MAIDENCREEK TOWNSHIP AUTHORITY

Meeting on March 11, 2015

Engineer's Report

1. Sewer Treatment Plant

Systems Design Engineering is working with the General Manager on other projects as requested:

1. RAS/WAS Pump seals – ongoing with Pat D. on pump evaluations
2. Sludge dewatering system – Preliminary design reviewed with Pat D. We are putting on the radar again because of potential difficulties of getting rid of liquid sludge.
3. Plant operations and the UV system.

The Chapter 94 Report will be presented for review and approval.

2. Utility Water Project

The Utility Water Project bids were received on May 7, 2014.

The responsible low bid is:

Blooming Glenn Contractors
901 Minsi Trail
Blooming, PA 18911

Contracts A & B Combined - $91,366.50

Construction is complete and the system is operating. When the weather breaks final paving remains.

3. Phosphorus Building Project

The Phosphorus Building Project bids were received and contracts are being compiled.

The responsible low bids are:

Advanced Rehabilitation Technology
Contracts A - $414,000

Eastern Environmental Contractors, Inc.
Contracts B - $38,380

4. **Well 6 Property**

Systems Design is proceeding with bid documents for the construction of Wells 6 and 7. SDE has also begun work on how to handle all the water that will be created from the drilling and drawdown tests.

5. **GIS Project**

Systems Design has continues to develop the GIS system with base plans and data.

Work accomplished this month is as follows:

- Populating information within the database for both water and sewer.
- Scanning historical data to link to the database.

We will present the work to date and show the Route 222 PennDOT planned work.

6. **Sludge Equipment Replacement**

The low bid for the equipment is:

Watermark Environmental Systems
Exton, PA 19341

Total bid - $41,711,00

Contracts will be presented for signature.

7. Surge Protection Project

The low bid for the equipment is:

Hirneisen Electric, Inc.
1619 Old Lancaster Pike
Reading, PA 19608

Total Bid - $83,854.00

Contracts will be presented for signature.

- **Subdivision / Land Development Plans**

  Bradley Subdivision
  2nd review for approval.

  PennDOT SR 222 Project
  Systems Design is assisting with providing information to PennDOT on their proposed project and how is effects the Authority's water and sewer utilities. SDE has begun the evaluation of the project for the Authority's consideration of how to handle existing and future lines.

- **Project Closeouts**

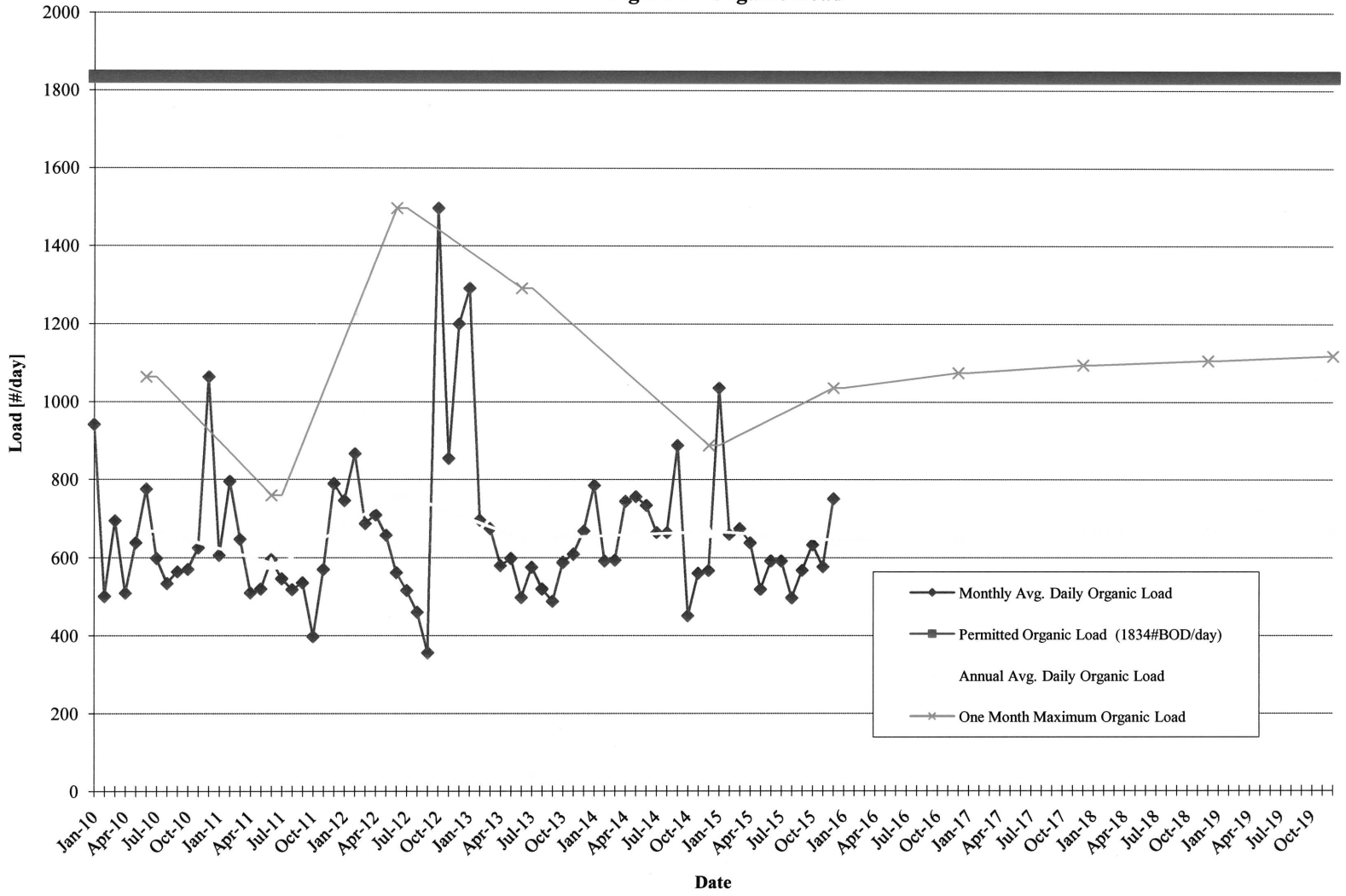
  Melrose Place - The closeout letter presented in September was sent to the Developer. Punchlist items are progressing.

  Villages at Summit Crest Phases I and II - Systems Design Engineering is supporting continuing efforts of the Solicitor on the project.

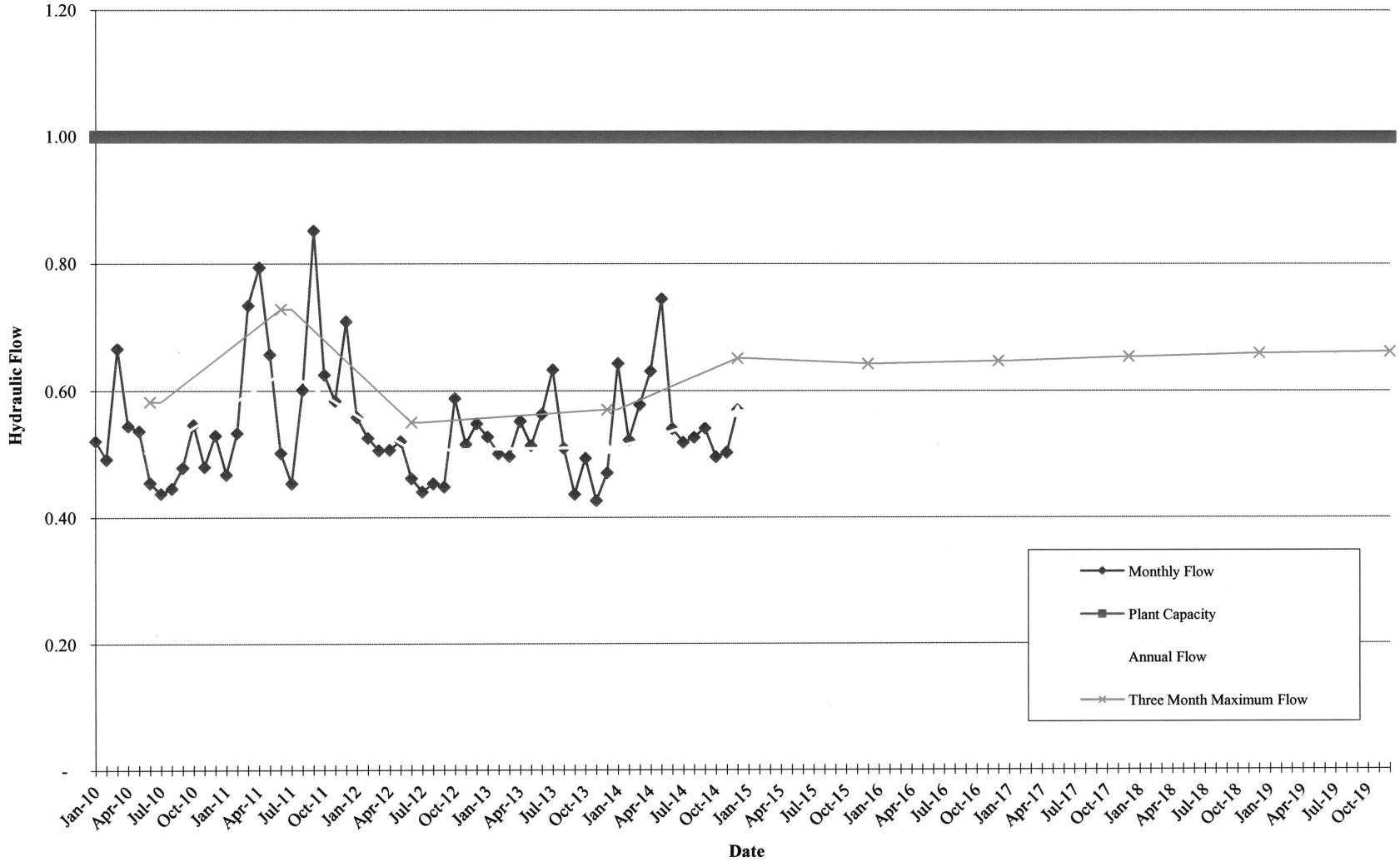
  Esbenshades Greenhouse – An inspection is being scheduled to view the backflow devices installed.

Report written 3/11/15
I:\Projects\Old Projects\Greg's Computer\Documents\Maidencreek\Meetings\2015\150311.doc

MAIDENCREEK TOWNSHIP AUTHORITY
SEWAGE TREATMENT PLANT
Figure 2 - Organic Load



MAIDENCREEK TOWNSHIP AUTHORITY
SEWAGE TREATMENT PLANT
Fig. 1 - Hydraulic Load



Systems Design Engineering, Inc.
Engineers • Surveyors • Planners • Construction Managers

March 11, 2015

Maidencreek Township Authority
PO Box 289
1 Quarry Road
Blandon, PA 19510

Re: Bradley Subdivision
Preliminary Plan
2nd review

Dear Authority Members:

We are in receipt of a subdivision plan entitled Preliminary Plan Bradley Subdivision prepared by Stackhouse Bensinger.

The plan proposes to create:

Lot 1 – 23,915 S.F.
Lot 2 – 1.50 acres
Annexation Parcel – 1.070 acres
Parcel A Residue – 21.042 acres
Parcel B & C Residue – 14.127 acres

The plan submittal consists of 2 sheets as follows:

TITLE	SHEET NUMBER	DATE	REV.
Layout Plan	2014-093-D-1.1	2-17-2015	1.
Subdivision Plan	2014-093-D-1.2	2-17-2015	1.

We have reviewed the above referenced plans and have the following comments for your consideration:

General:

1. Lot 1 has existing Public Water and Sewer
2. Lot 2 proposes on-site Water and Sewer, unless the on-site sewer fails then connect to Public
3. Residue tract states Public Sewer and on-site Water.

Sewer:

1. Applicant shall show all public sewer utilities in Lee Spring Road. **Completed and acceptable.**
2. Applicant shall provide rational for Lot 2 sewer connection in right-of-way/easement across Lot 1 and other private property instead of Lee Spring Road to include the profile of Lee Spring Road. **Note provided on the plan that states Lot 2 will be connected to a new sewer extension in Lee Spring Road if the on-lot system fails and an alternate system is required. It is not proposed to be connected at this time.**
3. Alternately, remove statement about Public connection and remove future easement shown on the drawing. **Removed and acceptable.**

Water:

1. Applicant shall show all public water utilities in Lee Spring Road. **Completed and acceptable.**

Please contact the undersigned with any questions:

Respectfully Submitted
Systems Design Engineering, Inc.

Gregory T. Unger, P.E.
Authority Engineer

CC: Maidencreek Township Supervisors
Maidencreek Township Planning Commission
Dan Becker, Esq.
The Village of Summit Crest, LLC
Stackhouse Bensinger, Inc.
File I:\Projects\Maidencreek Township Authority\15-0466-0522 Bradley Subdivision\150311 2nd review.docx

SDE

Systems Design Engineering, Inc.
Engineers • Surveyors • Planners • Construction Managers

March 6, 2015

Maidencreek Township Authority
PO Box 289
Blandon PA, 19510

Re: Brandywine Transportation
Public Sanitary Sewer & Water Review
Maidencreek Township
Berks County, Pennsylvania

Dear Authority Members:

We have reviewed the Plans labeled "Final" for "Brandywine Transportation" (plans prepared by Applied Surveying Technologies, Inc. with the application agent John W. Hoffert, PLS, Ltd.) concerning sanitary sewer and water and offer the following for your consideration:

Sheet No.	Plan Name	Date	Revision
1 of 8	Title Sheet	08/11/14	3/04/15
2 of 8	Overall Boundary	08/11/14	2/17/15
3 of 8	Rights-of-Way/Easements	08/11/14	2/17/15
4 of 8	Land Development Plan (East)	08/11/14	2/17/15
5 of 8	Land Development Plan (West)	08/11/14	2/17/15
6 of 8	Detail Sheet	08/11/14	2/17/15
7 of 8	Existing Features Plan (East)	08/11/14	2/17/15
8 of 8	Existing Features Plan (East)	08/11/14	2/17/15

GENERAL

The proposed land development plan is for the construction of office/sales and maintenance building for buses including parking facilities for employees and buses, training area for bus drivers, associated stormwater facilities, and served by on-lot water and public sewer. The maintenance is to include cleaning and washing of the school buses. The public sewer is to be provided with a sewer extension.

SANITARY SEWERS

1. The proposed flow from the facility is to be 213 gpd as calculated by the Applicant's agent. The sewer tapping fee using this flow rate will be $13.77/gpd which equates to $2,933.01. In order for the Authority to bill for the sewer flows, a meter will need to be installed on the water source. The quarterly sewer bills would be based on the meter readings.

   3.6.15 - Note 23 was added to the plans concerning the meter. Comment satisfactorily addressed.

2. The Owner will be responsible for all applicable costs (tapping fees, review fees, permit fees, etc.). The owner will also be responsible for the cost and installation of the meter. The meter will be provided by the Authority, but the size of the meter needs to be determined by the property owner. A note shall be placed on the plan stating that "Additional fees may be required based on sewer use reviewed on a yearly basis complying with all rules and regulations of the Maidencreek Township Authority for tapping fees".

   3.6.15 - Notes 23 and 24 were added to the plans. The same note as in Note 24 shall also be included in the Developer's Agreement. Additionally the Township Solicitor should review and approve the Improvement's Agreement which shall include an escrow of the proposed sanitary sewer extension. Comment partially addressed.

3. The Application notes bus washing will be performed, and it appears to be in only 1 of the 4 bays. The appropriate type and size interceptor/separator in accordance with the International Plumbing Code and the Rules and Regulations of the Authority will be required for the bus washing operation. It is unclear if there will be a small kitchenette installed for the facility. Information on the type of proposed kitchen should be submitted to the Authority for review. A grease trap may be required for the kitchenette. A complete set of plumbing plans will be required to show these required facilities per Code.

   3.6.15 - Note 25 was added to the plans to address the interceptor/separator, but no information was offered concerning the kitchenette. Once the plumbing plans are received, the type can be addressed with the applicant prior to the issuance of the building permit. Comment satisfactorily addressed.

4. The proposed vertical separation distance between the relocated gas main and the new sewer extension is 1.5 feet (18 inches). We recommend that the sewer extension be shortened and installed within the proposed public right-of-way with the lateral connected to this shorter extension. We do not recommend the Authority approve the sewer extension and sewer easement as shown on the plans. The shorter sewer extension in the public right-of-way does not require a sewer easement. The only portion of the lateral that would be the Authority's responsibility is the section within the public right-of-way. The lateral/building sewer would be the utility to cross the relocated gas main and not the sewer main. At a minimum, details for the sanitary sewer trench bedding, backfill and restoration along with the manhole detail, frame and cover, lateral connection, and a detail on the connection to the existing manhole with the appropriate pipe to manhole adapter noted in the detail. A detail for concrete encasement may be required for the lateral/building sewer.

   3.6.15 – The proposed sewer extension of the 8" main was revised to be completely within the public road right-of-way that is being offered to the Township for dedication. The Authority should not take dedication of the 8" main until after the Township has taken dedication of the road right-of-way. The proposed relocated gas main is approximately 10 feet from the proposed manhole and the private lateral is the facility that crosses the main. Comment satisfactorily addressed.

5. A clearer plan view reflecting the existing road right-of-way should be provided.

   3.6.15 – The plans have been revised to reflect the right-of-ways. Comment satisfactorily addressed.

6. A Township road opening permit will be required for the proposed sewer extension.

   3.6.15 – Comment acknowledged by applicant's engineer.

WATER

1. The Developer is proposing that the facility be served by on-lot water and the plans reflect both a primary well location and an alternate proposed well location. The applicant's agent submitted a letter dated November 18, 2014 requesting a waiver of SALDO Section 190-16.I – Water Resources Study. Per this SALDO Section, the Authority shall make the determination whether a Water Resources Study will be required for this proposed Land Development Plan. The proposed non-residential development tract size is 24.51 gross acres with approximately 1/3 of the tract proposed to be developed. Of the area being developed, most of the proposed lot coverage will be gravel. The soil groups on the property are hydrologic groups B and D. Please note that a condition of the Zoning Hearing Board Decision was that no more than 30 buses per week are to enter and/or exit the property.

It is our recommendation with the proposed small water and sewer demand of 213 gpd, and considering the size of the tract and type of coverage, that the Authority recommend to the Township that the waiver of SALDO Section 190-16.I be granted by the BOS. However, if at any time the intensity of the facility increases including the number of buses and employees, and/or expansion of the facility, the Authority and Township reserve the right to request a Water Resources Study. A note shall be placed on the plans stating the above.

3.6.15 – The Authority at their February 11, 2015 meeting recommended that the Water Resources Study waiver should be considered by the BOS. Comment satisfactorily addressed.

2. A backflow prevention device is recommended to be provided to protect the ground water source.

3.6.15 – Note 26 was added to the plans. Comment satisfactorily addressed.

GENERAL

1. After Final Plans are received and comments are addressed to the satisfaction of the Authority, four (4) copies of Final plans will need to be submitted to the Authority for approval along with any additional documentation required by the Authority and the Authority Solicitor, and including an Improvements Agreement for the proposed sewer improvements will need to be established.

3.6.15 – SDE recommends that the Authority consider approving the Brandywine Transportation plans with the following conditions: the issues in comment number 2 under "Sanitary Sewers" shall be satisfactorily addressed and any documentation that is required by the Authority Solicitor for the future dedication shall be approved by the Solicitor prior to the dedication of the sewer extension.

Sincerely,
SYSTEMS DESIGN ENGINEERING, INC.

Pamela J. Stevens, P.E.
p.stevens@sdei.net

cc: Maidencreek Township Supervisors
Maidencreek Planning Commission
Applied Surveying Technologies, Inc.
John W. Hoffert, PLS, Ltd.
Wesner Land Associates, LLC.
File 15-0466-0538