



# REQUEST FOR QUOTATIONS

To be used for Professional Services less than \$250,000.  
Advertisement is not required

# REQUEST FOR QUOTATIONS FOR PROFESSIONAL ENGINEERING SERVICES

**Sullivan County  
Sonestown Sewer System Improvements  
Davidson Township  
Sullivan County, Pennsylvania**



**EQUAL HOUSING  
OPPORTUNITY**

Contact: Cody Hoover

Quotations Solicited by:

Davidson Township, Sullivan County

Date of Posting: July 31, 2024

## REQUEST FOR QUOTATIONS

Sullivan County is requesting quotes for the purchase of professional Engineering services. These services include all necessary design and specifications for the bidding of and contracting for the Sonestown Sewer System Improvements project. Complete quotation details, including the required quotation format, may be obtained by contacting:

Cody Hoover, Project Coordinator  
SEDA-COG  
201 Furnace Road  
Lewisburg, PA 17837

Quotation details are also available at [www.seda-cog.org](http://www.seda-cog.org) – News, Notices, Publications.

A non-mandatory pre-bid meeting will be held August 14, 2024, at 10:00 AM.

Quotations will be accepted until Friday, September 6, 2024, prevailing time, 3:00 PM. They will be publicly opened at the Sullivan County Courthouse on Tuesday, September 10, 2024, at 10:00 AM. Quotations shall be on the forms required, sealed and clearly marked on the outside, "Sonestown Sewer System Improvements Project," and submitted to:

Hope Verelst, Chief Clerk  
P.O. Box 157  
245 Muncy Street  
Laporte, PA 18626

**Quotations that are faxed or e-mailed to SEDA-COG or Sullivan County cannot be accepted.**

## **Request for Quotes**

**Sullivan County  
Sonestown Sewer System Improvements  
Davidson Township  
Sullivan County, Pennsylvania**

Sullivan County proposes to use a recently approved Community Development Block Grant to request quotes for the purchase of professional Engineering services. The following narrative outlines the major responsibilities of the proposers. These responsibilities include the entire project from design to final inspection. It should be recognized by all proposers that the Scope of Services included herewith might exclude some minor, incidental Engineering responsibilities not currently identifiable.

Quotations shall include the attached "Standard Engineering Estimate" and be submitted to:

Hope Verelst, Chief Clerk  
P.O. Box 157  
245 Muncy Street  
Laporte, PA 18626

A non-mandatory pre-bid meeting will be held August 14, 2024, at 10:00 AM.

All quotations shall be sealed and clearly marked on the outside, "Engineering Services Quotation," and must be received by Friday, September 6, 2024, prevailing time, 3:00 PM. They will be publicly opened at the Sullivan County Courthouse on Tuesday, September 10, 2024, at 10:00 AM.

Questions regarding this quotation should be directed to:

Cody Hoover, Project Coordinator  
SEDA-COG  
201 Furnace Road  
Lewisburg, PA 17837  
570-524-4491  
choover@seda-cog.org

## PROJECT DESCRIPTION

Davidson Township Sewer Authority provides wastewater and sewage treatment for the Village of Sonestown. The Village of Sonestown is in a rural area of Sullivan County and has about 200 residents. The village has no access to public water supplies and the residents and businesses utilize wells for the drinking water. The original treatment plant is failing and is at the end of its functioning lifespan. The current Sand Distribution System experiences clogging and bio-growth in the distribution piping that does not allow the wastewater to distribute evenly throughout the surface of the sand filters. The Village of Sonestown sits along Muncy Creek and has experienced many high-water events that have disrupted the operation of the plant. These events can cause an overflow of sewage due to cracks and breaks in the gravity lines. The residents have settling tanks that need to be pumped out on a continual basis and some have become displaced during high water events.

In 2023, the Sonestown Sewer System Improvements project (Phase I) addressed the immediate concerns that affected the plant's current operation. Five new pumps and control panels were installed in the Main Street pump station and the Wastewater Treatment Plant (WWTP). Inflow and Infiltration issues were also addressed at the Main Street Pump Station. Some preliminary design work, including initial mapping, site layouts, and invoices for previous work, will be available to the selected consultant for their considered use.

Sullivan County has obtained CDBG funds for this project in the amount of \$1,023,204.00. Additional funds may be added to the project at the discretion of Sullivan County or Davidson Township.

Phase II will include a new package treatment plant. The new treatment plant will provide advanced wastewater treatment and needs to be safe from the risk of flooding during high-water events. An Update to the Davidson Township MA Act 537 Plan is anticipated for the Wastewater Treatment Plant Replacement.

Phase III of the Sonestown Sewer System project will address conveyance issues in the collection system. If the existing settling tanks are to be used, grinder pumps will need to be installed in each tank. The Collection System scope of work in this project may include the complete installation of the following:

- Existing lines will need to be filmed and analyzed.
- The past engineering survey suggested the following options for updating the collection system:
  - The conversion of select sections from gravity drains to low pressure sewer lines.
  - Installation of grinder pumps in each tank in the south system.
  - The connection of laterals to grinder pumps and the low-pressure sewer main.
  - Tank modifications to convert to the tanks for use of grinder pumps.
  - Ballast in tank to reduce volume and provide flood protection.
  - Connect users in Swamp Poodle Road to existing pump station located on Main Street.
  - Convert the force main located on Swamp Poodle Road to a low-pressure sewer system.
  - Install grinder pumps in tanks in north system.
  - Tank modifications to convert the tanks for the use of grinder pumps in the north system.
  - Place ballast in tanks to reduce the volume and provide flood protection.
  - Upsize gravity line through baseball field to 8" sanitary sewer with manholes.
  - Convert north system to lower pressure sewer system.
  - Connect all grinder pumps to lower pressure sewer system.
  - Convert gravity drain through baseball field to a low-pressure sewer system.

- These proposals are to be used as a reference by the engineer, but the parties interested are open to changes that will increase efficiency and lower the cost of construction and maintenance. All design suggestions will be reviewed by all interested parties and incorporated into the final design plan as necessary. Phase III: The Collection System project must be completed by the end of 2025.

Please Refer to Appendix A through C at end of Document for Pictures and Plan Drawings.

### **PROJECT DESIGN**

The Engineer shall prepare all necessary design plans, drawings and specifications to be used for the construction of the improvements and should therefore be complete in detail and contain all necessary information. Drawings shall conform with standard professional practice and consist of all architectural and engineering drawings, including profiles and sections, plot, and site plans, and all else necessary to illustrate the interest and scope of the work. Working drawings shall be prepared for structural, hydraulic, mechanical, electrical, and all other branches of the construction work.

The Engineer shall investigate any existing systems affected by the proposed project, identifying options, and advising Sullivan County and Davidson Township in the most appropriate method of modifying the systems as part of the design of this project. Plans and specifications shall be developed in such a manner to delete and add segments should the project costs be over or under budget.

1. All permits, plans, or surveys which may be necessary to define the scope of the work or for the performance of the project shall be the responsibility of the Engineer. The quotation shall include a list of those permits currently anticipated as necessary, identifying actual permit fees which shall be paid by the Engineer as a component of their project quotation. Survey work required for easements/rights-of-way may be a part of this quotation. The engineer shall provide an hourly rate for necessary survey work. Federal Environmental Reviews, State Historic Preservation Office Review, and Archaeological Reviews are not a part of this quotation.
2. This project will include an update of the Act 537 Plan, and the quotation should include the cost of completing the Act 537 plan and the plan schedule should include the time frame for this process.

Assistance from the Engineer is necessary for SEDA-COG and Sullivan County and Davidson Township to fully understand the project, and therefore, meeting attendance is of high importance. Accordingly, this quotation shall include four (4) design phase meetings, as well as four (4) preconstruction meetings (as noted below), at which the Engineer is expected to be in attendance. These meetings shall be conducted during the design and construction specifications phase at the convenience of Sullivan County and shall include the following:

- Design phase meetings
- A kick-off meeting
- Two (2) development meetings
- A meeting to present the final design and receive approval to advertise
- Preconstruction meeting(s) – (Engineer will coordinate and prepare meeting agenda w/ minutes.)
- Pre-bid meeting (optional)
- Bid Opening (Engineer will prepare bid tabulation form)

- Award – (Engineer will make formal recommendation to award)
  - Preconstruction conference
  - Monthly construction job conferences
3. Sullivan County and Davidson Township may request, and the Engineer may suggest, additional meetings. Accordingly, proposers should indicate their intention to do so in the narrative of their quotation. Any cost associated with additional meetings shall be included on the standard Engineers Estimate form.
  4. A project design schedule must be included as part of this quotation indicating key milestones and dates of completion. All final plans and specifications must be submitted for approval by Sullivan County. In addition, the Engineer must provide a list of sub consultants, if applicable, for approval by Sullivan County. It is the intention of Sullivan County to advertise for construction bids on or before July 10, 2025. It is understood that changes in the project scope or nature may affect this schedule.
  5. Upon completion of the preliminary design, and again when requesting approval of the final design, the Engineer shall prepare and provide to Sullivan County and Davidson Township, an opinion of probable construction costs, either as a lump sum or utilizing the itemized bid schedule if a line-item construction bid is proposed.

**PREPARATION OF DOCUMENTS AND COORDINATION OF BIDDING**

The Engineer shall prepare all construction contract documents, including but not limited to bid schedule, bond forms (bid, performance, payment), construction specifications and agreements, compliance forms, etc. The Engineer shall be responsible for coordinating the bidding process, including printing, and distributing up to ten (10) sets of bid documents, publishing the required advertisements, fulfilling all requirements outlined in the Engineer’s Memo, which will be provided prior to bidding, and management of any required deposits or payments. Costs for this portion of the work shall be borne by the Engineer except that the actual costs for legal advertisements will be reimbursed by Sullivan County. Insofar as federal CDBG monies are being used in the project, forms and procedures meeting the requirements of the PA Department of Community and Economic Development shall be used in the contracting documents. SEDA-COG shall facilitate this process by providing model bidding documents for use by the Engineer.

In addition, the Engineer will assist the solicitor throughout the project including, but not limited to, the preparation of documents involving engineering matters and preparation of contract documents for the solicitor’s opinion, a review of the bid documents, conformity with the specifications, and requirements, as well as a formal recommendation of bid award. The Engineer is also responsible to manage the construction contract award process, including issuance of the Notice of Intent to Award, execution of the agreements, Award, Notice of Start of Construction, Substantial Completion, Final Inspection, and Completion.

**CONSTRUCTION SUPERVISION/RESIDENT PROJECT REPRESENTATIVE**  
**SCOPE OF SERVICES**

The Engineer is expected to furnish customary engineering advice and assistance necessary to enable Sullivan County and Davidson Township, to readily understand the project. The Engineer shall visit the

construction site to observe progress and quality of work, to determine if work is proceeding in accordance with contract documents, to keep Sullivan County and Davidson Township, informed of progress, to guard against defects and deficiencies, and to disapprove work not in conformance with contract documents. The Engineer shall serve as the Sullivan County representative at the project site, issuing all instructions to the contractors and preparing any change orders.

The Engineer will check and approve samples, schedules, shop drawings, catalogue data, laboratory, shop and mill tests of materials and equipment, and other data which contractors are required to submit to ensure conformity with project design, concept, and requirements. The Engineer, in accordance with accepted professional standards and practice, shall review contractors' payment requests and approve, in writing, payment to the contractors in such amounts. The Engineer will also conduct, in the company of the owner and the contractor, a final inspection of the project for conformity with design, concept, and contract documents. When the project is complete, the Engineer will correct all drawings to show construction and installation as actually accomplished and will furnish one set of full size "As Built" prints and one electronic copy to Sullivan County and Davidson Township.

These services, to be provided by the Engineer, include resident inspection services. Comprehensive design, inspection of work and compliance with specifications is of utmost importance to a successful and timely project completion. As a part of this quotation, it is the Engineer's responsibility to estimate the project duration in order to calculate the number of construction supervision site visits. Should the project take less or more time than anticipated, no adjustment to the costs for project supervision will be considered.

#### **DUTIES OF THE RESIDENT PROJECT REPRESENTATIVE**

- A. The Resident Project Representative ("RPR") shall assist the Engineer in observing progress and quality of the Work. The RPR is to provide full-time representation while construction activities are underway. The RPR is the representative of the owner of the project site and will act as directed by and under the supervision of the Engineer and will confer with the Engineer regarding RPR's actions.
- B. Through the RPR's observations of the Work, including field checks of materials and installed equipment, Engineer shall endeavor to provide further protection for Owners against defects and deficiencies in the Work. However, Engineer shall not, as a result of such RPR observations of the Work, supervise, direct, or have control over the Work, nor shall Engineer or RPR have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any Contractor, for security or safety at the Site, for safety precautions and programs incident to the Work or any Contractor's work in progress, for the coordination of the Contractor's work or schedules, or for any failure of any Contractor to comply with Laws and Regulations applicable to the performing and furnishing of its work.
- C. The duties and responsibilities of the RPR are as follows:
  - 1. General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of the Contractor. RPR shall generally communicate with Owners through the Engineer; However, the RPR shall keep the Owners reasonably informed of its work by advising the Owner of, among other things, any material changes, timeliness issues or any disputes between the Engineer and RPR.



2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, schedule of values, and other schedules prepared by Contractor and consult with Engineer concerning acceptability of such schedules.
3. Conferences and Meetings: Attend meetings with Contractor, such as stakeholder meetings, preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and, as appropriate, prepare and circulate copies of minutes thereof.
4. Safety Compliance: Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.
5. Liaison:
  - a. Serve as Owner's and Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee; assist in providing information regarding the provisions and intent of the Construction Contract Documents.
  - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-site operations.
  - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
  - d. Keep Owners reasonably informed of its work by advising Owner of, among other things, any material changes, timeliness issues and disputes between Engineer and RPR.
6. Clarifications and Interpretations: Receive from Contractor submittal of any matters in question concerning the requirements of the Construction Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), grant requirements, or relating to the acceptability of the Work under the Construction Contract Documents. Report to Engineer regarding such RFIs. Report to Engineer when clarifications and interpretations of the Construction Contract Documents are needed, whether as the result of a Contractor RFI or otherwise. Transmit Engineer's clarifications, interpretations, and decisions to Contractor.
7. Shop Drawings and Samples:
  - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
  - b. Receive Samples that are furnished at the Site by Contractor and notify Engineer of availability of Samples for examination.
  - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal, if RPR believes that the submittal has not been received from Contractor or has not been approved by Contractor or Engineer.
8. Proposed Modifications: Consider and evaluate Contractor's suggestions for modifications to the Drawings or Specifications, and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit Engineer's response (if any) to such suggestions to Contractor. All construction change orders must be approved by the

funding agencies, Engineer and Owner prior to work being performed.

9. Review of Work; Defective Work:
  - a. Report to Engineer whenever RPR believes that any part of the Work is defective under the terms and standards set forth in the Construction Contract Documents and provide recommendations as to whether such Work should be corrected, removed, and replaced, or accepted as provided in the Construction Contract Documents.
  - b. Inform Engineer of any Work that RPR believes is not defective under the terms and standards set forth in the Construction Contract Documents, but is, nonetheless, not compatible with the design concept of the completed Project as a functioning whole, and provide recommendations to Engineer for addressing such Work; and
  - c. Advise Engineer of that part of the Work that RPR believes should be uncovered for observation, or requires special testing, inspection, or approval.
  
10. Inspections, Tests, and System Start-ups:
  - a. Consult with Engineer in advance of scheduled inspections, tests, and systems start-ups.
  - b. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
  - c. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.
  - d. Observe whether Contractor has arranged for inspections required by Laws and Regulations, including but not limited to those to be performed by public or other agencies having jurisdiction over the Work.
  - e. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work, record the results of these inspections, and report to Engineer.
  
11. Records:
  - a. It is anticipated that the Engineer or Contractor will provide a secure Project Documentation Website for the transmittal, storage and notification of Project-related correspondence, documents, text, data, drawings, information, and graphics, in electronic media or digital format.
  - b. Maintain at the Site orderly files for correspondence, reports of job conferences, copies of Construction Contract Documents including all Change Orders, Field Orders, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Construction Contract, RFIs, Engineer's clarifications and interpretations of the Construction Contract Documents, progress reports, approved Shop Drawing and Sample submittals, and other Project-related documents.
  - c. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
  - d. Upon request from an Owner to Engineer, photograph or video work in progress or site conditions.

- e. Record and maintain accurate, up-to-date lists of the names, addresses, fax numbers, e-mail addresses, websites, and telephone numbers (including mobile numbers) of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- f. Maintain records for use in preparing Project documentation.
- g. Upon completion of the work, furnish original set of all RPR Project documentation to Engineer.

12. Reports:

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Furnish to Engineer and Owners copies of all inspection, test, and system start-up reports.
- d. Immediately inform Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, possible force majeure or delay events, damage to property by fire or other causes, or the discovery of any potential differing site condition or Constituent of Concern.

13. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

14. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the grants and Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the grants and Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

15. Completion:

- a. Participate in Engineer's visits to the Site regarding Substantial Completion, assist in the determination of Substantial Completion, and prior to the issuance of a Certificate of Substantial Completion submit a punch list of observed items requiring completion or correction.
- b. Participate in Engineer's visit to the Site in the company of the Owners and Contractor, to determine completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
- c. Observe whether all items on the final punch list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

D. Resident Project Representative shall not:

- 1. Authorize any deviation from the grant requirements or Construction Contract Documents or substitution of materials or equipment (including "or-equal" items).

2. Exceed limitations of RPR's authority.
3. Undertake any of the responsibilities of Contractor, Subcontractors or Suppliers, or any Constructor.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences, or procedures of the Work, by Contractor or any other Constructor.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of the Owners or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owners to occupy the Project in whole or in part.

### **ADDITIONAL SERVICES OF ENGINEER**

Where participating state and/or federal agencies require reports relating to construction, the Engineer shall prepare and submit such reports and shall assist in any negotiations with these or other agencies as is necessary for final approval.

An updated cost estimate and project schedule shall be submitted as soon as possible and prior to the bid documents being advertised.

### **TERMS OF PAYMENT**

The Engineer will be required to enter into a written Professional Services Agreement with Sullivan County, which will incorporate the information contained in this Request for Quotations. The Engineer will agree to a lump sum fee, which shall include all costs associated with the services outlined herein. Costs sometimes separately billed as reimbursable costs shall be declared and included in the lump sum amount of this quotation.

Invoices shall be provided setting forth the percentage of work completed to date, establishing the amount due based on the percentage completed, less any previous amounts. Payment shall be expressly contingent upon receipt of funds from the Department of Community and Economic Development.

### **MBE/WBE GOALS**

It is the public policy of Sullivan County, to promote the opportunity for full participation by Minority and Women's Business Enterprises ("MBE's" and "WBE's") business concerns in all projects receiving federal funds from the United States Department of Housing and Urban Development which are administered by the Pennsylvania Department of Community and Economic Development.

Sullivan County has established a Minimum Participation Level (MPL) of five percent (5%) for Minority Business Enterprises and three percent (3%) for Women Business Enterprises participation on projects with CDBG, ESG, and/or HOME funding.

### SECTION 3 GOALS

Section 3 24 CFR Part 135 has been updated to the New Rule, 24 CFR Part 75. The New Rule for Section 3, 24 CFR Part 75, is applicable for projects for which the total amount of federal assistance is greater than \$200,000. Section 3 does not apply to professional services; however, you are still encouraged to follow Sullivan County's Section 3 Action Plan for Section 3 and Targeted Section 3 Labor Hours. The new 24 CFR Part 75 rule does apply to construction contracts and the professional service provider is expected to assist with facilitation of these efforts for compliance. Professional Service firms who hire Section 3 or Targeted Section 3 workers can count those labor hours as Section 3, or Targeted Section 3, but should be excluded from the total number of labor hours. Benchmarks are only qualified as being met if Section 3 Laborer Hours = 25%, *and* Targeted Section 3 Labor Hours = 5% of the total number of labor hours.

### QUOTATION SUBMISSION AND EVALUATION

Three (3) copies of the quotation (preferably two bound copies and one unbound copy) must be submitted to:

Hope Verelst, Chief Clerk  
P.O. Box 157  
245 Muncy Street  
Laporte, PA 18626

Quotations must be received no later than 3:00 PM on Friday September 6, 2024. **Quotations that are faxed or e-mailed to SEDA-COG or Sullivan County cannot be accepted.**

Quotations will be reviewed and evaluated by Sullivan County and SEDA-COG. The evaluation will include the following areas in order of relative importance:

- Adequacy of quotation in the terms of addressing the needs that are set forth in the Request for Quotations.
- Relevant experience and past performance.
- Quality of previous work.
- Adequacy of resources/record of completing projects on time.
- Cost.
- Proposer's commitment to the obligations of Sullivan County's Minority Owned Business Enterprises and Women Owned Business Enterprises Action Plan.

Note: Cost is only one of several criteria to be considered in evaluating quotations. Accordingly, SEDA-COG will not publish quotation cost summaries. Proposers are, however, invited to attend the opening.

### **REQUIRED INFORMATION**

Each proposer shall provide all information herein requested. Further, no quotation will be considered unless the attached Standard Form is completed in its entirety.

Each proposer shall provide a minimum of two references where similar engineering services have been performed during the past three years. These projects should be similar in design and scope. If the proposer is an MBE/WBE business concern, a certification form shall be submitted with the bid attesting to the firms' status as such. Firms may be requested to sit for interviews and/or negotiation of contract terms and fees prior to contract award.

If any part of the project is subcontracted, requires purchases for services, or requires hiring of additional employees, the proposers must submit documentary evidence of MBE/WBE business concerns who have been contacted and/or to whom commitments have been made. If no solicitation was made to MBE/WBE's business concerns or residents, please indicate the reason(s). If there is no need for additional employees or trainees, or no need to contract for work, then the MBE/WBE requirements are not triggered.

Sullivan County reserves the right to accept or reject any and all quotations or to waive any irregularities.

Professional Liability Insurance is required for this project. Please indicate the level of coverage provided.

**STANDARD ENGINEERING ESTIMATE**

FIRM NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

REPRESENTATIVE: \_\_\_\_\_

REPRESENTATIVE E-MAIL: \_\_\_\_\_

**Phase II Wastewater Treatment Plant**

I. Project design, specification, required meeting attendance, bidding, and other engineering services \_\_\_\_\_

II. Project construction supervision/  
Resident Project Representative (weekly rate) \_\_\_\_\_ per week

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

III. Act 537 Plan Update \$ \_\_\_\_\_

**Phase III Collection System**

IV. Project design, specification, required meeting attendance, bidding, and other engineering services \_\_\_\_\_

V. Project construction supervision/  
Resident Project Representative (weekly rate) \_\_\_\_\_ per week

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TOTAL LUMP SUM: \$ \_\_\_\_\_

Additional Survey fees and Meetings:

Surveyor Services (hourly rate) \$ \_\_\_\_\_ per hour

Lump sum cost for additional meetings  
if requested by \_\_\_\_\_ \$ \_\_\_\_\_

I, \_\_\_\_\_, a licensed professional Engineer in the Commonwealth of Pennsylvania and an authorized representative of the above-indicated firm, have reviewed and understand the \_\_\_\_\_ Request for Quotations, and I/we am/are prepared to provide the required services for the above costs.

(SEAL) \_\_\_\_\_

ATTACH A MINIMUM OF TWO (2) PROJECT REFERENCES, SIMILAR IN DESIGN AND SCOPE.  
ATTACH LIMITS OF COVERAGE FOR PROFESSIONAL LIABILITY INSURANCE.



**MBE/WBE CONTRACT SOLICITATION AND COMMITMENT STATEMENT  
TO BE SUBMITTED WITH THE BID**

Goals of **5%** for minority business enterprise and **3%** for women business enterprise participation have been established.

Name of Bidder:	Project Name:
Address:	Bid Opening Date:
Email Address:	
Telephone Number:	Contact Person:

List those minority/women owned businesses from which you solicited quotes and/or received quotes in regard to this invitation for bid.

<b>Company Name &amp; Telephone Number</b>	<b>MBE*</b> (enter code from below)	<b>WBE</b> (X)	<b>Type of Construction, Equipment, Services, and/or supplies to be provided to the Project</b>	<b>Total Dollar Amount of Quote Received</b>  (Please mark NR if no response was received)	<b>Total Dollar Amount Awarded</b>  (If not awarded indicate reason)
Prepared By:			Title:		

\*Ethnic Code: A- Asian-Pacific Americans; B-African Americans; H-Hispanic Americans; N- Native Americans

**MINORITY AND WOMEN BUSINESS ENTERPRISE BIDDER CERTIFICATION**

The submittals of each bidder are subject to review to determine whether the bidder has discriminated in the selection of manufacturers, subcontractors and suppliers. If a bidder has met the goals for MBE/WBE participation, the bidder will be presumed not to have discriminated in their selections.

*Where the goals are not met*, the below statements, if accurate, shall be certified by the bidder:

1. The limited number or no commitment to MBEs/WBEs was not motivated by consideration of race or gender.
2. MBEs/WBEs were not treated less favorably than other businesses in the contract solicitation and commitment process.
3. Solicitation and commitment decisions were not based upon policies which disparately affect MBEs/WBEs.

By signing below, I certify that the above statements are true and accurate.

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Appendix A

Existing Gray Water Treatment Plant:





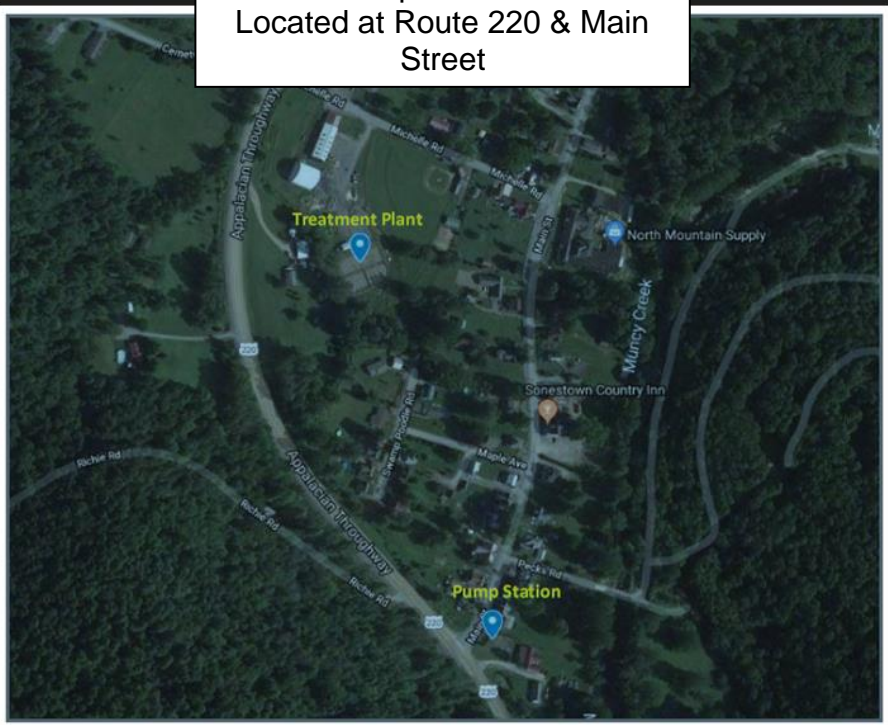


Control House and Pump Controls





Pump Station 2  
Located at Route 220 & Main  
Street



Sonestown Sewer System Improvements  
Davidson Township, Sullivan County







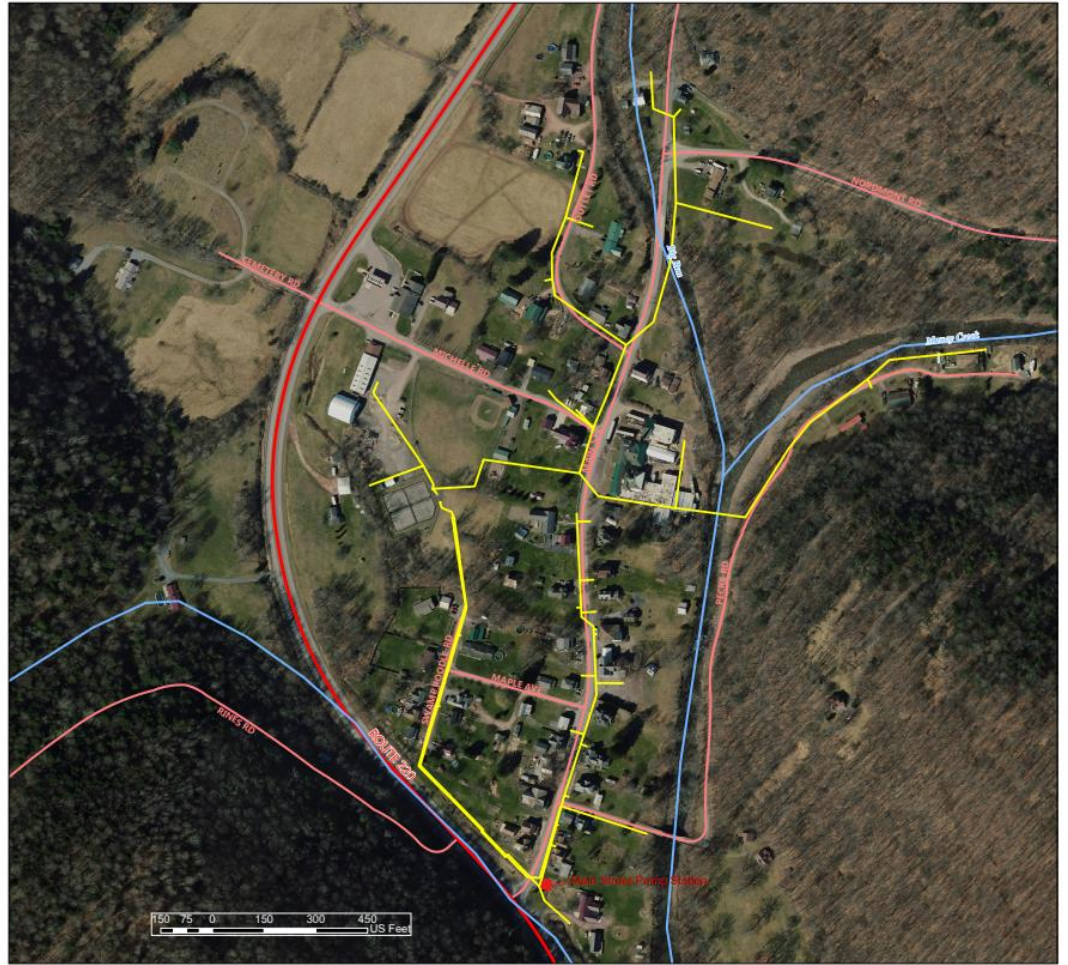
# Sullivan County Pennsylvania Sonestown Sewer Line

## Legend

- Sewer Line
- Streams
- Sullivan County Roads
- Highway
- Road



MAP PREPARED BY SULLIVAN COUNTY  
OFFICE OF PLANNING & DEVELOPMENT.  
SULLIVAN COUNTY, PA IS NOT  
RESPONSIBLE FOR POSSIBLE ERRORS,  
OMISSIONS, MISUSE OR MISINTERPRETATION.  
COUNTY DIGITAL INFORMATION IS PREPARED FOR  
REFERENCE PURPOSES ONLY AND  
SHOULD NOT BE USED, AND IS NOT INTENDED FOR,  
LEGAL, SURVEY OR ENGINEERING PURPOSES.

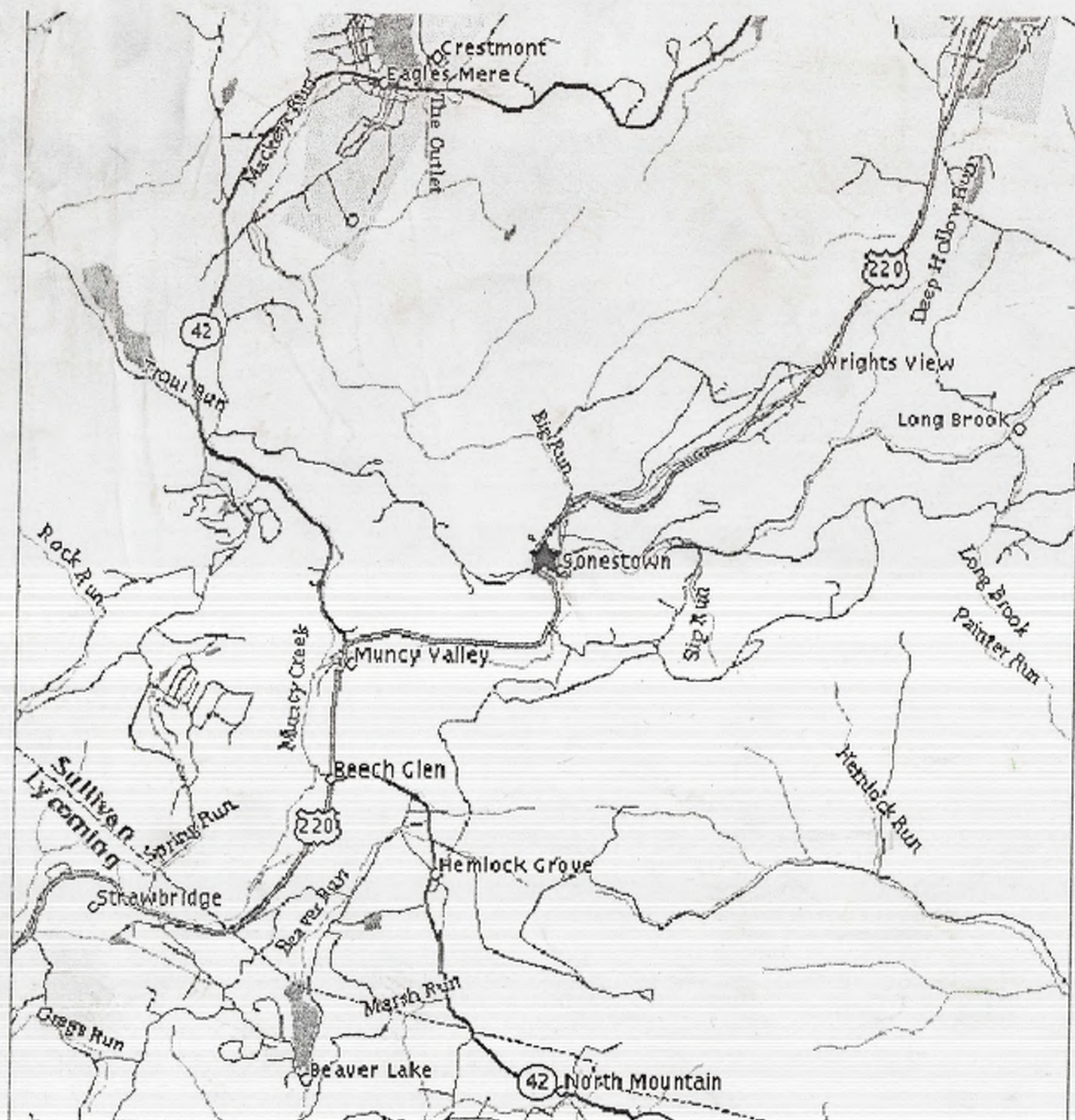


# DAVIDSON TOWNSHIP SEWER AUTHORITY

## VILLAGE OF SONESTOWN WASTEWATER SYSTEM

SULLIVAN COUNTY, PA

## CONTRACT DRAWINGS

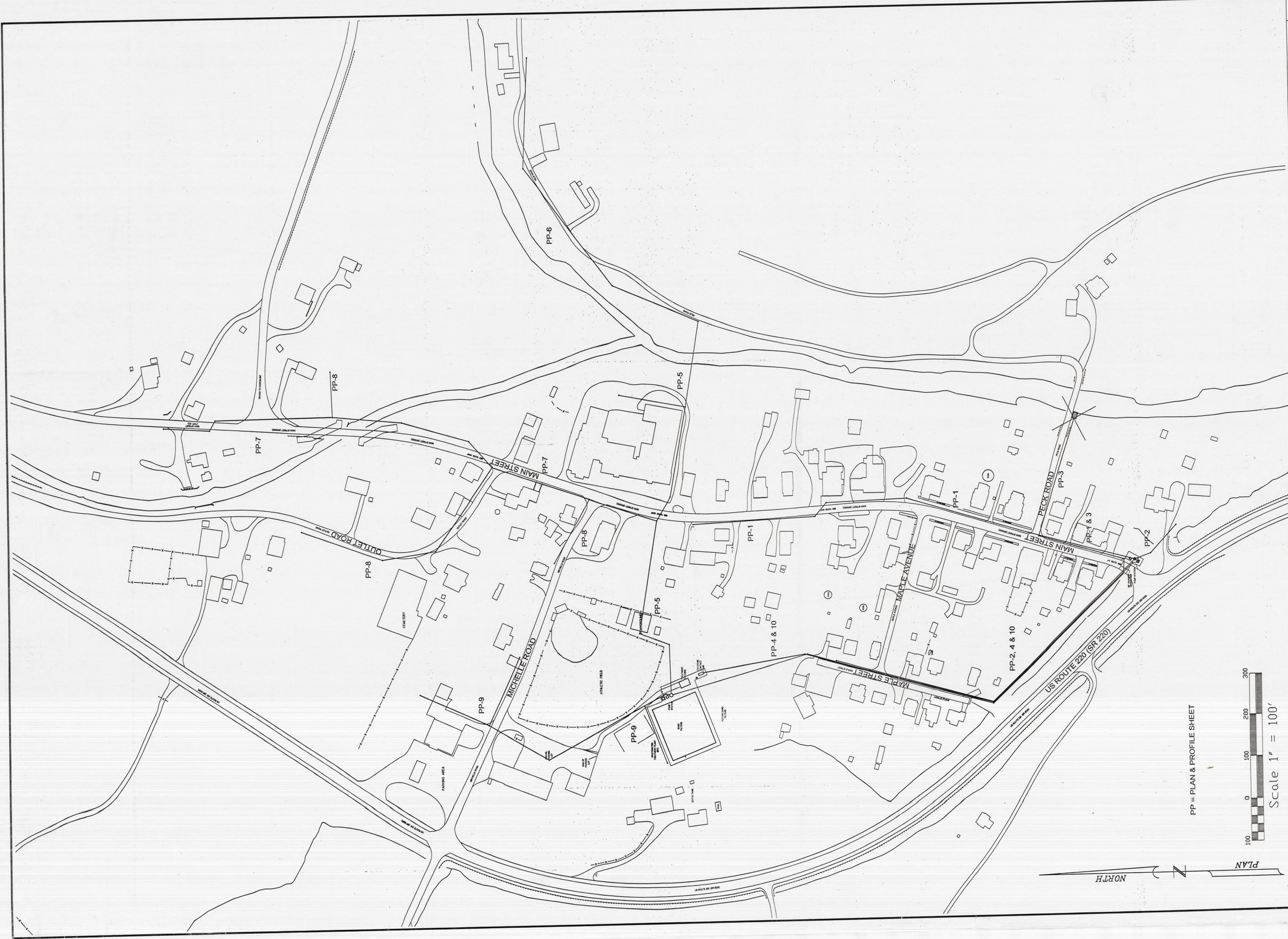


LOCATION MAP  
SCALE: 1" = 1mi.

DRAWING LIST

1. INDEX SHEET
2. PLAN & PROFILE NO. 1
3. PLAN & PROFILE NO. 2
4. PLAN & PROFILE NO. 3
5. PLAN & PROFILE NO. 4
6. PLAN & PROFILE NO. 5
7. PLAN & PROFILE NO. 6
8. PLAN & PROFILE NO. 7
9. PLAN & PROFILE NO. 8
10. PLAN & PROFILE NO. 9
11. PLAN & PROFILE NO. 10
12. MAIN STREET PUMP STATION SITE PLANS  
TYPICAL SUBMERSIBLE PUMP STATION PLAN  
& SECTION
13. WWTF GRADING AND E&S CONTROL PLAN  
AND SOIL ODOR FILTER DETAILS
14. WWTF PLAN VIEW
15. YARD PIPING AND ELECTRICAL RUNS  
SITE PLAN VIEWS
16. STANDARD DETAILS:  
FILTER, SEPTIC, CHLORINE TANK & OUTFALL
17. STANDARD DETAILS:  
COLLECTORS AND FORCEMAINS
18. E&S STANDARD DETAILS
19. WWTF OFFICE BUILDING  
ARCHITECTURAL FLOOR PLANS
20. HVAC, PLUMBING & ELECTRICAL, TOWNSHIP  
BUILDING MODIFICATIONS - PLAN VIEW'S

<p><b>Bassett Engineering</b></p> <p>705 LOWER BARBOORS ROAD Phone 570-479-2114 Fax 570-479-1139 at BassettEng@aol.com</p>	<p>DAVIDSON TOWNSHIP SEWER AUTHORITY SONESTOWN WASTEWATER SYSTEM</p>	<p>The Davidson Township Sewer Authority - Sonestown Wastewater System</p>
	<p>DAVIDSON TOWNSHIP SEWER AUTHORITY SONESTOWN WASTEWATER SYSTEM</p>	<p>The Davidson Township Sewer Authority - Sonestown Wastewater System</p>



Sheet Title  
 WASTEWATER COLLECTION SYSTEM  
 INDEX SHEET  
 DAVIDSON TOWNSHIP SEWER AUTHORITY  
 SONESTOWN WASTEWATER SYSTEM  
 Sheet No. 1 of 1 Drawing No. SonestBase

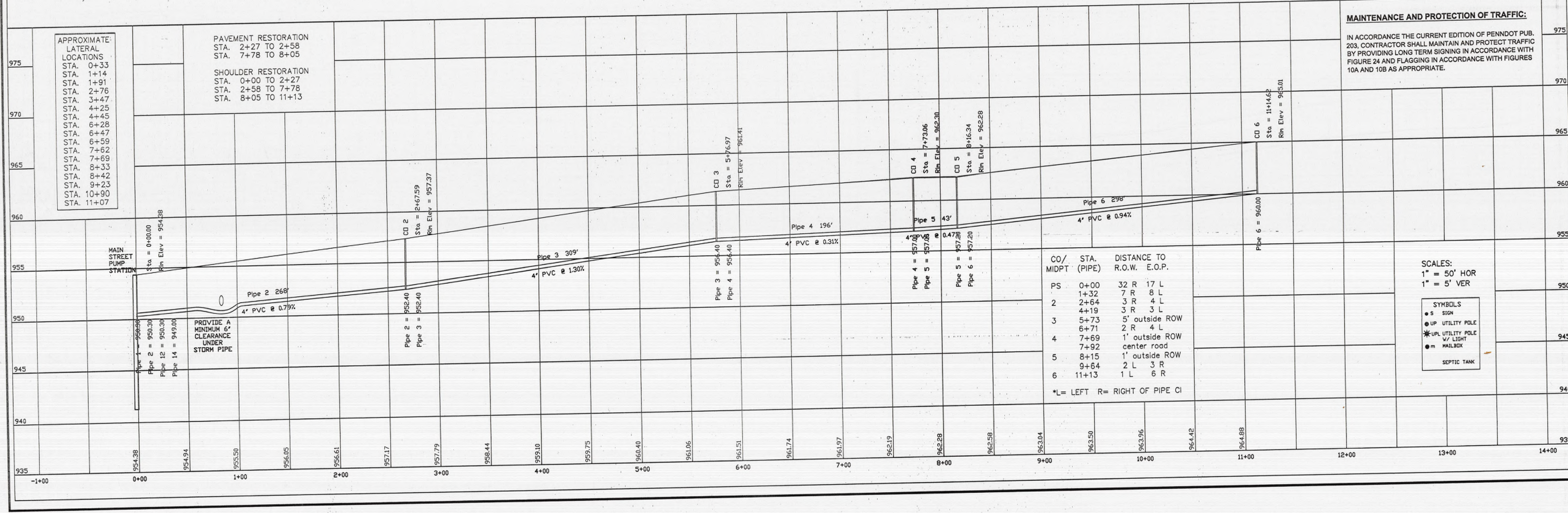
**Bassett  
 Engineering**  
 766 LOWER BARBOURS ROAD WILLIAMSPORT, PA 17701-9788  
 Phone 570-478-2114 Fax 478-4139 e: BassettEng@aol.com

NO.	DATE	DESCRIPTION	BY

The Davidson Township Sewer Authority - Sonestown Wastewater System



SCALES:  
 1" = 50' HOR  
 1" = 5' VER



APPROXIMATE LATERAL LOCATIONS  
 STA. 0+33  
 STA. 1+14  
 STA. 1+91  
 STA. 2+76  
 STA. 3+47  
 STA. 4+25  
 STA. 4+45  
 STA. 6+28  
 STA. 6+47  
 STA. 6+59  
 STA. 7+62  
 STA. 7+69  
 STA. 8+33  
 STA. 8+42  
 STA. 9+23  
 STA. 10+90  
 STA. 11+07

PAVEMENT RESTORATION  
 STA. 2+27 TO 2+58  
 STA. 7+78 TO 8+05

SHOULDER RESTORATION  
 STA. 0+00 TO 2+27  
 STA. 2+58 TO 7+78  
 STA. 8+05 TO 11+13

**MAINTENANCE AND PROTECTION OF TRAFFIC:**  
 IN ACCORDANCE WITH THE CURRENT EDITION OF PENNDOT PUB. 203, CONTRACTOR SHALL MAINTAIN AND PROTECT TRAFFIC BY PROVIDING LONG TERM SIGNING IN ACCORDANCE WITH FIGURE 24 AND FLAGGING IN ACCORDANCE WITH FIGURES 10A AND 10B AS APPROPRIATE.

CO/ MIDPT (PIPE)	STA.	DISTANCE TO R.O.W.	E.O.P.
PS	0+00	32 R	17 L
1	1+32	7 R	8 L
2	2+64	3 R	4 L
3	4+19	3 R	3 L
3	5+73	5' outside ROW	
4	6+71	2 R	4 L
4	7+69	1' outside ROW center road	
5	8+15	1' outside ROW	
6	9+64	2 L	3 R
6	11+13	1 L	6 R

\*L= LEFT R= RIGHT OF PIPE CI

SCALES:  
 1" = 50' HOR  
 1" = 5' VER

**SYMBOLS**  
 ● S SIGN  
 ○ UP UTILITY POLE  
 \* UP UTILITY POLE W/ LIGHT  
 ● M MAILBOX  
 □ SEPTIC TANK

Sheet Title

PLAN & PROFILE NO. 1

GRAVITY COLLECTORS 2 TO 6

DAVIDSON TOWNSHIP SEWER AUTHORITY  
 SONESTOWN WASTEWATER SYSTEM

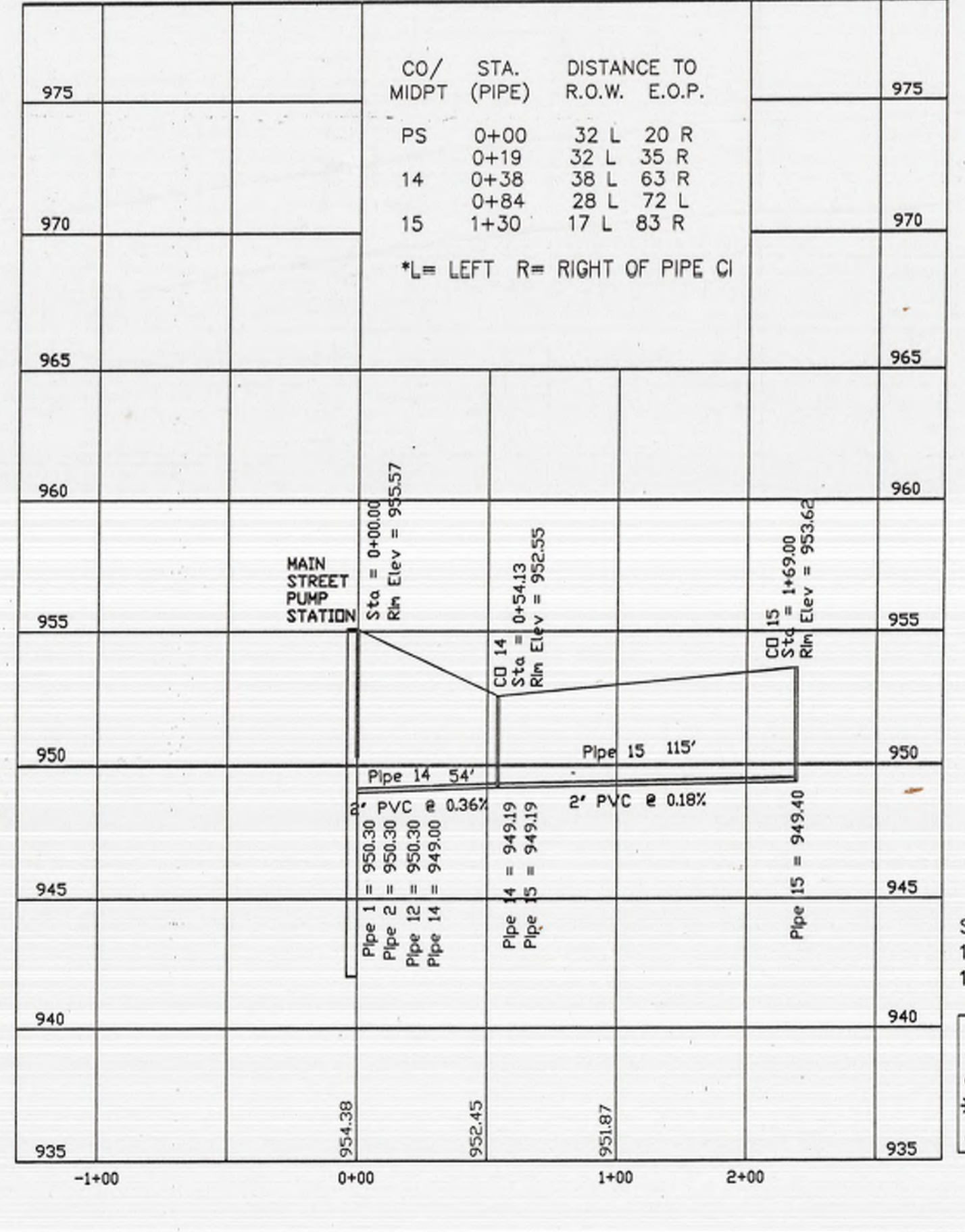
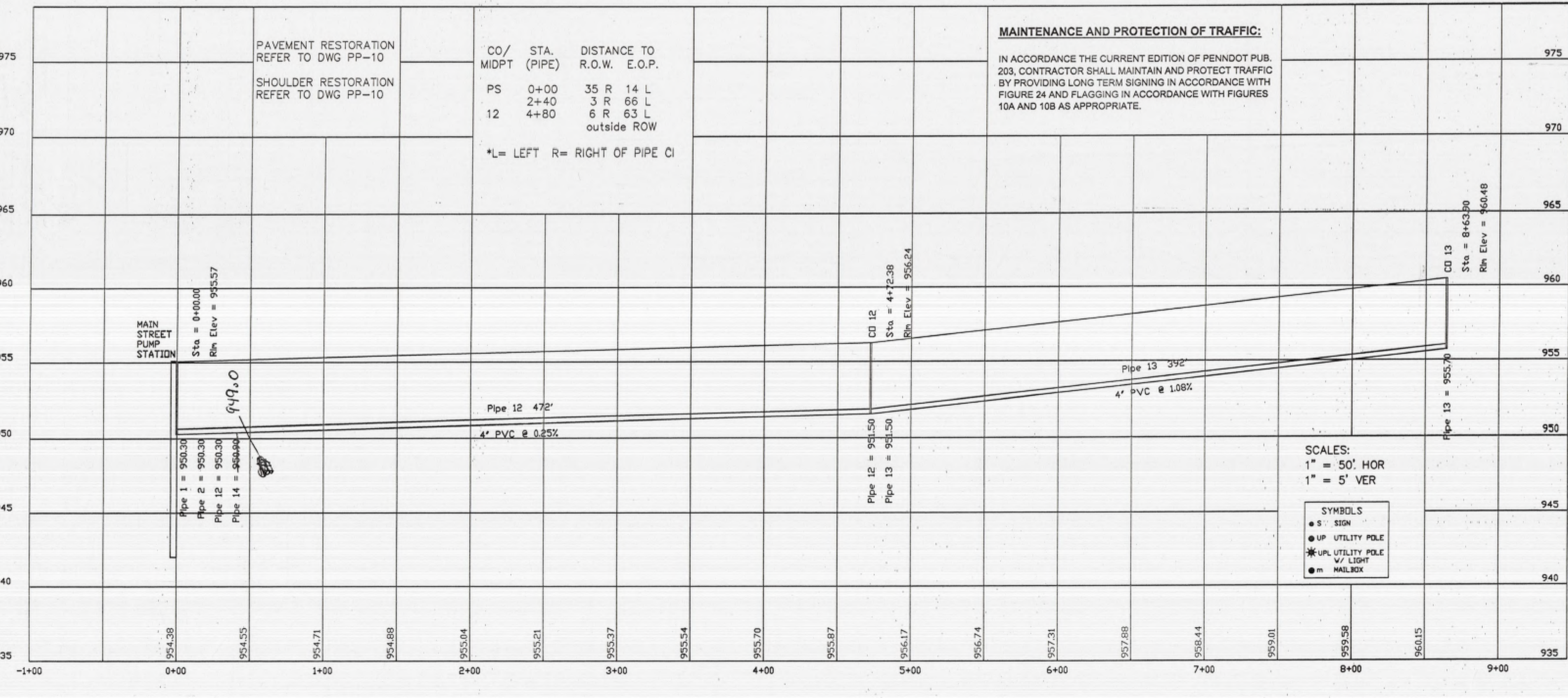
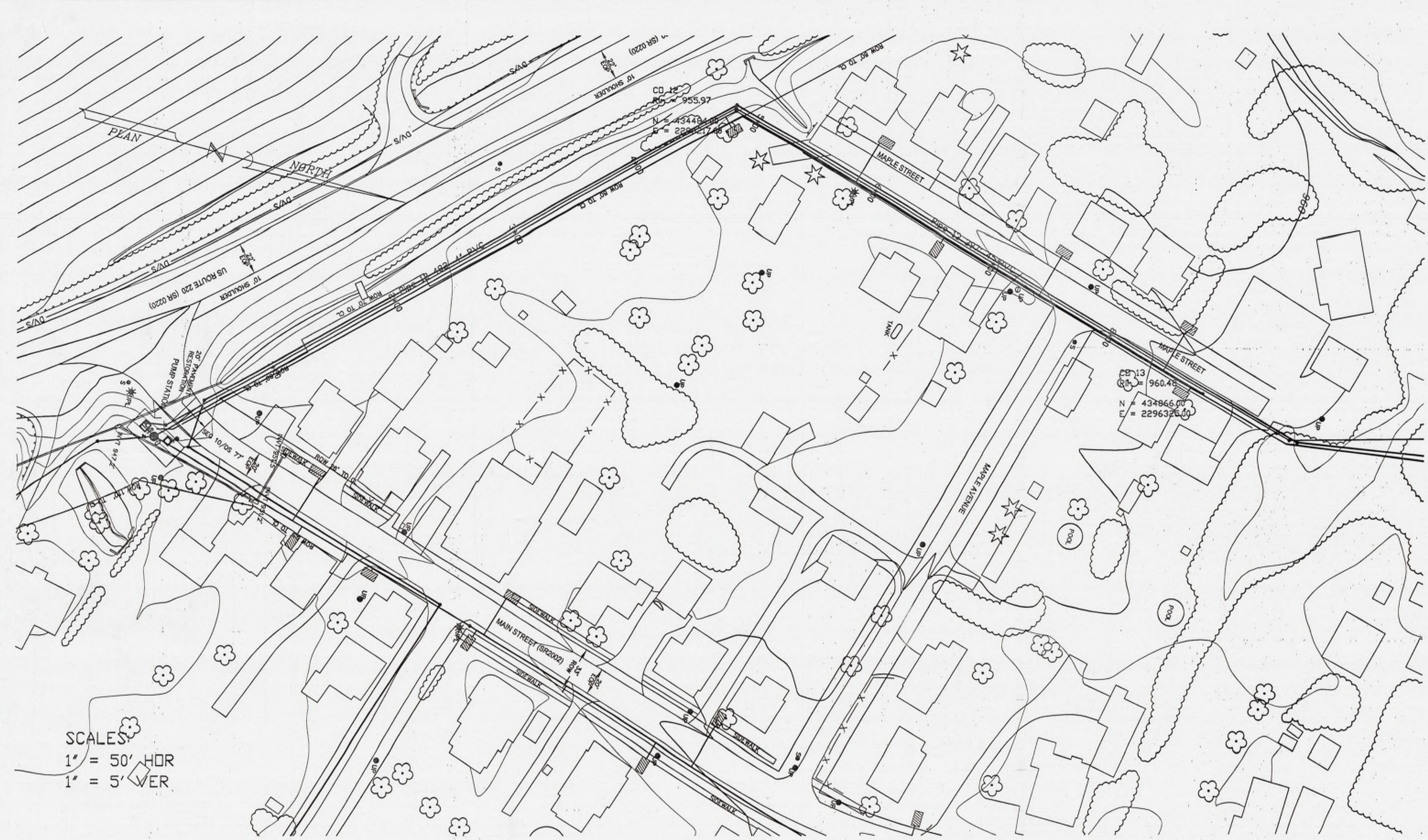
The Davidson Township Sewer Authority - Sonestown Wastewater System

Professional Engineer  
 BRITT D. BASSETT  
 P 37298-E

766 LOWER BARBOURS ROAD WILLIAMSPORT, PA 17701-9788  
 Phone 570-478-2114 Fax 478-4139 e: BassettEng@aol.com

NO.	DATE	DESCRIPTION

Sheet No. 2 OF Drawing No. PP-1 .DWG file SS030101



Sheet Title: **PLAN & PROFILE NO. 2**

GRAVITY COLLECTORS 12 TO 13 & 14 TO 15

DAVIDSON TOWNSHIP SEWER AUTHORITY  
 SONESTOWN WASTEWATER SYSTEM

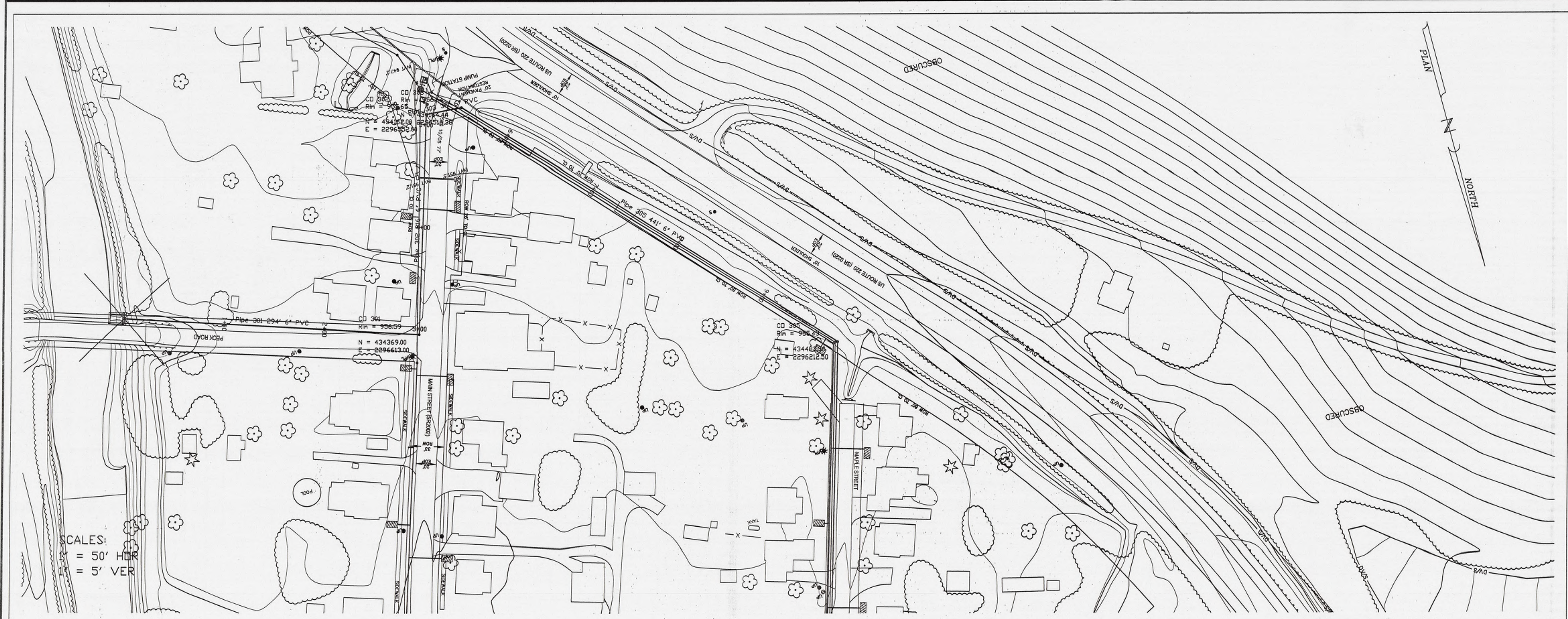
The Davidson Township Sewer Authority - Sonestown Wastewater System

Sheet No. 30F | Drawing No. PP-2 | .DWG file | SS010101

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**Bassett Engineering**  
 BRIT D. BASSETT  
 REGISTERED PROFESSIONAL ENGINEER  
 P 37298-E

NO.	DATE	DESCRIPTION	BY



SCALES:  
 1" = 50' HOR  
 1" = 5' VER

SCALES:  
 1" = 50' HOR  
 1" = 5' VER

- SYMBOLS
- SIGN
  - ⊕ UTILITY POLE
  - ⊗ UTILITY POLE W/ LIGHT
  - ⊙ MAILBOX

**MAINTENANCE AND PROTECTION OF TRAFFIC:**  
 IN ACCORDANCE THE CURRENT EDITION OF PENNDOT PUB. 203, CONTRACTOR SHALL MAINTAIN AND PROTECT TRAFFIC BY PROVIDING LONG TERM SIGNING IN ACCORDANCE WITH FIGURE 24 AND FLAGGING IN ACCORDANCE WITH FIGURES 10A AND 10B AS APPROPRIATE.

STATION	DESCRIPTION	CO/ MIDPT	STA. (PIPE)	DISTANCE TO R.O.W. E.O.P.
970	PAVEMENT RESTORATION REFER TO DWG PP-10	hdwl	0+0	outside ROW
	SHOULDER RESTORATION REFER TO DWG PP-10	301	2+94	4 L in pave.
		302	4+02	11 L 4 R
		303	5+10	30 L 6 R
		304	5+28	approx CL RD
			5+48	7 R 4 L
			7+66	7 R 61 L
			9+87	10 R 59 L
				outside ROW

\*L= LEFT R= RIGHT OF PIPE CI

Sheet Title  
**PLAN & PROFILE NO. 3**  
**OUTFALL SEWER SEGMENTS 301 TO 305**  
**DAVIDSON TOWNSHIP SEWER AUTHORITY**  
**SONESTOWN WASTEWATER SYSTEM**

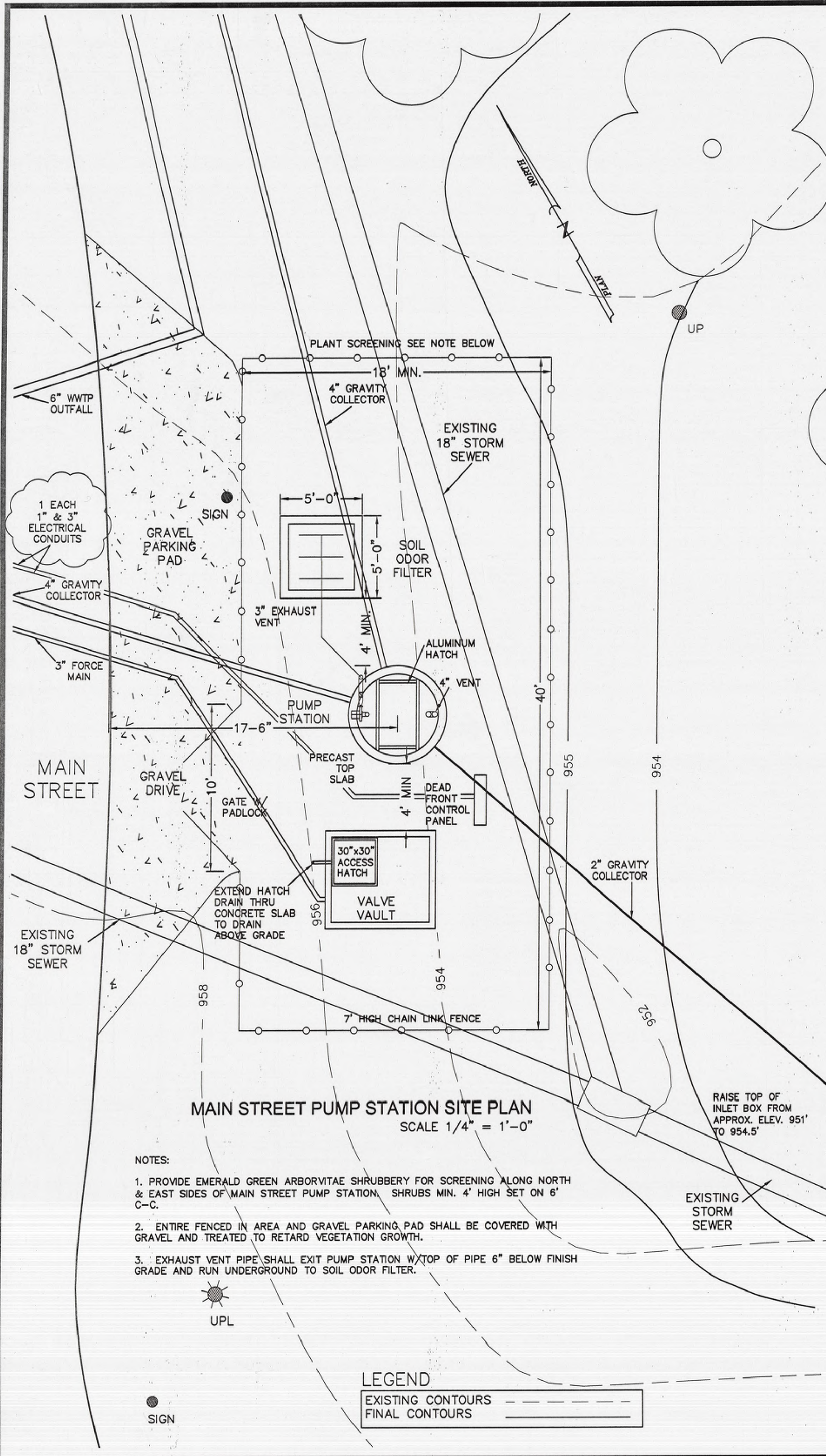
Sheet No. 4 OF Drawing No. PP-3 .DWG file S5010102

**The Davidson Township Sewer Authority - Sonestown Wastewater System**

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PROFESSIONAL ENGINEER  
 BRITT D. BASSETT  
 P-37282-E

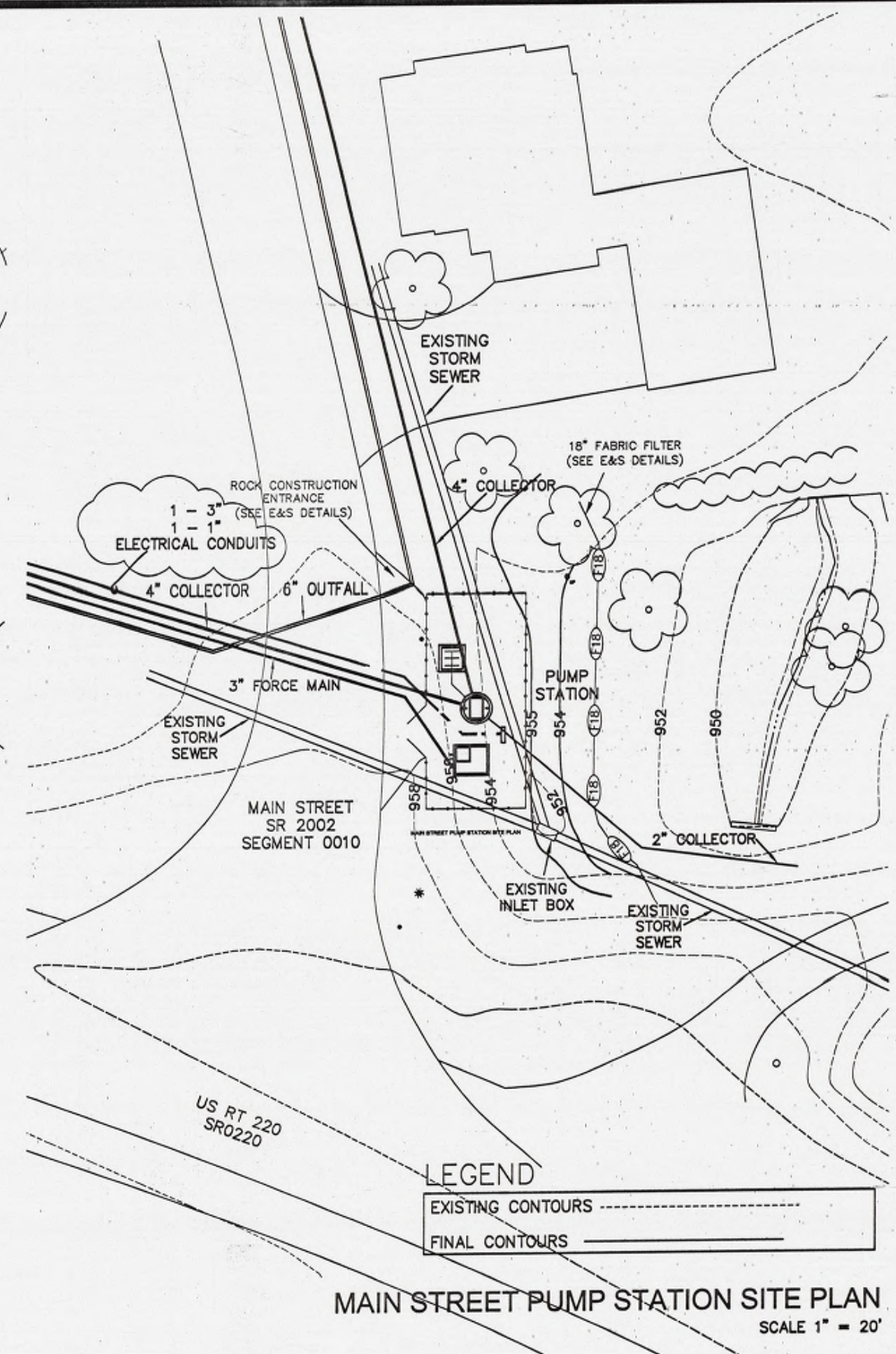
NO. DATE DESCRIPTION BY



MAIN STREET PUMP STATION SITE PLAN  
SCALE 1/4" = 1'-0"

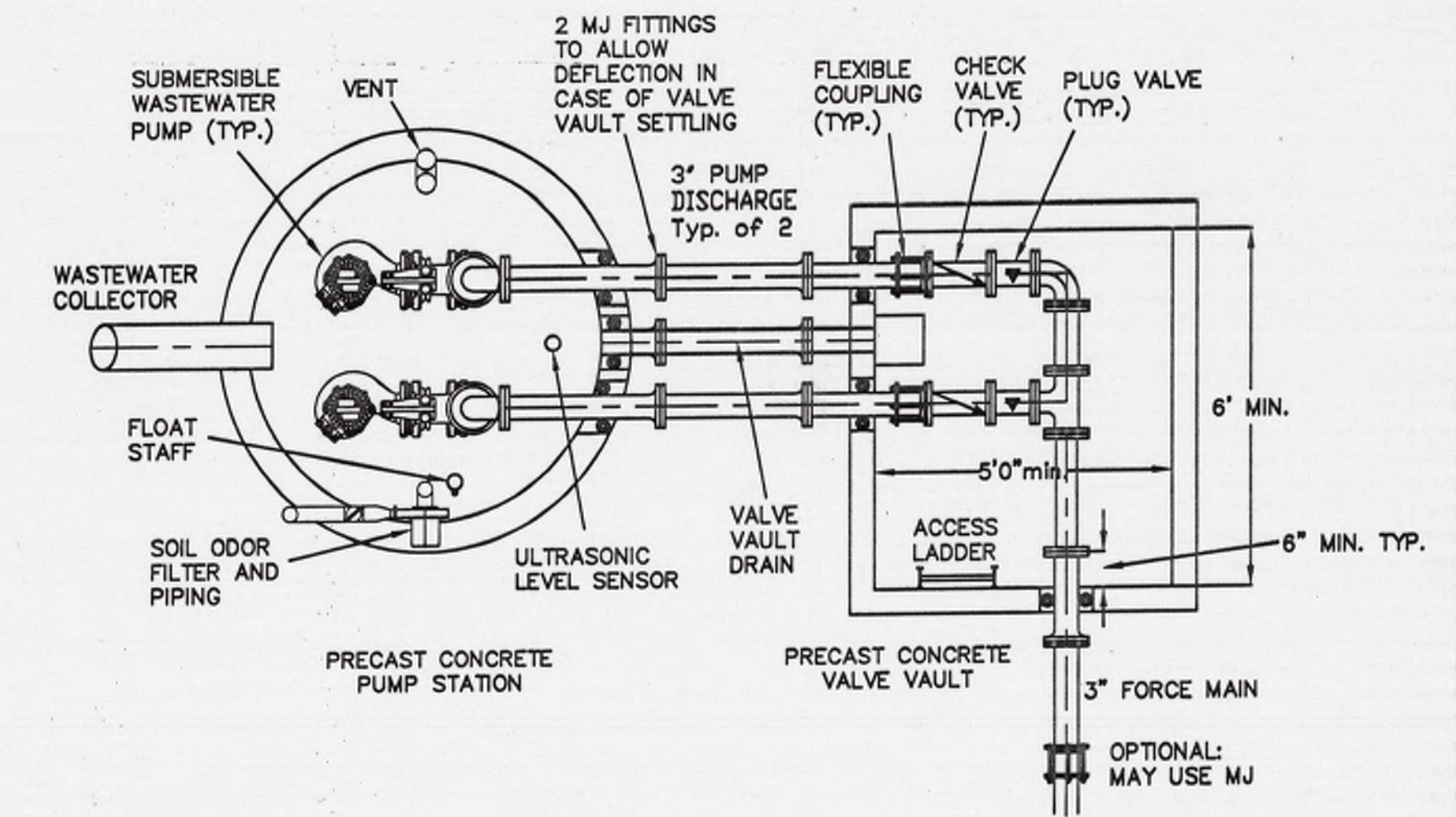
- NOTES:
1. PROVIDE EMERALD GREEN ARBORVITAE SHRUBBERY FOR SCREENING ALONG NORTH & EAST SIDES OF MAIN STREET PUMP STATION. SHRUBS MIN. 4' HIGH SET ON 6' C-C.
  2. ENTIRE FENCED IN AREA AND GRAVEL PARKING PAD SHALL BE COVERED WITH GRAVEL AND TREATED TO RETARD VEGETATION GROWTH.
  3. EXHAUST VENT PIPE SHALL EXIT PUMP STATION W/ TOP OF PIPE 6" BELOW FINISH GRADE AND RUN UNDERGROUND TO SOIL ODOR FILTER.

LEGEND  
EXISTING CONTOURS - - -  
FINAL CONTOURS ———



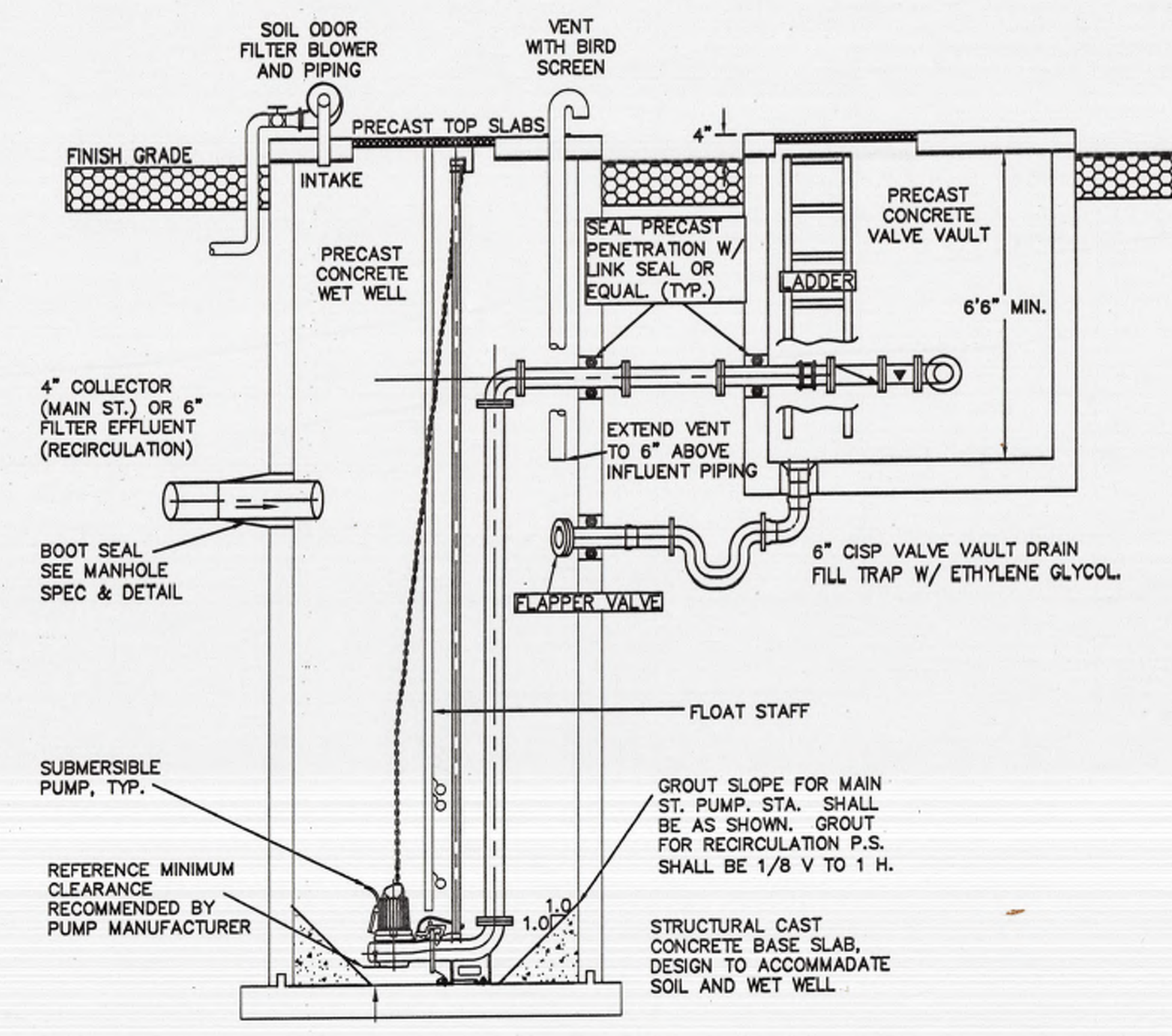
MAIN STREET PUMP STATION SITE PLAN  
SCALE 1" = 20'

LEGEND  
EXISTING CONTOURS - - -  
FINAL CONTOURS ———



PLAN - PUMP STATION & VALVE VAULT  
NOT TO SCALE

- NOTES:
1. THE PLAN VIEW SHOWN IS FOR THE MAIN STREET PUMP STATION. THE RECIRCULATION PUMP STATION HAS A LARGER DIAMETER WETWELL. A SEPARATE PLAN VIEW WILL BE PROVIDED FOR THE WETWELL, BUT IT IS OTHERWISE GENERALLY SIMILAR, WITH SUBMERSIBLE PUMPS, A PRECAST PUMP STATION AND VALVE VAULT.
  2. OUTSIDE THE VALVE VAULT THE FORCE MAIN SHALL TRANSITION TO 4" SDR 21 PVC.
  3. THE RECIRCULATION PUMP STATION HAS ALUMINUM GRATING OVER IT IN LIEU OF A PRECAST TOP.
  4. SEE SITE PLANS FOR ACTUAL LOCATION OF COLLECTORS AND FORCE MAINS.




PUMP STATION & VALVE VAULT SECTION  
NOT TO SCALE

TABLE OF WETWELL DIMENSIONS ( ALL IN FT )

	MAIN STREET	RECIRCULATION
DIAMETER, MIN.	5'0"	8'0"
FINISH GRADE	952.80	966.25
COLLECTOR INVERT (FILTER EFFLUENT)	946.80	959.00
HIGH WATER ALARM	948.30	958.50
START LAG PUMP	945.80	958.00
START LEAD PUMP	945.30	957.50
STOP LAG PUMP	943.77	956.00
STOP LEAD PUMP	943.27	953.47
LOW WATER ALARM	942.77	952.97
TOP OF SLAB	941.50	951.20

- NOTES:
1. RECIRCULATION PUMP STATION DOES NOT RECEIVE CHECK VALVES (DUE TO FREEZING POTENTIAL IN THE DISTRIBUTION PIPING), PROVIDE MOTOR OPERATED PLUG VALVES FOR PUMP ISOLATION AND TO PREVENT SHORT-CIRCUITING.
  2. SEE PLAN DRAWINGS AND OTHER DETAILS FOR ACTUAL PIPE ALIGNMENTS AND INVERTS.
  3. ALL EXCAVATION SLOPES SHALL CONFORM TO OSHA STANDARDS.



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MAIN STREET PUMP STATION SITE PLANS & TYPICAL SUBMERSIBLE PUMP STATION PLAN AND SECTION

DAVIDSON TOWNSHIP SEWER AUTHORITY  
SONESTOWN WASTEWATER SYSTEM

Sheet Title

The Davidson Township Sewer Authority - Sonestown Wastewater System

Sheet No. 12 OF

Drawing No. S-3 DWG file SpPumps1

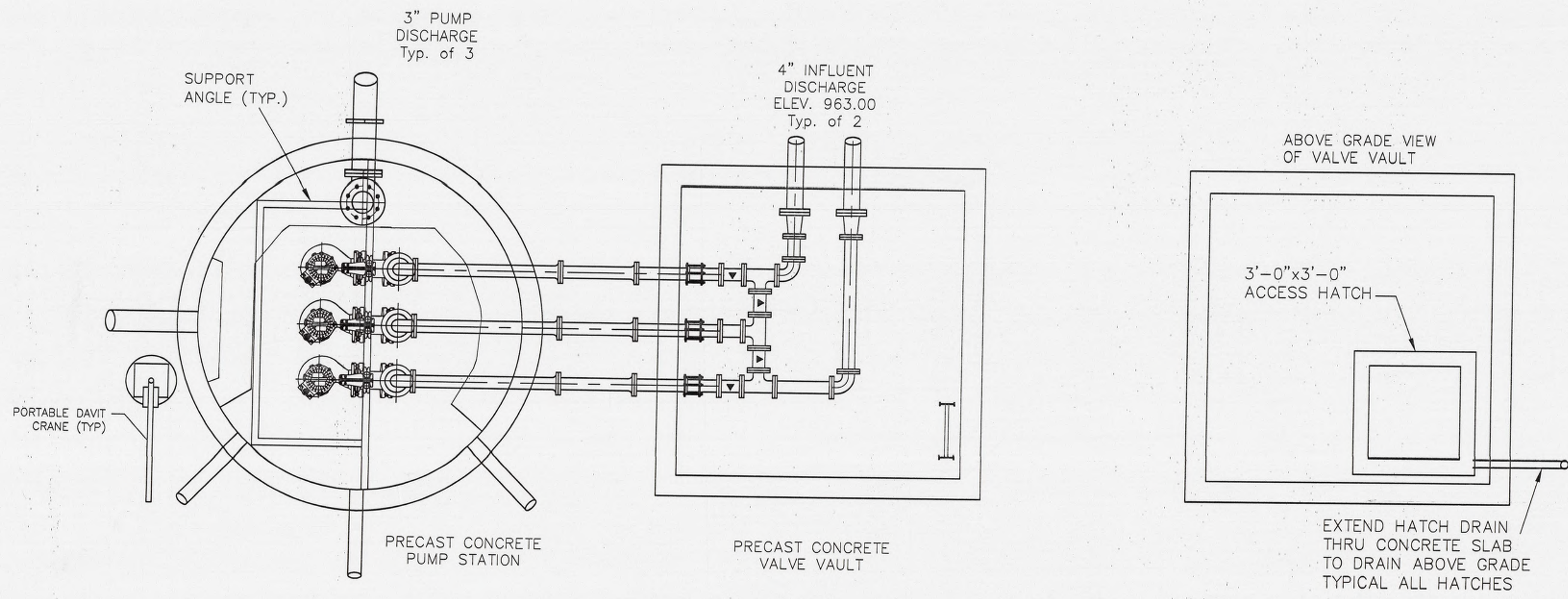
NO. DATE

1 11/27/01

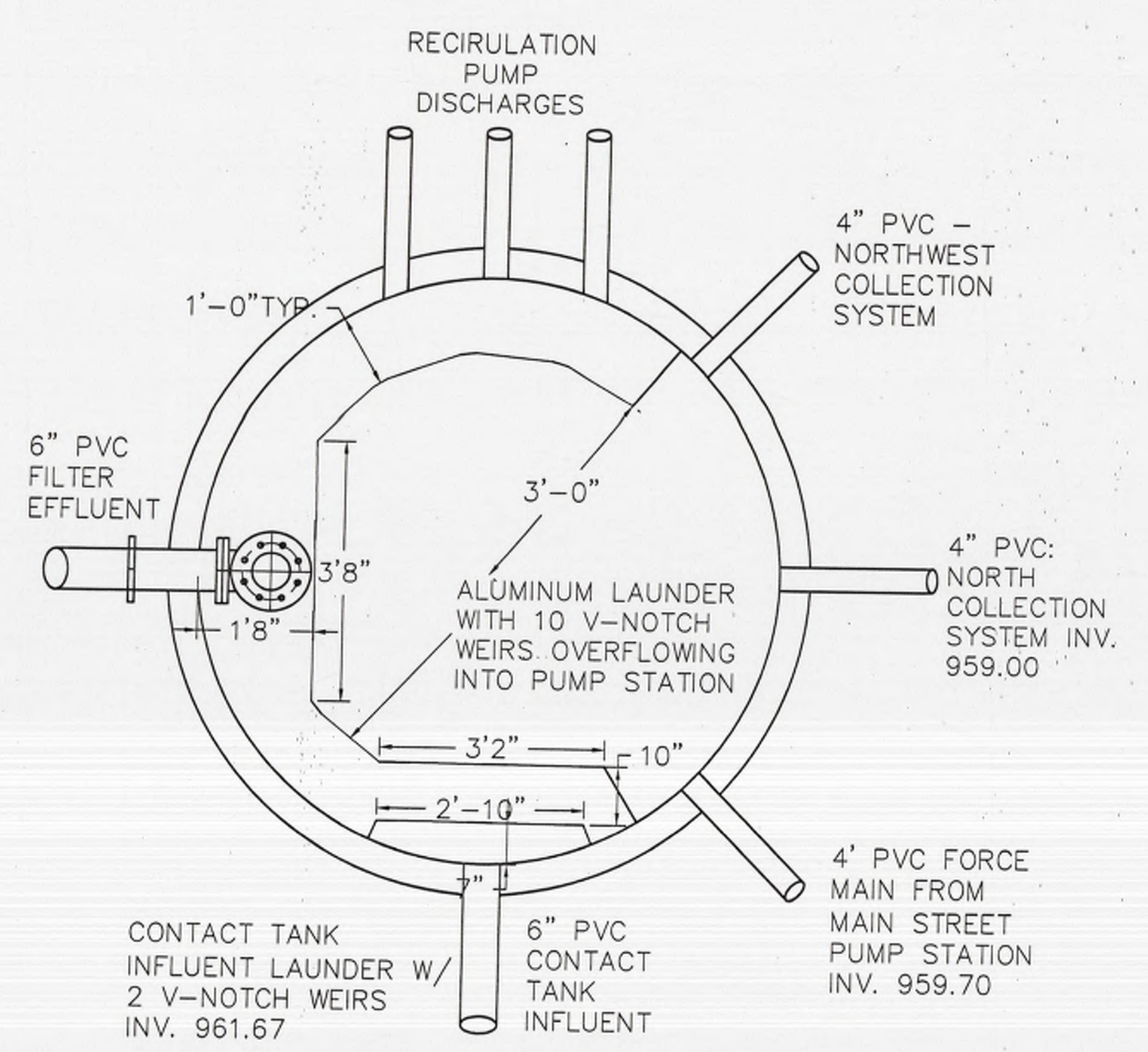
CHANGED CONDUIT SIZE

BY

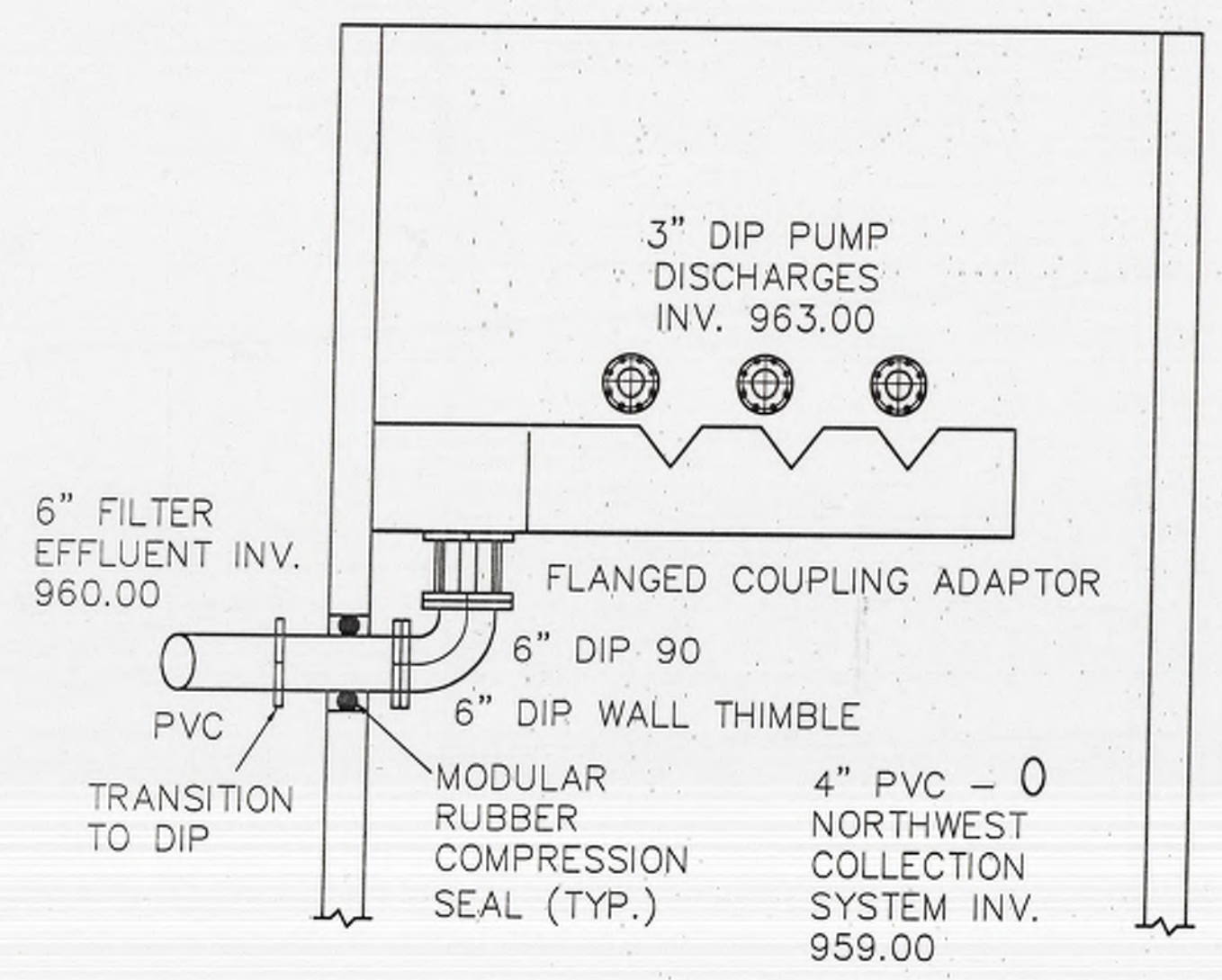




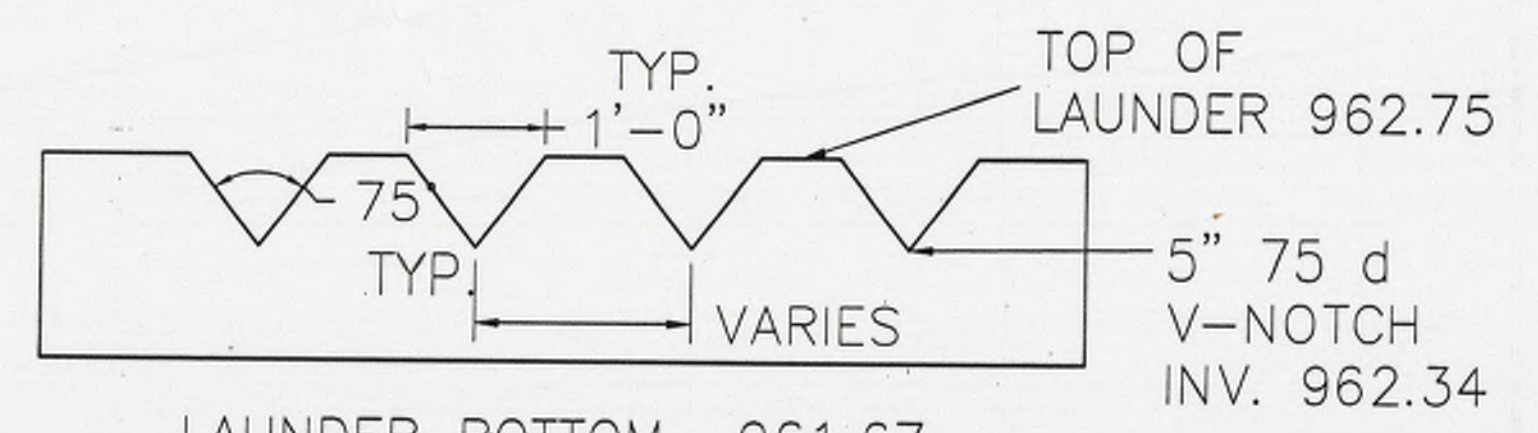
RECIRCULATION PUMP STATION & VALVE VAULT PLAN  
SCALE 3/8"=1'0"



RECIRCULATION PUMP STATION PARTIAL PLAN  
SCALE 3/8"=1'0"



RECIRCULATION PUMP STATION PARTIAL SECTION  
SCALE 3/8"=1'0"

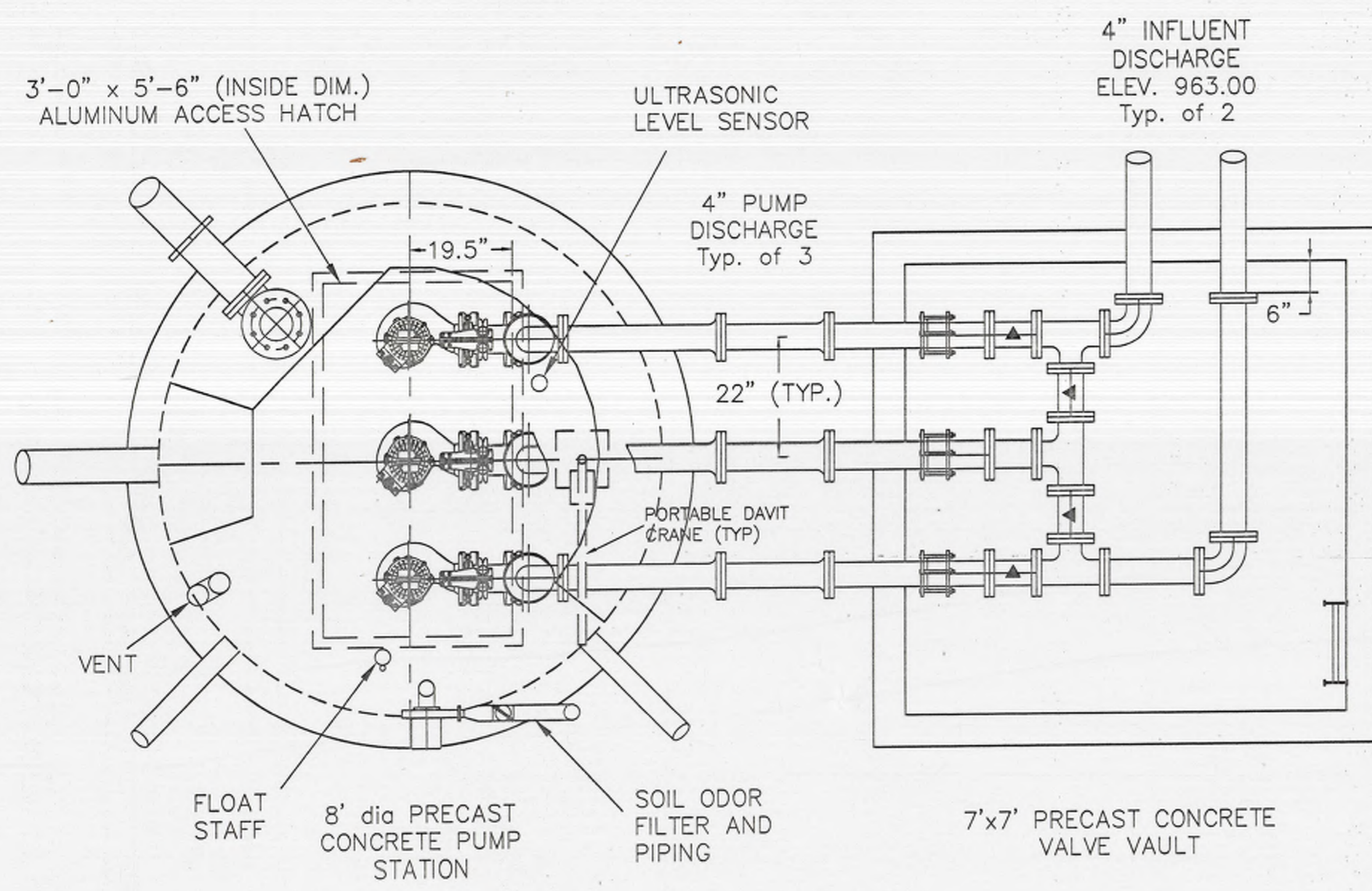


RECIRCULATION WEIR BOX DETAIL  
SCALE 1/2"=1'0"

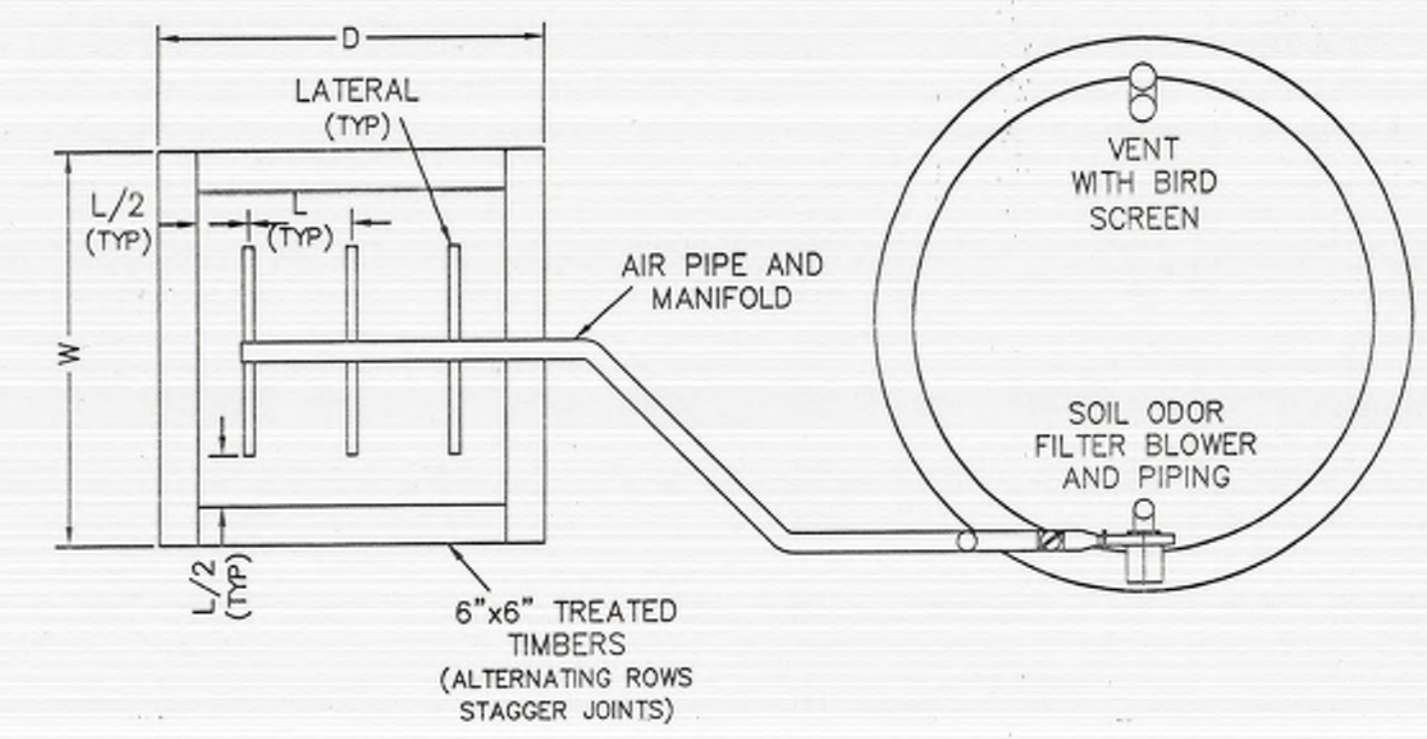
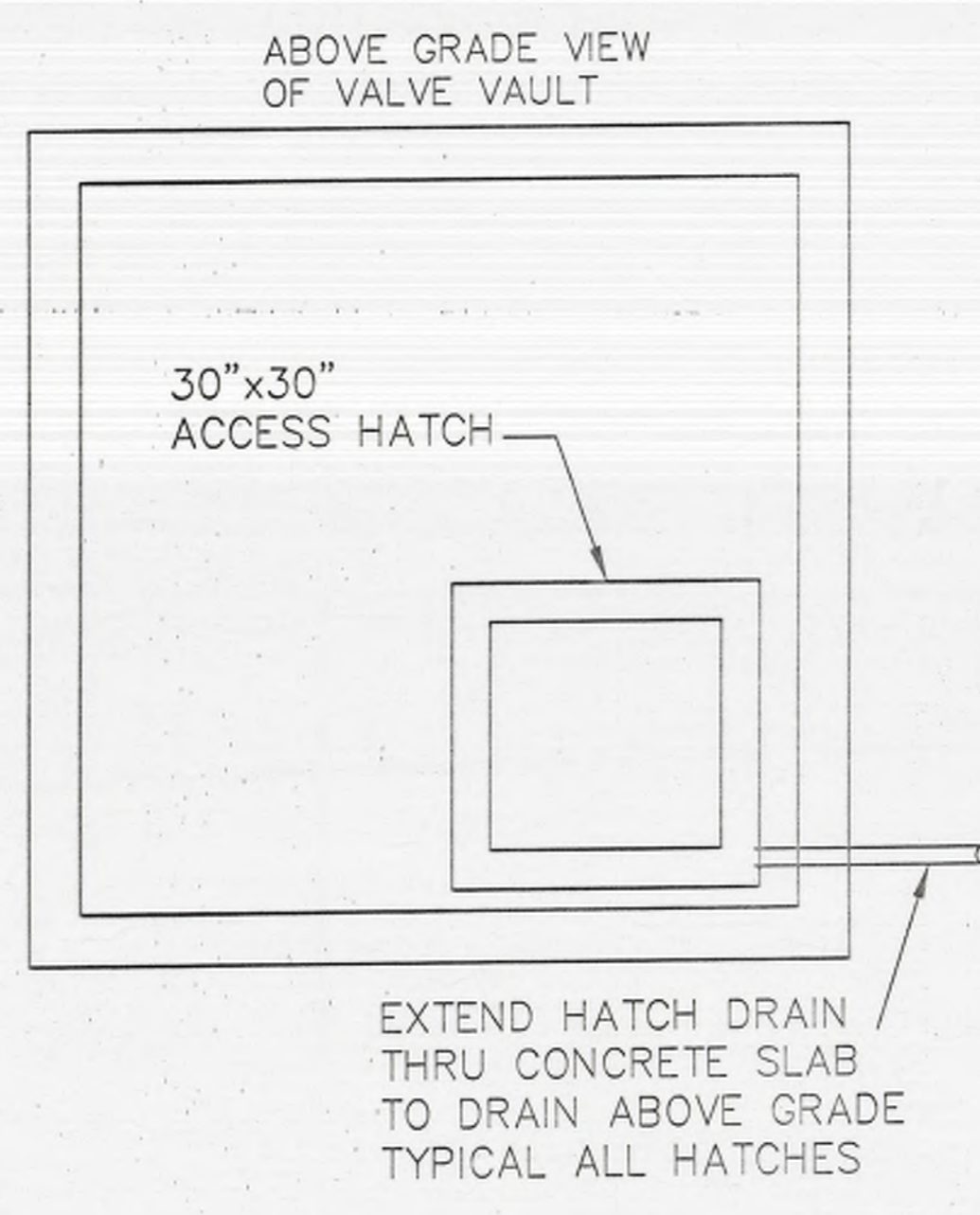
Sheet Title		The Davidson Township Sewer Authority - Sonestown Wastewater System	
Sheet No. 12-A	Drawing No. .DWG file	NO. DATE	DESCRIPTION
		1 11/27/01	NEW DRAWING
BY			

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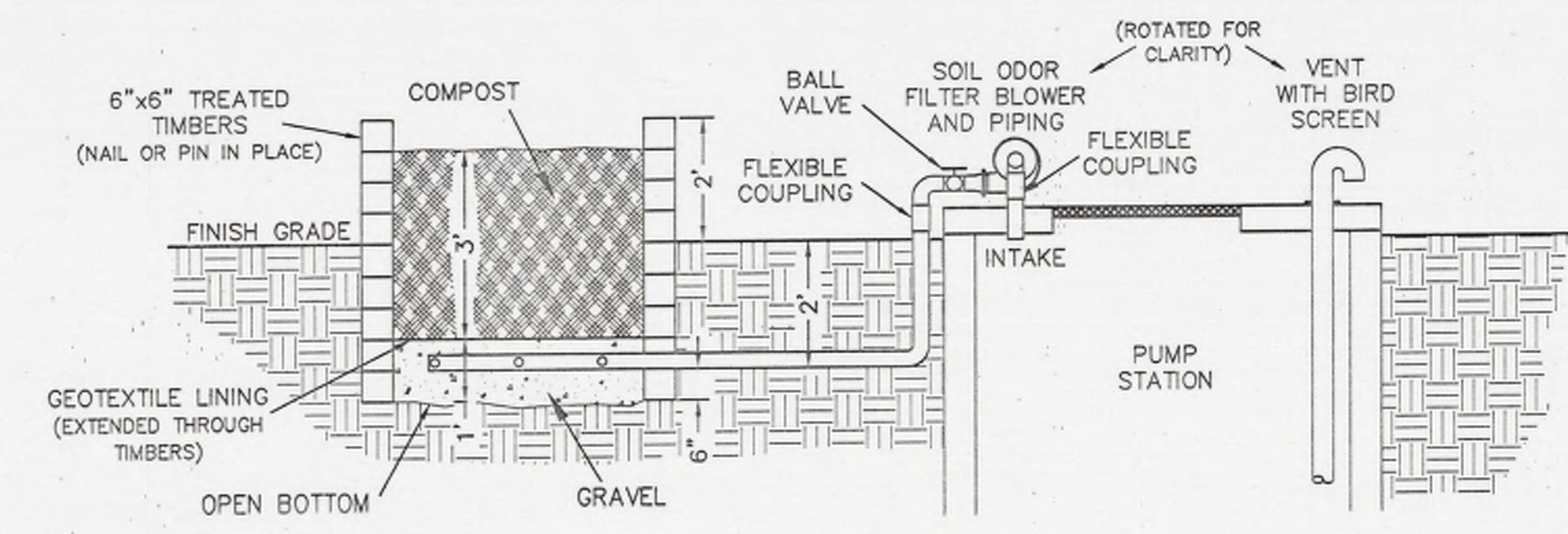




RECIRCULATION PUMP STATION & VALVE VAULT PLAN  
SCALE 3/8"=1'0"



SOIL ODOR FILTER PLAN  
NOT TO SCALE

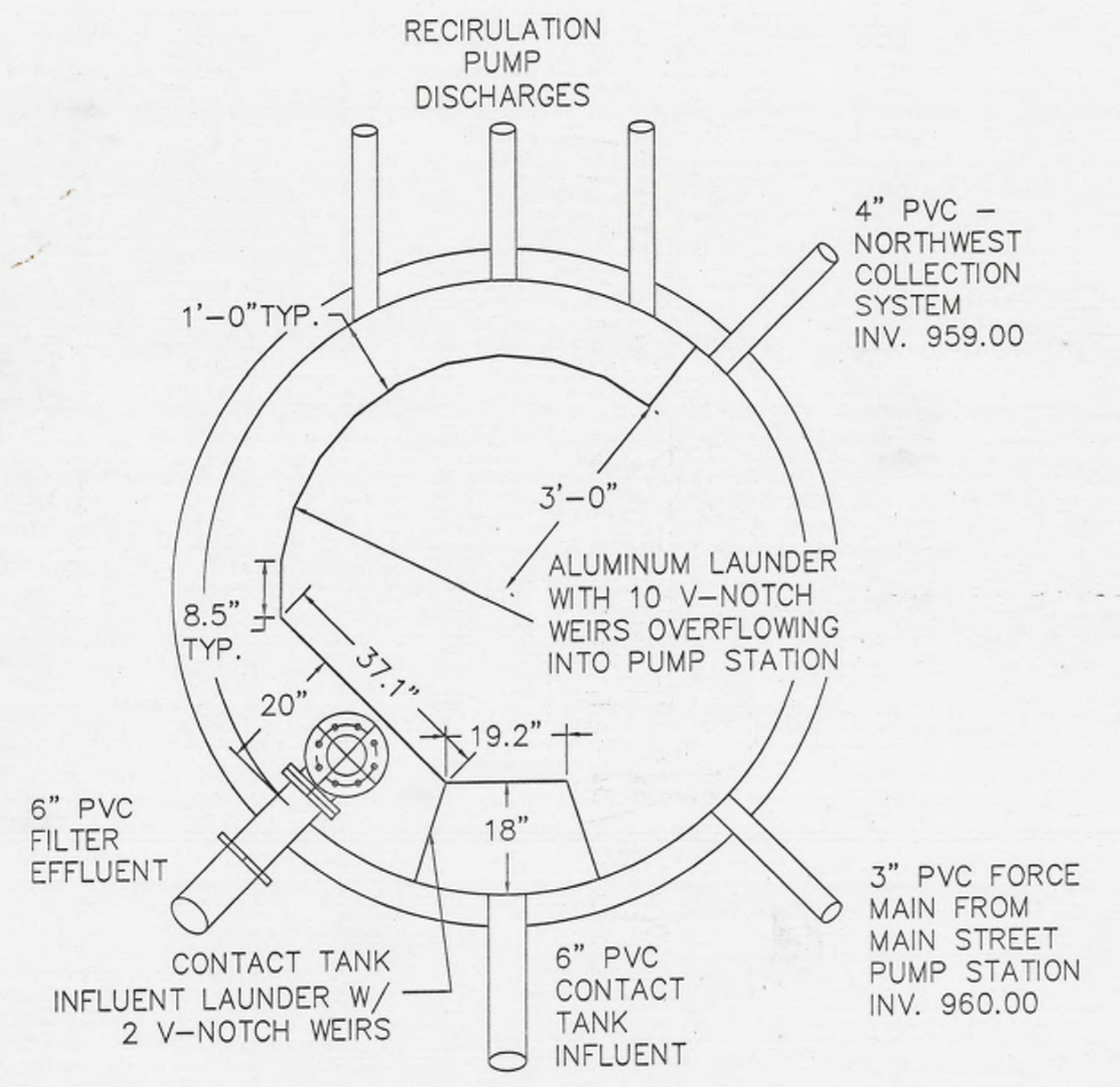


SOIL ODOR FILTER SECTION  
NOT TO SCALE

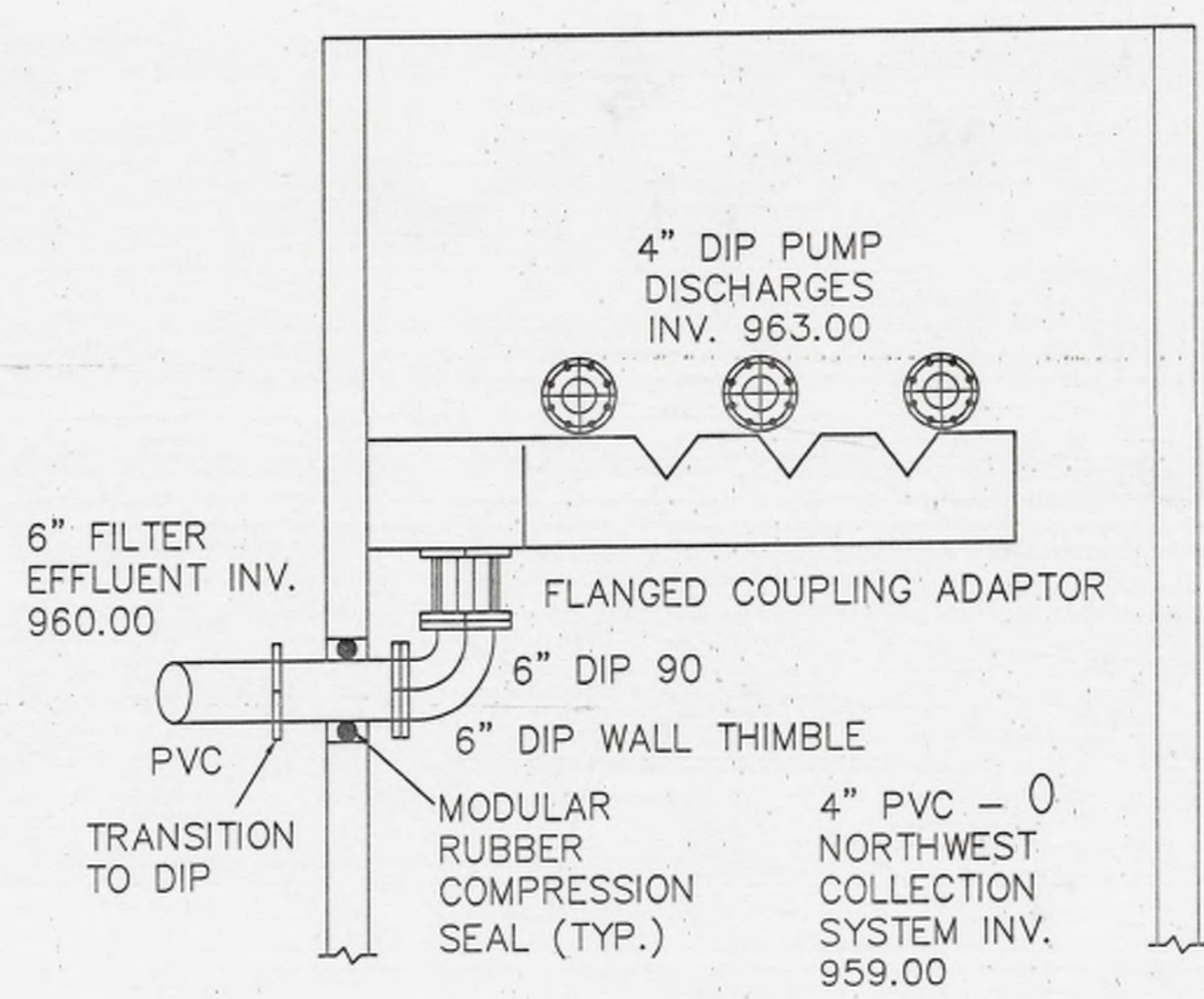
TABLE OF SOIL ODOR FILTER DIMENSIONS

	MAIN STREET	RECIRCULATION
DEPTH - D	5'-0"	6'-0"
WIDTH - W	5'-0"	6'-0"
LATERAL SPACING - L	1'-4"	2'-0"
# LATERAL PAIRS	3	3
LATERAL SIZE (PERFORATED THIN WALL WASTE/DRAIN)	3"	3"
AIR PIPE/MANIFOLD SIZE (SCH 40 PVC PIPE)	3"	4"
VENT SIZE (SCH 40 PVC PIPE)	4"	6"

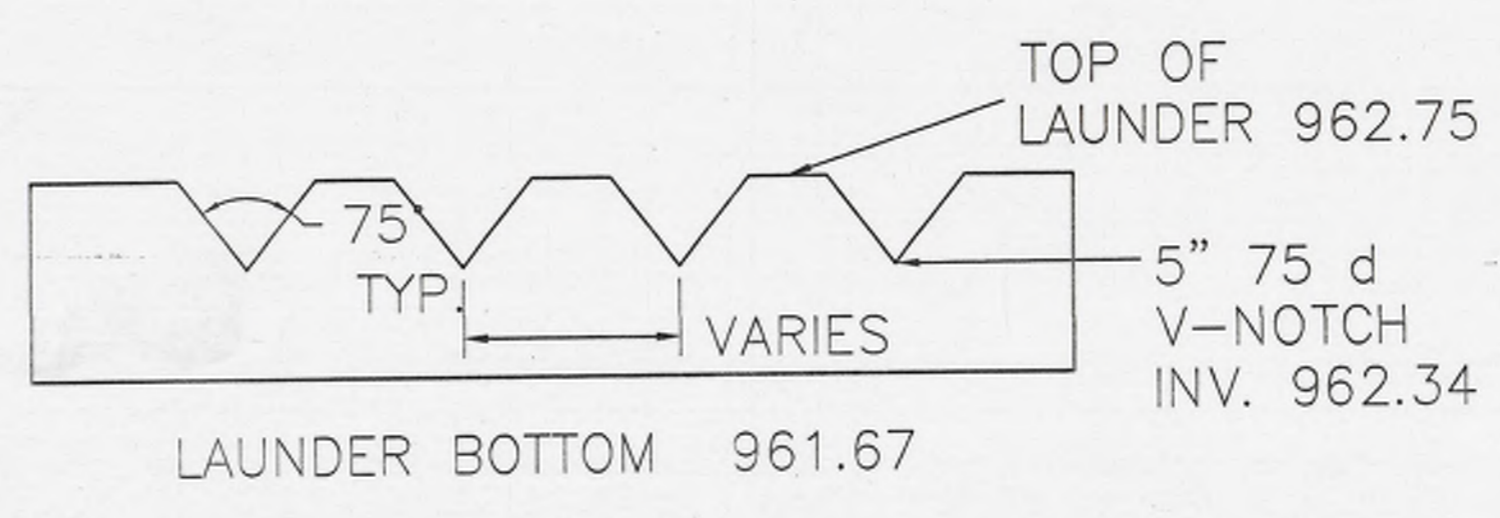
- NOTES:
- AIR AND VENT PIPE PENETRATIONS AT PUMP STATION AND SOIL ODOR FILTER TIMBERS SHALL BE SEALED TO PREVENT AIR LEAKAGE.
  - THE AIR PIPE FROM THE PUMP STATION TO THE SOIL ODOR FILTER SHALL BE IMBEDDED PER THE "TYPICAL TRENCH SECTION - PVC PIPE" DETAIL (SEE DETAIL SHEET)
  - SEE PLAN DRAWINGS AND OTHER DETAILS FOR ACTUAL EQUIPMENT AND PIPE ALIGNMENTS.



RECIRCULATION PUMP STATION PARTIAL PLAN  
SCALE 3/8"=1'0"



RECIRCULATION PUMP STATION PARTIAL SECTION  
SCALE 3/8"=1'0"



RECIRCULATION WEIR BOX DETAIL  
NOT TO SCALE

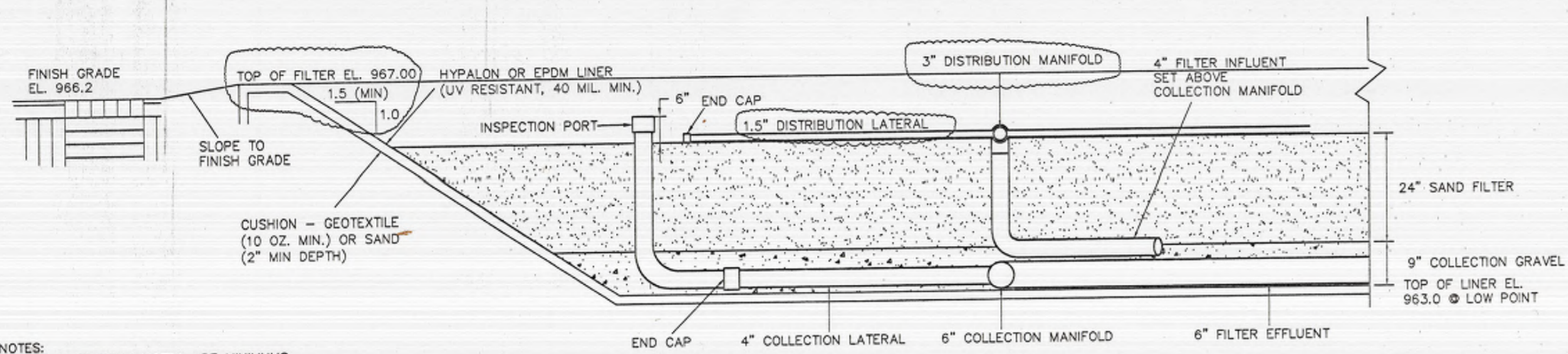
RECIRCULATION PUMP STATION DETAILS

Sheet Title: RECIRCULATION PUMP STATION PLANS & DETAILS  
 DAVIDSON TOWNSHIP SEWER AUTHORITY  
 SONESTOWN WASTEWATER SYSTEM  
 Sheet No. 12.A  
 Drawing No. S-3A  
 .DWG file: S3PumpSt

BRITT D. BASSETT  
 PROFESSIONAL ENGINEER  
 P. 37298-E  
 11/27/01  
 12/21/01  
 2

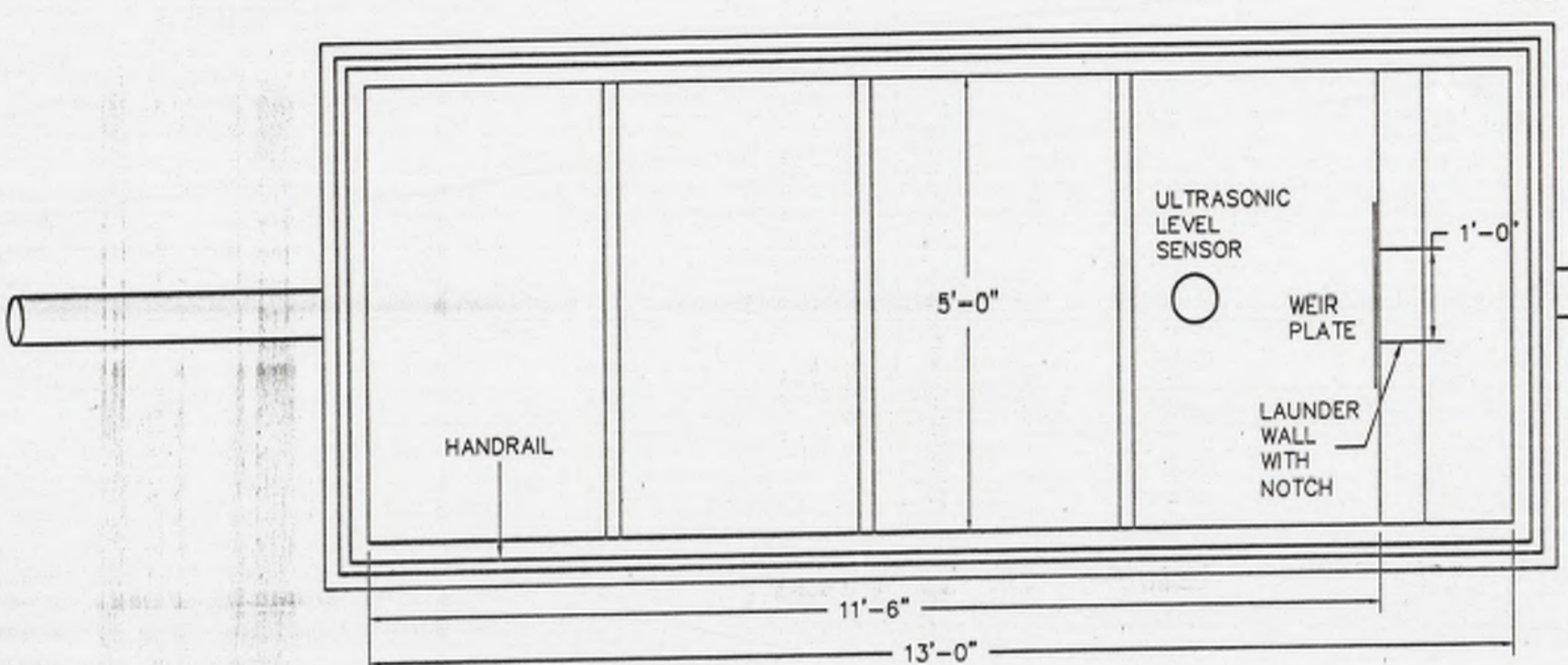
CHANGED TO 4" PIPING, ADDED SOIL ODOR FILTER  
 NEW DRAWING  
 DESCRIPTION  
 BY

The Davidson Township Sewer Authority - Sonestown Wastewater System

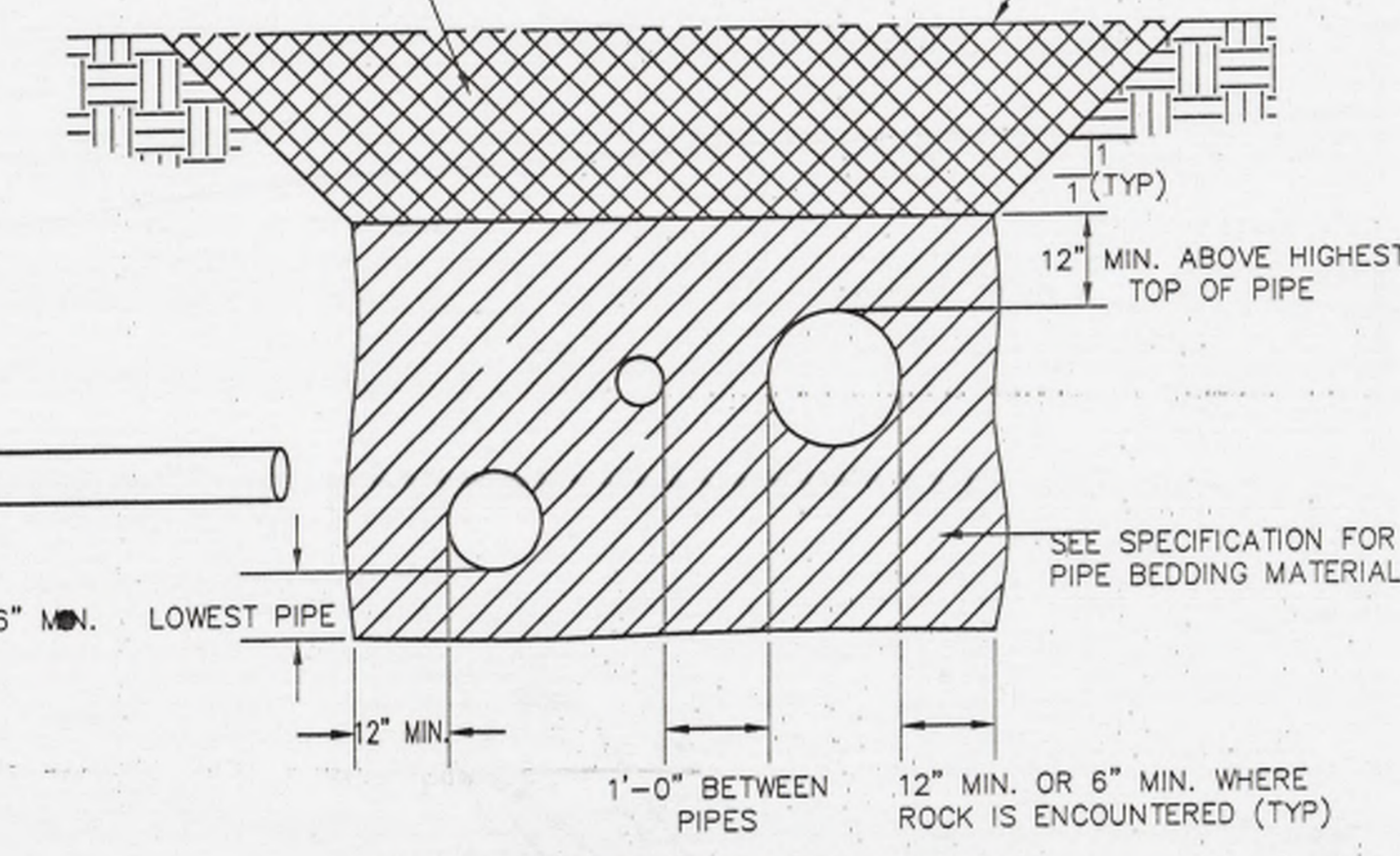


- NOTES:
1. ALL DIMENSIONS LISTED ARE MINIMUMS.
  2. SLOPE BASE 1/8" PER FT. TOWARDS COLLECTORS.
  3. SET COLLECTION PIPE & FILTER EFFLUENT DIRECTLY ON LINER.
  4. SET FILTER INFLUENT IN GRAVEL ABOVE COLLECTOR PIPING.
  5. SET COLLECTION PIPES IN 6" SIZE AASHTO #57 STONE. COVER W/ 3" OF AASHTO #8 STONE TO SUPPORT SAND MEDIA.
  6. ALL STONE SHALL BE WASHED RIVER GRAVEL - NO CRUSHED LIMESTONE.
  7. SAND FILTER MEDIA SHALL BE CLEAN COARSE SAND WITH EFFECTIVE MEDIUM SIZE OF 3 MM AND A UNIFORMITY COEFFICIENT OF <2.0.
  8. SECTION IS PROVIDED TO SHOW VERTICAL RELATIONSHIP OF FILTER MATERIALS. SOME ELEMENTS ARE SHOWN OUT OF PLACE COMPARED TO THE PLAN VIEW IN ORDER TO INCLUDE THEM IN A SINGLE VIEW.
  9. DISTRIBUTION LATERALS SHALL BE DRILLED AT 6'0" C-C STARTING ON EACH LATERAL 3'0" FROM THE MANIFOLD. SEE DETAIL BELOW.
  10. DRILL A HOLE IN THE END CAPS OF THE DISTRIBUTION LATERALS. SEE DETAIL BELOW.
  11. COLLECTION LATERALS SHALL BE PERFORATED PVC PIPE. ALL PIPE SHALL BE SCH. 40 PVC. PROVIDE 90° BEND AND EXTEND LATERAL ABOVE SAND MEDIA. PROVIDE INSPECTION PORT WITH CAP.
  12. SLOPE FILTER INFLUENT A MINIMUM OF 1/16" PER FT. TOWARDS THE RECIRCULATION PUMP STATION.
  13. REMOVE ALL SHARP OBJECTS AND LARGE PROTRUDING STONES FROM BENEATH THE FILTER BOTTOM AND SIDES.

TYPICAL SAND FILTER SECTION  
NTS

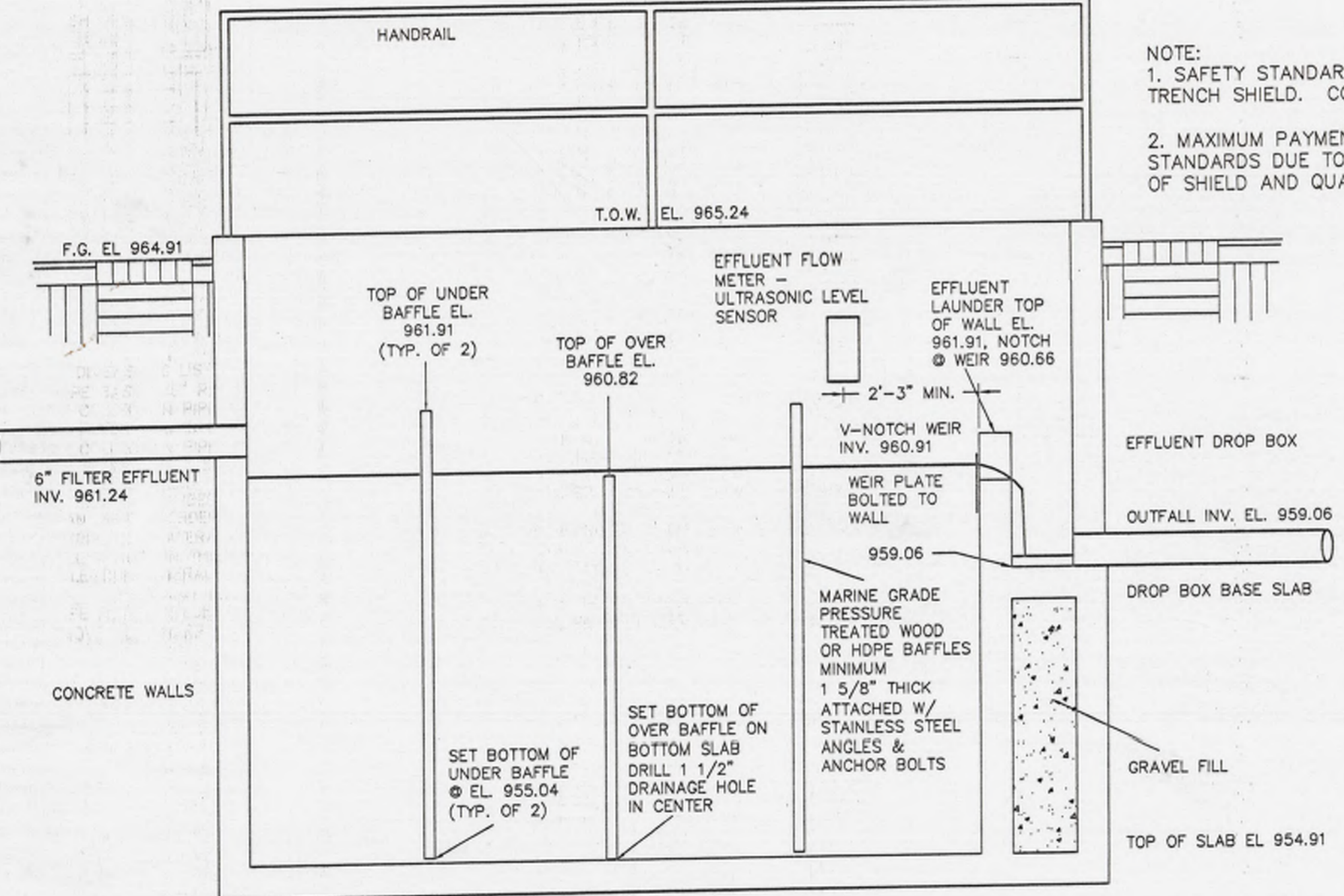


PLAN VIEW

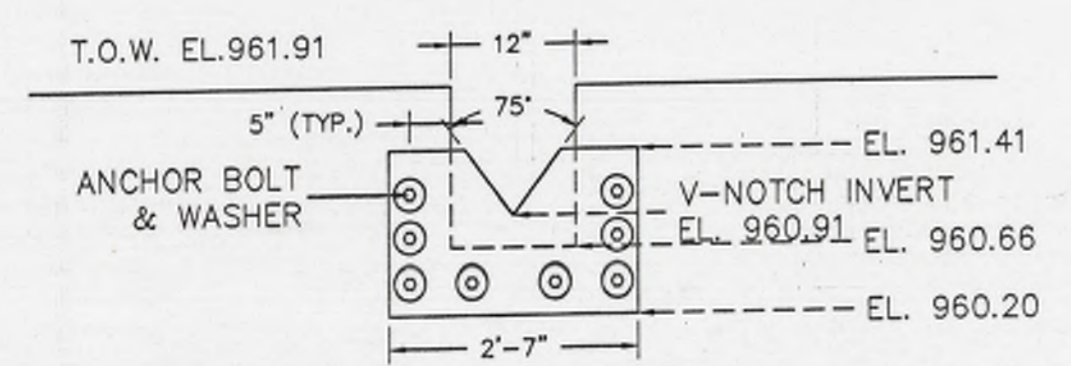


TYPICAL TRENCH SECTION  
MULTIPLE PIPING  
SEE PIPING PLAN FOR LAYOUT.

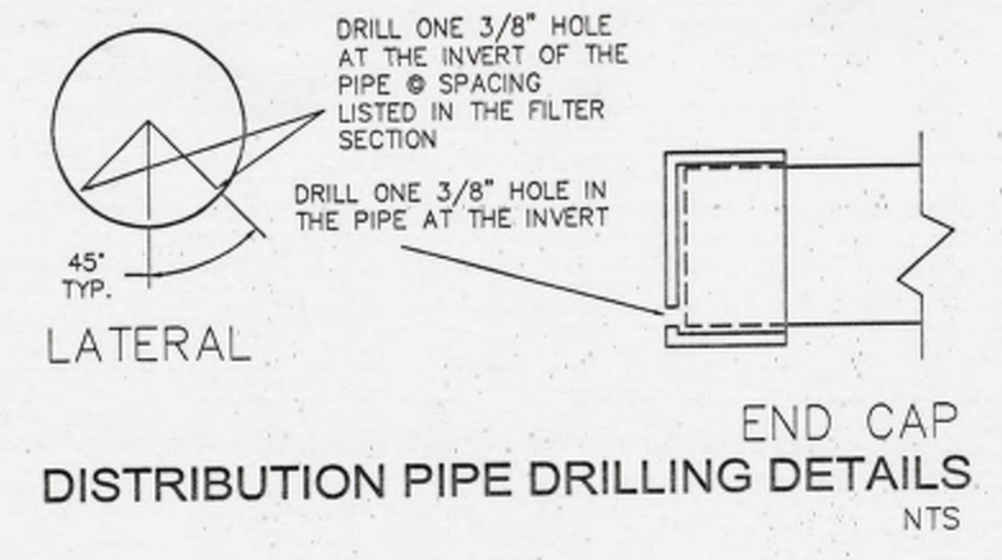
- NOTE:
1. SAFETY STANDARDS MAY DICTATE A MODIFICATION IN TRENCH SIDE SLOPES OR USE OF A MOBILE TRENCH SHIELD. CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE SAFETY STANDARDS.
  2. MAXIMUM PAYMENT LIMIT (W) - WHERE USE OF TRENCH SHIELD IS REQUIRED TO MEET SAFETY STANDARDS DUE TO DEPTH OF PIPE OR SOIL CONDITIONS THEN MAXIMUM LIMIT TO BE OUTSIDE WIDTH OF SHIELD AND QUANTITIES TO BE COMPUTED ON THAT WIDTH AS MEASURED BY THE ENGINEER.



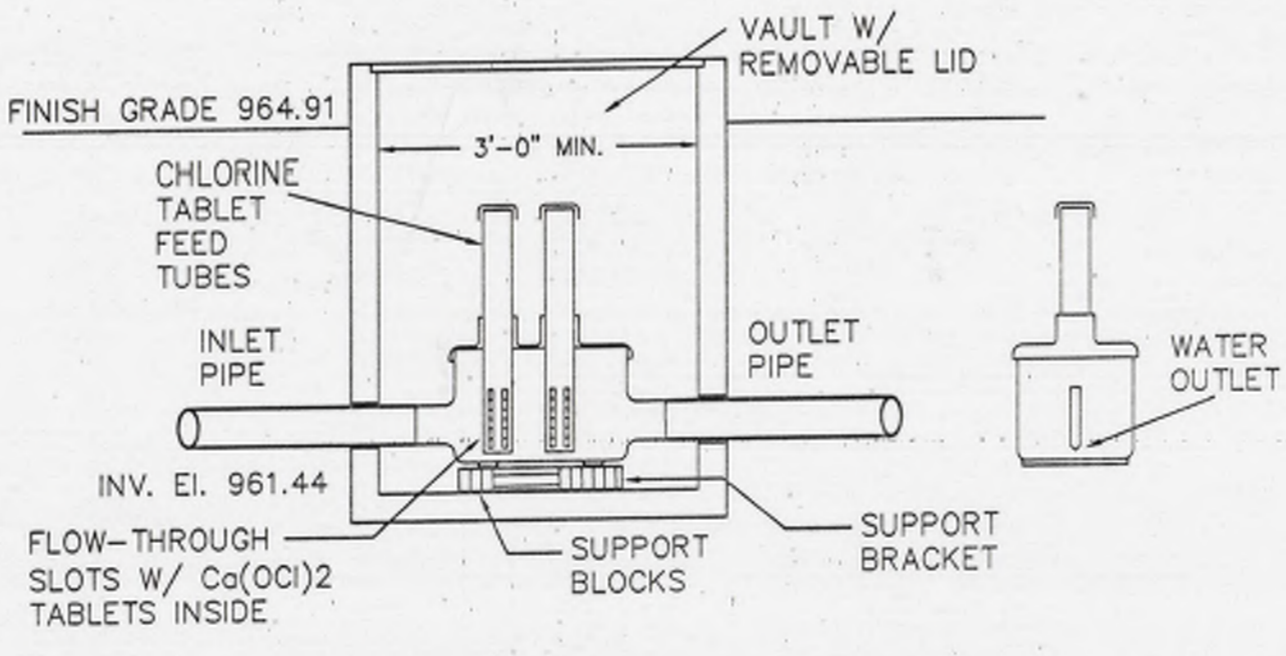
SECTION VIEW  
CHLORINE CONTACT TANK  
NTS



CHLORINE CONTACT TANK WEIR PLATE DETAIL

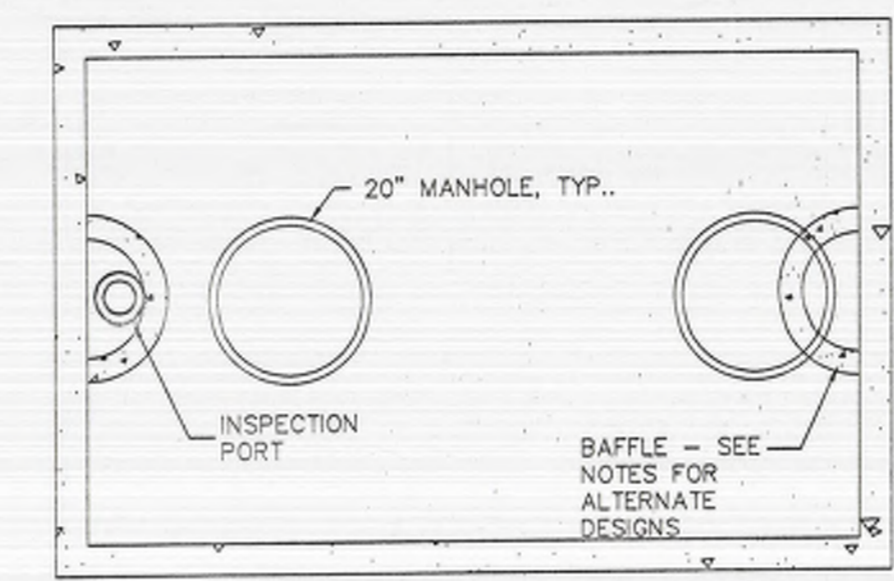


DISTRIBUTION PIPE DRILLING DETAILS  
NTS

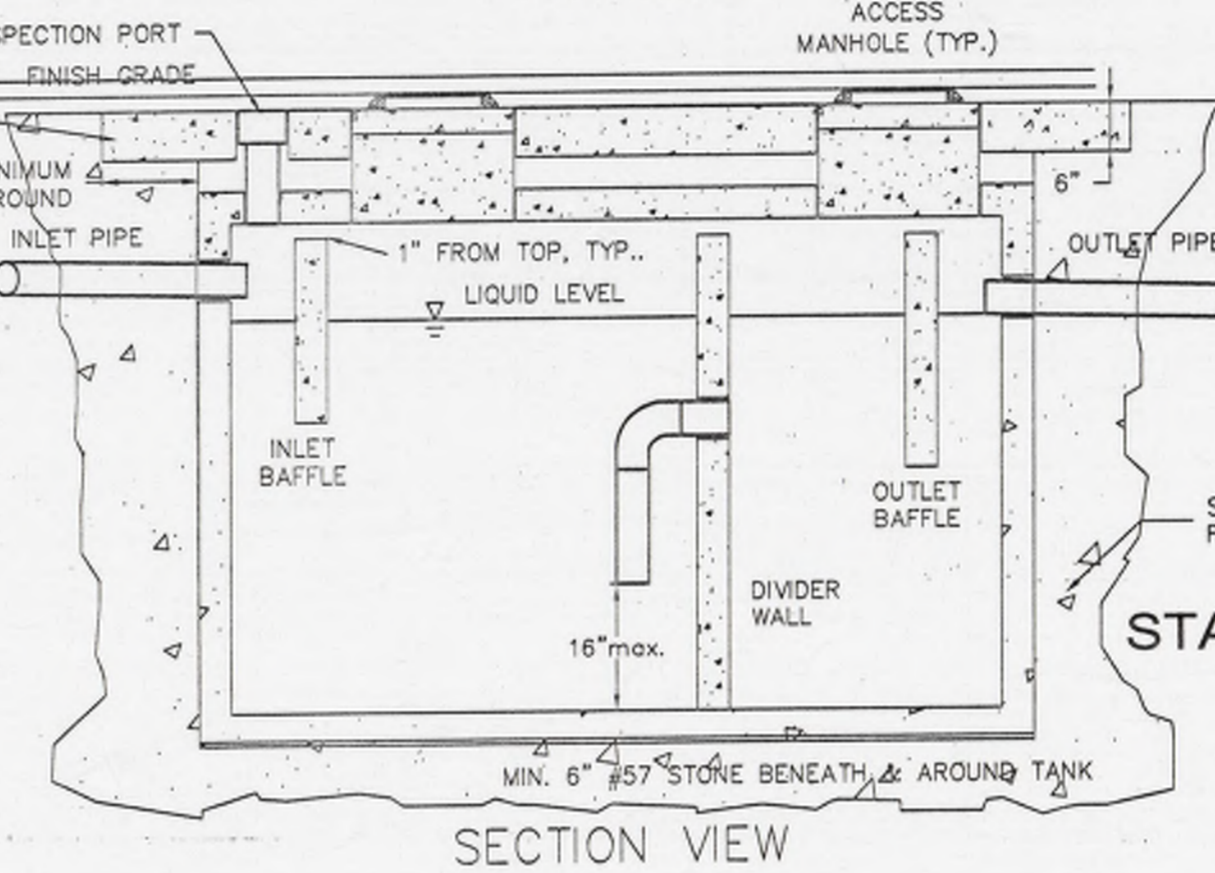


STACK FEED CHLORINATOR  
NTS

- NOTES:
1. USE JET-CHLOR TABLET CHLORINATOR MODEL 200, BY JET, INC., CLEVELAND OH, OR APPROVED EQUAL.
  3. SET CHLORINATOR IN CONCRETE VAULT W/ LOCKABLE COVER.
  4. SET TOP OF VAULT 3" ABOVE FINISH GRADE.



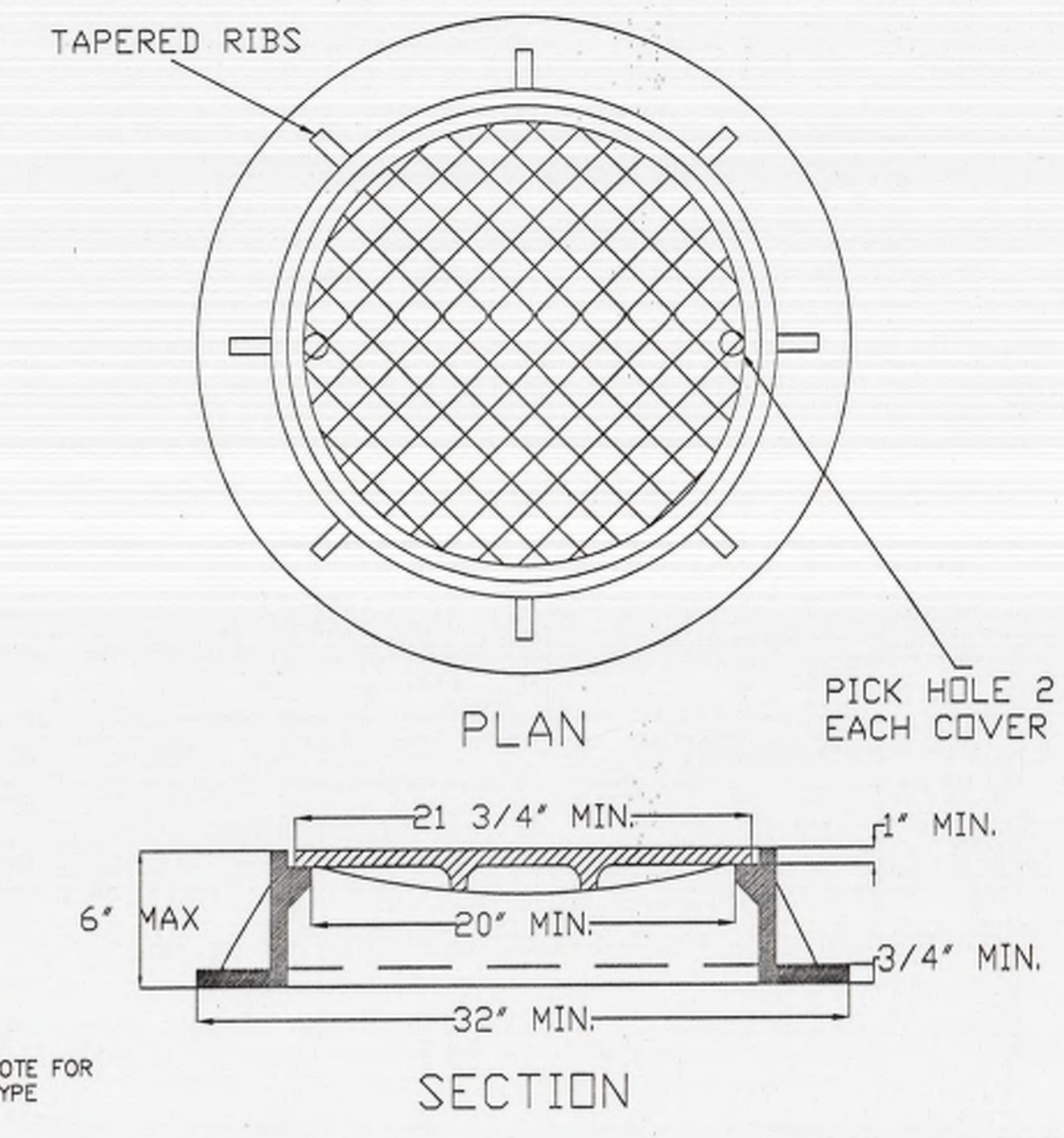
PLAN VIEW



SECTION VIEW

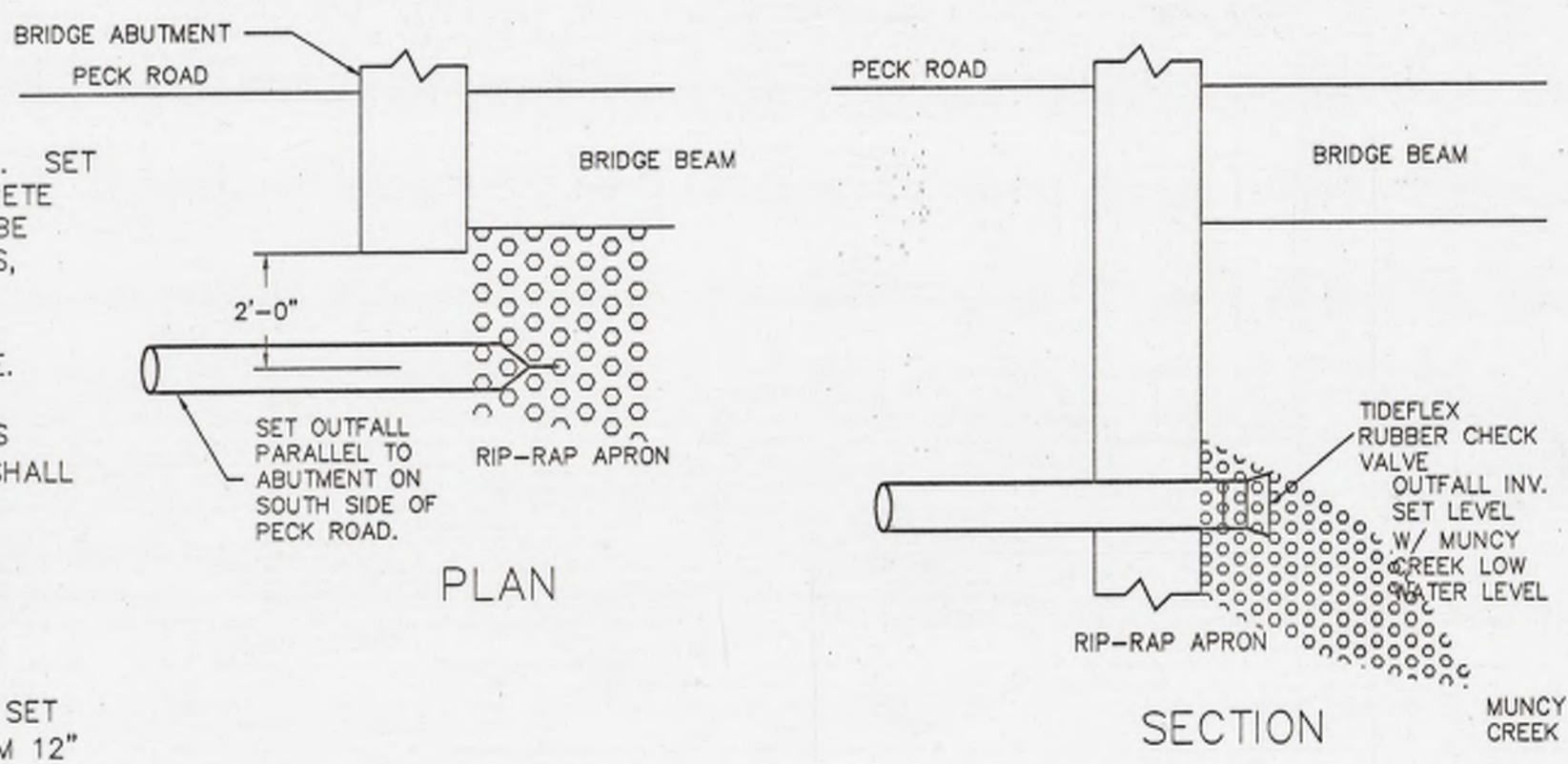
TYPICAL SEPTIC TANK  
NTS

- NOTES:
1. SEE SPECIFICATION 03400 FOR DESIGN REQUIREMENTS.
  2. ACCESS MH: SET TOP AT FINISH GRADE. SEE MANHOLE FRAME & COVER DETAIL.
  3. SET INLET INVERT MIN. 3" ABOVE OUTLET INVERT.
  4. SET INLET BAFFLE INVERT MIN. 9" BELOW LIQUID LEVEL. SET OUTLET BAFFLE INVERT AT 40% OF LIQUID LEVEL. CONCRETE BAFFLES ARE SHOWN BUT SANITARY TEES AND PIPE CAN BE ADDED TO INLET AND OUTLET PIPES TO SERVE AS BAFFLES, ALONG WITH OTHER DEP APPROVED DEVICES.
  5. INSPECTION PORT 4" DIAM. SET TOP AT FINISH GRADE.
  6. PROVIDE 6" PIPE THROUGH DIVIDER WALL. INLET PIPES SHALL BE 4" AND OUTLET PIPES SHALL BE 2". 4" PIPE SHALL BE USED BETWEEN MULTIPLE TANK INSTALLATIONS. ALL PIPE SHALL BE SCH 40 PVC.
  7. TANKS MUST BE DESIGNED TO PREVENT FLOATATION ASSUMING GROUND IS SATURATED TO FINISH GRADE.
  8. IN ROAD SHOULDER, BACKFILL WITH 2A SUBBASE AND SET CONCRETE TOP SLAB AS SHOWN. EXTEND SLAB A MINIMUM 12" PAST EDGE OF SEPTIC TANK ALL AROUND.
  9. ALL EXCAVATION SLOPES SHALL CONFORM TO OSHA STANDARDS.
  10. REFER TO SPECIFICATIONS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.



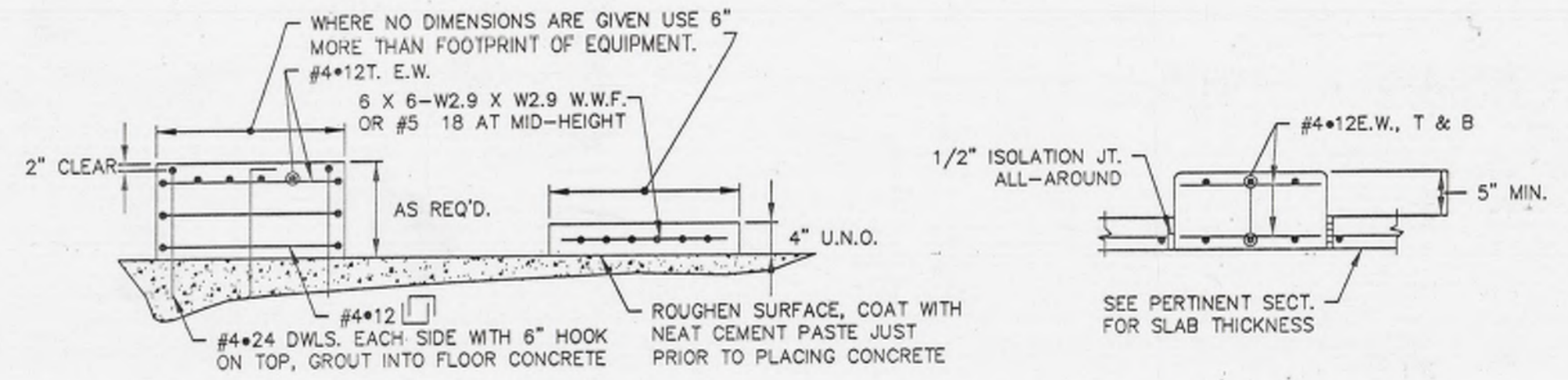
STANDARD SEPTIC TANK MANHOLE FRAME & COVER  
NTS

- NOTES:
1. COVERS SHALL HAVE INDENTED TOP WITH CONCEALED WATERTIGHT PICK HOLES.
  2. ALL COVERS SHALL BE SECURED WITH A SINGLE BOLT TO PREVENT UNAUTHORIZED ACCESS.
  3. COVERS SHALL HAVE WATERTIGHT NEOPRENE GASKET ATTACHED TO BOTTOM.



OUTFALL TO MUNCY CREEK  
NTS

- NOTE:
- SET INVERT OF OUTFALL EVEN WITH THE CREEK'S LOW WATER LEVEL. COVER OUTFALL WITH CREEK STONE AND CUT TRENCH FROM CREEK BANK TO CENTER OF CREEK. LINE THE TRENCH WITH LARGE STONE (10" AND UP) TO CREATE FRENCH DRAIN. PROTECT TIDEFLEX CHECK VALVE BY SURROUNDING IT WITH LARGE BOULDERS THAT LEAVE THE OUTLET UNOBSTRUCTED. COVER TRENCH WITH SMALLER STONES.



HEAVY EQUIP./PUMP PAD GENERAL HOUSE KEEPING PAD ISOLATED EQUIP. PAD  
REINFORCEMENT DETAILS FOR EQUIPMENT PADS  
NO SCALE

**Bassett Engineering**

766 LOWER BARBOURS ROAD WILLIAMSPORT, PA 17701-9788  
Phone 570-478-2114 Fax 478-4139 e: BassettEng@aol.com

**The Davidson Township Sewer Authority - Sonestown Wastewater System**

SAND FILTER, SEPTIC & CHLORINE TANKS, OUTFALL AND CHLORINATOR DETAILS

DAVIDSON TOWNSHIP SEWER AUTHORITY  
SONESTOWN WASTEWATER SYSTEM

Drawing No. S-5 DWG file: S05Details

NO.	DATE	DESCRIPTION	BY
1	11/27/01	CHANGED FILTER DISTRIBUTION PIPING, TOP OF FILTER ELEV.; OCT. ELEV.	
2	12/31/01	CHANGED OCT & CHLORINATOR ELEVATIONS FOR NEW FILTER ARRAY	

# DAVIDSON TOWNSHIP SEWER AUTHORITY

## DAVIDSON TOWNSHIP

### SULLIVAN COUNTY, PENNSYLVANIA

#### WASTEWATER TREATMENT FACILITIES REHABILITATION

#### CONTRACT 12-1: PRE-CAST CONCRETE STRUCTURE REHABILITATION

#### CONTRACT 12-2: SAND FILTER REHABILITATION

#### CONTRACT 12-3: ELECTRICAL CONSTRUCTION

APRIL 2012

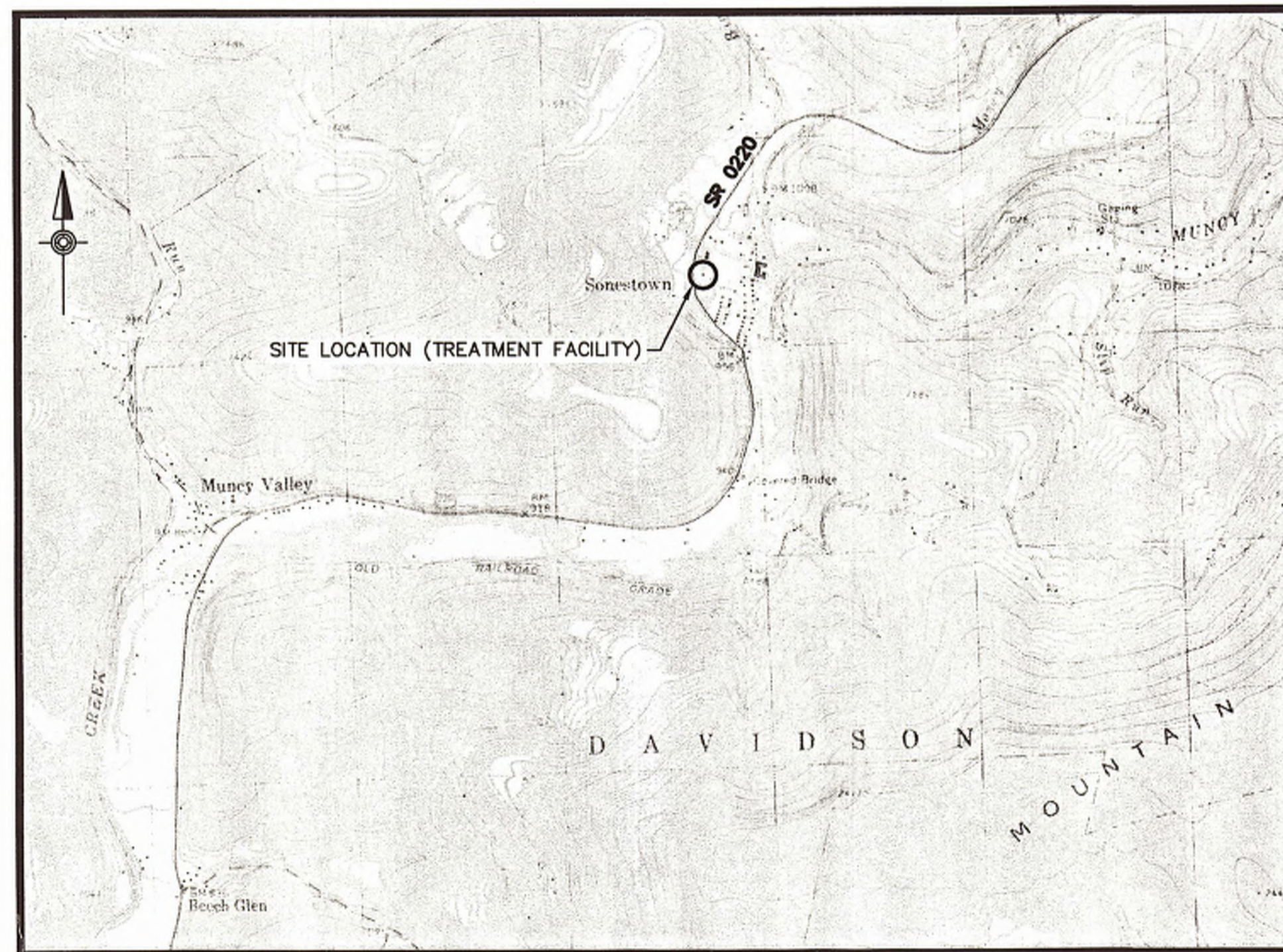
Appendix C

**PA ONE CALL**  
ACT 287, AS AMENDED



PENNSYLVANIA ACT 287 (1974) AS AMENDED, REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH. PA ONE-CALL SERIAL NO. 20120466839 HAS BEEN ASSIGNED TO THIS PROJECT ON 02-15-2012.

FRONTIER COMMUNICATIONS  
PENELEC-FIRST ENERGY  
SULLIVAN COUNTY  
PENCOR SERVICES INC.



**LOCATION MAP**  
SCALE: 1"=2000'

**ABBREVIATIONS**

AL.	ALUMINUM	GYP.	GYPSUM
AWL.	AVERAGE WATER LEVEL	HDPE	HIGH DENSITY POLYETHYLENE
APPROX.	APPROXIMATELY	INSUL	INSULATION
BY	BALL VALVE	INV.	INVERT
BRNG.	BEARING	L.F.	LINEAR FOOT
BD	BOARD	MIN	MINIMUM
BF	BUTTERFLY VALVE	M.J.	MECHANICAL JOINT
CIP	CAST IRON PIPE	NPT	NOMINAL PIPE THREAD
CL	CENTER LINE	O.C.	ON CENTER
CMF	CORRUGATED METAL PIPE	PE	PLAIN END
CONC.	CONCRETE	PERF	PERFORATED
CONT.	CONTINUOUS	PVC	POLYVINYL CHLORIDE PIPE
Cu	COPPER	RED	REDUCER
CV	CHECK VALVE	REINF.	REINFORCING
DIA.	DIAMETER	R-O-W	RIGHT-OF-WAY
DIP	DUCTILE IRON PIPE	RJ	RESTRAINED JOINT
DN.	DOWN	S.S.	STAINLESS STEEL
EL.	ELEVATION	STL.	STEEL
ELB	ELBOW	THK	THICK
EX.	EXISTING	TOC	TOP OF CONCRETE
FDN	FOUNDATION	TOG	TOP OF GRADING
FG	FINISHED GRADE	T.O.W.	TOP OF WALL
FJ	FLANGED JOINT	TYP.	TYPICAL
G.STL.	GALVANIZED STEEL PIPE	VERT.	VERTICAL
		W/	WITH

**INDEX OF DRAWINGS**

SHT. NO.	DWG. NO.	TITLE
1.	1	ALL CONTRACTS TITLE SHEET, LEGEND & GENERAL NOTES
2.	SI-1	ALL CONTRACTS SITE PLAN
3.	DT-1	CONTRACT 12-1 AND CONTRACT 12-2 CONSTRUCTION DETAILS
4.	DT-2	CONTRACT 12-1 AND CONTRACT 12-2 CONSTRUCTION DETAILS
5.	DT-3	CONTRACT 12-1 AND CONTRACT 12-2 EROSION & SEDIMENTATION CONTROL DETAILS
6.	E-1	CONTRACT 12-3 ELECTRICAL ABBREVIATIONS, NOTES & DETAILS

**GENERAL NOTES**

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS, ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.
2. ALL GRADED AREAS, WHICH DO NOT RECEIVE ROCK AGGREGATE, SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL, RECOMMENDED SEED MIXTURE AND MULCHING.
3. ALL STOCKPILED TOPSOIL ON SITE SHALL BE STABILIZED BY THE CONTRACTOR UNTIL NEEDED.
4. THE CONTRACTOR SHALL KEEP THE SITE WELL DRAINED AT ALL TIMES.
5. THE CONTRACTOR SHALL CONDUCT HIS CONSTRUCTION ACTIVITIES SUCH THAT IT MINIMIZES THE AMOUNT OF DISTURBED SOIL.
6. OSHA EXCAVATION STANDARDS SHALL APPLY TO THIS CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF TRENCH AND STRUCTURES.
7. PROPERTY LINE LOCATIONS ARE FROM EXISTING RECORDS AND SHALL BE CONSIDERED APPROXIMATE FOR PURPOSES OF THIS PROJECT.
8. THE CONTRACTOR MUST COMPLY WITH THE PENNSYLVANIA ONE-CALL SYSTEM (AT 1-800-242-1776).
9. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE PROJECT SITE.
10. CONTRACTOR RESPONSIBLE FOR MONITORING FLOW AND BYPASS PUMPING (IN ACCORDANCE WITH SECTION 011400 OF THE PROJECT MANUAL). SUCH FLOW SHALL BE MONITORED TO NOT ALLOW SEWAGE BACK-UP OR SURCHARGE WHICH MAY CAUSE PRIVATE OR PUBLIC PROPERTY DAMAGE. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE INCURRED AS A RESULT OF SEWAGE BACK-UP OR SURCHARGE AND MUST MAKE RESTITUTION WITH ANY PROPERTY OWNERS.
11. THE PROPOSED BYPASSING SYSTEM MUST BE APPROVED BY THE OWNER AND ENGINEER AT LEAST 7 FULL WORKING DAYS IN ADVANCE OF INITIATING BYPASS OPERATIONS. DUE TO INFILTRATION AND INFLOW WITHIN THE SYSTEM, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANTICIPATING ALL WET WEATHER EVENTS AND PLANNING THE WORK AND BYPASS PUMPING ACCORDINGLY. BYPASS PUMPING SYSTEM SHALL ADDRESS HOW COMPLIANCE WITH EXISTING PERMITS WILL BE MET. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING REQUIREMENTS ASSOCIATED WITH BYPASS PUMPING OPERATIONS.
12. CONTRACTORS OPERATIONS SHALL NOT IMPEDE THE WASTEWATER TREATMENTS PLANT'S ABILITY TO COMPLY WITH ALL EXISTING PERMITS.

**HRG**  
Herbert, Rowland & Grubic, Inc.  
Engineering & Related Services

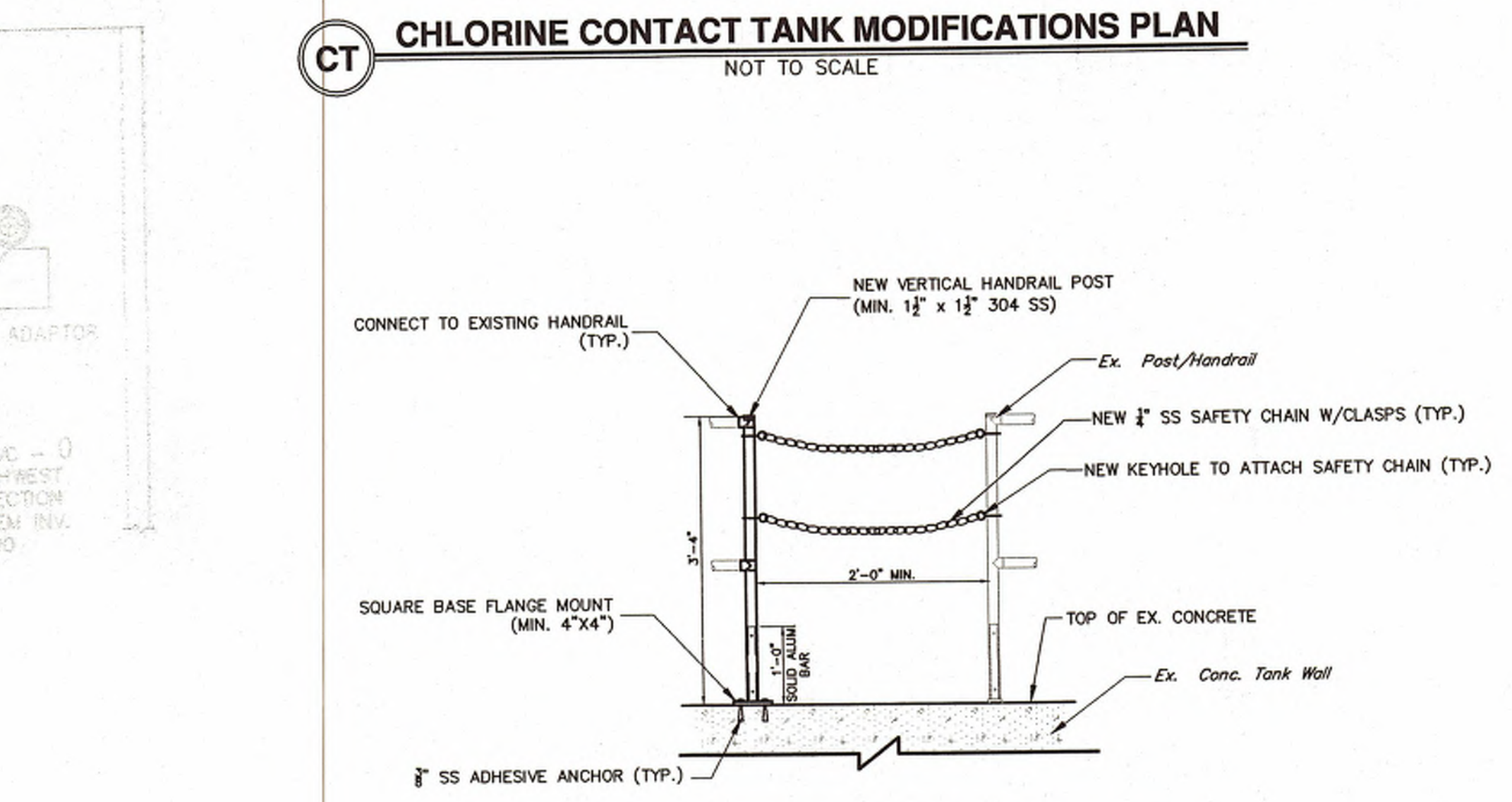
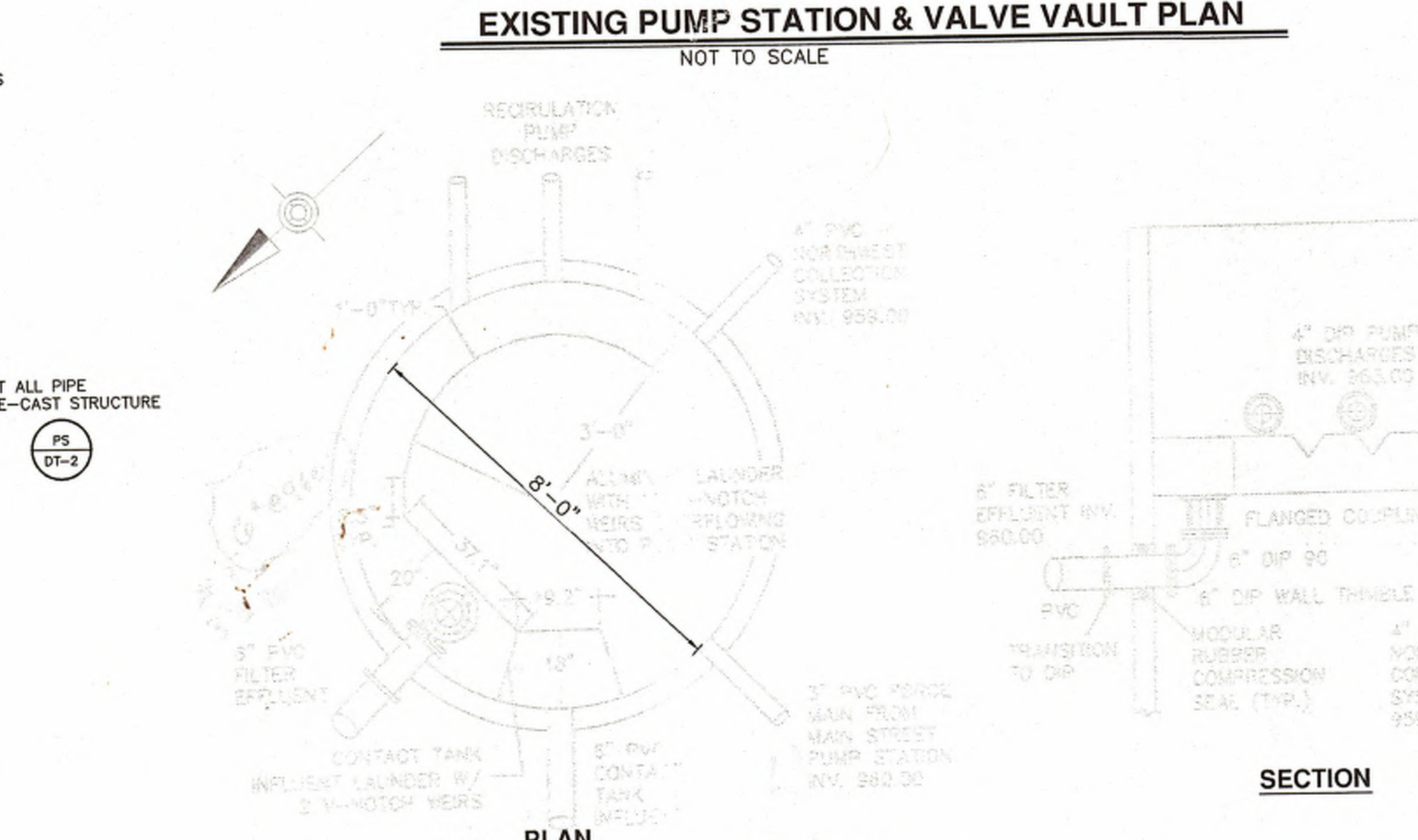
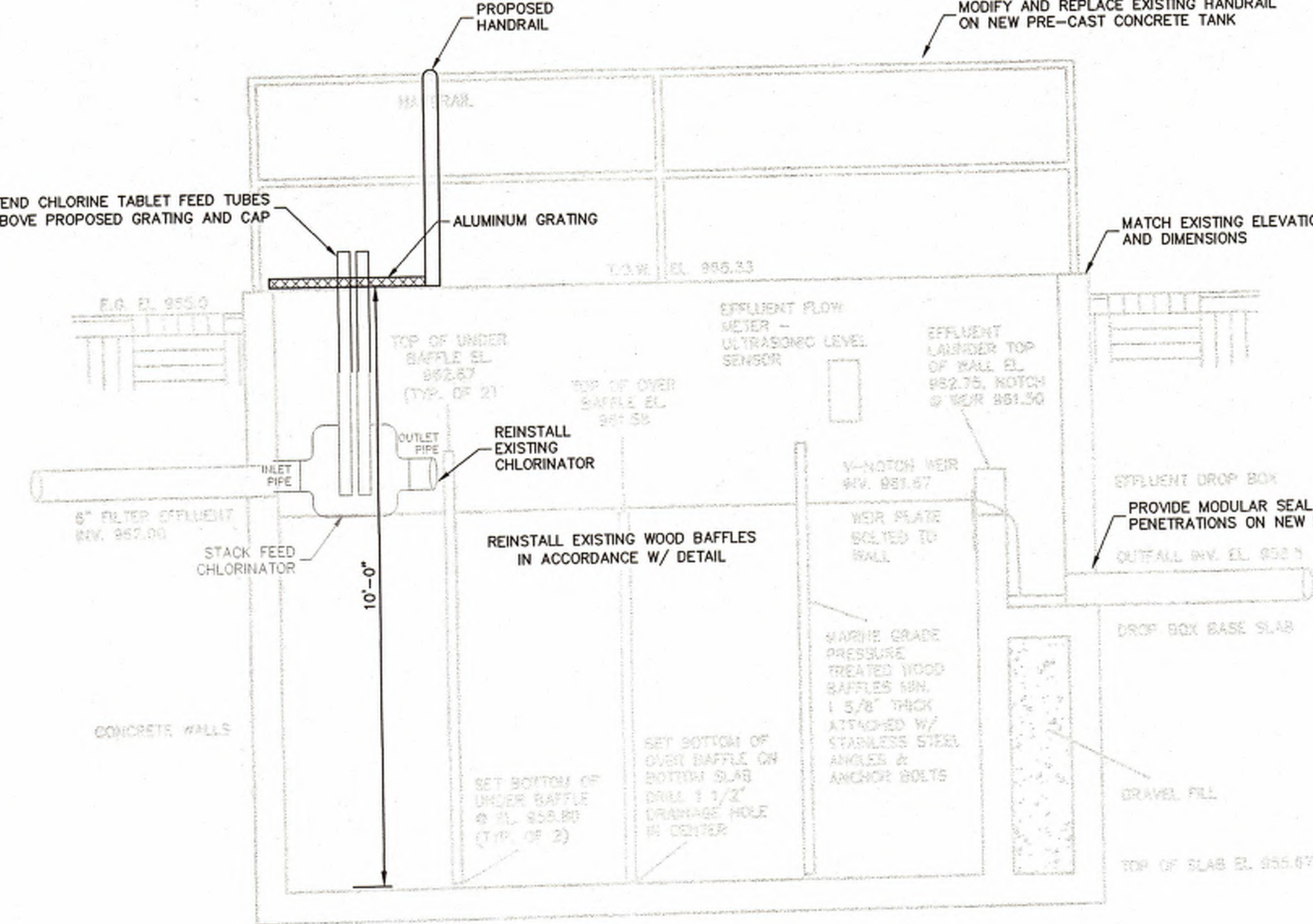
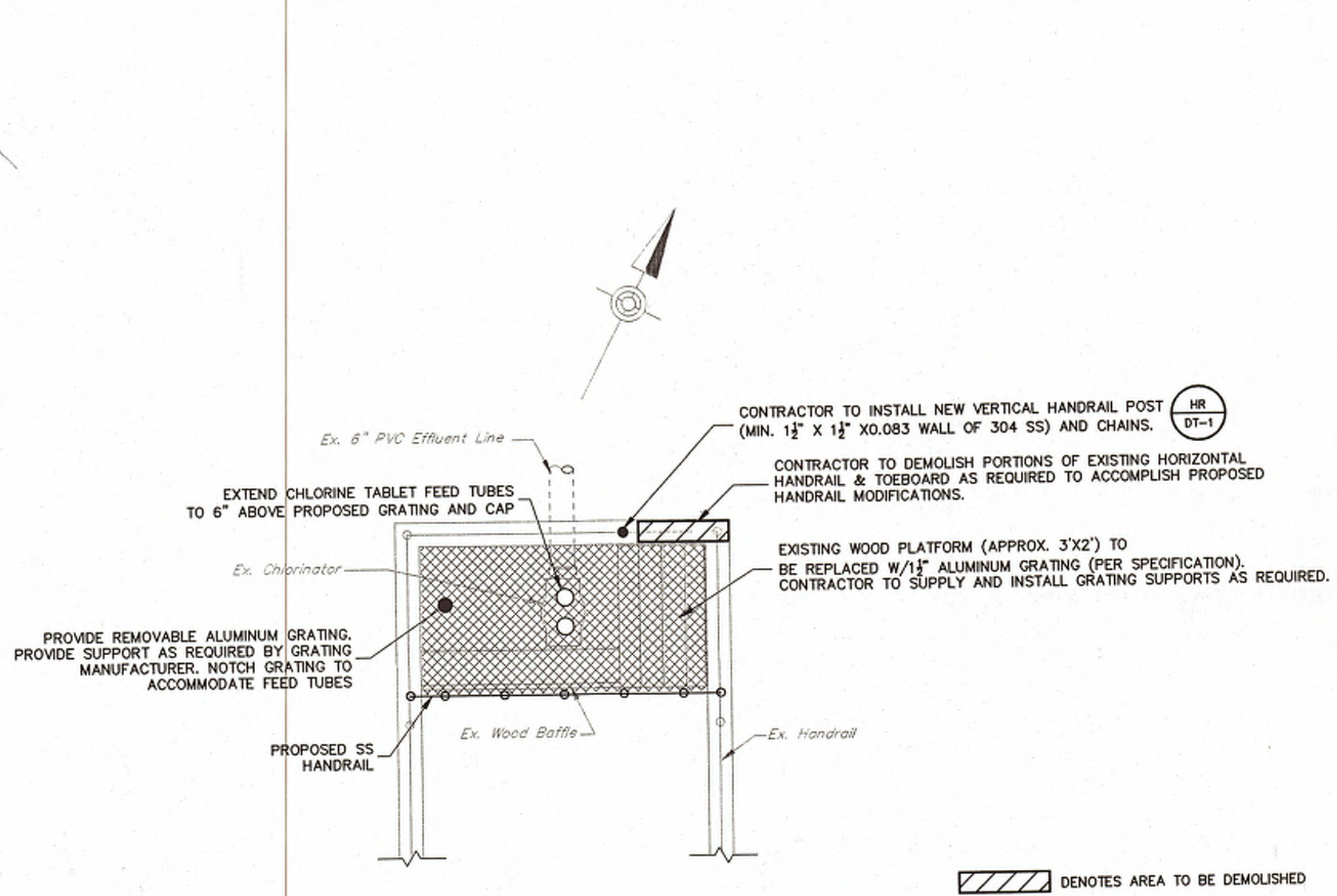
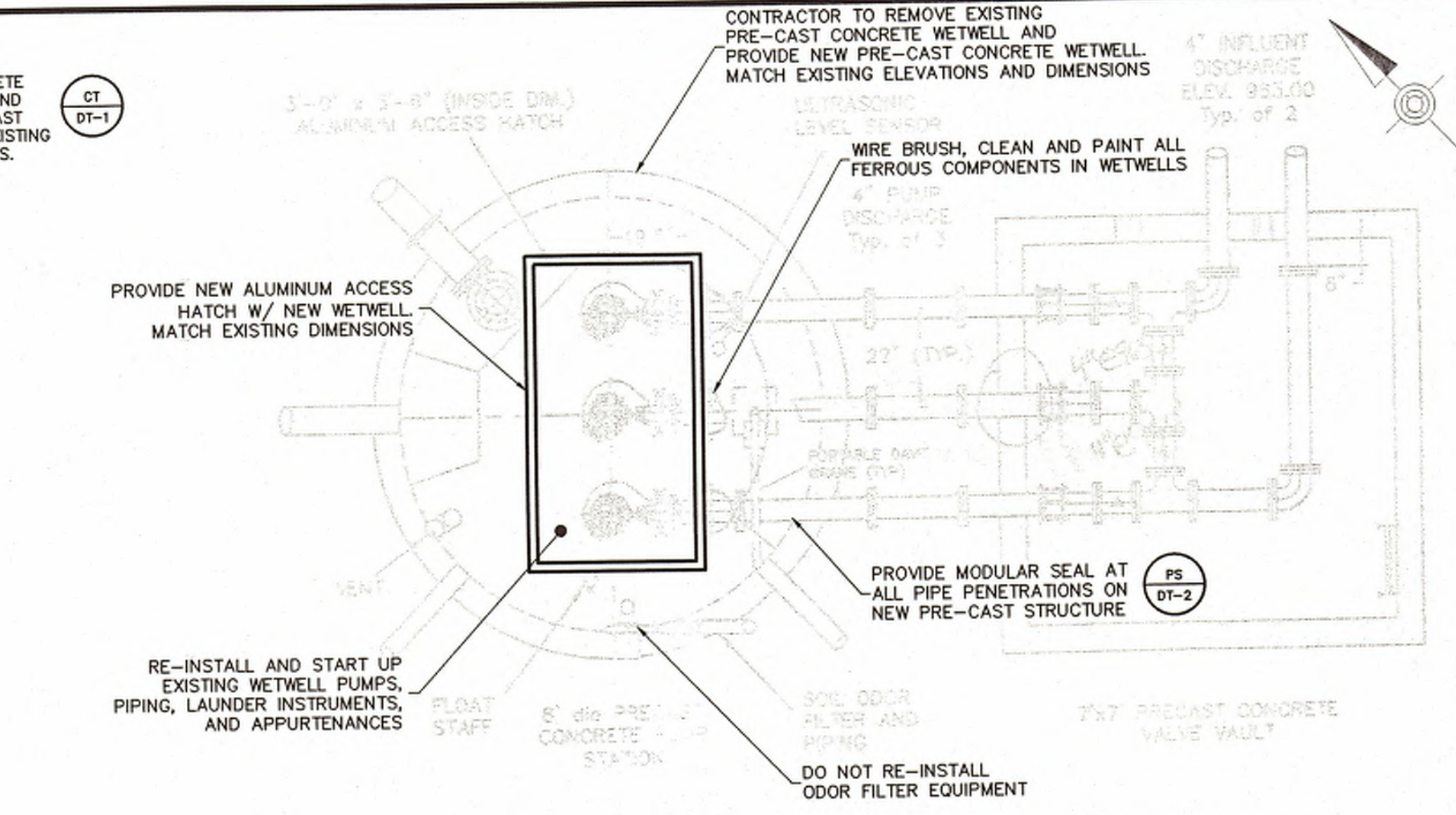
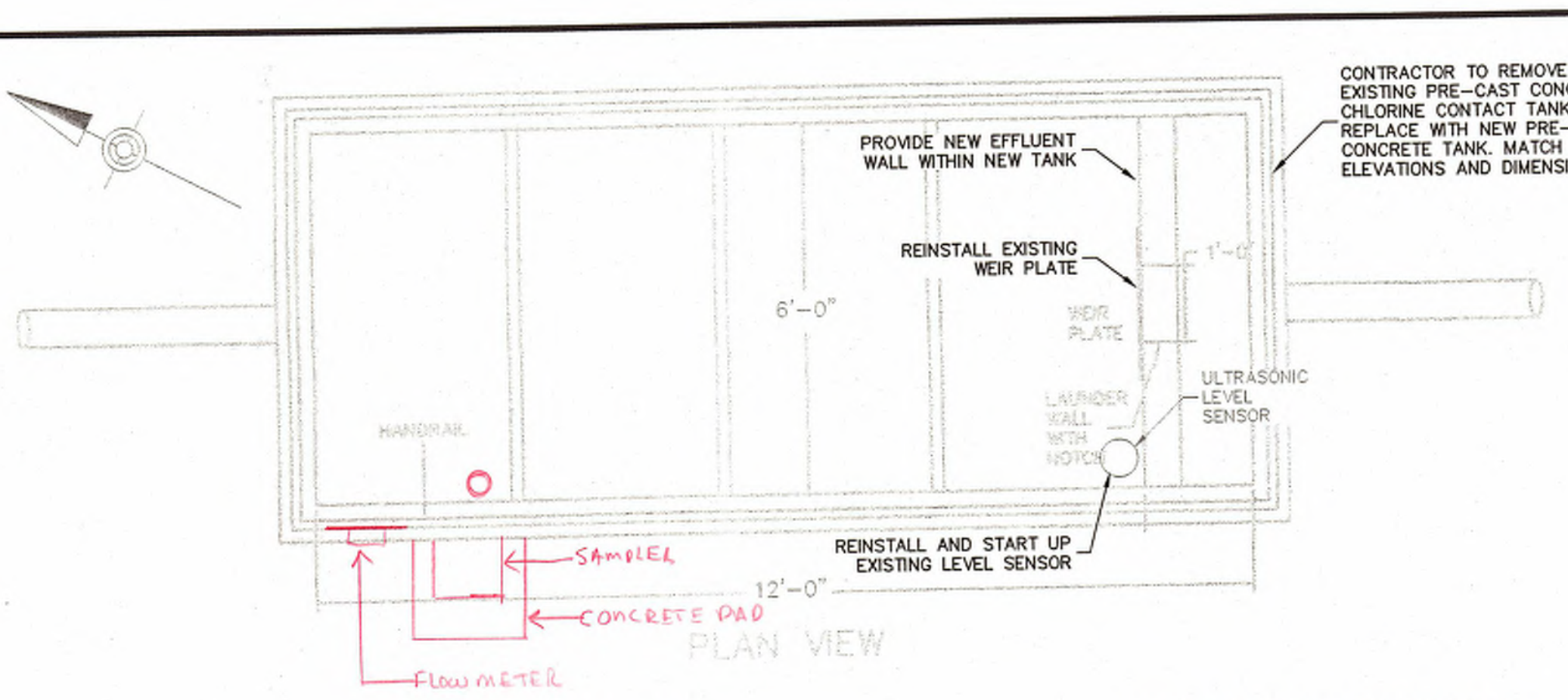
474 Windmere Drive  
State College, PA 16801  
(814) 238-7117  
Fax (814) 238-7126  
hrg@hrg-inc.com  
www.hrg-inc.com



RECORD DRAWINGS 12-1 12-2

The name of the project is Davidson Township Sewer Authority Wastewater Treatment Facilities Rehabilitation. The project is located in Davidson Township, Sullivan County, Pennsylvania. The project is scheduled to start in April 2012 and is expected to last for 12 months. The project is being funded by the Davidson Township Sewer Authority. The project is being designed by HRG, Inc. The project is being constructed by the Davidson Township Sewer Authority. The project is being inspected by the Davidson Township Sewer Authority. The project is being maintained by the Davidson Township Sewer Authority.

RECORD DRAWINGS



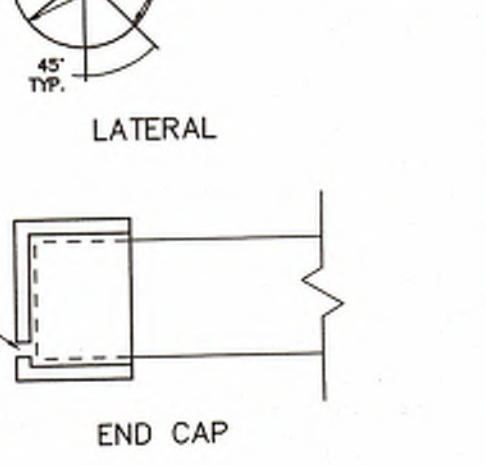
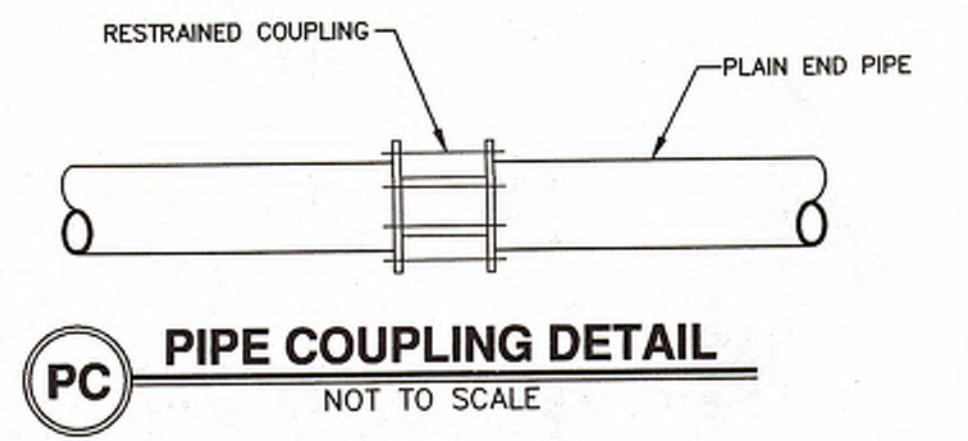
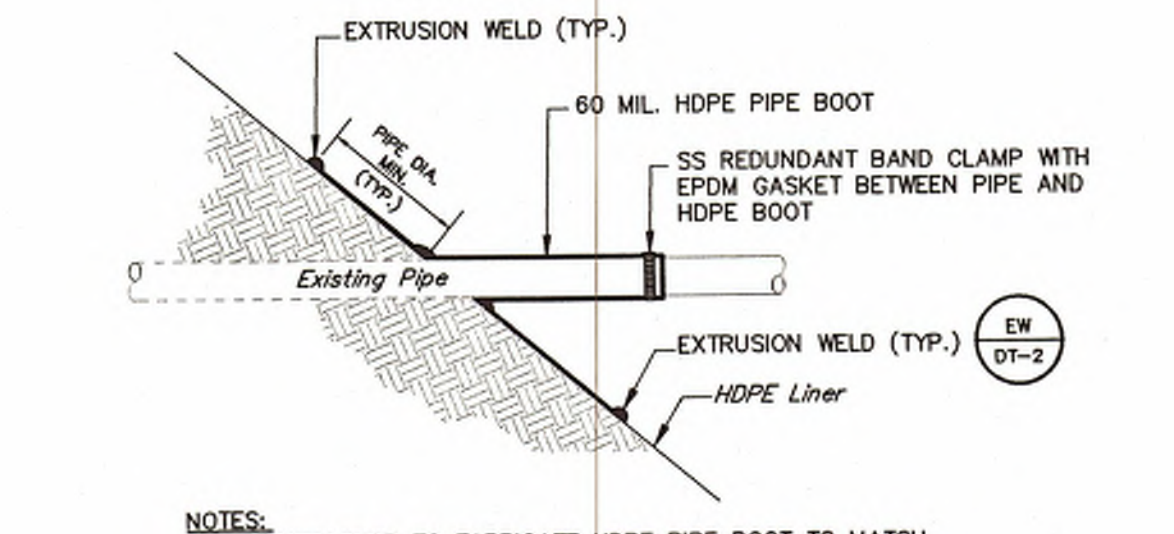
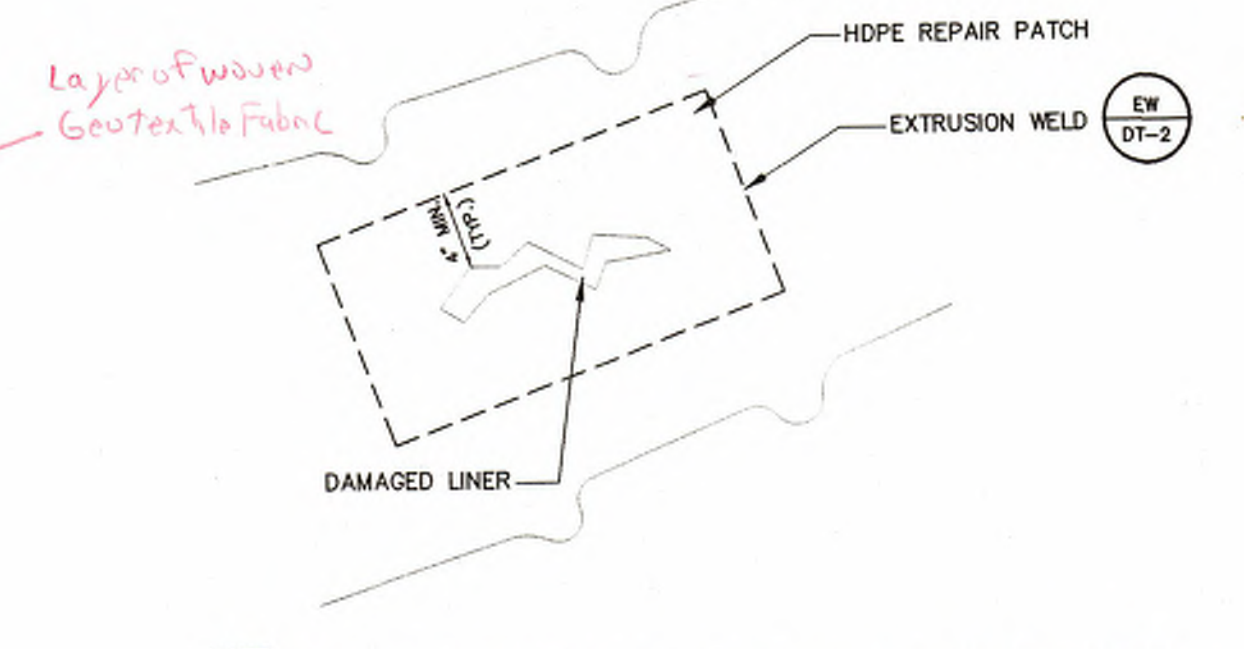
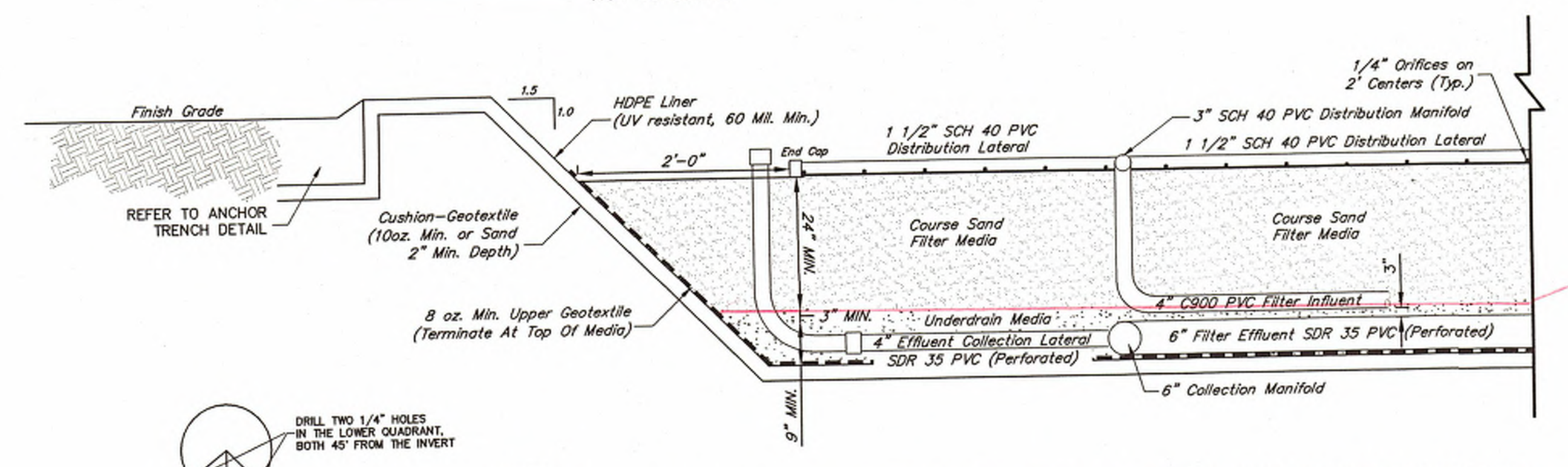
NOTES:  
 1. CHLORINE CONTACT TANK DETAIL WAS TAKEN FROM DRAWINGS PREPARED BY BASSETT ENGINEERING DATED 12-27-01. HRG, INC. ASSUMES NO RESPONSIBILITY FOR ACCURACY OF DETAIL.  
 2. PROVIDE 8" OF COMPACTED 2A AGGREGATE UNDER NEW PRE-CAST STRUCTURE. EXTEND MINIMUM OF 1'-0" BEYOND STRUCTURE PERIMETER.

NOTES:  
 1. PUMPS AND APPURTENANCES REMOVED FOR CLARITY.  
 2. RECIRCULATION PUMP STATION DETAIL WAS TAKEN FROM DRAWINGS PREPARED BY BASSETT ENGINEERING DATED 12-27-01 HRG, INC. ASSUMES NO RESPONSIBILITY FOR ACCURACY OF DETAIL.  
 3. PROVIDE 8" OF COMPACTED 2A AGGREGATE UNDER NEW PRE-CAST STRUCTURE. EXTEND MINIMUM OF 1'-0" BEYOND STRUCTURE PERIMETER.

**EXISTING CHLORINE CONTACT TANK DETAIL**  
NOT TO SCALE

**EXISTING PUMP STATION DETAIL**  
NOT TO SCALE

**HANDRAIL MODIFICATION DETAIL**  
NOT TO SCALE



NOTES:  
 1. SLOPE BOTTOM OF FILTER AND COLLECTION LATERALS 1/8" PER FT. TOWARDS COLLECTORS. SLOPE COLLECTORS TO PUMP STATION.  
 2. INSTALL 8 OZ UPPER GEOTEXTILE ON TOP OF LINER.  
 3. SET COLLECTION PIPE & FILTER EFFLUENT PIPE DIRECTLY ON UPPER GEOTEXTILE.  
 4. SET FILTER INFLUENT PIPE IN GRAVEL ABOVE COLLECTOR PIPING.  
 5. SET COLLECTION PIPES IN 9" ASHTO #57 STONE COVER W/ 3" OF ASHTO #8 STONE TO SUPPORT SAND MEDIA. ALL STONE SHALL BE WASHED RIVER GRAVEL - NO CRUSHED LIMESTONE.  
 6. SAND FILTER MEDIA SHALL BE CLEAN COARSE SAND WITH EFFECTIVE MEDIA SIZE OF 2 MM AND A UNIFORMITY COEFFICIENT OF <2.0.  
 7. SECTION IS PROVIDED TO SHOW VERTICAL RELATIONSHIP OF FILTER MATERIALS. SOME ELEMENTS ARE SHOWN OUT OF PLACE COMPARED TO THE PLAN VIEW IN ORDER TO INCLUDE THEM IN A SINGLE VIEW.  
 8. DRILL A HOLE IN THE END CAPS OF THE DISTRIBUTION LATERALS. SEE DETAIL.  
 9. COLLECTION LATERALS SHALL BE PERFORATED PVC PIPE, TRANSITION TO SOLID WALL PVC 2 FEET BEFORE PIPE PENETRATION THROUGH LINER. PROVIDE 90° BEND AND EXTEND LATERAL 6" ABOVE SAND MEDIA. PROVIDE INSPECTION PORT WITH CAP.  
 10. SLOPE FILTER INFLUENT A MINIMUM OF 1/16" PER FT. TOWARDS THE RECIRCULATION PUMP STATION.  
 11. REMOVE ALL SHARP OBJECTS AND LARGE PROTRUDING STONES FROM BENEATH THE FILTER BOTTOM AND SIDES.

NOTE:  
 1. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGES TO THE LINER CAUSED DURING CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.

NOTES:  
 1. CONTRACTOR TO FABRICATE HDPE PIPE BOOT TO MATCH FIELD CONDITIONS, LINER AND PIPE ANGLE.  
 2. CONTRACTOR TO PROVIDE EXTRUSION WELDING OF ALL HDPE SEAMS AND PENETRATIONS TO PROVIDE A LIQUID TIGHT INSTALLATION.

**EXISTING SAND FILTER SECTION**  
NOT TO SCALE

**HDPE LINER REPAIR DETAIL**  
NOT TO SCALE

**HDPE LINER PIPE PENETRATION DETAIL**  
NOT TO SCALE

**PIPE COUPLING DETAIL**  
NOT TO SCALE

NO.	REVISION	DATE	BY



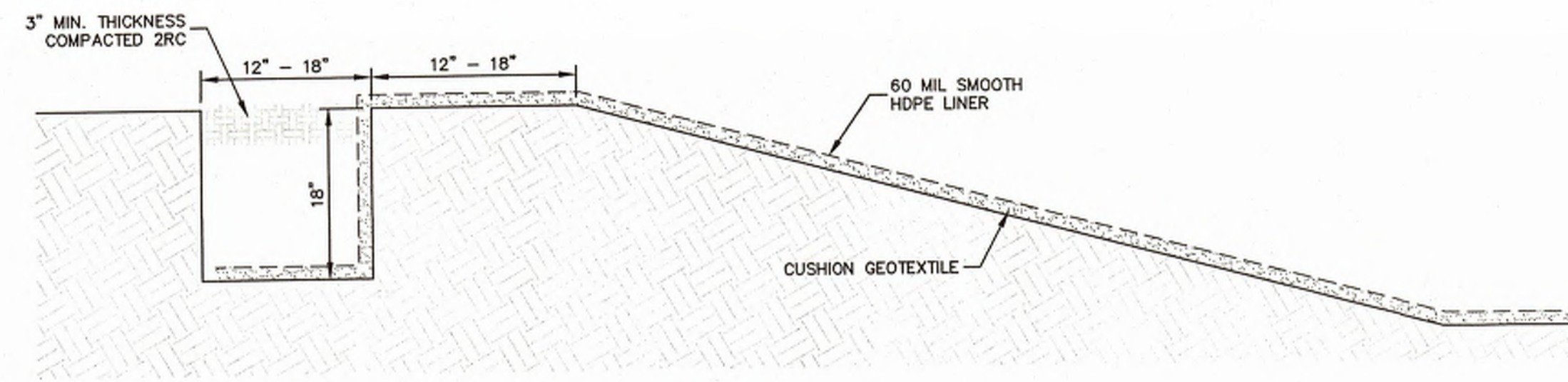
**HRG**  
 Herbert, Rowland & Grubic, Inc.  
 Engineering & Related Services  
 474 Windmere Drive  
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 (814) 238-7117  
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 www.hrg-inc.com

DAVIDSON TOWNSHIP  
 SEWER AUTHORITY  
 32 MICHELE ROAD  
 SONESTOWN, PA 17758

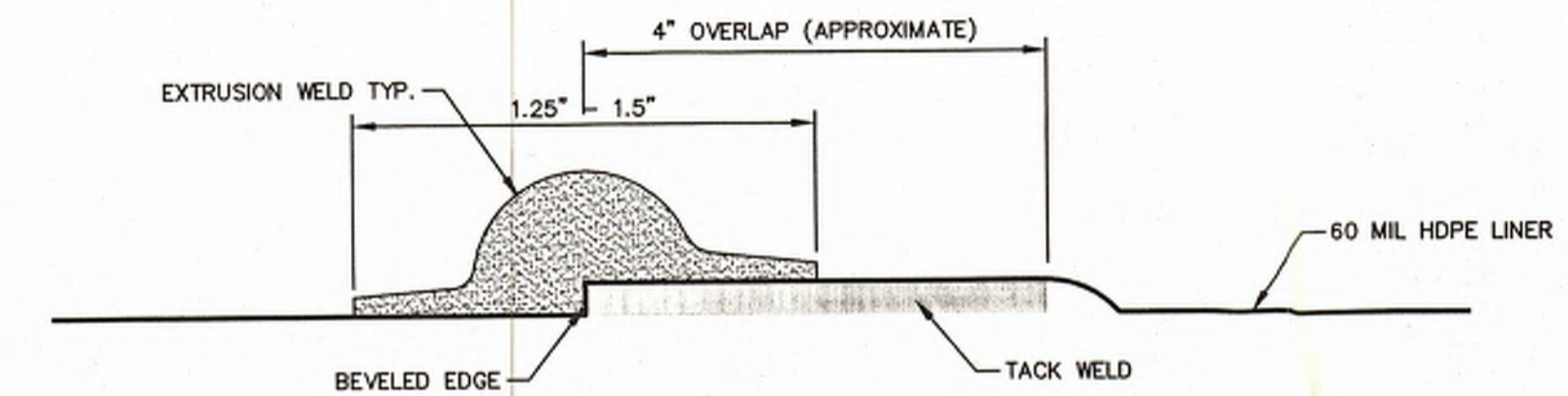
CONTRACT 12-1 AND CONTRACT 12-2  
**SONESTOWN WASTEWATER TREATMENT FACILITY**  
 WASTEWATER TREATMENT FACILITIES  
 REHABILITATION  
 CONSTRUCTION DETAILS  
 DAVIDSON TOWNSHIP SULLIVAN COUNTY PENNSYLVANIA

PROJ. MGR. - BRB
DESIGN - BRB
CADD - CDB
CHECKED - DMS
SCALE - AS SHOWN
DATE - MARCH 2012

DRAWING NO. <b>DT-1</b>
SHEET NO. <b>3 OF 6</b>
PROJECT R003471.0426

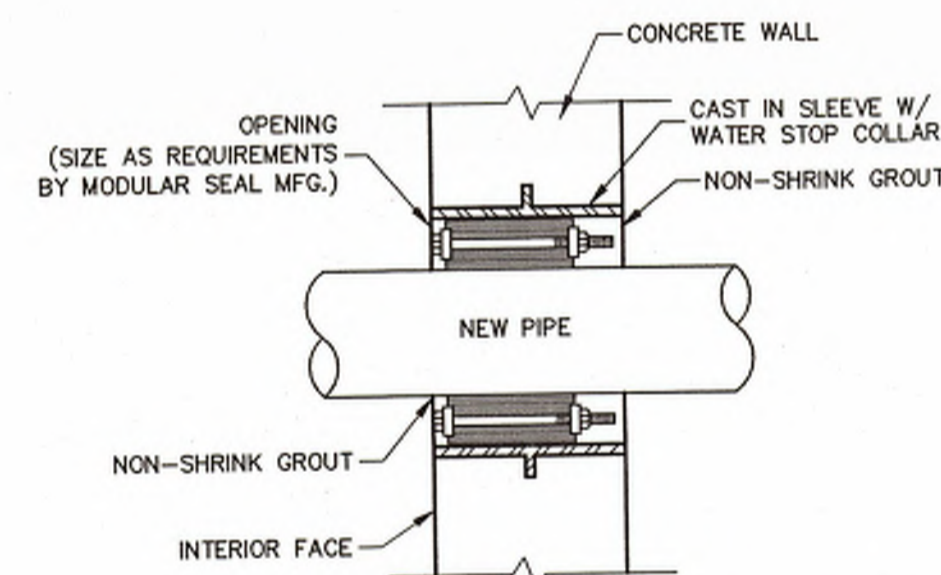


**AT ANCHOR TRENCH**  
NOT TO SCALE

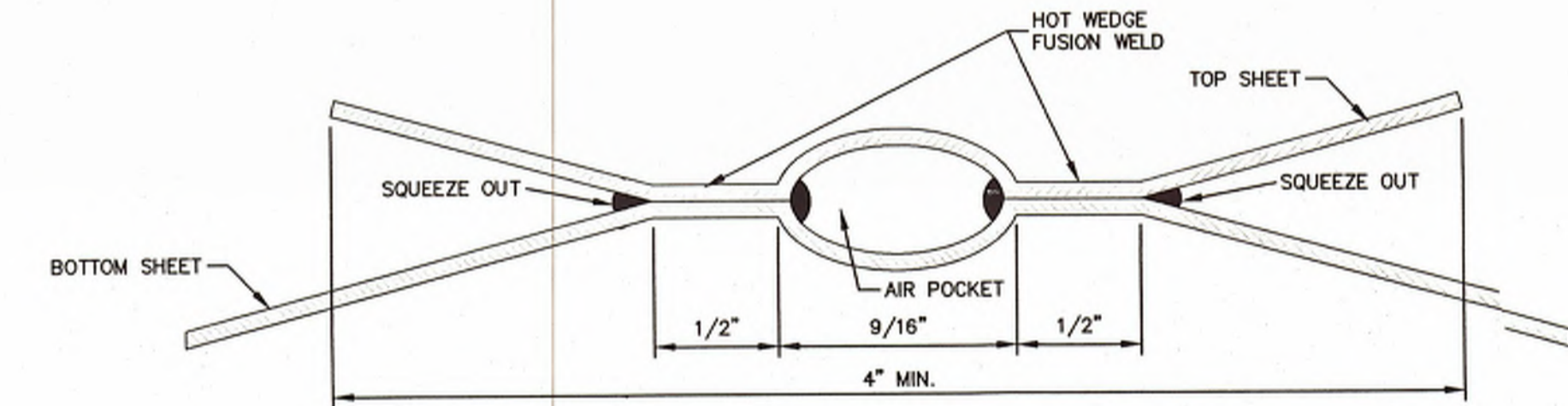


NOTE:  
GRIND SHEET PRIOR TO WELD. GRINDING NOT TO EXCEED 1/4" PAST  
SQUEEZE OUT ON EITHER SIDE

**EW EXTRUSION WELD FIELD SEAM**  
NOT TO SCALE



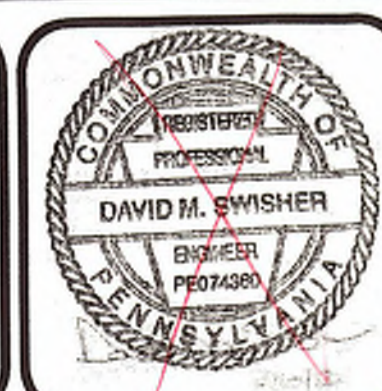
**TYPICAL THRU WALL PIPE SEAL ASSEMBLY WALLS**  
NOT TO SCALE



NOTE:  
TYPICAL HOT WEDGE WELDED SEAM USING MANUFACTURERS STANDARD HOT WEDGE

**HW HOT WEDGE FIELD SEAM**  
NOT TO SCALE

NO.	REVISION	DATE	BY



**HRG**  
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SEWER AUTHORITY  
32 MICHELE ROAD  
SONESTOWN, PA 17758

CONTRACT 12-1 AND CONTRACT 12-2  
**SONESTOWN WASTEWATER TREATMENT FACILITY  
WASTEWATER TREATMENT FACILITIES  
REHABILITATION  
CONSTRUCTION DETAILS**  
DAVIDSON TOWNSHIP SULLIVAN COUNTY PENNSYLVANIA

PROJ. MGR. - BR  
DESIGN - BRB  
CADD - CDB  
CHECKED - DMS  
SCALE - AS SHOWN  
DATE - MARCH 20

DRAWING NO.  
**DT-2**  
SHEET NO.  
**4 OF 6**  
PROJECT R003471.0426

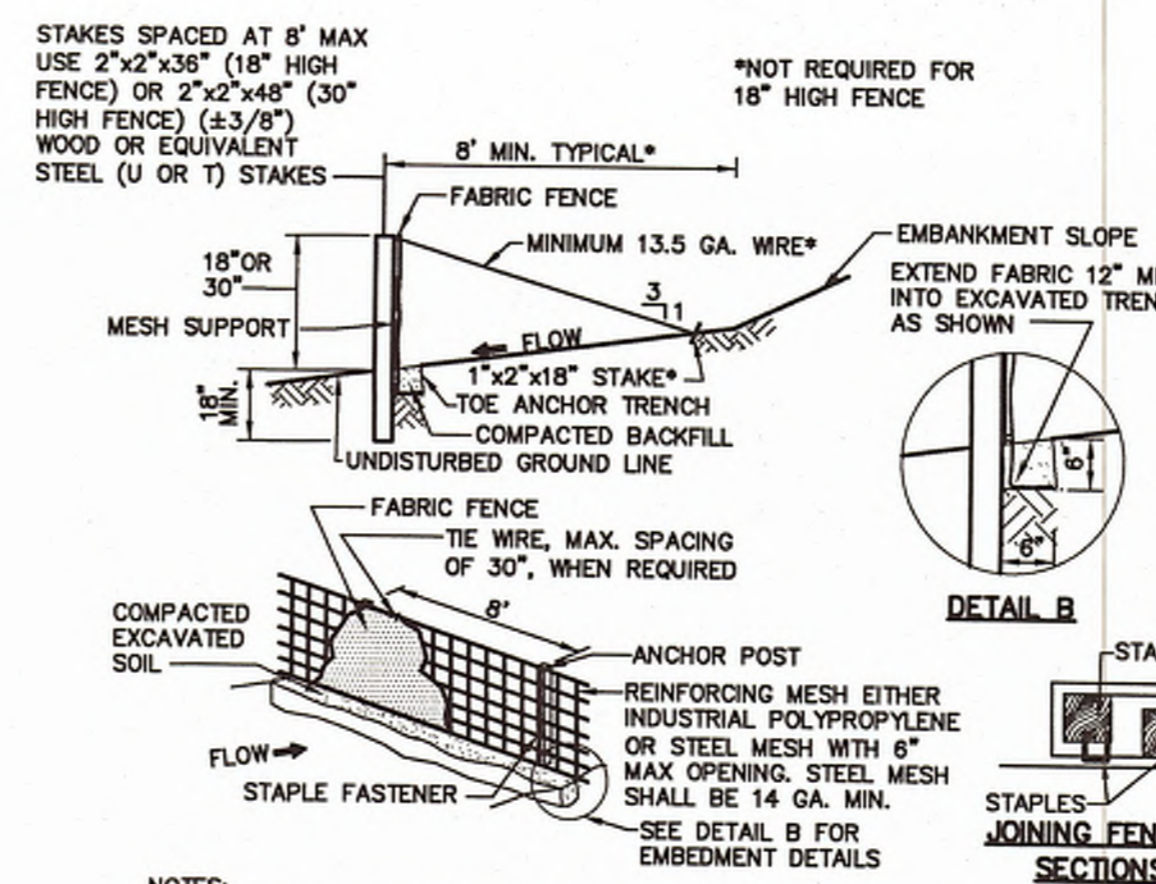
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**EROSION AND SEDIMENTATION POLLUTION CONTROL GUIDELINES FOR MINOR PLANS**

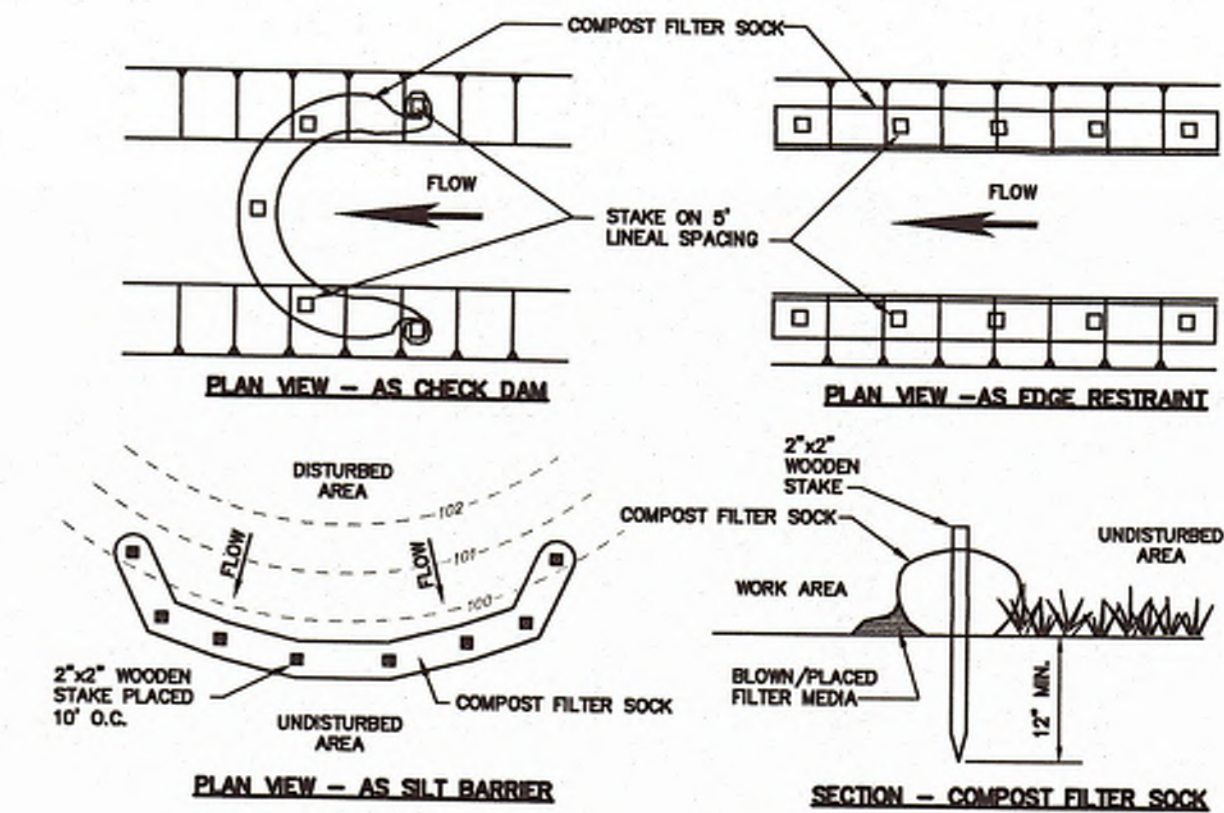
1. A LOGICAL CONSTRUCTION SEQUENCE SHALL BE DEVELOPED THAT INCLUDES THE INSTALLATION OF EASPC FACILITIES AND BEST MANAGEMENT PRACTICES (BMP'S), BEFORE EARTHMOVING MAY COMMENCE.
2. EASPC FACILITIES AND BMP'S SHALL BE CORRECTLY INSTALLED AND MAINTAINED. MAINTENANCE INFORMATION AND CONSTRUCTION DETAILS MAY BE OBTAINED FROM THE COUNTY CONSERVATION DISTRICT.
3. EARTH DISTURBANCE SHALL TAKE PLACE WITHIN A DEFINED LIMIT OF DISTURBANCE AND IMMEDIATELY PRIOR TO CONSTRUCTION.
4. DEVELOPMENT PLANS SHALL PRESERVE SALIENT FEATURES, MINIMIZE LAND CUTS AND FILLS AND CONFORM TO GENERAL TOPOGRAPHY. PLANS SHALL BE DESIGNED AND IMPLEMENTED SO AS TO CREATE THE LEAST POTENTIAL FOR EROSION AND TO ADEQUATELY CONTAIN THE VOLUME AND REDUCE THE VELOCITY OF SURFACE WATER RUNOFF.
5. NATURAL VEGETATION SHALL BE RETAINED, PROTECTED AND SUPPLEMENTED PRIOR TO AND DURING CONSTRUCTION.
6. TOPSOIL SHALL BE REMOVED FROM CONSTRUCTION AREAS AND STOCKPILED FOR FINAL GRADING AND SEEDBED PREPARATION. DOWNSLOPE AREAS OF ANY STOCKPILES, CONSTRUCTION OR BORROW AREAS SHALL BE PROTECTED WITH CORRECTLY INSTALLED AND MAINTAINED SILT FENCE, STRAW BALES OR SEDIMENT TRAPS PRIOR TO ANY EARTH DISTURBANCE IN ORDER TO MINIMIZE SEDIMENT LADEN RUNOFF.
7. ALL CUT AND FILLS SHALL BE BROUGHT TO FINAL GRADE EARLY IN THE CONSTRUCTION SEQUENCE, AND STABILIZED IMMEDIATELY WITH SEED AND MULCH.
8. ONLY DRIVEWAY EXCAVATION THAT CAN BE STABILIZED WITH CRUSHED STONE BASE THE SAME DAY SHALL BE COMPLETED.
9. CURRENT REGULATIONS STATE: (a) UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION. (b) EROSION AND SEDIMENT CONTROL BMP'S SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETE. (c) FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED PERMANENTLY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING: (1) A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION. (2) AN ACCEPTABLE BMP WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.
10. THE PENN STATE EROSION CONTROL AND CONSERVATION PLANTINGS ON NONCROPLAND GUIDE OR AGRONOMY GUIDE SHALL BE CONSULTED FOR PERMANENT AND TEMPORARY SEEDING AND MULCHING TYPES AND RATES. (STRAW MULCH SHALL BE APPLIED AT A RATE OF AT LEAST 3 TONS PER ACRE PER 1000 SF. SLOPES STEEPER THAN 3:1 SHALL BE CORRECTLY LINED WITH APPROPRIATE TURF REINFORCED MATTING.) OTHER HELPFUL PUBLICATIONS INCLUDE TURFGRASS ESTABLISHMENT (SPECIAL CIRCULAR 163), TURFGRASS SEED AND SEED MIXTURES (EXTENSION CIRCULAR 391), AND PRINCIPLES OF TURFGRASS IRRIGATION (SPECIAL CIRCULAR 158). THE PUBLICATIONS REFERENCED ARE AVAILABLE FROM THE PENN STATE EXTENSION OFFICE.
11. ALL RECYCLING AND DISPOSAL OF CONSTRUCTION WASTE SHALL BE IN ACCORDANCE WITH LOCAL AND STATE RULES AND REGULATIONS FOR WASTE MANAGEMENT. CONSTRUCTION WASTE INCLUDES BUT IS NOT LIMITED TO: EXCESS SOIL AND ROCK, BUILDING MATERIALS, CONCRETE AND CONCRETE WASH WATER, SANITARY WASTE AND ANY OTHER MATERIALS THAT COULD ADVERSELY IMPACT SURFACE OR GROUND WATER QUALITY.

SEEDING SCHEDULE						
APPLICATION	SPECIES	%PURE LIVE SEED	APPLICATION RATE	FERTILIZER	LIMING RATE	SEEDING DATE
TEMPORARY (PENNDOT FORMULA E)	ANNUAL RYE	88.2%	10 LBS./1000 SY	5-5-5 AT 207 LBS./1000 SY	413 LBS./1000 SY	3/15 TO 10/15
PERMANENT (PENNDOT FORMULA B)	PERENNIAL RYEGRASS MIX (LOLIUM PERENNE)**	88.2%	4 LBS./1000 SY	SEE NOTE 1 BELOW	800LBS./1000 SY	3/15 TO 6/1 AND 9/1 TO 10/15
	KENTUCKY BLUE GRASS MIX (POA PRATENSIS)**	78.4%	11 LBS./1000 SY			
	CREeping RED FESCUE OR CHEWING FESCUE	83.3%	6 LBS./1000 SY			

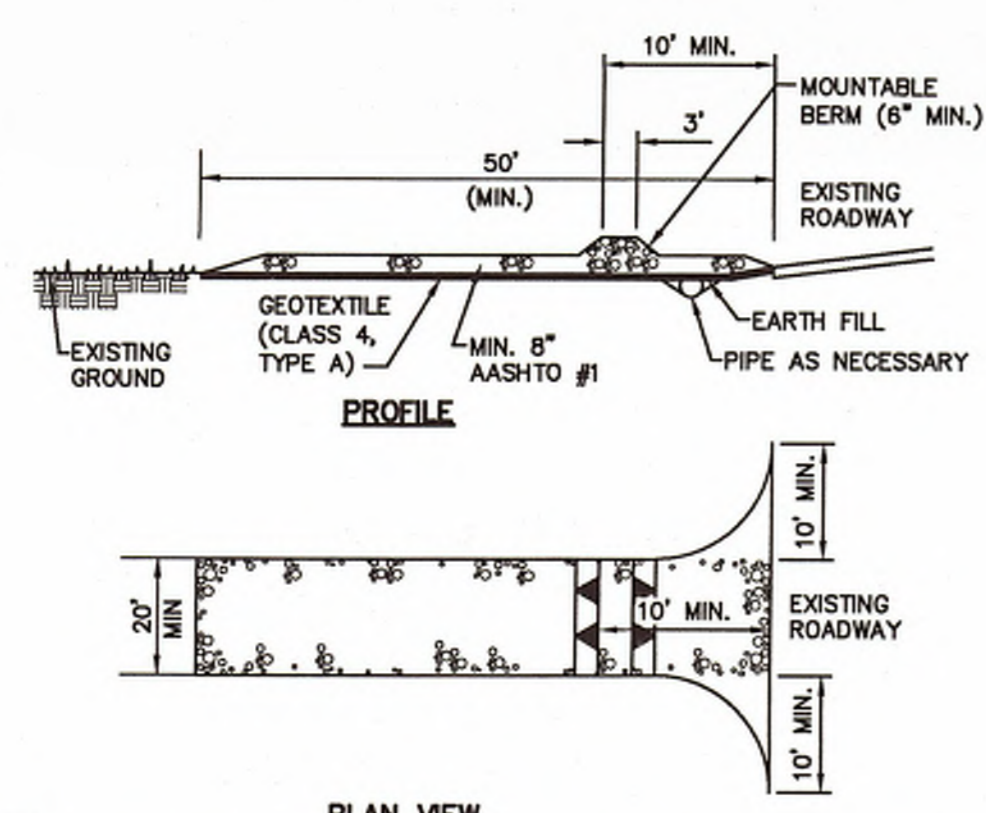
1. FERTILIZER SHALL BE APPLIED IN ACCORDANCE WITH A SOIL TEST. IN THE ABSENCE OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AS FOLLOWS:
  - A. 10-20-20 ANALYSIS COMMERCIAL FERTILIZER AT 140 LBS./1000 S.Y. AND 38 OR
  - B. 32-0-0 TO 38-0-0 SULFUR COATED UREA FERTILIZER AT 59-50 LBS./1000 S.Y. OR
  - C. 31-0-0 IBDU FERTILIZER AT 61 LBS./1000 S.Y.
2. SPECIFICATION ITEMS OBTAINED USING PENNDOT PUBLICATION NO. 408
3. ALL SEEDED AREAS SHALL BE MULCHED WITH HAY OR STRAW APPLIED AT A RATE OF 6000 LBS./AC. (1240 LBS./1000 S.Y.), MULCH TO BE ANCHORED WITH WOOD CELLULOSE FIBER AT 750 LBS./AC. OR EQUAL.
4. FORMULA W (CONSERVATION) MIX TO BE APPLIED AS INDICATED ON PLAN OR IF SITE CONDITIONS WARRANT, INOCULATE LEGUMES AS INDICATED IN PENNDOT PUBLICATION, 408, SECTION 804.
5. ALL AREAS RECEIVING SEEDING SHALL HAVE A MINIMUM OF 8" OF ORGANIC TOPSOIL
  - \* PERENNIAL RYEGRASS: A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL RYEGRASS COMPONENT.
  - \*\* KENTUCKY BLUEGRASS: A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 25% OF THE TOTAL BLUEGRASS COMPONENT.
  - \*\*\* HARD FESCUE MIX: A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL HARD FESCUE.
  - \*\*\*\* A MIXTURE OF 1/2 VIKING AND 1/2 OF EITHER EMPIRE, NORCEN OR LEO.
  - \*\*\*\*\* MINIMUM 20% HARDEED AND 80% NORMAL SPROUTS.



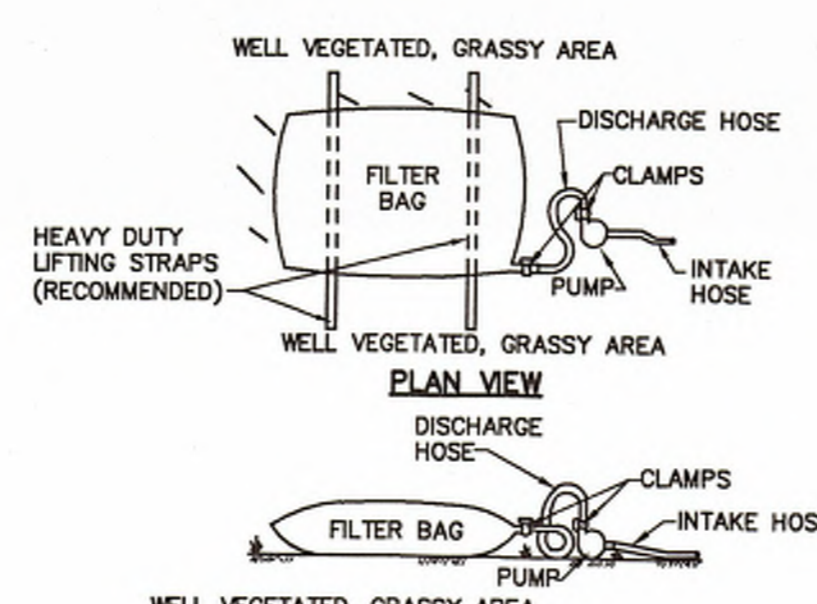
- NOTES:**
1. SILT FENCE MUST BE INSTALLED AT EXISTING LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION MUST BE EXTENDED AT LEAST 8' UPSLOPE AT 45° TO THE MAIN FENCE ALIGNMENT.
  2. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.
  3. ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR OVER TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
  4. FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.
  5. SILT FENCE FABRIC MUST MEET PA DEP SPECIFICATIONS AS SHOWN IN THE CURRENT EROSION AND SEDIMENT CONTROL BMP MANUAL.
  6. ADHERE TO ANY MANUFACTURER'S AND DEP RECOMMENDATIONS FOR REPLACING FILTER FABRIC FENCE DUE TO WEATHERING.



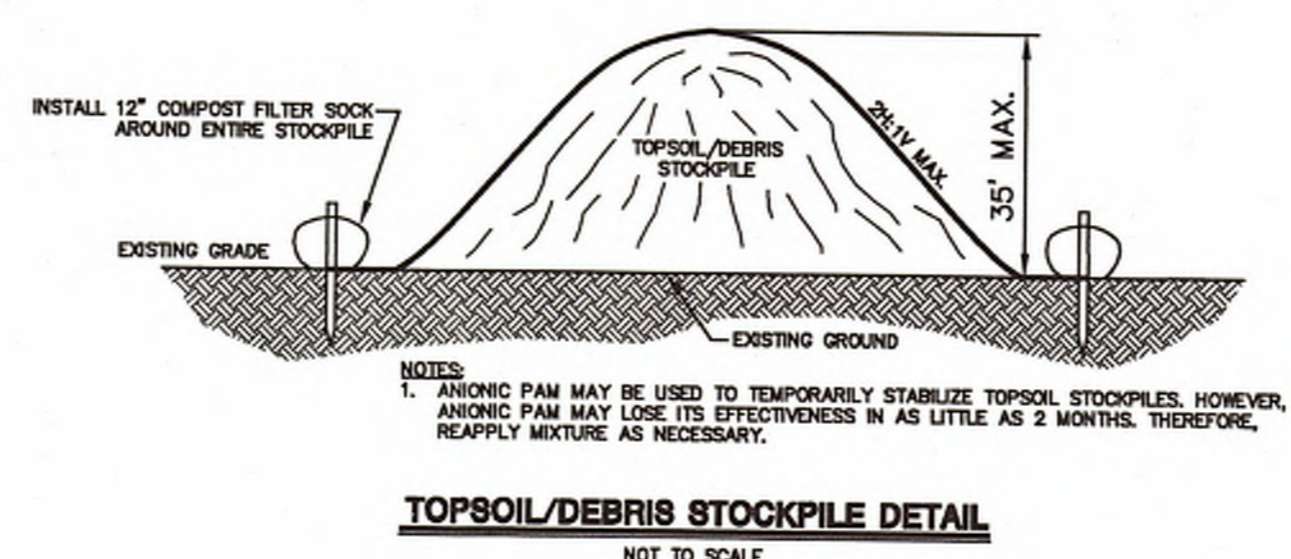
- NOTES:**
1. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8' UPSLOPE AT 45° TO THE MAIN SOCK ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN IN THE PENNSYLVANIA EROSION CONTROL BEST MANAGEMENT PRACTICE MANUAL.
  2. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCK.
  3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND PROPERLY DISPOSED.
  4. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
  5. SOCK FABRIC AND COMPOST SHALL MEET THE STANDARDS OF THE LATEST VERSION OF THE PENNSYLVANIA EROSION CONTROL, BEST MANAGEMENT PRACTICE MANUAL.
  6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.



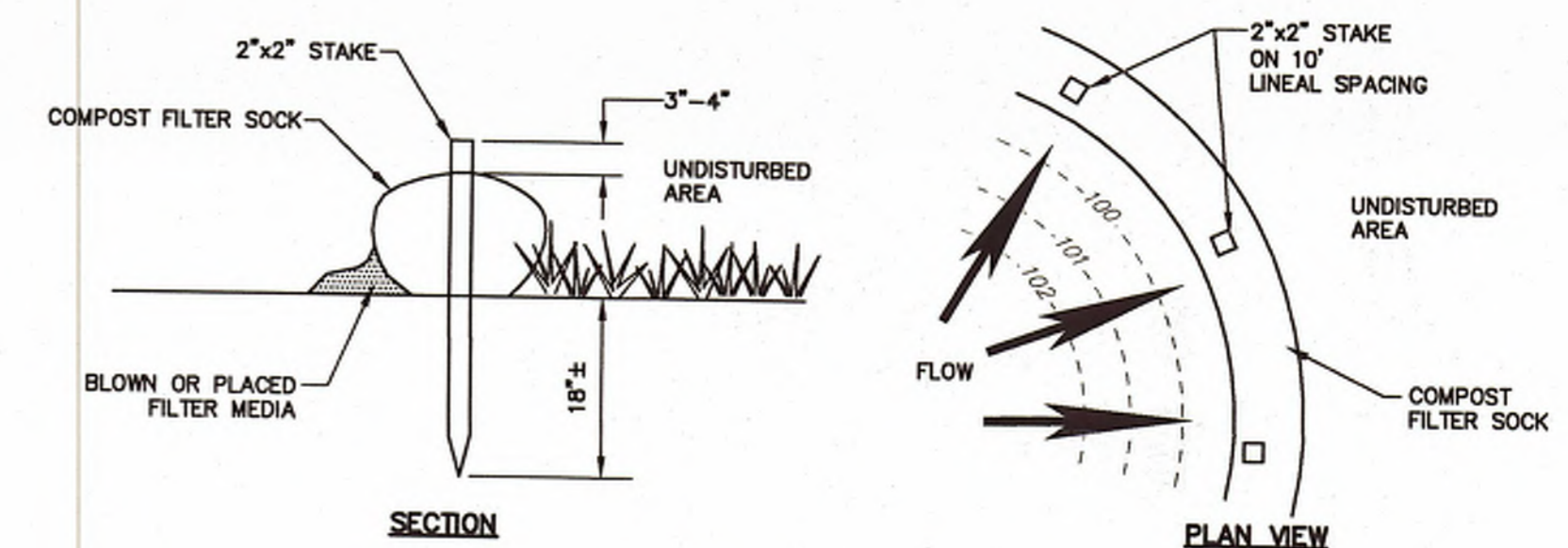
- NOTES:**
1. TOPSOIL SHOULD BE REMOVED PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE.
  2. EXTEND ROCK OVER FULL DISTANCE OF ENTRANCE.
  3. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
  4. MOUNTABLE BERM SHOULD BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED. PIPE TO BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
  5. MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50' INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL A WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE WAYS IS NOT ACCEPTABLE.



1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED 'J' TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS MAY BE MADE FROM WOVEN GEOTEXTILES THAT MEET DEP SPECIFICATIONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY IS REQUIRED FOR DISPOSAL PURPOSES. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
3. BAGS SHALL BE LOCATED IN WELL VEGETATED (GRASSY) AREAS, AND DISCHARGED ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%. CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
4. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHOULD BE INSTALLED BELOW BAGS LOCATED WITHIN 50 FEET OF RECEIVING STREAM OR WHERE GRASSY AREA IS NOT AVAILABLE. A COMPOST BERM OR COMPOST FILTER SOCK SHALL BE PLACED BELOW ANY BAG DISCHARGING TO A SPECIAL PROTECTION SURFACE. WATER.
5. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
6. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
7. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



- NOTES:**
1. ANCHOR PAM MAY BE USED TO TEMPORARILY STABILIZE TOPSOIL STOCKPILES. HOWEVER, ANCHOR PAM MAY LOSE ITS EFFECTIVENESS IN AS LITTLE AS 2 MONTHS. THEREFORE, REAPPLY MIXTURE AS NECESSARY.



- NOTES:**
1. ALL MATERIAL TO MEET PADEP SPECIFICATIONS.
  2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8' UPSLOPE AT 45° TO THE MAIN SOCK ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED PADEP SPECIFICATIONS.
  3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
  4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND PROPERLY DISPOSED.
  5. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
  6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTODEGRADABLE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

NO.	REVISION	DATE	BY



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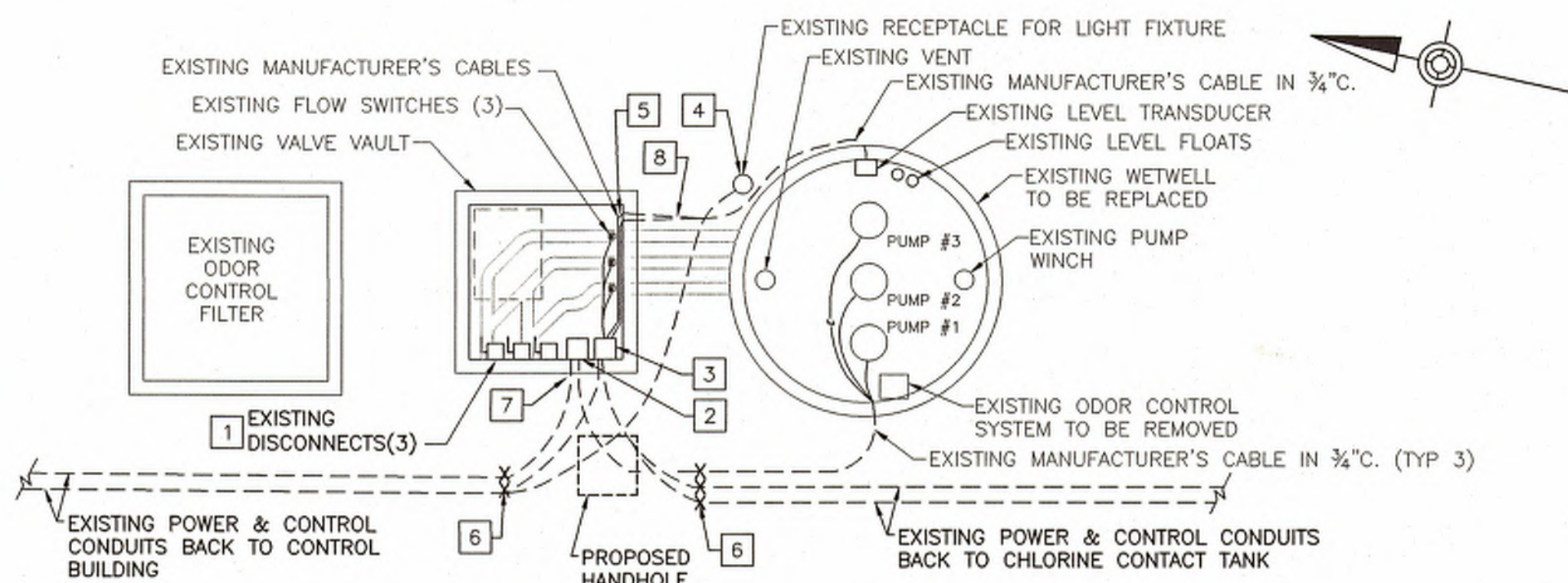
DAVIDSON TOWNSHIP  
SEWER AUTHORITY  
32 MICHELE ROAD  
SONESTOWN, PA 17758

CONTRACT 12-1 AND CONTRACT 12-2  
SONESTOWN WASTEWATER TREATMENT FACILITY  
WASTEWATER TREATMENT FACILITIES  
REHABILITATION  
EROSION & SEDIMENTATION CONTROL DETAILS  
DAVIDSON TOWNSHIP SULLIVAN COUNTY PENNSYLVANIA

PROJ. MGR. - BRB  
DESIGN- BRB  
CADD- CDB  
CHECKED-DMS  
SCALE- AS SHOWN  
DATE- MARCH 2012

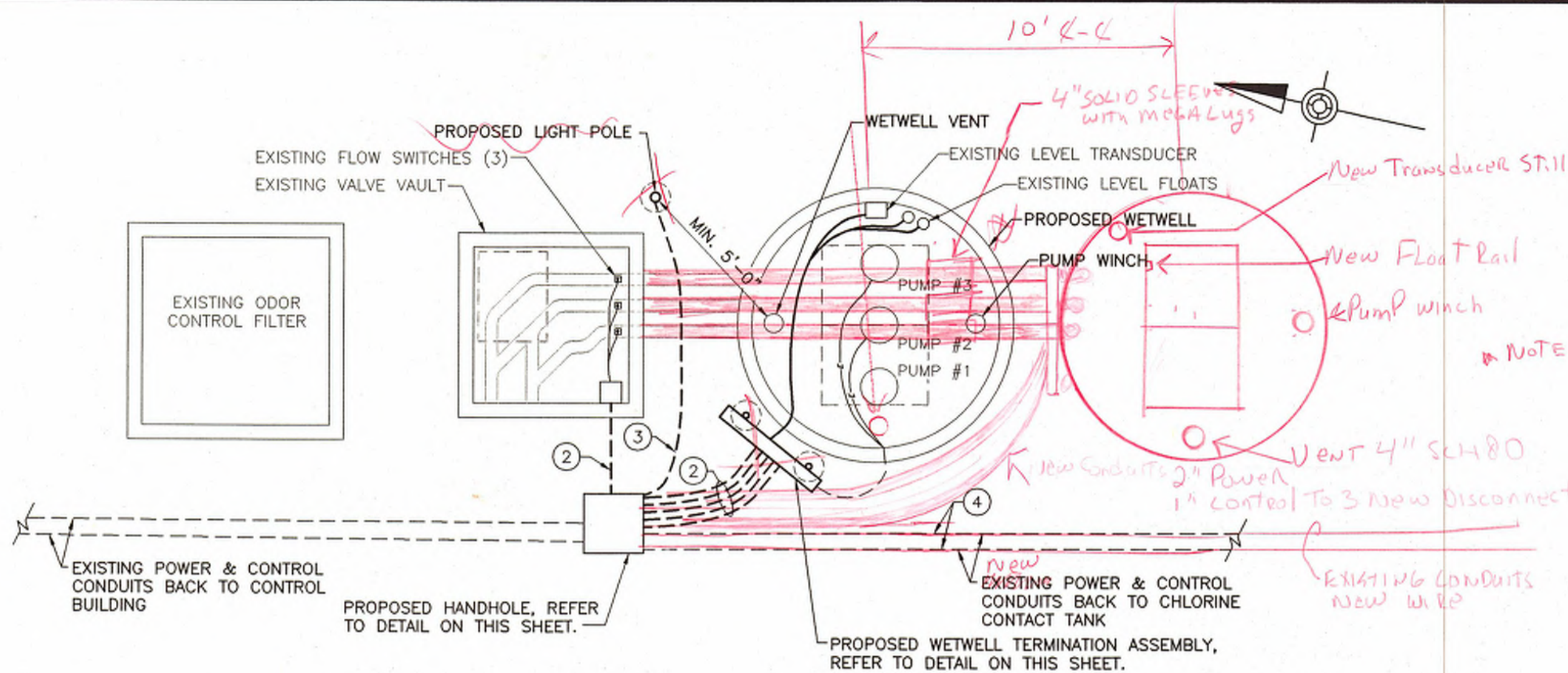
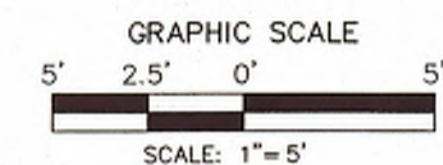
DRAWING NO.  
**DT-3**  
SHEET NO.  
5 OF 6  
PROJECT R003471.0426





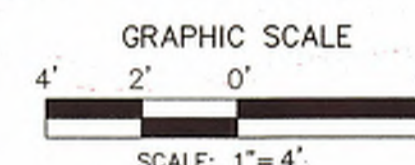
**ELECTRICAL PUMP STATION PLAN - DEMOLITION**

SCALE: 1" = 5'-0" APPROX.

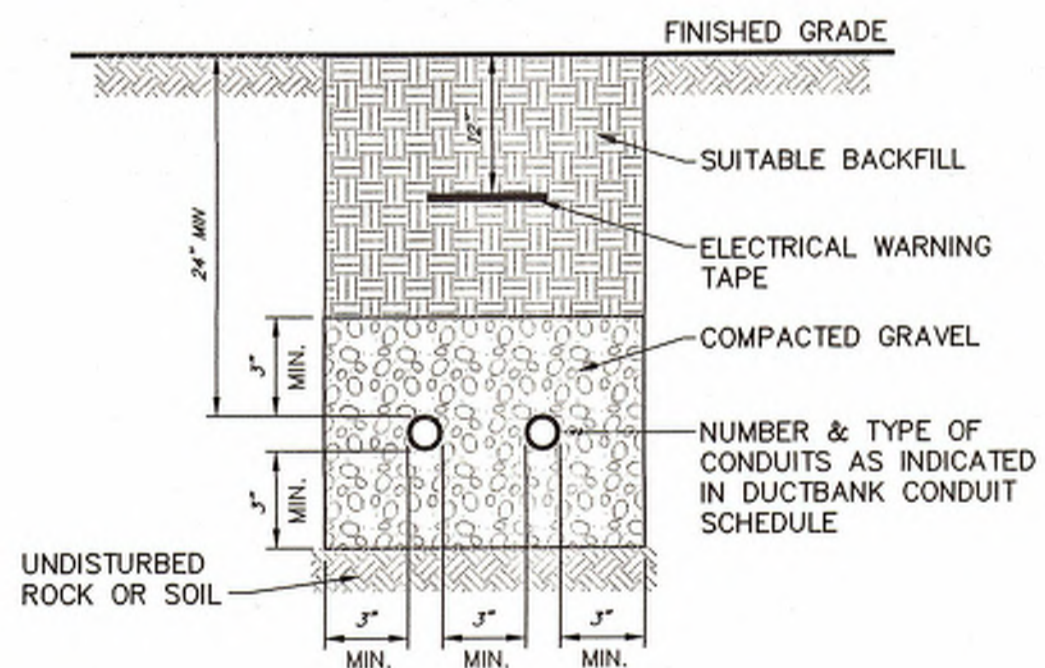
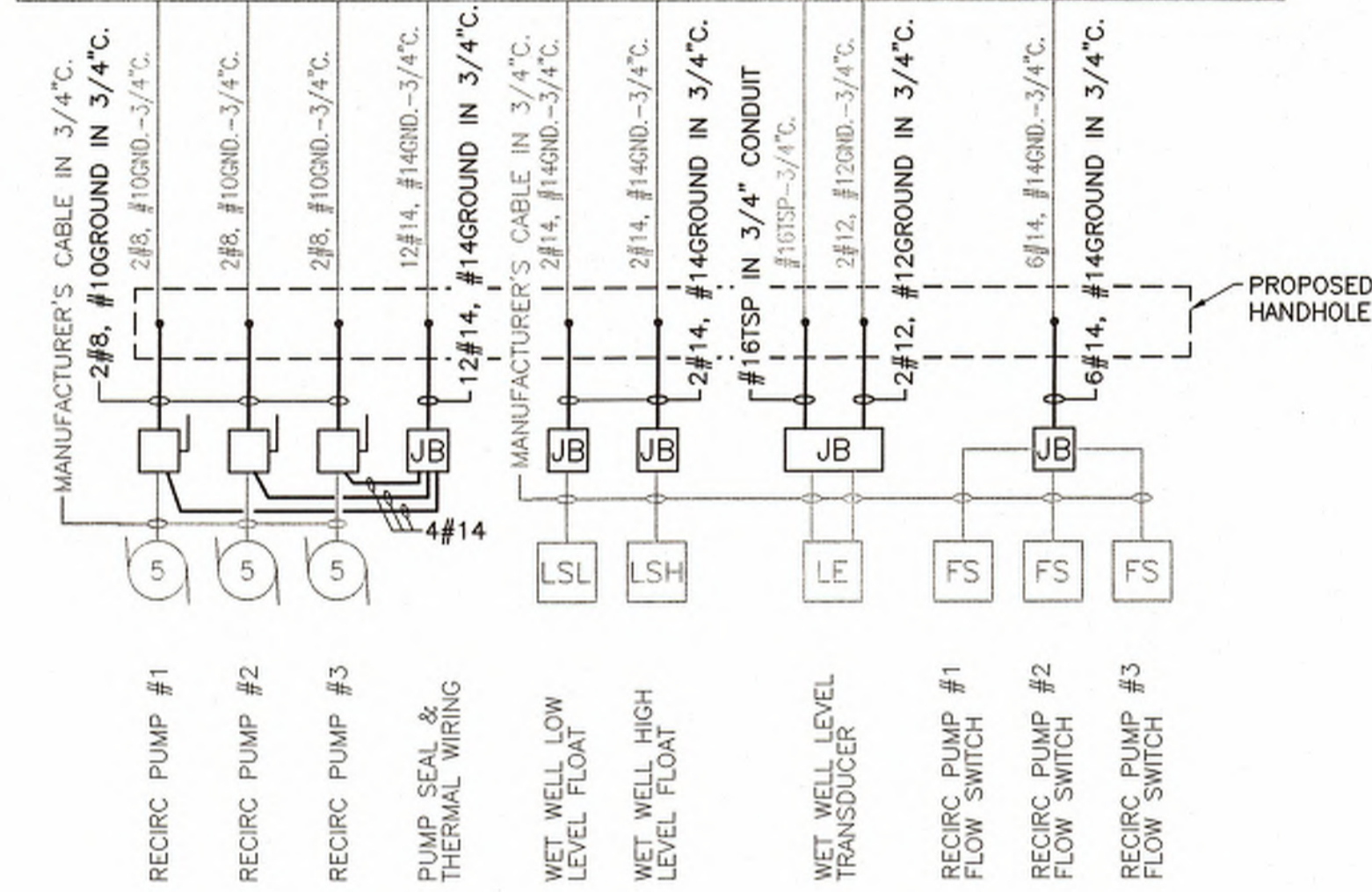


**ELECTRICAL PUMP STATION PLAN - PROPOSED WORK**

SCALE: 1" = 4'-0" APPROX.



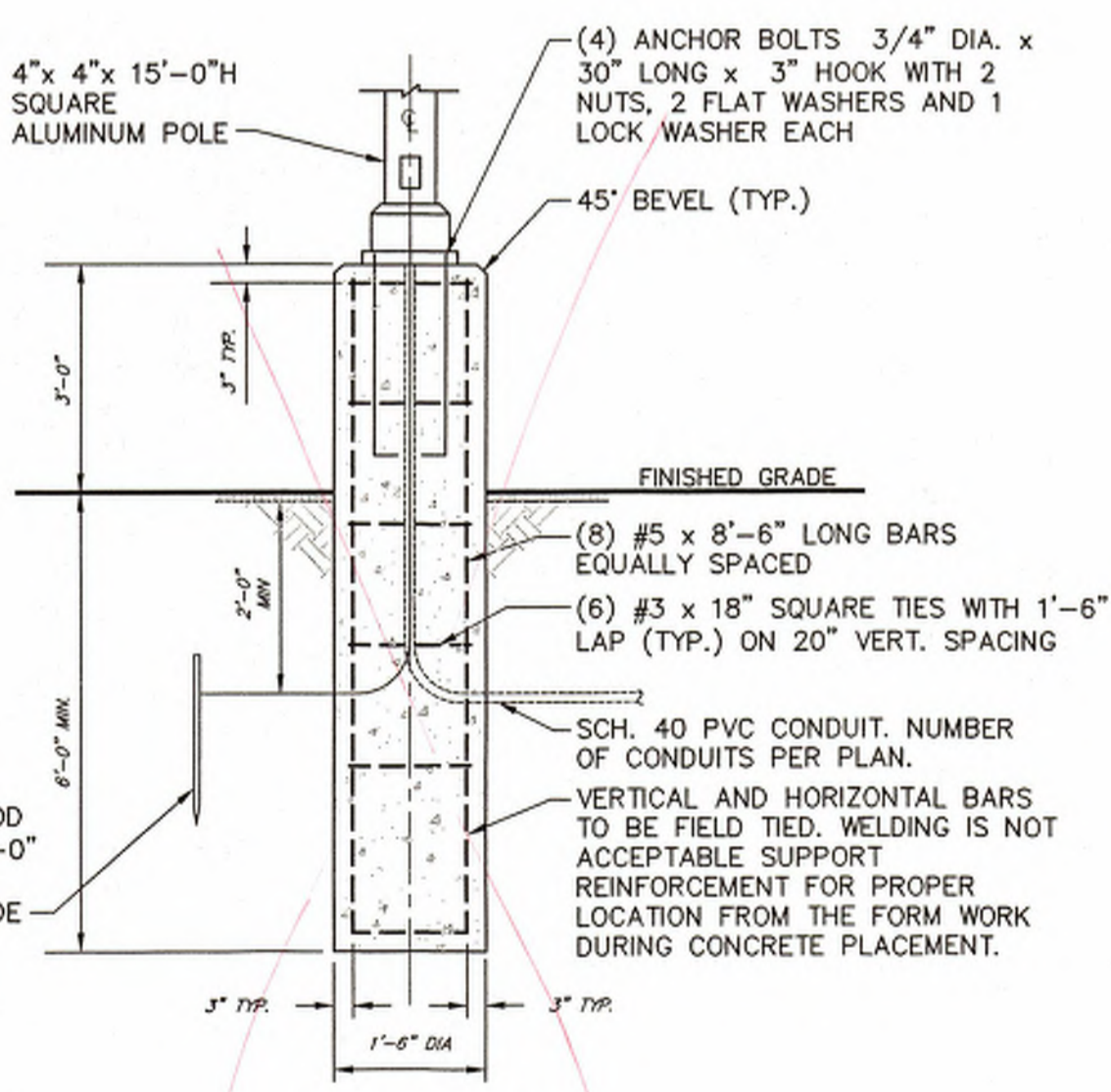
**RECIRCULATING PUMP CONTROL PANEL (EXISTING 'PCP')**



- NOTES:**
- CONTRACTOR TO RESTORE SITE TO EXISTING CONDITION.

**TYPICAL SITE ELECTRICAL TRENCH DETAIL**

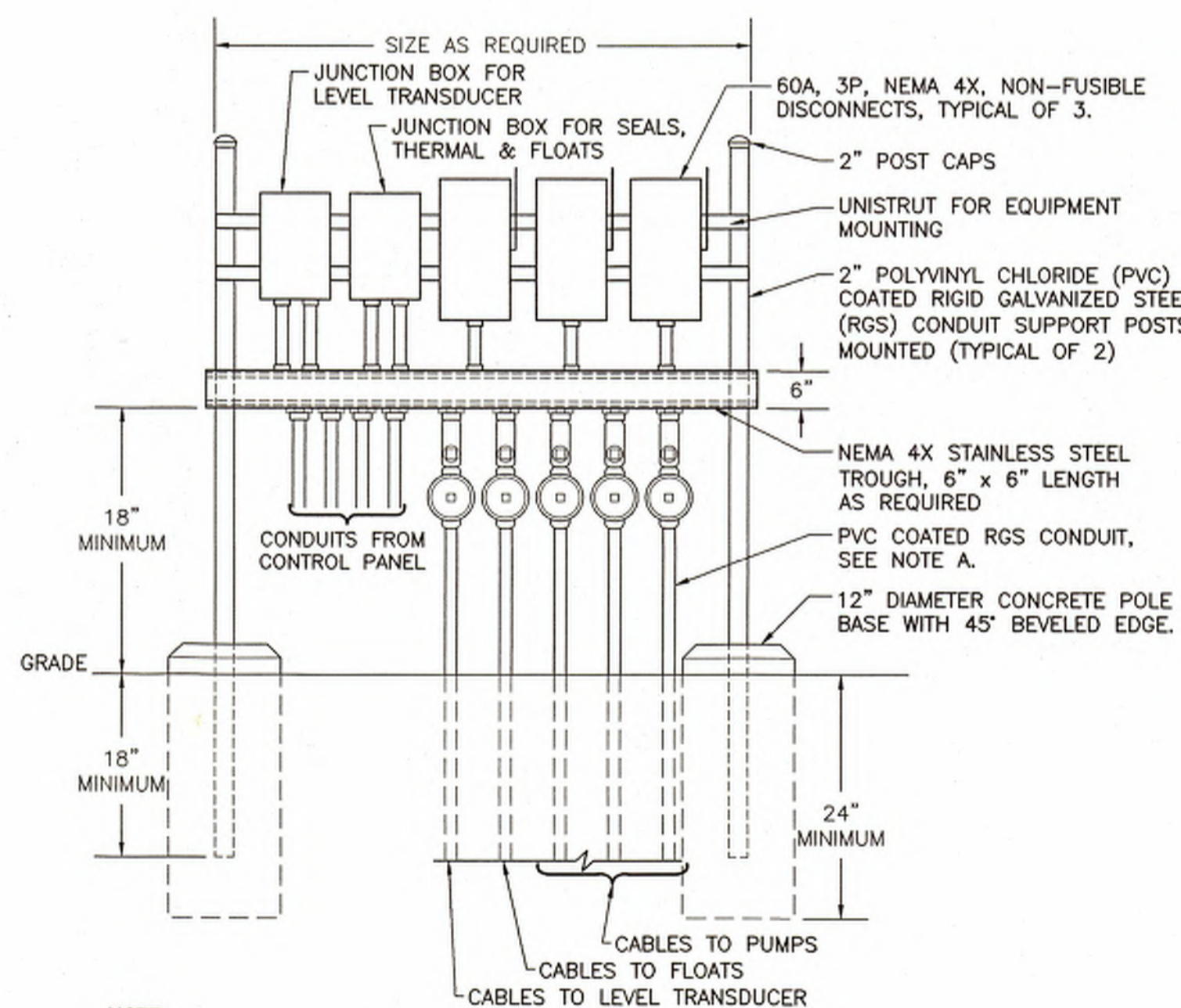
NOT TO SCALE



- NOTES:**
- 3500 PSI MIN 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL.
  - POLE TO BE LITHONIA MODEL #SSCA 15 4G PT DDB.

**TYPICAL LIGHT STANDARD BASE DETAIL**

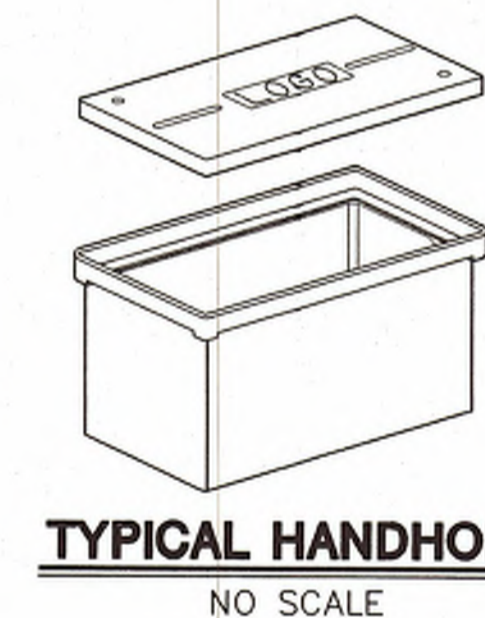
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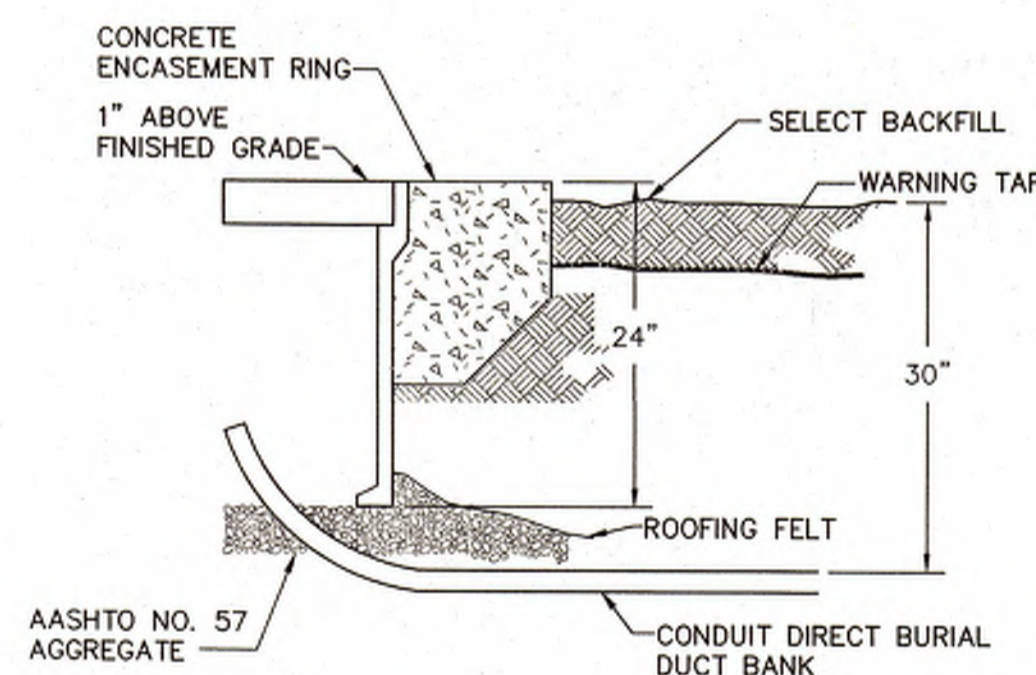
- NOTE:**
- POLYVINYL CHLORIDE (PVC) COATED RIGID GALVANIZED STEEL (RGS) CONDUIT, EXPLOSION PROOF JUNCTION BOX (QUAC47 BY CROUSE-HINDS), AND SEAL OFF FITTING (EYSS BY CROUSE-HINDS), TYPICAL FOR ALL CONDUITS REQUIRED. SEE PLAN NOTES FOR EXACT NUMBER OF CONDUITS & SIZES.

**WETWELL TERMINATION ASSEMBLY**

NO SCALE



**TYPICAL HANDHOLE**  
NO SCALE



- NOTES:**
- THE WARNING TAPE SHALL BE LOCATED 6" BELOW GRADE.
  - AN AASHTO NO. 57 AGGREGATE DRAINAGE BED IS REQUIRED UNDER ALL ELECTRICAL HANDHOLES. THE DRAINAGE BED SHALL BE EQUAL TO THE HANDHOLE BASE DIMENSIONS PLUS 12" DEPTH.
  - THE ENCASEMENT RING AND HANDHOLE SHALL BE 1" ABOVE FINISHED GRADE.
  - THE HANDHOLE COVER SHALL BE GRAY IN COLOR AND EMBOSSED WITH "ELECTRIC". THE COVER SHALL BE HEAVY DUTY TYPE WITH A DESIGN LOAD EQUAL OR EXCEEDING 15,000LBS. OVER A 10" SQUARE.
  - QUAZITE #PG2436BA24 37 5/8"x26"x24" LxWxD OR APPROVED EQUAL.

**HANDHOLE FOR NON ROADWAY APPLICATIONS**

NOT TO SCALE

**ELECTRICAL GENERAL NOTES:**

- ALL ELECTRICAL WORK BY CONTRACT 12-3.
- DRAWINGS ARE DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER DIVISION TRADES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM. LOCATE FIXTURES, DEVICES, ETC. IN ORDER TO AVOID INTERFERENCES.
- ALL WORK SHALL BE PERFORMED AS REQUIRED BY APPLICABLE SECTION OF THE NATIONAL ELECTRICAL CODE, LATEST EDITION, AND ALL GOVERNING LOCAL CODES, LAWS, AND/OR REGULATIONS.
- SYSTEM AND EQUIPMENT GROUNDING CONTINUITY SHALL BE ASSURED AS REQUIRED BY APPLICABLE SECTIONS OF THE NATIONAL ELECTRICAL CODE.
- ELECTRICAL WORK SHALL BE TYPE "THIN-THIN" UNLESS OTHERWISE NOTED; MINIMUM WIRING SHALL BE #12 (POWER WIRE). ALL WIRE SHALL BE COPPER. MINIMUM CONDUIT SIZE FOR METALLIC CONDUIT TO BE 3/4" AND 1" FOR POLYVINYL CHLORIDE (PVC).
- ALL CIRCUIT PROTECTIVE DEVICES SHALL HAVE THE REQUIRED RATING INTERRUPTING CAPACITY EQUAL TO OR GREATER THAN THE AVAILABLE SHORT-CIRCUIT CURRENT AT ITS SUPPLY TERMINAL; MINIMUM INTERRUPTING CAPACITY, SHALL BE 10,000 AMPS, SYMMETRICAL A.I.C. FOR 120/208V SYSTEMS AND 14,000 AMPS, SYMMETRICAL AMPERE INTERRUPTING CIRCUIT (A.I.C.) FOR 277/480V SYSTEMS.
- ALL OUTDOOR EXPOSED CONDUIT TO BE PVC COATED RIGID GALVANIZED STEEL (RGS). TRANSITION FROM UNDERGROUND TO EXPOSED SHALL BE PVC COATED RGS.
- ALL UNDERGROUND CONDUITS TO BE SCHEDULE 40 PVC UNLESS OTHERWISE INDICATED. ALL CONDUITS SHALL INCLUDE A NYLON PULL CORD.

**DEMOLITION NOTES:**

- EXISTING DISCONNECT SWITCHES TO BE REMOVED FROM VALVE VAULT.
- EXISTING JUNCTION BOX FOR DISCONNECT SWITCH WIRING TO BE REMOVED.
- EXISTING JUNCTION FOR FLOW SWITCH WIRING TO REMAIN.
- REMOVE EXISTING LIGHT FIXTURE RECEPTACLE
- EXISTING FLOAT SWITCH CABLES/CONDUIT TO BE REROUTED VIA TERMINATION ASSEMBLY. SEAL EXISTING PENETRATIONS IN VALVE VAULT AFTER CABLING & CONDUIT ARE REMOVED.
- INTERCEPT EXISTING UNDERGROUND CONDUITS AND PREPARE FOR SPLICING IN PROPOSED HANDHOLE. REFER TO HANDHOLE DETAIL ON THIS SHEET.
- SEAL ALL UNUSED EXISTING CONDUIT PENETRATIONS IN VALVE VAULT AFTER CABLING & CONDUITS ARE REMOVED.
- INTERCEPT EXISTING UNDERGROUND CONDUITS FOR FLOAT SWITCHES & LEVEL TRANSDUCER AND PREPARE FOR SPLICING WITH NEW CONDUIT AND CABLING FROM TERMINATION ASSEMBLY.

**PROPOSED WORK NOTES:**

- THE WETWELL IS A CLASSIFIED HAZARDOUS LOCATION, IN ADDITION A SPHERE WITH A 3'-0" DIAMETER FROM THE VENT PIPE IS ALSO CLASSIFIED AS CLASS 1, DIVISION 2 AND ALL CONDUIT & WIRING IN THIS AREA SHALL CONFORM TO NFPA FOR THIS TYPE OF AREA.
- REFER TO ONE-LINE DIAGRAMS, ON THIS SHEET, FOR WIRING REQUIREMENTS BETWEEN THE WETWELL, VALVE VAULT AND THE RECIRCULATION PUMP CONTROL PANEL.
- EXISTING RECEPTACLE REMOVED FOR OLD LIGHT FIXTURE IS FED FROM THE CONTROL BUILDING. CONTRACTOR TO INTERCEPT CONDUIT RUN AND PROVIDE A NEW CONNECTION IN HANDHOLE TO PROPOSED LIGHT FIXTURE LOCATION. PROVIDE 2#12, #12 GROUND IN 3/4" CONDUIT TO LIGHT STANDARD BASE. COORDINATE WITH OWNER FOR CIRCUIT LOCATION.
- EXISTING POWER FEED AND ANALOG SIGNAL WIRING & CONDUIT TO BE INTERCEPTED AND SPLICED IN NEW HANDHOLE IN ROUTE FROM CONTROL BUILDING TO CHLORINE CONTACT TANK. POWER FEED IS 2#12, #12 GROUND IN 3/4" CONDUIT FOR SAMPLER & TRANSDUCER POWER. ANALOG SIGNAL IS #16 TSP IN 3/4" CONDUIT FOR LEVEL TRANSDUCER. COORDINATE WITH OWNER FOR CIRCUIT LOCATION AND SWITCHOVER.
- PROVIDE AREA LIGHT (LITHONIA MODEL #KSF1 100M RZ 120 SP04 PE1 LP1) WITH PHOTOCCELL ON 15'-0" POLE. REFER TO LIGHT STANDARD BASE DETAIL ON THIS SHEET.

NO.	REVISION	DATE	BY

JEFFREY W. CLARK  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF PENNSYLVANIA  
PE054772

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SONESTOWN, PA 17758

CONTRACT 12-3  
SONESTOWN WASTEWATER TREATMENT FACILITY  
EXISTING PUMP STATION  
PROPOSED REHABILITATION WORK - ELECTRICAL  
PLANS & DETAILS

DAVIDSON TOWNSHIP    SULLIVAN COUNTY    PENNSYLVANIA

PROJ. MGR. - BRB
DESIGN - WED
CADD - GRS
CHECKED - JWC
SCALE - AS SHOWN
DATE - MARCH 2012

DRAWING NO.	<b>E-1</b>
SHEET NO.	6 OF 6
PROJECT	R003471.042F

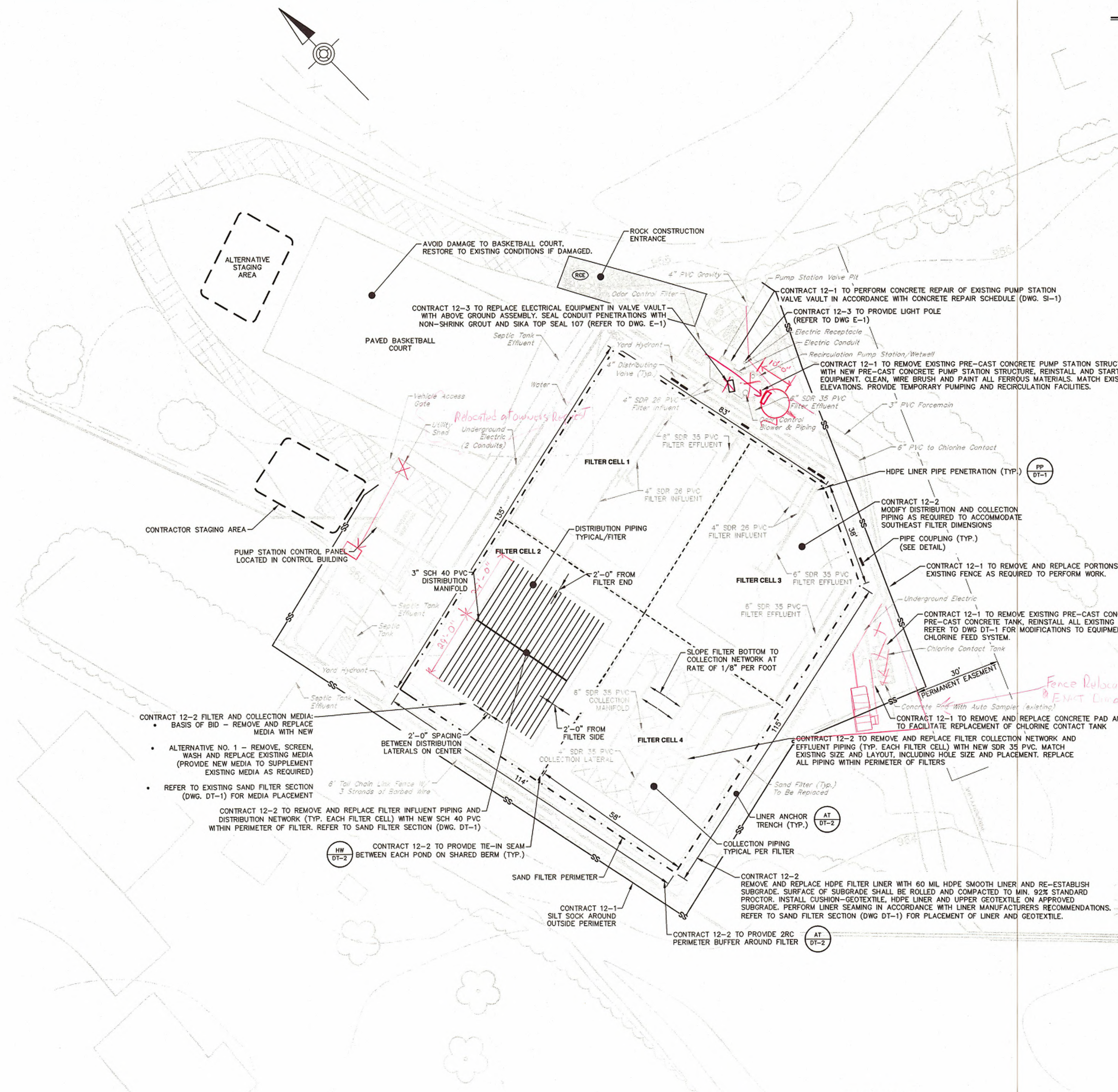
**CONCRETE REPAIR SCHEDULE**

- SPALLING - SIKA ARMATEC 110 + SIKATOP 123 + SIKATOP SEAL 107
- CRACKS - SIKAFLEX 429 PRIMER + SIKAFLEX 2C NS EZ-MIX + SIKATOP SEAL 107
- JOINTS - SIKADUR COMBIFLEX (INTERIOR)
- PIPE PENETRATIONS - SIKA 429 PRIMER + SIKAFLEX 2C NS EZ-MIX + SIKATOP SEAL 107 + BOND BREAKER TAPE
- ALL INTERIOR SURFACES - SIKA TOP SEAL 107
- ALL ABOVE GROUND EXTERIOR SURFACES - SIKA TOP SEAL 107

**CONCRETE REPAIR NOTES**

1. CONTRACTOR SHALL APPLY THE RESPECTIVE REPAIR TECHNOLOGIES IN ACCORDANCE WITH THE SPECIFICATIONS AND THE PRODUCT MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO PREPARE SURFACES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR SUPPORTING AND STABILIZING STRUCTURES AS REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF STRUCTURES DURING CONSTRUCTION ACTIVITIES.
3. APPLY SIKA TOP SEAL 107 TO ALL INTERIOR SURFACES AND ABOVE GROUND EXTERIOR SURFACES WITH THE EXCEPTION OF JOINTS.
4. CONTRACTOR TO DEWATER ALL ELEVATIONS, AS REQUIRED, IN ACCORDANCE WITH SECTION 312319 OF THE PROJECT MANUAL.

*notes*  
 Pump station relocated 10'-0" to South East  
 ALL Inverts Match Existing Locations and Elevations  
 CHLORINE TANK relocated Approx 11'-0" Southwest  
 ALL Inverts Match Existing Locations and Elevations

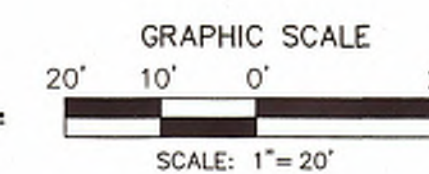


**SITE PLAN NOTES**

1. BASEMAPMING BY BASSETT ENGINEERING DATED: 12-27-01, HRG ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF BASEMAPMING. LOCATION OF STRUCTURES, AS SHOWN, MAY NOT REFLECT ACTUAL LOCATIONS. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL STRUCTURES.
2. CONTRACT 12-1 TO COORDINATE CHLORINE CONTACT TANK AND RECIRCULATION PUMP STATION WETWELL TANK REPLACEMENT WITH OWNER AND ENGINEER, (SEE SECTION 011400 OF THE PROJECT MANUAL)
3. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY. CONTRACT 12-1 AND 12-2 SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS.
4. CONTRACT 12-1 AND 12-2 SHALL BE RESPONSIBLE FOR INTERFACING WITH EXISTING AND PROPOSED CONSTRUCTION. CONTRACT 12-1 IS RESPONSIBLE FOR COORDINATION WITH CONTRACT 12-2.
5. CONTRACT 12-1 AND 12-2 SHALL MATCH ALL EXISTING ELEVATIONS FOR PROPOSED CONSTRUCTION.
6. CONTRACT 12-2 SHALL MINIMIZE FIELD WELDS OF HDPE LINER. CONTRACTOR TO MINIMIZE LINER WRINKLES.
7. CONTRACT 12-1 AND 12-2 SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL RESPECTIVELY REMOVED MATERIALS, (SEE SECTION 024116 OF THE PROJECT MANUAL)
8. SEAMING SHALL NOT BE PERMITTED DURING RAIN OR SNOW.
9. EXISTING CHAIN LINK FENCE AND 30' PERMANENT EASEMENT TO EAST OF FILTERS DELINEATES CONTRACT WORK AREA AS PROVIDED BY OWNER.
10. RESTORATION IN ACCORDANCE WITH SECTION 312333 AND SECTION 329200, LAWNS, UNLESS OTHERWISE NOTED FOR VEHICLE ACCESS. FINAL SITE RESTORATION (SECTION 329200) BY CONTRACT 12-1.
11. CONTRACT 12-1 AND 12-2 ARE NOTIFIED THAT TREATMENT PLANT SUSTAINED DAMAGE DURING FLOODING IN SEPTEMBER OF 2011. SITE CONDITIONS MAY NOT BE AS SHOWN.

**SITE PLAN**

SCALE: 1" = 20'



NO.	REVISION	DATE	BY



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ALL CONTRACTS  
**SONESTOWN WASTEWATER TREATMENT FACILITY**  
 WASTEWATER TREATMENT FACILITIES  
 REHABILITATION  
**SITE PLAN**  
 DAVIDSON TOWNSHIP SULLIVAN COUNTY PENNSYLVANIA

PROJ. MGR. - BRB	DRAWING <b>SI-1</b> SHEET NO. <b>2 OF 6</b> PROJECT R003471.0
DESIGN - BRB	
CADD - AKB	
CHECKED - DMS	
SCALE - AS SHOWN	
DATE - MARCH 2012	