

The public may attend the meeting in person or view it online at <http://pvkansas.com/livestreaming>.

**PLANNING COMMISSION AGENDA
CITY OF PRAIRIE VILLAGE
TUESDAY, MAY 7, 2024
7700 MISSION ROAD
COUNCIL CHAMBERS
7:00 P.M.**

I. ROLL CALL

II. APPROVAL OF PLANNING COMMISSION MINUTES - April 2, 2024

III. OLD BUSINESS

IV. PUBLIC HEARINGS

PC2024-107 Proposed amendments to the PV Zoning Regulations in the R-2, R-3, R-4, C-0, C-1, C-2, and MXD districts, planning applications, and other associated changes

V. NON-PUBLIC HEARINGS

PC2024-101 Site plan review - accessory pickleball building and additional parking
Homestead Country Club
4100 Homestead Court
Zoning: R-1A
Applicant: Jeff Pflughoft, Hulsing Hotels

PC2024-108 Site plan review - façade refinish, parking lot improvements and related site improvements
Corinth Quarter
3901 W. 83rd Street
Zoning: C-2
Applicant: Tyler Wysong, Kimley-Horn

PC2024-109 Site plan review - expansion of existing building for animal care use
Tomahawk Animal Hospital
6301 W. 75th Street
Zoning: C-2
Applicant: Brian Michener, Lo Design

VI. OTHER BUSINESS

VII. ADJOURNMENT

Plans available at City Hall if applicable.
If you cannot be present, comments can be made by e-mail to
cityclerk@pvkansas.com

***Any Commission members having a conflict of interest, shall acknowledge that conflict prior to the hearing of an application, shall not participate in the hearing or discussion, shall not vote on the issue, and shall vacate their position at the table until the conclusion of the hearing.**

**PLANNING COMMISSION MINUTES
APRIL 2, 2024**

ROLL CALL

The Planning Commission of the City of Prairie Village met in regular session on Tuesday, April 2 at 7:00 p.m. in the Council Chambers at 7700 Mission Road. Chair Greg Wolf called the meeting to order at 7:00 p.m. with the following members present: Jonathan Birkel, James Breneman, James Kersten, Melissa Brown, Melissa Temple, and Jeffrey Valentino.

The following individuals were present in their advisory capacity to the Planning Commission: Graham Smith, Multistudio; Nickie Lee, Deputy City Administrator; Mitch Dringman, Building Official; Terry O'Toole, Council Liaison; Adam Geffert, City Clerk/ Planning Commission Secretary.

APPROVAL OF MINUTES

Mr. Breneman moved for the approval of the minutes of the March 5, 2024, regular Planning Commission meeting. Mr. Birkel seconded the motion, which passed unanimously.

OLD BUSINESS

Ms. Lee provided an update on the next steps for the proposed zoning regulation updates, noting that the City Council would be presented with the Planning Commission's recommended changes at its April 15 meeting. After that, a public hearing would be held at the May 7 Planning Commission meeting, at which a motion would need to be made to send the updates to Council for final approval.

PUBLIC HEARINGS

None

NON-PUBLIC HEARINGS

PC2024-106	Site plan and exterior building review for municipal complex improvements 7700 Mission Road Zoning: R-1A Applicant: Jean Stoverink, Clark and Enersen
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Mr. Smith stated that the proposed municipal complex renovation and construction project began in 2020 to address space constraints at the police department, municipal court, and city hall. A feasibility study was conducted in 2020 followed by a facility assessment in 2022.

A programming phase followed in 2022 to determine current and future space needs. In 2023, concepts were developed to evaluate renovations and new construction, which were discussed at a City Council work session in February 2023. Upon evaluating multiple design concepts, balancing needs and costs of renovation-only concepts, the City decided to evaluate additional concepts including new construction. In June 2023, three design concepts were presented to the Finance Committee, and then to the City Council. These concepts were renovation-only, renovation with an addition, and new construction. Based on cost/benefit discussions, the City Council approved proceeding with a new construction option and a specified budget. The City Council narrowed concept options in November 2023 to proceed to the schematic design phase.

Mr. Smith said that the project would involve the construction of a new city hall building on the southwest portion of the property, renovation and conversion of the existing buildings into police and municipal court facilities, and integration of new parking or expansion of existing parking within internal spaces between buildings. The plan was selected by the City Council, and was presented in a public open house on Tuesday, March 26, with specific invitations mailed to surrounding properties according to the City's resident participation policy.

Mr. Smith said public projects were typically exempt from the review procedures of the development codes, since cities, as project owners, have an equal or greater burden to operate in the interest of the public. However, cities generally follow all applicable development standards. He noted that was the case for the proposed project, and that non-residential buildings in R-1A zoning districts ordinarily required a site plan review by the Planning Commission. The review would provide the Planning Commission an opportunity to comment on the plan and design concepts; however, the City Council, as the project owner, would make all final decisions on the site plan.

Rick Wise, Senior Principal Architect with Clark and Enersen, 15412 W. 91st Terrace, Lenexa, was present to answer questions from commissioners.

Mr. Kersten asked for information about the stormwater runoff design for the project. Dan McGee, Lamp Rynearson, 9001 State Line Road, Suite 200, Kansas City, MO, said that the plan was for all drainage to be captured on the south side of the property using hydrodynamic separators and curb inlet filters, and well as underground detention in the parking lot.

Mr. Kersten also asked for details about the landscape design concept. Mr. Wise stated that the design was not yet complete, and was still being reviewed by the landscape architect. He added that the intent was to achieve LEED Platinum certification for the new city hall building and LEED Gold certification for the existing buildings with the addition

for the municipal court. As such, the landscape design would include methods to reduce water usage.

Mr. Kersten asked why a secured parking lot was included for staff. Mr. Wise said that it was a request made by the City, but that it would not be fenced, like the secure parking area for the police department.

Mr. Kersten requested further information about the exterior design concept, including how the proposed exterior materials were selected. Mr. Wise said that materials were generally chosen to match what was found on the existing buildings in the municipal complex, specifically the brick material. Additionally, fiber cement was chosen to give a modern look to the new building.

Mr. Breneman asked how the generators in the proposed city hall design would be accessed. Mr. Wise said the generators could be accessed by a sidewalk from the west as well as an access driveway from the south. He also noted that the generators would be powered by natural gas.

Mr. Birkel asked how the placement of the new city hall building had been chosen. Mr. Wise stated that a number of strategies were considered, but that ultimately the decision to have the front door of the building facing drivers as they approached using the existing driveway was the best option. Additionally, site restrictions and the maintenance of green space limited possible locations. Mr. Birkel said that he had concerns with the new city hall being at the bottom of the hill in a less conspicuous location than it was currently located.

Mr. Birkel also asked if the proposed parking plan could be redesigned to be more efficient. Mr. Wise stated that the proposed plan focused on the safety of pedestrians in the lots, and was designed based around constraints found at the site.

Ms. Brown asked for information about the proposed separation of the municipal court and city hall. Mr. Wise stated that functionally, it was more important to have the court and police department placed close to each other, and less necessary to have city hall functions located in the same building. Ms. Brown added that she felt the proposed additional parking lot on the southeast side of the campus should be pushed farther back from Mission Road. Mr. Wise said that change would likely be made to the design plan.

Mr. Breneman stated that he didn't believe the proposed exterior design of the new city hall building fit the style of Prairie Village.

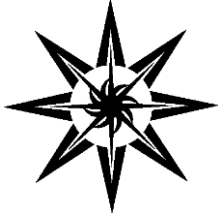
OTHER BUSINESS

None.

ADJOURNMENT

With no further business to come before the Commission, Mr. Wolf adjourned the meeting at 7:42 p.m.

Adam Geffert
City Clerk/Planning Commission Secretary



PLANNING COMMISSION

Planning Commission Meeting Date: May 7, 2024

Consider Approval of PC2024-107: Recommending Approval of Ordinance 2494 to the Governing Body by amending the zoning regulations in the R-2, R-3, R-4, C-O, C-1, C-2, and MXD districts, planning zoning applications, and other associated changes.

RECOMMENDED MOTION:

Make a motion to recommend approval of PC2024-107 to the Governing Body

BACKGROUND:

Attached is Ordinance 2494, which makes the following amendments in the zoning regulations:

1. Adjust multi-family standards to make existing properties compliant, but otherwise generally maintain the current development standards. (R-3 and R-4). (Chapters 19.12 and 19.14)
2. Allow residential uses in Commercial districts (C-) with no changes to current development standards. (Chapters 19.16, 19.18, and 19.20)
3. Improve the Mixed-Use district (MXD) by getting more specific with preferred building types and scale, and by clarifying the plans necessary to support rezoning to MXD. (Chapter 19.23)
4. Revise the current planned development standards and process to clarify plans necessary to support rezoning to P- districts, and by coordinating specific building types most applicable to each zoning district. (Chapter 19.24)
5. Identify how the updated MXD or P- district rezoning can be applied to specific scenarios in the city.

Changes to the zoning regulations require a public hearing, a recommendation from the Planning Commission, and final approval of the Governing Body.

The proposed effective date, if approved by the Planning Commission and Governing Body, is upon passage, approval and publication.

The ordinance has been reviewed and approved by the City Attorney.

ATTACHMENTS:

- Ordinance 2494
- Redlined changes to 19.02, 19.04, 19.10, 19.12, 19.14, 19.16, 19.18, 19.20, 19.22, 19.23, 19.24, 19.27 and 19.36
- March 5, 2024 Background Discussion Memo

PREPARED BY:

Nickie Lee

Deputy City Administrator

Date: April 30, 2024

ORDINANCE NO. 2494

AN ORDINANCE AMENDING THE CITY OF PRAIRIE VILLAGE, KANSAS ZONING REGULATIONS APPLICABLE TO RESIDENTIAL USE, BUILDING AND DEVELOPMENT STANDARDS, AND DESIGN STANDARDS IN THE R-2, R-3, R-4, C-O, C-1, C-2 AND MXD DISTRICTS, PLANNED ZONING APPLICATIONS, AND OTHER ASSOCIATED CHANGES.

BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF PRAIRIE VILLAGE, KANSAS:

Section I.

Chapter 19.02 of the Prairie Village Municipal Code, entitled "Definitions" is hereby amended by removing Section 19.02.040 "Apartment Building, Garden", Section 19.02.045 "Apartment House", Section 19.02.130 "Common Wall Dwelling", Section 19.02.135 "Comdoninumum Dwelling House", Section 19.02.200 "Dwelling", Section 19.02.035 "Apartment", Section 19.02.205 "Dwelling, Multiple, Section 19.02.215 "Dwelling, Senior Adult", Section 19.02.210 "Dwelling, Single-Family", Section 19.02.490 "Townhouse", Section 19.02.220 "Dwelling, Two Family" and adding new Section 19.02.200 "Dwelling", Section 19.02.205 "Dwelling, Apartment", Section 19.02.208 "Dwelling, Attached House", Section 19.02.210 "Dwelling, Multiple", Section 19.02.212 "Dwelling, Residential Mixed-Use", Section 19.02.214 "Dwelling, Senior Adult", Section 19.02.215 "Dwelling, Single-Family", Section 19.02.218 "Dwelling, Townhouse", Section 19.02.220 "Dwelling, Two Family" to read as follows:

19.02.200. DWELLING

Dwelling means a building or portion thereof, designed exclusively for residential occupancy, including one family, two family and multiple dwellings, mixed-use dwellings, and boarding and lodging houses, but not motels, hotels, mobile homes or manufactured homes.

19.02.205 DWELLING, APARTMENT

Apartment means a residential building type designed for multiple dwelling units. Variations of this building type are based on the standards for scale and format, including lot size, building footprint, height, and/or number of dwelling units resulting in small, medium, or large apartment buildings.

19.02.208 DWELLING, ATTACHED HOUSE

Attached house means a small-scale residential building type that includes 2 to 4 dwellings that may be joined in a variety of configurations, including combinations of side-by-side, front-back, or up-down configurations. It is distinguished from a townhouse or an small apartment as it maintains the appearance and scale of a single detached house, despite having multiple units, and is distinguished from a duplex as it may have more than 2 units.

19.02.210. DWELLING, MULTIPLE

Multiple dwelling means a building or portion thereof, arranged, intended or designed for residential occupancy by three or more families, including attached houses, townhouses, and apartments.

19.02.212. DWELLING, RESIDENTIAL MIXED-USE

Residential, Mixed-use means a building used for non-residential and residential purposes where the non-residential uses occupy the ground level or street-front portions, and residential uses are located on upper levels above the non-residential, or on lower levels behind the non-residential uses. The buildings have a similar scale and format as attached houses or apartment buildings, other than the portions design for non-residential uses (see *Live-Work or Mixed-use Building Types*).

19.02.214. DWELLING, SENIOR ADULT

Dwelling, senior adult means a building containing one or more living units which building and units are designed for exclusive occupancy by persons 55 years of age or older who are in generally good health. This type of residence does not contemplate continuous health care services but may include a resident nurse. Units may be in the form of complete apartments and/or may provide common dining and recreational facilities and activities.

19.02.215. DWELLING, SINGLE-FAMILY

Single-family dwelling means a building arranged, intended or designed for residential occupancy by one family; also referred to as a detached house.

19.02.218. DWELLING, TOWNHOUSE

Townhouse means a residential building containing more than one dwelling unit with such dwelling units being separated by foundation to roof common walls as opposed to one unit being over another, and each maintaining a private entrance on the building front. This configuration may allow platting and individual ownership of the building and underlying lot.

19.02.220. DWELLING, TWO FAMILY

Two family dwelling means a building arranged, intended or designed for residential occupancy by two families; also referred to as a duplex.

Section II.

Chapter 19.04 of the Prairie Village Municipal Code, entitled "Districts and District Maps" is hereby amended by amending Section 19.04.005 "Districts Designated" to read as follows:

19.04.005. DISTRICTS DESIGNATED

In order to designate districts for the purposes of this title, the city is divided into the following zoning districts:

- District R-1a, single-family residential district;
- District R-1b, single-family residential district;
- District R-2, two family residential district;
- District R-3, apartment district;
- District R-4, mixed dwelling district;
- District RP-1a and RP-1b, planned single family residential district;
- District RP-2, planned two family residential district;
- District RP-3, planned apartment district;
- District RP-4, planned mixed dwelling district;
- District C-0, office building district;
- District C-1, restricted business district;
- District C-2, general business district;
- District C-3, special use business district;
- District CP-0, planned office building district;
- District CP-1, planned restricted business district;
- District CP-2, planned general business district.
- District MXD, planned mixed use district

Section III.

Chapter 19.10 of the Prairie Village Municipal Code, entitled “District R-2 Two Family Residential District” is hereby amended by amending Section 19.10.005 “Use Regulations”, Section 19.10.010 “Height and Area Regulations Generally”, Section 19.10.015 “Height”, Section 19.10.020 “Front Yard”, Section 19.10.025 “Side Yard”, Section 19.10.030 “Rear Yard”, Section 19.10.035 “Lot Width”, Section 19.10.040 “Lot Area Per Family”, Section 19.10.045 “Minimum Dwelling Size”, Section 19.10.046 “Lot Coverage” and replacing with Section 19.10.005 “Intent”, Section 19.10.010 “Use Regulations”, Section 19.10.015 “Development Standards”, Section 19.10.020 “Parking Regulations”, Section 19.10.025 “Site Plan Approval”, and Section 19.10.030 “Planned Zoning Application” to read as follows:

19.10.005. INTENT.

The R-2 Two-family Residential District provides residential living in low-scale detached and attached dwelling units. It should be used in areas at transitions between

neighborhoods and corridors, activity centers, parks and civic spaces. This district is appropriate in village neighborhoods, as part of mixed-use context of activity centers, or at transition areas adjacent to thoroughfares or greenspace identified in the comprehensive plan.

19.10.010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.10.015. DEVELOPMENT STANDARDS.

Table 19.10.A. Development Standards	
R-2	
Lot:	
Area	9,600 square feet (4,800 square feet per unit)
Width	80'
Building Coverage	30% of lot, maximum
Impervious Coverage	40% of lot, maximum
Building Setbacks:	
Front	30' minimum
Side	7' minimum each side 18' minimum total both sides
Street Side	15' minimum
Rear	25' minimum
Height:	
Height	35' maximum, measured from the top of foundation to the highest point of the roof structure.
Story Limit	2.5 stories

One family dwellings constructed in this district shall comply with the height, front, side and rear yard requirements and minimum lot size requirements of the District R-1a. Two family dwellings shall comply with the minimum requirements in Table19.10.A.

19.10.020. PARKING REGULATIONS.

Two parking spaces shall be provided for each dwelling unit. (For additional parking regulations see chapter 19.46.)

19.10.025. SITE PLAN APPROVAL.

All new buildings or structures and proposed expansions and enlargements of more than ten percent of the existing floor area of existing buildings except single family and two-family dwellings, group homes and residential design manufactured homes shall prepare and submit a site plan in accordance with chapter 19.32 Site Plan Approval prior to the issuance of a building permit.

If application is made for a building permit for a building or structure, which is not required to submit a site plan and whose architectural style or exterior materials in the opinion of the building official vary substantially from such style or materials which have been used in the neighborhood in which the building or structure is to be built, the plans and supporting information for such building or structure shall be submitted to the planning commission for review and approval as to its compatibility with the surrounding neighborhood. This paragraph shall not apply to single-family and two-family dwellings, group homes and residential design manufactured homes.

19.10.030. PLANNED ZONING APPLICATIONS.

Application of the R-2 district through planned zoning applications shall occur according to the procedures and criteria in Chapter 19.24, Planned Zoning District. Plans shall use the following small-scale building types from Section 19.23.015 of the MXD District as the basis for the plan:

- (a) Detached House – Standard Lot
- (b) Detached House – Small Lot
- (c) Attached House

Section IV.

Chapter 19.12 of the Prairie Village Municipal Code, entitled “District R-3 Garden Apartment District” is hereby titled “R-3 Apartment District” and amended by amending Section 19.12.005 “Use Regulations”, Section 19.12.010 “Height and Area Regulations Generally”, Section 19.12.015 “Height”, Section 19.12.020 “Front Yard”, Section 19.12.025 “Side Yard”, Section 19.12.030 “Rear Yard”, Section 19.12.035 “Lot Area Per Family”, Section 19.12.036 “Lot Coverage”, Section 19.12.040 “Parking Regulations”, Section 19.12.045 “Site Plan Approval” and replacing with Section 19.12.005 “Intent”, Section 19.12.010 “Use Regulations”, Section 19.12.015 “Development Standards”, Section 19.12.020 “Parking Regulations”, Section 19.12.025 “Site Plan Approval”, and Section 19.12.030 “Planned Zoning Applications” to read as follows:

19.12.005. INTENT.

The R-3 Apartment District provides residential living in moderate- to large-scale multi-unit buildings contributing to a mix of housing opportunities at strategic locations.

It should be used in areas with a high level of accessibility, public and common amenities, and support services in the vicinity, and transition to lower-scale neighborhoods. This district is appropriate in village neighborhoods, as part of mixed-use context of activity centers, or at transition areas adjacent to thoroughfares or greenspace identified in the comprehensive plan.

19.12.010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.12.015. DEVELOPMENT STANDARDS.

Table 19.12.A. Development Standards	
R-3	
<i>Lot:</i>	
Area	1,750 s.f. per unit
Building Coverage	30% of lot, maximum
Impervious Surface Coverage	50% of lot, maximum
<i>Building Setbacks:</i>	
Front	30' minimum
Side	10' minimum for 2-story 15' minimum for 2.5 story
Street Side	15' minimum
Rear	25' minimum
<i>Height:</i>	
Height	35' maximum, measured from the top of foundation to the highest point of the roof structure.
Story Limit	2.5 stories

19.12.020. PARKING REGULATIONS.

Two parking spaces shall be provided for each dwelling unit. Parking shall not be permitted in the required side yard or within 15 feet of a street right-of-way. (For other parking requirements see chapter 19.46.)

19.12.025. SITE PLAN APPROVAL.

All new buildings or structures and proposed expansions and enlargements of more than ten percent of the existing floor area of existing buildings except single family and two-family dwellings, group homes and residential design manufactured homes shall prepare and submit a site plan in accordance with chapter 19.32 Site Plan Approval prior to the issuance of a building permit.

If application is made for a building permit for a building or structure, which is not required to submit a site plan and whose architectural style or exterior materials in the opinion of the building official vary substantially from such style or materials which have been used in the neighborhood in which the building or structure is to be built, the plans and supporting information for such building or structure shall be submitted to the planning commission for review and approval as to its compatibility with the surrounding neighborhood. This paragraph shall not apply to single-family and two-family dwellings, group homes and residential design manufactured homes.

19.12.030. PLANNED ZONING APPLICATIONS.

Application of the R-3 district through planned zoning applications shall occur according to the procedures and criteria in Chapter 19.24, Planned Zoning District. Plans shall use the following moderate- or large-scale building types from Section 19.23.015 of the MXD District as the basis for the plan:

- (a) Townhouse
- (b) Apartment – Small
- (c) Apartment – Medium
- (d) Apartment – Large

Section V.

Chapter 19.14 of the Prairie Village Municipal Code, entitled “District R-4 Condominium or Common Wall Dwelling District” is hereby titled “R-4 Mixed Dwelling District” and amended by amending Section 19.14.005 “Use Regulations”, Section 19.14.010 “Height and Area Regulations”, Section 19.14.015 “Height”, Section 19.14.020 “Front Yard”, Section 19.14.025 “Side Yard”, Section 19.14.030 “Rear Yard”, Section 19.14.035 “Lot Area Per Family”, Section 19.14.040 “Lot Size”, Section 19.14.041 “Lot Coverage”, Section 19.14.045 “Parking Regulations”, Section 19.14.050 “Site Plan Approval” and replacing with Section 19.14.005 “Intent”, Section 19.14.010 “Use Regulations”, Section 19.14.015 “Development Standards”, Section 19.14.020 “Parking Regulations”, Section 19.14.025 “Site Plan Approval”, and Section 19.14.030 “Planned Zoning Application” to read as follows:

19.14.005. INTENT.

The R-4 Mixed Dwelling District provides residential living in low- to moderate-scale multi-unit buildings contributing to neighborhoods with a mix of detached, attached, and low-scale multi-unit buildings. It should be used in areas with a high level of accessibility, public and common amenities, and support services in the vicinity, and transition to lower-scale neighborhoods. This district is appropriate in village neighborhoods, as part of mixed-use context of activity centers, or at transition areas adjacent to thoroughfares or greenspace identified in the comprehensive plan.

19.14.010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.14.015. DEVELOPMENT STANDARDS.

Table 19.14.A. Development Standards	
R-4	
<i>Lot:</i>	
Area	3,500 s.f. per unit
Width	150' minimum
Building Coverage	30% of lot, maximum
Impervious Surface Coverage	50% of lot, maximum
<i>Building Setbacks:</i>	
Front	30' minimum
Side	10' minimum for 2-story 15' minimum for 2.5 story
Street Side	15' minimum
Rear	35' minimum
<i>Height:</i>	
Height	35' maximum, measured from the top of foundation to the highest point of the roof structure.
Story Limit	2.5 stories

19.14.020. PARKING REGULATIONS.

Two parking spaces shall be provided for each dwelling unit. Parking shall not be permitted in the required exterior side yards or within 15 feet of a street right-of-way. (See chapter 19.46 for additional parking requirements.)

19.14.025. SITE PLAN APPROVAL.

All new buildings or structures and proposed expansions and enlargements of more than ten percent of the existing floor area of existing buildings except single-family dwellings, group homes and residential design manufactured homes shall prepare and submit a site plan in accordance with chapter 19.32 Site Plan Approval prior to the issuance of a building permit.

If application is made for a building permit for a building or structure, which is not required to submit a site plan and whose architectural style or exterior materials in the opinion of the building official vary substantially from such style or materials which have been used in the neighborhood in which the building or structure is to be built, the plans and supporting information for such building or structure shall be submitted to the planning commission for review and approval as to its compatibility with the surrounding neighborhood. This paragraph shall not apply to single-family dwellings, group homes and residential design manufactured homes.

19.14.030. PLANNED ZONING APPLICATIONS.

Application of the R-4 district through planned zoning applications shall occur according to the procedures and criteria in Chapter 19.24, Planned Zoning District. Plans shall use the following small- and moderate-scale building types from Section 19.23.015 of the MXD District as the basis for the plan:

- (a) Detached House – Small Lot
- (b) Attached House
- (c) Townhouse
- (d) Apartment – Small

Section VI.

Chapter 19.16 of the Prairie Village Municipal Code, entitled “District C-O Office Building District” is hereby amended by amending Section 19.16.005 “Use Regulations”, Section 19.16.010 “Height and Area Regulations Generally”, Section 19.16.015 “Height”, Section 19.16.020 “Front Yard”, Section 19.16.025 “Side Yard”, Section 19.16.030 “Rear Yard”, Section 19.16.035 “Residential Buildings”, Section 19.16.040 “Site Plan Approval”, Section 19.16.045 “Parking Regulations”, and replacing with Section 19.16.005 “Intent”, Section 19.16.010 “Use Regulations”, Section 19.16.015 “Development Standards”, Section 19.16.020 “Residential Buildings”, Section 19.16.025 “Parking Regulations in District C-O” Section 19.16.030 “Site Plan Approval”, and Section 19.16.035 “Planned Zoning Application” to read as follows:

19.16.005. INTENT.

The C-O Commercial Office District is a low intensity non-residential district providing a range of small-scale, commercial or employment uses. It also may include limited retail or services to support adjacent neighborhoods and low- and moderate-scale residential uses that contribute to a mixed-use context. This zone serves as a transition between neighborhoods and village centers or establishes neighborhood hubs in the comprehensive plan.

19.16.010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.16.015. DEVELOPMENT STANDARDS.

Table 19.16.A. Development Standards	
C-O	
<i>Building Setbacks:</i>	
Front	30' minimum
Side	10' minimum for 1-story
	15' minimum for 2-story
	20' minimum for 2.5-story +
Street Side	15' minimum
Rear	35' minimum
<i>Height:</i>	
Height	35' except a greater height may be permitted subject to a conditional use permit in Chapter 19.30

19.16.020. RESIDENTIAL BUILDINGS.

Any residential building constructed or located in this district shall comply with the height, yard and area regulations of the district corresponding to that dwelling type. Single family dwellings and group homes shall comply with District R-1; two family dwellings shall comply with District R-2; garden apartment buildings shall comply with District R-3. Residential uses may also be permitted in mixed-use buildings or for reuse of existing commercial buildings, subject to the non-residential building standards in the C-O district.

19.16.025. PARKING REGULATIONS IN DISTRICT C-0.

See chapter 19.46 off street parking and loading regulations.

19.16.030. SITE PLAN APPROVAL.

All new buildings or structures and proposed expansions and enlargements of more than ten percent of the existing floor area of existing buildings except single family and two-family dwellings, group homes and residential design manufactured homes shall prepare and submit a site plan in accordance with chapter 19.32 Site Plan Approval prior to the issuance of a building permit.

If application is made for a building permit for a building or structure, which is not required to submit a site plan and whose architectural style or exterior materials in the opinion of the building official vary substantially from such style or materials which have been used in the neighborhood in which the building or structure is to be built, the plans and supporting information for such building or structure shall be submitted to the planning commission for review and approval as to its compatibility with the surrounding neighborhood. This paragraph shall not apply to single-family and two-family dwellings, group homes and residential design manufactured homes.

19.16.035. PLANNED ZONING APPLICATIONS.

Application of the C-O district through planned zoning applications shall occur according to the procedures and criteria in Chapter 19.24, Planned Zoning District. Plans shall use the following small- and moderate-scale building types from Section 19.23.015 of the MXD District as the basis for the plan:

- (a) Attached House
- (b) Townhouse
- (c) Live-Work
- (d) Apartment / Mixed-Use – Small

Section VII.

Chapter 19.18 of the Prairie Village Municipal Code, entitled “District C-1 Restricted Business District” is hereby amended by amending Section 19.18.010 “Performance Standards” to read as follows:

19.18.010. - PERFORMANCE STANDARDS

The following standards shall apply in District C-1:

- (a) No wholesale sales shall be conducted;

-
- (b) No merchandise or equipment shall be stored or displayed outside a building and no sales shall be conducted from a truck or other temporary vehicle or structure except as may be permitted in chapter 19.34;
 - (c) All products shall be sold and all services rendered inside a building except that banks and savings and loan establishments may have a walk-up service and, if approved as a conditional use in accordance with chapter 19.30, a drive up service;
 - (d) No noise, smoke, radiation, vibration or concussion, heat or glare shall be produced that is perceptible outside a building and no dust, fly ash or gas that is toxic, caustic or obviously injurious to humans or property shall be produced;
 - (e) Restaurants wherein alcoholic, wine and cereal malt beverages are sold for consumption on the premises provided that more than 50 percent of the total income of the restaurant is derived from the sale of food consumed on the premises. At the time of application for an annual liquor or cereal malt beverage permit, the applicant will submit a sworn statement that more than 50 percent of the income has and will in the future be derived from the sale of food. The business operation will not produce noise and commotion that may adversely affect the neighboring property and the premises will be maintained and managed to a level equal to that, which prevails in the neighborhood.
 - (f) Residential uses shall be limited to dwelling units on upper stories above ground level commercial uses, or less than 50% of the ground floor and located behind ground-level commercial uses.

Section VIII.

Chapter 19.20 of the Prairie Village Municipal Code, entitled "District C-2 General Business District" is hereby amended by amending Section 19.20.010 "Performance Standards" to read as follows:

19.20.010. - PERFORMANCE STANDARDS.

The following performance standards shall apply in District C-2:

- (a) No noise, smoke, radiation, vibration or concussion, heat or glare shall be produced that is perceptible outside a building, and no dust, fly ash or gas that is toxic, caustic or obviously injurious to humans or property shall be produced;
- (b) Other merchandise which may appropriately be displayed or stored outside a building shall be kept off the public sidewalk or streets, shall not

reduce the capacity of a parking lot below that required by this title, and shall not occupy an area greater than 20 percent of the ground floor are of the building, and no sale shall be conducted from a truck or other temporary vehicle or structure except as may be permitted in chapter 19.34;

- (c) Restaurants wherein alcoholic, wine and cereal malt beverages are sold for consumption on the premises provided that: more than 50 percent of the total income of the restaurant is derived from the sale of food consumed on the premises; at the time of application for an annual liquor or cereal malt beverage permit the applicant will submit a sworn statement that more than 50 percent of the income has and will in the future be derived from the sale of food; the business operation will not produce noise and commotion that may adversely affect the neighboring property and the premises will be maintained and managed to a level equal to that which prevails in the neighborhood.
- (d) Residential uses shall be limited to dwelling units on upper stories above ground level commercial uses, or less than 50% of the ground floor and located behind ground-level commercial uses.

Section IX.

Chapter 19.22 of the Prairie Village Municipal Code, entitled "C-3 Special Use Business District (SUB)" is hereby amended by amending Section 19.22.040 "Residential Buildings" to read as follows:

19.22.040. RESIDENTIAL BUILDINGS

Any residential building constructed or located in District C-3 shall comply with height, yard and area regulations of the district corresponding to that dwelling type: Single family dwellings and group homes shall comply with District R-1; two family dwellings shall comply with District R-2; multiple dwelling buildings shall comply with District R-3.

Section X.

Chapter 19.23 of the Prairie Village Municipal Code, entitled "'MXD' Planned Mixed Use District" is hereby titled "MXD Planned Mixed Use District" and amended by amending Section 19.23.005 "Purpose and Intent", Section 19.23.010 "Use Regulations", Section 19.23.015 "Building Height", Section 19.23.020 "Front Yard", Section 19.23.025 "Side Yard", Section 19.23.030 "Rear Yard", Section 19.23.035 "Preliminary Development Plan Submittal", Section 19.23.040 "Public Improvements", Section 19.23.045 "Planning Commission Action", Section 19.23.050 "City Council Action", Section 19.23.055 "Final Development Plan Generally", Section 19.23.060 "Final Development Submittal", Section 19.23.065 "Recording of Approved Plan," Section 19.23.070 "Publishing of Ordinance Changing the Zoning", and replacing with Section 19.23.005 "Intent", Section 19.23.010 "Use Regulations", Section 19.23.015

“Development Standards”, and Section 19.23.020 “Mixed-Use and Mixed Density Design Standards” to read as follows:

19.23.005. INTENT.

The zoning of property to the MXD, Planned Mixed Use District, is intended to encourage a variety of land uses in closer proximity to one another than would be possible with more conventional zoning districts, to promote sustainable development with projects that achieve a high level of environmental sensitivity and energy efficiency, to encourage design and construction using Leadership in Energy and Environmental Design "LEED" principles and practices; and to encourage building configurations that create a distinctive and memorable sense of place. Developments in this district are allowed and expected to have a mixture of residential, office and retail uses in a single structure or multiple structures along with public spaces, entertainment uses, and other specialty facilities that are compatible in both character and function and incorporate a coordinated consistent theme throughout the development. Developments are also expected to utilize shared parking facilities linked to multiple buildings and uses by an attractive and logical pedestrian network that places more emphasis on the quality of the pedestrian experience than is generally found in typical suburban development. Buildings are intended to be primarily multi-story structures with differing uses organized vertically rather than the horizontal separation of uses that commonly results from conventional zoning districts.

19.23.010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.23.015. DEVELOPMENT STANDARDS.

Development standards in the MXD district shall be based on specific plans approved according to the Planned Zoning District process and standards in Chapter 19.24. Development plans shall be based on the following building types in Table 19.23.A and propose the proper arrangement and location of applicable building types based on a community design plan required by Chapter 19.24. Deviations from the standards in Table 19.23.A may be justified as indicated in the Planned Zoning District standards in Chapter 19.24.

Table 19.23.A: MXD Building Type Standards

Building Types	# of Units	Lot Standards [1]				Building Standards			
		Area (s.f.)	Width	Building Coverage (max)	Green Space (min.)	Height (max)	Setbacks (min.)		
							Front	Side	Rear
<i>Detached House – Large Lot</i>	1	10K +	80' +	30%	60%	35' 2.5 story	30'	7'	25'
<i>Detached House – Standard Lot</i>	1	6K – 10K	60' +	30%	60%	27' 2 story	30'	6'	25'
<i>Detached House – Small Lot</i>	1	3K – 6K	30' – 50'	50%	30%	22' 1.5 story	15' – 30'	5'	25'
<i>Attached House</i>	2 - 4	6K – 15K 3K / unit	60' -125'	40%	40%	35' 2.5 story	15' – 30'	7'	25'
<i>Townhouse</i>	3-8	1.2K / unit 15K total max	14' / unit min.; 125' total max	65%	20%	40' 3 story	15' – 30'	10' [2]	15'
<i>Live - Work</i>	1-6	2K / unit 15K total max	20' / unit min. 125' total mx	65%	20%	40' 3 story	15' – 30' [3]	6' [2]	15'
<i>Apartment / Mixed-use – Small</i>	3-12	6K – 0.5 ac.	60' – 125'	65%	20%	40' 3 story	15' – 30' [3]	10'	15'
<i>Apartment / Mixed-use - Medium</i>	< 40	0.5 – 1.5 ac.	125' – 250'	65%	20%	50' 4 story	15' – 30' [3]	15' [1]	15'
<i>Apartment / Mixed-use - Large</i>	40 +	1.5 – 3 ac.	250' +	65%	20%	50' 4 story	15' – 30' [3]	20' [1]	15'

* Where standards are expressed as a range (i.e. 10' to 30') it shall be interpreted as a minimum and a maximum, and the requirement shall fall within that range.

[1] Projects with multiple buildings in a single-ownership complex may consider each building and development site as a "lot" for interpreting the development standards, provided the building and development sites are organized around a system of internal streets, lanes, and common spaces and buildings are oriented to these spaces as they would public street frontages.

[2] Townhouses and live/work buildings may have a 0' interior side setback when built subject to party wall specifications according to the building code.

[3] Buildings with ground level commercial uses may be located 0' to 15' from the front lot line when they front on pedestrian-oriented streets where specified in the Community Design Plan.

19.23.020. MIXED-USE & MIXED-DENSITY DESIGN STANDARDS.

- (a) *Design Objectives.* The design objectives of the mixed-use and mixed-density design guidelines are to:
- (1) Establish or reinforce the unique character of Prairie Village in mixed-use activity centers or mixed-density neighborhoods.
 - (2) Promote building and site design that enhances neighborhood streetscapes, mixed-use pedestrian streets, and active community spaces.
 - (3) Maintain the existing scale and patterns of neighborhoods and ensure compatible transitions between neighborhoods, corridors, and activity centers.
 - (4) Manage the relationship of adjacent buildings and promote compatible transitions within development projects or between development projects and established adjacent areas
 - (5) Enhance the quality, aesthetic character, and visual interest within neighborhoods and activity centers by breaking down larger masses and incorporating human scale details and ornamentation.
 - (6) Organized mixed use development and mixed-density residential projects around a system of internal streets and open spaces that extend the quality and character of public streetscapes and open spaces into development projects.
- (b) *Applicability.* These mixed-use and mixed-density design guidelines shall be applicable to the following situations:
- (1) Any rezoning to the MXD district, or any development or redevelopment within MXD districts.
 - (2) Rezoning to any planned zoning district using the MXD standards as a basis (i.e. RP-2, RP-3, RP-4, CP-0, CP-1, or CP-0).
- (c) *Community Design Plan and Guidelines.* A community design plan is required for all planned developments according to Section 19.24.020, whether establishing the context and patterns for larger scale projects, or analyzing existing conditions and transitions to surroundings for smaller scale projects. Community Design Plans should meet the following guidelines.
- (1) *Public & Common Space.* Approximately 30% to 40% of the total plan area should be public or common spaces, including streets, open space, or other common areas that serve as organizing elements for surrounding development.
 - (2) *Blocks & Parcels.* Public and community spaces should be arranged to organize development into blocks and parcels. Blocks and parcels should be between 2 to 5 acres for mixed-use or non-

residential development and between 5 to 8 acres for residential development.

- (3) *Streetscapes.* Public streets and internal private streets should incorporate the following elements:
- a. Slow-speed travel lanes that balance vehicular movement with pedestrian and bicycle accommodations.
 - b. On-street parking which minimizes the need for redundant on-site parking and buffers people from moving traffic, particularly in mixed-use or non-residential areas.
 - c. Landscape amenity zones that create comfortable spaces including street trees, landscape beds, and street furniture or other civic features in mixed-use or non-residential areas.
 - d. Sidewalks between 5 to 8 feet in residential areas, and between 8 and 12 feet in mixed use or commercial areas (in addition to space in the amenity zone).
 - e. Bicycle facilities or trail connections where applicable based on city-wide plans or other opportunities to connect to important routes in the vicinity.
- (4) *Open & Civic Spaces.* Open spaces should be distributed throughout the plan so that all sites are within walking distance (approximately $\frac{1}{4}$ mile) of at least one type of open space. Open spaces should include a mix of formal, recreation, and natural landscape areas incorporating the following types:
- a. Formal spaces, such as patios, plazas, or courtyards designed for gathering and located at key focal points in mixed-use or non-residential areas.
 - b. Green spaces such as parks, trails, or greens that serve aesthetic and recreation needs of residential areas.
 - c. Natural areas or dense vegetation that capitalize on existing features of the area or are located strategically to create effective transitions between different scales or intensities of development.
- (d) *Project Plans & Guidelines.* A project plan is required for each development site, parcel, or block in the community design plan, except where the community design plan includes existing and established areas. Project plans shall specify the form, arrangement, and design of development in relation to the community design plan. Each project plan should meet the following guidelines.
- (1) *Frontage Design.* Frontage design determines the relationship between private development and the public or common areas a project fronts upon. Frontage design should incorporate the following elements.

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- a. *Building Placement.* Consistent front building lines should be established along all block faces. Buildings should be placed between 0 and 15 feet of the front lot line on pedestrian oriented streets, and between 15 and 30 feet of the front lot line on neighborhood streets.
 - b. *Vehicle Access.* Driveways should be coordinated on each block face to minimize interruptions in the streetscape. Alleys, common lanes with cross access easement, shared drives, or narrow drives to the interior of the block should be used, particularly on smaller and narrow lots.
 - c. *Pedestrian Access.* All lots and buildings shall have direct access to the sidewalks within the streetscape, or to any other common spaces that the building or lot fronts upon.
 - d. *Parking and Garage Location.* Parking, garages, or other vehicle access and service areas should be located to the interior of blocks and screened by buildings or landscape areas. Parking lots or structures serving multiple lots or blocks may be located at more central locations if designed to minimize impacts on streetscapes or other important open spaces based on the community design plan.
 - e. *Landscape.* Frontages should have enhanced landscape design to coordinate streetscape design and transition from public and common areas to private spaces.
- (2) *Building Design.* Building design refines the form and scale of buildings beyond the basic setback, height and lot coverage standards, and can be used to create interest and diversity within a common range of compatible buildings. Building design should incorporate the following elements.
- a. *Massing.* Relate buildings to adjacent development by mimicking similar massing and proportions through step-backs and secondary masses that break larger building volumes into smaller components.
 - b. *Articulation.* Use windows, doors, material changes, and architectural features to create variation, depth, texture, and human-scale details for building facades, particularly on larger wall planes and fronting streetscapes or common areas.

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- c. *Transparency.* Use the placement of windows and doors to create connections to important outside spaces, including streetscapes, frontages, and common areas. More frequent entrances and larger window expanses should be used on the ground level of mixed-use or non-residential buildings, particularly on pedestrian-oriented streets or active outdoor spaces.
- (3) *Site Design.* The placement and design of buildings, open space, and frontages should emphasize active building and open space elements and minimize the visibility or impact of other site components. Site design should meet the following guidelines.
- a. Design the required lot and building open space to relate building and lot frontages to the streetscape, and to create active outdoor social spaces in relation to the building.
 - b. Screen and/or use remote locations for high-intensity and/or utilitarian components of site or building, such as utilities, trash enclosures, or mechanical equipment
 - c. Stormwater facilities, storage areas, and parking or loading areas should be limited, located internal to the block, or otherwise located and designed to minimize impact on the streetscape design.
 - d. Use screens and buffers where it is not possible to better relate site utility elements or high impact areas to adjacent sites, buildings, and uses.
- (e) *Exceptions.* The Planning Commission may grant exceptions to the mixed-use and mixed-density guidelines in this section 19.23.020 through the planned development or site plan review process, based upon the following criteria:
- (1) The exception shall only apply to the design standards in this section, and not be granted to allow something that is specifically prohibited in other regulations.
 - (2) Any exception dealing with the placement of the building is consistent with sound planning, urban design and engineering practices when considering the site and its context within the neighborhood.
 - (3) Any exception affecting the design and massing of the building is consistent with the common characteristics of the architectural style selected for the building.
 - (4) The requested exception improves the quality design of the building and site beyond what could be achieved by meeting the guidelines - primarily considering the character and building styles of the neighborhood and surrounding properties, the integrity of the architectural style of the proposed building, and the relationship of

- the internal functions of the building to the site, streetscape, and adjacent property.
- (5) The exception will equally or better serve the design objectives stated in section 19.23.020(a), and the intent stated for the specific guideline being altered, or is based on specific concepts and plans approved in the planned development review.

Section XI.

Chapter 19.24 of the Prairie Village Municipal Code, entitled “Planned Zoning District” is hereby amended by amending Section 19.24.005 “Designation of Equivalent Districts”, Section 19.24.010 “Statement of Objectives”, Section 19.24.015 “Standards of Development”, Section 19.24.020 “Procedures”, Section 19.24.025 “Conformance to Comprehensive Plan”, Section 19.24.030 “Rezoning Property to a Planned Zoning District”, Section 19.24.035 “Planning Commission Action”, Section 19.24.040 “City Council Action”, Section 19.24.045 “Recording of Approval”, and replacing with Section 19.24.005 “Designation of Equivalent Districts”, Section 19.24.010 “Intent”, Section 19.24.015 “Standards of Development”, Section 19.24.020 “Procedures”, Section 19.24.025 “Criteria”, Section 19.24.030 “Effect of Decision”, and Section 19.24.035 “Recording of Approval” to read as follows:

19.24.005. DESIGNATION OF EQUIVALENT DISTRICTS.

Planned zoning districts and their equivalent districts are as follows:

Planned District	Equivalent District
RP-1A Planned Single Family Residential	R-1A
RP-1B Planned Single Family Residential	R-1A
RP-2 Planned Two Family Residential	R-2
RP-3 Planned Apartment	R-3
RP-4 Planned Mixed Dwelling	R-4
CP-0 Planned Office Building	C-0
CP-1 Planned Restricted Business	C-1
CP-2 Planned General Business	C-2
MXD Planned Mixed-use District	n/a – planned district only

Except in the case of standard single-family subdivision, which may be zoned R-1 and areas requested for C-3, all rezoning of land within the City of Prairie Village shall hereafter follow planned zoning procedures as set out in this chapter.

19.24.010. INTENT.

The planned zoning process is for development concepts that require a higher degree of specific planning due to the scale, complexity, and design of proposed projects. It is a type of rezoning based on a specific and integrated plan. The process affords flexibility in the development standards to improve the relationship of the project to the context, to better meet the purpose and intent statements of base districts, and to encourage innovative projects not anticipated by these standards, and to promote well-designed development equal to or exceeding results of generally applicable standards.

19.24.015. STANDARDS OF DEVELOPMENT.

- (a) **Base District Standards.** The standards of the base zoning district are generally applicable to planned zoning districts, however deviations shall be permitted based on:
 - (1) The extent that the proposed plan furthers the intent of the base district and planned zoning districts; and
 - (2) The caliber of the plan and extent of quality design and amenities.

- (b) **Specific Deviations.** Deviations from specific standards of the base zone district shall be based on the development plan providing one or more of the following benefits related to the standard.
 - (1) *Lot Coverage and Open Space Deviations:*
 - a. Address stormwater at a larger scale using stormwater best management practices considering impacts beyond the site.
 - b. Integrate common or public open space into the project within walking distance of all properties and coordinate these spaces with other existing or proposed civic and open spaces through the plan.
 - c. Enhance landscape buffers and transitions at any sensitive edges or where the increased coverage could otherwise cause adverse impacts on adjacent property.

 - (2) *Lot Area Per Unit Deviations:* Deviations from the lot area per unit:
 - a. Provide diversity of dwelling unit types not currently met by existing units in the vicinity.
 - b. Include a mix of housing and building types within the project that is complimentary to and supports adjacent non-residential uses.

 - (3) *Building Height or Setback Deviations.* Deviations from the height or setback are based on:

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- a. Compatibility of building design with the character of the area considering style, materials, and design details.
 - b. Transitions to other areas considering proximity to adjacent development and scale and massing of nearby buildings.
 - c. Management of other secondary impacts from greater building intensity including mix of uses, operation and activity, and parking.
 - d. Support for other broader planning policies or community benefits beyond the project.
- (4) *Required Parking Deviations.* Deviations from required parking promote other goals or are justified by broader planning policies, including.
- a. Strategies for reduced parking demand based on target market of residents, tenant mix of nonresidential uses, likelihood of different peak demand times of different uses, and access to or promotion of other modes of transportation.
 - b. Improving the environmental performance of projects and site design.
 - c. Assurances of no impacts of parking overflow on adjacent areas.

19.24.020. PROCEDURES.

The procedure for zoning land to a planned district is the same as required for rezoning of property in Section 19.52, except each planned district shall be supported by the following planning documents.

- (a) **Community Design Plan.** A community design plan integrates a project or multiple projects into the broader context. This plan is generally on the scale of between 10 and 40 acres, but at least the scale to address adjacencies and relationship of proposed development to the surroundings. For large-scale master planned or redevelopment projects, the community design plan will establish the context through development. For smaller scale planned districts under 10 acres or project plans for infill development, the community design plan will involve analysis of existing conditions outside of the planned district and at least 500 feet beyond any proposed project plan. The community design plan shall address the following, whether existing or newly proposed with the project:
- (1) Street and block layout.
 - (2) Streetscape design, and distinctions in different street types
 - (3) Access and circulation within any blocks and development parcels, including vehicle and pedestrian access.
 - (4) Open spaces, and distinctions in different open space types based on size, scale, and design and landscape characteristics.

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- (5) General land uses and intensity of development, and transitions between land uses considering categories and types of uses, and the scale of lots and buildings attributed to each use
 - (6) Infrastructure capacity and improvements, including stormwater management. Studies or reports on the impact of public facilities associated with the community design plan or any specific project plan shall be provided and coordinated with the city's capital improvement plans.
- (b) **Project Plan(s).** Project plans provide specific designs for projects, sites, and buildings within the community design plan. These plans are generally on a scale of less than 4 acres or may be as simple as a site plan for smaller applications of planned districts. Larger planned districts or phased projects may have multiple project plan(s), however preliminary project plans shall be submitted for any area to be zoned "-P." Project plans shall address the following:
- (1) Specific building types permitted for the designated area, including scale and format, and identifying any deviations from the base zoning district standards.
 - (2) Frontage designs demonstrating the orientation and relationship of all buildings to the public streets, internal circulation areas, or other public or common open spaces.
 - (3) Building design plans demonstrating the scale, massing, and design character of all proposed buildings. While final design and elevations are not required at this stage, general parameters on the character, style, design themes, and types of materials and architectural features shall be provided.
 - (4) Land and building uses permitted for each designated area to the extent they differ from any of the uses permitted in the base district in terms of scale, format, or operational characteristics.
 - (5) Access, circulation, and parking addressing how the project(s) will fit within the development patterns and access and circulation of the larger scale community plan.
 - (6) Landscape and streetscape designs for all development sites and common areas that meet or exceed the Site Plan criteria in Chapter 19.32 Site Plans, and Chapter 19.47, Landscape Standards.
- (c) **Project Narrative.** The project narrative shall justify why the project is eligible for planned zoning designations. It shall include statements or analysis on the following:
- (1) How the proposed planned zoning meets the intent and criteria in Section 19.24.025, and the rezoning factors in 19.52.030.
 - (2) How the project plans integrate with the community design plan, and other public benefits supported by the project plans or community design plans.

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- (3) Identify all specific deviations from the base zoning district standards and include why those deviations are justified based on the plans and criteria of this chapter.

19.24.025. CRITERIA.

In the consideration of a change to a planned zoning district the planning commission and city council shall determine whether the proposal conforms to master plans, special studies and policies normally utilized in making zoning decisions in Prairie Village. In addition, the factors to be considered for rezoning in Section 19.52.030, planned zoning decisions shall be subject to the following additional criteria:

- (a) The plan reflects generally accepted and sound planning and urban design principles with respect to meeting the goals of the comprehensive plan and the purposes and intent of the zoning ordinance in Section 19.01.010.
- (b) The flexibility offered by planned zoning is not strictly to benefit the applicant or a single project, but provides other benefits to the community or supports plans and policies in an equal or better manner than the base district standards
- (c) The proposed deviations to the standards do not undermine the intent of any other standards relative to the proposed projects or relative to adjacent property.

19.24.030 EFFECT OF DECISION.

Approval of a planned zoning district by the City Council shall rezone the property as provided in Chapter 19.52. Property subject to the planned zoning (“-P”) designation is required to receive a site plan approval according to Chapter 19.32 prior to issuance of any permits.

- (1) Project plans that meet all submittal requirements and criteria for site plan approval in Chapter 19.32 may be considered a site plan if designated as a site plan prior to the application and processed as a simultaneous site plan by the city.
- (2) Subsequent site plans shall be reviewed for consistency with the community design plan and project plans. Minor deviations from these plans may be approved by the Planning Commission through the site plan process provided they are determined to be due to refinement and greater design specification of concepts approved in the prior plans, and they otherwise permitted subject to base zoning district standards. The staff or Planning Commission may determine that any change is a significant change and require an amendment to the Planned Zoning District according to the same procedures of the initial designation. The following changes are not minor deviations and shall require processing as an amendment to the Planned Zoning District:
 - (a) An increase in the number of residential units by more than 5 percent

- (b) An increase in the non-residential floor area by more than 10 percent
- (c) An increase in building height by more than 10 percent
- (d) An increase in the lot coverage or reduction in the open space by more than 10 percent
- (e) Any change in the character, style, design themes of proposed buildings that result in a significantly different appearance or coordination with surrounding characteristics from what was approved in the project plans.
- (f) Other changes that do not meet the base district standards or other applicable zoning standards, and which were not expressed as a deviation.

19.24.035. RECORDING OF APPROVAL.

After rezoning to a planned district has been approved there shall be filed with the register of deeds a statement that a plan for the area has been approved. The statement shall specify the nature of the plan, the proposed density or intensity of land uses and other pertinent information sufficient to notify any prospective purchasers or users of land of the existence of such plan and any constraints thereon. The landowner shall submit this statement to the city clerk with the appropriate recording fee and the city shall be responsible for recording the statement.

Section XII.

Chapter 19.27 of the Prairie Village Municipal Code, entitled “Zoning Districts and Uses” is hereby amended by amending the Residential Uses section of the “Allowed Uses” table to read as follows:

Table 19.27 Allowed Uses										
■ = use is generally permitted, subject to general zoning district development and design standards. ○ = use requires Special Use Permit and discretionary review by Planning Commission and City Council per Section 19.32										
Uses	R-1A	R-1B	R-2	R-3	R-4	C-0	C-1	C-2	C-3	MXD
Residential Uses										
Single family dwellings	■	■	■	■		■			No specific uses permitted. C-3 is a planned commercial	No specific uses permitted. MXD s a
Two-family dwellings			■	■		■				
Attached house				■	■	■				
Townhouse				■	■	■				
Apartment				■	■	■				
Nursing and convalescent home	○	○	○	○	○	○	○	○		
Group home	■	■	■	■		■				
Residential – Mixed Use						■	■	■		

Section XIII.

Chapter 19.36 of the Prairie Village Municipal Code, entitled "Restricted Uses" is hereby amended by amending Section 19.36.005 "Restricted Uses" to read as follows:

19.36.005. - RESTRICTED USES.

- (a) No temporary or uncompleted building, garage, or appurtenances incident to a family dwelling shall be erected, maintained or used for residence purposes. However, it is provided that when the exterior and more than 50 percent of the interior of a permanent residence has been completed at the time of adoption of this title, this regulation shall not apply.
- (b) No temporary or outwardly incomplete building or structure, no open excavation for a basement or foundation, and no building or structure so damaged as to become unfit for use or habitation shall be permitted, maintained or remain in such condition for more than six months.
- (c) No building material, construction equipment, machinery or refuse shall be stored, maintained or kept in the open upon any lot, tract or parcel other than in such districts as permitted in this title, except during actual construction operations upon said premises or related premises; provided that the Board may waive said requirement in unusual cases for a limited time.
- (d) No building, structure or premises shall be used for, or occupied by any of the following uses:
 - (1) Junkyard, junk storage, salvage yard, auto wrecking;
 - (2) Auto courts, trailer camp, tourist cabins, mobile homes;
 - (3) Slaughterhouse, commercial poultry dressing or processing establishment where such use is primary and not incidental to a permitted use;
 - (4) Refuse dumps, dumps;
 - (5) Boardinghouse or lodging houses, exclusive of group homes.
- (e) The raising, storage, or handling of farm crops, the raising, feeding or keeping of farm animals, livestock or poultry, other than customary household pets or chickens as provided in chapter II, article I of the City Code, and the keeping or display of farm or other heavy equipment or machinery is prohibited in all districts.

Section XIV. Repeal of Prior Ordinances.

All ordinances and parts thereof that are inconsistent with any provision of this Ordinance are hereby repealed.

Section XV. Effective Date

This ordinance shall take effect and be in force upon and after its passage, approval, and publication as provided by law.

PASSED AND APPROVED THIS ___ day of _____, 2024.

Eric Mikkelson, Mayor

ATTEST:

APPROVED AS TO FORM:

Adam Geffert
City Clerk

Alex Aggen
City Attorney

Chapter 19.10 DISTRICT R-2 TWO FAMILY RESIDENTIAL DISTRICT

19.10.005. INTENT

The R-2 Two-family Residential District provides residential living in low-scale detached and attached dwelling units. It should be used in areas at transitions between neighborhoods and corridors, activity centers, parks and civic spaces. This district is appropriate in village neighborhoods, as part of mixed-use context of activity centers, or at transition areas adjacent to thoroughfares or greenspace identified in the comprehensive plan.

Commented [CB1]: Added to guide application of district according to comprehensive plan and physical context, and to be consistent with overall format (all districts should have non-regulatory intent statement)

19.10.005010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.10.040015. HEIGHT AND AREA REGULATIONS GENERALLY, DEVELOPMENT STANDARDS

Commented [CB2]: Convert existing R-2 standards to table to simplify and for consistent format with other districts. No substantive changes EXCEPT:
 •Added impervious surface coverage to be consistent with R-1A and R-1B

Table replaces sections 010, 015, 020, 025, 030, 035, 040, 045, and 046

Table 19.10.A. Development Standards	
R-2	
Lot:	
Area	9,600 square feet (4,800 square feet per unit)
Width	80'
Building Coverage	30% of lot, maximum
Impervious Coverage	40% of lot, maximum
Building Setbacks:	
Front	30' minimum
Side	7' minimum each side 18' minimum total both sides
Street Side	15' minimum
Rear	25' minimum
Height:	
Height	35' maximum, measured from the top of foundation to the highest point of the roof structure.
Story Limit	2.5 stories

One family dwellings constructed in this district shall comply with the height, front, side and rear yard requirements and minimum lot size requirements of the District R-1a.

Two family dwellings shall comply with the minimum requirements ~~set forth in sections 19.10.015–19.10.045~~ Table 19.10.A.

~~19.10.015. HEIGHT.~~

~~No building or structure shall exceed 35 feet in height, measured as set out in section 19.02.100; nor shall it contain more than two and one half stories as set out in section 19.02.435.~~

~~19.10.020. FRONT YARD.~~

~~The front yard requirements shall be 30 feet.~~

~~19.10.025. SIDE YARD.~~

~~There shall be a side yard on each side of the dwelling, the total of which side yards shall be not less than 18 feet and neither side yard shall be less than seven feet. Not less than 15 feet shall be provided on the street side of a corner lot.~~

~~19.10.030. REAR YARD.~~

~~The depth of the rear yard shall be not less than 25 feet.~~

~~19.10.035. LOT WIDTH.~~

~~The width of the lot shall be not less than 80 feet.~~

~~19.10.040. LOT AREA PER FAMILY.~~

~~Not less than 9,600 square feet of lot area shall be provided for each two family dwelling.~~

~~19.10.045. MINIMUM DWELLING SIZE.~~

~~The minimum dwelling size shall be 1,100 square feet per family unit for living space, exclusive of garage, basement, storage space, open or screened porches, vestibules, patios and utility rooms.~~

~~19.10.046. LOT COVERAGE.~~

~~Buildings and structures shall not cover more than 30 percent of the net lot area. (Ord. 2010, Sec. II, 2001; Ord. 2060, Sec. I, 2003)~~

19.10.050~~020~~. PARKING REGULATIONS.

Two parking spaces shall be provided for each dwelling unit. (For additional parking regulations see chapter 19.46.)

19.10.055~~025~~. SITE PLAN APPROVAL.

All new buildings or structures and proposed expansions and enlargements of more than ten percent of the existing floor area of existing buildings except single family and two-family dwellings, group homes and residential design manufactured homes shall

prepare and submit a site plan in accordance with chapter 19.32 Site Plan Approval prior to the issuance of a building permit.

If application is made for a building permit for a building or structure, which is not required to submit a site plan and whose architectural style or exterior materials in the opinion of the building official vary substantially from such style or materials which have been used in the neighborhood in which the building or structure is to be built, the plans and supporting information for such building or structure shall be submitted to the planning commission for review and approval as to its compatibility with the surrounding neighborhood. This paragraph shall not apply to single-family and two-family dwellings, group homes and residential design manufactured homes.

19.10.030. PLANNED ZONING APPLICATIONS.

Application of the R-2 district through planned zoning applications shall occur according to the procedures and criteria in Chapter 19.24, Planned Zoning District. Plans shall use the following small-scale building types from Section 19.23.015 of the MXD District as the basis for the plan:

- (a) Detached House – Standard Lot
- (b) Detached House – Small Lot
- (c) Attached House

Commented [CB3]: Added to give more guidance on application of P- districts than is in the current code for potential R-2P applications.

Chapter 19.12 DISTRICT R-3 GARDEN APARTMENT DISTRICT

19.12.005. INTENT

The R-3 Apartment District provides residential living in moderate- to large-scale multi-unit buildings contributing to a mix of housing opportunities at strategic locations. It should be used in areas with a high level of accessibility, public and common amenities, and support services in the vicinity, and transition to lower-scale neighborhoods. This district is appropriate in village neighborhoods, as part of mixed-use context of activity centers, or at transition areas adjacent to thoroughfares or greenspace identified in the comprehensive plan.

Commented [CB4]: Added to guide application of district according to comprehensive plan and physical context, and to be consistent with overall format (all districts should have non-regulatory intent statement)

19.12.005010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.12.010015. HEIGHT AND AREA REGULATIONS GENERALLY DEVELOPMENT STANDARDS

Commented [CB5]: Convert existing R-3 standards to table to simplify and for consistent format with other districts. No substantive changes EXCEPT:

- Reduced the lot area from 2,500 per unit to 1,750 per unit to match existing current projects.
- Reconciled the conflict between 20% and 30% building coverage maximum in favor of 30% (matches most projects)
- Added impervious surface coverage, and emphasizing it is distinct from building coverage consistent with other districts.

Table 19.12.A. Development Standards	
R-3	
Lot:	
Area	1,750 s.f. per unit
Building Coverage	30% of lot, maximum
Impervious Surface Coverage	50% of lot, maximum
Building Setbacks:	
Front	30' minimum
Side	10' minimum for 2-story 15' minimum for 2.5 story
Street Side	15' minimum
Rear	25' minimum
Height:	
Height	35' maximum, measured from the top of foundation to the highest point of the roof structure.
Story Limit	2.5 stories

Table replaces sections 015, 020, 025, 030, 035, and 036

~~In District R-3, the height of buildings, the minimum dimensions of lots and yard, the minimum lot area per family permitted on any lot shall be as follows in sections 19.12.015—19.12.035 (for exceptions see chapter 19.44, height and area exceptions).~~

~~**19.12.015. HEIGHT.**~~

~~No building or structure shall exceed 35 feet in height, measured as set out in section 19.02.100; nor shall it contain more than two and one half stories as set out in section 19.02.435.~~

~~**19.12.020. FRONT YARD.**~~

~~The front yard requirement shall be 30 feet.~~

~~**19.12.025. SIDE YARD.**~~

~~The side yard requirement shall be ten feet for two story and 15 feet for two and one half story buildings; except that not less than 15 feet shall be provided on the street side of a corner lot.~~

~~**19.12.030. REAR YARD.**~~

~~The rear yard requirement shall be 25 feet.~~

~~**19.12.035. LOT AREA PER FAMILY.**~~

~~The minimum lot area for garden apartments shall be 2,500 square feet per family units; provided that in no case shall apartment buildings and carports, if any, cover more than 20 percent of the area of the lot or tract; the remaining eighty percent of the land to contain lawn, landscaped areas, recreation areas and open parking lots.~~

~~**19.12.036. LOT COVERAGE.**~~

~~Buildings and structures shall not cover more than 30 percent of the net lot area. (Ord. 2019, Sec. II, 2001; Ord. 2060, Sec. I, 2003)~~

~~**19.12.040****20. PARKING REGULATIONS.**~~

~~Two parking spaces shall be provided for each dwelling unit. Parking shall not be permitted in the required side yard or within 15 feet of a street right-of-way. (For other parking requirements see chapter 19.46.)~~

~~**19.12.045****25. SITE PLAN APPROVAL.**~~

~~All new buildings or structures and proposed expansions and enlargements of more than ten percent of the existing floor area of existing buildings except single family and two-family dwellings, group homes and residential design manufactured homes shall prepare and submit a site plan in accordance with chapter 19.32 Site Plan Approval prior to the issuance of a building permit.~~

~~If application is made for a building permit for a building or structure, which is not required to submit a site plan and whose architectural style or exterior materials in the~~

opinion of the building official vary substantially from such style or materials which have been used in the neighborhood in which the building or structure is to be built, the plans and supporting information for such building or structure shall be submitted to the planning commission for review and approval as to its compatibility with the surrounding neighborhood. This paragraph shall not apply to single-family and two-family dwellings, group homes and residential design manufactured homes.

19.12.030. PLANNED ZONING APPLICATIONS

Application of the R-3 district through planned zoning applications shall occur according to the procedures and criteria in Chapter 19.24, Planned Zoning District. Plans shall use the following moderate- or large-scale building types from Section 19.23.015 of the MXD District as the basis for the plan:

- (a) Townhouse
- (b) Apartment – Small
- (c) Apartment – Medium
- (d) Apartment - Large

Commented [CB6]: Added to give more guidance on application of P- districts than is in the current code for potential R-3P applications.

Chapter 19.14 DISTRICT R-4 MIXED CONDOMINIUM OR COMMON WALL DWELLING DISTRICT

Commented [CB7]: Changed name to reflect district standards and intent better

19.14.005. INTENT

The R-4 Mixed Dwelling District provides residential living in low- to moderate-scale multi-unit buildings contributing to neighborhoods with a mix of detached, attached, and low-scale multi-unit buildings. It should be used in areas with a high level of accessibility, public and common amenities, and support services in the vicinity, and transition to lower-scale neighborhoods. This district is appropriate in village neighborhoods, as part of mixed-use context of activity centers, or at transition areas adjacent to thoroughfares or greenspace identified in the comprehensive plan.

Commented [CB8]: Added to guide application of district according to comprehensive plan and physical context, and to be consistent with overall format (all districts should have non-regulatory intent statement)

19.14.005010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.14.040015. HEIGHT AND AREA REGULATIONS/DEVELOPMENT STANDARDS

Commented [CB9]: Convert existing R-4 standards to table to simplify and for consistent format with other districts. No substantive changes EXCEPT:
 •Added impervious surface coverage to be consistent with other districts

Table replaces sections 010, 015, 020, 025, 030, 035, 040, and 041

Table 19.14.A. Development Standards	
R-4	
Lot:	
Area	3,500 s.f. per unit
Width	150' minimum
Building Coverage	30% of lot, maximum
Impervious Surface Coverage	50% of lot, maximum
Building Setbacks:	
Front	30' minimum
Side	10' minimum for 2-story 15' minimum for 2.5 story
Street Side	15' minimum
Rear	35' minimum
Height:	
Height	35' maximum, measured from the top of foundation to the highest point of the roof structure.
Story Limit	2.5 stories

In District R-4, the height of buildings, the minimum dimensions of lots and yards, and the minimum lot area per family permitted on any lot shall be as follows in sections 19.14.015—19.14.040 (for exceptions see chapter 19.44, height and area exceptions).

19.14.015. HEIGHT.

No building or structure shall exceed 35 feet in height, measured as set out in section 19.02.100; nor shall it contain more than two and one-half stories as set out in section 19.02.435.

19.14.020. FRONT YARD.

Any building hereafter constructed shall provide for a front yard the minimum depth of which shall be 30 feet.

19.14.025. SIDE YARD.

There shall be a side yard on each side of the lot of not less than ten feet for two story buildings and 15 feet for two and one-half story buildings. No side yard shall be required on interior lots in common wall projects. Not less than 15 feet shall be provided on the street side of a corner lot.

19.14.030. REAR YARD.

The depth of the rear yard shall be not less than 35 feet.

19.14.035. LOT AREA PER FAMILY.

Every condominium or common wall dwelling house hereafter erected shall provide a lot area of not less than 3,500 square feet per dwelling unit.

19.14.040. LOT SIZE.

The width of the lot shall be at least 150 feet.

19.14.041. LOT COVERAGE.

Buildings and structures shall not cover more than 30 percent of the net lot area. (Ord. 2019, Sec. II, 2001; Ord. 2060, Sec. I, 2003)

19.14.045020. PARKING REGULATIONS.

Two parking spaces shall be provided for each dwelling unit. Parking shall not be permitted in the required exterior side yards or within 15 feet of a street right-of-way. (See chapter 19.46 for additional parking requirements.)

19.14.050025. SITE PLAN APPROVAL.

All new buildings or structures and proposed expansions and enlargements of more than ten percent of the existing floor area of existing buildings except single-family

dwelling, group homes and residential design manufactured homes shall prepare and submit a site plan in accordance with chapter 19.32 Site Plan Approval prior to the issuance of a building permit.

If application is made for a building permit for a building or structure, which is not required to submit a site plan and whose architectural style or exterior materials in the opinion of the building official vary substantially from such style or materials which have been used in the neighborhood in which the building or structure is to be built, the plans and supporting information for such building or structure shall be submitted to the planning commission for review and approval as to its compatibility with the surrounding neighborhood. This paragraph shall not apply to single-family dwellings, group homes and residential design manufactured homes.

19.14.030. PLANNED ZONING APPLICATIONS

Application of the R-4 district through planned zoning applications shall occur according to the procedures and criteria in Chapter 19.24, Planned Zoning District. Plans shall use the following small- and moderate-scale building types from Section 19.23.015 of the MXD District as the basis for the plan:

- (a) Detached House – Small Lot
- (b) Attached House
- (c) Townhouse
- (d) Apartment – Small

Commented [CB10]: Added to give more guidance on application of P- districts than is in the current code for potential R-4P applications.

Chapter 19.16 DISTRICT C-0 OFFICE BUILDING DISTRICT

19.16.005. INTENT

The C-O Commercial Office District is a low intensity non-residential district providing a range of small-scale, commercial or employment uses. It also may include limited retail or services to support adjacent neighborhoods and low- and moderate-scale residential uses that contribute to a mixed-use context. This zone serves as a transition between neighborhoods and village centers or establishes neighborhood hubs in the comprehensive plan.

Commented [CB11]: Added to guide application of district according to comprehensive plan and physical context, and to be consistent with overall format (all districts should have non-regulatory intent statement)

19.16.005010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.16.010015. HEIGHT AND AREA REGULATIONS (GENERALLY DEVELOPMENT STANDARDS).

Commented [CB12]: •Convert existing C-O standards to table to simplify and for consistent format with other districts. No substantive changes.
Table replaces sections 015, 020, 025, and 030.

<u>Table 19.16.A. Development Standards</u>	
<u>C-O</u>	
<u>Building Setbacks:</u>	
<u>Front</u>	<u>30' minimum</u>
<u>Side</u>	<u>10' minimum for 1-story</u> <u>15' minimum for 2-story</u> <u>20' minimum for 2.5-story +</u>
<u>Street Side</u>	<u>15' minimum</u>
<u>Rear</u>	<u>35' minimum</u>
<u>Height:</u>	
<u>Height</u>	<u>35' except a greater height may be permitted subject to a conditional use permit in Chapter 19.30</u>

In District C-0, the height of buildings, the minimum dimensions of lots and yards, and the minimum lot area per family permitted on any lot shall be as follows in sections 19.16.015—19.10-035 (for exceptions see chapter 19.44, Height and Area Exceptions).

19.16.015. HEIGHT.

Height of buildings in this district shall be measured in feet and no building or structure shall exceed 35 feet except that a greater height may be permitted by

~~conditional use permit in accordance with chapter 19.30. In the case of office buildings, the height is measured as follows:~~

- ~~(a) The maximum vertical distance in feet from the average finish grade abutting the building to the highest point of the roof or any parapet or mansard, or to the mean height between eaves and ridge of gable, hip and gambrel roofs. Heating, ventilating, air conditioning and elevator equipment located on flat roofs may extend above the maximum height not more than eight feet.~~
- ~~(b) Finish grade in this instance shall not include such depressions as dock ramps, areaways and below grade stairways but shall be the ground elevation at the point where it is lowest.~~
- ~~(c) The use of fills or berms to increase the height of the building is not permitted.~~

~~**19.16.020. FRONT YARD.**~~

~~Any building or structure hereafter constructed shall provide a front yard the minimum depth of which shall be 30 feet.~~

~~**19.16.025. SIDE YARD.**~~

~~There shall be a side yard on each side of the lot, such side yard to be not less than ten feet for one story buildings, 15 feet for two story buildings, and 20 feet for two and one-half story buildings. There shall be a side yard of not less than 15 feet of the street side of a corner lot.~~

~~**19.16.030. REAR YARD.**~~

~~The depth of the rear yard shall be not less than 35 feet.~~

~~**19.16.035**~~**020. RESIDENTIAL BUILDINGS.**

Any residential building constructed or located in this district shall comply with the height, yard and area regulations of the district corresponding to that dwelling type. Single family dwellings and group homes shall comply with District R-1; two family dwellings shall comply with District R-2; garden apartment buildings shall comply with District R-3. Residential uses may also be permitted in mixed-use buildings or for reuse of existing commercial buildings, subject to the non-residential building standards in the C-O district.

~~**19.16.040**~~**030. SITE PLAN APPROVAL.**

All new buildings or structures and proposed expansions and enlargements of more than ten percent of the existing floor area of existing buildings except single family and two-family dwellings, group homes and residential design manufactured homes shall prepare and submit a site plan in accordance with chapter 19.32 Site Plan Approval prior to the issuance of a building permit.

If application is made for a building permit for a building or structure, which is not required to submit a site plan and whose architectural style or exterior materials in the opinion of the building official vary substantially from such style or materials which have

Commented [CB13]: The use table in Chapter 19.27 will be amended to include "Residential - Mixed Use" (residential on the upper level or behind ground level commercial) for the C-O, C-1, and C-2 districts (see associated sections). The C-O district already allows residential, but requires it to be subject to R-1, R-2, or R-3 standards, which may not be the appropriate form and format for all residential in C-O. This corresponding change will allow residential in non-residential buildings, subject to the existing C-O development standards.

been used in the neighborhood in which the building or structure is to be built, the plans and supporting information for such building or structure shall be submitted to the planning commission for review and approval as to its compatibility with the surrounding neighborhood. This paragraph shall not apply to single-family and two-family dwellings, group homes and residential design manufactured homes.

19.16.045025. PARKING REGULATIONS IN DISTRICT C-0.

See chapter 19.46 off street parking and loading regulations.

19.14.035. PLANNED ZONING APPLICATIONS.

Application of the C-O district through planned zoning applications shall occur according to the procedures and criteria in Chapter 19.24, Planned Zoning District. Plans shall use the following small- and moderate-scale building types from Section 19.23.015 of the MXD District as the basis for the plan:

- (a) Attached House
- (b) Townhouse
- (c) Live-Work
- (d) Apartment / Mixed-Use – Small

Commented [CB 14]: Move to above 030 Site Plan Approval for consistent section order among all districts.

Commented [CB 15]: Added to give more guidance on application of P- districts than is in the current code for potential C-OP applications.

RESIDENTIAL IN C- DISTRICTS

The following amendments are necessary to execute the Planning Commission's direction to allow residential in the commercial districts, but subject to current district standards (i.e. as "mixed-use projects" or additions to existing commercial buildings).

1. Add the following entry to the use table in 19.27.005

Table 19.27 Allowed Uses										
■ = use is generally permitted, subject to general zoning district development and design standards. ○ = use requires Special Use Permit and discretionary review by Planning Commission and City Council per Section 19.32										
Uses	R-1A	R-1B	R-2	R-3	R-4	C-O	C-1	C-2	C-3	MXD
Residential Uses										
Single family dwellings	■	■	■	■		■			No specific uses permitted. C-3 is a planned commercial	No specific uses permitted. MXD s a
Two-family dwellings			■	■		■				
Attached house				■	■	■				
Townhouse				■	■	■				
Garden Apartment Building or Apartment House				■	■	■				
Condominium					■					
Nursing and convalescent home	○	○	○	○	○	○	○	○		
Group home	■	■	■	■		■				
Residential – Mixed Use						■	■	■		

2. Add the following performance criteria to (the C-1, and/or C-2 district standards).

(xy) Residential uses shall be limited to dwelling units on upper stories above ground level commercial uses, or less than 50% of the ground floor and located behind ground-level commercial uses.

Commented [CB16]: This section would be 19.18.010(f) for C-1 and 19.20.010(d) for C-2. (revised 19.16.035 in C-O addresses a similar topic, but does not require upper stories or behind ground level because stand-alone residential projects are allowed in C-O currently.

Chapter 19.23 "MXD" PLANNED MIXED USE DISTRICT

19.23.005. PURPOSE AND INTENT.

The zoning of property to the MXD, Planned Mixed Use District, is intended to encourage a variety of land uses in closer proximity to one another than would be possible with more conventional zoning districts, to promote sustainable development with projects that achieve a high level of environmental sensitivity and energy efficiency, to encourage design and construction using Leadership in Energy and Environmental Design "LEED" principles and practices; and to encourage building configurations that create a distinctive and memorable sense of place. Developments in this district are allowed and expected to have a mixture of residential, office and retail uses in a single structure or multiple structures along with public spaces, entertainment uses, and other specialty facilities that are compatible in both character and function and incorporate a coordinated consistent theme throughout the development. Developments are also expected to utilize shared parking facilities linked to multiple buildings and uses by an attractive and logical pedestrian network that places more emphasis on the quality of the pedestrian experience than is generally found in typical suburban development. Buildings are intended to be primarily multi-story structures with differing uses organized vertically rather than the horizontal separation of uses that commonly results from conventional zoning districts.

19.23.010. USE REGULATIONS.

Permitted uses in this district are specified in chapter 19.27 "Zoning Districts and Uses." They are either generally allowed, allowed by conditional use permit review, or by special use permit. In addition, accessory uses may be permitted subject to chapter 19.34.

19.23.015. BUILDING HEIGHT DEVELOPMENT STANDARDS

Development standards in the MXD district shall be based on specific plans approved according to the Planned Zoning District process and standards in Chapter 19.24. Development plans shall be based on the following building types in Table 19.23.A and propose the proper arrangement and location of applicable building types based on a community design plan required by Chapter 19.24. Deviations from the standards in Table 19.23.A may be justified as indicated in the Planned Zoning District standards in Chapter 19.24.

[insert formatted building type table – see draft in separate document]

- ~~(a) No maximum height; the height of buildings shall be as determined by the plan;~~
 - ~~(b) At least 50 percent of the total floor area, except for auditoriums, conference facilities, theaters, and other similar uses, shall be located above the ground floor.~~
- ~~19.23.020. FRONT YARD:~~

~~No minimum requirement. The front yard setback shall be established as shown on the plans.~~

Commented [CB17]: Current lack of standards to be replaced by "default standards" and building-type approach that better identifies the scale and format of buildings anticipated to be used in the plan. [See recommended table to insert following this section.] The default standards in that table could then be used based on a plan demonstrating the appropriateness of each type in a specific location, and/or could have deviations from the default standards if justified by the plan. All would be subject to the criteria included in the revised P- (planned district) section to be applied to MXD, as well as all other applications of the P-district designation.

19.23.025. SIDE YARD.

~~No setback required except that where a lot line abuts the lot line of a residentially zoned property, a setback shall be required which is at least equal to the minimum setback required in the district in which the MXD District abuts.~~

19.23.030. REAR YARD.

~~No setback required except that where a lot line abuts the lot line of a residentially zoned property, a setback shall be required which is at least equal to the minimum setback required in the district in which the MXD District abuts.~~

19.23.020. MIXED-USE & MIXED-DENSITY DESIGN STANDARDS

[Insert new section 19.23.020 – see draft in separate document.]

19.23.035. PRELIMINARY DEVELOPMENT PLAN SUBMITTAL

~~A tract of land may be zoned "MXD" only upon approval of a preliminary development plan which shall include the following information:~~

- ~~(a) Name of the project, address, boundaries, date, north arrow and scale of the plan;~~
- ~~(b) Name and address of the owner of record, developer, and name, address and phone number of preparers;~~
- ~~(c) All existing lot lines, easements, rights-of-way including area in acres or square feet;~~
- ~~(d) The location and use of all existing and proposed buildings and structures within the development. The number and types of dwellings and square footage or floor area for office and commercial uses. All dimensions of height and floor area, all exterior entrances and all anticipated future additions and alterations. Preliminary sketches depicting the general style, design, size and exterior materials and colors of existing buildings to be retained and new buildings to be constructed. Said sketches shall include building elevations, but detailed drawings are not required.~~
- ~~(e) The location of all existing and proposed public and private ways, driveways, sidewalks, ramps, curbs and fences; specific emphasis shall be placed on connectivity and walkability with and adjacent to the project;~~
- ~~(f) Location of required parking areas including parking stalls, setbacks and loading and service areas and the type of pavement proposed;~~
- ~~(g) A preliminary outdoor lighting plan in accordance with outdoor lighting regulations of the Zoning Ordinance plus a plan for the proposed lighting of public and private streets;~~

Commented [CB 18]: New - there are currently no design standard or criteria for using the MXD district. This section is intended to set expectation of desired design outcomes and for how any flexibility in the planned MXD district should be used. It can also be used for any planned application in R-2, R-3, or R-4 that uses the residential MXD building types. These districts similarly have no design standards currently.

Commented [CB 19]: All procedures eliminated from the MXD district and defer to improved P- (planned district) procedures and criteria in Chapter 19.24. This accomplishes two things:
1. It is more user-friendly and eliminates repetition of similar procedural and decision-criteria in different sections.
2. It allows clear simplified criteria for all planned district applications as indicated by the changes and notes in 19.24.

- ~~(h) Sign standards including the location, height, size, materials and design of all proposed monument and structure mounted signage;~~
- ~~(i) Location, type and screening details for all waste disposal containers;~~
- ~~(j) Location, size and screening details for all external HVAC units, antennas and other equipment;~~
- ~~(k) A preliminary landscape plan showing all existing open space and trees to be retained, all proposed changes to these features including the location, size and type of proposed plant material, and any proposed screening for adjacent properties which may include solid or semi-solid, fencing, walls or hedges or a combination thereof;~~
- ~~(l) The location and size of all existing and proposed utility systems including:
 - ~~(1) Sewer lines and manholes;~~
 - ~~(2) Water lines and fire hydrants;~~
 - ~~(3) Telephone, cable and electrical systems;~~
 - ~~(4) Storm drainage system including drain pipes, culverts, catch basins, headwalls, endwalls, manholes, and drainage swales/ditches; and~~
 - ~~(5) Structure mounted telecommunications equipment (satellite dishes, antennas, etc.);~~~~
- ~~(m) A stormwater management plan including plans to prevent: (a) the pollution of surface or groundwater; (b) the erosion of soil both during and after construction; (c) excessive run-off, (d) and flooding of other properties, as applicable. Said plans shall include stormwater run-off calculations and shall provide for on-site stormwater management in accordance with Stormwater Management Regulations of the City Code;~~
- ~~(n) Existing and proposed topography shown at not more than two-foot contour intervals and the location of flood plains. All elevations shall refer to U.S.G.S. datum and shall be compatible with Johnson County datum;~~
- ~~(o) Zoning districts adjacent to the site;~~
- ~~(p) Traffic flow patterns within the site including, entrances and exits, emergency access, loading and unloading areas, and curb cuts and street patterns within 200 feet of the site;~~
- ~~(q) The planning commission may require a detailed traffic impact study for large uses, mixed use and multi-tenant developments, or for developments in heavy traffic areas to include:
 - ~~(1) The projected number of motor vehicle trips to enter or leave the site, estimated for daily and peak hour traffic levels;~~
 - ~~(2) The projected traffic flow pattern within 1,000 feet of the site including vehicular movements at all major intersections likely to be affected by the proposed use of the site; and~~~~

- ~~(3) The impact of this traffic upon existing, abutting public and private ways in relation to existing road capacities. Existing and proposed daily and peak hour traffic levels, as well as road capacity levels, shall also be given.~~
- ~~(4) The satisfying of traffic warrants for traffic signals and signs in accordance with MUTCD within 1,000 feet of the site.~~
- ~~(r) A list of the uses proposed for the "MXD" District.~~
- ~~(s) Off street parking and loading shall be provided on the premises in accordance with the requirements for each type of use permitted, as set out in the off-street parking and loading regulations of the Zoning Ordinance except as follows:~~
 - ~~(1) The planning commission may reduce the required parking after considering documentation and/or study provided by the applicant, staff's recommendation and giving decisive weight to all relevant facts, including but not limited to the following factors: availability and accessibility of alternative parking; impact on adjacent properties and uses neighborhoods; existing or potential shared parking arrangements; the characteristics of the use, including hours of operation and peak parking demand times; design and maintenance of off-street parking that will be provided; and whether the proposed use is new or a small addition to an existing use.~~
 - ~~(2) Parking spaces on public and private streets may be counted towards the minimum requirements as set forth above; provided the on-street spaces are located on an adjacent or internal street that allows on-street parking. On-street parking spaces being counted towards the credit must be identified on plans at time of submittal to the city.~~
 - ~~(3) No open parking areas shall be located closer than 15 feet to a public street, or no closer than eight feet to a property line other than a street line. Parking areas within the building, or within a parking structure extending more than six feet above the finished grade, shall comply with the setback regulations of the main building. Such parking setback and other open areas shall be brought to finish grade and planted with grass, shrubs and trees, and maintained to at least the average level of maintenance of the other developed property within the immediate neighborhood.~~
- ~~(t) Preservation of Natural Features: Mature trees, vegetative cover, watercourses and other natural site features shall be preserved to the greatest extent possible. Abrupt changes in natural slope shall be avoided. Preservation shall be directed toward:~~
 - ~~(1) Enhancing the quality of new development;~~
 - ~~(2) Protecting the natural environment;~~
 - ~~(3) Providing buffering between new development and surrounding properties;~~
 - ~~(4) Preserving the character of existing neighborhoods;~~

- ~~(5) Handling of stormwater flows in natural channels;~~
- ~~(6) Maintaining existing vegetation along stream corridors as water quality filters; and~~
- ~~(7) Creation of rain gardens.~~
- ~~(u) Submission of all easement and preliminary covenant documents that will be filed with the County.~~
- ~~(v) A phasing plan if the project is not going to be constructed at one time.~~

~~19.23.040. PUBLIC IMPROVEMENTS.~~

~~The planning commission may recommend and the city council may require the applicant to construct or install infrastructure improvements such as sidewalks, traffic signals, street lighting, pedestrian lighting, street widening and channelization, acceleration and deceleration lanes, waterlines, sewer lines, storm drainage improvements and other similar improvements that are related to the proposed project.~~

~~19.23.045. PLANNING COMMISSION ACTION.~~

~~The planning commission shall hold one or more public hearings on the preliminary development and rezoning. Upon conclusion of the public hearing or hearings, the planning commission, by a majority of members present and voting, shall make a recommendation to the city council to approve the proposal as submitted, to approve the proposal subject to conditions, or to deny the proposal.~~

~~19.23.050. CITY COUNCIL ACTION.~~

~~Upon approval of the preliminary development plan and the rezoning of the property by the city council, a final development plan for the project shall be prepared and submitted to the planning commission for final approval. Permits for construction shall not be issued until final plans have been reviewed and approved by the planning commission. It is the intent of this chapter that the project as constructed shall conform closely to the preliminary plans reviewed and approved at the time of the public hearing.~~

~~19.23.055. FINAL DEVELOPMENT OF PLAN GENERALLY.~~

~~Final plan for a project or a portion thereof shall not be approved if one or more of the following conditions, in the judgment of the commission, exist:~~

- ~~(a) Final plans vary substantially from the concept of the development plan presented and agreed to at the time of rezoning;~~
- ~~(b) The final plans would increase the density (number of units per acre) or intensity (concentration of development) of residential uses more than five percent;~~
- ~~(c) The final plans would increase the floor area of nonresidential buildings by more than ten percent;~~

- ~~(d) The final plans would increase by more than ten percent the ground covered by buildings or paved areas;~~
- ~~(e) The final plans would increase the height of a building by one or more stories or four or more feet;~~
- ~~(f) The final plans involve changes in ownership patterns or stages of construction that will lead to a different development concept, less architectural harmony or quality, or impose substantially greater loads on streets and neighborhood facilities;~~
- ~~(g) The final plans vary from specific development or design criteria including traffic impact and stormwater management that may have been adopted by the planning commission or city council at the time the preliminary development plan and rezoning were approved.~~

~~Variations between the preliminary and final plans, which do not, in the judgment of the planning commission, violate or exceed the above seven criteria, shall be approved by the planning commission in its administrative role and no public hearing shall be required. If, however, variations and departures from the approved preliminary plan exceed the above criteria or are sought by the developer or other party at the time of final plan review or building permit application, the applicant shall request an amendment to the plan which shall be handled in the same manner as the approval of the original preliminary plan.~~

~~19.23.060. FINAL DEVELOPMENT PLAN SUBMITTAL.~~

- ~~(a) A detailed site plan showing the physical layout and design of all streets, easements, rights-of-way, lots, sidewalks, parking, blocks, greenspace, structures and uses.~~
- ~~(b) Preliminary building plans, including floor plans, gross floor area of office and commercial uses and exterior elevations.~~
- ~~(c) Final landscaping plans.~~
- ~~(d) Copies of any easements and restrictive covenants and proof of recording of the same.~~
- ~~(e) Proof of the establishment and activation of any entity that is to be responsible for the management and maintenance of any common open space.~~
- ~~(f) Evidence that no lots, parcels, tracts or dwelling units in such development have been conveyed or leased prior to the recording of any restrictive covenants applicable to such planned development.~~
- ~~(g) Such bonds and other documents that may have been required to guarantee the installation of required public improvements.~~
- ~~(h) Drawings showing size, type and location of all monument and wall mounted signs.~~
- ~~(i) Final lighting plan.~~

~~(j) Final stormwater control plan.~~

~~(k) Bond for public improvements and agreement to pay for City inspection services.~~

~~**19.23.065. RECORDING OF APPROVED PLAN.**~~

~~After rezoning to a "MXD" district has been approved and the final plan has been approved by the planning commission there shall be filed with the Register of Deeds a statement that a development plan for the area has been approved. The statement shall specify the nature of the plan, the proposed density or intensity of land uses and other pertinent information sufficient to notify any prospective purchasers or users of land of the existence of such plan and any constraints thereon. The landowner shall submit this statement to the city clerk with the appropriate recording fee and the city shall be responsible for recording the statement.~~

~~**19.23.70. PUBLISHING OF ORDINANCE CHANGING THE ZONING.**~~

~~The ordinance effectuating the zone change shall not be published until such time as the zoning and preliminary development plan have been approved by the city council.~~

Chapter 19.24 PLANNED ZONING DISTRICT

19.24.005. DESIGNATION OF EQUIVALENT DISTRICTS.

Planned zoning districts and their equivalent districts are as follows:

Planned District	Equivalent District
RP-1A Planned Single Family Residential	R-1A
RP-1B Planned Single Family Residential	R-1A
RP-2 Planned Two Family Residential	R-2
RP-3 Planned Garden Apartment	R-3
RP-4 Planned Townhouse Mixed Dwelling	R-4
CP-0 Planned Office Building	C-0
CP-1 Planned Restricted Business	C-1
CP-2 Planned General Business	C-2
<u>MXD Planned Mixed-use District</u>	<u>n/a – planned district only</u>

Except in the case of standard single family subdivision, which may be zoned R-1 and areas requested for C-3, all rezoning of land within the City of Prairie Village shall hereafter follow planned zoning procedures as set out in this chapter.

19.24.010. STATEMENT OF OBJECTIVES, INTENT

The planned zoning process is for development concepts that require a higher degree of specific planning due to the scale, complexity, and design of proposed projects. It is a type of rezoning based on a specific and integrated plan. The process affords flexibility in the development standards to improve the relationship of the project to the context, to better meet the purpose and intent statements of base districts, and to encourage innovative projects not anticipated by these standards, and to promote well-designed development equal to or exceeding results of generally applicable standards.

~~The zoning of land in Prairie Village to one of the planned districts (RP-1 to CP-2 inclusive) shall be for the purpose of encouraging and requiring orderly development and redevelopment on a quality level generally equal to or exceeding that which prevails in the City of Prairie Village, but permitting deviations from established and customary development techniques. The use of planned zoning procedures is intended to encourage efficient development and redevelopment of small tracts, innovative and imaginative site planning, conservation of natural resources and minimum waste of land. The following are specific objectives of this section:~~

Commented [CB20]: Changed title and simplified intent statement for consistency across all zone districts. Clarified the intent of all “P-” districts is flexibility, guided by a context-specific plan, that meets broader city policies.

- ~~(a) A proposal to rezone land to a planned district shall be subject to the same criteria relative to compliance with the Prairie Village Comprehensive Plan, land use policies, neighborhood compatibility, adequacy of streets and utilities and other elements, which are established and customary development techniques in this city;~~
- ~~(b) The submittal by the developer and the approval by the city of development plans represents a firm commitment by the developers that development will indeed follow the approved plans in such areas as concept, intensity of use, aesthetic levels and quantities of open space;~~
- ~~(c) Deviations in yard requirements, setbacks and relationship between buildings as set out in standards of development in section 19.24.015 of this chapter, may be approved by the planning commission and city council if it is deemed that other amenities or conditions will be gained to the extent that an equal or higher quality of development will be produced;~~
- ~~(d) Residential areas are to be planned and developed in a manner that will produce more usable open space, better recreational opportunities, safer and more attractive neighborhoods than under standard zoning and development techniques;~~
- ~~(e) Commercial areas are to be planned and developed so as to result in attractive, viable and safe centers and clusters as opposed to strip patterns along thoroughfares. Control of vehicular access, circulation, architectural quality, landscaping and signs will be exercised to soften the impact on nearby residential neighborhoods, and to assure minimum adverse effects on street system and other services of the community;~~
- ~~(f) The developer will be given latitude in using innovative techniques in the development of land not feasible under application of standard zoning requirements;~~
- ~~(g) Planned zoning shall not be used as a refuge from the standard requirements of the zoning district as to intensity of land use, amount of open space or other established development criteria;~~
- ~~(h) Any building or portion thereof may be owned in condominium under K.S.A. 53-3101;~~
- ~~(i) For purposes of this chapter, the terms "shopping center", "business park," "office park," or other grouping of buildings shall mean development that were planned as an integrated unit or cluster on property under unified control or ownership at the time the zoning was approved by the city. The sale, subdivision or other partition of the site after zoning approval does not exempt the project or any portion thereof from complying with development standards that were committed at the time of zoning.~~

19.24.015. STANDARDS OF DEVELOPMENT

Commented [CB21]: Replaced current criteria (which are either vague or circular) with a clear approach that the base zone district standards apply, or that specific deviations from those standards could be granted by meeting larger or related planning and design goals.

- (a) **Base District Standards.** The standards of the base zoning district are generally applicable to planned zoning districts, however deviations shall be permitted based on:
- (1) The extent that the proposed plan furthers the intent of the base district and planned zoning districts; and
 - (2) The caliber of the plan and extent of quality design and amenities.
- (b) **Specific Deviations.** Deviations from specific standards of the base zone district shall be based on the development plan providing one or more of the following benefits related to the standard.
- (1). Lot Coverage and Open Space Deviations:
 - a. Address stormwater at a larger scale using stormwater best management practices considering impacts beyond the site.
 - b. Integrate common or public open space into the project within walking distance of all properties and coordinate these spaces with other existing or proposed civic and open spaces through the plan.
 - c. Enhance landscape buffers and transitions at any sensitive edges or where the increased coverage could otherwise cause adverse impacts on adjacent property.
 - (2) Lot Area Per Unit Deviations: Deviations from the lot area per unit:
 - a. Provide diversity of dwelling unit types not currently met by existing units in the vicinity.
 - b. Include a mix of housing and building types within the project that is complimentary to and supports adjacent non-residential uses.
 - (3) Building Height or Setback Deviations. Deviations from the height or setback are based on:
 - a. Compatibility of building design with the character of the area considering style, materials, and design details.
 - b. Transitions to other areas considering proximity to adjacent development and scale and massing of nearby buildings.
 - c. Management of other secondary impacts from greater building intensity including mix of uses, operation and activity, and parking.
 - d. Support for other broader planning policies or community benefits beyond the project.
 - (4) Required Parking Deviations. Deviations from required parking promote other goals or are justified by broader planning policies, including:
 - a. Strategies for reduced parking demand based on target market of residents, tenant mix of nonresidential uses, likelihood of different peak demand times of different uses, and access to or promotion of other modes of transportation.

- b. Improving the environmental performance of projects and site design.
- c. Assurances of no impacts of parking overflow on adjacent areas.

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- ~~(a) The maximum height of buildings and structures shall be as set out in the standard requirements of the equivalent district.~~
- ~~(b) The intensity of land use, bulk of buildings, the concentration of population, the amount of open space, light and air, shall be generally equal to that required in the equivalent district.~~
- ~~(c) The density of residential dwelling units, the parking requirements and the performance standards shall be the same as in the equivalent district.~~
- ~~(d) The permitted uses shall be the same as those permitted in the equivalent district provided that limitation may be placed on the occupancy of certain premises, if such limitation is deemed essential to the health, safety or general welfare of the community.~~
- ~~(e) The planning commission may require assurance of the financial and administrative ability of any agency created by a developer for the purpose of maintaining common open space and facilities of a nonpublic nature.~~
- ~~(f) The planning commission and city council may, in the process of approving preliminary and final plans, approve deviations from the standard requirements as follows, provided any deviation so approved shall be in keeping with accepted land planning principles and must be clearly set out in the minutes as well as on exhibits in the record:
 - ~~(1) Setbacks of buildings and paved areas from a public street may be reduced to 50 percent of the standard requirement;~~
 - ~~(2) Setbacks of buildings from a property line other than a public street, may be reduced to 60 percent of the standard requirement and setbacks of paved areas adjacent to property lines, other than street lines, to zero if existing or proposed development on said adjacent land justifies the same; Side yards between buildings may be reduced to zero;~~
 - ~~(3) The foregoing deviations 1 through 4 may be granted by the planning commission and city council only when compensating open space is provided elsewhere in the project, where there is ample evidence that said deviation will not adversely affect neighboring property nor will it constitute the mere granting of a privilege.~~~~
- ~~(g) The design of all planned projects, whether residential, commercial or other, shall be such that access and circulation by fire fighting equipment is assured and not hindered by steep grades, heavy landscaping or building spacing.~~

19.24.020. PROCEDURES.

The procedure for zoning land to a planned district ~~shall be as set out in chapter 19.52.~~ is the same as required for rezoning of property in Section 19.52, except each planned district shall be supported by the following planning documents.

(a) **Community Design Plan.** A community design plan integrates a project or multiple projects into the broader context. This plan is generally on the scale of between 10 and 40 acres, but at least the scale to address adjacencies and relationship of proposed development to the surroundings. For large-scale master planned or redevelopment projects, the community design plan will establish the context through development. For smaller scale planned districts under 10 acres or project plans for infill development, the community design plan will involve analysis of existing conditions outside of the planned district and at least 500 feet beyond any proposed project plan. The community design plan shall address the following, whether existing or newly proposed with the project:

- (1) Street and block layout.
- (2) Streetscape design, and distinctions in different street types
- (3) Access and circulation within any blocks and development parcels, including vehicle and pedestrian access.
- (4) Open spaces, and distinctions in different open space types based on size, scale, and design and landscape characteristics.
- (5) General land uses and intensity of development, and transitions between land uses considering categories and types of uses, and the scale of lots and buildings attributed to each use
- (6) Infrastructure capacity and improvements, including stormwater management. Studies or reports on the impact of public facilities associated with the community design plan or any specific project plan shall be provided and coordinated with the city's capital improvement plans.

(b) **Project Plan(s).** Project plans provide specific designs for projects, sites, and buildings within the community design plan. These plans are generally on a scale of less than 4 acres or may be as simple as a site plan for smaller applications of planned districts. Larger planned districts or phased projects may have multiple project plan(s), however preliminary project plans shall be submitted for any area to be zoned "-P." Project plans shall address the following:

- (1) Specific building types permitted for the designated area, including scale and format, and identifying any deviations from the base zoning district standards.
- (2) Frontage designs demonstrating the orientation and relationship of all buildings to the public streets, internal circulation areas, or other public or common open spaces.

Commented [CB22]: Replace current procedures with a two tiered system of specific scale of plans.

1. Community Design Plan. Establishing the context and urban design features of a particular area - whether newly built or existing within infill applications - including transitions within the area and to surrounding areas.

2. Project Plans. Indicating how specific development will fit within the plan, and what deviations (if any) are proposed and why.

3. Narrative. Explaining how each plan meets the intent of this section (or base district(s) intent) and the criteria for planned zoning applications.

- (3) Building design plans demonstrating the scale, massing, and design character of all proposed buildings. While final design and elevations are not required at this stage, general parameters on the character, style, design themes, and types of materials and architectural features shall be provided.
 - (4) Land and building uses permitted for each designated area to the extent they differ from any of the uses permitted in the base district in terms of scale, format, or operational characteristics.
 - (5) Access, circulation, and parking addressing how the project(s) will fit within the development patterns and access and circulation of the larger scale community plan.
 - (6) Landscape and streetscape designs for all development sites and common areas that meet or exceed the Site Plan criteria in Chapter 19.32 Site Plans, and Chapter 19.47, Landscape Standards.
- (c) **Project Narrative.** The project narrative shall justify why the project is eligible for planned zoning designations. It shall include statements or analysis on the following:
- (1) How the proposed planned zoning meets the intent and criteria in Section 19.24.025, and the rezoning factors in 19.52.030.
 - (2) How the project plans integrate with the community design plan, and other public benefits supported by the project plans or community design plans.
 - (3) Identify all specific deviations from the base zoning district standards and include why those deviations are justified based on the plans and criteria of this chapter.

19.24.025. CONFORMANCE TO COMPREHENSIVE PLAN CRITERIA.]

In the consideration of a change to a planned zoning district the planning commission and city council shall determine whether the proposal conforms to master plans, special studies and policies normally utilized in making zoning decisions in Prairie Village. In addition, the factors to be considered for rezoning in Section 19.52.030, planned zoning decisions shall be subject to the following additional criteria:

- (a) The plan reflects generally accepted and sound planning and urban design principles with respect to meeting the goals of the comprehensive plan and the purposes and intent of the zoning ordinance in Section 19.01.010.
- (b) The flexibility offered by planned zoning is not strictly to benefit the applicant or a single project, but provides other benefits to the community or supports plans and policies in an equal or better manner than the base district standards
- (c) The proposed deviations to the standards do not undermine the intent of any other standards relative to the proposed projects or relative to adjacent property.

Commented [CB23]: Supplemented with specific criteria in addition to the standard rezoning considerations. This targets flexibility granted to broader planning policies or design goals.

The sections following [030,035, and 040] can all be deleted since they are either redundant of what is required by all rezoning applications in Chapter 19.52 or are clarified by these 3 supplemental criteria. Additionally, details of the plan submittals should be removed from the code and are best addressed by application forms managed by the City Clerk.

19.24.030. REZONING PROPERTY TO A PLANNED ZONING DISTRICT.

~~A tract of land may be zoned RP-1a through CP-2 inclusive only upon application by the owner or his agent, and only upon approval of a preliminary development plan. The proponents of a planned district shall prepare and submit to the city clerk the required copies of:~~

- ~~(a) A preliminary development plan showing the property to be included in the proposed development, plus the area within 200 feet thereof.~~
- ~~(b) The following items shall be included on the property to be developed:
 - ~~(1) Existing topography with contours at five foot intervals and delineating and land areas subject to 100-year flood.~~
 - ~~(2) Proposed location of buildings and other structures, parking areas, drives, walks, screening, drainage patterns, public or private streets and any existing easements;~~
 - ~~(3) Sufficient dimensions to indicate relationship between buildings, property lines, parking areas and other elements of the plan;~~
 - ~~(4) General extent and character of proposed landscaping and screening.~~~~
- ~~(c) The following items shall be shown on the same drawing within the 200-foot adjacent area:
 - ~~(1) Any public streets which are of record;~~
 - ~~(2) Any drives which exist or which are proposed to the extent that they appear on plans on file with the city, except those serving single family houses;~~
 - ~~(3) Any buildings which exist or are proposed to the extent that their location and size are shown on plans on file with the city. Single and two family residential buildings may be shown in approximate location and general size and shape;~~
 - ~~(4) The location and size of any drainage structure such as culverts, paved or earthen ditches or stormwater sewers and inlets.~~~~
- ~~(d) Preliminary sketches depicting the general style, size and exterior construction materials of the buildings proposed. In the event of several building types, such as apartments and townhouses are proposed on the plan, a separate sketch shall be prepared for each type. Such sketches shall include elevation drawings, but detailed drawings and perspectives are not required.~~
- ~~(e) A schedule shall be included indicating total floor areas, number of dwelling units, land area, parking spaces, and other quantities relative to the submitted plan in order that compliance with requirements of this title can be determined. If the project is to be constructed in phases, the proposed sequence shall be indicated.~~

19.24.035. PLANNING COMMISSION ACTION.

~~The planning commission shall hold one or more public hearings on the plan as provided in this chapter. Upon conclusion of the public hearing or hearings, the planning commission, by a majority of members present and voting, shall recommend approval, approval subject to conditions or denial to the city council.~~

19.24.040. CITY COUNCIL ACTION.

~~Upon final approval of the preliminary plan and the rezoning of the property by the city council, final plans for construction of the project may be submitted for approval. Permits for construction shall not be issued until final plans have been reviewed and approved by the planning commission. It is the intent of this chapter that the project as constructed shall conform closely with the preliminary plans reviewed and approved at the time of the public hearing. Final plans for a project or a portion thereof shall not be approved if one or more of the following conditions, in the judgment of the commission, exist:~~

- ~~(a) Final plans vary substantially from the concept of the development plan presented and agreed to at the time of rezoning;~~
- ~~(b) The final plans would increase the density or intensity of residential uses more than five percent;~~
- ~~(c) The final plans would increase the floor area of nonresidential buildings by more than ten percent;~~
- ~~(d) The final plans would increase by more than ten percent the ground covered by buildings or paved areas;~~
- ~~(e) The final plans would increase the height of a building by one or more stories or four or more feet;~~
- ~~(f) The final plans involve changes in ownership patterns or stages of construction that will lead to a different development concept, less architectural harmony or quality, or impose substantially greater loads on streets and neighborhood facilities;~~
- ~~(g) The final plans vary from specific development criteria that may have been adopted by the planning commission or city council at the time the preliminary development plan and rezoning were approved.~~

~~Variations between the preliminary and final plans, which do not, in the judgment of the planning commission, violate or exceed the above seven criteria, shall be approved by the planning commission in its administrative role and no public hearing shall be required. If, however, variations and departures from the approved preliminary plan exceed the above criteria or are sought by the developer or other party at the time of final plan review or building permit application, the applicant shall request an amendment to the plan which shall be handled in the same manner as the approval of the original preliminary plan.~~

19.24.030 EFFECT OF DECISION

Approval of a planned zoning district by the City Council shall rezone the property as provided in Chapter 19.52. Property subject to the planned zoning (“-P”) designation is required to receive a site plan approval according to Chapter 19.32 prior to issuance of any permits.

- (1) Project plans that meet all submittal requirements and criteria for site plan approval in Chapter 19.32 may be considered a site plan if designated as a site plan prior to the application and processed as a simultaneous site plan by the city.
- (2) Subsequent site plans shall be reviewed for consistency with the community design plan and project plans. Minor deviations from these plans may be approved by the Planning Commission through the site plan process provided they are determined to be due to refinement and greater design specification of concepts approved in the prior plans, and they otherwise permitted subject to base zoning district standards. The staff or Planning Commission may determine that any change is a significant change and require an amendment to the Planned Zoning District according to the same procedures of the initial designation. The following changes are not minor deviations and shall require processing as an amendment to the Planned Zoning District:
 - (a) An increase in the number of residential units by more than 5 percent
 - (b) An increase in the non-residential floor area by more than 10 percent
 - (c) An increase in building height by more than 10 percent
 - (d) An increase in the lot coverage or reduction in the open space by more than 10 percent
 - (e) Any change in the character, style, design themes of proposed buildings that result in a significantly different appearance or coordination with surrounding characteristics from what was approved in the project plans.
 - (f) Other changes that do not meet the base district standards or other applicable zoning standards, and which were not expressed as a deviation.

Commented [CB24]: Added to emphasize relating to the site plan and how potential deviations from the Council final planned zoning decision and any future site plans or site plan amendments will be evaluated.

Commented [CB25]: These correspond to the current site plan modifications in 19.32.040, but are adjusted for relevance to planned district applications

19.24.045035. RECORDING OF APPROVAL.

After rezoning to a planned district has been approved there shall be filed with the register of deeds a statement that a plan for the area has been approved. The statement shall specify the nature of the plan, the proposed density or intensity of land uses and other pertinent information sufficient to notify ~~and any~~ prospective purchasers or users of land of the existence of such plan and any constraints thereon. The landowner shall submit this statement to the city clerk with the appropriate recording fee and the city shall be responsible for recording the statement.

[Insert for draft section 19.23.015 MXD Development Standards. This table establishes “default” standards for development plans; they can be modified for specific development plans and contexts, but the greater the modification the greater scrutiny and emphasis on border community benefits through the planned development process. This is an alternative to the current approach where the MXD and Planned Zoning standards are open to whatever an applicant chooses to propose.]

Table 19.23.A: MXD Building Type Standards									
Building Types	# of Units	Lot Standards [1]				Building Standards			
		Area (s.f.)	Width	Building Coverage (max)	Green Space (min.)	Height (max)	Setbacks (min.)		
							Front	Side	Rear
Detached House – Large Lot	1	10K +	80' +	30%	60%	35' 2.5 story	30'	7'	25'
Detached House – Standard Lot	1	6K – 10K	60' +	30%	60%	27' 2 story	30'	6'	25'
Detached House – Small Lot	1	3K – 6K	30' – 50'	50%	30%	22' 1.5 story	15' – 30'	5'	25'
Attached House	2 - 4	6K – 15K 3K / unit	60' -125'	40%	40%	35' 2.5 story	15' – 30'	7'	25'
Townhouse	3-8	1.2K / unit 15K total max	14' / unit min.; 125' total max	65%	20%	40' 3 story	15' – 30'	10' [2]	15'
Live - Work	1-6	2K / unit 15K total max	20' / unit min. 125' total mx	65%	20%	40' 3 story	15' – 30' [3]	6' [2]	15'
Apartment / Mixed-use – Small	3-12	6K – 0.5 ac.	60' – 125'	65%	20%	40' 3 story	15' – 30' [3]	10'	15'
Apartment / Mixed-use - Medium	< 40	0.5 – 1.5 ac.	125' – 250'	65%	20%	50' 4 story	15' – 30' [3]	15' [1]	15'
Apartment / Mixed-use - Large	40 +	1.5 – 3 ac.	250' +	65%	20%	50' 4 story	15' – 30' [3]	20' [1]	15'

* Where standards are expressed as a range (i.e. 10' to 30') it shall be interpreted as a minimum and a maximum, and the requirement shall fall within that range.

[1] Projects with multiple buildings in a single-ownership complex may consider each building and development site as a “lot” for interpreting the development standards, provided the building and development sites are organized around a system of internal streets, lanes, and common spaces and buildings are oriented to these spaces as they would public street frontages.

[2] Townhouses and live/work buildings may have a 0' interior side setback when built subject to party wall specifications according to the building code.

[3] Buildings with ground level commercial uses may be located 0' to 15' from the front lot line when they front on pedestrian-oriented streets where specified in the Community Design Plan.

19.23.020. MIXED-USE AND MIXED-DENSITY DESIGN GUIDELINES.

[new section – rewrite of previous detailed standards to be used as more flexible guidelines, based on the direction of the Planning Commission at the 2/6/24 meeting]

- (a) *Design Objectives.* The design objectives of the mixed-use and mixed-density design guidelines are to:
- (1) Establish or reinforce the unique character of Prairie Village in mixed-use activity centers or mixed-density neighborhoods.
 - (2) Promote building and site design that enhances neighborhood streetscapes, mixed-use pedestrian streets, and active community spaces.
 - (3) Maintain the existing scale and patterns of neighborhoods and ensure compatible transitions between neighborhoods, corridors, and activity centers.
 - (4) Manage the relationship of adjacent buildings and promote compatible transitions within development projects or between development projects and established adjacent areas
 - (5) Enhance the quality, aesthetic character, and visual interest within neighborhoods and activity centers by breaking down larger masses and incorporating human scale details and ornamentation.
 - (6) Organized mixed use development and mixed-density residential projects around a system of internal streets and open spaces that extend the quality and character of public streetscapes and open spaces into development projects.
- (b) *Applicability.* These mixed-use and mixed-density design guidelines shall be applicable to the following situations:
- (1) Any rezoning to the MXD district, or any development or redevelopment within MXD districts.
 - (2) Rezoning to any planned zoning district using the MXD standards as a basis (i.e. RP-2, RP-3, RP-4, CP-0, CP-1, or CP-0).
- (c) *Community Design Plan and Guidelines.* A community design plan is required for all planned developments according to Section 19.24.020, whether establishing the context and patterns for larger scale projects, or analyzing existing conditions and transitions to surroundings for smaller scale projects. Community Design Plans should meet the following guidelines.
- (1) *Public & Common Space.* Approximately 30% to 40% of the total plan area should be public or common spaces, including streets, open space, or other common areas that serve as organizing elements for surrounding development.
 - (2) *Blocks & Parcels.* Public and community spaces should be arranged to organize development into blocks and parcels. Blocks and parcels should be between 2 to 5 acres for mixed-use or non-residential development and between 5 to 8 acres for residential development.
 - (3) *Streetscapes.* Public streets and internal private streets should incorporate the following elements:
 - a. Slow-speed travel lanes that balance vehicular movement with pedestrian and bicycle accommodations.
 - b. On-street parking which minimizes the need for redundant on-site parking and buffers people from moving traffic, particularly in mixed-use or non-residential areas.
 - c. Landscape amenity zones that create comfortable spaces including street trees, landscape beds, and street furniture or other civic features in mixed-use or non-residential areas.
 - d. Sidewalks between 5 to 8 feet in residential areas, and between 8 and 12 feet in mixed use or commercial areas (in addition to space in the amenity zone).

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- e. Bicycle facilities or trail connections where applicable based on city-wide plans or other opportunities to connect to important routes in the vicinity.
- (4) *Open & Civic Spaces.* Open spaces should be distributed throughout the plan so that all sites are within walking distance (approximately ¼ mile) of at least one type of open space. Open spaces should include a mix of formal, recreation, and natural landscape areas incorporating the following types:
- a. Formal spaces, such as patios, plazas, or courtyards designed for gathering and located at key focal points in mixed-use or non-residential areas.
 - b. Green spaces such as parks, trails, or greens that serve aesthetic and recreation needs of residential areas.
 - c. Natural areas or dense vegetation that capitalize on existing features of the area or are located strategically to create effective transitions between different scales or intensities of development.
- (d) *Project Plans & Guidelines.* A project plan is required for each development site, parcel, or block in the community design plan, except where the community design plan includes existing and established areas. Project plans shall specify the form, arrangement, and design of development in relation to the community design plan. Each project plan should meet the following guidelines.
- (1) *Frontage Design.* Frontage design determines the relationship between private development and the public or common areas a project fronts upon. Frontage design should incorporate the following elements.
- a. *Building Placement.* Consistent front building lines should be established along all block faces. Buildings should be placed between 0 and 15 feet of the front lot line on pedestrian oriented streets, and between 15 and 30 feet of the front lot line on neighborhood streets.
 - b. *Vehicle Access.* Driveways should be coordinated on each block face to minimize interruptions in the streetscape. Alleys, common lanes with cross access easement, shared drives, or narrow drives to the interior of the block should be used, particularly on smaller and narrow lots.
 - c. *Pedestrian Access.* All lots and buildings shall have direct access to the sidewalks within the streetscape, or to any other common spaces that the building or lot fronts upon.
 - d. *Parking and Garage Location.* Parking, garages, or other vehicle access and service areas should be located to the interior of blocks and screened by buildings or landscape areas. Parking lots or structures serving multiple lots or blocks may be located at more central locations if designed to minimize impacts on streetscapes or other important open spaces based on the community design plan.
 - e. *Landscape.* Frontages should have enhanced landscape design to coordinate streetscape design and transition from public and common areas to private spaces.
- (2) *Building Design.* Building design refines the form and scale of buildings beyond the basic setback, height and lot coverage standards, and can be used to create interest and diversity within a common range of compatible buildings. Building design should incorporate the following elements.
- a. *Massing.* Relate buildings to adjacent development by mimicking similar massing and proportions through step-backs and secondary masses that break larger building volumes into smaller components.
 - b. *Articulation.* Use windows, doors, material changes, and architectural features to create variation, depth, texture, and human-scale details for building facades, particularly on larger wall planes and fronting streetscapes or common areas.
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- c. *Transparency.* Use the placement of windows and doors to create connections to important outside spaces, including streetscapes, frontages, and common areas. More frequent entrances and larger window expanses should be used on the ground level of mixed-use or non-residential buildings, particularly on pedestrian-oriented streets or active outdoor spaces.
- (3) *Site Design.* The placement and design of buildings, open space, and frontages should emphasize active building and open space elements and minimize the visibility or impact of other site components. Site design should meet the following guidelines.
- a. Design the required lot and building open space to relate building and lot frontages to the streetscape, and to create active outdoor social spaces in relation to the building.
 - b. Screen and/or use remote locations for high-intensity and/or utilitarian components of site or building, such as utilities, trash enclosures, or mechanical equipment
 - c. Stormwater facilities, storage areas, and parking or loading areas should be limited, located internal to the block, or otherwise located and designed to minimize impact on the streetscape design.
 - d. Use screens and buffers where it is not possible to better relate site utility elements or high impact areas to adjacent sites, buildings, and uses.
- (e) *Exceptions.* The Planning Commission may grant exceptions to the mixed-use and mixed-density guidelines in this section 19.23.020 through the planned development or site plan review process, based upon the following criteria:
- (1) The exception shall only apply to the design standards in this section, and not be granted to allow something that is specifically prohibited in other regulations.
 - (2) Any exception dealing with the placement of the building is consistent with sound planning, urban design and engineering practices when considering the site and its context within the neighborhood.
 - (3) Any exception affecting the design and massing of the building is consistent with the common characteristics of the architectural style selected for the building.
 - (4) The requested exception improves the quality design of the building and site beyond what could be achieved by meeting the guidelines - primarily considering the character and building styles of the neighborhood and surrounding properties, the integrity of the architectural style of the proposed building, and the relationship of the internal functions of the building to the site, streetscape, and adjacent property.
 - (5) The exception will equally or better serve the design objectives stated in section 19.23.020(a), and the intent stated for the specific guideline being altered, or is based on specific concepts and plans approved in the planned development review

[This document includes non-substantive changes to other sections of the code that correspond to changes in sections reviewed and discussed in the Planning Commission discussion drafts.]

[The first set of changes are from Chapter 19.02 Definitions and deal with definitions of dwellings or residential building types. They changes are either for (1) reorganization / renumbering to group them all under subsets of “dwellings”; (2) to be consistent with other changes or more modern terms, but with no substantive changes; and/or (3) to align with the building type approach proposed in the new MXD district standards. The edits below reflect the number and order they would appear in the edited version, and not the current Section 19.02.]

~~19.02.040. APARTMENT BUILDING, GARDEN.~~

~~Garden apartment building means an apartment building having two living levels above grade and each unit having maximum exposure to outside light and air. Buildings with double loaded center hallways are not considered garden apartments. Landscaped open space is provided adjacent to each building including a reasonable amount of usable outdoor recreational area.~~

~~19.02.045. APARTMENT HOUSE.~~

~~Apartment house means a building arranged, intended or designed to be occupied by three or more families living independently of each other.~~

~~19.02.130. COMMON WALL DWELLING.~~

~~Common wall dwelling means a building other than a condominium, designed for occupancy by more than one family, each family occupying a dwelling unit separated from the abutting units by a vertical wall extending at least the height of the dwelling unit. Such building shall be designed so that each dwelling unit may be owned in fee, the ownership to extend to the outside surface of exterior walls and to the centerline of common or party walls. A tract of land may be conveyed in fee concurrent with the sale of the dwelling unit, such tract to normally include at least the area covered by the dwelling unit plus rights of access or easement to other portions of the premises or to a public street.~~

~~19.02.135. CONDOMINIUM DWELLING HOUSE.~~

~~Condominium dwelling house means a building containing two or more dwelling units, which dwelling units are separated by a party wall and which dwelling units are designed and intended to be separately owned in fee under the condominium statutes of the state.~~

19.02.200. DWELLING.

Dwelling means a building or portion thereof, designed exclusively for residential occupancy, including one family, two family and multiple dwellings, [mixed-use dwellings](#), and boarding and lodging houses, ~~and apartment houses~~, but not motels, hotels, mobile homes or manufactured homes.

19.02.035-205 DWELLING, APARTMENT.

Apartment means ~~a room or suite of rooms within an apartment house, arranged, intended or designed for a place of residence as a single housekeeping unit~~ a residential building type designed for multiple dwelling units. Variations of this building type are based on the standards for scale and format, including lot size, building footprint, height, and/or number of dwelling units resulting in small, medium, or large apartment buildings.

19.02.208 DWELLING, ATTACHED HOUSE.

Attached house means a small-scale residential building type that includes 2 to 4 dwellings that may be joined in a variety of configurations, including combinations of side-by-side, front-back, or up-down configurations. It is distinguished from a townhouse or an small apartment as it maintains the appearance and scale of a single detached house, despite having multiple units, and is distinguished from a duplex as it may have more than 2 units.

19.02.205210. DWELLING, MULTIPLE.

Multiple dwelling means a building or portion thereof, arranged, intended or designed for residential occupancy by three or more families, including attached houses, townhouses, and apartment houses, ~~garden apartments and townhouses.~~

19.02.212. DWELLING, RESIDENTIAL MIXED-USE. Residential, Mixed-use means a building used for non-residential and residential purposes where the non-residential uses occupy the ground level or street-front portions, and residential uses are located on upper levels above the non-residential, or on lower levels behind the non-residential uses. The buildings have a similar scale and format as attached houses or apartment buildings, other than the portions design for non-residential uses (see Live-Work or Mixed-use Building Types).

19.02.215214. DWELLING, SENIOR ADULT.

Dwelling, senior adult means a building containing one or more living units which building and units are designed for exclusive occupancy by persons 55 years of age or older who are in generally good health. This type of residence does not contemplate continuous health care services but may include a resident nurse. Units may be in the form of complete apartments and/or may provide common dining and recreational facilities and activities.

19.02.210215. DWELLING, SINGLE-FAMILY.

Single-family dwelling means a building arranged, intended or designed for residential occupancy by one family; [also referred to as a detached house](#).

19.02.490218. DWELLING, TOWNHOUSE.

Townhouse means a [residential](#) building containing more than one dwelling unit with such dwelling units being separated by [foundation to roof](#) common walls as opposed to one unit being over another, [and each maintaining a private entrance on the building front. This configuration may allow platting and individual ownership of the building and underlying lot.](#)

19.02.220. DWELLING, TWO FAMILY.

Two family dwelling means a building arranged, intended or designed for residential occupancy by two families; [also referred to as a duplex](#).

[The next set of changes are other related sections.]

19.04.005. DISTRICTS DESIGNATED.

In order to designate districts for the purposes of this title, the city is divided into the following zoning districts:

- District R-1a, single-family residential district;
- District R-1b, single-family residential district;
- District R-2, two family residential district;
- District R-3, ~~garden~~-apartment district;
- District R-4, ~~condominium or common wall~~-[mixed](#) dwelling ~~house~~ district;
- District RP-1a and RP-1b, planned single family residential district;
- District RP-2, planned two family residential district;
- District RP-3, planned ~~garden~~-apartment district;
- District RP-4, planned ~~condominium or common wall~~-[mixed dwelling](#) district;
- District C-0, office building district;
- District C-1, restricted business district;
- District C-2, general business district;
- District C-3, special use business district;
- District CP-0, planned office building district;
- District CP-1, planned restricted business district;
- District CP-2, planned general business district.

District MXD, planned mixed use district

19.18.010. - PERFORMANCE STANDARDS.

The following standards shall apply in District C-1:

- (a) No wholesale sales shall be conducted;
- (b) No merchandise or equipment shall be stored or displayed outside a building and no sales shall be conducted from a truck or other temporary vehicle or structure except as may be permitted in chapter 19.34;
- (c) All products shall be sold and all services rendered inside a building except that banks and savings and loan establishments may have a walk-up service and, if approved as a conditional use in accordance with chapter 19.30, a drive up service;
- (d) No noise, smoke, radiation, vibration or concussion, heat or glare shall be produced that is perceptible outside a building and no dust, fly ash or gas that is toxic, caustic or obviously injurious to humans or property shall be produced;
- (e) Restaurants wherein alcoholic, wine and cereal malt beverages are sold for consumption on the premises provided that more than 50 percent of the total income of the restaurant is derived from the sale of food consumed on the premises. At the time of application for an annual liquor or cereal malt beverage permit, the applicant will submit a sworn statement that more than 50 percent of the income has and will in the future be derived from the sale of food. The business operation will not produce noise and commotion that may adversely affect the neighboring property and the premises will be maintained and managed to a level equal to that, which prevails in the neighborhood.

(f) Residential uses shall be limited to dwelling units on upper stories above ground level commercial uses, or less than 50% of the ground floor and located behind ground-level commercial uses.

19.20.010. - PERFORMANCE STANDARDS.

The following performance standards shall apply in District C-2:

- (a) No noise, smoke, radiation, vibration or concussion, heat or glare shall be produced that is perceptible outside a building, and no dust, fly ash or gas that is toxic, caustic or obviously injurious to humans or property shall be produced;

- (b) Other merchandise which may appropriately be displayed or stored outside a building shall be kept off the public sidewalk or streets, shall not reduce the capacity of a parking lot below that required by this title, and shall not occupy an area greater than 20 percent of the ground floor area of the building, and no sale shall be conducted from a truck or other temporary vehicle or structure except as may be permitted in chapter 19.34;
- (c) Restaurants wherein alcoholic, wine and cereal malt beverages are sold for consumption on the premises provided that: more than 50 percent of the total income of the restaurant is derived from the sale of food consumed on the premises; at the time of application for an annual liquor or cereal malt beverage permit the applicant will submit a sworn statement that more than 50 percent of the income has and will in the future be derived from the sale of food; the business operation will not produce noise and commotion that may adversely affect the neighboring property and the premises will be maintained and managed to a level equal to that which prevails in the neighborhood.
- (d) Residential uses shall be limited to dwelling units on upper stories above ground level commercial uses, or less than 50% of the ground floor and located behind ground-level commercial uses.

19.22.040. RESIDENTIAL BUILDINGS.

Any residential building constructed or located in District C-3 shall comply with height, yard and area regulations of the district corresponding to that dwelling type: Single family dwellings and group homes shall comply with District R-1; two family dwellings shall comply with District R-2; ~~garden apartment~~ multiple dwelling buildings shall comply with District R-3.

19.36.005. - RESTRICTED USES.

- (a) No temporary or uncompleted building, garage, or appurtenances incident to a family dwelling shall be erected, maintained or used for residence purposes. However, it is provided that when the exterior and more than 50 percent of the interior of a permanent residence has been completed at the time of adoption of this title, this regulation shall not apply.
- (b) No temporary or outwardly incomplete building or structure, no open excavation for a basement or foundation, and no building or structure so damaged as to

become unfit for use or habitation shall be permitted, maintained or remain in such condition for more than six months.

- (c) No building material, construction equipment, machinery or refuse shall be stored, maintained or kept in the open upon any lot, tract or parcel other than in such districts as permitted in this title, except during actual construction operations upon said premises or related premises; provided that the Board may waive said requirement in unusual cases for a limited time.
- (d) No building, structure or premises shall be used for, or occupied by any of the following uses:
 - (1) Junkyard, junk storage, salvage yard, auto wrecking;
 - (2) Auto courts, ~~row houses~~, trailer camp, tourist cabins, mobile homes;
 - (3) Slaughterhouse, commercial poultry dressing or processing establishment where such use is primary and not incidental to a permitted use;
 - (4) Refuse dumps, dumps;
 - (5) Boardinghouse or lodging houses, exclusive of group homes.
- (e) The raising, storage, or handling of farm crops, the raising, feeding or keeping of farm animals, livestock or poultry, other than customary household pets or chickens as provided in chapter II, article I of the City Code, and the keeping or display of farm or other heavy equipment or machinery is prohibited in all districts.

DISCUSSION MEMO FROM MARCH 5, 2024 MEETING

TO: Prairie Village Planning Commission
FROM: Chris Brewster, Multistudio, Planning Consultant
DATE: December 5, 2023 Planning Commission Work Session
UPDATED – March 5, 2024 Planning Commission Meeting

UPDATE: *This memo was presented in the December 5, 2023 Planning Commission packet along with the potential draft zoning amendments it summarizes. Initial discussions by the Commission confirmed the general direction with a goal for the Commission to provide any detailed review comments for further discussion at the next Planning Commission meeting. Specific comments and direction were given at the February 6, 2024 meeting, and the following changes are reflected in these drafts:*

- (a) *R-2, Section 19.10.015, Table 19.10.A – added Impervious Coverage standard (40%) to be consistent with other residential zone districts, and used the same standard as R-1A and R-1B due to the comparable building and lot scale.*
- (b) *R-2, 19.10.030; R-3, 19.12.030; R-4 19.14.030 – revised the introductory statement of Planned Zoning Applications sections to clarify use of the MXD building types and the corresponding building scale appropriate for each district.*
- (c) *Change the term “row house” to “townhouse throughout to be consistent with the term used in the building code. [Note: all references to “row house” will be removed from other sections of the ordinance once a formal draft of changes is recommended.]*
- (d) *MXD, Section 19.23.015, Table 19.23.A – updated the proposed MXD building type table in the following ways:*
 - *Adjusted lot sizes for apartment buildings to convert to acres rather than square feet, and to cap the scale of the large apartment / mixed use building at 3 acres (previously had no maximum size)*
 - *Reduced the height of the large apartment / mixed use building to 50’ / 4-story (was 65’ / 6 story)*
 - *Revised Front building line range to be 15’ to 30’ for several building types to correspond with a complimentary change made as a result of the new direction on the MXD design standards / guidelines. (previously was 10’ to 30’ due to more defined frontage types, which have been eliminated)*
- (e) *MXD, Section 19.23.020 – New MXD Mixed-use and Mixed-density Design Guidelines. Revised to be more general, qualitative, and flexible; replaces previous approach with more which had more specific “default” standards similar to the R-1A and R-1B design standards.*

These specific items, as well as any other discussion items brought up by the commission will be the focus of the Commission's continued discussion at the March 5, 2024, Planning Commission meeting.

[The original memo introducing the overall approach to this topic from December 5, 2023 follows.]

The Planning Commission held a work sessions on August 22, 2023 and October 3, 2023 to discuss potential strategies for housing policies in Village Vision 2.0. The work sessions were a direct follow-up to the public forums held on June 22, 2023 and July 13, 2023. Based on the direction from the work sessions, a discussion draft of potential zoning amendments has been created and is attached in the packet. This memo summarizes the draft amendments.

I. Strategies

The Planning Commission arrived at five strategies based on discussions at the August 22 and October 3 work sessions:

1. Hold status quo in R-3 and R-4. (Chapters 19.12 and 19.14)
2. Allow residential uses in C- districts. (Chapters 19.16, 19.18, and 19.20)
3. Improve the MXD district (planned district) (Chapter 19.23)
4. Revise current planned development standards & process (Chapter 19.24)
5. Consider MXD standards for application in a variety of contexts.

II. Approach

The following specific approaches can be used to amend the code based on the Planning Commission's discussions and policies established in the comprehensive plan. The approaches are further described in the discussion notes below, and are included in the attached strike-through versions of the current code (see attached Planning Commission Discussion Draft, November 2023).

1. Hold status quo in R-3 and R-4.

- a. Make current development compliant with standards with simple amendments.
- b. Clean up any conflicts / interpretation issues in the current standards.
- c. Allow a similar scale / pattern of redevelopment as existing buildings.

2. Allow residential uses in C- districts.

- a. Limit residential to mixed use buildings (upper stories above ground level commercial or behind ground level commercial)
- b. Allow subject to current C- district standards that apply to commercial buildings.

3. Improve the MXD district (planned district).

- a. Promote smaller scale projects that are more practical to Prairie Village's context. (smaller redevelopment projects and strategic infill, rather than broad master planned communities)
- b. Improve criteria (more specific policy goals and community benefit targets).
- c. Set default standards and building types for the scale and types of buildings that are most appropriate in a variety of Prairie Village contexts.
- d. Include neighborhood / community design standards or criteria for new building types / projects with similar approaches used in the current R1-A and R1-B district design standards.

4. Revise current planned development standards and process.

- a. Improve review criteria for better expectations.
- b. Define specific elements of a development plan necessary to support flexibility.
- c. Consider default standards as starting point (use base-district standards and/or borrow from MXD district - see below);
- d. Create criteria, guidance, and/or ranges for evaluating deviations from default standards based on plan.

5. Consider MXD for application in a variety of contexts.

- a. Mixed use redevelopment in C- districts [Rezoning to MXD]
- b. Mixed use building projects / infill in C-districts [Rezoning to CP-1, CP-2, or MXD]
- c. Residential-only projects in mixed use contexts – projects / strategic infill in C- Districts [Rezoning to CP-1, CP-2, or MXD]
- d. Larger-scale neighborhood redevelopment in R-3 and R-4 districts [Rezoning to RP-3 or RP-4]
- e. Low-scale neighborhood redevelopment in R-2 or R-3 areas [Rezoning to RP-2 or RP-4]

III. Discussion Notes:

The attached Planning Commission Discussion Draft includes amendments to the current zoning ordinance that executes the five strategies. The following notes should be considered along with review of the discussion draft to assist with review, comments or questions.

1. Hold the status quo in R-3 and R-4

Several of the R-3 and R-4 properties were surveyed for compliance with the existing zoning standards using mapping estimates and available data on Johnson County AIMS mapping (this will provide approximate compliance – see R-3 and R-4 Inventory in separate attachment). The standards primarily include:

- Building Height

- Lot Coverage
- Lot Area Per Family
- Setbacks

The most frequent non-compliance issue was with the “lot area per family” requirement in the R-3 district. The requirement is at least 2,500 square feet of lot area per family unit ([Zoning Ordinance, Section 19.12.035](#)). Several properties were below this ranging from 1,773 square feet per unit to 2,451 square feet per unit. Therefore, the discussion draft changes this to 1,750 square feet per unit.

The R-3 district also has an apparent conflict. [Section 19.12.035](#) states that no buildings and car port shall cover more than 20% of the lot, while [Section 19.12.036](#) states that buildings and structures shall not cover more than 30% of the lot. Most of the properties surveyed have building coverage in the 21% to 29% range. Therefore, the discussion draft removes the 20% requirement and retains the 30% requirement.

The R-3 district does not currently have an impervious surface coverage standard. To be consistent with the 2018 R-1A and R-1B updates this is added. Most of the properties surveyed are below 50% coverage. The range is 19% to 56%, with only 3 being over 50% at 51%, 52% and 56%.

The other changes to R-3 and R-4 are non-substantive formatting changes to be consistent with the approach of the 2018 amendments and clarify and simplify the code (i.e. converting text to tables and adding intent statements)

Last, to coordinate with strategy 5 (discussed below) a section is added to further direct planned zoning applications of the R-districts to the updated MXD standards and building types. Rather than have an open-ended approach to revising the standards, this will help establish targets and expectations for planned applications in the R-districts. This also provides the opportunity for neighborhood design standards – discussed with strategy 3 below – to be included, where currently there are none in the R-2, R-3, or R-4 districts. (Therefore, the R-2 district was included to be consistent in this approach through R-Districts.)

2. Allow residential uses in the C- districts.

Currently only the C-O district allows residential uses, and it requires those uses to default to R-1, R-2, and R-3 standards ([Zoning Ordinance, Section 19.16.035](#)). This results in building and development standards that are not appropriate for commercial or mixed-use contexts. Based on the direction of the Planning Commission to allow residential uses in commercial / mixed-use buildings, two simple amendments are recommended:

- Add a “mixed-use residential” entry to the use table in Chapter 19.27 ([Zoning Ordinance, Section 19.27.010](#)) and allow it in C-O, C-1, and C-2.

- Add a performance criteria in each of those zone districts that mixed-use residential uses shall be on the upper floors or behind ground level commercial uses, and then otherwise subject to the commercial building standards.

3. *Improve the MXD district.*

The MXD standards are intended for very large scale “master planned” communities. The intent and procedures imply mixing land uses across broad areas as well as mixed-use buildings. The provisions in this section are very broad and vague, and do not provide good guidance for how or where the district should be used, and instead for large scale planning efforts to address these specific issues. (It has only been used once and in a very limited application).

The recommended improvements involve the following key elements:

- Repurpose the district for smaller-scale redevelopment projects or targeted infill applications.
- Establish “default” development standards based on the type and range of buildings anticipated in Prairie Village.
- Add mixed-use and mixed-density neighborhood design standards. This adds more specificity to the current intent of the MXD district and creates planning thresholds for proposed development plans.
- Simplify the procedures and defer to the Planned Zoning district process. (See strategy 4 below)

4. *Revise current rezoning / planned development standards and process.*

The current planned zoning provisions are very open-ended and vague. They rely heavily on discretionary processes without clear criteria for applicants, staff, or decision makers. As a result, there is great flexibility in what could technically be accomplished under the planned zoning process, but there are few expectations. The procedures are confusing and imprecise and lead to a scenario where most outcomes are negotiated through a public process.

The following changes are recommended (with specific emphasis on leveraging the MXD changes discussed in strategy 3, and for more targeted applications to R-2, R-3, and R-4 districts discussed in strategy 1 and strategy 5.)

- Simplify the intent statement and make clear the context, application, and benefits intended from planned applications.
- Replace the arbitrary development standards in the current section with a system that defaults to the base district standards but includes specific guidance and design objectives for deviating from those standards.
- Simplify the procedures but indicate planning elements and thresholds that must be demonstrated in a development plan to justify deviating from the base district standards. Two scales of plans are recommended – a community plan and project plans. For smaller-scale applications, the community plan may rely more on the existing conditions surrounding the project but are still essential for

analysis of the planned application and how flexibility or deviations from the standards are justified.

- Improved decision criteria to focus on planning objectives and community benefits that should result for planned applications.

5. ***Consider MXD for specific scenarios.***

The combination of the approach to the MXD district and improvements to the Planned Zoning District application can then be leveraged for a variety of situations:

- Larger-scale redevelopment and rezoning to MXD (current situation, improved with better MXD standards and criteria)
- Smaller scale strategic infill in current commercial districts (“project plan” in the Planned District)
- Planned applications for the C- districts for more targeted infill of commercial or mixed-use buildings.
- Residential-only buildings in the C- districts, provided that are part of the larger mixed-use context based on a “community plan.”
- Limited planned application in R-2, R-3, and R-4 districts for appropriate scaled residential projects.

For the last three applications each of the R- and C- districts includes an added section specifying which building types are appropriate for each district application. Because these are “planned applications” they will rely on a discretionary review process and there is an opportunity to adjust the standards based on a specific plan.

IV. **Next Steps:**

Based on discussion and direction on these issues at the December 5, 2023 Planning Commission, staff and the Commission will determine next steps, which could involve any or all of the following:

- Further refinement or discussion of draft edits.
- Additional or related development code changes, as directed by the Commission.
- Additional Planning Commission work sessions / discussions (if needed)
- Preparation of proposed official and recommended amendments.
- Scheduling of official review and adoption procedures [PC public hearing (formal recommendation), CC public hearing (decisions)].

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Chris Brewster, Multistudio, Planning Consultant
DATE: May 7, 2024 Planning Commission Meeting

Application: PC 2024-101

Request: Site Plan – accessory pickle ball building and additional parking

Action: *A Site Plan requires the Planning Commission to apply the facts of the application to the standards and criteria of the ordinance, and if the criteria are met to approve the application.*

Property Address: 4100 Homestead Court

Applicant: Homestead Country Club, Bell Knott & Jeffrey Pflughoft

Current Zoning / Land Use: R-1A Single-Family Residential – Country Club

Adjacent Zoning / Land Use: **North:** R-1A Single-Family Residential - Single-Family Dwellings
East: R-1A Single-Family Residential - Single-Family Dwellings and vacant lots planned for Single-Family Dwellings
South: R-1A Single-Family Residential - Single-Family Dwellings
West: R-1A Single-Family Residential - Single-Family Dwellings

Legal Description: Metes and Bounds - Lot 1 and Lot A Block II Indian Fields

Property Area: 9.1 acres (396,325.45 s.f.)

Related Case Files: PC 2023-106 SUP Renewal
PC 2022-101 Revised Site Plan - Resubmittal
PC 2021-119 Revised Site Plan
PC 2020-119 Revised Site Plan
PC 2019-110 Revised Site Plan
PC 2018-124 Revised Site Plan
PC 2018-01(Revised) Amended Site Plan
PC 2018-01 Special Use Permit Amendment & Site Plan
PC 2016-06 Rezoning from R-1A to RP-1A (withdrawn)
PC 2014-123 Preliminary and Final Plat, Homestead Estates
PC 2016-123 Request for Monument Sign
PC 2014-09 – Special Use Permit Approval
PC 2013-118 Site Plan Approval for Two Platform Tennis Courts
PC 2011-107 Site Plan Approval for Two Platform Tennis Courts
PC 2002-10 Special Use Permit for Wireless Communication Towers
PC 2001-107 Site Plan Approval for New Swim and Tennis Facilities
PC 1996-107 Site Plan Approval for Air Supported Structure
PC 1992-102 Addition to Four Seasons Building
PC 1988-109 Site Plan Approval for Addition to Tennis Pro Shop
PC 1982-__ Special Use Permit
PC 95-07 Amended Special Use Permit

Attachments: Application, site plan, drainage report

General Location Map



Aerial Map



Site



Bird's eye view of site

Background:

Homestead County Club was built in 1954 and has been operating under a special use permit since 1982. The special use permit has been renewed and amended several times to account for different operations and development activity.

This project has the following specific case history:

- 1988 through 2013 – Site Plan Amendments – several site plan approvals for building and court configurations.
- December 2014 – SUP Amendment, Preliminary and Final Plat – Removal of the front 5.62 acres from the SUP for the platting and sale of 11 single family lots; addition of a seasonal enclosure and site and parking reconfiguration.
- May 2018 – Site Plan and SUP – remodel of club house, conceptual elevations for tennis enclosure, and renewal of SUP
- August 2018 – Site Plan Revisions – reconfiguration of courts
- December 2018 – Site Plan Revisions – revised elevations of tennis enclosure
- May 2019 – Site Plan Revisions – reconfiguration of courts and change to parking area (convert two tennis courts to parking)
- November 2020 – Site Plan revisions – addition of pickle ball courts, extension of parking area to northwest (leaving one remaining court), and landscape plan revisions (reallocating tennis structure foundation planting to perimeter). (Planning Commission deferred action until neighborhood complaints addressed)
- July 2021 – Site Plan Revisions – continuation of the November 2020 site plan revisions. (Planning Commission approved a portion of the plan, but deferred action on the enclosed pickle ball structure)
- November 2021 – Site Plan Revisions – enclosed pickle ball structure, accessory structure, and proposed pool deck structure. Application denied and asked to resubmit with more specific details on the enclosed pickleball structure and poolside deck before approval could be granted.
- January 2022 – Site Plan Revisions – submitted application for enclosed pickle ball courts, accessory structure, and covered poolside deck.
- May 2023 – SUP Renewal – renewal of the special use permit due to expiration of 5-year period approved in May 2018. No construction or operation changes.

This application is to:

- Remove existing storage and outbuildings and replace it with three new enclosed pickleball courts; the building would be attached to a small portion of the existing restroom and storage which will remain.
- Add 18 new parking stalls, reconfigure the entrance to the larger parking area, and include underground stormwater.

The proposed changes are within the parameters and conditions of the special use permit but require site plan review by the Planning Commission according to the permit conditions.

This application was originally submitted in December and has undergone several revisions and resubmittals. The applicant held neighborhood meetings on December 21,

2023, January 23, 2024, and April 25, 2024 in accordance with the City's Resident Participation Policy, and has provided background on the meetings to supplement the application.

Site Plan Criteria:

This application is a revision to a site plan associated with an approved special use permit. The revisions are within the special use permit parameters, but revisions to the site plan require Planning Commission approval. The following are the site plan review criteria: [Section 19.32.030]

A. Generally.

- 1. The plan meets all applicable standards**
- 2. The plan implements any specific principles or policies of the comprehensive plan that are applicable to the area or specific project.**
- 3. The plan does not present any other apparent risks to the public health, safety, or welfare of the community.**

This property is zoned R-1A and the use is authorized by an approved special use permit. The special use permit establishes use- and site-specific conditions for the relationship to surrounding property, addressing the following primary topics (some of which are more fully addressed in other site plan criteria):

- Stormwater issues associated with any expansion of the impervious surfaces, and how that relates to detention, landscape and runoff, and grading and berms. The 2018 Special Use Permit was conditioned on a stormwater study approved by Public Works, and which must be supplemented with all future site plans.
- Parking, and the buffers of parking areas in relation to adjacent property. The 2018 special use permit established a base line of 122 parking spaces, plus parking management conditions related to on-street parking.
- Landscape design, primarily related to buffering residential property from sound, views of the facilities, and lights.

The accessory structure and parking area meets the applicable special use permit conditions and allowances, and otherwise meets R-1A setback, height, and building coverage standards [[19.06.015\(a\)](#)], subject to the specific review comments below regarding stormwater, parking, and landscape criteria.

B. Site Design and Engineering.

- 1. The plan provides safe and easy access and internal circulation considering the site, the block and other surrounding connections, and appropriately balances vehicle and pedestrian needs.**
 - 2. The plan provides or has existing capacity for utilities to serve the proposed development.**
 - 3. The plan provides adequate stormwater runoff.**
 - 4. The plan provides proper grading considering the prevailing grades and the relationship of adjacent uses.**
-

This plan proposes 18 additional parking spaces. Prior site plans had approved 122 parking spaces to serve the club, which was determined sufficient under the Special Use Permit and according to the zoning requirements and review of comparable ordinance and uses. During peak seasons and peak activity times parking occurred on Homestead Court. Although this was anticipated in review of the special use permit it did cause concern for residents on Homestead Court. Through prior special use permit and site plan approvals the following parameters were established to address the issues:

- The applicant would manage employee and member parking so that the parking lot is used for all parking, and on-street parking is only used during peak or overflow demands.
- Public Works would monitor the on-street parking situation and consider limiting parking to one side of the street if necessary.
- For any special events where excess parking is expected (i.e. swim meets), the applicant would manage parking through off-site, shuttle or valet services (Note: this extends to the May 2018 special use permit approval.)

The proposed accessory building encloses three additional pickleball courts; the 18 additional spaces should be sufficient to accommodate any additional capacity at any one time and can help address some of the parking management obligations included in the 2018 special use permit and site plan reviews. Additional issues regarding the parking design impact drainage and landscape design (discussed in Section D.).

This site is subject to an overall drainage study submitted as part of the 2018 special use permit renewal and site plans. The applicant has submitted a drainage report (March 11, 2024) and plans for the proposed underground drainage associated with the new building and parking areas. Public Works has reviewed the drainage study, has provided comments to the applicant, and will address any issues through the construction process and drainage permit issuance. The applicant has proposed an underground detention system associated with the parking lot to meet the requirements of not increasing any runoff, and Public Works finds that this concept is acceptable.

C. Building Design.

- 1. The location, orientation, scale, and massing of the building creates appropriate relationships to the streetscape and to adjacent properties.**
 - 2. The selection and application of materials will promote proper maintenance and quality appearances over time.**
 - 3. The architectural design reflects a consistent theme and design approach. Specifically, the scale, proportion, forms and features, and selection and allocation of materials reflect a coordinated, unified whole.**
 - 4. The building reinforces the character of the area and reflects a compatible architectural relationship to adjacent buildings. Specifically, the scale,**
-

proportion, forms and features, and materials of adjacent buildings inform choices on the proposed building.

The plan proposes to replace existing storage buildings at a central portion of the site with three new pickleball courts enclosed within an accessory building. The building would be attached and an expansion of a small portion of the current restrooms which will remain. The new accessory includes the following:

- 60' x 80' enclosed pickle ball courts. (brings total building coverage to approximately 17%; R-1A allows up to 30%).
- 18' to 22.5 feet high; shed roof, higher on the west elevation interior to the site and abutting the existing outdoor courts.
- Approximately 85' from the nearest property line (front edge of the nearest portion of the cul-de-sac).
- Prefabricated, corrugated metal American Building structure; pearl gray walls with dark grey EIFS vertical accent bands, bronze roof and gutter system; this matches the colors and design of the of the enclosed tennis structure and other accessory building and is coordinated with the colors of the main clubhouse.
- Wood pergolas are associated with exterior space on the east and west sides of the building.

The building meets all general R-1A development standards.

Additional design considerations arise out of the special use permit, and specifically the permit renewal and site plans approved in 2018. At that time an overall plan for expansion of the club, including design of the clubhouse and design of the outbuildings was approved. Through a series of site plan reviews and amendments to the plan, the large tennis enclosure was approved with a more basic and utilitarian design and the aesthetics and compatibility with the site and surrounding areas was to be addressed by:

- (a) coordination of color schemes with the clubhouse design; and
- (b) buffer and screening the larger, utilitarian buildings from surrounding property with landscape (either within the site or on the perimeter)

This same direction was applied to the smaller enclosed pickleball courts approved by a site plan in 2022 (PC 2022-101).

The proposed building is consistent with the design of the tennis enclosure and smaller pickle ball building. It is located at an internal area of the site and does not have prominent visibility from surrounding property. The most sensitive visibility issues will be from the frontage area at the end of the cul-de-sac, and this issue is more specifically addressed with the parking and landscape design(discussed in Section D.).

Additionally, this building is intended for enclosed pickle ball courts. Therefore prior to building permits the applicant should confirm insulation or other noise-mitigating strategies similar to the requirements for other

enclosed court buildings. Further, operational standards that ensure that the building retains the full extent of noise mitigation should be required (i.e. proper ventilation, no open doors during play, etc.).

[Note: Some plan sheets include incorrect notes from previous plans regarding enclosed pickleball courts in other locations. These are minor documentation errors, but it should be clarified that no other locations are proposed for enclosed pickleball courts. (See condition 4.)]

D. Landscape Design.

- 1. The plan creates an attractive aesthetic environment and improves relationships to the streetscape and adjacent properties.**
- 2. The plan enhances the environmental and ecological functions of un-built portions of the site.**
- 3. The plan reduces the exposure and adverse impact of more intense activities or components of the site or building.**

The plan includes an existing tree inventory, a tree replacement and removal plan, and a landscape detail for the specific construction area. The tree replacement and removal plan specified replacement of several dead plants or other planting requirements as part of prior approvals. The detailed landscape plan for the construction area includes relocation of several trees, protection of some existing trees, and new plantings. Then new planning are a mix of shade trees, evergreen trees, shrubs, and grasses (with 5 relocated trees). This landscape plan is sufficient to meet requirements of past approvals and to meet requirements for the proposed new construction. However, at the time of permit applications the specific location for tree protection fences for all trees that will be protected should be provided, and the location and protection area shall meet all requirements of the city's tree protection ordinance. [[Section 19.47.060](#)].

RECOMMENDATION:

Staff recommends approval of the site plan subject to the following:

1. The site remains under all conditions of the 2023 special use permit, including conditions incorporated from prior permits and approvals. Any changes shall require site plan review by Planning Commission, and any significant changes may require amendment of the special use permit:
 2. The accessory building should demonstrate proper insulation or noise-mitigating strategies, similar to other indoor court buildings. Additionally, proper ventilation should be required to ensure that all operations retain the full effect of noise mitigation during use. Open doors or other ventilation that amplifies activities in the building are prohibited.
 3. At the time of permits the tree protection plan shall be supplemented with plans showing the actual location of all required tree protection fences during construction, and the location and protection area shall meet all requirements of the city's tree protection ordinance. [[Section 19.47.060](#)].
-

4. Sheet C2.0 (grading plan) includes an incorrect note from a prior plan indicating a “proposed enclosed pickleball court” in the northwest corner; and sheets C5.0 and 5.1 (erosion control plan and details) include an incorrect note from a prior plan indicating a “proposed enclosed pickleball court” on the west most tennis court. These are not part of the plan and no buildings in these areas are being proposed or considered. These notes should be removed from all further plans or permit documents.
-



CITY OF PRAIRIE VILLAGE

The Star of Kansas

Planning Commission Application

For Office Use Only
Case No.: PC2024-101
Filing Fee:
Deposit:
Date Advertised:
Date Notices Sent:
Public Hearing Date:

Please complete this form and return with Information requested to:

Assistant City Administrator
City of Prairie Village
7700 Mission Rd.
Prairie Village, KS 66208

Applicant: Homestead Country Club Represented by Bell Phone Number: 913-205-4501

Address: 4100 Homestead Court E-Mail jpflughofft@hulsinghotels.com

Owner: Hulsing Enterprises Phone Number: 913-274-1429

Address: 4100 Homestead Court, Prairie Village, KS Zip: 66208

Location of Property: 4100 Homestead Court, Prairie Village, KS 66208

Legal Description: INDIAN FIELDS LT 1 & LT A BLK 11 EX ALL LT 1 & PT LT A BG NECR 16-12-25 S 1206.47' W 30' TO W/L MISSION RD & TRUE POB W139.41' N 15' NW 439.73' & 87.65' SW 131.59' & 43' SE CURLF 156.58' NE CUR RT 34.91' SW 125' SE 240' SW 135.46' E 478.41' N 295.09' TO POB PVC 407A 36

Applicant requests consideration of the following: (Describe proposal/request in detail) Approval to enclose three additional pickleball courts in a new metal building structure that is astetically pleasing and coordinates with surrounding structures and features. Also adding new parking area to include 18 stalls, including ADA and below grade stormwater retention

AGREEMENT TO PAY EXPENSES

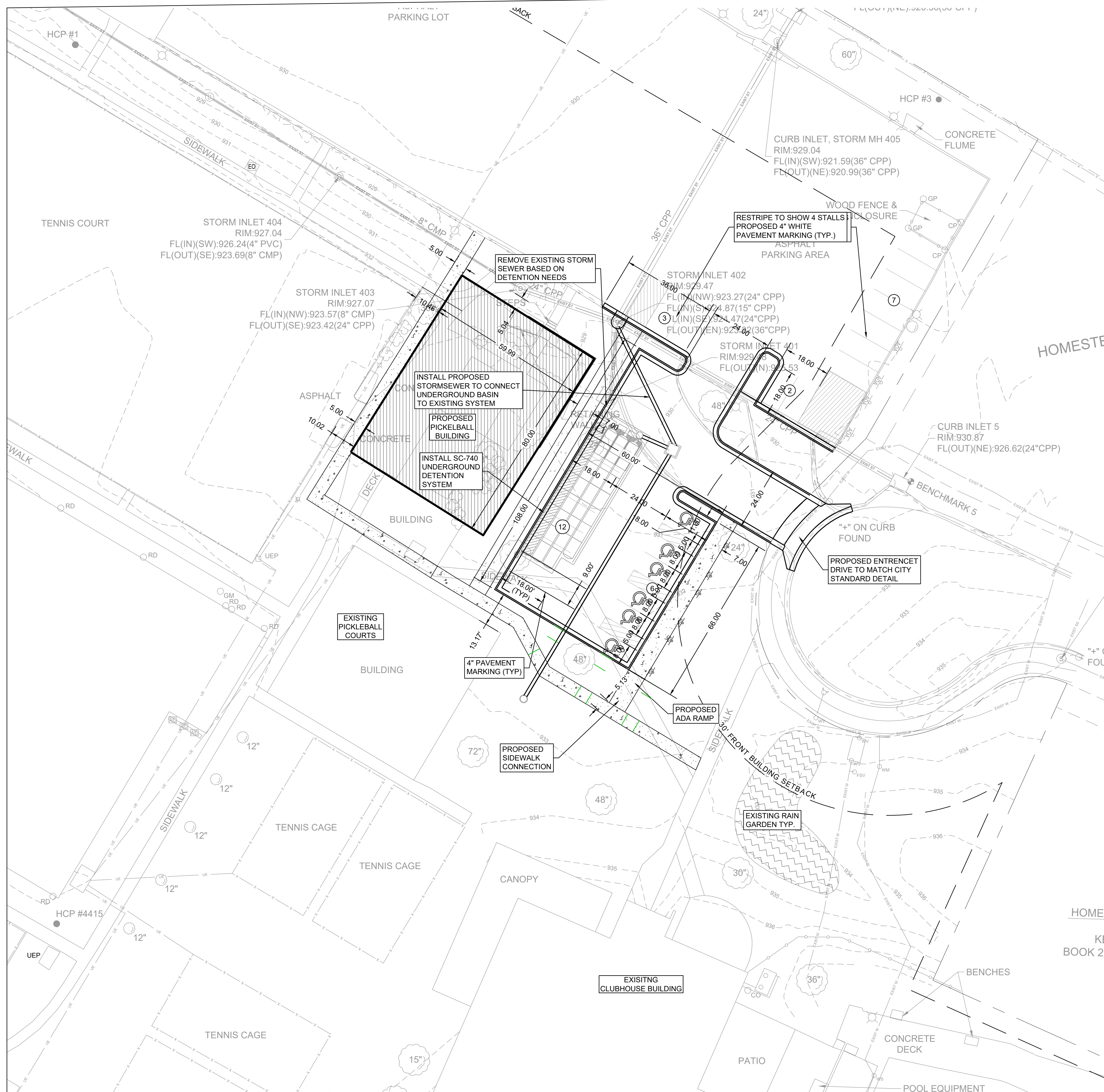
APPLICANT intends to file an application with the PRAIRIE VILLAGE PLANNING COMMISSION or the PRAIRIE VILLAGE BOARD OF ZONING APPEALS of the CITY OF PRAIRIE VILLAGE, KANSAS (City) for _____.

As a result of the filing of said application, CITY may incur certain expenses, such as publication costs, consulting fees, attorney fees and court reporter fees.

APPLICANT hereby agrees to be responsible for and to CITY for all cost incurred by CITY as a result of said application. Said costs shall be paid within ten (10) days of receipt of any bill submitted by CITY to APPLICANT. It is understood that no requests granted by CITY or any of its commissions will be effective until all costs have been paid. Costs will be owing whether or not APPLICANT obtains the relief requested in the application.

Jeffrey A. Pflughofft 4-12-24
Applicant's Signature/Date

Owner's Signature/Date

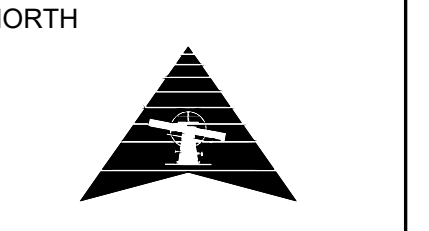


ADDITIONAL PARKING
SITE PLAN
Scale: 1" = 20'

HOMESTEAD COUNTRY CLUB

PROGRESS DOCUMENTS NOT FOR CONSTRUCTION
4100 HOMESTEAD COURT PRAIRIE VILLAGE, KANSAS

REVISION DATE	REVISION DESCRIPTION (DESCRIPTION)
00/00/00	



SCALE: 1" = 20'

PROJECT #: 2208-0284
CHECKED BY: LJR
DRAWN BY: LJR

DATE: 04/12/2024

SHEET # **C1.1**

TOTAL SHEETS 6

SITE PLAN DETAIL

HOMESTEAD COUNTRY CLUB

PROGRESS DOCUMENTS NOT FOR CONSTRUCTION
 4100 HOMESTEAD COURT PRAIRIE VILLAGE, KANSAS

NOTES:

- ALL SOIL BROUGHT TO THE SITE SHALL BE COMPACTED BY ROLLING WITH A SHEEPSFOOT ROLLER OR BY MECHANICAL TAMPING. THE SHEEPSFOOT ROLLER, WHEN FULLY LOADED, SHALL HAVE A LOAD ON EACH TAMPER FOOT NOT LESS THAN 200 POUNDS PER SQUARE INCH OF CROSS-SECTIONAL AREA. ENOUGH MOISTURE SHALL BE PRESENT IN THE SOIL TO OBTAIN A DENSITY EQUAL TO OR GREATER THAN 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST BEFORE PLACING THE NEXT LIFT. EACH LIFT SHALL CONSIST OF 8-INCH LOOSE LIFTS OR LESS PRIOR TO COMPACTION. CONTRACTOR SHALL PROVIDE A STANDARD PROCTOR OF ALL FILL MATERIAL TO BE USED ON SITE.
- ALL FILL MATERIAL SHALL HAVE ROCK NO LARGER THAN 3" DIAMETER. EACH LIFT SHALL CONSIST OF 8-INCH LOOSE LIFTS OR LESS PRIOR TO COMPACTION.
- ALL STRIPPED TOPSOIL SHALL BE STOCKPILED FOR RE-USE.
- THE CROSS SLOPES OF ALL SIDEWALKS SHALL BE 1.5% OR LESS, UNLESS OTHERWISE SPECIFIED.
- ALL GRADE AGAINST BUILDINGS SHALL BE 6" BELOW FINISH FLOOR UNLESS OTHERWISE SPECIFIED.

CONTROL POINTS

BENCHMARK 5: N:265025.817 E:2269042.376 ELEV:930.87
 CHISELED * ON NE CORNER OF CURB INLET AT NORTH SIDE OF HOMESTEAD CT. CUT-DE-SAC

BENCHMARK 6: N:265209.435 E:2268995.271 ELEV:930.87
 CHISELED * ON NW CORNER OF AREA INLET BELOW CURB INLET AT NORTH END OF EXISTING PARKING LOT

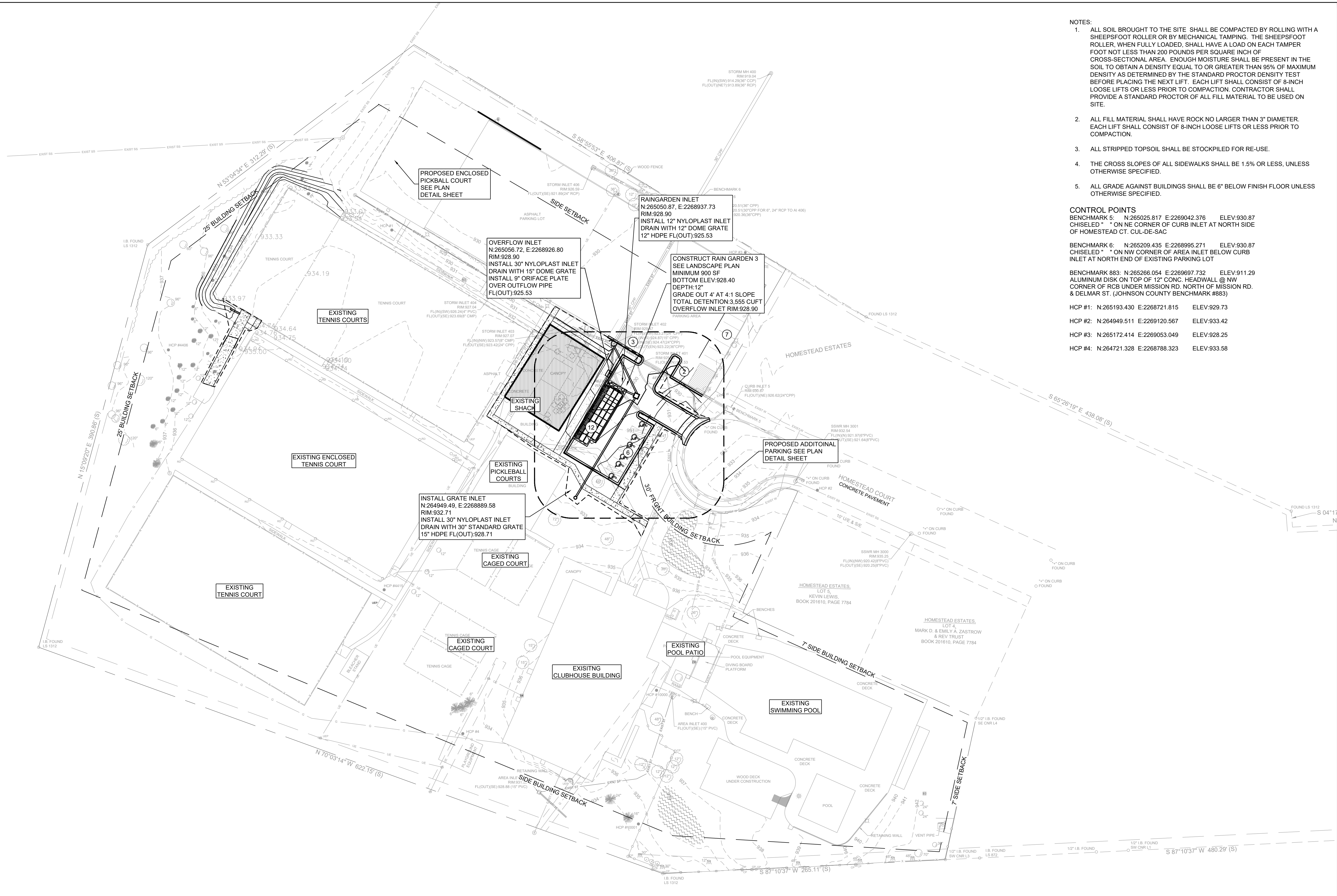
BENCHMARK 883: N:265266.054 E:2269697.732 ELEV:911.29
 ALUMINUM DISK ON TOP OF 12" CONC. HEADWALL @ NW CORNER OF RCB UNDER MISSION RD. NORTH OF MISSION RD. & DELMAR ST. (JOHNSON COUNTY BENCHMARK #883)

HCP #1: N:265193.430 E:2268721.815 ELEV:929.73

HCP #2: N:264949.511 E:2269120.567 ELEV:933.42

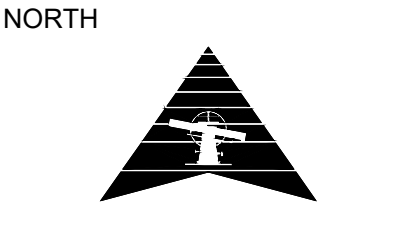
HCP #3: N:265172.414 E:2269053.049 ELEV:928.25

HCP #4: N:264721.328 E:2268788.323 ELEV:933.58



SITE LAYOUT PLAN
 Scale: 1" = 40'

REVISION	DATE	DESCRIPTION
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SCALE: 1" = 40'

PROJECT #: 2208-0284
 CHECKED BY: LJR
 DRAWN BY: LJR

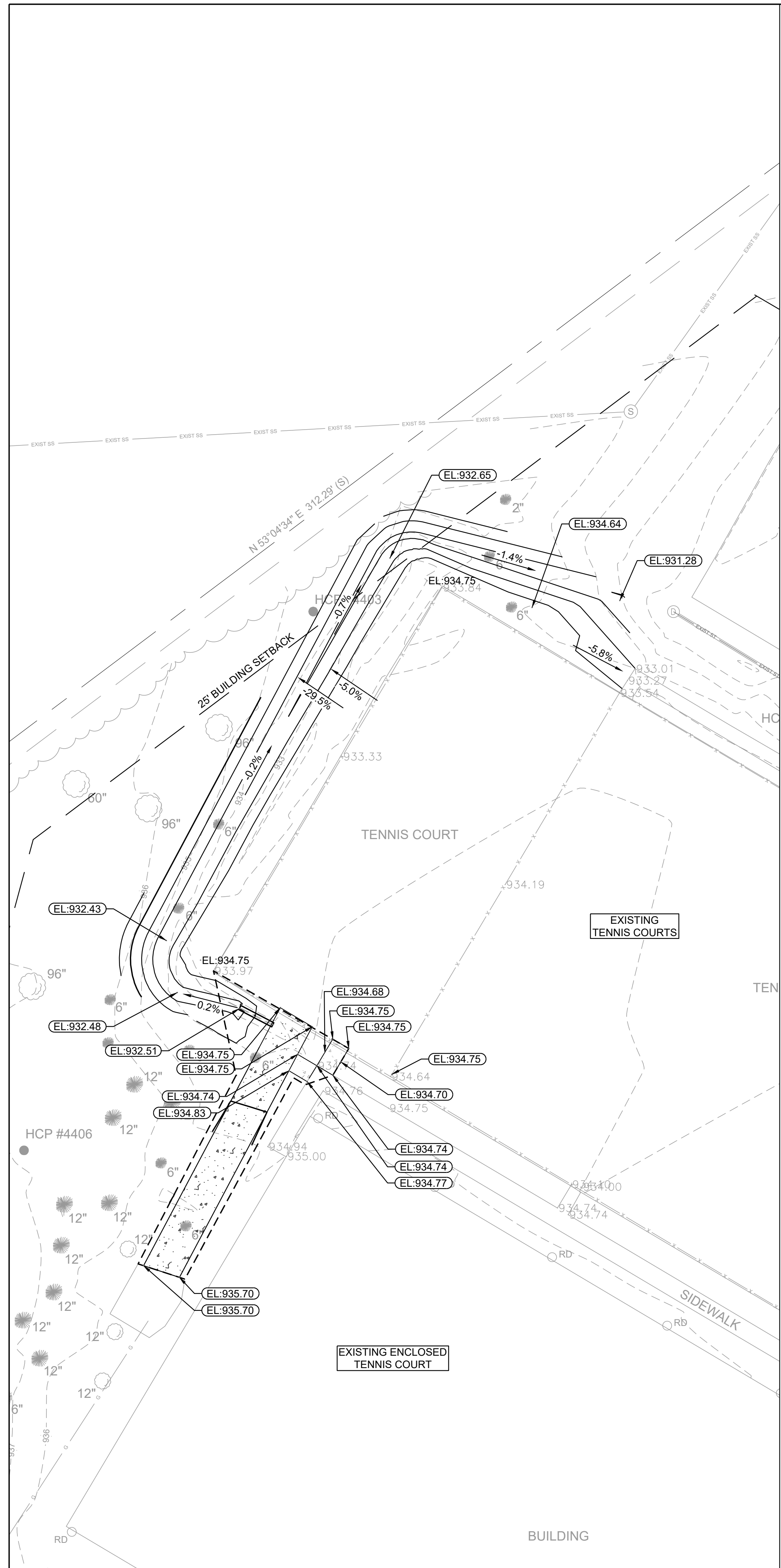
DATE: 04/12/2024

SHEET # **C2.0**

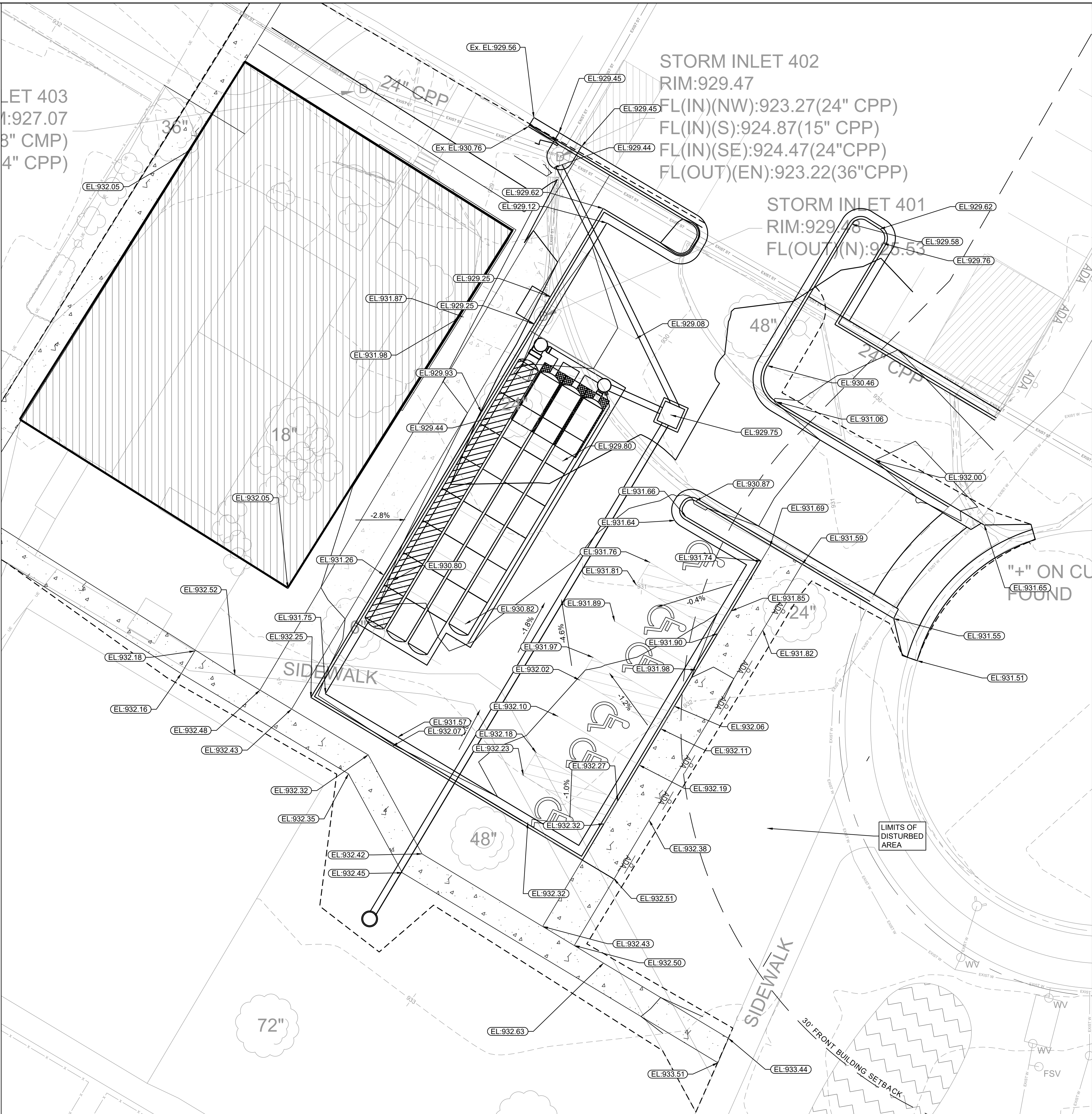
TOTAL SHEETS 6

HOMESTEAD COUNTRY CLUB

PROGRESS DOCUMENTS NOT FOR CONSTRUCTION
4100 HOMESTEAD COURT PRAIRIE VILLAGE, KANSAS

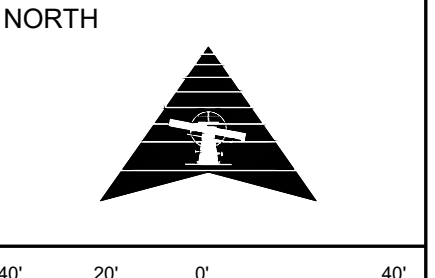


**TENNIS COURT
GRADING PLAN**
Scale: 1" = 20'



**ADDITIONAL EAST
PARKING GRADING PLAN**
Scale: 1" = 10'

REVISION	DATE	DESCRIPTION
1	04/12/2024	ISSUED FOR PERMIT
2		
3		
4		
5		



PROJECT #: 2208-0284
CHECKED BY: LJR
DRAWN BY: LJR

DATE: 04/12/2024

SHEET # **C2.1**

TOTAL SHEETS 6

GRADING PLAN DETAIL

NOTES:

1. ALL WORK IN PUBLIC EASEMENTS AND RIGHT OF WAY AND ALL EROSION CONTROL WORK MUST COMPLY WITH THE LATEST EDITION OF THE TECHNICAL PROVISIONS & STANDARD DRAWINGS FOR THE CITY OF PRAIRIE VILLAGE AND KANSAS CITY APWA. IF ANY OF THE GENERAL NOTES CONFLICT WITH THE TECHNICAL PROVISIONS & STANDARD DRAWINGS FOR KANSAS CITY APWA, THE APWA STANDARDS SHALL OVERRIDE.

2. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR AS NECESSARY TO INSTALL AND MAINTAIN ADEQUATE EROSION CONTROL. KEEP THE STREET CLEAN OF MUD AND DEBRIS, AND PREVENT SOIL FROM LEAVING THE PROJECT SITE. THE CONTRACTOR'S EROSION CONTROL MEASURES SHALL CONFORM TO PRAIRIE VILLAGE AND KC APWA TECHNICAL PROVISIONS SPECIFICATIONS.

4. CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES BEFORE STARTING ANY CONSTRUCTION ACTIVITY. REFERENCE THE ABOVE TABLE FOR MORE INFORMATION AND DETAIL.

5. GOOD HOUSEKEEPING, INCLUDING SPILL RESPONSE, SHALL BE PERFORMED IN ACCORDANCE WITH THE KANSAS CITY CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION STANDARD SPECIFICATION, SECTION 2150.

6. THE CONTRACTOR SHALL TEMPORARILY SEED, MULCH, OR OTHERWISE STABILIZE ANY DISTURBED AREA WHERE THE LAND DISTURBANCE ACTIVITY HAS CEASED FOR A PERIOD OF FOURTEEN (14) CALENDAR DAYS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REMOVING SEDIMENT UNTIL A MINIMUM OF 70% OF PERMANENT VEGETATION HAS BECOME STABILIZED AND ESTABLISHED. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE 70% ESTABLISHED VEGETATION IS MET, OR THE DURATION OF THE PROJECT, WHICHEVER IS THE LATER DATE.

8. INLET PROTECTION SHALL BE PROVIDED AT ALL DOWNSTREAM INLETS AS INDICATED.

9. NATIVE VEGETATION SHALL BE MAINTAINED IN ALL AREAS AS STORM WATER POLLUTION PREVENTION WITH THE EXCEPTION OF THOSE AREAS NOTED ON THIS PLAN SHEET.

10. CONTRACTOR SHALL DESIGNATE A TRUCK WASHOUT AREA. THE TRUCK WASHOUT AREA MUST STRUCTURE A MINIMUM OF 50 FT AWAY FROM OPEN CHANNELS, STORM DRAININLETS, SENSITIVE AREAS, WETLANDS, BUFFERS, AND WATER COURSES, AND AWAY FROM CONSTRUCTION TRAFFIC.

11. FRESHLY SEEDED AREAS REQUIRE MULCH THE SAME DAY AS SEED IS APPLIED OR THE AREA MUST BE RESEED. MULCH SHALL BE SUBSIDIARY TO TEMPORARY AND PERMANENT SEEDING.

12. TOTAL AREA OF LAND DISTURBED IS EQUAL TO ±26,125 SQ FT, OR ±0.60 ACRES.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL EROSION CONTROL MEASURES OR MODIFICATIONS IF THE PLAN FAILS TO SUBSTANTIALLY CONTROL EROSION OR OFFSITE SEDIMENTATION.

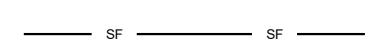

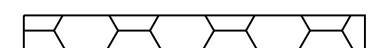
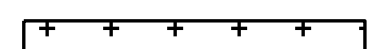
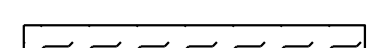




14. CONTRACTOR SHALL INSTALL AN ACCESS BARRIER BETWEEN ACTIVE WORK AREA AND AREA TO REMAIN AS UNDISTURBED. ACCESS BARRIER SHALL COMPLY WITH KC APWA STANDARDS AND SPECIFICATIONS.

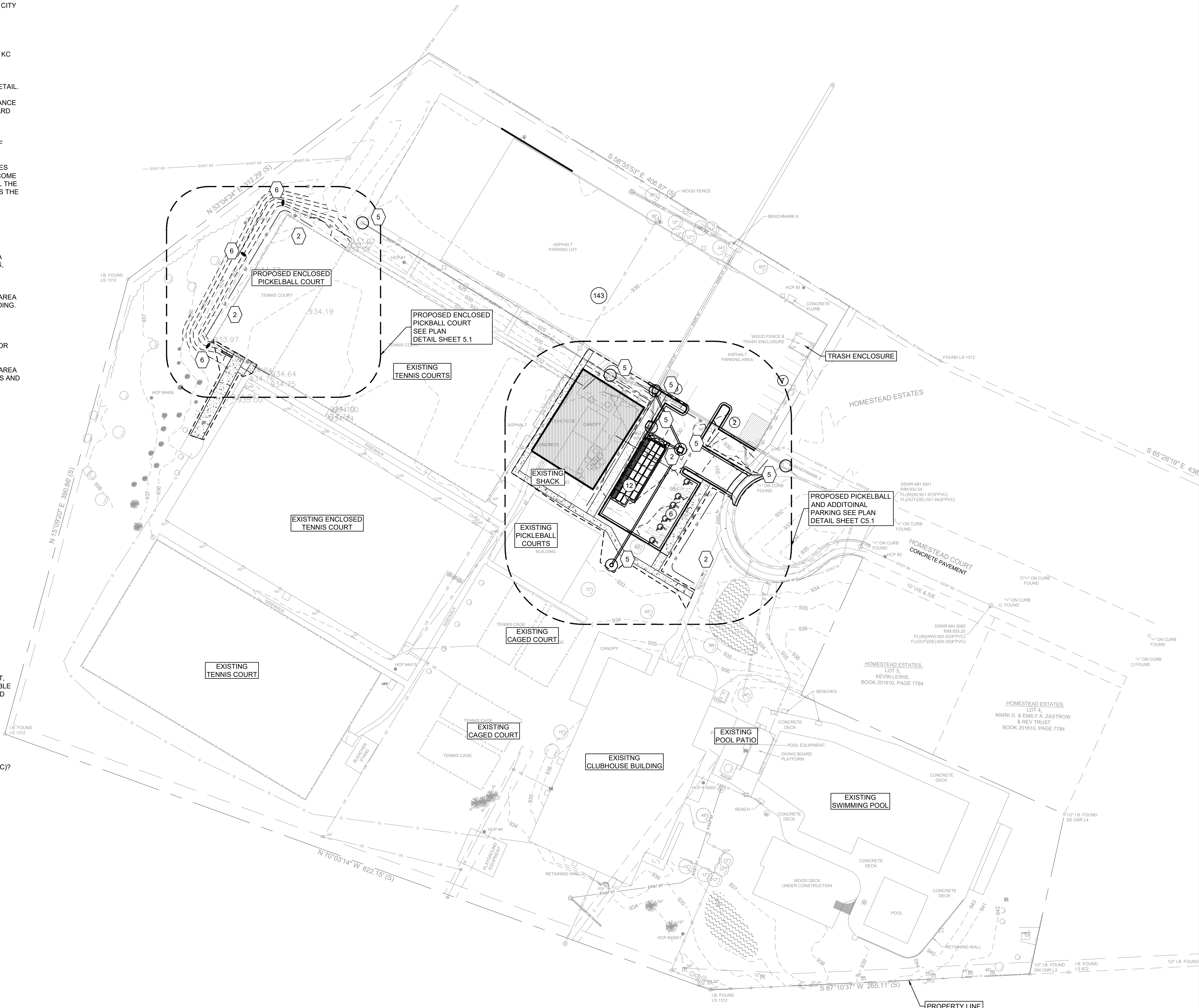
INSPECTION AND MAINTENANCE:

EROSION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 3" OR MORE. THE CONTRACTOR SHALL REPAIR DAMAGE, CLEAN OUT SEDIMENT, AND ADD ADDITIONAL EROSION CONTROL DEVICES AS NEEDED, OR AS SOON AS PRACTICABLE AFTER INSPECTION. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION.

1. ARE THERE ANY POINTS WHERE WATER IS CONCENTRATING?
2. DOES WATER FLOW UNDER OR AROUND THE CONTROL DEVICE?
3. DOES THE CONTROL DEVICE SHOW SIGNS OF WEAR?
4. HAS THE CONTROL DEVICE FAILED (TORN DETACHED FORM POSTS, DISLODGED, ETC)?
5. DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE CONTROL DEVICE?

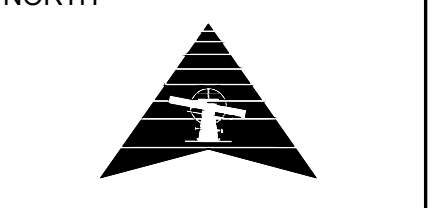
LEGEND

-  SILT FENCE
-  CONSTRUCTION ENTRANCE
-  PERMANENT SEEDING
-  OUTLET PROTECTION
-  STOCKPILE (IF NECESSARY)
-  CONSTRUCTION STAGING AREA
-  LIMITS OF DISTURBANCE
-  INLET PROTECTION
-  CHECK DAMS



SITE EROSION CONTROL PLAN
Scale: 1" = 40'

REVISION DATE	REVISION DESCRIPTION (DESCRIPTION)
000000	



SCALE: 1" = 40'

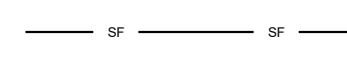

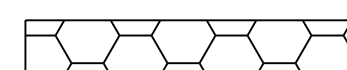
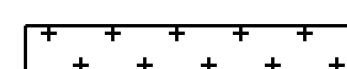
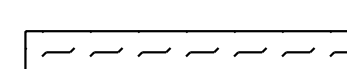

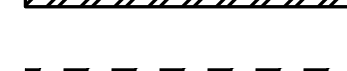

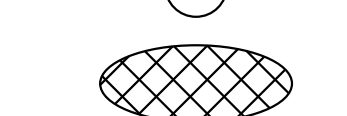
PROJECT #: 2208-0284
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DRAWN BY: LJR

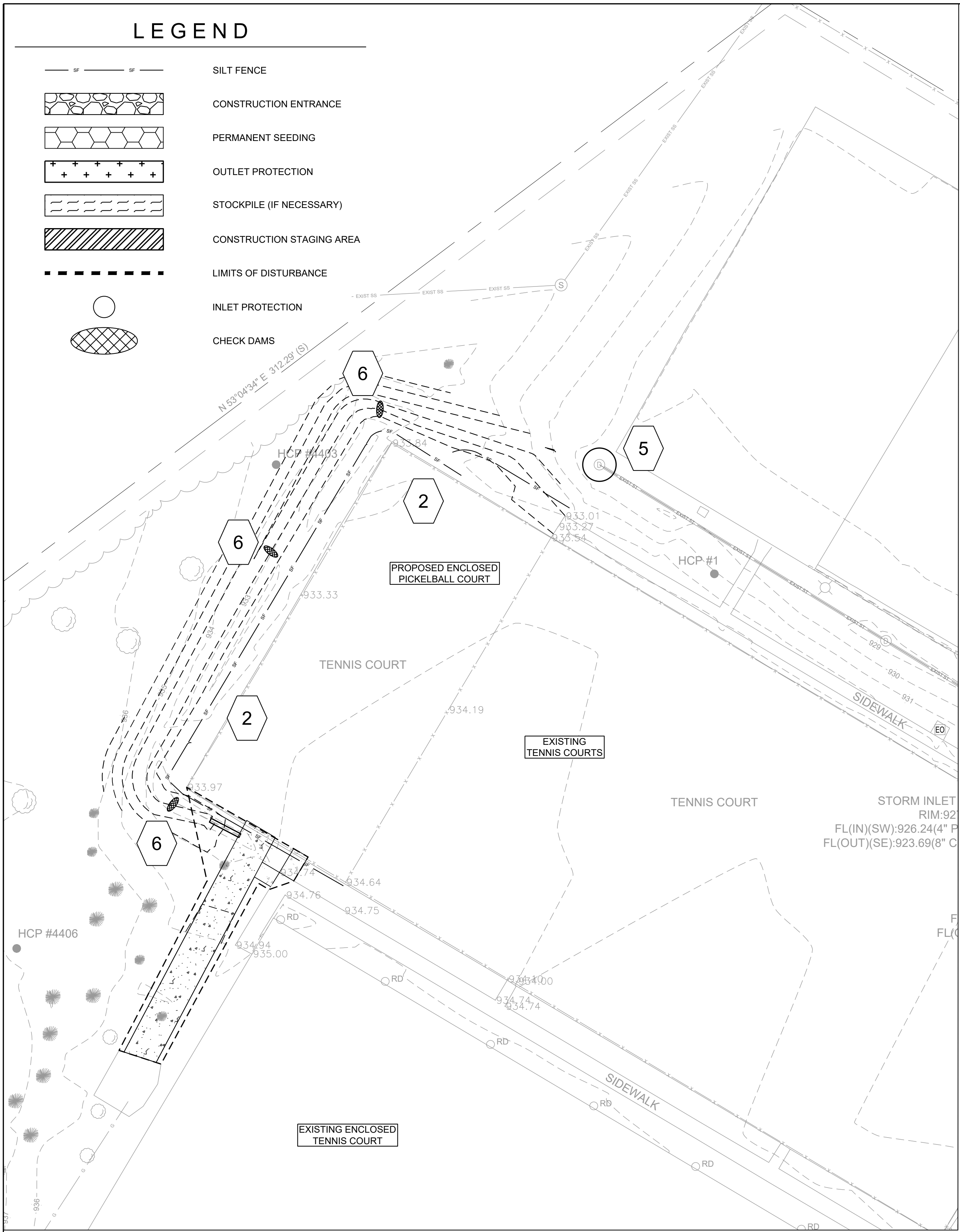
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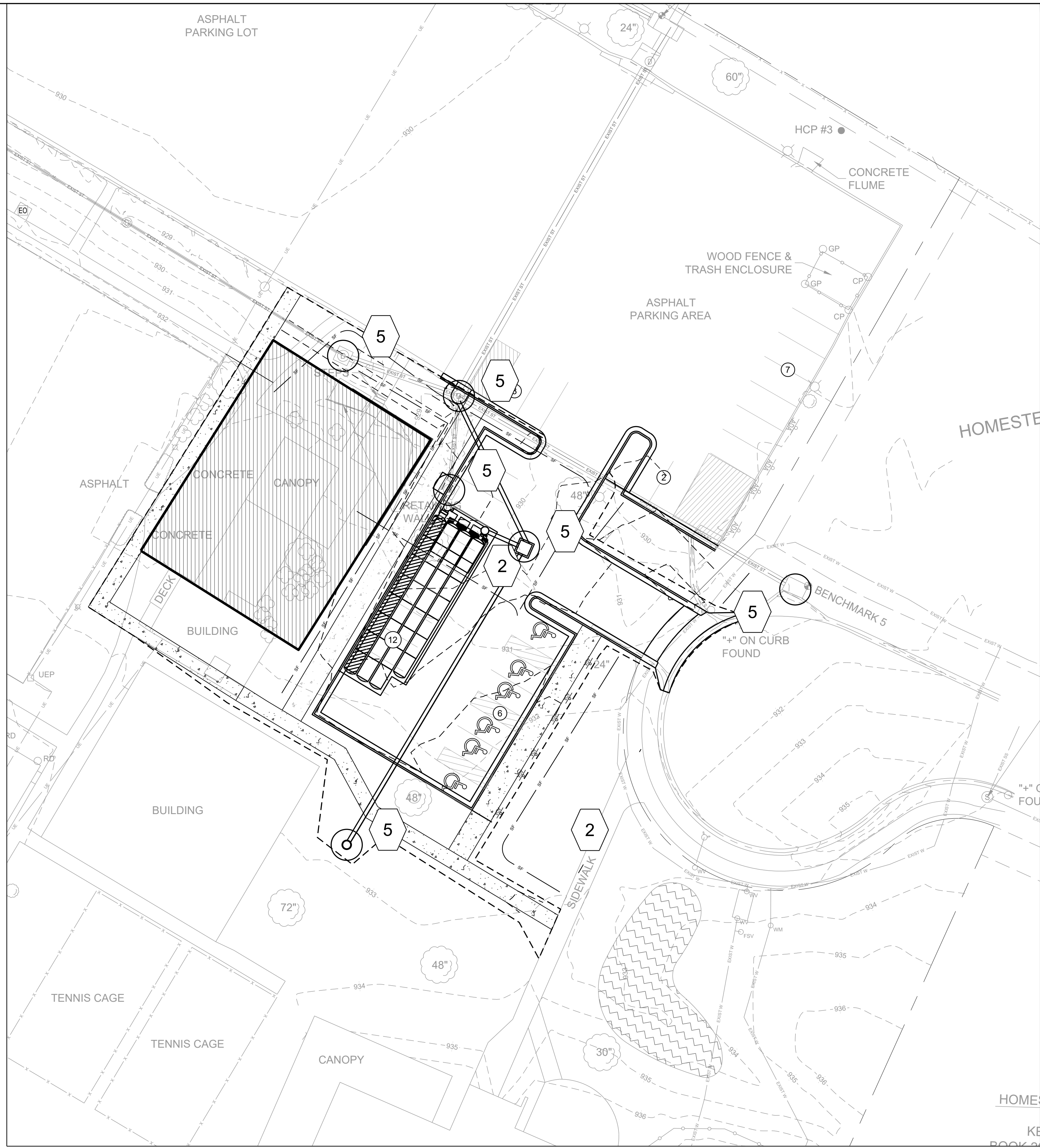
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LEGEND

-  SILT FENCE
-  CONSTRUCTION ENTRANCE
-  PERMANENT SEEDING
-  OUTLET PROTECTION
-  STOCKPILE (IF NECESSARY)
-  CONSTRUCTION STAGING AREA
-  LIMITS OF DISTURBANCE
-  INLET PROTECTION
-  CHECK DAMS



PROPOSED TENNIS COURT IMPROVEMENTS PLAN
Scale: 1" = 20'

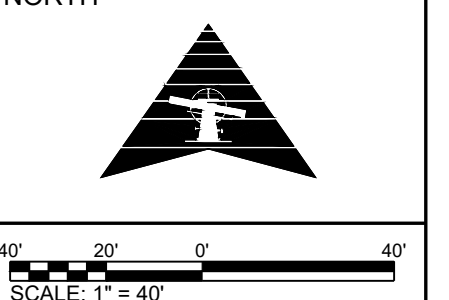


PROPOSED BUILDING AND ADDITIONAL PARKING SITE PLAN
Scale: 1" = 20'

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HOMESTEAD COUNTRY CLUB
PROGRESS DOCUMENTS NOT FOR CONSTRUCTION
4100 HOMESTEAD COURT PRAIRIE VILLAGE, KANSAS

REVISION	DATE	DESCRIPTION



PROJECT #: 2208-0284
CHECKED BY: LJR
DRAWN BY: LJR

DATE: 04/12/2024

SHEET # **C5.1**

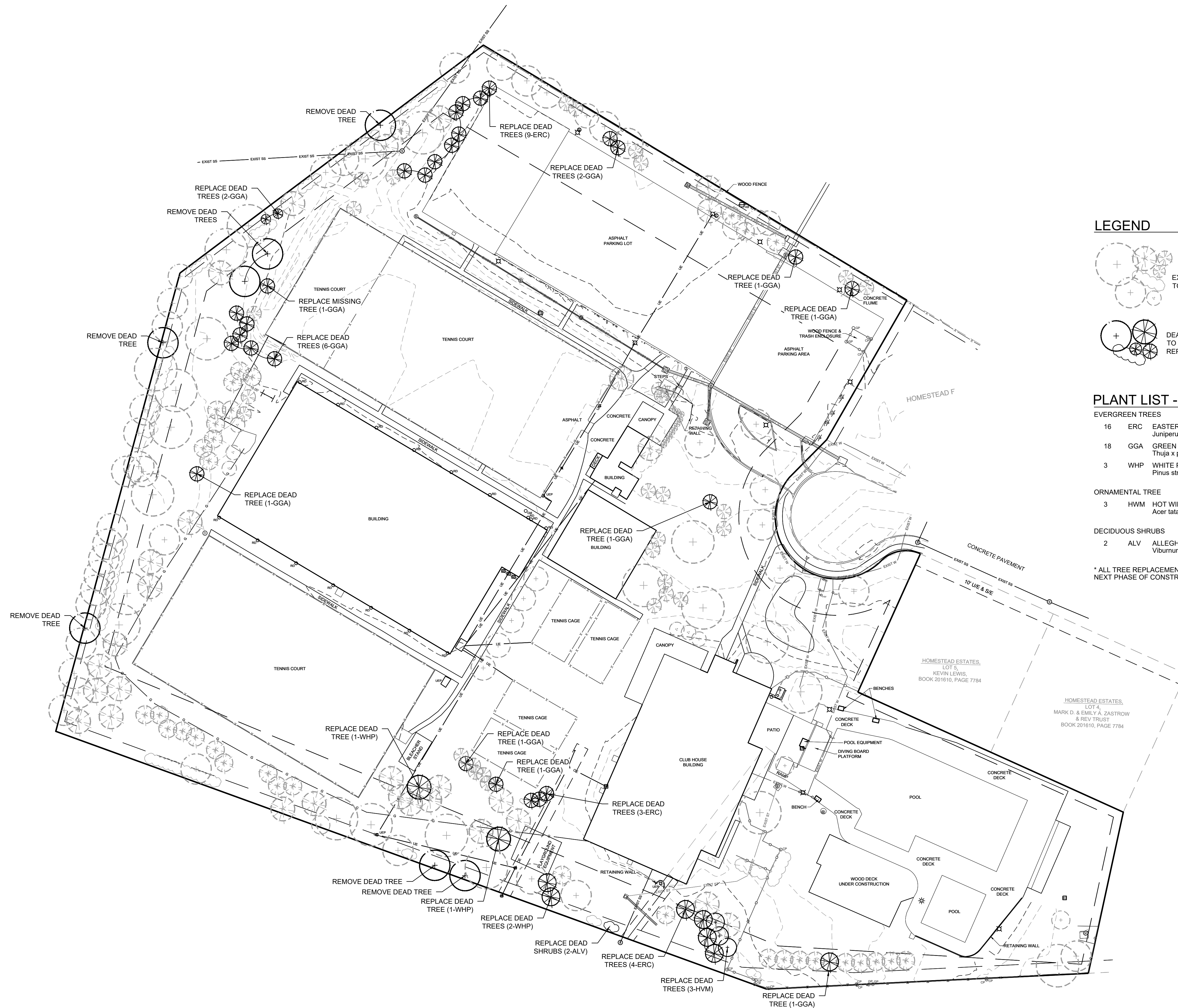
TOTAL SHEETS 6

PROJECT STAGE	BMP PLAN REFERENCE NO.	BMP DESCRIPTION	MAY REMOVE AFTER STAGE:	NOTES
A - PRIOR TO LAND DISTURBANCE	1	CONSTRUCTION ENTRANCE	C	
	2	SILT FENCE	D	
	3	INLET PROTECTION	D	
	4	STOCKPILE	D	
	5	INLET PROTECTION	D	
B - AFTER MASS GRADING	6	CHECK DAM	D	
C - AFTER PAVEMENT INSTALLATION	7	PERMANENT SEEDING	N/A	SEE LA SHEETS FOR SEEDING & SOD DETAILS
D - AFTER CONSTRUCTION COMPLETION AND VEGETATION IS ESTABLISHED	8	SITE TO BE CLEANED AND CLEARED	D	

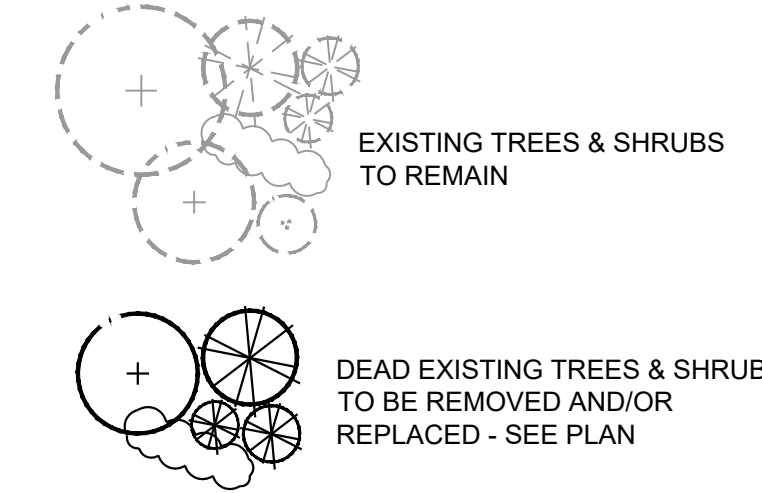
EROSION CONTROL DETAIL SHEET

HOMESTEAD COUNTRY CLUB

PROGRESS DOCUMENTS NOT FOR CONSTRUCTION
4100 HOMESTEAD COURT PRAIRIE VILLAGE, KANSAS



LEGEND



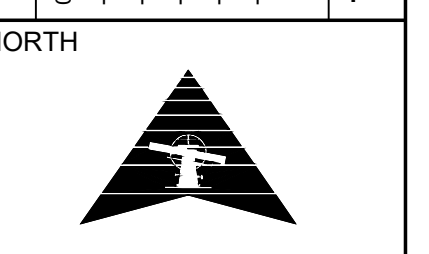
PLANT LIST - TREE REPLACEMENTS

EVERGREEN TREES			
16	ERC	EASTERN RED CEDAR <i>Juniperus virginiana</i>	6' HT. SINGLE TRUNK
18	GGA	GREEN GIANT ARBORVITAE <i>Thuja x plicata 'Green Giant'</i>	6' HT. SINGLE TRUNK
3	WHP	WHITE PINE <i>Pinus strobus</i>	6' HT. SINGLE TRUNK
ORNAMENTAL TREE			
3	HWM	HOT WINGS TARTARTIAN MAPLE <i>Acer tataricum 'GarAnn'</i>	6' HT. MULTI-STEM
DECIDUOUS SHRUBS			
2	ALV	ALLEGHENY VIBURNUM <i>Viburnum rhytidophyloides 'Allegheny'</i>	5 GAL. 18"-24" HT.

* ALL TREE REPLACEMENTS SHALL TAKE PLACE AFTER THE NEXT PHASE OF CONSTRUCTION

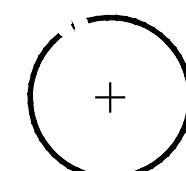
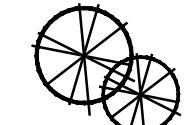
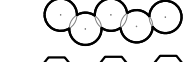
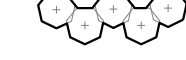

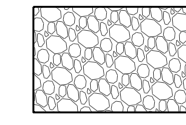

TREE REPLACEMENT & REMOVAL PLAN

REVISION DATE	REVISION DESCRIPTION (DESCRIPTION)



PROJECT #:	2208-0284
CHECKED BY:	KML
DRAWN BY:	KML
DATE:	04/12/2024
SHEET #	L1.1
TOTAL SHEETS	XX

LEGEND

-  DECIDUOUS TREES
-  EVERGREEN TREES
-  DECIDUOUS SHRUBS
-  EVERGREEN SHRUBS
-  ORNAMENTAL GRASSES
-  ROCK MULCH
-  EXISTING TREES & SHRUBS TO REMAIN AND/OR RELOCATED (SEE PLAN)

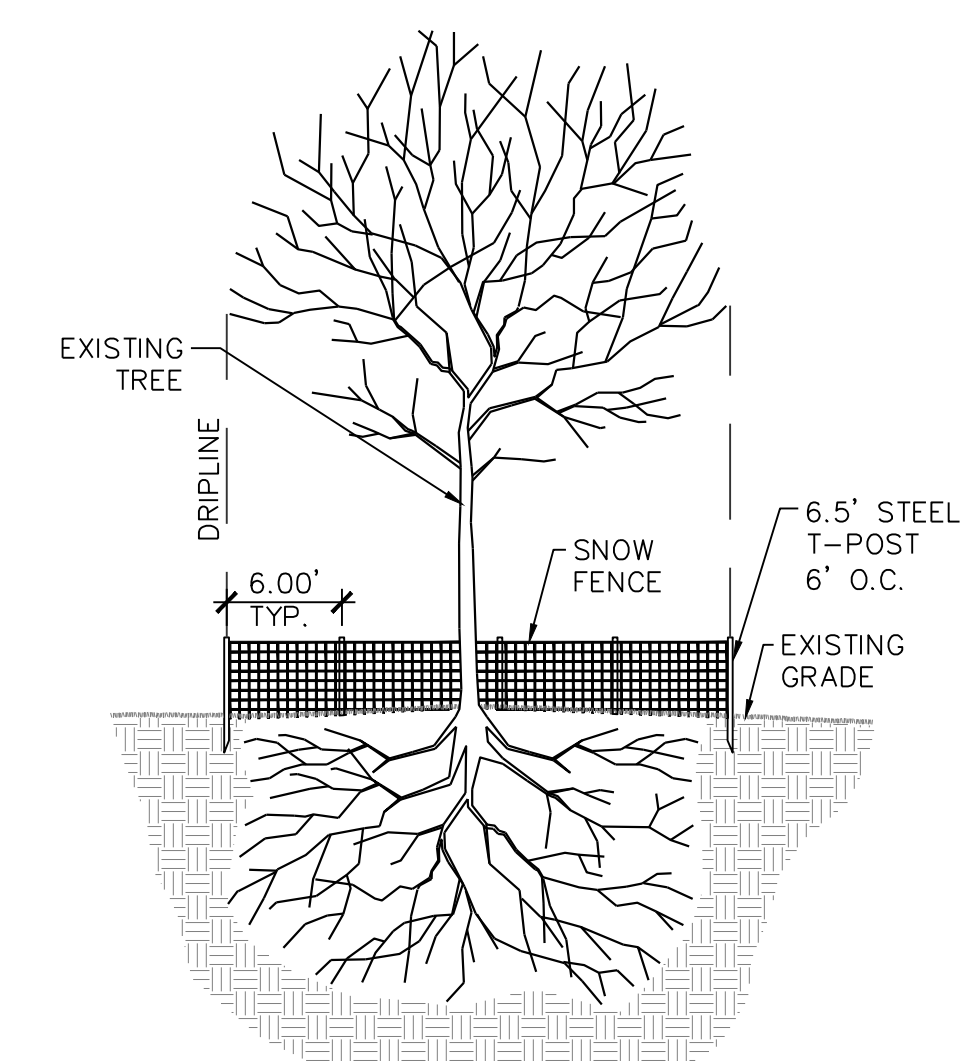
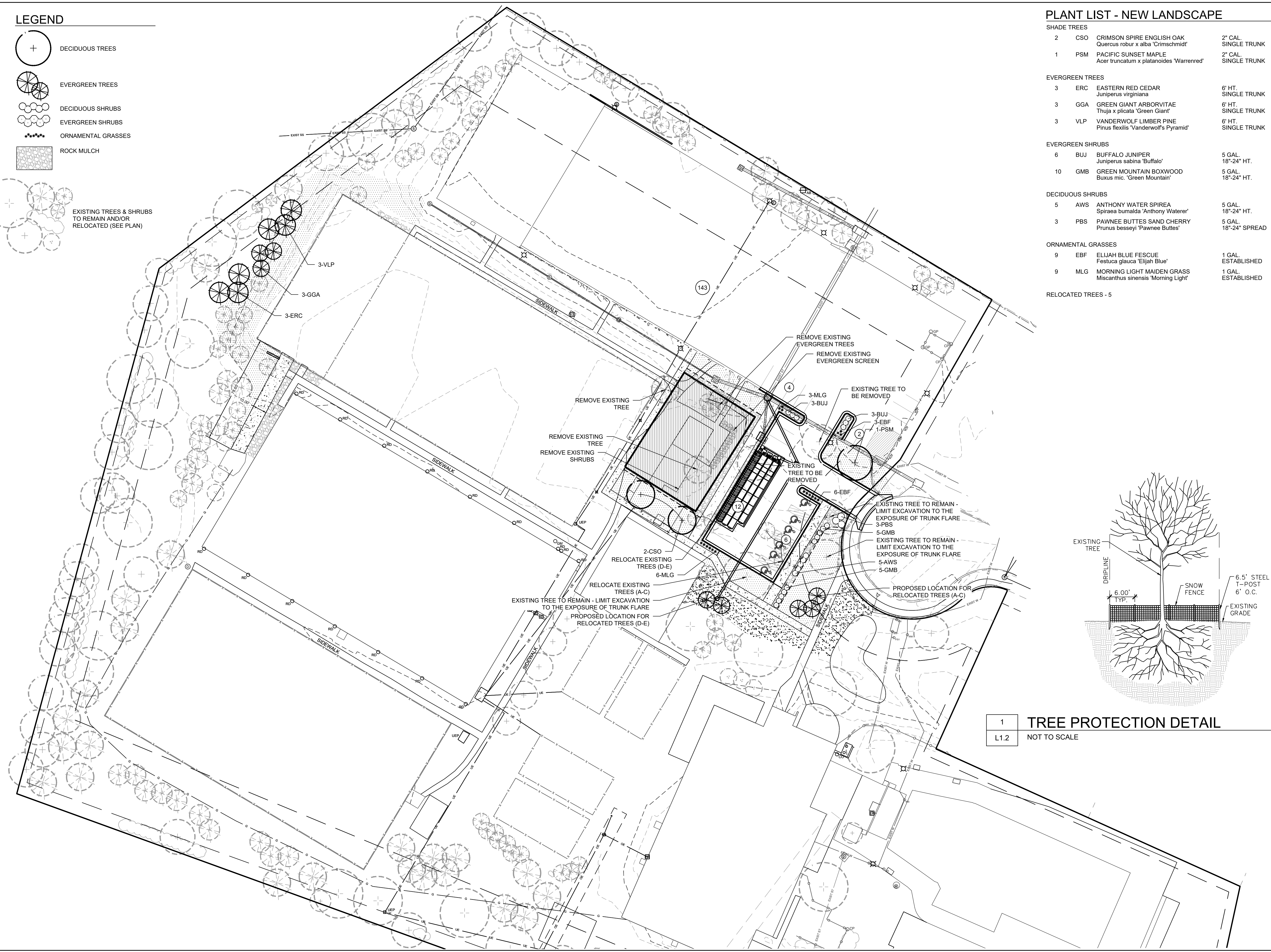
PLANT LIST - NEW LANDSCAPE

SHADE TREES		
2	CSO CRIMSON SPIRE ENGLISH OAK Quercus robur x alba 'Crimschmid'	2" CAL. SINGLE TRUNK
1	PSM PACIFIC SUNSET MAPLE Acer truncatum x platanoides 'Warrenred'	2" CAL. SINGLE TRUNK
EVERGREEN TREES		
3	ERC EASTERN RED CEDAR Juniperus virginiana	6' HT. SINGLE TRUNK
3	GGA GREEN GIANT ARBORVITAE Thuja x plicata 'Green Giant'	6' HT. SINGLE TRUNK
3	VLP VANDERWOLF LIMBER PINE Pinus flexilis 'Vanderwolf's Pyramid'	6' HT. SINGLE TRUNK
EVERGREEN SHRUBS		
6	BUJ BUFFALO JUNIPER Juniperus sabinia 'Buffalo'	5 GAL. 18"-24" HT.
10	GMB GREEN MOUNTAIN BOXWOOD Buxus mic. 'Green Mountain'	5 GAL. 18"-24" HT.
DECIDUOUS SHRUBS		
5	AWS ANTHONY WATER SPIREA Spiraea bumalda 'Anthony Waterer'	5 GAL. 18"-24" HT.
3	PBS PAWNEE BUTTES SAND CHERRY Prunus besseyi 'Pawnee Buttes'	5 GAL. 18"-24" SPREAD
ORNAMENTAL GRASSES		
9	EBF ELIJAH BLUE FESCUE Festuca glauca 'Elijah Blue'	1 GAL. ESTABLISHED
9	MLG MORNING LIGHT MAIDEN GRASS Miscanthus sinensis 'Morning Light'	1 GAL. ESTABLISHED
RELOCATED TREES - 5		



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4100 HOMESTEAD COURT PRAIRIE VILLAGE, KANSAS



1 TREE PROTECTION DETAIL
L1.2 NOT TO SCALE

REVISION DESCRIPTION (DESCRIPTION)

REVISION DATE

000000

NORTH

SCALE: 1" = 30'-0"

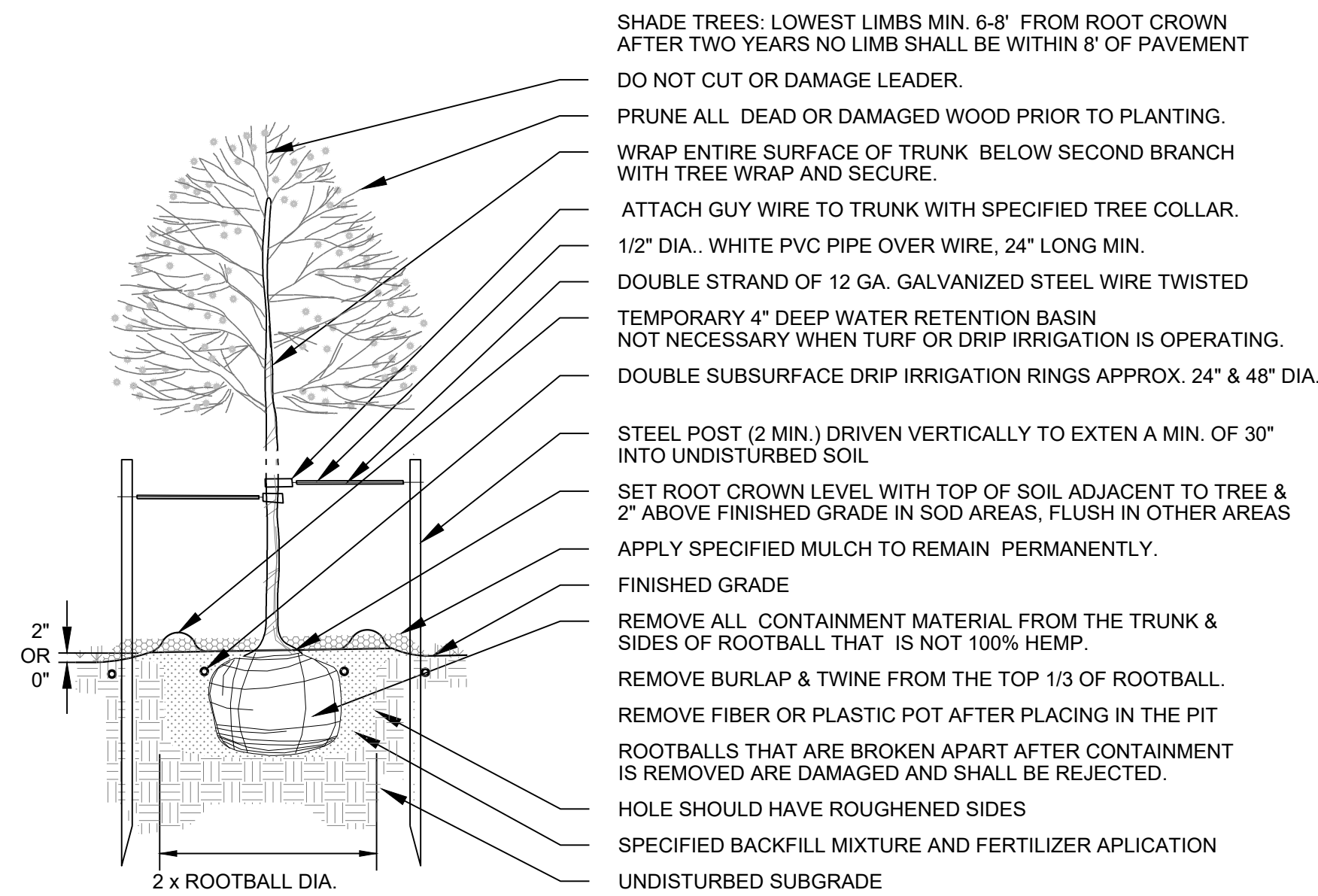
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CHECKED BY: KML
DRAWN BY: KML

DATE: 03/08/2024

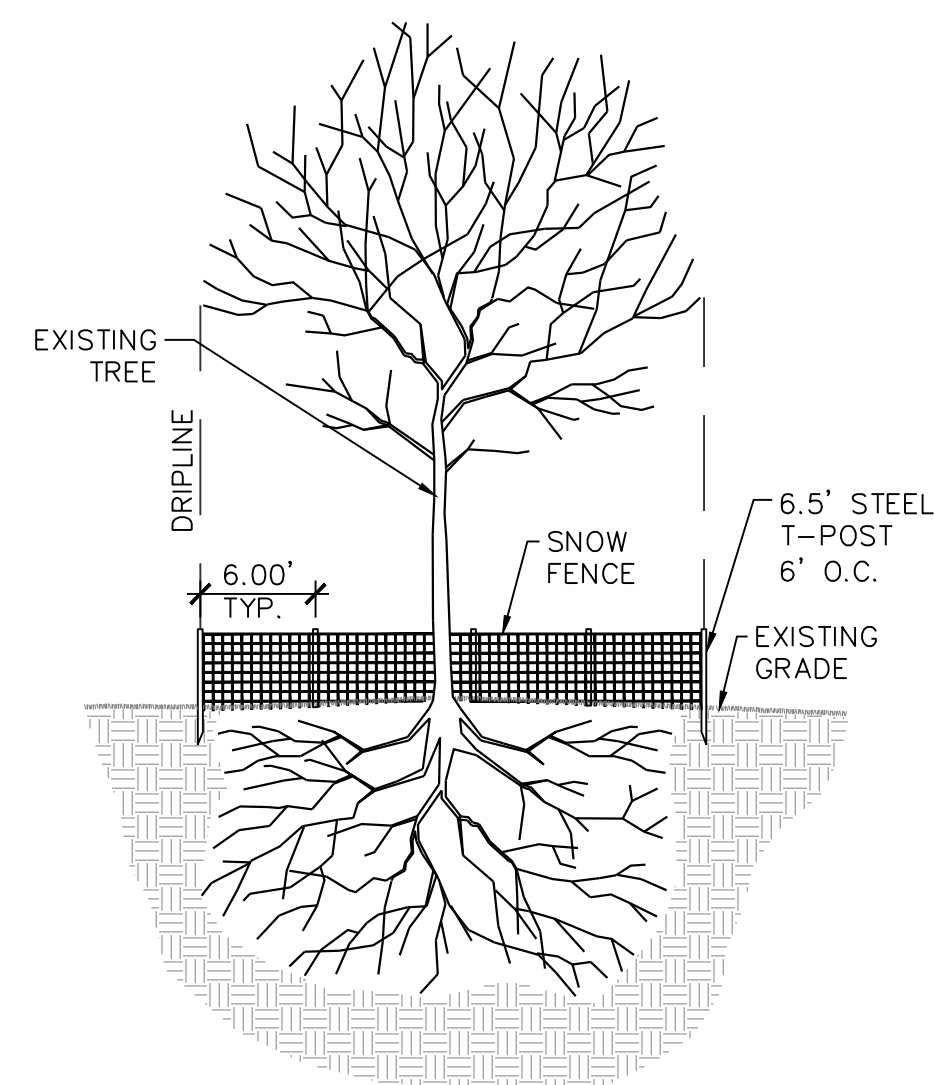
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TOTAL SHEETS XX

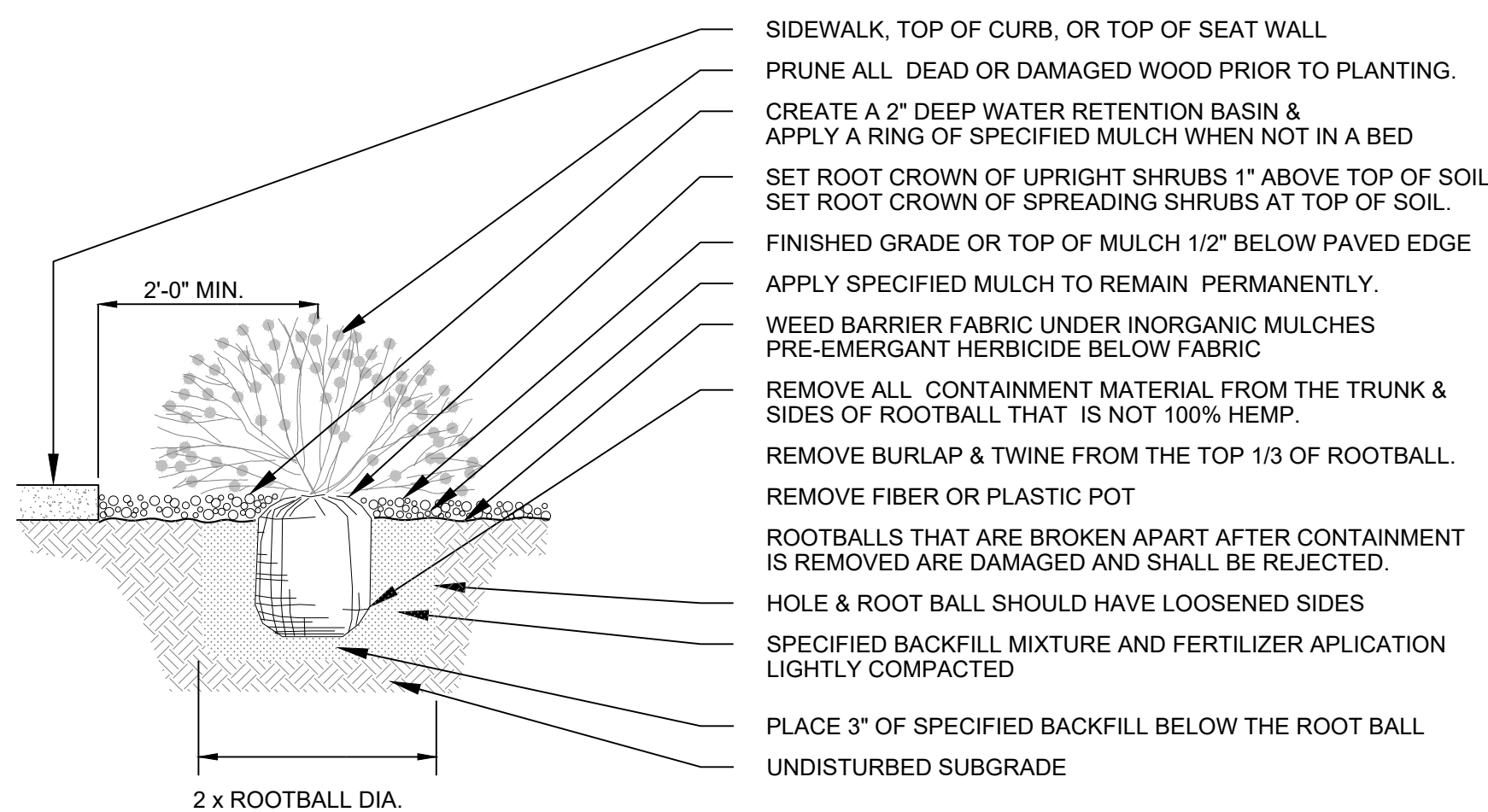
LANDSCAPE PLAN



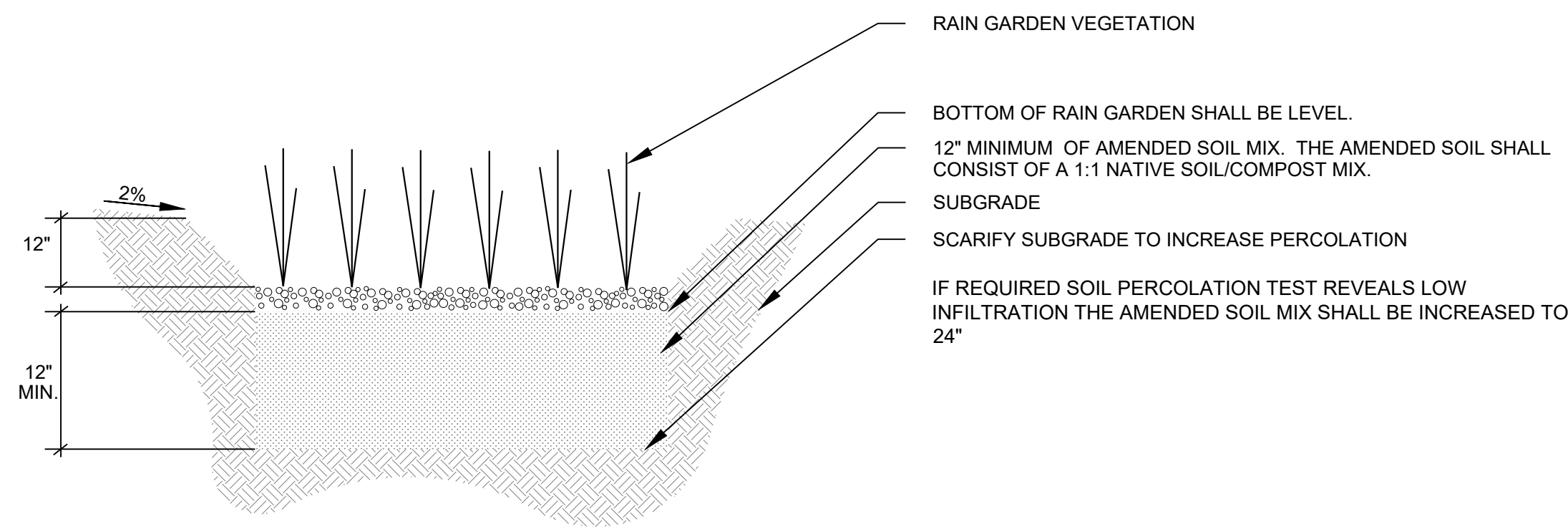
1 DECIDUOUS TREE PLANTING
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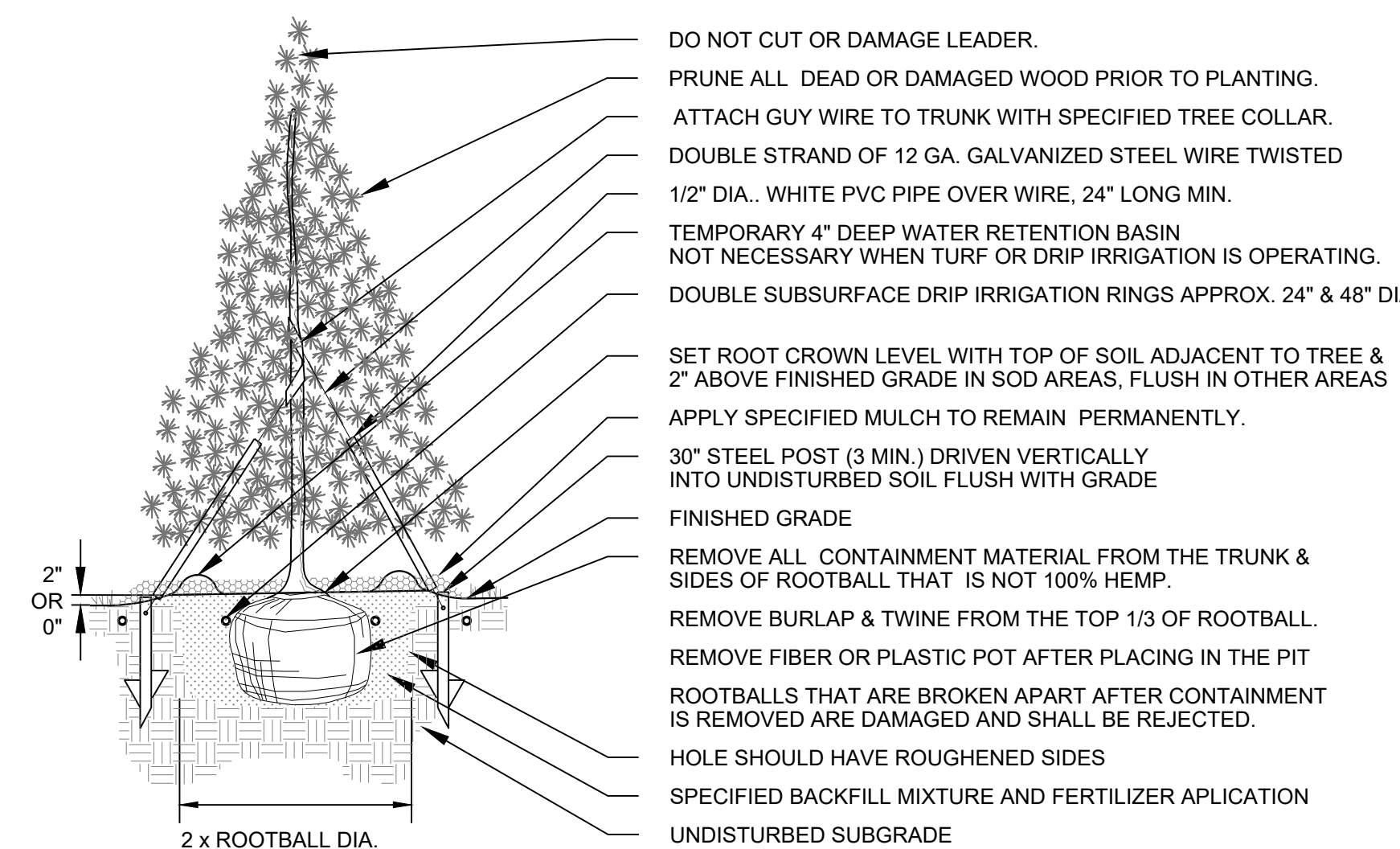
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L2.0 NOT TO SCALE



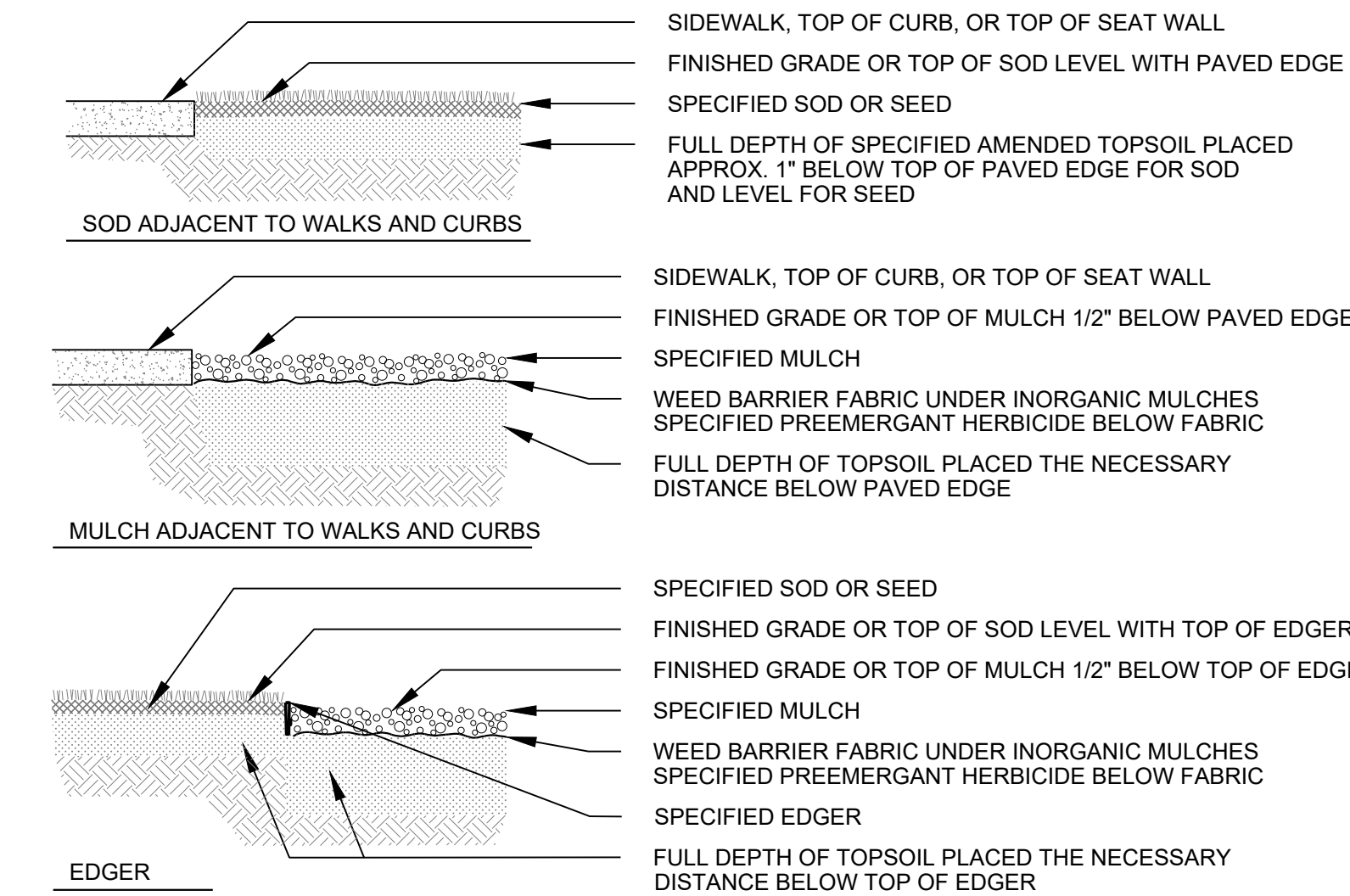
2 SHRUB PLANTING
L2.0 NOT TO SCALE



5 RAIN GARDEN DETAIL
L2.0 NOT TO SCALE



3 EVERGREEN TREE PLANTING
L2.0 NOT TO SCALE



6 EDGE TREATMENT
L2.0 NOT TO SCALE

LANDSCAPE NOTES

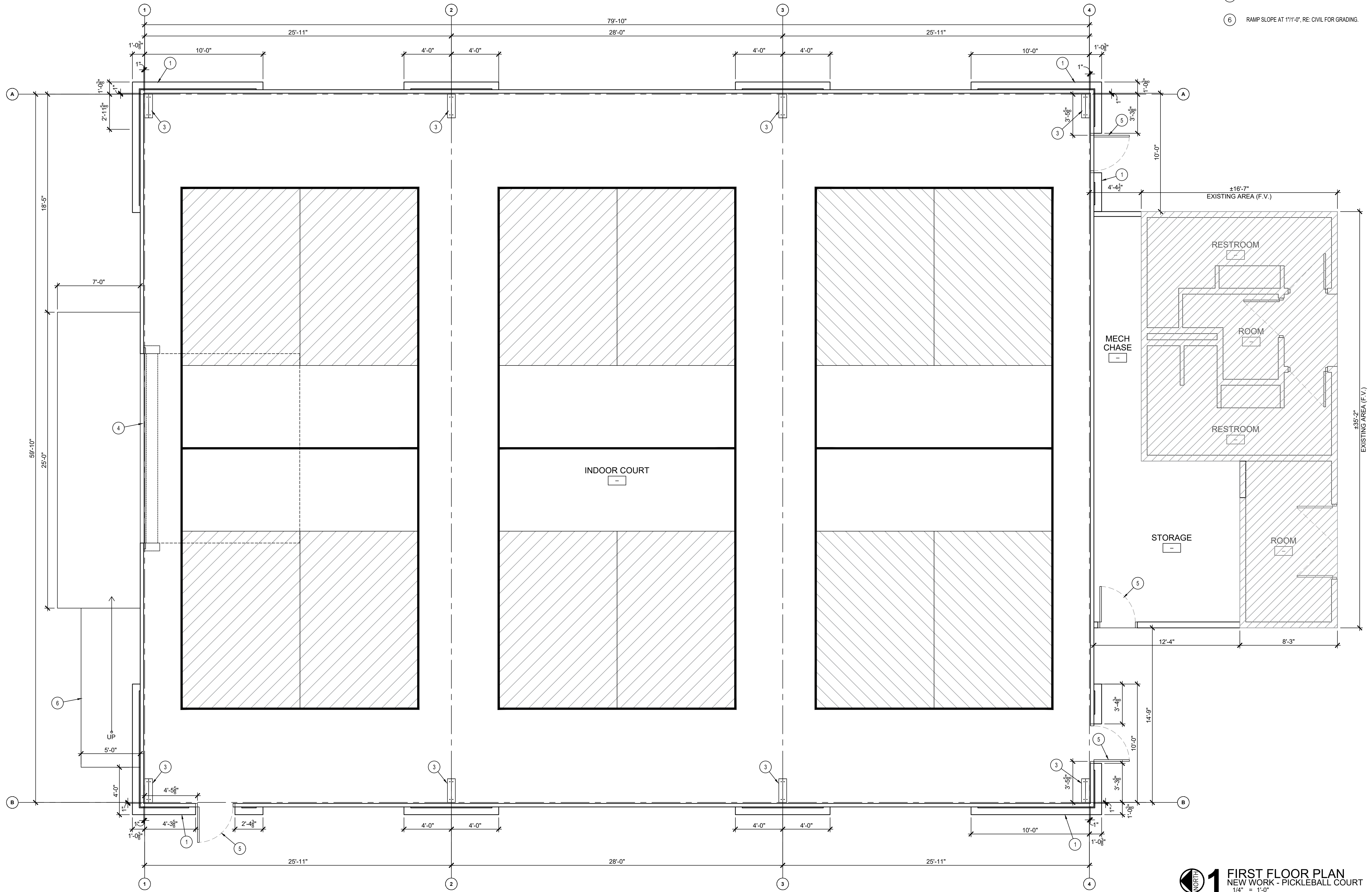
- THIS LANDSCAPE ARCHITECTURAL SITE PLAN IS TO BE USED IN CONJUNCTION WITH THE CIVIL, IRRIGATION, MECHANICAL, ELECTRICAL, AND ARCHITECTURAL CONSTRUCTION DOCUMENTS AND SPECIFICATIONS TO FORM COMPLETE INFORMATION REGARDING THIS SITE. IF A CONFLICT EXISTS BETWEEN THESE NOTES, DETAILS & SPECIFICATIONS THESE NOTES SHALL OVERRIDE THE DETAILS & THE DETAILS SHALL OVERRIDE THE SPECIFICATIONS.
- LANDSCAPE CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES AND SPECIFICATIONS.
- ALL MATERIAL AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR, FROM DATE OF FINAL ACCEPTANCE.
- LANDSCAPE CONTRACTOR SHALL EXAMINE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE GENERAL CONTRACTOR IN WRITING OF UNSATISFACTORY CONDITIONS. DO NOT PROCEED UNTIL CONDITIONS HAVE BEEN CORRECTED.
- BEFORE COMMENCING WORK, LANDSCAPE CONTRACTOR SHALL CONTACT APPROPRIATE UTILITY COMPANIES FOR UTILITY LOCATIONS, AND COORDINATE WITH GENERAL CONTRACTOR IN REGARD TO LOCATION OF PROPOSED UTILITIES, SLEEVES, CONDUITS, ETC.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SUBMITTALS, CUT SHEETS OF MATERIALS & SOIL TEST RESULTS DIRECTLY TO THE OWNERS REPRESENTATIVE FOR APPROVAL. SEE SPECIFICATIONS FOR DETAILED SUBMITTAL INFORMATION.
- REMOVE EXCESS SUB GRADE WHERE NECESSARY AND PLACE SPECIFIED TOP SOIL A MINIMUM DEPTH OF SIX INCHES (6") IN TURF AND GRASS AREAS AND TWELVE (12") INCHES IN SHRUB BEDS. DISTRIBUTE STOCKPILED TOPSOIL AND PROVIDE ANY ADDITIONAL TOPSOIL NEEDED.
- ORGANIC SOIL AMENDMENTS AND FERTILIZERS SHALL BE INCORPORATED IN TO ALL PLANTING PITS AS IN THE DETAILS.
- SOIL PREPARATION:
ORGANIC SOIL AMENDMENTS AND FERTILIZERS SHALL BE INCORPORATED IN TO ALL LANDSCAPE AREAS AND PLANTING PITS. PROVIDE NO LESS THAN THE FOLLOWING QUANTITIES OF THE SPECIFIED AMENDMENT MATERIAL.
SEEDED AREAS:
Organic Soil Amendment: 4 cubic yards per 1000 s.f.
Commercial Fertilizer (20-10-5): 10lbs. per 1000 s.f.
Super Phosphate (0-46-0): 10lbs per 1000 s.f.
BACKFILL FOR TREES & SHRUBS:
Organic Soil Amendment: 1/4 by volume of backfill
Planting Pit Excavated Material: 3/4 by volume
Fertilizer Tablets: One 21 gram fertilizer tablet for each 1/2 inch of tree trunk caliper and on tablet per 12 inches height, or spread, whichever is greater, of each shrub per manufacturers recommendations.
ORGANIC SOIL AMENDMENTS SHALL BE A COMPOSTED ORGANIC WOOD AND MANURE BASED PRODUCT WITH A CARBON TO NITROGEN RATIO BETWEEN 15:1 AND 30:1 WITH A PH OF 6 TO 8, AND A SALT CONTENT BELOW 6 MMHOS/CM. THE ORGANIC SOIL AMENDMENT SHALL BE FREE FROM ALL VIABLE WEED SEEDS, AND BE FINELY SHREDDED TO PASS 70% THROUGH A 1/8" MESH. SPREAD ORGANIC AMENDMENTS MATERIAL EVENLY OVER AREA.
- ALL PLANT MATERIALS SHALL BE AS SPECIFIED AND MEET OR EXCEED SIZE IN SCHEDULES. OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REFUSE PLANT MATERIALS WHICH DO NOT MEET THE QUALITY REQUIRED FOR THE PROJECT PER SPECIFICATIONS.
ALL SHADE TREES MUST NOT HAVE LIMBS THAT ARE LESS THAN 6' FROM THE ROOT CROWN. AFTER TWO YEARS OF GROWTH SHADE TREES SHALL HAVE THE LOWER LIMBS REMOVED SO THAT THERE WILL BE 8' OF CLEARANCE ABOVE ANY PAVED SURFACE. EACH TREE THAT IS LIMBED UP MUST HAVE LIMBS REMOVED ALL THE WAY AROUND THE TREE SO THAT IT IS EVENLY BALANCED.
- ALL TREE AND SHRUB BED LOCATIONS ARE TO BE STAKED OUT ON SITE FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- ALL CONVENTIONAL PLANTING BEDS AND MULCH AREAS ARE TO BE CONTAINED WITH STEEL EDGER AS SHOWN ON THE PLANS AND DEFINED IN THE DETAILS AND SPECIFICATIONS. EDGER IS NOT REQUIRED ADJACENT TO CURBS, WALKS, BUILDINGS OR RETAINING WALLS.
- 1 1/2" ROUNDED RIVER ROCK MULCH IS TO BE SPREAD FOUR (4) INCHES DEEP OVER WEED BARRIER FABRIC FOR ALL PLANTING BEDS UNLESS NOTED OTHERWISE ON THE PLAN. SHREDDED CEDAR MULCH IS TO BE SPREAD FOUR (4) DEEP FOR TREES IN TURF AND SHALL BE FOUR (4) FOOT DIAMETER MIN. FOR SHADE AND EVERGREEN TREES. THREE (3) FOOT DIAMETER MIN. FOR ORNAMENTALS AND SHRUBS. ALL CONVENTIONAL PLANTING BEDS CONTAINED BY EDGER WILL BE UNIFORMLY MULCHED.
PLACE SPECIFIED WEED BARRIER FABRIC OVER THE SOIL IN ALL PLANTING AREAS NOT TO BE SODDED. APPLY SPECIFIED PRE-EMERGENT HERBICIDE UNDER THE FABRIC AS DEFINED IN THE SPECIFICATIONS.
- THE DEVELOPER, HIS SUCCESSORS AND ASSIGNS, SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF ALL LANDSCAPING MATERIALS SHOWN OR INDICATED ON THE APPROVED SITE PLAN OR LANDSCAPE PLAN ON FILE IN THE PLANNING DEPARTMENT. ALL LANDSCAPING WILL BE INSTALLED AS DEFINED ON THE PLAN, PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
- ALL LANDSCAPE AREAS AND PLANT MATERIALS SHALL BE WATERED BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM UNLESS OTHERWISE NOTED. ALL TURF AREAS LESS THAN 25' IN WIDTH SHALL HAVE A POP-UP SPRAY SYSTEM AND ALL TURF AREAS GREATER THAN 25' SHALL HAVE A ROTARY POP-UP SYSTEM PROVIDING HEAD TO HEAD COVERAGE.
ALL SHRUB BEDS SHALL HAVE FULL COVERAGE WITH A BURIED DRIP SYSTEM.
ALL TURF AND SHRUB BEDS SHALL BE ZONED SEPARATELY. ALL CONTROLLERS FOR THESE SYSTEMS SHALL BE CONNECTED TO AUTOMATIC SHUTOFF RAIN SENSORS.

REVISION DESCRIPTION (DESCRIPTION)	
REVISION DATE 000000	
NORTH	



Construction Notes:

- ① DECORATIVE METAL PANEL.
- ② METAL PANEL WALL.
- ③ STRUCTURAL COLUMN.
- ④ 16W X 10H OH DOOR.
- ⑤ 3W X 8H HM DOOR.
- ⑥ RAMP SLOPE AT 1"11'-0", RE: CIVIL FOR GRADING.



REVISIONS:

NO.	DESCRIPTION

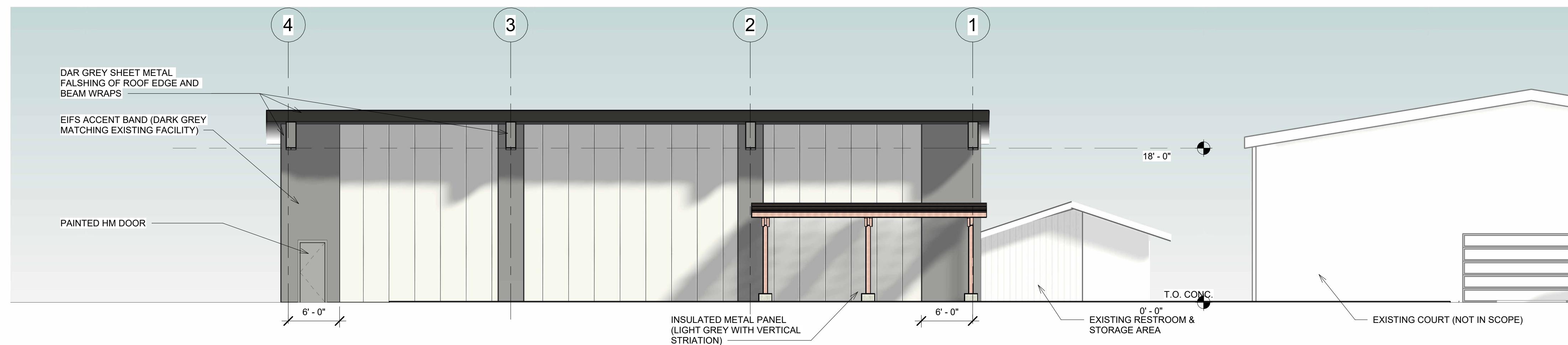
ISSUE DATE: 04/11/2024
 REASON FOR ISSUE: P.C. SUBMITTAL
 PROJECT NUMBER: 22-063
 PROJECT PHASE: DD

SHEET TITLE:
New Work
First Floor Plan
Pickleball Court

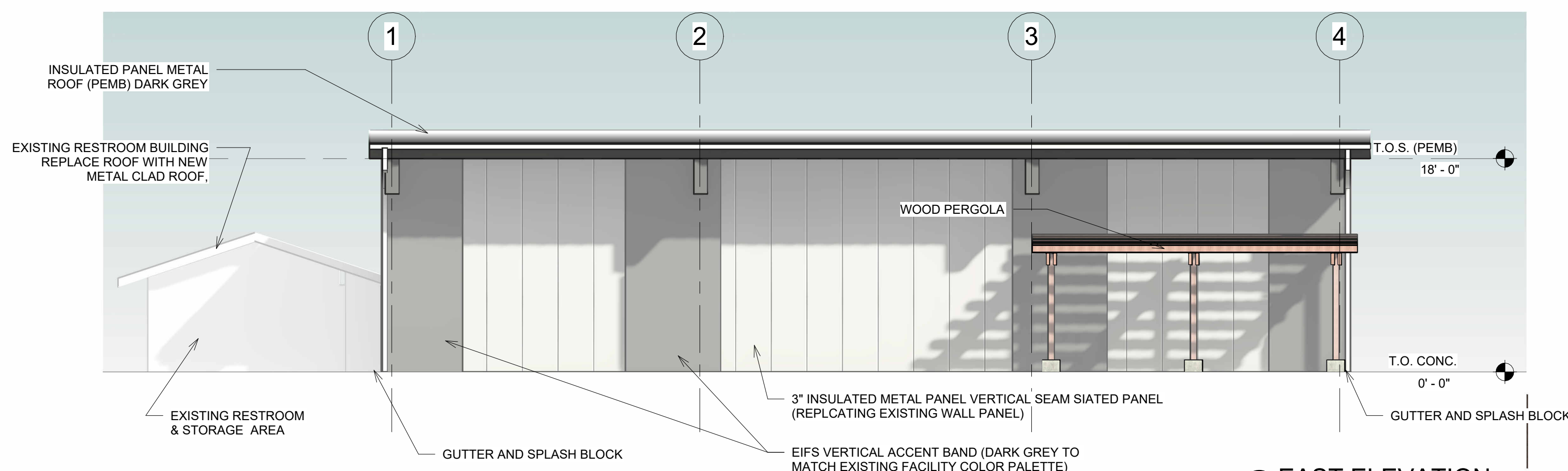
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A101

CLIENT:

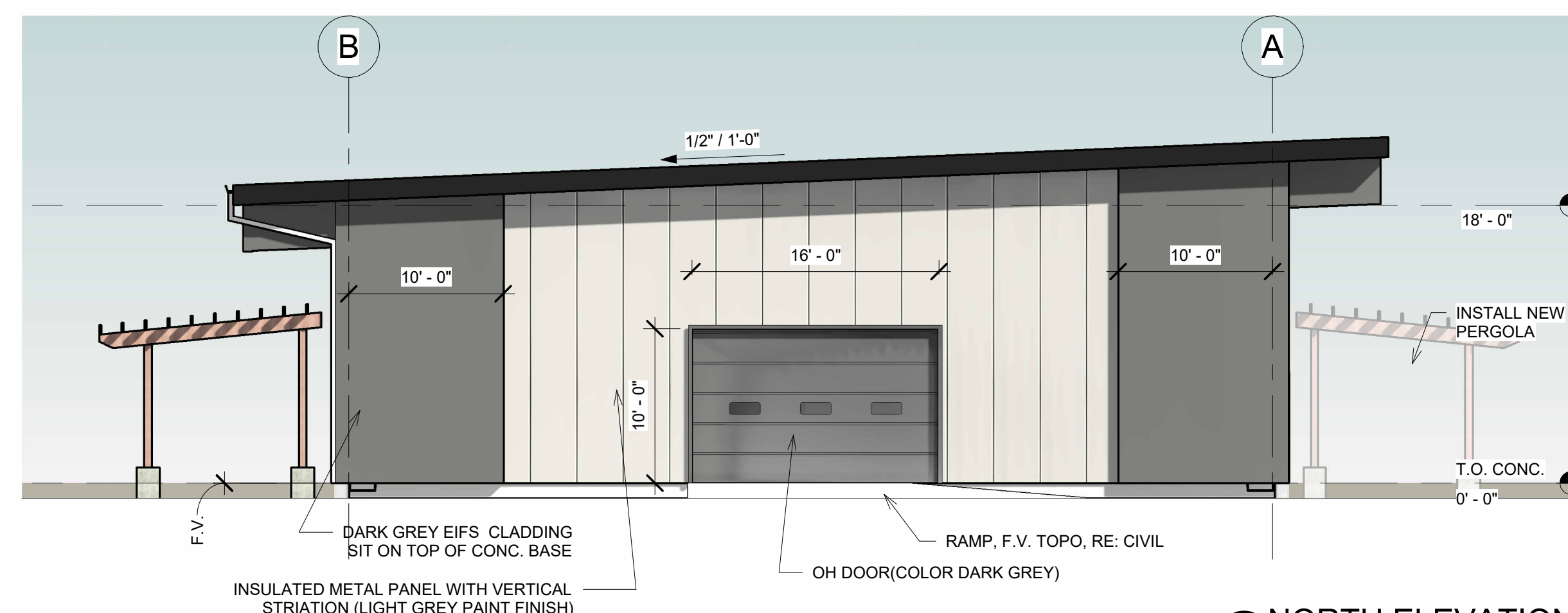
Homestead Country Club
Indoor Pickleball Court - Phase 2
4100 Homestead Drive
Prairie Village, KS 66208



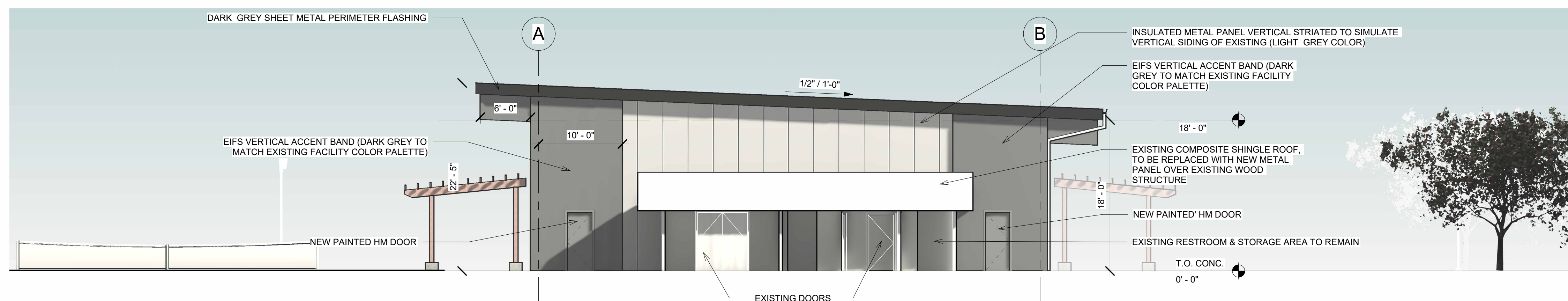
4 WEST ELEVATION
1/8" = 1'-0"



3 EAST ELEVATION
1/8" = 1'-0"

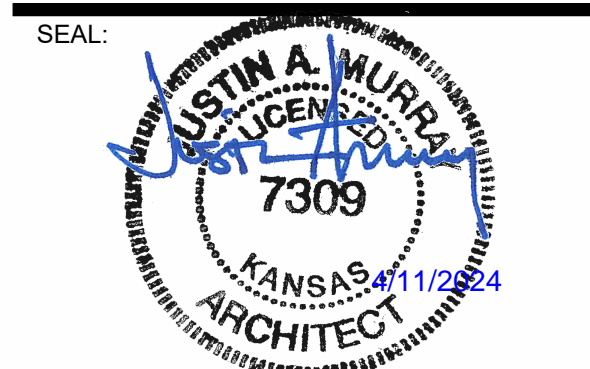


2 NORTH ELEVATION
1/8" = 1'-0"



1 SOUTH ELEVATION
1/8" = 1'-0"

ARCHITECT:
Bell / Knott & Associates
CORPORATE ARCHITECTS, P.C.
12730 State Line Road Voice: 913.378.1600
Suite 100 Fax: 913.378.1601
Leawood, KS 66209 www.bellknott.com



Revisions

No.	Date	Description

ISSUE DATE: 04/11/2024
REASON FOR ISSUE: P.C. SUBMITTAL
PROJECT NUMBER: 22-063
PROJECT PHASE: DD
SHEET TITLE: Elevation

SHEET NUMBER:
A401

4/11/2024 4:15:01 PM C:\Users\jnmurray\Documents\22-063_HomesteadCC PBC Phase 2_CENTRAL_inurray@bellknott.com.rvt

HOMESTEAD COUNTRY CLUB STORM WATER DRAINAGE ANALYSIS

4100 Homestead Court
Prairie Village, Kansas 66208

March 11, 2024

Completed By:
Lee Ryherd, P.E.

Project Description:
New Pickleball Court Building
Additional Parking



SMH
CONSULTANTS

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- Attachment C – Soil Report**
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- Attachment F – Post-Redevelopment Drainage Map**
- Attachment G – Worksheet 1A & Worksheet 2**
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- Attachment J – Hydraflow Output for 2, 10, and 100 Year Events**

INTRODUCTION

The owners of Homestead Country Club have asked SMH Consultants, (SMH) to conduct a storm water drainage analysis associated with a proposed development plan for improvements at the country club. The purpose of the analysis is to determine the potential impacts related to the proposed improvements of adding an enclosed pickleball court structure and additional parking. In addition to identifying potential impacts, the analysis will also provide recommended improvements to mitigate the potential impacts.

The development is located at 4100 Homestead Court in Prairie Village, Kansas. The property lies entirely within the Brush Creek Watershed. The site is bordered on all sides by residential development. See Figure 1 in the appendix section for a location map. SMH has conducted previous studies of the site for previous updates/improvements to the property (February 2022, 2021, 2020, 2019 ,2018). This report is an independent analysis of how these specific proposed improvements will affect the property.

The subject of evaluation during this current study will primarily focus on drainage impacts from adding an enclosure structure over an existing tennis court and adding additional parking, including ADA improvements. Finally, this study will also provide an analysis of post-construction best management practices related to water quality.

The following resources were referenced in evaluating the drainage impacts of the proposed development: *Hydraflow Storm Sewers Extension Software*, as developed by Autodesk, *Kansas City Metropolitan Chapter American Public Works Association Standard Specifications and Design Criteria Section 5600: Storm Drainage Systems & Facilities (APWA 5600)*, *Kansas City Metropolitan Chapter American Public Works Association and Mid-America Regional Council (MARC) Manual of Best Management Practices for Stormwater Quality dated October 2012*.

METHODOLOGY

Drainage characteristics were delineated based on existing and proposed topographic information from survey data collected by SMH, as well as site visit to verify existing flow patterns. In the appendix, Attachment A&B provides the pre- and post-redevelopment drainage maps. These figures, or maps, represent the data used to make assumptions of drainage characteristics of the site. The drainage characteristics of each of these areas was reviewed, studied and analyzed from a hydrology standpoint utilizing Hydraflow Hydrographs Extension Software. This model was then utilized as the basis for analyzing the drainage impacts of the proposed improvements.

The design methodology for analyzing the impacts of the improvements was based on APWA 5600. TR-55 methodology was used to calculate storm runoff and detention. Stormwater runoff intensity rates were determined using NOAA Atlas 14 precipitation frequency. The storm events analyzed were the, 50% (2-year), 10% (10-year) and 1% (100-year) design events.

ANALYSIS

The proposed site improvements are proposed in Drainage Areas 3 and 5. Both of these subdrainage areas flow to a private stormwater system flowing to the north. This stormwater system exiting the site via 36” storm pipe between the properties 4101 and 4105 Delmar Drive. The rest of the sites, drainage areas, flow to the south, and existing via an existing enclosed underground storm system.

The proposed pickleball structure will be located in the Middle of the Homestead Country Club site, replacing the existing snack shack/players’ lounge, North of the clubhouse. The proposed pickleball courts and added parking will directly affect drainage areas 3 & 5. The proposed building will be placed on an existing building and patio area, adding minimal impervious area. Stormwater runoff from the added building will continue to follow existing drainage patterns, generally flowing to the north, collecting in a proposed underground detention system and discharging to an existing stormwater system located between the ball courts and the existing parking lot. An existing swale will be redefined around the northwest side of the existing tennis courts to facilitate added pavement connection to an existing shed to ensure positive drainage to the existing private stormwater system.

The proposed parking facilities will be located to the north of the existing clubhouse building, affecting drainage area 3. Stormwater will continue its previous drainage flow pattern to the north, where it will be mitigated by a proposed underground detention facility with an underground infiltration basin to meet the City of Prairie Village BMP regulations. The underground basin will store the 100-year event for additional storage allocated for detention decreasing the proposed peak flow.

Table 1, below, shows the proposed impacts of the 2-year, 10-year, and 100-year events as stormwater leaves the site to the north, between 4101 and 4105 Delmar Drive, via an underground storm sewer system. The existing rates depict how the current site conditions and the proposed rates show the proposed improvement in peak flow rates including the proposed storm treatment and detention facilities.

Table 1 - Drainage Impacts		
Event	Model Scenario	Flow Rate (CFS)
2-Year	Existing	17.59
	Proposed	17.32
10-Year	Existing	49.86
	Proposed	49.66
100-Year	Existing	108.96
	Proposed	108.91

Table 4 shows the impacts of the 2-year, 10-year, and 100-year events as stormwater leaves the site to the north, via underground storm sewer system 400.

Table 2 – North Drainage Impacts		
Event	Model Scenario	EX S-4 Flow Rate (CFS)
2-Year	Existing	12.30
	Proposed W/ Mitigation	12.03
10-Year	Existing	34.05
	Proposed W/ Mitigation	33.85
100-Year	Existing	73.80
	Proposed W/ Mitigation	73.75

With the addition of the proposed rain garden, discharge from the site will be at or below existing flow rates for the 2, 10, and 100-year events.

POST CONSTRUCTION BMP ANALYSIS

Worksheets 1A from the Kansas City Metropolitan Chapter American Public Works Association and Mid-America Regional Council Manual of Best Management Practices for Stormwater Quality provides an analysis of the Level of Service related to water quality protection. Through the use of Worksheet 1A, the proposed site has a minimum required total value rating (VR) of 1.86. Based on this value rating a proposed best management practice (BMP) Option Package was developed utilizing Worksheet 2 utilizing a proposed rain gardens to provide a total VR of 1.89. These areas are identified on the site plan. Copies of the worksheets are included in the appendix.

The proposed Infiltration basin below the underground detention is designed to be a minimum of 950 SF storage of the water quality volume, additional storage will provide adequate stormwater detention.. The overflow drain will provide additional storm drainage above the needed WQv, to account for any additional rain events.

SUMMARY

In summary, post development stormwater flow rates will be equal to or less than pre-redevelopment stormwater flow rates leaving the development. An underground detention facility will be used to achieve both stormwater treatment and detention requirements. As a result of these measures the proposed flow rates for the 2, 10, and 100-year events in the underground storm pipe between 4101 and 4105 Delmar Drive will be equal to or less than if the same storm were to occur under the pre-redevelopment rates.

An infiltration basin is proposed to improve stormwater quality and will provide a total VR of 1.86 exceeding the minimum required total VR of 1.87. From a stormwater perspective, the proposed site meets or exceeds the stormwater drainage requirements of the City of Prairie Village.

Appendix

Appendix

Attachment A:

Location Map

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Figure 1 - Location Map



Homestead Country Club Location Map

LEGEND

AIMS Imagery: Current Imagery (2016)

AIMS Imagery: 2016

Property

- Untaxed
- Common Interest
- Vertical
- Platted
- Unplatted
- Right-of-way
- Mineral Rights
- Leased Land



Disclaimer: No person shall sell, give, reproduce, or receive for the purpose of selling or offering for sale, any portion of the data provided herein. Johnson County makes every effort to produce and publish the most current and accurate information possible. Johnson County assumes no liability whatsoever associated with the use or misuse of such data, and disclaims any representation or warranty as to the accuracy and currency of the data. 2/12/2018

Attachment B:

FEMA FIRM Panel

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National Flood Hazard Layer FIRMMette



94°38'19"W 39°0'56"N



94°37'42"W 39°0'28"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **12/28/2022 at 10:10 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Attachment C:

Soil Report

SMH
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United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Johnson County, Kansas**



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

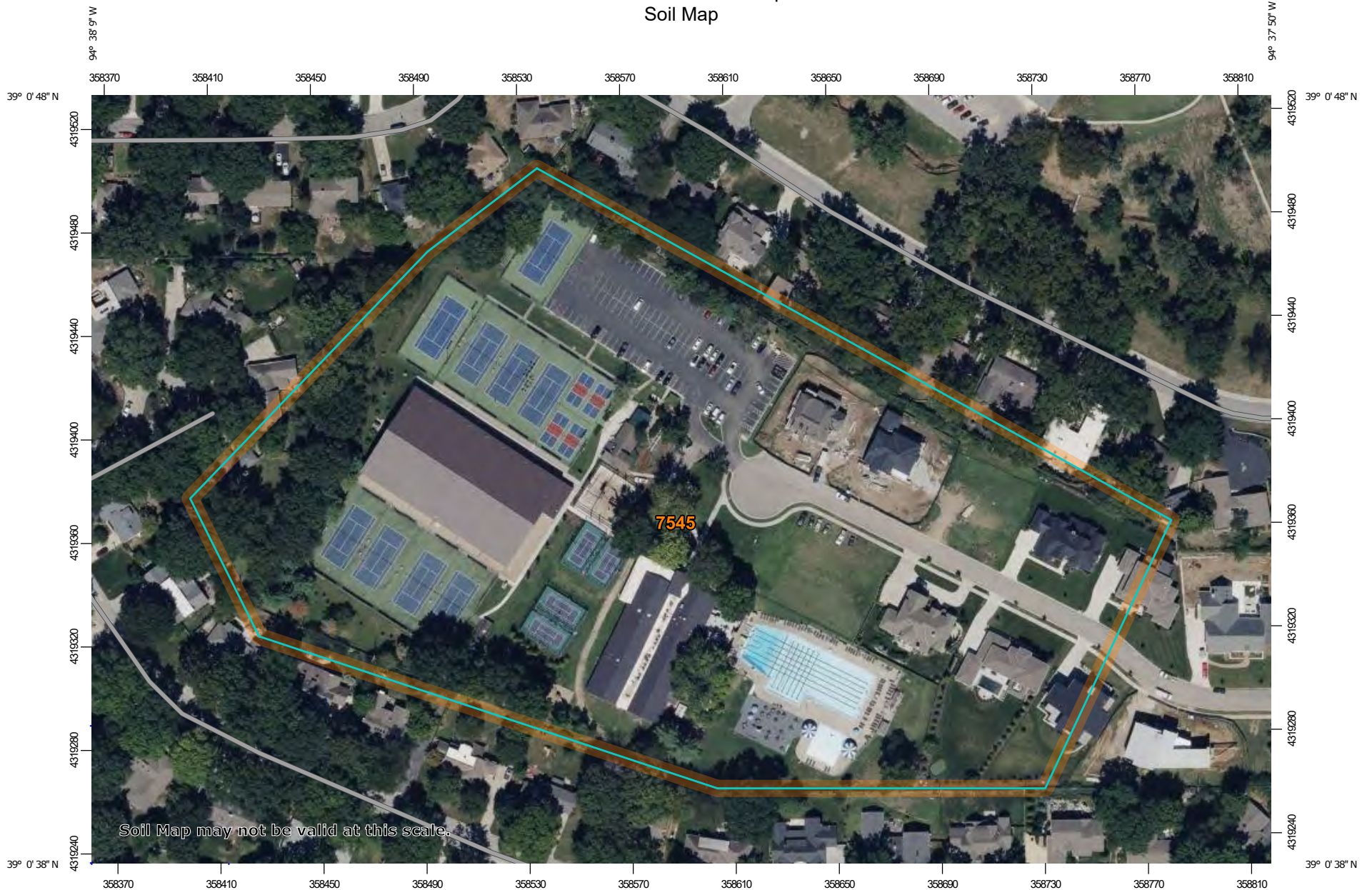
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:2,090 if printed on A landscape (11" x 8.5") sheet.


0 30 60 120 180 Meters

0 100 200 400 600 Feet


Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

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

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

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

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

Soil Survey Area: Johnson County, Kansas
 Survey Area Data: Version 21, Sep 12, 2022

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

Date(s) aerial images were photographed: Aug 30, 2022—Sep 16, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7545	Sharpsburg-Urban land complex, 4 to 8 percent slopes	14.0	100.0%
Totals for Area of Interest		14.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Johnson County, Kansas

7545—Sharpsburg-Urban land complex, 4 to 8 percent slopes

Map Unit Setting

National map unit symbol: tq4z

Elevation: 1,000 to 1,300 feet

Mean annual precipitation: 31 to 47 inches

Mean annual air temperature: 45 to 64 degrees F

Frost-free period: 185 to 255 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Sharpsburg and similar soils: 55 percent

Urban land: 45 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sharpsburg

Setting

Landform: Hillslopes

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Silty and clayey loess

Typical profile

A - 0 to 9 inches: silt loam

AB - 9 to 13 inches: silty clay loam

Bt - 13 to 35 inches: silty clay loam

BC - 35 to 60 inches: silty clay loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: About 36 to 40 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 11.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: R106XY015KS - Loamy Upland (PE 30-37)

Hydric soil rating: No

Description of Urban Land

Setting

Landform: Hillslopes

Down-slope shape: Convex

Across-slope shape: Convex

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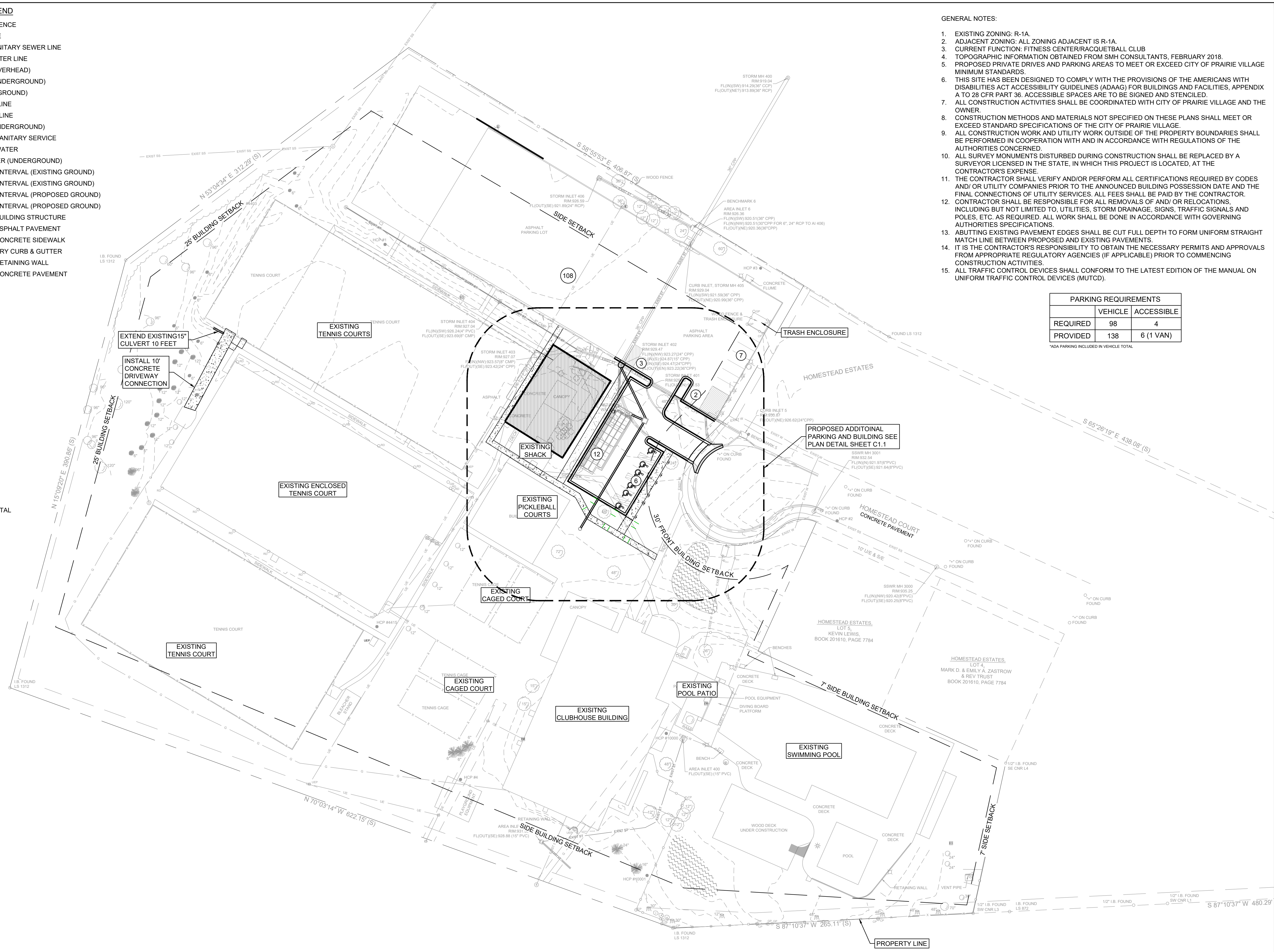
Attachment D:

Site Plan

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CIVIL SHEET SET LEGEND

- CHAIN LINK FENCE
- WOOD FENCE
- EXIST SS --- EXIST SS --- EXISTING SANITARY SEWER LINE
- EXIST W --- EXIST W --- EXISTING WATER LINE
- OE --- OE --- ELECTRIC (OVERHEAD)
- UE --- UE --- ELECTRIC (UNDERGROUND)
- G --- G --- GAS (UNDERGROUND)
- T --- T --- TELEPHONE LINE
- FO --- FO --- FIBER OPTIC LINE
- TV --- TV --- CABLE TV (UNDERGROUND)
- SSS --- SSS --- PROPOSED SANITARY SERVICE
- W --- W --- PROPOSED WATER
- --- STORM SEWER (UNDERGROUND)
- 1264 --- 1' CONTOUR INTERVAL (EXISTING GROUND)
- 1265 --- 5' CONTOUR INTERVAL (EXISTING GROUND)
- 1264 --- 1' CONTOUR INTERVAL (PROPOSED GROUND)
- 1265 --- 5' CONTOUR INTERVAL (PROPOSED GROUND)
- PROPOSED BUILDING STRUCTURE
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DRY CURB & GUTTER
- PROPOSED RETAINING WALL
- PROPOSED CONCRETE PAVEMENT
- BENCHMARK
- △ SECTION CORNER
- FOUND REBAR ORIGIN: NOTED
- STEEL BOLLARD
- ⊥ ROAD SIGN
- ⊥ FENCE BRACE
- ⊥ FIRE HYDRANT
- ⊥ WATER VALVE
- ⊥ WATER METER
- ⊥ FIRE LINE CONNECTION
- ⊥ WATER SPIGOT
- ⊥ WATER MANHOLE
- ⊥ LIGHT POLE
- ⊥ POWER POLE
- ⊥ UNDERGROUND ELECTRIC PEDESTAL
- ⊙ STORM SEWER MANHOLE
- ⊙ SANITARY SEWER MANHOLE
- ⊙ SANITARY SEWER CLEANOUT
- ☁ TREE
- ☁ EVERGREEN TREE
- ☁ SHRUB
- ☁ STUMP



- GENERAL NOTES:
1. EXISTING ZONING: R-1A.
 2. ADJACENT ZONING: ALL ZONING ADJACENT IS R-1A.
 3. CURRENT FUNCTION: FITNESS CENTER/RACQUETBALL CLUB
 4. TOPOGRAPHIC INFORMATION OBTAINED FROM SMH CONSULTANTS, FEBRUARY 2018.
 5. PROPOSED PRIVATE DRIVES AND PARKING AREAS TO MEET OR EXCEED CITY OF PRAIRIE VILLAGE MINIMUM STANDARDS.
 6. THIS SITE HAS BEEN DESIGNED TO COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR BUILDINGS AND FACILITIES, APPENDIX A TO 28 CFR PART 36. ACCESSIBLE SPACES ARE TO BE SIGNED AND STENCILED.
 7. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH CITY OF PRAIRIE VILLAGE AND THE OWNER.
 8. CONSTRUCTION METHODS AND MATERIALS NOT SPECIFIED ON THESE PLANS SHALL MEET OR EXCEED STANDARD SPECIFICATIONS OF THE CITY OF PRAIRIE VILLAGE.
 9. ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF THE PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH AND IN ACCORDANCE WITH REGULATIONS OF THE AUTHORITIES CONCERNED.
 10. ALL SURVEY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY A SURVEYOR LICENSED IN THE STATE, IN WHICH THIS PROJECT IS LOCATED, AT THE CONTRACTOR'S EXPENSE.
 11. THE CONTRACTOR SHALL VERIFY AND/OR PERFORM ALL CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY COMPANIES PRIOR TO THE ANNOUNCED BUILDING POSSESSION DATE AND THE FINAL CONNECTIONS OF UTILITY SERVICES. ALL FEES SHALL BE PAID BY THE CONTRACTOR.
 12. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVALS OF AND/OR RELOCATIONS, INCLUDING BUT NOT LIMITED TO, UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS AND POLES, ETC. AS REQUIRED. ALL WORK SHALL BE DONE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS.
 13. ABUTTING EXISTING PAVEMENT EDGES SHALL BE CUT FULL DEPTH TO FORM UNIFORM STRAIGHT MATCH LINE BETWEEN PROPOSED AND EXISTING PAVEMENTS.
 14. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM APPROPRIATE REGULATORY AGENCIES (IF APPLICABLE) PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
 15. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

PARKING REQUIREMENTS		
	VEHICLE	ACCESSIBLE
REQUIRED	98	4
PROVIDED	138	6 (1 VAN)

*ADA PARKING INCLUDED IN VEHICLE TOTAL.

SITE LAYOUT PLAN
Scale: 1" = 40'

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Dodge City, KS (620) 255-1952
Overland Park, KS (913) 444-9615
Colorado Springs, CO (719) 465-2145

HOMESTEAD COUNTRY CLUB
PROGRESS DOCUMENTS NOT FOR CONSTRUCTION
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REVISION DESCRIPTION (DESCRIPTION)		SITE PLAN
REVISION DATE		
000000		
NORTH		
<p>SCALE: 1" = 40'</p>		
PROJECT #: 2208-0284 CHECKED BY: LJR DRAWN BY: LJR		
DATE: 04/12/2024		
SHEET # C1.0		
TOTAL SHEETS 6		

HOMESTEAD COUNTRY CLUB

PROGRESS DOCUMENTS NOT FOR CONSTRUCTION
 4100 HOMESTEAD COURT PRAIRIE VILLAGE, KANSAS

NOTES:

- ALL SOIL BROUGHT TO THE SITE SHALL BE COMPACTED BY ROLLING WITH A SHEEPSFOOT ROLLER OR BY MECHANICAL TAMPING. THE SHEEPSFOOT ROLLER, WHEN FULLY LOADED, SHALL HAVE A LOAD ON EACH TAMPER FOOT NOT LESS THAN 200 POUNDS PER SQUARE INCH OF CROSS-SECTIONAL AREA. ENOUGH MOISTURE SHALL BE PRESENT IN THE SOIL TO OBTAIN A DENSITY EQUAL TO OR GREATER THAN 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST BEFORE PLACING THE NEXT LIFT. EACH LIFT SHALL CONSIST OF 8-INCH LOOSE LIFTS OR LESS PRIOR TO COMPACTION. CONTRACTOR SHALL PROVIDE A STANDARD PROCTOR OF ALL FILL MATERIAL TO BE USED ON SITE.
- ALL FILL MATERIAL SHALL HAVE ROCK NO LARGER THAN 3" DIAMETER. EACH LIFT SHALL CONSIST OF 8-INCH LOOSE LIFTS OR LESS PRIOR TO COMPACTION.
- ALL STRIPPED TOPSOIL SHALL BE STOCKPILED FOR RE-USE.
- THE CROSS SLOPES OF ALL SIDEWALKS SHALL BE 1.5% OR LESS, UNLESS OTHERWISE SPECIFIED.
- ALL GRADE AGAINST BUILDINGS SHALL BE 6" BELOW FINISH FLOOR UNLESS OTHERWISE SPECIFIED.

CONTROL POINTS

BENCHMARK 5: N:265025.817 E:2269042.376 ELEV:930.87
 CHISELED * ON NE CORNER OF CURB INLET AT NORTH SIDE OF HOMESTEAD CT. CUT-DE-SAC

BENCHMARK 6: N:265209.435 E:2268995.271 ELEV:930.87
 CHISELED * ON NW CORNER OF AREA INLET BELOW CURB INLET AT NORTH END OF EXISTING PARKING LOT

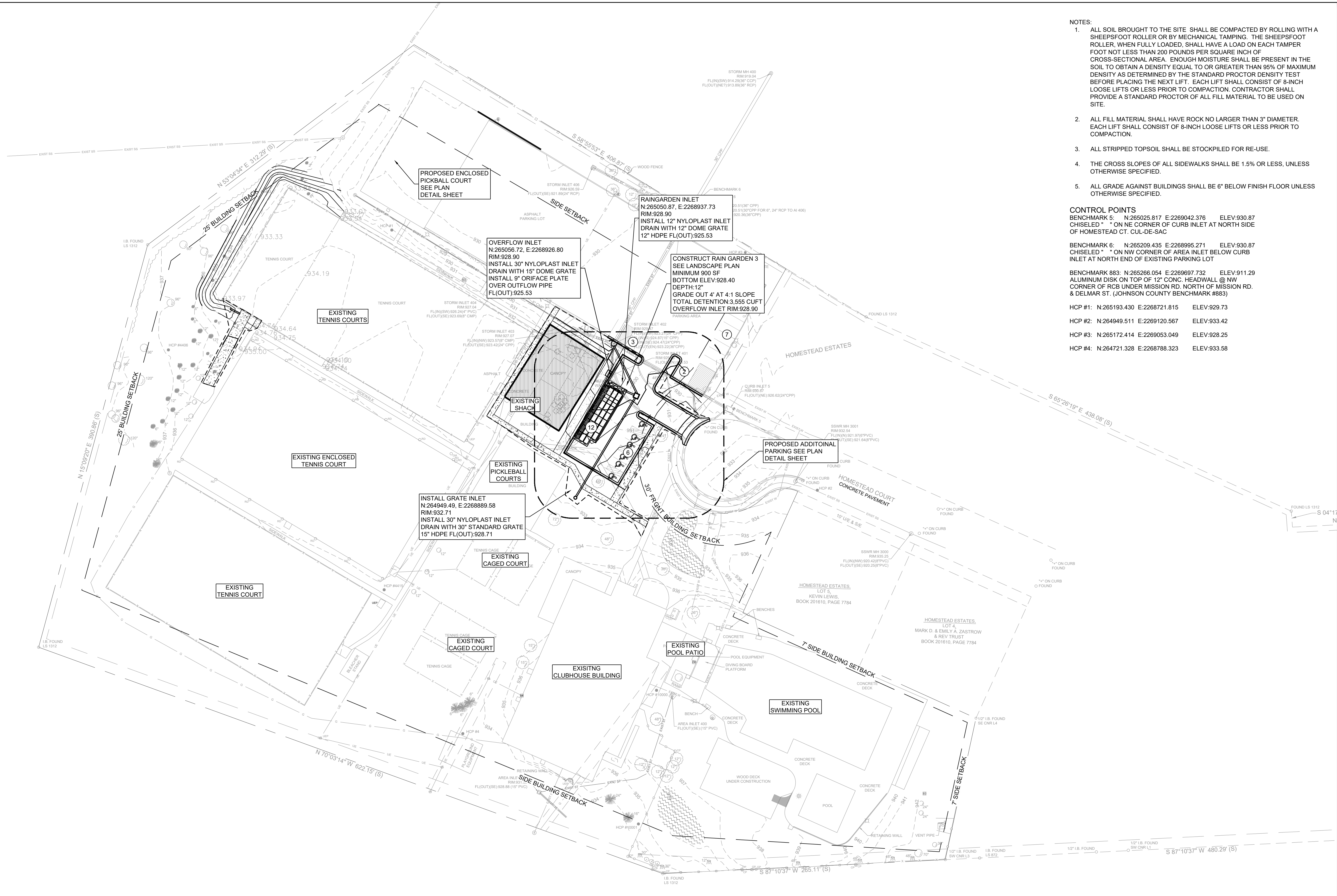
BENCHMARK 883: N:265266.054 E:2269697.732 ELEV:911.29
 ALUMINUM DISK ON TOP OF 12" CONC. HEADWALL @ NW CORNER OF RCB UNDER MISSION RD. NORTH OF MISSION RD. & DELMAR ST. (JOHNSON COUNTY BENCHMARK #883)

HCP #1: N:265193.430 E:2268721.815 ELEV:929.73

HCP #2: N:264949.511 E:2269120.567 ELEV:933.42

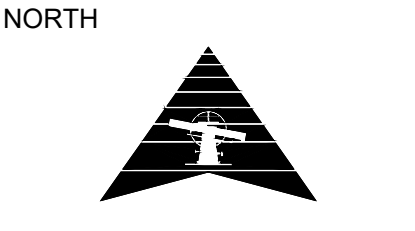
HCP #3: N:265172.414 E:2269053.049 ELEV:928.25

HCP #4: N:264721.328 E:2268788.323 ELEV:933.58



SITE LAYOUT PLAN
 Scale: 1" = 40'

REVISION	DATE	DESCRIPTION
000000		



SCALE: 1" = 40'

PROJECT #: 2208-0284
 CHECKED BY: LJR
 DRAWN BY: LJR

DATE: 04/12/2024

SHEET # **C2.0**

NOTES:

1. ALL WORK IN PUBLIC EASEMENTS AND RIGHT OF WAY AND ALL EROSION CONTROL WORK MUST COMPLY WITH THE LATEST EDITION OF THE TECHNICAL PROVISIONS & STANDARD DRAWINGS FOR THE CITY OF PRAIRIE VILLAGE AND KANSAS CITY APWA. IF ANY OF THE GENERAL NOTES CONFLICT WITH THE TECHNICAL PROVISIONS & STANDARD DRAWINGS FOR KANSAS CITY APWA, THE APWA STANDARDS SHALL OVERRIDE.

2. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR AS NECESSARY TO INSTALL AND MAINTAIN ADEQUATE EROSION CONTROL. KEEP THE STREET CLEAN OF MUD AND DEBRIS, AND PREVENT SOIL FROM LEAVING THE PROJECT SITE. THE CONTRACTOR'S EROSION CONTROL MEASURES SHALL CONFORM TO PRAIRIE VILLAGE AND KC APWA TECHNICAL PROVISIONS SPECIFICATIONS.

4. CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES BEFORE STARTING ANY CONSTRUCTION ACTIVITY. REFERENCE THE ABOVE TABLE FOR MORE INFORMATION AND DETAIL.

5. GOOD HOUSEKEEPING, INCLUDING SPILL RESPONSE, SHALL BE PERFORMED IN ACCORDANCE WITH THE KANSAS CITY CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION STANDARD SPECIFICATION, SECTION 2150.

6. THE CONTRACTOR SHALL TEMPORARILY SEED, MULCH, OR OTHERWISE STABILIZE ANY DISTURBED AREA WHERE THE LAND DISTURBANCE ACTIVITY HAS CEASED FOR A PERIOD OF FOURTEEN (14) CALENDAR DAYS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REMOVING SEDIMENT UNTIL A MINIMUM OF 70% OF PERMANENT VEGETATION HAS BECOME STABILIZED AND ESTABLISHED. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE 70% ESTABLISHED VEGETATION IS MET, OR THE DURATION OF THE PROJECT, WHICHEVER IS THE LATER DATE.

8. INLET PROTECTION SHALL BE PROVIDED AT ALL DOWNSTREAM INLETS AS INDICATED.

9. NATIVE VEGETATION SHALL BE MAINTAINED IN ALL AREAS AS STORM WATER POLLUTION PREVENTION WITH THE EXCEPTION OF THOSE AREAS NOTED ON THIS PLAN SHEET.

10. CONTRACTOR SHALL DESIGNATE A TRUCK WASHOUT AREA. THE TRUCK WASHOUT AREA MUST STRUCTURE A MINIMUM OF 50 FT AWAY FROM OPEN CHANNELS, STORM DRAININLETS, SENSITIVE AREAS, WETLANDS, BUFFERS, AND WATER COURSES, AND AWAY FROM CONSTRUCTION TRAFFIC.

11. FRESHLY SEEDED AREAS REQUIRE MULCH THE SAME DAY AS SEED IS APPLIED OR THE AREA MUST BE RESEED. MULCH SHALL BE SUBSIDIARY TO TEMPORARY AND PERMANENT SEEDING.

12. TOTAL AREA OF LAND DISTURBED IS EQUAL TO ±26,125 SQ FT, OR ±0.60 ACRES.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL EROSION CONTROL MEASURES OR MODIFICATIONS IF THE PLAN FAILS TO SUBSTANTIALLY CONTROL EROSION OR OFFSITE SEDIMENTATION.


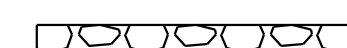
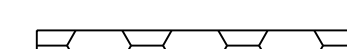
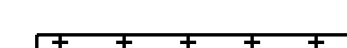
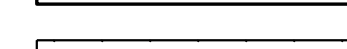
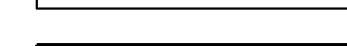
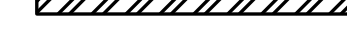


14. CONTRACTOR SHALL INSTALL AN ACCESS BARRIER BETWEEN ACTIVE WORK AREA AND AREA TO REMAIN AS UNDISTURBED. ACCESS BARRIER SHALL COMPLY WITH KC APWA STANDARDS AND SPECIFICATIONS.

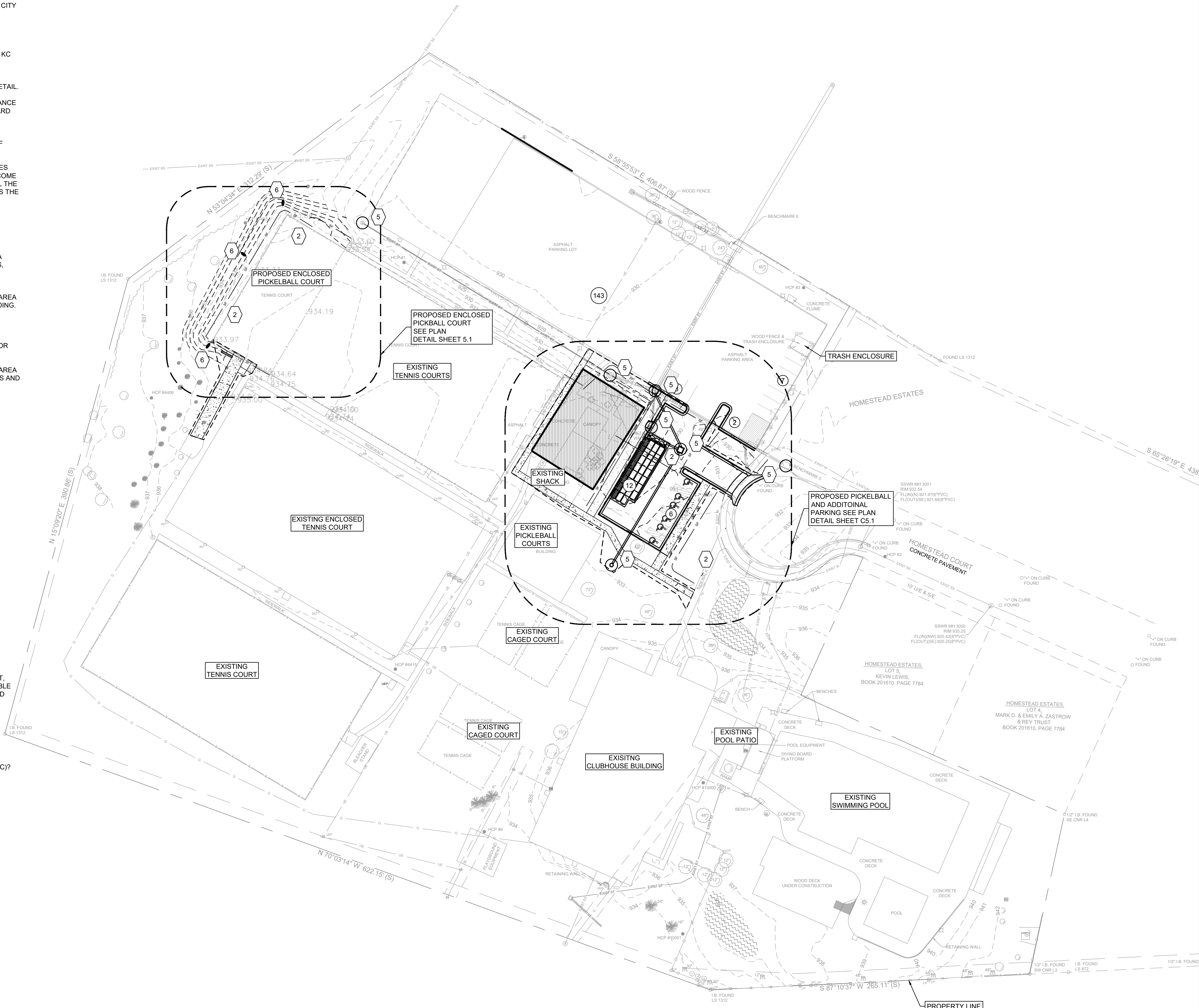
INSPECTION AND MAINTENANCE:

EROSION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 3" OR MORE. THE CONTRACTOR SHALL REPAIR DAMAGE, CLEAN OUT SEDIMENT, AND ADD ADDITIONAL EROSION CONTROL DEVICES AS NEEDED, OR AS SOON AS PRACTICABLE AFTER INSPECTION. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION.

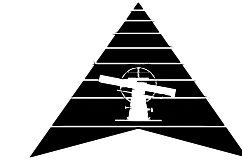
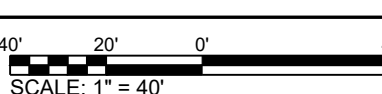
1. ARE THERE ANY POINTS WHERE WATER IS CONCENTRATING?
2. DOES WATER FLOW UNDER OR AROUND THE CONTROL DEVICE?
3. DOES THE CONTROL DEVICE SHOW SIGNS OF WEAR?
4. HAS THE CONTROL DEVICE FAILED (TORN DETACHED FORM POSTS, DISLODGED, ETC)?
5. DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE CONTROL DEVICE?

LEGEND

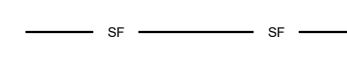

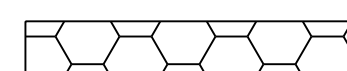
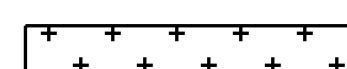
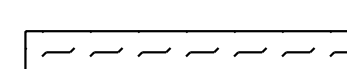

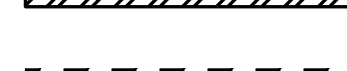

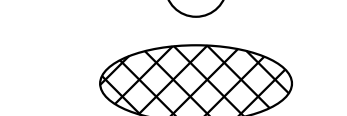
-  SILT FENCE
-  CONSTRUCTION ENTRANCE
-  PERMANENT SEEDING
-  OUTLET PROTECTION
-  STOCKPILE (IF NECESSARY)
-  CONSTRUCTION STAGING AREA
-  LIMITS OF DISTURBANCE
-  INLET PROTECTION
-  CHECK DAMS

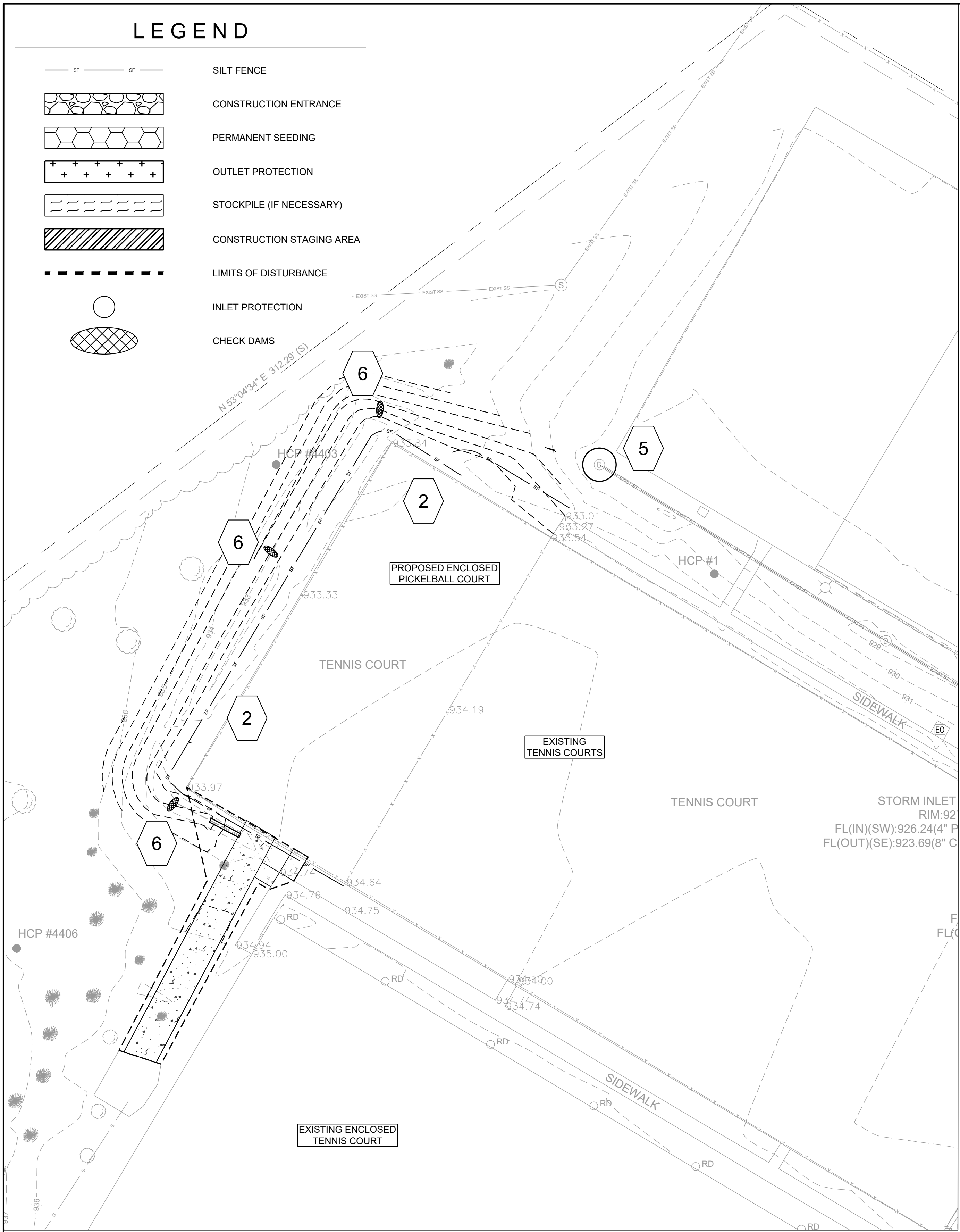


SITE EROSION CONTROL PLAN
Scale: 1" = 40'

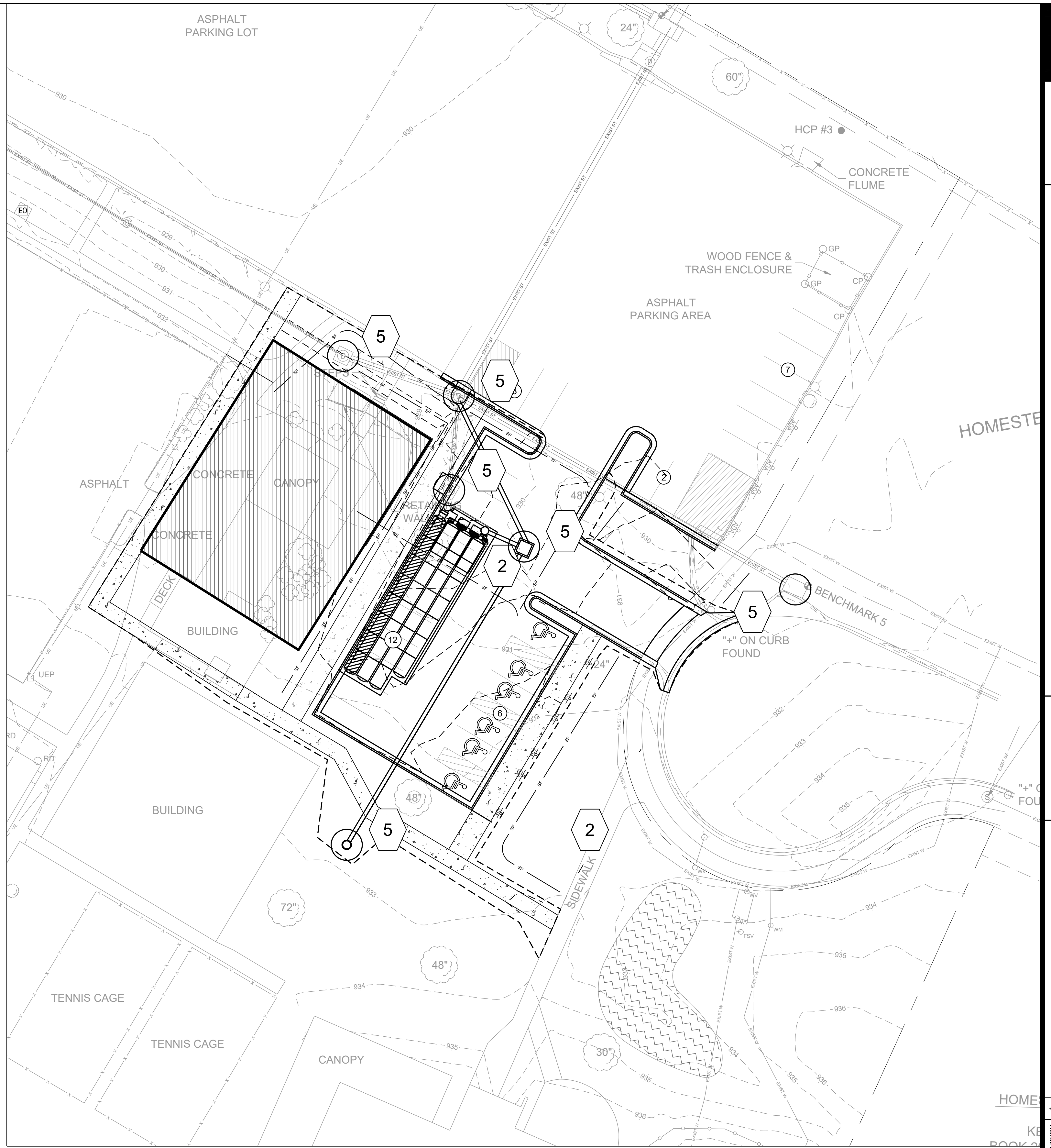
REVISION DESCRIPTION (DESCRIPTION)	
REVISION DATE	
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NORTH	
40' 20' 0'	
SCALE: 1" = 40'	
PROJECT #: 2208-0284 CHECKED BY: LJR DRAWN BY: LJR	
DATE: 04/12/2024	
SHEET #	C5.0
TOTAL SHEETS	6

LEGEND

-  SILT FENCE
-  CONSTRUCTION ENTRANCE
-  PERMANENT SEEDING
-  OUTLET PROTECTION
-  STOCKPILE (IF NECESSARY)
-  CONSTRUCTION STAGING AREA
-  LIMITS OF DISTURBANCE
-  INLET PROTECTION
-  CHECK DAMS



PROPOSED TENNIS COURT IMPROVEMENTS PLAN
Scale: 1" = 20'



PROPOSED BUILDING AND ADDITIONAL PARKING SITE PLAN
Scale: 1" = 20'

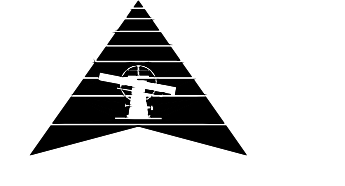
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PROGRESS DOCUMENTS NOT FOR CONSTRUCTION
4100 HOMESTEAD COURT PRAIRIE VILLAGE, KANSAS

EROSION AND SEDIMENT CONTROL STAGING CHART				
PROJECT STAGE	BMP PLAN REFERENCE NO.	BMP DESCRIPTION	MAY REMOVE AFTER STAGE:	NOTES
A - PRIOR TO LAND DISTURBANCE	1	CONSTRUCTION ENTRANCE	C	
	2	SILT FENCE	D	
	3	INLET PROTECTION	D	
	4	STOCKPILE	D	
	5	INLET PROTECTION	D	
B - AFTER MASS GRADING	6	CHECK DAM	D	
C - AFTER PAVEMENT INSTALLATION	7	PERMANENT SEEDING	N/A	SEE LA SHEETS FOR SEEDING & SOD DETAILS
D - AFTER CONSTRUCTION COMPLETION AND VEGETATION IS ESTABLISHED	8	SITE TO BE CLEANED AND CLEARED	D	

REVISION	DESCRIPTION
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

000000
NORTH



40' 20' 0' 40'
SCALE: 1" = 40'

PROJECT #: 2208-0284
CHECKED BY: LJR
DRAWN BY: LJR

DATE: 04/12/2024

SHEET # **C5.1**

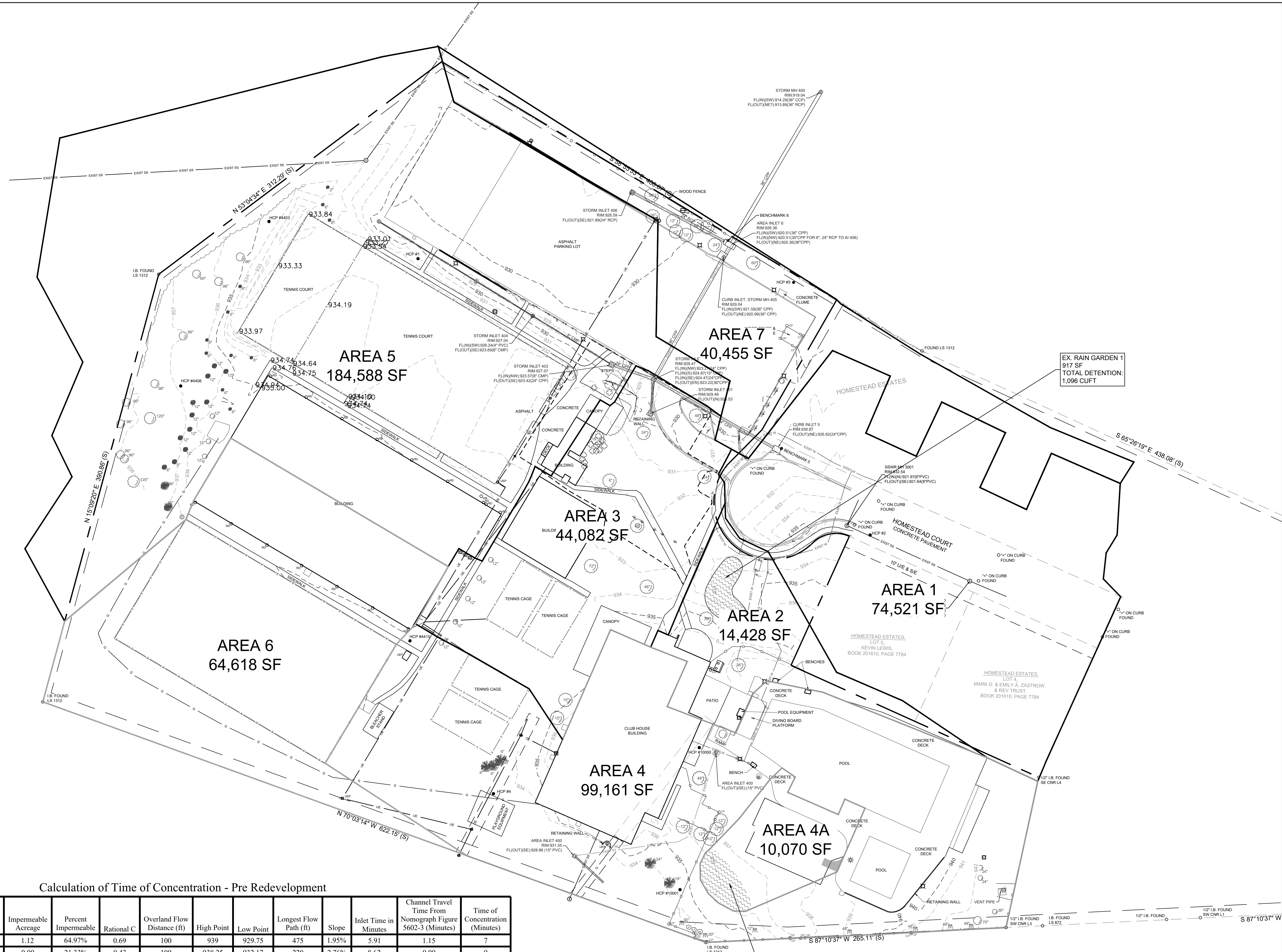
TOTAL SHEETS 6

EROSION CONTROL DETAIL SHEET

Attachment E:

Pre Redevelopment Map

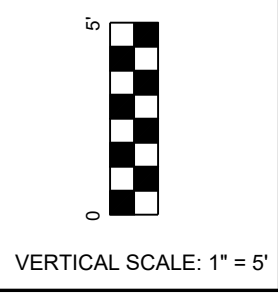
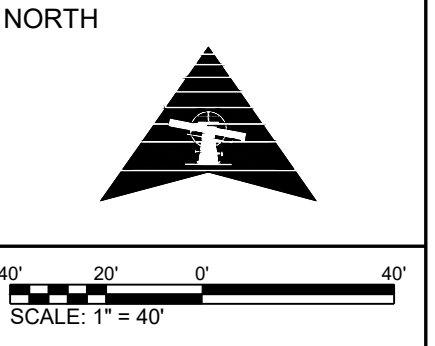
**SMH
CONSULTANTS**



Calculation of Time of Concentration - Pre Redevelopment

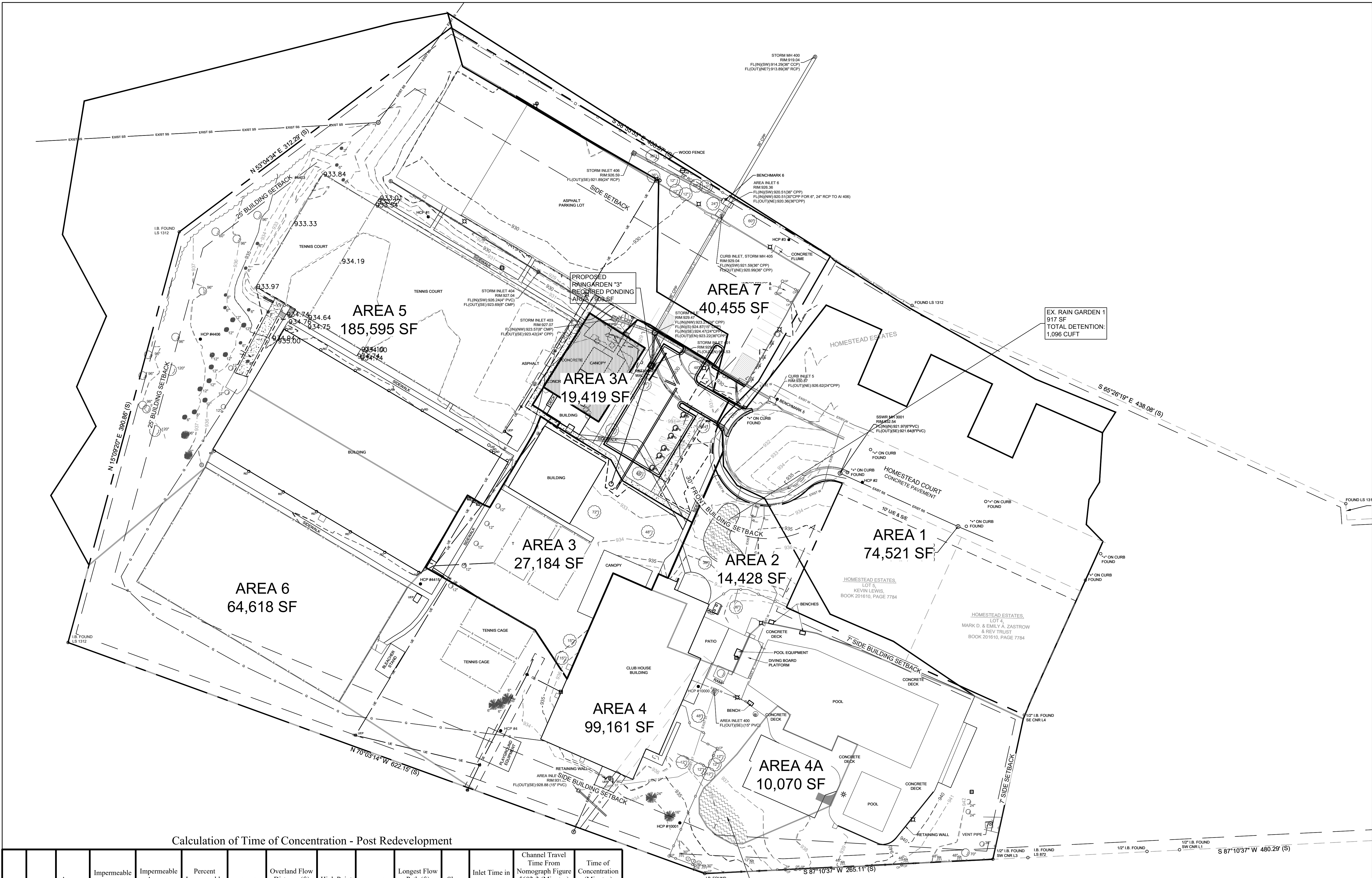
Area	SF	Acreage	Impermeable SF	Impermeable Acreage	Percent Impermeable	Rational C	Overland Flow Distance (ft)	High Point	Low Point	Longest Flow Path (ft)	Slope	Inlet Time in Minutes	Channel Travel Time From Nomograph Figure 5602-3 (Minutes)	Time of Concentration (Minutes)
1	74861	1.72	48634	1.12	64.97%	0.69	100	939	929.75	475	1.95%	5.91	1.15	7
2	18228	0.42	3888	0.09	21.33%	0.43	100	938.25	932.17	220	2.76%	8.62	0.00	9
3	43060	0.99	6535	0.15	15.18%	0.39	100	936.6	928.5	390	2.08%	10.00	1.00	11
4	99161	2.28	47104	1.08	47.50%	0.59	100	942.00	931.55	450	2.32%	7.00	1.50	9
4A	10070	0.23	5603	0.13	55.64%	0.63	100	939.00	936.00	140	2.14%	6.51	0.00	7
5	185595	4.26	84960	1.95	45.78%	0.57	100	938	927.25	755	1.42%	8.41	3.40	12
6	64618	1.48	27750	0.64	42.94%	0.56	100	937	933	404	0.99%	9.79	1.00	11
7	40365	0.93	26999	0.62	66.89%	0.70	100	930	926.36	350	1.04%	7.08	1.50	9

REVISION	DATE	DESCRIPTION
000000		



Attachment F:
Post Redevelopment Map

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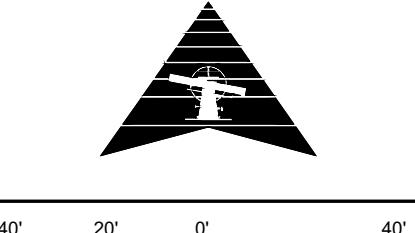


Calculation of Time of Concentration - Post Redevelopment

Area	SF	Acreage	Impermeable SF	Impermeable Acreage	Percent Impermeable	Rational C	Overland Flow Distance (ft)	High Point	Low Point	Longest Flow Path (ft)	Slope	Inlet Time in Minutes	Channel Travel Time From Nomograph Figure 5602-3 (Minutes)	Time of Concentration (Minutes)
1	74861	1.72	48634	1.12	64.97%	0.69	100	939	929.75	475	1.95%	5.91	1.15	7
2	18228	0.42	3888	0.09	21.33%	0.43	100	938.25	932.17	220	2.76%	8.62	0.00	9
3	27184	0.62	10815	0.25	39.78%	0.54	100	936.6	928.5	390	2.08%	7.92	1.00	9
3a	20679	0.47	13887	0.32	67.16%	0.70	100	936.6	928.5	390	2.08%	5.60	2.00	8
4	99161	2.28	47104	1.08	47.50%	0.59	100	942.00	931.55	450	2.32%	7.00	1.50	9
4A	10070	0.23	5603	0.13	55.64%	0.63	100	939.00	936.00	140	2.14%	6.51	0.00	7
5	178501	4.10	82777	1.90	46.37%	0.58	100	938	927.25	755	1.42%	8.35	3.40	12
6	64618	1.48	27750	0.64	42.94%	0.56	100	937	933	404	0.99%	9.79	1.00	11
7	40365	0.93	26999	0.62	66.89%	0.70	100	930	926.36	350	1.04%	7.08	1.50	9

RAIN GARDEN 4B
1282 SF
TOTAL DETENTION:
1,282 CUFT

REVISION DESCRIPTION	(DESCRIPTION)
REVISION DATE	
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NORTH	



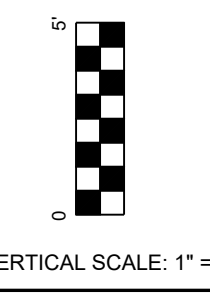
SCALE: 1" = 40'

PROJECT #: 2208-0284
CHECKED BY: LJR
DRAWN BY: LJR

DATE: 04/12/2024

SHEET #
C3.2

TOTAL SHEETS 6



VERTICAL SCALE: 1" = 5'

Attachment G:

Worksheet 1A & Worksheet 2

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CONSULTANTS**

WORKSHEET 1A: REQUIRED LEVEL OF SERVICE - DEVELOPED SITE

Project: Homestead County Club
 Location: Prairie Village, KS

By: LJR
 Checked:

1 Required Treatment Area

A Total Area Disturbed by Redevelopment Activity (Ac.)

Disturbed Area Description	Acres
Parking	0.08
Existing Drive	0.05
Untreated	0.32
1A Totals:	0.45

B Existing Impervious Area Inside Disturbed Area (Ac.)

Existing Impervious Area Description	Acres
Existing Building and walk	0.08
sidewalk and drive	0.05
1B Totals:	0.13

C Required Treatment Area (Ac.)

"1A" Totals Less "1B" Total "1C" 0.32

2 Percent Impervious in Post development Condition and Level of Service (LS)

A Total Post development Impervious Area Inside Disturbed Area

Post development Impervious Area Description	Acres
Covered Building	0.14
East Parking and side walk	0.18
2A Totals:	0.32

B Existing Impervious Area Inside Disturbed Area (Ac.)

1B Totals: 0.13

C Net Increase in Impervious Area (Ac.)

2A Total Less 1B Total 2C: 0.19

D Percent Impervious

Net Increase in Impervious Area / Required Treatment Area -0.06 Ac
 $2C/1C * 100$ % 59
 (Round to Integer)

E Level of Service

Use Percent Impervious to Enter Table 4.3 LS: 5.8

3 Minimum Required Total Value of BMP Package

Total Value Rating = LS * Required Treatment Area

VR= 1.86

WORKSHEET 2: DEVELOPED MITIGATION PACKAGE(S) THAT MEET THE REQUIRED LS

Project: Homestead County Club
 Location: Prairie Village, KS

By: LJR
 Checked:

Date: 3/11/2024
 Date:

1 Required LS = 5.8

Note: Various BMP's may alter CN of proposed development, and LS; recalculate both if applicable.

2 Proposed BMP Option Package No. _____

Cover/BMP Description	Treatment Area	VR from Table 5 or 6 ¹	Product of CN x Area
New Parking to Infiltration Basin	0.21	9	1.89
Untreated	0.11	0	0
Total:	0.32	Total:	1.89

Weighted VR: 5.91 di
 = total production/total area

- 1 VR calculated for final BMP only in Treatment Train.
- 2 Total treatment area cannot exceed 100 percent of the actual site area.

Meets required LS (Yes/No)? Yes (if No, or if additional options are being tested, proceed below)

INFILTRATION WORKSHEET

Project: Homestead County Club
Location: Prairie Village, KS

By: LJR
Checked:

I. Water Quality Volume

$$WQv = P * Rv$$

WQv= Water Quality Volume (in.)

P = Rainfall event in inches (1.37 in.)

Rv = Volumetric runoff coefficient

$$Rv = 0.005 + 0.009(\% \text{ Impervious})$$

Total Tributary Area	0.21 Ac
Impervious Area	0.21
% Impervious	100

WQv=	1.23985 in
	945.14 cu ft

Basin Area	1322 SF
Gravel Under Cambers	0.75 depth
Provided Infiltration Volume	991.5

Attachment H:

Underground Detention Sheets



PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	



HOMESTEAD

PRAIRIE VILLAGE, KS, USA

SC-740 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

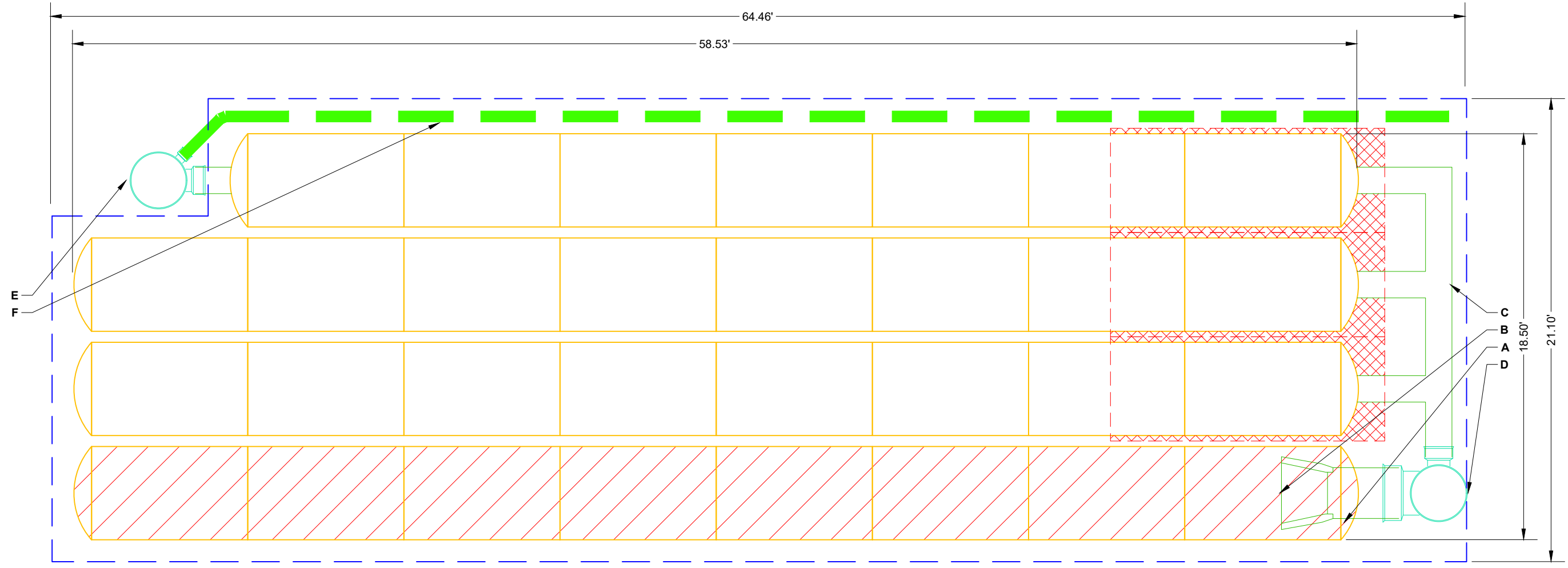
NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT		CONCEPTUAL ELEVATIONS:		*INVERT ABOVE BASE OF CHAMBER				
				PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
31	STORMTECH SC-740 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	11.00					
8	STORMTECH SC-740 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	5.00					
6	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	4.50	PREFABRICATED EZ END CAP	A	24" BOTTOM PREFABRICATED EZ END CAP, PART#: SC740ECEZ / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	0.10"	
6	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	4.50	FLAMP	B	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: SC74024RAMP		
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	4.50	MANIFOLD	C	12" x 12" TOP MANIFOLD, ADS N-12	12.50"	
2706	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	3.50	NYLOPLAST (INLET W/ ISO PLUS ROW)	D	30" DIAMETER (24.00" SUMP MIN)		5.7 CFS IN
		TOP OF SC-740 CHAMBER:	3.00	NYLOPLAST (OUTLET)	E	30" DIAMETER (DESIGN BY ENGINEER)		2.0 CFS OUT
		12" x 12" TOP MANIFOLD INVERT:	1.54	UNDERDRAIN	F	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		
		12" BOTTOM CONNECTION INVERT:	0.60					
1322	SYSTEM AREA (SF)	24" ISOLATOR ROW PLUS INVERT:	0.51					
171.1	SYSTEM PERIMETER (ft)	BOTTOM OF SC-740 CHAMBER:	0.50					
		UNDERDRAIN INVERT:	0.00					
		BOTTOM OF STONE:	0.00					



- ISOLATOR ROW PLUS (SEE DETAIL)
- PLACE MINIMUM 12.50' OF ADSPLUS125 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS
- BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

HOMESTEAD
PRAIRIE VILLAGE, KS, USA

DATE: _____ DRAWN: LR

PROJECT #: _____ CHECKED: N/A

DATE	DRW	CHK	DESCRIPTION

StormTech®
Chamber System

888-892-2694 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

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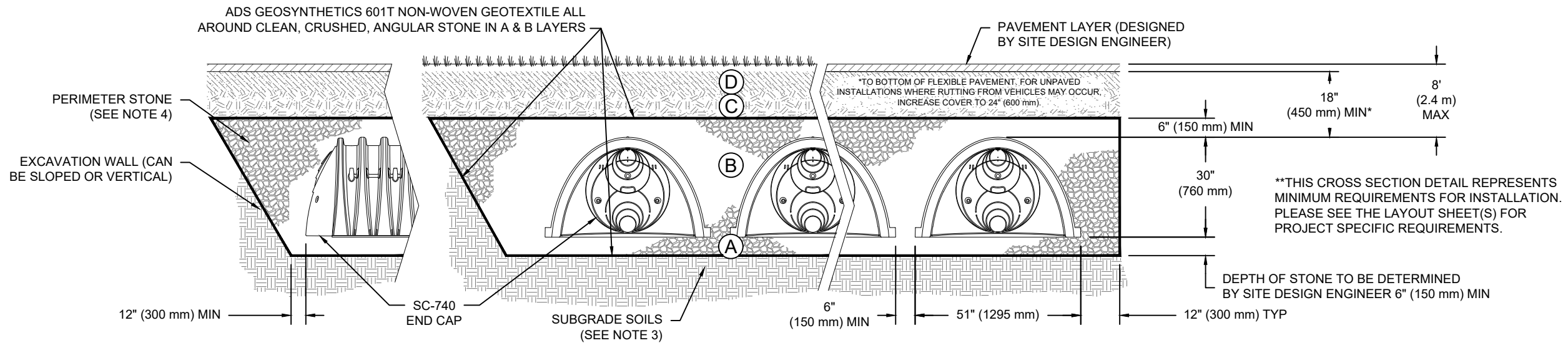
THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

HOMESTEAD

PRRAIRIE VILLAGE, KS, USA

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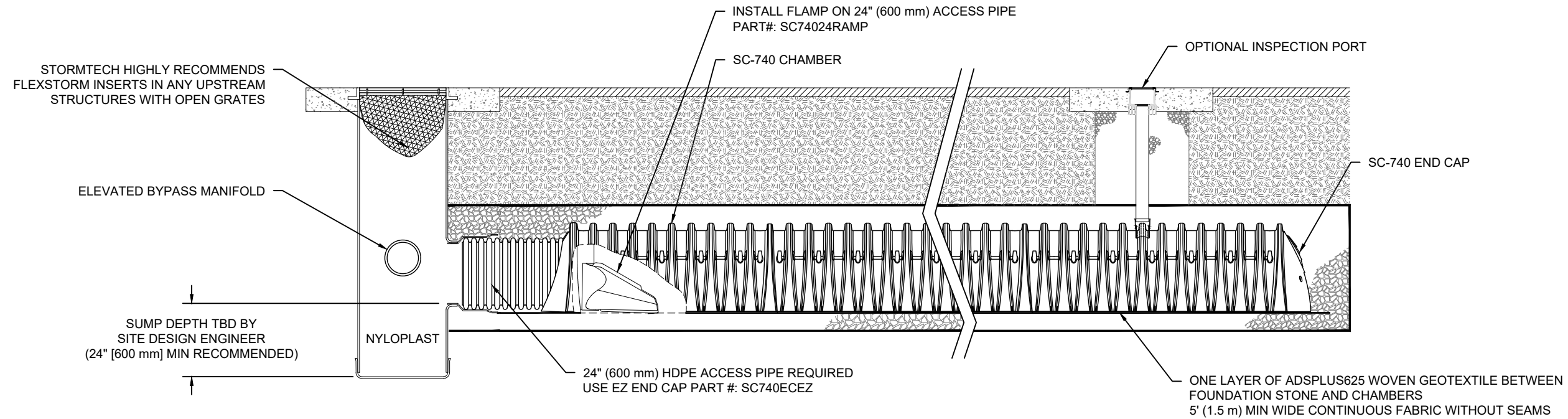
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SC-740 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
 - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - B. ALL ISOLATOR PLUS ROWS
 - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
 - B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

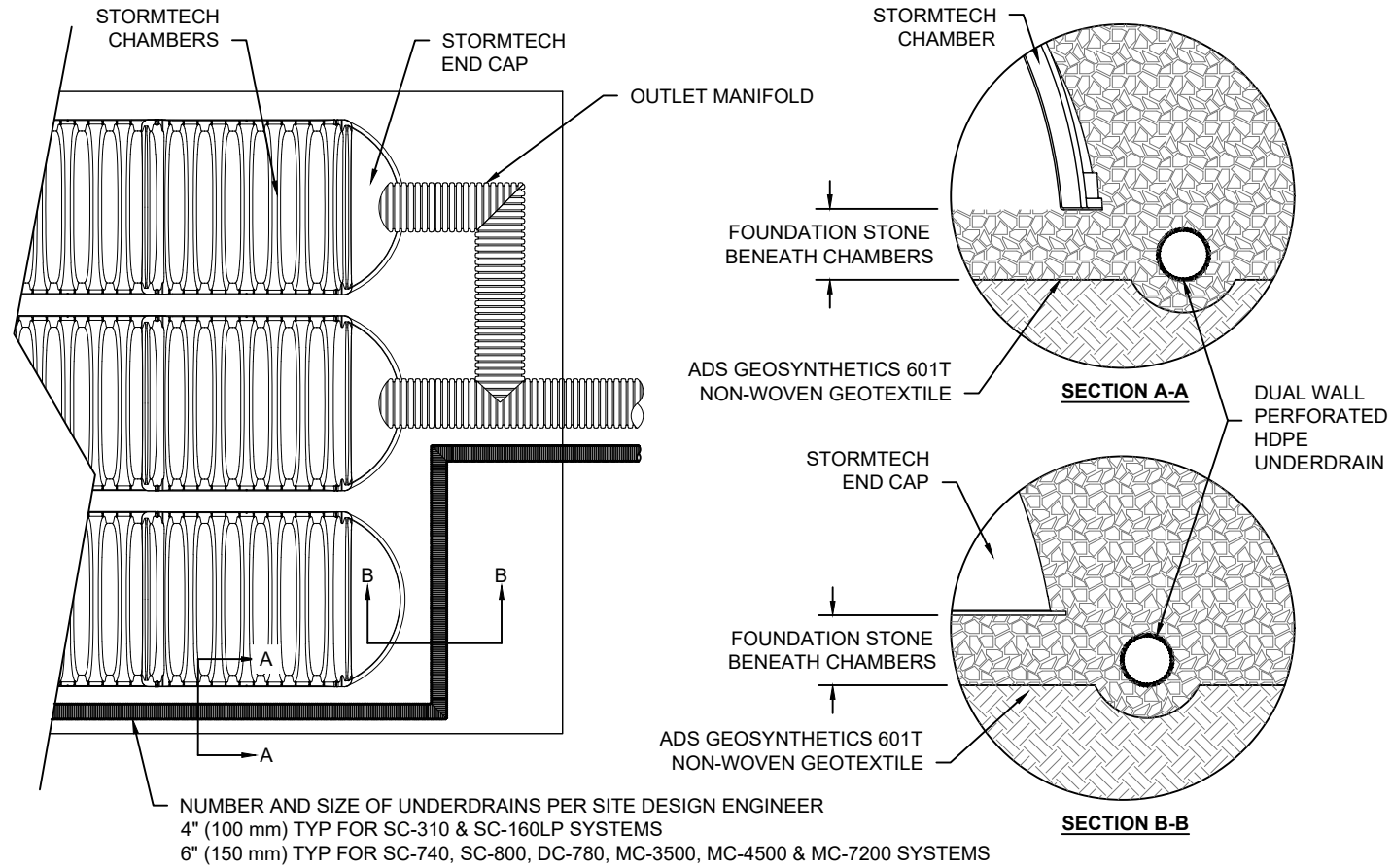
NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

HOMESTEAD		PRAIRIE VILLAGE, KS, USA	
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StormTech®		888-892-2694 WWW.STORMTECH.COM	
Chamber System			
4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473			
THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.			
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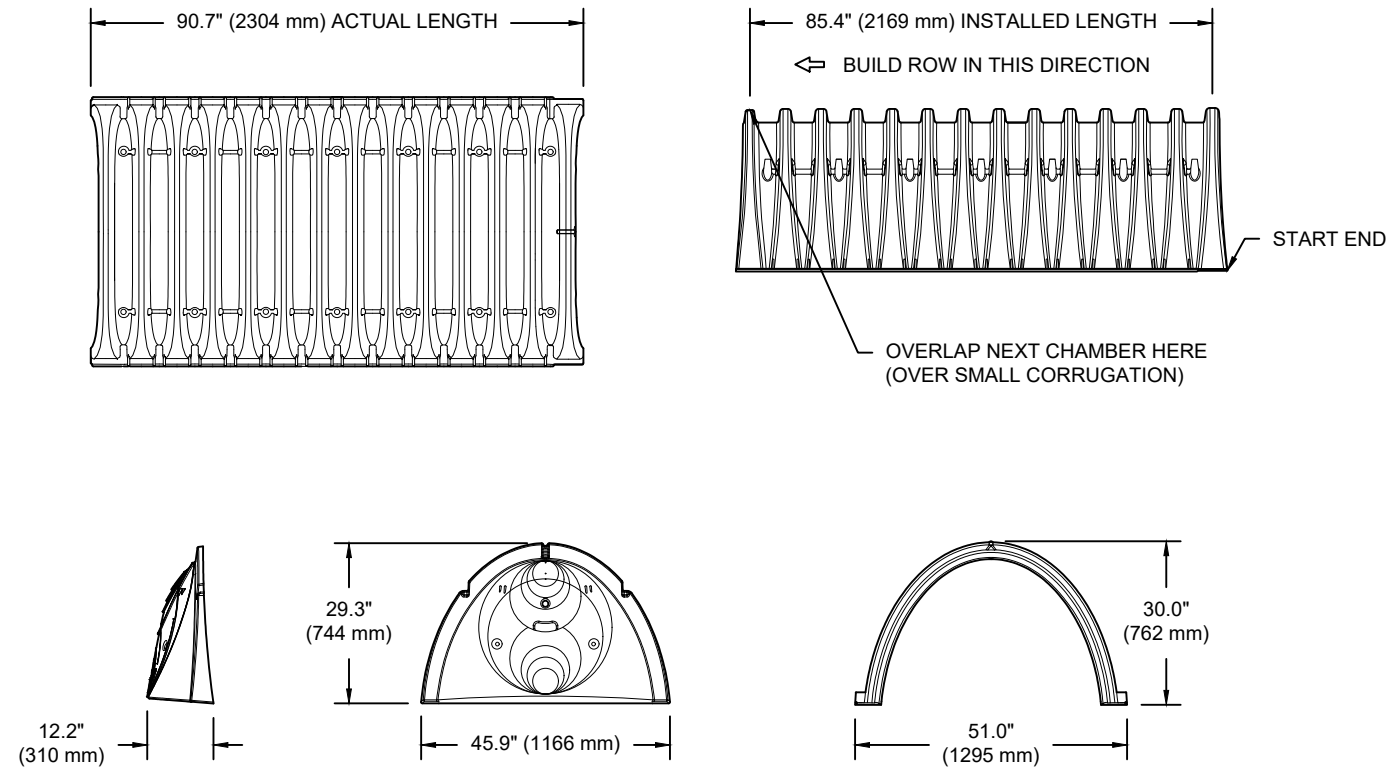
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SC-740 TECHNICAL SPECIFICATION

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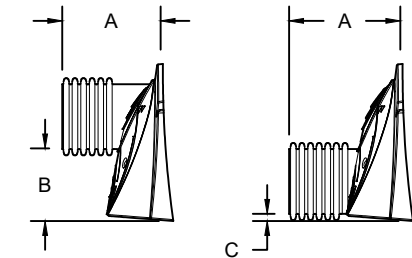


NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m ³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m ³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BR"
 PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
 PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
 PRE-CORED END CAPS END WITH "PC"



PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC	---	---	---	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC	---	---	---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC	---	---	---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC	---	---	---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC	---	---	---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC	---	---	---	1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

HOMESTEAD

PRAIRIE VILLAGE, KS, USA

DRAWN: LR

CHECKED: N/A

DATE:

PROJECT #:

DESCRIPTION

CHK

DRW

DATE

DATE

StormTech®
Chamber System

888-892-2694 | WWW.STORMTECH.COM

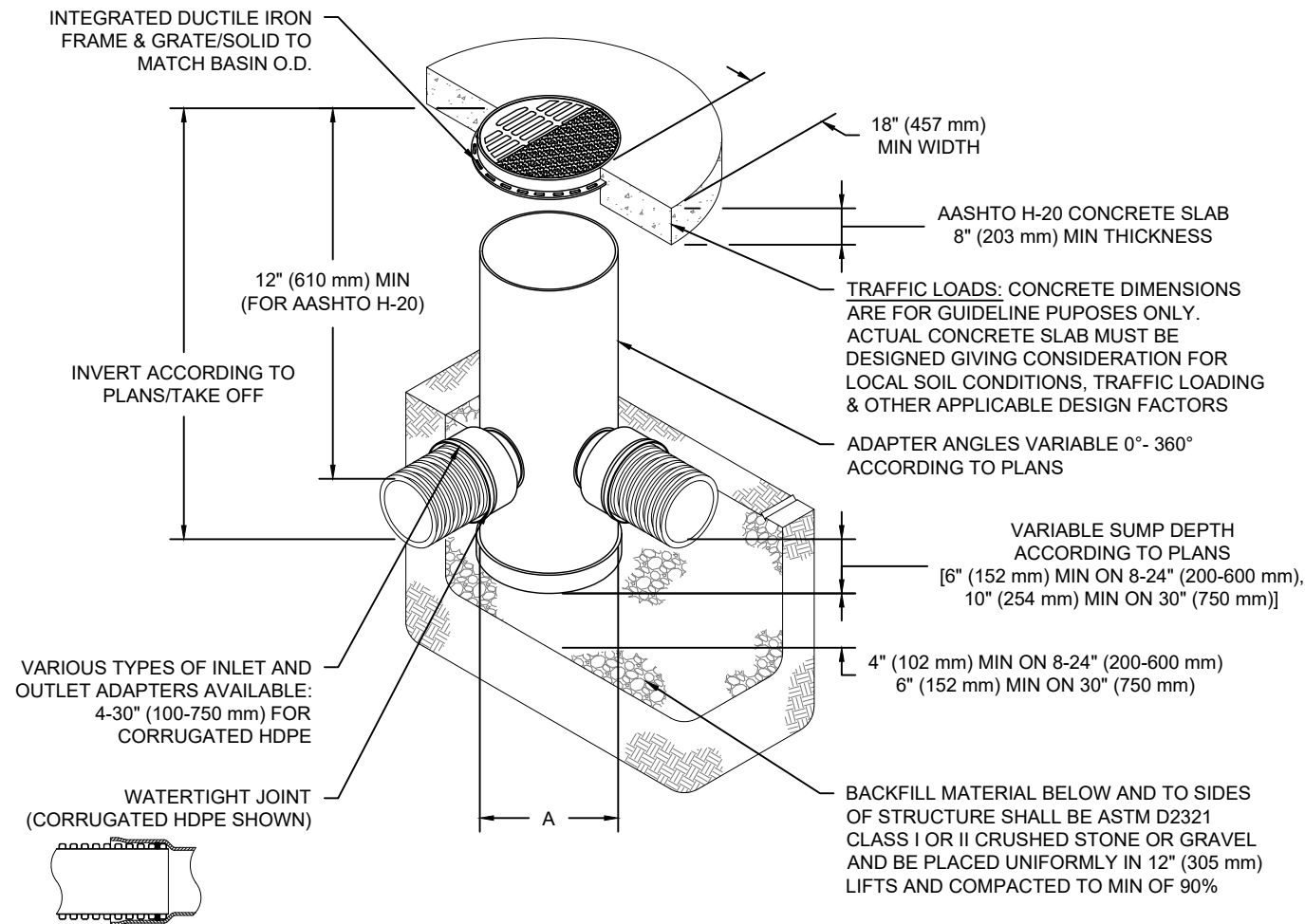
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473



THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

NYLOPLAST DRAIN BASIN

NTS



NOTES

- 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION: WWW.NYLOPLAST-US.COM
- TO ORDER CALL: 800-821-6710

A	PART #	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20

HOMESTEAD

PRAIRIE VILLAGE, KS, USA

DATE:

DRAWN: LR

PROJECT #:

DESCRIPTION

CHK

DATE

770-932-2443 | WWW.NYLOPLAST-US.COM

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SHEET

6 OF 6

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Attachment I:

Infiltration Table



Precipitation Intensity Table:

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	4.75 (3.84-5.95)	5.63 (4.55-7.06)	7.07 (5.70-8.87)	8.27 (6.62-10.4)	9.91 (7.67-12.7)	11.2 (8.47-14.4)	12.4 (9.13-16.2)	13.7 (9.68-18.2)	15.4 (10.5-20.7)	16.7 (11.1-22.7)
10-min	3.48 (2.81-4.36)	4.12 (3.33-5.17)	5.18 (4.17-6.50)	6.05 (4.85-7.61)	7.25 (5.62-9.28)	8.18 (6.20-10.5)	9.10 (6.68-11.9)	10.0 (7.09-13.3)	11.3 (7.67-15.2)	12.2 (8.12-16.6)
15-min	2.83 (2.23-3.54)	3.35 (2.71-4.20)	4.21 (3.39-5.28)	4.92 (3.94-6.18)	5.90 (4.57-7.54)	6.65 (5.04-8.56)	7.40 (5.43-9.66)	8.16 (5.76-10.8)	9.17 (6.24-12.3)	9.92 (6.60-13.5)
30-min	2.04 (1.65-2.55)	2.43 (1.96-3.04)	3.06 (2.46-3.84)	3.58 (2.87-4.51)	4.30 (3.33-5.50)	4.86 (3.68-6.26)	5.41 (3.97-7.06)	5.97 (4.21-7.91)	6.70 (4.56-9.03)	7.26 (4.83-9.87)
60-min	1.34 (1.09-1.68)	1.60 (1.29-2.00)	2.01 (1.62-2.53)	2.37 (1.90-2.98)	2.87 (2.23-3.68)	3.27 (2.48-4.22)	3.67 (2.70-4.80)	4.08 (2.89-5.43)	4.64 (3.17-6.27)	5.08 (3.38-6.91)
2-hr	0.834 (0.680-1.03)	0.988 (0.806-1.22)	1.25 (1.02-1.55)	1.47 (1.19-1.83)	1.79 (1.41-2.29)	2.05 (1.57-2.63)	2.32 (1.72-3.01)	2.59 (1.85-3.42)	2.97 (2.05-3.98)	3.27 (2.19-4.40)
3-hr	0.623 (0.511-0.767)	0.737 (0.604-0.907)	0.932 (0.762-1.15)	1.10 (0.896-1.36)	1.35 (1.07-1.71)	1.55 (1.20-1.98)	1.76 (1.32-2.28)	1.98 (1.43-2.60)	2.29 (1.59-3.05)	2.53 (1.71-3.39)
6-hr	0.373 (0.309-0.454)	0.441 (0.365-0.537)	0.558 (0.461-0.681)	0.662 (0.543-0.809)	0.813 (0.651-1.02)	0.938 (0.732-1.19)	1.07 (0.808-1.37)	1.21 (0.878-1.57)	1.40 (0.982-1.85)	1.55 (1.06-2.07)
12-hr	0.217 (0.182-0.261)	0.257 (0.215-0.310)	0.326 (0.271-0.393)	0.386 (0.320-0.467)	0.473 (0.382-0.588)	0.543 (0.428-0.680)	0.617 (0.471-0.783)	0.695 (0.510-0.895)	0.802 (0.568-1.05)	0.887 (0.612-1.17)
24-hr	0.127 (0.107-0.151)	0.149 (0.126-0.178)	0.187 (0.158-0.223)	0.220 (0.184-0.264)	0.268 (0.218-0.329)	0.306 (0.244-0.378)	0.346 (0.267-0.434)	0.388 (0.288-0.495)	0.445 (0.318-0.578)	0.490 (0.342-0.640)
2-day	0.073 (0.063-0.086)	0.085 (0.073-0.100)	0.105 (0.089-0.124)	0.122 (0.103-0.145)	0.147 (0.121-0.179)	0.167 (0.134-0.205)	0.188 (0.146-0.234)	0.210 (0.157-0.265)	0.240 (0.174-0.309)	0.264 (0.186-0.341)
3-day	0.053 (0.046-0.062)	0.062 (0.053-0.072)	0.076 (0.065-0.089)	0.088 (0.075-0.103)	0.105 (0.087-0.126)	0.119 (0.096-0.144)	0.133 (0.104-0.164)	0.148 (0.111-0.186)	0.168 (0.122-0.215)	0.184 (0.131-0.237)
4-day	0.043 (0.037-0.050)	0.049 (0.043-0.058)	0.060 (0.052-0.070)	0.070 (0.060-0.082)	0.083 (0.069-0.100)	0.094 (0.076-0.113)	0.105 (0.082-0.128)	0.116 (0.088-0.145)	0.131 (0.096-0.167)	0.144 (0.102-0.184)
7-day	0.029 (0.025-0.033)	0.033 (0.029-0.038)	0.040 (0.034-0.046)	0.046 (0.039-0.053)	0.054 (0.045-0.064)	0.060 (0.049-0.072)	0.067 (0.053-0.081)	0.074 (0.056-0.091)	0.080 (0.061-0.105)	0.090 (0.065-0.115)
10-day	0.023 (0.020-0.027)	0.026 (0.023-0.030)	0.031 (0.027-0.036)	0.036 (0.031-0.041)	0.042 (0.035-0.049)	0.047 (0.038-0.055)	0.051 (0.041-0.062)	0.057 (0.043-0.070)	0.064 (0.047-0.080)	0.069 (0.050-0.087)
20-day	0.016 (0.014-0.018)	0.018 (0.016-0.020)	0.021 (0.018-0.024)	0.024 (0.021-0.027)	0.027 (0.023-0.032)	0.030 (0.025-0.036)	0.033 (0.027-0.040)	0.036 (0.028-0.044)	0.040 (0.030-0.050)	0.043 (0.032-0.054)
30-day	0.013 (0.011-0.014)	0.014 (0.013-0.016)	0.017 (0.015-0.019)	0.019 (0.017-0.022)	0.022 (0.019-0.025)	0.024 (0.020-0.028)	0.026 (0.021-0.031)	0.028 (0.022-0.034)	0.031 (0.023-0.038)	0.033 (0.024-0.041)
45-day	0.010 (0.009-0.012)	0.012 (0.010-0.013)	0.014 (0.012-0.015)	0.015 (0.014-0.017)	0.018 (0.015-0.020)	0.019 (0.016-0.022)	0.021 (0.017-0.024)	0.022 (0.017-0.027)	0.024 (0.018-0.029)	0.025 (0.019-0.032)
60-day	0.009 (0.008-0.010)	0.010 (0.009-0.011)	0.012 (0.011-0.013)	0.013 (0.012-0.015)	0.015 (0.013-0.017)	0.016 (0.014-0.019)	0.018 (0.014-0.020)	0.019 (0.015-0.022)	0.020 (0.015-0.024)	0.021 (0.016-0.026)

Precipitation Depth Table:

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.396 (0.320-0.496)	0.469 (0.379-0.588)	0.589 (0.475-0.739)	0.689 (0.552-0.866)	0.826 (0.639-1.06)	0.931 (0.706-1.20)	1.04 (0.761-1.35)	1.14 (0.807-1.52)	1.28 (0.873-1.73)	1.39 (0.924-1.89)
10-min	0.580 (0.469-0.726)	0.687 (0.555-0.861)	0.863 (0.695-1.08)	1.01 (0.808-1.27)	1.21 (0.936-1.55)	1.36 (1.03-1.76)	1.52 (1.11-1.98)	1.67 (1.18-2.22)	1.88 (1.28-2.53)	2.04 (1.32-2.77)
15-min	0.707 (0.572-0.885)	0.838 (0.677-1.05)	1.05 (0.848-1.32)	1.23 (0.985-1.55)	1.47 (1.14-1.89)	1.66 (1.26-2.14)	1.85 (1.36-2.42)	2.04 (1.44-2.71)	2.29 (1.56-3.09)	2.48 (1.65-3.38)
30-min	1.02 (0.824-1.27)	1.21 (0.980-1.52)	1.53 (1.23-1.92)	1.79 (1.44-2.25)	2.15 (1.67-2.75)	2.43 (1.84-3.13)	2.71 (1.99-3.53)	2.98 (2.11-3.96)	3.35 (2.28-4.51)	3.63 (2.41-4.94)
60-min	1.34 (1.09-1.68)	1.60 (1.29-2.00)	2.01 (1.62-2.53)	2.37 (1.90-2.98)	2.87 (2.23-3.68)	3.27 (2.48-4.22)	3.67 (2.70-4.80)	4.08 (2.89-5.43)	4.64 (3.17-6.27)	5.08 (3.38-6.91)
2-hr	1.67 (1.36-2.07)	1.98 (1.61-2.45)	2.50 (2.03-3.10)	2.95 (2.38-3.67)	3.59 (2.82-4.57)	4.10 (3.15-5.26)	4.63 (3.44-6.02)	5.18 (3.71-6.84)	5.94 (4.09-7.96)	6.53 (4.39-8.80)
3-hr	1.87 (1.54-2.30)	2.21 (1.81-2.73)	2.80 (2.29-3.45)	3.31 (2.69-4.09)	4.05 (3.21-5.14)	4.65 (3.60-5.94)	5.28 (3.95-6.84)	5.95 (4.28-7.81)	6.87 (4.76-9.16)	7.60 (5.13-10.2)
6-hr	2.24 (1.85-2.72)	2.64 (2.19-3.22)	3.34 (2.76-4.08)	3.96 (3.25-4.85)	4.87 (3.90-6.13)	5.61 (4.39-7.10)	6.39 (4.84-8.20)	7.22 (5.26-9.41)	8.38 (5.88-11.1)	9.30 (6.35-12.4)
12-hr	2.62 (2.19-3.15)	3.10 (2.59-3.73)	3.93 (3.27-4.74)	4.65 (3.85-5.62)	5.70 (4.60-7.08)	6.55 (5.16-8.19)	7.43 (5.68-9.43)	8.37 (6.15-10.8)	9.67 (6.84-12.7)	10.7 (7.37-14.1)
24-hr	3.04 (2.57-3.62)	3.58 (3.02-4.26)	4.50 (3.78-5.36)	5.29 (4.42-6.32)	6.43 (5.24-7.90)	7.35 (5.85-9.08)	8.30 (6.40-10.4)	9.31 (6.90-11.9)	10.7 (7.64-13.9)	11.8 (8.20-15.4)
2-day	3.53 (3.01-4.15)	4.09 (3.48-4.81)	5.04 (4.28-5.95)	5.87 (4.96-6.94)	7.07 (5.81-8.58)	8.03 (6.46-9.82)	9.03 (7.03-11.2)	10.1 (7.56-12.7)	11.5 (8.33-14.8)	12.7 (8.92-16.4)
3-day	3.85 (3.30-4.50)	4.44 (3.81-5.20)	5.45 (4.66-6.39)	6.32 (5.37-7.42)	7.56 (6.25-9.11)	8.55 (6.91-10.4)	9.58 (7.50-11.8)	10.7 (8.03-13.4)	12.1 (8.81-15.5)	13.3 (9.40-17.1)
4-day	4.13 (3.54-4.80)	4.75 (4.09-5.53)	5.80 (4.97-6.76)	6.70 (5.72-7.83)	7.98 (6.62-9.56)	8.99 (7.30-10.9)	10.0 (7.90-12.3)	11.1 (8.42-13.9)	12.6 (9.21-16.0)	13.8 (9.81-17.7)
7-day	4.88 (4.24-5.63)	5.56 (4.82-6.41)	6.69 (5.78-7.72)	7.65 (6.58-8.86)	9.02 (7.54-10.7)	10.1 (8.26-12.1)	11.2 (8.89-13.6)	12.4 (9.44-15.3)	13.9 (10.3-17.6)	15.2 (10.9-19.3)
10-day	5.56 (4.86-6.37)	6.29 (5.49-7.21)	7.52 (6.53-8.63)	8.55 (7.40-9.85)	10.0 (8.42-11.8)	11.2 (9.19-13.3)	12.4 (9.85-14.9)	13.6 (10.4-16.7)	15.2 (11.3-19.1)	16.5 (11.9-20.9)
20-day	7.48 (6.59-8.47)	8.45 (7.44-9.57)	10.0 (8.81-11.4)	11.4 (9.92-12.9)	13.2 (11.2-15.3)	14.6 (12.1-17.1)	16.0 (12.8-19.0)	17.4 (13.5-21.1)	19.3 (14.4-23.9)	20.7 (15.1-26.0)
30-day	9.09 (8.07-10.2)	10.3 (9.11-11.6)	12.2 (10.6-13.7)	13.7 (12.1-15.5)	15.8 (13.4-18.2)	17.4 (14.5-20.2)	18.9 (15.3-22.4)	20.5 (15.9-24.7)	22.4 (16.9-27.6)	23.9 (17.6-29.8)
45-day	11.2 (9.97-12.5)	12.6 (11.3-14.1)	14.9 (13.2-16.7)	16.7 (14.8-18.7)	19.1 (16.3-21.7)	20.8 (17.4-24.0)	22.5 (18.2-26.3)	24.1 (18.8-28.8)	26.0 (19.7-31.8)	27.4 (20.3-34.1)
60-day	13.0 (11.6-14.4)	14.6 (13.1-16.3)	17.2 (15.4-19.2)	19.2 (17.1-21.4)	21.8 (18.6-24.6)	23.6 (19.8-27.0)	25.3 (20.6-29.5)	26.9 (21.1-32.0)	28.8 (21.8-34.9)	30.1 (22.4-37.2)

Attachment J:
Hydraflow Output

SMH
CONSULTANTS

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

90
20

Legend

<u>Hyd. Origin</u>	<u>Description</u>
1	SCS Runoff Area 1
2	SCS Runoff E2
3	SCS Runoff E3
4	SCS Runoff E4
5	SCS Runoff E4A
6	SCS Runoff E5
7	SCS Runoff E6
8	SCS Runoff E7
9	Reservoir Rain Garden 4
10	Reservoir Rain Garden 2
11	Combine Site South
12	Combine Site North
13	Combine Existing Site
14	SCS Runoff P3a
15	SCS Runoff P5
16	Reservoir Proposed Rain Garden 3
17	SCS Runoff P3
18	Reach P3 pipe to OG discharge point
19	Combine Proposed North
20	Combine Proposed Site

Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	----	----	3.444	----	----	8.291	----	----	16.96	Area 1
2	SCS Runoff	----	----	0.419	----	----	1.445	----	----	3.559	E2
3	SCS Runoff	----	----	1.335	----	----	3.995	----	----	9.135	E3
4	SCS Runoff	----	----	3.416	----	----	9.600	----	----	21.21	E4
5	SCS Runoff	----	----	0.412	----	----	1.054	----	----	2.221	E4A
6	SCS Runoff	----	----	5.731	----	----	16.31	----	----	36.21	E5
7	SCS Runoff	----	----	1.877	----	----	5.518	----	----	12.46	E6
8	SCS Runoff	----	----	1.862	----	----	4.483	----	----	9.168	E7
9	Reservoir	5	----	0.014	----	----	0.919	----	----	2.126	Rain Garden 4
10	Reservoir	2	----	0.032	----	----	1.381	----	----	3.489	Rain Garden 2
11	Combine	4, 7, 9,	----	5.286	----	----	15.81	----	----	35.16	Site South
12	Combine	1, 3, 6,	----	12.30	----	----	34.05	----	----	73.80	Site North
13	Combine	8, 10, 11, 12	----	17.59	----	----	49.86	----	----	108.96	Existing Site
14	SCS Runoff	----	----	1.105	----	----	2.429	----	----	4.766	P3a
15	SCS Runoff	----	----	5.623	----	----	16.01	----	----	35.53	P5
16	Reservoir	14	----	0.425	----	----	1.484	----	----	3.714	Proposed Rain Garden 3
17	SCS Runoff	----	----	0.874	----	----	2.532	----	----	5.690	P3
18	Reach	17	----	0.848	----	----	2.564	----	----	5.800	P3 pipe to OG discharge point
19	Combine	1, 8, 10, 15, 16, 18	----	12.03	----	----	33.85	----	----	73.75	Proposed North
20	Combine	11, 19	----	17.32	----	----	49.66	----	----	108.91	Proposed Site

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	3.444	2	718	7,907	----	----	----	Area 1
2	SCS Runoff	0.419	2	720	981	----	----	----	E2
3	SCS Runoff	1.335	2	720	3,062	----	----	----	E3
4	SCS Runoff	3.416	2	720	7,818	----	----	----	E4
5	SCS Runoff	0.412	2	718	942	----	----	----	E4A
6	SCS Runoff	5.731	2	722	14,993	----	----	----	E5
7	SCS Runoff	1.877	2	722	4,923	----	----	----	E6
8	SCS Runoff	1.862	2	718	4,275	----	----	----	E7
9	Reservoir	0.014	2	864	269	5	935.00	677	Rain Garden 4
10	Reservoir	0.032	2	780	478	2	933.51	510	Rain Garden 2
11	Combine	5.286	2	720	13,010	4, 7, 9,	----	----	Site South
12	Combine	12.30	2	720	30,714	1, 3, 6,	----	----	Site North
13	Combine	17.59	2	720	43,724	8, 10, 11, 12	----	----	Existing Site
14	SCS Runoff	1.105	2	716	2,296	----	----	----	P3a
15	SCS Runoff	5.623	2	722	14,710	----	----	----	P5
16	Reservoir	0.425	2	722	1,707	14	926.05	1,081	Proposed Rain Garden 3
17	SCS Runoff	0.874	2	720	2,000	----	----	----	P3
18	Reach	0.848	2	722	1,997	17	----	----	P3 pipe to OG discharge point
19	Combine	12.03	2	720	31,073	1, 8, 10, 15, 16, 18	----	----	Proposed North
20	Combine	17.32	2	720	44,083	11, 19	----	----	Proposed Site

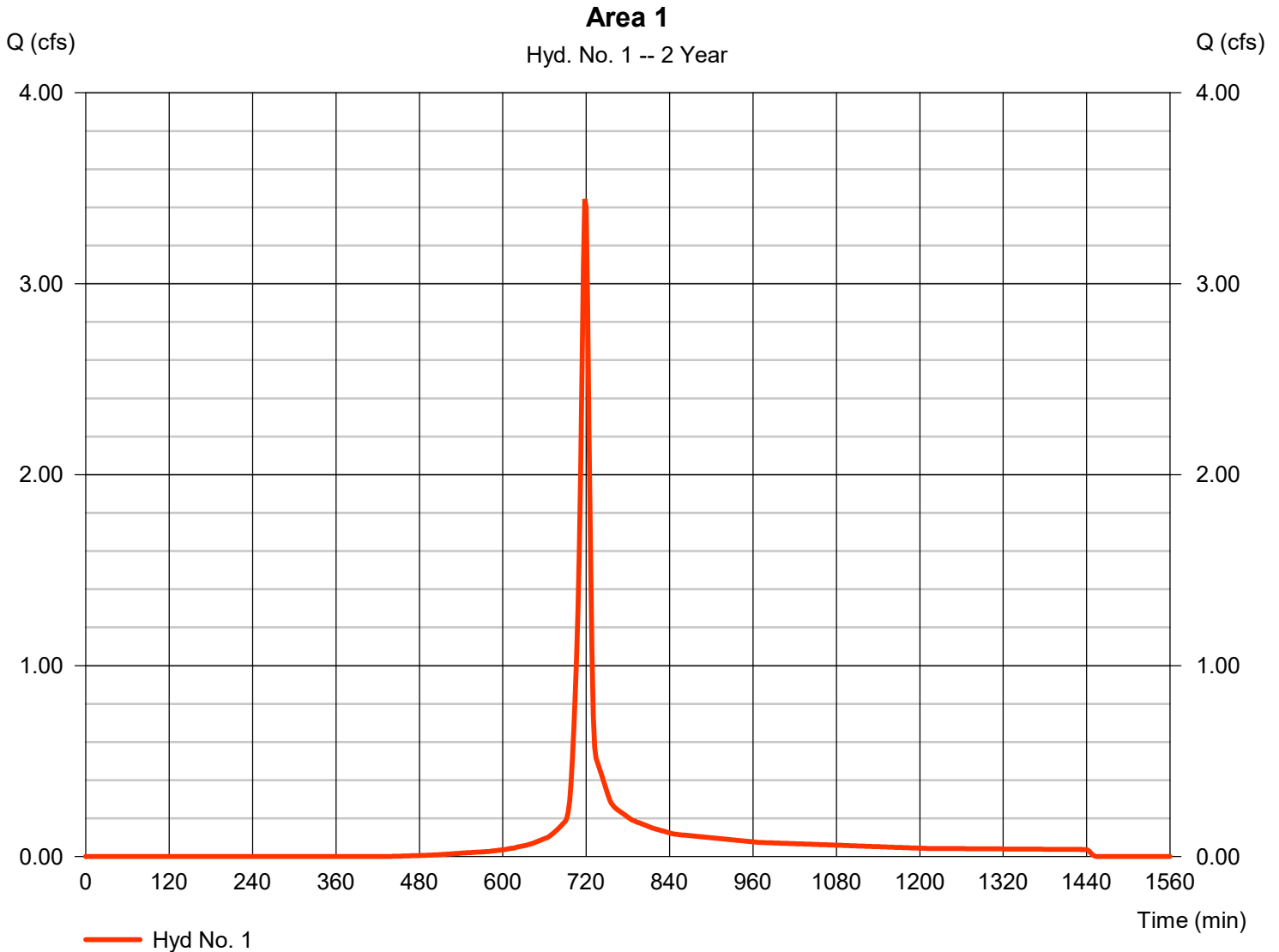
Hydrograph Report

Hyd. No. 1

Area 1

Hydrograph type	= SCS Runoff	Peak discharge	= 3.444 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 7,907 cuft
Drainage area	= 1.720 ac	Curve number	= 90*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.120 x 98) + (0.600 x 74)] / 1.720



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

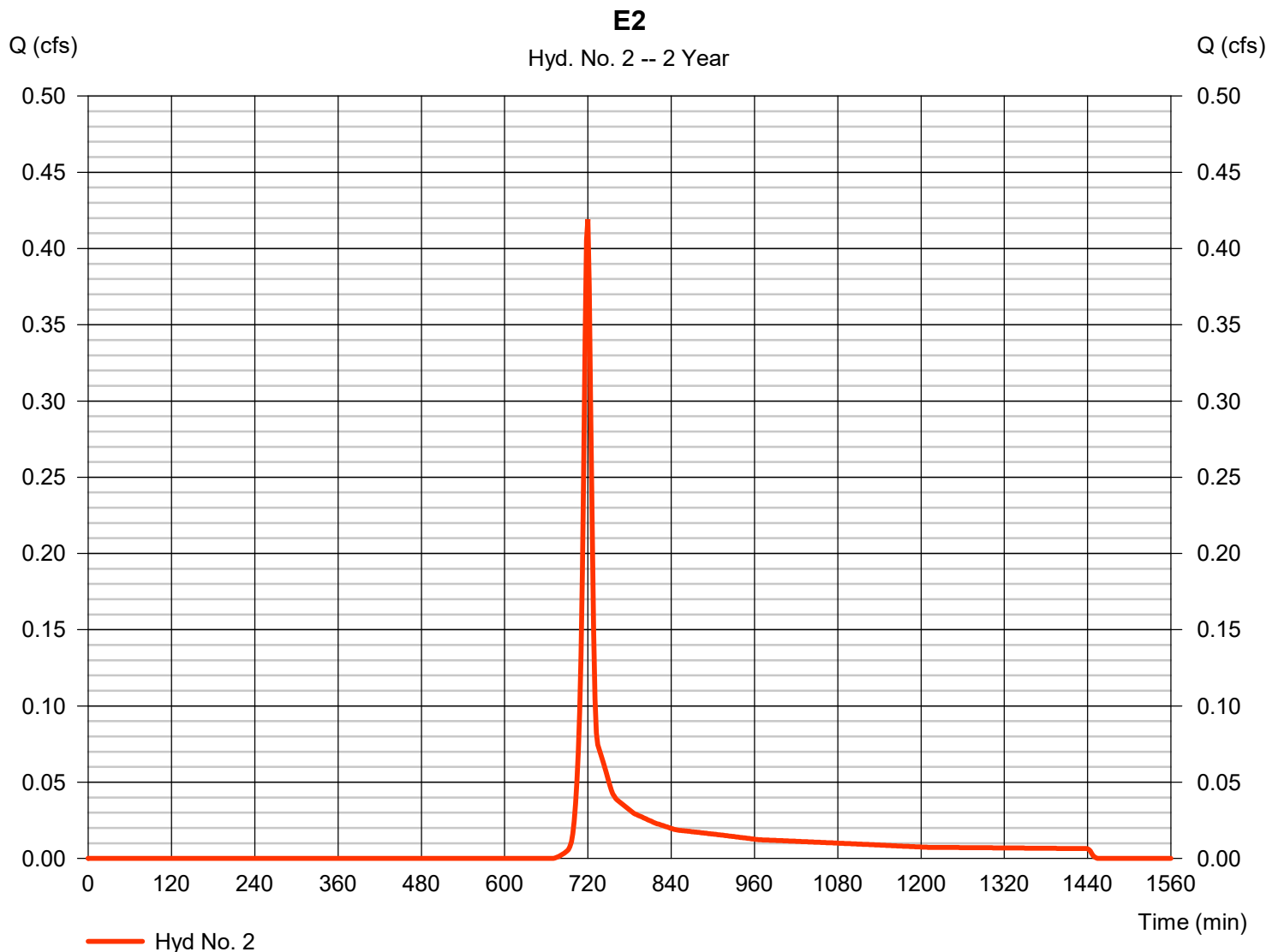
Friday, 04 / 12 / 2024

Hyd. No. 2

E2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.419 cfs
Storm frequency	= 2 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 981 cuft
Drainage area	= 0.420 ac	Curve number	= 79*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.090 x 98) + (0.330 x 74)] / 0.420



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

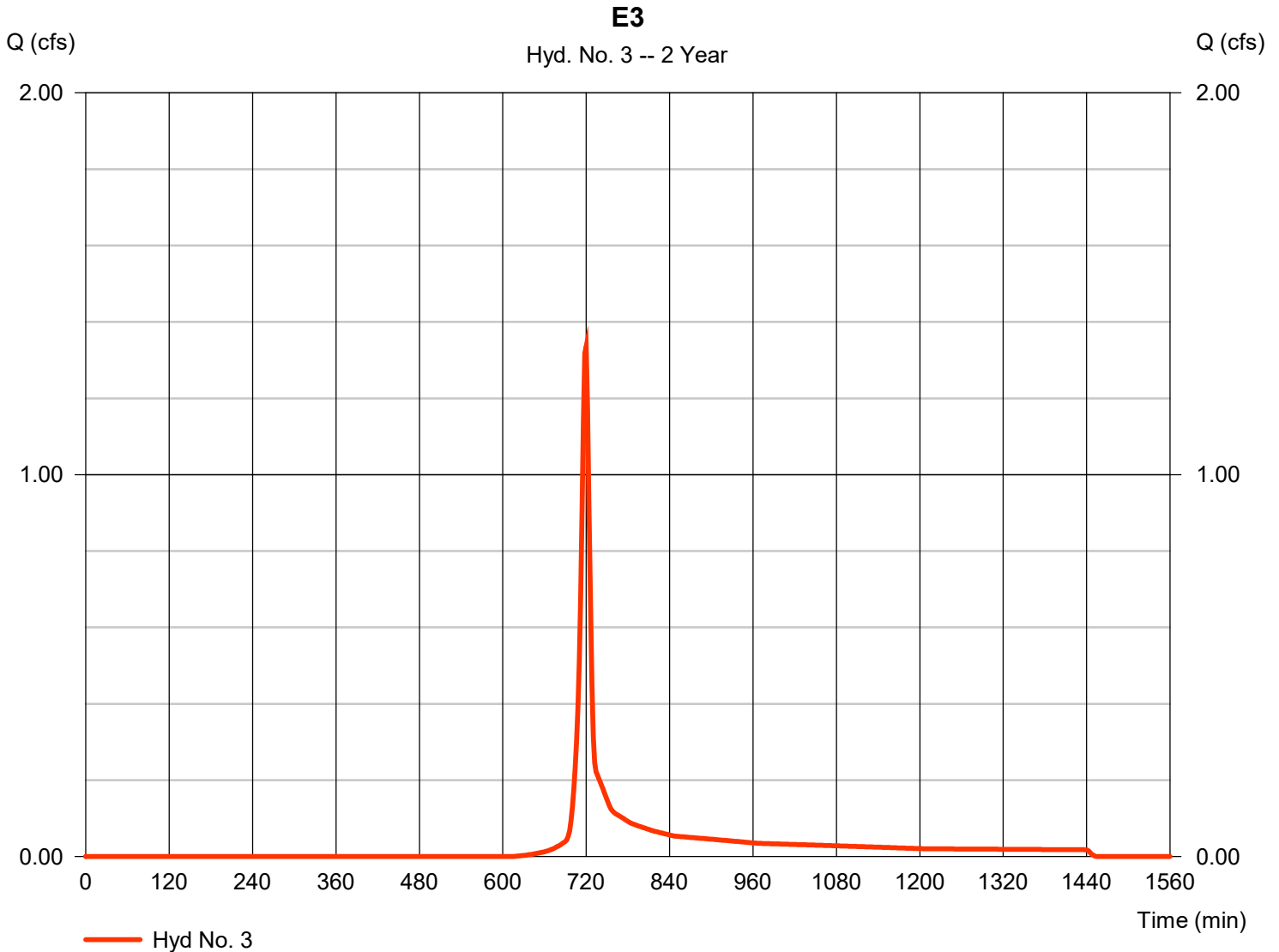
Friday, 04 / 12 / 2024

Hyd. No. 3

E3

Hydrograph type	= SCS Runoff	Peak discharge	= 1.335 cfs
Storm frequency	= 2 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 3,062 cuft
Drainage area	= 1.010 ac	Curve number	= 83*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.380 x 98) + (0.630 x 74)] / 1.010



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

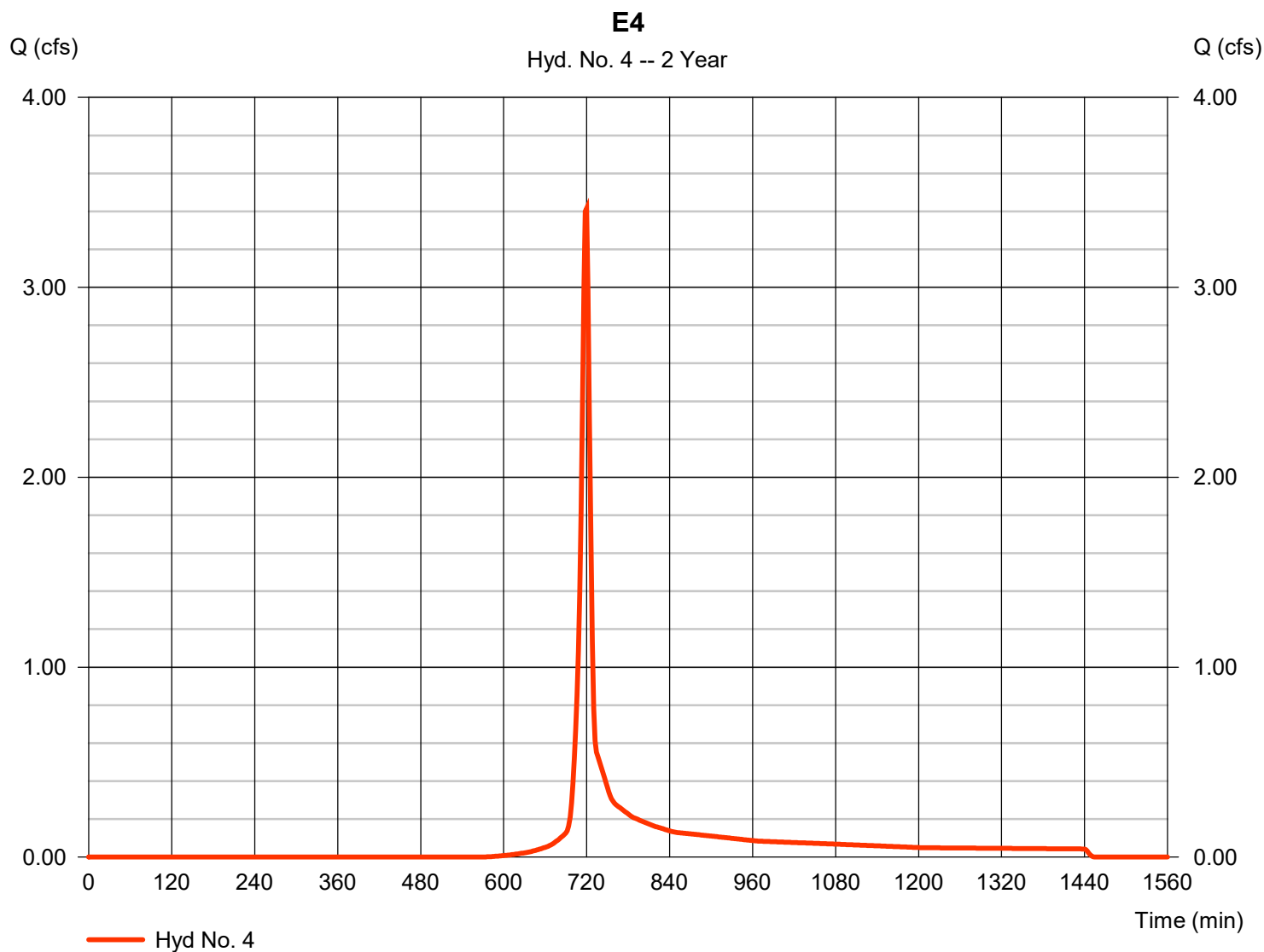
Friday, 04 / 12 / 2024

Hyd. No. 4

E4

Hydrograph type	= SCS Runoff	Peak discharge	= 3.416 cfs
Storm frequency	= 2 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 7,818 cuft
Drainage area	= 2.280 ac	Curve number	= 85*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(1.080 \times 98) + (1.200 \times 74)] / 2.280$



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

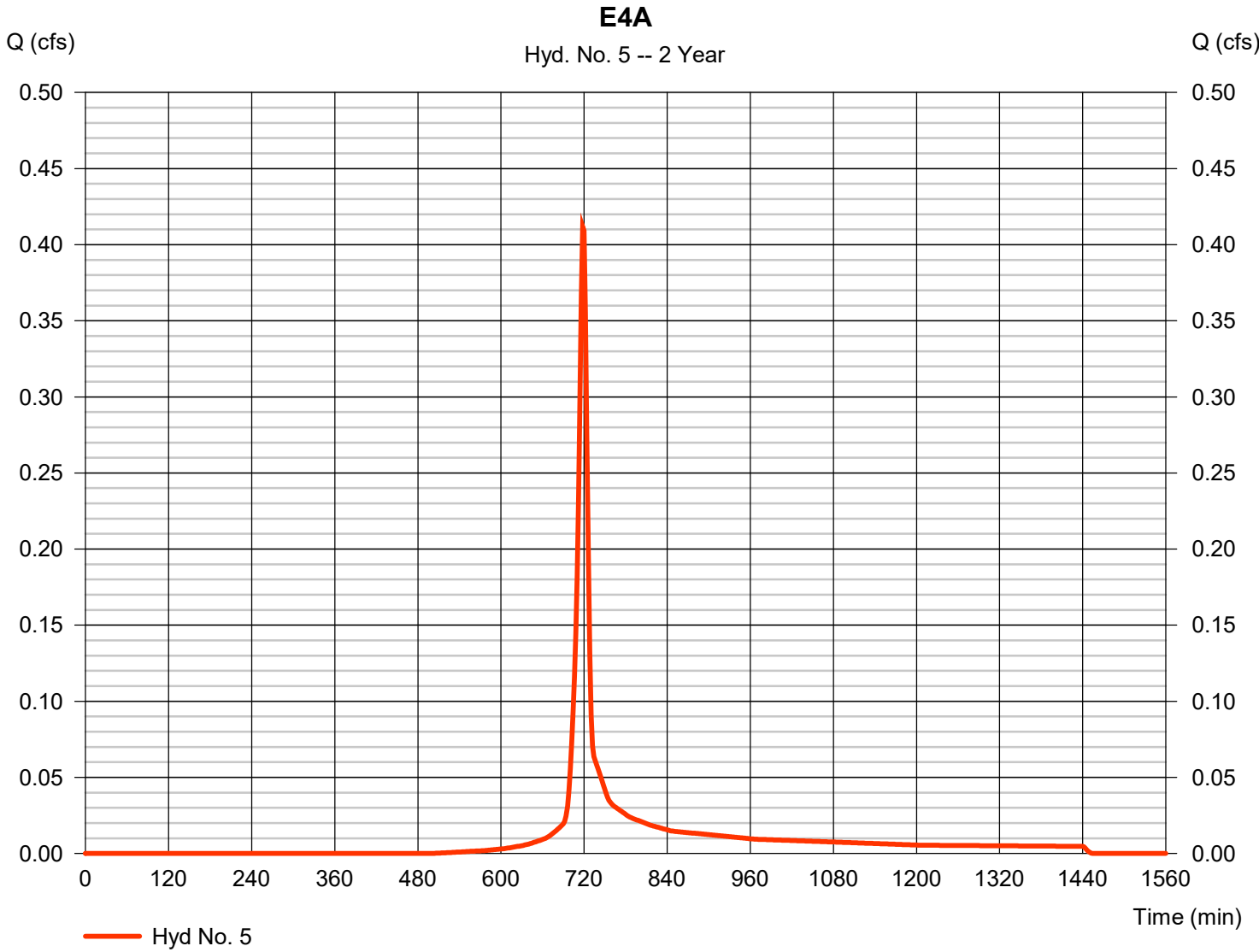
Friday, 04 / 12 / 2024

Hyd. No. 5

E4A

Hydrograph type	= SCS Runoff	Peak discharge	= 0.412 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 942 cuft
Drainage area	= 0.230 ac	Curve number	= 88*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.130 x 98) + (0.100 x 74)] / 0.230



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

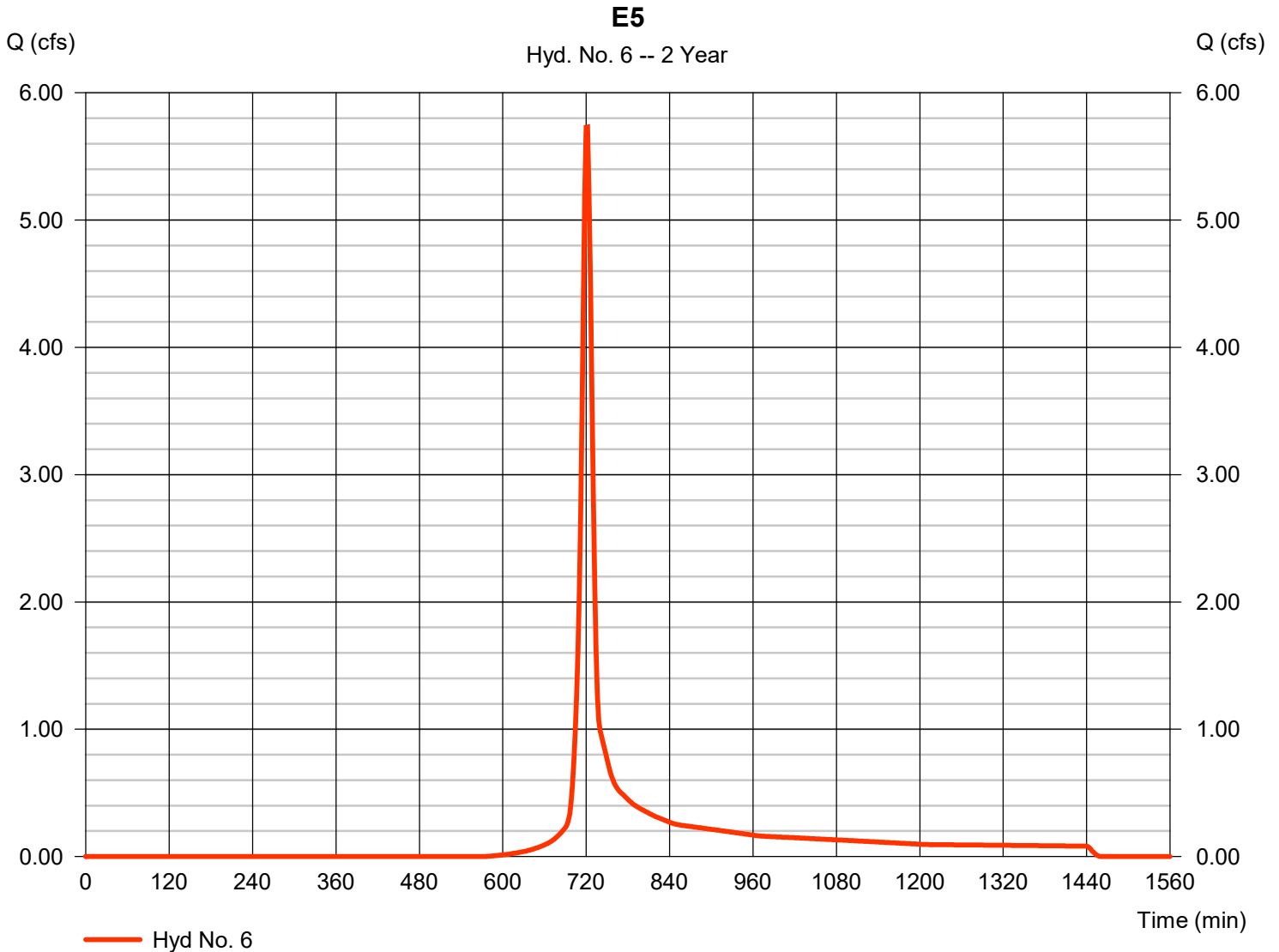
Friday, 04 / 12 / 2024

Hyd. No. 6

E5

Hydrograph type	= SCS Runoff	Peak discharge	= 5.731 cfs
Storm frequency	= 2 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 14,993 cuft
Drainage area	= 4.240 ac	Curve number	= 85*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 12.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.930 x 98) + (2.310 x 74)] / 4.240



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

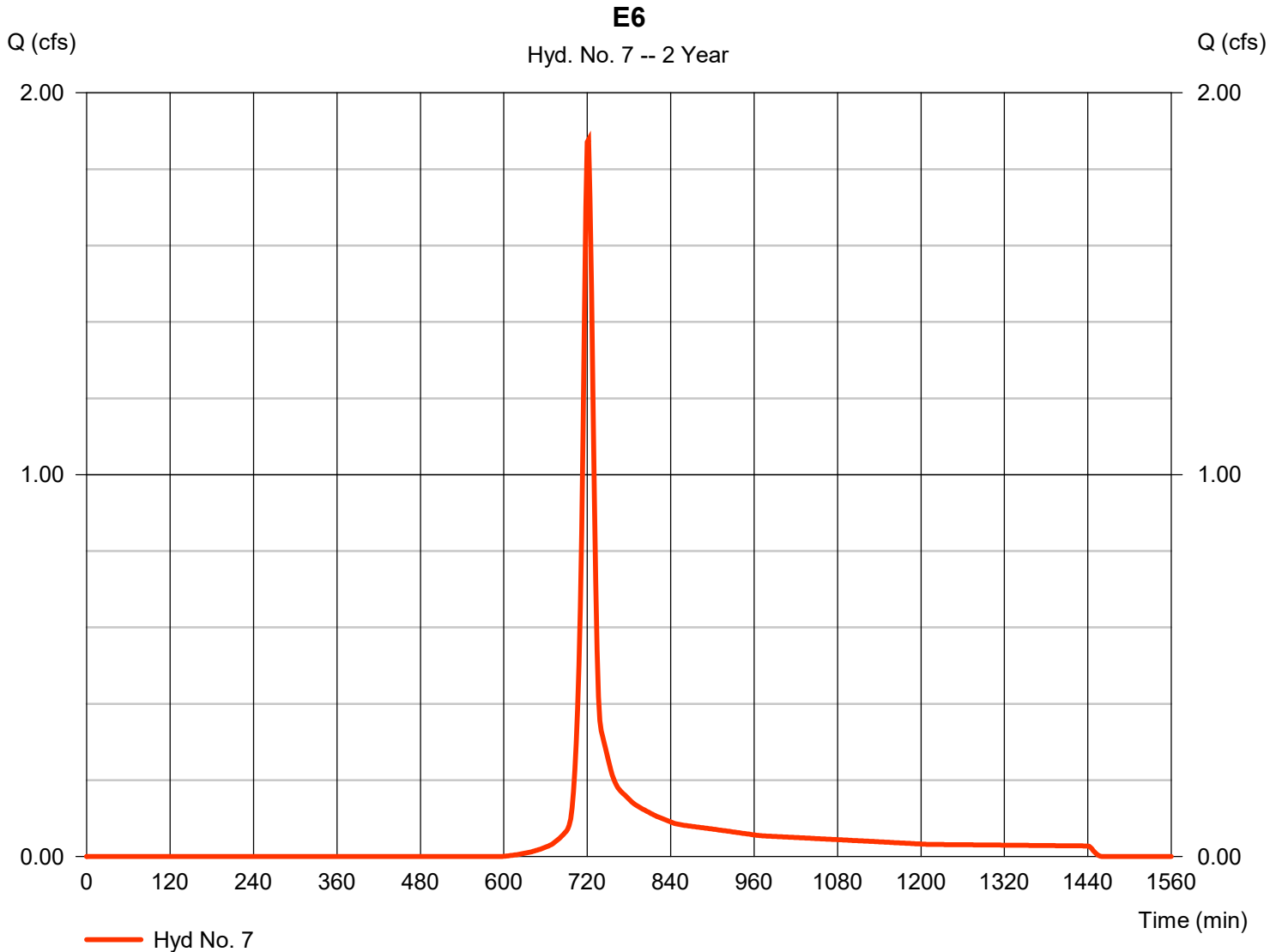
Friday, 04 / 12 / 2024

Hyd. No. 7

E6

Hydrograph type	= SCS Runoff	Peak discharge	= 1.877 cfs
Storm frequency	= 2 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 4,923 cuft
Drainage area	= 1.480 ac	Curve number	= 84*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 11.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.640 x 98) + (0.840 x 74)] / 1.480



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

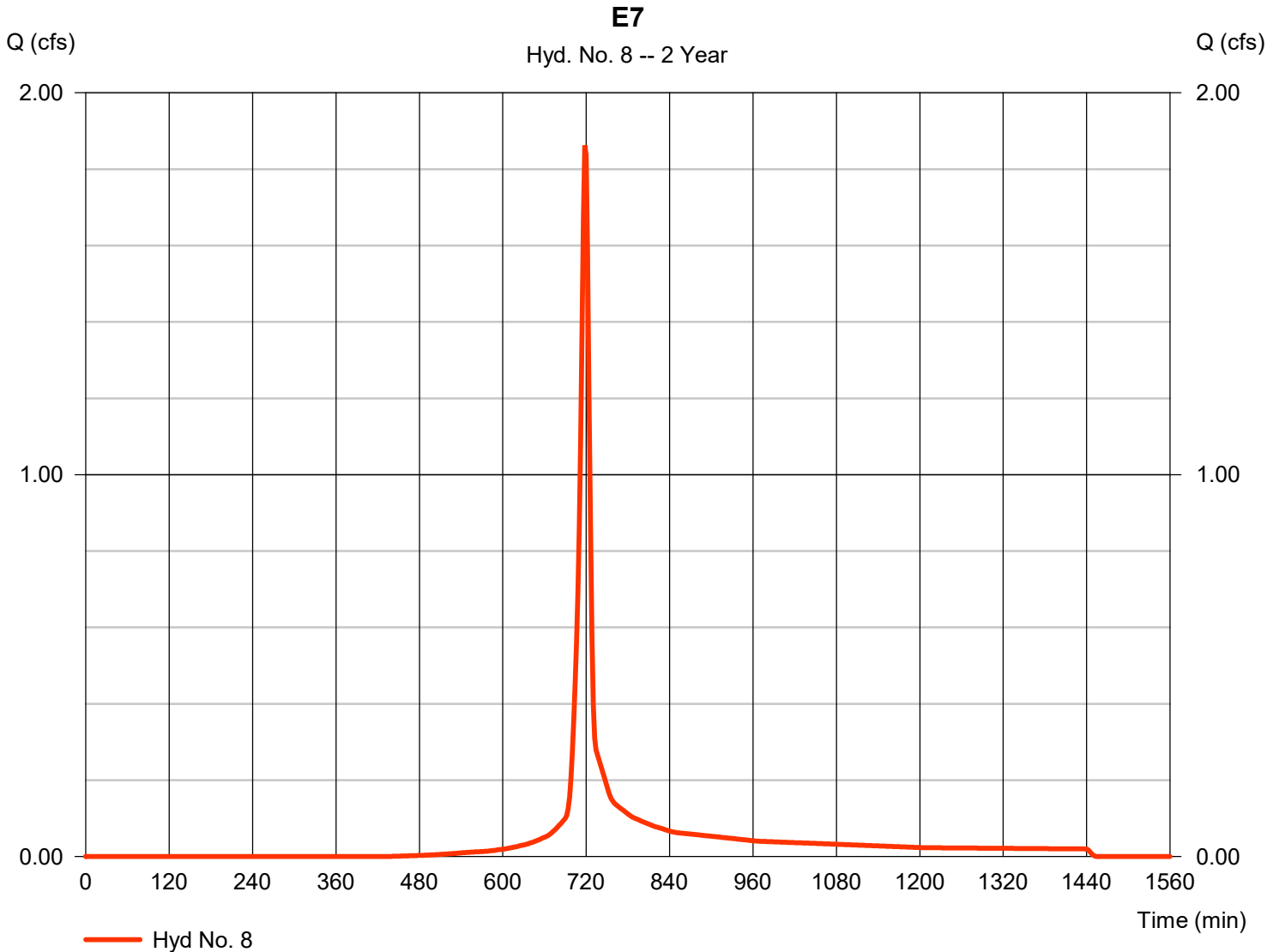
Friday, 04 / 12 / 2024

Hyd. No. 8

E7

Hydrograph type	= SCS Runoff	Peak discharge	= 1.862 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 4,275 cuft
Drainage area	= 0.930 ac	Curve number	= 90*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.620 x 98) + (0.310 x 74)] / 0.930



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

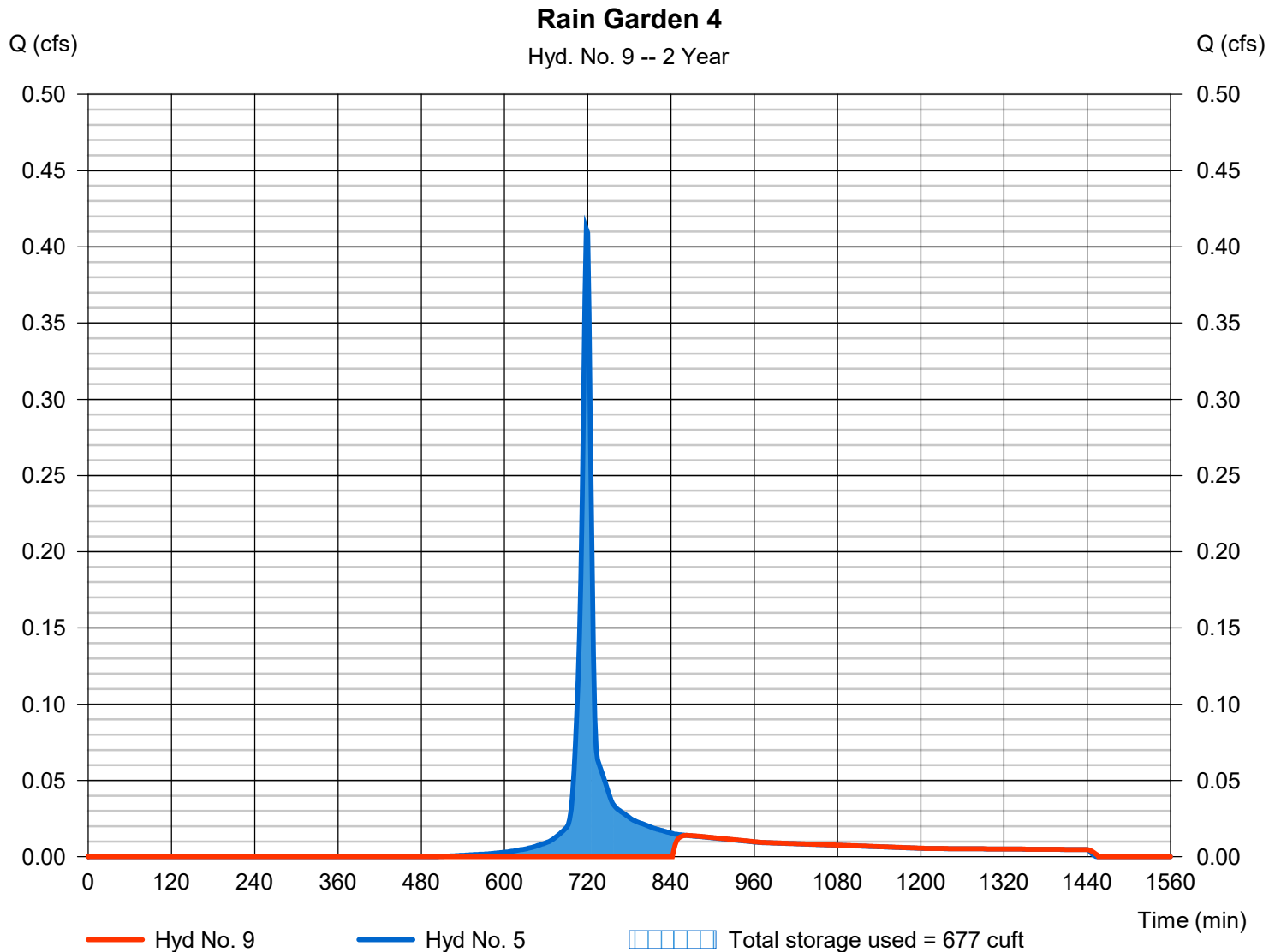
Friday, 04 / 12 / 2024

Hyd. No. 9

Rain Garden 4

Hydrograph type	= Reservoir	Peak discharge	= 0.014 cfs
Storm frequency	= 2 yrs	Time to peak	= 864 min
Time interval	= 2 min	Hyd. volume	= 269 cuft
Inflow hyd. No.	= 5 - E4A	Max. Elevation	= 935.00 ft
Reservoir name	= Ex. Rain Garden 4	Max. Storage	= 677 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

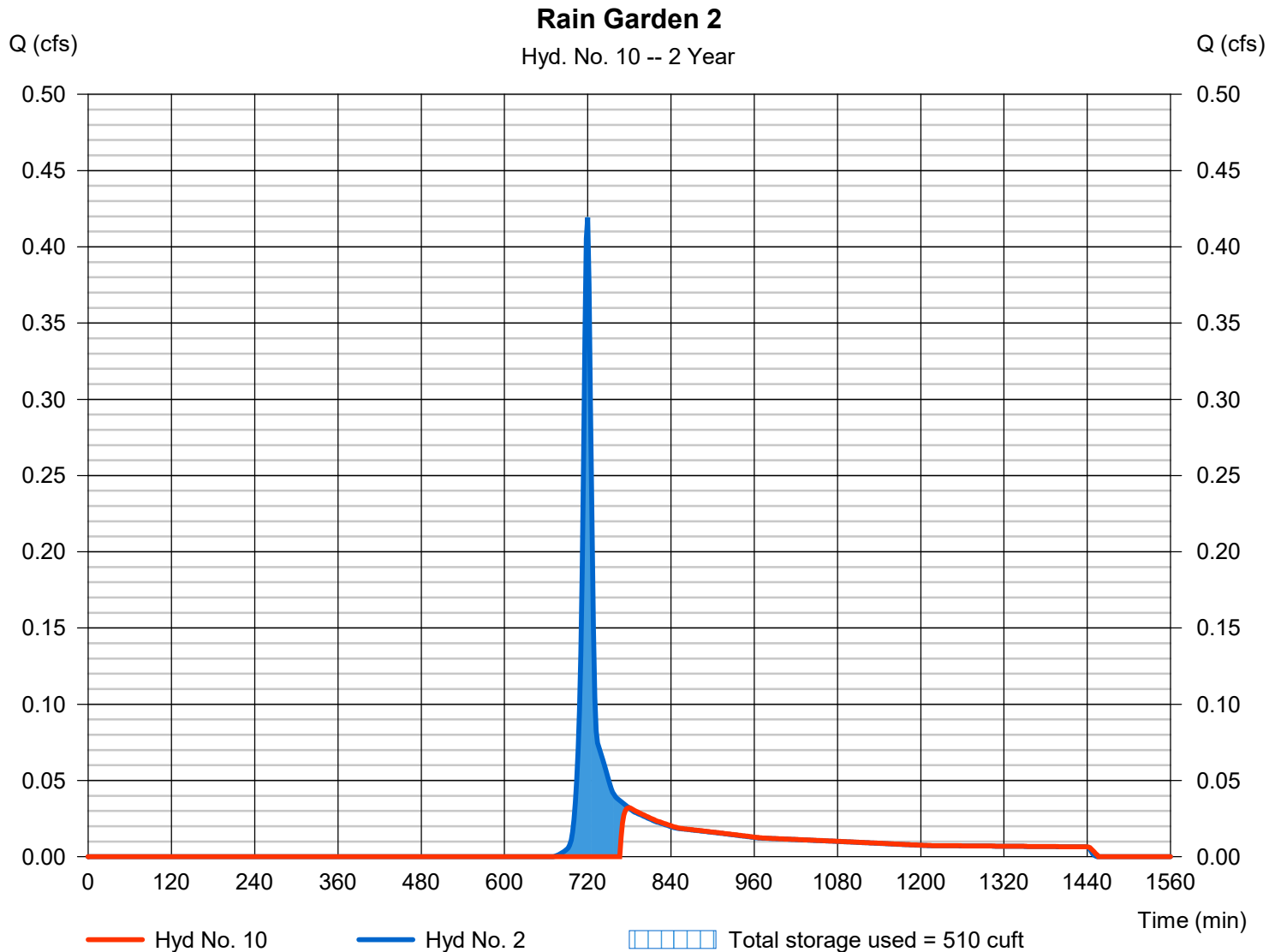
Friday, 04 / 12 / 2024

Hyd. No. 10

Rain Garden 2

Hydrograph type	= Reservoir	Peak discharge	= 0.032 cfs
Storm frequency	= 2 yrs	Time to peak	= 780 min
Time interval	= 2 min	Hyd. volume	= 478 cuft
Inflow hyd. No.	= 2 - E2	Max. Elevation	= 933.51 ft
Reservoir name	= Ex Rain Garden 2	Max. Storage	= 510 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

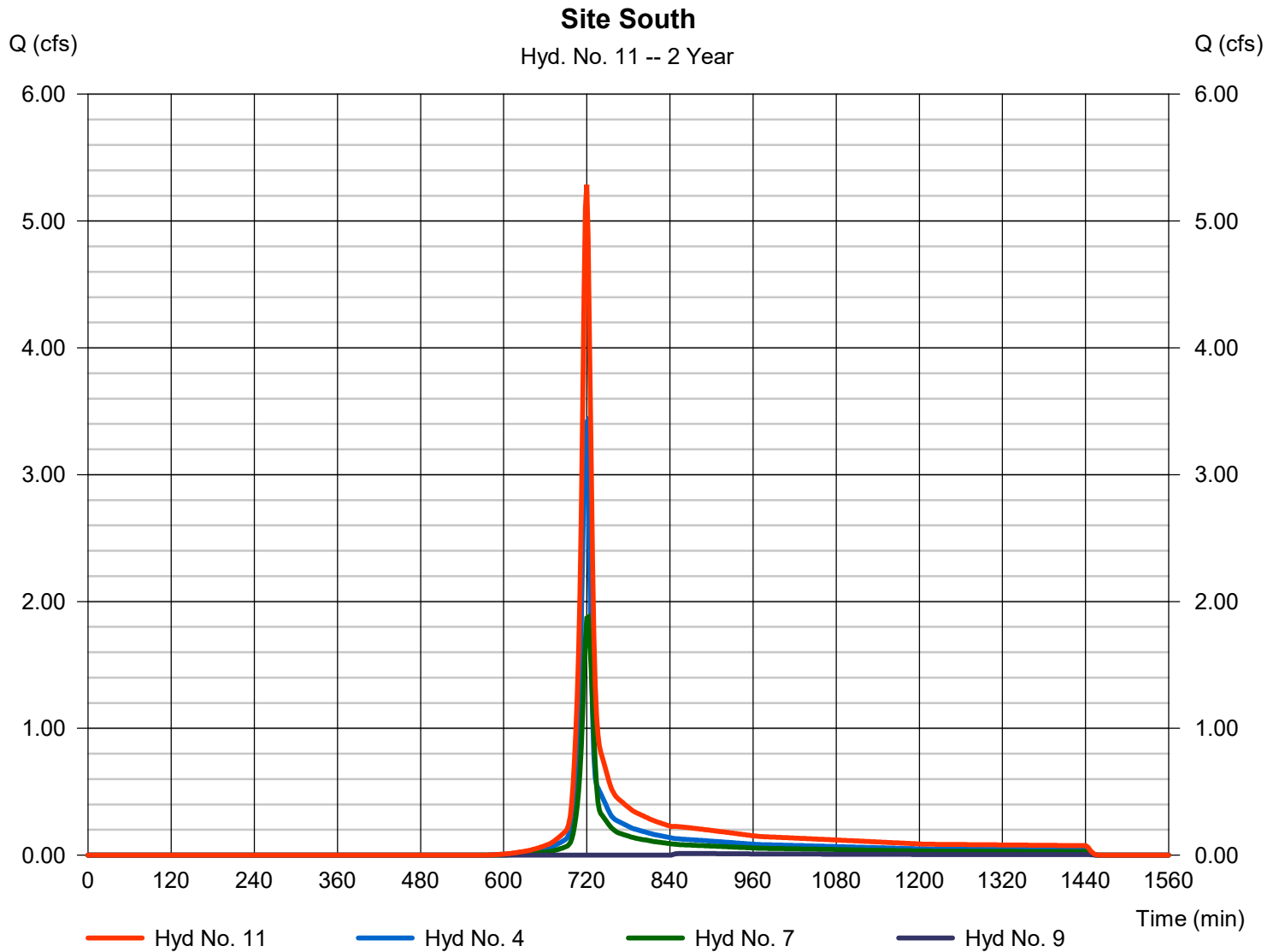
Friday, 04 / 12 / 2024

Hyd. No. 11

Site South

Hydrograph type = Combine
Storm frequency = 2 yrs
Time interval = 2 min
Inflow hyds. = 4, 7, 9

Peak discharge = 5.286 cfs
Time to peak = 720 min
Hyd. volume = 13,010 cuft
Contrib. drain. area = 3.760 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

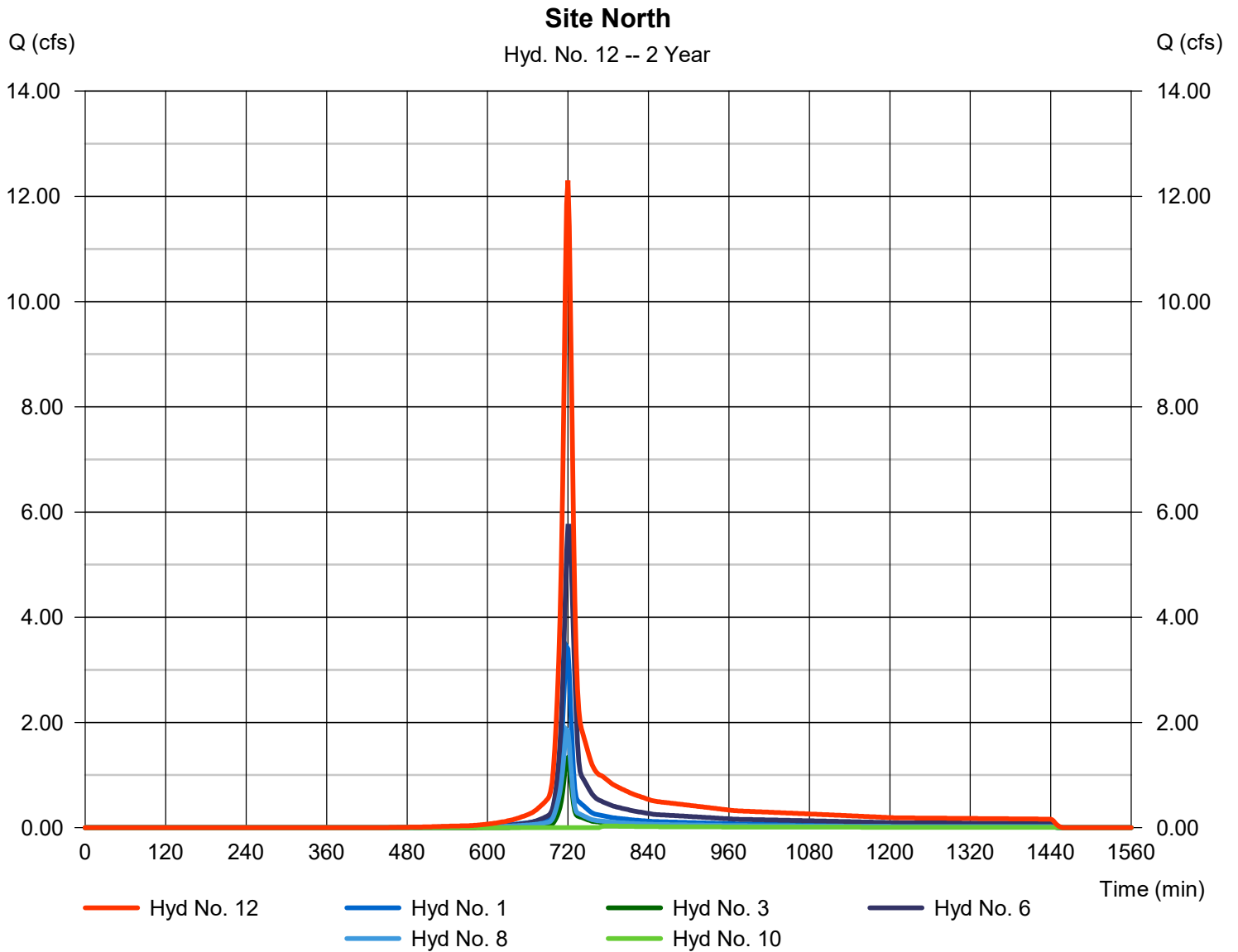
Friday, 04 / 12 / 2024

Hyd. No. 12

Site North

Hydrograph type = Combine
Storm frequency = 2 yrs
Time interval = 2 min
Inflow hyds. = 1, 3, 6, 8, 10

Peak discharge = 12.30 cfs
Time to peak = 720 min
Hyd. volume = 30,714 cuft
Contrib. drain. area = 7.900 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

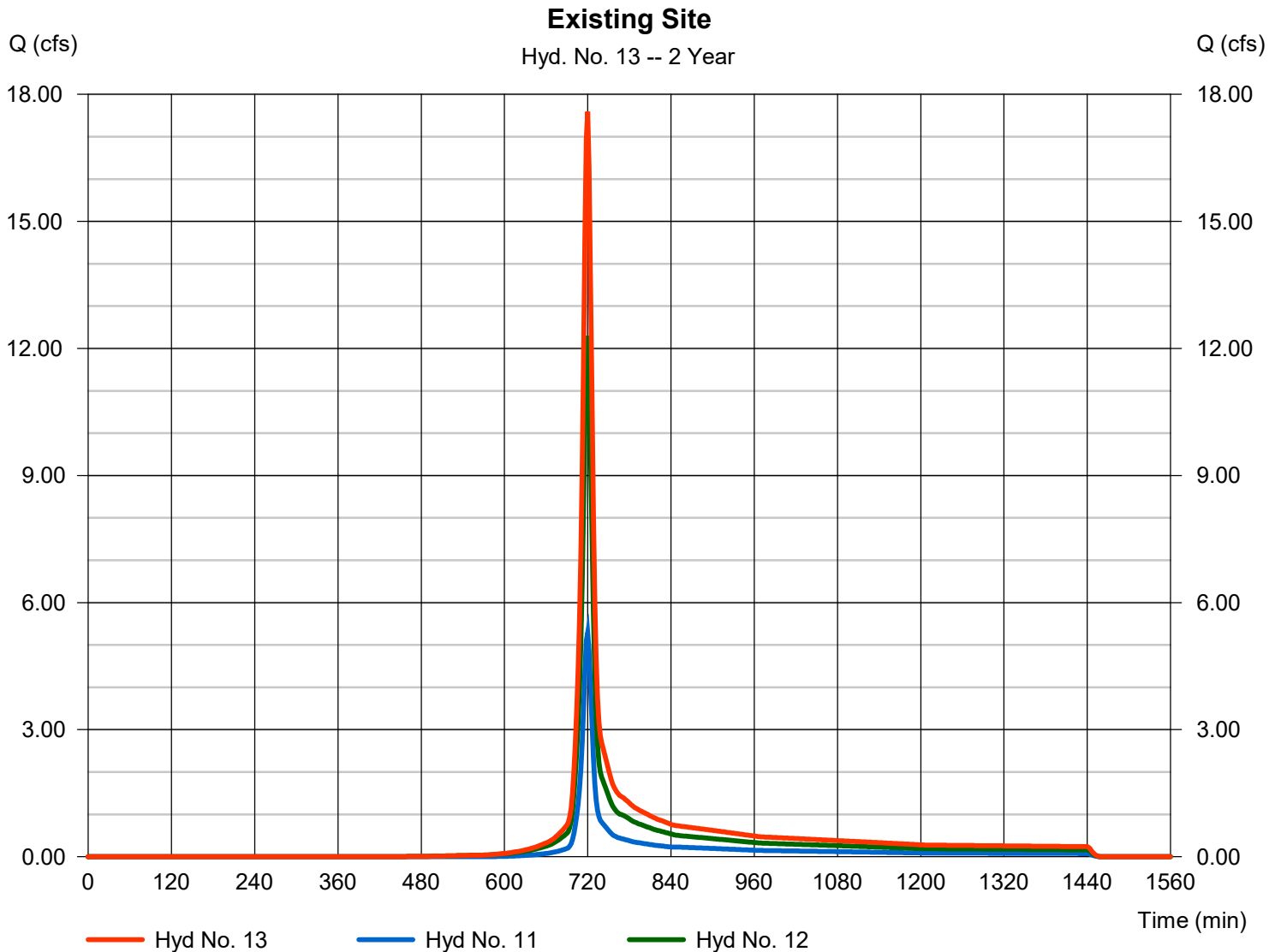
Friday, 04 / 12 / 2024

Hyd. No. 13

Existing Site

Hydrograph type = Combine
Storm frequency = 2 yrs
Time interval = 2 min
Inflow hyds. = 11, 12

Peak discharge = 17.59 cfs
Time to peak = 720 min
Hyd. volume = 43,724 cuft
Contrib. drain. area = 0.000 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

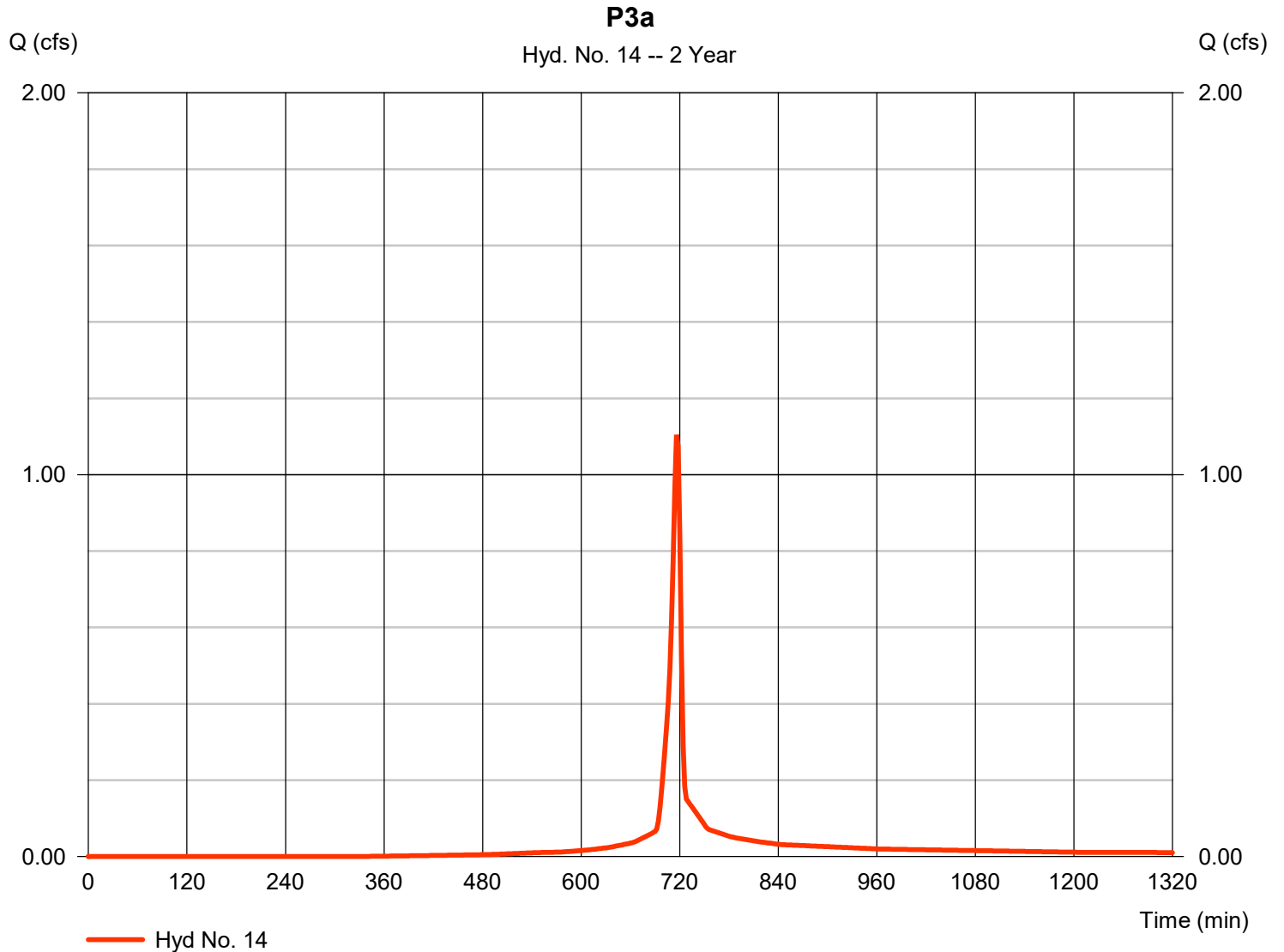
Friday, 04 / 12 / 2024

Hyd. No. 14

P3a

Hydrograph type	= SCS Runoff	Peak discharge	= 1.105 cfs
Storm frequency	= 2 yrs	Time to peak	= 716 min
Time interval	= 2 min	Hyd. volume	= 2,296 cuft
Drainage area	= 0.450 ac	Curve number	= 93*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.360 x 98) + (0.090 x 74)] / 0.450



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

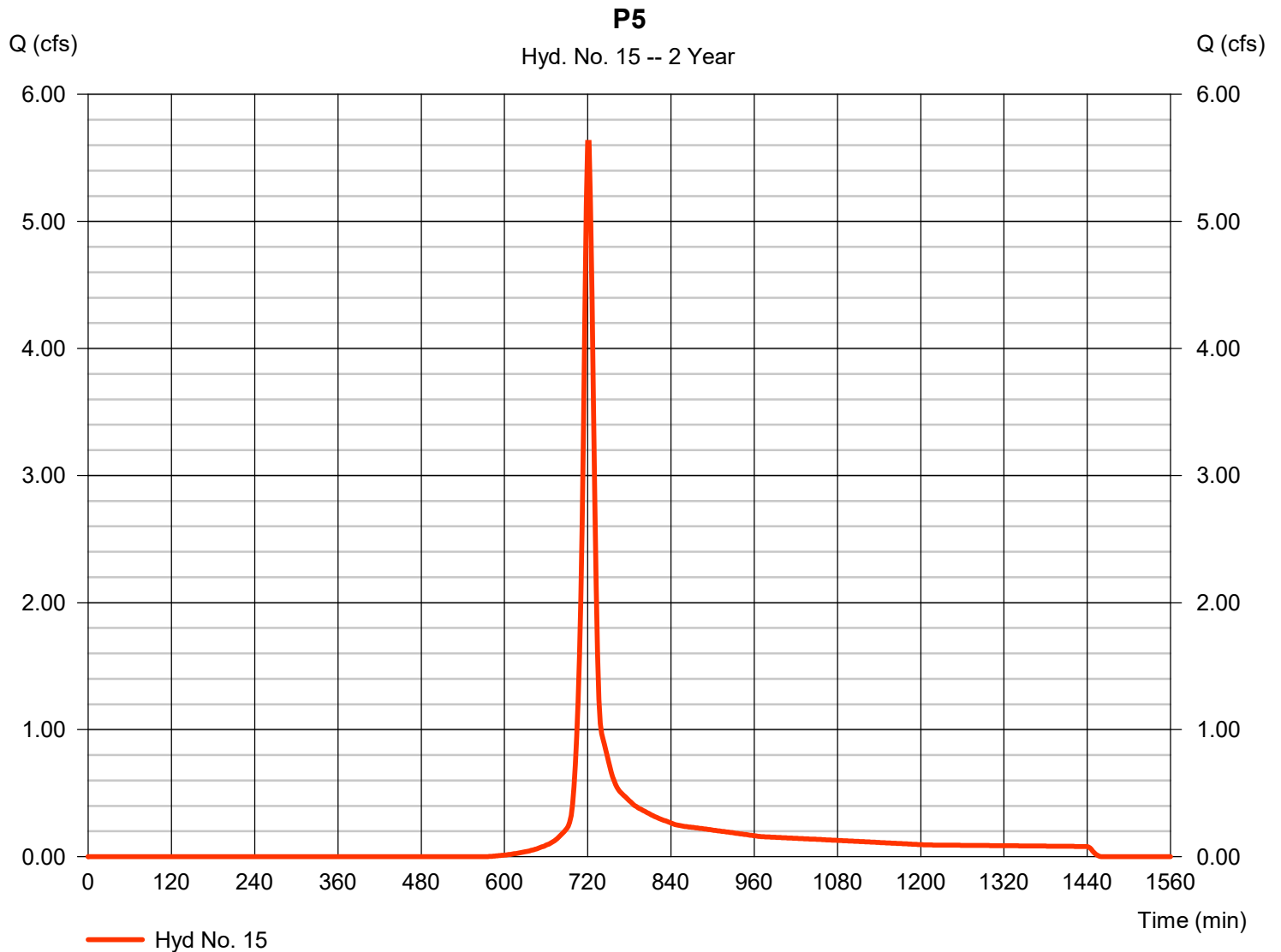
Friday, 04 / 12 / 2024

Hyd. No. 15

P5

Hydrograph type	= SCS Runoff	Peak discharge	= 5.623 cfs
Storm frequency	= 2 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 14,710 cuft
Drainage area	= 4.160 ac	Curve number	= 85*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 12.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.960 x 98) + (2.200 x 74)] / 4.160



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

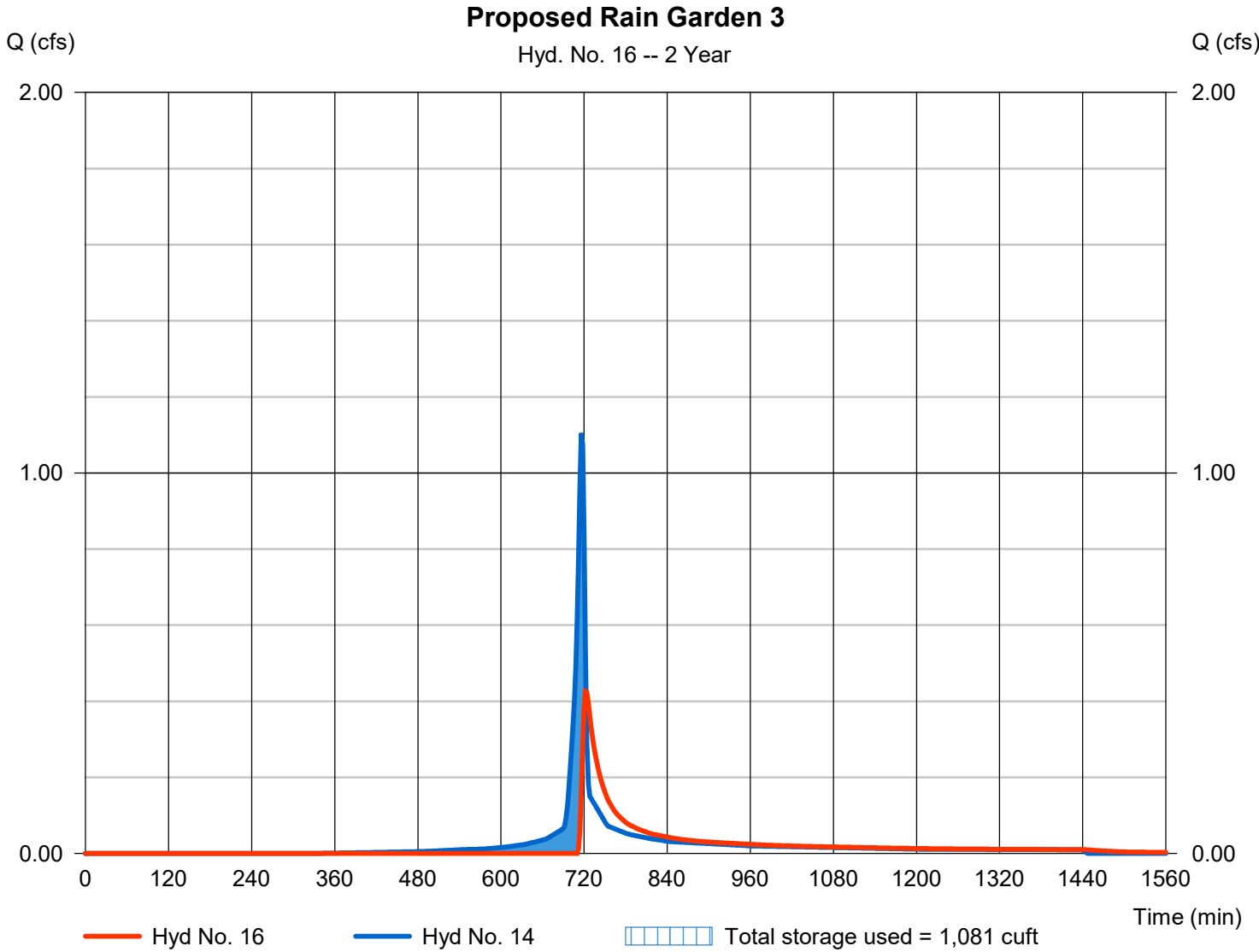
Friday, 04 / 12 / 2024

Hyd. No. 16

Proposed Rain Garden 3

Hydrograph type	= Reservoir	Peak discharge	= 0.425 cfs
Storm frequency	= 2 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 1,707 cuft
Inflow hyd. No.	= 14 - P3a	Max. Elevation	= 926.05 ft
Reservoir name	= Proposed Rain Garden 3	Max. Storage	= 1,081 cuft

Storage Indication method used.



Pond No. 3 - Proposed Rain Garden 3

Pond Data

UG Chambers - Invert elev. = 925.69 ft, Rise x Span = 1.34 x 2.83 ft, Barrel Len = 8.08 ft, No. Barrels = 30, Slope = 0.00%, Headers = Yes
 Erosion Control - Inlet Control = 0.24, Outlet Control = 0.33, Height = 2.66 ft, Velocity = 4.00 ft/s, Manning Elevation = 927.78 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	924.94	n/a	0	0
0.26	925.20	n/a	187	187
0.52	925.46	n/a	187	373
0.77	925.71	n/a	206	579
1.03	925.97	n/a	392	971
1.29	926.23	n/a	383	1,354
1.55	926.49	n/a	365	1,720
1.81	926.75	n/a	335	2,055
2.06	927.00	n/a	280	2,334
2.32	927.26	n/a	189	2,524
2.58	927.52	n/a	187	2,711
2.84	927.78	50	4	2,715
4.73	929.67	50	94	2,809
7.23	932.17	50	125	2,934

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.00	0.00	0.00
Span (in)	= 12.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 925.71	0.00	0.00	0.00
Length (ft)	= 30.00	0.00	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	Inactive	2.00	0.00	0.00
Crest El. (ft)	= 928.90	929.48	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	Ciplti	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

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

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Civ A cfs	Civ B cfs	Civ 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	924.94	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.03	19	924.97	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.05	37	924.99	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.08	56	925.02	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.10	75	925.04	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.13	93	925.07	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.15	112	925.09	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.18	131	925.12	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.21	149	925.15	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.23	168	925.17	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.26	187	925.20	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.28	205	925.22	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.31	224	925.25	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.34	243	925.28	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.36	261	925.30	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.39	280	925.33	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.41	299	925.35	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.44	317	925.38	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.46	336	925.40	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.49	355	925.43	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.52	373	925.46	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.54	394	925.48	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.57	414	925.51	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.59	435	925.53	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.62	456	925.56	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.65	476	925.59	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.67	497	925.61	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.70	517	925.64	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000

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Proposed Rain Garden 3

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.72	538	925.66	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.75	559	925.69	0.00	---	---	---	0.00	0.00	---	---	---	---	0.000
0.77	579	925.71	0.00 oc	---	---	---	0.00	0.00	---	---	---	---	0.000
0.80	618	925.74	0.00 oc	---	---	---	0.00	0.00	---	---	---	---	0.004
0.83	658	925.77	0.01 ic	---	---	---	0.00	0.00	---	---	---	---	0.014
0.85	697	925.79	0.03 ic	---	---	---	0.00	0.00	---	---	---	---	0.029
0.88	736	925.82	0.05 ic	---	---	---	0.00	0.00	---	---	---	---	0.051
0.90	775	925.84	0.08 ic	---	---	---	0.00	0.00	---	---	---	---	0.077
0.93	814	925.87	0.11 ic	---	---	---	0.00	0.00	---	---	---	---	0.110
0.95	854	925.89	0.15 ic	---	---	---	0.00	0.00	---	---	---	---	0.146
0.98	893	925.92	0.19 ic	---	---	---	0.00	0.00	---	---	---	---	0.188
1.01	932	925.95	0.24 ic	---	---	---	0.00	0.00	---	---	---	---	0.235
1.03	971	925.97	0.28 oc	---	---	---	0.00	0.00	---	---	---	---	0.282
1.06	1,009	926.00	0.33 oc	---	---	---	0.00	0.00	---	---	---	---	0.330
1.08	1,048	926.02	0.38 oc	---	---	---	0.00	0.00	---	---	---	---	0.380
1.11	1,086	926.05	0.43 oc	---	---	---	0.00	0.00	---	---	---	---	0.433
1.14	1,124	926.08	0.49 oc	---	---	---	0.00	0.00	---	---	---	---	0.488
1.16	1,163	926.10	0.54 oc	---	---	---	0.00	0.00	---	---	---	---	0.543
1.19	1,201	926.13	0.60 oc	---	---	---	0.00	0.00	---	---	---	---	0.599
1.21	1,239	926.15	0.66 oc	---	---	---	0.00	0.00	---	---	---	---	0.655
1.24	1,278	926.18	0.71 oc	---	---	---	0.00	0.00	---	---	---	---	0.713
1.26	1,316	926.20	0.77 oc	---	---	---	0.00	0.00	---	---	---	---	0.771
1.29	1,354	926.23	0.83 oc	---	---	---	0.00	0.00	---	---	---	---	0.829
1.32	1,391	926.26	0.89 oc	---	---	---	0.00	0.00	---	---	---	---	0.887
1.34	1,427	926.28	0.94 oc	---	---	---	0.00	0.00	---	---	---	---	0.945
1.37	1,464	926.31	1.00 oc	---	---	---	0.00	0.00	---	---	---	---	1.001
1.39	1,500	926.33	1.06 oc	---	---	---	0.00	0.00	---	---	---	---	1.058
1.42	1,537	926.36	1.11 oc	---	---	---	0.00	0.00	---	---	---	---	1.114
1.44	1,574	926.38	1.17 oc	---	---	---	0.00	0.00	---	---	---	---	1.168
1.47	1,610	926.41	1.22 oc	---	---	---	0.00	0.00	---	---	---	---	1.221
1.50	1,647	926.44	1.27 oc	---	---	---	0.00	0.00	---	---	---	---	1.273
1.52	1,683	926.46	1.32 oc	---	---	---	0.00	0.00	---	---	---	---	1.322
1.55	1,720	926.49	1.37 oc	---	---	---	0.00	0.00	---	---	---	---	1.369
1.57	1,753	926.51	1.41 oc	---	---	---	0.00	0.00	---	---	---	---	1.413
1.60	1,787	926.54	1.46 oc	---	---	---	0.00	0.00	---	---	---	---	1.455
1.63	1,820	926.57	1.49 oc	---	---	---	0.00	0.00	---	---	---	---	1.493
1.65	1,854	926.59	1.53 oc	---	---	---	0.00	0.00	---	---	---	---	1.527
1.68	1,887	926.62	1.56 oc	---	---	---	0.00	0.00	---	---	---	---	1.555
1.70	1,921	926.64	1.58 oc	---	---	---	0.00	0.00	---	---	---	---	1.578
1.73	1,954	926.67	1.59 oc	---	---	---	0.00	0.00	---	---	---	---	1.592
1.75	1,988	926.69	1.59 oc	---	---	---	0.00	0.00	---	---	---	---	1.592
1.78	2,021	926.72	1.62 oc	---	---	---	0.00	0.00	---	---	---	---	1.619
1.81	2,055	926.75	1.74 oc	---	---	---	0.00	0.00	---	---	---	---	1.744
1.83	2,083	926.77	1.86 oc	---	---	---	0.00	0.00	---	---	---	---	1.861
1.86	2,111	926.80	1.97 oc	---	---	---	0.00	0.00	---	---	---	---	1.971
1.88	2,139	926.82	2.08 oc	---	---	---	0.00	0.00	---	---	---	---	2.075
1.91	2,167	926.85	2.17 oc	---	---	---	0.00	0.00	---	---	---	---	2.175
1.94	2,195	926.88	2.27 oc	---	---	---	0.00	0.00	---	---	---	---	2.270
1.96	2,223	926.90	2.36 oc	---	---	---	0.00	0.00	---	---	---	---	2.361
1.99	2,251	926.93	2.45 oc	---	---	---	0.00	0.00	---	---	---	---	2.449
2.01	2,279	926.95	2.53 oc	---	---	---	0.00	0.00	---	---	---	---	2.533
2.04	2,307	926.98	2.62 oc	---	---	---	0.00	0.00	---	---	---	---	2.615
2.06	2,334	927.00	2.69 oc	---	---	---	0.00	0.00	---	---	---	---	2.694
2.09	2,353	927.03	2.77 oc	---	---	---	0.00	0.00	---	---	---	---	2.771
2.12	2,372	927.06	2.85 oc	---	---	---	0.00	0.00	---	---	---	---	2.847
2.14	2,391	927.08	2.92 oc	---	---	---	0.00	0.00	---	---	---	---	2.920
2.17	2,410	927.11	2.99 oc	---	---	---	0.00	0.00	---	---	---	---	2.991
2.19	2,429	927.13	3.06 oc	---	---	---	0.00	0.00	---	---	---	---	3.061
2.22	2,448	927.16	3.13 oc	---	---	---	0.00	0.00	---	---	---	---	3.129
2.24	2,467	927.18	3.20 oc	---	---	---	0.00	0.00	---	---	---	---	3.196
2.27	2,486	927.21	3.26 oc	---	---	---	0.00	0.00	---	---	---	---	3.261
2.30	2,505	927.24	3.33 oc	---	---	---	0.00	0.00	---	---	---	---	3.325
2.32	2,524	927.26	3.39 oc	---	---	---	0.00	0.00	---	---	---	---	3.388
2.35	2,543	927.29	3.45 oc	---	---	---	0.00	0.00	---	---	---	---	3.449
2.37	2,561	927.31	3.51 oc	---	---	---	0.00	0.00	---	---	---	---	3.510
2.40	2,580	927.34	3.57 oc	---	---	---	0.00	0.00	---	---	---	---	3.570
2.43	2,599	927.37	3.63 oc	---	---	---	0.00	0.00	---	---	---	---	3.628
2.45	2,617	927.39	3.69 oc	---	---	---	0.00	0.00	---	---	---	---	3.686
2.48	2,636	927.42	3.74 oc	---	---	---	0.00	0.00	---	---	---	---	3.743
2.50	2,655	927.44	3.80 oc	---	---	---	0.00	0.00	---	---	---	---	3.799
2.53	2,673	927.47	3.85 oc	---	---	---	0.00	0.00	---	---	---	---	3.854
2.55	2,692	927.49	3.91 oc	---	---	---	0.00	0.00	---	---	---	---	3.908

Continues on next page...

Proposed Rain Garden 3

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
2.58	2,711	927.52	3.96 oc	---	---	---	0.00	0.00	---	---	---	---	3.962
2.61	2,711	927.55	4.01 oc	---	---	---	0.00	0.00	---	---	---	---	4.015
2.63	2,711	927.57	4.07 oc	---	---	---	0.00	0.00	---	---	---	---	4.067
2.66	2,712	927.60	4.12 oc	---	---	---	0.00	0.00	---	---	---	---	4.119
2.68	2,712	927.62	4.17 oc	---	---	---	0.00	0.00	---	---	---	---	4.171
2.71	2,713	927.65	4.22 oc	---	---	---	0.00	0.00	---	---	---	---	4.221
2.74	2,713	927.68	4.27 oc	---	---	---	0.00	0.00	---	---	---	---	4.271
2.76	2,714	927.70	4.32 oc	---	---	---	0.00	0.00	---	---	---	---	4.321
2.79	2,714	927.73	4.37 oc	---	---	---	0.00	0.00	---	---	---	---	4.370
2.81	2,714	927.75	4.42 oc	---	---	---	0.00	0.00	---	---	---	---	4.418
2.84	2,715	927.78	4.47 oc	---	---	---	0.00	0.00	---	---	---	---	4.466
3.03	2,724	927.97	4.80 oc	---	---	---	0.00	0.00	---	---	---	---	4.799
3.22	2,734	928.16	5.11 oc	---	---	---	0.00	0.00	---	---	---	---	5.111
3.41	2,743	928.35	5.40 oc	---	---	---	0.00	0.00	---	---	---	---	5.405
3.60	2,753	928.54	5.68 oc	---	---	---	0.00	0.00	---	---	---	---	5.683
3.79	2,762	928.72	5.95 oc	---	---	---	0.00	0.00	---	---	---	---	5.949
3.97	2,772	928.91	6.20 oc	---	---	---	0.00	0.00	---	---	---	---	6.203
4.16	2,781	929.10	6.43 ic	---	---	---	0.00	0.00	---	---	---	---	6.431
4.35	2,790	929.29	6.64 ic	---	---	---	0.00	0.00	---	---	---	---	6.638
4.54	2,800	929.48	6.84 ic	---	---	---	0.00	0.00	---	---	---	---	6.838
4.73	2,809	929.67	7.03 ic	---	---	---	0.00	0.55	---	---	---	---	7.585
4.98	2,822	929.92	7.28 ic	---	---	---	0.00	1.94	---	---	---	---	9.227
5.23	2,834	930.17	7.52 ic	---	---	---	0.00	3.82	---	---	---	---	11.34
5.48	2,847	930.42	7.76 ic	---	---	---	0.00	6.07	---	---	---	---	13.83
5.73	2,859	930.67	7.99 ic	---	---	---	0.00	8.65	---	---	---	---	16.63
5.98	2,872	930.92	8.21 ic	---	---	---	0.00	11.51	---	---	---	---	19.71
6.23	2,884	931.17	8.42 ic	---	---	---	0.00	14.63	---	---	---	---	23.05
6.48	2,897	931.42	8.63 ic	---	---	---	0.00	18.00	---	---	---	---	26.63
6.73	2,909	931.67	8.84 ic	---	---	---	0.00	21.58	---	---	---	---	30.42
6.98	2,922	931.92	9.04 ic	---	---	---	0.00	25.38	---	---	---	---	34.42
7.23	2,934	932.17	9.23 ic	---	---	---	0.00	29.38	---	---	---	---	38.61

...End

Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

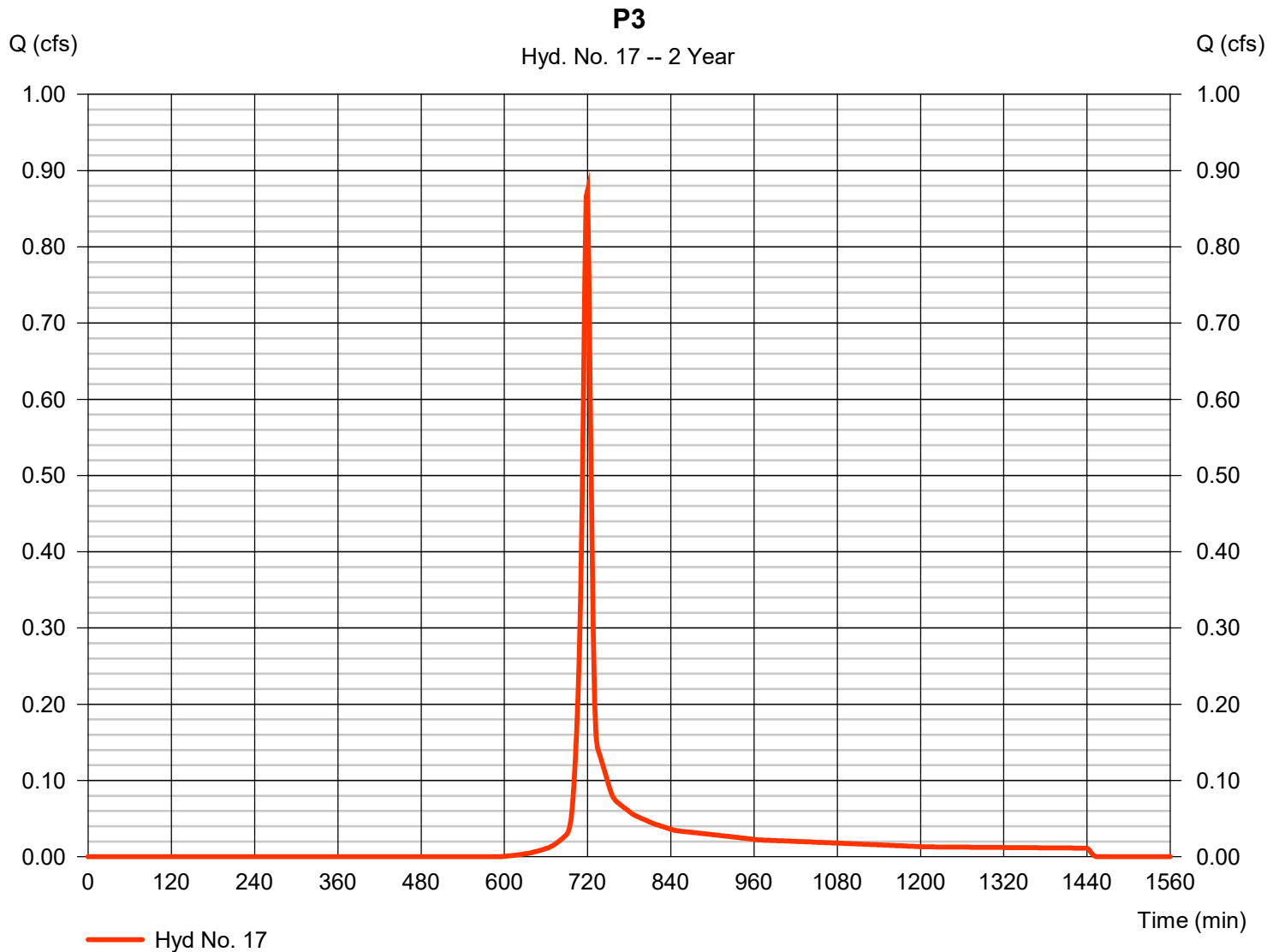
Friday, 04 / 12 / 2024

Hyd. No. 17

P3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.874 cfs
Storm frequency	= 2 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 2,000 cuft
Drainage area	= 0.620 ac	Curve number	= 84*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 8.00 min
Total precip.	= 2.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.250 x 98) + (0.370 x 74)] / 0.620



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

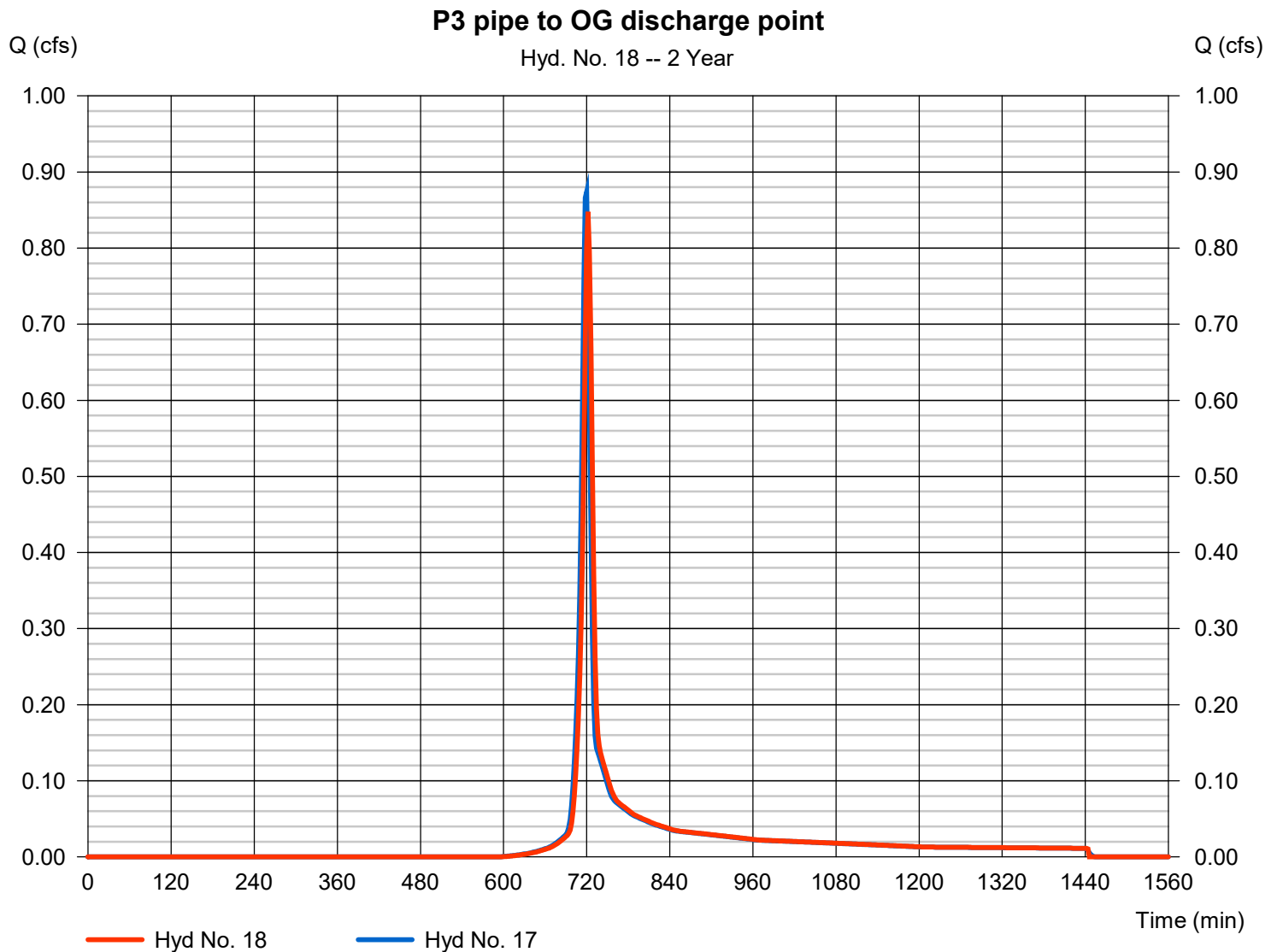
Friday, 04 / 12 / 2024

Hyd. No. 18

P3 pipe to OG discharge point

Hydrograph type	= Reach	Peak discharge	= 0.848 cfs
Storm frequency	= 2 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 1,997 cuft
Inflow hyd. No.	= 17 - P3	Section type	= Circular
Reach length	= 111.0 ft	Channel slope	= 2.9 %
Manning's n	= 0.012	Bottom width	= 1.3 ft
Side slope	= 0.0:1	Max. depth	= 0.0 ft
Rating curve x	= 11.842	Rating curve m	= 1.250
Ave. velocity	= 0.00 ft/s	Routing coeff.	= 0.6495

Modified Att-Kin routing method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

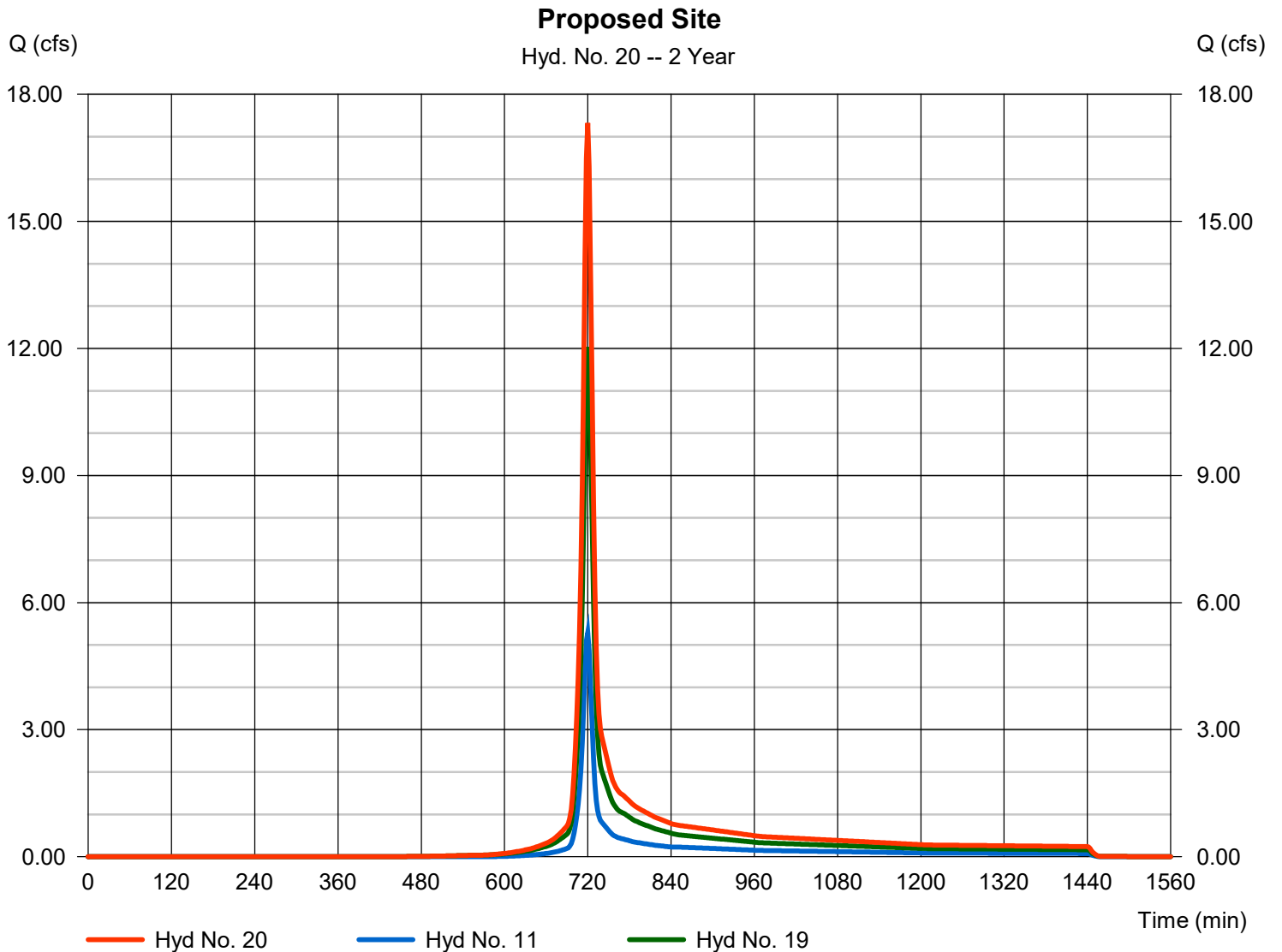
Friday, 04 / 12 / 2024

Hyd. No. 20

Proposed Site

Hydrograph type = Combine
Storm frequency = 2 yrs
Time interval = 2 min
Inflow hyds. = 11, 19

Peak discharge = 17.32 cfs
Time to peak = 720 min
Hyd. volume = 44,083 cuft
Contrib. drain. area = 0.000 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	8.291	2	718	19,710	----	----	----	Area 1
2	SCS Runoff	1.445	2	718	3,306	----	----	----	E2
3	SCS Runoff	3.995	2	718	9,183	----	----	----	E3
4	SCS Runoff	9.600	2	718	22,201	----	----	----	E4
5	SCS Runoff	1.054	2	718	2,473	----	----	----	E4A
6	SCS Runoff	16.31	2	720	42,575	----	----	----	E5
7	SCS Runoff	5.518	2	720	14,364	----	----	----	E6
8	SCS Runoff	4.483	2	718	10,657	----	----	----	E7
9	Reservoir	0.919	2	722	1,800	5	935.15	879	Rain Garden 4
10	Reservoir	1.381	2	720	2,803	2	933.72	723	Rain Garden 2
11	Combine	15.81	2	720	38,364	4, 7, 9,	----	----	Site South
12	Combine	34.05	2	720	84,929	1, 3, 6, 8, 10,	----	----	Site North
13	Combine	49.86	2	720	123,293	11, 12	----	----	Existing Site
14	SCS Runoff	2.429	2	716	5,304	----	----	----	P3a
15	SCS Runoff	16.01	2	720	41,772	----	----	----	P5
16	Reservoir	1.484	2	720	4,715	14	926.56	1,812	Proposed Rain Garden 3
17	SCS Runoff	2.532	2	718	5,835	----	----	----	P3
18	Reach	2.564	2	720	5,834	17	----	----	P3 pipe to OG discharge point
19	Combine	33.85	2	720	85,492	1, 8, 10, 15, 16, 18	----	----	Proposed North
20	Combine	49.66	2	720	123,857	11, 19	----	----	Proposed Site

Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

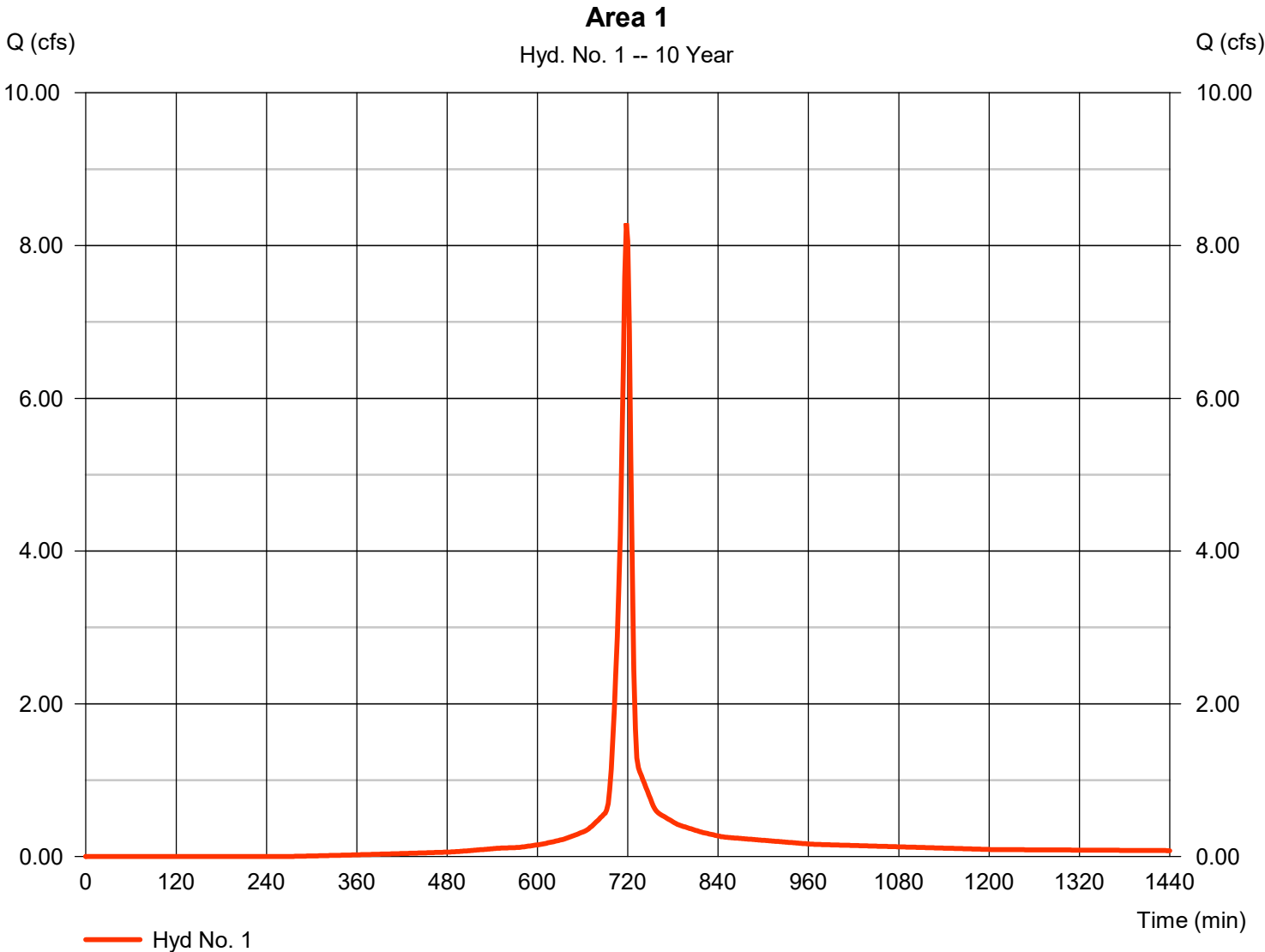
Friday, 04 / 12 / 2024

Hyd. No. 1

Area 1

Hydrograph type	= SCS Runoff	Peak discharge	= 8.291 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 19,710 cuft
Drainage area	= 1.720 ac	Curve number	= 90*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.120 x 98) + (0.600 x 74)] / 1.720



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

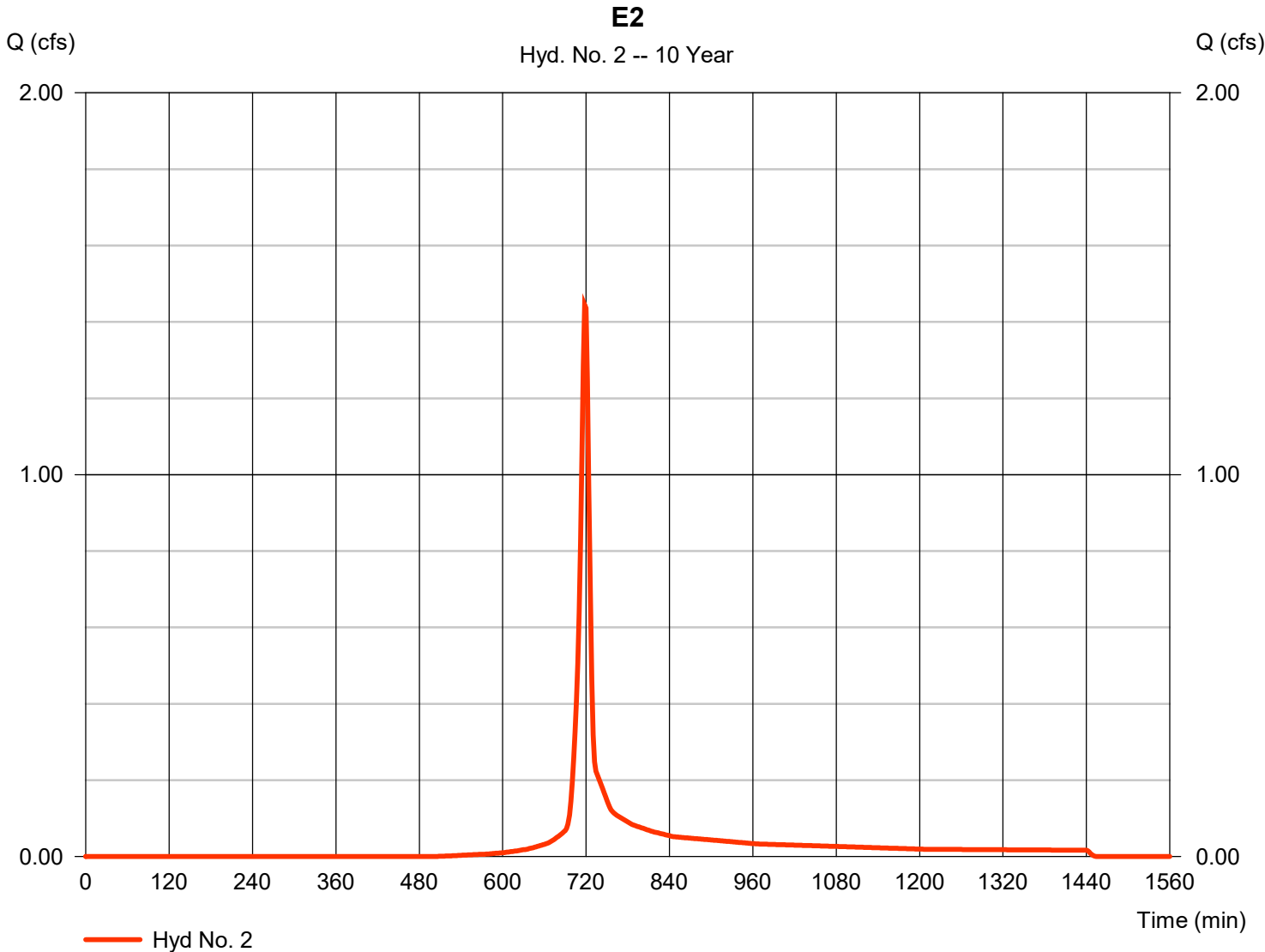
Friday, 04 / 12 / 2024

Hyd. No. 2

E2

Hydrograph type	= SCS Runoff	Peak discharge	= 1.445 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 3,306 cuft
Drainage area	= 0.420 ac	Curve number	= 79*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.090 x 98) + (0.330 x 74)] / 0.420



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

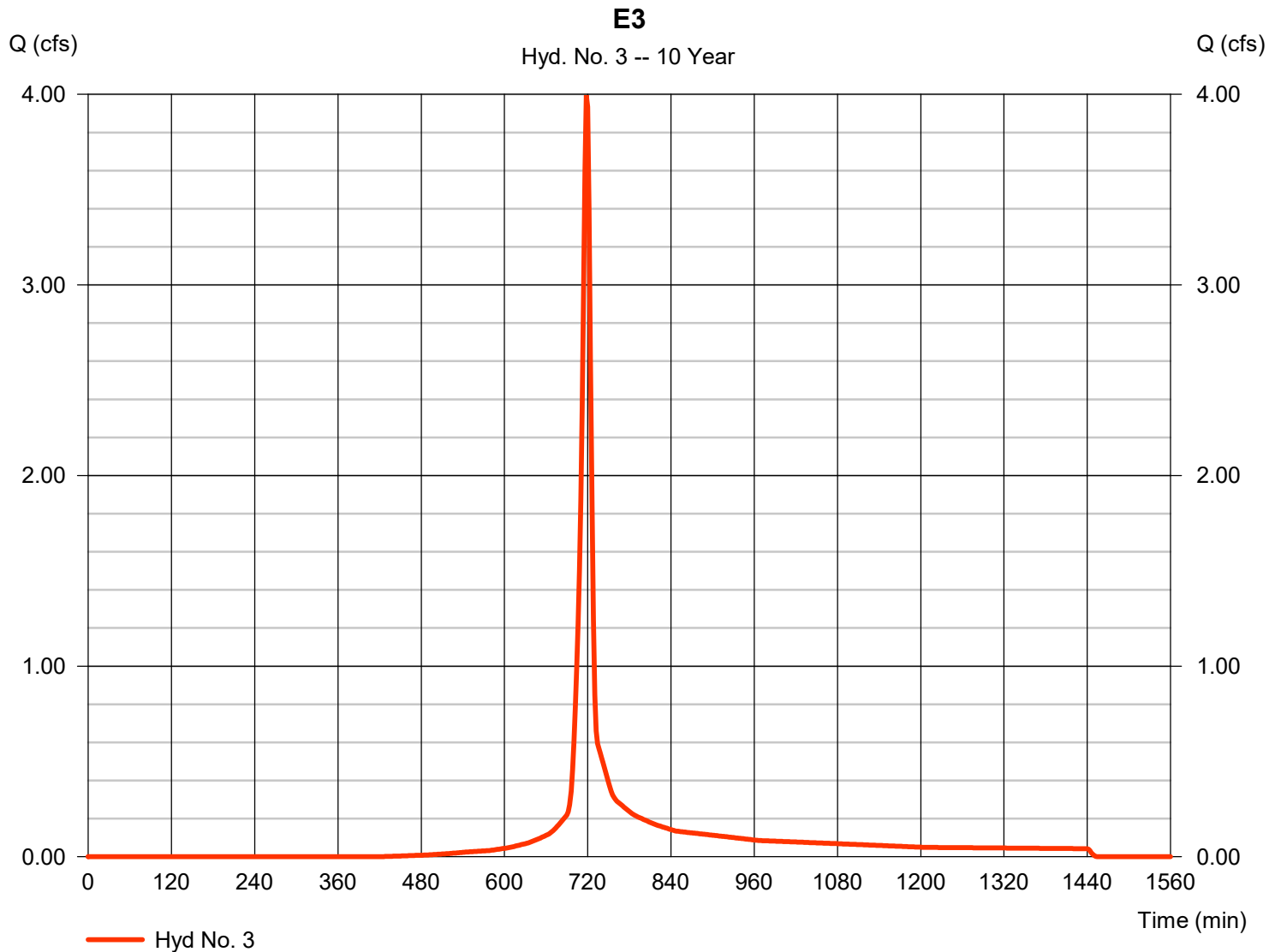
Friday, 04 / 12 / 2024

Hyd. No. 3

E3

Hydrograph type	= SCS Runoff	Peak discharge	= 3.995 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 9,183 cuft
Drainage area	= 1.010 ac	Curve number	= 83*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.380 x 98) + (0.630 x 74)] / 1.010



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

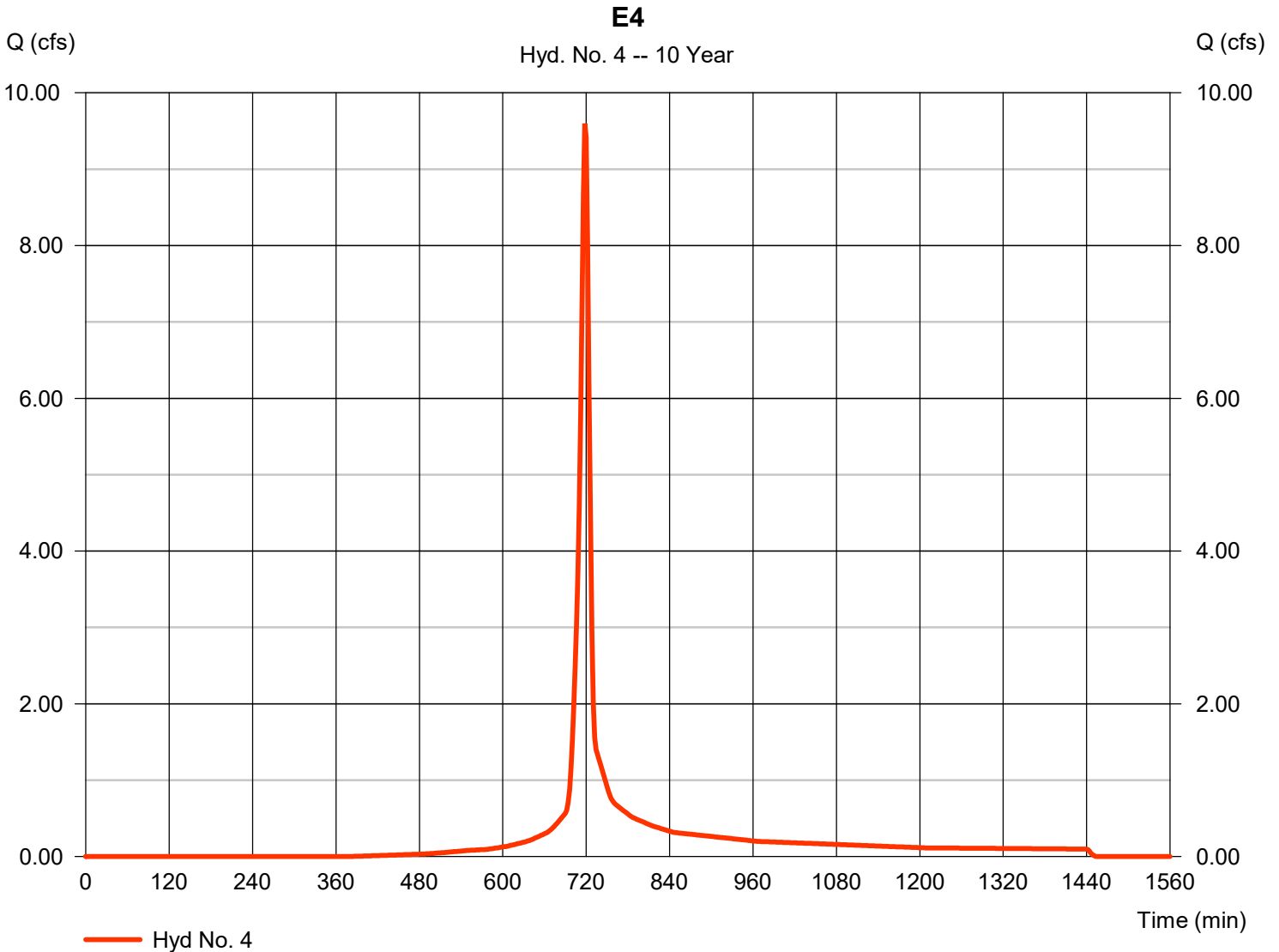
Friday, 04 / 12 / 2024

Hyd. No. 4

E4

Hydrograph type	= SCS Runoff	Peak discharge	= 9.600 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 22,201 cuft
Drainage area	= 2.280 ac	Curve number	= 85*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.080 x 98) + (1.200 x 74)] / 2.280



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

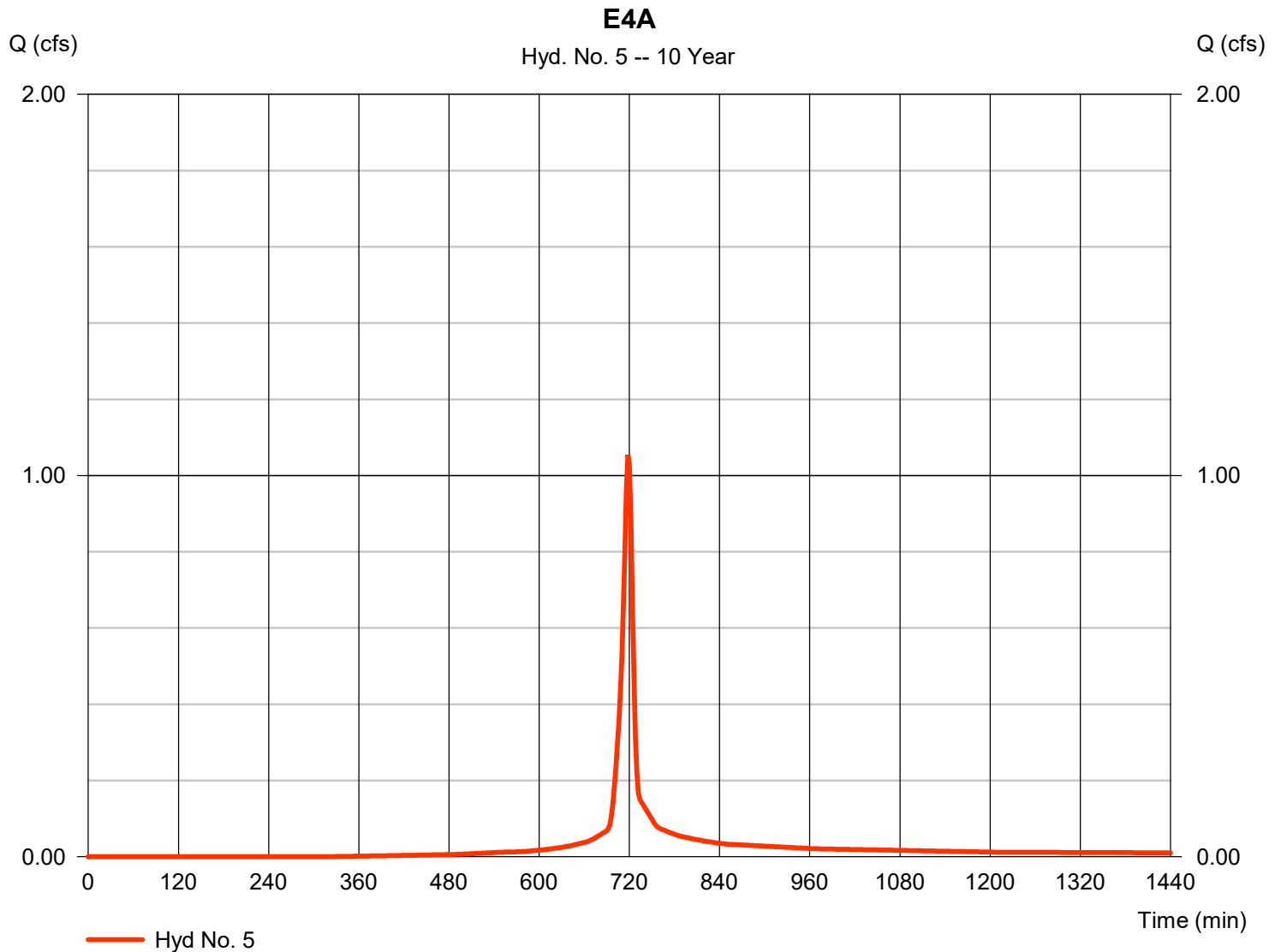
Friday, 04 / 12 / 2024

Hyd. No. 5

E4A

Hydrograph type	= SCS Runoff	Peak discharge	= 1.054 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 2,473 cuft
Drainage area	= 0.230 ac	Curve number	= 88*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.130 x 98) + (0.100 x 74)] / 0.230



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

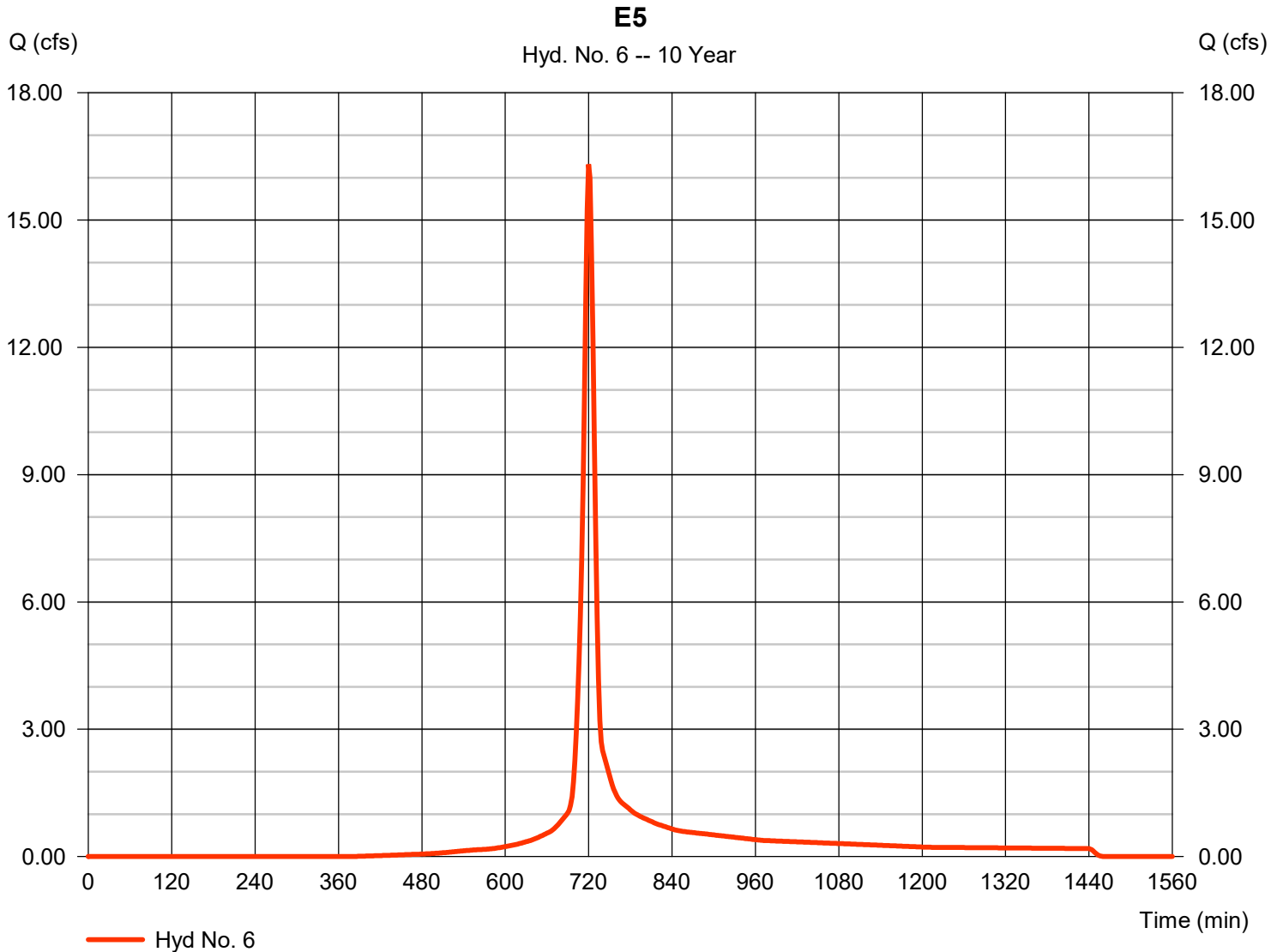
Friday, 04 / 12 / 2024

Hyd. No. 6

E5

Hydrograph type	= SCS Runoff	Peak discharge	= 16.31 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 42,575 cuft
Drainage area	= 4.240 ac	Curve number	= 85*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 12.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.930 x 98) + (2.310 x 74)] / 4.240



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

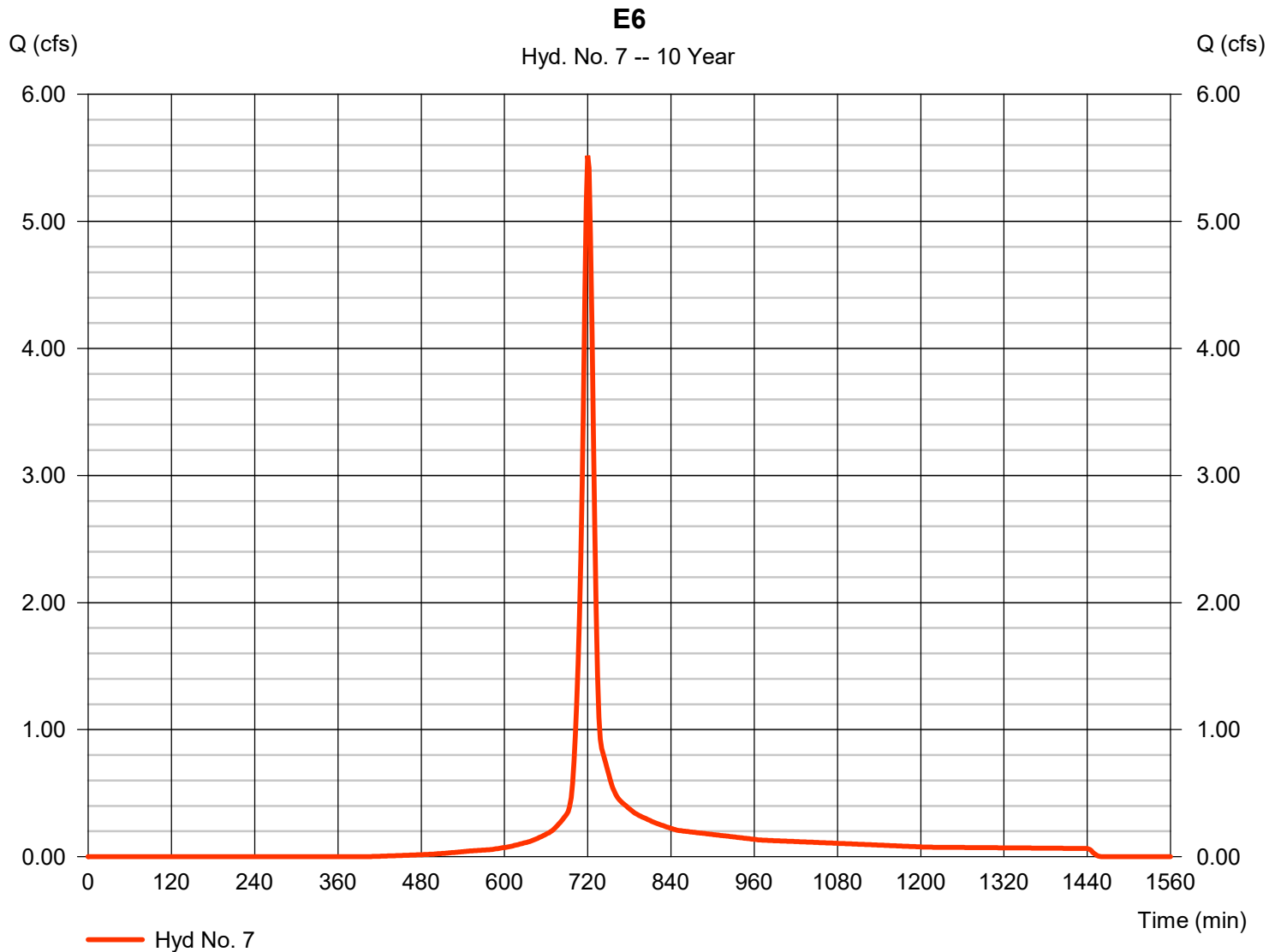
Friday, 04 / 12 / 2024

Hyd. No. 7

E6

Hydrograph type	= SCS Runoff	Peak discharge	= 5.518 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 14,364 cuft
Drainage area	= 1.480 ac	Curve number	= 84*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 11.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.640 x 98) + (0.840 x 74)] / 1.480



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

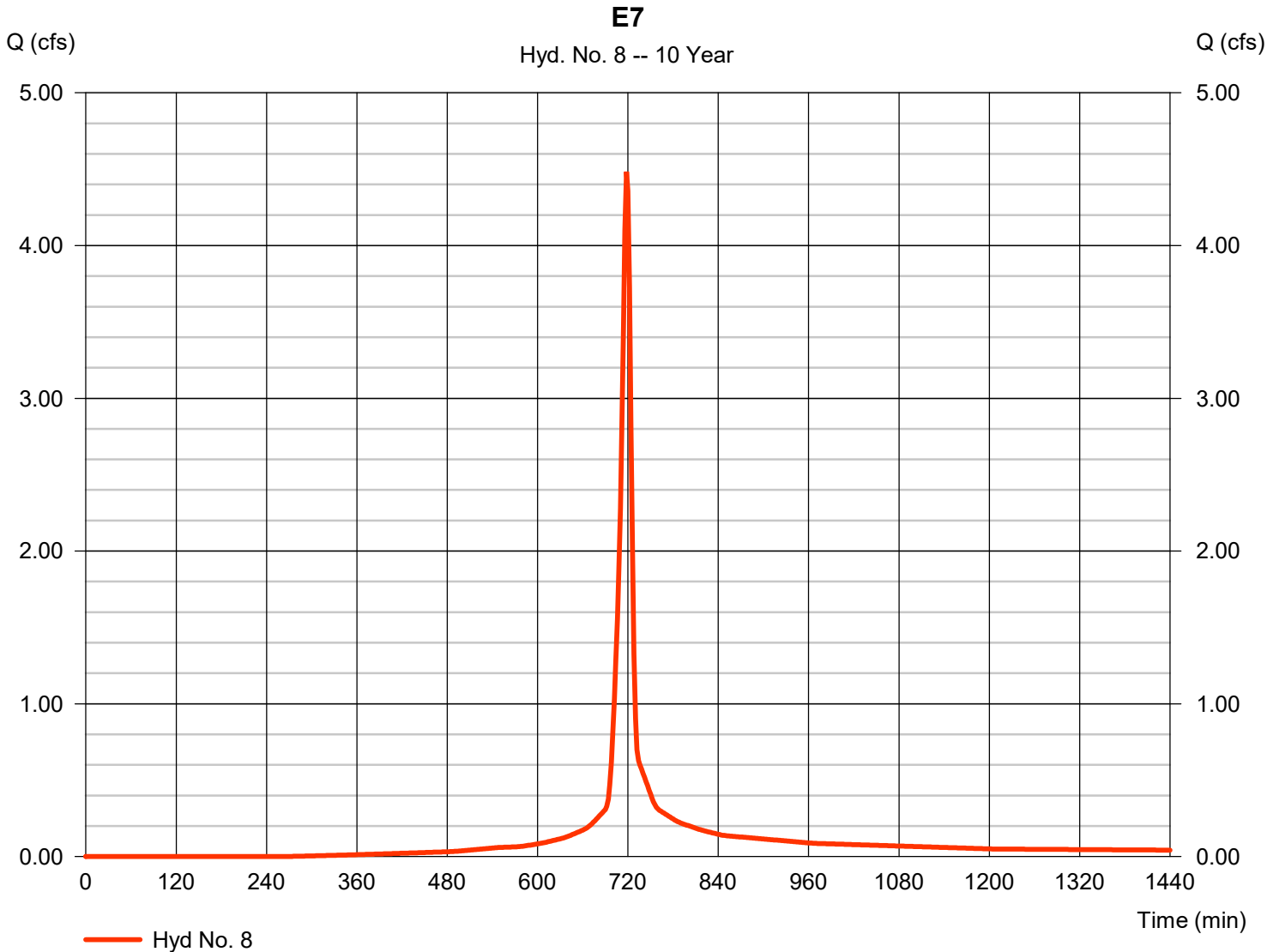
Friday, 04 / 12 / 2024

Hyd. No. 8

E7

Hydrograph type	= SCS Runoff	Peak discharge	= 4.483 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 10,657 cuft
Drainage area	= 0.930 ac	Curve number	= 90*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.620 x 98) + (0.310 x 74)] / 0.930



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

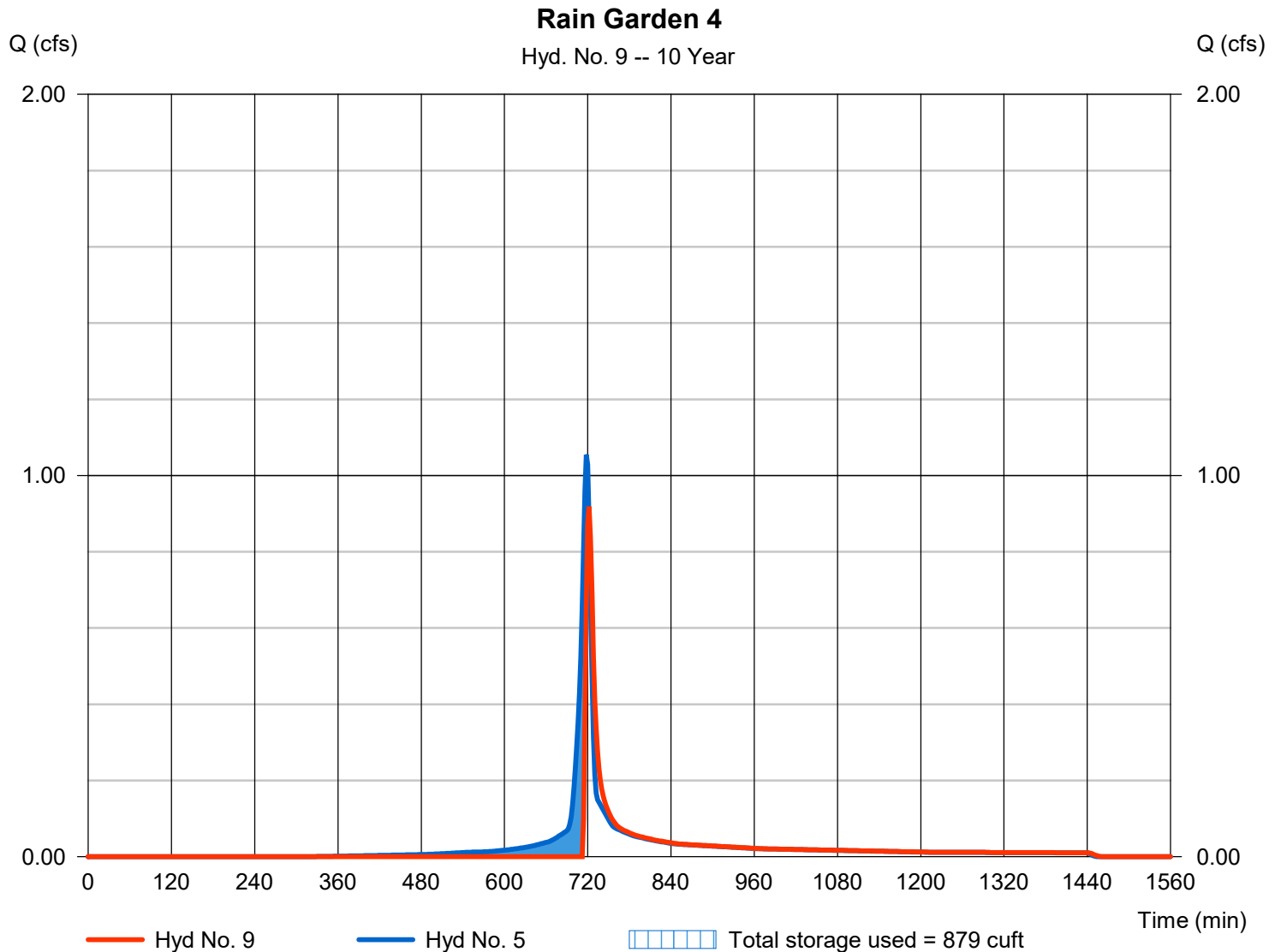
Friday, 04 / 12 / 2024

Hyd. No. 9

Rain Garden 4

Hydrograph type	= Reservoir	Peak discharge	= 0.919 cfs
Storm frequency	= 10 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 1,800 cuft
Inflow hyd. No.	= 5 - E4A	Max. Elevation	= 935.15 ft
Reservoir name	= Ex. Rain Garden 4	Max. Storage	= 879 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

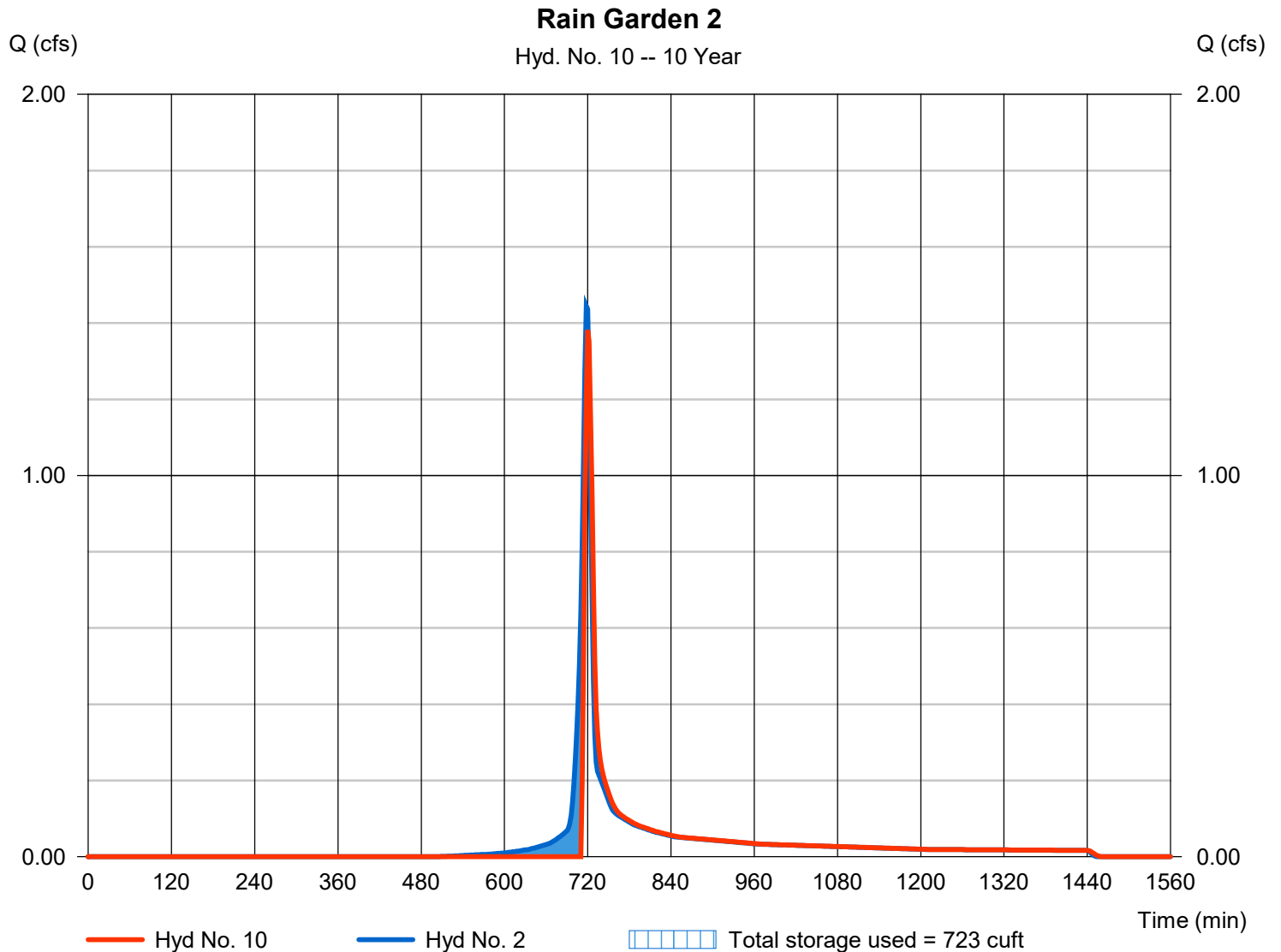
Friday, 04 / 12 / 2024

Hyd. No. 10

Rain Garden 2

Hydrograph type	= Reservoir	Peak discharge	= 1.381 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 2,803 cuft
Inflow hyd. No.	= 2 - E2	Max. Elevation	= 933.72 ft
Reservoir name	= Ex Rain Garden 2	Max. Storage	= 723 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

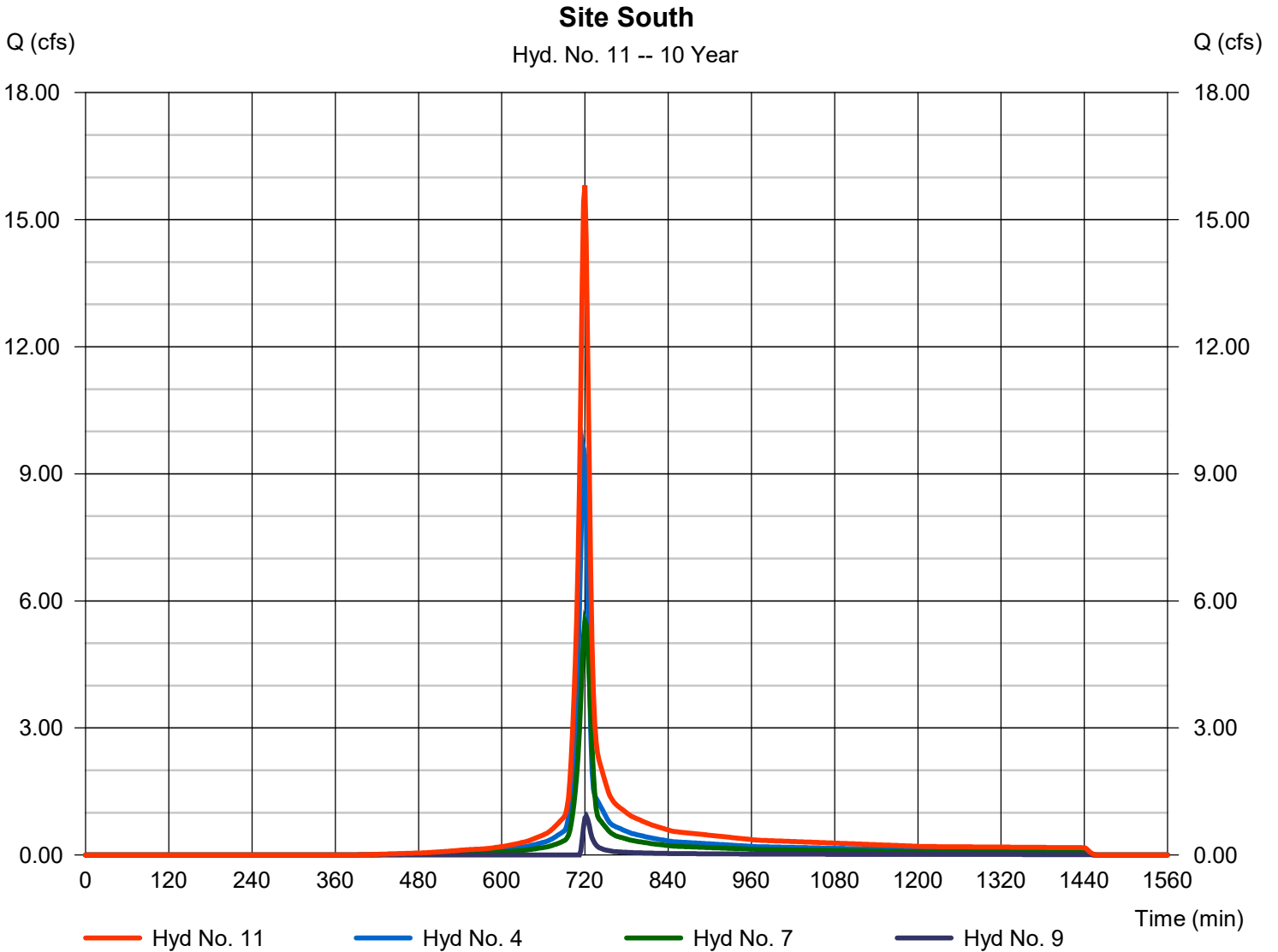
Friday, 04 / 12 / 2024

Hyd. No. 11

Site South

Hydrograph type = Combine
Storm frequency = 10 yrs
Time interval = 2 min
Inflow hyds. = 4, 7, 9

Peak discharge = 15.81 cfs
Time to peak = 720 min
Hyd. volume = 38,364 cuft
Contrib. drain. area = 3.760 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

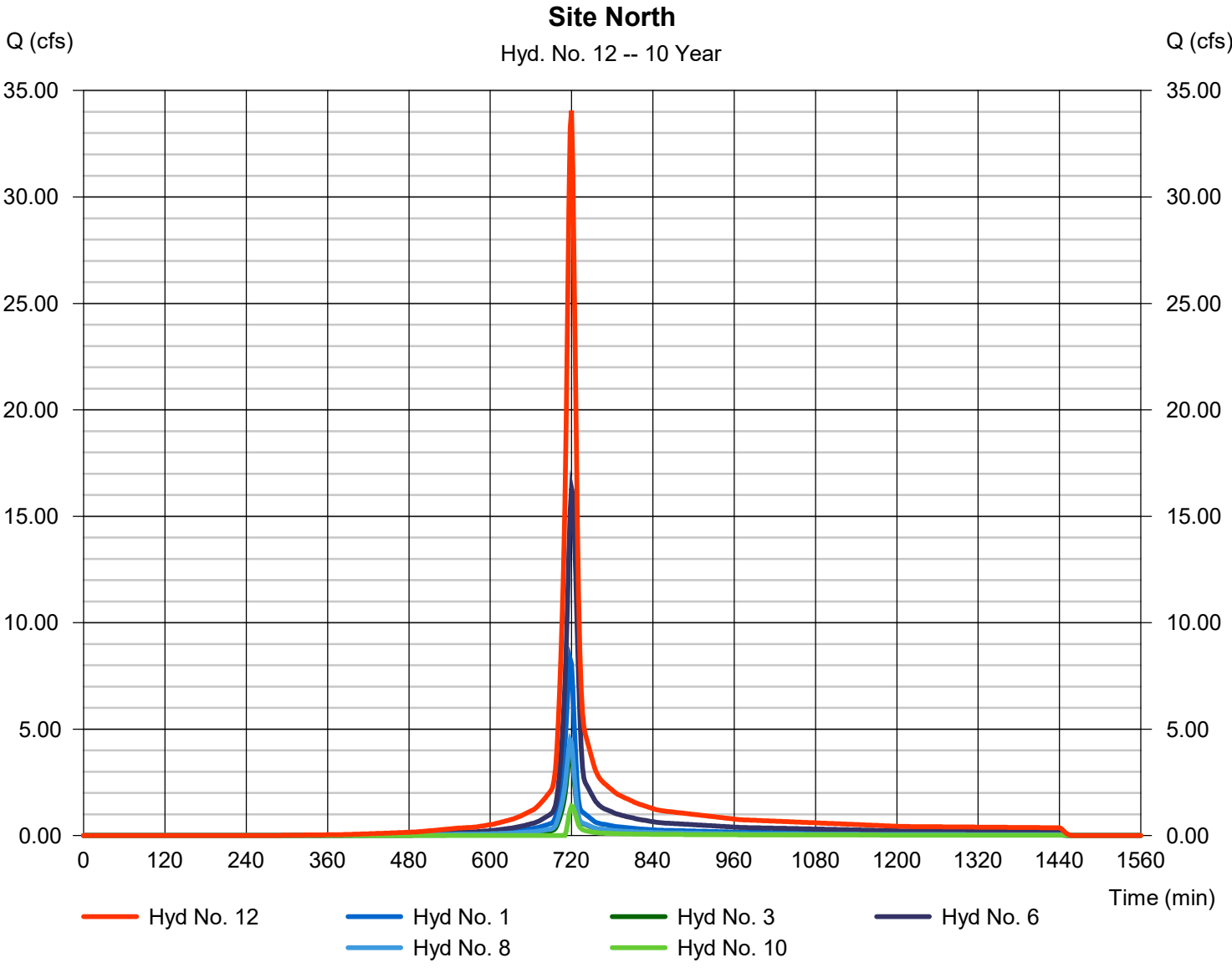
Friday, 04 / 12 / 2024

Hyd. No. 12

Site North

Hydrograph type = Combine
Storm frequency = 10 yrs
Time interval = 2 min
Inflow hyds. = 1, 3, 6, 8, 10

Peak discharge = 34.05 cfs
Time to peak = 720 min
Hyd. volume = 84,929 cuft
Contrib. drain. area = 7.900 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

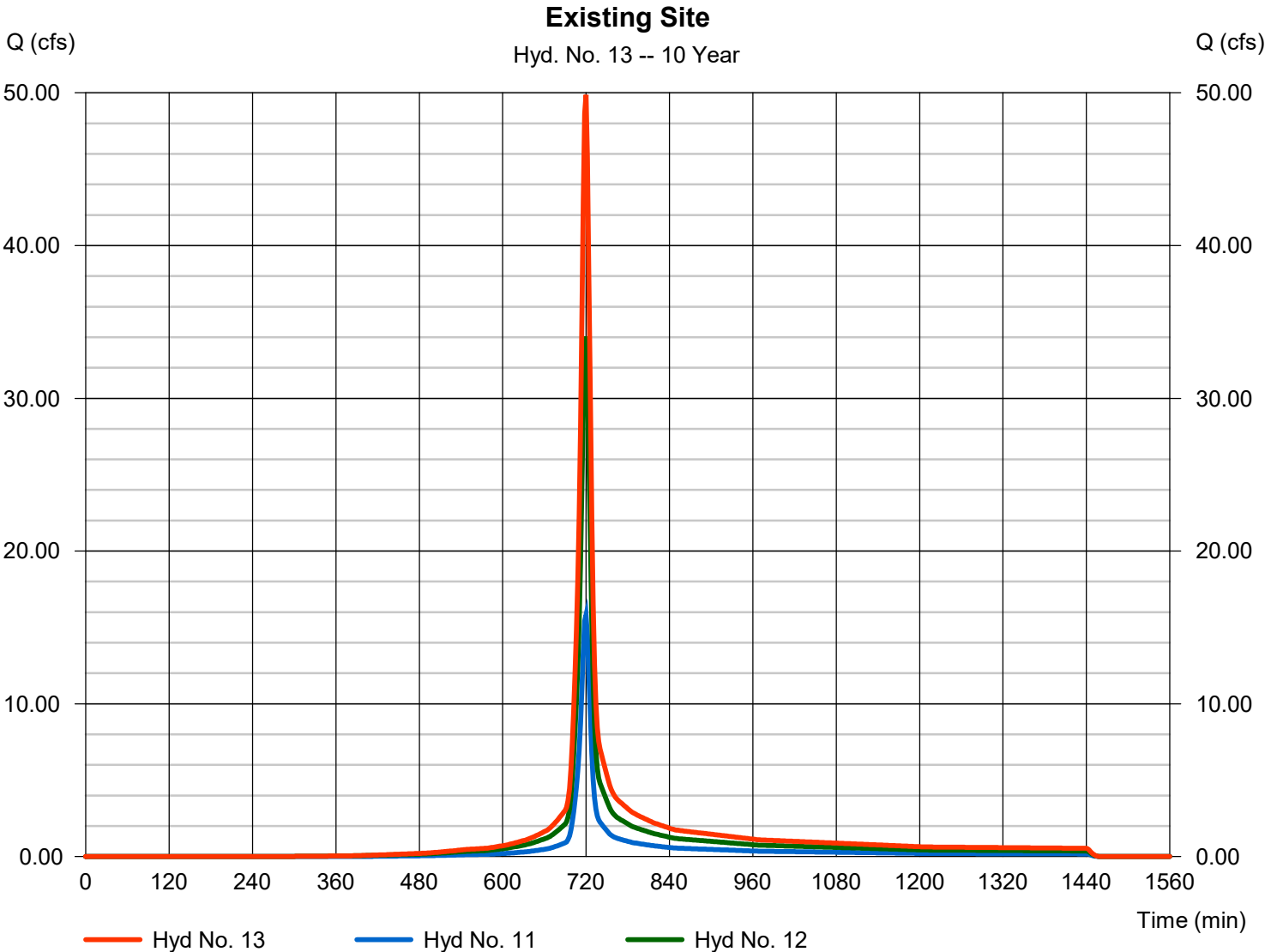
Friday, 04 / 12 / 2024

Hyd. No. 13

Existing Site

Hydrograph type = Combine
Storm frequency = 10 yrs
Time interval = 2 min
Inflow hyds. = 11, 12

Peak discharge = 49.86 cfs
Time to peak = 720 min
Hyd. volume = 123,293 cuft
Contrib. drain. area = 0.000 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

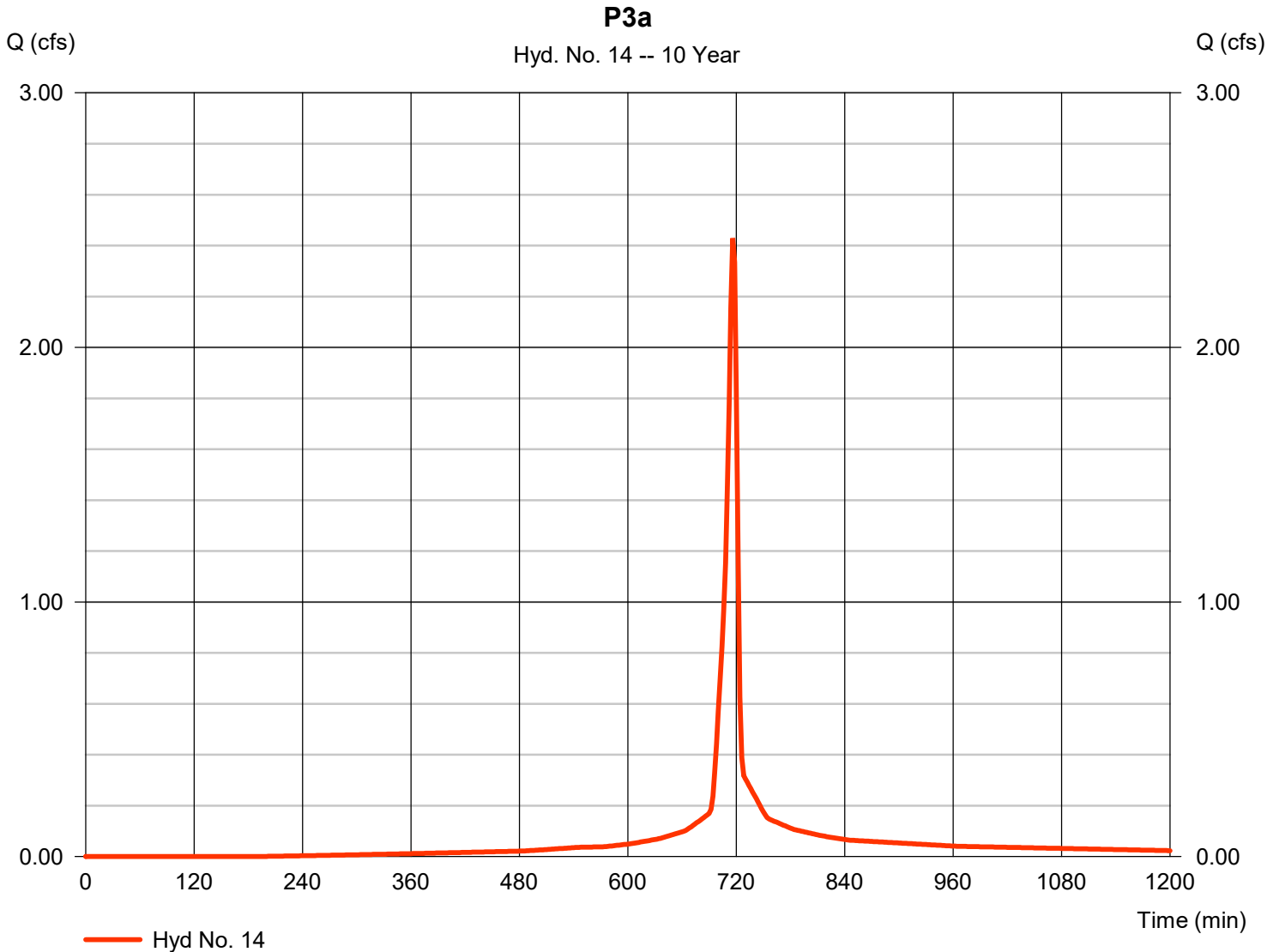
Friday, 04 / 12 / 2024

Hyd. No. 14

P3a

Hydrograph type	= SCS Runoff	Peak discharge	= 2.429 cfs
Storm frequency	= 10 yrs	Time to peak	= 716 min
Time interval	= 2 min	Hyd. volume	= 5,304 cuft
Drainage area	= 0.450 ac	Curve number	= 93*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.360 x 98) + (0.090 x 74)] / 0.450



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

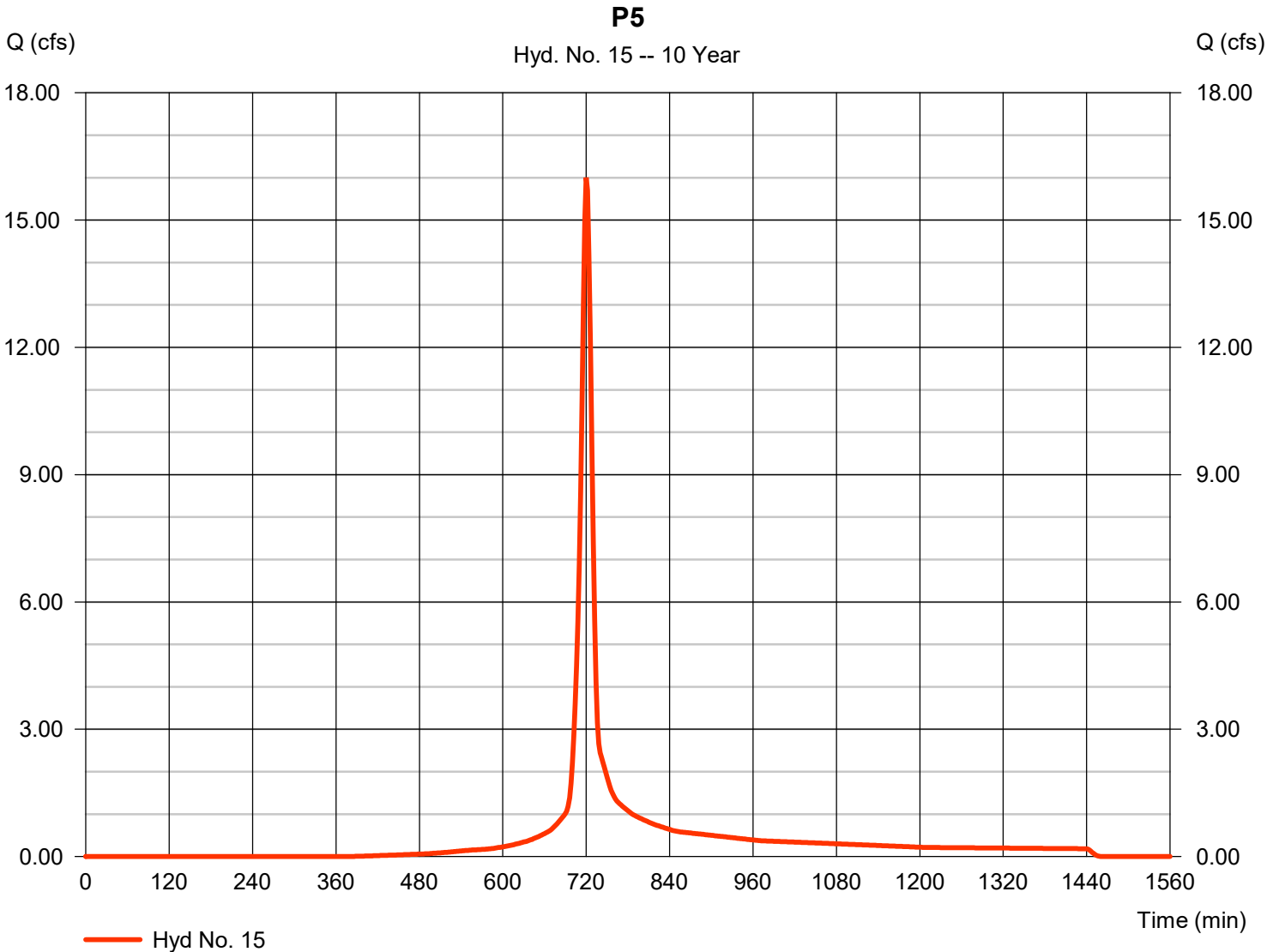
Friday, 04 / 12 / 2024

Hyd. No. 15

P5

Hydrograph type	= SCS Runoff	Peak discharge	= 16.01 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 41,772 cuft
Drainage area	= 4.160 ac	Curve number	= 85*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 12.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.960 x 98) + (2.200 x 74)] / 4.160



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

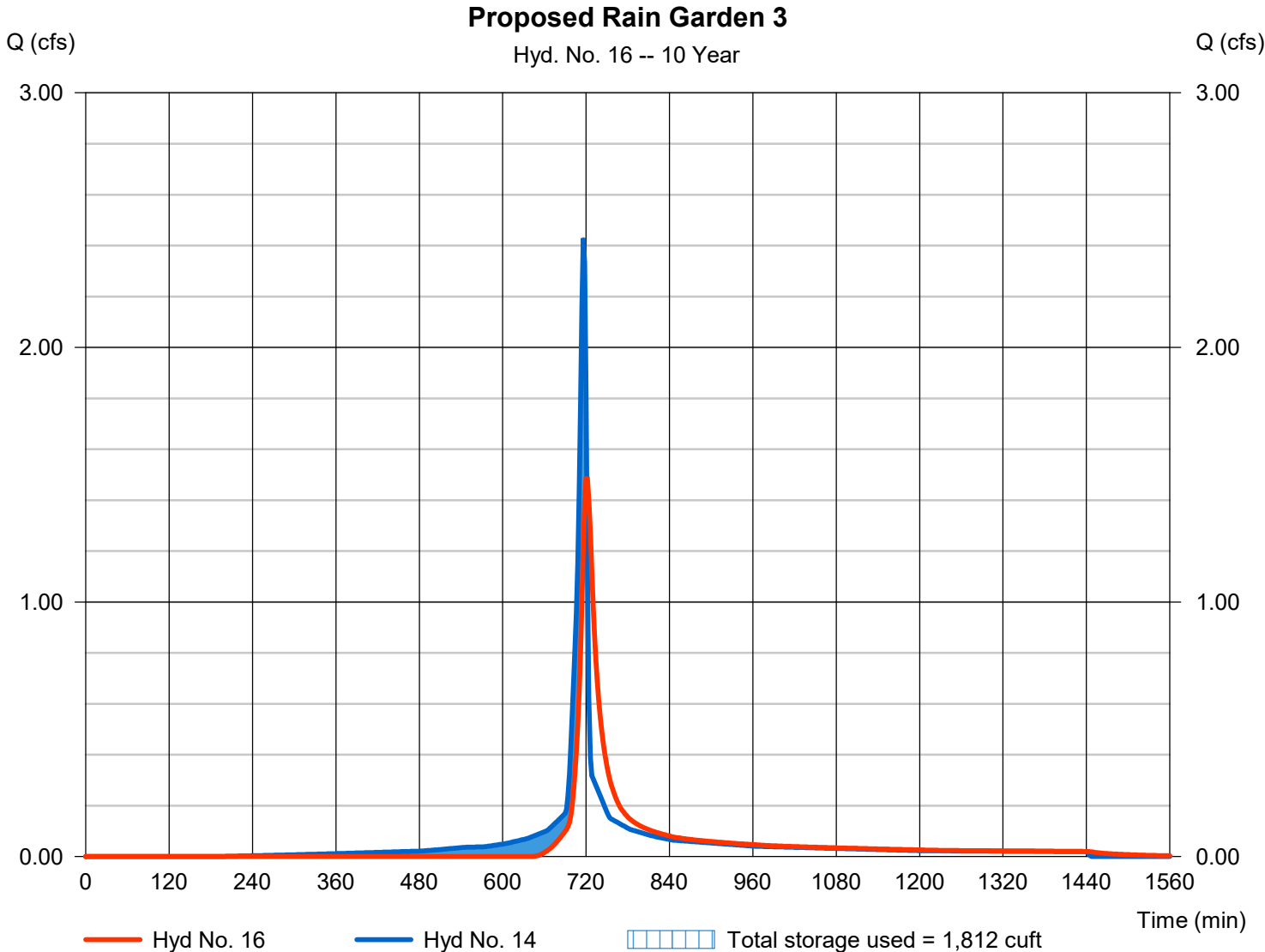
Friday, 04 / 12 / 2024

Hyd. No. 16

Proposed Rain Garden 3

Hydrograph type	= Reservoir	Peak discharge	= 1.484 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 4,715 cuft
Inflow hyd. No.	= 14 - P3a	Max. Elevation	= 926.56 ft
Reservoir name	= Proposed Rain Garden 3	Max. Storage	= 1,812 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

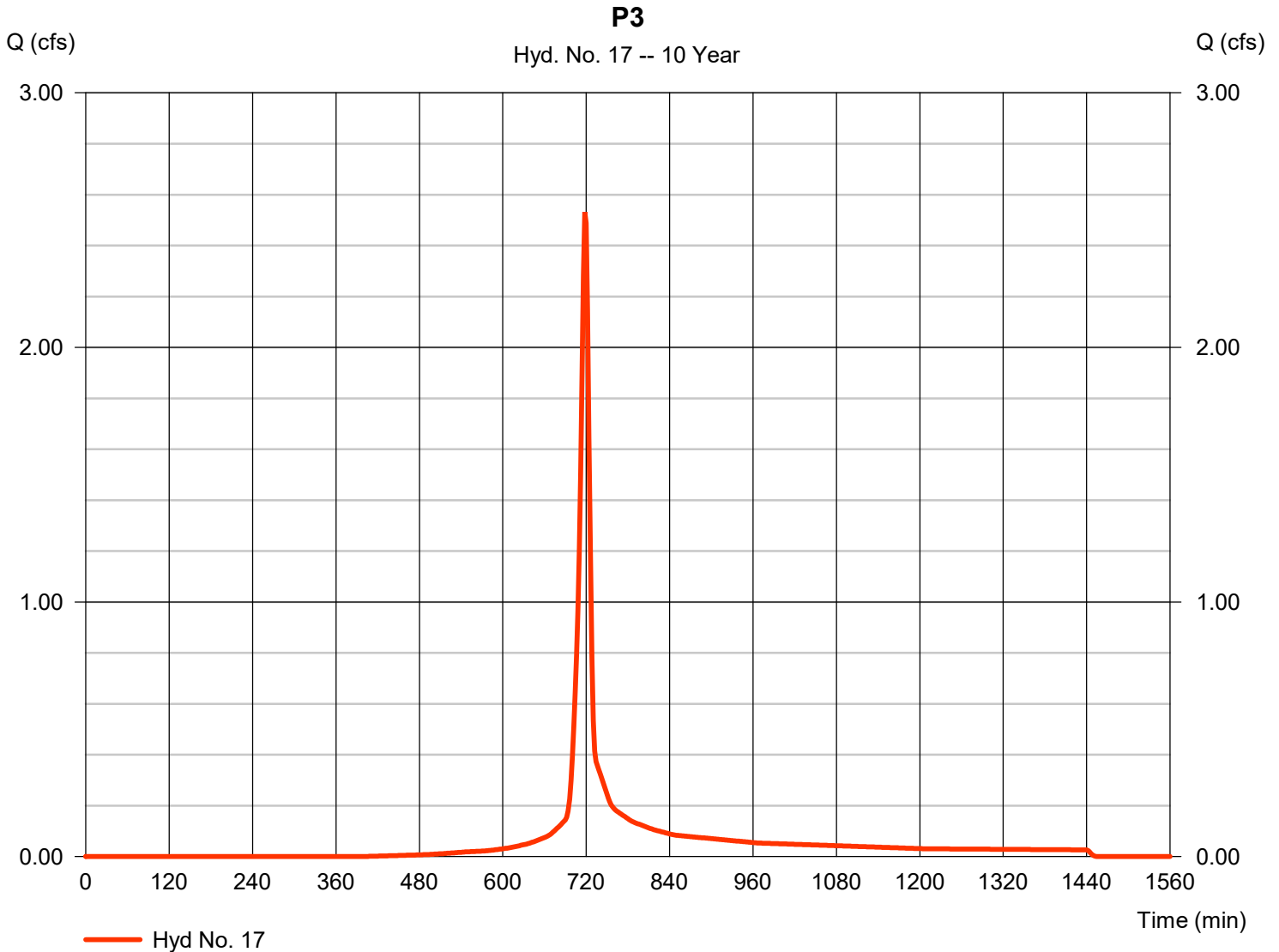
Friday, 04 / 12 / 2024

Hyd. No. 17

P3

Hydrograph type	= SCS Runoff	Peak discharge	= 2.532 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 5,835 cuft
Drainage area	= 0.620 ac	Curve number	= 84*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 8.00 min
Total precip.	= 4.25 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.250 x 98) + (0.370 x 74)] / 0.620



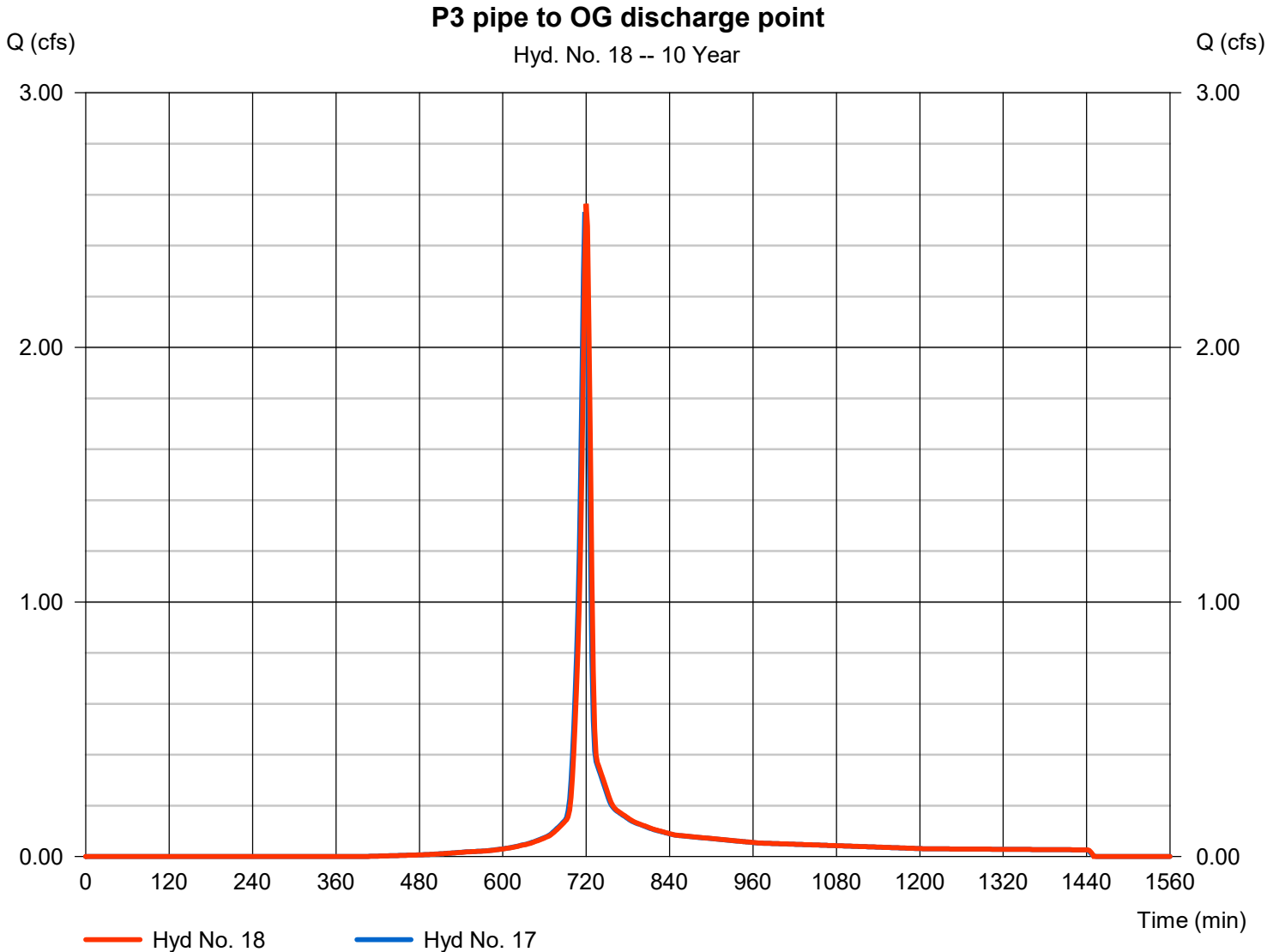
Hydrograph Report

Hyd. No. 18

P3 pipe to OG discharge point

Hydrograph type	= Reach	Peak discharge	= 2.564 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 5,834 cuft
Inflow hyd. No.	= 17 - P3	Section type	= Circular
Reach length	= 111.0 ft	Channel slope	= 2.9 %
Manning's n	= 0.012	Bottom width	= 1.3 ft
Side slope	= 0.0:1	Max. depth	= 0.0 ft
Rating curve x	= 11.842	Rating curve m	= 1.250
Ave. velocity	= 0.00 ft/s	Routing coeff.	= 1.1645

Modified Att-Kin routing method used.



Hydrograph Report

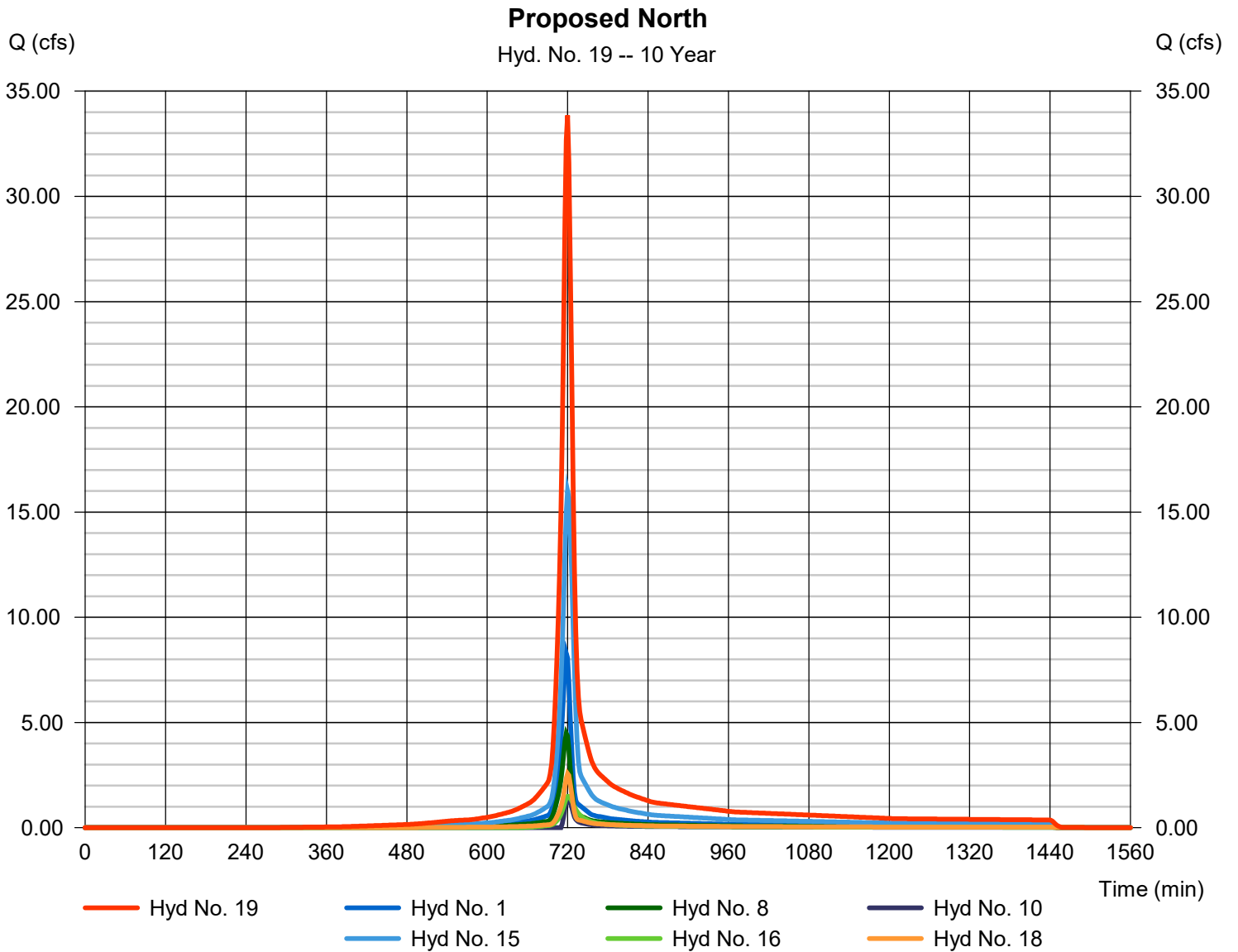
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Friday, 04 / 12 / 2024

Hyd. No. 19

Proposed North

Hydrograph type	= Combine	Peak discharge	= 33.85 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 85,492 cuft
Inflow hyds.	= 1, 8, 10, 15, 16, 18	Contrib. drain. area	= 6.810 ac



Hydrograph Report

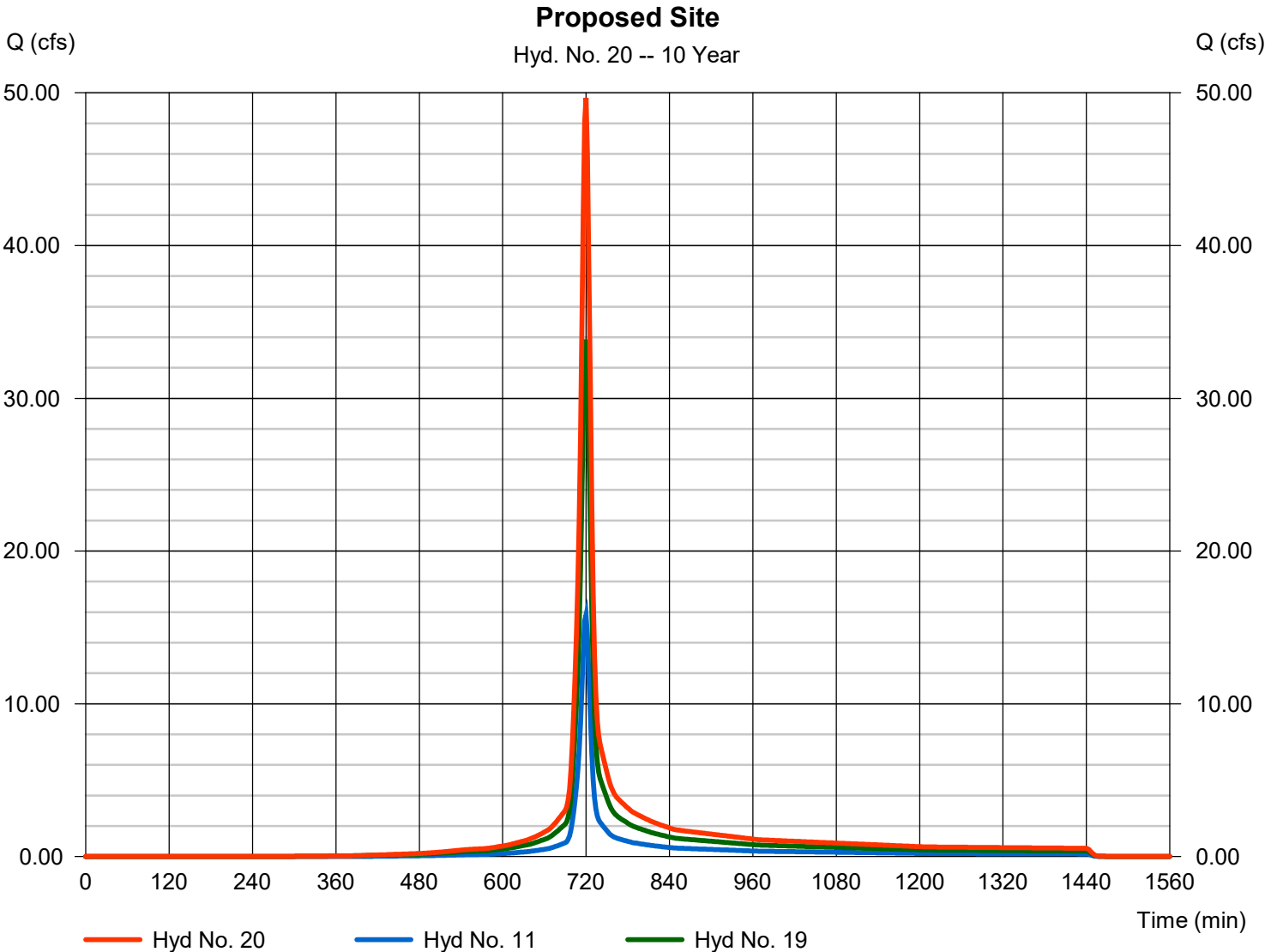
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Friday, 04 / 12 / 2024

Hyd. No. 20

Proposed Site

Hydrograph type	= Combine	Peak discharge	= 49.66 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 123,857 cuft
Inflow hyds.	= 11, 19	Contrib. drain. area	= 0.000 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	16.96	2	718	42,184	----	----	----	Area 1
2	SCS Runoff	3.559	2	718	8,326	----	----	----	E2
3	SCS Runoff	9.135	2	718	21,740	----	----	----	E3
4	SCS Runoff	21.21	2	718	51,024	----	----	----	E4
5	SCS Runoff	2.221	2	718	5,443	----	----	----	E4A
6	SCS Runoff	36.21	2	720	97,852	----	----	----	E5
7	SCS Runoff	12.46	2	720	33,504	----	----	----	E6
8	SCS Runoff	9.168	2	718	22,809	----	----	----	E7
9	Reservoir	2.126	2	720	4,770	5	935.27	1,036	Rain Garden 4
10	Reservoir	3.489	2	720	7,824	2	933.91	914	Rain Garden 2
11	Combine	35.16	2	720	89,298	4, 7, 9,	----	----	Site South
12	Combine	73.80	2	720	192,408	1, 3, 6, 8, 10,	----	----	Site North
13	Combine	108.96	2	720	281,706	11, 12	----	----	Existing Site
14	SCS Runoff	4.766	2	716	10,893	----	----	----	P3a
15	SCS Runoff	35.53	2	720	96,006	----	----	----	P5
16	Reservoir	3.714	2	720	10,304	14	927.40	2,626	Proposed Rain Garden 3
17	SCS Runoff	5.690	2	718	13,610	----	----	----	P3
18	Reach	5.800	2	720	13,609	17	----	----	P3 pipe to OG discharge point
19	Combine	73.75	2	720	192,735	1, 8, 10, 15, 16, 18	----	----	Proposed North
20	Combine	108.91	2	720	282,033	11, 19	----	----	Proposed Site

Hydrograph Report

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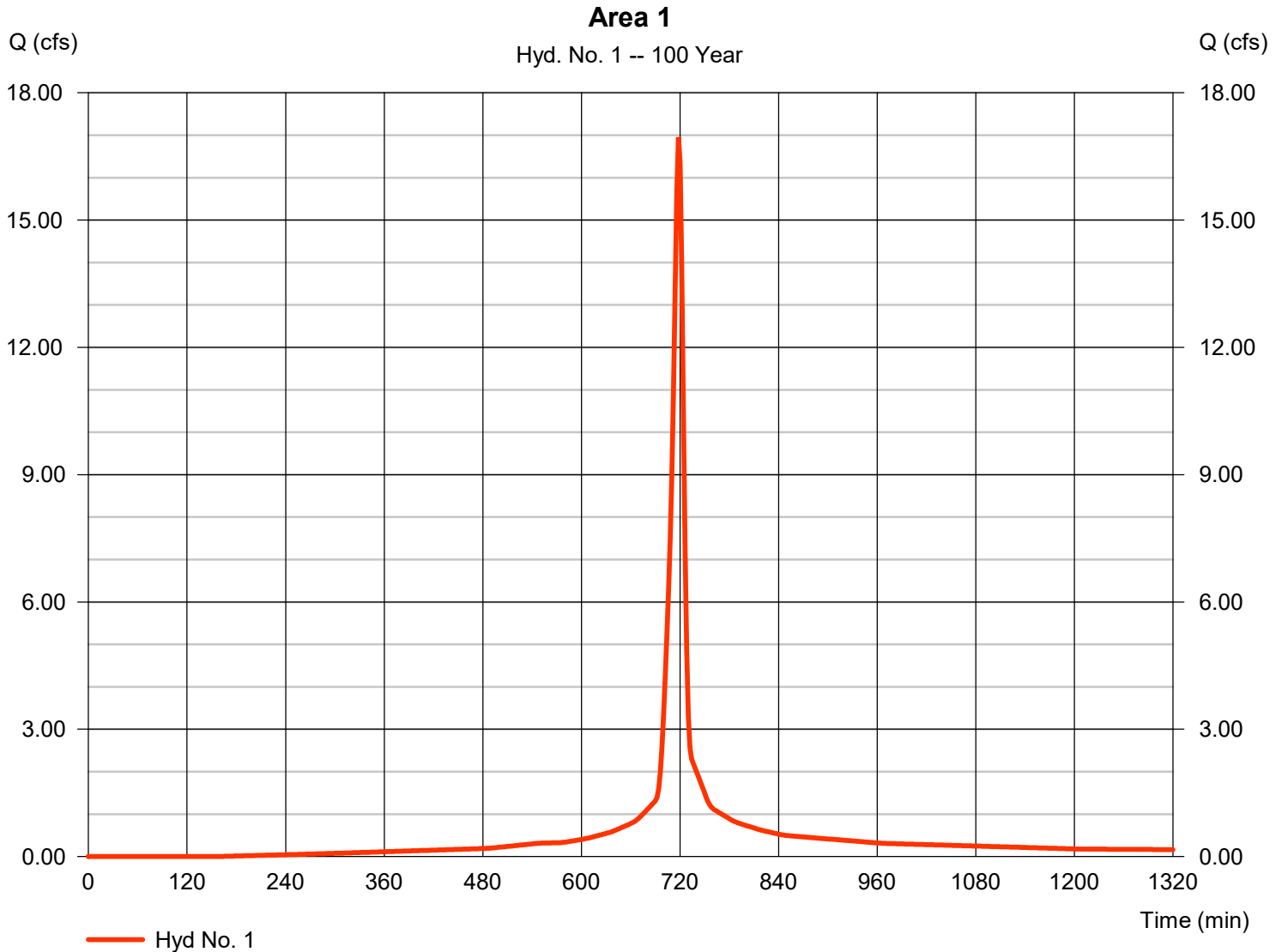
Friday, 04 / 12 / 2024

Hyd. No. 1

Area 1

Hydrograph type	= SCS Runoff	Peak discharge	= 16.96 cfs
Storm frequency	= 100 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 42,184 cuft
Drainage area	= 1.720 ac	Curve number	= 90*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.120 x 98) + (0.600 x 74)] / 1.720



Hydrograph Report

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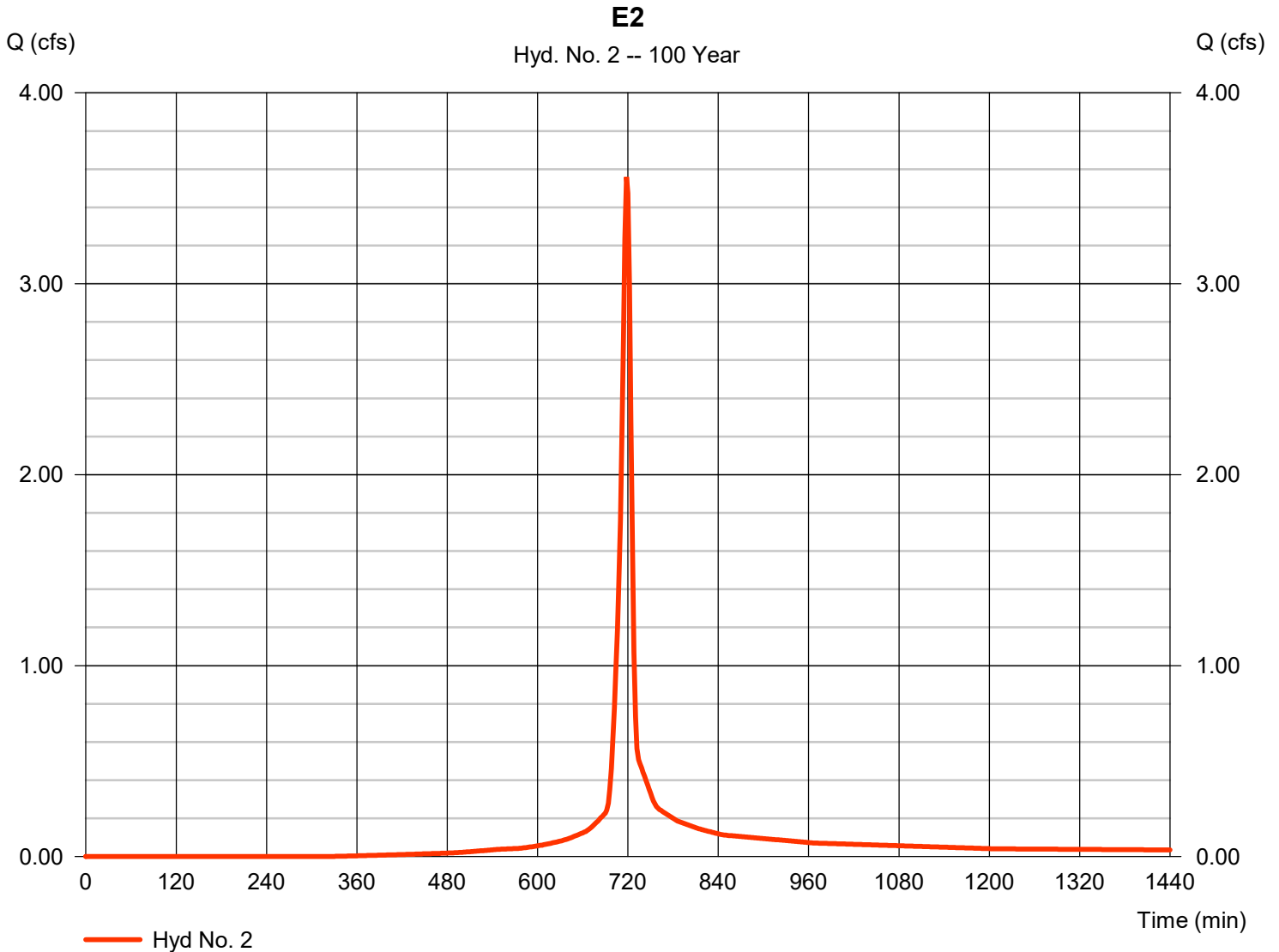
Friday, 04 / 12 / 2024

Hyd. No. 2

E2

Hydrograph type	= SCS Runoff	Peak discharge	= 3.559 cfs
Storm frequency	= 100 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 8,326 cuft
Drainage area	= 0.420 ac	Curve number	= 79*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.090 x 98) + (0.330 x 74)] / 0.420



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

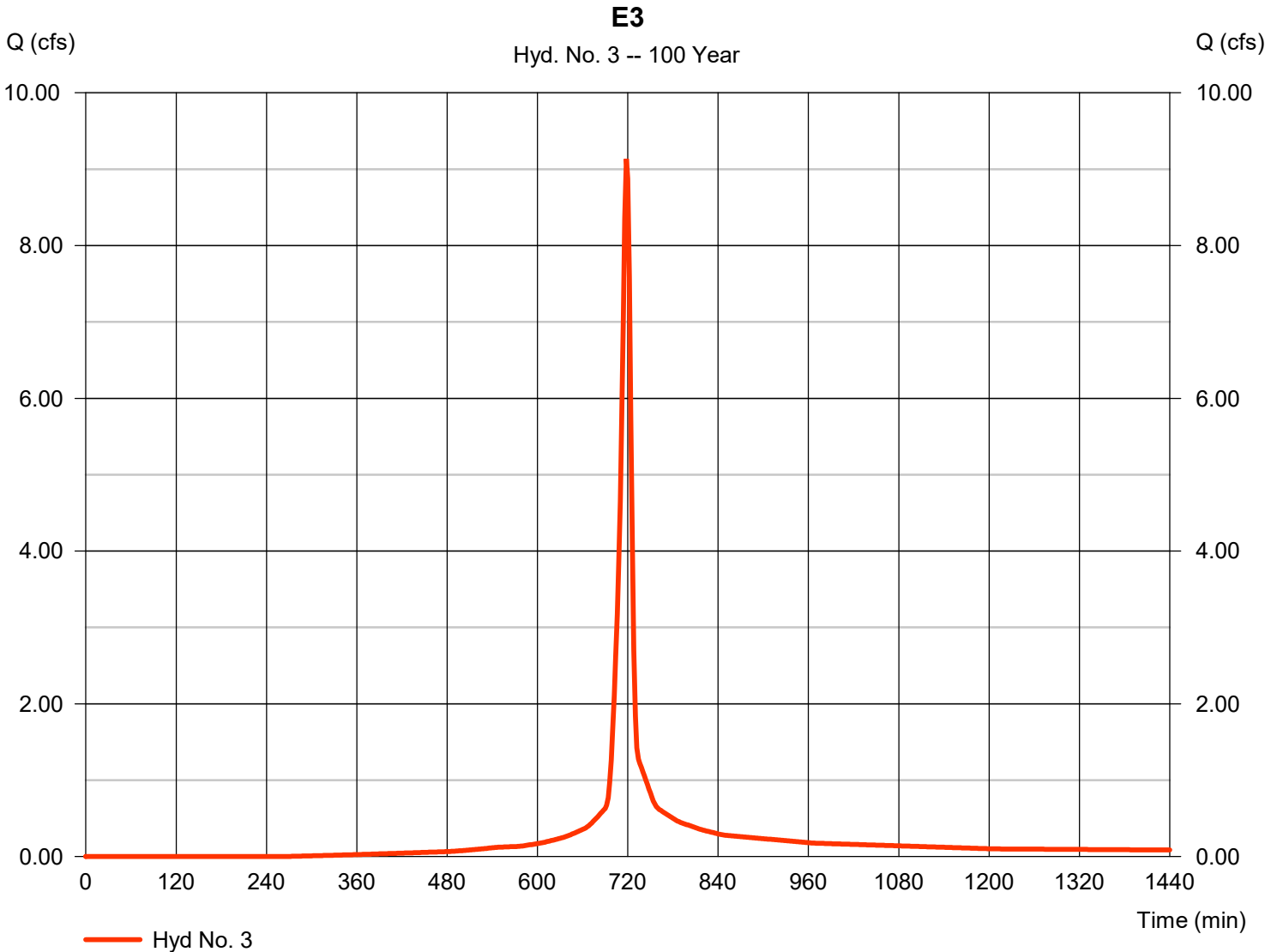
Friday, 04 / 12 / 2024

Hyd. No. 3

E3

Hydrograph type	= SCS Runoff	Peak discharge	= 9.135 cfs
Storm frequency	= 100 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 21,740 cuft
Drainage area	= 1.010 ac	Curve number	= 83*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.380 x 98) + (0.630 x 74)] / 1.010



Hydrograph Report

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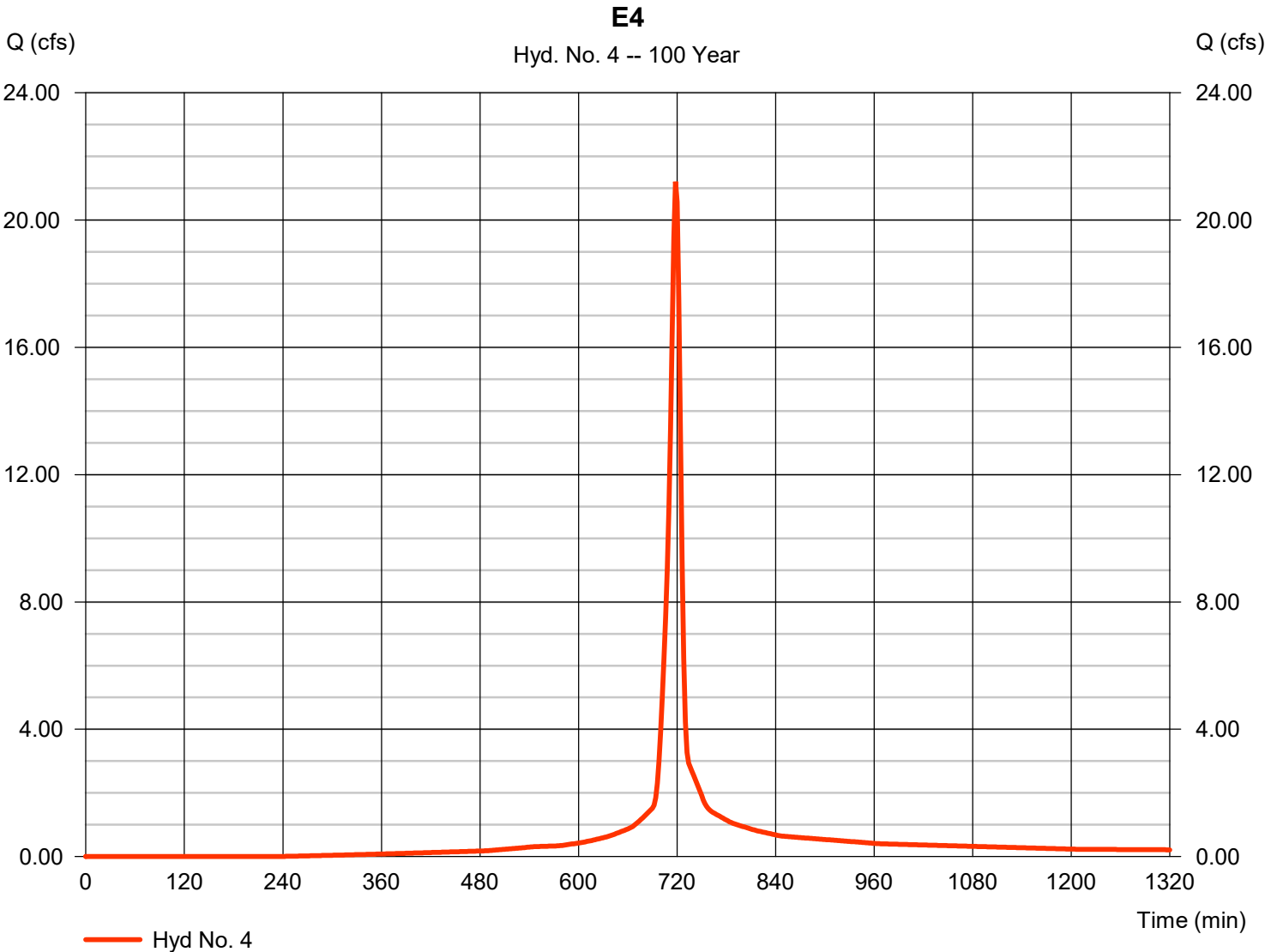
Friday, 04 / 12 / 2024

Hyd. No. 4

E4

Hydrograph type	= SCS Runoff	Peak discharge	= 21.21 cfs
Storm frequency	= 100 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 51,024 cuft
Drainage area	= 2.280 ac	Curve number	= 85*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.080 x 98) + (1.200 x 74)] / 2.280



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

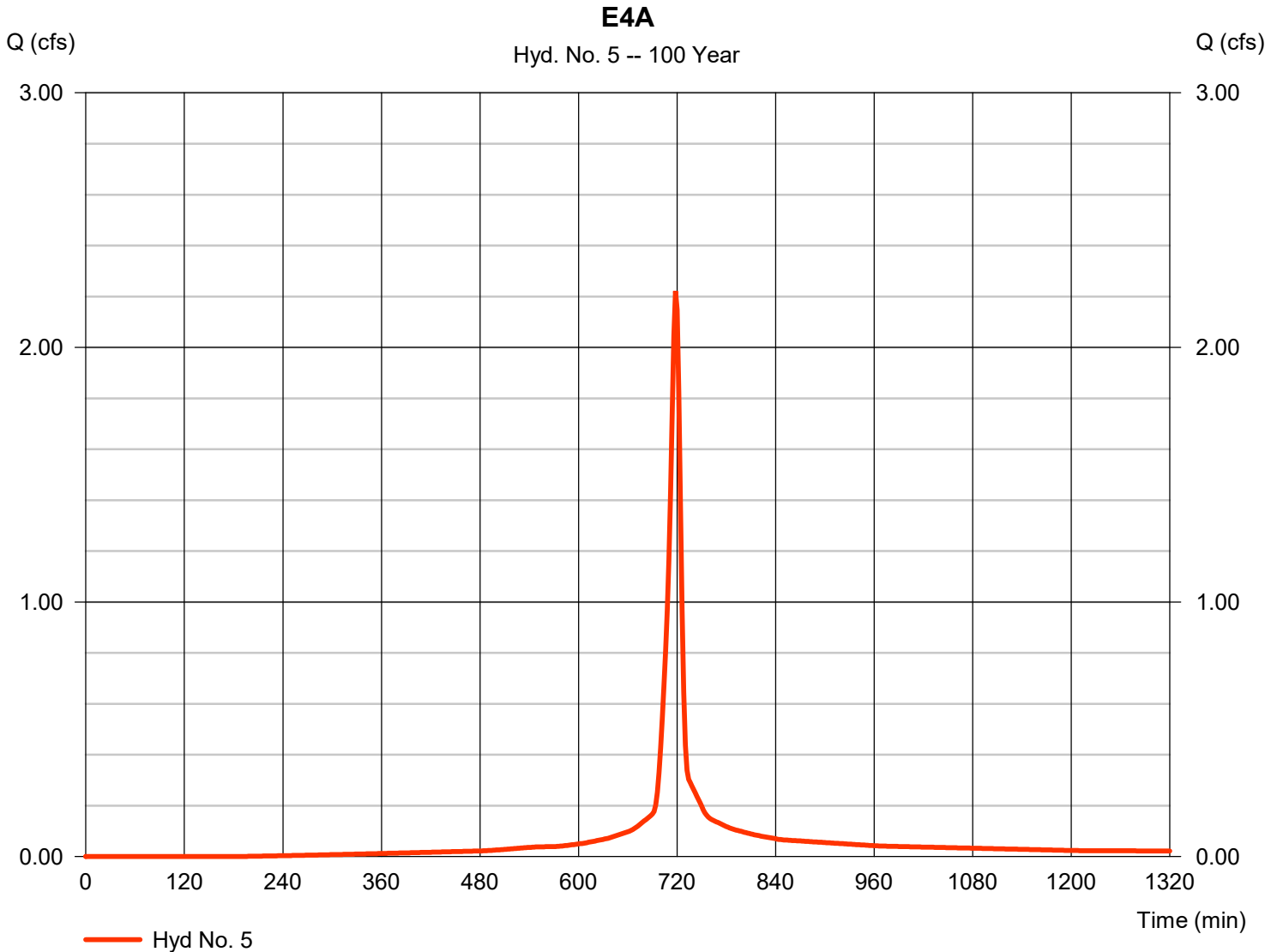
Friday, 04 / 12 / 2024

Hyd. No. 5

E4A

Hydrograph type	= SCS Runoff	Peak discharge	= 2.221 cfs
Storm frequency	= 100 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 5,443 cuft
Drainage area	= 0.230 ac	Curve number	= 88*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.130 x 98) + (0.100 x 74)] / 0.230



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

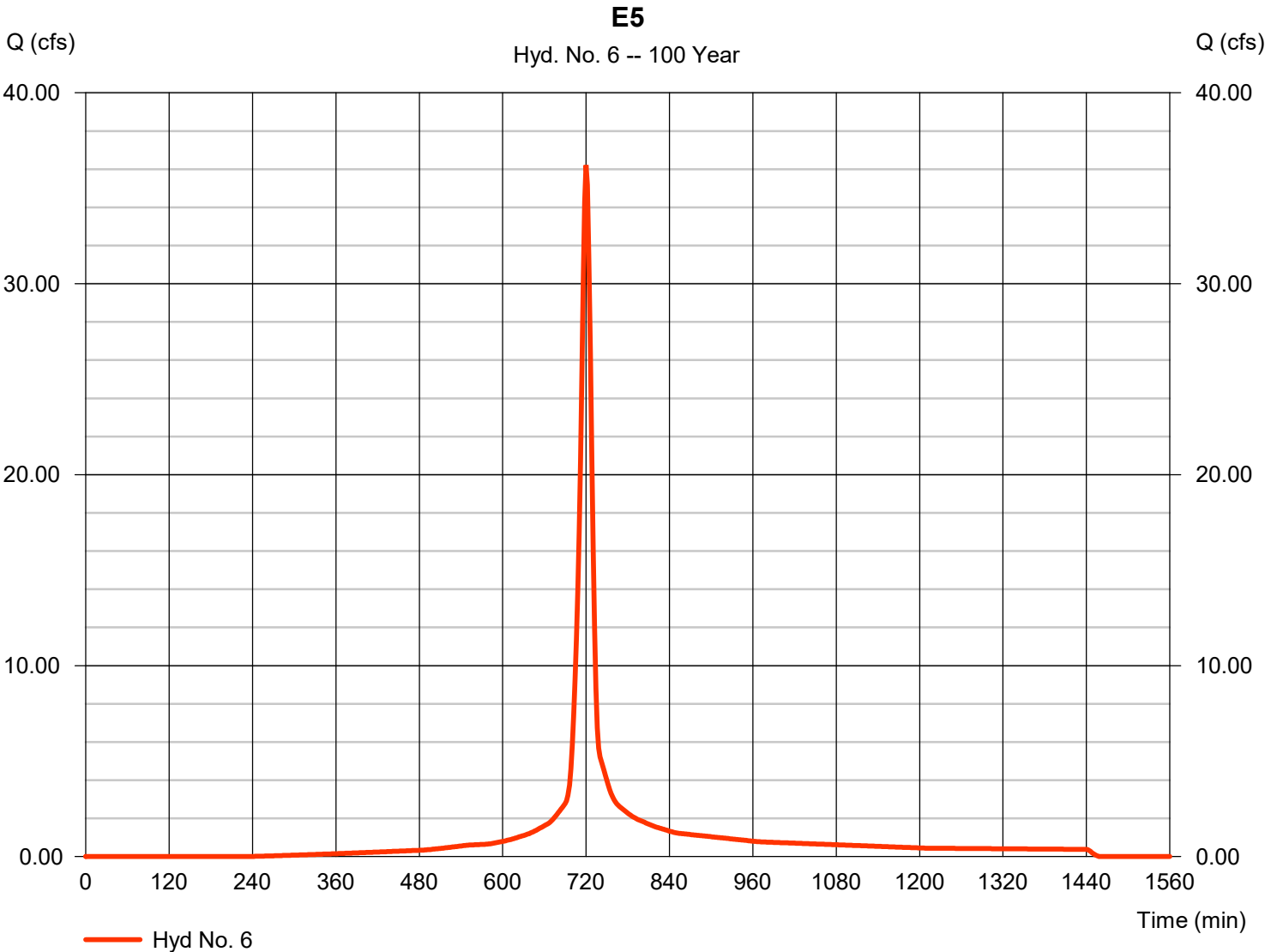
Friday, 04 / 12 / 2024

Hyd. No. 6

E5

Hydrograph type	= SCS Runoff	Peak discharge	= 36.21 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 97,852 cuft
Drainage area	= 4.240 ac	Curve number	= 85*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 12.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.930 x 98) + (2.310 x 74)] / 4.240



Hydrograph Report

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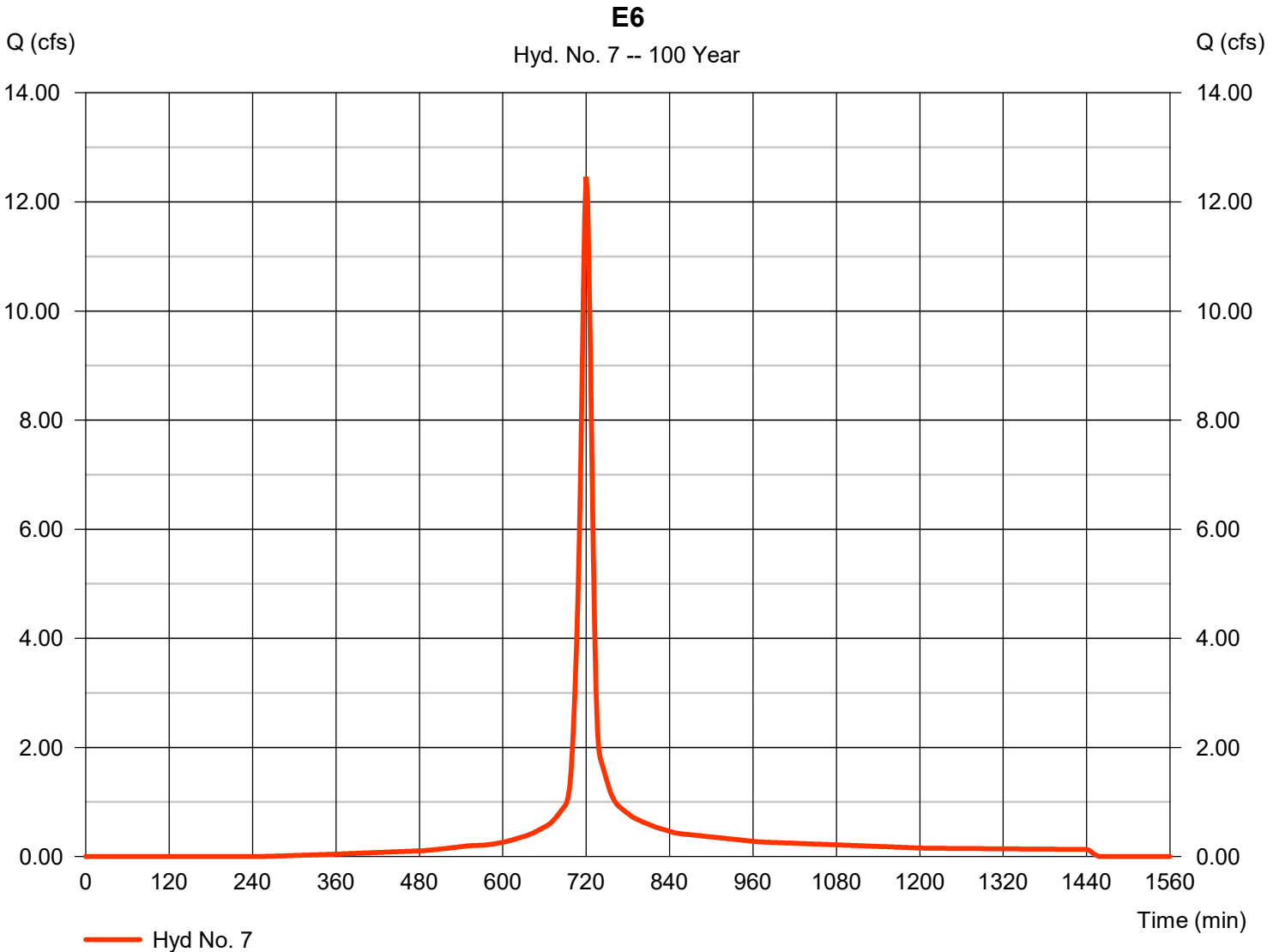
Friday, 04 / 12 / 2024

Hyd. No. 7

E6

Hydrograph type	= SCS Runoff	Peak discharge	= 12.46 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 33,504 cuft
Drainage area	= 1.480 ac	Curve number	= 84*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 11.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.640 x 98) + (0.840 x 74)] / 1.480



Hydrograph Report

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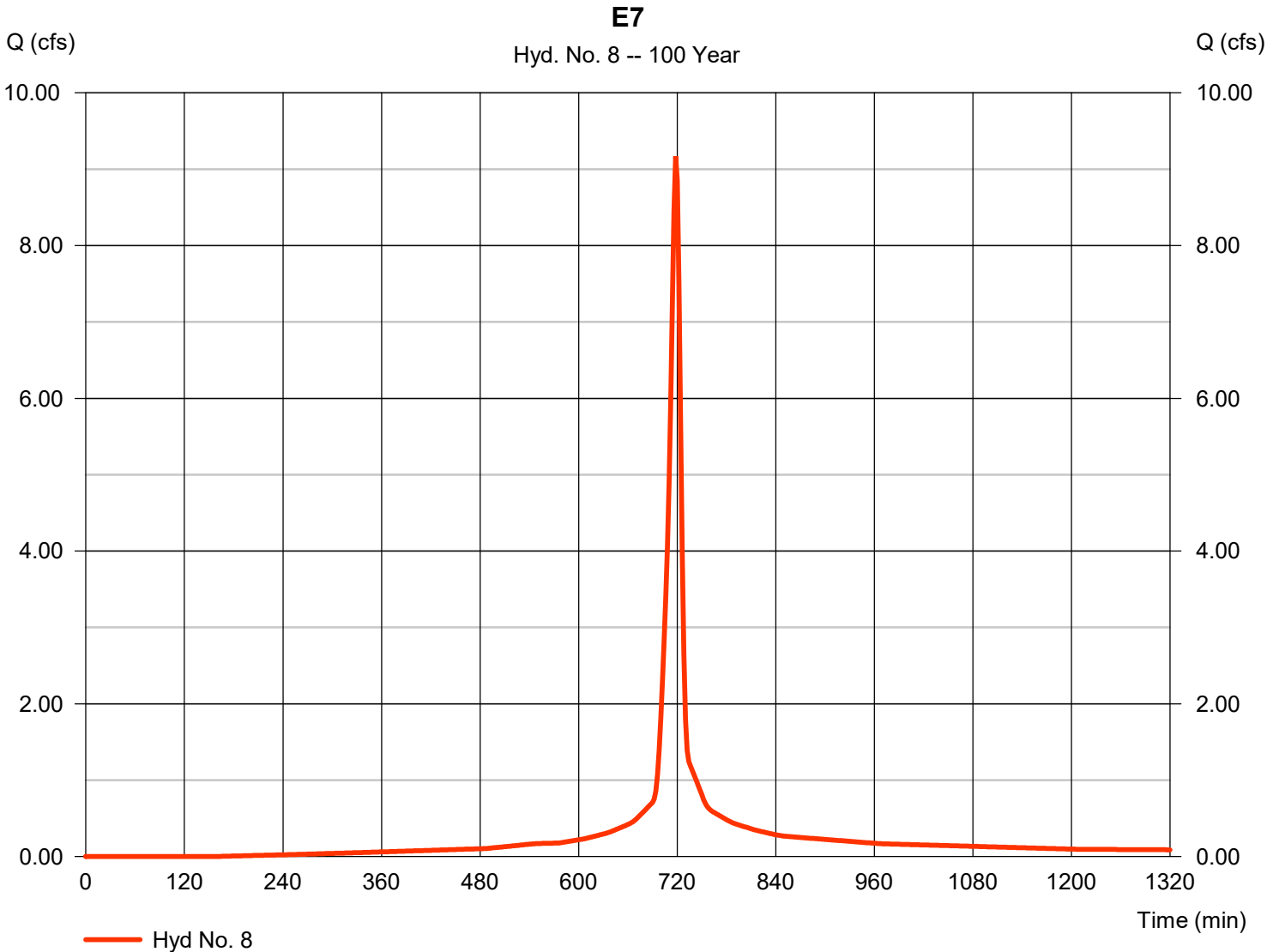
Friday, 04 / 12 / 2024

Hyd. No. 8

E7

Hydrograph type	= SCS Runoff	Peak discharge	= 9.168 cfs
Storm frequency	= 100 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 22,809 cuft
Drainage area	= 0.930 ac	Curve number	= 90*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 9.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.620 x 98) + (0.310 x 74)] / 0.930



Hydrograph Report

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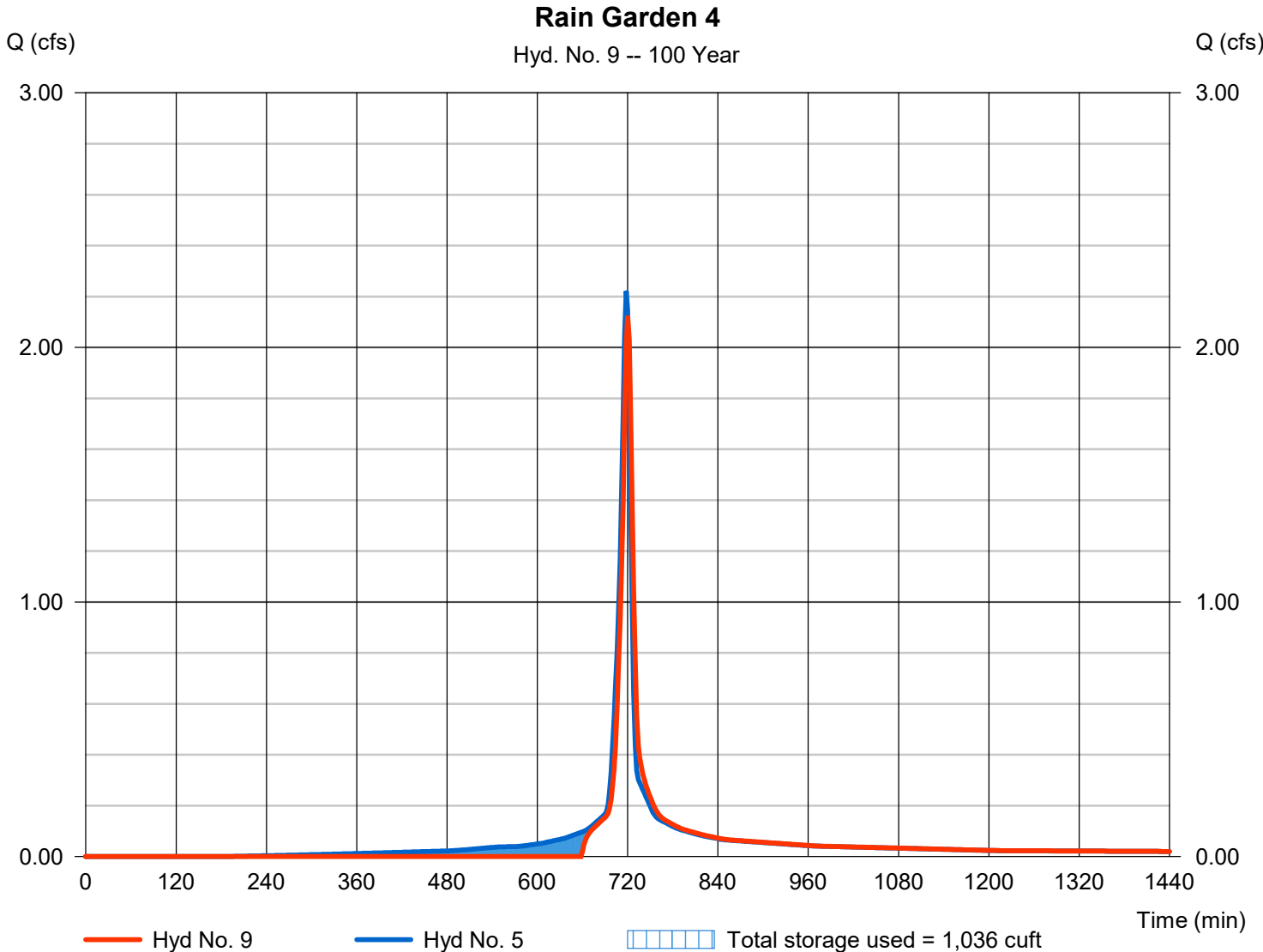
Friday, 04 / 12 / 2024

Hyd. No. 9

Rain Garden 4

Hydrograph type	= Reservoir	Peak discharge	= 2.126 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 4,770 cuft
Inflow hyd. No.	= 5 - E4A	Max. Elevation	= 935.27 ft
Reservoir name	= Ex. Rain Garden 4	Max. Storage	= 1,036 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

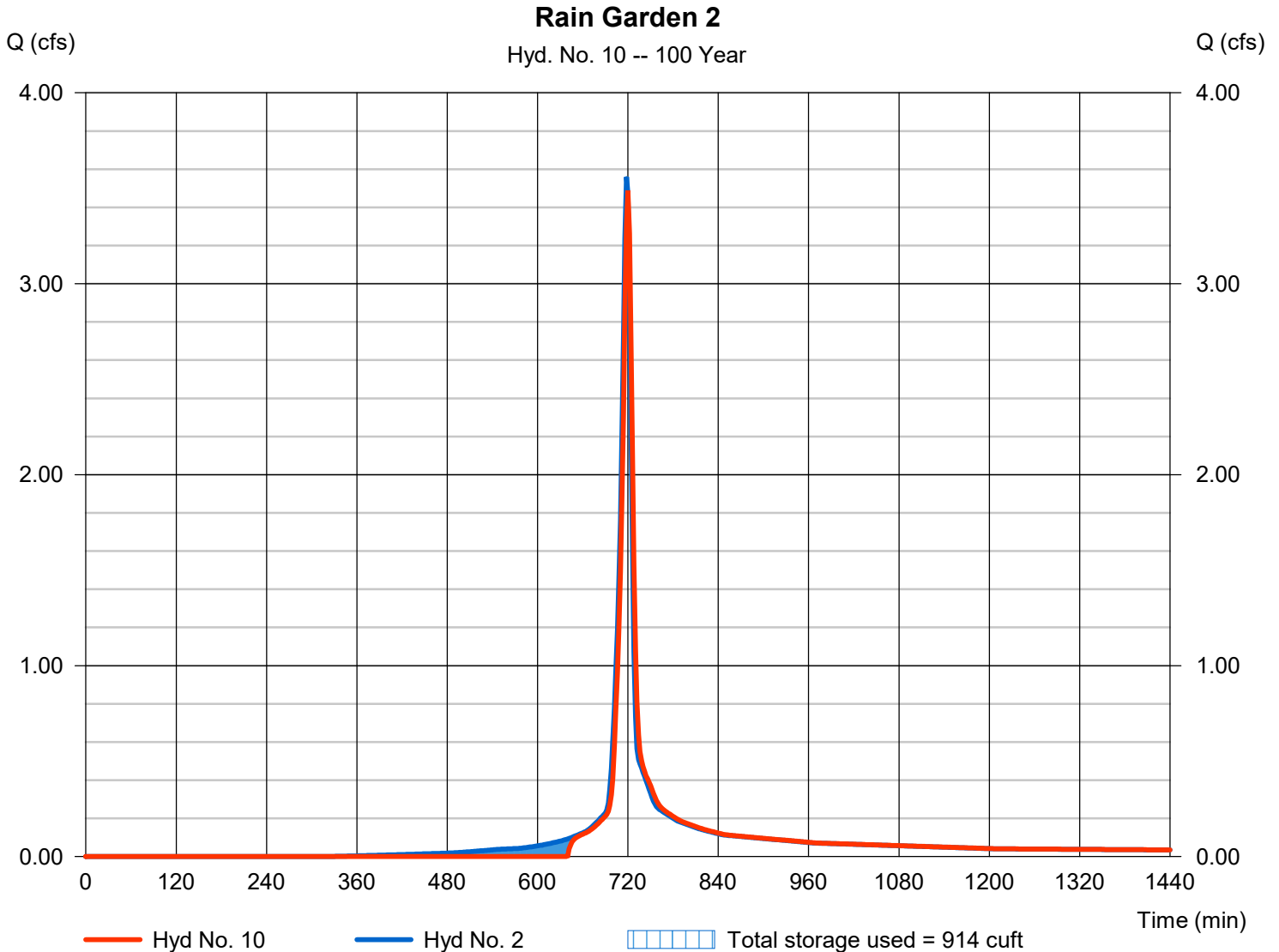
Friday, 04 / 12 / 2024

Hyd. No. 10

Rain Garden 2

Hydrograph type	= Reservoir	Peak discharge	= 3.489 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 7,824 cuft
Inflow hyd. No.	= 2 - E2	Max. Elevation	= 933.91 ft
Reservoir name	= Ex Rain Garden 2	Max. Storage	= 914 cuft

Storage Indication method used.



Hydrograph Report

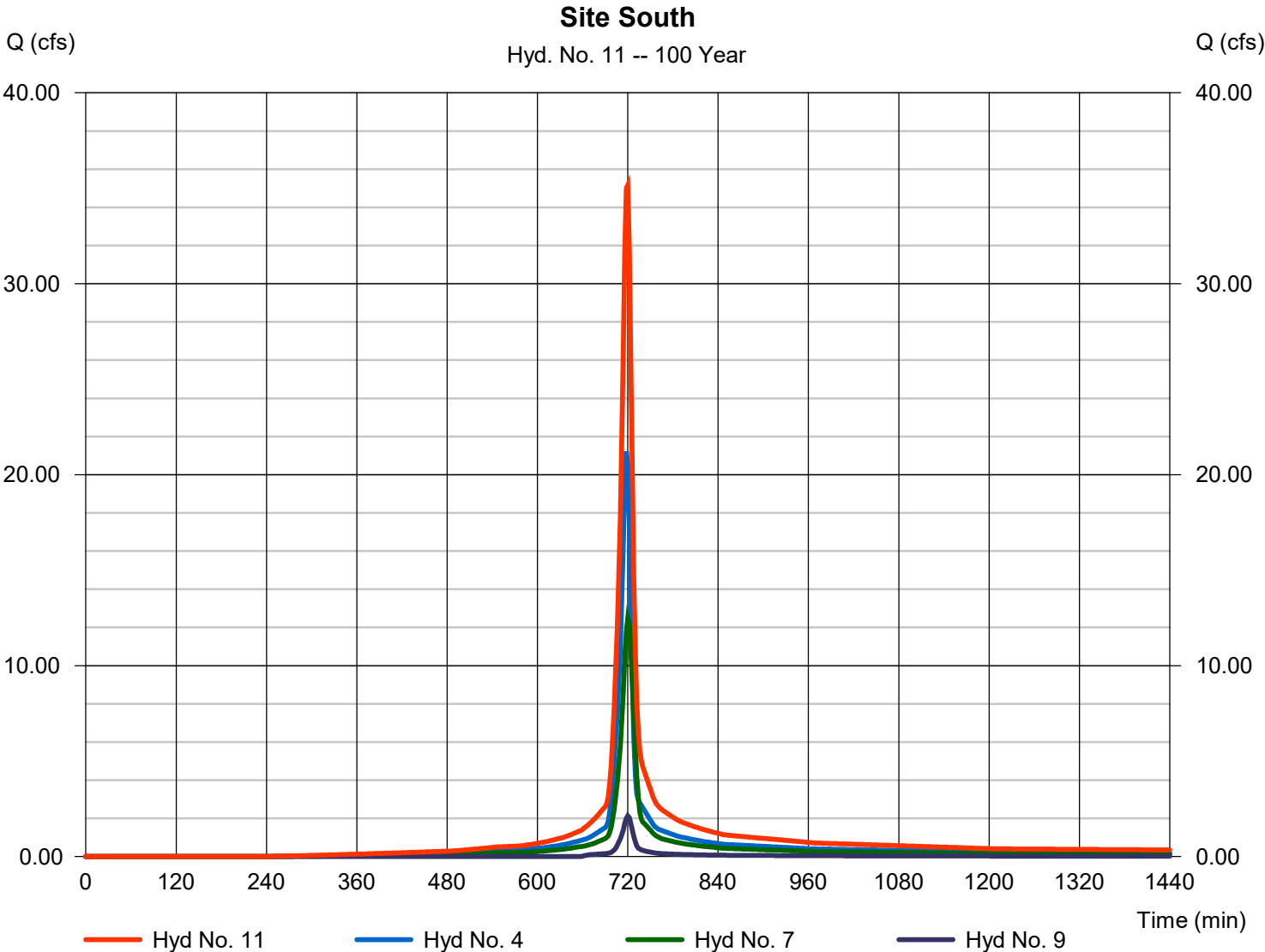
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Friday, 04 / 12 / 2024

Hyd. No. 11

Site South

Hydrograph type	= Combine	Peak discharge	= 35.16 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 89,298 cuft
Inflow hyds.	= 4, 7, 9	Contrib. drain. area	= 3.760 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

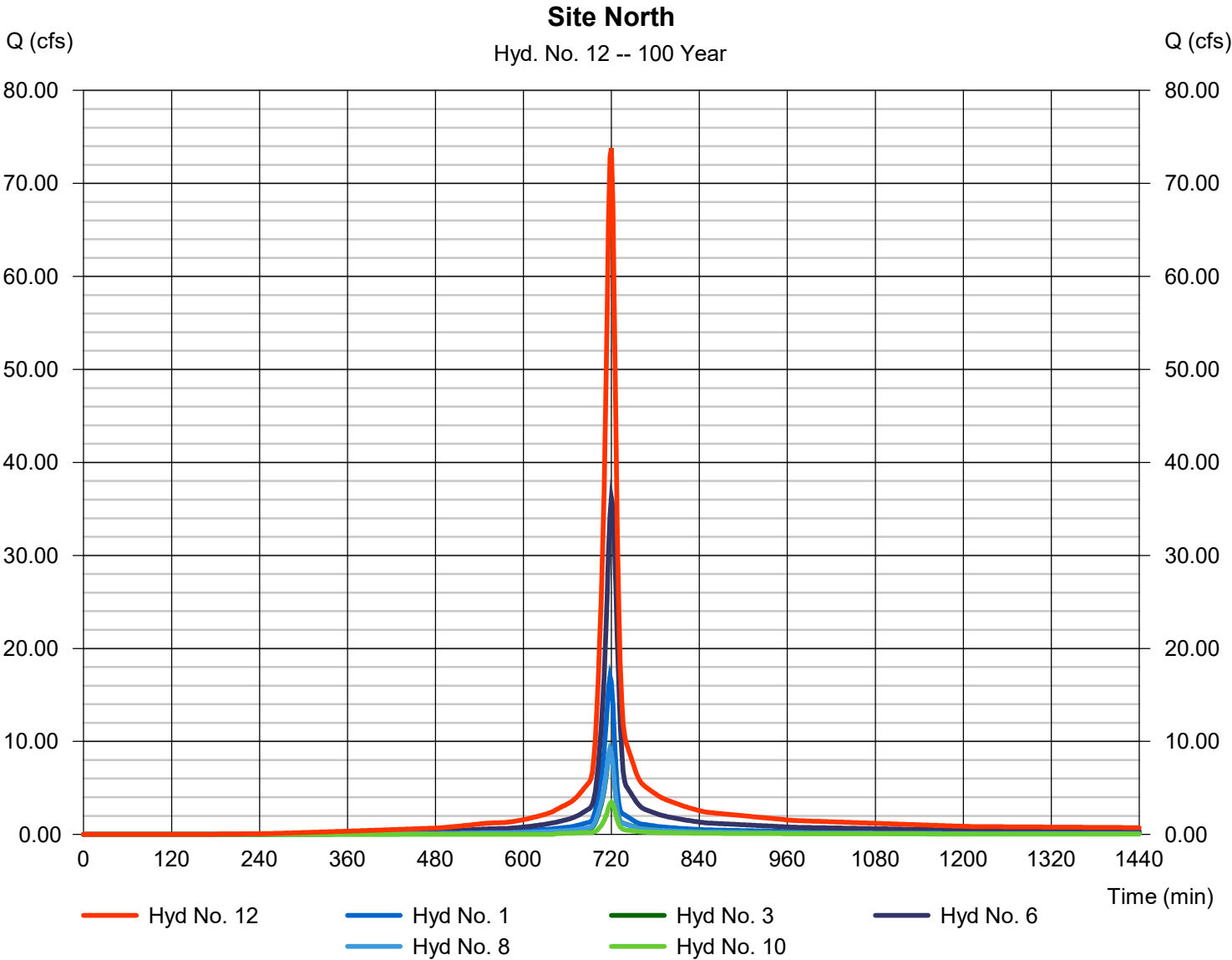
Friday, 04 / 12 / 2024

Hyd. No. 12

Site North

Hydrograph type = Combine
Storm frequency = 100 yrs
Time interval = 2 min
Inflow hyds. = 1, 3, 6, 8, 10

Peak discharge = 73.80 cfs
Time to peak = 720 min
Hyd. volume = 192,408 cuft
Contrib. drain. area = 7.900 ac



Hydrograph Report

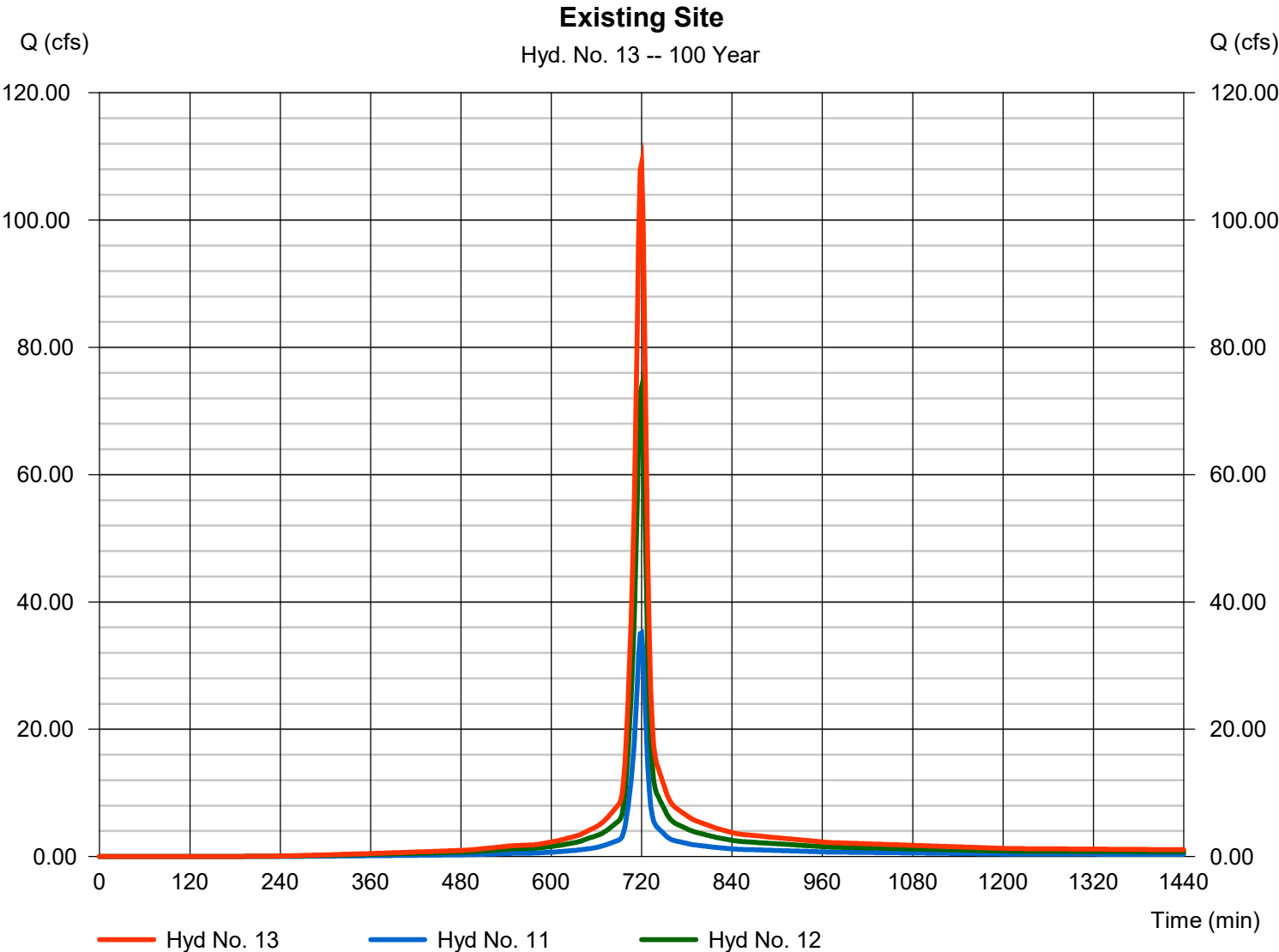
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Friday, 04 / 12 / 2024

Hyd. No. 13

Existing Site

Hydrograph type	= Combine	Peak discharge	= 108.96 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 281,706 cuft
Inflow hyds.	= 11, 12	Contrib. drain. area	= 0.000 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

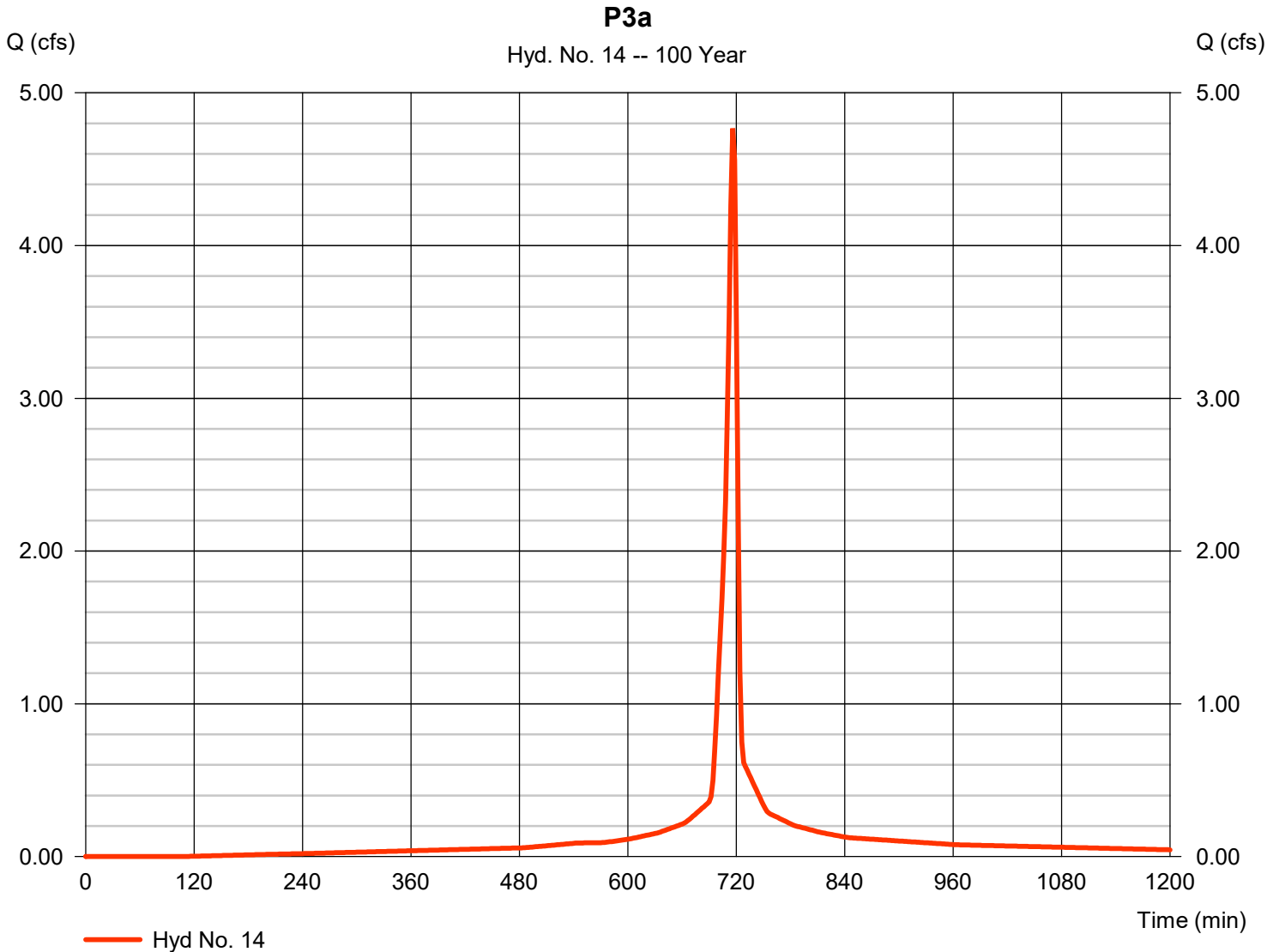
Friday, 04 / 12 / 2024

Hyd. No. 14

P3a

Hydrograph type	= SCS Runoff	Peak discharge	= 4.766 cfs
Storm frequency	= 100 yrs	Time to peak	= 716 min
Time interval	= 2 min	Hyd. volume	= 10,893 cuft
Drainage area	= 0.450 ac	Curve number	= 93*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.360 x 98) + (0.090 x 74)] / 0.450



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

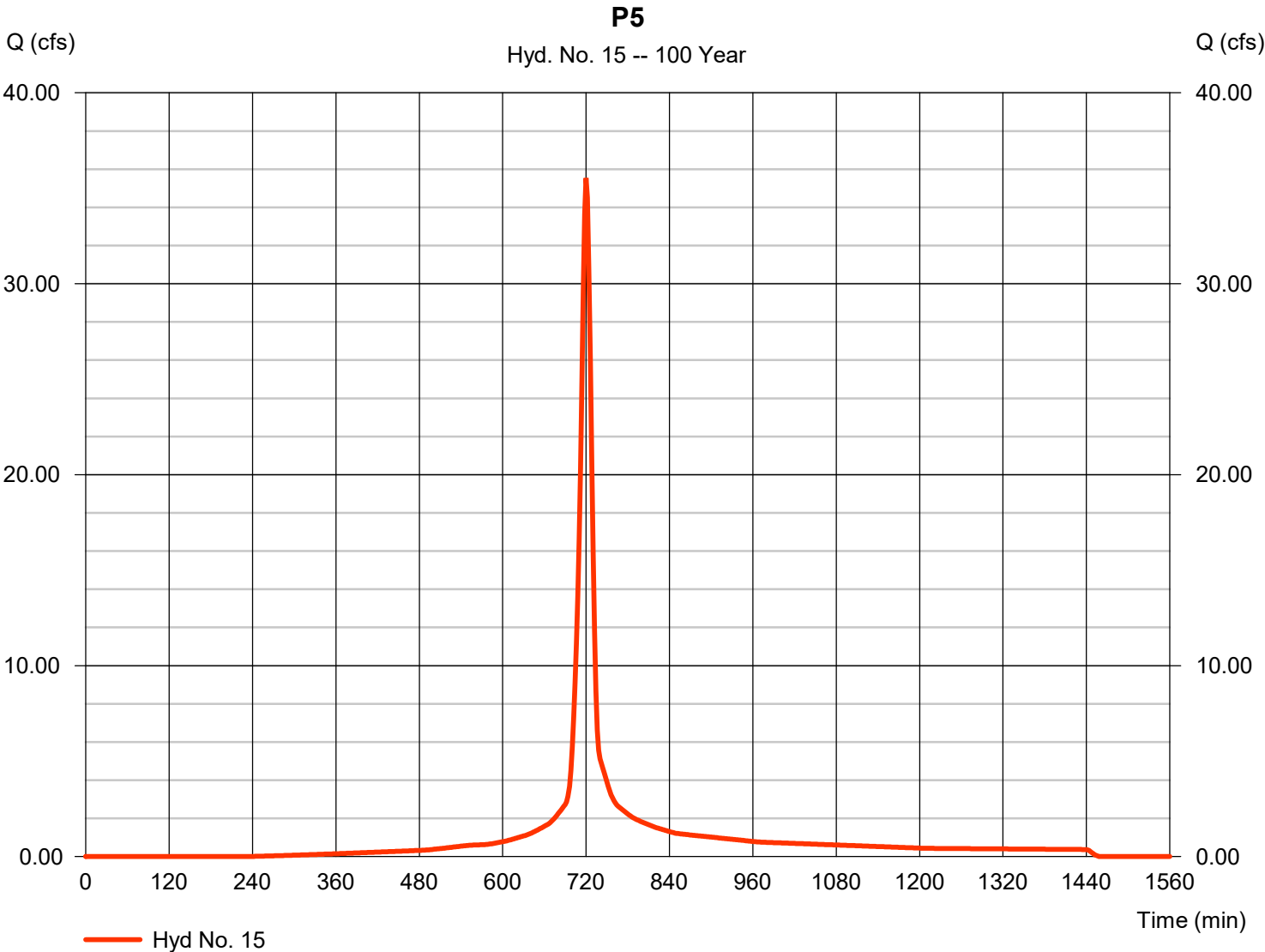
Friday, 04 / 12 / 2024

Hyd. No. 15

P5

Hydrograph type	= SCS Runoff	Peak discharge	= 35.53 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 96,006 cuft
Drainage area	= 4.160 ac	Curve number	= 85*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 12.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.960 x 98) + (2.200 x 74)] / 4.160



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

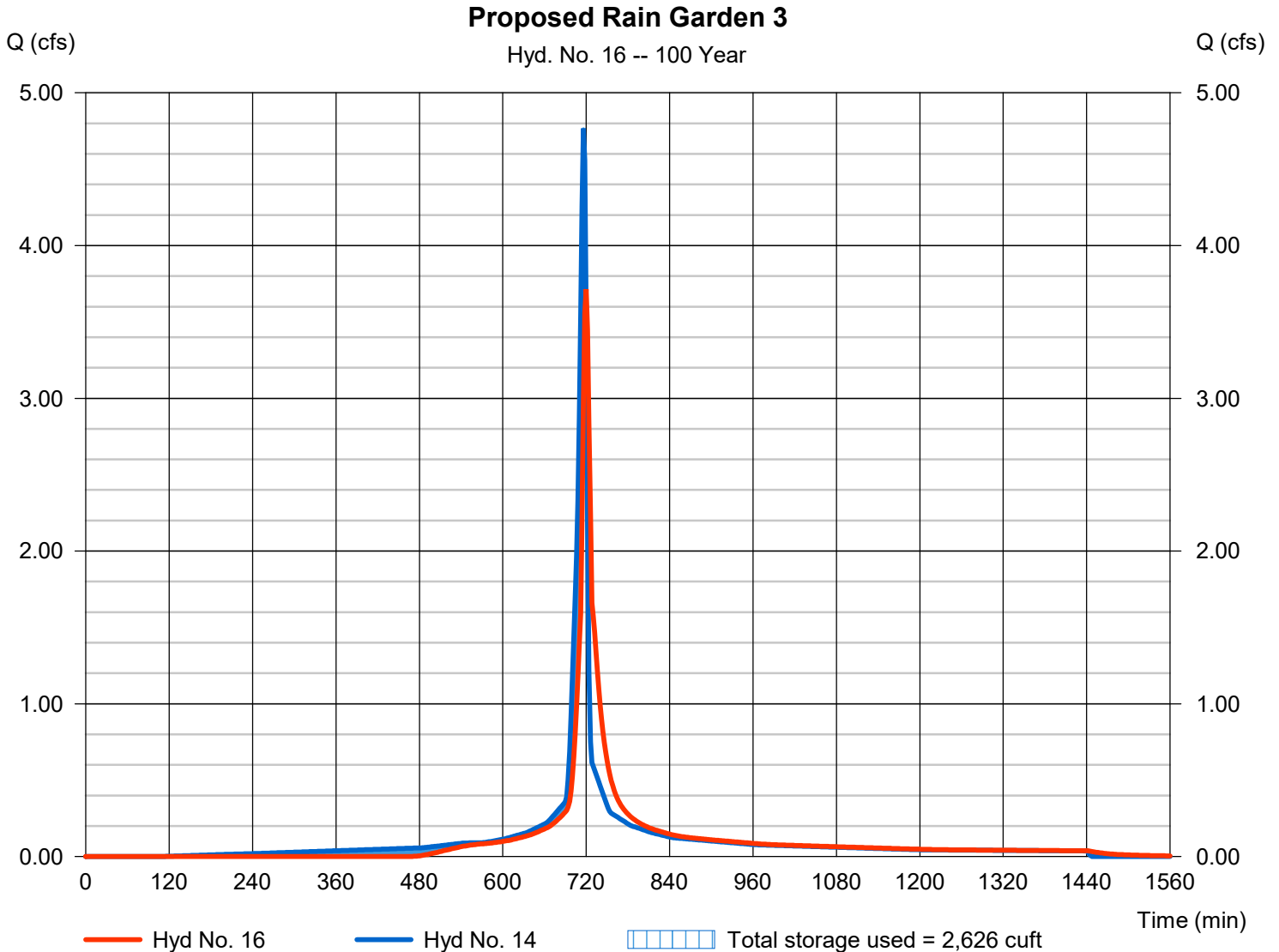
Friday, 04 / 12 / 2024

Hyd. No. 16

Proposed Rain Garden 3

Hydrograph type	= Reservoir	Peak discharge	= 3.714 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 10,304 cuft
Inflow hyd. No.	= 14 - P3a	Max. Elevation	= 927.40 ft
Reservoir name	= Proposed Rain Garden 3	Max. Storage	= 2,626 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

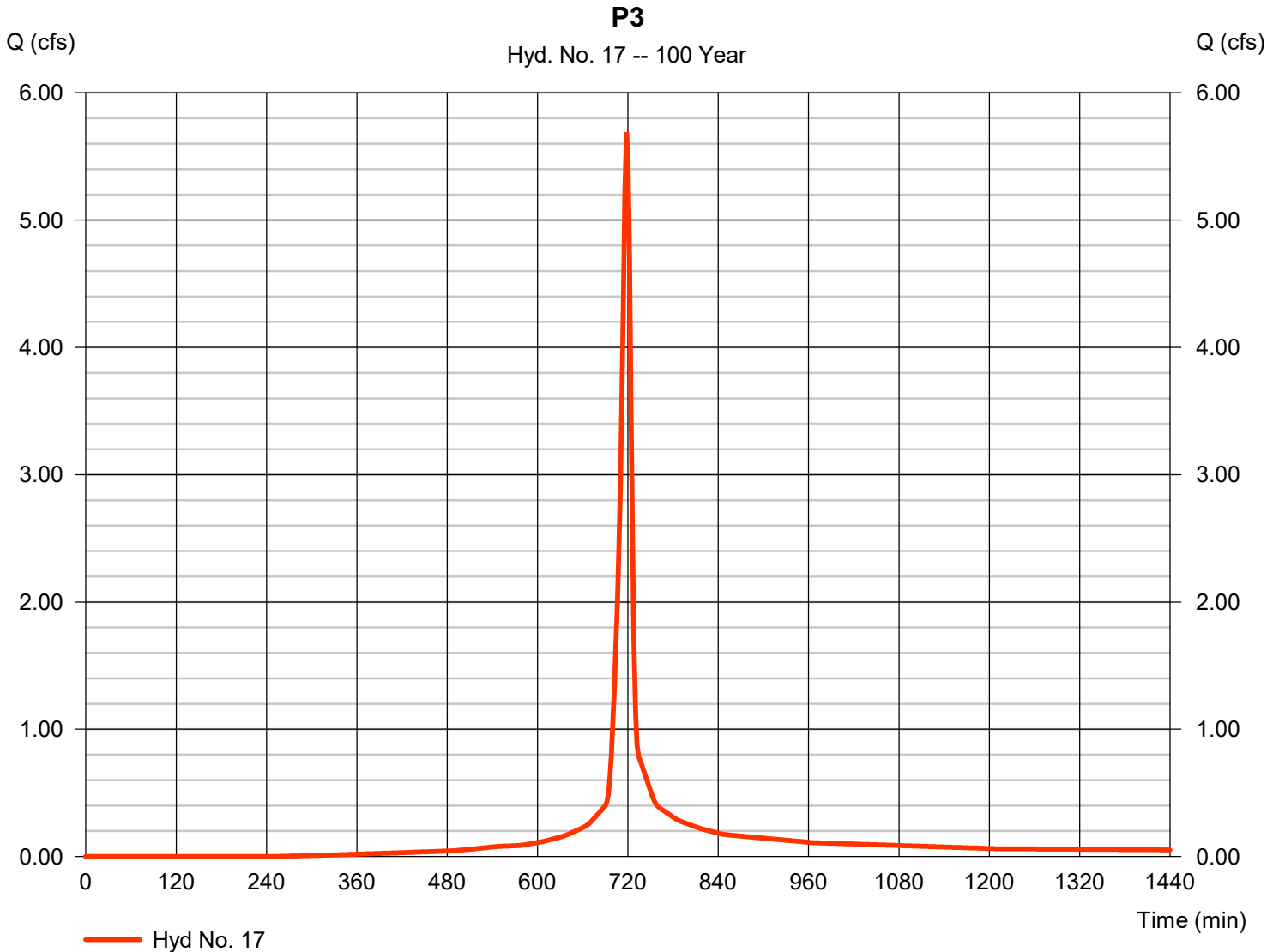
Friday, 04 / 12 / 2024

Hyd. No. 17

P3

Hydrograph type	= SCS Runoff	Peak discharge	= 5.690 cfs
Storm frequency	= 100 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 13,610 cuft
Drainage area	= 0.620 ac	Curve number	= 84*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 8.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.250 x 98) + (0.370 x 74)] / 0.620



Hydrograph Report

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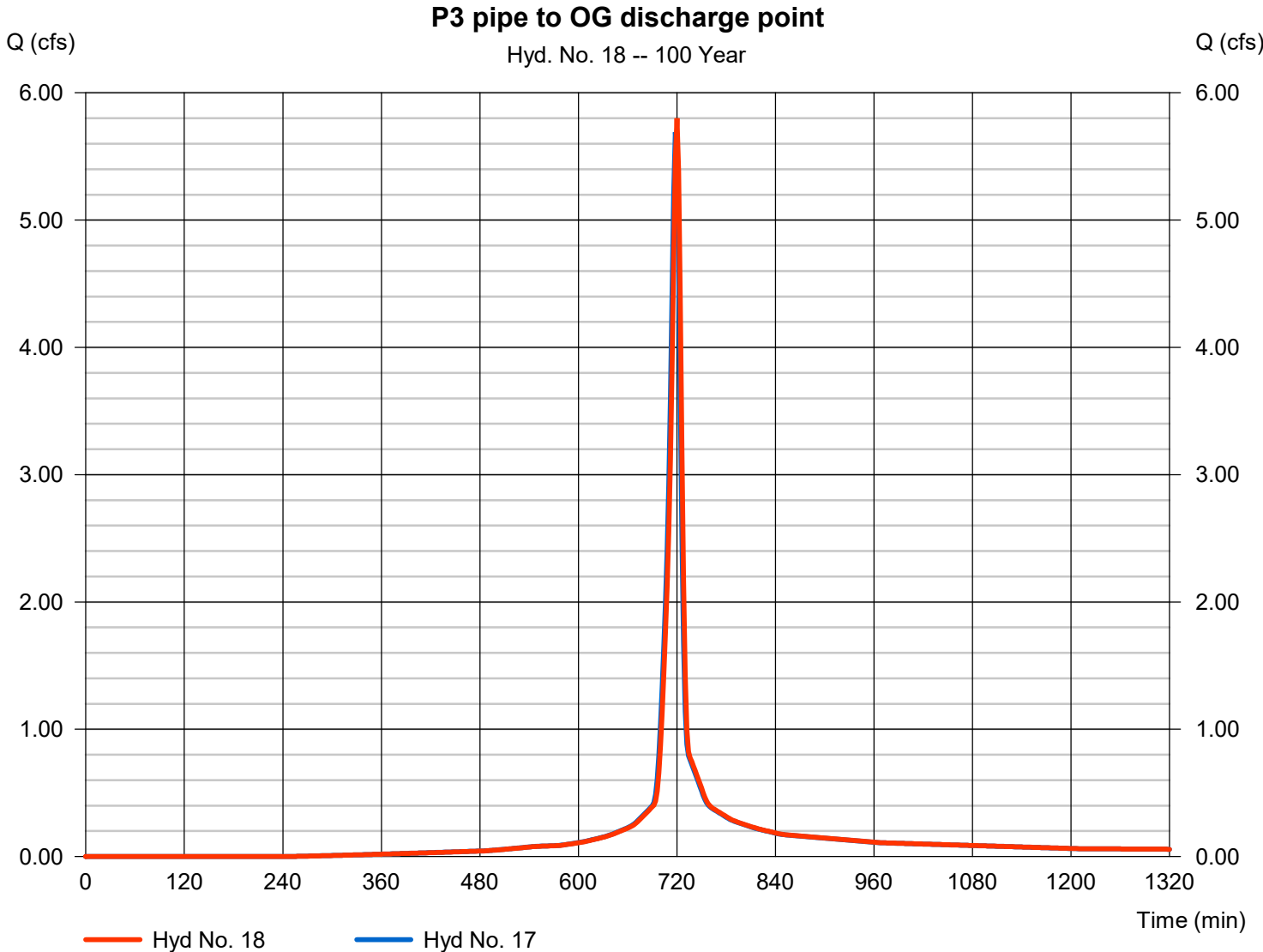
Friday, 04 / 12 / 2024

Hyd. No. 18

P3 pipe to OG discharge point

Hydrograph type	= Reach	Peak discharge	= 5.800 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 13,609 cuft
Inflow hyd. No.	= 17 - P3	Section type	= Circular
Reach length	= 111.0 ft	Channel slope	= 2.9 %
Manning's n	= 0.012	Bottom width	= 1.3 ft
Side slope	= 0.0:1	Max. depth	= 0.0 ft
Rating curve x	= 11.842	Rating curve m	= 1.250
Ave. velocity	= 0.00 ft/s	Routing coeff.	= 1.5160

Modified Att-Kin routing method used.



Hydrograph Report

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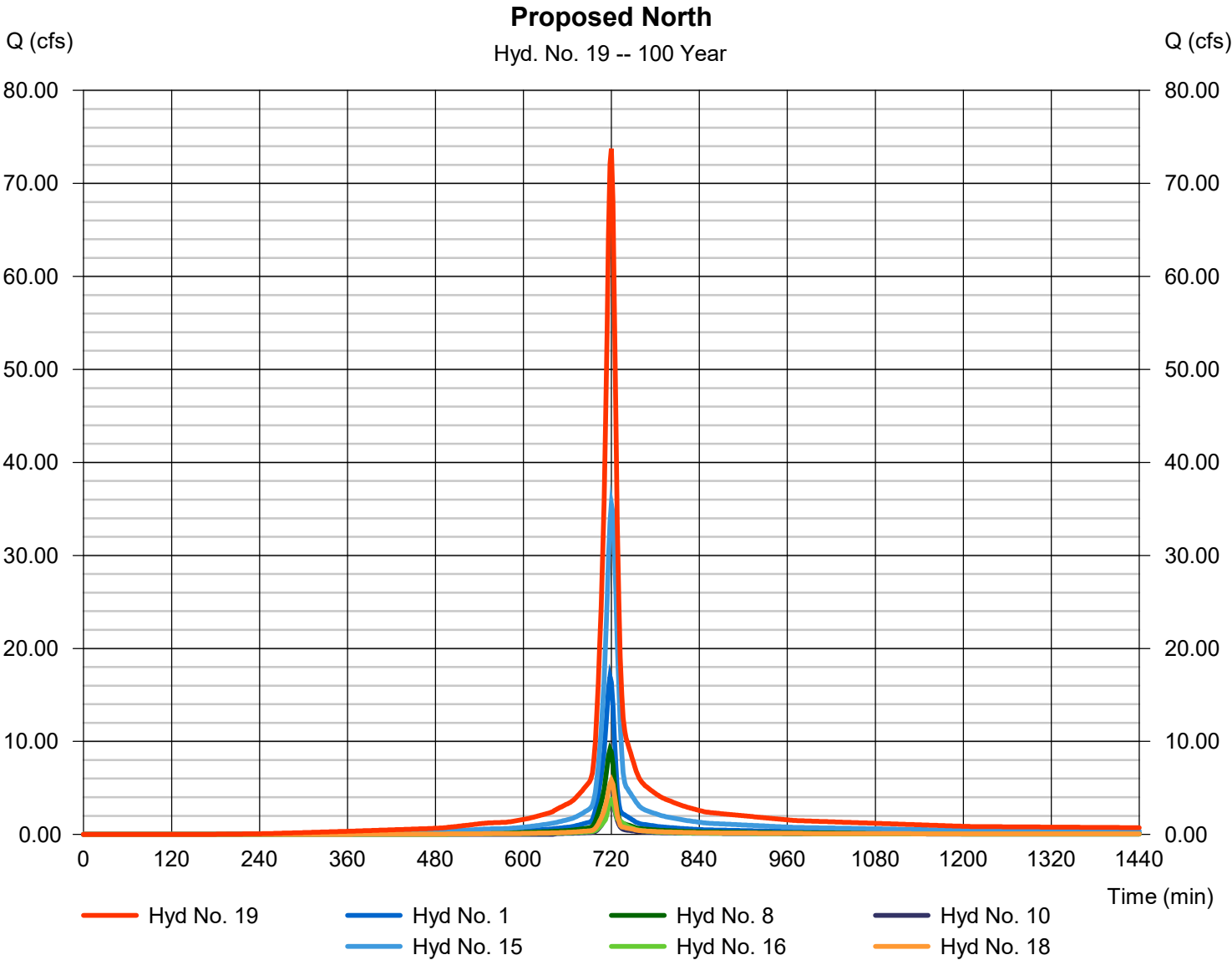
Friday, 04 / 12 / 2024

Hyd. No. 19

Proposed North

Hydrograph type = Combine
Storm frequency = 100 yrs
Time interval = 2 min
Inflow hyds. = 1, 8, 10, 15, 16, 18

Peak discharge = 73.75 cfs
Time to peak = 720 min
Hyd. volume = 192,735 cuft
Contrib. drain. area = 6.810 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

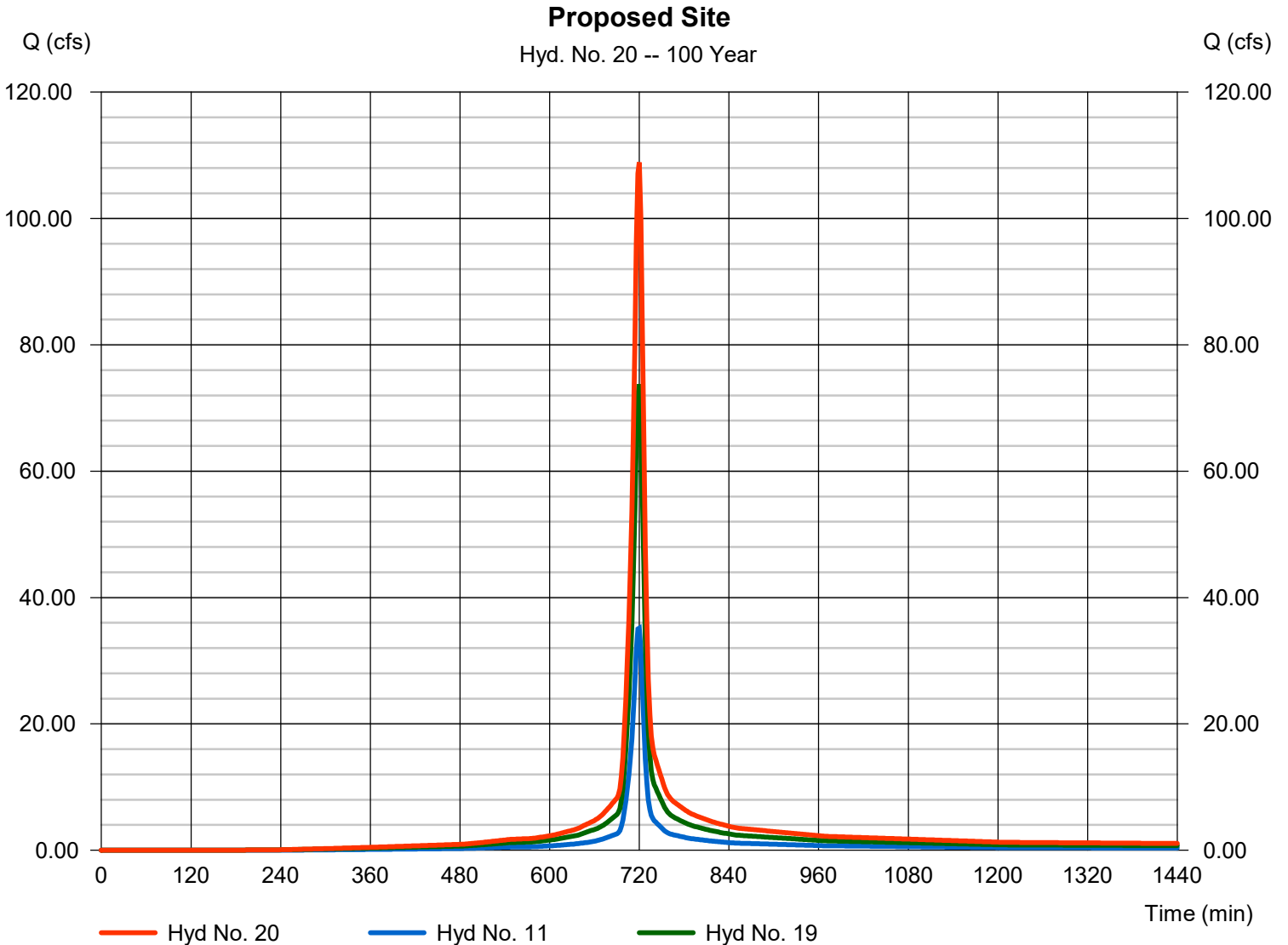
Friday, 04 / 12 / 2024

Hyd. No. 20

Proposed Site

Hydrograph type = Combine
Storm frequency = 100 yrs
Time interval = 2 min
Inflow hyds. = 11, 19

Peak discharge = 108.91 cfs
Time to peak = 720 min
Hyd. volume = 282,033 cuft
Contrib. drain. area = 0.000 ac



Hydraflow Rainfall Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Friday, 04 / 12 / 2024

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	0.0000	0.0000	0.0000	-----
2	27.1682	5.2000	0.6779	-----
3	0.0000	0.0000	0.0000	-----
5	0.0000	0.0000	0.0000	-----
10	38.2571	5.0000	0.6663	-----
25	0.0000	0.0000	0.0000	-----
50	44.2632	4.0000	0.6265	-----
100	45.8618	3.6000	0.6082	-----

File name: KCMetro5600withKFactorsIncorporated.IDF

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5.63	4.29	3.54	3.05	2.70	2.43	2.22	2.05	1.91	1.79	1.69	1.60
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	8.25	6.30	5.20	4.48	3.97	3.58	3.28	3.03	2.82	2.65	2.50	2.37
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	11.18	8.47	7.00	6.05	5.37	4.86	4.46	4.14	3.87	3.64	3.44	3.27
100	12.39	9.38	7.75	6.71	5.97	5.41	4.97	4.62	4.32	4.07	3.86	3.67

Tc = time in minutes. Values may exceed 60.

Precip. file name: Sample.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0.00	2.20	0.00	3.30	4.25	5.77	6.80	7.95
SCS 6-Hr	0.00	1.80	0.00	0.00	2.60	0.00	0.00	4.00
Huff-1st	0.00	1.55	0.00	2.75	4.00	5.38	6.50	8.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	1.75	0.00	2.80	3.90	5.25	6.00	7.10

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**Homestead Country Club
Neighborhood Meeting to discuss Site Plan Changes.
Thursday, April 25th, 2024**

Topics for discussions presented by HCC per Planning Commission requirements for Site plan changes in R1-A zone Revised April 2024.

Residents in attendance:

- Casey Ganz for Erica Ganz, 4209 64th
- Terry O'Toole, 4610 Homestead Dr.
- Cole Robinson, Prairie Village City Ward 1 Council member

Homestead Country Club representatives:

- Jeff Pflughoft – Project Manager
- Kobi Beck – General Manager
- Dennis Hulsing (via phone) Owner

Discussion Summary:

- Casey Ganz stated he is happy that “all the neighbors requests were met” with the most recent changes to the plan.
- Casey Ganz suggested Homestead add large potted plants to the north side of the tennis building for buffering and aesthetics.

Submitted by: Jeff Pflughoft on behalf of Homestead Country Club
Date: April 29th, 2024

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Chris Brewster, Multistudio, Planning Consultant
DATE: May 7, 2024 Planning Commission Meeting

Application: PC 2024-108

Request: Site Plan – Façade refinish, parking lot improvements, and related site improvements.

Action: *A site plan requires the Planning Commission to apply the facts of the application to the standard and criteria of the ordinance, and if the criteria are met to approve the application.*

Property Address: 3901 W. 83rd Street

Applicant: Tyler Wysong, Kimley-Horn; GRI Prairie Village, LLC.

Current Zoning & Use: C-2 General Business – Retail

Surrounding Zoning & Use: **North:** C-2 General Business – Retail
East: R-1A Single-Family Residential - School
South: C-O Office Building – Office & Services
West: C-2 General Business – Apartment Buildings

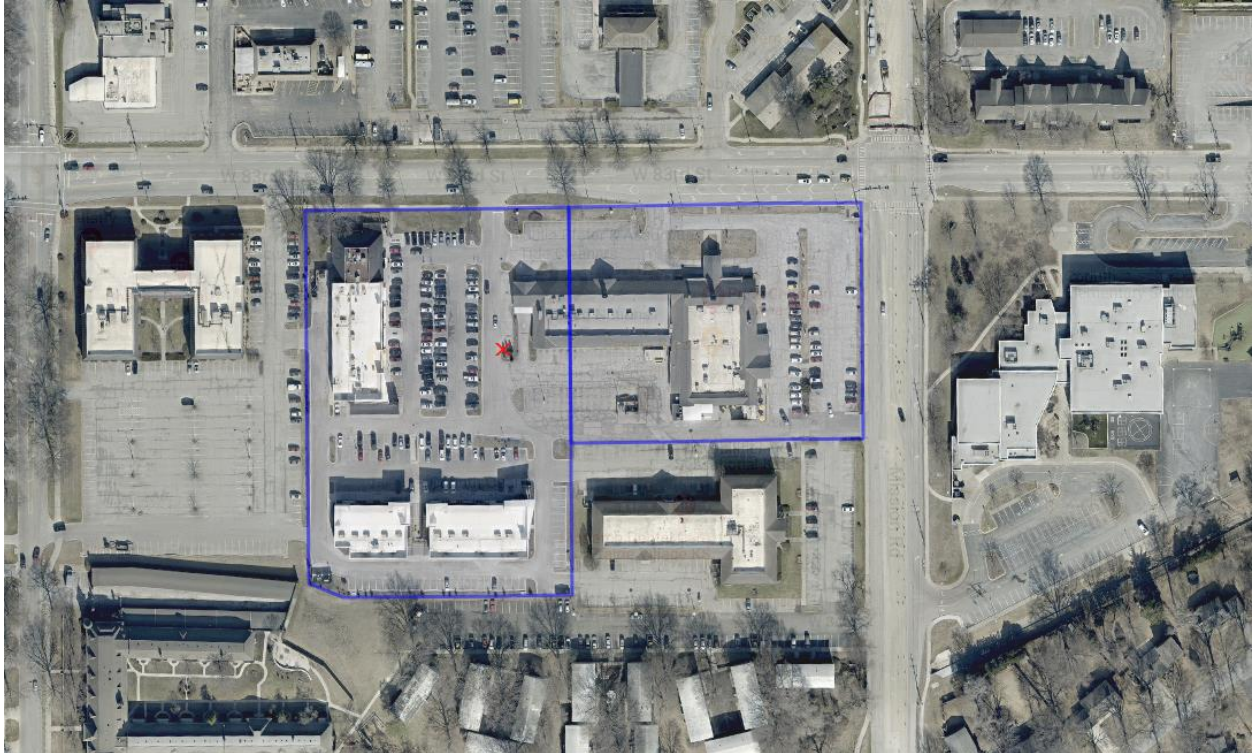
Legal Description: 28-12-25 BG 353' S & 42' W NE CR SE1/4 W 391' N 311' E 391' S 311' TO (*abbreviated*)

Property Area: 2.77 acres (120,560.52 s.f.) – *Note parcel boundaries from AIMS follow tax ID parcels; and are part of larger commonly owned shopping center.*

Related Case Files: PC 2019-113 – Site Plan, Commercial remodel and infill
PC 2011-06 CUP for Drive-through (Tide Dry Cleaners)
PC 99-107 Sign Plan, Panera Bread Bakery

Attachments: Application, site plan, building elevations and illustrations.

Aerial Site



Birdseye View



Street View



Looking southeast on 83rd Street



Looking west on Mission Road

Background:

This application is for approval of a façade refinish of existing buildings in the Corinth Quarter shopping center, for the building on the southwest corner of 83rd and Mission Drive. It is related to the new retail buildings on the remaining portions of Corinth Quarter that received a site plan approval in 2019, and were remodeled and/or reconstructed in 2020-21.

Specific changes proposed include:

- Refinish of the facades and storefronts
- Removal of the front canopy
- New hardscape and storefront landscape.
- Reconfiguration of the parking stalls and islands, and related improvements to the perimeter.

The applicant had a neighborhood meeting on April 23, 2024 as required by the Prairie Village Resident Participation Policy and has supplemented the application with background on that meeting.

Site Plan Standards & Criteria.

Expansions of buildings larger than 10% in C-2, or changes in architectural style or exterior materials which vary substantially from existing context, require site plan review by the Planning Commission. The criteria are listed below, with explanations on criteria that are impacted by this application.

A. Generally.

- 1. The plan meets all applicable standards**
- 2. The plan implements any specific principles or policies of the comprehensive plan that are applicable to the area or specific project.**
- 3. The plan does not present any other apparent risks to the public health, safety, or welfare of the community.**

There are no significant changes in the building configurations for this application. All existing buildings meet the current setbacks, and the changes are primarily cosmetic changes. The structural changes involve removal of the front canopy over the parking area, and tenant improvements to reconfigure existing spaces for multiple tenants, other than parking and landscape standards noted more specifically in the below criteria, all proposed changes meet the applicable zoning standards for C-2. The plan proposes reinvestment in an existing business and building, which reflects policies of the comprehensive plan to strengthen existing activity centers.

B. Site Design and Engineering.

- 1. The plan provides safe and easy access and internal circulation considering the site, the block and other surrounding connections, and appropriately balances vehicle and pedestrian needs.**

- 2. The plan provides or has existing capacity for utilities to serve the proposed development.**
- 3. The plan provides adequate stormwater runoff.**
- 4. The plan provides proper grading considering the prevailing grades and the relationship of adjacent uses.**

There are no changes to access for the site, and no traffic patterns on surrounding streets will be altered. All of the parking changes are minor alterations to the interior circulation and parking. The site has 172 existing parking spaces and with the modifications will have 189 spaces. The site is currently subject to the blended parking ratio for shopping centers and mixed use areas that shares peak time and overflow parking. However gaining 17 parking spaces without increasing building square footage results in no additional parking requirements for this proposed plan.

The site is an infill site that is already served by adequate utilities and the changes result in no increases in service levels or impacts on utility capacity.

The applicant has indicated that there are no changes to drainage on the site, and Public Works concurs with this assessment, and that the changes to the parking result in no net increases in impervious area. Public Works will still require standard drainage permits as part of the construction process.

C. Building Design.

- 1. The location, orientation, scale, and massing of the building creates appropriate relationships to the streetscape and to adjacent properties.**
- 2. The selection and application of materials will promote proper maintenance and quality appearances over time.**
- 3. The architectural design reflects a consistent theme and design approach. Specifically, the scale, proportion, forms and features, and selection and allocation of materials reflect a coordinated, unified whole.**
- 4. The building reinforces the character of the area and reflects a compatible architectural relationship to adjacent buildings. Specifically, the scale, proportion, forms and features, and materials of adjacent buildings inform choices on the proposed building.**

The plan proposes a refacing of buildings with no new construction or significant structural changes (other than the removal of the front canopy over the parking area). The design is related to the previous remodel and reconstruction of three buildings on the south and west portions of Corinth Quarter in 2021. Those plans used EIFS with wood accent materials in light, dark, and wood tone color palettes; horizontal alignments of roof line with occasional vertical accents and conventional retail storefronts; and horizontal wood plank accent materials for canopies and architectural accents.

The proposed refacing of this building (the existing northeast corner building) includes:

- Repair of the existing brick facades and painting them white.
- Repainting existing wood columns to match new wood accents.

- New stucco vertical box entry features to replace the existing gable, canopy entry features, and drive-through canopy (StoPowerwall, white) – 4 locations.
- New stucco vertical box corner element and cornice (StoPowerwall, black).
- Black storefronts
- New wood accents (manufactured wood slats), prefabricated wood cornice on the vertical entry features, wood backing on some sign panels and a new wood trellis related to an outside patio / entrance feature.

The vertical box cornice and entry features are a departure from scale and formats from the existing building and from other buildings in the area, including Corinth North (across 83rd Street). However, they are consistent with the prior approved designs of Corinth Quarter, where the wood accents on architectural features and exterior space elements were considered unifying features with other buildings and sites in the area.

The elevations are not dimensioned. Prior to or at planning commission the elevations should be resubmitted with dimensions to confirm it meets the zoning ordinance requirements and is consistent with the scale of the prior approved designs of Corinth Quarter (3 buildings to the south and west of this building).

Additionally, the illustrative renderings appear to show that one existing drive-under canopy will be removed (on the north elevation), but the drive-under canopy for the drive through on the west end of the building will remain. Neither of these structures appear on the site plan (which appears to only show the footprint of interior tenant space). Prior to or at Planning Commission, the site plan should be resubmitted to clarify the extent of the structure that will be removed, and the extent of the structure that will be retained and refaced.

The building elevations also include sign concepts and locations. These concepts are generally acceptable, however there are no specific sign plans or dimensioned sign areas. Provided future signs for specific tenants meet the general ordinance requirements signs within these concepts can be approved by staff through the sign permit process.

D. Landscape Design.

- 1. The plan creates an attractive aesthetic environment and improves relationships to the streetscape and adjacent properties.**
- 2. The plan enhances the environmental and ecological functions of un-built portions of the site.**
- 3. The plan reduces the exposure and adverse impact of more intense activities or components of the site or building.**

The application proposes new landscape for the 83rd Street frontage and parking areas. This includes the following:

- 12 frontage trees
- 10 ornamental trees
- 50 shrubs

- 4 parking lot trees;
- 35 parking perimeter shrubs;
- Landscape associated with building frontages and outside gathering space

This meets the standards applicable to the site for the 83rd Street frontage, except the need to add one additional street tree on the western edge of the frontage to replace a recently lost street tree. However, no landscape is proposed for the streetscape, frontage, and parking area on the Mission Road frontage. Although no construction activity is occurring within the existing parking area, the entire site is subject to the landscape standards, and the parking area and streetscape already include area for landscape (the once had landscape that has been removed.) Therefore, the landscape plan should be revised to include landscape on this portion of the site which meets the ordinance requirements. In general, this should include:

- Add 1 shade tree to the western edge of the 83rd street frontage to replace recently lost tree.
- 8 large shade trees along Mission Road to meet the streetscape/frontage and parking lot perimeter requirement.
- 35 to 50 shrubs along Mission Road to meet the frontage/parking perimeter / head in parking near right-of-way buffer requirement.
- 6 large shade trees in the parking lot islands to meet the parking perimeter and internal parking lot requirement.

Additionally, other portions of the landscape plan include notes of “Existing vegetation to remain” The specific plants in this area should be noted so that it documents plant requirements for the approved plan, and that future enforcement can occur according to the approved plan and the specific documented existing vegetation.

The landscape plan should be resubmitted and approved by the staff landscape architect according to these parameters prior to or in association with building permits. Additionally, at this point or through the process of revising the plan, the applicant should consider substitute species for certain plants to address the maintenance, durability, and longevity of landscape investments. Plant counts shall be based on the approved plan, but species may be substituted for types that are most adaptable to the regional climate and specific application on the site.

Recommendation:

Staff recommends approval of the site plan subject to:

1. Additional information be submitted and confirmed prior to or at the Planning Commission meeting regarding the buildings:
 - a. The elevations include scaled and dimensioned drawings and the height of structures confirmed to meet the zoning requirements and be compatible with prior approved phases.
 - b. The site plans be amended to clarify the removal and/or retention of the two drive-under canopies.

2. The landscape plan be amended to include the following:
 - a. 1 shade tree on the wester edge of the 83rd Street frontage to replace the recently lost tree.
 - b. 8 shade trees and 35 to 50 shrubs on the Mission Road frontage to meet the streetscape / frontage landscape requirement and the parking lot perimeter landscape requirement.
 - c. 6 shade trees be included in the landscape islands on the east side of the site to meet the internal parking landscape requirement and replace trees that were previously there.
 - d. The plan be amended to document existing plants in all areas which are referenced “existing landscape to remain” – this is to enable ongoing enforcement of landscape requirements against any approved site and landscape plan.
 - e. The resubmitted plan shall be approved by the staff landscape architect prior to permits and may include revisions of proposed species to other substitute species recommended ensure proper maintenance, durability, and longevity of landscape investments.
3. Signs plans are approved in concept only. Future signs shall be reviewed through sign permits and will be required to meet the general ordinance requirements for signs in the C-2 zone district.



CITY OF PRAIRIE VILLAGE

The Star of Kansas

Planning Commission Application

For Office Use Only
Case No.: <u>PC 2024-108</u>
Filing Fee: <u>\$100.00</u>
Deposit: <u>\$500.00</u>
Date Advertised:
Date Notices Sent:
Public Hearing Date:

Please complete this form and return with Information requested to:

Assistant City Administrator
City of Prairie Village
7700 Mission Rd.
Prairie Village, KS 66208

Applicant: TYLER WYSONG, KIMLEY-HORN Phone Number: 913-909-6503

Address: 805 PENNSYLVANIA AVENUE, KCMO 64105 E-Mail: TYLER.WYSONG@KIMLEY-HORN.COM

Owner: GRI PRAIRIE VILLAGE, LLC Phone Number: 301-907-7800

Address: 7200 WISCONSIN AVENUE, SUITE 600 BETHESDA, MD Zip: 20814

Location of Property: 3901 W. 83RD STREET, PRAIRIE VILLAGE, KS 66208

Legal Description: TRACT 2 OF CORINTH SQUARE PLAT

Applicant requests consideration of the following: (Describe proposal/request in detail)

UPGRADE THE FACADE & DEMISE THE EXISTING BUILDING INTO MULTIPLE TENANTS.
ADDITIONAL SITE IMPROVEMENTS TO THE PARKING LOT ARE INCLUDED

AGREEMENT TO PAY EXPENSES

APPLICANT intends to file an application with the PRAIRIE VILLAGE PLANNING COMMISSION or the PRAIRIE VILLAGE BOARD OF ZONING APPEALS of the CITY OF PRAIRIE VILLAGE, KANSAS (City) for CORINTH QUARTER REDEVELOPMENT.

As a result of the filing of said application, CITY may incur certain expenses, such as publication costs, consulting fees, attorney fees and court reporter fees.

APPLICANT hereby agrees to be responsible for and to CITY for all cost incurred by CITY as a result of said application. Said costs shall be paid within ten (10) days of receipt of any bill submitted by CITY to APPLICANT. It is understood that no requests granted by CITY or any of its commissions will be effective until all costs have been paid. Costs will be owing whether or not APPLICANT obtains the relief requested in the application.

Tyler Wysong

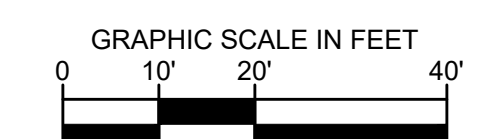
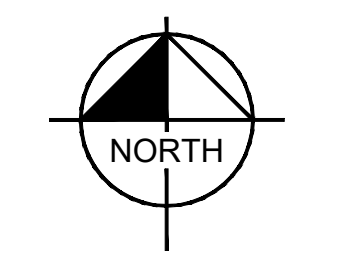
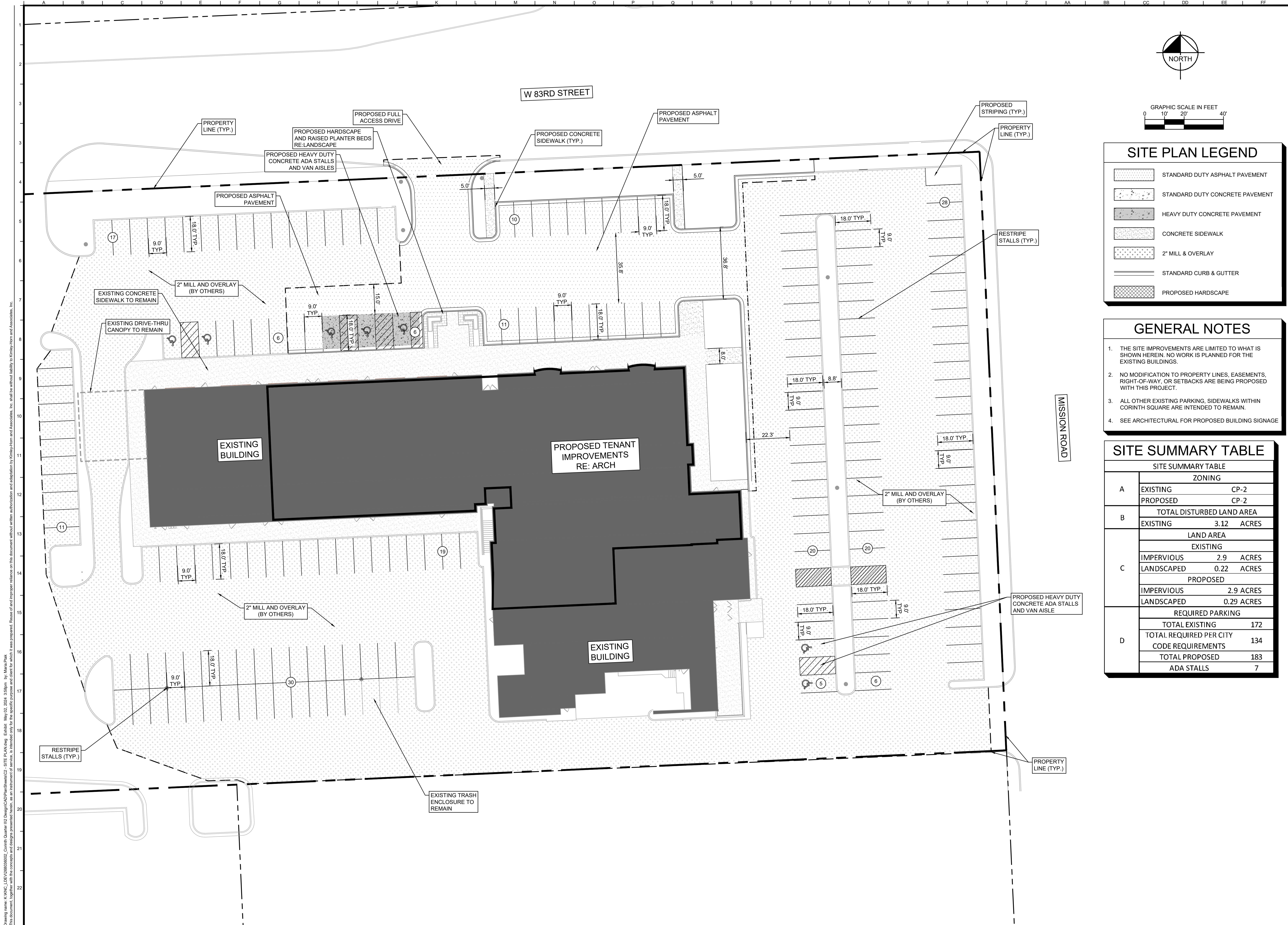
Digitally signed by Tyler Wysong
DN: C=US, E=tyler.wysong@kimley-horn.com,
O=Kimley-Horn, CN=Tyler Wysong
Date: 2024.04.11 11:56:23-0500

Applicant's Signature/Date

ahidalgo

Digitally signed by ahidalgo
DN: E=ahidalgo@firstwash.com,
CN=ahidalgo
Date: 2024.04.11 13:05:27-0400

Owner's Signature/Date



SITE PLAN LEGEND

	STANDARD DUTY ASPHALT PAVEMENT
	STANDARD DUTY CONCRETE PAVEMENT
	HEAVY DUTY CONCRETE PAVEMENT
	CONCRETE SIDEWALK
	2" MILL & OVERLAY
	STANDARD CURB & GUTTER
	PROPOSED HARDSCAPE

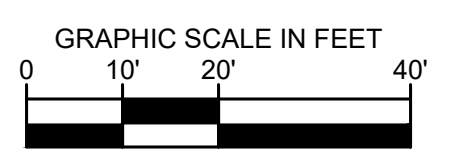
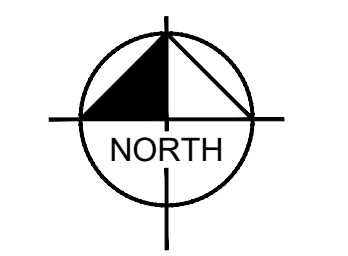
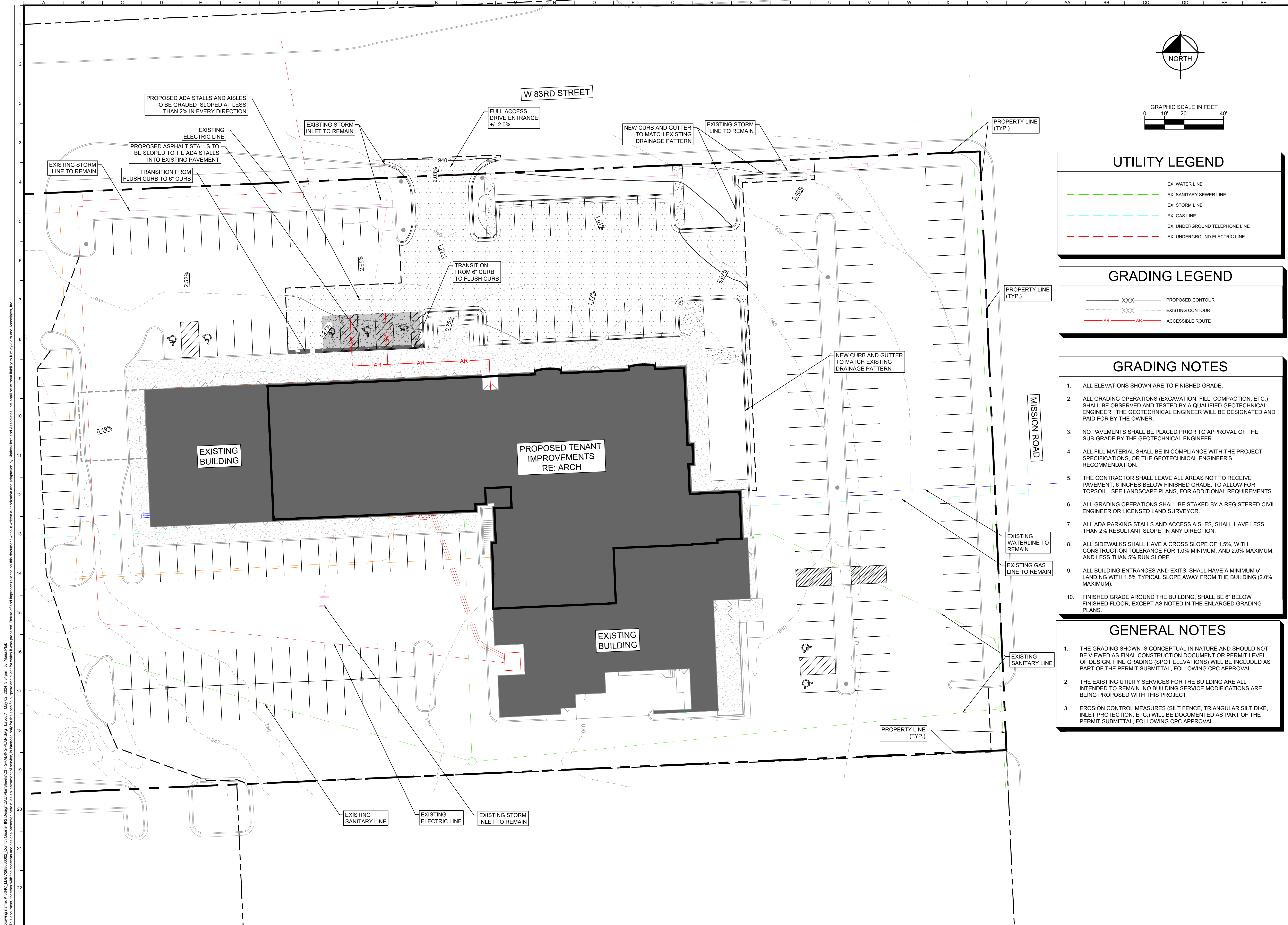
- ### GENERAL NOTES
1. THE SITE IMPROVEMENTS ARE LIMITED TO WHAT IS SHOWN HEREIN. NO WORK IS PLANNED FOR THE EXISTING BUILDINGS.
 2. NO MODIFICATION TO PROPERTY LINES, EASEMENTS, RIGHT-OF-WAY, OR SETBACKS ARE BEING PROPOSED WITH THIS PROJECT.
 3. ALL OTHER EXISTING PARKING, SIDEWALKS WITHIN CORINTH SQUARE ARE INTENDED TO REMAIN.
 4. SEE ARCHITECTURAL FOR PROPOSED BUILDING SIGNAGE

SITE SUMMARY TABLE

SITE SUMMARY TABLE	
ZONING	
A	EXISTING CP-2
	PROPOSED CP-2
TOTAL DISTURBED LAND AREA	
B	EXISTING 3.12 ACRES
LAND AREA	
EXISTING	
C	IMPERVIOUS 2.9 ACRES
	LANDSCAPED 0.22 ACRES
PROPOSED	
	IMPERVIOUS 2.9 ACRES
	LANDSCAPED 0.29 ACRES
REQUIRED PARKING	
D	TOTAL EXISTING 172
	TOTAL REQUIRED PER CITY CODE REQUIREMENTS 134
	TOTAL PROPOSED 183
	ADA STALLS 7

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<p>NOT FOR CONSTRUCTION</p>	
<p>First Washington Realty</p>	
<p>SITE PLAN</p>	
<p>CORINTH SQUARE W 83RD STREET & MISSION ROAD PRAIRIE VILLAGE, KANSAS 66208</p>	
<p>ORIGINAL ISSUE: 04/12/2024 KHA PROJECT NO. 268036002 SHEET NUMBER</p>	
<p>C2</p>	

Drawing name: K:\KAC_LLE\268036002_Corinth Quarter I12 Design\CAD\Plan\Sheet\02 - SITE PLAN.dwg Exhibit May 02, 2024, 3:38pm by: Maria Phik
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UTILITY LEGEND

	EX. WATER LINE
	EX. SANITARY SEWER LINE
	EX. STORM LINE
	EX. GAS LINE
	EX. UNDERGROUND TELEPHONE LINE
	EX. UNDERGROUND ELECTRIC LINE

GRADING LEGEND

	PROPOSED CONTOUR
	EXISTING CONTOUR
	ACCESSIBLE ROUTE

- ### GRADING NOTES
1. ALL ELEVATIONS SHOWN ARE TO FINISHED GRADE.
 2. ALL GRADING OPERATIONS (EXCAVATION, FILL, COMPACTION, ETC.) SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER WILL BE DESIGNATED AND PAID FOR BY THE OWNER.
 3. NO PAVEMENTS SHALL BE PLACED PRIOR TO APPROVAL OF THE SUB-GRADE BY THE GEOTECHNICAL ENGINEER.
 4. ALL FILL MATERIAL SHALL BE IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS, OR THE GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 5. THE CONTRACTOR SHALL LEAVE ALL AREAS NOT TO RECEIVE PAVEMENT, 6 INCHES BELOW FINISHED GRADE, TO ALLOW FOR TOPSOIL. SEE LANDSCAPE PLANS, FOR ADDITIONAL REQUIREMENTS.
 6. ALL GRADING OPERATIONS SHALL BE STAKED BY A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR.
 7. ALL ADA PARKING STALLS AND ACCESS AISLES, SHALL HAVE LESS THAN 2% RESULTANT SLOPE, IN ANY DIRECTION.
 8. ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 1.5%, WITH CONSTRUCTION TOLERANCE FOR 1.0% MINIMUM, AND 2.0% MAXIMUM, AND LESS THAN 5% RUN SLOPE.
 9. ALL BUILDING ENTRANCES AND EXITS, SHALL HAVE A MINIMUM 5' LANDING WITH 1.5% TYPICAL SLOPE AWAY FROM THE BUILDING (2.0% MAXIMUM).
 10. FINISHED GRADE AROUND THE BUILDING, SHALL BE 6" BELOW FINISHED FLOOR, EXCEPT AS NOTED IN THE ENLARGED GRADING PLANS.

- ### GENERAL NOTES
1. THE GRADING SHOWN IS CONCEPTUAL IN NATURE AND SHOULD NOT BE VIEWED AS FINAL CONSTRUCTION DOCUMENT OR PERMIT LEVEL OF DESIGN. FINE GRADINGS (SPOT ELEVATIONS) WILL BE INCLUDED AS PART OF THE PERMIT SUBMITTAL, FOLLOWING CPC APPROVAL.
 2. THE EXISTING UTILITY SERVICES FOR THE BUILDING ARE ALL INTENDED TO REMAIN. NO BUILDING SERVICE MODIFICATIONS ARE BEING PROPOSED WITH THIS PROJECT.
 3. EROSION CONTROL MEASURES (SILT FENCE, TRIANGULAR SILT DIKE, INLET PROTECTION, ETC.) WILL BE DOCUMENTED AS PART OF THE PERMIT SUBMITTAL, FOLLOWING CPC APPROVAL.

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<p>GRADING & UTILITY PLAN</p>	
<p>CORINTH SQUARE <small>W 83RD STREET & MISSION ROAD PRAIRIE VILLAGE, KANSAS 66208</small></p>	
<p>ORIGINAL ISSUE: 04/12/2024 KHA PROJECT NO. 268036002 SHEET NUMBER</p>	
<p>C3</p>	

Drawing name: K:\KHC_LIEV\268036002_Corinth Quarter #2 Design\CAD\Plan\Sheet\03 - GRADING PLAN.dwg Layout 1 May 02, 2024 3:34pm by: Maria Pisk
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- PLANTING NOTES:**
- CONTRACTOR TO SOD TO LIMITS OF DISTURBANCE.
 - ALL PLANT MATERIAL SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES AND SHALL MEET ALL STANDARDS AS STATED IN THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
 - NO SUBSTITUTIONS IN PLANT MATERIALS SHALL BE MADE WITHOUT WRITTEN AUTHORIZATION FROM OWNER OR LANDSCAPE ARCHITECT. IN THE EVENT OF DISCREPANCIES BETWEEN DRAWING AND PLANT LIST, THE DRAWING SHALL PREVAIL.
 - LOCATE ALL UTILITIES PRIOR TO ANY AND ALL PLANTING OR DIGGING OPERATIONS. HAND DIG TREES AND SHRUBS IN AREAS WITHIN 5' OF UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES INCURRED BY HIS WORK.
 - TREE STAKING: REFER TO TYPICAL TREE PLANTING DETAIL FOR TREE STAKING. CONTRACTOR SHALL REPLACE, PLANT, OR UPRIGHT ANY TREES BLOWN OVER OR DAMAGED DUE TO INADEQUATE STAKING AT NO ADDITIONAL COST TO OWNER.
 - PLANTS MASSED IN BEDS SHALL BE ARRANGED USING TRIANGULAR SPACING.
 - PROVIDE A LANDSCAPE EDGE BETWEEN ALL PLANTING BEDS AND LAWN AREAS—REFERENCE LANDSCAPE PLAN.
 - ALL PLANTING BEDS TO BE TOP DRESSED WITH A MINIMUM OF 3" SHREDDED HARDWOOD MULCH—REFERENCE LANDSCAPE PLAN.
 - LAY TALL FESCUE SOD FOR PROPOSED LAWN AREAS TO ALL EDGES OF PAVEMENT AND/OR LIMITS SPECIFIED IN LANDSCAPE PLAN. ALL DISTURBED AREAS WITHIN CITY R.O.W. SHALL RECEIVE TALL FESCUE SOD.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING UNTIL FINAL ACCEPTANCE. ALL REQUIRED LANDSCAPING SHALL BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES. THE WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, MOWING, EDGING, PRUNING, FERTILIZING, WATERING, WEEDING, AND OTHER SUCH ACTIVITIES COMMON TO THE MAINTENANCE OF LANDSCAPING. ALL PLANT MATERIALS SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AS IS APPROPRIATE FOR THE SEASON OF THE YEAR. PLANT MATERIAL THAT DIES SHALL BE REPLACED WITH PLANT MATERIAL OF SIMILAR SIZE AND VARIETY.
 - CONTRACTOR SHALL WARRANT PLANT MATERIAL TO REMAIN ALIVE AND HEALTHY FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE. WARRANTY SHALL NOT INCLUDE DAMAGE FOR LOSS OF PLANT MATERIAL DUE TO ACTS OF VANDALISM OR NEGLIGENCE ON THE PART OF OWNER.
 - ALL LANDSCAPE BED AREAS TO BE PREPARED USING "ORGANICALLY ENRICHED TOP SOIL" BY MISSOURI ORGANIC (OR APPROVED EQUAL). INSTALL TO DEPTHS PER PLANTING DETAILS (12" DEPTH MIN.). FINISHED GRADES OF PLANTING BEDS TO BE 2" BELOW FINISHED GRADE OF ADJACENT PAVING OR AS SHOWN ON GRADING PLAN.
 - ALL SOD AREAS TO RECEIVE 4" DEPTH (MIN.) TOPSOIL PRIOR TO INSTALLATION. TOPSOIL SHALL BE NATURAL, FRIABLE, AND FERTILE; POSSES A pH RANGE OF 7.0-7.5, AND BE FREE OF TRASH, DEBRIS, STONES, WEEDS, AND TWIGS/BRANCHES.
 - FERTILIZER: FERTILIZE SODDED AREAS WITH AN APPROVED COMMERCIAL TYPE, SLOW RELEASE, AT A RATE OF 200 LBS/ACRE. REFER TO LANDSCAPE SPECIFICATIONS SECTION G FOR REQUIRED SUBMITTALS. USE PHOSPHOROUS-FREE FERTILIZER IF REQUIRED BY LOCAL CODE.

- TREE PROTECTION NOTES:**
- CONTRACTOR SHALL ADHERE TO ALL TREE PRESERVATION REQUIREMENTS LISTED IN THE TREE PRESERVATION SPECIFICATIONS AND/OR THE CITY OR COUNTY ZONING CODE (LATEST EDITION)—WHICHEVER IS MORE STRINGENT SHALL APPLY.
 - CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION PROCEDURES WITH THE PROJECT ARBORIST PRIOR TO BEGINNING WORK.
 - ANY DEMOLITION OR EXCAVATION WITHIN THE DRIP LINE OF AN EXISTING TREE SHALL PROCEED WITH EXTREME CARE EITHER BY THE USE OF HAND TOOLS, DIRECTIONAL BORING, AIR KNIFE EXCAVATION, AND/OR WITH OTHER LOW IMPACT EQUIPMENT THAT WILL NOT CAUSE DAMAGE TO THE TREE, ROOTS, OR SOIL; CONTRACTOR SHALL COORDINATE SUCH PROCEDURES WITH THE PROJECT ARBORIST.
 - EXISTING TREE LOCATIONS AND SIZES ARE ESTIMATES BASED ON A SURVEY PROVIDED BY THE OWNER SELECTED SURVEYOR.
 - NO SIGNS, BUILDING PERMITS, WIRES, OR OTHER ATTACHMENTS OF ANY KIND SHALL BE ATTACHED TO ANY TREE. GUY WIRES DESIGNED TO PROTECT TREES ARE EXCLUDED FROM THIS PROHIBITION.
 - CONTRACTOR SHALL COORDINATE TREE REMOVAL WITH PERMITTING AGENCY AND PROJECT ARBORIST PRIOR TO CONSTRUCTION. NO PERSON MAY REMOVE OR CAUSE TO BE REMOVED ANY PROTECTED TREE WITHOUT FIRST HAVING PROCURED A PERMIT AS PROVIDED BY THE APPROPRIATE PERMITTING AGENCY.
 - DO NOT INSTALL CONDUIT, DRAIN OR IRRIGATION LINE, OR ANY UTILITY LINE WITHIN THE TREE PROTECTION ZONE WITHOUT THE APPROVAL OF THE PROJECT ARBORIST. IF LINES MUST TRAVERSE THE PROTECTION AREA, THEY SHALL BE TUNNELED OR BORED UNDER THE TREE UNLESS OTHERWISE NOTED—REFERENCE TREE PRESERVATION DETAILS.
 - CONSTRUCTION ACTIVITY SHALL NOT DESTROY OR IRREVERSIBLY HARM THE ROOT SYSTEM OF PROTECTED TREES. POST HOLES AND TRENCHES LOCATED CLOSE TO PROTECTED TREES SHALL BE ADJUSTED TO AVOID DAMAGE TO MAJOR ROOTS.
 - IF TREE ROOT ZONE IS TO BE DISTURBED, AFFECTED ROOTS MUST BE SEVERED BY CLEAN PRUNING CUTS AT THE POINT WHERE CONSTRUCTION IMPACTS THE ROOTS.
 - ROOT PRUNING/TRENCHING LOCATIONS SHALL BE APPROVED IN THE FIELD BY THE PROJECT ARBORIST.
 - CONTRACTOR TO COORDINATE ALL EARTHWORK OPERATIONS WITH THE PROJECT ARBORIST PRIOR TO BEGINNING WORK.
 - IF ANY DAMAGE TO TREE PROTECTION FENCING SHOULD OCCUR BY ACCIDENT OR NEGLIGENCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATE REPAIRS.
 - CONTRACTOR'S ACCESS TO FENCED TREE PROTECTION AREAS SHALL BE PERMITTED ONLY WITH APPROVAL OF THE PROJECT ARBORIST.
 - NO MATERIALS, EQUIPMENT, SPOIL, WASTE, OR WASHOUT WATER MAY BE DISPOSED, STORED, OR PARKED WITHIN 20 FEET OF ANY TREE.
 - CONTRACTOR SHALL COORDINATE WITH THE PROJECT ARBORIST PRIOR TO REMOVAL OF TREE PROTECTION FENCING.

PLANT SCHEDULE

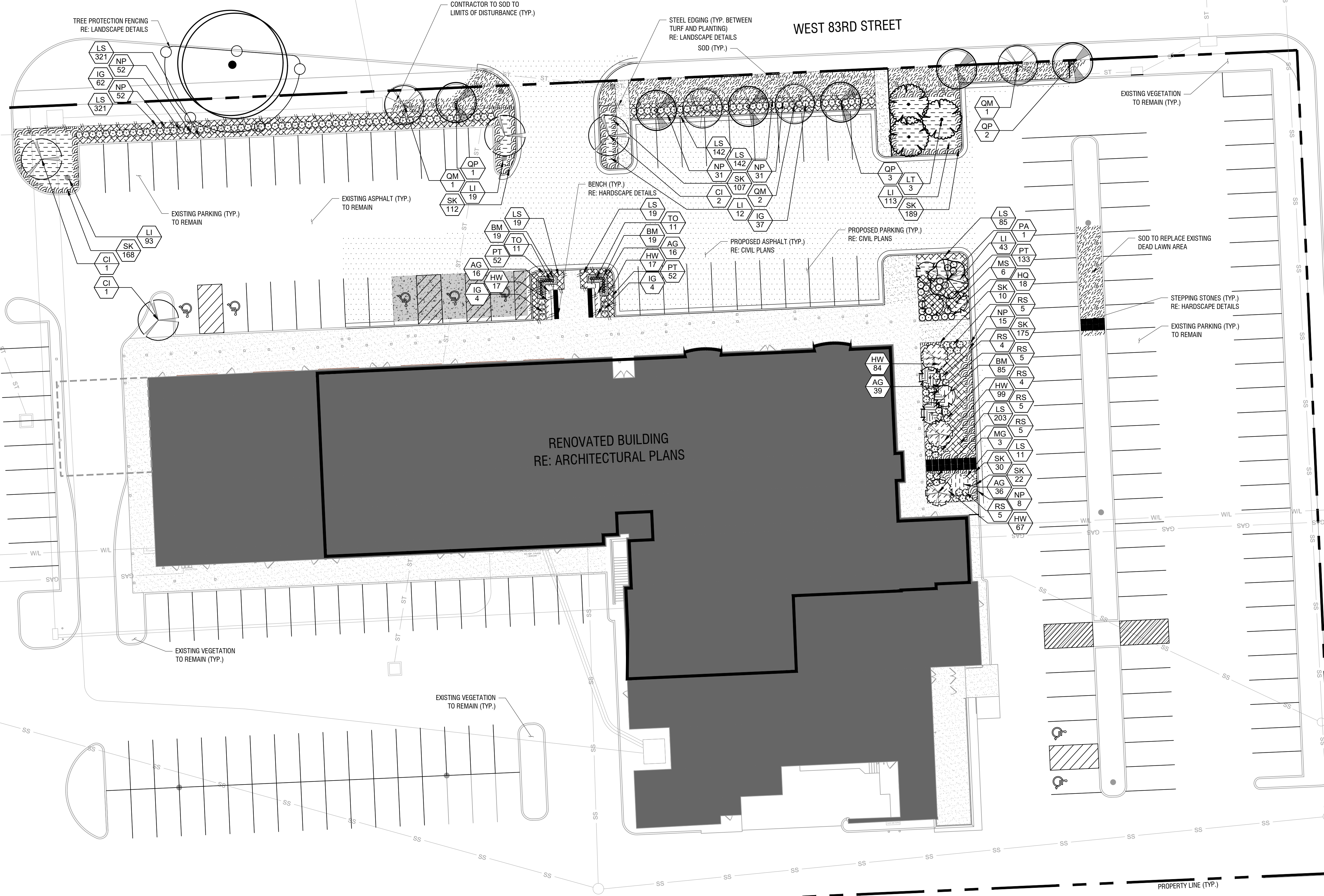
NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF A DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT.	CALIPER	HEIGHT	REMARKS
SHADE TREES							
CI	4	4	CARYA ILLINOENSIS (PIGAN HICKORY)	8.8 B	2" CAL. MIN.	12' - 14' HT.	SINGLE, STRAIGHT LEADER FULL AND MATCHING
EX	1	1	EXISTING TREE TO REMAIN	EXISTING			DO NOT DISTURB REFER TO LANDSCAPE DETAILS FOR TREE PRESERVATION FENCING.
LI	3	3	LIRIODENDRON FLORIBUNDUM (AMERICAN SWEETGUM)	8.8 B	2" CAL. MIN.	12' - 14' HT.	SINGLE, STRAIGHT LEADER FULL AND MATCHING
QM	4	4	QUERCUS MONTEANA (CHESTNUT OAK)	8.8 B	2" CAL. MIN.	12' - 14' HT.	SINGLE, STRAIGHT LEADER FULL AND MATCHING
QP	4	4	QUERCUS PRINCEPS (CHERRYBARK OAK)	8.8 B	2" CAL. MIN.	12' - 14' HT.	SINGLE, STRAIGHT LEADER FULL AND MATCHING
ORNAMENTAL TREES							
MS	3	3	MADONIA GRANDIFLORA BRACKENS BROWN BEAUTY / BRACKENS MADONIA	8.8 B	1.5" CAL. MIN.	10' - 12' HT.	SINGLE, STRAIGHT LEADER FULL AND MATCHING
MS	6	6	MADONIA STELLATA (STAR MADONIA)	8.8 B	1.5" CAL. MIN.	10' - 12' HT.	SINGLE, STRAIGHT LEADER FULL AND MATCHING
PA	1	1	PLATANUS 'HERRINGHAM GREEN' (HERRINGHAM LONDON PLANE TREE)	8.8 B	2" CAL. MIN.	12' - 14' HT.	SINGLE, STRAIGHT LEADER FULL AND MATCHING
SHRUBS							
HO	18	18	HYDRANGEA OLEORIFOLIA (CAMELFEAT HYDRANGEA)	CONT.	2" HT. MIN.	30" O.C.	FULL AND MATCHING
IS	107	107	ILEX GLABRA TENGA (DENSE HAWKERY HOLLY)	CONT.	3" HT. MIN.	30" O.C.	FULL AND MATCHING
RS	33	33	RHODOCODENDRON 'SNEEZY' (SNEEZY RHODOCENDRON)	CONT.	2" HT. MIN.	30" O.C.	FULL AND MATCHING
TO	22	22	TRIALIA OCCIDENTALIS 'TATER TOP' (TATER TOP ANEMONE)	CONT.	1" HT. MIN.	12" O.C.	FULL AND MATCHING
GROUND COVERS							
AG	107	107	ATHYRIUM GHOST / GHOST FERNS	CONT.	4" HT. X 12" W.	12" O.C.	FULL AND MATCHING
BM	133	133	BRUNNERA MACROPHYLLA (JACK FROST BRUNNERA)	CONT.	4" HT. X 12" W.	12" O.C.	FULL AND MATCHING
HW	204	204	HELIOPSIS 'SUNSHINE' (SUNSHINE BLACKTOP)	CONT.	4" HT. X 12" W.	12" O.C.	FULL AND MATCHING
LI	280	280	LIVIGNA 'INTERMEDIA' (INTERMEDIA LIVERWORT)	CONT.	12" HT. X 12" W.	24" O.C.	FULL AND MATCHING
LS	1303	1303	LIRIODENDRON 'GREEN' (AMERICAN SWEETGUM)	CONT.	8" HT. X 12" W.	12" O.C.	FULL AND MATCHING
NP	188	188	NARCISSUS 'PETIT FOUR' (PETIT FOUR NARCISSUS)	CONT.	4" HT. X 8" W.	12" O.C.	FULL AND MATCHING
PT	237	237	PARTHENOCISSUS TRICOLORATA (JAPANESE CREEPER)	CONT.	4" HT. X 8" W.	12" O.C.	FULL AND MATCHING
SK	813	813	SEDIUM HANFORTHII (ORANGE STONECROP)	CONT.	4" HT. X 12" W.	12" O.C.	FULL AND MATCHING
SOD							
SD	2388 SF	2388 SF	TALL FESCUE / FESCUE ARIZONENSIS	SOD	NA	NA	SOD TO HAVE TIGHT, SAND-FILLED JOINTS. SOD TO BE FREE OF WEEDS, PESTS, AND DISEASE.

City of Prairie Village, Kansas - Landscape Data Table

Site Area: 3.12 acres (~136,000 sqft) - Zoning Commercial (CP-2)

	REQUIRED	PROVIDED
19.47.020 - REQUIRED LANDSCAPE		
(a) Site Elements and Planting. The required landscape shall be based on different elements of the site, according to the following:		
Streetscape and Frontage: The area between the front building line and the street, including any plantings required in the ROW, used to create a relationship between the site and the public realm.	Yes	Yes
2 large trees per 40' of buildings setback more than 30'. Number Of Trees: 2 x (235 Int / 40') = 12 Trees	12 Frontage Trees	12 Frontage Trees
Foundations: Areas along the building frontage (within the first 10' - 20' from the building) used to provide accents and soften larger expanses of buildings.	Yes	Yes
1 ornamental tree per 25' of building frontage. Number Of Trees: 235 Int / 25' = 10 Ornamental Trees	10 Ornamental Trees	10 Ornamental Trees
5 shrubs for 25' of building frontage. Number Of Shrubs: 5 x (235 Int / 25') = 50 Shrubs	50 Frontage Shrubs	50 Frontage Shrubs
Parking: Areas on the perimeter, or interior of parking where landscape is used to soften the appearance, mitigate heat gain and infiltrate stormwater.	Yes	Yes
1 large tree per 40' of parking perimeter; and Number Of Parking Trees: 173 Int / 40' = 4 Parking Trees	4 Large Parking Trees	4 Large Parking Trees
1 large tree per 40 parking spaces in internal islands or added to the perimeter. Number Of Parking Trees: 29 Parking Spaces / 40' = 1 Parking Trees	1 Large Parking Tree	1 Large Parking Tree
5 shrubs for 25' of perimeter. Number Of Parking Shrubs: 5 x (173 Int / 25') = 35 Parking Shrubs	35 Parking Shrubs	35 Parking Shrubs
(c) Tree Diversity. The required trees planted shall promote diversity with the following species selection criteria:		
Required Trees: Diversity		
21 or more: At least 3 genus; and At least 5 species	Yes	Yes
No more than 35% of any one species		
19.47.040 - BUFFERS AND SCREENING		
(e) Areas designed as gathering places, for social function or as civic amenities to support the site or area may require enhanced landscape to create human-scale spaces (colorful, visual interest, and appropriate transitions).	Yes	Yes



Drawing name: K:\KAC_LB\20240802_Corinth Square 82 Design\CAD\PLANS\1 - LANDSCAPE.dwg PLAN May 02, 2024 3:34pm by: Mike Pink
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MISSOURI STATE BOARD OF ARCHITECTURE #001912

SCALE: AS NOTED
DESIGNED BY: CMS
DRAWN BY: CMS
CHECKED BY: SAR

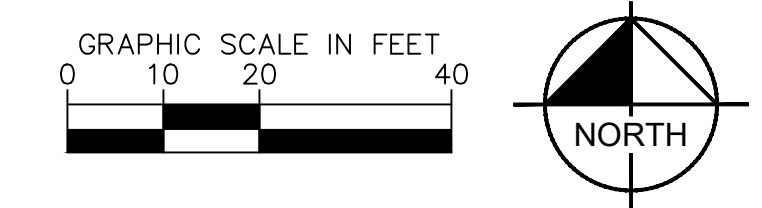
NOT FOR CONSTRUCTION

FWR
First Washington Realty

LANDSCAPE ARCHITECTURAL PLAN

CORINTH SQUARE
W 83RD STREET & MISSION ROAD
PRAIRIE VILLAGE, KANSAS 66208

ORIGINAL ISSUE: 04/12/2024
KHA PROJECT NO. 268036002
SHEET NUMBER L1





New manufactured wood slats with attached signage over backing of StoPowerwall with Sto Crack defense, painted black. Designed to relate to Phase 01 Development

Existing Shingle Roof

New Wood trellis. Designed and landscaped to relate to Phase 01 Development

New Sto-Wall Prefabricated Wood Grain Board cornice.

New Sto-Wall black cornice banding

New 3" Recessed signage area, Sto-Wall Prefabricated Wood Grain Board.

New StoPowerwall with Sto Crack Defense, painted white.

SIGNAGE

SIGNAGE

New metal signage and steel angle support. Painted black.

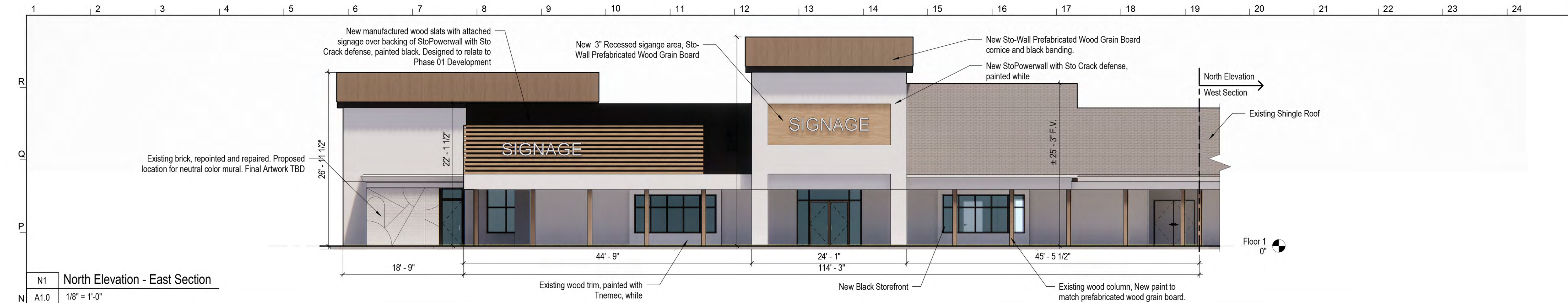
New Black Storefront

Existing brick, repointed and repaired. High performance coating, Tnemec, white

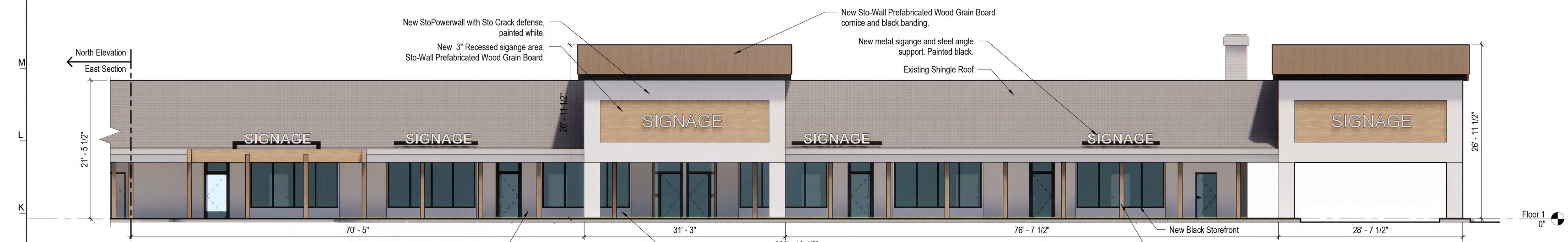
Existing wood column, New paint to match prefabricated wood grain board.







N1 North Elevation - East Section
 A1.0 1/8" = 1'-0"



J1 North Elevation - West Section
 A1.0 1/8" = 1'-0"



E1 East Elevation
 A1.0 1/8" = 1'-0"

GastingerWalker &

Architects Interior Designers Construction Managers
 817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com

CORINTH QUARTER PHASE II

Project Address
 Project City/State

ISSUED FOR:
 PLANNING REVIEW
 NOT FOR CONSTRUCTION

Drawn By CM
 Checked By KR

Exterior Elevations

A2.0

Project Number: Project Number © Copyright 2023

C:\Users\cmrae\Documents\Cornith Square Shopping Center_CDs - CENTRAL_cmrae\WGQW.rvt



N1 West Elevation
A1.0 1/8" = 1'-0"

J1 South Elevation - West Section
A1.0 1/8" = 1'-0"

E1 South Elevation - East Section
A1.0 1/8" = 1'-0"

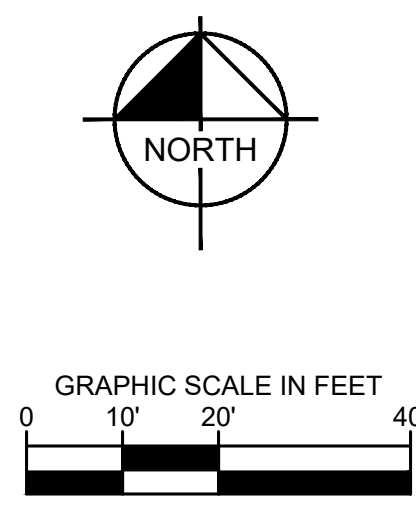
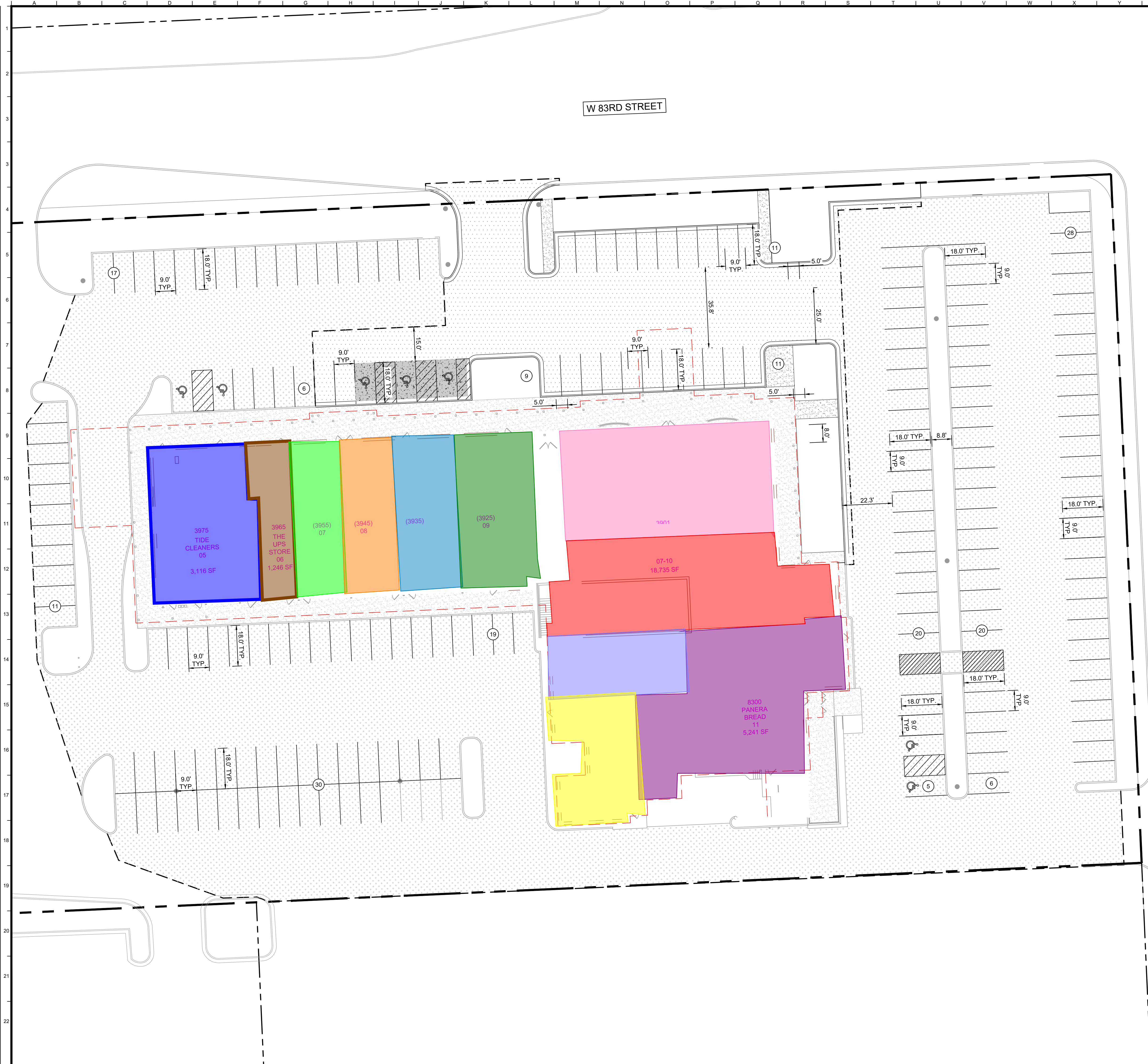
CORINTH QUARTER PHASE II
Project Address
Project City/State

ISSUED FOR:
PLANNING REVIEW
NOT FOR CONSTRUCTION

Drawn By: CM
Checked By: KR

Exterior Elevations

Drawing name: K:\KHC_LBTV\26803602_Corinth Square #2 Design\CAD\Sheet\Sheet01 - Parking Study.dwg Exhibit Apr 12, 2024 11:00am By: Maria Pak
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TOTAL SPACES AVAILABLE - EXISTING	
4 ADA	
168 SURFACE	
172 PARKING SPACES	
ZONING: CP-2	
REQUIRED PARKING:	
TOTAL SPACES REQUIRED BY CODE:	
ALL OTHER BUSINESS AND COMMERCIAL ESTABLISHMENTS NOT SPECIFIED ABOVE: ONE PARKING SPACE FOR EACH 250 SF OF GROSS AREA	
TIDE CLEANERS	
3,116 SF / 250 SF = 13 STALLS	
UPS STORE:	
1,246 SF / 250 SF = 5 STALLS	
COMMERCIAL (LIME)	
1,600 SF / 250 SF = 7 STALLS	
COMMERCIAL (ORANGE)	
1,600 SF / 250 SF = 7 STALLS	
COMMERCIAL (BLUE)	
2,100 SF / 250 SF = 9 STALLS	
COMMERCIAL (DARK GREEN)	
2,250 SF / 250 SF = 9 STALLS	
COMMERCIAL (PINK)	
4,800 SF = 20 STALLS	
COMMERCIAL (RED)	
4,600 SF / 250 SF = 19 STALLS	
COMMERCIAL (LAVENDER)	
1,850 SF / 250 SF = 8 STALLS	
COMMERCIAL (YELLOW)	
1,400 SF / 250 SF = 6 STALLS	
RESTAURANT (PANERA)	
31 STALLS (W/ 2 ADA = 78 SEATS & 12 EMPLOYEES)	
TOTAL SPACES AVAILABLE - PROPOSED	
7 ADA (6 REQUIRED)	
REQUIRED STALLS = 134	
176 SURFACE	
183 PARKING SPACES	

Kimley»Horn	<small>© 2024 KIMLEY-HORN AND ASSOCIATES, INC. 800 PETERS VILLAGE AVENUE, SUITE 100 PRAIRIE VILLAGE, KANSAS 66208 PHONE: (816) 852-0300 WWW.KIMLEY-HORN.COM LICENSED PROFESSIONAL ENGINEER, STATE OF KANSAS #001912</small>							
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FWR First Washington Realty								
PARKING STUDY								
CORINTH SQUARE W 83RD STREET & MISSION ROAD PRAIRIE VILLAGE, KANSAS 66208								
ORIGINAL ISSUE: 04/12/2024								
KHA PROJECT NO. 268036002								
SHEET NUMBER								
EX1								
							REVISIONS	
							DATE	
							BY	

DRAINAGE MEMORANDUM

April 12th, 2024

SUBJECT:

3975, 3965, 3901 & 4051 W. 83rd Street
Prairie Village, KS 66208
Johnson County, KS
Kansas Uniform Parcel #: 0460682804001002000

PROJECT AREA: 2.77 acres (Eastern most parcel of Corinth Quarter)

INTRODUCTION:

This drainage memorandum (memo) provides a summary of the existing and proposed conditions, related to the redevelopment of the existing building located at 3901 W. 83rd St. in Prairie Village, Kansas (previous address). The existing building is located on part of Corinth Quarter (8.8 acres). The project scope generally consists of interior building modifications to accommodate the new tenant of the existing multi-tenant building. Site improvements include a revised northeast parking lot, existing parking lot modifications for ADA accessibility, and sidewalk improvements. The existing building envelope generally remains unchanged, aside from some modifications to the existing facades. Since all changes to the existing site occur on the easternmost 2.77 acre lot of Corinth Quarter, this parcel is the only one evaluate as part of this memo. The overall project limits (disturbed area) is greater than the total lot area evaluated in this memo due to the mill & overlay of existing asphalt pavement on the western end of the building (additional 0.48 acres).

EXISTING CONDITIONS:

The site is located on Mission Road and north of West 83rd Street. The existing area breakdowns for the site can be found in the calculations section below. Stormwater runoff from the project area currently surface drains to an existing series of interconnected catch basins on the north and south sides of the site.

PROPOSED CONDITIONS:

The proposed redevelopment and associated site improvements will maintain the existing drainage patterns, and the existing stormwater system will continue to convey the stormwater runoff away from the site. The proposed area breakdowns for the proposed site can be found in the calculations section below.

CALCULATIONS:

Parameter	Existing		Proposed		Change	
	Area (sf)	Area (ac)	Area (sf)	Area (ac)	Area (sf)	Area (ac)
Impervious Area	80,586	1.85	80,586	1.85	+0	+0
Building	28,452	0.65	28,452	0.65	+0	+0
Pervious Area	11,587	0.27	11,587	0.27	+0	+0
Total	120,625	2.77	120,625	2.77		

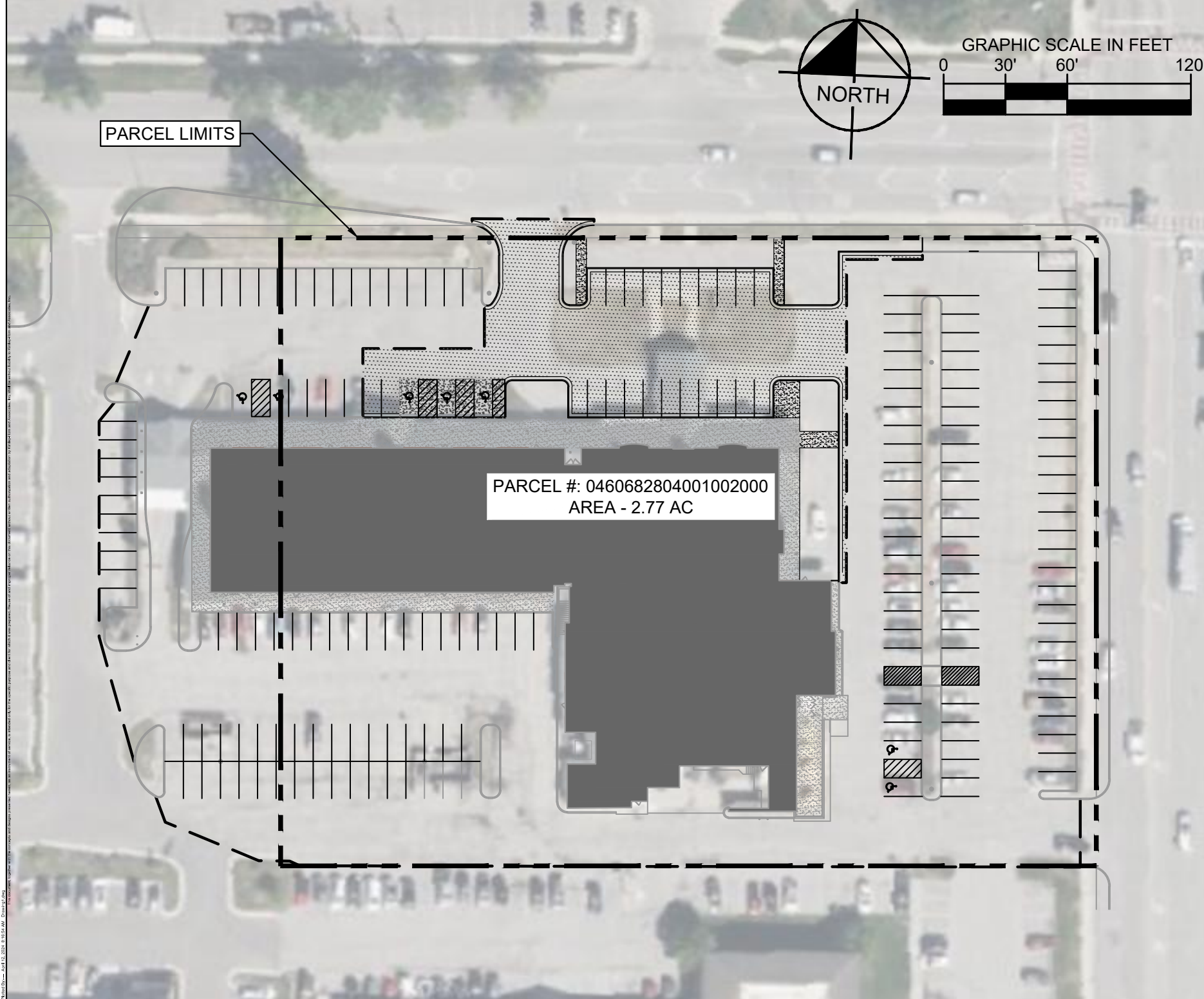
CLOSURE

As discussed above, the site impacts due to the proposed project are very minimal, and the amount of impervious surface area will remain the same resulting in the post condition producing existing peak flow rates exiting the site. Because impervious surface area is not increasing, and drainage patterns as a whole remain unchanged, no additional stormwater management facilities or improvements are being proposed.

KIMLEY-HORN AND ASSOCIATES, INC.



Tyler Wysong, P.E.



PRELIMINARY

STORMWATER MEMO LIMITS
CORINTH QUARTER PHASE II - PRAIRIE VILLAGE

Printed On: April 12, 2024, 8:16:52 AM, D:\proj\1000000000\1000000000.dwg

April 19th, 2024

NOTICE TO NEIGHBORING PROPERTY OWNERS

RE: REQUEST FOR SITE PLAN APPROVAL – CORINTH QUARTER PHASE II

Dear Neighbor,

Kimley-Horn has submitted a site plan for Corinth Quarter Phase II on behalf of First Washington Realty to the City of Prairie Village Planning Commission for review and approval. First Washington Realty intends to make parking lot improvements and update the exterior finishes to the existing building.

The development team would like to invite you to a neighborhood meeting at which time we can answer any questions you may have about the proposed improvements. The meeting will be held online at 6pm on April 23rd, 2024. Information for the online virtual meeting is listed below.

Join with a video conferencing device

<https://kimley-horn.zoom.us/j/95514228003>

Meeting ID: 955 1422 8003

Or call in (audio only)

+13126266799,,95514228003# US (Chicago)

+16469313860,,95514228003# US

Meeting ID: 955 1422 8003

We look forward to hearing your feedback.

Sincerely,

Kimley-Horn

Tyler Wysong

Cc: Andrea Hidalgo, First Washington Realty

Connor Mcrae, GastingerWalker&

Kaysa Rios, GastingerWalker&

Maria Ptak, Kimley-Horn

Corinth Quarter II – Neighborhood Meeting

Tuesday, April 23rd, 6PM

Attendees:

Clare Flemington – 8361 Somerset Drive #102

Kathleen Thomas – 8369 Somerset Drive

Meeting Notes:

Design team gave brief project overview and described how the improvements would enhance this building and aesthetically connect it to the previous phase of Corinth Quarter.

Kathleen asked if the existing tenants are to remain. Design team responded that 50% of the building is currently vacant. Tenants who are currently in the building will remain and the intent is to create an environment that will attract new tenants.

Clare and Kathleen emphasized their support of the project and the desire to see more business join Corinth Quarter through this remodel.

Development team followed up with set of development plans to both Clare & Kathleen for their review.

STAFF REPORT

TO: Prairie Village Board of Zoning Appeals
FROM: Chris Brewster, Multistudio, Planning Consultant
DATE: May 7, 2024 Planning Commission Meeting

Application: PC 2024-109

Request: Site Plan – expansion of existing building for animal care use.

Action: *A site plan requires the Planning Commission to apply the facts of the application to the standard and criteria of the ordinance, and if the criteria are met to approve the application.*

Property Address: 6301 W. 75th Street

Applicant: Brian Michner, LO Design; Short Stay, LLC

Current Zoning & Use: C-2 General Business – Animal Care

Surrounding Zoning & Use: **North:** R-1 Single-Family Residential – Single-Family Dwellings (Overland Park, KS)
East: R-1B Single-Family Residential - Single-Family Dwellings
South:R-1B Single-Family Residential - Single-Family Dwellings
West: R-3 Garden Apartment – Apartment Buildings

Legal Description: 20-12-25 N 267' E 113.4' SW 1/4 EX E 30' & EX N 30' .455 ACS M/L (*abbreviated*)

Property Area: 0.45 acres (19,768.09 s.f.)

Related Case Files: BZA 2024-03 – Side Setback Variance

Attachments: Application, site plan, lot and building plans, elevations. (related variance application)

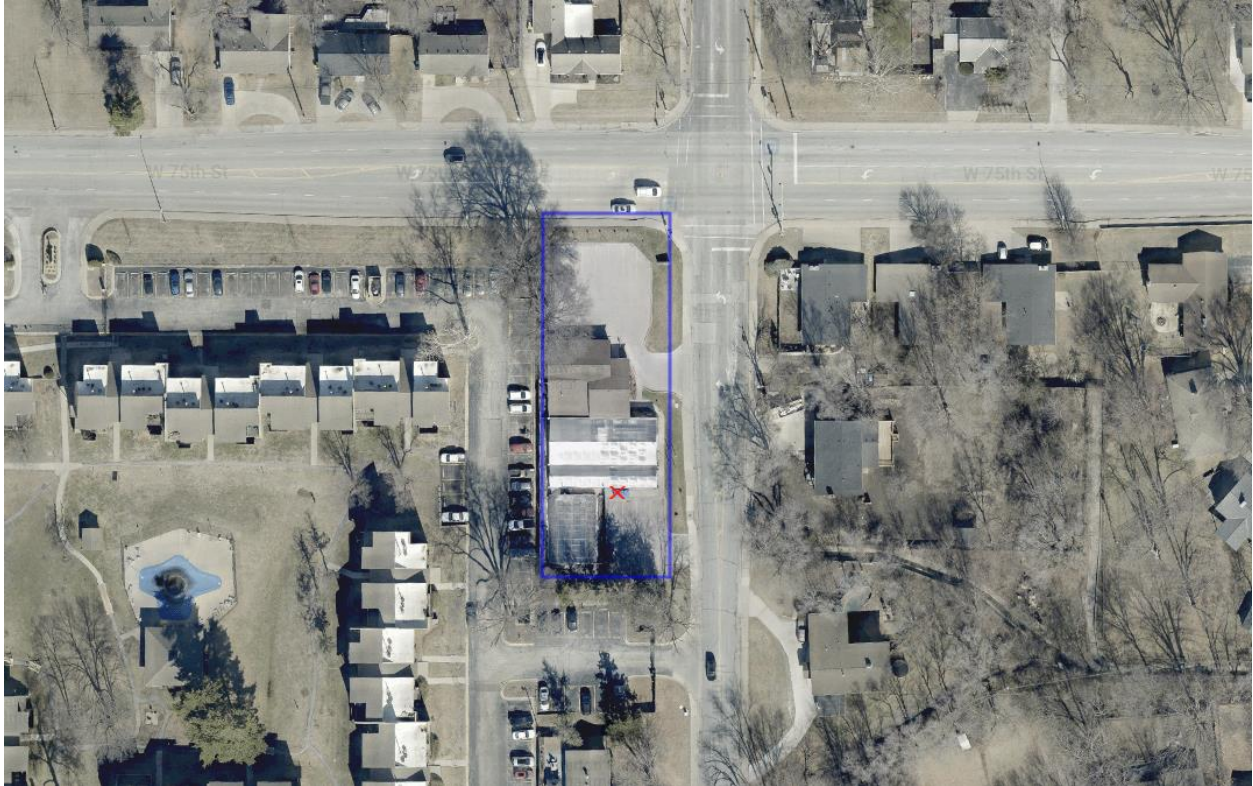
General Location – Map



Aerial Map



Aerial Site



Birdseye View



Street View



Looking south on 75th Street – front of lot



Looking west on Lamar – parking area and proposed rear building addition to the left

Background:

This application is for approval of a site plan to expand an existing building for an existing use. The business is a permitted animal care use in the C-2 zone district and is expanding to take over a portion of the premises previously used as a nursery. The application is associated with a related request for a variance to the west side setback. (Prior application considered to allow expansion of the building along the current side setback line). The proposal would remove two outbuildings (greenhouses – one of which is attached to the principal building). The removal of the buildings would allow a smaller expansion of the principal building and reconfiguration of the parking areas and a rear outside yard.

The applicant had a neighborhood meeting on April 24, 2024, as required by the Prairie Village Resident Participation Policy and has supplemented the application with background on that meeting.

Site Plan Standards & Criteria.

Expansions of buildings larger than 10% in C-2 require site plan review by the Planning Commission. The criteria are listed below, with explanations on criteria that are impacted by this application.

A. Generally.

- 1. The plan meets all applicable standards**
- 2. The plan implements any specific principles or policies of the comprehensive plan that are applicable to the area or specific project.**
- 3. The plan does not present any other apparent risks to the public health, safety, or welfare of the community.**

This application proposes expansion of a building for a animal care use, which is an allowed use in the C-2 zone district. The proposed building expansion is associated with a variance request to continue an existing non-conforming side setback on the west side of the lot. Other than this request, and except where noted specifically below with regard to other site plan criteria for specific standards, the proposal would meet all C-2 standards. The plan proposes reinvestment in an existing business and building, which reflects policies of the comprehensive plan to strengthen existing activity centers and corridors and promote neighborhood-serving businesses.

B. Site Design and Engineering.

- 1. The plan provides safe and easy access and internal circulation considering the site, the block and other surrounding connections, and appropriately balances vehicle and pedestrian needs.**
- 2. The plan provides or has existing capacity for utilities to serve the proposed development.**
- 3. The plan provides adequate stormwater runoff.**
- 4. The plan provides proper grading considering the prevailing grades and the relationship of adjacent uses.**

The plan proposes using two existing access points off Lamar Street, with now changes to the configuration of access. The removal of one of the outbuildings does permit for the two access points to be linked, and for the parking areas to be connected and reconfigured, which should allow easier internal maneuvering of parking and should not negatively impact pedestrian or vehicle traffic in the public right-of-way. The plan proposes 19 parking spaces. Based on the square footage of the proposed building the ordinance requires 13 spaces.

Since the site is an existing site and is utilizing the reconfigured parking lots, there is very little grading associated with this plan. The removal of the outbuildings and inclusion of a rear yard will result in no increase in impervious surfaces from the proposed plan.

C. Building Design.

- 1. The location, orientation, scale, and massing of the building creates appropriate relationships to the streetscape and to adjacent properties.**
- 2. The selection and application of materials will promote proper maintenance and quality appearances over time.**
- 3. The architectural design reflects a consistent theme and design approach. Specifically, the scale, proportion, forms and features, and selection and allocation of materials reflect a coordinated, unified whole.**
- 4. The building reinforces the character of the area and reflects a compatible architectural relationship to adjacent buildings. Specifically, the scale, proportion, forms and features, and materials of adjacent buildings inform choices on the proposed building.**

The plan proposes a rear addition to an existing building, so it does not significantly impact the relation to the streetscape. This is a corner lot where access and parking are primarily from the side street, and the building does have a partial corner orientation. None of the building elements that impact the relationship to streetscape (windows, entrances, architectural details) are changing, with the only changes being an extension of the east elevation further to the rear and a change in the roof structures and gables. The relationship to adjacent property is primarily addressed in the associated variance application; however, beyond those specific issues, as a single-story building it does not have significant impacts on adjacent property.

The design proposes a continuation of the current building style and materiality – a residential single-story building with a low pitch roof and wood siding. The most significant changes occur in the roof structure, but this only shifts location of gables and orientation of roof planes and is consistent with the current structure. Although there are a variety of building types in the vicinity, this scale and massing is similar to other residential structures in the area. There is no predominant architectural style or character of the buildings in the area other than some mid-century modern homes to the east along 75th street (which feature a single-story, low-pitch roof massing).

D. Landscape Design.

- 1. The plan creates an attractive aesthetic environment and improves relationships to the streetscape and adjacent properties.**
- 2. The plan enhances the environmental and ecological functions of un-built portions of the site.**
- 3. The plan reduces the exposure and adverse impact of more intense activities or components of the site or building.**

The application does not include a landscape plan. The landscape standards were adopted in 2021, and no applications or development has occurred on the site in that time. Since this is an application for reuse of an existing building, the application should make up for any current deficiencies on the site with respect to current landscape standards.

The landscape standards apply based on 4 components of sites – streetscapes and frontages, foundations, parking, and buffers. Existing plants can contribute to the standards, and landscape plans can permit plants to contribute to requirements in more than one of the above categories. This site would require the following [[Section 19.47.020](#)]:

- Streetscape and frontages – 6 large trees (1 per 40' on frontage and 1 per 80 on street side streets)
- Foundation – 2 ornamental trees and 8 shrubs; but recommend site plan exception. (1 per 25' of building frontage; and 5 per 25' of building frontage). This is an existing building frontage and there is no area for foundation landscape. No work is being proposed associated with the building frontage, and foundation landscape intent is better addressed by the right-of way parking buffer.
- Parking – 6 large trees and 50 shrubs; but recommend site plan exceptions (1 per 40' of parking perimeter; and 5 per 25' of parking perimeter). This is an existing site and there is limited parking landscape areas on the site. The street tree and parking perimeter trees can count to both requirements, and the shrub requirement should be concentrated on the right-of-way parking buffer see below.
- Buffers – the only buffer landscape requirement triggered is the screen parking areas adjacent to the right-of-way. [[Section 19.47.040](#)] A 2.5 feet to 4 feet hedge, ornamental fence screen, or combination is required. This can be accounted for by approximately 50 shrubs along the parking perimeter, located and spaced to screen the parking – particularly the head and back-end parking.

These requirements, when accounting for the recommended site plan exceptions justified by the nature of this infill site, can be met with 5 to 6 large shade trees on the frontage / streetscape perimeter and approximately 50 shrubs on the parking perimeter. A landscape plan should be submitted and approved by the staff landscape architect prior to building permits.

Recommendation:

Staff recommends approval of the site plan subject to:

1. The site plan review is contingent on the prior approval of the associated side setback variance by the Board of Zoning Adjustment. If the variance is not approved, the applicant shall be required to submit a revised site plan that complies with all building setbacks.
2. A landscape plan with approximately 5 to 6 large shade trees (species from the Prairie Village right-of-way tree list) and approximately 50 shrubs be submitted and approved by the staff landscape architect prior to building permits.



CITY OF PRAIRIE VILLAGE

The Star of Kansas

Planning Commission Application

For Office Use Only
Case No.: PC2024-109
Filing Fee:
Deposit:
Date Advertised:
Date Notices Sent:
Public Hearing Date:

Please complete this form and return with Information requested to:

Assistant City Administrator
City of Prairie Village
7700 Mission Rd.
Prairie Village, KS 66208

Applicant: BRIAN MICHENER_____ Phone Number:(610) 608-5862__

Address:7327 SUMMIT STREET, KANSAS CITY, MO, 64114 E-Mail: brian@lodesign.us

Owner: SHORT STAY 6301 LLC Phone Number: (913) 909-3520

Address: 6937 RUSSELL STREET, OVERLAND PARK Zip: 66204

Location of Property: 6301 W. 75TH STREET, PRAIRIE VILLAGE, KS, 66204

Legal Description:20-12-25 N 267' E 113.4' SW 1/4 EX E 30' & EX N 30' .455 ACS M/L PVC-0537A0006

Applicant requests consideration of the following: (Describe proposal/request in detail)

SITE PLAN REVIEW FOR PROPOSED EXPANSION OF THE TOMAHAWK ANIMAL HOSPITAL

AGREEMENT TO PAY EXPENSES

APPLICANT intends to file an application with the PRAIRIE VILLAGE PLANNING COMMISSION or the PRAIRIE VILLAGE BOARD OF ZONING APPEALS of the CITY OF PRAIRIE VILLAGE, KANSAS (City) for_____.

As a result of the filing of said application, CITY may incur certain expenses, such as publication costs, consulting fees, attorney fees and court reporter fees.

APPLICANT hereby agrees to be responsible for and to CITY for all cost incurred by CITY as a result of said application. Said costs shall be paid within ten (10) days of receipt of any bill submitted by CITY to APPLICANT. It is understood that no requests granted by CITY or any of its commissions will be effective until all costs have been paid. Costs will be owing whether or not APPLICANT obtains the relief requested in the application.



Applicant's Signature/Date

 4-18-2024

Owner's Signature/Date