

DISTRICTS: ALL

**VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION**
For Inclusion on Board Agenda

Resolution or Ordinance (Blue) _____
Waiver of First Requested
Recommendations of Boards, Commissions & Committees (Green) _____
Other Business (Pink) _____

TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: William T. Lichter, Village Manager

DATE: June 7, 2006 (COW) (B of T) Date: June 15, 2006

TITLE: South Booster Station Design Engineering

SUBMITTED BY: David A. Dratmol, P.E., Village Engineer



BACKGROUND/POLICY IMPLICATIONS:
See Memo

FISCAL IMPACT/FUNDING SOURCE:

Total Contract Amount: \$ 169,105.60 - W/SCapRsv
HTF Project Number: (not yet assigned)
PW Project Number: WA-07-01

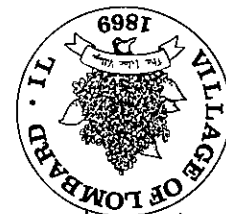
Review (as necessary):

Village Attorney	X
Finance Director	X
Village Manager	X
Date	6/7/06
Date	6/7/06

NOTE:

All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda Distribution.

InterOffice Memo



To:

William T. Lichter - Village Manager

Through:

Wesley B. Anderson, - Director of Public Works

From:

David A. Dratmol, P.E. - Village Engineer

Date:

June 7, 2006

Subject:

South Booster Station

Design Engineering

Project Number WA-07-01

In conjunction with establishing the engineering short list for Hydraulics and Hydrology, the Engineering Division requested proposals for design engineering services for the South Booster Station project, consisting of the design of a station that will accommodate transferring water between two pressure zones and 5,500 feet of water main. This facility will act as a pumping station when transferring water from the low pressure to high pressure zones, and as a pressure reducing station when transferring water from high to low pressure zones. Three firms submitted proposals. Christopher B. Burke Engineering, Ltd (CBBEL), of Rosemont, was determined to be the most qualified firm for this project.

The design engineering contract award is a not-to-exceed amount of \$169,105.60 for the design and preparation of construction documents for the project (Phase I and Phase II engineering). Of this fee, \$8,500 will be used for the architectural work, ensuring that the facility "blends-in" with the surrounding neighborhood. This fee also includes line items for County Wetland and Floodplain Permitting. These items may not be necessary depending on the final path of the water main associated with this facility. The Village Water/Sewer Capital Reserve Fund will fund this project.

Please present this agreement and resolution to the President and Board of Trustees for their review and approval at their regular meeting on June 15, 2006. If approved, please have both signed copies returned to Engineering for further processing.

cc: File: WA-07-01

RESOLUTION
R 06

A RESOLUTION AUTHORIZING SIGNATURE OF
PRESIDENT AND CLERK ON AN AGREEMENT

WHEREAS, the Corporate Authorities of the Village of Lombard have received an Agreement between the Village of Lombard, and Christopher B. Burke Engineering, Ltd. regarding the South Booster Station project as attached hereto and marked Exhibit "A"; and

WHEREAS, the Corporate Authorities deem it to be in the best interest of the Village of Lombard to approve such agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LOMBARD, DU PAGE COUNTY, ILLINOIS as follows:

SECTION 1: That the Village President be and hereby is authorized to sign on behalf of the Village of Lombard said agreement as attached hereto.

SECTION 2: That the Village Clerk be and hereby is authorized to attest said agreement as attached hereto.

Adopted this the ____ day of _____, 2006.

Ayes: _____

Nays: _____

Absent: _____

Approved this the ____ day of _____, 2006.

William J. Mueller
Village President

ATTEST:

Brigitte O'Brien
Village Clerk

APPROVAL AS TO FORM:

Thomas P. Bayer
Village Attorney

MINUTES OF MEETING

May 25, 2006

TO: Attendees

Proposal File

FROM: Mark E. Emory

SUBJECT: Consultation Meeting with Village of Lombard
Design Engineering for the South Booster Station
Project Scope Review Meeting
May 24, 2006

ATTENDEES: Wes Anderson (partial) - Director of Public Works

Dave Dratnol – Village Engineer

Angela Podesta – Supervisor Underground Utilities Division

Tom Ryan – Supervisor Water/Sewer Pump

Nick Hatfield – Civil Engineer

Thomas T. Burke - CBBEL

Mark E. Emory - CBBEL

On the above referenced date a meeting was held at the Village of Lombard Public Works Building to discuss the project scope for the CBBEL Design Engineering Proposal for the South Booster Station. The meeting was requested by the Village and was between 1:00 – 2:30 p.m.

Since the preparation of the CBBEL proposal the Village has received the "South Booster Pump Station Siting Assessment Study" prepared by Burns & McDonnell, Inc. The Village provided CBBEL with a copy of the B&M study prior to the meeting for the purpose of refining CBBEL's proposed scope of services for design engineering for the South Booster Station.

CBBEL asked if the B&M report is to be used as the basis of design for the South Booster Station or if the Village wants CBBEL to include a review effort of the B&M Study. Wes Anderson indicated that B&M had used the Village projected 2025 water demands for the modeling of the water system for the proposed South Booster that included the proposed Eisenhower Land Reservoir and Pump Station in the modeled system. The Village has since asked B&M to perform additional modeling using demands for a 5 – 10 year time frame from the present and without the inclusion of the proposed Eisenhower Lane Reservoir and Pump Station in the modeling. CBBEL questioned if as part of the B&M study the effect on the low pressure zone nodal pressures was considered such that the operation of the South Booster would not have a deleterious effect on low pressure conditions or on excessive pressure variations in the low pressure zone. The Village indicated that they would request this information from the model results and that this information would also be requested for the revised modeling to be performed. In response to CBBEL's question if

MINUTES OF MEETING

CBBEL should include a review effort of the B&M Study, the Village indicated that CBBEL should include a cursory review to establish a comfort level to proceed to design, but the Village does not anticipate that a cursory review of the B&M report would be a substantial scope item task requiring significant hours or fee.

CBBEL noted that the water main design work effort included in the proposal was based upon two blocks of new water main with a total lineal footage of 1,320 feet and that the recommended water main alignment in the B&M study included 5,637 lineal feet of proposed water main. CBBEL noted that the design fee for water main is proportional to the length of main to be designed. The Village indicated that CBBEL should revise the proposed design fee for the water main to reflect the alignment contained in the B&M study.

CBBEL noted that based upon a cursory review of aerials and floodplain maps for the proposed water main alignment that a wetland delineation and assessment study is anticipated and that the proposed alignment would require installation in the floodplain. Wetland and floodplain impacts could necessitate that County permitting is required. If County permitting is required hours would be required for preparation of the permit application and there could be an impact on the project schedule. The Village asked that in the revised work effort to be prepared by CBBEL that the permitting effort be included as separate "if needed" tasks and fee.

The Village indicated that the final water main alignment selection will be determined by CBBEL during design using the additional information gained from design efforts, i.e., CBBEL does not have to use the B&M recommended alignment if another alignment is found to be more favorable.

The water main design will include a new main on the suction side of the pump station to the existing main in Meyers Road. The new suction main may be combined and replaced with the new 14" Street or the existing distribution main may be determined during design. The Village has engineering plans for the distribution main that feeds the school on 14" Street and will provide the engineering plans to CBBEL during design.

The Village indicated that the Village is negotiating purchase of the pump station site and 30 foot wide easements for the water main along Meyers Road and along 14" Street. No engineering effort is to be included for definition of easements or for the purchase of the property. Zoning and land use for the pump station site will be addressed by the Village.

The Village anticipates providing the "Church" property with frontage on Meyers Road with a stub for water service. Internal plumbing and connection to the stub will be the responsibility of the property owner. There may be limited (one or two) other properties on the Meyers frontage that could be provided water service similar to the "Church".

MINUTES OF MEETING

The Village anticipates that the unincorporated residences between 18th Street and 22nd Street will be provided future water service. At this time a new distribution main is to be installed parallel to the proposed water (transmission) main so that the street would not have to be disturbed a second time to provide water service to the unincorporated residences in the future. Tees are to be included at street intersections to allow future distribution mains to be connected to the water (transmission) main to serve cross streets and adjacent parallel streets in the area.

The Village indicated that the limits of the topographic survey needs to include the street ROW's, the proposed easement and building corners of buildings that may receive future water service.

Each pump is to have a variable frequency drive to allow variable speed pumping. Three smaller pumps are preferred to two larger pumps. Three pumps are anticipated for the station. The Village anticipates that the pump station will be constructed in place and sees no need to evaluate "package" or "canned" stations as part of the design effort. The station will require a 30 foot minimum front yard set back and a 20 foot minimum side yard set back (the B&M study drawing shows a 15 foot minimum side yard set back). There is an access drive through the site and the access will need to be maintained. Determination if the access drive will need to be shifted will be during design.

CBBEL is to revise the Design Engineering Proposal for the South Booster Station based upon the information gained from the B&M study and from this meeting. Revisions are to be submitted to the Village as draft for review prior to finalizing. The revised proposal is to be submitted to the Village to allow sufficient time for Village review prior to the June 7, 2006 agenda deadline for the June 15, 2006 Board Meeting. The final form of the proposal and contract, if accepted, is to be as follows:

Original RFQ (unaltered)
Original SOF (unaltered)
Original RFP (unaltered)
Original Proposal (unaltered)
Minutes of this Meeting
Changes to the Proposal
Changes to the Work Effort

Scope and Fee are to be included for CBBEL's proposed Architectural Sub-consultant
Nick Hatfield will be the Village's Project Manager.

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PROJECT UNDERSTANDING

June 5, 2006 revisions from project scope meeting with Village indicated in bold type.

Christopher B. Burke Engineering, Ltd. (CBBEL) understands the Village of Lombard is seeking to increase the capability of transferring water between the two pressure zones of its water system by adding a new South Booster Station. The Village's Request for Proposal is for Design Engineering of the South Booster Station. The station design shall include the ability to transfer water in either direction between the two pressure zones. The appearance of the South Booster Station is a priority and shall be assimilated with the surrounding architectural style and character of the areas adjacent to the site selected for the station.

It is our understanding that Burns and McDonnell Engineers are ~~currently working have~~ **worked** with the Village to develop design parameters for the South Booster Station. Burns and McDonnell's work includes: 1) modeling of the South Booster Station as a component of the water distribution system, 2) evaluation of two sites for the South Booster Station, one adjacent to the Meyers Road Right-of-Way and one in the Ann Street Right-of-Way owned by the Village. The site evaluations ~~will include~~ **included** preliminary sizing of the facility and review of utility conflicts, 3) ~~developing~~ **development of** operational parameters and design criteria for the project at each site, and 4) preparation of preliminary cost estimates for each site. We understand that the Burns and McDonnell work ~~is currently in progress and not available for review at this time~~ **initial work is complete and the Village has requested additional modeling using an interim demand condition and assuming that the proposed Eisenhower Lane Reservoir Facility is not yet available for the South Pressure Zone. The Village has provided CBBEL with a copy of the initial work report prepared by Burns and McDonnell and will provide CBBEL with the additional modeling when it is available.**

The proposed facility will include the ability to pump water from the north (low) pressure zone to the south (high) pressure zone, as well as provide pressure reducing to allow water to flow from the south zone to the north zone. The north zone has an average operating pressure of 40 psi and the operating pressure in the south zone is between 60 and 90 psi. The facility will be connected to the Village's SCADA system. The Village's SCADA contractor will perform the work related to the South Booster Station SCADA. The engineering effort will include participation in meetings with the Village and the Village SCADA contractor to determine the operating scheme for the facility.

PROJECT UNDERSTANDING

The Design Engineering of the South Booster Station will include a Preliminary Engineering Phase and a Design Engineering Phase. CBBEL notes that package and/or pre-fabricated booster pump stations have become increasingly popular in the waterworks industry. CBBEL will review during the Preliminary Engineering Phase the merits that a package station may offer to the Village in terms of cost, construction schedule and ability to conform with the high priority of architectural treatment needed to blend in with the selected site. The pump station will be a built in place pump station and a package pump station will not be evaluated. During the Preliminary Engineering Phase the project requirements will be reviewed and engineering scope will be refined as necessary, project data and survey will be collected, design parameters and standards will be established, and construction packages will be analyzed. Village ownership of Right-of-Way shall be verified and the easements needed for the project shall be reviewed during the Preliminary Engineering Phase. **No surveying or engineering time is required for plats of easements and property. Plats of easements will be provided to CBBEL by the Village. A Project Development Report (PDR) will be prepared to summarize the Preliminary Engineering work upon completion of the preliminary phase. The PDR will include analysis of the recommended site, required off-site improvements, and identification of specific equipment and manufacturers that will be used for the project. The final water main alignment will be determined by CBBEL from the alternative alignments identified by Burns and McDonnell. Deliverables shall conform with the Request for Proposal and include submittal of the draft and final PDR as well as presentation of the PDR to Village Committees and Board.**

The contract documents for the project will be prepared during the Design Engineering Phase. The scope of the Design phase includes attending and making a presentation at a public information meeting, preparing and submitting project permits for execution by the Village and engineering activities related to temporary and permanent easements for the project. The Design shall be prepared to applicable Village, County and IEPA criteria; roadway restoration shall conform to IDOT and Village criteria. The contract documents shall be prepared in the Village's standard format. Deliverables shall conform with the requirements in the Request for Proposal and include document submittals at 65%, 95% and QA/QC 100% completion intervals as well as completed permit forms. The engineer's opinion of probable construction cost shall be updated and submitted with each document submittal.



PROJECT UNDERSTANDING

PROPOSED SCOPE OF SERVICES

PRELIMINARY ENGINEERING PHASE

Task 1 – Project Meetings and Data Collection: CBBEL will meet with the Village to collect and review pertinent available information related to the project. This will include the information to become available from Burns and McDonnell's work effort. Other information may include boundary survey, utility atlases, and soils report. CBBEL will meet with Village staff to discuss pertinent data and design philosophy for the facility and to present the Preliminary Engineering results to the Village:

- a. Requirements of Project
- b. Review and Collect Available Data
- c. Refine Project Scope
- d. Progress Review Meetings
- e. Meeting with Village and Village SCADA contractor
- f. Committee and Board Presentation

Task 2 – Survey: CBBEL will perform a topographic survey of the site for use in preparation of base sheets. The survey work will include verification of right-of-way ownership and ~~review of any easements which may affect the project.~~ The limits of topographic survey shall be right of way to right of way plus easements obtained by the Village plus building corners of residences that may be provided future water service in an unincorporated area along the segment of the final water main alignment.

- a. Site Topographic Survey
- b. Base Map Preparation
- c. Right-of-Way Ownership Verification
- d. Easements Obtained by the Village (Topo)
- e. Building Corners of Residences that may Receive Future Water Service

Task 3 – Preliminary Design: CBBEL will perform Preliminary Design Engineering to establish the project parameters needed to proceed to the Design Engineering Phase:

- a. Analysis of Site
- b. Design Parameters and Recommended Standards
- c. Facility Components and Site Layout
- d. Architectural Treatment
- e. Major Equipment
- f. Automated Controls and SCADA Requirements
- g. Standby Generator and Silencing Requirements

PROJECT UNDERSTANDING

- h. Landscaping
- i. Permitting Requirements
- j. Off-Site Requirements
- k. Construction Packages
- l. Preliminary Engineer's Opinion of Probable Construction Cost
- m. Wetland Assessment Report

Task 4 – Project Development Report: CBBEL will prepare the Project Development Report as articulated in the Project Understanding and per the Village's Request for Proposal:

- a. Draft PDR
- b. Final PDR

DESIGN ENGINEERING PHASE

Task 5 – Design Meetings: CBBEL will attend meetings related to the Design Engineering Phase:

- a. Progress Meetings
- b. Public Information Meeting and Presentation
- c. Board Presentation

Task 6 – Design (Contract Documents): Please note that the survey and design work effort was revised to reflect the water main length contained in the Burns and McDonnell report. CBBEL will prepare contract documents required for the South Booster Station:

- a. Drawing Preparation
- b. Specification Preparation
- c. Progress Submittals
- d. Engineer's Opinion of Probable Construction Cost

Task 7 – Permits: CBBEL will prepare permit forms for the project listed below:

- a. IEPA Construction Permit
- b. County Permits (if required)
- c. Village Building Permits
- d. IDOT Permits (if required)
- e. DuPage County Wetland Permit (if required)
- f. DuPage County Floodplain Permit (if required)



PROJECT UNDERSTANDING

Task 8 – Bidding: CBBEL will assist the Village with the Bidding Phase for the project per following sub-Tasks:

- a. Attend Pre-Bid Meeting
- b. Respond to Bidder Questions
- c. Prepare Addenda (if required)
- d. Review Bids Received
- e. Recommend Award of Project

CBBEL has included Scope for an Architectural Subconsultant to address the pump station building footprint and building facade including exterior materials of construction for walls, roof and trim.



PROJECT UNDERSTANDING

PROPOSED SCHEDULE

CBBEL understands that the Village intends to issue a Notice to Proceed in early April 2006 and intends to have this project ready for bid by April 2007. We have based this proposal and our Proposed Schedule upon these dates.

Please note that if DuPage County Wetland and/or Floodplain Permitting is required, there may be an impact on the Schedule to include the required time for the processing and receipt of these permits.

The attached bar chart shows the time duration for each of the enumerated tasks, with appropriate review periods after the submission of the PDR, 65%, 95% and QA/QC 100% submittals.



WORK EFFORT AND FEE STRUCTURE
SOUTH BOOSTER STATION
 February 3, 2008
 Revised June 6, 2008 Per Project Scope Meeting with Village

Task	Project Manager	Project Engineer	Design Engineer	Civil Engineer	Survey Manager	Survey III	Survey II	Survey I	CAD Manager	Engineer Technician III	Environmental Resource Specialist V	Environmental Resource Specialist IV	Environmental Resource Specialist III	Environmental Resource Specialist II	Environmental Resource Technician	Administrative	Total Hours	Total Cost
Preliminary Engineering																		
Task 1 - Project Meetings and Data Collection	(Eg. VI)	(Eg. V)	(Eg. IV)	(Eg. III)	(Eg. II)												3	\$2,013.99
Task 2 - Survey																	383	\$2,013.99
Task 3 - Preliminary Design																	76	\$2,013.99
Task 3.m - Wetland Assessment Study																	28	\$2,013.99
Task 4 - Project Development Report																	48	\$2,013.99
Task 5 - Design Meetings																	39	\$2,013.99
Task 6 - Design (Contract Documents)																	10	\$2,013.99
Task 7 - Permit (if required)																	2	\$2,013.99
Task 7.a - Burage County Wetland Permit																	2	\$2,013.99
Task 7.b - Burage County Floodplain Permit (if required)																	68	\$2,013.99
Task 8 - Bidding																	148	\$2,013.99
Subtotal																	25	\$2,013.99
% of Hourly																	148	\$2,013.99
Total Cost																	148	\$2,013.99
Multiplier																	148	\$2,013.99
Sub-Consultant (Architectural)																	148	\$2,013.99
Total Cost																	148	\$2,013.99

* Average rate for classification
 ** Work Effort Based Upon Assumed 2 Weeks (1,320 Linear Feet) of Water Main Survey and Design Located Within Village ROW - Subject to Negotiation Based on Actual Staff Required
 Items in Bold Revised and/or Added After Project Scope Review Meeting with Village

VILLAGE OF LOMBARD

CONTRACT

CONTRACT DOCUMENT NUMBER WA-07-01

This agreement is made this the _____ day of _____, 2006, between and shall be binding upon the Village of Lombard, an Illinois municipal Corporation hereinafter referred to as the "VILLAGE" and Christopher B. Burke Engineering, Ltd. hereinafter referred to as the "ENGINEER" and its successors. Witnessed, that in consideration of the mutual promises of the parties delineated in the contract documents, the ENGINEER agrees to perform the services and the VILLAGE agrees to pay for the following services as set forth in the contract documents:

The design, preparation and delivery of construction documents for the South Booster Station project.

1. This contract shall embrace and include all of the applicable contract documents listed below as if attached hereto or repeated herein:

- a. VILLAGE request for qualifications, dated January 18, 2006
- b. ENGINEER'S Statement of Qualifications, dated February 3, 2006
- c. South Booster Station Request for Proposal consisting of the following:
 - i) Cover Sheet
 - ii) Table of Contents
 - iii) General Provisions
 - iv) Special Provisions

d. ENGINEER'S Proposal Dated: February 3, 2006

e. Letter from ENGINEER documenting the scope and fee negotiation Dated: June 5, 2006

f. Required Certificates and Signatures and Certificate of Insurance

2. The VILLAGE agrees to pay, and the ENGINEER agrees to accept as full payment for the services, which are the subject matter of this contract in accordance with the General Provisions.
3. This Contract represents the entire agreement between the parties and may not be modified without the written approval of both parties.

IN WITNESS WHEREOF, the Village of Lombard, Illinois by William J. Mueller, Village President, and the ENGINEER have hereunto set their hands this the _____ day of _____, 2006.

If an individual or partnership, all individual names of each partner shall be signed or if a corporation, an officer duly authorized shall sign here:

Christopher B. Burke Engineering, Ltd.

Accepted this _____ day of _____, 2006.

Individual or Partnership _____ Corporation _____

By _____
Position/Title _____

By _____
Position/Title _____

THE VILLAGE OF LOMBARD, ILLINOIS

Accepted this the _____ day of _____, 2006.

William J. Mueller, Village President
Attest:

Brigitte O'Brien, Village Clerk

VILLAGE OF LOMBARD

ENGINEER'S CERTIFICATION

_____, having been first duly sworn depose and states as follows:
(Officer or Owner of Company)

_____, having submitted a proposal for:
(Name of Company)

South Booster Station Design Engineering to the Village of Lombard, hereby certifies that said
ENGINEER:

1. has a written sexual harassment policy in place in full compliance with 775 ILCS 5/2-105(A) (4).
2. is not delinquent in the payment of any tax administered by the Illinois Department of Revenue, or if it is:
 - a. it is contesting its liability for the tax or the amount of tax in accordance with procedures established by the approve Revenue Act; or
 - b. it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement.
3. is in full compliance with the Federal Highway Administration Rules on Controlled Substances and Alcohol Use and Testing, 49 CFR Parts 40 and 382 and that

(Name of employee/driver or "all employee drivers")
is/are currently participating in a drug and alcohol testing program pursuant to the aforementioned rules.

By: _____
Authorized Agent of ENGINEER

Subscribed and sworn to
before me this the _____
day of _____, 2006.

Notary Public