowest price firm



Taunton Considers Alternative Project Delivery

- May 1995 Paul B. Doran, P.E. of ARI retained to conduct initial feasibility study
- Study recommended 4 options:
 - ✉ Design/build services for capital improvements with separate short-term (5yr) operations contract
 - ✉ Design/build services for capital improvements with long-term (20yr) operations contract
 - ✉ Facility sale
 - ✉ Facility lease



Special Legislation

✉ Massachusetts Legislature required to approve a “home rule” petition and enact special legislation to give the City of Taunton the legal basis to conduct a design/build/operate procurement

✉ Support required from:

- ↓ City Council, Raynham, Dighton
- ↓ State Representatives and Senators
- ↓ Local labor unions



Elements of Special Legislation



Key elements of Taunton Special Legislation:

- ↓ 20 Year Term of Agreement
- ↓ One 5 year renewal
- ↓ Eligible for State Revolving Fund Loans
- ↓ Develop RFP to evaluate a contract award based on technical, qualitative and quantitative merits
- ↓ Award contract to most advantageous proposer
- ↓ Award not restrictive to lowest cost proposer
- ↓ Require a Project Labor Agreement
- ↓ Negotiation with selected vendor allowed



City Procurement Objectives



Key City procurement objectives:

- ↓ Upgrade WWTP and pump stations with improved performance
- ↓ Minimize operation and maintenance costs
- ↓ Adhere to NPDES compliance
- ↓ Adhere to all EPA, MADEP regulations
- ↓ Comply with Administrative order requirements
- ↓ Reduce the cost of improvements on the City ratepayers
- ↓ Minimize negative impacts to customers
- ↓ Provide employment opportunities and development of staff
- ↓ Comply with EPA CSO policy - City preferred elimination of all CSO discharges



Traditional D/B/B/O Approach

- *Design/Bid/Build/Operate [D/B/B/O]*
 - Selection of engineer to permit, plan & design project
 - 100% contract documents issued for bid
 - Selection of general contractor to construct project
 - Selection of Engineer to provide construction management services
 - Finance project through SRF / GO / Revenue bonds if Municipality
- *Operation of Facilities by Municipality / Industry*



Design/Build Approach

- *Design/Build [D/B]*
 - Entity issues RFEI / RFP for design/build services
 - Entity evaluates proposals & selects vendor
 - Entity negotiates contract with vendor
 - Vendor designs & constructs project
 - Entity provides construction management services
 - Entity finances project through SRF/GO/Revenue bonds
- *Operation of Facilities by Municipality / Industry / Vendor*



Design / Build / Operate Approach

- Design/Build/Operate [D/B/O]
 - Entity issues RFEI / RFP for design/build/operate services
 - Entity evaluates proposals & selects vendor
 - Entity negotiates service contract with vendor
 - Vendor designs, constructs & operates project
 - Entity provides construction management services
 - Entity provides contract monitoring
 - Entity finances project through SRF/GO/Revenue bonds



Request for Proposal Options



Proposers were invited to respond to 4 options:

1. Continue current, short-term contract operations services with no capital improvements;
2. Provide long-term (20 year) O&M services with DB of capital improvements;
3. Purchase the wastewater treatment plant and make capital improvements; or
4. Lease the wastewater treatment plant and make capital improvements.

Taunton Daily Gazette

Established June 10, 1848

Publisher: Jean S. Scarborough

Managing Editor: Eva T. Gaffney

In the right direction

The issue:

Wastewater treatment plant.

Our view:

The city is taking intelligent and responsible action in assessing all the alternatives for operation of this facility.

It is too early to decide the future of Taunton's wastewater treatment plant, but it certainly is appropriate to consider all the alternatives. This involves soliciting proposals from private companies that have the expertise and financing. This requires no commitment from the city to accept any of the proposals.

TAUNTON GAZETTE
December 17, 1990

Seven bid for wastewater contract

By JAMES R. DEARBORN
Gazette Staff Writer

TAUNTON — Seven bidders are trying to upgrade and operate the city's wastewater treatment plant. The deadline for submitting proposals for a possible 20-year management contract was yesterday. The city reported proposals as it had in two options for financing upgrades, maintenance and federal environmental agencies. The previously estimated at \$10 million to \$15 million, was recently raised to \$20 million by consulting engineers Tipton & Bond. Bids will now undergo a technical review to determine whether they meet 49 different criteria developed by the city.

Seven bidders are: American Anglin Civil, Inc.; American Tribonics of Taunton, N.J.; AART, a Water Works Co. and Anglo-Kingston. The seven bidders are: American Anglin Civil, Inc.; American Tribonics of Taunton, N.J.; AART, a Water Works Co. and Anglo-Kingston. The seven bidders are: American Anglin Civil, Inc.; American Tribonics of Taunton, N.J.; AART, a Water Works Co. and Anglo-Kingston.



Taunton Daily Gazette

Volume 127, Number 343

Plant four bidders wastewater bid process

Largest names in wastewater treatment visit plant

By JAMES R. DEARBORN
Gazette Staff Writer

TAUNTON — The biggest names in the big business of wastewater treatment are visiting the water in Taunton. Representatives of a dozen of the largest wastewater treatment developers and operators toured the city's plant on West Water Street Friday as they consider whether to submit bids on upgrades and long-term operation of the aging facility. The potential bidders have been shown a first draft of the request for proposals and will write comments on what they've seen before the final work is posted in early July.

The city, faced with a need to expand the plant's capacity and modernize systems which cost over \$15 million, is looking for proposals to design, construct and operate the plant. By consulting groups.



Wastewater partnership lauded as state model

By KURT MOFFETT
Gazette Staff Writer

TAUNTON — Local and state legislators are lauding Texas-based PSG's proposal to take over operation of the city's wastewater treatment as a model for the

Pacheco, D.



Evaluation of Proposers' Financials

- ✉ Short Term Perspective / Long Term Perspective
- ✉ Quality vs Quantity of Financials
- ✉ Strength of Firm
 - ☐ Strong Firm Made Weak -- Special Purpose Company
 - ☐ Weak Firm Made Strong -- Solid Parent Guarantee
- ✉ Talk with Credit Analyst / Talk with a Rating Agency
- ✉ Work with Source Materials

Project Financial Analysis

- Public Entity Financing
- Sources of Public Sector Capital
 - ✉ General Obligation Debt
 - ✉ Revenue Debt
 - ✉ Concession Payments
- Revenue Procedure 97 - 13
 - ✉ Maximum 20 Year Term, Renewals Allowed
 - ✉ Minimum 80% Fixed Fee
- Credit Strength of Proposers/Vendors



D/B/O Contracts

Elements of Solid Contracts

- Well-defined Scope of Service
- Highly Specific Performance Standards and Attainable Performance Guarantees
- Necessary Sureties -- Construction and Operation
 - ✉ Labor and Material Payment Bonds
 - ✉ Performance Bonds
 - ✉ Bid Bond
 - ✉ Letter of Credit
 - ✉ Vendor Parent Guarantee

Elements of Solid Contracts - II

- Review / Oversight of Design and Construction
- Well-Defined Acceptance Testing Requirements
- Information and Reporting Requirements
- Periodic Testing Provision
- Annual Operations Review by Independent Engineer
- Well-Defined Arbitration / Dispute Resolution Provisions

Elements of Solid Contracts - III

- Protection For Existing Employees
 - ✉ All Employees Offered jobs
 - ✉ Equal or Better Pay / Benefits
 - ✉ No Lay-offs for Life of Contract -- Except for Cause
 - ✉ Recognition of Existing Unions
 - ✉ No Loss of Seniority
 - ✉ No Involuntary Transfer to Off-site Position
 - ✉ Ability to Stay in the Public Pension System
 - ✉ Ability to Remain Public Employees

Elements of Solid Contracts - IV

- “Make Whole” Provision
- Termination Provisions
 - ✉ Cause
 - ✉ Convenience After the Fifth Anniversary
 - ✉ Excessive Increase in the Service Fee
 - ✉ Excessive Future Capital Modification Costs
 - ✉ Inability for Entity to Pay
 - ✉ Non-appropriation