



Planning Commission
September 21, 2021 – 6:00 p.m.
233 South Main Street, Monroe, Ohio

Call to Order

Roll Call

Election of Officers

Election of Vice Chair officer position

Public Hearing

Public Hearing Case No. 2021-8-15: Consideration of a recommendation to City Council regarding the draft recommendations and documents for the update to the City Comprehensive Plan

Approval of the Minutes – August 17, 2021

Old Business

Case No. 2021-1-1. Consideration of Site Plan Application for Thornton's. Tabled 4/20/21

New Business

Case No. 2021-9-17. Consideration of a Site Plan for Barefoot Landscaping

Case No. 2021-8-15. Consideration of a recommendation to City Council regarding the draft recommendations and documents for the update to the City Comprehensive Plan

Administrative Reports

Adjournment



**City of Monroe Planning Commission Minutes
August 17, 2021 – 6:00 pm
233 South Main Street, Monroe, Ohio**

Call to Order

Mr. Kirkpatrick called the meeting to order at 6:00 pm.

Roll Call

Members present: David Kirkpatrick, Lindsey Pyron, Christina McElfresh, and Benjamin Wagner

Mr. Kirkpatrick motioned to excuse Matthew Frye from the meeting.

Staff members present: Kevin Chesar, Director of Development; Kameryn Jones, Planner; and Alaina Hagenseker, Planning & Zoning Specialist

Business

I. Case No. 2021-8-15— Consideration of a recommendation to City Council regarding the draft recommendations and documents for the update to the City Comprehensive Plan

Mr. Kirkpatrick opened the public meeting and swore in anyone that wanted to speak on the issue.

Ms. Cynthia Bowen, of 618 East Market Street, Indianapolis Indiana gave a presentation about the Comprehensive Plan.

Mr. Pyron stated that the agricultural change means that there is less agricultural availability to the city. Ms. Bowen stated that there are some rural residential zoning changes and that Monroe is not considered an agricultural community overall.

Ms. McElfresh commented that the Comprehensive Plan helps show the community where it's expected to grow and to where people are supposed to live.

The floor was then opened for resident comments.



Lenny Robinson of Corridor 75 Park questioned the commercial and industrial impact with hi-tech jobs and the effect with truck traffic.

Mike Berns of Greentree Road wanted the property to be zoned L-1. He stated that the Plan makes it difficult for developers to be successful especially in the Northeast corner of the property.

Paul Saba, representing for Premier Health, discussed the employment designation of the plan and if it's getting more updated information of whether it will be more office space or for more hi-tech jobs.

Ruthann Young, representing the Zecker property wanted to discuss the process to change the zoning of the property to industrial.

Chuck Ackerman discussed logistics sites.

Jeff Eichhorn of 300 Hankel Drive voiced his agreement on the Berns property.

Doron Kim of the LB Ranch stated that he met with developers to develop his property.

Mr. Kirkpatrick continue the public hearing until the September 21st 6PM Planning Commission meeting; seconded by Mrs. McElfresh. Voice vote. Motion carried.

Approval of the Minutes

Mr. Pron moved to approve the minutes from the July 20th, 2021 meeting; seconded by Mrs. McElfresh. Voice vote. Motion carried.

II. Case No. 2021-8-14— Consideration of a Final Plat for Trails of Todhunter Section 2 Block B

Ms. Jones stated that Trails of Todhunter LLC has submitted an application for final plat for Section 2 Block B of the Trails of Todhunter conservation subdivision. This plat will include the construction of 71 single-family residential lots and 1 open space lot. This phase is approximately 25 acres of 60 total acres. The average lot size is 9,853 square feet and the average lot width is 65 feet. The proposed density is 2.87 units per acre. The preliminary plat for Trails of Todhunter was approved by Planning Commission in March 2018.

Mr. Kirkpatrick moved to give a favorable recommendation to Council with the following conditions:

- All playground and formal open space must be designed as approved by Staff prior to final plat approval. All formal open space infrastructure shall be installed by the end of construction of the second phase of the subdivision. Such approval includes the type and size of playground equipment proposed as well as plans for the remainder of the entire area regarding formal open space requirements.



- Conservation easement agreement language must be approved, signed, and recorded.
- Design, construction drawings, and any required bonding for the 10' multi-use path to span the full width of the development along the rear property line be approved before the final plat is signed.
- All other staff comments be addressed.
- Digital files compatible with City GIS be submitted.

; seconded by Mrs. McElfresh. Voice Vote. Motion carried.

Mr. Pyron moved to adjourn the meeting. Seconded by Mrs. McElfresh. Voice vote. Motion carried.

The Planning Commission meeting adjourned at 8:25 PM.

Respectfully submitted,

Alaina Hagenseker
Planning and Zoning Specialist
hagensekera@monroeohio.org



CITY OF MONROE
Inter-Office Correspondence

TO: Members of the Monroe Planning Commission
FROM: Kevin Chesar
Director of Development

DATE: September 21, 2021
RE: Information Packet for September 21, 2021 Planning Commission Meeting at 6:00 p.m.

I. Case No. 2021-1-1 (TABLED)—Consideration of a Site Plan for Thornton’s

September 21st Case Status Update: Staff and legal counsel continue to work with the applicant and their team through the variance requirements and site/access related issues. Staff understands that the applicant still intends to apply for several variances through the Board of Zoning Appeals. Staff will continue to update Planning Commission and will bring back the site plan for approval once all other items have been appropriately resolved.

August 17th Case Status Update: Staff and legal counsel continue to work with the applicant and their team through the previously mentioned issues. It is Staff’s understanding at this time that the applicant still intends to apply for the various variance requests as necessary. Staff will continue to update Planning Commission and will bring back the site plan for approval once all other items have been appropriately resolved.

July 20th Case Status Update: Updated civil plans were received first on 6/17 and again on 7/12, both via email, that did address several staff comments. Paper copies of revised plans that would be submitted as part of the typical Planning Commission process were not submitted ahead of this month’s meeting. Several major items have not been addressed. Namely, the access points have not been relocated to address Engineering’s determination and the non-compliant pole sign has not been removed from site plans. Regarding items that would require application through the Board of Zoning Appeals prior to Planning Commission site plan approval, Staff has not received any formal application for any variance, waiver, etc.

Due to the considerable period of time that has passed since Planning Commission’s original tabling and lack of progress regarding major items, Staff is recommending that the case be denied. If the applicant then wishes to reapply with all other relevant changes secured/approved, they can apply for a new site plan approval as there are no restrictions regarding application timing defined by the Planning and Zoning Code. Updated staff comments based on the latest information supplied by the applicant are in **green text** below under Site Plan Comments.

June 15th Case Status Update: As previously indicated, Staff met with the applicant and subsequently detailed the necessary application procedures for any desired waivers or appeals. To that end, we have not received any variance, waiver, etc. requests or any further site plan updates. Due to the considerable period of time that has passed since Planning Commission’s tabling and lack of any further applications or updates, Staff is recommending that the case remain on the table until the July meeting. At that time, if no further applications or site design changes have occurred, Staff will recommend the case be denied at the July meeting. If the applicant then wishes to reapply with all other relevant changes secured/approved, they can apply for a new site plan approval as there are no restrictions regarding application timing defined by the Planning and Zoning Code.

May 18th Case Status Update: Please see below a summary list of outstanding issues as it relates to the Thornton’s site plan application. The applicant submitted revised plans on April 30th as required in the previous tabling rendered by Planning Commission at its April 16th meeting. Staff met with the applicant on May 5th to discuss outstanding issues and procedure for any desired waivers or appeals.

SITE PLAN COMMENTS:

1. **Comment: Per revised civil plans submitted by applicant, semi parking stalls are shown as 'Future Truck Parking'. Stalls and Labeling must be eliminated from the site plan as part of the use requirements is not permitted. (1204.04(D)(15) and (1204.04 (D)(4) Response: Semi-Truck parking stalls have been removed from the civil plans**
 - a. Comment has been addressed and can be removed from list of outstanding items.
2. **Comment: Regulations state that vehicle use areas shall not encroach upon any buffer required. (1211.03(C) Response: The applicant intends to file for a waiver of this requirement along State Route 63**
 - a. The code states that Vehicular Use Areas shall not encroach upon and buffer required. Not only is the use areas encroaching, it has eliminated it with the proposed right of way location while proposing landscaping/buffer in the right of way. While staff is not opposed to right of way landscaping, the applicant can request a 1203.10 Alternative Equivalent Compliance permit regarding Landscaping and Bufferyard Standards (for attached)
 - b. Additionally, a Right-of-Way permit would be required for this proposed utilization of the public right-of-way.

The plans now appear to show the vehicular use area outside of the right-of-way, however, plans need to mark the specific distance from the right-of-way line to the edge of pavement to ensure compliance with the minimum 6-foot setback for vehicular use areas.

The applicant still shows a small portion of the right-of-way at the northeast corner of the site for landscaping purposes, but has not filed an Alternative Equivalent Compliance permit.
3. **Comment: Vehicular use area are shown within the right of way and will need to be set back to a minimum of 6 feet wide area from the right of way intended for landscaping. (1211.03(C) Response: The applicant intends to file for a waiver of this requirement along State Route 63**
 - a. A Right-of-Way permit will need to be completed to locate in the right-of-way. As a note, staff is not aware of vehicular use areas as being permissible in the right of way.

As mentioned previously, plans now appear to show the vehicular use area outside of the right-of-way, however, plans need to mark the specific distance from the right-of-way line to the edge of pavement to ensure compliance with the minimum 6-foot setback for vehicular use areas.
4. **Comment: The fuel canopy is required to be 15 feet from the closest point of right of way. The requirement is not met and will need to be corrected, which may require other site plan adjustments. (1204.04(D) and (1204.04(D)(4) Response: The applicant intends to file for a waiver of this requirement along State Route 63**
 - a. Based on the most current conversation, our understanding is that the applicant intends to file for a variance for essentially a zero setback (variance form attached). A decision on the variance by the Board of Zoning Appeals will have to be in place prior to any site plan approval by Planning Commission. The standards for a variance will need to be demonstrated by the applicant as outlined in the code, form, and process.

The applicant has moved the fuel canopy further back from the right-of-way and now appears to be compliant with minimum setback requirements. However, the distance needs to be shown on the site plan from the furthest edge of the canopy to the ROW line.
5. **Comment: Right of way sidewalks (5' min width) are required along Gateway Blvd and State Route – 63. Staff is recommending installation of the sidewalks on both roadways. (1208.07) Response: The plans have been revised to reflect the sidewalk along State Route 63. The sidewalk along Gateway Blvd. remains as previously shown**
 - a. The location of the walk, particularly at the northwest corner of the site, does not meet right of way standards with a 5-foot tree lawn. Any deviation of the standard will be a part of the right of way permit evaluation. It should be noted that safety of pedestrians with the proposed reduction is of concern.

The sidewalk location appears to have been revised. Staff would need to confirm the right-of-way standards for the 5-foot walk and 5-foot tree lawn are met.
6. **Comment: A solid screen of shrubs at a minimum installation height is required on the west side parking row (1212.07(B)**
 - a. A.) Not enough sea green junipers to meet the requirement Response: Revisions will include additional evergreen material to satisfy requirements
 - i. Revisions show appropriate screening along the west side of the site.

- b. **B.) Other plantings in this location does not meet height requirement, nor the evergreen requirement. Boxwood meets the evergreen requirements, but not height requirements**
Response: Revisions will include larger material to meet requirements
 - i. *Revisions show appropriate screening along the west side of the site.*
 - c. **C.) Staff request showing 36" (Min) evergreen species to provide appropriate coverage across the entire parking row.** *Response: Revisions will include specifying the 36" (min) evergreen species*
 - i. *Revisions show appropriate screening along the west side of the site.*
- 7. **Comment: The screen of shrubs proposed on the east side parking row shows the appropriate size and species, however the number of shrubs appears to be insufficient for full screening coverage.**
Response: Revisions will include the require number, size and species to meet the screening coverage
 - a. *Revisions show appropriate screening along the east side of the site.*
- 8. **Comment: A parking island with associated landscaping is required on the north end of the western parking row. (1212.07(B))** *Response: The island and associated landscaping has been shown*
 - a. *Revisions show parking island and associated landscaping.*
- 9. **Comment: Screening: Full screening of service structures are required. It appears the southern side of the transformer is left open/unscreened. (1212.09(A))** *Response: The transformer has been screened*
 - a. *Plans now show 8' tall evergreen trees surrounding the transformer on the south side of the site. This likely meets the screening requirement with the understanding that the transformer structure is less than 8' in height.*
- 10. **Comment: Screening: Front yard landscaping requires 20% of the required front yard area (20% of 50'=10') be landscape areas with a minimum 6' against the right of way. Applicant has met the 20%, staff request the applicant to show the minimum 6' landscaped area along both Gateway Blvd and SR-63 (1212.08(A))** *Response: The landscape plan has been revised to reflect the 6' landscaped area along Gateway Blvd. The applicant intends to file for a waiver of this requirement along State Route 63*
 - a. *It appears the 6' is met along Gateway, but the 6' width is not notated on the landscape plan. While it appears the 6-foot minimum width has been met along State Route 63 and Gateway Boulevard frontage, ensuring the narrower areas along State Route 63 particular at the east and west ends meet the minimum width is necessary.*
- 11. **Comment: The truck entrance on eastbound SR63 does not meet the minimum guidelines for a WB-67.** *Response: Turning radii has been revised to reflect WB-67 minimum guidelines*
 - a. *Turning radius is still tight but meets requirement of note. Island shown does not prohibit left turn movements significantly enough. Delineators in median or more substantial island is warranted.*
- 12. **Comment: The southern entrance / exit does not designate this entrance as being 'Shared' access with the remaining lot.** *Response: Due to the traffic circulation pattern for the use and the location of the stormwater detention basin the entrance cannot be positioned in a shared access location. The owner of the residual tract to the south has expressed some reservation of sharing an access at this location due to safety concerns (Trucks vs. Cars)*
 - a. *Other options for detention can be considered to meet the requirement. Shared access is required for safe and efficient flow for the balance of the developable land.*
- 13. **Comment: The southern entrance does not permit a storage area for southbound traffic. Also shows truck radii crossing center lane markings creating traffic issues.** *Response: The current striping of Gateway Blvd incorporate a storage area for south bound traffic. The Autoturn plan submitted indicates a truck (and limits of) turning north onto Gateway Blvd is contained entirely within the north bound traffic pattern*
 - a. *Dedicated left turn storage is warranted and must be constructed for efficient flow of south bound traffic. The City does not accept the use of designated through lanes for the purpose of left turn movements on Gateway Blvd.*
- 14. **Comment: The spacing between the access driveways does not meet code.** *Response: The applicant intends to file for a waiver of this requirement. Entrance uses (trucks vs. cars) require separate locations to minimize interaction for safety*
 - a. *Safety concerns for site do not warrant creating safety issues within the public right of way. The comment relates to spacing between access points and the response does not address this conflict.*
- 15. **Comment: Show existing utilities within the Gateway Blvd. Right of Way** *Response: Existing utility information within Gateway Blvd right of way has been shown*
 - a. *Verifying on Site Plan*

16. Comment: Potential issue with underground storage tanks to property lines with steep grades.

Response: The underground storage tanks have been relocated

a. Verified on Site Plan

17. Comment: All details and specifications will need to meet ODOT 2019 (latest revision) and City of

Monroe. Response: ODOT and City of Monroe details and specifications will be meet in areas of jurisdiction

a. Verifying on Site Plan

TIS COMMENTS:

1. Per 1211.05 Gateway Blvd is a major arterial and requires median opening spacing of 650 feet.

a. For Gateway, this measurement would begin at the end of the current north bound left turn lanes. Site plan location is approximately 300 feet. *Response: Per a City of Monroe map used in the June 17, 2019 Steering Committee Meeting 1, Gateway Boulevard is listed as a principal collector. The Warren County Thoroughfare Plan lists Gateway Boulevard as a major collector/distributor. ODOT's TIMS mapping system shows Gateway Boulevard as a major collector. We found no evidence that Gateway Boulevard is a major arterial.*

Also, the 650-foot spacing is not applicable to Gateway Boulevard since Table 1211-12 indicates that it is applicable to unsignalized median openings on divided roadways. Gateway Boulevard is not a divided roadway. Table 1211-13 lists lateral offset distances between intersections and the first driveway. According to the table, the required lateral offset distance is 200 feet. Since the left turn storage length from northbound Gateway Boulevard onto SR 63 exceeds this distance, the northernmost driveway would be limited to right in/right out (as has been proposed). It is requested that the northernmost right-in, right-out driveway be approved at the location shown.

a. The City defines roadways with center turn lanes as divided highways.

b. Note 2 of 1211-13 indicates that if the intersection includes two different roadway types, then the greater of the two distances shall be used, thus the 350 distance for the northernmost drive entrance should be used, even if we were to consider a minor arterial designation on Gateway.

2. Analysis of Developers TIS under the guidelines of 1211.04 does not warrant Full Access

Location as proposed. The Analysis:

a. Did not include all future traffic in Analysis, and; *Response: As agreed to with City staff, the traffic study performed by the seller of the property (industrial park developer) was to be used to establish the driveway locations. The City has indicated that they are requiring future traffic volumes resulting from the connection of Gateway Boulevard to Butler Warren Road to be included in the traffic analyses. However, it is our understanding that the future extension of Gateway Boulevard to Butler Warren Road is entirely under the discretion of the industrial park developer. The industrial park developer has indicated that he has no intention of connecting Gateway Boulevard to Butler Warren Road and therefore, the traffic volumes from that roadway connection should not be included in the analyses to establish the driveway locations.*

b. Does not disprove that the City's evaluation that warrants the location of a full access point at least 850' south of SR63 *Response: The City's evaluation of the driveway access location was based on the assumption that Gateway Boulevard will connect with Butler Warren Road in the future. The City's evaluation of driveway location is based on the anticipated levels of queuing on northbound Gateway Boulevard approaching SR 63. In accordance with our response to the previous item, since this queuing is significantly impacted by the projected traffic volumes from the connection of Gateway Boulevard to Butler Warren Road, and since the industrial park developer has no intention of connecting Gateway Boulevard to Butler Warren Road, the requirement to locate the full access driveway 850 feet south of SR 63 does not seem to be applicable.*

c. Does not account for the proposed full access point which requires a median cut which is proposed within current north bound left turn lanes. *Response: It is unclear about the median cut reference. The traffic study shows the need for a southbound left turn lane at the full access drive. The full access point should not be located where vehicles turning left into the site would be required to stop in a through lane next to the northbound left turn lanes.*

a. The current position of the landowner has no bearing on the evaluation required and must include the traffic generated by the future connection of Gateway Blvd to the south with Butler Warren road. Within the last few years, this same landowner had a proposal that would have benefited from that connection and was in favor of it. I would assume that they would be again if another proposal landed in their laps. The connection is currently within the thoroughfare plan of the City, both Counties and the OKI regional council of governments, thus can't be that easily dismissed to benefit the use being considered.

- b. *I agree with the comment that “the full access point should not be located where vehicles turning left into the site would be required to stop in a through lane next to the northbound left turn lanes. But no consideration has been given to create a dedicated left turn lane.*

3. 1211.05 requires first access point along major arterial to be 350 feet from intersection.

a. First proposed access point on Gateway is approximately 100 feet from the SR63 intersection.

Response: See response to following item.

b. Proposed right in right out access on SR63 does not meet the 1211.05 requirement of 350 feet from the Gateway intersection. *Response: As indicated previously, we found no documentation indicating that Gateway Boulevard is classified as a major arterial. Table 1211-13 lists lateral offset distances between intersections and the first driveway. The table indicates that if the intersection includes two different roadway types, the greater of the two distances shall be used. In this case, SR 63 is classified as a minor arterial per the ODOT TIMS map and per the map used in the City of Monroe Comprehensive Plan Steering Committee Meeting 1 on June 17, 2019. According to the table, since SR 63 is the higher classified road, the required lateral offset distance is 200 feet. Also per Table 1211-13, since the left turn storage length from northbound Gateway Boulevard onto SR 63 exceeds this distance, the northernmost driveway would be limited to right in/right out (as has been proposed). The 350-foot requirement outlined above is not supported by the zoning code. It is requested that the northernmost right-in, right-out driveway be approved at the location shown.*

i. It is also recommended that a tangent section be constructed east of Gateway Boulevard radius return for at least 50 feet prior to beginning the diverging taper for the right turn lane, therefore the right in right out access would be located with the code requirement of 350 feet from Gateway Boulevard. First proposed access point on SR 63 does not meet this requirement. *Response: As indicated previously, the 350-foot offset requirement is not supported by the zoning code. We found no documentation indicating that Gateway Boulevard is classified as a major arterial. Table 1211-13 lists lateral offset distances between intersections and the first driveway. The table indicates that if the intersection includes two different roadway types, the greater of the two distances shall be used. In this case, SR 63 is classified as a minor arterial per the ODOT TIMS map and per the map used in the City of Monroe Comprehensive Plan Steering Committee Meeting 1 on June 17, 2019. According to the table, since SR 63 is the higher classified road, the required lateral offset distance is 200 feet. The driveway on SR 63 will be shifted east to accommodate the recommended 285-foot eastbound right turn lane. A tangent section of a length to be determined will be provided if possible depending on site constraints. At the location dictated by the length of the 285-foot eastbound right turn lane, the 200-foot lateral offset distance is met.*

a. See note 1b above.

4. 1211.05 requires spacing between access points on a major arterial (Gateway) to be 350.

a. Proposed spacing between access points on Gateway is 285 feet. *Response: We found no documentation that Gateway Boulevard is classified as a major arterial. Driveway spacings should be based on Table 1211-11. Since there is no recommended spacing for a major collector with a speed limit of 40 mph, the next higher classification (minor arterial) should be used. For a minor arterial roadway at 40 mph, the spacing should be 350 feet for a high volume driveway, which is in accordance with the City request. The existing submittal depicted a distance of 335' from centerline of the RI/RO entrance and the southern entrance (truck entrance). The entrance will be revised to reflect 350' centerline to centerline. (moved 15' south)*

a. Assumption from previous response affecting the location of the first access should be considered prior to finalizing spacing requirements between access points. In any case a full access point cannot be approved at the location shown.

5. Analysis of Site TIS does not warrant approval of site driveways.

a. The 300 ft southbound left-turn lane proposed in the study is not included on the Site Plan. i. Per the applicants own study, the proposed access location should not reduce or impede the required northbound left turn lane storage at full build out. *Response: The final queuing analysis on the northbound approach of Gateway Boulevard at SR 63, which uses the correct assumptions about Gateway Boulevard not connecting to Butler Warren Road, should determine whether the existing northbound left turn lane can be shortened to allow the proposed southbound turn lane at the site driveway to begin farther north. Fueling capacity within each diesel (truck) lane equates to 3 trucks an hour. The four (4) fueling lanes would be able to serve 12 trucks an hour. The site has the space to accommodate an additional 15 trucks in the queuing lanes. The total of 27 trucks on site would eliminate the need for a 300' turn lane at this entrance.*

- a. *Spurious assumptions about future traffic connections continue to be used to make invalid decisions. The full access point does not incorporate traffic from the balance of the developable property and is not approved in the location shown.*

The City Engineer has defined the location where a full access point is allowable along Gateway Blvd and will define the location of permissible restricted access points prior to consideration by the Planning Commission.

ARCHITECTURAL COMMENTS:

- 18. Comment: The auto refuel canopy, proposed at 14'6" clearance height, exceeds the maximum 14-foot clearance height. Please revise (1204.04(D) (15). Response: Acknowledged. Truck canopy height requested to remain at 17'-6" to allow for clearance to provide adequate lighting.**
 - a. *Acknowledged. Variance application through the Board of Zoning Appeals would need to occur prior to site plan review by Planning Commission.*
- 19. Comment: The truck refuel canopy, proposed at 17'6" clearance height, exceeds the maximum 14-foot clearance height. Please revise (1204.04(D) (15). Response: Acknowledged. Variance requested to maintain Truck canopy height at 17'-6" to allow for clearance to provide adequate lighting to trucks while in fueling position.**
 - a. *Acknowledged. Variance application through the Board of Zoning Appeals would need to occur prior to site plan review by Planning Commission.*
- 20. Comment: Both the auto and truck refuel canopies are flat roof as opposed to gabled as required. Please revise (1204.04(D) (15) and (1204.04(D) (4). Response: Acknowledged. Auto and truck canopies revised to reflect gables.**
 - a. *Plans now show gabled roof on both canopies. It should be noted that the signage is not permissible on the roof as shown and the applicant has indicated that they would revise to design a flat wall space in combination with gabled roof.*
Plans now show revised canopy signage compliant with code.
- 21. Comment: In order to maintain consistency across plans, Staff requests revision of the elevation drawings on the truck refuel canopy as it shows 5 fuel pump stations where there are only presently 4 proposed. Response: Acknowledged. Elevations revised to reflect 4 fueling positions.**
 - a. *Applicant has indicated they will revise.*
Plans have been revised to show 4 truck refuel pumps across plans.
- 22. Comment: 25% of wall area visible from a right-of-way/public road must contain windows. As the site has visibility from multiple points on Gateway Blvd and State Route 63, this window requirement applies to the south, east, and west sides in addition to the north side. The south side of the building does not meet this code requirement with almost no glass/window area proposed. Please revise (1210.05(D)(5). Response: Acknowledged. Additional glazing added to south façade. The applicant can request a 1203.10 Alternative Equivalent Compliance permit regarding Architectural Standards (for attached) to allow reduced glazing percentage on south façade due to interior plan (coolers and back of house) and architectural elements (entry staple and downspouts).**
 - a. *Acknowledged.*
While additional glazing has been added to the south elevation, an Alternative Equivalent Compliance application has not been filed.
- 23. Comment: All walls visible from a public street that are at least 60 feet wide must incorporate offsets of at least 2 feet deep and 20 feet wide at a minimum of every 40 feet. This requirement applies to both the north and south sides of the building (1210.05(D)(4). Please revise to meet this code requirement or provide one of the following alternatives:**
 - a. *Façade material changes of the same dimensional standard as the offset requirement. (1210.05(D)(4).*
 - b. *Pilasters having a minimum 1-foot depth and width, and minimum 80% height of the building height. (1210.05(D)(4). Response: Acknowledged. South Façade revised.*
 - i. *Revised plans appear to meet this requirement on the south side.*
- 24. Comment: Base-body-cap percentages need to be indicated to show minimum 8% base and 8% cap across the entire building. While it appears the 8% base requirement is met on the majority of the building, it is not met on the north elevation and will require revision. Further, the cap proposed may**

not meet the 8% minimum required. Please provide accurate percentages that account for the black metal coping, which is the overall cap area and does not include the red and black metal entrance feature as it does span across all or a majority of the building, to ensure these requirements are met (1210.05(D)(1)). *Response: Acknowledged. Base and cap revised to meet 8% requirement throughout.*

a. While percentages appear to be met on all sides, it appears the calculations are still inaccurate. The applicant has indicated that they will revise to show calculations.

Plans have been revised to show accurate percentages that do meet code minimum requirements.

25. Comment: Further evaluation of the proposed metal on the structure as architectural requirements states: (3) Exposed metal panels (such as corrugated metal) shall be prohibited in the C-1, C-2, C-3, and C-4 districts. This subsection shall not be construed to prohibit metal roofs, flashing, aluminum storefront associated with windows, or high-quality metal siding such as copper, bronze, or other decorative metal, which may be used on a case-by-case basis. Please provide more detail, example images, etc. on this metal material (1210.05(D)(3)) *Response: Acknowledged. Sample material provide to the City of Monroe by Jim Vaughn of Lockett and Farley Architects.*

a. A sample of base, body, cap has been received but we do not show receipt of the metal material.

26. Comment: Pole sign is prohibited in the C-2 zoning district. While not discussed in particular at the most recent meeting with the applicant, it is Staff's understanding Thorntons will seek a variance for this signage through the Board of Zoning Appeals. This process will have to occur prior to sign permits being filed. For purposes of site plan approval through Planning Commission, the sign will need to be removed from all plans or otherwise noted on plans as not approved and will need to seek separate Board of Zoning Appeals approval after site plan approval.

The following pages are staff report comments and information from past meetings and have been left in this month's staff report for background/historical purposes

April 16th Case Status Update. Please note that previously updated staff comments from the March 16th meeting are listed in **yellow** and are still relevant regarding the continued tabling of the case. Additionally, updates since the March 16th meeting, specifically regarding rooftop signage and the architectural comments are highlighted in **blue**. The applicant requested to continue the tabling and waive the 60 day hearing/decision requirement on March 15th, 2021:

Kevin,

I respectfully request that our application remain open & tabled on the Planning Commission agenda as we are moving forward in good faith to respond to the City Engineer's comments relating to the TIS & my consultants have addressed most of the Staff comments from the Staff report issued in January. I request the City waive the time requirement in light of the fact that we are prepared to meet whenever our schedules will allow.

Best regards,

Todd Smutz
Senior Development Project Manager
Direct: 502-572-1294 | Cell: 502-693-5874
todd.smutz@mythorntons.com



While Planning Commission subsequently did not meet in March due to a lack of a quorum, the continuance of the tabling was realized based on the request.

The property owner also requested in a 3/15/2021 email to table the case as staff requested concurrence from both the applicant and property owner to ensure all parties were aware of the case status. The property subsequently requested that the case be open no later than the April 20th Meeting to be heard:

Good afternoon, Kevin –

Kevin,

I agree with Todd Smutz and, on behalf of Corridor 75 Park, Ltd., we will concur that the application submitted by Thornton, LLC opened and tabled after much discussion in the January Planning Commission meeting be continued as tabled and remain open until no later than the April 20th planning commission date in order to be heard. I do know that all the parties are working to achieve a development plan that meets the needs of those concerned and we are looking forward to working you and staff to make this proposed development come to fruition. We also agree to waive the 60-day time requirement in order to be heard as stated by Thornton, LLC.

I can understand the difficulties in trying to set up a special meeting time as you have outlined and do appreciate your offer to get the meeting or meetings underway as soon as possible. To help this along, please let me know what you might need from Corridor 75 Park.

Thanks!

Lenny
Lenny Robinson
President & Broker



Staff follow up via email with the property owner and the applicant to confirm receipt of the tabling request while reiterating the various site plan issues and the need for updated site plans as well as responses regarding the concurrence to meet or request to vary specific code requirements as listed in the report (For instance, the applicant we would need confirmation if the gas canopy is intended to be moved to meet code requirements or that a variance would be requested. If such is the case, a variance for the setback reduction would need to be sought at the Board of Zoning Appeals prior to any decision permissible by Planning Commission as Planning Commission does not have the authority to do so).

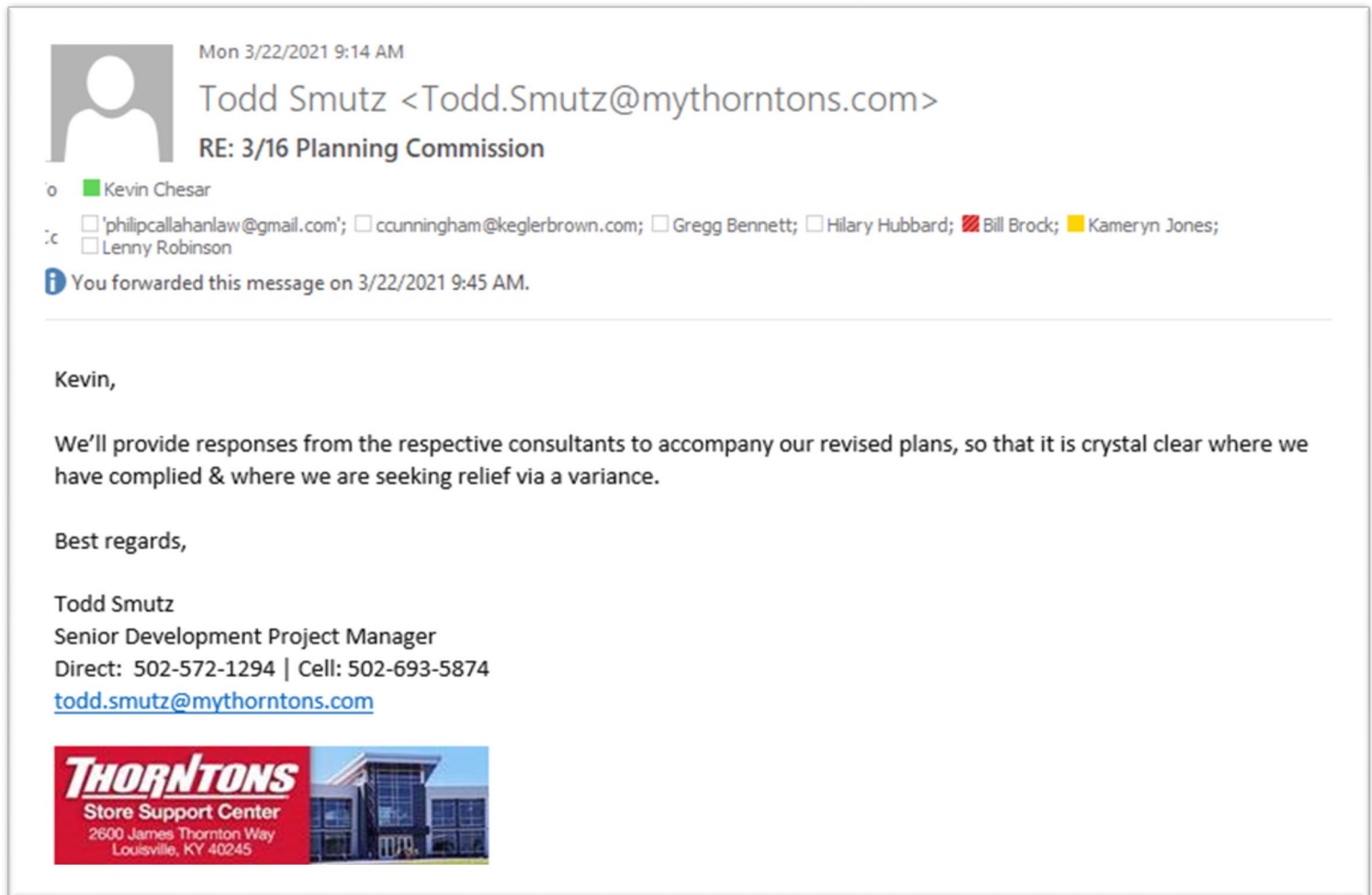
The property owner's representative (Lenny Robinson) also indicated in a March 18th, 2021 email that they are set to meet to discuss the site and access related issues:

Kevin –

received confirmation from Todd earlier today that Thornton, LLC and their architects and engineers are all set to meet with Monroe. We still have not heard from Bill on setting up a meeting with him but, I know you were hopeful to make this one meeting to cover all the bases. Will you be able to check with him and provide some dates, hopefully next week if we can.

Thanks.

Thornton's, as the applicant, indicated in a March 22nd email that "We'll provide responses from the respective consultants to accompany our revised plans, so that it is crystal clear where we have complied & where we are seeking relief via a variance":



To date, we have not received any updated responses or revised plans as indicated by the applicant and as we have previously indicated would be necessary as a precursor for staff to have a productive work session to address the various site issues as well as to lay out the proper approval steps (i.e. Planning Commission versus possible Board of Zoning Appeals variance request).

Section 1203.06(D)(4) Procedure to Review Site Plans specifies the Planning Commission Review and Decision requirements regarding tabling as well as a final determination. While the owner has asked for the case to be "heard" no later than April 20th, 2021, it is staff view that the case could remain open/tabled until May 18th, 2021 by virtue of the continuance of a tabling from January in March (60 days) and the presumed continuance via 1203.06(D)(4)(c) below would require some form of action by the May meeting.

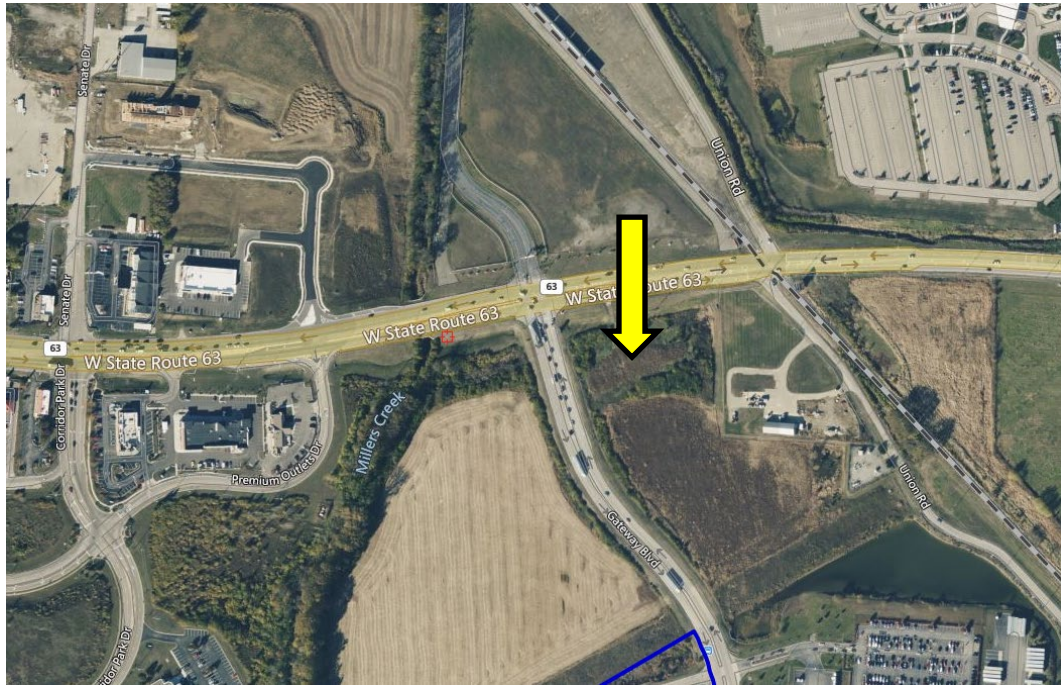
As stated, Staff has not had any updates from the applicant or owner since the request for further information and we do anticipate that as a result of this report update, they will express their desire to either continue the case until May and provide responses/updated plans as indicated or request a removal from the table and decision by Planning Commission at the April 20th, 2021 Meeting.

4) Step 4 – Planning Commission Review and Decision

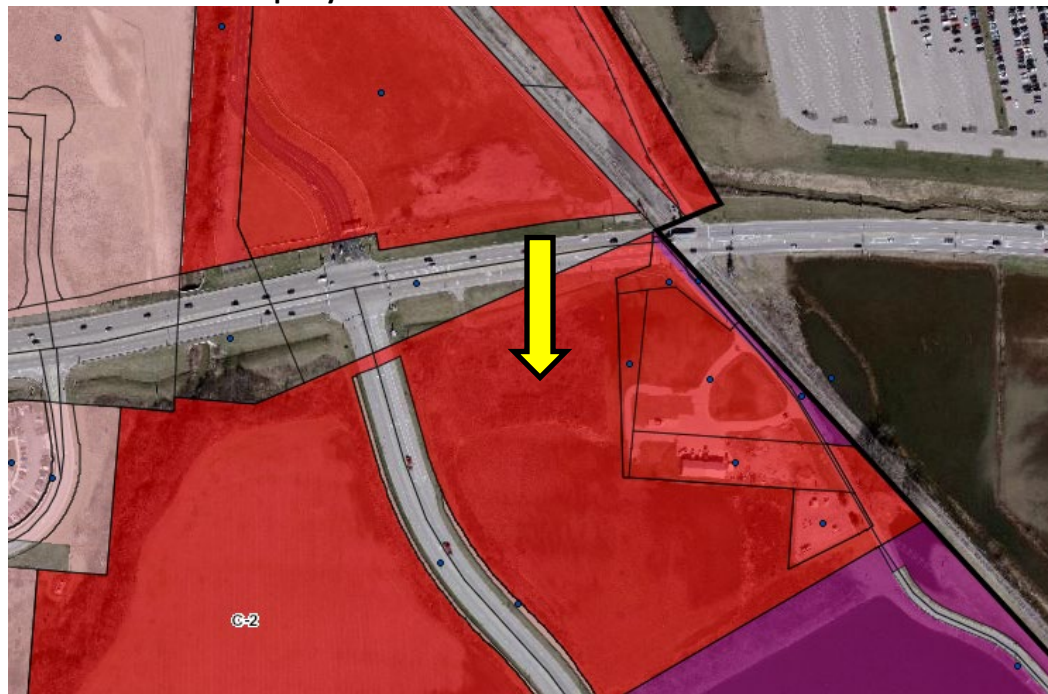
- a)** The Planning Commission shall review the site plan at a regular meeting. No special public notice shall be required for Planning Commission review or action on the site plan except for the general notice required for Planning Commission's meeting as required by state law.
- b)** The Planning Commission shall either approve, approve with conditions, deny, or table the review of the application and site plan within 60 days of the determination of receipt of a complete site plan application by the Code Enforcement Officer.
- c)** Within the 60 day time period, the Planning Commission, by a majority vote of the members present at the meeting, may extend the period of review for not more than 60 additional days.
- d)** If the site plan is denied, the Planning Commission shall make a finding, in writing, justifying the denial of the plan and provide a copy of the findings to the applicant.
- e)** The Planning Commission may attach conditions to the approval of a site plan as may be reasonably required to promote the public health, safety, and welfare.
- f)** Approval of the site plan shall be indicated by a letter from the Code Enforcement Officer. The approved plan will be stamped "Approved" and dated.

A. Background

- Gregg Bennett, on behalf of Thornton's LLC, has submitted a site plan application for a gas station and convenience store to be located at the southeast corner of State Route 63 and Gateway Boulevard.
- The applicant is proposing a 5,500 square foot building with convenience store, 10 auto fuel pumps, 4 semi fuel pumps, and CAT scale.
- The site is approximately 6.22 acres currently zoned C-2 General Commercial.
- The applicant anticipates a June construction start date and June 2022 completion date.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Eastbound on State Route 63



Westbound on State Route 63



Northbound on Gateway Boulevard



Facing South at Traders World Entrance at State Route 63

B. Staff Comments *(While all the following comments are still relevant, specific updates since 1/19/21 meeting highlighted in yellow. Updates since the March 16th meeting, specifically regarding rooftop signage and the architectural comments are highlighted in blue)*

- **SIGNAGE:**

- In regards to the sign package proposed, the site plan application requirements does state to detail all sign locations, sizes, etc. in order to ensure compliance with relevant location, landscaping, and safety issues. The presumption is that all regulatory issues are followed and any requests in the application to vary or alter requirements is not within the authority of Planning Commission to approve. Rather, the Board of Zoning Appeal would hear any variance requests. Further, any commercial signage located within the right-of-way is not permissible (1214.05).
- While not reviewed during the Planning Commission process, a portion of the sign package proposal is prohibited per code:
 - The 30-foot pole sign shown on the overall site plan is not permitted in the C-2 zoning district and must be removed from all plans as to not indicate/cause confusion with approval authority or process (1214.10 Table 1214-1).
 - Further, the sign is located in the right-of-way, which is prohibited (1214.05).
 - The sign proposed on the roof of the fuel canopy is a prohibited sign type (1214.06).
- During the administrative review for this sign package, other items such as traffic safety visibility triangle, setbacks, and overall maximum allotments of signage will be evaluated.
- Until the use/site plan approval is achieved, a sign variance process with the Board of Zoning Appeals cannot occur.

Based on the abovementioned code requirements, the site plan needs to be updated to remove or appropriately reflect area, sign type, and locations for all signs.

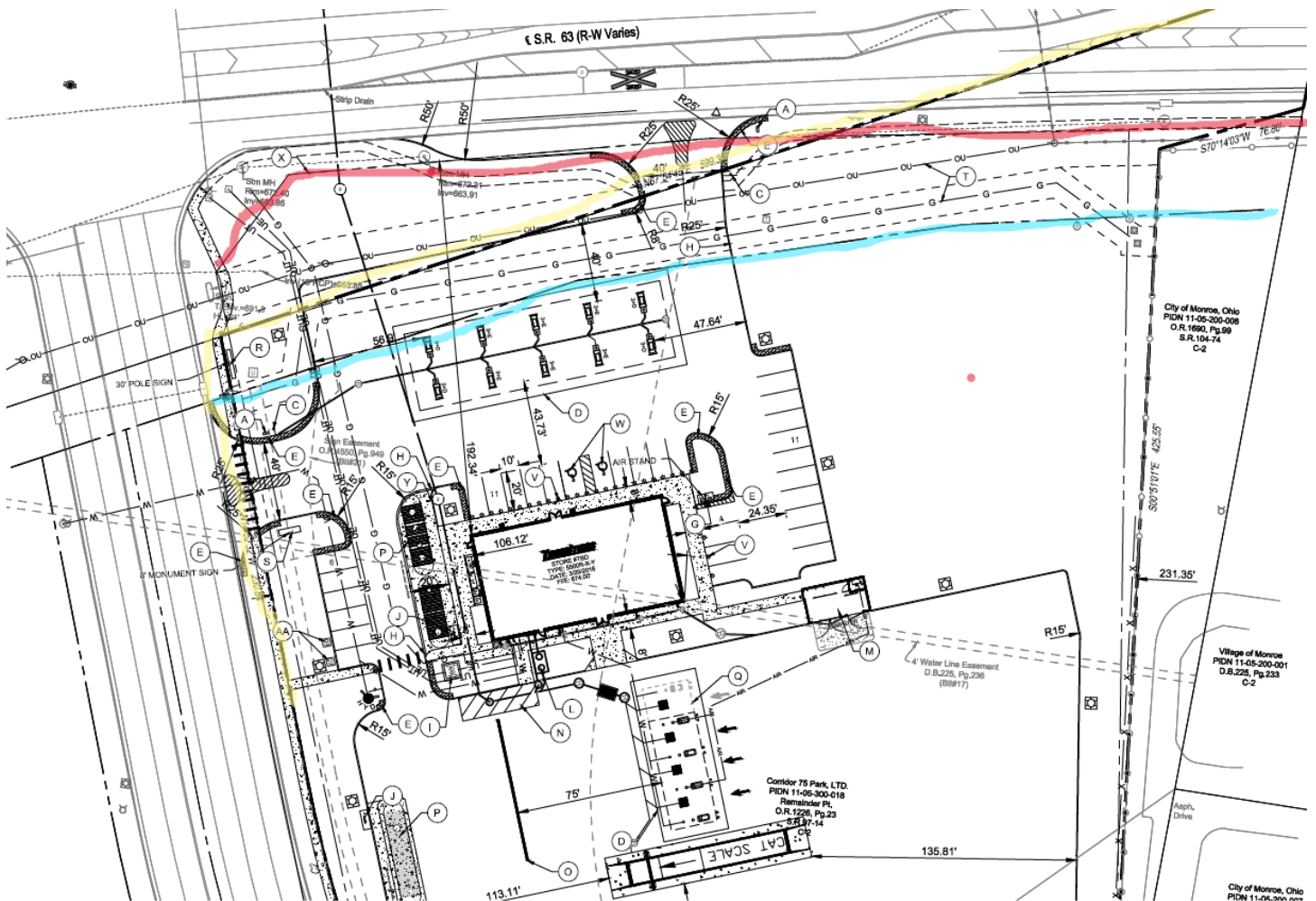
- **USE STANDARDS:**

Retail Fuel Sales is a use permitted with standards in the C-2 General Commercial zoning district. These standards, which are the same as Automotive Service Stations and Parts Sales, are outlined in 1204.04(D) (15) of the Planning and Zoning Code. See below as it relates to semi-trailer truck parking:

(4) Automotive Service Station and Parts Sales

- 
- 
- a) Canopies shall be gabled, set back a minimum of 15 feet from street rights-of-way, and shall not exceed a clearance height of 14 feet.
 - b) Lubrication, washing, incidental servicing of motor vehicles and all supply and merchandise storage shall be completely within an enclosed building except as otherwise provided herein.
 - c) Employee vehicles and vehicles awaiting servicing or return to customers following servicing shall be parked in areas indicated for such parking on the approved site plan. Such vehicular use areas shall be set back a minimum of 50 feet from any right-of-way.
 - d) The sale of motor vehicles on premises used for automotive service stations shall be prohibited.
 - e) The storage of non-operational vehicles for longer than a 24-hour period shall only be permitted for automotive body and major repair businesses. Such storage shall be permitted if stored in the rear yard and screened by a solid wall or fence with a minimum height of five feet. No such vehicle shall be stored on-site for more than two weeks.
 - f) All other outdoor storage shall be subject to the standards of [Section 1205.01\(G\)\(15\): Outdoor Bulk Storage](#).
 - g) No semi-trailer truck parking stalls are permitted other than temporary stacking for refueling

- Per revised civil plans submitted by the applicant, semi parking stalls are now shown as “future truck parking”. These stalls and labeling must be eliminated from the site plan as part of the use requirements as it is not permitted. Any reference to “future stalls” can cause confusion with the plan and could be construed as approved via site plan approval **(1204.04(D) (15) and (1204.04(D)(4))**.
- Upon further review of the right-of-way line that is not clearly identified in context of the property line location, regulations states that the vehicular use areas shall not encroach upon any buffer required **(1211.03(C))**.
- The issue is further complicated by the location of the vehicular use area within the right of way and will need to be set back to the minimum 6 feet wide area from the right of way intended for required landscaping. It should be noted that the applicant has indicated a new proposed right of way line but, staff is not aware of any right of way changes and the project must be evaluated on current known conditions **(1211.03(C))**.
- The fuel canopy is required to be 15 feet from closest point of right-of-way. While not clearly identified on the site plan, further review has shown the canopy is located partially within the right-of-way as identified generally by the blue highlight on site plan image on the next page (yellow indicates proposed property line and red indicates a proposed right of way line). This requirement is not met and will need to be corrected, which may require other site plan adjustments **(1204.04(D) (15) and (1204.04(D)(4))**.



Based on the abovementioned code requirements, Staff recommends denial of the site plan.

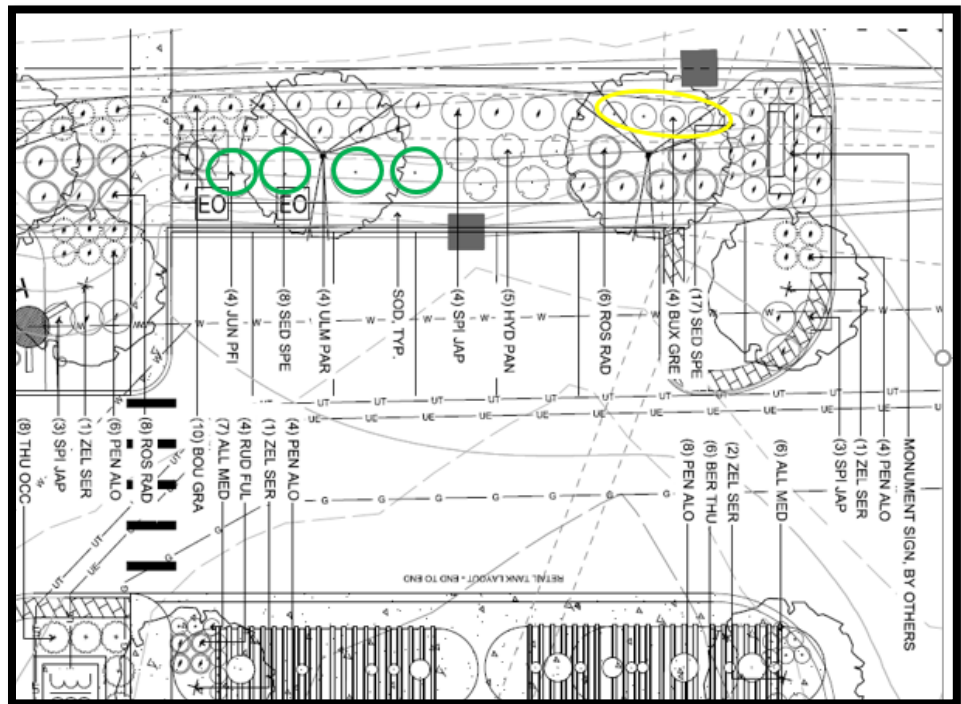
• **SIDEWALKS:**

- Right-of-way sidewalks (5-foot minimum width) are required along on Gateway Boulevard and State Route 63. Though Planning Commission has previously waived this requirement for walks along State Route 63, and while the applicant now shows where a sidewalk could be located for future purposes, it needs to be officially engineered based on the next comment **(1208.07)**.
- As was previously indicated, Planning Commission has periodically delayed the required installation of the sidewalk along the State Route 63 frontage. After further review and research, Staff is recommending installation of the walk concurrently with site development as this property represents the eastern border of the City and a logical starting point for an east-west pedestrian/trail connection which is further bolstered by the Lebanon-Turtlecreek Trail Initiative for connections in this area. **(1208.07)**.

Based on the abovementioned code requirements, Staff recommends denial of the site plan.

- **LANDSCAPING:**

- Staff is not opposed to the landscaping proposed in the right-of-way on the northwest corner of the site, but the applicant will need to work with the City and ODOT to confirm there will be no issues with utilizing right-of-way for this purpose. Should landscaping in this area not be permitted or infeasible, the required landscaping must be moved elsewhere on site **(1212.04(F))**.
- A solid screen of shrubs at a minimum 36" installation height is required on the west side parking row **(1212.07(B))**.
 - While it appears the sea green juniper meets the minimum height and species for this requirement, there are only four of these species shown (highlighted in green) which would not create the full screen required along the entire parking row.
 - The other plantings do not meet this height requirement, do not meet the evergreen requirement, or do not meet either requirement (See in yellow the boxwood that meets the species requirement but not the height requirement).
 - While Staff appreciates and encourages a diversity of plantings, please revise to show 36" evergreen species to provide appropriate coverage across the entire parking row.



- The screen of shrubs proposed on the east side parking row shows the appropriate size and species, however, the number of shrubs appears to be insufficient for full screening coverage unless the width of each plant is approximately 5 feet wide. If solid screening is not achieved with the number of shrubs currently shown, additional plantings will be required at time of zoning compliance inspection.
- A parking island with associated landscaping is required on the north end of the western parking row. Please revise **(1212.07(B))**.

Based on the abovementioned code requirements, Staff recommends denial of the site plan.

- **STREET TREES:**

- Street trees are required every 40' on center along all streets **(1212.06(E))**.
- It appears canopy trees are proposed 40' on center behind the sidewalk on private property along Gateway Boulevard but in the right-of-way along State Route 63. Street trees are typically located in the right-of-way tree lawn area. However existing street trees further south along Gateway Boulevard are behind the right-of-way. For consistency, it may make sense to permit the Gateway Boulevard street trees location as proposed.

Based on the abovementioned code requirements, Staff recommends approval of the proposed locations.

- **SCREENING:**

- As a reminder, full screening of service structures is required. This would include any rooftop or ground mounted equipment proposed now or determined necessary during the construction of the development.
 - It appears the southern side of the transformer is left open/unscreened **(1212.09(A))**.
- Front yard landscaping requires 20% of the required front yard area (20% of 50 feet being 10 feet) be landscaped areas with a minimum 6 feet against the right-of-way along the edge of the property.
 - While the applicant has shown the 20% total area is met, Staff requests the applicant show the minimum 6 foot landscaped area along both Gateway Boulevard and State Route 63 **(1212.08(A))**.

Based on the abovementioned code requirements, Staff recommends denial of the site plan.

- **ARCHITECTURAL:**

Revised architectural plans have been submitted, updated comments are highlighted in blue.

Retail Fuel Sales is a use permitted with standards in the C-2 General Commercial zoning district. These standards, which are the same as Automotive Service Stations and Parts Sales, are outlined in **1204.04(D) (15)** of the Planning and Zoning Code. See below as it relates to canopy design:

(4) Automotive Service Station and Parts Sales

- a) Canopies shall be gabled, set back a minimum of 15 feet from street rights-of-way, and shall not exceed a clearance height of 14 feet.
- b) Lubrication, washing, incidental servicing of motor vehicles and all supply and merchandise storage shall be completely within an enclosed building except as otherwise provided herein.
- c) Employee vehicles and vehicles awaiting servicing or return to customers following servicing shall be parked in areas indicated for such parking on the approved site plan. Such vehicular use areas shall be set back a minimum of 50 feet from any right-of-way.
- d) The sale of motor vehicles on premises used for automotive service stations shall be prohibited.
- e) The storage of non-operational vehicles for longer than a 24-hour period shall only be permitted for automotive body and major repair businesses. Such storage shall be permitted if stored in the rear yard and screened by a solid wall or fence with a minimum height of five feet. No such vehicle shall be stored on-site for more than two weeks.
- f) All other outdoor storage shall be subject to the standards of [Section 1205.01\(G\)\(15\): Outdoor Bulk Storage](#).
- g) No semi-trailer truck parking stalls are permitted other than temporary stacking for refueling

- The auto refuel canopy, proposed at 14'6" clearance height, exceeds the maximum 14-foot clearance height. Please revise **(1204.04(D) (15))**.
- The truck refuel canopy, proposed at 17'6" clearance height, exceeds the maximum 14-foot clearance height. Please revise **(1204.04(D) (15))**.
- Both the auto and truck refuel canopies are flat roof as opposed to gabled as required. Please revise **(1204.04(D) (15))** and **(1204.04(D) (4))**.
- In order to maintain consistency across plans, Staff requests revision of the elevation drawings on the truck refuel canopy as it shows 5 fuel pump stations where there are only presently 4 proposed.
- 25% of wall area visible from a right-of-way/public road must contain windows. As the site has visibility from multiple points on Gateway Blvd and State Route 63, this window requirement applies to the south, east, and west sides in addition to the north side. The south side of the building does not meet this code requirement with almost no glass/window area proposed. Please revise **(1210.05(D)(5))**.
 - The applicant has updated architectural elevations to show 20% window area on the south side, a change from the last submittal but still noncompliant. Please revise.
- All walls visible from a public street that are at least 60 feet wide must incorporate offsets of at least 2 feet deep and 20 feet wide at a minimum of every 40 feet. This requirement applies to both the north and south sides of the building **(1210.05(D)(4))**. Please revise to meet this code requirement or provide one of the following alternatives:
 - Façade material changes of the same dimensional standard as the offset requirement. **(1210.05(D)(4))**.
 - Pilasters having a minimum 1-foot depth and width, and minimum 80% height of the building height. **(1210.05(D)(4))**.
 - The applicant has updated architectural elevations to appear to comply with this section.
- Base-body-cap percentages need to be indicated to show minimum 8% base and 8% cap across the entire building. While it appears the 8% base requirement is met on the majority of the building, it is not met on the north elevation and will require revision. Further, the cap proposed may not meet the 8% minimum required. Please provide accurate percentages

that account for the black metal coping, which is the overall cap area and does not include the red and black metal entrance feature as it does span across all or a majority of the building, to ensure these requirements are met **(1210.05(D)(1))**.

- The applicant has updated architectural elevations that appear to comply with this section. However, as the above comment stated previously, it appears the base-body-cap percentages incorrectly account for the black and red metal entrance features when only the architectural metal cap, which is the overall cap area spanning the majority of the building, should be accounted for as the 8% cap.
- Further evaluation of the proposed metal on the structure as architectural requirements states: *(3) Exposed metal panels (such as corrugated metal) shall be prohibited in the C-1, C-2, C-3, and C-4 districts. This subsection shall not be construed to prohibit metal roofs, flashing, aluminum storefront associated with windows, or high-quality metal siding such as copper, bronze, or other decorative metal, which may be used on a case-by-case basis.* Please provide more detail, example images, etc. on this metal material **(1210.05(D)(3))**.

Based on the abovementioned code requirements, Staff recommends denial of the site plan.

C. Department Comments

- **Fire Department:** Fire has the right to comment during plans review.
- **Police Department:** We are concerned about the exit onto 63. The right turn only going west bound may need some flexible delineator posts on the double yellow on 63 so people don't try to turn east bound.
- **Engineering/Public Works Department:**
 - The truck entrance on Eastbound SR63 does not meet the minimum guidelines for a WB-67 type truck to correctly / safely turn into the SR 63 entrance as currently designed. It shows a right turn crossing over thru (not using the right drop lane) which could create conflicts with standard vehicular traffic using the right drop lane, potentially creating traffic safety issues or malfunctions which "could" potentially block eastbound thru traffic.
 - The northern exit onto Gateway shows the potential on a WB-67 type truck potentially blocking northbound lanes of traffic if turning west toward the interstate. It also does not reflect a WB-67 type truck being able to maneuver a northbound thru or a northbound right turn.
 - The southern entrance / exit does not designate this as being a "shared" access point with the remaining adjacent lot to the south.
 - This entrance does not permit a storage area for SB traffic, it also shows a truck turn issue with existing truck paths (turn radii) crossing the center lane markings creating potential traffic safety issues
 - The spacing between access driveways does not meet our code.
 - The intersection of Gateway and SR63 will require the developer to comply with Federal ADA guidelines and make the entire intersection now ADA compliant due to the extension of the walk being required. This may entail additional pedestrian crossing signals, pedestrian buttons, wiring, timing adjustments, signage, curb removals etc... (As this is an ODOT highway/roadway, they may determine necessity of not only an E-W crossing on the south side but also for an additional northbound crossing to be included).

- Show existing utilities in Gateway right of way.
- Potential issues with underground storage / tanks in close proximity with property lines with steep grades.
- All details and specifications will need to meet ODOT 2019 (latest revision) and City of Monroe.

▪ **TRAFFIC IMPACT STUDY**

- Per 1211.05 Gateway Blvd is a major arterial and requires median opening spacing of 650 feet.
 - For Gateway, this measurement would begin at the end of the current north bound left turn lanes. Site plan location is approximately 300 feet.
- Analysis of Developers TIS under the guidelines of 1211.04 does not warrant Full Access Location as proposed. The Analysis:
 - Did not include all future traffic in Analysis, and;
 - Does not disprove that the City's evaluation that warrants the location of a full access point at least 850' south of SR63
 - Does not account for the proposed full access point which requires a median cut which is proposed within current north bound left turn lanes.
- 1211.05 requires first access point along major arterial to be 350 feet from intersection.
 - First proposed access point on Gateway is approximately 100 feet from the SR63 intersection.
 - Proposed right in right out access on SR63 does not meet the 1211.05 requirement of 350 feet from the Gateway intersection.
 - i. It is also recommended that a tangent section be constructed east of Gateway Boulevard radius return for at least 50 feet prior to beginning the diverging taper for the right turn lane, therefore the right in right out access would be located with the code requirement of 350 feet from Gateway Boulevard. First proposed access point on SR 63 does not meet this requirement.
- 1211.05 requires spacing between access points on a major arterial (Gateway) to be 350.
 - Proposed spacing between access points on Gateway is 285 feet.
- Analysis of Site TIS does not warrant approval of site driveways.
 - The 300 ft. southbound left-turn lane proposed in the study is not included on the Site Plan.
 - i. Per the applicants own study, the proposed access location should not reduce or impede the required northbound left turn lane storage at full build out.

Since the requirements of 1211 are not met, and based on the abovementioned code requirements, Staff recommends denial of the site plan.

D. Staff Recommendation

- As Planning Commission recalls, Case No. 2021-1-1 was tabled on January 19, 2021 after a recommendation for denial by Staff due to the number of significant zoning and engineering issues that remained unresolved at the time of the meeting.
- Per the Monroe Planning and Zoning Code 1203.06(D)(4), Planning Commission must take action on a site plan application within 60 days:

(4) Step 4 – Planning Commission Review and Decision

- a) The Planning Commission shall review the site plan at a regular meeting. No special public notice shall be required for Planning Commission review or action on the site plan except for the general notice required for Planning Commission's meeting as required by state law.
- b) The Planning Commission shall either approve, approve with conditions, deny, or table the review of the application and site plan within 60 days of the determination of receipt of a complete site plan application by the Code Enforcement Officer.
- c) Within the 60 day time period, the Planning Commission, by a majority vote of the members present at the meeting, may extend the period of review for not more than 60 additional days.
- d) If the site plan is denied, the Planning Commission shall make a finding, in writing, justifying the denial of the plan and provide a copy of the findings to the applicant.
- e) The Planning Commission may attach conditions to the approval of a site plan as may be reasonably required to promote the public health, safety, and welfare.
- f) Approval of the site plan shall be indicated by a letter from the Code Enforcement Officer. The approved plan will be stamped "Approved" and dated.

- Per this section, Planning Commission may choose to approve, approve with conditions, deny, or extend the period of review for an additional 60 days.
- As outlined in this report, over the last two months, there remains significant zoning and engineering noncompliance that has yet to be resolved and/or has not shown forward progress towards compliance. 1203.06(E) outlines the criteria Planning Commission utilizes to decide on site plan applications:

(E) SITE PLAN REVIEW CRITERIA

Recommendations and decisions on a site plan shall be based on consideration of the following criteria:

- (1) That the proposed development is consistent with all the requirements of this code;
- (2) That the proposed development is in compliance with the applicable zoning district;
- (3) That the proposed development meets all the requirements or conditions of any applicable development approvals (e.g. PUD or administrative waivers);
- (4) Whether the proposed improvements preserve the character and nature of the surrounding area, including the natural characteristics of the area;
- (5) Whether the proposed improvements are constructed of unsightly, improper, or unsuitable materials;
- (6) Whether the proposed site and improvements shall have an appearance that will not have an adverse effect upon adjacent residential properties; and
- (7) Whether the proposed improvements are compatible and in harmony with the existing structures in the surrounding area.

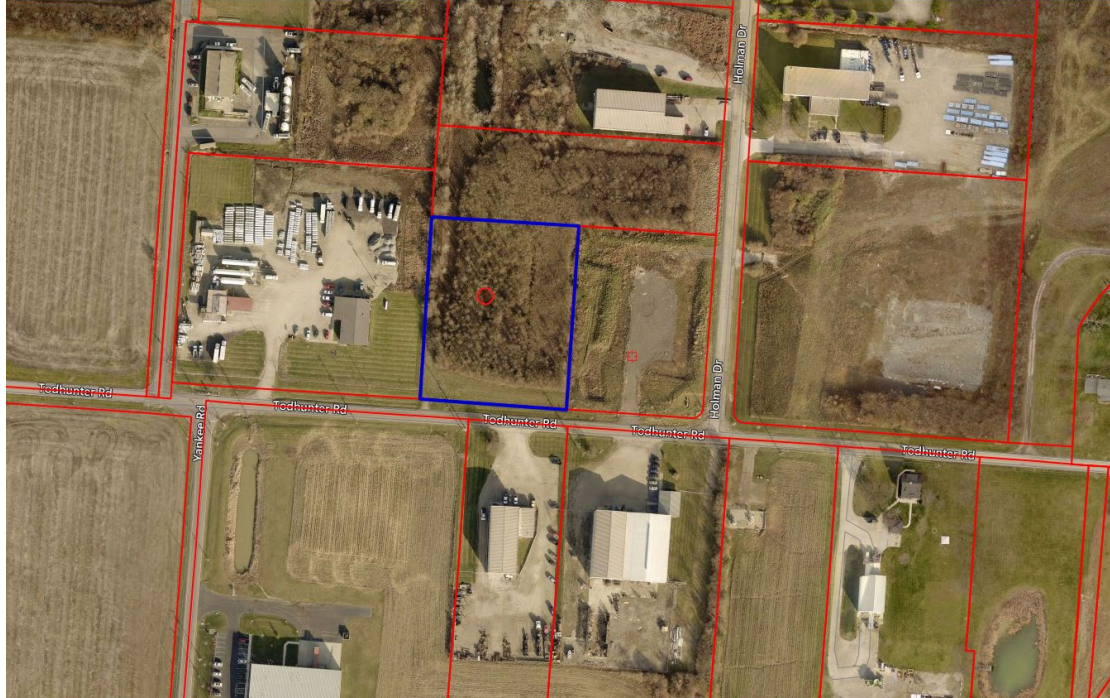
- Of the above listed criteria, 1203.06(E) (1) and 1203.06(E) (2) are most applicable to this case, as the submittal is inconsistent with a number of code requirements and is not in compliance with the zoning district.

Due to the continuing and significant outstanding issues, Staff recommends denial of the site plan application.

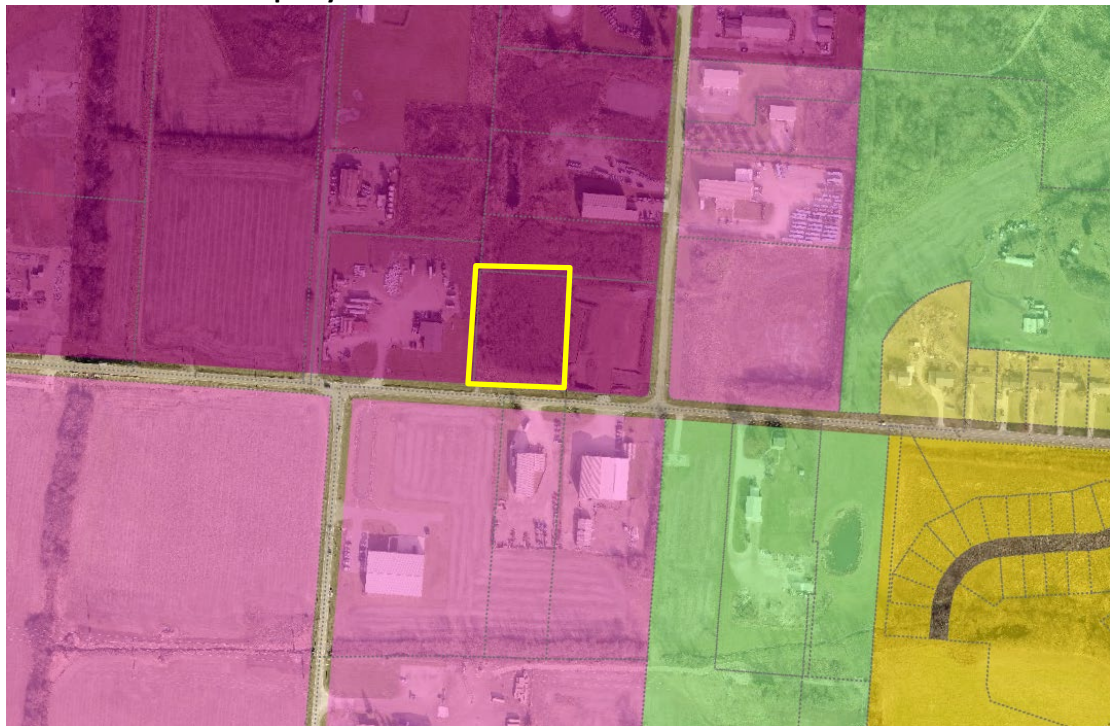
II. Case No. 2021-9-17— Consideration of a Site Plan for Barefoot Landscaping

A. Background

- RVP Engineering on behalf of Barefoot Landscaping has submitted a site plan application for property located on Todhunter Road.
- The site will contain a 12,000 square foot building for new office and warehouse space for Barefoot Landscaping.
- The property is approximately 2 acres and is presently zoned H-1 Heavy Industrial.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Westbound on Todhunter Road



Eastbound on Todhunter Road



Facing North on Todhunter Road

B. Staff Comments

- **PARKING**

- Code permits industrial uses to reduce stall side from 10 feet x 18 feet to 9x18 in industrial areas and the stall size has been requested by the applicant.
19 parking stalls have been provided within the tolerances permitted.

- **SEWALKS**

- An 8 foot sidewalk is required abutting parking or a customer entrance. The applicant has indicated a front entrance in compliance with section 1211.03 (K) regarding the front entrance area but, not on the eastern façade and parking area. Per 1211.03(K)(4) Sidewalks, at least eight feet in width, shall be provided along any facade featuring a customer entrance, and along any facade abutting parking lots. At all times, such sidewalks shall maintain a clear pedestrian passage equal to the width of the sidewalk. Additionally, such sidewalks shall connect all customer entrances and to other internal sidewalks.

A paved asphalt area separated by wheels stops is indicated but the width is not shown in the area. If eight feet wide the area would appropriately meet code regulations however, discussion about the pedestrian connectivity with Planning Commission based on ADA accessibility and with a grade (if elevated) to the main 8 foot entranceway may be necessary.

- A 5 foot sidewalk has been indicated along Todhunter Road. The applicant needs to seek further City Engineering and Duke Energy approval regarding the location of a proposed utility pole as it appears to impact the path of the sidewalk. The final location need to be updated and consistent on all plan sheets. As related to the tree lawn comments below, the pole location could potentially work if the tree lawn, as is traditionally the manner, is located adjacent to the right of way with the sidewalk behind, thus the pole would not be impacting the sidewalk area. A sidewalk connection is required from the public street

sidewalk to the building and the applicant has indicated that they will update plans to be in compliance.

- **STREET TREES**

- Per a staff request regarding potential thorny fruit production which is generally prohibited regarding street trees on the original plans, the applicant has proposed Red Sunset Red Maple 2 inch caliper and will update plans.
- Street trees are typically located in a 6 foot wide tree lawn in between the roadway and sidewalk. The applicant is proposing a location behind the sidewalk. At times, the street trees have been permitted behind the walk and Planning Commission may wish to have further discussion regarding the location as the applicant has indicated their intent was to have the sidewalk within the right of way area as is typical.

- **LANDSCAPING**

- Please indicate installation height of all shrubs/plantings in the planting schedule/legend. The schedule indicates various sizes via a gallon reference which does not meet code to ensure the minimum height is met.
- A landscape island is missing at the end of the northeast parking row adjacent to the screening fence. Please revise to meet landscaping requirement at the end of all parking rows via code section 1212.07(B)(2).
- Landscape Beds 1, 2 and 4 indicate the plants intended in text form but, do not depict locations. Please revise to detail the layout/location
- All beds need to indicate the dimension to meet minimum width (6 feet) as well as any individual landscaping plants which require a minimum of three feet of mulch in all directions.
- A minimum of 20% of the required front yard must be landscaped. Based on a 20' minimum front yard setback, this area would be approximately 1,076 SF. Please indicate compliance via dimensions listed on the landscape plan.

- **SCREENING**

- Overall the various bulk storage of the landscape business's products appear to meet screening requirement when located in the rear of the structure surrounded by privacy fencing. The applicant has indicated no rooftop mechanical units will be utilized and all ground mounted equipment will be screened. .
 - The dumpster will be located in the northwestern corner of the property behind the privacy fence.
 - The screening of the utility box on the southwestern side of the structure has been indicated in written responses and will need added to the landscape plan.

- **ARCHITECTURAL**

- The applicant is proposing Split Face Concrete Masonry Units (CMU) on the front and majority of the sides (east and west) of the structure. CMU is not a permissible type of primary masonry material which requires either brick or natural stone (see requirements detailed later). Discussion with Planning Commission is recommended to occur regarding

the architectural character of the building. Planning Commission has permitted CMU in instances where visibility is not direct to the right of way or where the character of the area may be conducive. Furthermore, the applicant is proposing concrete walls as the base material on the rear portion behind the privacy fence based on reasoning of durability in the storage yard area.

- They applicant needs to indicate via a table of the percentages of masonry (or CMU), accent materials (i.e. windows) as well as the defined entrance percentage for compliance with code regulations.
 - Front facing elevation (Todhunter Rd) is required the following:
 - i. 25% minimum primary masonry (clay, brick, natural stone).
 - ii. 15% minimum accent material (EIFS, lap siding, glass block, tile) utilized and maximum 60% secondary materials (metal) utilized.
 - iii. 15% wall area for a defined entrance, which includes a recess or extension of the building façade with an element such as an awning, portico, etc.
Please provide a calculation showing how the proposed entrance feature is 15% of the front facing wall area.
 - East and west elevations are required the following:
 - i. 25% primary masonry materials (clay, brick, natural stone), with the remaining amount being permitted up to 75% secondary materials (metal paneling).
 - North side is required the following:
 - i. May be 100% secondary materials (metal paneling).

- **LIGHTING**

- Lighting has been indicated with exception that the minimum lightening at the entrance driveway does not meet standards for safety and illumination. The applicant has indicated they will update plans to provide pole lights to meet standards

C. Department Comments

- **Fire Department:**
 - Fire reserves the right for further review with formal plan building permit submittal.
 - Clarification on the use classification the building may be. If designated as storage, a sprinkler may be required.
- **Police Department:** No comment.
- **Engineering/Public Works Department: (since the time of the comments below, revision have been submitted and final review by Engineering is pending)**
 - C100: No comments at this time
 - C200: No comments at this time
 - C300:
 - Revise drive apron to a commercial concrete apron per City Std 300-9 (w sidewalk)
 - 18" storm at driveway, please revise to RCP CI 4 min
 - 12" storm at detention outlet, please review if RCP should be used due to ground cover requirements
 - Verify meter size for water service
 - C301:

- 12" storm at detention outlet, please review if RCP should be used due to ground cover requirements
- City will fully review storm sewer when drainage & pipe calculations are provided
- Will any onsite basins be designed with a sump for Wq?
- C400:
 - SWP3 items are also shown on this grading plan, may require additional labeling.
 - Design slopes should be shown on the basin
 - No overflow structure noted, will fully review when drainage and pipe calculations are provided.
 - Detention basin, does it also act as a Wq basin?
- C500:
 - SWP3 will require full review, this lot will also require a SWP3 document set (booklet) provided for review

D. Staff Recommendation

- Staff recommends approval of the site plan application with the following conditions:
 - The architectural alternates, specifically CMU, be discussed in the context of minimum Code requirements as outlined in the staff report. Further if Planning Commission desires to allow the poured concrete base area walls, staff would recommend that the east and west side be painted to compliment the CMU color.
 - A revised photometric plan will be submitted to show lighting across the site to meet minimum Code requirements as approved by staff.
 - All landscaping must meet all minimum species and size requirements and detailed appropriately on the plan.
 - Discussion and final approval regarding the location of the street tree lawn and sidewalk locations.
 - As a reminder, all ground-mounted equipment must be fully screened.
 - All other staff comments be addressed and subject to final approval via the respective department.
 - Digital files compatible with City GIS be submitted.

III. Case No. 2021-8-15— Consideration of a recommendation to City Council regarding the draft recommendations and documents for the update to the City Comprehensive Plan

- A.** At the August 17 Planning Commission meeting, there was a public hearing and presentation by REA summarizing the draft recommendations of the Advance Monroe comprehensive plan. Members of the public attended and several spoke for the record regarding the plan. Planning Commission continued the Public Hearing until the September meeting to allow for more Public Comment opportunities.
- We have heard from other property owners since that time and their comments are attached to this report.
 - Staff would prefer a recommendation to adopt the plan as written or with any suggested changes to forward to City Council. However, realizing that with the continuation of the Public Hearing to September 21, more time may be needed to analyze and consider any possible additional comments that may be received and ultimately a recommendation may not be forwarded next Tuesday and could then possibly occur at the October 19th, 2021 meeting.

B. Background

- A Comprehensive Plan is a community driven plan that articulates the long-term goals and objectives for how it wishes to grow and develop. It guides policy and decision-making for development, identifies potential locations for future development by type and intensity, as well as overall transportation, recreation, and amenity improvements.
- In practical application, the City utilize this Plan as a community vision compass when considering various applications related to development, from land use changes to redevelopment projects. The Plan can guide staff in prioritization of future projects, capital improvements, and budgeting.
- While the Plan intends to give a 20-25 year look into the future, it should be continually reviewed and updated as necessary to ensure the City's goals continue reflect the community's needs.
- Per City Charter, Planning Commission has the power and duty to prepare the comprehensive plan for recommendation for adoption to City Council.

Section 9.12 - Powers and Duties of Planning Commission.

The Planning Commission shall conduct studies and surveys and prepare plans, reports and maps relative to the overall planning of the growth, development and redevelopment of the Municipality, and may make such recommendations relative thereto, to the Council as it feels are in the best interests of the Municipality. The Planning Commission shall continuously review and report to the Council its recommendations concerning the Municipality's capital improvement programs, subdivisions, platting and zoning ordinances and regulations. The Planning Commission shall cooperate with other governmental or private planning agencies to secure the maximum benefit to the Municipality of the work, studies, surveys and reports of such other planning agencies. Other powers and duties of the Planning Commission shall include those established by the Council by ordinance or resolution, but until such ordinances or resolutions shall be passed, it shall possess such other powers and duties as are provided by the general laws of Ohio, to the extent such general laws do not conflict with the provisions of this Charter.

- For over two years, the City and professional consultant, Rundell Ernstberger and Associates (REA), have worked together through research and information gathering, public input and community engagement phases, stakeholder feedback, and Steering Committee meetings to present the draft maps, text, and recommendations before the board now. The summary handout provided by REA outlines this process as well as the format of the draft plan.



Via Email jonesk@monroeohio.org

September 17, 2021

Ms. Kameryn Jones
City of Monroe
233 South Main Street
Monroe, OH 45050

RE: Comprehensive Plan

Dear Kameryn:

On behalf of Corridor 75 Park, Ltd I am writing as a follow-up to the recent public hearing on the proposed Comprehensive Plan. It would appear that the consultant has much more work to do and questions to answer prior to any more discussion is held again. Please note that no one debated the idea of updating the existing comprehensive plan but not one person in the audience supported this proposed plan. The angst is over the lack of understanding of what the major land owners see as problematic.

By her own admission that a Plan should be updated every three years, the group that spoke Tuesday agrees even presenting an expert in the local market analysis offering how to obtain current and relative data. Sadly, some of that same updated current data – proving the old data relied upon by the consultant was out of date, has already been shared with the both the City Law Director and City Manager but there was no indication during the meeting that it was considered. While the Planning Commission said it was aware that the more recent data was available, simply being aware of the more recent data but failing to integrate it into a revised proposed plan and failing to analyze it and then make the revised proposed plan available to the public for comment fails to comply with the public notice requirements required by the City to be followed in order to adopt a proposed comprehensive plan. Continuing down this flawed path will only leads to protracted litigation for the City.

Certainly, Monroe deserves the best research possible and the Planning Commission swore to take an oath and it cannot fulfill that oath making decisions based upon either: (i) old and out of date data; or (ii) without notifying the public of the revised plan based upon the current more reliable data. Covid has caused much stress on all businesses and families. Yet, it should not be used as an excuse not to provide accurate data as it is so readily available.

Another disturbing comment made by the consultant was how her company reached out to many landowners when, in reality, this does appear not an accurate representation. From the landowners represented at the meeting, none had been contacted. Likewise, there is no evidence that none of

their concerns were even considered. Just as the consultant tried to talk with residents, it needs to meet with its corporate citizens and industrial and commercial landowners to listen to their concerns and issues. The consultant needs to know the history before it simply makes so many blanket statements without the input from the landowners.

Monroe needs to emphasize to this consultant that the city depends upon the commercial and industrial landowners and developers and that these parcels are the lifeblood and the future of an economically stable city. Simply coming up with blanket designations of future land use categories without performing any highest and best use analysis is recipe for failure. It is from these lands where jobs and real estate improvements are made and from which the city derives much of its income. The consultant's theories are those of destitution and not resolution. As mentioned in the meeting, Monroe must capitalize on all the good the community has to offer and work as a community to find common ground to resolve outstanding issues.

The idea of using commercial or industrial land as shown in her presentation for "mixed-use residential" or office and hi tech research and development is truly not applicable for Monroe. Perhaps in the downtown area where they exist now, but developers will tell you that there is no market for living quarters above retail establishments. Why? We are blessed with an abundance of land in the Midwest. For communities such as Chicago, New York, Philadelphia and other major urban areas, it makes sense. Not for Monroe. Liberty Center is a prime example of how this mixed use approach is a challenge. Monroe needs to ask where has this been kind of proposed development been successful in communities similar to Monroe before accepting the notion that this kind of development should be adopted.

The plan is flawed because it is not designed nor intended to alleviate pent up demand but instead preclude the current market demand that exist and proposed land uses where there is no demand nor possible growth for Monroe.

The spokesperson made mention of how residents were upset with industrial development coming in adjacent to their neighborhood. The city must stress to those who complain how the zoning for industrial uses was in place long before their homes were built and not condemn the industrial businesses that generate the necessary tax revenue to keep the city afloat. But curiously enough, many of the industrial and commercial zones are proposed as residential in the Plan. This makes one wonder, which direction is the consultant trying to lead the city? Why introduce residential on or next to industrial districts when such a fuss had been made by residents. Currently the code says there must be a 200' buffer between industrial districts and residential. So, the question of where does this 200' area come from if residential is introduced on or adjacent to existing industrial. This suggests a taking of land and someone would need to pay. Have the consultant address that as we all need a clear understanding.

Kameryn Jones
September 17, 2021
Page Three

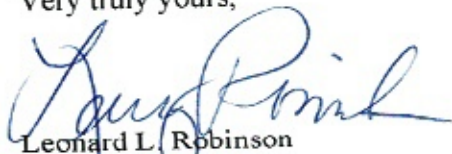
One item glossed over was with the increase in population where would the additional city services come from? Fire and police would be increased dramatically as well as the increase public utilities, street maintenance, and other city services would also grow by a large amount. We all can agree that residential development costs more in terms of city services than a city receives from property taxes. Where would the additional needed funds come from? The only logical answer is from the industrial and commercial developments.

We all believe Monroe is a strong, vibrant community with much to offer in both residential and commercial and industrial opportunities. Obviously, with the nearly 25% increase in population shown in the latest census and the growth in the commercial and industrial markets this is borne out. She mentioned that there was "uncontrolled growth" and this is anything but accurate. Monroe has been careful and diligent in ensuring that the new developments meet certain quality standards. With this, though, there is the underlying feeling which was expressed by some that Monroe is not facing reality in allowing certain industrial developments because "there are enough" of certain buildings. How can a city legitimately make such a statement based upon feelings? Personal feelings by city leaders should not trump sound business policies and decisions.

The consultant needs to understand where Monroe has been before she can predict the future. She needs to recognize the competition Monroe faces in the region which includes Dayton and Northern Kentucky. Monroe has lost business due to, whether real or perceived, business attitudes that must be addressed if the city is to be sustainable. Competition for new business is fierce and Monroe competes daily with every other community in the tri-state region. If a prospect for a business site looks at the future land use plan, we can say with certainty, the proposed land use map would scare the prospect(s) away to a community that shows itself to be more welcoming to businesses.

We are all in this for the same reason. We all want to be successful in what we do and help the city continue to be a vibrant, warm and welcoming community to all. If the comprehensive plan would remove the binders and look at the quality and the successes the city has enjoyed to date, perhaps the plan would reflect that and, look to enhance, not vastly attempt to change what the city already is; a proud community with great people, great businesses and a great location.

Very truly yours,



Leonard L. Robinson
President & Broker

From: [Kameryn Jones](#)
To: [Kevin Chesar](#); [Alaina Hagenseker](#)
Subject: Comprehensive Plan Feedback
Date: Friday, September 10, 2021 5:00:44 PM
Attachments: [image002.png](#)
[image003.png](#)

I want this added into the packet and/or presentation as necessary:

Bruce Taylor, 6092 Niederlander, property owner.

- Staff spoke with this resident, who lives on Niederlander and also owns property at 3410 Carol Ann, regarding the Comprehensive Plan particularly as it relates to the Zecher property.
- Mr. Taylor, as previously mentioned in other email correspondence, reiterated he did not want a “three street” and did not desire any roadway connection through the Zecher property to connect to Yankee through Made Industrial Park.
- Mr. Taylor is also against industrial development in this area.
- Mr. Taylor is generally supportive of the Rural Residential classification and would like to see some of the existing forested areas remain intact as a nature preserve of some kind.

Kameryn Jones

Planner

Office: 513.539.7374 ext.1020

www.monroeohio.org



This message may contain privileged or confidential information and is only intended for the use of the intended recipient. If you are NOT the intended recipient, dissemination is strictly prohibited

From: [Janet Majors](#)
To: [Kameryn Jones](#)
Subject: Master Plan Update
Date: Thursday, August 26, 2021 8:02:16 AM

Kameryn , I was able to meet with Donald and Elaine Garver - the other owners of the Majors/ Garver property on 63 . All of the property owners are not supportive of the multi family housing on the property . We prefer to keep all of the property on the ring road area on 63 all commercial at this time . Thanks for meeting and reviewing the plan .
Janet
Sent from my iPhone



Application for Site Plan Review

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroehio.org

For Staff Use Only

Submittal Date:

Date Application Determined Complete:

Date of Planning Commission Review:

Fee Paid: 720.00

Staff Initials: AD

Application/Case Number: 20201139

Site Plan Review Information

1. The site plan review procedure and applicability requirements are established in Section 1203.06 of the Monroe Planning and Zoning Code.
2. Prior to submitting this application, you are required to meet with staff from the Development Department for a pre-application conference. Please contact the department to schedule the conference.
3. The Monroe Planning Commission reviews all site plan review applications unless specifically exempted in Section 1203.06(B)(3).
4. Approval of a site plan does not constitute approval to begin construction. Applicants with approved site plans are required to submit all applicable zoning permit and building permit applications.
5. Unless an alternative timeline is approved by the Planning Commission, construction related to the approved site plan must begin within one year of the site plan approval or the approval shall be voided. See Section 1203.06(H) for additional information.

Basic Project and Site Information

Project Address: Todhunter & Holman Ave. Approx 840 Todhunter

County: ☒ Butler ☐ Warren Total Lot Area: 2.065 Ac

County Tax Parcel ID: C1800-01-000-027

Project/Development Name: Barefoot Landscaping

Existing Zoning District: H-1

Project Type: ☒ New Building ☐ Expansion of Existing Structure
☐ Addition to Site (e.g., parking, landscaping, lighting, etc.)

Applicant Information

Applicant Name: RVP Engineering, LLC

Contact Person: Robert, V. Painter, PE

Contact Address: 6230 Centre Park Dr. Ste C, West Chester, OH 45069

Contact Phone Number: 513-823-2175

Contact Fax Number: na

Contact E-Mail: rob.painter@RVPengineering.com

Property Owner Name: AEN Holdings, LLC

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Project Address or Tax Parcel ID: C1800-001-000-027

Additional Project Information

1) Please describe, in detail, any existing uses and/or buildings on the project site.

vacant land

2) Please describe, in detail, the proposed uses and the proposed development. Provide a summary of the square footage related to each use and/or the total number of proposed dwelling units.

New office and warehouse for Barefoot Landscaping Company. 12,000 sf building.

3) What are the anticipated start and completion dates for the project?

Start Date: 8/30/21

Completion Date: 12/31/22

4) What is the estimated value (in dollars) of the proposed property improvements?

\$750,000

5) Check any relevant procedural reviews applicable to this project:

☐ Conditional Use ☐ Variance ☐ Administrative Waiver ☐ Alternative Equivalent Compliance

If you checked any of the above procedures, please provide specific details on what you are seeking to have approved through the applicable review procedure? Provide the application/case numbers for any related applications.

Project Address or Tax Parcel ID: C1800-001-000-027

Additional Project Information Continued

6) Does the project require any addition permits, licenses, or reviews by outside agencies (e.g., Butler or Warren County, ODNR, OEPA, etc.). ☒ Yes ☐ No If yes, please describe below.

Butler County water & sewer

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this application and any subsequent zoning permit or other review applications.

Print Name: Robert V. Painter

Signature:



Date: 7/20/21

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project. If the site plan review is for multiple properties, a signature from each property owner is required.

Print Name: Stephen Nowak

Signature:



Date: 7/20/21

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist

Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.

Digital Submittal Requirements

☐	All document applications shall be submitted in an electronic format compatible (Adobe PDF) with the city's computer systems.
☐	All site plan materials, in map format, shall be submitted in a format compatible with the city's Geographic Information Systems (i.e. shapfile, geodatabase, or dwg) and shall be projected into NAD 1983 Ohio State Plane South - FIPS 3402 coordinate system using US Survey foot units.

General Information

☐	Site Plan Review Application form
☐	Application fee
☐	Copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, on full-sized copies unless on 11" x 17" or otherwise noted
☐	Any additional information determined to be necessary by the Development Department

Vicinity Map (Scale may be smaller than 1" = 100')

☐	Date, north arrow, scale, and a legend for all symbols
☐	Project location
☐	All surrounding properties, streets, and corporation limits within a minimum of 500' of the outer boundaries of the project site

Existing Conditions Map

☐	All existing zoning district classifications on the site and adjacent to the site
☐	Parcel boundaries of the site and all parcels adjacent to the site
☐	Names of all subdivisions and land owners owning lots adjacent to the site
☐	Existing streets within 200' of site with names and centerlines
☐	Existing watercourses and bodies of water including any applicable flood hazard areas
☐	Planned road network (including street names if available) within 500' of site (if different from existing streets)
☐	Existing land uses on the site and adjacent parcels (including across any streets)
☐	Railroad infrastructure and rights-of-way
☐	All existing easements (including drainage) with dimensions and designation as to type
☐	Location of existing curb cuts, private streets, parking and loading areas, pedestrian walks, lighting facilities, and outside trash storage facilities

Site Layout Plan

☐	Lot numbers and sizes
☐	Square footage (gross) of existing buildings to remain and proposed buildings
☐	Required front, side, and rear yard width/setbacks
☐	All existing and proposed easements, including dimensions and type (e.g., drainage, access, public utility, etc.)
☐	Location, width, and classification of all existing and proposed streets in the development
☐	Location of any outdoor storage area(s) that require screening
☐	Locations of all proposed external street connections (including street stubs)
☐	Location, width, and materials of all sidewalks, trails, and paths (including connections to the public sidewalk system and adjacent developments)

Submittal Requirement Checklist

Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.

Parking Plan and Traffic Control Plan

☐	Traffic impact study, if required
☐	Notation of total number of parking spaces, loading spaces, and stacking spaces required by ordinance
☐	Total number, dimensions, and location of parking spaces proposed off-street, on-street, and within parking structures, including information on handicapped parking spaces
☐	Total number of parking spaces to be provided through approval of shadow parking, off-site parking, or shared parking alternatives
☐	Number, location, and size of loading spaces provided
☐	Number and location of stacking spaces provided
☐	Location, arrangement, and dimensions of vehicular entrances, exits and parking lot aisles
☐	Location of pedestrian walkways and crossings
☐	Number and location of pervious parking spaces, if provided
☐	Proposed traffic control devices (in accordance with the Manual on Uniform Traffic Control Devices)
☐	Signing and striping plan
☐	Fire lanes and areas of parking prohibition
☐	Location of all sight triangles

Stormwater Management Sheet and Drainage Plan

☐	Drainage basin(s) where the site is located and drainage patterns
☐	Existing and proposed locations, types, and sizes of drainage structures and calculations demonstrating how post-development runoff will not exceed pre-development runoff
☐	Erosion and siltation control measures and devices with narrative, including location of outfall for stormwater to proper catch basin (indicated sizes and slopes of existing pipes)
☐	Drainage computations from proposed development to proper pickup point
☐	All proposed elevations and slopes for grading
☐	Description of maintenance procedures for stormwater management devices

Utilities Plan (May be included on Site Layout Plan)

☐	Existing and proposed locations, types, and sizes of all water, sanitary sewer, storm sewer, gas, telephone, power and other utility lines and meters, easements and any other utilities affected by the site (includes above ground utilities and grades and computations where appropriate)
☐	Notation that all new utilities (including cable television, electrical, natural gas, sewer, telephone, and water lines) shall be placed underground
☐	Locations where existing overhead utilities will be relocated underground (if applicable)
☐	Identification of any connections, above or below ground, that are located within the City of Monroe's right-of-way

Landscaping Plan

☐	Exact locations, dimensions, and counts of existing and proposed landscape materials provided within and around vehicular use areas, including the size of landscaping islands
☐	Exact locations and counts of existing and proposed landscape materials provided within any required buffer areas including the type of buffer used, the buffer width provided, the proposed configuration of trees, shrubs, and screening features
☐	Location, size, and species of all existing and proposed street trees
☐	The total number of trees and shrubs provided, and the total number of different species planted
☐	Notations for any existing landscape within sight triangles indicating maximum shrub height or tree canopy height

Submittal Requirement Checklist

Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.

☐	Location and amount of credit towards landscape material requirements provided by existing landscaping
☐	Demarcation of existing trees to be removed
☐	Location and amount of all open space set-aside areas by development phase
☐	Details of all open space improvements and common features (e.g., fountains, benches, street furnishings, play equipment, etc.)
Architectural and Building Elevation Plans	
☐	Color elevations for each building side facing a public street, alley, public open space, or public building, illustrating compliance with the architectural standards of the applicable zoning district
☐	Dimensions, in feet, of all façade recesses or similar fenestration
☐	Preliminary floor plan for principal buildings
☐	Height of all buildings in feet, including number of building stories
☐	Accessory structure size(s), if applicable
☐	Accessory structure height(s), if applicable
☐	Description of the type of material(s) used on each façade elevation
☐	Illustrative elevation of all fencing, walls, and retaining walls visible from a street, open space, or public building that will be used for buffering or screening of adjacent residential uses, dumpsters, service structures, utilities, parking areas, loading areas, and similar activity areas
Lighting Plan	
☐	Location, type, and height of all lighting fixtures (including street lights)
☐	Details on colors and materials for all lighting fixtures
☐	Grid or photometric diagram showing maximum illumination values at the lot line, and uniformity ratios within parking lots, measured in footcandles
Signage Plan	
☐	All sign areas, dimensions and height (including shape)
☐	Position of all signs in relation to the use being advertised (may be identified on the site layout plan)
☐	Location and style of all address numbers, building numbers, or allowable building identifications
☐	Plan of illumination for the sign including information on message timing for electronic message centers
☐	Landscaping around base of sign (may be identified on the landscaping plan)

BAREFOOT LANDSCAPING

CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26 , TOWN 3, RANGE 3

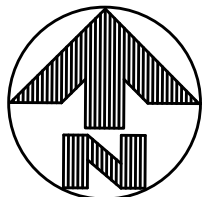
GENERAL NOTES

- ALL PLANS & CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT "RULES AND REGULATIONS" OF CITY OF MONROE, BUTLER COUNTY, AND APPLICABLE OHIO DEPARTMENT OF TRANSPORTATION STANDARDS.
- ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF CITY OF MONROE AND BUTLER COUNTY. WHEN IN CONFLICT, CITY OF MONROE REQUIREMENTS SHALL PREVAIL.
- CONTRACTOR SHALL IMPLEMENT ALL SOIL AND EROSION CONTROL, PRACTICES REQUIRED BY CITY OF MONROE, BUTLER COUNTY, AND THE OHIO EPA.
- THE CONTRACTOR IS TO PERFORM ALL INSPECTIONS AS REQUIRED BY THE OHIO EPA FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND FURNISH OWNER'S REPRESENTATIVE WITH WRITTEN REPORTS. OWNER WILL OBTAIN OHIO EPA PERMITS.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS.
- PROTECTION OF EXISTING TREES AND VEGETATION: PROTECT EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE. EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES AND VEGETATION TO BE LEFT STANDING.
- CONTRACTOR TO REMOVE TREES AND CLEAR AREAS AS NECESSARY TO PERFORM ALL SITE WORK INCLUDING GRADING AND UTILITY WORK.
- COMPACTED FILLS ARE TO BE MADE TO A MINIMUM OF THREE FEET ABOVE THE CROWN OF ANY PROPOSED SEWER PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID SEWERS. ALL FILLS SHALL BE CONTROLLED, COMPACTED, AND INSPECTED BY AN APPROVED TESTING LABORATORY OR AN INSPECTOR FROM THE APPROPRIATE GOVERNMENTAL AGENCY.
- ALL FILL UNDER PAVEMENT SHALL BE COMPACTED TO THE GEOTECHNICAL ENGINEERS RECOMMENDATIONS AND THE SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR BALANCING THE SITE EARTHWORK BY IMPORTING OR EXPORTING AS NECESSARY TO ACHIEVE DESIGN GRADES AND SPECIFICATIONS.
- ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH ODOT ITEM 659.
- ADJUST ALL EXISTING CASTINGS AND CLEANOUTS WITHIN PROJECT AREA TO GRADE AS REQUIRED.
- ALL ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS, UNLESS OTHERWISE NOTED.
- ALL STORM STRUCTURES ARE ODOT TYPES UNLESS OTHERWISE INDICATED.
- ALL PROPOSED STORM SEWERS, SURFACE OR OTHER DRAINAGE FACILITIES ARE TO BE PRIVATE AND MAINTAINED BY THE OWNER.
- STORM SEWER PIPE LABELED "STM" SHALL BE ONE OF THE FOLLOWING: PVC SDR-35, PVC PROFILE PIPE PER ODOT ITEM 707.42, HIGH DENSITY POLYETHYLENE PER ODOT ITEM 707.33, ALUMINIZED CORRUGATED METAL, ODOT ITEM 707.01, 707.02, OR REINFORCED CONCRETE PIPE, ODOT ITEM 706.02 CLASS IV. STORM SEWER PIPE LABELED "RCP" SHALL BE REINFORCED CONCRETE PIPE, ODOT ITEM 706.02 CLASS IV. ALL STORM IS TO BE INSTALLED PER ODOT ITEM 611. ALL STORM PIPE USED MUST HAVE A MANUFACTURER SPECIFIED FRICTION FACTOR OF 0.013 (n=0.013) OR LESS.
- ALL CATCH BASINS IN THE PAVEMENT OR CURB ARE TO HAVE 4" PERFORATED UNDERDRAINS EXTENDING 12 LF FROM THE CATCH BASIN IN EACH UPHILL DIRECTION.
- ALL CATCH BASINS AND MANHOLES WITH A DEPTH GREATER THAN 4'5" SHALL BE PROVIDED WITH DUCTILE IRON, CAST ALUMINUM, OR STEEL REINFORCED PLASTIC STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 611.
- DISTANCES SHOWN FOR BOTH SANITARY AND STORM SEWER PIPES ARE MEASURED FROM CENTER OF STRUCTURE. CONTRACTOR RESPONSIBLE FOR ACTUAL FIELD CUT LENGTH. COORDINATES FOR STORM & SANITARY STRUCTURES ARE SHOWN TO THE CENTER OF STRUCTURE.
- ROOF DRAINS, FOUNDATION DRAINS AND ALL OTHER CLEAR WATER CONNECTIONS TO THE SANITARY SYSTEMS ARE PROHIBITED.
- ALL WATERMAIN CROSSINGS SHALL MAINTAIN A VERTICAL SEPARATION OF 18" MINIMUM. SANITARY SEWER SHALL BE LOCATED A MINIMUM OF 18" BELOW WATERMAIN AT ALL CROSSINGS. WATERMAIN SHALL BE LOCATED A MINIMUM OF 10" HORIZONTALLY FROM ANY SANITARY SEWER. ALL MEASUREMENTS SHALL BE TAKEN FROM OUTSIDE OF SEWER PIPE TO THE OUTSIDE OF WATERMAIN PIPE. ONE FULL LENGTH OF WATERMAIN PIPE SHALL BE LOCATED AT ALL CROSSINGS TO ENABLE BOTH JOINTS TO BE LOCATED AS FAR FROM SEWER AS POSSIBLE. ALL WATER SHALL HAVE A MINIMUM OF 4" OF COVER.
- THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS. IF THERE ARE ANY CONFLICTS NOTIFY THE ENGINEER IMMEDIATELY.
- ANY FIELD TILE CUT IN EXCAVATION WHICH DRAINS AN OFFSITE AREA MUST BE TIED INTO THE STORM DRAINAGE SYSTEM.
- FORTY-EIGHT HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: THE OHIO UTILITY PROTECTION SERVICES (OUPS), AND ALL OTHER AGENCIES WHICH MAY HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NON-MEMBERS OF OHIO UNDERGROUND PROTECTION, INC.
- CONTRACTOR TO REMOVE & REPLACE PAVEMENT AS SPECIFIED.
- SITE SIGNAGE AND STRIPING SHALL BE IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT AND/OR FACE OF CURB, UNLESS OTHERWISE NOTED.
- ALL PARKING SPACES ARE TO BE 10' X 18', UNLESS OTHERWISE NOTED.

SHEET INDEX	
PAGE	TITLE
C100	GENERAL NOTES AND DETAILS
C200	EXISTING CONDITIONS
C300	LOCATION AND UTILITY PLAN
C301	STORM PROFILES
C400	GRADING PLAN
C500	EROSION CONTROL NOTES & DETAILS
L-1	LANDSCAPE DETAILS
PM-1	PHOTOMETRIC SCHEMATICS
A-1	ARCHITECTURAL DETAILS



VICINITY MAP
NOT TO SCALE



2021 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS PROJECT UNLESS OTHERWISE SPECIFIED. WHEN IN CONFLICT, THE CITY OF MONROE AND BUTLER COUNTY REQUIREMENTS SHALL PREVAIL.

UTILITIES NOTIFICATION

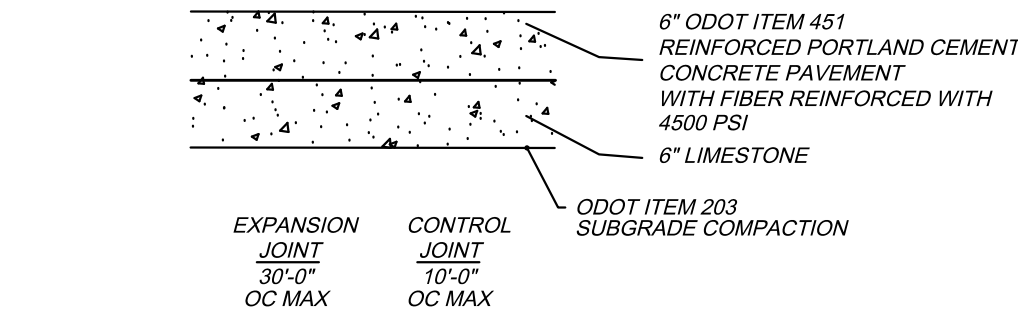
AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN ON THE PLAN.

THE OWNER OF THE UNDERGROUND FACILITY SHALL, WITHIN 48 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS), MARK THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE AND THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.

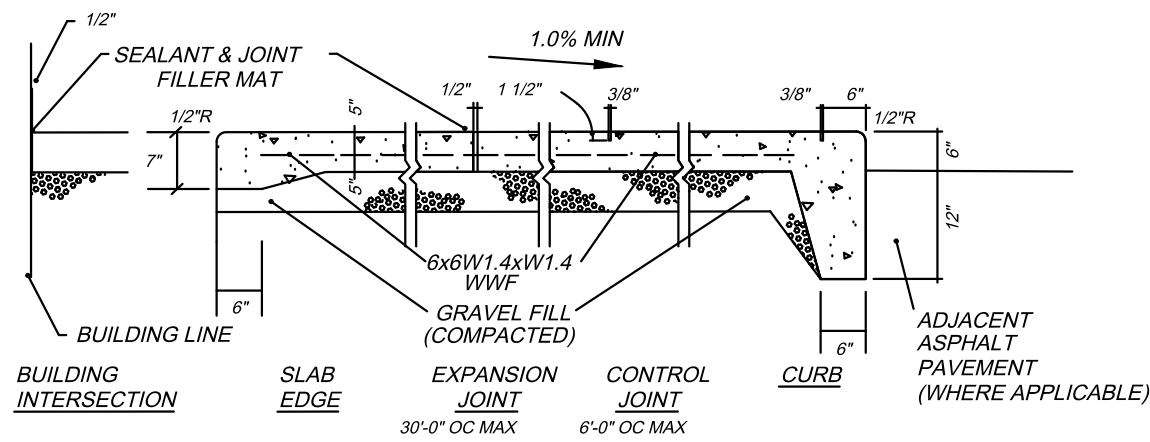


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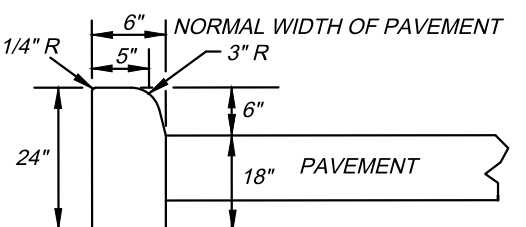
UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND MAY NOT BE INCLUSIVE, PRECISE LOCATIONS AND THE EXISTENCE OR NON EXISTENCE OF UNDERGROUND UTILITIES CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY.



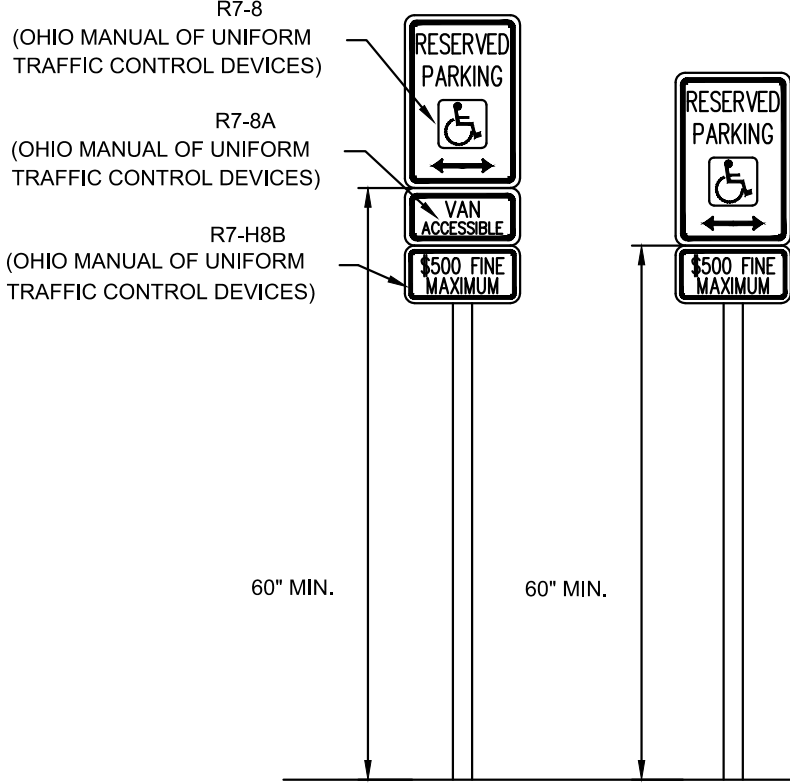
1
C100
CONCRETE PAVEMENT SECTION
N.T.S.



2
C100
TYPICAL EXTERIOR CONCRETE SLAB WALK
N.T.S.



BARRIER CURB (ODOT TYPE 6)
N.T.S.



NOTE: ONE PARKING SPACE MINIMUM SHALL BE DESIGNATED AS "VAN ACCESSIBLE". LOCATION AS NOTED ON THE DRAWINGS.

ONE SIGN TO BE INSTALLED AT EACH ACCESSIBLE PARKING SPACE

ACCESSIBLE PARKING SIGN DETAIL
N.T.S.

GENERAL NOTES:
1. U-TYPE FLANGED STEEL SIGN POST SET IN EARTH, IF OUTSIDE PAVEMENT EDGE, OR IN CONCRETE, IF WITHIN PAVEMENT, TO A MINIMUM DEPTH OF 3'-0".

R7-8 NOTES:
1. 12" X 18" X 16 GA. STEEL SIGN
2. GREEN LETTERING, BORDER, AND ARROW WITH WHITE BACKGROUND. WHITE HANDICAP SYMBOL IN BLUE BOX.

R7-8A NOTES:
1. 12" X 6" X 16 GA. STEEL SIGN
2. GREEN LETTERING AND BORDER WITH WHITE BACKGROUND.

R7-H8B NOTES:
1. 12" X 6" X 16 GA. STEEL SIGN
2. GREEN LETTERING AND BORDER WITH WHITE BACKGROUND.



REVISIONS

NO.	DESCRIPTION	DATE

BAREFOOT LANDSCAPING
CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26, TOWN 3, RANGE 3

GENERAL NOTES AND DETAILS

SCALE:
DATE: 07/26/19
DRAWN: JGR
DESIGNED: JGR
CHECKED: RVP
XREF:
JOB NO.: 19036

Page

C100



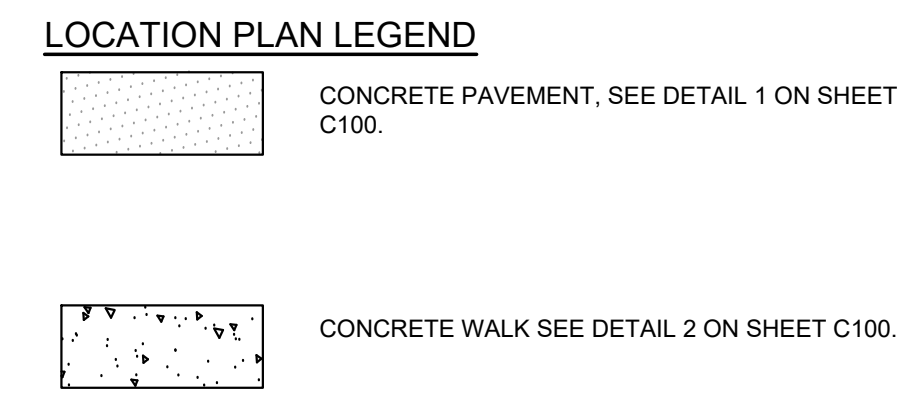
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9, PG 328
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REVISIONS									

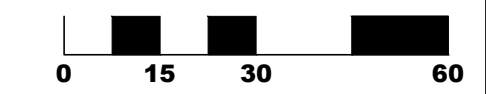
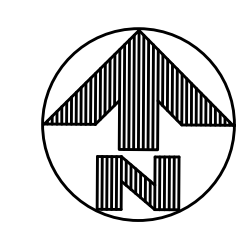
BAREFOOT LANDSCAPING
CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26, TOWN 3, RANGE 3
EXISTING CONDITIONS

SCALE:
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STORM SCHEDULE	
CB-4 ODOT CB No. 2-2B N 537281.91 E 1435984.76 GRATE=664.45 INV OUT=661.33 (15") SE INV IN=661.33 (12") W	CB-7 ODOT CB No. 2-2B N 537285.59 E 1435911.56 GRATE=664.55 INV OUT=661.55 (12") E
MH-5 ODOT MH No. 3 N 537240.33 E 1436002.81 GRATE=665.36 INV IN=661.19 (15") NW INV OUT=661.19 (15") SE INV IN=661.19 (12") E	HW-2 ODOT HEADWALL N 537070.74 E 1435792.25 INV IN=659.06 (12") NE
CB-4 ODOT CB No. 2-2B N 537180.49 E 1436002.80 GRATE=664.18 INV OUT=661.00 (15") SW INV IN=661.00 (15") NW	YD-9 YARD DRAIN N 537234.88 E 1436007.79 GRATE=663.03 INV OUT=661.30 (12") W
CB-5 ODOT CB No. 2-2B N 537069.10 E 1435979.78 GRATE=663.88 INV IN=660.45 (15") NE INV OUT=660.45 (18") NW INV IN=660.45 (12") NE	YD-10 YARD DRAIN N 537097.03 E 1436017.07 GRATE=662.45 INV OUT=660.59 (12") SW
MH-2 ODOT MH No. 3 N 537070.74 E 1435964.97 RIM=664.30 INV IN=660.45 (18") SE INV OUT=660.40 (18") W	GUTLET ODOT CB No. 2-4 N 537107.74 E 1435865.20 GRATE=664.90 INV OUT=659.26 (12") SW
HW-1 ODOT HEADWALL N 537104.55 E 1435887.87 INV IN=660.00 (18") E	

PROPOSED SITE TABLE	
PARKING SPACES	13
HANDICAP ACCESSIBLE SPACES	1
BUILDING SQUARE FOOTAGE	12,000
NUMBER OF OFFICES/FLOORS	3
FRONT SETBACK	20'
REAR SETBACK	10'
SIDE SETBACK	10'



NOTE:
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REVISIONS

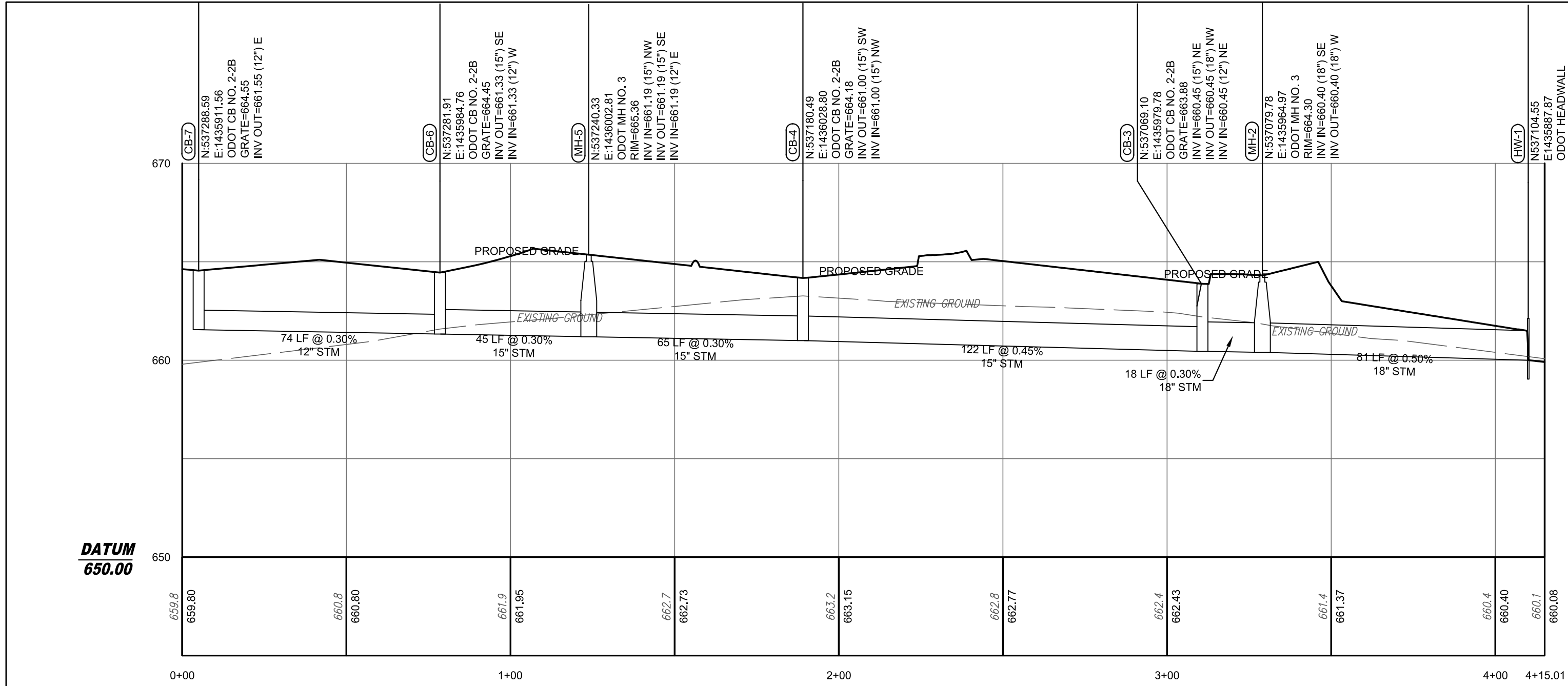
BAREFOOT LANDSCAPING
CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26, TOWN 3, RANGE 3

LOCATION AND UTILITY PLAN

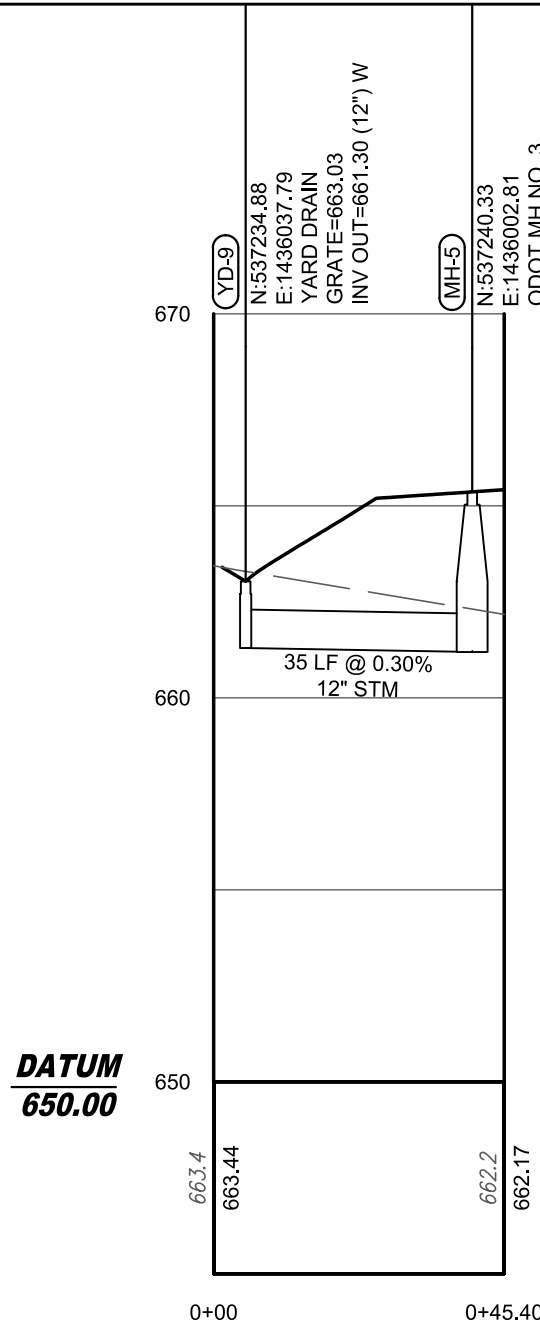
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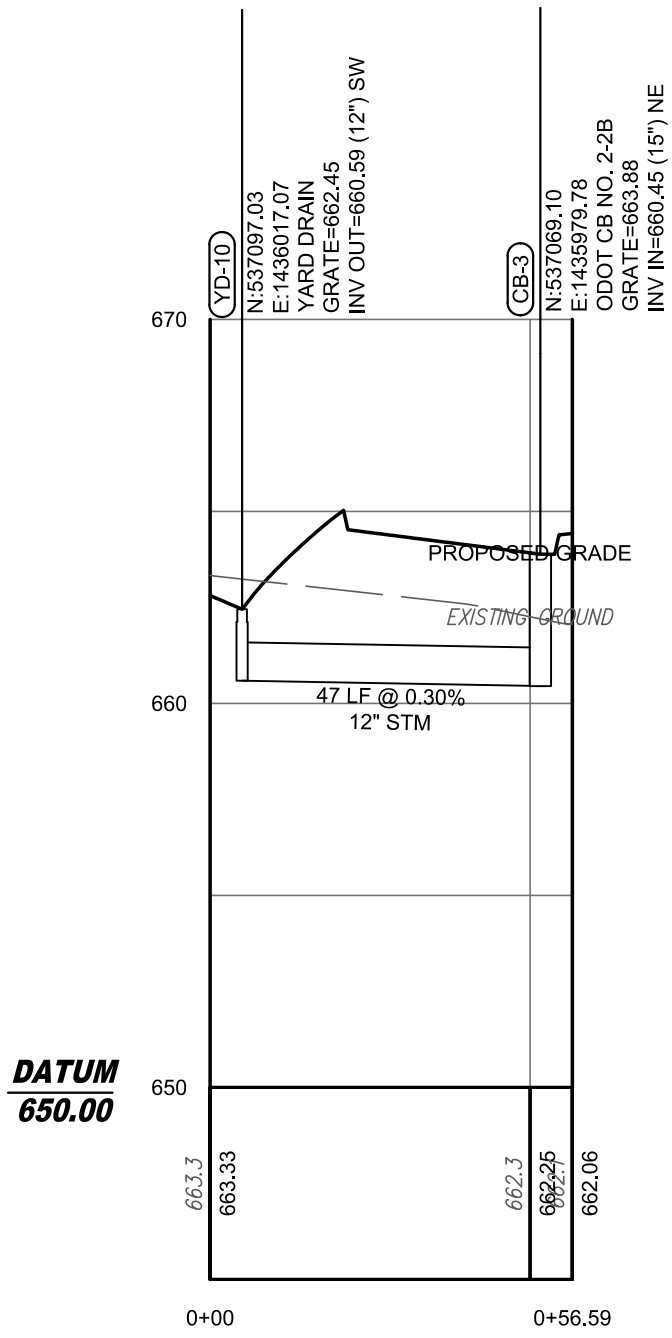
C300



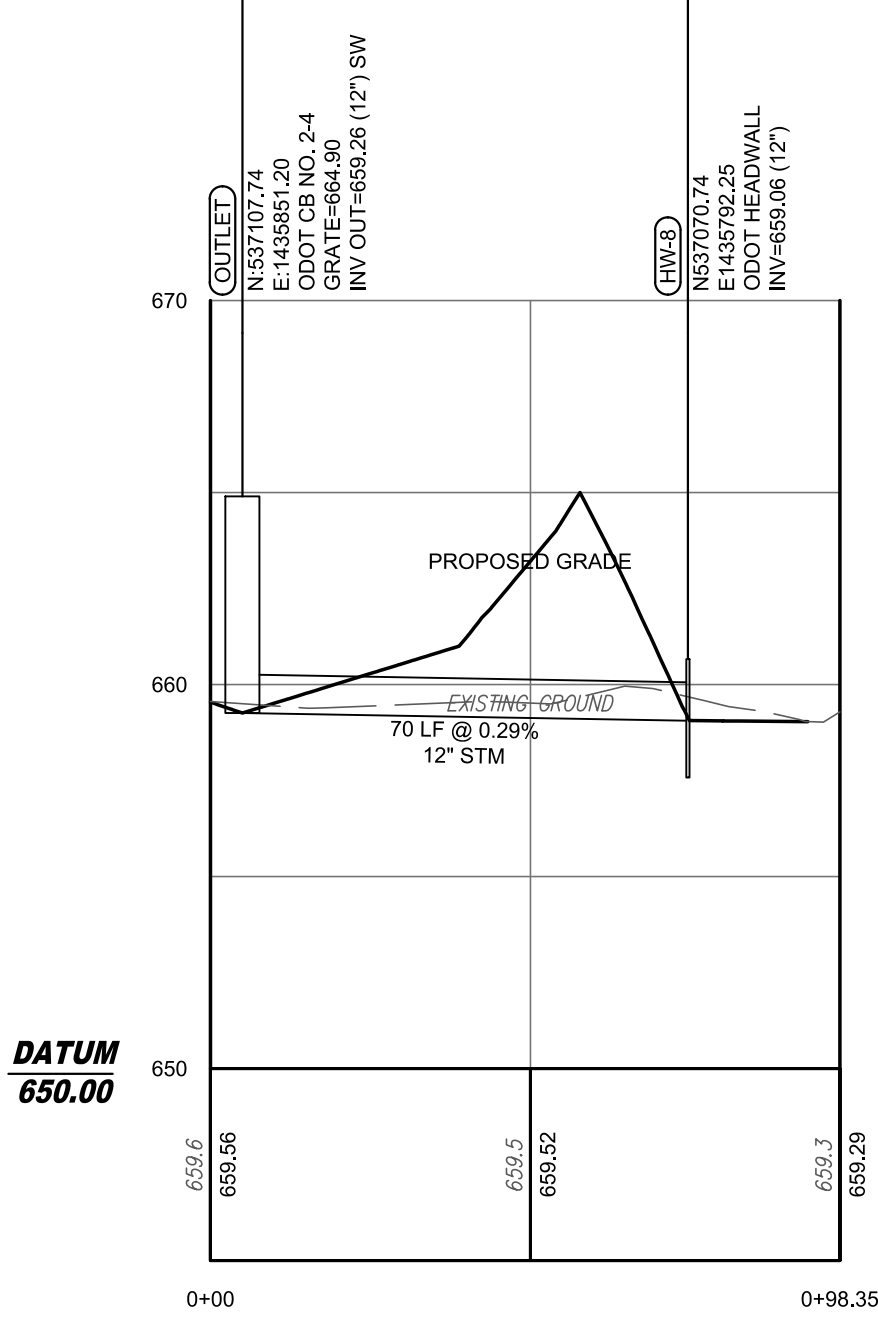
STORM PROFILE CB-7 TO HW-1



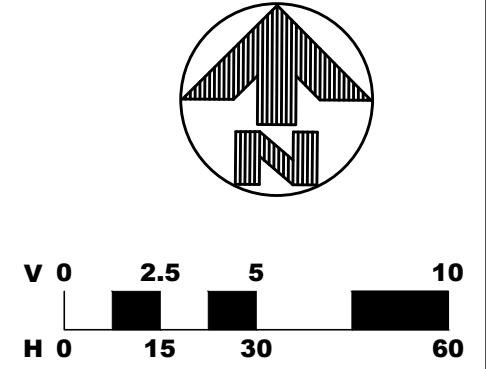
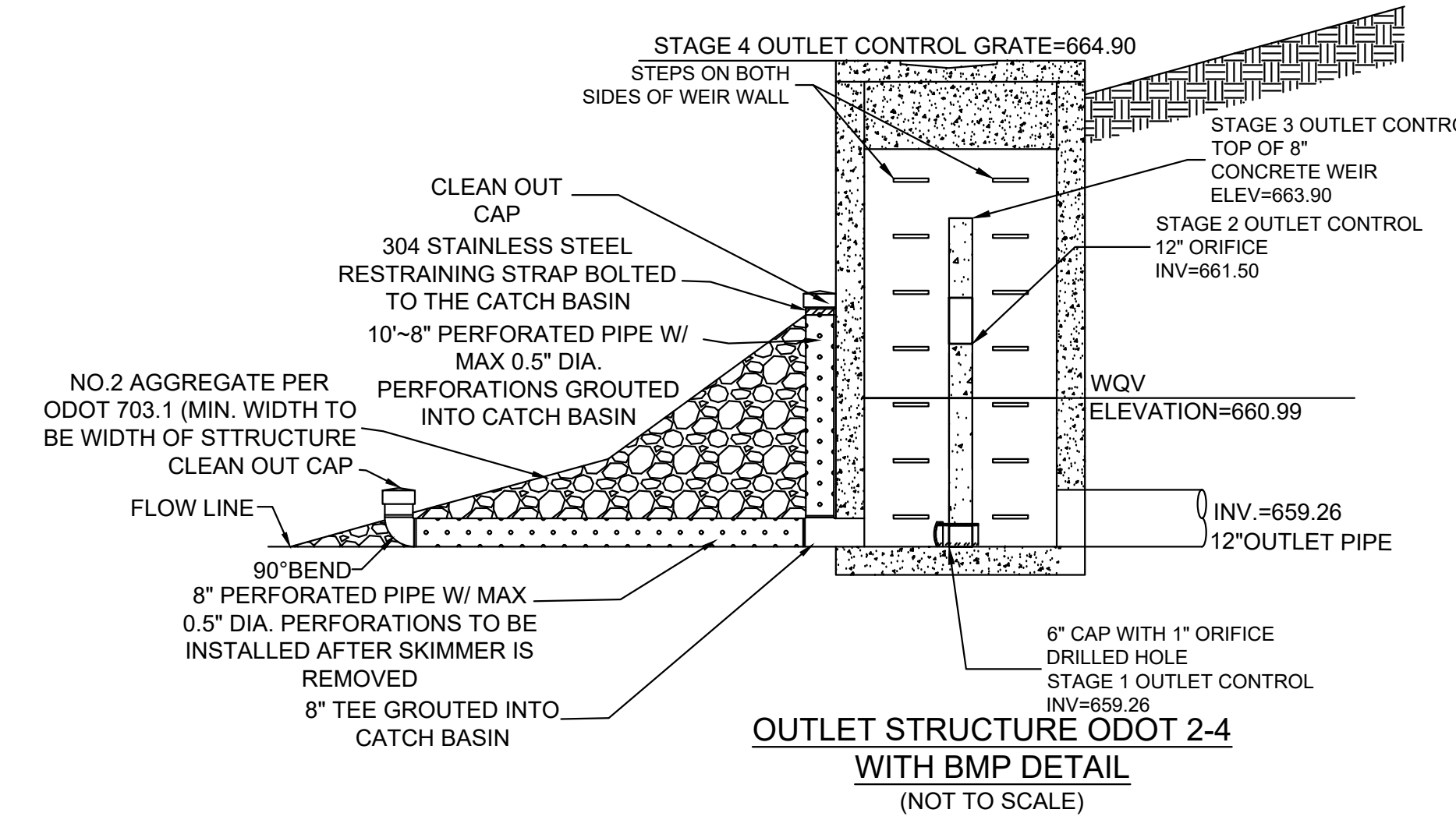
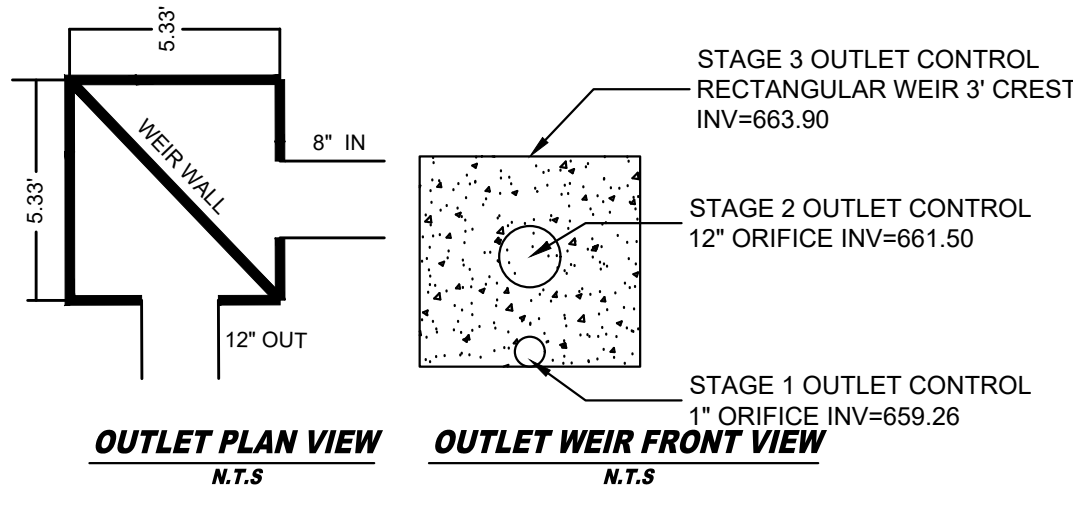
STORM PROFILE YD-9 TO MH-5



STORM PROFILE YD-10 TO CB-3



STORM PROFILE OUTLET TO HW-8



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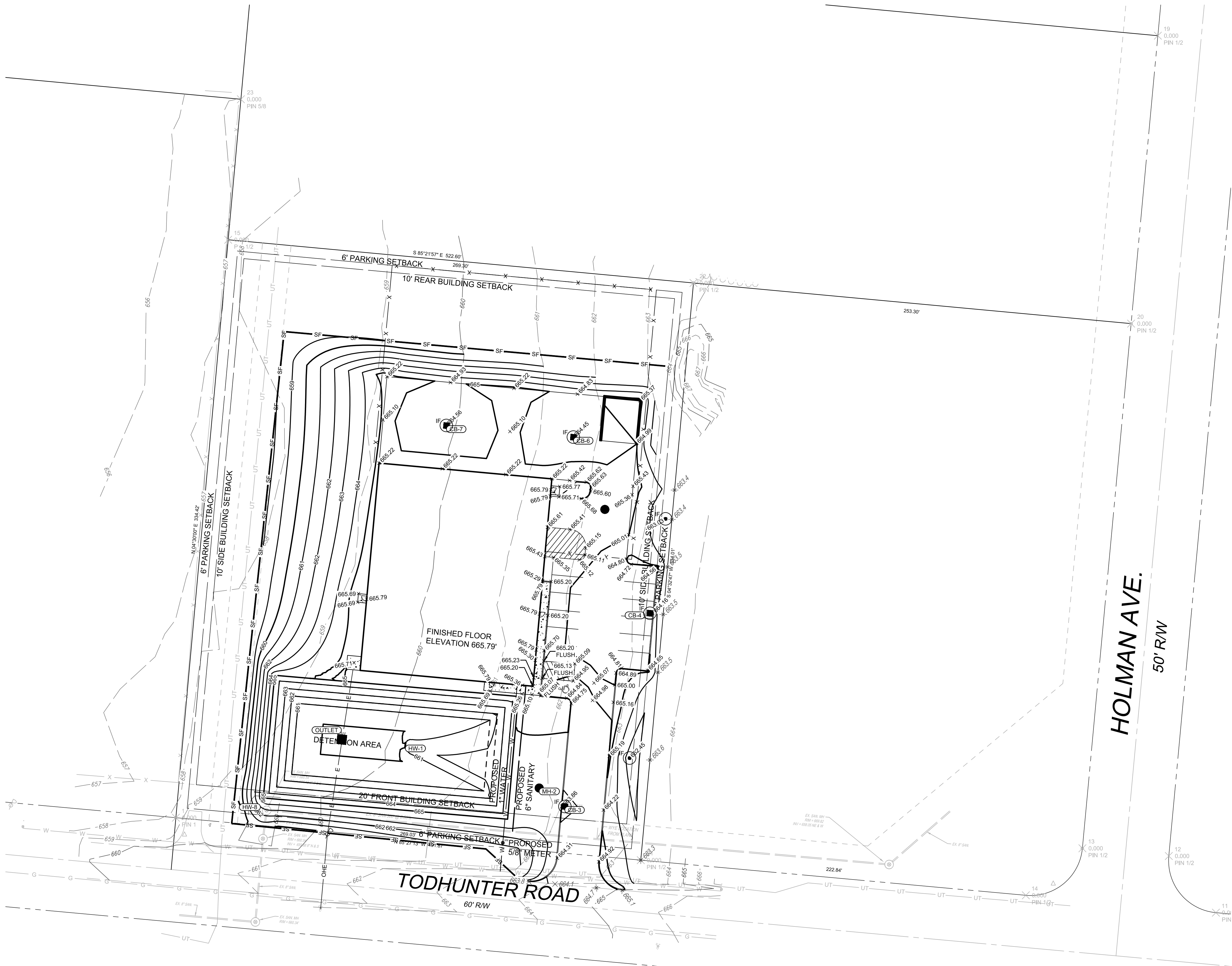


REVISIONS									

BAREFOOT LANDSCAPING
CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26, TOWN 3, RANGE 3

STORM PROFILES

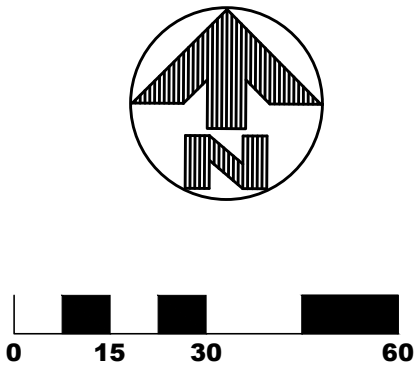
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EROSION CONTROL LEGEND

— SF — SILT FENCE

○ IF INLET FILTER



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REVISIONS									

BAREFOOT LANDSCAPING
CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26, TOWN 3, RANGE 3

GRADING PLAN

SCALE:
DATE: 07/26/19
DRAWN: JCR
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CHECKED: RVP
XREF:
JOB NO.: 19036

PROJECT DESCRIPTION

NEW LANDSCAPING BUILDING IN CITY OF MONROE, BUTLER COUNTY, OHIO INCLUDING THE PARKING LOTS, AND ASSOCIATED UTILITIES.

PROJECT DATA

TOTAL SITE AREA:	2.07 ACRES
TOTAL DISTURBED AREA:	1.54 ACRES
PROPOSED IMPERVIOUS AREA:	0.65 ACRES
PERCENTAGE OF CREATED IMPERVIOUS AREA:	0.32%
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION:	C=0.30-0.90
RUNOFF COEFFICIENT FOR POST-CONSTRUCTION:	C=0.30-0.90
PRIOR LAND USE:	VACANT
RECEIVING WATER:	TRIBUTARY TO GREAT MIAMI
ESTIMATED CONSTRUCTIONS DATES:	AUGUST 2021-NOVEMBER 2022
SOIL TYPES, DESCRIPTIONS:	BI BRENTON SILT LOAM 2 TO 8 PERCENT SLOPES.

GENERAL NOTES

THE CONTRACTOR IS HEREBY ADVISED THAT STRICTER POLLUTION CONTROL STANDARDS AND ENFORCEMENT HAVE BEEN IMPOSED BY THE OHIO EPA SINCE MARCH 10, 2003 AND WITH A REVISION IN APRIL 2008. ALSO, MANY PRIVATE CITIZEN ENVIRONMENTAL GROUPS, WHO HAVE BEEN KNOWN TO FILE CIVIL LEGAL ACTIONS, ARE PRESENT IN THE AREA AND OBSERVE ALL CONSTRUCTION OPERATIONS.

THE CONTRACTOR SHALL INFORM ALL SUBCONTRACTORS OF THE REQUIREMENTS AND RESPONSIBILITIES OF THE SWPPP AND SHALL DOCUMENT ALL SUCH NOTIFICATIONS AND/OR DISCUSSIONS. ALL SUBCONTRACTORS SHALL SIGN THE NOI.

THE CONTRACTOR WILL BE REQUIRED TO PARTICIPATE IN SEDIMENT AND EROSION CONTROL INSPECTIONS ON A WEEKLY BASIS AND SIGN AN APPROVED INSPECTION SHEET THAT SHALL BE KEPT ON FILE AT THE JOB SITE.

UNLESS OTHERWISE NOTED, STANDARDS AND SPECIFICATIONS ESTABLISHED IN THE LATEST EDITION OF THE ODNR "RAINWATER AND LAND DEVELOPMENT" HANDBOOK SHALL GOVERN THE EROSION AND SEDIMENT CONTROL INSTALLATIONS SPECIFIED ON THIS PLAN.

THIS PROJECT WILL INVOLVE SEVERAL CONSTRUCTION PHASES AND SEQUENCING THROUGHOUT ITS LIFETIME. IT IS VERY IMPORTANT THAT ALL TEMPORARY SEDIMENT AND EROSION CONTROL (S&EC) FIELD METHODS ALONG WITH THIS PLAN, ARE UPDATED TO REFLECT THE ACTUAL FIELD CONDITIONS, CURRENT WEATHER CONDITIONS AND SITE GRADE CHANGES. THE CONTRACTOR, OWNER, ENGINEER OR THE OHIO EPA CAN AND WILL MODIFY THIS PLAN AS NECESSARY.

THE CONTRACTOR WILL VOLUNTARILY SELF REPORT ANY POTENTIAL VIOLATIONS OF THE OEPA NPDES PERMIT TO THE OWNER, ENGINEER AND THE OEPA.

THE CONTRACTOR SHALL REMOVE EXISTING GROUND COVER ONLY AS NECESSARY FOR THE PROJECT PHASE CURRENTLY UNDER CONSTRUCTION.

CONSTRUCTION AND DEMOLITION DEBRIS SHALL BE PROPERLY DISPOSED OF ACCORDING TO OHIO EPA REQUIREMENTS.

THE CONTRACTOR WILL BE REQUIRED TO BUILD SEDIMENT BASINS OR SEDIMENT TRAPS OR USE EQUAL METHODS TO DETAIN AND CLEAN WATER TO ACCEPTABLE EPA STANDARDS BEFORE RELEASING THE WATER BACK INTO THE STREAM.

THERE SHALL BE NO TURBID DISCHARGES TO SURFACE WATERS, RESULTING FROM DEWATERING ACTIVITIES. SEDIMENT-LADEN WATER MUST PASS THROUGH A SETTLING POND, FILTER BAG, OR OTHER COMPARABLE PRACTICE, PRIOR TO DISCHARGE.

NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.

ALL PROCESS WASTEWATER (EQUIPMENT WASHING, LEACHATE FROM ON-SITE WASTE DISPOSAL, ETC.) SHALL BE COLLECTED AND DISPOSED OF AT A PUBLICLY OWNED TREATMENT WORKS.

ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH ALL LOCAL EROSION/SEDIMENT CONTROL, WASTE DISPOSAL, SANITARY AND HEALTH REGULATIONS.

OTHER EROSION CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND IMPLEMENTATION OF ADDITIONAL EROSION CONTROL ITEMS, AT THE ENGINEER'S DISCRETION.

NO SOIL, ROCK, DEBRIS OR OTHER MATERIAL SHALL BE DUMPED OR PLACED IN ANY AREAS NOT ADEQUATELY PROTECTED BY EROSION CONTROL INSTALLATIONS.

IT IS PREFERRED TO USE PERMANENT EROSION CONTROL ITEMS AS SHOWN IN THE PLANS TO CONTROL CONSTRUCTION POLLUTION WHEN POSSIBLE. OTHERWISE, THE TEMPORARY POLLUTION PREVENTION ITEMS ARE TO BE USED.

MOST TEMPORARY S&EC METHODS, INCLUDING BUT NOT LIMITED TO, SILT FENCE AND DITCH CHECKS MAY ALL HAVE TO BE PERIODICALLY REMOVED AND REPLACED, OR MOVED FROM THE EXISTING ROAD DITCH OR STRIPPED AREAS AS WORK PROGRESSES. ANY CHANGES SHALL BE NOTED IN THE PLAN BY RED LINE AND DATED ON A CORRECTIVE ACTION LOG.

ALL TEMPORARY SEDIMENT CONTROLS AND STORM WATER QUALITY METHODS WILL BE BUILT/INSTALLED AS THE PROJECT PROGRESSES TO ELIMINATE UNNECESSARY DISTURBANCE AND REDUNDANCY. ALL TEMPORARY CONTROLS SHALL BE IN PLACE AND FUNCTIONING PROPERLY WHEN THREATENING WEATHER IS IMMINENT.

"TEMPORARY STABILIZATION" MEANS THE ESTABLISHMENT OF TEMPORARY VEGETATION, MULCHING, GEOTEXTILES, SOD, PRESERVATION OF EXISTING VEGETATION AND OTHER TECHNIQUES CAPABLE OF QUICKLY ESTABLISHING COVER OVER DISTURBED AREAS TO PROVIDE EROSION CONTROL BETWEEN CONSTRUCTION OPERATIONS.

"PERMANENT STABILIZATION" MEANS THE ESTABLISHMENT OF PERMANENT VEGETATION, DECORATIVE LANDSCAPE MULCHING, MATTING, SOD, RIP RAP AND LANDSCAPING TECHNIQUES TO PROVIDE PERMANENT EROSION CONTROL ON AREAS WHERE CONSTRUCTION OPERATIONS ARE COMPLETE OR WHERE NO FURTHER DISTURBANCE IS EXPECTED FOR AT LEAST A YEAR.

OFF-SITE TRACKING OF SEDIMENTS SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. ALL PAVED STREETS ADJACENT TO THE SITE WILL BE SWEEP DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP.

OPERATION SEQUENCE FOR TEMPORARY AND PERMANENT BMP INSTALLATION

TO COMPLETE THE EXCAVATION AND CONSTRUCTION OF THE PROPOSED JOB IMPROVEMENTS, COORDINATION OF THE CONTRACTOR'S WORK CREWS WILL BE REQUIRED. THE EXISTING DITCHES WILL PERFORM TEMPORARY SEDIMENT CONTROL AND STORAGE DURING THE PROPOSED CONSTRUCTION. WORK WILL GENERALLY PROCEED FROM DOWNSTREAM TO UPSTREAM IN THESE WORK AREAS. THE GENERAL CONSTRUCTION SEQUENCE IS AS FOLLOWS:

- INSTALL EROSION CONTROL ITEMS.
- STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL THROUGH THE INCREMENTAL WORK AREA.
- INSTALL TEMPORARY DITCH CHECKS IN DOWNSTREAM END OF EXISTING DITCH WITHIN 24 HOURS FOLLOWING THE STRIPPING OPERATION.
- IF U/S PIPE IS CALLED FOR IN THIS PORTION OF WORK AREA, PIPE CREW WILL INSTALL PIPE AS WELL AS MANHOLES.
- AS PIPE INSTALLATION PROGRESSES, REPAIR OF THE ROADWAY WILL PROCEED BEHIND IT.
- ANY DISTURBED OR EXPOSED AREAS SHALL BE STABILIZED PER OEPA TEMPORARY AND PERMANENT STABILIZATION REGULATIONS INCLUDING:
 - SEEDING
 - DITCH MATTING
 - INLET PROTECTION
 - MULCHING
 - WATERING

STABILIZATION PRACTICES

PERMANENT SEEDING AND MULCHING STABILIZATION SHALL BE PROVIDED PER OEPA GUIDELINES AS SET FORTH IN PART II.B OF OHIO EPA PERMIT NO.: OHC000005. (SEE TABLE 1)

TABLE 1: PERMANENT STABILIZATION	
AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREA WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

TEMPORARY SEEDING AND MULCHING STABILIZATION SHALL BE PROVIDED PER OEPA GUIDELINES AS SET FORTH IN PART II.B OF OHIO EPA PERMIT NO.: OHC000005. (SEE TABLE 2)

TABLE 2: TEMPORARY STABILIZATION	
AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITH 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE	WITHIN TWO DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST SEVEN DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT(S).
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER

ALL TEMPORARY EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE REMOVED WHEN 70% VEGETATION HAS BEEN REACHED.

SEEDING & MULCHING

MULCH AND/OR OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 14 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.

MULCH SHALL CONSIST OF UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 3 TONS/AC, OR 138 LB./1000 SQ. FT. (TWO TO THREE BALES). THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1000-SQ.-FT. SECTIONS AND PLACE THREE 45-LB. BALES OF STRAW IN EACH SECTION.

MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH:

- MECHANICAL-USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 IN.
- MULCH NETTING-USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS; FOLLOWING ALL PLACEMENT AND ANCHORING SUGGESTIONS; USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.
- ASPHALT EMULSION-FOR STRAW MULCH, APPLY AT THE RATE OF 160 GAL./AC. (0.1 GAL./SY) INTO THE MULCH AS IT IS BEING APPLIED OR AS RECOMMENDED BY THE MANUFACTURE.
- SYNTHETIC BINDERS-FOR STRAW MULCH, SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.

TEMPORARY SEEDING & MULCHING FOR EROSION CONTROL		
SEED TYPE	PER 1000 SQ FT	PER ACRE
PERENNIAL RYEGRASS	1 POUND	40 POUNDS
TALL FESCUE	1 POUND	40 POUNDS
ANNUAL RYEGRASS	1 POUND	40 POUNDS
SMALL GRAIN STRAW	90 POUNDS	2 TONS
FERTILIZER	6 POUNDS OF 10-10-10 OR 12-12-12	250 POUNDS OF 10-10-10 OR 12-12-12

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED

WINTER SEEDING & MULCHING

WINTER SEED AND MULCH IS REQUIRED FOR EARTH DISTURBANCE ACTIVITY OPERATIONS OCCURRING BETWEEN OCTOBER 15 AND MARCH 15 AND CAN ONLY BE INSTALLED DURING THAT TIME. ALL STRAW MULCH INCLUDED IN THIS WORK MUST BE EITHER CRIMPED IN PLACE OR INSTALLED WITH A BIODEGRADABLE BONDED FIBER MATRIX. CRIMPED MULCH IS REQUIRED TO BE ANCHORED INTO THE SOIL SURFACE WITH A MECHANICAL CRIMPING IMPLEMENT OR OTHER SUITABLE IMPLEMENT APPROVED BY THE ENGINEER. THE MULCH INCLUDED IN THIS WORK MUST BE CAPABLE OF PROVIDING SUFFICIENT DURABLE PROTECTIVE COVER THAT PROVIDES OEPA NPDES PERMIT COMPLIANT EROSION CONTROL FOR A MINIMUM OF 6 MONTHS. THE USE OF OTHER SEED AND/OR MULCH MATERIALS IN THIS TIME PERIOD REQUIRES SPECIFIC APPROVAL BY THE ENGINEER. THE USE OF WINTER SEEDING AND MULCHING IS NOT AN ACCEPTABLE PRACTICE FOR PROTECTING THE SUBGRADE SURFACE.

STOCKPILE

SILT FENCING SHALL BE INSTALLED AROUND TEMPORARY SPOIL STOCKPILES. THESE STOCKPILES SHALL BE STRAW MULCHED AND/OR TEMPORARILY SEEDED WITHIN 7 WORKING DAYS IF LEFT DORMANT FOR 14 DAYS OR LONGER.

TIMING OF CONTROL MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, CONSTRUCTION ENTRANCE(S) AND SILT FENCE WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. SEDIMENT CONTROL DEVICES SHALL BE IMPLEMENTED FOR ALL AREAS REMAINING DISTURBED LONGER THAN 14 DAYS AND/OR WITHIN 7 DAYS OF ANY GRUBBING ACTIVITIES. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 14 DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN 2 DAYS OF THE LAST DISTURBANCE IF THE AREA IS WITHIN 50 FEET OF A STREAM, AND WITHIN 7 DAYS OF THE LAST DISTURBANCE IF THE AREA IS MORE THAN 50 FEET AWAY FROM A STREAM. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED WITH PERMANENT SEED AND MULCH. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE BASIN.

STABILIZATION TYPE	J	F	M	A	M	J	J	A	S	O	N	D	
PERMANENT SEEDING													*
DORMANT SEEDING													**
TEMPORARY SEEDING													
SODDING													
MULCHING													

INSPECTIONS

ALL BMPs ON THIS SITE SHALL BE INSPECTED BY THE CONTRACTOR OR DESIGNATED REPRESENTATIVE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES PER 24 HOUR PERIOD. A RECORD OF THESE INSPECTIONS SHALL BE MAINTAINED IN THE CONSTRUCTION OFFICE WITH THE SWPPP FOR PUBLIC VIEWING. ANY VIOLATIONS WILL BE REPORTED THROUGH THE PROJECT PERSONNEL. A RAIN GAUGE WILL BE LOCATED WITHIN THE PROJECT LIMITS.

FOLLOWING EACH INSPECTION, A CHECKLIST MUST BE COMPLETED AND SIGNED BY THE QUALIFIED INSPECTION PERSONNEL REPRESENTATIVE. AT A MINIMUM, THE INSPECTION REPORT SHALL INCLUDE:

- THE INSPECTION DATE;
- NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;
- WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY IF THE FIRST INSPECTION) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES), AND WHETHER ANY DISCHARGES OCCURRED;
- WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;
- LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;
- LOCATION(S) OF BMPs THAT NEED TO BE MAINTAINED;
- LOCATION(S) OF BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
- LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
- CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWP3 NECESSARY AND IMPLEMENTATION DATES.

THE PERMITTEE SHALL MAINTAIN A RECORD OF ALL INSPECTIONS FOR A PERIOD OF 3 YEARS FOLLOWING THE SUBMITTAL OF THE NOTICE OF TERMINATION.

MAINTENANCE

THE CONTRACTOR SHALL MAINTAIN, REPAIR, OR REPLACE ALL EROSION CONTROL INSTALLATIONS AS NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL REPAIRS TO BMPs SHALL BE MADE WITHIN 3 DAYS (OR SOONER IF POSSIBLE) OF NOTIFICATION OF DEFICIENCIES. IF THE CORRECTIONS ARE NOT MADE WITHIN THE 3 DAY PERIOD, LIQUIDATED DAMAGES MAY BE ASSESSED AS PER THE ODOT CMS SECTION 106.27.

ONGOING INSPECTION OF INSTALLATIONS WILL BE PERFORMED BY THE CONTRACTOR OR DESIGNATED REPRESENTATIVE.

ANY TRAPPED SEDIMENT OR DEBRIS REMOVED DURING CLEANING OF OR REMOVAL OF BMP INSTALLATIONS SHALL BE PLACED IN AREAS NOT SUBJECT TO EROSION AND PERMANENTLY STABILIZED.

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES:

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING:

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

HAZARDOUS PRODUCTS:

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

- ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE. SPILLS OF 25 OR MORE GALLONS OF PETROLEUM WASTE MUST BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE SPILL.
- SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS MUST BE TREATED/DISPOSED AT AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDF).
- THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
- THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

PRODUCT SPECIFIC PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS - ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FUEL STORAGE TANKS SHALL BE LOCATED AWAY FROM SURFACE WATERS AND STORM SEWER SYSTEM INLETS. FUEL TANKS SHALL BE STORED IN A DIKED AREA CAPABLE OF HOLDING 150% OF THE TANK CAPACITY.

FERTILIZERS - FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS - ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

DUST CONTROL

DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FROM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE.

THE FOLLOWING SPECIFICATIONS FOR DUST CONTROL SHALL BE FOLLOWED ONSITE:

- VEGETATIVE COVER AND MULCH - APPLY TEMPORARY OR PERMANENT SEEDING AND MULCH TO AREAS THAT WILL REMAIN IDLE FOR OVER 14 DAYS, SAVING EXISTING TREES AND LARGE SHRUBS WILL ALSO REDUCE SOIL AND AIR MOVEMENT ACROSS DISTURBED AREAS. SEE TEMPORARY SEEDING; PERMANENT SEEDING; MULCHING PRACTICES; AND TREE AND NATURAL AREA PROTECTION PRACTICES.
- WATERING - SPRAY SITE WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND REPEAT AS NEEDED, ESPECIALLY ON HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHALL BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION. WETTING AGENTS SHALL BE UTILIZED ACCORDING TO MANUFACTURERS INSTRUCTIONS.
- SPRAY-ON ADHESIVES - APPLY ADHESIVE ACCORDING TO THE FOLLOWING TABLE OR MANUFACTURERS' INSTRUCTIONS.



NOTE:
UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE EXISTENCE OR NON EXISTENCE OF UNDERGROUND UTILITIES CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY.

SCALE:
DATE: 07/26/19
DRAWN: JGR
DESIGNED: JGR
CHECKED: RVP
XREF:
JOB NO.: 19036

Page

C500

BAREFOOT LANDSCAPING
CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26, TOWN 3, RANGE 3

EROSION CONTROL NOTES AND DETAILS

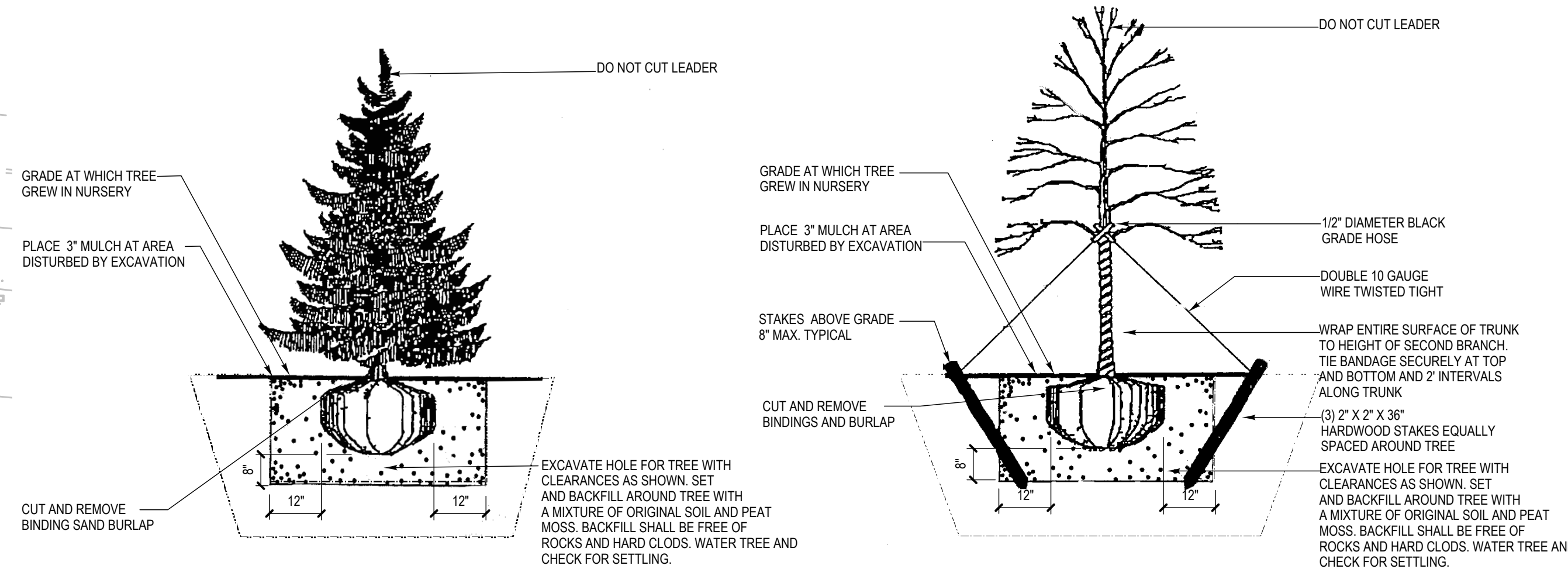
SITE LANDSCAPING LEGEND

DESIGNATION	COMMON NAME	SCIENTIFIC NAME	SIZE / QUANTITY
AT - LARGE			
W	WILLOW TREE	SALIX	5# GALLON (x 1)
M	MAPLE	ACER OCTOBER GLORY	2.5" (x 4)
A	BIRCH	BETULA DURAHEAT	1.5" (x 1)
LB1 LANDSCAPE BED #1			
BBA	BOWLING BALL ARBORVITAE	THUJA OCCIDENTALIS	(x 3)
S	SALVIA	SALVIA DIVINORUM	(x 4)
D	DIANTHUS	DIANTHUS FEVERHEX	(x 3)
LB2 LANDSCAPE BED #2			
BB	BURNING BUSH	EVONYMUS ALATUS	(x 2)
S	SALVIA	SALVIA DIVINORUM	(x 3)
D	DIANTHUS	DIANTHUS FEVERHEX	(x 3)
LB3 LANDSCAPE BED #3			
BW	BOXWOOD	BUXUS WINTERGEM	5 GALLON (x 6)
MG	MAIDENGRASS	MISCANTHUS GRACILLIMUS	(x 5)
LB4 LANDSCAPE BED #4			
BW	BOXWOOD	BUXUS WINTERGEM	5 GALLON (x 5)
L	LIRIOPE	LIRIOPE VARIEGATA	1 GALLON (x 4)
LB5 LANDSCAPE BED #5			
A	BIRCH	BETULA DURAHEAT	1.5"
LL	HYDRANGEA	LIMELIGHT	3# (GALLON)
CC	CORALBELL	HUECHERA	1# (GALLON)

NOTE: ALL LANDSCAPE BEDS TO BE FULLY MULCHED

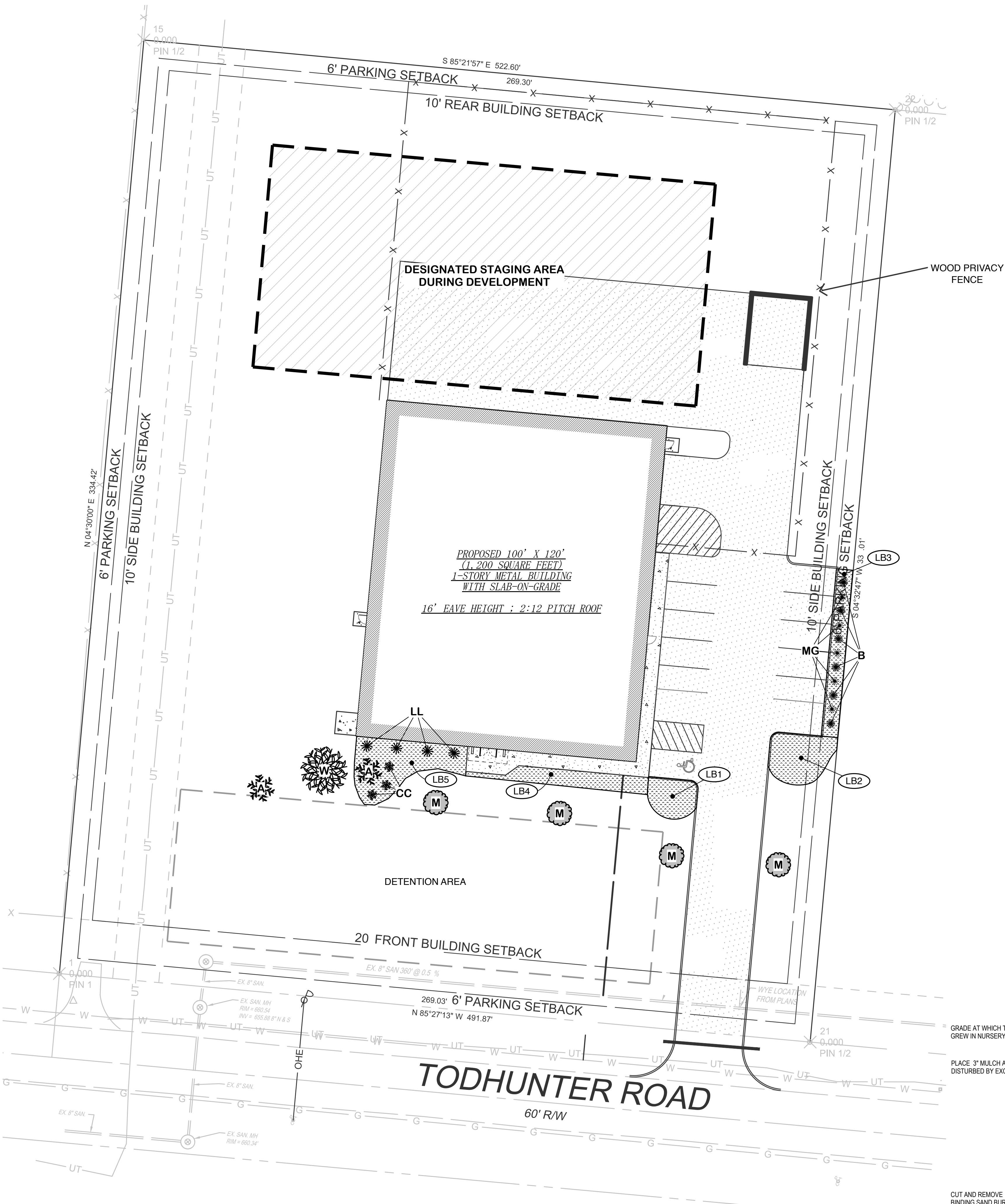
LANDSCAPE GENERAL NOTES

- EXISTING BOUNDARY TOPOGRAPHIC, BOUNDRY AND EXISTING UTILITY INFORMATION TAKEN FROM SURVEY PROVIDED BY RVP ENGINEERING.
- PROVIDE EROSION CONTROL (SLIT FENCE) AROUND THE PERIMETER OF NEW CONSTRUCTION AREA PRIOR TO STARTING EXCAVATION. FINISH GRADE WITH TOPSOIL IN ALL AREAS DISTURBED/ALTERED BY CONSTRUCTION. SEED AND FERTILIZE PER SPECIFICATIONS.
- ALL STREETS USED FOR CONSTRUCTION SITE ACCESS SHALL BE KEPT CLEAN AND MAINTAINED THROUGHOUT THE PROJECT.
- LOCATE ALL EXISTING UTILITIES PRIOR TO START-UP AND PROTECT THE ONES THAT ARE TO REMAIN. NOTIFY OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) AS REQUIRED BY LAW PRIOR TO WORK. OBTAIN ALL NECESSARY PERMITS. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO UTILITIES DUE TO EARTHWORK / EXCAVATION & WILL REPAIR AT NO ADDITIONAL COST TO THE OWNER.
- ANY EXISTING PAVING DAMAGED BY CONSTRUCTION SHALL BE REPAIRED / PATCHED UPON COMPLETION OF PROJECT BY THE RESPONSIBLE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- ALL TREES SHOWN TO REMAIN SHALL BE PROTECTED AS REQUIRED DURING CONSTRUCTION. ANY TREE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW TREE OF LIKE KIND, SIZE, AND MATURITY.
- PRIOR TO DEMOLITION REVIEW WITH ARCHITECT TO DETERMINE THE EXACT SCOPE OF ALL AREAS TO BE REMOVED, A COMPLETE REVIEW BY THE CONTRACTOR OF ALL CONSTRUCTION DOCUMENTS SHOULD BE MADE PRIOR TO DEMOLITION TO DETERMINE IF DISCREPANCIES BETWEEN DEMOLITION AND NEW CONSTRUCTION EXIST. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT FOR CLARIFICATION PRIOR TO THE START OF OPERATIONS.
- PROTECT ALL EXISTING ADJACENCIES TO REMAIN FROM DAMAGE DUE TO DEMOLITION OPERATIONS, WEATHER, OR OTHER THREATS.
- INSTALL SEDIMENT PROTECTION AT ALL EXISTING CATCH BASINS, YARD DRAINS, ETC. PRIOR TO START OF CONSTRUCTION. INSTALL SEDIMENT PROTECTION AT ALL NEW CATCH BASINS AFTER INSTALLATION FOR DURATION OF PROJECT. EROSION CONTROL SHALL BE ACCOMPLISHED BY STRATEGICALLY PLACING STRAW BALES AND/OR SILT FENCING IN SWALES AND RUNOFF AREAS. REVIEW EROSION CONTROL REQUIREMENTS WITH LOCAL AUTHORITY.
- REVIEW ALL DRAWINGS & SPECIFICATIONS PRIOR TO WORK. REPORT ALL DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS & ACTUAL CONDITIONS TO ARCHITECT FOR PROPER COORDINATION.
- ALL NEW CONCRETE / ROADWAY ASPHALT PAVEMENT TO HAVE POSITIVE DRAINAGE WITH CONSISTANT SLOPE. NEW PAVEMENT TO MEET NEW / EXIST. CATCH BASIN RIM FLUSH TO PREVENT PONDING.

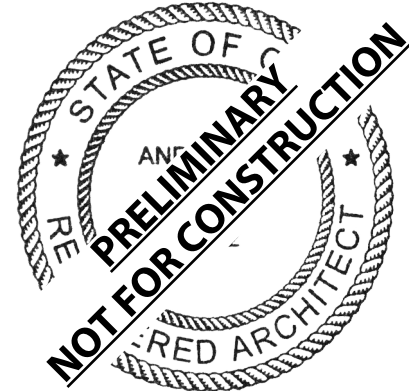
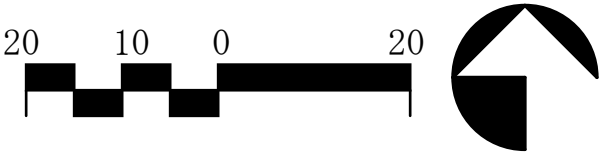


TYP. EVERGREEN PLANTING SECTION
NO SCALE

TYP. TREE PLANTING SECTION
NO SCALE



LANDSCAPE PLAN
SCALE: 1" = 20'-0"

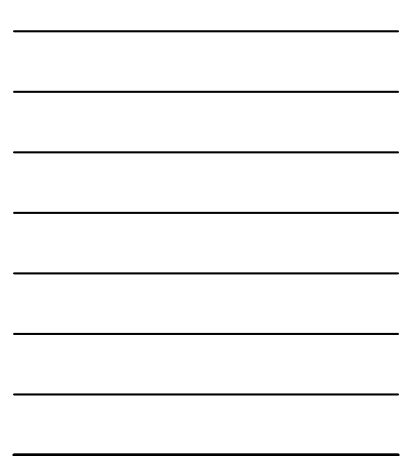


ANDREW R. ROEHL
LICENSE OH #18312
EXP. DATE: DECEMBER 31, 2021
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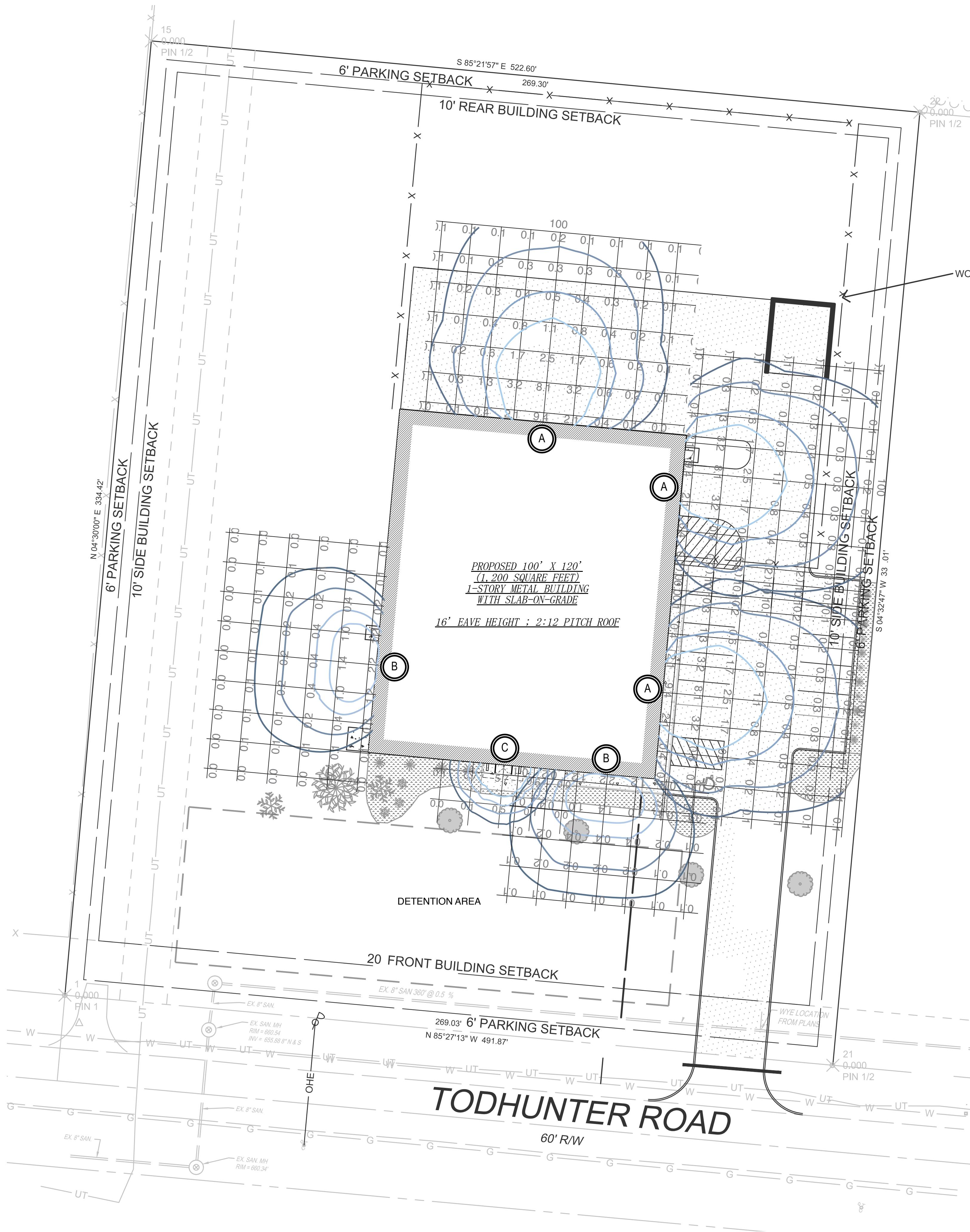


Proposed Business Location for
Barefoot Landscaping
City of Monroe, Butler County, Ohio
Section 26, Town 3, Range 3
39° 33' 25.3" N 84° 14' 00.7" W

ISSUANCES:
0 - PLANNING AUGUST 17, 2021
COMMISSION REVIEW



LANDSCAPE
DETAILS



PHOTOMETRIC SCHEMATICS

SCALE: 1" = 20'-0"



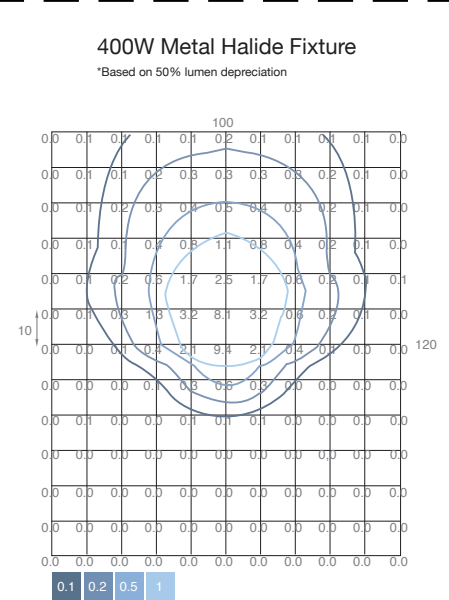
LIGHT FIXTURE BASIS OF SCHEMATIC



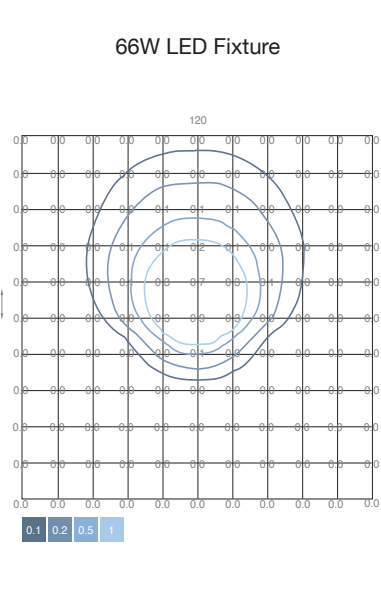
Large Wallpack
LED Large Wallpack is an energy efficient alternative - only 66W delivering 5531 lumens - replacing a 400W Metal Halide fixture.



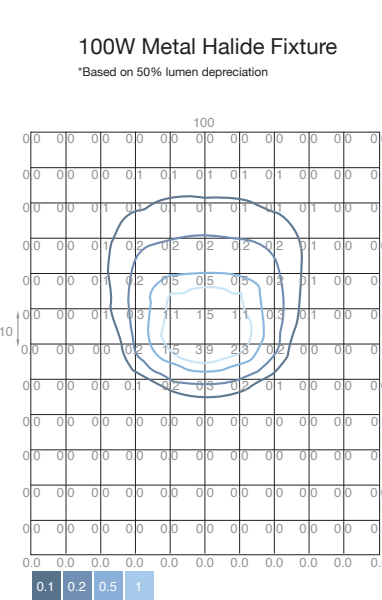
Small Wallpack
LED Small Wallpack is an energy efficient alternative - only 27W delivering 2258 lumens - replacing a 100W Metal Halide fixture.



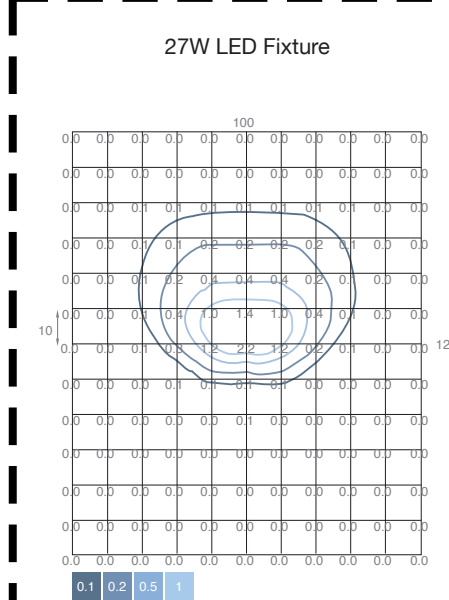
400W Metal Halide Fixture	
Based on 50% lumen depreciation	
Lumens Per Lamp: 36000*	
Fixture Wattage: 400W	
Mounting Height: 12 ft	
Calculation Area: 100 by 120 ft	
Point Spacing: 10 by 10 ft	
Max Illuminance: 9.4 fc	
Area > 0.5 fc: 1783 ft²	



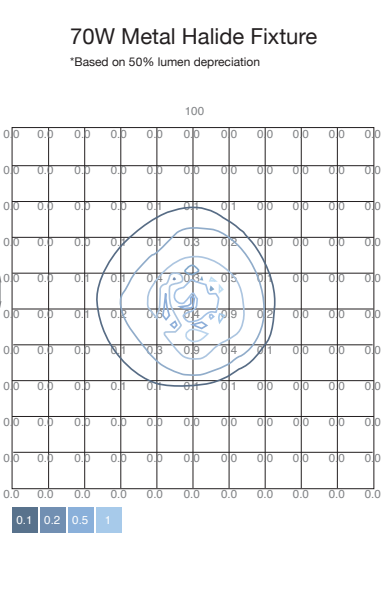
66W LED Fixture	
Based on 50% lumen depreciation	
Lumens Per Fixture: 5531	
Fixture Wattage: 66W	
Mounting Height: 12 ft	
Calculation Area: 100 by 120 ft	
Point Spacing: 10 by 10 ft	
Max Illuminance: 9.1 fc	
Area > 0.5 fc: 1593 ft²	



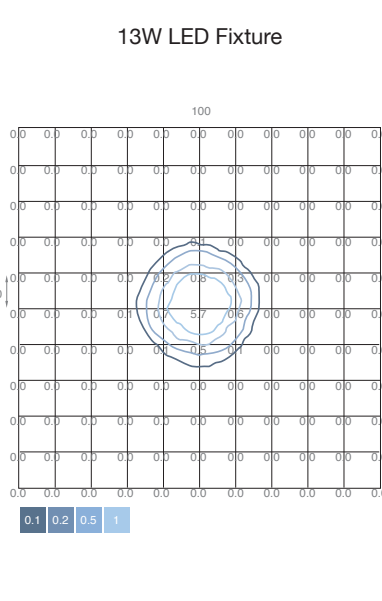
100W Metal Halide Fixture	
Based on 50% lumen depreciation	
Lumens Per Lamp: 8500*	
Fixture Wattage: 100W	
Mounting Height: 12 ft	
Calculation Area: 100 by 120 ft	
Point Spacing: 10 by 10 ft	
Max Illuminance: 3.9 fc	
Area > 0.5 fc: 803 ft²	



27W LED Fixture	
Based on 50% lumen depreciation	
Lumens Per Fixture: 2258	
Fixture Wattage: 27W	
Mounting Height: 12 ft	
Calculation Area: 100 by 120 ft	
Point Spacing: 10 by 10 ft	
Max Illuminance: 2.2 fc	
Area > 0.5 fc: 680 ft²	



70W Metal Halide Fixture	
Based on 50% lumen depreciation	
Lumens Per Lamp: 5600*	
Fixture Wattage: 70W	
Mounting Height: 8 ft	
Calculation Area: 100 by 100 ft	
Point Spacing: 10 by 10 ft	
Max Illuminance: 8.9 fc	
Area > 0.5 fc: 444 ft²	



13W LED Fixture	
Based on 50% lumen depreciation	
Lumens Per Fixture: 911	
Fixture Wattage: 13W	
Mounting Height: 8 ft	
Calculation Area: 100 by 100 ft	
Point Spacing: 10 by 10 ft	
Max Illuminance: 5.7 fc	
Area > 0.5 fc: 381 ft²	



Ceiling Vaportight
The LED Ceiling Vaportight is an energy efficient alternative - only 13W delivering 911 lumens - replacing an 70W Metal Halide or a 150W High Pressure Sodium fixture.



ANDREW R. ROEHL
LICENSE OH #18312
EXP. DATE: DECEMBER 31, 2021

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Moonlight
ARCHITECTURE

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ony@moonlightarchitecture.com
(513) 305-7712

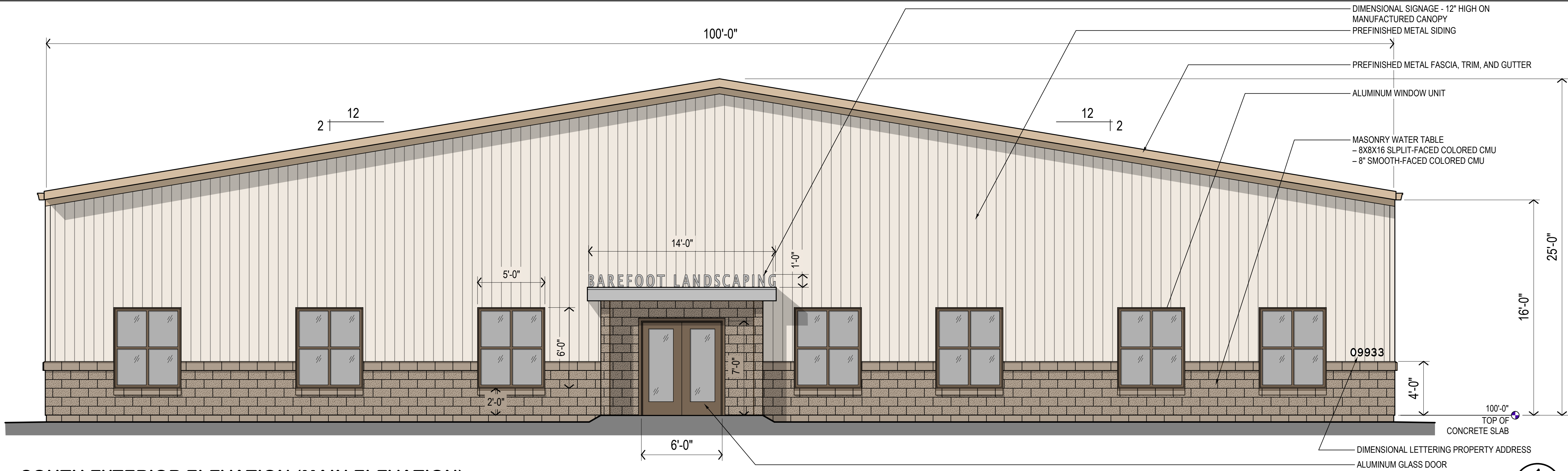
Proposed Business Location for
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ISSUANCES:

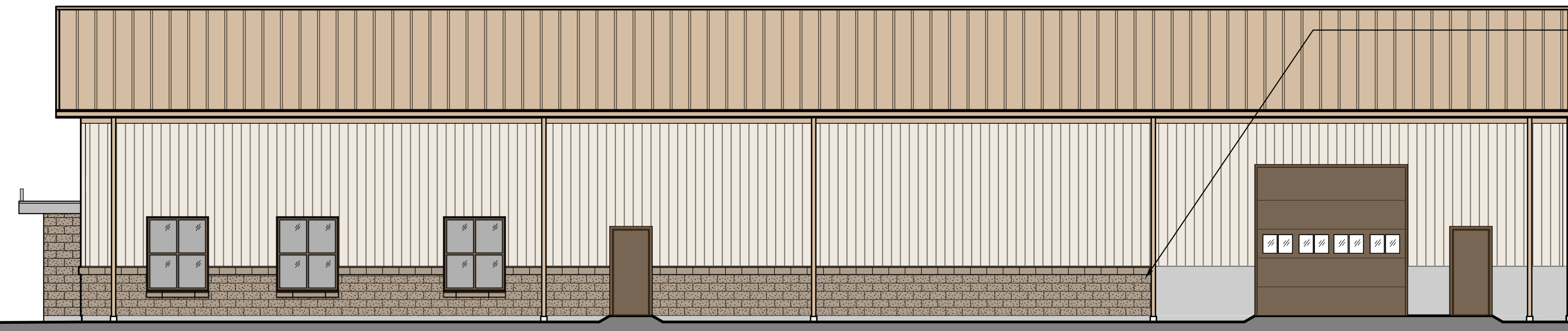
0 - PLANNING	AUGUST 17, 2021
COMMISSION REVIEW	

PHOTOMETRIC SCHEMATICS

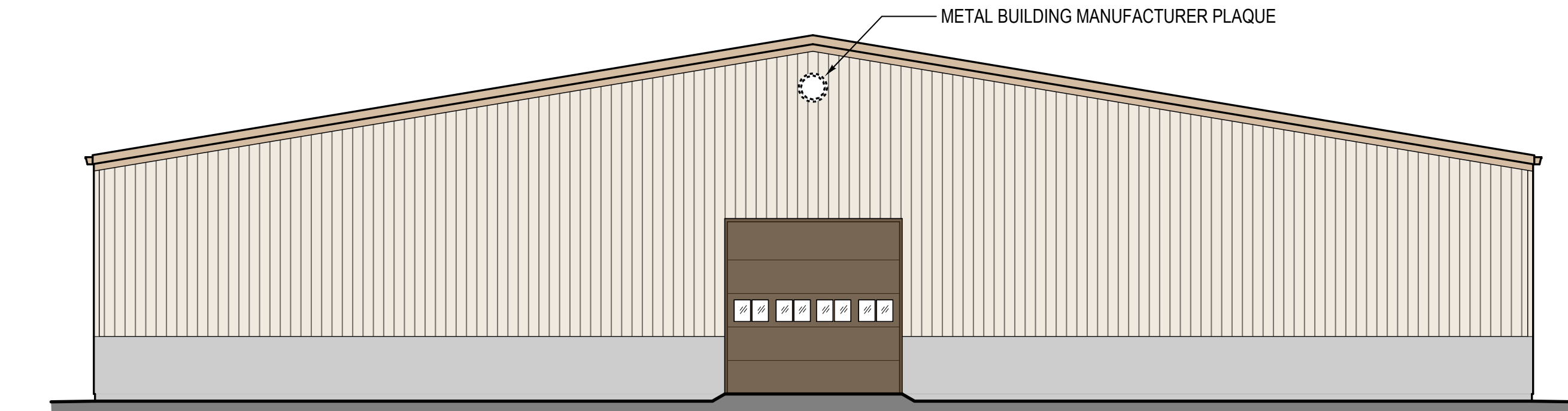
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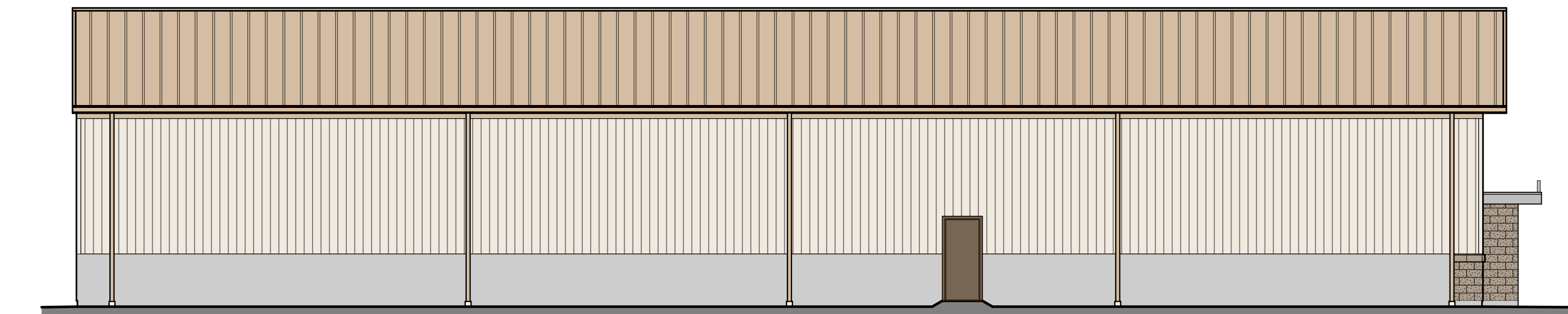
SOUTH EXTERIOR ELEVATION (MAIN ELEVATION)
SCALE: 1/4" = 1'-0"



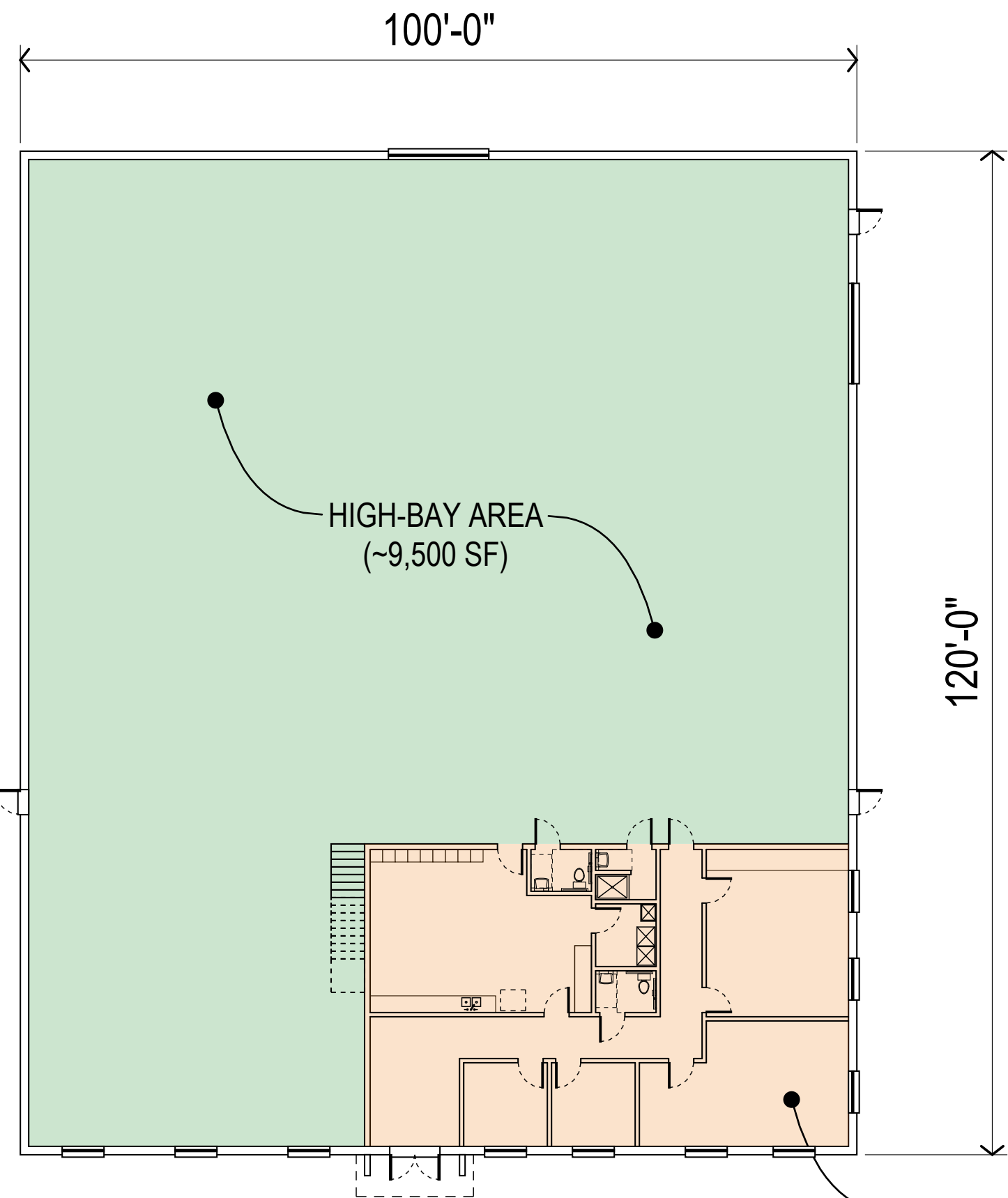
EAST EXTERIOR ELEVATION (RIGHT ELEVATION)
SCALE: 1/8" = 1'-0"



NORTH EXTERIOR ELEVATION (REAR ELEVATION)
SCALE: 1/8" = 1'-0"



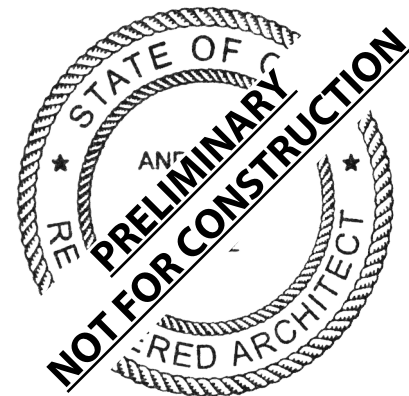
WEST EXTERIOR ELEVATION (LEFT ELEVATION)
SCALE: 1/8" = 1'-0"



BUILDING CONCEPT FLOOR PLAN
SCALE: 1/16" = 1'-0"



PROPOSED PRIVACY FENCING (8'-0" TALL)
SCALE: NONE



ANDREW R. ROEHL
LICENSE OH #18312
EXP. DATE: DECEMBER 31, 2021
NOTE: The Architect has been retained solely to prepare drawings from information furnished by the Owner and Others for the purpose of obtaining building or other permits from appropriate agencies as required by the applicable building and zoning codes or other regulations, statutes, or ordinances. All work of the Owner or persons performing the work shall conform to the requirements of all codes, laws, regulations, etc. having jurisdiction over the work.

Moonlight
ARCHITECTURE
1149 Settlement RD
Lebanon, OH 45036
ony@moonlightarchitecture.com
(513) 305-7712



Proposed Business Location for
Barefoot Landscaping
City of Monroe, Butler County, Ohio
Section 26, Town 3, Range 3
30° 33' 25.3" N 84° 14' 00.7" W

ISSUANCES:
0 - PLANNING AUGUST 17, 2021
COMMISSION REVIEW

ARCHITECTURAL
DETAILS

A-1



Storm Sewer & Detention Design for Barefoot Landscaping

Project # 19036

City of Monroe
Butler County, Ohio

Prepared: July 09, 2021
Revised: September 10, 2021

By: Josh Ross
Reviewed by: Rob Painter, P.E.



Detention/Stormwater Analysis

This site located near the intersection of Todhunter Road and Holman Ave in the City of Monroe and Butler County is being developed as a proposed Commercial site for Barefoot Landscaping. For this site RVP conformed to the City of Monroe's Storm sewer and Stormwater Detention Ordinance No. 2010-07.

While conforming to the City of Monroe's Storm Sewer and Stormwater Detention Ordinance No. 2010-07, RVP used the provided performance standards in section 1028.46 to create the site stormwater management and detention. Civil 3D and Hydraflow Hydrographs Extension were used for this design. The Critical Storm was found to be a **5-year** based on Section 1028.46; Sub-Section D Table 3: 24-Hour Critical Storm-see attached calcs.

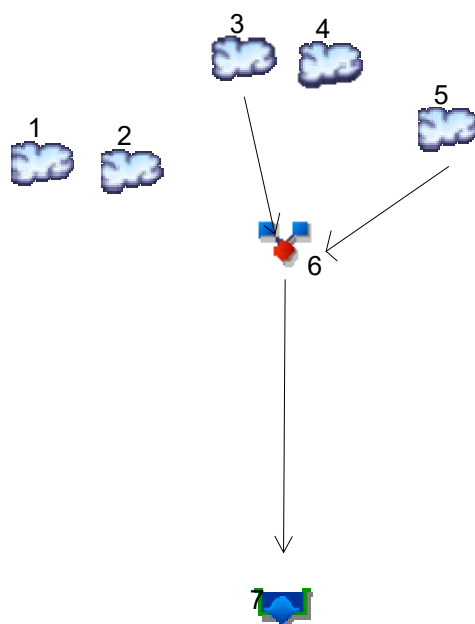
Detention Pond- Using the new OEPA Water Quality Calculations RVP calculated **2,631 CF** of water quality using a stage 1 orifice of 1". After this was achieved at elevation 661.02', a stage 2 orifice of 11.5" was designed at elevation 661.50'. Finally, a stage 3 rectangular weir wall was designed with a top elevation at 663.90'. The staged orifices and weir work together to provide water quality and to allow us to hold the post 5 yr flow back to the 1 yr pre. After that based on Ordinance No. 2010-07 the post 10 flow held back to the pre-10, the post 25 flow held back to the pre-25 year, the post 50 flow held back to the pre-50 and finally the post 100 flow held back to the pre-100 year- see table below.

For this Detention design the use of a surface detention pond was used. The total system storage provides a storage of 22,356 CF.

With the WQV storage values being met the last thing to provide is the flows based on the requirements stated in Ordinance No. 2010-07 section 1028.46. These values are shown in the table below.

DETENTION SYSTEM ALLOWABLE FLOWS (cfs)					
	PRE DEV	BYPASS	OFFSITE	ALLOWABLE	ROUTED
1YR	1.661	0.387	0.839	2.113	0.079
2YR	4.177	1.057	2.315	2.113	1.254
5YR	5.331	1.368	3.011	2.113	2.087
10YR	6.603	1.719	3.786	8.670	2.785
25YR	7.840	2.062	4.545	10.323	3.350
50YR	9.958	2.655	5.854	13.157	4.062
100YR	11.150	2.989	6.592	14.753	4.350

In the report you will find the calculations and report from our program showing the detailed work and numbers used for this design.



Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	SCS Runoff	PRE
2	SCS Runoff	POST
3	SCS Runoff	ONSITE
4	SCS Runoff	BYPASS
5	SCS Runoff	EAST OFFSITE
6	Combine	ONSITE AND OFFSITE TO POND
7	Reservoir	<no description>

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	1.661	2	726	5,563	-----	-----	-----	PRE
2	SCS Runoff	2.947	2	722	7,733	-----	-----	-----	POST
3	SCS Runoff	2.223	2	720	5,772	-----	-----	-----	ONSITE
4	SCS Runoff	0.387	2	722	1,093	-----	-----	-----	BYPASS
5	SCS Runoff	0.839	2	724	2,605	-----	-----	-----	EAST OFFSITE
6	Combine	3.005	2	722	8,377	3, 5	-----	-----	ONSITE AND OFFSITE TO POND
7	Reservoir	0.079	2	1032	8,373	6	661.59	5,721	<no description>
R:\Projects\2019\19036 - Barefoot Landscaping & Stormwater Design\19036 - BAREFOOT DETENTION\2019-09-20\19036 - BAREFOOT DETENTION.dwg					R:\Projects\2019\19036 - Barefoot Landscaping & Stormwater Design\19036 - BAREFOOT DETENTION\2019-09-20\19036 - BAREFOOT DETENTION.dwg				

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

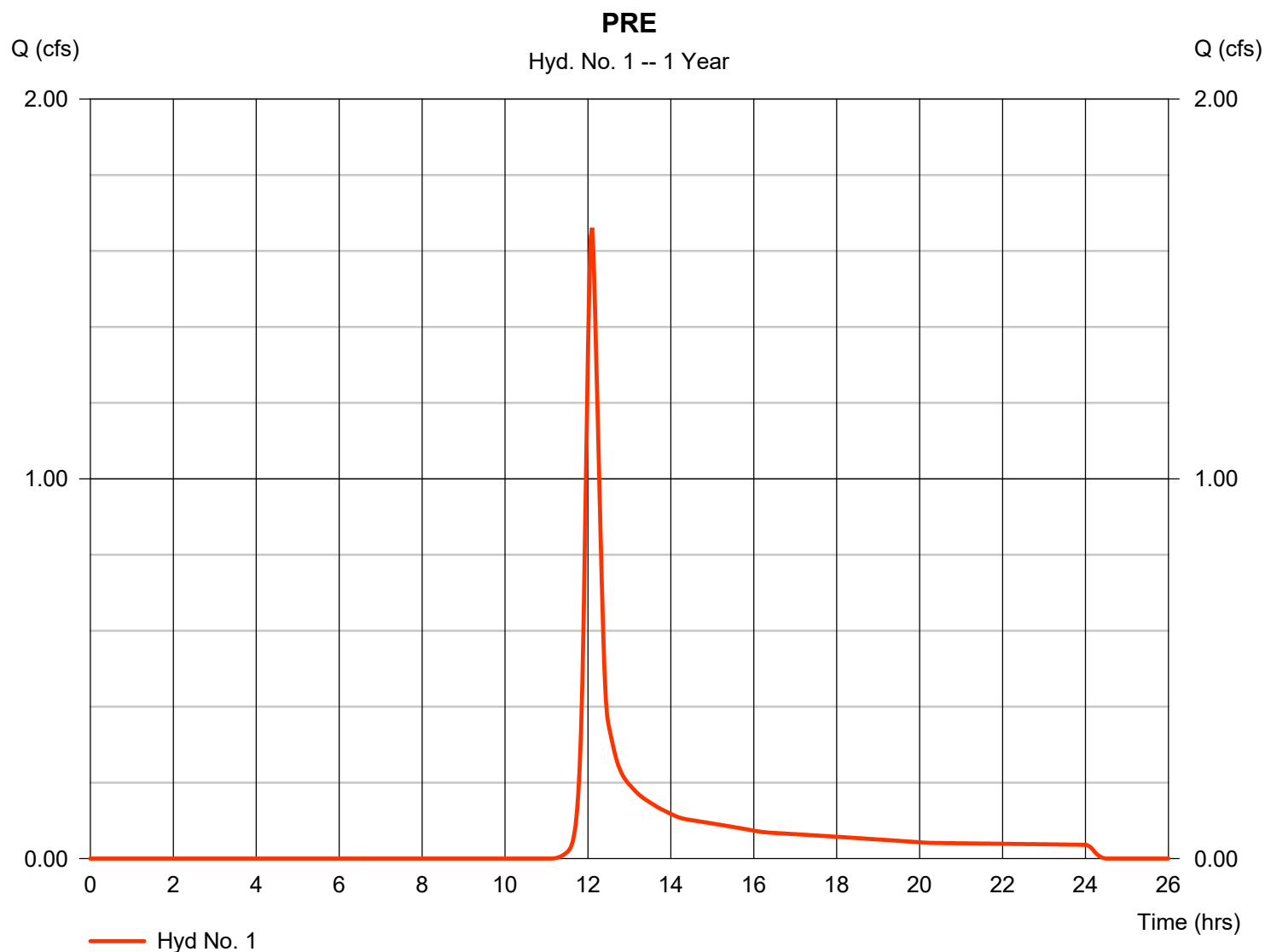
Friday, 09 / 10 / 2021

Hyd. No. 1

PRE

Hydrograph type	= SCS Runoff	Peak discharge	= 1.661 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 5,563 cuft
Drainage area	= 2.070 ac	Curve number	= 77*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.80 min
Total precip.	= 2.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.400 \times 79) + (1.665 \times 77)] / 2.070$



TR55 Tc Worksheet

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Hyd. No. 1

PRE

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.93	0.00	0.00	
Land slope (%)	= 2.56	0.00	0.00	
Travel Time (min)	= 17.56	+ 0.00	+ 0.00	= 17.56
Shallow Concentrated Flow				
Flow length (ft)	= 177.00	0.00	0.00	
Watercourse slope (%)	= 2.15	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	=2.37	0.00	0.00	
Travel Time (min)	= 1.25	+ 0.00	+ 0.00	= 1.25
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	=0.00	0.00	0.00	
Flow length (ft)	(0)0.0	0.0	0.0	
Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
Total Travel Time, Tc				18.80 min

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

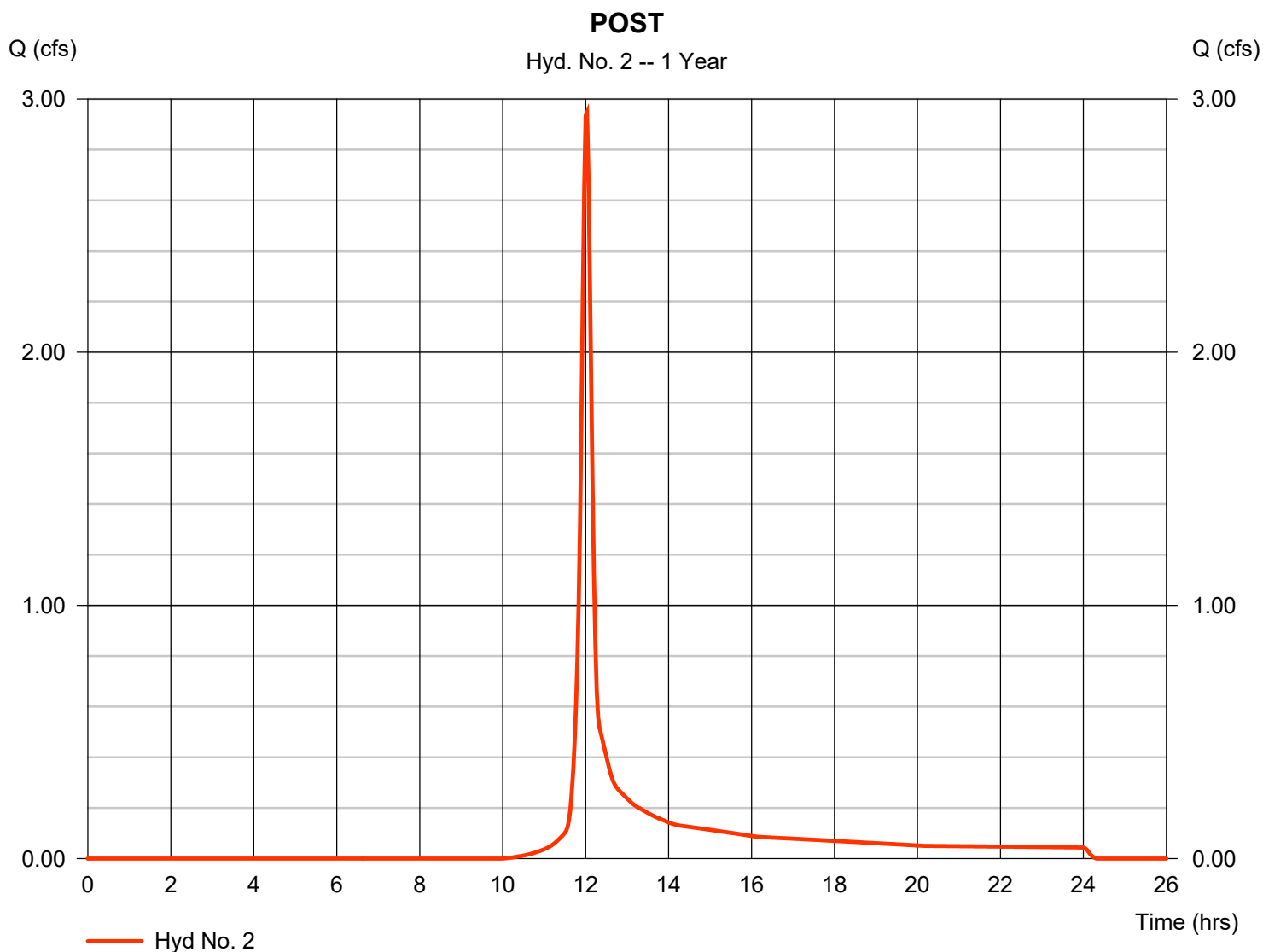
Friday, 09 / 10 / 2021

Hyd. No. 2

POST

Hydrograph type	= SCS Runoff	Peak discharge	= 2.947 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 7,733 cuft
Drainage area	= 2.070 ac	Curve number	= 82*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 2.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.640 \times 98) + (0.860 \times 74) + (0.570 \times 77)] / 2.070$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

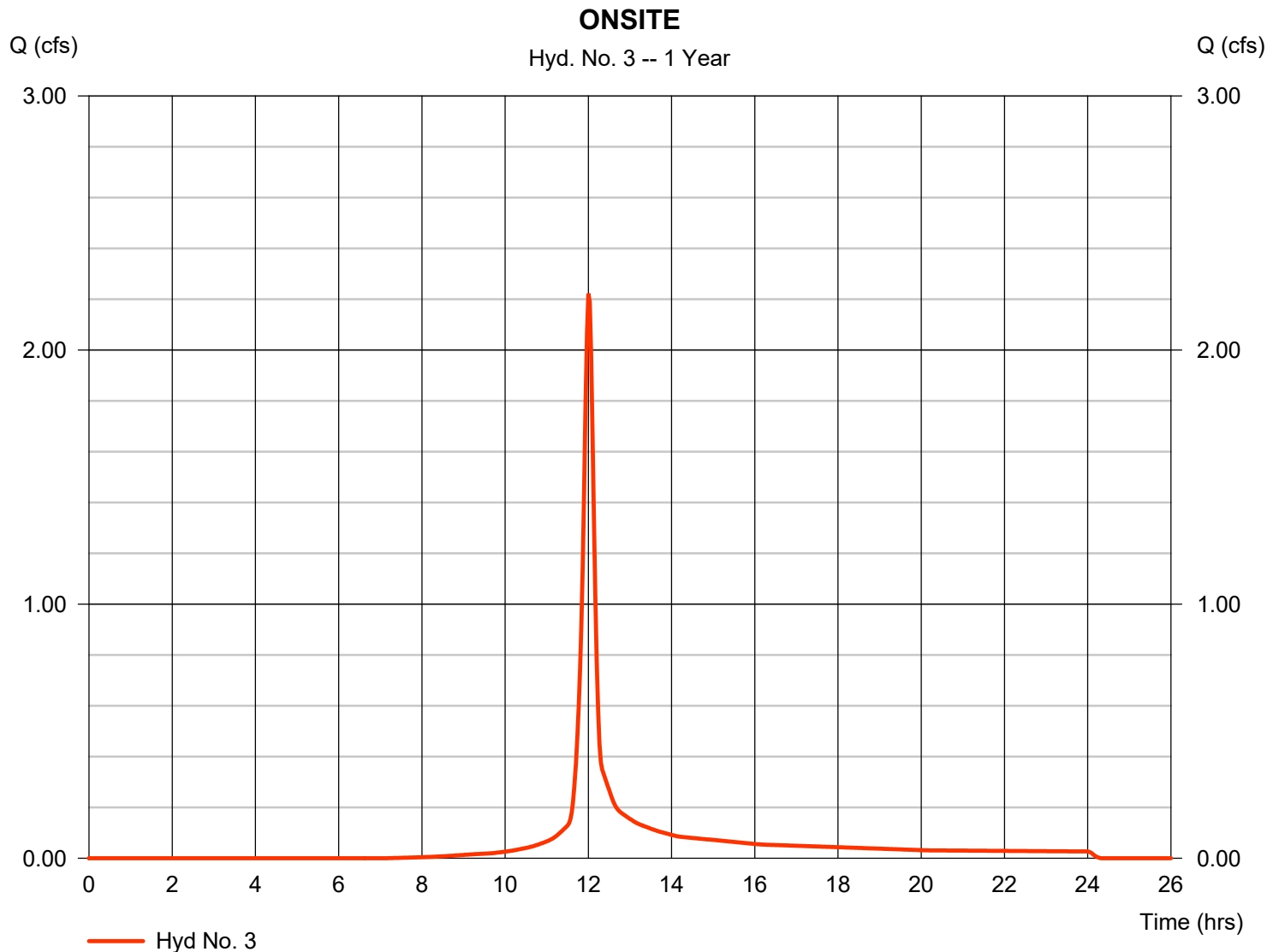
Friday, 09 / 10 / 2021

Hyd. No. 3

ONSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 2.223 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 5,772 cuft
Drainage area	= 1.060 ac	Curve number	= 89*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 2.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.660 \times 98) + (0.370 \times 74)] / 1.060$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

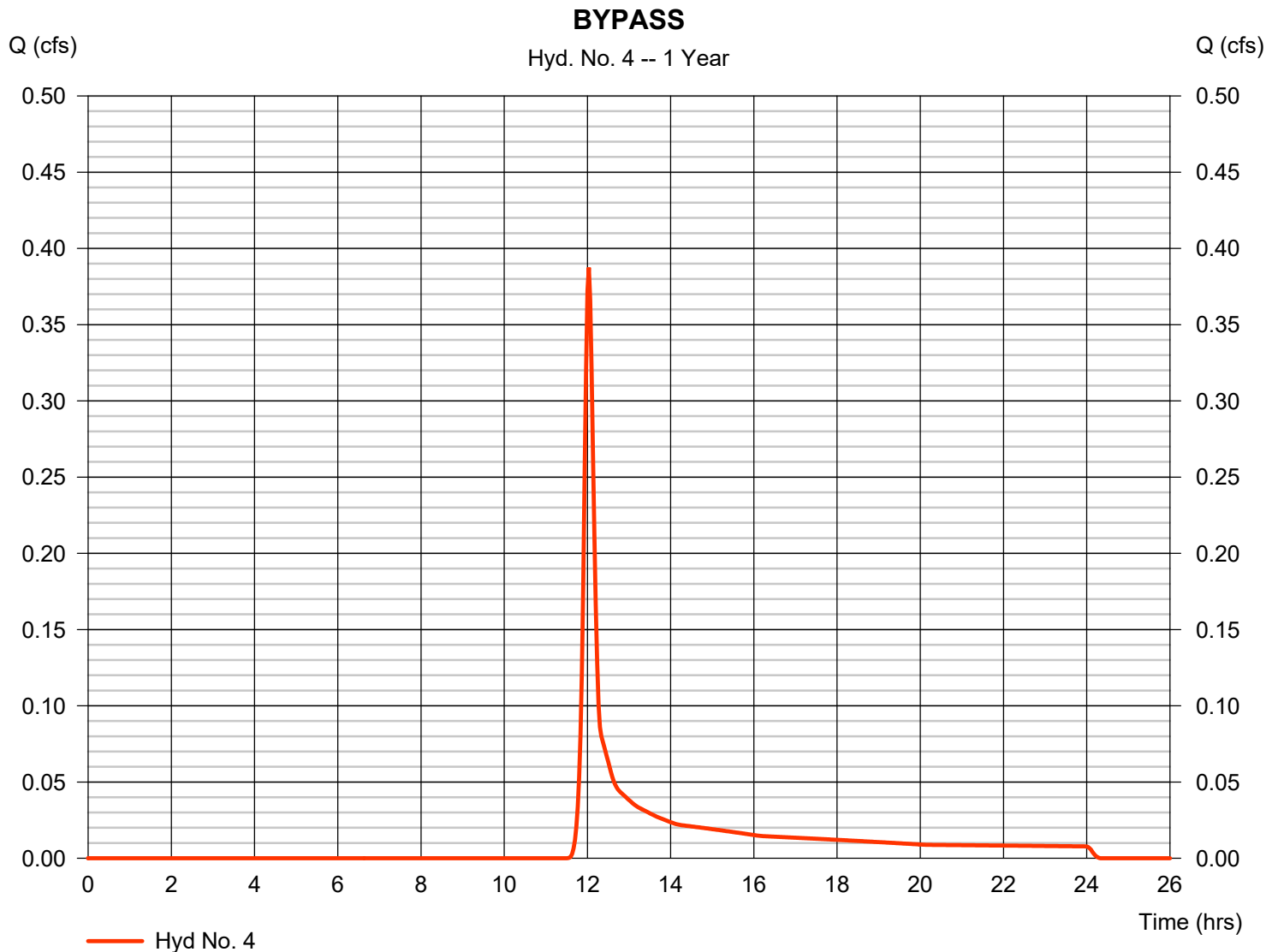
Friday, 09 / 10 / 2021

Hyd. No. 4

BYPASS

Hydrograph type	= SCS Runoff	Peak discharge	= 0.387 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 1,093 cuft
Drainage area	= 0.480 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 2.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $+(0.510 \times 74) / 0.480$



Hydrograph Report

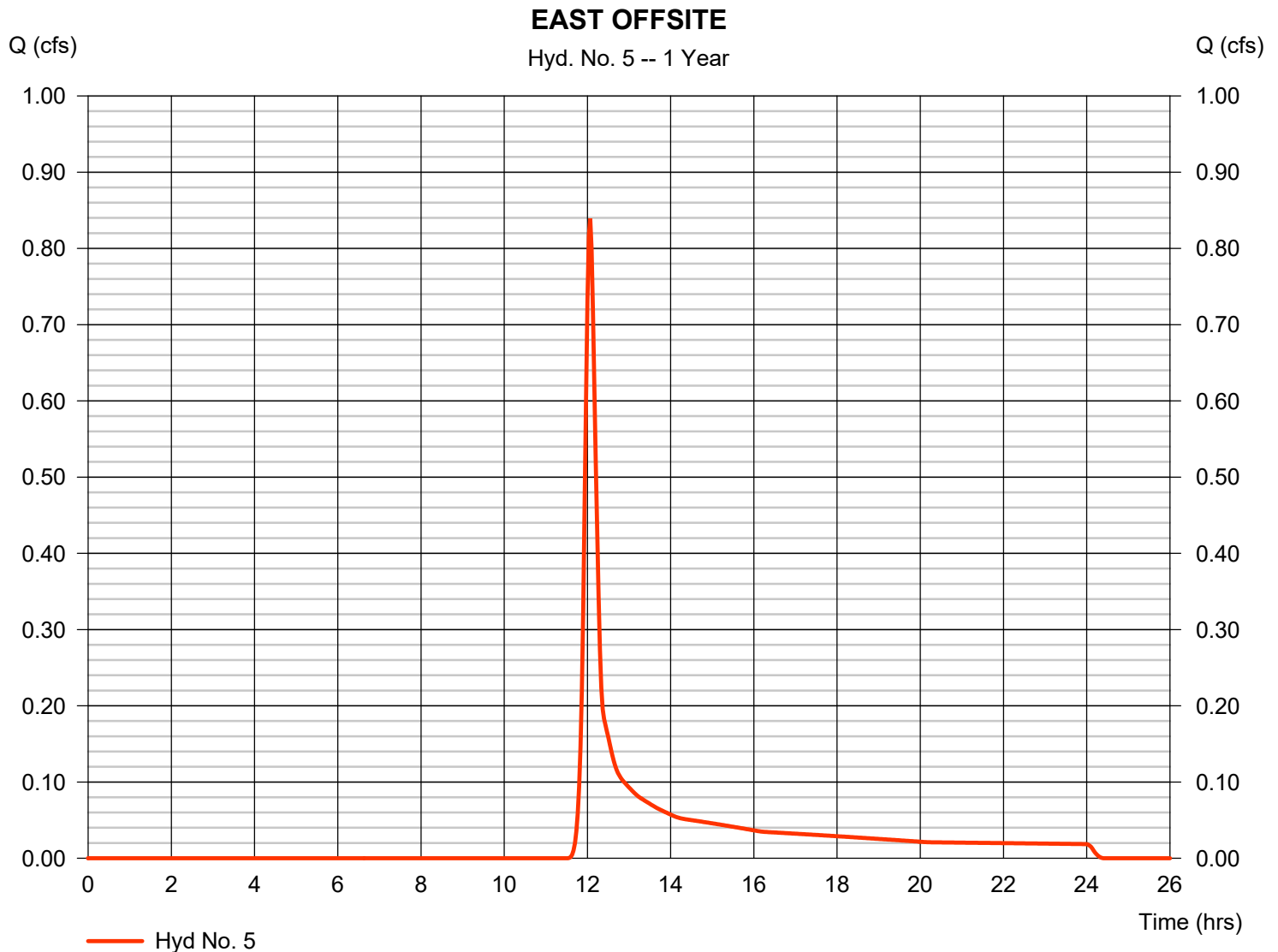
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 5

EAST OFFSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 0.839 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 2,605 cuft
Drainage area	= 1.210 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 15.00 min
Total precip.	= 2.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

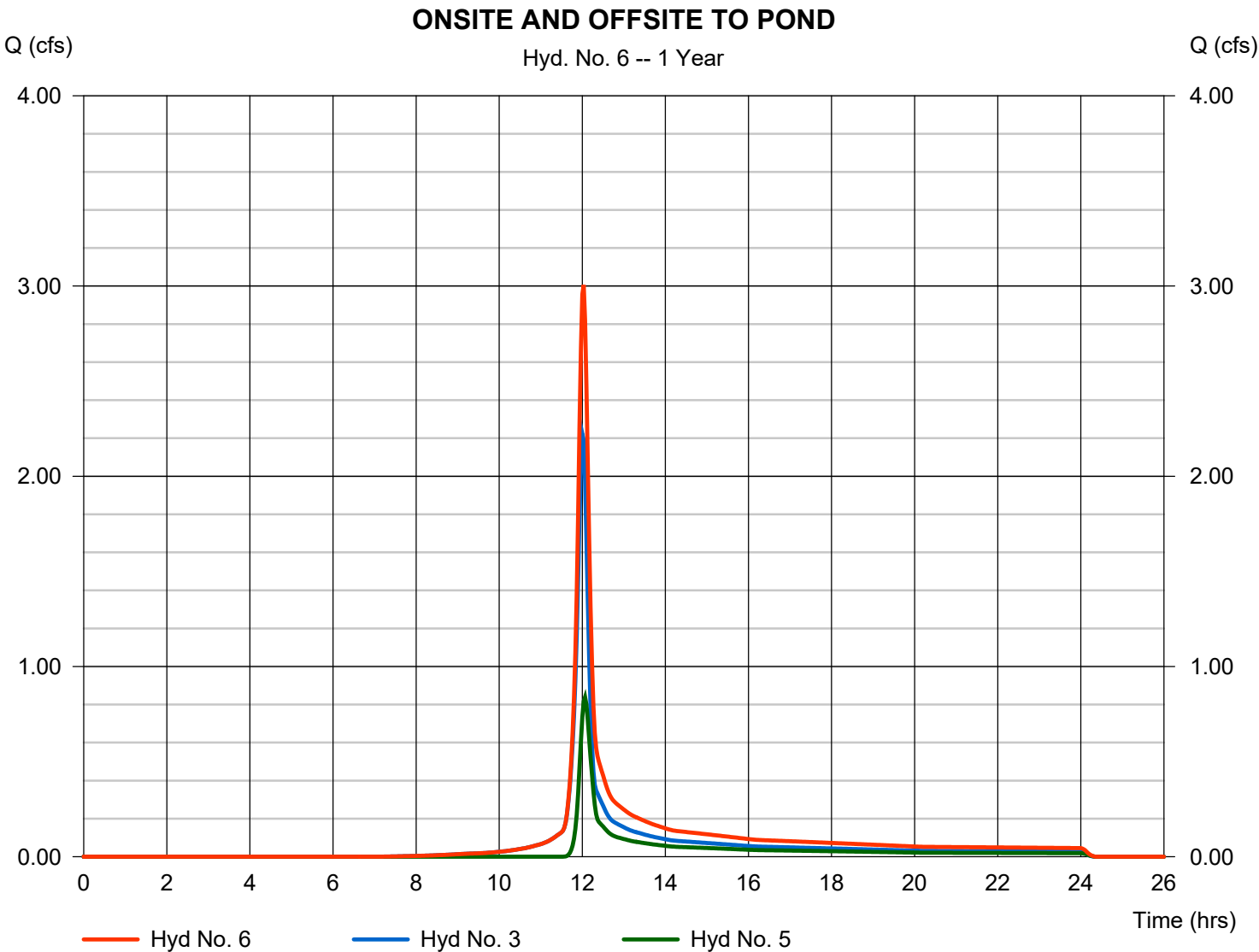


Hydrograph Report

Hyd. No. 6

ONSITE AND OFFSITE TO POND

Hydrograph type	= Combine	Peak discharge	= 3.005 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 8,377 cuft
Inflow hyds.	= 3, 5	Contrib. drain. area	= 2.270 ac



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

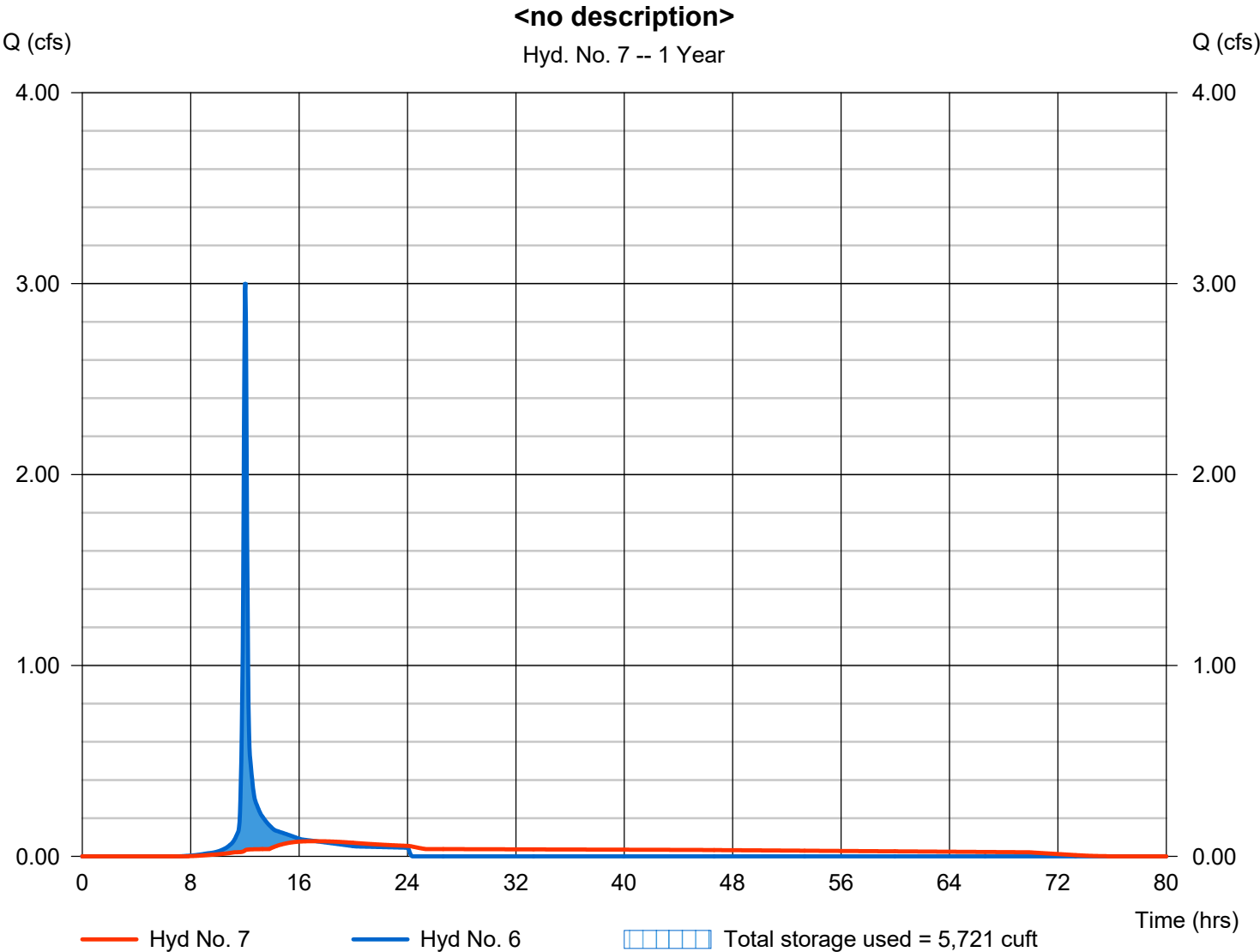
Friday, 09 / 10 / 2021

Hyd. No. 7

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 0.079 cfs
Storm frequency	= 1 yrs	Time to peak	= 17.20 hrs
Time interval	= 2 min	Hyd. volume	= 8,373 cuft
Inflow hyd. No.	= 6 - ONSITE AND OFFSITE TOWNSHIP	MPD Elevation	= 661.59 ft
Reservoir name	= Detention	Max. Storage	= 5,721 cuft

Storage Indication method used.



Pond Report

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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Pond No. 2 - Detention

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 659.26 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	659.26	00	0	0
0.74	660.00	828	204	204
1.74	661.00	4,555	2,441	2,646
2.74	662.00	5,836	5,182	7,827
3.74	663.00	7,245	6,527	14,355
4.74	664.00	8,785	8,002	22,356
5.74	665.00	10,018	9,394	31,750

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	1.00	11.50	0.00
Span (in)	= 12.00	1.00	11.50	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 659.26	659.26	661.50	0.00
Length (ft)	= 88.00	0.00	0.00	0.00
Slope (%)	= 0.29	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	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.24	Inactive	0.00	0.00
Crest El. (ft)	= 663.90	662.25	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	Ciplti	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
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	659.26	0.00	0.00	0.00	---	0.00	0.00	---	---	---	---	0.000
0.07	20	659.33	0.01 oc	0.00 ic	0.00	---	0.00	0.00	---	---	---	---	0.005
0.15	41	659.41	0.01 oc	0.01 ic	0.00	---	0.00	0.00	---	---	---	---	0.008
0.22	61	659.48	0.01 oc	0.01 ic	0.00	---	0.00	0.00	---	---	---	---	0.011
0.30	82	659.56	0.01 oc	0.01 ic	0.00	---	0.00	0.00	---	---	---	---	0.013
0.37	102	659.63	0.02 oc	0.01 ic	0.00	---	0.00	0.00	---	---	---	---	0.015
0.44	123	659.70	0.02 oc	0.02 ic	0.00	---	0.00	0.00	---	---	---	---	0.016
0.52	143	659.78	0.02 oc	0.02 ic	0.00	---	0.00	0.00	---	---	---	---	0.018
0.59	163	659.85	0.02 oc	0.02 ic	0.00	---	0.00	0.00	---	---	---	---	0.019
0.67	184	659.93	0.02 oc	0.02 ic	0.00	---	0.00	0.00	---	---	---	---	0.020
0.74	204	660.00	0.02 oc	0.02 ic	0.00	---	0.00	0.00	---	---	---	---	0.021
0.84	448	660.10	0.02 oc	0.02 ic	0.00	---	0.00	0.00	---	---	---	---	0.023
0.94	693	660.20	0.03 oc	0.02 ic	0.00	---	0.00	0.00	---	---	---	---	0.024
1.04	937	660.30	0.03 oc	0.03 ic	0.00	---	0.00	0.00	---	---	---	---	0.026
1.14	1,181	660.40	0.03 oc	0.03 ic	0.00	---	0.00	0.00	---	---	---	---	0.027
1.24	1,425	660.50	0.03 oc	0.03 ic	0.00	---	0.00	0.00	---	---	---	---	0.028
1.34	1,669	660.60	0.03 oc	0.03 ic	0.00	---	0.00	0.00	---	---	---	---	0.029
1.44	1,913	660.70	0.03 oc	0.03 ic	0.00	---	0.00	0.00	---	---	---	---	0.031
1.54	2,157	660.80	0.03 oc	0.03 ic	0.00	---	0.00	0.00	---	---	---	---	0.032
1.64	2,402	660.90	0.04 oc	0.03 ic	0.00	---	0.00	0.00	---	---	---	---	0.033
1.74	2,646	661.00	0.04 oc	0.03 ic	0.00	---	0.00	0.00	---	---	---	---	0.034
1.84	3,164	661.10	0.04 oc	0.03 ic	0.00	---	0.00	0.00	---	---	---	---	0.035
1.94	3,682	661.20	0.04 oc	0.04 ic	0.00	---	0.00	0.00	---	---	---	---	0.036
2.04	4,200	661.30	0.04 oc	0.04 ic	0.00	---	0.00	0.00	---	---	---	---	0.037
2.14	4,718	661.40	0.04 oc	0.04 ic	0.00	---	0.00	0.00	---	---	---	---	0.038
2.24	5,237	661.50	0.04 oc	0.04 ic	0.00	---	0.00	0.00	---	---	---	---	0.038
2.34	5,755	661.60	0.08 oc	0.04 ic	0.04 ic	---	0.00	0.00	---	---	---	---	0.082
2.44	6,273	661.70	0.22 oc	0.04 ic	0.17 ic	---	0.00	0.00	---	---	---	---	0.209
2.54	6,791	661.80	0.40 oc	0.04 ic	0.36 ic	---	0.00	0.00	---	---	---	---	0.404
2.64	7,309	661.90	0.66 oc	0.04 ic	0.62 ic	---	0.00	0.00	---	---	---	---	0.661
2.74	7,827	662.00	0.96 oc	0.04 ic	0.92 ic	---	0.00	0.00	---	---	---	---	0.959
2.84	8,480	662.10	1.31 oc	0.04 ic	1.27 ic	---	0.00	0.00	---	---	---	---	1.305
2.94	9,133	662.20	1.65 oc	0.04 ic	1.62 ic	---	0.00	0.00	---	---	---	---	1.653
3.04	9,786	662.30	2.00 oc	0.04 ic	1.96 ic	---	0.00	0.00	---	---	---	---	1.998
3.14	10,438	662.40	2.31 oc	0.04 ic	2.28 ic	---	0.00	0.00	---	---	---	---	2.311
3.24	11,091	662.50	2.54 oc	0.04 ic	2.51 ic	---	0.00	0.00	---	---	---	---	2.541

Continues on next page...

Detention

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
3.34	11,744	662.60	2.77 oc	0.04 ic	2.74 ic	---	0.00	0.00	---	---	---	---	2.771
3.44	12,396	662.70	2.98 oc	0.03 ic	2.95 ic	---	0.00	0.00	---	---	---	---	2.983
3.54	13,049	662.80	3.18 oc	0.03 ic	3.15 ic	---	0.00	0.00	---	---	---	---	3.180
3.64	13,702	662.90	3.37 oc	0.03 ic	3.33 ic	---	0.00	0.00	---	---	---	---	3.366
3.74	14,355	663.00	3.54 oc	0.03 ic	3.51 ic	---	0.00	0.00	---	---	---	---	3.542
3.84	15,155	663.10	3.71 oc	0.03 ic	3.68 ic	---	0.00	0.00	---	---	---	---	3.710
3.94	15,955	663.20	3.87 oc	0.03 ic	3.84 ic	---	0.00	0.00	---	---	---	---	3.870
4.04	16,755	663.30	4.02 oc	0.03 ic	3.99 ic	---	0.00	0.00	---	---	---	---	4.024
4.14	17,555	663.40	4.17 oc	0.03 ic	4.14 ic	---	0.00	0.00	---	---	---	---	4.172
4.24	18,356	663.50	4.31 oc	0.03 ic	4.28 ic	---	0.00	0.00	---	---	---	---	4.310
4.34	19,156	663.60	4.37 oc	0.03 ic	4.34 ic	---	0.00	0.00	---	---	---	---	4.372
4.44	19,956	663.70	4.43 oc	0.03 ic	4.40 ic	---	0.00	0.00	---	---	---	---	4.432
4.54	20,756	663.80	4.49 oc	0.03 ic	4.46 ic	---	0.00	0.00	---	---	---	---	4.492
4.64	21,556	663.90	4.55 oc	0.03 ic	4.52 ic	---	0.00	0.00	---	---	---	---	4.550
4.74	22,356	664.00	4.80 oc	0.03 ic	4.32 ic	---	0.45	0.00	---	---	---	---	4.797
4.84	23,296	664.10	5.17 oc	0.03 ic	3.88 ic	---	1.26	0.00	---	---	---	---	5.172
4.94	24,235	664.20	5.59 oc	0.02 ic	3.24 ic	---	2.32	0.00	---	---	---	---	5.588
5.04	25,175	664.30	5.99 oc	0.02 ic	2.40 ic	---	3.57	0.00	---	---	---	---	5.989
5.14	26,114	664.40	6.22 oc	0.01 ic	1.84 ic	---	4.37 s	0.00	---	---	---	---	6.218
5.24	27,053	664.50	6.36 oc	0.01 ic	1.54 ic	---	4.81 s	0.00	---	---	---	---	6.356
5.34	27,993	664.60	6.47 oc	0.01 ic	1.32 ic	---	5.14 s	0.00	---	---	---	---	6.466
5.44	28,932	664.70	6.56 oc	0.01 ic	1.15 ic	---	5.41 s	0.00	---	---	---	---	6.563
5.54	29,871	664.80	6.65 oc	0.01 ic	1.01 ic	---	5.63 s	0.00	---	---	---	---	6.650
5.64	30,811	664.90	6.73 oc	0.01 ic	0.91 ic	---	5.82 s	0.00	---	---	---	---	6.734
5.74	31,750	665.00	6.81 oc	0.01 ic	0.82 ic	---	5.99 s	0.00	---	---	---	---	6.811

...End

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	4.177	2	724	13,205	-----	-----	-----	PRE
2	SCS Runoff	6.406	2	720	16,608	-----	-----	-----	POST
3	SCS Runoff	4.138	2	720	10,942	-----	-----	-----	ONSITE
4	SCS Runoff	1.057	2	722	2,776	-----	-----	-----	BYPASS
5	SCS Runoff	2.315	2	722	6,617	-----	-----	-----	EAST OFFSITE
6	Combine	6.353	2	722	17,559	3, 5	-----	-----	ONSITE AND OFFSITE TO POND
7	Reservoir	1.254	2	738	17,554	6	662.09	8,383	<no description>
R:\Projects\2019\19036 - Barefoot Landscaping Retention Pond Design.dwg					Barefoot Landscaping Retention Pond DETENTION Pond				2019-09-20 11:01:00
R:\Projects\2019\19036 - Barefoot Landscaping Retention Pond Design.dwg					Barefoot Landscaping Retention Pond DETENTION Pond				2019-09-20 11:01:00

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

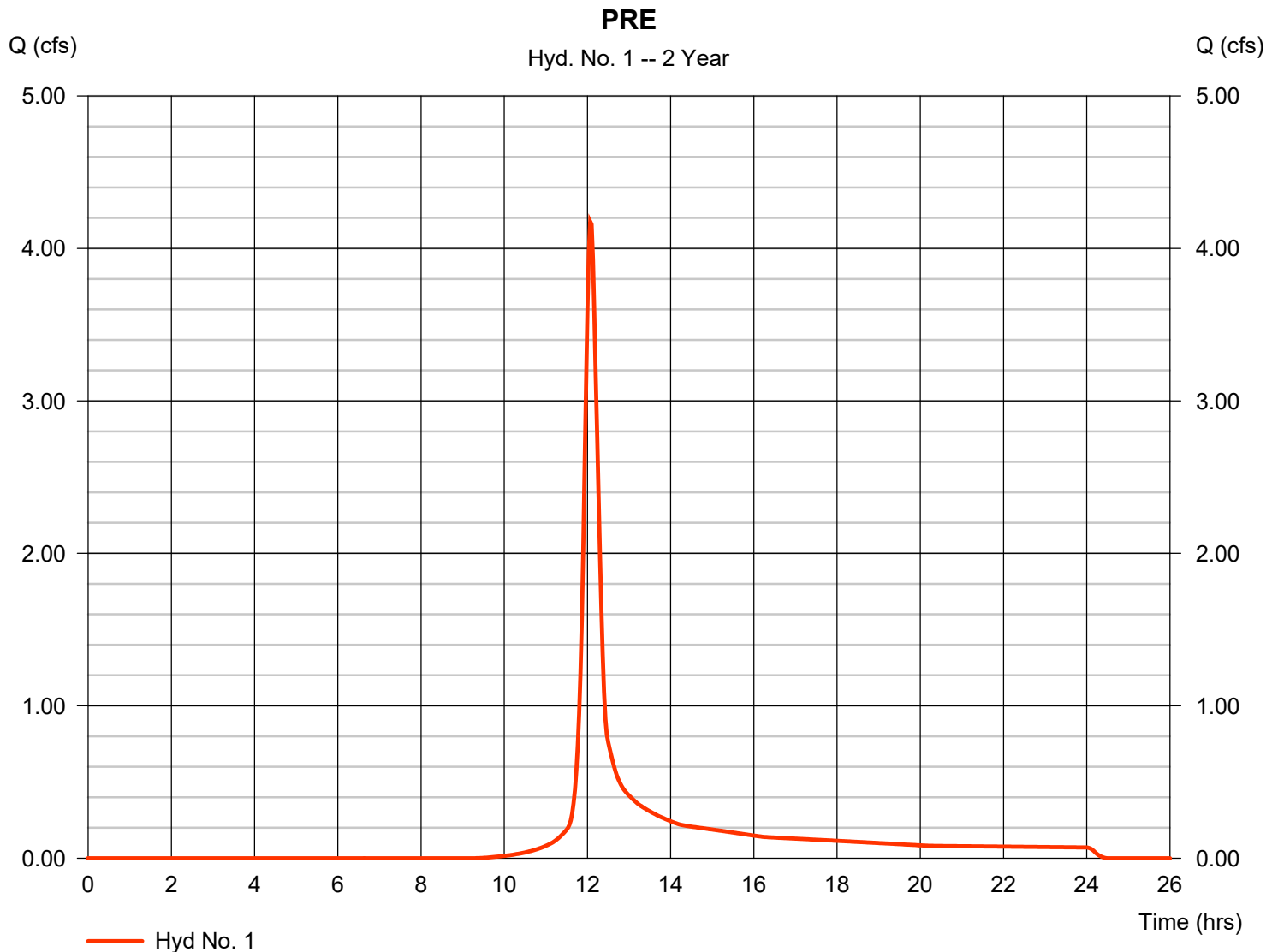
Friday, 09 / 10 / 2021

Hyd. No. 1

PRE

Hydrograph type	= SCS Runoff	Peak discharge	= 4.177 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 13,205 cuft
Drainage area	= 2.070 ac	Curve number	= 77*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.80 min
Total precip.	= 3.93 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.400 \times 79) + (1.665 \times 77)] / 2.070$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

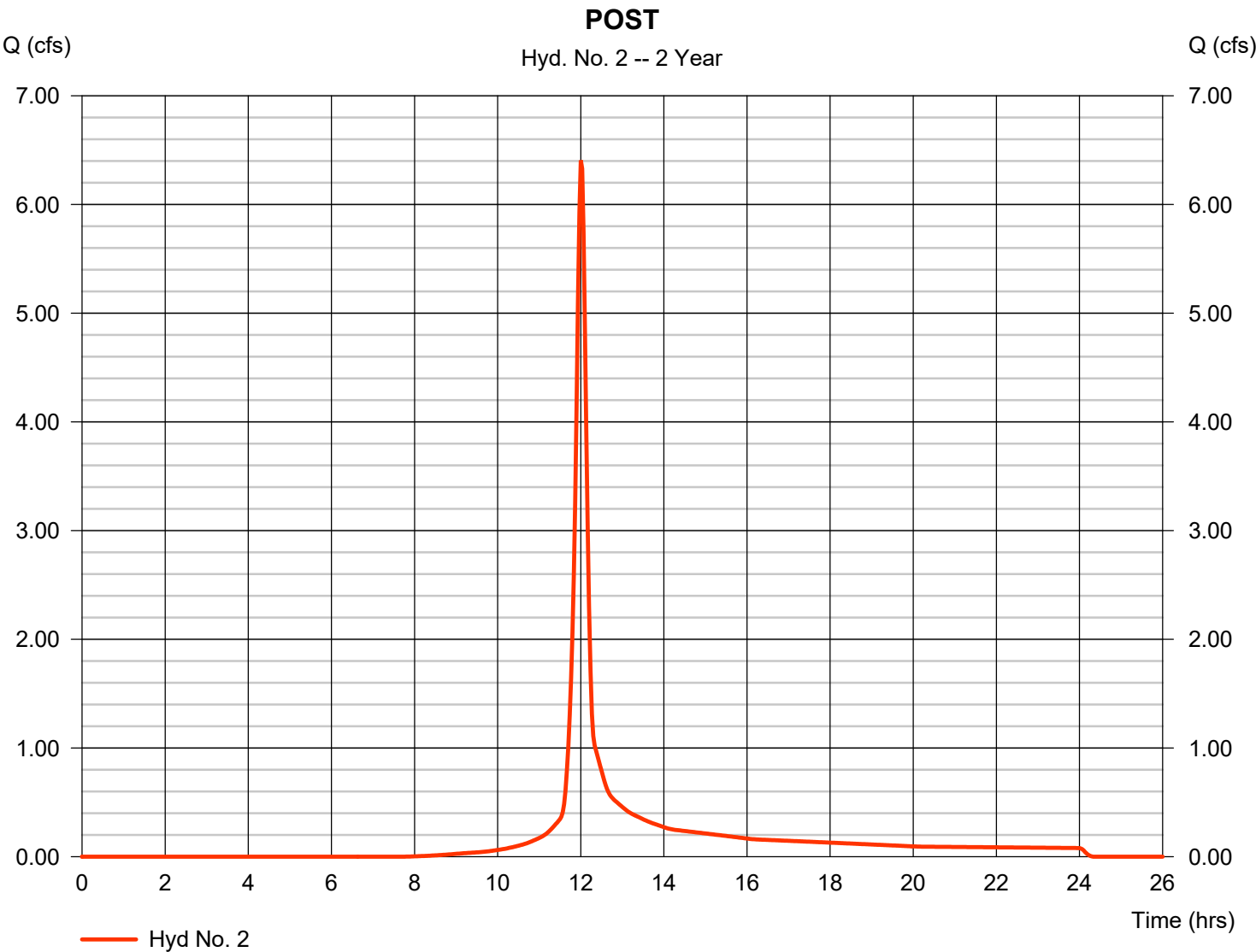
Friday, 09 / 10 / 2021

Hyd. No. 2

POST

Hydrograph type	= SCS Runoff	Peak discharge	= 6.406 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 16,608 cuft
Drainage area	= 2.070 ac	Curve number	= 82*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 3.93 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.640 x 98) + (0.860 x 74) + (0.570 x 77)] / 2.070



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

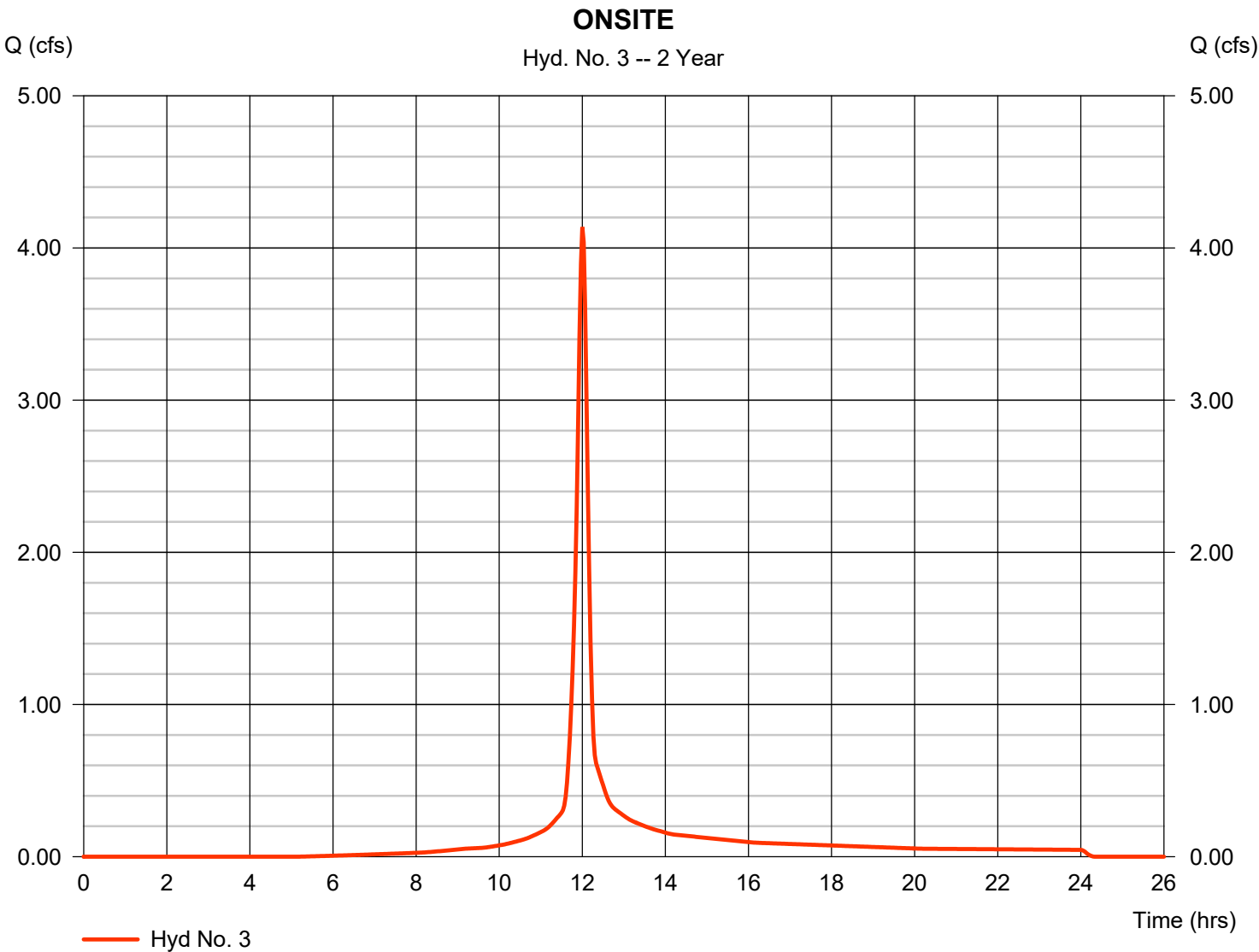
Friday, 09 / 10 / 2021

Hyd. No. 3

ONSITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.138 cfs
Storm frequency	=	2 yrs	Time to peak	=	12.00 hrs
Time interval	=	2 min	Hyd. volume	=	10,942 cuft
Drainage area	=	1.060 ac	Curve number	=	89*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	3.93 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.660 x 98) + (0.370 x 74)] / 1.060



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

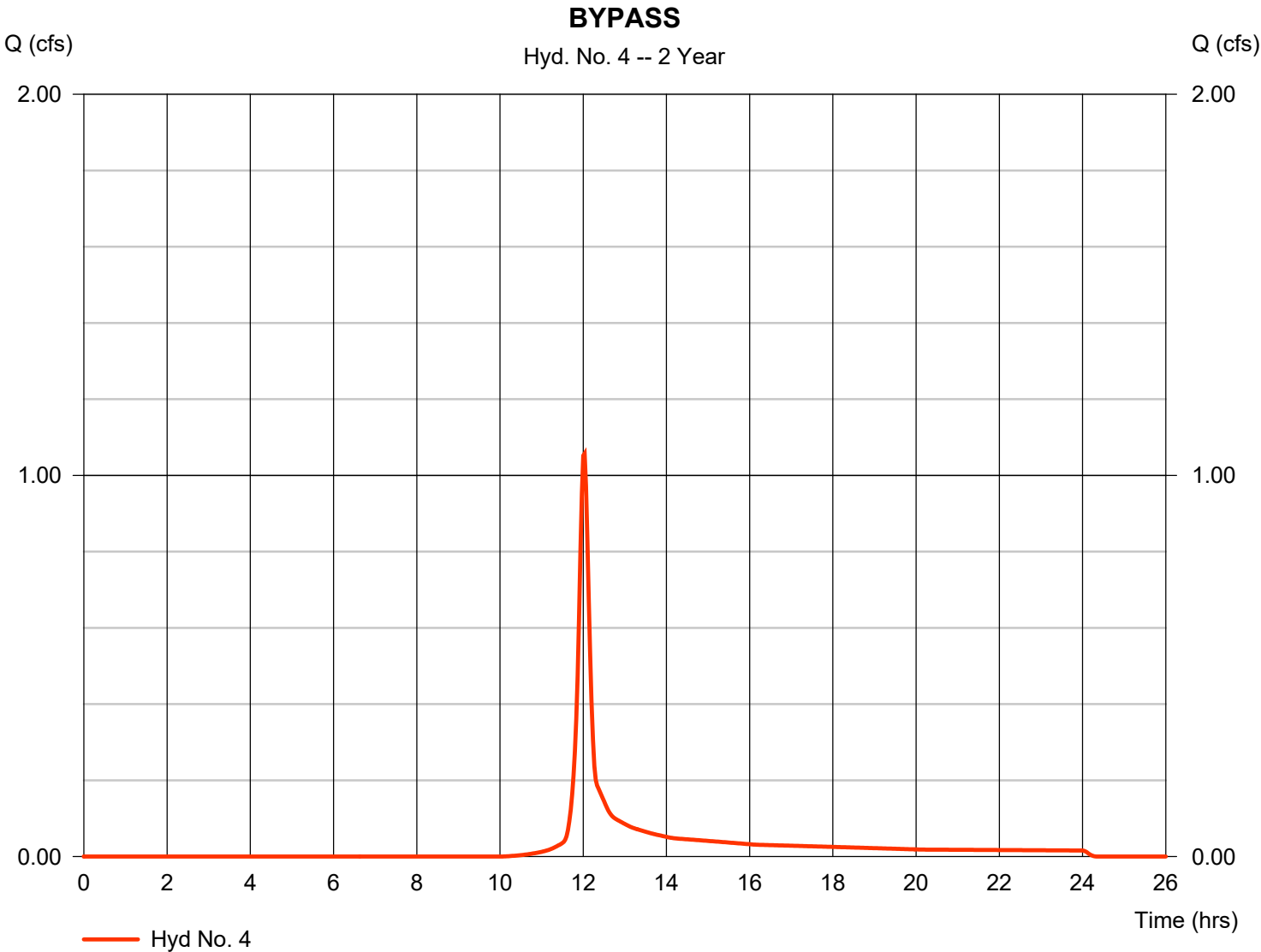
Friday, 09 / 10 / 2021

Hyd. No. 4

BYPASS

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.057 cfs
Storm frequency	=	2 yrs	Time to peak	=	12.03 hrs
Time interval	=	2 min	Hyd. volume	=	2,776 cuft
Drainage area	=	0.480 ac	Curve number	=	74*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	3.93 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = + (0.510 x 74)] / 0.480



Hydrograph Report

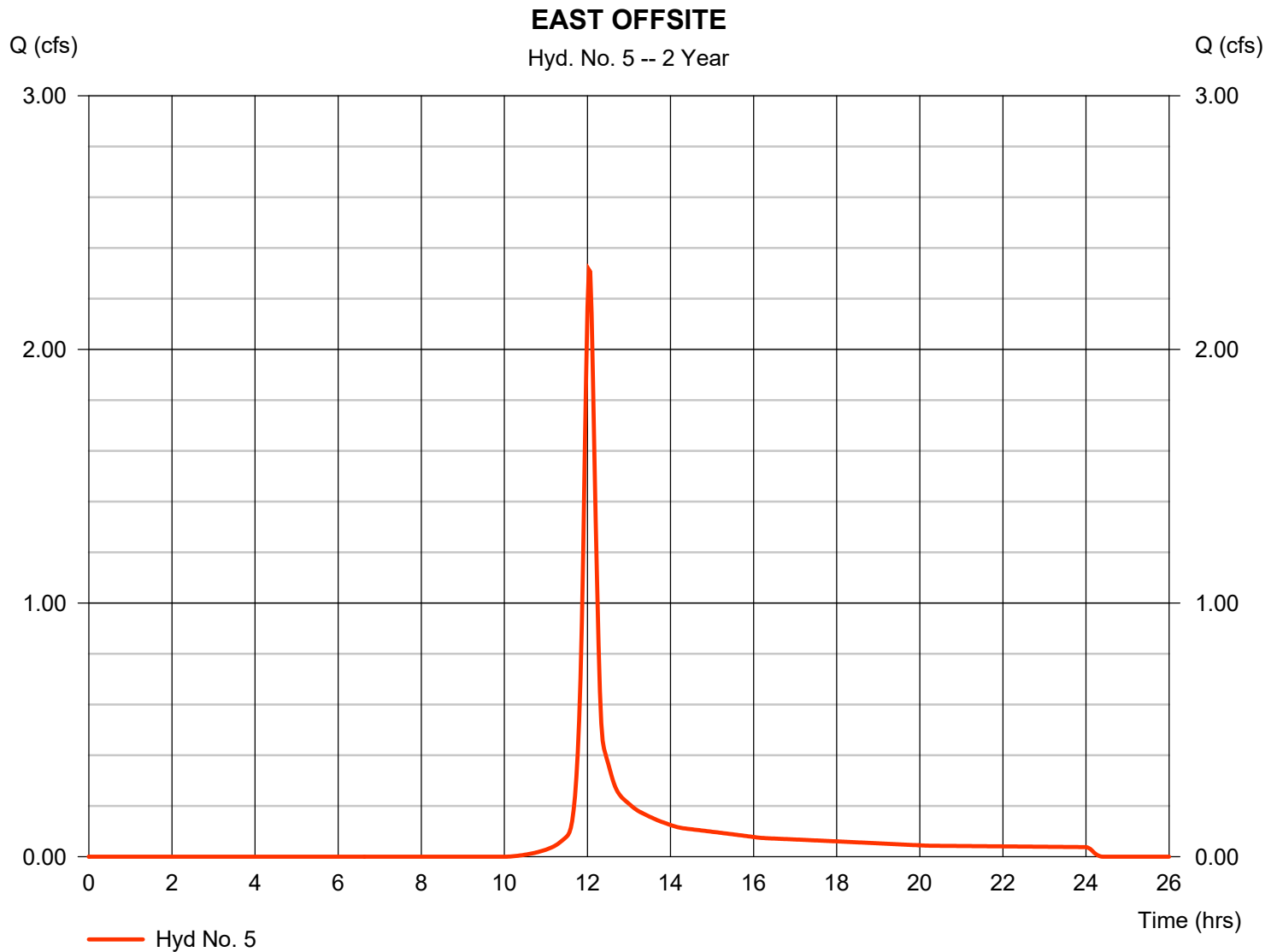
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 5

EAST OFFSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 2.315 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 6,617 cuft
Drainage area	= 1.210 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 15.00 min
Total precip.	= 3.93 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

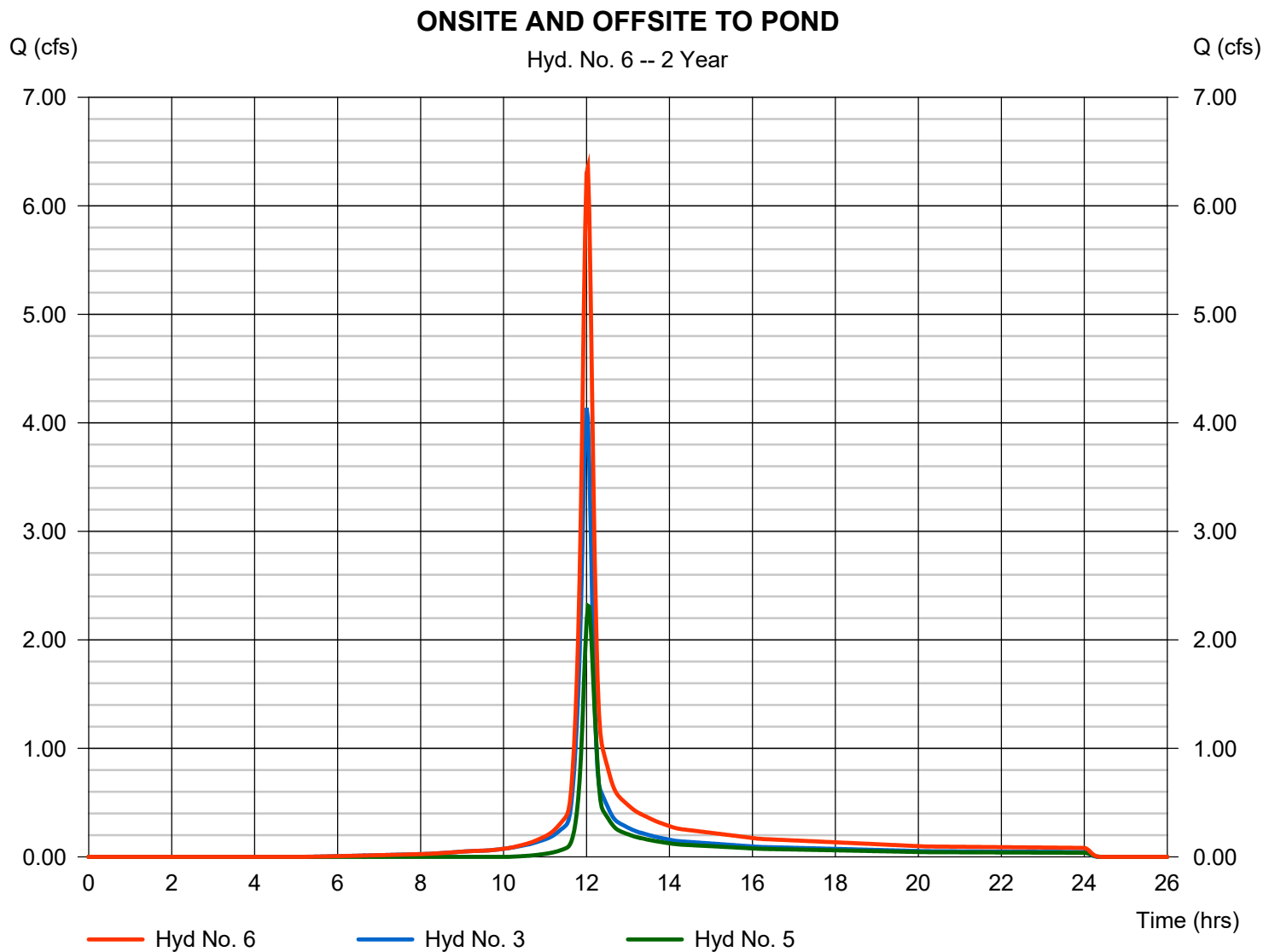
Friday, 09 / 10 / 2021

Hyd. No. 6

ONSITE AND OFFSITE TO POND

Hydrograph type = Combine
Storm frequency = 2 yrs
Time interval = 2 min
Inflow hyds. = 3, 5

Peak discharge = 6.353 cfs
Time to peak = 12.03 hrs
Hyd. volume = 17,559 cuft
Contrib. drain. area = 2.270 ac



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

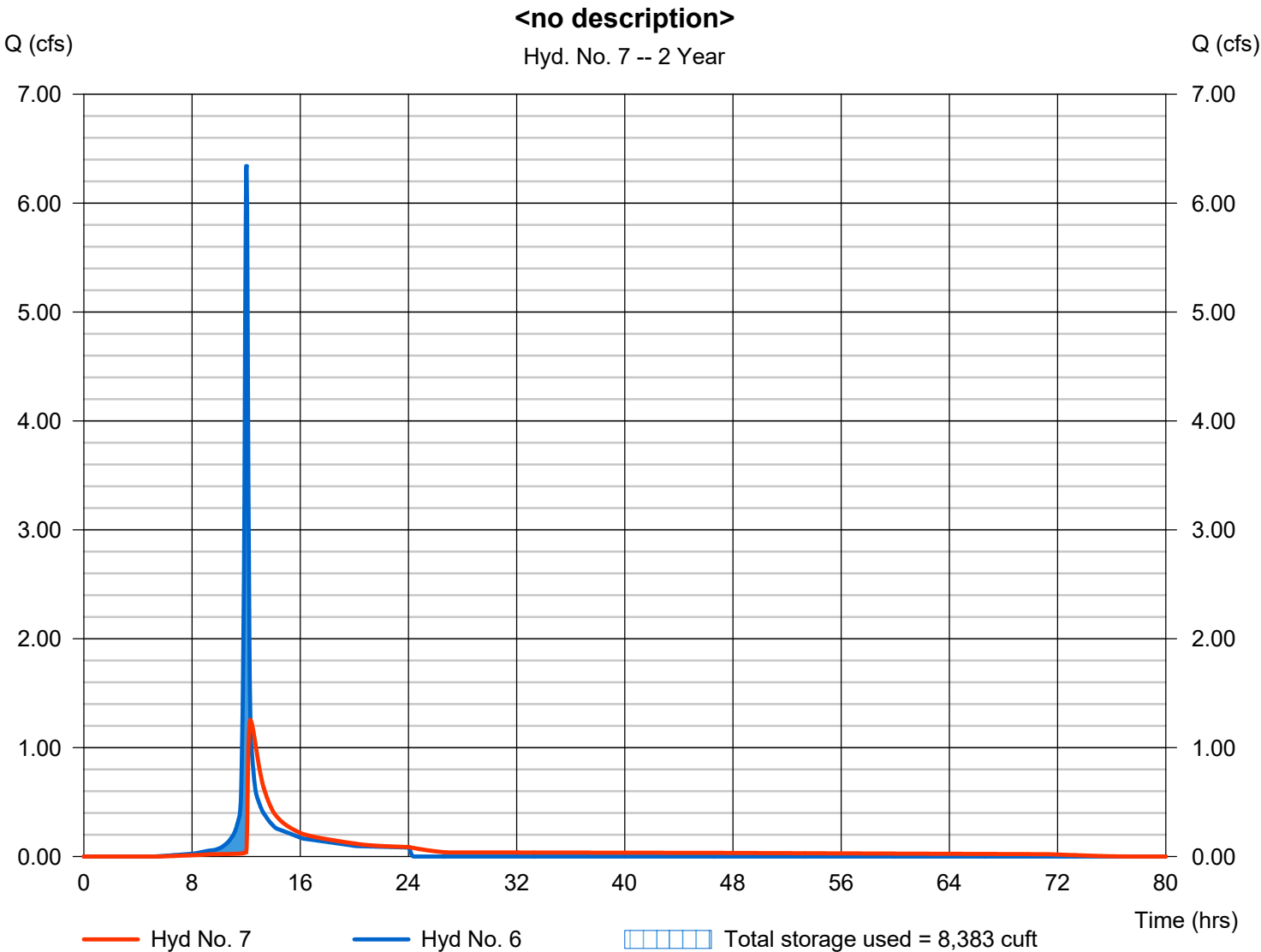
Friday, 09 / 10 / 2021

Hyd. No. 7

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 1.254 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.30 hrs
Time interval	= 2 min	Hyd. volume	= 17,554 cuft
Inflow hyd. No.	= 6 - ONSITE AND OFFSITE TOWNSHIP	MPD Elevation	= 662.09 ft
Reservoir name	= Detention	Max. Storage	= 8,383 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	5.331	2	724	16,733	-----	-----	-----	PRE
2	SCS Runoff	7.916	2	720	20,563	-----	-----	-----	POST
3	SCS Runoff	4.933	2	720	13,151	-----	-----	-----	ONSITE
4	SCS Runoff	1.368	2	720	3,572	-----	-----	-----	BYPASS
5	SCS Runoff	3.011	2	722	8,512	-----	-----	-----	EAST OFFSITE
6	Combine	7.815	2	722	21,663	3, 5	-----	-----	ONSITE AND OFFSITE TO POND
7	Reservoir	2.087	2	736	21,659	6	662.33	9,970	<no description>
R:\Projects\2019\19036 - Barefoot Landscaping & Stormwater Design\2019-09-20\19036 - BAREFOOT DETENTION Pond Design.dwg					2019-09-20 12:01:00				

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

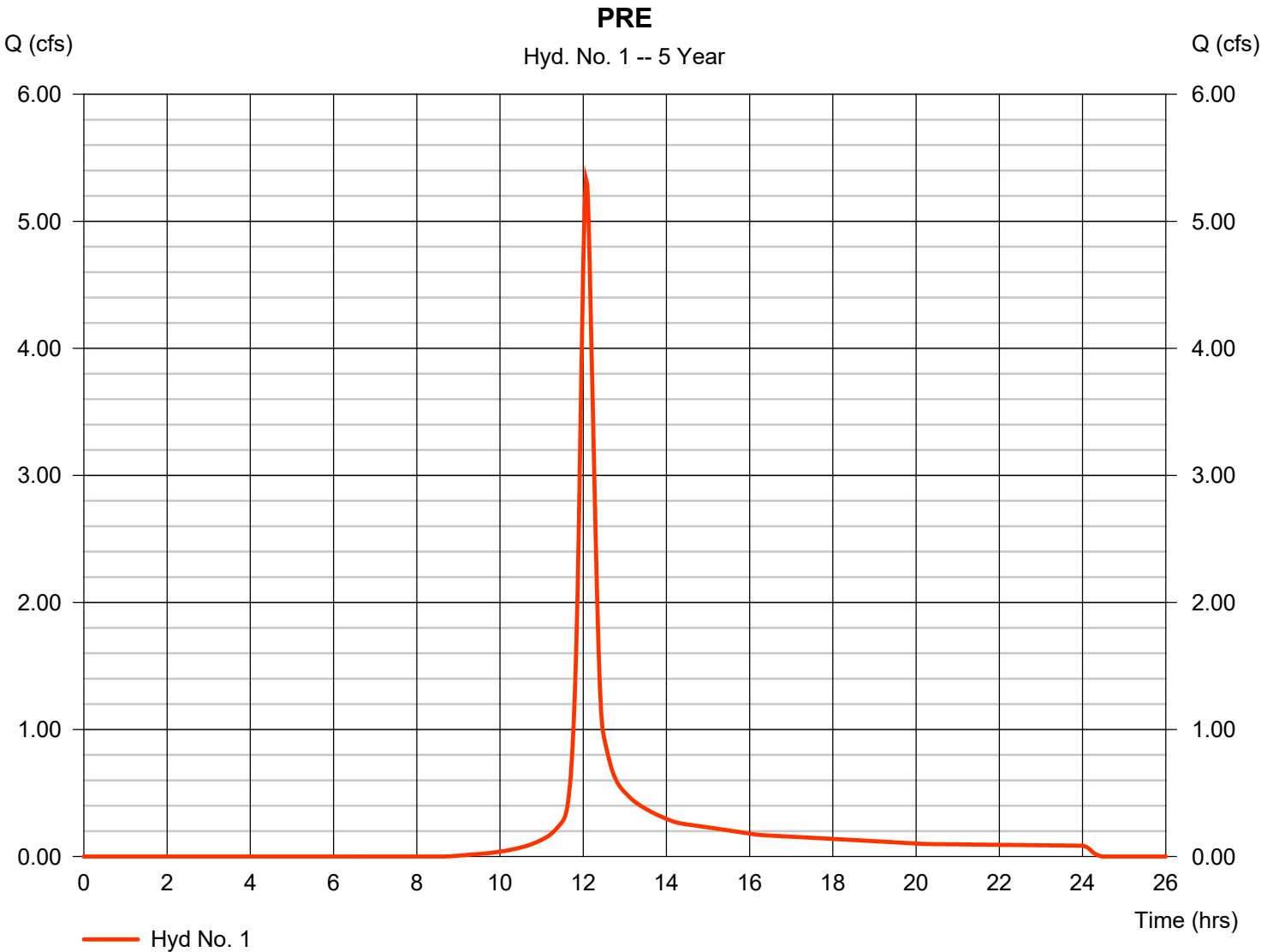
Friday, 09 / 10 / 2021

Hyd. No. 1

PRE

Hydrograph type	=	SCS Runoff	Peak discharge	=	5.331 cfs
Storm frequency	=	5 yrs	Time to peak	=	12.07 hrs
Time interval	=	2 min	Hyd. volume	=	16,733 cuft
Drainage area	=	2.070 ac	Curve number	=	77*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	18.80 min
Total precip.	=	4.52 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.400 x 79) + (1.665 x 77)] / 2.070



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

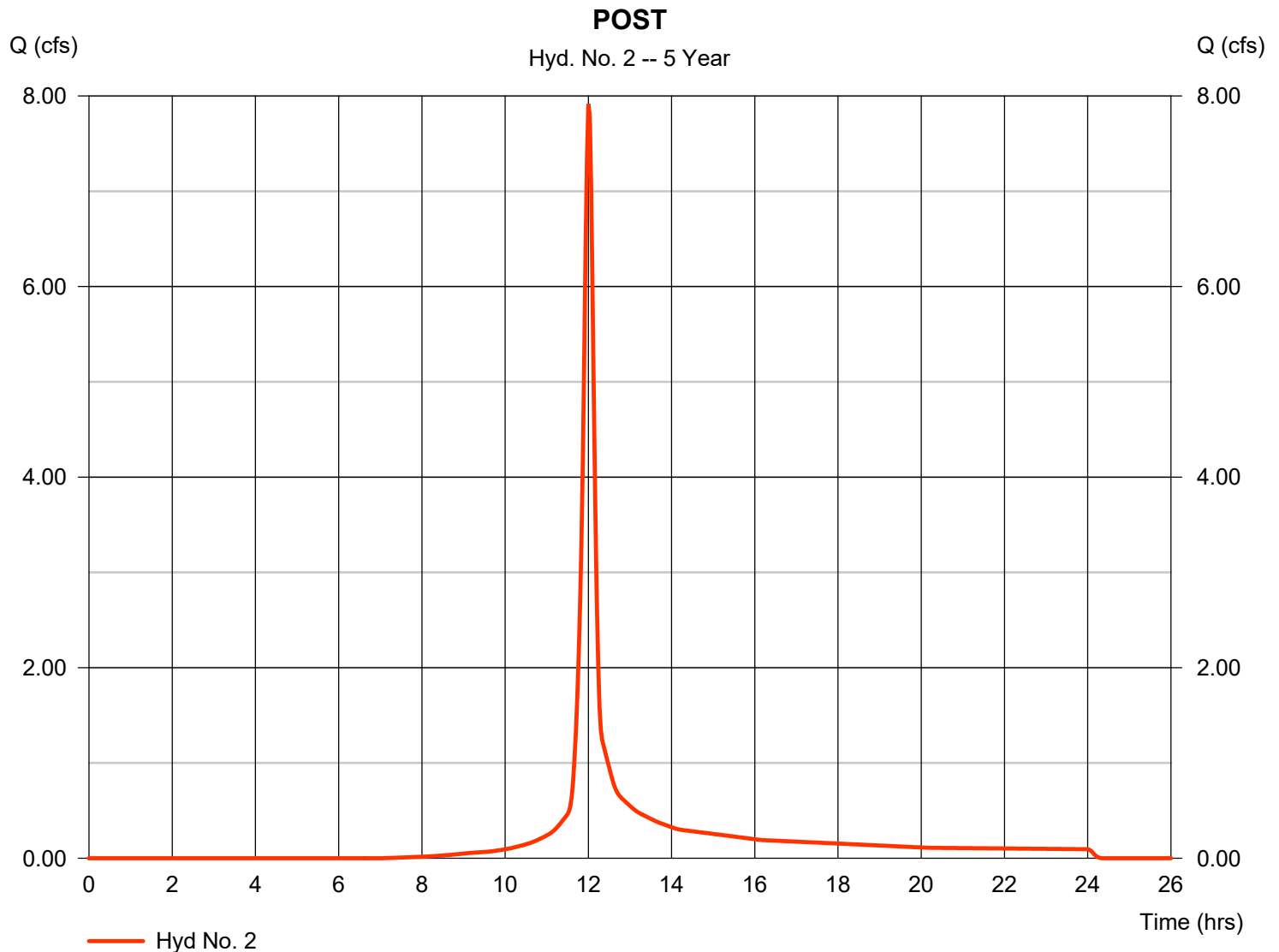
Friday, 09 / 10 / 2021

Hyd. No. 2

POST

Hydrograph type	= SCS Runoff	Peak discharge	= 7.916 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 20,563 cuft
Drainage area	= 2.070 ac	Curve number	= 82*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 4.52 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.640 \times 98) + (0.860 \times 74) + (0.570 \times 77)] / 2.070$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

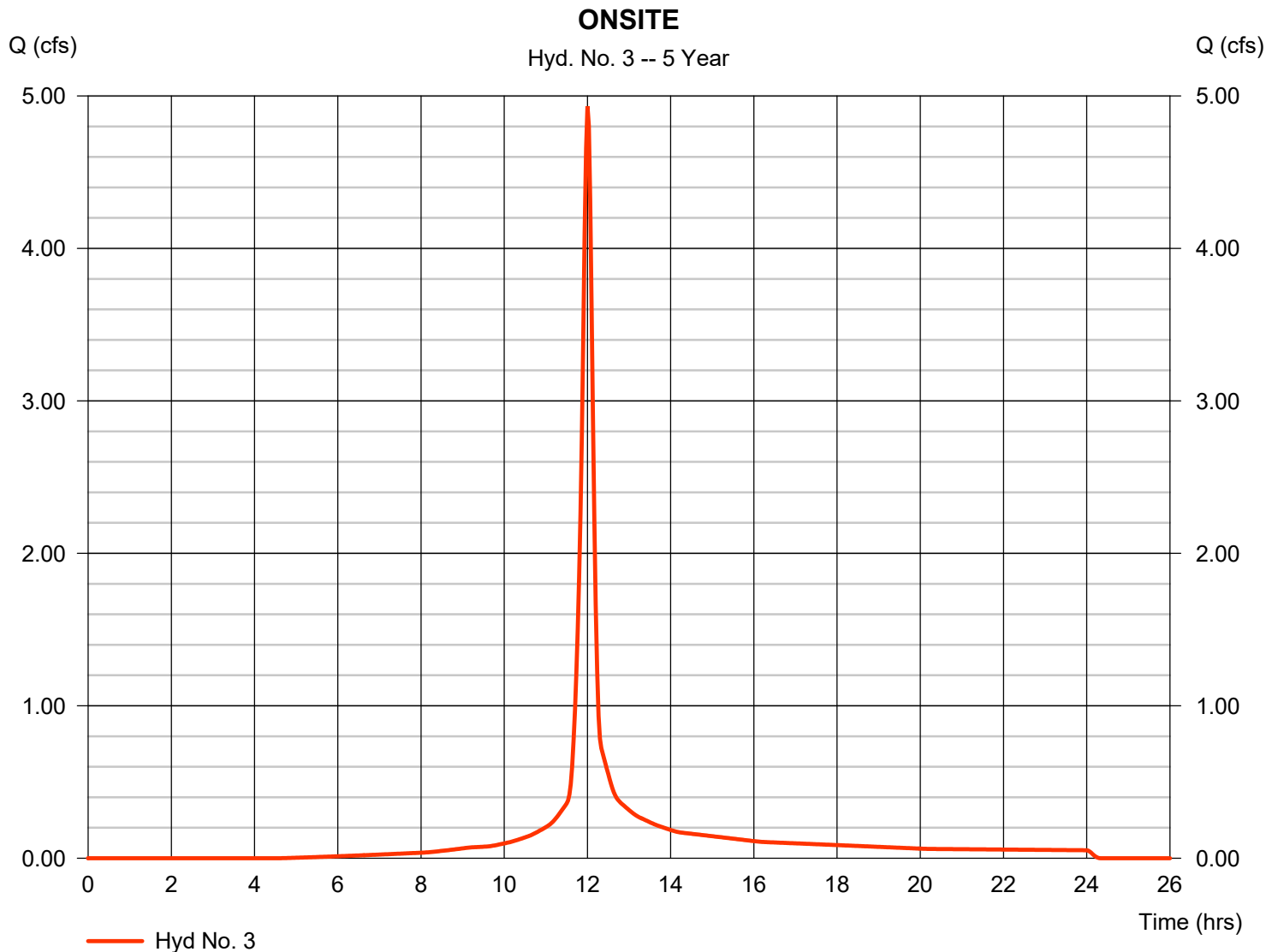
Friday, 09 / 10 / 2021

Hyd. No. 3

ONSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 4.933 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 13,151 cuft
Drainage area	= 1.060 ac	Curve number	= 89*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 4.52 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.660 \times 98) + (0.370 \times 74)] / 1.060$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

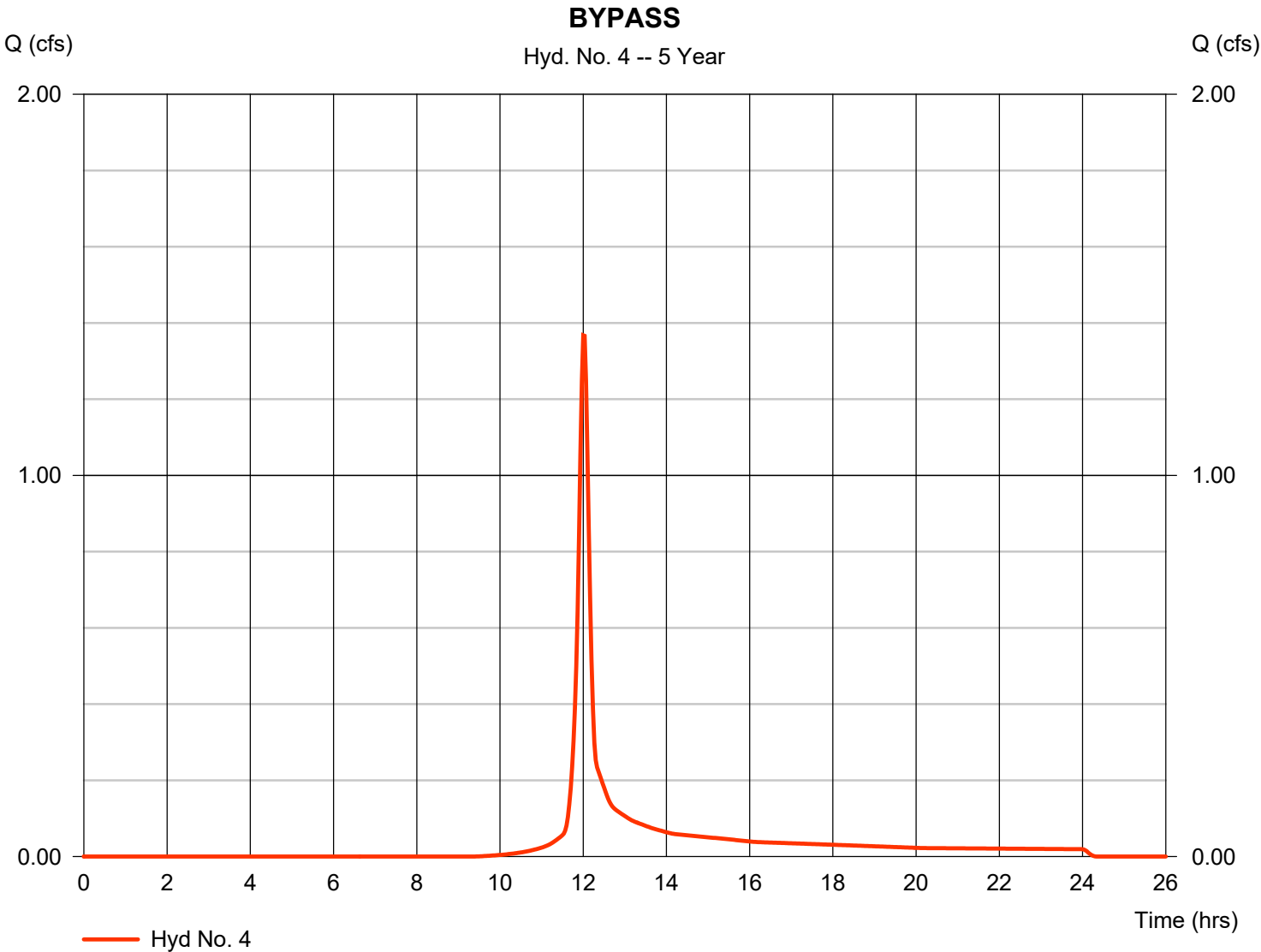
Friday, 09 / 10 / 2021

Hyd. No. 4

BYPASS

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.368 cfs
Storm frequency	=	5 yrs	Time to peak	=	12.00 hrs
Time interval	=	2 min	Hyd. volume	=	3,572 cuft
Drainage area	=	0.480 ac	Curve number	=	74*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	4.52 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = + (0.510 x 74)] / 0.480



Hydrograph Report

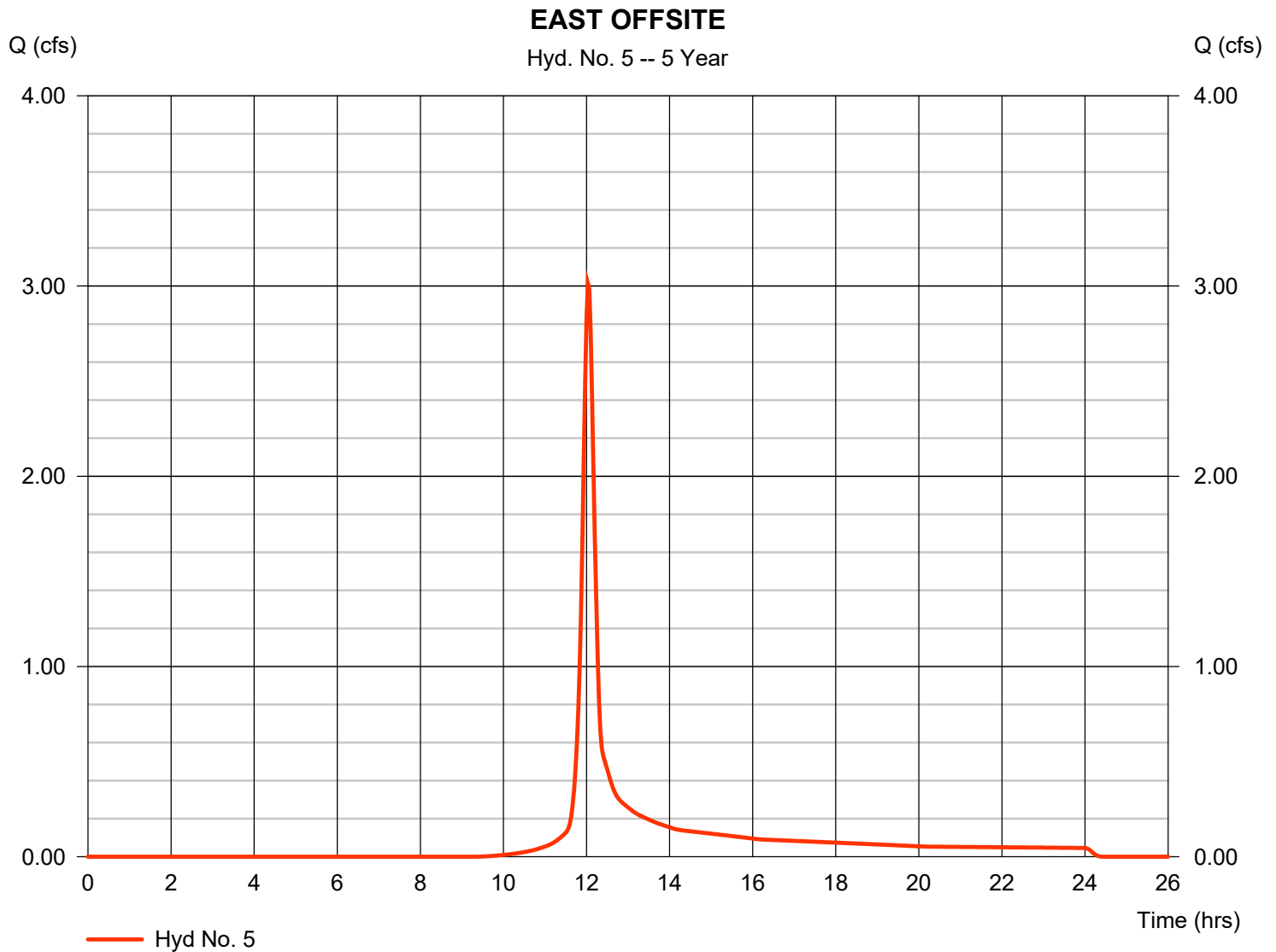
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 5

EAST OFFSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 3.011 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 8,512 cuft
Drainage area	= 1.210 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 15.00 min
Total precip.	= 4.52 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

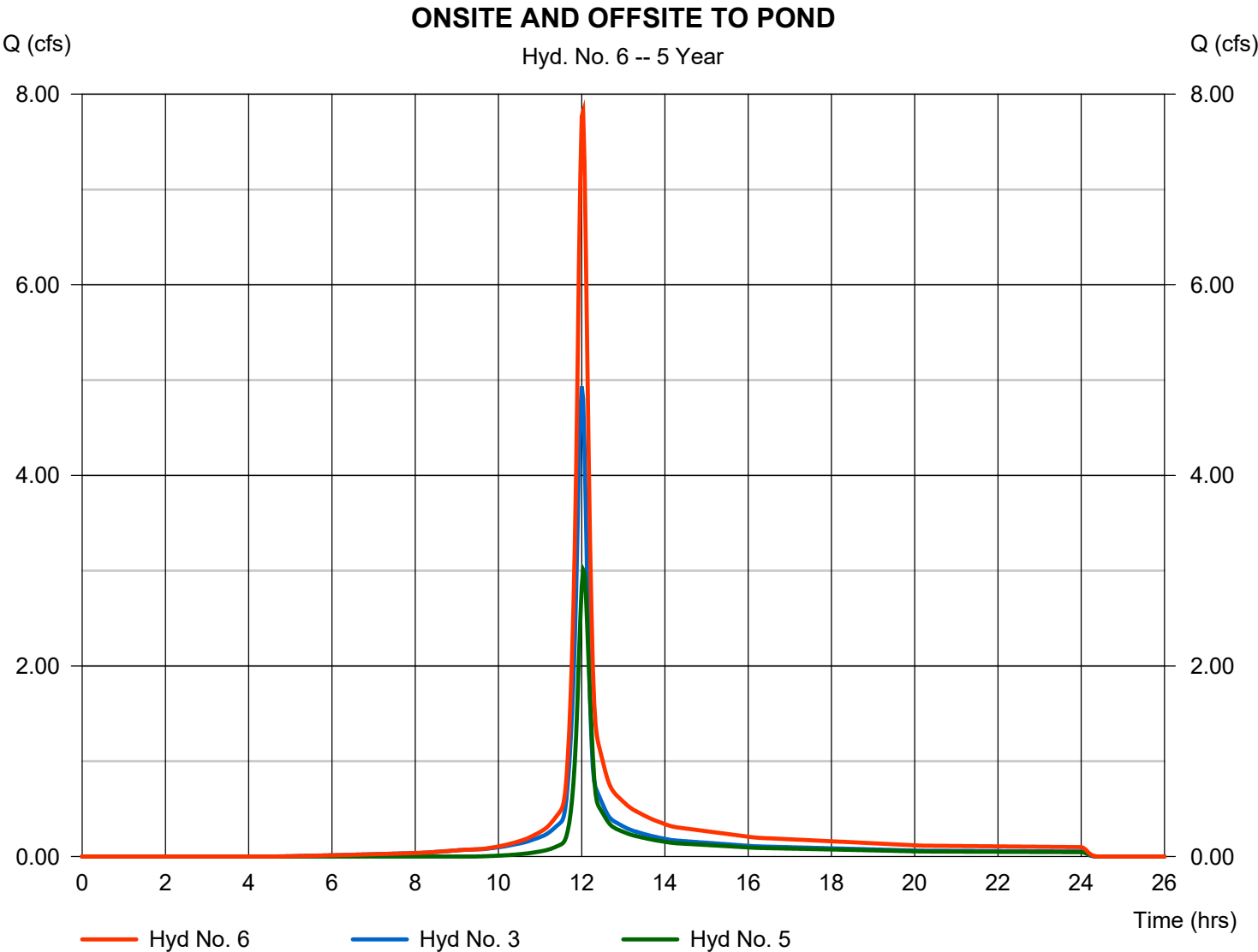
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 6

ONSITE AND OFFSITE TO POND

Hydrograph type	= Combine	Peak discharge	= 7.815 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 21,663 cuft
Inflow hyds.	= 3, 5	Contrib. drain. area	= 2.270 ac



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

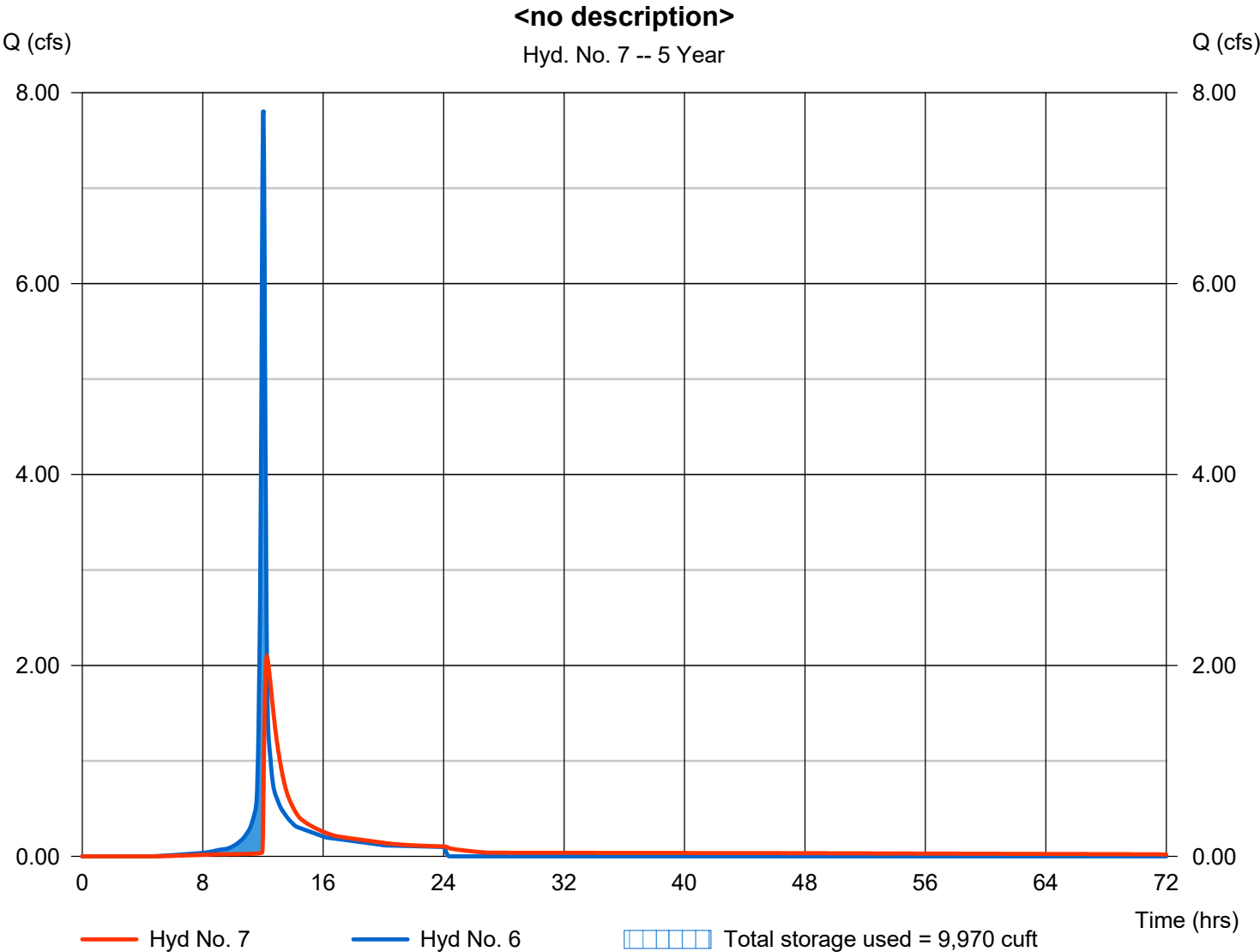
Friday, 09 / 10 / 2021

Hyd. No. 7

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 2.087 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.27 hrs
Time interval	= 2 min	Hyd. volume	= 21,659 cuft
Inflow hyd. No.	= 6 - ONSITE AND OFFSITE TOWNSHIP	MPD Elevation	= 662.33 ft
Reservoir name	= Detention	Max. Storage	= 9,970 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	6.603	2	724	20,656	-----	-----	-----	PRE
2	SCS Runoff	9.550	2	720	24,902	-----	-----	-----	POST
3	SCS Runoff	5.780	2	720	15,538	-----	-----	-----	ONSITE
4	SCS Runoff	1.719	2	720	4,464	-----	-----	-----	BYPASS
5	SCS Runoff	3.786	2	722	10,640	-----	-----	-----	EAST OFFSITE
6	Combine	9.406	2	722	26,177	3, 5	-----	-----	ONSITE AND OFFSITE TO POND
7	Reservoir	2.785	2	734	26,173	6	662.61	11,787	<no description>
R:\Projects\2019\19036 - Barefoot Landscaping & Retention Pond Design\2019-09-20\19036 - BAREFOOT DETENTION Pond					R:\Projects\2019\19036 - Barefoot Landscaping & Retention Pond Design\2019-09-20\19036 - BAREFOOT DETENTION Pond				

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

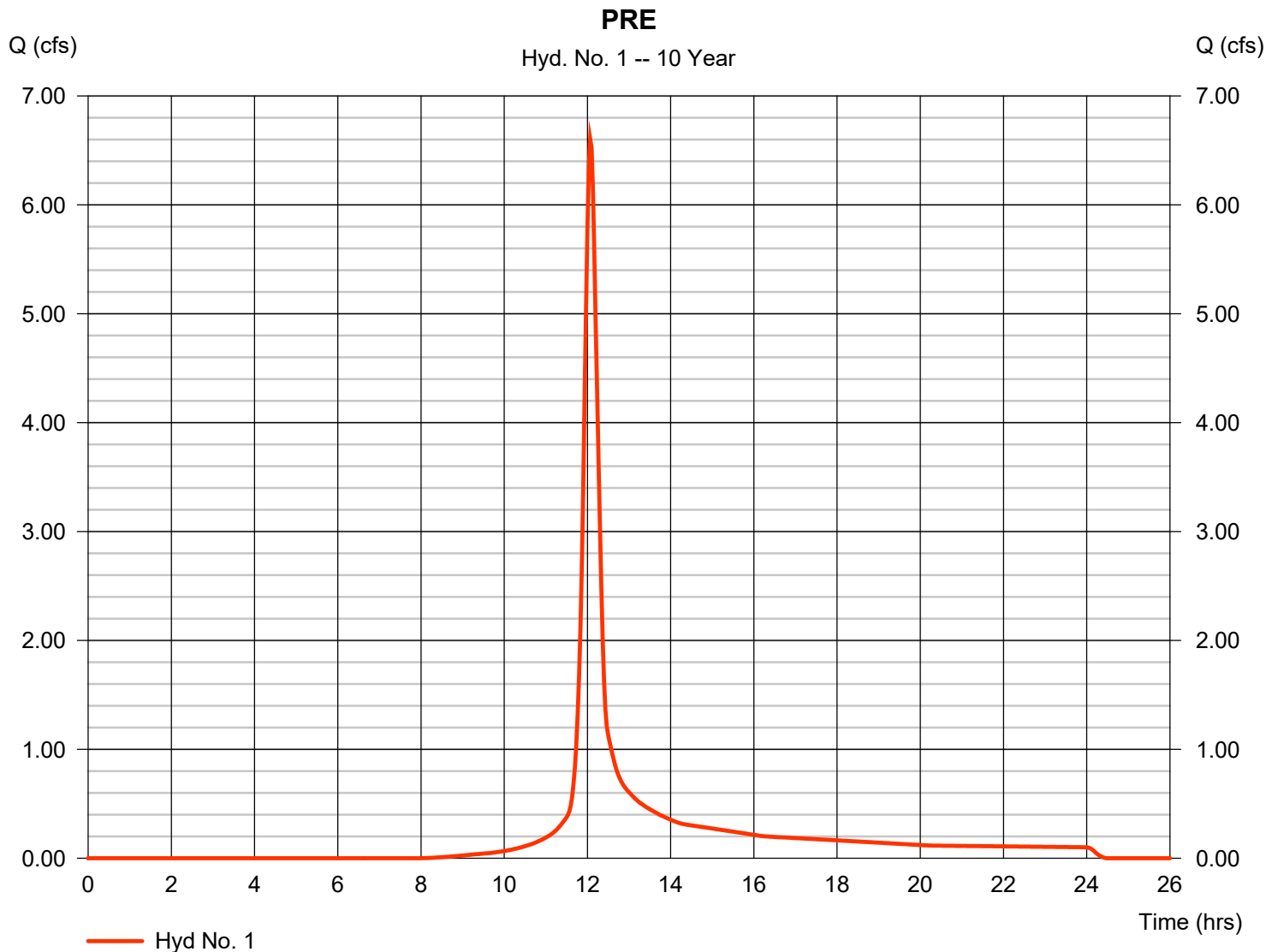
Friday, 09 / 10 / 2021

Hyd. No. 1

PRE

Hydrograph type	= SCS Runoff	Peak discharge	= 6.603 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 20,656 cuft
Drainage area	= 2.070 ac	Curve number	= 77*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.80 min
Total precip.	= 5.15 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.400 \times 79) + (1.665 \times 77)] / 2.070$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

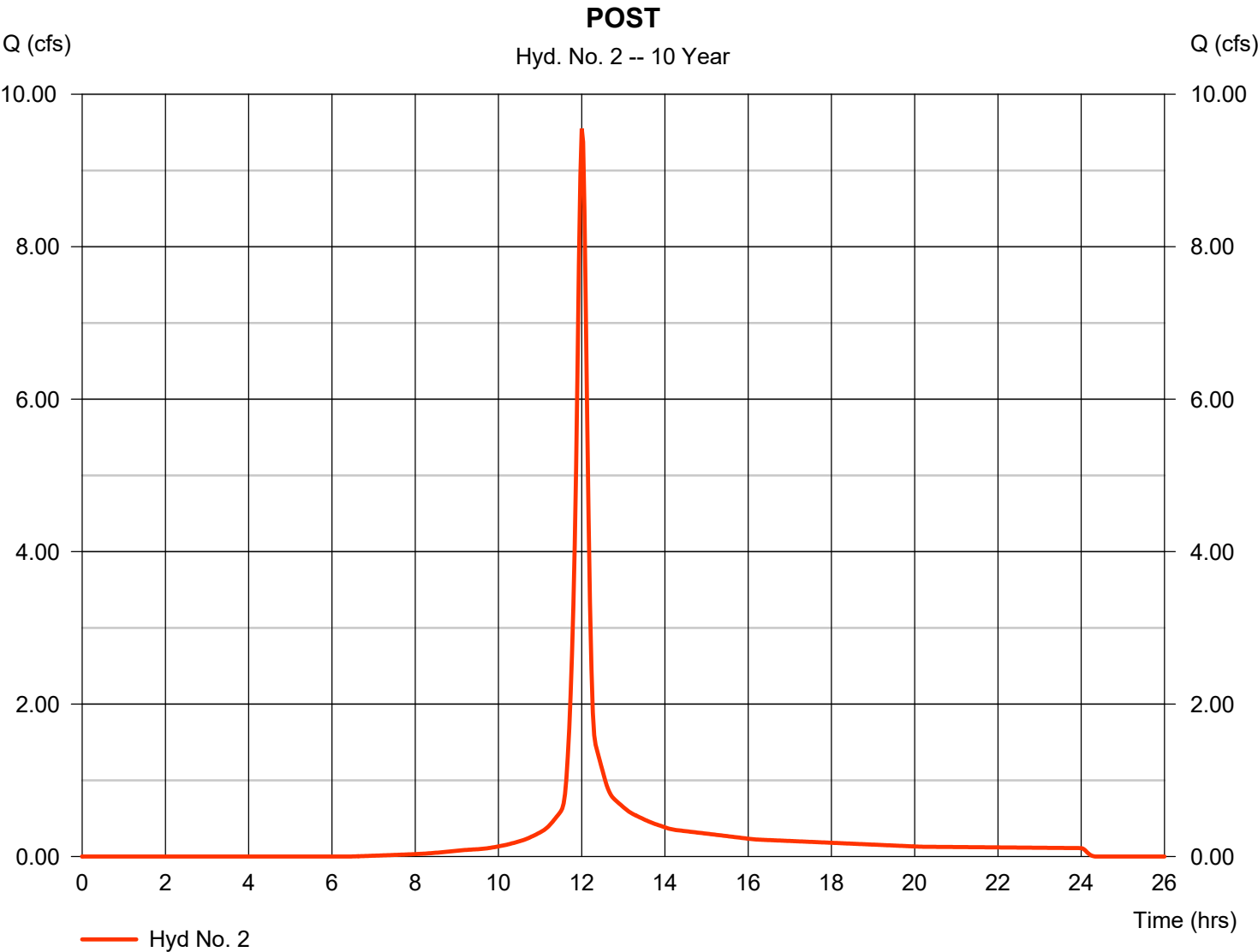
Friday, 09 / 10 / 2021

Hyd. No. 2

POST

Hydrograph type	=	SCS Runoff	Peak discharge	=	9.550 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.00 hrs
Time interval	=	2 min	Hyd. volume	=	24,902 cuft
Drainage area	=	2.070 ac	Curve number	=	82*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	5.15 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.640 x 98) + (0.860 x 74) + (0.570 x 77)] / 2.070



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

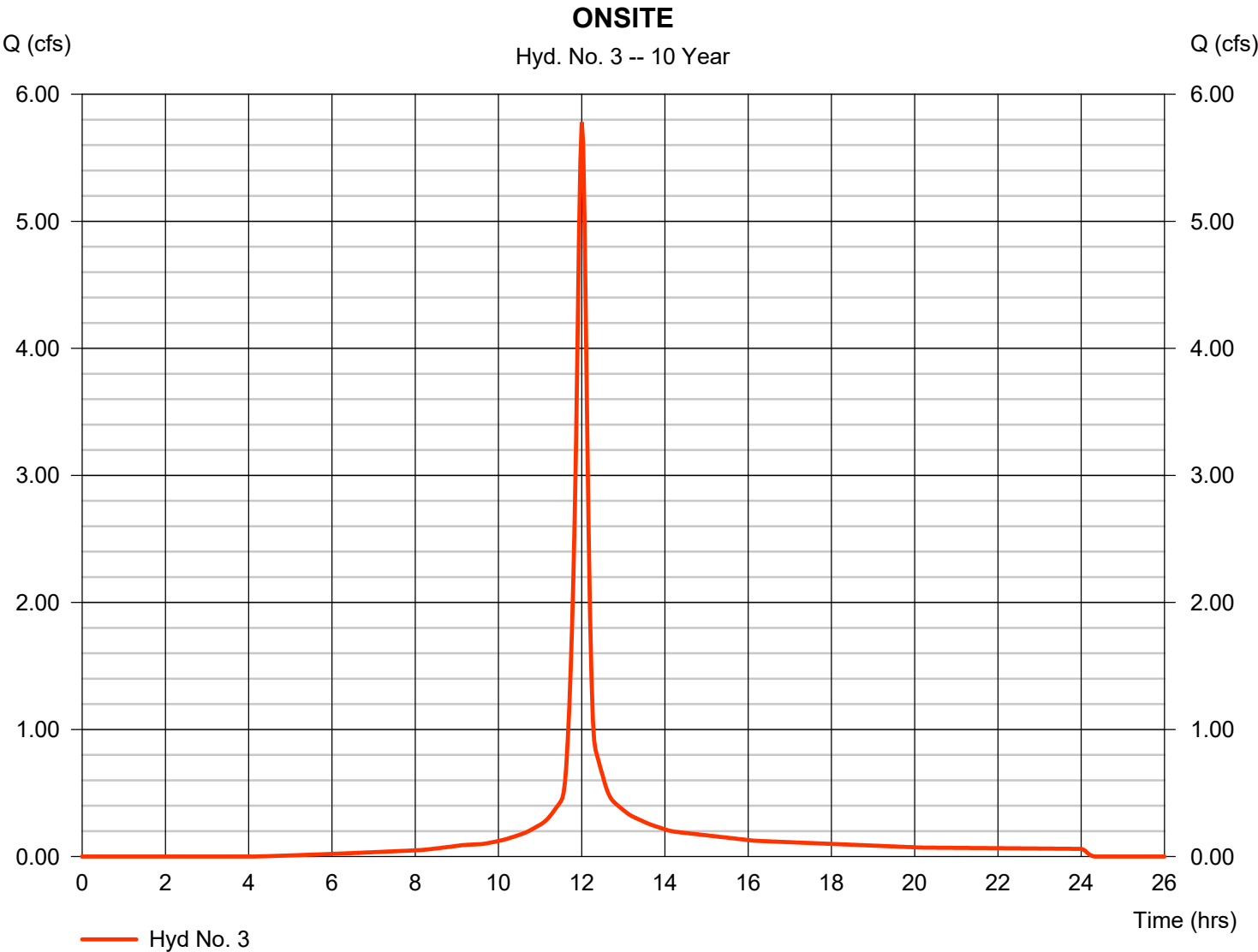
Friday, 09 / 10 / 2021

Hyd. No. 3

ONSITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	5.780 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.00 hrs
Time interval	=	2 min	Hyd. volume	=	15,538 cuft
Drainage area	=	1.060 ac	Curve number	=	89*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	5.15 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.660 x 98) + (0.370 x 74)] / 1.060



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

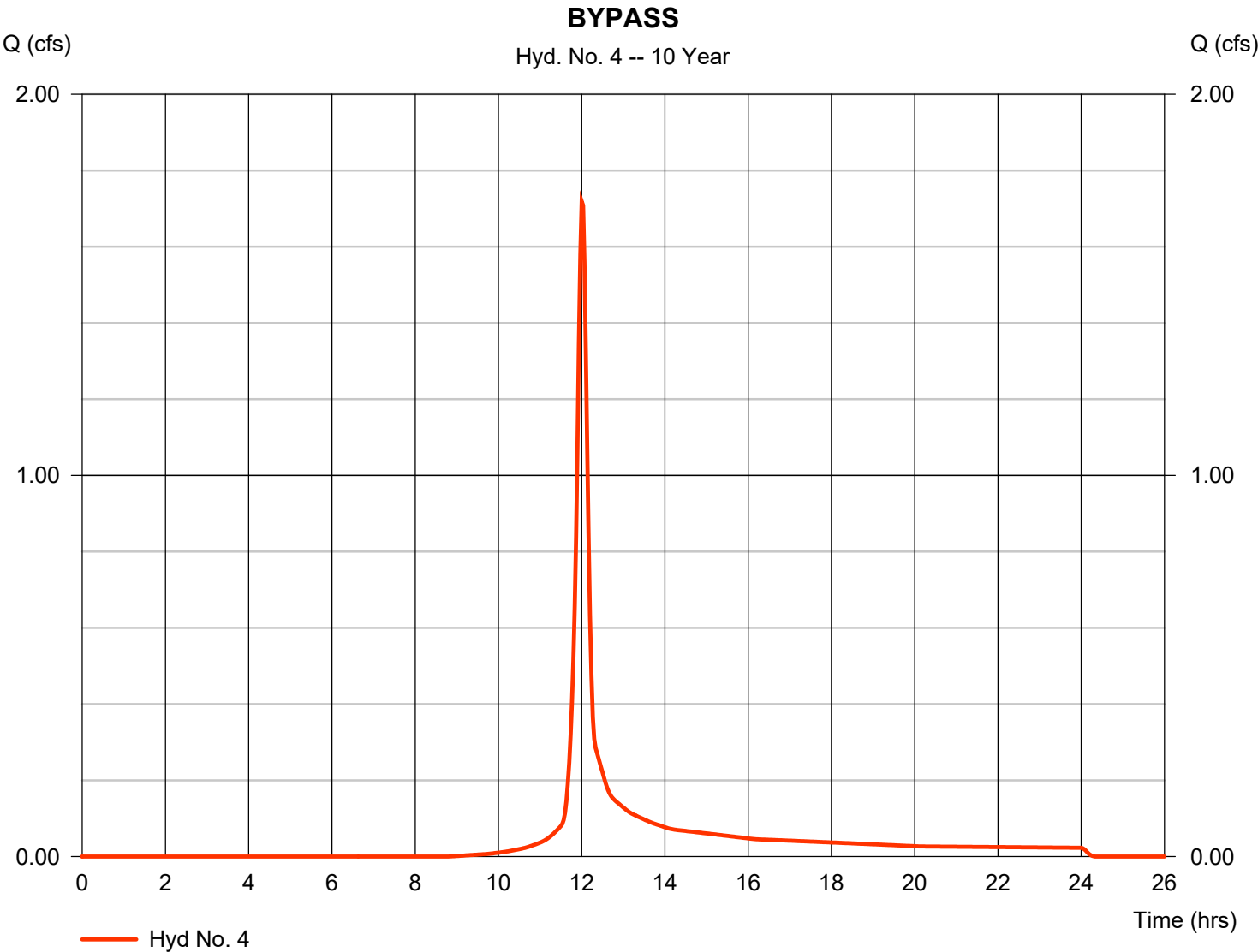
Friday, 09 / 10 / 2021

Hyd. No. 4

BYPASS

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.719 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.00 hrs
Time interval	=	2 min	Hyd. volume	=	4,464 cuft
Drainage area	=	0.480 ac	Curve number	=	74*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	5.15 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = + (0.510 x 74)] / 0.480



Hydrograph Report

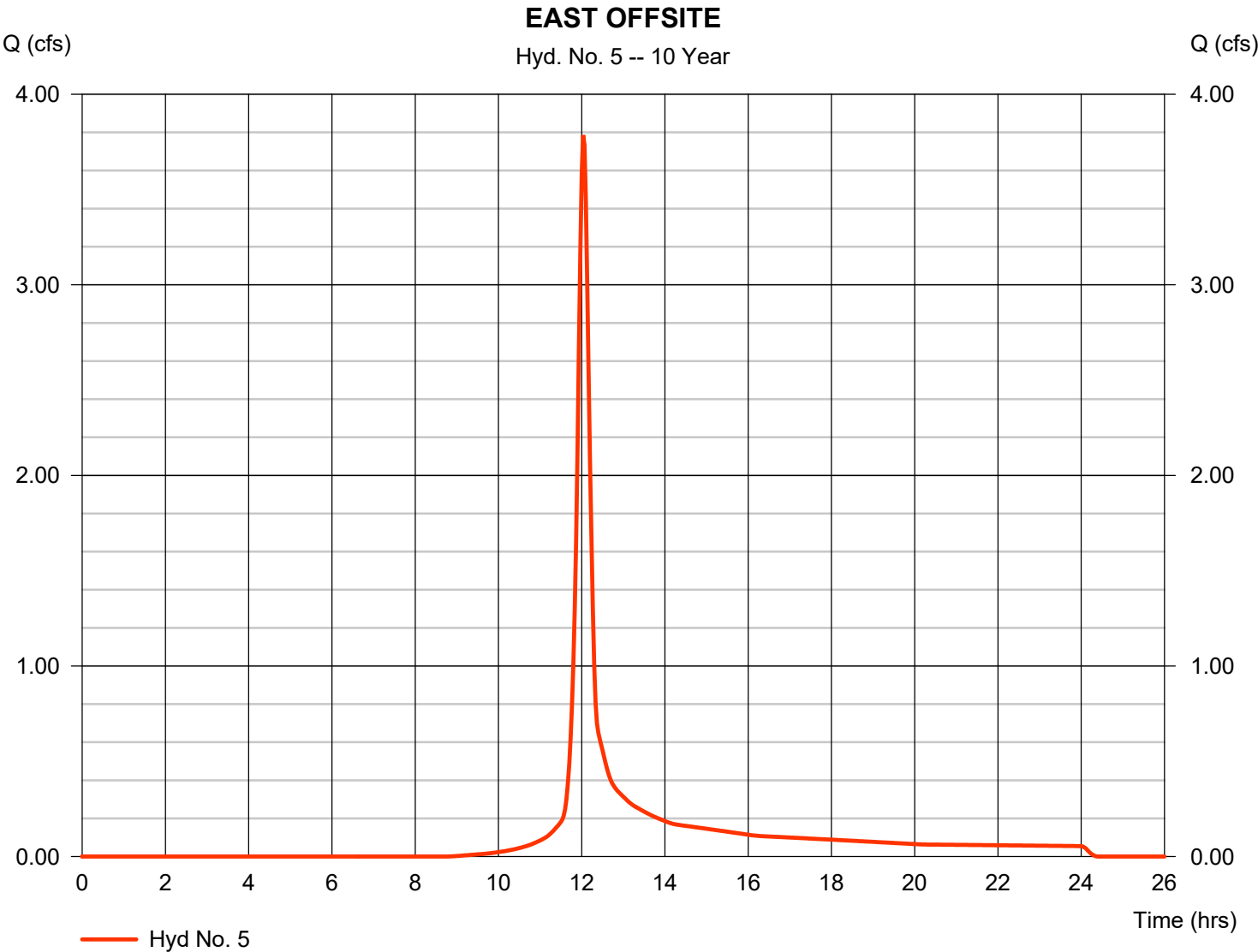
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 5

EAST OFFSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 3.786 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 10,640 cuft
Drainage area	= 1.210 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 15.00 min
Total precip.	= 5.15 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

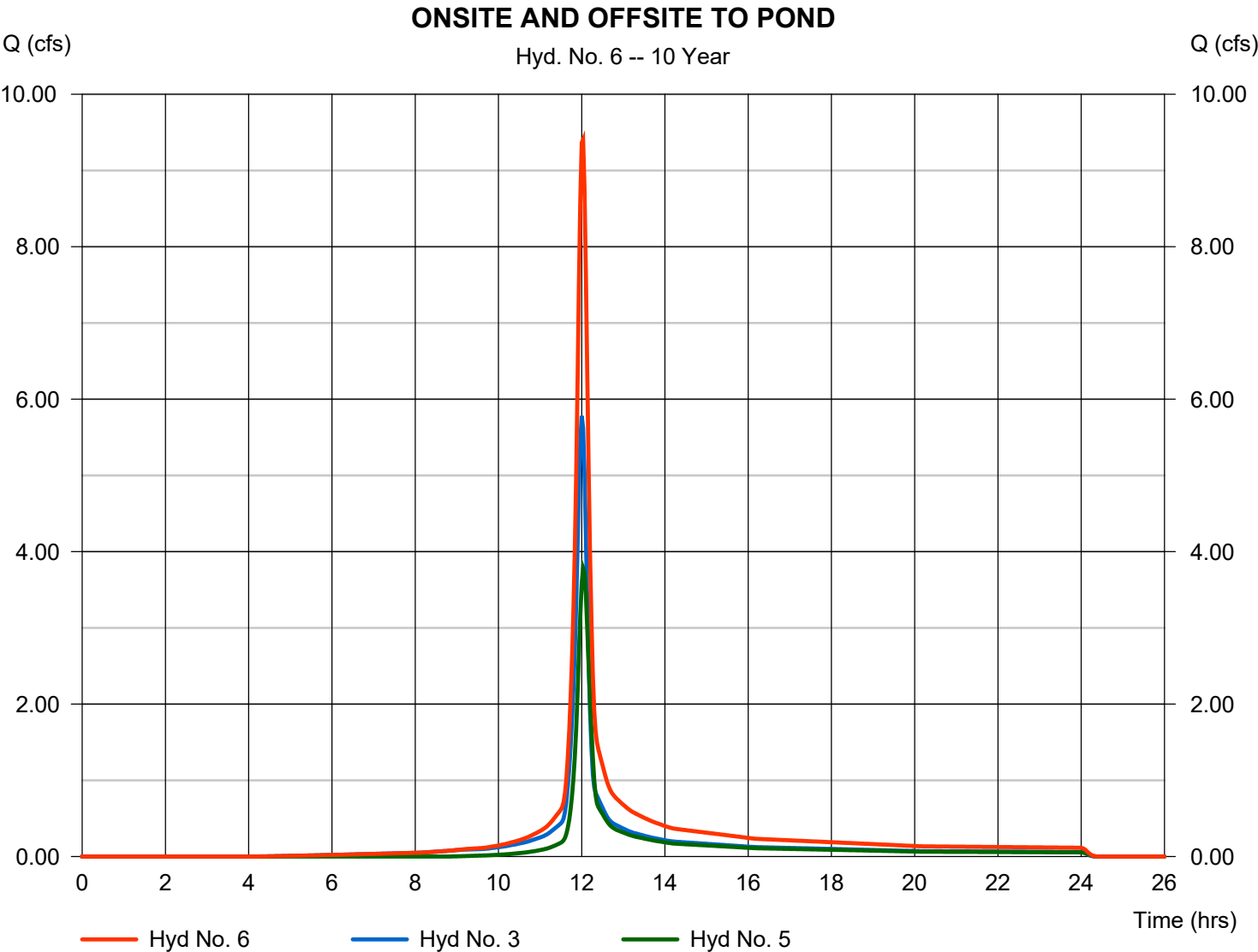
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 6

ONSITE AND OFFSITE TO POND

Hydrograph type	= Combine	Peak discharge	= 9.406 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 26,177 cuft
Inflow hyds.	= 3, 5	Contrib. drain. area	= 2.270 ac



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

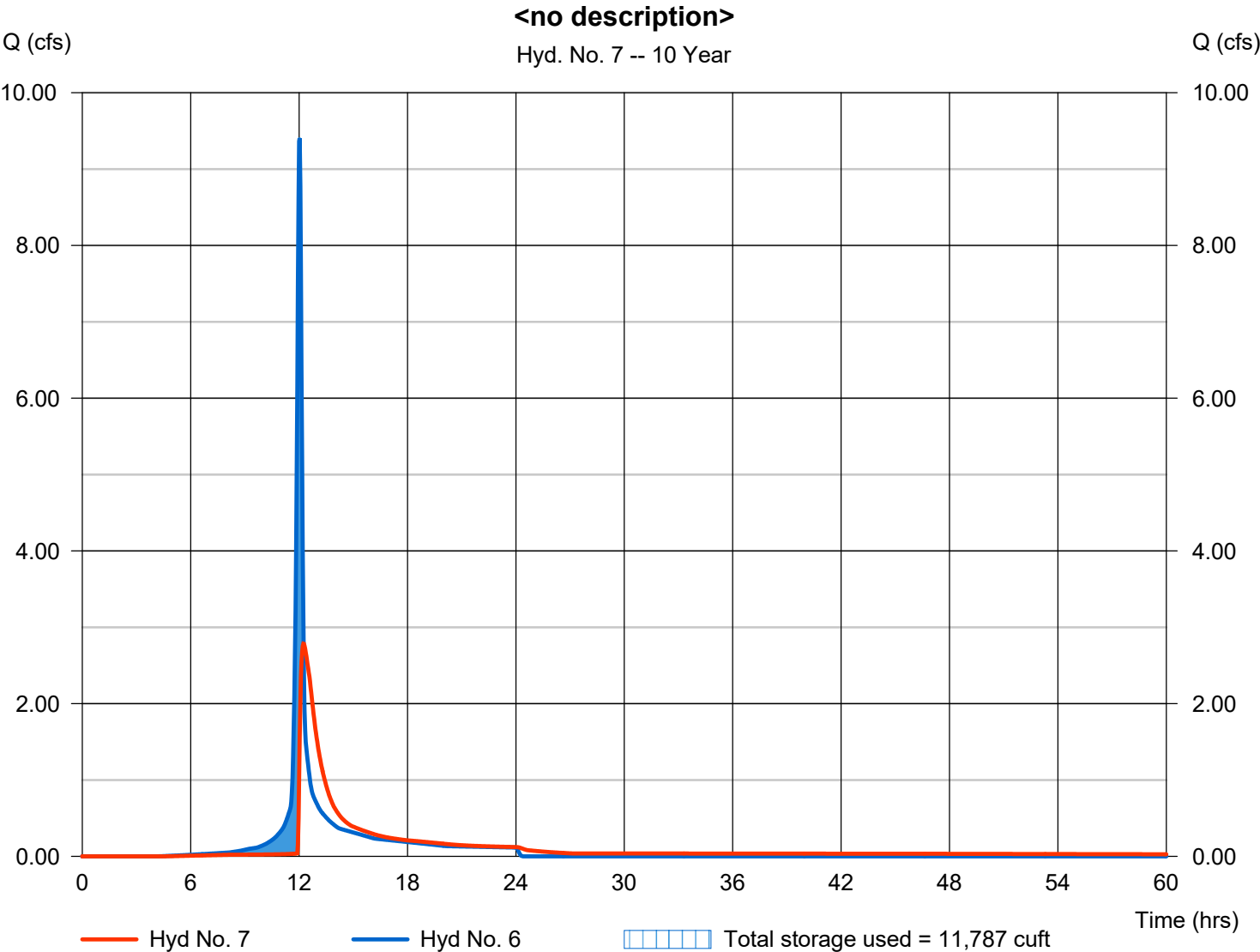
Friday, 09 / 10 / 2021

Hyd. No. 7

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 2.785 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 26,173 cuft
Inflow hyd. No.	= 6 - ONSITE AND OFFSITE TOWNSHIP	MPD Elevation	= 662.61 ft
Reservoir name	= Detention	Max. Storage	= 11,787 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

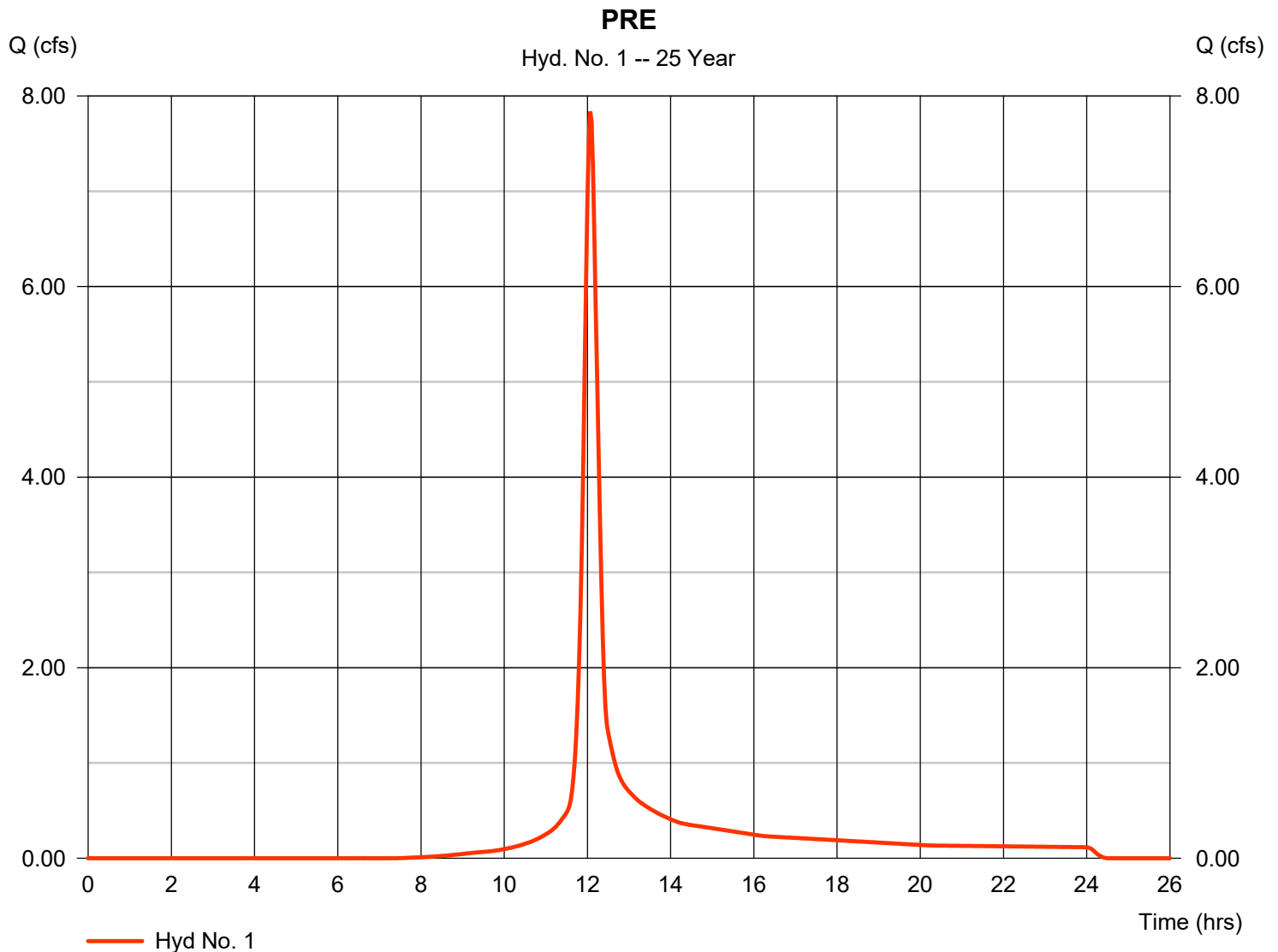
Friday, 09 / 10 / 2021

Hyd. No. 1

PRE

Hydrograph type	= SCS Runoff	Peak discharge	= 7.840 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 24,509 cuft
Drainage area	= 2.070 ac	Curve number	= 77*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.80 min
Total precip.	= 5.75 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.400 \times 79) + (1.665 \times 77)] / 2.070$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

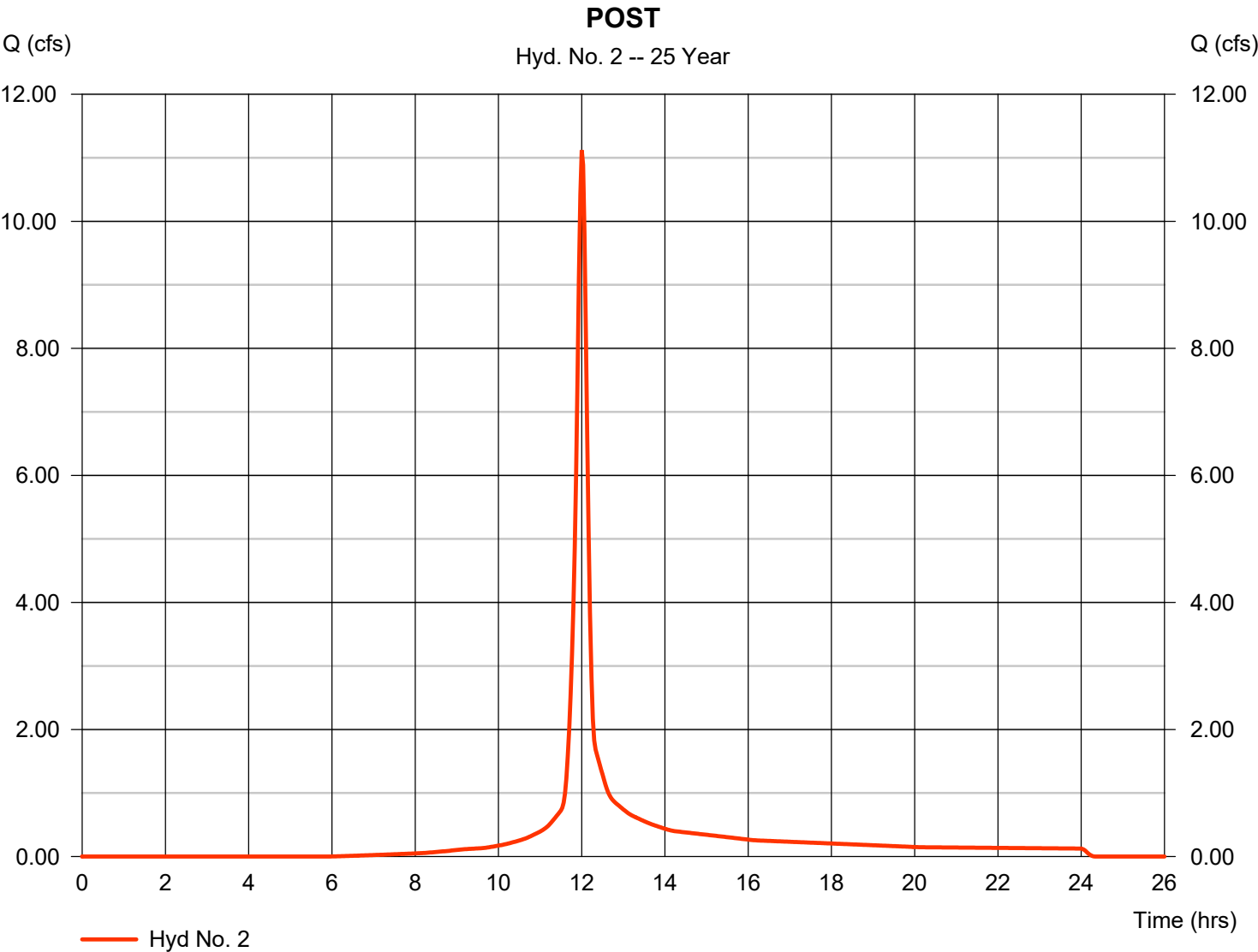
Friday, 09 / 10 / 2021

Hyd. No. 2

POST

Hydrograph type	=	SCS Runoff	Peak discharge	=	11.12 cfs
Storm frequency	=	25 yrs	Time to peak	=	12.00 hrs
Time interval	=	2 min	Hyd. volume	=	29,119 cuft
Drainage area	=	2.070 ac	Curve number	=	82*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	5.75 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.640 x 98) + (0.860 x 74) + (0.570 x 77)] / 2.070



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

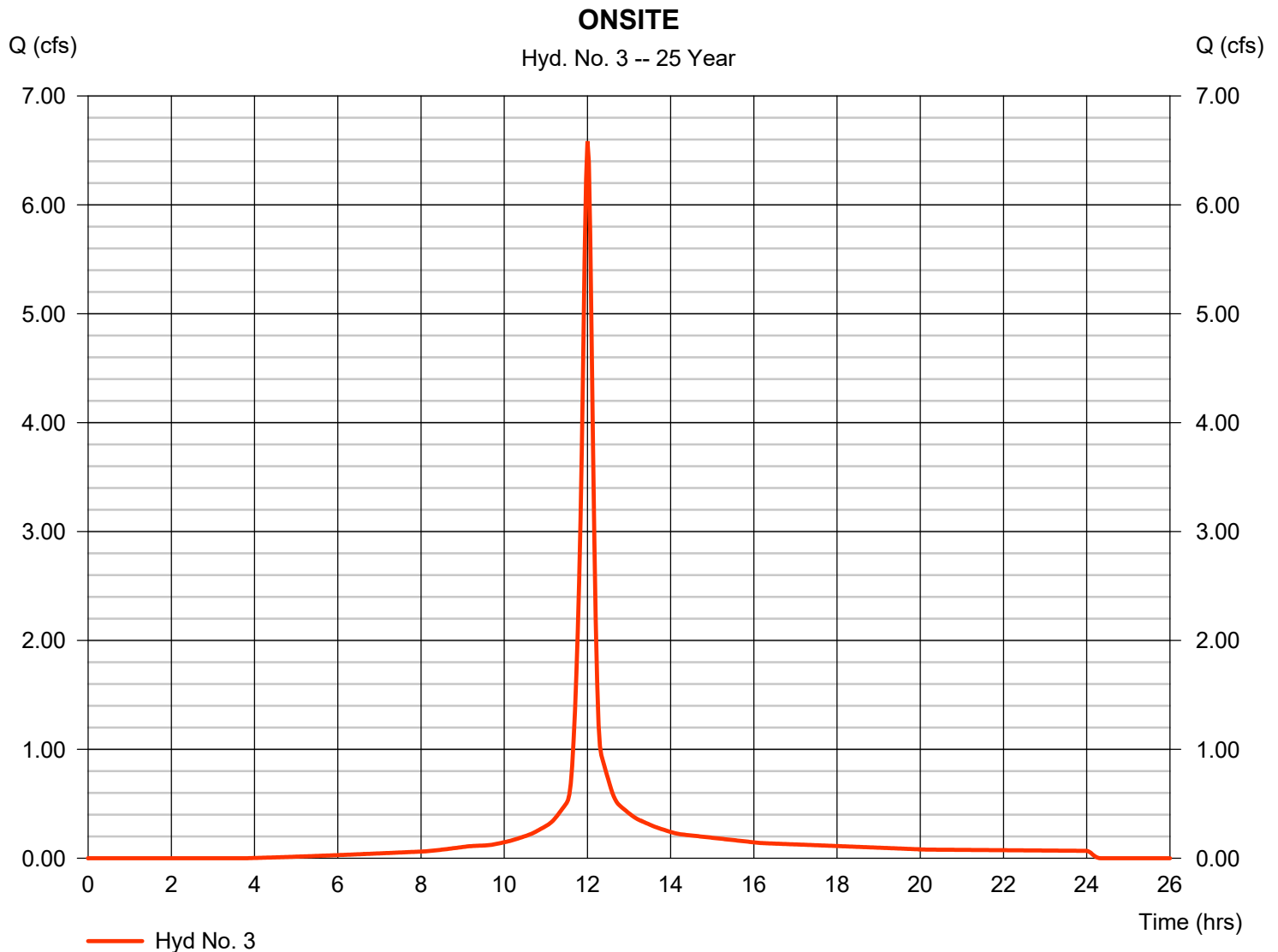
Hyd. No. 3

ONSITE

Hydrograph type = SCS Runoff
 Storm frequency = 25 yrs
 Time interval = 2 min
 Drainage area = 1.060 ac
 Basin Slope = 0.0 %
 Tc method = User
 Total precip. = 5.75 in
 Storm duration = 24 hrs

Peak discharge = 6.585 cfs
 Time to peak = 12.00 hrs
 Hyd. volume = 17,831 cuft
 Curve number = 89*
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 10.00 min
 Distribution = Type II
 Shape factor = 484

* Composite (Area/CN) = $[(0.660 \times 98) + (0.370 \times 74)] / 1.060$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

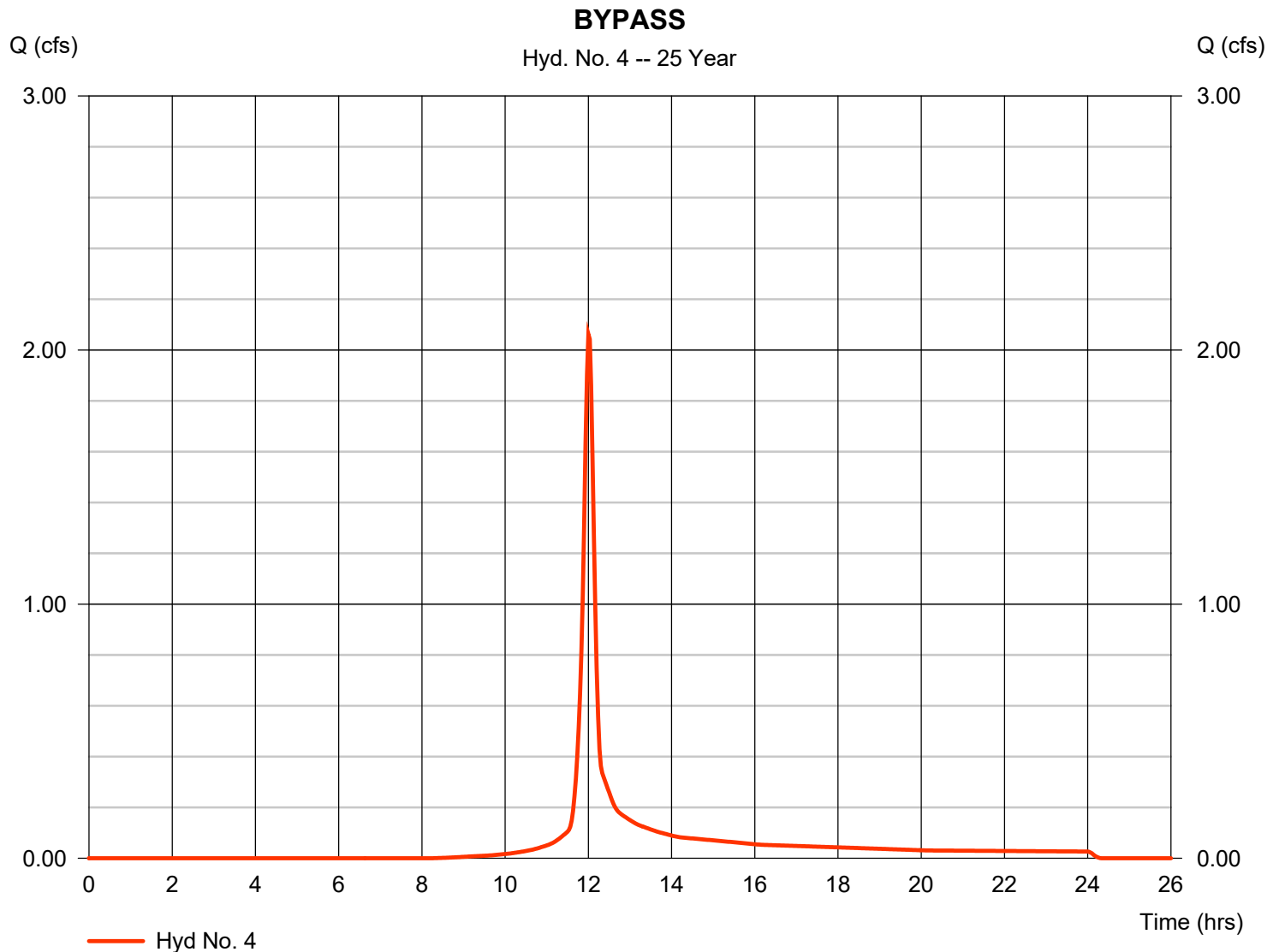
Friday, 09 / 10 / 2021

Hyd. No. 4

BYPASS

Hydrograph type	= SCS Runoff	Peak discharge	= 2.062 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 5,347 cuft
Drainage area	= 0.480 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 5.75 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = + (0.510 x 74)] / 0.480



Hydrograph Report

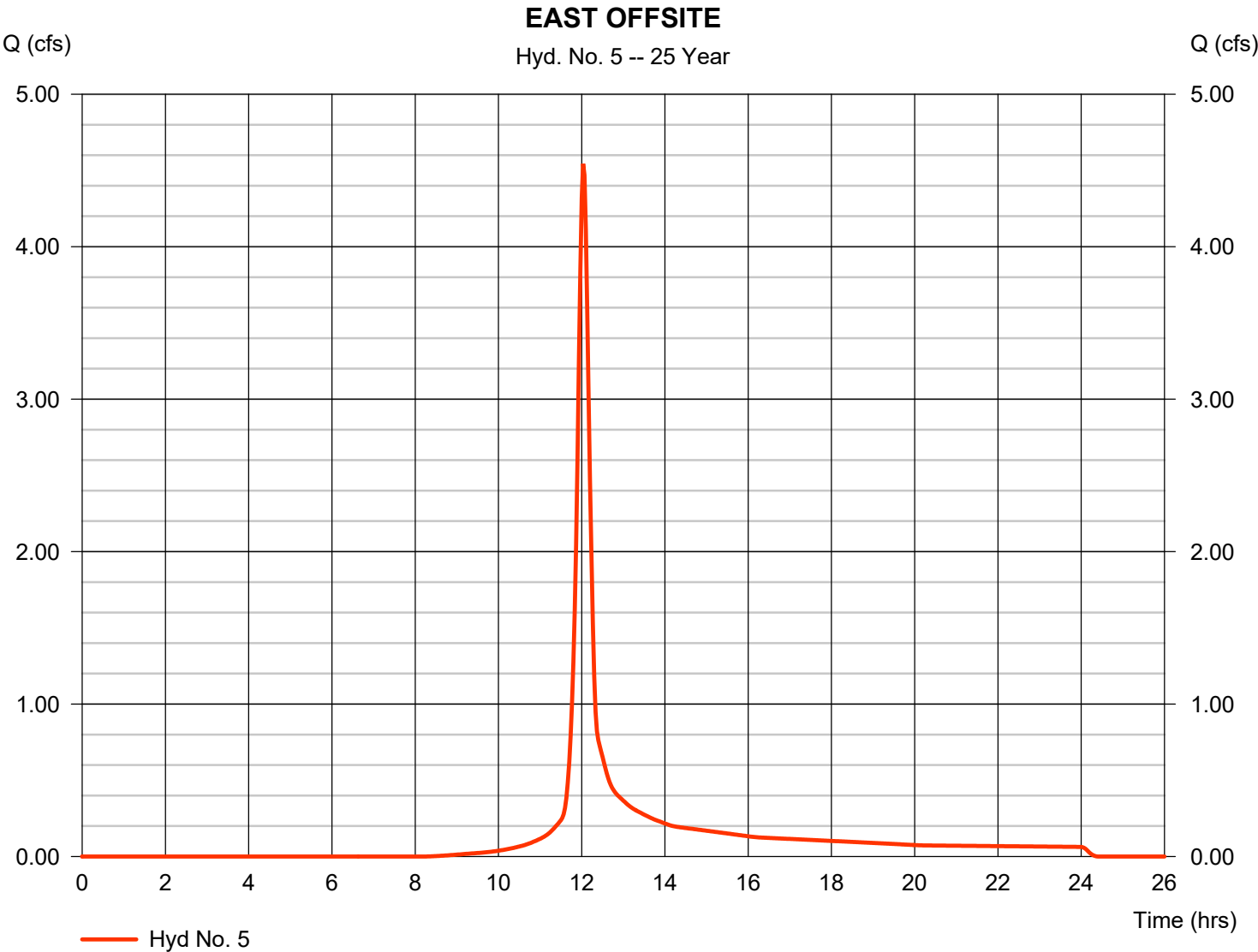
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 5

EAST OFFSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 4.545 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 12,744 cuft
Drainage area	= 1.210 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 15.00 min
Total precip.	= 5.75 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

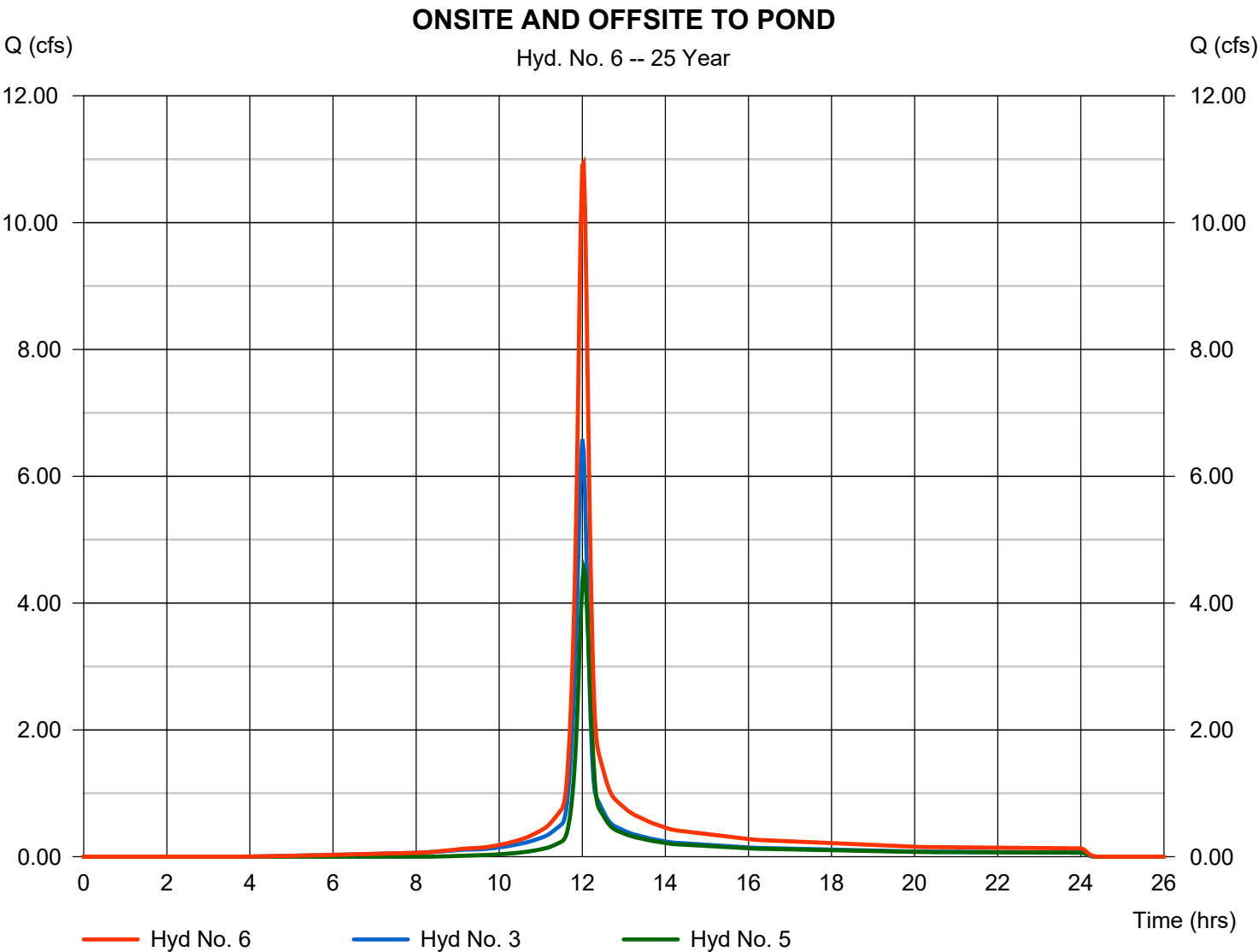
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 6

ONSITE AND OFFSITE TO POND

Hydrograph type	= Combine	Peak discharge	= 10.94 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 30,574 cuft
Inflow hyds.	= 3, 5	Contrib. drain. area	= 2.270 ac



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

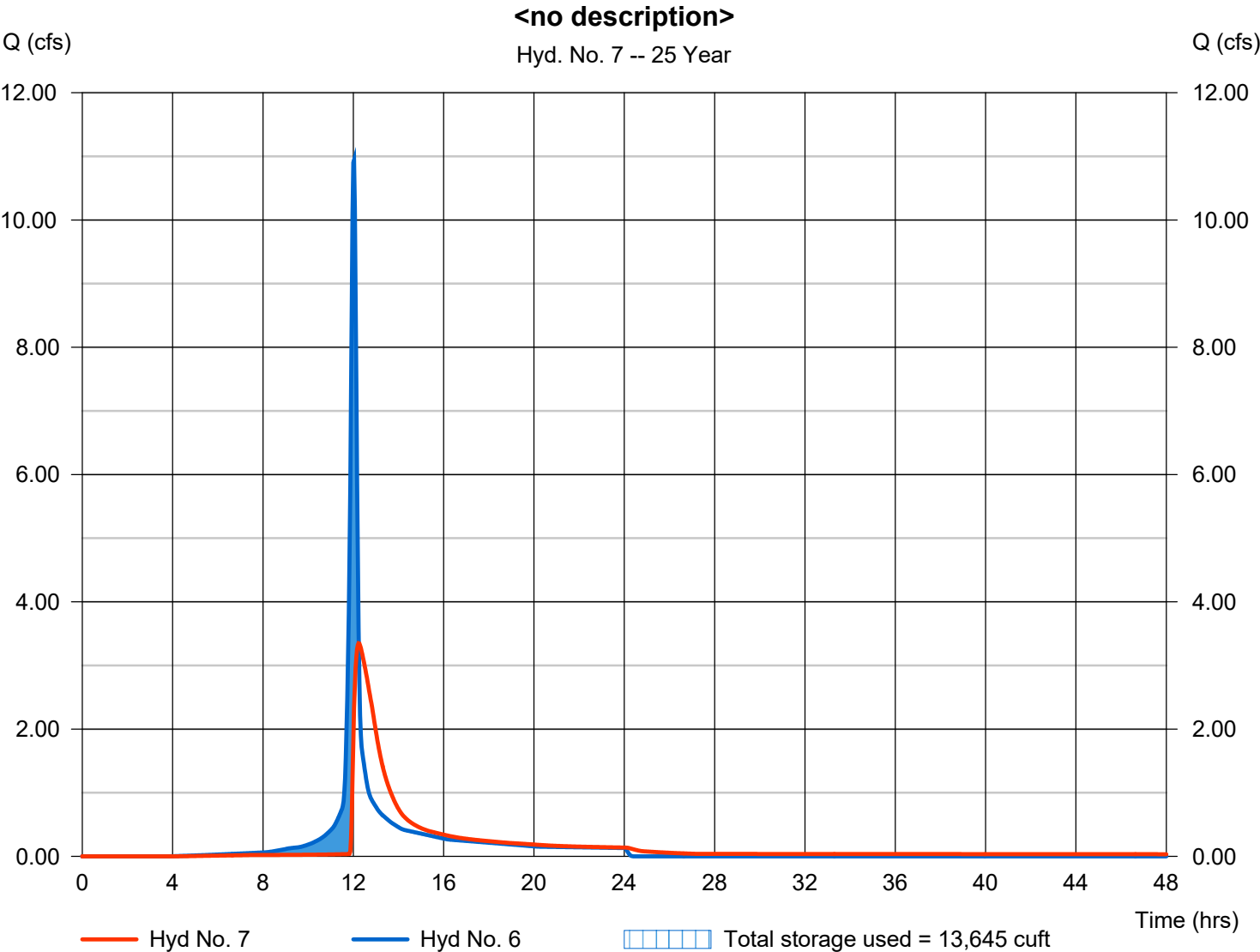
Friday, 09 / 10 / 2021

Hyd. No. 7

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 3.350 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 30,570 cuft
Inflow hyd. No.	= 6 - ONSITE AND OFFSITE TOWNSHIP	MPD Elevation	= 662.89 ft
Reservoir name	= Detention	Max. Storage	= 13,645 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	9.958	2	724	31,189	-----	-----	-----	PRE
2	SCS Runoff	13.77	2	720	36,355	-----	-----	-----	POST
3	SCS Runoff	7.933	2	720	21,721	-----	-----	-----	ONSITE
4	SCS Runoff	2.655	2	720	6,888	-----	-----	-----	BYPASS
5	SCS Runoff	5.854	2	722	16,417	-----	-----	-----	EAST OFFSITE
6	Combine	13.55	2	722	38,138	3, 5	-----	-----	ONSITE AND OFFSITE TO POND
7	Reservoir	4.062	2	734	38,134	6	663.33	16,959	<no description>
R:\Projects\2019\19036 - Barefoot Landscaping & Stormwater Design\2019-09-20\19036 - BAREFOOT DETENTION Pond Design.dwg					R:\Projects\2019\19036 - Barefoot Landscaping & Stormwater Design\2019-09-20\19036 - BAREFOOT DETENTION Pond Design.dwg				

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

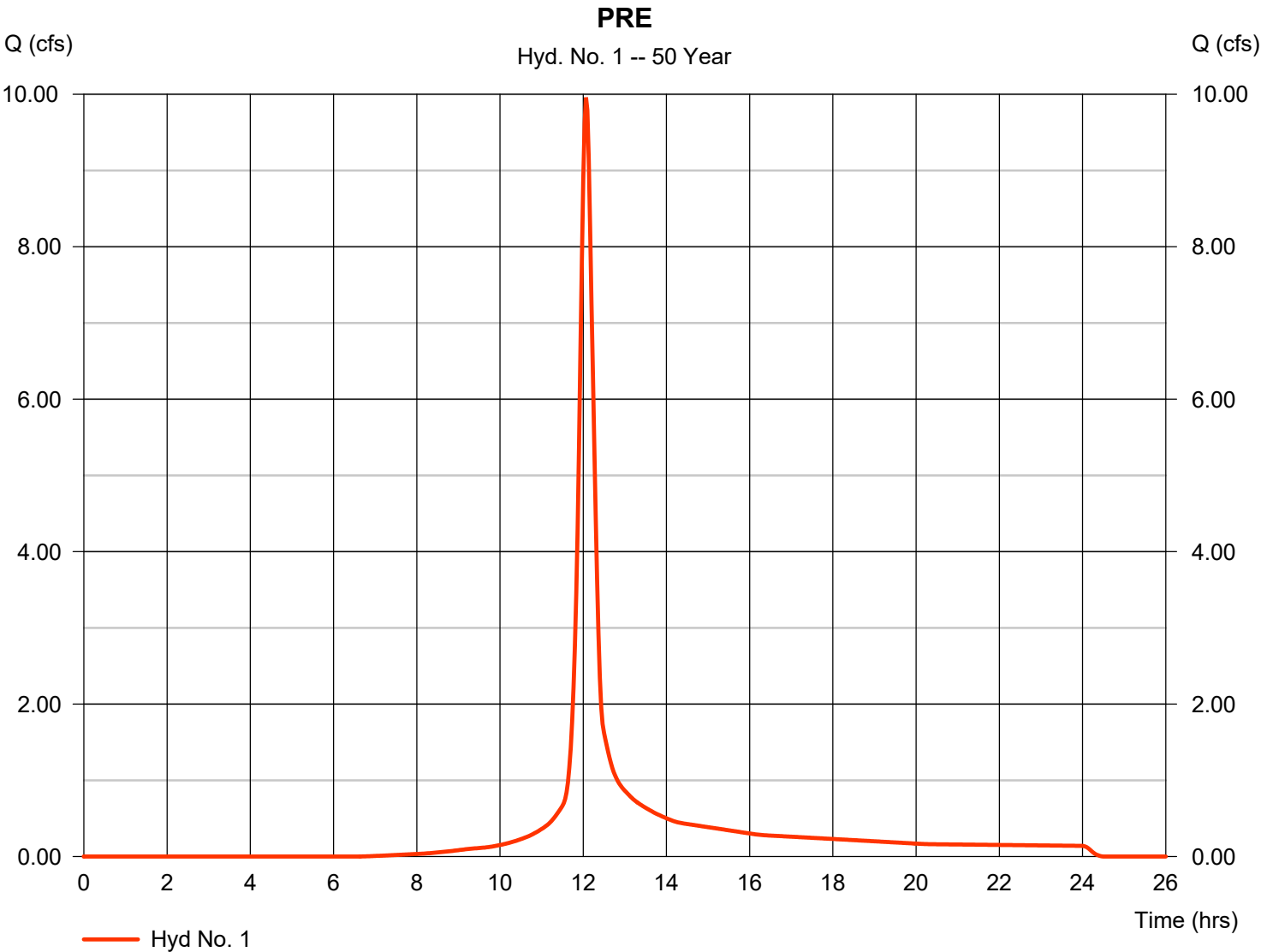
Friday, 09 / 10 / 2021

Hyd. No. 1

PRE

Hydrograph type	=	SCS Runoff	Peak discharge	=	9.958 cfs
Storm frequency	=	50 yrs	Time to peak	=	12.07 hrs
Time interval	=	2 min	Hyd. volume	=	31,189 cuft
Drainage area	=	2.070 ac	Curve number	=	77*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	18.80 min
Total precip.	=	6.76 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.400 x 79) + (1.665 x 77)] / 2.070



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

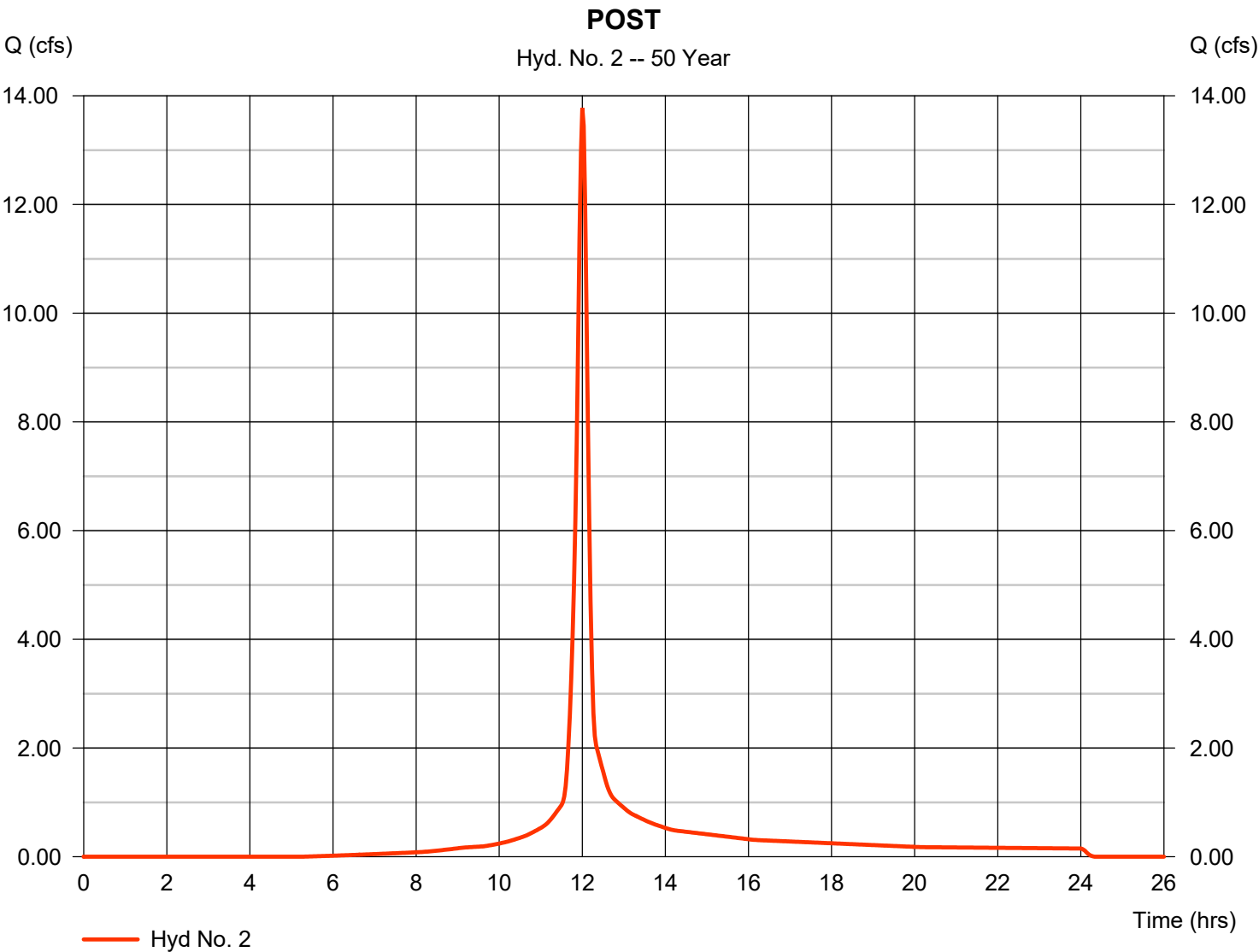
Friday, 09 / 10 / 2021

Hyd. No. 2

POST

Hydrograph type	=	SCS Runoff	Peak discharge	=	13.77 cfs
Storm frequency	=	50 yrs	Time to peak	=	12.00 hrs
Time interval	=	2 min	Hyd. volume	=	36,355 cuft
Drainage area	=	2.070 ac	Curve number	=	82*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	10.00 min
Total precip.	=	6.76 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.640 x 98) + (0.860 x 74) + (0.570 x 77)] / 2.070



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

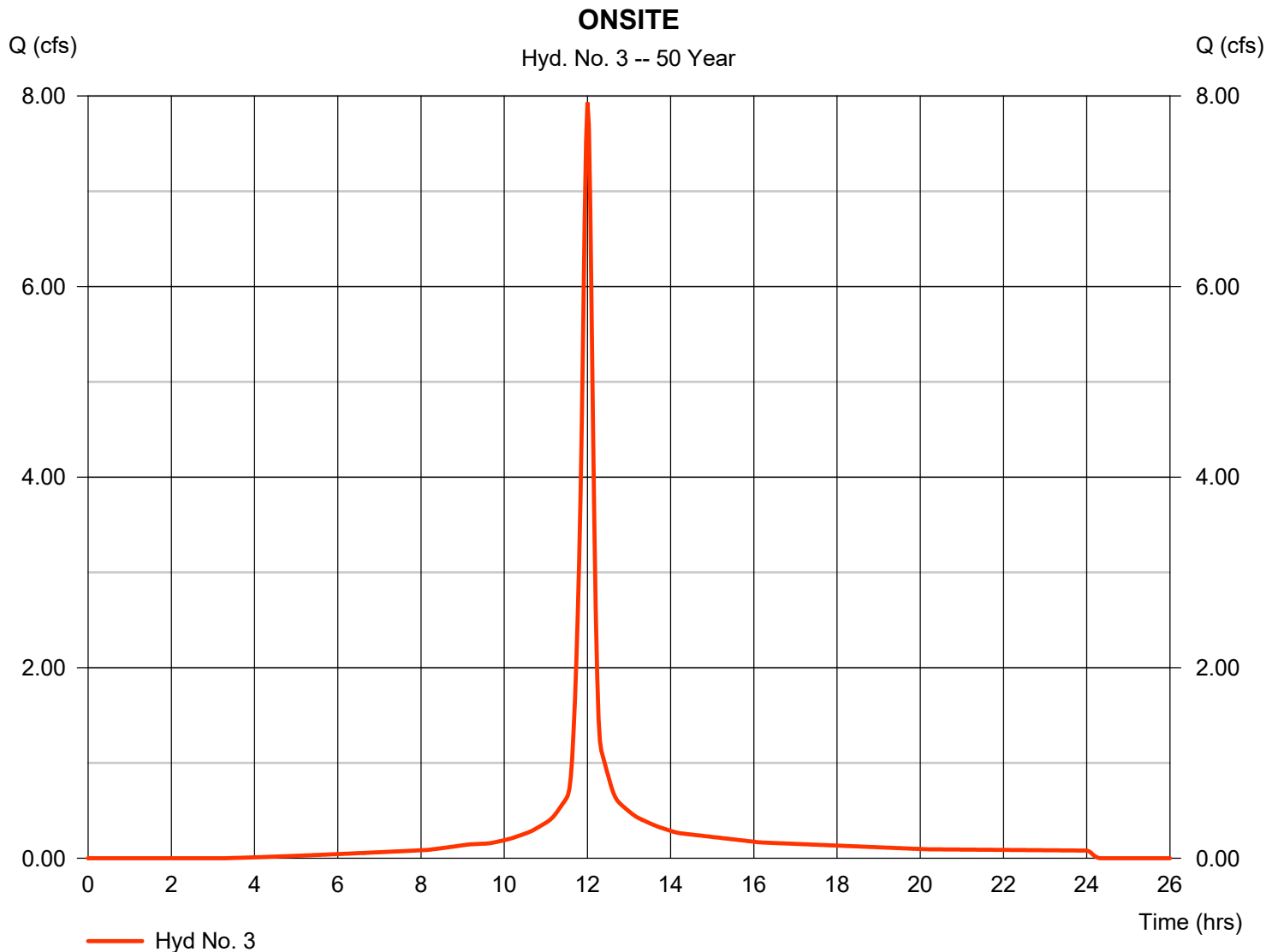
Friday, 09 / 10 / 2021

Hyd. No. 3

ONSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 7.933 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 21,721 cuft
Drainage area	= 1.060 ac	Curve number	= 89*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 6.76 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.660 \times 98) + (0.370 \times 74)] / 1.060$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

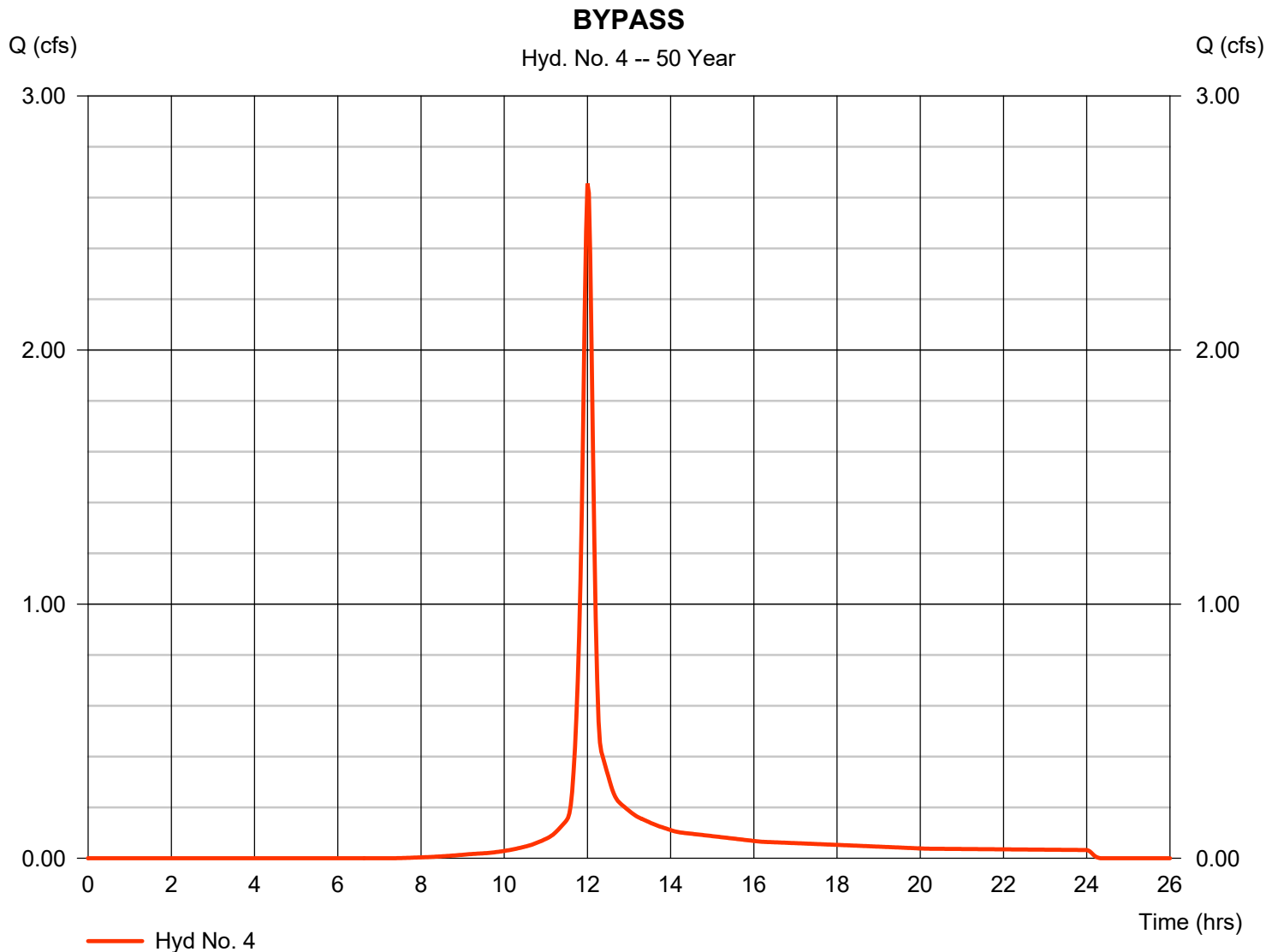
Friday, 09 / 10 / 2021

Hyd. No. 4

BYPASS

Hydrograph type	= SCS Runoff	Peak discharge	= 2.655 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 6,888 cuft
Drainage area	= 0.480 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 6.76 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $+(0.510 \times 74) / 0.480$



Hydrograph Report

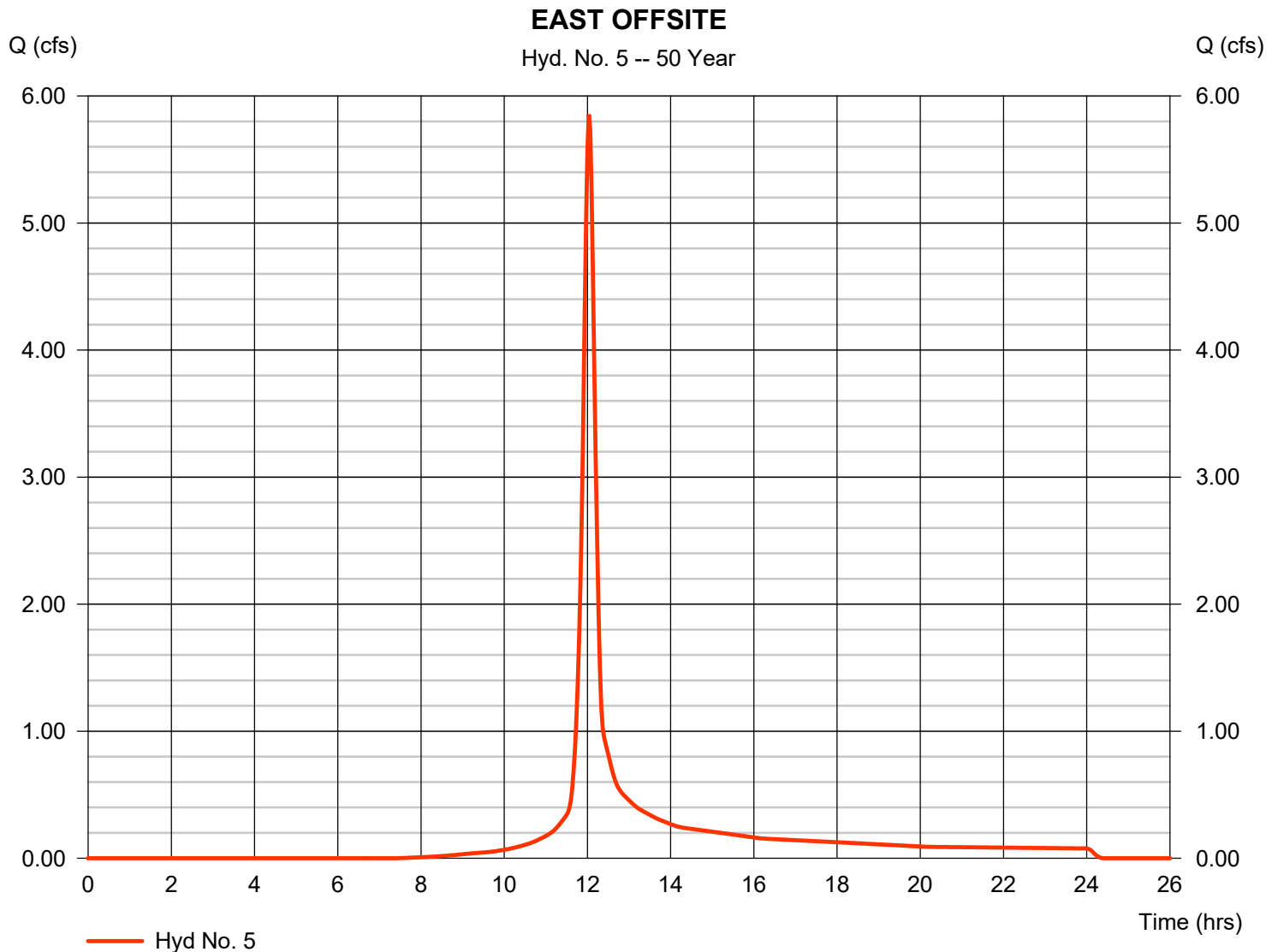
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 5

EAST OFFSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 5.854 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 16,417 cuft
Drainage area	= 1.210 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 15.00 min
Total precip.	= 6.76 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

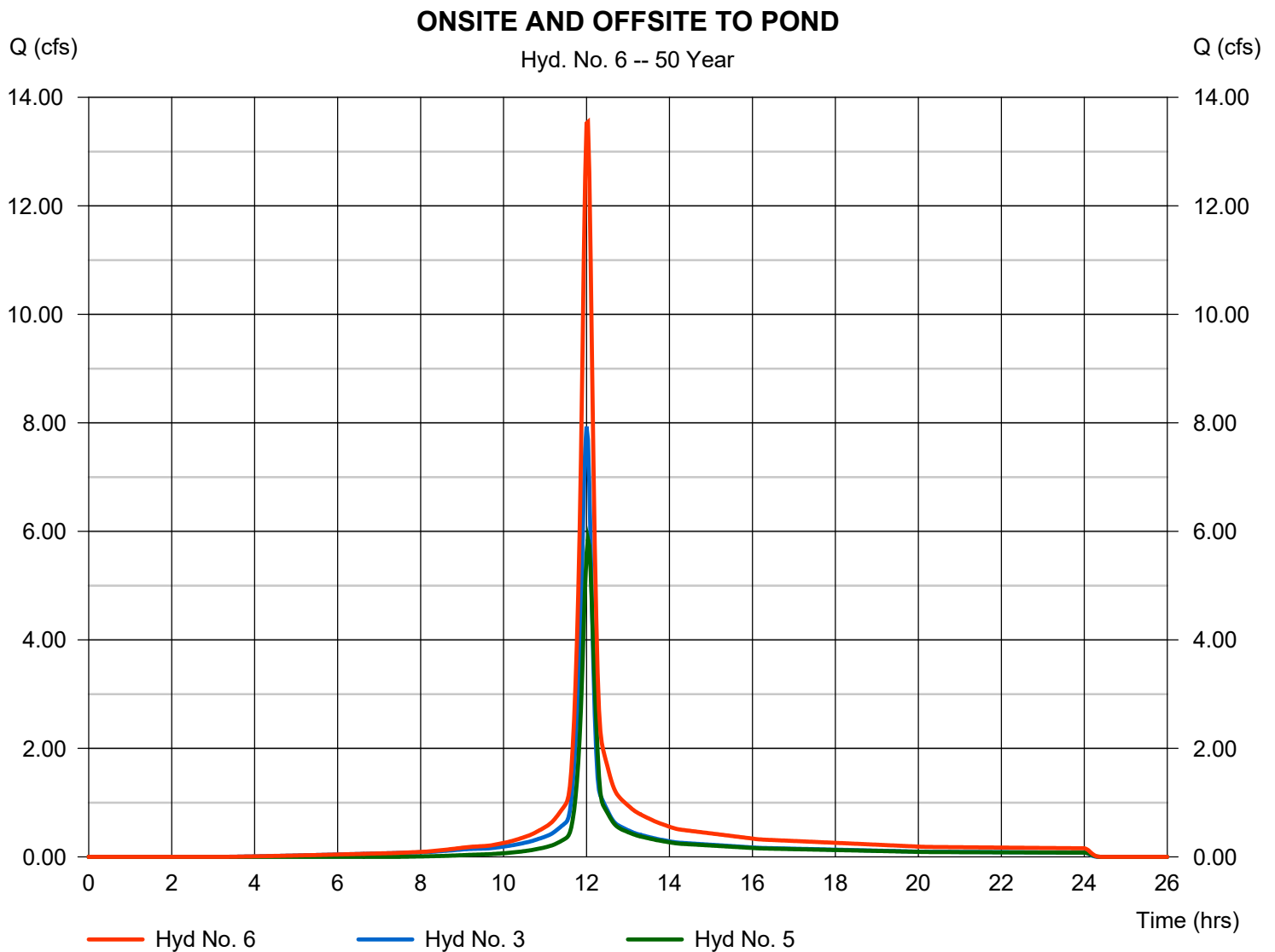
Friday, 09 / 10 / 2021

Hyd. No. 6

ONSITE AND OFFSITE TO POND

Hydrograph type = Combine
Storm frequency = 50 yrs
Time interval = 2 min
Inflow hyds. = 3, 5

Peak discharge = 13.55 cfs
Time to peak = 12.03 hrs
Hyd. volume = 38,138 cuft
Contrib. drain. area = 2.270 ac



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

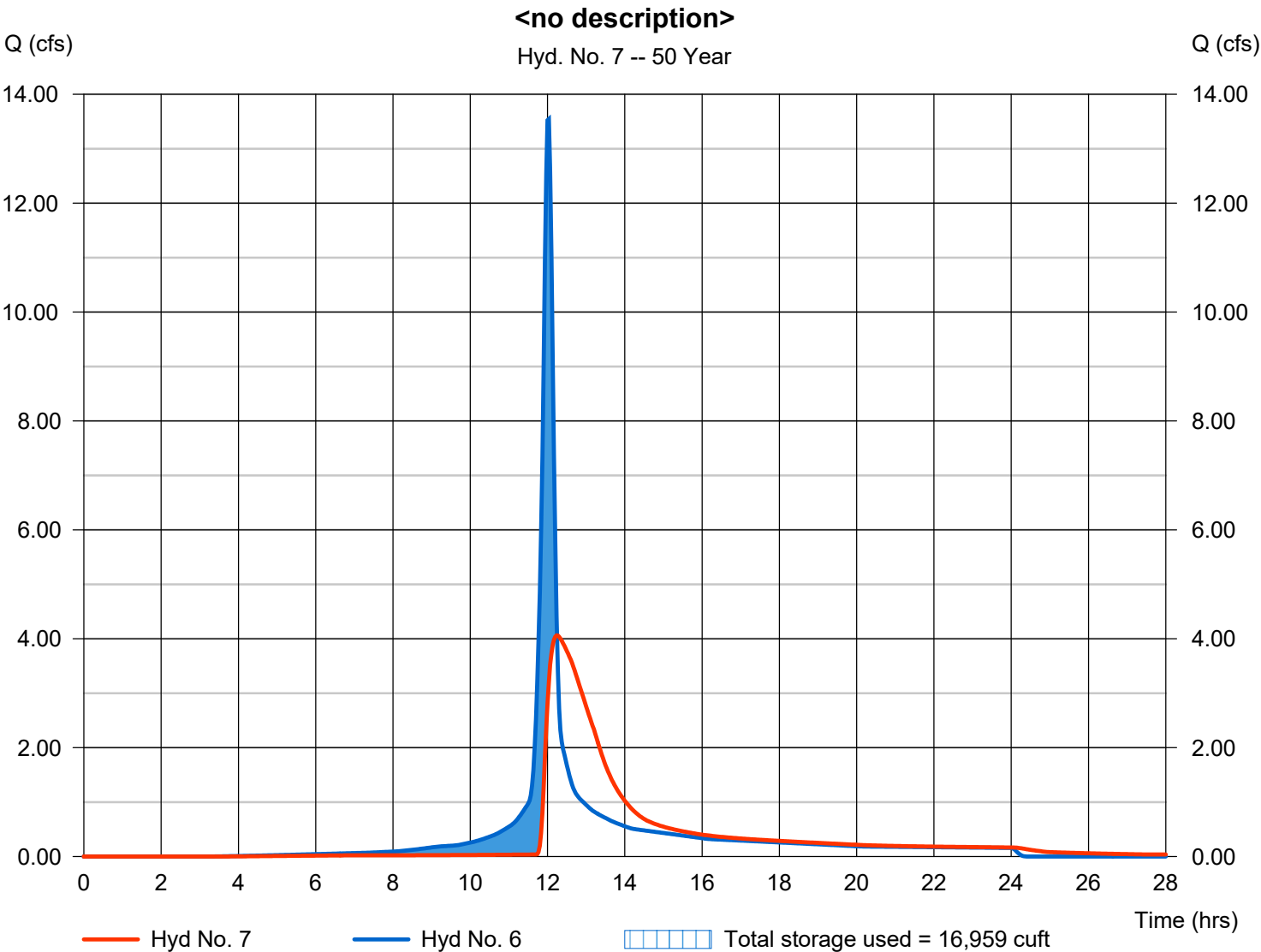
Friday, 09 / 10 / 2021

Hyd. No. 7

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 4.062 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 38,134 cuft
Inflow hyd. No.	= 6 - ONSITE AND OFFSITE TOWNSHIP	MPD Elevation	= 663.33 ft
Reservoir name	= Detention	Max. Storage	= 16,959 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	11.15	2	724	34,974	-----	-----	-----	PRE
2	SCS Runoff	15.25	2	720	40,424	-----	-----	-----	POST
3	SCS Runoff	8.677	2	720	23,890	-----	-----	-----	ONSITE
4	SCS Runoff	2.989	2	720	7,767	-----	-----	-----	BYPASS
5	SCS Runoff	6.592	2	722	18,510	-----	-----	-----	EAST OFFSITE
6	Combine	15.00	2	722	42,401	3, 5	-----	-----	ONSITE AND OFFSITE TO POND
7	Reservoir	4.350	2	734	42,396	6	663.57	18,866	<no description>
R:\Projects\2019\19036 - Barefoot Landscaping Retention Pond Design\19036-DETENTION\2019-09-20\2019-09-20-19036-DETENTION.g					R:\Projects\2019\19036 - Barefoot Landscaping Retention Pond Design\19036-DETENTION\2019-09-20\2019-09-20-19036-DETENTION.g				

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

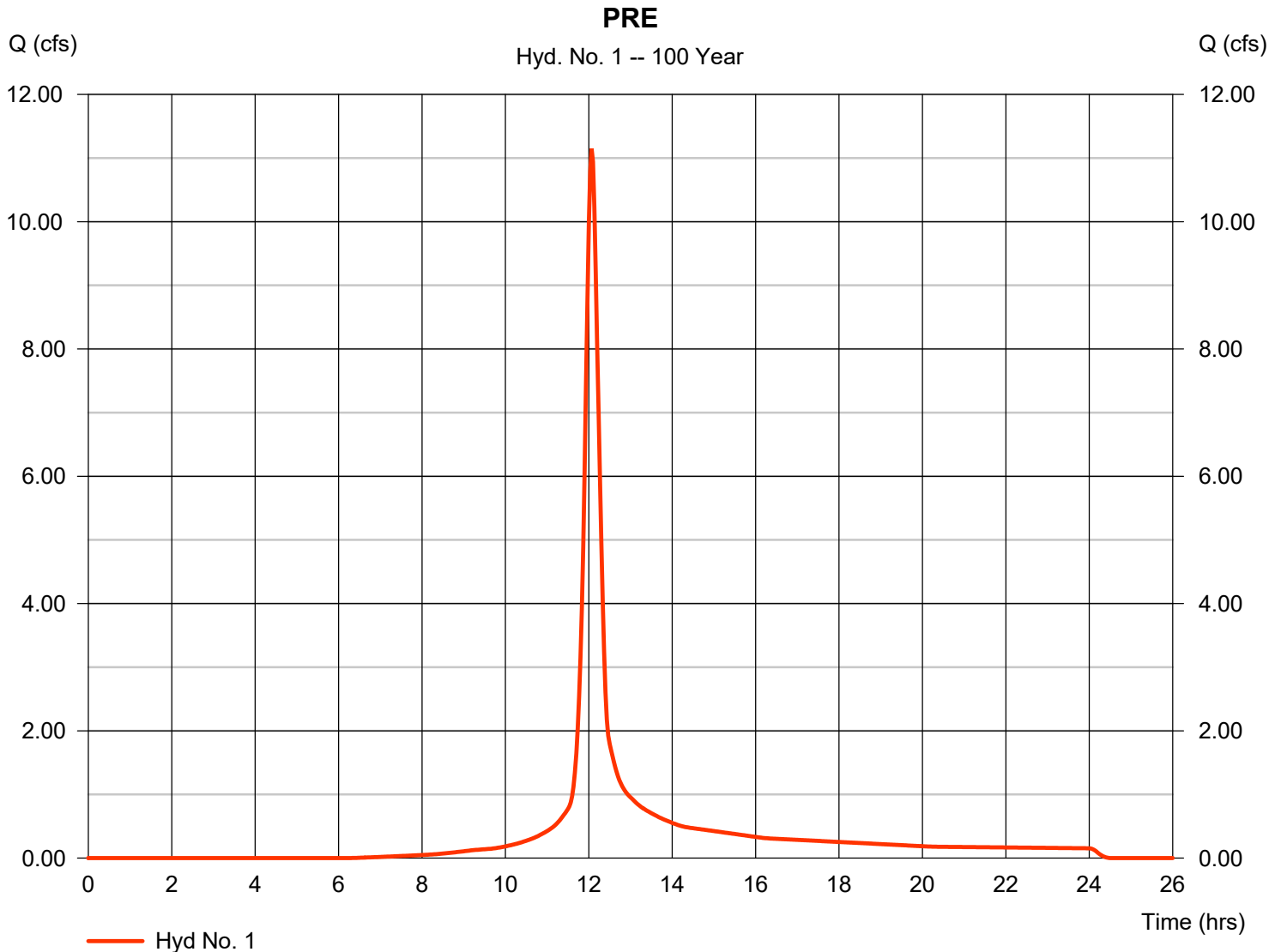
Friday, 09 / 10 / 2021

Hyd. No. 1

PRE

Hydrograph type	= SCS Runoff	Peak discharge	= 11.15 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 34,974 cuft
Drainage area	= 2.070 ac	Curve number	= 77*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.80 min
Total precip.	= 7.32 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.400 \times 79) + (1.665 \times 77)] / 2.070$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

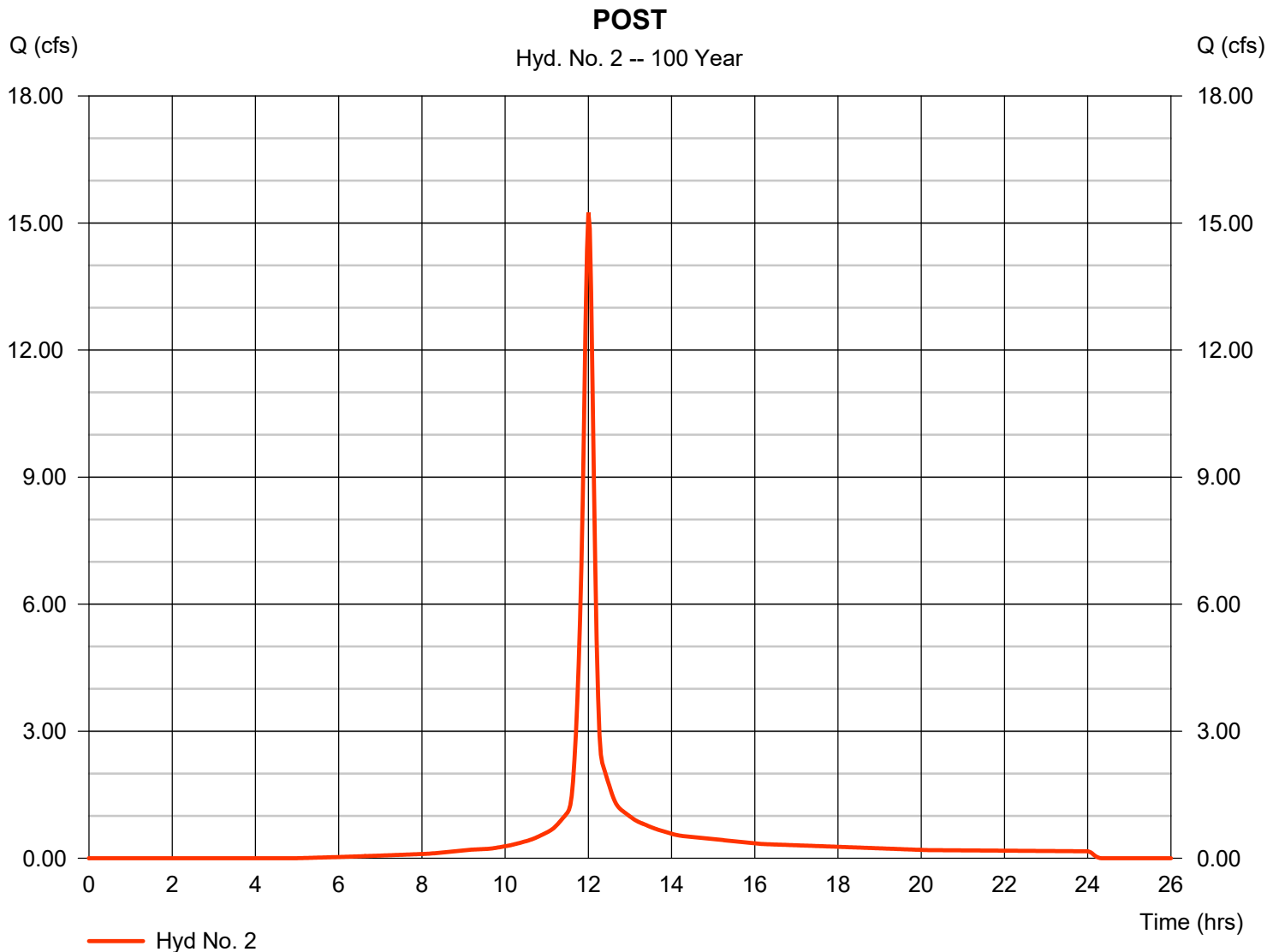
Friday, 09 / 10 / 2021

Hyd. No. 2

POST

Hydrograph type	= SCS Runoff	Peak discharge	= 15.25 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 40,424 cuft
Drainage area	= 2.070 ac	Curve number	= 82*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 7.32 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.640 \times 98) + (0.860 \times 74) + (0.570 \times 77)] / 2.070$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

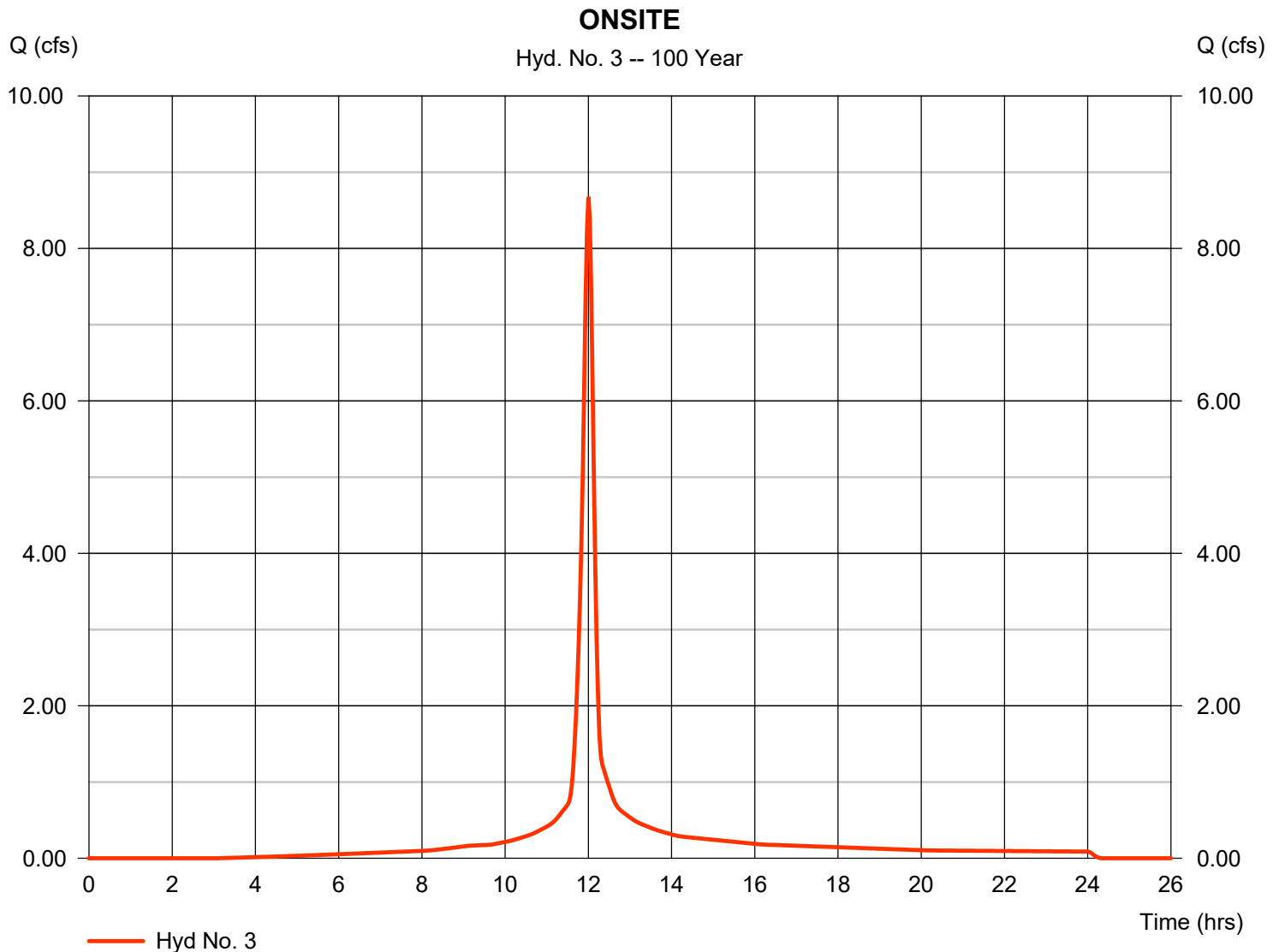
Friday, 09 / 10 / 2021

Hyd. No. 3

ONSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 8.677 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 23,890 cuft
Drainage area	= 1.060 ac	Curve number	= 89*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 7.32 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.660 \times 98) + (0.370 \times 74)] / 1.060$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

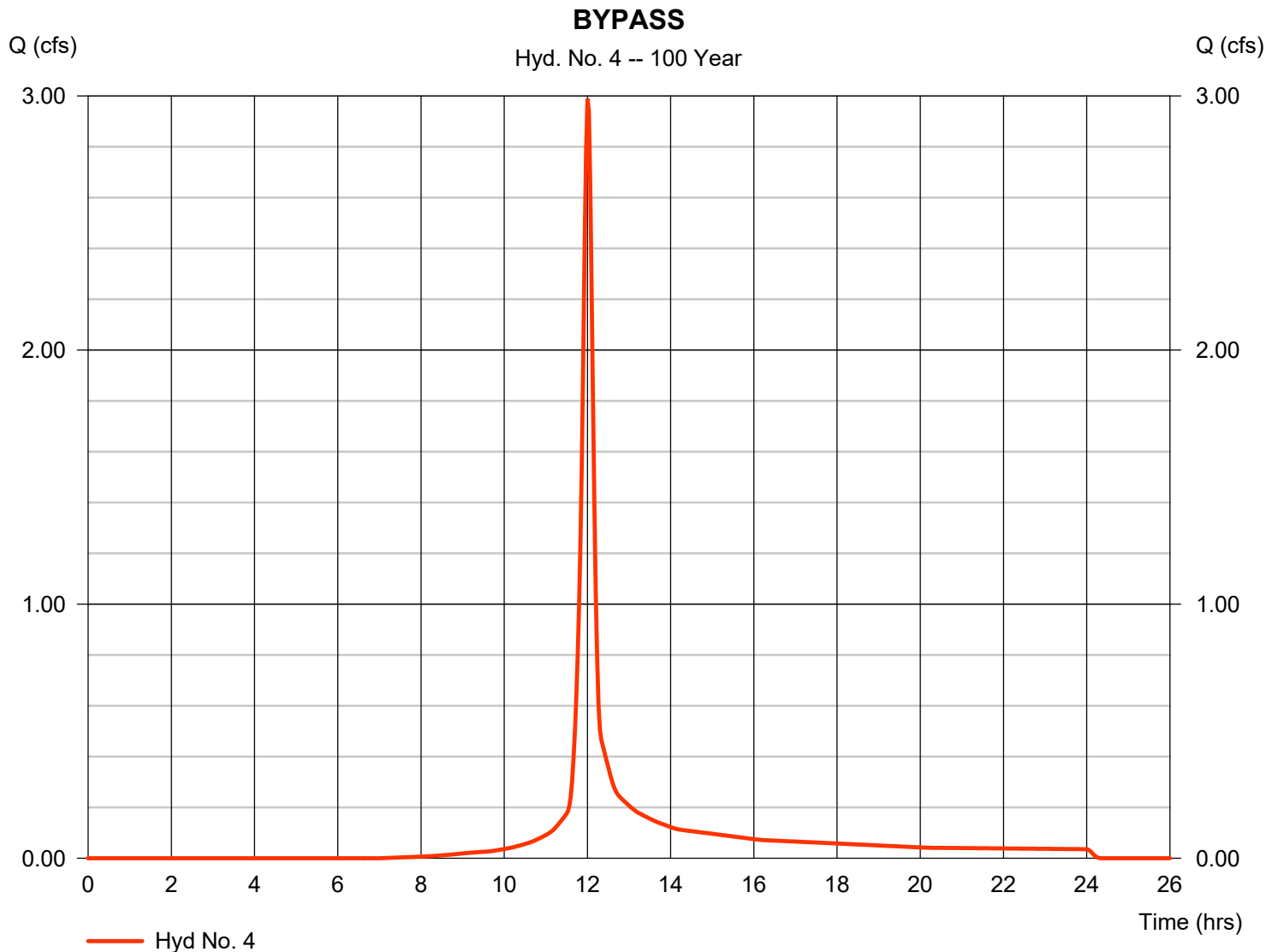
Friday, 09 / 10 / 2021

Hyd. No. 4

BYPASS

Hydrograph type	= SCS Runoff	Peak discharge	= 2.989 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 7,767 cuft
Drainage area	= 0.480 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 7.32 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = + (0.510 x 74)] / 0.480



Hydrograph Report

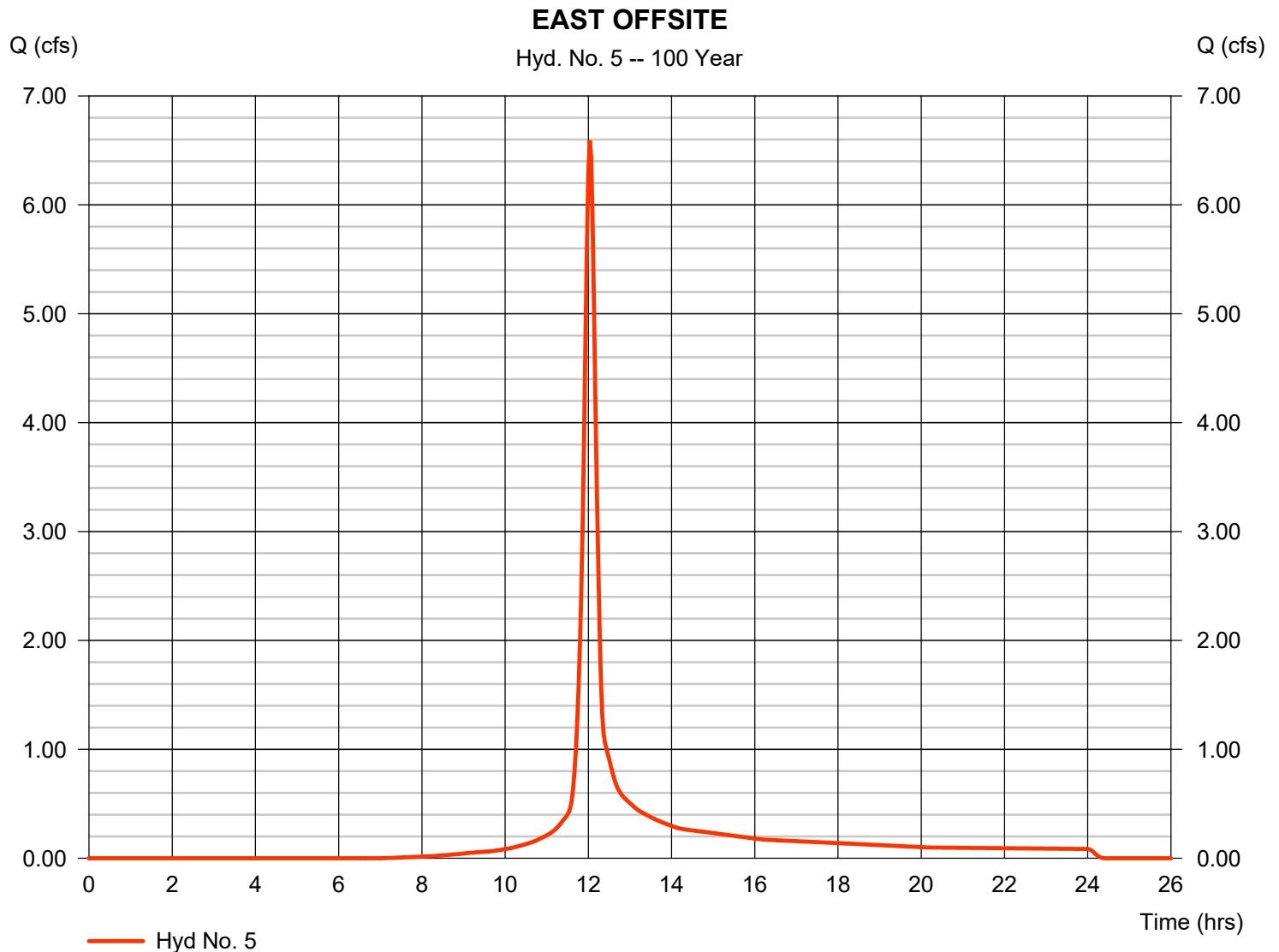
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 5

EAST OFFSITE

Hydrograph type	= SCS Runoff	Peak discharge	= 6.592 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 18,510 cuft
Drainage area	= 1.210 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 15.00 min
Total precip.	= 7.32 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

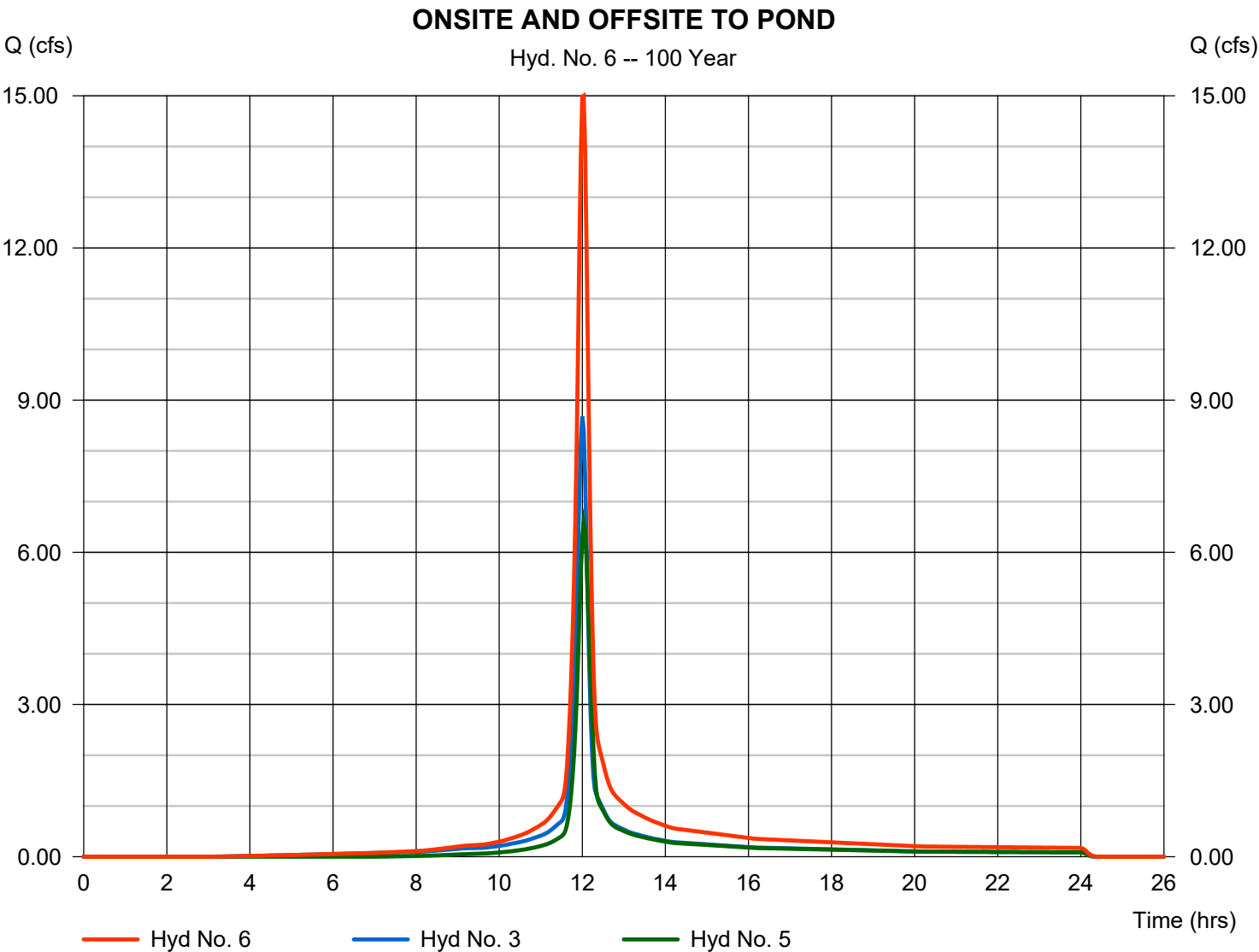
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

Friday, 09 / 10 / 2021

Hyd. No. 6

ONSITE AND OFFSITE TO POND

Hydrograph type	= Combine	Peak discharge	= 15.00 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 42,401 cuft
Inflow hyds.	= 3, 5	Contrib. drain. area	= 2.270 ac



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

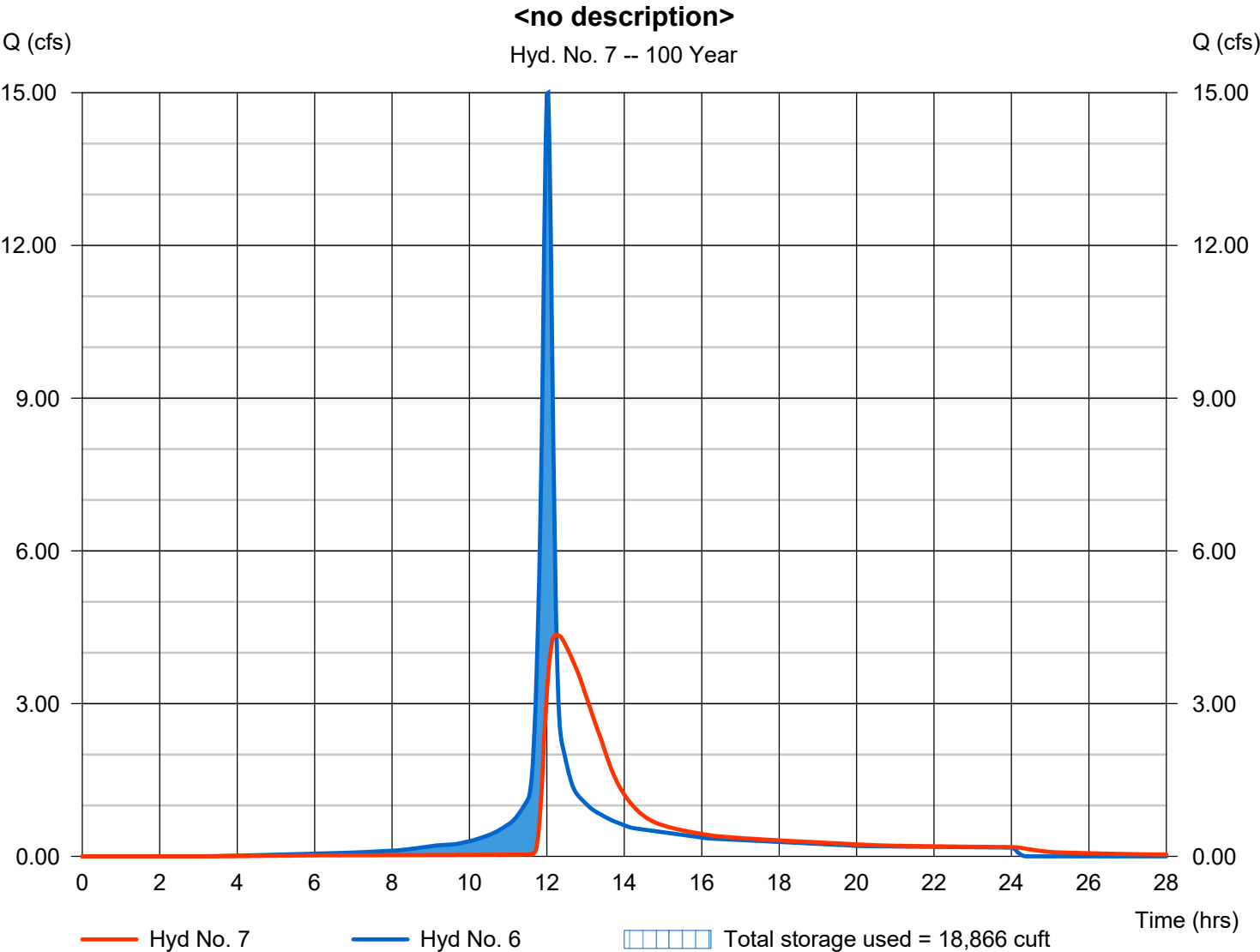
Friday, 09 / 10 / 2021

Hyd. No. 7

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 4.350 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 42,396 cuft
Inflow hyd. No.	= 6 - ONSITE AND OFFSITE TOWNSHIP	MPAD elevation	= 663.57 ft
Reservoir name	= Detention	Max. Storage	= 18,866 cuft

Storage Indication method used.



Hydraflow Table of Contents

H:\Projects\2021-09-10-036-Barefoot\Barefoot\Monroe\Design\DETENTION\2021-07-09\2021-09-10-BAREFOOT DETENTION.gpw

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Water Quality Calculations

PROJECT **BAREFOOT LANDSCAPING**
 JOB # **19036**
 DATE **9/10/2021**
 DESIGN **JGR**
 CHECK **RVP**

WATER QUALITY VOLUME = INPUT FIELDS

Method 2

WQv = Rv * P * A / 12

Rv = 0.43
 P = 0.9 IN
 A = 1.62 ACRES *

VOLUMETRIC RUNOFF COEFFICIENT
 Rv = 0.05 + 0.9i
 WHERE: i = IMPERVIOUS RATIO

WQv = 0.05 AC FT

WQv = P * A * [(PRRv * 0.2) + (POSTRv - PRRv)] / 12

PRE Rv = 0.05
 POST Rv = 0.43
 P = 0.9 IN
 A = 1.62 ACRES *

IMPERVIOUS RATIO, i = IMPERVIOUS AREA / TOTAL AREA

PRE-IMPERVIOUS AREA =	0	POST-IMPERVIOUS AREA =	0.69
TOTAL AREA =	1.62	TOTAL AREA =	1.62
i =	0	i =	0.43
PRE Rv =	0.05	POST Rv =	0.43

WEIGHTED
WQv = 0.05 AC FT

P = Precipitation Depth of 0.90 - inches
***AREA TO INCLUDE OFFSITE DRAINAGE**

THEREFORE, **WQv = 0.05 AC FT**
 OR, 2293.434 CF

**IF POST Rv IS EQUAL TO OR LESS THAN PRE Rv CHECK PREVIOUSLY
 DEVELOPED AREAS ON PG 22 & 23 OF FINAL_OHC000005_CGP AND USE WEIGHTED WQV.

EXTENDED DETENTION VOLUME - DRY BASINS

EDv = 1.2 * WQv

Dry EDv = 0.06 AC FT 2752 CF

BASIN STORAGE VOLUME

ELEV.	VOL CU FT	EDv *
659.26	0	
661	2646	
662	7827	
664	22356	
		661.02

EDv REQUIRED STORAGE AVAILABLE AT: 661.02 NO FORE BAY

* INTERPOLATE WATER QUALITY VOLUME WATER SURFACE ELEVATION

SIZE ORIFICE FOR EXTENDED DETENTION VOLUME DRAIN

**** DOUBLE CHECK UNITS ****

Q(av) = EDv / Td

Q(max) = 2 * Q(av)

Td = 48 HOURS FOR DRY

Td = 24 HOURS FOR WET

Q(av) = 0.0159 CFS

WHERE:

Q(max) = 0.0319 CFS

EDv = EXTENDED DETENTION VOLUME

EDv = 0.75 * WQv FOR WET PONDS AND WETLANDS

EDv = 1.2 * WQv FOR DRY DETENTION BASINS

Qav = AVERAGE FLOW RATE THROUGH THE ORIFICE

Qmax = MAXIMUM FLOW RATE THROUGH THE ORIFICE

Td = EDv DRAIN TIME (24 TO 48 HOURS)

C = 0.62 ORIFICE COEFF.

g = 32.2 ft/sec²

Havg = AVERAGE HYDRAULIC HEAD

A = ORIFICE AREA (ft²)

D = ORIFICE DIAMETER (ft)

A = Q(av) / C * (2 * g * H(av))^{0.5}

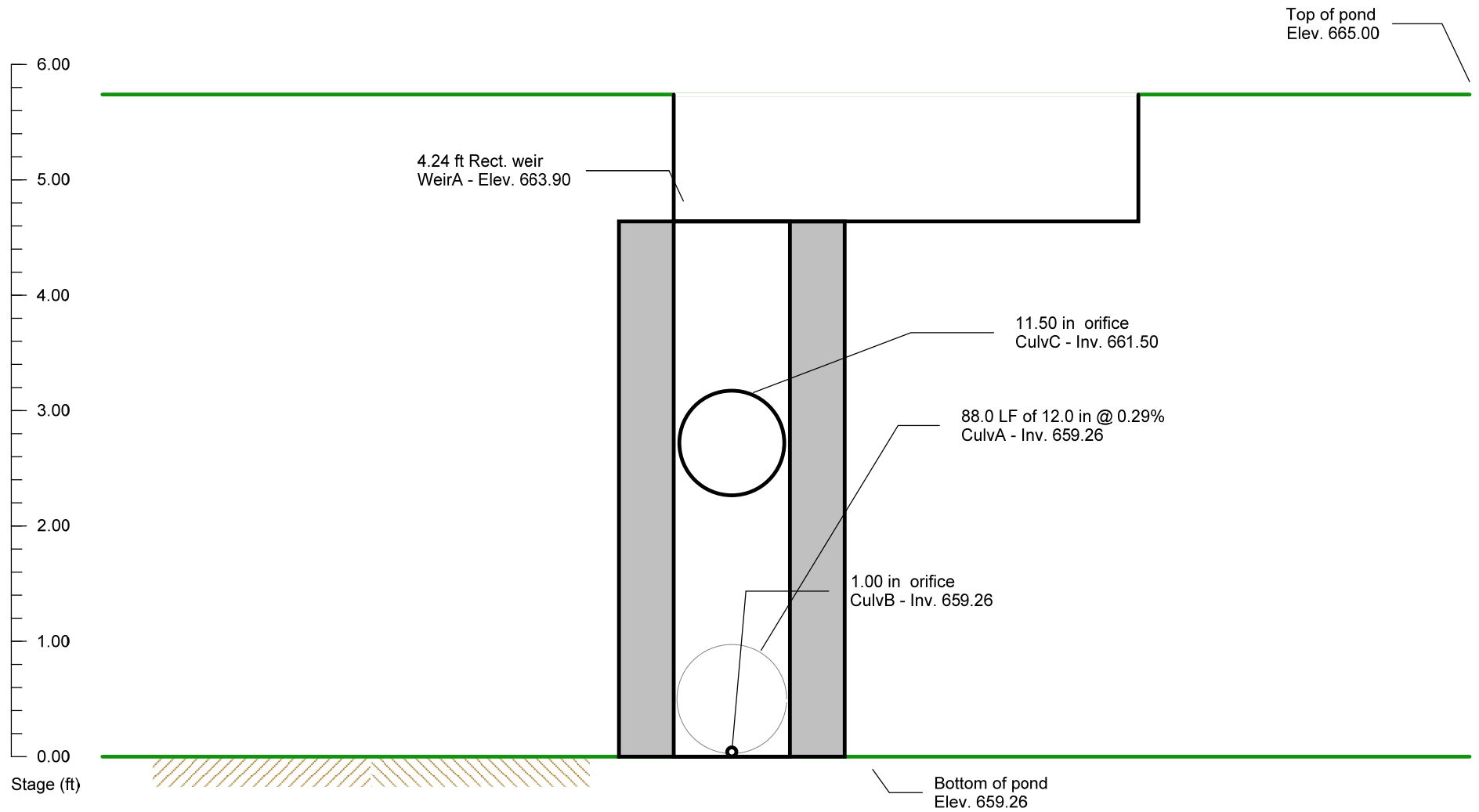
H(av) = 0.88 FT

A = 0.0034 SQ FT AREA OF REQUIRED ORIFICE

D = 0.79 IN

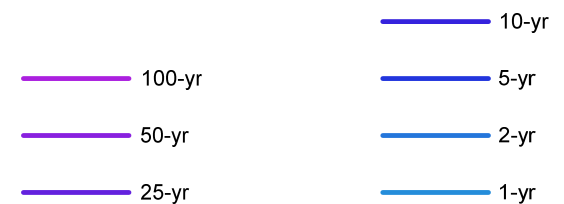
Pond No. 2 - Detention

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3

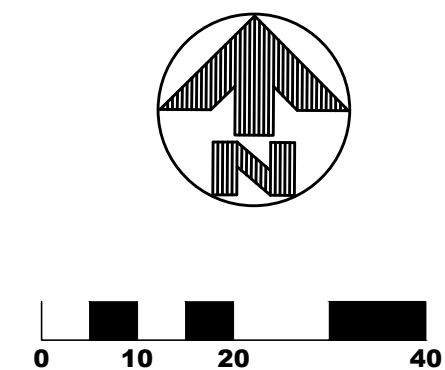
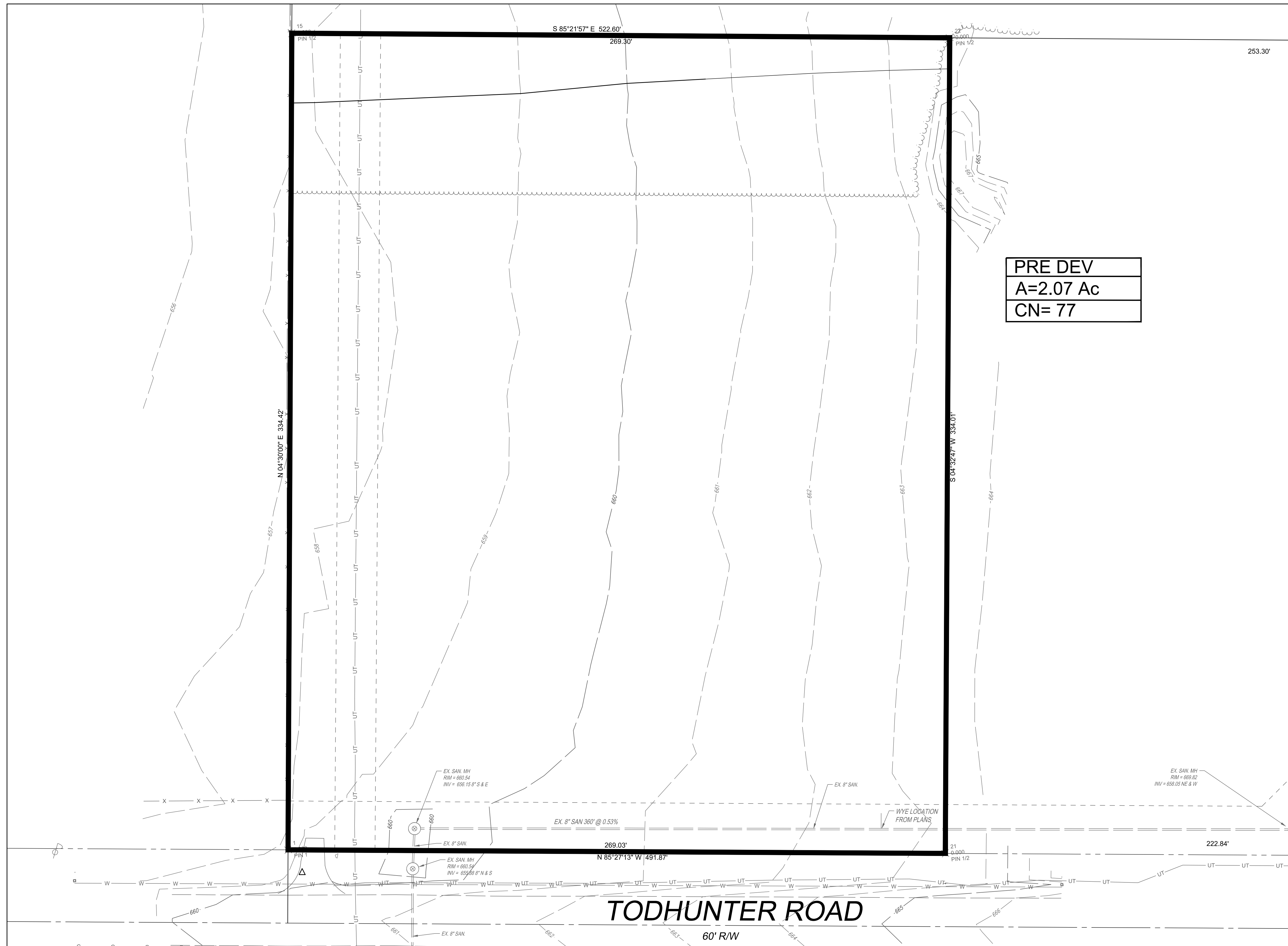


Front View

NTS - Looking Downstream



Inflow hydrograph = 1. SCS Runoff - PRE



REVISIONS

RESPONSIBILITY FOR AN USE OR MANIPULATION OF ELECTRONIC DATA FILES BY OTHERS TO GUARANTEE THE INTEGRITY OF THE INFORMATION.

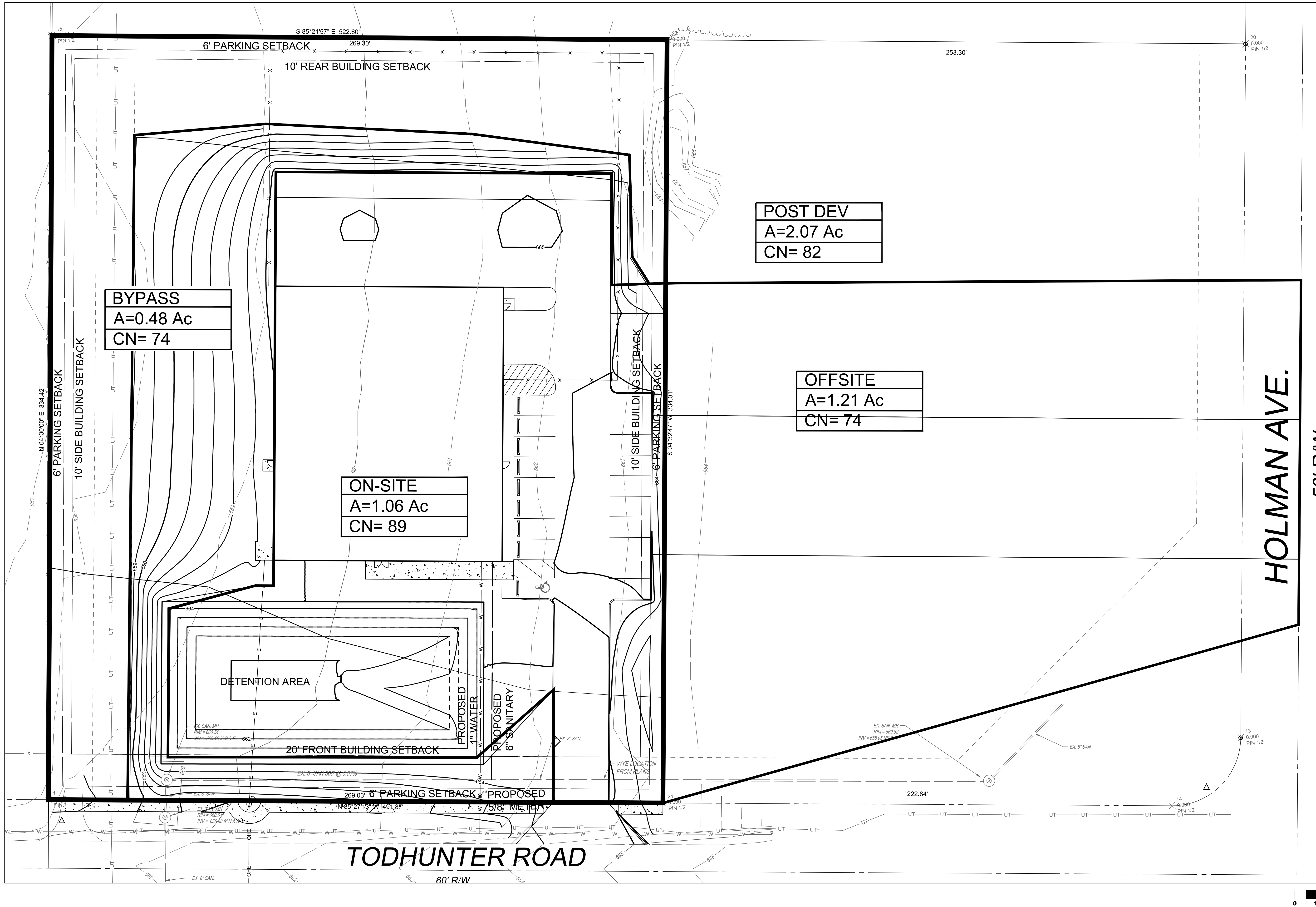
BAREFOOT LANDSCAPING
CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26, TOWN 3, RANGE 3

PRE DEVELOPMENT

SCALE:
DATE: 07/26/19
DRAWN: JGR
DESIGNED: JGR
CHECKED: RVP
XREF:
JOB NO.: 19036

Page

PRE

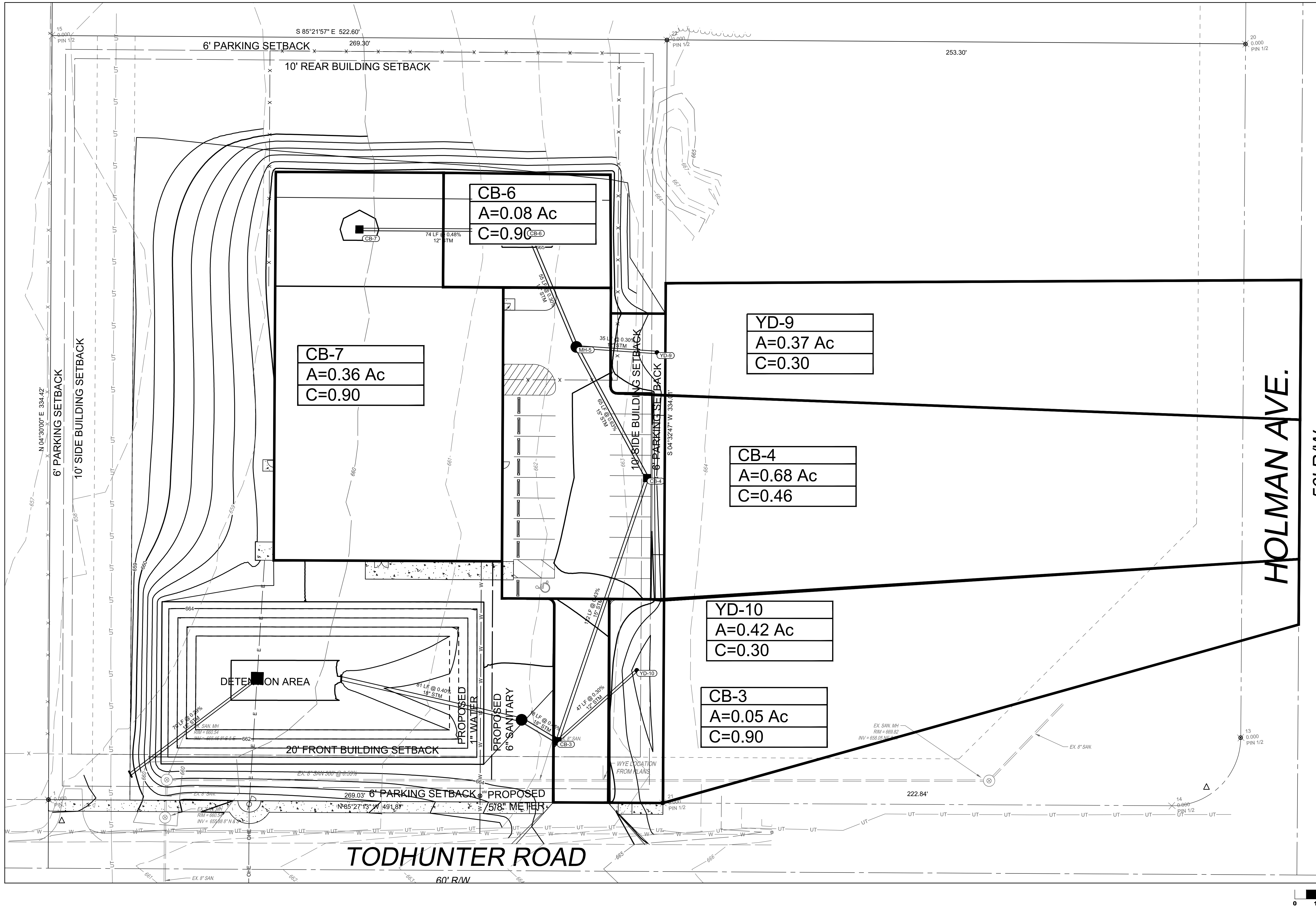


REVISIONS	

BAREFOOT LANDSCAPING
CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26, TOWN 3, RANGE 3

POST DEVELOPMENT

SCALE:
DATE: 07/26/19
DRAWN: JCR
DESIGNED: JCR
CHECKED: RVP
XREF:
JOB NO.: 19036



REVISIONS

BAREFOOT LANDSCAPING
CITY OF MONROE, BUTLER COUNTY, OHIO
SECTION 26, TOWN 3, RANGE 3

LOCAL DRAINAGE

SCALE:
DATE: 07/26/19
DRAWN: JCR
DESIGNED: JGR
CHECKED: RVP
XREF:
JOB NO.: 19036



Local Drainage Calculations

9/10/2021

Project: BAREFOOT LANDSCAPING
Project Number: 19036

Design Storm: 10 yr
Check Storm: 100 yr
Manning's n: 0.013

LOCATION			BASIN DATA									PIPE DATA								HGL CHECK								
Inlet	Station	Outlet	ΔA (ac)	ΣA (ac)	ΔT _c (min)	ΣT _c (min)	Design i (in/hr)	Coeff. C	ΔCA (ac)	ΣCA (ac)	Design Discharge (cfs)	Pipe Size (in)	Pipe Length (ft)	Pipe Slope (ft/ft)	US Invert (ft)	DS Invert (ft)	Mean Velocity (ft/sec)	Pipe Full Capacity (cfs)	Check i (in/hr)	Check Discharge (cfs)	Mean Velocity (ft/sec)	Friction Slope (ft/ft)	Head Loss (ft)	TW Elevation (ft)	HW Elevation (ft)	T/C-Grate Elevation (ft)		
CB-7		CB-6	0.36	0.36	10	10	5.15	0.90	0.32	0.32	1.67	12	74	0.0047	661.87	661.52	3.13	2.46	7.32	2.37	3.13	0.0047	0.35	663.60	663.95	664.87		
CB-6		MH-5	0.08	0.44	10	10	5.15	0.90	0.07	0.40	2.04	15	55	0.0031	661.52	661.35	2.93	3.60	7.32	2.90	2.93	0.0031	0.17	663.43	663.60	664.77		
MH-5		CB-4	0.00	0.81	10	10	5.15	0.00	0.00	0.51	2.61	15	65	0.0063	661.35	660.94	4.19	5.14	7.32	3.71	4.19	0.0063	0.41	663.02	663.43	665.26		
CB-4		CB-3	0.68	1.49	10	10	5.15	0.46	0.31	0.82	4.22	15	122	0.0043	660.94	660.41	3.48	4.27	7.32	6.00	4.89	0.0086	1.05	661.97	663.02	664.19		
CB-3		MH-2	0.05	1.96	10	10	5.15	0.90	0.05	0.99	5.10	18	18	0.0044	660.41	660.33	3.97	7.02	7.32	7.25	4.10	0.0047	0.09	661.88	661.97	663.88		
MH-2		HW-1	0.00	1.96	10	10	5.15	0.00	0.00	0.99	5.10	18	81	0.0041	660.33	660.00	3.80	6.72	7.32	7.25	4.10	0.0047	0.38	661.50	661.88	664.30		
YD-9		MH-5	0.37	0.37	10	10	5.15	0.30	0.11	0.11	0.57	12	35	0.0031	661.30	661.19	2.55	2.00	7.32	0.81	2.55	0.0031	0.11	663.43	663.54	663.03		
YD-10		CB-3	0.42	0.42	10	10	5.15	0.30	0.13	0.13	0.65	12	47	0.0030	660.59	660.45	2.48	1.95	7.32	0.92	2.48	0.0030	0.14	661.97	662.11	662.45		

Designed:JGR
Checked:RVP



September 10, 2021

City of Monroe

Attn: Kameryn Jones
233 South Main Street
Monroe, OH 45050

Dear Ms. Jones:

Andy and I have reviewed your comments and have the following responses:

General-

- We are showing the outdoor material storage on the landscape plan as well as the revised dumpster location. The maximum height of storage is 6', which is 2 feet shorter than privacy fence.

Parking –

- We have added the requested curb and wheel stops.
- We have revised the parking spaces to 9x18.
- We have provided 19 parking spaces.

Sidewalks-

- Sidewalks are shown to the main entrance area.
- We've revised our plan to limit the sidewalk from the parking area to the front door and we have made it 8' wide.
- We have added a 5' walk along Todhunter

Street Trees-

- Provided as requested

Landscaping-

- Revised as requested

Screening-

- There are no rooftop mechanical units. All ground mounted equipment is screened
- We have relocated the dumpster to the northwest corner of the property behind the building and behind the privacy fence to completely screen it from Todhunter Road and the adjacent properties.
- The new dumpster location also removes it from the gate area where it was clearly visible. Since adding the wood slats to the gate would create a long-term maintenance problem, we've left our chain-link gate just as the Kroger's distribution center has. And we've relocated the dumpster to the furthest corner away from the gate to cut down on its visibility in this industrial zone.

Architectural-

- Revised as noted except:

- On the north and east side of the building behind the privacy fence, the water table portion of the building is poured concrete to help with durability in that storage and yard area.
- The rest of the water table around the building has the requested masonry.

Lighting –

- Provided as requested.

Fire Dept-

- OK

Public Works / Engineering-

- C300 revised as noted
- C301
 - drainage calcs submitted
 - The detention basin will provide the water quality volume treatment
- C400
 - 1-3 revised as noted
 - 4 – detention basin acts as the water quality volume – details shown in the submitted calcs.
- C500
 - SPWWW booklet will be provided onsite by the contractor

Sincerely,

RVP Engineering, LLC

A handwritten signature in black ink that reads "Rob Painter". The signature is stylized with a large, looped "R" and a cursive "Painter".

Robert V. Painter, PE
President

From: Rob Painter <rob.painter@rvpengineering.com>
Sent: Thursday, September 16, 2021 2:47 PM
To: Kevin Chesar
Subject: FW: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Kevin:

See below for our responses in Red. Please contact Josh Ross in my office below with additional questions.

I am sending other responses along to you as well.

Rob Painter PE

RVP Engineering

6230 Centre Park Drive, Suite C

West Chester, Ohio 45069

Office: 513-823-2175

Mobile: 513-403-1084

Rob.painter@RVPengineering.com

www.RVPengineering.com



From: Josh Ross <josh.ross@rvpengineering.com>
Sent: Thursday, September 16, 2021 11:22 AM
To: Rob Painter <rob.painter@rvpengineering.com>
Subject: RE: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

My short replies to comments see below in **RED**.

From: Rob Painter <rob.painter@rvpengineering.com>
Sent: Wednesday, September 15, 2021 3:07 PM
To: Josh Ross <josh.ross@rvpengineering.com>
Subject: FW: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Lets talk about the sidewalk along todhunter and his r/w comment.

Rob Painter PE

RVP Engineering

6230 Centre Park Drive, Suite C

West Chester, Ohio 45069

Office: 513-823-2175
Mobile: 513-403-1084
Rob.painter@RVPengineering.com
www.RVPengineering.com



From: Kevin Chesar <chesark@monroeohio.org>
Sent: Wednesday, September 15, 2021 2:58 PM
To: Kameryn Jones <jonesk@monroeohio.org>; John Bodiker <bodikerJ@monroeohio.org>; Bill Brock <brockb@monroeohio.org>; Paul Goodhue <goodhuep@monroeohio.org>; Matt Grubbs <grubbsm@monroeohio.org>; Rob Painter <rob.painter@rvpengineering.com>
Cc: Alaina Hagenseker <hagensekera@monroeohio.org>
Subject: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Good Afternoon Rob,

I am reviewing the updated plans for our final report and have the follow comments. If you could at minimum provide verbal updates by noon tomorrow it would be appreciated. Otherwise the report will detail the following items in to other department comments. I want to note that I have reviewed further with the comments below (as Kameryn is out of the office) and if we need to have a call to catch up, we can do so tomorrow:

Tree Lawn

- I am having difficulty determining the right of way line. Can you label to indicate the location clearly and add the symbol to the legend on all sheets (or feel free to point out if I am missing it)? **That will not be an issue but the back of walk along Todhunter is the ROW.**
- Typically the tree lawn (6 feet is required) is located in front of the walk adjacent to the road. It appears to be located behind the walk and I am not aware of any rationale to do so (I do not believe any overhead utilities are present on the north side). Can you elaborate or correct.

Electric Pole Location/Underground

- It appears that a new electric pole location (see red circle below) may be an issue and as such the pole will need to be relocated out of walk area (this could be possibly corrected if the tree lawn/sidewalk is corrected).

- I believe engineering will need to approve the location of the Duke Pole as well as any proposed overhead electric.
- New service electric is require underground and it appears to be possibly overhead? **Will need to work with Duke on how to achieve this.**

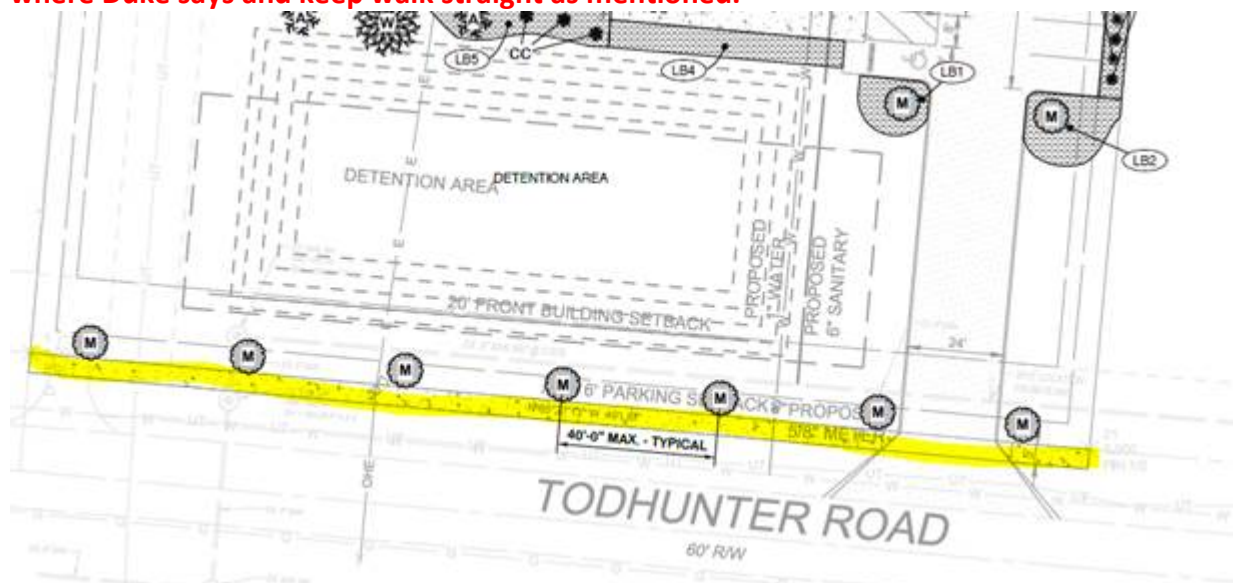
1208.09 Utilities and Underground Facilities

(A) GENERAL REQUIREMENTS FOR UTILITIES AND UNDERGROUND FACILITIES

- (1) All public and common electric, cable, and telephone lines and other utilities shall be located underground in all residential, office, commercial and industrial subdivisions and districts, and shall be placed in their own easement, shown on the final or record plat. These underground utility requirements shall also apply to any lines required to serve the new development that extend outside the boundary of the development. The conduits or cables shall be located within easements or public right-of-ways in separate trenches, in a manner which will not conflict with other underground services.
 - a) All developments shall additionally be required to construct and install telecommunications conduit on all streets that are affected, disturbed, constructed and/or improved by development unless otherwise approved, pending a review by the city engineer. This conduit shall be for the purpose of installing telecommunications cable, fiber optic wiring or other infrastructure as necessary.
 - b) This conduit shall be placed at horizontal and vertical locations as determined by the city engineer. The conduit shall conform to the size, shape and characteristics as determined by the city engineer based on industry standards. Once installed and accepted by the city, the conduit shall become the property of the city of Monroe.

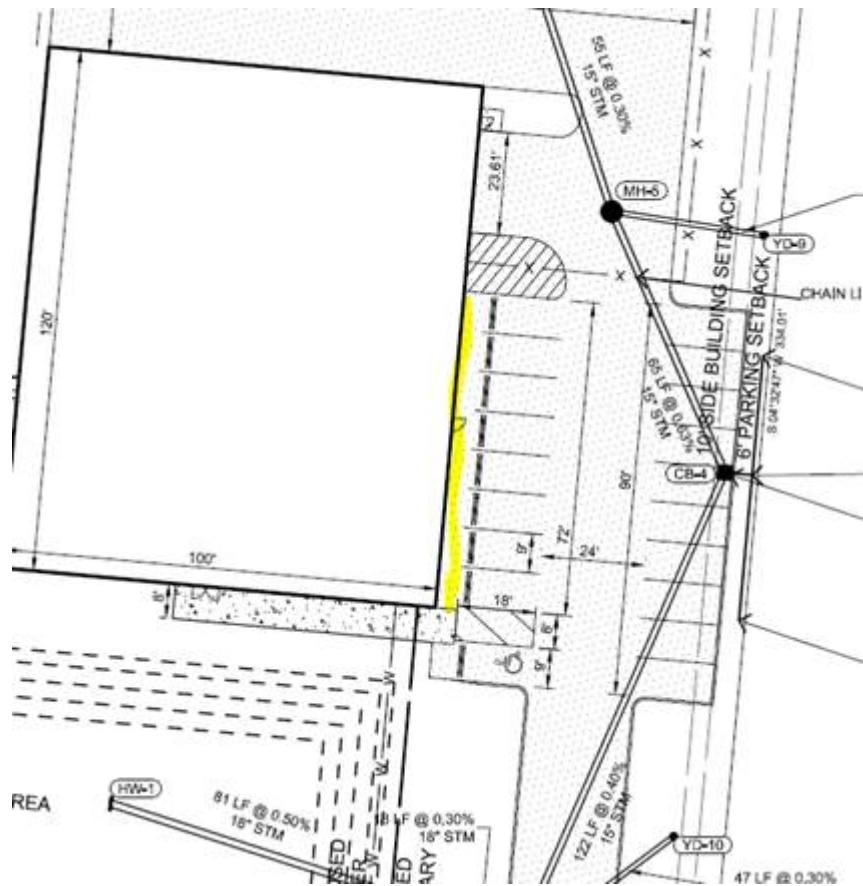
Sidewalks

- The sidewalk is shown straight and then curved and I am not sure why that is the case (see comment below about pole location). Further it does not match on all plan sheets and will need corrected. **Was attempting to keep pole in ROW but will move to where Duke says and keep walk straight as mentioned.**

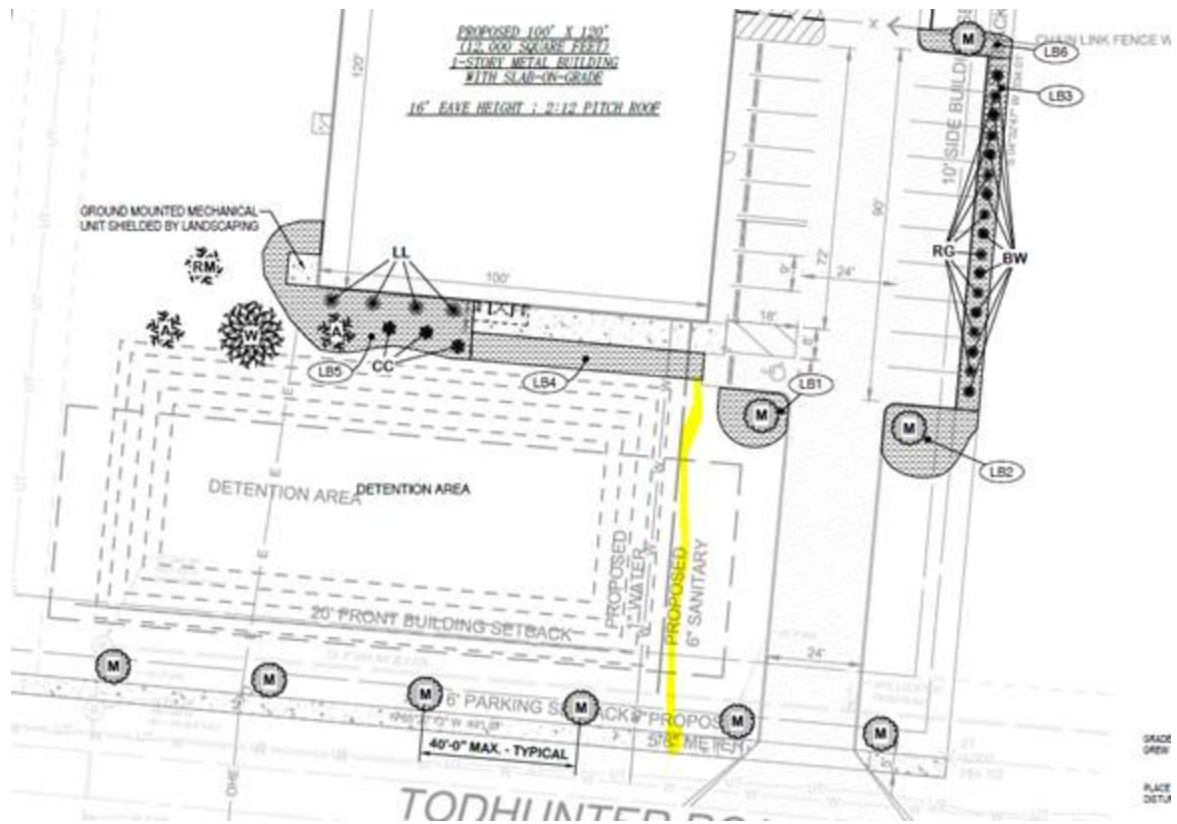


- Sidewalks abutting parking or featuring a customer entrance must be 8 FT wide. Please indicate customer parking area meeting requirement.

This is not a sidewalk just asphalt.



- Sidewalk Connection is required from the public street sidewalk to the building. Please revise. Below is a suggestion that would be one appropriate location (yellow highlight): **Will show walk as requested.**



(K) INTERNAL SIDEWALKS AND PEDESTRIAN ACCESS

- (1)** Where a sidewalk exists in a public right-of-way adjacent to the site, or is required as part of the development approval, a paved pedestrian connection shall be provided from the building to the sidewalk.
- (2)** The pedestrian connection shall have a minimum width of five feet.

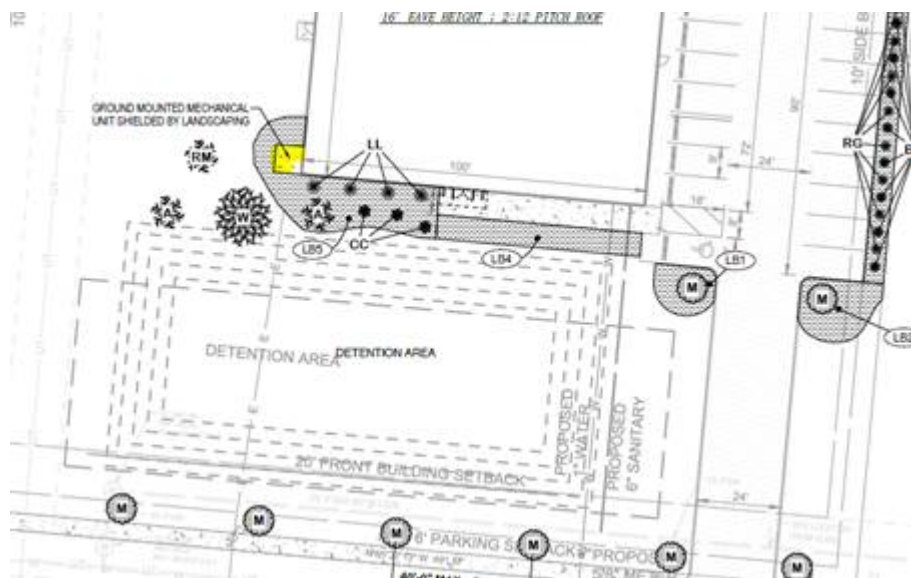
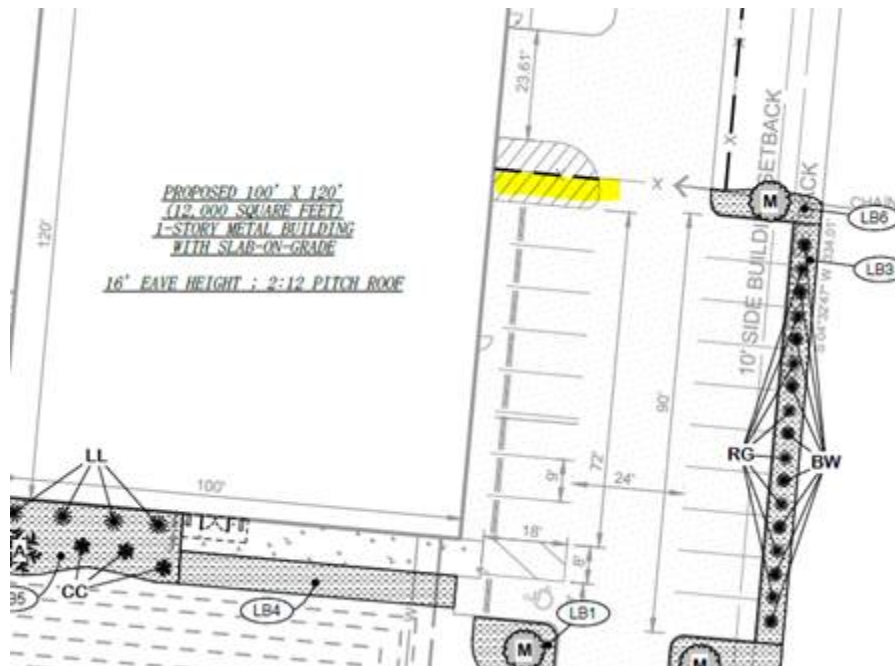


Figure 1211-D: This photograph illustrates how a sidewalk connecting the public sidewalk to the business entrance shall be provided with the required landscaping.

- (3)** All pedestrian walkways located within a site (internal pedestrian circulation) shall be separated from the drive lanes and driveways. Additionally all sidewalks and pedestrian walkways shall be constructed of an impervious surface and shall be visually distinct from the drive lanes by the use of pavers, bricks, scored concrete, or other material approved by the Code Enforcement Department. See [Figure 1211-D](#).
- (4)** Sidewalks, at least eight feet in width, shall be provided along any facade featuring a main entrance, and along any facade abutting parking lots. At all times, such sidewalk shall provide a clear pedestrian passage equal to the width of the sidewalk. Additionally, such sidewalk shall be provided to customer entrances and to other internal sidewalks.

Landscaping/Screening

- A landscape island still appears to be missing on the north parking island of the western parking row side of both parking rows.
 - Additionally the ground mounted mechanical unit shielded by landscaping but no landscaping is indicated on plans.



- The slender silhouette liquidambar styraciflua proposed does not appear to meet the intent of a canopy tree. It is described as “tall, thin tree is perfect for tight spaces, small gardens or as a striking vertical accent... with a maximum width of 4 feet wide. Additionally, while it appears minimal, it does produce spiky “fruit”. Please see requirements below.

- Additionally the use of the tree as a street tree appears to not meet the intent for the lowest limb to not less than 5 feet above the ground.

Tree, **Canopy**

A tree that has an expected height at maturity greater than 40 feet and which produces significant shade because of its crown that is oval, round, vase-shaped, or umbrella-shaped.



1212.06 Street Tree Requirements

(A) APPLICABILITY

- (1)** All subdivisions shall include street trees that comply with the general requirements of Section 1212.05: Landscape Material Standards.
- (2)** All new sites and new developments are subject to the street tree requirements in this section.
- (3)** All new roads or extensions of existing roads, including private commercial drives external to a site, are subject to the street tree requirements in this section.

(B) Street trees shall be required along both sides of all streets.

(C) Street trees shall be required at all new sites along all frontages, excluding interstate highways and alleys.

(D) The applicant shall plant deciduous street trees with a minimum of two inches DBH. They shall not have thorns or produce nuts or fruit.

(E) Street trees shall be planted 40 feet on center along all streets, where required.

(F) At the time of planting, the lowest limb of any tree shall not be less than five feet above the ground. Existing trees that are properly located may be used in lieu of required trees.

(G) During the site plan review process or subdivision review process, the Code Enforcement Officer, Planning Commission, as applicable, may permit the applicant to completely or partially waive the street tree planting requirement stated above by making a park development payment in lieu of plantings. Said election must be requested in writing by the applicant and state the reasons for the modification from this requirement are being requested.

- b)** A minimum of one canopy tree is required for every 5 parking spaces with a three (3) foot tall visual screen of shrubs required in front of all parking areas. For areas not directly visible from a right-of-way, the Code Enforcement Officer may reduce the perimeter requirements to no less than one canopy tree and 5 shrubs for every five parking spaces. All non-parking space, including vehicular use areas (i.e. access drives, drive thru lanes, etc.) are required one canopy tree for every 50 linear feet and three bushes for every 15 linear feet of use area with exception of single and two family uses, agricultural uses, and industrial uses.

- Please indicated all landscaped areas meet the standard via dimensions.

1212.08 Front Yard Landscaping for Nonresidential Uses

- (A) A minimum of 20 percent of the required front yard area with a minimum 6 foot wide area adjacent to the right of way for all nonresidential uses shall be continuously landscaped with trees, shrubs, plants and/or perennials in a motif designed by the applicant in addition to all other required landscaping.

FENCING

- Please indicate all chain link as black vinyl.

attached to the inside of the fence where practical.

- viii) Chain Link fencing is prohibited in the front yard in residential zoning districts or the front yard of residential lots. Chain link type fences may be used in the rear yard of residential lots, business and industrial zoning districts provided they are plastic coated and are black color or as otherwise approved by the Code Enforcement Officer.

Lighting

- Minimum lightening is required per code and does not meet at vehicular development entrance as well as across the site. Additionally, the 0 foot candles indicated at the auto entrance is unacceptable and needs to be adequately lighted:

Figure 1207-A. Cutoff and non-cutoff lighting.

(3) Illumination Standards

- a) The maximum illumination permitted in each district type, as demonstrated in the drawing, shall be as established in [Table 1209-3: Maximum Illumination Levels](#).
- b) At a height of five feet above the property line of the subject property, illumination fixtures shall not exceed the maximum permitted in a vertical plane on the property.
- c) Illumination is required consistently across the site shall be designed so as to avoid light spots that may create safety issues in such areas as vehicular use areas and pedestrian paths. Lighting shall be maintained so as to achieve not less than 80% of the minimum and average illumination levels. Specific illumination use standards are established in Table 1209-2: Minimum Illumination Standards.

TABLE 1209-2: MINIMUM ILLUMINATION STANDARDS	
USE	MINIMUM ILLUMINATION (FOOTCANDLES)
Parking Areas and Access Drives	0.3
Loading and Unloading Areas	0.4
Walkways	0.2
Building/Development Entrances - Frequent Use	1.0
Building/Development Entrances – Infrequent Use	0.2
*The minimum light measured in footcandles at the point of least illumination when measured at ground level.	

- d) Non-cutoff lighting in business districts may only be used for decorative purposes on the building.
- e) Lighting located under canopies shall be mounted flush with or recessed within the ceiling.

Best Regards,

Kevin P. Chesar
Director of Development
Office: 513.539.7374
www.monroeohio.org



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From: Kameryn Jones <jonesk@monroeohio.org>

Sent: Friday, September 10, 2021 3:02 PM

To: John Bodiker <bodikerj@monroeohio.org>; Kevin Chesar <chesark@monroeohio.org>; Bill Brock <brockb@monroeohio.org>; Paul Goodhue <goodhuep@monroeohio.org>; Matt Grubbs <grubbsm@monroeohio.org>

Cc: Alaina Hagenseker <hagensekera@monroeohio.org>

Subject: FW: Barefoot Landscaping Response letter & drawings

All please see below/attached. We should be receiving hard copies this afternoon that we'll have available for anyone who wants a set.

Thank you!

Kameryn Jones

Planner

Office: 513.539.7374 ext.1020

www.monroeohio.org



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From: Rob Painter <rob.painter@rvpengineering.com>
Sent: Friday, September 10, 2021 2:37 PM
To: Kameryn Jones <jonesk@monroeohio.org>
Cc: Andy Roehl <andy@moonlightdesignstudio.net>; barefootlandscaping1@gmail.com
Subject: Barefoot Landscaping Response letter & drawings

Kameryn:

Attached are the response letter and plans and calcs.

I'll be bringing the hard copies over this afternoon.

Thanks!

Rob Painter PE

RVP Engineering

6230 Centre Park Drive, Suite C

West Chester, Ohio 45069

Office: 513-823-2175

Mobile: 513-403-1084

Rob.painter@RVPengineering.com

www.RVPengineering.com



From: [Rob Painter](#)
To: [Kevin Chesar](#)
Subject: FW: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings
Date: Thursday, September 16, 2021 5:10:20 PM
Attachments: [image032.png](#)
[image038.png](#)
[image039.png](#)
[image040.png](#)
[image044.png](#)
[image047.png](#)
[image048.png](#)
[image049.png](#)
[image001.png](#)
[image004.png](#)
[image006.png](#)
[image010.png](#)
[image002.png](#)
[image003.png](#)
[image008.png](#)
[image014.png](#)

Kevin: Here's what I have on the lighting:

From: Andy Roehl <andy@moonlightdesignstudio.net>
Sent: Thursday, September 16, 2021 5:02 PM
To: Rob Painter <rob.painter@rvpengineering.com>
Cc: barefootlandscaping1@gmail.com
Subject: Re: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

I'm traveling back to Cincinnati from Denver today. I didn't think they were looking for revised drawings and only verbal response. We will provide pole lights along the drive and on the building to meet the lighting levels per the city requirements. Details will be provided at a later time.

Andy

Andy Roehl - NCARB, CDT, LEED-AP
AIA, CSI, AIBD, SIPA, NAHB, EEBA
an EnergyStar Partner
a RESNET HERS Associate
Moonlight Design Studio
(513) 305-7712
andy@moonlightdesignstudio.net

From: Rob Painter <rob.painter@rvpengineering.com>
Sent: Thursday, September 16, 2021 2:58:19 PM
To: Andy Roehl <andy@moonlightdesignstudio.net>
Cc: barefootlandscaping1@gmail.com <barefootlandscaping1@gmail.com>
Subject: FW: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Andy – see below – they're still looking for the photometric.

Rob Painter PE
RVP Engineering
6230 Centre Park Drive, Suite C
West Chester, Ohio 45069
Office: 513-823-2175
Mobile: 513-403-1084
Rob.painter@RVPengineering.com
www.RVPengineering.com

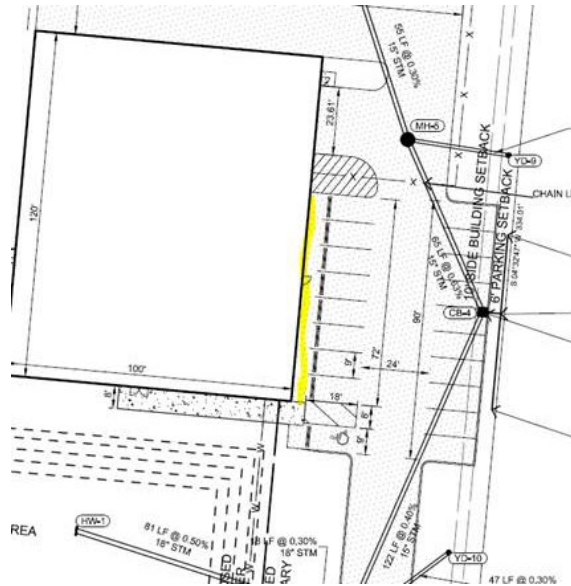


From: Kevin Chesar <chesark@monroeohio.org>
Sent: Thursday, September 16, 2021 4:37 PM
To: Rob Painter <rob.painter@rvpengineering.com>; Josh Ross <josh.ross@rvpengineering.com>
Cc: Kameryn Jones <jonesk@monroeohio.org>; Alaina Hagenseker <hagensekera@monroeohio.org>
Subject: RE: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Rob/Joss,

Our phone lines are currently down due to system switch over. Currently our report is essentially finished as the email responses were past the timing.

- I am briefly reviewing responses and did not see any photometric plan responses or black vinyl fence responses. If you have responses, it would be appreciated by the end of today. Otherwise, final staff recommendations will be forwarded in tomorrow's report as it presently known.
- As a side note the code requires a 8 foot "sidewalk" pedestrian path in between the parking and building as indicated in the copied code section previously forwarded. It can be asphalt and the wheel stops may work. However, I do not have a dimension and did not scale the area. Is it 8 feet wide between wheel stop and building? Additionally, is the concrete entrance even with the asphalt or elevated? If elevated we are going to want ADA access on the north and south sides.



(K) INTERNAL SIDEWALKS AND PEDESTRIAN ACCESS

- (1) Where a sidewalk exists in a public right-of-way adjacent to the site, or is required to be constructed as part of the development approval, a paved pedestrian connection shall be constructed from the building to the sidewalk.
- (2) The pedestrian connection shall have a minimum width of five feet.



Figure 1211-D: This photograph illustrates how a sidewalk connecting the public sidewalk to the business can be integrated into the required landscaping.

- (3) All pedestrian walkways located within a site (internal pedestrian circulation) shall be physically separated from the drive lanes and driveways. Additionally all sidewalks and crosswalks shall be constructed of an impervious surface and shall be visually distinct from the driving surface by use of pavers, bricks, scored concrete, or other material approved by the Code Enforcement Officer. See Figure 1211-D.
- (4) Sidewalks, at least eight feet in width, shall be provided along any facade featuring a customer entrance, and along any facade abutting parking lots. At all times, such sidewalks shall maintain a clear pedestrian passage equal to the width of the sidewalk. Additionally, such sidewalks shall connect all customer entrances and to other internal sidewalks.

Kevin P. Chesar
Director of Development
Office: 513.539.7374
www.monroeohio.org



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From: Rob Painter <rob.painter@rvpengineering.com>
Sent: Thursday, September 16, 2021 2:47 PM
To: Kevin Chesar <chesark@monroeohio.org>
Subject: FW: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Kevin:

See below for our responses in Red. Please contact Josh Ross in my office below with additional questions.

I am sending other responses along to you as well.

Rob Painter PE

RVP Engineering
6230 Centre Park Drive, Suite C
West Chester, Ohio 45069
Office: 513-823-2175
Mobile: 513-403-1084
Rob.painter@RVPengineering.com
www.RVPengineering.com



From: Josh Ross <josh.ross@rvpengineering.com>
Sent: Thursday, September 16, 2021 11:22 AM
To: Rob Painter <rob.painter@rvpengineering.com>
Subject: RE: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

My short replies to comments see below in **RED**.

From: Rob Painter <rob.painter@rvpengineering.com>
Sent: Wednesday, September 15, 2021 3:07 PM
To: Josh Ross <josh.ross@rvpengineering.com>
Subject: FW: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Lets talk about the sidewalk along todhunter and his r/w comment.

Rob Painter PE

RVP Engineering
6230 Centre Park Drive, Suite C
West Chester, Ohio 45069
Office: 513-823-2175
Mobile: 513-403-1084
Rob.painter@RVPengineering.com
www.RVPengineering.com



From: Kevin Chesar <chesark@monroeohio.org>

Sent: Wednesday, September 15, 2021 2:58 PM

To: Kameryn Jones <jonesk@monroeohio.org>; John Bodiker <bodikerj@monroeohio.org>; Bill Brock <brockb@monroeohio.org>; Paul Goodhue <goodhuep@monroeohio.org>; Matt Grubbs <grubbsm@monroeohio.org>; Rob Painter <rob.painter@rvpengineering.com>

Cc: Alaina Hagenseker <hagensekera@monroeohio.org>

Subject: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Good Afternoon Rob,

I am reviewing the updated plans for our final report and have the follow comments. If you could at minimum provide verbal updates by noon tomorrow it would be appreciated. Otherwise the report will detail the following items in to other department comments. I want to note that I have reviewed further with the comments below (as Kameryn is out of the office) and if we need to have a call to catch up, we can do so tomorrow:

Tree Lawn

- I am having difficulty determining the right of way line. Can you label to indicate the location clearly and add the symbol to the legend on all sheets (or feel free to point out if I am missing it)? **That will not be an issue but the back of walk along Todhunter is the ROW.**
- Typically the tree lawn (6 feet is required) is located in front of the walk adjacent to the road. It appears to be located behind the walk and I am not aware of any rationale to do so (I do not believe any overhead utilities are present on the north side). Can you elaborate or correct.

Electric Pole Location/Underground

- It appears that a new electric pole location (see red circle below) may be an issue and as such the pole will need to be relocated out of walk area (this could be possibly corrected if the tree lawn/sidewalk is corrected).
 - I believe engineering will need to approve the location of the Duke Pole as well as any proposed overhead electric.
 - New service electric is require underground and it appears to be possibly overhead? **Will need to work with Duke on how to achieve this.**

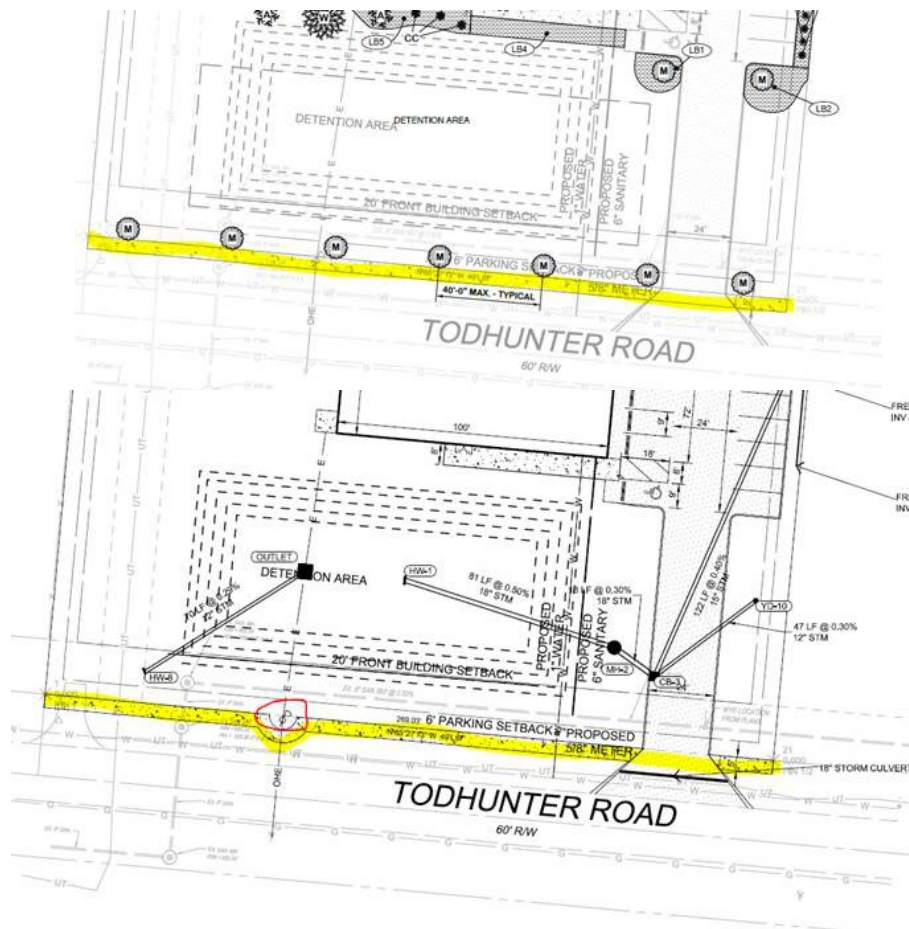
1208.09 Utilities and Underground Facilities

(A) GENERAL REQUIREMENTS FOR UTILITIES AND UNDERGROUND FACILITIES

- (1)** All public and common electric, cable, and telephone lines and other utilities shall be located underground in all residential, office, commercial and industrial subdivisions and districts, and shall be placed in their own easement, shown on the final or record plat. These underground utility requirements shall also apply to any lines required to serve the new development that extend outside the boundary of the development. The conduits or cables shall be located within easements or public right-of-ways in separate trenches, in a manner which will not conflict with other underground services.
- a)** All developments shall additionally be required to construct and install telecommunications conduit on all streets that are affected, disturbed, constructed and/or improved by development unless otherwise approved, pending a review by the city engineer. This conduit shall be for the purpose of installing telecommunications cable, fiber optic wiring or other infrastructure as necessary.
 - b)** This conduit shall be placed at horizontal and vertical locations as determined by the city engineer. The conduit shall conform to the size, shape and characteristics as determined by the city engineer based on industry standards. Once installed and accepted by the city, the conduit shall become the property of the city of Monroe.

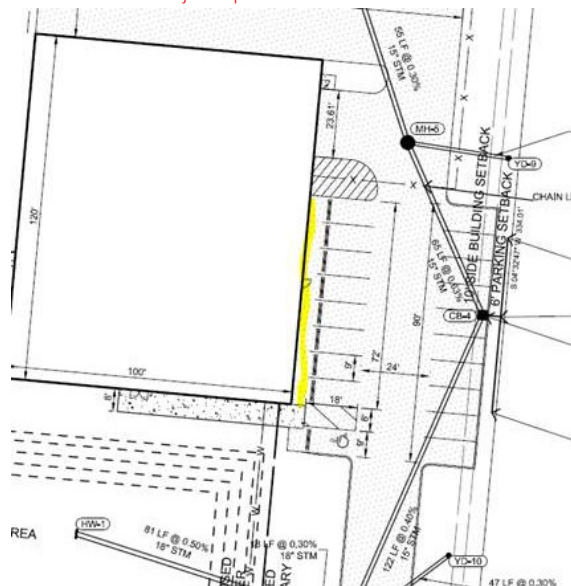
Sidewalks

- The sidewalk is shown straight and then curved and I am not sure why that is the case (see comment below about pole location). Further it does not match on all plan sheets and will need corrected. **Was attempting to keep pole in ROW but will move to where Duke says and keep walk straight as mentioned.**

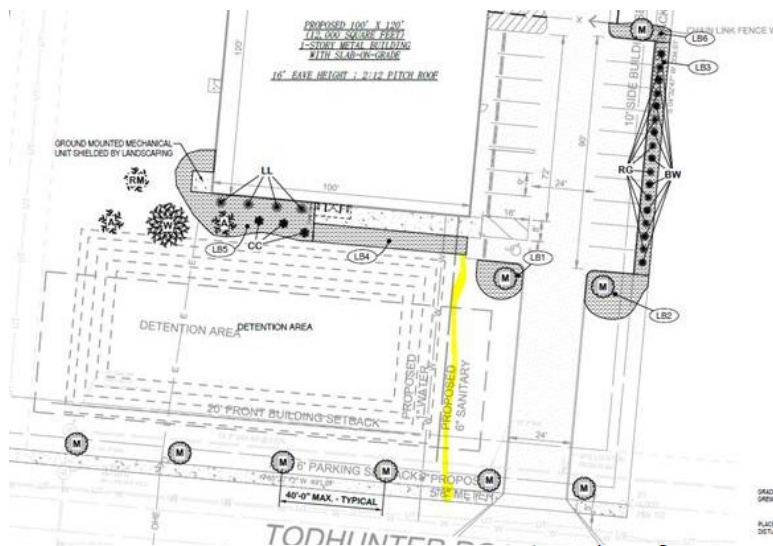


- Sidewalks abutting parking or featuring a customer entrance must be 8 FT wide. Please indicate customer parking area meeting requirement.

This is not a sidewalk just asphalt.



- Sidewalk Connection is required from the public street sidewalk to the building. Please revise. Below is a suggestion that would be one appropriate location (yellow highlight): Will show walk as requested.



(K) INTERNAL SIDEWALKS AND PEDESTRIAN ACCESS

- (1)** Where a sidewalk exists in a public right-of-way adjacent to the site, or is required to be constructed as part of the development approval, a paved pedestrian connection shall be constructed from the building to the sidewalk.
- (2)** The pedestrian connection shall have a minimum width of five feet.

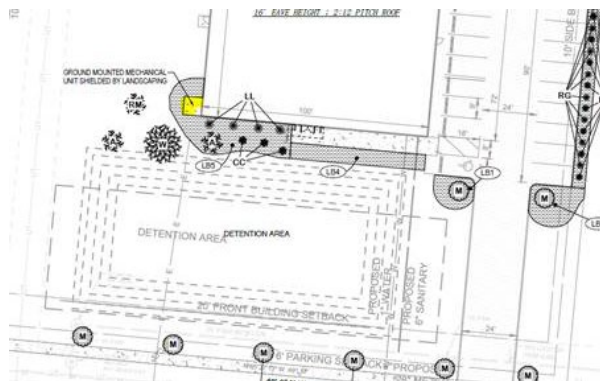
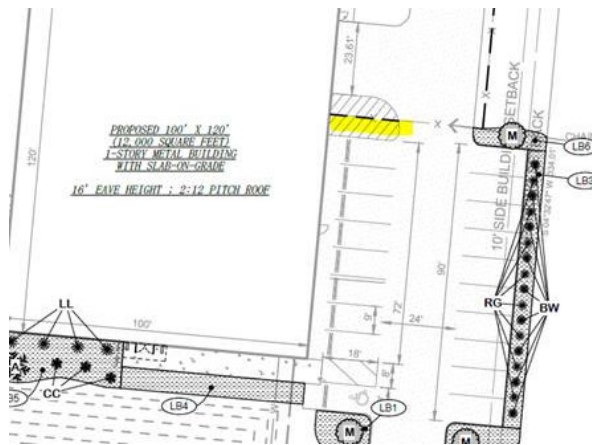


Figure 1211-D: This photograph illustrates how a sidewalk connecting the public sidewalk to the business can be integrated into the required landscaping.

- (3)** All pedestrian walkways located within a site (internal pedestrian circulation) shall be physically separated from the drive lanes and driveways. Additionally all sidewalks and crosswalks shall be constructed of an impervious surface and shall be visually distinct from the driving surface by use of pavers, bricks, scored concrete, or other material approved by the Code Enforcement Officer. See [Figure 1211-D](#).
- (4)** Sidewalks, at least eight feet in width, shall be provided along any facade featuring a customer entrance, and along any facade abutting parking lots. At all times, such sidewalks shall maintain a clear pedestrian passage equal to the width of the sidewalk. Additionally, such sidewalks shall connect all customer entrances and to other internal sidewalks.

Landscaping/Screening

- A landscape island still appears to be missing on the north parking island of the western parking row side of both parking rows.
 - Additionally the ground mounted mechanical unit shielded by landscaping but no landscaping is indicated on plans.



- The slender silhouette liquidambar styraciflua proposed does not appear to meet the intent of a canopy tree. It is described as “tall, thin tree is perfect for tight spaces, small gardens or as a striking vertical accent... with a maximum width of 4 feet wide. Additionally, while it appears minimal, it does produce spiky “fruit”. Please see requirements below.
- Additionally the use of the tree as a street tree appears to not meet the intent for the lowest limb to not less than 5 feet above the ground.

Tree, Canopy

A tree that has an expected height at maturity greater than 40 feet and which produces significant shade because it has a crown that is oval, round, vase-shaped, or umbrella-shaped.



1212.06 Street Tree Requirements

(A) APPLICABILITY

- (1) All subdivisions shall include street trees that comply with the general requirements for plants in Section 1212.05: Landscape Material Standards.
- (2) All new sites and new developments are subject to the street tree requirements in this section.
- (3) All new roads or extensions of existing roads, including private commercial drives whether internal or external to a site, are subject to the street tree requirements in this section.

(B) Street trees shall be required along both sides of all streets.

(C) Street trees shall be required at all new sites along all frontages, excluding interstate highway frontage and alleys.

(D) The applicant shall plant deciduous street trees with a minimum of two inches DBH. Street trees shall not have thorns or produce nuts or fruit.

(E) Street trees shall be planted 40 feet on center along all streets, where required.

(F) At the time of planting, the lowest limb of any tree shall not be less than five feet above the ground. Existing trees that are properly located may be used in lieu of required trees.

(G) During the site plan review process or subdivision review process, the Code Enforcement Officer or Planning Commission, as applicable, may permit the applicant to completely or partially elect out of the street tree planting requirement stated above by making a park development payment in lieu of tree plantings. Said election must be requested in writing by the applicant and state the reasons such modification from this requirement are being requested.

- b) A minimum of one canopy tree is required for every 5 parking spaces with a three (3) foot tall visual screen of shrubs required in front of all parking areas. For areas not directly visible from a right-of-way, the Code Enforcement Officer may reduce the perimeter requirements to no less than one canopy tree and 5 shrubs for every five parking spaces. All non-parking space vehicular use areas (i.e. access drives, drive thru lanes, etc.) are required one canopy tree for every 50 linear feet and three bushes for every 15 linear feet of use area with exception of single and two family uses, agricultural uses, and industrial uses.

- Please indicated all landscaped areas meet the standard via dimensions.

1212.08 Front Yard Landscaping for Nonresidential Uses

- (A) A minimum of 20 percent of the required front yard area with a minimum 6 foot wide area adjacent to the right of way for all nonresidential uses shall be continuously landscaped with trees, shrubs, planting beds and/or perennials in a motif designed by the applicant in addition to all other required landscaping.

FENCING

- Please indicate all chain link as black vinyl.

attached to the inside of the fence where practical.

- viii) Chain Link fencing is prohibited in the front yard in residential zoning districts or in the front yard of residential lots. Chain link type fences may be used in the rear yard of business and industrial zoning districts provided they are plastic coated and are black in color or as otherwise approved by the Code Enforcement Officer.

Lighting

- Minimum lightening is required per code and does not meet at vehicular development entrance as well as across the site. Additionally, the 0 foot candles indicated at the auto entrance is unacceptable and needs to be adequately lighted:

Figure 1207-A. Cutoff and non-cutoff lighting.

(3) Illumination Standards

- The maximum illumination permitted in each district type, as demonstrated by a photometric drawing, shall be as established in Table 1209-3: Maximum Illumination Level at the Property Line.
- At a height of five feet above the property line of the subject property, illumination from light fixtures shall not exceed the maximum permitted in a vertical plane on the adjacent property.
- Illumination is required consistently across the site shall be designed so as not to create dark spots that may create safety issues in such areas as vehicular use areas and connecting pedestrian paths. Lighting shall be maintained so as to achieve not less than eighty (80%) percent of the minimum and average illumination levels. Specific illumination use standards are required as established in Table 1209-2: Minimum Illumination Standards.

TABLE 1209-2: MINIMUM ILLUMINATION STANDARDS	
Use	MINIMUM ILLUMINATION (FOOTCANDLES)*
Parking Areas and Access Drives	0.3
Loading and Unloading Areas	0.4
Walkways	0.2
Building/Development Entrances - Frequent Use	1.0
Building/Development Entrances – Infrequent Use	0.2

*The minimum light measured in footcandles at the point of least illumination when measured at ground level

- Non-cutoff lighting in business districts may only be used for decorative purposes adjacent to the building.
- Lighting located under canopies shall be mounted flush with or recessed within the canopy ceiling.

Best Regards,

Kevin P. Chesar
Director of Development
Office: 513.539.7374
www.monroehio.org



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From: Kameryn Jones <jonesk@monroeohio.org>

Sent: Friday, September 10, 2021 3:02 PM

To: John Bodiker <bodikerj@monroeohio.org>; Kevin Chesar <chesark@monroeohio.org>; Bill Brock <brockb@monroeohio.org>; Paul Goodhue <goodhuep@monroeohio.org>; Matt Grubbs <grubbsm@monroeohio.org>

Cc: Alaina Hagenseker <hagensekera@monroeohio.org>

Subject: FW: Barefoot Landscaping Response letter & drawings

All please see below/attached. We should be receiving hard copies this afternoon that we'll have available for anyone who wants a set.

Thank you!

Kameryn Jones

Planner

Office: 513.539.7374 ext.1020

www.monroeohio.org



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From: Rob Painter <rob.painter@rvpengineering.com>

Sent: Friday, September 10, 2021 2:37 PM

To: Kameryn Jones <jonesk@monroeohio.org>

Cc: Andy Roehl <andy@moonlightdesignstudio.net>; barefootlandscaping1@gmail.com

Subject: Barefoot Landscaping Response letter & drawings

Kameryn:

Attached are the response letter and plans and calcs.

I'll be bringing the hard copies over this afternoon.

Thanks!

Rob Painter PE

RVP Engineering

6230 Centre Park Drive, Suite C

West Chester, Ohio 45069

Office: 513-823-2175

Mobile: 513-403-1084

Rob.painter@RVPengineering.com

www.RVPengineering.com



From: [Rob Painter](#)
To: [Kevin Chesar](#)
Subject: FW: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings
Date: Thursday, September 16, 2021 2:52:59 PM
Attachments: [image003.png](#)
[image017.png](#)
[image021.png](#)
[image022.png](#)
[image023.png](#)
[image027.png](#)
[image029.png](#)
[image030.png](#)
[image033.png](#)
[image034.png](#)
[image035.png](#)
[image005.png](#)
[image007.png](#)

Kevin:

Comments from the owner on the landscaping:

From: barefootlandscaping1@gmail.com <barefootlandscaping1@gmail.com>
Sent: Wednesday, September 15, 2021 3:28 PM
To: Rob Painter <rob.painter@rvpengineering.com>; 'Andy Roehl' <andy@moonlightdesignstudio.net>
Subject: RE: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

For street trees; change to-Acer Rubrum Franksred Red Sunset Red Maple 2 in. Caliper Ball and Burlap
For a/c unit on west side add-5 Calamagrostis X Acutiflora Karl Foerster Feather Reed Grass #3 Container- for screening

There is nothing that needs screened on north side next to building and it is all concrete, would need clarification on why additional bed would be needed seeing as that minimum requirement for landscaping has more than been met.

Andy, Stephen would like to discuss the sidewalk if you can touch base with him.

I believe those are the only landscaping answers that you need from us until clarification is given for the additional bed.

On the landscaping, on the original comments it was noted that there was no island on the north side of the plan. One was added and there is over 2300 square feet of landscaping indicated. Is there a reason we would have to add another bed? On the electrical on the west side of the building, there are 2 trees in front of the box; there is space between the 2 for canopy and should more than efficiently cover the box

On the street tree the maximum canopy can be up to 10' but gravitates to a slimmer line of around 6' and has the potential to create seed balls which is not a nut or a fruit or a thorn-if this is truly an issue, we can switch out with a standard Maple tree

As I understood it, the sidewalk along the east side of the building was going to be removed so there should be no issue with 8' as indicated as no sidewalk exists.

There was no indication of needing a sidewalk extending to the street, why is it indicated now?

Lianne Nowak
Co-Owner
Barefoot Landscaping, LLC
513.307.8967
www.bflandscaping.com

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From: Rob Painter <rob.painter@rvpengineering.com>
Sent: Wednesday, September 15, 2021 3:08 PM
To: Andy Roehl <andy@moonlightdesignstudio.net>; barefootlandscaping1@gmail.com; barefootlandscaping@fuse.net
Subject: FW: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Guys:

Below are comments from the city – they'd like a written or verbal response by tomorrow at noon.

Rob Painter PE
RVP Engineering
6230 Centre Park Drive, Suite C

West Chester, Ohio 45069

Office: 513-823-2175

Mobile: 513-403-1084

Rob.painter@RVPengineering.com

www.RVPengineering.com



From: Kevin Chesar <chesark@monroeohio.org>

Sent: Wednesday, September 15, 2021 2:58 PM

To: Kameryn Jones <jonesk@monroeohio.org>; John Bodiker <bodikerj@monroeohio.org>; Bill Brock <brockb@monroeohio.org>; Paul Goodhue <goodhuep@monroeohio.org>; Matt Grubbs <grubbsm@monroeohio.org>; Rob Painter <rob.painter@rvpengengineering.com>

Cc: Alaina Hagenseker <hagensekera@monroeohio.org>

Subject: CITY UPDATE RE: Barefoot Landscaping Response letter & drawings

Good Afternoon Rob,

I am reviewing the updated plans for our final report and have the follow comments. If you could at minimum provide verbal updates by noon tomorrow it would be appreciated. Otherwise the report will detail the following items in to other department comments. I want to note that I have reviewed further with the comments below (as Kameryn is out of the office) and if we need to have a call to catch up, we can do so tomorrow:

Tree Lawn

- I am having difficulty determining the right of way line. Can you label to indicate the location clearly and add the symbol to the legend on all sheets (or feel free to point out if I am missing it)?
- Typically the tree lawn (6 feet is required) is located in front of the walk adjacent to the road. It appears to be located behind the walk and I am not aware of any rationale to do so (I do not believe any overhead utilities are present on the north side). Can you elaborate or correct.

Electric Pole Location/Underground

- It appears that a new electric pole location (see red circle below) may be an issue and as such the pole will need to be relocated out of walk area (this could be possibly corrected if the tree lawn/sidewalk is corrected).
 - I believe engineering will need to approve the location of the Duke Pole as well as any proposed overhead electric.
 - New service electric is require underground and it appears to be possibly overhead?

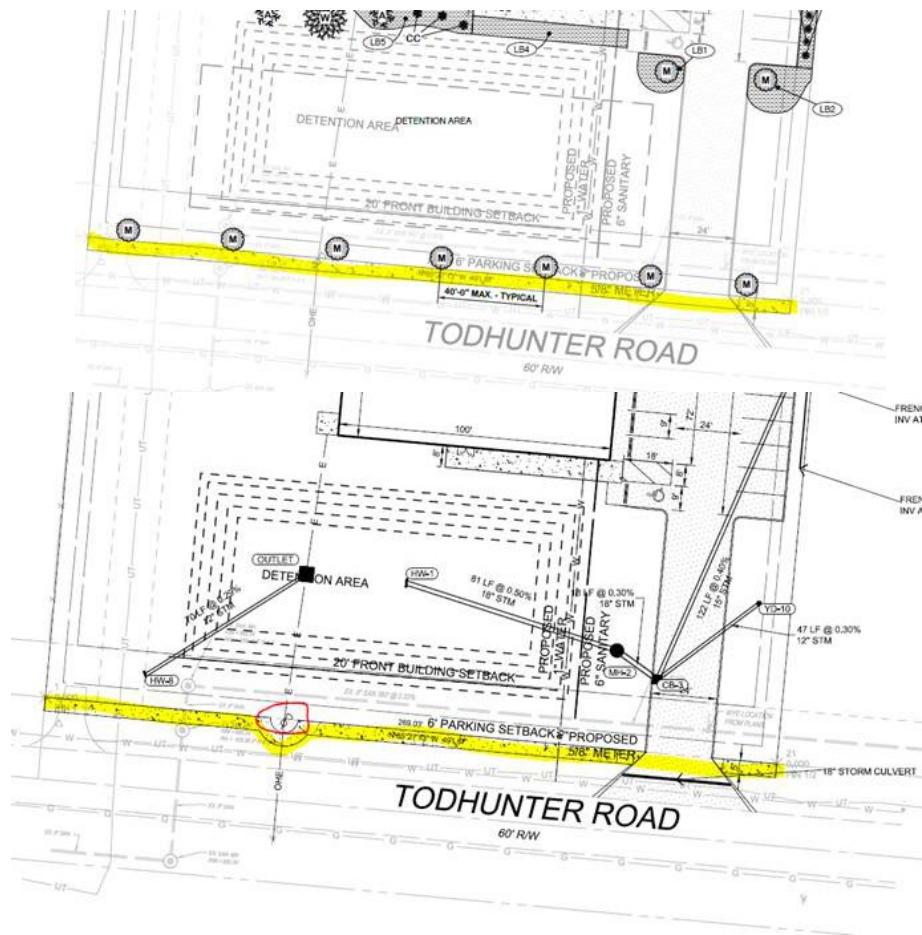
1208.09 Utilities and Underground Facilities

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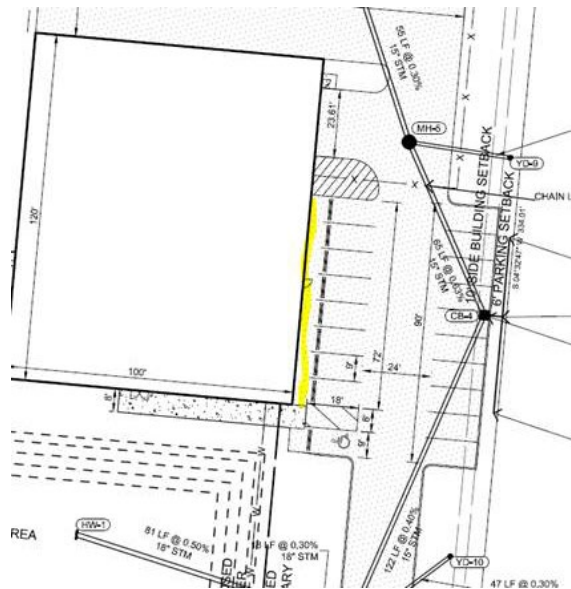
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Sidewalks

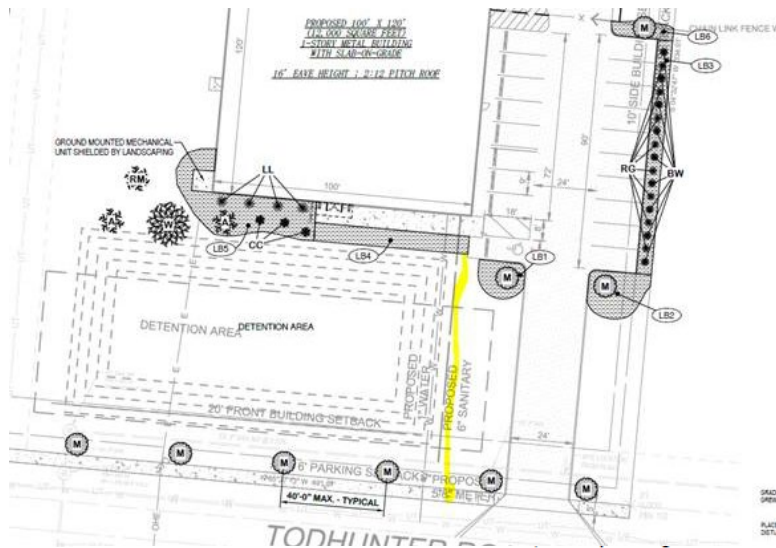
- The sidewalk is shown straight and then curved and I am not sure why that is the case (see comment below about pole location). Further it does not match on all plan sheets and will need corrected.



- Sidewalks abutting parking or featuring a customer entrance must be 8 FT wide. Please indicate customer parking area meeting requirement.



- Sidewalk Connection is required from the public street sidewalk to the building. Please revise. Below is a suggestion that would be one appropriate location (yellow highlight):



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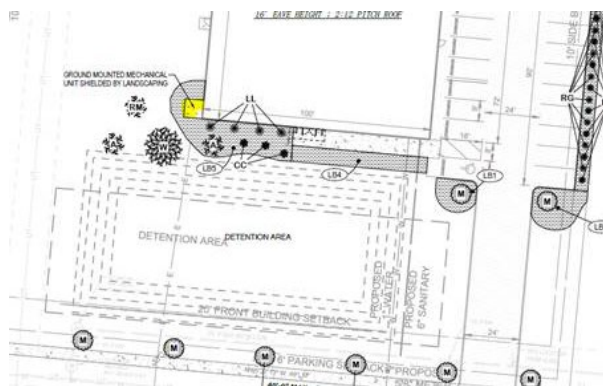
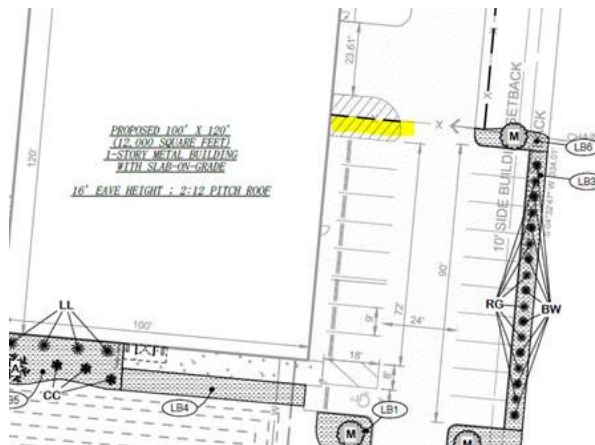


Figure 1211-D: This photograph illustrates how a sidewalk connecting the public sidewalk to the business can be integrated into the required landscaping.

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Landscaping/Screening

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 - Additionally the ground mounted mechanical unit shielded by landscaping but no landscaping is indicated on plans.



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Tree, Canopy

A tree that has an expected height at maturity greater than 40 feet and which produces significant shade because it has a crown that is oval, round, vase-shaped, or umbrella-shaped.



1212.06 Street Tree Requirements

(A) APPLICABILITY

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(C) Street trees shall be required at all new sites along all frontages, excluding interstate highway frontage and alleys.

(D) The applicant shall plant deciduous street trees with a minimum of two inches DBH. Street trees shall not have thorns or produce nuts or fruit.

(E) Street trees shall be planted 40 feet on center along all streets, where required.

(F) At the time of planting, the lowest limb of any tree shall not be less than five feet above the ground. Existing trees that are properly located may be used in lieu of required trees.

(G) During the site plan review process or subdivision review process, the Code Enforcement Officer or Planning Commission, as applicable, may permit the applicant to completely or partially elect out of the street tree planting requirement stated above by making a park development payment in lieu of tree plantings. Said election must be requested in writing by the applicant and state the reasons such modification from this requirement are being requested.

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- Please indicated all landscaped areas meet the standard via dimensions.

1212.08 Front Yard Landscaping for Nonresidential Uses

- (A) A minimum of 20 percent of the required front yard area with a minimum 6 foot wide area adjacent to the right of way for all nonresidential uses shall be continuously landscaped with trees, shrubs, planting beds and/or perennials in a motif designed by the applicant in addition to all other required landscaping.

FENCING

- Please indicate all chain link as black vinyl.

attached to the inside of the fence where practical.

- viii) Chain Link fencing is prohibited in the front yard in residential zoning districts or in the front yard of residential lots. Chain link type fences may be used in the rear yard of business and industrial zoning districts provided they are plastic coated and are black in color or as otherwise approved by the Code Enforcement Officer.

Lighting

- Minimum lightening is required per code and does not meet at vehicular development entrance as well as across the site. Additionally, the 0 foot candles indicated at the auto entrance is unacceptable and needs to be adequately lighted:

Figure 1207-A. Cutoff and non-cutoff lighting.

(3) Illumination Standards

- a) The maximum illumination permitted in each district type, as demonstrated by a photometric drawing, shall be as established in Table 1209-3: Maximum Illumination Level at the Property Line.
- b) At a height of five feet above the property line of the subject property, illumination from light fixtures shall not exceed the maximum permitted in a vertical plane on the adjacent property.
- c) Illumination is required consistently across the site shall be designed so as not to create dark spots that may create safety issues in such areas as vehicular use areas and connecting pedestrian paths. Lighting shall be maintained so as to achieve not less than eighty (80%) percent of the minimum and average illumination levels. Specific illumination use standards are required as established in Table 1209-2: Minimum Illumination Standards.

TABLE 1209-2: MINIMUM ILLUMINATION STANDARDS	
Use	MINIMUM ILLUMINATION (FOOTCANDLES)*
Parking Areas and Access Drives	0.3
Loading and Unloading Areas	0.4
Walkways	0.2
Building/Development Entrances - Frequent Use	1.0
Building/Development Entrances - Infrequent Use	0.2

*The minimum light measured in footcandles at the point of least illumination when measured at ground level

- d) Non-cutoff lighting in business districts may only be used for decorative purposes adjacent to the building.
- e) Lighting located under canopies shall be mounted flush with or recessed within the canopy ceiling.

Best Regards,

Kevin P. Chesar
Director of Development
Office: 513.539.7374
www.monroeohio.org



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From: Kameryn Jones <jonesk@monroeohio.org>
Sent: Friday, September 10, 2021 3:02 PM
To: John Bodiker <bodikerj@monroeohio.org>; Kevin Chesar <chesark@monroeohio.org>; Bill Brock <brockb@monroeohio.org>; Paul Goodhue <goodhuep@monroeohio.org>; Matt Grubbs <grubbsm@monroeohio.org>
Cc: Alaina Hagenseker <hagensekera@monroeohio.org>
Subject: FW: Barefoot Landscaping Response letter & drawings

All please see below/attached. We should be receiving hard copies this afternoon that we'll have available for anyone who wants a set.

Thank you!

Kameryn Jones
Planner
Office: 513.539.7374 ext.1020
www.monroeohio.org



This message may contain privileged or confidential information and is only intended for the use of the intended recipient. If you are NOT the intended recipient, dissemination is strictly prohibited

From: Rob Painter <rob.painter@rvpengineering.com>
Sent: Friday, September 10, 2021 2:37 PM
To: Kameryn Jones <jonesk@monroeohio.org>
Cc: Andy Roehl <andy@moonlightdesignstudio.net>; barefootlandscaping1@gmail.com
Subject: Barefoot Landscaping Response letter & drawings

Kameryn:

Attached are the response letter and plans and calcs.

I'll be bringing the hard copies over this afternoon.

Thanks!

Rob Painter PE
RVP Engineering
6230 Centre Park Drive, Suite C
West Chester, Ohio 45069
Office: 513-823-2175
Mobile: 513-403-1084
Rob.painter@RVPengineering.com
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OAKLAND FARMS, INC.

415 South Main Street
Monroe, Oh 45050

Via Email jonesk@monroehio.org

September 8, 2021

Ms. Kameryn Jones
City of Monroe
233 South Main Street
Monroe, OH 45050

RE: Comprehensive Plan

Dear Kameryn:

As a follow-up to Tuesday night's public hearing on the proposed Comprehensive Plan, it would appear that the consultant has much more work to do and questions to answer prior to any more discussion is held again. Please note that no one debated the idea of updating the existing comprehensive plan but not one person in the audience supported this proposed plan. The angst is over the lack of understanding of what the major land owners see as problematic.

By her own admission that a Plan should be updated every three years, the group that spoke Tuesday agrees even presenting an expert in the local market analysis offering how to obtain current and relative data. Sadly, some of that same updated current data – proving the old data relied upon by the consultant was out of date, has already been shared with the both the City Law Director and City Manager but there was no indication during the meeting that it was considered. While the Planning Commission said it was aware that the more recent data was available, simply being aware of the more recent data but failing to integrate it into a revised proposed plan and failing to analyze it and then make the revised proposed plan available to the public for comment fails to comply with the public notice requirements required by the City to be followed in order to adopt a proposed comprehensive plan. Continuing down this flawed path will only leads to protracted litigation for the City.

Certainly, Monroe deserves the best research possible and the Planning Commission swore to take an oath and it cannot fulfill that oath making decisions based upon either: (i) old and out of date data; or (ii) without notifying the public of the revised plan based upon the current more reliable data. Covid has caused much stress on all businesses and families. Yet, it should not be used as an excuse not to provide accurate data as it is so readily available.

Another disturbing comment made by the consultant was how her company reached out to many landowners when, in reality, this does appear not an accurate representation. From the landowners represented at the meeting, none had been contacted. Likewise, there is no evidence that none of their concerns were even considered. Just as the consultant tried to talk with residents, it needs to meet with its corporate citizens and industrial and commercial landowners to listen to their concerns and issues. The consultant needs to know the history before it simply makes so many blanket statements without the input from the landowners.

Monroe needs to emphasize to this consultant that the city depends upon the commercial and industrial landowners and developers and that these parcels are the lifeblood and the future of an economically stable city. Simply coming up with blanket designations of future land use categories without performing any highest and best use analysis is recipe for failure. It is from these lands where jobs and real estate improvements are made and from which the city derives much of its income. The consultant's theories are those of destitution and not resolution. As mentioned in the meeting, Monroe must capitalize on all the good the community has to offer and work as a community to find common ground to resolve outstanding issues.

The idea of using commercial or industrial land as shown in her presentation for "mixed-use residential" or office and hi tech research and development is truly not applicable for Monroe. Perhaps in the downtown area where they exist now, but developers will tell you that there is no market for living quarters above retail establishments. Why? We are blessed with an abundance of land in the Midwest. For communities such as Chicago, New York, Philadelphia and other major urban areas, it makes sense. Not for Monroe. Liberty Center is a prime example of how this mixed use approach is a challenge. Monroe needs to ask where has this been kind of proposed development been successful in communities similar to Monroe before accepting the notion that this kind of development should be adopted.

The plan is flawed because it is not designed nor intended to alleviate pent up demand but instead preclude the current market demand that exist and proposed land uses where there is no demand nor possible growth for Monroe.

The spokesperson made mention of how residents were upset with industrial development coming in adjacent to their neighborhood. The city must stress to those who complain how the zoning for industrial uses was in place long before their homes were built and not condemn the industrial businesses that generate the necessary tax revenue to keep the city afloat. But curiously enough, many of the industrial and commercial zones are proposed as residential in the Plan. This makes one wonder, which direction is the consultant trying to lead the city? Why introduce residential on or next to industrial districts when such a fuss had been made by residents. Currently the code says there must be a 200' buffer between industrial districts and residential. So, the question of where does this 200' area come from if residential is introduced on or adjacent to existing industrial. This suggests a taking of land and someone would need to pay. Have the consultant address that as we all need a clear understanding.

One item glossed over was with the increase in population where would the additional city services come from? Fire and police would be increased dramatically as well as the increase public utilities, street maintenance, and other city services would also grow by a large amount. We all can agree that residential development costs more in terms of city services than a city receives from property taxes. Where would the additional needed funds come from? The only logical answer is from the industrial and commercial developments.

We all believe Monroe is a strong, vibrant community with much to offer in both residential and commercial and industrial opportunities. Obviously, with the nearly 25% increase in population shown in the latest census and the growth in the commercial and industrial markets this is borne

out. She mentioned that there was "uncontrolled growth" and this is anything but accurate. Monroe has been careful and diligent in ensuring that the new developments meet certain quality standards. With this, though, there is the underlying feeling which was expressed by some that Monroe is not facing reality in allowing certain industrial developments because "there are enough" of certain buildings. How can a city legitimately make such a statement based upon feelings? Personal feelings by city leaders should not trump sound business policies and decisions.

The consultant needs to understand where Monroe has been before she can predict the future. She needs to recognize the competition Monroe faces in the region which includes Dayton and Northern Kentucky. Monroe has lost business due to, whether real or perceived, business attitudes that must be addressed if the city is to be sustainable. Competition for new business is fierce and Monroe competes daily with every other community in the tri-state region. If a prospect for a business site looks at the future land use plan, we can say with certainty, the proposed land use map would scare the prospect(s) away to a community that shows itself to be more welcoming to businesses.

We are all in this for the same reason. We all want to be successful in what we do and help the city continue to be a vibrant, warm and welcoming community to all. If the comprehensive plan would remove the binders and look at the quality and the successes the city has enjoyed to date, perhaps the plan would reflect that and look to enhance, not vastly attempt to change what the city already is; a proud community with great people, great businesses and a great location.

Oakland Ann Bey Ser Beth Ann