ABINGTON TOWNSHIP

JANUARY 11, 2024

BOARD OF COMMISSIONERS WORKING SESSION

TOWNSHIP OF ABINGTON

BOARD OF COMMISSIONERS WORKING SESSION

A G E N D A
January 11, 2024
7:30 PM

There are three ways for the public to participate in the meeting: in-person, online or by phone. Residents who wish to attend in person can do so in the Abington Township Board Room located at 1176 Old York Road, Abington, PA 19001, 2nd Floor. Alternative means of public participation are offered for those who do not wish to or are unable to attend the meetings in person. Residents who wish to participate in the meeting remotely can access the meeting online by a computer, iPad, iPhone, or Android at https://us06web.zoom.us/j/88216803878. This link will enable residents to hear the meeting, see presentations, and ask questions. There will be no video interaction capabilities. Residents, who are unable to join online, can listen to and participate in the meeting by calling 1-929-436-2866 and entering the meeting ID number 882-1680-3878 when prompted.

CALL TO ORDER

CONSIDER APPROVAL OF MINUTES

a. Motion to approve the Minutes from the Working Session of November 9, 2023.

UNFINISHED BUSINESS

a. Discuss Single-Use Plastics & Expanded Polystyrene Products Ordinance

NEW BUSINESS

a. Presentation of the Preliminary/Final Major Land Development Plan for LD-23-04 - 640 Cedar Road (Hopewell Vet).

b. Presentation of Galman Group request of Zoning Map Amendment

PUBLIC COMMENT ON AGENDA and NON AGENDA ITEMS

ADJOURNMENT

BOARD POLICY ON PUBLIC PARTICIPATION

For Information Purposes Only

The Township shall conduct business in accordance with the Commonwealth of Pennsylvania Laws governing the conduct of public meetings and only establish guidelines that shall govern public participation at meetings consistent with the law.

Each commenter shall:

- Direct their comments to the Presiding Officer;
- Speak from the podium or into a microphone designated by the presiding officer;
- State their name for the record;
- Either orally or in writing provide their address for the record;
- Have a maximum of three minutes to make their comments. Each commenter when speaking to a specific agenda item, is to keep their comments relative to that identified agenda item;
- Speak one time per agenda item;
- When commenting on non-agenda items, the commenter is to keep their comments related to matters of the Township of Abington, Montgomery County, Pennsylvania.
- State a question to the Presiding Officer after all commenters have spoken, and;
- Be seated after speaking or upon the request of the presiding officer;
- Not engage in debate, dialogue or discussion;
- Not disrupt the public meeting, and;
- Exercise restraint and sound judgement in avoiding the use of profane language, and the maligning of others.

The stated Working Session of the Board of Commissioners of the Township of Abington was held on Thursday, November 9, 2023 via webinar and in-person at the Township Administration Building, Abington, PA, with President Hecker presiding.

CALL TO ORDER: 8:17 p.m.

PRESENT: Commissioners BRODSKY, ROTHMAN, DiPLACIDO, VAUGHN, BROWNE, WINEGRAD, HENRY, ZAPPONE, CARSWELL, SPIEGELMAN, SCHREIBER, BOWMAN, VAHEY, HECKER
Excused: Commissioner BOLE

Also Present: Township Manager Manfredi
Township Solicitor Clarke

CONSIDER APPROVAL OF MINUTES

Vice President Vahey made a MOTION, seconded by Commissioner Bowman to approve the minutes from the Working Session of October 12, 2023.

UNFINISHED BUSINESS: None.

NEW BUSINESS:

Presentation on Single-Use Plastics & Expanded Polystyrene Products Ordinance – Faran Savitz, Penn Environment:

Mr. Faran Savitz said he is the Zero Waste Advocate with Penn Environment, which is a statewide environmental nonprofit that believes all Pennsylvanians deserve clean air, water, and a safe and livable climate. He works with municipalities throughout Pennsylvania on ways to reduce waste and tackle single-use plastics. Plastics such as plastic bags, water bottles, cups, utensils, etc., are used once and thrown away and that waste goes to a landfill, incinerator or littered directly into our environment causing harm to our health, wildlife, waterways, parks, open space, and communities.

Every year, Americans generate 35 million tons of plastic waste and less than 6% of it gets recycled, and some studies suggest that by 2050, there will be more plastic in the ocean than fish. Plastic also clogs storm drains, and as we see more storms and flooding, the effect becomes more dire. The Philadelphia Water Department estimates that single use plastics can double the cost of dealing with stormwater infrastructure, and PennDOT estimates they spend millions of dollars every year cleaning up roadside litter. Also, plastics directly fuel carbon pollution causing climate change issues.

Plastics does not biodegrade in our environment, instead it breaks into tiny pieces known as microplastics causing pollution everywhere. We consume these microplastics that carry hazardous chemicals, and the World Wildlife Fund estimates that every week, we ingest 5 grams of microplastics, which is the weight of a credit card or single-use plastic causing health issues.

The best thing to do is to stop it at its source and get rid of plastic bags, polystyrene containers, and plastic straws, which are included in the proposed ordinance. 24 policies have been passed or came into effect including in Pittsburgh and Philadelphia, and when they all become effective, they could eliminate 4,800 tons of plastic every year.

We recommend banning single use plastic bags with a $0.15 fee for other bags given out by retailers and that fee will help cover costs from switching from plastic to paper. Also recommended is banning polystyrene foam containers although plastic utensils would only be available upon request.

Ms. Karin McGarry-Rosen, Vice Chair of the EAC, said the proposed ordinance is to eliminate plastic bags, plastic straws, and stirrers as well as polystyrene. A fee of $0.15 would be imposed by retailers to purchase paper bags and charging for paper bags encourages you to bring your own reusable bag. Enforcement of the ordinance would begin in the spring of 2024. A survey of 627 residents and 25 non-Abington residents showed that 92% have reusable bags, 53% use them, and 36% use them if they remember to bring them, and if a nominal fee was placed on bags, 71% would bring their reusable bags.

The process, education, implementation, and enforcement recommendations were presented.

President Hecker asked for any comments from Commissioners.

Commissioner Browne said one of his constituents expressed concern about the economic impact on consumers from a lower socioeconomic standpoint for those who cannot afford the paper bag charge or purchasing their own reusable bags. He suggested partnering with retailers to incentivize having a bag-share system, which will be key to mitigating any impact. Also, concerns were expressed about the carbon impact of lower quality bags. He asked about the sustainability of canvas bags and the cost; best demonstrative practices; and recommended local retailers who will be selling the bags.

Mr. Savitz replied that definitions in the model and proposed ordinance require quality reusable bags that will last for many years, which are the best for the environment. There will be time for retailers to post signs of upcoming changes so the public can be prepared and get the bags they need.

Commissioner Schreiber said she is also concerned about the environment and the health of animals. She asked about a damaged cloth bag that could not be reused and was thrown out in a plastic bag be worse for the environment, and what about dry cleaning bags?

Mr. Savitz replied if the reusable bag was used for a significant amount of time, then the environmental impact was less. Cloth bags can be washed, and proper upkeep is recommended, and dry-cleaning bags have been exempted from ordinances due to difficulty of alternatives or operation of the business.

Commissioner Zappone said he is 70 years old, and he has been eating, drinking, and breathing plastic for 70 years and he is still sitting here tonight. Also, did the Board of Commissioners draft this ordinance because he was not involved with it, and who will enforce it? Staff from Township's departments are "strapped" as there are many priorities that need to be done, so personally, he is not "buying it."

Commissioner Henry also questioned who will be enforcing the ordinance, and how can we facilitate this smoothly for small businesses while keeping costs down for them.

Mr. Savitz said his recommendation for enforcement is during annual or biannual inspections of retail businesses for other code enforcement purposes or health inspections, plastic bags could be added to the checklist making sure the owners are following the ordinance. Another aspect is citizen enforcement where they can flag it for the Township so staff can work with the business owner to be incompliance. Also, he suggested posting on the Township's website along with a copy of the ordinance.

Commissioner Vaughn expressed concern about the inconvenience, and we just went through a pandemic, so getting rid of single-use plastic silverware would be another concern.

Ms. Rosen replied utensils are not included in the proposed ordinance. It only includes single-use plastic bags, plastic straws and stirrers, and polystyrene.

President Hecker clarified that the purpose tonight was to introduce the concept and discuss it to see what next steps the Board would like to take.

Vice President Vahey commended the work of the EAC as it is a great benefit having volunteers help us do our job, and he thanked them for taking a stand in making a positive difference, so keep up the great work.

Commissioner Carswell said the next time she visits her parents in Colorado in 2024, that entire state will have a ban in place, and if an entire state can do it as well as the two biggest cities in Pennsylvania, she does not understand why Abington could not, so she is very supportive of it.

Commissioner Bowman said this would be a short-term pain for a long-term gain. It is unfortunate going to Acme and not being able to get a bag, but you learn quickly, so he supports it.

Commissioner Spiegelman commended Ms. Rosen for her work, and he supports it as well. Feedback from residents who have been asking for it are thrilled to hear it is being considered; however, a resident reached out in opposition citing there are greater concerns, and they use plastic bags for kitty litter and pet waste, so now they will have to buy other products instead.

Mr. Savitz replied plastic bags used for pet waste are usually only reused once and there are many other sustainable options.

President Hecker asked for any public comment.

Adele Kubel, resident, expressed concern about blight at Raymour & Flanigan, and she asked about self-closing dumpsters.

Joe Rooney, resident, commented that he did not hear about the benefits of using plastics such as health, convenience, and energy-savings.

Lora Lehmann, resident, thanked the EAC for their work, and she asked about voting on this item.

President Hecker replied no formal votes are taken during working sessions.

Cakky Evans, former member of the EAC, commented that the responses from the survey indicated that if this were mandated, it would more likely be followed.

President Hecker said the Board will take this under advisement and consider the next steps.

ADJOURNMENT: 9:22 p.m.

Respectfully submitted,

Liz Vile, Minutes Secretary

BOARD OF COMMISSIONERS WORKING SESSION

AGENDA ITEM

January 11, 2024

DATE

AGENDA ITEM NUMBER

Administration

DEPARTMENT

FISCAL IMPACT
Cost > $10,000
Yes ☐ No ☐

PUBLIC BID REQUIRED
Cost > $20,100
Yes ☐ No ☐

AGENDA ITEM:

Single Use Plastics Ordinance

EXECUTIVE SUMMARY:

The members of the Abington Township Environmental Advisory Council (EAC) would like to request your support in reducing the use of single-use plastics and single-use polystyrene products in Abington Township. Single-use plastics (i.e. plastic bags, straws, and stirrers) and polystyrene products (polystyrene foam food and drink containers) are an increasing detriment to human health, wildlife, and the environment as stated in the Memorandum and Ordinance attached.

PREVIOUS BOARD ACTIONS:

n/a

RECOMMENDED BOARD ACTIONS:

Discuss Single-Use Plastics & Expanded Polystyrene Products Ordinance

January 10, 2023

MEMO

To: Richard Manfredi, Abington Township Manager
From: Abington Township Environmental Advisory Council
Subject: Single-Use Plastics and Polystyrene Products Use and Ordinance Proposal

Dear Township Manager Manfredi,

The members of the Abington Township Environmental Advisory Council (EAC) would like to request your support in reducing the use of single-use plastics and single-use polystyrene products in Abington Township. Single-use plastics (i.e. plastic bags, straws, and stirrers) and polystyrene products (polystyrene foam food and drink containers) are an increasing detriment to human health, wildlife, and the environment. Please find attached an executive summary and a draft ordinance for a single-use plastics and polystyrene product ban in our Township for your review and comments.

Problem
Our continued dependence on disposable single-use plastics and polystyrene products in our community have a cumulative negative impact to our health, wildlife, and the environment for the following reasons:

- **They are not biodegradable**. Instead, they accumulate directly in our waste stream or break down into microplastics which persist in the environment and in our bodies.[1]
- **They are difficult, costly, or impossible to recycle**. Less than 10% of single-use plastics are truly recycled. The remainder wind up in landfills, incinerators, our communities, or marine environments. Polystyrene products cannot be recycled at all.[2]
- **They litter our natural environment.** Plastics and polystyrene products that are washed or wind-blown into the environment or water bodies clog our stormwater infrastructure, exacerbate flooding and erosion issues, and entangle and suffocate birds and terrestrial and aquatic wildlife.[3]
- **They enter human and wildlife food chains.** Plastics and polystyrene products that break down into microplastics are ingested by humans and wildlife. Microplastics contain chemical additives, such as endocrine disruptors, which are associated with negative health effects including cancers, birth defects, and immune system suppression in humans and wildlife.[4]
- **They contribute greatly to greenhouse gas emissions (GHG) and climate change.** Non-renewable resources, such as petroleum and natural gas, are used to produce them which contributes 3.4% of global greenhouse gas emissions.[5]

Recommendation
The Abington Township EAC has prepared the attached Draft Single-Use Plastics and Polystyrene Products Ban Ordinance for your review and comments to help reduce the use of single-use plastics and polystyrene products in commercial establishments. Our aim is to ban the following single-use materials (with exemptions defined):

- Single-use plastic carryout bags (low-density polyethylene)
- Single-use plastic stirrers and straws
- Polystyrene products (for food and beverage)

The draft ordinance comprises the following sections:

1. Definitions
2. Purpose
3. Findings
4. Single-Use Plastic Carryout Bags Prohibited
5. Use of Compliant Straws and Stirrers
6. Single-Use Plastic Straws Must be Provided only Upon Request
7. Compliant Bags
8. Signage Requirement
9. Exemptions
10. Enforcement
11. Severability
12. Repealer
13. Effective Date

The EAC recommends the following proposed steps to implement this ordinance:

1. **Public Surveys** - Conduct public surveys (to residents and/or businesses) to gauge interest and opinions on a single-use plastics ban. A residential public survey has already been implemented. Survey results demonstrate that, of the residents who participated in this survey:
    a. Over 62% believe that local government should play a role in limiting the use of single-use plastics in the township.
    b. 92% already own reusable bags.
    c. Almost 90% already use reusable bags or when they remember to.
    d. Over 70% would use reusable bags if a nominal fee was placed on single-use plastic bags.
2. **Education** - Educate the public and commercial businesses about the impacts of single-use plastic and polystyrene waste through social media, newsletters, public meetings, Q&A, and other deliberations.
3. **Review and Comment on Draft Ordinance** - Hold public meetings to present, discuss, and answer questions from the Township and public.
4. **Finalize and Pass Ordinance**
5. **Implementation Recommendations** - In addition to implementing the ordinance, the EAC will provide a list of alternative product suppliers, provide a percentage of reusable bags for free, and offer a "Bag Share Bin" wherein customers may take or leave reusable bags at commercial establishments for the general public.

Municipalities with Single-Use Plastics Ban Ordinances Passed (with Dates)

- Borough of Ambler - July 2022
- Township of Haverford - July 2022
- Philadelphia County - December 2019
- Pittsburgh County - April 2022
- Radnor Township - August 2022
- Solebury Township - August 2022

- Tredyffrin Township - September 2022
- West Chester Borough - July 2019

By enforcing a ban on single-use plastics and polystyrene products, commercial businesses will help reduce or eliminate plastic and polystyrene waste, thereby reducing greenhouse gas emissions (GHG) when they are produced or disposed of. Residents will be encouraged to use reusable shopping bags which do not contribute to the waste stream or increase GHG emissions.

We are proud to be a LEED Certified City and one of the leaders among Montgomery County municipalities to take this step toward reducing the impacts of single-use plastics in our community. As businesses in our township play a key role in this important effort and we recognize we are asking for a significant process change, the EAC wants to assure you that we will help make a smooth transition when implementing this ordinance for businesses and the public.

The Abington EAC would like to thank you for the opportunity to review and comment on our proposed effort. Please let us know if you have any questions.

Sincerely,

Andrea Soo
Secretary
Abington Township EAC

cc: Richard Manfredi
Ashley McIlvaine
EAC Members

TOWNSHIP OF ABINGTON
MONTGOMERY COUNTY, PENNSYLVANIA

ORDINANCE NO. ____

AN ORDINANCE FOR "SINGLE-USE PLASTICS AND POLYSTYRENE PRODUCTS"

WHEREAS, the Township of Abington is a Township of the First Class, duly organized and existing pursuant to the applicable laws of the Commonwealth of Pennsylvania; and

WHEREAS, pursuant to section 1502.44 of the First Class Township Code of the Commonwealth of Pennsylvania, 53 P.S. §56544, the Board of Commissioners has the authority to enact and amend provisions of the Abington Township Code ("Code") at any time it deems necessary for the health, safety, morals, general welfare, cleanliness, beauty, convenience and comfort of the Township and the inhabitants thereof; and

WHEREAS, Article 1, Section 27 of the Pennsylvania Constitution, known as the Environmental Rights Amendment, (the "Amendment") provides that people have the right to clean air, pure water, and to the preservation of the natural, scenic, historic, and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people; and

WHEREAS, the Amendment imposes two basic duties on the Commonwealth and its political subdivisions such as the Township: 1) to prohibit the degradation, diminution and depletion of the public natural resources, and 2) to act affirmatively via legislative action to protect the environment. Pennsylvania Environmental Defense Foundation v. Commonwealth of Pennsylvania, 161 A.3d 911 (Pa. 2017); and

WHEREAS, this Ordinance is enacted to achieve the Township's duties under the Amendment by minimizing the degradation, diminution, and depletion of the public natural resources and to affirmatively enact legislation designed to protect the environment; and

WHEREAS, for the reasons set forth in more detail below, the Board of Commissioners intend to preserve, maintain, and enhance the health of its residents and visitors, as well as the public natural resources and common property, by regulating the distribution of single-use plastics and polystyrene products within Abington Township; and

WHEREAS, the Board of Commissioners has met the procedural requirements of 53 P.S. § 10101, et seq., the Pennsylvania Municipalities Planning Code, for the adoption of the proposed ordinance, including holding a public hearing; and

WHEREAS, the Board of Commissioners, after due consideration of the proposed ordinance at a duly advertised public hearing, has determined that the health, safety and general welfare of the residents of Abington Township will be served by this amendment of the Ordinance to regulate the distribution of single-use plastics and polystyrene products within the Township;

NOW, THEREFORE, the Board of Commissioners of the Township of Abington does hereby **ENACT** and **ORDAIN** as follows:

SECTION 1. In the interests of public and environmental safety, and recognizing single-use plastics and polystyrene products as a threat to the environment, the Abington Township Code shall be adding a new Chapter entitled "Single-Use Plastics and Polystyrene Products".

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§1. Definitions.

For the purposes of this Chapter, the following definitions shall apply unless the context clearly requires otherwise:

COMMERCIAL ESTABLISHMENT - Any store or retail establishment that sells perishable or nonperishable goods, including, but not limited to, clothing, food, and personal items, directly to the customer and is located within or doing business within the geographical limits of Abington Township. Commercial establishments include: a business establishment that generates a sales or use tax; a drugstore, pharmacy, supermarket, grocery store, farmers market, convenience food store, food mart, or other commercial entity engaged in the retail sale of a limited line of goods that include, but are not limited to, milk, bread, soda and snack foods; a public eating establishment (i.e. a restaurant, take-out food establishment, or any other business that prepares and sells prepared food to be eaten on or off its premises); and a business establishment that sells clothing, hardware, or any other nonperishable goods.

COMPLIANT BAG - A paper carryout or reusable bag as set forth herein:

A. A paper bag that meets all the following minimum requirements:
    a. It is considered a recyclable material based on the Township Code, as the same may be amended from time to time, contains a minimum of 40% post-consumer recycled material, and displays the words "Recyclable" and/or "Reusable" in a highly visible manner on the outside of the bag; or
    b. It can be composted. To qualify as "compostable," the specifications for the bag shall have been submitted to and been approved by Abington Township's Environmental Advisory Council (EAC); or have met an applicable Federal, Commonwealth of Pennsylvania, American Society for Testing and Materials, or other generally recognized and acceptable standard for being compostable.
B. A reusable bag that is a carryout bag that is designed and manufactured for multiple reuse and is:
    a. made of cloth or other machine-washable fabric; or
    b. a polypropylene bag that is woven or non-woven and fused fabric with a minimum 80 gram/square meter density. If it has a capacity of more than 915 cubic inches, it is recommended to have handles that are stitched and not heat fused; or
    c. made of other material that is specifically designed and manufactured for multiple reuse.

COMPLIANT STIRRER – A device primarily intended to be used by a person for the purpose of stirring beverages that is made entirely of wood, grass or certified as compostable by the Biodegradeable Products Institute.

COMPLIANT STRAW – A straw that is certified as compostable by the Biodegradeable Products Institute.

CUSTOMER – Any person purchasing goods or services from a Commercial Establishment.

EXEMPTED PLASTIC - The use of an exempted plastic is not a violation of this ordinance. An exempted plastic is a bag (or packaging material) that is used inside a Commercial Establishment by a Customer to deliver perishable items to (or from) the point-of-sale at that establishment (checkout) and includes:

A. a product bag (see definition below);
B. a laundry or dry-cleaner bag;

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C. a newspaper bag;
D. a bag used to contain live animals, such as fish or insects, sold in a pet store;
E. a bag sold in packages containing multiple bags intended for use as food storage bags, garbage bags, or pet waste bags;
F. a reusable carryout bag offered to the customer at the point-of-sale. A reusable carryout bag is a durable bag with handles made and intended for multiple reuse
G. any plastic bag distributed by the state or federal government

OPERATOR – The person in control of, or having responsibility for, the operation of a Commercial Establishment, which may include, but is not limited to, the owner of the Commercial Establishment.

POLYSTYRENE PRODUCT – A non-recyclable, expanded polystyrene (EPS) foam or foam-based form of plastic packaging made from styrene, including containers or plates for food, beverage cups, trays, and clamshell-style packaging, and often referred to by the trademarked name Styrofoam®. In the event of a dispute over a particular form of packaging and whether it is regulated by this ordinance, the definition set forth in Footnote 1 of this ordinance is controlling.

Packaging that is not regulated by this ordinance are:

A. food or beverages that have been packaged in expanded polystyrene outside the Township before receipt by a food service establishment or store (e.g. pre-packaged fruits and baked goods);
B. products made of expanded polystyrene that are used to package raw, uncooked, or butchered meat, fish, poultry, or seafood; or
C. non-foam polystyrene food service products.

POST-CONSUMER RECYCLED MATERIAL – A material that would otherwise be destined for solid waste disposal, having completed its intended end use and product life cycle. "Post-consumer recycled material" does not include materials and by-products generated from and commonly reused within an original manufacturing and fabrication process.

PRODUCT BAG – A very thin bag (generally without handles) used exclusively to carry meats or fish, vegetables, fruit, nuts, grains, or other similar raw or uncooked food items, bakery goods, candy, or other unwrapped prepared foods to the point-of-sale inside a Commercial Establishment or, for reasons of public health and safety, to prevent such food items from coming into direct contact with other purchased items.

RECYCLABLE - Material that can be sorted, cleansed, and reconstituted using available recycling collection programs for the purpose of reusing the altered, incinerated, converted, or otherwise thermally-destroyed solid waste generated therefrom.

SINGLE-USE PLASTIC CARRYOUT BAG - Any bag made predominantly of plastic made through a blown-film extrusion process that is provided by an Operator of a Commercial Establishment to a Customer at the point-of-sale, but not including an Exempted Plastic or a bag

In the event of any dispute over the nature of the packaging supplied by a Township business, the technical definition of plastic set forth in Footnote 2 (FN 2) shall control.

SINGLE-USE PLASTIC STIRRER - A single-use beverage stirrer or single-use beverage splash stick provided by a Commercial Establishment that is primarily made of plastic.

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SINGLE-USE PLASTIC STRAW - A Straw provided by a Commercial Establishment that is primarily made of plastic. A "Single-Use Plastic Straw" shall not include:

A. Straws packaged with beverages prepared and packaged outside of the Township, provided such beverages are not altered, packaged, or repackaged within the Township.
B. Straws provided as an assistance device to reasonably accommodate a disability.

SINGLE-USE PLASTICS - Any materials defined under Single-Use Plastic Carryout Bag, Single-Use Plastic Stirrer, or Single-Use Plastic Straw.

STRAW - A tube designed or intended for transferring a beverage from its container to the mouth of the drinker by suction or for the stirring of a beverage.

TOWNSHIP - Abington Township.

§2. Purpose.

The purpose of this Chapter is to:

A. Reduce the use of single-use plastics and polystyrene products by commercial establishments within Abington Township.
B. Curb litter on the streets, in the parks, and in the trees, protect the local streams, rivers, waterways and other aquatic environments, reduce greenhouse gas emissions, reduce solid waste generation, promote and facilitate the use of reusable, compostable, and recyclable materials, and to preserve the natural, scenic, historic, and aesthetic values of Abington Township.
C. Relieve the pressure on recyclers who cite single-use plastic bags as a major source of contamination and inefficiency within the recycling stream.
D. Relieve the pressure for landfills to manage the disposition of single-use products.

§3. Findings.

A. The use of single-use plastics and polystyrene products have severe environmental impacts, including greenhouse gas emissions, litter, harm to wildlife, ground-level ozone formation, atmospheric acidification, water consumption, and solid waste generation to Abington Township and the greater environment.
B. There are numerous commercial establishments within Abington Township which provide single-use plastics and polystyrene products to their customers.
C. Most single-use plastics and polystyrene products are made from plastic or other material that does not readily decompose.
D. Over one hundred billion single-use plastics and polystyrene products are discarded by United States consumers each year. In Abington Township, most such materials are not recycled and are often improperly discarded and litter the Township's highways, trees, and drains.
E. Numerous studies have documented the prevalence of single-use plastics or polystyrene products littering the environment, blocking storm drains, entering local waterways, and becoming stuck in or upon natural resources and public property.
F. The taxpayers of Abington Township pay the costs related to the cleanup of single-use plastics and polystyrene products from the roadways, trees, bushes, sewers, drains, waters, and parks within the Township.
G. Recyclers cite single-use plastics and polystyrene products as a major source of contamination within the recycling stream, leading to increased costs and decreased efficiency.

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H. From an overall environmental and economic perspective, the best alternative to single-use, plastic carryout bags is a shift to reusable bags followed by compostable or recyclable paper bags.
I. There are several reasonable alternatives to single-use plastics and polystyrene products readily available in and around Abington Township.
J. It is recognized that single-use paper bag manufacturing, transportation, and resource consumption also affect the environment, but they are biodegradable, single-stream recyclable, and provide a practical commercial establishment alternative consistent with most local and state single-use plastic regulations and prohibitions. Although preferable to single-use plastic bags, the overall effects of producing, providing, and allowing single use paper bags should also be mitigated to reduce waste, litter, and natural resource depletion by encouraging, facilitating, and promoting reusable bag use.
K. As required by the Environmental Rights Amendment to the Pennsylvania Constitution, Abington Township seeks to preserve the natural, scenic, historic, and aesthetic values of the Township.
L. It is the desire of the Board of Commissioners to conserve resources, reduce the amount of greenhouse gas emissions, waste, litter, and water pollution, and to protect the public health and welfare of people and wildlife in the Township, all of which increases the quality of life for the Township's residents and visitors.
M. Studies have documented that:
    a. prohibiting or otherwise regulating the use of single-use plastics and polystyrene products will significantly reduce the use and waste of such items.
    b. placing a mandatory charge on alternative paper (or other compostable) bags will promote and encourage the use of reusable bags.

§4. Single-Use Plastic Carry Out Bags Prohibited.

Effective 180 days after enactment of this ordinance, no commercial establishment shall provide to any customer any single-use plastics or polystyrene product. This prohibition applies to bags or devices provided for the purpose of carrying away or accompanying goods from the point-of-sale. This prohibition applies to single-use plastics or polystyrene products used for takeout deliveries from commercial establishments within Abington Township. The point-of-sale in such transactions is deemed to be at the commercial establishment, regardless of where payment for the transaction physically occurs.

§5. Use of Compliant Straws and Stirrers.

Effective 180 days after enactment of this ordinance, any commercial establishment shall only provide compliant straws or compliant stirrers unless a single-use plastic straw is requested as set forth under §6.

§6. Single-Use Plastic Straws Must be Provided Only Upon Request.

Effective 180 days after enactment of this ordinance, no commercial establishment shall provide to any customer a single-use plastic straw unless the customer first requests it. All food service establishments shall maintain a sufficient supply of single-use plastic straws to accommodate any such request. If a person specifically requests a single-use plastic straw, the commercial establishment shall provide a single-use plastic straw free of charge and shall make no inquiry into the reason for such request.

§7. Compliant bags.

A. Effective 180 days after enactment of this ordinance, commercial establishments shall only provide compliant bags to a customer at the commercial establishment or through a delivery.
B. A commercial establishment may provide a customer a compliant bag at the point-of-sale if the bag is provided to the customer for a charge of not less than $0.15 per bag.

C. All monies collected by a commercial establishment under this Section for provision of a recycled paper bag shall be retained by the commercial establishment.
D. Any charge for a compliant bag shall be separately stated on any receipt provided to the customer at the time of sale and shall be identified as the "Carry-Out Bag Charge" thereon.
E. Customers may use bags of any type that they bring to the commercial establishment themselves for the purpose of carrying goods or other materials away from the point-of-sale, without incurring a fee for a compliant bag.

§8. Signage Requirement.

Effective 30 days after enactment of this ordinance, and for six months thereafter, commercial establishments are required to post at all points-of-sale conspicuous signage; informing customers that single-use plastics and polystyrene products will no longer be provided by the establishment as of the date the prohibition begins; explaining what types of bags and purchases are impacted; and providing any other information the Township may require by regulation.

§9. Exemptions.

The Township Manager or their designee may, upon written request of a commercial establishment, exempt a commercial establishment from the requirements of this Chapter for a period of one (1) year from the effective date of this Ordinance upon a finding by the Township Manager or their designee that the requirements of this Chapter would cause undue hardship to the commercial establishment. An "undue hardship" shall be found only if the commercial establishment demonstrates that it has a unique circumstance or situation such that there are no reasonable alternatives to the use of single-use plastics and/or polystyrene products.

§10. Enforcement.

A. The Township Manager or their designee has the responsibility for enforcement of this Chapter and may promulgate reasonable rules and regulations to enforce the provisions thereof, including, but not limited to, investigating violations and issuing fines.
B. Any commercial establishment that violates or fails to comply with any of the requirements of this Chapter, after an initial written warning notice has been issued for that violation, shall be liable for a violation.
C. Any commercial establishment that receives an initial written warning notice may file a request for an exemption pursuant to the procedure in §9 above.
D. If a commercial establishment has subsequent violations of this Chapter after the issuance of an initial written warning notice of violation, the following penalties shall be imposed and shall be payable by the operator of the commercial establishment:
    1) A fine not exceeding $100.00 for the first violation;
    2) A fine not exceeding $200.00 for the second violation in the same year dating from the first violation;
    3) A fine not exceeding $500.00 for the third and each subsequent violation in the same year dating from the first violation.
E. In addition to the penalties set forth in this Chapter, the Township may seek legal, injunctive, or other equitable relief to enforce this Chapter.
F. The failure of the Township to enforce any provision of this ordinance shall not constitute a waiver by the Township of its rights to future enforcement hereunder.

DRAFT

SECTION 2. SEVERABILITY. If any sentence, clause, section, or part of this ordinance is, for any reason, found to be unconstitutional, illegal, or invalid, such unconstitutionality, illegality, or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts hereof. It is hereby declared as the intent of the Board of Commissioners of Abington Township that this ordinance would have been adopted had such unconstitutional, illegal, or invalid sentence, clause, section, or part thereof not been included therein.

SECTION 3. REPEALER. All ordinances or parts of ordinances conflicting with any provision of this ordinance are hereby repealed insofar as the same affects this ordinance.

SECTION 4. EFFECTIVE DATE. This Ordinance shall become effective upon enactment as provided by law.

ADOPTED this _____ day of _____, A.D., 2024.

ABINGTON TOWNSHIP

_____

BY: Thomas Hecker
President, Board of Commissioners

_____

Attest: Richard Manfredi
Township Manager & Secretary

FN l . For purposes of this ordinance, "polystyrene" means blown polystyrene and expanded and extruded foams that are thermoplastic petrochemical materials utilizing a styrene monomer and processed by a number of techniques, including: fusion of polymer spheres, known as expandable bead 20 polystyrene; injection molding; foam molding; and extrusion-blow molding, also known as extruded foam polystyrene.

FN 2. For purposes of this ordinance,"plastic" means a synthetic material made from linking monomers through a chemical reaction to create a polymer chain that can be molded or extruded at high heat into various solid forms that retain their defined shapes during their life cycle and after disposal, including material derived from either petrochemicals or a biologically based polymer, such as corn or other plant sources.

DRAFT

BOARD OF COMMISSIONERS WORKING SESSION

AGENDA ITEM

January 11, 2024

DATE

AGENDA ITEM NUMBER

Administration

DEPARTMENT

FISCAL IMPACT
Cost > $10,000
Yes ☐ No ☐

PUBLIC BID REQUIRED
Cost > $20,100
Yes ☐ No ☐

AGENDA ITEM:

640 Cedar Road

EXECUTIVE SUMMARY:

Under this Preliminary/Final Land Development application, the Applicant is proposing to maintain the existing features on the site with the exception of the following:

- Construct a 1,048 SF building expansion to the rear of the existing 2-story masonry and frame veterinary hospital building.
- Remove the existing detached frame garage located directly to the rear of the veterinary hospital building, adjacent pavement area, and 4' high chain link fencing and gate for parking lot expansion to include 10 additional off-street parking spaces. Portions of the existing parking lot adjacent the 2-story frame garage/barn building and the driveway entrance area adjacent to 700 Cedar Road will be milled and slightly widened as part of this work. The entire existing bituminous parking lot will be resurfaced.
- Remove the existing landscape tie wall and AC ducts along the northern side of the veterinary hospital building to extend the existing concrete walk from the front of the building with a new concrete walkway along the northern side of the building, side entrance, and new concrete ramp along the western side of the building addition to the new rear entrance.
- Remove the existing stone wall and walkway adjacent the existing 2-story frame garage/barn and reconstruct a new 1' high stone wall along the parking lot edge in front of the 2-story frame garage/barn and new concrete walkway with steps leading from the parking lot to the 2-story frame garage/barn.
- Install new stormwater bmp facilities; e.g., an underground 80' long x 20' wide underground infiltration bed; stormwater basin; trench and yard drains; and stormwater inlets and piping for stormwater management of the site.

- Install a new 4' high chain link fence and gate attached to the existing 4' high chain link fence located in the yard area of the site behind the 626 Cedar Road and 639 Roseland Avenue properties.
- A designated loading area is provided on the parking lot to the rear and western corner of the veterinary hospital building.
- Provide additional landscape plantings adjacent the building addition, along portions of the parking lot perimeter, and along the lot lines for increased buffering.

PREVIOUS BOARD ACTIONS:

n/a

RECOMMENDED BOARD ACTIONS:

Presentation of the Preliminary/Final Major Land Development Plan for LD-23-04 - 640 Cedar Road (Hopewell Vet).

November 17, 2023

ABINT130035

Mr. Richard Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: Executive Summary for LD-23-04-640 Cedar Road (Hopewell Vet)
PARID: 30-00-06992-00-7/ TMID: 30049 004
Preliminary/Final Major Land Development Plans Review (1st Submission)

Dear Mr. Manfredi:

We have received a copy of the "Preliminary/Final Land Development Plans" consisting of eleven (11) sheets dated October 3, 2023, as well as a Stormwater Management & Erosion and Sediment Control Plan Narrative, dated October 3, 2023, and both received on October 18, 2023; as prepared by Charles E. Shoemaker, Inc., located at 110 Keystone Drive, Montgomeryville, PA, for the above referenced project on behalf of the Applicant, Rutkowski LP, c/o Dr. Timothy Rutkowski, DVM.

Under this Preliminary/Final Land Development application, the Applicant is proposing to maintain the existing features on the site with the exception of the following:

- Construct a 1,048 SF building expansion to the rear of the existing 2-story masonry and frame veterinary hospital building.
- Remove the existing detached frame garage located directly to the rear of the veterinary hospital building, adjacent pavement area, and 4' high chain link fencing and gate for parking lot expansion to include 10 additional off-street parking spaces. Portions of the existing parking lot adjacent the 2-story frame garage/barn building and the driveway entrance area adjacent to 700 Cedar Road will be milled and slightly widened as part of this work. The entire existing bituminous parking lot will be resurfaced.
- Remove the existing landscape tie wall and AC ducts along the northern side of the veterinary hospital building to extend the existing concrete walk from the front of the building with a new concrete walkway along the northern side of the building, side entrance, and new concrete ramp along the western side of the building addition to the new rear entrance.
- Remove the existing stone wall and walkway adjacent the existing 2-story frame garage/barn and reconstruct a new 1' high stone wall along the parking lot edge in front of the 2-story frame garage/barn and new concrete walkway with steps leading from the parking lot to the 2-story frame garage/barn.
- Install new stormwater bmp facilities; e.g., an underground 80' long x 20' wide underground infiltration bed; stormwater basin; trench and yard drains; and stormwater inlets and piping for stormwater management of the site.
- Install a new 4' high chain link fence and gate attached to the existing 4' high chain link fence located in the yard area of the site behind the 626 Cedar Road and 639 Roseland Avenue properties.
- A designated loading area is provided on the parking lot to the rear and western corner of the veterinary hospital building.
- Provide additional landscape plantings adjacent the building addition, along portions of the parking lot perimeter, and along the lot lines for increased buffering.

In accordance with the Montgomery County property records, the site is comprised of two (2) consolidated parcels with a total irregular shaped tract size of 2.4753 acres. The site, with the veterinary hospital building and accessory buildings and structures, is primarily located within the CS – Community Service Zoning District, with the northern and western vacant land extensions located within the R-4 Residential Zoning District. The site is fronted by Cedar Road to the east; commercial properties zoned within the CS – Community Service Zoning District to the north; and residential properties zoned within the R-4 Residential Zoning District in all other directions.

In accordance with the FEMA, Flood Insurance Rate Map (FIRM) Panel No. 42091C0403G, effective March 2, 2016, the tract is identified to be located within Zone X which is identified as an area outside the 0.2% chance flood and minimal flood hazard. Therefore, based on the FEMA FIRM determination, this site is not located within the Floodplain Conservation District, and is therefore not subject to the floodplain regulations of the Floodplain Conservation District. In addition, per the Abington Township Riparian Corridor Analysis Map, Figure 15.2, this parcel is not located within and intersecting the Riparian Corridor; and is not subject to the regulations of the Riparian Corridor Conservation District.

There are existing precautionary (slopes of 15% to 25%) and prohibited (slopes of 25% and up) steep slopes on the site based on our calculations of the topographic contours on the Existing Features Plan (Sheet 3). However, these existing steep slopes on the site do not span five contiguous 10-foot contour intervals; and therefore, the site is not located within the steep slope conservation overlay district, and the site is not subject to the Steep Slope Conservation Overlay District requirements.

Variances Received:
The Applicant was granted the following variances by the Abington Township Zoning Hearing Board under Zoning Application No. 23-15, based on the Zoning Decision dated July 19, 2023:

1. **§905.G.4 – Special Development Regulations –** A variance to permit two (2) parking spaces in the required front yard;

2. **§2103.C.38.1 – Veterinary Clinic –** A variance to permit the proposed expanded building to be setback 55 feet from the side yard property line;

3. **§1907.A.1 – Expansion of a Nonconforming Structure –** A variance to allow the expansion of a nonconforming nonresidential structure;

4. **§1907.A.2 – Expansion of a Nonconforming Structure –** A variance to allow expansion of a nonconforming structure from 58.4 feet to 55 feet from the side property line;

5. **§2403.B.4.a.[1] – Buffers and Screens –** A variance to install a low-intensity buffer as required by adjoining land uses pursuant to Ordinance Figure 24.5; and

6. **§2403.B.4.a.[2] – Buffers and Screens –** A variance to install a medium-intensity buffer as required by adjoining land uses pursuant to Figure 24.5.

The variances were granted subject to the conditions:

1) That all development and use of the subject property be in substantial conformance with the testimony, exhibits, and other evidence presented at the Public Hearing on this matter, including (without limitation) the Plan Exhibit attached hereto (the "Plan); and

2) That a stockade fence or similar fence be installed along the northwest side of the expanded parking area, to assist in blocking automobile headlamps from lighting abutting residential uses.

Waivers Requested:

1. **§146.9.A.(1) and (2) – Preliminary and Final Plan Stages** – A waiver to permit preliminary and final stages to run concurrently.

2. **§146-11.B.(3) – Existing Features Plan** – A partial waiver from the requirement that existing features plan shall include property lines and names of landowners within 400 feet of the site.

3. **§146-11.B.(7) – Utilities** – A partial waiver from the requirement to provide all utility information within 400 feet of the subject property.

4. **§146-11.J – Recreational Facilities Plan** – A waiver from the requirement to provide recreational facilities.

5. **§146-33.C – Drainage Location** – A waiver to permit storm drainage pipes on-site to have a protected cover less than 24 inches.

6. **§146-33.D – Drainage Size, Grade, and Type** – A waiver to permit high density polyethylene (HDPE) and PVC storm drainage pipes and with less than 15 inches in diameter with grades less than 0.5%.

7. **§146-43.C.(3).(a) – Cut and Fill Slopes** – A waiver from the requirement that cut and fill slopes shall not be 15% or steeper.

Issues:

The following issues have been identified from the staff reviews as follows:

- Traffic and Parking:
  - Revise the proposed driveway widening closest to 700 Cedar Road to comply with the 20' maximum driveway width requirement and not more than the existing nonconforming width of approximately 20'-9" adjacent the driveway apron. The driveway area should be clearly dimensioned on the plans.
  - Confirm the total number of doctor(s) that will be operating on the premises to ensure adequate total number of off-street parking spaces are provided on site.
  - Provide curbing, wheel stops, or bollards for the planting island to the west of underground infiltration bed.
  - Provide a stop sign at the main driveway closest to 700 Cedar Road.
  - Install DO NOT ENTER signs at the additional driveway entrance closest to 626 Cedar Road.

- Dimensional Requirements:
  - Provide a building height and elevations on the architectural and site plans.

- Grading and Utilities:
  - Delineate the areas of precautionary (slopes of 15% to 25%) and prohibited (slopes of 25% and up) throughout the site.
  - Clarify location of any and all mechanical equipment servicing the building.
  - Elevation on plans shall be based on Abington Township Sanitary Sewer datum.

- Landscaping and Fencing:
  - Revise the caliper size for the Acer Rubrum shade trees on the planting schedule to be a minimum of three (3) inches in caliper.
  - Relocate the street trees to be a minimum of fifteen (15) feet from the overhead utility wires.
  - Provide the stockade fence to the northwest side of the expanded parking lot on the plans. Fence

is shown on the landscape plans but not the site plans.
  - Provide tree protection for existing trees on site.

- Stormwater Management:
  - Provide a PCSM Plan as part of this LD application.
  - Provide the location of the downspouts and roof leaders for the building on the plans.
  - Clarify the discrepancy between the plans and in the PSCM report regarding the basin size.
  - Provide the limiting layer elevation under the infiltration BMP.
  - Clarify and confirm the discrepancies between the elevations provided on the plans and in the PCSM report.
  - Provide the 100-year stormwater elevation for the seepage bed cross-section to ensure the BMP can adequately capture and convey the 100-year storm.
  - Revise the stormwater management facilities on site to capture more of the proposed bypass runoff from the site.
  - Provide pipe conveyance calculations from yard drain 3 to the mitered end pipe in the PCSM report.

- Miscellaneous:
  - Clarify and resolve the existing fencing encroachments.

Summary:

The Applicant would be eligible for Preliminary/Final Major Land Development Plans approval contingent the Applicant adequately addressed all review comments prior to recording plans review, in particular the zoning and traffic comments.

If you have any questions or comments with this submittal, please do not hesitate to contact me.

Sincerely,

PENNONI ASSOCIATES INC.

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Assistant to the Township Manager
Ashley McIlvaine, Assistant Township Manager & Assistant CAO

U:\ACCOUNTS\ABINT\ABINT130035 - LD-23-04 - 640 CEDAR ROAD (HOPEWELL VET)\ADMIN\LD-23-04-PC MTG EXEC SUMMARY - 640 CEDAR 11.17.23.DOCX

ESCROW AGREEMENT FOR PROFESSIONAL REVIEW FEES FOR PRE-SUBMISSION MEETING

The undersigned hereby agrees to post an escrow to cover the costs of the review of subdivision and land development applications by the Township's Planner, Engineer(s), and Solicitor. The amount of said escrow shall be according to the attached "Schedule of Fees" and shall be posted at the time of initial submission of an application to the Township. Said fees shall be placed in an escrow account and any balance remaining shall be returned to the applicant subsequent to the receipt of final approval.

The applicant is advised that the "Schedule of Fees" represents only an estimate of the costs associated with plan review. The completeness and quality of the submission, the complexity of the project, the number of revisions and other factors may cause costs to exceed the established escrow amounts. If during the course of a subdivision/land development review an escrow amount falls to 10% of the original escrow amount or $250, whichever is greater, the Township may require the posting of additional escrow.

NOTE: NO FINAL APPROVALS, CONSTRUCTION, BUILDING OR OCCUPANCY PERMITS SHALL BE ISSUED UNTIL ALL OUTSTANDING PROFESSIONAL REVIEW FEES HAVE BEEN SATISFIED.

Signature: _____ Date: 10-3-2023

Applicant

APPLICATION FOR SUBDIVISION/LAND DEVELOPMENT

PROJECT NAME: 640 Cedar Road

APPLICANT NAME: Rutkowski LP

TO BE COMPLETED BY THE TOWNSHIP
Submission Information:

Application Number: LD-23-04
Project Title: 640 Cedar Road (Hopewell Vet)
File Date: 10/19/2023
Date Complete:
90 Day Date: Waived
Ward No.: 3

REQUIRED MATERIAL FOR ALL SUBDIVISION/LAND DEVELOPMENT APPLICATIONS:

1. This form **MUST** be completed and submitted.
2. A Subdivision/ Land Development Application MUST include all of the items listed in the application checklist in Section V to be considered complete.
3. Incomplete application will **NOT** be placed on the Planning Commission agenda. Incomplete applications will be returned to the applicant.
4. Complete applications must be received at least 45 DAYS (see schedule) prior to the Planning Commission meeting at which it will be heard.
5. Ten (10) full size paper copies, and one (1) 11x17 reduced copy of the plans, plus three (3) copies of each report or study are to be submitted in the initial submission of the complete application. A digital copy of all submitted documents must be included with the application.

   ***It is highly encouraged to submit applications in a digital format**

I. CONTACT INFORMATION

Applicant Information

Rutkowski LP, c/o Dr. Timothy Rutkowski, DVM
Name

640 Cedar Road, Jenkintown, PA 19046
Address

215-880-5622
Phone

Fax

lisa@hopewellvet.com
Email Address

Property Owners Information (if different than applicant)

Name

Address

Phone

Fax

Email Address

Architect/ Planner

Professional Design and Construction
Name

61a Church Street, Landisville, PA 17538
Address

717-892-2780
Phone

Fax

kevinm@prodc.com
Email Address

Engineer/ Surveyor	Charles E. Shoemaker, Inc. c/o Chad W. Brensinger, PE Name 110 Keystone Drive, Montgomeryville, PA 18936 Address
Engineer/ Surveyor Cont'd	215-887-2165 Phone Fax cbrensinger@ceshoemaker.com Email Address
Attorney	Gavin Laboski, ESQ., Laboski Law, P.C. Name 314 W Broad Streets, #124, Quakertown, PA 18951 Address 215-536-3800 Phone Fax gavin@laboskilaw.com Email Address

II. PROJECT INFORMATION

Application Type:

____Minor Subdivision	____Minor Land Develop.	____Preliminary Major SD & LD
____Preliminary Major Subdivision	_X_Prelim. Major Land Develop.	____Final Major SD & LD
____Final Major Subdivision	_X_Final Major Land Develop.	

Full street address of the property: 640 Cedar Road, Jenkintown, PA 19046

Tax Parcel No.: 30-00-06992-00-7 County Deed Book No.: 5480 Page No.: 1222

Description of Proposed Work: Building addition and parking area expansion

Total Tract Acreage: 2.4753 AC Project Acreage: 0.62 AC

Zoning District: R-4 Existing Number of Lots: 1 Proposed Number of Lots: 1

Existing Sewer Flows: 1 EDU Proposed Sewer Flows: 1 EDU

Proposed Land Use:

____Single Family Detached	____Single Family Attached	____Single Family Semi-Detached	
____Multi-Family	____Commercial	____Office	____Industrial

_X_Other (Describe): CS - Community Service (Use: C-38 Veterinary Clinic)

III. REVIEW

Please complete the following section by circling a response:

• Have you met with the Zoning Officer regarding this plan?	(Yes)	No
• Are there known variances/any zoning relief necessary for this project?*	(Yes)	No
• If YES, have you submitted an application to the Zoning Hearing Board?	(Yes)	No
• Has this plan been heard by the Zoning Hearing Board?	(Yes)	No
• Has this plan been submitted to, considered by, or received any formal action by the Planning Commission or Board of Commissioners in the past?	Yes	(No)

*Please be advised that if any variances are found to be necessary during the course of the review of this plan, you will be required to go to the Zoning Hearing Board prior to proceeding to the Planning Commission. In addition, you will be requested to grant the Township a waiver to the 90-day action period or an immediate denial of this application will be made, and you will be required to resubmit the application.

It is recommended that ALL Land Development and Major Subdivision applications have a pre-submission meeting to discuss the project prior to full application submittal.

Minor Subdivision applications may request a pre-submission meeting; if one is desired.

Meetings are typically held the fourth Tuesday of each month at the Township Administrative Offices.

Applicants assume responsibility of any fees associated with this meeting.

Applicant signature _____ 10-3-2023
Date

To schedule a pre-submission meeting, please contact the Office of the Township Manager at 267-536-1003 or email TCastorina@abingtonpa.gov

IV. WAIVERS

List of Requested Waivers: Attach separate sheet if required.

Section/Requirement:	Relief Requested:
S.O. Sec. 146-11.B.(7) - UTILITIES	Partial waiver to allow showing existing feature via and aerial plan
S.O. Sec. 146.9.A (1) & (2)	To allow Preliminary and Final stages to run concurrently
S.O. Sec. 146-11.J - RECREATIONAL FACILITIES PLAN	Waiver from the requirement to provide recreational facilities;
S.O. Sec. 146-43.C.(3)(a) - CUT AND FILL SLOPES	Waiver from the requirement cut and fill slopes not be 15% or steeper. Some lawn area exceeds 15% but shown not greater than 25% (4:1)
S.O. Sec. 146-33.C - DRAINAGE LOCATION	Waiver to permit storm drainage pipes on-site to have a protected cover of less than 24 inches. Due to site conditions, the pipe will outfall at a mitered end section which will involve cover of less than 24 inches
S.O. Sec. 146-33.D - DRAINAGE SIZE, GRADE, AND TYPE	Waiver to permit high density polyethylene (HDPE) and PVC storm drainage pipes and with less than 15 inches diameter and with grades less than 0.5 percent.

V. SUBMISSION

APPLICATION CHECKLIST

The applicant is responsible for the submission of a complete application. This checklist will aid both the applicant and staff in ensuring that all applications are complete. The following is a per item submission checklist for all Subdivision, Land Development and Conditional Use Applications for the Township of Abington.

- X Application Form: completed and signed by the owner/applicant
- X 10 (ten) copies of the proposed plan, folded to legal file size. Plan should not be smaller than 1" = 50' and not exceed a sheet size of 24"x 36"
- X One (1) reduced copy of the proposed plan, no larger than 11"x17"
- X Two (2) sets of tentative architectural plans for all applications proposing construction or land development
- n/a One (1) copy of the Recreation Facilities Plan (if required by §146-40)
- n/a ~~X~~ Letter of Sanitary Sewer availability from the Township Wastewater Treatment Department
- n/a Two (2) copies of Sewage Facilities Planning Module Applications
- n/a ~~X~~ Letter of Water availability from AQUA PA
- X One (1) copy of any previous Zoning Hearing Board decisions related to the subject property
- X One (1) digital copy of all submitted documents
- X Application Fee: Check made payable to the Township of Abington
- X Escrow Fee: Check made payable to the Township of Abington. Separate check from application fee

VI. SIGNATURE

The undersigned represents that to the best of his/her knowledge and belief, all the above statements are true, correct, and complete.

Signature of Applicant — Date: 10-3-2023

Signature of Property Owner (if different than applicant) — Date

THE FOLLOWING IS FOR INTERNAL USE ONLY:

PAYMENT

____ Application Fee Amount: $_____ Check No.: #_____

____ Review Escrow Fee Amount: $_____ Check No.: #_____

DECISION INFORMATION

Approval _____ Denial_____ Decision Date: _____

Comments/Conditions:_____

_____

_____

_____

_____

PLANNING PROCESS EXTENSION AGREEMENT

FOR

640 Cedar Road

PROJECT NAME

The Pennsylvania Municipality Planning Code (MPC) and the Abington Township Subdivision and Land Development Ordinance state that action must be taken by the Township within ninety (90) days after a complete application is filed with the Township. In the Township, complicated, unique, and community impactful projects have or may require additional time in order to complete a thorough review before being considered for approval. As such, an applicant may voluntarily waive the timing requirement at any time, but is encouraged to submit this waiver with the completed application.

I, the applicant, hereby voluntarily waive the timing requirement as set forth in the MPC (Section 53 P.S. 10508) and the Abington Township Subdivision and Land Development Ordinance (Section 146-13). Applicant acknowledges that this waiver can be revoked at any time upon written notice to the Township Manager. The time limitations set forth in 53 P.S. 10508 and Section 146-13 of the Abington Township Code shall be calculated from the date that the written revocation is received by the Township Manager.

Signed: _____ Date: 10-3-2023
Applicant

Received: _____ Date: _____
Township

ESCROW AGREEMENT FOR PROFESSIONAL REVIEW FEES FOR SUBDIVISION/LAND DEVELOPMENT APPLICATIONS

The undersigned hereby agrees to post an escrow to cover the costs of the review of subdivision and land development applications by the Township's Planner, Engineer, and Solicitor. The amount of said escrow shall be according to the attached "Schedule of Fees" and shall be posted at the time of initial submission of an application to the Township. Said fees shall be placed in an escrow account and any balance remaining shall be returned to the applicant subsequent to the receipt of final approval.

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NOTE: NO FINAL APPROVALS, CONSTRUCTION, BUILDING OR OCCUPANCY PERMITS SHALL BE ISSUED UNTIL ALL OUTSTANDING PROFESSIONAL REVIEW FEES HAVE BEEN SATISFIED.

Signed: _____ Date: 10-3-2023
Applicant

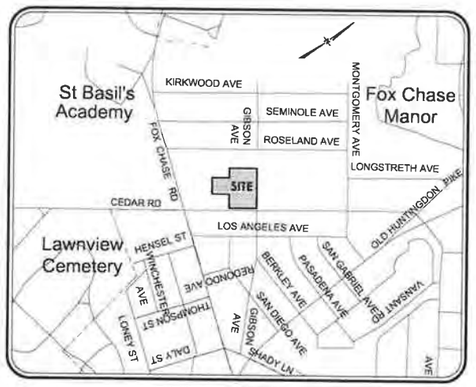
PRELIMINARY / FINAL
LAND DEVELOPMENT PLANS
OF
PROPOSED BUILDING ADDITION
LOCATED AT
640 CEDAR ROAD
ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PA.
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL
640 CEDAR ROAD
JENKINTOWN, PA. 19046

DRAWING LIST

SHEET NO.	TITLE
1 OF 9	COVER SHEET
2 OF 9	LAND DEVELOPMENT PLAN
3 OF 9	EXISTING FEATURES PLAN
4 OF 9	AERIAL PHOTO
5 OF 9	GRADING / UTILITY PLAN
6 OF 9	EROSION AND SEDIMENTATION CONTROL PLAN
7 OF 9	EROSION AND SEDIMENTATION CONTROL DETAILS
8 OF 9	CONSTRUCTION DETAILS & STORM PROFILES
9 OF 9	CONSTRUCTION DETAILS

LANDSCAPE PLANS

LP-1	LANDSCAPE PLAN
LP-2	LANDSCAPE DETAILS



LOCATION MAP
SCALE: 1" = 600'

SOIL SCIENTISTS
VW CONSULTANTS, LLC
1590 CANARY ROAD
QUAKERTOWN, PA 18951
215-536-7006

LANDSCAPE ARCHITECT
In Focus Planning
1121 N. BETHLEHEM PIKE
SUITE 60, #206
SPRING HOUSE, PA 19477
215-758-2540

PREPARED BY
CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA. 18936
215 - 887 - 2165

DATE	NO	REVISION	BY

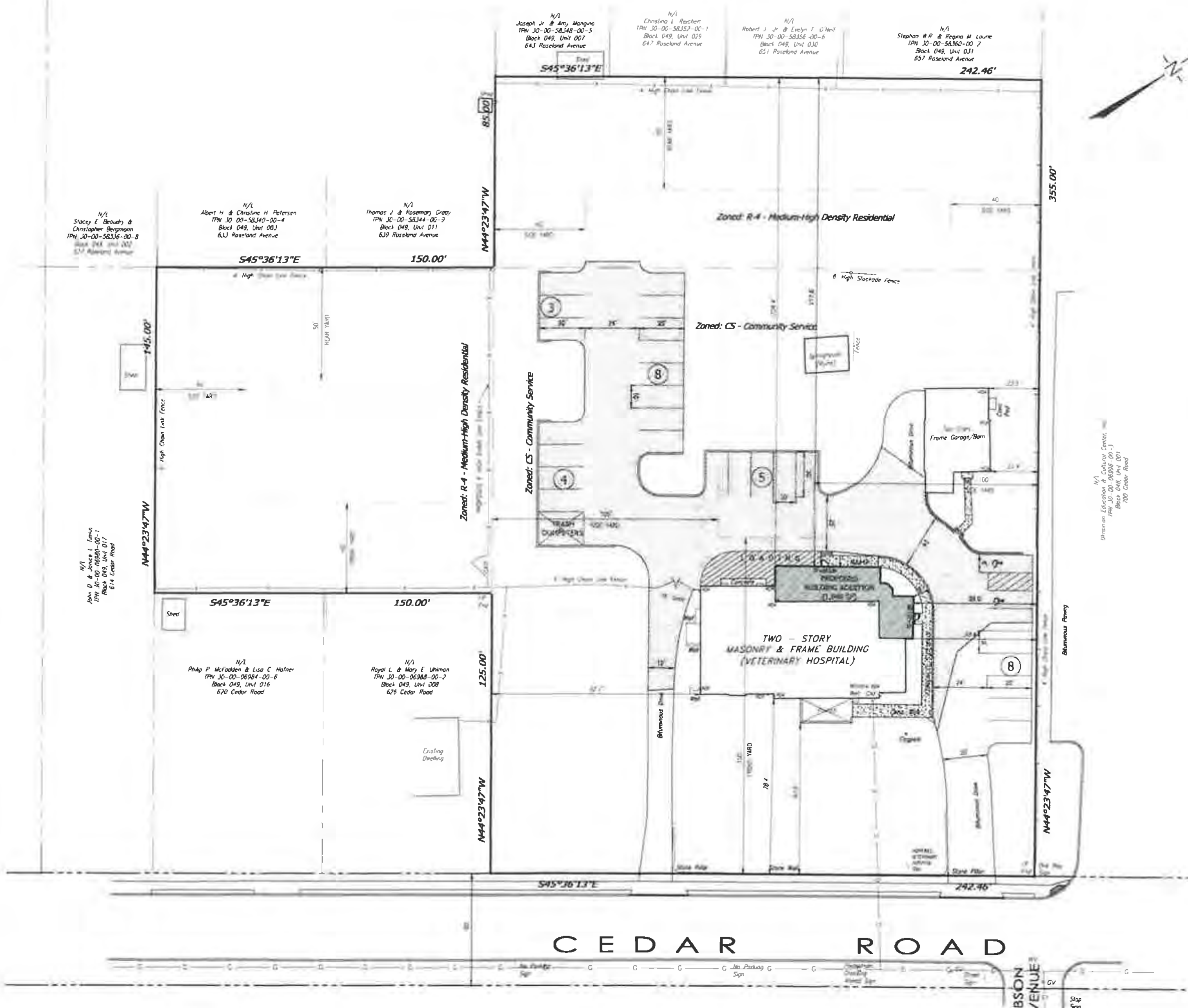
COUNTY PARCEL NO
30-00-08992-00-7
BLOCK - UNIT
049-004
SITE ADDRESS
640 CEDAR ROAD
JENKINTOWN, PA 19046
DEED BOOK - PAGE
5486-1222

RECORD OWNER
RUTKOWSKI LP
640 CEDAR ROAD
JENKINTOWN, PA 19046

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: staff@ceshoemaker.com

COVER SHEET
OF
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

DATE OCTOBER 3, 2023
DWG NO A-11-609
JOB NO 27023
SHEET NO. 1 OF 9



LEGEND
EXISTING FEATURES

IRON PIPE FOUND

LEGEND
PROPOSED FEATURES

CONCRETE SIDEWALK
CURB
CONCRETE MONUMENT TO BE SET
IRON PIN TO BE SET

ABINGTON TOWNSHIP BOARD OF COMMISSIONERS

Approved by the Board of Commissioners of the Township of Abington this _______ day of

__________________ 20 _____

Attest
__________________ President
__________________ Secretary
__________________ Engineer

MONTGOMERY COUNTY RECORDER OF DEEDS

Recorded in the Office for the Recording of deeds, etc Norristown PA in Plan Book __________

Page no __________ on __________ by __________
Name

REVIEWED BY THE TOWNSHIP ENGINEER

This Land Development Plan was reviewed by the appointed Township Engineer for the Township of Abington

__________________ Township Engineer   __________________ 20 _____ Date

VARIANCES GRANTED ON JULY 23, 2023 BY THE ABINGTON TOWNSHIP ZONING HEARING BOARD

- A variance from Section 905 G 4 to permit two parking spaces in the required front yard Ordinance was granted
- A variance from Section 2103 C 38 1 to permit the proposed expanded building to be setback 55 feet from the side property line was granted
- A variance from Section 1907 A 1 to allow the expansion of a nonconforming nonresidential structure where the Ordinance does not permit expansion of nonresidential structures was granted
- A variance from Section 1907 A 2 to allow expansion of a nonconforming structure closer to the side property line was granted
- A variance from the requirement in Section 2403 B 4 a[3] to install a High-Intensity Buffer as required based on adjoining land uses pursuant to Figure 24 5
- A variance from the requirement in Section 2403 B 7 b to install a High Intensity buffer along the yards that adjoin a residential zoning district

NOTES

1. BOUNDARY INFORMATION SHOWN TAKEN FROM DEEDS OF RECORD PLANS AND FIELD SURVEYS PERFORMED BY CHARLES E SHOEMAKER, INC DURING SEPTEMBER, 2022

   METES AND BOUNDS AS SHOWN ARE BASED ON DEED BEARINGS ROTATION TO STATE PLANE COORDINATE SYSTEM IS 10°21'52" COUNTER CLOCKWISE
2. TOPOGRAPHICAL SURVEY PERFORMED BY CHARLES E SHOEMAKER INC DURING OCTOBER 2022
3. HORIZONTAL DATUM BASED ON NAD1983 SPC83 PENNSYLVANIA (SOUTH) GEOID MODEL 92003US USING TOPCON TOPSERV VIRTUAL NETWORK SYSTEM

   SITE BENCH MARK IS CUT NAIL SET IN UTILITY POLE ELEVATION = 260 66
4. EXISTING UNDERGROUND UTILITY LOCATIONS WERE PLOTTED FROM UTILITY COMPANY PLANS SUPPLIED TO US IN ACCORDANCE WITH PA ACT 121 (2008) OR BY PHYSICAL SURVEY LOCATIONS ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY CONTRACTORS ARE REQUIRED BY PA ACT 121 TO VERIFY THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION ACTIVITIES PENNSYLVANIA ONE CALL SYSTEMS, INC PHONE NO 1-800-242-1776 SERIAL NO 20222580915 & 20222580918
5. REFERENCE WAS MADE TO THE FOLLOWING
   - a PLAN OF FOX CHASE MANOR, PREPARED BY ALBRIGHT & MEBUS CIVIL ENGINEERS DATED MARCH 25 1926
   - b PLAN OF PROPERTIES ON PLAN OF FOX CHASE MANOR MADE FOR ALLEN S VANSANT PREPARED BY GEORGE B MEBUS INC DATED JULY 1 1958
   - c LOT LOCATION PLAN PART OF FOX CHASE MANOR MADE FOR WILLIAM LAWRENCE STROH PREPARED BY CHARLES E MEBUS 2ND DATED MAY 7 1973
6. FLOOD DESIGNATION IS ZONE X AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN AS DEPICTED IN FIRM OF MONTGOMERY COUNTY, MAP NO 42091C0403G, EFFECTIVE DATE MARCH 2, 2016
7. ALL LOCATION DIMENSIONS ARE SHOWN IN U S STANDARD
8. SOILS ARE MAPPED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY OF MONTGOMERY COUNTY, PA VERSION 16 DATED SEPTEMBER 1, 2021 ALL SOILS ARE CLASSIFIED AS UUGB URBAN LAND-UDORTHENTS, 0-8% SLOPES

LOCATION MAP
SCALE: 1" = 800'

OWNER CERTIFICATION

I hereby certify RUTKOWSKI, LP, is the registered owner of the lands shown being County Parcel No 30-00-06992-00-7, (Block 049, Unit 004), herein subdivided or developed

____
Dr Timothy Rutkowski
Managing Partner Rutkowski LP

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF MONTGOMERY

On the __________ day of __________ 20 ____ before me the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in Montgomery County, personally appeared Dr Timothy Rutkowski of RUTKOWSKI LP, who acknowledged himself/herself to be the managing partner, being authorized to do so, executed the foregoing plan by signing that said corporation is the owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon and that said corporation desires that the foregoing plan may be duly recorded

__________________ Notary Public

__________________ My Commission Expires

LAND DEVELOPMENT WAIVERS REQUESTED

- a SECTION 146-11 B (7) EXISTING FEATURES PLAN
  Requiring the plan to include all underground and above ground public and private utilities within 400 feet of the site
- b SECTION 146-19.A (1) and (2)
  PLAN STAGES Requiring Premilinary and Final plan stages
- c SECTION 146-11 J RECREATIONAL FACILITIES PLAN
  Waiver from the requirement to provide recreational facilities
- d SECTION 146-11 B (3)
  EXISTING FEATURES PLAN Requiring the plan to include property lines and names of landowners within 400 feet of the site Property lines and landowner names are provided on the Property Identification Plan
- e SECTION 146-43 C (3)(a)
  EROSION AND SEDEIMENT CONTROL Cut and Fill slopes shall not be 15% or steeper except as approved by the Township Zoning Hearing Board
- f SECTION 146-33 C DRAINAGE LOCATION
  Waiver to permit storm drainage pipes on-site to have a protected cover of less than 24 inches
- g SECTION 146-33 D DRAINAGE SIZE GRADE AND TYPE
  Waiver to permit high density polyethylene (HDPE) and PVC storm drainage pipes and with less than 15 inches diameter and with grades less than 0 5 percent

R4 MEDIUM - HIGH - DENSITY RESIDENTIAL	
REGULATIONS	REQUIREMENT
LOT AREA (MIN)	7,000 S F
LOT WIDTH (MIN)	50
FRONT YARD (MIN)	40'
SIDE YARD (MIN)	40'
REAR YARD (MIN)	50'
BUILDING COVERAGE (MAX)	40%
IMPERVIOUS COVERAGE (MAX)	55%
GREEN AREA (MIN)	45%
BUILDING HEIGHT (MAX)	35'

CS - COMMUNITY SERVICE (USE: C- 38 - VETERINARY CLINIC) *			
REGULATIONS	REQUIREMENTS	EXISTING	PROPOSED
LOT AREA (MIN)	5 ACRES	2 4753 ACRES *	2 4753 ACRES
LOT WIDTH (MIN)	400'	242 46' *	242 46' *
LOT DEPTH (MIN)	400' 1	355' *	355' *
FRONT YARD (MIN)	150' 1	78 4	78 4'
SIDE YARD (MIN)	100' 1	58 4'*	55 0'**
REAR YARD (MIN)	100'	226 4'	217 6'
BUILDING COVERAGE (MAX)	25%	5 3% (5,700SF)	6 0% (6,436 SF)
IMPERVIOUS COVERAGE (MAX)	40%	17 7% (19,092 SF)	25 3% (27,268 SF)
GREEN AREA (MIN)	60%	82 3% (88,731 SF)	70 9% (76,480 SF)
BUILDING HEIGHT (MAX)	45'	29'	29

* EXISTING NON CONFORMING CONDITION
** VARIANCE REQUIRED
1 SECTION 2103 C USE C 38 1 UNDER THE ORDINANCE THE MINIMUM SETBACK REQUIREMENTS FOR THE VETERINARY CLINIC USE ARE DOUBLED

PARKING REQUIREMENTS

5 SPACES FOR EACH DOCTOR OPERATING ON PREMISES, OR
1 SPACE / 200 SF GROSS LEASEABLE FLOOR AREA

EXISTING GROSS LEASEABLE FLOOR AREA = 2,804 SF 2,804 / 200 = 14 SPACES REQUIRED

PROPOSED GROSS LEASEABLE FLOOR AREA = 3,550 SF 3,550 /200 = 18 SPACES REQUIRED

PROVIDED PARKING = 28 SPACES

STORMWATER MANAGEMENT

MUNICIPAL OFFICIAL CERTIFICATION

I __________________ on this date of __________ , has
(Municipal Official or designee)

reviewed and certifies that the Stormwater Management Site Plan meets all design standards and criteria of the Municipal ordinance No 2100

APPLICANT / OWNERS ACKNOWLEDGEMENT

I __________________ on this date of __________
acknowledge that any revision to the approved drainage plan must be approved by the Municipality, and that a revised erosion and sediment control plan must be submitted to the Municipality or Conservation District for approval

DESIGN ENGINEER CERTIFICATION

I, Chad W Brensinger, P.E , on this date __________ , hereby certify that the drainage plan meets all requirements of the Department of Environmental Protection's (DEP's) regulations and this Ordinance

PROFESSIONAL ENGINEER'S CERTIFICATION

I, Chad W Brensinger, P.E , a registered professional engineer licensed in the Commonwealth of Pennsylvania, Engineer No 074209-E, do hereby certify to the best of my knowledge, information and belief, that the information contained in the accompanying plans specifications and reports, has been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with Zoning and Subdivision and Land Development Ordinances, and the Abington Township Stormwater Management Ordinance, as amended, all such subdivision and land development waivers and zoning variances granted, as listed on the record plan requirements, and building, water, sewer, and all other applicable ordinances and regulations of Abington Township, as last amended

____
SIGNATURE CHAD W BRENSINGER, P E
PROFESSIONAL ENGINEER

____
DATE

MCPC No __________________

PROCESSED and REVIEWED Report prepared by Montgomery County Planning Commission in accordance with the Municipalities Planning Code

Certified this date __________________

__________________ For the Director
MONTGOMERY COUNTY PLANNING COMMISSION

CERTIFICATE OF ACCURACY

I, GARY A TILFORD, Hereby certify that I am a Professional Land Surveyor in the State of Pennsylvania and that the plan shown and described hereon, represents a survey made by me and is true and correct to the accuracy required by accepted surveying standards and practices and by the ABINGTON Township Subdivision and Land Development regulations to the extent it describes the bearings and distances of the property, the location of planimetric features, and that the existing monuments shown herein actually exist and that their positions are accurately shown

__________, 20 ______

GARY A TILFORD, P L S
PA LICENSE NO SU-033144-E

AREA TO TITLE LINE
107,823 SF or 2.4753 ACRES

GARY A TILFORD (seal)

REVISION | NO | DATE | BY

COUNTY PARCEL NO 30-00-06992-00-7
BLOCK - UNIT 049-004
SITE ADDRESS 640 CEDAR ROAD JENKINTOWN, PA 19046
DEED BOOK - PAGE 5480-1222

RECORD OWNER
RUTKOWSKI LP
640 CEDAR ROAD
JENKINTOWN, PA 19046

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2165 FAX 215-576-7791
E-MAIL: staff@ceshoemaker.com

GRAPHIC SCALE
1 INCH = 30 FEET

LAND DEVELOPMENT PLAN
OF
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

DATE OCTOBER 3, 2023
DWG NO A-11-610
JOB NO 27023
SHEET NO 2 OF 9

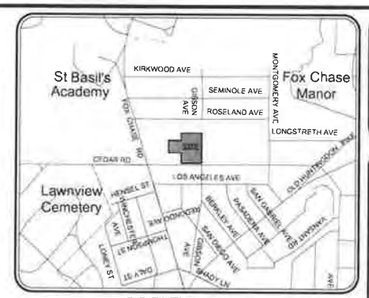
DEMOLITION LEGEND

1. EXISTING BUILDING TO BE REMOVED
2. EXISTING PAVING TO BE REMOVED
3. EXISTING PAVING TO BE MILLED & OVERLAYED
4. EXISTING FENCE TO BE REMOVED
5. EXISTING WALL TO BE REMOVED
6. EXISTING UTILITY TO BE REMOVED

LEGEND

EXISTING FEATURES

- IRON PIPE FOUND
- FENCE
- OVERHEAD WIRE
- GAS VALVE
- WATER VALVE
- SANITARY CLEANOUTS
- UTILITY POLE
- FIRE HYDRANT
- SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER
- DECIDUOUS TREE
- EVERGREEN TREE
- WATER MAIN
- WATER SERVICE
- GAS MAIN
- UNDERGROUND ELECTRIC
- COMMUNICATIONS LINE
- LATERAL
- ROOF DRAIN
- CONTOUR
- PAVING TO BE REMOVED
- PAVING TO BE MILLED & OVERLAYED



LOCATION MAP
SCALE: 1" = 800'

NOTES

1. BOUNDARY INFORMATION SHOWN TAKEN FROM DEEDS OF RECORD PLANS AND FIELD SURVEYS PERFORMED BY CHARLES E SHOEMAKER INC DURING SEPTEMBER 2022

   METES AND BOUNDS AS SHOWN ARE BASED ON DEED BEARINGS ROTATION TO STATE PLANE COORDINATE SYSTEM IS 10°21 52" COUNTER CLOCKWISE
2. TOPOGRAPHICAL SURVEY PERFORMED BY CHARLES E SHOEMAKER INC DURING OCTOBER 2022
3. HORIZONTAL DATUM BASED ON NAD1983 SPC83 PENNSYLVANIA (SOUTH) GEOID MODEL S2002U08 USING TOPCON TOPSERV VIRTUAL NETWORK SYSTEM

   SITE BENCH MARK IS CUT NAIL SET IN UTILITY POLE ELEVATION = 260 86
4. EXISTING UNDERGROUND UTILITY LOCATIONS WERE PLOTTED FROM UTILITY COMPANY PLANS SUPPLIED TO US IN ACCORDANCE WITH PA ACT 121 (2008) OR BY PHYSICAL SURVEY LOCATIONS ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY CONTRACTORS ARE REQUIRED BY PA ACT 121 TO VERIFY THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION ACTIVITIES PENNSYLVANIA ONE CALL SYSTEMS INC PHONE NO 1-800-242-1776 SERIAL NO 20222580915 & 20222580916
5. REFERENCE WAS MADE TO THE FOLLOWING

   a. PLAN OF FOX CHASE MANOR PREPARED BY ALBRIGHT & MEBUS CIVIL ENGINEERS DATED MARCH 25 1926

   b. PLAN OF PROPERTIES ON PLAN OF FOX CHASE MANOR MADE FOR ALLEN S VANSANT PREPARED BY GEORGE B MEBUS INC DATED JULY 1 1958

   c. LOT LOCATION PLAN PART OF FOX CHASE MANOR MADE FOR WILLIAM LAWRENCE STROH PREPARED BY CHARLES E MEBUS 2ND DATED MAY 7 1973
6. FLOOD DESIGNATION IS ZONE X AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN AS DEPICTED IN FIRM OF MONTGOMERY COUNTY MAP NO 42091C0403G EFFECTIVE DATE MARCH 2 2016
7. ALL LOCATION DIMENSIONS ARE SHOWN IN U S STANDARD
8. SOILS ARE MAPPED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY OF MONTGOMERY COUNTY PA VERSION 16 DATED SEPTEMBER 1 2021 ALL SOILS ARE CLASSIFIED AS UuGB URBAN LAND-UDORTHENTS 0-8% SLOPES

R4 MEDIUM - HIGH - DENSITY RESIDENTIAL

REGULATIONS	REQUIREMENT
LOT AREA (MIN)	7,000 S F
LOT WIDTH (MIN)	50'
FRONT YARD (MIN)	20'
SIDE YARD (MIN)	20'
REAR YARD (MIN)	25
BUILDING COVERAGE (MAX)	40%
IMPERVIOUS COVERAGE (MAX)	55%
GREEN AREA (MIN)	45%
BUILDING HEIGHT (MAX)	35'

CS - COMMUNITY SERVICE

REGULATIONS	REQUIREMENTS	EXISTING	PROVIDED
LOT AREA (MIN)	5 ACRES	2 4753 ACRES *	2 4753 ACRES
LOT WIDTH (MIN)	400'	242 46' *	242 46' *
LOT DEPTH (MIN)	400'	355' *	355' *
FRONT YARD (MIN)	75'	78 4'	78 4'
SIDE YARD (MIN)	50'	58 4'	
REAR YARD (MIN)	50'	226 4'	
BUILDING COVERAGE (MAX)	25%	5 3% (5,700SF)	
IMPERVIOUS COVERAGE (MAX)	40%	17 7% (19,092 SF)	
GREEN AREA (MIN)	60%	82 3% (88,731 SF)	
BUILDING HEIGHT (MAX)	45'	29'	

IMPERVIOUS AREA

BUILDING	5,699 SF
ASPHALT	12,623 SF
CONCRETE/WALKS	770 SF
TOTAL	19,092 SF

AREA TO TITLE LINE
107,823 SF or 2.4753 ACRES

GARY A. TILFORD — REGISTERED PROFESSIONAL — PENNSYLVANIA

NO	DATE	REVISION	BY

COUNTY PARCEL NO. 30-00-06992-00-7
BLOCK - UNIT 30-049-004
SITE ADDRESS 640 CEDAR ROAD JENKINTOWN, PA 19046
DEED BOOK - PAGE 5480-01222

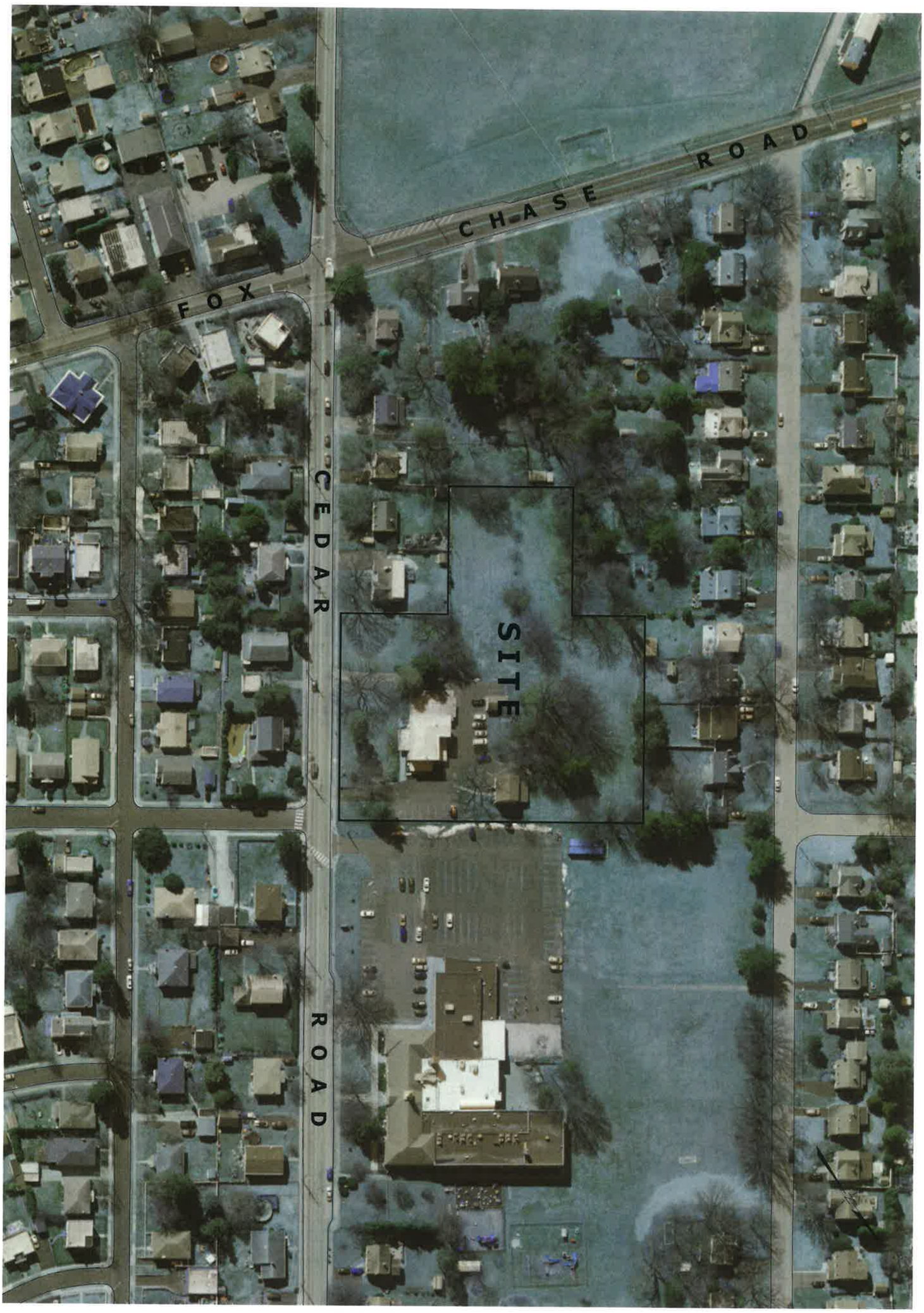
RECORD OWNER
RUTKOWSKI LP
640 CEDAR ROAD
JENKINTOWN, PA 19046

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2100 FAX: 215-576-7791
E-MAIL: mail@cshoemaker.com

GRAPHIC SCALE
1 INCH = 20 FEET

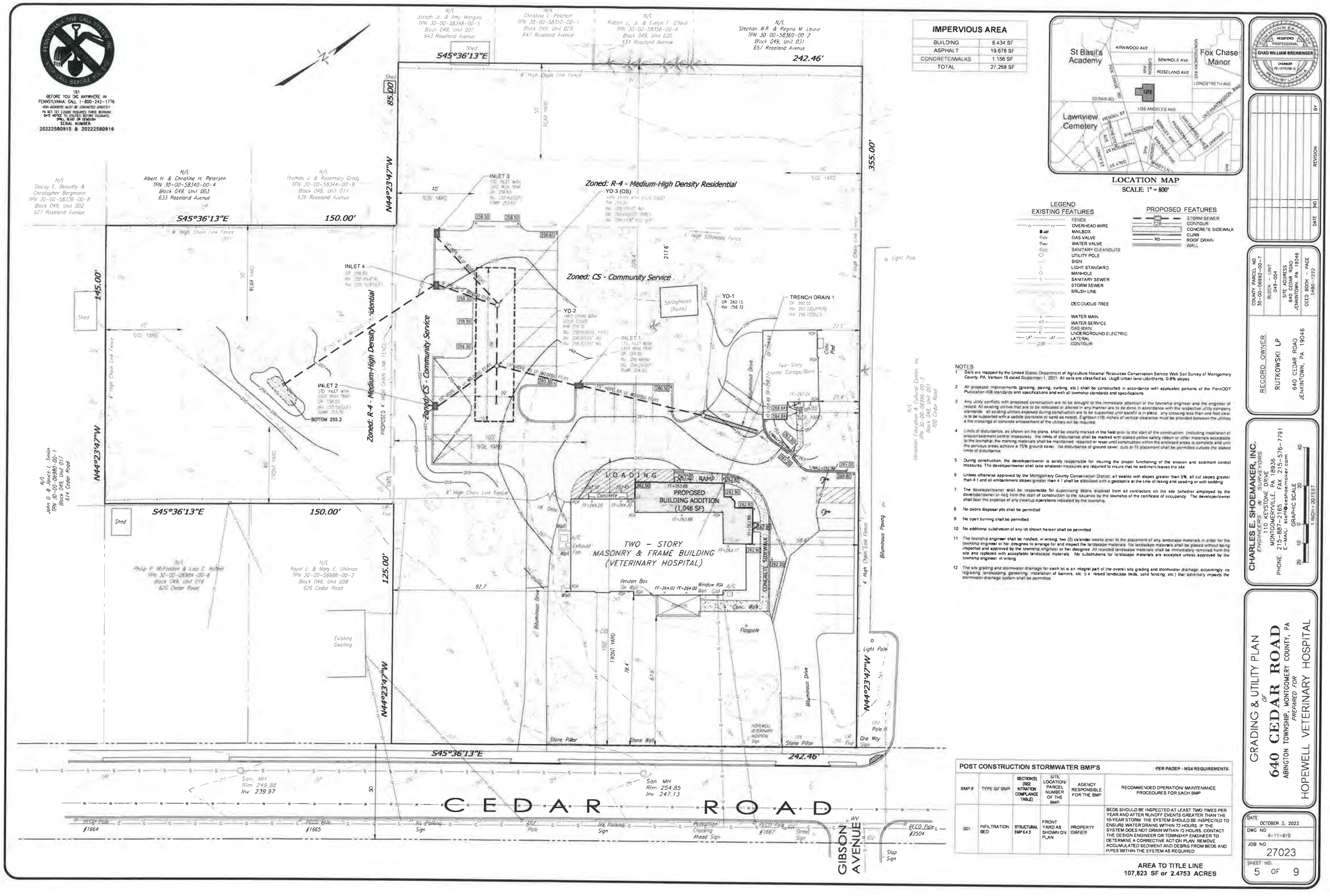
EXISTING FEATURES PLAN
OF
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

DATE OCTOBER 3, 2023
DWG NO A-11-603
JOB NO 27023
SHEET NO 3 OF 9



SHEET NO. 4 OF 9	DATE: OCTOBER 3, 2023 DWG. NO. A-11-609 JOB NO. 27023	**AERIAL PLAN** OF **640 CEDAR ROAD** ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA *PREPARED FOR* HOPEWELL VETERINARY HOSPITAL	**CHARLES E. SHOEMAKER, INC.** *ENGINEERS & SURVEYORS* 110 KEYSTONE DRIVE MONTGOMERYVILLE, PA 18936 PHONE: 215-887-2165 FAX: 215-576-7791 E-MAIL: staff@ceshoemaker.com GRAPHIC SCALE 50 25 0 50 100 1 INCH = 50 FEET	RECORD OWNER RUTKOWSKI LP 640 CEDAR ROAD JENKINTOWN, PA. 19046	COUNTY PARCEL NO. 30-00-06992-00-7 BLOCK - UNIT 049-004 SITE ADDRESS 640 CEDAR ROAD JENKINTOWN, PA. 19046 DEED BOOK - PAGE 5480-01222

DATE	NO.	REVISION	BY



IMPERVIOUS AREA

BUILDING	6,434 SF
ASPHALT	19,678 SF
CONCRETE/WALKS	1,156 SF
TOTAL	27,268 SF

LOCATION MAP
SCALE: 1" = 800'

LEGEND

EXISTING FEATURES

- FENCE
- OVERHEAD WIRE
- MAILBOX
- GAS VALVE
- WATER VALVE
- SANITARY CLEANOUTS
- UTILITY POLE
- SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER
- STORM SEWER
- BRUSH LINE
- DECIDUOUS TREE
- WATER MAIN
- WATER SERVICE
- GAS MAIN
- UNDERGROUND ELECTRIC
- LATERAL
- CONTOUR

PROPOSED FEATURES

- STORM SEWER
- CONTOUR
- CONCRETE SIDEWALK
- CURB
- ROOF DRAIN
- WALL

NOTES

1. Soils are mapped by the United States Department of Agriculture National Resources Conservation Service Web Soil Survey of Montgomery County, PA, Version 16 dated September 1, 2021. All soils are classified as UugB Urban land-Udorthents, 0-8% slopes
2. All proposed improvements (grading, paving, curbing, etc.) shall be constructed in accordance with applicable portions of the PennDOT Publication 408 standards and specifications and with all township standards and specifications
3. Any utility conflicts with proposed construction are to be brought to the immediate attention of the township engineer and the engineer of record. All existing utilities that are to be relocated or altered in any manner are to be done in accordance with the respective utility company standards. All existing utilities exposed during construction are to be supported until backfill is in place. any crossing less than one foot clear is to be supported with a saddle (concrete or sand as noted). Eighteen (18) inches of vertical clearance must be provided between the utilities a the crossings or concrete encasement of the utilities will be required.
4. Limits of disturbance, as shown on the plans, shall be clearly marked in the field prior to the start of the construction. (including installation of erosion/sediment control measures). the limits of disturbance shall be marked with staked yellow safety ribbon or other materials acceptable to the township. the marking materials shall be maintained, repaired or reset until construction within the enclosed areas is complete and until the pervious areas achieve a 75% ground cover. No disturbance of ground cover, cuts or fill placement shall be permitted outside the staked limits of disturbance.
5. During construction, the developer/owner is solely responsible for insuring the proper functioning of the erosion and sediment control measures. The developer/owner shall take whatever measures are required to insure that no sediment leaves the site
6. Unless otherwise approved by the Montgomery County Conservation District, all swales with slopes greater than 5%, all cut slopes greater than 4:1 and all embankment slopes greater than 4:1 shall be stabilized with a geotextile at the time of raking and seeding or with sodding
7. The developer/owner shall be responsible for supervising debris disposal from all contractors on the site (whether employed by the developer/owner or not) from the start of construction to the issuance by the township of the certificate of occupancy. The developer/owner shall bear the expense of any cleanup operations indicated by the township.
8. No debris disposal pits shall be permitted
9. No open burning shall be permitted
10. No additional subdivision of any lot shown hereon shall be permitted
11. The township engineer shall be notified, in writing, two (2) calendar weeks prior to the placement of any landscape materials in order for the township engineer or her designee to arrange for and inspect the landscape materials. No landscape materials shall be placed without being inspected and approved by the township engineer or her designee. All rejected landscape materials shall be immediately removed from the site and replaced with acceptable landscape materials. No substitutions for landscape materials are accepted unless approved by the township engineer in writing
12. The site grading and stormwater drainage for each lot is an integral part of the overall site grading and stormwater drainage. accordingly no regrading, landscaping, gardening, installation of barriers, etc. (i.e. raised landscape beds, solid fencing, etc.) that adversely impacts the stormwater drainage system shall be permitted

POST CONSTRUCTION STORMWATER BMP'S

PER PADEP - MS4 REQUIREMENTS

BMP #	TYPE OF BMP	SECTION(S) (SEE INITIATION COMPLIANCE TABLE)	SITE LOCATION/ PARCEL NUMBER OF THE BMP	AGENCY RESPONSIBLE FOR THE BMP	RECOMMENDED OPERATION/ MAINTENANCE PROCEDURES FOR EACH BMP
001	INFILTRATION BED	STRUCTURAL BMP 6.4.3	FRONT YARD AS SHOWN ON PLAN	PROPERTY OWNER	BEDS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR AND AFTER RUNOFF EVENTS GREATER THAN THE 10-YEAR STORM. THE SYSTEM SHOULD BE INSPECTED TO ENSURE WATER DRAINS WITHIN 72 HOURS. IF THE SYSTEM DOES NOT DRAIN WITHIN 72 HOURS, CONTACT THE DESIGN ENGINEER OR TOWNSHIP ENGINEER TO DETERMINE A CORRECTIVE ACTION PLAN. REMOVE ACCUMULATED SEDIMENT AND DEBRIS FROM BEDS AND PIPES WITHIN THE SYSTEM AS REQUIRED

AREA TO TITLE LINE
107,823 SF or 2.4753 ACRES

REGISTERED PROFESSIONAL
CHAD WILLIAM BRENSINGER
ENGINEER
PENNSYLVANIA

NO	DATE	REVISION	BY

COUNTY PARCEL NO
30-00-06992-00-7
BLOCK - UNIT
049-004
SITE ADDRESS
640 CEDAR ROAD
JENKINTOWN, PA 19046
DEED BOOK - PAGE
5480-1222

RECORD OWNER
RUTKOWSKI LP
640 CEDAR ROAD
JENKINTOWN, PA 19046

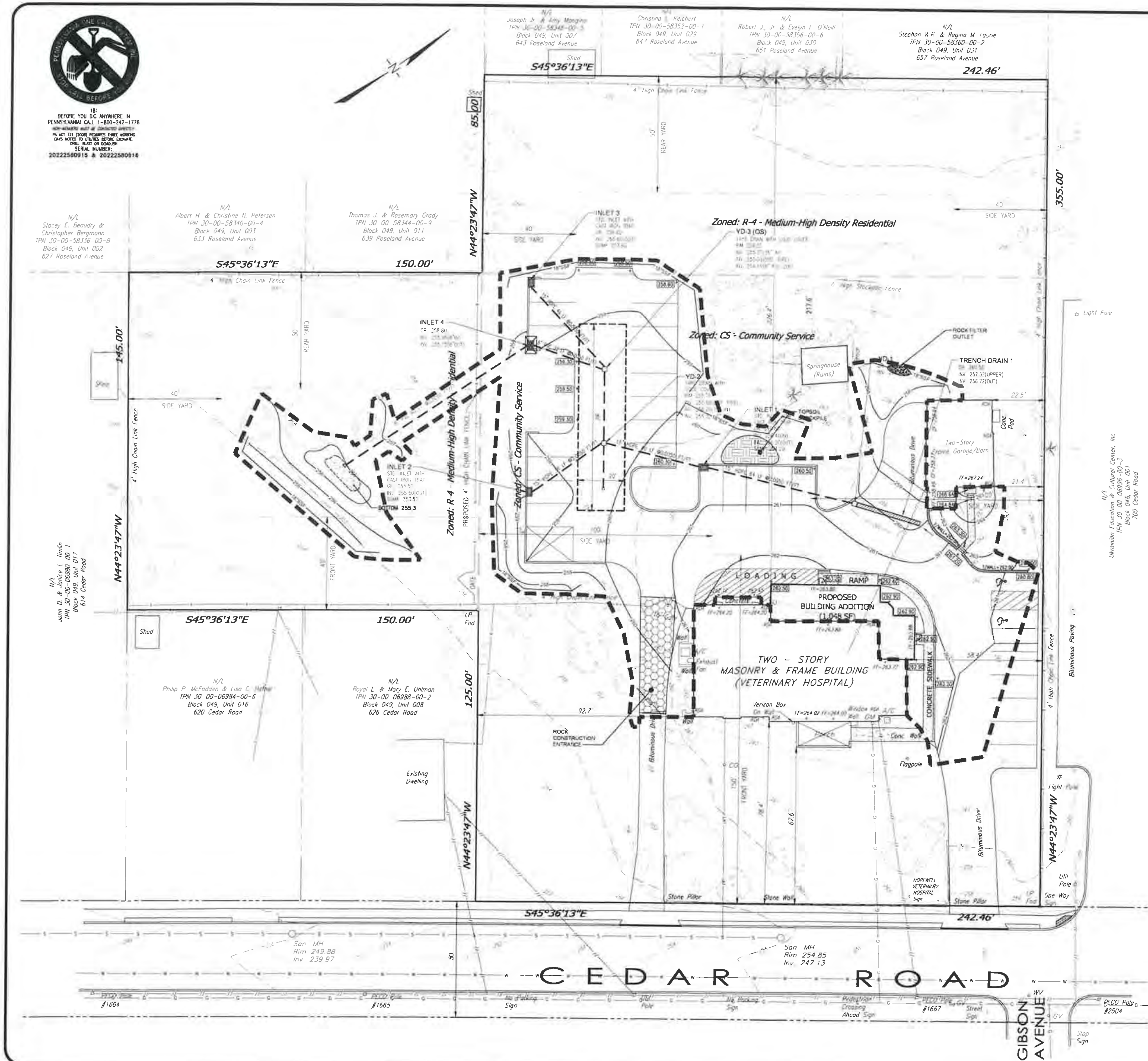
CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-362-2165 FAX: 215-576-7791
E-MAIL: mail@cesshoemaker.com

GRAPHIC SCALE
1 INCH = 20 FEET

GRADING & UTILITY PLAN of 640 CEDAR ROAD

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

DATE OCTOBER 3, 2023
DWG NO A-11-610
JOB NO 27023
SHEET NO 5 OF 9



LOCATION MAP
SCALE: 1" = 800'

LEGEND

EXISTING FEATURES

FENCE
OVERHEAD WIRE
MAILBOX
GAS VALVE
WATER VALVE
SANITARY CLEANOUTS
UTILITY POLE
SIGN
LIGHT STANDARD
MANHOLE
SANITARY SEWER
STORM SEWER
BRUSH LINE
DECIDUOUS TREE
WATER MAIN
WATER SERVICE
GAS MAIN
UNDERGROUND ELECTRIC
LATERAL
CONTOUR
15-25% SLOPES
25%+ SLOPES

PROPOSED FEATURES

STORM SEWER
CONTOUR
CONCRETE SIDEWALK
CURB
ROOF DRAIN
WALL
LIMIT OF DISTURBANCE

EROSION AND SEDIMENTATION

SILT SOCK
ROCK CONSTRUCTION ENTRANCE
TOPSOIL STOCKPILE
E&S BLANKET (ON 4:1+ SLOPES OR AREAS OF CONCENTRATED FLOW)

EROSION CONTROL PLAN OBJECTIVES

MINIMIZE EXTENT & DURATION OF EARTH DISTURBANCE : The overall layout of this project will help to contribute to minimization of land clearing and grading activities. However, the area where the buildings are situated are to be worked extensively to achieve final grades. The peripheral areas will be left minimally disturbed whenever possible. In these outer areas where disturbance is inevitable, heavy construction activity will be very limited and only finish grading and seeding will be necessary in most cases. The roads, utility infrastructure, and building pads will be constructed early in the project life, so that minimal disturbance is required for construction after these improvements are established. The limits of disturbance are delineated on the Erosion Control Plan.

MAXIMIZED PROTECTION OF EXISTING DRAINAGE FEATURES & VEGETATION : Existing drainage patterns on site will be maintained and improved upon. The property currently empties into a tributary to the Mill Creek located offsite. Therefore, protection of this resource is of the utmost importance. Existing trees and vegetation will be preserved to the greatest extent possible.

MINIMIZED COMPACTION : The overall layout of this project will help contribute to minimization of compaction. The proposed buildings are situated towards the center of the site with the peripheral areas being left undisturbed and less compacted wherever possible. In these outer areas where disturbance is inevitable, heavy construction will be limited and only finish grading and seeding will be necessary in most cases. Infiltration BMPs will be protected from unnecessary compaction during construction with orange construction fence as shown on the plans. Areas of minimal compaction and grading are shaded on the Post Construction Stormwater Management Plan.

OTHER MEASURES : Construction activities on this site will help improve local stormwater management conditions. Silt socks and inlet protection will be used until the site is stabilized to prevent sediment laden water from entering the creek. These BMPs are depicted on the Erosion Control Plans. In the event of unanticipated erosion situations or malfunctioning structural BMP devices, the Owner should immediately contact the Township Engineer, Project Engineer, or BCCD for guidance to address the problem.

MINIMIZE THERMAL IMPACTS - Thermal impacts are difficult to quantify, but can be mitigated with design considerations throughout the project. Warm, impervious areas are generally the main contributor to the thermal pollution. During the construction phases of the project, thermal impacts will be minimal due to the lack of heat retaining impervious areas. The pervious disturbed area will contribute minimally to this pollution source, and these temporary thermal impacts will be limited by limiting disturbance wherever possible and completing construction in a timely fashion. Any potential for thermal impacts will be mitigated through the use of the stormwater conveyance system. The conveyance pipes will cool the water through conduction and the drops in the outfall system will agitate the outfall water which will further cool it in the process of being discharged.

IMPORT OR EXPORT OF FILL

If the site will need to import or export material from the site, the responsibility for performing "Due Diligence" and determination of "Clean Fill" will lie with the contractor.

Clean Fill is defined as: uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block, or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials place in or on the Waters of the Commonwealth unless otherwise authorized. (The term 'used asphalt' does not include milled asphalt or asphalt that has been processed for re-use).

Clean fill affected by a spill or release of a regulated substance. Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Table FP-1a and FP-1b found in the Department's policy "Management of Fill".

Any person placing clean fill that has been affected by the spill or release of a regulated substance must use for FP-001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP-001 must be retained by the owner of the property receiving the fill. A copy of Form FP-001 can be found at the end of these instructions.

Environmental Due Diligence: The applicant must perform Environmental Due Diligence to determine if the fill materials associated with the project qualify as Clean Fill. Environmental Due Diligence is defined as: investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not required as a part of Due Diligence unless visual inspection and/or review of past land use of the property indicates that the fill may have been subjected to a spill or release of a regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill".

Fill material that does not qualify as Clean Fill is Regulated Fill. Regulated Fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable. These regulations are available online at www.pacode.com.

NOTES

1. USE OF EROSION CONTROL BLANKET (NORTH AMERICAN GREEN S75 OR EQUAL) IS EXTENSIVE THROUGH THE PROJECT AREA DUE TO LOT GRADING. BLANKET IS REQUIRED FOR ANY SLOPES OF 4:1 OR GREATER, ANY AREAS OF CONCENTRATED FLOW, OR OTHER AREAS, AS DIRECTED BY TOWNSHIP OFFICIALS, PROJECT ENGINEER OR CONSERVATION DISTRICT.
2. INFILTRATION BMPs SHALL NOT BE CONSTRUCTED NOR RECEIVE RUNOFF UNTIL THE ENTIRE CONTRIBUTORY DRAINAGE AREA TO THE INFILTRATION BMP HAS RECEIVED FINAL STABILIZATION.
3. AREAS PROPOSED FOR INFILTRATION BMPs SHALL BE PROTECTED FROM SEDIMENTATION AND COMPACTION DURING THE CONSTRUCTION PHASE, SO AS TO MAINTAIN THEIR MAXIMUM INFILTRATION CAPACITY.
4. INFILTRATION BEDS SHOULD BE WRAPPED IN FILTER FABRIC UNTIL TRIBUTARY AREAS ARE STABILIZED.

TOTAL AREA TO BE DISTURBED = 0.61 ACRES

SITE DRAINS TO PENNYPACK CREEK (CHAPTER 93 STORMWATER CLASSIFICATION - TSF, MF) AND TO JENKINTOWN CREEK (CHAPTER 93 STORMWATER CLASSIFICATION - WWF, MF)

AREA TO TITLE LINE 107,823 SF or 2.4753 ACRES

NO	DATE	REVISION	BY

COUNTY PARCEL NO. 30-00-06992-00-7
BLOCK - UNIT 049-004
SITE ADDRESS 640 CEDAR ROAD JENKINTOWN, PA 19046
DEED BOOK - PAGE 5460-1222

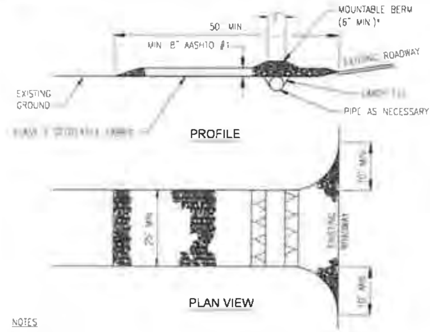
RECORD OWNER
RUTKOWSKI LP
640 CEDAR ROAD
JENKINTOWN, PA 19046

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
1110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE 215-887-2165 FAX: 215-576-7791

GRAPHIC SCALE
1 INCH = 20 FEET

EROSION & SEDIMENT CONTROL PLAN
of
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

DATE OCTOBER 3, 2023
DWG NO A-11-814
JOB NO 27023
SHEET NO 6 OF 9



NOTES

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE

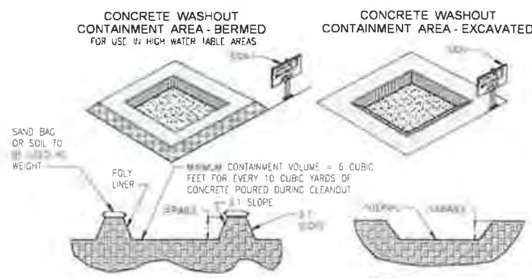
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE

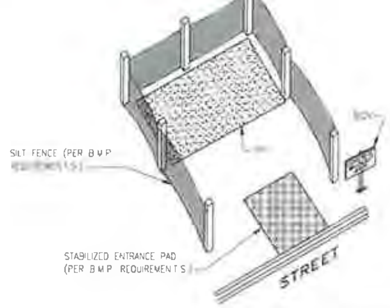
MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED

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 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE

ROCK CONSTRUCTION ENTRANCE

NTS



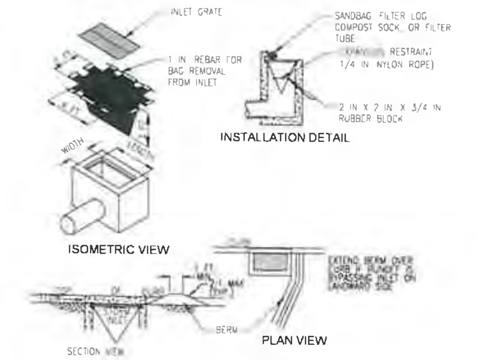


NOTES

1. PERFORM WASHOUT OF CONCRETE TRUCKS OR PUMPS OFFSITE OR IN DESIGNATED AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS OR STREAMS
2. FOR ON-SITE WASHOUT
   a. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, WATER BODIES OR STEEP SLOPES. WASHOUT LOCATIONS MUST BE SIGNED AS NECESSARY TO ENSURE THAT CONCRETE TRUCK DRIVERS UTILIZE PROPER AREAS
   b. CONTAIN RUNOFF BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH TO HANDLE FOR LIQUID AND SOLID WASTE. ALLOW ADEQUATE FREEBOARD FOR STRUCTURAL STABILITY
   c. WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP AND THEN DISPOSED OF PROPERLY. BE SURE THAT THE STORMWATER COLLECTION SYSTEM IS PROTECTED BY A SEDIMENT TRAP OR SIMILAR PRACTICE
3. DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO THE STREET OR STORM DRAIN SYSTEM. COLLECT AND RETURN SWEEPINGS TO AGGREGATE BASE STOCKPILE OR DISPOSE AS WASTE
4. CLEAN OUT WHEN CONTAINMENT AREA IS 85%%% FULL TO CAPACITY. DISPOSE OF HARDENED CONCRETE & CEMENTACIOUS WASTE IN ACCORDANCE WITH ALL LAWS

CONCRETE WASHOUT AREA

NTS



NOTES

MAXIMUM DRAINAGE AREA = 1/2 ACRE

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE

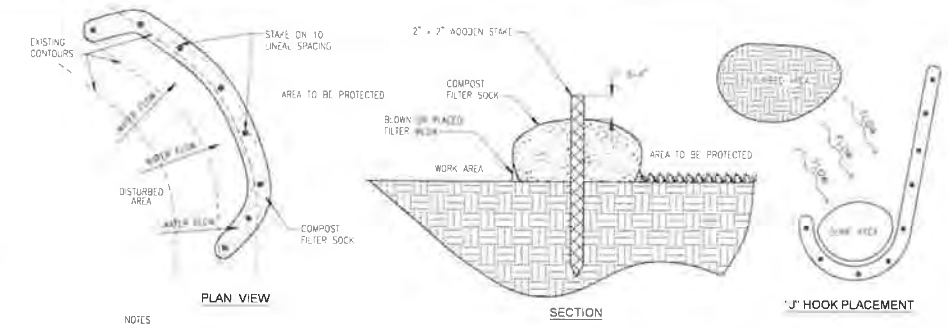
INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS

STANDARD CONSTRUCTION DETAIL #4-15
FILTER BAG INLET PROTECTION - TYPE C INLET

(FOR USE IN PAVED AREAS)

NTS

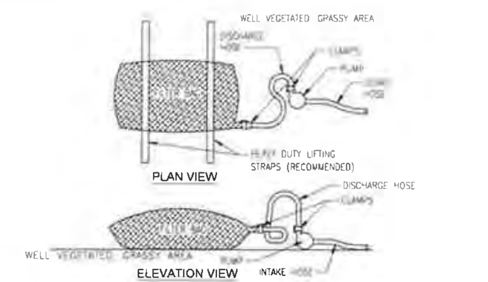


NOTES

1. SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 (363-2134-008/MARCH 31, 2012/PAGE 63)
2. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 (363-2134-008/MARCH 31, 2012/PAGE 64)
3. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT AS SHOWN ON DETAIL. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.2 (363-2134-008/MARCH 31, 2012/PAGE 66). STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER
4. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS
5. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED OF IN A MANNER DESCRIBED ELSEWHERE IN THE PLAN
6. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION
7. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS, PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS
8. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHOULD 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
9. SOCK TO BE PLACED MINIMUM OF 8 FEET FROM THE TOE OF SLOPE

COMPOST FILTER SOCK DETAIL

NTS



NOTES

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 SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED /

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE 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

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE

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

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG

NTS

TEMPORARY SEEDING REQUIREMENTS

SPECIES	SEEDING RATE (lb./Ac.)
FOR SPRING SEEDING (UP TO JUNE 15)	40 Annual Ryegrass 96 (3 bu)
or spring oats	64 oats (2 bu) plus or
spring oats plus ryegrass	20 lb annual or perennial ryegrass
	180 (3 bu)
or winter wheat	168 (3 bu)
or winter rye	
FOR LATE SPRING AND SUMMER SEEDING (JUNE 16 to AUGUST 15)	
Annual Ryegrass	40
Japanese or foxtail millet	35
or sudangrass	40
or spring oats	96 (3 bu)
or spring oats	180 (3 bu)
or winter wheat	168 (3 bu) or winter rye
FOR LATE SUMMER AND FALL SEEDING (AUGUST 16 AND LATER)	
Annual Ryegrass	40
or winter rye	168 (3 bu)
or winter wheat	180 (3 bu)
or spring oats (can be used but winter kills)	96 (3 bu)

NOTES

1. 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. During the non-growing season, October 15 through March 15, mulch must be applied at the recommended rates. Temporary seeding shall be performed after the end of the non-growing season. Disturbed areas which are not at finish grade and which will be disturbed within one year shall be seeded and mulched with a quick growing temporary seeding mixture and mulch. Disturbed areas which are either at finish grade or will not be redisturbed within one year must be seeded and mulched with permanent seed mixture and mulch.
2. MULCHING. Mulches alone help protect areas from erosion. Mulches also provide initial protection if areas are to be seeded later. Use hay or straw at a rate of 3 tons per acre
3. SITE PREPARATION. Apply 1 ton of agricultural-grade limestone per acre, plus fertilizer at the rate of 50-50-50 (50 pounds of N, 50 pounds of P2O5, and 50 pounds of K2O) per acre, and work in where possible
4. Topsoil stockpiles must be seeded and mulched immediately

PERMANENT SEEDING REQUIREMENTS

MIX NO	SPECIES	SEED RATE	MIX NO	SPECIES	SEED RATE
3	TALL FESCUE OR	75 LB/AC	4	BIRDSFOOT TREFOIL PLUS	10 LB/AC
	FINE FESCUE OR	40 LB/AC			
	KENTUCKY BLUEGRASS	30 LB/AC			
	PLUS REDTOP OR	3 LB/AC	10	TALL FESCUE PLUS	60 LB/AC
	PERENNIAL RYEGRASS	20 LB/AC		FINE FESCUE	15 LB/AC
7	BIRDSFOOT TREFOIL PLUS	10 LB/AC			
	TALL FESCUE	30 LB/AC			

NOTES

1. Seeding rates are for pure live seed. Seeding rate shall be adjusted by percent germination
2. Mixture No. 2 is suitable for frequent mowing. Do not cut shorter than 4 inches
3. Keep Redtop seeding rate to that indicated. This species has small seeds and is very competitive
4. Diversion channels, sediment basins and sediment traps or berms shall be seeded and mulched immediately
5. Due to the absence of soil tests, the site shall be prepared by the application of at least 6 tons of agricultural grade limestone and 100-200-200 (100 pounds of N, 200 pounds of P2O5, and 200 pounds of K2O) per acre. Work lime and fertilizer into the soil deeply wherever possible
6. After seeding, mulch with hay or straw at a rate of 3 tons per acre
7. For best results, grass and legume seedings should be made in spring (March, April, and early May). However, through proper choice of seed mixtures, seed specifications, and establishment techniques, disturbed sites can be seeded almost any time from spring to fall. Legume seedings need a growing period of at least ten to twelve weeks to produce seedlings sufficiently large and hardy to survive the winter. Grasses generally require at least four to six weeks of growth prior to hard frosts. It is suggested that legumes be seeded before August 15 in southeastern Pennsylvania (corn maturity zone 4)
8. No topsoil stockpile shall be removed from the site or used as spoil

RECOMMENDED SEED MIXTURES FOR VARIOUS AREAS

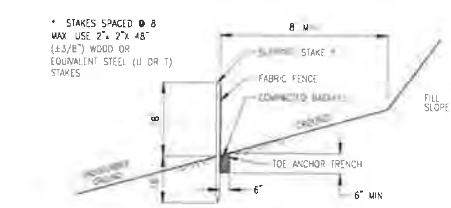
AREA	MIXTURE
Slopes and banks (unmowed)	3
(mowed)	2 or 10
Drainage swales	2, 3 or 4
Utility Right-of-way	3
Lawns	2, 3 or 10

MULCHING REQUIREMENTS

All conservation and erosion control areas, whether seeded with a drill, broadcasted, or hydroseeded, should be mulched to reduce soil erosion and to aid seed germination and seedling establishment. Grass hay and cereal straw are preferred mulches and should be applied to produce a loose layer 0.75 to 1 inch deep. Generally, 3 tons of mulch per acre are sufficient. As a guideline, a thickness of five to six overlapping straw or hay stems is acceptable for mulching. Straw or hay should not be chopped or finely broken during application. On steep slopes, hay rather than mulch is recommended.

CAUTION: Hay mulch may introduce undesirable weeds, use clean mulch if weeds might be a problem.

Long straws and stems are more readily anchored in place and afford seedling plants more protection than does chopped straw or hay. Mulches of hay or straw may be tied down with commercial netting of various types of asphalt emulsion or cutback asphalt at a rate of 100 to 150 gallons per acre. Application of cellulose fiber over the straw or hay mulch at a rate of 800 to 1000 pounds per acre also is an excellent way to tack or hold the mulch in place.



NOTES

FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3

FABRIC WIDTH SHALL BE 30" MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES

SILT FENCE SHALL BE INSTALLED AT EXISTING LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION SHALL BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT (FIGURE 4.1)

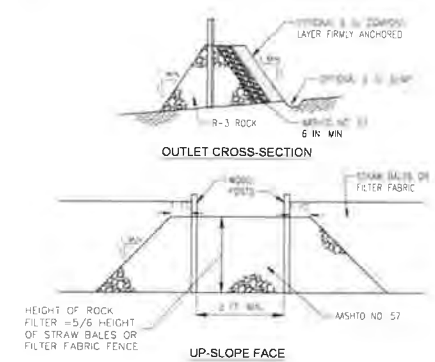
SEDIMENT SHALL BE REMOVED WHERE ACCUMULATIONS REACH HALF THE ABOVEGROUND HEIGHT OF THE FENCE

ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (STANDARD CONSTRUCTION DETAIL # 4-6)

FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED

STANDARD FILTER FABRIC FENCE (18")

NTS



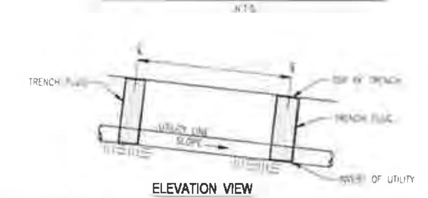
NOTES

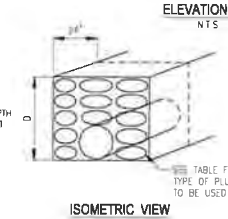
A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET

STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET

NTS

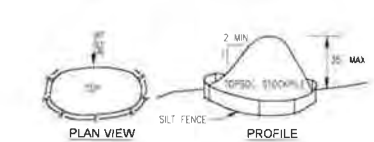




REDUCED SPACING (L) & MATERIALS FOR TRENCH PLUG		
TRENCH SLOPE (%)	L (FEET)	PLUG MATERIAL
0 - 5		NONE
5 - 15	500	EARTH FILLED SACKS
15 - 25	300	EARTH FILLED SACKS
25 - 35	200	EARTH FILLED SACKS
35 - 100	100	EARTH FILLED SACKS
OVER 100	50	CEMENT FILLED SACKS (WETTED) OR MORTARED STONE

UTILITY TRENCH PLUG

NTS



NOTES

1. SILT FENCE MUST BE PLACED DOWNSLOPE OF ALL STOCKPILES

TOPSOIL STOCKPILE DETAIL

NTS

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH/ LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
URBAN LAND UDORTHENTS (UugB)	X	C/S				X	X	X	X	X	X	X				X

SOIL LIMITATION RESOLUTIONS

CUTBANKS CAVE - OSHA STANDARDS AND REGULATIONS MUST BE FOLLOWED AT ALL TIMES TO ENSURE THE SAFETY OF WORKER DURING TRENCHING AND EXCAVATION

CORROSIVE TO CONCRETE/STEEL - SPECIAL SITE EXAMINATION AND DESIGN MAY BE REQUIRED. INSTALL UTILITIES ENTIRELY WITHIN ONE KIND OF SOIL OR SOIL LAYER

DROUGHTY - USE NATIVE VEGETATION WHERE POSSIBLE. SUPPLEMENTAL IRRIGATION MAY BE NECESSARY FOR VEGETATION ESTABLISHMENT

EASILY ERODIBLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. USE SOD OR EROSION CONTROL NETTING IN AREAS OF STEEP SLOPES OR CONCENTRATED FLOWS

FLOODING - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN

DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPS SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES

HYDRIC/HYDRIC INCLUSIONS - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE LIMITING ZONES. BMPS SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES

LOW STRENGTH/LANDSLIDE PRONE - MECHANICALLY COMPACT BERMS AND GRADE WHEN MATERIAL IS NOT SATURATED

SLOW PERCOLATION - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPS SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES

PIPING - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT

POOR SOURCE OF TOPSOIL - SEED, FERTILIZING AND SOIL PREPARATION FOR ADVERSE CONDITIONS

FROST ACTION - RECOMMENDED TO WORK DURING WARM WINTER MONTHS

SHRINK-SWELL - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. CONSULT GEOTECHNICAL ENGINEER FOR SUITABILITY AND EXCHANGE SOIL IF DEEMED NECESSARY

POTENTIAL SINKHOLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. INFILTRATION FACILITIES SHOULD BE MINIMIZED IN AREAS UNDERLAIN BY LIMESTONE. BMPS SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA

PONDING - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN

WETNESS - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN. STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES

SEQUENCE OF CONSTRUCTION

GENERAL NOTES

1. The contractor is to notify the Township and Township Engineer 48 hours prior to start of construction
2. All water pumped from work areas shall be pumped through a properly situated sediment filter bag
3. Cessation of earthmoving activity for 4 days or longer requires temporary stabilization
4. The contractor should use methods such as waterbars, diversion swales, diversion berms or temporary piping to direct sediment laden water to the various sediment removal facilities including sediment basins, sediment traps, silt socks and forebays. These items are not shown on the plan due to the dynamic nature of earthmoving activities. Temporary diversion devices should be placed at the end of the work week, or prior to rainfall events in order to direct sediment laden water to the appropriate facilities
5. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO ONLY THOSE AREAS DESCRIBED IN EACH STAGE
6. The grading and erosion and sediment control plans in this set are included for subdivision approval and NPDES permitting to exhibit compliance will all necessary regulations based on conceptual dwelling footprints. Applicant must submit individual grading/building permit plans to the Township prior to construction of improvements based on actual houses proposed. Any gross deviations from the grading and erosion control designs may require resubmission to the Montgomery County Conservation District
7. The contractors should be advised that Abington Township requires asbuilt data and plans exhibiting that the project was constructed per the design plans. All buried utility locations and depths should be documented during construction to aid in the preparation of asbuilt plans

SEQUENCE

1. Install orange construction fence to protect any existing trees to remain and rain garden area from construction equipment and soil compaction
2. Install erosion control facilities including rock construction entrances and silt fence & silt sock as shown on the E&S Plan. Silt fence/sock should be no less than 5' from the property line
3. Remove existing trees as necessary for construction
4. Strip and stockpile topsoil and begin bulk earthwork. Begin infiltration bed installation while protecting bottom area from compaction (See seepage bed sequence below)
5. Rough grade site area and install building pad for addition
6. Begin construction of building addition
7. Install remaining underground utilities
8. Construct driveway and concrete/paver flatwork
9. Finish grade lot, seed or sod all exposed areas and install landscaping
10. After final site stabilization has been achieved, remove all silt fence, tree protection fencing, and inlet protection devices. Areas disturbed during removal of the BMP's must be stabilized immediately. An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements
11. Construction activities are expected to commence in Fall/Winter 2023

SEEPAGE BED SEQUENCE (BMP 6.4.6)

1. Excavate proposed infiltration bed area as delineated on the building permit plan
2. Install filter fabric on the sides of excavated area
3. Scarify bed bottom
4. Fill bed with stone. Placement should be in lifts of 8" or less. Install distribution pipe as shown in detail during this process
5. Install filter fabric on top of stone
6. Place appropriate fill & topsoil on filter fabric to finish grade. Seed and mulch
7. Inlet sediment protection should be immediately placed on all inlets if not present already. Temporary seal system until dwelling roof drains are installed, functional, and connected to the infiltration bed
8. Sediment protection should remain in place until ALL tributary areas are stabilized with uniform vegetative stabilization (including adjacent lots)

NO	DATE	REVISION	BY

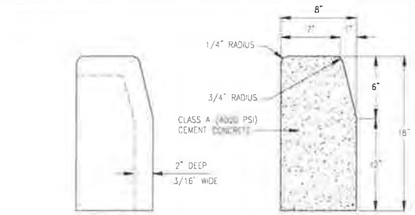
COUNTY PARCEL NO 30-00-06992-00-7
BLOCK - UNIT 049-004
SITE ADDRESS 640 CEDAR ROAD JENKINTOWN, PA 19046
DEED BOOK - PAGE 5480-1222

RECORD OWNER
RUTKOWSKI LP
640 CEDAR ROAD
JENKINTOWN, PA 19046

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: staff@ceshoemaker.com

EROSION & SEDIMENT CONTROL PLAN
OF
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

DATE: OCTOBER 3, 2023
DWG NO: A-11-615
JOB NO: 27023
SHEET NO: 7 OF 9

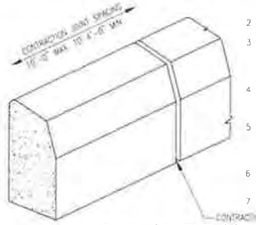


DETAIL A
CONTRACTION JOINT

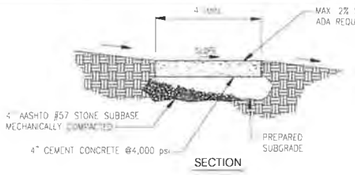
TYPICAL ON-SITE
CROSS SECTION

NOTES

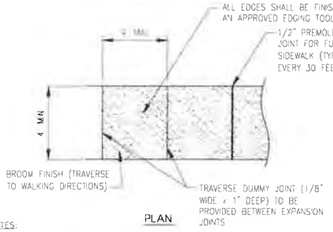
1. MATERIALS AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR ALL PLAIN CEMENT CONCRETE CURB GUTTER, AND SECTION 694 FOR CONCRETE CURB CUT RAMPS
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTION
3. PROVIDE 3/4" WIDE PREMOLDED EXPANSION JOINT MATERIAL WHEREVER CONCRETE SIDEWALK ABUTS ANY RIGID PAVEMENT, SIDEWALK, OR STRUCTURE EVERY 30 FEET (MAX.), WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE
4. CURB CUT RAMP DIMENSIONS AND SLOPES SHOULD BE ADHERED TO UNLESS EXISTING CONDITIONS REQUIRE SPECIAL DESIGN BASED ON ROADWAY GRADES WITH ADJACENT CONCRETE SURFACE
5. PROVIDE SLIP RESISTANT TEXTURE ON CURB CUT RAMP BY COARSE BROOMING TRAVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB CUT RAMP INCLUDING FLARED SIDE RAMPS
6. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL IN ACCORDANCE WITH PUBLICATION 408
7. DOWEL PIN CURB WHERE CURB ABUTS INLET HOODS



PLAIN CEMENT CONCRETE CURB
N.T.S.



SECTION

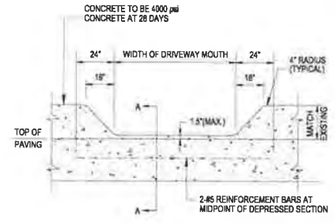


PLAN

NOTES:

1. CONCRETE TO BE 4000 PSI AT 28 DAYS.
2. 1/2" PREMOLDED EXPANSION JOINTS TO BE PLACED EVERY 30 FEET (MAXIMUM) WHERE SIDEWALKS ARE REQUIRED TO BE 5 FEET WIDE AND AT ALL LOCATIONS WHERE EXISTING PAVEMENT OR SIDEWALK MEETS PROPOSED SIDEWALK, WHERE SIDEWALK ABUTS CURB OR OTHER SIMILAR STRUCTURES AND WHERE SIDEWALK TRANSITIONS FROM 4" THICK TO 6" THICK (DRIVEWAYS APRONS, ETC.)
3. WITH ALL PROPOSED SIDEWALK A NON-SLIP SURFACE TEXTURE SHALL BE BROOMED TRAVERSE TO THE SLOPE OF THE SIDEWALK
4. CONCRETE SIDEWALK SHALL BE PROPERLY CURED WITH WHITE CURING COMPOUND AS SPECIFIED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408

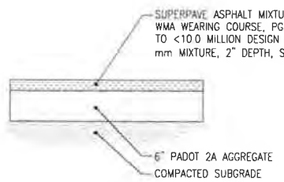
CONCRETE SIDEWALK DETAIL
N.T.S.



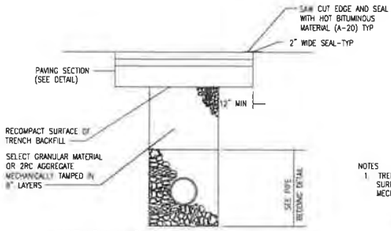
PLAN VIEW

SECTION A-A

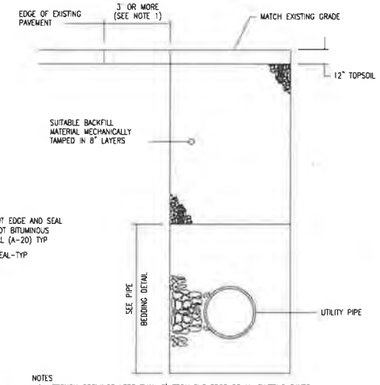
DEPRESSED CONCRETE CURB FOR DRIVES
NTS



DRIVEWAY PAVING DETAIL



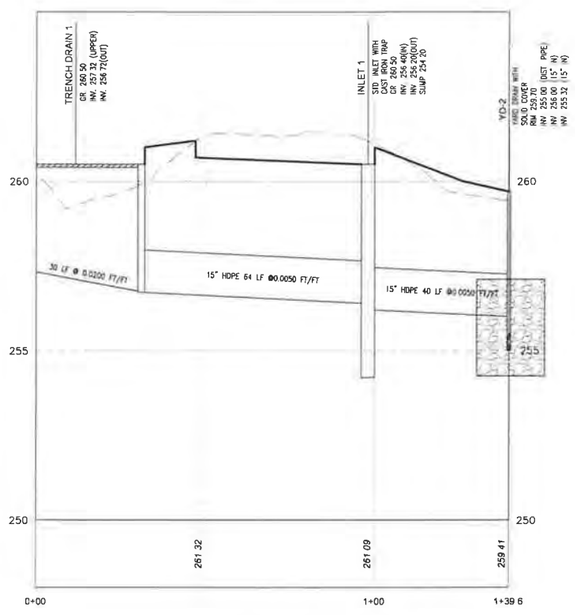
TRENCH RESTORATION IN PAVED AREA
NTS



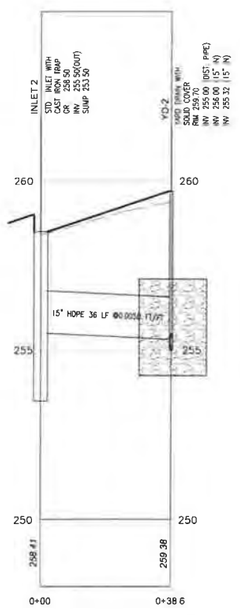
NOTES

1. TRENCH OPENINGS LESS THAN 3' FROM THE EDGE OF AN EXISTING PAVED SURFACE SHALL BE BACKFILLED WITH A 2A COARSE AGGREGATE MECHANICALLY TAMPED IN 8" LAYERS

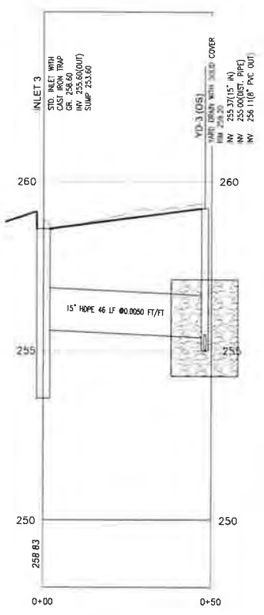
TRENCH RESTORATION IN UNPAVED AREA
NTS



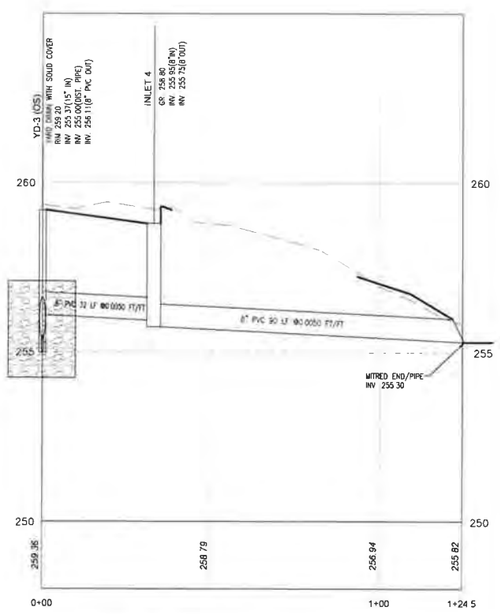
TRENCH DRAIN TO YD - 2
SCALE: H-1"=20', V-1"=2



INLET 2 TO YD - 2
SCALE: H-1"=20', V-1"=2



INLET 3 TO BED
SCALE: H-1"=20', V-1"=2



YD - 3 (OS) TO STORMWATER OUTFALL
SCALE: H-1"=20', V-1"=2

CHAD WILLIAM BRENSINGER
REGISTERED PROFESSIONAL
ENGINEER
PE-074008-E
COMMONWEALTH OF PENNSYLVANIA

BY	REVISION	DATE
		MO

COUNTY PARCEL NO.
30-00-06992-00-7
BLOCK - UNIT
049 - 004
SITE ADDRESS
640 CEDAR ROAD
JENKINTOWN, PA 19046
DEED BOOK - PAGE
5480 - 1722

RECORD OWNER
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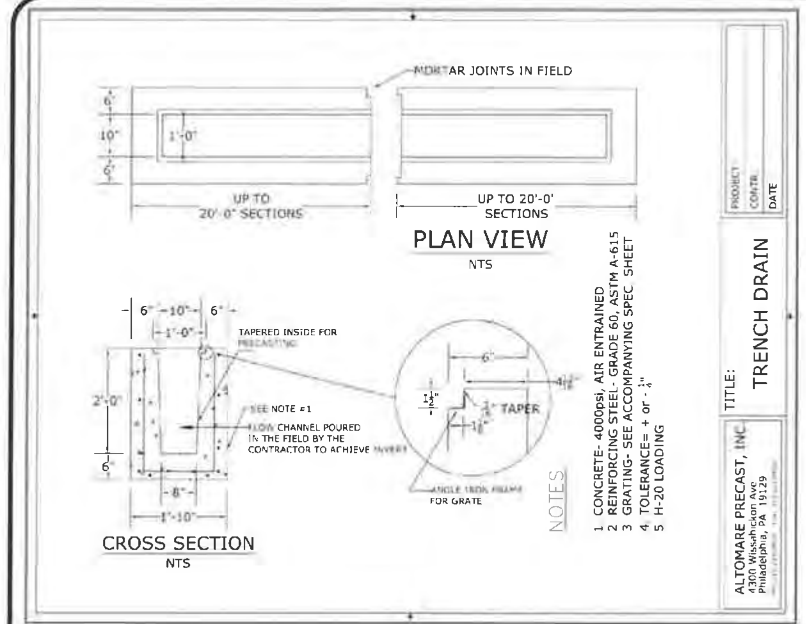
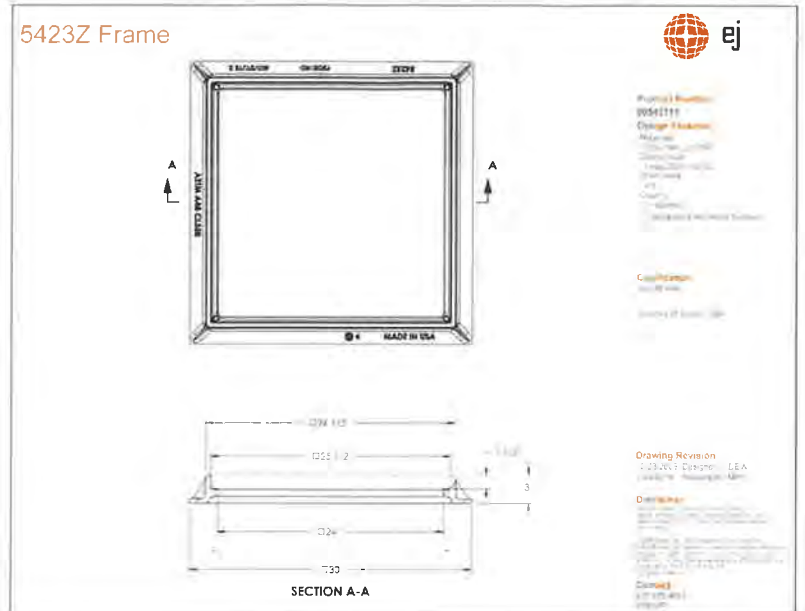
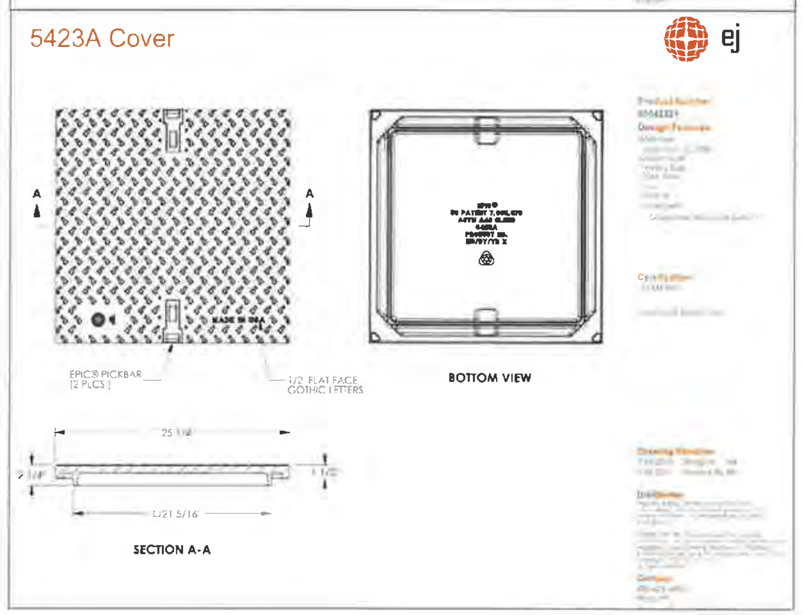
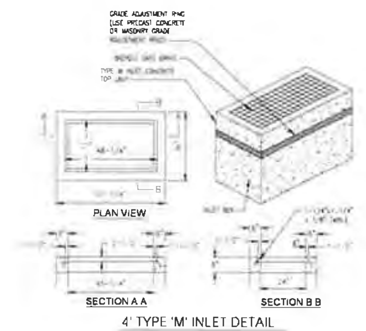
CONSTRUCTION DETAILS & STORM PROFILES
OF
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

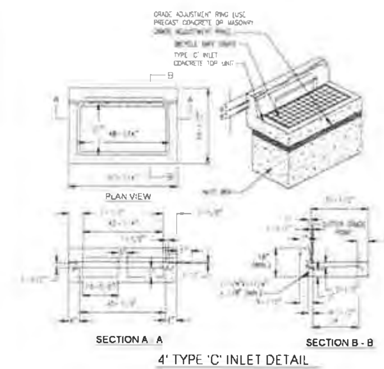
DATE OCTOBER 3, 2023
DWG NO A-11-810
JOB NO 27023
SHEET NO. 8 OF 9

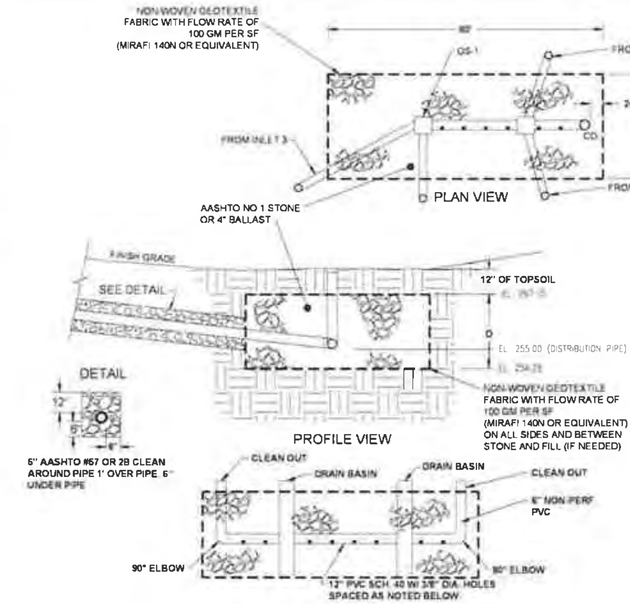












NOTE
INLETS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR AND AFTER RUNOFF EVENTS REMOVE ACCUMULATED SEDIMENT AS REQUIRED IN AREAS WITH VEGETATED OVERLAY VEGETATION SHOULD BE MAINTAINED AND IN GOOD CONDITION

NOTES
1 SEDIMENT PROTECTION SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY AREAS ARE STABILIZED (INCLUDING OTHER LOTS)

INFILTRATION BED DETAIL
N T S

DISTRIBUTION PIPE PERFORATION SCHEDULE

1 UNDERDRAIN SHOULD BE APPROXIMATELY 65 LF, PVC (SDR35) OR HDPE (AASHTO M252 TYPE S)
2 PERFORATIONS SHOULD BE CIRCULAR (3/8") WITH AN AREA OF 0 11 IN^2
3 MINIMUM WATER INLET AREA IS 1 IN^2 PER LINEAR FOOT OF DISTRIBUTION PIPE OR AT LEAST 9 HOLES PER FOOT
4 UNDERDRAIN CAPACITY CALCULATIONS
FLOW RATE PER HOLE (Q)

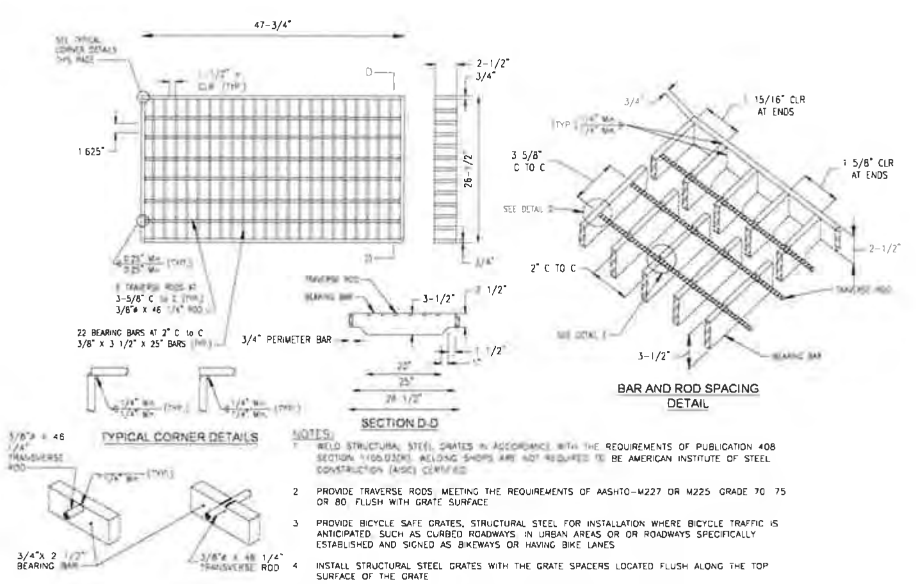
$Q = CA\sqrt{gh}$ WHERE
C = 0 6
A = 0 11 IN^2 OR 0 008 FT^2
g = 32 17 FT/S^2
h = 1'
Q = 0 004 CFS PER HOLE

FLOW RATE PER LF (QL)

QL = 0 004 CFS PER HOLE X 9 HOLES/LF
= 0 036 CFS/LF

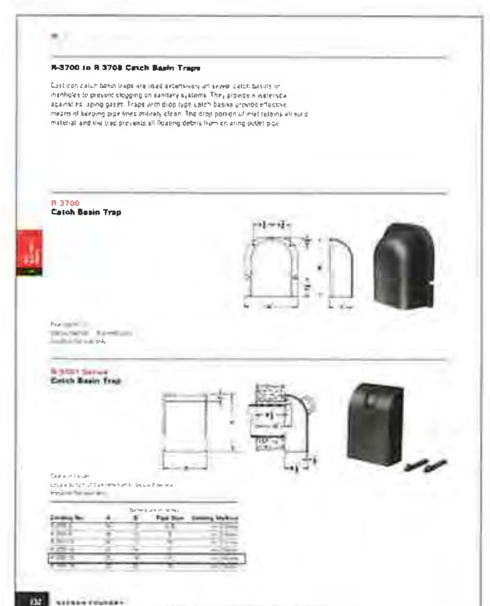
FLOW RATE PER SYSTEM (Q_{SYS})

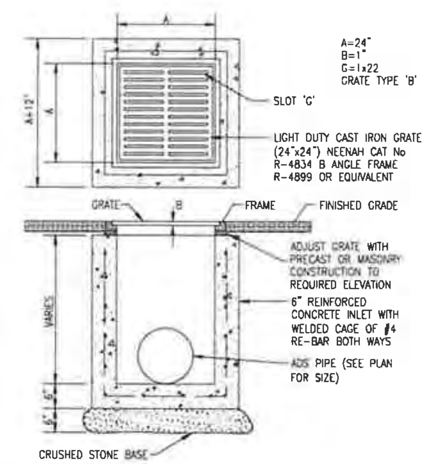
Q_{SYS} = 0 036 CFS X 64 LF
= 2 3 CFS



NOTES:
1 WELD STRUCTURAL STEEL GRATES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408 SECTION 1105.03(K). WELDING SHOPS ARE NOT REQUIRED TO BE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) CERTIFIED
2 PROVIDE TRAVERSE RODS MEETING THE REQUIREMENTS OF AASHTO-M227 OR M225 GRADE 70 75 OR 80 FLUSH WITH GRATE SURFACE
3 PROVIDE BICYCLE SAFE GRATES, STRUCTURAL STEEL FOR INSTALLATION WHERE BICYCLE TRAFFIC IS ANTICIPATED SUCH AS CURBED ROADWAYS IN URBAN AREAS OR OR ROADWAYS SPECIFICALLY ESTABLISHED AND SIGNED AS BIKEWAYS OR HAVING BIKE LANES
4 INSTALL STRUCTURAL STEEL GRATES WITH THE GRATE SPACERS LOCATED FLUSH ALONG THE TOP SURFACE OF THE GRATE
5 FABRICATE SLOTS BY BURNING DRILLING SHEARING OR PUNCHING HAVE THE BOTTOM OF ALL BURNED OR DRILLED SLOTS CONFORM TO THE SHAPE OF THE RODS

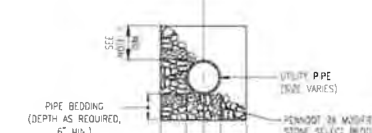
BICYCLE SAFE GRATE
NTS





TYPICAL YARD DRAIN INLET BOX

SPECIFICATIONS STANDARDS:
- CONCRETE STRENGTH: 4000 PSI @ 28 DAYS
- STRUCTURE CONFORMS TO ASTM C913-02
- DESIGN: HS-20 LOADING
- APPROXIMATE WEIGHTS: BASE SLAB - 0 34 TONS
  1'-0" OF RISER - 0 38 TONS
- ALL JOINTS AND SEALS IN BOX SHALL BE WATERTIGHT



NOTES
1 STONE ABOVE PIPE SHOULD BE 6" IN DEPTH FOR LATERALS & 12" FOR ALL OTHER UTILITY PIPES
2 TYPE 1B STONE BEDDING SHALL BE USED IN PLACE OF PENNDOT 2A MODIFIED STONE FOR PVC PIPE

PIPE BEDDING DETAIL
NTS

DATE	NO	REVISION	BY

COUNTY PARCEL NO 30-00-06992-00-7
BLOCK - UNIT 049-004
SITE ADDRESS 640 CEDAR ROAD JENKINTOWN, PA 19046
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PHONE: 215-887-2165 FAX: 215-576-7791
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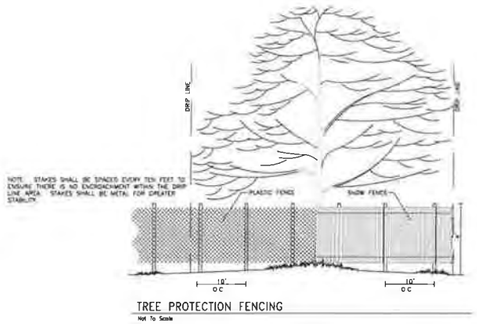
GRAPHIC SCALE
1 INCH = 20 FEET

CONSTRUCTION DETAILS
OF
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

DATE OCTOBER 3, 2023
DWG NO A-11-610
JOB NO 27023
SHEET NO. 9 OF 9

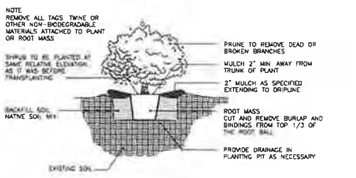


TREE PROTECTION FENCING

Not To Scale

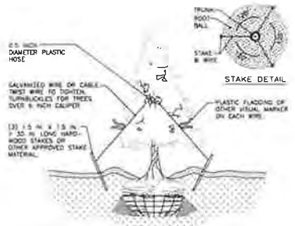
GENERAL LANDSCAPE NOTES

1. All plant material shall meet the standards of the American Standard for Nursery Stock published by the AmericanHort (2014), or most recent edition, and the height, spread and/or caliper for trees and shrubs listed in Solida Section 300-47, Upper Moreland Recommended Plant List.
2. All plant material shall be installed in accordance with the planting practices stated in Chapter 3 of Tree Maintenance by P.P. Pirone (Fifth or most recent edition).
3. All stakes are to be installed for a period of 12 months and are to be removed prior to the End of Guarantee. Stakes for deciduous trees are to be vertical and three (3) stakes are to be provided for all trees.
4. All planter islands are to be crowned to a height of eight (8) inches above the average top of curb height.
5. A permanent seeding specification is on the Erosion Control Details (Sheet 8 of 14), refer to this sheet for details.
6. The Project Landscape Architect is to review all plant substitutions and submit them to the Township Landscape Architect for review prior to installation.
7. All plant material shall be guaranteed for 18 months from the day of final approval of the landscape installation by the Township Landscape Architect or the Township Engineer. Any plant material 25% or more of which is dead shall be considered dead. A tree shall be considered dead when the main leader has died or 25% of the crown is dead. Any dead plant material shall be replaced and installed according to the approved planting practices.
8. The Applicant shall contact the Township in writing to request a final inspection for acceptance at the end of the guarantee period. These inspections will be performed when plant materials are in full leaf only. (May 1 through November 15). All guarantee escrow funds will be released upon acceptance at the end of the guarantee period. The guarantee period will be extended until 30 days after the release of the request letter following May 1. Should the end of the guarantee period occur after November 15, the guarantee period shall be extended to May 15.
9. The Township reserves the right to require additional landscape buffer plantings, following substantial completion of construction, should vegetation to be preserved not be preserved or not otherwise be as represented on the Final Landscape Plan(s).
10. All required plant material shall be planted prior to the issuance of a use and occupancy permit.



SHRUB PLANTING DETAIL

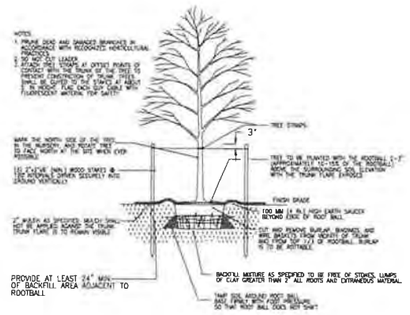
NOT TO SCALE



1. ALL STAKES SHALL BE DRIVEN OUTSIDE THE EDGE OF THE ROOT BALL.
2. ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF 0.5 INCH.
3. REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVERCOME THE PROBLEM THAT REQUIRED THE TREE TO BE STAKED. STAKES SHALL BE REMOVED NO LATER THAN THE END OF THE FIRST GROWING SEASON.
4. TREES NORMALLY DO NOT NEED TO BE STAKED AND STAKING CAN BE HARMFUL TO THE TREE. STAKING SHOULD BE DONE ONLY WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF.
5. WIRE OR CABLE SIZES SHALL BE AS FOLLOWS:
   TREES UP TO 2.5 INCH CALIPER – 14 GAUGE
   TREES 2.5 INCH TO 3 INCH CALIPER – 12 GAUGE
6. TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. A PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 1.5 INCH CALIPER OF TRUNK MOVEMENT.
7. TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.

EVERGREEN TREE STAKING DETAIL

NOT TO SCALE



ORNAMENTAL AND SHADE TREE PLANTING/ STAKING DETAIL

NOT TO SCALE

PLANT SCHEDULE

Plan Symbol	Quantity	Botanical Name	Common Name	Min. Planting Caliper	Min. Planting Height	Remarks	Comments
Shade/ Canopy Trees							
AR	2	*Acer rubrum 'Bowhall'*	October Glory Maple	3.5"	12-14'	B&B	Full canopy, central leader
GT	3	*Gleditsia triacanthos var. inermis*	Thornless Honeylocust	3"	14-16'	B&B	Full canopy, central leader
QR	1	*Quercus rubra*	Red Oak	3.5"	12-14'	B&B	Full canopy, central leader
Ornamental Trees							
AM	1	*Amelanchier x grandiflora 'Autumn Brilliance'*	Autumn Brilliance Serviceberry		8-10'	B&B	Multi-stem, min 5 stems
CC	2	*Cercis canadensis*	Eastern Redbud	2.5"		B&B	Single stem, full specimen
CF	2	*Cornus florida*	Flowering Dogwood	2.5"		B&B	Single stem, full specimen
Evergreen Trees							
PG	16	*Picea glauca*	White Spruce		8'	B&B	Branched fully to ground
PO	7	*Picea omorika*	Serbian Spruce		8'	B&B	Branched fully to ground
TO	18	*Thuja occidentalis 'Smaragd'*	Emerald Green Arborvitae		8'	B&B	Branched fully to ground
Shrubs**							
BA	7	*Buxus 'Green Velvet'*	Green Velvet Boxwood		12-18"	CONT.	Heavy, full specimen
CS	9	*Cornus sericea*	Red-twig Dogwood		24-30"	CONT	Heavy, full specimen
HQ	9	*Hydrangea quercifolia*	Oakleaf Hydrangea		24-30"	CONT	Heavy, full specimen
IG	19	*Ilex glabra 'Shamrock'*	Shamrock Inkberry		24-30"	CONT	Heavy, full specimen
IV	6	*Ilex verticillata*	Winterberry		24-30"	CONT	Heavy, full specimen
VD	5	*Viburnum dentatum*	Arrowwood Viburnum		24-30"	CONT	Heavy, full specimen
Perennials**							
LM	30	*Liriope muscari*	Lilyturf			1 gal	Plant 15" on center

** Plant in continuous mulch bed (2-3" depth) until fully established.

An inspection shall be made by the Township one (1) year after occupancy permit has been issued by the Township. Any landscape materials that are unacceptable at the time of inspection shall be replaced in order to satisfy the landscaping requirements of the Township.

LANDSCAPE REQUIREMENTS CHART - ABINGTON TOWNSHIP

Ordinance Item	Requirement		Plan Proposed
Z.O. Sect. 2402.A.3 Parking Lot Landscaping & Street Trees	All parking lots with fewer than 50 stalls but more than 15 stalls shall be landscaped similar to the requirements in 2402.A.2, except that planting strips between adjoining rows shall not be required. Planting islands will still be required.		
	Planting Islands		
	One planting island shall be provided for every 15 parking stalls		complies
	There shall be no more than 15 contiguous parking stalls in a row without a planting island. As an alternative, an applicant may provide one canopy tree for every 10 parking stalls in planting island areas and/or perimeter parking planting areas at the discretion of the BOC. Parking lot trees shall be at least 3" caliper		complies
	26 parking stalls		
	26/10 = 3 Canopy Trees		3 Canopy Trees
	Parking Lot Perimeter Buffer		
	All parking lots or areas with more than 15 parking spaces shall be buffered according to the following when any part of the parking lies within 150' of a property line, public street, or residential district		
	Parking lots shall be planted with a Medium Intensity buffer, a min. 10 feet in width, except where buildings, access drives, and/or walkways are located. (see below for planting requirements)		satisfied by medium intensity property line buffer, see 2403.B below.
	Street Tree:		
	Street trees shall be required along each frontage on all existing streets when they abut of lie within a proposed subdivision or land development		
	Trees shall be planted at a ratio of at least one tree per 40 LF		
	Cedar Rd: 243		
	243/40 = 6 Shade trees		existing trees to remain
Z.O. Sect. 2403.B Buffers & Screens	Must assess adjacent land use to determine buffer requirements		
	Western property line: 478		
	Medium Intensity Buffer, per 100 LF:		
	Option A:		
	2 canopy tree (2-2 1/2" min. cal.)	(478/100) x 2 = 10	1 Canopy trees [V]
			8 existing deciduous trees
	2 understory trees (1 1/2" min. cal.)	(478/100) x 2 = 10	2 Understory trees [V]
	5 evergreen trees (8' min. ht.)	(478/100) x 5 = 24	11 Evergreen trees [V]
			6 existing evergreen trees
	5 shrubs (24" min. ht.)	(478/100) x 5 = 24	24 Shrubs
	Southern Property Line: 420		
	Medium Intensity Buffer, per 100 LF		
	Option A:		
	2 canopy tree (2-2 1/2" min. cal.)	(420/100) x 2 = 9	2 Canopy trees [V]
			3 existing deciduous trees
	2 understory trees (1 1/2" min. cal.)	(420/100) x 2 = 9	1 Understory trees [V]
	5 evergreen trees (8' min. ht.)	(420/100) x 2 = 21	7 Evergreen trees [V]
	5 shrubs (24" min. ht.)	(420/100) x 2 = 21	10 Shrubs [V]
	Northern Property Line: 355		
	Low Intensity Buffer, per 100 LF		
	1 canopy tree (2-2 1/2" min. cal.)	355/100 = 4	0 Canopy trees
			4 existing deciduous trees
	2 understory trees (1 1/2" min. cal.)	(355/100) x 2 = 8	2 Understory trees
			1 existing deciduous tree
	2 evergreen trees (8' min. ht.)	(355/100) x 2 = 8	5 Evergreen trees
	Eastern property line (frontage)		
	see 'Shade Trees' below		
Z.O. Sect. 2403.C Site Element Screening	Private accessory building or shed requires low intensity screen		
	Two-story garage/barn within 100 feet of property line is an existing non conformity		Existing non conformity to remain. Screening provided as part of buffer requirement
	Dumpster area requires medium intensity screen		
	Screen type #5: evergreen hedge with a minimum ht. of 6 ft. at the time of planting, spaced no further than 3 ft. on center		13 Evergreen trees
Z.O. Sect. 2403.D Building Foundation Landscaping	Shall be required between (a) the foundations of principal buildings' facades and (b) sidewalks, access drives, or parking areas		
	A minimum of 25% of the linear area (parallel to the building wall) shall be landscaped with ornamental or evergreen trees and shrubs		
	New building linear area: 105'		
	105 x .25 = 27' to be landscaped		
	44 linear feet proposed to be landscaped		3 Deciduous shrubs
			7 Evergreen shrubs
			30 Perennials
S.O. 146-39.A Shade Trees	One tree per 50 feet along street		
	Cedar Rd: 243'		
	243/50 = 5 Shade Trees		existing trees to remain
S.O. 146-39.B(2)(c) Green Area Landscaping	Min. tree/ shrub plantings for the green area shall include a minimum of one deciduous or evergreen tree (min. 2 1/2" cal.) for each 1,000 sf of green area		
	Green Area: 77,959 sf		
	77,959/1,000 = 78 trees		43 existing trees to remain^
			waiver requested for remainder (32) (existing non conformity)
S.O. 146-39.B(3)(a)	[1] At least 5% of the total area devoted to parking area, not including buffers or yards on the perimeter, shall not be paved but shall be used for interior landscaping within a parking area		satisfied by Zoning requirement
	[2] Where total number of parking spaces exceeds 10 stalls, at least one (2 1/2" cal.) deciduous or evergreen tree shall be planted within the parking area. An additional tree of the same size shall be planted for each additional 15 spaces or portion thereof.		
	39 proposed parking spaces		
	39/15 = 3 trees		satisfied by Zoning requirement
	Total Landscape Proposed		**6 Shade Trees** **36 Evergreen Trees** **5 Understory Trees** **44 Shrubs** **30 Grasses/Perennials**

[V] variance requested

^ These trees do not include existing trees that have been utilized towards other requirements

General Notes

PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT

Landscape Details

No.	Revision/Issue	Date

Firm Name and Address

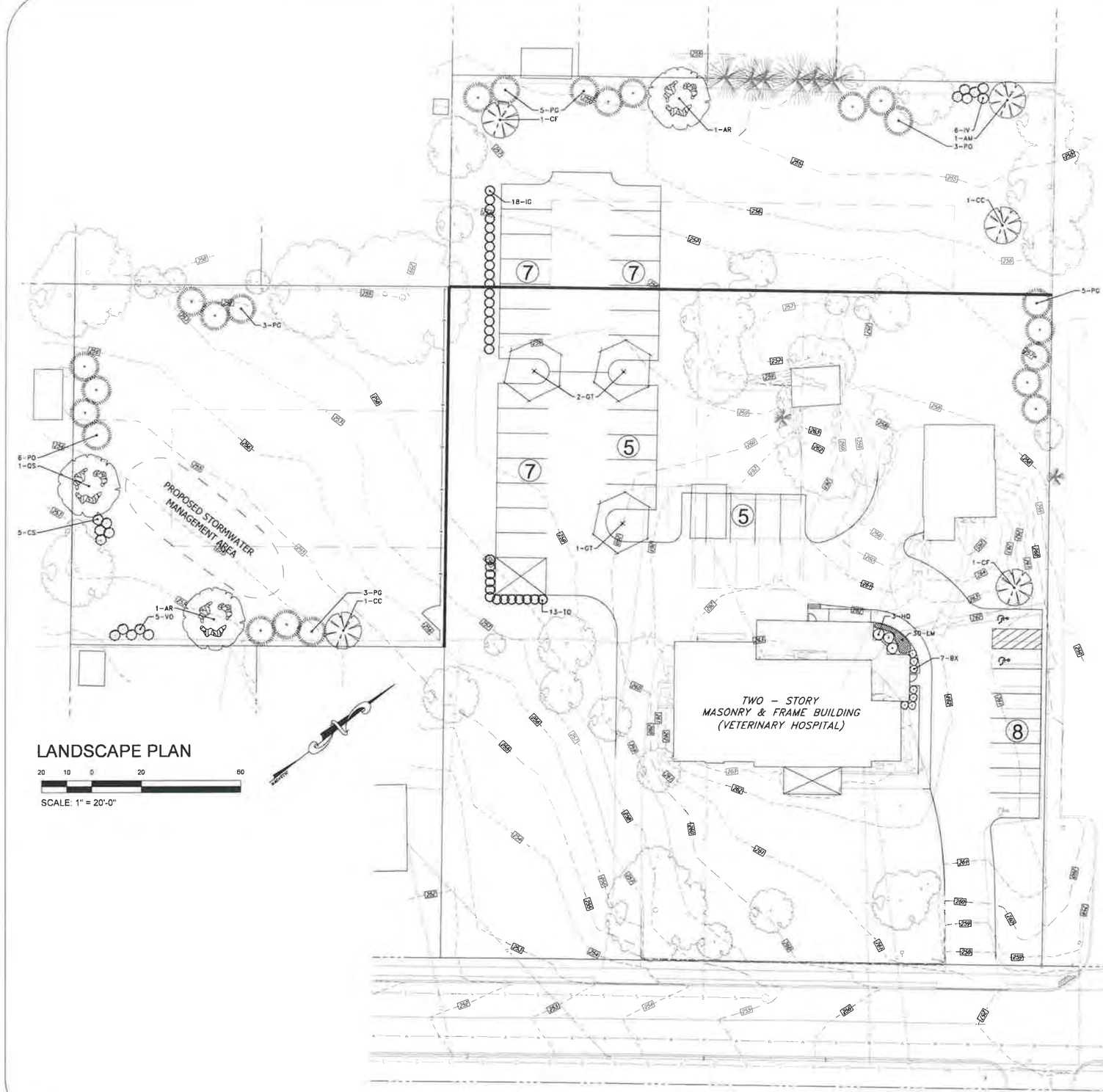
InFocus Planning
EFFECTIVE EFFICIENT

1121 N. BETHLEHEM PIKE SUITE 60 #206
SPRING HOUSE, PA 19477
Ph. 215-758-2540
www.InFocusplanning.com

Project Name and Address

HOPEWELL ANIMAL HOSPITAL
640 CEDAR ROAD
ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PA

Project	Sheet
InFocus_23-14	LP-2
Date: 3/23/23	
Scale: As Noted	



LANDSCAPE PLAN

20 10 0 20 60

SCALE: 1" = 20'-0"

LOCATION MAP
SCALE: 1" = 800'

LEGEND
EXISTING FEATURES

- IRON PIPE FOUND
- FENCE
- OVERHEAD WIRE
- GAS VALVE
- WATER VALVE
- SANITARY CLEANOUTS
- UTILITY POLE
- FIRE HYDRANT
- SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER
- DECIDUOUS TREE
- EVERGREEN TREE
- W — WATER MAIN
- WS — WATER SERVICE
- G — GAS MAIN
- E — UNDERGROUND ELECTRIC
- COMMUNICATIONS LINE
- LATERAL
- RD — ROOF DRAIN
- CONTOUR

LANDSCAPE LEGEND

- Parking Lot Landscape
- Buffers and Screens
- Site Element Screening
- Building Landscape

See Sheet LP-2 for Landscape Details

General Notes

PENNSYLVANIA REGINAL SCENIC AREAS REGISTERED LANDSCAPE ARCHITECT

Landscape Plan

No.	Revision/issue	Date

Firm Name and Address

InFocus Planning
EFFECTIVE EFFICIENT

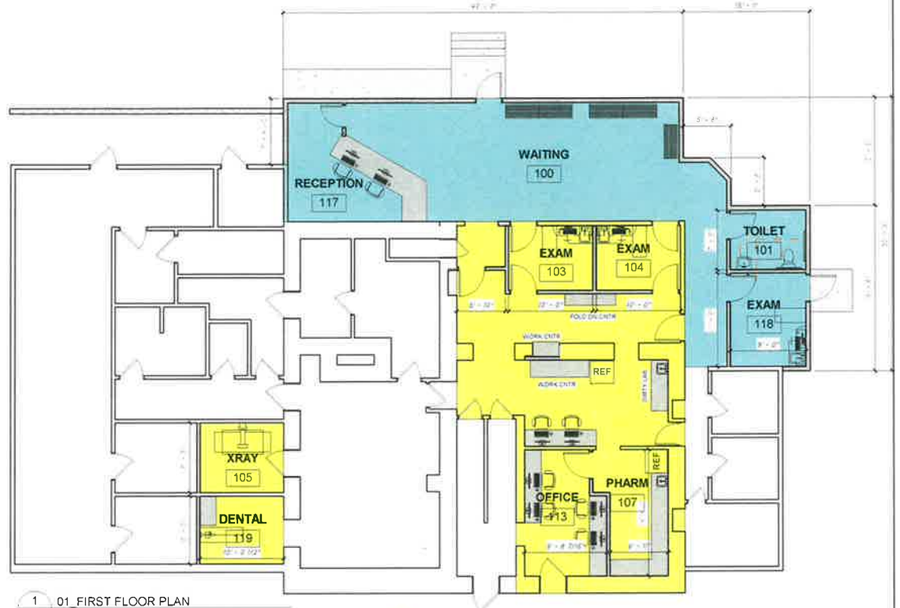
1121 N BETHLEHEM PIKE SUITE 60 #206
SPRING HOUSE, PA 19477
P: 215-758-2540
www.InFocusplanning.com

Project Name and Address

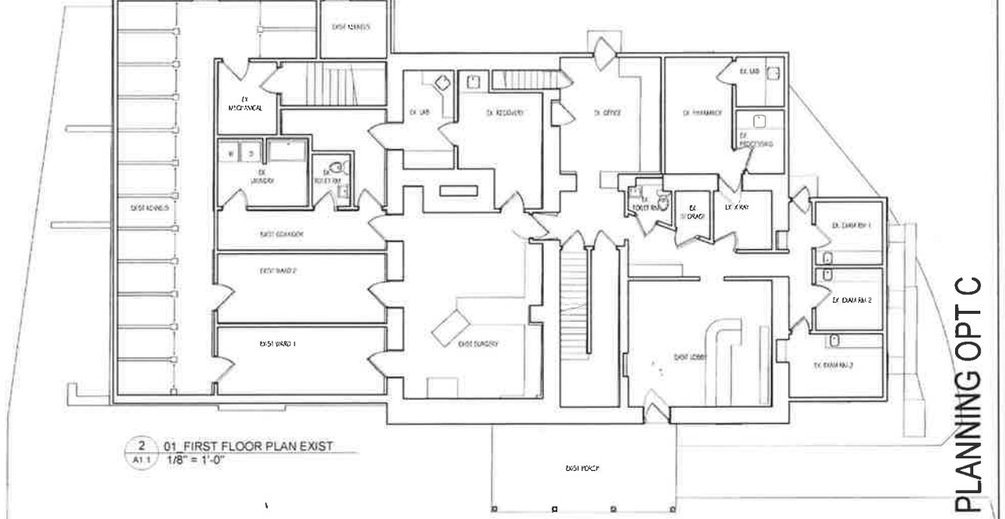
HOPEWELL ANIMAL HOSPITAL
640 CEDAR ROAD
ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PA

Project	Sheet
InFocus_23-14	LP-1
Date: 3/23/23	
Scale: As Noted	

3 A1.1 SITE PLAN
1/16" = 1'-0"



1 A1.1 01_FIRST FLOOR PLAN
1/8" = 1'-0"



2 A1.1 01_FIRST FLOOR PLAN EXIST
1/8" = 1'-0"

22_0713 - SPACE PLANNING OPT C

a.r
61a church street
landisville, pa 17538
tel (717) 892-2780
fax (717 892-2782
architecture planning interiors

61a church street
landisville, pa 17538
tel (717) 898-8084
fax (717 898-8094
www.prodc.com

PROJECT REVISIONS
DATE

SHEET TITLE
FLOOR PLAN

DRAWING PHASE
SPACE PLANNING

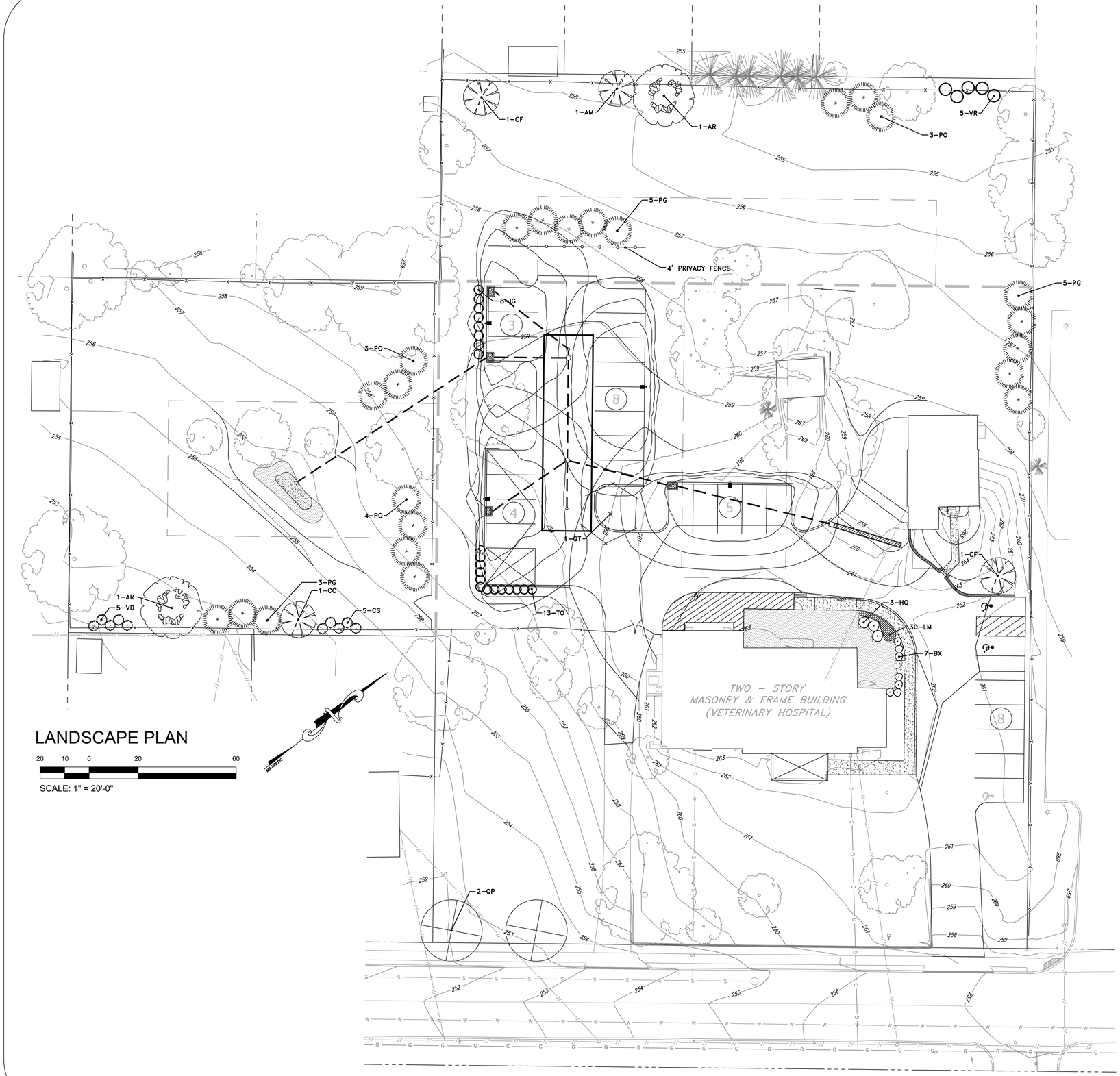
DRAWN	CHECKER
KLM	KLM
DATE	SCALE
07/06/22	As indicated

PROJECT DESCRIPTION
INTERIOR RENOVATION AND EXPANSIONS TO:
HOPEWELL VET
--
HOPEWELL, PA --

PROJECT NUMBER
500

SHEET NUMBER
A1.1

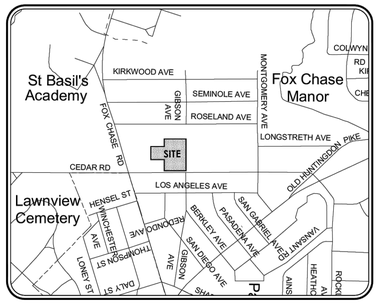
7/13/2022 11:05:11 AM



LANDSCAPE PLAN

20 10 0 20 60

SCALE: 1" = 20'-0"



LOCATION MAP

SCALE: 1" = 800'

LEGEND

EXISTING FEATURES

- IRON PIPE FOUND (IP Fnd.)
- FENCE
- OVERHEAD WIRE
- GAS VALVE (GV)
- WATER VALVE (WV)
- SANITARY CLEANOUTS (CO)
- UTILITY POLE
- FIRE HYDRANT
- SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER (S)
- DECIDUOUS TREE
- EVERGREEN TREE
- WATER MAIN (W)
- WATER SERVICE (WS)
- GAS MAIN (G)
- UNDERGROUND ELECTRIC (E)
- COMMUNICATIONS LINE (CTV)
- LATERAL (LAT)
- ROOF DRAIN (RD)
- CONTOUR (256)

LANDSCAPE LEGEND

- Street tree
- Parking Lot Landscape
- Buffers and Screens
- Site Element Screening
- Building Landscape

See Sheet LP-2 for Landscape Details

General Notes

PENNSYLVANIA
RACHEL SCLAN YANEZ
REGISTRATION NUMBER LA001672
REGISTERED LANDSCAPE ARCHITECT

Landscape Plan

No.	Revision/Issue	Date

Firm Name and Address

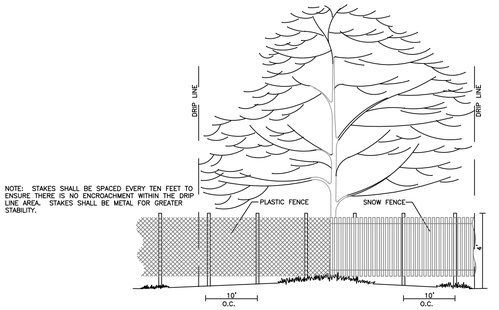
InFocus Planning
EFFECTIVE EFFICIENT
LAND DEVELOPMENT SERVICES

1121 N. BETHLEHEM PIKE SUITE 60 #206
SPRING HOUSE, PA 19477
P: 215-758-2540
www.inFocusplanning.com

Project Name and Address

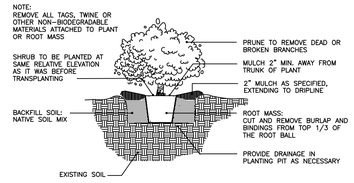
HOPEWELL ANIMAL HOSPITAL
640 CEDAR ROAD
ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PA

Project	InFocus_23-14
Date	9/28/23
Scale	As Noted
Sheet	LP-1



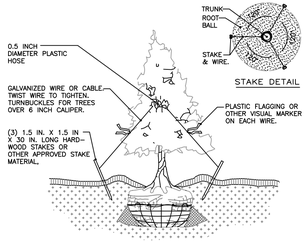
TREE PROTECTION FENCING

Not To Scale



SHRUB PLANTING DETAIL

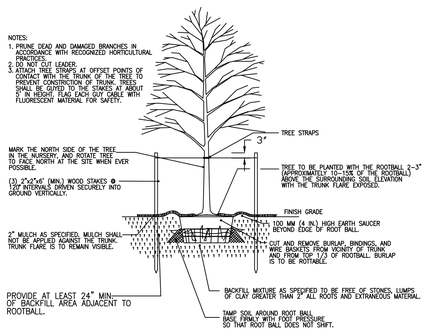
NOT TO SCALE



1. ALL STAKES SHALL BE DRIVEN OUTSIDE THE EDGE OF THE ROOT BALL.
2. ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM 0.5 INCH.
3. REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVER-COME THE PROBLEM THAT REQUIRED THE TREE TO BE STAKED. STAKES SHALL BE REMOVED NO LATER THAN THE END OF THE FIRST GROWING SEASON.
4. TREES NORMALLY DO NOT NEED TO BE STAKED AND STAKING CAN BE HARMFUL TO THE TREE. STAKING SHOULD BE DONE ONLY WITH THE APPROVAL OF THE LANDSCAPE ARCH-ITECT IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF.
5. WIRE OR CABLE SIZES SHALL BE AS FOLLOWS:
   TREES UP TO 2.5 INCH CALIPER – 14 GAUGE
   TREES 2.5 INCH TO 3 INCH CALIPER – 12 GAUGE
6. TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING, ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 1.5 INCH CALIPER OF TRUNK MOVEMENT.
7. TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.

EVERGREEN TREE STAKING DETAIL

NOT TO SCALE



ORNAMENTAL AND SHADE TREE PLANTING/ STAKING DETAIL

NOT TO SCALE

GENERAL LANDSCAPE NOTES

1. All plant material shall meet the standards of the American Standard for Nursery Stock published by the AmericanHort (2014), or most recent edition, and the height, spread and/or caliper for trees and shrubs listed in Saldo Section 300-47, Upper Moreland Recommended Plant List.
2. All plant material shall be installed in accordance with the planting practices stated in Chapter 3 of Tree Maintenance by P.P. Pirone (Fifth or most recent edition).
3. All stakes are to be installed for a period of 12 months and are to be removed prior to the End of Guarantee. Stakes for deciduous trees are to be vertical and three (3) stakes are to be provided for all trees.
4. All planter islands are to be crowned to a height of eight (8) inches above the average top of curb height.
5. A permanent seeding specification is on the Erosion Control Details (Sheet 8 of 14), refer to this sheet for details.
6. The Project Landscape Architect is to review all plant substitutions and submit them to the Township Landscape Architect for review prior to installation.
7. All plant material shall be guaranteed for 18 months from the day of final approval of the landscape installation by the Township Landscape Architect or the Township Engineer. Any plant material 25% or more of which is dead shall be considered dead. A tree shall be considered dead when the main leader has died or 25% of the crown is dead. Any dead plant material shall be replaced and installed according to the approved planting practices.
8. The Applicant shall contact the Township in writing to request a final inspection for acceptance at the end of the guarantee period. These inspections will be performed when plant materials are in full leaf only. (May 1 through November 15). All guarantee escrow funds will be released upon acceptance at the end of the guarantee period. The guarantee period will be extended until 30 days after the receipt of the request letter following May 1. Should the end of the guarantee period occur after November 15, the guarantee period shall be extended to May 15.
9. The Township reserves the right to require additional landscape buffer plantings, following substantial completion of construction, should vegetation to be preserved not be preserved or not otherwise be as represented on the Final Landscape Plan(s).
10. All required plant material shall be planted prior to the issuance of a use and occupancy permit.

LANDSCAPE REQUIREMENTS CHART - ABINGTON TOWNSHIP

Ordinance Item	Requirement		Plan Proposed
Z.O. Sect. 2402.A.3 Parking Lot Landscaping & Street Trees	All parking lots with fewer than 50 stalls but more than 15 stalls shall be landscaped similar to the requirements in 2402.A.2, except that planting strips between adjoining rows shall not be required. Planting islands will still be required.		
	Planting Islands:		
	One planting island shall be provided for every 15 parking stalls		complies
	There shall be no more than 15 contiguous parking stalls in a row without a planting island. As an alternative, an applicant may provide one canopy tree for every 10 parking stalls in planting island areas and/or perimeter parking planting areas, at the discretion of the BOC. Parking lot trees shall be at least 3" caliper.		complies
	15 parking stalls 15/10 = 2 Canopy Trees		1 Canopy Trees 1 existing deciduous tree to remain
	Parking Lot Perimeter Buffer:		
	All parking lots or areas with more than 15 parking spaces shall be buffered according to the following when any part of the parking lies within 150' of a property line, public street, or residential district.		
	Parking lots shall be planted with a Medium-Intensity buffer, a min. 10 feet in width, except where buildings, access drives, and/or walkways are located. (see below for planting requirements)		satisfied by medium intensity property line buffer, see 2403.B. below
	Street Trees:		
	Street trees shall be required along each frontage on all existing streets when they abut of lie within a proposed subdivision or land development.		
	Trees shall be planted at a ratio of at least one tree per 40 LF Cedar Rd: 243' 243/40 = 6 Shade trees		2 Shade trees 4 existing deciduous trees to remain
Z.O. Sect. 2403.B Buffers & Screens	Must assess adjacent land use to determine buffer requirements:		
	Western property line: 478'		
	Medium Intensity Buffer, per 100 LF:		
	Option A:		
	2 canopy tree (2-2 1/2" min. cal.)	(478/100) x 2 = 10	1 Canopy trees [V] 8 existing deciduous trees
	2 understory trees (1 1/2" min. cal.)	(478/100) x 2 = 10	2 Understory trees [V]
	5 evergreen trees (8' min. ht.)	(478/100) x 5 = 24	8 Evergreen trees [V] 6 existing evergreen trees
	5 shrubs (24" min. ht.)	(478/100) x 5 = 24	14 Shrubs [V]
	Southern Property Line: 420'		
	Medium Intensity Buffer, per 100 LF:		
	Option A:		
	2 canopy tree (2-2 1/2" min. cal.)	(420/100) x 2 = 9	1 Canopy trees [V] 3 existing deciduous trees
	2 understory trees (1 1/2" min. cal.)	(420/100) x 2 = 9	1 Understory trees [V]
	5 evergreen trees (8' min. ht.)	(420/100) x 2 = 21	10 Evergreen trees [V]
	5 shrubs (24" min. ht.)	(420/100) x 2 = 21	10 Shrubs [V]
	Northern Property Line: 355'		
	Low Intensity Buffer, per 100 LF:		
	1 canopy tree (2-2 1/2" min. cal.)	355/100 = 4	0 Canopy trees 4 existing deciduous trees
	2 understory trees (1 1/2" min. cal.)	(355/100) x 2 = 8	1 Understory trees [V]
	2 evergreen trees (8' min. ht.)	(355/100) x 2 = 8	5 Evergreen trees [V]
	Eastern property line (frontage): see 'Shade Trees' below		
Z.O. Sect. 2403.C Site Element Screening	Private accessory building or shed requires low intensity screen Two-story garage/barn within 100 feet of property line is an existing non-conformity.		Existing non-conformity to remain. Screening provided as part of buffer requirement.
	Dumpster area requires medium intensity screen Screen type #5: evergreen hedge with a minimum ht. of 6 ft. at the time of planting, spaced no further than 3 ft. on center		13 Evergreen trees
Z.O. Sect. 2403.D Building Foundation Landscaping	Shall be required between (a) the foundations of principal buildings' facades and (b) sidewalks, access drives, or parking areas. A minimum of 25% of the linear area (parallel to the building wall) shall be landscaped with ornamental or evergreen trees and shrubs. New building linear area: 105' 105 x .25 = 27' to be landscaped 44 linear feet proposed to be landscaped		3 Deciduous shrubs 7 Evergreen shrubs 30 Perennials
S.O. 146-39.A Shade Trees	One tree per 50 feet along street. Cedar Rd.: 243' 243/50 = 5 Shade Trees		satisfied by Zoning requirement
S.O. 146-39.B(2)(c) Green Area Landscaping	Min. tree/ shrub plantings for the green area shall include a minimum of one deciduous or evergreen tree (min. 2 1/2" cal.) for each 1,000 sf of green area Green Area: 76,480 sf 76,480/1,000 = 77 trees		48 existing trees to remain ^ waiver requested for remainder (29) (existing non-conformity)
S.O. 146-39.B(3)(a)	[1] At least 5% of the total area devoted to parking area, not including buffers or yards on the perimeter, shall not be paved but shall be used for interior landscaping within a parking area. [2] Where total number of parking spaces exceeds 10 stalls, at least one (2 1/2" cal.) deciduous or evergreen tree shall be planted within the parking area. An additional tree of the same size shall be planted for each additional 15 spaces or portion thereof. 28 proposed parking spaces 28/15 = 2 trees		satisfied by Zoning requirement satisfied by Zoning requirement
	Total Landscape Proposed		**5 Shade Trees** **36 Evergreen Trees** **4 Understory Trees** **34 Shrubs** **30 Grasses/Perennials**

[V] variance granted per ZHB application 23-15.
^ These trees do not include existing trees that have been utilized towards other requirements.

PLANT SCHEDULE

Plan Symbol	Quantity	Botanical Name	Common Name	Min. Planting Caliper	Min. Planting Height	Remarks	Comments
Shade/ Canopy Trees							
AR	2	*Acer rubrum 'October Glory'*	'October Glory' Maple	2.5"	12-14'	B&B	Full canopy, central leader
GT	1	*Gleditsia triacanthos var. inermis*	Thornless Honeylocust	3"	14-16'	B&B	Full canopy, central leader
QP	2	*Quercus phellos*	Willow Oak	3"	14-16'	B&B	Full canopy, central leader
Ornamental Trees							
AM	1	*Amelanchier x grandiflora 'Autumn Brilliance'*	'Autumn Brilliance' Serviceberry	-	8-10'	B&B	Multi-stem, min. 5 stems
CC	1	*Cercis canadensis*	Eastern Redbud	1.5"	-	B&B	Single-stem, full specimen
CF	2	*Cornus florida*	Flowering Dogwood	1.5"	-	B&B	Single-stem, full specimen
Evergreen Trees							
PG	13	*Picea glauca*	White Spruce	-	8'	B&B	Branched fully to ground
PO	10	*Picea omorika*	Serbian Spruce	-	8'	B&B	Branched fully to ground
TO	13	*Thuja occidentalis 'Smaragd'*	Emerald Green Arborvitae	-	6'	B&B	Branched fully to ground
Shrubs**							
BX	7	*Buxus 'Green Velvet'*	'Green Velvet' Boxwood	-	12-18"	CONT	Heavy, full specimen
CS	5	*Cornus sericea*	Red-twig Dogwood	-	24-30"	CONT	Heavy, full specimen
HQ	3	*Hydrangea quercifolia*	Oakleaf Hydrangea		24-30"	CONT	Heavy, full specimen
IG	9	*Ilex glabra 'Shamrock'*	'Shamrock' Inkberry	-	24-30"	CONT	Heavy, full specimen
VD	5	*Viburnum dentatum*	Arrowwood Viburnum	-	24-30"	CONT	Heavy, full specimen
VR	5	*Viburnum rhytidophyllum*	Leatherleaf Viburnum	-	24-30"	CONT	Heavy, full specimen
Perennials**							
LM	30	*Liriope muscari*	Lilyturf	-	-	1 gal.	Plant 15" on center

** Plant in continuous mulch bed (2-3" depth) until fully established.

An inspection shall be made by the Township one (1) year after occupancy permit has been issued by the Township. Any landscape materials that are unacceptable at the time of inspection shall be replaced in order to satisfy the landscaping requirements of the Township.

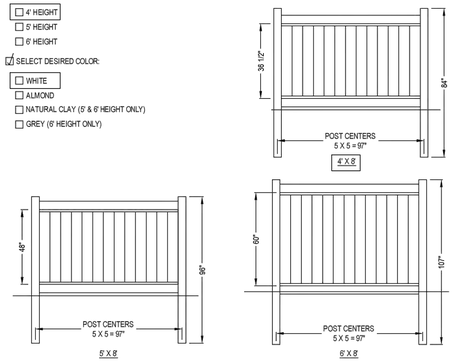
STORMWATER MANAGEMENT OUTFALL SEEDING

SEED IN ERNST SEED MIX (ERNMX-180-1); RAIN GARDEN GRASS MIX
SEEDING RATE IS 15 LBS. PER ACRE WITH 30 LBS. PER ACRE GRAIN RYE (COVER CROP)
OUTFALL AREA = 305 SF
(305/43560) X 15 = 0.10 LBS. ERNMX-180-1
(305/43560) X 30 = 0.20 LBS. GRAIN RYE

CertainTeed
Bufftech
Vinyl Fence Products

CERTAINTEED CORPORATION FENCE
DECK AND RAIL DIVISION
231 SHIP CANAL PARKWAY
BUFFALO, NY 14218
TOLL FREE: 1-800-333-0569
PHONE: (716) 823-3023
FAX: (716) 823-2843
www.certainteed.com

☑ SELECT DESIRED SIZE:
☐ 4' HEIGHT
☐ 5' HEIGHT
☐ 6' HEIGHT
☑ SELECT DESIRED COLOR:
☐ WHITE
☐ ALMOND
☐ NATURAL CLAY (5' & 6' HEIGHT ONLY)
☐ GREY (6' HEIGHT ONLY)



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 035-017.

PRIVACY FENCING

(BUFFTECH) CHESTERFIELD VINYL FENCING

035-017 REVISION DATE 03/08/2018

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General Notes

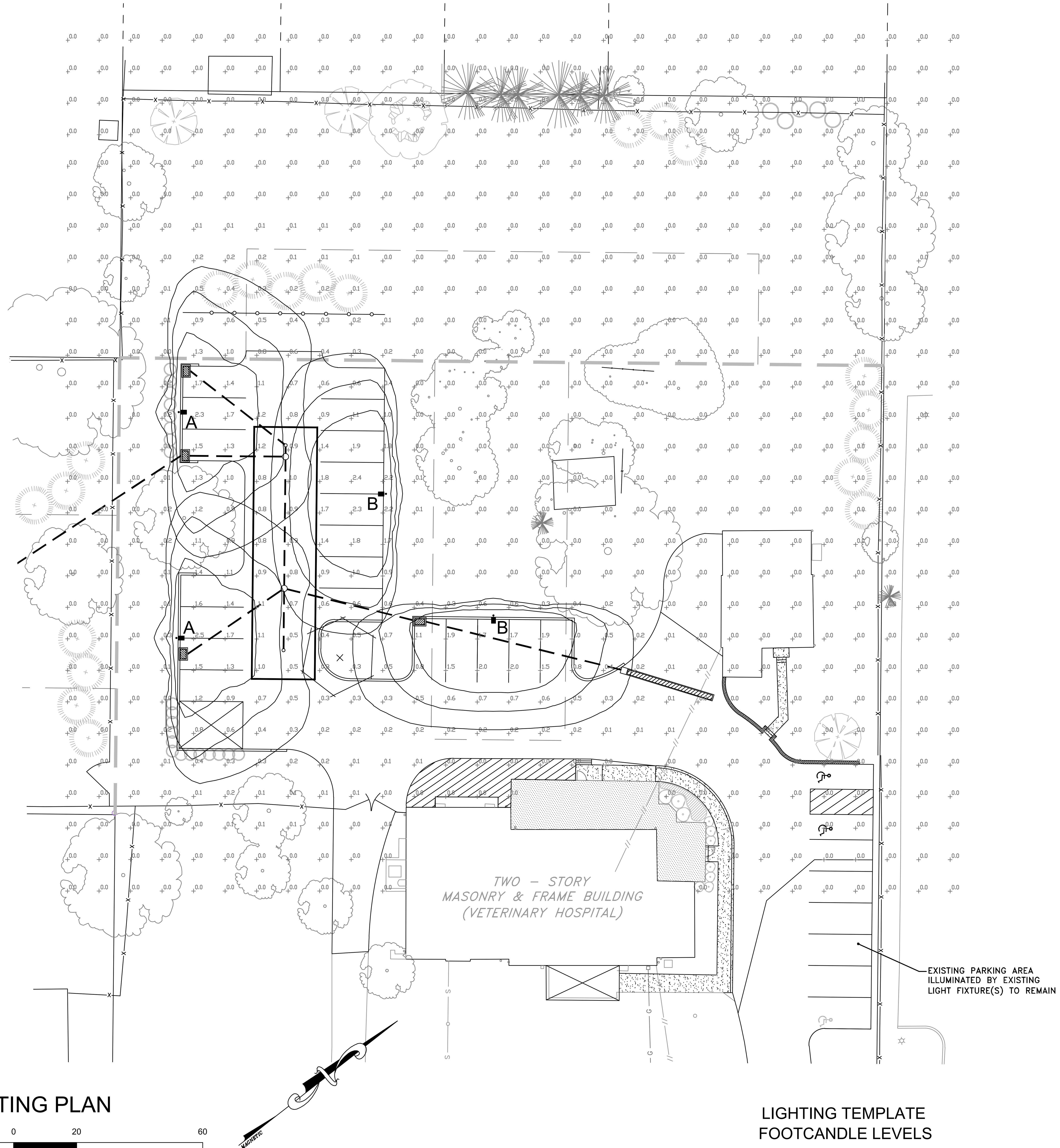
Landscape Details

No.	Revision/Issue	Date

Firm Name and Address
InFocus Planning
EFFECTIVE. EFFICIENT.
LAND DEVELOPMENT SERVICES
1121 N. BETHLEHEM PIKE SUITE 60 #206
SPRING HOUSE, PA 19477
P: 215-758-2540
www.inFocusplanning.com

Project Name and Address
HOPEWELL ANIMAL HOSPITAL
640 CEDAR ROAD
ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PA

Project	Sheet
InFocus_23-14	LP-2
Date: 9/28/23	
Scale: As Noted	

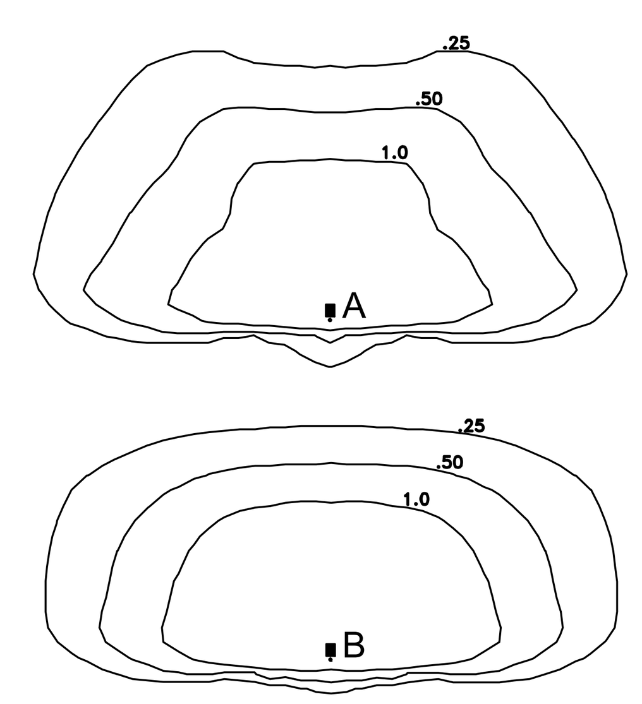


LIGHTING PLAN

20 10 0 20 60

SCALE: 1" = 20'-0"

LIGHTING TEMPLATE FOOTCANDLE LEVELS



LUMINAIRE SCHEDULE - PARKING LIGHTING - LUMARK 'PREVAIL' LED LUMINAIRE									
Symbol	Label	Qty	Catalog Number	Description	File	Lumens per Lamp	LLF	Watts	Mounting Ht.
■	A	2	PRV-P-PA1A-740-U-T4W-HSS	PREVAIL AREA AND WALL LUMINAIRE (1) 70 CRI, 4000K LED, 375mA LIGHT ENGINE WITH 24 LEDs AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD	PRV-P-PA1A-740-U-T4W-HSS_3318 lumens.ies	Absolute	1	30.7	14'
■	B	2	PRV-P-PA1A-740-U-T4W-HSS	PREVAIL AREA AND WALL LUMINAIRE (1) 70 CRI, 4000K LED, 375mA LIGHT ENGINE WITH 24 LEDs AND TYPE III OPTICS WITH HOUSE SIDE SHIELD	PRV-P-PA1A-740-U-T3-HSS_3406 lumens.ies	Absolute	1	30.7	14'

Project		Catalog #		Type	
Prepared by		Notes		Date	

Lumark
Prevail Discrete LED

Area / Site Luminaire

Product Features

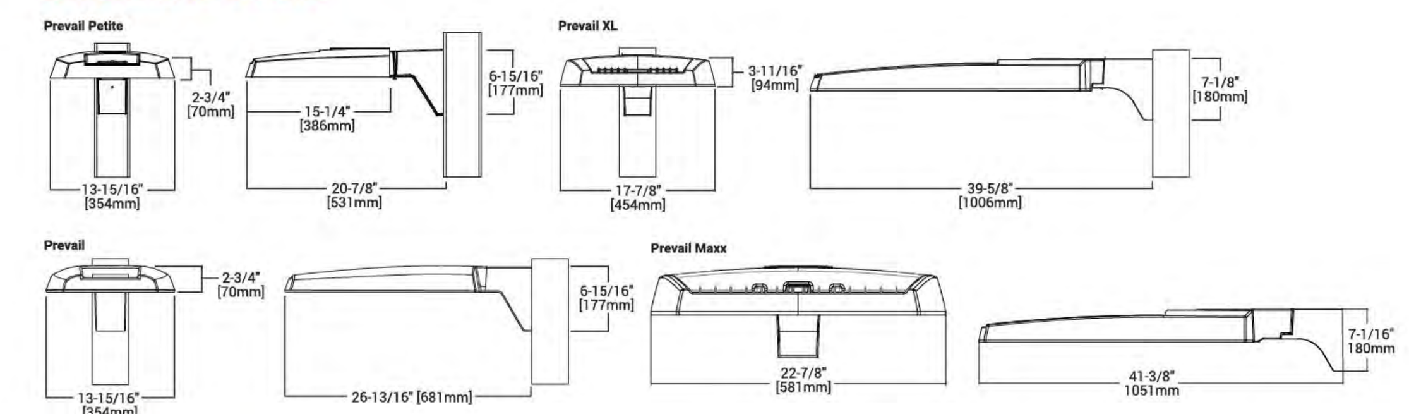
Product Certifications

Interactive Menu
- Ordering Information page 2
- Mounting Details page 3, 4
- Optical Configurations page 5
- Product Specifications page 5
- Energy and Performance Data page 6, 7
- Control Options page 8

Connected Systems
- WaveLinx

Quick Facts
- Direct-mounted discrete light engine for improved optical uniformity and visual comfort
- Lumen packages range from 4,300 - 68,000 nominal lumens (30W - 550W)
- Replaces 70W up to 1,000W HID equivalents
- Efficacies up to 157 lumens per watt
- Standard universal quick mount arm with universal drill pattern

Dimensional Details



COOPER Lighting Solutions

Lumark — Prevail Discrete LED

Ordering Information

SAMPLE NUMBER: PRV-XL-PA4B-740-U-T4W-BZ

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

COOPER Lighting Solutions

General Notes

Lighting Plan & Details

No.	Revision/Issue	Date

Firm Name and Address

InFocus Planning
EFFECTIVE EFFICIENT
LAND DEVELOPMENT SERVICES

1121 N. BETHLEHEM PIKE SUITE 60 #206
SPRING HOUSE, PA 19477
P: 215-758-2540
www.infocusplanning.com

Project Name and Address

HOPEWELL ANIMAL HOSPITAL
640 CEDAR ROAD
ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PA

Project: InFocus_23-14

Date: 9/28/23

Scale: As Noted

Sheet: LP-3

FAX: (215) 576-7791 PHONE: (215) 887-2165

CHARLES E. SHOEMAKER, INC.
ENGINEERS AND SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936

Stormwater Management
&
Erosion and Sediment Control Plan Narrative

for

640 CEDAR ROAD

Prepared For

Hopewell Veterinary Hospital

Abington Township
Montgomery County, Pennsylvania

Equitable Owner
Rutkowski, LP
640 Cedar Road
Jenkintown, PA 19046

Engineers & Surveyors
Charles E. Shoemaker, Inc.
110 Keystone Drive
Montgomeryville, PA 18936

Project No. 27023
Date: October 3, 2023

FAX: (215) 576-7791 PHONE: (215) 887-2165

CHARLES E. SHOEMAKER, INC.
ENGINEERS AND SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936

TABLE OF CONTENTS

FAX: (215) 576-7791 PHONE: (215) 887-2165

CHARLES E. SHOEMAKER, INC.
ENGINEERS AND SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936

GENERAL INFORMATION

Project Name	640 Cedar Road
Site Address	640 Cedar Road Jenkintown, PA 19046
Zoning Criteria	R-4: Medium-High Density
Tax Map Parcel Number(s)	30-00-06992-00-7
Deed Book – Page(s)	5480-1222
Applicant/Owner of Record	Rutkowski, LP 640 Cedar Road Jenkintown, PA 19046
Land Surveyors & Engineers	Charles E. Shoemaker, Inc. 110 Keystone Drive Montgomeryville, PA 18936
Construction Schedule	Construction will commence Spring 2024

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CHARLES E. SHOEMAKER, INC.
ENGINEERS AND SURVEYORS
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PLAN DESIGNER'S EXPERTISE

Erosion control and stormwater management facilities on this project have been designed by Chad W. Brensinger of Charles E. Shoemaker, Inc. Mr. Brensinger graduated from Lehigh University with a Bachelor of Science Degree in Civil Engineering with his studies focused in hydrology. Under the direct supervision and mentorship of Richard A. Stoneback PE, PLS, Chad has been with Charles E. Shoemaker since graduating in 2002 and obtained his Pennsylvania Professional Engineer's License in 2007 and his NJ and DE licenses in 2016. He has also successfully completed his LEED Professional Accreditation though the U.S. Green Building Certification Institute in June of 2009.

Typical projects include retail shopping centers, small residential subdivisions, industrial parks, hotels, office buildings and institutional complexes. He is familiar with local municipal requirements and permitting and approvals through the Pennsylvania Department of Environmental Protection such as General Wetland Permits, Sewage Facilities Planning Modules, and NPDES Permits.

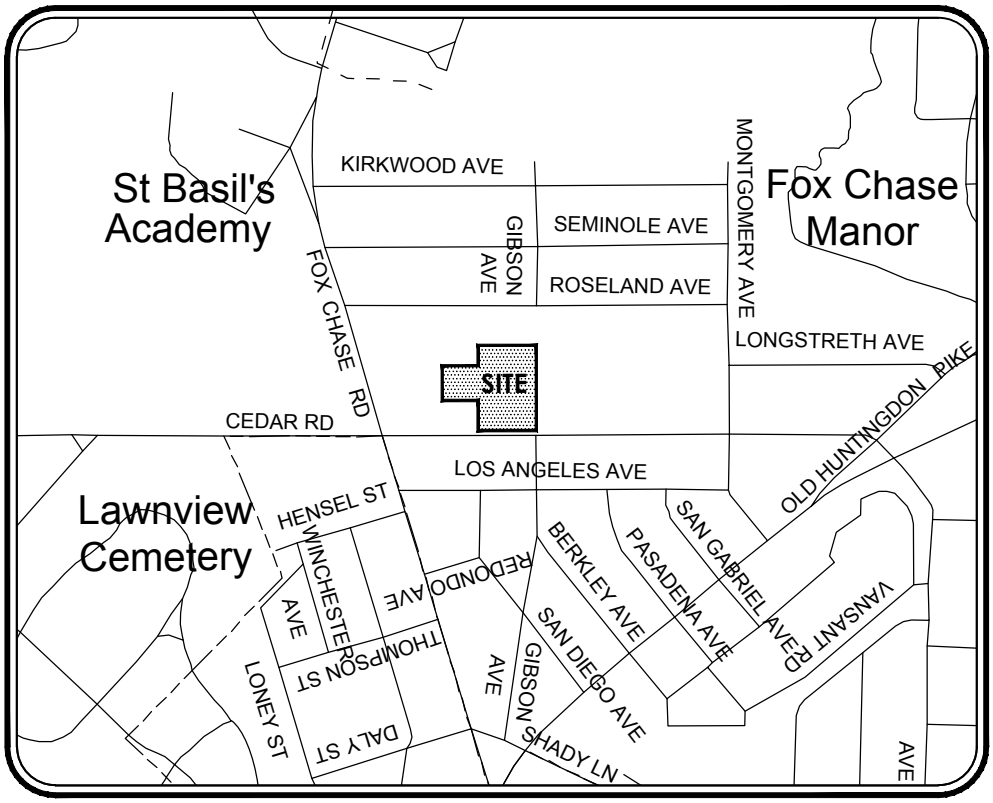
His experience includes all aspects site civil engineering including layout, grading, storm sewer, erosion control and sanitary sewer design. However, Chad specializes in stormwater management and erosion control design. Over the years, he has attended numerous seminars and training sessions presented by local conservation districts, the PA DEP and professional peers to stay current with today's demanding stormwater management design and permitting requirements where water quality, rates, volumes and environmental sustainability are critical. Much is his experience pertains to managing stormwater runoff on challenging sites such as retail complexes and other similar projects where space is very limited and designing an efficient, cost effective and environmentally conscious stormwater management system is paramount in the life of the project.

Notable Training Sessions

- Post Construction Stormwater Management for NPDES Permits, presented by Southeast PA Association of Conservation Districts, March 26, 2010
- Chapter 102 Update Training for the Regulated Community, presented by PA DEP, November 2, 2010
- Erosion and Sediment Manual Training, presented by PA Association of Conservation Districts, Inc, August 20-12, 2012
- PAG-02 Update Training, presented by PA DEP, April 16, 2013
- NPDES and PCSM Permitting Workshop, presented by Southeastern PA Resource Conservation & Development Council, May 22, 2014
- Engineers Workshop, presented by Southeastern PA Resource Conservation & Development Council, March 29, 2019

Representative Permitted Project Sample

- The Proving Grounds, Plymouth Township, Montgomery County, NPDES #PAC460082, issued 9/29/2020
- Sterling Business Ctr, Lot 2B, Hatfield Township, Mont. County, NPDES #PAC460352, issued 7/17/2019
- Fonthill Court, Richland Township, Bucks County, NPDES #PAC090229, issued 4/9/2019
- Atria Senior Living, Springfield Township, Montgomery County, NPDES #PAC460023, issued 5/25/2017



LOCATION MAP

SCALE: 1" = 800'

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CHARLES E. SHOEMAKER, INC.
ENGINEERS AND SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936

INTRODUCTION

Hopewell Veterinary Hospital proposes development of the their property in Abington Township, Montgomery County, PA. This project consists of a building addition and parking improvements. The site is currently zoned 'R4' – Medium-Density Residential District and 'CS' – Community Service (Use: C-38 Veterinary Clinic).

SITE TOPOGRAPHY

The existing site is the location of a veterinary hospital with 3 accessory structures and associated parking and walkways. There is no existing stormwater management on site and the property is at a high point that diverts stormwater runoff towards two watersheds. All runoff enters either the Pennypack Creek (TSF-MF) or the Jenkintown Creek (WWF-MF). Site soils are as mapped on the USDA-NRCS Web Soil Survey, National Cooperative Soil Survey. There are no known adverse soil conditions or geological formations that require special consideration or offer potential for pollution of the surface waters.

IMPROVEMENTS

This project consists of construction of a building addition, with associated parking, driveway, walkways, stormwater management, and landscaping. The improvements will be served by an underground infiltration bed.

STORMWATER MANAGEMENT

Currently, there is no stormwater management on this site. Existing site runoff flows via sheet flow into to the adjacent properties and Cedar Road.

The goal of the design was to reduce site runoff to the greatest extent practical and to manage all storms up to the 100-year event. The underground storage bed was to capture around 2" of runoff per square foot of proposed impervious area, which was calculated to be 1,372 CF. The majority of the project related runoff will enter the proposed underground seepage bed which will detain the flows and outflow them to a vegetated retentive grading. The retentive grading ensures minimal erosion as the seepage bed outflows leave the site. Most of the volume reduction will take place in the void space in the infiltration bed. The minimal system bypass flows will flow into the street as it does in the existing conditions.

This site is located in Management District 'B' of the Pennypack Watershed, where the 2-yr proposed event must be reduced to be less than the 1-yr existing event, the 10-yr proposed event must be reduced to be less than the 5-yr existing event, the 25-yr proposed event must be reduced to be less than the 10-yr existing event, the 50-yr proposed event must be reduced to be less than the 25-yr existing event, and the 100-yr proposed event must be reduced to be less than the 100-yr existing event. Runoff coefficients were taken from Table E-2 in assuming 0-2% site slopes and Type 'C' soils. Storm events from the 1 to 100-year storms were analyzed using the Dekalb Rational Method. Tables and exhibits summarizing the results are included within this report.

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PERMANENT BEST MANAGEMENT PRACTICES (BMP's)

There are several structural and non-structural Best Management Practices (BMPs) designed for this site. These practices include the following:

1. Underground seepage beds
2. Trench drains
3. Permanent seeding, mulching, and landscaping
4. Water quality devices with sumps (Envirohood and Snouts)

WATER QUALITY CONTROL

The quality of Stormwater runoff is dependent on the type of surfaces the runoff comes in contact with and interval between storm events. Pollutants may include suspended solids, organic carbon matter, bacteria, hydrocarbons, trace metals, thermal impacts, and trash.

Criteria for improved water quality includes limiting the amount of closed storm sewers, increasing the length of grass or naturalized surface drainage, and detaining Stormwater runoff over an extended period of time.

MAINTENANCE AND OPERATION PROCEDURES

Changes in downstream drainages may be too subtle or long in developing to provide adequate warning that the condition of a BMP is deteriorating. Therefore, preventative maintenance is essential. Although general maintenance tasks can be outlined, actual maintenance needs will vary according to specific site conditions. Some of the routine measures of a maintenance program should include visual inspection of the facilities, vegetation management to ensure plant life is flourishing, removal of debris and litter and inspection of mechanical components.

Inspections at a minimum should be conducted annually and after any storm larger than the design storm. Most inspections can be carried out by non-technical staff, however, a professional should be consulted periodically to ensure that the needs of the facility are met. The owner is responsible for the long term "maintenance and operation" of the BMP's.

RECYCLING AND DISPOSAL METHODS

Procedures which ensure that the proper measures for the recycling or disposal of materials associated with or from the project site will be undertaken in accordance with Department of Environmental Protection regulations. Individuals responsible for earth disturbance activities must ensure that proper mechanisms are in place to control waste materials. Construction wastes include, but are not limited to, excess soil materials, building materials, concrete wash water, sanitary wastes, etc. that could adversely impact water quality. Measure should be planned and implemented for housekeeping, materials management, and litter control. Wherever possible, recycling of excess materials is preferred, rather than disposal.

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IMPACT ANALYSIS

Thermal impacts are difficult to quantify, but can be mitigated with design considerations throughout the project. Warm, impervious areas are generally the main contributor to thermal pollution. During the construction phases of the project, thermal impacts will be minimal due to the lack of heat retaining impervious areas. The pervious disturbed area will contribute minimally to this pollution source, and these temporary thermal impacts will be limited by limiting disturbance wherever possible and completing construction in a timely fashion. Any potential for thermal impacts will be mitigated through the use of the stormwater conveyance system as well as the sediment basin riser. The earth surrounding the underground pipes will act as a heat sink (transfers thermal energy from higher temperature to lower temperature) and this component will be a prime contributor to thermal water quality. The sediment basin riser will also agitate the outfall water which will cool it in the process of being discharged towards surface waters.

The site improvements proposed have been analyzed and comply with the Township requirements as well as the PA DEP requirements. These improvements will improve the water quality of the runoff exiting the site, as well as reduce runoff flow rates and volumes, therefore there will be minimal potential for accelerated erosion or detrimental water quality due to the project.

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MONTGOMERYVILLE, PA 18936

EROSION CONTROL

There are several temporary and permanent measures that will be taken to prevent accelerated erosion and sedimentation due to construction activities. These include:

TEMPORARY MEASURES

1. Temporary seeding and mulching of disturbed areas.
2. Silt Sock around the disturbed site area.
3. Inlet filters.
4. Minimize area of disturbance.
5. Maintenance of erosion control facilities on a weekly basis and after each rainfall event.

MAINTENANCE

Erosion control measure in this plan shall be maintained so that they individually and collectively perform the functions for which they were designed. During construction, one individual shall be assigned the responsibility for inspection and maintenance of these facilities. All facilities shall be inspected weekly and after each storm event. All damaged facilities shall be repaired or replaced immediately. Sediment shall be removed from facilities when it reaches sufficient depth to limit their effectiveness.

Map Scale: 1:2,640 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 35 70 140 210

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Pennsylvania
Survey Area Data: Version 18, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 3, 2022—Jul 20, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
UugB	Urban land-Udorthents, schist and gneiss complex, 0 to 8 percent slopes	12.8	100.0%
Totals for Area of Interest		**12.8**	**100.0%**

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH/ LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK – SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
URBAN LAND UDORTHENTS (UugB)	X	C/S				X	X	X	X	X	X	X				X

SOIL LIMITATION RESOLUTIONS

CUTBANKS CAVE - OSHA STANDARDS AND REGULATIONS MUST BE FOLLOWED AT ALL TIMES T0 ENSURE THE SAFETY OF WORKER DURING TRENCHING AND EXCAVATION

CORROSIVE TO CONCRETE/STEEL - SPECIAL SITE EXAMINATION AND DESIGN MAY BE REQUIRED; INSTALL UTILITIES ENTIRELY WITHIN ONE KIND OF SOIL OR SOIL LAYER

DROUGHTY - USE NATIVE VEGETATION WHERE POSSIBLE. SUPPLEMENTAL IRRIGATION MAY BE NECESSARY FOR VEGETATION ESTABLISHMENT.

EASILY ERODIBLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. USE SOD OR EROSION CONTROL NETTING IN AREAS OF STEEP SLOPES OR CONCENTRATED FLOWS.

FLOODING - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN.

DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPS SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES.

HYDRIC/HYDRIC INCLUSIONS - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE LIMITING ZONES. BMPS SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES.

LOW STRENGTH/LANDSLIDE PRONE - MECHANICALLY COMPACT BERMS AND GRADE WHEN MATERIAL IS NOT SATURATED.

SLOW PERCOLATION - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPS SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES.

PIPING - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT.

POOR SOURCE OF TOPSOIL - SEED, FERTILIZING, AND SOIL PREPARATION FOR ADVERSE CONDITIONS

FROST ACTION - RECOMMENDED TO WORK DURING WARM WINTER MONTHS

SHRINK-SWELL - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. CONSULT GEOTECHNICAL ENGINEER FOR SUITABILITY AND EXCHANGE SOIL IF DEEMED NECESSARY.

POTENTIAL SINKHOLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. INFILTRATION FACILITIES SHOULD BE MINIMIZED IN AREAS UNDERLAIN BY LIMESTONE. BMPS SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA.

PONDING - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN.

WETNESS - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN. STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES.

IMPORT OR EXPORT OF FILL

If the site will need to import or export material fron the site, the responsibility for performing "Due Diligence" and determination of "Clean Fill" will lie with the contractor.

Clean Fill is defined as: uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and prick, block, or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials place in or on the 'Waters of the Commonwealth' unless otherwise authorized. (The term 'used asphalt' does not include milled asphalt or asphalt that has been processed for re-use).

Clean fill affected by a spill or release of a regulated substance: fill materials affected by a spill or release of a regulated substance sill qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Table FP-1a and FP-1b found in the Department's policy "Management of Fill".

Any person placing clean fill that has been affected by the spill or release of a regulated substance must use for FP-001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP-001 must be retained by the owner of the property receiving the fill. A copy of Form FP-001 can be found at the end of these instructions.

Environmental Due Diligence: The applicant must perform Environmental Due Diligence to determine if the fill materials associated with the project qualify as Clean Fill. Environmental Due Diligence is defined as: investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not required as a part of Due Diligence unless visual inspection and/or review of past land use of the property indicates that the fill may have been subjected to a spill or release of a regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill".

Fill material that does not qualify as Clean Fill is Regulated Fill. Regulated Fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable. These regulations are available online at www.pacode.com.

UTILITY LINE TRENCH EXCAVATION NOTES

1. Limit advanced clearing and grubbing operations to a distance equal to two times the length of pipe installation that can be completed in one day.
2. Work crews and equipment for trenching, placement of pipe, plug construction, and backfilling will be self contained and separate from clearing and grubbing and site restoration and stabilization operations.
3. All soil excavated from the trench will be placed on the uphill side of the trench.
4. Limit daily trench excavation to the length of pipe placement, plug installation, and backfilling that can be completed in the same day.
5. Water which accumulates in the open trench will be completely removed by pumping before pipe placement and/or backfilling begins. Water removed from the trench shall be pumped through a filtration device.
6. On the day following pipe placement and trench backfilling, the disturbed area will be graded to final contours and immediately stabilized.

TEMPORARY SEEDING REQUIREMENTS

SPECIES	SEEDING RATE (lb./Ac.)
FOR SPRING SEEDING (UP TO JUNE 15)	40 Annual Ryegrass 96 (3 bu)
or spring oats,	64 oats (2 bu) plus or
spring oats plus ryegrass,	20 lb annual or perennial ryegrass 180 (3 bu)
or winter wheat,	168 (3 bu)
or winter rye	
FOR LATE SPRING AND SUMMER SEEDING (JUNE 16 to AUGUST 15)	
Annual Ryegrass,	40
Japanese or foxtail millet,	35
or sudangrass,	40
or spring oats	96 (3 bu)
or spring oats,	180 (3 bu)
or winter wheat,	168 (3 bu) or winter rye
FOR LATE SUMMER AND FALL SEEDING (AUGUST 16 AND LATER)	
Annual Ryegrass,	40
or winter rye,	168 (3 bu)
or winter wheat,	180 (3 bu)
or spring oats (can be used but winter kills)	96 (3 bu)

NOTES:

1. 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. During the non-growing season, October 15 through March 15, mulch must be applied at the recommended rates. Temporary seeding shall be performed after the end of the non-growing season. Disturbed areas which are not at finish grade and which will be disturbed within one year shall be seeded and mulched with a quick growing temporary seeding mixture and mulch. Disturbed areas which are either at finish grade or will not be redisturbed within one year must be seeded and mulched with permanent seed mixture and mulch.
2. MULCHING: Mulches alone help protect areas from erosion. Mulches also provide initial protection if area is to be seeded later. Use hay or straw at a rate of 3 tons per acre.
3. SITE PREPARATION: Apply 1 ton of agricultural-grade limestone per acre, plus fertilizer at the rate of 50-50-50 (50 pounds of N, 50 pounds of P_2O_5, and 50 pounds of K_2O) per acre, and work in where possible.
4. Topsoil stockpiles must be seeded and mulched immediately.

PERMANENT SEEDING REQUIREMENTS

MIX No.	SPECIES	SEEDING RATE	MIX No.	SPECIES	SEEDING RATE
2	Tall Fescue, or	75 lb./Ac.	4	Birdsfoot Trefoil, plus	10 lb./Ac.
	Fine Fescue, or	40 lb./Ac.		Reed Canarygrass	15 lb./Ac.
	Kentucky Bluegrass,	30 lb./Ac.			
	plus Redtop, or	3 lb./Ac.	10	Tall Fescue, plus	60 lb./Ac.
	Perennial Ryegrass	20 lb./Ac.		Fine Fescue	15 lb./Ac.
3	Birdsfoot Trefoil, plus	10 lb./Ac.			
	Tall Fescue	35 lb./Ac.			

NOTES:

1. Seeding rates are for pure live seed, seeding rate shall be adjusted by percent germination.
2. Mixture No. 2 is suitable for frequent mowing. Do not cut shorter than 4 inches.
3. Keep Redtop seeding rate to that indicated. This species has small seeds and is very competitive.
4. Diversion channels, detention basins, and sediment traps or berms shall be seeded and mulched immediately.
5. Due to the absence of soil tests, the site shall be prepared by the application of at least 6 tons of agricultural grade limestone and 100-200-200 (100 pounds of N, 200 pounds of P_2O_5, and 200 pounds of K_20) per acre. Work lime and fertilizer into the soil deeply wherever possible.
6. After seeding, mulch with hay or straw at a rate of 3 tons per acre.
7. For best results, grass and legume seedings should be made in spring (March, April, and early May). However, through proper choice of seed mixtures, seed specifications, and establishment techniques, disturbed sites can be seeded almost any time from spring to fall. Legume seedings need a growing period of at least ten to twelve weels to produce seedings sufficiently large and hardy to survive the winter. Grasses generally require at least four to six weeks of growth prior to hard frosts. It is suggested that legumes be seeded before August 15 in southeastern Pennsylvania (corn maturity zone 4).
8. No topsoil stockpile shall be removed from the site or used as spoil.

RECOMMENDED SEED MIXTURES FOR VARIOUS AREAS

MIXTURE	AREA
Slopes and banks (unmowed)	3
(mowed)	2 or 10
Drainage swales	2, 3 or 4
Utility Right-of-Way	3
Lawns	2, 3 or 10

MULCHING REQUIREMENTS

All conservation and erosion control areas, whether seeded with a drill, broadcasted, or hydroseeded, should be mulched to reduce soil erosion and to aid seed germination and seedling establishment. Grass hay and cereal stray are preferred mulches and should be applied to produce a loose layer 0.75 to 1 inch deep. Generally, 3 tons of mulch per acre are sufficient. As a guideline, a thickness of five to six overlapping straw or hay stems is acceptable for mulching. Stray or hay should not be chopped or finely broken during application. On steep slopes, hay rather than mulch is recommended.

CAUTION: Hay mulch may introduce undesirable weeds; use clean mulch if weeds might be a problem.

Long straws and stems are more readily anchored in place and afford seedling plants more protection than does chopped straw or hay. Mulches of hay or straw may be tied down with commercial netting of various types of asphalt emulsion or cutback cutback asphalt at a rate of 100 to 150 gallons per acre. Application or cellulose fiber over the straw or hay mulch at a rate of 800 to 1000 pounds per acre also is an excellent way to tack or hold the mulch in place.

FAX: (215) 576-7791 PHONE: (215) 887-2165

CHARLES E. SHOEMAKER, INC.
ENGINEERS AND SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936

VOLUME REDUCTION AND WATER QUALITY

Per Abington Township code, the goal of the design was to manage the recharge volume and the water quality volume. The entire volume required is permanently removed through recharge in the infiltration bed with additional water quality management taking place through water quality devices in the inlets. Overflows from the large storms also outflow to a retentive grading area with amended soil for additional water quality.

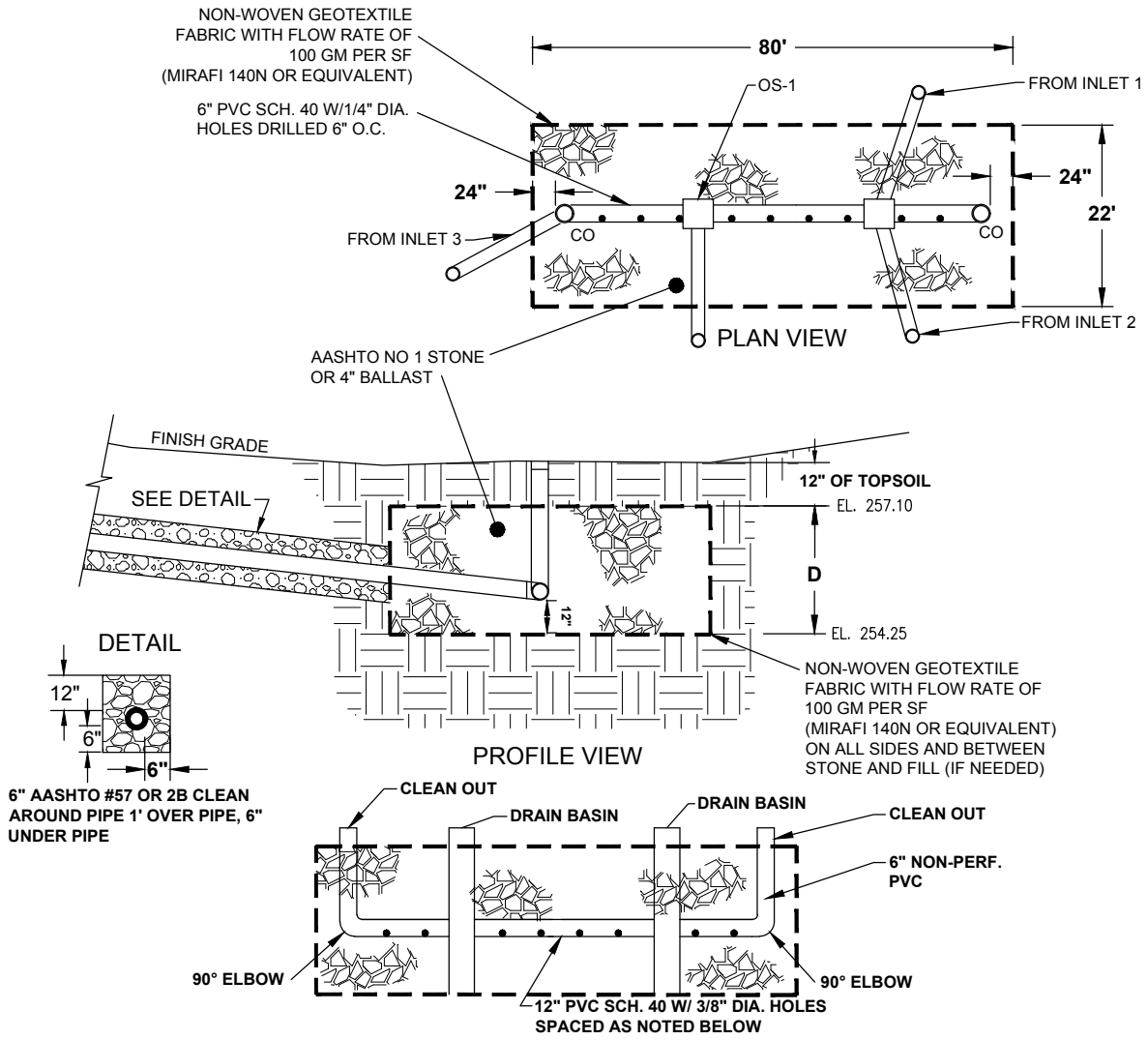
Required Volume:

Recharge Volume:	686 CF
Water Quality Volume:	655 CF
Total Required Volume:	**1,341 CF**

INFILTRATION BED:

Managed Volume:	1,957 CF

Managed volume: 1,957 CF (>> 1,341 Required)



NOTE:
INLETS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR AND AFTER RUNOFF EVENTS. REMOVE ACCUMULATED SEDIMENT AS REQUIRED. IN AREAS WITH VEGETATED OVERLAY, VEGETATION SHOULD BE MAINTAINED AND IN GOOD CONDITION.

NOTES:
1. SEDIMENT PROTECTION SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY AREAS ARE STABILIZED (INCLUDING OTHER LOTS).

INFILTRATION BED DETAIL

N.T.S.

STORMWATER MANAGEMENT CALCULATIONS

Per the Township of Abington code section 142-405(2):
The Re_V required shall be computed as:

Re_V = (1/12) * (I) = cubic feet (cf)
Re_V = (1/12) * 8,232
= 686 CF

Per the Township of Abington code section 142-407(B), the following formula is used to determine water quality volume in acre-feet of storage required:

WQ_V = Water Quality Volume
WQ_V = [(P)*(Rv)*(A)] / 12

Where:
P = 1 inch
A = Area of project contributing to water quality BMP (acres)
Rv = 0.05 + 0.009 (I) where I is the percent of the area that is impervious surface (impervious area/A)*100)
Rv = 0.05 + 0.009 (100%)
0.95

WQ_V = [(1)(0.95)(0.19)] / 12
= 0.015 acre-feet
= 655 CF

640 CEDAR ROAD

INFILTRATION BED

REQUIRED VOLUME TO BE MANAGED PER ABINGTON TOWNSHIP CODE	1341 CF

VOLUME CALCULATIONS FOR STONE

Basin Invert	Slope ft/ft	Footprint SF	Elevation	Stage	Stage Media Volume	% Voids	h Volume	Σ Voids Volume	
254.25	**0.0000**	**1600**	**254.25**	0.00	0	40%	**0.0**	**0**	
254.25	0.0000	1600	**254.50**	0.25	400	40%	**160.0**	**160**	
254.25	0.0000	1600	**254.75**	0.50	400	40%	**160.0**	**320**	
254.25	0.0000	1600	**255.00**	0.75	400	40%	**160.0**	**480**	
254.25	0.0000	1600	**255.25**	1.00	400	40%	**160.0**	**640**	
254.25	0.0000	1600	**255.50**	1.25	400	40%	**160.0**	**800**	
254.25	0.0000	1600	**255.75**	1.50	400	40%	**160.0**	**960**	
254.25	0.0000	1600	**256.11**	1.86	576	40%	**230.4**	**1190**	
254.25	0.0000	1600	**256.36**	2.11	400	40%	**160.0**	**1350**	
254.25	0.0000	1600	**256.61**	2.36	400	40%	**160.0**	**1510**	
254.25	0.0000	1600	**256.86**	2.61	400	40%	**160.0**	**1670**	
254.25	0.0000	1600	**257.11**	2.86	400	40%	**160.0**	**1830**	

RECHARGE VOLUME

Recharge Volume: **1190 CF**

The volume below elevation 255.75 is considered to be managed because it will pass through the infiltration surface on the bottom of the bed.

Active Infiltration

Surface Area:	1600	SF
Time Interval:	6.0	hr
Infiltration Rate:	2.88	in/hr
Factor of Safety:	3	
Infiltration Rate w/FOS:	0.0799	ft/hr

Active Infiltration = Surface Area x Time Interval x Infiltration Rate w/FOS

= 767 CF

TOTAL INFILTRATION = 100% Infiltration + Active Infiltration

= 1,957 CF << POTENTIAL RECHARGE VOLUME

640 CEDAR ROAD
Weighted C

EXISTING		1-yr to 10-yr events					25-yr to 100-yr events				
AREA No.	DRAINAGE AREA (Ac.)	IMPERVIOUS AREA C=0.86	FORREST AREA C=0.16	LAWN AREA C=0.24	WEIGHTED C	INLET CA	IMPERVIOUS AREA C=0.96	FORREST AREA C=0.20	LAWN AREA C=0.29	WEIGHTED C	INLET CA
Ex. Site	0.61	0.23	0.00	0.38	0.47	0.29	0.23	0.00	0.38	0.54	0.33
Total Managed	0.61	0.23	0.00	0.38	0.47	0.29	0.23	0.00	0.38	0.54	0.33

PROPOSED		1-yr to 10-yr events					25-yr to 100-yr events				
AREA No.	DRAINAGE AREA (Ac.)	IMPERVIOUS AREA C=0.86	FORREST AREA C=0.16	LAWN AREA C=0.24	WEIGHTED C	INLET CA	IMPERVIOUS AREA C=0.96	FORREST AREA C=0.20	LAWN AREA C=0.29	WEIGHTED C	INLET CA
Infiltration Bed											
TD1	0.05	0.05	0.00	0.00	0.86	0.04	0.05	0.00	0.00	0.96	0.05
Inlet 1	0.05	0.05	0.00	0.00	0.86	0.04	0.05	0.00	0.00	0.96	0.05
Inlet 2	0.09	0.08	0.00	0.01	0.79	0.07	0.08	0.00	0.01	0.89	0.08
Inlet 3	0.05	0.05	0.00	0.00	0.86	0.04	0.05	0.00	0.00	0.96	0.05
Roof Drain to Bed	0.02	0.02	0.00	0.00	0.86	0.02	0.02	0.00	0.00	0.96	0.02
Offsite Roof Area to Bed	*0.06*	*0.06*	*0.00*	*0.00*	*0.86*	*0.05*	*0.06*	*0.00*	*0.00*	*0.96*	*0.06*
Managed to Infiltration Bed	0.26	0.25	0.00	0.01	0.84	0.22	0.25	0.00	0.01	0.93	0.24
Offsite to Infiltration Bed	*0.06*	*0.06*	*0.00*	*0.00*	*0.86*	*0.05*	*0.06*	*0.00*	*0.00*	*0.96*	*0.06*
Total to Infiltration Bed	0.32	0.31	0.00	0.01	0.84	0.27	0.31	0.00	0.01	0.94	0.30
Bypass	0.35	0.17	0.00	0.18	0.54	0.19	0.17	0.00	0.18	0.62	0.22
SITE TOTAL	**0.61**	**0.42**	**0.00**	**0.19**	**0.67**	**0.28**	**0.42**	**0.00**	**0.19**	**0.75**	**0.46**

Note:

Runoff coefficients were taken from Table E-2 on the following page assuming 2-6% site slopes and Type 'D' soils.

Pipe Tbl

Line No.	Line ID	Inlet Time (min)	Incr Q (cfs)	Capac Full (cfs)	Flow Rate (cfs)	Line Size (in)	n-val Pipe	Line Length (ft)	Line Slope (%)	Vel Ave (ft/s)	Invert Up (ft)	Invert Dn (ft)	Gnd/Rim El Up (ft)	HGL Up (ft)	Gnd/Rim El Dn (ft)	HGL Dn (ft)	Cover Up (ft)	Cover Dn (ft)
1	I3 TO BED	5.0	0.47	4.95	0.47	15	0.012	46	0.50	1.46	255.60	255.37	258.50	255.87	259.70	256.36	1.65	3.08

Project File: 27023 I3 TO BED.stm | Number of lines: 1 | Date: 10/12/2023

NOTES: ** Critical depth

Pipe Tbl

Line No.	Line ID	Inlet Time (min)	Incr Q (cfs)	Capac Full (cfs)	Flow Rate (cfs)	Line Size (in)	n-val Pipe	Line Length (ft)	Line Slope (%)	Vel Ave (ft/s)	Invert Up (ft)	Invert Dn (ft)	Gnd/Rim El Up (ft)	HGL Up (ft)	Gnd/Rim El Dn (ft)	HGL Dn (ft)	Cover Up (ft)	Cover Dn (ft)
1	I2 TO BED	5.0	0.79	4.95	0.79	15	0.012	36	0.50	1.78	255.50	255.32	258.50	255.85	259.70	256.36	1.75	3.13

Project File: 27023 I2 TO BASIN.stm | Number of lines: 1 | Date: 10/12/2023

NOTES: ** Critical depth

Pipe Tbl

Line No.	Line ID	Inlet Time (min)	Incr Q (cfs)	Capac Full (cfs)	Flow Rate (cfs)	Line Size (in)	n-val Pipe	Line Length (ft)	Line Slope (%)	Vel Ave (ft/s)	Invert Up (ft)	Invert Dn (ft)	Gnd/Rim El Up (ft)	HGL Up (ft)	Gnd/Rim El Dn (ft)	HGL Dn (ft)	Cover Up (ft)	Cover Dn (ft)
2	YD1 TO I1	5.0	0.47	4.95	0.47	15	0.012	64	0.50	2.50	256.72	256.40	260.15	256.99	260.50	256.66	2.18	2.85
1	I1 TO BED	0.0	0.00	4.95	0.86	15	0.012	40	0.50	2.90	256.20	256.00	260.50	256.56	259.70	256.36	3.05	2.45

Project File: 27023 YD1 TO BED.stm | Number of lines: 2 | Date: 10/12/2023

NOTES: ** Critical depth

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CHARLES E. SHOEMAKER, INC.
ENGINEERS AND SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936

APPENDIX A

INFILTRATION TESTING REPORT

1590 Canary Road, Quakertown, PA 18951 | 215-536-7006 | Fax: 215-538-6136

VW Consultants LLC

August 10, 2023

Lisa Rutkowski, Practice Manager
Hopewell Veterinary Hospital
640 Cedar Road
Jenkintown, PA 19046

Via email to: lisa@hopewellvet.com

Re: Stormwater Infiltration Testing
Hopewell Veterinary Hospital
640 Cedar Road
Jenkintown, PA 19046
T.M.P. No.: 30-00-06992-00-7
Abington Township, Montgomery County, PA

Dear Mrs. Rutkowski:

VW Consultants, LLC (VW) completed an evaluation of the above referenced property on August 7, 2023 for the feasibility of stormwater infiltration. Testing was conducted at the three locations marked on the attached Test Pit Location Plan, which is based on the Zoning Exhibit Plan for 640 Cedar Road, prepared by Charles E. Shoemaker, Inc., last revised 6/14/2023. The results of the testing, including the soil test pit descriptions and infiltration rates at specified depths, expressed in inches below ground surface (B.G.S.), are summarized at the end of this report. The infiltration rates were established by the double-ring methodology, as described in the current *PADEP Stormwater Best Management Practices Manual (2006)*. Our findings indicate that infiltration of stormwater runoff is feasible on the project site as listed in the summary table at the end of this report.

Project Setting

The project site is an existing veterinary hospital situate on 2.48 acres. The property is currently improved with one vet clinic building, bank barn and detached garage. The site is mostly open lawn with sparse trees around the building and perimeter. The site slopes downhill on all sides from a high point by the main building. VW performed soil testing at the rear of the property in support of proposed stormwater management facilities to be utilized for a building addition and parking lot expansion.

Based on a review of a United States Geologic survey map of Pennsylvania, the project site is underlain by the Wissahickon Schist Formation. This formation is typically composed of a mica schist. This rock is characterized by its distinct foliation, which is caused by the preferential orientation of muscovite, feldspar and quartz. The foliation within this formation is typically well-developed, fissile to thin.

Based on a review of the Web Soil Survey, the project site has been mapped by the Natural Resource Conservation Service as containing the Urban Land - Udorthents, schist and gneiss complex soil series. While the soil profile characteristics and permeability rates of the urban land soil series have

not been quantified, the soils are variable and generally consist of deep profiles similar to the nearby undisturbed soils. However, based on the soils observed, VW classified the on-site soils as a taxadjunct to the Glenelg soil series. Glenelg silt loams are classified as very deep, well-drained soils formed in materials weathered from micaceous schist. Glenelg soils are classified as Hydrologic Soil Group B, while urban land soils are generally classified as Hydrologic Soil Group D.

Site Soils

The site was evaluated by a professional soil scientist and the soil profiles were described in accordance to the criteria of the USDA-SCS *Soil Survey Manual* Handbook No. 18 (3/2017) and the USDA-NRCS *Field Book for Describing and Sampling Soils* Version 3.0 (9/2012). A copy of the prepared soil profile descriptions is included with this report.

Three test pits were performed on the project site as directed by the design engineer and as shown on the attached Test Pit Location Plan. In the test pits, VW generally observed dark brown loam topsoil that was over top of strong brown to yellowish red silt loams and loams. Beneath the surface soils, VW generally observed variegated channery loams that continued down to test pit completion. Bedrock, indicated by machine refusal, was not encountered in any of the test pits during the field investigation.

A perched water table, indicated by redoximorphic features, was not observed in any of the test pits during the field investigation. Additionally, a regional groundwater table was not observed in any of the test pits during the field investigation. Please see the soil profile descriptions for a more detailed description of the soils observed.

At completion, the test pits were backfilled and compacted with the excavated material, and leveled off with the surrounding grades. No additional compaction effort or site restoration was performed.

Infiltration Testing

To establish infiltration rates, two double-ring infiltrometer tests were conducted at each test pit location. All tests were conducted at the depth noted on the table below, depth expressed in inches below ground surface (B.G.S.). The test rates were averaged to obtain an average infiltration rate at that depth. The infiltration tests were conducted following the procedure of the current *PADEP Stormwater Best Management Practices Manual (2006)* for both test technique and calculation of the infiltration rate. Please be advised that this calculation, which is consistent with the methodology of the current PADEP Stormwater Manual, is not a soil hydraulic conductivity rate as determined by Darcy's Law.

The table below is a summary of the infiltration test depths and the infiltration rates obtained by VW during the field testing.

Pit No.	Pit Depth (in, BGS)	Observed Redox Features (in, BGS)	Depth to Rock (in, BGS)	Depth to Ground Water (in, BGS)	Infiltration Test Depth (in, BGS)	Average Infiltration Rate (in/hr.)
SW-1	96	NE	NE	NE	60	2.875
SW-2	100	NE	NE	NE	60	3.0
SW-3	108	NE	NE	NE	66	0.75

NE= not encountered

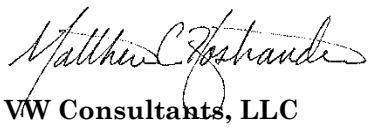
Conclusions and Recommendations

VW observed the site soils and performed infiltration testing at three test pit locations on the subject property. Based on the observed soil conditions and infiltration rates obtained during the site testing, stormwater management facilities proposing infiltration can be designed at the locations and depths tested where suitable infiltration rates were obtained. The infiltration facilities should be designed by a professional engineer at the depth of the infiltration testing using appropriate engineering practices and with a safety factor reduction from the measured infiltration rate. Care should be taken to preserve the soil infiltrative surface during pre- and post-construction of the stormwater management facility.

Our findings are the result of testing conducted in specific locations and conditions. Should conditions contrary to the findings in this report be discovered prior to, during, or after construction of the stormwater control devices, VW must be notified so our recommendations can be reviewed or revised, if necessary. Additionally, if the stormwater management facility location and/or size changes, a VW soil scientist and the project engineer should review the site testing to confirm additional soil testing is not warranted.

Should you have any questions regarding the information included in this report, please contact me at 215-778-5284, or by email at mhostrander@vw-consultants.com.

Respectfully submitted,



VW Consultants, LLC
Matthew C. Hostrander, CPSS
Professional Soil Scientist

Enclosures: soil profile descriptions, infiltration data sheets, test pit location plan

cc: Chad Brensinger, P.E. of Charles E. Shoemaker, Inc.

Matthew C. Hostrander, CPSS
Professional Soil Scientist

Date: 8/7/23 Pit # SW-1
Project: Hopewell Veterinary Hospital
Location: 640 Cedar Road
Abington Township, Montgomery Co., PA
Soil Series Mapped: Urban-Udorthents
Soil Series Classified: Glenelg Taxadjunct

Limiting Zone 96+" none Slope: 1-3% Conduct Double Ring Infiltrometer Test at 60"

Horizon	Depth (In.)	Matrix Color	Texture	Structure	Consistence	Fe Redox Depletions	Fe Redox Concentrations	Boundary
Ap	0-10	10YR 3/3	gr l	2 m gr 1 m sbk	friable	none	none	abrupt wavy
Bt	10-20	7.5YR 4/6	l	1 m sbk	friable	none	none	clear wavy
CB	20-44	7.5YR 5/4	sil	1 th pl 0 m	very friable	none	none	gradual wavy
C	44-96+	10YR 4/4	vch l	0 m	very friable loose	none	none	

Township Representative: None Soil Scientist: Matthew C. Hostrander

Notes: Site evaluation for stormwater infiltration. No groundwater or bedrock encountered. Residual soils observed throughout profile.
Weather / Field Conditions: Overcast, 80s, soils moist.
Others Present at Site: Geary Erney of Total Contracting – backhoe provider and operator.

EPIPEDON
Ochric

SUBSURFACE HORIZON(S)
Argillic

SOIL ORDER
Ultisol

DRAINAGE CLASS
Well Drained

LANDFORM
Upland

POSITION
Summit

PARENT MATERIAL
Residuum

BEDROCK LITHOLOGY
Schist

COARSE FRAGMENTS (% of Vol.)

15-35%	**35-65%**	**>65%**
(gr) gravelly	(vgr) very gravelly	(egr)extr. gravelly
(ch) channery	(vch) very channery	(ech) extr.channery
(cb) cobbly	(vcb) very cobbly	(ecb) extr. cobbly
(fl) flaggy	(vfl) very flaggy	(efl) extr. flaggy
(st) stony	(vst) very stony	(est) extr. stony
(bd) bouldery	(vbd) very bouldery	(ebd) extr. bouldery

TEXTURE
cos - coarse sand
s - sand
fs - fine sand
vfs - very fine sand
lcos - loamy coarse sand
ls - loamy sand
lfs - loamy fine sand
lvfs - loamy very fine sand
cosl - coarse sandy loam
sl - sandy loam
fsl - fine sandy loam
vfsl - very fine sandy loam
l - loam
sil - silt loam
si - silt
scl - sandy clay loam
cl - clay loam
sicl - silty clay loam
sc - sandy clay
sic - silty clay
c – clay

STRUCTURE
Grade
Structureless - 0
Weak - 1
Moderate - 2
Strong - 3
Type
pl - platy
pr - prismatic
cpr - columnar
gr - granular
abk - angular blocky
sbk - subangular blocky
m - massive
s - single grain
Size
vf - very fine
f - fine
m - medium
co - coarse
vc - very coarse
vt - very thin
t - thin
th - thick
vth - very thick

REDOX FEATURES
Abundance
f - Few <2%
c - Common 2-20%
m - Many >20%
Contrast
f - Faint
d - Distinct
p - Prominent

BOUNDARY
Distinctness
Abrupt <1" (thick)
Clear 1-2.5"
Gradual 2.5 -5"
Diffuse >5
Topography
Smooth - boundary is nearly level
Wavy - pockets with width greater than depth
Irregular - pockets with depth greater than width
Broken discontinuous

Matthew C. Hostrander, CPSS
Professional Soil Scientist

Date: 8/7/23 Pit # SW-2
Project: Hopewell Veterinary Hospital
Location: 640 Cedar Road
Abington Township, Montgomery Co., PA
Soil Series Mapped: Urban-Udorthents
Soil Series Classified: Glenelg Taxadjunct

Limiting Zone 100+" none Slope: 3-5% Conduct Double Ring Infiltrometer Test at 60"

Horizon	Depth (In.)	Matrix Color	Texture	Structure	Consistence	Fe Redox Depletions	Fe Redox Concentrations	Boundary
Ap	0-10	10YR 3/3	l	2 m gr 1 m sbk	friable	none	none	abrupt wavy
Bt	10-22	5YR 4/6	l	2 m sbk	friable	none	none	clear wavy
BC	22-38	7.5YR 4/6	sil	1 th pl	very friable	none	none	gradual wavy
C	38-100+	Variegated	ch l	0 m	very friable	none	none	

Township Representative: None Soil Scientist: Matthew C. Hostrander

Notes: Site evaluation for stormwater infiltration. No groundwater or bedrock encountered. Residual soils observed throughout profile.
Weather / Field Conditions: Overcast, 80s, soils moist.
Others Present at Site: Geary Erney of Total Contracting – backhoe provider and operator.

EPIPEDON
Ochric

SUBSURFACE HORIZON(S)
Argillic

SOIL ORDER
Ultisol

DRAINAGE CLASS
Well Drained

LANDFORM
Upland

POSITION
Shoulder

PARENT MATERIAL
Residuum

BEDROCK LITHOLOGY
Schist

COARSE FRAGMENTS (% of Vol.)

15-35%	**35-65%**	**>65%**
(gr) gravelly	(vgr) very gravelly	(egr)extr. gravelly
(ch) channery	(vch) very channery	(ech) extr.channery
(cb) cobbly	(vcb) very cobbly	(ecb) extr. cobbly
(fl) flaggy	(vfl) very flaggy	(efl) extr. flaggy
(st) stony	(vst) very stony	(est) extr. stony
(bd) bouldery	(vbd) very bouldery	(ebd) extr. bouldery

TEXTURE
cos - coarse sand
s - sand
fs - fine sand
vfs - very fine sand
lcos - loamy coarse sand
ls - loamy sand
lfs - loamy fine sand
lvfs - loamy very fine sand
cosl - coarse sandy loam
sl - sandy loam
fsl - fine sandy loam
vfsl - very fine sandy loam
l - loam
sil - silt loam
si - silt
scl - sandy clay loam
cl - clay loam
sicl - silty clay loam
sc - sandy clay
sic - silty clay
c – clay

STRUCTURE
Grade
Structureless - 0
Weak - 1
Moderate - 2
Strong - 3
Type
pl - platy
pr - prismatic
cpr - columnar
gr - granular
abk - angular blocky
sbk - subangular blocky
m - massive
s - single grain
Size
vf - very fine
f - fine
m - medium
co - coarse
vc - very coarse
vt - very thin
t - thin
th - thick
vth - very thick

REDOX FEATURES
Abundance
f - Few <2%
c - Common 2-20%
m - Many >20%
Contrast
f - Faint
d - Distinct
p - Prominent

BOUNDARY
Distinctness
Abrupt <1" (thick)
Clear 1-2.5"
Gradual 2.5 -5"
Diffuse >5
Topography
Smooth - boundary is nearly level
Wavy - pockets with width greater than depth
Irregular - pockets with depth greater than width
Broken discontinuous

Matthew C. Hostrander, CPSS
Professional Soil Scientist

Date: 8/7/23 Pit # SW-3
Project: Hopewell Veterinary Hospital
Location: 640 Cedar Road
Abington Township, Montgomery Co., PA
Soil Series Mapped: Urban-Udorthents
Soil Series Classified: Glenelg Taxadjunct

Limiting Zone 108+" none Slope: 5-8% Conduct Double Ring Infiltrometer Test at 66"

Horizon	Depth (In.)	Matrix Color	Texture	Structure	Consistence	Fe Redox Depletions	Fe Redox Concentrations	Boundary
Ap	0-10	10YR 3/3	l	2 m gr 1 f sbk	friable	none	none	abrupt wavy
Bt	10-20	7.5YR 4/6	l	1 m sbk	friable	none	none	clear wavy
BC	20-34	Variegated	sil l	1 th pl	friable	none	none	gradual wavy
CB	34-72	Variegated	sil	1 th pl 0 m	very friable	none	none	gradual wavy
C	72-108+	Variegated	ch l	0 m	very friable	none	none	

Township Representative: None Soil Scientist: Matthew C. Hostrander

Notes: Site evaluation for stormwater infiltration. No groundwater or bedrock encountered. Residual soils observed throughout profile.
Weather / Field Conditions: Overcast, 80s, soils moist.
Others Present at Site: Geary Erney of Total Contracting – backhoe provider and operator.

EPIPEDON
Ochric

SUBSURFACE HORIZON(S)
Argillic

SOIL ORDER
Ultisol

DRAINAGE CLASS
Well Drained

LANDFORM
Upland

POSITION
Backslope

PARENT MATERIAL
Residuum

BEDROCK LITHOLOGY
Schist

COARSE FRAGMENTS (% of Vol.)

15-35%	**35-65%**	**>65%**
(gr) gravelly	(vgr) very gravelly	(egr)extr. gravelly
(ch) channery	(vch) very channery	(ech) extr.channery
(cb) cobbly	(vcb) very cobbly	(ecb) extr. cobbly
(fl) flaggy	(vfl) very flaggy	(efl) extr. flaggy
(st) stony	(vst) very stony	(est) extr. stony
(bd) bouldery	(vbd) very bouldery	(ebd) extr. bouldery

TEXTURE
cos - coarse sand
s - sand
fs - fine sand
vfs - very fine sand
lcos - loamy coarse sand
ls - loamy sand
lfs - loamy fine sand
lvfs - loamy very fine sand
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fsl - fine sandy loam
vfsl - very fine sandy loam
l - loam
sil - silt loam
si - silt
scl - sandy clay loam
cl - clay loam
sicl - silty clay loam
sc - sandy clay
sic - silty clay
c – clay

STRUCTURE
Grade
Structureless - 0
Weak - 1
Moderate - 2
Strong - 3
Type
pl - platy
pr - prismatic
cpr - columnar
gr - granular
abk - angular blocky
sbk - subangular blocky
m - massive
s - single grain
Size
vf - very fine
f - fine
m - medium
co - coarse
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Smooth - boundary is nearly level
Wavy - pockets with width greater than depth
Irregular - pockets with depth greater than width
Broken discontinuous

1590 Canary Road, Quakertown, PA 18951 | 215-536-7006 | 215-538-6136

Consultants LLC

Double Ring Infiltrometer Test Report

Site: 640 Cedar Road - SW-1

Municipality: Abington Township

County: Montgomery

Date: 8/7/2023

Testing Depth: 60"
(Below Ground Surface)

	Test #1 Drop (in)	**Test #2** Drop (in)
Presoak 1 (30 min)	2.5	3.25
Presoak 2 (30 min)	1.0	2.5

		Test #1	**Test #2**
Interval 1	(min)	30	10
Drop	(in)	1.0	0.75
Interval 2	(min)	30	10
Drop	(in)	1.0	0.625
Interval 3	(min)	30	10
Drop	(in)	1.0	0.625
Interval 4	(min)	30	10
Drop	(in)	1.0	0.625
Interval 5	(min)		10
Drop	(in)		0.625
Interval 6	(min)		10
Drop	(in)		0.625
Final Drop	in/hr	2.0	3.75

Infiltration Rate= 2.875 in/hr

1590 Canary Road, Quakertown, PA 18951 | 215-536-7006 | 215-538-6136

Consultants LLC

Double Ring Infiltrometer Test Report

Site: 640 Cedar Road - SW-2

Municipality: Abington Township

County: Montgomery

Date: 8/7/2023

Testing Depth: 60"
(Below Ground Surface)

	Test #1 Drop (in)	Test #2 Drop (in)
Presoak 1 (30 min)	0.75	Dry
Presoak 2 (30 min)	0.75	Dry

		Test #1	Test #2
Interval 1	(min)	30	10
Drop	(in)	0.75	0.75
Interval 2	(min)	30	10
Drop	(in)	0.75	0.75
Interval 3	(min)	30	10
Drop	(in)	0.75	0.75
Interval 4	(min)	30	10
Drop	(in)	0.75	0.75
Interval 5	(min)		10
Drop	(in)		0.75
Interval 6	(min)		10
Drop	(in)		0.75
Final Drop	in/hr	1.5	4.5

Infiltration Rate= 3.00 in/hr

1590 Canary Road, Quakertown, PA 18951 | 215-536-7006 | 215-538-6136

Consultants LLC

Double Ring Infiltrometer Test Report

Site: 640 Cedar Road - SW-3

Municipality: Abington Township

County: Montgomery

Date: 8/7/2023

Testing Depth: 66"
(Below Ground Surface)

	Test #1 Drop (in)	**Test #2** Drop (in)
Presoak 1 (30 min)	0.75	0.25
Presoak 2 (30 min)	0.5	0.25

		Test #1	**Test #2**
Interval 1	(min)	30	30
Drop	(in)	0.5	0.25
Interval 2	(min)	30	30
Drop	(in)	0.5	0.25
Interval 3	(min)	30	30
Drop	(in)	0.5	0.25
Interval 4	(min)	30	30
Drop	(in)	0.5	0.25
Final Drop	in/hr	1.0	0.5

Infiltration Rate= 0.75 in/hr

NOTES

1. BOUNDARY INFORMATION SHOWN TAKEN FROM DEEDS OF RECORD, PLANS AND FIELD SURVEYS PERFORMED BY CHARLES E. SHOEMAKER, INC. DURING SEPTEMBER, 2022.

   METES AND BOUNDS AS SHOWN ARE BASED ON DEED BEARINGS. ROTATION TO STATE PLANE COORDINATE SYSTEM IS 10°21'52" COUNTER CLOCKWISE.

2. TOPOGRAPHICAL SURVEY PERFORMED BY CHARLES E. SHOEMAKER, INC. DURING OCTOBER, 2022.

3. HORIZONTAL DATUM BASED ON NAD1983, SPCS3, PENNSYLVANIA (SOUTH) GEOID MODEL 92003U08 USING TOPCON TOPSERV VIRTUAL NETWORK SYSTEM.

   SITE BENCH MARK IS CUT NAIL SET IN UTILITY POLE. ELEVATION = 260.66

4. EXISTING UNDERGROUND UTILITY LOCATIONS WERE PLOTTED FROM UTILITY COMPANY PLANS SUPPLIED TO US IN ACCORDANCE WITH PA ACT 121 (2008) OR BY PHYSICAL SURVEY LOCATIONS. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY. CONTRACTORS ARE REQUIRED BY PA ACT 121 TO VERIFY THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION ACTIVITIES. PENNSYLVANIA ONE CALL SYSTEMS, INC., PHONE NO. 1-800-242-1776 SERIAL NO. 20222580915 & 20222580916.

5. REFERENCE WAS MADE TO THE FOLLOWING:

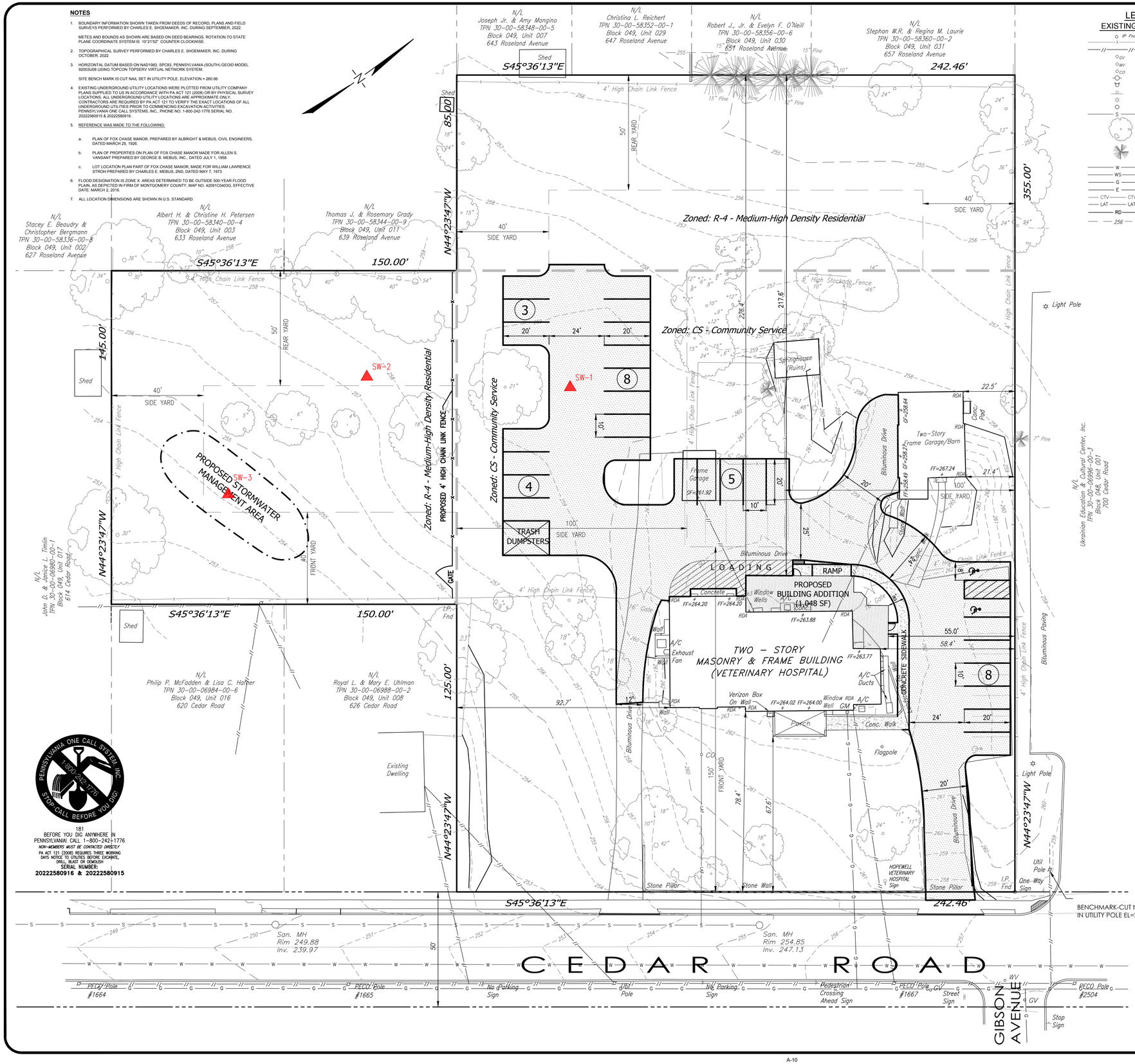
   a. PLAN OF FOX CHASE MANOR, PREPARED BY ALBRIGHT & MEBUS, CIVIL ENGINEERS, DATED MARCH 25, 1926.

   b. PLAN OF PROPERTIES ON PLAN OF FOX CHASE MANOR MADE FOR ALLEN S. VANSANT PREPARED BY GEORGE B. MEBUS, INC., DATED JULY 1, 1958.

   c. LOT LOCATION PLAN PART OF FOX CHASE MANOR, MADE FOR WILLIAM LAWRENCE STROH PREPARED BY CHARLES E. MEBUS, 2ND, DATED MAY 7, 1973

6. FLOOD DESIGNATION IS ZONE X AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN, AS DEPICTED IN FIRM OF MONTGOMERY COUNTY, MAP NO. 42091C0403G, EFFECTIVE DATE: MARCH 2, 2016.

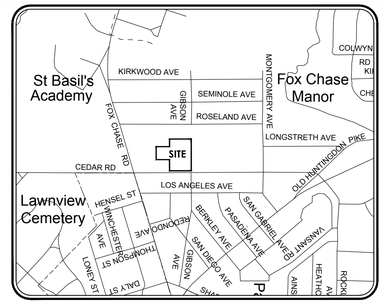
7. ALL LOCATION DIMENSIONS ARE SHOWN IN U.S. STANDARD.



LEGEND

EXISTING FEATURES

- IP Fnd. — IRON PIPE FOUND
- FENCE
- OVERHEAD WIRE
- GV — GAS VALVE
- WV — WATER VALVE
- SV — SANITARY CLEANOUTS
- UTILITY POLE
- FH — FIRE HYDRANT
- SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER
- DECIDUOUS TREE
- EVERGREEN TREE
- W — WATER MAIN
- WS — WATER SERVICE
- G — GAS MAIN
- E — UNDERGROUND ELECTRIC
- CTV — COMMUNICATIONS LINE
- LAT — LATERAL
- RD — ROOF DRAIN
- 256 — CONTOUR



LOCATION MAP
SCALE: 1" = 800'

VARIANCES REQUESTED

- A variance from Section 905.G.4 to permit two parking spaces in the required front yard where the Ordinance prohibits parking in the front yard.
- A variance from Section 2103.C.38.1 to permit the proposed expanded building to be setback 55 feet from the side property line where the required setback is doubled for the C38 use to 100 feet.
- A special exception under Section 1906.A to permit the expansion of the nonconforming use's impervious surface coverage.
- Section 1906.A. - to exceed the allowable expansion of the nonconforming use's impervious coverage by 56% where the Ordinance allows expansion of no more than 25%.
- A variance from Section 1906.A.2 to allow the expansion of the nonconforming use to have a side yard setback of 55 feet where the Ordinance requires the C38 use to have a side yard setback of 100 feet.
- A variance from Section 1907.A.1 to allow the expansion of a nonconforming nonresidential structure where the Ordinance does not permit expansion of nonresidential structures.
- A variance from Section 1907.A.2 to allow expansion of a nonconforming structure closer to the side property line. The current structure is 58.4 feet and the proposed expansion will be 55 feet from the side property line.
- A variance from Section 2401.A.2.b to allow the removal of one tree to accommodate new impervious surface without providing two replacement trees.
- A variance from Section 2402.A.5.a to allow the construction of a parking lot or area without providing the required Medium-Intensity buffer around the proposed parking lots and areas.
- A variance from Section 2402.A.6 to allow the construction of a parking lot or area without providing the required green area of 10% of the amount over 15,000 square feet gross of parking area.
- A variance from the requirement in Section 2402.B.1.a to plant street trees along the frontage of the property.
- A variance from the requirement in Section 2403.B.4.a[3] to install a High-Intensity Buffer as required based on adjoining land uses pursuant to Figure 24.5.
- A variance from the requirement in Section 2403.B.7.b to install a High-Intensity buffer along the yards that adjoin a residential zoning district.

R4 MEDIUM - HIGH - DENSITY RESIDENTIAL

REGULATIONS	REQUIREMENT
LOT AREA (MIN.)	7,000 S.F.
LOT WIDTH (MIN.)	50'
FRONT YARD (MIN.)	40'
SIDE YARD (MIN.)	40'
REAR YARD (MIN.)	50'
BUILDING COVERAGE (MAX.)	40%
IMPERVIOUS COVERAGE (MAX.)	55%
GREEN AREA (MIN.)	45%
BUILDING HEIGHT (MAX.)	35'

CS - COMMUNITY SERVICE (USE: C- 38 - VETERINARY CLINIC) *

REGULATIONS	REQUIREMENTS	EXISTING	PROPOSED
LOT AREA (MIN.)	5 ACRES	2.4753 ACRES *	2.4753 ACRES
LOT WIDTH (MIN.)	400'	242.46' *	242.46' *
LOT DEPTH (MIN.)	400'	355' *	355' *
FRONT YARD (MIN.)	150'	78.4'	78.4'
SIDE YARD (MIN.)	100'	58.4'**	55.0'**
REAR YARD (MIN.)	100'	226.4'	217.6'
BUILDING COVERAGE (MAX.)	25%	5.3% (5,700SF)	6.0% (6,436 SF)
IMPERVIOUS COVERAGE (MAX.)	40%	17.7% (19,092 SF)	29.1% (31,343 SF)
GREEN AREA (MIN.)	60%	82.3% (88,731 SF)	70.9% (76,480 SF)
BUILDING HEIGHT (MAX.)	45'	29'	29'

* - EXISTING NON-CONFORMING CONDITION
** - VARIANCE REQUIRED
1 - SECTION 2103.C.-USE C-38.1 UNDER THE ORDINANCE, THE MINIMUM SETBACK REQUIREMENTS FOR THE VETERINARY CLINIC USE ARE DOUBLED.

PARKING REQUIREMENTS

5 SPACES FOR EACH DOCTOR OPERATING ON PREMISES, OR
1 SPACE / 200 SF GROSS LEASEABLE FLOOR AREA

EXISTING GROSS LEASEABLE FLOOR AREA = 2,804 SF 2,804 / 200 = 14 SPACES REQUIRED

PROPOSED GROSS LEASEABLE FLOOR AREA = 3,550 SF 3,550 /200 = 18 SPACES REQUIRED

PROVIDED PARKING = 28 SPACES

AREA TO TITLE LINE
107,823 SF or 2.4753 ACRES

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG

181
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA ACT 121 (2008) REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE EXCAVATE, DRILL, BLAST OR DEMOLISH
SERIAL NUMBER:
20222580916 & 20222580915

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHAD WILLIAM BRENSINGER
ENGINEER
PE-074209-E

BY	REVISION	NO.	DATE
JFH	REAR PARKING AREA	1	6-14-23

COUNTY PARCEL NO.
30-00-06992-00-7
BLOCK - UNIT
30-049-004
SITE ADDRESS
640 CEDAR ROAD
JENKINTOWN, PA. 19046
DEED BOOK - PAGE
5480-01222

RECORD OWNER
RUTKOWSKI LP
640 CEDAR ROAD
JENKINTOWN, PA. 19046

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: staff@ceshoemaker.com

GRAPHIC SCALE
0 10 20 40
1 INCH = 20 FEET

ZONING EXHIBIT PLAN
OF
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

DATE MARCH 10, 2023
DWG NO. A-11-604
JOB NO. 27023
SHEET NO. 1 OF 1

FAX: (215) 576-7791 PHONE: (215) 887-2165

CHARLES E. SHOEMAKER, INC.
ENGINEERS AND SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936

APPENDIX B

HYDROLOGIC STUDY

640 CEDAR ROAD
Weighted C

EXISTING		1-yr to 10-yr events					25-yr to 100-yr events				
AREA No.	DRAINAGE AREA (Ac.)	IMPERVIOUS AREA C=0.86	FORREST AREA C=0.16	LAWN AREA C=0.24	WEIGHTED C	INLET CA	IMPERVIOUS AREA C=0.96	FORREST AREA C=0.20	LAWN AREA C=0.29	WEIGHTED C	INLET CA
Ex. Site	0.61	0.23	0.00	0.38	0.47	0.29	0.23	0.00	0.38	0.54	0.33
Total Managed	0.61	0.23	0.00	0.38	0.47	0.29	0.23	0.00	0.38	0.54	0.33

PROPOSED		1-yr to 10-yr events					25-yr to 100-yr events				
AREA No.	DRAINAGE AREA (Ac.)	IMPERVIOUS AREA C=0.86	FORREST AREA C=0.16	LAWN AREA C=0.24	WEIGHTED C	INLET CA	IMPERVIOUS AREA C=0.96	FORREST AREA C=0.20	LAWN AREA C=0.29	WEIGHTED C	INLET CA
Infiltration Bed											
TD1	0.05	0.05	0.00	0.00	0.86	0.04	0.05	0.00	0.00	0.96	0.05
Inlet 1	0.05	0.05	0.00	0.00	0.86	0.04	0.05	0.00	0.00	0.96	0.05
Inlet 2	0.09	0.08	0.00	0.01	0.79	0.07	0.08	0.00	0.01	0.89	0.08
Inlet 3	0.05	0.05	0.00	0.00	0.86	0.04	0.05	0.00	0.00	0.96	0.05
Roof Drain to Bed	0.02	0.02	0.00	0.00	0.86	0.02	0.02	0.00	0.00	0.96	0.02
Offsite Roof Area to Bed	*0.06*	*0.06*	*0.00*	*0.00*	*0.86*	*0.05*	*0.06*	*0.00*	*0.00*	*0.96*	*0.06*
Managed to Infiltration Bed	0.26	0.25	0.00	0.01	0.84	0.22	0.25	0.00	0.01	0.93	0.24
Offsite to Infiltration Bed	*0.06*	*0.06*	*0.00*	*0.00*	*0.86*	*0.05*	*0.06*	*0.00*	*0.00*	*0.96*	*0.06*
Total to Infiltration Bed	0.32	0.31	0.00	0.01	0.84	0.27	0.31	0.00	0.01	0.94	0.30
Bypass	0.35	0.17	0.00	0.18	0.54	0.19	0.17	0.00	0.18	0.62	0.22
SITE TOTAL	**0.61**	**0.42**	**0.00**	**0.19**	**0.67**	**0.28**	**0.42**	**0.00**	**0.19**	**0.75**	**0.46**

Note:

Runoff coefficients were taken from Table E-2 on the following page assuming 2-6% site slopes and Type 'D' soils.

SITE SUMMARY PER WATERSHED REQUIREMENTS

SITE PEAK FLOWS

Freq. (yr)	*Pre-Developed Managed Site Flow (cfs)*		*Allowable Developed Managed Site Flow (cfs)*		*Unmanaged Flow* (cfs)*		*Max Allowable Design Flow (cfs)*	Design Post-Dev. Total Discharge (cfs)
1	1.21		1.21	+	0.21	=	1.42	0.78
2	1.44		1.21	+	0.26	=	1.46	0.93
5	1.70		1.44	+	0.30	=	1.74	1.10
10	1.89		1.70	+	0.33	=	2.03	1.22
25	2.47		1.89	+	0.42	=	2.30	1.57
50	2.61		2.47	+	0.45	=	2.92	1.69
100	2.79		2.61	+	0.48	=	3.09	1.81

* "Unmanaged" flow is runoff from undisturbed site areas or offsite areas not to be considered for rate reduction requirements.

Note: This project is split between Stormwater Management District 'B' of the Pennypack Creek Watershed and District 'B' of the Jenkintown Creek

WATERSHED REQUIREMENTS (DISTRICT B):

Pennypack Creek Watershed requires that the post-developed 2 yr design storm runoff shall be, less than or equal to existing 1 yr design storm runoff rates, the post-developed 5 yr design storm runoff shall be less than or equal to existing 2 yr design storm runoff rates, the post-developed 10 yr design storm runoff shall be less than or equal to existing 5 yr design storm runoff rates, the post-developed 25 yr design storm shall be less than or equal to the existing 10 yr design storm runoff rates, the post-developed 50 yr design storm shall be less than or equal to the existing 25 yr design storm runoff rates, the post-developed 100 yr design storm shall be less than or equal to the existing 50 yr design storm runoff rates.

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow Hyd(s)	Peak Outflow (cfs)							Hydrograph description
			1-Yr	2-Yr	3-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr	
1	Dekalb	------	1.205	1.438	-------	1.699	1.885	[redacted]			Existing (1yr-10yr)
2	Dekalb	------	[redacted]					2.427	2.605	2.790	Existing (25yr-100yr)
4	Dekalb	------	0.903	1.078	-------	1.273	1.413	[redacted]			Managed to Bed (1yr-10yr)
5	Dekalb	------	[redacted]					1.820	1.954	2.092	Managed to Bed (25yr-100yr)
6	Dekalb	------	0.213	0.255	-------	0.301	0.334	[redacted]			Offsite to Bed (1yr-10yr)
7	Dekalb	------	[redacted]					0.417	0.448	0.480	Offsite to Bed (25yr-100yr)
8	Combine	4, 6,	1.116	1.332	-------	1.574	1.747	[redacted]			Total to Bed (1yr-10yr)
9	Combine	5, 7,	[redacted]					2.237	2.402	2.572	Total to Bed (25yr-100yr)
10	Reservoir	8	0.000	0.000	-------	0.160	0.268	0.388	0.468	0.547	Inf. Bed (1yr-10yr)
11	Reservoir	9	0.000	0.122	-------	0.299	0.411	0.541	0.620	0.685	Inf. Bed (25yr-100yr)
13	Dekalb	------	0.781	0.932	-------	1.102	1.223	[redacted]			Bypass (1yr-10yr)
14	Dekalb	------	[redacted]					1.573	1.688	1.808	Bypass (25yr-100yr)
16	Combine	10, 13,	0.781	0.932	-------	1.102	1.223	[redacted]			Proposed (1yr-10yr)
17	Combine	11, 14,	[redacted]					1.573	1.688	1.812	Proposed (25yr-100yr)

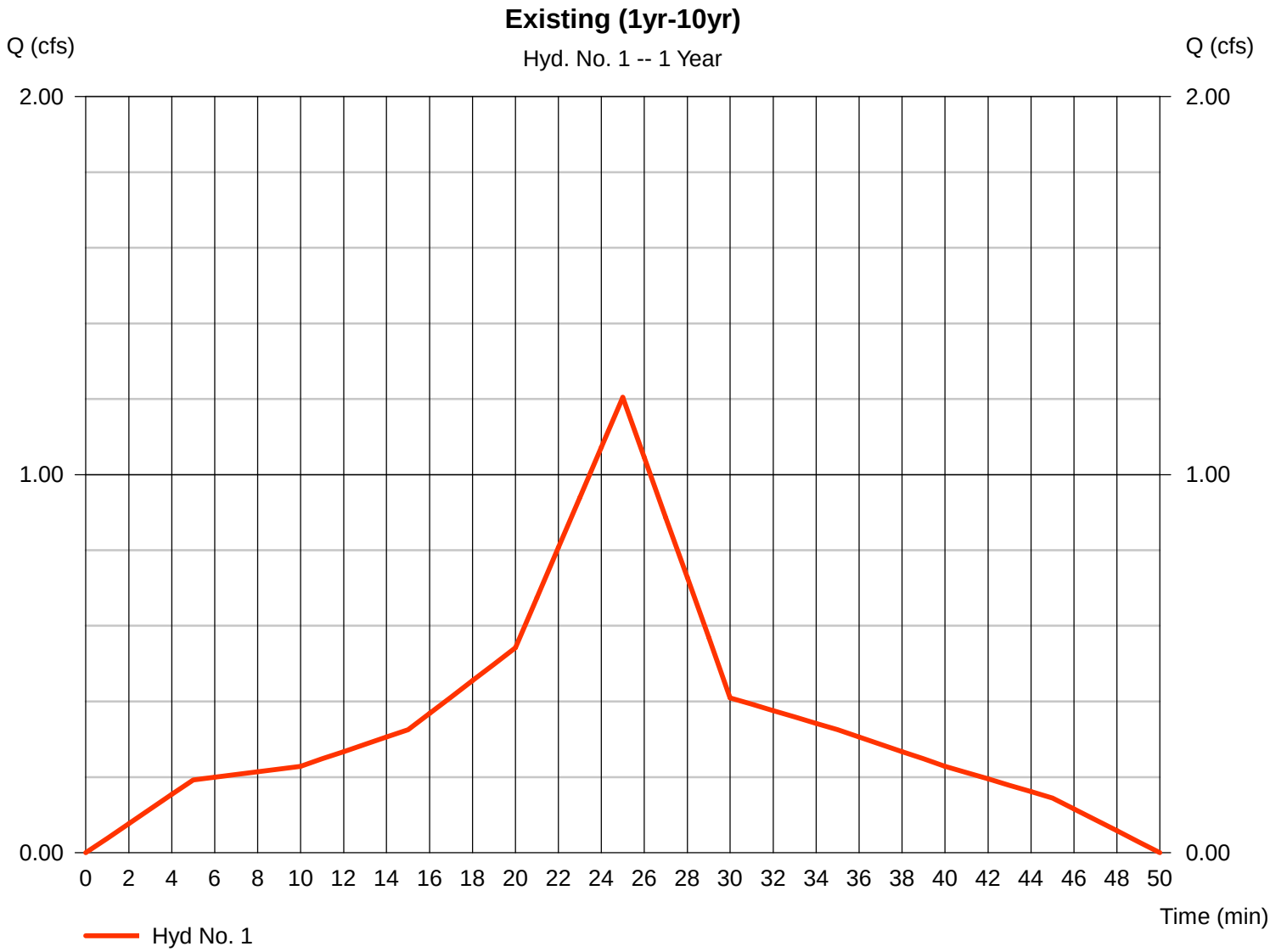
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Wednesday, Oct 11, 2023

Hyd. No. 1

Existing (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.205 cfs
Storm frequency	=	1 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,080 cuft
Drainage area	=	0.620 ac	Runoff coeff.	=	0.47
Intensity	=	4.134 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



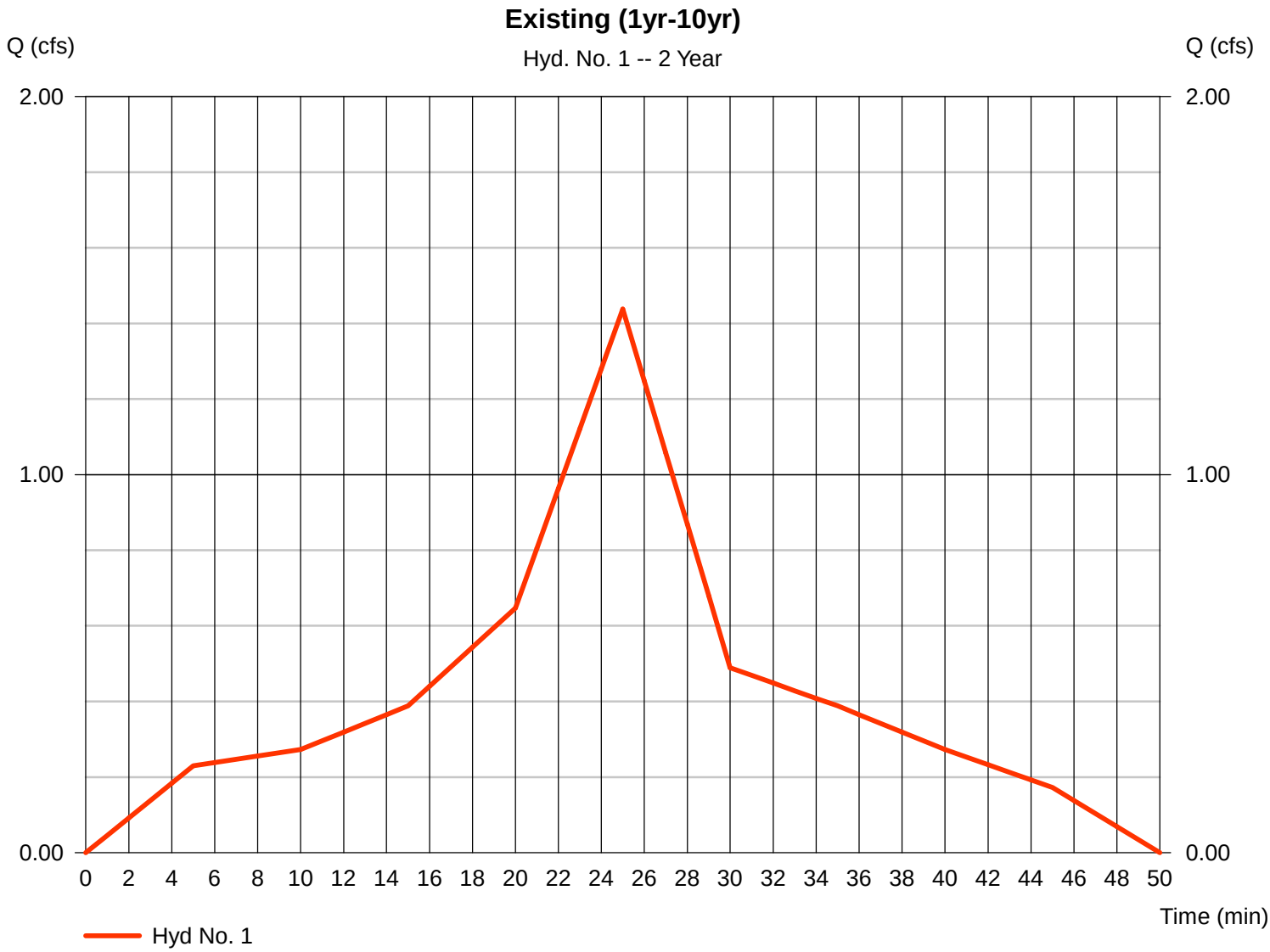
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Wednesday, Oct 11, 2023

Hyd. No. 1

Existing (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.438 cfs
Storm frequency	=	2 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,290 cuft
Drainage area	=	0.620 ac	Runoff coeff.	=	0.47
Intensity	=	4.934 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



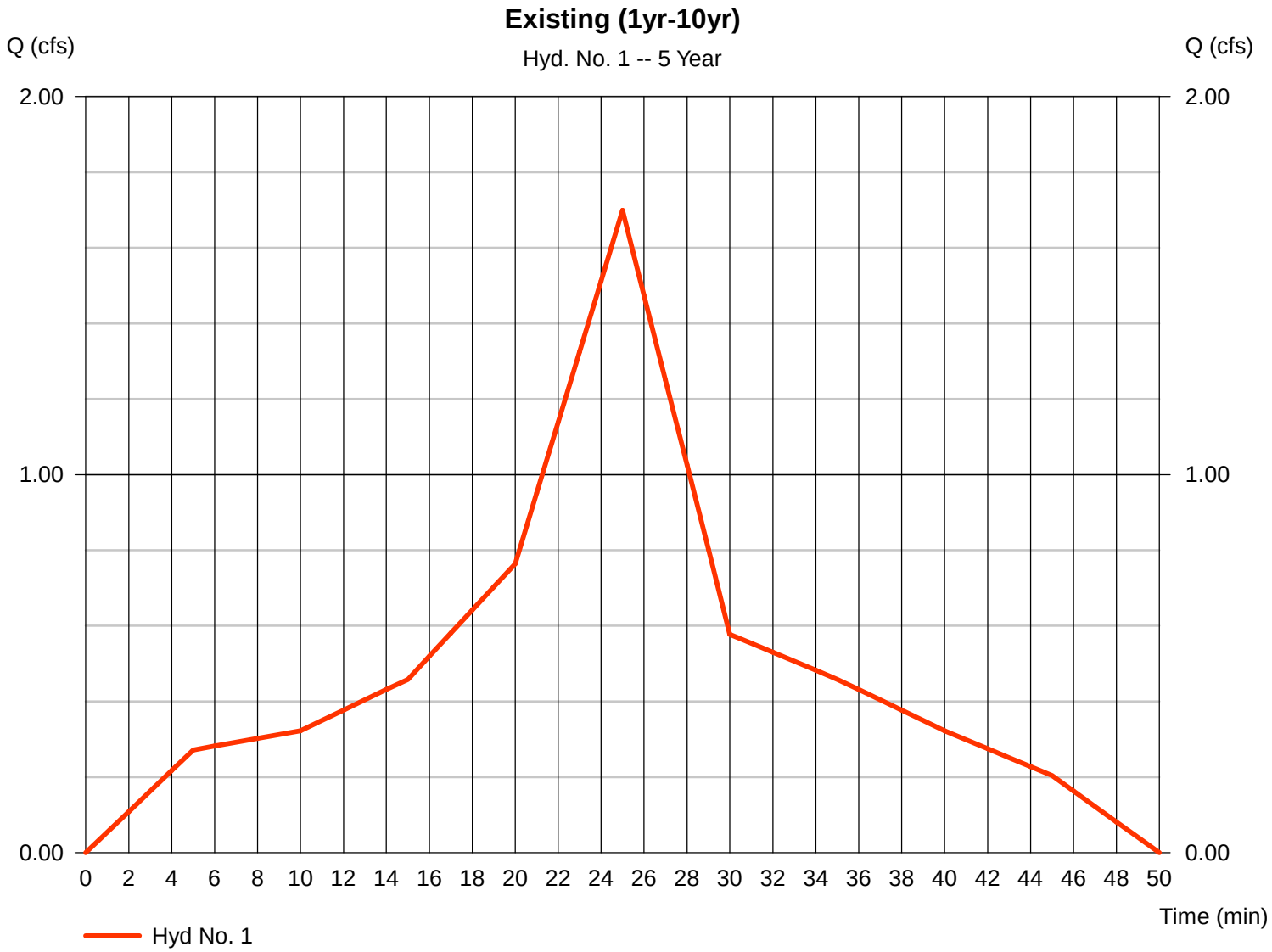
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Wednesday, Oct 11, 2023

Hyd. No. 1

Existing (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.699 cfs
Storm frequency	=	5 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,524 cuft
Drainage area	=	0.620 ac	Runoff coeff.	=	0.47
Intensity	=	5.830 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



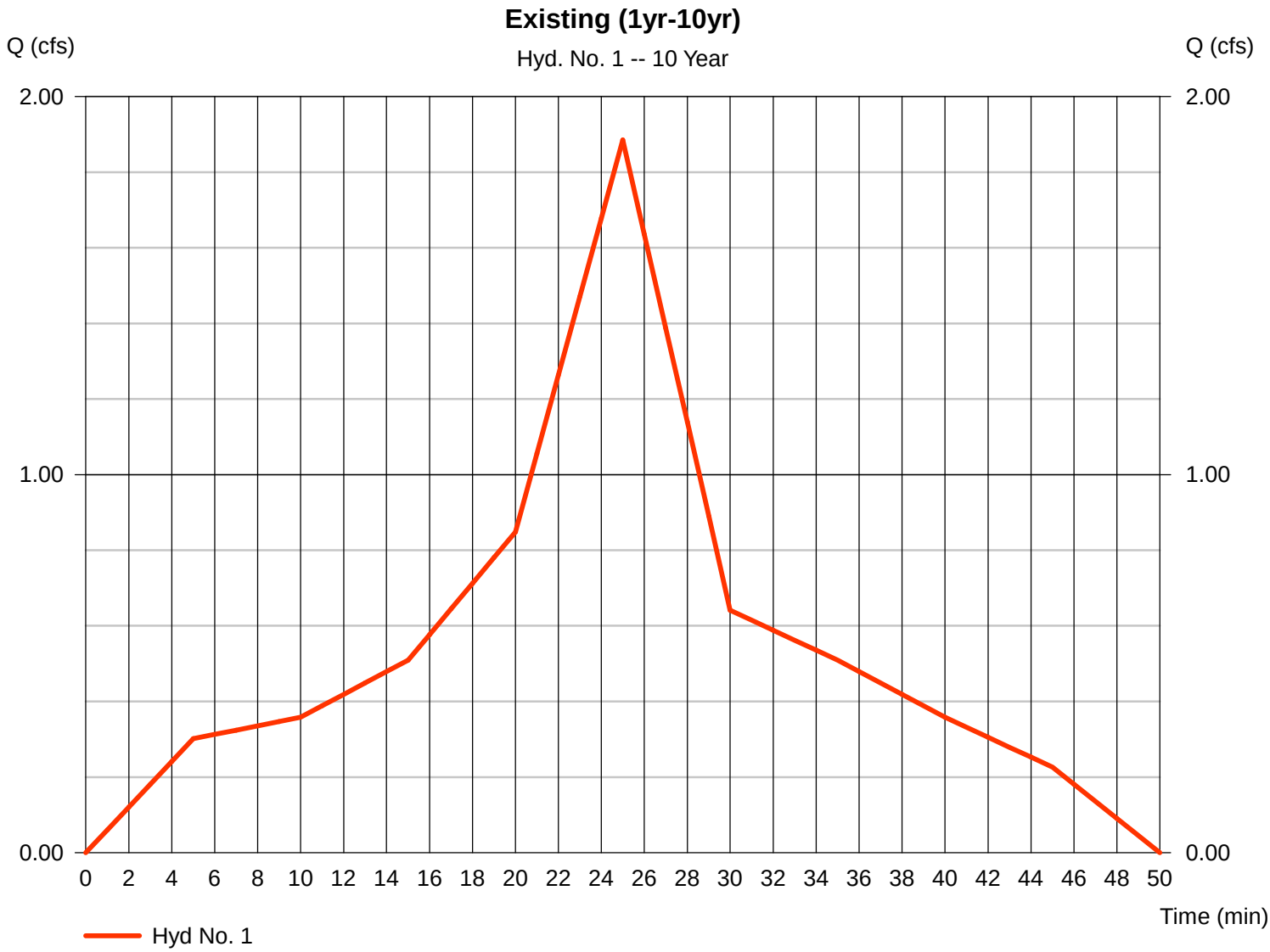
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Wednesday, Oct 11, 2023

Hyd. No. 1

Existing (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.885 cfs
Storm frequency	=	10 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,691 cuft
Drainage area	=	0.620 ac	Runoff coeff.	=	0.47
Intensity	=	6.469 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



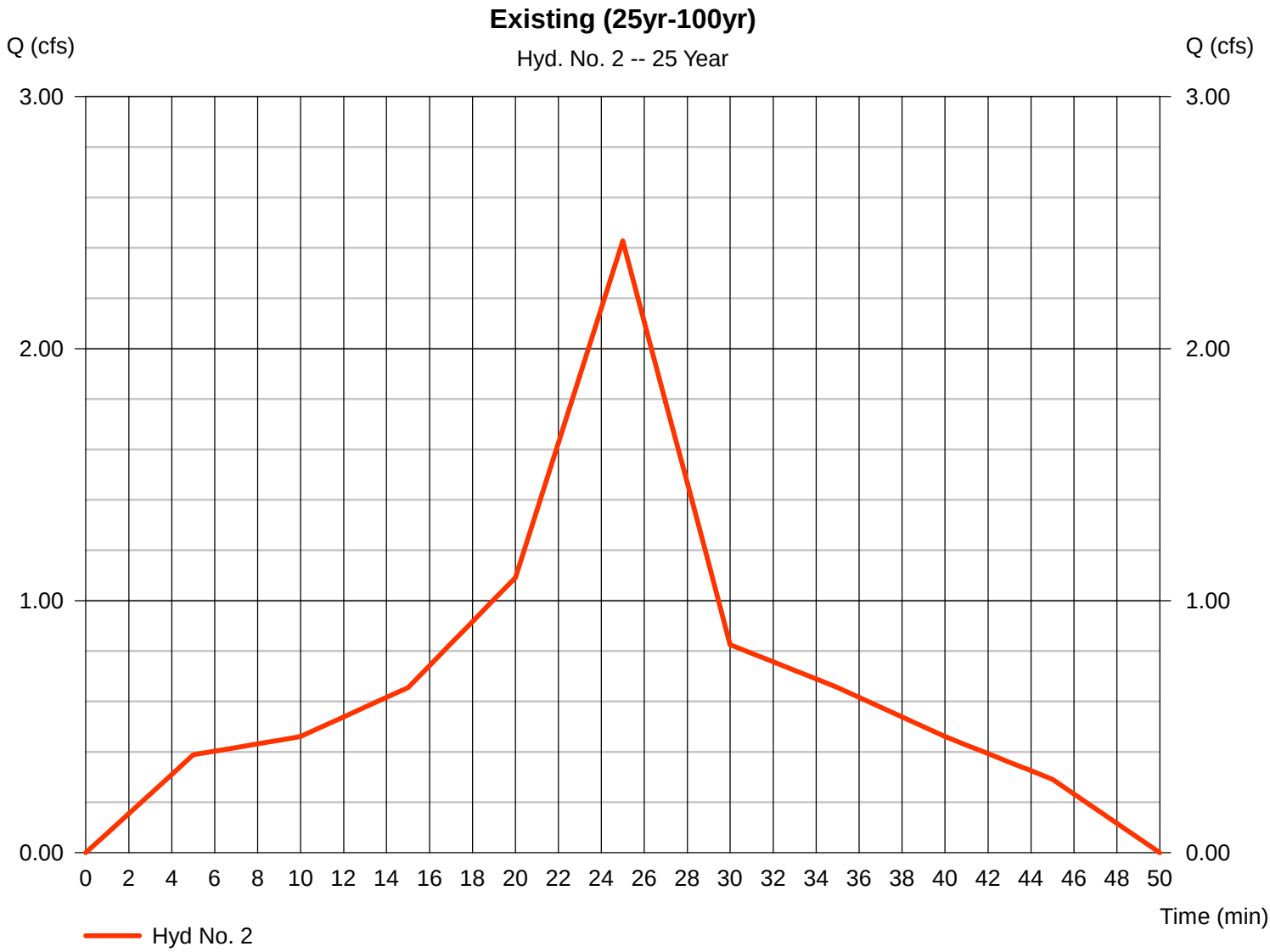
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Wednesday, Oct 11, 2023

Hyd. No. 2

Existing (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	2.427 cfs
Storm frequency	=	25 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	2,177 cuft
Drainage area	=	0.620 ac	Runoff coeff.	=	0.54
Intensity	=	7.248 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



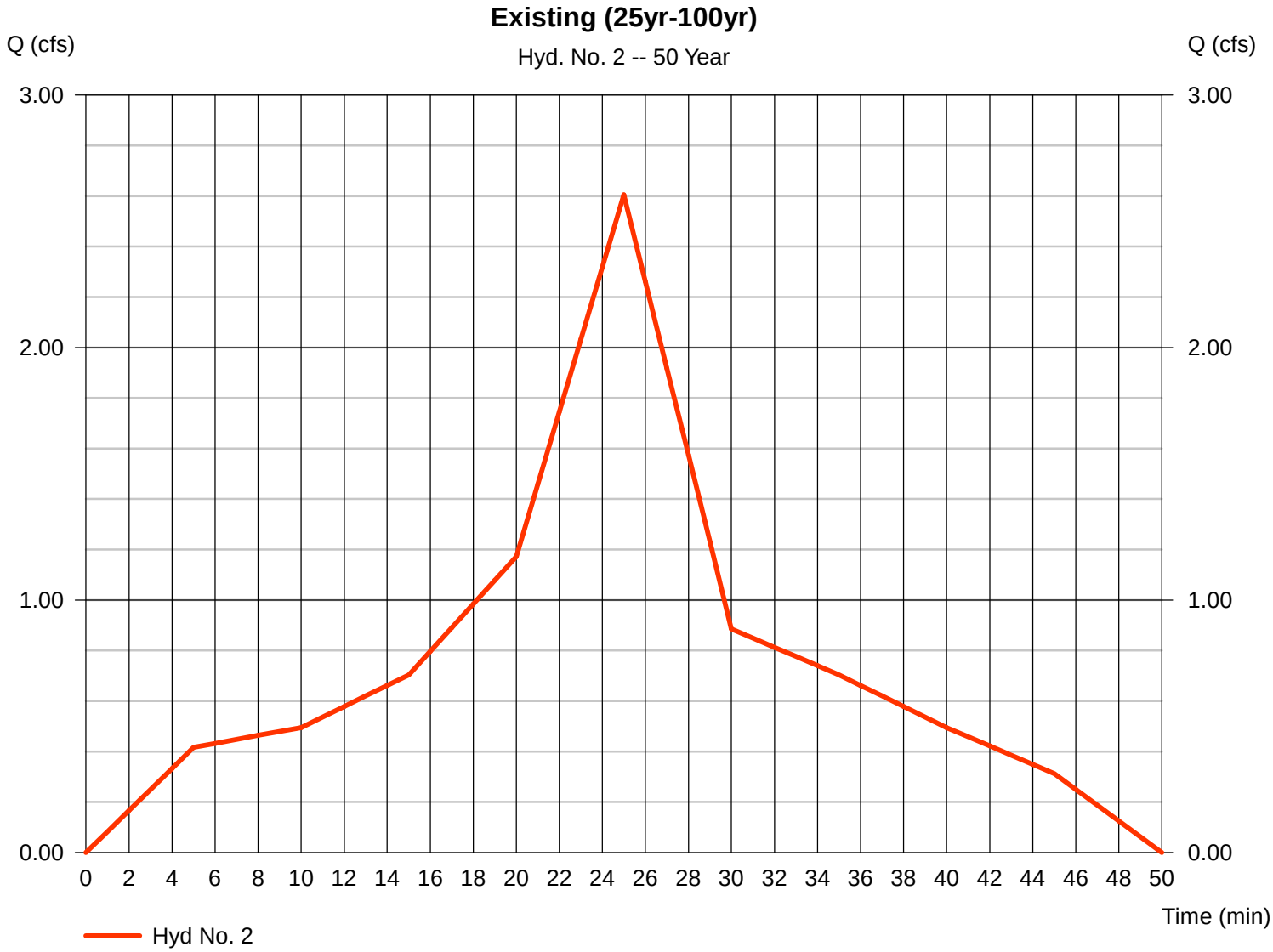
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Wednesday, Oct 11, 2023

Hyd. No. 2

Existing (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	2.605 cfs
Storm frequency	=	50 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	2,336 cuft
Drainage area	=	0.620 ac	Runoff coeff.	=	0.54
Intensity	=	7.780 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



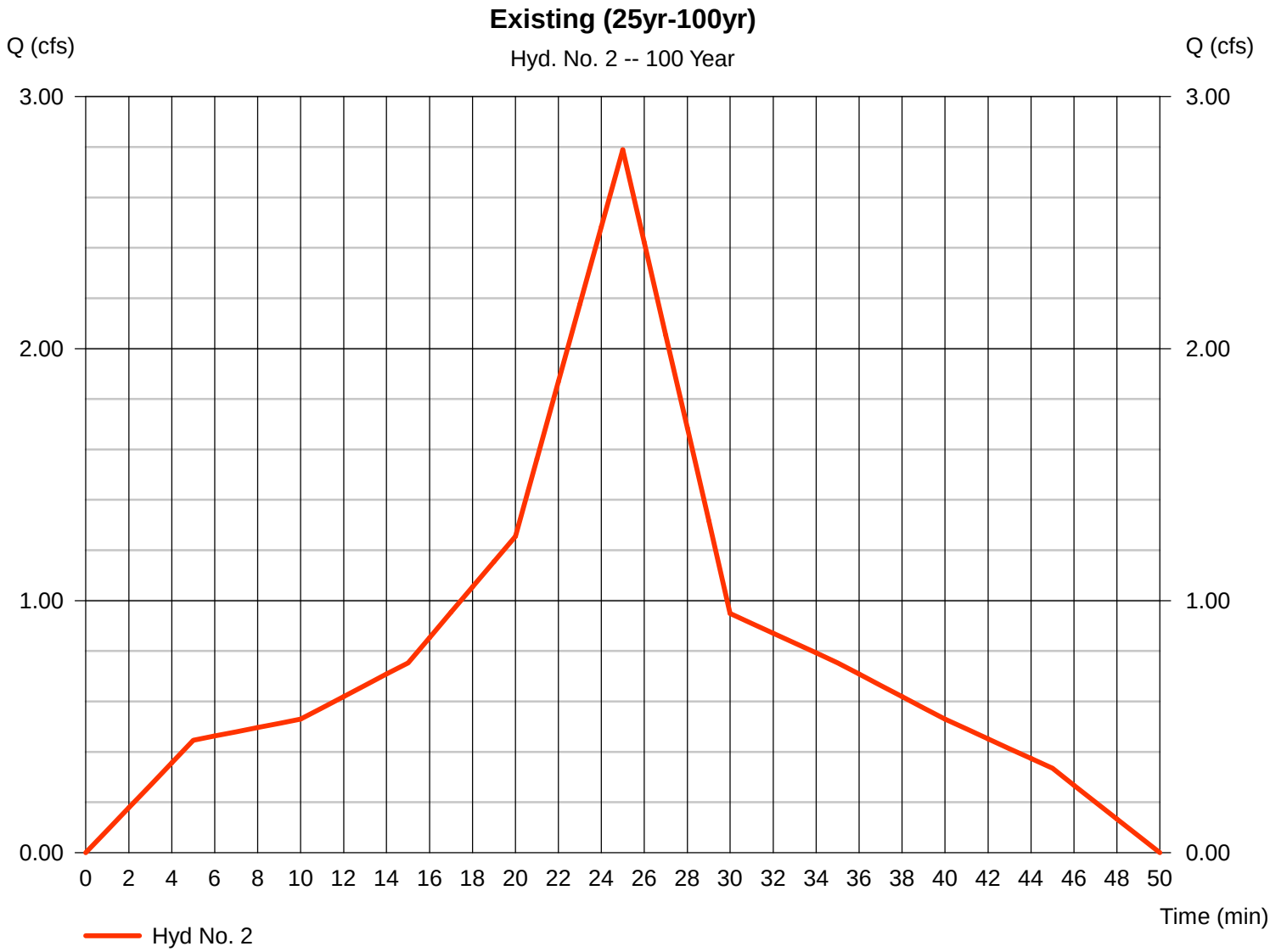
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Wednesday, Oct 11, 2023

Hyd. No. 2

Existing (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	2.790 cfs
Storm frequency	=	100 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	2,502 cuft
Drainage area	=	0.620 ac	Runoff coeff.	=	0.54
Intensity	=	8.332 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



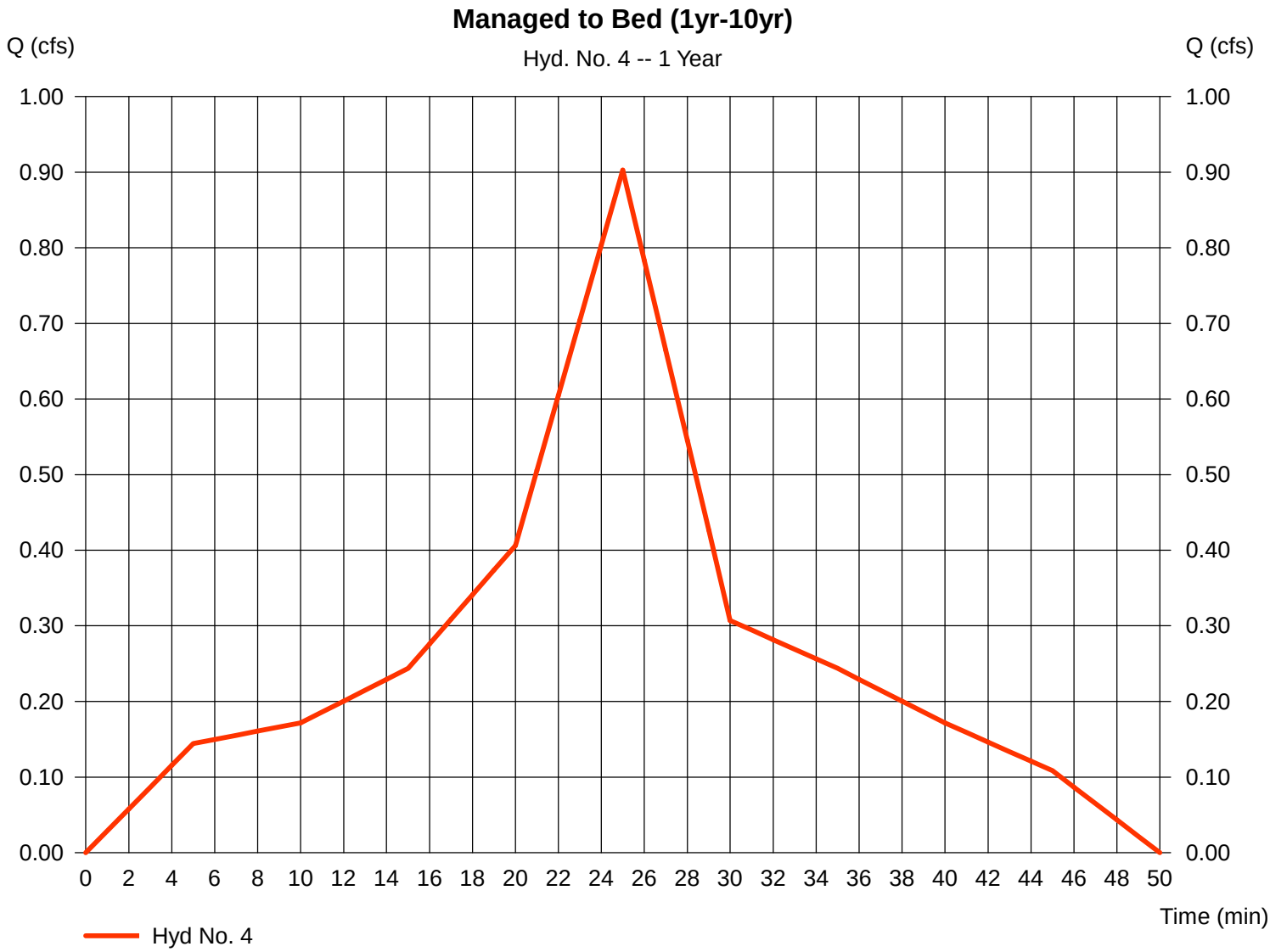
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 4

Managed to Bed (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.903 cfs
Storm frequency	=	1 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	810 cuft
Drainage area	=	0.260 ac	Runoff coeff.	=	0.84
Intensity	=	4.134 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



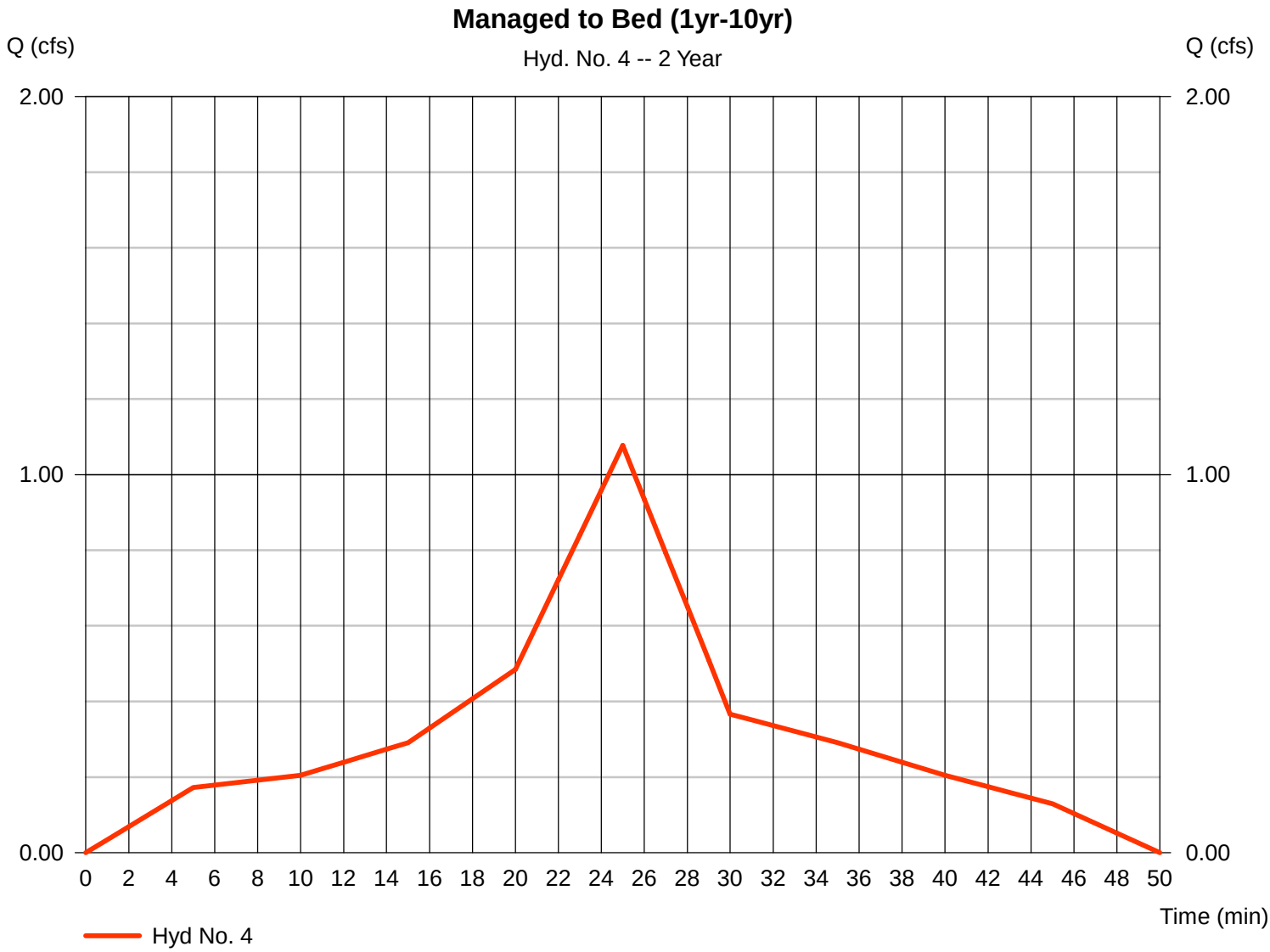
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 4

Managed to Bed (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.078 cfs
Storm frequency	=	2 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	967 cuft
Drainage area	=	0.260 ac	Runoff coeff.	=	0.84
Intensity	=	4.934 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



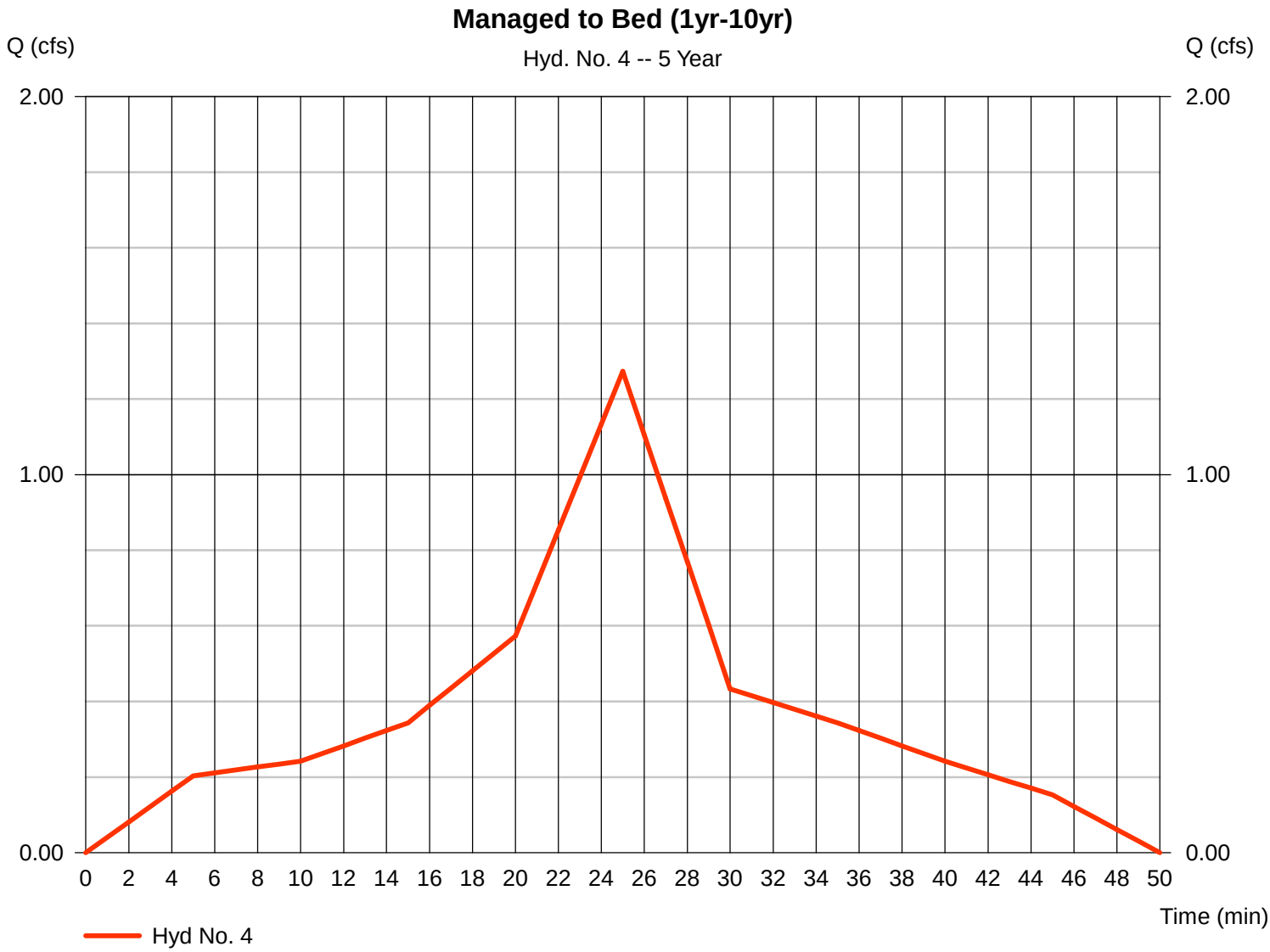
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 4

Managed to Bed (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.273 cfs
Storm frequency	=	5 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,142 cuft
Drainage area	=	0.260 ac	Runoff coeff.	=	0.84
Intensity	=	5.830 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



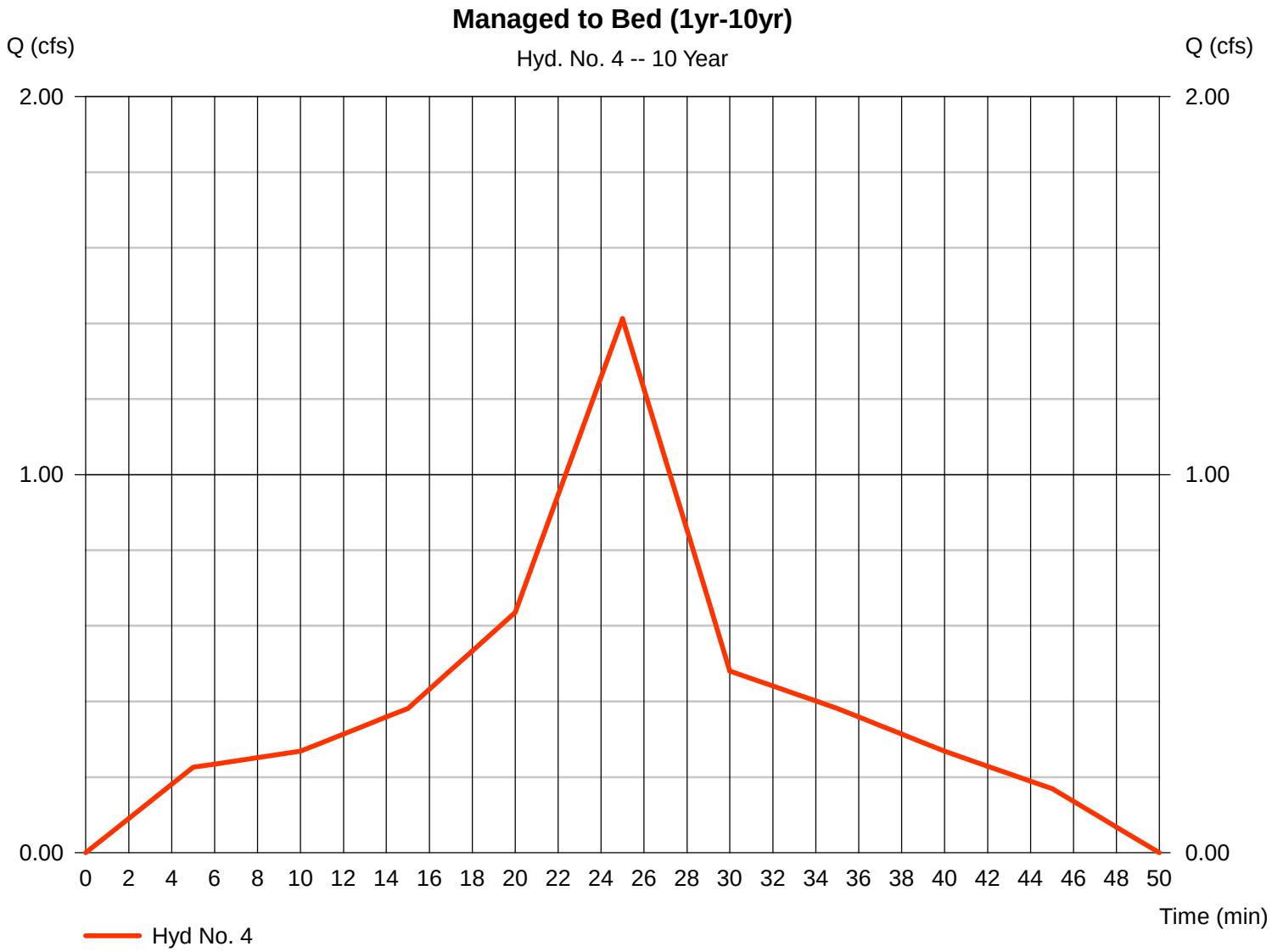
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 4

Managed to Bed (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.413 cfs
Storm frequency	=	10 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,267 cuft
Drainage area	=	0.260 ac	Runoff coeff.	=	0.84
Intensity	=	6.469 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



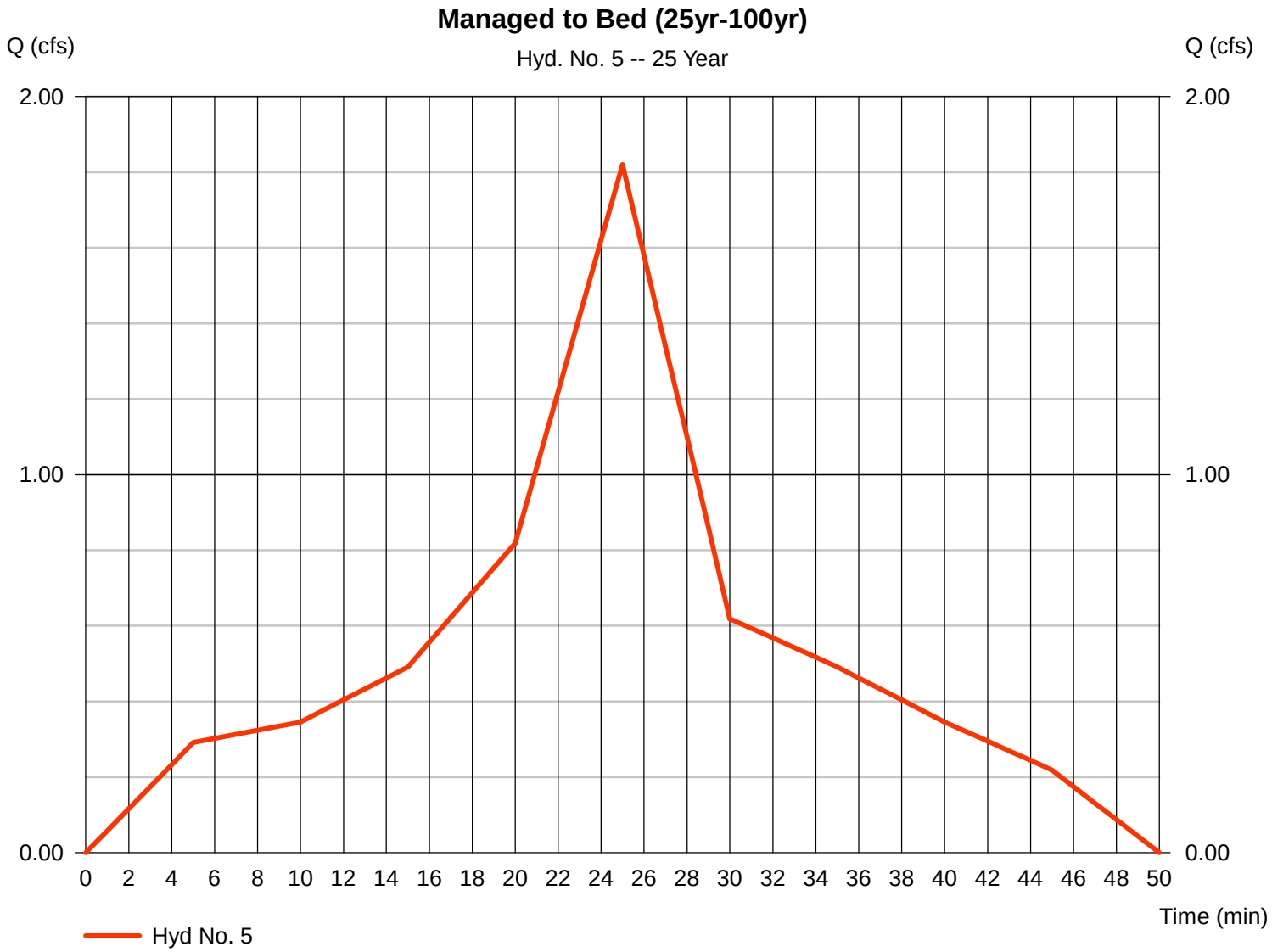
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 5

Managed to Bed (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.820 cfs
Storm frequency	=	25 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,633 cuft
Drainage area	=	0.270 ac	Runoff coeff.	=	0.93
Intensity	=	7.248 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



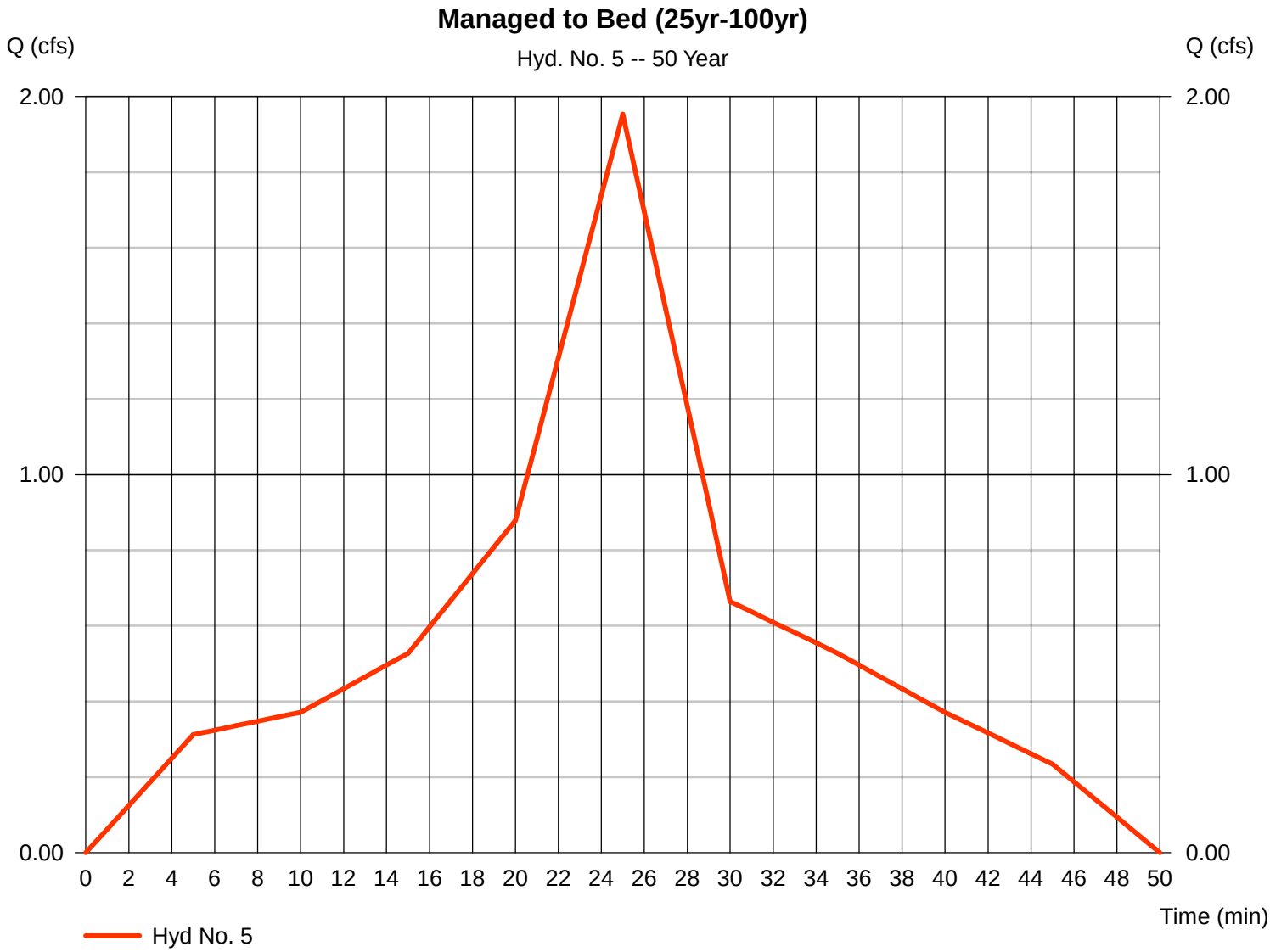
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 5

Managed to Bed (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.954 cfs
Storm frequency	=	50 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,752 cuft
Drainage area	=	0.270 ac	Runoff coeff.	=	0.93
Intensity	=	7.780 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



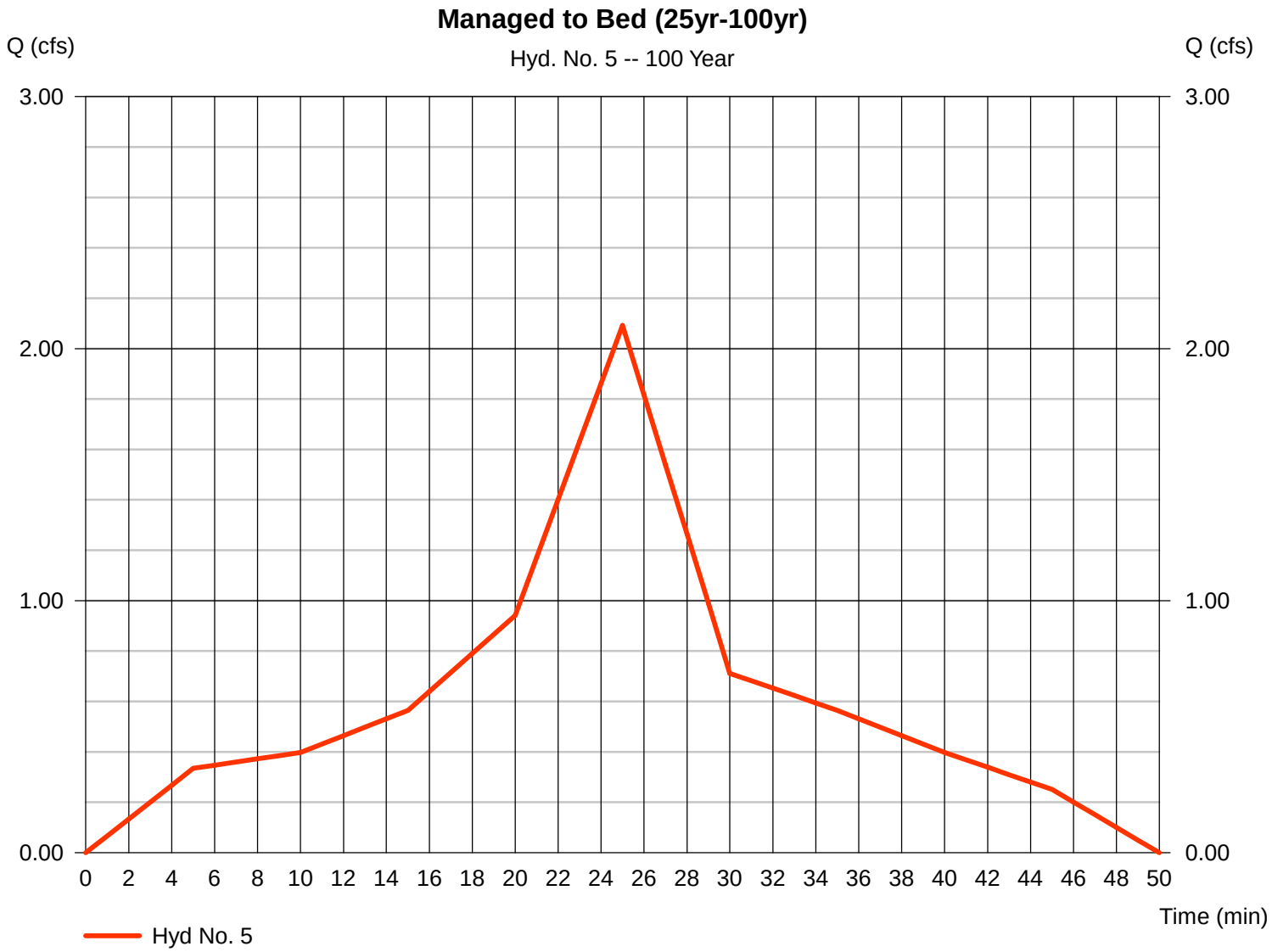
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 5

Managed to Bed (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	2.092 cfs
Storm frequency	=	100 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,877 cuft
Drainage area	=	0.270 ac	Runoff coeff.	=	0.93
Intensity	=	8.332 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a

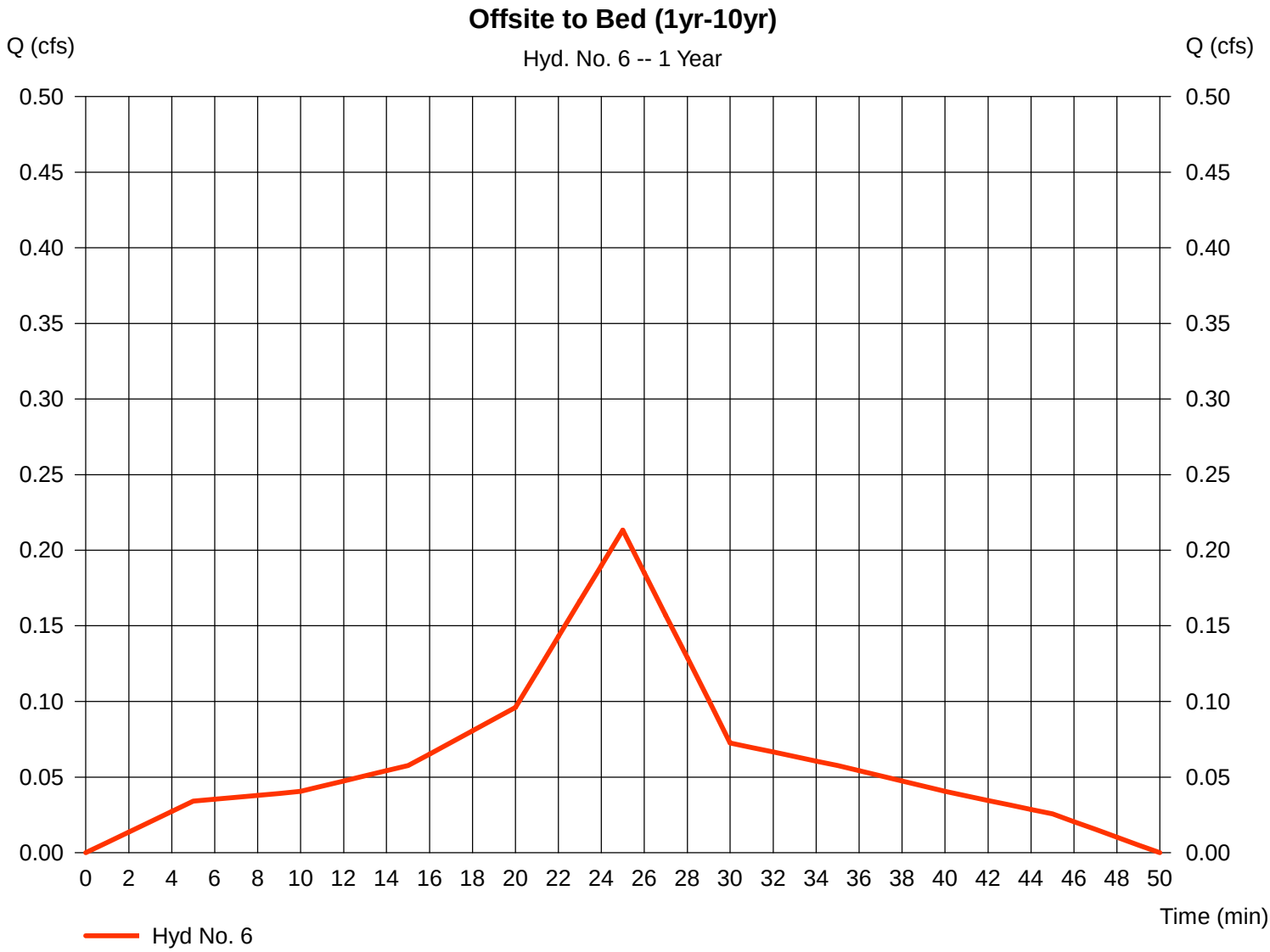


Hydrograph Report

Hyd. No. 6

Offsite to Bed (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.213 cfs
Storm frequency	=	1 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	191 cuft
Drainage area	=	0.060 ac	Runoff coeff.	=	0.86
Intensity	=	4.134 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a

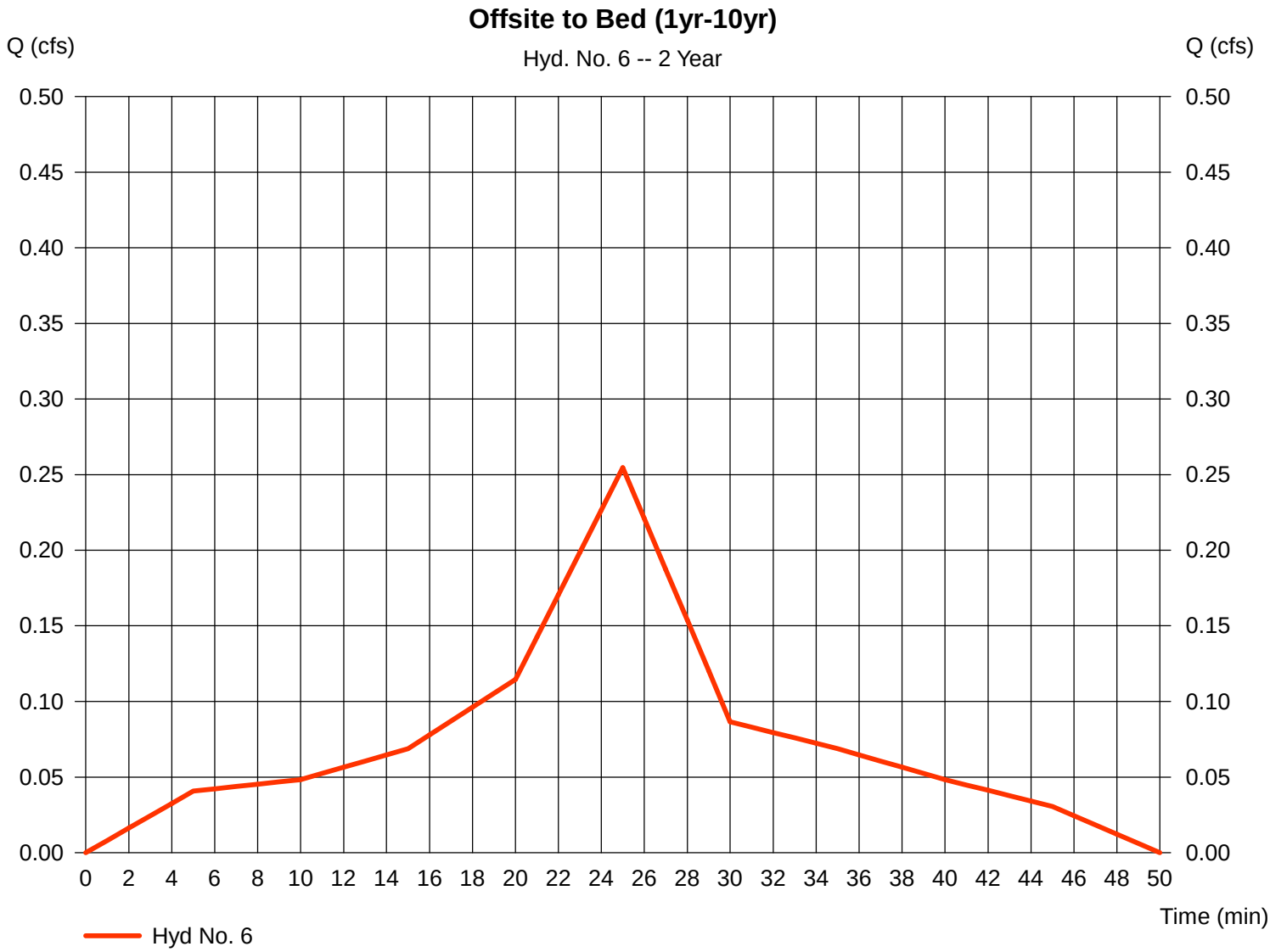


Hydrograph Report

Hyd. No. 6

Offsite to Bed (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.255 cfs
Storm frequency	=	2 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	228 cuft
Drainage area	=	0.060 ac	Runoff coeff.	=	0.86
Intensity	=	4.934 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a

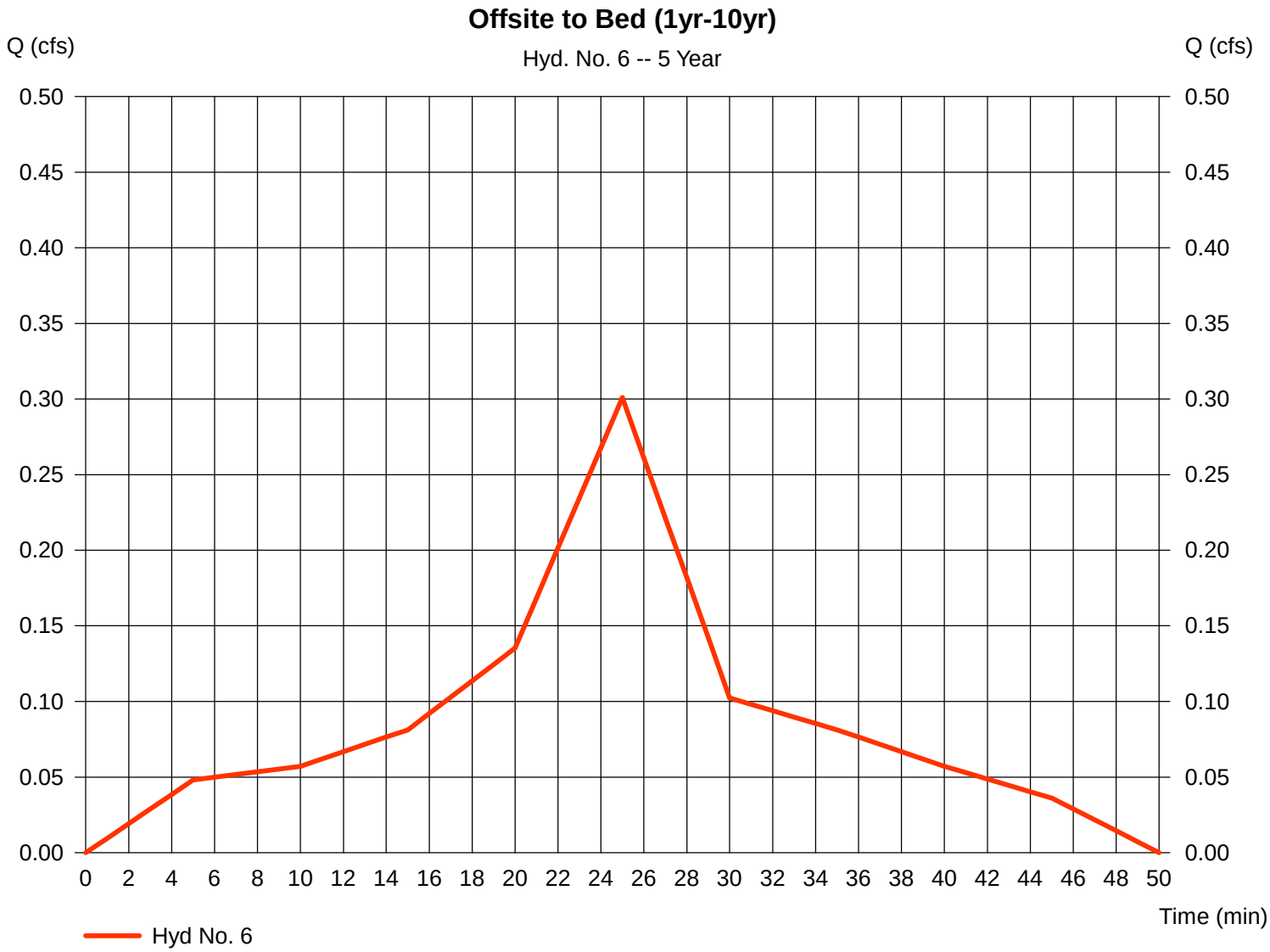


Hydrograph Report

Hyd. No. 6

Offsite to Bed (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.301 cfs
Storm frequency	=	5 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	270 cuft
Drainage area	=	0.060 ac	Runoff coeff.	=	0.86
Intensity	=	5.830 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a

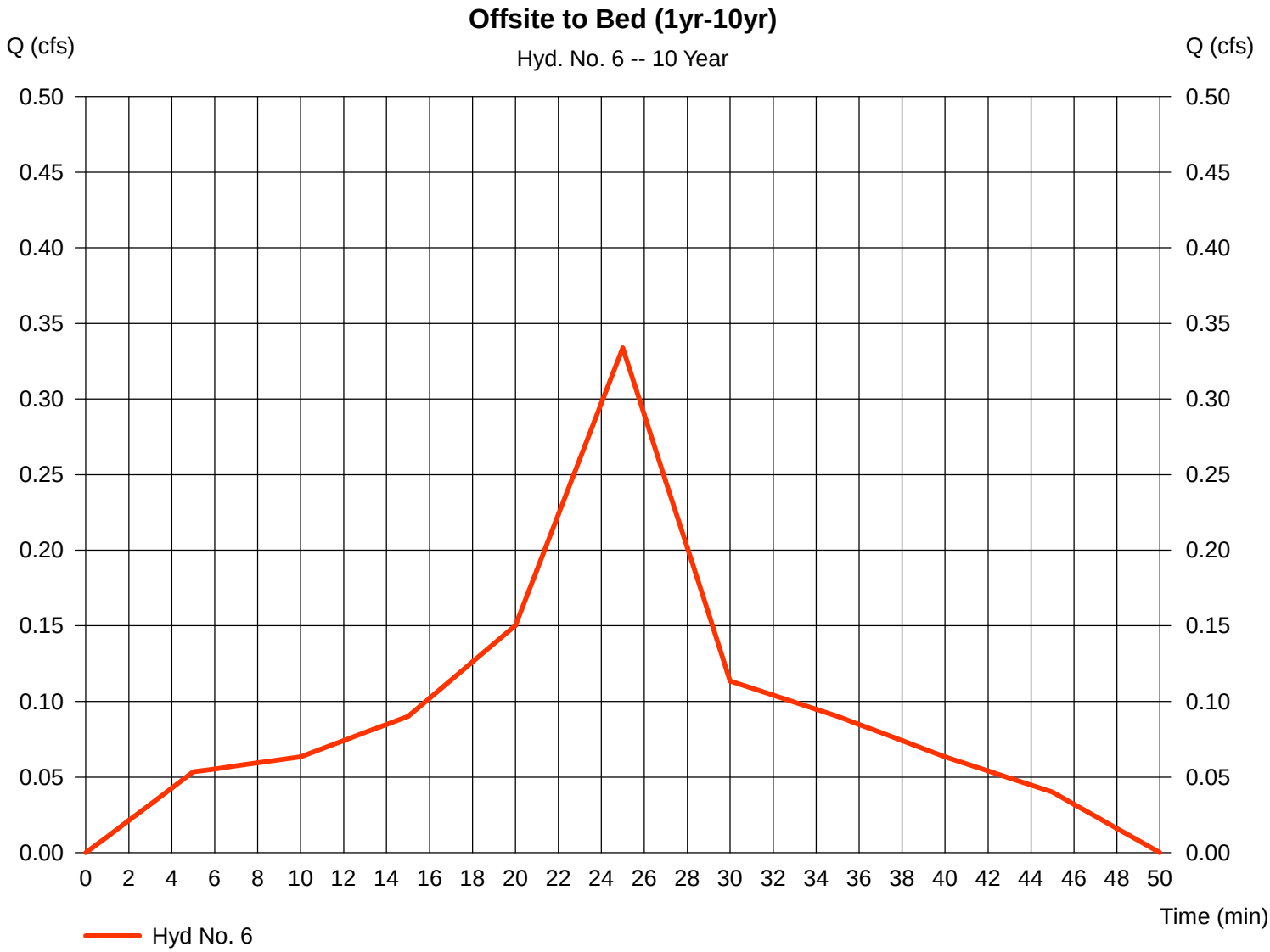


Hydrograph Report

Hyd. No. 6

Offsite to Bed (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.334 cfs
Storm frequency	=	10 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	299 cuft
Drainage area	=	0.060 ac	Runoff coeff.	=	0.86
Intensity	=	6.469 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a

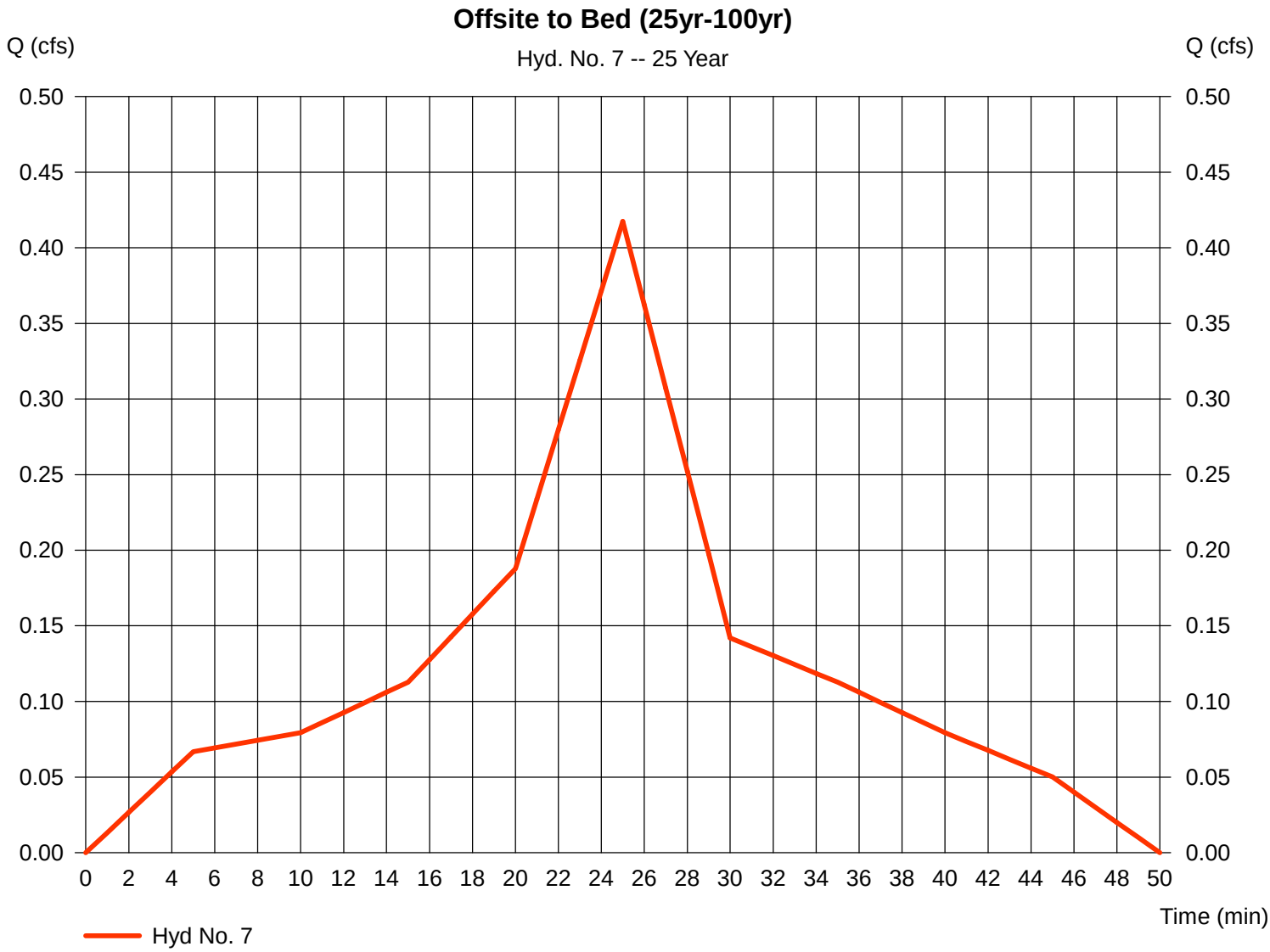


Hydrograph Report

Hyd. No. 7

Offsite to Bed (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.417 cfs
Storm frequency	=	25 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	374 cuft
Drainage area	=	0.060 ac	Runoff coeff.	=	0.96
Intensity	=	7.248 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a

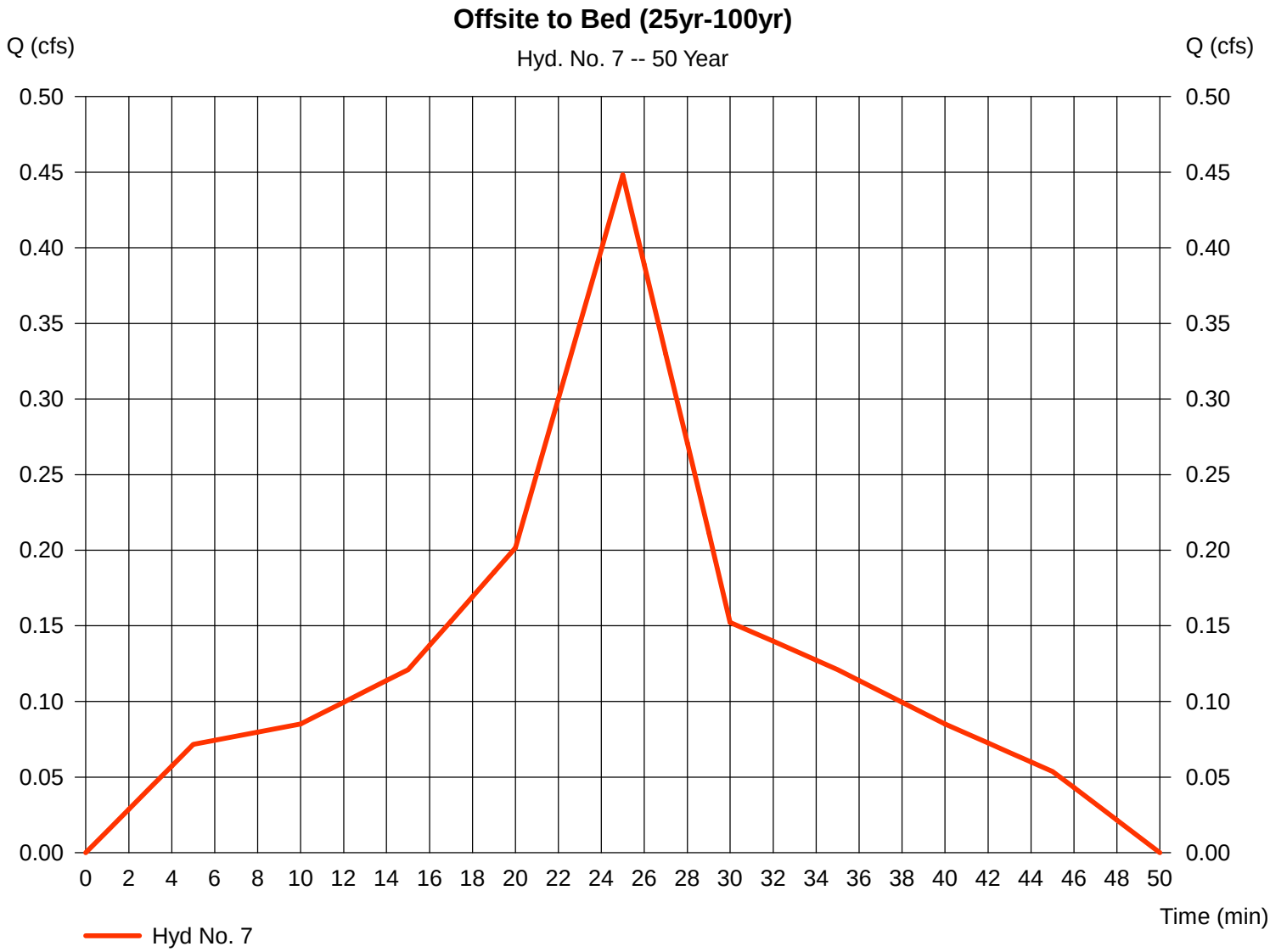


Hydrograph Report

Hyd. No. 7

Offsite to Bed (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.448 cfs
Storm frequency	=	50 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	402 cuft
Drainage area	=	0.060 ac	Runoff coeff.	=	0.96
Intensity	=	7.780 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a

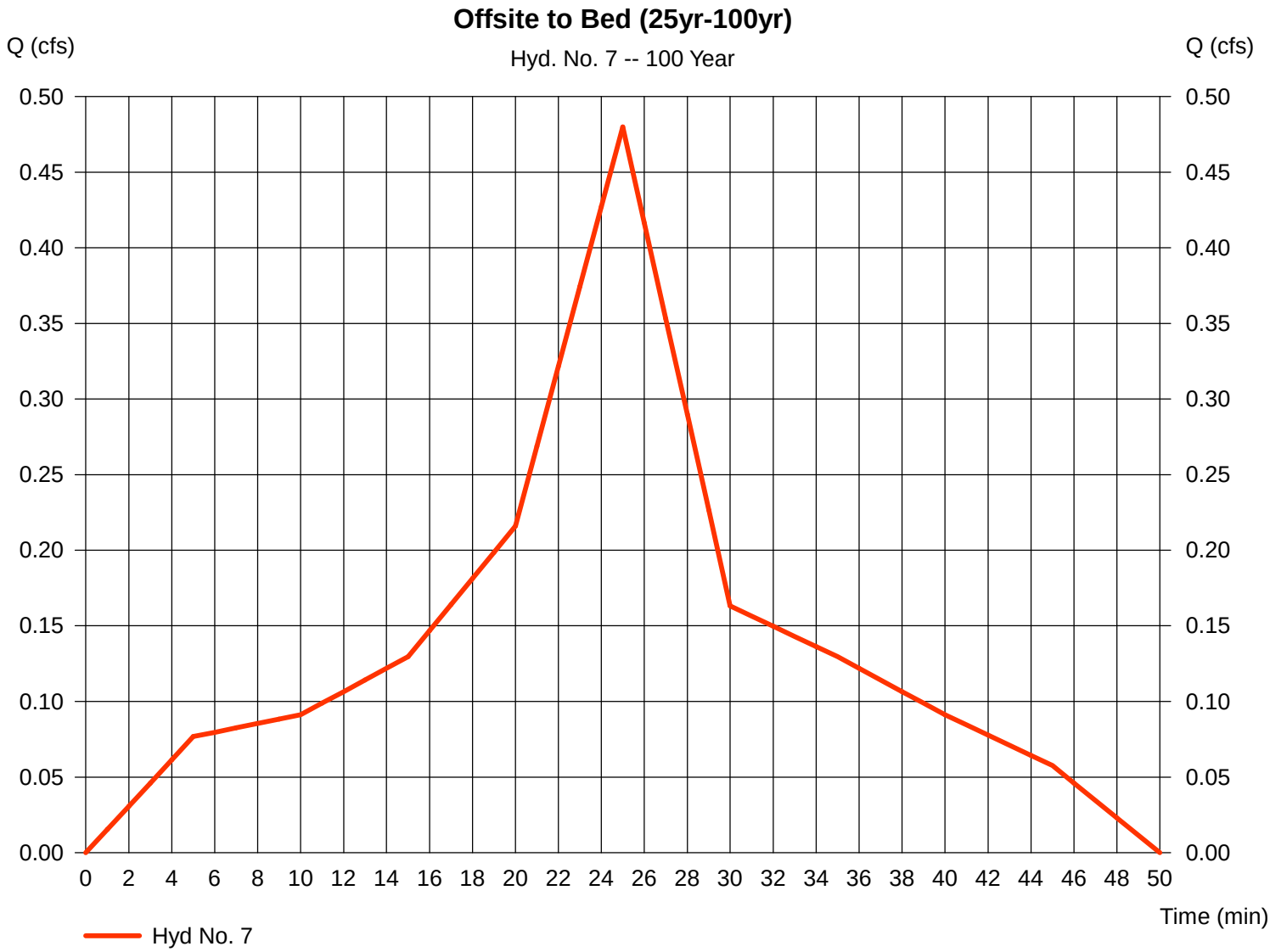


Hydrograph Report

Hyd. No. 7

Offsite to Bed (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.480 cfs
Storm frequency	=	100 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	430 cuft
Drainage area	=	0.060 ac	Runoff coeff.	=	0.96
Intensity	=	8.332 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



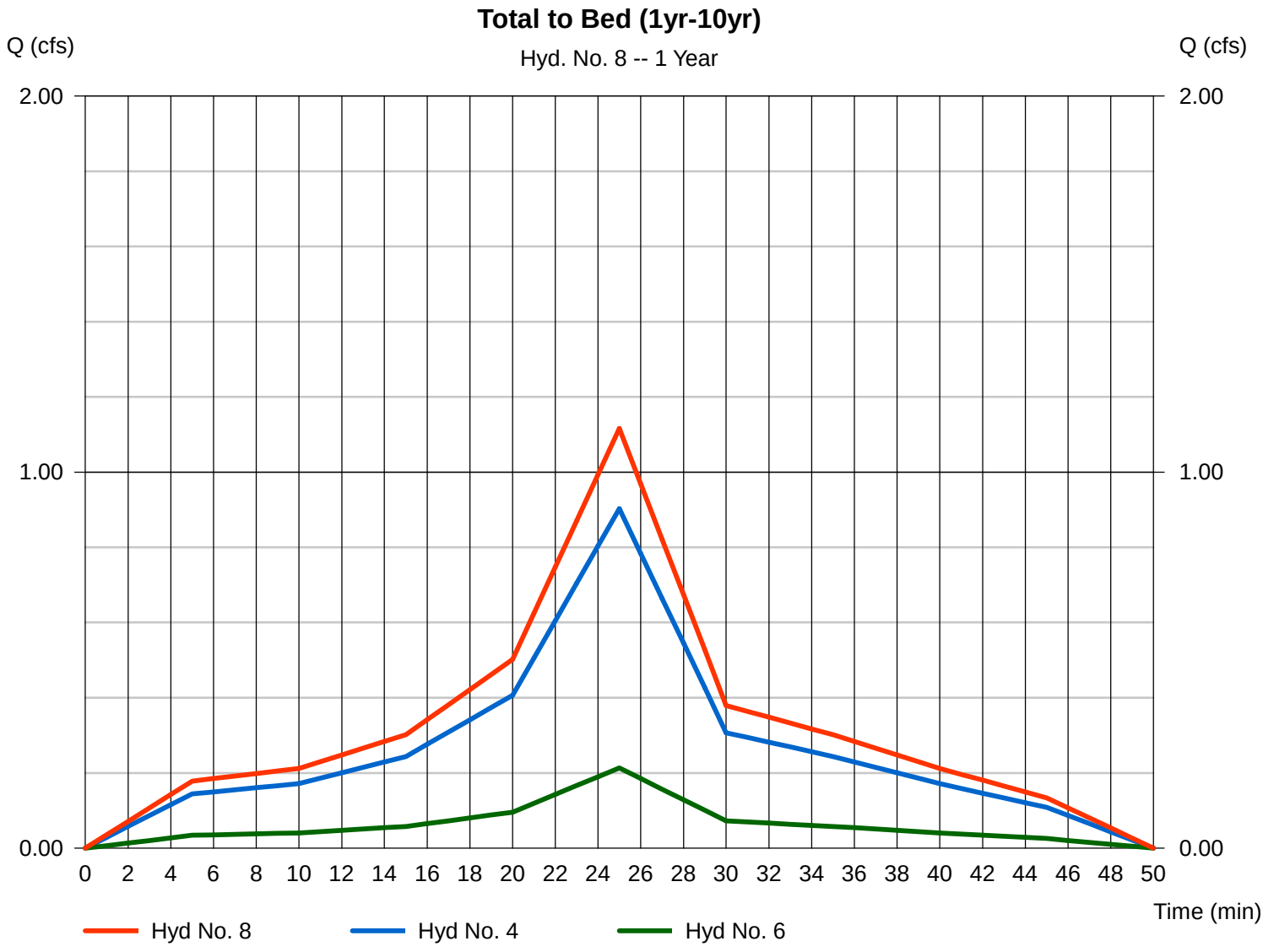
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 8

Total to Bed (1yr-10yr)

Hydrograph type	= Combine	Peak discharge	= 1.116 cfs
Storm frequency	= 1 yrs	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 1,001 cuft
Inflow hyds.	= 4, 6	Contrib. drain. area	= 0.320 ac



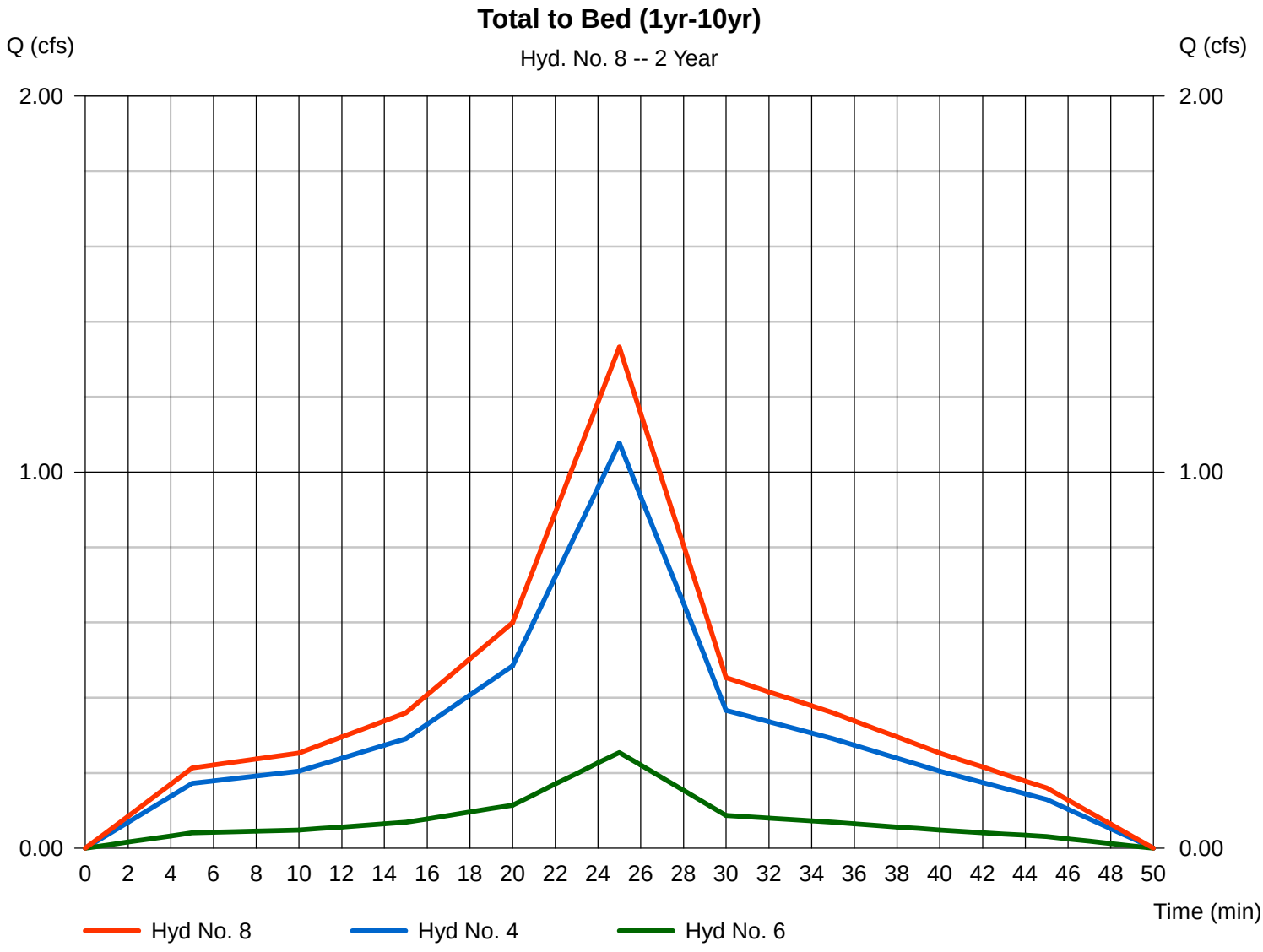
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 8

Total to Bed (1yr-10yr)

Hydrograph type	=	Combine	Peak discharge	=	1.332 cfs
Storm frequency	=	2 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,195 cuft
Inflow hyds.	=	4, 6	Contrib. drain. area	=	0.320 ac



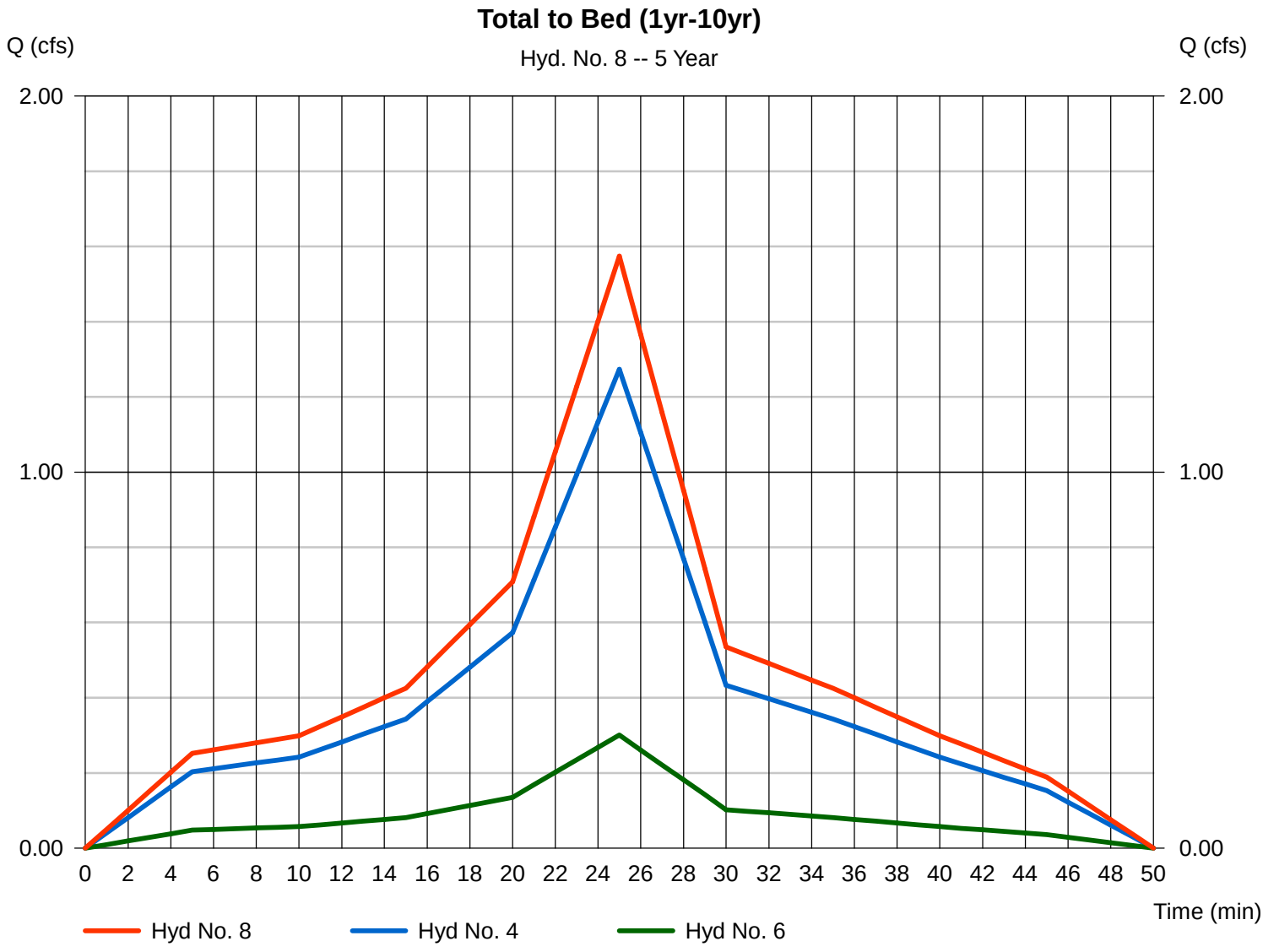
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 8

Total to Bed (1yr-10yr)

Hydrograph type	=	Combine	Peak discharge	=	1.574 cfs
Storm frequency	=	5 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,412 cuft
Inflow hyds.	=	4, 6	Contrib. drain. area	=	0.320 ac



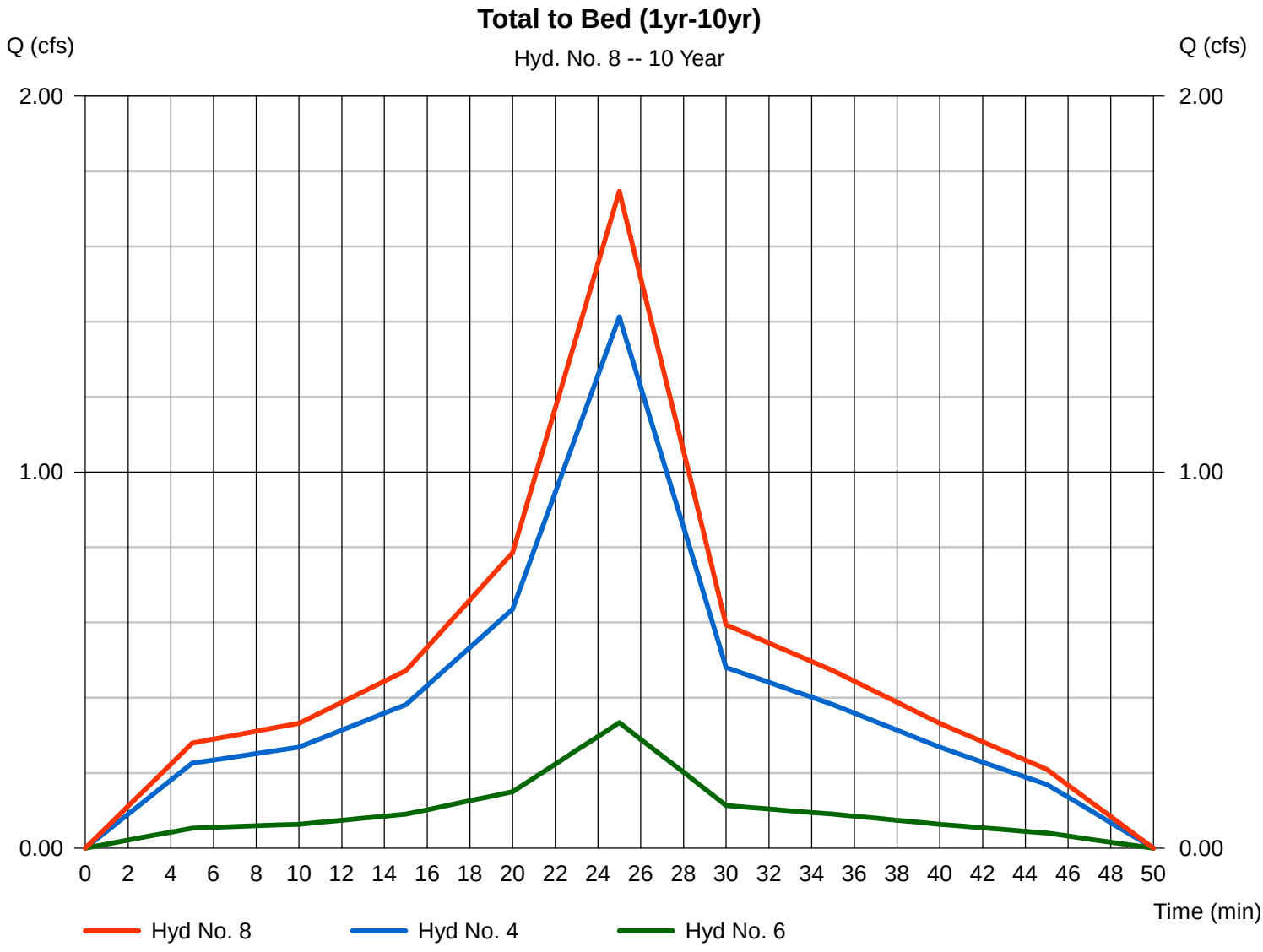
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 8

Total to Bed (1yr-10yr)

Hydrograph type	=	Combine	Peak discharge	=	1.747 cfs
Storm frequency	=	10 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,567 cuft
Inflow hyds.	=	4, 6	Contrib. drain. area	=	0.320 ac



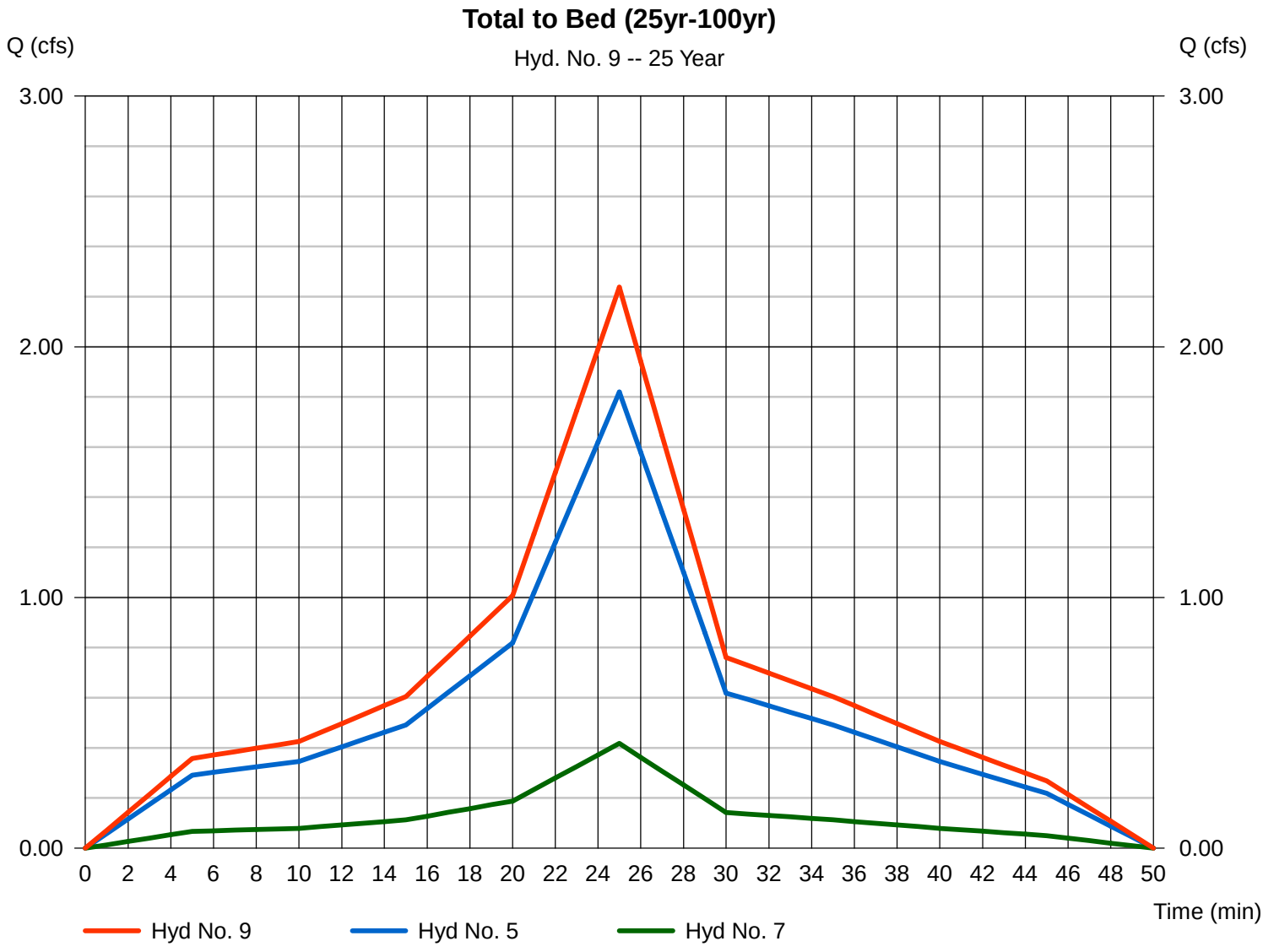
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 9

Total to Bed (25yr-100yr)

Hydrograph type	=	Combine	Peak discharge	=	2.237 cfs
Storm frequency	=	25 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	2,007 cuft
Inflow hyds.	=	5, 7	Contrib. drain. area	=	0.330 ac



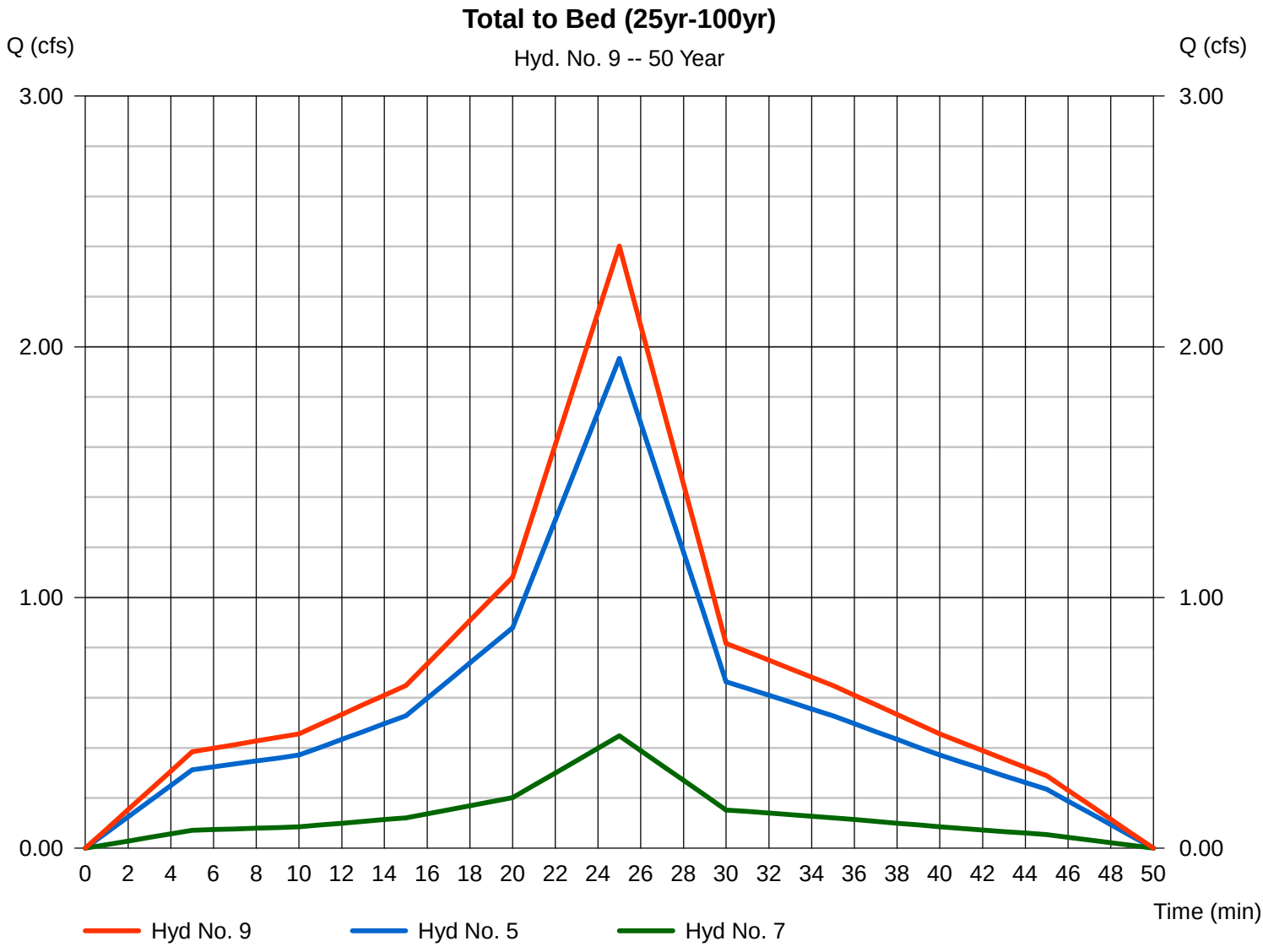
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 9

Total to Bed (25yr-100yr)

Hydrograph type	=	Combine	Peak discharge	=	2.402 cfs
Storm frequency	=	50 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	2,154 cuft
Inflow hyds.	=	5, 7	Contrib. drain. area	=	0.330 ac



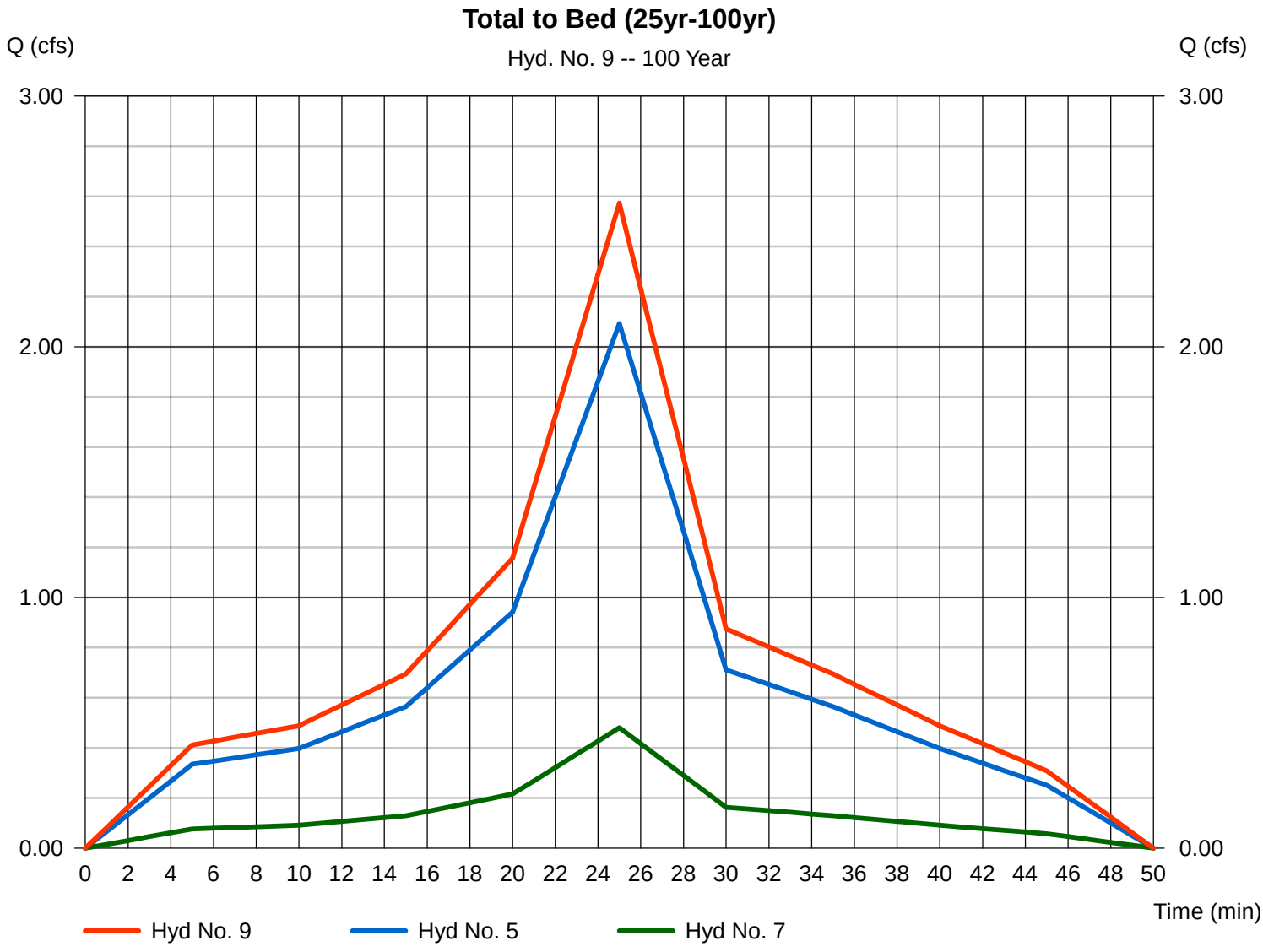
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 9

Total to Bed (25yr-100yr)

Hydrograph type	=	Combine	Peak discharge	=	2.572 cfs
Storm frequency	=	100 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	2,307 cuft
Inflow hyds.	=	5, 7	Contrib. drain. area	=	0.330 ac



Pond Report

Pond No. 1 - Infiltration Bed

Pond Data

Contours - User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 254.25 ft. Voids = 40.00%

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	254.25	1,600	0	0
0.25	254.50	1,600	160	160
0.50	254.75	1,600	160	320
0.75	255.00	1,600	160	480
1.00	255.25	1,600	160	640
1.25	255.50	1,600	160	800
1.50	255.75	1,600	160	960
1.75	256.00	1,600	160	1,120
2.00	256.25	1,600	160	1,280
2.25	256.50	1,600	160	1,440
2.50	256.75	1,600	160	1,600
2.75	257.00	1,600	160	1,760

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 8.00	0.00	0.00	0.00
Span (in)	= 8.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 256.11	0.00	0.00	0.00
Length (ft)	= 32.00	0.00	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Contour)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	254.25	0.00	---	---	---	---	---	---	---	---	---	0.000
0.25	160	254.50	0.00	---	---	---	---	---	---	---	---	---	0.000
0.50	320	254.75	0.00	---	---	---	---	---	---	---	---	---	0.000
0.75	480	255.00	0.00	---	---	---	---	---	---	---	---	---	0.000
1.00	640	255.25	0.00	---	---	---	---	---	---	---	---	---	0.000
1.25	800	255.50	0.00	---	---	---	---	---	---	---	---	---	0.000
1.50	960	255.75	0.00	---	---	---	---	---	---	---	---	---	0.000
1.75	1,120	256.00	0.00	---	---	---	---	---	---	---	---	---	0.000
2.00	1,280	256.25	0.07 ic	---	---	---	---	---	---	---	---	---	0.068
2.25	1,440	256.50	0.39 oc	---	---	---	---	---	---	---	---	---	0.393
2.50	1,600	256.75	0.64 oc	---	---	---	---	---	---	---	---	---	0.645
2.75	1,760	257.00	0.97 oc	---	---	---	---	---	---	---	---	---	0.969

640 CEDAR ROAD

INFILTRATION BED

REQUIRED VOLUME TO BE MANAGED PER ABINGTON TOWNSHIP CODE	1341 CF

VOLUME CALCULATIONS FOR STONE

Basin Invert	Slope ft/ft	Footprint SF	Elevation	Stage	Stage Media Volume	% Voids	h Volume	Σ Voids Volume
254.25	**0.0000**	**1600**	**254.25**	0.00	0	40%	**0.0**	**0**
254.25	0.0000	1600	**254.50**	0.25	400	40%	**160.0**	**160**
254.25	0.0000	1600	**254.75**	0.50	400	40%	**160.0**	**320**
254.25	0.0000	1600	**255.00**	0.75	400	40%	**160.0**	**480**
254.25	0.0000	1600	**255.25**	1.00	400	40%	**160.0**	**640**
254.25	0.0000	1600	**255.50**	1.25	400	40%	**160.0**	**800**
254.25	0.0000	1600	**255.75**	1.50	400	40%	**160.0**	**960**
254.25	0.0000	1600	**256.11**	1.86	576	40%	**230.4**	**1190**
254.25	0.0000	1600	**256.36**	2.11	400	40%	**160.0**	**1350**
254.25	0.0000	1600	**256.61**	2.36	400	40%	**160.0**	**1510**
254.25	0.0000	1600	**256.86**	2.61	400	40%	**160.0**	**1670**
254.25	0.0000	1600	**257.11**	2.86	400	40%	**160.0**	**1830**

RECHARGE VOLUME

Recharge Volume: **1190 CF**

The volume below elevation 255.75 is considered to be managed because it will pass through the infiltration surface on the bottom of the bed.

Active Infiltration

Surface Area:	1600	SF
Time Interval:	6.0	hr
Infiltration Rate:	2.88	in/hr
Factor of Safety:	3	
Infiltration Rate w/FOS:	0.0799	ft/hr

Active Infiltration = Surface Area x Time Interval x Infiltration Rate w/FOS

= 767 CF

TOTAL INFILTRATION = 100% Infiltration + Active Infiltration

= 1,957 CF << POTENTIAL RECHARGE VOLUME

Hydrograph Report

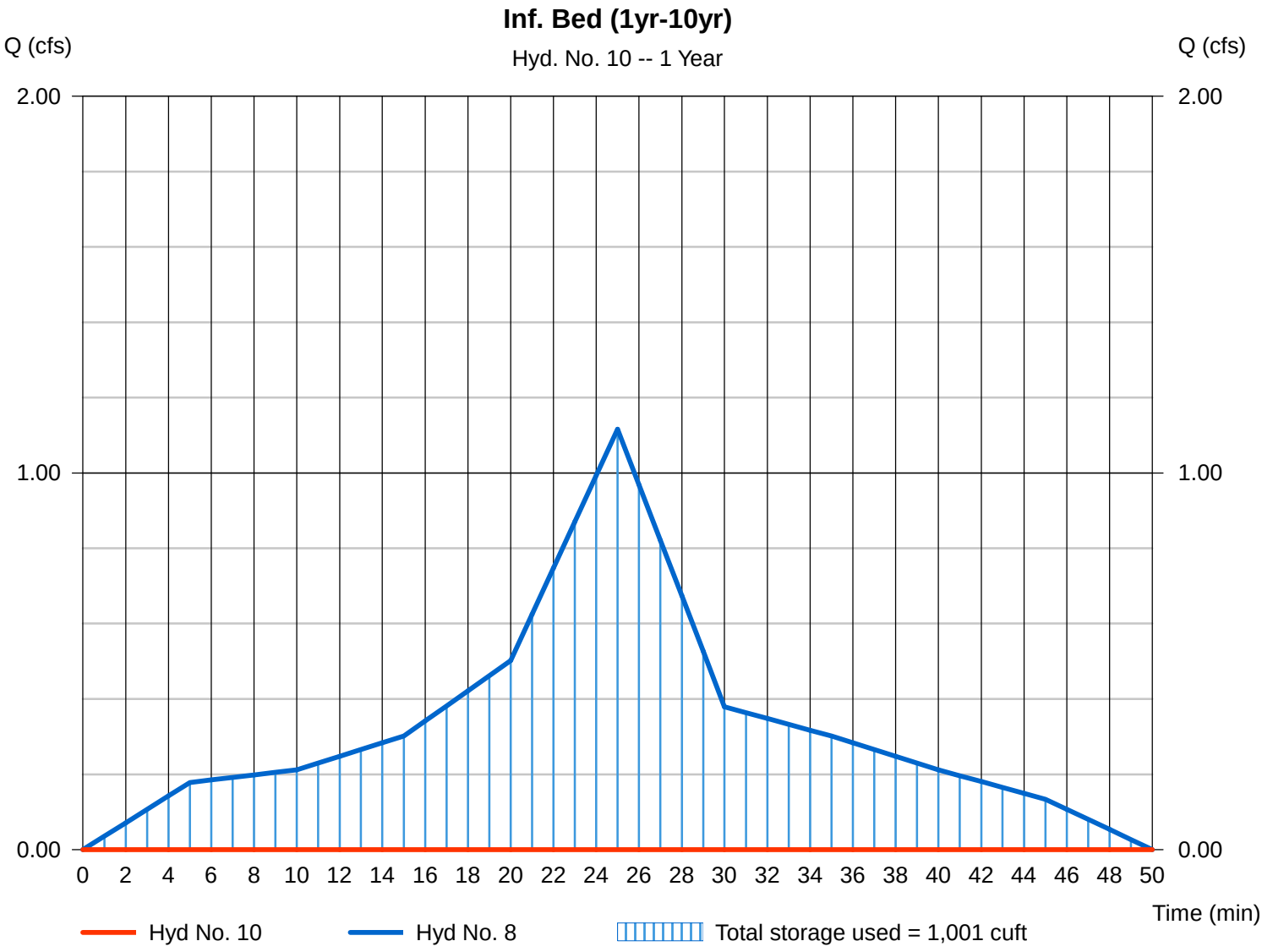
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 10

Inf. Bed (1yr-10yr)

Hydrograph type	=	Reservoir	Peak discharge	=	0.000 cfs
Storm frequency	=	1 yrs	Time to peak	=	n/a
Time interval	=	1 min	Hyd. volume	=	0 cuft
Inflow hyd. No.	=	8 - Total to Bed (1yr-10yr)	Max. Elevation	=	255.81 ft
Reservoir name	=	Infiltration Bed	Max. Storage	=	1,001 cuft

Storage Indication method used.



Hydrograph Report

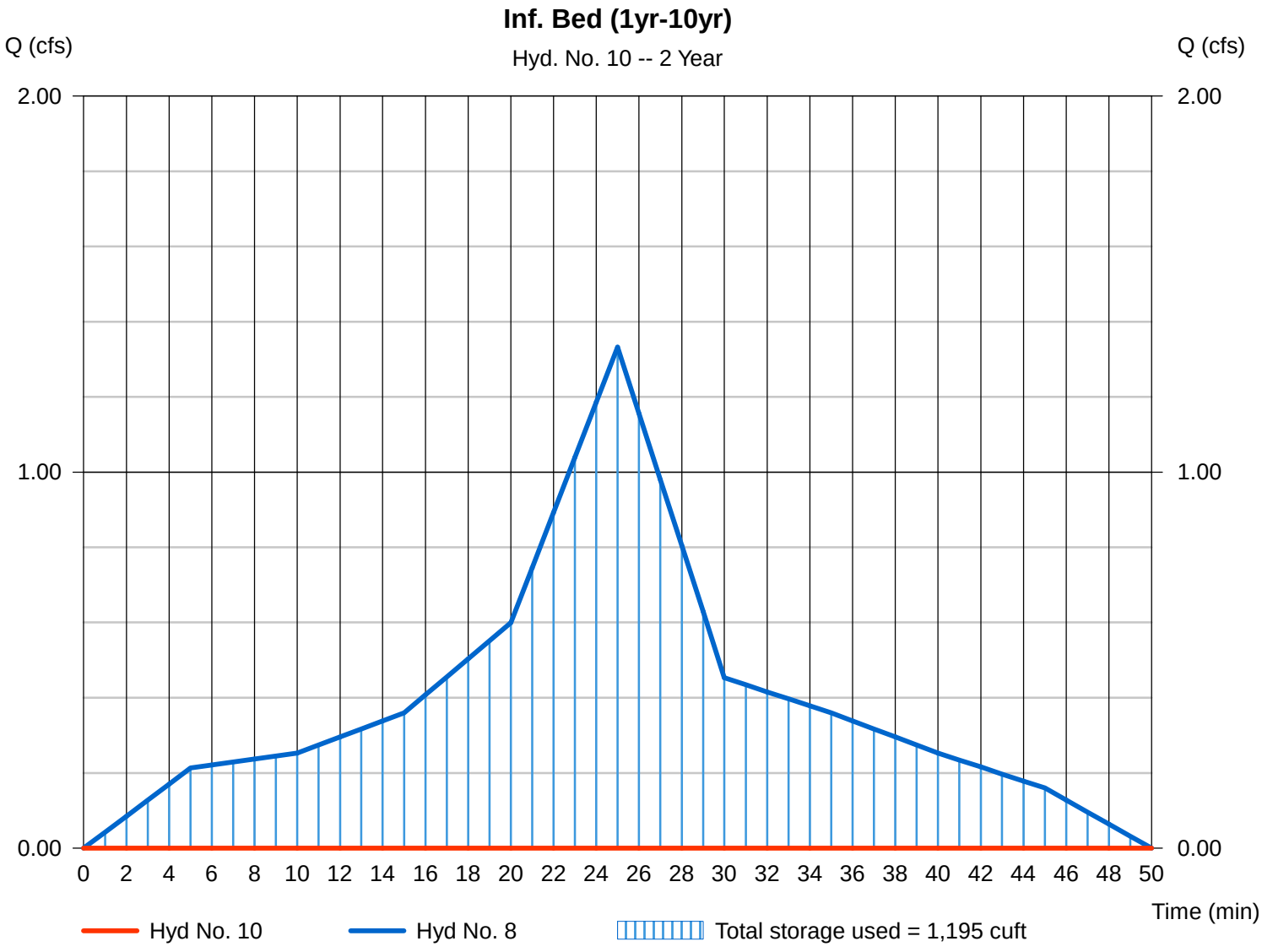
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 10

Inf. Bed (1yr-10yr)

Hydrograph type	=	Reservoir	Peak discharge	=	0.000 cfs
Storm frequency	=	2 yrs	Time to peak	=	n/a
Time interval	=	1 min	Hyd. volume	=	0 cuft
Inflow hyd. No.	=	8 - Total to Bed (1yr-10yr)	Max. Elevation	=	256.12 ft
Reservoir name	=	Infiltration Bed	Max. Storage	=	1,195 cuft

Storage Indication method used.



Hydrograph Report

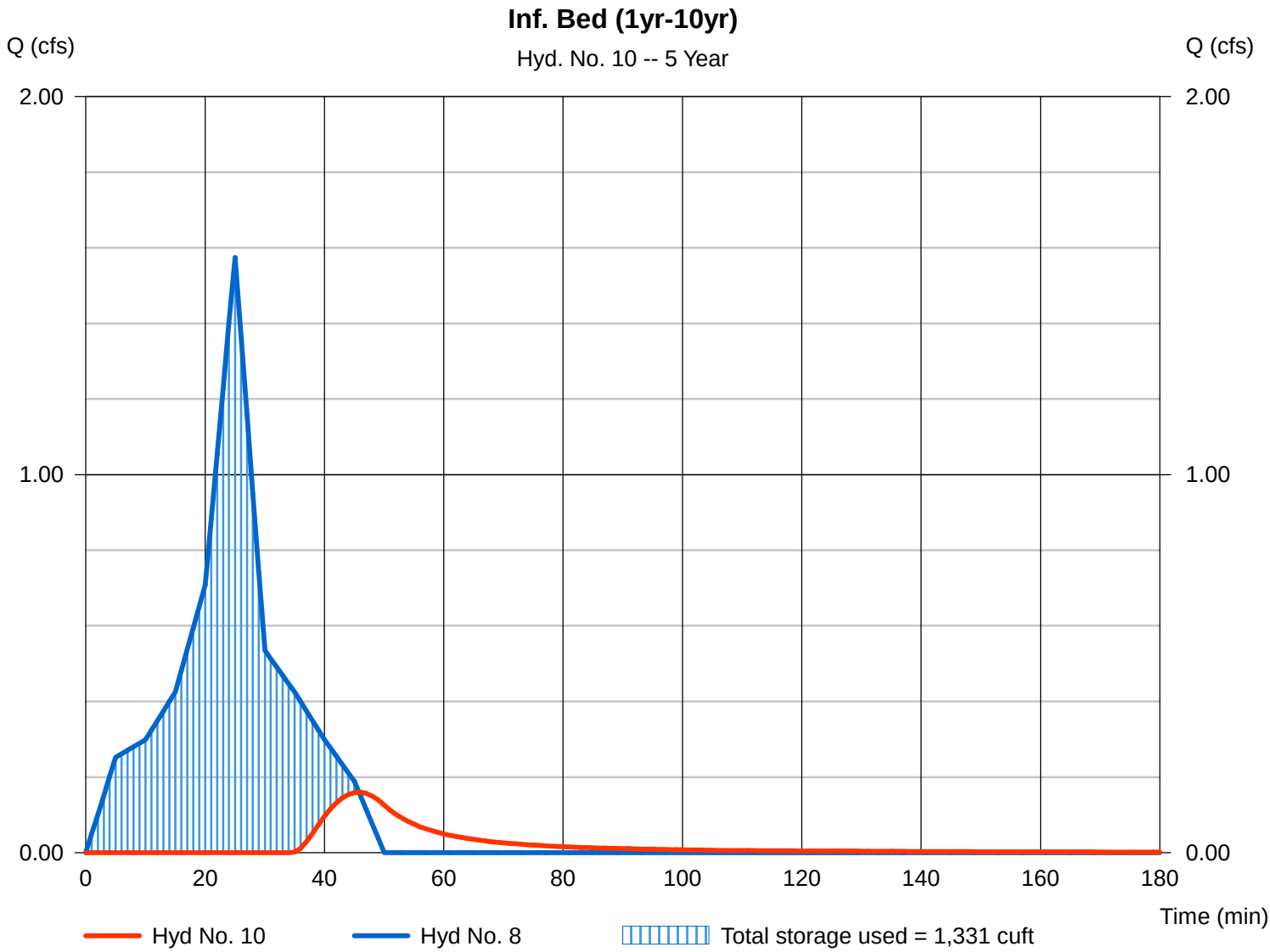
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 10

Inf. Bed (1yr-10yr)

Hydrograph type	=	Reservoir	Peak discharge	=	0.160 cfs
Storm frequency	=	5 yrs	Time to peak	=	46 min
Time interval	=	1 min	Hyd. volume	=	211 cuft
Inflow hyd. No.	=	8 - Total to Bed (1yr-10yr)	Max. Elevation	=	256.33 ft
Reservoir name	=	Infiltration Bed	Max. Storage	=	1,331 cuft

Storage Indication method used.



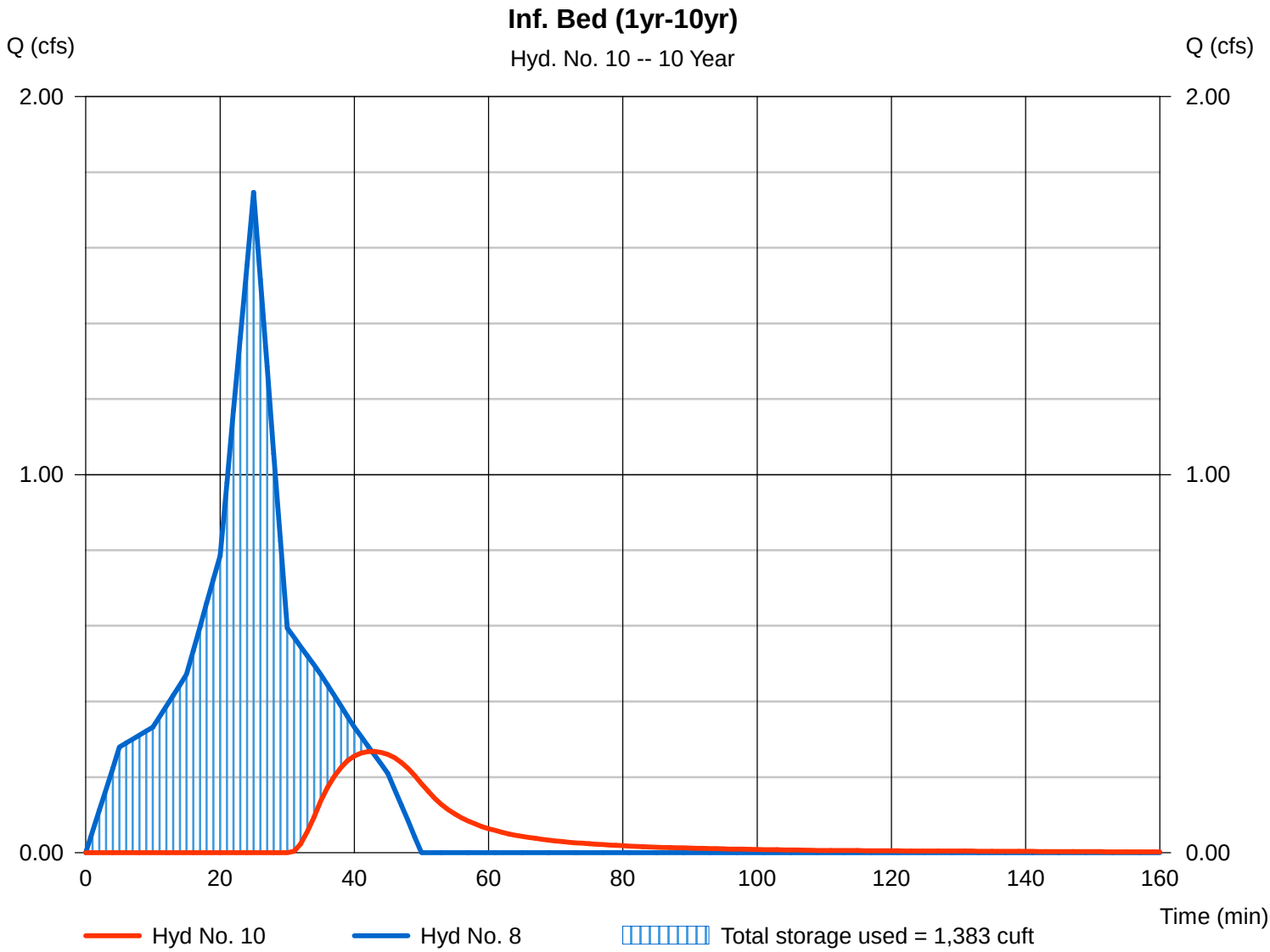
Hydrograph Report

Hyd. No. 10

Inf. Bed (1yr-10yr)

Hydrograph type	=	Reservoir	Peak discharge	=	0.268 cfs
Storm frequency	=	10 yrs	Time to peak	=	43 min
Time interval	=	1 min	Hyd. volume	=	366 cuft
Inflow hyd. No.	=	8 - Total to Bed (1yr-10yr)	Max. Elevation	=	256.41 ft
Reservoir name	=	Infiltration Bed	Max. Storage	=	1,383 cuft

Storage Indication method used.



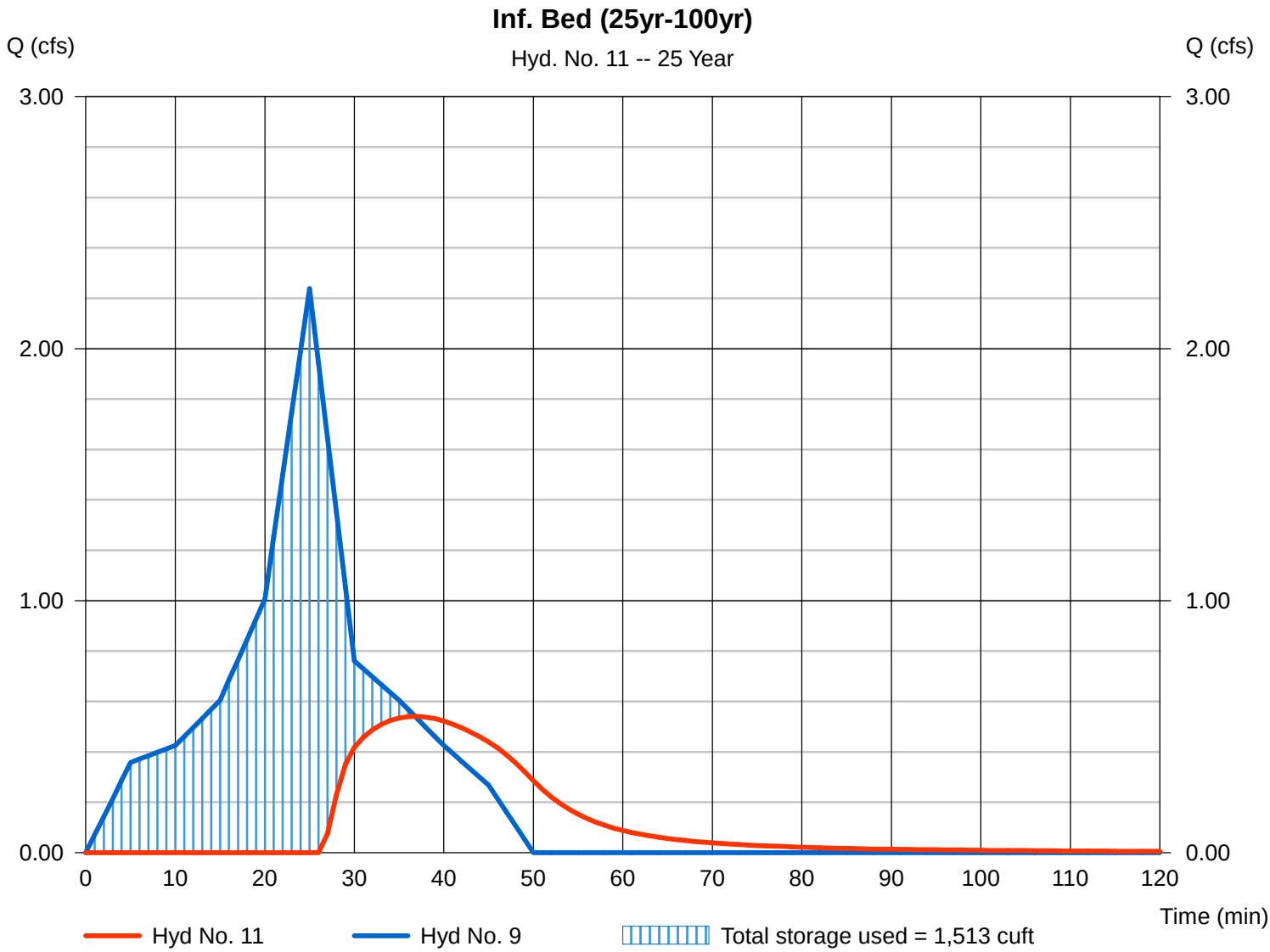
Hydrograph Report

Hyd. No. 11

Inf. Bed (25yr-100yr)

Hydrograph type	=	Reservoir	Peak discharge	=	0.541 cfs
Storm frequency	=	25 yrs	Time to peak	=	37 min
Time interval	=	1 min	Hyd. volume	=	806 cuft
Inflow hyd. No.	=	9 - Total to Bed (25yr-100yr)	Max. Elevation	=	256.61 ft
Reservoir name	=	Infiltration Bed	Max. Storage	=	1,513 cuft

Storage Indication method used.



Hydrograph Report

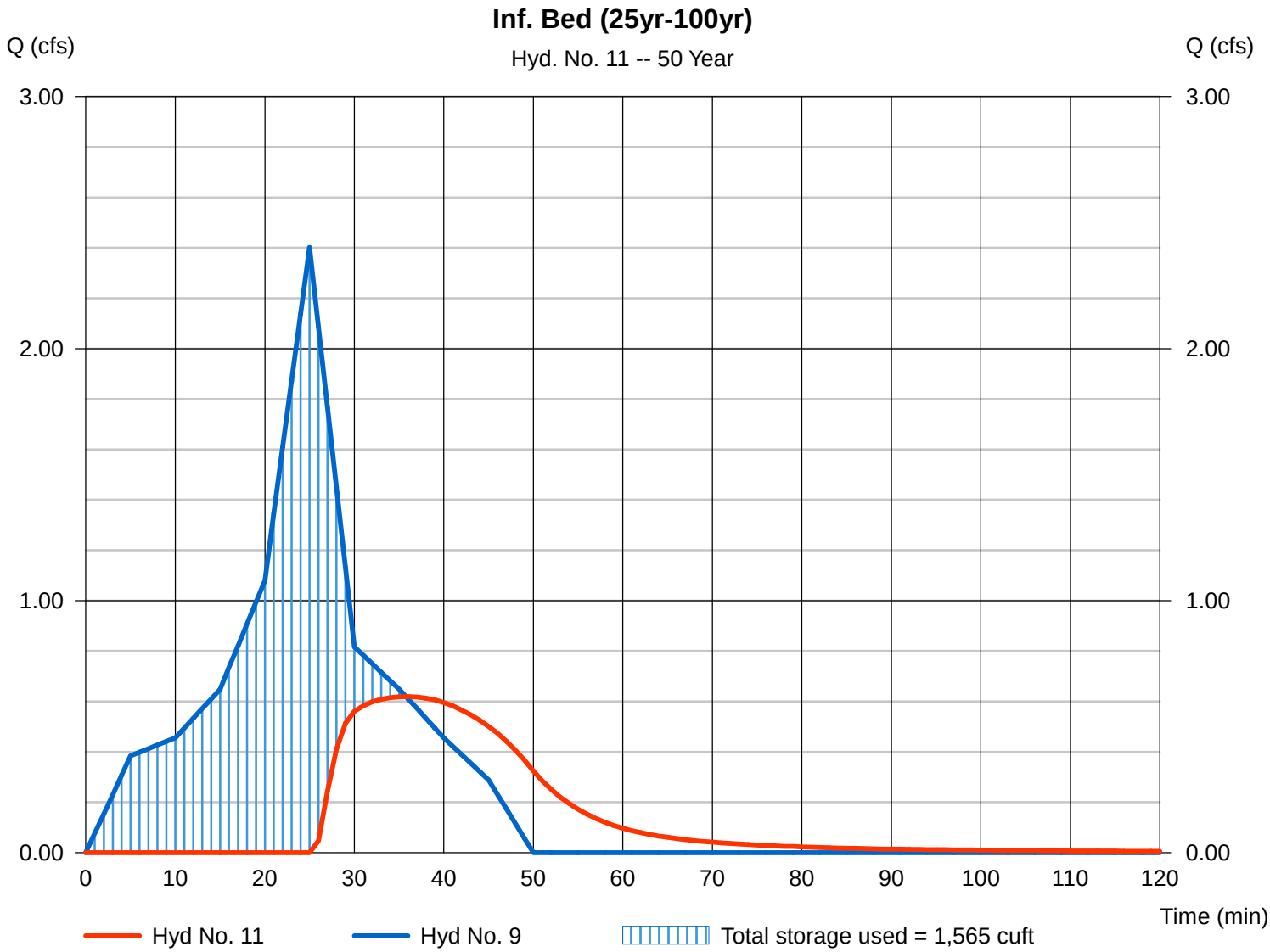
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 11

Inf. Bed (25yr-100yr)

Hydrograph type	=	Reservoir	Peak discharge	=	0.620 cfs
Storm frequency	=	50 yrs	Time to peak	=	36 min
Time interval	=	1 min	Hyd. volume	=	954 cuft
Inflow hyd. No.	=	9 - Total to Bed (25yr-100yr)	Max. Elevation	=	256.70 ft
Reservoir name	=	Infiltration Bed	Max. Storage	=	1,565 cuft

Storage Indication method used.



Hydrograph Report

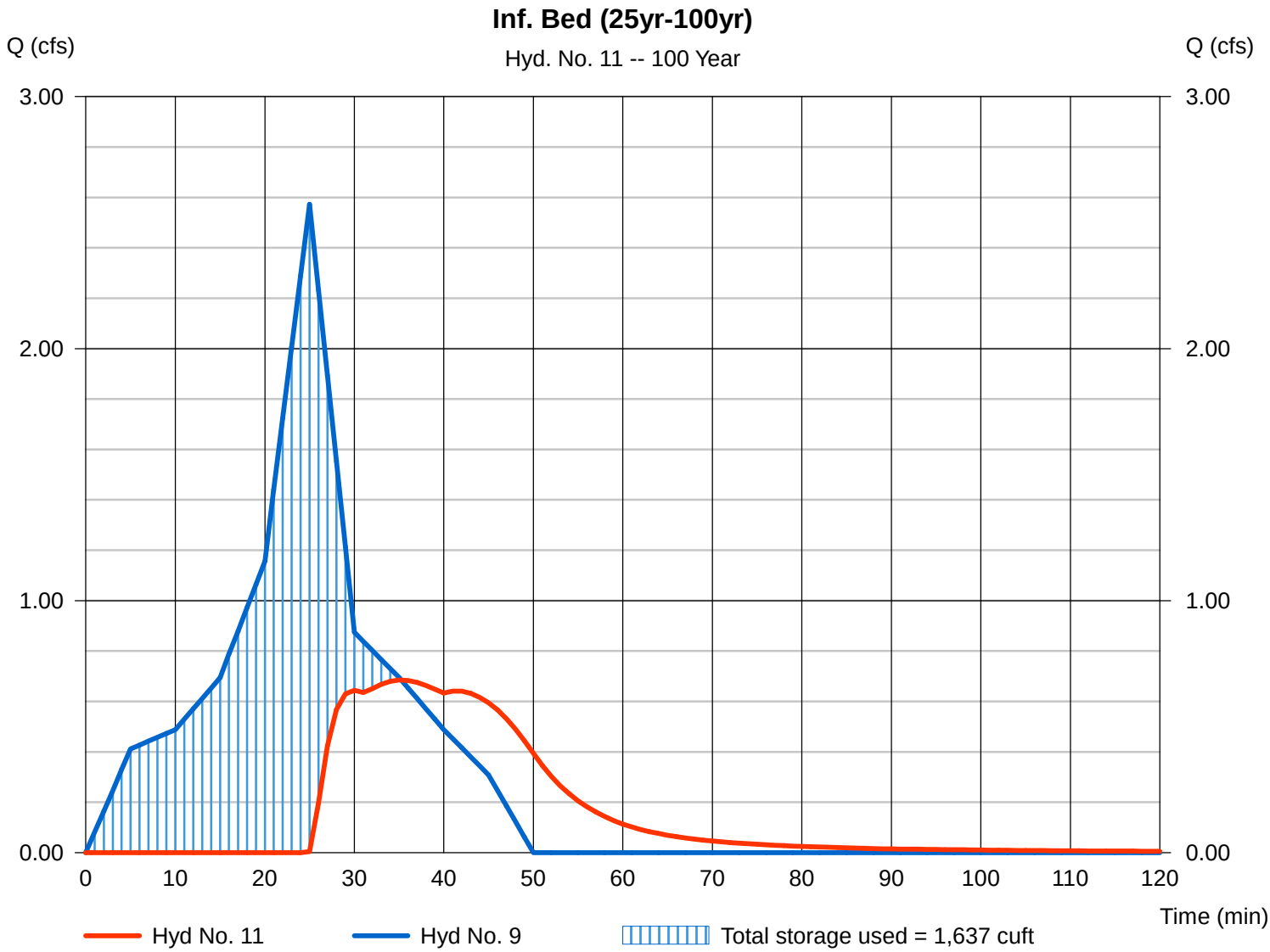
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 11

Inf. Bed (25yr-100yr)

Hydrograph type	=	Reservoir	Peak discharge	=	0.685 cfs
Storm frequency	=	100 yrs	Time to peak	=	35 min
Time interval	=	1 min	Hyd. volume	=	1,106 cuft
Inflow hyd. No.	=	9 - Total to Bed (25yr-100yr)	Max. Elevation	=	256.81 ft
Reservoir name	=	Infiltration Bed	Max. Storage	=	1,637 cuft

Storage Indication method used.



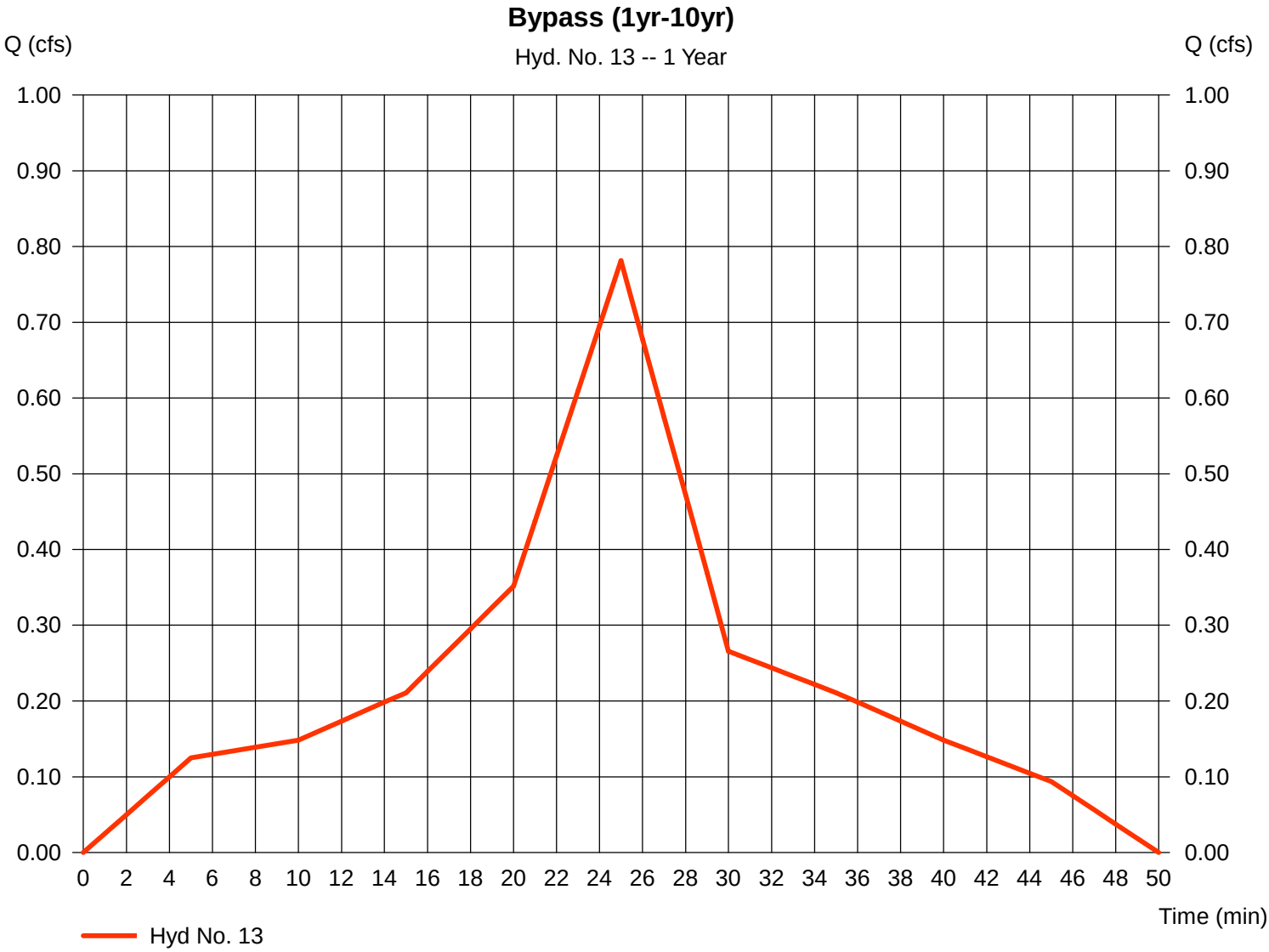
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 13

Bypass (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.781 cfs
Storm frequency	=	1 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	701 cuft
Drainage area	=	0.350 ac	Runoff coeff.	=	0.54
Intensity	=	4.134 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a

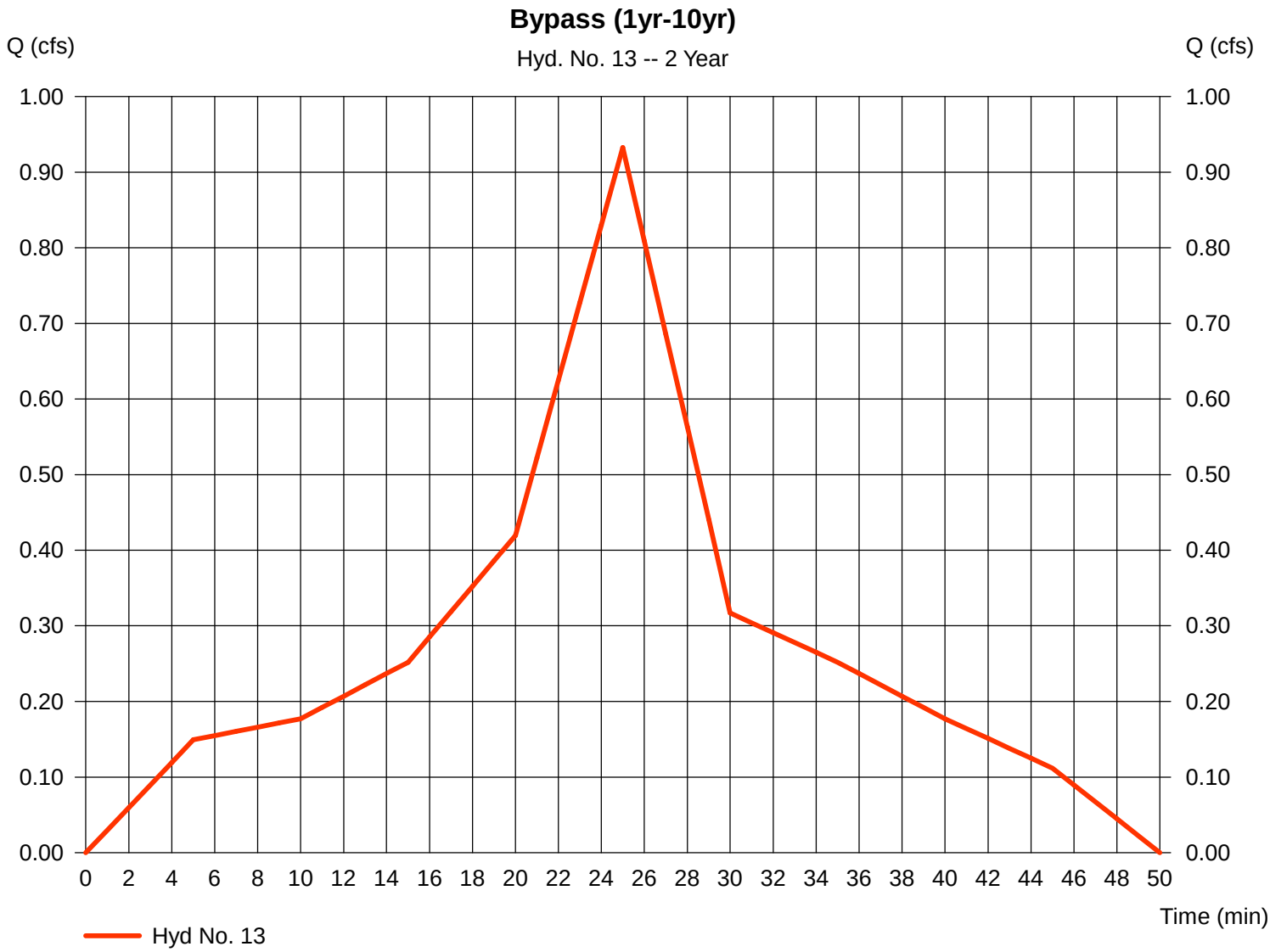


Hydrograph Report

Hyd. No. 13

Bypass (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	0.932 cfs
Storm frequency	=	2 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	836 cuft
Drainage area	=	0.350 ac	Runoff coeff.	=	0.54
Intensity	=	4.934 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



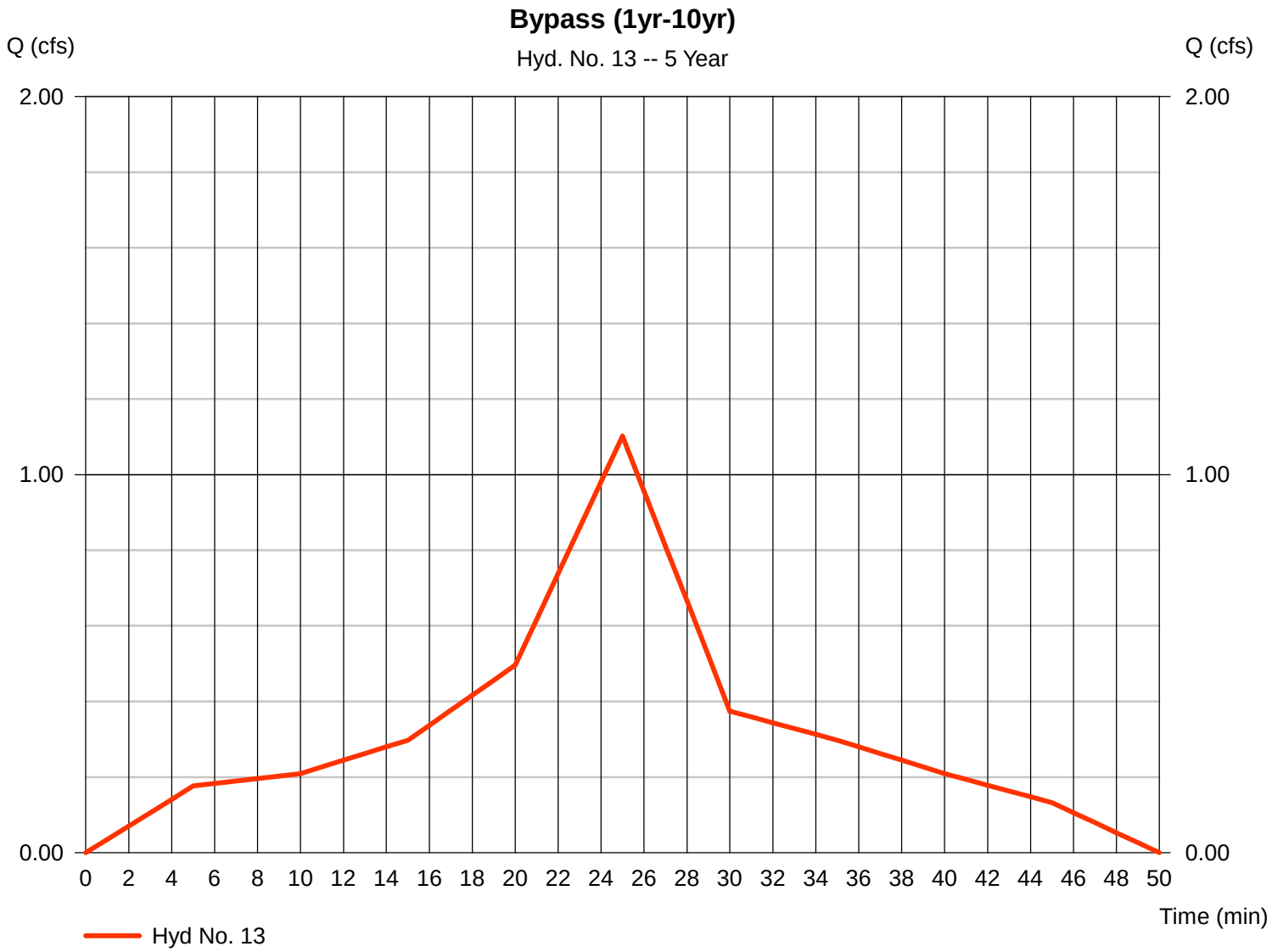
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 13

Bypass (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.102 cfs
Storm frequency	=	5 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	988 cuft
Drainage area	=	0.350 ac	Runoff coeff.	=	0.54
Intensity	=	5.830 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



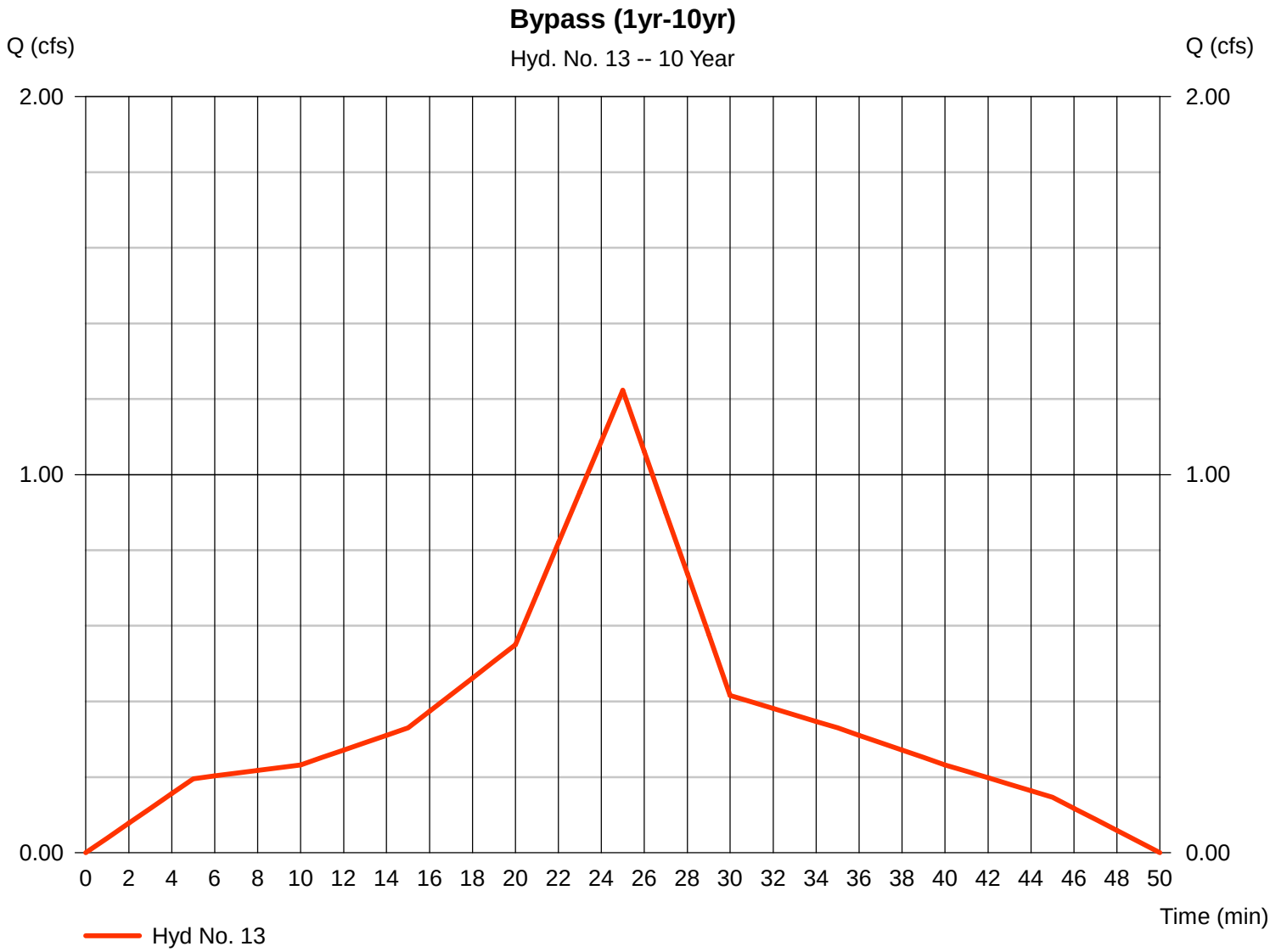
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 13

Bypass (1yr-10yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.223 cfs
Storm frequency	=	10 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,097 cuft
Drainage area	=	0.350 ac	Runoff coeff.	=	0.54
Intensity	=	6.469 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



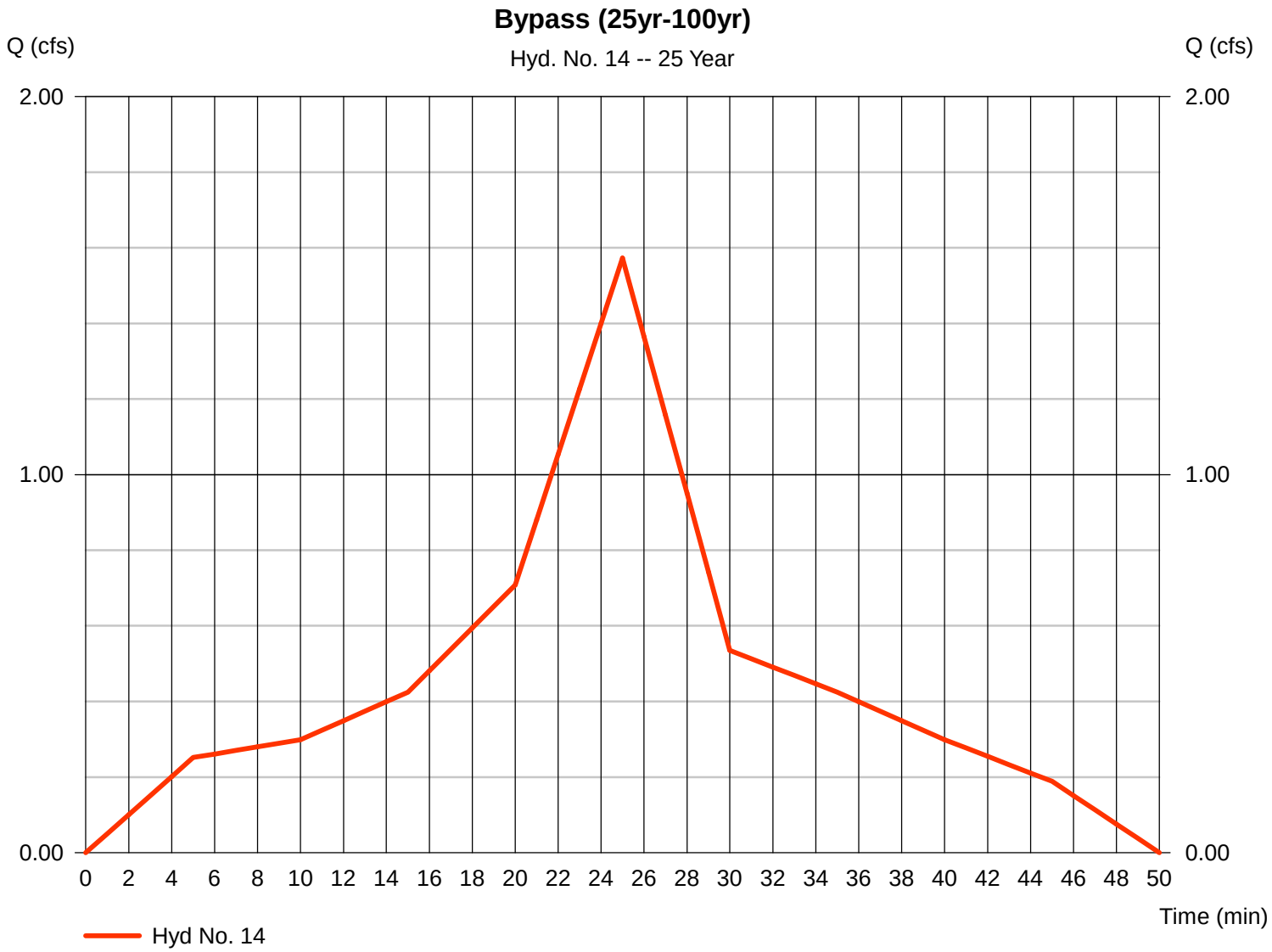
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 14

Bypass (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.573 cfs
Storm frequency	=	25 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,411 cuft
Drainage area	=	0.350 ac	Runoff coeff.	=	0.62
Intensity	=	7.248 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



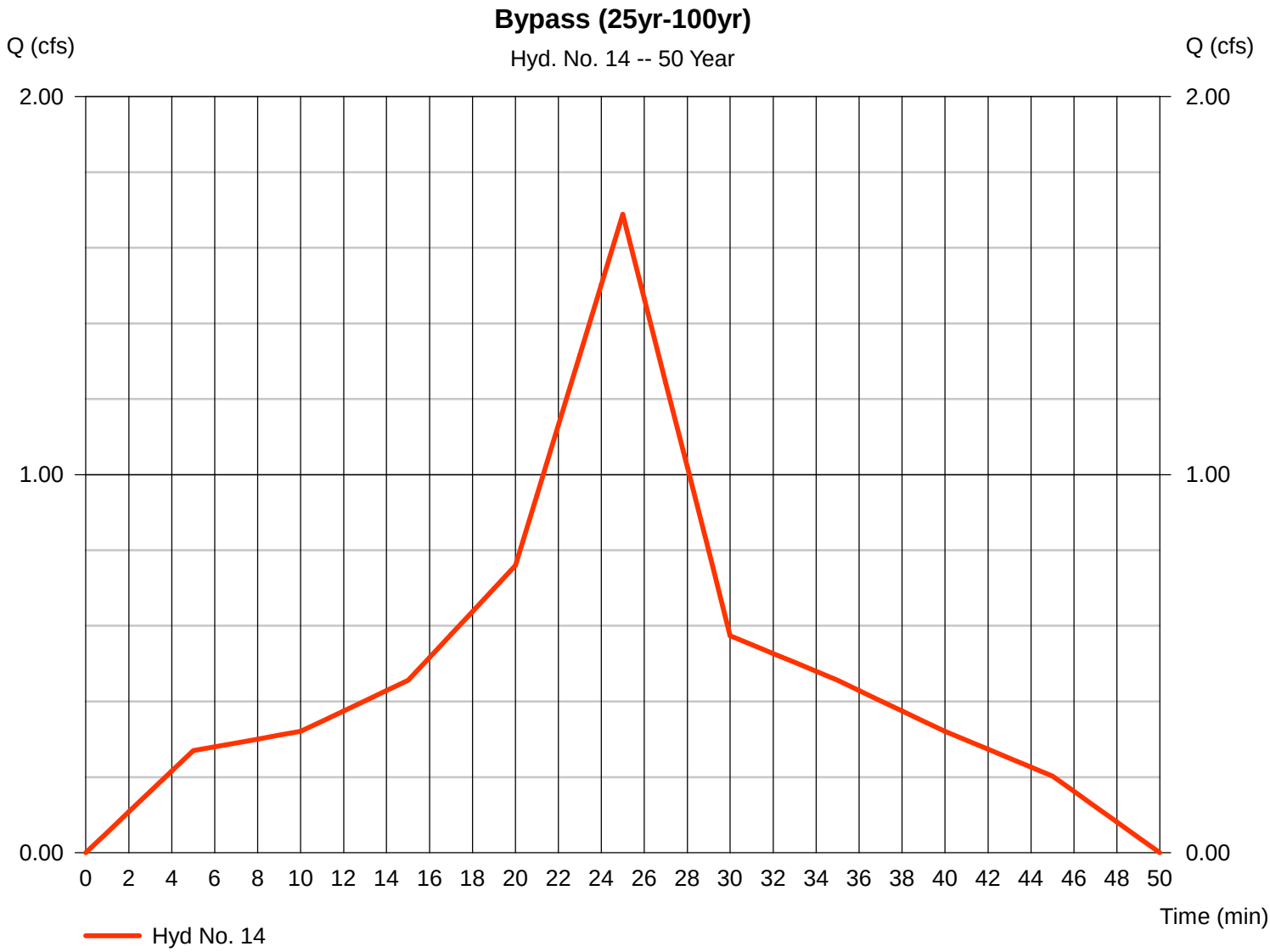
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 14

Bypass (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.688 cfs
Storm frequency	=	50 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,514 cuft
Drainage area	=	0.350 ac	Runoff coeff.	=	0.62
Intensity	=	7.780 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a



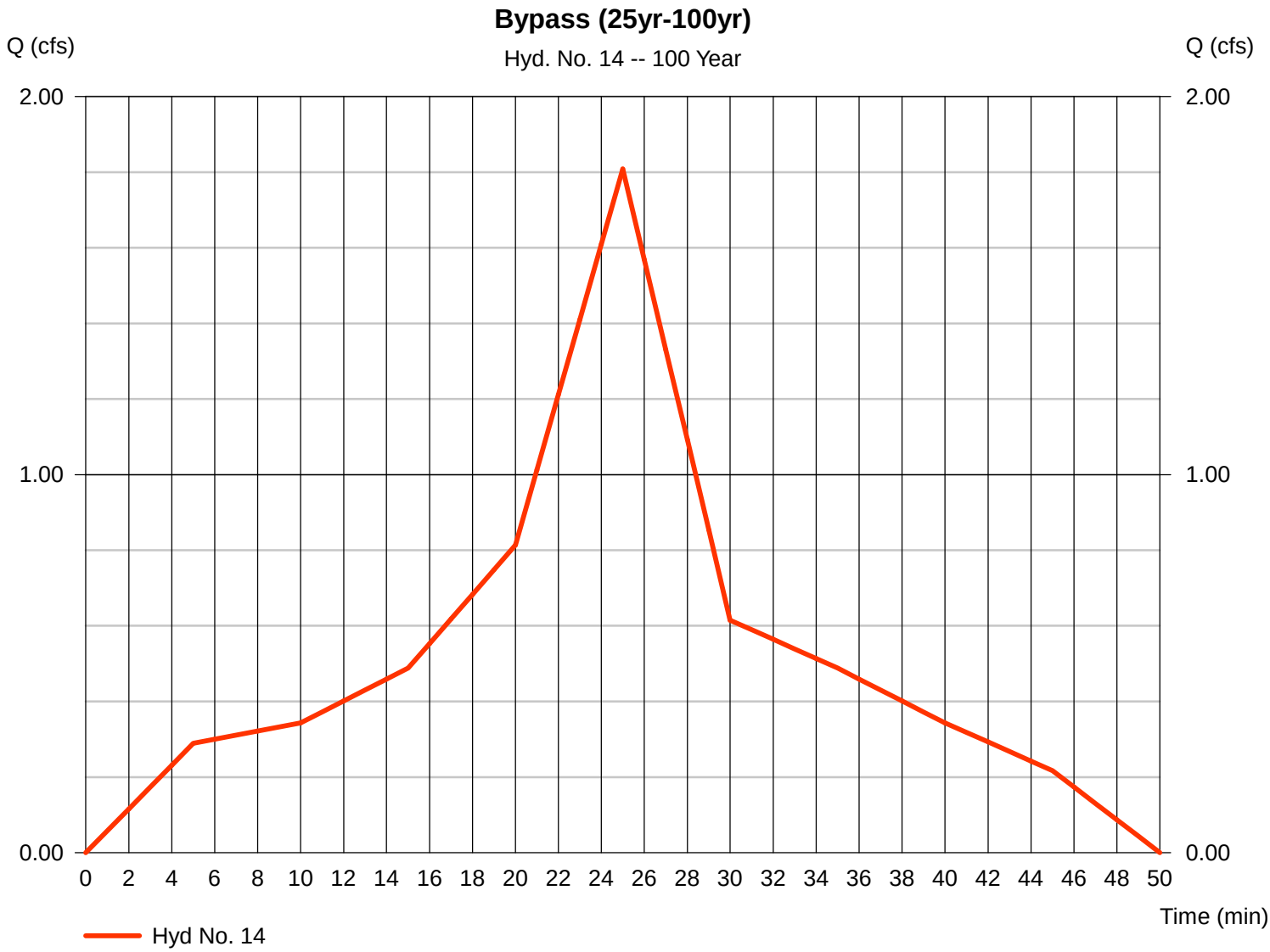
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 14

Bypass (25yr-100yr)

Hydrograph type	=	Dekalb	Peak discharge	=	1.808 cfs
Storm frequency	=	100 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,622 cuft
Drainage area	=	0.350 ac	Runoff coeff.	=	0.62
Intensity	=	8.332 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Region5.IDF	Asc/Rec limb fact	=	n/a

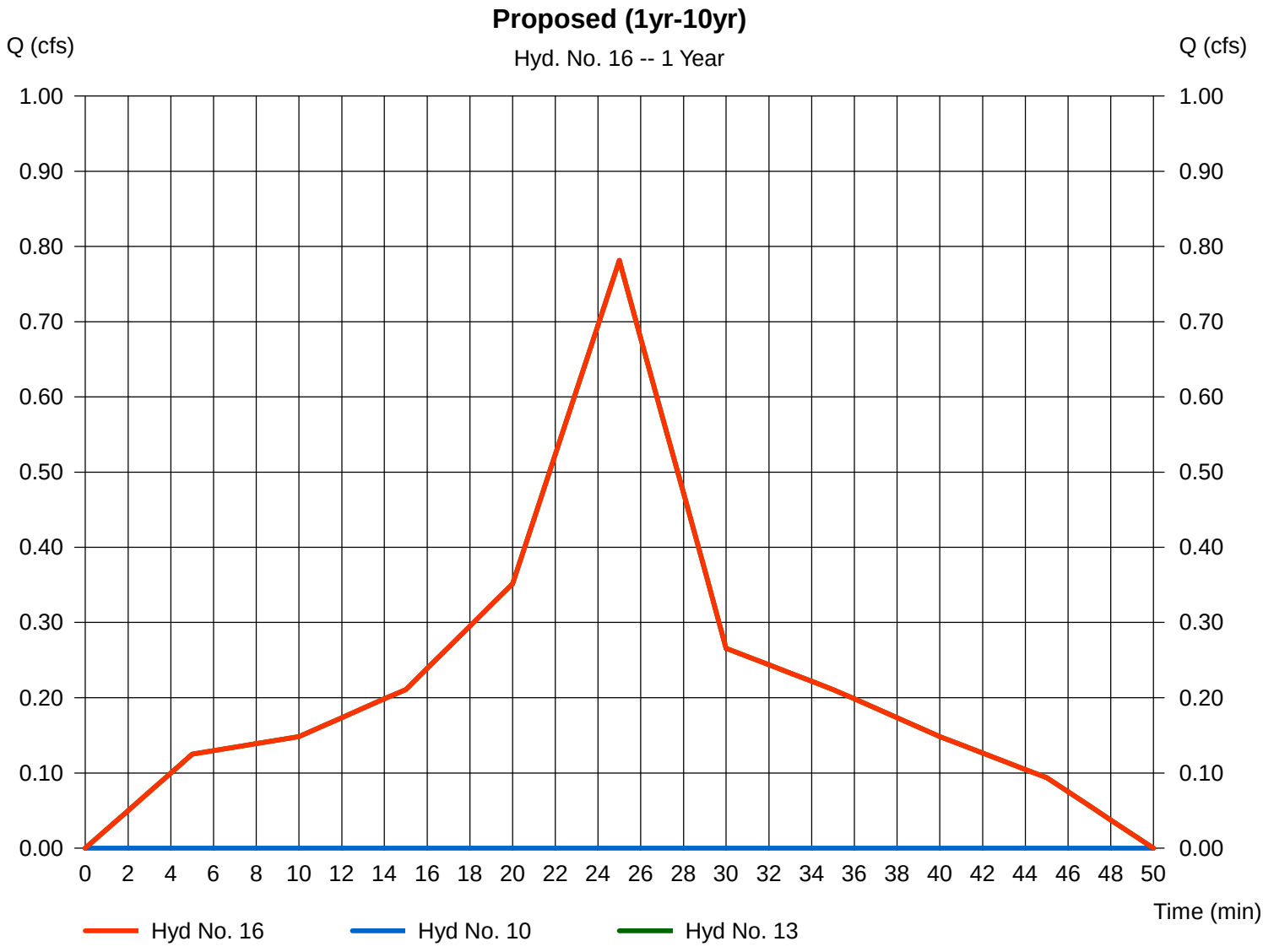


Hydrograph Report

Hyd. No. 16

Proposed (1yr-10yr)

Hydrograph type	=	Combine	Peak discharge	=	0.781 cfs
Storm frequency	=	1 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	701 cuft
Inflow hyds.	=	10, 13	Contrib. drain. area	=	0.350 ac



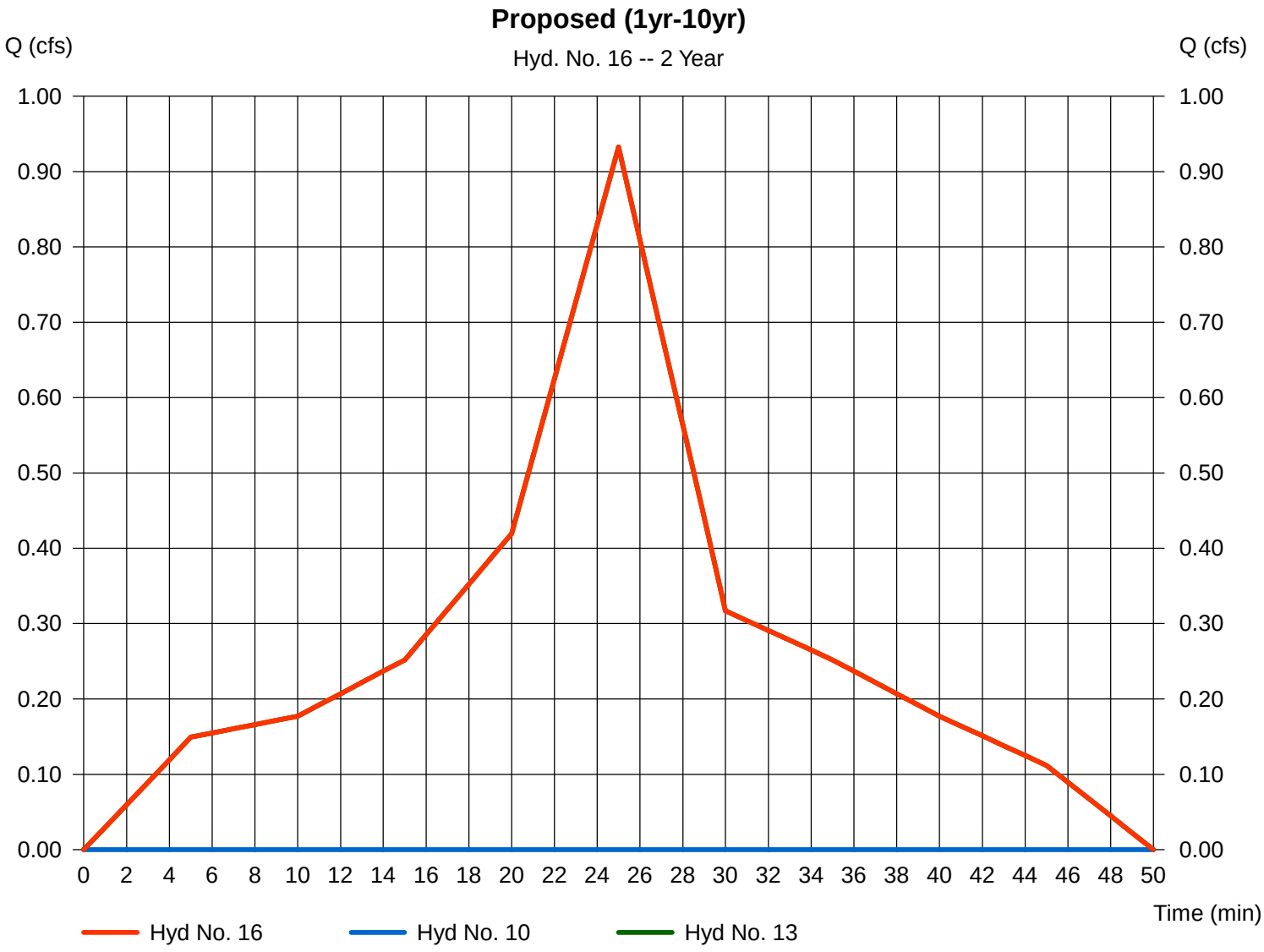
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 16

Proposed (1yr-10yr)

Hydrograph type	=	Combine	Peak discharge	=	0.932 cfs
Storm frequency	=	2 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	836 cuft
Inflow hyds.	=	10, 13	Contrib. drain. area	=	0.350 ac



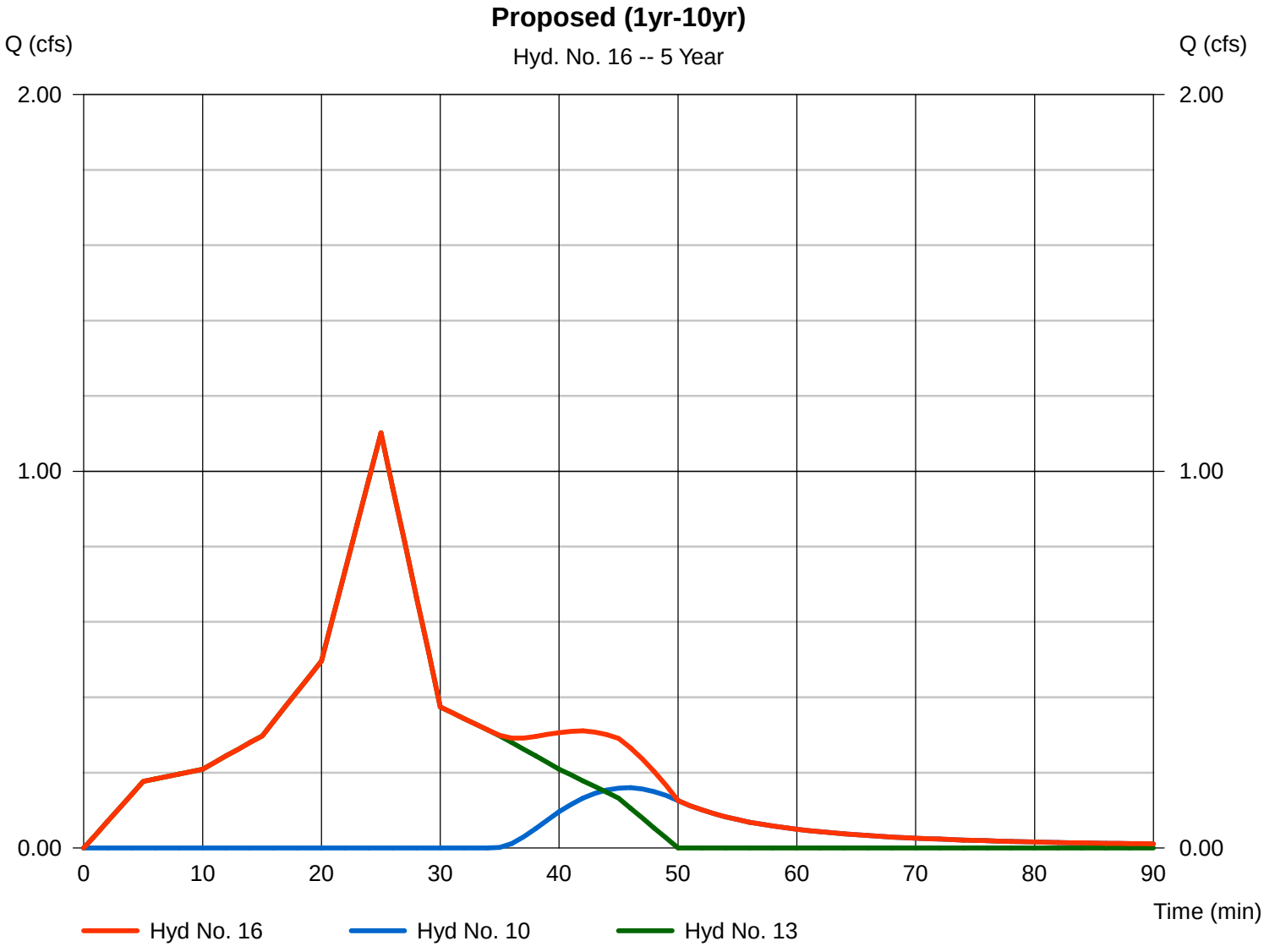
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 16

Proposed (1yr-10yr)

Hydrograph type	=	Combine	Peak discharge	=	1.102 cfs
Storm frequency	=	5 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,200 cuft
Inflow hyds.	=	10, 13	Contrib. drain. area	=	0.350 ac



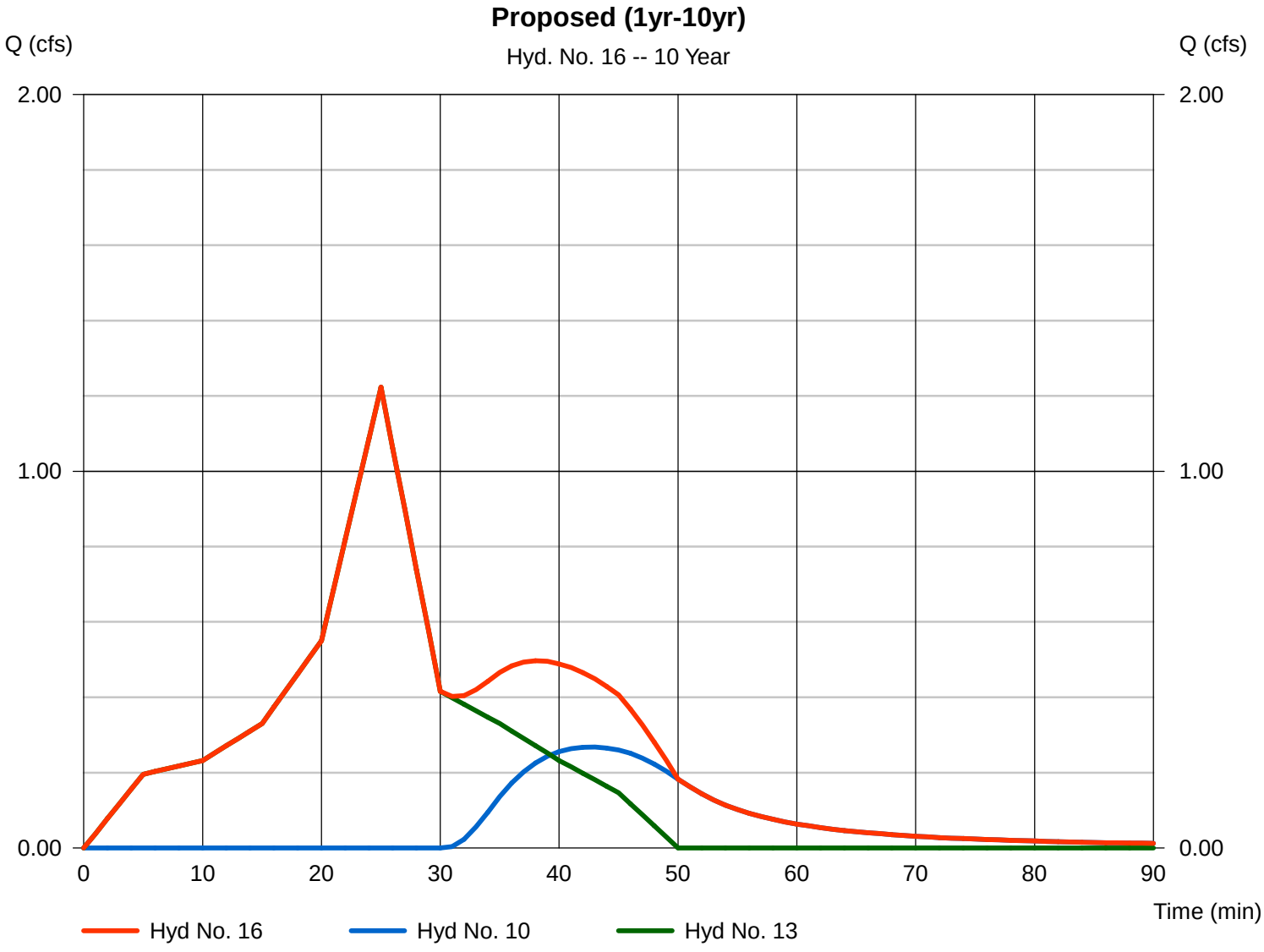
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 16

Proposed (1yr-10yr)

Hydrograph type	=	Combine	Peak discharge	=	1.223 cfs
Storm frequency	=	10 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	1,463 cuft
Inflow hyds.	=	10, 13	Contrib. drain. area	=	0.350 ac



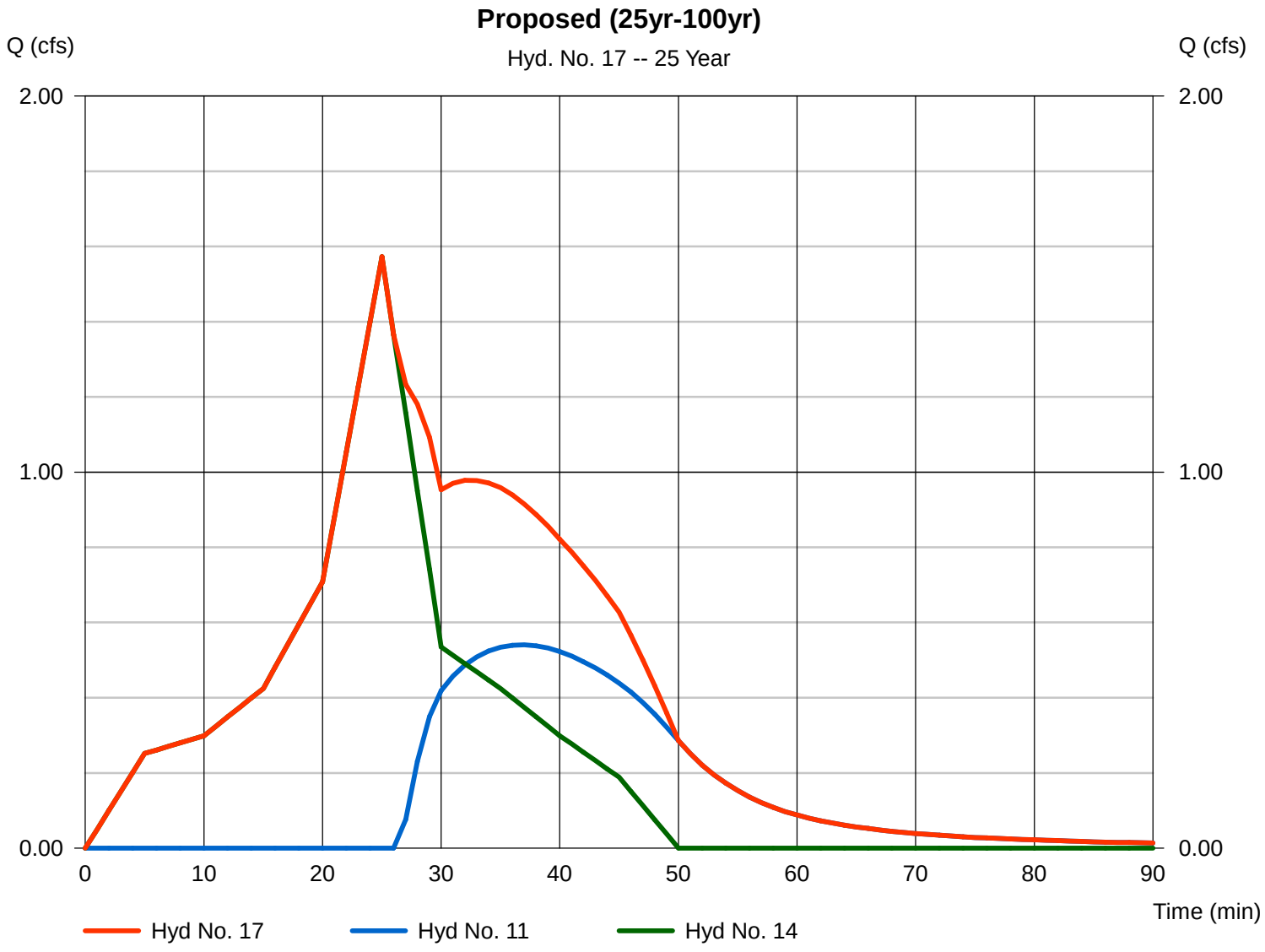
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 17

Proposed (25yr-100yr)

Hydrograph type	=	Combine	Peak discharge	=	1.573 cfs
Storm frequency	=	25 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	2,217 cuft
Inflow hyds.	=	11, 14	Contrib. drain. area	=	0.350 ac



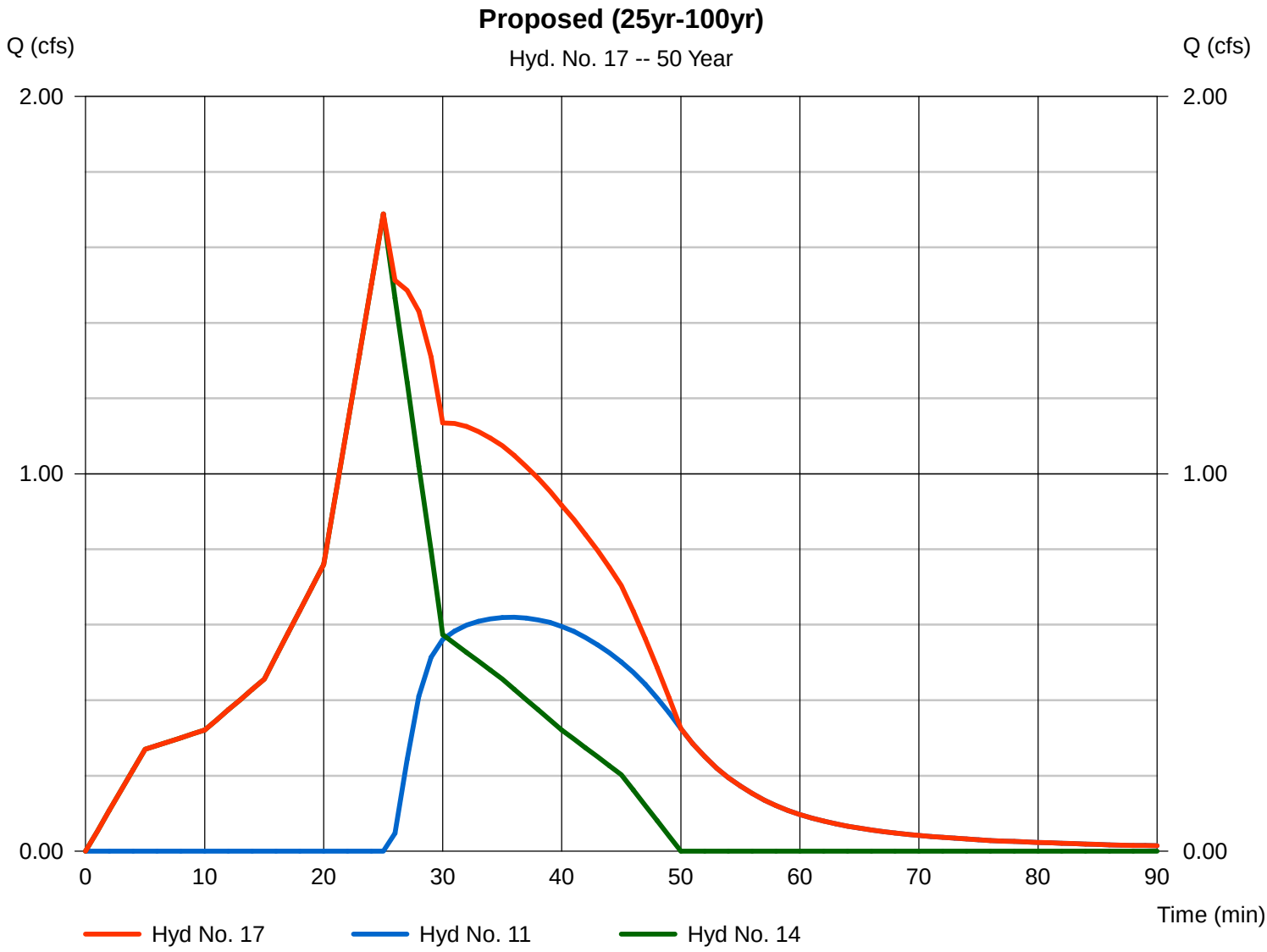
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 17

Proposed (25yr-100yr)

Hydrograph type	=	Combine	Peak discharge	=	1.688 cfs
Storm frequency	=	50 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	2,468 cuft
Inflow hyds.	=	11, 14	Contrib. drain. area	=	0.350 ac



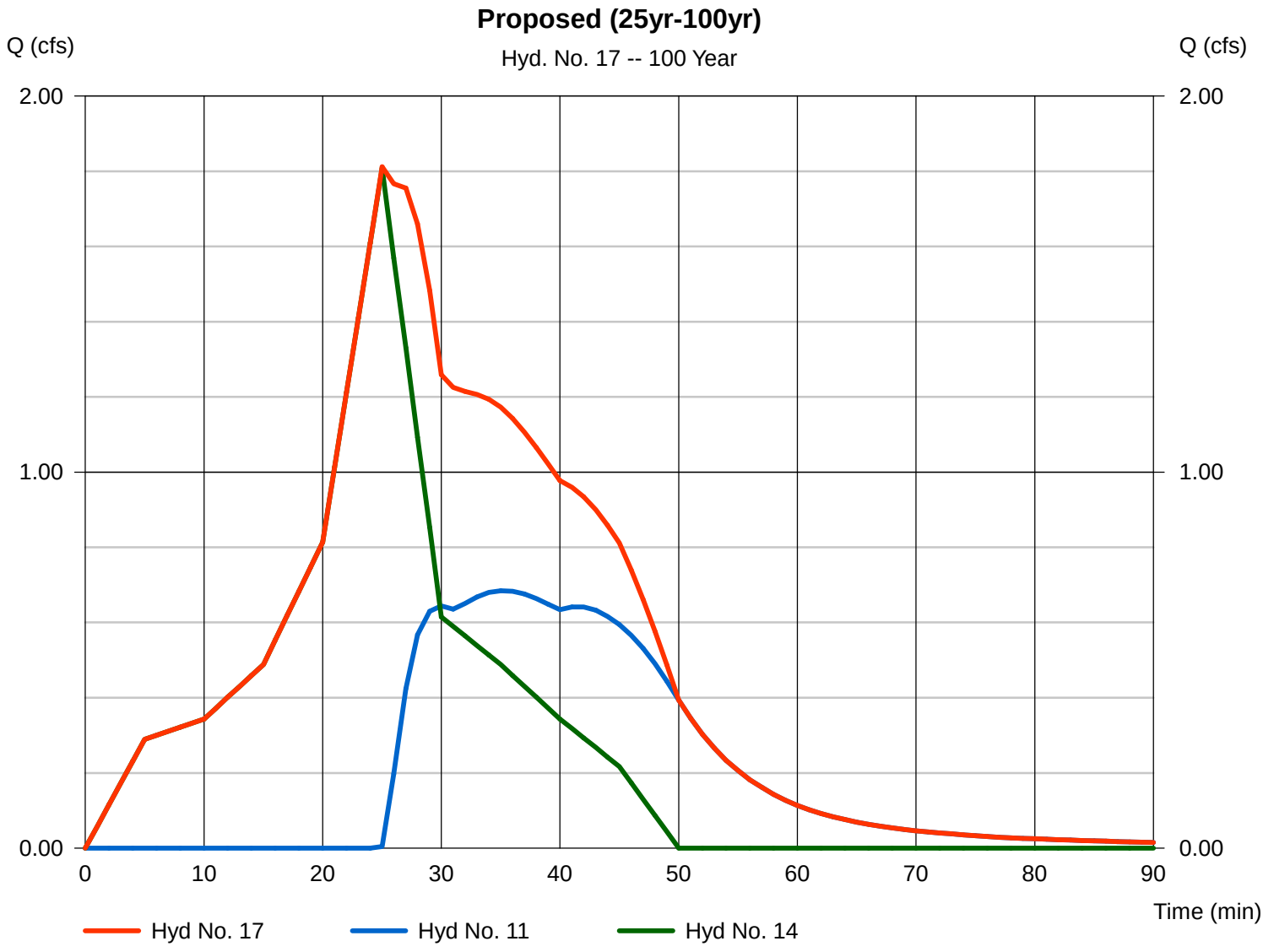
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Thursday, Oct 12, 2023

Hyd. No. 17

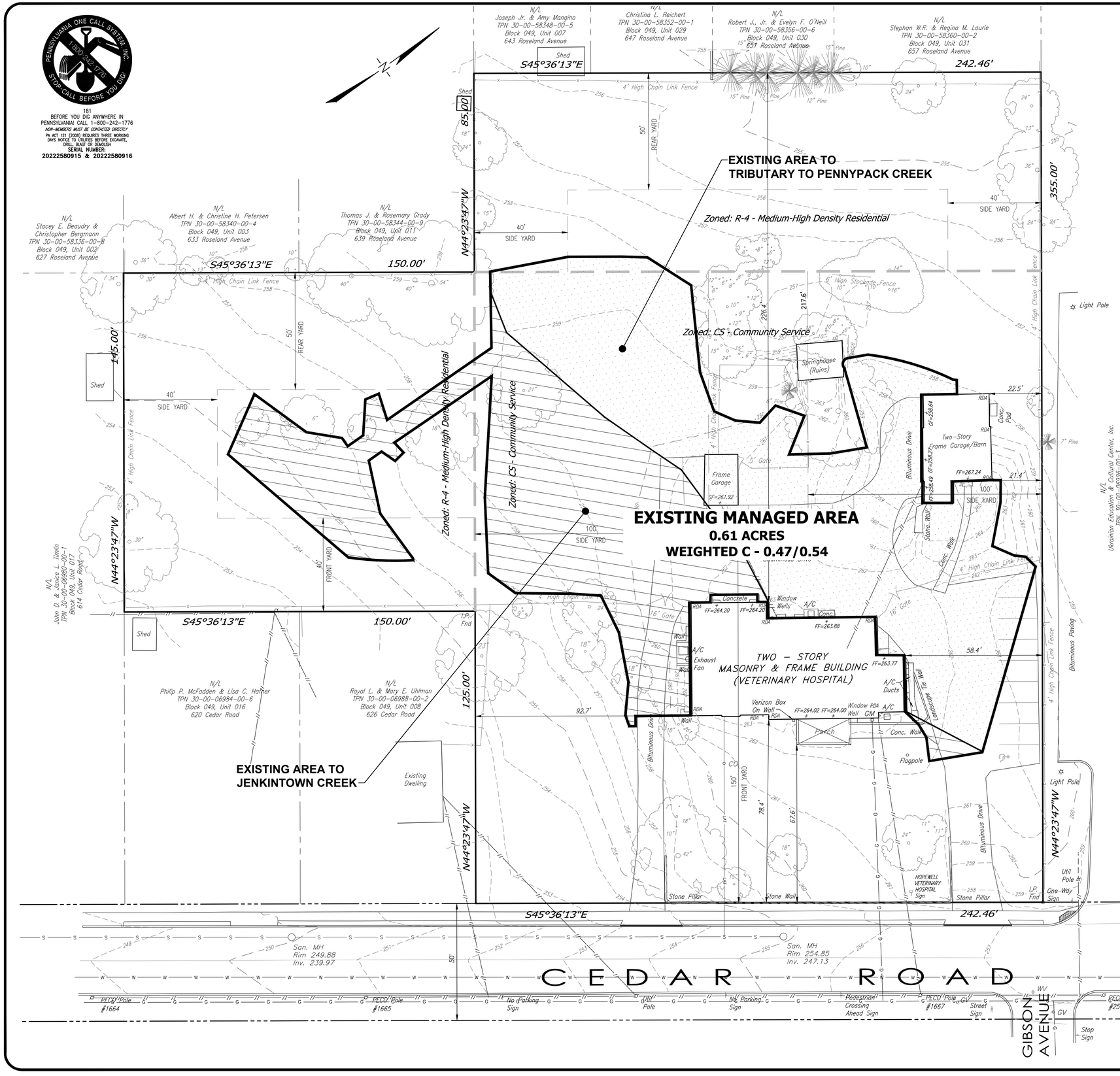
Proposed (25yr-100yr)

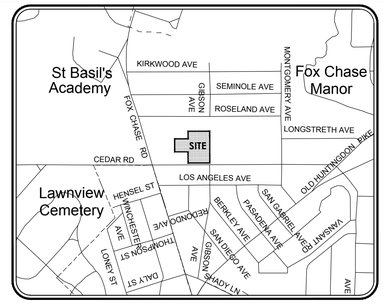
Hydrograph type	=	Combine	Peak discharge	=	1.812 cfs
Storm frequency	=	100 yrs	Time to peak	=	25 min
Time interval	=	1 min	Hyd. volume	=	2,728 cuft
Inflow hyds.	=	11, 14	Contrib. drain. area	=	0.350 ac



PENNSYLVANIA ONE CALL SYSTEM INC.
1800 242 1776
STOP CALL BEFORE YOU DIG!

181
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA ACT 121 (2008) REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE EXCAVATE, DRILL, BLAST OR DEMOLISH
SERIAL NUMBER:
20222580915 & 20222580916





LOCATION MAP
SCALE: 1" = 800'

LEGEND
EXISTING FEATURES

- FENCE
- OVERHEAD WIRE
- MB MAILBOX
- GV GAS VALVE
- WV WATER VALVE
- SC SANITARY CLEANOUTS
- UTILITY POLE
- SIGN
- LIGHT STANDARD
- MANHOLE
- S SANITARY SEWER
- STORM SEWER
- BRUSH LINE
- DECIDUOUS TREE
- W WATER MAIN
- WS WATER SERVICE
- G GAS MAIN
- E UNDERSROUND ELECTRIC
- LAT LATERAL
- 238 CONTOUR
- 15-25% SLOPES
- 25%+ SLOPES

NO.	DATE	REVISION	BY

COUNTY PARCEL NO.
30-00-06992-00-7
BLOCK - UNIT
049-004
SITE ADDRESS
640 CEDAR ROAD
JENKINTOWN, PA. 19046
DEED BOOK - PAGE
5480-1222

RECORD OWNER
RUTKOWSKI LP
640 CEDAR ROAD
JENKINTOWN, PA. 19046

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: staff@ceshoemaker.com

GRAPHIC SCALE
0 10 20 40
1 INCH = 20 FEET

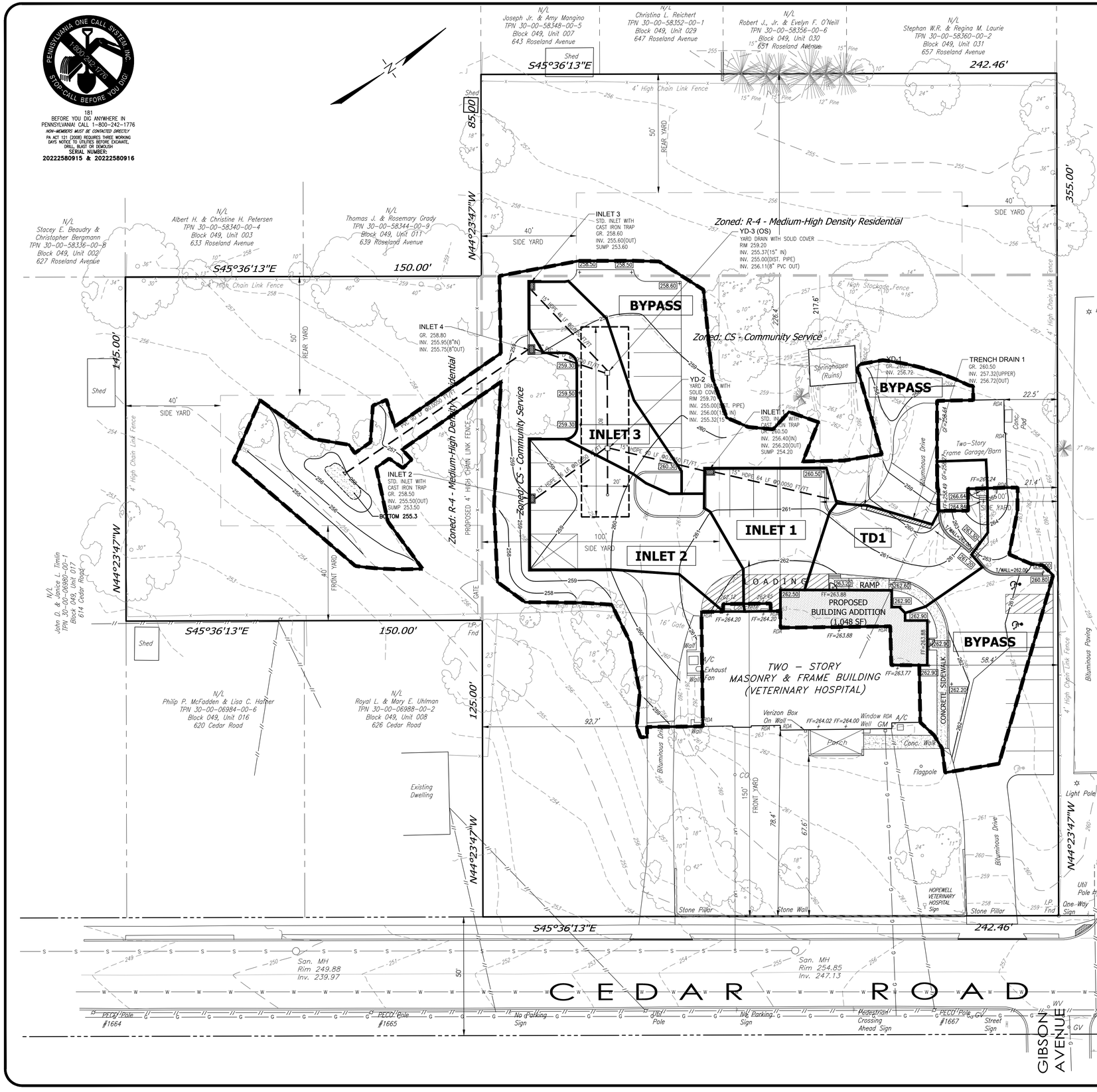
EXISTING DRAINAGE AREA PLAN
OF
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

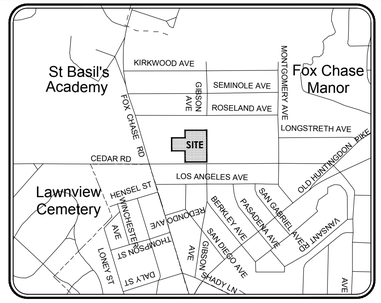
DATE OCTOBER 6, 2023
DWG NO
JOB NO. 27023
SHEET NO. 1 OF 2

AREA TO TITLE LINE
107,823 SF or 2.4753 ACRES

PENNSYLVANIA ONE CALL SYSTEM INC.
1800-242-1776
STOP CALL BEFORE YOU DIG!

181
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA ACT 121 (2008) REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE EXCAVATE, DRILL, BLAST OR DEMOLISH
SERIAL NUMBER:
20222580915 & 20222580916





LOCATION MAP
SCALE: 1" = 800'

LEGEND
EXISTING FEATURES
- FENCE
- OVERHEAD WIRE
- MB MAILBOX
- GV GAS VALVE
- WV WATER VALVE
- SC SANITARY CLEANOUTS
- UTILITY POLE
- SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER
- STORM SEWER
- BRUSH LINE
- DECIDUOUS TREE
- W WATER MAIN
- WS WATER SERVICE
- G GAS MAIN
- E UNDERSROUND ELECTRIC
- LAT LATERAL
- 238 CONTOUR
- 15-25% SLOPES
- 25%+ SLOPES

PROPOSED FEATURES
- STORM SEWER
- 328 CONTOUR
- CONCRETE SIDEWALK
- CURB
- RD ROOF DRAIN
- WALL
- LIMIT OF DISTURBANCE

NO.	DATE	REVISION	BY

COUNTY PARCEL NO.
30-00-06992-00-7
BLOCK – UNIT
049-004
SITE ADDRESS
640 CEDAR ROAD
JENKINTOWN, PA. 19046
DEED BOOK – PAGE
5480-1222

RECORD OWNER
RUTKOWSKI LP
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CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: staff@ceshoemaker.com

GRAPHIC SCALE
0 10 20 40
1 INCH = 20 FEET

PROPOSED DRAINAGE AREA PLAN
OF
640 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED FOR
HOPEWELL VETERINARY HOSPITAL

DATE OCTOBER 11, 2023
DWG NO
JOB NO. 27023
SHEET NO. 2 OF 2

KUHLS LAW LLC

Joseph C. Kuhls
Attorney at Law

July 19, 2023

Gavin Laboski
Laboski Law, PC
314 West Broad Street, Suite 124
Quakertown, PA 18951

Rutkowski LP
640 Cedar Road
Jenkintown, PA 19046

Re: Abington Township Zoning Hearing Board Application 23-15

This firm serves as Solicitor to the Abington Township Zoning Hearing Board. This will confirm that the Board, at its Public Meeting last evening, voted to approve the above-named Application of Rutkowski LP for the following relief from the Abington Township Zoning Ordinance (the "Ordinance") to allow building expansion and related improvements for an animal hospital/dog kennel at 640 Cedar Road:

a) A variance from Ordinance §905.G.4 to permit two parking spaces in the required front yard;

b) A variance from Ordinance §2103.C.38.1 to permit the proposed expanded building to be setback 55 feet from the side property line;

c) A variance from Ordinance §1907.A.1 to allow the expansion of a nonconforming nonresidential structure;

d) A variance from Ordinance §1907.A.2 to allow expansion of a nonconforming structure from 58.4 feet to 55 feet from the side property line;

e) A variance from Ordinance §2403.B.4.a[1] to install a Low-Intensity Buffer as required by adjoining land uses pursuant to Ordinance Figure 24.5; and

f) A variance from Ordinance §2403.B.4.a[2] to install a Medium-Intensity Buffer as required by adjoining land uses pursuant to Figure 24.5.

This approval is granted subject to the conditions: 1) that all development and use of the subject property be in substantial conformance with the testimony, exhibits, and other evidence presented at the Public Hearing on this matter, including (without limitation) the Plan Exhibit attached hereto (the "Plan"); and 2) that a stockade or similar fence be installed along the

northwest side of the expanded parking area, to assist in blocking automobile headlamps from lighting abutting residential uses. .

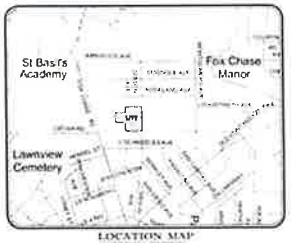
Any aggrieved party may file an appeal to the Court contesting this decision within thirty (30) days. Anyone taking action on this decision within that appeal period does so at their own risk. Please remember that this Zoning Approval does not relieve the Applicant of the obligation to obtain a building permit and/or other related approvals.

This correspondence constitutes the written decision of the Board to approve the uncontested Application, and no further findings, conclusions, or reasons will be issued.

Joseph C. Kuhls

LANDSCAPE PLAN

SCALE: 1" = 20'-0"



LOCATION MAP
SCALE: 1" = 800'

LEGEND
EXISTING FEATURES

LANDSCAPE LEGEND

- Street tree
- Parking Lot Landscape
- Buffers and Screens
- Site Element Screening
- Building Landscape

See Sheet LP-2 for Landscape Details

General Notes

Landscape Plan

No.		Date
1	LANDSCAPE UPDATE	5/23/23

Infocus Planning

HOPEWELL ANIMAL HOSPITAL
648 CEDAR ROAD
ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PA

Project: Infocus 23-14
Date: 5/23/23
Scale: As Noted
Sheet: LP-1

MONTGOMERY COUNTY
BOARD OF COMMISSIONERS

KENNETH E. LAWRENCE, JR., CHAIR
JAMILA H. WINDER, VICE CHAIR
JOSEPH C. GALE, COMMISSIONER

MONTGOMERY COUNTY
PLANNING COMMISSION

MONTGOMERY COUNTY COURTHOUSE • PO BOX 311
NORRISTOWN, PA 19404-0311
610-278-3722 • FAX: 610-278-3941
WWW.MONTGOMERYCOUNTYPA.GOV
SCOTT FRANCE, AICP
EXECUTIVE DIRECTOR

November 13, 2023

Mr. Rich Manfredi, Manager
Abington Township
1176 Old York Road
Abington, Pennsylvania 19001-3713

Re: MCPC #23-0202-001
Plan Name: 640 Cedar Rd (Hopewell Veterinary Hospital)
1,048 square feet on 2.48 acres
Situate: 640 Cedar Road
Cross Street: Gibson Avenue
Abington Township

Dear Mr. Manfredi:

We have reviewed the above-referenced land development plan in accordance with Section 502 of Act 247, "The Pennsylvania Municipalities Planning Code," as you requested on October 19, 2023. We forward this letter as a report of our review.

BACKGROUND

Rutkowski, LP, the applicant, has submitted a preliminary land development plan for a 1,048 square foot expansion to an existing veterinary hospital. The proposal also includes a parking lot expansion. The site is the location of a two-story masonry and frame veterinary hospital and a two-story frame garage/barn. The site is located partly in the R4 High Density Residential district and partly in the CS Community Service District (the existing and proposed buildings and parking are located in the CS District).

On July 18, 2023, the applicant received variances from the Zoning Hearing Board for requirements related to buffers, location of parking, and expansion of a nonconforming structure. There is currently a bus route with stops near the applicant's property (Route 28).SEPTA's current Bus Revolution service change proposal would eliminate the Cedar Road portion of the route. The site is served by public water and sewer. The main plan set is dated October 3, 2023; the landscaping plan is dated March 23, 2023.

CONSISTENCY WITH COMPREHENSIVE AND OTHER PLANS

The proposed improvements are generally consistent with *MONTCO 2040: A Shared Vision, The Montgomery County Comprehensive Plan*. The plan's future land use map shows the site located in the Suburban Residential future land use area. Limited, small-scale commercial land uses are considered appropriate secondary uses in this future land use area.

The proposed land development is shown located in the "Institutional-School, Churches" future land use area on the future land use map of the Abington Comprehensive Plan of 2007. The plan's "Goal 9, Ensure compatible development in residential neighborhoods," includes subsection 9.b., which says it is recommended that the township, "direct retail space…to locations that have minimal impact on neighborhoods and that can be properly buffered." The proposal makes use of substantial existing and proposed vegetation for buffering and is consistent with that plan.

RECOMMENDATION

The Montgomery County Planning Commission (MCPC) generally supports the applicant's proposal, however, in the course of our review we have identified the following issues that the applicant and township may wish to consider prior to final plan approval. Our comments are as follows:

REVIEW COMMENTS

COMMUNITY SERVICE ZONING DISTRICT

A. Expansion of Facilities – This must be related to an increase of existing services or to allow for the addition of a use, ancillary or accessory to the established use [§905.F]. Is the applicant expanding services?

LANDSCAPING

A. Landscaping Plan – The parking lot configuration on the landscaping plan differs from the one shown on the other plan sheets, including the number of spaces (38), the size of planting islands (smaller), and removal of trees. It would appear that the landscaping plan proposes removal of a 21 inch caliper tree in the upper left portion of the proposed new parking area, while other plan sheets appear to propose its preservation.
B. Street Trees – The applicant proposes to meet the street tree requirement using existing trees. One tree is required for every 40 linear feet of frontage. Trees shall be distributed along the entire frontage of the property, although they need not be evenly spaced [§2402]. There are existing trees along the street, although there is a fifty foot gap at the southwestern end of the street frontage where a new tree could be planted (see photo).
C. Planting Islands – Are required to be a minimum of 10 by 18 feet in area. The islands shown on the plan sheets from September comply, but those shown on the landscaping plan from March do not [§2402.A].
D. Other Tree/Shrub Planting Requirements – One evergreen tree or three evergreen shrubs are required for every 1,000 square feet of ground cover area (green areas). The applicant is requesting a waiver from the requirement to plant 32 trees (or the required equivalent number of shrubs). A waiver is not applicable because this is a zoning requirement [§2402.E], but existing trees and shrubs may be utilized in meeting this requirement if the Township Engineer feels they meet the intent of this section.

TRANSPORTATION

A. Parking – The applicant would be required to provide 18 parking spaces for the land use after expansion, but is expanding the parking area from 14 to 28 spaces. Can the applicant hold part of the parking in reserve to reduce the amount of paved area unless it is absolutely necessary? [§2309]
B. Sidewalk – How wide is the existing sidewalk along the street? It is required to be four feet wide [§146-27].
C. Bicycle Route – The site is located on bicycle route 23B, proposed by the Abington Master Bicycle Plan. Improvements recommended by the plan for this bike route segment include pavement markings ("use full lane") and signage, including wayfinding confirmation, "use full lane," and others (see p.96 of plan)[1].

CONCLUSION

We wish to reiterate that MCPC generally supports the applicant's proposal but we believe that our suggested revisions will better achieve the township's planning objectives for commercial development.

Please note that the review comments and recommendations contained in this report are advisory to the township and final disposition for the approval of any proposal will be made by the township.

Should the governing body approve a final plat of this proposal, the applicant must present the plan to our office for seal and signature prior to recording with the Recorder of Deeds office. A paper copy bearing the municipal seal and signature of approval must be supplied for our files. Please print the assigned MCPC number (#23-0202-001) on any plans submitted for final recording.

Sincerely,

Mike Narcowich, AICP
Community Planning Assistant Manager II
610.278.5238 - mnarcowi@montcopa.org

c: Rutkowski, LP, Applicant
Chad Brensinger, PE, Charles E. Shoemaker, Inc., Applicant's Representative
Khaled R. Hassan, P.E., Pennoni, Township Engineer
Michael P. Clarke, Esq., Rudolph Clarke, LLC, Township Solicitor
Scott Burton, PennDOT
Fran Hanney, PennDOT

[1] Abington Master Bicycle Plan: https://www.abingtonpa.gov/departments/fire-and-emergency-management-services/forms-and-permit-applications/planning-documents

Michael McGahee, SEPTA
Jennifer Dougherty, AICP, SEPTA

Attachments: APPENDIX 1: Aerial Image, Project Site
APPENDIX 2: Applicant's Plan
APPENDIX 3: MCPC Review Letter #23-0064-002 (May 19, 2023)

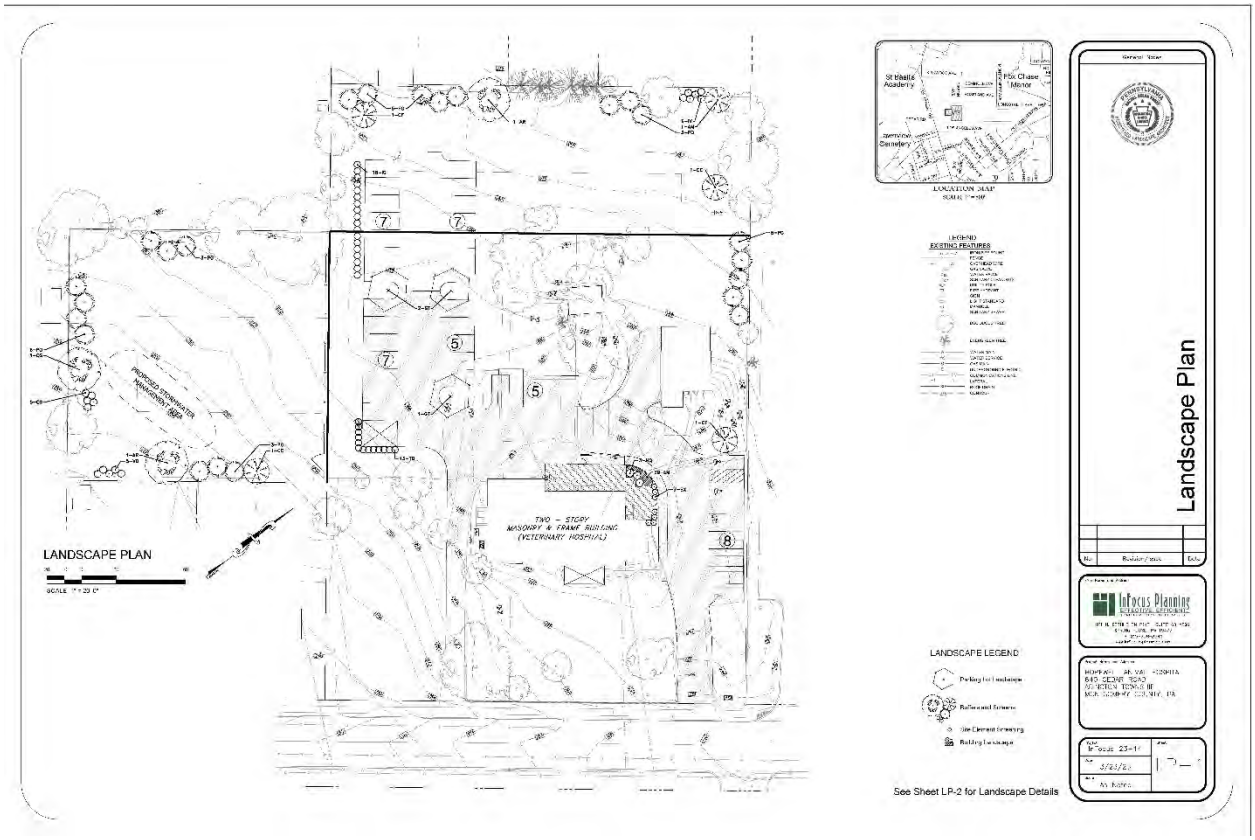
APPENDIX 1: AERIAL IMAGE, PROJECT SITE

640 Cedar Road
Hopewell Veterinary Hospital
MCPC#230202001

Montgomery County Planning Commission

0 50 100 200 Feet

APPENDIX 2: APPLICANT'S PLAN



MONTGOMERY COUNTY
BOARD OF COMMISSIONERS

KENNETH E. LAWRENCE, JR., CHAIR
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MONTGOMERY COUNTY
PLANNING COMMISSION

MONTGOMERY COUNTY COURTHOUSE • PO BOX 311
NORRISTOWN, PA 19404-0311
610-278-3722 • FAX: 610-278-3941
WWW.MONTGOMERYCOUNTYPA.GOV
SCOTT FRANCE, AICP
EXECUTIVE DIRECTOR

November 14, 2023

Mr. Rich Manfredi, Manager
Abington Township
1176 Old York Road
Abington, Pennsylvania 19001-3713

Re: MCPC #23-0202-001
Plan Name: 640 Cedar Rd (Hopewell Veterinary Hospital)
1,048 square feet on 2.48 acres
Situate: 640 Cedar Road
Cross Street: Gibson Avenue
Abington Township

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On July 18, 2023, the applicant received variances from the Zoning Hearing Board for requirements related to buffers, location of parking, and expansion of a nonconforming structure. There is currently a bus route with stops near the applicant's property (Route 28), but SEPTA proposes to eliminate the Cedar Road portion of the route. The site is served by public water and sewer. The main plan set is dated October 3, 2023; the landscaping plan is dated March 23, 2023.

CONSISTENCY WITH COMPREHENSIVE AND OTHER PLANS

The proposed improvements are generally consistent with *MONTCO 2040: A Shared Vision, The Montgomery County Comprehensive Plan*. The plan's future land use map shows the site located in the Suburban Residential future land use area. Limited, small-scale commercial land uses are considered appropriate secondary uses in this future land use area.

The proposed land development is shown located in the "Institutional-School, Churches" future land use area on the future land use map of the Abington Comprehensive Plan of 2007. The plan's "Goal 9, Ensure compatible development in residential neighborhoods," includes subsection 9.b., which says it is recommended that the township, "direct retail space…to locations that have minimal impact on neighborhoods and that can be properly buffered." The proposal makes use of substantial existing and proposed vegetation for buffering and is consistent with that plan.

RECOMMENDATION

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REVIEW COMMENTS

COMMUNITY SERVICE ZONING DISTRICT

A. Expansion of Facilities – This must be related to an increase of existing services or to allow for the addition of a use, ancillary or accessory to the established use [§905.F]. Is the applicant expanding services?

LANDSCAPING

Green Area Planting Requirements – One evergreen tree or three evergreen shrubs are required for every 1,000 square feet of ground cover area (green areas). The applicant is requesting a waiver from planting 29 trees (or the required equivalent number of shrubs). A waiver is not applicable because this is a zoning requirement [§2402.E], but existing trees and shrubs may be utilized in meeting this requirement if the Township Engineer feels they meet the intent of this section.

TRANSPORTATION

A. Parking – The applicant would be required to provide 18 parking spaces for the land use after expansion, but is expanding the parking area from 14 to 28 spaces. Can the applicant hold part of the parking in reserve to reduce the amount of paved area unless it is absolutely necessary? [§2309]

A. Sidewalk – How wide is the existing sidewalk along the street? It is required to be four feet wide [§146-27].

B. Bicycle Route – The site is located on bicycle route 23B, proposed by the Abington Master Bicycle Plan. Improvements recommended by the plan for this bike route segment include pavement markings ("use full lane") and signage, including wayfinding confirmation, "use full lane," and others (see p.96 of plan)[1].

CONCLUSION

We wish to reiterate that MCPC generally supports the applicant's proposal but we believe that our suggested revisions will better achieve the township's planning objectives for commercial development.

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Should the governing body approve a final plat of this proposal, the applicant must present the plan to our office for seal and signature prior to recording with the Recorder of Deeds office. A paper copy bearing the municipal seal and signature of approval must be supplied for our files. Please print the assigned MCPC number (#23-0202-001) on any plans submitted for final recording.

Sincerely,

Mike Narcowich, AICP
Community Planning Assistant Manager II
610.278.5238 - mnarcowi@montcopa.org

c: Rutkowski, LP, Applicant
Chad Brensinger, PE, Charles E. Shoemaker, Inc., Applicant's Representative
Khaled R. Hassan, P.E., Pennoni, Township Engineer
Michael P. Clarke, Esq., Rudolph Clarke, LLC, Township Solicitor
Scott Burton, PennDOT
Fran Hanney, PennDOT

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APPENDIX 3: MCPC Review Letter #23-0064-002 (May 19, 2023)

[1] Abington Master Bicycle Plan: https://www.abingtonpa.gov/departments/fire-and-emergency-management-services/forms-and-permit-applications/planning-documents

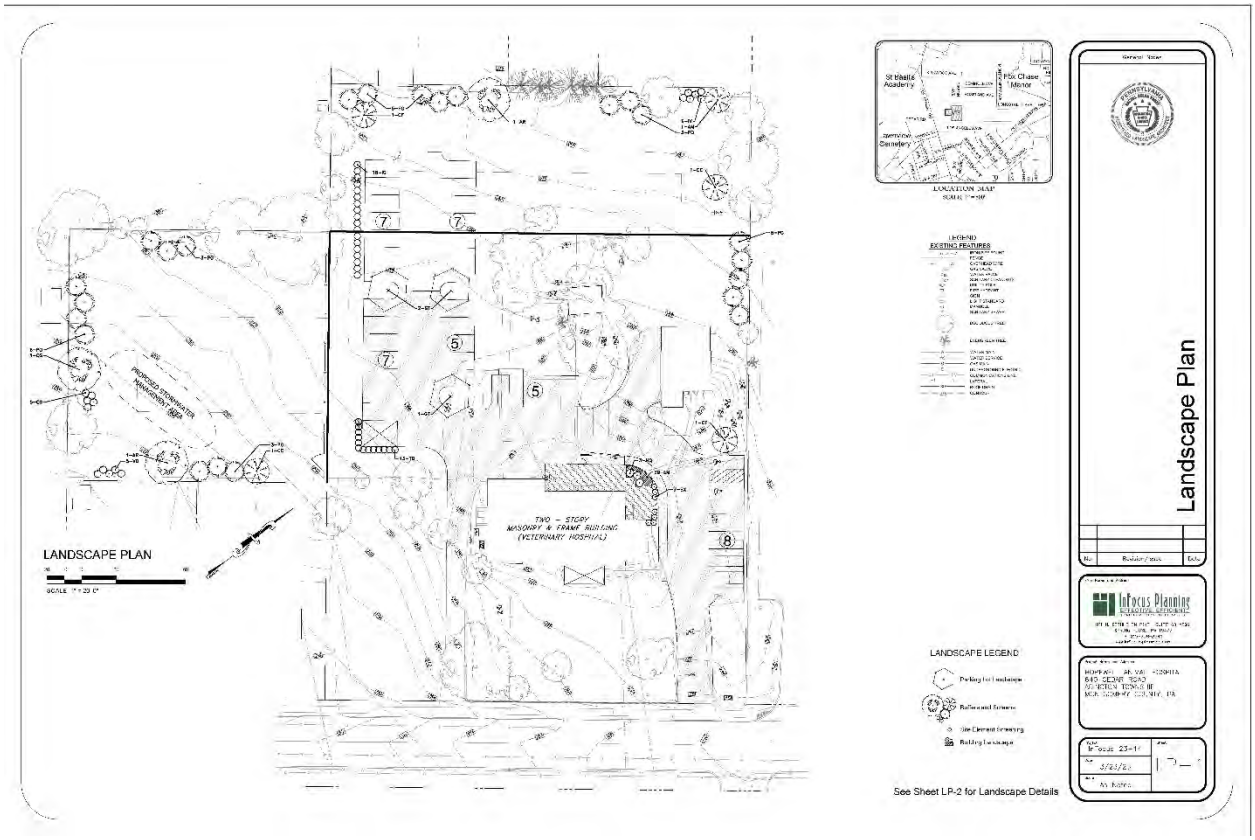
APPENDIX 1: AERIAL IMAGE, PROJECT SITE

640 Cedar Road
Hopewell Veterinary Hospital
MCPC#230202001

Montgomery County Planning Commission

0 50 100 200 Feet

APPENDIX 2: APPLICANT'S PLAN



November 16, 2023

ABINT130035

Mr. Richard Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: LD-23-04 – 640 Cedar Road (Hopewell Vet)
PARID: 30-00-06992-00-7/ TMID: 30049 004
Preliminary/Final Major Land Development Plans Review (1st Submission)

Dear Mr. Manfredi:

We have received a copy of the "Preliminary/Final Land Development Plans" consisting of eleven (11) sheets dated October 3, 2023, as well as a Stormwater Management & Erosion and Sediment Control Plan Narrative, dated October 3, 2023, and both received on October 18, 2023; as prepared by Charles E. Shoemaker, Inc., located at 110 Keystone Drive, Montgomeryville, PA, for the above referenced project on behalf of the Applicant, Rutkowski LP, c/o Dr. Timothy Rutkowski, DVM.

Under this Preliminary/Final Land Development application, the Applicant is proposing to maintain the existing features on the site with the exception of the following:

- Construct a 1,048 SF building expansion to the rear of the existing 2-story masonry and frame veterinary hospital building.
- Remove the existing detached frame garage located directly to the rear of the veterinary hospital building, adjacent pavement area, and 4' high chain link fencing and gate for parking lot expansion to include 10 additional off-street parking spaces. Portions of the existing parking lot adjacent the 2-story frame garage/barn building and the driveway entrance area adjacent to 700 Cedar Road will be milled and slightly widened as part of this work. The entire existing bituminous parking lot will be resurfaced.
- Remove the existing landscape tie wall and AC ducts along the northern side of the veterinary hospital building to extend the existing concrete walk from the front of the building with a new concrete walkway along the northern side of the building, side entrance, and new concrete ramp along the western side of the building addition to the new rear entrance.
- Remove the existing stone wall and walkway adjacent the existing 2-story frame garage/barn and reconstruct a new 1' high stone wall along the parking lot edge in front of the 2-story frame garage/barn and new concrete walkway with steps leading from the parking lot to the 2-story frame garage/barn.
- Install new stormwater bmp facilities; e.g., an underground 80' long x 20' wide underground infiltration bed; stormwater basin; trench and yard drains; and stormwater inlets and piping for stormwater management of the site.
- Install a new 4' high chain link fence and gate attached to the existing 4' high chain link fence located in the yard area of the site behind the 626 Cedar Road and 639 Roseland Avenue properties.
- A designated loading area is provided on the parking lot to the rear and western corner of the veterinary hospital building.
- Provide additional landscape plantings adjacent the building addition, along portions of the parking lot perimeter, and along the lot lines for increased buffering.

In accordance with the Montgomery County property records, the site is comprised of two (2) consolidated parcels with a total irregular shaped tract size of 2.4753 acres. The site, with the veterinary hospital building and accessory buildings and structures, is primarily located within the CS – Community Service Zoning District, with the northern and western vacant land extensions located within the R-4 Residential Zoning District. The site is fronted by Cedar Road to the east; commercial properties zoned within the CS – Community Service Zoning District to the north; and residential properties zoned within the R-4 Residential Zoning District in all other directions.

In accordance with the FEMA, Flood Insurance Rate Map (FIRM) Panel No. 42091C0403G, effective March 2, 2016, the tract is identified to be located within Zone X which is identified as an area outside the 0.2% chance flood and minimal flood hazard. Therefore, based on the FEMA FIRM determination, this site is not located within the Floodplain Conservation District, and is therefore not subject to the floodplain regulations of the Floodplain Conservation District. In addition, per the Abington Township Riparian Corridor Analysis Map, Figure 15.2, this parcel is not located within and intersecting the Riparian Corridor; and is not subject to the regulations of the Riparian Corridor Conservation District.

There are existing precautionary (slopes of 15% to 25%) and prohibited (slopes of 25% and up) steep slopes on the site based on our calculations of the topographic contours on the Existing Features Plan (Sheet 3). However, these existing steep slopes on the site do not span five contiguous 10-foot contour intervals; and therefore, the site is not located within the steep slope conservation overlay district, and the site is not subject to the Steep Slope Conservation Overlay District requirements.

VARIANCES RECEIVED

The Applicant was granted the following variances by the Abington Township Zoning Hearing Board under Zoning Application No. 23-15, based on the Zoning Decision dated July 19, 2023:

1. **§905.G.4 – Special Development Regulations –** A variance to permit two (2) parking spaces in the required front yard;

2. **§2103.C.38.1 – Veterinary Clinic –** A variance to permit the proposed expanded building to be setback 55 feet from the side yard property line;

3. **§1907.A.1 – Expansion of a Nonconforming Structure –** A variance to allow the expansion of a nonconforming nonresidential structure;

4. **§1907.A.2 – Expansion of a Nonconforming Structure –** A variance to allow expansion of a nonconforming structure from 58.4 feet to 55 feet from the side property line;

5. **§2403.B.4.a.[1] – Buffers and Screens –** A variance to install a low-intensity buffer as required by adjoining land uses pursuant to Ordinance Figure 24.5; and

6. **§2403.B.4.a.[2] – Buffers and Screens –** A variance to install a medium-intensity buffer as required by adjoining land uses pursuant to Figure 24.5.

The variances were granted subject to the conditions:

1) That all development and use of the subject property be in substantial conformance with the testimony, exhibits, and other evidence presented at the Public Hearing on this matter, including (without limitation) the Plan Exhibit attached hereto (the “Plan); and

2) That a stockade fence or similar fence be installed along the northwest side of the expanded parking area, to assist in blocking automobile headlamps from lighting abutting residential uses.

The conditions of approval for the above variances shall be provided on the plans.

WAIVERS REQUESTED

Under this SALDO application, the Applicant is requesting the following waivers from the Abington Township Subdivision and Land Development Code as indicated on the land development plans:

1. **§146.9.A.(1) and (2) – Preliminary and Final Plan Stages –** A waiver to permit preliminary and final stages to run concurrently.

   The Applicant is proposing concurrent preliminary/final land development. This waiver request section is shown as "§146.19.A.(1) and (2)" on the Land Development Plan (Sheet 2) and should be corrected accordingly to reflect the correct section as "§146.9.A.(1) and (2)".

2. **§146-11.B.(3) – Existing Features Plan –** A partial waiver from the requirement that existing features plan shall include property lines and names of landowners within 400 feet of the site.
   The Applicant has provided the only the property lines and landowner information of the immediately adjoining lots on the Land Development Plan (Sheet 2) and not within the required 400 feet of the site. The Applicant has provided an Aerial Plan (Sheet 4) showing the area up to 569.46 feet north, 556.34 feet south, 319.07 feet west, and 358.84 feet east of the site.

3. **§146-11.B.(7) – Utilities –** A partial waiver from the requirement to provide all utility information within 400 feet of the subject property.

   The Applicant is only showing the underground and above ground utilities servicing the site and partially the immediately adjacent site and not all the utility information within the required 400 feet of the subject property. The Applicant has provided an Aerial Plan (Sheet 4) showing the area up to 569.46 feet north, 556.34 feet south, 319.07 feet west, and 358.84 feet east of the site.

4. **§146-11.J – Recreational Facilities Plan –** A waiver from the requirement to provide recreational facilities.

   The Applicant is not proposing any recreational facilities as part of this land development project; therefore, a waiver is required not to provide a recreational facilities plan.

5. **§146-33.C – Drainage Location –** A waiver to permit storm drainage pipes on-site to have a protected cover less than 24 inches.

   The Applicant is proposing a cover of less than 24 inches for the drainage pipes at proposed storm inlets 2 and 3 which will have 21-inches of coverage and less coverage at the mitered pipe end section of the proposed stormwater basin, which is less than the minimum 24-inches coverage requirement of this Code Section.

6. **§146-33.D – Drainage Size, Grade, and Type –** A waiver to permit high density polyethylene (HDPE) and PVC storm drainage pipes and with less than 15 inches in diameter with grades less than 0.5%.

   The Applicant is proposing 8-inch diameter PVC stormwater piping from proposed yard drain YD-3 to proposed storm inlet 4 and from proposed storm inlet 4 to the mitered end section at the proposed stormwater basin. The Applicant is proposing 15-inch diameter HPDE distribution piping with 0%

slope in the underground stormwater basin, which is less than the minimum 0.5% grade slope requirement of this Code Section.

7. **§146-43.C.(3).(a) – Cut and Fill Slopes –** A waiver from the requirement that cut and fill slopes shall not be 15% or steeper.

   Based on our measurements of the Grading & Utility Plan (Sheet 5), the proposed regrading at the proposed stormwater basin within the western land extension of the tract located to the rear and north of the 620 and 626 Cedar Road properties will have proposed slopes of 19% and 20%, which is steeper than the permitted maximum 15% slope requirement of this Code Section.

The following documents have been reviewed:

Title	Sheet	Dated	Revised
Land Development Plans			
Cover Sheet	1 of 9	10/3/23	-----
Land Development Plan	2 of 9	10/3/23	-----
Existing Features Plan	3 of 9	10/3/23	-----
Aerial Plan	4 of 9	10/3/23	-----
Grading and Utility Plan	5 of 9	10/3/23	-----
Erosion & Sediment Control Plan	6 of 9	10/3/23	-----
Erosion & Sediment Control Plan Details	7 of 9	10/3/23	-----
Construction Details & Storm Profiles	8 of 9	10/3/23	-----
Construction Details	9 of 9	10/3/23	-----
Landscape & Lighting Plans			
Landscape Plan	LP-1	9/28/23	-----
Landscape Details	LP-2	9/28/23	-----
Lighting Plan & Details	LP-3	9/28/23	-----
Stormwater Management			
Stormwater Management & Erosion and Sediment Control Plan Narrative	91 pages	10/3/23	-----

We have performed a review of the above referenced plans for compliance with the Zoning Ordinance (Chapter 162); Subdivision and Land Development Ordinance (Chapter 146); and Stormwater Management Ordinance (Chapter 142). We offer the following comments for your consideration:

ZONING COMMENTS

1. **Per §901 – Permitted Uses –** In accordance with the Abington Township Comprehensive Use Matrix, the following uses applies:

   - **Existing and Proposed Use C-38 – Veterinary Clinic –** A Use C-38 is a not a permitted use within the CS - Community Service Zoning District. However, the Use C-38 - Veterinary Clinic existed prior to the adoption date of the current 2017 Abington Township Zoning Ordinance or any amendment thereto, and is authorized by a building permit issued prior thereto; therefore, the Use C-38 – Veterinary Clinic is permitted to continue on the site in accordance with Section 1902 of the current 2017 Abington Township Zoning Ordinance as an existing non-conforming use. The Applicant is not proposing a change in use as part of this land development; therefore, it can be classified as a continuation of an existing nonconforming use.

2. **Per §905 Figure 9.4 – CS Community Service District Dimensional Requirements –** The minimum lot width shall be 400 feet.

   The existing lot width for this site is 242.46 feet which is considered an existing nonconforming condition.

3. **Per §602 Figure 6.1 – R-4 - Medium-High-Density Residential District Dimensional Requirements –** The minimum front yard setback shall be 20 feet.

   The existing building has a front yard setback of 16.65 feet which is less than the minimum required 20 feet. Since the Applicant is not reconstructing a new building nor is proposing alterations to the front of the building; therefore, the existing building at the current front yard setback is considered an existing non-conforming condition.

4. **Per §602 Figure 6.1 R-4 Medium-High-Density Residential District Dimensional Requirements –** The maximum building height shall be 35 feet.

   The zoning data table on the Land Development Plan (Sheet 2), indicates the maximum building height as less than 35 feet. There is no building height shown on the architectural elevation plan rendering. The Applicant shall clarify and confirm the actual building height and include this information in the zoning data table.

5. **Per §2304.C.37 – Use C-38 Veterinary Clinic –** 5 parking spaces for each doctor operating on the premises, plus parking as required for Use B-4: Riding Academy/Stable, if applicable, or 1 parking space for every 200 SF of gross leasable floor area, whichever is greater.

   Based on the parking requirements calculation provided on the Land Development Plan (Sheet 2), the proposed gross leasable floor area would be 3,550 SF which would require 18 parking spaces (= 3,550 SF/200 SF) for the site. The Applicant is proposing 28 parking spaces for the site. The Applicant shall clarify and indicate the total number of doctor(s) that will be operating on the premises to ensure that the greater total number of required off-street parking spaces will adequately be provided on the site.

6. **Per §2401.A.2.d.(1).(c) – Tree Replacement –** Each mature tree with a 10-inch caliper or greater on the site shall be designated either “TO REMAIN” or “TO BE REMOVED”.

   On the Existing Features Plan (Sheet 3), the existing trees are not labeled “TO REMAIN” or “TO BE REMOVED”. Based on the plans, it does not appear that any existing trees on the site will be removed; however, the Applicant shall clarify and confirm by labeling the existing trees accordingly as required per the above Code Section. Any tree to be removed shall comply with the tree replacement requirements as indicated in §2401.A.2.d.(1).(a).

7. **Per §2401.A.2.d.(2) – Requirements for Tree Protection Zones –** Existing vegetation designated “TO REMAIN,” in accordance with the landscaping plan of a subdivision or land development shall be identified in the field prior to any clearing and shall be physically protected throughout the construction process. A temporary tree protection zone, constructed according to the standards expressed below, shall be erected a minimum of one foot outside the drip line on all sides of individual trees or tree masses prior to major clearing or construction. The barrier shall be placed to prevent disturbance to or compaction of soil inside the barrier and shall remain until construction is complete. The barrier shall be shown on the landscape plan.

   The Applicant shall provide tree protection fencing from the construction activities for all existing vegetation “To Remain” as required per the above Code Section.

8. **Per §2402.A.2.a.(3) – Parking Lot Landscaping -** Planting islands shall be a minimum of 10 feet X 18 feet in area; underlain by soil (not base course material) mounded at no more than a 4:1 slope nor less than a 12:1 slope; and shall be protected by curbing, wheel stops, or bollards. Unless designed to function as part of the stormwater management system, planting islands shall be underlain by soil mounded up to 6 inches minimum above the paved parking or drive area and shall be protected by curbs (continuous concrete or Belgian block) or wheel stops.

   The proposed planting island to the west of the underground infiltration bed is not protected by curbing, wheel stops, or bollards. This planting island shall be protected as indicated above unless the planting island is designed to function as part of the stormwater management system. The Applicant shall confirm and revise the planting island accordingly.

9. **Per §2402.A.2.a.(4) – Planting Islands –** Each planting island shall contain one (1) shade tree plus shrubs and/or groundcover to cover the entire area at maturity. Parking lot trees shall be a minimum of three (3) inches in caliper, branching at 6 feet to 8 feet in height.

   On the Landscaping Details (Sheet LP-2), the planting schedule indicated the minimum caliper size of 2.5 inches for the Acer Rubrum shade trees. Per the above Code Section, the shade trees shall be a minimum caliper of 3 inches, branching at 6 feet to 8 feet in height. The planting schedule shall be revised accordingly to reflect the minimum caliper size of 3 inches.

10. **Per §2402.B.2.b – Street Trees -** Large canopy trees shall be planted at least fifteen (15) feet from overhead utilities, including streetlights, and six (6) feet from underground utilities. However, ornamental trees may be planted under overhead utility wires. Street trees shall not be placed within the clear site triangle of street intersections.

    Although the proposed street trees along Cedar Road are planted in conformance with the July 19, 2023 Zoning Decision, we recommend the trees be moved to be planted a minimum of 15 feet from the overhead utility wires to meet the requirements of the above Code Section. The left most proposed street tree between the two overhead utility wires is located approximately 12 feet and 13 from either side of the wires and will be required to be moved elsewhere along the site frontage. The right most proposed street tree can be moved slightly to be located a minimum of 15 feet from the overhead utility wires.

11. **Per §2403.B.7.b – Buffers for Specific Zoning Districts and Uses –** CS - Community Service Zoning District. Along the side or rear property line of any yard adjoining a residential zoning district, a screening buffer of not less than 30 feet in width shall be provided.

    Per the conditions of approval no. 1 of the July 19, 2023 Zoning Decision, all development of the property shall be in substantial conformance with the testimony, exhibits, and other evidence presented in the Public Hearing including the Plan exhibit attached to the zoning decision. The updated landscaping plans provide the required landscaping as indicated in the July 19, 2023 Zoning Decision and is therefore in compliance with the conditions of approval.

    In addition, per the conditions of approval no. 2 of the July 19, 2023 Zoning Decision, a stockade or similar fence should be installed along the northwest side of the expanded parking lot to block the automobile headlamp from lighting the abutting residential uses. On the Land Development Plan (Sheet 2), the stockade fence is not provided; however, on the updated landscaping plans provided, the fence is shown on the plans. The proposed stockade privacy fence shall be shown on all plans. In addition, a detail of the proposed fence shall also be provided on the plans.

12. **Per §2601.J. - Mechanical Equipment Standards –** The Applicant shall clarify if any new mechanical equipment will be provided to service the veterinary hospital addition since the existing A/C ducts were removed from the northern side of the building for the walkway extension. Any new mechanical equipment shall be in compliance with the above Code Section.

13. **Per §2601.N.2 – Trash Containment Standards –** When stored external to the principal building, trash containers must utilize self-closing lids, or be placed in self-confining containers in order to provide odor control.

    The Applicant shall confirm that the proposed trash dumpsters will comply with the above Code Section.

14. **Per §2601.P.4 – Streets and Driveways –** No driveway shall be more than 20' wide.

    Based on our measurements of the existing driveway closest to 700 Cedar Road shown on the Existing Features Plan (Sheet 3), the width of the existing driveway is approximately 20'-9" adjacent the driveway apron and the proposed approximately driveway width is approximately 21'-1". The existing approximately 20'-9" wide driveway width is greater than the permitted 20' wide driveway width, and is considered an existing nonconforming condition. The Applicant shall clarify and dimension the driveway widths. Expansion of the driveway width to create a more nonconforming condition is not permitted. The Applicant will need to revise the proposed driveway widening to comply with the 20' maximum driveway width requirement and not more than the existing nonconforming width of approximately 20'-9" adjacent the driveway apron.

CHAPTER 146
SUBDIVISION & LAND DEVELOPMENT COMMENTS

15. **Per §146-9.A.(1) & (2) – Type of Application, Stage –** A preliminary plan is a first-stage plan in a two-stage approval process. The preliminary plan is required for all subdivision, land development or combination subdivision and land development plans within the township, wherein public improvements are proposed.
    The Applicant is proposing a concurrent preliminary/final plan submission, and a waiver has been requested from this Code Section to allow for a one-stage preliminary/final plan submission. This waiver request section is shown as "§146.19.A.(1) and (2)" on the Land Development Plan (Sheet 2) and should be corrected accordingly to reflect the correct section as "§146.9.A.(1) and (2)".

16. **Per §146-10.B.(5) – General Requirements –** The submission type a set forth in §146-9.D shall be indicated on all the plan sheets as "Preliminary/Final Major Land Development."

    The submission type as well as the land development application number "LD-23-04" shall be shown on all plan sheets.

17. **Per §146-11.A.(4) – Property Identification Plans –** The property identification plans shall contain tract boundaries with tax parcel numbers, owner's names, and approximate acreage of lots surrounding any portion of the site for a distance of 400 feet.

    On the Aerial Plan (Sheet 4), no information regarding the parcels surrounding any portion of the site for a distance of 400 feet is provided. On the Existing Features Plan (Sheet 3), the tract boundaries with tax parcel numbers and owner's names are provided for the immediately adjoining lots. The Applicant is required to also provide the approximate acreage of the lots within a distance of 400 feet of the site. The Applicant shall show the required property identification of all the properties for a distance of 400 feet of the site; or otherwise, be required to request a waiver from this Code Section to not provide the parcel

information within 400 feet surrounding the site.

18. **Per §146-11.A.(8) – Property Identification Plans –** Existing cartways of streets on and adjoining the site, with existing and ultimate rights-of-way and legislative and traffic route numbers.

    The Applicant has dimensioned the existing right-of-way for Cedar Road. The Applicant shall dimension the existing roadway cartway width of Cedar Road and label the right-of-way lines along Cedar Road. In addition, the ultimate right-of-way line of Cedar Road, if any, shall also be provided and labeled on the plans.

19. **Per §146-11.A.(10) – Property Identification Plans –** The zoning classification applicable to the tract along with all zoning boundaries that traverse or are within 400 feet of the tract, together with a citation of any variances or special exceptions which may have been granted for or affecting the site.

    The zoning boundaries and districts within 400 feet of the tract shall be shown on the Aerial Plan (Sheet 4).

20. **Per §146-11.A.(12) – Property Identification Plans –** A description of the available and proposed water supply and sewage disposal facilities.

    A note indicating the available and proposed water supply and sewage disposal facilities shall be added to the plans.

21. **Per §146-11.B.(2) – Existing Features Plan –** The location , names and widths of all streets, whether including right-of-way, cartway or centerline.

    The Applicant has dimensioned the existing right-of-way for Cedar Road. The Applicant shall dimension the existing roadway cartway width of Cedar Road and label the right-of-way lines along Cedar Road. In addition, the ultimate right-of-way line of Cedar Road, if any, shall also be provided and labeled on the Existing Features Plan (Sheet 3).

22. **Per §146-11.B.(8).(d).[1] & [2] – Existing Features Plan –** The existing features plan shall contain the steep slope delineation by shading and notation of all areas of 15% to 25% or greater than 25%.

    The steep slopes shall be delineated as noted in the above Code Section. Based on our measurements of the topographic contours, there appear to be steep slopes located around the two-story frame garage/barn building as well as surrounding the Springhouse ruins. The Applicant shall confirm and label the steep slopes accordingly.

23. **Per §146-11.B.(9)– Existing Features Plan –** The existing features plan shall contain the soil types within the site.

    The soil types and soil resolution notes shall be provided on the Existing Features Plan (Sheet 3).

24. **Per §146-11.C.(1)– Proposed Layout Plan –** The layout, width, length, centerline elevation and names of all proposed cartways, streets and alleys, together with locations of all associated curbs, sidewalks and gutters.

    The Applicant has dimensioned the existing right-of-way for Cedar Road. The Applicant shall dimension the existing sidewalk, roadway cartway width, and centerline elevations along Cedar Road, as well as label the right-of-way lines along Cedar Road. In addition, the ultimate right-of-way line of Cedar Road, if any, and any improvements within the right-of-way of Cedar Road shall also be provided and labeled

on the Land Development Plan (Sheet 2).

25. **Per §146-11.F.(1).(a) thru (i) – Stormwater Management Plans –** The Applicant has not included a Post Construction Stormwater Management plan as part of the plan set. A PCSM Plan shall be provided which includes the information indicated in the above Code Sections.

26. **Per §146-11.L.(1).(a) – Architectural Plans –** The architectural plans shall show the front, side, and rear elevations of proposed buildings.

    The architectural plans provided showed only the floor plan layout and does not provide building elevations on the plans. The Applicant shall provide the building elevations on the architectural plans and indicate the building height in the zoning data table on the land development plans.

27. **Per §146-12.B.(5) – Record Plan Seals –** The impressed seal of the Township Engineer shall be provided on the Land Development Plan (Sheet 2).

    Sufficient room for the signature and seal of the Township Engineer shall be provided on the Record plan to ensure no text overwrites.

28. **Per §146-12.E – Recording notations –** The plans shall provide the recording notations as indicated in this Code Section on the Land Development Plan (Sheet 2).

29. **Per §146-32.B – Survey Monuments, Benchmarks, Deed Correction –** The township elevations are based on the Township Sanitary Sewer Datum. Location and elevation is available to all engineers and surveyors upon request to the office of the Township Engineer. All contours and elevations shown on the plans must be based on this system.

    The Applicant shall provide a note and calculation on the plans indicating the conversion from the datum used to reference the Abington Township Sanitary Sewer Datum.

30. **Per §146-33.I – Drainage, stormwater roof drain –** stormwater roof drains and pipes shall not discharge water over a sidewalk but shall extend under the sidewalk to the gutter. Where storm drains are accessible, the roof drain shall be connected thereto.

    The location of the downspouts and roof leaders shall be shown on the Grading & Utility Plan (Sheet 5) and the stormwater management plans to be provided. Additional comments may follow once the roof leader lines have been provided.

31. **Per §146-43.A.(1) – Erosion and Sediment Control –** No change shall be made in the contour of the land nor shall grading, excavating, removal, or destruction of the topsoil, trees, or other vegetative cover of the land can be commenced until such time that a grading permit is applied for and approved.

32. **Per §146-43.C.(3).(b) – Erosion and Sediment Control –** Adequate provisions shall be made to prevent surface water from damaging the cut face excavation of the sloping surfaces of fills.

    Erosion control matting shall be provided on the E&S plan for the cut/fill slopes greater than 15% to help prevent surface water from eroding the surfaces of the cut/fill. In addition, the cut/fill slopes steeper than 15% shall be shown on the E&S plan.

CHAPTER 142
STORMWATER MANAGEMENT COMMENTS

33. **Per §142-Attachment 1 – Watershed Map Figure 1.03 –** Based on Figure 1.03, the proposed site in the Pennypack Creek, Area P watershed.

    Based on Figure 409.1P, Area P Management District Watershed Map, the site is located within District B of the Pennypack Creek Watershed. Based on §142-409.A.(1).(b) the following reductions are required in the subareas:

Proposed Condition		**Existing Condition**
2-year	Reduce to	1-year
5-year		2-year
10-year		5-year
25-year		10-year
50-year		25-year
100-year		50-year

    A table showing the pre-development flows and the post development flows has been provided in Appendix B of the PCSM Report. Based on this table, the proposed stormwater flows meet the reduction requirements as indicated in the above Code Section.

34. **Per §142-106.C.(1) – Exemptions –** As part of this project, the Applicant is proposing 8,176 SF of new impervious area. Per Table 106.1P, the Applicant will be required to follow Article III SWM Site Plan requirements, §142-404 Nonstructural Project Design, §142-405 Groundwater Recharge, §142-406 Water Volume Control Requirements, §142-408 Stream bank erosion requirements, and §142-409 Stormwater Pear Rate Control and Management Districts.

    Per the PCSM report, the Applicant is proposing an 80' long x 20' wide x 2.75' deep underground infiltration bed as part of this project to capture and infiltrate the stormwater runoff for the site. There is a discrepancy on the Construction Details Plan (Sheet 9) which shows a 22' wide and a 2.85' deep underground infiltration bed. The Grading & Utility Plan shows a proposed 80' long x 20' wide underground infiltration bed. The discrepancies between the plans and the PCSM report shall be corrected accordingly.

35. **Per §142-302.B.(1) thru (4) – SWM Site Plan Contents –** The Applicant shall provide a PCSM plan as part of this plan submission. The PCSM Plan shall include the information provided in the above referenced Code Sections. Additional comments may follow once a PCSM plan has been provided.

36. **Per §142-401.H – General Requirements –** No regulated activities shall commence until the Township issues written approval of an SWM site plan, which demonstrates compliance with the requirements of this chapter**.**

37. **Per §142-405.A.(1).(a) – Groundwater Recharge Requirements –** Infiltration BMPs shall have a minimum soil depth of 24 inches between the bottoms of the infiltration BMPs and bedrock or other limiting zones such as clay layers.

    No limiting layer depth has been provided on the infiltration bed detail on the Construction Details Plan (Sheet 9). The depth of the limiting layer shall be provided to ensure a minimum 24 inches is provided between the bottom of the infiltration BMPs and the limiting layer.

38. **Per §142-704.A – Operation and Maintenance Agreement for Privately Owned Stormwater Controls and BMPs –** Prior to final approval of the PCSM site plan, the owner shall sign and record an operation

and maintenance (O&M) agreement covering all stormwater control facilities which are to be privately owned.

GENERAL STORMWATER MANAGEMENT COMMENTS

39. There are two discrepancies between the elevations provided on the Grading & Utility Plan (Sheet 5), the elevations provided on the storm profiles (Sheet 8), and the elevations provided in the PCSM Report (Pages 21-23). The discrepancies are as follows:

    - The Gnd/Rim El Up and Gnd/Rim El Dn for Line ID I3 to Bed. The elevations 258.50 and 259.70 as provided in the PCSM Report do not match the elevations 258.60 and 259.20 as shown on the plan and profile. Please confirm and revise accordingly.
    - The Gnd/Rim El Up for Line ID YD1 to II. No Elevation is provided on the profile for proposed yard drain YD-1 which is attached to proposed trench drain 1. The proposed trench drain grate is shown with a grate elevation 260.50 and the attached proposed yard drain YD-1 has a grate elevation of 260.15. The grate elevations shall be confirmed and revised accordingly to prevent any potential tripping hazard.

40. The proposed underground infiltration bed detail on the Construction Details Plan (Sheet 9) shall indicate the 100-year storm elevation to ensure that the runoff volume from the storm event will be adequately captured by the proposed underground infiltration bed.

41. Per the PCSM Report and the drainage area plans, approximately 15,246 SF of bypass area is not being captured by any stormwater management. We recommend an additional inlet be placed in the northwest corner of the proposed parking lot extension at or near spot elevation 258.60 which will connect to the underground infiltration bed to capture more of the stormwater runoff from site and reduce the bypass flows leaving the site. The PCSM report and drainage area plans shall be updated accordingly to reflect the additional inlet and piping.

42. A stormwater basin is proposed at the discharge end of the pipe run from proposed Inlet 4. The proposed stormwater basin will be located in the yard area between the residential properties of 620 and 626 Cedar Rd and 633 and 639 Roseland Avenue. The Applicant should consider the possibility of another underground infiltration bed and level spreader options for management of the bypass and overflows to minimize any mosquito issues from the operations and maintenance of the basin facility.

43. Pipe convenance calcs from proposed yard drain YD-3 to the mitered end pipe at the stormwater basin shall be provided in the PCSM Report.

44. A rip rap apron shall be provided at the proposed mitered end pipe discharge at the stormwater basin for erosion and sediment control.

GENERAL COMMENTS

45. A waiver from §146-11.B.(3) of ordinance requiring the existing features plan to include property lines and names of landowners within 400 feet of the site is included on the requested waiver list on the Land Development Plan (Sheet 2 of 9) but is not included in the Application under the waivers requested section. The Applicant shall provide a waiver request letter which includes all waivers requested for this project.

46. The legend on the plans shall include and match all existing and proposed linetypes, symbols, characters, etc. for clarity between line types on the plans.

47. The Applicant shall clarify the ownership of the existing 4' high chain link fence along the northern property line separating the site from 700 Cedar Road since this fencing appears to be encroaching on both sides of the property line. Similarly, the existing fencing of the adjacent 626 Cedar Road property is encroaching onto the site to tie into the existing 4' high chain link fence along the western side of the veterinary hospital building. Encroachments onto adjacent properties are not permitted and any fence encroachments will need to be reset to remain within the site; or a written agreement between both property owners permitting the encroachment shall be provided to the Township.

We have received the following documents/permits/reviews:

- Zoning Hearing Board Decision (July 19, 2023)
- MCPC Request for Review (September 26, 2023)
- PCSM and E&S Narrative (October 3, 2023)
- Application for SALDO Review (Completed October 19, 2023)
- Safety Review (September 7, 2023 via email)
- Fire Marshal Review (November 10, 2023 via email)
- Sanitary Sewer Review (via e-mail November 7, 2023)
- TPD Traffic Review (November 10, 2023)
- MCPC Review (November 13, 2023)

We have not received the following documents/permits/reviews:

- STC Review
- EAC Review
- Financial Escrow
- LD Agreements
- Stormwater BMP O&M Agreement
- Legal Descriptions & Exhibits of all lots/easements

SUMMARY

Since the above referenced comments can be addressed without going before the Zoning Hearing Board, we recommend Preliminary/Final Major Land Development Plans approval contingent the Applicant adequately addresses the outstanding review comments and provides the required documents prior to recording plans review.

If you have any questions or comments with this submittal, please do not hesitate to contact me.

Sincerely,

PENNONI ASSOCIATES INC.

Khaled Hassan

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Assistant to the Township Manager
Ashley McIlvaine, Assistant Township Manager & Assistant CAO

U:\ACCOUNTS\ABINT\ABINT130035 - LD-23-04 - 640 CEDAR ROAD (HOPEWELL VET)\ADMIN\6 - PLAN REVIEWS\PF01111523 640CEDARROAD.DOCX

Chad Brensinger

From: George Wrigley <gwrigley@AbingtonPA.gov>
Sent: Thursday, October 5, 2023 1:16 PM
To: Chad Brensinger
Subject: RE: 640 Cedar Road - Hopewell Vet Hospital

Thanks for the plan Chad!

Based on the Space Planning C you provided, there will not be an apparent increase in water / sewer flows, therefore, there is no need for a Sewage Facilities mailer.

George Wrigley, Director

From: Chad Brensinger <cbrensinger@ceshoemaker.com>
Sent: Thursday, October 5, 2023 11:38 AM
To: George Wrigley <gwrigley@AbingtonPA.gov>
Subject: RE: 640 Cedar Road - Hopewell Vet Hospital

George, I don't recall if this was sent yet or not. To my knowledge, I don't think the owners anticipate additional employees at this time, I think they are really looking to streamline current operations.

CHAD W. BRENSINGER, PE, LEED® AP
CHARLES E. SHOEMAKER, INC.
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
P: 215-887-2165
F: 215-576-7791
CBRENSINGER@CESHOEMAKER.COM
WWW.CESHOEMAKER.COM

From: George Wrigley <gwrigley@AbingtonPA.gov>
Sent: Thursday, October 5, 2023 9:58 AM
To: Chad Brensinger <cbrensinger@ceshoemaker.com>
Subject: RE: 640 Cedar Road - Hopewell Vet Hospital

HI Chad,

Reviewing the proposed renovations, it appears that they are only planning to add a new "front" entrance? If the renovations will not be adding employees or kennels, then there is no increase in water or sewer flows and no need for a mailer.

Please let me know what the proposed renovations will entail?

George

From: Chad Brensinger <cbrensinger@ceshoemaker.com>
Sent: Wednesday, September 27, 2023 4:32 PM
To: George Wrigley <gwrigley@AbingtonPA.gov>
Subject: RE: 640 Cedar Road - Hopewell Vet Hospital

Thanks for the information George! Please look over this information and let me know what else you need.

Thanks!

CHAD W. BRENSINGER, PE, LEED® AP
CHARLES E. SHOEMAKER, INC.
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
P: 215-887-2165
F: 215-576-7791
CBRENSINGER@CESHOEMAKER.COM
WWW.CESHOEMAKER.COM

From: George Wrigley <gwrigley@AbingtonPA.gov>
Sent: Tuesday, September 26, 2023 5:26 PM
To: Chad Brensinger <cbrensinger@ceshoemaker.com>
Subject: RE: 640 Cedar Road - Hopewell Vet Hospital

Hi Chad,

The highest water use over the past 4 years was 280,000 gals. / year (or about 3 EDU)

The sanitary flows form this are go down Shady Lane to Pine Rd. into Philadelphia Water Dep't interceptors. We will always need a postcard mailer form with PNDI and a site layout showing proposed structures and existing sanitary main in the street. If there any more than 3 EDU, then we will need to get PWD capacity verification and submit to PaDEP.

George

From: Chad Brensinger <cbrensinger@ceshoemaker.com>
Sent: Tuesday, September 26, 2023 9:55 AM
To: George Wrigley <gwrigley@AbingtonPA.gov>
Subject: 640 Cedar Road - Hopewell Vet Hospital

Hi George, we are working on land development plans for Hopewell Veterinary Hospital at 640 Cedar Road. On the LD application it wants existing and proposed sewage flows. Can you please provide me with their current flows so that we can add that to the application? They don't intend to increase flows, so existing and proposed will be the same. Can you also please verify that you do not need a 537 Postcard?

Thanks!

TRAFFIC PLANNING AND DESIGN, INC.

WWW.TRAFFICPD.COM

Memorandum

To: Richard Manfredi, Manager - Abington Township

From: Greg Richardson, P.E.

Date: November 10, 2023

Re: **640 Cedar Road (Hopewell Veterinary Hospital)**
Traffic Review #1
Abington Township, Montgomery County, PA
TPD No. ABTO.00043

cc: Board of Commissioners
Planning Commission
Tim Clark
Ashley McIlvaine
Terry Castorina
Khalid Hassan, P.E.
Allison A. Lee, P.E.

Per your request and on behalf of Abington Township, Traffic Planning and Design, Inc. (TPD) has completed a traffic review of the above-referenced application. TPD reviewed the following document:

- *640 Cedar Road (Proposed Building Addition) – Preliminary/Final Land Development Plan* prepared by Charles E. Shoemaker, Inc. – Dated October 3, 2023.

The following are our comments:

Plan Review

1. Based on our discussion with the Applicant's site engineer, it is our understanding that the expansion is proposed to address space (building/parking) limitations and modernization of the existing business practices. In addition, there are no current plans to increase staffing levels at this time. Therefore, it is our opinion that this expansion will not result in any significant increase in vehicular traffic.
2. The plans indicate a proposed widening of the main access drive from 16 feet to 20 feet. While we support this widening, the area should be clearly delineated on the plans via dimensioning and pavement area to be installed.
3. Install a stop sign at the main driveway.

4. The existing site has an additional driveway to the south that is gated within the interior of the site. To ensure that no vehicles mistakenly enter this driveway from Cedar Road, we recommend that DO NOT ENTER signs be installed.
5. The Township Fire Chief should review the plan and approve the proposed circulation patterns.

General

1. A response letter must be provided with the resubmission detailing how each comment above has been addressed, and where each can be found in the resubmission materials (i.e., plan sheet number(s), page number(s), etc.) to assist in the re-review process.

TPD reserves the right to make additional comments upon receipt of additional documents or changes to the plan and studies

LABOSKI LAW

QUAKERTOWN OFFICE — ALL CORRESPONDENCE
314 W. Broad St., Suite 124, Quakertown, PA 18951
P 215.536.3800 F 215.536.3801

DOYLESTOWN OFFICE — APPOINTMENTS ONLY
87 N. Broad St., Doylestown, PA 18901

GAVIN@LABOSKILAW.COM LABOSKILAW.COM

December 4, 2023

Re: Rutkowski, LP – Abington Township
640 Cedar Road – Parid 30-00-06992-00-7

NOTICE OF PLANNING COMMISSION MEETING AND REVIEW OF PLANS

Please note the Abington Township Planning Commission will review the land development application, referenced above, at its scheduled public meeting of December 20, 2023 at 7:30 p.m. at the Abington Township Building located at 1176 Old York Road, Abington, PA 19001.

The application is for Rutkowski, LP, which owns the property located at 640 Cedar Road, Jenkintown, PA. The property is used for the operation of the Hopewell Veterinary Hospital. The land development plan proposes an expansion of the existing veterinary clinic building and the construction of additional parking areas to support the proposed building expansion. The proposed development also includes the installation of stormwater management facilities, landscaping, and other related improvements to the property.

Sincerely,

Gavin Laboski

GRL/sbs
cc: Abington Township

DEC 7 AM 10:40

December 18, 2023

MEMO

To: Nicholas Brown, Chair – Abington Township Planning Commission
From: Abington Township Shade Tree Commission (STC)
RE: LD-23-04 - 640 Cedar Rd (Hopewell Veterinary Hospital)
Plan Set Date: 10-03-23 with revised Landscaping Plans dated 09-28-23

STC Review Date: 11/14/23

Site Summary – 2.48 acre lot with existing 2-story masonry veterinary hospital, storage garage and parking lot
Proposed Use – Hospital expansion
Owner: Hopewell Veterinary Hospital
Zone – Community Service and R-4 Medium - High Density Residential
Watershed – Drains to Jenkintown Creek (Tookany-Tacony Frankford) and Pennypack Creek (Pennypack)

Dear Chairperson Brown,

The members of the Abington Township STC have reviewed the above referenced Land Development plan and have the following questions and comments related to potential environmental impacts.

STC Commissioners Joe Ascenzi and Trish Gallagher visited the site on November 15, 2023 and met with Hopewell Veterinary Hospital staff Dr. Lisa Rutkowski. The site has an existing 2-story structure and 2-story garage with a parking lot and driveway. The remainder of the site is primarily covered in grass with significant established tree cover including understory, shade, and evergreen trees. The ruins of an abandoned animal crematorium are located within a grove of mature and dead trees northwest of the existing hospital building. Many of the dead trees are ailanthus (Tree of Heaven). Overhead utility lines are located on the opposite side of Cedar Road from the hospital. The western portion of the lot will be used for stormwater management and will remain.

Dr. Rutkowski informed STC representatives that the proposed landscaping was discussed with the adjoining neighbors and the revised landscaping plans reflect their preferences for screening trees. In addition, she indicated that the parking lot was reconfigured to preserve existing mature trees.

The STC has the following recommendations:

1. In general, the STC appreciates the use of primarily native trees in the planting selections and the preservation of mature trees in the landscape.
2. Two street trees are proposed along Cedar Road and credit is requested for the existing shade and understory trees in front of the hospital. The STC agrees with this request, however, as the mature trees decline and need to be removed, additional native shade trees should be planted.
3. With respect to the proposed evergreen trees, the STC recommends that *Picea glauca* (white spruce) be replaced with *Juniperus virginiana* (eastern red cedar), *Picea amorika* (Serbian spruce) or *Picea orientalis* (Oriental spruce) as white spruce is prone to disease.

4. In the western portion of the lot, it is recommended that additional shade trees be planted. At a minimum, an additional *Acer rubrum* ('October Glory' maple) should be planted behind the proposed *Cornus sercea* (red-twig dogwood) along the fence line adjacent to 626 Cedar Road. Additional shade trees would be beneficial in this area as succession planting for the mature trees on the site.
5. The grove of mature trees containing dead ailanthus (Tree of Heaven) northwest of the hospital is recommended to remain. The ailanthus trees are dead and many of the other trees are in decline. However, standing dead trees provide significant ecosystem services, including habitat for many birds, animals, and insects. If the standing dead trees become hazardous, they should be removed and additional native shade trees and understory trees should be planted.
6. The use of *Liriope muscari* is acceptable because it is clump forming and unlikely to spread aggressively.

Thank you for considering our comments and recommendations and please let us know if you have any questions.

Sincerely,

Patricia Gallagher

Patricia Gallagher, Chair
Abington Township STC

cc: Richard Manfredi
Michael Narcowich
Planning Commission Members
EAC/STC Members
Abington Shade Tree Commission Members

BOARD OF COMMISSIONERS WORKING SESSION

AGENDA ITEM

January 11, 2024

DATE

AGENDA ITEM NUMBER

Code

DEPARTMENT

FISCAL IMPACT
Cost > $10,000
Yes ☐ No ☐

PUBLIC BID REQUIRED
Cost > $20,100
Yes ☐ No ☐

AGENDA ITEM:

Galman Zoning Amendment

EXECUTIVE SUMMARY:

Presentation of an ORDINANCE AMENDING THE OFFICIAL ZONING MAP OF ABINGTON TOWNSHIP BY REZONING 2.621 ACRES OF LAND FROM THE RC RECREATION CONSERVATION DISTRICT TO THE BC BUSINESS CENTER - FOXCROFT DISTRICT

PREVIOUS BOARD ACTIONS:

n/a

RECOMMENDED BOARD ACTIONS:

Presentation of Galman Group request of Zoning Map Amendment