



Engineering Inc. 155 E. Front Street (rear) Lititz, PA 17543
Phone (717) 625-1930 Fax (717) 625-1931

July 1, 2009

Bethel Township Municipal Authority
PO Box 24
Bethel, PA 19507
ATTN: David Younker, Chairman

RE: Monthly Report for June '09

Dave and Board Members,

This office has been working on the following items this past month and would like to update the Board as follows: (items denoted with "*" have accompanying information in the Board's packet. Items denoted with "**" have been forwarded to board members prior correspondence this month).

DEVELOPMENT PLANS FOR BOARD REVIEW AND/OR ACTION (POTENTIAL VISITORS):

1. Bethel Resident concerns and work items:
 - a. As a follow up to the restoration work for curb and paving adjacent to the Old 22 pump station we have discussed the curb replacement with the contractor. Please reference Plan Revisions/Change Orders (# 1b below).
 - b. A resident along Old Route 22 has brought some flooding concerns to our attention. We have gathered some information and would like to present our current findings to the Board this evening.
2. Fristown Resident concerns and work items: This office received a letter from Bethel Township itemizing various resident concerns as follows:
 - a. *Clogged culvert along SR 0645 adjacent to Manada Construction (please refer to attached photo and findings).
 - b. Two (2) other claims which are being followed up on presently and will provide the information once available.

FINANCING MATTERS (PENNVEST & PENNWORKS):

3. *This office is recommending payment of invoices (separate correspondence to the Board) for the construction project for the following listed contracts (through to 06/19/09) which would require Board action for payment. The payment details are attached (separate correspondence) and summarized as follows:
 - a. Contract # 1 Fristown collection lines (96% complete to date).
 - b. Contract # 2 Bethel collection lines (93% complete to date) NO Payment this period.
 - c. Contract # 3 Bethel Pump Stations (85 % complete).
 - d. Contract # 4 Bethel Wastewater Treatment Plant (97% complete).

- e. Contract # 5 Frystown Wastewater Treatment Plant (63% complete).
- f. Contract # 6 Mechanical Systems for WWTP and appurtenances (66% complete).
- g. Contract # 7 Plumbing Systems for WWTP and appurtenances (58% complete).
- h. Contract # 8 Electrical Systems for WWTP and appurtenances (72% complete).
- i. OVERALL PROJECT (ALL CONTRACTS) 81.7 % Complete.

CONSTRUCTION MANAGEMENT AND LOGISTICS:

- 4. Our inspection reports are available to the Board members (via our website) and can be furnished (paper copies) upon request. In summary the work has been progressing as follows:
 - a. **Contract # 1** – Frystown Collection Lines. Punch List work is being completed this past month and continues (not complete yet). As an update the work progresses as follows:
 - i. As a follow up to an inquiry made last month this office contacted Joe Marko (McTish, Kunkel & Associates). Joe is working as a consultant for Penn DOT who inspected the work for the bituminous concrete pavement trench restorations on the Penn DOT highways for Contract 1 (SR 0645 Camp Swatara Road and SR 4002 Frystown Road). Joe stated that as far as the field work is concerned, he is satisfied with the work that B.F Brown & Co did on the pavement restorations for Contract 1
 - ii. **The Township received bids for paving work (entire width) of Township roadways with a separate contract. PENNVEST and PADEP have made the following determinations with this proposal:
 - 1. The proposal is acceptable but payment is limited to trench width plus two feet.
 - 2. PENNVEST deferred any bidding requirements to the Authority's further interpretation.
 - iii. As part of the final punch list items, this office found several (three) test tees with broken extensions & caps. These particular laterals were adjacent to alleys or driveways. The corrective work on the punch list has brought the below matters to discuss with the Board:
 - 1. Should the Authority provide protective sleeves on all test tees?
 - 2. The contractor has indicated they will replace the broken riser and cap but will not be responsible for the testing and replacement of any broken laterals.
 - iv. The contractor has requested release of the retainer with this pay request with the condition that any funds shall not be released by the Authority until all punch list items are satisfactorily completed. However, due to PENNVEST/PADEP certification requirements we are unable to honor this request at this time.
 - v. The contractor (as a follow up to the paving work) in response to the punch list work items has requested that the Township's paving

contractor complete the restoration work for the following two (2) driveways:

1. 501 Frystown Road. A protective sleeve was added to this lot as part of the punch list items requiring corrective work to the driveway.
 2. 1940 Camp Swatara Road (Manada Construction driveway). This driveway restoration was missed with the recent restoration (paving) work along SR 0645.
- b. **Contract # 2** – Bethel Collection Lines. No work was completed this past month on this contract.
- i. The Final Punch list of this contract (exclusive of Northern extension) should be completed within the next week.
 - ii. The contractor is receptive at this point in holding up the substantial completion determination until the northern extension work is finalized.
- c. **Contracts # 3 – # 8** The work on the various contracts continues in varying degrees. We continue holding regular (weekly) progress meetings for ALL contractors, engineers, etc. in order to facilitate coordination of all parties.
- i. There have been a few change orders proposed as result of reviewing various submittals etc. and are discussed below.
 - ii. The startup (Bethel system) has been delayed approximately two (2) weeks due to some equipment tests and setup. As soon as all schedules are finalized and submitted we will forward the certain date.
 - iii. This office continues to coordinate the startup operations with all the various contractors and suppliers.

PLAN REVISIONS AND/OR CHANGE ORDERS:

5. Contract # 2 – Proposed Change Orders :

- a. *CHANGE ORDER # 8 REVISED (Air Release Valve Changes) - We have attached copies of this change order and will verbally present it this evening. This change order was previously reviewed and denied for the amount of hours (excessive) presented. The revised change order presented has significantly reduced the number of hours.
- b. *CURBING QUOTE - As a follow up to some restoration work (adjacent property to the Old 22 pump station) Mark Contracting has proposed that they will remove the installed curb (subjectively defective) and will restore the surrounding area as required. However they will not complete the curb replacement work but are asking the property owner's contractor provide this curb at an additional cost to the authority. (copy attached)

6. Contract # 3 – Proposed Change Orders:

- a. *Change Order # 2 – Pump Stations (Old Route 22) – Grading Changes. We have attached copies of this change order and will verbally present it this evening. This change order was required as a result of some grading changes made to the Old Route 22 Pump station site to meet with the adjoining property owners requirements, provide a drainage swale and adequate maneuvering room for maintenance of the pumps, etc.
 - b. *Corrective work (pump piping): The contractor has indicated they would prefer not to make any corrective work to the piping (skewed alignment) but would stand behind the work even beyond the warranty period. This office is awaiting a final determination from Gorman Rupp (pump manufacturer).
7. Contract # 4 – (Bethel WWTP) Proposed Change Orders:
- a. *Change Order # 4 – Tank Coatings. We have attached copies of this change order and will verbally present them this evening. This change was required in order to provide the tank coatings to the influent lift station, the flow splitter, equalization tank as well as the wet wells (2 pump stations for Contract # 3).
 - b. *Change Order # 5 – Additional Site Grading. We have attached copies of this change order and will verbally present them this evening. This change was required in order to provide a more fluent access around the wastewater treatment plant and facilities as well as to provide for site access to the ramps added (tank structures), field changes made with tank elevations as well as overall drainage patterns.
 - c. *Change Order # 6 – Chemical Feed Lines. We have attached copies of this change order and will verbally present them this evening. This change was required in order to provide the chemical feed lines as added in prior equipment change order approvals (future use).
8. Contract # 5 – (Bethel WWTP) Proposed Change Orders:
- a. *Change Order # 4 – Tank Coatings. We have attached copies of this change order and will verbally present them this evening. This change was required in order to provide the tank coatings to the influent lift station, the flow splitter and equalization tank.
9. Contract # 8 – Proposed Change Orders:
- a. *Change Order # 11 - Electrical Contract (Bethel WWTP, Old 22 Pump Station, Lancaster Avenue Pump Station & Frystown WWTP) CHEMICAL FEED change. We have attached copies of these change orders and will verbally present them this evening. These changes are to add 2 quad (4 position receptacles) in order to accommodate all the power requirements needed for the chemical feed pumps and mixers, one of the receptacles will be switched on and off by the Dutchland panel as part of the overall plant process. This is to install the wiring and conduit and terminate at the supply panel and Dutchland control panels.

- b. *Change Order # 12 - Electrical Contract (Bethel WWTP, Old 22 Pump Station, Lancaster Avenue Pump Station & Frystown WWTP) CHEMICAL FEED change. We have attached copies of these change orders and will verbally present them this evening. These changes are to run a set of shielded wires from the influent well panel to the OCC control panel in the operator's office so we can pick up real time well levels at Bethel and Frystown sites. We do have influent flow (GPM) in the panel but not well level. The only way to include in on the OIT screen and in the computer screen shots (SCADA) is to include this connection. This quote includes the electrical installation and some programming changes by OCC in the PLC in the main control panel.
- c. *Change Order # 13 - Electrical Contract (Bethel WWTP & Frystown WWTP). We have attached copies of these change orders and will verbally present them this evening. These changes are to add a set of shielded wires from the OCC main control panel to the VFD's that control the speed of the 2 main blowers. Original design shows the DO probe which puts out the signal going to the Dutchland panel however we did not show a link between the 2 panels (Process Panel and Main Control Panel) so it could be read by the main control panel PLC. If we do not loop it thru the main panel we will not be able to read real time DO levels on the screens. They will only be available on the DO probe panel screen located at the Aeration Tank but not on the SCADA or OIT screens in the operator's office.
- d. *Change Order # 14 - Electrical Contract (Bethel WWTP & Frystown WWTP). We have attached copies of these change orders and will verbally present them this evening. This Change Order was presented last month as CO # 11 without the costs. We are providing the costs for the Board members further review. These changes are for the flow monitors (pump equipment) as discussed and approved last month.

OTHER MATTERS REQUIRING BOARD REVIEW AND/OR ACTION:

10. Miscellaneous construction matters:

- a. *Standard connection details with narrative: As a follow up to our discussion last month we are providing the board members with the most recent details (and narrative) to be distributed to the homeowners and contractors for the connections.
- b. Standard connection permit: Last month we provided an additional copy of our prior draft permit to be used for residential sewer connections. This can be an editable PDF version posted on our website for the convenience of homeowner's and the Authority but will await final direction.

11. Plant Operations: As authorized last month the operator (Select Environmental Solutions) has signed the contract for plant operations.

- a. We have included the operator in the various appropriate equipment startups and training sessions and will continue to do so as necessary.
- b. *The Plant Operator has prepared a list of preferred equipment for plant startup which we have reviewed and are forwarding to the Board for further discussion and action.

12. Lining Work for Manholes and Logistics

- a. This office assisted PENNVEST staff and consultants as they reviewed the pending funding application.
- b. This office is available to attend the PENNVEST Board meeting as may be necessary.

13. NORTHERN EXTENSION (Klahr Road).

- a. Work this month primarily focused on finalizing the survey information (topographical) and environmental concerns, with this information gathered we will focus on finalizing the layout and design.
- b. This office is available to attend the PENNVEST Board meeting as may be necessary.

PUBLIC RELATIONS/ MISC. INFORMATION:

14. *This office has prepared a preliminary (current) budget status for the Board's review. However, the Board may want to consider scheduling an additional meeting to address the budget, financing matters (PENNVEST actions on 7/21/09) and other pressing matters. A more certain schedule (startup) should be known at that time for determining connections as well.
15. We will continue working with Terry Parish on the various ordinances as necessary.

Should there be any questions, please feel free to contact me.

Sincerely,

Vision Engineering, Inc.

Bethel Township Municipal Authority Engineer

John K. Roche, P.E.

cc: Terry Parish, Esq. (w/attachments)