



HAMILTON COUNTY PUBLIC HEALTH

PREVENT. PROMOTE. PROTECT.

March 11, 2019

Timothy Ingram, Health Commissioner

250 William Howard Taft Road

Cincinnati, OH 45219

Phone: 513.946.7800 Fax: 513.946.7890

hcuph.org

Dear Property Owner,

Hamilton County Public Health (HCPH) recently pre-approved you at 50% grant funding through the Water Pollution Control Loan Fund (WPCLF) to help in the sewage treatment system (STS) replacement project at your primary residence. The WPCLF requires at least three quotes be submitted to Hamilton County Public Health for each eligible project. HCPH recently reviewed and approved the STS replacement plan for your property at 998 Nordyke Road. Attached you will find a copy of the approved plan which you will need to use in order to solicit quotes on behalf of HCPH.

Using the attached forms, sample contract, approved STS design plan for your property and the guidance provided in this letter, you will need to contact registered STS installers individually for quotes. Attached is a list of registered STS installers you may contact. Any contractors interested in your project must be given a copy of this letter with all attachments. Interested contractors will need to provide a quote for the total cost for all work needed to install the approved STS using the form provided. This will include all items specified on the approved STS design plan, any needed connection of plumbing into the building sewer, disconnection and re-routing of any clear water from the plumbing system or STS, any needed electrical service upgrade if required to accommodate the replacement STS components, any other eligible and justified items, finished grading, seed and straw, and proper abandonment of the existing STS components.

To keep the process moving forward at least three quotes must be obtained by you on behalf of HCPH. All quotes must be collected by you and submitted at one time to HCPH by 05/17/2019. Keep in mind that returning all quotes sooner will be better to help your chances of receiving the WPCLF funding. Quotes will be reviewed by a team of individuals at HCPH. The contract will be awarded to the qualified applicant based on the lowest and best bid and will be dependent upon bidder's availability to complete the requested work in a timely fashion. Awarded contracts are strictly between HCPH and the selected contractor. Any attempt to enter into separate contract, addendum, modification, invoice or other contractual agreement, except for the property owner's matching percentage to be paid directly by the owner to the contractor, without prior approval by HCPH may disqualify the bidder.

If selected to complete the STS installation, the contractor will be contacted directly by HCPH. At that time, they will be required to sign a site specific version of the attached contract and submit all required contract paperwork to HCPH. Once verified, a Notice-to-Proceed will be issued to the contractor by HCPH allowing the selected contractor to begin the installation. All work required must be completed (including final inspection) by October 31, 2019 and following receipt of the Notice-to-Proceed.

It should be noted that any unexpected changes and/or alterations needed during the performance of work, requires a Contract Change Order (see Contract - Attachment B). Payment for any changed or extra services will not occur without pre-approval using this method. Also note that the contract has special insurance and bid bonding/financial guarantee requirements that must be followed.



Healthy choices. Healthy lives. Healthy communities.



PREVENT. PROMOTE. PROTECT.

For the WPCLF portion of the payment to occur, HCPH must approve the final STS installation. After which, the contractor must submit to HCPH an invoice, by November 1, 2019, to document the incurred costs for the repair/replacement along with an approval certificate issued by HCPH. Upon verification of this information, HCPH will send a request to Ohio EPA for reimbursement of the eligible system repair/replacement costs. After confirmation by Ohio EPA, the Ohio Water Development Authority will distribute the funding to HCPH, who will then pay the contractor the approved amount. Any portion of the approved bid amount not covered by the WPCLF must be paid directly by the property owner to the contractor.

At this time, if you would like to remain eligible for the WPCLF, you must solicit quotes, on behalf of HCPH, for your STS replacement project. When submitting each quote to you, the contractor must include a completed, signed and dated copy of the following attachments:

- i Hamilton County Bid Proposal Form
- i Contractor Equal Employment Opportunity (EEO) Certification Form
- i Certification Regarding Debarment, Suspension, and Other Responsibility Matters Form
- i American Iron and Steel (AIS) Form

At least three quotes must be collected by you, then be submitted together to HCPH with the items listed above, on or before May 17, 2019 to:

Hamilton County Public Health
Attn: Chris Griffith
250 William Howard Taft
Cincinnati, OH 45219

If you have any questions concerning this program, please feel free to contact me directly at 946-7866.

Sincerely,

A handwritten signature in black ink, appearing to read "CMS/RS", with a stylized flourish at the end.

Christopher M. Griffith, RS
Director of Water Quality

Hamilton County Bid Proposal Form

Contractor Name: _____

Contractor Address: _____

Contractor Phone(s): _____

Project Address: _____

Bid Due Date: _____

Total Amount of Bid: _____

Total Amount in Written Words: _____

Signature, Printed Name, Contractor

Date

I will begin the work within upon receipt of the written Design Contract and Notice to Proceed Order, and will complete the work within 45 days, unless otherwise agreed to by Hamilton County Public Health.

The above total price includes all materials, labor and other costs such as overhead, permits, sales tax and profit. This bid is valid for a period of 30 days after the date this proposal is received by Hamilton County Public Health.

Mail Bid Packet to: Hamilton County Public Health

Attn: Chris Griffith

250 William Howard Taft

Cincinnati, OH 45219

Contractor Equal Employment Opportunity Certification

During the performance of this contract, the undersigned agrees as follows:

1. The undersigned will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The undersigned will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The undersigned agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this equal opportunity (federally assisted construction) clause.
2. The undersigned will, in all solicitations or advertisements for employees placed by or on behalf of the undersigned, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
3. The undersigned will send to each labor union or representative of workers, with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the undersigned's commitment under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The undersigned will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The undersigned will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and relevant orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency of the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the undersigned's non compliance with the equal opportunity (federally assisted construction) clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part, and the undersigned may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No 11246 of September 24, 1965, or by rules, regulations, or order of the Secretary of Labor, or as provided by law.
7. The undersigned will include this equal opportunity (federally assisted construction) clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No 11246 of September 24, 1965, so that such provision will be binding upon each subcontract or vendor. The undersigned will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor, as a result of such direction by the administering agency the undersigned may request the United States to enter into such litigation to protect the interest of the United States.

(Signature)

(Date)

(Name and Title of Signer, Please type)

(Firm Name)

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (b) of this certification;
- (d) Have not within a three year period preceding this application / proposal had one or more public transactions (Federal, State, or local) terminated for cause or default; and
- (e) Will not utilize a subcontractor or supplier who is unable to certify (a) through (d) above.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Type Name & Title of Authorized Representative

Signature of Authorized Representative

Date

I am unable to certify to the above statements. My explanation is attached.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters
INSTRUCTIONS

Under Executive Order 12549 an individual or organization debarred or excluded from participation in Federal assistance or benefit programs may not receive any assistance award under a Federal program or a subagreement thereunder for \$25,000 or more.

Accordingly, each prospective recipient of an EPA grant, loan, or cooperative agreement and any contract or subagreement participant thereunder must complete the attached certification provide an explanation why they cannot. For further details, see 40 CFR 32.510, Participants' responsibilities, in the attached regulation.

Go to <https://www.sam.gov/portal/SAM/##11> to access the Excluded Parties List System (EPLS). The EPLS includes information regarding entities debarred, suspended, proposed for debarment, excluded or disqualified under the nonprocurement common rule, or otherwise declared ineligible from receiving Federal contracts, certain subcontracts, and certain Federal assistance and benefits. This information may include names, addresses, DUNS numbers, Social Security Numbers, Employer Identification Numbers or other Taxpayer Identification Numbers, if available and deemed appropriate and permissible to publish by the agency taking the action.

Where To Submit

The prospective EPA grant, loan, or cooperative agreement recipient must return the signed certification or explanation with its application to the appropriate EPA Headquarters, Regional office, or Ohio EPA, as required in the applications.

A prospective prime contractor must submit a complete certification or explanation to the individual or organization awarding the contract.

Each prospective subcontractor must submit a complete certification or explanation to the prime contractor for the project.

Applicants may reproduce these materials as needed and provide them to their prospective prime contractor, who, in turn, may reproduce and provide them to prospective subcontractors.

Additional copies / assistance may be requested from:

Ohio EPA

Division of Environmental and Financial Assistance

P.O. Box 1049

Columbus, Ohio

43216 1049 (614)

644 2798

<http://epa.ohio.gov/defa/EnvironmentalandFinancialAssistance.aspx>

American Iron and Steel Acknowledgement

The Contractor acknowledges to and for the benefit of _____
("Purchaser") and the State of Ohio (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Signature_____

Date_____

Name and Title of Authorized Signatory, Please Print or Type_____

Bidder's Firm_____

☐

Check here if the WPCLF or WSRLA applicant will be requesting an individual waiver for non-American made iron and steel products. Please note that the waiver box does not need to be marked for nationwide waivers.

CONSTRUCTION CONTRACT
HAMILTON COUNTY PUBLIC HEALTH
With Herrmann Services
For the Property at xxxxx Road
Dated xx xx, 2019

PROJECT: HOUSEHOLD SEWAGE TREATMENT SYSTEM REPAIR/REPLACEMENT PROJECT

This CONTRACT, made and entered into at HAMILTON COUNTY, Ohio, on xxxx xx, 2019 by the HAMILTON COUNTY PUBLIC HEALTH, hereinafter referred to as "HCPH"); and xxxxxxxx (hereinafter referred to as "CONTRACTOR").

WITNESSETH, the HCPH and the CONTRACTOR hereby agree as follows:

1. CONTRACT DOCUMENTS

The Contract consists of this document, the Contractor's Bond, the Contractor's Bid, the Design Drawings, the Design Specifications, all Addenda issued prior to execution of this Contract, the Notice To Proceed (Attachment A), all Change Orders (Attachment B) issued subsequent thereto and Federal, State, and/or Local Regulations; and when specified: Labor and Material Bond, Affirmative Action and Equal Opportunity Requirements, Contractor Equal Employment Opportunity Certification Form (Attachment C), Certification Regarding Debarment, Suspension and Other Responsibility Matters Form (Attachment D), and American Iron and Steel Acknowledgement Form (Attachment E).

2. CONTRACT REGULATIONS

Terms and conditions of this Contract shall be governed by the provisions of Chapters 153 and 4115 and Section 149.53 of the Ohio Revised Code, and all applicable local, State and Federal Ordinances, Statutes and Regulations.

The CONTRACTOR agrees not to discriminate against any employee or applicant for employment because of race, creed, sex, handicap, or color, including, but not limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. All records, manuals, forms, drawings, schedules, lists, surveys, specifications, designs, and other data pertaining to the work specified in this contract are and shall remain the sole property of the HCPH. The use of any Subcontractor must be reported to the HCPH and they shall be bound by the same requirements as the CONTRACTOR.

3. BONDING

A bond or other form of financial guarantee shall be submitted by the CONTRACTOR in accordance with Sections 153.54/307.89 of the Ohio Revised Code and Section 3.4 of the Water Pollution Control Loan Agreement for the full amount of the Contractor's Bid.

4. THE WORK

The CONTRACTOR shall perform and complete all work of the Project required by the Contract Documents for xxxxxx Road, supplying all the labor, materials, supervision, tools and equipment necessary and required for the proper abandonment of the existing sewage treatment system (tanks and drywells, if present) and replacement of the sewage treatment system in accordance with the Installation Permit, Design, Project and Contract Documents; shall proceed in a prompt and diligent manner, and shall do the several parts thereof at such times and in such order as the HCPH may direct, and shall execute, construct, finish, and test when required, the Project in an expeditious, substantial and workmanlike manner to the satisfaction of HCPH, and to the final acceptance of the Project by HCPH.

5. TIME OF COMMENCEMENT AND COMPLETION

The CONTRACTOR shall commence work upon receipt of the written Notice To Proceed (Attachment A) issued by HCPH. The CONTRACTOR shall complete the Project work by October 31, 2019 and following the Notice To Proceed.

6. RIGHTS OF ACCESS

The signatories agree to ensure that the Director or its duly authorized agents shall have the right at all reasonable times to enter upon the Project Site(s) and Project Facilities, and to examine and inspect the same and to exercise the Director's rights pursuant to the WPCLF Assistance Agreement.

7. CONTRACT CONFLICTS

In the event of a conflict between the contract and the WPCLF Assistance Agreement, the provisions of the WPCLF Agreement shall prevail.

8. CONTRACT SUM

Hamilton County Public Health, utilizing OHIO EPA funding, shall pay the CONTRACTOR for the performance of the Work, up to the sum of \$xx,xxx.xx (xx% of eligible costs paid by HCPH with \$x,xxx.xx - xx%

covered by the property owner) subject to additions and deductions by Change Orders (Attachment B) properly approved and executed. All properly approved and executed Change Orders for increases will be paid by HCPH, utilizing OHIO EPA funding, and/or homeowner contribution. Neither HCPH nor OHIO EPA will responsible for additional reinspection fees.

9. PAYMENTS

Based upon Applications for Payment submitted to the HCPH by the CONTRACTOR, and after installation approval by HCPH, the contractor shall submit an invoice that documents costs all incurred to HCPH. The invoice shall detail the services rendered, including charge rates, number of hours, materials or supplies consumed, and other information needed to support the invoice to HCPH. Upon verification of this information, HCPH will send a request to Ohio EPA for reimbursement of the eligible costs. After confirmation by Ohio EPA, the Ohio Water Development Authority will distribute the funding to HCPH, who will then pay the Contract Sum to the CONTRACTOR as provided in Chapter 153 of the Ohio Revised Code and after payment is received from the Ohio EPA.

10. NEGLECT, DEFAULT, DELAY, ETC.

Hamilton County Public Health or Hamilton County Board of Health shall not be liable to the CONTRACTOR for any neglect, default, delay, or interference of or by another contractor, nor shall any such neglect, default, delay, or interference of or by another contractor, or alteration which may be required in said Work within the time aforesaid, or from the damage to be paid in default thereof. The CONTRACTOR shall pay HCPH \$200.00 for each and every calendar day of completion the Project is delayed beyond the date fixed for completion in Section 3 herein.

11. INSURANCE

The Insurance Specifications for Contractors and their subcontractors are as follows:

- A. All insurance required herein shall be issued by companies licensed to do business in Ohio, and which are rated not less than A: VII by A. M. Best.
- B. Commercial General Liability insurance with commercial general liability form GC 00 01 or its equivalent, with limits of at least \$1,000,000 per occurrence and \$1,000,000 in the aggregate covering death, bodily injury, and property damage. Coverage must include premise and

operations, contractual liability, third party property damage, severability of interest, completed operations coverage, maintained for at least three years beyond the date of the contractor's completion of the work, waiver of subrogation, and waiver of "cross claim exclusion between insured's".

- C. Business auto liability insurance of at least \$1,000,000 combined single limit, on all owned and non-owned leased and hired automobiles.
- D. Umbrella and excess liability policies of at least \$1,000,000, per occurrence and in the aggregate, above the underlying General Liability and business auto policies. Coverage must include drop down features, concurrency of effective dates; aggregates in the primary apply in the Umbrella, waiver of subrogation.
- E. The Commercial General Liability and business auto policies must endorse the Board of Health of Hamilton County, Ohio, their employees, officials, agents and volunteers as additional insureds. Further these policies must waive subrogation claims against the aforesaid individuals.
- F. Owner shall require its contractors and subcontractors to provide Workers' Compensation Insurance coverage at the statutory limits required by the Ohio Revised Code. The Contractor shall provide Workers Compensation Insurance for all employees engaged in Work who may come within the protection of the workers compensation law, and, where applicable, employer's General Liability Insurances for employees not so protected and shall require all Subcontractors to provide corresponding insurance. The Contractor shall indemnify the Owner, Hamilton County Board of Health, their employees, officials, agents and volunteers and the Consulting Engineer against any and all liabilities, cost and expenses due to accidents or other occurrences covered by the workers compensation law.
- G. Each policy required herein may not be canceled or materially changed except upon thirty days prior written notice given to: Hamilton County Public Health, 250 William Howard Taft, Cincinnati, Ohio 45219.

H. Maintenance of the insurance required hereunder is a material element of this Agreement. Material changes of the required coverage or cancellation of the coverage in violation of subsection G, above, is a material breach of this Agreement.

I. Builders Risk: In addition to such fire and other physical damage insurances as the Contractors elects to carry for his own protection, he shall also secure and maintain in the name of the Owner, the government agency sponsoring the Project, Subcontractors, the Consulting Engineer and any other parties having an interest in the Project, as named insured as their interest may appear; a builders' risk policy for fire, extended coverage, vandalism and malicious mischief in the amount of one hundred (100) percent of the value of the complete parts of the Project and Materials in storage, except that such coverage shall not be required in connection with sewer, water main or paving construction. Pump or lift station construction shall not be considered sewer or water main construction for purposes of this paragraph.

J. Contractor's Public Liability and Property Damage Liability Insurance:

Contractor's Public Liability Insurance providing a limit of not less than \$500,000 for all damages arising out of bodily injuries, including accidental death to one person, and a total limit of 1,000,000 for all damages arising out of bodily injuries, including accidental death, to two or more persons in any one occurrence. Contractor's Property Damage Liability Insurance providing for a limit on not less than \$500,000 for all damages to or destruction of property.

Coverage under this policy shall include, to the limits indicated above, the collapse or damage to any structure, building or its contents, public or private utility, or pavement during construction and for two (2) years thereafter.

Whenever Work under the Contract is to be done in the vicinity of existing underground utilities or structures, coverage under the policy shall also include, to the limits indicated, all damages to said underground utilities or structures during construction and for a period of two (2) years thereafter. Whenever Work under the Contract is to be done by blasting, coverage under the policy shall also include, to the limits indicated above, all damages of any kind whatsoever caused by blasting.

K. Contractor's Protective Public Liability and Property Damage Liability

Insurance: Contractor's Protective Public Liability and Property Damage Liability Insurance for operations performed by Subcontractors providing for coverage and limits corresponding to those described in subparagraph J.

L. Owner's (HCPH) Protective Public Liability and Property Damage Liability

Insurance: Regular Owner's Protective Public Liability and Property Damage Liability Insurance for operations performed by the Contractor or any Sub-contractor providing for coverage and limits corresponding to those specified elsewhere herein.

M. Railroad Protective Liability Insurance: In any of the Work under this Contract is on railroad R/W, the Contractor shall at its sole cost and expense, procure and provide, for and in behalf of each railroad company. Protective Liability Insurance (AARAASHO form) with minimum limits per occurrence of not less than \$2,000,000 for bodily injury, death and/or property damage, subject to an aggregate limit of \$6,000,000 per annum. The policy shall name each railroad company as the insured and be issued to the Contractor. Each railroad company shall be provided with a copy of each policy of insurance prior to commencement of any work.

Certificates of Insurance

The Contractor shall file a Certificate of Insurance for all coverage required in these Insurance Specifications on the ACORD 25 Form (preferred), and a copy of his current Worker's Compensation Certificate, with the Hamilton County Public Health before starting work on the project, and shall keep such Certificates current and on file with the County for the life of this Contract.

Indemnification Clause

The Contractor agrees to indemnify and save The Board of County Commissioners, Hamilton County Ohio, Hamilton County Board of Health, HCPH, their officials, officers, agents, and employees harmless from any and all losses, claims, actions, costs, expenses, judgments, subrogation's, or other damages resulting from injury to any person (including injury resulting in death), or damage (including loss or destruction) to property of whatsoever nature of any person, firm, or corporation arising out of the errors, omissions or negligent acts of the Contractor in the performance of the terms of this Contract by the Contractor, including but not limited to the Contractor's

employees, agents, subcontractors, sub-subcontractors, and others designated by the Contractor to perform work or services in, about, or attendant to, the work and services under the terms of this contract.

Notice To Proceed

The Contractor shall not commence work under this contract until he has obtained all the insurance required herein, has submitted appropriate Certificates of Insurance to and received approval of the County as evidenced by a Notice to Proceed (Attachment A).

Subcontractors

The Insurance Specifications apply equally to all subcontractors and sub-subcontractors at any tier during the period of their work on the project. The Prime Contractor shall be solely responsible for his subcontractor's liability if he permits the Sub to work on the project without the Sub having been issued a Notice to Proceed by the County.

12. FAILURE TO COMPLY

If the CONTRACTOR shall fail to comply with any of the terms, conditions, provisions or stipulations of this Contract, HCPH may avail itself of any and all remedies provided in their behalf in the Contract, and shall have the right and power to proceed in accordance with the provisions thereof.

13. RESOLUTION OF DISPUTES

In the event of a dispute covering additional costs, claims and any other matter arising out of or relating to this Contract, or the breach thereof, such disputes shall be decided by submission to a court of competent jurisdiction within one (1) year of the date upon which HCPH accepts and approves the project for use. The CONTRACTOR hereby waives any right to rely upon the statute of limitations for actions on contracts.

Failure to bring an action within one year of the above date shall constitute a bar to such action. If, however, within ten (10) days of the specific event giving rise to the disputed matter, the CONTRACTOR gives HCPH, by written notice, a request to submit the matter to arbitration, HCPH and the CONTRACTOR may agree, within sixty (60) Days of receipt of the above notice, to submit the matter to arbitration as set forth below.

If the parties agree, by written change order signed by HCPH, the Ohio EPA, and the CONTRACTOR, to submit such dispute to arbitration, all proceedings shall be according to Ohio

Revised Code Chapter 2711, and, unless waived, the Ohio Rules of Civil Procedure and the Ohio Rules of Evidence. HCPH and the CONTRACTOR shall each choose one arbitrator. The two arbitrators shall agree upon and choose a third arbitrator, who shall preside over the proceedings.

Compensation of the arbitrators shall be as agreed upon by HCPH, the CONTRACTOR and the arbitrators. Payment for the arbitrators shall be shared equally by HCPH and the CONTRACTOR. The CONTRACTOR shall deposit, as a precondition to commencement of the hearing, its equal share of the compensation of the arbitrators with HCPH to be placed in an account for that purpose, or with an escrow agent suitable to both parties. The hearing or the arbitration shall commence within sixty (60) days of the agreement to arbitrate. If the hearing is not commenced within sixty (60) days of the agreement to arbitrate, said agreement shall be void and the dispute shall be resolved by submission to a court of competent jurisdiction as herein before specified. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof. All questions with regard to the rights and authority of the arbitration panel shall be resolved pursuant to Chapter 2711, of the Ohio Revised Code.

14. IN FORCE AND EFFECT

Subject to the applicable provisions of law, this contract shall be in full force and effect from and after the date when a fully executed and approved counterpart hereof is forwarded to the CONTRACTOR, but the CONTRACTOR shall not start work on the Project until written notification to proceed is received from HCPH.

15. Executive Order 11246 Sec.202

Except in contracts exempted in accordance with Section 204 of this Order, all Government contracting agencies shall include in every Government contract hereafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- A. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer, recruitment, or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and

selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause.

- B. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- C. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of this notice in conspicuous places available to employees and applicants for employment.
- D. The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- E. The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- F. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, or by rule regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- G. The contractor will include the provisions of Paragraphs (A) through (G) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued

pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

16. Violating Facilities Clause

The Contractor agrees to comply with all applicable standards, orders or requirements under Section 306 of the Clean Air Act, 42 USC 1857 (h), Section 508 of the Clean Water Act, 33 USC 1368, Executive Order 11738, and EPA regulations, 40 CFR Part 32, which prohibits the use under non-exempt Federal contracts, grants, or loans of facilities included on the EPA List of Violating Facilities.

17. Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The Contractor certifies to the best of its knowledge and belief that it and its principles:

- A. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or Agency;
- B. Have not within a year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
- C. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or Local) with commission of any of the offenses enumerated in paragraph (B) of this certification;

- D. Have not within a three year period preceding this application / proposal had one or more public transactions (Federal, State, or Local) terminated for cause or default' and
- E. Will not utilize a subcontractor or supplier who is unable to certify (A) through (D) above.

IN WITNESS WHEREOF, the County and the Contractor affix their signatures:

WITNESS:

HAMILTON COUNTY PUBLIC HEALTH

Health Commissioner

Date

WITNESS:

CONTRACTOR: _____

By: _____

Title

Contractor to complete applicable paragraph below:

_____ A Corporation organized under the Laws of _____ and qualified
to do business in the State of Ohio.

_____ Co-partners trading and doing business under the firm name and style of

_____ List names of all Partners _____

Or Joint Venture Participants _____

_____ An individual doing business under the firm name and style of

ATTACHMENT A
HAMILTON COUNTY PUBLIC HEALTH
NOTICE TO PROCEED

Date _____
Contractor Name
Street Address
City, State, Zip Code

Notice To Proceed With: _____

Enclosed is your copy of the completely executed contract in the amount of \$_____ to be paid from
the _____ fund.

You are hereby authorized and notified to PROCEED with the repair or replacement of the household sewage
treatment system located at _____ in accordance with all terms and conditions of your contract with
HCPH. This includes by reference the specifications upon which you bid.

Sincerely,

Tim Ingram
Health Commissioner, Hamilton County Public Health

CONTRACT CHANGE ORDER

APPROVED BY: _____ DATE: _____
 (Health Department Representative)

ACCEPTED BY: _____ DATE: _____
 (Contractor)

 (Company)

Original Contract Amt		
Previous Changes (+ / --)		
This Change (+ / --)		
Adjusted Contract Amt		
Ohio EPA Acceptance		Date

ATTACHMENT B

CHANGE ORDER INSTRUCTIONS:

All Change Orders for this work, regardless of costs, must be submitted to Ohio EPA for review.

Changes Requiring Prior Approval

Any change which substantially modifies the Project Facilities as specified in the Ohio EPA approved Facilities Plan and Final Permit to Install or Final Plan Approval (when applicable) or alters the direct or indirect impact of the Project Facilities upon the environment must be incorporated into a Change Order. One copy of the Change Order prior to execution is to be submitted to Ohio EPA for review and prior approval of the acceptability of the change. "Prior to execution" means before the Change Order is signed by the Owner.

Ohio EPA will review the Change Order and inform the Owner of the technical, environmental and operational acceptability of the change, and give the Owner permission to proceed with the proposed work.

All Other Changes

Change Orders not requiring prior approval as described above must be submitted to Ohio EPA within one (1) month of the time at which they are approved by the Owner. Change Orders for WPCLF projects should be submitted to the Division of Environmental and Financial Assistance (DEFA).

Change Order Approval Process

After the Change Order is executed, one (1) copy of the Change Order, including the supporting documentation, is to be sent to Ohio EPA for final review. The HSTS Change Order form must have original signatures.

Health Departments should submit change orders electronically to the DEFA Engineer who reviewed and approved their project.

After the Change Order is accepted and eligible costs determined, Ohio EPA will return a signed copy of the HSTS Change Order form.

Payments for Change Order Work

The Owner is precluded from submitting to the OWDA payment requests for Eligible Project Costs associated with the Change Orders until the Ohio EPA's approval of the Change Orders has been obtained.

ATTACHMENT C
Contractor Equal Employment Opportunity Certification

During the performance of this contract, the undersigned agrees as follows:

8. The undersigned will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The undersigned will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The undersigned agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this equal opportunity (federally assisted construction) clause.
9. The undersigned will, in all solicitations or advertisements for employees placed by or on behalf of the undersigned, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
10. The undersigned will send to each labor union or representative of workers, with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the undersigned's commitment under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
11. The undersigned will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
12. The undersigned will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and relevant orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency of the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
13. In the event of the undersigned's non compliance with the equal opportunity (federally assisted construction) clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part, and the undersigned may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rules, regulations, or order of the Secretary of Labor, or as provided by law.
14. The undersigned will include this equal opportunity (federally assisted construction) clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No. 11246 of September 24, 1965, so that such provision will be binding upon each subcontract or vendor. The undersigned will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non compliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor, as a result of such direction by the administering agency the undersigned may request the United States to enter into such litigation to protect the interest of the United States.

(Signature)

(Date)

(Name and Title of Signer, Please type)

(Firm Name)

ATTACHMENT D

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (f) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (g) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal of State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (h) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (b) of this certification;
- (i) Have not within a three year period preceding this application / proposal had one or more public transactions (Federal, State, or local) terminated for cause or default; and
- (j) Will not utilize a subcontractor or supplier who is unable to certify (a) through (d) above.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Type Name & Title of Authorized Representative

Signature of Authorized Representative

Date

I am unable to certify to the above statements. My explanation is attached.

ATTACHMENT D

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

INSTRUCTIONS

Under Executive Order 12549 an individual or organization debarred or excluded from participation in Federal assistance or benefit programs may not receive any assistance award under a Federal program or a subagreement thereunder for \$25,000 or more.

Accordingly, each prospective recipient of an EPA grant, loan, or cooperative agreement and any contract or subagreement participant thereunder must complete the attached certification provide an explanation why they cannot. For further details, see 40 CFR 32.510, Participants' responsibilities, in the attached regulation.

Go to <https://www.sam.gov/portal/SAM/##11> to access the Excluded Parties List System (EPLS). The EPLS includes information regarding entities debarred, suspended, proposed for debarment, excluded or disqualified under the nonprocurement common rule, or otherwise declared ineligible from receiving Federal contracts, certain subcontracts, and certain Federal assistance and benefits. This information may include names, addresses, DUNS numbers, Social Security Numbers, Employer Identification Numbers or other Taxpayer Identification Numbers, if available and deemed appropriate and permissible to publish by the agency taking the action.

Where To Submit

The prospective EPA grant, loan, or cooperative agreement recipient must return the signed certification or explanation with its application to the appropriate EPA Headquarters, Regional office, or Ohio EPA, as required in the applications.

A prospective prime contractor must submit a complete certification or explanation to the individual or organization awarding the contract.

Each prospective subcontractor must submit a complete certification or explanation to the prime contractor for the project.

Applicants may reproduce these materials as needed and provide them to their prospective prime contractor, who, in turn, may reproduce and provide them to prospective subcontractors.

Additional copies / assistance may be requested from: Ohio EPA

Division of Environmental and Financial Assistance

P.P. Box 1049

Columbus, Ohio 43216 1049

(614) 644 2798

<http://epa.ohio.gov/defa/EnvironmentalandFinancialAssistance.aspx>

ATTACHMENT E

American Iron and Steel Acknowledgement

The Contractor acknowledges to and for the benefit of _____ (“Purchaser”) and the State of Ohio (the “State”) that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as “American Iron and Steel;” that requires all of the iron and steel products used in the project to be produced in the United States (“American Iron and Steel Requirement”) including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Signature

Date

Name and Title of Authorized Signatory, Please Print or Type

Bidder’s Firm

☐

Check here if the WPCLF or WSRLA applicant will be requesting an individual waiver for non-American made iron and steel products. Please note that the waiver box does not need to be marked for nationwide waivers.

**Nancy Wilson
998 Nordyke Rd
Anderson Twp.
Hamilton County, OH 45230
Par#500-0040-0056-00**

Designed By:
Evans Engineering
4240 Airport Rd., Suite 108
513-321-2168

Jet J-500-PLT aerobic treatment unit and Infiltrator IM-1060 dose tank with Jet Model 952 UV disinfection to split low pressure sand mound with perimeter drains w/ pumped discharge.

This design is for a 3 bedroom home with no additional rooms that could be classified as as a future bedroom, per following

- *At least 70 square feet,*
- *Contains a closet or area that could easily be finished as a closet,*
- *Has multiple means of ingress/egress, sole ingress cannot be through another bedroom, and;*
- *Has a door or opening that can easily be finished with a door.*
- *For every two bedroom-like-rooms that have 3 of the 4 items listed above, one will be considered a bedroom.*

Daily Design Peak Flow of 360 GPD. The peak flow should not be reached on a routine basis. Average flows of 216 GPD can be accommodated routinely with typical residential wastewater strength as specified in Ohio Administrative Code (OAC) 3701-29 for households. Shallow soil with a non-low lime till plane seasonal water table at 0" and flow restrictive layer of highly weathered slowly permeable soil 30" from the ground's surface. Conditions require an 24" Vertical Separation Distance with 8" In Situ Soil from the perched seasonal water table. Designer chose Millennium sand mound with 6" sand depth. The Jet ATU with UV supplies a 24" soil depth credit and effluent with less than 1000 CFU/1000 mL. The depth credits based on effluent quality satisfy soil conditions.

Sand mound design length and width are calculated based on the worst soil conditions under the soil absorption system. The loading rates are selected from tables in the Ohio Administrative Code. The Soil Loading Rate for silt loam with strong angular structure is 0.8 GPD/sq.ft. The Linear Loading Rate for silt loam with strong granular structure with an infiltrative distance of 8"-12" and 0-4% slope is 2.7 GPD/Ln. Ft.

Minimum Design Length is therefore $360 \text{ GPD} \div 2.7 \text{ Gal. Per Ln. Ft} = 133.33 \text{ feet long}$. 120 Ln Ft. of mound length is provided in this design (60' per zone), which represents an 10% size reduction per OAC 3709-29-15(N)(2)(h).

Minimum Area required is $360 \text{ GPD} / 0.8 \text{ GPD/sq.ft.} = 450 \text{ sq.ft.}$

The Design Area is 528 sf per zone, 1,056 sq.ft. total.

All system devices and components must be operated and maintained in accordance with the Ohio Department of Health (ODH) product approval, Hamilton County Public Health Operation Permit Terms and Conditions. System devices and components must be installed per ODH product approval, Hamilton County Installation Manual and this design. Where conflicts exist, consult Evans Engineering for guidance before proceeding.

<http://www.odh.ohio.gov/~media/ODH/ASSETS/files/eh/sts/P-Jet-500-NPDES-o-m-2012>

Jet Model 952 UV O&M Manual

<http://www.odh.ohio.gov/~media/ODH/ASSETS/files/eh/sts/p-JET-952uv-install>

Jet installation manual:

<http://www.keelervault.com/jetj500800pltinstallation.html>

Infiltrator Tanks installation manual: infiltratorwater.com

Hamilton County Installation Manual: <http://ow.ly/ObNQs>

Pump Basin installation manual:

<http://www.toppindustries.com/resources/installation-guides>

CSI Alarm Control Panel: See C6

*This installation will require an electrical inspection(s) and approval by IBI
(513) 381-6080, <http://www.inspectionbureau.com/>*

Means for O&M is provided by the driveway which is within standard distances and elevations for a service truck.

This plan is the sole ownership of the designer and may not be altered, changed, used or manipulated without approval of designer and HCPH. Evans Engineering is available to make adjustments and address questions about the system design. It is the responsibility of the contractor to verify that the system can be installed as designed, based on their preliminary lay-out of the job. It is the responsibility the installer and property owner to inform the designer of any field or other conditions that may affect the installation, operation or maintenance of the STS, including site disturbances that may affect the performance of a soil absorption component. If design changes are needed, redesign fees may apply.

Property owner and installer are responsible to protect the soil absorption areas from disturbance. Only excavate soil absorption area when soil is dry and friable to a depth of 12" and in compliance with Hamilton County Installation Manual requirements. Keep wheeled traffic off drip field area. Replacement area is set aside for the a future relocation, expansion and/or replacement of the system. Replacement area is to remain undisturbed and no permanent structures or hardscapes are to be erected in this area. It is the owner and installation contractor's responsibility to locate underground utilities. If utilities interfere with the designed system, construction shall not proceed without approval from designer and HCPH. No clearwater connections (downspouts, pool/spa water, footer tiles, cisterns, etc) shall be connected to this STS.

All system components must meet the horizontal isolation distances

~~specified in OAC 3701-29-06(G)(3).~~

*The property owner has been informed of system options and briefed on cost factors. According to OAC 3701-29-10(B)(5), designers of STS systems must include approximate installation costs and operational costs of STS options to assist the homeowner in the selection of the STS options. Evans Engineering estimates costs as follows :
\$30,000 Installation cost**

*\$1,000 annual operational cost**

**This is a general estimate of costs for this system. It is not a bid to install or service the STS. Contact a licensed installer and service provider or distributor for actual bids.*

This plan set is not a site plan to be used for constructing anything other than the Sewage Treatment System. If an accurate legal site plan is required, contact a professional surveyor. This plan offers no guarantee as to the accuracy of information provided. This plan offers no guarantees for site stability. If site stability may be an issue, a geotechnical engineer should be consulted. Plan is only as accurate as the information provided by the property owner to the designer. Easements, right-of-ways, hidden objects or information not communicated to the designer invalidates the design. It is the property owner's responsibility to review this plan and information provided to verify all site conditions and design assumptions are correct. If conflicts are found or additional information must be supplied, the owner shall contact the designer and installation shall not proceed until the approval is granted. This design shall in no way be taken as guarantee that the system will function in a satisfactory manner for any given period of time, or that the Evans Engineering or any of its agents or employees assume any liability for damages, consequential or direct, which are caused, or which may be caused by a malfunction of the STS.

[illegible]

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168



COVER SHEET
998 NORDYKE RD., ANDERSON TWP.,
HAMILTON COUNTY, OH 45230

SCALE:	HORIZ.	VERT.
	VARIES	N/A
JOB. NO.	17-129	
DATE	November 8, 2017	

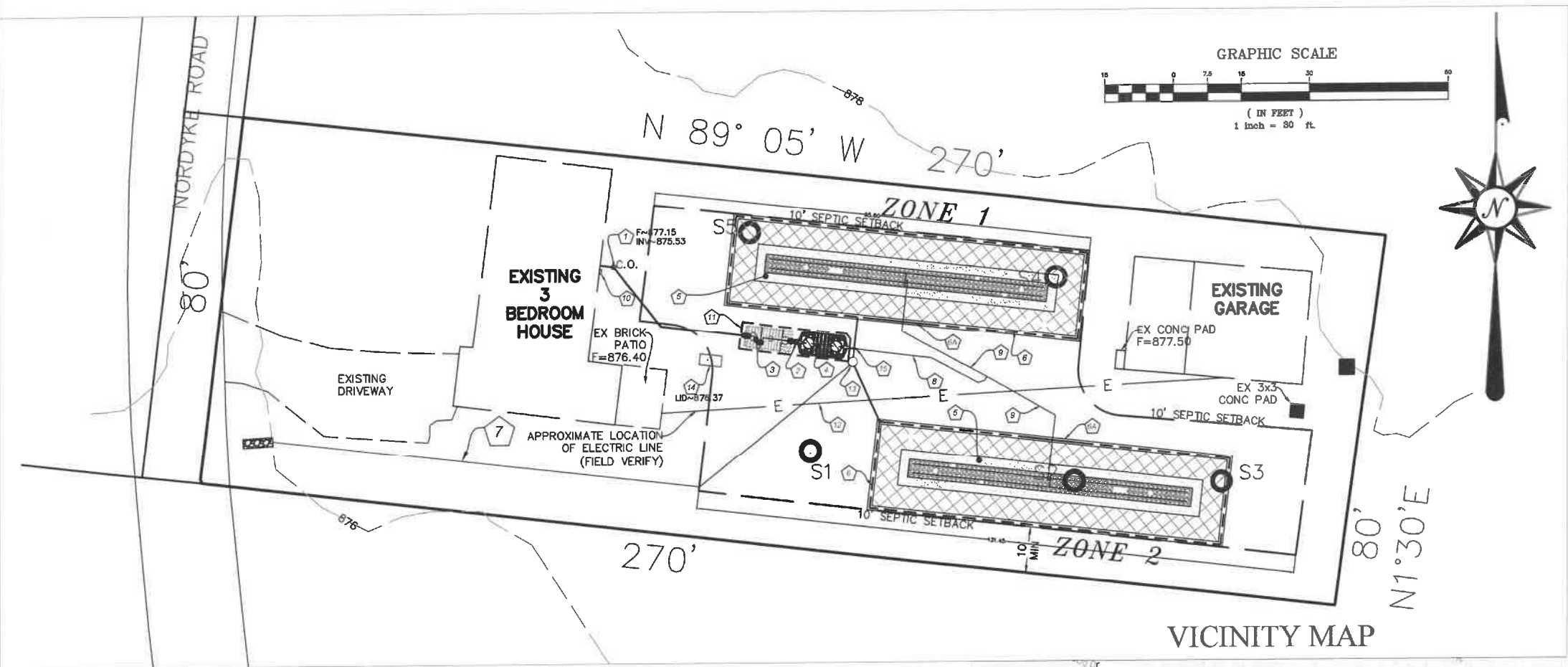
SHEET NO.

COVER



Nordyke Septic - Replacement System ON-SITE SEWAGE TREATMENT SYSTEM

998 Nordyke Rd, Anderson Twp., Hamilton County, OH 45230, PARCEL 500-0040-0056-00



NOTES:

- 1) UNLESS OTHERWISE NOTED, ALL TREATMENT SYSTEM COMPONENTS AND ONSITE DISCHARGE COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL STATE AND FEDERAL REGULATIONS/ GUIDELINES INCLUDING HAMILTON COUNTY INSTALLATION MANUAL AND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 2) CAUTION TAPE OR ORANGE FENCING SHOULD BE INSTALLED AROUND THE SEPTIC FIELD AND RESERVE AREA PRIOR TO EARTHWORK ACTIVITIES.
- 3) UNLESS OTHERWISE NOTED, ALL PIPING IS SCHEDULE 40 PVC PIPING (ASTM D2665/D1785).
- 4) SEE SHEET HAMILTON COUNTY HSTS INSTALLERS MANUAL FOR PRESSURE DISTRIBUTION NETWORK DETAILS.
- 5) SYSTEM IS DESIGNED TO TREAT 216 GALLONS PER DAY AVERAGE FLOW (360 GALLONS PER DAY OCCASIONAL PEAK FLOW) FROM A 3 BEDROOM RESIDENCE.
- 6) ANY MODIFICATIONS MADE BY THE INSTALLER MUST BE APPROVED BY THE DESIGNER AND THE HEALTH DEPARTMENT PRIOR TO IMPLEMENTATION.
- 7) ANY MODIFICATIONS MADE BY THE INSTALLER MUST BE NOTED ON THE FINAL AS-BUILT DRAWING
- 8) VEHICULAR TRAFFIC AND HEAVY EQUIPMENT IS PROHIBITED IN MOUND AREA, REPLACEMENT MOUND AREA AND DOWNSLOPE OF MOUND AREA.
- 9) INSTALLATION AND O&M MANUALS FOR THE MOUND SYSTEM CAN BE FOUND AT THE FOLLOWING WEBSITE ADDRESS:
<https://www.hamiltoncountyhealth.org/wp-content/uploads/HSTS-Manual-Part-1.pdf>
- 10) ALL SEPTIC SYSTEM COMPONENTS ARE TO MAINTAIN A MINIMUM 10' HORIZONTAL SEPARATION FROM PROPERTY LINES, R.O.W., BUILDINGS AND/OR DRIVEWAY, AND 50' FROM ALL GEOTHERMAL COMPONENTS, IF APPLICABLE.
- 11) WATER FROM THE ROOF, FOUNDATION DRAINS, CISTERN OVERFLOWS, SUBSURFACE DRAIN TILES, STORM WATER DRAINS AND CLEAR WATER DRAINS SHALL NOT BE DISCHARGED INTO ANY PART OF THE STS.
- 12) SOIL SAMPLES PERFORMED BY MR. DAN MICHAEL CLEARCREEK ENVIRONMENTAL, LEBANON, OHIO.

REVISIONS	
NO.	DESCRIPTION

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168

OVERALL SITE PLAN
998 NORDYKE RD, ANDERSON TWP.,
HAMILTON COUNTY, OH 45230

SCALE:	HORIZ.	VERT.
	1"=80'	N/A

JOB. NO.	DATE
17-129	November 8, 2017

SHEET NO. **C-1**

NOV 20 2017

KEY LEGEND

- 1) EXISTING CAST IRON BUILDING SEWER AND SCH 40 PVC CLEANOUT. REPLACE BUILDING SEWER WITH 4" SCH 40 PVC @ 1% MIN SLOPE WITH CLEANOUT.
- 2) 4" SCH 40 PVC HEADLINE PIPE AT 1% MIN
- 3) JET J-500-PLT. PROVIDE ELECTRIC SERVICE. SEE DETAIL AND PROFILE ON C3.
- 4) INFILTRATOR IM-1060 SINGLE CHAMBER PLASTIC DOSE TANK WITH JET MODEL 952 UV DISINFECTION AND CHAMPION CPSTEP5 PUMP. PROVIDE ELECTRIC SERVICE.
- 5) LOW PRESSURE SAND MOUND. SEE DETAIL ON C4 AND CALCULATIONS ON C5. SET MANIFOLDS AND LATERALS OF ZONE 1 AND ZONE 2 AT SAME ELEVATION (ADD SAND AS NECESSARY TO COMPENSATE FOR ELEVATION DIFFERENCES). T/MOUNDS APPROXIMATELY 878.92. FIELD VERIFY. ALLOW NO MORE THAN 15% PRESSURE DIFFERENTIAL BETWEEN ALL ORIFICES ON BOTH ZONES, AND <10% DIFFERENCE BETWEEN FIRST AND LAST ORIFICE OF EACH LATERAL.
- 6) PERIMETER DRAIN. PERFORATED 4" SDR 35 OR PE @ 0.5% MIN TO PUMP BASIN. DISCHARGE SEGMENT AND ALL PIPE ENTERING PUMP BASIN TO BE SOLID 4" SCH 40 PVC.
- 6A) HARD/SOLID PIPE 15' ON EACH SIDE OF FORCE MAIN CROSSING WITH SCH 40 PVC.
- 7) PUMP BASIN DISCHARGE SEGMENT. 1.5" SCH 40 PVC. DISCHARGE TO DRAINAGE DITCH AT ROAD WITH GOOSENECK. SEE PUMP BASIN DISCHARGE DETAIL ON C3. MAINTAIN 24" MIN COVER. DISCHARGE 10' MIN FROM R/W. ROCK CHANNEL PROTECTION AT OUTLET, USE #2 GRAVEL OR CHANNEL LINING.
- 8) 2" SCH. 40 PVC FORCE MAIN. DRAIN BACK TO TANK AT 1% MIN. SPLIT MANIFOLD CENTERED BETWEEN MOUNDS SO PIPE IS SAME LENGTH TO EACH MOUND. BACKFILL WITH NATIVE SOIL.
- 9) 1.25" SCH. 40 PVC SUB-MAIN. DRAIN BACK TO TANK AT 1% MIN.
- 10) JET CONTROL PANEL MODEL 196GJKLNZ. PANEL SHALL BE PRECEDED WITH AN ELECTRICAL DISCONNECT SWITCH. CONTROL PANEL AND DISCONNECT TO BE INSTALLED BY LICENSED ELECTRICIAN. CSI CS2004 ALARM PANEL FOR PUMP BASIN. MOUNT CONTROL PANELS TO HOUSE 48" ABOVE GROUND.
- 11) EXCAVATION DRAIN FOR ANTI-BUOYANCY. PERFORATED 4" SDR 35 OR PE @ 1% MIN TO PERIMETER DRAIN PUMP BASIN. PIPE ENTERING PUMP BASIN MUST BE SOLID 4" SCH 40 PVC.
- 12) APPROXIMATE LOCATION OF EXISTING ELECTRIC SERVICE TO GARAGE. FIELD VERIFY LOCATION AND COORDINATE WITH OWNER TO RELOCATE IF NECESSARY. FIELD LOCATE AND TAKE EXTREME CAUTION WHEN DIGGING NEAR ELECTRIC LINE.
- 13) PERIMETER DRAIN PUMP BASIN. TOPP INDUSTRIES FB24X090F FIBERGLASS BASIN WITH C24WFNST LID. PROVIDE ELECTRIC SERVICE. SEE PUMP BASIN DETAIL. ON C-3
- 14) EXISTING SEPTIC TANK. ABANDON PER OAC-3701-29-21. LID-876.37

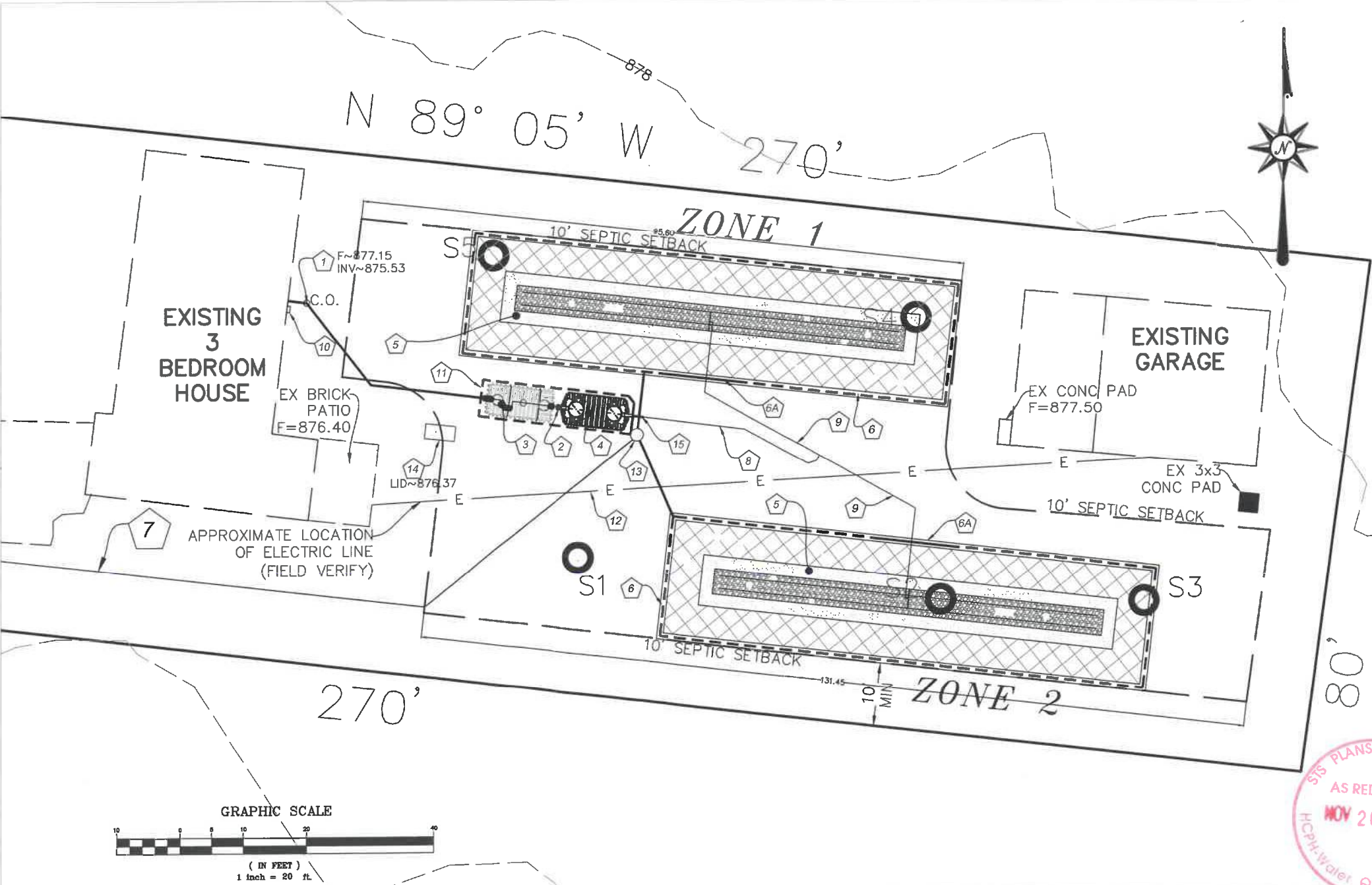
NOTES:
1) ALL COMPONENTS WILL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES.

2) ALL SUBSURFACE PIPING THAT DOES NOT GRAVITY DRAIN WILL BE INSTALLED BELOW FROST LINE (MIN 24").

3) VERTICAL ELEVATIONS AND HORIZONTAL FIELD DIMENSIONS WILL BE VERIFIED PRIOR TO INSTALLATION OF THE SANITARY SYSTEM BY INSTALLER.

4) ALL COMPONENTS MUST BE 10 FT FROM BUILDING AND HARDSCAPES (I.E. SIDEWALK/DRIVE, ETC.)

5) SEE HAMILTON COUNTY INSTALLATION MANUAL FOR MOUND DETAILS
<https://www.hamiltoncountyhealth.org/wp-content/uploads/HSTS-Manual-Part-1.pdf>



REVISIONS		
NO.	BY	DESCRIPTION

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168

NORDYKE SEPTIC - REPLACEMENT SYSTEM
ZONE AND TANK LAYOUT
998 NORDYKE RD., ANDERSON TWP.,
HAMILTON COUNTY, OH 45230

SCALE:	HORIZ.	VERT.
	1"=20'	N/A
JOB. NO.	17-129	
DATE	November 8, 2017	
SHEET NO.		

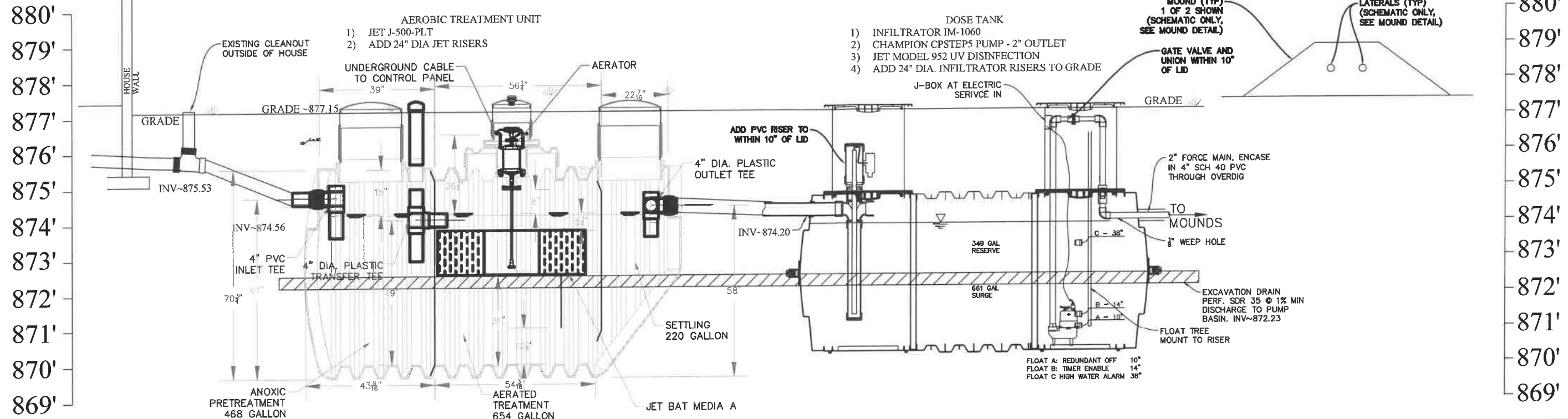
C-2

JET CONTROL PANEL
MODEL # 196GJKLNZ

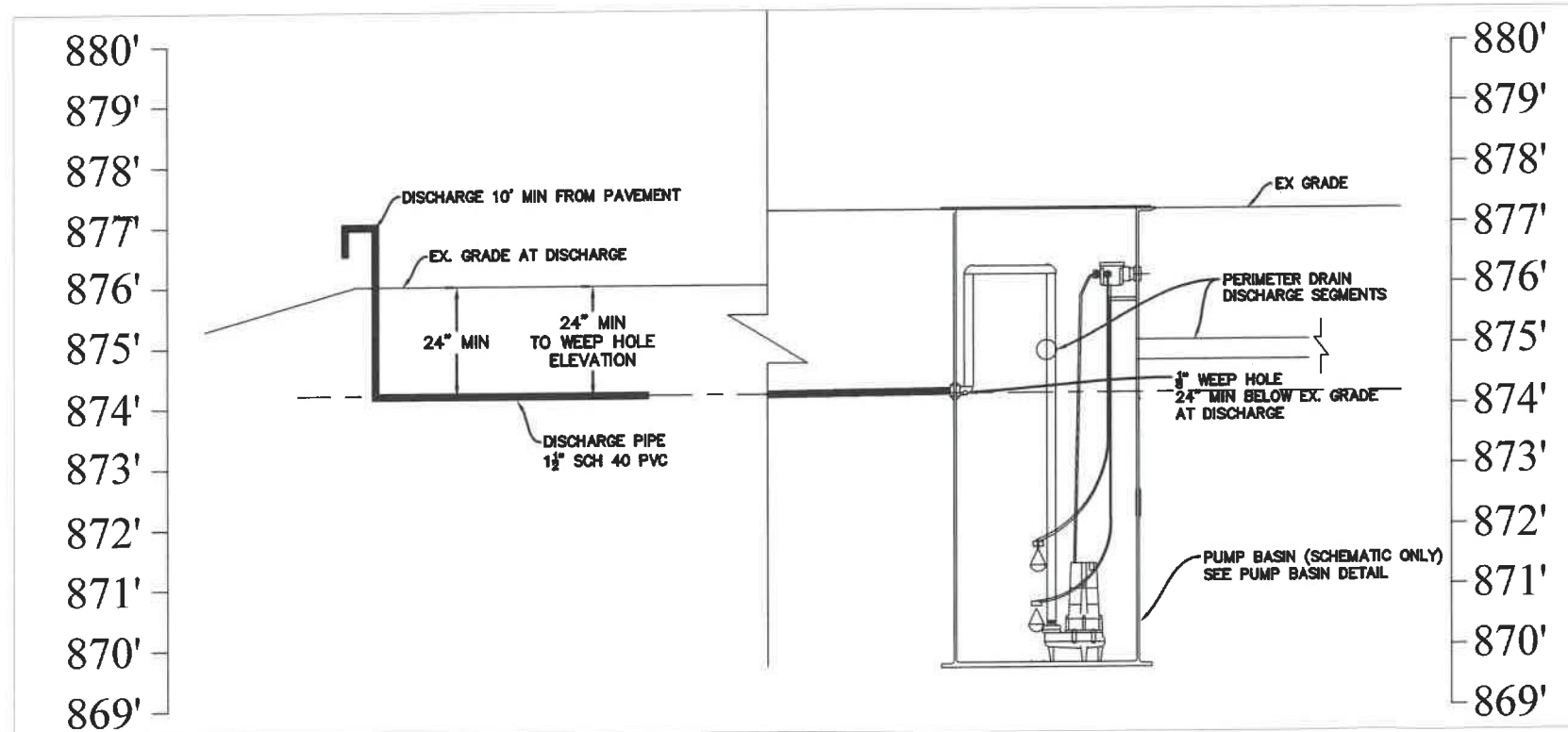
CSI CS2004
ALARM PANEL

MOUNT PANELS TO HOUSE 4'-5' ABOVE
GROUND. ACTUAL TIMER SETTINGS WITHIN
PANEL WILL BE FIELD DETERMINED AFTER
TIME DRAWDOWN IS COMPLETED AND
DRAINBACK VOLUME IS DETERMINED

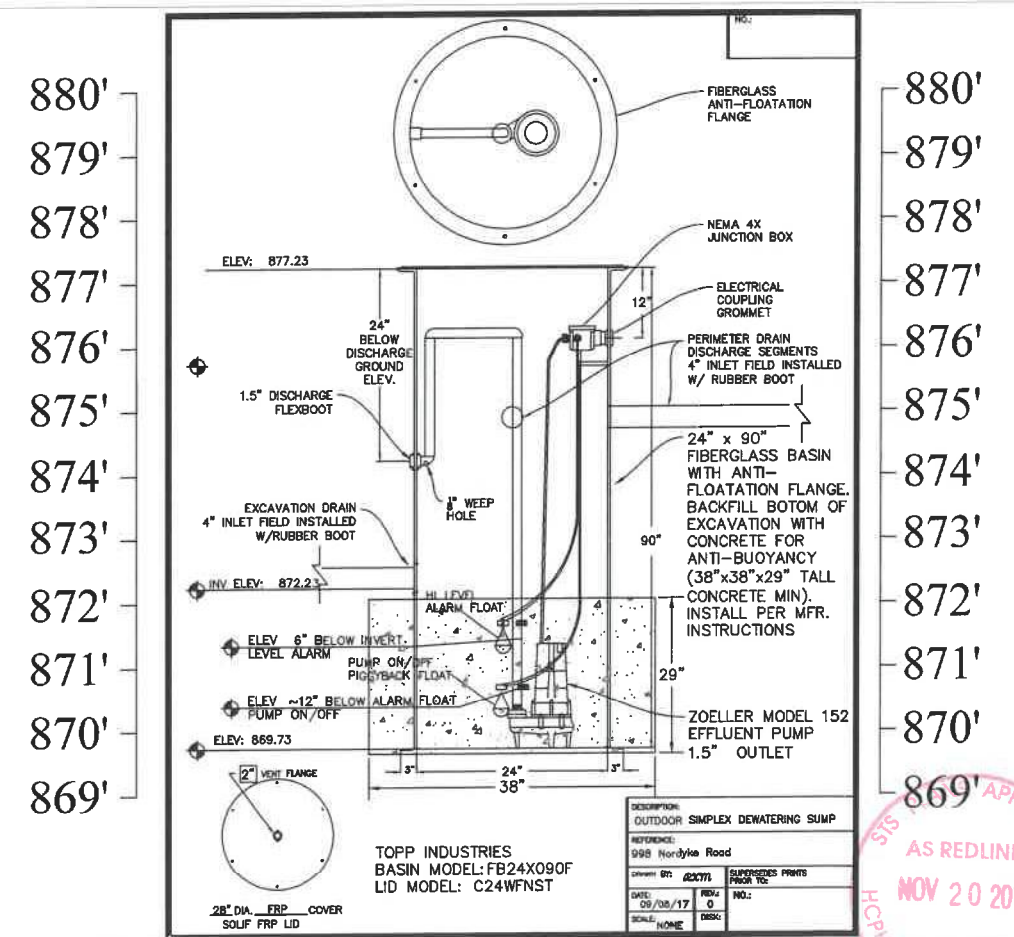
**NOTE: ALL PIPES SHALL BE LAID
ON FIRM, NATURAL IN-SITU SOIL OR
BEDDED WITH COARSE SAND OR
GRAVEL.



TREATMENT SYSTEM DETAIL/PROFILE



PUMP BASIN DISCHARGE DETAIL



PUMP BASIN DETAIL/PROFILE

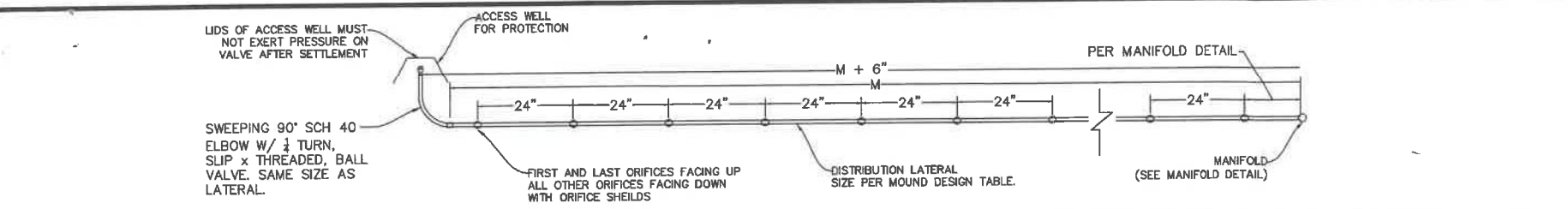
REVISIONS
BY NO. & DESCRIPTION
DATE

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168

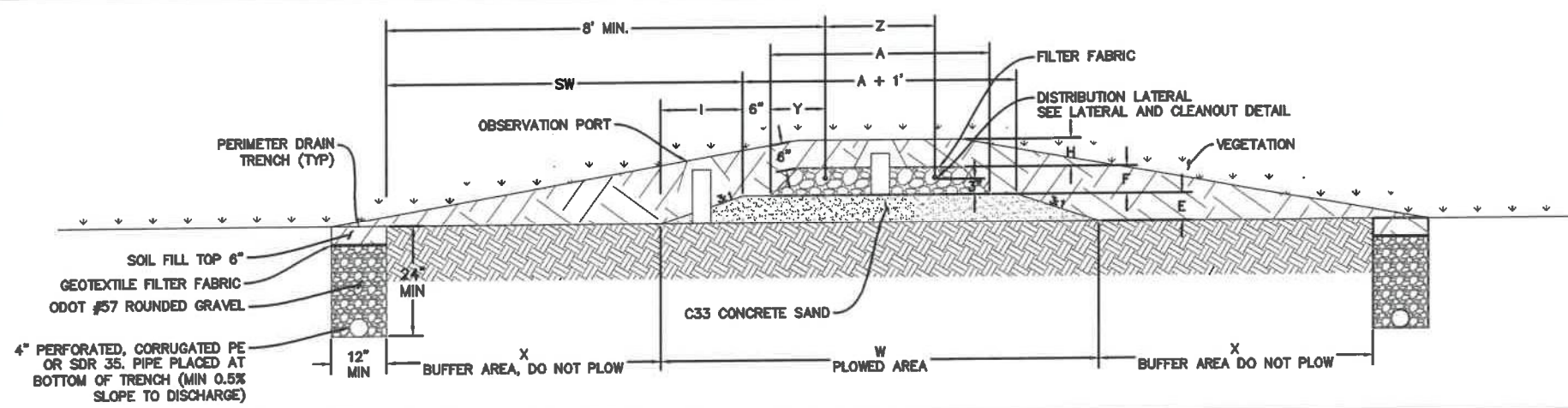


NORDYKE SEPTIC - REPLACEMENT SYSTEM
**TREATMENT SYSTEM
PROFILE**
998 NORDYKE RD. ANDERSON TWP.,
HAMILTON COUNTY, OH 45330

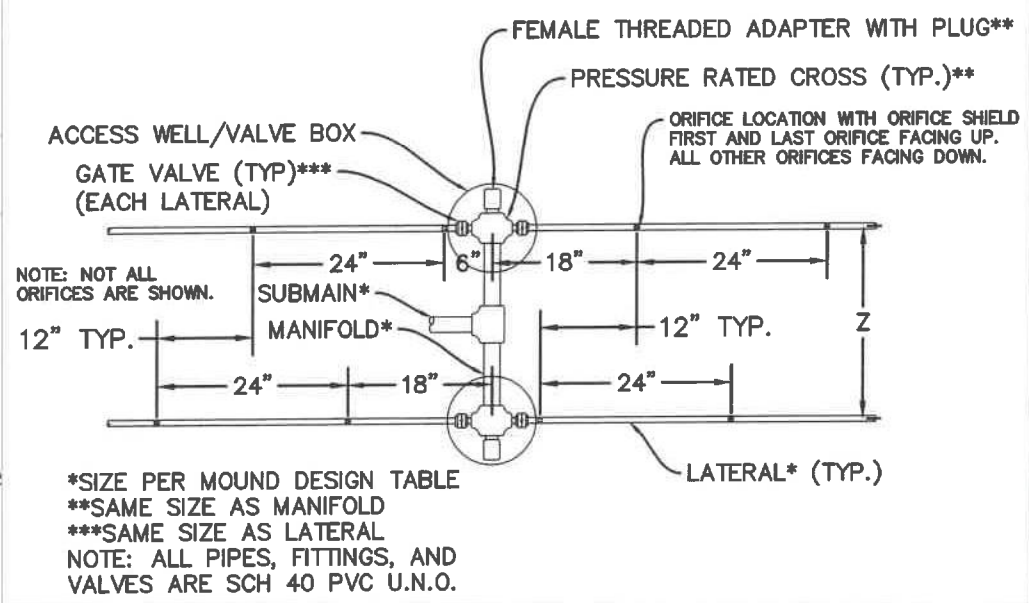
SCALE: HORIZ. VERT.
VARIES N/A
JOB NO. 17-129
DATE November 8, 2017
SHEET NO.
C-3



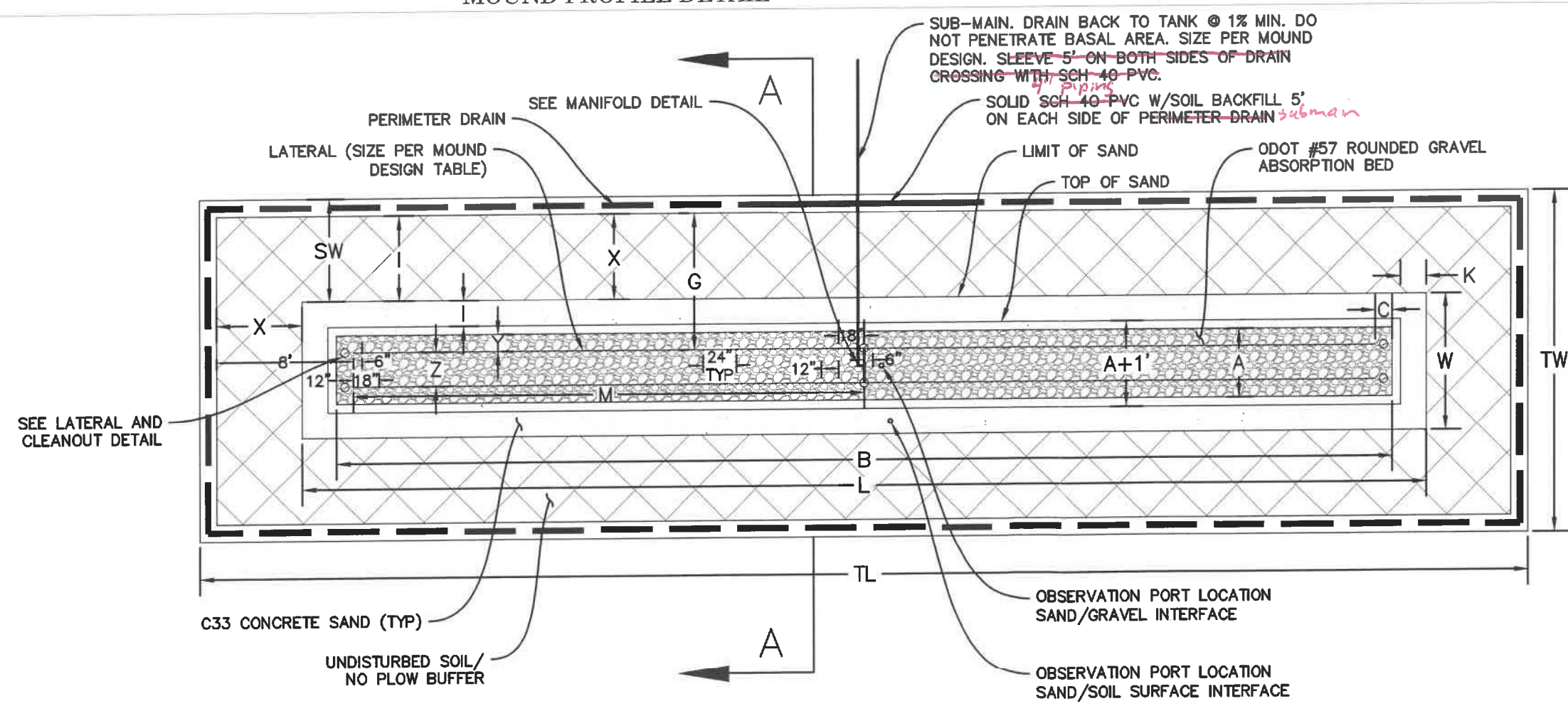
TYPICAL LATERAL DETAIL



MOUND PROFILE DETAIL



MANIFOLD DETAIL



MOUND LAYOUT DETAIL

REVISIONS	
NO.	DESCRIPTION

EVANS ENGINEERING
 4240 AIRPORT ROAD, SUITE 211
 CINCINNATI, OHIO 45226
 (513) 321-2168

NORDYKE SEPTIC - REPLACEMENT SYSTEM
MOUND DETAILS
 998 NORDYKE RD. ANDERSON TWP.,
 HAMILTON COUNTY, OH 45330

SCALE	HORIZ.	VERT.
	VARIABLE	N/A
JOB NO.	17-129	
DATE	November 8, 2017	
SHEET NO.		

C-4



Site Conditions				Orifice Details			
System Type	replacement			Orifice Size	1/8	in	
Number of Bedrooms	3			Orifice Spacing	24	in	
Effective Bedroom Per Zone	1.5			Orifices per lateral	15		
Effective Daily Design Flow	180	gpd		Total Orifices (per mound)	60		
Required Separation Distance	18	in		Distribution area per orifice	4.13	sf	
LLR	2.7	gpd/ft		Structure Design			
BLR	0.8	gpd/sf		"E" Sand depth (upslope)	6	in	(6" min, 4" min w/PT)
Sand Fill Loading Rate	1.0	gpd/sf		"F" Gravel depth	6	in	(5" min)
Depth to Limiting Condition	18	inches		"H" Top Soil Depth	6	in	(6" min)
site slope	0	%		"Z" Lateral Spacing	2.00	ft	2' 0"
Up Slope Factor	1			"A" Width of Gravel	4.00	ft	4' 0"
Down Slope Factor	1			"B" Length of Gravel	62.00	ft	62' 0"
Requirements				Distribution Area	248	sf	
LLR Reduction (replacements only)	10%	30%	max	"Y"	1.00	ft	1' 0"
Min Distribution Area Length	60.00	ft	60' 0"	"C"	1.00	ft	1' 0"
Min Distribution Area Width	3.0	ft		"I" Width of Sand	1.50	ft	1' 6"
Number of Laterals	4			Min Side Width	2.50	ft	2' 6"
Number of Manifolds	1			"X" Buffer Area (No Plow)	5.00	ft	5' 0" 1' min
Actual Length of Laterals (each)	30	ft	30' 0"	"SW" Side Width	6.50	ft	6' 6"
Actual Length of Laterals (total)	60	ft	60' 0"	"G" C/Lateral to E/Drain	8.00	ft	8' 0" 8' min
Minimum Basal Area	225	sf	225' 0"	"W" Sand Width/Plowed Area	8.00	ft	8' 0"
Minimum Basal Width	3.75	ft	3' 9"	Width Between Drains	18.00	ft	18' 0"
Pipe Network Design				Width Incl. Drains	20.00	ft	20' 0"
Main Size(in)/Length(ft)	2	30	ft	"K" Width of Sand (side)	1.5	ft	1' 6"
Main Drainback Volume	5.23	gal		"SL" Side Length	7.50	ft	7' 6"
Submain Size(in)/Length(ft)	1.25	32.4	ft	"L" Basal Area Length	66	ft	66' 0"
Submain Drainback Volume	2.52	gal		"TL" Limit of Cover (Length)	78.00	ft	78' 0"
Manifold Size(in)/Length(ft)	1.25	2	ft	"TW" Limit of Cover (Width)	20.00	ft	20' 0"
Manifold Drainback Volume	0.16			End of lateral to Limit of cover	9.00	ft	9' 0"
Lateral Size(in)/Length(ft)	0.75	120	ft	"M" Lenth of Laterals	30.00	ft	30' 0"
Lateral Volume	3.32	gal		Check			Result
Lateral Flat or Drainback?	flat			Total Basal Area per mound	528.00	sf	>min? OK
Total Drainback Volume per mound	7.90			Actual LLR	3.00	gpd/sf	<max? OK
Max Total Net Dose Volume	45.00	gal		Proper Separation Distance			OK
Min Total Net Dose Volume	16.62	gal		Design Dose Volume (per zone)	17	gal	OK
				Total Net Dose Volume	34	*Total for both zones	

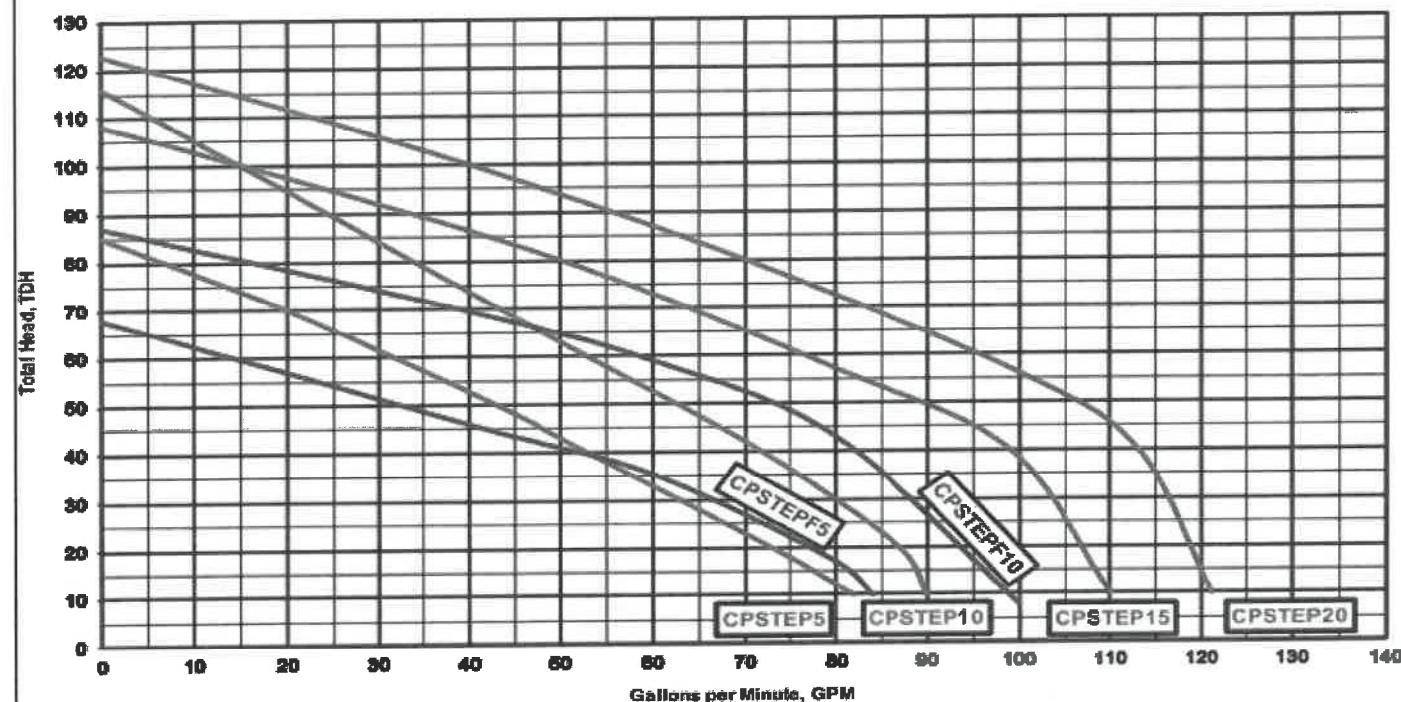
MOUND DEIGN TABLE

NOTE: THIS TABLE REPRESENTS 1 OF 2
STRUCTURES (SPLIT MOUND)



REVISIONS			
DATE	BY		
<div>EVANS ENGINEERING 4240 AIRPORT ROAD, SUITE 211 CINCINNATI, OHIO 45226 (513) 321-2168</div> <div></div>			
<div>NORDYKE SEPTIC - REPLACEMENT SYSTEM</div> <div>MOUND DEIGN TABLE 998 NORDYKE RD. ANDERSON TWP.. HAMILTON COUNTY, OH 45230</div>			
SCALE:	HORIZ	VERT.	
	VARIES	N/A	
JOB NO.	17-129		
DATE	November 8 2017		
SHEET NO.			

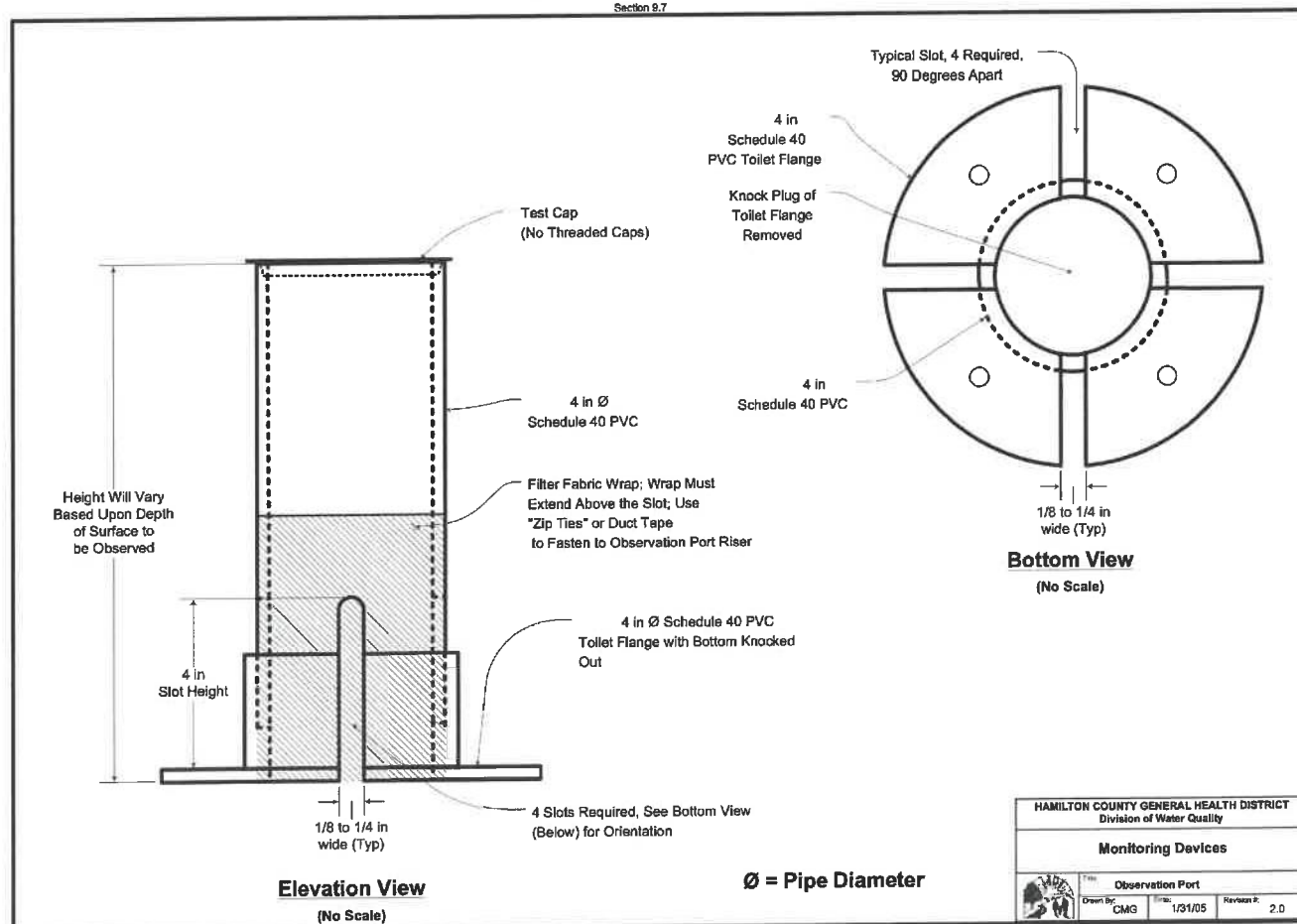
PERFORMANCE CURVE



Update effective January 1, 2015 - This manual may be used as a reference by a STS designer when specifying standards for construction, installation notes and certain aggregate materials for STS components. STS designers are not be required to use this manual. When used, if conflicts exist between this manual and Ohio Administrative Code 3701-29, the state code shall prevail. STS contractors shall follow the approved STS design.

Observation Ports

Section 8.7



Parameters

Discharge Assembly Size	200	inches
Transport Length	624	feet
Transport Pipe Class	40	
Transport Line Size	200	inches
Distributing Valve Model	None	
Max Elevation Lift	7	feet
Manifold Length	2	feet
Manifold Pipe Class	40	
Manifold Pipe Size	125	inches
Number of Laterals per Cell	8	
Lateral Length	29.99	feet
Lateral Pipe Class	40	
Lateral Pipe Size	0.75	inches
Orifice Size	1.6	inches
Orifice Spacing	2	feet
Residual Head	5	feet
Flow Meter	None	inches
Add-on Friction Losses	5	feet

Calculations

Minimum Flow Rate per Orifice	0.43	gpm
Number of Orifices per Zone	120	
Total Flow Rate per Zone	530	gpm
Number of Laterals per Zone	8	
% Flow Differential 1st Last Orifice	75	%
Transport Velocity	5.1	ips

Frictional Head Losses

Loss through Discharge	56	feet
Loss in Transport	28	feet
Loss through Valve	0.0	feet
Loss in Manifold	0.2	feet
Loss in Laterals	0.9	feet
Loss through Flow Meter	0.0	feet
Add-on Friction Losses	5.0	feet

Pipe Volumes

Vol of Transport Line	109	gals
Vol of Manifold	0.2	gals
Vol of Laterals per Zone	66	gals
Total Volume	177	gals

Minimum Pump Requirements

Design Flow Rate	530	gpm
Total Dynamic Head	265	feet

CS2004™

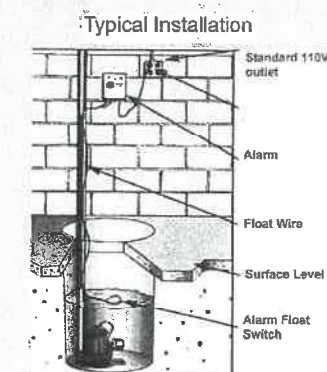
NEMA 4X Alarm

Installation Instructions

Be sure to follow Electric Code, ANSI/NFPA 70, when installing this unit to prevent moisture from entering or building up inside equipment.

Alarm & Float Installation:

1. Decide mounting location.
2. Install the unit using the built in mounting feet.
3. Hook the 120 VAC plug into a 120 VAC receptacle separate from the one used for the pump to ensure proper notification.
4. Now manually test the alarm by tilting the float switch up until you hear the alarm notification and you see the alarm light turn on. The float switch can be easily mounted by attaching the float cord to the pump discharge pipe with tie wraps.
5. Periodically test unit by touching the cover of the enclosure where indicated twice within 1.5 seconds of each touch to make sure the unit is working properly. (Touch once to silence - Touch twice to test)



CSI controls
Alarms / Controls / Accessories

220 Ohio Street · Ashland, Ohio 44805
419-281-5767 · csi@zoominternet.net

REVISIONS
NO. & DESCRIPTION
BY
DATE

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168

NORDYKE SEPTIC - REPLACEMENT SYSTEM
COMPONENT DETAILS
998 NORDYKE RD. ANDERSON TWP.
HAMILTON COUNTY, OH 45230

SCALE: HORIZ. VERT.
VARIES N/A
JOB NO. 17-129
DATE November 8, 2017

SHEET NO.

C-6

STS PLANS APPROVED
AS REDLINED
NOV 20 2017
HCPH-Water Quality Division



250 William Howard Taft, 2nd Floor
Cincinnati, Ohio 45219
Phone: (513) 946-7800
Fax: (513) 946-7890
Web: www.hamiltoncountyhealth.org

Sub./Lot Review: _____ Fee Paid: \$390.00
Complaint: _____ Receipt #: 1102
Other: _____ Received By: DB

HAMILTON COUNTY GENERAL HEALTH DISTRICT

APPLICATION TO CONSTRUCT OR REPLACE A SEWAGE TREATMENT SYSTEM

APPLICANT TO FILL OUT SHADED SECTIONS ONLY.

☐ NEW ☒ REPLACEMENT (Plumbing Permit Required If All Wastewater Is Not Directed To Septic System)

Address of Construction Site: 998 Noeddyke Rd, Anderson Twp Political Subdivision: _____
Owner(s) Name: Nancy Wilson db Evans Inc. Tax Parcel #: 500-0040-0056 Lot Size: 0.502 acre(s)
Phone Number: 513-321-2168 System To Serve: ☒ Single Family ☐ Duplex ☐ Triplex ☐ Other: _____
Mailing Address: 4240 Airport Rd, Cincinnati, OH 45226 Water Supply: ☐ Public (Water Supplier: GCWW) ☐ Private ☐ Well ☐ Cistern ☐ Hauled Water
☒ Plumbing Under Basement ☐ Ejector Pit ☐ Hung Sewer
Number of Bedrooms: 2 Number of People in Structure: 1 Monthly Water Usage: _____
☐ Water Softener ☐ Garbage Disposal ☐ Whirlpool Style Tub ☐ High Capacity Shower
☐ Other Large Water Usage Fixtures: _____

Soil Type / Characteristics: see soil report
STS Daily Design Flow: 360 STS Average Design Flow: 216 Soil Absorption Rate: 8 Linear Loading Rate: 2.7

Sewage Treatment System Type: let ATM w/UV to split sand mounds
Primary Treatment Tank: ☒ Building Sewer 4" SCH 40 PVC Comments: All tanks must be watertight
☒ Controls let 196 GSKLNZ Old septic tank must be properly abandoned & all permits obtained
☐ Trash Trap _____ Gallons _____ Compartment(s) _____
☐ Septic Tank _____ Gallons _____ Compartment(s) _____
☒ Dosing Tank 1060 Gallons 1 Compartment(s) in private
☐ Dosing Septic Tank _____ Gallons _____ Compartment(s) _____
☐ Dosing Basin _____ Depth _____ Diameter or _____ x _____
☐ Effluent Filter _____ ☒ Pump Champion CPSTEPS
☐ Screen Vault Filter _____ ☐ Siphon _____
☐ Other _____ ☐ Gravity _____

Secondary Treatment Unit:
☐ Intermittent Sand Filter _____ ft x _____ ft = _____ ft²
☐ Recirculating Gravel Filter _____ ft x _____ ft = _____ ft²
☐ Recirculating Sand Filter _____ ft x _____ ft = _____ ft²
☐ Recirculating Textile Filter _____ Manufacturer _____ Unit(s) _____
☐ Peat Biofilter _____ Manufacturer _____ Unit(s) _____
☒ Aerobic Treatment Unit let JSDM PCT Manufacturer 500 GPD
☐ Other _____ ☐ Pump _____
☐ Filter Following Treatment Unit _____ ☐ Siphon _____
☐ Dosing Basin _____ Depth _____ Diameter or _____ x _____ ☐ Gravity _____
☒ Soil Absorption (See Below)

Soil Absorption Component:
☐ Gravel Pad _____ ft x _____ ft = _____ ft² Depth _____ Total Ln. Ft. _____
☐ Leaching Trenches _____ ft x _____ ft = _____ ft² Depth _____
☐ Leach Bed _____ ft x _____ ft = _____ ft² Depth _____
☐ At-Grade _____ ft x _____ ft = _____ ft² Sand Thickness _____
☐ Modified Mound _____ ft x _____ ft = _____ ft² Sand Thickness _____
☐ Wisconsin Mound _____ ft x _____ ft = _____ ft² Sand Thickness _____
☒ Other split mounds 8' x 66' base area 6" C33 sand
☐ Gravity Distribution _____
☐ Drip Distribution _____
☒ LPP Distribution Mound 1 -> 4-30' 3/4" lateral w/ 1/2" center 2' OC 60 total outlets
Mound 2 -> 4-30' 3/4" lateral w/ 1/2" center 2' OC 60 total outlets

Drainage Enhancement: ☒ Gradient Drain 24" Depth _____
☐ Interceptor Drain _____ Depth _____
☐ Diversion Swale _____
☒ Other let pump basin - Topp Industries FB24X0'0P
☒ Pump let 152

Disinfection Device: ☐ Chlorinator ☐ Chlorine Contact Chamber ☐ De-Chlorinator ☒ UV let 952 ☐ Other _____

Comments: let UV housed in front compartment of dosing tank
concrete collar required for anti-buoyancy in Topp Industries Basin
ODH System Type: ☒ Pretreat SDC ☐ Below Grade ☐ Pretreat SDC & Drip ☒ At or Above Grade ☐ Drip Only ☐ NPDES Discharge ☐ Spray/Surface App. ☐ None of the Above

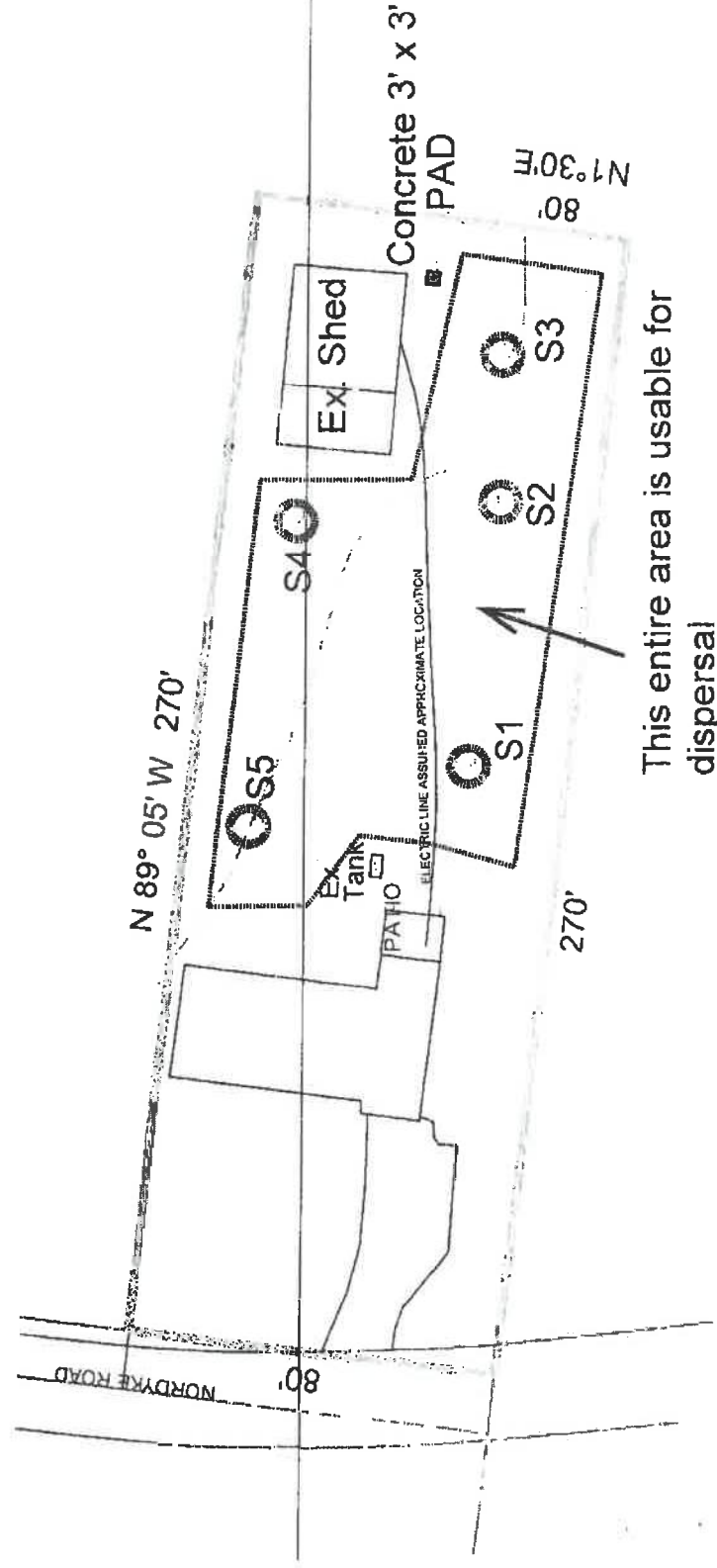
Remarks: A preconstruction conference is required at the site. The system must be laid out prior to this meeting.
Refer to Site Plan by Evans Engineering For Additional Details And Install System Per HCGHD Manual.
By my signature below I certify that I have read, I understand, and I agree to comply with the conditions set forth on the reverse hereof.
Owner's/Owner's Agent Signature: [Signature] Date: 10-6-17
Field Inspection By: [Signature] Date: 6/15/17 Approved By: [Signature] Date: 11/17/17
This Application Expires One Year From The Approved By Date. Replacement Systems Must Be Installed Within 120 Days of Approval Date.

Address of Construction Site: 998 Noeddyke Rd

Political Subdivision: Anderson

File #: PT18017054

2' GIS Contours Shown



This entire area is usable for dispersal

Location of the existing Leach Field is Unknown



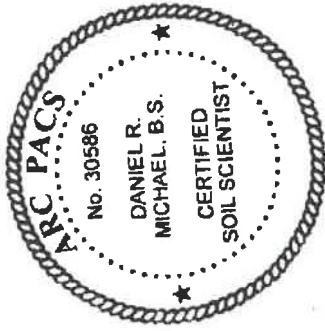
Nancy Wilson Property
998 Nordyke Road
Cincinnati, OH 45230
0.502 Acres

Soil Locations

Soil and Site Evaluation for Sewage Treatment and Dispersal

County: Hamilton
Township/Sec.: Anderson
Property Address/Location: 998 Nordyke Road
Cincinnati, OH 45230
Parcel # / Subdiv. Lot #: #50060400056
Applicant Name: Wilson, Nancy
Address: 998 Nordyke Road
Cincinnati, OH 45230
Phone #: c/o Evans, PE 617-4810

Land Use/Vegetation: grass
Landform: upland
Position on Landform: non-
Percent Slope: 0%
Shape of Slope: flat
Coord. Method/Accuracy: GPS - 3 ft.



Lot #: _____ Date: 1/19/2017 Certification Stamp or Certification: #30586
Test Hole #: 1 to 5
Latitude/Longitude: _____
Method: Pit Auger X Probe
Evaluator: Dan Michael
Signature: _____
620 North Broadway
Lebanon, OH 45036
Phone #: 513-934-1040

Soil Profile			Estimating Soil Saturation			Estimating Soil Permeability						
Horizon	Depth (inches)	Munsell Color (hue, value, chroma)	Redoximorphic Features		Class	Texture	Structure			Consistence	Other Soil Features	
			Matrix color	Concentrations			Depletions	Approx. % clay	Approx. % Fragments			Grade
Ap	0 - 8	10YR 4/2	dark grayish brown	10YR 3/1	10YR 5/2	silt loam	15%	0%	3 - strong	f	gr	friable
Bq1	8 - 14	10YR 5/2	grayish brown	10YR 3/1	10YR 5/2	silt loam	25%	0%	1 - weak	co	SBK	friable
Bq2	14 - 30	10YR 5/2	grayish brown	10YR 3/1	10YR 5/2	silty clay loam	30%	0%	2 - moderate	m	SHK	friable
2Bg	30 - +	10YR 5/2	grayish brown	10YR 3/1	10YR 5/2	clay loam	36%	1%	2 - moderate	m	SBK	firm



Table 3. Soil Infiltration Loading Rates.

Soil Characteristics		Soil Infiltration Loading RRate (gpd/ft2)		
Texture	Structure	CBOD5		
	Shape Grade	>25mg/L (septic tank effluent)	<=25mg/L (pretreated effluent)	Row
COS, S, LCOS,LS	-- 0SG	0.8	1.6	1
FS, VFS, LFS, LVFS	-- 0SG	0.4	1	2
	-- 0M	0.2	0.5	3
CSL, SL	PL	1	0.2	4
	2,3	0	0	5
	PR/BK/GR	1	0.4	6
FSL, VFSL	2,3	0.6	1	7
	0M	0.2	0.5	8
	PL 1,2,3	0	0	9
L	PR/BK/GR	1	0.2	10
	2,3	0.4	0.8	11
	0M	0.2	0.5	12
SIL	PL 1,2,3	0	0	13
	PR/BK/GR	1	0.4	14
	2,3	0.6	0.8	15
SCL, CL, SICL	--	0M	0	16
	PL 1,2,3	0	0	17
	PR/BK/GR	1	0.4	18
SC, C, SIC	2,3	0.6	0.8	19
	--	0M	0	20
	PL 1,2,3	0	0	21
	PR/BK/GR	1	0.2	22
	2,3	0.4	0.6	23
	0M	0	0	24
	PL 1,2,3	0	0	25
	1	0	0	26
	PR/BK/G	2,3	0.2	27



Soil Characteristics			Hydraulic Linear Loading Rate (gpd/ft)											
Texture		Structure	Slope 0-4%				Slope 5-9%				Slope >10%			
			Infiltrative Distance, (Inches)				Infiltrative Distance, (Inches)				Infiltrative Distance, (Inches)			
Shape	Grade		8 - 12	12- 24	24- 48		8 - 12	12- 24	24- 48		8 - 12	12- 24	24- 48	Row
COS, S, LCOS, LS	--	OSG	4.0	5.0	6.0		5.0	6.0	7.0		6.0	7.0	8.0	1
FS, VFS, LFS, LVFS	--	OSG	3.5	4.5	5.5		4.0	5.0	6.0		5.0	6.0	7.0	2
	--	OM	3.0	3.5	4.0		3.6	4.1	4.6		5.0	6.0	7.0	3
CSL, SL	PL	1	3.0	3.5	4.0		3.6	4.1	4.6		4.0	5.0	6.0	4
		2, 3												5
	PR/BK/	1	3.5	4.5	5.5		4.0	5.0	6.0		5.0	6.0	7.0	6
	GR	2, 3	3.5	4.5	5.5		4.0	5.0	6.0		5.0	6.0	7.0	7
	--	OM	2.0	2.3	2.6		2.4	2.7	3.0		2.7	3.2	3.7	8
FSL, VFSL	PL	1,2,3												9
	PR/BK	1	3.0	3.5	4.0		3.3	3.8	4.3		3.6	4.1	4.6	10
	GR	2, 3	3.3	3.8	4.3		3.6	4.1	4.6		3.9	4.4	4.9	11
L	--	OM	2.0	2.3	2.6		2.4	2.7	3.0		3.2	3.7		12
	PL	1,2,3	-	-	-		-	-	-		-	-	-	13
	PR/BK	1	3.0	3.5	4.0		3.3	3.8	4.3		3.6	4.1	4.6	14
	GR	2, 3	3.3	3.8	4.3		3.6	4.1	4.6		3.9	4.4	4.9	15
SIL	--	OM	2.0	2.5	3.0		2.2	2.7	3.2		2.4	2.9	3.4	16
	PL	1,2,3												17
	PR/BK	1	2.4	2.7	3.0		2.7	3.0	3.3		3.0	3.5	4.0	18
	GR	2, 3	2.7	3.0	3.3		3.0	3.5	4.0		3.3	3.8	4.3	19
	--	OM	Consider using 3.0 if surrounded by drains											20
SCL, CL, SICL	PL	1,2,3												21
	PR/BK	1	2.0	2.5	3.0		2.2	2.7	3.2		2.4	2.9	3.4	22
	GR	2, 3	2.4	2.9	3.2		2.7	3.0	3.3		3.0	3.5	4.0	23
SC, C, SIC	--	OM												24
	PL	1,2,3												25
	PR/BK	1												26
	GR	2, 3	2.0	2.5	3.0		2.2	2.7	3.2		2.4	2.9	3.4	27

