FRANKLIN CITY HALL CHAMBERS
9229 W. LOOMIS ROAD
FRANKLIN, WISCONSIN

PLAN COMMISSION MEETING AGENDA ***REVISED**
Thursday, May 9, 2024 at 6:00 P.M.

A. Call to Order and Roll Call

B. Approval of Minutes

1. Approval of the regular meeting of April 18, 2024.

C. Public Hearing Business Matters

1. **Field 99, Special Use.** Request to operate a soccer training facility upon property located at 11141 W. Forest Home Avenue (704 9990 003).

2. **Safari Homes, Special Use and Site Plan.** Special Use to allow for multi-family residential use and density increase; as well as Site Plan for five multifamily buildings upon property located 3709 W College Avenue (713 9996 003).

D. Citizen comment period. Citizens may comment upon the Business Matter items set forth on this Meeting Agenda.

E. Business Matters

1. **Cape Crossing, Site Plan.** Request to allow construction of a swimming pool, pool house, driveway, fencing, fire pit, playground, landscaping, walking paths, and water fountain within Outlot No. 7 and Outlot No. 8 of the Cape Crossing Subdivision (890 1070 000 and 890 1071 000).

2. **Rock'n Food Truck Rally, Temporary Use.** Food truck event from May 30 to September 19, 2024 (Thursdays only) at the Umbrella Bar upon property located at 7005 S. Ballpark Drive (744 1003 000).

3. **Franklin Field, Temporary Use.** 2024 Milwaukee Milkmen baseball season starting on May 10, and related operations: food and beverage sales, beverage carts, food truck, graduation ceremony and candy drop; upon property located at 7035 S. Ballpark Drive (744 1003 000).

4. **Home Depot, Temporary Use.** Temporary Use application by Home Depot USA, Inc. for outdoor seasonal trees, shrubs and landscape bagged good sales, for property located at 6489 South 27th Street (714 9996 015).

5. **Boomtown, Certified Survey Map (CSM).** Request to create four residential lots upon property located at 11607 W Ryan Road (891 9989 005).

***6. Fox Glen, Temporary Use.** Temporary Use for stockpiling of dirt for up to a five-year duration during remediation of natural resource ordinance violations and development upon property located at 11027 S 27TH ST (978 9998 000) and 0 W South County Line Rd. 99978 9999 001).

F. Adjournment

The YouTube channel "City of Franklin WI" will live stream the Plan Commission meeting so the public can watch and listen to it at https://www.youtube.com/c/CityofFranklinWIGov. Any questions on this agenda may be directed to the Department of City Development's office at 414-425-4024, Monday through Friday, 8 AM – 4:30 PM.
*Supporting documentation and details of these agenda items are available at City Hall during regular business hours.

**Notice is given that a majority of the Common Council may attend this meeting to gather information about an agenda item over which they have decision-making responsibility. This may constitute a meeting of the Common Council per *State ex rel. Badke v. Greendale Village Board*, even though the Common Council will not take formal action at this meeting.

[Note: Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information, contact the City Clerk's office at 414- 425-7500.]

REMINDERS: Next Regular Plan Commission Meeting: May 23, 2024.

City of Franklin
Department of City Development

Date: May 3, 2024
To: City of Franklin Plan Commission
From: Department of City Development. Marion Ecks, AICP, Principal Planner.
RE: Plan Commission Item - 11027 S 27th Street (978 9998 000) and 0 W South County Line Road (978 9999 001) Fox Glen Temporary Use

This item is being expedited to be on the May 9, 2024 Plan Commission agenda. Packet materials including resolution and staff report for this item will be provided not later than Tuesday, May 7, 2024.

mx

City of Franklin unapproved
Plan Commission Meeting
April 18, 2024
Minutes

A. Call to Order and Roll Call

Mayor John Nelson called the April 18, 2024 Plan Commission meeting to order at 6:00 p.m. in the Council Chambers at Franklin City Hall, 9229 West Loomis Road, Franklin, Wisconsin.

Present were Mayor John Nelson, City Engineer Glen Morrow and Commissioners Kevin Haley, Michael Shawgo and Patricia Hogan. Excused was Commissioner Patrick Leon. Also, present were City Attorney Jesse Wesolowski, Principal Planner Regulo Martinez-Montilva, Principal Planner Marion Ecks and Director of Administration, Kelly Hersh.

B. Approval of Minutes – Regular Meeting of April 4, 2024

Commissioner Hogan moved and Alderwoman Day seconded a motion to approve the April 4, 2024 meeting minutes. On voice vote, all voted 'aye'; motion carried (5-0-1).

C. Public Hearing Business Matters

1. None.

D. Citizen comment period. Citizens may comment upon the Business Matter items set forth on this Meeting Agenda.

The citizen comment period opened at 6:04 p.m. and closed at 6:21 p.m. Two citizens comments.

Motion to suspend the rules and allow for citizen comments at 6:07 p.m. Motion to return to regular order at 6:21 p.m.

E. Business Matters

1. Unified Development Ordinance (UDO) rewrite. Project schedule and upcoming Task Force workshops.

Principal Planner Martinez-Montilva presented the Unified Development Ordinance rewrite.

Commissioner Hogan moved and Alderwoman Day seconded a motion to schedule the UDO rewrite workshops for the dates presented by staff and to hold such workshops at 5 p.m. On voice vote, all voted 'aye'; motion carried (5-0-1).

F. Adjournment

Commissioner Hogan moved and Commissioner Haley seconded to adjourn the meeting at 6:36 pm. On voice vote, all voted 'aye'; motion carried (5-0-1).

CITY OF FRANKLIN

REPORT TO THE PLAN COMMISSION

Meeting of May 9, 2024

Special Use Application

RECOMMENDATION: City Development Staff recommends approval of the Special Use Permit for Field 99, subject to the conditions within the draft resolution.

Project Name:	Field 99 Special Use
Property Owner:	BAST MARSHALL LLC
Applicant:	Kelley Legler, Field 99
Property Address/Tax Key Number:	11141 West Forest Home Avenue/704 9990 003
Aldermanic District:	District 6
Agent:	Kelley Legler, Field 99
Zoning District:	M-1 Limited Industrial District and C-1 Conservancy District
Use of Surrounding Properties:	M-1 zoned property to the north, south, east, and M-1, I-1 and R-3 zoned properties on the west
Application Request:	Approval of a Special Use Permit for Field 99
Staff Planner:	Nick Fuchs, Planning Associate

Project Description and Analysis

The applicant has filed a Special Use application to allow for Field 99 to operate a soccer training facility at 11141 West Forest Home Avenue.

The business use includes both indoor and outdoor youth soccer training for all ages. The interior space is approximately 1,600 square feet, and will be utilized during the months of November through April. The exterior of the site consists of a soccer field, which will be used during the months of April through November. The typical hours of operations will be Monday through Friday from 5:00 p.m. to 8:00 p.m.

According to the applicant, no more than 40 people are anticipated onsite at any given time. The outdoor sessions will have 36 players or less per session. The building will be utilized for smaller sessions consisting of 15 players or less. The building has a restroom, and a portable outdoor bathroom will be provided as well. According to the applicant there are currently eight training coaches with typically no more than three coaches onsite at any given time.

There are 18 parking spaces available between 5:00 p.m. and 8:00 p.m. The applicant has noted that the adjacent property owner, Holz Motors, has additional parking available if needed.

The outdoor field is about 60,500 square feet, which requires 16 parking spaces. The indoor facility requires three parking spaces. Considering the parking provided onsite and the overflow parking available on the adjacent property, staff does not anticipate any parking issues. Moreover, it should be considered that this type of use will have many students being dropped off and picked up.

The building was painted, but no significant exterior site or building changes were completed or are currently proposed. The applicant intends to utilize existing site lighting for their use.

The subject use is classified under Standard Industrial Classification Code No. 7991 Physical Fitness Facilities and SIC Code No. 7999, Amusement and Recreation Services, Note Elsewhere Classified, which are both allowed as a Special Use in the M-1 District.

Applicant has submitted responses to the Special Use standards for Plan Commission and Common Council review.

Staff Recommendation

The Department of City Development staff recommends approval of the Special Use Application for Field 99, subject to the conditions in the draft resolution.

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY

DRAFT 05/01/24

RESOLUTION NO. 2024-_____

A RESOLUTION IMPOSING CONDITIONS AND RESTRICTIONS FOR THE APPROVAL OF A SPECIAL USE FOR AN INDOOR AND OUTDOOR YOUTH SOCCER TRAINING BUSINESS USE UPON PROPERTY LOCATED AT 11141 WEST FOREST HOME AVENUE (KELLEY LEGLER, FIELD 99, APPLICANT) (BAST MARSHALL, LLC, PROPERTY OWNER)

WHEREAS, Kelley Legler of Field 99 having petitioned the City of Franklin for the approval of a Special Use for an indoor and outdoor youth soccer training business use upon property located at 11141 West Forest Home Avenue, zoned M-1 Limited Industrial District. The property which is the subject of the application bears Tax Key No. 704 9990 003 and is more particularly described as follows:

> Parcel 2 of Certified Survey Map No. 4056 being a part of the Northeast 1/4 of Section 6, in Township 5 North, Range 21 East, in the City of Franklin, dated May 5, 1981, and recorded in the Register of Deeds office for Milwaukee County, on July 13, 1981, on Reel 1388, Images 687 to 689 inclusive, as Document No. 5487949.

WHEREAS, such petition having been duly referred to the Plan Commission of the City of Franklin for a public hearing, pursuant to the requirements of §15-9.0103D. of the Unified Development Ordinance, and a public hearing having been held before the Plan Commission on the 9th day of May, 2024, and the Plan Commission thereafter having determined to recommend that the proposed Special Use be approved, subject to certain conditions, and the Plan Commission further finding that the proposed Special Use upon such conditions, pursuant to §15-3.0701 of the Unified Development Ordinance, will be in harmony with the purposes of the Unified Development Ordinance and the Comprehensive Master Plan; that they will not have an undue adverse impact upon adjoining property; that they will not interfere with the development of neighboring property; that they will be served adequately by essential public facilities and services; that they will not cause undue traffic congestion; and that they will not result in damage to property of significant importance to nature, history or the like; and

WHEREAS, the Common Council having received such Plan Commission recommendation and also having found that the proposed Special Use, subject to conditions, meet the standards set forth under §15-3.0701 of the Unified Development Ordinance.

NOW, THEREFORE, BE IT RESOLVED, by the Mayor and Common Council of the City of Franklin, Wisconsin, that the petition of Kelley Legler, Field 99, for the approval of a Special Use for the property particularly described in the preamble to this Resolution, be and the same is hereby approved, subject to the following conditions and restrictions:

1. That this Special Use is approved only for the use of the subject property by Kelley Legler, Field 99, successors and assigns, for an indoor and outdoor youth soccer training business use, which shall be developed in substantial compliance with, and operated and maintained by Kelley Legler, Field 99, pursuant to those plans date-stamped, _____, 2024 and annexed hereto and incorporated herein as Exhibit A.

2. Kelley Legler, Field 99, successors and assigns, shall pay to the City of Franklin the amount of all development compliance, inspection and review fees incurred by the City of Franklin, including fees of consults to the City of Franklin, for the Kelley Legler, Field 99 Special Use, within 30 days of invoice for same. Any violation of this provision shall be a violation of the Unified Development Ordinance, and subject to §15-9.0502 thereof and §1-19 of the Municipal Code, the general penalties and remedies provisions, as amended from time to time.

3. The approval granted hereunder is conditional upon the Kelley Legler, Field 99 Special Use for the property located at 11141 West Forest Home Avenue: (i) being in compliance with all applicable governmental laws, statutes, rules, codes, orders and ordinances; and (ii) obtaining all other governmental approvals, permits, licenses and the like, required for and applicable to the project to be developed and as presented for this approval.

BE IT FURTHER RESOLVED, that in the event Kelley Legler, Field 99, successors or assigns, or any owner of the subject property, does not comply with one or any of the conditions and restrictions of this Special Use Resolution, following a ten (10) day notice to cure, and failure to comply within such time period, the Common Council, upon notice and hearing, may revoke the Special Use permission granted under this Resolution.

BE IT FURTHER RESOLVED, that any violation of any term, condition or restriction of this Resolution is hereby deemed to be, and therefore shall be, a violation of the Unified Development Ordinance, and pursuant to §15-9.0502 thereof and §1-19 of the Municipal Code, the penalty for such violation shall be a forfeiture of no more than $2,500.00, or such other maximum amount and together with such other costs and terms as may be specified therein from time to time. Each day that such violation continues shall be a separate violation. Failure of the City to enforce any such violation shall not be a waiver of that or any other violation.

BE IT FURTHER RESOLVED, that this Resolution shall be construed to be such Special Use Permit as is contemplated by §15-9.0103 of the Unified Development Ordinance.

BE IT FURTHER RESOLVED, pursuant to §15-9.0103G. of the Unified Development Ordinance, that the Special Use permission granted under this Resolution shall

be null and void upon the expiration of one year from the date of adoption of this Resolution, unless the Special Use has been established by way of the issuance of an occupancy permit for such use.

BE IT FINALLY RESOLVED, that the City Clerk be and is hereby directed to obtain the recording of a certified copy of this Resolution in the Office of the Register of Deeds for Milwaukee County, Wisconsin.

Introduced at a regular meeting of the Common Council of the City of Franklin this 21st day of May, 2024.

Passed and adopted at a regular meeting of the Common Council of the City of Franklin this 21st day of May, 2024.

APPROVED:

_____
John R. Nelson, Mayor

ATTEST:

_____
Shirley J. Roberts, City Clerk

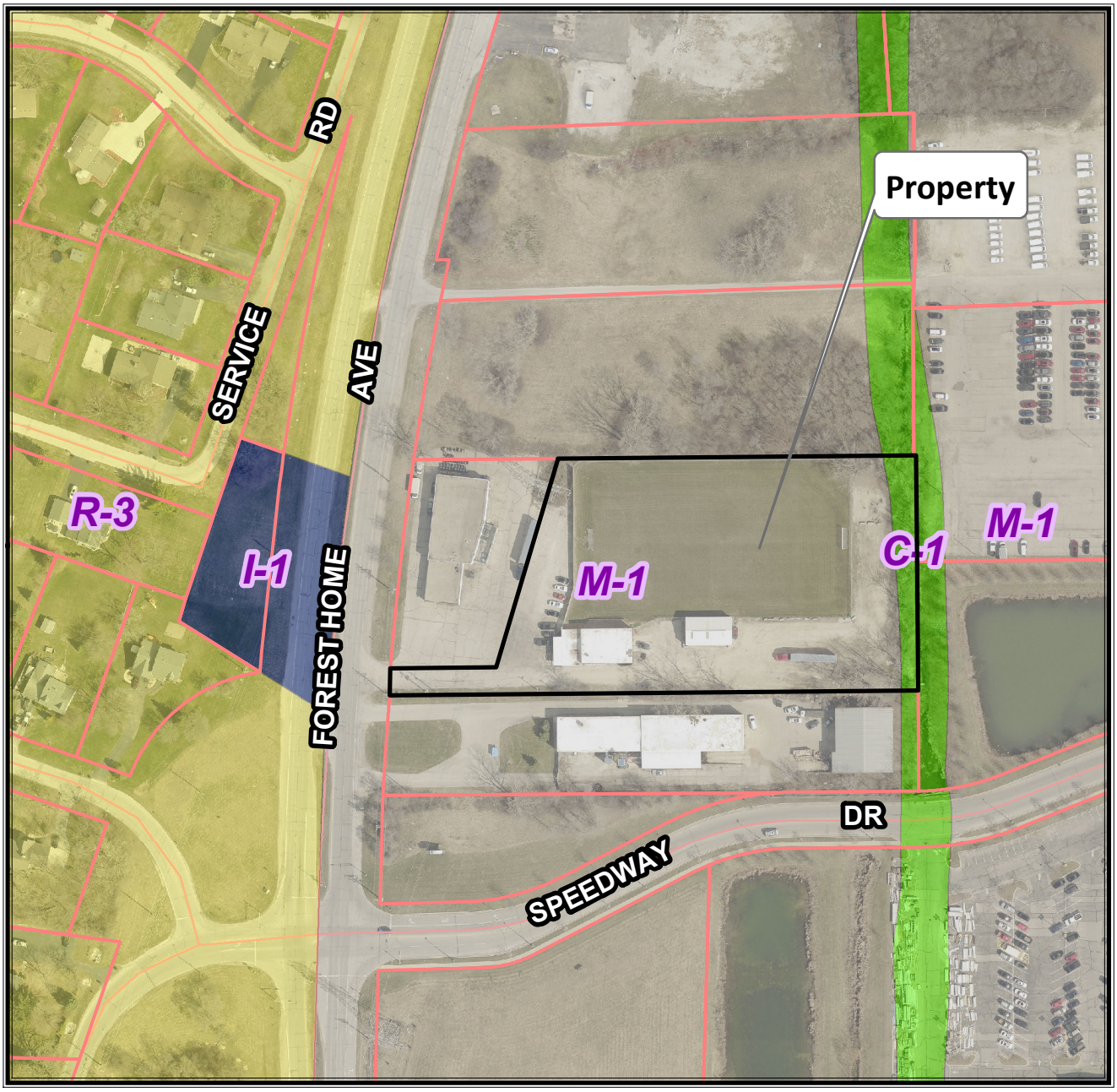
AYES _____ NOES _____ ABSENT _____

EXHIBIT A

ATTACHED HERETO

Franklin
WISCONSIN

11141 W. Forest Home Ave.
TKN 704 9990 003



Planning Department
(414) 425-4024

0 115 230 460 Feet

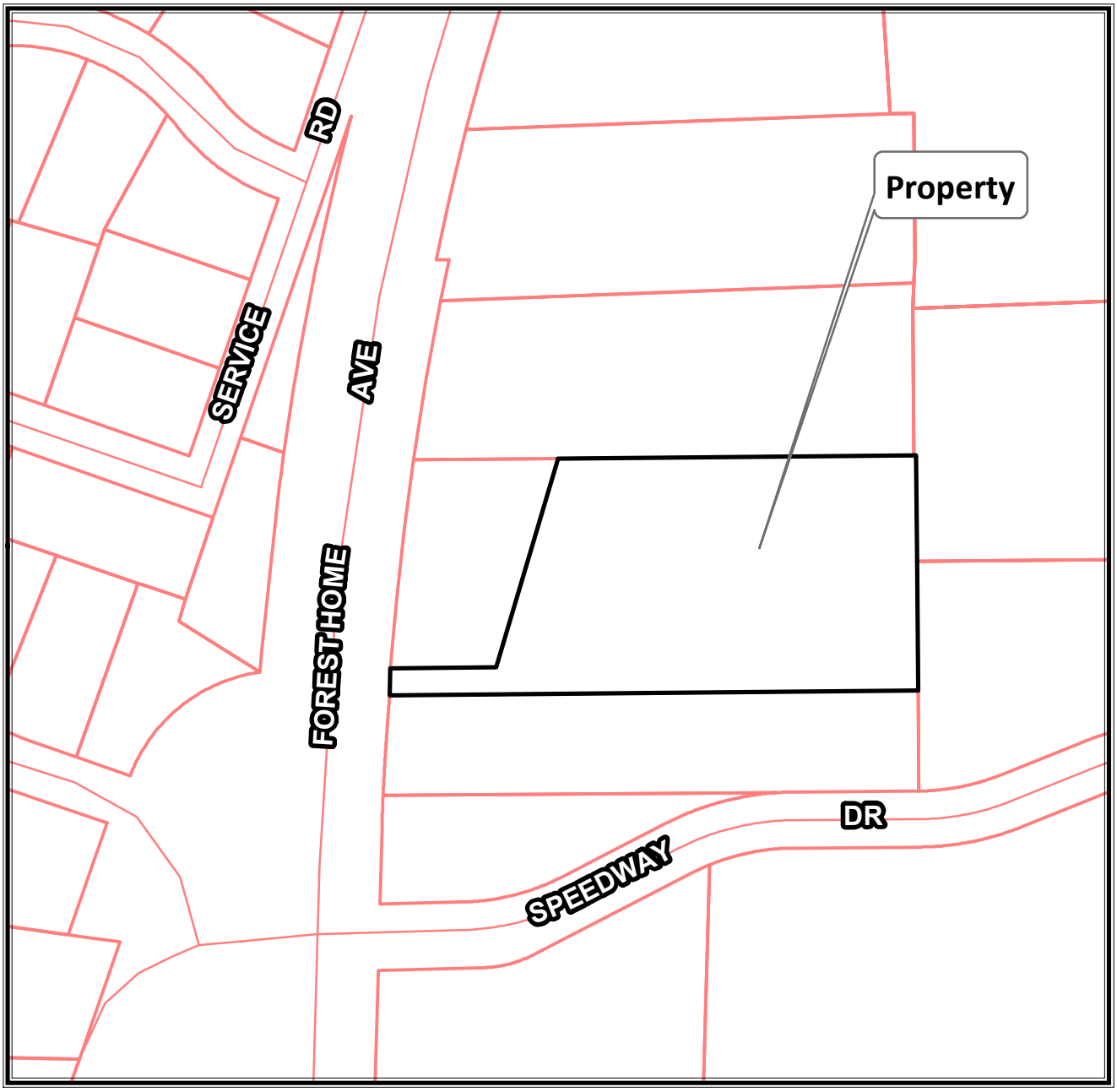
NORTH

2021 Aerial Photo

This map shows the approximate relative location of property boundaries but was not prepared by a professional land surveyor. This map is provided for informational purposes only and may not be sufficient or appropriate for legal, engineering, or surveying purposes.

Franklin
WISCONSIN

11141 W. Forest Home Ave.
TKN 704 9990 003



Planning Department
(414) 425-4024

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NORTH

2021 Aerial Photo

This map shows the approximate relative location of property boundaries but was not prepared by a professional land surveyor. This map is provided for informational purposes only and may not be sufficient or appropriate for legal, engineering, or surveying purposes.

FIELD 99
www.field99.com
kelley@field99.com
11141 W FOREST HOME AVE
FRANKLIN, WI 53132

Field 99 is a soccer training field and facility available to all ages of athletes in soccer clubs throughout the southeastern Milwaukee area. This company offers high level training for athletes to increase individual performance while working with professional soccer players as coaches. Owned and operated by soccer player Andre Hayne, partnering with soccer parents within the community, this company provides a service locally, where families travel to Madison and Green Bay area for elite soccer training.

Field 99 offers soccer training indoors during the months of November - April (1600 sq ft garage) and outdoors during the months April - November (established grass field). The exterior is surrounded by fencing and netting to ensure proper safety for patrons. Indoor and outdoor public bathrooms available for our clientele to use year round.

11141 W FOREST HOME AVENUE FRANKLIN, WI 53132
FIELD 99

DIVISION 15-3.0700
SPECIAL USE STANDARDS AND REGULATIONS

SECTION 15-3.0701 GENERAL STANDARDS FOR SPECIAL USES

A. ***General Standards*****.** No special use permit shall be recommended or granted pursuant to this Ordinance unless the applicant shall establish the following:

1. **Ordinance and Comprehensive Master Plan Purposes and Intent.** The proposed use and development will be in harmony with the general and specific purposes for which this Ordinance was enacted and for which the regulations of the zoning district in question were established and with the general purpose and intent of the City of Franklin Comprehensive Master Plan or element thereof.

   Response: Our facility consists of a big grass outdoor space, a small warehouse, two offices, one bathroom and a parking lot. The business purpose is to run soccer training sessions for young athletes around the community. The outdoor space features roughly 3 acres of grass space that will allow us to run soccer sessions with plenty of space without having the need for any changes for 36 players or less per session. The indoor space will be used for smaller sessions of 15 or less players during the winter/cold period. We have a bathroom and a portable outdoor bathroom for our clientele.

2. **No Undue Adverse Impact.** The proposed use and development will not have a substantial or undue adverse or detrimental effect upon or endanger adjacent property, the character of the area, or the public health, safety, morals, comfort, and general welfare and not substantially diminish and impair property values within the community or neighborhood.

   Response: No major changes necessary for running our services. The small warehouse was gutted to amply space used, and walls/ceilings painted. No other major change will be put in effect.

3. **No Interference with Surrounding Development.** The proposed use and development will be constructed, arranged, and operated so as not to dominate the immediate vicinity or to interfere with the use and development of neighboring property in accordance with the applicable zoning district regulations.

   Response: No major changes necessary for running our services. No other major change will be put in effect.

4. **Adequate Public Facilities.** The proposed use and development will be served adequately by essential public facilities and services such as streets, public utilities including public water supply system and sanitary sewer, police and fire protection, refuse disposal, public parks, libraries, schools, and other public facilities and utilities or the applicant will provide adequately for such facilities.

Response: All public facilities already provided by Go Riteway Transportation, our landlord.

5. **No Traffic Congestion.** The proposed use and development will not cause undue traffic congestion nor draw significant amounts of traffic through residential streets. Adequate measures will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

Response: The road where the business building is located won't have much increase in traffic, as we won't have more than 40 people at the same time. Our majority service hours are M-F after 5pm and late, which has less traffic.

6. **No Destruction of Significant Features.** The proposed use and development will not result in the destruction, loss, or damage of any natural, scenic, or historic feature of significant importance.

Response: No major changes necessary for running our services. No other major change will be put in effect.

7. **Compliance with Standards.** The special use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the Common Council pursuant to the recommendations of the Plan Commission. The proposed use and development shall comply with all additional standards imposed on it by the particular provision of this Division and Ordinance authorizing such use.

Response: We will comply with the standards of such regulations recommended by the Plan Commission.

B. ***Special Standards for Specified Special Uses*.** When the zoning district regulations authorize a special use in a particular zoning district and that special use is indicated as having special standards, as set forth in Section 15-3.0702 and 15-3.0703 of this Division, a Special Use Permit for such use in such zoning district shall not be recommended or granted unless the applicant shall establish compliance with all such special standards.

Response: We will comply with the special standards of such regulations recommended by the Plan Commission.

C. ***Considerations***. In determining whether the applicant's evidence establishes that the foregoing standards have been met, the Plan Commission and the Common Council shall consider the following:

1. **Public Benefit**. Whether and to what extent the proposed use and development at the particular location requested is necessary or desirable to provide a service or a facility that is in the interest of the public convenience or that will contribute to the general welfare of the neighborhood or community.

Response: This is a new business providing additional soccer training for youth players around the community. Many soccer clubs exist around us and perform their own training but as a club neutral facility, we will be able to provide additional services to all the players from around the area and clubs. We welcome all ages to participate in our facility and become a community safe space for children to feel comfortable and welcome, all within our fenced in field and facility. The coaches are mentors and public figures within the community and are recognized within the soccer community. Field 99 wants to give back and coordinate with non profit organizations to create opportunities for youth.

2. **Alternative Locations**. Whether and to what extent such public goals can be met by the location of the proposed use and development at some other site or in some other area that may be more appropriate than the proposed site.

Response: There are no outdoor fields and warehouse space within Franklin already established that can offer indoor and outdoor training for youth soccer, without building.

3. **Mitigation of Adverse Impacts**. Whether and to what extent all steps possible have been taken to minimize any adverse effects of the proposed use and development on the immediate vicinity through building design, site design, landscaping, and screening.

Response: No changes will be made that will affect any mitigation.

4. **Establishment of Precedent of Incompatible Uses in the Surrounding Area**. Whether the use will establish a precedent of, or encourage, more intensive or incompatible uses in the surrounding area.

Response: The Field 99 field and facility will encourage more businesses that coordinate with our organization as sponsors, creating more awareness, revenue and support.

Franklin Department of City Development

APPLICANT: Kelley Legler, Field 99
SUBJECT PROPERTY: 11141 West Forest Home Avenue, property zoned M-1 Limited Industrial District
TAX KEY NUMBER: 704 9990 003

1. How many employees are there?
Field 99 has eight training coaches that consult for Field 99. At most, we have three coaches on site offering services for clients in soccer training.

2. How many striped parking spaces are provided for this use?
Go Riteway offers 18 parking spaces for their bus drivers during the day. Our hours of operation are evenings 5PM - 8PM and we use these spaces. Often our youth clients are dropped off / picked up to avoid any traffic or congestion. Holz Motors owns the joining lot and their manager has indicated if we need more spaces (40 in their parking lot) we can use as overflow.

3. Is there existing or proposed exterior lighting? Will portable lights or other types of temporary lighting be used?
Go Riteway added exterior lighting for their transportation lot which we use for exterior lighting. No additional lighting is needed.

4. How late will the facility be open? Services are until 8PM with staff on site until 9PM.

5. Will the soccer field ever be used to host games or other types of events? Our soccer fields are not regulation size and we will not be hosting competitive events to the public. Any events on the soccer field are for clients and for recreational / training use.

6. Is Field 99 an LLC or corporation or other type of entity?
Field 99 is not an LLC, it is an established partnership, currently.

7. Please provide a site plan, map or aerial that shows the property with the Plan Commission submittal.

Field 99
11141 W Forest Home Avenue
Franklin, WI 53132
www.field99.com

CITY OF FRANKLIN

REPORT TO THE PLAN COMMISSION

Meeting of May 9, 2024

SPECIAL USE & SITE PLAN

RECOMMENDATION: Department of City Development staff has no objections to the Special Use request to allow for multi-family residential use. However, staff does not support the request for density increase due to concerns with the "adequate public facilities" standard.

Department of City Development staff has no objections to the Site Plan provided the Special Use is recommended for approval.

Project name:	**Lake Grove Place, a multifamily development**
Property Owner:	M. Manzur Hassan Khan, Ali Siddiqui, Et Al
Applicant:	Safari Homes Franklin, LLC
Agent:	Gregory Schumacher. Cityscape Architecture
Property Address/TKN:	3709 W. College Avenue / 713 9996 003
Aldermanic District:	District 3
Zoning District:	R-8 Multiple-Family Residence District
Staff Planner:	Régulo Martínez-Montilva, AICP, CNUa, Principal Planner
Submittal date:	01-19-2024
Application number:	PPZ24-0013/14

INTRODUCTION

The applicant is proposing a condominium multifamily development with 38 units.

Special Use

Multifamily development in the R-8 zoning district is subject to approval of a Special Use permit. The as of right yield of this site is up to 24 dwelling units per applicant's calculations, the applicant is requesting a density increase to allow for 38 units.

It is worth noting that a Special Use permit is required in the R-8 Multiple-Family Residence District for all residential uses: single-family, two-family or multi-family.

Site Plan

The applicant also submitted a Site Plan for five multifamily buildings and exterior improvements such as internal drives, off-street parking, landscape, outdoor lighting and stormwater management facilities.

Please note:

- Staff recommendations are *underlined and in italics*, and included in the attached resolution as conditions of approval.
- Staff suggestions are only underlined, and not included in the attached resolution.

UNIFIED DEVELOPMENT ORDINANCE REQUIREMENTS

Special Use and Site Plan Applications are subject to the following provisions of the Unified Development Ordinance (UDO):

- §15-3.0701 General Standards for Special Uses
- §15-7.0102 Principles and Standards of Review, Site Plans

UDO §15-3.0702 Detailed Standards for Special Uses in Residential Districts is not applicable to multi-family developments.

General standards for Special Uses (§15-3.0701)

Summary of Standard	Staff's Finding
1. Harmony with UDO and Comprehensive Plan purposes and intent.	The proposed development is consistent with the comprehensive plan as this site is designated as residential-multifamily in the future land use map of the *City of Franklin 2025 Comprehensive Master Plan.* This site was previously residential single-family and designated as residential-multifamily by Ordinance No. 2017-2250.
2. No Undue Adverse Impact.	City Development staff does not anticipate any "undue adverse impact" to adjacent properties because the applicant is proposing landscape screening along property boundaries. Additionally, abutting properties (east and west) are also zoned R-8 and used for multifamily development (except 3715 W. College Avenue which is currently a single-family home).
3. No Interference with Surrounding Development.	The proposed dwellings are designed to meet the maximum permitted height and minimum setbacks required in the R-8 zoning district, except for residential density. The site abuts Grobschmidt Park to the south, City Development staff forwarded the plans to Milwaukee County Parks for feedback. See Milwaukee County Parks comments in memorandum dated February 9, 2024: "In all, Milwaukee County Parks has no objection to the proposed development. Should plans be modified through the course of your review, please provide them to Parks for additional input.". *City Development staff recommends that the applicant must address comments from Milwaukee County Parks in memorandum dated February 9, 2024, to the satisfaction of Milwaukee County Parks, prior to the issuance of building permits.*
4. Adequate Public Facilities.	The proposed development will be served by public water supply and sanitary sewer service. It is noted that access to public water and sewer is a requirement for residential development in the R-8 zoning district per UDO Section 15-3.0209.A "District Intent". **Water supply:** The applicant is working on getting approval of water main extension permits from the City of Milwaukee as indicated in

	application materials (email dated March 25, 2024). *City Development staff recommends that the applicant must obtain approval of watermain extension permits prior to the issuance of building permits.* **Sanitary sewer:** subject to City of Franklin, Engineering Department's approval. *City Development staff recommends that the applicant must obtain approval from the Engineering Department for grading, stormwater management, utilities and erosion control, prior to any land disturbance activity.* **Fire protection:** Per Fire Department comments: "Given existing Fire/EMS station locations and current fire department staffing levels, the cumulative effect of this and several other residential developments will pose a challenge to maintaining industry standard emergency response times to fire and medical emergencies". **Refuse disposal:** Applicant stated that "trash will be in trash bins and kept in unit garages". No trash dumpster is anticipated for this site. **Schools:** City Development staff forwarded this proposal to the Franklin Public Schools and received the following feedback: "Franklin Public Schools has no objection to this proposed change in density for residential housing" (January 31, 2024).
5. No Traffic Congestion.	The proposed development would have access to College Avenue which is under Milwaukee County jurisdiction. *City Development staff recommends that the applicant must obtain approval from Milwaukee County for access to College Avenue, prior to the issuance of building permits.* The applicant has been in contact with Milwaukee County regarding the access connection but the applicant has not submitted a letter of approval to the Department of City Development. City Development staff didn't request a Traffic Impact Analysis for this development.
6. No Destruction of Significant Features.	There are no protected natural resources on site per letter submitted by the applicant. The wooded area in the south portion of the site is too small to meet the definition of woodland and the applicant is not proposing to impact this area anyway.
7. Compliance with Standards.	With the exception of the requested density increase, the proposed development complies with the requirements of the R-8 Multiple-Family Residence District for multifamily development (Option 2) such as: open space ratio, building setbacks, building height, dwelling unit size, required parking, landscaping and lighting.

	With regards to the requested density increase, the proposed landscape plan complies with the quantity of plantings required for the proposed number of units. City Development staff had comments about parking, landscape, lighting and architecture. However, the applicant has addressed these comments as noted in responses to staff comments memorandum.

Principles and standards of review of Site Plans (§15-7.0102)

Summary of Standard	Staff's Finding
A. Conformity of Use to Zoning District.	Multi-family development residential use requires a Special Use permit in the R-8 zoning district. City Development staff has no objections to the proposed use as long as the request for density increase is granted by the Common Council following recommendation of the Plan Commission.
B. Dimensional Requirements.	The proposed development complies with the dimensional requirements for the R-8 zoning district, Option 2, set forth in UDO Table 15-3.0209A (except density).
C. Site Intensity and Site Capacity Calculations to be Reviewed.	The applicant submitted Site Intensity and Capacity Calculations, the maximum yield of this site is 24.7 dwelling units, while the applicant is proposing 38 units. This request is for consideration of the Plan Commission and the Common Council.
D. Use and Design Provisions.	The proposed development complies with off street parking requirements (UDO Division 15-5.0200), required landscaping (15-5.0300), exterior lighting (15-5.0400) and architectural standards (15-7.0802). The applicant has addressed City Development Department comments as noted in responses to staff comments memorandum.
E. Relation to Existing and Proposed Streets and Highways.	The proposed development would have access to College Avenue which is under Milwaukee County jurisdiction. *City Development staff recommends that the applicant must obtain approval from Milwaukee County for access to College Avenue, prior to the issuance of building permits.*
F. Impacts on Surrounding Uses.	City Development staff does not anticipate major adverse impacts to surrounding uses because the applicant is proposing landscape screening and the illumination levels at the site boundaries comply with the UDO.
G. Natural Resource Features Protection.	There are no protected natural resources on site.

H. Required Landscaping and Landscape Bufferyards.	Landscape bufferyard easements are not required for this development as the abutting properties are also zoned R-8. City Development staff reviewed the proposed landscape plans and provided comments to the applicant in memorandum dated February 9. The applicant has addressed all comments regarding the landscape plans.
I. Provision of Emergency Vehicle Accessibility.	Fire Department commented that "Parking restrictions will likely be required on the complex access roads to maintain clearance for fire apparatus / emergency vehicles". The applicant responded to this comment: "signs will be placed on both sides".
J. Building Location.	The location of proposed structures meets required building setbacks. Per ALTA survey dated March 26, 2024. The proposed structures would not encroach into existing easements.
K. Location and Design of On-Site Waste Disposal and Loading Facilities.	Applicant stated that "trash will be in trash bins and kept in unit garages". No trash dumpster is anticipated for this site.
L. Consistency with Intent of UDO.	The proposed development is consistent with the intent of the R-8 zoning district (UDO Section 15-3.0209), specifically: • It would be served by public sanitary sewer and water supply facilities. • The proposed design provides open space, approx. 49% of the site.
M. Consistency with Intent of Comprehensive Plan.	The proposed development is consistent with the comprehensive plan as this site is designated as residential-multifamily.
N. Determination of "Suitability" of Site.	Pursuant to UDO Section 15-7.0103G, City Development staff requested the applicant to submit a geotechnical report for this proposal, such report is attached to the meeting packet. City Development staff has no objections to the proposed development provided the applicant designs the project following the recommendations of the geotechnical engineering report dated March 28, 2024.

STAFF RECOMMENDATION

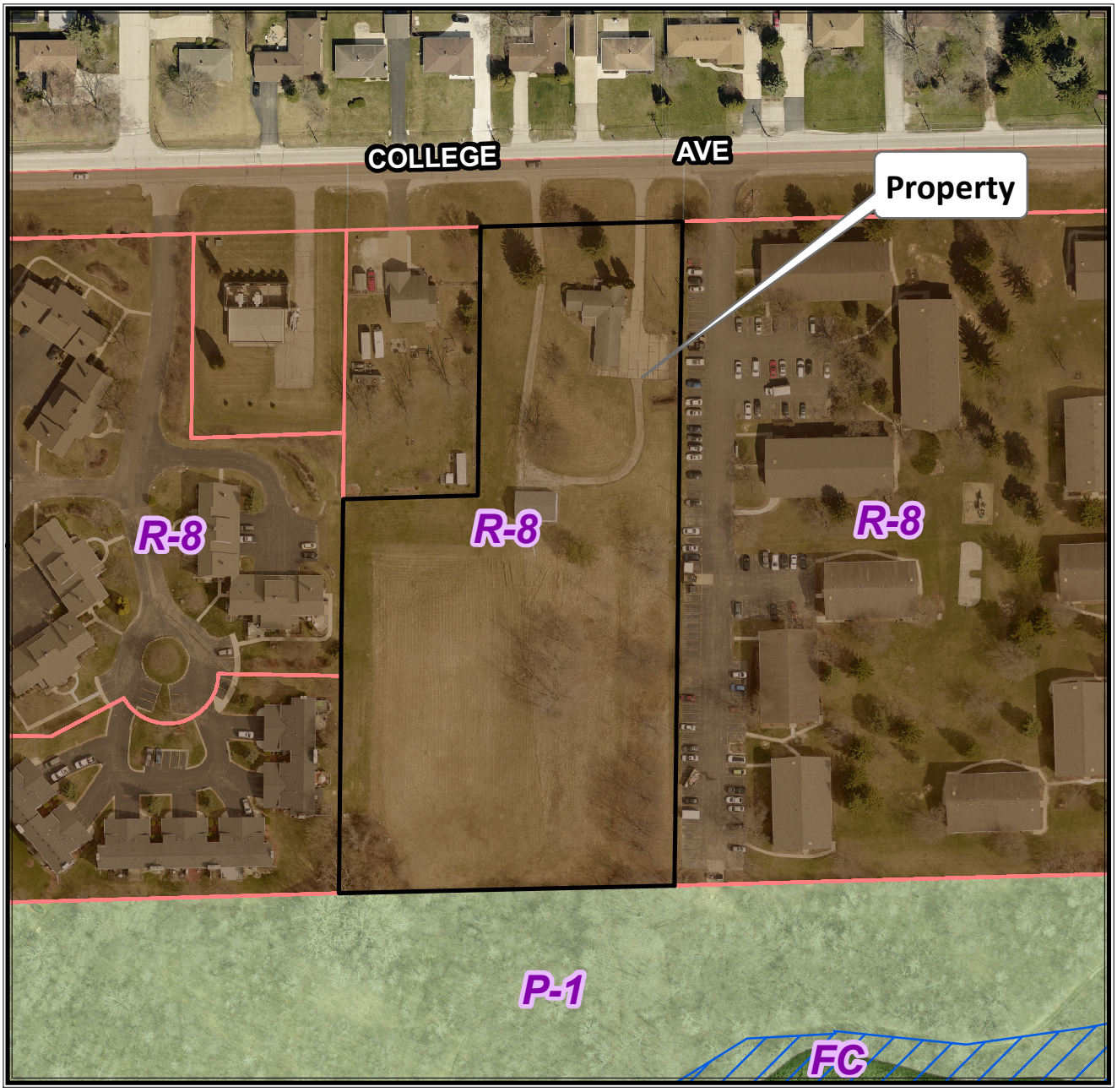
Special Use: Department of City Development staff has no objections to the proposed multi-family residential use. However, staff does not support the requested density increase due to concerns from the Fire Department. If the Plan Commission should recommend approval, staff recommends the following conditions of approval:

- The applicant must address comments from Milwaukee County Parks in memorandum dated February 9, 2024, to the satisfaction of Milwaukee County Parks, prior to the issuance of building permits.
- The applicant must obtain approval of watermain extension permits from the City of Milwaukee, prior to the issuance of building permits.
- The applicant must obtain approval from the Engineering Department for grading, stormwater management, utilities and erosion control, prior to any land disturbance activity.
- The applicant must obtain approval from Milwaukee County for access to College Avenue, prior to the issuance of building permits.
- The applicant is responsible for submitting a separate application for a Condominium Plat to the Department of City Development, subject to Common Council approval.

Site Plan: Department of City Development staff has no objections to the Site Plan provided the Special Use is recommended for approval.

Franklin
WISCONSIN

3709 W. College AVe.
TKN 713 9996 003



Planning Department
(414) 425-4024

0 95 190 380 Feet

NORTH

2021 Aerial Photo

This map shows the approximate relative location of property boundaries but was not prepared by a professional land surveyor. This map is provided for informational purposes only and may not be sufficient or appropriate for legal, engineering, or surveying purposes.

Franklin
WISCONSIN

3709 W. College AVe.
TKN 713 9996 003

Planning Department
(414) 425-4024

0 95 190 380 Feet

NORTH

2021 Aerial Photo

This map shows the approximate relative location of property boundaries but was not prepared by a professional land surveyor. This map is provided for informational purposes only and may not be sufficient or appropriate for legal, engineering, or surveying purposes.

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY

[Draft 4-10-24]

RESOLUTION NO. 2024-_____

A RESOLUTION IMPOSING CONDITIONS AND RESTRICTIONS FOR THE APPROVAL OF A SPECIAL USE FOR LAKE GROVE PLACE, A MULTI-FAMILY DEVELOPMENT WITH 38 DWELLING UNITS UPON PROPERTY LOCATED AT APPROXIMATELY 3709 W COLLEGE AVENUE (SAFARI HOMES FRANKLIN LLC)

WHEREAS, Safari Homes Franklin LLC having petitioned the City of Franklin for the approval of a Special Use to allow for a 38-unit multi-family residential development in the R-8 Multiple Family Residence District, upon property located at approximately 3709 W College Avenue more particularly described as follows:

> Parcel 1 of CERTIFIED SURVEY MAP NO. 6537, being part of the Northeast 1/4 of the Northwest 1/4 of Section 1, Town 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin excepting therefrom the following: Beginning at the southeast corner of Parcel 2 as recorded in said Certified Survey Map No. 6537; thence South 88º 32' 26" West along the southerly line of said Parcel 2, 132.00 feet to the southwest corner of said Parcel 2; thence South 00º 35' 36" West along the westerly line of said Parcel 1, 136.00 feet; thence North 88º 32' 28" East 132.00 feet; thence North 00º 35' 36" East 136.00 feet to the place of beginning. Containing a net area of 4.1204 acres or 179,487 square feet or land.

WHEREAS, such petition having been duly referred to the Plan Commission of the City of Franklin for a public hearing, pursuant to the requirements of §15-9.0103D. of the Unified Development Ordinance, and a public hearing having been held before the Plan Commission on the _____, 2024, and the Plan Commission thereafter having determined to recommend that the proposed Special Use be approved, subject to certain conditions, and the Plan Commission further finding that the proposed Special Use upon such conditions, pursuant to §15-3.0701 of the Unified Development Ordinance, will be in harmony with the purposes of the Unified Development Ordinance and the Comprehensive Master Plan; that it will not have an undue adverse impact upon adjoining property; that it will not interfere with the development of neighboring property; that it will be served adequately by essential public facilities and services; that it will not cause undue traffic congestion; and that it will not result in damage to property of significant importance to nature, history or the like; and

WHEREAS, the Common Council having received such Plan Commission recommendation and also having found that the proposed Special Use, subject to conditions, meets the standards set forth under §15-3.0701 of the Unified Development Ordinance.

NOW, THEREFORE, BE IT RESOLVED, by the Mayor and Common Council of the City of Franklin, Wisconsin, that the petition of Safari Homes Franklin LLC for the approval

of a Special Use for the property particularly described in the preamble to this Resolution, be and the same is hereby approved, subject to the following conditions and restrictions:

1. That this Special Use is approved only for the use of the subject property by Safari Homes Franklin LLC, successors and assigns, as a 38-unit multi-family residential development ("Lake Grove Place"), in the R-8 Multiple Family Residence District, which shall be constructed, operated and maintained by Safari Homes Franklin LLC, pursuant to those plans date-stamped April 9, 2024 and annexed hereto and incorporated herein as Exhibit A.

2. Safari Homes Franklin LLC, successors and assigns, shall pay to the City of Franklin the amount of all development compliance, inspection and review fees incurred by the City of Franklin, including fees of consults to the City of Franklin, for the Lake Grove Place multi-family residential development, within 30 days of invoice for same. Any violation of this provision shall be a violation of the Unified Development Ordinance, and subject to §15-9.0502 thereof and §1-19 of the Municipal Code, the general penalties and remedies provisions, as amended from time to time.

3. The approval granted hereunder is conditional upon Safari Homes Franklin LLC, and the multi-family residential development use, for the property located at 3709 W College Avenue: (i) being in compliance with all applicable governmental laws, statutes, rules, codes, orders and ordinances; and (ii) obtaining all other governmental approvals, permits, licenses and the like, required for and applicable to the project to be developed and as presented for this approval.

4. The applicant must address comments from Milwaukee County Parks in memorandum dated February 9, 2024, to the satisfaction of Milwaukee County Parks, prior to the issuance of building permits.

5. The applicant must obtain approval of watermain extension permits from the City of Milwaukee, prior to the issuance of building permits.

6. The applicant must obtain approval from the Engineering Department for grading, stormwater management, utilities and erosion control, prior to any land disturbance activity.

7. The applicant must obtain approval from Milwaukee County for access to College Avenue, prior to the issuance of building permits.

8. The applicant is responsible for submitting a separate application for a Condominium Plat to the Department of City Development, subject to Common Council approval.

BE IT FURTHER RESOLVED, that in the event Safari Homes Franklin LLC, successors or assigns, or any owner of the subject property, does not comply with one or any of the conditions and restrictions of this Special Use Resolution, following a ten (10) day notice

to cure, and failure to comply within such time period, the Common Council, upon notice and hearing, may revoke the Special Use permission granted under this Resolution.

BE IT FURTHER RESOLVED, that any violation of any term, condition or restriction of this Resolution is hereby deemed to be, and therefore shall be, a violation of the Unified Development Ordinance, and pursuant to §15-9.0502 thereof and §1-19. of the Municipal Code, the penalty for such violation shall be forfeiture of no more than $2,500.00, or such other maximum amount and together with such other costs and terms as may be specified therein from time to time. Each day that such violation continues shall be a separate violation. Failure of the City to enforce any such violation shall not be a waiver of that or any other violation.

BE IT FURTHER RESOLVED, that this Resolution shall be construed to be such Special Use Permit as is contemplated by §15-9.0103 of the Unified Development Ordinance.

BE IT FURTHER RESOLVED, Pursuant to §15-9.0103G. of the Unified Development Ordinance, the Special Use permission granted under this Resolution shall be null and void upon the expiration of one year from the date of adoption of this Resolution, unless the Special Use has been established by way of the issuance of building permits.

BE IT FINALLY RESOLVED, that the City Clerk be and is hereby directed to obtain the recording of a certified copy of this Resolution in the Office of the Register of Deeds for Milwaukee County, Wisconsin.

Introduced at a regular meeting of the Common Council of the City of Franklin this _____ day of _____, 2024.

Passed and adopted at a regular meeting of the Common Council of the City of Franklin this _____ day of _____, 2024.

APPROVED:

_____
John R. Nelson, Mayor

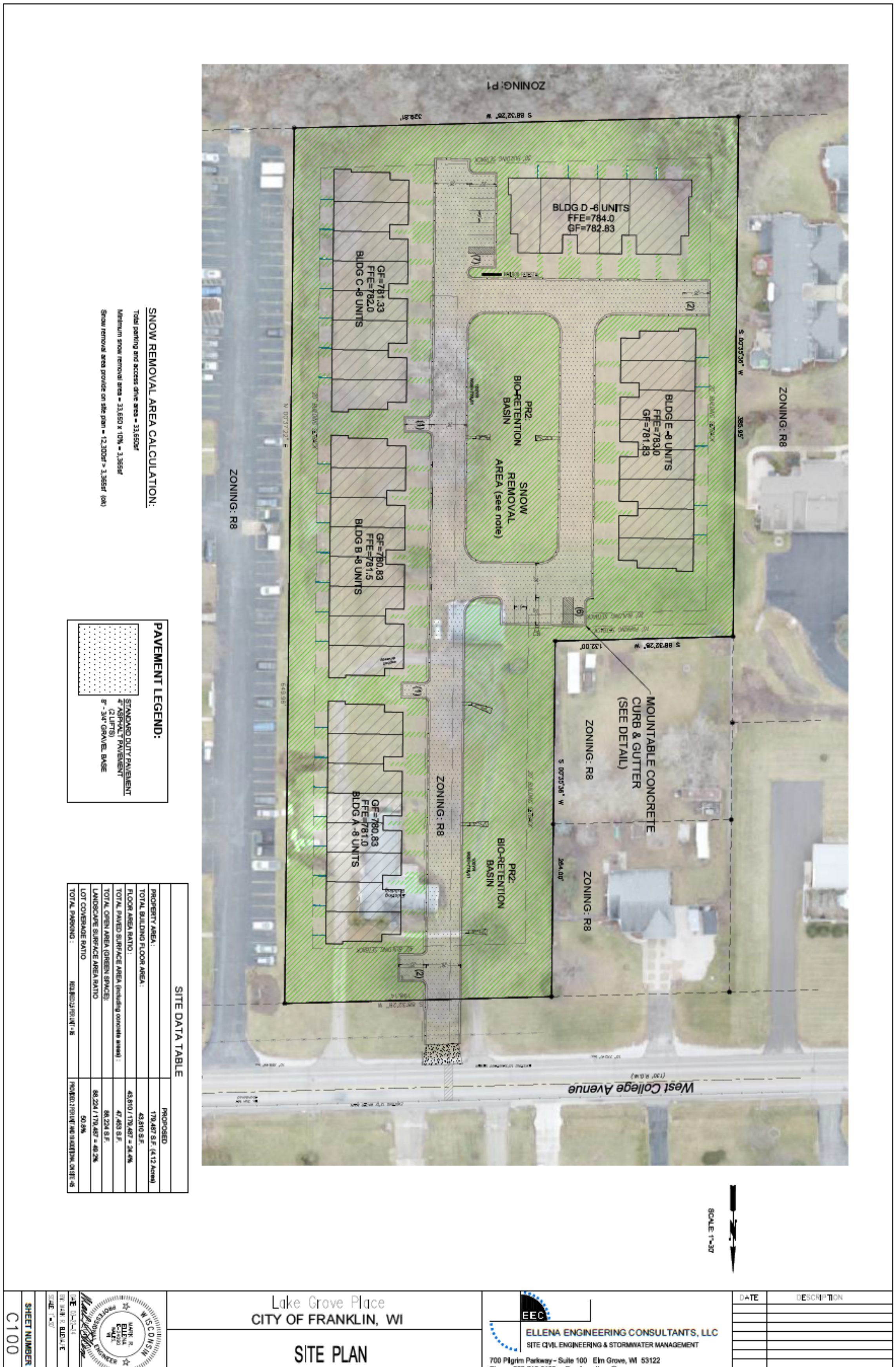
ATTEST:

_____

Shirley J. Roberts, City Clerk

AYES _____ NOES _____ ABSENT _____

Exhibit A


ZONING: P1
BLDG D -6 UNITS
FFE=784.0
GF=782.83
BLDG C -8 UNITS
FFE=782.0
GF=781.33
BLDG E -8 UNITS
BLDG B -8 UNITS
FFE=781.5
GF=780.83
BLDG A -8 UNITS
FFE=781.0
GF=780.83
PR2.
BIO-RETENTION
BASIN
SNOW
REMOVAL
AREA (see note)
ZONING: R8
MOUNTABLE CONCRETE
CURB & GUTTER
(SEE DETAIL)
West College Avenue
SNOW REMOVAL AREA CALCULATION:
PAVEMENT LEGEND:
STANDARD DUTY PAVEMENT
4" ASPHALT PAVEMENT
(2 LIFTS)
8" - 3/4" GRAVEL BASE
SITE DATA TABLE
PROPOSED
Lake Grove Place
CITY OF FRANKLIN, WI
SITE PLAN
ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
SHEET NUMBER
C100
DATE
DESCRIPTION

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY
PLAN COMMISSION

Draft [4-10-24]

RESOLUTION NO. 2024-__
A RESOLUTION APPROVING A SITE PLAN FOR LAKE GROVE PLACE,
A MULTI-FAMILY RESIDENTIAL DEVELOPMENT
(3709 W COLLEGE AVENUE)
(SAFARI HOMES FRANKLIN LLC, APPLICANT)

WHEREAS, Safari Homes Franklin LLC, having applied for site plan amendment approval for Lake Grove Place, a multi-family residential development with 38 dwelling units, at approximately 3709 W College Avenue; and

WHEREAS, the Plan Commission having reviewed the proposed multi-family residential development Site Plan and having found same to be in compliance with and in furtherance of those express standards and purposes of a site plan review pursuant to Division 15-7.0100 of the Unified Development Ordinance.

NOW, THEREFORE, BE IT RESOLVED, by the Plan Commission of the City of Franklin, Wisconsin, that the Lake Grove Place Site Plan as depicted upon and being the plans dated April 9, 2024, attached hereto and incorporated herein, be and the same is hereby approved, subject to the following conditions and restrictions:

1. The property subject to the Site Plan shall be developed in substantial compliance with and operated and maintained pursuant to the Site Plan for the Safari Homes Franklin LLC multi-family residential development ("Lake Grove Place"), plans dated April 9, 2024.

2. Safari Homes Franklin LLC, successors and assigns, and any developer of the Safari Homes Franklin LLC, multi-family residential development ("Lake Grove Place") construction project, shall pay to the City of Franklin the amount of all development compliance, inspection and review fees incurred by the City of Franklin, including fees of consults to the City of Franklin, for the Safari Homes Franklin LLC multi-family residential development ("Lake Grove Place") construction project, within 30 days of invoice for same. Any violation of this provision shall be a violation of the Unified Development Ordinance, and subject to 15-9.0502 thereof and §1-19 of the Municipal Code, the general penalties and remedies provisions, as amended from time to time.

3. The approval granted hereunder is conditional upon the Safari Homes Franklin LLC multi-family residential development ("Lake Grove Place") construction project (i) being in compliance with all applicable governmental laws, statutes, rules, codes, orders and ordinances; and (ii) obtaining all other governmental approvals, permits, licenses and the like, required for and applicable to the project to be developed and as presented for this approval.

4. That the Safari Homes Franklin LLC multi-family residential development ("Lake Grove Place") construction project shall be developed and constructed pursuant to such Site Plan within one year from the date of adoption of this Resolution, or this Resolution and all rights and approvals granted hereunder shall be null and void, without any further action by the City of Franklin.

5. This Site Plan is conditioned upon the approval of a Special Use permit for multi-family residential use and the proposed 38 dwelling units. This Resolution shall be null and void if such Special Use permit is not approved.

BE IT FURTHER RESOLVED, that the Lake Grove Place building permit shall be issued for such Site Plan within one year from the date of adoption of this Resolution, or this Resolution and all rights and approvals granted hereunder shall be null and void, without any further action by the City of Franklin.

Introduced at a regular meeting of the Plan Commission of the City of Franklin this __th day of _____.

Passed and adopted at a regular meeting of the Plan Commission of the City of Franklin this __th day of _____.

APPROVED:

_____
John R. Nelson, Chairman

ATTEST:

_____
Shirley J. Roberts, City Clerk

AYES __-__ NOES __-__ ABSENT __-__

MEMORANDUM

Date:	February 9, 2024
To:	Gregory Schumacher. Cityscape Architecture
From:	Department of City Development Régulo Martínez-Montilva, AICP, CNUa, Principal Planner
RE:	Staff comments for Special Use and Site Plan, Lake Grove Place by Safari Homes 3709 W College Avenue

Below are comments and recommendations for the above-referenced applications received on January 19, 2024.

City Development Department comments

1. Pursuant to the Unified Development Ordinance (UDO) §15-7.0103 *Applications for Site Plan Review*, please add the following information to the Site Plan:
   - E. Site size. Please add site size in acres to sheet C100. DONE
   - Note that the site size in the Site Plan must match the site size in the Site Intensity and Capacity Calculations, please revise accordingly. SITE IS 4.12 ACRES
   - F. Please add vertical datum to the grading plan (sheet C200), it must be National Geodetic Vertical Datum of 1929. DONE
   - G. Soils Data. The submitted geotechnical report was prepared in 2017 for a different proposal. Please submit an updated geotechnical report for the proposed development. SEE UPDATED REPORT
   - M. Setbacks. Please add dimensions of building setbacks: front, sides and rear. DONE
   - U. Development phasing. Would this development be constructed in phases? If so, please add graphic outline of development phases. THREE PHASES – SEE PHASING PLAN SHEET G100
   - X. Easements. Please submit plat of survey with the location of existing easements.DONE – SURVEY ATTACHED IN DRAWING SET
   - Y. Access. Copies of any letters of review or permits granted by Milwaukee County for the proposed access to College Avenue.
   - Z. Existing zoning. Please label zoning district of the subject property and adjacent properties (sheet C100). DONE
   - Please delete duplicated label from building A (sheet C100). DONE

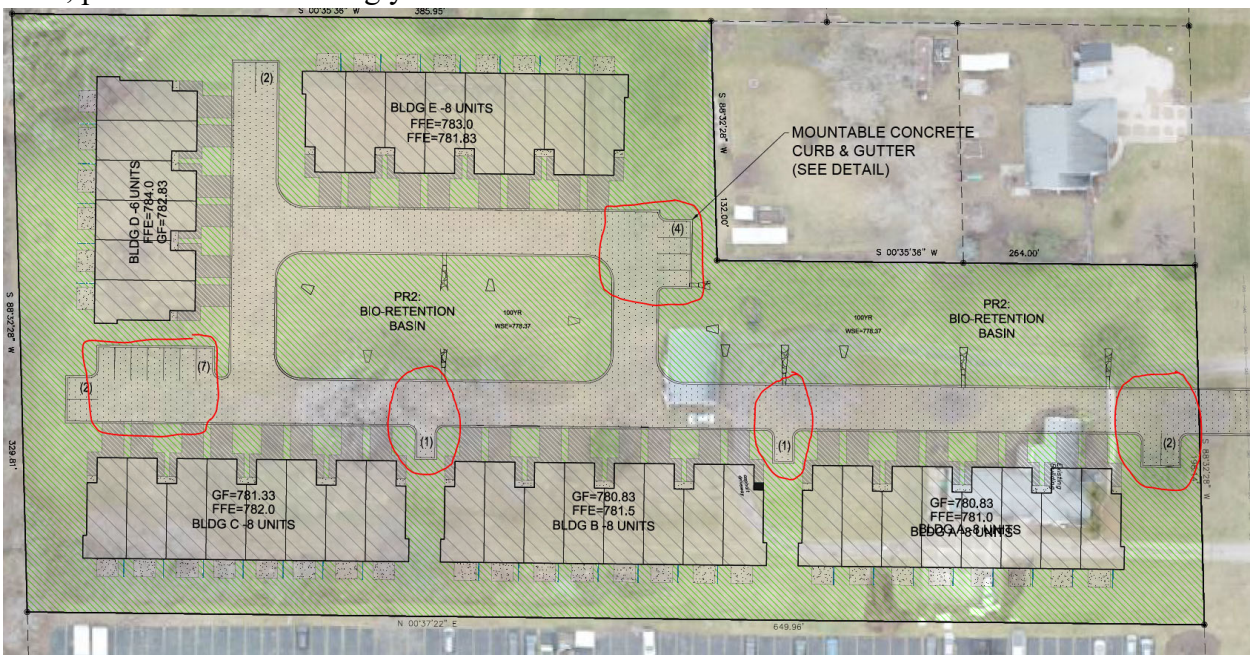
2. Special Use Standards, #4 Adequate Public Facilities (water supply). Have you received any letters of review or permits for water supply from the City of Milwaukee? IN PROCESS

Parking

3. Parking space size. Please add dimensions of typical parking space size. The proposed parking spaces are 162 square feet (9 x 18 feet). The minimum parking space size is 180 square feet per UDO §15-5.0202B, please revise accordingly. DONE

4. ADA parking. Pursuant to UDO Table 15-5.0202(I)(1), four parking spaces meeting all applicable ADA (Americans with Disabilities Act) standards are required for this development. Please indicate location of ADA parking on the site plan and quantity in the site data table. See the referenced table for information on minimum dimensions, location and signage required for ADA parking. DONE

5. Parking aisles. Pursuant to UDO Table 15-5.0204, the minimum width is 45 feet for parking spaces and aisles with single row and 90° angle spaces. The proposed design is approx. 41-foot wide, please revise accordingly. DONE



6. Snow storage plan required. Pursuant to UDO 15-5.0210B, please submit a snow storage plan, see UDO §15-5.0210 (attached) for plan requirements and standards. DONE

Landscape

7. For shade trees, there must be at least 4 species planted with at least 10 plantings per species. Please adjust your quantity of species and plantings to comply. (UDO 15-5.0302F) DONE

8. For Evergreen trees, there must be at least 4 species (both spruces are one species), with at least 6 plantings per species. Please reflect these changes within your landscape plan. (UDO 15-5.0302F) DONE

9. For Shrubs, there must be at least 4 species with at least 10 plantings per species. Please add one more species to your landscape plan. (UDO 15-5.0302F) DONE

10. Is there a plan to have open areas not covered by plantings? If so, open areas must be covered by grass and the areas must be depicted in the landscape plan. (UDO 15-5.0302G.1) DONE

11. Please change out the Valley Forge American Elm on the north side of the property near College Avenue. (UDO 15-5.0302H.2) DONE

12. Please relocate the Autumn Fantasy Maple located on the north side of the property near College Avenue, so the planting does not obscure vehicular sight lines. (UDO 15-5.0302H.3) DONE
13. Are you planning on providing an irrigation system? Please note that a permanent, on-site, outdoor water supply (underground or drip irrigation, hose bibs, etc.) that provides complete coverage to all new living landscaped areas is required. (UDO 15-5.0303D) HOSE BIBBS WILL BE PROVIDED AT BULIDINGS

Outdoor Lighting

14. R-8 Zoning allows a maximum 20 feet mounting height for lighting. Please revise your mounting heights in your lighting plan. (UDO 15-5.0401C) DONE

15. Is there any lighting attached to the proposed buildings? If so, please include this in your revised lighting plan and cut sheets. DONE

Architecture

16. Building elevations with a singular exterior material. Pursuant to UDO 15-7.0802G, please revise the rear and side building elevations to provide some additional architectural design element(s), such as siding design and accent panels or other architectural design consistent with the front building elevation. DONE

17. Building elevations (sheet A200). Please add color names or descriptions to lap siding (exterior material 1). If multiple colors used, please label each color and/or submit colored building elevations. DONE

18. Exterior material samples. Pursuant to UDO 15-7.0803A.8, please submit one sample for each color of lap siding (exterior material 1). DONE

19. Any proposed metal furnace vents? If so, please submit plans attesting compliance with UDO 15-7.0802I. NONE

Miscellaneous

20. Are you planning to have a trash dumpster on site? If so, please note that enclosures are required per UDO §15-3.0803I. NO, TRASH WILL BE IN TRASH BINS AND KEPT IN UNIT GARAGES

21. Any roof-mounted mechanical equipment? If so, please submit a sight line diagram from College Avenue. NONE

22. Have you contacted the U.S. Postal Service about your project? Is a cluster mailbox required for your project? If so, please indicate location. MAILBOX LOCATION SHOWN ON PLAN

23. The project narrative states “Five buildings will have eight units and one building will have six units” (first paragraph) but the Site Plan (sheet C100) depicts four buildings with 8 units and one building with six units, please clarify. NARRITIVE HAS BEEN UPDATED

Separate approvals and fees

24. Any proposed signs? Please note that separate approvals with the Department of City Development are required for signs. THERE WILL BE A MOUMENT SIGN, AND WILL BE SUBMITTED AT A LATER DATE

25. Please note that condominium plats require a separate approval, application form attached. WILL BE SUMIBTTED AT A LATER DATE

26. Please be aware of City impact fees. The impact fee schedule can be found on the City's website at https://www.franklinwi.gov/Departments/Inspection-Services/Impact-Fees.htm.

27. Please note that stormwater, grading, erosion control and utility plans are subject to separate review and approval by the Engineering Department.

Suggestions (not specifically required by the UDO)

28. City Development staff suggests installing "no parking" signs on both sides of the internal drive to maintain clearance for emergency vehicles based on the comment below from the Fire Department. SIGNS WILL BE PLACED ON BOTH SIDES

Fire Department comments

1. *Given existing Fire/EMS station locations and current fire department staffing levels, the cumulative effect of this and several other residential developments will pose a challenge to maintaining industry standard emergency response times to fire and medical emergencies.*

2. *Parking restrictions will likely be required on the complex access roads to maintain clearance for fire apparatus / emergency vehicles.*

Engineering Department comments

1) The engineering department has no objection to the applicant's request.

2) Engineering plans are under review.

3) Approvals from Milwaukee County are required as this project is fronting W. College Ave (CTH ZZ) right of way.

4) Water main on W. College Ave (CTH ZZ) belongs to City of Milwaukee, connection to water main must be approved by City of Milwaukee.

5 SEE MILWAUKEE APPROVAL FOR OFFSITE STORM – CITY MEETING FOR 35TH FIRST

Inspection Services Department comments

Structure shall be designed and constructed in accordance with the Wisconsin Commercial Building Code including our initial concern that the building meets the separation requirements in Table 602. PER CONVERSTATIONS WITH INSPECTION DEPARTMENT (Justin Ligocki). THIS PROJECT WILL BE SUBMITTED UNDER THE UDC

Milwaukee County Parks comments

Thank you for providing this information to Milwaukee County Parks for review. We appreciate that stormwater management is being handled on site with overflows directed north, away from the park. We offer the following minor comments:

- *The grading plans show a spillway to the east neighbor, is that intentional?*SEE UPDATED CIVIL DRAWINGS
- *Parks would recommend monumenting the project corners, to clarify property extents and providing an easy means for verification over time.*
- *It is assumed that parkland will be protected through silt/construction fencing over the course of construction.*

In all, Milwaukee County Parks has no objection to the proposed development. Should plans be modified through the course of your review, please provide them to Parks for additional input.

For more information, please contact Sarah Toomsen Sarah.Toomsen@milwaukeecountywi.gov

Planning Department
9229 West Loomis Road
Franklin, Wisconsin 53132
(414) 425-4024
franklinwi.gov

APPLICATION DATE: _____

STAMP DATE: ____city use only_____

COMMON COUNCIL REVIEW APPLICATION

PROJECT INFORMATION [print legibly]

APPLICANT [FULL LEGAL NAMES]	APPLICANT IS REPRESENTED BY [CONTACT PERSON]
NAME: M. Manzur Hassan Khan, Ali Siddiqui, Et Al	NAME: Gregory Schumacher
COMPANY: Safari Homes, Franklin	COMPANY: Cityscape Architecture
MAILING ADDRESS: 3709 College Avenue	MAILING ADDRESS: 13700 West Greenfield Av
CITY/STATE: Franklin, WI ZIP: 53132	CITY/STATE: Brookfield, WI ZIP: 53005
PHONE: (414) 595-7486	PHONE: (262) 370-5865
EMAIL ADDRESS: manzur.hassan.khan@gmail.com	EMAIL ADDRESS: greg@cityscapearchitecture.com

PROJECT PROPERTY INFORMATION

PROPERTY ADDRESS: 3709 College Av	TAX KEY NUMBER: 713-9996-003
PROPERTY OWNER: M. Manzur Hassan Khan, Ali Siddiqui, Et Al	PHONE: (414) 595-7486
MAILING ADDRESS: 709 College Avenue	EMAIL ADDRESS: manzur.hassan.khan@gmail.com
CITY/STATE: Franklin, WI ZIP: 53129	DATE OF COMPLETION: office use only

APPLICATION TYPE

Please check the application type that you are applying for

☐Concept Review ☐ Comprehensive Master Plan Amendment ☐ Planned Development District ☐ Rezoning
■ Special Use / Special Use Amendment ☐ Unified Development Ordinance Text Amendment

Most requests require Plan Commission review and Common Council approval.
Applicant is responsible for providing Plan Commission resubmittal materials up to 12 copies pending staff request and comments.

SIGNATURES

The applicant and property owner(s) hereby certify that: (1) all statements and other information submitted as part of this application are true and correct to the best of applicant's and property owner(s)' knowledge; (2) the applicant and property owner(s) has/have read and understand all information in this application; and (3) the applicant and property owner(s) agree that any approvals based on representations made by them in this Application and its submittal, and any subsequently issued building permits or other type of permits, may be revoked without notice if there is a breach of such representation(s) or any condition(s) of approval. By execution of this application, the property owner(s) authorize the City of Franklin and/or its agents to enter upon the subject property(ies) between the hours of 7:00 a.m. and 7:00 p.m. daily for the purpose of inspection while the application is under review. The property owner(s) grant this authorization even if the property has been posted against trespassing pursuant to Wis. Stat. §943.13.

(The applicant's signature must be from a Managing Member if the business is an LLC, or from the President or Vice President if the business is a corporation. A signed applicant's authorization letter may be provided in lieu of the applicant's signature below, and a signed property owner's authorization letter may be provided in lieu of the property owner's signature[s] below. If more than one, all of the owners of the property must sign this Application).

■ I, the applicant, certify that I have read the following page detailing the requirements for plan commission and common council approval and submittals and understand that incomplete applications and submittals cannot be reviewed.

PROPERTY OWNER SIGNATURE:	APPLICANT SIGNATURE:
NAME & TITLE: GREG SCHUMACHER - AGENT FOR OWNER DATE: 1-5-24	NAME & TITLE: GREG SCHUMACHER - AGENT FOR APPLICANT DATE: 1-5-24
PROPERTY OWNER SIGNATURE:	APPLICANT REPRESENTATIVE SIGNATURE:
NAME & TITLE: GREG SCHUMACHER - AGENT FOR OWNER DATE: 1-5-24	NAME & TITLE: GREG SCHUMACHER, ARCHITECT DATE: 1-5-24

CITY OF FRANKLIN APPLICATION CHECKLIST

If you have questions about the application materials please contact the planning department.

CONCEPT REVIEW APPLICATION MATERIALS

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ $250 Application fee payable to the City of Franklin.
☐ Three (3) complete collated sets of application materials to include …
- ☐ Three (3) project narratives.
- ☐ Three (3) copies of the Preliminary Site/Development Plan of the subject property(ies) and immediate surroundings *on 8 ½ " X 11" or 11" X 17" paper (i.e., a scaled map identifying the subject property and immediate environs, including existing and proposed parcels, existing and proposed structures, existing and proposed land uses, existing and proposed zoning, existing and proposed infrastructure and utilities[approximate locations only], and existing and proposed site conditions/site constraints [i.e. approximate locations of public road access, rights-of-way, natural resources/green space and drainage issues/concerns, etc.])*
- ☐ Three (3) colored copies of building elevations *on 11" X 17" paper if applicable.*

☐ Email or flash drive with all plans / submittal materials.

COMPREHENSIVE MASTER PLAN AMENDMENT APPLICATION MATERIALS

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ $125 Application fee payable to the City of Franklin.
☐ Word Document legal description of the subject property.
☐ Three (3) complete collated sets of application materials to include …
- ☐ Three (3) project narratives.
- ☐ Three (3) folded copies of a Site Development Plan / Map, *drawn to reasonable scale, at least 11" X 17" paper or as determined by the City Planner or City Engineer, identifying the subject property and immediate environs, including parcels, structures, land use, zoning, streets and utilities, and natural resource features, as applicable.*

☐ Email or flash drive with all plans / submittal materials.
☐ Additional information as may be required.
- Requires a Class I Public Hearing Notice at least 30 days before the Common Council Meeting

PLANNED DEVELOPMENT DISTRICT (PDD)

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ Application fee payable to the City of Franklin… [select one of the following]
- ☐ $6,000: New PDD
- ☐ $3,500: PDD Major Amendment
- ☐ $500: PDD Minor Amendment

☐ Word Document legal description of the subject property.
☐ Three (3) complete collated sets of application materials to include …
- ☐ Three (3) project narratives.
- ☐ Three (3) folded full size, of the Site Plan Package, *drawn to scale copies, on 24" x 36" paper, including Building Elevations, Landscape Plan, Outdoor Lighting Plan, Natural Resource Protection Plan, Natural Resource Protection Report, etc. (See Sections 15-7.0101, 15-7.0301, and 15-5.0402 of the UDO for information that must be denoted or included with each respective plan.)*

☐ One (1) colored copy of the building elevations *on 11" X 17" paper, if applicable.*
☐ One (1) copy of the Site Intensity and Capacity Calculations, *if applicable (see division 15-3.0500 of the UDO)*
☐ Email or flash drive with all plans / submittal materials.
- PDD and Major PDD Amendment requests require Plan Commission review, a public hearing, and Common Council approval.
- Minor PDD Amendment requests require Plan Commission review and Common Council approval.

REZONING

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ Application fee payable to the City of Franklin… [select one of the following]
- ☐ $1,250
- ☐ $350: one parcel residential.

☐ Word Document legal description of the subject property.
☐ Three (3) complete collated sets of application materials to include …
- ☐ Three (3) project narratives.
- ☐ Three (3) folded copies of a Plot Plan or Site Plan, *drawn to reasonable scale, at least 11" X 17" paper or as determined by the City Planner or City Engineer, and fully dimensioned showing the area proposed to be rezoned, its location, its dimensions, the location and classification of adjacent zoning districts, and the location and existing use of all properties within 200 feet of the area proposed to be rezoned.*

☐ Email or flash drive with all plans / submittal materials.
☐ Additional information as may be required.
- Additional notice to and approval required for amendments or rezoning in the FW, FC, FFO, and SW Districts
- Requires a Class II Public Hearing notice at Plan Commission.

SPECIAL USE / SPECIAL USE AMENDMENT APPLICATION MATERIALS

■ This application form accurately completed with signatures or authorization letters (see reverse side for more details).

■ Application fee payable to the City of Franklin… [select one of the following]

- ■ $1,500: New Special Use > 4000 square feet.
- ☐ $1,000: Special Use Amendment.
- ☐ $750: New Special Use < 4000 square feet.

☐ Word Document legal description of the subject property.

☐ One copy of a response to the General Standards, Special Standards, and Considerations *found in Section 15-3.0701(A), (B), and (C) of the UDO available at www.franklinwi.gov.*

☐ Three (3) complete collated sets of application materials to include …

- ☐ Three (3) project narratives.
- ☐ Three (3) folded copies of the Site Plan package, drawn to scale at least 24" X 36", *The submittal should include only those plans/items as set forth in Section 15-7.0101, 15-7.0301 and 15-5.0402 of the UDO that are impacted by the development. (e.g., Site Plan, Building Elevations, Landscape Plan, Outdoor Lighting Plan, Natural Resource Protection Plan, Natural Resource Protection Report, etc.*

☐ One (1) colored copy of the building elevations *on 11" X 17" paper, if applicable.*

☐ Email or flash drive with all plans / submittal materials.

☐ Additional information as may be required.

- Special Use/Special Use Amendment requests require Plan Commission review, a Public Hearing and Common Council approval.

UNIFIED DEVELOPMENT ORDINANCE (UDO) TEXT AMENDMENT APPLICATION MATERIALS

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).

☐ $200 Application fee payable to the City of Franklin.

☐ Three (3) project narratives, *including description of the proposed text amendment.*

- Requires a Class II Public Hearing notice at Plan Commission.
- The City's Unified Development Ordinance (UDO) is available at www.franklinwi.gov.

LAKE GROVE PLACE by Safari Homes Franklin

LOCATION: 3709 West College Avenue, Franklin, Wisconsin

LEGAL DESCRIPTION:

Taken from Plat of survey dated January 19, 2022
Survey No. 113459

Parcel 1 of **CERTIFIED SURVEY MAP NO. 6537**, being part of the Northeast 1/4 of the Northwest 1/4 of Section 1, Town 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin excepting therefrom the following: Beginning at the southeast corner of Parcel 2 as recorded in said Certified Survey Map No. 6537; thence South 88º 32' 26" West along the southerly line of said Parcel 2, 132.00 feet to the southwest corner of said Parcel 2; thence South 00º 35' 36" West along the westerly line of said Parcel 1, 136.00 feet; thence North 88º 32' 28" East 132.00 feet; thence North 00º 35' 36" East 136.00 feet to the place of beginning. Containing a net area of 4.1204 acres or 179,487 square feet or land.

DIVISION 15-3.0700 SPECIAL USE STANDARDS AND REGULATIONS

SECTION 15-3.0701 GENERAL STANDARDS FOR SPECIAL USES

A. ***General Standards*.** No special use permit shall be recommended or granted pursuant to this Ordinance unless the applicant shall establish the following:

1. **Ordinance and Comprehensive Master Plan Purposes and Intent.** The proposed use and development will be in harmony with the general and specific purposes for which this Ordinance was enacted and for which the regulations of the zoning district in question were established and with the general purpose and intent of the City of Franklin Comprehensive Master Plan or element thereof.

   Response:
   Lake Grove Place is a multi-family residential development that meets the residential use and specific purpose of the R-8 zoning district as intended and is in harmony with the City of Franklin Comprehensive Master Plan.

2. **No Undue Adverse Impact.** The proposed use and development will not have a substantial or undue adverse or detrimental effect upon or endanger adjacent property, the character of the area, or the public health, safety, morals, comfort, and general welfare and not substantially diminish and impair property values within the community or neighborhood.

   Response:
   Lake Grove Place will not cause any undue adverse effect since the development is in keeping with the R-8 zoning district and is surrounded by developments of the same use and character. Safari Homes Franklin has met with neighboring multi-family developments and has received favorable approval for this development. The storm water management plan was designed to minimize the run-off to the neighbor to the east by directing water to College Avenue per Milwaukee County approval. Neighboring multi-family development on the west will be offered a solution for relief from storm water issues that have developed on their lot by sizing and allowing access to detention facilities on Lake Grove Place property if they choose.

3. **No Interference with Surrounding Development.** The proposed use and development will be constructed, arranged, and operated so as not to dominate the immediate vicinity or to interfere with the use and development of neighboring property in accordance with the applicable zoning district regulations.

   Response:
   Lake Grove Place will be arranged and designed with similar scale, layout, and operation as adjacent multi-family developments. This proposed development meets intended residential use and setbacks as required per zoning requirements. This development with not dominate the immediate vicinity as adjacent developments are similar or larger developments and perhaps more in keeping than the single-family home that will be replaced on the south side of West College Avenue.

4. **Adequate Public Facilities.** The proposed use and development will be served adequately by essential public facilities and services such as streets, public utilities including public water supply system and sanitary sewer, police, and fire protection, refuse disposal, public parks, libraries, schools, and other public facilities and utilities or the applicant will provide adequately for such facilities.

   Response:

Lake Grove Place will be served adequately by public facilities, listed above since it does not deviate from the intended use for which the City of Franklin has anticipated when planning zoning districts. Refuse disposal will be contracted as needed by a private contractor and will not require additional support of the city or county.

5. **No Traffic Congestion.** The proposed use and development will not cause undue traffic congestion nor draw significant amounts of traffic through residential streets. Adequate measures will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

Response:
Lake Grove Place will only have one access point off of West College Avenue and do not connect into neighboring developments and residential streets. The access point will be substantially located away from intersection at West College Ave and South 35th street, thus not causing any congestion at access points to neighboring properties.

6. **No Destruction of Significant Features.** The proposed use and development will not result in the destruction, loss, or damage of any natural, scenic, or historic feature of significant importance.

Response:
Southwest corner and entire west lot line of property has the only significant natural, or scenic feature. The development proposes to keep these areas intact and undisturbed since it primarily exists in the required setback areas. Building elevations and location will be located and designed to minimize disturbance to grade and partial tree line in this area. Landscaping plantings will be provided as needed to meet the landscaping requirements and to enhance the aesthetic nature of the site.

7. **Compliance with Standards.** The special use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the Common Council pursuant to the recommendations of the Plan Commission. The proposed use and development shall comply with all additional standards imposed on it by the particular provision of this Division and Ordinance authorizing such use.

Response:
Lake Grove Place as designed will comply with applicable requirements of the district. Currently, no additional standards have been imposed, but any recommendation by Planning Commission/Common Council will be considered and will comply if necessary.

B. ***Special Standards for Specified Special Uses*.** When the zoning district regulations authorize a special use in a particular zoning district and that special use is indicated as having special standards, as set forth in Section 15-3.0702 and 15-3.0703 of this Division, a Special Use Permit for such use in such zoning district shall not be recommended or granted unless the applicant shall establish compliance with all such special standards.

Response:
Lake Grove Place is in the R-8 zoning district which does not require special standards as listed in Section 15-3.0702. Section 15-3.0703 only applies to non-residential districts, therefore does not apply to this proposed development.

C. ***Considerations***. In determining whether the applicant's evidence establishes that the foregoing standards have been met, the Plan Commission and the Common Council shall consider the following:

1. **Public Benefit**. Whether and to what extent the proposed use and development at the particular location requested is necessary or desirable to provide a service or a facility that is in the interest of the public convenience or that will contribute to the general welfare of the neighborhood or community.

Response:
Lake Grove Place will contribute to the welfare of the community by providing home ownership with care-free suburban living for median income families in an area zoned for multi-family housing, keeping proposed use in area of Franklin as designated. By providing family homes, this development could contribute to increasing the population of Franklin, which has been declining by approximately 2% in most per www.census.gov.

2. **Alternative Locations**. Whether and to what extent such public goals can be met by the location of the proposed use and development at some other site or in some other area that may be more appropriate than the proposed site.

Response:
Lake Grove Place will be located in R-8 zoning district which is designated as multi-family residential which is appropriate for primary use, therefore no other area would be deemed appropriate.

3. **Mitigation of Adverse Impacts**. Whether and to what extent all steps possible have been taken to minimize any adverse effects of the proposed use and development on the immediate vicinity through building design, site design, landscaping, and screening.

Response:
Steps have been taken for Lake Grove Place to minimize adverse effects to the immediate vicinity. The storm water management plan was designed to minimize the run-off to the neighbor to the east by directing water to College Avenue per Milwaukee County approval. Neighboring multi-family development on the west will be offered a solution for relief from storm water issues that have developed on their lot by sizing and allowing access to detention facilities on Lake Grove Place property if they choose. Building unit design is appropriate in size, scale, and design to fit in the area appropriately and site design is intended to enhance privacy to neighbors while providing aesthetic appeal for suburban feel of the community.

4. **Establishment of Precedent of Incompatible Uses in the Surrounding Area**. Whether the use will establish a precedent of, or encourage, more intensive or incompatible uses in the surrounding area.

Response:
Lake Grove Place will not establish or encourage incompatible uses since the primary use meets the allowed use of the R-8 Multi-family Residential District.

LAKE GROVE PLACE by Safari Homes Franklin

3709 WEST COLLEGE AVENUE, FRANKLIN, WI

The proposed condominium development for 3709 W. College Avenue, Franklin, WI will be thirty-eight condominium units. Four buildings will have eight units and one building will have six units. Each building will be a two-story, wood frame construction with slab-on-grade with continuous frost wall foundation. Units will be built with Type A, 1 hour-rated unit separation UL U305, STC 60 (45 min dwelling separation required per SPS 321.08) between two adjacent units with Type B fire wall 1 hour rated exterior wall UL 305 (45 min dwelling separation required per SPS 321.08) between each 2-unit assemblies, thus creating construction type omitting the need for sprinklers and utilizing building code requirements that meet Wisconsin Uniform Dwelling Code.

We are requesting approval to exceed the gross and net density allowed in R-8 Multi-Family Residence district by 13.28 units per Table 15-3.0504 using Option 2 of R-8 zoning, (using net buildable site area calculated as follows, 4.12 acres – 1.03 acres = 3.09 acres x 8 = 24.72 allowed, requesting additional 13.28 units for a total of 38 units). Proposed site development meets setback requirements and building height maximum per Table 15-3.0209A. Per Civil drawings, C100 Site Data table indicates the Open Space Ratio (landscaped green space) of proposed site development is 49.2%, far exceeding the 25% minimum required per Option 2 of the R-8 zoning. Note: Building Coverage Maximum is not applicable in the R-8 zoning district for multi-family building type proposed.

The development will target middle income families with children and people who prefer a hassle-free condominium lifestyle with an urban type suburban feel. Each condominium unit will be two stories with three bedrooms and 2.5 bathrooms with 1 ½ - car garage. (Square footage of units meet the

- Ten end units consisting of 786 s.f. on first floor, 894 s.f. on second floor with 385 s.f. garage for a total unit size of 2065 s.f.
- Twenty-eight internal units will be 761 s.f. on the first floor, 894 s.f. on second floor with 385 s.f. garage for a total unit size of 2040 s.f.
- Proposed unit square footage meets the minimum living area required for more than two dwelling units per building as required per Table 15-3.0209B.
- Each unit will have a private driveway in front of the garage providing space for two cars per unit: one garage space and one surface space.
- Each unit will have a private terrace at the rear with a privacy fence between units and landscaping to provide privacy from neighboring developments.
- Unit features will incorporate modern kitchens with Energy Star appliances, quality finishes, plumbing and lighting to meet the style and needs of the homeowner.
- Projected sale cost of condominiums to be $400,000 per unit.

The exterior will be prefinished composite lap siding with 6” exposure with varying colors and bump-out extensions to add aesthetic appeal. Slope roofs at garages and 1-story portions of end units will be prefinished standing seam metal roofs. A two-story portion of buildings will be “flat” EDPM roofs with parapet walls designed to hold 4” of rainwater to control storm water flow to building roof drains, thus engineered to slow the rate of storm water flow directly piped to the detention ponds. Recreation area for homeowners and families to include sand volleyball courts at open space at detention pond areas to that are needed for storm water management.

Lake Grove Place Homeowner's Association will be established to provide property management by a third-party contractor for landscaping maintenance, snow removal for all public spaces, and individual trash removal and recycling at each individual unit. Parking to meet zoning requirement of 2.5 parking spaces per unit (38 units x 2.5 = 95 spaces required). Two parking spaces for each unit = 76 parking spaces + 19 additional guest parking spaces for a total of 95 spaces required.

Safari Homes Franklin has met with neighboring multi-family developments and has received favorable approval for this development. They intend to serve as a good neighbor to adjacent multi-family home developments by designing storm water management plans to minimize the run-off to the neighbor to the east by directing water to College Avenue per Milwaukee County approval. Neighboring multi-family development on the west will be offered a solution for relief from storm water issues that have developed on their lot by sizing and allowing access to detention facilities on Lake Grove Place property if they choose.

Safari Homes Franklin, as developers of Lake Grove Place intend to provide a quality development that will be an asset to the City of Franklin, WI and contribute to the community success.

Planning Department
9229 West Loomis Road
Franklin, Wisconsin 53132
(414) 425-4024
franklinwi.gov

APPLICATION DATE: _____

STAMP DATE: ____city use only_____

PLAN COMMISSION REVIEW APPLICATION

PROJECT INFORMATION [print legibly]

APPLICANT [FULL LEGAL NAMES]	APPLICANT IS REPRESENTED BY [CONTACT PERSON]
NAME: M. Manzur Hassan Khan, Ali Siddiqui, Et Al	NAME: Gregory Schumacher
COMPANY: Safari Homes, Franklin	COMPANY: Cityscape Architecture
MAILING ADDRESS: 3709 W. College Avenue	MAILING ADDRESS: 13700 West Greenfield Av
CITY/STATE: Franklin, WI 53132 ZIP:	CITY/STATE: Brookfield, WI 53005 ZIP:
PHONE: (414) 595-7486	PHONE: (262) 370-5865
EMAIL ADDRESS: manzur.hassan.khan@gmail.com	EMAIL ADDRESS: greg@cityscapearchitecture.com

PROJECT PROPERTY INFORMATION

PROPERTY ADDRESS: 3709 College Av	TAX KEY NUMBER: 713-9996-003
PROPERTY OWNER: M. Manzur Hassan Khan, Ali Siddiqui, Et Al	PHONE: (414) 595-7486
MAILING ADDRESS: 3709 W. College Avenue	EMAIL ADDRESS: manzur.hassan.khan@gmail.com
CITY/STATE: Franklin, WI 53132 ZIP:	DATE OF COMPLETION: office use only

APPLICATION TYPE

Please check the application type that you are applying for

☐ Building Move ☐ Sign Review ☒ Site Plan / Site Plan Amendment ☐ Temporary Use

Most requests require Plan Commission review and approval.
Applicant is responsible for providing Plan Commission resubmittal materials up to 12 copies pending staff request and comments.

SIGNATURES

The applicant and property owner(s) hereby certify that: (1) all statements and other information submitted as part of this application are true and correct to the best of applicant's and property owner(s)' knowledge; (2) the applicant and property owner(s) has/have read and understand all information in this application; and (3) the applicant and property owner(s) agree that any approvals based on representations made by them in this Application and its submittal, and any subsequently issued building permits or other type of permits, may be revoked without notice if there is a breach of such representation(s) or any condition(s) of approval. By execution of this application, the property owner(s) authorize the City of Franklin and/or its agents to enter upon the subject property(ies) between the hours of 7:00 a.m. and 7:00 p.m. daily for the purpose of inspection while the application is under review. The property owner(s) grant this authorization even if the property has been posted against trespassing pursuant to Wis. Stat. §943.13.

(The applicant's signature must be from a Managing Member if the business is an LLC, or from the President or Vice President if the business is a corporation. A signed applicant's authorization letter may be provided in lieu of the applicant's signature below, and a signed property owner's authorization letter may be provided in lieu of the property owner's signature[s] below. If more than one, all of the owners of the property must sign this Application).

☐ I, the applicant, certify that I have read the following page detailing the requirements for plan commission approval and submittals and understand that incomplete applications and submittals cannot be reviewed.

PROPERTY OWNER SIGNATURE:	APPLICANT SIGNATURE:
NAME & TITLE: DATE: GREG SCHUMACHER AS AGENT FOR OWNER 1-5-24	NAME & TITLE: DATE: GREG SCHUMACHER AS AGENT FOR APPLICANT 1-5-24
PROPERTY OWNER SIGNATURE:	APPLICANT REPRESENTATIVE SIGNATURE:
NAME & TITLE: DATE: GREG SCHUMACHER AS AGENT FOR OWNER 1-5-24	NAME & TITLE: DATE: GREG SCHUMACHER, ARCHITECT 1-5-24

CITY OF FRANKLIN APPLICATION CHECKLIST

If you have questions about the application materials please contact the planning department.

BUILDING MOVE APPLICATION MATERIALS

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ $200 Application fee payable to the City of Franklin.
☐ Word Document legal description of the subject property.
☐ Three (3) complete collated sets of application materials to include …
- ☐ Three (3) project narratives.
- ☐ Three (3) folded full size, drawn to scale copies (at least 8 ½ " X 11") of the plat of survey, *showing the proposed building placement at the new location, indicate setbacks from property lines and locations of driveways and access points.*
  NOTE: Single-Family homes require an attached 2-car garage.
- ☐ Three (3) copies of color photographs of the building's current elevations.

☐ Other items as may be required for specific applications, per a city planner.
☐ Email or flash drive with all plans / submittal materials.

- Applications for a Building Move are governed by the City of Franklin Municipal Code Chapter 92-2 (A.) and the Wisconsin Uniform Building Code.

SIGN REVIEW APPLICATION MATERIALS

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ $40 Application fee payable to the City of Franklin.
☐ Word Document legal description of the subject property.
☐ Three (3) complete collated sets of application materials to include …
- ☐ Three (3) colored copies of the sign elevations, drawn to scale not less than ½" = 1'. *Plans shall be folded to a maximum size of 9" X 12". The elevations should denote the sign dimension and area. Identify the colors, materials, finishes and lighting method (if applicable).*
- ☐ Three (3) scaled copies of the Site Plan, *showing the location of the proposed signage relative to (1) any existing or proposed structures; (2) parking stalls and/or driveways; (3) proposed landscaping and outdoor lighting; (4) the setback distance from the street right-of-way at the proposed location; (5) height of sign above the finished grade; and (6) the vision triangle distances described in Section 15-5.0201 of the Unified Development Ordinance.*

☐ Email or flash drive with all plans / submittal materials.

- Required for signage in Planned Development Districts (PDD) No. 7 and 18. Additional materials / copies may be required for board/commission meetings.
- Permits for construction are REQUIRED after approval. Contact Inspection Services (414-425-0084) for permit processes.

SITE PLAN / SITE PLAN AMENDMENT APPLICATION MATERIALS

☒ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☒ Application fee payable to the City of Franklin… [select one of the following]
- ☒ Tier 1: $2000
- ☐ Tier 2: $1000 *(lot size ≤ 1 acre)*
- ☐ Tier 3: $500 *(≤ 10% increase or decrease in total floor area of all structures with no change to parking: or change to parking only).*

☐ Word Document legal description of the subject property.
☐ Three (3) complete collated sets of application materials to include …
- ☐ Three (3) project narratives.
- ☐ Three (3) folded full size, drawn to scale copies (at least 24" X 36") of the Site Plan / Site Plan Amendment package. *The submittal should include only those plans/items as set forth in Section 15-7.0103, 15-7.0301, and 15-0402 of the Unified Development Ordinance that are impacted by the development (e.g., Site Plan, Building Elevations, Landscape Plan, Outdoor Lighting Plan, Natural Resource Protection Plan, Natural Resource Protection Report, etc.)*

☐ One (1) colored copy of the building elevations *on 11" X 17" paper, if applicable.*
☐ One (1) copy of the Site Intensity and Capacity Calculations, *if applicable (see division 15-3.0500 of the UDO)*
☐ Email or flash drive with all plans / submittal materials.

- Some requests may require CDA approval (PDD 18) or EDC approval (PDD 7) in which additional materials / copies may be required.

TEMPORARY USE APPLICATION MATERIALS

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ $50 Application fee payable to the City of Franklin.
☐ Three (3) complete collated sets of application materials to include …
- ☐ Three (3) project narrative
- ☐ Three (3) folded, scaled copies, of the Site Plan, *see section 15-3.0804 of the UDO for information that must be denoted on each respective plan.*

☐ Email or flash drive with all plans / submittal materials.

- Some requests may require CDA approval (PDD 18) or EDC approval (PDD 7) in which additional materials / copies may be required.
- Submittal of Application for review is not a guarantee of approval. Approval of Temporary Use does not exclude potential requirement for additional licenses or permits. For information on other licenses or permits that may be required, contact the City Clerk's office at (414) 425-7500, the Health Department at (414) 425-9101, and Inspection Services at (414) 425-0084.

LAKE GROVE PLACE by Safari Homes Franklin

LOCATION: 3709 West College Avenue, Franklin, Wisconsin

LEGAL DESCRIPTION:

Taken from Plat of survey dated January 19, 2022
Survey No. 113459

Parcel 1 of **CERTIFIED SURVEY MAP NO. 6537**, being part of the Northeast 1/4 of the Northwest 1/4 of Section 1, Town 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin excepting therefrom the following: Beginning at the southeast corner of Parcel 2 as recorded in said Certified Survey Map No. 6537; thence South 88º 32' 26" West along the southerly line of said Parcel 2, 132.00 feet to the southwest corner of said Parcel 2; thence South 00º 35' 36" West along the westerly line of said Parcel 1, 136.00 feet; thence North 88º 32' 28" East 132.00 feet; thence North 00º 35' 36" East 136.00 feet to the place of beginning. Containing a net area of 4.1204 acres or 179,487 square feet or land.

LAKE GROVE PLACE by Safari Homes Franklin

3709 WEST COLLEGE AVENUE, FRANKLIN, WI

The proposed condominium development for 3709 W. College Avenue, Franklin, WI will be thirty-eight condominium units. Four buildings will have eight units and one building will have six units. Each building will be a two-story, wood frame construction with slab-on-grade with continuous frost wall foundation. Units will be built with Type A, 1 hour-rated unit separation UL U305, STC 60 (45 min dwelling separation required per SPS 321.08) between two adjacent units with Type B fire wall 1 hour rated exterior wall UL 305 (45 min dwelling separation required per SPS 321.08) between each 2-unit assemblies, thus creating construction type omitting the need for sprinklers and utilizing building code requirements that meet Wisconsin Uniform Dwelling Code.

We are requesting approval to exceed the gross and net density allowed in R-8 Multi-Family Residence district by 13.28 units per Table 15-3.0504 using Option 2 of R-8 zoning, (using net buildable site area calculated as follows, 4.12 acres – 1.03 acres = 3.09 acres x 8 = 24.72 allowed, requesting additional 13.28 units for a total of 38 units). Proposed site development meets setback requirements and building height maximum per Table 15-3.0209A. Per Civil drawings, C100 Site Data table indicates the Open Space Ratio (landscaped green space) of proposed site development is 49.2%, far exceeding the 25% minimum required per Option 2 of the R-8 zoning. Note: Building Coverage Maximum is not applicable in the R-8 zoning district for multi-family building type proposed.

The development will target middle income families with children and people who prefer a hassle-free condominium lifestyle with an urban type suburban feel. Each condominium unit will be two stories with three bedrooms and 2.5 bathrooms with 1 ½ - car garage. (Square footage of units meet the

- Ten end units consisting of 786 s.f. on first floor, 894 s.f. on second floor with 385 s.f. garage for a total unit size of 2065 s.f.
- Twenty-eight internal units will be 761 s.f. on the first floor, 894 s.f. on second floor with 385 s.f. garage for a total unit size of 2040 s.f.
- Proposed unit square footage meets the minimum living area required for more than two dwelling units per building as required per Table 15-3.0209B.
- Each unit will have a private driveway in front of the garage providing space for two cars per unit: one garage space and one surface space.
- Each unit will have a private terrace at the rear with a privacy fence between units and landscaping to provide privacy from neighboring developments.
- Unit features will incorporate modern kitchens with Energy Star appliances, quality finishes, plumbing and lighting to meet the style and needs of the homeowner.
- Projected sale cost of condominiums to be $400,000 per unit.

The exterior will be prefinished composite lap siding with 6” exposure with varying colors and bump-out extensions to add aesthetic appeal. Slope roofs at garages and 1-story portions of end units will be prefinished standing seam metal roofs. A two-story portion of buildings will be “flat” EDPM roofs with parapet walls designed to hold 4” of rainwater to control storm water flow to building roof drains, thus engineered to slow the rate of storm water flow directly piped to the detention ponds. Recreation area for homeowners and families to include sand volleyball courts at open space at detention pond areas to that are needed for storm water management.

Lake Grove Place Homeowner's Association will be established to provide property management by a third-party contractor for landscaping maintenance, snow removal for all public spaces, and individual trash removal and recycling at each individual unit. Parking to meet zoning requirement of 2.5 parking spaces per unit (38 units x 2.5 = 95 spaces required). Two parking spaces for each unit = 76 parking spaces + 19 additional guest parking spaces for a total of 95 spaces required.

Safari Homes Franklin has met with neighboring multi-family developments and has received favorable approval for this development. They intend to serve as a good neighbor to adjacent multi-family home developments by designing storm water management plans to minimize the run-off to the neighbor to the east by directing water to College Avenue per Milwaukee County approval. Neighboring multi-family development on the west will be offered a solution for relief from storm water issues that have developed on their lot by sizing and allowing access to detention facilities on Lake Grove Place property if they choose.

Safari Homes Franklin, as developers of Lake Grove Place intend to provide a quality development that will be an asset to the City of Franklin, WI and contribute to the community success.

LAKE GROVE PLACE BY SAFARI HOMES FRANKLIN

3709 WEST COLLEGE AVENUE
FRANKLIN, WI

☐ § 15-3.0502 **Calculation of Base Site Area.**

The base site area shall be calculated as indicated in Table 15-3.0502 for each parcel of land to be used or built upon in the City of Franklin as referenced in § 15-3.0501 of this Ordinance.

Table 15-3.0502				
Worksheet for the Calculation of Base Site Area for Both Residential and Nonresidential Development				
STEP 1:	Indicate the total gross site area (in acres) as determined by an actual on-site boundary survey of the property.		4.12	acres
STEP 2:	Subtract (-) land which constitutes any existing dedicated public street rights-of-way, land located within the ultimate road rights-of-way of existing roads, the rights-of-way of major utilities, and any dedicated public park and/or school site area.	-	0	acres
STEP 3:	Subtract (-) land which, as a part of a previously approved development or land division, was reserved for open space.	-	0	acres
STEP 4:	In the case of "Site Intensity and Capacity Calculations" for a proposed residential use, subtract (-) the land proposed for nonresidential uses; or In the case of "Site Intensity and Capacity Calculations" for a proposed nonresidential use, subtract (-) the land proposed for residential uses.	-	0	acres
STEP 5:	Equals "Base Site Area"	=	4.12	acres

HELLER & ASSOCIATES LLC
LANDSCAPE ARCHITECTURE

January 18, 2024

Gregory A. Schumacher
13700 W. Greenfield Avenue
Brookfield, WI 53005

RE: Safari Homes
3709 W. College Avenue
Franklin, Wisconsin
Natural Resource Protection Plan (NRPP)

Dear Mr. Schumacher:

Pursuant to the requirements of the City of Franklin, Wisconsin, I offer the following with respect to the parcel identified above:

Natural Resource

Steep Slopes: There is a total drop of about five (5) feet from the north to the south fo the parcel. There are no slopes greater than 10% (1' vertical drop in 10' linear feet) on this parcel

Woodlands & Forest: As depicted on the NRPP (Sheet L1.0 of the Landscape Plan submittal), there are no areas of vegetation that meet the definition of Mature or Young Woodlands, as outlined in the Franklin Zoning Ordinance.

Lakes & Ponds: There are no identified lakes or ponds on any survey material used in preparation of the NRPP.

Streams: There are no identified streams on any survey material used in preparation of the NRPP.

Shore Buffer: There are no identified shore buffer on any survey material used in preparation of the NRPP.

Floodplains: There are no identified floodplains on any survey material used in preparation of the NRPP.

Wetland Buffers: There are no identified wetland buffers on any survey material used in preparation of the NRPP.

Wetlands & Shoreland Wetlands: There are no identified wetlands or shoreland buffers on any survey material used in preparation of the NRPP.

P.O. Box 1359
Lake Geneva, Wisconsin 53147

ph 262 639 9733
m 414 614 9733

david@wdavidheller.com
www.wdavidheller.com

Futher, Table 15-3.0503 “Worksheet For the Calculation of Resource Protection Land” has been added to the plan sheet L1.0 (Natural Resource Protection Plan) for this project, with a revision date of January
Should you have any quesions on any of these materials, I would be happy to speak with you personally.

Thank you in advance for your consideration.

Very Truly Yours,

W. David Heller, ASLA
Registered Landscape Architect WI- 438-014

Dh/wdh

P.O. Box 1359
Lake Geneva, Wisconsin 53147

ph 262 639 9733
m 414 614 9733

david@wdavidheller.com
www.wdavidheller.com

LAKE GROVE PLACE BY SAFARI HOMES FRANKLIN

3709 WEST COLLEGE AVENUNE
FRANKLIN, WI

Table 15-3.0503					
Worksheet for the Calculation of Resource Protection Land					
Natural Resource Feature	**Protection Standard Based Upon Zoning District Type (circle applicable standard from Table 15-4.0100 for the type of zoning district in which the parcel is located)**			**Acres of Land in Resource Feature**	
	Agricult- ural District	**Residential District**	**Non-Residential District**		
Steep Slopes:					
10-19%	0.00	0.60	0.40	X 0	0
				=	
20-30%	0.65	0.75	0.70	X 0	0
				=	
+ 30%	0.90	0.85	0.80	X 0	0
				=	
Woodlands & Forests:					
Mature	0.70	0.70	0.70	X 0	0
				=	
Young	0.50	0.50	0.50	X 0	0
				=	
Lakes & Ponds	1	1	1	X 0	0
				=	
Streams	1	1	1	X 0	0
				=	
Shore Buffer	1	1	1	X 0	0
				=	
Floodplains	1	1	1	X 0	0
				=	
Wetland Buffers	1	1	1	X 0	0
				=	
Wetlands & Shoreland Wetlands	1	1	1	X 0	0
				=	
TOTAL RESOURCE PROTECTION LAND (Total of Acres of Land in Resource Feature to be Protected)					0.0

LAKE GROVE PLACE BY SARARI HOMES FRANKLIN

3709 W. COLLEGE AVE
FRANKLIN, WI

☑ § 15-3.0504 **Calculation of Site Intensity and Capacity for Residential Uses.**

In order to determine the maximum number of dwelling units which may be permitted on a parcel of land zoned in a residential zoning district, the site intensity and capacity calculations set forth in Table 15-3.0504 shall be performed.

Table 15-3.0504		
Worksheet for the Calculation of Site Intensity and Capacity for Residential Development		
STEP 1:	**CALCULATE MINIMAL REQUIRED ON-SITE OPEN SPACE**	
	Take Base Site Area (from Step 5 in Table 15-3.0502): 4.12 acres	
	Multiple by Minimum Open Space Ratio (OSR) (see specific residential zoning district OSR standard): X .25 per option 2	
	Equals **MINIMUM REQUIRED ON-SITE OPEN SPACE** =	1.03 acres
STEP 2:	**CALCULATE NET BUILDABLE SITE AREA:**	
	Take Base Site Area (from Step 5 in Table 15-3.0502): 4.12 acres	
	Subtract Total Resource Protection Land from Table 15-3.0503) or Minimum Required On-Site Open Space (from Step 1 above), whichever is greater:- 1.03 acres	
	Equals **NET BUILDABLE SITE AREA** =	3.09 acres
STEP 3:	**CALCULATE MAXIMUM NET DENSITY YIELD OF SITE:**	
	Take Net Buildable Site Area (from Step 2 above): 3.09 acres	
	Multiply by Maximum Net Density (ND) (see specific residential zoning district ND standard): X 8 units per option 2	
	Equals **MAXIMUM NET DENSITY YIELD OF SITE** =	24.72 D.U.s
STEP 4:	**CALCULATE MAXIMUM GROSS DENSITY YIELD OF SITE:**	
	Take Base Site Area (from Step 5 of Table 15-3.0502): 4.12 acres	
	Multiple by Maximum Gross Density (GD) (see specific residential zoning district GD standard): X 8 units per option 2	
	Equals **MAXIMUM GROSS DENSITY YIELD OF SITE** =	32.96 D.U.s
STEP 5:	**DETERMINE MAXIMUM PERMITTED D.U.s OF SITE:**	
	Take the lowest of Maximum Net Density Yield of Site (from Step 3 above) or Maximum Gross Density Yield of Site (from Step 4 above):	24.72 D.U.s

Requesting to exceed maximum units allowed by 13.28 units
(38 units proposed - 24.72 units allowed = 13.28 units)

STORM WATER MANAGEMENT REPORT

For

Lake Grove Place
Franklin, WI

Dated: March 22, 2024

Submitted By: ***ELLENA ENGINEERING CONSULTANTS, LLC***
700 Pilgrim Parkway - Suite 100
Elm Grove, WI 53122
Ph: 262-719-6183
Fax: 866-457-2584
Email: mellena@eeceng.com

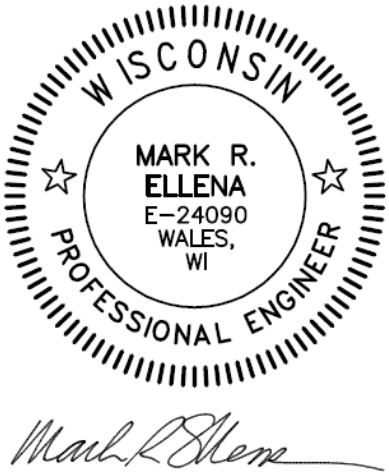


TABLE OF CONTENTS

APPENDIX

INTRODUCTION:

On behalf of the Owners of the above parcel of land and in accordance with the City's Storm Water Management Program, we are submitting the following Storm Water Management Report for your review and approval. The property is about 4.12 Acres located at 3709 West College Avenue, also known as, Parcel 1 of Certified Survey Map 6537, recorded July 27, 1998, on Reel 4358, Image 1930, as Document No. 7571685, being part of the Northeast ¼ of the Northwest ¼ of Section 1, Town 5 North, Range 21 East, in the City of Franklin, Wisconsin. The undeveloped area along the southern and eastern portions of the site will be undisturbed and will not be included in the SWM modeling due to no change in runoff. This report contains hydrologic data to meet or exceed your requirements. The water quality features of the storm water facility includes two (2) *Bio-Retention Basins* to remove, on an average annual basis, a minimum of 80% of the total suspended solids load resulting from the 1 year storm event.

A soils investigation conducted by Terracon Consultants, Inc. indicates the site is comprised of natural lean clay with a very limited capacity for infiltration of storm water through the use of infiltration devices. The prevailing soils of the property consist of heavy-textured soils described as lean clays which exhibit slow permeability. Based on the predominant lean clay soils encountered and the guidelines in the Wisconsin DNR Conservation Practice Standard 1002, the site is considered to be exempt from NR 151 infiltration requirements (see attached soils report in Appendix 6).

DESIGN CRITERIA:

Specifically, we have designed a two (2) *Bio-Retention Basin* areas that are routed together to act as one basin, located at the northwestern and central portions of the property, as the storm water management facilities for the entire site. The storm water facility has been designed to meet the maximum runoff criteria listed in MMSD Chapter 13, the City of Franklin Unified Development Ordinances (UDO) 15 design criteria and WDNR NR151. This report will provided results to comply with these requirements. Furthermore, this report remains subject to MMSD review and approval. The City will submit the SWM report to MMSD; when applicable. The computer model used in our analysis is *Hydraflow* based on the TR-55 runoff curve number methodology, Atlas 14 precipitation depths and NRCS Wisconsin MSE3 precipitation distribution. The following data summarizes our findings:

EXISTING CONDITIONS:

The subject property is a large single family residential site with open grass and some limited brush areas. The property receives approximately 4.08 Acres of runoff from the west and the drainage continues to flow easterly to the adjacent property. The eastern property currently bypasses the tributary drainage through a series of parking areas and a small storm line (pipe in poor condition and not adequately designed to bypass developed flow conditions), eventually reaching the 35th Street public storm sewer system. Furthermore, this offsite bypass system does not have a recorded drainage easement to allow offsite flows to bypass through their property. The City and County have agreed to allow our proposed discharge piping to be installed in College Ave and 35th Street to the City's storm sewer system. Detailed plans have been prepared and are available from the City. Also, the property is located in the Root River Watershed (SE03).

TABLE NO. 1
DRAINAGE AREAS

Drainage Area	Area (Ac)	CN*	Tc
EX1(bypass)	4.20	86	23.50
EX2 (site)	3.60	84	29.70

*Soil Type: Blount Silt Loam & Ozaukee Silt Loam-Hydrologic Soil Group C. Use D type soils per soils report. CN=83 for grass land. See table below.

POST-DEVELOPMENT SUBWATERSHED AREA: EX1				
LAND USE	AREA (Ac)	CURVE NUMBER (CN)	AREA X CN	COMPOSITE CN NUMBER
Building Area	0.10	98	9.80	
Pavement Area	0.85	98	83.30	
Pond Area	0	98	0	
Open Space - Developed	3.25	83	269.75	
Totals:	4.20	-	362.85	362.85/4.20=86.39 = 86

POST-DEVELOPMENT SUBWATERSHED AREA: EX2				
LAND USE	AREA (Ac)	CURVE NUMBER (CN)	AREA X CN	COMPOSITE CN NUMBER
Building Area	0.06	98	5.88	
Pavement Area	0.20	98	19.60	
Pond Area	0	98	0	
Open Space - Grass	3.34	83	277.22	
Totals:	3.60	-	302.70	302.70/3.60=84.08 = 84

Runoff hydrographs were developed for the 1, 2, 10 and 100 year storm events and the result of our analysis are as shown in Table No. 1

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TABLE NO. 2
EXISTING CONDITIONS

STORM EVENT	TOTAL DESIGN PRECIPITATION (inches)	EX1(bypass) PEAK FLOW (cfs)	EX2(site) PEAK FLOW (cfs)
1	2.34	4.67	3.32
2	2.64	5.71	4.14
10	3.73	9.66	7.25
100	6.06	18.41	14.27

PROPOSED CONDITIONS:

The proposed development consist of five (5) multi-unit condominium buildings, an entrance loop roadway and a parking lot storm conveyance system with building roof detention, all tributary to the two (2) bio-retention basins centrally located to the address the storm water regulations.

TABLE NO. 3
DRAINAGE AREAS

Drainage Area	Area (Ac)	CN*	Tc
PR2 (site)	3.60	92	21.50

*COMPOSITE CN COMPUTATIONS ARE SHOWN IN THE TABLES BELOW:

POST-DEVELOPMENT SUBWATERSHED AREA: PR2				
LAND USE	AREA (Ac)	CURVE NUMBER (CN)	AREA X CN	COMPOSITE CN NUMBER
Building Area	1.00	98	98.00	
Parking & Drive Area	1.09	98	106.82	
Open Space – Grass	1.51	83	125.33	
Totals:	3.60	-	330.15	330.15/3.60=91.7 = 92

Runoff hydrographs were developed for the 1, 2, 10 and 100 year storm events and the result of our analysis are as shown in Table No. 4.

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TABLE NO. 4
PROPOSED CONDITIONS

STORM EVENT	TOTAL DESIGN PRECIPITATION (inches)	PR2(site) PEAK FLOW (cfs)
1	2.34	6.03
2	2.64	7.08
10	3.73	10.91
100	6.06	19.00

The bio-retention storm water management facility was designed for the entire site using the above results and design criteria per your regulations. The discharge piping from the onsite bio-retention area will be installed in College Ave and 35th Street to the City's storm sewer system. The discharge from the small undetained grass strip will drain offsite to the east, at a much reduced rate from that of the original existing conditions. The following tables present the results of our storm water management design:

TABLE NO. 5

1 YEAR DESIGN FREQUENCY			
POND	**POND OUTLET FLOWRATE (cfs)**	**WATER SURFACE ELEVATIONS (ft)**	**STORAGE VOLUME (Ac-Ft)**
PR2 (BIO-POND)	0.39	776.41	0.305

TABLE NO. 6

2 YEAR DESIGN FREQUENCY			
POND	**POND OUTLET FLOWRATE (cfs)**	**WATER SURFACE ELEVATIONS (ft)**	**STORAGE VOLUME (Ac-Ft)**
PR2 (BIO-POND)	0.47	776.64	0.364

TABLE NO. 7

10 YEAR DESIGN FREQUENCY			
POND	**POND OUTLET FLOWRATE (cfs)**	**WATER SURFACE ELEVATIONS (ft)**	**STORAGE VOLUME (Ac-Ft)**
PR2 (BIO-POND)	1.10	777.26	0.542

TABLE NO. 8

100 YEAR DESIGN FREQUENCY			
POND	**POND OUTLET FLOWRATE (cfs)**	**WATER SURFACE ELEVATIONS (ft)**	**STORAGE VOLUME (Ac-Ft)**
PR2 (BIO-POND)	1.68	778.51	0.998

TABLE NO. 9
POST PEAK FLOW SUMMARY TABLE FOR PR2 (SITE DETENTION)

STORM EVENT	TOTAL DESIGN PRECIPITATION (inches)	PR2 PEAK FLOW (cfs)
1	2.34	0.39
2	2.64	0.47
10	3.73	1.10
100	6.06	1.68

SUMMARY OF RESULTS FOR ENTIRE SITE:

TABLE NO. 10

TOTAL SITE DISTURBED WATERSHED (3.60 Acres)			
STORM EVENT	**EXISTING RELEASE RATE**	**MMSD ALLOWABLE RELEASE RATE**	**PEAK DISCHARGE RATE**
1	3.32	-	0.39
2	4.14	0.54	0.47
10	7.25	-	1.10
100	14.27	1.80	1.68

WATER QUALITY DESIGN:

The water quality feature of the storm water facilities (bio-retention areas with slow release outlet orifices) has been designed to remove, on an average annual basis, a minimum of 80% of the total suspended solids load resulting from the 1 year storm event. An analysis was conducted with the WDNR WinSLAMM model (as recommended by the WDNR) resulting in a TSS removal rate of 84.3% which exceeds the required removal rate of 80% (see attached data).

In conclusion, the total release rate from the 2 and 100-year, 24 hour event under proposed conditions is equal to or less than the runoff criteria per MMSD Chapter 13. The stage-storage discharge information for these facilities has been included along with the hydrologic report data for you use.

Please advise of you should need further information to complete your review.

Sincerely,

Ellena Engineering Consultants, LLC

Mark R Ellena, P.E.
Ellena Engineering Consultants, LLC
700 Pilgrim Parkway, Suite 100
Elm Grove, WI 53122
(262) 719-6183
Email: mellena@eeceng.com

TABLE OF CONTENTS

INTRODUCTION:

On behalf of the Owners of the above parcel of land and in accordance with the City's Storm Water Management Program, we are submitting the following Storm Water Management Report for your review and approval. The property is about 4.12 Acres located at 3709 West College Avenue, also known as, Parcel 1 of Certified Survey Map 6537, recorded July 27, 1998, on Reel 4358, Image 1930, as Document No. 7571685, being part of the Northeast ¼ of the Northwest ¼ of Section 1, Town 5 North, Range 21 East, in the City of Franklin, Wisconsin. The undeveloped area along the southern portion of the site (0.184 acres) will be undisturbed and will not be analyzed in the SWM modeling due to no change in runoff. This report contains hydrologic data to meet or exceed your requirements. The water quality features of the storm water facility includes two (2) *Bio-Retention Basins* to remove, on an average annual basis, a minimum of 80% of the total suspended solids load resulting from the 1 year storm event.

A soils investigation conducted by Terracon Consultants, Inc. indicates the site is comprised of natural lean clay with a very limited capacity for infiltration of storm water through the use of infiltration devices. The prevailing soils of the property consist of heavy-textured soils described as lean clays which exhibit slow permeability. Based on the predominant lean clay soils encountered and the guidelines in the Wisconsin DNR Conservation Practice Standard 1002, the site is considered to be exempt from NR 151 infiltration requirements (see attached soils report in Appendix 6).

DESIGN CRITERIA:

Specifically, we have designed a two (2) *Bio-Retention Basin* areas that are routed together to act as one basin, located at the northwestern and central portions of the property, as the storm water management facilities for the entire site. The storm water facility has been designed to meet the maximum runoff criteria listed in MMSD Chapter 13. Furthermore, this report remains subject to MMSD review and approval. The City will submit the SWM report to MMSD; when applicable. The computer model used in our analysis is *Hydraflow* based on the TR-55 runoff curve number methodology, Atlas 14 precipitation depths and NRCS Wisconsin MSE3 precipitation distribution. The following data summarizes our findings:

EXISTING CONDITIONS:

The subject property is a large single family residential site with open grass and some limited brush areas. The property receives approximately 4.08 Acres of runoff from the west and the drainage continues to flow easterly to the adjacent property. The eastern property currently bypasses the tributary drainage through a series of parking areas and a small storm line (pipe in poor condition and not adequately designed to bypass developed flow conditions), eventually reaching the 35th Street public storm sewer system. Furthermore, this offsite bypass system does not have a recorded drainage easement to allow offsite flows to bypass through their property. The City and County have agreed to allow our proposed discharge piping to be installed in College Ave and 35th Street to the City's storm sewer system. Detailed plans have been prepared and are available from the City. Also, the property is located in the Root River Watershed (SE03).

TABLE NO. 1
DRAINAGE AREAS

Drainage Area	Area (Ac)	CN*	Tc
EX1	7.95	75	9.8

*Soil Type: Blount Silt Loam & Ozaukee Silt Loam-Hydrologic Soil Group C (SCS, TR55, Urban Hydrology for Small Watersheds, 2nd Addition, Appendix A-1 & Table 2-2a, Runoff Curve Numbers for Urban Areas - Open Space Woods & Grass condition)

POST-DEVELOPMENT SUBWATERSHED AREA: EX1				
LAND USE	AREA (Ac)	CURVE NUMBER (CN)	AREA X CN	COMPOSITE CN NUMBER
Building Area	0.16	98	15.68	
Pavement Area	1.20	98	117.60	
Pond Area	0	98	0	
Open Space - Developed	6.59	70	461.30	
Totals:	7.95	-	594.58	594.58/7.95=74.80 = 75

Runoff hydrographs were developed for the 1, 2, 10 and 100 year storm events and the result of our analysis are as shown in Table No. 1

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TABLE NO. 2
EXISTING CONDITIONS

STORM EVENT	TOTAL DESIGN PRECIPITATION (inches)	EX1 PEAK FLOW (cfs)
1	2.34	6.68
2	2.64	9.00
10	3.73	18.78
100	6.06	43.07

PROPOSED CONDITIONS:

The proposed development consist of five (5) multi-unit condominium buildings, an entrance loop roadway and a parking lot storm conveyance system with building roof detention, all tributary to the two (2) bio-retention basins centrally located to the address the storm water regulations.

TABLE NO. 3
DRAINAGE AREAS

Drainage Area	Area (Ac)	CN*	Tc
PR1(offsite)	4.08	77	8.4
PR2	2.57	80	18.1
PR3 (bldgs only)	1.00	98	6.0
PR4 (offsite)	0.30	70	10.0
Total	7.95		

*COMPOSITE CN COMPUTATIONS ARE SHOWN IN THE TABLES BELOW:

TABLE NO. 4

POST-DEVELOPMENT SUBWATERSHED AREA: PR1 (OFFSITE TRIBUTARY AREA)				
LAND USE	AREA (Ac)	CURVE NUMBER (CN)	AREA X CN	COMPOSITE CN NUMBER
Building Area	0.10	98	9.80	
Parking & Drive Area	0.86	98	84.28	
Open Space – Blount & Ozaukee Silt Loam	3.12	70	218.40	
Totals:	4.08	-	312.48	312.48/4.08=76.59 = 77

TABLE NO. 5

POST-DEVELOPMENT SUBWATERSHED AREA: PR2 (ON SITE DEVMT – NO BUILDING ROOFS)				
LAND USE	AREA (Ac)	CURVE NUMBER (CN)	AREA X CN	COMPOSITE CN NUMBER
Building Area	0.00	98	0	
Parking & Drive Area	0.94	98	92.12	
Open Space – Blount & Ozaukee Silt Loam	1.63	70	114.10	
Totals:	2.57	-	206.22/2.57	206.22/2.57=80.24 = 80

TABLE NO. 6

POST-DEVELOPMENT SUBWATERSHED AREA: PR3 (ROOF DETENTION)				
LAND USE	AREA (Ac)	CURVE NUMBER (CN)	AREA X CN	COMPOSITE CN NUMBER
Building Area	1.00	98	98.00	
Parking & Drive Area	0	98	0	
Open Space – Blount & Ozaukee Silt Loam	0	70	0	
Totals:	1.00	-	98.00	98.00/1.00=98.00 = 98

TABLE NO. 7

POST-DEVELOPMENT SUBWATERSHED AREA: PR4 (UNDETAINED EASTERLY AREA)				
LAND USE	AREA (Ac)	CURVE NUMBER (CN)	AREA X CN	COMPOSITE CN NUMBER
Building Area	0	98	0	
Parking & Drive Area	0	98	0	
Open Space – Blount & Ozaukee Silt Loam	0.30	70	21.00	
Totals:	0.30	-	21.00	21.00/0.30=70 = 70

Runoff hydrographs were developed for the 1, 2, 10 and 100 year storm events and the result of our analysis are as shown in Table below:

TABLE NO. 8
PEAK FLOW FOR EACH SUB-WATERSHED

STORM EVENT	TOTAL DESIGN PRECIPITATION (inches)	PR1 PEAK FLOW (cfs)	PR2 PEAK FLOW (cfs)	PR3* PEAK FLOW (cfs)	PR4 PEAK FLOW (cfs)	TOTAL SITE
1	2.34	4.03	2.28	3.35	0.13	8.70
2	2.64	5.30	2.93	3.80	0.20	10.98
10	3.73	10.60	5.48	5.41	0.49	20.09
100	6.06	23.35	11.54	8.83	1.24	41.60

*The data presented is for the proposed roof area release rates. The proposed buildings will be designed with a roof dentention stormwater collection system consisting of restricted roof drains restricted to 25% of capacity; directly connected to the onsite bio-retention pond.

The rooftop detention consists of a relatively flat rooftop with gradual controlled release of the accumulated storm water runoff using perforated weirs associated with 2 individual roof drains per unit or 38 drains. The discharge from each individual rooftop drain will directly connect to the onsite bio-retention system. The following table and the attached hydrologic output data present the results of our rooftop detention input data:

TABLE NO. 9

STAGE VS. DISCHARGE FOR RAINTROL ROOF DRAIN					
Stage(in)		**FLOW RATE ONE DRAIN @ (gpm)**	**FLOW RATE ONE DRAIN @ 25% (gpm)**	**TOTAL FLOW RATE FOR 38 DRAINS (gpm)**	**TOTAL FLOW RATE FOR 38 DRAINS (cfs)**
0	0.00	0	0	0	0.00
1	0.08	9.2	1.84	69.92	0.16
2	0.17	18.6	3.72	141.36	0.31
3	0.25	28.4	5.68	215.84	0.48
4	0.33	38.6	7.72	293.36	0.65
5	0.42	49.1	9.82	373.16	0.83
6	0.50	60	12	456	1.02

The bio-retention storm water management facility was designed for the entire site using the above results and design criteria per your regulations. The discharge piping from the onsite bio-retention area will be installed in College Ave and 35th Street to the City's storm sewer system. The discharge from the small undetained grass strip will drain offsite to the east, at a much reduced rate from that of the original existing conditions. The following tables present the results of our storm water management design:

TABLE NO. 10

1 YEAR DESIGN FREQUENCY			
POND	**POND OUTLET FLOWRATE (cfs)**	**WATER SURFACE ELEVATIONS (ft)**	**STORAGE VOLUME (Ac-Ft)**
PR2 (BIO-POND)	0.78	775.23	0.200
PR3 (ROOF)	0.20	100.10	0.105

TABLE NO. 11

2 YEAR DESIGN FREQUENCY			
POND	**POND OUTLET FLOWRATE (cfs)**	**WATER SURFACE ELEVATIONS (ft)**	**STORAGE VOLUME (Ac-Ft)**
PR2 (BIO-POND)	0.84	775.49	0.275
PR3 (ROOF)	0.23	100.12	0.119

TABLE NO. 12

10 YEAR DESIGN FREQUENCY			
POND	**POND OUTLET FLOWRATE (cfs)**	**WATER SURFACE ELEVATIONS (ft)**	**STORAGE VOLUME (Ac-Ft)**
PR2 (BIO-POND)	1.04	776.45	0.597
PR3 (ROOF)	0.32	100.17	0.173

TABLE NO. 13

100 YEAR DESIGN FREQUENCY			
POND	**POND OUTLET FLOWRATE (cfs)**	**WATER SURFACE ELEVATIONS (ft)**	**STORAGE VOLUME (Ac-Ft)**
PR2 (BIO-POND)	1.34	778.37	1.478
PR3 (ROOF)	0.56	100.29	0.285

TABLE NO. 14
POST PEAK FLOW SUMMARY TABLE*

STORM EVENT	TOTAL DESIGN PRECIPITATION (inches)	PR2 PEAK FLOW (cfs)	PR4 PEAK FLOW (cfs)	TOTAL SITE
1	2.34	0.78	0.13	0.83
2	2.64	0.84	0.20	0.92
10	3.73	1.01	0.49	1.33
100	6.06	1.34	1.24	2.33

*PR3 (ROOF DETENTION) IS ROUTED TO PR2 (BIO-POND). PR4 IS UNDETAINED.

SUMMARY OF RESULTS BY SUB-WATERSHED:

TABLE NO. 15

SUB-WATERSHED AREA EX1			
STORM EVENT	**EXISTING RELEASE RATE**	**MMSD ALLOWABLE RELEASE RATE**	**PEAK DISCHARGE RATE (DETAINED)***
1	6.68	-	0.13
2	9.00	7.95*0.15=1.19	0.20
10	18.78	-	0.49
100	43.07	7.95*0.5=3.98	1.24

*PR4 IS UNDETAINED AND THE ONLY PROPOSED DISCHARGE DIRECTLY TO THE EAST.

THE REMAINDER OF THE SITE IS DETAINED ONSITE AND ROUTED THROUGH AN OFFSITE STORM TO 35TH ST.

SUMMARY OF RESULTS FOR ENTIRE SITE:

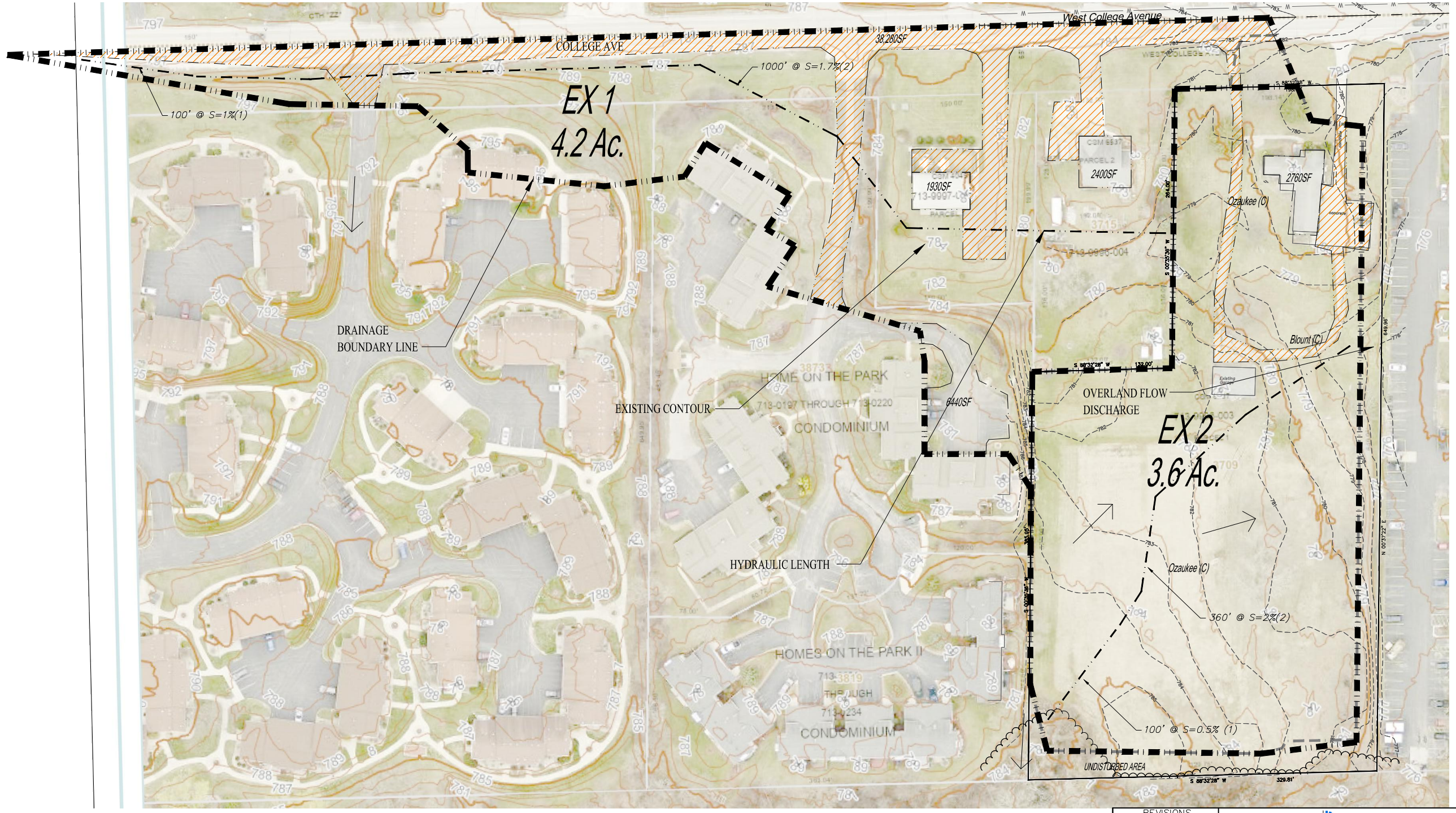
TABLE NO. 16

TOTAL SITE WATERSHED (7.95 Acres)			
STORM EVENT	**EXISTING RELEASE RATE**	**MMSD ALLOWABLE RELEASE RATE**	**PEAK DISCHARGE RATE***
1	6.68	-	0.83
2	9.00	1.19	0.92
10	18.78	-	1.33
100	43.07	3.98	2.33

* THE PEAK DISCHARGE RATE REPRESENTS THE HYDROLOGIC ADDITION OF ALL THE PROPOSED SUB-WATERSHEDS OR ENTIRE SITE.

APPENDIX 1

Existing Drainage Map



LEGEND

IMPERVIOUS SURFACE

DRAINAGE BOUNDARY LINE

HYDRAULIC LENGTH
(1) sheet flow
(2) shallow concentrated flow

REVISIONS	
DATE	BY

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
Ellena Engineering Consultants, LLC • 700 Pilgrim Parkway - Suite 100 • Elm Grove, WI 53122
Phone: 262-719-6183 • Fax: 866-457-2584 • Email: mellena@eeceng.com

College Ave Townhomes

CITY OF FRANLKLIN, WISCONSIN

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

EXISTING DRAINAGE MAP

SCALE: 1"=100' | DATE: 03-22-24

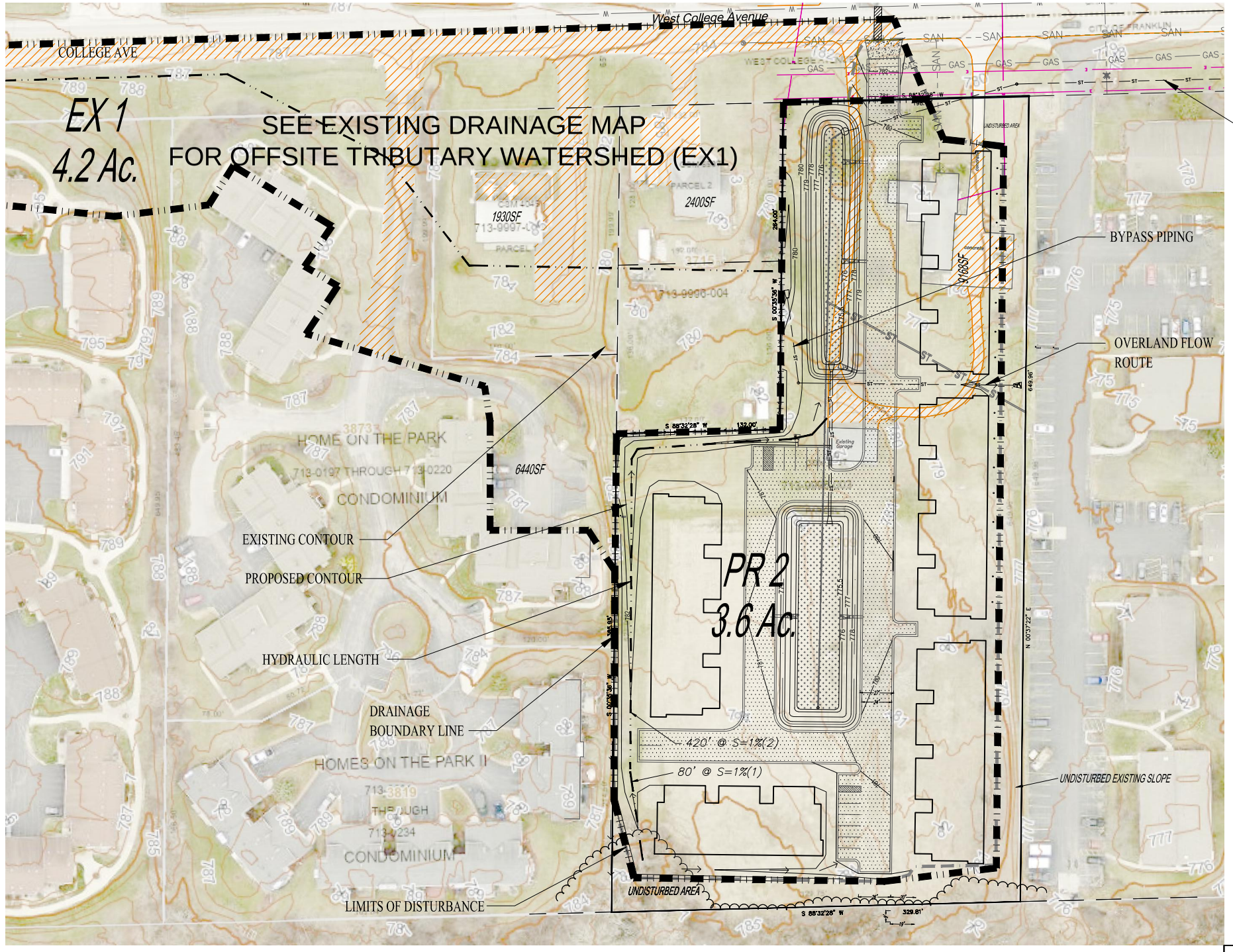
DESIGNED BY: MRE,PE | CHECKED BY:

APPROVED BY: _____ CITY ENGINEER DATE

SHEET 1 OF 2

APPENDIX 2

Proposed Drainage Map



PAVEMENT LEGEND:

STANDARD DUTY PAVEMENT
4" ASPHALT PAVEMENT
(2 LIFTS)
8" - 3/4" GRAVEL BASE

LEGEND

EXISTING IMPERVIOUS SURFACE

DRAINAGE BOUNDARY LINE

HYDRAULIC LENGTH
(1) sheet flow
(2) shallow concentrated flow

REVISIONS	
DATE	BY

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
Ellena Engineering Consultants, LLC • 700 Pilgrim Parkway - Suite 100 • Elm Grove, WI 53122
Phone: 262-719-6183 • Fax: 866-457-2584 • Email: mellena@eeceng.com

College Ave Townhomes
CITY OF FRANLKLIN, WISCONSIN

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

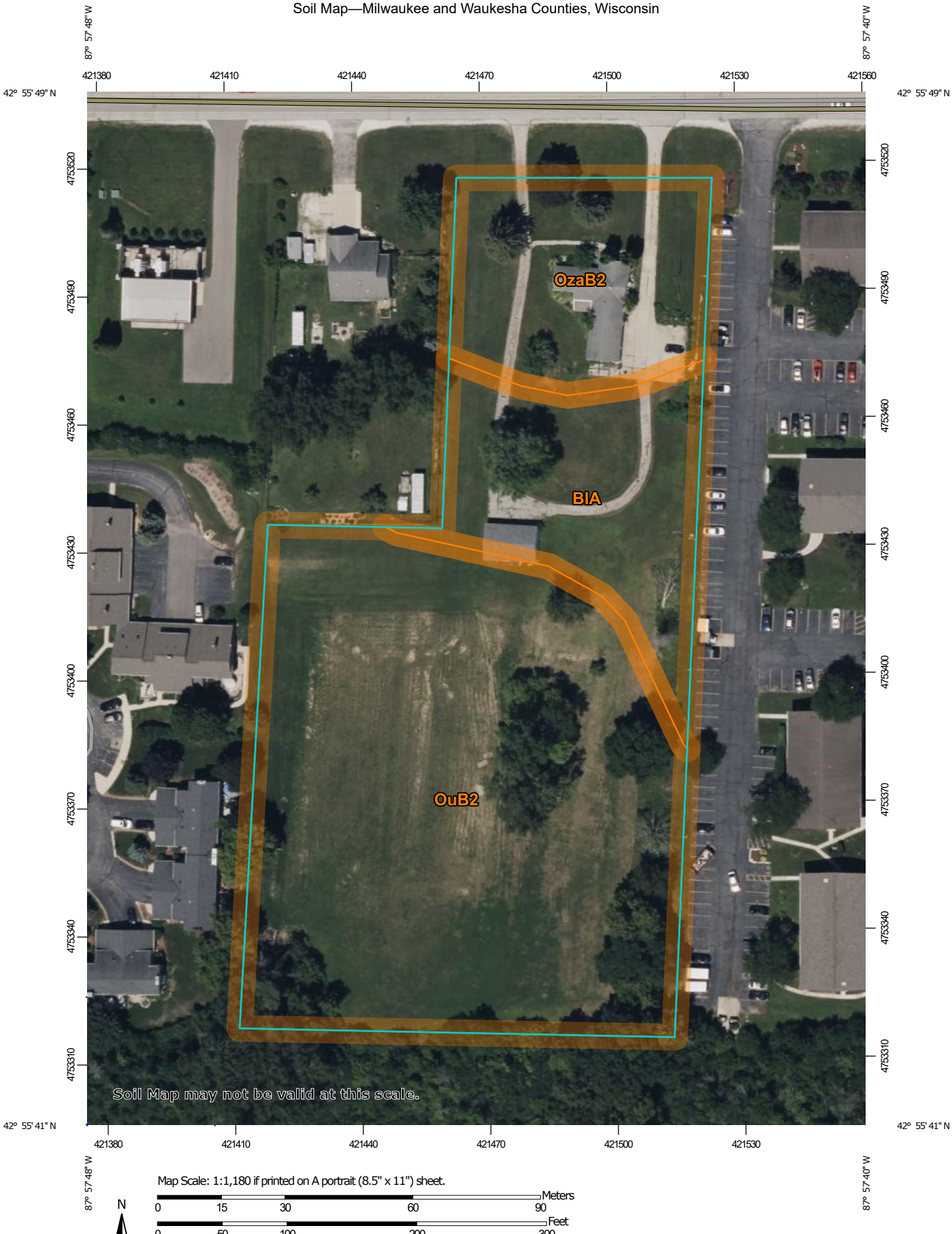
PROPOSE DRAINAGE MAP

SCALE: 1"=100' | DATE: 03-22-24
DESIGNED BY: MRE,PE | CHECKED BY:
APPROVED BY: _____ (CITY ENGINEER) (DATE)

APPENDIX 3

SCS Soils Map

Soil Map—Milwaukee and Waukesha Counties, Wisconsin



Map Scale: 1:1,180 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N 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 1:15,800.

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: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 19, Sep 8, 2023

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

Date(s) aerial images were photographed: Jul 25, 2022—Aug 24, 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
BlA	Blount silt loam, 1 to 3 percent slopes	0.8	18.3%
OuB2	Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded	2.7	64.9%
OzaB2	Ozaukee silt loam, 2 to 6 percent slopes, eroded	0.7	16.8%
Totals for Area of Interest		**4.2**	**100.0%**

APPENDIX 4

Hydraflow Output

Legend

Hyd.	Origin	Description
1	SCS Runoff	EX1 - OFFSITE
2	SCS Runoff	EX2-DEVELOPED SITE
4	SCS Runoff	PR2 - ONSITE DEVMT TO PONDS
5	Reservoir	BIO POND

Table of Contents

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow Hyd(s)	Peak Outflow (cfs)								Hydrograph description
			1-Yr	2-Yr	3-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr	
1	SCS Runoff	-------	4.67	5.71	-------	-------	9.66	-------	-------	18.41	EX1 - OFFSITE
2	SCS Runoff	-------	3.33	4.14	-------	-------	7.25	-------	-------	14.27	EX2-DEVELOPED SITE
4	SCS Runoff	-------	6.03	7.08	-------	-------	10.91	-------	-------	19.00	PR2 - ONSITE DEVMT TO PONDS
5	Reservoir	4	0.39	0.47	-------	-------	1.10	-------	-------	1.68	BIO POND

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	4.67	2	740	0.384	----	------	------	EX1 - OFFSITE
2	SCS Runoff	3.33	2	742	0.298	----	------	------	EX2-DEVELOPED SITE
4	SCS Runoff	6.03	2	736	0.472	----	------	------	PR2 - ONSITE DEVMT TO PONDS
5	Reservoir	0.39	2	826	0.466	4	776.41	0.305	BIO POND

Hydrograph Plot

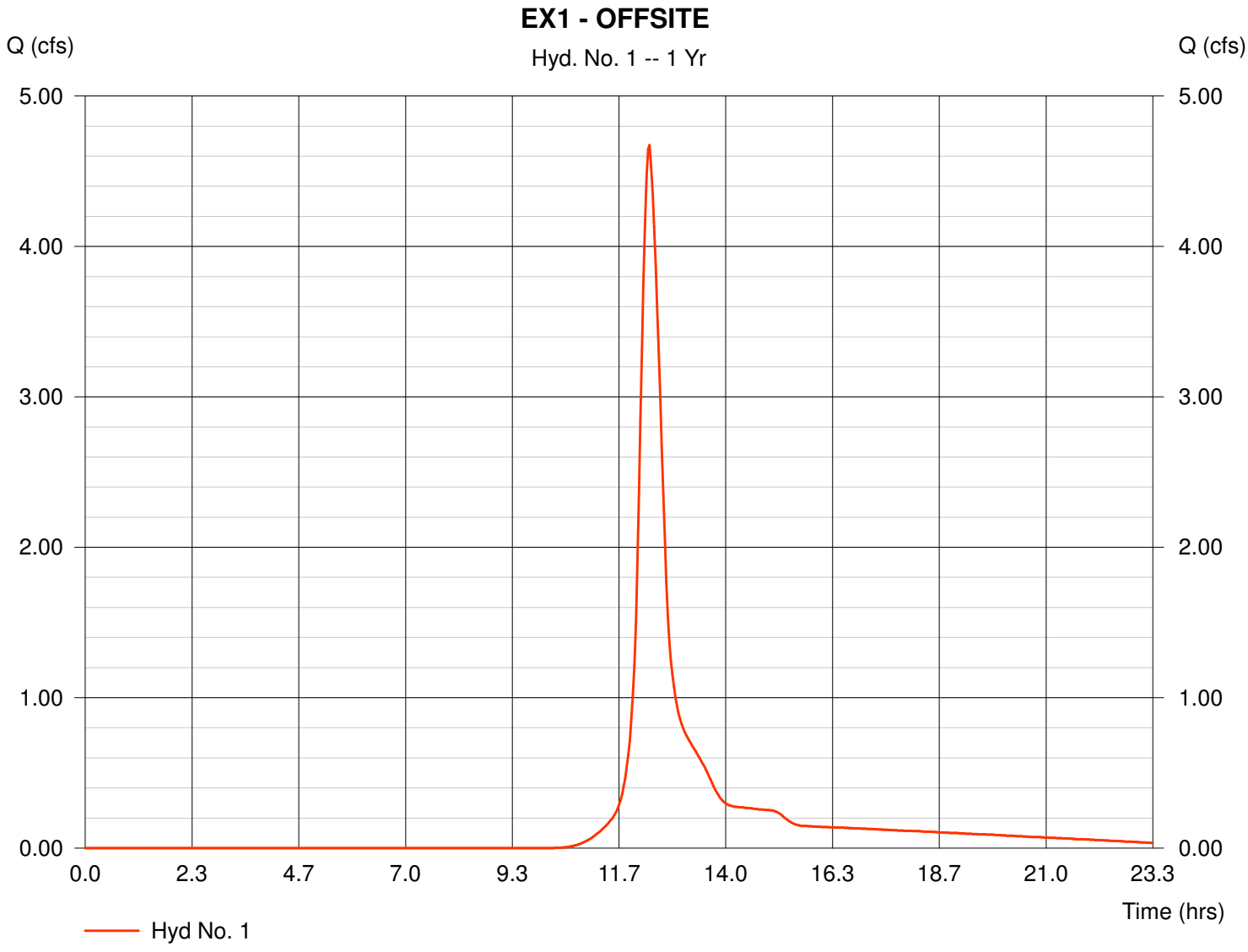
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 1

EX1 - OFFSITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.67 cfs
Storm frequency	=	1 yrs	Time interval	=	2 min
Drainage area	=	4.20 ac	Curve number	=	86
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	23.5 min
Total precip.	=	2.34 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 0.384 acft



TR55 Tc Worksheet

Hyd. No. 1

EX1 - OFFSITE

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.240		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.70		0.00		0.00		
Land slope (%)	= 2.00		0.00		0.00		
Travel Time (min)	**= 15.54**	**+**	**0.00**	**+**	**0.00**	**=**	**15.54**
Shallow Concentrated Flow							
Flow length (ft)	= 1000.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 2.10		0.00		0.00		
Travel Time (min)	**= 7.92**	**+**	**0.00**	**+**	**0.00**	**=**	**7.92**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

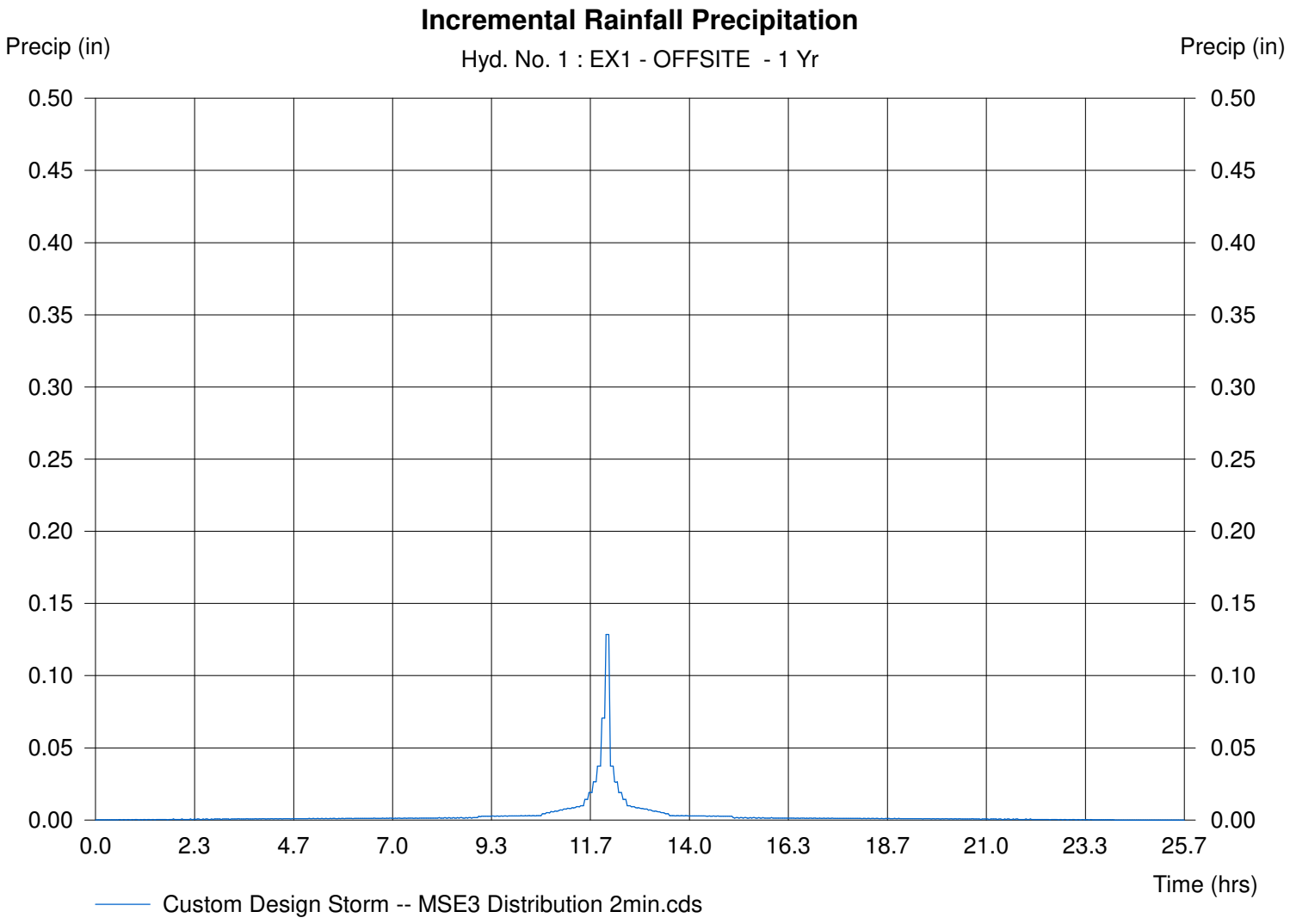
Total Travel Time, Tc ..... 23.50 min

Precipitation Report

Hyd. No. 1

EX1 - OFFSITE

Storm Frequency	= 1 yrs	Time interval	= 2 min
Total precip.	= 2.34 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



Hydrograph Plot

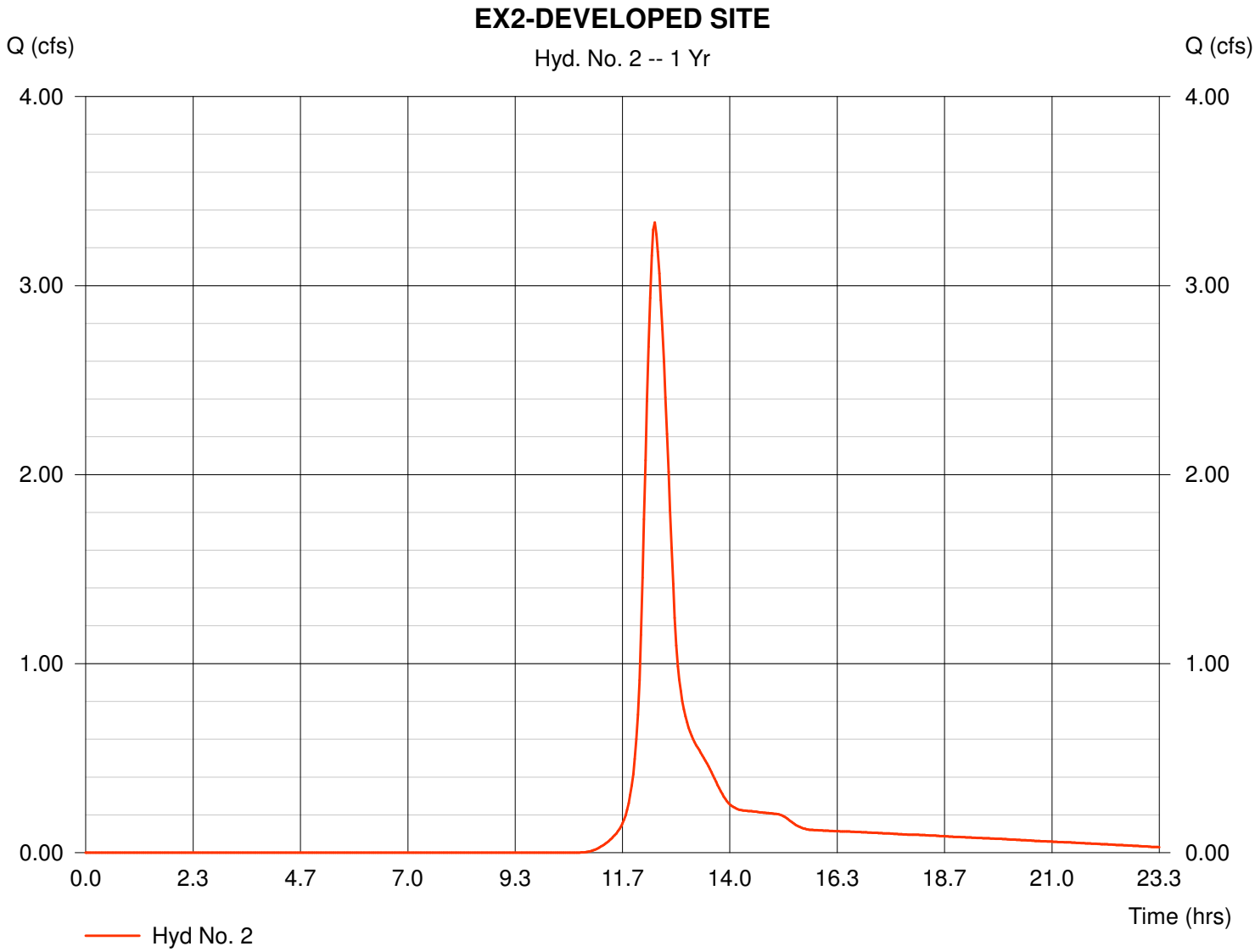
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 2

EX2-DEVELOPED SITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.33 cfs
Storm frequency	=	1 yrs	Time interval	=	2 min
Drainage area	=	3.60 ac	Curve number	=	84
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	29.7 min
Total precip.	=	2.34 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 0.298 acft



TR55 Tc Worksheet

Hyd. No. 2

EX2-DEVELOPED SITE

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.240		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.70		0.00		0.00		
Land slope (%)	= 0.50		0.00		0.00		
Travel Time (min)	**= 27.05**	**+**	**0.00**	**+**	**0.00**	**=**	**27.05**
Shallow Concentrated Flow							
Flow length (ft)	= 360.00		0.00		0.00		
Watercourse slope (%)	= 2.00		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 2.28		0.00		0.00		
Travel Time (min)	**= 2.63**	**+**	**0.00**	**+**	**0.00**	**=**	**2.63**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

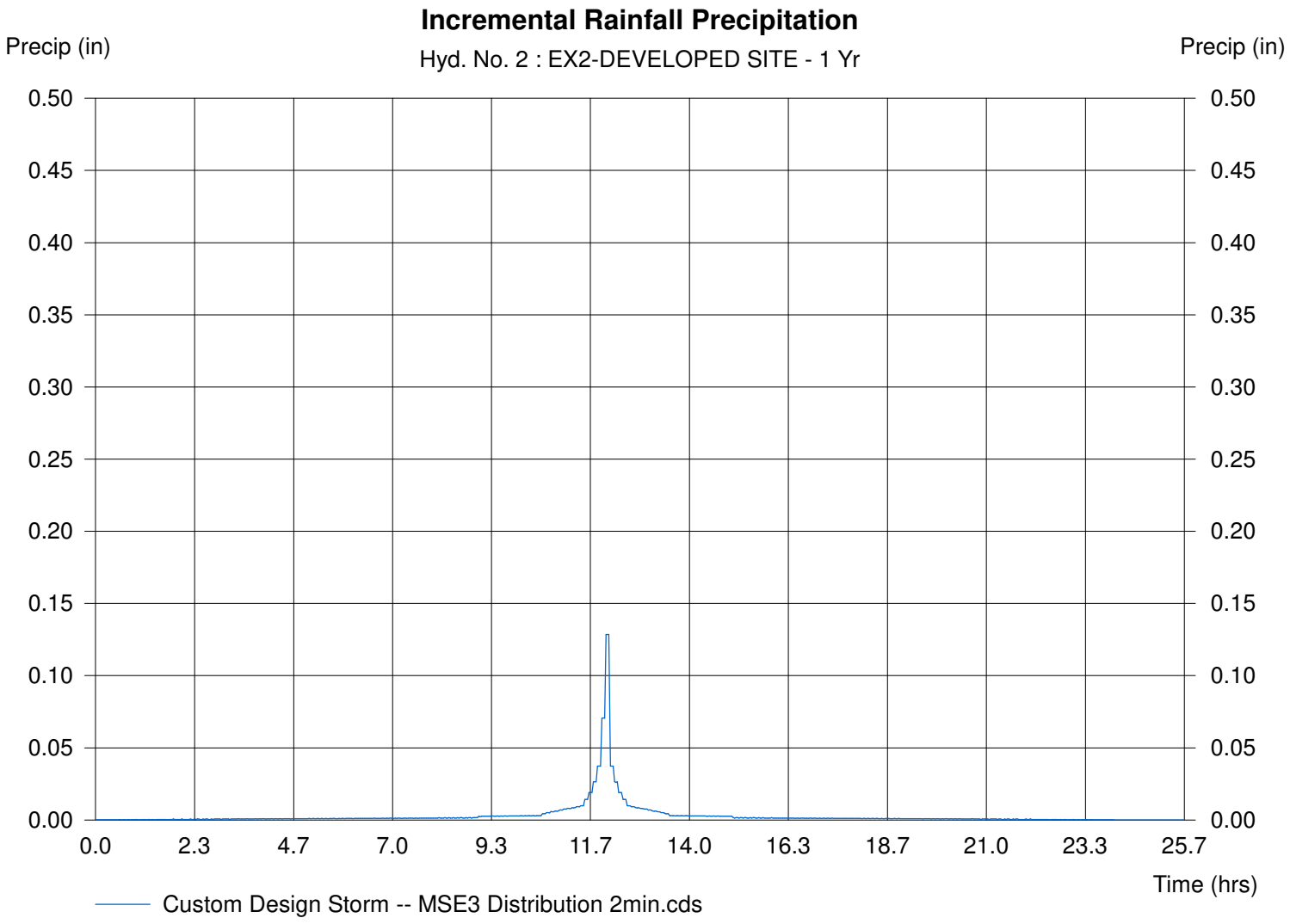
Total Travel Time, Tc ..... 29.70 min

Precipitation Report

Hyd. No. 2

EX2-DEVELOPED SITE

Storm Frequency	= 1 yrs	Time interval	= 2 min
Total precip.	= 2.34 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



Hydrograph Plot

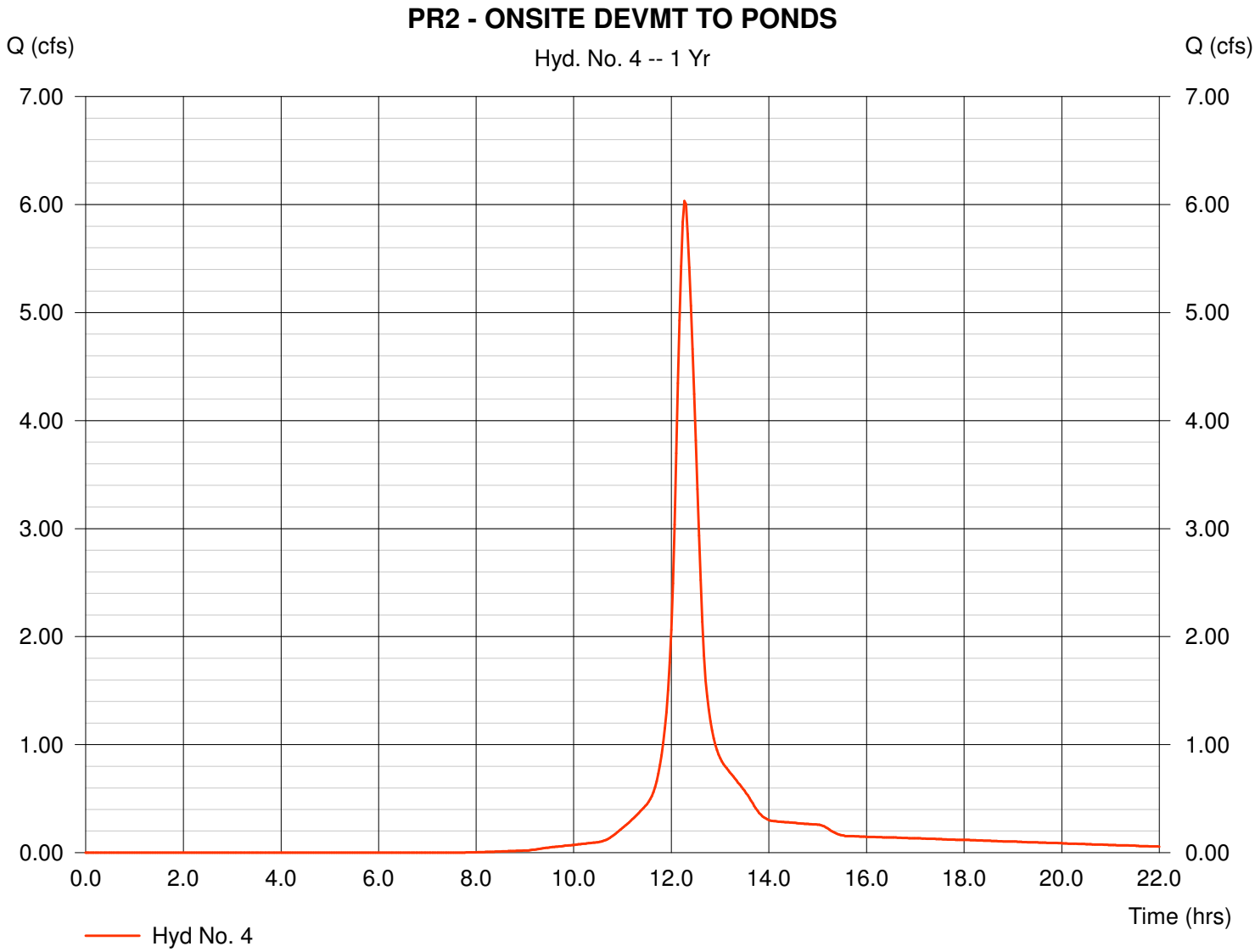
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Hydrograph type	=	SCS Runoff	Peak discharge	=	6.03 cfs
Storm frequency	=	1 yrs	Time interval	=	2 min
Drainage area	=	3.60 ac	Curve number	=	92
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	21.5 min
Total precip.	=	2.34 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 0.472 acft



TR55 Tc Worksheet

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.240	0.011	0.011	
Flow length (ft)	= 80.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 2.70	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	**= 17.15**	**+ 0.00**	**+ 0.00**	**= 17.15**
Shallow Concentrated Flow				
Flow length (ft)	= 420.00	0.00	0.00	
Watercourse slope (%)	= 1.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 1.61	0.00	0.00	
Travel Time (min)	**= 4.34**	**+ 0.00**	**+ 0.00**	**= 4.34**
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	**= 0.00**	**+ 0.00**	**+ 0.00**	**= 0.00**

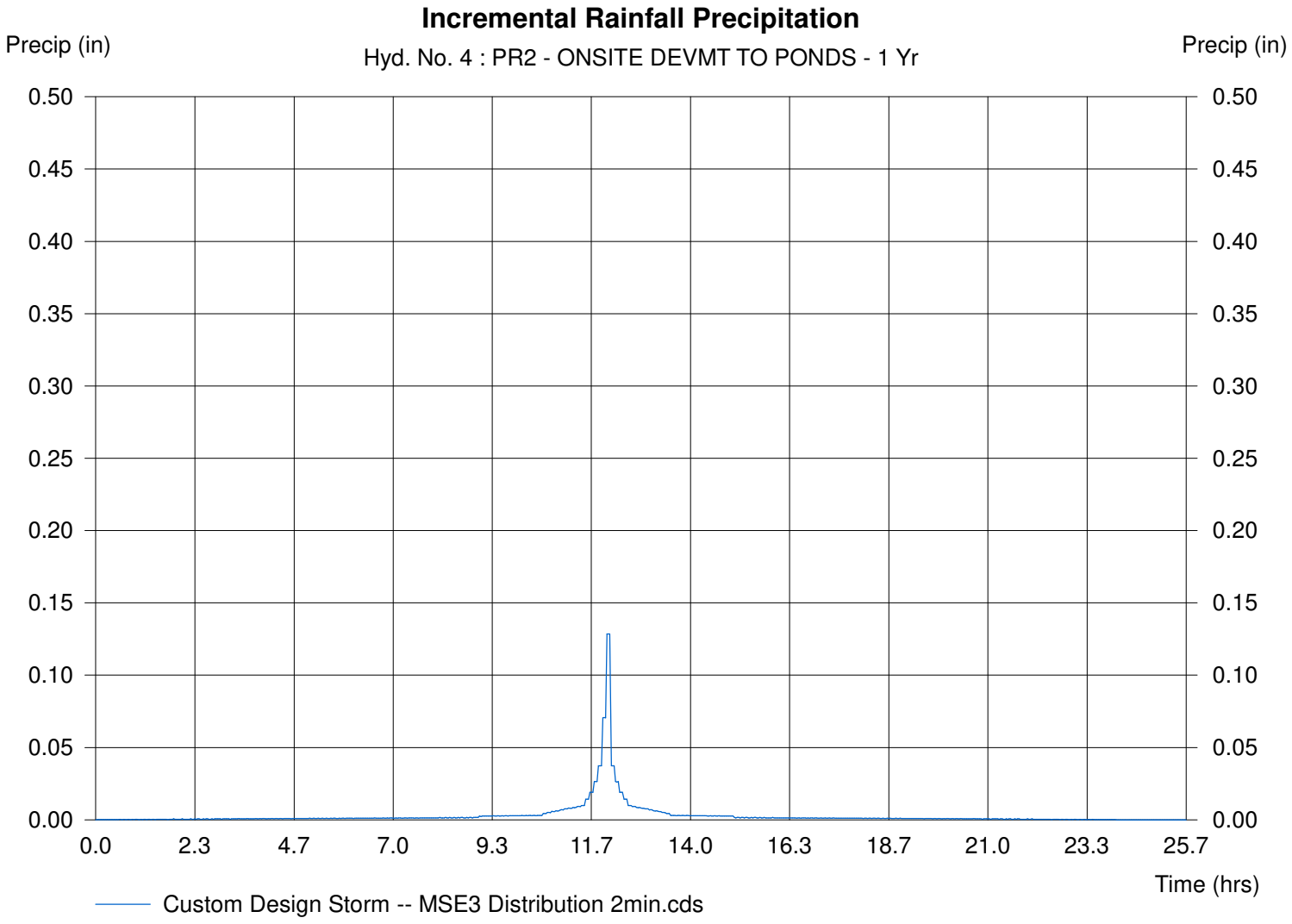
Total Travel Time, Tc ..... 21.50 min

Precipitation Report

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Storm Frequency	= 1 yrs	Time interval	= 2 min
Total precip.	= 2.34 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



Hydrograph Plot

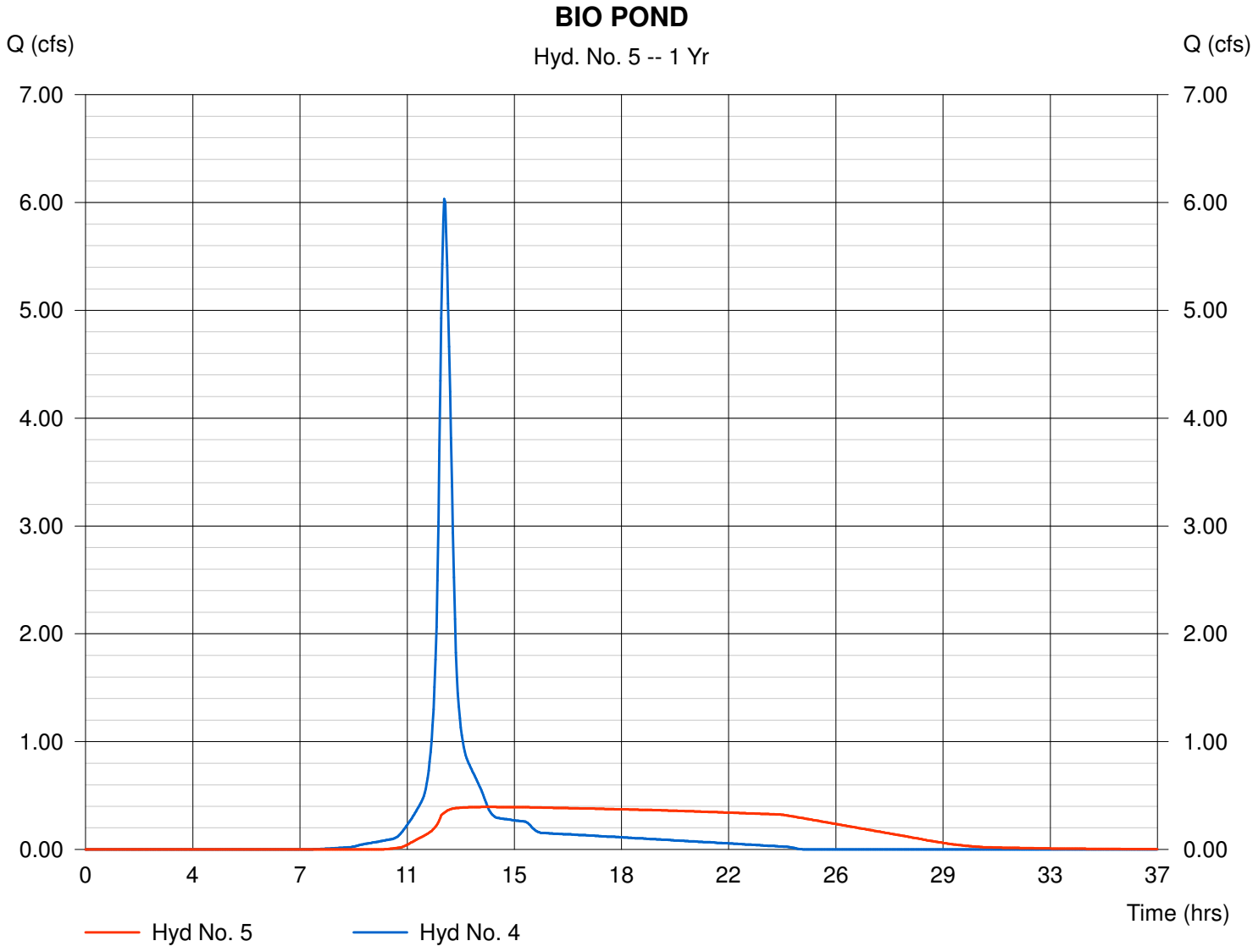
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 5

BIO POND

Hydrograph type	=	Reservoir	Peak discharge	=	0.39 cfs
Storm frequency	=	1 yrs	Time interval	=	2 min
Inflow hyd. No.	=	4	Max. Elevation	=	776.41 ft
Reservoir name	=	POND PR2 - ONSITE	Max. Storage	=	0.305 acft

Storage Indication method used. | Hydrograph Volume = 0.466 acft



Pond Report

Pond No. 1 - POND PR2 - ONSITE

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	773.25	00	0.000	0.000
0.25	773.50	2,100	0.006	0.006
1.25	774.50	2,100	0.048	0.054
2.24	775.49	2,100	0.048	0.102
2.25	775.50	7,810	0.001	0.103
2.75	776.00	9,370	0.099	0.202
3.75	777.00	12,700	0.253	0.455
4.75	778.00	16,200	0.332	0.787
5.75	779.00	19,920	0.415	1.201

Culvert / Orifice Structures

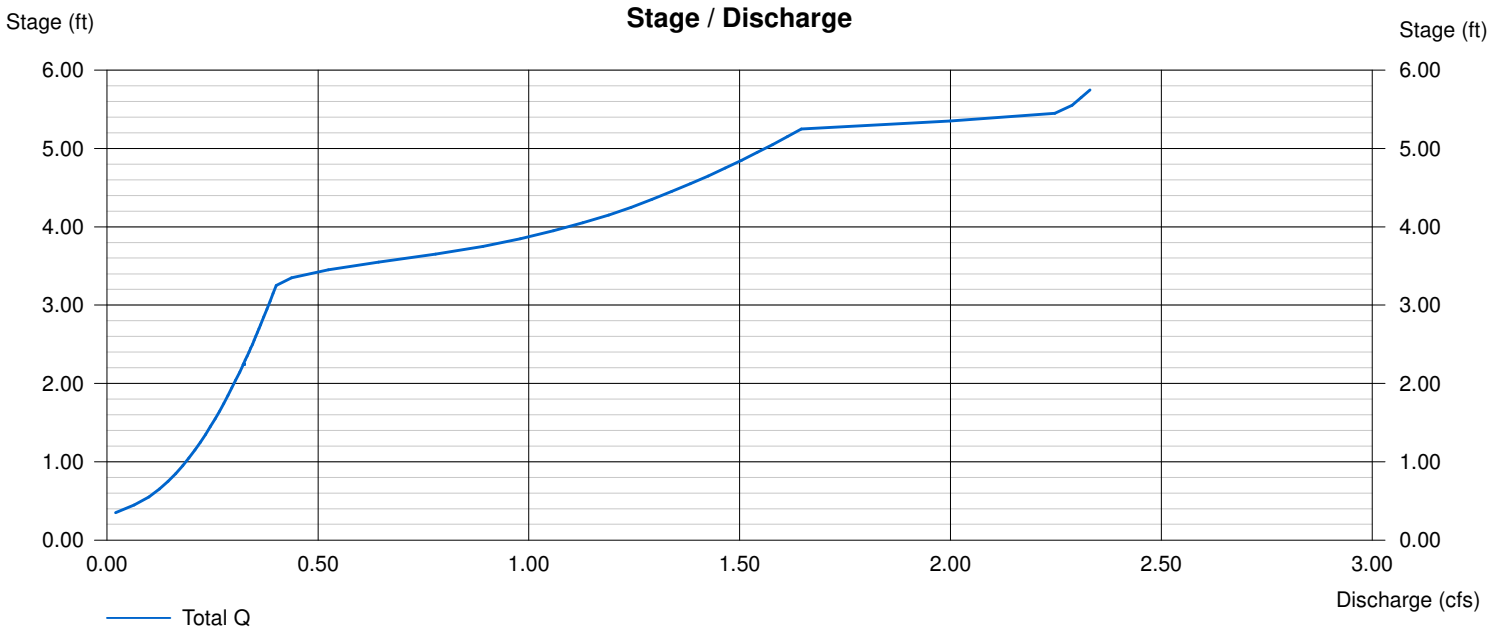
	[A]	[B]	[C]	[D]
Rise (in)	= 8.00	3.00	6.00	0.00
Span (in)	= 8.00	3.00	6.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 773.25	773.50	776.50	0.00
Length (ft)	= 150.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	0.00
N-Value	= .013	.013	.013	.000
Orif. Coeff.	= 0.60	0.60	0.60	0.00
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 5.90	0.00	0.00	0.00
Crest El. (ft)	= 778.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	0.00	0.00	0.00
Weir Type	= Riser	---	---	---
Multi-Stage	= Yes	No	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	5.71	2	740	0.468	----	------	------	EX1 - OFFSITE
2	SCS Runoff	4.14	2	742	0.368	----	------	------	EX2-DEVELOPED SITE
4	SCS Runoff	7.08	2	736	0.557	----	------	------	PR2 - ONSITE DEVMT TO PONDS
5	Reservoir	0.47	2	824	0.550	4	776.64	0.364	BIO POND

Hydrograph Plot

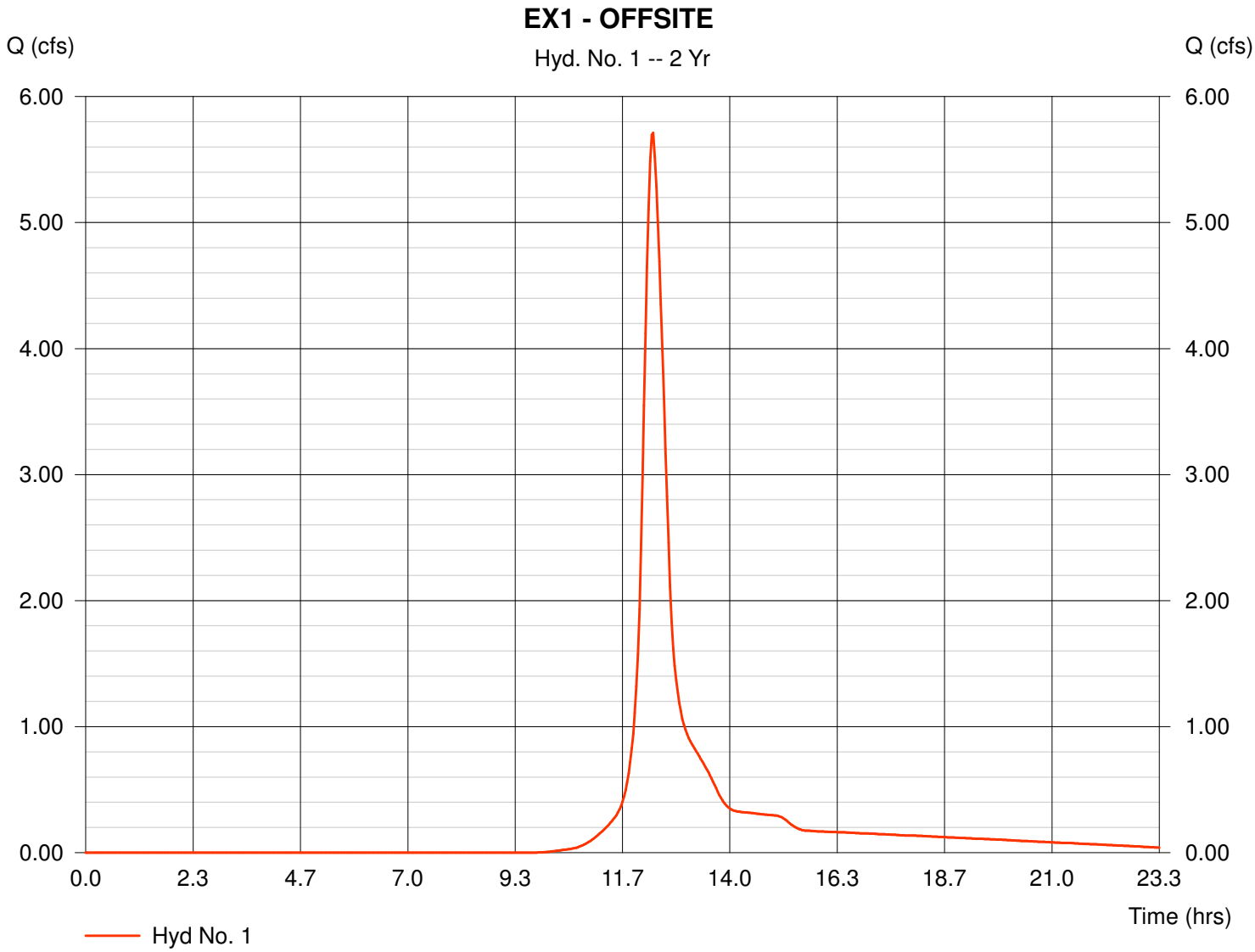
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 1

EX1 - OFFSITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	5.71 cfs
Storm frequency	=	2 yrs	Time interval	=	2 min
Drainage area	=	4.20 ac	Curve number	=	86
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	23.5 min
Total precip.	=	2.64 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 0.468 acft



TR55 Tc Worksheet

Hyd. No. 1

EX1 - OFFSITE

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.240		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.70		0.00		0.00		
Land slope (%)	= 2.00		0.00		0.00		
Travel Time (min)	**= 15.54**	**+**	**0.00**	**+**	**0.00**	**=**	**15.54**
Shallow Concentrated Flow							
Flow length (ft)	= 1000.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 2.10		0.00		0.00		
Travel Time (min)	**= 7.92**	**+**	**0.00**	**+**	**0.00**	**=**	**7.92**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

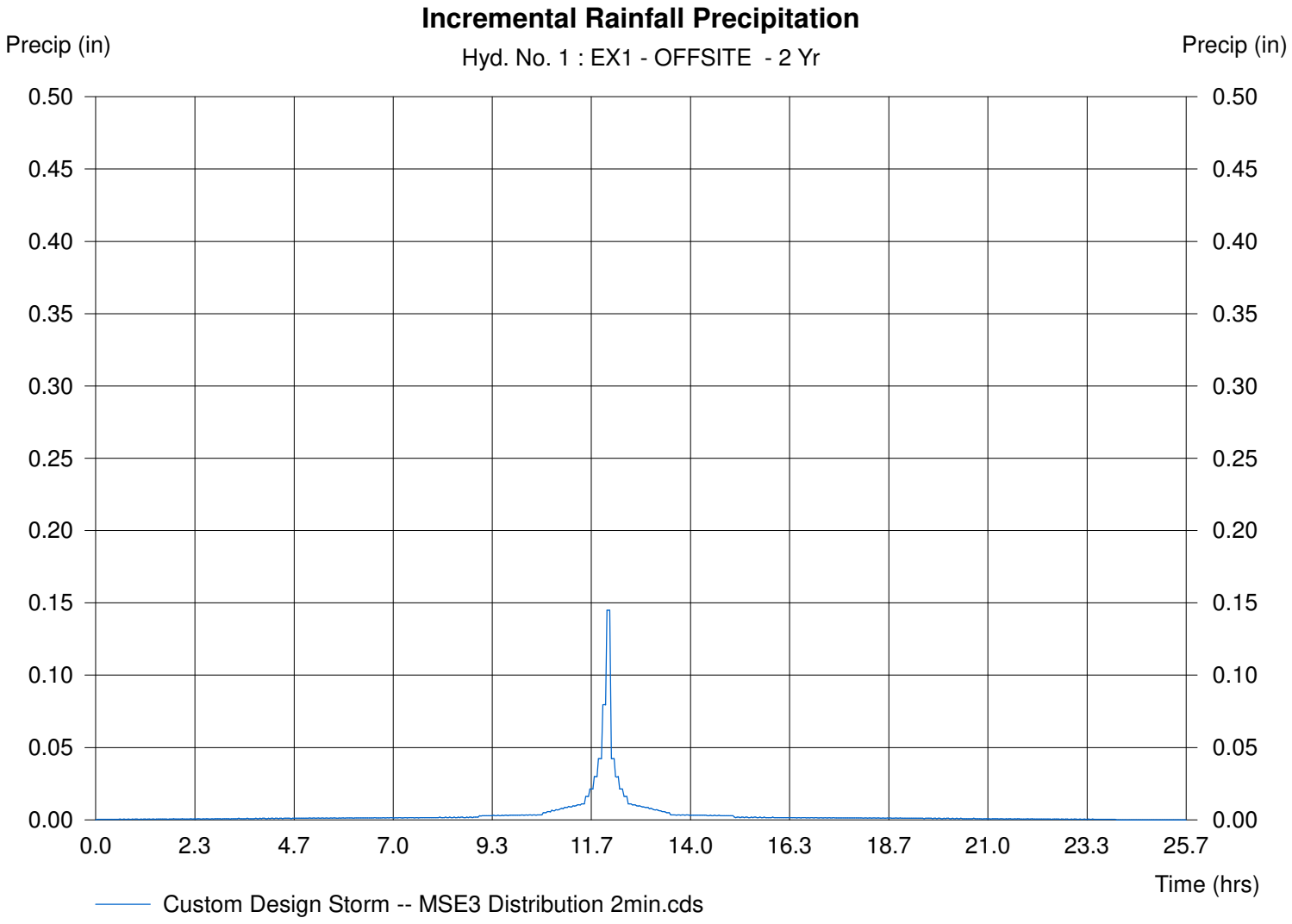
Total Travel Time, Tc ..... 23.50 min

Precipitation Report

Hyd. No. 1

EX1 - OFFSITE

Storm Frequency	= 2 yrs	Time interval	= 2 min
Total precip.	= 2.64 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

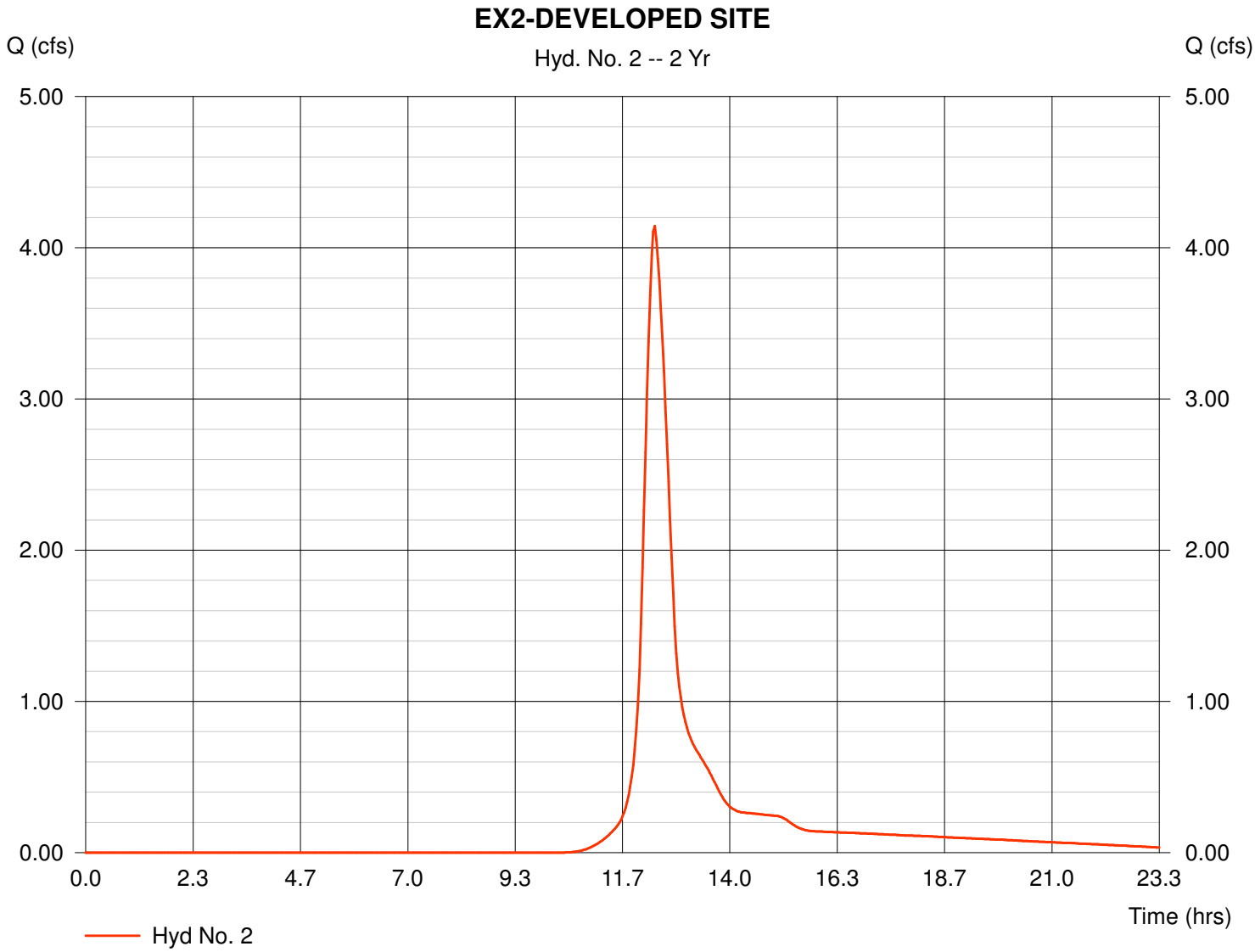
Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 2

EX2-DEVELOPED SITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.14 cfs
Storm frequency	=	2 yrs	Time interval	=	2 min
Drainage area	=	3.60 ac	Curve number	=	84
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	29.7 min
Total precip.	=	2.64 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 0.368 acft



TR55 Tc Worksheet

Hyd. No. 2

EX2-DEVELOPED SITE

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.240	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 2.70	0.00	0.00	
Land slope (%)	= 0.50	0.00	0.00	
Travel Time (min)	**= 27.05**	**+ 0.00**	**+ 0.00**	**= 27.05**
Shallow Concentrated Flow				
Flow length (ft)	= 360.00	0.00	0.00	
Watercourse slope (%)	= 2.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 2.28	0.00	0.00	
Travel Time (min)	**= 2.63**	**+ 0.00**	**+ 0.00**	**= 2.63**
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	**= 0.00**	**+ 0.00**	**+ 0.00**	**= 0.00**

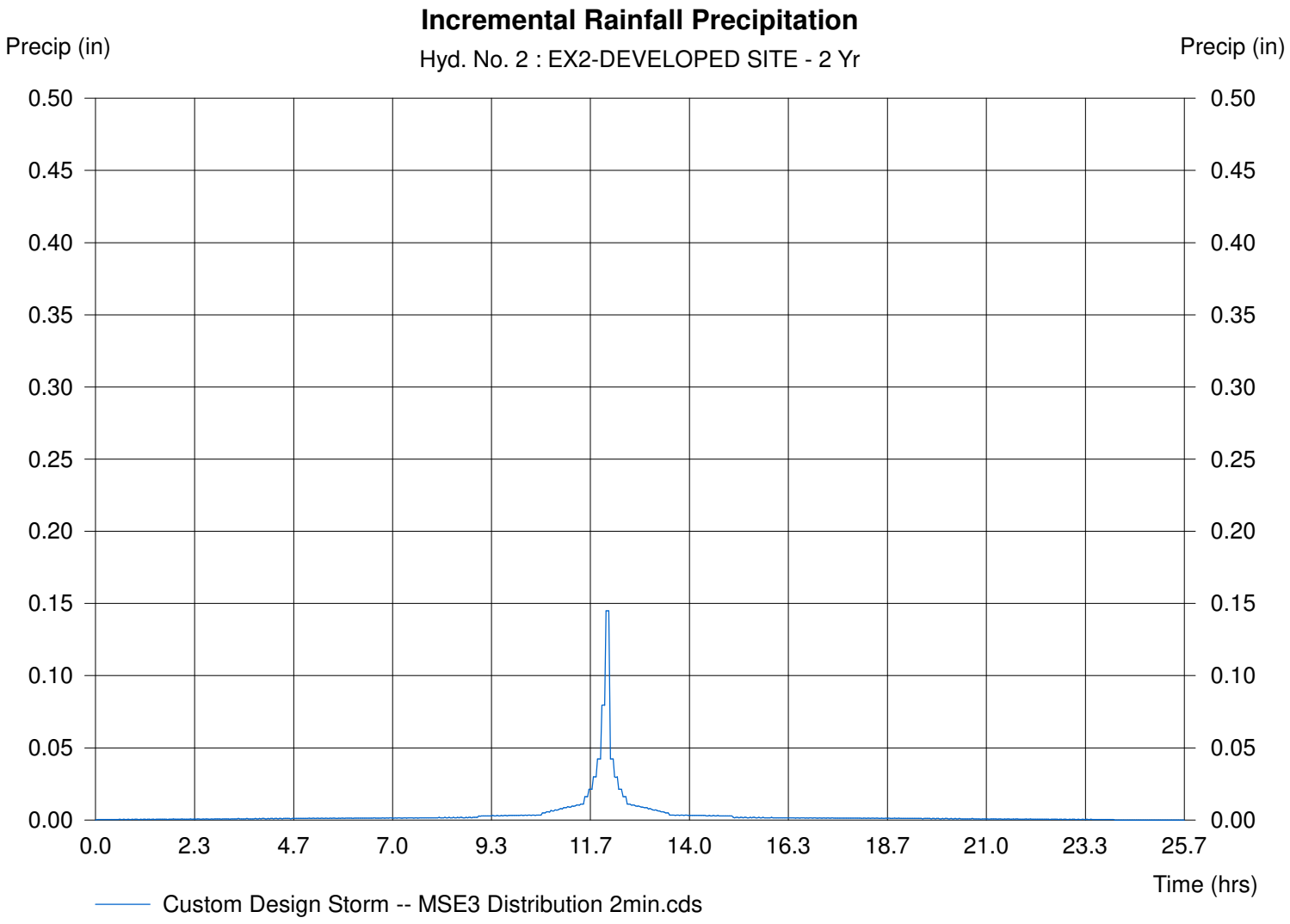
Total Travel Time, Tc ..... 29.70 min

Precipitation Report

Hyd. No. 2

EX2-DEVELOPED SITE

Storm Frequency	= 2 yrs	Time interval	= 2 min
Total precip.	= 2.64 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



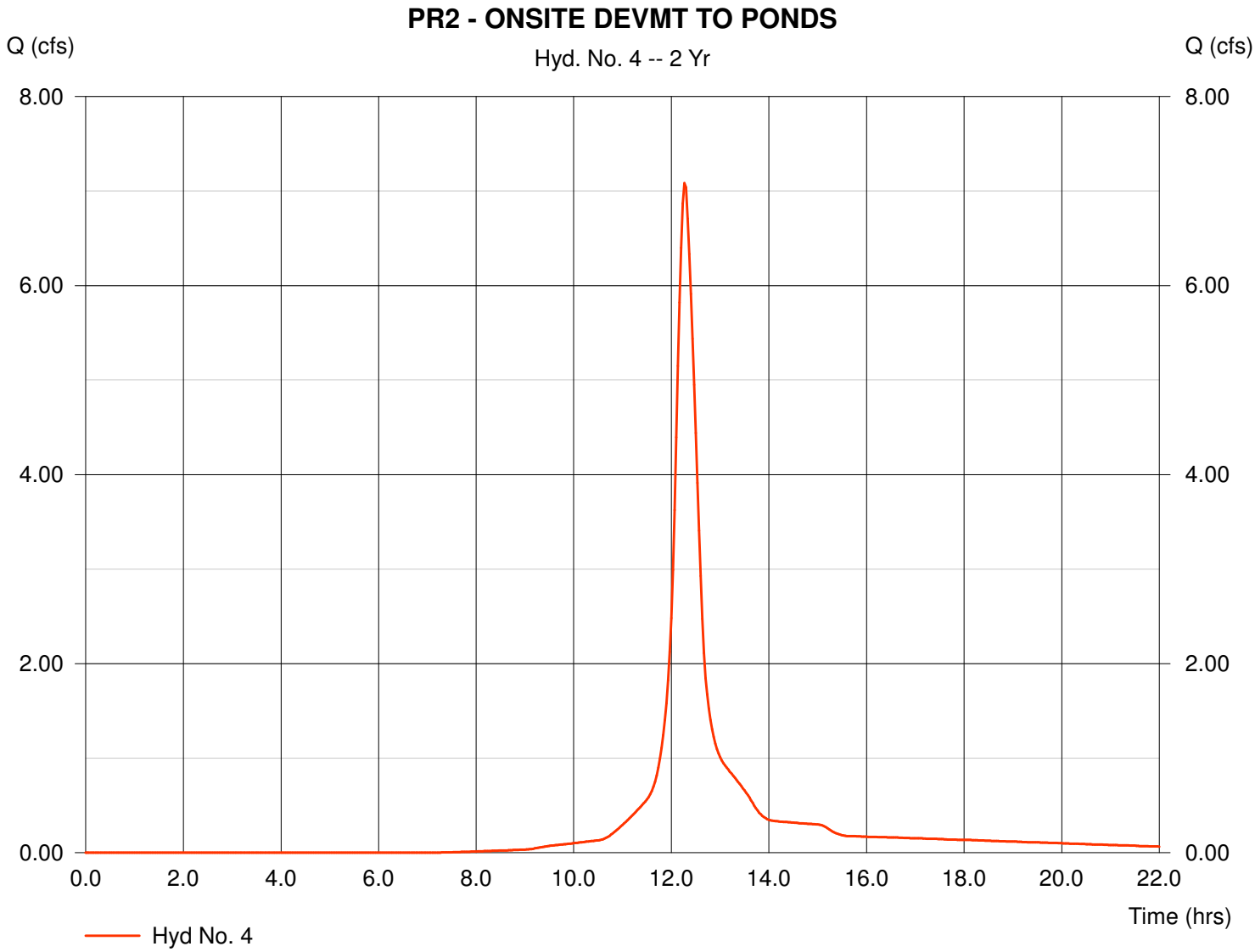
Hydrograph Plot

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Hydrograph type	=	SCS Runoff	Peak discharge	=	7.08 cfs
Storm frequency	=	2 yrs	Time interval	=	2 min
Drainage area	=	3.60 ac	Curve number	=	92
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	21.5 min
Total precip.	=	2.64 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 0.557 acft



TR55 Tc Worksheet

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.240	0.011	0.011	
Flow length (ft)	= 80.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 2.70	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	**= 17.15**	**+ 0.00**	**+ 0.00**	**= 17.15**
Shallow Concentrated Flow				
Flow length (ft)	= 420.00	0.00	0.00	
Watercourse slope (%)	= 1.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 1.61	0.00	0.00	
Travel Time (min)	**= 4.34**	**+ 0.00**	**+ 0.00**	**= 4.34**
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	**= 0.00**	**+ 0.00**	**+ 0.00**	**= 0.00**

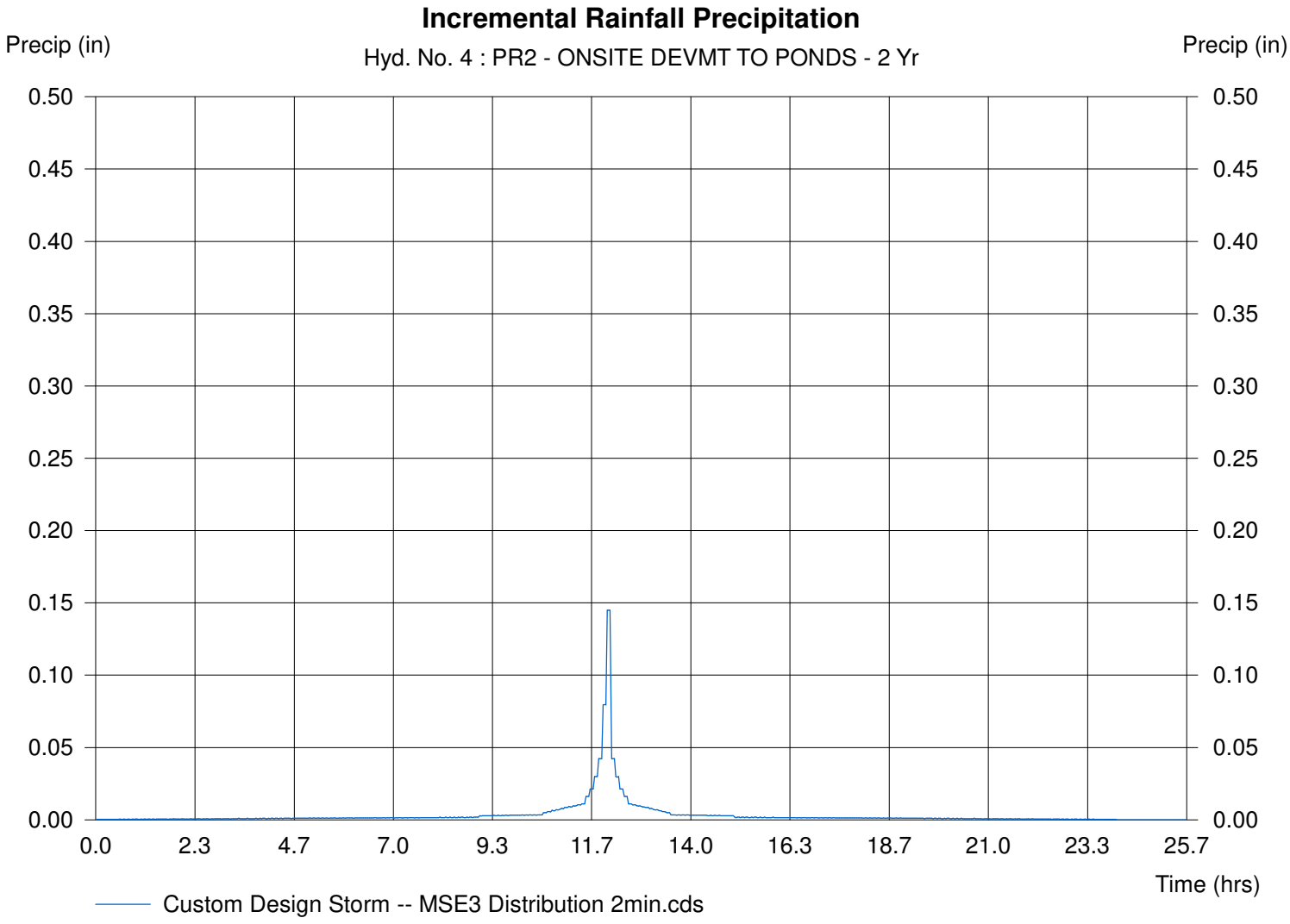
Total Travel Time, Tc ..... 21.50 min

Precipitation Report

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Storm Frequency	= 2 yrs	Time interval	= 2 min
Total precip.	= 2.64 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



Hydrograph Plot

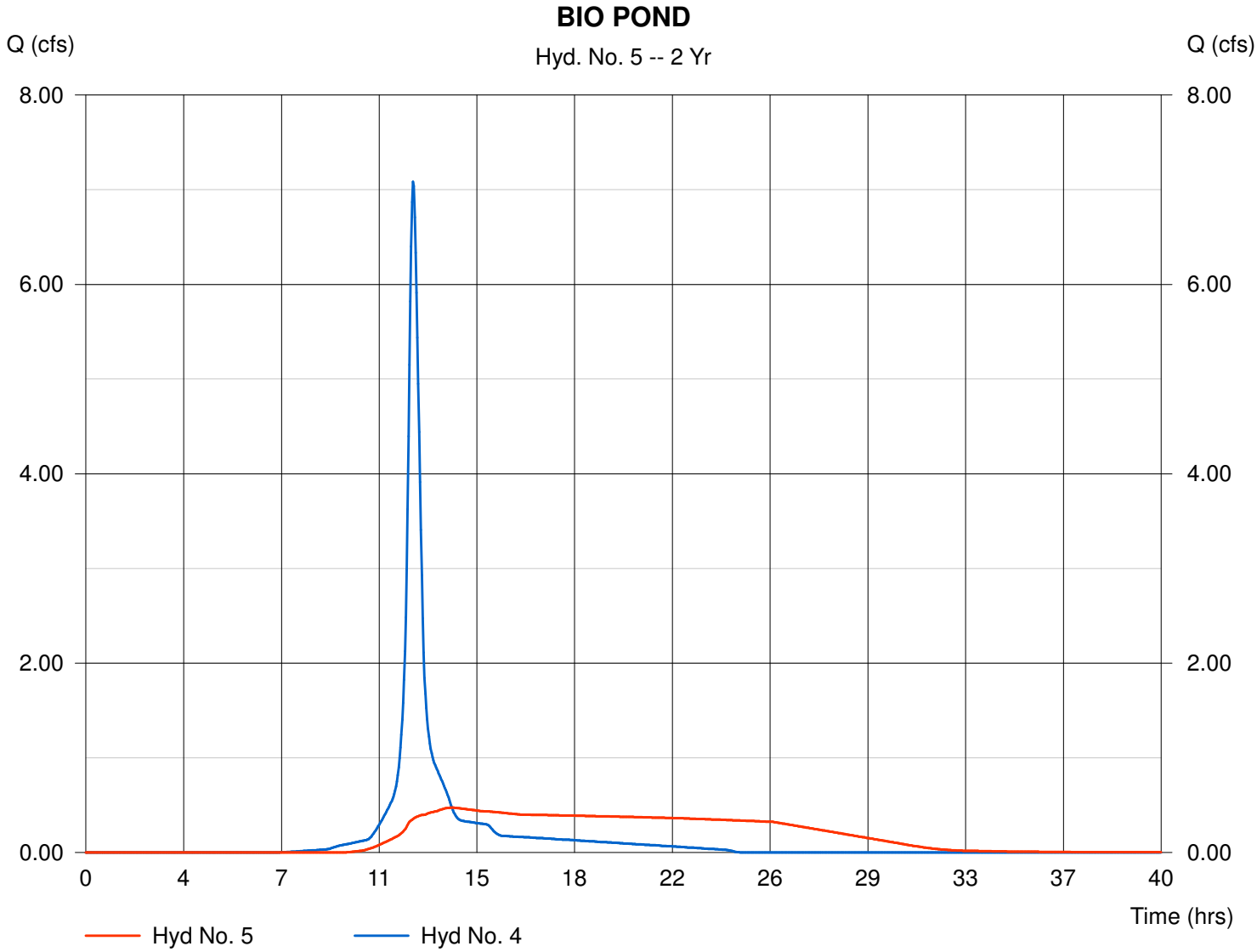
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 5

BIO POND

Hydrograph type	=	Reservoir	Peak discharge	=	0.47 cfs
Storm frequency	=	2 yrs	Time interval	=	2 min
Inflow hyd. No.	=	4	Max. Elevation	=	776.64 ft
Reservoir name	=	POND PR2 - ONSITE	Max. Storage	=	0.364 acft

Storage Indication method used. | Hydrograph Volume = 0.550 acft



Pond Report

Pond No. 1 - POND PR2 - ONSITE

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	773.25	00	0.000	0.000
0.25	773.50	2,100	0.006	0.006
1.25	774.50	2,100	0.048	0.054
2.24	775.49	2,100	0.048	0.102
2.25	775.50	7,810	0.001	0.103
2.75	776.00	9,370	0.099	0.202
3.75	777.00	12,700	0.253	0.455
4.75	778.00	16,200	0.332	0.787
5.75	779.00	19,920	0.415	1.201

Culvert / Orifice Structures

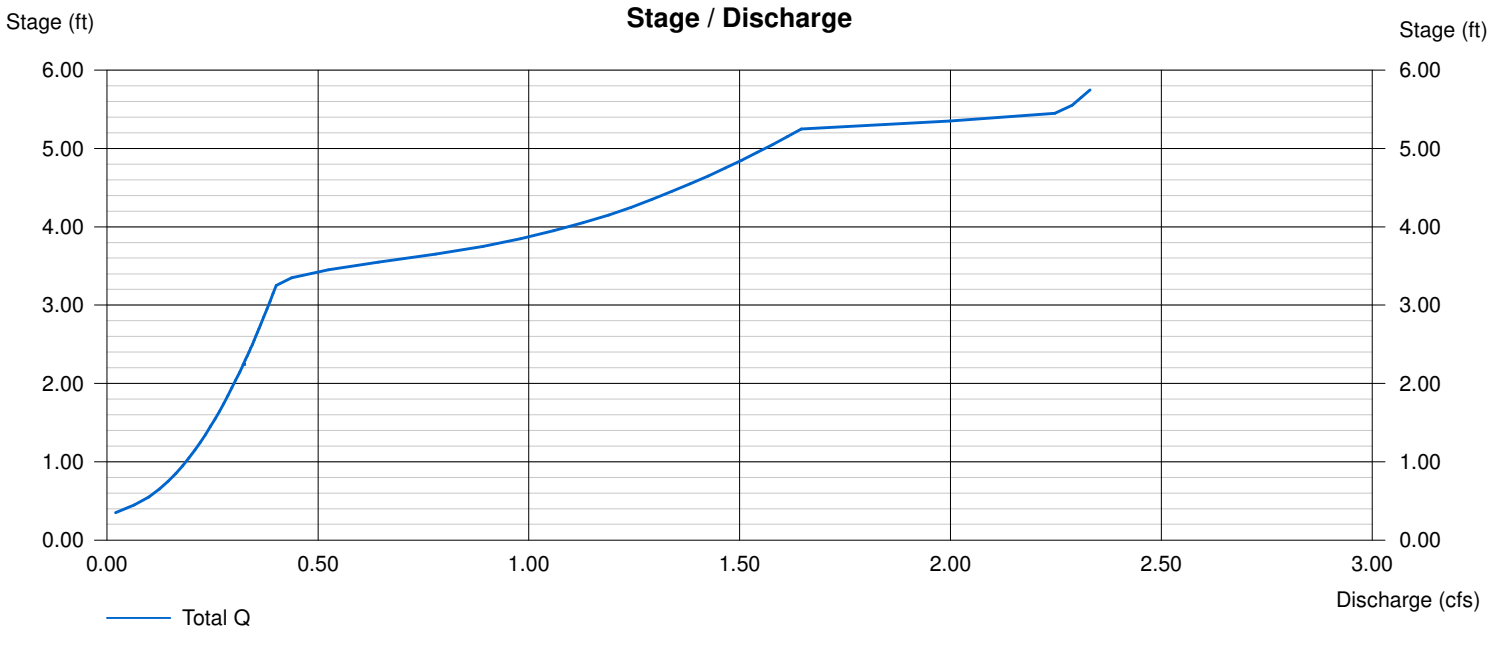
	[A]	[B]	[C]	[D]
Rise (in)	= 8.00	3.00	6.00	0.00
Span (in)	= 8.00	3.00	6.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 773.25	773.50	776.50	0.00
Length (ft)	= 150.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	0.00
N-Value	= .013	.013	.013	.000
Orif. Coeff.	= 0.60	0.60	0.60	0.00
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 5.90	0.00	0.00	0.00
Crest El. (ft)	= 778.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	0.00	0.00	0.00
Weir Type	= Riser	---	---	---
Multi-Stage	= Yes	No	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	9.66	2	738	0.793	----	------	------	EX1 - OFFSITE
2	SCS Runoff	7.25	2	742	0.640	----	------	------	EX2-DEVELOPED SITE
4	SCS Runoff	10.91	2	736	0.873	----	------	------	PR2 - ONSITE DEVMT TO PONDS
5	Reservoir	1.10	2	802	0.866	4	777.26	0.542	BIO POND

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

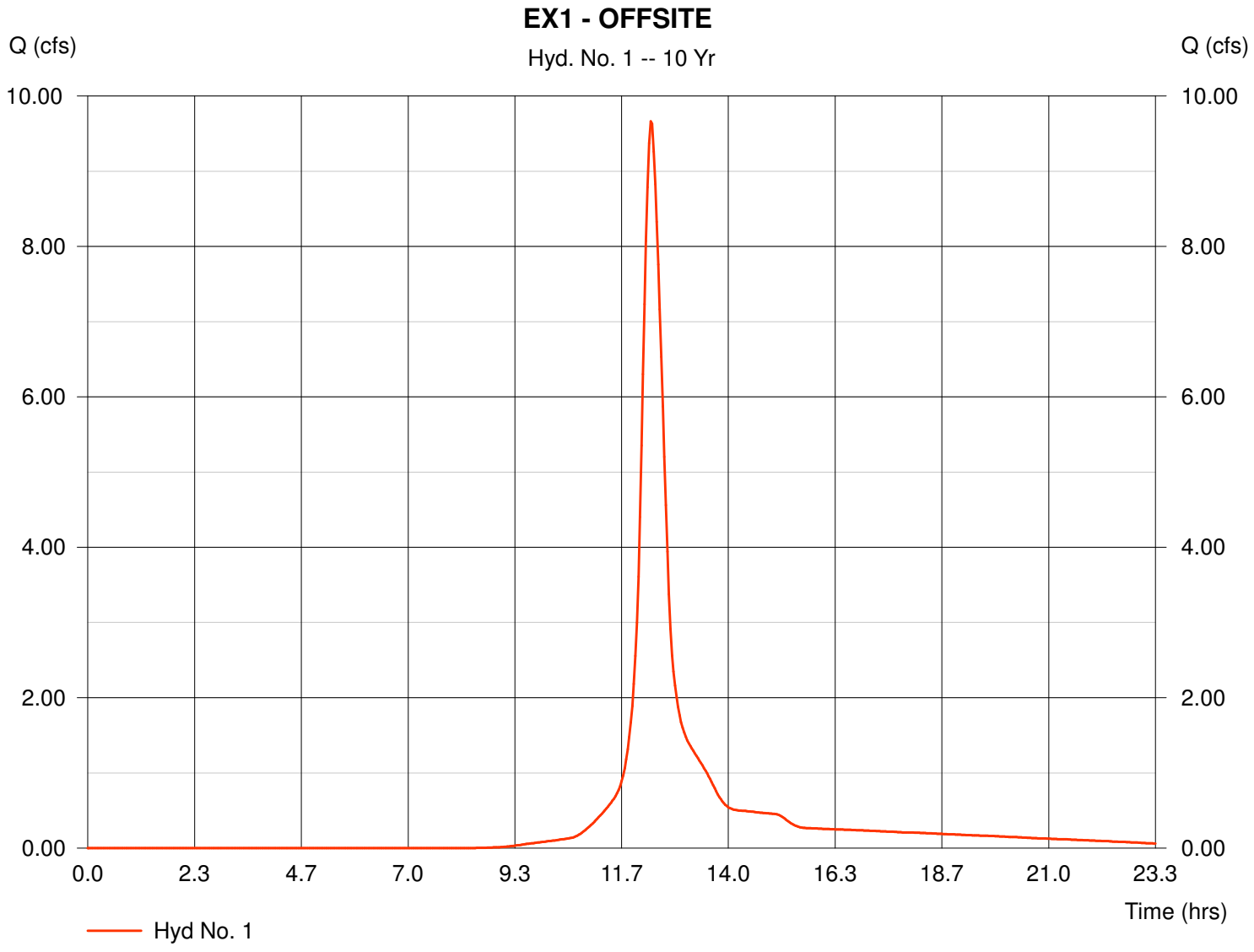
Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 1

EX1 - OFFSITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	9.66 cfs
Storm frequency	=	10 yrs	Time interval	=	2 min
Drainage area	=	4.20 ac	Curve number	=	86
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	23.5 min
Total precip.	=	3.73 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 0.793 acft



TR55 Tc Worksheet

Hyd. No. 1

EX1 - OFFSITE

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.240		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.70		0.00		0.00		
Land slope (%)	= 2.00		0.00		0.00		
Travel Time (min)	**= 15.54**	**+**	**0.00**	**+**	**0.00**	**=**	**15.54**
Shallow Concentrated Flow							
Flow length (ft)	= 1000.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 2.10		0.00		0.00		
Travel Time (min)	**= 7.92**	**+**	**0.00**	**+**	**0.00**	**=**	**7.92**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

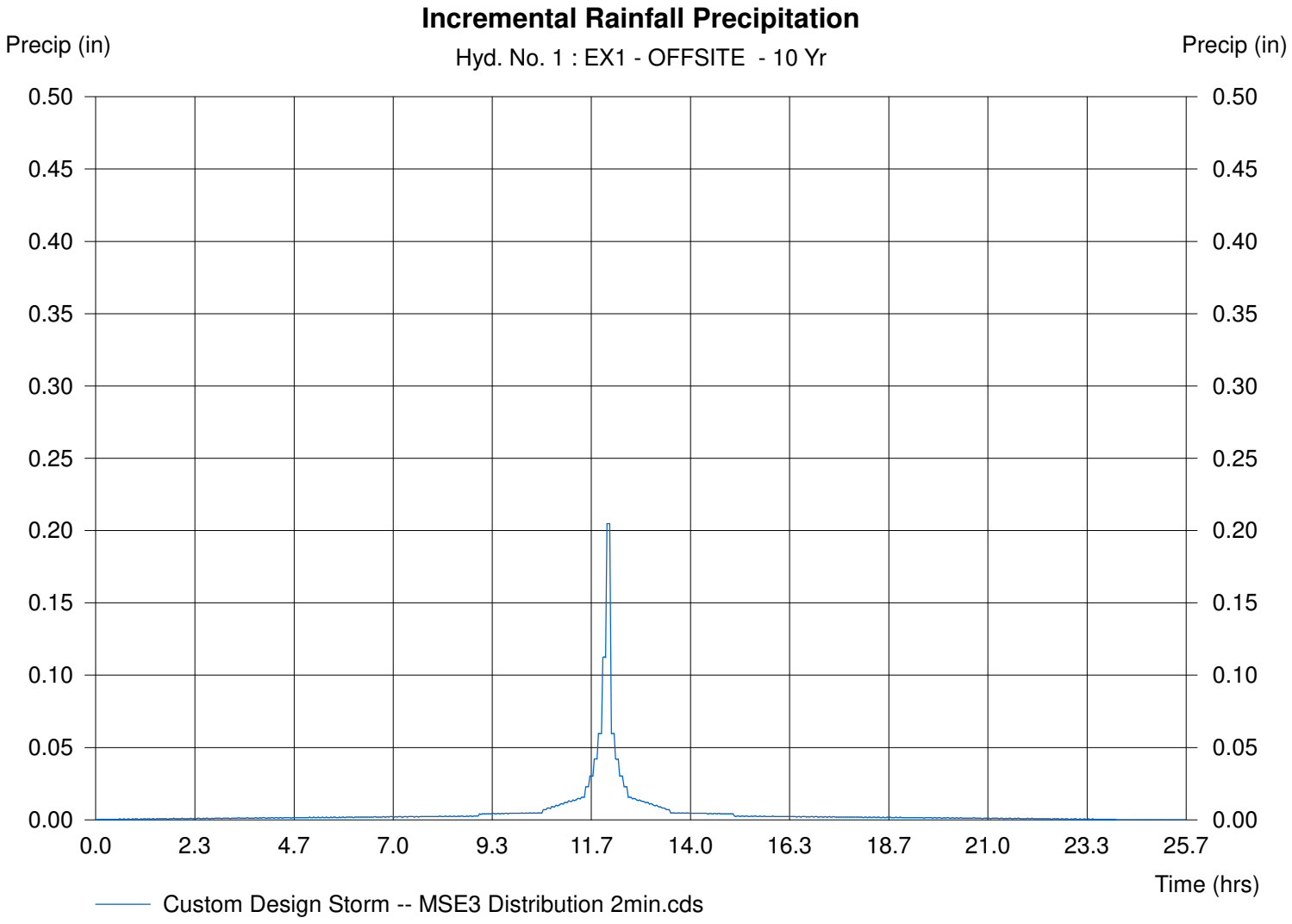
Total Travel Time, Tc ..... 23.50 min

Precipitation Report

Hyd. No. 1

EX1 - OFFSITE

Storm Frequency	=	10 yrs	Time interval	=	2 min
Total precip.	=	3.73 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds			



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

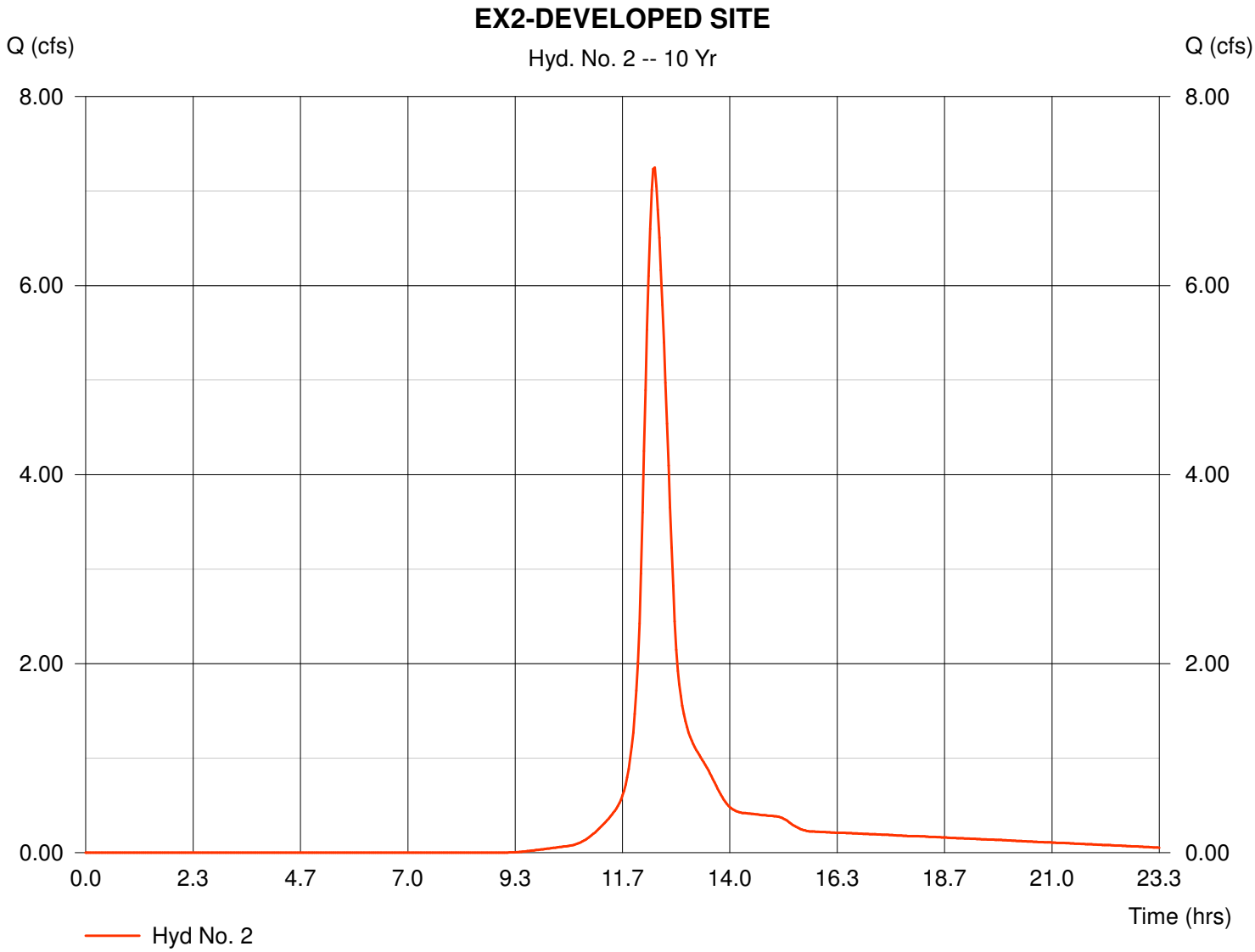
Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 2

EX2-DEVELOPED SITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	7.25 cfs
Storm frequency	=	10 yrs	Time interval	=	2 min
Drainage area	=	3.60 ac	Curve number	=	84
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	29.7 min
Total precip.	=	3.73 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 0.640 acft



TR55 Tc Worksheet

Hyd. No. 2

EX2-DEVELOPED SITE

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.240		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.70		0.00		0.00		
Land slope (%)	= 0.50		0.00		0.00		
Travel Time (min)	**= 27.05**	**+**	**0.00**	**+**	**0.00**	**=**	**27.05**
Shallow Concentrated Flow							
Flow length (ft)	= 360.00		0.00		0.00		
Watercourse slope (%)	= 2.00		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 2.28		0.00		0.00		
Travel Time (min)	**= 2.63**	**+**	**0.00**	**+**	**0.00**	**=**	**2.63**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

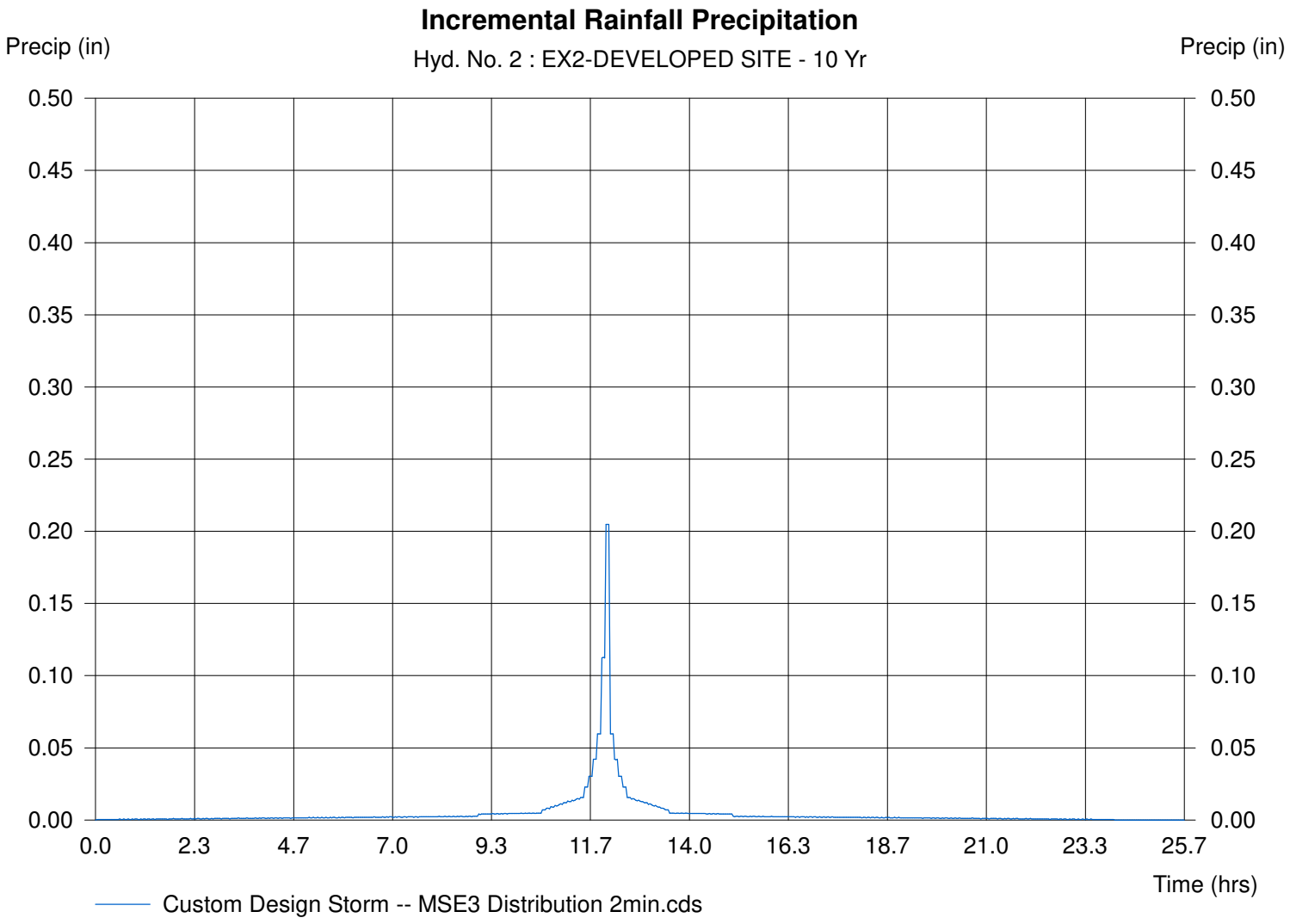
Total Travel Time, Tc ..... 29.70 min

Precipitation Report

Hyd. No. 2

EX2-DEVELOPED SITE

Storm Frequency	= 10 yrs	Time interval	= 2 min
Total precip.	= 3.73 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



Hydrograph Plot

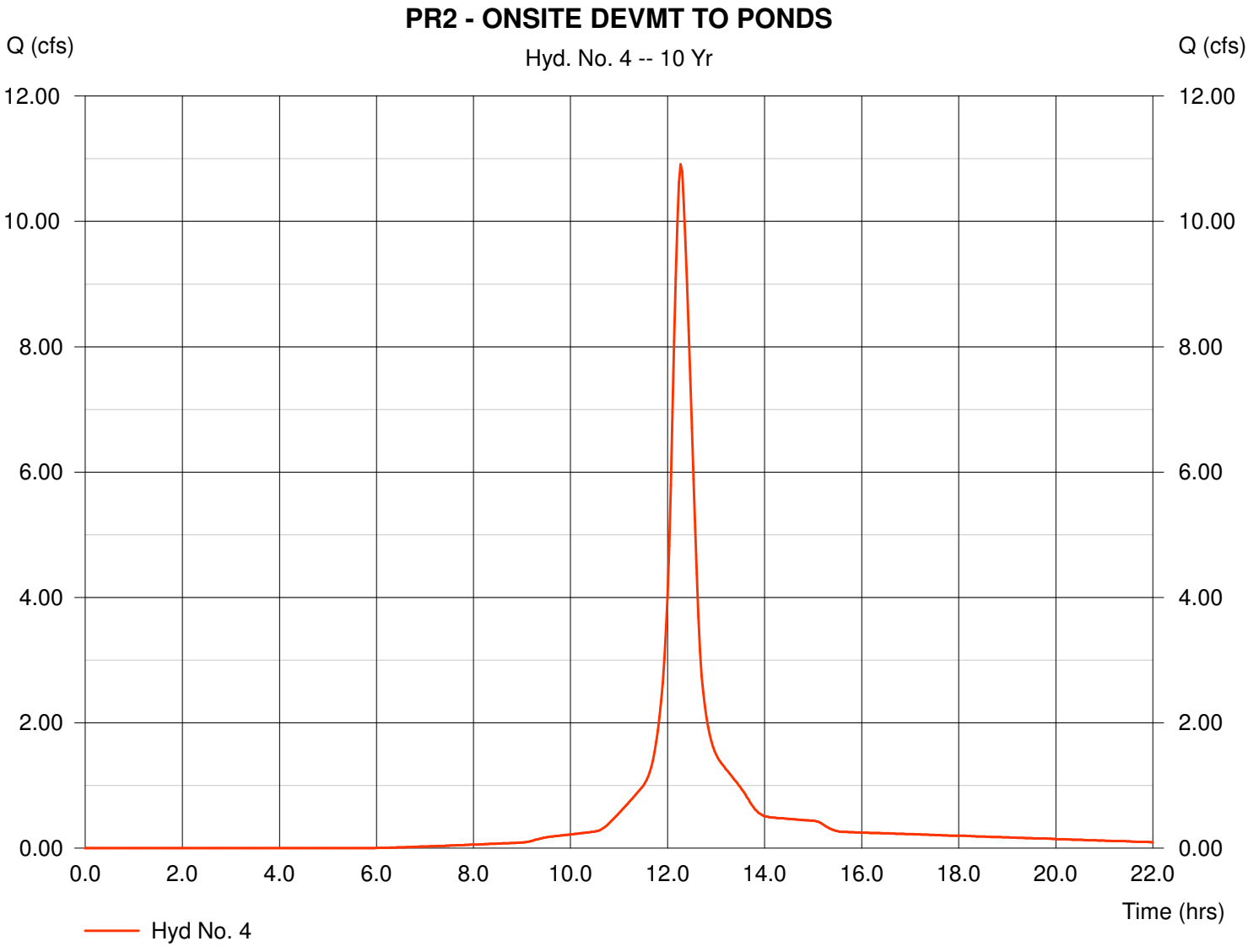
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Hydrograph type	=	SCS Runoff	Peak discharge	=	10.91 cfs
Storm frequency	=	10 yrs	Time interval	=	2 min
Drainage area	=	3.60 ac	Curve number	=	92
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	21.5 min
Total precip.	=	3.73 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 0.873 acft



TR55 Tc Worksheet

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.240		0.011		0.011		
Flow length (ft)	= 80.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.70		0.00		0.00		
Land slope (%)	= 1.00		0.00		0.00		
Travel Time (min)	**= 17.15**	**+**	**0.00**	**+**	**0.00**	**=**	**17.15**
Shallow Concentrated Flow							
Flow length (ft)	= 420.00		0.00		0.00		
Watercourse slope (%)	= 1.00		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 1.61		0.00		0.00		
Travel Time (min)	**= 4.34**	**+**	**0.00**	**+**	**0.00**	**=**	**4.34**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

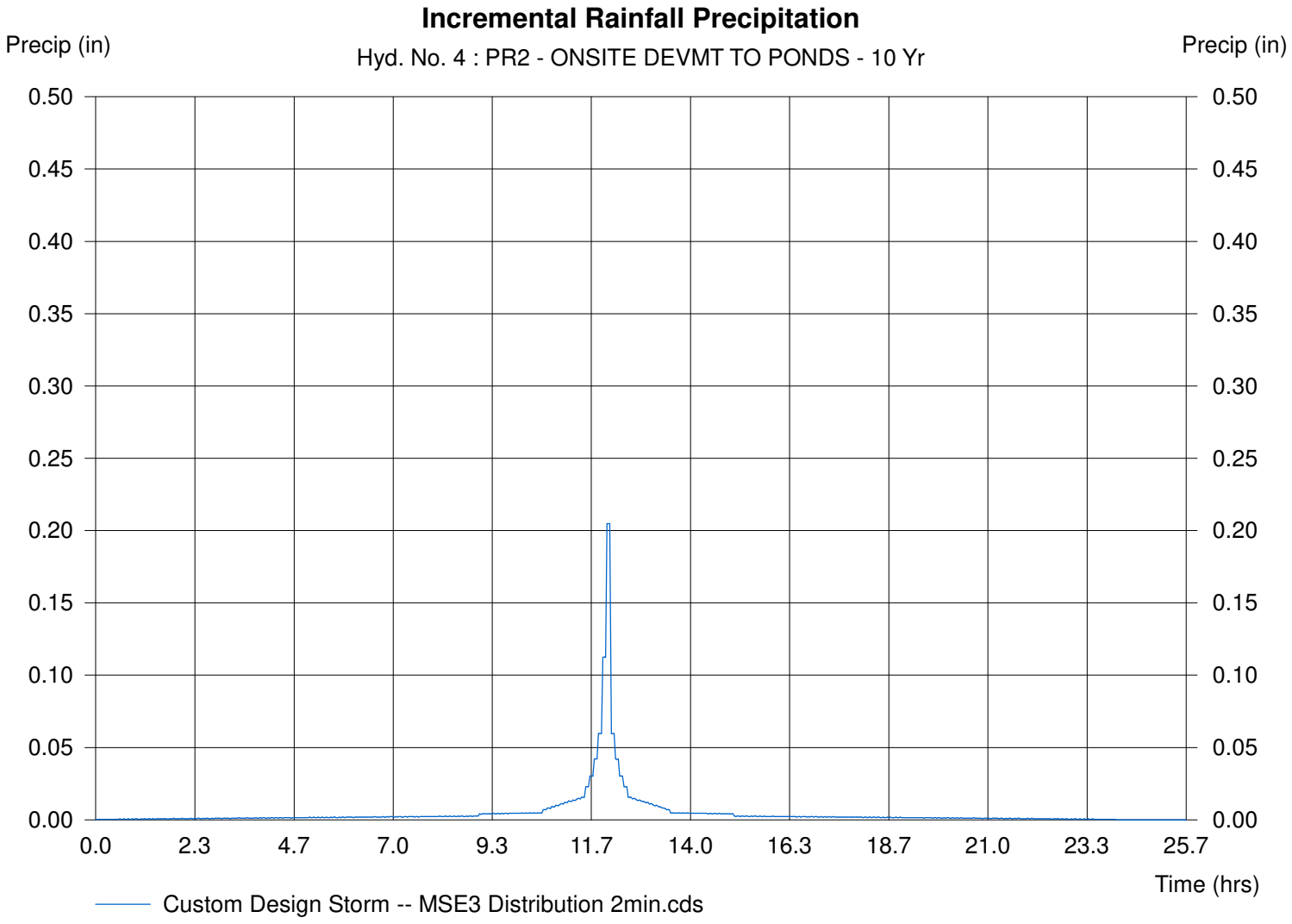
Total Travel Time, Tc ..... 21.50 min

Precipitation Report

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Storm Frequency	= 10 yrs	Time interval	= 2 min
Total precip.	= 3.73 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



Hydrograph Plot

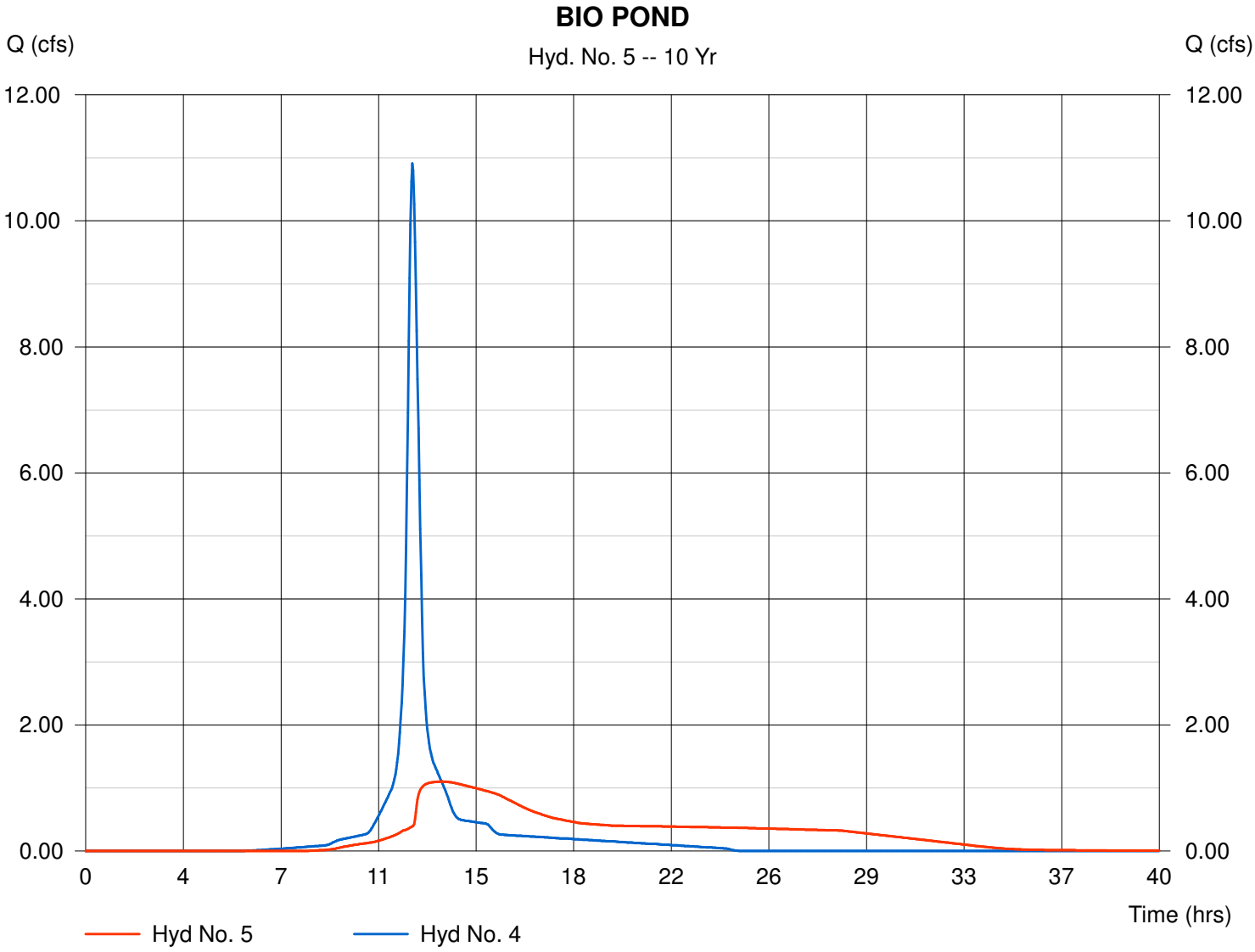
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 5

BIO POND

Hydrograph type	=	Reservoir	Peak discharge	=	1.10 cfs
Storm frequency	=	10 yrs	Time interval	=	2 min
Inflow hyd. No.	=	4	Max. Elevation	=	777.26 ft
Reservoir name	=	POND PR2 - ONSITE	Max. Storage	=	0.542 acft

Storage Indication method used. | Hydrograph Volume = 0.866 acft



Pond Report

Pond No. 1 - POND PR2 - ONSITE

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	773.25	00	0.000	0.000
0.25	773.50	2,100	0.006	0.006
1.25	774.50	2,100	0.048	0.054
2.24	775.49	2,100	0.048	0.102
2.25	775.50	7,810	0.001	0.103
2.75	776.00	9,370	0.099	0.202
3.75	777.00	12,700	0.253	0.455
4.75	778.00	16,200	0.332	0.787
5.75	779.00	19,920	0.415	1.201

Culvert / Orifice Structures

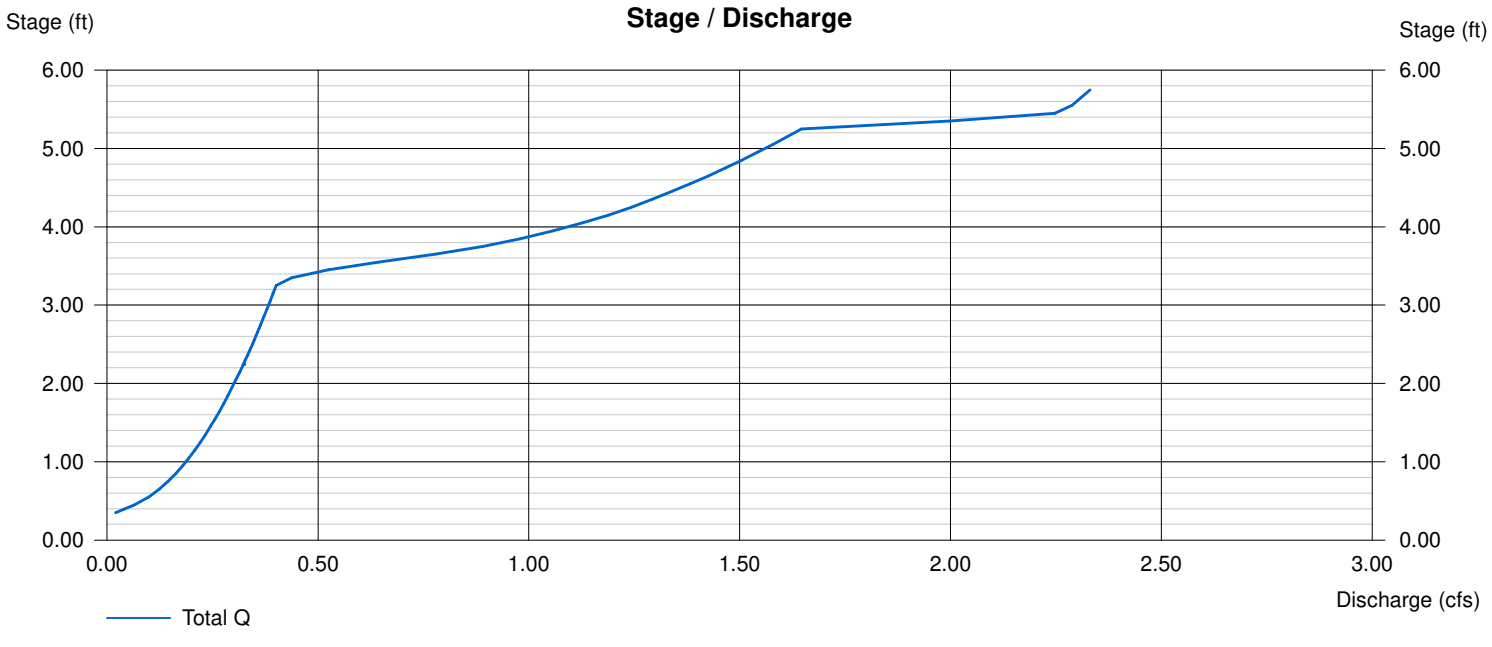
	[A]	[B]	[C]	[D]
Rise (in)	= 8.00	3.00	6.00	0.00
Span (in)	= 8.00	3.00	6.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 773.25	773.50	776.50	0.00
Length (ft)	= 150.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	0.00
N-Value	= .013	.013	.013	.000
Orif. Coeff.	= 0.60	0.60	0.60	0.00
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 5.90	0.00	0.00	0.00
Crest El. (ft)	= 778.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	0.00	0.00	0.00
Weir Type	= Riser	---	---	---
Multi-Stage	= Yes	No	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	18.41	2	738	1.539	----	------	------	EX1 - OFFSITE
2	SCS Runoff	14.27	2	740	1.276	----	------	------	EX2-DEVELOPED SITE
4	SCS Runoff	19.00	2	736	1.566	----	------	------	PR2 - ONSITE DEVMT TO PONDS
5	Reservoir	1.68	2	808	1.560	4	778.51	0.998	BIO POND

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

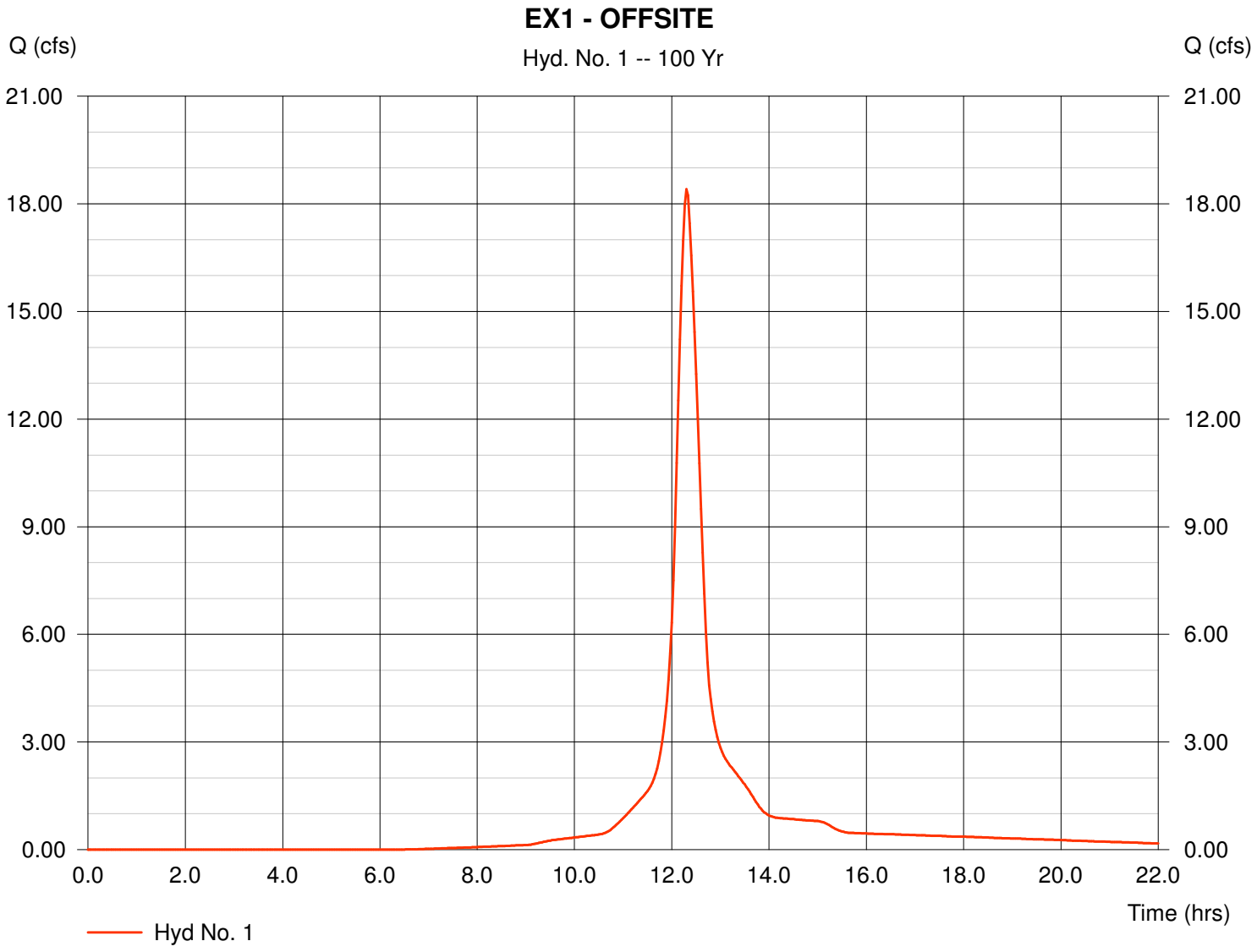
Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 1

EX1 - OFFSITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	18.41 cfs
Storm frequency	=	100 yrs	Time interval	=	2 min
Drainage area	=	4.20 ac	Curve number	=	86
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	23.5 min
Total precip.	=	6.06 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 1.539 acft



TR55 Tc Worksheet

Hyd. No. 1

EX1 - OFFSITE

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.240		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.70		0.00		0.00		
Land slope (%)	= 2.00		0.00		0.00		
Travel Time (min)	**= 15.54**	**+**	**0.00**	**+**	**0.00**	**=**	**15.54**
Shallow Concentrated Flow							
Flow length (ft)	= 1000.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 2.10		0.00		0.00		
Travel Time (min)	**= 7.92**	**+**	**0.00**	**+**	**0.00**	**=**	**7.92**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

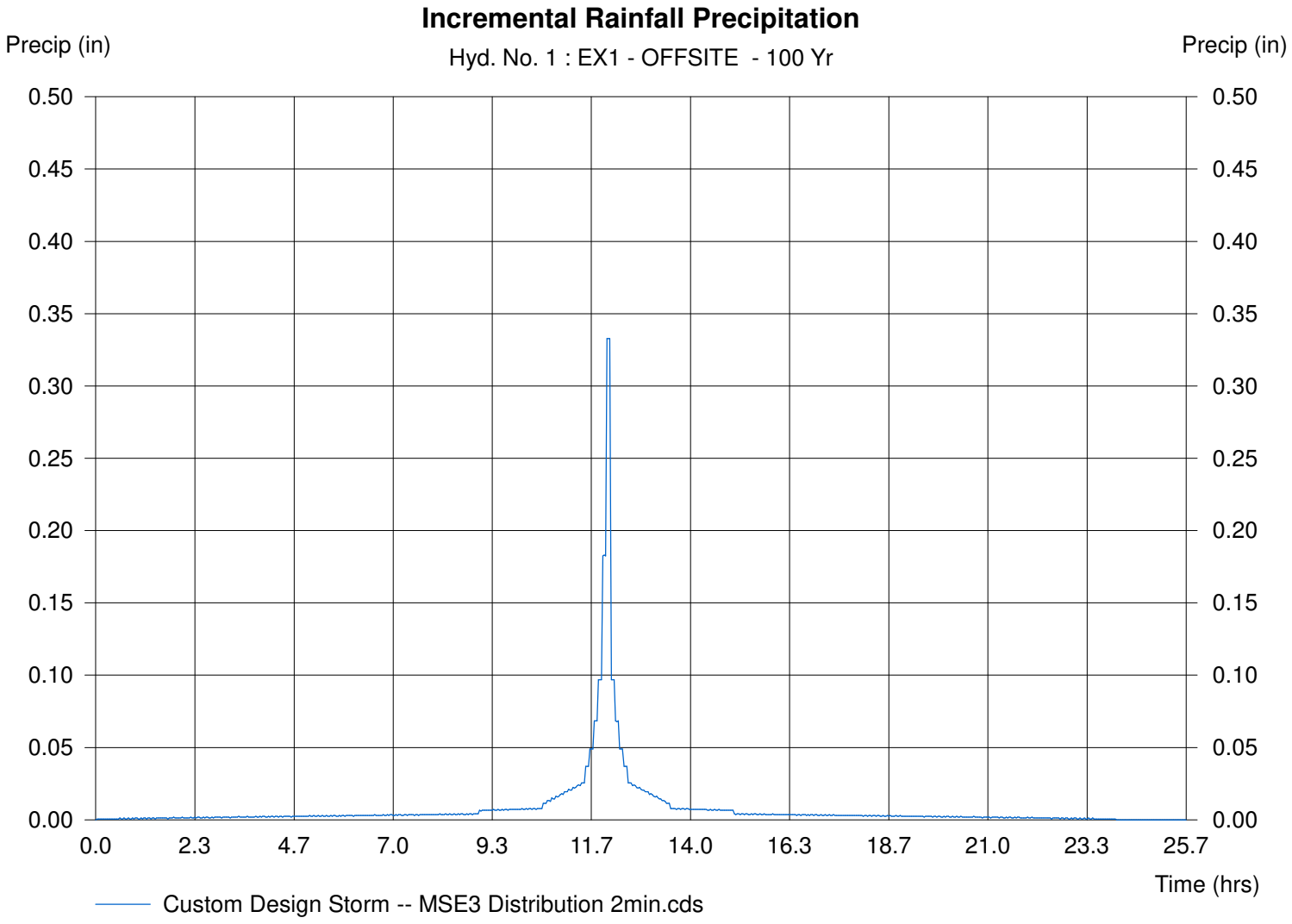
Total Travel Time, Tc ..... 23.50 min

Precipitation Report

Hyd. No. 1

EX1 - OFFSITE

Storm Frequency	=	100 yrs	Time interval	=	2 min
Total precip.	=	6.06 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds			



Hydrograph Plot

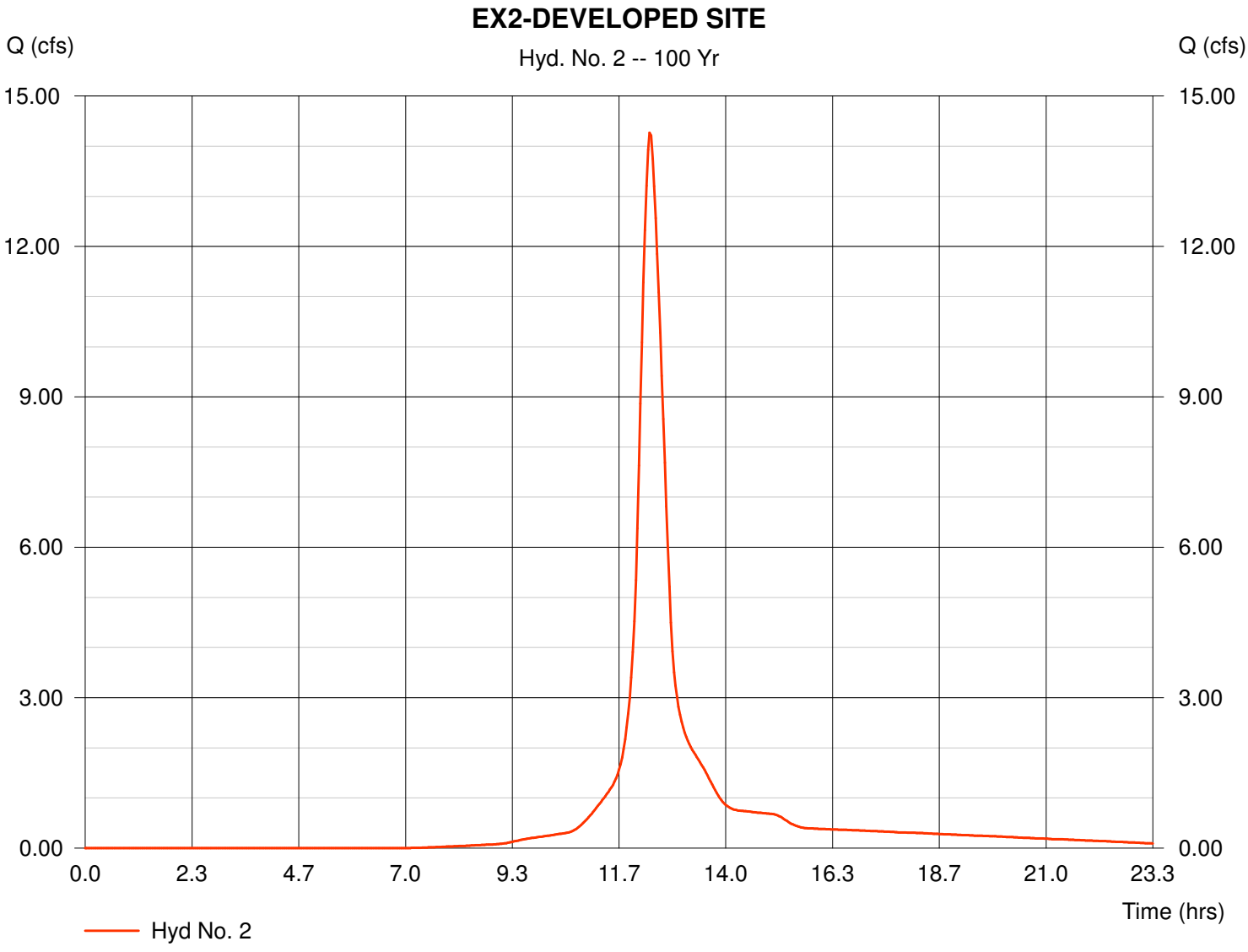
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 2

EX2-DEVELOPED SITE

Hydrograph type	=	SCS Runoff	Peak discharge	=	14.27 cfs
Storm frequency	=	100 yrs	Time interval	=	2 min
Drainage area	=	3.60 ac	Curve number	=	84
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	29.7 min
Total precip.	=	6.06 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 1.276 acft



TR55 Tc Worksheet

Hyd. No. 2

EX2-DEVELOPED SITE

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.240	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 2.70	0.00	0.00	
Land slope (%)	= 0.50	0.00	0.00	
Travel Time (min)	**= 27.05**	**+ 0.00**	**+ 0.00**	**= 27.05**
Shallow Concentrated Flow				
Flow length (ft)	= 360.00	0.00	0.00	
Watercourse slope (%)	= 2.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 2.28	0.00	0.00	
Travel Time (min)	**= 2.63**	**+ 0.00**	**+ 0.00**	**= 2.63**
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	**= 0.00**	**+ 0.00**	**+ 0.00**	**= 0.00**

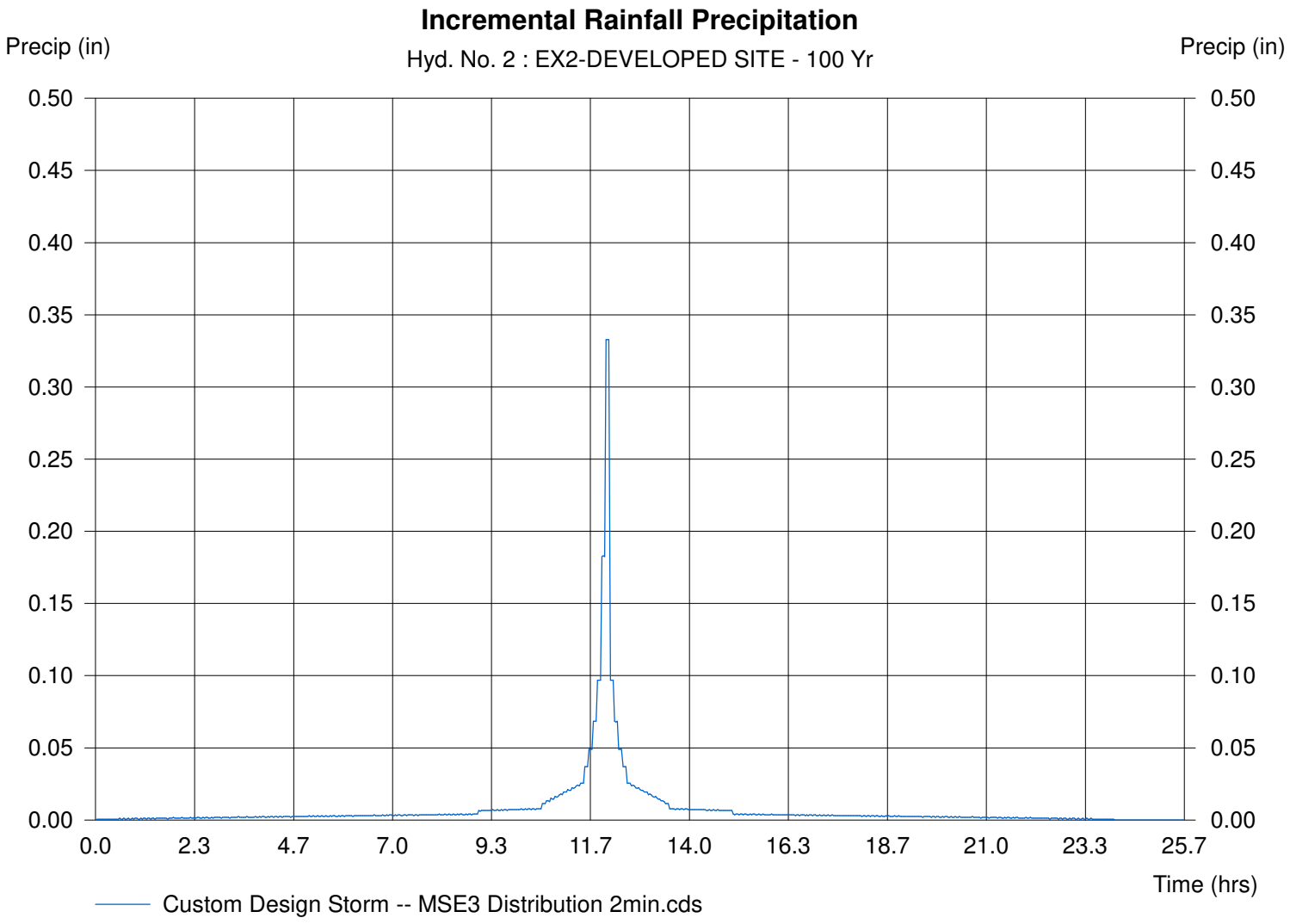
Total Travel Time, Tc ..... 29.70 min

Precipitation Report

Hyd. No. 2

EX2-DEVELOPED SITE

Storm Frequency	= 100 yrs	Time interval	= 2 min
Total precip.	= 6.06 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



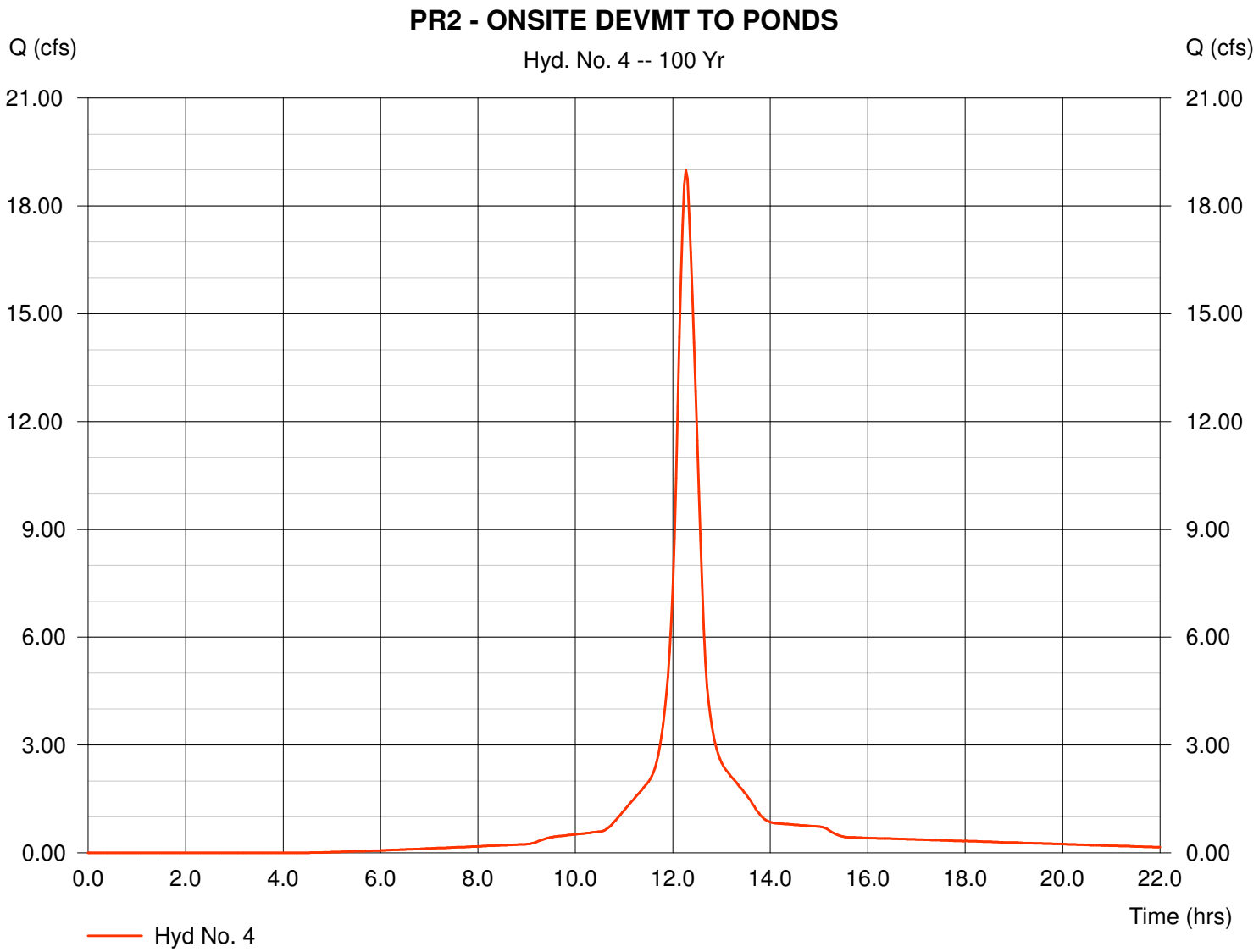
Hydrograph Plot

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Hydrograph type	=	SCS Runoff	Peak discharge	=	19.00 cfs
Storm frequency	=	100 yrs	Time interval	=	2 min
Drainage area	=	3.60 ac	Curve number	=	92
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	21.5 min
Total precip.	=	6.06 in	Distribution	=	Custom
Storm duration	=	MSE3 Distribution 2min.cds	Shape factor	=	484

Hydrograph Volume = 1.566 acft



TR55 Tc Worksheet

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.240	0.011	0.011	
Flow length (ft)	= 80.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 2.70	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	**= 17.15**	**+ 0.00**	**+ 0.00**	**= 17.15**
Shallow Concentrated Flow				
Flow length (ft)	= 420.00	0.00	0.00	
Watercourse slope (%)	= 1.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 1.61	0.00	0.00	
Travel Time (min)	**= 4.34**	**+ 0.00**	**+ 0.00**	**= 4.34**
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	**= 0.00**	**+ 0.00**	**+ 0.00**	**= 0.00**

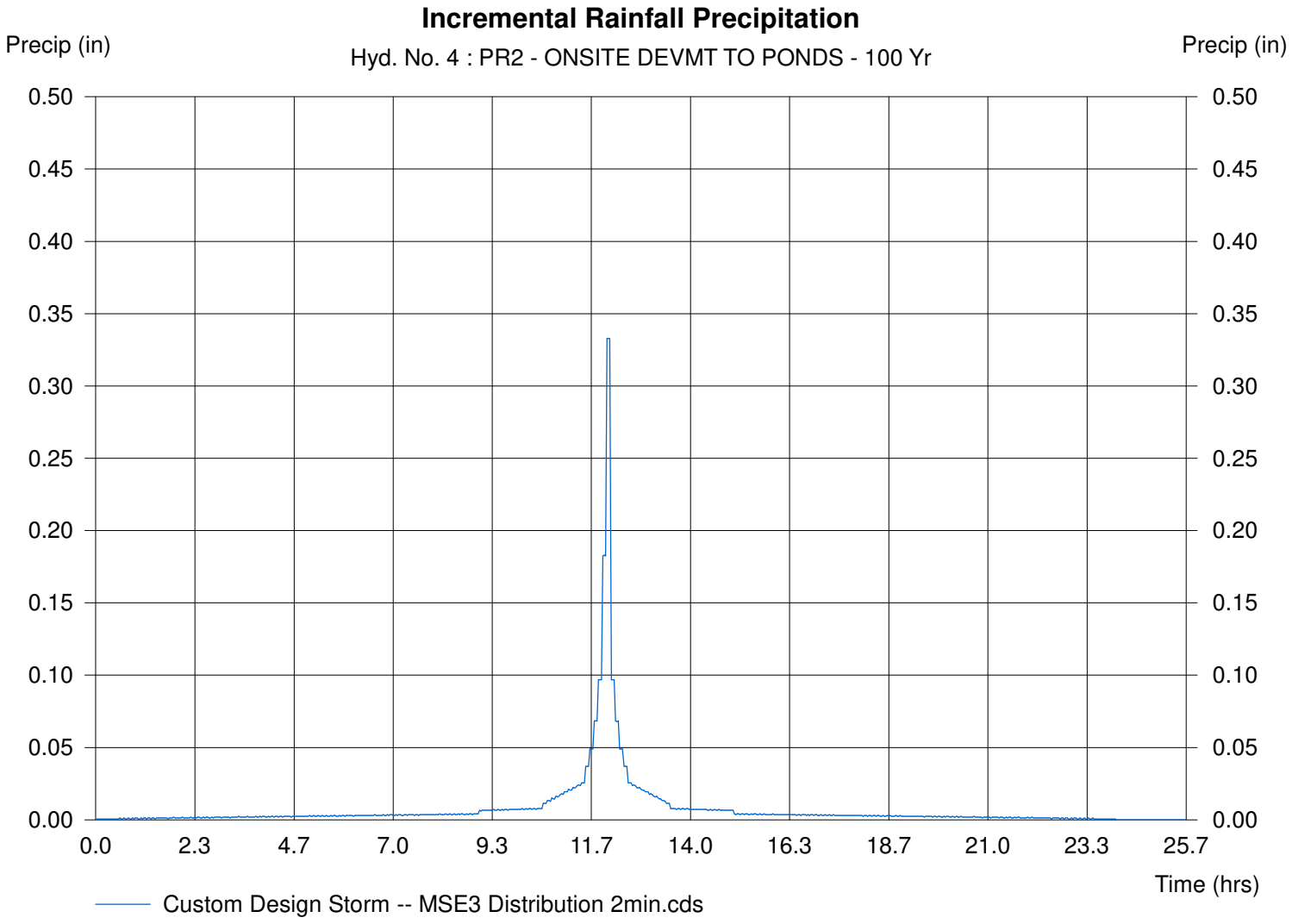
Total Travel Time, Tc ..... 21.50 min

Precipitation Report

Hyd. No. 4

PR2 - ONSITE DEVMT TO PONDS

Storm Frequency	= 100 yrs	Time interval	= 2 min
Total precip.	= 6.06 in	Distribution	= Custom
Storm duration	= MSE3 Distribution 2min.cds		



Hydrograph Plot

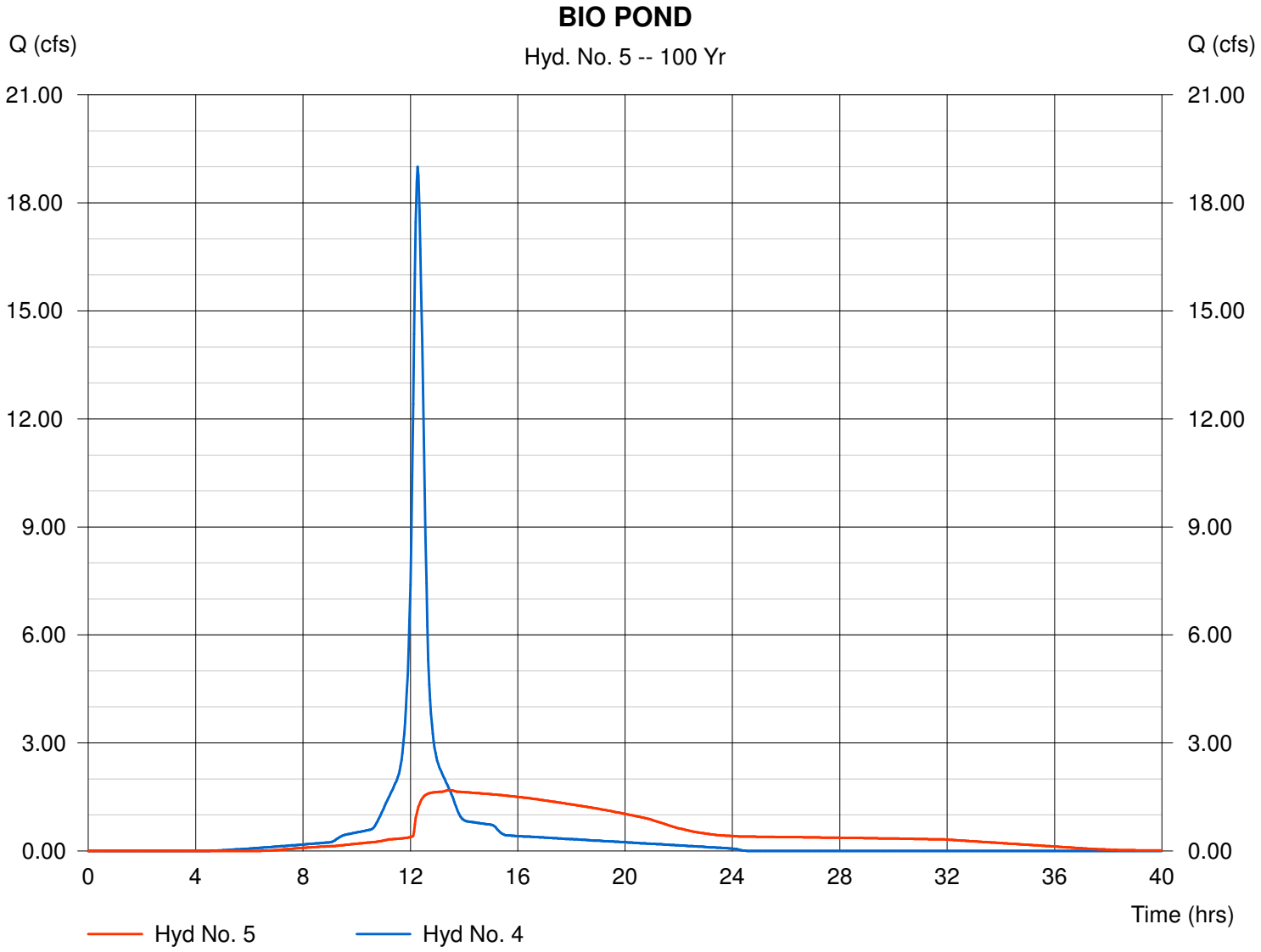
Hydraflow Hydrographs by Intelisolve | Thursday, Mar 21 2024, 6:16 PM

Hyd. No. 5

BIO POND

Hydrograph type	=	Reservoir	Peak discharge	=	1.68 cfs
Storm frequency	=	100 yrs	Time interval	=	2 min
Inflow hyd. No.	=	4	Max. Elevation	=	778.51 ft
Reservoir name	=	POND PR2 - ONSITE	Max. Storage	=	0.998 acft

Storage Indication method used. | Hydrograph Volume = 1.560 acft



Pond Report

Pond No. 1 - POND PR2 - ONSITE

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	773.25	00	0.000	0.000
0.25	773.50	2,100	0.006	0.006
1.25	774.50	2,100	0.048	0.054
2.24	775.49	2,100	0.048	0.102
2.25	775.50	7,810	0.001	0.103
2.75	776.00	9,370	0.099	0.202
3.75	777.00	12,700	0.253	0.455
4.75	778.00	16,200	0.332	0.787
5.75	779.00	19,920	0.415	1.201

Culvert / Orifice Structures

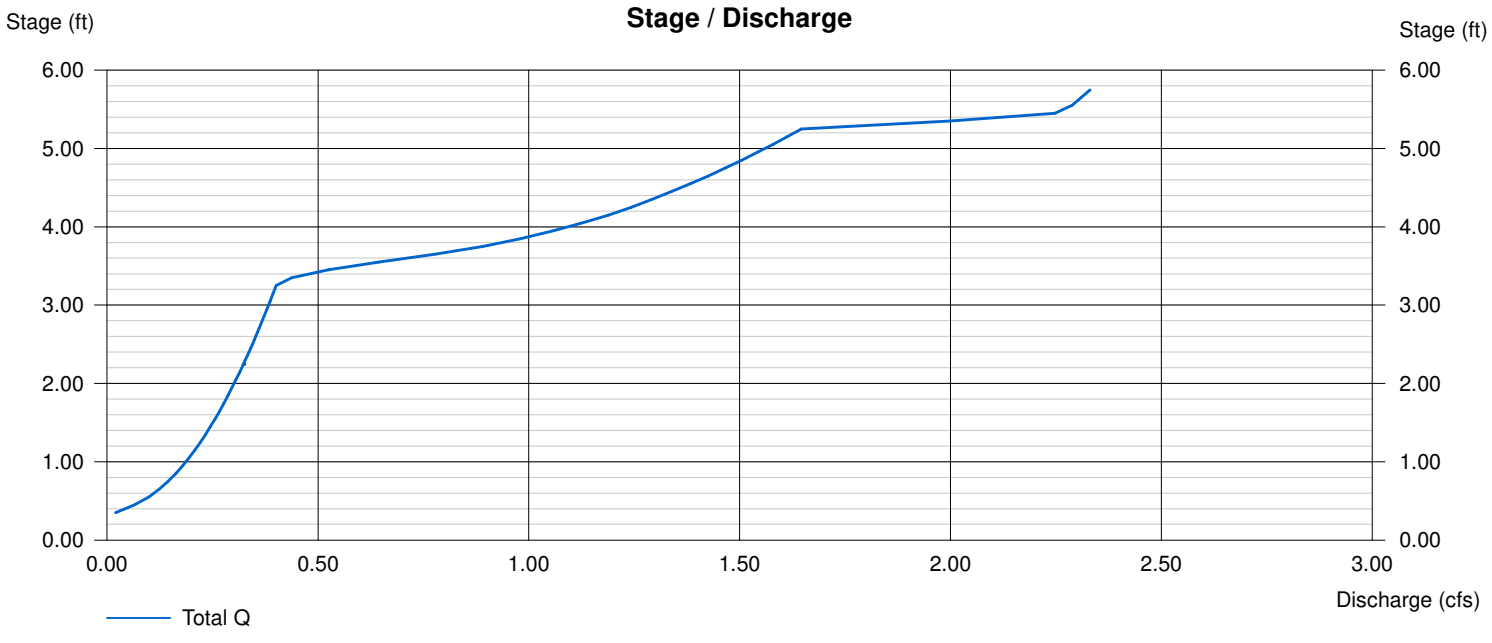
	[A]	[B]	[C]	[D]
Rise (in)	= 8.00	3.00	6.00	0.00
Span (in)	= 8.00	3.00	6.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 773.25	773.50	776.50	0.00
Length (ft)	= 150.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	0.00
N-Value	= .013	.013	.013	.000
Orif. Coeff.	= 0.60	0.60	0.60	0.00
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 5.90	0.00	0.00	0.00
Crest El. (ft)	= 778.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	0.00	0.00	0.00
Weir Type	= Riser	---	---	---
Multi-Stage	= Yes	No	No	No

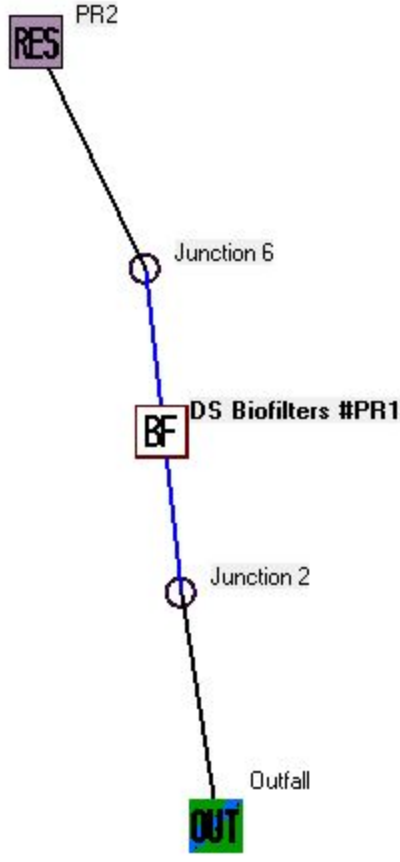
Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



APPENDIX 5

WinSLAMM Input/Output


PR2
RES
Junction 6
DS Biofilters #PR1
BF
Junction 2
Outfall
OUT

Data file name: M:\Safari Homes-Franklin\WinSLAMM\LAKE GROVE PLACE_03-22-24.mdb
WinSLAMM Version 10.4.0
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations
Seed for random number generator: -42
Study period starting date: 01/05/69 Study period ending date: 12/31/69
Start of Winter Season: 12/06 End of Winter Season: 03/28
Date: 03-21-2024 Time: 17:47:37
Site information:
BIO-RETENTION
LU# 1 - Residential: PR2 Total area (ac): 3.600
1 - Roofs 1: 1.000 ac. Flat Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
25 - Driveways 1: 0.790 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.300 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
51 - Small Landscaped Areas 1: 1.510 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Biofilter CP# 1 (DS) - DS Biofilters #PR1
1. Top area (square feet) = 19920
2. Bottom aea (square feet) = 7810
3. Depth (ft): 6.5
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.02
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.01
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0.5
10. Porosity of rock filled volume = 0.33
11. Engineered soil infiltration rate: 13
12. Engineered soil depth (ft) = 2
13. Engineered soil porosity = 0.45
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0
Soil Data Soil Type Fraction in Eng. Soil
User-Defined Soil Type 1.000
Biofilter Outlet/Discharge Characteristics:
Outlet type: Broad Crested Weir
1. Weir crest length (ft): 20

2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 5.5

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 1.83
2. Stand pipe height above datum (ft): 5.5

Outlet type: Surface Discharge Pipe

1. Surface discharge pipe outlet diameter (ft): 0.5
2. Pipe invert elevation above datum (ft): 3.5
3. Number of surface pipe outlets: 1

Outlet type: Drain Tile/Underdrain

1. Underdrain outlet diameter (ft): 0.25
2. Invert elevation above datum (ft): 0.5
3. Number of underdrain outlets: 1

SLAMM for Windows Version 10.4.0

Data file name: M:\Safari Homes-Franklin\WinSLAMM\LAKE GROVE PLACE_03-22-24.mdb
Data file description: BIO-RETENTION
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Start of Winter Season: 12/06 End of Winter Season: 03/28
Model Run Start Date: 01/05/69 Model Run End Date: 12/31/69
Date of run: 03-21-2024 Time of run: 17:47:11
Total Area Modeled (acres): 3.600
Years in Model Run: 0.99

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of all Land Uses without Controls:	173106	-	91.77	991.8	-
Outfall Total with Controls:	134698	22.19%	18.48	155.4	84.33%
Annualized Total After Outfall Controls:	136569			157.6	

APPENDIX 6

Soils Report

GEOTEST

DRAFT

2135 South 116th Street
West Allis, WI 53227

March 28, 2024

GeoTest, Inc. 25 YEARS OF EXCELLENCE 1997 - 2022

Ron Issleb, LEED AP
Senior Project Manager
Khalek Building Services
3834 E. Puetz Road
Oak Creek, WI 53154

Subject: Geotechnical Consulting Services
Lake Grove Place
3709 W. College Avenue, Franklin, Wisconsin

Dear Mr. Issleb:

GeoTest, Inc. (GeoTest) has prepared this geotechnical engineering report related to the above-referenced project. This report describes the subsurface exploration and laboratory testing programs and presents recommendations regarding civil and structural engineering design aspects of the project, as well as other construction considerations.

Project Description

Khalek Building Systems is preparing to develop a residential property located at 3709 W. College Avenue in Franklin, Wisconsin. The location of the project is illustrated on Figure 1 in Appendix A.

The proposed development will consist of five condominium buildings that will each have eight units. The buildings will be two-story, slab-on-grade structures. The development will include asphalt parking and drive areas and two stormwater bio-retention basins. The proposed development is illustrated on Figure 2 in Appendix A.

The property is currently developed with a single-family residence and detached metal outbuilding. The ground surface is mostly covered with grass, besides an asphalt driveway. The ground surface is relatively flat, sloping downward from the southwest corner to the north and east with an elevation difference of about 6 feet.

A geotechnical investigation was previously conducted by Terracon in 2017 for an apartment development. That development did not proceed. The city consequently required additional geotechnical analysis to be completed to cover the new development plan. That report was reviewed for this project. A copy of that report can be obtained at Khalek.

Structural loads have not been provided but were estimated to be relatively light. The finished floor elevations for the five buildings will range from 781 feet to 783 feet, which will be slightly above the existing ground surface.

Scope of Work

Geotechnical Subsurface Exploration

The geotechnical exploration program consisted of five borings: three drilled to depths of 20 feet below the existing ground surface in building areas and two drilled to depths of 15 feet in the stormwater basin areas. The boring locations are identified on the Boring Location Diagram (Figure 2) in Appendix A. The ground surface elevations at the boring locations were interpolated from the Milwaukee County GIS.

The borings were drilled using conventional hollow-stem augers. Soil samples were obtained at 2.5-foot intervals to a depth of 10 feet and 5-foot intervals thereafter. The soil samples were obtained by split-barrel sampling procedures, in general accordance with ASTM D1586. Representative portions of the samples were sealed in glass jars and returned to GeoTest for laboratory testing and classification.

Descriptive logs for each boring, which describe the method of borehole advancement, sample types, sample depths, and observations regarding soil and groundwater conditions, were prepared at the time of drilling. These logs were utilized by a GeoTest geotechnical engineer as an aid to prepare the final boring logs and cross-section included in Appendix B.

Water level information, if encountered, was noted during drilling.

All drilling and sampling procedures are described in Appendix C.

Laboratory Testing

A GeoTest geotechnical engineer examined and visually classified each sample, based on texture and plasticity, in accordance with the Unified Soil Classification System (USCS) and the US Department of Agriculture (USDA) soil classification system. The engineer grouped like soil samples into strata that are illustrated on the soil boring logs and completed the *Soil Evaluation – Stormwater Infiltration* form (SBD 10793) for B-4 and B-5. The notes included on the boring logs and SBD 10793 form and charts describing these systems of classification are included in Appendix B.

The laboratory testing program consisted of the following:

- Water content testing on all samples.
- Calibrated hand penetrometer testing (Q_p) on all cohesive (clay) samples.

The laboratory test results are presented on the final boring logs included in Appendix B. All laboratory procedures are described in Appendix C.

The recovered soil samples will be retained for 60 days after the date of this report. Unless other instructions as to their disposition are received, they will be discarded at that point.

Soil and Groundwater Conditions

The following narrative is a generalization of the subsurface conditions encountered at the borings. Soil conditions can vary in areas between the boring locations. For a more-detailed description of the subsurface conditions encountered at each boring location, please refer to the attached boring logs and cross-section in Appendix B.

Topsoil was encountered at the boring locations, with the thickness ranging from 8 to 10 inches. The underlying soil profile consisted mostly of native clays. Silty fine sand and clayey to silty fine sand was encountered at B-3 to a depth of about 8 feet. Fine sand was encountered at B-2 at a depth of about 19.5 feet.

Fill soils were noted on one of the Terracon boring logs (B-6) to a depth of 2.5 feet. It's likely the fills were generated from past site grading activities.

The predominant native cohesive (clay) soils exhibited stiff to hard consistencies, with a Q_p values ranging from 2,000 pounds per square foot (psf) to greater than 9,000 psf. Within the primary foundation influence zone (less than 10 feet), 12% of the samples were less than 4,000 psf and 76% were above 8,000 psf.

The granular (sandy) soils at B-2 exhibited loose to medium dense relative densities, with N-values of 6, 8, and 10.

Typically, moisture contents are considered high if they are above 15% in sands and above 20% in clays. The moisture content in the clay samples ranged from 13.7% to 31.4%. Of the seventeen samples, 41% were above 20%. The moisture contents in the sandy samples ranged from 17.8% to 19.4%.

Groundwater Conditions

Free groundwater was encountered at two boring locations (B-2 and B-4) during drilling at depths of 19.5 feet and 12 feet, respectively. Perched water was encountered at two borings (3 and B-5) at depths of 2 to 8 feet.

The absence of groundwater during drilling is not necessarily an indicator of the permanent groundwater table when clay soils (low hydraulic conductivity) are present. A soil color change (from brown to gray) in soil samples can suggest the depth of the long-term groundwater table. In general, the soils changed from brown to grayish brown at depths of about 12 to 13 feet.

Fluctuations in the groundwater table elevation should be expected with variations in precipitation, evapotranspiration, surface runoff, etc. Also, shallow perched groundwater

conditions should be expected where relatively permeable granular soils are underlain by relatively impermeable cohesive soils, especially following precipitation events.

Analysis and Recommendations

There are four primary issues that should be considered when planning this project.

- Fill materials exist on the property (noted in the Terracon report), which are likely associated with past site grading activities. Typically, fills are a concern for structural support because they could have been placed inconsistently and not sufficiently compacted, potentially causing excessive total and/or differential settlements for foundations. They can also cause grading and support challenges for floor slabs and pavements.
- Clayey soils were present on the property, which are sensitive to construction activity, and actions to stabilize the subgrade during construction should be planned.
- Because the property has a development history, care should be taken to identify any existing buried structural elements and utilities that may impact new elements.
- Shallow perched water was encountered that could impact site grading and foundation and utility excavations.

Foundation Support

Based on the subsurface conditions encountered at the borings, the proposed buildings can be supported on shallow spread footings that bear on either suitable native soils or engineered fill. With assumed bottom-of-footing elevations that range from 777 feet to 781 feet, the bearing soils would be native clay and sand (see the cross-section in Appendix B). Because the shallower footings could bear near the existing ground surface, and undocumented fills soils could exist, occasional areas of over-excavation may be required if unsuitable (organic, fill, or low strength) soils could be present at the base of the footing excavations.

The foundations can be designed using an allowable bearing capacity value of 4,000 psf. Based on the subsurface conditions, properly designed and constructed footings should experience total and differential settlements of less than 1 inch and ¾ inch, respectively.

Traditionally, perimeter footings and interior footings in unheated areas should bear at a depth of at least 48 inches below the final exterior grade to provide adequate frost protection. If desired, exterior footings can bear at shallower depths by following ASCE 32-01 (American Society of Civil Engineers, Design and Construction of Frost-Protected Shallow Foundations, 2001). Interior footings not subject to frost can bear directly beneath the floor slab.

Seismic Design

The soil conditions present at a site are utilized in determining the Seismic Design Category (SDC) for structures. Part of selecting the SDC is determining the Site Class

for the soils, which categorizes common soil conditions into broad classes, where typical ground motion attenuation and amplification effects are assigned. Site Class is determined based on the average properties of the soil within 100 feet of the ground surface. Geotechnical engineers use a variety of parameters to characterize the engineering properties of these soils, including general soil classifications (e.g., hard rock, soft clay, etc.), N-values, and laboratory testing.

Site Class A includes hard rock that is typically found only in the eastern United States. The types of rock typically found in the western states include various volcanic deposits, sandstones, shales, and granites that commonly have the characteristic appropriate to either Site Class B or C. Sites with very dense sands and gravels or very stiff to hard clay deposits also may qualify as Site Class C. Sites with relatively stiff cohesive or medium dense non-cohesive soils, including mixtures of clays, silts, and sands, are categorized as Site Class D. Site Class D is the most common site class throughout the United States. Sites along rivers or other waterways underlain by deep soft clay deposits are categorized as Site Class E. Sites where soils are subject to liquefaction or other ground instabilities are categorized as Site Class F and site-specific analyses are required.

Based on the types of soils present at the boring locations at this property, and their apparent engineering properties, Site Class D is assigned to the site, as defined in the International Building Code (2015) Section 1613.

Floor Slab Support

The existing soils are generally suitable for support of concrete floor slabs. However, the floor slabs area should be proof-rolled and soft areas removed or improved prior to the placement of base course materials. An average subgrade modulus value of 150 pounds per cubic inch (pci) is appropriate.

Pavement Design

The Wisconsin Asphalt Pavement Association (WAPA) Design Guide should be utilized to design the new asphalt surface parking areas. Traffic Class I was assumed for parking areas that are mainly used by light passenger vehicles and Traffic Class II for medium-loaded drive areas.

Based on the soil conditions encountered at the boring locations, the minimum pavement section should consist of the following:

Material	Traffic Class I	Traffic Class II	WisDOT Specification
Asphalt Surface Course	2 inches	2 inches	Section 460
Asphalt Binder Course	2 inches	2.5 inches	Section 460
Dense Graded Base Course	8 inches	10 inches	Section 305

The pavement sections above are not intended to support on-going construction traffic. Also, the pavement sections presented above should not be used for areas that experience heavy truck traffic, equipment or truck parking areas, entrances and exit aprons, or trash-dumpster loading zones. In these areas, a Portland Cement Concrete (PCC) pavement should be used. The PCC layer thickness is recommended to be 7 inches with a minimum of 6-inch-thick crushed stone base course. The reinforcement details for PCC layers and final pavement section should be designed by the project design engineer.

Hot Mix Asphalt (HMA) and base course materials should be placed and compacted following the project requirements and guidelines of WisDOT Standard Specifications for Highway and Structure Construction, section 460.3.

These recommendations assume the subgrade is prepared as described in this report. Additional corrective action may be warranted at the time of construction, depending on the site conditions. The installation of a non-woven geotextile fabric as a separating layer between the finished subgrade and base course stone is recommended to increase the longevity of the pavements.

All pavements require regular maintenance and repair to maintain the serviceability of the pavement. However, after 20 years of service, a normal pavement structure is likely to deteriorate to a point where pavement rehabilitation may be required to maintain the serviceability.

Engineered Fill, Wall, and Utility Trench Backfill

All engineered fill, wall, and utility trench backfill should consist of inorganic materials, free of debris, not exceed 3 inches in size, and should be placed in 8 to 10-inch loose lifts compacted to a minimum of 95 percent of the maximum dry density (Modified Proctor). The fill should be moisture conditioned to be within 3± percent of the optimum moisture content.

The on-site soils can be reused as engineered fill, assuming they do not include deleterious materials (organic soils, wet soils, etc.). However, due to the moisture sensitive nature of clays, their use could pose construction challenges regarding achieving the required compaction requirements. The grading contractor may choose to use a granular soil that can be more easily compacted and would be less sensitive to moisture levels.

Stormwater Management

Two stormwater bio-retention basins are proposed on the property. Based on the USDA soil descriptions of the borings drilled in those areas (B-4 through B-5), the prevailing soils were classified as “Clay”. Consequently, any devices would be exempt from the Wisconsin Department of Natural Resources (WDNR) infiltration requirements.

The estimated static infiltration rate based on the Standard 1002 – Table 2 would be 0.07 inches per hour (in/hr). The Wisconsin Department of Safety and Professional Services (DSPS) "Soil Evaluation – Stormwater Infiltration" form (SBD 10793) is included in Appendix B.

Construction Considerations

All loose, wet, disturbed, or otherwise unsuitable surface soils should be stripped from structural and engineered fill areas prior to any construction activities. The exposed subgrade soils and all engineered fills should be observed, tested, and documented by a representative of the geotechnical engineer. Large structural areas, such as building, engineered fill, and pavement areas, should be proof-rolled to identify low-strength or disturbed areas that need to be removed or improved.

Footing excavations and all structural subgrade soils should be evaluated to confirm the bearing materials are consistent with those identified in this report and anticipated by the structural engineer. If unanticipated conditions are encountered, the geotechnical and structural engineers should be notified immediately. All footing pads must bear upon suitable native soils or engineered fill soils that have been confirmed in the field by a representative of the geotechnical engineer. Where unsuitable bearing soils, such as fill, organic, disturbed, wet, frozen, or low-strength (less than the design bearing capacity) soils are encountered, the excavation should be extended to competent bearing soil. If extended, the footing pads can be constructed at the base of the excavations, or the excavations can be backfilled with clean, crushed stone or lean concrete.

The soils on-site will be sensitive to disturbances from construction activity and increases in moisture content due to their clay and silt content. Increases in the moisture content of these soils can cause significant reduction in soil strength and support capabilities. In addition, moisture sensitive soils that become wet will likely impact grading and compaction schedules. Care should be taken during construction to protect these soils from moisture or disturbance from equipment. Placing a working subbase layer of 3-inch crushed stone or utilizing a cement stabilization program in areas subjected to construction traffic could be beneficial and reduce the potential need to strip disturbed soils.

Because the property has a development history, efforts should be taken during site grading to identify any structural elements. Buried structural elements from existing and former buildings, associated backfill materials, and utilities are present on the property. Therefore, efforts should be taken during site grading to identify any existing elements and undocumented fills. Existing foundations should be removed to a depth of at least 4 feet below proposed foundations. Existing concrete slabs below a depth of 4 feet should be removed or broken into minimum 1-foot pieces to avoid water pooling. Utilities exist that will also require abandonment.

It is likely that excavations could encounter shallow perched water, especially during or after wet weather. Filtered sump pumps and drawing water from sump pits should be adequate to remove water that collects in excavations. Excavated sump pits should be lined with a geotextile and filled with open-graded, free- draining aggregate.

Surface water should not be allowed to collect in excavations or on prepared subgrades during or after construction. Areas should be sloped to facilitate removal of collected surface runoff. Positive site drainage should be provided to reduce infiltration of surface water around the perimeter of structures and within pavement areas.

Excavation walls may need to be sloped or braced for stability and safety reasons. The Owner and Contractor should be aware of, and become familiar with, applicable local, state, and federal safety regulations, including current OSHA Excavation and Trench Safety Standards. Construction-site safety generally is the responsibility of the Contractor, who should also be responsible for the means, methods, and sequencing of construction operations.

The Contractor should be aware that slope height, slope inclination, or excavation depths should in no case exceed those specified in local, state, or federal safety regulations, (e.g., OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926), or successor regulations. The soils encountered in the borings are mostly Type A and B soils when applying the OSHA regulations. Such regulations are strictly enforced, and if they are not followed, the Owner, Contractor, and/or earthwork Subcontractor(s) could be liable for substantial penalties.

General Qualifications

The services provided by GeoTest on this project were performed with the degree of skill and care typically performed by other members of the geotechnical engineering profession, practicing in this locale, at this time. No other warranty, expressed or implied, is given.

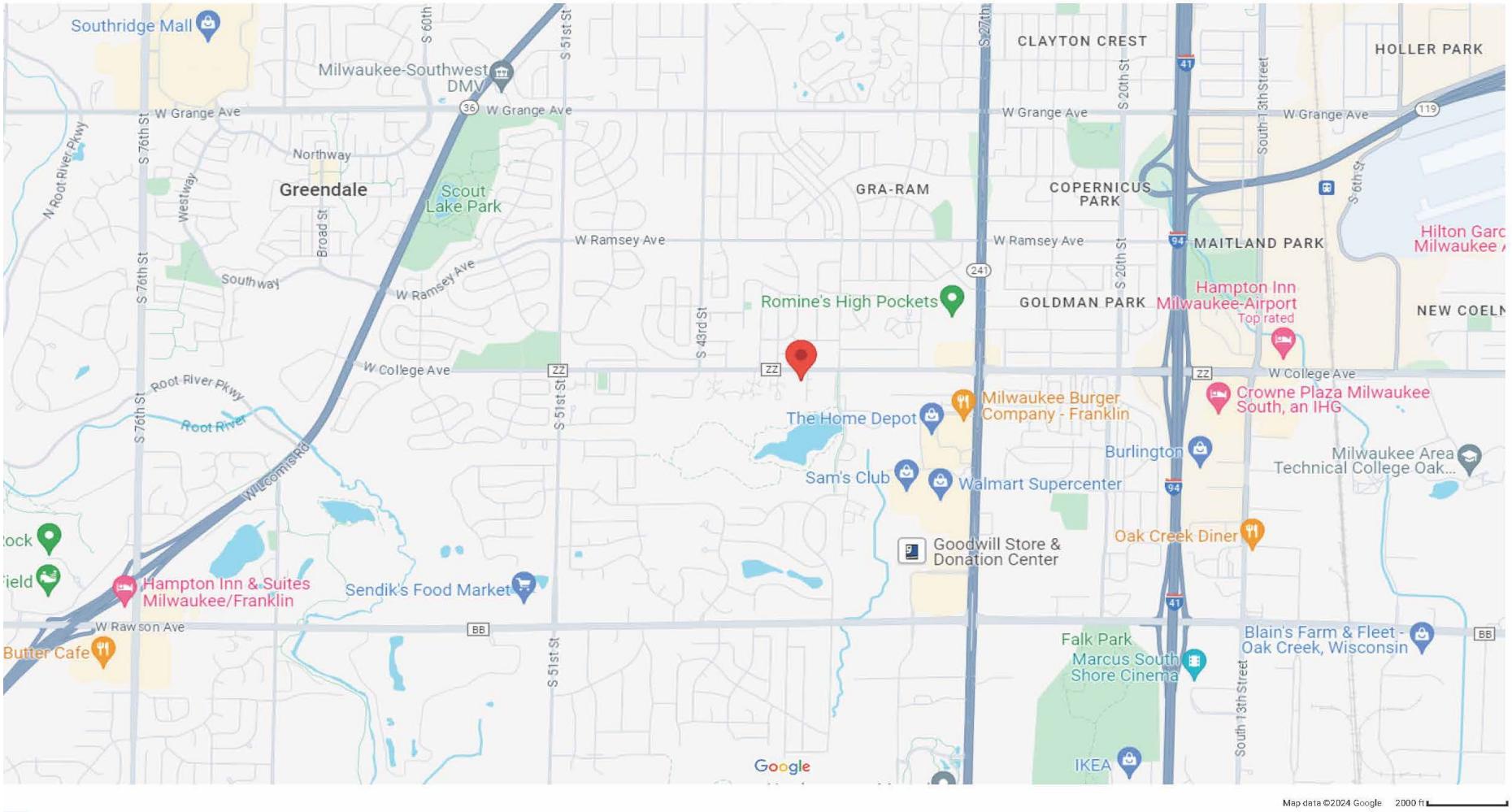
We appreciate the opportunity to provide geotechnical engineering services. If you have any questions, or require any further assistance, please feel free to contact us.

Sincerely,

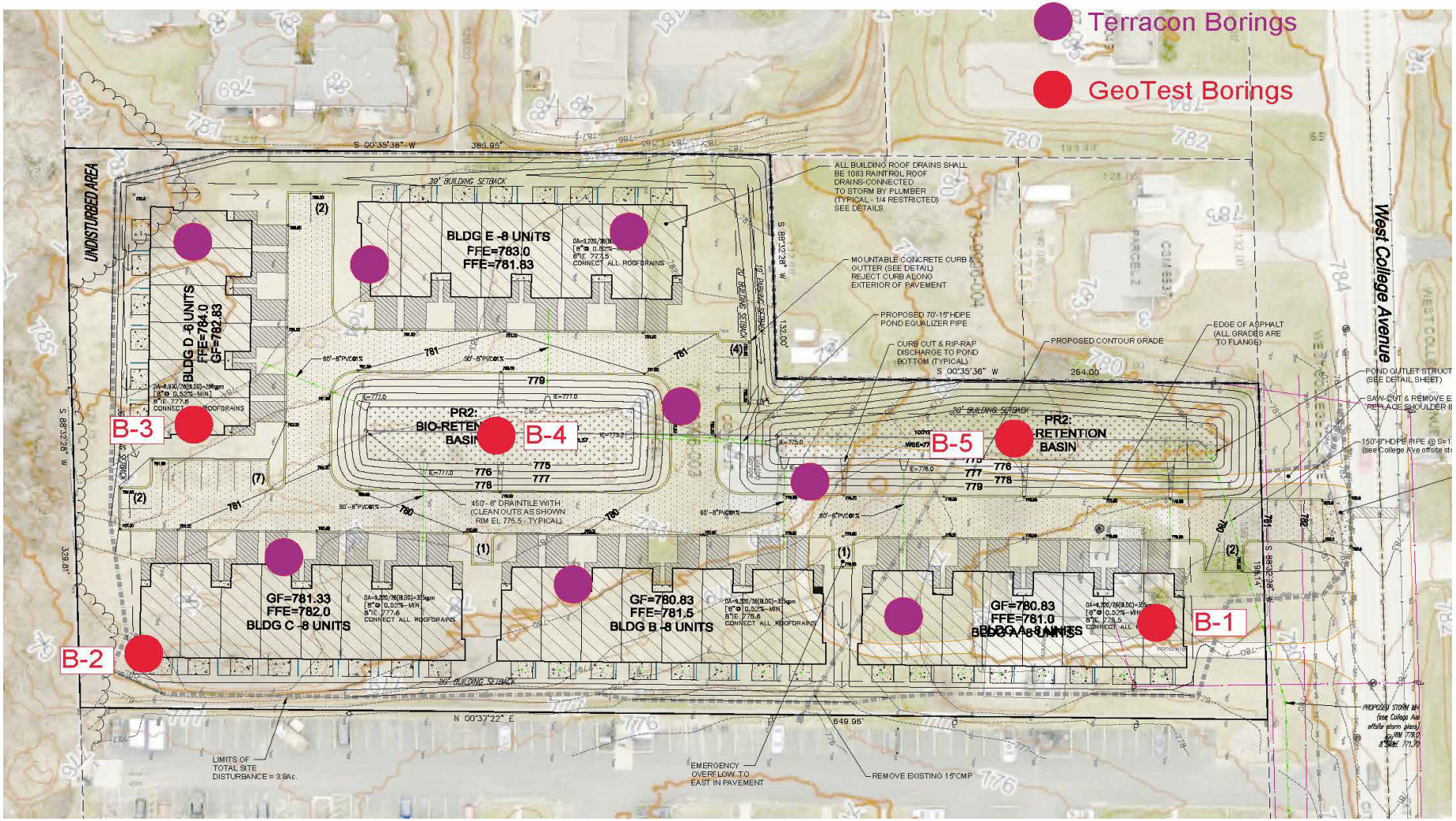
Michael D. Frede, P.E.
Technical Director/Senior Engineer

Appendix A

- Figure 1 – Site Location Diagram
- Figure 2 – Boring Location Diagram



GeoTest	**Project Name:**	Lake Grove Place	**Project No.:**	8115	**FIGURE 1** **Site Location Diagram**
	Project Location:	3709 W. College Avenue Franklin, Wisconsin Milwaukee County	**Date:** **Drawn By:** **Scale:**	3/15/24 MDF NTS	



GeoTest	**Project Name:**	Lake Grove Place	**Project No.:**	8115	**FIGURE 2** **Boring Location Diagram**
	Project Location:	3709 W. College Avenue Franklin, Wisconsin Milwaukee County	**Date:**	3/15/24	
			Drawn By:	MDF	
			Scale:	NTS	

Appendix B

- General Notes
- Boring Logs
  - B-1
  - B-2
  - B-3
  - B-4
  - B-5
- Legend
- Cross-section
- Unified Soil Classification System (USCS)
- Soil Evaluation – Stormwater Infiltration Form (SBD 10793)
  - B-4
  - B-5
- United States Department of Agriculture (USDA) Soil Classification System

General Notes

Drilling and Sampling Abbreviations:

AD	Solid-Stem Auger	**OS**	Osterberg Sampler, 3-inch-O.D. Shelby Tube
AS	Auger Sample	**PMT**	Pressuremeter Test (In Situ)
BS	Bulk Sample	**RD**	Rotary Drilling
DD	Diamond Core Drilling	**SS**	Split-Spoon Sampler, 1.375-inch-I.D., 2-inch-O.D. (Unless otherwise noted)
FT	Fish Tail		
GP	Geoprobe	**ST**	Shelby Tube Sampler, 2-inch-O.D. (Unless otherwise noted)
GS	Giddings Sampler	**VS**	Vane Shear
A	Hand-Auger Drilling	**WO**	Weight of Hammer
S	Hollow-Stem Auger	**WS**	Wash Sample

Standard Penetration ("N"): Blows per foot of a 140-pound hammer falling 30 inches on a 2-inch-O.D. split-spoon sampler, except where otherwise noted.

Water Level Measurement Abbreviations:

AAR	After Auger Removal	**BCR**	Before Casing Removal	**WS**	While Sampling
AB	After Boring	**DCI**	Dry Cave In		
ACR	After Casing Removal	**WCI**	Wet Cave In		
BAR	Before Auger Removal	**WD**	While Drilling		
BCI	Before Casing Installation	**WL**	Water Level		

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In relatively pervious soils, the observed water levels are considered a reliable indicator of groundwater positions. In relatively impervious soils, the accurate determination of groundwater elevations may not be possible, even after several days of observations. In this case, other indicators of groundwater position, such as sealed observation wells or piezometers, may be required.

Gradation Description and Terminology:

Coarse-grained granular soils have more than 50% of their dry weight retained on a #200 sieve (0.074 mm); they include boulders, cobbles, gravel, sand, and combinations thereof. Fine-grained soils have less than 50% of their dry weight retained on a #200 sieve. Fine-grained granular soils are non-cohesive, and include silt; fine-grained cohesive soils include silty clay, and clay.

Major Component of Sample	Size Range	Description of Components Present in Sample	Percent of Dry Weight
Boulders	Over 8" (200 mm)	Trace	<5
Cobbles	8" to 3" (200 to 75 mm)	Few	5 - 10
Gravel	3" to #4 sieve (75 to 4.76 mm)	Little	15 - 25
Sand	#4 to #200 sieve (4.76 to 0.074 mm)	Some	30 - 45
Silt	Passing #200 sieve (0.074 to 0.005 mm)		
Clay	Smaller than 0.005 mm		

Consistency of Cohesive Soils

Unconfined Compressive Strength, Qu, tsf	Consistency
<0.25	Very Soft
0.25 - 0.49	Soft
0.50 - 0.99	Firm
1.00 - 1.99	Stiff
2.00 - 3.99	Very Stiff
>4.00	Hard

Relative Density of Granular Soils

N, Blows per 12 inches	Relative Density
0 - 3	Very Loose
4 - 9	Loose
10 - 29	Medium Dense
30 - 49	Dense
50 - 80	Very Dense
>80	Extremely Dense

GeoTest	**Client:** Khalek Building Services	**BORING LOG**
	Project: Lake Grove Place, #8115	**Boring No.** B-1
	Address: 3709 W. College Avenue, Franklin, WI	**Page:** 1 of 1

Drilling Start Date:	**3/18/24**	Boring Depth (ft):	**20**
Drilling End Date:	**3/18/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**PTS**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe 7822DT**	DTW After Drilling (ft):	**N/A**
Driller:	**Brian Szydzik**	Ground Surface Elev. (ft):	**780**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.93010, -87.96189**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	COLLECT: Blow Counts	COLLECT: Recovery (ft)	COLLECT: N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 10 inches of Clayey Topsoil									780
			SS	4 5 7	1.30	12	(1.00') Lean CLAY (CL); trace fine gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, very stiff, wet, dark brown	28.2						2.5		
			SS	4 5 6	1.50	11	(3.00') Lean CLAY (CL); trace fine gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, very stiff, wet, brown with gray mottling	26						2.5		
5																775
			SS	4 6 7	1.50	13	(6.00') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, hard, moist, brown	17.6						4		
			SS	6 8 9	1.50	17		16.8						4.5		
10																770
			SS	4 5 8	1.50	13	(12.00') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, very stiff, moist, grayish brown	17.3						3		
15																765
			SS	4 5 8	1.50	13		19.9						3		
20							(20.00') Boring terminated									760
25																

NOTES:

GeoTest	**Client:** Khalek Building Services	**BORING LOG**
	Project: Lake Grove Place, #8115	**Boring No.** B-2
	Address: 3709 W. College Avenue, Franklin, WI	**Page:** 1 of 1

Drilling Start Date:	**3/18/24**	Boring Depth (ft):	**20**
Drilling End Date:	**3/18/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**PTS**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**19.5**
Drilling Equipment:	**Geoprobe 7822DT**	DTW After Drilling (ft):	**N/A**
Driller:	**Brian Szydzik**	Ground Surface Elev. (ft):	**781**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.92852, -87.96196**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	COLLECT: Blow Counts	COLLECT: Recovery (ft)	COLLECT: N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 8 inches of Clayey Topsoil									780
			SS	4 5 6	1.50	11	(0.50') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, hard, moist, brown	13.7						4.5		
			SS	4 6 8	1.50	14		15.8						4.5		
5			SS	6 9 11	1.50	20		15.6						4.5		775
			SS	7 11 13	1.50	24		16.7						4		
10																770
			SS	7 9 11	1.50	20		15.9						4		
15																765
			SS	6 10 12	1.50	22		18.9						4.5		
20							(19.50') Poorly graded SAND with silt (SP-SM); mostly fine grained sand, few silt, medium dense, saturated, brown									760
							(20.00') Boring terminated									
25																

NOTES:

GeoTest	**Client:** Khalek Building Services **Project:** Lake Grove Place, #8115 **Address:** 3709 W. College Avenue, Franklin, WI	**BORING LOG** **Boring No.** B-3 **Page:** 1 of 1

Drilling Start Date:	**3/18/24**	Boring Depth (ft):	**20**
Drilling End Date:	**3/18/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**PTS**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe 7822DT**	DTW After Drilling (ft):	**N/A**
Driller:	**Brian Szydzik**	Ground Surface Elev. (ft):	**782**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.92867, -87.96236**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	Blow Counts	Recovery (ft)	N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 8 inches of Clayey Topsoil									782
			SS	3 4 4	1.50	8	(0.50') Silty SAND (SM); mostly fine grained sand, little silt, loose, wet, brown	17.8								
			SS	3 3 3	1.50	6										
5			SS	3 4 6	1.50	10	(5.00') Silty, Clayey SAND (SC-SM); mostly fine grained sand, little silt, little clay, medium dense, wet, brown	19.4 19.2								775
			SS	6 6 8	1.50	14	(8.00') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, hard, moist, brown	19.1						4.5		
10																770
			SS	3 4 5	1.50	9	(13.00') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, very stiff, moist, grayish brown	22						2		
15																765
			SS	4 4 5	1.50	9										
20							(20.00') Boring terminated	17.7						2.5		760
25																

NOTES: Perched water was present at 2 feet.

GeoTest	**Client:** Khalek Building Services	**BORING LOG**
	Project: Lake Grove Place, #8115	**Boring No.** B-4
	Address: 3709 W. College Avenue, Franklin, WI	**Page:** 1 of 1

Drilling Start Date:	**3/18/24**	Boring Depth (ft):	**15**
Drilling End Date:	**3/18/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**PTS**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**12**
Drilling Equipment:	**Geoprobe 7822DT**	DTW After Drilling (ft):	**N/A**
Driller:	**Brian Szydzik**	Ground Surface Elev. (ft):	**782**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.92906, -87.96235**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	COLLECT: Blow Counts	COLLECT: Recovery (ft)	COLLECT: N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 8 inches of Clayey Topsoil									782
			SS	5 6 7	1.50	13	(0.50') Lean CLAY (CL); trace fine gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, hard, moist, yellowish brown (10YR 5/4)	14.4						4.5		780
			SS	6 7 8	1.50	15		14.8						4.5		
5			SS	6 7 8	1.50	15		14.3						4.5		775
			SS	8 9 12	1.50	21	(8.00') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, hard, moist, brown (10YR 5/3)	15.7						4.5		
10		▽					(12.00') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, stiff, saturated, grayish brown (10YR 5/2)									770
			SS	3 3 4	1.50	7		31.4						1.25		
15							(15.00') Boring terminated									
																765
20																760
25																

NOTES:

GeoTest	**Client:** Khalek Building Services **Project:** Lake Grove Place, #8115 **Address:** 3709 W. College Avenue, Franklin, WI	**BORING LOG** **Boring No.** B-5 **Page:** 1 of 1

Drilling Start Date:	**3/18/24**	Boring Depth (ft):	**15**
Drilling End Date:	**3/18/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**PTS**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe 7822DT**	DTW After Drilling (ft):	**N/A**
Driller:	**Brian Szydzik**	Ground Surface Elev. (ft):	**779**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.92988, -87.96232**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	Blow Counts	Recovery (ft)	N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 8 inches of Clayey Topsoil									779
			SS	2 3 4	1.30	7	(0.50') Lean CLAY (CL); trace fine gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, very stiff, wet, dark yellowish brown (10YR 4/4)	23.6						1.5		
			SS	1 2 3	1.50	5		25						1		775
5			SS	5 8 9	1.50	17	(6.00') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, hard, moist, yellowish brown (10YR 5/4)	16.7						4.5		
			SS	7 9 12	1.50	21		16.7						4.5		770
10							(12.00') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, stiff, moist, brown (10YR 5/3)									
			SS	4 5 5	1.50	10		20.6						1.5		765
15							(15.00') Boring terminated									
																760
20																
																755
25																

NOTES: Perched water was encountered at 2 feet.

GEOTEST

BORING AND WELL LOG LEGEND

SURFACE
- ASPHALT
- CONCRETE
- FILL
- TOPSOIL
- AIR
- ICE

USCS
- Well-graded GRAVEL (GW)
- Poorly graded GRAVEL (GP)
- Silty GRAVEL (GM)
- Clayey GRAVEL (GC)
- Silty, Clayey GRAVEL (GC-GM)
- Well-graded GRAVEL with silt (GW-GM)
- Poorly graded GRAVEL with silt (GP-GM)
- Well-graded GRAVEL with clay (GW-GC)
- Poorly graded GRAVEL with clay (GP-GC)
- Well-graded SAND (SW)
- Poorly graded SAND (SP)
- Silty SAND (SM)
- Clayey SAND (SC)
- Silty, Clayey SAND (SC-SM)
- Well-graded SAND with silt (SW-SM)
- Poorly graded SAND with silt (SP-SM)
- Well-graded SAND with clay (SW-SC)
- Poorly graded SAND with clay (SP-SC)
- SILT (ML)
- Lean CLAY (CL)
- Silty CLAY (CL-ML)
- Organic SOIL (OL)
- Elastic SILT (MH)
- Fat CLAY (CH)
- Organic SOIL (OH)
- Organic SOIL (OL/OH)
- PEAT (PT)
- BEDROCK
- IGNEOUS Rock
- METAMORPHIC Rock
- SEDIMENTARY Rock
- WATER

Non-USCS
- Gravel
- Sand
- Silt
- Clayey Silt
- Silt & Clay
- Clay & Silt
- Silty Clay
- Clay
- Boulders
- Cobbles
- Peastone
- Glacial Till
- Iron Ore
- Wood
- Peat
- Saprolite
- Ash
- Waste

Volume Descriptors
- Trace = <5%
- Few = 5-10%
- Little = 15-25%
- Some = 30-45%
- Mostly = >=50%

Water Levels
- Water Level During Drilling
- Water Level at End of Drilling/in Completed Well

Well/Boring Completion
- Cap
- Riser
- Screen
- End Plug
- Annular Seal
- Sanitary Seal (Bentonite Slurry/Chips/Pellets/Powder, Other)
- Filter Pack (Sand, Gravel, Other)
- Backfill

Sample Type
- GR — Grab
- EN — Encore
- SS — Split Spoon
- SH — Shelby Tube
- CO — Core Barrel
- DP — Direct Push
- ID — Lab Sample and ID

NOTES:
- The boring was backfilled with soils cuttings and bentonite chips upon completion.
- The stratification lines represent approximate boundaries between soil types
- The elevations are considered accurate to 1/2 foot.

Elevation (ft)

785

780

775

770

765

Finished Floor Elevations

B-1

B-5

B-4

B-3

B-2

Bottom-of-Basins

Interior/Exterior Bottom-of-Footing Elevation Range

Distance (ft)

140 299 142 120

Horizontal scale: 10 feet
Vertical scale: 5 feet

Legend

- Topsoil
- Lean CLAY (CL)
- Silty SAND (SM)
- Silty Clayey, SAND (SC-SM)
- Poorly graded SAND with silt (SP-SM)

- Water Level During Drilling
- Water Level at End of Drilling
- Cap
- Screen
- Annular Seal
- Sanitary Seal
- Filter Pack
- Backfill

Built with Google Maps

GEOTEST

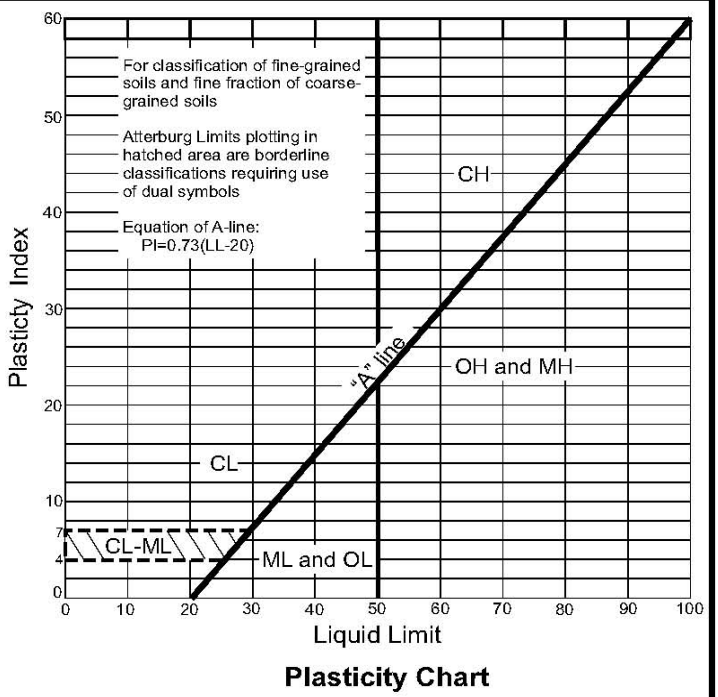
GEOLOGIC CROSS SECTION

Khalek Building Services
Lake Grove Place
#8115
3709 W. College Avenue
Franklin, Wisconsin

Unified Soil Classification System (USCS)

Major Divisions			Group symbols	Typical Names	Laboratory classification criteria	
Coarse-grained soils (More than half of material is larger than No. 200 sieve size)	Gravels (More than half of coarse fraction is larger than No. 4 sieve size)	Clean gravels (Little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines	Not meeting all gradation requirements for GW	
		Gravels with fines (Appreciable amount of fines)	GM d u	Silty gravels, gravel-sand-silt mixtures	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. Between 4 and 7 are borderline cases requiring use of dual symbols
			GC	Clayey gravels, gravel-sand-clay mixtures	Atterberg limits above "A" line or P.I. greater than 7	
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean sands (Little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines	$C_u = \frac{D_{60}}{D_{10}}$ greater than 6; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			SP	Poorly graded sands, gravelly sands, little or no fines	Note meeting all gradation requirements for SW	
		Sands with fines (Appreciable amount of fines)	SM d u	Silty sand, sand-silt mixtures	Atterberg limits below "A" line or P.I. less than 4	Limits plotting in hatched zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
			SC	Clayey sands, sand-clay mixtures	Atterberg limits above "A" line or P.I. greater than 7	
Fine-grained soils (More than half of material is smaller than No. 200 sieve size)	Silts and clays (Liquid limit less than 50)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity		
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silt clays, lean clays		
			OL	Organic silts and organic silty clays of low plasticity		
	Silts and clays (Liquid limit greater than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soil, elastic silts		
			CH	Inorganic clays of high plasticity, fat clays		
			OH	Organic clays of medium to high plasticity, organic silts		
	Highly organic soils		Pt	Peat and other highly organic soils		

Determine percentages of sand and gravel from grain-size curve.
Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:
Less than 5 percent . . . . . GW, GP, SW, SP
More than 12 percent . . . . . GM, GC, SM, SC
5 to 12 percent . . . . . Borderline cases requiring dual symbols



Plasticity Chart

Wisconsin Department of Safety and Professional Services
Division of Industry Services
4822 Madison Yards Way
PO Box 7302
Madison, WI 53707

Phone: 608-266-2112
Web: http://dsps.wi.gov
Email: dsps@wisconsin.gov

Program: Plumbing
Web: https://dsps.wi.gov/Pages/Programs/Plumbing

Soil and Site Evaluation – Stormwater Infiltration

In accordance with SPS 382.365, 385, Wis. Adm. Code, and WDNR Standard 1002

Attach a complete site plan on paper not less than 8 ½ x 11 inches in size. Plan must include, but is not limited to: vertical and horizontal reference point (BM); direction and percent of slope; scale or dimensions; north arrow; and BM referenced to nearest road.

PLEASE PRINT ALL INFORMATION

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m)]

County: Milwaukee
Parcel I.D.: 7139996003
Reviewed By:
Reviewed Date:

Property Owner: KHAN M MANZUR HASSAN
Property Owner's Mailing Address: 5425 ROOT RIVER DR
City: Greendale, WI 52129 | State | Zip Code | Phone Number

PROPERTY LOCATION
Govt. Lot ____ ¼ ____ ¼ ____ S ____ T ____ N ____ R ____ E (or) W
Lot #, Block #, Subd. Name or CSM #: NO 6537 NW 1 5 21
Municipality: Franklin ■ City ☐ Village ☐ Town
Nearest Road: 38th Street

Drainage area _____ ☐sq. ft ☐acres

Test site suitable for (check all that apply):

☐Site not suitable ☐Bioretention ☐Subsurface Dispersal System
☐Reuse ☐Irrigation ☐Other _____

HYDRAULIC APPLICATION TEST METHOD
■ Morphological Evaluation
☐ Double Ring Infiltrometer
☐ Other: (specify)
_____

SOIL MOISTURE
Date of soil borings: 3/18/24
USDA-NRCS WETS Value:
☐ Dry = 1
■ Normal = 2
☐ Wet = 3

4 #OBS. ☐ Pit ■ Boring Ground Surface Elevation 782 ft. Elevation of Limiting Factor 12 ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
A	10			Topsoil						
C	96	10YR 5/4		SiCL	Massive	V. Firm		0-2	90-95	0.07
C	144	10YR 5/3		SiCL	Massive	V. Firm		0-2	90-95	0.07
C	180	10YR 5/2		SiCL	Massive	Firm		0-2	90-95	0.07

Comments:

5 #OBS. ☐ Pit ■ Boring Ground Surface Elevation 779 ft. Elevation of Limiting Factor >15 ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
A	8			Topsoil						
C	72	10YR 4/4		SiCL	Massive	Firm		0-2	90-95	0.07
C	144	10YR 5/4		SiCL	Massive	V. Firm		0-2	90-95	0.07
C	180	10YR 5/3		SiCL	Massive	Firm		0-2	90-95	0.07

Comments:

____ #OBS. ☐ Pit ☐ Boring Ground Surface Elevation ________ ft. Elevation of Limiting Factor ________ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr

Comments:

____ #OBS. ☐ Pit ☐ Boring Ground Surface Elevation ________ ft. Elevation of Limiting Factor ________ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr

Comments:

____ #OBS. ☐ Pit ☐ Boring Ground Surface Elevation ________ ft. Elevation of Limiting Factor ________ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr

Comments:

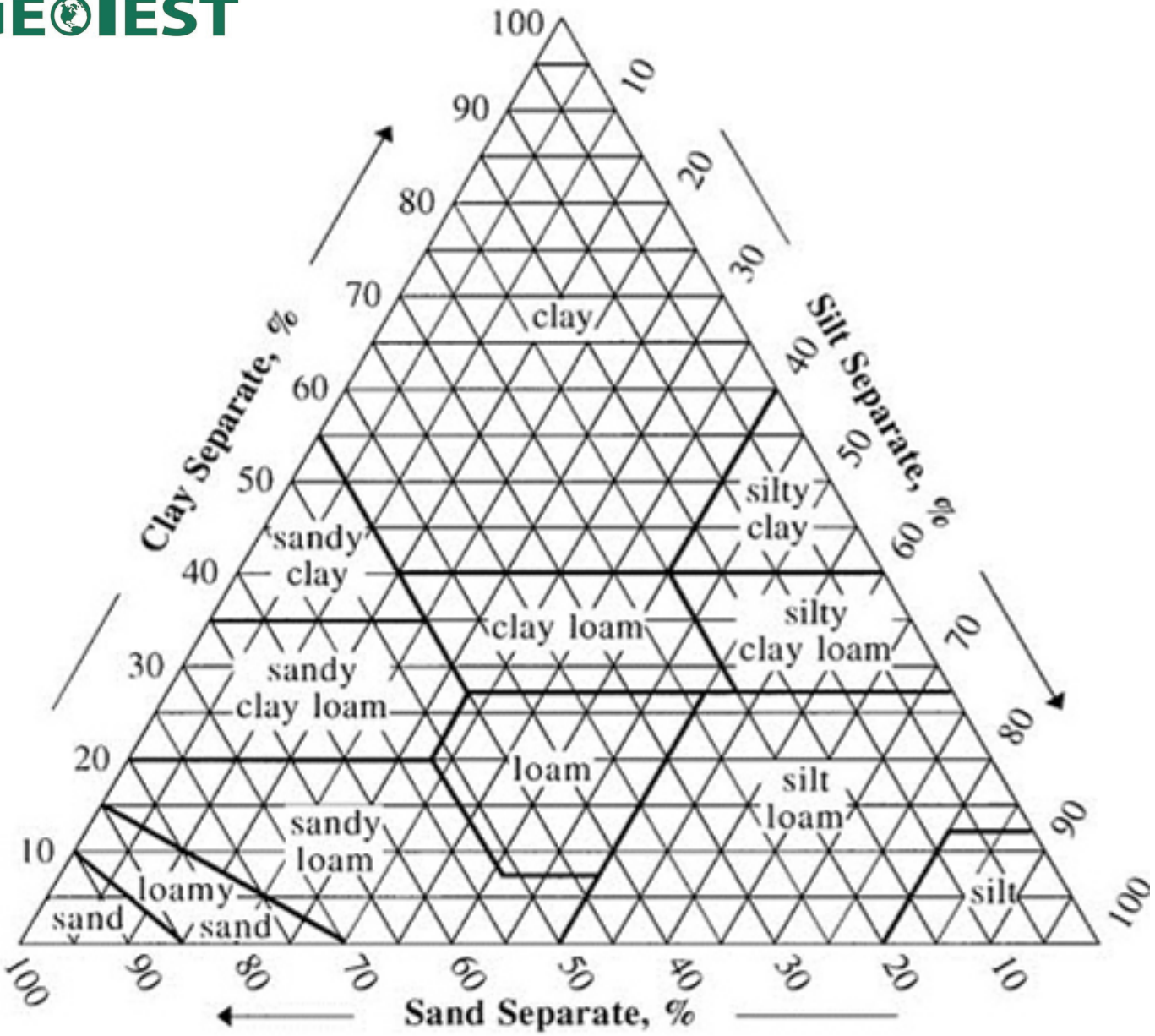
☐ Pit ☐ Boring Ground Surface Elevation ________ ft. Elevation of Limiting Factor ________ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
		____ #OBS.								

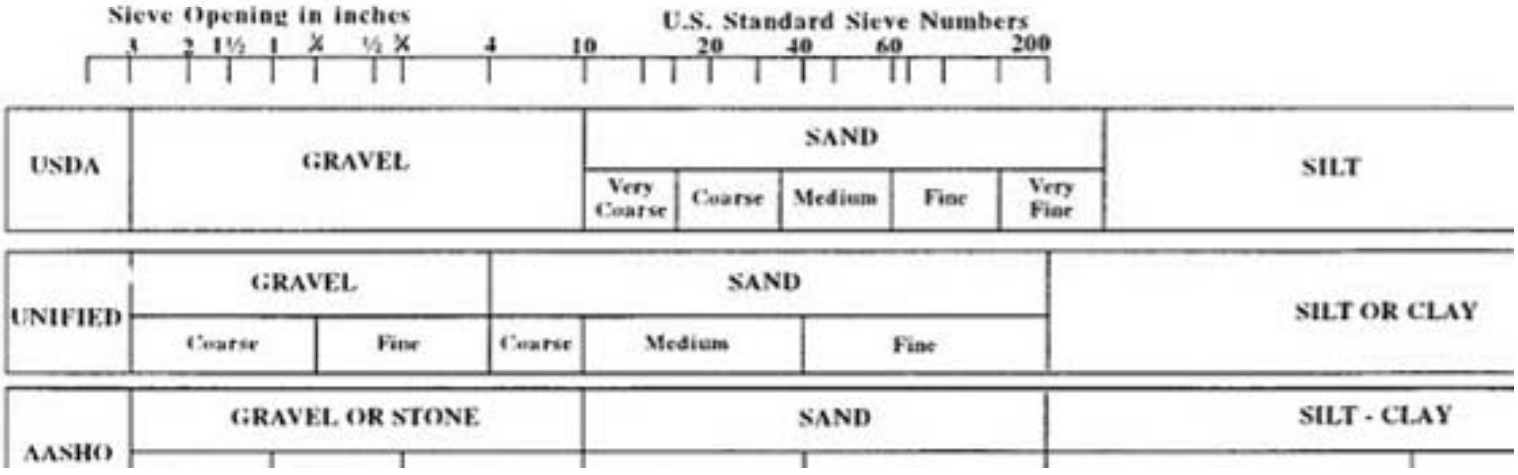
Comments:

Overall Site Comments:

Michael Frede	[signature]	25897-6
Name (Please Print)	Signature	Credential Number
2135 S. 116th Street, West Allis, WI 53227	3/18/24	414-321-8378
Address	Date Evaluation Conducted	Phone Number



COMPARISON OF PARTICLE SIZE SCALES



United States Department of Agriculture (USDA) Classification System

Appendix C

- Drilling Procedures
- Sampling Procedures
- Laboratory Procedures

and Auger Drilling (A)

A sampling device is driven into the soil to the desired sample depth by a sledge hammer. After extracting the sample, the hole is advanced by a hand auger until the next sampling depth is reached. The manual driving of the sampler, especially into cohesive soils, may result in some sample disturbance. However, there are some situations where this method is the only viable option.

Solid Stem Auger Drilling (AD)

Continuous flight augers are turned and hydraulically advanced by a truck- or track-mounted unit to create a borehole. In solid-stem auger drilling, casing and drilling mud are not typically used to maintain an open borehole.

ollow Stem Auger Drilling (S)

Continuous flight augers having open stems are used to advance the borehole. The open stem allows the sampling tool to be used without removing the augers from the borehole. Hollow-stem augers maintain an open borehole during the sampling operations. This sampling method is not appropriate for geotechnical investigation beneath the water table, especially in granular soils.

Rotary Drilling (RD)

Various cutting bits, in conjunction with circulating drilling fluid, are used to advance the borehole. Surface casing is used to maintain sidewall stability in the top several meters of the borehole, and to facilitate the circulation of the drilling fluid into the mud tank.

Diamond Core Drilling (DD)

A double-tube or triple-tube core barrel with a diamond bit cuts an annular space around a cylinder of rock or cemented material. When the coring has proceeded to the desired core run length, the core is broken off and the sample is retained by a core catcher just above the diamond bit. Samples recovered by this procedure are placed in sturdy core boxes in sequential order.

Auger Sampling (AS)

Soil samples are obtained as cuttings from the auger flights as they are lifted from the borehole. Auger samples provide a general indication of subsurface conditions; however, they do not provide undisturbed samples, nor do they provide samples from specific depths. Due to the possible loss of soil components, or the mixing of soil components from various elevations, auger samples may not be representative of in-situ soil conditions.

Split Barrel Sampling (SS) ASTM Standard D 1 86 84

A 2-inch-O.D. split-barrel sampler is driven into the soil a distance of 18 inches by a 140-pound hammer free-falling 30 inches. The first 6 inches of penetration is usually considered a seating drive. The Standard Penetration Resistance value is the number of blows of the hammer over the final 12 inches of driving. This value provides an indication of the in-place relative density of granular soils. The indication should be considered qualitative, since many variables such as drill crews, drill rigs, drilling procedures, and hammer-rod-sampler assemblies can significantly affect the Standard Penetration Resistance value. A representative portion of the soil sample is recovered from the split-barrel sampler, placed in a sample jar, and delivered to our laboratory for further examination and possible testing.

Shelby Tube Sampling Procedure (ST) ASTM Standard D 1 8 8

A 2- or 3-inch-diameter thin-walled seamless steel tube having a sharp cutting edge is hydraulically pushed into the soil to obtain a relatively undisturbed sample. This procedure is generally used for cohesive soils. The Shelby tubes are carefully handled to minimize sample disturbance, and delivered to a laboratory where the soil is extruded from the tube, examined, and tested.

American Society for Testing and Materials

ASTM 1586
Standard Method for Penetration Test and Split-Barrel Sampling of Soils[1]

This standard is issued under the fixed designation D 1586; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of the last revision. A number in parentheses indicates the year of the last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This method has been approved for use by agencies of the Department of Defense and for listing in the DOD Index of Specifications and Standards.

1. Scope

1.1 This method describes the procedure, generally known as the Standard Penetration (SPT), for driving a split-barrel sampler to obtain a representative soil sample and a measure of the resistance of the soil to penetration of the sampler.

1.2 This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of whoever uses this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. For a specific precautionary statement, see 5.4.1.

1.3 The values stated in inch-pound units are to be regarded as the standard.

2. Applicable Documents

2.1 ASTM Standards:

D2487 Test Method for Classification of Soils for Engineering Purposes[2]

D2488 Practice for Description and Identification of Soils (Visual-Manual Procedure)[2]

D4220 Practice for Preserving and Transporting Soil Samples[2]

3. Descriptions of Terms Specific to This Standard

3.1 anvil--that portion of the drive-weight assembly while the hammer strikes and through which the hammer energy passes into the drill rods.

3.2 cathead--the rotating drum or windlass in the rope-cathead lift system around which the operator wraps a rope to lift and drop the hammer by successively tightening and loosening the rope turns around the drum

3.3 drill rods--rods used to transmit downward force and torque to the drill bit while drilling a borehole.

3.4 drive-weight assembly--a device consisting of the hammer, hammer fall guide, the anvil, any hammer drop system.

3.5 hammer--that portion of the drive-weight assembly consisting of the 140 ± 2 lb (63.5 ± 1 kg) impact weight which is successfully lifted and dropped to provide the energy that accomplishes the sampling and penetration.

3.6 hammer drop system--that portion of the drive-weight assembly by which the operator accomplishes the lifting and dropping of the hammer to produce the blow.

3.7 hammer fall guide--that part of the drive-weight assembly used to guide the fall of the hammer.

3.8 N-value--the blowcount representation of the penetration resistance of the soil. The N-value, reported in blows per foot, equals the sum of the number of blows required to drive the sampler over the depth interval of 6 to 18 in. (150 to 450 mm) (see 7.3).

3.9 ΔN--the number of blows obtained from each of the 6-in. (150-mm) intervals os sampler penetration (see 7.3).

3.10 number of rope turns--the total contact angle between the rope and the cathead at the beginning of the operator's rope slackening to drop the hammer; divided by 360° (see Fig. 1).

3.11 sampling rods--rods that connect the drive-weight assembly to the sampler. Drill rods are often used for this purpose.

3.12 SPT--abbreviation for Standard Penetration Test, a term by which engineers commonly refer to this method.

4. Significance and Use

4.1 This method provides a soil sample for identification purposes and for laboratory tests appropriate for soil obtained from a sampler that may produce large shear strain disturbance in the sample.

4.2 This method is used extensively in a great variety of geotechnical exploration projects. Many local correlations and widely published correlations which relate SPT blowcount, or N-value, and the engineering behavior of earthworks and foundation are available.

5. Apparatus

5.1 Drilling Equipment--Any drilling equipment that provides at the time of sampling a suitably clean open hole before insertion of the sampler and ensures that the penetration test is performed on undistributed soil shall be acceptable. The following pieces of equipment have proven to be suitable for advancing a borehole in some subsurface conditions.

---

[1] This method is under the jurisdiction of ASTM Committee D-18 on Soil and Rock and is the direct responsibility of subcommittee D18.02 on Sampling and Related Field Testing for Soil Investigations.

Current edition approved Sept. 11, 1984. Published November 1984. Originally published as D1586-58T. Last previous edition D1586-67 (1974).

[2] Annual Book of ASTM Standards, Vol 04.08.

5.1.1 Drag, Chopping and Fishtail Bits, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used in conjunction with open-hole rotary drilling or casing-advancement drilling methods. To avoid disturbance of the underlying soil, bottom discharge bits are not permitted; only side discharging bits are permitted.

5.1.2 Roller-Cone Bits, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used in conjunction with open-hole rotary drilling or casing-advancement drilling methods if the drilling fluid discharge is deflected.

5.1.3 Hollow-Stem Continuous Flight Augers, with or without a center bit assembly, may be used to drill the boring. The inside diameter of the hollow-stem augers shall be less than 6.5 in. (162 mm) and greater that 2.2 in. (56 mm).

5.1.4 Solid, Continuous Flight, Bucket and Hand Augers, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used if the soil on the side of the boring does not cave into the sampler or sampling rods during the sampling.

5.2 Sampling Rods--Flush-joint steel drill rods shall be used to connect the split-barrel sampler to the drive-weight assembly. The sampling rod shall have a stiffness (moment of inertia) equal to or greater than that of a parallel wall "A" rod (a steel rod which has an outside diameter of 1 5/8 in. (41.2 mm) and an inside diameter of 1 1/8 in. (28.5 mm).

NOTE 1--Recent research and comparative testing indicates the type rod used, with stiffness ranging from "A" size rod to "N" size rod, will usually have a negligible effect on the N-values to depths of at least 100 ft. (30 m).

5.3 Split-Barrel Sampler--The sampler shall be constructed with the dimensions indicated in Fig. 2. The driving shoe shall be hardened steel and shall be replaced or repaired when it becomes dented or distorted. The use of liners to produce a constant inside diameter of 1 3/8 in. (35 mm) is permitted, but shall be noted on the penetration record if used. The use of a sampler retainer basket is permitted, and should also be noted on the penetration record if used.

NOTE 2--Both theory and available test datas suggest that N-values may increase 10 to 30% when liners are used.

5.4 Drive-Weight Assembly:

5.4.1 Hammer and Anvil--The hammer shall weigh 140 ± 2 lb (63.5 ± 1 kg) and shall be a solid rigid metallic mass. The hammer shall strike the anvil and make steel on steel contact when it is dropped. A hammer fall guide permitting a free fall shall be used. Hammers used with the cathead and rope method shall have an unimpeded overlift capacity of at least 4 in. (100 mm). For safety reasons, the use of hammer assembly with an internal anvil is encouraged.

NOTE 3--It is suggested that the hammer fall guide be permanently marked to enable the operator or inspector to judge the hammer drop height.

5.4.2 Hammer Drop System--Rope-cathead, trip, semi-automatic, or automatic hammer drop systems may be used, providing the lifting apparatus will not cause penetration of the sampler while re-engaging and lifting the hammer.

5.5 Accessory Equipment--Accessories such as labeled, sample containers, data sheets, and groundwater level measuring devices shall be provided in accordance with the requirements of the project and other ASTM standards.

6. Drilling Procedure

6.1 The boring shall be advanced incrementally to permit intermittent or continuous sampling. Test intervals and locations are normally stipulated by the project engineer or geologist. Typically, the intervals selected are 5 ft. (1.5 m) or less in homogeneous strata with test and sampling locations at every change of strata.

6.2 Any drilling procedure that provides a suitably clean and stable hole before insertion of the sampler and assures that the penetration test is performed on essentially undisturbed soil shall be acceptable. Each of the following procedures have proven to be acceptable for some subsurface conditions. The subsurface conditions anticipated should be considered when selecting the drilling method to be used.

6.2.1 Open-hole rotary drilling method.

6.2.2 Continuous flight hollow-stem auger method.

6.2.3 Wash boring method.

6.2.4 Continuous flight solid auger method.

6.3 Several drilling methods produce unacceptable borings. The process of jetting through an open tube sampler and then sampling when the desired depth is reached shall not be permitted. The continuous flight solid auger method shall not be used for advancing the boring below a water table or below the upper confining bed of a confined non-cohesive stratum that is under artesian pressure. Casing may not be advanced below the sampling elevation prior to sampling. Advancing a boring with bottom discharge bits is not permissible. It is not permissible to advance the boring for subsequent insertion of the sampler solely by means of previous sampling with the SPT sampler.

6.4 The drilling fluid within the boring or hollow-stem augers shall be maintained at or above the in situ groundwater level at all times during drilling, removal of drill rods, and sampling.

7. Sampling and Testing Procedure

7.1 After the boring has been advanced to the desired sampling elevation and excessive cuttings have been removed, prepare for the test with the following sequence of operations.

7.1.1 Attach the split-barrel sampler to the sampling rods and lower into borehole. Do not allow the sampler to drop onto the soil to be sampled.

7.1.2 Position the hammer above and attach the anvil to the top of the sampling rods. This may be done before the sampling rods and sampler are lowered into the borehole.

7.1.3 Rest the dead weight of the sampler, rods, anvil, and drive weight on the bottom of the boring and apply a seating blow. If excessive cuttings are encountered at the bottom of the boring, remove the sampler and sampling rods from the boring and remove the cuttings.

7.1.4 Mark the drill rods in three successive 6-in. (0.15-m) increments so that the advance of the sampler under the impact of the hammer can be easily observed for each 6-in. (0.15-m) increment.

7.2 Drive the sampler with blows from the 140-lb (63.5-kg) hammer and count the number of blows applied in

each 6-in. (0.15-m) increment until one of the following occurs:

7.2.1 A total of 50 blows have been applied during any one of the three 6-in. (0.15-m) increments described in 7.1.4.

7.2.2 A total of 100 blows have been applied.

7.2.3 There is no observed advance of the sampler during the application of 10 successive blows of the hammer.

7.2.4 The sampler is advanced the complete 18 in. (0.45 m) without the limiting blow counts occurring as described in 7.2.1, 7.2.2, or 7.2.3.

7.3 Record the number of blows required to effect each 6 in. (0.15 m) of penetration or fraction thereof. The first 6 in. is considered to be a seating drive. The sum of the number of blows required for the second and third 6 in. of penetration is termed the "standard penetration resistance", or the "N-value". If the sampler is driven less than 18 in. (0.45 m), as permitted in 7.2.1, 7.2.2, or 7.2.3, the number of blows per each complete 6 in. (0.15-m) increment and per each partial increment shall be recorded on the boring log. For partial increments, the depth of penetration shall be reported to the nearest 1 in. (25 mm), in addition to the number of blows. If the sampler advances below the bottom of the boring under the static weight of the hammer, this information should be noted on the boring log.

7.4 The raising and dropping of the 140-lb (63.5-kg) hammer shall be accomplished using either the following two methods:

7.4.1 By using a trip, automatic, or semi-automatic hammer drop system which lifts the 140-lb (63.5 kg) hammer and allows it to drop 30 ± 1.0 in. (0.76 m ± 25 mm) unimpeded.

7.4.2 By using a cathead to pull a rope attached to the hammer. When the cathead and rope method is used the system and operation shall conform to the following:

7.4.2.1 The cathead shall be essentially free of rust, oil, or grease and have a diameter in the range of 6 to 10 in. (150 to 250 mm).

7.4.2.2 The cathead should be operated at a minimum speed of rotation of 100 RPM, or the approximate speed of rotation shall be reported on the boring log.

7.4.2.3 No more than 2 1/4 rope turns on the cathead may be used during the performance of the penetration test, as shown in Fig. 1.

NOTE 4--The operator should generally use either 1 3/4 of 2 1/4 rope turns, depending upon whether or not the rope comes off the top (1 3/4 turns) or the bottom (2 1/4 turns) of the cathead. It is generally known and accepted that 2 3/4 or more rope turns considerably impedes the fall of the hammer and should not be used to perform the test. The cathead rope should be maintained in a relatively dry, clean, and unfrayed condition.

7.4.2.4 For each hammer blow, a 30-in. (0.76 m) lift and drop shall be employed by the operator. The operation of pulling and throwing the rope shall be performed rhythmically without holding the rope at the top of the stroke.

7.5 Bring the sampler to the surface and open. Record the percent recovery or length of sample recovered. Describe the soil samples recovered as to composition, color, stratification, and condition, then place one or more representative portions of the sample into sealable moisture-proof containers (jars) without ramming or distorting any apparent stratification. Seal each container to prevent evaporation of soil moisture. Affix labels to the containers bearing job designation, boring number, sample depth, and the blow count per 6-in. (0.15 m) increment. Protect the samples against extreme temperature changes. If there is a soil change within the jar for each stratum and note its location in the sampler barrel.

8. Report

8.1 Drilling information shall be recorded in the filed and shall include the following:

8.1.1 Name and location of job,

8.1.2 Names of crew,

8.1.3 Type and make of drilling machine,

8.1.4 Weather conditions,

8.1.5 Date and time of start and finish of boring,

8.1.6 Boring number and location (station and coordinates, if available and applicable),

8.1.7 Surface evaluation, if applicable

8.1.8 Method of advancing and cleaning the boring,

8.1.9 Method of keeping boring open,

8.1.10 Depth of water surface and drilling depth at time of a noted loss of drilling fluid, and time and date when reading or notation was made,

8.1.11 Location of strata changes,

8.1.12 Size of casing, depth of cased portion of boring,

8.1.13 Equipment and method of driving sampler,

8.1.14 Type of sampler and length and inside diameter of barrel (note use of liners),

8.1.15 Size, type and section length of the sampling rods, and

8.1.16 Remarks.

8.2 Data obtained for each sample shall be recorded in the field and shall include the following:

8.2.1 Sample depth and, if utilized, the sample number,

8.2.2 Description of soil,

8.2.3 Strata changes within sample,

8.2.4 Sampler penetration and recovery lengths, and

8.2.5 Number of blows per 6-in. (0.15 m) or partial increment.

9. Precision and Bias

9.1 Variations in N-values of 100% or more have been observed when using different standard penetration test apparatus and drillers for adjacent borings in the same soil formation. Current opinion, based on field experience, indicates that when using the same apparatus and driller N-values in the same soil can be reproduced with coefficient or variation of about 10%.

9.2 The use of faulty equipment, such as extremely massive or damaged anvil, a rusty cathead, a low speed cathead, an old, oily rope, or massive or poorly lubricated rope sheaves can significantly contribute to differences in N-values obtained between operator-drill rig systems.

9.3 The variability in N-values produced by different drill rigs and operators may be reduced by measuring the part of the hammer energy delivered into the drilling rods from the sampler and adjusting N on the basis of comparative energies. A method for energy measurement and N-value adjustment is currently under development.

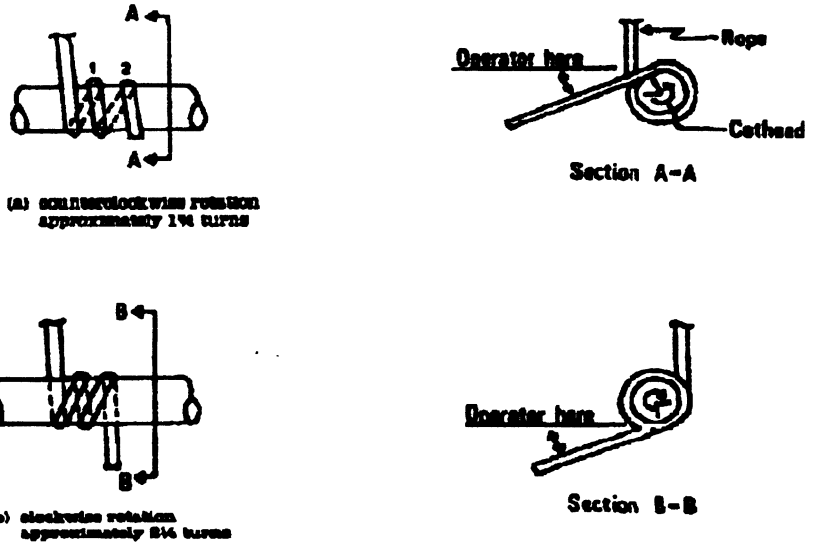
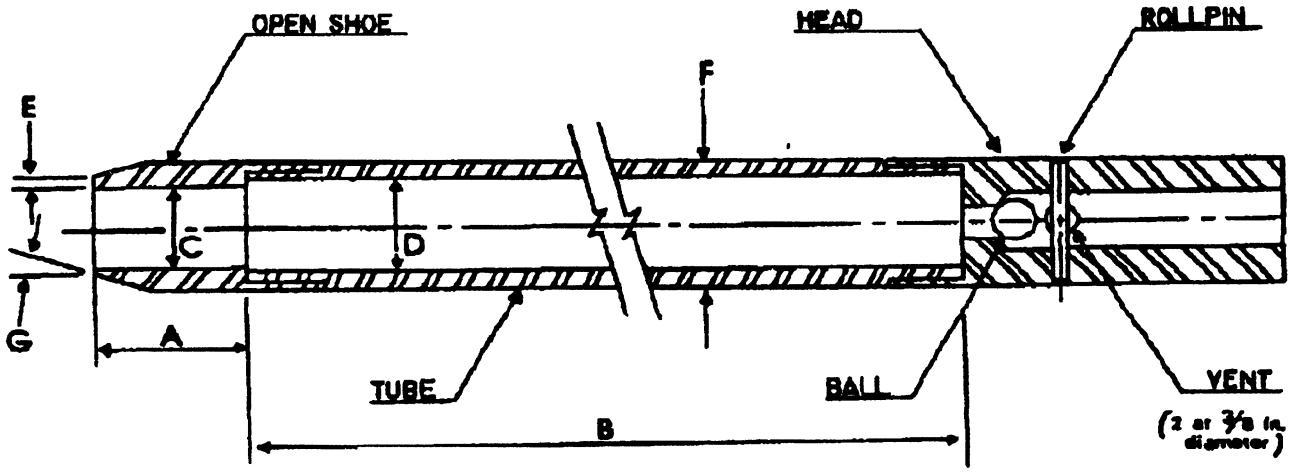


FIG. 1 Definitions of the number of rope turns and the angle for (a) counterclockwise rotation and (b) clockwise rotation of the cathead



A = 1.0 to 2.0 in. (25 to 50 mm)
B = 18.0 to 30.0 in. (0.457 to 0.762 m)
C = 1.375 ± 0.005 in. (34.93 ± 0.13 mm)
D = 1.50 ± 0.05 - 0.00 in. (38.1 ± 1.3 - 0.0 mm)
E = 0.10 ± 0.02 in. (2.54 ± 0.25 mm)
F = 2.00 ± 0.05 - 0.00 in. (50.8 ± 1.3 - 0.0 mm)
G = 16.0° to 23.0°

The 1 1/2 in. (38 mm) inside diamter split barrel may be used with a 16-gage wall thickness split liner. The penetrating end of the drive shoe may be slightly rounded. Metal or plastic retainers may be used to retain soil samples.

FIG. 2 Split-Barrel Sampler

Water Content (W_c)

The water content of a soil is determined by weighing a moist soil sample, drying it in an oven for approximately 24 hours, and reweighing the sample to determine the moisture loss. The water content is the ratio of the weight of water in the soil to the weight of the dry soil. Water content is typically expressed as a percentage.

Calibrated and Penetrometer (Q_p)

In the calibrated hand penetrometer test, the unconfined compressive strength of a soil is estimated to a maximum value of 4.5 tons per square foot (tsf) by measuring the resistance of the soil sample to penetration by a spring-calibrated plunger. The hand penetrometer test device has been carefully calibrated by its manufacturer with the results of numerous unconfined compressive strength tests. This test provides a quick, simple, and low-cost testing procedure from which soil strength can be estimated.

Unconfined Compression Test (Q_u)

In the unconfined compression strength test, an undisturbed cylinder of soil is loaded axially until the soil fails to carry additional load, or until 20% strain has been reached, whichever occurs first. The undrained shear strength of a cohesive soil is usually considered to equal half of the unconfined compressive strength.

Dry Density (γ_d)

The dry density of a soil is the weight of dry soil in a unit volume. The soil's total unit weight is typically calculated by weighing a cylinder of soil, and dividing the weight by the cylinder's volume as calculated by measuring the cylinder's height and diameter at several locations. The soil's dry density is then determined by correcting the cylinder's weight to account for its water content measured as described above. Use of this value is often made when estimating the degree of compaction of a soil.

Classification of Samples

Soil samples are classified on the basis of their texture and plasticity in accordance with the Unified Soil Classification System (USCS). The two-letter designator in parentheses following each soil description on the boring logs represents the applicable unified classification. If the designator is capitalized, the classification has been confirmed by the appropriate index testing. If the designator is lower-case, the classification has been visually estimated.

Geotechnical Engineering Report

Proposed Franklin Elderly Apartments
West College Avenue
Milwaukee, Wisconsin

October 3, 2017
Terracon Project No. MR175321

Prepared for:
Herman & Kittle Properties, Inc.
Indianapolis, Indiana

Prepared by:
Terracon Consultants, Inc.
Franklin, Wisconsin

October 3, 2017

Herman & Kittle Properties, Inc.
500 East 96th Street
Suite 500
Indianapolis, Indiana 46240

Attn: Ms. Janna Darmon
Senior Development Analyst

Re: Geotechnical Engineering Report
Proposed Franklin Elderly Apartments
3709 West College Avenue
Milwaukee, Wisconsin
Terracon Project No. MR175321

Dear Ms. Darmon:

Terracon Consultants, Inc. (Terracon) has completed the subsurface exploration for the above referenced project. The exploration, lab testing and geotechnical evaluation were performed in general accordance with Terracon proposal number PMR175321, dated August 24, 2017. This report presents the findings of the subsurface exploration, and provides geotechnical recommendations regarding the design and construction of foundations, floor slabs and pavements for the project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

Nathan J. Liggett, E.I.
Project Manager

Paul A. Tarvin, P.E.
Regional Geotechnical Manager
Wisconsin No. E25612-6

TABLE OF CONTENTS

LIST OF APPENDICES

GEOTEC NICAL ENGINEERING REPORT
PROPOSED FRAN LIN ELDERLY APARTMENTS
WEST COLLEGE AVENUE
MILWAU EE, WISCONSIN

Terracon Project No. MR1 21

October , 2 1

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) has completed the subsurface exploration for proposed Franklin Elderly Apartments at 3709 West College Avenue in Milwaukee, Wisconsin. Eight (8) soil borings were extended to depths ranging from 10 to 20 feet below existing grade. A site location diagram, soil boring location diagram, and soil boring logs are included in Appendix A. This report describes the subsurface conditions encountered at the boring locations, presents the test data, and provides geotechnical engineering recommendations regarding the following items:

- site preparation and earthwork,
- design and construction of shallow foundations
- floor slab subgrade preparation and design recommendations
- pavement design parameters and recommended minimum thicknesses
- estimated seismic site classification

2.0 PROJECT INFORMATION

2.1 Project Description

Item	Description
Site layout	See Appendix A, Exhibit A-2 Soil Boring Location Diagram
Structure	The project is anticipated to consist of a new two-story, slab-on-grade apartment building with an approximate building footprint of 27,453 square feet. A single-story parking garage is also planned at the north end of the site. We expect the structures to utilize typical spread footing foundations to support the anticipated loading.
Ma imum loads (assumed)	Structural loading was not provided to Terracon. The following loads have been assumed: ■ Column Loads: 100 to 200 kips ■ Wall Loads: 3 to 5 kips per lineal foot (klf) ■ Floor slab loads: 150 pounds per square foot (psf)

Item	Description
Grading	A site grading plan was not provided at the time of this report. Based on the existing topography estimated from Google Earth, we have assumed that cuts and fills less than 3 feet will be required to achieve final site grading.

2.2 Site Location and Description

Item	Description
Location	The proposed project is located at 3709 West College Avenue, Milwaukee, Wisconsin.
E isting improvements	The site is generally an open grass covered field. A small residential house and detached garage is currently located at the north end of the site. It is anticipated that these single-story structures will be demolished to accommodate the planned construction.
E isting topography	Based on a review of aerial photography, the site appears to be relatively flat with surface elevations ranging from 780 feet to 786 feet according to Google Earth.

3.0 SUBSURFACE CONDITIONS

.1 Typical Profile

Subsurface conditions at each boring location are described on the individual boring logs in Appendix A. The stratification boundaries shown on the boring logs represent the approximate depths where changes in material types occur. In-situ, transitions between material types can be more gradual. Based on the results of the borings, subsurface conditions on the project site can be generalized as follows:

Description	Appro imate Depth to Bottom of Stratum	Material Encountered	Consistency/Density
Surface [1]	Approximately 2 to 12 inches	Topsoil / Root Zone	N/A
Stratum 1	To boring termination depths of 10 to 20 feet	Native lean clay (CL)	Very stiff to hard
Stratum 1a[2]	2½ feet	Existing Fill: consisting of lean clay, sand, and gravel.	N-value: 8 blows per foot

1. Boring B-5 was drilled in an existing drive area containing 1-inch of asphalt and 12-inches of granular base material.
2. Only encountered in Boring B-6

. Water Level Observations

The borings were observed during and at completion of drilling for the presence and level of water. Free water was not encountered in any of the borings performed. The absence of water at a boring location does not necessary mean the boring terminated above the water table. Longer term readings in cased boreholes would be required to better evaluate subsurface conditions over a longer period.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, and other factors not evident at the time the borings were performed. In addition, perched or trapped water can develop over low permeability soils or within existing fill materials. Therefore, groundwater levels during construction or at other times in the life of the structure may be different than the conditions encountered at the time the borings were drilled. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

4.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

4.1 Geotechnical Considerations

Conventional foundations for the proposed structure can be supported at typical frost depth on the native very stiff to hard clay soils or newly placed engineered fill or lean concrete extending to native clay soils used to raise site grades. Footings can be proportioned for an allowable bearing pressure of 4,000 psf. If any existing fill or low strength soils (such as soft or medium stiff clay) are present at the design bearing depth, they should be removed to more competent native soils below. The footings could then be placed at this lower elevation, or the low strength materials could be replaced with engineered fill or lean concrete.

Floor slabs and pavement can be supported at grade on tested and approved native or properly placed and compacted fill soils.

Care must be taken to avoid disturbance of prepared subgrades. Unstable subgrade conditions could develop during general construction operations, particularly if the soils are wetted and/or subjected to repetitive construction traffic. If the subgrade becomes disturbed, the affected materials should either be scarified and compacted, or be removed and replaced.

Our recommendations for earthwork and the design and construction of foundations, floor slabs, and below-grade areas for the proposed development are presented in the following sections.

4.2 Earthwork

Earthwork on the project should be observed and evaluated by Terracon. Recommendations for site preparation, excavation, subgrade preparation and placement of engineered fill for the project are provided below.

4.2.1 Site Preparation

Any existing topsoil, pavement, and organic matter should be removed from within the footprint of the proposed athletic fields, new fill areas, and other construction areas. The stripped topsoil could be stockpiled for later use in landscaping or other non-structural areas.

The exposed subgrade should then be proof-rolled to delineate any soft areas. Proof-rolling can be accomplished using a loaded tandem-axle dump truck with a gross weight of at least 25 tons, or similarly loaded equipment. Areas that display deflections greater than 1 inch, pumping or rutting should be improved by scarification and compaction, or by removal and replacement with engineered soil fill as described below.

Based on visual and tactile examination of the soil samples, we anticipate that the native inorganic cohesive soils can likely be used as engineered fill provided they meet the material and grain size requirements specified in Section 4.2.2. The existing fill soils could also be used as engineered fill provided they meet the same criteria.

4.2.2 Engineered Fill Material Requirements

Fill Type [1]	USCS Classification	Acceptable Location for Placement
Cohesive [2]	CL, CL-ML	Adjacent to foundations, below/adjacent to slabs and pavements
Granular [2]	GW, GP, GM, GC, SW, SP, SM, SC	Below/adjacent to foundations, slabs and pavements
Unsuitable	CH, MH, OL, OH, PT	Non-structural locations

1. Engineered fill should consist of approved materials that are free of organic matter and debris. Cohesive fill materials should have a liquid limit less than 45 and a plasticity index less than 20; cohesive soils that do not meet these criteria should be considered “unsuitable.” Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to Terracon for evaluation prior to use on this site.
2. Based on visual and tactile examination of recovered soil samples, the native lean clay soils encountered in the borings would likely meet the criteria for engineered soil fill. Any organic materials, rock fragments larger than 3 inches, and other unsuitable materials should be removed prior to use of the existing fill materials in new fill sections.

4.2. Fill Placement and Compaction Requirements

Item	Description
Fill Lift Thickness	9 inches or less in loose thickness when heavy, self-propelled compaction equipment is used. 4 to 6 inches in loose thickness when hand-guided equipment (i.e., a jumping jack or plate compactor) is used.
Minimum Compaction Requirement [1, 2] Below Foundations and Slabs on grade, Upper 12 inches of Areas to be Paved	95% of the modified Proctor maximum dry density (ASTM D 1557). This level of compaction should extend beyond the edges of footings at least 8 inches for every foot of fill placed below the foundation base elevation.
Minimum Compaction Requirement [1, 2] Below 12 Inches in Areas to be Paved, Landscaped Areas	90% of the modified Proctor maximum dry density (ASTM D 1557)
Moisture Content of Cohesive Soil	-2% to +3% of modified Proctor optimum (ASTM D 1557)
Moisture Content of Granular Material [3]	Workable moisture levels

1. We recommend that engineered soil fill be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.
2. If the granular material is a coarse sand or gravel, is of a uniform size, or has a low fines content, compaction comparison to relative density (ASTM D4253 and D4254) may be more appropriate. In this case, granular materials should be compacted to at least 60% of the material's maximum relative density.
3. The gradation of a granular material affects its stability and the moisture content required for proper compaction. Moisture levels should be maintained to achieve compaction without bulking or pumping during placement or when proof-rolled.

4.2.4 Earthwork Construction Considerations

Terracon should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation, proofrolling, placement and compaction of engineered fills, backfilling of excavations, and just prior to construction of pavements.

Care should be taken to avoid disturbance of prepared subgrades. Unstable subgrade conditions could develop during general construction operations, particularly if the soils are wetted and/or subjected to repetitive construction traffic. New fill compacted above optimum moisture content or that accumulates water during construction can also become disturbed under construction equipment. Construction traffic over the exposed subgrade should be avoided to the extent practical. If the subgrade becomes saturated, desiccated, or disturbed, the affected materials should either be scarified and compacted or be removed and replaced.

Based on the results of the borings, the groundwater table is not expected to be encountered in excavations at the site. However, water bearing pockets of silt or sand seams or perched water may be encountered in shallow excavations. If seepage is encountered, the contractor is responsible for employing appropriate dewatering methods to control seepage and facilitate construction. In our experience, dewatering of these excavations can most likely be accomplished using typical sumps and pumps.

At a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices, and in accordance with any applicable local, state, and federal safety regulations. The contractor should be aware that slope height, slope inclination, and excavation depth should in no instance exceed those specified by these safety regulations. Based on the results of the soil borings, we anticipate that the majority of excavations will encounter the native very stiff to hard lean clay soils. Very stiff to hard native cohesive soils are classified as Type "B" based on the OSHA standards. Excavations extending through native cohesive soils should be sloped no steeper than 1.0 Horizontal to 1.0 Vertical. However, it should be understood that flatter slopes than those dictated by these regulations may be required depending upon the soil conditions encountered and other external factors. These regulations are strictly enforced and if they are not followed, the owner, contractor, and/or earthwork and utility subcontractor could be liable and subject to substantial penalties. Under no circumstances should the information provided in this report be interpreted to mean that Terracon is responsible for construction site safety or the contractor's activities. Construction site safety is the sole responsibility of the contractor who shall also be solely responsible for the means, methods, and sequencing of the construction operations.

4.2. Grading and Drainage

During construction, grades should be developed to direct surface water flow away from or around the site. Exposed subgrades should be sloped to provide positive drainage so that saturation of subgrades is avoided. Surface water should not be permitted to accumulate on the site.

Final grades should slope away from the building to promote rapid surface drainage. Accumulation of water adjacent to the building could contribute to significant moisture increases in the subgrade soils and subsequent softening/settlement. Roof drains should discharge into a storm sewer or several feet away from building.

4. Foundations

In our opinion, the proposed building can be supported by conventional spread footing foundations bearing on the very stiff to hard native clay soils, and/or newly placed engineered fill or lean concrete that extends to suitable soils. Foundations should not be supported on any undocumented existing fill. Where any unsuitable conditions are encountered at design footing bearing depth, the remedial methods recommended in Section 4.3.2 should be implemented.

Design recommendations for shallow foundations to support the proposed structure are presented below.

4. .1 Footing Design Recommendations

DESCRIPTION	VALUE
Ma imum net allowable bearing pressure [1]	4,000 psf
Minimum embedment below finished grade for frost protection [2]	4 feet
Minimum footing widths	Isolated footings: 30 inches Continuous footings: 18 inches
Appro imate total settlement [3]	Less than 1 inch
Appro imate differential settlement [3]	1/2 to 2/3 of the total settlement

1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. This pressure assumes that any lower strength soils, if encountered, will be undercut and replaced with engineered fill.
2. For perimeter footings, footings beneath unheated areas, and footings that will be exposed to freezing conditions during construction.
3. Foundation settlement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of engineered fill, and the quality of the earthwork operations and footing construction.

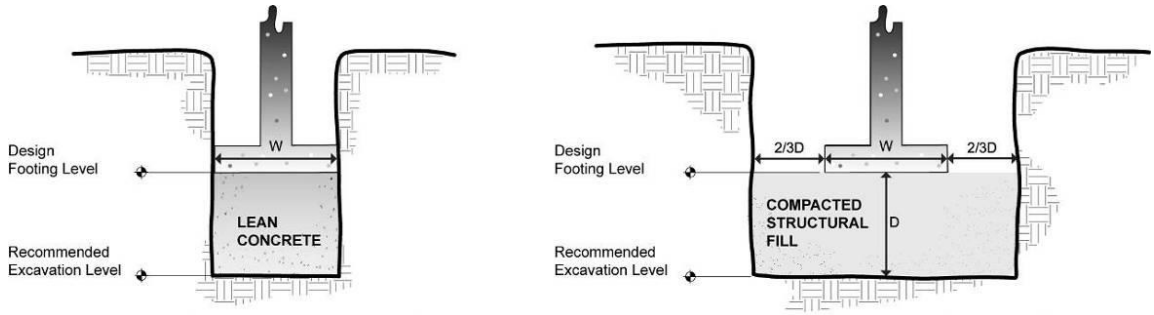
4. .2 Footing Construction Considerations

The soils at the base of each foundation excavation should be observed and tested to evaluate whether they meet the requirements for suitable bearing soils as defined in this report. The excavations should be probed or otherwise sampled at regular intervals.

The base of each foundation excavation should be free of water and soft or loose soil prior to placing concrete. Concrete should be placed as soon after excavating as possible to reduce bearing soil disturbance. If the soils at bearing level become excessively dry, disturbed, saturated, or frozen, the affected soil should be removed prior to placing concrete. Placement of a lean concrete mud-mat over the bearing soils should be considered if the excavations must remain open overnight or for an extended period of time.

Footings should bear directly on tested and approved native clay, or engineering soil fill or lean concrete that extends to approved native soils. If unsuitable bearing materials are encountered at the base of a footing excavation, the excavation should be extended deeper to suitable native soils. The footing could then bear at this lower elevation or the excavation could be backfilled to the original design footing elevation with engineered soil fill or lean concrete backfill. If engineered soil fill is used as backfill, then the base of the excavation should be 8 inches wider than the footing for each vertical foot of over-excavation, not accounting for sloping or benching. If lean

concrete backfill (minimum 28-day compressive strength of 1,500 psi) is used, the excavation should be widened at least 6 inches on all sides of the footing. The recommended extents of the over excavation and backfill procedure are illustrated in the following figure.



NOTE: Excavations in sketches shown vertical for convenience. Excavations should be sloped as necessary for safety.

4.4 Floor Slabs

Any floor slabs can be supported at existing grade on approved native or existing fill soils, assuming any organic material is removed and the sub-grade appears stable under proofrolling, or on newly placed engineered soil fill used to raise site grades. We recommend that that a minimum 6-inch thick granular leveling course be placed directly below the slabs to provide uniform support and a capillary break. Design recommendations for floor slabs is provided below.

Item	Description
Floor slab support [1]	Tested and approved native or existing fill soils, or newly placed engineered soil fill materials that have been prepared in accordance with Section 4.2 and tested/approved by Terracon.
Granular leveling course [2]	6 inches of well-graded granular material.
Modulus of subgrade reaction	150 pounds per cubic inch for a soil subgrade prepared as recommended in this report.

1. Floor slabs should be structurally independent of building footings and walls supported on the footings to reduce the potential for floor slab cracking caused by differential movements between the slab and foundation.
2. The floor slab should be placed on a leveling course comprised of well-graded select granular material containing less than 5 percent fines, and compacted to at least 92% of the modified Proctor maximum dry density (ASTM D1557)
3. The recommended modulus value is based on a 12-inch square plate. The modulus value used in design should be adjusted based on the actual size of the floor slab according to the Naval Facilities Engineering Design Manual.

Joints should be constructed at regular intervals as recommended by the American Concrete Institute (ACI) to help control the location of cracking. It should be understood that differential settlement between the floor slabs and foundations could occur. Thus, floor slabs should be structurally independent of footings and walls supported on the footings to reduce the potential for floor slab cracking caused by differential movements between the slab and foundation.

The use of a vapor retarder or barrier should be considered beneath the slab if the finished floor will be covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or if the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder/barrier, the slab designer and slab contractor should refer to ACI 302 and ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder/barrier.

On most project sites, the site grading is generally accomplished early in the construction phase. However, as construction proceeds, the subgrade may be disturbed by utility excavations, construction traffic, desiccation, rainfall, etc. As a result, corrective action may be required prior to placement of the granular leveling course and concrete.

Terracon should be retained to review the condition of the floor slab subgrades immediately prior to placement of the granular leveling course and construction of the slabs. Particular attention should be paid to high traffic areas that were rutted and disturbed earlier and to areas where backfilled trenches are located. Areas where unsuitable conditions are located should be repaired by re-compaction, or by removing the affected material and replacing it with engineered fill.

4. Pavements

4. .1 Subgrade Preparation

Pavement subgrades, likely prepared during the initial phases of construction, should be carefully re-evaluated for signs of disturbance as the time for pavement construction approaches. We recommend the moisture content and density of the top 9 inches of the subgrade be evaluated and the pavement subgrades be proof-rolled within two days prior to commencement of actual paving operations. Areas not in compliance with the required ranges of moisture or density should be moisture conditioned and re-compacted. Particular attention should be paid to high traffic areas that were rutted and disturbed earlier and to areas where backfilled trenches are located. Areas where unsuitable conditions are located should be repaired by removing and replacing the materials with properly compacted fills.

After proof-rolling and repairing deep subgrade deficiencies, the entire subgrade should be scarified and developed as recommended in Section 4.2 of this report to provide a uniform subgrade for pavement construction. Areas that appear severely desiccated following site stripping may require further undercutting and moisture conditioning. If a significant precipitation event occurs after the evaluation or if the surface becomes disturbed, the subgrade should be reviewed by qualified

personnel immediately prior to paving. The subgrade should be in its finished form at the time of the final review.

4. .2 Pavement Design Considerations

We anticipate that the subgrade in pavement areas will likely consist of the native very stiff to hard lean clay or newly placed engineered fill used to raise site grades. The native clay soils are generally classified as CL per the Unified Soil Classification System. Based on a review of the Natural Resource Conservation Service Web Soil Survey, the primary pedological units in this area of Milwaukee are generally expected to consist of the Blount Silt Loam (BlA) and the Ozaukee Silt Loam (QuB2). The native soils encountered in the soil borings compare favorably with the primary pedological units mapped in the project area and are considered suitable for support of pavements, provided they do not contain appreciable amounts of organic matter and are prepared as recommended in this report. The following table provides design parameters for use in the design of both bituminous and Portland cement concrete pavements supported on the existing native soils or engineered soil fill used to raise site grades.

Design Parameter [1]	Value
California Bearing Ratio (CBR)	5
AAS TO Classification	A-6
Design Group Inde	10
Soil Support Value	4.5
Frost Group Inde	F-3
Modulus of Subgrade Reaction	200 pci
Resilient Modulus	5,500 psi

1. The design parameters were developed with consideration for the published values provided in the WisDOT Geotechnical Bulletin No. 1 for the primary pedological units mapped in the Milwaukee area. The design parameters may be used if the following criteria are met during pavement construction:
   - Subgrade is inspected properly.
   - Subgrade has uniform and adequate compaction.
   - Wet or soft soil zones are treated or removed.
   - Subgrade soil is a homogeneous mixture.
   - Adequate drainage is provided.

4. . Estimates of Minimum Pavement Thickness

All pavements should be designed for the types and volumes of traffic, subgrade and drainage conditions that are anticipated. Traffic loading conditions were not provided, but based on previous experience with other senior living facilities, we have assumed the following traffic loads.

Description	Loading Conditions
Basis of Design (years)	20
Standard Duty Areas ESAL (18 kip)	100,000
Medium Duty Areas ESAL (18 kip)	250,000

Based upon the design parameters provided above, we have developed recommended minimum pavement sections for both bituminous (flexible) and Portland cement concrete (rigid), where the subgrade appears firm under proof-rolling at the time of construction. The recommended minimum pavement sections are provided in the following table. Greater pavement and/or base course thicknesses may be required for greater expected traffic loads and volumes, or if poorer subgrade conditions are encountered.

Pavement Area	Pavement Type	Thickness (in)			
		Surface Course[1]	Asphalt Binder[2]	Base Course[3]	Total
Standard Duty Areas	Rigid (Concrete)	4.5	N/A	5.0	9.5
	Flexible (Bituminous)	1.75	2.25	7.0	11.0
Medium Duty Areas	Rigid (Concrete)	6.0	N/A	5.0	11.0
	Flexible (Bituminous)	2.0	3.0	8.0	13.0

1. Surface course, WisDOT Specifications for No. 4 (12.5 mm) Hot Mix Asphalt (HMA)
2. Binder course, WisDOT Specifications for No. 3 (19.0 mm) HMA
3. The base course aggregate beneath the new pavement should conform to the 1-1/4-inch Dense Graded Base listed in Section 305 of the WisDOT Standard Specifications (current edition). The base course material should be compacted to a minimum of 95% of the modified Proctor density (ASTM D1557) within -2 to +4% of the optimum moisture content.

The American Association of State and Highway Transportation Officials (AASHTO) Guide for Design of Pavement Structures 1993 procedure was used to calculate the recommended minimum bituminous and Portland cement concrete thicknesses. The AASHTO design procedure allows the designer to select design inputs based on the pavement functional classification. In particular, these include reliability and terminal serviceability rating.

We recommend using rigid (concrete) pavement in areas of frequent turning or routine stopping of heavy trucks and equipment to minimize rutting or other damage to the pavement section.

The level of reliability is a degree of certainty incorporated into the design to ensure the pavement will perform as intended over the design period. The AASHTO procedure includes recommended reliability for pavement functional classification (i.e. interstate, principal arterials, collectors, and

local roads). A higher reliability number will result in a thicker design pavement section. A reliability number of 90% was used to develop the design sections recommended above.

4. .4 Pavement Drainage

Pavements should be sloped to provide rapid drainage of surface water. Water allowed to pond on or adjacent to the pavements could saturate the subgrade and contribute to premature pavement deterioration. In addition, the pavement subgrade should be graded to provide positive drainage within the granular base section. It may be advantageous to place drains along the edge of the pavement section to minimize the infiltration of water into the granular base course that may otherwise result in a softening of the fine-grained subgrade. The edge drains should be routed to an appropriate discharge point to allow for positive drainage.

4. . Pavement Performance and Maintenance

Preventive maintenance should be planned and provided through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration, and to preserve the pavement investment. Maintenance consists of both localized maintenance (e.g., crack and joint sealing and patching) and global maintenance (e.g., surface sealing). Preventive maintenance is usually the first priority when implementing a pavement maintenance program. Additional engineering observation is recommended to determine the type and extent of a cost effective program. Even with periodic maintenance, some movements and related cracking may still occur and repairs may be required.

Pavement performance is affected by its surroundings. In addition to providing preventive maintenance as described above, the civil engineer should consider the following recommendations in the design and layout of pavements:

- Final grade adjacent to parking lots and drives should slope down from pavement edges at a minimum 2%;
- The subgrade and the pavement surface should have a minimum ¼ inch per foot slope to promote proper surface drainage;
- Install joint sealant and seal cracks immediately;
- Seal all landscaped areas in, or adjacent to, pavements to reduce moisture migration to subgrade soils.

4.6 Seismic Site Class

Code	Site Class
2015 International Building Code (IBC) [1]	D [2]

1. In general accordance with Table 20.3-1 of the of ASCE 7-10 Standard (as referenced in the 2015 International Building Code).
2. The 2015 IBC requires a site soil profile determination extending a depth of 100 feet below ground surface (bgs) for seismic site classification. The maximum depth explored during our subsurface exploration was about 20 feet bgs. We have assumed that the soil conditions beyond the depths explored is similar to or better than the soil conditions in the upper 20 feet. Thus, based on this section of the IBC and the conditions encountered at the boring locations, Site Class D can be used for design of the proposed project. Additional deeper borings and/or a site-specific seismic evaluation using geophysical methods would be required to further define the seismic site class.

5.0 GENERAL COMMENTS

Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide observation and testing services during grading, excavation, foundation construction and other earth-related construction phases of the project.

Support of the floor slabs and pavements on/above existing fill is discussed in this report. Even with the shallow re-compaction and construction observation/testing recommended in this report, a risk remains for the owner that unsuitable materials within or buried by the fill will not be discovered. This may result in larger than normal settlement and damage to the floor slabs and pavements, requiring additional maintenance. This risk cannot be eliminated without removing the existing fill from below the floor slab and pavement areas, but can be reduced by quality earthwork operations and thorough observation and testing as discussed herein.

The analysis and recommendations presented in this report are based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur between borings, across the site, or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

The scope of geotechnical services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or

identification or prevention of pollutants, hazardous materials or conditions. A separate environmental study is being undertaken for this purpose.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

APPENDI A
FIELD E PLORATION

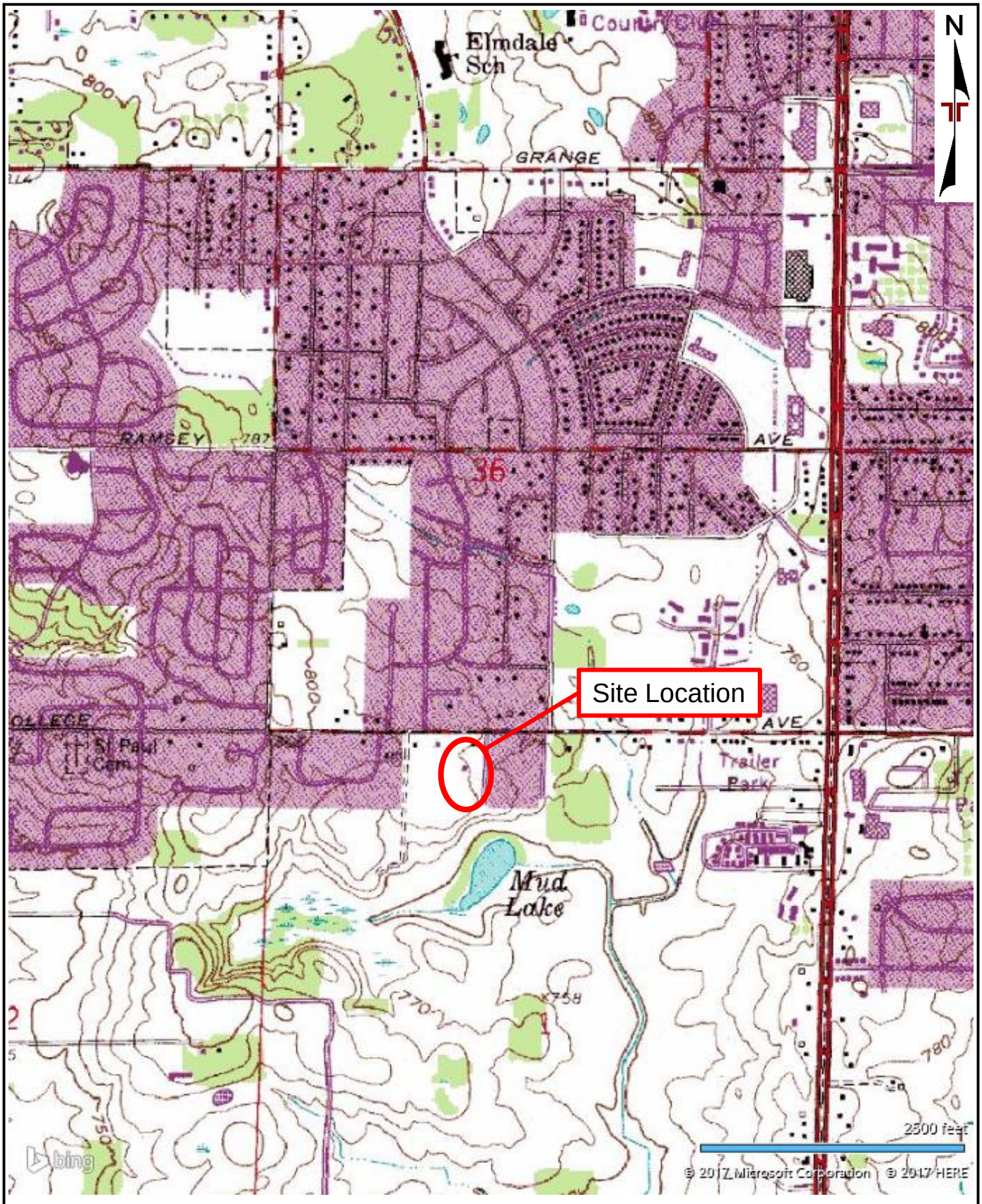


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager: NJL	Project No. MR175321	Terracon Consulting Engineers & Scientists	SITE LOCATION DIAGRAM
Drawn by: NJL	Scale: AS SHOWN	9856 South 57th Street Franklin, Wisconsin 53132	FRANKLIN ELDERLY APARTMENTS
Checked by: MSK	File Name: BLD_MR175321	PH. (414) 423-0255 FAX. (414) 423-0566	3709 WEST COLLEGE AVENUE
Approved by: PAT	Date: 9/29/2017		MILWAUKEE, WISCONSIN

FIG No. A-1

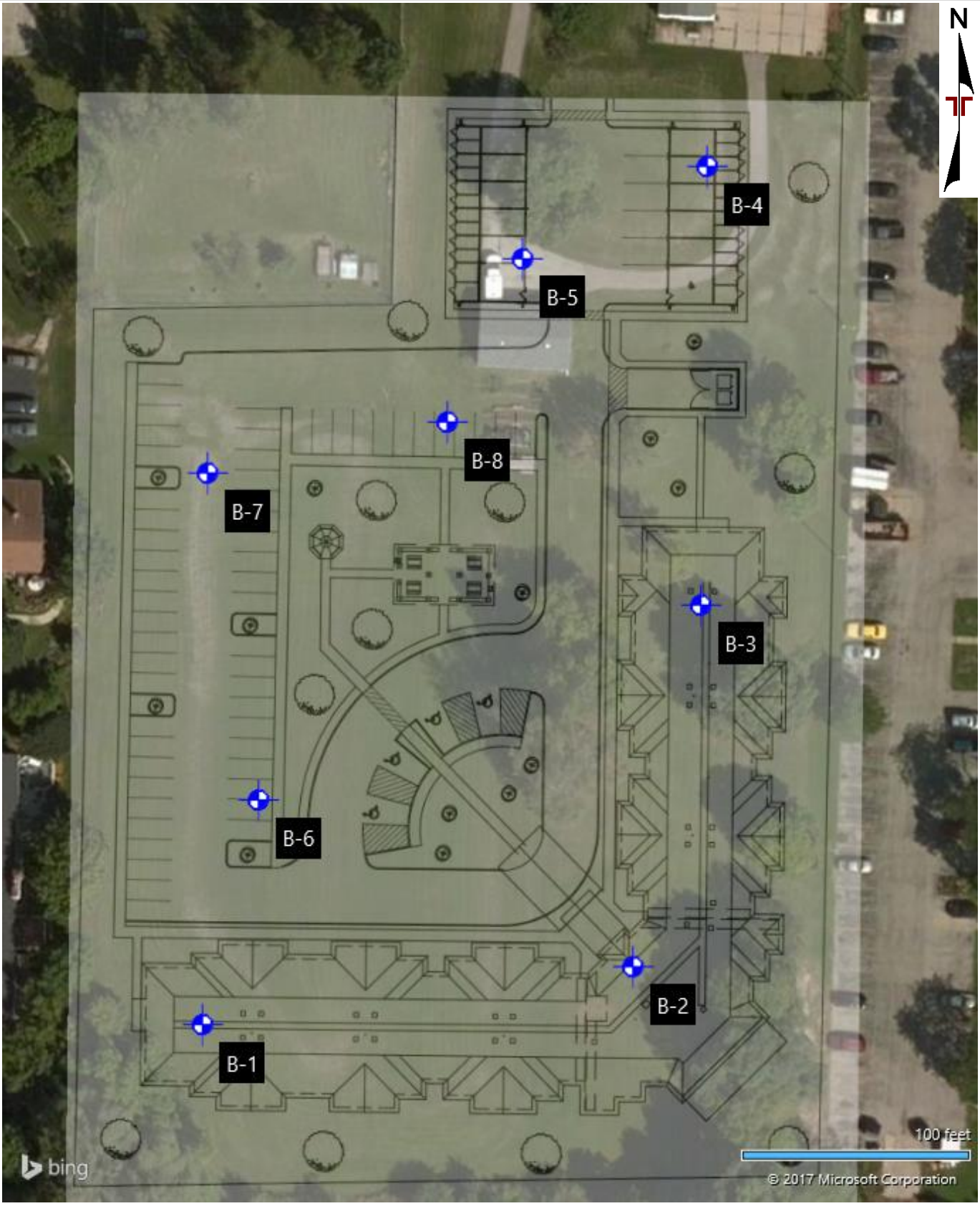


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS
NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager: NJL	Project No. MR175321	Terracon Consulting Engineers & Scientists	BORING LOCATION DIAGRAM	FIG No.
Drawn by: NJL	Scale: AS SHOWN	9856 South 57th Street Franklin, Wisconsin 53132	FRANKLIN ELDERLY APARTMENTS	A-2
Checked by: MSK	File Name: BLD_MR175321	PH. (414) 423-0255 FAX. (414) 423-0566	3709 WEST COLLEGE AVENUE	
Approved by: PAT	Date: 9/29/2017		MILWAUKEE, WISCONSIN	

Field E ploration Description

The borings were drilled at the approximate locations indicated on the attached Boring Location Diagram (Exhibit A-2). Boring locations were laid out in the field by the drill crew using a hand-held GPS unit. Ground surface elevations indicated on the boring logs were estimated from Google Earth and USGS Topographic Maps.

The soil borings were drilled with truck mounted rotary drill rig using continuous flight, hollow-stem augers to advance the boreholes. Soil samples were obtained using split-barrel sampling procedures in general accordance with ASTM D1586. In the split-barrel sampling procedure, a standard 2-inch (outside diameter) split-barrel sampling spoon is driven into the ground with a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of an 18-inch penetration or the middle 12 inches of a 24-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. These values, also referred to as SPT N-values, are an indication of soil strength/density and are provided on the boring logs at the depths of occurrence. The samples were then sealed and transported to our laboratory for testing and classification.

The drill crew prepared a field log of each boring. These logs included visual classifications of the materials encountered during drilling and the driller's interpretation of the subsurface conditions between samples. The boring logs included with this report represent the engineer's interpretation of the field logs and include modifications based on laboratory observation and tests of the samples. Information provided on the boring logs attached to this report includes soil descriptions, consistency evaluations, boring depths, sampling intervals, and groundwater conditions.

BORING LOG NO. B-1

PROJECT: Franklin Elderly Apartments

CLIENT: Herman & Kittle Properties, Inc.
Indianapoils, IN

SITE: 3709 W. College Ave.
Milwaukee, Wisconsin

LOCATION See Exhibit A-2

Latitude: 42.92864° Longitude: -87.9628°

Approximate Surface Elev: 786 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.3	785.5+/-	**TOPSOIL**, 3 inches
		LEAN CLAY (CL), trace sand and gravel, brown, very stiff to hard
12.0	774+/-	**LEAN CLAY (CL)**, trace sand and gravel, gray brown, hard
16.0	770+/-	**LEAN CLAY (CL)**, trace sand and gravel, gray, very stiff
20.0	766+/-	***Boring Terminated at 20 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Sample Number	LABORATORY TORVANE/HP (tsf)	WATER CONTENT (%)
		X	10	11-15-17 N=32	1	5.00 (HP)	12
5		X	12	5-7-8 N=15	2	4.00 (HP)	13
		X	12	5-8-8 N=16	3	3.50 (HP)	18
10		X	14	5-8-7 N=15	4	3.00 (HP)	19
		X	14	2-4-5 N=9	5	4.25 (HP)	20
15							
		X	18	3-4-7 N=11	6	2.75 (HP)	19
20							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2-1/4" Hollow Stem Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.
Elevations estimated from Google Earth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9856 S 57th St
Franklin, WI

Boring Started: 9/22/2017 | Boring Completed: 9/22/2017

Drill Rig: CME-55 | Driller: PTS/Mike

Project No.: MR175321 | Exhibit: A-4

BORING LOG NO. B-2

PROJECT: Franklin Elderly Apartments

CLIENT: Herman & Kittle Properties, Inc.
Indianapoils, IN

SITE: 3709 W. College Ave.
Milwaukee, Wisconsin

LOCATION See Exhibit A-2

Latitude: 42.92871° Longitude: -87.96209°

Approximate Surface Elev: 783 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.3	782.5+/-	**TOPSOIL**, 3 inches
		LEAN CLAY (CL), trace sand and gravel, brown, hard
17.0	766+/-	**LEAN CLAY (CL)**, trace sand and gravel, gray brown, very stiff
20.0	763+/-	***Boring Terminated at 20 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Sample Number	LABORATORY TORVANE/HP (tsf)	WATER CONTENT (%)
		X	10	8-9-12 N=21	1	6.00 (HP)	17
		X	8	12-18-24 N=42	2	6.00 (HP)	13
5							
		X	12	5-13-17 N=30	3	6.00 (HP)	13
		X	14	5-8-13 N=21	4	5.50 (HP)	16
10							
		X	12	4-9-11 N=20	5	5.00 (HP)	18
15							
		X	16	1-3-5 N=8	6	2.50 (HP)	20
20							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2-1/4" Hollow Stem Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.
Elevations estimated from Google Earth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9856 S 57th St
Franklin, WI

Boring Started: 9/22/2017 Boring Completed: 9/22/2017

Drill Rig: CME-55 Driller: PTS/Mike

Project No.: MR175321 Exhibit: A-5

BORING LOG NO. B-3

PROJECT: Franklin Elderly Apartments

CLIENT: Herman & Kittle Properties, Inc.
Indianapoils, IN

SITE: 3709 W. College Ave.
Milwaukee, Wisconsin

LOCATION See Exhibit A-2

Latitude: 42.92914° Longitude: -87.96198°

Approximate Surface Elev: 781 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.3	780.5+/-	**TOPSOIL**, 3 inches
		LEAN CLAY (CL), trace sand and gravel, brown, hard
12.0	769+/-	**LEAN CLAY (CL)**, trace sand and gravel, gray brown, very stiff
20.0	761+/-	***Boring Terminated at 20 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Sample Number	LABORATORY TORVANE/HP (tsf)	WATER CONTENT (%)
		X	10	7-8-9 N=17	1	6.00 (HP)	11
		X	12	9-15-21 N=36	2	6.00 (HP)	12
5		X	14	8-9-10 N=19	3	6.00 (HP)	15
		X	10	8-10-13 N=23	4	6.00 (HP)	16
10							
		X	18	7-9-11 N=20	5	3.75 (HP)	23
15							
		X	12	3-8-9 N=17	6	3.75 (HP)	20
20							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2-1/4" Hollow Stem Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.
Elevations estimated from Google Earth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9856 S 57th St
Franklin, WI

Boring Started: 9/22/2017 | Boring Completed: 9/22/2017

Drill Rig: CME-55 | Driller: PTS/Mike

Project No.: MR175321 | Exhibit: A-6

BORING LOG NO. B-4

PROJECT: Franklin Elderly Apartments

CLIENT: Herman & Kittle Properties, Inc.
Indianapoils, IN

SITE: 3709 W. College Ave.
Milwaukee, Wisconsin

LOCATION See Exhibit A-2

Latitude: 42.92967° Longitude: -87.96197°

Approximate Surface Elev: 780 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Sample Number	LABORATORY TORVANE/HP (tsf)	WATER CONTENT (%)
1.0	779+/-	**TOPSOIL**, 12 inches								
		LEAN CLAY (CL), trace sand and gravel, brown, very stiff to hard			X	10	4-4-5 N=9	1	6.00 (HP)	13
					X	8	2-3-5 N=8	2	dist.	14
		Sample 2: very gravelly.	5							
					X	10	4-5-7 N=12	3	2.00 (HP)	20
					X	16	6-9-14 N=23	4	5.00 (HP)	16
12.0	768+/-		10							
		LEAN CLAY (CL), trace sand and gravel, gray brown, very stiff			X	18	3-6-9 N=15	5	2.50 (HP)	25
15.0	765+/-		15							
		Boring Terminated at 15 Feet								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2-1/4" Hollow Stem Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.
Elevations estimated from Google Earth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9856 S 57th St
Franklin, WI

Boring Started: 9/22/2017 Boring Completed: 9/22/2017

Drill Rig: CME-55 Driller: PTS/Mike

Project No.: MR175321 Exhibit: A-7

BORING LOG NO. B-5

PROJECT: Franklin Elderly Apartments

CLIENT: Herman & Kittle Properties, Inc.
Indianapoils, IN

SITE: 3709 W. College Ave.
Milwaukee, Wisconsin

LOCATION See Exhibit A-2

Latitude: 42.92956° Longitude: -87.96228°

Approximate Surface Elev: 782 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Sample Number	LABORATORY TORVANE/HP (tsf)	WATER CONTENT (%)
0.1 **ASPHALT**, 1 inch	782+/-								
1.0 **AGGREGATE BASE COURSE**, 12 inches	781+/-								
LEAN CLAY (CL), trace sand and gravel, brown, very stiff to hard				X	10	5-6-7 N=13	1	4.50 (HP)	19
				X	10	7-8-10 N=18	2	6.00 (HP)	15
		5		X	12	8-9-11 N=20	3	6.00 (HP)	16
				X	12	4-8-10 N=18	4	6.00 (HP)	20
		10							
				X	10	1-3-6 N=9	5	3.00 (HP)	23
15.0	767+/-	15							
Boring Terminated at 15 Feet									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2-1/4" Hollow Stem Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.
Elevations estimated from Google Earth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9856 S 57th St
Franklin, WI

Boring Started: 9/22/2017 Boring Completed: 9/22/2017

Drill Rig: CME-55 Driller: PTS/Mike

Project No.: MR175321 Exhibit: A-8

BORING LOG NO. B-6

PROJECT: Franklin Elderly Apartments

CLIENT: Herman & Kittle Properties, Inc.
Indianapoils, IN

SITE: 3709 W. College Ave.
Milwaukee, Wisconsin

LOCATION See Exhibit A-2

Latitude: 42.92891° Longitude: -87.96271°

Approximate Surface Elev: 785 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.5	784.5+/-	**TOPSOIL**, 6 inches
		FILL - LEAN CLAY WITH SAND, trace gravel, brown
2.5	782.5+/-	**LEAN CLAY (CL)**, trace sand and gravel, brown, very stiff to hard
10.0	775+/-	***Boring Terminated at 10 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Sample Number	LABORATORY TORVANE/HP (tsf)	WATER CONTENT (%)
		X	10	3-3-5 N=8	1		9
		X	12	4-8-10 N=18	2	6.00 (HP)	16
5							
		X	14	4-12-14 N=26	3	6.00 (HP)	16
		X	16	9-11-15 N=26	4	3.50 (HP)	17
10							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2-1/4" Hollow Stem Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.
Elevations estimated from Google Earth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9856 S 57th St
Franklin, WI

Boring Started: 9/22/2017 Boring Completed: 9/22/2017

Drill Rig: CME-55 Driller: PTS/Mike

Project No.: MR175321 Exhibit: A-9

BORING LOG NO. B-7

PROJECT: Franklin Elderly Apartments

CLIENT: Herman & Kittle Properties, Inc.
Indianapoils, IN

SITE: 3709 W. College Ave.
Milwaukee, Wisconsin

LOCATION See Exhibit A-2

Latitude: 42.9293° Longitude: -87.96279°

Approximate Surface Elev: 784 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.5	783.5+/-	**TOPSOIL**, 6 inches
		LEAN CLAY (CL), trace sand and gravel, brown, very stiff to hard
10.0	774+/-	***Boring Terminated at 10 Feet***

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Sample Number	LABORATORY TORVANE/HP (tsf)	WATER CONTENT (%)
		10	5-5-6 N=11	1	3.50 (HP)	17
5		12	7-11-15 N=26	2	6.00 (HP)	15
		10	9-12-14 N=26	3	6.00 (HP)	15
10		12	7-10-14 N=24	4	6.00 (HP)	14

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2-1/4" Hollow Stem Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.
Elevations estimated from Google Earth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9856 S 57th St
Franklin, WI

Boring Started: 9/22/2017 Boring Completed: 9/22/2017

Drill Rig: CME-55 Driller: PTS/Mike

Project No.: MR175321 Exhibit: A-10

BORING LOG NO. B-8

PROJECT: Franklin Elderly Apartments

CLIENT: Herman & Kittle Properties, Inc.
Indianapoils, IN

SITE: 3709 W. College Ave.
Milwaukee, Wisconsin

LOCATION See Exhibit A-2

Latitude: 42.92937° Longitude: -87.9624°

Approximate Surface Elev: 783 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Sample Number	LABORATORY TORVANE/HP (tsf)	WATER CONTENT (%)
0.4 **TOPSOIL**, 4 inches	782.5+/-								
LEAN CLAY (CL), trace sand and gravel, brown, hard				X	14	6-8-9 N=17	1	6.00 (HP)	15
		5		X	14	6-11-12 N=23	2	6.00 (HP)	15
				X	12	5-8-7 N=15	3	6.00 (HP)	15
				X	16	7-8-11 N=19	4	6.00 (HP)	16
10.0	773+/-	10							
Boring Terminated at 10 Feet									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2-1/4" Hollow Stem Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.
Elevations estimated from Google Earth

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9856 S 57th St
Franklin, WI

Boring Started: 9/22/2017 Boring Completed: 9/22/2017

Drill Rig: CME-55 Driller: PTS/Mike

Project No.: MR175321 Exhibit: A-11

APPENDI B
LABORATORY TESTING

Laboratory Testing

The soil samples retrieved from the borings were transported to our Vernon Hills, Illinois laboratory for further classification and testing. The laboratory testing program is described in further detail below.

The soil samples obtained from the borings were tested in the laboratory to measure their natural water content. Calibrated penetrometer tests were performed on representative cohesive samples to evaluate the unconfined compressive strength. The applicable test results are provided on the boring logs in Appendix A.

The soil samples were classified in the laboratory based on visual observation, texture, plasticity, and the limited laboratory testing described above. The soil descriptions presented on the boring logs for native soils are in accordance with the enclosed General Notes (Exhibit C-1) and Unified Soil Classification System (USCS). The estimated USCS group symbols for native soils are shown on the boring logs, and a brief description of the USCS (Exhibit C-2) is included in this report.

Procedural standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

APPENDI C
SUPPORTING DOCUMENTS

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

SAMPLING


Auger


Split Spoon


Shelby Tube


Macro Core


Ring Sampler


Rock Core


Grab Sample


No Recovery

WATER LEVEL


Water Initially Encountered


Water Level After a Specified Period of Time


Water Level After a Specified Period of Time

Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

FIELD TESTS

(HP)	Hand Penetrometer
(T)	Torvane
(b/f)	Standard Penetration Test (blows per foot)
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance Includes gravels, sands and silts.			CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance			
Descriptive Term (Density)	**Standard Penetration or N-Value Blows/Ft.**	**Ring Sampler Blows/Ft.**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength, Qu, psf**	**Standard Penetration or N-Value Blows/Ft.**	**Ring Sampler Blows/Ft.**
Very Loose	0 - 3	0 - 6	Very Soft	less than 500	0 - 1	< 3
Loose	4 - 9	7 - 18	Soft	500 to 1,000	2 - 4	3 - 4
Medium Dense	10 - 29	19 - 58	Medium-Stiff	1,000 to 2,000	4 - 8	5 - 9
Dense	30 - 50	59 - 98	Stiff	2,000 to 4,000	8 - 15	10 - 18
Very Dense	> 50	≥ 99	Very Stiff	4,000 to 8,000	15 - 30	19 - 42
			Hard	> 8,000	> 30	> 42

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 15
With	15 - 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300 mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm
Silt or Clay	Passing #200 sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 - 12
Modifier	> 12

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1 - 10
Medium	11 - 30
High	> 30

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$ [E]		GW	Well-graded gravel [F]
			$Cu < 4$ and/or $1 > Cc > 3$ [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F,G,H]
			Fines classify as CL or CH		GC	Clayey gravel [F,G,H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$ [E]		SW	Well-graded sand [I]
			$Cu < 6$ and/or $1 > Cc > 3$ [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G,H,I]
			Fines classify as CL or CH		SC	Clayey sand [G,H,I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A" line [J]		CL	Lean clay [K,L,M]
			PI < 4 or plots below "A" line [J]		ML	Silt [K,L,M]
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay [K,L,M,N]
			Liquid limit - not dried			Organic silt [K,L,M,O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line		CH	Fat clay [K,L,M]
			PI plots below "A" line		MH	Elastic Silt [K,L,M]
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay [K,L,M,P]
			Liquid limit - not dried			Organic silt [K,L,M,Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

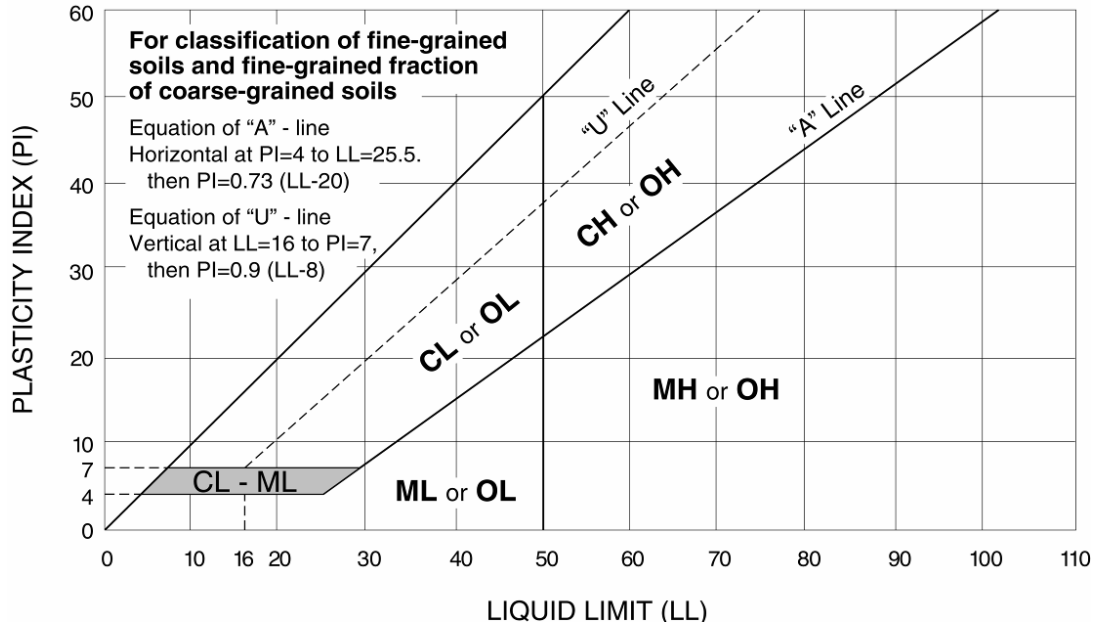
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



APPENDIX 7

Storm Water Management Checklist

Storm Water Management Checklist

City of Franklin

Project Name: College Ave Townhomes

Date Submitted: January 5, 2024

Project Location: 3709 West College Ave
(general description of nearby streets)

Watershed Name(s): Root River
(From City's Stormwater Management Plan)

Subwatershed Name(s): _____
(From City's Stormwater Management Plan)

Existing area of impervious surface:	_____	Acres
Area of impervious surface after project completion:	_____	Acres
Difference:	> 0.5	Acres

[If difference < 0.5 acres, stop; if difference ≥ 0.5 acres, proceed with checklist.]

Water Quantity Design

Existing Conditions

Number of outfalls: 1

Table 1 - Existing Watershed Characteristics

Watershed Name/Number (Project Specific)	Area [Acres]	Percent Impervious	Hydrologic Soil Group(s)	Runoff Curve Number (RCN)	Time of Concentration (Tc)* [min]	Peak Runoff Flow [1] (Include Hydrographs) Q_2 [cfs]	Peak Runoff Flow [1] (Include Hydrographs) Q_{100} [cfs]
EX1	7.95	0.3	C	75	9.8	9.00	43.07
Total Site	7.95		—		—	9.00 (flows to be added hydraulically)	43.07
Offsite Contribution							

Proposed Conditions

Number of outfalls: 2

Table 2 - Proposed Watershed Characteristics

Watershed Name/Number (Project Specific)	Area [Acres]	Percent Impervious	Hydrologic Soil Group(s)	Runoff Curve Number (RCN)	Time of Concentration (Tc)* [min]	Peak Runoff Flow [1] (Include Hydrographs) Q_2 [cfs]	Peak Runoff Flow [1] (Include Hydrographs) Q_{100} [cfs]
PR1	4.08	0.3	C	77	8.4	5.30	23.35
PR2	2.57	0.8	C	80	18.1	2.93	11.54
PR3	1.00	0.9	C	98	6.0	3.80	8.83
PR4	0.30	0.2	C	70	10.0	0.20	1.24
Total Site	7.95		—		—	10.98 (flows to be added hydraulically)	41.60
Offsite Contribution (PR1)	4.08	0.3	C	77	8.4	5.30	23.35

* - Include calculations for Times of Concentration

Storm Water Management Checklist

City of Franklin

Project Name: College Ave Townhomes

Water Quantity Design (continued)

Summary of On-site detention

Table 3 - Pond Characteristics

Pond Name/Number	Contributing Watershed Names(s) (from Table 2)	Total Area to Pond [Acres]	Peak Inflow [1] (Include Hydrographs) Q_2 [cfs]	Peak Inflow [1] (Include Hydrographs) Q_{100} [cfs]
PR2	PR1, PR2, PR3	7.65	10.83	40.44

Table 4 - Pond Storage Volume

Pond Name/Number	NWL [Elevation]	Area [Acres]	Top of Pond [Elevation]	Area [Acres]	Storage Volume [Ac·ft]
PR2	—				1.835

Table 5 - Discharge Characteristics

Pond Name/Number	Discharge Pipe Size and Material	Peak Outflow [1] (Include Hydrographs) Q_2 [cfs]	Peak Outflow [1] (Include Hydrographs) Q_{100} [cfs]	Peak Elevation $Elev_2$	Peak Elevation $Elev_{100}$	Maximum Runoff Release Rate[2] 2-year [cfs/acre]	Maximum Runoff Release Rate[2] 100-year [cfs/acre]
PR2	8" HDPE	0.84	1.34	775.49	778.37	0.84	1.34
ADD PR4	—	0.92	2.33	—	—	0.20	1.24
					TOTAL	0.92	2.33

Describe the characteristics of the downstream stormwater feature for each detention pond. (I.e. Is the downstream feature a wetland, ditch, storm sewer, etc. Does it have a tailwater elevation that affects the discharge of the pond):

PR2 - 8" HDPE to 35th Street Storm in College Ave.

PR4 - Sheet flow to adjacent east parcel.

Storm Water Management Checklist

City of Franklin

Project Name: College Ave Townhomes

Water Quality Design

Table 6 - Pond Permanent Pool

Pond Name/Number	Total Area to Pond [Acres]	Permanent Pool[3] Surface Area [Acres]	Percent of Watershed [%]	Max. Depth [feet]	Avg. Depth [feet]	Pool Volume [Ac-ft]	Required Volume [Ac-ft]
	N/A						

Table 7 - Pond Cells

Pond Name/Number	Forebay[3] Forebay Included	Surface Area [Acres]	Percent of Permanent Pool [%]	Number of Cells Excluding Forebay
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			

Pond Configuration[4]

Table 8 - Pond Configuration

Pond Name/Number	Side Slopes Above NWL	Safety Shelf	Below NWL	Emergency Spillway Invert Elevation	Emergency Spillway Width [feet]

Storm Water Management Plan

Table 9 - Additional Information

- ☑ SWMP Narrative[5]
- ☑ Erosion Control Plan
- ☑ Outlet Control Structure Detail
- ☑ Vegetation/Planting Plan
- ☑ Pond Access Location
- ☑ Pond Maintenance Plan
- ☑ Topographic Map of Surrounding Area
- ☑ Site Drainage Plan[6]
- ☑ Drainage Basin Delineation
- ☑ Interim SWMP

APPENDIX 8

Storm Water Management Facilities Maintenance Agreement

STORM WATER FACILITIES
MAINTENANCE AGREEMENT

College Ave Townhomes
3709 West College Avenue
Tax Key No. 7139996003

This AGREEMENT, made and entered into this_____ day of _____, 20___, by and between Safari Homes, LLC hereinafter called the "Owner", and the City of Franklin, hereinafter called the "City".

WITNESSETH:

WHEREAS, the Owner is the owner of the following described lands situated in the City of Franklin, County of Milwaukee, State of Wisconsin, also known as:

Parcel 1 of Certified Survey Map 6537, recorded July 27, 1998, on Reel 4358, Image 1930, as Document No. 7571685, being part of the Northeast ¼ of the Northwest ¼ of Section 1, Town 5 North, Range 21 East, in the City of Franklin, Wisconsin.

Hereinafter called the “Property”.

WHEREAS, the Owner is developing the Property; and

WHEREAS, the Site Plan (Special Use, P.D.D.) known as College Ave Townhomes hereinafter called the “Plan”, which is expressly made a part hereof, as approved or to be approved by the city, provides for on-site Storm Water Facilities within the confines of the Property as shown on the plan attached hereto as Exhibit “B” and more particularly described on Exhibit “C”; and

WHEREAS, the City and the Owner, its successors and assigns (“successors and assigns” meaning to include any homeowners’ association and all owners of the property or any portion thereof), including any homeowners association, agree that the health, safety, and welfare of the residents of the City of Franklin, require that on-site Storm Water Facilities as defined in Section 15-8.0600 Unified Development Ordinance of the City of Franklin be constructed and maintained on the Property; and

WHEREAS, the City requires that on-site storm water management practices as shown on the Plan be constructed and adequately maintained by the Owner, its successors and assigns.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The on-site storm water facilities shall be constructed by Owner in accordance with the plans and specifications which are identified as part of the storm water system plan and erosion control plan approved by the City Engineer and submitted as part of the as-built drawings approved by the City Engineer. Fountains and/or aerators shall not be installed in any ponds without prior written approval from the City Engineer.

2. The Owner, its successors and assigns, shall comply with the ordinances and regulations which require that the Storm Water Facilities shall be regularly inspected and maintained as often as conditions may require, but in any event, at least once each year. The Standard Operation and Maintenance Report attached to this agreement as Exhibit “A” and by this reference made a part hereof shall be used for the purpose of the regular inspections of the Storm Water Facilities. The Owners, its successors and assigns, shall keep the Operation and Maintenance Reports from past inspections, as well as a log of maintenance activity indicating the date and type of maintenance completed of the Storm Water Facilities. The purpose of the inspections is to assure safe and proper functioning of the facilities. The inspections shall cover all storm water facilities, including but not limited to open swales (ditches), storm sewers, manholes, inlets, berms, outlet structures, pond areas and access roads. The minimum amount of maintenance on the storm water management on the storm water management practice shall be in accordance with the Maintenance Standards in Exhibit D. Deficiencies shall be noted in the Operation and Maintenance Report. The Reports and maintenance log shall be made available to the City for review.

3. The Owner, its successors and assigns, hereby grant permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the Storm Water Facilities, whenever the City deems necessary. The purpose of inspection is to provide periodic review by City staff, to investigate reported deficiencies and/or to respond to citizen complaints. The City shall provide the Owner, its successors and assigns, copies of the inspection findings and a directive to commence with the repairs if necessary. Corrective actions shall be taken within a reasonable time frame as established by the City Engineer.

4. The Owner, its successors and assigns, shall adequately maintain the Storm Water Facilities, including but not limited to all pipes and channels built to convey storm water to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the storm water. Adequate maintenance is herein defined as keeping the Storm Water Facilities in good working condition so that these storm water facilities are performing their design functions and are in accordance with the Stormwater Basin Maintenance Standards as detailed in Section 15.8.0600 of the City of Franklin Unified Development Ordinance, and Section 13.12 (2) of the Milwaukee Metropolitan Sewerage District (MMSD) rules, and by this reference made a part hereof.

5. If the Owner, its successors and assigns fails to maintain the Storm Water Facilities in good working condition acceptable to the City and does not perform the required corrective actions in a time as established by the City Engineer in written notice, the City may:

   a) Issue a citation to the Owner, its successors and assigns. Such failure constitutes a violation of Section 15.8.0600 of the Unified Development Ordinance of the City of Franklin. The penalty for such violation of Section 15.8.0600 shall be not less than $100 nor more than $2500 for each offense, together with the costs of prosecution. Each day that the violation exists shall constitute a separate offense, and

   b) Perform the corrective actions identified in the inspection report and assess the Owner, its successors and assigns, for the cost of such work. The cost of such work shall be specially charged against the Property pursuant to Wisconsin Statutes Section 66.0627. If the facilities are located on an outlot owned collectively by a homeowners association, the City may specially charge each member of the homeowners association according to the ownership interest in the facilities located on the property. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Owner outside of the easement for the Storm Water Facilities. It is expressly understood and agreed that the City is under no obligation to routinely maintain or repair said storm water management practices and in no event shall this Agreement be construed to impose any such obligation on the City.

6. In the event the City, pursuant to this Agreement and applicable easements performs work of an emergency nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Owner, its successors and assigns, shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City hereunder.

7. This Agreement imposes no liability of any kind whatsoever on the City and the Owner agrees to indemnify and hold the City harmless from any liability in the event the Storm Water Facilities fail to operate properly.

8. This Agreement shall be attached as an exhibit to any document which creates a homeowners association that is responsible for maintenance of the Storm Water Facilities and shall be recorded at the Milwaukee County Register of Deeds, and shall constitute a covenant running with the land, and shall be binding on the Owner, its administrators, executors, assigns, heirs and any other successors in interest, including any homeowners association and all owners of the property or any portion thereof. The owner shall provide the City with a copy of any document which creates a homeowners association that is responsible for the Storm Water Facilities.

9. The owner, its successors and assigns, is prohibited from building structures, installing play equipment, installing plants, changing grades or performing any function that inhibits care and maintenance of any Storm Water Facilities.

10. The owner, its successor and assigns shall maintain, at all times, an individual(s) who will serve as a contact person(s).

IN WITNESS WHEREOF, the City and Owner have set forth their hands and seals, effective the date first above written.

SEALED IN PRESENCE OF: _____ , Owner

By: _____

Name: William Bodner

STATE OF WISCONSIN)ss.
_____COUNTY)

Personally came before me this _____ day of _____, 20__, the above named _____, Inc., to me known to be the person who executed the foregoing instrument and acknowledged the same in the capacity indicated.

_____
Notary Public, _____ County, WI
My commission expires:_____

CITY OF FRANKLIN

By: _____ (Seal)
Name: Stephen R. Olson
Title: Mayor

COUNTERSIGNED:
By: _____ (Seal)
Name: Sandra L. Wesolowski
Title: City Clerk

STATE OF WISCONSIN)ss.
MILWAUKEE COUNTY)

Personally came before me this _____ day of _____, 20__, the above named Stephen R. Olson, Mayor and Sandra L. Wesolowski, City Clerk, of the above named municipal corporation, City of Franklin, to me known to be such Mayor and City Clerk of said municipal corporation, and acknowledged that they had executed the foregoing instrument as such officers as the Deed of said municipal corporation by its authority and pursuant to the Resolution File No. _____, adopted by its Common Council on this _____ day of _____, 20____.

_____
Notary Public, Milwaukee County, WI
My commission expires: _____

This instrument was drafted by the City Engineer for the City of Franklin.

Form approved:

_____
Jesse A.Wesolowski, City Attorney

EXHIBIT "A"

OPERATION AND MAINTENANCE INSPECTION REPORT
STORMWATER MANAGEMENT BIORETENTION BASINS
City of Franklin

Name of Development _____

Responsible Party Name _____ Address _____

Telephone No. _____ Fax No. _____ E-mail _____

Inspector Name _____ Address _____

Telephone No. _____ Fax No. _____ E-mail _____

Basin Location General Address _____ Section No. _____

Bioretention Cell ID _____

Items inspected (Basin components)	Checked (Yes/No/NA)	Maintenance Needed (Yes/No/NA)	Remarks
1. Embankment and Emergency spillway 1. Vegetation and ground cover adequate			
2. Embankment erosion			
3. Animal burrows			
4. Unauthorized plantings			
5. Cracking, bulging, or sliding of berms/slopes 1. Upstream face			
2. Downstream face			
3. At or beyond toe Upstream			
Downstream			
4. Emergency spillway			
6. Seeps/leaks on downstream face			
7. Slope protection or riprap failures			
8. Emergency spillway clear of debris			
2. Riser and principal spillway Type: Reinforced concrete ____ Corrugated metal pipe ____ PVC/HDPE ____ Masonry ____			
1. Low flow orifice obstructed			
2. Primary outlet structure 1. Debris removal necessary			
2. Corrosion control			
3. Grate maintenance 1. Debris removal necessary			
2. Corrosion control			
3. Bioretention sediment buildup on basin bottom (estimate depth). If more than 2" covering the stone top layer it must be removed.			
4. Bioretention inlet pipes, underdrains, outlet Structure or discharge piping plugged by debris Or sediment (estimate depth). If more than 2" it Must be removed.			
5. Bioretention Cell has standing water Present for more than 24 hours? If so, media and Potentially stone and fabric must be replaced.			

EXHIBIT "A" (continued)

This exhibit explains the basic function of each of the storm water practices shown in Exhibit B and prescribes the minimum maintenance requirements to remain compliant with this Agreement. The maintenance activities listed below are aimed to ensure these practices continue serving their intended functions in perpetuity. The list of activities is not all inclusive, but rather indicates the minimum type of maintenance that can be expected for this particular site. Access to the stormwater practices for maintenance vehicles is shown in Exhibit B. Any failure of a storm water practice that is caused by a lack of maintenance will subject the Owner(s) to enforcement of the provisions listed in this Agreement by the City of Franklin.

System Description:
The bioretention basins are designed to trap 80% of sediment in runoff and maintain pre-development downstream peak flows. The storm water management practices are designed to trap sediments in runoff, such as sands and finer suspended sediment. To do this, the basin size, vegetation, sub-soil and outlet must be maintained as specified in this Agreement.

Minimum Maintenance Requirements:
To ensure the proper long-term function of the storm water management practices described above, the following activities must be completed:

1. The on-site storm systems, roof drains, overflow weir and tributary swales must be checked monthly to ensure there is no blockage from floating debris or ice. Any blockage must be removed immediately.
2. The heavy duty permanent stone discharge pads to buffer runoff as it enters the pond shall be preserved to allow free flowing of surface runoff in accordance with approved grading plans. No buildings or other structures are allowed in these areas. No grading or filling is allowed that may interrupt flows in any way.
3. The heavy duty permanent stone pads and the emergency spillways must be checked after heavy rains (minimum of annually) for signs of erosion or structural failure. Any eroding areas or structural failure must be repaired immediately to contain peak flows and prevent premature sediment build-up in the basin. Erosion matting is recommended for repairing grassed areas.
4. NO trees are to be planted or allowed to grow on the earthen berms. Tree root systems can reduce soil compaction and cause berm failure. The berms must be inspected annually and any woody vegetation removed.
5. If weed growth becomes a nuisance, it must be removed from the basin and deposited where it cannot drain back into the basin.
6. When debris or sediment buildup on basin bottom has accumulated to more than 2" covering the stone top layer; and/or when the basin inlet pipes, underdrains, outlet structure or discharge piping are plugged by debris or sediment to a depth of 2" above the flow line or outlet elevation, it must be removed. All removed sediment must be placed in an appropriate upland disposal site approved by the City of Franklin and stabilized (grass cover) to prevent sediment from washing back into the basin or removed and disposed of offsite following all local and state regulations.
7. The storm water management basins are bio-filter basins designed to filter pollutants in an engineered soil media. If the bio-filter drawdown is slower than 24 hours for surface water to drain down then they need to be cleaned; if they still do not drain down, media will be required to be replaced. Stone and geotextile surface cover may also require replacement with cleaning or media replacement.
8. No grading or filling of the basin or berm other than for sediment removal is allowed, unless otherwise approved by the City of Franklin .
9. Periodic mowing of the grass swales will encourage rigorous grass cover and allow better inspections for erosion. Waiting until after August 1 will avoid disturbing nesting wildlife.
10. Any other repair or maintenance needed to ensure the continued function of the storm water practices or as ordered by the City of Franklin under the provisions listed in this Agreement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
W239 N1812 ROCKWOOD DRIVE • PO BOX 1607 • WAUKESHA, WI 53187-1607• TELEPHONE (262) 547-6721

Serving the Counties of:
KENOSHA
MILWAUKEE
OZAUKEE
RACINE
WALWORTH
WASHINGTON
WAUKESHA

March 12, 2024

Mr. Mark R. Ellena, P.E.
Ellena Engineering Consultants, LLC
700 Pilgrim Parkway, Suite 100
Elm Grove, WI 53122

SEWRPC No. SSE 015-24

Dear Mr. Ellena:

This is to acknowledge receipt of your letter of February 10, 2024, requesting the Commission staff to review and comment on a proposed public sanitary sewer extension to serve five proposed townhome buildings for the proposed "Lake Grove Place" multi-family residential development, located at 3709 West College Avenue in the City of Franklin, Milwaukee County. Such review comments are required by Section NR 110.08(4) of the *Wisconsin Administrative Code*.

From a proposed public sanitary sewer manhole (SANMH1) located within the southern right-of-way of West College Avenue (at the northern edge of the development site), a proposed public sanitary sewer will extend 561 feet southward within an easement in a proposed unnamed private road to a proposed manhole (SANMH3), to serve the proposed development.

The Commission staff have reviewed this matter and have determined that the proposed public sanitary sewer extension is in conformance with, and would serve to implement, the regional plans prepared and adopted by the Commission as the areawide water quality management planning agency.

The area to be served by the sewer extension does not include lands identified in regional plans as primary environmental corridor, secondary environmental corridor, or isolated natural resource area. We note, however, that land located immediately south of, and adjacent to, the project area has been identified as secondary environmental corridor (SEC), such SEC consisting of wetlands, 1-percent annual probability (100-year recurrence interval) floodplain, riparian buffer associated with an unnamed intermittent stream, and a natural area of local significance (Grobschmidt Park Wetlands and Upland Woods).

Construction erosion control and post-construction stormwater management measures for the development area should be implemented as required under Chapter NR 151 and local ordinances.

Please include a copy of this letter with your submittal of plans and specifications for the subject sewer extension to the Wisconsin Department of Natural Resources.

Should you have any questions concerning this matter, please do not hesitate to contact us.

Sincerely,

Benjamin R. McKay, AICP
Deputy Director

BRM/JED/DPH/nkk
#272023 – SSE 015-24

cc: Mr. Regulo Martinez-Montilva, Principal Planner, City of Franklin

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
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Serving the Counties of:
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WASHINGTON
WAUKESHA

March 12, 2024

Mr. Mark R. Ellena, P.E.
Ellena Engineering Consultants, LLC
700 Pilgrim Parkway, Suite 100
Elm Grove, WI 53122

Re: SEWRPC No. PSC-24-015

Dear Mr. Ellena:

This is to acknowledge receipt of your letter of February 10, 2024, requesting the Commission staff to review and comment on five proposed private building sewers which would connect to a proposed public sanitary sewer to be located within an easement in a proposed unnamed private road, within a proposed development site in the City of Franklin, Milwaukee County. The five private building sewers would serve five proposed townhome buildings for the proposed "Lake Grove Place" multi-family residential development located at 3709 West College Avenue. Such review comments are required by Section SPS 382.20(4) of the *Wisconsin Administrative Code*.

The Commission staff have reviewed this matter and have determined that the proposed private building sewers are in conformance with, and would serve to implement, the regional plans prepared and adopted by the Commission as the areawide water quality management planning agency.

The area to be served by the sewer extension does not include lands identified in regional plans as primary environmental corridor, secondary environmental corridor, or isolated natural resource area. We note, however, that land located immediately south of, and adjacent to, the project area has been identified as secondary environmental corridor (SEC), such SEC consisting of wetlands, 1-percent annual probability (100-year recurrence interval) floodplain, riparian buffer associated with an unnamed intermittent stream, and a natural area of local significance (Grobschmidt Park Wetlands and Upland Woods).

Construction erosion control and post-construction stormwater management measures for the development area should be implemented as required under Chapter NR 151 and local ordinances.

Please include a copy of this letter with your submittal of plans and specifications for these building sewers to the Wisconsin Department of Safety and Professional Services.

Should you have any questions concerning this matter, please do not hesitate to contact us.

Sincerely,

Benjamin R. McKay, AICP
Deputy Director

BRM/JED/DPH/nkk
#272029 - PSC-24-015

cc: Mr. Regulo Martinez-Montilva, Principal Planner, City of Franklin

From: Mark Ellena
To: Greg Schumacher
Cc: Ron Issleb
Subject: Fw: PERMITS FOR ACCESS AND EXCAVATION IN COLLEGE AVE - FRANKLIN
Date: Monday, March 25, 2024 8:00:19 PM
Attachments: image002.png

Greg

Here are the Milwaukee Water department comments.
I will send in the plan for review.

Sincerely,
Mark

Mark R. Ellena, PE
Ellena Engineering Consultants, LLC
700 Pilgrim Parkway, Suite 100
Elm Grove, WI 53122
(262) 719-6183
Email: mellena@eeceng.com
Website: www.ellenaengineering.com

VALUE ENGINEERING BY DESIGN

From: Iwen, Joshua <jiwen@milwaukee.gov>
Sent: Tuesday, February 13, 2024 12:00 PM
To: Mark Ellena <Mellena@eeceng.com>; Dean Kothrade <Dean.Kothrade@milwaukeecountywi.gov>; permits@milwaukeecountywi.gov <permits@milwaukeecountywi.gov>
Cc: Gregory Schumacher <greg@cityscapearchitecture.com>; Ron Issleb <ron@khalek.co>; Kelly Frazier <Kelly@cityscapearchitecture.com>; Moore, Thomas <Thomas.A.Moore@milwaukee.gov>
Subject: RE: PERMITS FOR ACCESS AND EXCAVATION IN COLLEGE AVE - FRANKLIN

Good morning Mark.

Thanks for reaching out to MWW and providing the plans.

Initial MWW review comments for development at 3709 W. College Av.:

- MWW has a 12” water main in W. College Av. available to serve the subject development.
- Any proposed water mains or fire protection shown on the development site will be private.
    - Due to multiple buildings and potential on-site hydrant fire protection required for this

development, a meter pit would likely be required.

- Milwaukee Development Center (286-8210; https://city.milwaukee.gov/DNS/permits) or DNS Plumbing Plan Exam (286-8208) can be contacted for the following:
  - water branch and service requirements
  - meter pit requirements
  - fire protection requirements
  - private fire hydrants and/or building fire department hook ups
  - water permitting
- Tapping means/methods would need to be coordinated with DNS Plan Exam (Milwaukee Development Center) during the permitting process.
- If needed for development plumbing calculations, information regarding system water pressure or nearby flow tests on water system may be requested from watflowtest@milwaukee.gov

I hope this information helps. Have a good day.
-Josh

Joshua Iwen, P.E.
Management Engineer – Mains
Milwaukee Water Works
Phone: (414) 286-3640
Milwaukee.gov/water | @MKEWaterWorks

From: Mark Ellena <Mellena@eeceng.com>
Sent: Tuesday, February 13, 2024 10:16 AM
To: Dean Kothrade <Dean.Kothrade@milwaukeecountywi.gov>; permits@milwaukeecountywi.gov; Iwen, Joshua <jiwen@milwaukee.gov>
Cc: Gregory Schumacher <greg@cityscapearchitecture.com>; Ron Issleb <ron@khalek.co>; Kelly Frazier <Kelly@cityscapearchitecture.com>
Subject: PERMITS FOR ACCESS AND EXCAVATION IN COLLEGE AVE - FRANKLIN

Hello Dean & Joshua,

We are currently working with the City of Franklin on a new Residential development located at 3709 W College Ave.
Please see the link to our plan set.

Lake Grove Place_FULL CIVIL SET_01-05-24 3.pdf

We are looking for detailed information on how to obtain a County driveway access and excavation permits; as well as, City of Milwaukee Watermain extension permits in College Ave for our project.

Please advise.

Sincerely,
Mark

Mark R. Ellena, PE
Ellena Engineering Consultants, LLC
700 Pilgrim Parkway, Suite 100
Elm Grove, WI 53122
(262) 719-6183
Email: mellena@eeceng.com
Website: www.ellenaengineering.com

VALUE ENGINEERING BY DESIGN

From: Greg Schumacher <greg@cityscapearchitecture.com>
Sent: Tuesday, February 13, 2024 9:47 AM
To: Manzur Hassan Khan <manzur.hassan.khan@gmail.com>; Ron Issleb <ron@khalek.co>; Kelly Frazier <Kelly@cityscapearchitecture.com>; Mark Boogaard - Beeler Construction, Inc. (mboogaard@beelerconstruction.com) <mboogaard@beelerconstruction.com>; Mark Ellena <Mellena@eeceng.com>
Subject: NOTES FROM MEETING TODAY

CITYSCAPE ARCHITECTURE

Gregory A.Schumacher
13700 West Greenfield Avenue
Brookfield, WI 53005
262-370-5865
www.cityscapearchitecture.com

Enterprise Lighting Ltd
Manufacturers' Representative

Transmittal

Enterprise Lighting, LTD.
2007 Pewaukee Rd.
Waukesha WI 53188
Phone: (262) 953-2700
From: Jen Solveson

Project **College Avenue Townhomes**
Quote# ELL23-126702
Location
To Precision Electrical Contractors
814 Buena Vista Avenue
Waukesha WI 53188
Contact: Teddy Hahlen

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- ☐ Drawings
- ☐ Prints
- ☐ Plans
- ☐ Specifications
- ☐ Information
- ☐ Submittals

Other:

THESE ARE TRANSMITTED FOR:

- ☐ Prior Approval
- ☐ Approval
- ☐ Approval as Submitted
- ☐ Approval as Noted
- ☐ Resubmittal for Approval
- ☐ Corrections
- ☐ Your Use
- ☐ Review and Comment
- ☐ Record

Bids due on:
Other:

Qty	Type	MFG	Part
9	OB3	Lithonia Exterior	RSX1 LED P1 40K R3 MVOLT SPA DDBXD
9	POLE1	Antique Street Lighting	SSS 18 4C DM19AS DDBXD

RSX1 LED
Area Luminaire

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

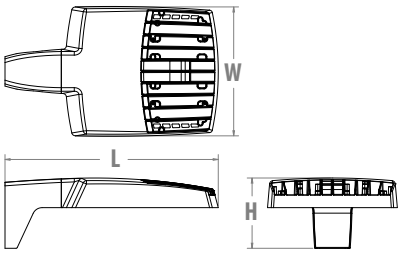
EPA (ft²@0°): 0.57 ft² (0.05 m²)

Length: 21.8" (55.4 cm) (SPA mount)

Width: 13.3" (33.8 cm)

Height: 3.0" (7.6 cm) Main Body 7.2" (18.4 cm) Arm

Weight (SPA mount): 22.0 lbs (10.0 kg)



Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX1 delivers 7,000 to 17,000 lumens allowing it to replace 70W to 400W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Design Select options indicated by this color background.

Ordering Information

EXAMPLE: RSX1 LED P4 40K R3 MVOLT SPA DDBXD

RSX1 LED

Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting
RSX1 LED	P1	30K 3000K	R2 Type 2 Wide	MVOLT (120V-277V) [2]	SPA Square pole mounting (3.0" min. SQ pole for 1 at 90°, 3.5" min. SQ pole for 2, 3, 4 at 90°)
	P2	40K 4000K	R3 Type 3 Wide	HVOLT (347V-480V) [3]	RPA Round pole mounting (3.2" min. dia. RND pole for 2, 3, 4 at 90°, 3.0" min. dia. RND pole for 1 at 90°, 2 at 180°, 3 at 120°)
	P3	50K 5000K	R3S Type 3 Short	XVOLT (277V-480V) [4]	MA Mast arm adaptor (fits 2-3/8" OD horizontal tenon)
	P4		R4 Type 4 Wide	(use specific voltage for options as noted)	IS Adjustable slipfitter (fits 2-3/8" OD tenon) [6]
			R4S Type 4 Short	120 [3] 277 [5]	WBA Wall bracket [1]
			R5 Type 5 Wide [1]	208 [3] 347 [5]	WBASC Wall bracket with surface conduit box
			R5S Type 5 Short [1]	240 [3] 480 [5]	AASP Adjustable tilt arm square pole mounting [6]
			AFR Automotive Front Row		AARP Adjustable tilt arm round pole mounting [6]
			AFRR90 Automotive Front Row Right Rotated		AAWB Adjustable tilt arm with wall bracket [6]
			AFRL90 Automotive Front Row Left Rotated		AAWSC Adjustable tilt arm wall bracket and surface conduit box [6]

Options

Shipped Installed

HS	House-side shield [7]
PE	Photocontrol, button style [8,9]
PER7	Seven-wire twist-lock receptacle only (no controls) [9,10,11]
SF	Single fuse (120, 277, 347) [5]
DF	Double fuse (208, 240, 480) [5]
SPD20KV	20KV Surge pack (10KV standard)
FAO	Field adjustable output [9]
DMG	0-10V dimming extend out back of housing for external control (control ordered separate) [9]

Shipped Installed

***Standalone and Networked Sensors/Controls (factory default settings, see table page 9)**

NLTAIR2 PIRHN	nLight AIR generation 2, with Networked, Bi-Level motion/ambient sensor [9,12,13,14]
BAA	Buy America(n) Act Compliant
CCE	Coastal Construction [15]

*Note: NLTAIR2 PIRHN with nLight Air can be used as a standalone or networked solution. Sensor coverage pattern is affected when luminaire is tilted.

Shipped Separately (requires some field assembly)

EGS	External glare shield [7]
EGFV	External glare full visor (360° around light aperture) [7]
BS	Bird spikes [16]

Finish

DDBXD	Dark Bronze
DBLXD	Black
DNAXD	Natural Aluminum
DWHXD	White
DDBTXD	Textured Dark Bronze
DBLBXD	Textured Black
DNATXD	Textured Natural Aluminum
DWHGXD	Textured White

Ordering Information

Accessories
Ordered and shipped separately.

RSX1HS	RSX1 House side shield (includes 1 shield)
RSX1HSAFRR U	RSX1 House side shield for AFR rotated optics (includes 1 shield)
RSX1EGS (FINISH) U	External glares hield (specify finish)
RSX1EGFV (FINISH) U	External glare full visor (specify finish)
RSXRPA (FINISH) U	RSX Universal round pole adaptor plate (specify finish)
RSXWBA (FINISH) U	RSX WBA wall bracket (specify finish) [1]
RSXSCB (FINISH) U	RSX Surface conduit box (specify finish, for use with WBA, WBA not included)
DLL127F 1.5 JU	Photocell -SSL twist-lock (120-277V) [17]
DLL347F 1.5 CUL JU	Photocell -SSL twist-lock (347V) [17]
DLL480F 1.5 CUL JU	Photocell -SSL twist-lock (480V) [17]
DSHORT SBK U	Shorting cap [17]

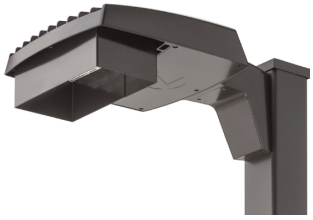
NOTES

1 Any Type 5 distribution, is not available with WBA.
2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
4 XVOLT driver not available with P1 or P2. XVOLT driver operates on any line voltage from 277V-480V (50/60 Hz). XVOLT not available with fusing (SF or DF) and not available with PE.
5 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6 Maximum tilt is 90° above horizontal.
7 It may be ordered as an accessory.
8 Requires MVOLT or 347V.
9 Two or more of the following options cannot be combined including PE, DMG, PER7, FAO and NLTAIR2 PIRHN. (Exception: PE and FAO can be combined; also PE and DMG can be combined.)
10 Compatible with standard twist-lock photocells for dusk to dawn operation or advanced control nodes that provide 0-10V dimming signals. Wire 4/Wire 5 wired to dimming leads on driver. Wire6/Wire7 capped inside luminaire. Twistlock photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
11 For units with option PER7, the mounting must be restricted to +/- 45° from horizontal aim per ANSI C136.10-2010.
12 Must be ordered with PIRHN.
13 Requires MVOLT or HVOLT.
14 Must be ordered with NLTAIR2. For additional information on PIRHN visit here.
15 CCE option not available with WBA, WBASC, AASP, AARP, AAWB, AAWBSC, EGS, EGFV and BS.
16 Must be ordered with fixture for factory pre-drilling.
17 Requires luminaire to be specified with PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

External Shields

House Side Shield

External Glare Shield

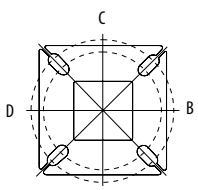


External 360 Full Visor

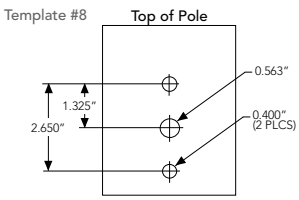
Pole/Mounting Informatiion

Accessories including bullhorns, cross arms and other adpaters are available under the accessories tab at Lithonia's Outdoor Poles and Arms product page. Click here to visit Accessories.

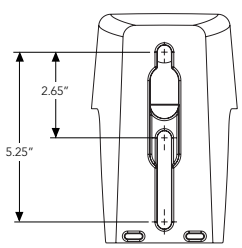
HANDHOLE ORIENTATION



RSX POLE DRILLING



RSX STANDARD ARM & ADJUSTABLE ARM



Round Tenon Mount - Pole Top Slipfitters

Tenon O.D.	RSX Mounting	Single	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2 - 3/8"	RPA, AARP	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5 490
2 - 7/8"	RPA, AARP	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	RPA, AARP	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Drill/Side Location by Configuration Type

Drilling Template	Mounting Option	Single	2 @ 180	2 @ 90	3 @ 120	3 @ 90	4 @ 90
	Head Location	Side B	Side B & D	Side B & C	Round Pole Only	Side B, C & D	Side A, B, C & D
#8	**Drill Nomenclature**	DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS

RSX1 - Luminaire EPA

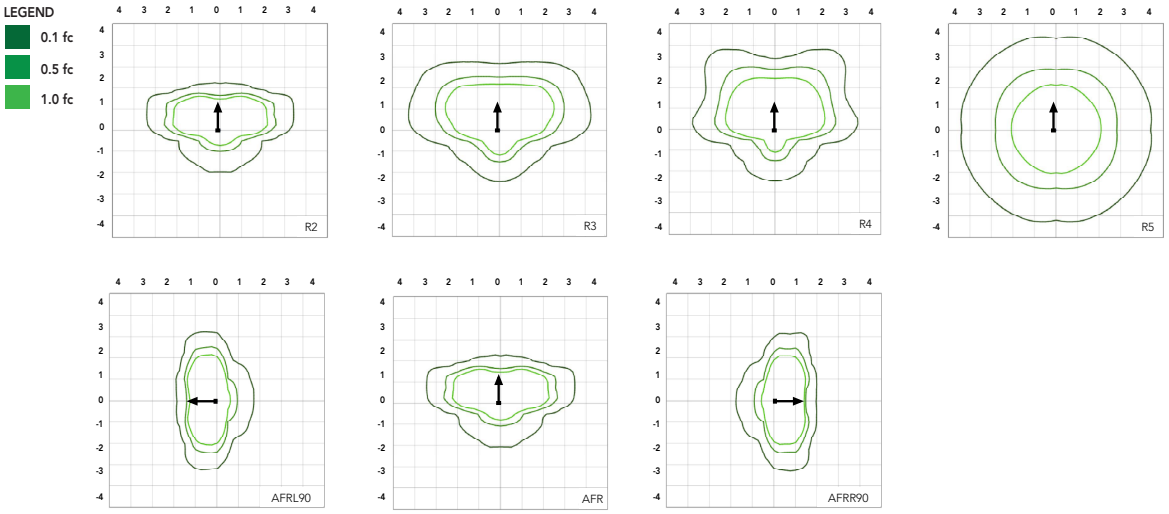
*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration		Single	2 @ 90	2 @ 180	3 @ 90	3 @ 120	4 @ 90	2 Side by Side	3 Side by Side	4 Side by Side
Mounting Type	**Tilt**									
SPA - Square Pole Adaptor	0 °	0.57	1.03	1.05	1.52	1.36	2.03	1.31	1.7	2.26
RPA - Round Pole Adaptor	0 °	0.62	1.08	1.15	1.62	1.46	2.13	1.36	1.8	2.36
MA - Mast Arm Adaptor	0 °	0.49	0.95	0.89	1.36	1.2	1.87	1.23	1.54	2.1
IS - Integral Slipfitter AASP/AARP - Adjustable Arm Square/Round Pole	0 °	0.57	1.03	1.05	1.52	1.36	2.03	1.31	1.7	2.26
	10°	0.68	1.34	1.33	2	1.74	2.64	1.35	2.03	2.71
	20°	0.87	1.71	1.73	2.56	2.26	3.42	1.75	2.62	3.49
	30°	1.24	2.19	2.3	3.21	2.87	4.36	2.49	3.73	4.97
	40°	1.81	2.68	2.98	3.85	3.68	5.30	3.62	5.43	7.24
	45°	2.11	2.92	3.44	4.2	4.08	5.77	4.22	6.33	8.44
	50°	2.31	3.17	3.72	4.52	4.44	6.26	4.62	6.94	9.25
	60°	2.71	3.66	4.38	5.21	5.15	7.24	5.43	8.14	10.86
	70°	2.78	3.98	4.54	5.67	5.47	7.91	5.52	8.27	11.03
	80°	2.76	4.18	4.62	5.97	5.76	8.31	5.51	8.27	11.03
	90°	2.73	4.25	4.64	6.11	5.91	8.47	5.45	8.18	10.97

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's RSX Area homepage.

Isofootcandle plots for the RSX1 LED P4 40K. Distances are in units of mounting height (20').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

Ambient	Ambient	Lumen Multiplier
0°C	32°F	1.05
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97
45°C	113°F	0.96
50°C	122°F	0.95

Electrical Load

		Current (A)					
Performance Package	System Watts (W)	120V	208V	240V	277V	347V	480V
P1	51W	0.42	0.25	0.21	0.19	0.14	0.11
P2	72W	0.60	0.35	0.30	0.26	0.21	0.15
P3	109W	0.91	0.52	0.45	0.39	0.31	0.23
P4	133W	1.11	0.64	0.55	0.48	0.38	0.27

Projected LED Lumen Maintenance

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.97	>0.95	>0.92

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

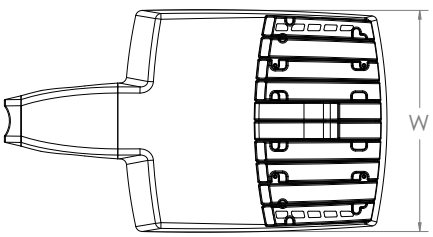
Performance Package	System Watts	Distribution. Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	51W	R2	6,482	1	0	1	126	7,121	1	0	1	139	7,121	1	0	1	139
		R3	6,459	1	0	2	127	7,096	1	0	2	139	7,096	1	0	2	139
		R3S	6,631	1	0	1	129	7,286	1	0	2	142	7,286	1	0	2	142
		R4	6,543	1	0	2	128	7,189	1	0	2	141	7,189	1	0	2	141
		R4S	6,313	1	0	1	124	6,936	1	0	1	136	6,936	1	0	1	136
		R5	6,631	3	0	2	130	7,286	3	0	2	143	7,286	3	0	2	143
		R5S	6,807	3	0	1	133	7,479	3	0	1	147	7,479	3	0	1	147
		AFR	6,473	1	0	1	127	7,112	1	0	1	139	7,112	1	0	1	139
		AFRR90	6,535	2	0	2	127	7,179	2	0	2	140	7,179	2	0	2	140
		AFRL90	6,562	2	0	1	128	7,210	2	0	2	140	7,210	2	0	2	140
P2	72W	R2	8,991	2	0	1	123	9,878	2	0	1	135	9,878	2	0	1	135
		R3	8,959	2	0	2	124	9,843	2	0	2	137	9,843	2	0	2	137
		R3S	9,198	2	0	2	126	10,106	2	0	2	139	10,106	2	0	2	139
		R4	9,077	2	0	2	126	9,972	2	0	2	139	9,972	2	0	2	139
		R4S	8,757	1	0	2	122	9,622	2	0	2	134	9,622	2	0	2	134
		R5	9,198	4	0	2	128	10,106	4	0	2	140	10,106	4	0	2	140
		R5S	9,443	3	0	1	131	10,374	3	0	1	144	10,374	3	0	1	144
		AFR	8,979	2	0	1	125	9,865	2	0	1	137	9,865	2	0	1	137
		AFRR90	9,064	3	0	2	124	9,959	3	0	2	137	9,959	3	0	2	137
		AFRL90	9,102	3	0	2	125	10,001	3	0	2	137	10,001	3	0	2	137
P3	109W	R2	12,808	2	0	1	117	14,072	2	0	2	129	14,072	2	0	2	129
		R3	12,763	2	0	2	117	14,023	2	0	2	129	14,023	2	0	2	129
		R3S	13,104	2	0	2	120	14,397	2	0	2	132	14,397	2	0	2	132
		R4	12,930	2	0	2	119	14,206	2	0	2	130	14,206	2	0	2	130
		R4S	12,475	2	0	2	114	13,707	2	0	2	126	13,707	2	0	2	126
		R5	13,104	4	0	2	120	14,397	4	0	2	132	14,397	4	0	2	132
		R5S	13,452	3	0	2	123	14,779	3	0	2	136	14,779	3	0	2	136
		AFR	12,791	2	0	1	117	14,053	2	0	2	129	14,053	2	0	2	129
		AFRR90	12,913	3	0	3	118	14,187	3	0	3	130	14,187	3	0	3	130
		AFRL90	12,967	3	0	2	118	14,247	3	0	3	130	14,247	3	0	3	130
P4	133W	R2	14,943	2	0	2	112	16,417	2	0	2	123	16,417	2	0	2	123
		R3	14,890	2	0	3	112	16,360	2	0	3	123	16,360	2	0	3	123
		R3S	15,287	2	0	2	115	16,796	2	0	2	126	16,796	2	0	2	126
		R4	15,085	2	0	3	113	16,574	2	0	3	125	16,574	2	0	3	125
		R4S	14,554	2	0	2	109	15,991	2	0	2	120	15,991	2	0	2	120
		R5	15,287	4	0	2	115	16,796	4	0	2	126	16,796	4	0	2	126
		R5S	15,693	4	0	2	118	17,242	4	0	2	130	17,242	4	0	2	130
		AFR	14,923	2	0	2	112	16,395	2	0	2	123	16,395	2	0	2	123
		AFRR90	15,065	3	0	3	113	16,551	3	0	3	124	16,551	3	0	3	124
		AFRL90	15,128	3	0	3	114	16,621	3	0	3	125	16,621	3	0	3	125

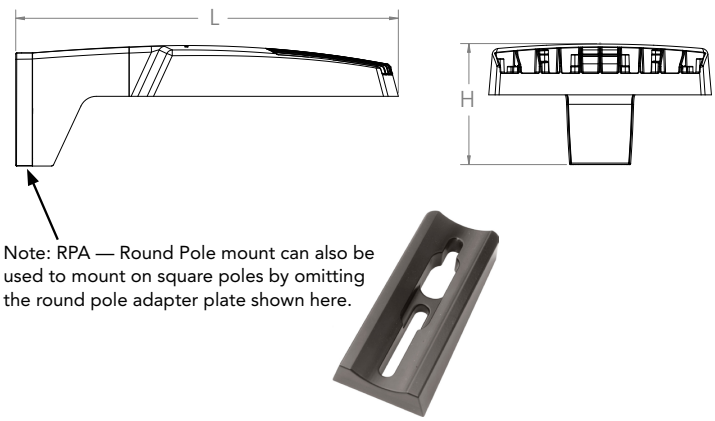
Dimensions & Weights

Luminaire Weight by Mounting Type

Mounting Configuration	Total Luminaire Weight
SPA	22 lbs
RPA	24 lbs
MA	22 lbs
WBA	25 lbs
WBASC	28 lbs
IS	25 lbs
AASP	25 lbs
AARP	27 lbs
AAWB	28 lbs
AAWSC	31 lbs

RSX1 with Round Pole Adapter (RPA)

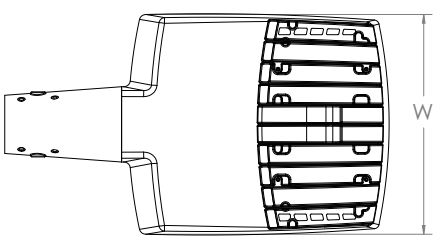


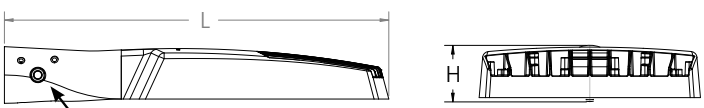


Note: RPA — Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.

Length: 22.8″ (57.9 cm)
Width: 13.3″ (33.8 cm)
Height: 3.0″ (7.6 cm) Main Body
7.2″ (18.4 cm) Arm

RSX1 with Mast Arm Adapter (MA)

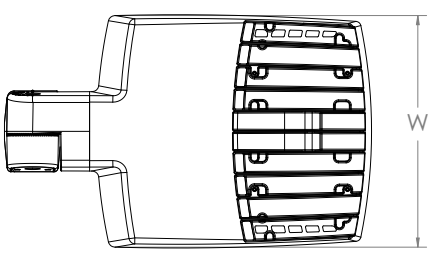


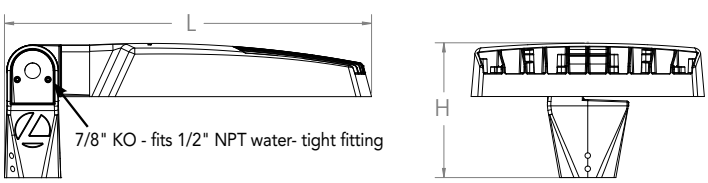


7/16" locking thru bolt/nut provided

Length: 23.2″ (59.1 cm)
Width: 13.3″ (33.8 cm)
Height: 3.0″ (7.6 cm) Main Body
3.5″ (8.9 cm) Arm

RSX1 with Adjustable Slipfitter (IS)



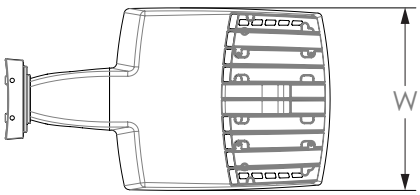


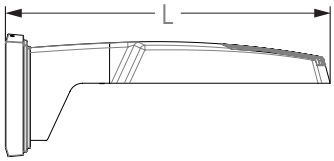
7/8" KO - fits 1/2" NPT water- tight fitting

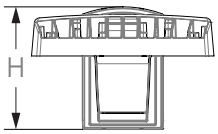
Length: 20.7″ (52.7 cm)
Width: 13.3″ (33.8 cm)
Height: 3.0″ (7.6 cm) Main Body
7.6″ (19.3 cm) Arm

Dimensions

RSX1 with Wall Bracket (WBA)

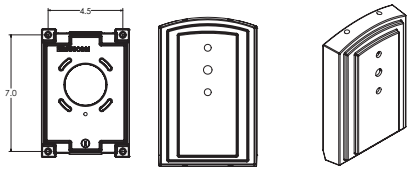




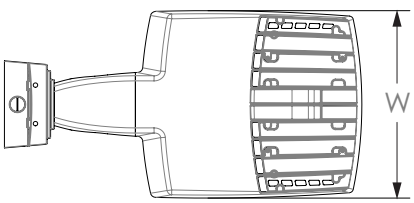


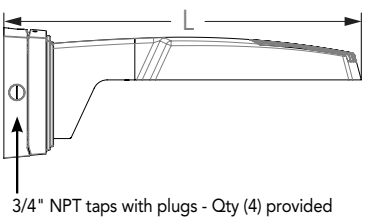
Length: 23.6" (59.9 cm)
Width: 13.3" (33.8 cm)
Height: 3.0" (7.6 cm) Main Body
8.9" (22.6 cm) Arm

Wall Bracket (WBA) Mounting Detail

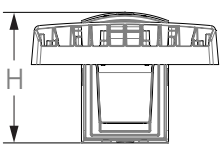


RSX1 with Wall Bracket with Surface Conduit Box (WBASC)



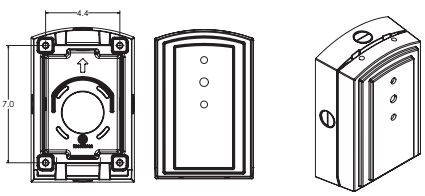


3/4" NPT taps with plugs - Qty (4) provided



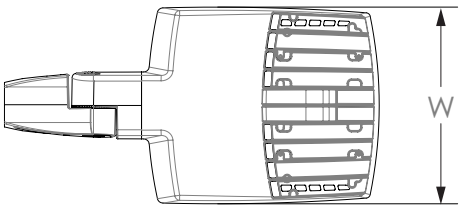
Length: 25.3" (64.3 cm)
Width: 13.3" (33.8 cm)
Height: 3.0" (7.6 cm) Main Body
9.2" (23.4 cm) Arm

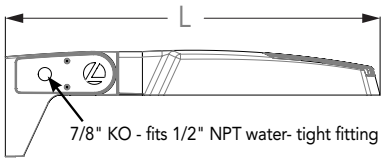
Surface Conduit Box (SCB) Mounting Detail

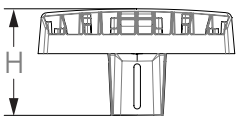


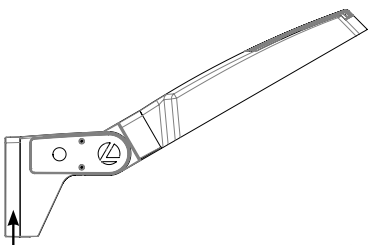
Dimensions

RSX1 with Adjustable Tilt Arm - Square or Round Pole (AASP or AARP)







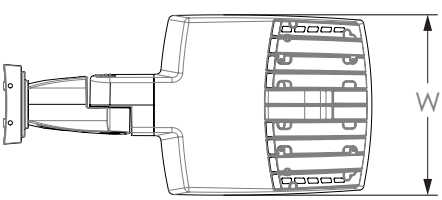


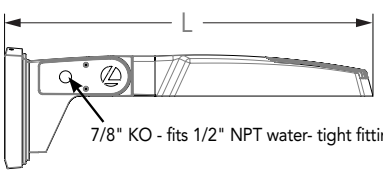
Length: 25.3" (65.3 cm) **AASP**
26.3" (66.8 cm) **AARP**
Width: 13.3" (33.8 cm)
Height: 3.0" (7.6 cm) Main Body
7.2" (18.2 cm) Arm

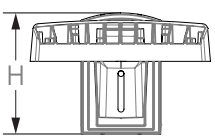
NOTE:
RPA - Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.

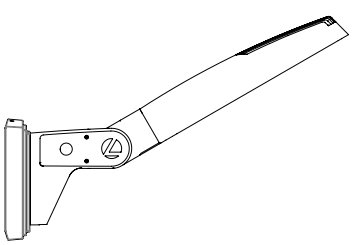
Notes
AASP: Requires 3.0" min. square pole for 1 at 90°. Requires 3.5" min. square pole for mounting 2, 3, 4 at 90°.
AARP: Requires 3.2" min. dia. round pole for 2, 3, 4 at 90°. Requires 3.0" min. dia. round pole for mounting 1 at 90°, 2 at 180°, 3 at 120°.

RSX1 with Adjustable Tilt Arm with Wall Bracket (AAWB)



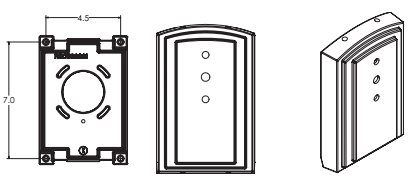






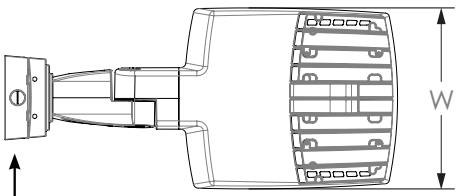
Length: 27.1" (68.8 cm)
Width: 13.3" (33.8 cm)
Height: 3.0" (7.6 cm) Main Body
8.9" (22.6 cm) Arm

Wall Bracket (WBA) Mounting Detail

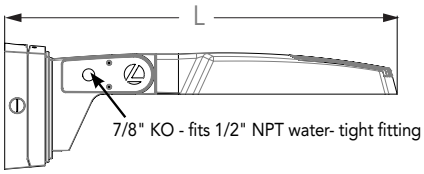


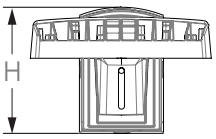
Dimensions

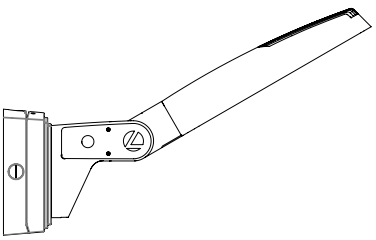
RSX1 with Adjustable Tilt Arm with Wall Bracket and Surface Conduit Box (AAWSC)



3/4" NPT taps with plugs - Qty (4) provided

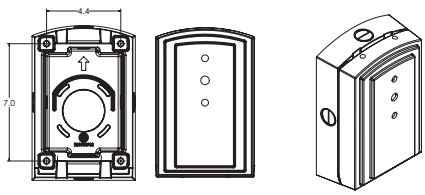




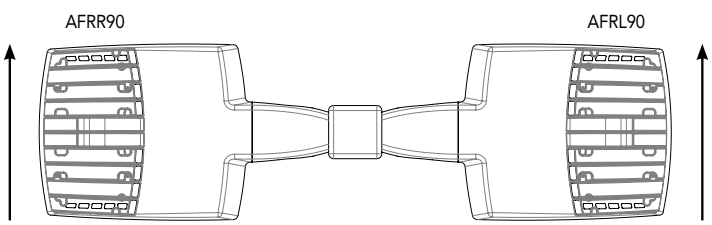


Length: 28.8" (73.2 cm)
Width: 13.3" (33.8 cm)
Height: 3.0" (7.6 cm) Main Body
9.2" (23.4 cm) Arm

Surface Conduit Box (SCB) Mounting Detail



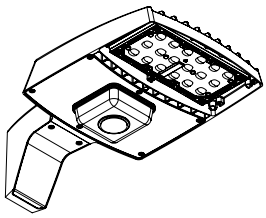
Automotive Front Row - Rotated Optics (AFRL90/R90)

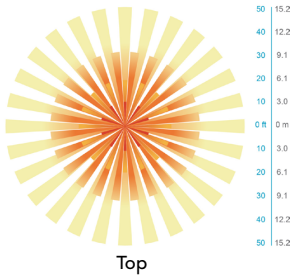


(Example: 2@180 - arrows indicate direction of light exiting the luminaire)

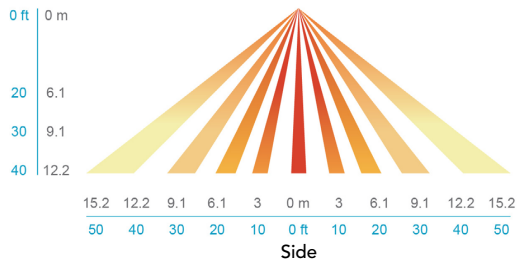
nLight Control - Sensor Coverage and Settings

nLight Sensor Coverage Pattern
NLTAIR2 PIRHN





Top



Side

Motion Sensor Default Settings - Option PIRHN						
Option	Dimmed State (unoccupied)	High Level (when occupied)	Photocell Operation	Dwell Time (occupancy time delay)	Ramp-up Time (from unoccupied to occupied)	Ramp-down Time (from occupied to unoccupied)
NLTAIR2 PIRHN	Approx. 30% Output	100% Output	Enabled @ 1.5FC	7.5 minutes	3 seconds	5 minutes

*Note: NLTAIR2 PIRHN default settings including photocell set-point, high/low dim rates, and occupancy sensor time delay are all configurable using the Clairity Pro App. Sensor coverage pattern shown with luminaire at 0°. Sensor coverage pattern is affected when luminaire is titled.

FEATURES & SPECIFICATIONS

INTENDED USE
The RSX LED area family is designed to provide a long-lasting, energy-efficient solution for the one-for-one replacement of existing metal halide or high pressure sodium lighting. The RSX1 delivers 7,000 to 17,000 lumens and is ideal for replacing 70W to 400W HID pole-mounted luminaires in parking lots and other area lighting applications.

CONSTRUCTION
The RSX LED area luminaire features a rugged die-cast aluminum main body that uses heat-dissipating fins and flow-through venting to provide optimal thermal management that both enhances LED performance and extends component life. Integral "no drill" mounting arm allows the luminaire to be mounted on existing pole drillings, greatly reducing installation labor. The light engines and housing are sealed against moisture and environmental contaminants to IP66. The low-profile design results in a low EPA, allowing pole optimization. All mountings are rated for minimum 1.5 G vibration load per ANSI C136.31. 3G Mountings: Include SPA, RPA, MA, IS, AASP, and AARP rated for 3G vibration. 1.5G Mountings: Include WBA, WBASC, AAWB and AAWSC rated for 1.5G vibration.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures superior adhesion as well as a minimum finish thickness of 3 mils. The result is a high-quality finish that is warrantied not to crack or peel.

COASTAL CONSTRUCTION (CCE)
ptional corrosion resistant construction is engineered with added corrosion rotection in materials and/or pre-treatment of base material under superŸurable paint. Provides additional corrosion protection for applications nearÜoastal areas. Finish is salt spray tested to over 5,000 hours per ASTM B117 with cribe rating of 10. Additional lead-times apply.

OPTICS
Precision acrylic refractive lenses are engineered for superior application efficiency, distributing the light to where it is needed most. Available in short and wide pattern distributions including Type 2, Type 3, Type 3S, Type 4, Type 4S, Type 5, Type 5S, AFR (Automotive Front Row), and AFR rotated AFRR90 and ARFL90.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs mounted on metal-core circuit boards and aluminum heat sinks to maximize heat dissipation. Light engines are IP66 rated. LED lumen maintenance is >L92/100,000 hours. CCT's of 3000K, 4000K and 5000K (minimum 70 CRI) are available. Fixtures ship standard with 0-10v dimming driver. Class 1 electronic drivers ensure system power factor >90% and THD <20%. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The RSX LED area luminaire has a wide assortment of control options. Dusk to dawn controls include MVOLT and 347V button-type photocells and NEMA twist-lock photocell receptacles.

nLIGHT AIR CONTROLS
The RSX LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing with photocontrol functionality and is suitable for mounting heights up to 40 feet. No commissioning is required when using factory default settings that provide basic stand-alone motion occupancy dimming that is switched on and off with a built-in photocell. See chart above for motion sensor default out-of-box settings. For more advanced wireless functionality, such as group dimming, nLight AIR can be commissioned using a smartphone and the easy-to-use CLAIRITY app. nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION
Integral "no-drill" mounting arm allows for fast, easy mounting using existing pole drillings. Select the "SPA" option for square poles and the "RPA" option to mount to round poles. Note, the RPA mount can also be used for mounting to square poles by omitting the RPA adapter plate. Select the "MA" option to attach the luminaire to a 2 3/8" horizontal mast arm or the "IS" option for an adjustable slipfitter that mounts on a 2 3/8" OD tenon. The adjustable slipfitter has an integral junction box and offers easy installation. Can be tilted up to 90° above horizontal. Additional mountings are available including a wall bracket, adjustable tilt arm for direct-to-pole and wall and a surface conduit box for wall mount applications.

LISTINGS
CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only. U.S. Patent No. D882, 146S

BUY AMERICAN ACT
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

Anchor Base Poles

SSS

SQUARE STRAIGHT STEEL

BAA

FEATURES & SPECIFICATIONS

INTENDED USE — **These specifications are for USA standards only.** Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION —

Pole Shaft: The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (11-gauge, 0.120"), or 50 KSI (7-gauge, 0.179"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly square in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: Options include 4" tenon top, drilled for side mount fixture, tenon with drilling (includes extra handhole) and open top. Side drilled and open top poles include a removable top cap.

Handhole: A reinforced handhole with grounding provision is provided at 18" from the base on side A. Positioning the handhole lower may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".

Base Cover: A durable ABS plastic two-piece full base cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE — All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH — Extra durable painted finish is coated with TGIC (Triglycidyl Isocyanurate) Polyester powder that meets 5A and 5B classifications of ASTM D3359. Powder-coat finishes include Dark Bronze, White, Black, and Natural Aluminum colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes.

BUY AMERICAN ACT — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.
Please refer to www.acuitybrands.com/buy-american for additional information.

INSTALLATION — **Do not** erect poles without having fixtures installed. Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates. If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage. Lithonia Lighting is not responsible for the foundation design.

WARRANTY — 1-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.

SSS Square Straight Steel Poles

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: SSS 20 5C DM19 DDBXD

SSS

Series	Nominal fixture mounting height	Nominal shaft base size/wall thickness[1]	Mounting[2]	Options	Finish
SSS	10'-39' (for 1/2 ft increments, add -6 to the pole height. **Ex:** 20-6 equals 20ft 6in.) (See technical information table for complete ordering information.) 18'	4C 4" 11g (0.120") 4G 4" 7g (0.179") 5C 5" 11g (0.120") 5G 5" 7g (0.179") 6G 6" 7g (0.179") (See technical information table for complete ordering information.)	Tenon mounting PT Open top (includes top cap) T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS) T35 4" O.D. (3-1/2" NPS) KAC/KAD/KSE/KSF/KVR/KVF Drill mounting[3] DM19 1 at 90° DM28 2 at 180° DM28 PL 2 at 180° with one side plugged DM29 2 at 90° DM39 3 at 90° DM49 4 at 90° CSX/DSX/RSX/AERIS™/OMERO™/KAX Drill mounting[3] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM39AS 3 at 90° DM49AS 4 at 90° RAD drill mounting[3] DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM39RAD 3 at 90° DM49RAD 4 at 90° ESX Drill mounting[3] DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90°	Shipped installed VD Vibration damper[4] HAxy Horizontal arm bracket (1 fixture)[5,6] FDLxy Festoon outlet less electrical[5,7] CPL12/xy 1/2" coupling[5] CPL34/xy 3/4" coupling[5] CPL1/xy 1" coupling[5] NPL12/xy 1/2" threaded nipple[5] NPL34/xy 3/4" threaded nipple[5] NPL1/xy 1" threaded nipple[5] EHHxy Extra handhole[5,8] STLHHC Steel handhole cover (standard is plastic, finish is smooth)[9] FBCSTL2PC 2 Piece steel base cover (standard is plastic)[9] IC Interior coating[10] L/AB Less anchor bolts (Include when anchor bolts are not needed) TP Tamper resistant handhole cover fasteners NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) UL UL listed with label (Includes NEC compliant cover) BAA Buy America(n) Act Compliant[11] VM/original order# Match pole to prior order or project[12]	Super durable paint colors DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DGCXD Charcoal gray DTGXD Tennis green DBRXD Bright red DSBXD Steel blue DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white Other finishes GALV Galvanized finish Architectural colors and special finishes[13] [PAINT] GALV Paint over galvanizing VP30 3 year warranty extension VP53 5 year warranty extension RAL#### Use designated Lithonia Lighting nomenclature in brochure Custom color Nomenclature assigned through Customer Care "Custom Color Process"

NOTES:

1. Wall thickness will be signified with a "C" (11 Gauge) or a "G" (7-Gauge) in nomenclature. "C" - 0.120" | "G" - 0.179".
2. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, specify as drilling option/tenon option. The combination includes a required extra handhole.
   Example: DM28/T20.
3. Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
4. On 4" and 5" poles, VD cannot be installed if provisions (EHH, FDL, NPL, CPL) are located higher than 2/3 of the pole's total height.
   Example: Pole height is 25ft, A provision cannot be placed above 16ft.
5. Specify location and orientation when ordering option.
   For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
   Example: 5ft = 5 and 20ft 3in = 20-3
   For "y": Specify orientation from handhole (A,B,C,D) Refer to the Handhole Orientation diagram below.
   Example: 1/2" coupling at 5' 8 ", orientation C = CPL12/5-8C
6. Horizontal arm is 18" x 2-3/8" O.D. tenon standard, with radius curve providing 12" rise and 2-3/8" O.D. If ordering two horizontal arm at the same height, specify with HAxyy.
   Example: HA20BD.
7. FDL does not come with GFCI outlet or handhole cover. These must be supplied by contractor or electrician.
8. Combination of tenon-top and drill mount includes extra handhole. EHH includes cover.
9. Plastic hand hole cover and base covers come standard with all poles. Items ship separately. Additional parts can be ordered as replacements.
10. Provides enhanced corrosion resistance. N/A with GALV.
11. Use when mill certifications are required.
12. Must add original order number. Not for replacement parts or post sales issues, contact tech support or post sales teams. VM is used to ensure poles match in appearance exactly from order to order, on a single project site. A common use case would be a multi-phase project with multiple orders.
    Example: VM/010-36784
13. Must be quoted through AQD. Finishes do not require RFA. RAL colors available are shown in "Architectural Colors brochure". Lead times may be extended up to 2 weeks due to paint procurement.

Accessories: *Order as separate catalog number.*

PL DT20	Plugs for ESX drillings
PL DT8	Plugs for DMxxAS drillings
FVD xxFT	Field installed vibration damper (snake style)

SSS Square Straight Steel Poles

TECHNICAL INFORMATION — EPA (ft^2) with 1.3 gust

Catalog Number	Nominal Shaft Length (ft.)*	Pole Shaft Size (Base in. x Top in. x ft.)	Wall thick (in)	Gauge	EPA (ft^2) with 1.3 gust						Approximate ship weight (lbs.)
					80 MPH	Max. weight	90 MPH	Max. weight	100 MPH	Max. weight	
SSS 10 4C	10	4.0 x 10.0	0.120"	11	30.6	765	23.8	595	18.9	473	75
SSS 12 4C	12	4.0 x 12.0	0.120"	11	24.4	610	18.8	470	14.8	370	90
SSS 14 4C	14	4.0 x 14.0	0.120"	11	19.9	498	15.1	378	11.7	293	100
SSS 16 4C	16	4.0 x 16.0	0.120"	11	15.9	398	11.8	295	8.9	223	115
SSS 18 4C	18	4.0 x 18.0	0.120"	11	12.6	315	9.2	230	6.7	168	125
SSS 20 4C	20	4.0 x 20.0	0.120"	11	9.6	240	6.7	167	4.5	150	140
SSS 20 4G	20	4.0 x 20.0	0.179"	7	14	350	11	275	8	200	198
SSS 20 5C	20	5.0 x 20.0	0.120"	11	17.7	443	12.7	343	9.4	235	185
SSS 20 5G	20	5.0 x 20.0	0.179"	7	28.1	703	21.4	535	16.2	405	265
SSS 25 4C	25	4.0 x 25.0	0.120"	11	4.8	150	2.6	100	1	50	170
SSS 25 4G	25	4.0 x 25.0	0.179"	7	10.8	270	7.7	188	5.4	135	245
SSS 25 5C	25	5.0 x 25.0	0.120"	11	9.8	245	6.3	157	3.7	150	225
SSS 25 5G	25	5.0 x 25.0	0.179"	7	18.5	463	13.3	333	9.5	238	360
SSS 30 4G	30	4.0 x 30.0	0.179"	7	6.7	168	4.4	110	2.6	65	295
SSS 30 5C	30	5.0 x 30.0	0.120"	11	4.7	150	2	50	--	--	265
SSS 30 5G	30	5.0 x 30.0	0.179"	7	10.7	267	6.7	167	3.9	100	380
SSS 30 6G	30	6.0 x 30.0	0.179"	7	19	475	13.2	330	9	225	520
SSS 35 5G	35	5.0 x 35.0	0.179"	7	5.9	150	2.5	100	--	--	440
SSS 35 6G	35	6.0 x 35.0	0.179"	7	12.4	310	7.6	190	4.2	105	540
SSS 39 6G	39	6.0 x 39.0	0.179"	7	7.2	180	3	75	--	--	605

NOTE: EPA values are based ASCE 7-93 wind map.
* For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

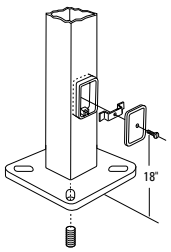
TECHNICAL INFORMATION — EPA (ft^2) WITH 3-SECOND GUST PER AASHTO 2013

Series	Mounting Height (ft)*	Shaft Base Size	90 MPH	Max. weight	100 MPH	Max. weight	110 MPH	Max. weight	120 MPH	Max. weight	130 MPH	Max. weight	140 MPH	Max. weight	150 MPH	Max. weight	Approximate ship weight (lbs.)
SSS	10	4C	20	500	16	400	13	325	10.5	263	8.5	213	7	175	6	150	75
SSS	12	4C	16	400	13	325	10	250	8	200	6.5	163	5	125	4	100	90
SSS	14	4C	13.5	338	10	250	7.5	188	6	150	4.5	113	3.5	88	2.5	63	100
SSS	16	4C	10.5	263	7.5	188	5.5	138	4	100	3	75	1.5	38	1	25	115
SSS	18	4C	8	200	5.5	138	4	100	2.5	63	1.5	38	0.5	13	-	-	125
SSS	18	4G	13	325	9.5	238	7	175	5	125	3.5	88	2.5	63	1.5	38	185
SSS	18	5C	13	325	9.5	238	6.5	163	4.5	113	3	75	1.5	38	.5	13	170
SSS	20	4C	6	150	4	100	2.5	63	1	25	-	-	-	-	-	-	140
SSS	20	4G	10.5	263	7.5	188	5.5	138	3.5	88	2	50	1	25			205
SSS	20	5C	10	250	7	175	4.5	113	2.5	63	1	25	-	-	-	-	185
SSS	20	5G	20	500	15	375	11.5	288	8.5	213	6	150	4.5	113	3	75	265
SSS	25	4C	2	50	0.5	13	-	-	-	-	-	-	-	-	-	-	170
SSS	25	4G	5.5	138	3	75	1.5	38	-	-	-	-	-	-	-	-	245
SSS	25	5C	4.5	113	2	50	-	-	-	-	-	-	-	-	-	-	225
SSS	25	5G	12	300	8.5	213	5.5	138	3	75	1.5	38	-	-	-	-	360
SSS	25	6G	19	475	13.5	338	9	225	5.5	138	3	75	1	25			445
SSS	30	4G	1.5	38	-	-	-	-	-	-	-	-	-	-	-	-	291
SSS	30	5C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265
SSS	30	5G	6.5	163	3.5	88	1	25	-	-	-	-	-	-	-	-	380
SSS	30	6G	11	275	6	150	2.5	63	-	-	-	-	-	-	-	-	520
SSS	35	5G	2	50	-	-	-	-	-	-	-	-	-	-	-	-	440
SSS	35	6G	4	100	-	-	-	-	-	-	-	-	-	-	-	-	540
SSS	39	6G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	605

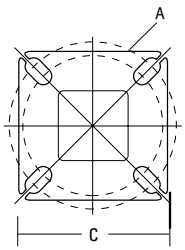
NOTE: AASHTO 2013 criteria is the most conservative existing EPA calculation. For poles not showing EPA values under AASHTO 2013, EPA values may exist under commercial criteria (see table above).
*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

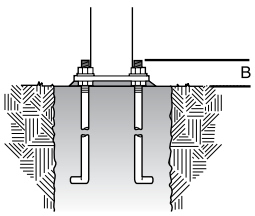
SSS Square Straight Steel Poles

BASE DETAIL

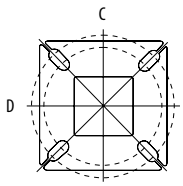


ANCHORAGE AND TEMPLATE INFORMATION								
Shaft base size	Bolt circle A	Bolt projection B	Base square C	Base plate thickness	Template description	Anchor bolt description	Bolt size (in. x in. x in.)	Anchor bolt and template description
4"C	8" – 9"	3.25"- 3.75"	8"- 8.25"	0.75"	ABTEMPLATE PJ50004	AB18-0	3/4 x 18 x 3	ABSSS-4C
4"G	8" – 9"	3.38"- 3.75"	8"- 8.25"	0.875"	ABTEMPLATE PJ50004	AB30-0	3/4 x 30 x 3	ABSSS-4G
5"	10" – 12"	3.5"- 4"	11"	1"	ABTEMPLATE PJ50010	AB36-0	1 x 36 x 4	ABSSS-5
6"	11" – 13"	4"- 4.50"	12.5"	1"	ABTEMPLATE PJ50011	AB36-0	1 x 36 x 4	N/A





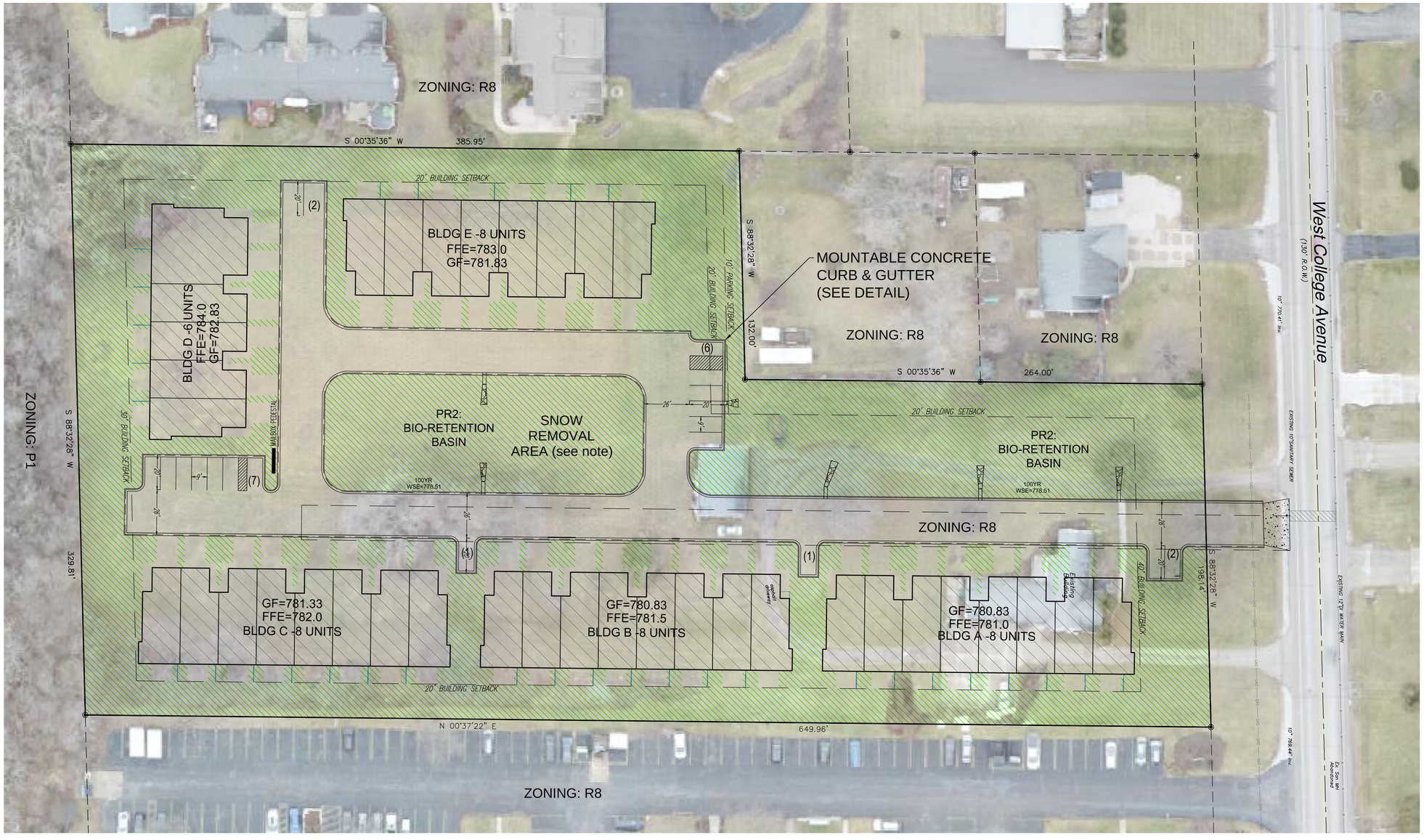
HANDHOLE ORIENTATION



Default DM19 is on side B.

IMPORTANT INSTALLATION NOTES:

- **Do not** erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.
- Bolt circles have +/- 1/2" tolerance.



SCALE: 1"=30'

SNOW REMOVAL AREA CALCULATION:

Total parking and access drive area = 33,650sf

Minimum snow removal area = 33,650 x 10% = 3,365sf

Snow removal area provide on site plan = 12,300sf > 3,365sf (ok)

PAVEMENT LEGEND:

STANDARD DUTY PAVEMENT
4" ASPHALT PAVEMENT
(2 LIFTS)
8" - 3/4" GRAVEL BASE

SITE DATA TABLE

	PROPOSED
PROPERTY AREA :	179,487 S.F. (4.12 Acres)
TOTAL BUILDING FLOOR AREA :	43,810 S.F.
FLOOR AREA RATIO :	43,810 / 179,487 = 24.4%
TOTAL PAVED SURFACE AREA (including concrete areas) :	47,453 S.F.
TOTAL OPEN AREA (GREEN SPACE):	88,224 S.F.
LANDSCAPE SURFACE AREA RATIO	88,224 / 179,487 = 49.2%
LOT COVERAGE RATIO	50.8%
TOTAL PARKING : REQUIRED 2.5 PER UNIT = 95	PROVIDED: 2 PER UNIT AND 19 ADDITIONAL ON SITE =95

DATE | DESCRIPTION

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eeceng.com

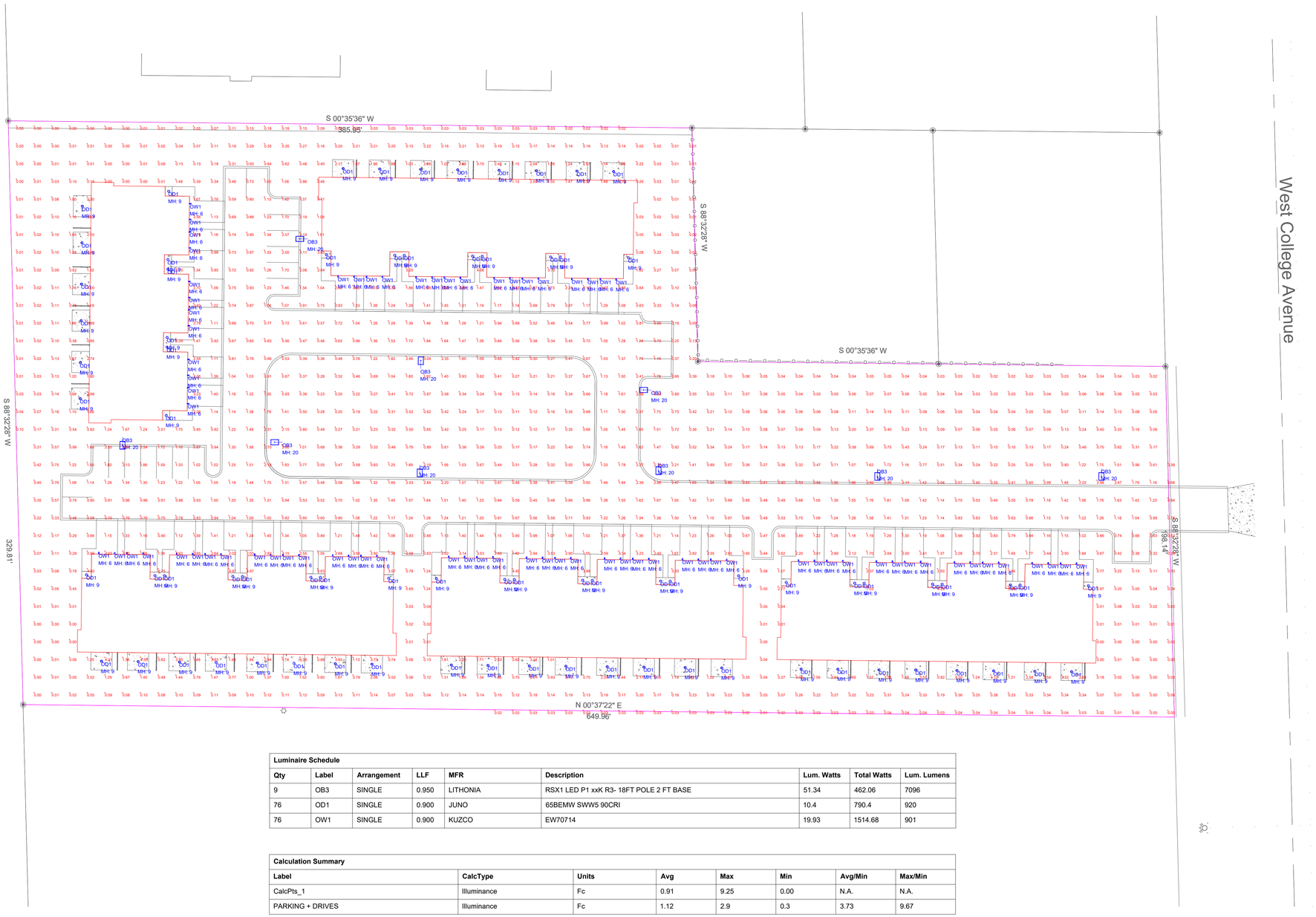
Lake Grove Place
CITY OF FRANKLIN, WI

SITE PLAN

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

DATE: 03-22-24
BY: MARK R. ELLENA,PE
SCALE: 1"=30'

SHEET NUMBER
C100



Luminaire Schedule								
Qty	**Label**	**Arrangement**	**LLF**	**MFR**	**Description**	**Lum. Watts**	**Total Watts**	**Lum. Lumens**
9	OB3	SINGLE	0.950	LITHONIA	RSX1 LED P1 xxK R3- 18FT POLE 2 FT BASE	51.34	462.06	7096
76	OD1	SINGLE	0.900	JUNO	65BEMW SWW5 90CRI	10.4	790.4	920
76	OW1	SINGLE	0.900	KUZCO	EW70714	19.93	1514.68	901

Calculation Summary							
Label	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
CalcPts_1	Illuminance	Fc	0.91	9.25	0.00	N.A.	N.A.
PARKING + DRIVES	Illuminance	Fc	1.12	2.9	0.3	3.73	9.67

ENTERPRISE
Lighting & Control

#	DATE	COMMENTS

REVISIONS

DRAWN BY : AD

DATE : APR 8, 2024

SCALE : 1" = 30' - 0"

COLLEGE AVE TOWNHOMES

FRANKLIN, WISCONSIN

LIGHTING LAYOUT

BRAVO
EW70714

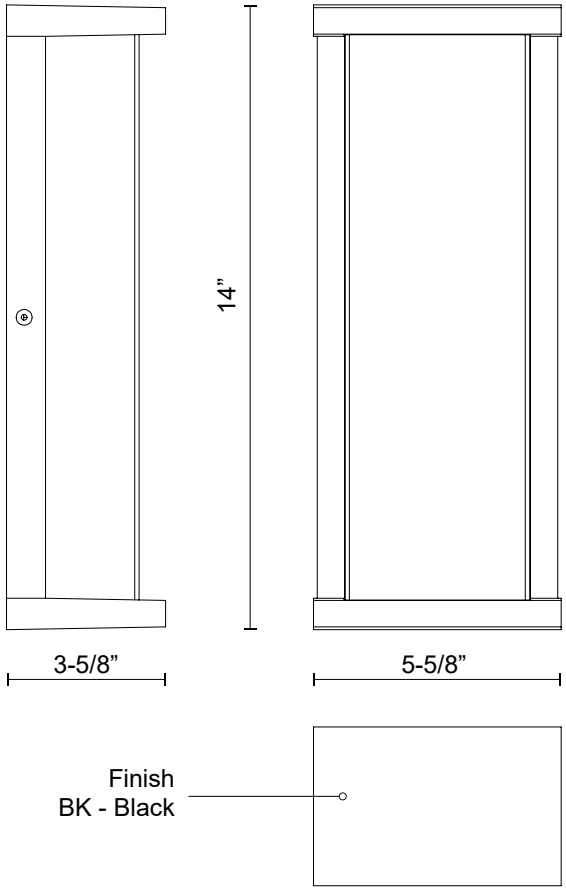
WALL

PROJECT

EW70714-BK
Black

DESCRIPTION

A dignified presentation of light, the Bravo Collection offers a refined look that sparks conversation. These striking rectangular exterior lights emit an omni directional glow that provides a flood of light to any space you need. Available in two sizes and mounting options to illuminate your exterior space with ease and style.



SPECIFICATION DETAILS

Fixture Dimensions	W5-5/8" x H14" x E3-5/8"
Light Source	AC LED Module
Wattage	21W
Total Lumens	1700lm
Delivered Lumens	901lm
Voltage	120V
Color Temperature	3000K
CRI (Ra)	90CRI
Optional Color Temps	2700K - 5000K Available, Minimum Order Quantities Apply
LED Rated Life	50,000 hours
Dimming	100% - 10%, ELV Dimmer (Not Included)
Diffuser Details	Frosted PC
ADA Compliant	Yes
Location	Wet
Illumination Direction	Front
Mounting Style	All Orientation
Paint Finish	BK02

* For custom options, consult factory for details.
* For warranty information, please visit www.kuzcolighting.com/warranty

KUZCO

CANADA: 19054 28TH AVENUE - SURREY, BC V3Z 6M3
USA: 3035 E. LONE MOUNTAIN ROAD - LAS VEGAS, NV 89081

WWW.KUZCOLIGHTING.COM

COMMENT

Intertek

Catalog Number	
Notes	
Type	

Contractor Select™

65BE 65SE SWW5

E Series 5"/6" Switchable White LED Trim Kit

With Juno® E Series LED switchable white 5"/6"-inch trim kits, upgrading your existing 5/6-inch recessed fixture is inexpensive and nearly as simple as replacing an incandescent lamp. The 5"/6" recessed LED downlight is the most economical means to create a well lit environment with exceptional energy efficiency and near zero maintenance. Great for retrofit into existing downlight cans or new construction and remodel applications. The LED downlight maintains at least 70% light output for 50,000 hours. Trims are ENERGY STAR® certified and can be used to comply with Title 24, JA8 high efficacy light source requirements, T20 certified, Air-loc certified, Wet location listed and includes a 5-year limited warranty.

FEATURES:

- 5 switchable white color temperatures to choose from via switch; 2700K, 3000K, 3500K, 4000K, 5000K CCT; 90 CRI
- Dimmable flicker-free dimming from 100% to10%
- Baffle or smooth trim options with designer color finish trim inserts (sold separately)

Ships with:

E26 Adapter

CONTRACTOR PACK (CP6) ORDERING EXAMPLES:

Example 1: Ordered in Qty of 1
Ordered Line: Qty: 1 65SEMW HL SWW5 90CRI CP6 M2
*Will receive 1 box with 6 units not individually packaged

Example 2: Ordered in Qty of 2
Ordered Line: Qty: 2 65SEMW HL SWW5 90CRI CP6 M2
*Will receive 1 master carton that includes 2 separate boxes with 6 units in each box not individually packaged

Catalog Number	UPC	Description	Replaces Up To	Lumens	Input Watts	CCT	CRI	Voltage	Finish	Dimming Protocol	Pallet qty.
65SEMW SWW5 90CRI M6	194994825197	5"/6" Switchable White LED Trim Kit - Smooth	75W Incandescent	900	10.5W	2700K-5000K	90	120V	White	100% to 10%	216
65SEMW HL SWW5 90CRI M6	194994825173	5"/6" Switchable White LED Trim Kit - Smooth	120W Incandescent	1200	14.5W	2700K-5000K	90	120V	White	100% to 10%	360
65BEMW SWW5 90CRI M6	194994160564	5"/6" Switchable White LED Trim Kit - Baffle	75W Incandescent	900	10.5W	2700K-5000K	90	120V	White	100% to 10%	180
65BEMW HL SWW5 90CRI M6	194994244950	5"/6" Switchable White LED Trim Kit - Baffle	120W Incandescent	1200	14.5W	2700K-5000K	90	120V	White	100% to 10%	270
65SEMW HL SWW5 90CRI CP6 M2	197589055757	5"/6" Switchable White LED Trim Kit - Smooth	120W Incandescent	1200	14.5W	2700K-5000K	90	120V	White	100% to 10%	60

Specifications

DOWNLIGHT LED TRIM KIT:
Aluminum spun reflector with deep regression for reduced glare • Inner reflector cone funnels light through the pressed-in diffused lens • All-in-one design where LED light engine mounts directly to trim for ease of installation into existing 5" or 6" recessed housings with medium base sockets • Provided with torsion springs.

LED LIGHT ENGINE:
LEDs are mounted directly to aluminum housing providing superior thermal management to ensure long life • Switchable white LED color temperature technology offers 2700K, 3000K, 3500K, 4000K, 5000K all in one trim • 90 CRI minimum • Accommodates 120 volts AC at 60Hz • Dimmable with most standard incandescent, magnetic low voltage and electronic low voltage dimmers • For a list of compatible dimmers, see JUNOESERIES-DIM.

OPTICAL SYSTEM:
Diffused lens at end of mixing chamber to provide even light distribution for general illumination • 900L is equivalent to 75W BR30 lamp • 1200L is equivalent to 120W lamp.

ELECTRICAL CONNECTIONS:
Trim features quick connect plug installed as standard for installation into Juno quick connect housings with mating connector • Trim ships with a medium base socket adapter whip for installation into 5" or 6" incandescent housings with medium base sockets.

DESIGNER COLOR FINISH TRIM INSERTS: (sold separately)
Color Finish Trim inserts are accessory rings that attach to the 65BE/65SE downlight for a permanent finish. Trim styles include baffle or smooth in the following finishes:

- Black
- Brush Nickel
- Oil-Rubbed Bronze

LIFE:
Rated for 50,000 hours at 70% lumen maintenance.

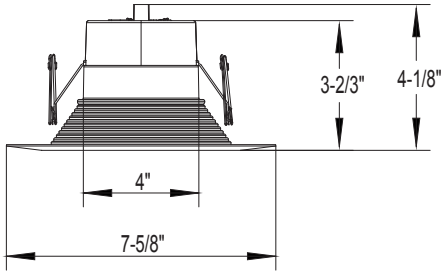
LABELS:
CSA certified to US and Canadian safety standards • ENERGY STAR® certified product • Suitable for wet location • Air-Loc certified in accordance with ASTM E283-2004 • NOM Certified • Can be used to comply with California Title 24 Part 6 High Efficacy LED light Source Requirements • T20 Certified.

TESTING:
All reports are based on published industry procedures; field performance may differ from laboratory performance.

WARRANTY:
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions



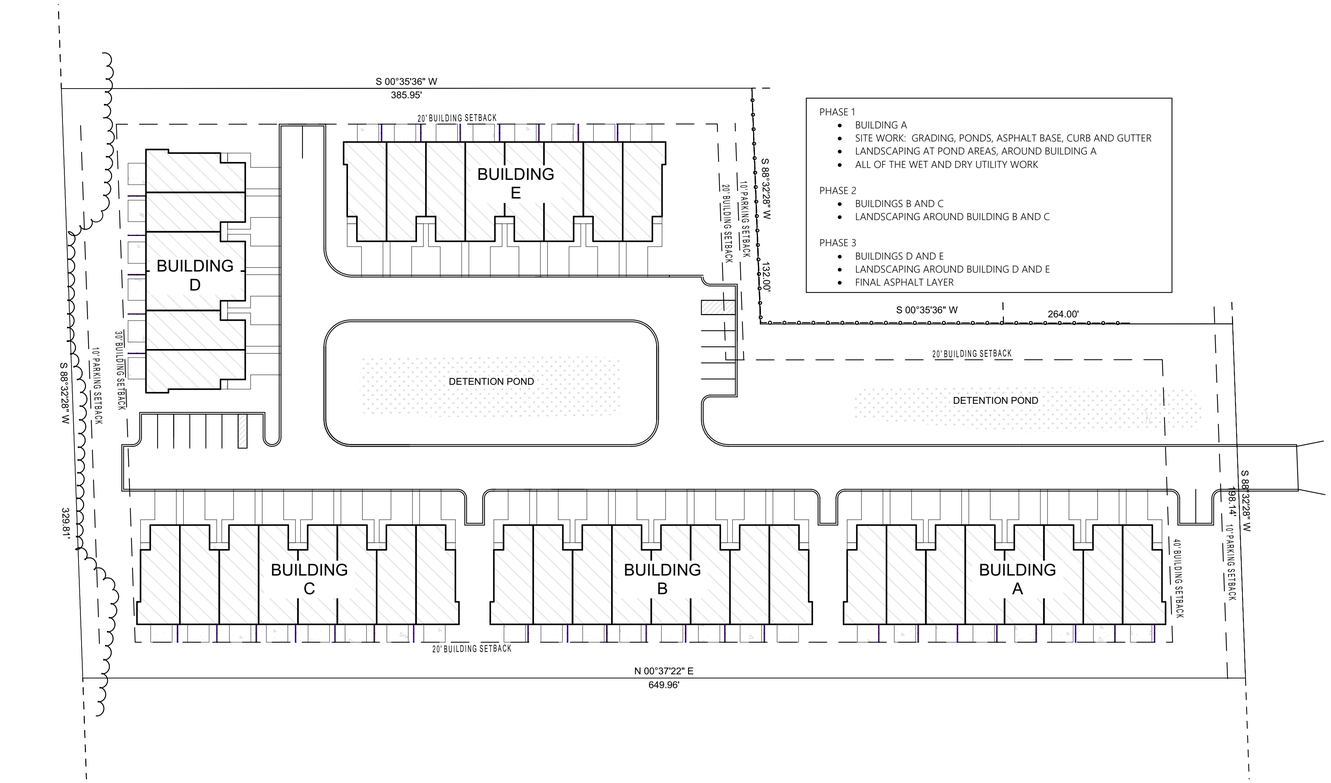
Pairs perfectly with Juno housings for a complete downlight solution:
Order housings as separate catalog number.

QC6 Series - New Construction Quick Connect LED Housing

QC6R Series - New Construction Quick Connect LED Housing

LAKE GROVE PLACE

3709 WEST COLLEGE AVENUE
FRANKLIN, WI



PHASE 1
- BUILDING A
- SITE WORK: GRADING, PONDS, ASPHALT BASE, CURB AND GUTTER
- LANDSCAPING AT POND AREAS, AROUND BUILDING A
- ALL OF THE WET AND DRY UTILITY WORK

PHASE 2
- BUILDINGS B AND C
- LANDSCAPING AROUND BUILDING B AND C

PHASE 3
- BUILDINGS D AND E
- LANDSCAPING AROUND BUILDING D AND E
- FINAL ASPHALT LAYER

2 G100 SITE / PHASING PLAN

NORTH

SHEET INDEX

BUILDING SUMMARY				DWELLING UNIT SF									
				BUILDING TYPE PER BUILDING		3BD/2.5 BATH TYPE 1 (END UNITS)				3BD/2.5 BATH TYPE 2 (INTERNAL UNITS)			
BUILDING NO	BUILDING HEIGHT	UNITS PER BUILDING	BUILDING GROSS SF	TYPE 1	TYPE 2	FIRST FLOOR SF	SECOND FLOOR SF	GARAGE SF	TOTAL SF	FIRST FLOOR	SECOND FLOOR	GARAGE	TOTAL SF
A	24'-4"	8	16370	2	6	786	894	385	2065	761	894	385	2040
B	24'-4"	8	16370	2	6	786	894	385	2065	761	894	385	2040
C	24'-4"	8	16370	2	6	786	894	385	2065	761	894	385	2040
D	25'-0"	6	12290	2	4	786	894	385	2065	761	894	385	2040
E	25'-0"	8	16370	2	6	786	894	385	2065	761	894	385	2040
TOTALS		38	77770	10	28								

ABBREVIATIONS

#	Pound OR Number
&	And
@	At

A

ACT	Acoustic Ceiling Tile
AD	Area Drain
AFF	Above Finished Floor
ALUM	Aluminum
ANOD	Anodized
APPROX	Approximately

B

BES	Bank Equipment Supplier
BLKG	Blocking
BLKHD	Bulkhead
BRG	Bearing
BSMT	Basement
BT	Base Tile
BYND	Beyond
BO	Bottom Of
BOT	Bottom

C

CABT	Cabinet
CIP	Cast In Place
CHNL	Channel
CJ	Control Joint
CL	Closet
CLG	Ceiling
CLR	Clear
CM	Construction Manager
CMU	Concrete Masonry Unit
COL	Column
COMPR	Compressible
CONC	Concrete
CONC BLK	Concrete Block
CONT	Continuous
CONTR	Contractor
CPT	Carpet
CRS	Course
CT	Ceramic Tile
CTB	Ceramic Tile Base
CTYD	Courtyard

D

DBL	Double
DEMO	Demolish or Demolition
DIA	Diameter
DIM	Dimension
DIMS	Dimensions
DISP	Dispenser
DN	Down
DR	Door
DRWR	Drawer
DS	Downspout
DTL	Detail
DW	Dishwasher
DWG	Drawing

E

EA	Each
EIFS	Exterior Insulation Finish System
EJ	Expansion Joint
EL	Elevation
ELEC	Electrical
ELEV	Elevator or Elevation
EPDM	Ethylene Propylene Diene M-Class (Roofing)
EQ	Equal
ETR	Existing To Remain
EXIST	Existing
EXP	Expansion
EXP JT	Expansion Joint
EXT	Exterior

F

FD	Floor Drain or Fire Department
FE	Fire Extinguisher
FEC	Fire Extinguisher Cabinet
FIN FLR	Finished Floor
FIXT	Fixture
FLR	Floor
FLSHG	Flashing
FM	Filled Metal
FO	Face Of
FT	Foot
FTG	Footing
FND	Foundation

G

GA	Gauge
GALV	Galvanized
GB	Grab Bar
GWB	Gypsum Wall Board

H

HC	Hollow Core
HDWD	Hardwood
HDR	Header
HI	High
HM	Hollow Metal
HORIZ	Horizontal
HP	High Point
HR	Hour
HT	Height
HRDBD	Hardboard
HVAC	Heating, Ventilating, And Air Conditioning

I

IRGWB	Impact Resistant Gypsum Wall Board
ILO	In Lieu Of
INSTR	Instructions
INSUL	Insulated or Insulation
INT	Interior

J

JNT	Joint

M

MAX	Maximum
MFR	Manufacturer
MO	Masonry Opening
MECH	Mechanical
MEMBR	Membrane
MICRO	Microwave
MIN	Minimum
MISC	Miscellaneous
MRDW	Moisture Resistant Dry Wall
MRGWB	Moisture-Resistant Gypsum Wall Board
MTL	Metal
MTR	Mortar
MTRL	Material

N

NIC	Not In Contract
NO	Number
NOM	Nominal

O

OC	On Center
OH	Opposite Hand
OPNG	Opening
OZ	Ounce

P

PCC	Pre-Cast Concrete
PLUMB	Plumbing
PLAM	Plastic Laminate
PLUMB	Plumbing
PLYWD	Plywood
P&SH	Pole & Shelves / Shelf
PREFIN	Prefinished
PT	Pressure Treated
PNT	Paint or Painted
PVC	Polyvinyl Chloride

R

RB	Rubber Base
RBR	Rubber
RCP	Reflected Ceiling Plan
RD	Roof Drain
REF	Refrigerator
REINF	Reinforced
REQD	Required
RM	Room

S

SHTHG	Sheathing
SF	Sheet Flooring
SIM	Similar
SPEC	Specified OR Specification
SPK	Sprinkler or Speaker
SS	Stainless Steel
ST	Stain
STC	Sound Transmission Coefficient
STL	Steel
STRUCT	Structure or Structural

T

T&G	Tongue And Groove
TELE	Telephone
TLT	Toilet
TO	Top Of
TOC	Top Of Concrete
TOS	Top Of Steel
TPD	Toilet Paper Dispenser
T/D	Telephone/Data
TYP	Typical

U

UNO	Unless Noted Otherwise
U/S	Underside

V

VB	Vinyl Base
VCT	Vinyl Composition Tile
VERT	Vertical
VIF	Verify In Field
VP	Vision Panel
VWC	Vinyl Wall Covering

W

W/	With
WD	Wood
WDW	Window

CITYSCAPE
ARCHITECTURE/
DEVELOPMENT, S.C.

13700 W. GREENFIELD AVE
BROOKFIELD, WI 53005
262-370-5865

www.cityscapearchitecture.com

CONSULTANTS:

LAKE GROVE PLACE
3709 WEST COLLEGE AVENUE FRANKLIN, WI

DRAWING ISSUE	DATE
PLAN COMMISSION SUBMITTAL	1-10-24
PLAN COMMISSION REVISION	3-29-24

PROJECT # 22025

COVER SHEET

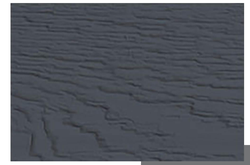
G100

4 G101 FRONT RENDERING

1 G101 FRONT CORNER RENDERING

3 G101 REAR RENDERING

LP SMARTSIDE BATT & BOARD
SIDING
MIDNIGHT SHADOW



METAL FLASHING
PAC CLAD
MUSKET GRAY
(TRIM TO MATCH)

LP SMARTSIDE LAP SIDING
DESERT STONE

2 G101 REAR RENDERING

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CONSULTANTS:

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DRAWING ISSUE	DATE
PLAN COMMISSION SUBMITTAL	1-10-24
PLAN COMMISSION REVISION	3-29-24

PROJECT # 22025

RENDERINGS - GREY

G101

1 G102 FRONT RENDERING

2 G102 CORNER RENDERING

3 G102 REAR RENDERING

LP SMARTSIDE BATT & BOARD
SIDING
RAPIDS BLUE

METAL FLASHING
PAC CLAD
MUSKET GRAY
(TRIM TO MATCH)

LP SMARTSIDE LAP SIDING
DESERT STONE

4 G102 REAR RENDERING

CITYSCAPE
ARCHITECTURE/
DEVELOPMENT, S.C.
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BROOKFIELD, WI 53005
262-370-5865
www.cityscapearchitecture.com

CONSULTANTS:

LAKE GROVE PLACE

3709 WEST COLLEGE AVENUE FRANKLIN, WI

DRAWING ISSUE	DATE
PLAN COMMISSION SUBMITTAL	1-10-24
PLAN COMMISSION REVISION	3-29-24

PROJECT # 22025

RENDERINGS - BLUE

G102

ALTA/NSPS Land Title Survey

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY TO: M. Manzur Hassan Khan, Joharah Bayazid, and Ali Siddiqui and Knight Barry Title Group.

Policy No.: 5011499-0131830e (Agent Case No. 21402527M
Commitment Date: November 30, 2021

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 "Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes Table A Items 1, 2, 3, 4, 7(a), 8, 11(b), 16 & 17. Pursuant to the Accuracy Standards as adopted by ALTA and NSPS and in effect on the date of this certification, undersigned further certifies that in my professional opinion, as a land surveyor registered in the State of Wisconsin, the Relative Positional Accuracy of this survey does not exceed that which is specified therein.

March 26, 2024
Date

WISCONSIN
DENNIS C. SAUER
S-2421
Franklin, WI
LAND SURVEYOR

Dennis C. Sauer
Professional Land Surveyor S-2421

LEGAL DESCRIPTION

Parcel One (1) of Certified Survey Map No. 6537, as recorded in the Register of Deeds office for Milwaukee County on July 27, 1998, on Reel 4358, Image 1930, as Document No. 7571685, being part of the Northeast 1/4 of the Northwest 1/4 of Section 1, Township 5 North, Range 21 East, in the City of Franklin, Milwaukee County, Wisconsin

EXCEPTING THEREFROM all that part of Parcel 1 of Certified Survey Map No. 6537, as recorded on Reel 4358, on Image 1930, as Document No. 7571685, being a part of the Northeast 1/4 of the Northwest 1/4 of Section 1, Township 5 North, Range 21 East, in the City of Franklin, Milwaukee County, Wisconsin, bounded and described as follows: Beginning at the Southeast corner of Parcel 2 as recorded in said Certified Survey Map No. 6537; thence South 88°32'28" West along the Southerly line of said Parcel 2, 132.00 feet to the Southwest corner of said Parcel 2; thence South 00°35'36" West along the Westerly line of said Parcel 1, 136.00 feet; thence North 88°32'28" East 132.00 feet; thence North 00°35'36" East 136.00 feet to the place of beginning.

Address: 3709 West College Avenue, Franklin, Wisconsin

Parcel Identification No.: 713-9996-003

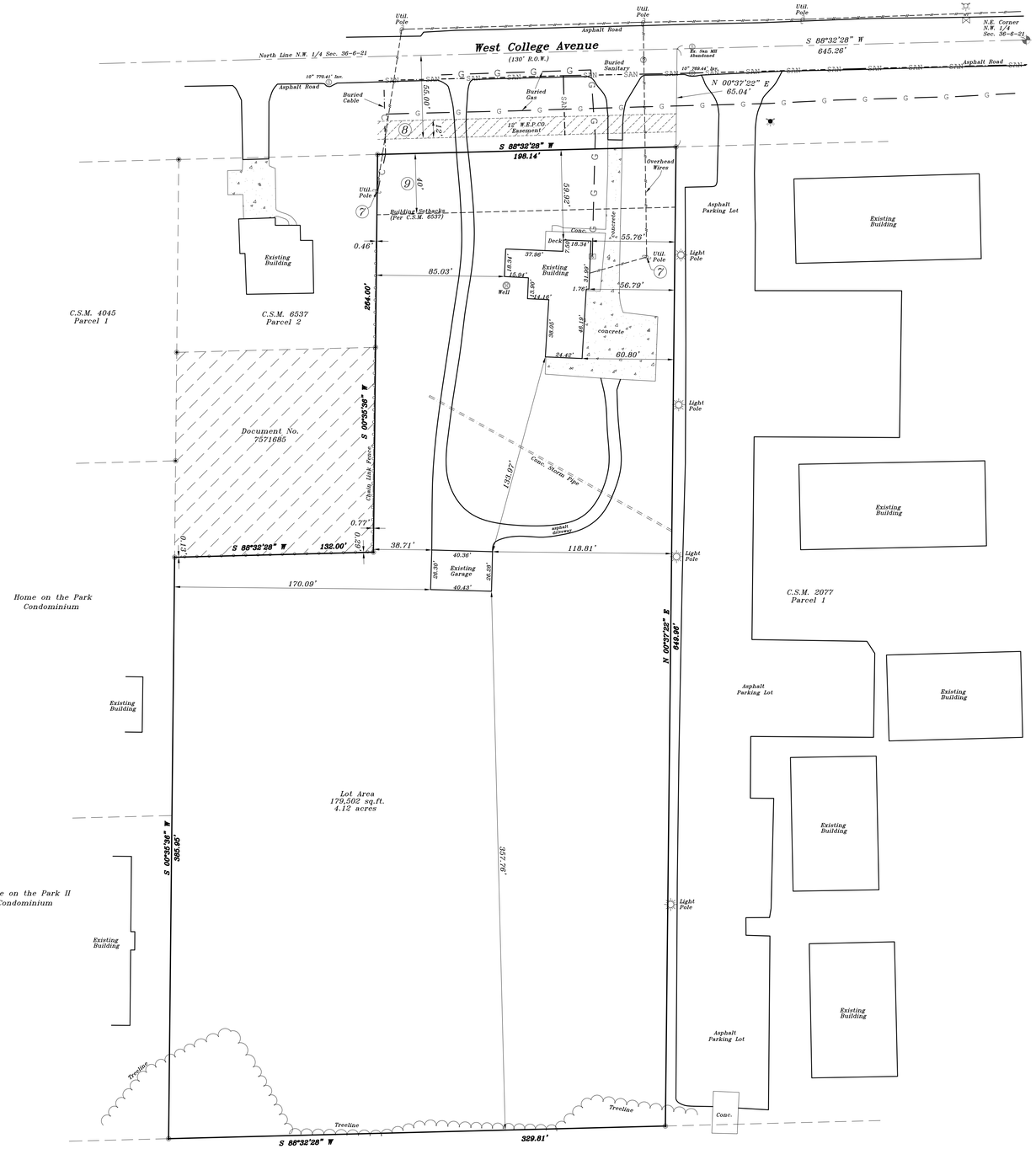
The above legal description describes the same property as insured in the title commitment referenced in the Certification shown hereon.

SCHEDULE B - II

7. Utility Easement granted by an instrument recorded as Document No. 3257308 is plotted hereon.

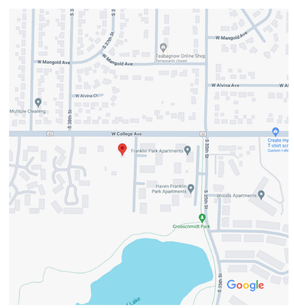
8. Utility Easement granted by an instrument recorded as Document No. 6458641 is plotted hereon.

9. Building set-back line(s) as shown on the recorded certified survey map is plotted hereon.



STANDARD LEGEND

IRON PIPE SET	POWER POLE	SAN.SEWER LINE
IRON PIPE FOUND	GUY WIRE	SEWER MANHOLE
P.K. NAIL FOUND	LIGHT POLE	CLEAN OUT
P.K. NAIL SET	STREET LIGHT POLE	STORM DRAIN LINE
FND X MARK	ELEC. TRANSFORMER	STORM DRAIN MANHOLE
SET X MARK	AIR CONDITIONER	STORM INLET
R.R. SPIKE FOUND	BURIED ELECTRIC	CURB INLET
R.R. SPIKE SET	OVERHEAD ELECTRIC	PAY PHONE
MONUMENT	ELEC. MANHOLE	TELEPHONE BOX
CONC. R/W MARKER	ELECTRIC METER	TELEPHONE MANHOLE
RECORD DATA	WATER LINE	TELEPHONE POLE
MEASURED DATA	WATER MANHOLE	TELEPHONE LINE
CALCULATED DATA	WATER VALVE	OVERHEAD TELEPHONE
RIGHT OF WAY	WATER METER	CABLE TELEVISION
BACK SET LINE	HYDRANT	OVERHEAD CABLE
REINFORCED CONC PIPE	GAS LINE	CABLE BOX
CORRUGATED METAL PIPE	GAS VALVE	TRAFFIC POLES
PLASTIC PIPE	GAS METER	TRAFFIC SIGNAL
METAL	GAS MANHOLE	TRAFFIC MANHOLE
LANDSCAPING	BOLLARD	TRAFFIC SIGNAL BOX
TREE	BORE HOLE	STOP SIGN
BRICK PILLAR	MONITORING WELL	SIGN
	MAIL BOX	
	UNKNOWN MANHOLE	



VICINITY MAP
NOT TO SCALE

METROPOLITAN SURVEY SERVICE, INC.

METROPOLITAN SURVEY SERVICE, INC.
REGISTERED LAND SURVEYORS AND CIVIL ENGINEERS
8482 South 76th Street, Franklin, WI 53132
PH. (414) 529-5380 FAX (414) 529-9787
survey@metropolitansurvey.com
www.metropolitansurvey.com

PREPARED FOR:
M. Manzur Hassan Khan
Joharah Bayazid
Ali Siddiqui
Knight Barry Title Group

PROJECT LOCATION:
Milwaukee County, Wisconsin

PROJECT ADDRESS:
3709 West College Avenue
Franklin, Wisconsin 53221

JOB NUMBER: 114864
FILE: 5011499-0131830e

PROJECT NAME:
ALTA/NSPS Land Title Survey
TITLE SURVEY

FLOOD DATA This property is in Zone X of the Flood Insurance Rate Map,Community Panel No. 55079C0162E which has an effective date of 9/26/2008 and IS NOT in a Special Flood Hazard Area. Field surveying was not performed to determine this zone. An elevation certificate may be needed to verify this determination or apply for an amendment from the Federal Emergency Management Agency.

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
CALL DIGGERS HOTLINE 1-800-242-8511
TOLL FREE
WIS STATUTE 182.0175(1974) REQUIRES YOU TO WORK DAYS NOTICE BEFORE YOU EXCAVATE
1-800-242-8511

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

N E S W

DATE OF ORIGINAL: March 26, 2024
REVISION: _____ DATE: _____, 2024
REVISION: _____ DATE: _____, 2024
REVISION: _____ DATE: _____, 2024

Luminaire Schedule								
Qty	**Label**	**Arrangement**	**LLF**	**MFR**	**Description**	**Lum. Watts**	**Total Watts**	**Lum. Lumens**
9	OB3	SINGLE	0.950	LITHONIA	RSX1 LED P1 xxK R3- 18FT POLE 2 FT BASE	51.34	462.06	7096

Calculation Summary							
Label	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
CalcPts_1	Illuminance	Fc	0.41	3.17	0.00	N.A.	N.A.
PARKING + DRIVES	Illuminance	Fc	0.97	2.9	0.2	4.85	14.50

ENTERPRISE
Lighting & Control

#	DATE	COMMENTS

REVISIONS

DRAWN BY : AD

DATE : MAR 27, 2024

SCALE : 1" = 30'- 0"

COLLEGE AVE TOWNHOMES

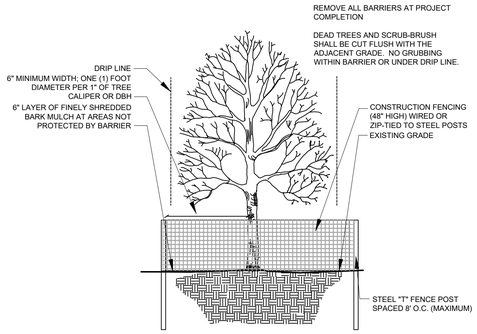
FRANKLIN, WISCONSIN

LIGHTING LAYOUT

TO OBTAIN LOCATIONS OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE

CALL DIGGERS HOTLINE
811 or 1-800-242-8511
MILW. AREA 259-1181
WIS STATUTE 182.0175(1974)
REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE



DETAIL TREE PROTECTION/PRESERVATION DETAIL
N.T.S. SECTION

Table 15-3.0503

Worksheet for the Calculation of Resource Protection Land

Natural Resource Feature	Protection Standard Based Upon Zoning District Type (circle applicable standard from Table 15-4.0100 for the type of zoning district in which the parcel is located)			Acres of Land in Resource Feature	
	Agricult- ural District	Residential District	Non-Residential District		
Steep Slopes:					
10-19%	0.00	0.60	0.40	X 0 =	0
20-30%	0.65	0.75	0.70	X 0 =	0
+ 30%	0.90	0.85	0.80	X 0 =	0
Woodlands & Forests:					
Mature	0.70	0.70	0.70	X 0 =	0
Young	0.50	0.50	0.50	X 0 =	0
Lakes & Ponds	1	1	1	X 0 =	0
Streams	1	1	1	X 0 =	0
Shore Buffer	1	1	1	X 0 =	0
Floodplains	1	1	1	X 0 =	0
Wetland Buffers	1	1	1	X 0 =	0
Wetlands & Shoreland Wetlands	1	1	1	X 0 =	0
TOTAL RESOURCE PROTECTION LAND (Total of Acres of Land in Resource Feature to be Protected)					0.0

Tree Condition	
5	Solid & Sound
3	Minor Defects
1	Extensive Decay

Shaded entries indicate tree groupings

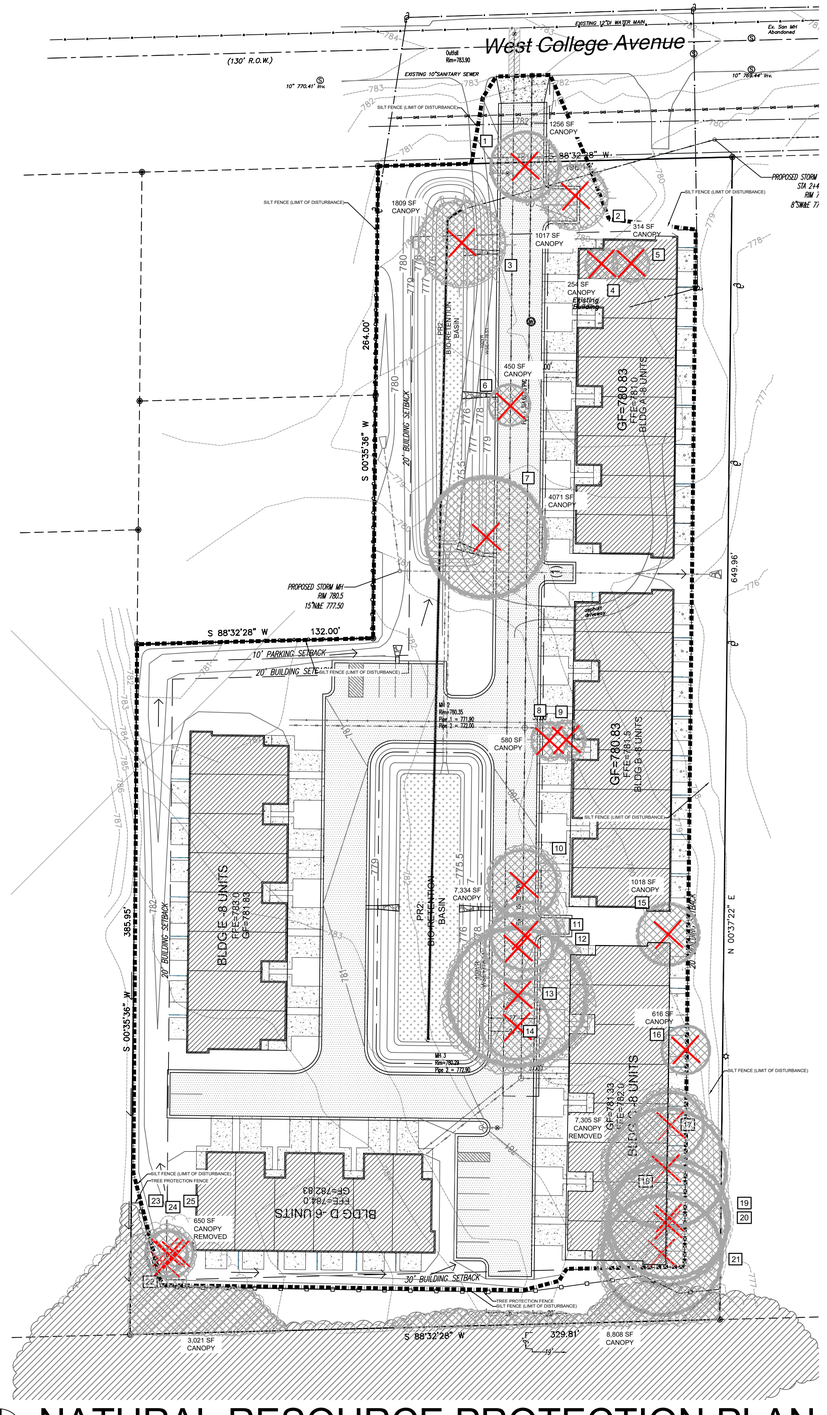
Existing Tree Inventory

Tag #	Size (DBH)	Species	Common Name	Condition	Action	Notes	Canopy Area (SF) to be removed	Canopy Area Total (SF)	Canopy Area Acres
1	20	Acer platainoides	Norway Maple	5	Remove		1256	1256	0.03
2	18	Picea pungens	Colorado Blue Spruce	3	Remove		1017	1017	0.02
3	24	Picea pungens	Colorado Blue Spruce	3	Remove		1809	1809	0.04
4	10	Thuja spp.	Arborvitae	3	Remove		254	254	0.01
5	12	Thuja spp.	Arborvitae	3	Remove		314	314	0.01
6	10	Malus spp.	Crabapple	3	Remove		450	450	0.01
7	32	Acer saccharinum	Silver Maple	3	Remove		4071	4071	0.09
8	10	Pinus strobus	Eastern White Pine	3	Remove	Thinning	580	580	0.01
9	10	Pinus strobus	Eastern White Pine	3	Remove	Thinning	*		
10	20	Acer negundo	Boxelder	3	Remove		7334	7334	0.17
11	20	Acer negundo	Boxelder	3	Remove		*		
12	14	Tilia spp.	Basswood	3	Remove		*		
13	32	Tilia spp.	Basswood	3	Remove	Twin 15"/18" trunks	*		
14	22	Tilia spp.	Basswood	3	Remove	Twin 10"/12" trunks	*		
15	18	Carya ovata	Shagbark Hickory	5	Remove		1018	1018	0.02
16	*	DEAD		0	Remove		616	0	0.00
17	20	Prunus spp.	Black Cherry	3	Remove	Twin 10" trunks	7305	8808	0.17
18	24	Quercus alba	White Oak	1	Remove	6 trunk grouping	*		
19	18	Tilia spp.	Basswood	3	Remove		*		
20	25	Tilia spp.	Basswood	3	Remove	Twin 10"/15" trunks	*		
21	24	Quercus alba	White Oak	1	Remove	Triple 6"/8"/10" trunks	*		
22	14	Tilia spp.	Basswood	3	Remove		*		
23	12	Tilia spp.	Basswood	3	Remove		650	3021	0.01
24	7	Quercus alba	White Oak	1	Remove		*		
25	7	Quercus alba	White Oak	1	Remove		*		

Total Tree Canopy Removed (SF all trees):	***26,674***	
Total Tree Canopy Removed (Acres, all trees):		***0.60***
Total of Tree Groupings (SF):	***15,869***	
Total of Tree Groupings (Acres):		***0.36***

Total proposed area of individual tree and tree grouping removal do not meet the definition of either a Mature or Young Woodland as outlined in Section 15-11.0103 of the City of Franklin Unified Development Ordinance

EXISTING VEGETATION INVENTORY / CANOPY ANALYSIS



NORTH

NATURAL RESOURCE PROTECTION PLAN

Scale: 1" = 40'0"

0 20 40 80

HELLER & ASSOCIATES, LLC
LANDSCAPE ARCHITECTURE
P.O. Box 1359
Lake Geneva, Wisconsin 53147-1359
ph 262.639.9733
david@wdavidheller.com
www.wdavidheller.com

PROJECT

LAKE GROVE PLACE

3709 W. College Ave.
Franklin, WI

ISSUANCE AND REVISIONS

DATE	DESCRIPTION
1.10.24	FIRST ISSUE
1.19.24	REV. NRPP
3.29.24	REVISED SITE PLAN

Information contained herein is based on survey information, field inspection, and believed to be accurate.

SHEET TITLE

NATURAL RESOURCE PROTECTION PLAN

PROJECT MANAGER	WDH
PROJECT NUMBER	24-001
DATE	03.29.24
SHEET NUMBER	L 1.0

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE

CALL DIGGERS HOTLINE
811 or 1-800-242-8511
MILW. AREA 259-1181
WIS STATUTE 182.0175(1974)
REQUIRES MIN. 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

Project: *Lake Grove Place*
Franklin, WI 53151

Proposed Number of Dwelling Units: 38 units

Multi-Family Developments Landscape Requirements

Plant Material Type	*Planting Size*	*Minimum Quantity (per dwelling)*	*Total Minimum Quantity*	*Quantity Shown*
Canopy / Shade Tree	2.5" caliper	1.5	57	57
Evergreens	48" Tall	1	38	38
Decorative Trees	1.5" caliper	1	38	38
Shrubs	36" tall	3	114	115

CODE REQUIREMENTS

SHADE TREES (DECIDUOUS)

AFM	Autumn Fantasy Maple
PPH	Prairie Pride Hackberry
SHL	Skyline Honeylocust
KCT	Kentucky Coffee Tree
SWO	Swamp White Oak
BC	Bald Cypress
GSL	Greenspire Linden

ORNAMENTAL TREES (DECIDUOUS)

ABS	Autumn Brilliance Serviceberry
TCH	Thornless Cockspur Hawthorn
AFC	Adams Flowering Crabapple
PFC	Prairie Fire Flowering Crabapple
SSFC	Spring Snow Flowering Crabapple
IW	Ironwood
JTL	Ivory Silk Japanese Tree Lilac

EVERGREEN TREES

CF	Concolor Fir
NS	Norway Spruce
BHS	Black Hills Spruce
EWP	Eastern White Pine
DFI	Douglas Fir

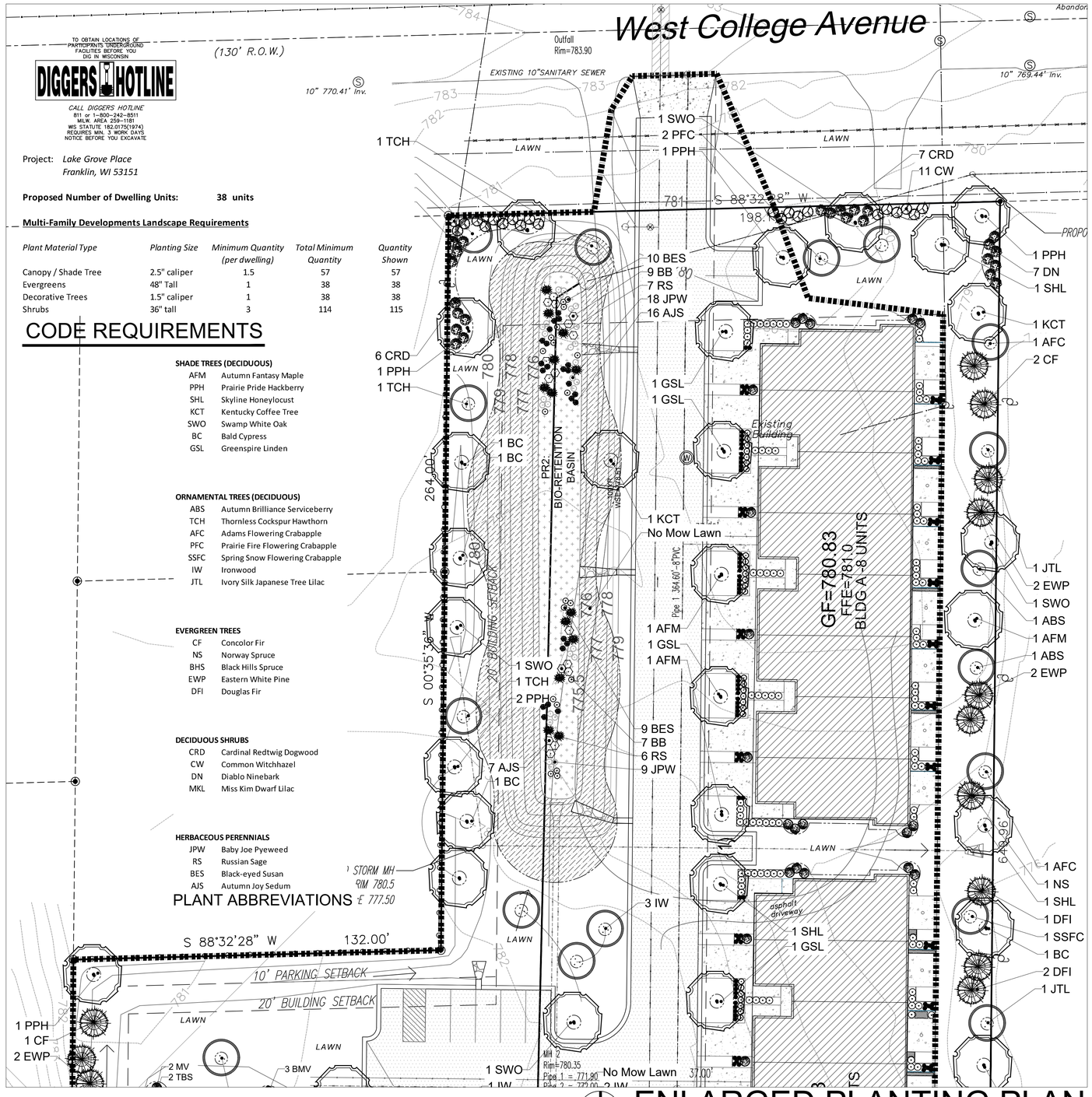
DECIDUOUS SHRUBS

CRD	Cardinal Redtwig Dogwood
CW	Common Witchhazel
DN	Diablo Ninebark
MKL	Miss Kim Dwarf Lilac

HERBACEOUS PERENNIALS

JPW	Baby Joe Pyeweed
RS	Russian Sage
BES	Black-eyed Susan
AJS	Autumn Joy Sedum

PLANT ABBREVIATIONS



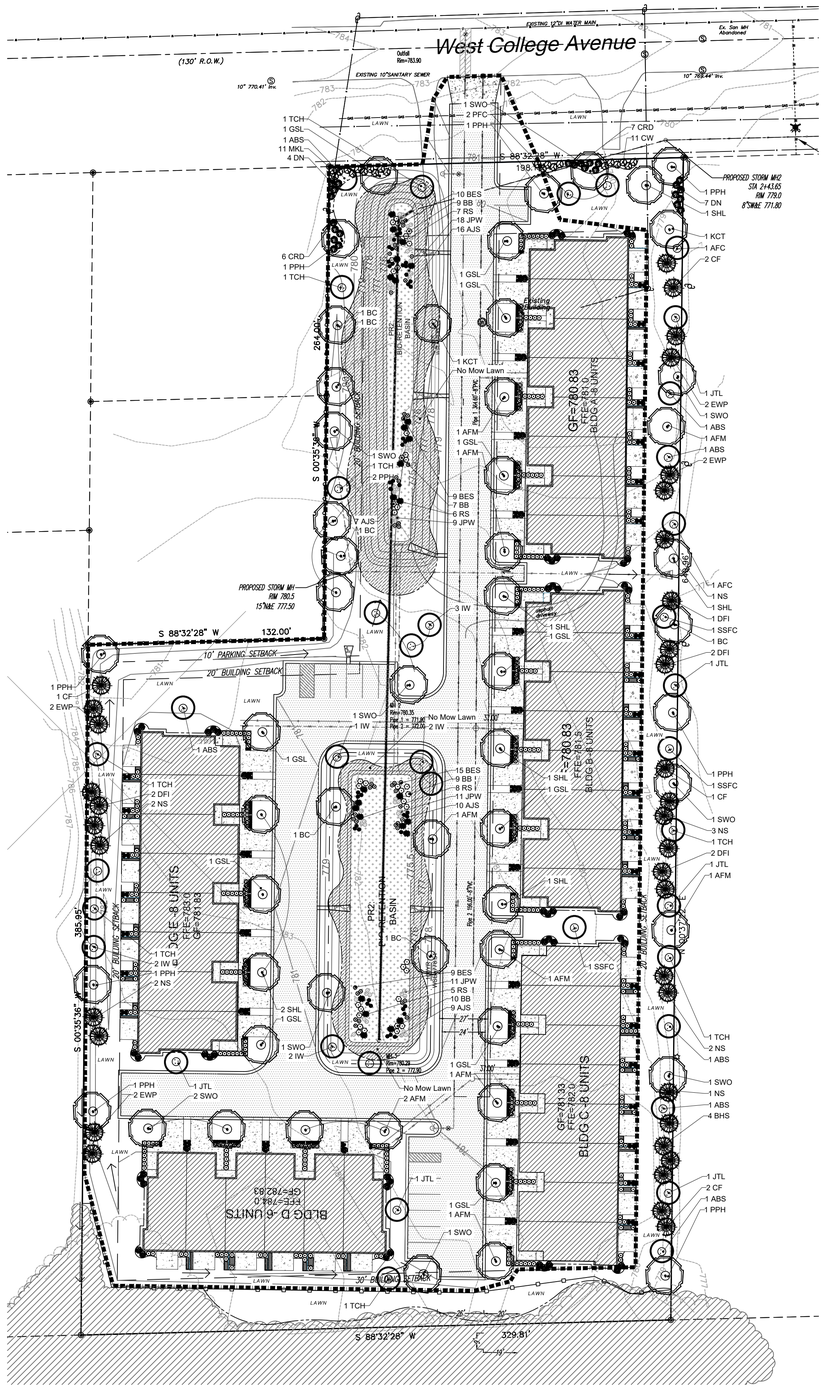
ENLARGED PLANTING PLAN

NORTH

Scale: 1" = 20'0"
Northern Site

0 10 20 40

ON-SITE WATER SUPPLY VIA HOSE BIBS (POST CONSTRUCTION), AND WATER TRUCK SUPPLY DURING INSTALLATION AND DEVELOPMENT



OVERALL PLANTING PLAN

NORTH

Scale: 1" = 40'0"

0 20 40 80

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PROJECT

LAKE GROVE PLACE

3709 W. College Ave.
Franklin, WI

ISSUANCE AND REVISIONS

DATE	DESCRIPTION
1.10.24	FIRST ISSUE
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3.29.24	REVISED SITE PLAN

SHEET TITLE

ENLARGED LANDSCAPE PLAN

PROJECT MANAGER	WDH
PROJECT NUMBER	24-001
DATE	03.29.24
SHEET NUMBER	L 1.1

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE

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WIS STATUTE 182.0175(1974)
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NOTICE BEFORE YOU EXCAVATE

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SHL	Skyline Honeylocust
KCT	Kentucky Coffee Tree
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SSFC	Spring Snow Flowering Crabapple
IW	Ironwood
JTL	Ivory Silk Japanese Tree Lilac

EVERGREEN TREES

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NS	Norway Spruce
BHS	Black Hills Spruce
EWP	Eastern White Pine
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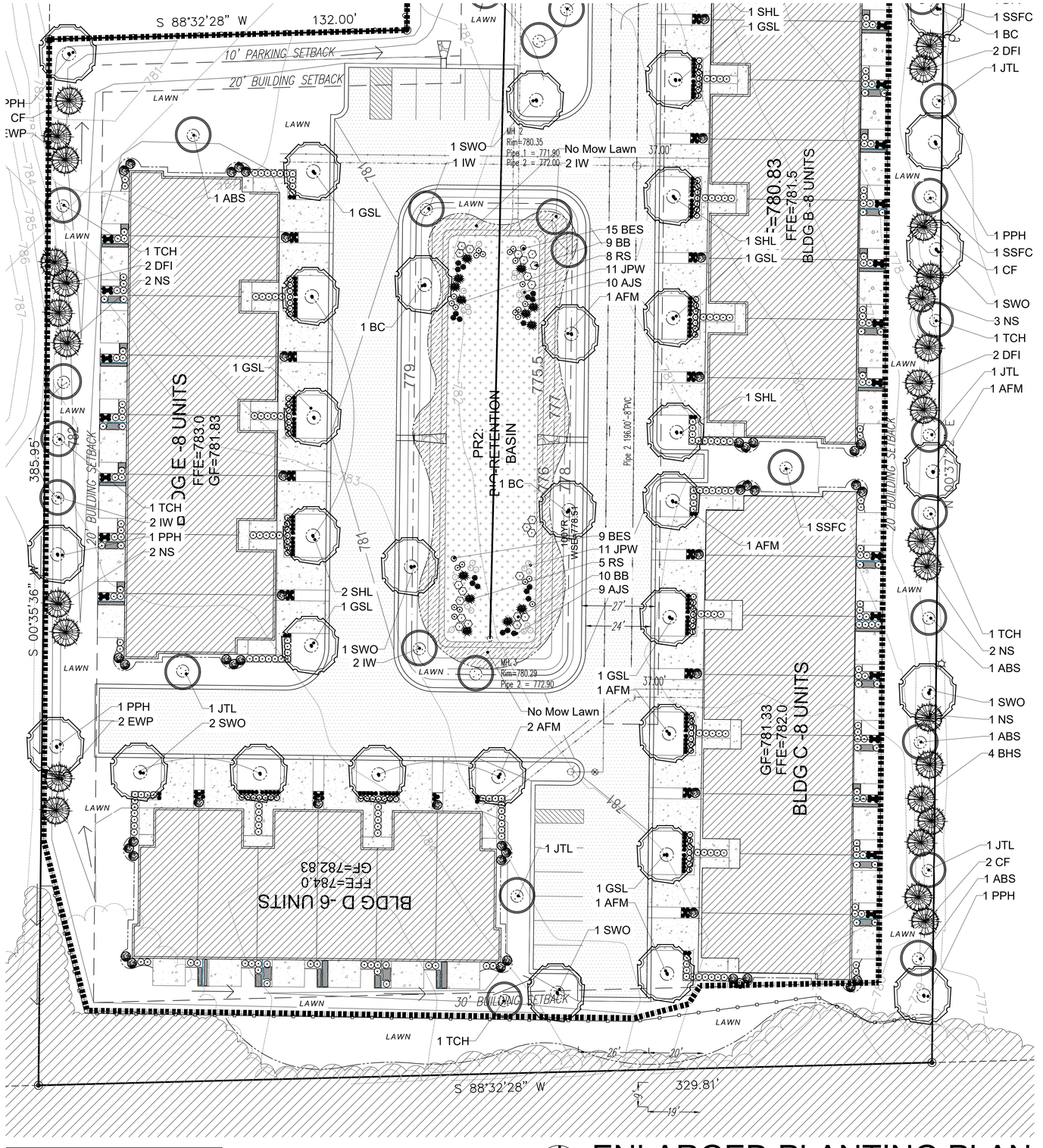
JPW	Baby Joe Pyeweed
RS	Russian Sage
BES	Black-eyed Susan
AJS	Autumn Joy Sedum

PLANT ABBREVIATIONS



ON-SITE WATER SUPPLY VIA HOSE BIBS (POST CONSTRUCTION), AND WATER TRUCK SUPPLY DURING INSTALLATION AND DEVELOPMENT

NORTH

ENLARGED PLANTING PLAN

Scale: 1" = 20'0"
Southern Site

0 10 20 40

HELLER & ASSOCIATES, LLC
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P.O. Box 1359
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PROJECT

LAKE GROVE PLACE

3709 W. College Ave.
Franklin, WI

ISSUANCE AND REVISIONS

DATE	DESCRIPTION
1.10.24	FIRST ISSUE
1.19.24	REV. NRPP
3.29.24	REVISED SITE PLAN

Information contained herein is based on survey information, field inspection, and believed to be accurate.

SHEET TITLE

ENLARGED LANDSCAPE PLAN

PROJECT MANAGER	WDH
PROJECT NUMBER	24-001
DATE	03.29.24
SHEET NUMBER	L 1.2

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE

CALL DIGGERS HOTLINE
811 or 1-800-242-8511
MILW. AREA 259-1181
WIS STATUTE 182.0175(1974)
REQUIRES MIN. 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

PLANT & MATERIAL SCHEDULE

BUILDINGS A, B, C & E

PLANT KEY	QUANTITIES PER BLDG	QUANTITIES TOTAL	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	SHRUB SIZE (HEIGHT)	ROOT/ CONT.	SPECIFICATION / NOTES	PLANT SPACING
EVERGREEN SHRUBS								
CGB	21	84	Buxus 'Chicagoland Green'	Chicagoland Green Boxwood	24"	B&B	Full rounded well branched shrub	24-30"
DECIDUOUS SHRUBS								
BBH	15	60	Hydrangea paniculata 'Ilvobo'	Bobo Hydrangea	24"	Cont.	Full, well rooted plant, evenly shaped	42"
TBS	46	184	Spirea betulifolia 'Tor'	Tor Birchleaf Spirea	24"	Cont.	Full, well rooted plant, evenly shaped	36"
KSV	4	16	Viburnum carlesii	Fragrant Koreanspice Viburnum	36"	Cont.	Full, well rooted plant, evenly shaped	60"
BMV	6	24	Viburnum dentatum 'Blue Muffin'	Blue Muffin Viburnum	36"	Cont.	Full, well rooted plant, evenly shaped	60"
MV	4	16	Viburnum lantana 'Mohican'	Mohican Viburnum	36"	B&B	Full, well rounded plant with moist rootball and healthy appearance	60"
HERBACEOUS PERENNIALS								
RKCF	25	100	Echinacea purpurea 'Raspberry Kismet'	Raspberry Kismet Coneflower	#1	Cont.	Full, well rooted plant, evenly shaped	18"
HRD	20	80	Hemerocallis 'Happy Returns'	Happy Returns Daylily	#1	Cont.	Full, well rooted plant, evenly shaped	18"
RRD	4	16	Hemerocallis 'Rosy Returns'	Rosy Returns Daylily	#1	Cont.	Full, well rooted plant, evenly shaped	18"
KKC	30	120	Nepeta faassenii 'Kit Cat'	Dwarf Catmint	#1	Pot	Full, well rooted plant, evenly shaped	24"
GROUNDCOVERS & VINES								
Annuals	85	340	Annuals (SF)		2.5"	Pot	Full, well rooted plant	8"
PLAN KEY	**QUANTITIES PER BLDG**	**QUANTITIES TOTAL**	**SPECIFIED SEED MIX / SOD**		**CONTAINER SIZE**		**SPECIFICATION / NOTES**	**PLANT SPACING**
LAWN	835	3340	Lawn Establishment Area / Grading Area			SY	Reinder's Deluxe 50 Seed Mix (800-785-3301)	
		30000	Erosion Matting for seeded areas	*see plan for area delineation*		SF	EroTex DS75 Erosion Control Blanket (or approved equal)	
Hardscape Materials								
	68	272	Shredded Hardwood Mulch (3" depth)	*Area: 7,300 SF*		CY	Bark Mulch; apply Preemergent after installation of mulch	
	45	180	Soil Amendments (2" depth)	*Area: 7,300 SF*		CY		
	23	92	Pulverized Topsoil (Lawn Area)	*Area: 7,500 SF*		CY		
	23	92	Pulverized Topsoil (2" over bed areas)	*Area: 7,300 SF*		CY		

*Landscape counts & quantities are provided as a service to the Landscape Contractor; Landscape Contractor is responsible for verifying these counts and quantities in order to provide a complete landscape installation as outlined on this Landscape Master Plan. In the event that a discrepancy occurs between this schedule and the Landscape Master Plan, the Landscape Master Plan- including the graphics and notations depicted therein- shall govern.

Seed Compositions:

Reinder's Deluxe 50 Seed Mix (800-785-3301): — Seed at rate of 150-200# per acre

20% Kentucky Bluegrass (Sod Quality)
15% Newport Kentucky Bluegrass
15% Ken Blue Kentucky Bluegrass
25% Creeping Red Fescue
15% Quebec Perennial Ryegrass
10% Fiesta III Perennial Ryegrass

ON-SITE WATER SUPPLY VIA HOSE BIBS (POST CONSTRUCTION), AND WATER TRUCK SUPPLY DURING INSTALLATION AND DEVELOPMENT

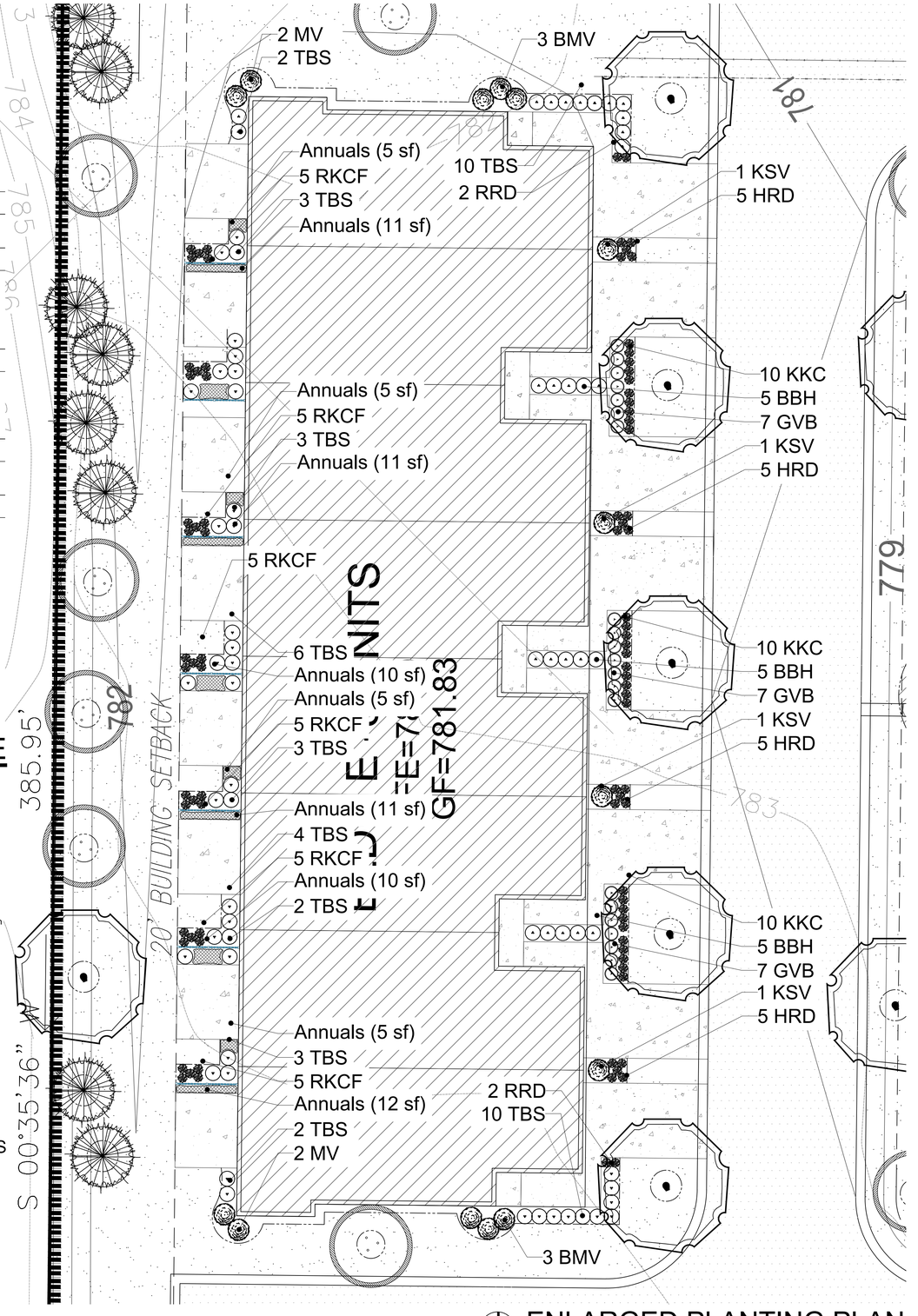
EVERGREEN SHRUBS
CGB Chicagoland Green Boxwood

DECIDUOUS SHRUBS
BBH Bobo Hydrangea
TBS Tor Birchleaf Spirea
KSV Fragrant Koreanspice Viburnum
BMV Blue Muffin Viburnum
MV Mohican Viburnum

HERBACEOUS PERENNIALS
RKCF Raspberry Kismet Coneflower
HRD Happy Returns Daylily
RRD Rosy Returns Daylily
KKC Dwarf Catmint

GROUNDCOVERS & VINES
Annuals Annuals

PLANT ABBREVIATIONS



NORTH

ENLARGED PLANTING PLAN

Scale: 1" = 10'0"
6-Unit Building

0 5 10 20

HELLER & ASSOCIATES, LLC
LANDSCAPE ARCHITECTURE
P.O. Box 1359
Lake Geneva, Wisconsin 53147-1359
ph 262.639.9733
david@wdavidheller.com
www.wdavidheller.com

PROJECT

LAKE GROVE PLACE

3709 W. College Ave.
Franklin, WI

ISSUANCE AND REVISIONS

DATE	DESCRIPTION
1.10.24	FIRST ISSUE
1.19.24	REV. NRPP
3.29.24	REVISED SITE PLAN

Information contained herein is based on survey information, field inspection, and believed to be accurate.

SHEET TITLE

ENLARGED LANDSCAPE PLAN: 8 UNIT

PROJECT MANAGER	WDH
PROJECT NUMBER	24-001
DATE	03.29.24
SHEET NUMBER	L 1.3

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE

CALL DIGGERS HOTLINE
811 or 1-800-242-8511
MILW. AREA 259-1181
WIS STATUTE 182.0175(1974)
REQUIRES MIN. 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

PLANT KEY	QUANTITIES PER BLDG	QUANTITIES TOTAL	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	SHRUB SIZE (HEIGHT)	ROOT/ CONT.	SPECIFICATION / NOTES	PLANT SPACING
EVERGREEN SHRUBS								
CGB	14	14	Buxus 'Chicagoland Green'	Chicagoland Green Boxwood	24"	B&B	Full rounded well branched shrub	24-30"

PLANT KEY	QUANTITIES PER BLDG	QUANTITIES TOTAL	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	SHRUB SIZE (HEIGHT)	ROOT/ CONT.	SPECIFICATION / NOTES	PLANT SPACING
DECIDUOUS SHRUBS								
IH	18	18	Hydrangea arborescens 'Abetwo'	Incrediball Hydrangea	#5	Cont.	Full, well rooted plant, evenly shaped	48"
BBH	10	10	Hydrangea paniculata 'Ilvobo'	Bobo Hydrangea	24"	Cont.	Full, well rooted plant, evenly shaped	42"
SQH	4	4	Hydrangea quercifolia 'Snow Queen'	Snow Queen Oakleaf Hydrangea	30"	Cont.	Full, well rooted plant, evenly shaped	60"
TBS	20	20	Spirea betulifolia 'Tor'	Tor Birchleaf Spirea	24"	Cont.	Full, well rooted plant, evenly shaped	36"
KSV	3	3	Viburnum carlesii	Fragrant Koreanspice Viburnum	36"	Cont.	Full, well rooted plant, evenly shaped	60"
BMV	6	6	Viburnum dentatum 'Blue Muffin'	Blue Muffin Viburnum	36"	Cont.	Full, well rooted plant, evenly shaped	60"
MV	4	4	Viburnum lantana 'Mohican'	Mohican Viburnum	36"	B&B	Full, well rounded plant with moist rootball and healthy appearance	60"

PLANT KEY	QUANTITIES PER BLDG	QUANTITIES TOTAL	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CONTAINER SIZE		SPECIFICATION / NOTES	PLANT SPACING
HERBACEOUS PERENNIALS								
MA	20	20	Allium 'Millenium'	Millenium Allium	#1	Cont.	Full, well rooted plant, evenly shaped	18"
FH	19	19	Hosta fortunei 'Francee'	Francee Hosta	#1	Cont.	Full, well rooted plant, evenly shaped	18"

PLANT KEY	QUANTITIES PER BLDG	QUANTITIES TOTAL	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CONTAINER SIZE		SPECIFICATION / NOTES	PLANT SPACING
GROUNDCOVERS & VINES								
Annuals	56	56	Annuals (SF)		2.5"	Pot	Full, well rooted plant	8"

PLAN KEY	QUANTITIES PER BLDG	QUANTITIES TOTAL	PLANT MATERIAL PROPOSED SPECIFIED SEED MIX / SOD		CONTAINER SIZE		SPECIFICATION / NOTES	PLANT SPACING
LAWN	690	690	Lawn Establishment Area / Grading Area			SY	Reinder's Deluxe 50 Seed Mix (800-785-3301)	
	690	690	Erosion Matting for seeded lawn areas	*see plan for area delineation*		SF	EroTex D575 Erosion Control Blanket (or approved equal)	
Hardscape Materials								
	16	16	Shredded Hardwood Mulch (3" depth)	*Area: 1,700 SF*		CY	Bark Mulch; apply Preemergent after installation of mulch	
	11	11	Soil Amendments (2" depth)	*Area: 1,700 SF*		CY		
	19	19	Pulverized Topsoil (Lawn Area)	*Area: 6,200 SF*		CY		
			Pulverized Topsoil (No-Mow Seeded Areas)	*Area: 6,200 SF*		CY		
	11	11	Pulverized Topsoil (2" over bed areas)	*Area: 1,700 SF*		CY		

*Landscape counts & quantities are provided as a service to the Landscape Contractor; Landscape Contractor is responsible for verifying these counts and quantities in order to provide a complete landscape installation as outlined on this Landscape Master Plan. In the event that a discrepancy occurs between this schedule and the Landscape Master Plan, the Landscape Master Plan- including the graphics and notations depicted therein- shall govern.

Seed Compositions:

Reinder's Deluxe 50 Seed Mix (800-785-3301): — Seed at rate of 150-200# per acre

- 20% Kentucky Bluegrass (Sod Quality)
- 15% Newport Kentucky Bluegrass
- 15% Ken Blue Kentucky Bluegrass
- 25% Creeping Red Fescue
- 15% Quebec Perennial Ryegrass
- 10% Fiesta III Perennial Ryegrass

ON-SITE WATER SUPPLY VIA HOSE BIBS (POST CONSTRUCTION), AND WATER TRUCK SUPPLY DURING INSTALLATION AND DEVELOPMENT

PLANT & MATERIAL SCHEDULE

BUILDING D ONLY

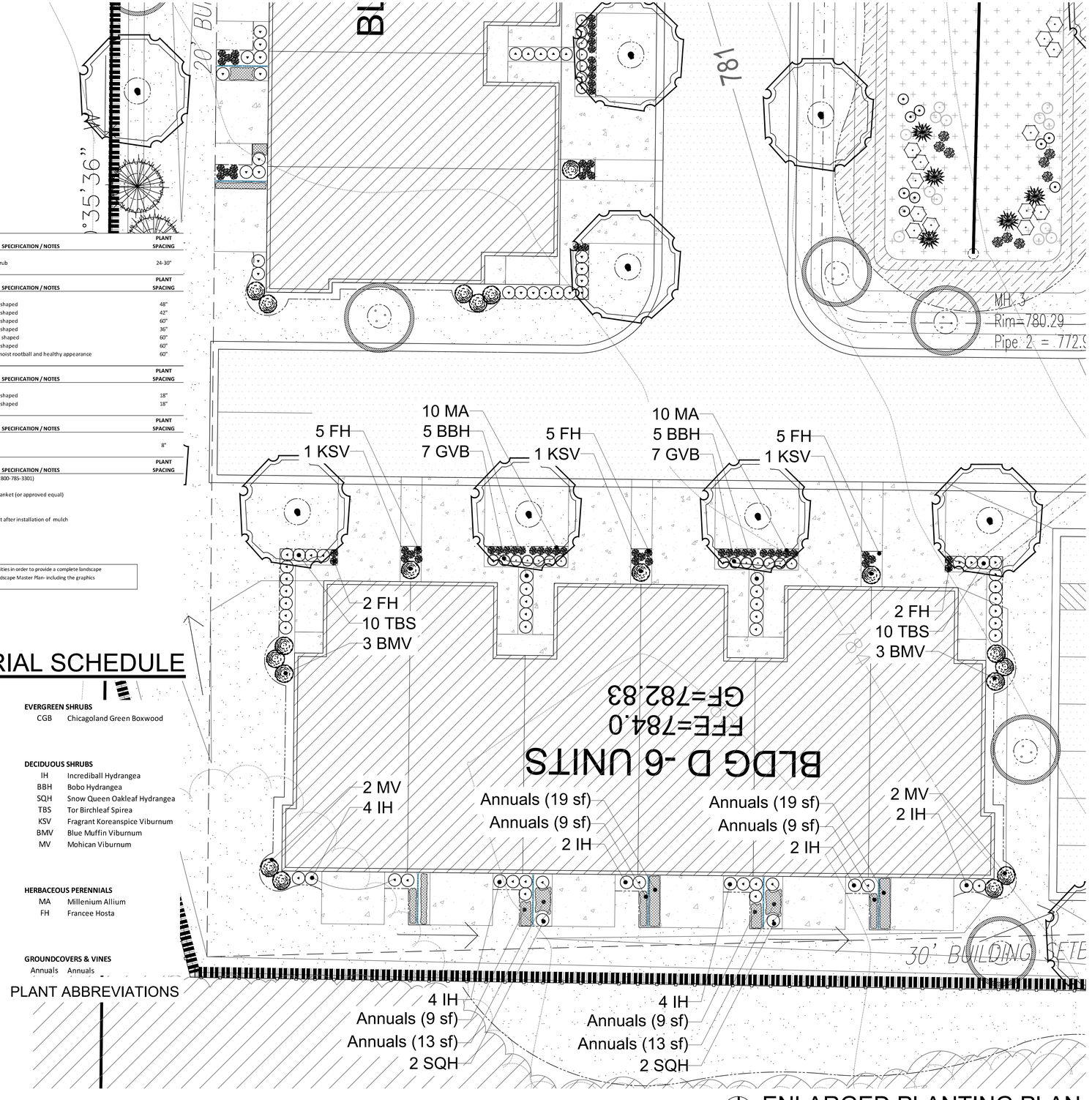
EVERGREEN SHRUBS
- CGB — Chicagoland Green Boxwood

DECIDUOUS SHRUBS
- IH — Incrediball Hydrangea
- BBH — Bobo Hydrangea
- SQH — Snow Queen Oakleaf Hydrangea
- TBS — Tor Birchleaf Spirea
- KSV — Fragrant Koreanspice Viburnum
- BMV — Blue Muffin Viburnum
- MV — Mohican Viburnum

HERBACEOUS PERENNIALS
- MA — Millenium Allium
- FH — Francee Hosta

GROUNDCOVERS & VINES
- Annuals — Annuals

PLANT ABBREVIATIONS



ENLARGED PLANTING PLAN

NORTH

Scale: 1" = 10'0"
6-Unit Building

0 5 10 20

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PROJECT

LAKE GROVE PLACE

3709 W. College Ave.
Franklin, WI

ISSUANCE AND REVISIONS

DATE	DESCRIPTION
1.10.24	FIRST ISSUE
1.19.24	REV. NRPP
3.29.24	REVISED SITE PLAN

Information contained herein is based on survey information, field inspection, and believed to be accurate.

SHEET TITLE

ENLARGED LANDSCAPE PLAN: 6 UNIT

PROJECT MANAGER	WDH
PROJECT NUMBER	24-001
DATE	03.29.24
SHEET NUMBER	L 1.4

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE

CALL DIGGERS HOTLINE
811 or 1-800-242-8511
MILW. AREA 259-1181
WIS STATUTE 182.0175(1974)
REQUIRES MIN. 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

1. Contractor responsible for contacting Diggers Hotline (811 or 800-242-8511) to have site marked prior to excavation or planting.

2. Contractor to verify all plant quantities shown on Plant & Material List and landscape planting symbols and report any discrepancies to Landscape Architect or General Contractor.

3. All plantings shall comply with standards as described in American Standard of Nursery Stock - Z60.1 ANSI (latest version). Landscape Architect reserves the right to inspect, and potentially reject any plants that are inferior, compromised, undersized, diseased, improperly transported, installed incorrectly or damaged. No sub-standard "B Grade" or "Park Grade" plant material shall be accepted. Plant material shall originate from nursery(ies) with a similar climate as the planting site.

4. Any potential plant substitutions must be approved by Landscape Architect or Owner. All plants must be installed as per sizes indicated on Plant & Material Schedule, unless approved by Landscape Architect. Any changes to sizes shown on plan must be submitted in writing to the Landscape Architect prior to installation.

5. Topspoil in Parking Lot Islands (if applicable): All parking lot islands to be backfilled with topsoil to a minimum depth of 12" to insure long-term plant health. Topsoil should be placed within 3" of finish grade by General Contractor / Excavation Contractor during rough grading operations/activity. The landscape contractor shall be responsible for the fine grading of all disturbed areas, planting bed areas, and lawn areas. Crown all parking lot islands a minimum of 4" to provide proper drainage, unless otherwise specified.

6. Tree Planting: Plant all trees slightly higher than finished grade at the root flare. Remove excess soil from the top of the root ball, if needed. Remove and discard non-biodegradable ball wrapping and support wire. Removed biodegradable burlap and wire cage (if present) from the top $\frac{1}{3}$ of the rootball and carefully bend remaining wire down to the bottom of the hole. Once the tree has been placed into the hole and will no longer be moved, score the remaining $\frac{2}{3}$ of the burlap and remove the twine. Provide one slow release fertilizer packets (per 1" caliper) for each tree planted.

7. Tree Planting: Backfill tree planting holes 80% existing soils removed from excavation and 20% Soil Amendments (see Note 11). Avoid air pockets and do not tamp soil down. Discard any gravel, rocks, heavy clay, or concrete pieces. When hole is $\frac{2}{3}$ full, trees shall be watered thoroughly, and water left to soak in before proceeding to fill the remainder of the hole. Water again to full soak in the new planting. Each tree shall receive a 3" deep, 4-5' diameter (see planting details or planting plan) shredded hardwood bark mulch ring / saucer around all trees. Do not build up any mulch onto the trunk of any tree. Trees that are installed incorrectly will be replaced at the time and expense of the Landscape Contractor.

8. Shrub Planting: All shrubs to be planted in groupings as indicated on the Landscape Plan. Install with the planting of shrubs a 50/50 mix of Soil Amendments with blended, pulverized topsoil. Install topsoil into all plant beds as needed to achieve proper grade and displace undesirable soils (see planting detail). Remove all excessive gravel, clay and stones from plant beds prior to planting. When hole(s) are $\frac{2}{3}$ full, shrubs shall be watered thoroughly, and water left to soak in before proceeding. Provide slow-release fertilizer packets at the rater of 1 per 24" height/diameter of shrub at planting.

9. Mulching: All tree rings to receive a 3" deep layer of high quality shredded hardwood bark mulch (not pigment dyed or enviro-mulch). All shrub planting and perennial planting bed areas (groupings) shall receive a 2" layer of double-shredded hardwood bark mulch, and groundcover areas a 2" layer of the same mulch. Do not mulch annual flower beds (if applicable). Do not allow mulch to contact plant stems and tree trunks.

10. Edging: All planting beds shall be edged with a 4" deep spade edge using a flat landscape spade or a mechanical edger. Bedlines are to be cut crisp, smooth as per plan. A clean definition between landscape beds and lawn is required. Pack mulch against lawn edge to hold in place.

11. Plant bed preparation/Soil Amendment composition: All perennial, groundcover and annual areas (if applicable) are required to receive a blend of organic soil (Soil Amendments) amendments prior to installation. Roto-till the following materials at the following ratio, into existing soil beds or installed topsoil beds to a depth of approximately 8"-10". Containerized and balled & burlapped plant material should be back-filled with amended soil:

Per 100 SF of bed area (Soil Amendment composition):
¾ CY Peat Moss or Mushroom Compost
¾ CY blended/pulverized Topsoil
¼ CY composted manure

In roto-tilled beds only, also include in above mixture:
2 lbs Starter Fertilizer

12. Installation preparation for all seeded areas: remove/kill off any existing unwanted vegetation prior to seeding. Prepare the topsoil (if adequate or provide as in item #6 above) and seed bed by removing all surface stones 1" or larger. Apply a starter fertilizer (20-10-5, or approved comparable) and specified seed uniformly at the specified rate, and provide mulch covering suitable to germinate and establish turf. Provide seed and fertilizer specifications to Landscape Architect and Owner prior to installation. Erosion control measures are to be used in swales and on slopes in excess of 1:3 and where applicable (see Civil Engineering Drawings). Methods of installation may vary are the discretion of the Landscape Contractor on his/her responsibility to establish and guarantee a smooth, uniform, quality turf. A minimum of 2" of blended, prepared and non-compacted topsoil is required for all lawn areas. If straw mulch is used as a mulch covering, a tackifier may be necessary to avoid wind dispersal of mulch covering. Marsh hay containing reed canary grass is NOT acceptable as a mulch covering.

An acceptable quality seed installation is defined as having:
No bare spots larger than one (1) square foot
No more than 10% of the total area with bare areas larger than one (1) square foot
A uniform coverage through all turf areas

13. Warranty and Replacements: All plantings are to be watered thoroughly at the time of planting, through construction and upon completion of project as required. Trees, Evergreens, and Shrubs (deciduous and evergreen) shall be guaranteed (100% replacement) for a minimum of one (1) year from the date of project completion. Perennials, groundcovers, and ornamental grasses shall be guaranteed for a minimum of one (1) growing season. Perennials, groundcovers, and ornamental grasses planted after September 15th shall be guaranteed through May 31st of the following year. Only one replacement per plant will be required during the warranty period, except for losses or replacements due to failure to comply with specified requirements. Watering and general ongoing maintenance instructions are to be supplied by the Landscape Contractor to the Owner upon completion of the project.

14. The Landscape Contractor is responsible for the watering and maintenance of all landscape areas for a period of 45 days after the substantial completion of the landscape installation. This shall include all trees, shrubs, evergreens, perennials, ornamental grasses, turf grass, no-mow grass, and native prairie seed mix / stormwater seed mix. Work also includes weeding, edging, mulching (only if required), fertilizing, trimming, sweeping up grass clippings, pruning and deadheading.

15. Project Completion: Landscape Contractor is responsible to conduct a final review of the project, upon completion, with the Landscape Architect, Client or Owner / Client Representative, and the General Contractor to answer questions, provide written care instructions for new plantings and turf, and insure that all specifications have been met.

LANDSCAPE GENERAL NOTES

ON-SITE WATER SUPPLY VIA HOSE BIBS (POST CONSTRUCTION), AND WATER TRUCK SUPPLY DURING INSTALLATION AND DEVELOPMENT

PLANT KEY	SITE QTY	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CALIPER/HEIGHT SIZE	ROOT	SPECIFICATION / NOTES	PLANT SPACING
Proposed Landscape Materials							
SHADE TREES (DECIDUOUS)							
AFM	10	Acer xfreemanii 'Autumn Fantasy'	Autumn Fantasy Maple	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	
PPH	10	Celtis occidentalis 'Prairie Pride'	Prairie Pride Hackberry	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	
SHL	7	Gleditsia triacanthos 'Skyline'	Skyline Honeylocust	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	
KCT	2	Gymnocladus dioica	Kentucky Coffee Tree	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	
SWO	11	Quercus bicolor	Swamp White Oak	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	
BC	6	Taxodium distichum	Bald Cypress	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	
GSL	11	Tilia cordata 'Greenspire'	Greenspire Linden	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	

PLANT KEY	SITE QTY	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CALIPER/HEIGHT SIZE	ROOT	SPECIFICATION / NOTES	PLANT SPACING
ORNAMENTAL TREES (DECIDUOUS)							
ABS	7	Amelanchier xgrandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	7-8'	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	
TCH	8	Crataegus crus-galli 'Inermis'	Thornless Cockspur Hawthorn	7-8'	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	
AFC	2	Malus x 'Adams'	Adams Flowering Crabapple	7-8' H	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	
PFC	2	Malus x 'Prairifire'	Prairie Fire Flowering Crabapple	7-8' H	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	
SSFC	3	Malus x 'Spring Snow'	Spring Snow Flowering Crabapple	7-8' H	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	
IW	10	Ostrya virginiana	Ironwood	2.5-3" DBH	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	
JTL	6	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	7-8'	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	

PLANT KEY	SITE QTY	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	HEIGHT SIZE	ROOT	SPECIFICATION / NOTES	PLANT SPACING
EVERGREEN TREES							
CF	6	Abies concolor	Concolor Fir	7-8'	B&B	Evenly shaped tree with branching to the ground	15'
NS	11	Picea abies	Norway Spruce	7-8'	B&B	Evenly shaped tree with branching to the ground	17'
BHS	6	Picea glauca 'densata'	Black Hills Spruce	7-8'	B&B	Evenly shaped tree with branching to the ground	15'
EWP	8	Pinus strobus	Eastern White Pine	6-7'	B&B	Evenly shaped tree with branching to the ground	15'
DFI	7	Pseudotsuga menziesii	Douglas Fir	6-7'	B&B	Evenly shaped tree with branching to the ground	17'

PLANT KEY	SITE QTY	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	SHRUB SIZE (HEIGHT)	ROOT/ CONT.	SPECIFICATION / NOTES	PLANT SPACING
DECIDUOUS SHRUBS							
CRD	13	Cornus sericea 'Cardinal'	Cardinal Redtwig Dogwood	36"	Cont.	Full, well rooted plant, evenly shaped	48"
CW	11	Hamamelis virginiana	Common Witchhazel	36"	B&B	Full, well rounded plant with moist rootball and healthy appearance	72"
DN	11	Physocarpus opulifolius 'Diablo'	Diablo Ninebark	42"	Cont.	Full, well rooted plant, evenly shaped	60"
MKL	11	Syringa patula 'Miss Kim'	Miss Kim Dwarf Lilac	36"	Cont.	Full, well rooted plant, evenly shaped	60"

PLANT KEY	SITE QTY	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CONTAINER SIZE		SPECIFICATION / NOTES	PLANT SPACING
HERBACEOUS PERENNIALS							
JPW	49	Eupatorium dubium 'Baby Joe'	Baby Joe Pyeweed	#1	Cont.	Full, well rooted plant, evenly shaped	18"
RS	26	Perovskia atriplicifolia	Russian Sage	#2	Cont.	Full, well rooted plant, evenly shaped	36"
BES	43	Rudbeckia fulgida 'Goldsturm'	Black-eyed Susan	#1	Cont.	Full, well rooted plant, evenly shaped	18"
AJS	42	Sedum spectable 'Autumn Joy'	Autumn Joy Sedum	#1	Cont.	Full, well rooted plant, evenly shaped	18"

PLAN KEY	SITE QTY	PLANT MATERIAL PROPOSED SPECIFIED SEED MIX / SOD		CONTAINER SIZE		SPECIFICATION / NOTES	PLANT SPACING
LAWN	0	Lawn Establishment Area / Grading Area	*contractor to determine*		SY	Reinder's Deluxe 50 Seed Mix (800-785-3301)	
	0	Erosion Matting for sloped lawn areas	*contractor to determine*		SF	EroTex DS75 Erosion Control Blanket (or approved equal)	
	10035	Erosion Matting for No-Mow Mix seeded areas	*see plan for area delineation*		SF	EroTex DS75 Erosion Control Blanket (or approved equal)	
LMMM	850	Low-No Meadow Mix	*see plan for area delineation*		SY	Reinders No Mow / Low-Grow Seed Mix (800-785-3301)	
Hardscape Materials							
	56	Shredded Hardwood Mulch (3" depth)	*Area: 6,000 SF*		CY	Bark Mulch; apply Preemergent after installation of mulch	
	37	Soil Amendments (2" depth)	*Area: 6,000 SF*		CY		
		Pulverized Topsoil (Lawn Area)	*contractor to determine*		CY		
	32	Pulverized Topsoil (No-Mow Mix seeded areas)	*Area: 10,035 SF*				
	37	Pulverized Topsoil (2" over bed areas)	*Area: 6,000 SF*		CY		

*Landscape counts & quantities are provided as a service to the Landscape Contractor; Landscape Contractor is responsible for verifying these counts and quantities in order to provide a complete landscape installation as outlined on this Landscape Master Plan. In the event that a discrepancy occurs between this schedule and the Landscape Master Plan, the Landscape Master Plan- including the graphics and notations depicted therein- shall govern.

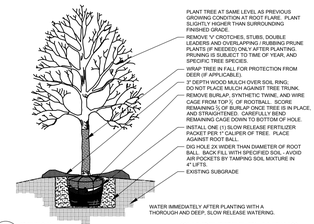
Seed Compositions:

Reinder's Deluxe 50 Seed Mix (800-785-3301): Seed at rate of 150-200# per acre
20% Kentucky Bluegrass (Sod Quality)
15% Quebec Perennial Ryegrass
15% Newport Kentucky Bluegrass
10% Fiesta III Perennial Ryegrass
15% Ken Blue Kentucky Bluegrass
25% Creeping Red Fescue

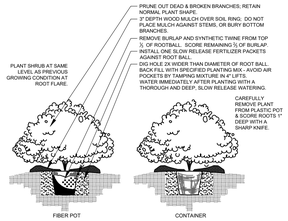
Reinders No Mow / Low-Grow Seed Mix (800-785-3301): Seed at a rate of 4-6# per 1000 SF
45% Spartan II Hard Fescue
40% Quartro Sheep Fescue
15% TXR Annual Ryegrass

PLANT & MATERIAL SCHEDULE

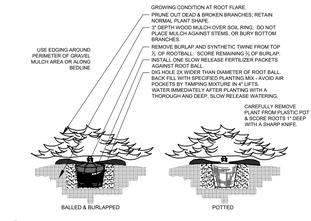
OVERALL SITE LANDSCAPE PLAN



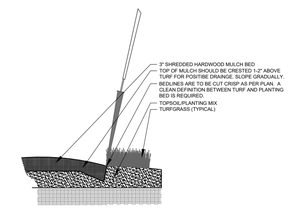
1 DETAIL SHADE TREE PLANTING
N.T.S. SECTION



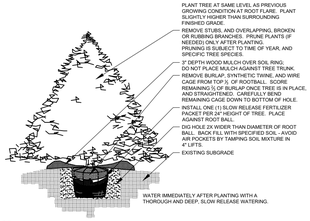
2 DETAIL DECIDUOUS SHRUB PLANTING (POTTED)
N.T.S. SECTION



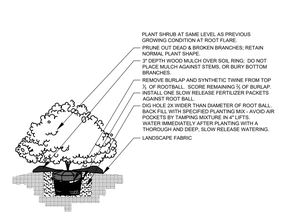
3 DETAIL EVERGREEN SHRUB PLANTING
N.T.S. SECTION



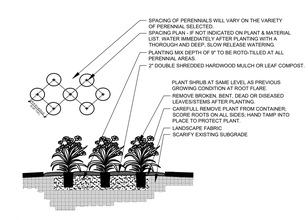
4 DETAIL SPADE EDGE PLANT BED EDGE DETAIL
N.T.S. SECTION



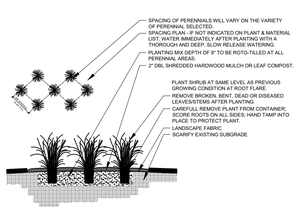
5 DETAIL EVERGREEN TREE PLANTING
N.T.S. SECTION



6 DETAIL DECIDUOUS SHRUB PLANTING (B&B)
N.T.S. SECTION



7 DETAIL GROUNDCOVER / PERENNIAL PLANTING
N.T.S. SECTION



8 DETAIL ORNAMENTAL GRASS PLANTING
N.T.S. SECTION

PLANTING & HARDSCAPE DETAILS

HELLER & ASSOCIATES, LLC
LANDSCAPE ARCHITECTURE
P.O. Box 1359
Lake Geneva, Wisconsin 53147-1359
ph 262.639.9733
david@wdavidheller.com
www.wdavidheller.com

PROJECT

LAKE GROVE PLACE

3709 W. College Ave.
Franklin, WI

ISSUANCE AND REVISIONS

DATE	DESCRIPTION
1.10.24	FIRST ISSUE
1.19.24	REV. NRPP
3.29.24	REVISED SITE PLAN

Information contained herein is based on survey information, field inspection, and believed to be accurate.

SHEET TITLE

LANDSCAPE DETAILS, NOTES & SCHEDULES

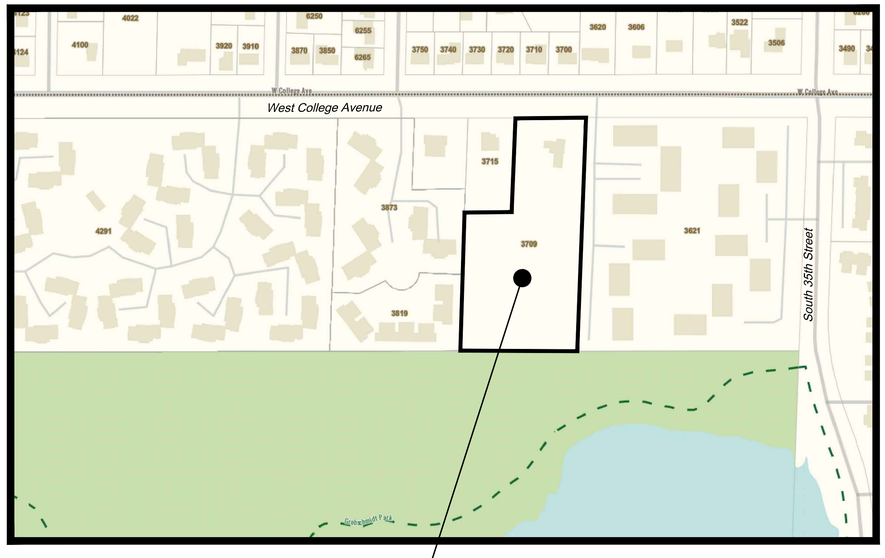
PROJECT MANAGER	WDH
PROJECT NUMBER	24-001
DATE	03.29.24
SHEET NUMBER	L 1.5

CONSTRUCTION PLANS
FOR
LAKE GROVE PLACE
3709 West College Avenue
City of Franklin, Wisconsin

LEGEND

- SECTION CORNER MONUMENT
- FOUND 1" IRON PIPE OR AS NOTED
- POST
- UTILITY POLE
- GUY POLE
- GUY WIRE
- CULVERT
- UTILITY PEDESTAL
- ELECTRIC PEDESTAL
- SEPTIC FACILITY
- SEPTIC CLEANOUT
- TV MANHOLE
- YARD LIGHT
- INLET
- SOIL TEST LOCATION W/ ELEV.
- WELL
- WIRE FENCE
- SILT FENCE
- (XXXXXX) RECORD DIMENSION
- ST STORM SEWER
- SAN SANITARY SEWER
- WM WATER MAIN
- OH OVERHEAD POWER/UTILITY
- G UNDERGROUND GAS
- E UNDERGROUND ELECTRIC
- C UNDERGROUND CABLE
- × 1007.0 EXISTING SPOT ELEVATION
- 1008 EXISTING CONTOUR
- 1008 PROPOSED SPOT ELEVATION
- 1008 PROPOSED CONTOUR
- PROPOSED DRAINAGE DIRECTION
- FoB SOIL TYPE
- FG 1008.0 PROPOSED YARD GRADE
- STRAW LOG DITCH CHECK
- RIPRAP

NOTES:
1) A LEGEND SHOWING SPECIAL SYMBOLS, LINE TYPES, ETC. IS SHOWN HERON.
2) UNDERGROUND UTILITIES MUST BE LOCATED BY "DIGGERS HOTLINE" PRIOR TO START OF CONSTRUCTION.



SUBJECT PROPERTY

SCALE: 1" = 200'

DEVELOPER:
M. Manzur Hassan Khan, Ali Siddiqui, Et Al
Safari Homes, Franklin
3709 W. College Avenue
Phone: 414-595-7486
Email: manzur.hassan.khan@gmail.com

ARCHITECT:
Gregory A. Schumacher, AIA
Cityscape Architecture / Development, S.C.
13700 West Greenfield Avenue
Brookfield, Wisconsin 53005
Phone: 262-370-5865
Email: greg@cityscapearchitecture.com

ENGINEER:
Mark R. Ellena, PE
Ellena Engineering Consultants, LLC
700 Pilgrim Parkway, Suite 100
Elm Grove, WI 53122
Phone: 262-791-6183
Email: mellena@eeceng.com

SURVEYOR:
Dennis Sauer, RLS
Metroplitan Survey Service
5307 S. 92nd Street, Suite 140
Hales Corners, WI 53130
Phone: 414-529-5380
Email: survey@metropolitansurvey.com

APPROVAL AGENCY:
City of Franklin
9229 W. Loomis Road
Franklin, WI 53132
Phone: 414-425-7510

GENERAL NOTES:

1. BEARINGS ARE REFERENCED TO THE CERTIFIED SURVEY MAP NO. 6537, IN WHICH NORTH LINE OF THE NW 1/4 OF SEC. 1-5-21 WAS TAKEN TO BEAR S88°32'28"W.

2. Vertical datum is based on National Geodetic Vertical Datum of 1929.

3. ALL SITE IMPROVEMENTS AND CONSTRUCTION SHOWN ON THE PLANS SHALL CONFORM TO THE CURRENT CITY OF FRANKLIN CONSTRUCTION STANDARDS. WHERE THE PLANS DO NOT COMPLY, IT SHALL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE DEVELOPER TO MAKE REVISIONS TO THE PLANS AND/OR CONSTRUCTED INFRASTRUCTURE TO COMPLY.

THE BOUNDARY & TOPOGRAPHIC SURVEY WAS PROVIDED BY METROPOLITAN SURVEYING. UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

DESCRIPTION	SHEET NO.
SITE PLAN	C100
GRADING, PAVING & DRAINAGE PLAN	C200
SANITARY SEWER AND WATER MAIN PLAN	C300
PUBLIC SANITARY SEWER PROFILE	C301
EROSION CONTROL PLAN	C400
OFFSITE STORM SEWER PROFILES	C500 - C501
DETAILS	C600 - C602

DATE | DESCRIPTION

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eeceng.com

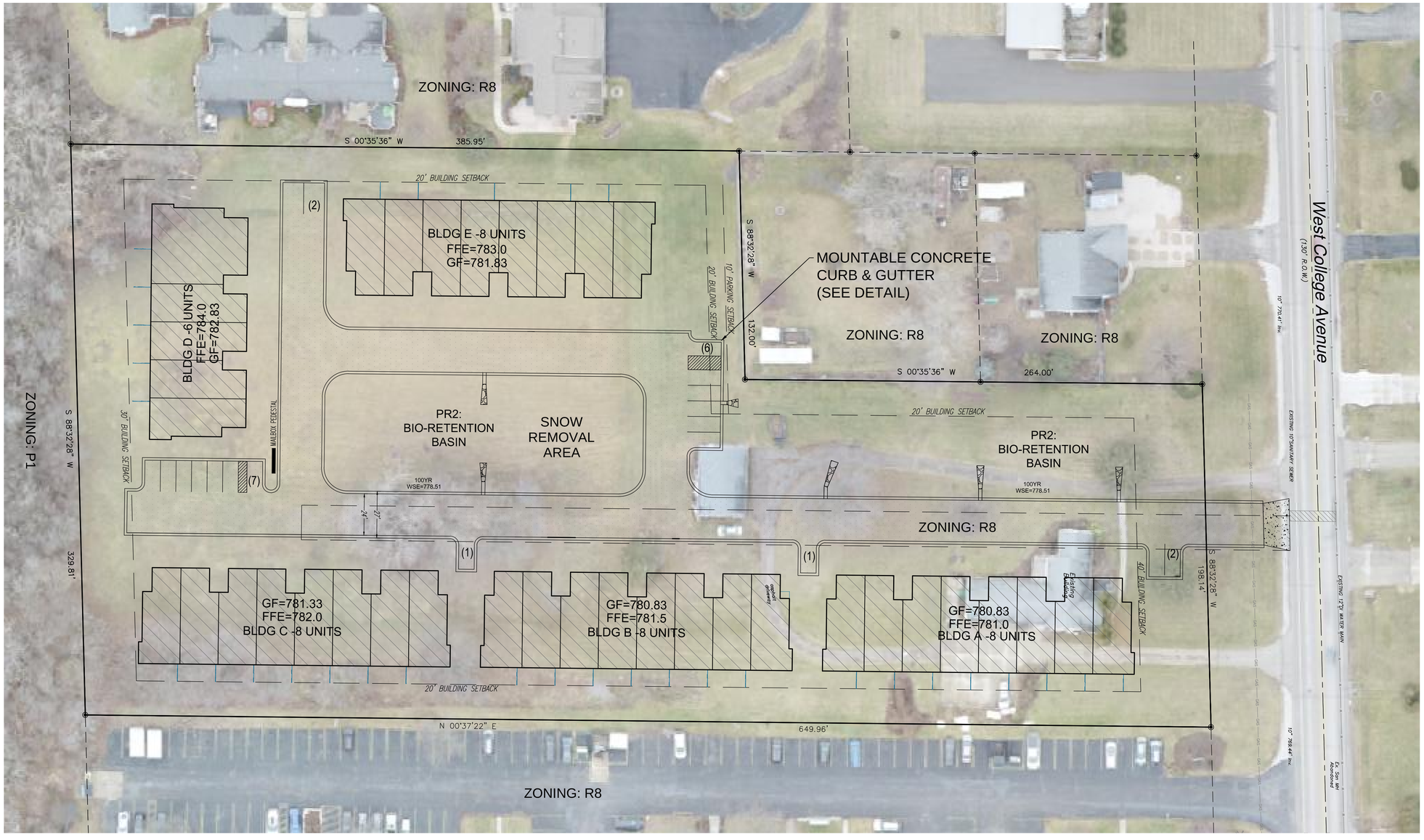
Lake Grove Place
CITY OF FRANKLIN, WI

COVER SHEET

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

DATE: 03-22-24
BY: MARK R. ELLENA,PE

SHEET NUMBER
C000



SCALE: 1"=30'

PAVEMENT LEGEND:

STANDARD DUTY PAVEMENT
4" ASPHALT PAVEMENT
(2 LIFTS)
8" - 3/4" GRAVEL BASE

SITE DATA TABLE

	PROPOSED
PROPERTY AREA :	179,487 S.F. (4.12 Acres)
TOTAL BUILDING FLOOR AREA :	43,810 S.F.
FLOOR AREA RATIO :	43,810 / 179,487 = 24.4%
TOTAL PAVED SURFACE AREA (including concrete areas) :	47,453 S.F.
TOTAL OPEN AREA (GREEN SPACE):	88,224 S.F.
LANDSCAPE SURFACE AREA RATIO	88,224 / 179,487 = 49.2%
LOT COVERAGE RATIO	50.8%
TOTAL PARKING : REQUIRED 2.5 PER UNIT = 95	PROVIDED: 2 PER UNIT AND 19 ADDITIONAL ON SITE =95

DATE	DESCRIPTION

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SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eeceng.com

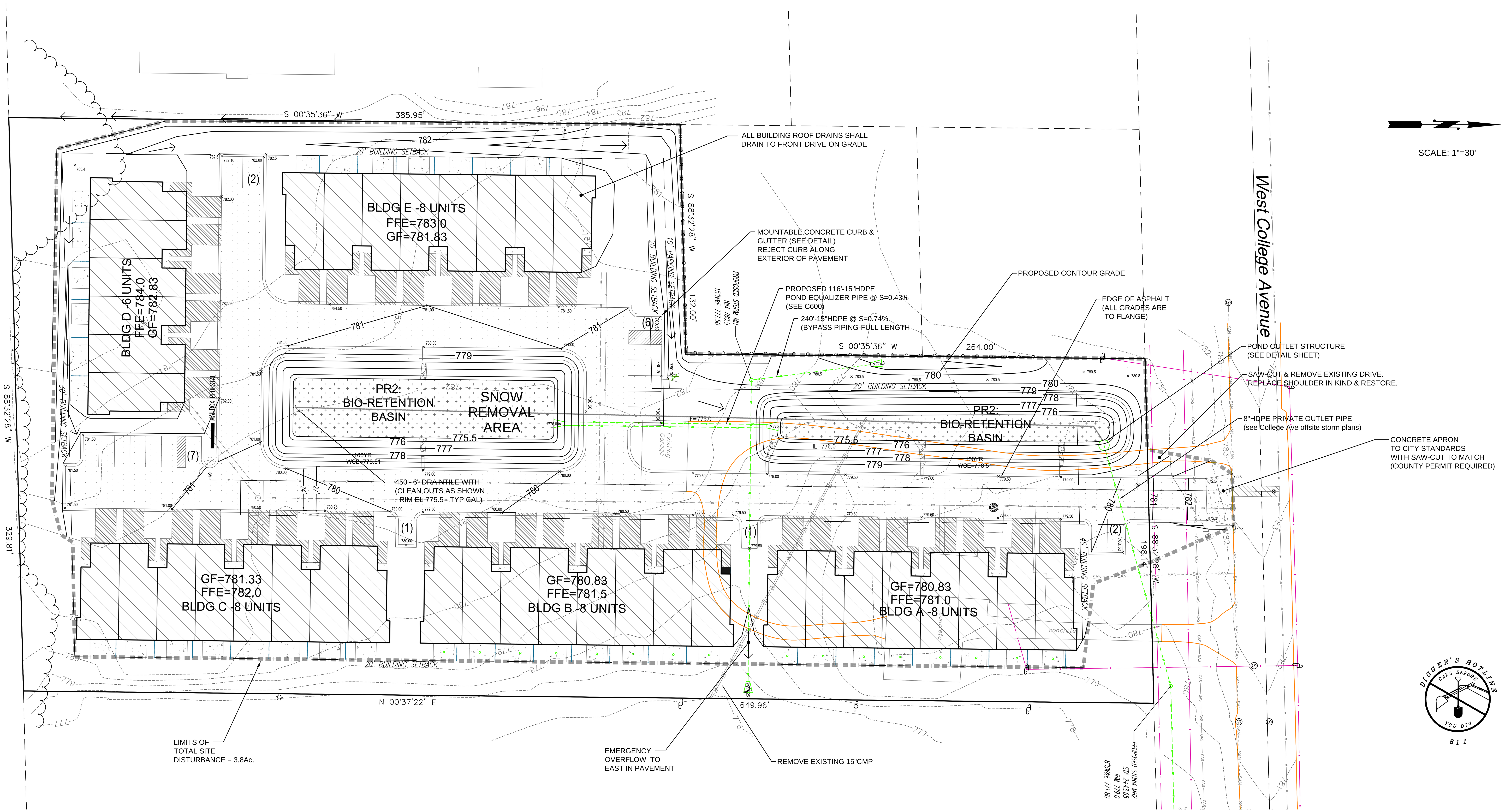
Lake Grove Place
CITY OF FRANKLIN, WI

SITE PLAN

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

DATE: 03-22-24
BY: MARK R. ELLENA,PE
SCALE: 1"=30'

SHEET NUMBER
C100



GENERAL CONSTRUCTION SPECIFICATIONS:

1. All work shall be in accordance with the Standard Specifications for Highway and Structure Construction, State of Wisconsin, Latest Edition; the State of Wisconsin Standard Specifications for Sewer and Water Construction in Wisconsin, Latest Edition; the State of Wisconsin Plumbing Codes and the City of Franklin Construction Specifications & Ordinances. All permits must be obtain by the contractor prior to commencing work.

2. All erosion control measures specified on this plan shall meet the design criteria, standards and specifications as set forth in the Wisconsin Department of Natural Resources and the City of Franklin Technical Standards.
3. All erosion control devices (i.e., silt fence, siltation basin, gravel entrance, etc.) shall be installed prior to commencing mass grading or utility construction.
4. All activities on the site shall be conducted in a logical sequence to minimize the area of bare soil exposed at any one time.
5. The OWNER shall provide all surveying and construction staking for this contract. All contractors shall exercise care and diligence in protecting the same.
6. The contractor shall notify Diggers Hotline, the local municipality and all government agencies that may be affected by the contractor's operations at least three (3) days before breaking ground.
7. All ingress and egress traffic to the project shall be limited to the gravel entrance to the property.
8. Contractor shall be responsible for maintaining the public roadways. Public roadways shall be kept free of silt or dirt tracked from areas under construction by sweeping at the end of each work day or as often as required by the City of Franklin.
9. Upon completion of the work as specified, respread four (4") inches of salvaged topsoil over all disturbed areas and provide seed, fertilizer and restore per the Standard Specifications.
10. All disturbed areas shall be revegatated within seven days of no disturbance. Highway mix #40 shall be used for seeding with an application rate of 4.0 lbs/1000 sf.
11. All erosion control devices shall be routinely inspected every seven days or within 24 hours of a rainfall greater than 0.5 inches (By GENERAL CONTRACTOR).
12. If permanent seeding is not completed by September 15, apply temporary seeding. If temporary seeding is not completed by October 15, mulch or erosion control fabric shall be placed on all inactive disturbed soils between October 15th and May 1st as a temporary soil stabilization measure during the non-growing season. See technical standards for installation requirements.
13. Construction between November 1st and May 1st will require measures to stabilize the site over winter. If the construction site is not stabilized with pavement, gravel road base, rip rap or 70 percent density mature vegetative cover crop, then the site must comply with the winter construction site erosion control requirements found in the WDNR Technical Standards.

THE BOUNDARY & TOPOGRAPHIC SURVEY WAS PROVIDED BY METROPOLITAN SURVEYING. UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

PAVEMENT LEGEND:

STANDARD DUTY PAVEMENT
4" ASPHALT PAVEMENT
(2 LIFTS)
8" - 3/4" GRAVEL BASE

NOTE: ALL UNDERGROUND CONTRACTOR ARE REQUIRED TO FIELD LOCATE EXISTING UTILITIES, STORM SIZE & INVERT PRIOR TO CONSTRUCTION. OBTAIN ALL CITY PERMITS PRIOR TO CONSTRUCTION.

BUILDING GRADE LEGEND:

FFE — FINISH FLOOR ELEVATION
GF — GARAGE FLOOR @ DOOR

GENERAL SPECIFICATIONS FOR PRIVATE STORM SEWER:

1. All work shall be in accordance with the Standard Specifications for Highway and Structure Construction, State of Wisconsin, Latest Edition; the City of Franklin Ordinances and the State of Wisconsin Standard Specifications for Sewer and Water Construction in Wisconsin.

2. The private storm sewer design, permitting, construction, installation, supervision, maintenance, inspection AND testing shall be in accordance with State of Wisconsin, Chapter SPS 382 ; unless otherwise specified by the City of Franklin Engineering Department. All permits must be obtain by the contractor prior to commencing work.

3. Private storm sewers shall be HDPE or PVC (solid wall), DR-26; per the State of Wisconsin Plumbing Code, Chapter SPS 382.

4. Private Storm Pond Outlet manhole shall be precast concrete in accordance with File No. 26 of the Standard Specifications for Sewer & Water Construction in Wisconsin with a Neenah No. R2471 frame & grate or approved equal.

NOTES:
1) A LEGEND SHOWING ALL SPECIAL SYMBOLS, LINE TYPES, ETC. IS SHOWN ON THE COVER SHEET.
2) THE CONTRACTORS MUST FOLLOW THE CONSTRUCTION SEQUENCE AS SHOWN ON THE EROSION CONTROL PLAN.
3) UNDERGROUND UTILITIES MUST BE LOCATED BY "DIGGERS HOTLINE" PRIOR TO START OF CONSTRUCTION.

VERTICAL DATUM IS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

DATE	DESCRIPTION

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eeceng.com

Lake Grove Place
CITY OF FRANKLIN, WI

GRADING, PAVING & DRAINAGE PLAN

WISCONSIN MARK R. ELLENA E-24090 WALES, WI PROFESSIONAL ENGINEER

DATE: 03-22-24
BY: MARK R. ELLENA,PE
SCALE: 1"=30'

SHEET NUMBER
C200

NOTE:
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF FRANKLIN STANDARD SPECIFICATIONS. WATER MAIN BEDDING, BACKFILL AND DOMESTICALLY-PRODUCED FITTINGS SHALL ALSO BE IN ACCORDANCE WITH CITY WATER MAIN CONSTRUCTION STANDARDS.

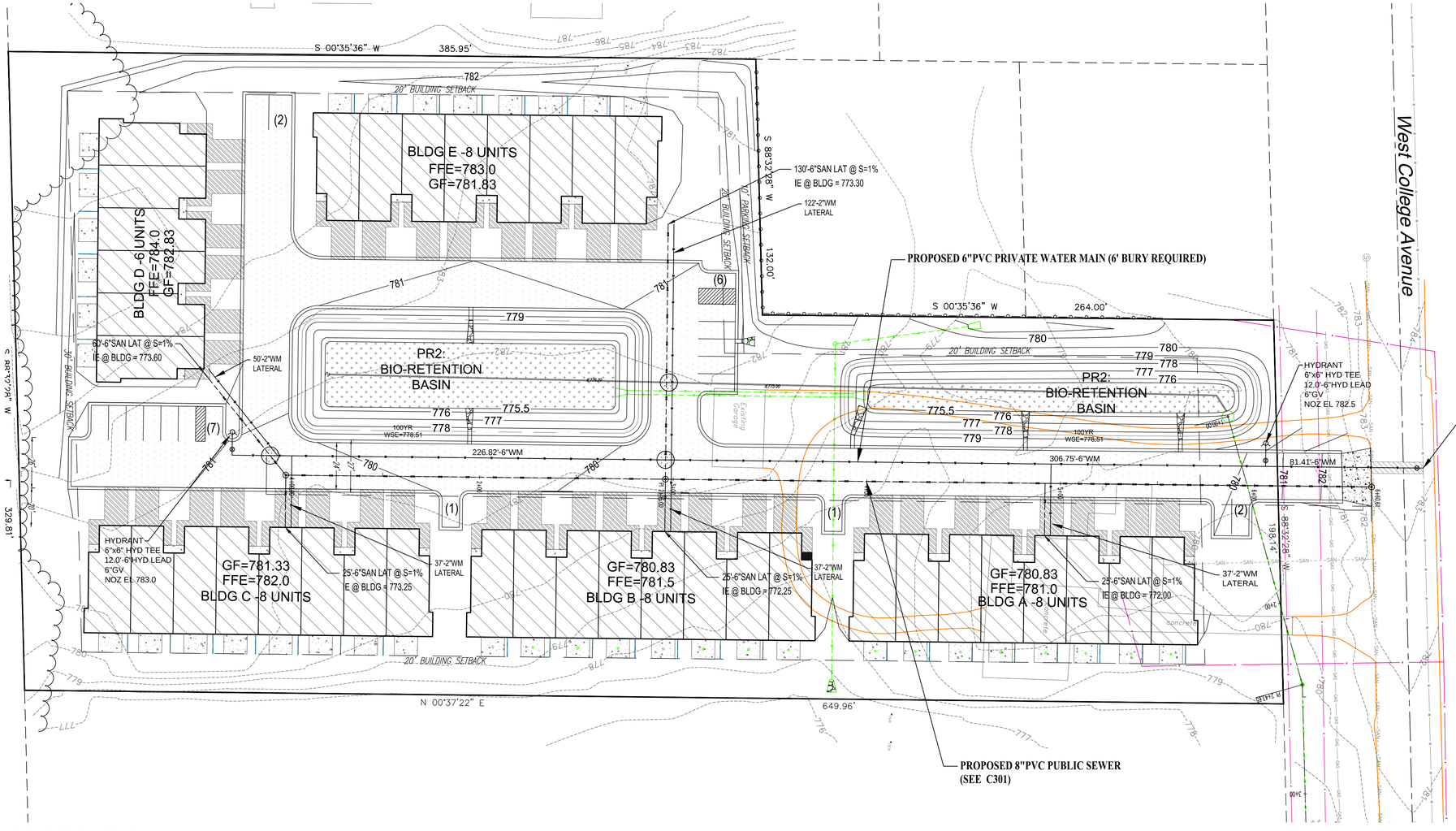
All trenches located in a proposed roadway shall be backfilled with 1 1/4 inch TB stone. If the water main is to be located in an off-road easement area, the spoil backfill shall be mechanically compacted. The cover material over the pipe shall be 2 feet and care shall be taken not to exert undue stress on the pipe during any compaction operation. No frozen spoil material will be allowed for backfill material. During the mechanical compaction of granular material, the first compacted lift shall be 18". The contractor shall use smaller lifts if the required compaction cannot be obtained. Granular material shall be compacted to 95% of the modified proctor density. Open graded, washed crushed stone may be allowed with permission of the City Engineer.

The material used to backfill mains or lateral trenches located in an existing roadway shall be a lean concrete mix backfill (aggregate slurry backfill) conforming to Section 8.43.9 and 10.14.1 of these Specifications of Sewer and Water Construction in Wisconsin, current Edition. Also lateral trenches below proposed sidewalk shall be backfilled with 1 1/4 inch TB. Saw-cut existing pavement and replace full depth asphalt section, in kind.

During water main installation a watertight plug shall be installed in the open end(s) between each pipe installation and at the end of each work period.

Traffic Bond 3/4" for bedding shall be compacted first before laying the pipe. Bedding material shall be required on all pipe installations and shall extend to 2 feet above the pipe as cover. An exception is in areas around valves and hydrants where graded stone is required.

SCALE: 1"=30'



GENERAL CONSTRUCTION SPECIFICATIONS:

1. All work shall be in accordance with the Standard Specifications for Highway and Structure Construction, State of Wisconsin, Latest Edition; the State of Wisconsin Standard Specifications for Sewer and Water Construction in Wisconsin, Latest Edition; the State of Wisconsin Plumbing Codes, the City of Milwaukee Water Department and the City of Franklin Construction Specifications & Ordinances.
All permits must be obtain by the contractor prior to commencing work.

2. All erosion control measures specified on this plan shall meet the design criteria, standards and specifications as set forth in the Wisconsin Department of Natural Resources and the City of Franklin Technical Standards.
3. All erosion control devices (i.e., silt fence, siltation basin, gravel entrance, etc.) shall be installed prior to commencing mass grading or utility construction.
4. All activities on the site shall be conducted in a logical sequence to minimize the area of bare soil exposed at any one time.
5. The OWNER shall provide all surveying and construction staking for this contract. All contractors shall exercise care and diligence in protecting the same.
6. The contractor shall notify Diggers Hotline, the local municipality and all government agencies that may be affected by the contractor's operations at least three (3) days before breaking ground.
7. All ingress and egress traffic to the project shall be limited to the gravel entrance to the property.
8. Contractor shall be responsible for maintaining the public roadways. Public roadways shall be kept free of silt or dirt tracked from areas under construction by sweeping at the end of each work day or as often as required by the City of Franklin.
9. Upon completion of the work as specified, respread four (4") inches of salvaged topsoil over all disturbed areas and provide seed, fertilizer and restore per the Standard Specifications.
10. All disturbed areas shall be revegatated within seven days of no disturbance. Highway mix #40 shall be used for seeding with an application rate of 4.0 lbs/1000 sf.
11. All erosion control devices shall be routinely inspected every seven days or within 24 hours of a rainfall greater than 0.5 inches (By GENERAL CONTRACTOR).
12. If permanent seeding is not completed by September 15, apply temporary seeding. If temporary seeding is not completed by October 15, mulch or erosion control fabric shall be placed on all inactive disturbed soils between October 15th and May 1st as a temporary soil stabilization measure during the non-growing season. See technical standards for installation requirements.
13. Construction between November 1st and May 1st will require measures to stabilize the site over winter. If the construction site is not stabilized with pavement, gravel road base, rip rap or 70 percent density mature vegetative cover crop, then the site must comply with the winter construction site erosion control requirements found in the WDNR Technical Standards.

NOTE: ALL UNDERGROUND CONTRACTOR ARE REQUIRED TO FIELD LOCATE EXISTING UTILITIES, STORM SIZE & INVERT PRIOR TO CONSTRUCTION. OBTAIN ALL CITY PERMITS PRIOR TO CONSTRUCTION.

THE BOUNDARY & TOPOGRAPHIC SURVEY WAS PROVIDED BY METROPOLITAN SURVEYING. UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

SANITARY SEWER & WATER MAIN SPECIFICATIONS:

1. All work shall be in accordance with the Standard Specifications for Highway and Structure Construction, State of Wisconsin, Latest Edition; the City of Milwaukee Water Department; the City of Franklin; the MMSD; and the State of Wisconsin Standard Specifications for Sewer and Water Construction in Wisconsin.

2. The sanitary sewer & water main,design, permitting, construction, installation, supervision, maintenance, inspection AND testing shall be in accordance with State of Wisconsin, Chapter SPS 382; unless otherwise specified by the City of Milwaukee Water Department, MMSD and the City of Franklin Engineering Department. All permits must be obtain by the contractor prior to commencing work.

3. Sanitary mains and laterals shall be PVC (solid wall), ASTM D-3034, DR-35 or 28; or PVC (solid wall), AWWA C-900 per the State of Wisconsin Plumbing Code, Chapter SPS 382 and the Standard Specifications for Sewer & Water Construction in Wisconsin.

4. Water mains and laterals shall be PVC (solid wall), AWWA C-900, CLASS 235, DR-18 with Push-On type integral elastomeric bell-spigot joints per the State of Wisconsin Plumbing Code, Chapter SPS 382 AND the Standard Specifications for Sewer & Water Construction in Wisconsin. 6' BURY REQUIRED.

TRACER WIRE REQUIRED ON ALL MAINS.

INDICATES WATER MAIN CROSSING
CAUTION - 6" SEPARATION ABOVE SEWER & 18" SEPARATION BELOW SEWER (6'BURY REQUIRED FOR WM)

NOTES:
1) A LEGEND SHOWING ALL SPECIAL SYMBOLS, LINE TYPES, ETC. IS SHOWN ON THE COVER SHEET.
2) THE CONTRACTORS MUST FOLLOW THE CONSTRUCTION SEQUENCE AS SHOWN ON THE EROSION CONTROL PLAN.
3) UNDERGROUND UTILITIES MUST BE LOCATED BY "DIGGERS HOTLINE" PRIOR TO START OF CONSTRUCTION.

DIGGER'S HOTLINE CALL BEFORE YOU DIG 811

DESCRIPTION | DATE

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eeceng.com

Lake Grove Place
CITY OF FRANKLIN, WI

SANITARY SEWER AND WATERMAIN PLAN

WISCONSIN
MARK R. ELLENA E-24090 WALES, WI
PROFESSIONAL ENGINEER

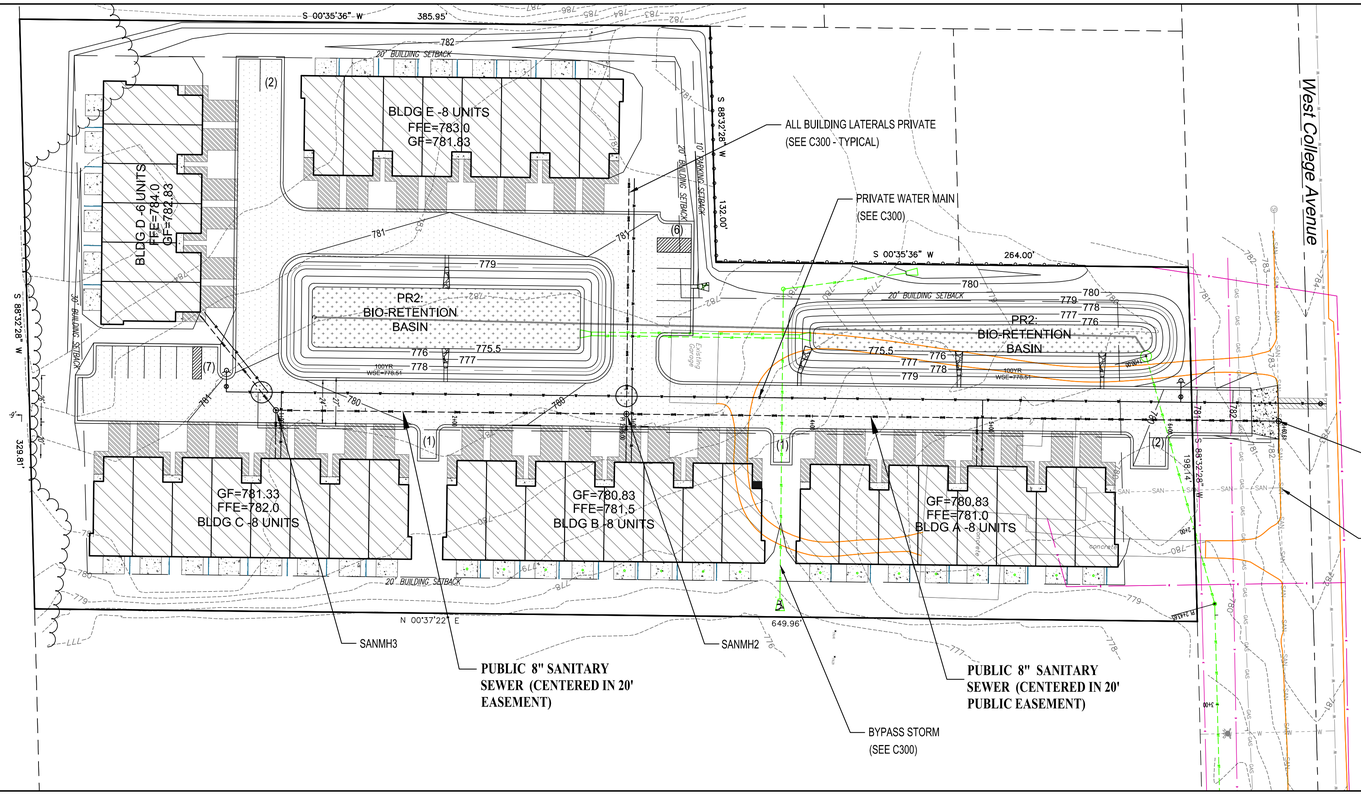
DATE: 03-22-24
BY: MARK R. ELLENA,PE
SCALE: 1"=30'

SHEET NUMBER
C300

NOTE:
4.0.1 All work performed and materials supplied shall conform to the latest edition of Standard Specification unless otherwise called for in these specifications. Any additional requirements of the Milwaukee Metropolitan Sewerage District (MMSD) shall also apply.
4.0.2 The City requires a full-time inspector on the job site during pipe unloading and on the job site during construction of the sanitary sewer and laterals. The contractor responsible for the construction of the sanitary sewers and laterals is also responsible for notifying the City per the notification policy of the City of Franklin. Contractor shall supply material manufactures and certification sheets prior to construction.
4.0.3 Detectable diggers caution tape shall be placed directly over and along the entire length of all sewer line. This tape shall be placed 24" below finished ground grade and shall be green in color and marked "Caution: Buried Sewer Below" (i.e. Terra Tape "D" Line guard, or equivalent). Tracer wire, coated 10 gauge, shall be placed along the top of main lines and laid along the entire length of all sewer line. Wire shall be taped to the sewer line every 50 feet (approximately three (3) pipe lengths). Wire shall extend to the inside of the manhole for accessibility. The contractor is required to do a conductivity test in the presence of the City of Franklin Water & Sewer Department or the City of Franklin Representative.

NOTE: ALL UNDERGROUND CONTRACTOR ARE REQUIRED TO FIELD LOCATE EXISTING UTILITIES, STORM SIZE & INVERT PRIOR TO CONSTRUCTION. OBTAIN ALL CITY PERMITS PRIOR TO CONSTRUCTION.

THE BOUNDARY & TOPOGRAPHIC SURVEY WAS PROVIDED BY METROPOLITAN SURVEYING. UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.



INDICATES WATER MAIN CROSSING
CAUTION - 6" SEPARATION ABOVE SEWER
& 18" SEPARATION BELOW SEWER
(6'BURY REQUIRED FOR WM)

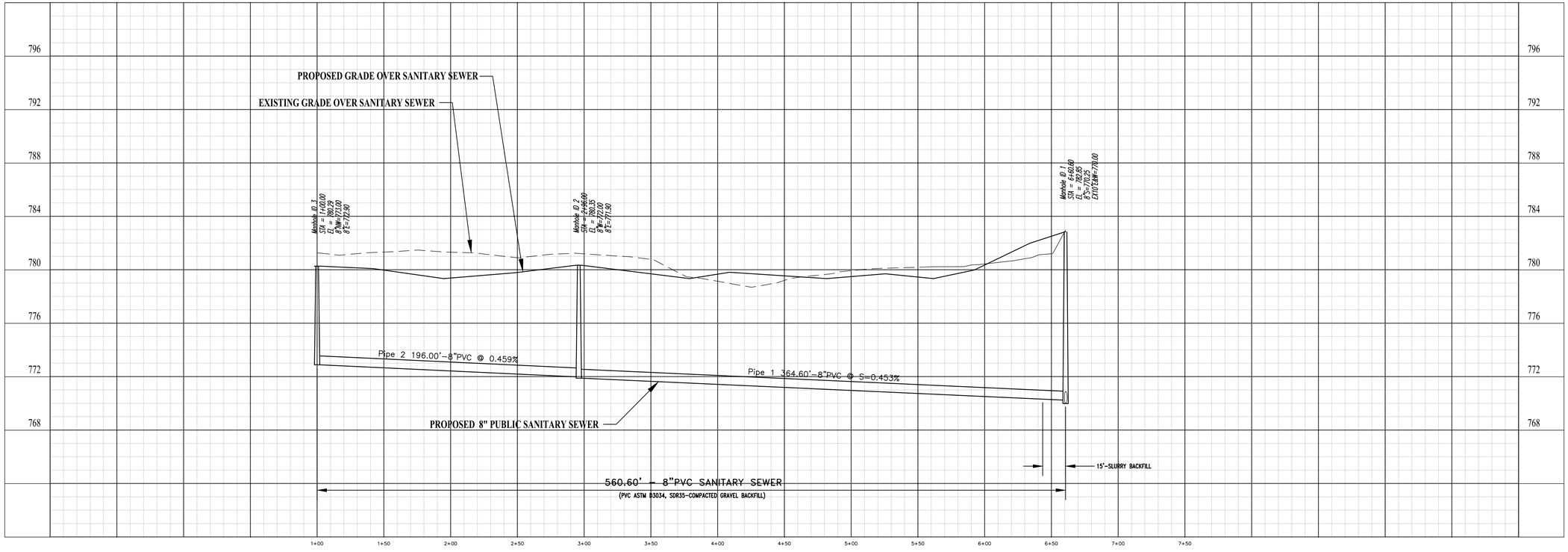
SCALE: 1"=40'

NOTES:
1) A LEGEND SHOWING ALL SPECIAL SYMBOLS, LINE TYPES, ETC. IS SHOWN ON THE COVER SHEET.
2) THE CONTRACTORS MUST FOLLOW THE CONSTRUCTION SEQUENCE AS SHOWN ON THE EROSION CONTROL PLAN.
3) UNDERGROUND UTILITIES MUST BE LOCATED BY "DIGGERS HOTLINE" PRIOR TO START OF CONSTRUCTION.

ESTIMATE OF QUANTITIES

8" SANITARY SEWER	560 L.F.
MANHOLE	3 EACH

DIGGER'S HOTLINE CALL BEFORE YOU DIG 811



DESCRIPTION | DATE

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Phone: 262-719-6183 Email: mellena@eeceng.com

Lake Grove Place
CITY OF FRANKLIN, WI

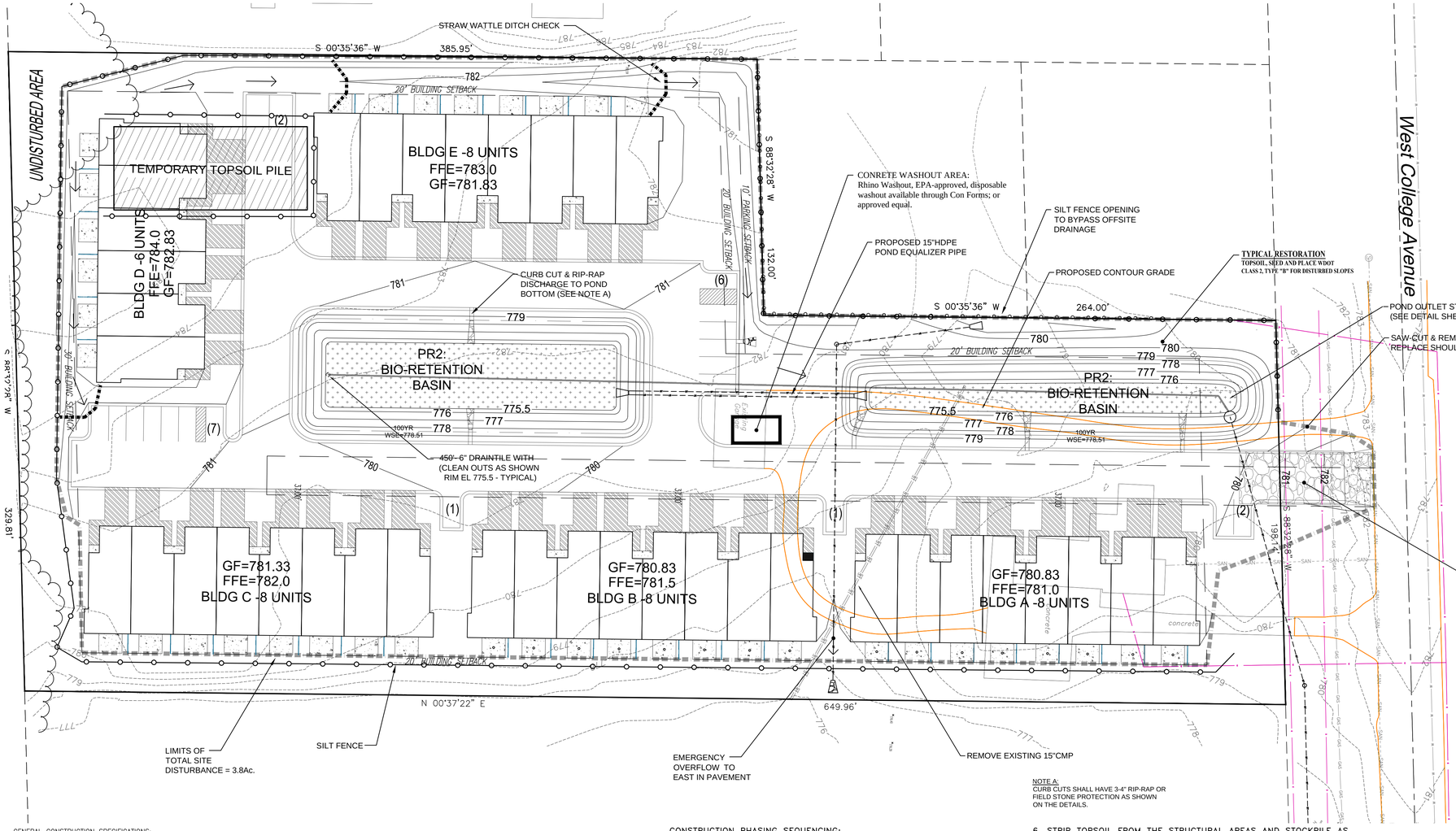
SANITARY SEWER PLAN & PROFILE

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

DATE: 03-22-24
BY: MARK R. ELLENA,PE
SCALE: 1"=30'

SHEET NUMBER
C301

SCALE: 1"=30'



NOTE A:
CURB CUTS SHALL HAVE 3-4" RIP-RAP OR FIELD STONE PROTECTION AS SHOWN ON THE DETAILS.

GENERAL CONSTRUCTION SPECIFICATIONS:

1. All work shall be in accordance with the Standard Specifications for Highway and Structure Construction, State of Wisconsin, Latest Edition; the State of Wisconsin Standard Specifications for Sewer and Water Construction in Wisconsin, Latest Edition; the State of Wisconsin Plumbing Codes and the City of Franklin Construction Specifications & Ordinances. All permits must be obtain by the contractor prior to commencing work.
2. All erosion control measures specified on this plan shall meet the design criteria, standards and specifications as set forth in the Wisconsin Department of Natural Resources and the City of Franklin Technical Standards.
3. All erosion control devices (i.e., silt fence, siltation basin, gravel entrance, etc.) shall be installed prior to commencing mass grading or utility construction.
4. All activities on the site shall be conducted in a logical sequence to minimize the area of bare soil exposed at any one time.
5. The OWNER shall provide all surveying and construction staking for this contract. All contractors shall exercise care and diligence in protecting the same.
6. The contractor shall notify Diggers Hotline, the local municipality and all government agencies that may be affected by the contractor's operations at least three (3) days before breaking ground.
7. All ingress and egress traffic to the project shall be limited to the gravel entrance to the property.
8. Contractor shall be responsible for maintaining the public roadways. Public roadways shall be kept free of silt or dirt tracked from areas under construction by sweeping at the end of each work day or as often as required by the City of Franklin.
9. Upon completion of the work as specified, respread four (4") inches of salvaged topsoil over all disturbed areas and provide seed, fertilizer and restore per the Standard Specifications.
10. All disturbed areas shall be revegatated within seven days of no disturbance. Highway mix #40 shall be used for seeding with an application rate of 4.0 lbs/1000 sf.
11. All erosion control devices shall be routinely inspected every seven days or within 24 hours of a rainfall greater than 0.5 inches (By GENERAL CONTRACTOR).
12. If permanent seeding is not completed by September 15, apply temporary seeding. If temporary seeding is not completed by October 15, mulch or erosion control fabric shall be placed on all inactive disturbed soils between October 15th and May 1st as a temporary soil stabilization measure during the non-growing season. See technical standards for installation requirements.
13. Construction between November 1st and May 1st will require measures to stabilize the site over winter. If the construction site is not stabilized with pavement, gravel road base, rip rap or 70 percent density mature vegetative cover crop, then the site must comply with the winter construction site erosion control requirements found in the WDNR Technical Standards.

CONSTRUCTION PHASING SEQUENCING:
THE CONTRACTOR MUST FOLLOW THE FOLLOWING CONSTRUCTION SEQUENCE AS REQUIRED BY THE WDNR AND THE CITY OF FRANKLIN:

1. INSTALL SILT FENCE.
2. INSTALL GRAVEL CONSTRUCTION ENTRANCE (TRACKING PAD).
3. CLEAR & GRUB WITHIN THE LIMITS OF SITE DISTURBANCE.
4. STRIP TOPSOIL FROM THE STORM WATER MANAGEMENT AREAS AND STOCKPILE AS SHOWN WITH A SILT FENCE BARRIER. STOCK PILES LEFT INACTIVE FOR 7 DAYS OR LONGER SHALL BE STABILIZED. EXCAVATE STORM WATER MANAGEMENT BASINS TO SUB-GRADE; INSTALL OUTLET STRUCTURES & OUTLET PIPING. INSTALL STONE FILTER OVER OUTLETS ORIFICES TO MANAGE STORM WATER DURING CONSTRUCTION. DO NOT INSTALL BASIN DRAIN TILE OR ENGINEERED FILL AT THIS TIME. RESTORE ALL DISTURBED AREAS WITH EROSION CONTROL MATTING.
5. STORM WATER IS MANAGED DURING CONSTRUCTION BY EXCAVATING THE BASINS TO SUB-GRADE AND PLACING A STONE FILTER OVER THE OUTLET ORIFICES IN EACH BASIN. IF THE DRAWDOWN IS SLOWER THAN AN ACCEPTABLE THEY WILL NEED TO BE CLEANED; IF THEY STILL DO NOT DRAIN DOWN, THE STONE AND FILTER ARE REQUIRED TO BE REPLACED.
6. STRIP TOPSOIL FROM THE STRUCTURAL AREAS AND STOCKPILE AS SHOWN. INSTALL PRIVATE SANITARY SEWER, WATER MAIN AND STORM. INCLUDE DRAIN TILE BETWEEN BASINS. CONCURRENTLY, COMPLETE MASS GRADING & START BUILDING CONSTRUCTION PER PHASING PLAN. LEAVE LOT PADS 1.5' LOW TO RECEIVE FOOTING SPOILS. STONE ALL DRIVE AREAS FOLLOWING UTILITY CONSTRUCTION. RESTORE ALL DISTURBED AREAS,
7. BINDER PARKING & DRIVE AREAS AND RESTORE ALL DISTURBED AREAS.
8. FOLLOWING SITE RESTORATION, REMOVE EXCESS SEDIMENT FROM POND BOTTOM AND CONSTRUCT BIO-BASINS WITH DRAIN TILE, ENGINEERED FILL AND STONE.
9. AFTER ALL DISTURBED AREAS ARE WELL-ESTABLISHED AND FOLLOWING FINAL AS-BUILT ACCEPTANCE BY THE CITY, REMOVE ALL SILT FENCE AND ANY OTHER TEMPORARY BMP'S.

CONSTRUCTION SCHEDULE: START DATE: APRIL 15, 2024
COMPLETION DATE: SEPTEMBER 15, 2024
COMPLETE SUBSTANTIAL SITE RESTORATION: SEPTEMBER 15, 2024

NOTES FROM CITY:
City inspector required for erosion control (monthly) and any public infrastructure (sewer, storm sewer, sidewalk, etc)
a. Cost for this inspection is the responsibility of developer
b. City inspectors will also complete public infrastructure asbuilt record drawings at developer expense
c. Developer/contractor must also complete their own erosion control inspections as required by WDNR

NOTES:
1) A LEGEND SHOWING ALL SPECIAL SYMBOLS, LINE TYPES, ETC. IS SHOWN ON THE COVER SHEET.
2) THE CONTRACTORS MUST FOLLOW THE CONSTRUCTION SEQUENCE AS SHOWN ON THE EROSION CONTROL PLAN.
3) UNDERGROUND UTILITIES MUST BE LOCATED BY "DIGGERS HOTLINE" PRIOR TO START OF CONSTRUCTION.

THE BOUNDARY & TOPOGRAPHIC SURVEY WAS PROVIDED BY METROPOLITAN SURVEYING. UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

DIGGER'S HOTLINE CALL BEFORE YOU DIG 811

DATE	DESCRIPTION

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eecwg.com

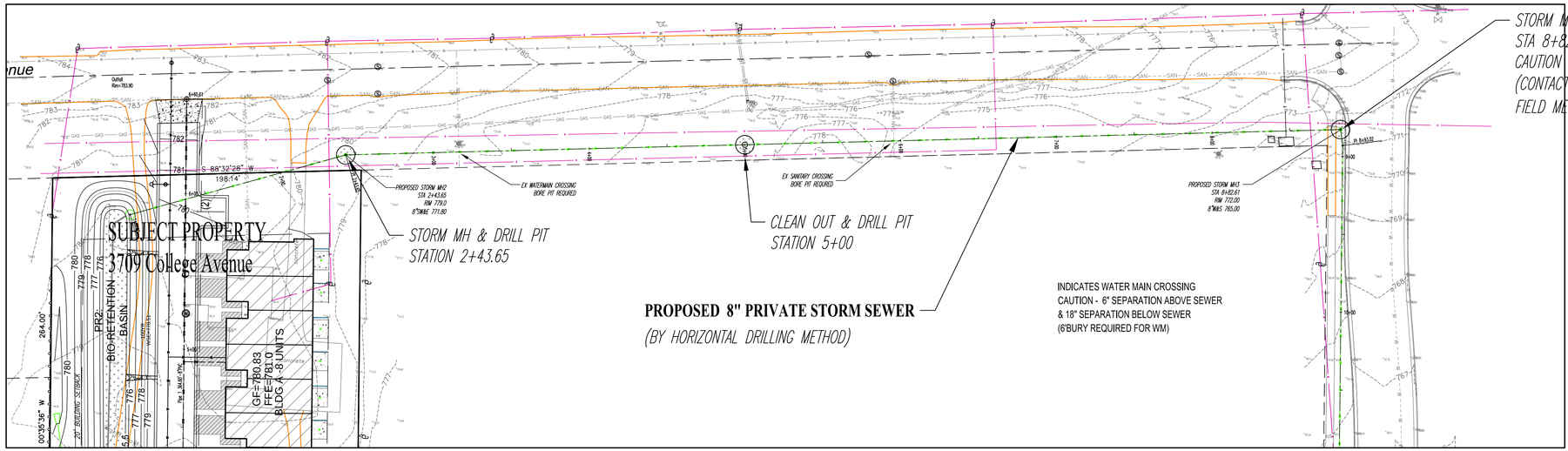
Lake Grove Place
CITY OF FRANKLIN, WI

EROSION CONTROL PLAN

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

DATE: 03-22-24
BY: MARK R. ELLENA,PE
SCALE: 1"=30'

SHEET NUMBER
C400



SCALE: 1"=40'

NOTE: ALL UNDERGROUND CONTRACTOR ARE REQUIRED TO FIELD LOCATE EXISTING UTILITIES, STORM SIZE & INVERT PRIOR TO CONSTRUCTION. OBTAIN ALL CITY PERMITS PRIOR TO CONSTRUCTION.

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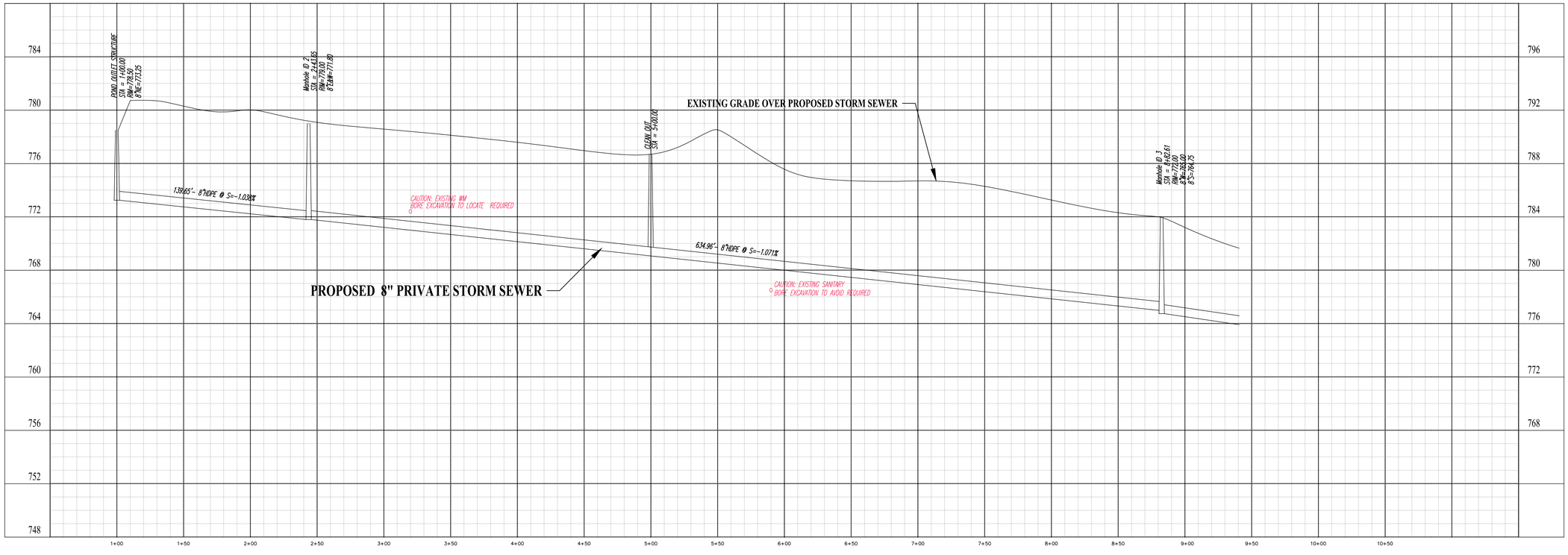
DIGGER'S HOTLINE CALL BEFORE YOU DIG 811



DATE	DESCRIPTION

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eeceng.com

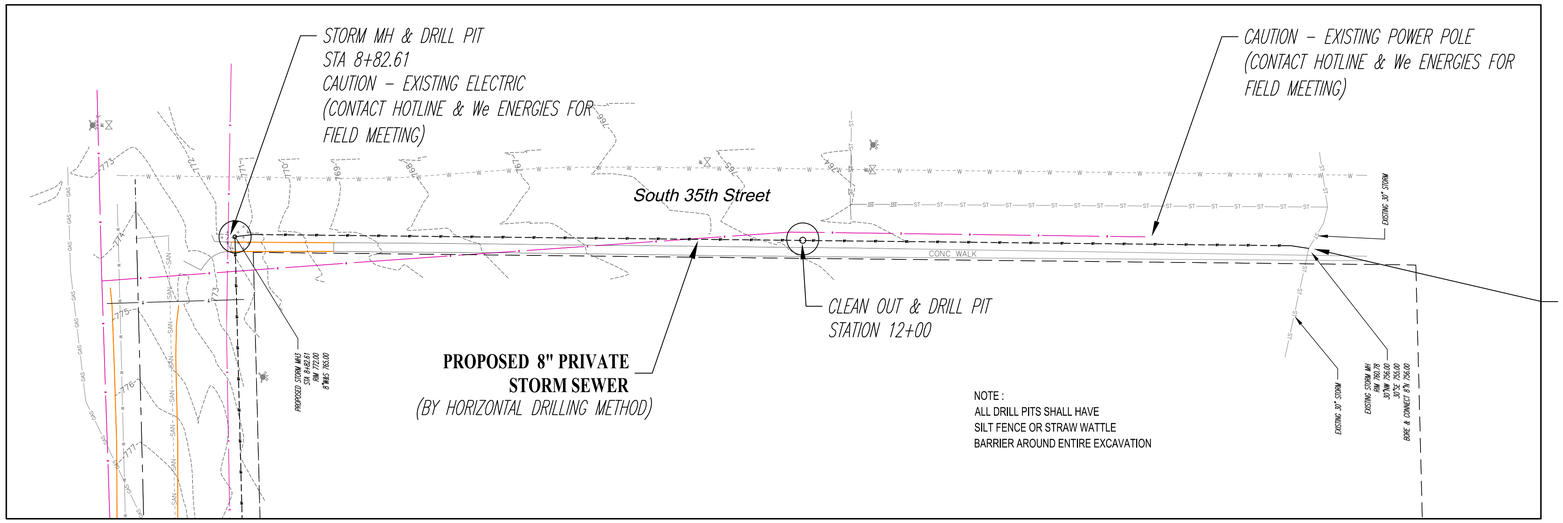
Lake Grove Place
CITY OF FRANKLIN, WI

PRIVATE STOMR SEWER PLAN & PROFILE

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

DATE: 03-22-24
BY: MARK R. ELLENA,PE
SCALE: 1"=30'

SHEET NUMBER
C500



NOTE :
ALL DRILL PITS SHALL HAVE
SILT FENCE OR STRAW WATTLE
BARRIER AROUND ENTIRE EXCAVATION

SCALE: 1"=40'

NOTE: ALL UNDERGROUND CONTRACTOR ARE REQUIRED TO FIELD LOCATE EXISTING UTILITIES, STORM SIZE & INVERT PRIOR TO CONSTRUCTION. OBTAIN ALL CITY PERMITS PRIOR TO CONSTRUCTION.

THE BOUNDARY & TOPOGRAPHIC SURVEY WAS PROVIDED BY METROPOLITAN SURVEYING. UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

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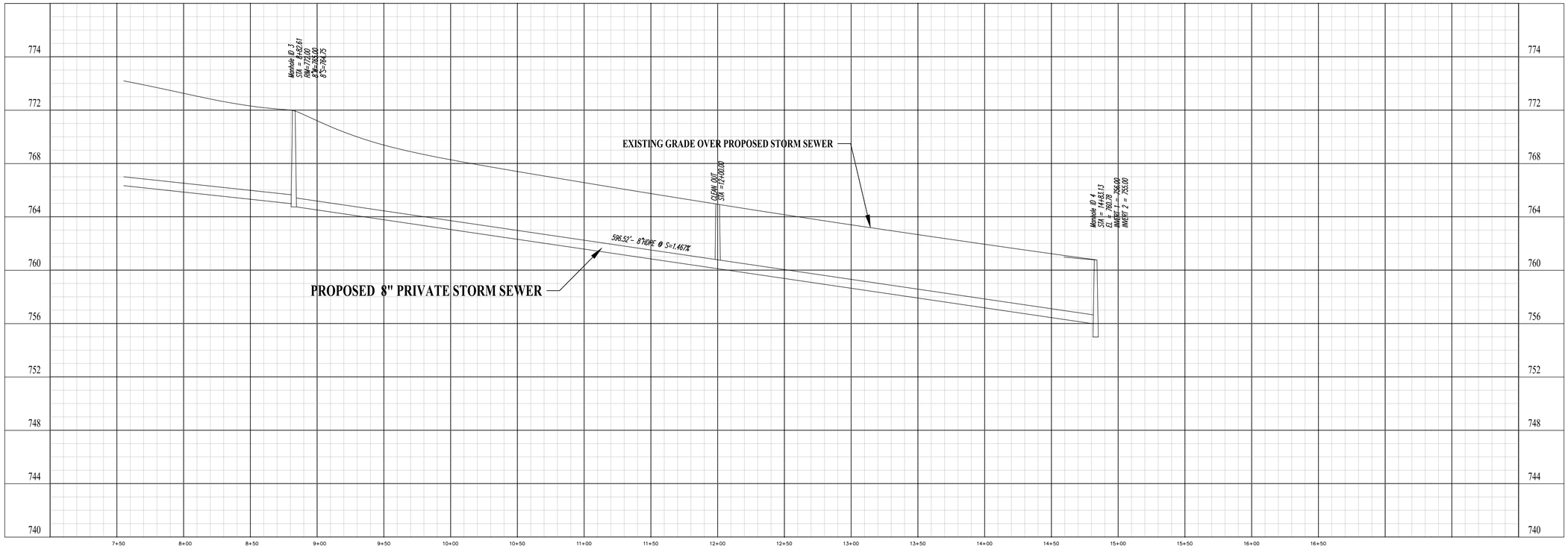
2) THE CONTRACTORS MUST FOLLOW THE CONSTRUCTION SEQUENCE AS SHOWN ON THE EROSION CONTROL PLAN.
3) UNDERGROUND UTILITIES MUST BE LOCATED BY "DIGGERS HOTLINE" PRIOR TO START OF CONSTRUCTION.

DIGGER'S HOTLINE CALL BEFORE YOU DIG 811



DESCRIPTION | DATE

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eeceng.com

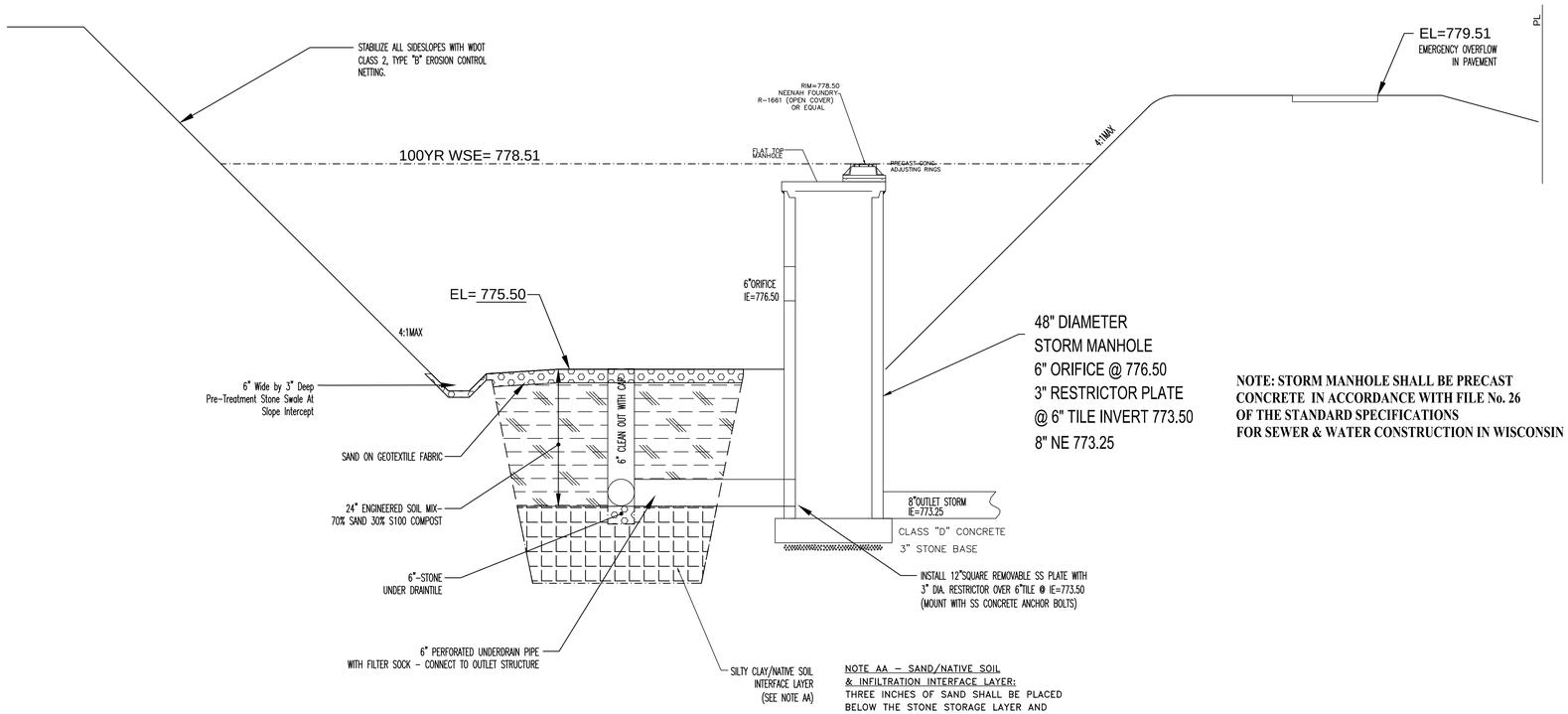
Lake Grove Place
CITY OF FRANKLIN, WI

PRIVATE STOMR SEWER PLAN & PROFILE

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

DATE: 03-22-24
BY: MARK R. ELLENA,PE
SCALE: 1"=30'

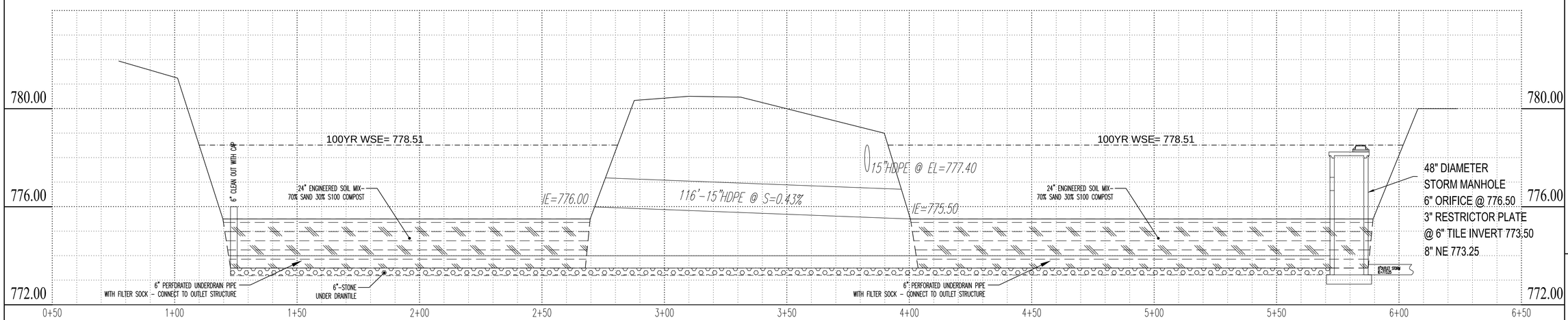
SHEET NUMBER
C501



NOTE: STORM MANHOLE SHALL BE PRECAST CONCRETE IN ACCORDANCE WITH FILE No. 26 OF THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN

PR2: BIO-SWALE TYPICAL EAST-WEST CROSS-SECTION

NOTE AA – SAND/NATIVE SOIL & INFILTRATION INTERFACE LAYER:
THREE INCHES OF SAND SHALL BE PLACED BELOW THE STONE STORAGE LAYER AND INFILTRATION AREA, AND VERTICALLY MIXED WITH THE NATIVE SOIL INTERFACE TO A DEPTH OF 2–4 INCHES. SAND SHALL MEET THE SPECIFICATIONS SET FORTH IN SECTION V.B.6.d.(2) OF THE WDNR TECHNICAL STANDARD FOR BIORETENTION 1004.



PR2: BIO-SWALE TYPICAL NORTH-SOUTH CROSS-SECTION

DESCRIPTION | DATE

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eeceng.com

Lake Grove Place
CITY OF FRANKLIN, WI

DETAILS

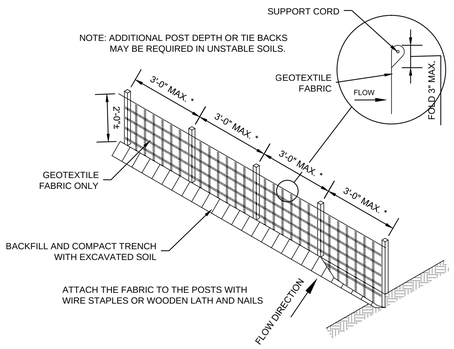
WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

DATE: 03-22-24
BY: MARK R. ELLENA,PE

SHEET NUMBER
C600

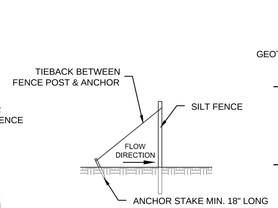
GENERAL NOTES

1. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
2. WOOD POSTS SHALL BE A MINIMUM OF 1 ½" x 1 ½" OF OAK OR HICKORY.
3. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING METHODS: A) TWIST METHOD -- OVERLAPTHE END POSTS AND TWIST , OR ROTATE, AT LEAST 180 DEGREES. B) HOOK METHOD -- HOOK THE END OF EACH SILT FENCE LENGTH.

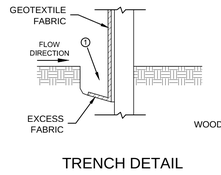


SILT FENCE

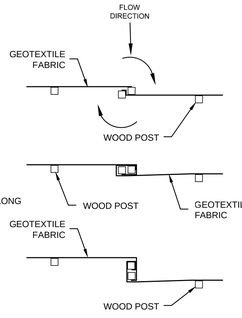
* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



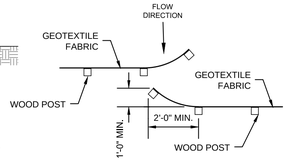
SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)



TRENCH DETAIL



TWIST METHOD



HOOK METHOD
JOINING TWO LENGTHS OF SILT FENCE ④

THIS DRAWING BASED ON WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL DRAWING 8 E 9-6.

SILT FENCE DETAIL

SEDIMAX-SW™ (STRAW WATTLES)

North American Green SediMax-SW™ (Straw Wattles), are a Best Management Practice (BMP) that offers an effective and economical alternative to silt fence and straw bales for sediment control and storm water runoff.

Straw Wattles are a temporary sediment control device and are not intended to replace Rolled Erosion Control Products (RECPs) or Hydraulic Erosion Control Products (HECPs). If vegetation is desired for permanent erosion control, North American Green recommends that RollMax™ or HydraMax™ Systems be used to provide effective immediate erosion control until vegetation is established. SediMax™ Systems may be used in conjunction with blankets, mats and mulches as supplemental sediment and runoff control for these applications. Like all sediment control devices, the effectiveness of SediMax Systems is dependent on storage capacity.

SEDIMAX-SW INSTALLATION STEPS:

1. Begin at the location where the wattle is to be installed by excavating a 2 to 3 in. (5-7.5 cm) deep x 9 in. (22.9 cm) wide trench along the contour of the slope. Excavated soil should be placed upslope from the anchor trench (Figure 7).

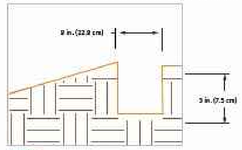


FIGURE 7

2. Place the wattle in the trench so that it contours to the soil surface. Compact soil from the excavated trench against the wattle on the uphill side. Wattles should tightly abut (Figure 8).

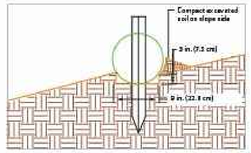


FIGURE 8

3. Secure the wattle with a minimum of 18 to 24 in. (45.7-61 cm) stakes every 3 to 4 ft (0.9 -1.2 m) and with a stake on each end. Stakes should be driven through the middle of the wattle leaving at least 2 to 3 in. (5-7.5 cm) of stake extending above the wattle (Figure 9). Stakes should be driven perpendicular to the slope face. Spacing of SediMax-SW on slope will vary based on the slope grade (Figure 10).

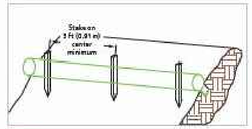


FIGURE 9

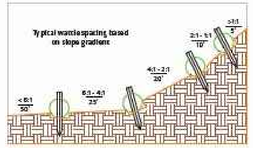
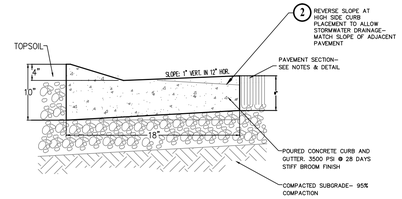


FIGURE 10

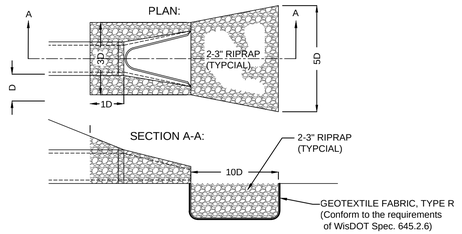
For additional installation assistance on SediMax Systems, please call **888-772-2840**, visit **nagreen.com** or e-mail **info@nagreen.com** and we will be happy to put you in touch with your erosion control specialist who can assist you.

STRAW WATTLE DETAIL



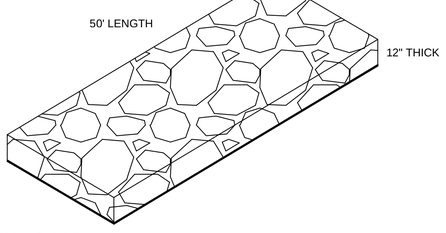
1 18" MOUNTABLE CURB AND GUTTER

NO SCALE



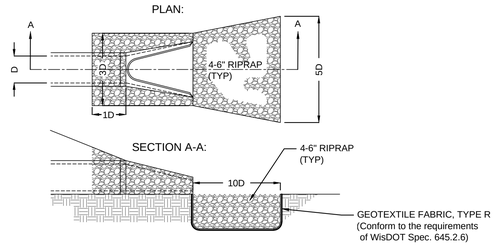
END SECTION TYPICAL RIP RAP DETAIL

NOT TO SCALE (FLARED APONS REQUIRED ON ALL ENDSECTIONS)



STONE TRACKING PAD

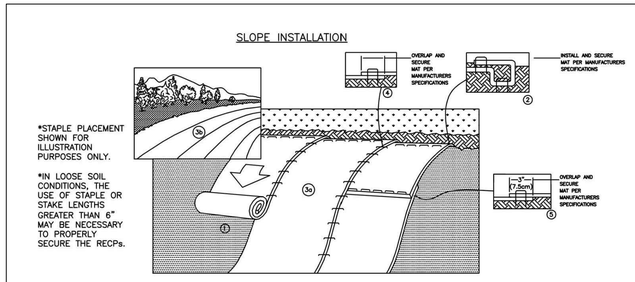
PER WDNR TECH STANDARD 1057
Note 1: Use hard, durable, angular No. 3" stone or recycled concrete meeting the gradation in Wisconsin Department of Transportation (DOT) 2018 Standard Specification, Section 312, Select Crushed Material.
Note 2: Slope the stone tracking pad in a manner to direct runoff to an approved treatment practice.
Note 3: Select fabric type based on soil conditions and vehicles loading.
Note 4: Install tracking pad across full width of the access point, or restrict existing traffic to a dedicated egress lane at least 12 feet wide across the top of the pad.
Note 5: If a 50' pad length is not possible due to site geometry, install the maximum length practicable and supplement with additional practices as needed.



END SECTION TYPICAL RIP RAP DETAIL

NOT TO SCALE (FLARED APONS REQUIRED ON ALL ENDSECTIONS)

SLOPE INSTALLATION



*STAPLE PLACEMENT SHOWN FOR ILLUSTRATION PURPOSES ONLY.

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECPs.

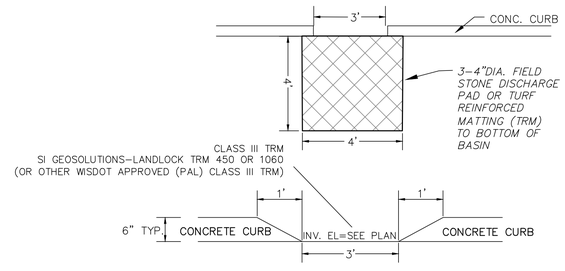
KEYED NOTES (CORRESPONDING TO DETAIL ABOVE):

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, OR SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPs IN A 6" DEEP x 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECPs EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECPs BACK OVER SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.
3. ROLL THE RECPs (a.) DOWN OR (b.) HORIZONTALLY ACROSS THE SLOPE. RECPs WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE MANUFACTURER'S STAPLE PATTERN GUIDE AND/OR SPECIFICATIONS. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHALL BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECPs MUST BE STAPLES WITH APPROXIMATELY 2"–5" OVERLAP, DEPENDING ON RECPs TYPE.
5. CONSECUTIVE RECPs SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE SIDE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART, ACROSS ENTIRE RECP's WIDTH.

IMPORTANT NOTES:

1. SLOPE EROSION MAT TO BE CLASS I, TYPE B MAT AS APPROVED IN THE WI DOT PRODUCT ACCEPTABILITY LISTS
2. CONTRACTOR RESPONSIBLE FOR EROSION MAT INSTALLATION SHALL BE RESPONSIBLE FOR ENSURING EROSION MAT IS INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND PER WI DNR TECHNICAL STANDARD 1052, NON–CHANNEL EROSION MAT.

EROSION MATTING: WDNR TS-1052



CURB CUT DETAIL

NOT TO SCALE

DESCRIPTION | DATE

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eeceng.com

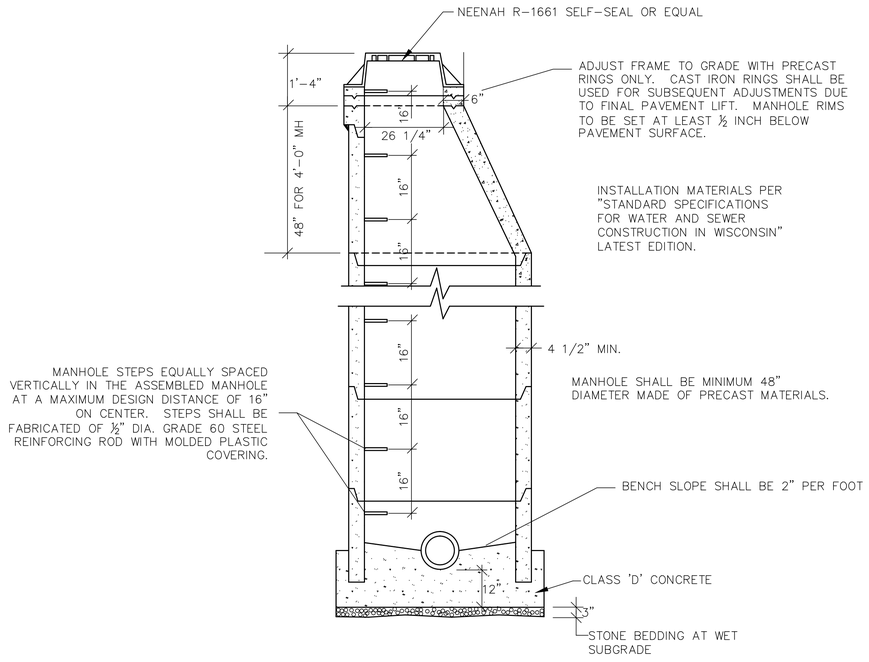
Lake Grove Place
CITY OF FRANKLIN, WI

DETAILS

WISCONSIN
MARK R. ELLENA E–24090 WALES, WI
PROFESSIONAL ENGINEER

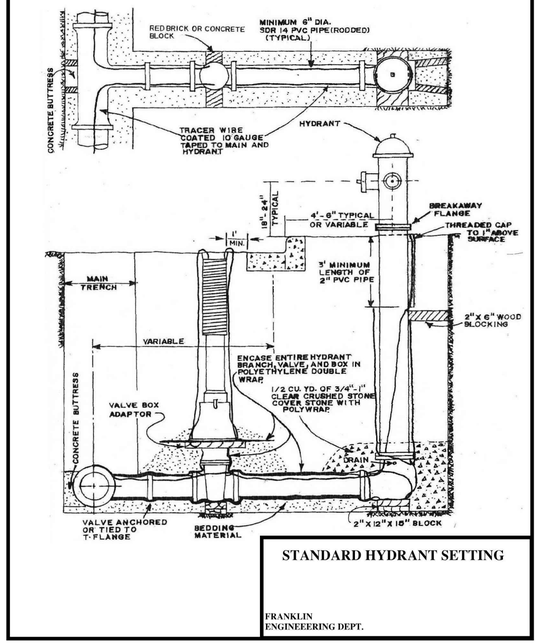
DATE: 03-22-24
BY: MARK R. ELLENA,PE

SHEET NUMBER
C601



SANITARY MANHOLE

NOT TO SCALE



STANDARD HYDRANT SETTING

FRANKLIN
ENGINEEERING DEPT.

FIGURE 22

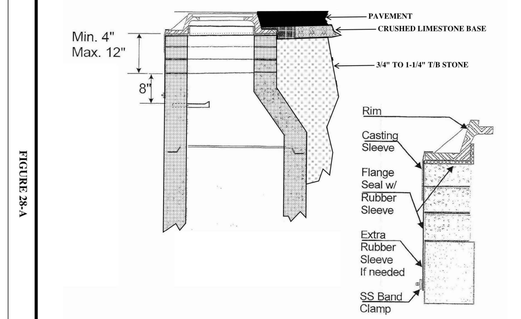


FIGURE 29-A

TYPICAL SANITARY SEWER MANHOLE PAVEMENT EXTERNAL SEAL

FRANKLIN
ENGINEEERING DEPT.

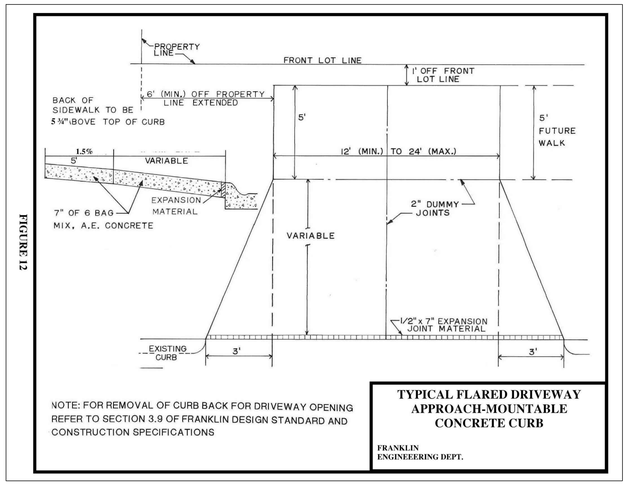


FIGURE 12

NOTE: FOR REMOVAL OF CURB BACK FOR DRIVEWAY OPENING REFER TO SECTION 3.9 OF FRANKLIN DESIGN STANDARD AND CONSTRUCTION SPECIFICATIONS

TYPICAL FLARED DRIVEWAY APPROACH-MOUNTABLE CONCRETE CURB

FRANKLIN
ENGINEEERING DEPT.

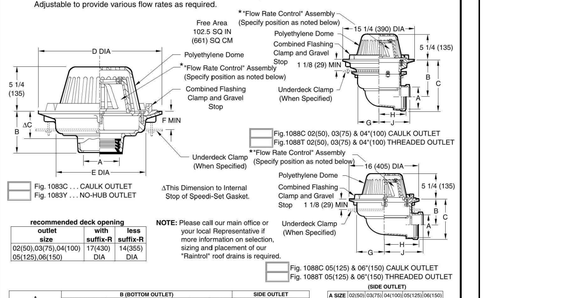
SMITH® JAY R. SMITH MFG. CO.®
DIVISION OF SMITH INDUSTRIES, INC.
POST OFFICE BOX 3037
MONTGOMERY, ALABAMA 36109-0037 (USA)
TEL: 334-277-8020 FAX: 334-272-7396 www.jrsmith.com
MEMBER OF:

LOCATION

LARGE SPECIAL PURPOSE ROOF DRAINS

RAINTROL® ROOF DRAIN
FLAT ROOF DESIGN

FUNCTION: Used to control the flow of rain water off a roof. Trapezoidal weirs limit the flow to the leader. Adjustable to provide various flow rates as required.



recommended deck opening

outlet size	with suffix-R	less suffix-R
02(50),03(75),04(100)	17(430)	14(355)
05(125),06(150)	DIA	DIA

NOTE: Please call our main office or your local Representative if more information on selection, sizing and placement of our "Raintrol" roof drains is required.

A SIZE	B (BOTTOM OUTLET) CAULK, NO-HUB & SPEEDI-SET	THREADED	C	D DIA	E DIA	F MIN	SIDE OUTLET G	H	J
02(50),03(75),04(100)	3 3/4(95)	3 3/4(95)	15 1/4 (390)	11(280)	7 1/8(29)	6 3/4(330)	6(150)	7 3/4(195)	
05(125),06(150)	5(125)	3 3/4(95)	15 1/4 (390)	11(280)	7 1/8(29)	5 1/4(160)	8 7/8(175)	7 3/4(195)	

A SIZE (SIDE OUTLET)	02(50)	03(75)	04(100)	05(125)	06(150)
B	6 7/8 (175)	6 3/8 (162)	5 7/8 (149)	5 (125)	4 1/2 (115)
C	8 5/8 (218)	8 3/4 (220)	8 3/4 (220)	8 1/2 (215)	8 1/2 (215)

REGULARLY FURNISHED:
Duco Cast Iron Body with Combined Flashing Clamp and Gravel Stop with Adjustable "Flow Rate Control" Assembly and Polyethylene Dome.

ALWAYS SPECIFY NUMBER OF WEIR OPENINGS
(-WR1)-(-WR2)-(-WR3)-(-WR4)
*NOTE:
(-WR1) 1 WEIR OPENING
(-WR2) 2 WEIR OPENING
(-WR3) 3 WEIR OPENING
(-WR4) 4 WEIR OPENING

VARIATIONS:
- Expansion Joint (Specify Fig. 1710) (Fig. 1083 only)
- Extension (Specify Height) -E
- "L" Shaped Underdeck Clamp -CL
- L Speedi-Set Service Weight 02(50), 03(75) & 04"(100) sizes only (Fig. 1083 only)
- LXH Speedi-Set Extra Heavy 02(50), 03(75) & 04"(100) sizes only (Fig. 1083 only)
- NO-HUB Adaptor (Specify Fig. 2646Y) (Fig. 1088 only)
- Non-Adjustable "Flow Rate Control" Assembly
- Secondary Flashing Clamp -C2
- Sump Receiver -R
- Underdeck Clamp -C
- Vandal Proof Dome -U
- T Threaded Outlet

OPTIONAL MATERIALS:
- ▲ Aluminum Dome -AD
- ▲ Cast Iron Dome -CID
- Galvanized Cast Iron Body & Collar -G
- ▲ Galvanized Cast Iron Dome -CIDG
- ▲ Rough Bronze Dome -RBD

▲ **Optional domes' free area are as follows:**

Aluminum	98 (632)
Cast Iron	80 (516)
Bronze	95 (613)

NOTE: Dimensions shown in parentheses are in millimeters.

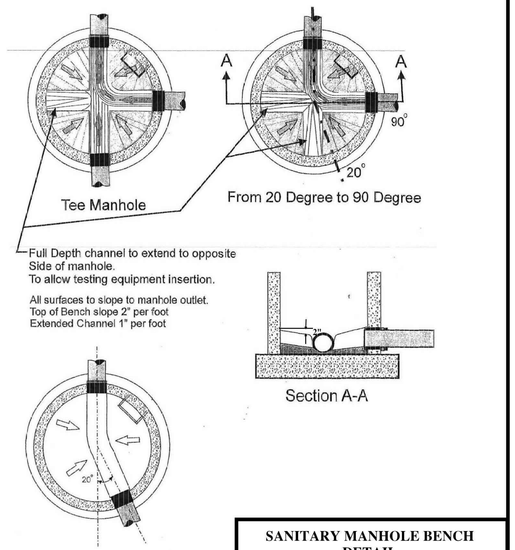
REV.	DATE	DESCRIPTION	BY	CKD. BY
H	06/04/09	Added Optional Dome Notes	JJ	CL
G	5-26-99	Rev. Opt. Mat.	CMD	BS

WEIGHT POUNDS | VOLUME CUBIC FEET

FIGURE NUMBER 1083,1088

DRAWING NUMBER S1083 | SIZE A | SCALE NONE | DATE 5-24-85 | APPROVED BY TD | CHECKED BY TD | DRAWN BY VGD | FIGURE NUMBER 1083,1088

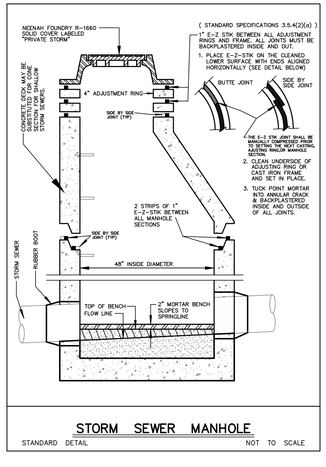
WE CAN ASSURE NO RESPONSIBILITY FOR USE OF SUPERSEDED OR VOID DATA.
DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE



SANITARY MANHOLE BENCH DETAIL

FRANKLIN
ENGINEEERING DEPT.

FIGURE 31



STORM SEWER MANHOLE

STANDARD DETAIL NOT TO SCALE

DESCRIPTION	DATE

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
700 Pilgrim Parkway - Suite 100 Elm Grove, WI 53122
Phone: 262-719-6183 Email: mellena@eecseng.com

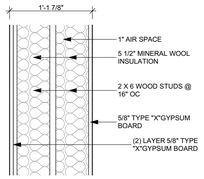
Lake Grove Place
CITY OF FRANKLIN, WI

DETAILS

WISCONSIN
MARK R. ELLENA E-24090 WALES, WI
PROFESSIONAL ENGINEER

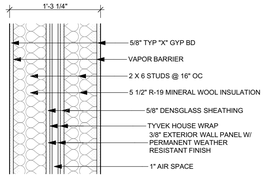
DATE: 03-22-24
BY: MARK R. ELLENA,PE

SHEET NUMBER
C602



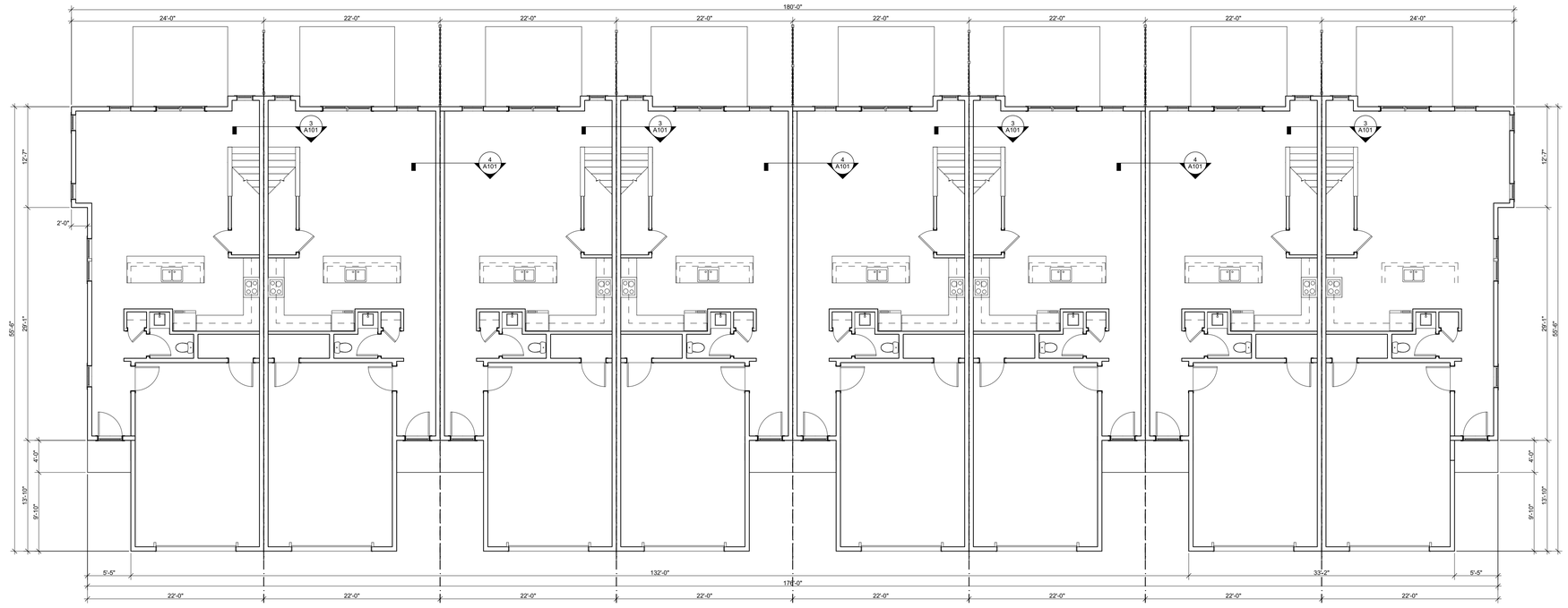
TYPE A
1 HOUR RATED UNIT SEPERATION
UL U305, STC 60
(45 MIN DWELLING SEPERATION
REQUIRED PER SPS 321.08)

3 A101 **UNIT SEPARATION DETAIL**
SCALE: 1" = 1'-0"

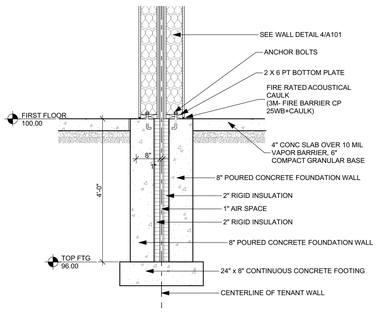


TYPE B
FIRE WALL
1 HOUR RATED EXTERIOR WALL
UL 305
(45 MIN DWELLING SEPERATION
REQUIRED PER SPS 321.08)

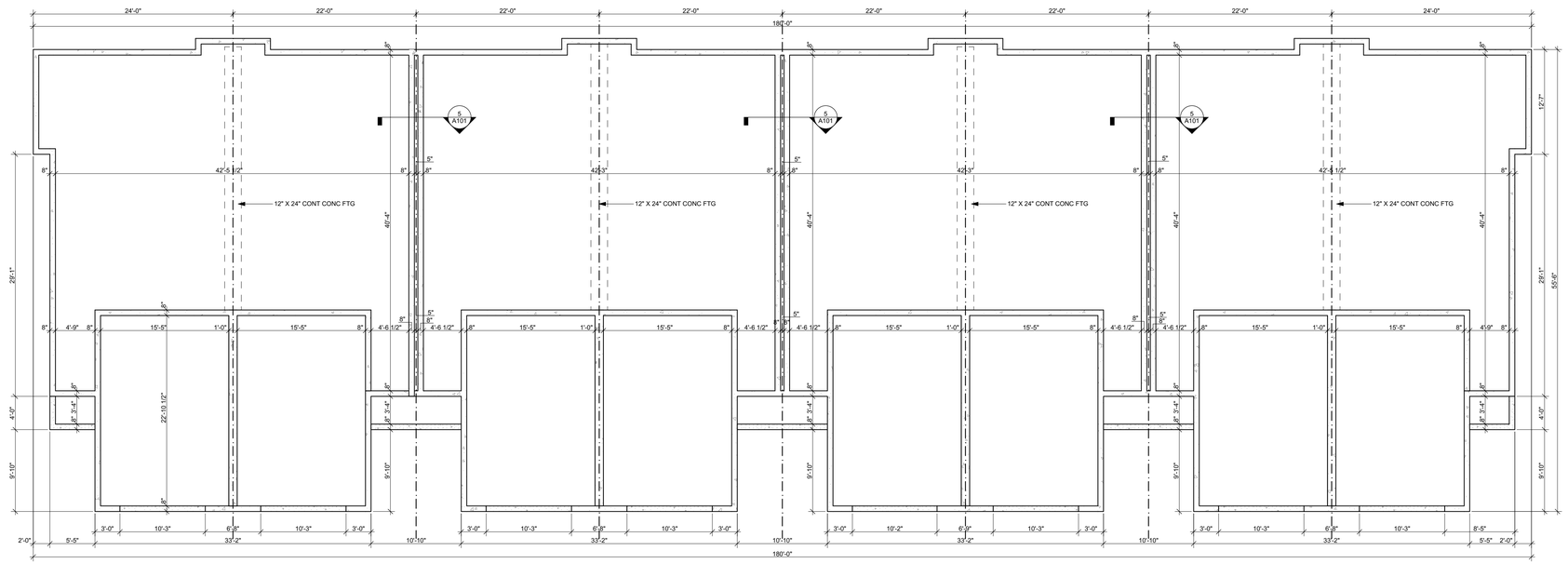
4 A101 **FIREWALL SEPARATION DETAIL**
SCALE: 1" = 1'-0"



2 A101 **FIRST FLOOR PLAN - (8) UNIT BLDG**
SCALE: 1/8" = 1'-0"



5 A101 **SEPARATION WALLS**
SCALE: 1/2" = 1'-0"



1 A101 **FOUNDATION PLAN - (8) UNIT BLDG**
SCALE: 1/8" = 1'-0"

CITYSCAPE
ARCHITECTURE/
DEVELOPMENT, S.C.
13700 W. GREENFIELD AVE
BROOKFIELD, WI 53005
262-370-5865
www.cityscapearchitecture.com

CONSULTANTS:

LAKE GROVE PLACE

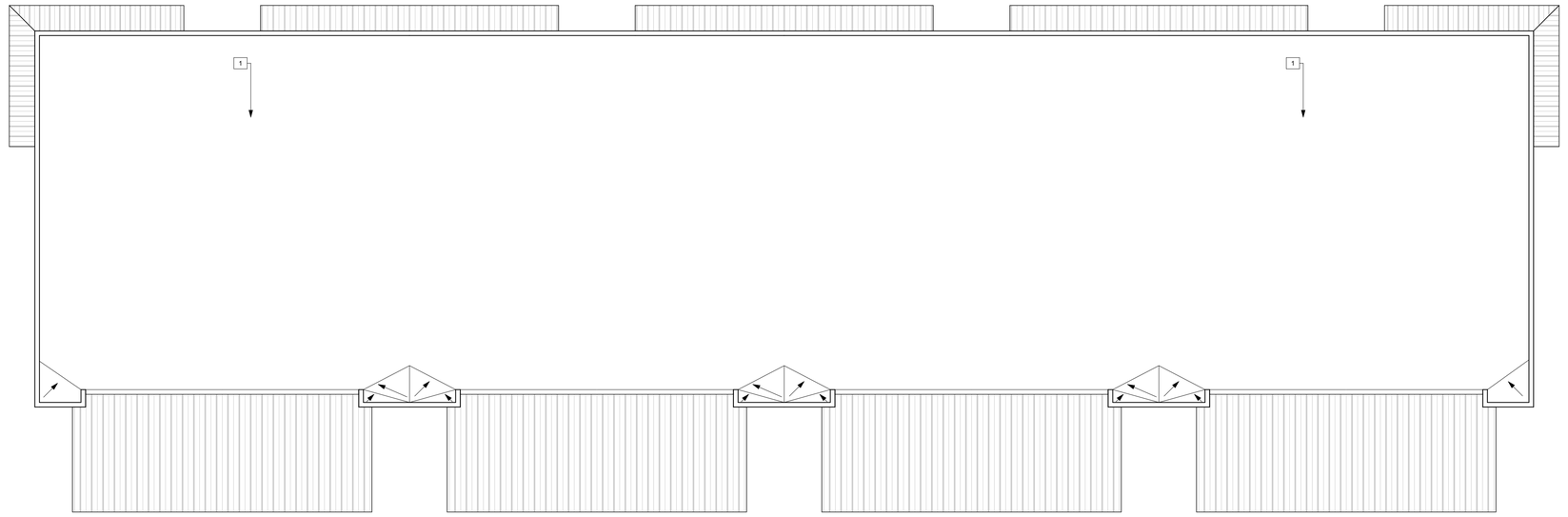
3709 WEST COLLEGE AVENUE FRANKLIN, WI

DRAWING ISSUE	DATE
PLAN COMMISSION SUBMITTAL	1-10-24
PLAN COMMISSION REVISION	3-29-24

PROJECT # 22025

FOUNDATION PLAN, FIRST FLOOR PLAN

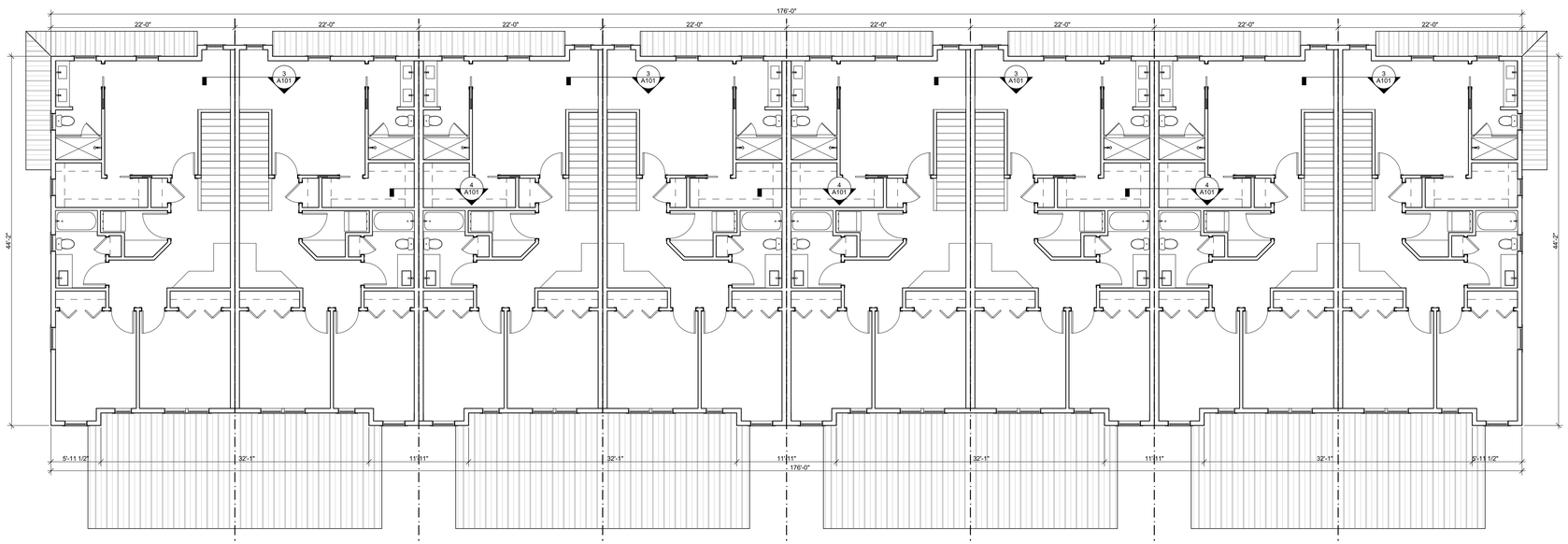
A101



2 A102 ROOF PLAN - (8) UNIT BLDG
SCALE: 1/8" = 1'-0"

ROOF PLAN NOTES

1 EPDM ROOFING OVER MIN R-30 RIGID INSULATION. TRUSSES TO SLOPE TO FRONT GUTTERS



1 A102 SECOND FLOOR PLAN - (8) UNIT BLDG
SCALE: 1/8" = 1'-0"

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www.cityscapearchitecture.com

CONSULTANTS:

LAKE GROVE PLACE

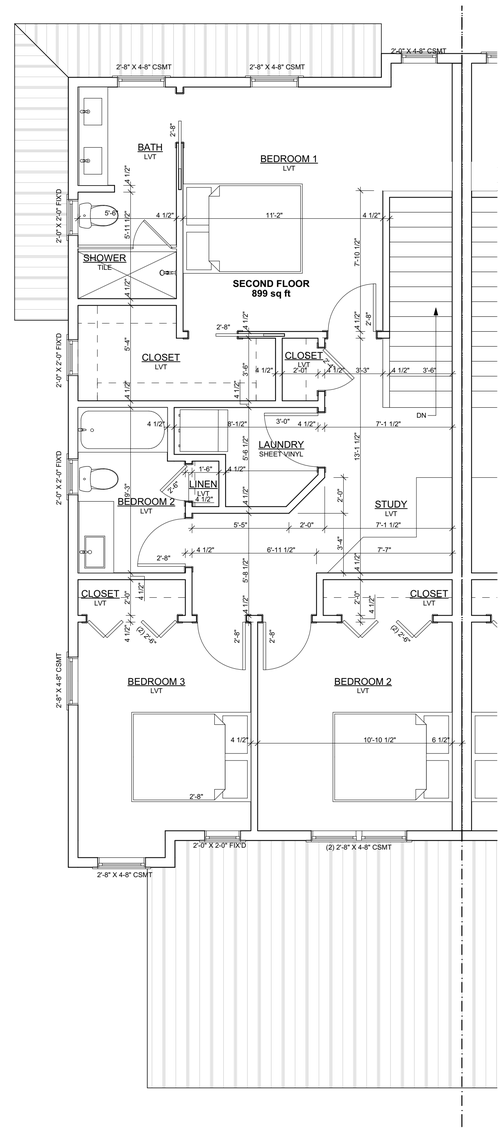
3709 WEST COLLEGE AVENUE FRANKLIN, WI

DRAWING ISSUE	DATE
PLAN COMMISSION SUBMITTAL	1-10-24
PLAN COMMISSION REVISION	3-29-24

PROJECT # 22025

SECOND FLOOR PLAN, ROOF PLAN

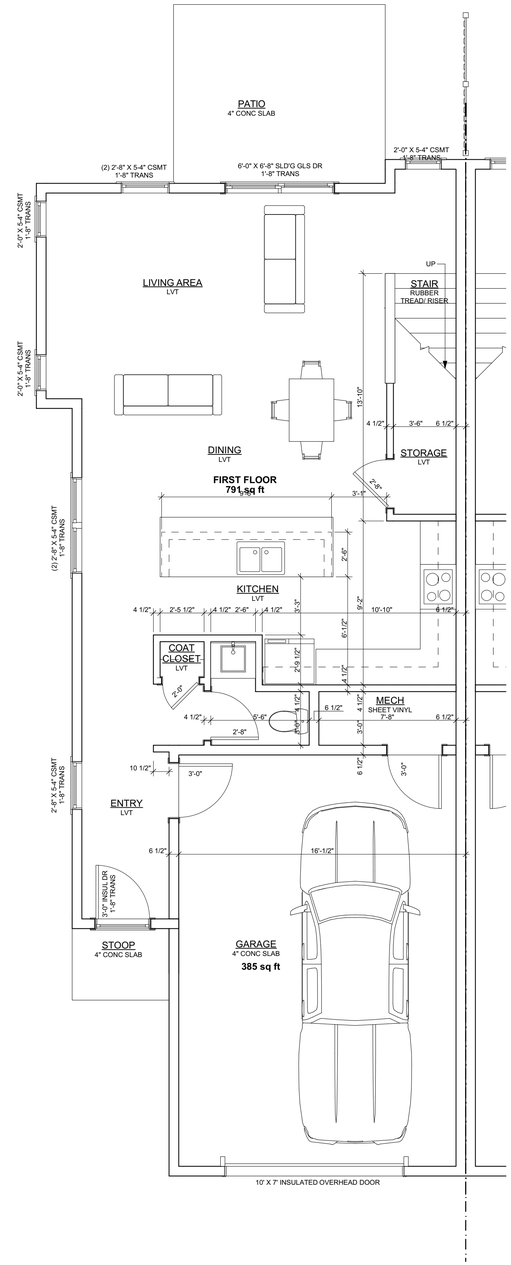
A102



2 A110 SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

SECOND FLOOR PLAN NOTES

1. ALL INTERIOR DOORS TO BE 6'-8" HIGH



1 A110 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

FIRST FLOOR PLAN NOTES

1. ALL INTERIOR DOORS TO BE 7'-0" HIGH

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262-370-5865
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CONSULTANTS:

LAKE GROVE PLACE

3709 WEST COLLEGE AVENUE FRANKLIN, WI

DRAWING ISSUE	DATE
PLAN COMMISSION SUBMITTAL	1-10-24
PLAN COMMISSION REVISION	3-29-24

PROJECT # 22025

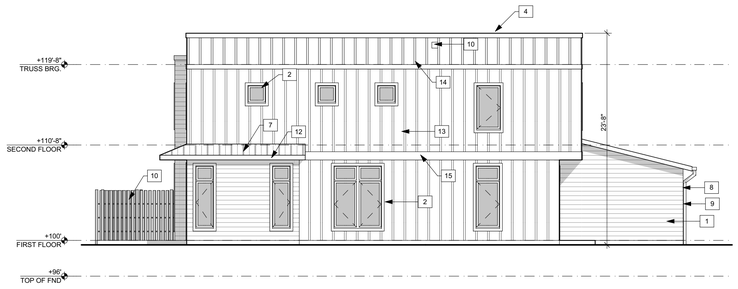
ENLARGED FLOOR PLAN

A110

1 A200 FRONT ELEVATION
SCALE: 1/8" = 1'-0"

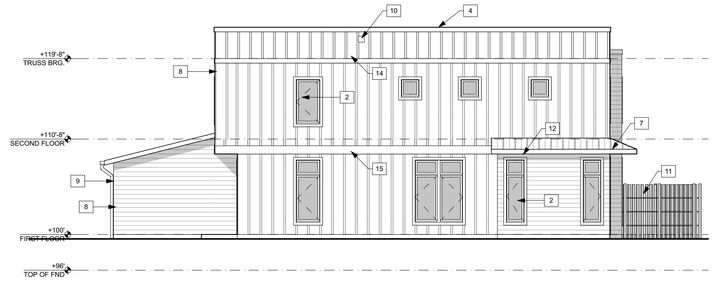
EXTERIOR NOTES

1. PREFININISHED LP SMARTSIDE LAP SIDING - 6" EXPOSURE
2. INSULATED LOW "E" VINYL WINDOWS W/ 5/4 X 4 COMPOSITE TRIM
3. PREFINISHED INSULATED COMPOSITE OVERHEAD DOOR W/ 5/4 X 4 COMPOSITE TRIM
4. PRE-FININISHED METAL CAP FLASHING
5. INSULATED COMPOSITE ENTRY DOOR
6. INSULATED COMPOSITE SLIDING DOORS
7. PREFINISHED STANDING SEAM METAL ROOFING PANELS
8. PREFINISHED ALUMINUM WOODGRAIN OUTSIDE CORNERS
9. PREFINISHED METAL GUTTER AND DOWNSPOUT
10. OMITTED
11. 6' HIGH COMPOSITE FENCE
12. PREFINISHED ALUMINUM FASCIA
13. LP BATT AND BOARD SIDING
14. 5/4 X 6 COMPOSITE TRIM
15. 5/4 X 12 COMPOSITE TRIM
16. SURFACE MOUNTED LIGHT FIXTURE
17. RECESSED LIGHT FIXTURE LOCATED IN SOFFIT ABOVE DOOR



1 PREFININISHED LP SMARTSIDE LAP SIDING - 6" EXPOSURE

2 A200 LEFT ELEVATION
SCALE: 1/8" = 1'-0"



3 A200 RIGHT ELEVATION
SCALE: 1/8" = 1'-0"

4 A200 REAR ELEVATION
SCALE: 1/8" = 1'-0"

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BROOKFIELD, WI 53005
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www.cityscapearchitecture.com

CONSULTANTS:

LAKE GROVE PLACE

3709 WEST COLLEGE AVENUE FRANKLIN, WI

DRAWING ISSUE	DATE
PLAN COMMISSION SUBMITTAL	1-10-24
PLAN COMMISSION REVISION	3-29-24

PROJECT # 22025

ELEVATIONS

A200

CITY OF FRANKLIN

REPORT TO THE PLAN COMMISSION

Meeting of May 9, 2024

SITE PLAN

RECOMMENDATION: City Development Staff recommends approval of the Site Plan for the Cape Crossing subdivision, subject to conditions set forth in the attached draft resolution.

Project name:	Cape Crossing Site Plan
Property Owner:	Neumann Developments, Inc.
Applicant:	Neumann Developments, Inc.
Agent:	Ryan Fritsch, Neumann Developments, Inc.
Property Address/TKN:	12200 W. Ryan Rd. / 890 1070 000 & 890 1071 000
Aldermanic District:	District 6
Zoning District:	Planned Development District No. 40 (Cape Crossing)
Staff Planner:	Nick Fuchs, Planning Associate
Submittal date:	02-16-2024
Application number:	PPZ24-0045

Project Description/Analysis

Neumann Developments, Inc. filed a Site Plan Application requesting approval to construct a swimming pool, pool house, driveway, fencing, fire pit, playground, landscaping, asphalt walking paths, and a water fountain as amenities for the Cape Crossing subdivision development. The majority of improvements are located within Outlot 8. The fire circle and portions of the walking paths are located within Outlot 7.

Note Condition No. 16 of Resolution No. 2022-7904 and Condition No. 18 of Resolution No. 2022-7839 required a Site Plan Application for these improvements.

The proposed building is primarily comprised of siding with a stone base. The building consists of a covered walk-through to the swimming pool with restrooms on the west side and a mechanical room on the east side of the building.

The Health Department has indicated that the pool plans have been approved by the Wisconsin Department of Safety and Professional Services (DSPS). The Health Department will license the pool facility once construction is complete and DSPS issues a compliance statement.

The proposed fence surrounding the swimming pool and pool house area is a five-foot-tall black aluminum fence.

The applicant has provided detailed plans including a landscape plan and playground details for Plan Commission review.

Regarding parking, there are no designated parking spaces proposed on the Site Plan. The applicant has noted that they do not anticipate a need for parking spaces and also indicated that the 24-foot wide driveway could accommodate parking if needed. Considering the use, size of the neighborhood, and the potential need for some residents, *staff recommends that a minimum of three striped parking spaces, including one ADA compliant space, be provided*.

Staff also recommends that the fire pit receive Fire Department approval prior to installation and the water fountain be reviewed and approved by the Engineering Department prior to installation.

Staff recommendation:

A motion to recommend approval of the Cape Crossing Site Plan, subject to the conditions as noted in the attached draft resolution.

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY
PLAN COMMISSION *Draft 5/1/2024*

RESOLUTION NO. 2024-____

A RESOLUTION APPROVING A SITE PLAN FOR THE CONSTRUCTION OF A SWIMMING P|OOL, POOL HOUSE, DRIVEWAY, FENCING, FIRE PIT, PLAYGROUND, LANDSCAPING, WALKING PATHS, AND WATER FOUNTAIN WITHIN OUTLOT NO. 7 AND OUTLOT NO. 8 OF THE CAPE CROSSING SUBDIVISION (TAX KEY NOS. 890 1070 000 AND 890 1071 000)
(NEUMANN DEVELOPMENTS, INC., APPLICANT)

WHEREAS, Neumann Developments, Inc., having petitioned the City of Franklin for the approval of a Site Plan for the construction of a swimming pool, pool house, driveway, fencing, fire pit, playground, landscaping, walking paths, and water fountain within Outlot No. 7 and Outlot No. 8 of the Cape Crossing subdivision development, zoned Planned Development District No. 40. The properties which are the subject of the application bear Tax Key Nos. 890 1070 000 and 890 1071 000.

WHEREAS, the development proposes a swimming pool, pool house, driveway, fencing, fire pit, playground, landscaping, walking paths, and water fountain, and the Plan Commission having reviewed such proposal and having found same to be in compliance with the applicable terms and provisions of §15-3.0445 Planned Development District No. 40 (Cape Crossing) of the Unified Development Ordinance and in furtherance of those express standards and purposes of a site plan review pursuant to Division 15-7.0100 of the Unified Development Ordinance.

NOW, THEREFORE, BE IT RESOLVED, by the Plan Commission of the City of Franklin, Wisconsin, that the Site Plan for the Cape Crossing subdivision development City date-stamped _____, 2024, as submitted by Neumann Developments, Inc., as described above, be and the same is hereby approved, subject to the following conditions:

1. Neumann Developments, Inc., successors and assigns and any developer of the Cape Crossing project shall pay to the City of Franklin the amount of all development compliance, inspection and review fees incurred by the City of Franklin, including fees of consults to the City of Franklin, for the Cape Crossing project, within 30 days of invoice for same. Any violation of this provision shall be a violation of the Unified Development Ordinance, and subject to §15-9.0502 thereof and §1-19 of the Municipal Code, the general penalties and remedies provisions, as amended from time to time.

2. The approval granted hereunder is conditional upon Neumann Developments, Inc. and the Cape Crossing project for the properties bearing Tax Key Nos. 890 1070 000 and 890 1071 000: (i) being in compliance with all applicable governmental laws, statutes, rules, codes, orders and ordinances; and (ii) obtaining all other governmental approvals, permits, licenses and the like, required for and applicable to the project to be developed and as presented for this approval.

3. The Cape Crossing project shall be developed in substantial compliance with the plans City date-stamped _____, 2024.

4. A revised site plan shall be provided for Planning Department review and approval, that contains a minimum of three striped parking spaces, including one ADA compliant space.

5. Fire Department approval of the proposed fire pit shall be granted prior to installation.

6. The water fountain feature shall be reviewed and approved by the Engineering Department prior to installation.

7. Final approval of grading, erosion control, storm water management, and utilities, as may be applicable, shall be granted by the Engineering Department prior to any land disturbance activities.

BE IT FURTHER RESOLVED, by the Plan Commission of the City of Franklin, Wisconsin, that the Cape Crossing site plan development as depicted upon the plans City date-stamped _____, 2024, attached hereto as Exhibit A and incorporated herein, shall be developed and constructed within one year from the date of adoption of this Resolution, or this Resolution and all rights and approvals granted hereunder shall be null and void, without any further action by the City of Franklin; and the Site Plan for the properties bearing Tax Key Nos. 890 1070 000 and 890 1071 000.

Introduced at a regular meeting of the Plan Commission of the City of Franklin this 9th day of May, 2024.

Passed and adopted at a regular meeting of the Plan Commission of the City of Franklin this 9th day of May, 2024.

APPROVED:

_____
John R. Nelson, Mayor

ATTEST:

_____
Shirley J. Roberts, City Clerk

AYES _____NOES _____ABSENT _____

EXHIBIT A

PLANS CITY DATE-STAMPED _____

ATTACHED HERETO

April 22, 2024

City of Franklin
Attn: Planning Department
9229 W Loomis Road
Franklin, WI 53132

Neumann Developments, Inc. is hereby submitting information relating to the amenity features proposed within the Cape Crossing Subdivision., as set forth in Section 15-7.0103 of the Unified Development Ordinance. The Plan Commission and Common Council have previously reviewed and approved general plans for the central community spaces in conjunction with the Planned Development District rezoning; specific plans have now been completed and are enclosed, providing details for the following:

- Pool House
  - Revised Grading and Driveway Plan
  - Building Elevations
  - Landscape Plan
- Fire Circle
- Play Structure

The proposed amenities will provide both active and passive recreational options exclusively for current and future Cape Crossing homeowners, as well as further enhance the overall aesthetic and attractiveness of the neighborhood. We believe these features help promote the sense of "community" and will benefit residents for years to come.

The designs enclosed adequately meet the architectural standards of the neighborhood, complement the landscape and open space plan, and ensure compatibility with the overall development layout. All amenities will be managed and maintained by the Cape Crossing Homeowner's Association, as outlined in the Declaration of Protective Covenants.

With the approval of the items included in this submission, we feel all requirements outlined in the Unified Development Ordinance have been satisfied.

Thank you for your consideration.

Sincerely,

Ryan Fritsch

Ryan Fritsch
Neumann Developments, Inc.

REVIEWED: ASZ
DESIGNED: ASZ
DRAFTED: BR

PLAN I DESIGN I DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING I NATURAL RESOURCES I SURVEYING

WISCONSIN OFFICE:
20725 WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO I MILWAUKEE : NATIONWIDE

CAPE CROSSING POOL HOUSE/POOL

CITY OF FRANKLIN, MILWAUKEE CO., WI

OVERALL SITE PLAN

REVISIONS

PEG JOB No. 1004.00
PEG PM ASZ
START DATE 02-27-24
SCALE 1" = 80'

SHEET
C-1
C-6

OVERALL SITE PLAN

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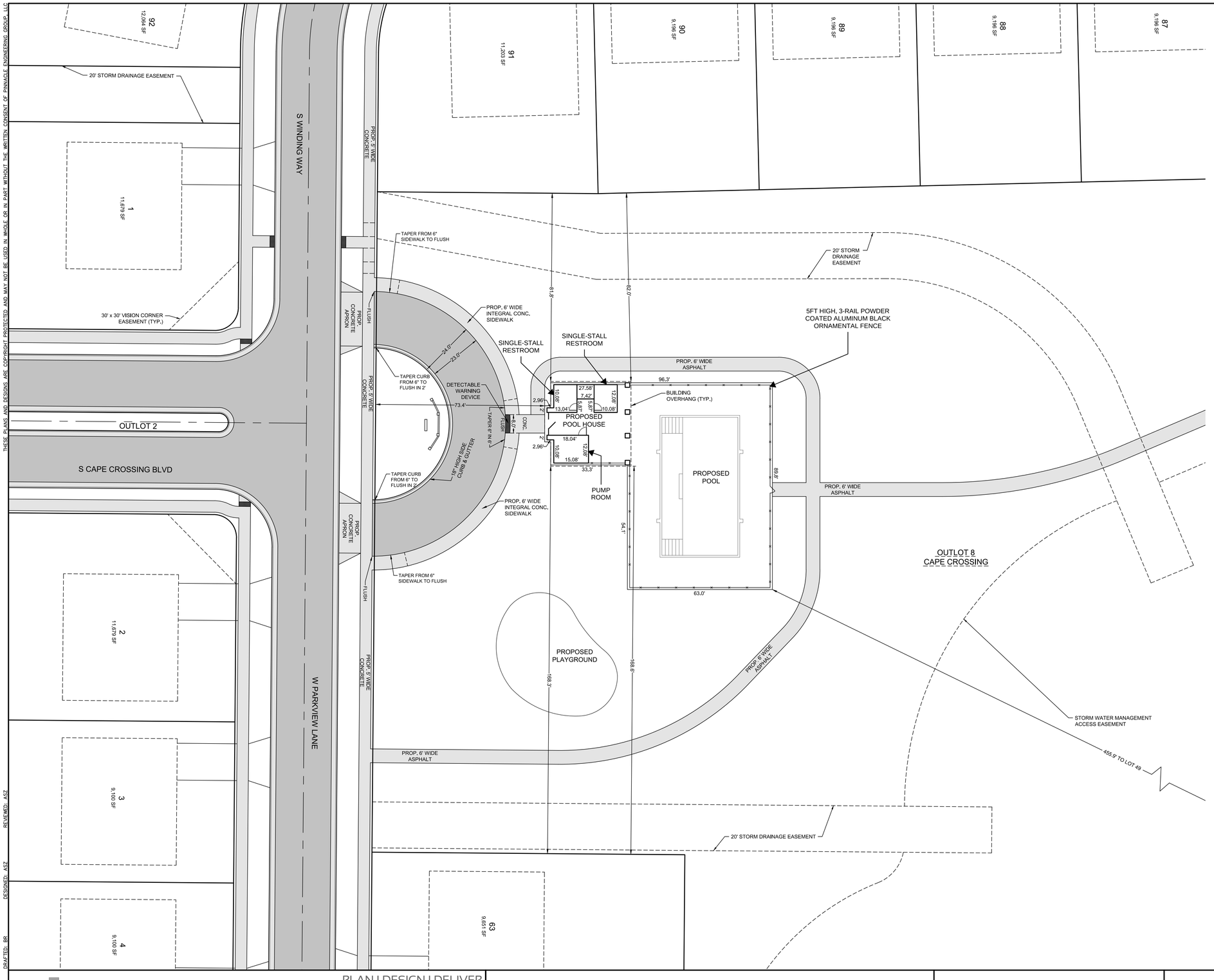
Z:\PROJECTS\2017\1004.00-WI\CAD\SHEETS\CLUBHOUSE PLANS\1004.00 OVERALL SITE PLAN.DWG



NORTH

GRAPHICAL SCALE (FEET)

0 1" = 20' 40'

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NOTE: The location and size of the underground structures and utilities shown hereon have been located to a reasonable degree of accuracy, but the Engineer and/or Surveyor does not guarantee their exact location or the location of others not shown.
Contact Diggers Hotline, Inc., Etc.

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TDLL FREE
WIS STATUTE 182.0175(1974) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE
MILW. AREA 259-1181

DRAFTED: BR
DESIGNED: ASZ
REVIEWED: ASZ

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PINNACLE ENGINEERING GROUP
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BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO I MILWAUKEE : NATIONWIDE

CAPE CROSSING POOL HOUSE/POOL

CITY OF FRANKLIN, MILWAUKEE CO., WI

PROPOSED SITE PLAN

REVISIONS

PEG JOB No. 1004.00
PEG PM ASZ
START DATE 02-27-24
SCALE 1" = 20'

SHEET
C-2
C-6

PROPOSED SITE PLAN

Z:\PROJECTS\2017\1004.00-WI\CAD\SHEETS\CLUBHOUSE PLANS\1004.00 PROPOSED SITE PLAN.DWG

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 20' 40'

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20' STORM DRAINAGE EASEMENT
S WINDING WAY
PROP. 5' WIDE CONCRETE
INSTALL SILT FENCE
TAPER FROM 6' SIDEWALK TO FLUSH
RAISE RIM FROM 805.56± TO ELEV=805.66
30' x 30' VISION CORNER EASEMENT (TYP.)
PROP. 6' WIDE INTEGRAL CONC. SIDEWALK
PROPOSED INLET PROTECTION (TYP.)
TAPER CURB FROM 6" TO FLUSH IN 2'
DETECTABLE WARNING DEVICE
OUTLOT 2
S CAPE CROSSING BLVD
6" HIGH SIDE CURB & GUTTER
TAPER CURB FROM 6" TO FLUSH IN 2'
PROP. 6' WIDE INTEGRAL CONC. SIDEWALK
TRACKING PAD (50' X 14')
EXISTING PED/TRANSFORMER
TAPER FROM 6" SIDEWALK TO FLUSH
REPLACE VERTICAL CURB FRAME & GRATE (NEENAH R-3228-BD) TO A FRAME & GRATE WITH NO CURB BACK (NEENAH R-3227-C OR EQUIVALENT). SET FRAME & GRATE IN PAVEMENT ADJACENT TO SIDEWALK. RAISE GRATE (803.81±) TO ELEV=804.30.
PROPOSED PLAYGROUND
W PARKVIEW LANE
PROP. 6' WIDE ASPHALT
PROPOSED PED TO SERVE POND FOUNTAIN
INSTALL SILT FENCE
20' STORM DRAINAGE EASEMENT
PROP. 6' WIDE ASPHALT
BUILDING OVERHANG (TYP.)
PROPOSED POOL HOUSE
PROPOSED POOL
INSTALL SILT FENCE
PROP. 6' WIDE ASPHALT
OUTLOT 8 CAPE CROSSING
STORM WATER MANAGEMENT ACCESS EASEMENT
20' STORM DRAINAGE EASEMENT
1 11,679 SF
2 11,679 SF
3 9,100 SF
4 9,100 SF
63 9,651 SF
87 9,196 SF
88 9,196 SF
89 9,196 SF
90 9,196 SF
91 11,203 SF
92 12,064 SF

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CAPE CROSSING POOL HOUSE/POOL

CITY OF FRANKLIN, MILWAUKEE CO., WI

GRADING & EROSION CONTROL PLAN

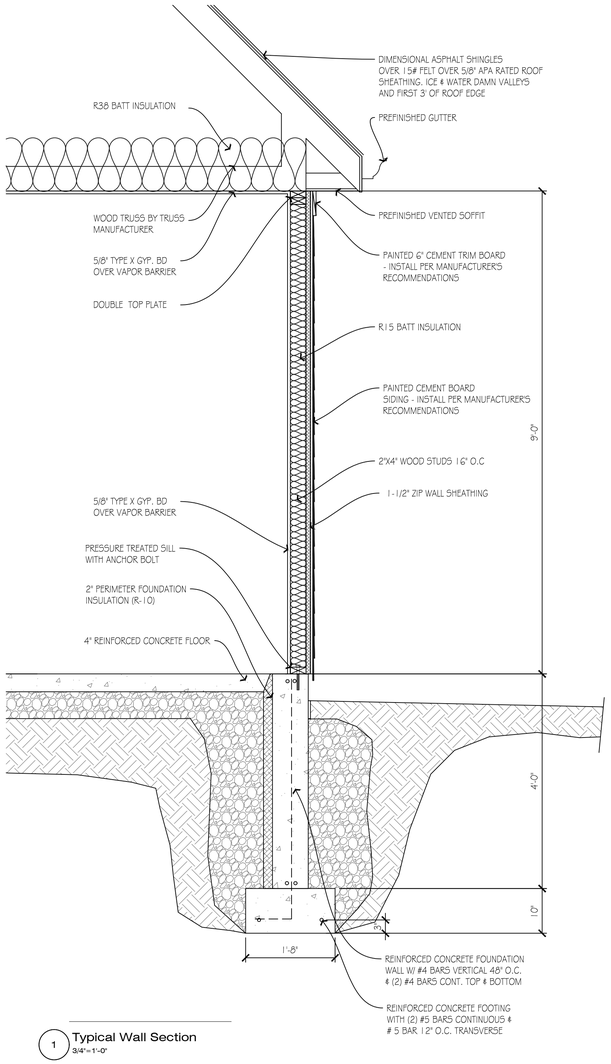
REVISIONS

PEG JOB No. 1004.00 ASZ
PEG PM
START DATE 02-27-24
SCALE 1" = 20'

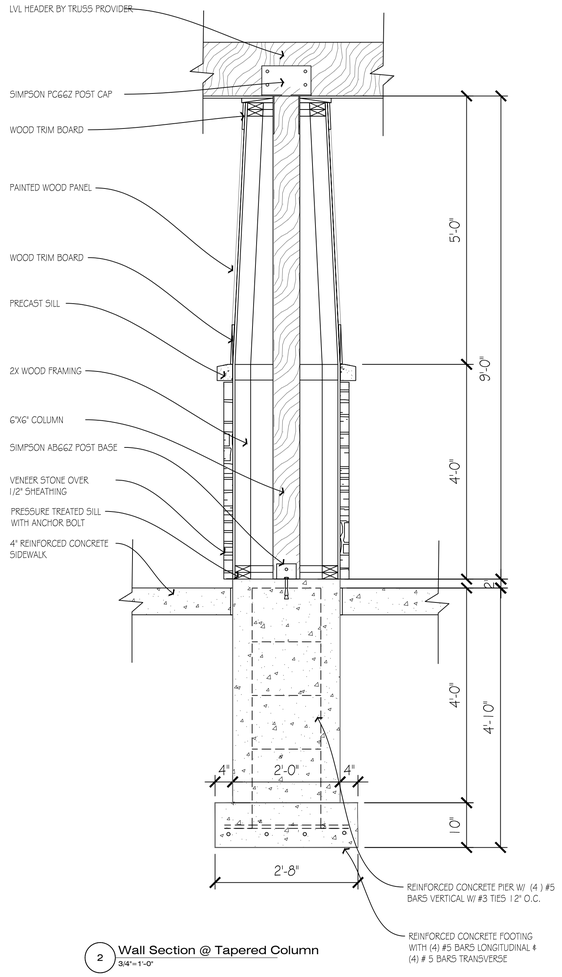
SHEET C-3 C-6

GRADING & EROSION CONTROL PLAN

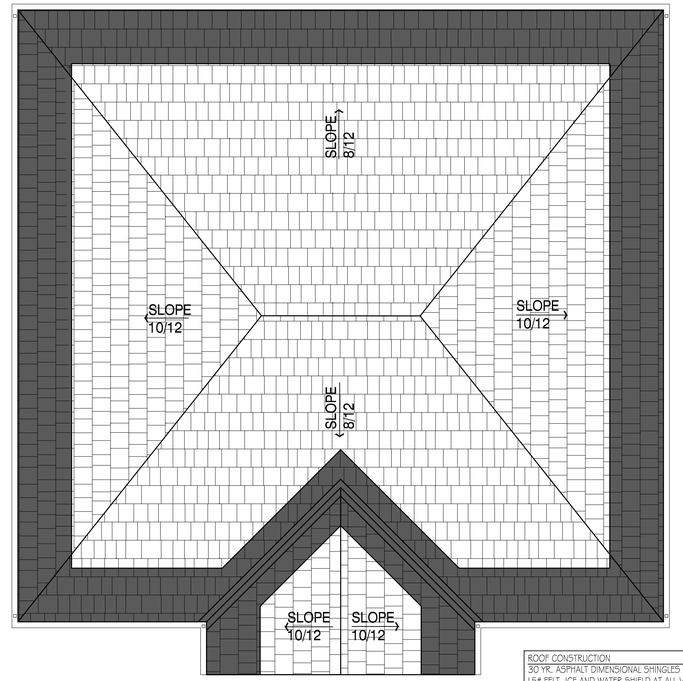
Z:\PROJECTS\2017\1004.00-WI\CAD\SHEETS\CLUBHOUSE PLANS\1004.00 MASTER GRADING.DWG



1 Typical Wall Section
3/4"=1'-0"



2 Wall Section @ Tapered Column
3/4"=1'-0"

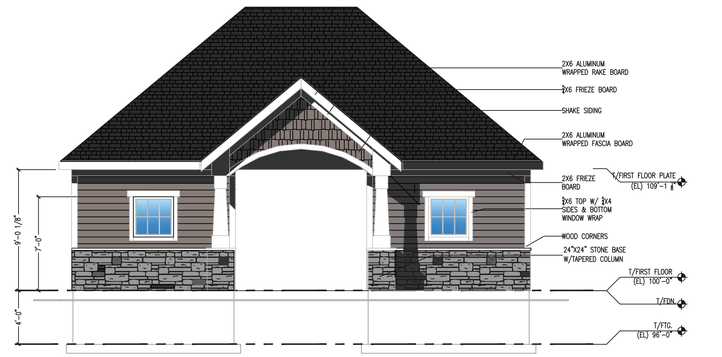


Roof Plan
1/4"=1'-0"

ROOF CONSTRUCTION
30 YR. ASPHALT DIMENSIONAL SHINGLES OVER 15# FELT, ICE AND WATER SHIELD AT ALL VALLEYS (EAVES OPTIONAL), OVER ½" O.S.B. WITH CLIPS.
ROOF TRUSSES @ 24" O.C.
RIDGE VENT PER LOCAL CODE & ROOF VENTS.(TYPICAL)

EXTERIOR FINISHES

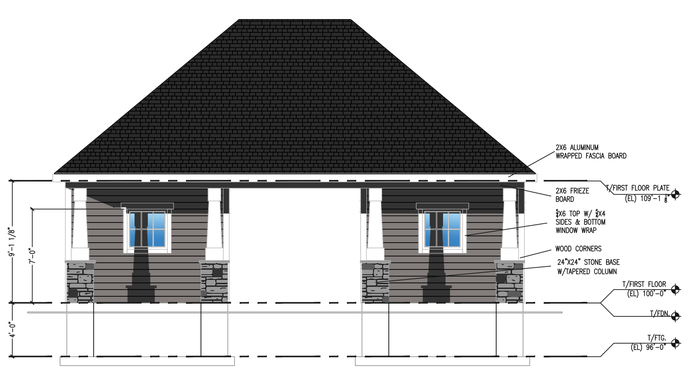
Stone - Paragon Stone -Color Smokey Mountain Stack Ledge - Gray Mortar
Sills - Gray Limestone
Shingles - Owens Corning Duration- Color - Teak Black
Siding - James Hardie - Color - Aged Pewter
Gable Shingles - James Hardie Shakes - Color - Aged Pewter
Soffit & Fascia - Rollex Aluminum - Color- Snowmist
All Building Trim - James Hardie Trim Board -Color Arctic White
Post Trim - Real Trim - Color Match Arctic White



SOUTH ELEVATION
3/16"=1'-0"

WEST ELEVATION
3/16"=1'-0"

EAST ELEVATION
3/16"=1'-0"



NORTH ELEVATION
3/16"=1'-0"

RAPOSA DESIGN
12690 W. GREENBRIAR LN.
NEW BERLIN, WI 53151
PH : (262)751-5221
FAX: (262)754-4058
RAPOSADESIGN@GMAIL.COM

Cape Crossing Pool House

12200 W RYAN ROAD
FRANKLIN, WI 53132

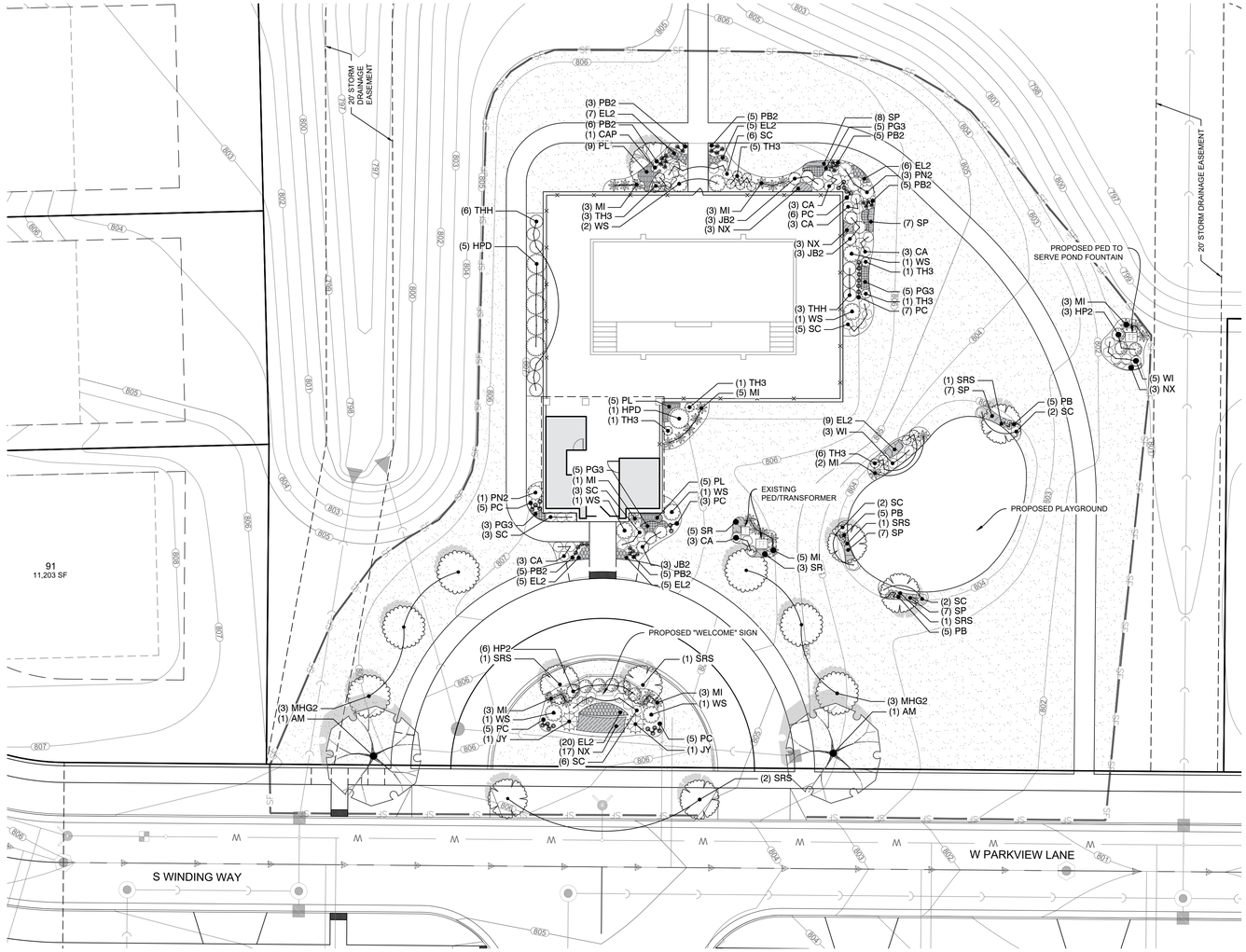
SHEET TITLE
Roof Plan, Sections & Elevations

DATE OF ISSUE 01/12/24

SYMBOL	REVISION DESCRIPTION	DATE

JOB: RD139.23
DRAWN: RJR
CHECKED: RJR
DATE: 01/12/24

SHEET:
A2



PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES					
AM	2	Acer saccharum `Green Mountain` TM	Green Mountain Sugar Maple	2" Cal.	50`T X 40`W
CAP	1	Cornus alternifolia	Pagoda Dogwood	1.5" Cal.	20' T x 25' W
MHG2	6	Malus x 'Harvest Gold'	Harvest Gold Crabapple	1.5" Cal.	20' T x 15' W
SRS	7	Syringa reticulata 'Summer Storm'	Summer Storm Tree Lilac	1.5" Cal.	17' T x 12' W
SHRUBS					
CA	15	Cornus sanguinea 'Cato'	Arctic Sun® Bloodtwig Dogwood	24" Ht.	3' T x 3' W
HP2	9	Hydrangea paniculata `Vanilla Strawberry`	Vanilla Strawberry Hydrangea	24" Ht.	7` T x 5` W
HPD	6	Hydrangea paniculata 'Interhydia' TF	Pink Diamond Hydrangea TF	24" Ht.	7` T x 6' W
SC	29	Syringa x `SMNJRPU`	Bloomerang® Dwarf Purple Lilac	18" Ht.	4` T x 3' W
WS	8	Weigela florida `Bokrasopin`	Sonic Bloom® Pink Weigela	24" Ht.	5' T x 5' W
WI	8	Weigela florida 'Kolsunn'	Magical® Fantasy Weigela	24" TW	4` T x 4' W
EVERGREEN SHRUBS					
JY	2	Juniperus horizontalis `Youngstown`	Creeping Juniper	24" W	1`T 6`W
JB2	9	Juniperus horizontalis 'Blue Forest'	Blue Forest Creeping Juniper	24" W	1' T x 4' W
PN2	4	Picea abies `Nidiformis`	Nest Spruce	18" Ht.	3` T x 5` W
TH3	18	Thuja occidentalis `Hetz Midget`	Hetz Midget Arborvitae	18" Ht.	3` T x 3` W
THH	9	Thuja occidentalis `Holmstrup`	Holmstrup Cedar	4` Ht.	14` T x 4` W
ORNAMENTAL GRASSES					
MI	28	Miscanthus sinensis 'Fire Dragon'	Fire Dragon Eulalia Grass	1 gal.	6' T x 4' W
PC	31	Panicum virgatum 'Cheyenne Sky'	Cheyenne Sky Prairie Winds® Switch Grass	1 gal.	24" T x 18" W
PB	15	Pennisetum alopecuroides 'Burgundy Bunny'	Burgundy Bunny Dwarf Fountain Grass	1 gal.	14' T x 16" W
PB2	34	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	1 gal.	18" T x 18" W

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS
PERENNIALS						
EL2	57	Echinacea x 'Balsomemyim'	Sombrero® Lemon Yellow Improved Coneflower	4.5" Cont.	18" o.c.	20" T x 18" W
NX	26	Nepeta x faassenii 'Cat's Meow'	Cat's Meow Catmint	4.5" Cont.	24" o.c.	18" T x 30" W
PL	19	Perovskia atriplicifolia `Little Spire` TM	Little Spire Russian Sage	4.5" Cont.	22" o.c.	24" T x 24" W
PG3	21	Phlox paniculata `Glamour Girl`	Glamour Girl Garden Phlox	4.5" Cont.	22" o.c.	24" T x 24" W
SR	8	Solidago rugosa `Fireworks`	Fireworks Wrinkleleaf Goldenrod	4.5" Cont.	20" o.c.	48" T x 20" W
SP	36	Stachys officinalis 'Pink Cotton Candy'	Cotton Candy Betony	4.5" Cont.	15" o.c.	20" T x18" W

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
TURF				
	23,486 sf	Turf Hydroseed	Reinders - Cadet 70/30 Fescue/Blue Mix	

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 20' 40'

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CAPE CROSSING POOL HOUSE/POOL

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LANDSCAPE OVERVIEW

REVISIONS

PEG JOB No. 1004.00
PEG PM ASZ
START DATE 02-27-24
SCALE 1" = 20'

SHEET
C-5
C-6

LANDSCAPE OVERVIEW

Z:\PROJECTS\2017\1004.00-WI\CAD\SHEETS\CLUBHOUSE PLANS\1004.00-WI CLUBHOUSE LANDSCAPE PLAN.DWG

GENERAL PLANTING NOTES

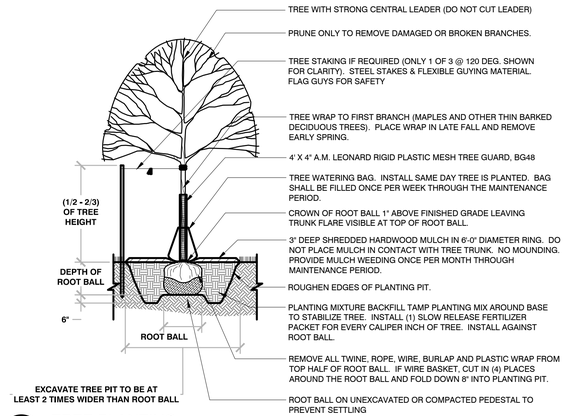
1. THE LAYOUT OF ALL PLANTING BEDS AND INDIVIDUAL TREES AND SHRUBS SHALL BE STAKED BY THE CONTRACTOR IN ADVANCE OF INSTALLATION. FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. AN APPROVED REPRESENTATIVE WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAKE MINOR ADJUSTMENTS AS NECESSARY. BED LAYOUT SHALL ALSO INCLUDE PERENNIAL GROUPINGS BY SPECIES.
2. THE CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY DETERMINING THE PLANT MATERIAL QUANTITIES REQUIRED BY THE LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
3. NO PLANT MATERIAL OR PLANT SIZE SUBSTITUTIONS WILL BE ACCEPTED WITHOUT APPROVAL BY THE LANDSCAPE ARCHITECT. ANY CHANGES SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO INSTALLATION.
4. ALL BNB STOCK SHALL BE NURSERY GROWN IN A CLAY LOAM SOIL FOR A MINIMUM OF THREE GROWING SEASONS WITHIN 200 MILES OF PROJECT LOCATION, IN A ZONE COMPATIBLE WITH USDA HARDINESS ZONE 4B. SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION. EXISTING SOIL SHALL BE AMENDED PER SOIL ANALYSIS REPORT TO ENSURE A PROPER GROWING MEDIUM IS ACHIEVED.
5. ALL PLANT MATERIAL SHALL COMPLY WITH STANDARDS DESCRIBED IN AMERICAN STANDARD OF NURSERY STOCK - Z60.1 ANSI. LANDSCAPE ARCHITECT OR OWNERS AUTHORIZED REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND POTENTIALLY REJECT ANY PLANT MATERIAL DEEMED TO NOT MEET THE REQUIRED STANDARDS.
6. ALL STOCK SHALL BE FREE OF DISEASES AND HARMFUL INSECTS, DAMAGE, DISORDERS AND DEFORMITIES.
7. TREES SHALL HAVE SINGLE, STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. MUTLI-STEM TREES SHALL HAVE 3-4 STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. HEIGHT-TO-CALIPER RATIOS SHALL BE CONSISTENT WITH THE LATEST EDITION OF ANSI Z60.1.
8. ROOT SYSTEMS SHALL BE LARGE ENOUGH TO ALLOW FOR FULL RECOVERY OF THE TREE, AND SHALL CONFORM TO STANDARDS AS THEY APPEAR IN THE MOST CURRENT REVISION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S AMERICAN STANDARD OF NURSERY STOCK ANSI Z60.1.
9. BNB TREES SHALL BE DUG WITH A BALL OF SOIL, NOT SOFT BALLED OR POTTED AND SHALL BE FIRM IN THEIR ROOTBALL. ROOT BALL SHALL BE WRAPPED (WITH BIODEGRADABLE MATERIAL). THE TREE ROOT FLARE, OR COLLAR, SHALL BE AT OR WITHIN THE TOP THREE INCHES OF GRADE.
10. ALL SPRING TREES MUST BE FRESHLY DUG IN THE MOST RECENT SPRING.
11. ALL AUTUMN TREES MUST BE FRESHLY DUG IN THE MOST RECENT AUTUMN.
12. TREES SHALL BE ALIVE, HEALTHY AND APPROPRIATELY MOIST, AT TIME OF DELIVERY. TREES SHALL BE SUBJECT TO INSPECTION FOR CONFORMITY TO SPECIFICATION REQUIREMENTS AND APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE. THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY TREES THAT DO NOT MEET THE SPECIFICATIONS OR THAT HAVE BEEN DAMAGED DURING SHIPMENT. THE LANDSCAPE INSTALLER MUST RECEIVE APPROVAL FROM LANDSCAPE ARCHITECT FOR ANY SUBSTITUTIONS OR ALTERATIONS.
13. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH PLANTING DETAILS.
14. ALL PLANTING BEDS SHALL HAVE A MINIMUM 10" DEPTH OF PREPARED SOIL. WITH APPROVAL, EXISTING SOIL MAY BE UTILIZED PROVIDED THE PROPER SOIL AMENDMENTS ARE TILLED THOROUGHLY INTO THE TOP 10" OF SOIL. REFER TO SOIL PLACEMENT NOTES.
15. WHILE PLANTING TREES AND SHRUBS, BACKFILL ⅔ OF PLANTING HOLE AND WATER TREE THOROUGHLY BEFORE INSTALLING THE REMAINDER OF SOIL MIXTURE. AFTER ALL SOIL HAS BEEN PLACED INTO THE PLANTING HOLE WATER THOROUGHLY AGAIN.
16. THE CONTRACTOR MUST LABEL ALL TREES WITH THE COMMON AND BOTANICAL NAMES PRIOR TO FINAL INSPECTION.
17. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" DEEP SHREDDED HARDWOOD MULCH, AND ALL TREES PLANTED IN TURF AREAS SHALL RECEIVE A 3" DEEP SHREDDED HARDWOOD MULCHED RING AS SHOWN IN PLANTING DETAILS.
18. ALL PLANTING BEDS AND TREE RINGS SHALL HAVE A 4" DEEP TRENCHED BED EDGE CREATED BY EITHER A FLAT LANDSCAPE SPADE OR MECHANICAL EDGER. BED EDGES ARE TO BE CUT CLEAN AND SMOOTH AS SHOWN ON LANDSCAPE PLANS WITH A CLEAN DEFINITION BETWEEN TURF AND PLANTING AREAS.
19. ALL TURF SEED AREAS SHALL RECEIVE A MINIMUM OF 6" DEPTH OF TOPSOIL. WITH APPROVAL, EXISTING SOIL MAY BE UTILIZED PROVIDED THE PROPER SOIL AMENDMENTS ARE TILLED THOROUGHLY INTO THE TOP 6" OF SOIL AS INDICATED IN THE SOIL PLACEMENT NOTES. REQUIRED AMENDMENTS SHALL BE DETERMINED BASED ON A SOIL ANALYSIS TO BE PERFORMED. ALL TOPSOIL AMENDMENT SHALL BE AGED WEED FREE MANURE OR CLASS 1 ORGANIC MATTER.
20. FOR LAWN SEEDING, APPLY A STARTER FERTILIZER AND SEED UNIFORMLY AT THE RATE RECOMMENDED BY MANUFACTURER, AND PROVIDE A MULCH COVERING THAT IS SUITABLE TO PROMOTE SEED GERMINATION AND TURF ESTABLISHMENT. CONTRACTOR TO PROVIDE FERTILIZER, SEED, AND MULCH SPECIFICATIONS TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. EROSION CONTROL MEASURES ARE TO BE INSTALLED IN THOSE AREAS REQUIRING STABILIZATION (SWALES, SLOPES EXCEEDING 1:3, AND THOSE LOCATIONS INDICATED IN CIVIL DRAWINGS).
21. THE CONTRACTOR TO ENSURE A SMOOTH, UNIFORM QUALITY TURF IS ACHIEVED WITH NO BARE SPOTS LARGER THAN 6" X 6". ANY BARE SPOTS LARGER THAN 6" X6" AT THE END OF ESTABLISHMENT PERIOD SHALL BE RESEEDED AT THE CONTRACTORS EXPENSE TO OBTAIN A DENSE, UNIFORM LAWN.
22. ALL FINISH GRADING AND LAWN AREAS TO BE INSTALLED BY LANDSCAPE CONTRACTOR.
23. ALL DISTURBED AREAS WITHIN THE PROJECT SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
24. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.

THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INCLUDING ANY IRRIGATION LINES, PRIOR TO DIGGING. CONSULT MISS DIG 811.

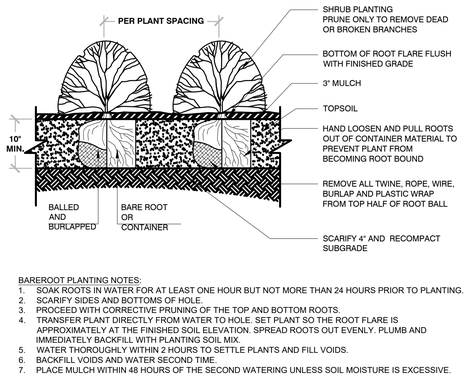
25. TREES SHALL BE INSTALLED NO CLOSER THAN:
26. -10 FEET FROM ANY FIRE HYDRANT
27. - 7 FEET FROM STORM SEWER, SANITARY SEWER LATERALS, AND WATER SERVICE
28. THE CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS
29. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, AND LICENSES NECESSARY FOR THE INSTALLATION OF THIS PLAN.
30. THE CONTRACTOR IS TO REVIEW ALL SITE ENGINEERING DOCUMENTS PRIOR TO INSTALLATION. ANY CONFLICTS MUST BE REPORTED TO THE LANDSCAPE ARCHITECT. THESE LANDSCAPE DRAWINGS ARE FOR THE INSTALLATION OF PLANT MATERIALS ONLY UNLESS OTHERWISE STATED.
31. THE CONTRACTOR SHALL PROVIDE WATERING AND MAINTENANCE SERVICES FOR A PERIOD OF 60 DAYS TO ENSURE VEGETATIVE ESTABLISHMENT. UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL SUPPLY THE OWNER IN WRITING WITH ONGOING WATERING AND MAINTENANCE INSTRUCTIONS.
32. PLANT MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM TIME OF OWNER ACCEPTANCE. ONLY ONE REPLACEMENT PER PLANT WILL BE REQUIRED DURING THE WARRANTY PERIOD EXCEPT IN THE EVENT OF FAILURE TO COMPLY WITH THE SPECIFIED REQUIREMENTS.
33. THE CONTRACTOR IS RESPONSIBLE TO CONDUCT A FINAL WALK THROUGH WITH THE LANDSCAPE ARCHITECT AND OR OWNERS REPRESENTATIVE TO ANSWER QUESTIONS, PROVIDE INSTRUCTIONS, AND ENSURE THAT PROJECT REQUIREMENTS HAVE BEEN MET.

SOIL PLACEMENT NOTES

1. LOOSEN SUBGRADE TO A MINIMUM DEPTH INDICATED IN PLANTING NOTES USING A CULTI-MULCHER OR SIMILAR EQUIPMENT, AND REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION, STICKS, RUBBISH AND OTHER EXTRANEOUS MATTER. AREAS ADJACENT TO WALKS AND PAVEMENT SHALL BE FREE OF EXCESS STONE AND PAVING MATERIALS SO AS TO PROVIDE AN UNINTERRUPTED CROSS SECTION OF SOIL. INTERNAL PARKING ISLANDS SHALL BE LOOSENED TO A DEPTH OF 30".
2. THOROUGHLY BLEND PLANTING SOIL MIX FOR PLANTING BED AREAS. (1 PART EXISTING SOIL, 1 PART TOPSOIL, 1 PART ORGANIC SOIL AMENDMENT, 2.9 POUNDS PER CUBIC YARD OF 4-4-4 ANALYSIS SLOW-RELEASE FERTILIZER)
3. TREE AND SHRUB HOLES SHALL BE FILLED WITH A PREPARED PLANTING MIXTURE OF 1 PART TOPSOIL, 2 PARTS PLANTING SOIL MIX.
4. SPREAD SOIL AND SOIL AMENDMENTS TO DEPTH INDICATED ON DRAWINGS, BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLEMENT. (FINISH GRADE OF PLANTING BEDS SHALL BE 3" BELOW ALL ADJACENT SURFACES. FINISH GRADE OF TURF SEEDING AREAS SHALL BE 1" BELOW ALL ADJACENT HARD SURFACES, WALKS, AND CURBS.)
5. PLACE APPROXIMATELY 1/2 OF TOTAL AMOUNT OF SOIL REQUIRED. WORK INTO TOP OF LOOSENED SUBGRADE TO CREATE A TRANSITION LAYER, THEN PLACE REMAINDER OF THE SOIL. SOIL TRANSITION LAYER SHALL BE TILLED TO A MINIMUM DEPTH OF 6" BELOW THE DEPTH OF NEWLY PLACED SOIL. PARKING LOT ISLANDS SHALL BE CROWNED TO A HEIGHT OF 6" TO PROVIDE PROPER DRAINAGE UNLESS OTHERWISE NOTED.
6. DO NOT SPREAD IF PLANTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
7. FINISH GRADING: GRADE SOIL TO A SMOOTH, UNIFORM SURFACE PLANE WITH A LOOSE, UNIFORMLY FINE TEXTURE.
8. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
9. RESTORE PLANTING BEDS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING AND BEFORE PLANTING.

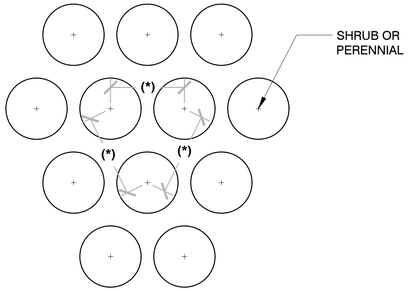


1 TREE PLANTING
1/4" = 1'-0" 329343-01



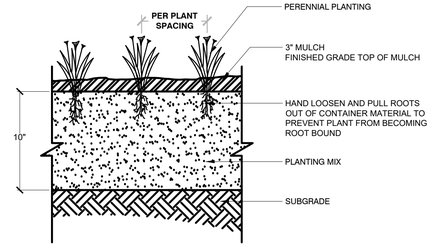
BAREROOT PLANTING NOTES:
1. SOAK ROOTS IN WATER FOR AT LEAST ONE HOUR BUT NOT MORE THAN 24 HOURS PRIOR TO PLANTING.
2. SCARIFY SIDES AND BOTTOMS OF HOLE
3. PROCEED WITH CORRECTIVE PRUNING OF THE TOP AND BOTTOM ROOTS.
4. TRANSFER PLANT DIRECTLY FROM WATER TO HOLE. SET PLANT SO THE ROOT FLARE IS APPROXIMATELY AT THE FINISHED SOIL ELEVATION. SPREAD ROOTS OUT EVENLY. PLUMB AND IMMEDIATELY BACKFILL WITH PLANTING SOIL MIX.
5. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
6. BACKFILL VOIDS AND WATER SECOND TIME.
7. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

2 SHRUB PLANTING
1/2" = 1'-0" 329333-02

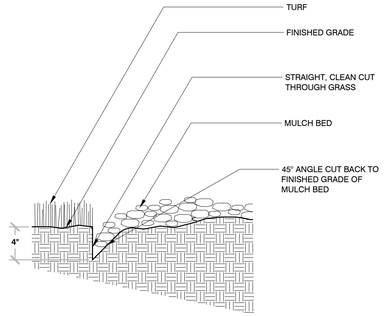


(*) = SPECIFIED PLANT SPACING PER PLANTING LIST

4 PLANT SPACING
3/4" = 1'-0" 3293-02



3 PERENNIAL PLANTING
1" = 1'-0" 3293-01



5 TRENCHED BED EDGE
3/4" = 1'-0" 3293-03

DRAFTED: BR
DESIGNED: ASZ
REVIEWED: ASZ

PLAN I DESIGN I DELIVER
www.pinnacle-engr.com
PINNACLE ENGINEERING GROUP
ENGINEERING I NATURAL RESOURCES I SURVEYING
WISCONSIN OFFICE:
20725 WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO I MILWAUKEE - NATIONWIDE

CAPE CROSSING POOL HOUSE/POOL
CITY OF FRANKLIN, MILWAUKEE CO., WI

LANDSCAPE GENERAL NOTES & DETAILS

REVISIONS

PEG JOB No. 1004.00
PEG PM ASZ
START DATE 02-27-24
SCALE N.A.

SHEET C-6 C-6

LANDSCAPE GENERAL NOTES & DETAILS

www.pinnacle-engr.com

Z:\PROJECTS\2017\1004.00-WI\CAD\SHEETS\CLUBHOUSE PLANS\1004.00-WI CLUBHOUSE LANDSCAPE PLAN.DWG

WISCONSIN'S LARGEST
TREE TRANSPLANTERS


ADAGIO SILVER GRASS


ARMSTRONG MAPLE


JUDD VIBURNUM

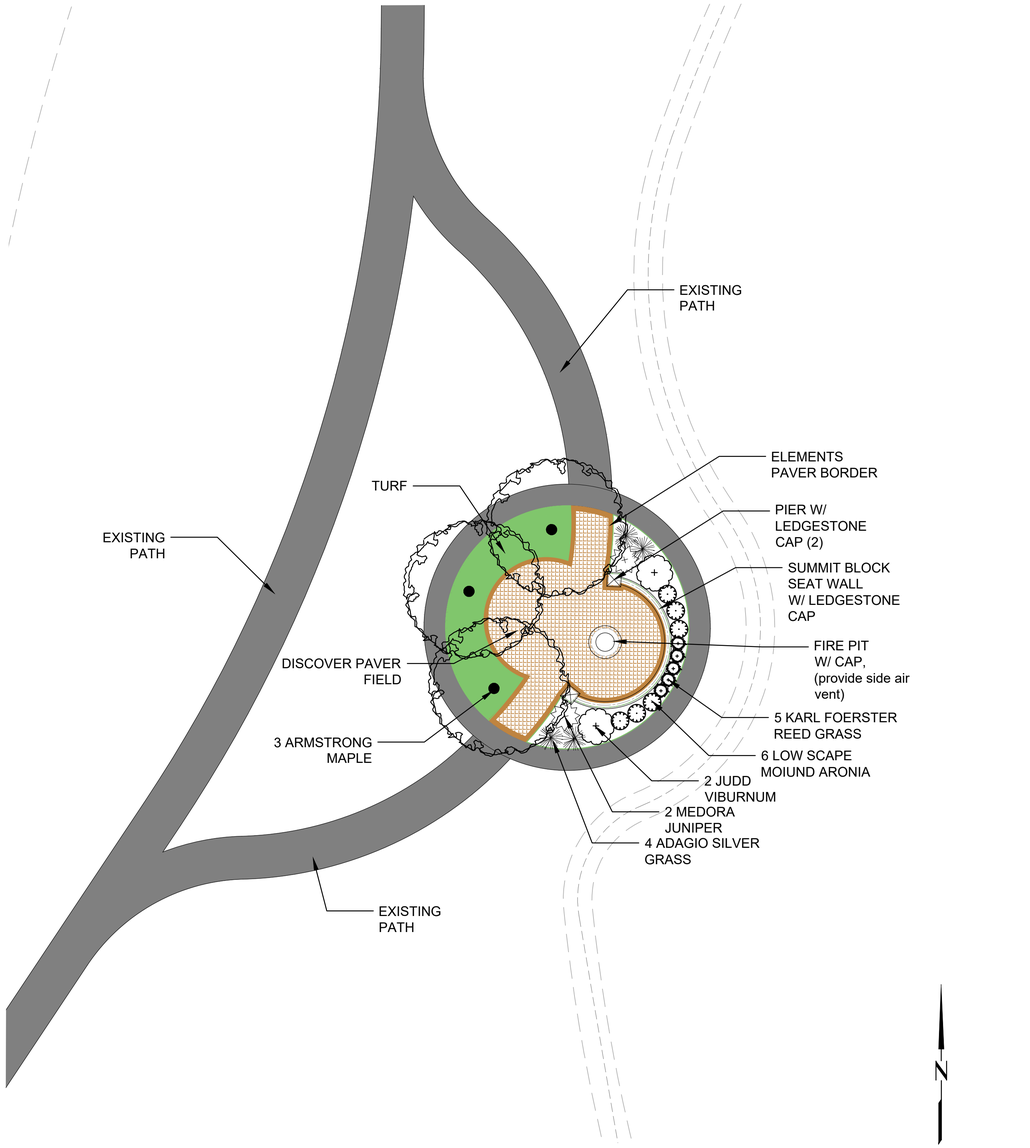

JUDD VIBURNUM -fall


KARL FOERSTER REED GRASS

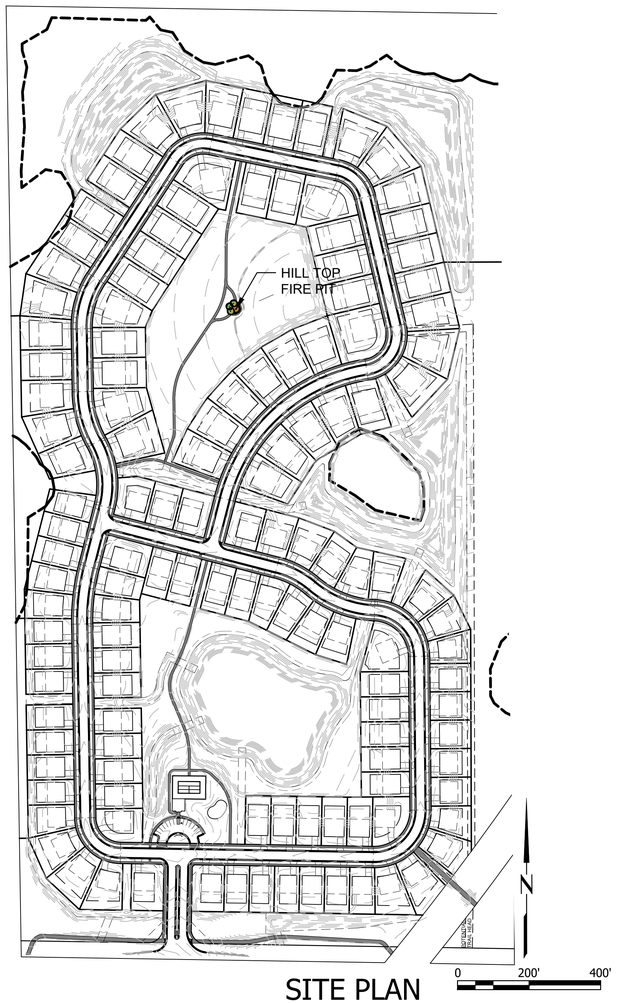

LOW SCAPE MOUND ARONIA


LOW SCAPE MOUND ARONIA -fall


MEDORA JUNIPER



LANDSCAPE PLAN



SITE PLAN

elements paver colors (border)

discover paver colors (field)


ledgestone coping haven majestic reflection timeless

SUMMIT SMOOTH WALL COLORS

PLANTINGS, STRUCTURES AND OTHER REPRESENTATIONS SHOWN ON THIS PLAN ARE FOR THE PURPOSE OF CONVEYING LANDSCAPE DESIGN FEATURES. REFER TO PREPARED CONTRACT DOCUMENTS FOR SPECIFIC ITEMS INCLUDED IN ANY PARTICULAR PHASE OF LANDSCAPE CONSTRUCTION.

Premier Landscapes

LANDSCAPE DEVELOPMENT FOR
CAPE CROSSING - FIRE PIT DESTINATION
WEST RYAN ROAD
FRANKLIN, WISCONSIN

LANDSCAPE ARCHITECTURE

DESIGN BY:	GAR
DRAWN BY:	GAR
DATE:	4/3/2023
REVISED:	
SCALE:	VARIES
SHEET:	L100

TREES ON THE MOVE
5611 S. Calhoun Road
New Berlin, WI 53151
Phone: (262) 679-5200
treesonthemove.com

Xref ..\..\..\TOTM\cad\DIGGER'S.dwg

Cape Crossing Example Play Structure

Franklin, WI

5-12 Play Area

LEE RECREATION, LLC

(800) 775-8937 *Main*
(608) 423-7655 *Fax*

260 W. Main St.
Cambridge, WI 53523

info@leerecreation.com
www.leerecreation.com

Providing Fun Across Wisconsin Since 1995

View B

View A

CITY OF FRANKLIN

REPORT TO THE PLAN COMMISSION

Meeting of May 9, 2024

TEMPORARY USE

RECOMMENDATION: City Development staff recommends approval of this Temporary Use permit, subject to the conditions set forth in the attached resolution and in this report.

Project name:	**Rock'n Food Truck Rally at Umbrella Bar**
Property Owner:	BPC County Land LLC
Applicant:	Carinn Hoffman. ROC Ventures, LLC
Property Address/TKN:	7005 S. Ballpark Drive / 744 1003 000
Aldermanic District:	District 6
Zoning District:	PDD No. 37 (The Rock Sports Complex)
Staff Planner:	Régulo Martínez-Montilva, AICP, CNUa, Principal Planner
Submittal date:	03-29-2024
Application number:	PPZ24-0056

Temporary Use application for the Rock'n Food Truck Rally at the Umbrella Bar. The applicant is proposing the same location and hours of operation as previous temporary use permits. The food trucks will operate in the vicinity of the Umbrella Bar from 5:00 p.m. to 9:00 p.m. on Thursday nights from May 30 to September 19, 2024. Each event day will have a maximum of ten (10) food trucks selling food and non-alcoholic beverages only.

Plan Commission approval was not required for previous approvals as this event doesn't exceed 30 days. City Development staff is referring such application to the Plan Commission this year due to noise complaints. Pursuant to the Unified Development Ordinance (UDO) Section 15-3.0804 "Detailed Standards for Temporary Uses", the zoning administrator may refer any application for a Temporary Use to the Plan Commission for review and approval if "there is a question as to whether the proposed temporary use may adversely affect adjoining property due to the nature of, size or area of, noise, debris, lighting, or the like or other resultant from the proposed temporary use".

Even though, the Department of City Development received several noise complaints last year, such complaints were related to music and concerts at the Umbrella Bar. Since the Summer Concert Series is subject to a separate Extraordinary Event Permit, City Development staff has no objections to the food truck operations with regards to noise.

Note that City Development staff didn't find any exceedance of the noise level of 79 dBA as recorded by the sound monitors for the noise complaints received in 2023.

CITY DEPARTMENT'S COMMENTS

Health Department
"All food trucks operating at this event must hold a current Mobile Retail Food License from DATCP or a DATCP agent. Organizers of Food Truck Rally will provide the Franklin Health Department (FHD) with a list of vendors that will be attending this event. License information will be verified by FHD prior to operating. Vendors must submit an application for inspection and applicable fees to the FHD at least 48 hours prior to the event date. Inspections will be conducted per the Franklin Health Department Policy and Procedures. All Wisconsin Food Code requirements must be met by all licensed establishments participating" [this comment is listed in the recommended conditions of approval].

Fire Department
"The operation of food trucks shall comply with the administrative code provisions under the Wisconsin Department of Safety and Professional Services (DSPS), §§ SPS 314 Fire Prevention and NFPA 1, Fire Code-2012 (adopted by reference)" [this comment is listed in the recommended conditions of approval].

Engineering Department
"No comment".

Inspection Services Department
"Inspection Services has no comments on the proposal at this time".

Police Department
"The only concern the PD has is the noise. We would like to know the maximum allowable decibel level for this permit".

STAFF RECOMMENDATION

City Development staff recommends approval of this Temporary Use permit, subject to the conditions set forth in the attached resolution, which are also listed below:

1. The Rock'n Food Truck Rally Temporary Use is hereby approved from May 30 to September 19, 2024, Thursdays only. This temporary use is not approving alcoholic beverage sales.

2. The Rock'n Food Truck Rally Temporary Use shall be operated in the vicinity of the Umbrella Bar at Ballpark Commons in accordance with the Site Plan, City file-stamped March 29, 2024, attached and on file with the Department of City Development.

3. The maximum number of food trucks at an event shall be ten (10).

4. Hours of operation for the event shall be limited from 5:00 p.m. to 9:00 p.m.

5. All extension cords (if used) must be 3-wire (grounded), be approved for outdoor use, and be unplugged when not in use.

6. No display, sales, or parking shall obstruct vehicular traffic. Twenty-five feet of drive aisle must be maintained at all times to allow safe and efficient vehicular access throughout the parking lots.

7. Trash receptacles must be provided to properly dispose of any waste generated by this event.

8. Any temporary signage associated with the event shall be approved by the Department of City Development.

9. Tents and other event activities shall be positioned on the exterior of the building so as not to impede building exits, pedestrian or vehicle traffic, “fire lanes” and accessible routes to the public right of way.

10. Approval is based on adequate sanitary facilities being provided for the event.

11. All food trucks operating at this event must hold a current Mobile Retail Food License from DATCP or a DATCP agent. Organizers of Food Truck Rally will provide the Franklin Health Department (FHD) with a list of vendors that will be attending this event. License information will be verified by FHD prior to operating. Vendors must submit an application for inspection and applicable fees to the FHD at least 48 hours prior to the event date. Inspections will be conducted per the Franklin Health Department Policy and Procedures. All Wisconsin Food Code requirements must be met by all licensed establishments participating.

12. The operation of food trucks shall comply with the administrative code provisions under the Wisconsin Department of Safety and Professional Services (DSPS), §§ SPS 314 Fire Prevention and NFPA 1, Fire Code-2012 (adopted by reference).

13. This Temporary Use approval is contingent on the applicant receiving all applicable licenses/permits through the City of Franklin. This includes, but is not limited to, all necessary licenses which are required through the Building Inspection Department, Clerks Office, and Health Department.

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY
PLAN COMMISSION *[Draft 4-29-24]*

RESOLUTION NO. 2024-_____

A RESOLUTION IMPOSING CONDITIONS AND RESTRICTIONS FOR THE APPROVAL OF A TEMPORARY USE FOR THE ROCK'N FOOD TRUCK RALLY FOR PROPERTY LOCATED AT 7005 S. BALLPARK DRIVE (ROC VENTURES, LLC, APPLICANT)

WHEREAS, ROC Ventures, LLC having petitioned the City of Franklin for the approval of a Temporary Use to allow for the Rock'n Food Truck Rally at the Umbrella Bar, for Milwaukee Milkman baseball games, for a maximum of ten food truck locations, from May 30 to September 19, 2024, Thursdays only, upon property located at 7005 S. Ballpark Drive; and

WHEREAS, the Plan Commission having found that the proposed Temporary Use, subject to conditions, meets the standards set forth under §15-3.0804 and §15-3.0442 of the Unified Development Ordinance.

NOW, THEREFORE, BE IT RESOLVED, by the Plan Commission of the City of Franklin, Wisconsin, that the petition of ROC Ventures, LLC for the approval of a Temporary Use for the property particularly described in the preamble to this Resolution, be and the same is hereby approved, subject to the following conditions and restrictions:

1. The Rock'n Food Truck Rally Temporary Use is hereby approved from May 30 to September 19, 2024, Thursdays only. This temporary use is not approving alcoholic beverage sales.

2. The Rock'n Food Truck Rally Temporary Use shall be operated in the vicinity of the Umbrella Bar at Ballpark Commons in accordance with the Site Plan, City file-stamped March 29, 2024, attached and on file with the Department of City Development.

3. The maximum number of food trucks at an event shall be ten (10).

4. Hours of operation for the event shall be limited from 5:00 p.m. to 9:00 p.m.

5. All extension cords (if used) must be 3-wire (grounded), be approved for outdoor use, and be unplugged when not in use.

6. No display, sales, or parking shall obstruct vehicular traffic. Twenty-five feet of drive aisle must be maintained at all times to allow safe and efficient vehicular access throughout the parking lots.

7. Trash receptacles must be provided to properly dispose of any waste generated by this event.

8. Any temporary signage associated with the event shall be approved by the Department of City Development.

9. Tents and other event activities shall be positioned on the exterior of the building so as not to impede building exits, pedestrian or vehicle traffic, "fire lanes" and accessible routes to the public right of way.

10. Approval is based on adequate sanitary facilities being provided for the event.

11. All food trucks operating at this event must hold a current Mobile Retail Food License from DATCP or a DATCP agent. Organizers of Food Truck Rally will provide the Franklin Health Department (FHD) with a list of vendors that will be attending this event. License information will be verified by FHD prior to operating. Vendors must submit an application for inspection and applicable fees to the FHD at least 48 hours prior to the event date. Inspections will be conducted per the Franklin Health Department Policy and Procedures. All Wisconsin Food Code requirements must be met by all licensed establishments participating.

12. The operation of food trucks shall comply with the administrative code provisions under the Wisconsin Department of Safety and Professional Services (DSPS), §§ SPS 314 Fire Prevention and NFPA 1, Fire Code-2012 (adopted by reference).

13. This Temporary Use approval is contingent on the applicant receiving all applicable licenses/permits through the City of Franklin. This includes, but is not limited to, all necessary licenses which are required through the Building Inspection Department, Clerks Office, and Health Department.

Introduced at a regular meeting of the Plan Commission of the City of Franklin this _____ day of _____, 2024.

Passed and adopted at a regular meeting of the Plan Commission of the City of Franklin this _____ day of _____, 2024.

APPROVED:

_____
John R. Nelson, Chairman

ATTEST:

_____
Shirley J. Roberts, City Clerk

AYES _____ NOES _____ ABSENT _____

City of Franklin Property Viewer

5/1/2024, 3:28:45 PM

Parcel

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

SEWRPC, Maxar, City of Franklin, WI

Franklin User

City of Franklin, WI | Earthstar Geographics |

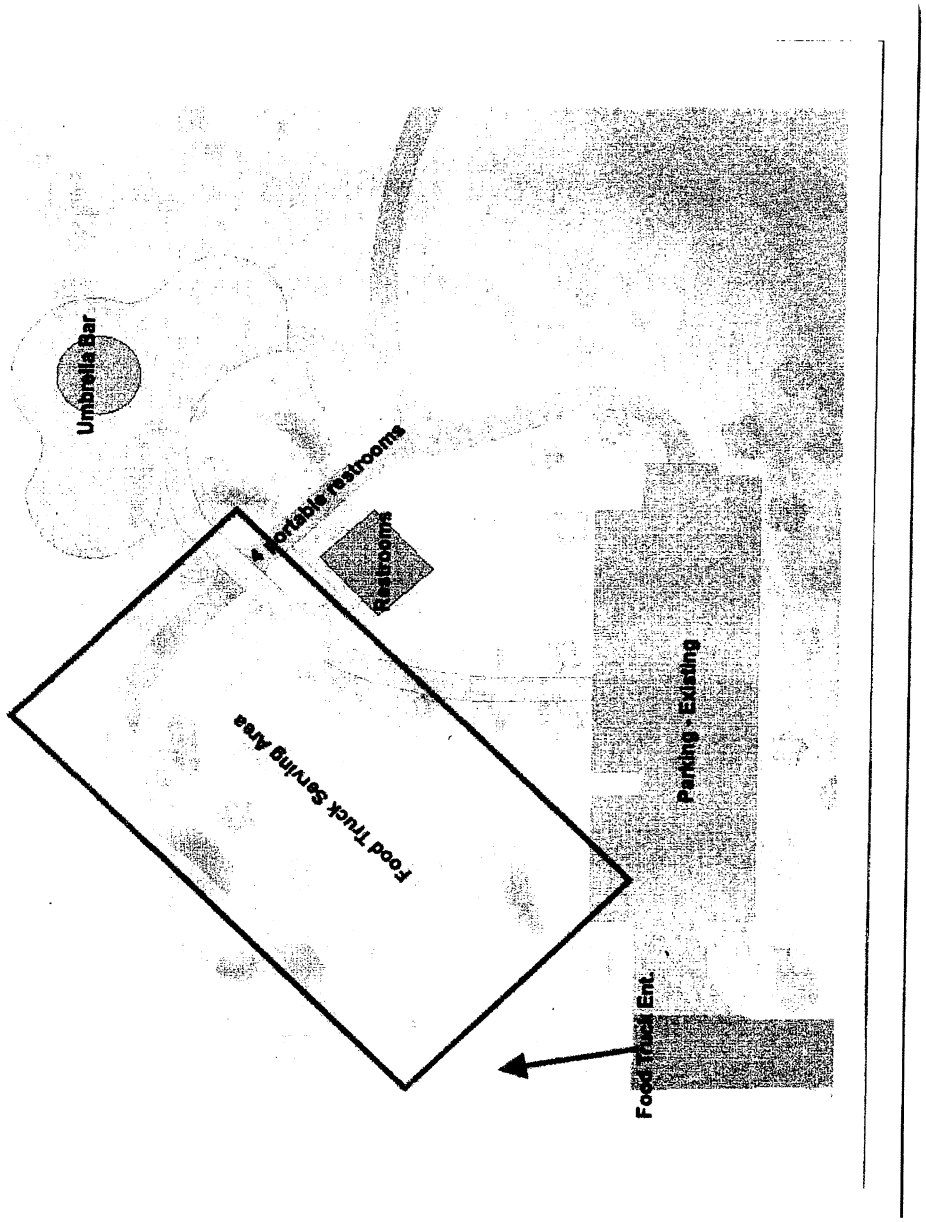
TEMORARY USE APPLICATION
UMBRELLA BAR – BALLPARK COMMONS
7005 S BALLPARK DRIVE

PROJECT NARRATIVE

Ballpark Commons will be hosting food truck events this summer on the dates listed below. Site plans and overall layouts will be the same for each event. Food trucks and/or vendors will be limited to a maximum of 10 participants and each will be entirely self-contained and legally licensed from an authorized state or city agency. At each event, we will utilize existing beverage infrastructure. Additionally, some trucks/vendors will be allowed to sell non-alcoholic beverages.

Rock'n Food Truck Rally – Series

Event Runtime and Attendance: 5:00pm-9:00pm
Details: Maximum 10 food trucks will be parked within the event zone selling food and non-alcoholic beverages.
Site Plan: Food Trucks/Vendors will only be allowed to set up within the event zone shown below.
Dates: Every Thursday starting on May 30, 2024 and ending on September 19, 2024.



CITY OF FRANKLIN

REPORT TO THE PLAN COMMISSION

Meeting of May 9, 2024

TEMPORARY USE

RECOMMENDATION: City Development staff recommends approval of this Temporary Use permit, subject to the conditions set forth in the attached resolution and in this report

Project name:	**Franklin Field, 2024 season**
Property Owner:	BPC County Land LLC
Applicant:	Christ David Conley. ROC Ventures, LLC
Property Address/TKN:	7035 S. Ballpark Drive / 744 1003 000
Aldermanic District:	District 6
Zoning District:	PDD No. 37 (The Rock Sports Complex)
Staff Planner:	Régulo Martínez-Montilva, AICP, CNUa, Principal Planner
Submittal date:	03-29-2024
Application number:	PPZ24-0057

Please note:

- Staff recommendations are *underlined and in italics*, and included in the attached resolution as conditions of approval.

The temporary uses and structures associated with the Franklin Field Stadium for this baseball season are as follows:

- Food and beverage sales (A.1), 1 location.
- Beverage sales (A.2), 5 locations for beverage carts.
- Food trucks (A.3), 1 location.
- Beverage tub (A.4), 2 locations for rolling coolers.
- Graduation ceremony.
- Candy drop.

According to the Stadium Site Plan Resolution No. 2018-016, "the applicant shall annually, at least 90 days prior to the start of each baseball season at the Ballpark Commons stadium, submit all plans and details for all semi-portable, semi-temporary, temporary, and product hawking structures, uses, and activities planned to occur at the stadium for City staff review and approval".

The applicant submitted this application on March 29, 2024, and the first UWM Panthers game was scheduled for March 28. In accordance with the provision of the Site Plan Resolution cited above, *City Development staff recommends that the applicant must submit the next temporary use permit application at least 90 days prior to the start of any baseball season, including the UWM Panthers season.*

The concerts, fireworks and food & beverage events are subject to separate extraordinary event permits through the Clerk's Office.

Noise

City Development staff is referring such application to the Plan Commission this year due to noise complaints. Pursuant to the Unified Development Ordinance (UDO) Section 15-3.0804 "Detailed Standards for Temporary Uses", the zoning administrator may refer any application for a Temporary Use to the Plan Commission for review and approval if "there is a question as to whether the proposed temporary use may adversely affect adjoining property due to the nature of, size or area of, noise, debris, lighting, or the like or other resultant from the proposed temporary use".

City Development staff received numerous noise complaints related to the Rock Sports Complex, staff evaluated these complaints with data from the three sound meters[1] and the standard of 79 dBA at the property line[2]. No exceedance of the 79 dBA sound level has been identified by staff during the evaluation of noise complaints in the last three years (2021-2023), this evaluation is only for sounds caused by baseball games conducted in the stadium (not including other events such as Hill Has Eyes, fireworks and concerts, or background sounds such as wildlife, traffic and aircrafts).

It's worth noting that condition of approval No. 2 of the Planned Development District (PDD) states that: "The applicants have also agreed to comply with the City of Franklin's noise ordinances as they relate to the standard of 79 dBA at the property boundary" [emphasis added]. This 79 dBA level is in the Municipal Code:

> Section §183-41A.(1) *Noise Regulated*:
> "No person shall operate, permit the operation or allow his or her property to be used for such operation of anything which makes or causes a sound at a level between 70 dBA and 79 dBA as measured at the real property boundary of the noise source or beyond 50 feet from the noise source when operated in a public space without a permit, except as otherwise provided in § 183-40F, H and I and Subsection B of this section" [emphasis added].
>
> Section §183-41A.(2),
> "Such permits shall be issued by the City Council annually upon payment of a fee of $75 and application stating the name of the applicant, the address where the sound will be made, anticipated dates and times of operation and what technologically reasonable steps to minimize the noise have been taken. Permits may be conditioned upon the applicant taking technologically reasonable steps to minimize the noise. such permits shall be issued by the City Council".

Therefore, staff identifies two options with regards to the maximum allowable sound level for this temporary use:

- Plan Commission approval conditioned upon an allowable sound level of 55 dBA LAeq[3] as measured at the property boundary.

---

[1] There are three sound meters in the Rock Sports Complex: west, north and east. See appendix Noise and Light Addendum for map indicating location of such meters.

[2] See appendix "Sound monitoring and complaint procedure for BPC and the Rock" memorandum dated June 24, 2019.

[3] The underlying zoning district for the Rock Sports Complex is Park District P-1 per Ordinance 2019-2368, Section 15-3.0442AA. The maximum permitted sound level in the P-1 district is 55 dBA per UDO Table 15-3.1107(C).

- Sound levels between 70 dBA and 79 dBA require approval by the Common Council in accordance with Municipal Code §183-41A.(2).

City Development staff doesn't recommend to set a maximum sound level for one candy drop event scheduled for August 25, based on the Rocks Sports Complex Sound Study (page 65): "Sound levels from fireworks and helicopter events are likely to exceed any reasonable community sound limit. Many communities, including Greendale, exempt some types of special events from their noise ordinance. The City of Franklin currently overlooks fireworks from its noise requirements. We recommend that if the City of Franklin would like to except fireworks from the requirements, that this be explicitly stated in the Development Agreement and that they limit the number of these louder events with the understanding that the noise limits will be exceeded. In an effort to reduce community annoyance during these special events, it is recommended that the City of Franklin commit to a maximum number of allowable special events per year (for example, six). Time limits, such as ending any special events by 10 PM, would reduce the chances of sleep disturbance in the community. It is also highly recommended that the ROC be required to notify residents of the surrounding community of the dates and times in which these events will take place. The notification should happen well in advance of the events, to allow residents to make accommodations in scheduling sound sensitive types of activities at their homes".

For the preparation of this report. City Development staff evaluated sound data associated with noise complaints from 2021 to 2023, and has the following observations:

- No trigger events (over 65 dBA) found in 2022 and 2023 related to baseball games in the stadium. Note that the west meter was not in operation for most of this period (approx. from May 2022 to November 2023).
- Triger events related to baseball games in the stadium were recorded in 2021. For example, on August 27, a notice of violation was issued for exceeding a sound level 65 dBA LAeq for at least 30 minutes per Noise and Light Addendum.
- See appendix for a selection of typical recordings.

The city has the right to enforce the Noise and Light Addendum mentioned above, which defines a violation as "a complaint filed with the operator or the City of Franklin and is evidenced in the monitoring data logs by an exceedance ("Trigger Event") that is not permitted and is not corrected and remediated within 30 minutes of the Trigger Event". City Development staff stopped enforcing this addendum on May 23, 2022 (see appendix), for practical purposes because it requires evaluation of trigger events for a 30-minute period rather than a single trigger event. Another limitation of this addendum is that it doesn't set sound level (Rock Sports Complex Sound Study, page 8).

Noise monitoring report

Among the conditions of approval for the Rocks Sports Complex Planned Development District, there is a requirement for the applicant to provide a noise monitoring report to the Plan Commission, such requirement is still outstanding as of writing of this report.

> "2. In regard to any new or revised concerts, live music venues, or outdoor events utilizing speakers, including but not limited to the proposed baseball stadium, the applicants have agreed to implement the sound enhancements as set forth in the BPC County Lands LLC agreement with Milwaukee County set forth in Exhibit C/ Addendum of that agreement. The applicants have also agreed to comply with the City of Franklin's noise ordinances as they relate to the standard of 79 dBA at the property boundary. The applicants shall also provide a report to the Plan Commission after one year from the date of Occupancy Permit of the new stadium to review the results of the noise monitoring".
>
> Ordinance No. 2019-2368, Condition of approval No. 2 [emphasis added]

In the absence of the noise monitoring report noted above, *City Development staff recommends that the applicant must submit a noise monitoring report as required by condition of approval No. 2 of Ordinance No. 2019-2368, no later than 90 days after the start of the 2024 Milwaukee Milkmen baseball season.*

Rock Sports Complex Sound Study

The "Rock Sports Complex Sound Study" was commission by Milwaukee County, this study is available on the city's website[4]. An independent noise monitoring report as noted above is also among the recommendations of this sound study:

> "It is recommended that an evaluation be conducted of the staging, engineering, and all sound systems currently in place at the stadium. The evaluation should be conducted by a qualified acoustical consulting company, who is granted full access to the facility, and include a review of the location, orientation, type, and broadcast range of the existing sound system design and design recommendations with respect to sound thresholds, monitoring devices, engineering, and design".
>
> Rock Sports Complex Sound Study, May 22, 2023, page 64

It's worth noting that City Development staff is considering the recommendations of the "Rock Sports Complex Sound Study" in the process of the UDO rewrite and updating the city's noise regulations, see the April 9th Committee of the Whole meeting packet in appendix for more information.

CITY DEPARTMENT'S COMMENTS

Health Department

"All facilities serving food items must be licensed by the City of Franklin Health Department with the exception of A.2 and A.4 which are intended for selling packaged beverage items not considered "Temperature controlled for Safety" (milk, some juices, etc).

Any food trucks operating in A.3 must provide proof of Mobile Retail Food Licensing and are subject to inspection per the Franklin Health Department Policy and Procedures. FHD must be notified prior to trucks operating at events

Any other food sales locations, equipment or vendors not specified on this application will be subject to approval by the Franklin Health Department." [this comment is listed in the recommended conditions of approval].

Engineering Department

"No comment".

Inspection Services Department

"Inspection Services has no comments on the proposal at this time".

Police Department

"The only concern the PD has is the noise. We would like to know the maximum allowable decibel level".

---

[4] https://www.franklinwi.gov/Files/Agendas/2024/April2024/Committee-of-the-Whole-Meeting-Agenda-Packet-4-9-2024.pdf

STAFF RECOMMENDATION

City Development staff recommends approval of this Temporary Use permit, subject to the conditions set forth in the attached resolution and listed below:

1. This Temporary Use permit is hereby approved for uses and activities associated with the 2024 regular season of the UWM Panthers and the Milwaukee Milkmen at the Franklin Field, specifically:

    - Food and beverage sales (A.1), 1 location.
    - Beverage sales (A.2), 5 locations for beverage carts.
    - Food trucks (A.3), 1 location.
    - Beverage tub (A.4), 2 locations for rolling coolers.
    - Graduation ceremony.
    - Candy drop (Sunday, August 25).

2. This 2024 Franklin Field Stadium Temporary Use permit shall be operated in accordance with the project narrative and site plan, city file-stamped March 29, 2024, attached and on file with the Department of City Development.

3. The uses and activities of this Temporary Use permit must comply with the maximum sound level of 55 dBA LAeq as measured at the property boundary per Unified Development Ordinance Table 15-3.1107(C), with the exception of the Candy Drop event on August 25, 2024.

    or

    The uses and activities of this Temporary Use permit must comply with the maximum sound level of _____ (70-79) dBA LAeq per Municipal Code §183-41A.(2), with the exception of the Candy Drop event on August 25, 2024.

4. This Temporary Use permit does not include concerts, fireworks, and other food & beverage events listed in the project narrative, the applicant must submit separate special event permits through the City of Franklin Clerk's Office. The applicant must obtain all necessary licenses from the Clerk's Office for alcoholic beverage sales and consumption.

5. Pursuant to Planned Development District Ordinance 2019-2368, hours of operation for the stadium shall be limited to 7:00 a.m. to 11:00 p.m. In the event of rain delays, extra innings, technical difficulties, or lighting maintenance, a reasonable extension of the lighting curfew, up to 12:00 a.m. (midnight), is allowed. Infrequent minor extensions beyond midnight is also allowed.

6. No display, sales, or parking shall obstruct vehicular traffic. Twenty-five feet of drive aisle must be maintained at all times to allow safe and efficient vehicular access throughout the parking lots.

7. Trash receptacles must be provided to properly dispose of any waste generated by this event.

8. Approval is based on adequate sanitary facilities being provided for the event.

9. Tents and other event activities shall be positioned on the exterior of the building so as not to impede building exits, pedestrian or vehicle traffic, "fire lanes" and accessible routes to the public right of way.

10. This Temporary Use approval is contingent on the applicant receiving all applicable licenses/permits through the City of Franklin. This includes, but is not limited to, all necessary licenses which are required through the Building Inspection Department, Clerks Office, and Health Department.

11. This Temporary Use permit is not approving any tailgating activities.

12. Per the Noise and Light Addendum (attached, page 3), "continuous noise monitoring data shall be kept for twelve months" for the three sound monitors.

13. All facilities serving food items must be licensed by the City of Franklin Health Department with the exception of A.2 and A.4 which are intended for selling packaged beverage items not considered "Temperature controlled for Safety" (milk, some juices, etc).

    Any food trucks operating in A.3 must provide proof of Mobile Retail Food Licensing and are subject to inspection per the Franklin Health Department Policy and Procedures. The applicant must notify the Franklin Health Department prior to trucks operating at events

    Any other food sales locations, equipment or vendors not specified on this application will be subject to approval by the Franklin Health Department.

14. If additional game dates are needed for playoffs, the applicant must notify the Department of City Development prior to the games.

15. Pursuant to Municipal Code §169-2, the applicant shall pay all outstanding and unpaid personal property taxes, charges, assessments or forfeitures owed to the City, to the satisfaction of the City Finance Department before this temporary use permit is issued.

16. The applicant must submit the next temporary use permit application at least 90 days prior to the start of any baseball season, including the UWM Panthers season.

Appendix

1. Typical sound recordings selected by City Development staff (audio files available upon request).
2. Noise and Light Addendum.
3. Sound monitoring policy memorandum dated June 24, 2019.
4. Changes to sound monitoring and enforcement procedure memorandum dated May 23, 2022.
5. Committee of the Whole, April 9, 2024, meeting packet (pages 3-4).

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY
PLAN COMMISSION *[Draft 5-2-24]*

RESOLUTION NO. 2024-_____

A RESOLUTION IMPOSING CONDITIONS AND RESTRICTIONS FOR THE APPROVAL OF A TEMPORARY USE FOR THE FRANKLIN FIELD 2024 BASEBALL SEASON FOR PROPERTY LOCATED AT 7035 S. BALLPARK DRIVE (ROC VENTURES, LLC, APPLICANT)

WHEREAS, ROC Ventures, LLC having petitioned the City of Franklin for the approval of a Temporary Use to allow for the Franklin Field 2024 Season (May 14, 2024 through August 25, 2024) in the Franklin Field Stadium, for Milwaukee Milkman baseball games, one location for food and beverage sales, five locations for beverage sales, one location for food trucks, two locations for beverage tubs, graduation ceremonies and candy drop event on August 25, 2024, upon property located at 7035 S. Ballpark Drive; and

WHEREAS, the Plan Commission having found that the proposed Temporary Use, subject to conditions, meets the standards set forth under §15-3.0804 and §15-3.0442 of the Unified Development Ordinance.

NOW, THEREFORE, BE IT RESOLVED, by the Plan Commission of the City of Franklin, Wisconsin, that the petition of ROC Ventures, LLC for the approval of a Temporary Use for the property particularly described in the preamble to this Resolution, be and the same is hereby approved, subject to the following conditions and restrictions:

1. This Temporary Use permit is hereby approved for uses and activities associated with the 2024 regular season of the UWM Panthers and the Milwaukee Milkmen at the Franklin Field, specifically:

    - Food and beverage sales (A.1), 1 location.
    - Beverage sales (A.2), 5 locations for beverage carts.
    - Food trucks (A.3), 1 location.
    - Beverage tub (A.4), 2 locations for rolling coolers.
    - Graduation ceremony.
    - Candy drop (Sunday, August 25).

2. This 2024 Franklin Field Stadium Temporary Use permit shall be operated in accordance with the project narrative and site plan, city file-stamped March 29, 2024, attached and on file with the Department of City Development.

3. The uses and activities of this Temporary Use permit must comply with the maximum sound level of 55 dBA LAeq as measured at the property boundary per Unified

Development Ordinance Table 15-3.1107(C), with the exception of the Candy Drop event on August 25, 2024.

or

The uses and activities of this Temporary Use permit must comply with the maximum sound level of _____ (70-79) dBA LAeq per Municipal Code §183-41A.(2), with the exception of the Candy Drop event on August 25, 2024.

4. This Temporary Use permit does not include concerts, fireworks, and other food & beverage events listed in the project narrative, the applicant must submit separate special event permits through the City of Franklin Clerk's Office. The applicant must obtain all necessary licenses from the Clerk's Office for alcoholic beverage sales and consumption.

5. Pursuant to Planned Development District Ordinance 2019-2368, hours of operation for the stadium shall be limited to 7:00 a.m. to 11:00 p.m. In the event of rain delays, extra innings, technical difficulties, or lighting maintenance, a reasonable extension of the lighting curfew, up to 12:00 a.m. (midnight), is allowed. Infrequent minor extensions beyond midnight is also allowed.

6. No display, sales, or parking shall obstruct vehicular traffic. Twenty-five feet of drive aisle must be maintained at all times to allow safe and efficient vehicular access throughout the parking lots.

7. Trash receptacles must be provided to properly dispose of any waste generated by this event.

8. Approval is based on adequate sanitary facilities being provided for the event.

9. Tents and other event activities shall be positioned on the exterior of the building so as not to impede building exits, pedestrian or vehicle traffic, "fire lanes" and accessible routes to the public right of way.

10. This Temporary Use approval is contingent on the applicant receiving all applicable licenses/permits through the City of Franklin. This includes, but is not limited to, all necessary licenses which are required through the Building Inspection Department, Clerks Office, and Health Department.

11. This Temporary Use permit is not approving any tailgating activities.

12. Per the Noise and Light Addendum (attached, page 3), "continuous noise monitoring data shall be kept for twelve months" for the three sound monitors.

13. All facilities serving food items must be licensed by the City of Franklin Health Department with the exception of A.2 and A.4 which are intended for selling

packaged beverage items not considered "Temperature controlled for Safety" (milk, some juices, etc).

Any food trucks operating in A.3 must provide proof of Mobile Retail Food Licensing and are subject to inspection per the Franklin Health Department Policy and Procedures. The applicant must notify the Franklin Health Department prior to trucks operating at events

Any other food sales locations, equipment or vendors not specified on this application will be subject to approval by the Franklin Health Department.

14. If additional game dates are needed for playoffs, the applicant must notify the Department of City Development prior to the games.

15. Pursuant to Municipal Code §169-2, the applicant shall pay all outstanding and unpaid personal property taxes, charges, assessments or forfeitures owed to the City, to the satisfaction of the City Finance Department before this temporary use permit is issued.

16. The applicant must submit the next temporary use permit application at least 90 days prior to the start of any baseball season, including the UWM Panthers season.

Introduced at a regular meeting of the Plan Commission of the City of Franklin this _____ day of _____, 2024.

Passed and adopted at a regular meeting of the Plan Commission of the City of Franklin this _____ day of _____, 2024.

APPROVED:

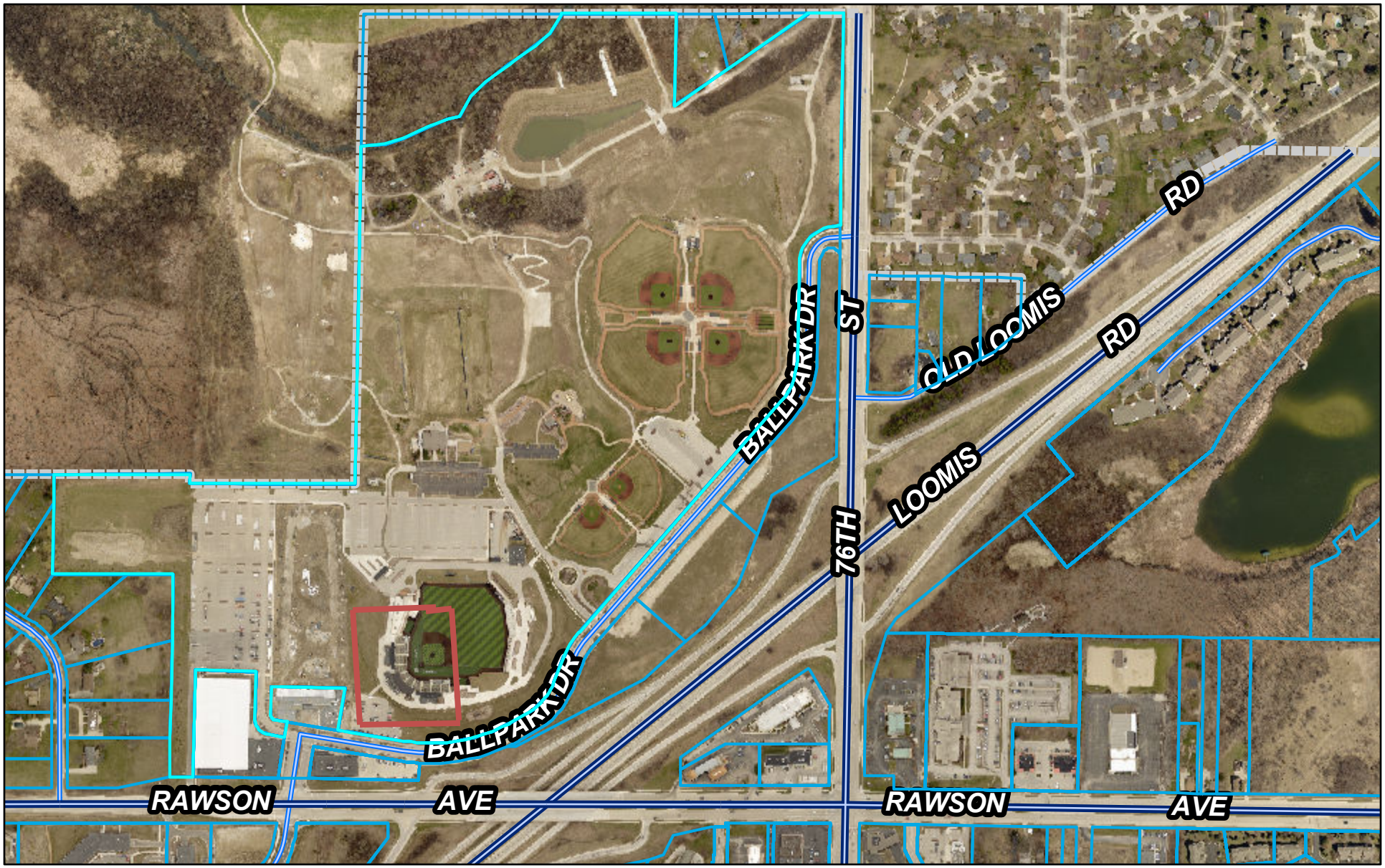
_____
John R. Nelson, Chairman

ATTEST:

_____
Shirley J. Roberts, City Clerk

AYES _____ NOES _____ ABSENT _____

City of Franklin Property Viewer



5/2/2024, 11:06:07 AM

Parcel

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

SEWRPC, Maxar, City of Franklin, WI

Franklin User

City of Franklin, WI | Earthstar Geographics |

Appendix #1

Typical sound recordings selected by City Development staff

Nature of sound	LAeq	LAmax	Date	Time	Meter	Recording
Baseball game	67.5	69.2	2021-08-27	21:18:01	W	6D40AFB9.wav
Baseball game	66.7	68.7	2021-08-26	18:58:19	W	87D32A14.wav
Wildlife, with baseball game	85.4	93.1	2021-05-26	20:15:08	W	14DEA5D7.wav
Wildlife	86.4	93.4	2021-05-26	20:27:52	W	71FABD13.wav
Concert	66.5	68.6	2022-07-30	22:07:06	N	3D6BCEDE.wav
Fireworks	81.8	104.8	2023-05-26	21:36:52	N	7CE5534C.wav
Hill Has Eyes (train horn)	69.1	72.7	2023-09-29	21:52:48	N	8C44D389.wav
Measurement (every 4 hrs)	49.7	67.4	2023-06-22	20:00:00	N	FEB323B0.wav
Car traffic (76th Street)	64.8	76.8	2024-04-12	22:42:08	E	BD75D3FC.wav
Aircraft	68.6	76.1	2023-06-10	09:06:15	N	1BC3FA6E.wav

EXHIBIT C
NOISE AND LIGHT ADDENDUM

The Rock Sports Complex and Ballpark Commons project is a multi-use facility developed for a multi-use sports and entertainment complex ("Project") encompassing the boundaries set forth in Exhibit C.1 ("Abatement Boundaries"). Residents in the communities of Franklin and Greendale have expressed concerns regarding noise and light levels at and beyond the Project Boundaries, originating from activities associated with the Project. This Noise and Light Addendum shall be incorporated into Project documents[1] and consists of three components:

1) 2017/2018 Noise and Light Mitigation Plan;
2) Noise and Light Standards and Development Plan;
3) Noise and Light Compliance Plan.

As specified further herein, BPC County Land, LLC, The Rock Sports Complex LLC, and/or any subsequent or related owner, user, operator, sub-lessee, etc. shall comply with the following:

1. 2017/2018 Noise and Light Mitigation Plan

Attached as Exhibit C.2[2] are:

- To mitigate unintended light trespass and glare visible from nearby residential areas:
  - This Mitigation Plan details current conditions and identifies 67 lights for new improved glare reduction and control over unintended light trespass ("Gold Standard Visors") and 11 existing lights for retrofitting with Gold Standard Visors. These new visors and retrofits will be installed on or before the beginning of the Spring 2018 baseball season. All 223 existing fixtures will be adjusted as part of the retrofit effort.
  - New fixtures for lighting outdoor facilities shall meet or exceed the performance of the retrofit fixtures with respect to glare and unintended light trespass.

- To mitigate noise and measure compliance:
  - Past compliance has been measured through handheld monitoring devices. This Mitigation Plan details the installation of permanent monitoring devices at the Abatement Boundaries in the three approximate locations shown in Exhibit C.1. The monitoring devices will be installed at an elevation above ground level and will trigger a notification in the event of an exceedance and record continuous performance data. Since the monitors require permanent electrical connections, the installation needs to coincide with utility installations, commencing in Spring, 2018 and completed during the outdoor concert season in 2018 (no later than

[1] The Project documents are: 1) Development Agreement between BPC County Land, LLC and Milwaukee County
2) Lease Agreement between BPC County Land, LLC and The Rock Sports Complex, LLC and Milwaukee County ; and 3) Development Agreement between BPC County Land, LLC and City of Franklin; 4) the Contribution and Participation Agreement between BPC County Land, LLC and Milwaukee County; and the 5) Option to Purchase .

[2] Exact locations for noise and light remediation tools and fixtures are subject to reasonable adjustment.

November 1, 2018) generally at the locations shown in the Mitigation Plan. As further mitigation, the operator will install a dedicated sound system to ensure that the sound at the Umbrella Bar is directional controlled to minimize the spillover effect beyond the property boundary.

2. Noise and Light Standards and Development Plan

To ensure compliance with objective standards, the Project shall be subject to the following noise and light standards as set forth in the Franklin Ordinances ("Noise and Light Standards"):

- Section 15-3.1104 Glare;
- Division 15-5.0400 Lighting;
- Section 183-41 Noise;
- With approval by the City of Franklin, such other applicable Noise or Light standards as may apply for a particular event or specified uses within the Project Boundaries.

The point of compliance for application of the Noise and Light Standards, and all activities conducted at the Project, shall be the Abatement Boundaries as set forth in Exhibit C.1.

All development within the Abatement Boundaries shall be subject to final plan approval by the City of Franklin following the specifications and process set forth in the Franklin Ordinances. A Lighting plan meeting the requirements of Section 15-5.0402 shall be submitted to the Plan Commission for the City of Franklin, with a copy provided to the Village of Greendale.

3. Noise and Light Compliance Plan

To ensure ongoing compliance, the Project operator(s) shall maintain a compliance log with the following information:

Light Compliance. The City of Franklin shall conduct a final inspection following the installation of any new permanent light emitting outdoor fixture extending or mounted more than 20 feet above ground. The City shall, within 15 days of its inspection, indicate whether any modifications are needed to comply with the plan. The operator and the City of Franklin shall jointly visually inspect light compliance in the Spring, prior to the start of each baseball season, at or across the roadway from the Abatement Boundaries, as designated on the attached Exhibit C.2 as "visual compliance inspection locations."

Noise Monitoring.
Annually, the operator will provide the City of Franklin with a list of concerts and special events requiring a permit, including dates and times for operations during the event. A copy of the list of concerts and permitted events shall be provided to the Manager for the Village of Greendale. Events will also be posted at the Property and through electronic media to ensure neighbors can be aware of forthcoming events. The Operator shall provide a means for receiving complaints, through a web page or equivalent electronic media, and shall preserve a record of complaints that will be provided to the City of Franklin, Village of Greendale or County upon request. These records shall be preserved for a minimum of two years. Nothing herein is intended to prevent

citizens from being able to file public complaints, but this is intended to allow verification of whether or not a complaint and violation occurred.

Continuous noise monitoring data shall be kept for twelve months. Upon reasonable request by the County, City of Franklin, or the Village of Greendale, noise monitoring data and reports, and a record of complaints, shall be provided to the County, City or Village, evidencing the status of compliance. A violation will be considered material if it represents a complaint filed with the operator or the City of Franklin and is evidenced in the monitoring data logs by an exceedance ("Trigger Event") that is not permitted and is not corrected and remediated within 30 minutes of the Trigger Event. The City shall have the right to enforce payment of the penalties specified in the Noise and Light Standards, which may include payment of a double permit fee for any material violation. If the operator has more than four unpermitted material violations in a calendar year, the operator shall be subject to stepped-up enforcement measures as specified in the Noise and Light Standards. If the City declines to take enforcement action, the County, under the terms of this agreement, shall have the right to impose penalties on the operator, in the County's reasonable judgment given the severity and duration of the violation and the number of violations, which shall not exceed $1,000 for an individual violation and $10,000 in aggregate for a calendar year.

No provision of this addendum shall be construed to impair any common law or statutory cause of action or legal remedy or to replace the obligations more specifically set forth in the Noise and Light Standards.

EXHIBIT C.1
Abatement Boundaries

PRELIMINARY
NOISE AND LIGHT
ABATEMENT BOUNDARY EXHIBIT

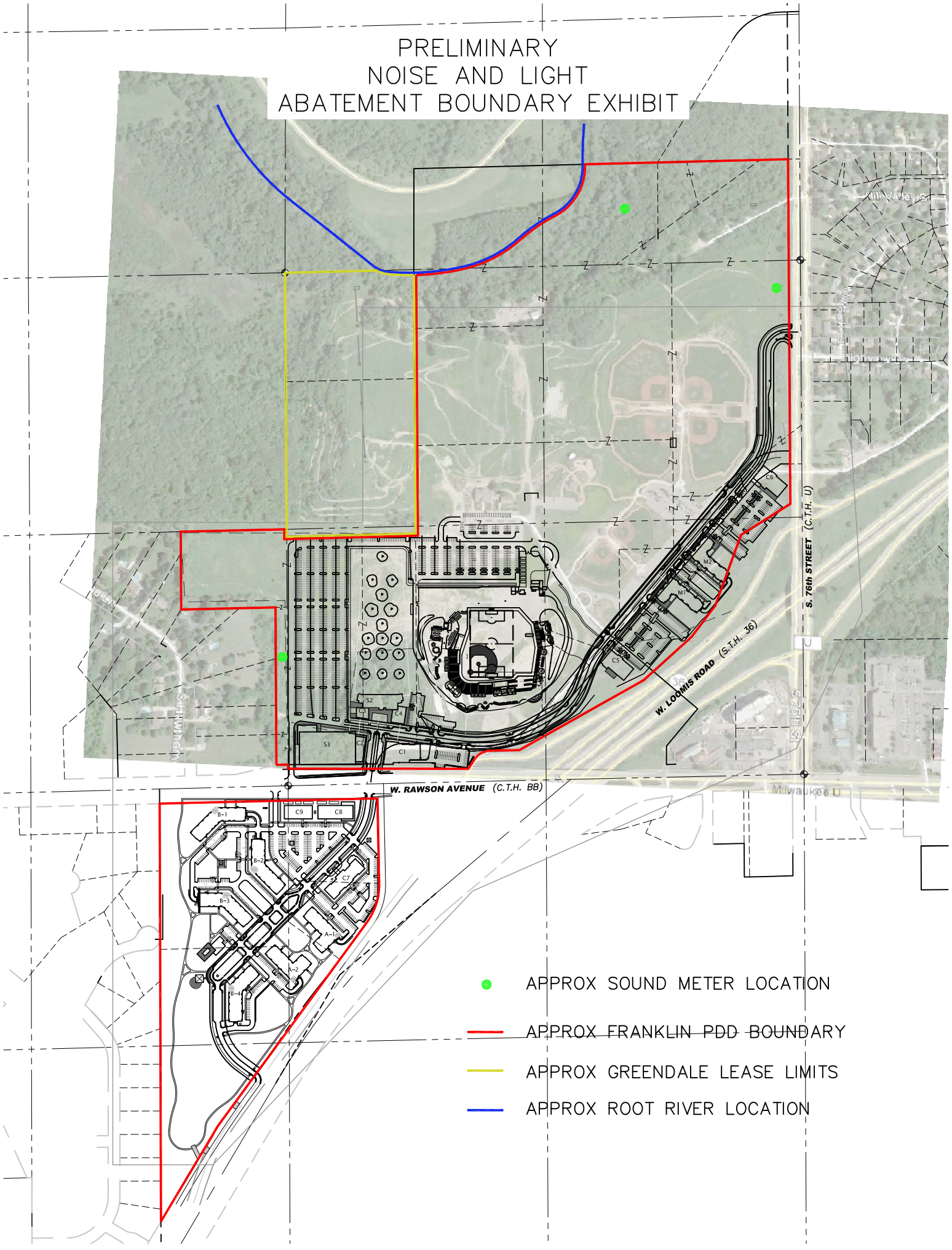
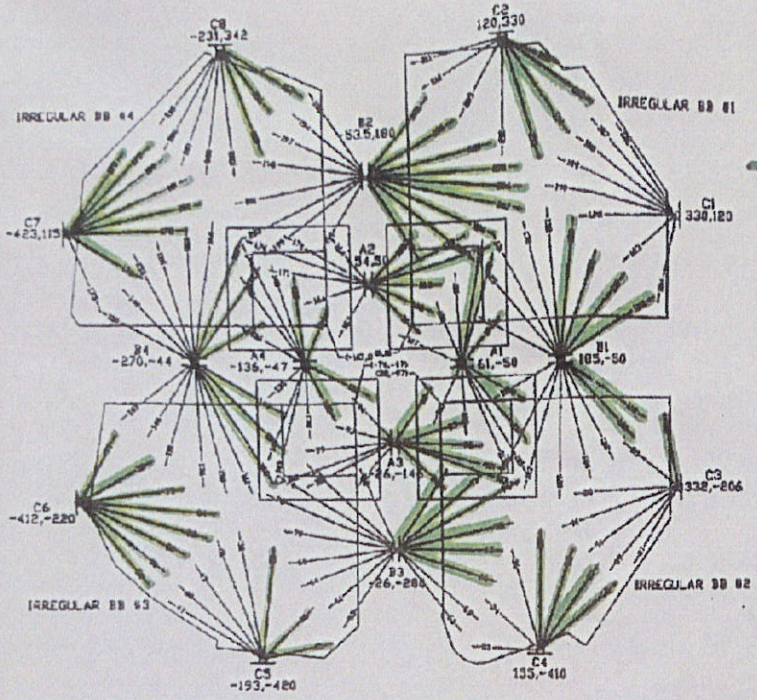
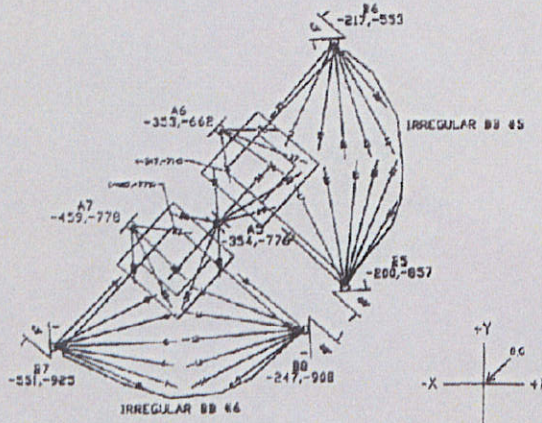
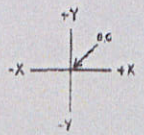


EXHIBIT C.2
Mitigation Plan

Noise and Light - Exhibit X.2







0,0 IS LOCATED AT HOME PLATE FOR BASEBALL/SOFTBALL AND CENTER OF FIELD FOR ALL OTHER SPORTS

76th Street

HIGHVIEW	
	30 - 4X3
	142 - 4X4
	47 - 4X4

RECOMMEND GOLD SERIES VISOR

$A_1 \Rightarrow$ 5 VISORS
$A_2 \Rightarrow$ 6 VISORS
$A_3 \Rightarrow$ 6 VISORS
$A_4 \Rightarrow$ 4 VISORS
$B_1 \Rightarrow$ 6 VISORS
$B_2 \Rightarrow$ 9 VISORS
$B_3 \Rightarrow$ 6 VISORS
$B_4 \Rightarrow$ 6 VISORS

$C_1 \Rightarrow \emptyset$ VISORS
$C_2 \Rightarrow$ 4 VISORS
$C_3 \Rightarrow$ 1 VISOR
$C_4 \Rightarrow$ 4 VISORS
$C_5 \Rightarrow$ 3 VISORS
$C_6 \Rightarrow$ 8 VISORS
$C_7 \Rightarrow$ 7 VISORS
$C_8 \Rightarrow$ 3 VISORS

TOTAL ⇒ 78 VISORS

GOLD SERIES VISORS

KEY

X,Y X,Y of shining pt on field (is shown only if not at
H Horizontal aiming angle, 0
degrees of normal to cr
V vertical aiming angle, 0.0
from reference plane
SEQ sequence number
CIRCUIT circuit
BEAM floodlight beam type

Floodlight is aimed behind

NOTES: READINGS ARE TAKEN FROM
THE POLE, LOOKING TOWARD

NOTE: SEE HARDWARE DRAWINGS BEFORE PRODUCTION OR ASSEMBLY

WATTAGE 1650	BALLAST BOX GALV.	LG. WIRE ENT. YES
VOLTAGE 480	VISORS NO	NIPPLE SIZE 2"
PHASE 3	WIRE LOOMS YES	DISCONNECTS NO
FIX. TYPE PS-45	DIS. BLOCKS YES	REMOTE CHANNEL ALUM/ISL
FIX. HARDWARE S.S.	SPADE CONNECTORS YES	MDS TESTER YES
LAMP TYPE 1650/SP60	SHROUDS NO	DCC YES
ARM. OR CENT. REM.	SER. BASKETS NO	

Qualite® SPORTS LIGHTING

250 INDUSTRIAL DRIVE
HILLSDALE, MI 49242
P.O. BOX 765

PHONE:517/
FAX:517/
800/

REVISED	DWG. #
	QL-15513D100=

TITLE: IRREGULAR BB #1-#6 FIELDS LIGHT
THE ROCK, FRANKLIN, WI

DR.	SCALE	DATE	PAGE
AKT	70	2/07/13	1

Franklin WISCONSIN

MEMO

Appendix #3

July 24, 2019

To: Aldermen, Clerk's Office, Police and Planning
CC: Calli Berg
From: Mayor Steve Olson

Re: Sound monitoring and complaint procedure for BPC and the Rock

As a component of PDD 37 the operators of Ballpark Commons, Routine Field and the Rock Sports Complex must provide active monitoring of sound emanating from the development. This monitoring is currently being performed by three permanently mounted sophisticated monitors that record data and audio 24 hrs. Current municipal code defines a "violation" at levels exceeding 78db. These sound monitors are extremely sophisticated and provide a large volume of data.

Franklin PD has been receiving complaint calls of excessive noise from these developments since they opened in 2013 from both Franklin and Greendale residents. To date, no violations of the Franklin code related to excessive noise have been documented. The time in responding to these complaint calls is substantial and during times of most calls for service to the PD.

This policy is intended to assure that there continues to be compliance by the operator as well as assurances of enforcement should a violation occur.

Points:

- Franklin PD will no longer respond with an officer to excessive noise complaints regarding these developments.
- Calls to FPD dispatch will be logged and the caller will (should) be told that the complaint will be registered and evaluated against the monitors and enforcement will occur if a violation is present.
- The Planning department will recieve any complaint to FPD or the Clerk's office and review monitor data for that time period.
- Should an alarm be triggered, the audio and data file will be downloaded and placed in a dedicated data file folder with the date and time.
- The staff will listen to the sound triggering the event and determine its' source. Should the source be determined to be the development then the Planning and Zoning administrator will initiate appropriate enforcement.
- Should the complaint be unfounded, a letter may be sent to the complainant and a disposition will be added to the complaint stating such and appropriate details and filed.
- The composition of any download of data from the sound monitors may change based on need and capability with consultation from the Police Chief and Planning and Zoning Administrator.

Appendix #4

City of Franklin
Department of City Development

May 23, 2022

Steve F. Taylor, Executive Director
ROC Foundation
7044 S. Ballpark Drive, Ste 300
Franklin, WI 53132

Re: Changes to sound monitoring and enforcement procedure for the Ballpark Commons Planned Development District.

Dear Mr. Taylor:

Please be advised that the City of Franklin will no longer enforce the Noise and Light Addendum for the Rock Sports Complex and Ballpark Commons, attached for your reference. However, the City of Franklin will continue to enforce the Unified Development Ordinance (UDO) Section 15-3.1107 "Noise" with the following procedure:

- The City Development Department will receive noise complaints regarding the Ballpark Commons Planned Development District (PDD).
- City Development staff will review the sound monitoring data for any violations of the above-referenced ordinance section.
- Pursuant to UDO Section 15-3.1107(C-D), a noise violation in a PDD is defined as follows:
    - **From 7:00 a.m. – 10:00 p.m.** Noise levels exceeding 79 dBA, as measured by the sound monitors.
    - **From 10:00 p.m. – 7:00 a.m.** Noise levels exceeding 74 dBA, as measured by the sound monitors.
- In case of a noise violation, City Development staff will send a notice of violation to the business operator or property owner.
- Pursuant to Municipal Code Section 1-19 "Penalty provisions" and UDO Section 15-9.0502 "Penalties and remedies", any person who violates the Unified Development Ordinance shall pay a forfeit between $1 to $2,500 for each offense.

The Unified Development Ordinance (UDO) Section 15-3.1107 "Noise" and Municipal Code Section 1-19 "Penalty provisions" are attached for your reference.

If you have any questions about this correspondence, please contact me at 414-425-4024 or via email at rmartinez-montilva@franklinwi.gov.

Sincerely,

Régulo Martínez-Montilva, AICP
Principal Planner
City Development Department

cc: Brian Sajdak, Assistant City Attorney
Ald. John Nelson
Sandra L. Wesolowski, City Clerk

Appendix #5

APPROVAL	COMMITTEE OF THE WHOLE	MEETING DATE 4/9/2024
REPORTS & RECOMMENDATIONS	**ROC Ballpark Commons Noise-Related Updates; the Rock Sports Complex Sound Study report prepared for Milwaukee County**	ITEM NUMBER B.

BACKGROUND

This has been a recurring agenda item in our Common Council meetings since 2023 to keep the Council informed regarding the ROC Sports Complex and related sound concerns. Council members received the electronic link for the "Rock Sports Complex Sound Study," commissioned by Milwaukee County, using an independent consultant, RSG, to perform the study. The report consists of 240 pages, including Section J, the summary of the relevant monitoring results, prepared by Attorney Dennis Grzezinski.

For ease of accessibility and print cost savings, staff has added a link for the County information to the existing ROC material on the City's website at City Of Franklin (franklinwi.gov). It is typical for the Council to acknowledge receipt of such information by motion to "receive and place on file." As a result of the March 5, 2024, Council meeting, this Committee of the Whole meeting has been designated to discuss this sound study.

As of the March 5, 2024, Common Council meeting, the Council adopted resolution 2024-8109, A resolution to confirm internal procedures on entertainment events and the required permitting and processes municipal officials and staff shall apply to obtain uniform application for the protection of the health, safety, and well-being of the community" to address the ongoing noise concerns.

Additionally, staff have included the following related memo from the Department of City Development:

City of Franklin
Department of City Development

Date: March 29, 2024
To: Kelly Hersh, Director of Administration
From: Régulo Martínez-Montilva, Principal Planner
RE: Rock Sports Complex Sound Study (dated May 22, 2023)

The Rock Sports Complex Sound Study recommends improved regulations in Chapter 11.2, including maximum permissible sound levels. It's worth noting that tables 10 and 11 for recommended permissible sound levels are more specific than the current table of the Unified Development Ordinance (UDO) Section 15-3.1107. The sound study tables have different sound levels for three types of sound (perpetual, intermittent, and impulsive*) and indicate the variable to use for each of them (5-minute Leq for perpetual, 1-minute Leq for intermittent, and Lsmax for impulsive**), while the current UDO noise regulations are not clear into what specific variable to use for enforcing noise regulations:

"The Code does not indicate the type of sound level or metric (i.e., maximum sound level, average sound level) or averaging time associated with the sound limits." Rock Sports Complex Sound Study, page 9.

City Development staff is considering the recommendations of this sound study for the Unified Development Ordinance rewrite project. Updating noise regulations was added to the project schedule as extra work per the Common Council's direction. The agreement amendment was approved on January 16, 2024, and the budget amendment was approved on February 21 by the Common Council.

COMMITTEE OF THE WHOLE ACTION

Directions as the Committee deems appropriate.

MAYOR – JRN

Planning Department
9229 West Loomis Road
Franklin, Wisconsin 53132
(414) 425-4024
franklinwi.gov

APPLICATION DATE: 03/29/2024

STAMP DATE: city use only

PLAN COMMISSION REVIEW APPLICATION

PROJECT INFORMATION [print legibly]

APPLICANT [FULL LEGAL NAMES]	APPLICANT IS REPRESENTED BY [CONTACT PERSON]
NAME: Christ David Conley	NAME: Christ David Conley
COMPANY: Roc Ventures LLC	COMPANY: ROC Ventures LLC
MAILING ADDRESS: 7044 S. Ballpark Dr.	MAILING ADDRESS: 7044 S. Ballpark Dr.
CITY/STATE: Franklin, WI. 53132 ZIP:	CITY/STATE: Franklin, WI. 53132 ZIP:
PHONE: (716)479-1812	PHONE: (716)479-1812
EMAIL ADDRESS: cconley@rocventures.org	EMAIL ADDRESS: cconley@rocventures.org

PROJECT PROPERTY INFORMATION

PROPERTY ADDRESS: 7035 S Ballpark Dr.	TAX KEY NUMBER:
PROPERTY OWNER: Mike Zimmerman	PHONE:
MAILING ADDRESS: 7044 S. Ballpark Dr.	EMAIL ADDRESS:
CITY/STATE: Franklin, WI. 53132 ZIP:	DATE OF COMPLETION: office use only

APPLICATION TYPE

Please check the application type that you are applying for

☐ Building Move ☐ Sign Review ☐ Site Plan / Site Plan Amendment ☑ Temporary Use

Most requests require Plan Commission review and approval.
Applicant is responsible for providing Plan Commission resubmittal materials up to 12 copies pending staff request and comments.

SIGNATURES

The applicant and property owner(s) hereby certify that: (1) all statements and other information submitted as part of this application are true and correct to the best of applicant's and property owner(s)' knowledge; (2) the applicant and property owner(s) has/have read and understand all information in this application; and (3) the applicant and property owner(s) agree that any approvals based on representations made by them in this Application and its submittal, and any subsequently issued building permits or other type of permits, may be revoked without notice if there is a breach of such representation(s) or any condition(s) of approval. By execution of this application, the property owner(s) authorize the City of Franklin and/or its agents to enter upon the subject property(ies) between the hours of 7:00 a.m. and 7:00 p.m. daily for the purpose of inspection while the application is under review. The property owner(s) grant this authorization even if the property has been posted against trespassing pursuant to Wis. Stat. §943.13.

(The applicant's signature must be from a Managing Member if the business is an LLC, or from the President or Vice President if the business is a corporation. A signed applicant's authorization letter may be provided in lieu of the applicant's signature below, and a signed property owner's authorization letter may be provided in lieu of the property owner's signature[s] below. If more than one, all of the owners of the property must sign this Application).

☐ I, the applicant, certify that I have read the following page detailing the requirements for plan commission approval and submittals and understand that incomplete applications and submittals cannot be reviewed.

PROPERTY OWNER SIGNATURE: Michael E Zimmerman	APPLICANT SIGNATURE:
NAME & TITLE: Mike Zimmerman - CEO DATE:	NAME & TITLE: Christ Conley Assistant GM DATE: 3/29/24
PROPERTY OWNER SIGNATURE:	APPLICANT REPRESENTATIVE SIGNATURE:
NAME & TITLE: DATE:	NAME & TITLE: DATE:

CITY OF FRANKLIN APPLICATION CHECKLIST

If you have questions about the application materials please contact the planning department.

BUILDING MOVE APPLICATION MATERIALS

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ $200 Application fee payable to the City of Franklin.
☐ Word Document legal description of the subject property.
☐ Three (3) complete collated sets of application materials to include ...
- ☐ Three (3) project narratives.
- ☐ Three (3) folded full size, drawn to scale copies (at least 8 ½ " X 11") of the plat of survey, *showing the proposed building placement at the new location, indicate setbacks from property lines and locations of driveways and access points.*
  NOTE: Single-Family homes require an attached 2-car garage.
- ☐ Three (3) copies of color photographs of the building's current elevations.

☐ Other items as may be required for specific applications, per a city planner.
☐ Email or flash drive with all plans / submittal materials.

- Applications for a Building Move are governed by the City of Franklin Municipal Code Chapter 92-2 (A.) and the Wisconsin Uniform Building Code.

SIGN REVIEW APPLICATION MATERIALS

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ $40 Application fee payable to the City of Franklin.
☐ Word Document legal description of the subject property.
☐ Three (3) complete collated sets of application materials to include ...
- ☐ Three (3) colored copies of the sign elevations, drawn to scale not less than ½" = 1'. *Plans shall be folded to a maximum size of 9" X 12". The elevations should denote the sign dimension and area. Identify the colors, materials, finishes and lighting method (if applicable).*
- ☐ Three (3) scaled copies of the Site Plan, *showing the location of the proposed signage relative to (1) any existing or proposed structures; (2) parking stalls and/or driveways; (3) proposed landscaping and outdoor lighting; (4) the setback distance from the street right-of-way at the proposed location; (5) height of sign above the finished grade; and (6) the vision triangle distances described in Section 15-5.0201 of the Unified Development Ordinance.*

☐ Email or flash drive with all plans / submittal materials.

- Required for signage in Planned Development Districts (PDD) No. 7 and 18. Additional materials / copies may be required for board/commission meetings.
- Permits for construction are REQUIRED after approval. Contact Inspection Services (414-425-0084) for permit processes.

SITE PLAN / SITE PLAN AMENDMENT APPLICATION MATERIALS

☐ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☐ Application fee payable to the City of Franklin... [select one of the following]
- ☐ Tier 1: $2000
- ☐ Tier 2: $1000 *(lot size ≤ 1 acre)*
- ☐ Tier 3: $500 *(≤ 10% increase or decrease in total floor area of all structures with no change to parking: or change to parking only).*

☐ Word Document legal description of the subject property.
☐ Three (3) complete collated sets of application materials to include ...
- ☐ Three (3) project narratives.
- ☐ Three (3) folded full size, drawn to scale copies (at least 24" X 36") of the Site Plan / Site Plan Amendment package. *The submittal should include only those plans/items as set forth in Section 15-7.0103, 15-7.0301, and 15-0402 of the Unified Development Ordinance that are impacted by the development (e.g., Site Plan, Building Elevations, Landscape Plan, Outdoor Lighting Plan, Natural Resource Protection Plan, Natural Resource Protection Report, etc.)*

☐ One (1) colored copy of the building elevations *on 11" X 17" paper, if applicable.*
☐ One (1) copy of the Site Intensity and Capacity Calculations, *if applicable (see division 15-3.0500 of the UDO)*
☐ Email or flash drive with all plans / submittal materials.

- Some requests may require CDA approval (PDD 18) or EDC approval (PDD 7) in which additional materials / copies may be required.

TEMPORARY USE APPLICATION MATERIALS

☒ This application form accurately completed with signatures or authorization letters (see reverse side for more details).
☒ $50 Application fee payable to the City of Franklin.
☒ Three (3) complete collated sets of application materials to include ...
- ☒ Three (3) project narrative
- ☒ Three (3) folded, scaled copies, of the Site Plan, *see section 15-3.0804 of the UDO for information that must be denoted on each respective plan.*

☐ Email or flash drive with all plans / submittal materials.

- Some requests may require CDA approval (PDD 18) or EDC approval (PDD 7) in which additional materials / copies may be required.
- Submittal of Application for review is not a guarantee of approval. Approval of Temporary Use does not exclude potential requirement for additional licenses or permits. For information on other licenses or permits that may be required, contact the City Clerk's office at (414) 425-7500, the Health Department at (414) 425-9101, and Inspection Services at (414) 425-0084.

BALLPARK COMMONS

FRANKLIN FIELD USAGE SUBMITTAL

PLAN COMMISSION

SUMMARY

The following submittal contains plans and details for all semi-portable, semi-temporary, temporary, and product hawking structures, uses and activities planned to occur at Franklin Field in 2024.

Uses/Activities detailed within this submittal are defined as follows. Milkman games type A or MM "A": Milkmen games that have higher attendance expectations. Milkman games type B or MM "B": Milkmen games that have average attendance expectations. Milkman games type C or MM "C": Milkmen games that have lower attendance expectations. Also included in baseball game submittals are University of Wisconsin-Milwaukee baseball games. No temporary structures are required for these games and attendance expectations are extremely low.

Uses, temporary structures and approval requests as of this date are as follows:

Proposed Use/Structure	Type of Approval
Baseball Games	Permanent
A.1: Food and Beverage Structures	Annual Staff Approval
A.2: Beverage Only Structures	Permanent
A.3: Food Truck Structures	Annual Staff Approval
Product Hawking Structures	Permanent
Fireworks	Common Council
Graduation Ceremony	Annual Staff Approval
Candy Drop	Annual Staff Approval

BASEBALL GAMES

PROJECT NARRATIVE

Provide entertainment to fans attending a standard 9 inning baseball game. Games can last 3 hours or longer depending on gameplay. Food, Beverage, and Merchandise items will be available for purchase. This type of use is expected to occur annually on approximately the same dates.

ATTENDANCE EXPECTATIONS

UWM Baseball Game: Avg. 500 Sold
MM A: Above 75% Sold
MM B: 40-75% Sold
MM C: Below 40% Sold

Schedule

Below is the regular season schedule for the UWM Panthers and the Milwaukee Milkmen. There are a total of 71 games. Additional dates could be added for playoffs. Changes will be forwarded as needed.

UWM BASEBALL GAMES

Thursday, March 28, 3:00pm
Friday, March 29, 2:00pm
Saturday, March 30, 1:00pm
Monday, April 1, 4:00pm
Friday, April 5, 3:00pm
Saturday, April 6, 2:00pm
Sunday, April 7, 1:00pm
Tuesday, April 9, 3:00pm
Tuesday, April 16, 3:00pm
Wednesday, April 17, 5:00pm
Friday, April 19, 3;00pm
Saturday, April 20, 2:00pm
Sunday, April 21, 1:00pm
Friday, April 26, 3:00pm
Saturday, April 27, 2:00pm
Sunday, April 28, 1:00pm
Tuesday, April 30, 3:00pm
Wednesday, May 1, 3:00pm
Thursday, May 16, 11:00am
Friday, May 17, 1;00 pm
Saturday, May 18, 12:00pm

MM A GAMES

Tuesday, May 14, 11:00am
Wednesday, May 15, 11:00am
Friday, June 7, 6:35pm
Saturday, June 8, 6:00pm
Friday, June 14, 6:35pm
Saturday, June 15, 6:00pm
Friday, June 28, 6:35pm
Saturday, June 29, 6:00pm
Friday, July 12, 6:35pm
Saturday, July 13, 6:00pm
Friday, July 26, 6:35pm
Saturday, July 27, 6:00pm
Friday, August 2, 6:35pm
Saturday, August 3, 6:00pm
Friday, August 23, 6:35pm
Saturday, August 24, 6:00pm

MM B GAMES

Friday, May 10, 6:35pm
Saturday, May 11, 6:00pm
Sunday, May 12, 1:00pm
Thursday, May 16, 6:35pm
Friday, May 24, 6:35pm
Saturday, May 25, 6:00pm
Sunday, May 26, 1:00pm
Thursday, June 6, 6:35pm
Sunday, June 9, 1:00pm
Sunday, June 16, 1:00pm
Thursday, June 27, 6:35pm
Sunday, June 30, 1:00pm
Thursday, July 11, 6:35pm
Sunday, July 14, 1:00pm
Thursday, July 25, 6:35pm
Sunday, July 28, 1:00pm
Thursday, August 1, 6:35pm
Sunday, August 4, 1:00pm
Thursday, August 15, 6:35pm
Thursday, August 22, 6:35
Sunday, August 25, 1:00pm

MM C GAMES

Tuesday, June 4, 6:35pm
Wednesday, June 5, 6:35pm
Tuesday, June 25, 6:35pm
Wednesday, June 26, 6:35pm
Monday, July 1, 6:35pm
Tuesday, 9, 6:35pm
Wednesday, July 10, 6:35pm
Tuesday, July 30, 6:35pm
Wednesday, July 31, 6:35pm
Tuesday, August 13, 6:35pm
Wednesday, August 14, 6:35pm
Tuesday, August 20, 6:35pm
Wednesday, August 21, 6:35pm

Activities

Fireworks

Fireworks shows start no later than 10 minutes after the game ends and will end no later than 11:00pm. Each date will be permitted with a Special Events Permit obtained through the Clerk's office. Services will be provided by a third-party vendor.

Fireworks dates are as follows:

Friday, May 10
Friday, May 24
Friday, June 7
Friday, June 14
Friday, June 28
Friday, July 12
Friday, July 26
Friday, August 2
Friday, August 23

Candy Drop

A Candy Drop is an event that will happen at the conclusion of select Milwaukee Milkmen games. At a coordinated time, a helicopter will drop candy onto the field. After all the candy is dropped, we will allow kids in attendance onto the field to collect candy. Services will be provided by a third-party operator.

Candy Drop Date: Sunday, August 25

Food and Beverage Sales

Food and beverage sales from non-permanent locations, utilizing the structures listed below.

Structures

Structures listed below can be found on the site plan that is included with this submittal package.

Semi-portable

There are no structures planned for this event.

Semi-temporary

A.1: Food and Beverage sales location. For all games scheduled. There is one location that could be utilized for these events. A diagram of the structure is attached. Locations will remain the same for each event.

Temporary

A.2 Beverage sales location. For all games scheduled. There are five locations that could be used for these events. The structure is on rollers and will be rolled into place before games and will be removed after or closed as attendance will require. These structures are 44.5 in. x 27.25 in. x 30.33 in. (WxDxH). A picture of the structure is attached. Locations will remain the same for each event and will be dictated by attendance.

A.3 Food Truck location. For all games scheduled. There is one location that could be utilized for these events. Standard food truck structure that will arrive before the game and will leave as attendance dictates. These vendors could be operated by a third party and will comply with all Health Department requirements. Locations will remain the same for each event.

A.4 Beverage Tub. For all games scheduled. There are two locations that could be utilized for these events. This is a small rolling cooler. Picture of the items are included in this package.

Product Hawking

For all games scheduled. There are up to 8 product hawking trays for beverages that could be utilized as attendance requires. Product hawking will be limited to concourse and seating locations. Attached is an image of the tray.

Site Plan

D.4 Main Dumpster/Trash Collection points. Receptacles will be placed throughout the event area.

A.1 Food and Beverage sales location

A.2 Beverage sales location

A.3 Food truck location

A.4 Beverage tub

D.5 Restroom locations

E.1 Emergency access point

A.5 Firework fall out/launch area. This area will be barricaded and will be a 350' diameter area.

Graduation Ceremony

Project Narrative

Standard commencement ceremony. On field staging and chairs for graduates.

Attendance Expectations

As allowed by the current capacity regulations. Not to exceed more than 100% of the stadium's capacity.

Schedule

Times included are for set up, ceremony, and load out. Operating time will be limited to 5-7 hours. The exact operating hours are TBD. Graduation date is TBD.

Activities

Food and Beverage Sales

Food and beverage sales from non-permanent location, utilizing the structures listed below.

Structures

Structures listed below can be found on the site plan that is included with this submittal package.

Semi-portable

There are no structures planned for this event.

Semi-temporary

There are no structures planned for this event.

Temporary

Temporary structures for this event include:

C.1 Approximate stage location. 30' x 30' wooden riser stage that will feature acoustical performances. Will only be set up on event days.

Product Hawking

No product hawking is planned for this event.

Site plan

C.2 Main event seating area. This area will include chairs for graduates to sit.

D.4 main Dumpster/Trash collection points. Receptacles will be placed throughout the event area.

D.5 Restroom locations

E.1 Emergency access points

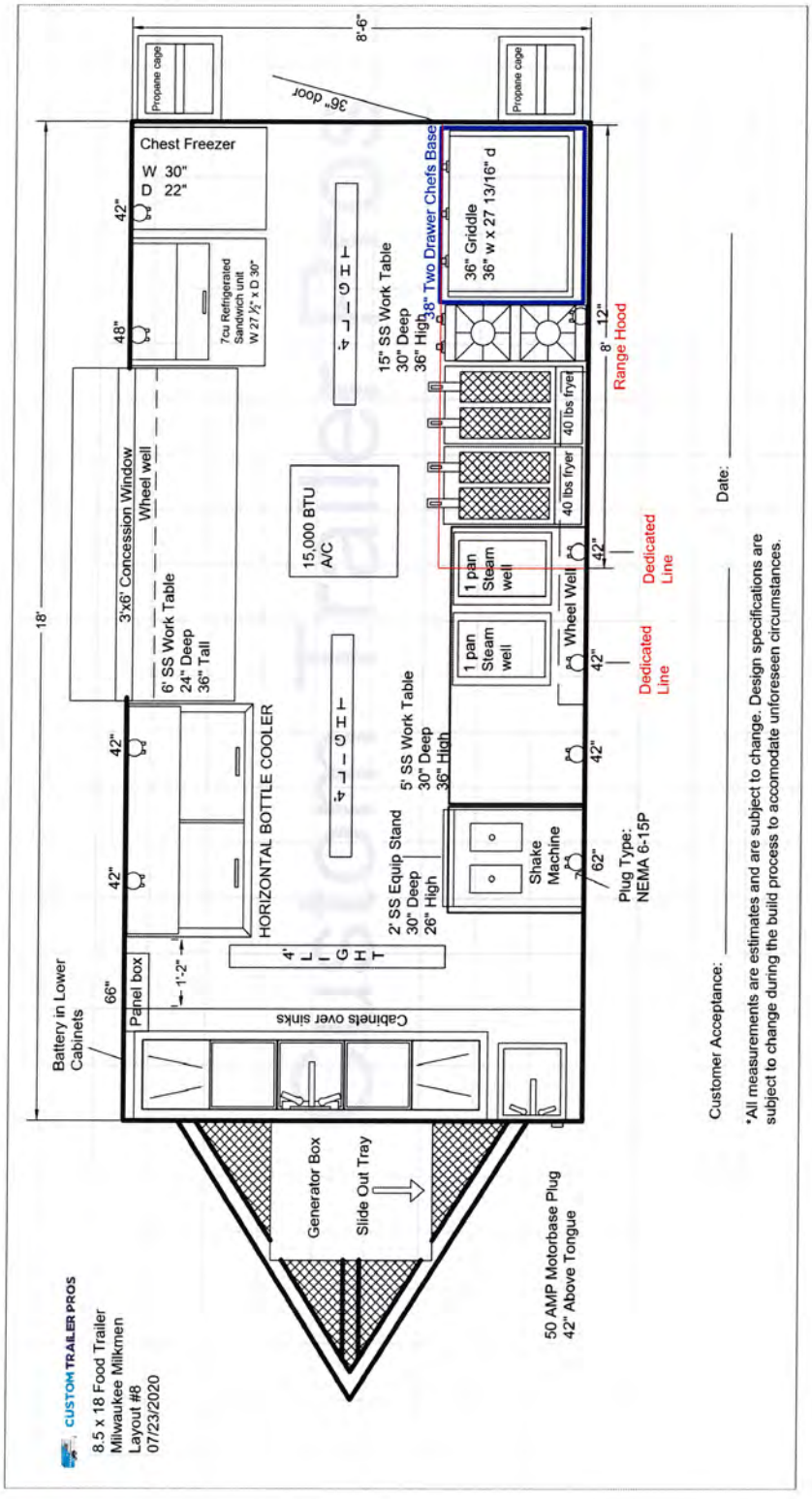
Baseball Games

Graduation

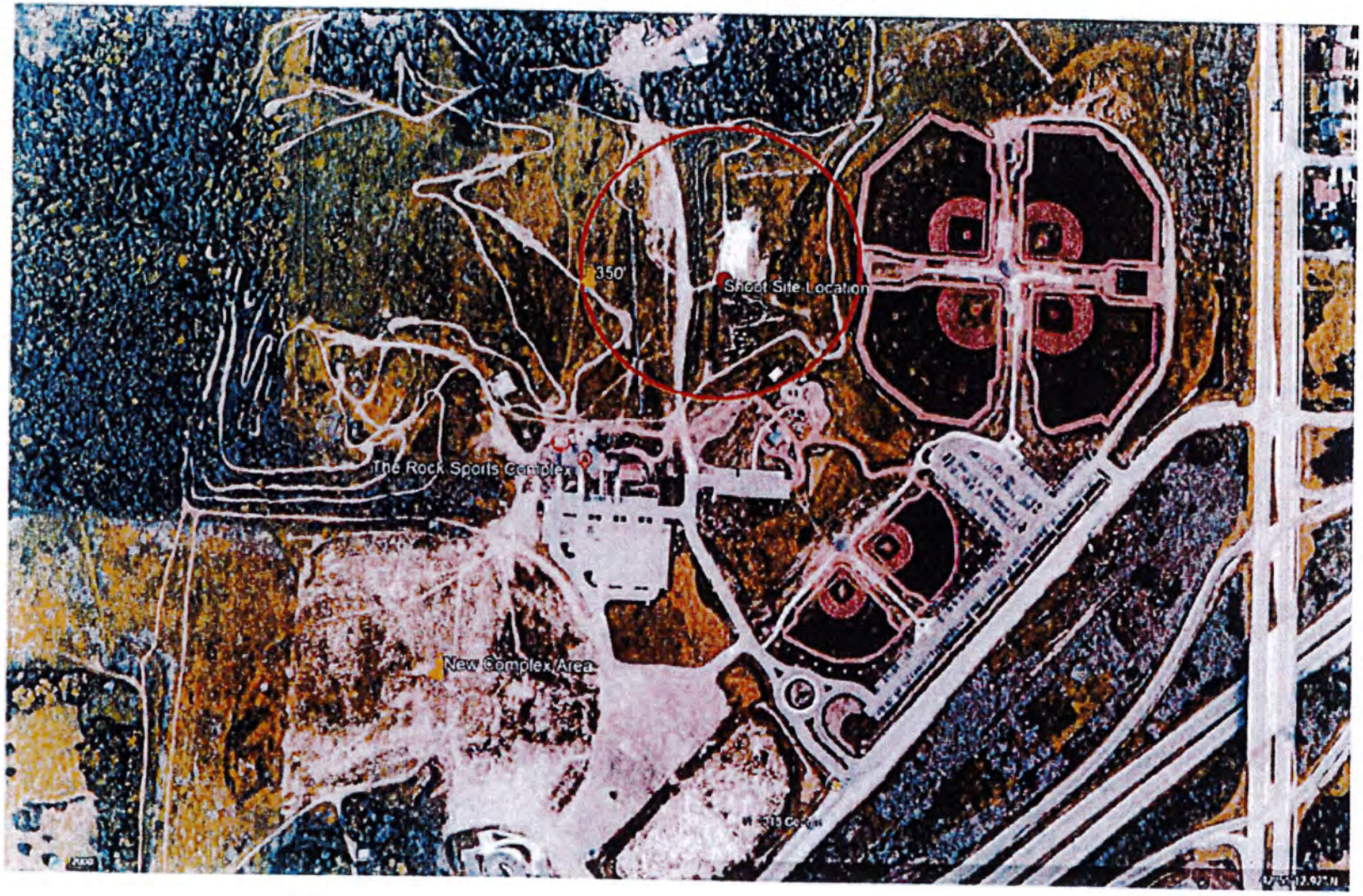
A.1 Food and Beverage sales location

A.2/A.4 Beverae Tub

A.3 Food Truck



A.5 FIREWORKS FALLOUT AREA



CITY OF FRANKLIN

Item E.4

REPORT TO THE PLAN COMMISSION

Meeting of May 9, 2024

Temporary Use

RECOMMENDATION: Department of City Development staff recommends approval of this after-the-fact Temporary Use from April 15 to July 15, 2024.

Project Name:	**2024 Home Depot Seasonal Sales Area**
Project Address:	6489 S 27th St
Applicant:	Home Depot USA, Inc.
Property Owner:	Home Depot USA, Inc.
Current Zoning:	PDD 14 – Planned Development District & FW – Floodway District
2025 Comprehensive Plan:	Commercial
Use of Surrounding Properties:	Residential trailer park (north), floodplain (west), restaurants and retail (east) and retail (south)
Applicant's Action Requested:	Approval of Temporary Use from April 15 to July 15, 2024
Planner:	Luke Hamill, Associate Planner

Introduction:

Temporary Use application to allow for the fenced Garden Center on Home Depot's parking lot. The fence will be approximately 6 feet in height, encircling an area of approximately 6,400 sq. ft., 40 feet by 160 feet. This temporary use is being requested for April 15, through July 15, 2024.

Background and analysis:

The Plan Commission granted previous temporary use approvals for this seasonal sales area in 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2021, 2022, and 2023.

The applicant has once again submitted an application for a temporary use in Planned Development District (PDD) No. 14 to allow for outdoor seasonal sales of plant goods, and landscape commodity bagged goods. All of the plant goods and commodity bagged goods will be placed within a fenced in corral measuring 160 feet long by 40 feet wide for a total area of 6,400 square feet. The fence will be metal and chain-link in style. The height of the fence will be six (6) feet which is in conformance with Section 15-3.0803 (C) (2) of the Unified Development Ordinance.

PDD No. 14 (Ordinance No. 99-1553) allows for a seasonal display area for outdoor live plant with location to be approved on an annual basis by the Plan Commission. Staff finds the location of the proposed outdoor seasonal sales area, as shown on the site plan, is consistent with the Ordinance No. 99-1553.

Ordinance No. 2005-1858 provides for the administrative issuance of Temporary Use Permits by the Zoning Administrator and designees of the City Planning Department and to further specify the types of and conditions upon temporary uses, which may be permitted. Section 15-3.0804 (A)(4) states that, "Each individual outdoor sales event (up to 4 per year, per property) shall be no longer than 14 consecutive days; provided, however, that the total days of such temporary uses during a calendar year shall not exceed 30 calendar days. Owners must obtain a Temporary Use Permit for each such temporary outdoor sale before the use is permitted."

According to Section 15-3.0804(L) of the City of Franklin Unified Development Ordinance, "Each Temporary Use Permit shall specify the date upon which such use may commence and the date upon which such use shall expire; in no event, except as otherwise specifically and expressly set forth in this Section, shall any temporary use exceed 90 days in duration during any calendar year." The proposed outdoor seasonal tree and shrub sales event will start on April 15, 2024 and end on July 15, 2024, with a duration of 90 days.

The applicant received two limited approvals from City Development Staff to allow for the Garden Center Opeartion while awaiting for Plan Commission review and approval. The dates of those approvals are as follows:
April 15 – April 29
April 30 – May 9

Department comments

Fire Department

- FD has no comments/concerns.

Police Department

- The PD has no comment regarding this request.

Engineering Department

- No comments.

Inspection Services Department

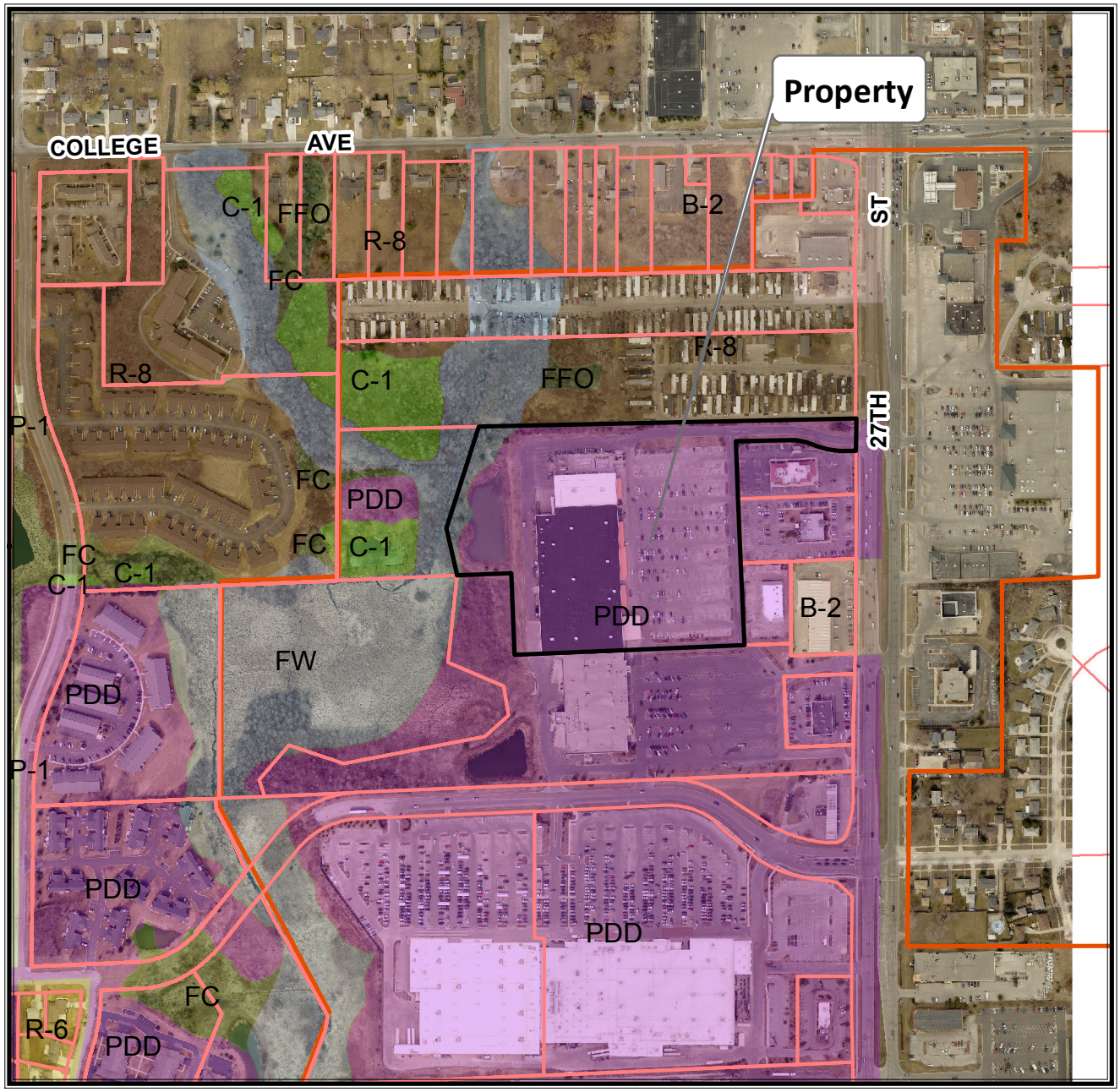
- Inspection Services has no comments on the proposal at this time.

Staff recommendation:

City Development Staff recommends approval of the Temporary Use to allow The Home Depot to have outdoor seasonal sales of plant goods and commodity bagged goods from April 15, 2024 through July 15, 2024, upon property located at 6489 South 27th Street, subject to the conditions of approval in the attached resolution.

City of Franklin

6489 S. 27 Street



Planning Department
(414) 425-4024

0 295 590 1,180 Feet

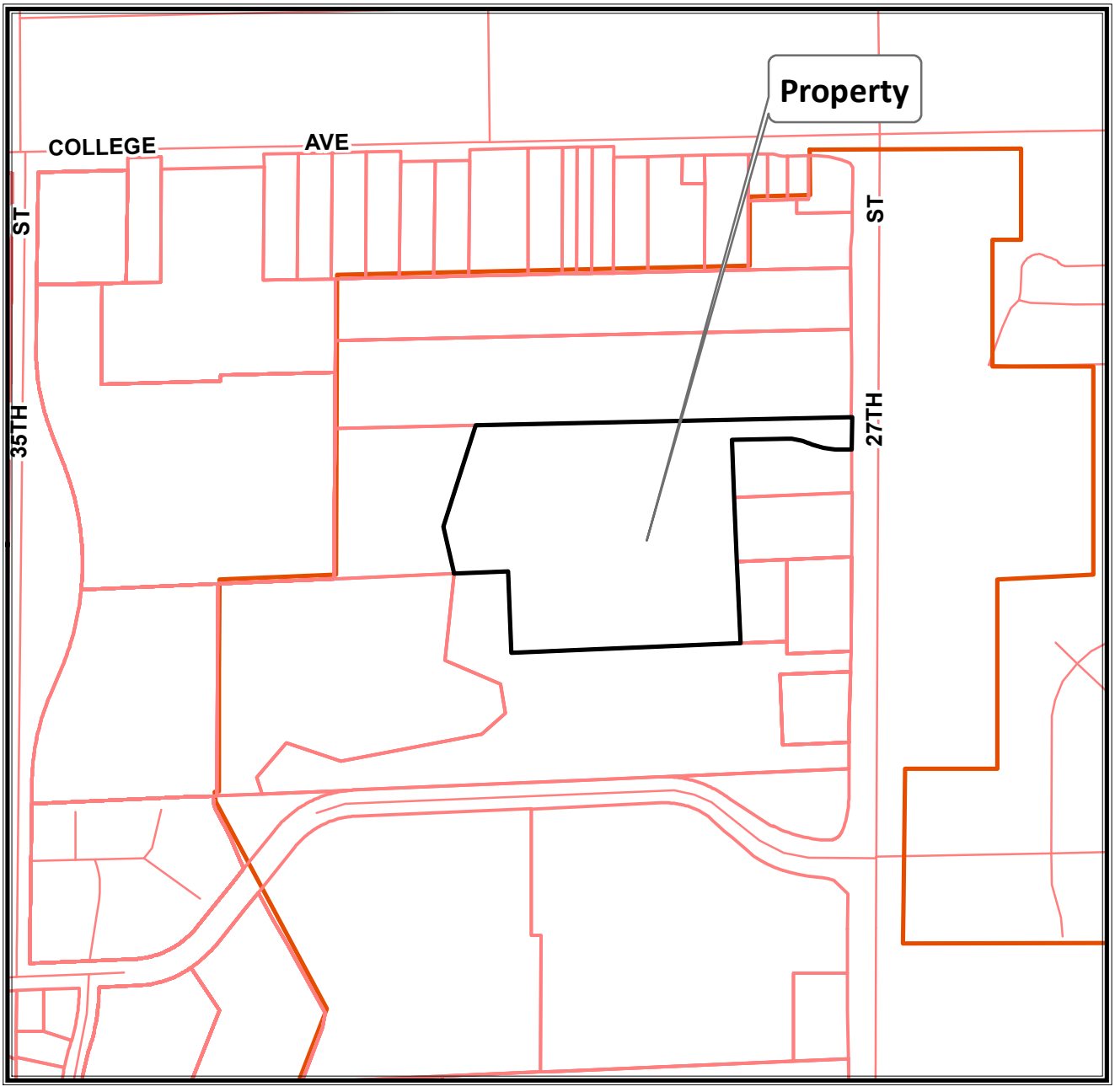
NORTH

2016 Aerial Photo

This map shows the approximate relative location of property boundaries but was not prepared by a professional land surveyor. This map is provided for informational purposes only and may not be sufficient or appropriate for legal, engineering, or surveying purposes.

City of Franklin

6489 S. 27 Street



Planning Department
(414) 425-4024

0 295 590 1,180 Feet

NORTH

2016 Aerial Photo

This map shows the approximate relative location of property boundaries but was not prepared by a professional land surveyor. This map is provided for informational purposes only and may not be sufficient or appropriate for legal, engineering, or surveying purposes.

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY
PLAN COMMISSION *[Draft 4-24-2024]*

RESOLUTION NO. 2024-_____

A RESOLUTION IMPOSING CONDITIONS AND RESTRICTIONS FOR THE APPROVAL OF A TEMPORARY USE FOR OUTDOOR SEASONAL TREE AND SHRUB SALES FOR PROPERTY LOCATED AT 6489 SOUTH 27TH STREET (HOME DEPOT U.S.A., INC., APPLICANT)

WHEREAS, Home Depot U.S.A., Inc. (Home Depot 4907) having petitioned the City of Franklin for the approval of a Temporary Use to allow for seasonal sales (April 15, 2024 through July 15, 2024) in The Home Depot store parking lot, with a 6 foot high black wire fence around a 40 foot wide x 160 foot deep area of plant goods and commodity bagged goods, upon property located at 6489 South 27th Street; and

WHEREAS, the Plan Commission having found that the proposed Temporary Use, subject to conditions, meets the standards set forth under §15-3.0804 of the Unified Development Ordinance.

NOW, THEREFORE, BE IT RESOLVED, by the Plan Commission of the City of Franklin, Wisconsin, that the petition of Home Depot U.S.A., Inc. (Home Depot 4907) for the approval of a Temporary Use for the property particularly described in the preamble to this Resolution, be and the same is hereby approved, subject to the following conditions and restrictions:

1. The approval granted hereunder shall commence upon April 15, 2024 and terminate and expire on July 15, 2024.

2. All outdoor seasonal tree, shrub and commodity bagged goods sales shall take place within the 40,000 square foot area shown on “Exhibit A” of Ordinance No. 99-1553.

3. The approval granted hereunder is subject to verification by City Development Department staff that all the outdoor sales and display on The Home Depot’s property are in conformance with Ordinance No. 99-1553.

4. Fire Lane access must be maintained.

Introduced at a regular meeting of the Plan Commission of the City of Franklin this _____ day of _____, 2024.

Passed and adopted at a regular meeting of the Plan Commission of the City of Franklin this _____ day of _____, 2024.

APPROVED:

_____
John R. Nelson, Chairman

ATTEST:

_____
Shirley J. Roberts, City Clerk

AYES _____ NOES _____ ABSENT _____

Planning Department
9229 West Loomis Road
Franklin, Wisconsin 53132
(414) 425-4024
franklinwi.gov

Franklin WISCONSIN

APPLICATION DATE: _____

STAMP DATE: city use only

PLAN COMMISSION REVIEW APPLICATION

PROJECT INFORMATION [print legibly]

APPLICANT [FULL LEGAL NAMES]	APPLICANT IS REPRESENTED BY [CONTACT PERSON]
NAME:	NAME: Jennifer Beierle. Store Manager
COMPANY: Home Depot U.S.A. Inc	COMPANY: Home Depot U.S.A., INC
MAILING ADDRESS: 2455 Paces Ferry Road	MAILING ADDRESS: 6489 South 27th Street
CITY/STATE: Atlanta, GA 30339 ZIP:	CITY/STATE: Franklin,WI ZIP: 53132
PHONE: 770-433-8211	PHONE: 414-304-1024
EMAIL ADDRESS:	EMAIL ADDRESS: Jennifer_L_Beierle@Homedepot.com

PROJECT PROPERTY INFORMATION

PROPERTY ADDRESS: 6489 South 27th St	TAX KEY NUMBER:
PROPERTY OWNER: Home Depot U.S.A., Inc	PHONE:
MAILING ADDRESS: 6489 South 27th Street	EMAIL ADDRESS:
CITY/STATE: Franklin, WI ZIP: 53132	DATE OF COMPLETION: office use only

APPLICATION TYPE

Please check the application type that you are applying for

☐ Building Move ☐ Sign Review ☐ Site Plan / Site Plan Amendment ■ Temporary Use

Most requests require Plan Commission review and approval.
Applicant is responsible for providing Plan Commission resubmittal materials up to 12 copies pending staff request and comments.

SIGNATURES

The applicant and property owner(s) hereby certify that: (1) all statements and other information submitted as part of this application are true and correct to the best of applicant's and property owner(s)' knowledge; (2) the applicant and property owner(s) has/have read and understand all information in this application; and (3) the applicant and property owner(s) agree that any approvals based on representations made by them in this Application and its submittal, and any subsequently issued building permits or other type of permits, may be revoked without notice if there is a breach of such representation(s) or any condition(s) of approval. By execution of this application, the property owner(s) authorize the City of Franklin and/or its agents to enter upon the subject property(ies) between the hours of 7:00 a.m. and 7:00 p.m. daily for the purpose of inspection while the application is under review. The property owner(s) grant this authorization even if the property has been posted against trespassing pursuant to Wis. Stat. §943.13.

(The applicant's signature must be from a Managing Member if the business is an LLC, or from the President or Vice President if the business is a corporation. A signed applicant's authorization letter may be provided in lieu of the applicant's signature below, and a signed property owner's authorization letter may be provided in lieu of the property owner's signature[s] below. If more than one, all of the owners of the property must sign this Application).

■ I, the applicant, certify that I have read the following page detailing the requirements for plan commission approval and submittals and understand that incomplete applications and submittals cannot be reviewed.

PROPERTY OWNER SIGNATURE: Suzanne Russo	APPLICANT SIGNATURE: Jennifer Beierle
NAME & TITLE: Suzanne Russo, Assistant General Counsel DATE: 03/25/2024	NAME & TITLE: Jennifer Beierle - Store Manager DATE:
PROPERTY OWNER SIGNATURE:	APPLICANT REPRESENTATIVE SIGNATURE:
NAME & TITLE: DATE:	NAME & TITLE: DATE:

6489 S 27th St. • Franklin, WI 53132
(414)304-1024 • Fax: (414)304-3416

March 25 2024

RE: Temporary Use Permit

City of Franklin,

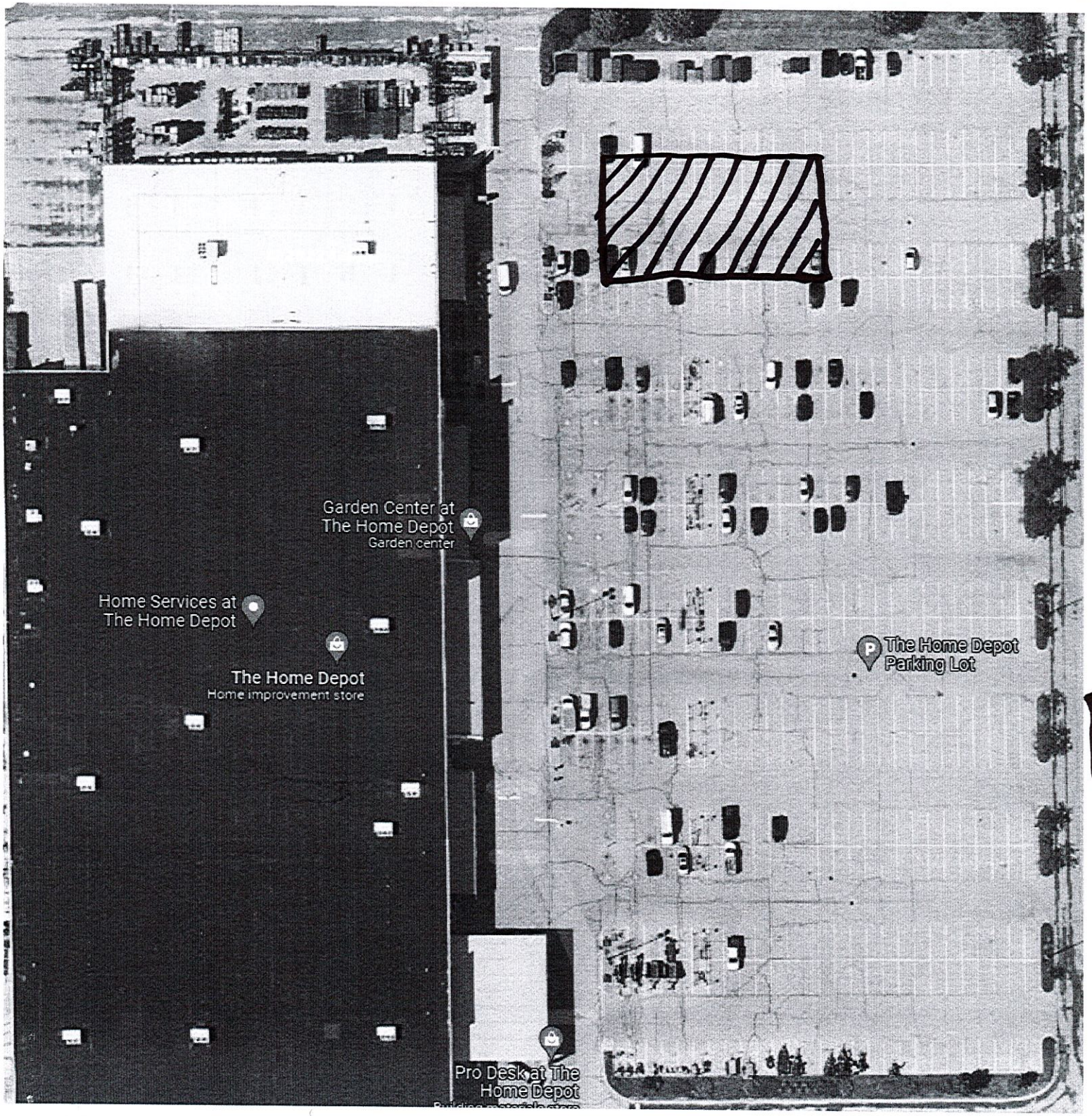
The location of our project for the temporary use permit will be located on the North side of our parking lot adjacent to the Garden Center that is attached to the building. The proposed location is shown on the overhead map by use of blacked-out square, which is attached to this project narrative.

We will be fencing in an area approximately 40 feet by 160 feet. The fenced area will contain mulch, soil, straws, trees, and shrubs. There will be no structures built and no cash registers operated in the proposed location. The hours of operation will be Monday – Saturday 6:00 am to 10pm, and Sunday 8:00 am to 8:00 pm.

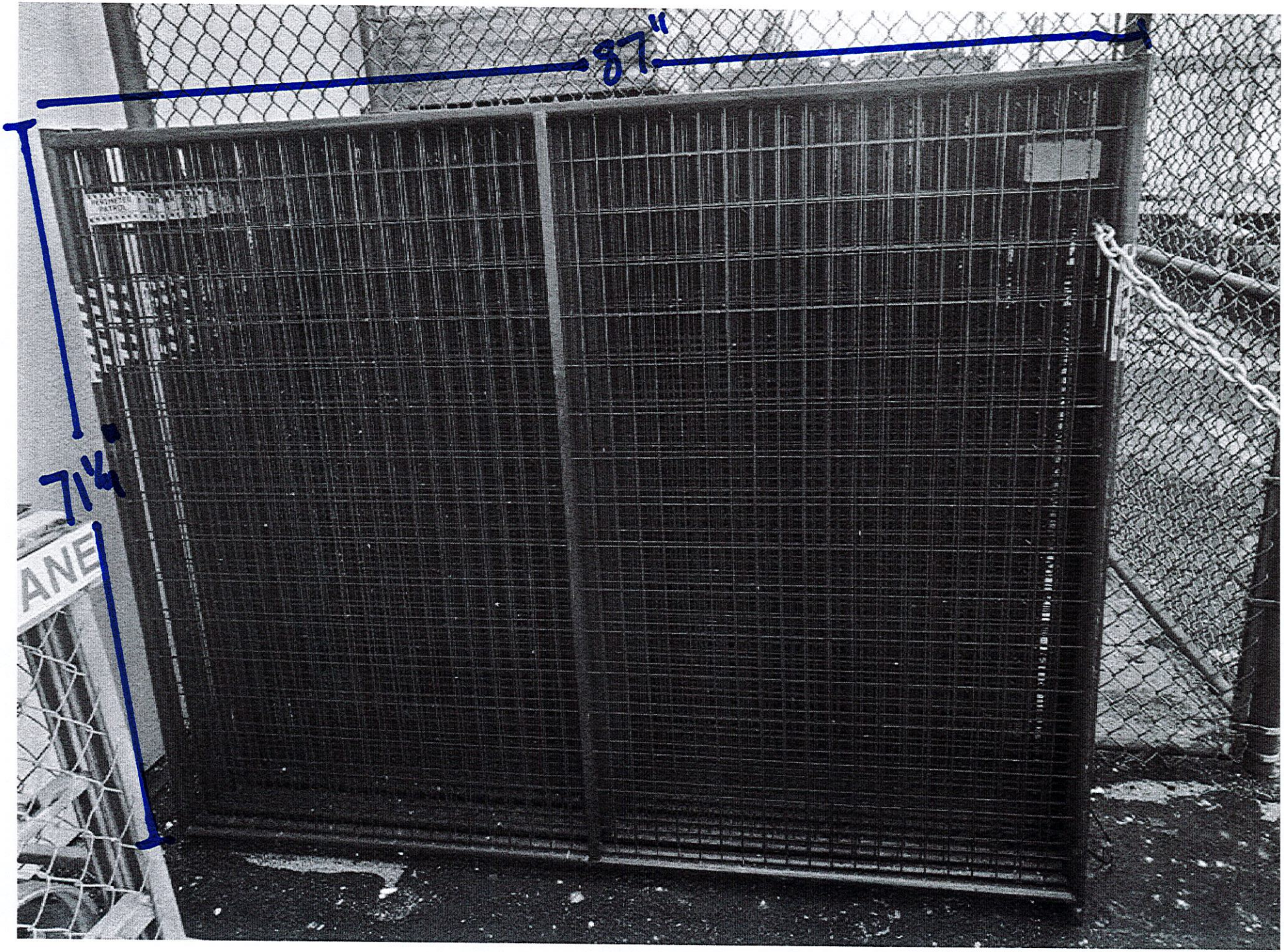
Duration of use will be from April 15th to July 15th

Thank you

Jennifer Beierle


Garden Center at
The Home Depot
Garden center
Home Services at
The Home Depot
The Home Depot
Home improvement store
The Home Depot
Parking Lot
Pro Desk at The
Home Depot

Site Plan =


97"
71¼"

Department of City Development
9229 West Loomis Road, Franklin, Wisconsin 53132
(414) 425-4024

April 30, 2024

Jennifer Beierle, Store Manager
Home Depot U.S.A., Inc.
6489 S 27th Street
Franklin, WI 53132

Re: Temporary Use conditional approval – 2024 Home Depot Garden Center 6489 S 27th Street

Dear Jennifer:

Please be advised that your Temporary Use application for a outdoor garden center located at 6489 S 27th Street has been conditionally approved, subject to the following conditions:

1. This staff approval is limited from April 30, 2024 through May 9, 2024.

2. All outdoor seasonal tree, shrub and commodity bagged goods sales shall take place within the 40,000 square foot area shown on "Exhibit A" of Ordinance No. 99-1553.

3. The approval granted hereunder is subject to verification by City Development Department staff that all the outdoor sales and display on The Home Depot's property are in conformance with Ordinance No. 99-1553.

4. Fire lane access must be maintained.

You can contact the Department of City Development at 414-425-4024 if you have questions about this approval.

Sincerely,

Luke Hamill
Associate Planner

Cc: 6489 S 27th Street, Paper file, Elec. File.

Department of City Development
9229 West Loomis Road, Franklin, Wisconsin 53132
(414) 425-4024

April 15, 2024

Jennifer Beierle, Store Manager
Home Depot U.S.A., Inc.
6489 S 27th Street
Franklin, WI 53132

Re: Temporary Use conditional approval – 2024 Home Depot Garden Center 6489 S 27th Street

Dear Jennifer:

Please be advised that your Temporary Use application for a outdoor garden center located at 6489 S 27th Street has been conditionally approved, subject to the following conditions:

1. This staff approval is limited from April 15, 2024 through April 29, 2024.

2. All outdoor seasonal tree, shrub and commodity bagged goods sales shall take place within the 40,000 square foot area shown on "Exhibit A" of Ordinance No. 99-1553.

3. The approval granted hereunder is subject to verification by City Development Department staff that all the outdoor sales and display on The Home Depot's property are in conformance with Ordinance No. 99-1553.

4. Fire lane access must be maintained.

You can contact the Department of City Development at 414-425-4024 if you have questions about this approval.

Sincerely,

Luke Hamill
Associate Planner

Cc: 6489 S 27th Street, Paper file, Elec. File.

Item E.5

City of Franklin
Department of City Development

March 26, 2024

To: Plan Commission

From: Department of City Development
Régulo Martínez-Montilva, AICP, CNUa, Principal Planner

RE: Boomtown LLC, Certified Survey Map (CSM)
11607 W. Ryan Road

The applicant requested to table this CSM application to this meeting and requested clarification on the pedestrian facilities comment. Staff added to the meeting packet the Ryan Creek trail design and layout from the Ryan Creek Pedestrian/Bicycle Trail Master Plan, such plan was adopted by the Common Council on June 21, 2022.

TRAILS

PRIMARY TRAIL DESIGN

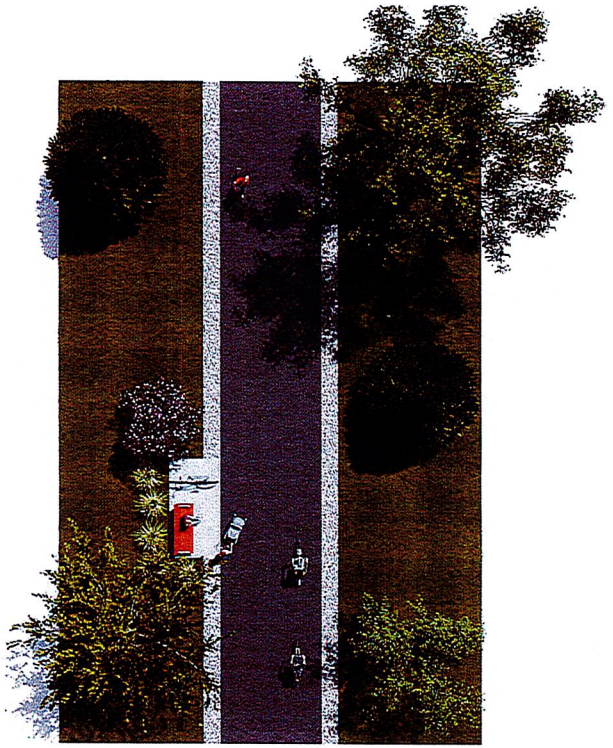
- 10' wide, paved asphalt for Primary Trail
- On Grade Trail for the majority of trail length
- Elevated boardwalks for when the trail enters an environmentally sensitive area.

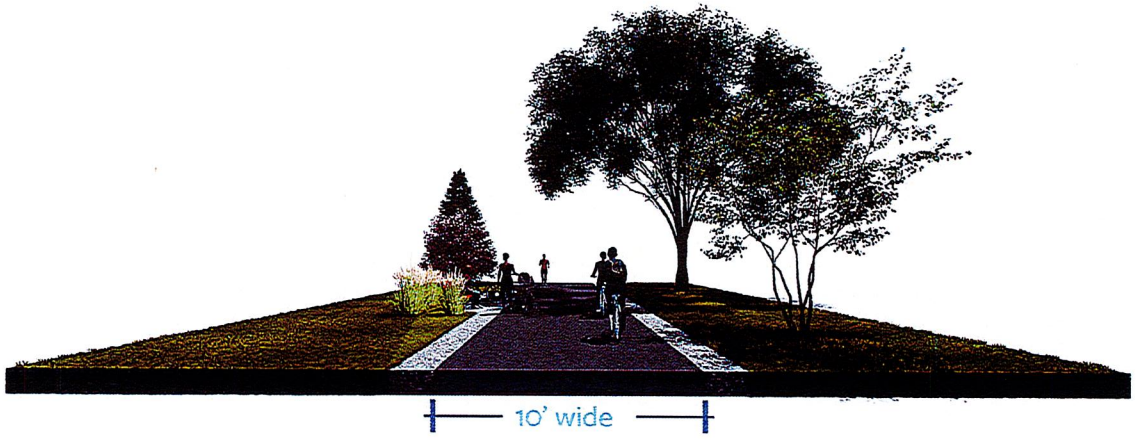
TRAIL CROSSING TYPES

- At-grade intersection enhancements
- At-grade mid-block crossing
- Creekside underpass (utilize existing vehicular bridge over water)
- Ped bridge over roadway (none currently proposed)

OTHER TRAIL FEATURES

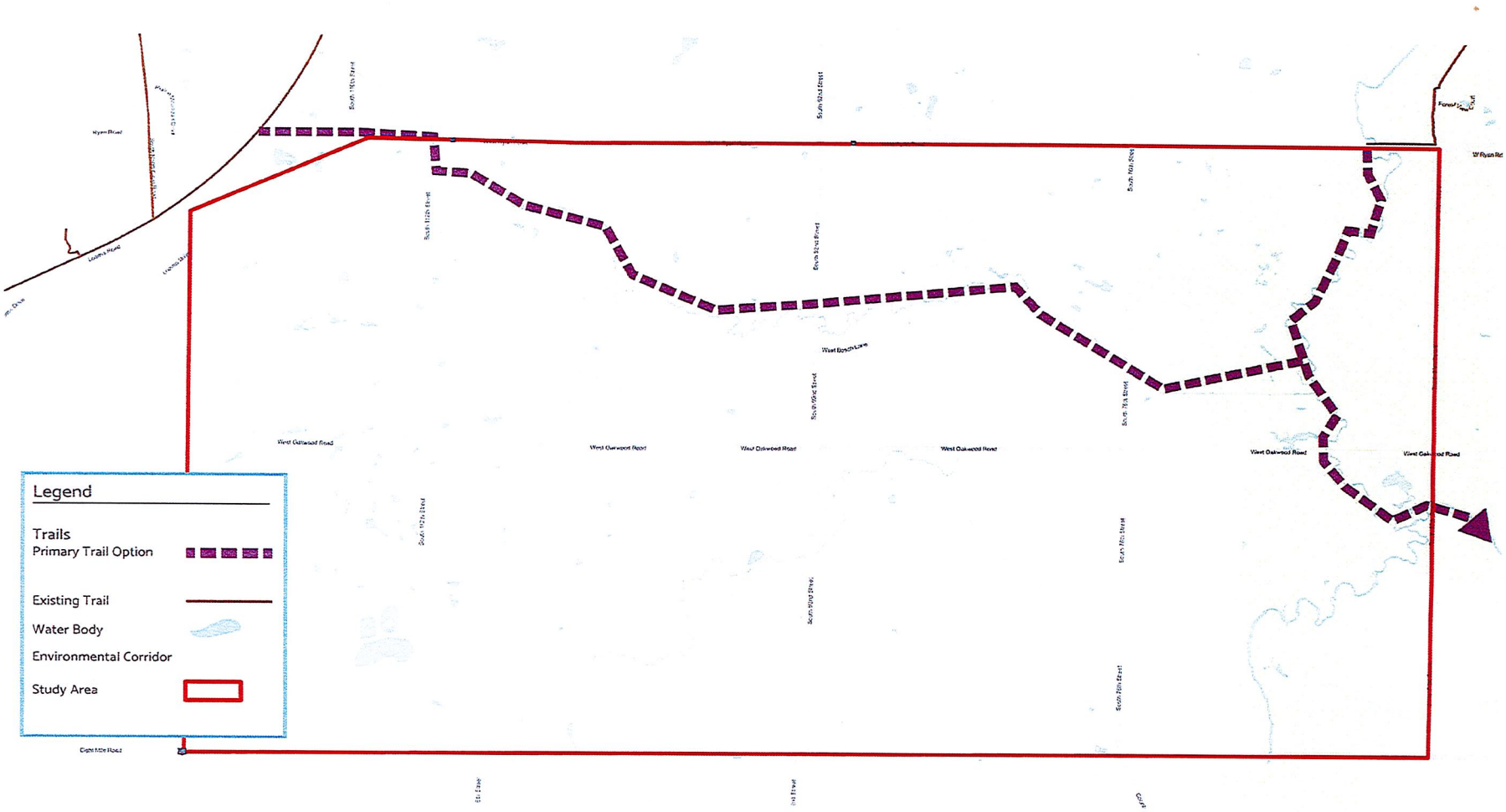
- Rest stops/seating areas/overlooks
- Wayfinding/signage
- Trailheads (parking/signage)

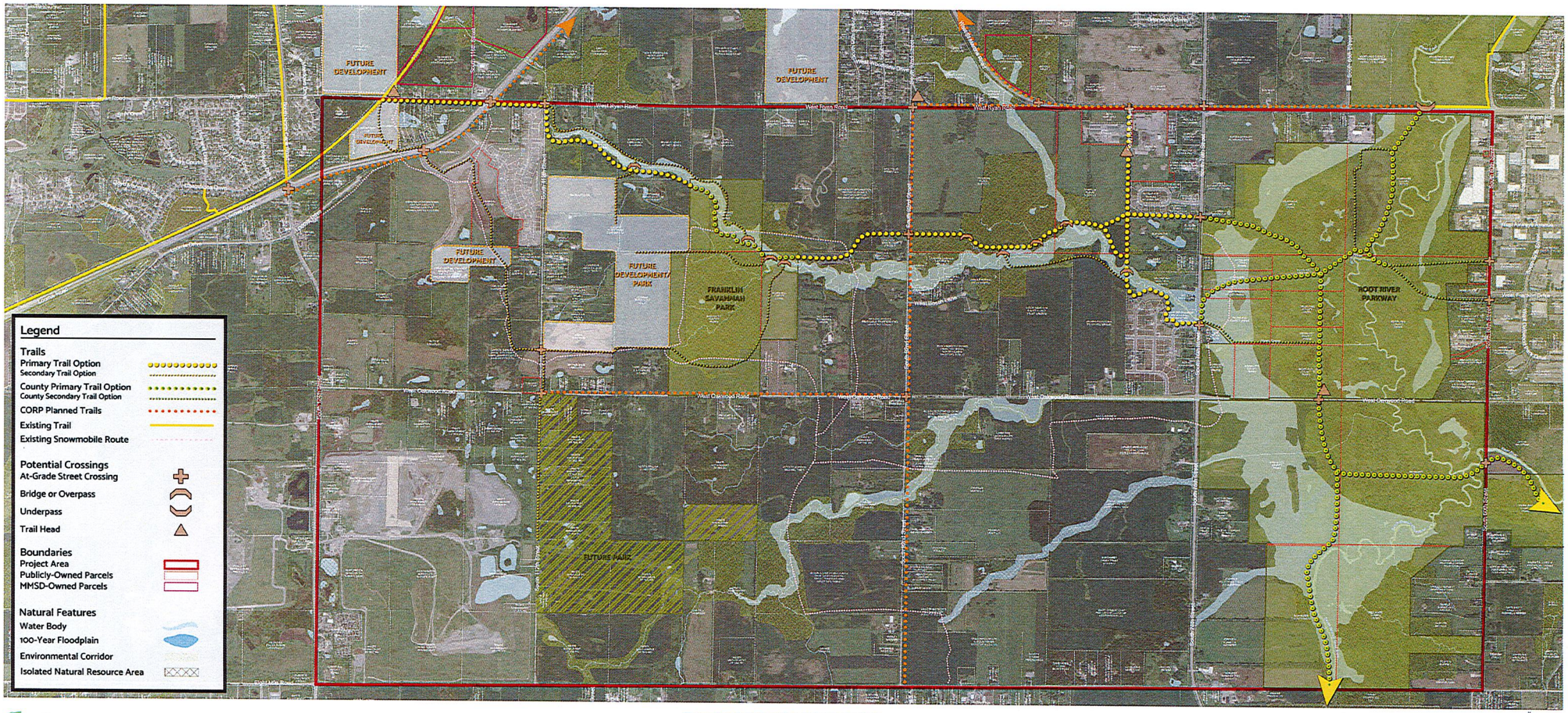




PRIMARY PATHS

Primary paths, as shown below, should be continuous routes that connect as many important destinations as possible. The route identified as part of the planning process, looks to connect the west and east side of the study area. Meandering through as many natural areas as possible, this path aims to provide a unique experience along Ryan Creek that ultimately connects up to the Oak Leaf Trail and the future 116th Street Trail.





Franklin

GRAEF

Ryan Creek Pedestrian/Bicycle Trail Plan

CITY OF FRANKLIN
MILWAUKEE COUNTY, WISCONSIN

1 in = 400 ft

June 17, 2022

CITY OF FRANKLIN

REPORT TO THE PLAN COMMISSION

Meeting of March 21, 2024

Certified Survey Map

RECOMMENDATION: City Development Staff recommends approval of this Certified Survey Map to create four residential lots, subject to the conditions set forth in this report and the attached resolution.

Project name:	**Boomtown, LLC – Four lot Certified Survey Map**
Property Owner:	Boomtown, LLC
Applicant:	S.R. Mills. Boomtown, LLC
Property Address/TKN:	11607 W Ryan Road / 891 9989 005
Aldermanic District:	District 6
Zoning District:	R-3 Suburban/Estate Single-Family Residence District
Staff Planner:	Régulo Martínez-Montilva, AICP, CNUa, Principal Planner

Please note:

- Recommendations are *underlined, in italics* and are included in the draft resolution.
- Suggestions are only underlined and are not included in the draft resolution.

Project Description/Analysis

The applicant is seeking approval of a Certified Survey Map (CSM) for the creation of four residential lots on W. Ryan Road. The total site is 4.8 acres.

The subject site is zoned R-3 and the proposed single-family residential use is an allowed use in this zoning district. All four lots will be served by public sanitary sewer and public water supply as required by Unified Development Ordinance (UDO) Section 15-3.0203A.3.

The site abuts the same R-3 zoning district to the north and west, a lot with a pond zoned R-8 to the southwest, a vacant lot zoned R-8 to the east and Loomis Road to the south.

According to the Site Intensity and Capacity Calculations, the maximum yield of this site is 4.4 dwelling units, therefore, the proposed CSM is in compliance with UDO Division 15-3.0500 *Site Intensity and Capacity Calculations*.

In order to approve the CSM, the Plan Commission and Common Council must find that the proposed land division meets the requirements for a CSM as provided in the Unified Development Ordinance, including all standards for development as provided in the following sections of the UDO:

- Division 15-7.0700 Certified Survey Map
- Division 15-5.0100 Design Standards for Land Divisions
- Division 15-8.0100 Required Improvements for Land Divisions
- Division 15-8.0200 Construction

View of the subject site
Photograph by City Development staff

Staff's review comments regarding this CSM are attached to this packet, including responses from the applicant. The applicant has addressed most of them, except:

- **Landscape Plan** (comment #8). A landscape plan as described in UDO Division 15-7.0300 is required for landscape bufferyard easement areas.

  Applicant's request: "The applicant respectfully requests the City of Franklin defer the requirement for a Landscape Plan for this land division. The vast majority of the area required for a Landscape Plan lies with the Landscape Bufferyard Easement or is proposed to be protected with a Conservation Easement. The applicant has no intention of disturbing the existing vegetation in this area."

  Staff recommends to add the following condition to the CSM resolution: The applicant must submit a landscape plan as described in UDO Division 15-7.0300 for Department of City Development review and approval, prior to recording of this Certified Survey Map.

- **On-street pedestrian facilities** (comment #11). Based on the Comprehensive Master Plan, Map 7.4 Bicycle and Pedestrian Circulation Facilities. City Development staff recommends the installation of a pedestrian path per City of Franklin specifications on the south side of Ryan Road along the entire frontage of the site.

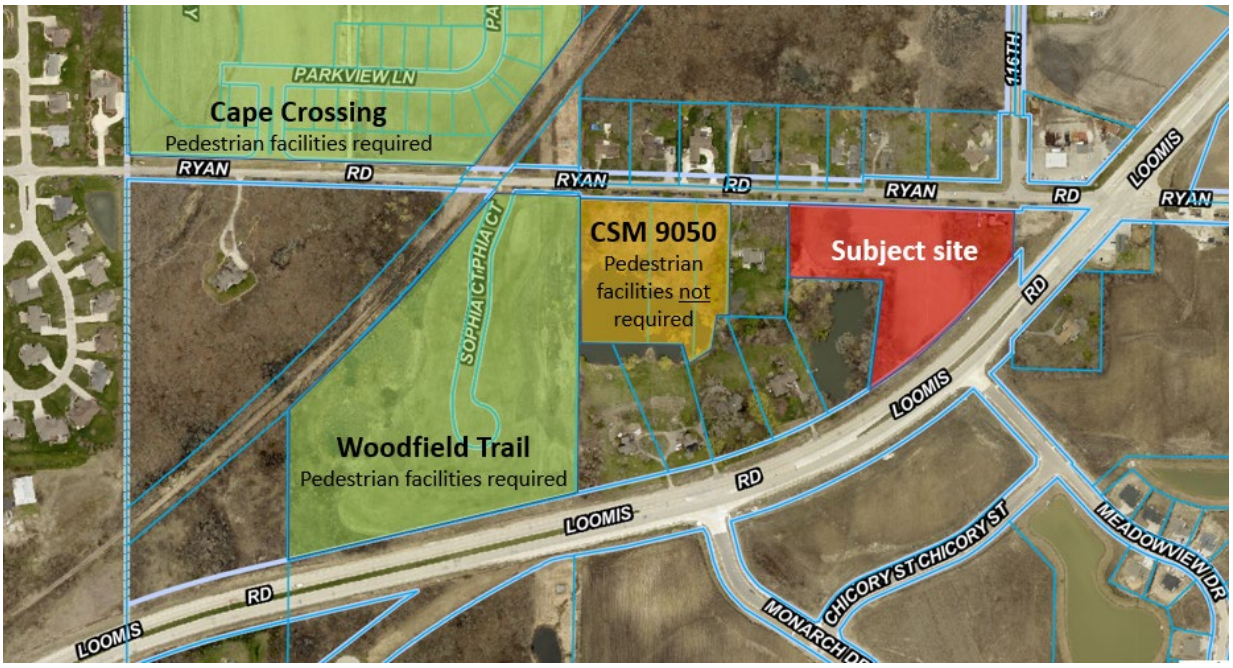
  Applicant's request: "The Applicant requests clarification on the Pedestrian Facilities comment. The Comprehensive Plan Map referenced in Staff Comments clearly shows a "on-street" pedestrian facility. There are no existing pedestrian facilities in this area. We are opposed to the Staff recommendation requiring the installation of pedestrian facilities that do not have any

connection point. Further, the applicant completed a Certified Survey Map 175' west of the subject property. That particular CSM did not require a pedestrian facility". March 1, 2024.

Engineering Department comment: "Specification requirements for the pedestrian path are: 10-ft asphalt path, 3-inches of asphalt over 6-inches of 1 ¼-inch base aggregate. Curb and gutter would only be required if there are width/design constraints, but without seeing a design a definitive answer cannot be given at this time. A development agreement and potentially a pedestrian path easement would be required". March 13, 2024.

Department of City Development comment: Staff acknowledges that pedestrian facilities were not required as a condition of approval for CSM No. 9050. On the other hand, such pedestrian facilities were required for the Woodfield Trail development (Res. No. 2023-8072) and the Cape Crossing subdivision (Res. No. 2022-7839).

Staff recommends to add the following condition to the CSM resolution: Pursuant to the Unified Development Ordinance (UDO) Section 15-9.0309F, the applicant must submit a Subdivider's Agreement for the required improvements, including but not limited to pedestrian facilities along Ryan Road, for Engineering Department review and approval prior to recording of this Certified Survey Map. A pedestrian path easement may be required by the Engineering Department.



Requirement of pedestrian facilities along Ryan Road as condition of approval for adjacent developments.
Prepared by City Development staff.

Natural resource protection

The applicant received an exemption determination from the Wisconsin Department of Natural Resources, and jurisdictional determination from the U.S. Army Corps of Engineers stating that wetland W-1 is not subject to state and federal wetland regulations, therefore, the local protection standards of the UDO don't apply to wetland W-1 (0.09 ac).

The applicant is proposing to impact 30% (13,373 sq. ft.) of the existing mature woodlands area. This proposal is in compliance with UDO Table 15-4.0100 *Natural Resource Protection Standards* which

requires a protection standard of 70% for mature woodlands. The protected areas are within the conservation easement boundary as depicted in CSM sheet 4.

Staff Recommendation

City Development Staff recommends approval of this Certified Survey Map to create four residential lots, subject to the conditions set forth in this report and the attached resolution.

Note: the recommended conditions of approval in this staff report regarding the landscape plan requirement and on-street pedestrian facilities are not included in the attached resolution.

Pursuant to Wisconsin Statutes 236.34(1m)(f), the approval authority shall take action within 90 days of submittal unless the time is extended by agreement with the subdivider. This application was submitted on January 4, 2024; therefore, the Common Council shall take action before April 3.

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY

[Draft 03-12-2024]

RESOLUTION NO. 2024-_____

A RESOLUTION CONDITIONALLY APPROVING A 4 LOT CERTIFIED SURVEY MAP, BEING A PART OF PARCEL 2 OF CERTIFIED SURVEY MAP NO. 3104 AND THAT PART OF VACATED SOUTH 116TH STREET IN THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 30, TOWNSHIP 5 NORTH, RANGE 21 EAST, CITY OF FRANKLIN, MILWAUKEE COUNTY, WISCONSIN (S.R. MILLS, BOOMTOWN, LLC, PROPERTY OWNER) (11607 W RYAN ROAD)

WHEREAS, the City of Franklin, Wisconsin, having received an application for approval of a certified survey map, such map being a redivision of

A part of Parcel 2 of Certified Survey Map No. 3104 and that part of vacated South 116th Street in the Northeast 1/4 of the Northwest 1/4 of Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin; and

WHEREAS, the Common Council having reviewed such application and Plan Commission recommendation and the Common Council having determined that such proposed certified survey map is appropriate for approval pursuant to law upon certain conditions.

NOW, THEREFORE, BE IT RESOLVED, by the Mayor and Common Council of the City of Franklin, Wisconsin, that the Certified Survey Map submitted by S.R. Mills, Boomtown, LLC, as described above, be and the same is hereby approved, subject to the following conditions:

1. That any and all objections made and corrections required by the City of Franklin, by Milwaukee County, and by any and all reviewing agencies, shall be satisfied and made by the applicant, prior to recording.

2. That all land development and building construction permitted or resulting under this Resolution shall be subject to impact fees imposed pursuant to §92-9 of the Municipal Code or development fees imposed pursuant to §15-5.0110 of the Unified Development Ordinance, both such provisions being applicable to the development and building permitted or resulting hereunder as it occurs from time to time, as such Code and Ordinance provisions may be amended from time to time.

3. Each and any easement shown on the Certified Survey Map shall be the subject of separate written grant of easement instrument, in such form as provided within the *City of Franklin Design Standards and Construction Specifications* and such form and content as may otherwise be reasonably required by the City Engineer or designee to further and secure the purpose of the easement, and all being subject to the approval of the Common Council, prior to the recording of the Certified Survey Map.

4. S.R. Mills, Boomtown, LLC, successors and assigns, and any developer of the S.R. Mills, Boomtown, LLC four (4) lot certified survey map project, shall pay to the City of Franklin the amount of all development compliance, inspection and review fees incurred by the City of Franklin, including fees of consults to the City of Franklin, within 30 days of invoice for same. Any violation of this provision shall be a violation of the Unified Development Ordinance, and subject to §15-9.0502 thereof and §1-19 of the Municipal Code, the general penalties and remedies provisions, as amended from time to time.

5. The approval granted hereunder is conditional upon S.R. Mills, Boomtown, LLC and the 4 lot certified survey map project for the property located at 11607 West Ryan Road: (i) being in compliance with all applicable governmental laws, statutes, rules, codes, orders and ordinances; and (ii) obtaining all other governmental approvals, permits, licenses and the like, required for and applicable to the project to be developed and as presented for this approval.

6. The applicant must submit a conservation easement for Common Council review and approval, prior to the recording of the Certified Survey Map.

7. The applicant must submit a landscape bufferyard easement for Common Council review and approval, prior to the recording of the Certified Survey Map.

8. The applicant must resolve any technical corrections required by the Engineering or Planning Department, or the City Attorney's Office prior to the recording of the Certified Survey Map.

BE IT FURTHER RESOLVED, that the Certified Survey Map, certified by owner, Boomtown, LLC, be and the same is hereby rejected without final approval and without any further action of the Common Council, if any one, or more than one of the above conditions is or are not met and satisfied within 180 days from the date of adoption of this Resolution.

BE IT FINALLY RESOLVED, that upon the satisfaction of the above conditions within 180 days of the date of adoption of this Resolution, same constituting final approval, and pursuant to all applicable statutes and ordinances and lawful requirements and procedures for the recording of a certified survey map, the City Clerk is hereby directed to obtain the recording of the Certified Survey Map, certified by owner, Boomtown, LLC, with the Office of the Register of Deeds for Milwaukee County.

Introduced at a regular meeting of the Common Council of the City of Franklin this _____day of _____, 2024.

Passed and adopted at a regular meeting of the Common Council of the City of Franklin this _____ day of _____, 2024.

APPROVED:

_____
John R. Nelson, Mayor

ATTEST:

_____
Shirley Roberts, City Clerk

AYES _____ NOES _____ ABSENT _____

MEMORANDUM

Franklin
MAR 05 2024
City Development

Date: January 26, 2024/March 1, 2024

To: Daniel Szczap. Bear Development, LLC

From: Department of City Development
Régulo Martínez-Montilva, AICP, CNUa, Principal Planner

RE: Application for Certified Survey Map (CSM) – Boomtown, LLC
11607 W. Ryan Road

Staff comments are as follows for the above-referenced application received on January 4, 2024.

City Development Department comments

1. **Site Intensity and Capacity Calculations**. Please prepare the Site Intensity and Capacity Calculations for the total gross site (4.81 acres) and not for each lot. For example, the resulting yield is less than one dwelling unit for lots 1, 2 and 3. If the resulting yield of the total site is less than 4 dwelling units, you would need to reduce the quantity of proposed lots accordingly. Additionally, please add total area of each natural resource to the NRPP table.

   The Revised Site Intensity and Capacity Calculations, calculated for the gross site area, were provided to City Staff of February 21, 2024. The revised calculations demonstrate the site can accommodate four (four) dwelling units.

2. **Natural Resource Protection Plan (NRPP)**. Please add the following information to the NRPP:
   - Address and/or tax key number of the parent lot (Unified Development Ordinance UDO §15-7.0201B).
   - Telephone number of subdivider (UDO §15-7.0201C).
   - The submitted NRPP depicts the location and extent of natural resources but doesn't indicate the areas to be disturbed and areas to be preserved: *Graphic and numerical illustration shown on the "Natural Resource Protection Plan" of those existing natural resource features that will be disturbed and those that will be preserved. The illustration the area (in square feet or acres) of each existing resource and those areas of resources that are to be preserved. Numerical data may be shown in tabular form with labeled reference to specific areas designated on the "Natural Resource Protection Plan."* (UDO §15-7.0201J). See example of table below:

WORKSHEET FOR THE CALCULATION OF RESOURCE PROTECTION LAND				
Natural Resource Feature	Protection Standard Based Upon Zoning District Type (circle applicable standard from Table 15-4.0100 for the type of zoning district in which the parcel is located) Residential District	Acres of Land in Resource Feature	Acres of Land Required to be Protected	Acres of Land Impacted
Steep Slopes:				
10-19%	0.60	0.00	0.00	0.00
20-30%	0.75	0.00	0.00	0.00
30% +	0.85	0.00	0.00	0.00
Woodlands & Forests:				
Mature	0.70	0.00	0.00	0.00
Young	0.50	1.38	0.69	1.25
Lakes & Ponds	1	0.00	0.00	0.00
Streams	1	0.00	0.00	0.00
Shore Buffer	1	0.00	0.00	0.00
Floodplains	1	0.00	0.00	0.00
Wetland & Shoreland Wetlands	1	0.10	0.10	0.00
Wetland Buffers (30')	1	0.10	0.10	0.00
Wetland Setback (50')	1	0.09	0.09	0.00
TOTAL RESOURCE PROTECTION LAND			0.98	

The Natural Resource Protection Plan has been revised to addres City Staff review comments. The revised NRPP was submitted on February 21, 2024.

3. **Shore buffer.** The NRPP table states that the shore buffer is "based off wetland delineation". Please note that shore buffers must be delineated from the ordinary high water mark (OHWM), not a delineated wetland, please clarify. For reference, see wetland delineation report, figure 7.

   The existing pond elevation was surveyed by Pinnacle Engineering.

4. **Wetland and wetland buffer.** Wetlands and wetland buffers must be listed in the NRPP table even when these resources are not required to be protected in this case due to the determinations received from Wisconsin DNR and US Army Corps of Engineers.

   The NRPP table has been revised to include wetlands and wetland buffers.

5. **Natural resources required to be protected.** Natural resources that are required to be protected per UDO Table 15-4.0100 must be depicted in the CSM (UDO §15-9.0309E). The CSM only depicts the pond and shore buffer (sheet 3 of 5) but doesn't depict the mature woodlands and steep slopes (10-19%) areas required to be protected. Pursuant to the referenced table, the protection standard in residential zoning for mature woodlands is 70% and for steep slopes (10-19%) is 60%.

   A revised NRPP has been provided which depicts the protection and impact calculations for all protected natural resources.

6. **Conservation easement.** The location of conservation easements shall be graphically indicated and clearly delineated and dimensioned on the face of the Certified Survey Map. The location and extent of conservation easements should be directly related to the "Natural Resource Protection Plan." All protected natural resources on the proposed lots must be made part of a Conservation Easement. This boundary must be shown on the CSM. Attached is the city's conservation easement template.

The Conservation Easement limits are shown on page 4 of 6 of the revised Certified Survey Map.The Conservation Easement will be executed and recorded with the Certified Survey Map.

7. **Landscape bufferyard easement.** Pursuant to UDO § 15-5.0102, a landscape bufferyard easement with a minimum width of 30 feet is required along Loomis Road (STH 36), excluding any areas required for utility easements or conservation. Landscape easements must be graphically indicated and clearly delineated on the face of the Certified Survey Map and recorded with a separate easement document. Attached is the city's landscape bufferyard easement template.

   The Landscape Bufferyard Easement is shown on page 2 of 6 of the revised Certified Survey Map. The applicant will execute and record a Landscape Bufferyard Easement with the Certified Survey Map.

8. **Landscape Plan.** A landscape plan as described in UDO Division 15-7.0300 is required for the landscape bufferyard easement areas noted above. Landscape Plan standards attached.

   The applicant respectfully requests the City of Franklin defer the requirement for a Landscape Plan for this land division. The vast majority of the area required for a Landscape Plan lies with the Landscape Bufferyard Easement or is proposed to be protected with a Conservation Easement. The applicant has no intention of disturbing the existing vegetation in this area.

9. **Public water and sewer.** All new lots in the R-3 zoning district must be served by public sanitary sewer and water supply facilities pursuant to UDO §15-3.0203. Please add a note to the CSM to confirm that all four lots will be served by public sanitary sewer and water supply facilities, if that's the case.

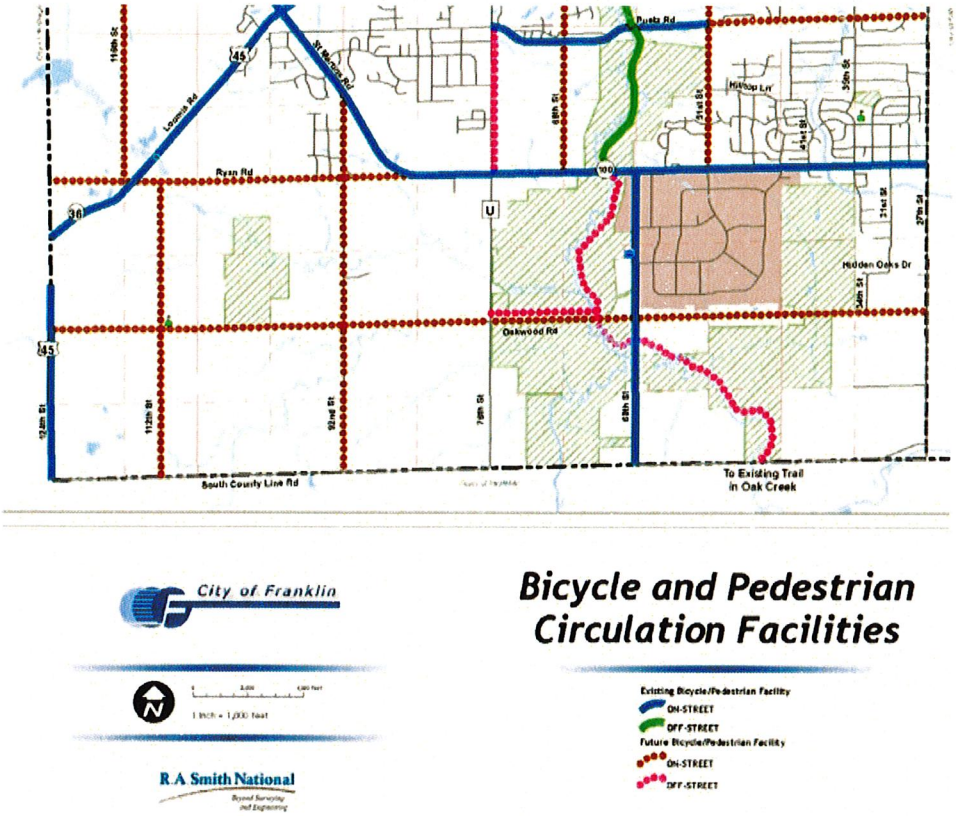
   The Certified Survey Map has been revised to include the notes regarding public utilities.

10. **CSM sheet 5**, please add middle name initial to Mayor's name to read John R. Nelson. Please update City Clerk name to Shirley Roberts.

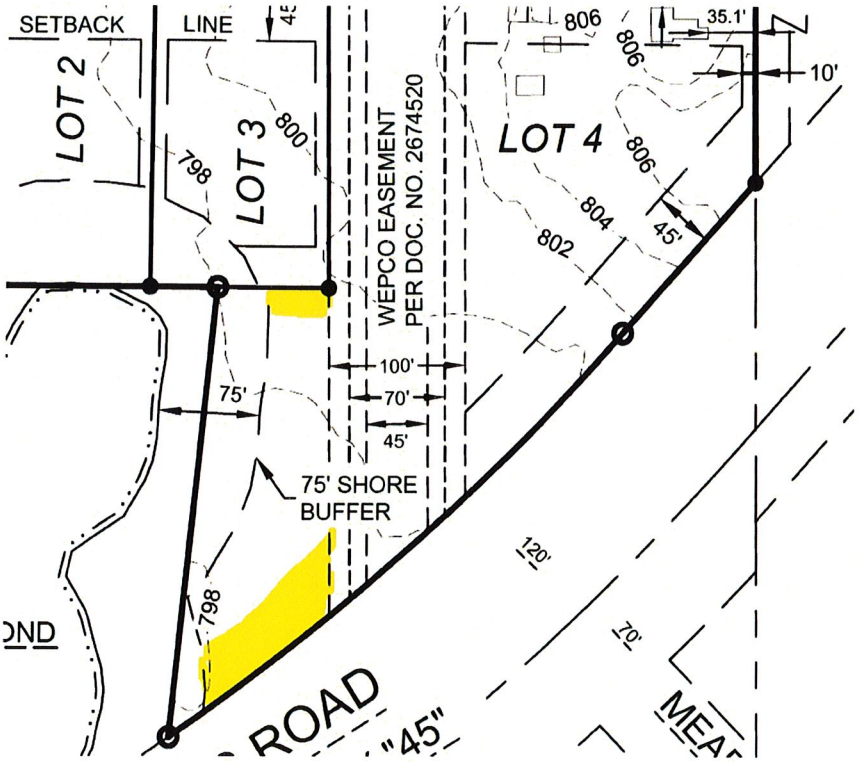
    The Certified Survey Map has been revised to address these corrections.

11. **On-street pedestrian facilities.** Based on the Comprehensive Master Plan, Map 7.4 Bicycle and Pedestrian Circulation Facilities (next page). City Development staff recommends the installation of a pedestrian path per City of Franklin specifications on the south side of Ryan Road along the entire frontage of the site.

    The Applicant requests clarification on the Pedestrian Facilities comment. The Comprehensive Plan Map referenced in Staff Comments clearly shows a "on-street" pedestrian facility. There are no existing pedestrian facilities in this area. We are opposed to the Staff recommendation requiring the installation of pedestrian facilities that do not have any connection point. Further, the applicant completed a Certified Survey Map 175' west of the subject property. That particular CSM did not require a pedestrian facility.



12. **Setbacks.** Pursuant to UDO §15-7.0702B, add setback lines to the south portion of Lot 4, specifically the 10-foot side setback (north) and 45-foot setback from Loomis Road, see below:



The revised CSM addresses the Setback Comment

See attached letter from Milwaukee County Register of Deeds.

Engineering Department comments

1. *Must resolve technical omissions and deficiencies identified by the City of Franklin and Milwaukee County.*
2. *On page 2 of 5;*
   - *Show the coordinates (N-E) of the northwest corner section monument.*
   - *Must insert the note "-Lot 1,2,3&4 is served by public water and sewer.*
3. *On page 2 of 6, extend the 45-ft setback along West Loomis.*
4. *On page 5 of 5;*
   - *Re-arrange the last two paragraphs. The City Of Franklin Common Council Approval should be next after the Owner's Certificate.*
   - *Under the Owner's Certificate, insert the Unified Development Ordinance Division-15 of the City of Franklin.*
   - *Change the name Karen Kastenson to Shirley Roberts, City Clerk.*

Call Ronnie Asuncion, Eng Lead Tech at (414) 425 7510 if you have further questions about engineering comments.

Engineering comments have been addressed on the revised Certified Survey Map.

Inspection Services Department comments

1. *Inspection Services has no comments on the proposal at this time.*

Fire Department comments

1. *This development is in an area of the city not well served by existing Fire/EMS station locations and current fire department staffing levels. The cumulative effect of this and several other residential developments will pose a challenge to maintaining industry standard emergency response times to fire and medical emergencies.*

DEVELOPMENT
4011 80th Street, Kenosha, WI 53142
Phone: (262) 842-0556 Fax: (262) 842-0557

December 27, 2023

Regulo Martinez-Montilva
City of Franklin
9229 W. Loomis Road
Franklin, WI 53132

Dear Mr. Martinez-Montilva:

Bear Development is pleased to submit this letter and the enclosed submittal materials as formal application for Certified Survey Map review and approval. Bear Development is acting on behalf of the owner of record, Mills Wyoming Hotel, LLC.

Project Summary

Boomtown, LLC is the owner of record of approximately 4.75 acres of land in the City of Franklin. The property is located on the south side of W. Ryan Road, immediately west of the intersection of STH 36 (Loomis Road) and W. Ryan Road. The property in question is identified as Tax Key Number 891 9989 005.

We respectfully request approval of a Certified Survey Map to create four (3) individual lots as shown on the enclosed maps, with the intention of developing the lots as individual home sites. The proposed lots meet the minimum bulk requirements of the underlying R-3 Single-Family Residential District.

In accordance with City of Franklin requirements, we have completed a Natural Resource Protection Plan for the property in question. A copy has been included in this submittal.

Should you have any questions regarding this request, please do not hesitate to contact me. I can be reached at (262) 949-3788 or by email, dan@beardevelopment.com

Thank you for your time and consideration.

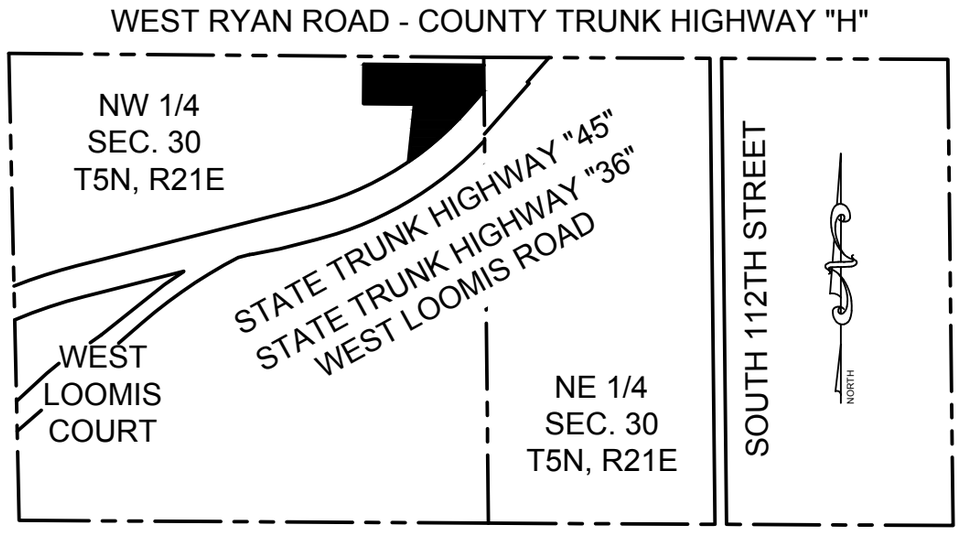
Sincerely,

Daniel Szczap
Bear Development, LLC

CERTIFIED SURVEY MAP NO. _____

Being a part of Parcel 2 of Certified Survey Map No. 3104 and that part of vacated South 116th Street in the Northeast 1/4 of the Northwest 1/4 of Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin

VICINITY SKETCH
SCALE 1"=1000'



Subject Property
Zoning: R-3
Tax Key Number:
8919989005

NOTES:

- All measurements have been made to the nearest one-hundredth of a foot.
- All angular measurements have been made to the nearest one second.
- Bearings referenced to the Wisconsin State Plane Coordinate System, South Zone (N.A.D. 1927). The north line of the Northwest 1/4 of Section 30, Township 5 North, Range 21 East has a bearing of N89°31'45"W.
- Flood Zone Classification: The property lies with in Zone "X" of the Flood Insurance Rate Map Community Panel No. 55079C0205E. Zone "X" areas are determined to be outside the 0.2% annual chance floodplain.
- Wisconsin Electric Power Company Easement, recorded in the Register of Deeds office for Milwaukee County on July 30, 1946 as Document 2652955, for a line of poles to supply electric current affects the parcels in this Certified Survey Map.
- Lots 1, 2, 3 & 4 of this Certified Survey Map shall be served by future public sanitary sewer and water supply facilities.

WISCONSIN
JOHN P. KONOPACKI
S-2461
SUMMIT,
WI
LAND SURVEYOR

FEBRUARY 19, 2024

Prepared for:
BOOMTOWN LLC
4011 80TH STREET
KENOSHA, WI 53142

Prepared By:
PINNACLE ENGINEERING GROUP
20725 WATERTOWN ROAD I SUITE 100
BROOKFIELD, WI 53186
OFFICE: (262) 754-8888

This instrument drafted by John P. Konopacki, PLS-License No. S-2461

DRAFTED BY:ST
PEG JOB#809.60A
SHEET 1 OF 6

CERTIFIED SURVEY MAP NO. _____

Being a part of Parcel 2 of Certified Survey Map No. 3104 and that part of vacated South 116th Street in the Northeast 1/4 of the Northwest 1/4 of Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin

LOT 1: 27,000 SQ. FT. (0.6198 ACRES)

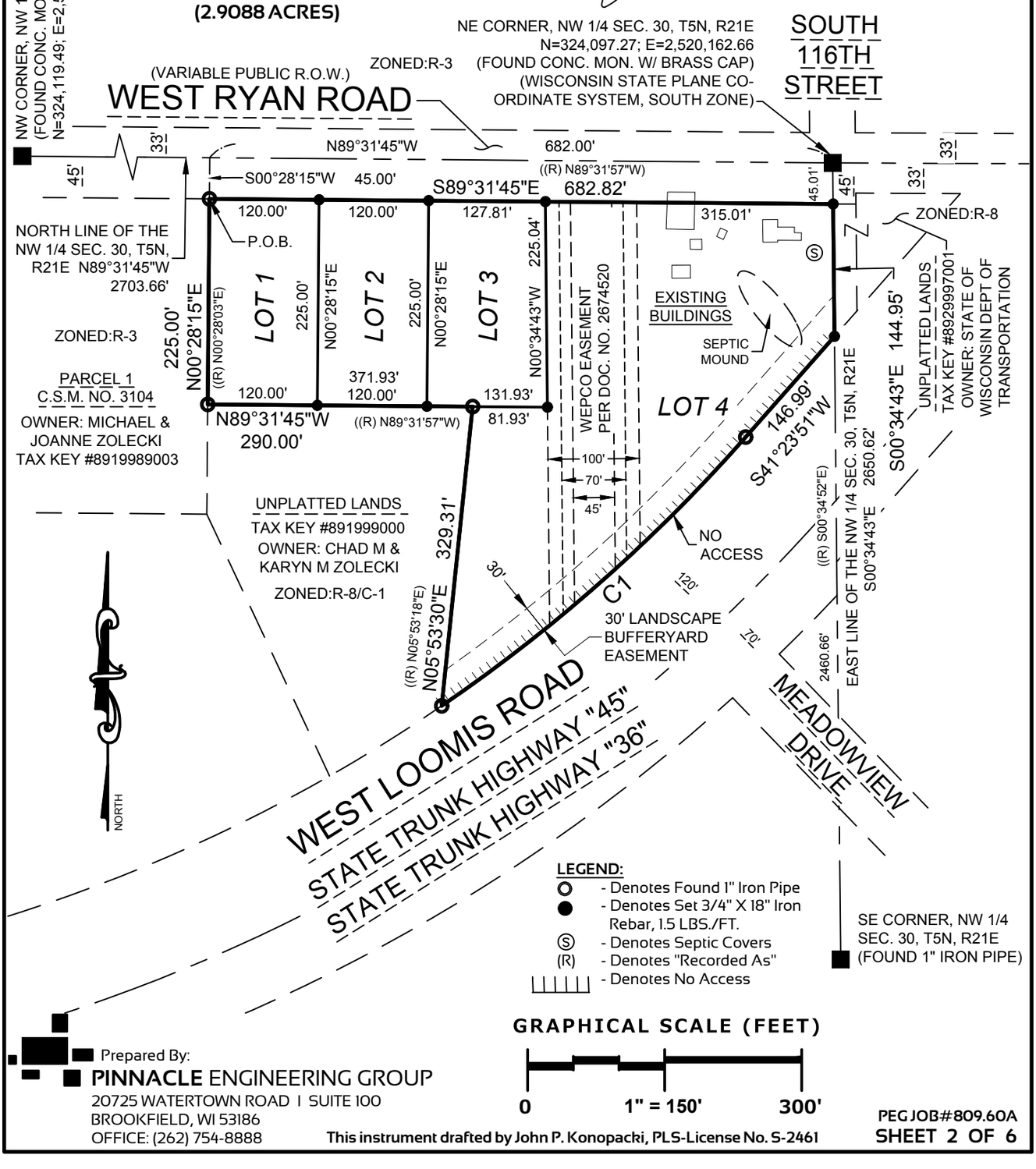
LOT 2: 27,000 SQ. FT. (0.6198 ACRES)

LOT 3: 29,222 SQ. FT. (0.6709 ACRES)

LOT 4: 126,708 SQ. FT. (2.9088 ACRES)

WISCONSIN
JOHN P. KONOPACKI
S-2461
SUMMIT, WI
LAND SURVEYOR

FEBRUARY 19, 2024



LEGEND:

- ○ - Denotes Found 1" Iron Pipe
- ● - Denotes Set 3/4" X 18" Iron Rebar, 1.5 LBS./FT.
- Ⓢ - Denotes Septic Covers
- (R) - Denotes "Recorded As"
- ||||| - Denotes No Access

SE CORNER, NW 1/4 SEC. 30, T5N, R21E (FOUND 1" IRON PIPE)

GRAPHICAL SCALE (FEET)

0 — 1" = 150' — 300'

Prepared By:
PINNACLE ENGINEERING GROUP
20725 WATERTOWN ROAD I SUITE 100
BROOKFIELD, WI 53186
OFFICE: (262) 754-8888

This instrument drafted by John P. Konopacki, PLS-License No. S-2461

PEG JOB#809.60A

CERTIFIED SURVEY MAP NO. _____

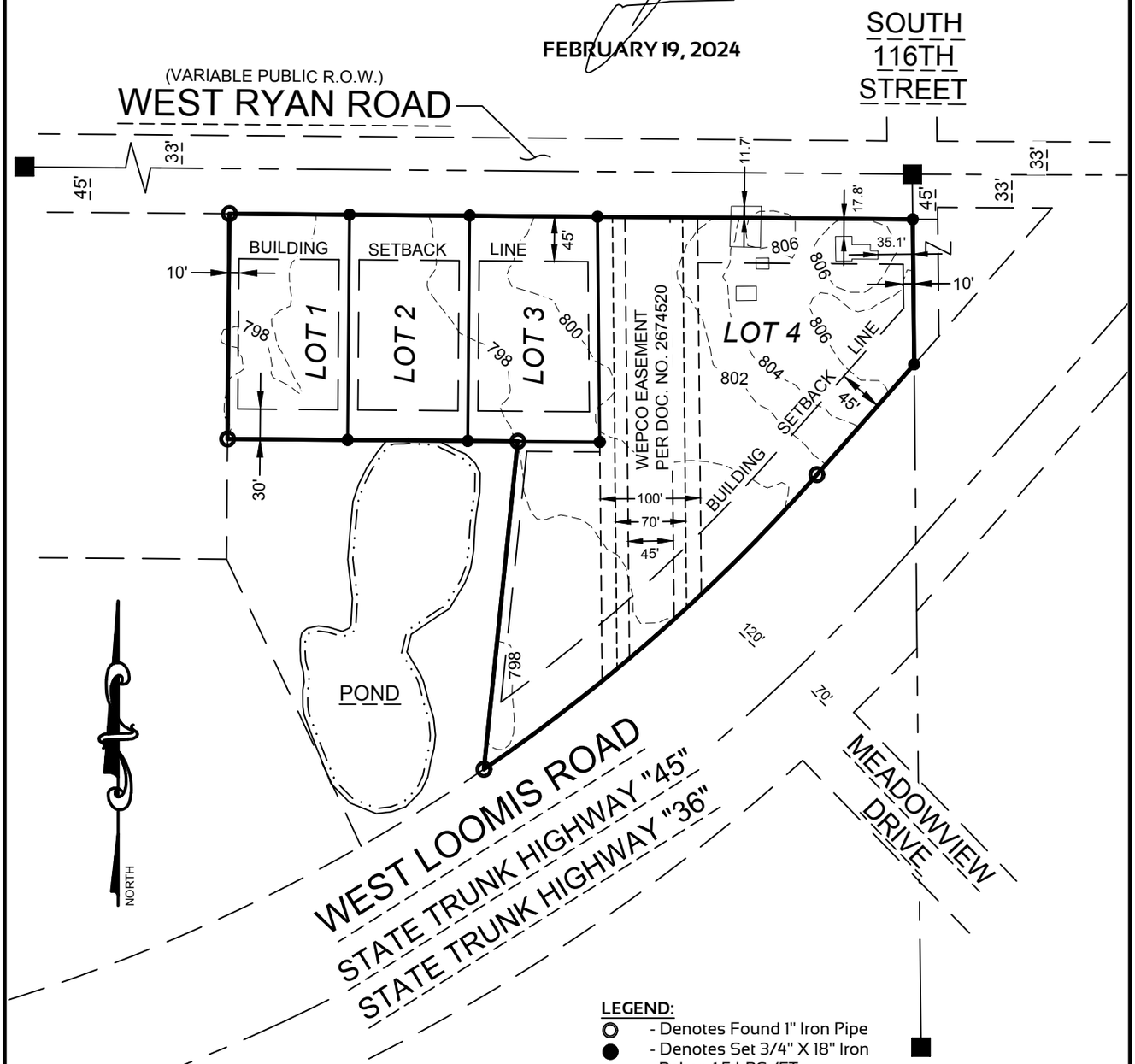
Being a part of Parcel 2 of Certified Survey Map No. 3104 and that part of vacated South 116th Street in the Northeast 1/4 of the Northwest 1/4 of Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin

NOTES:

- MUNICIPAL ZONING: R-3 Suburban/Estate Single Family Residence District:
  Front Yard Setback = 45 feet
  Side Yard Setback = 10 feet
  Rear Yard Setback = 30 feet
- Two (2) foot contours shown per Milwaukee County GIS and Land Information Interactive Map.

WISCONSIN
JOHN P. KONOPACKI
S-2461
SUMMIT, WI
LAND SURVEYOR

FEBRUARY 19, 2024



LEGEND:

- ○ - Denotes Found 1" Iron Pipe
- ● - Denotes Set 3/4" X 18" Iron Rebar, 1.5 LBS./FT.

GRAPHICAL SCALE (FEET)

0 — 1" = 150' — 300'

Prepared By:
PINNACLE ENGINEERING GROUP
20725 WATERTOWN ROAD I SUITE 100
BROOKFIELD, WI 53186
OFFICE: (262) 754-8888

This instrument drafted by John P. Konopacki, PLS-License No. S-2461

PEG JOB#809.60A

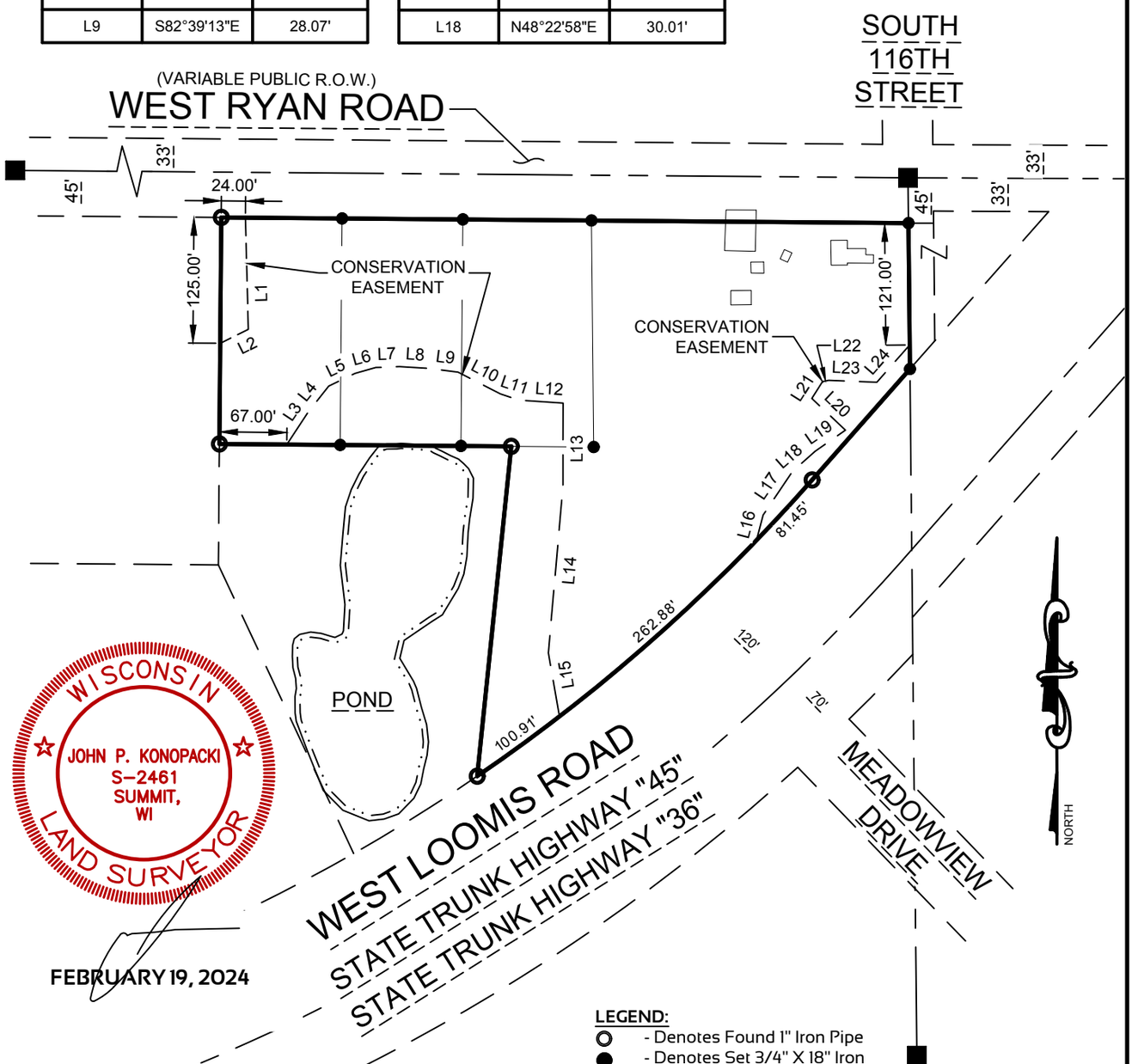
CERTIFIED SURVEY MAP NO. _____

Being a part of Parcel 2 of Certified Survey Map No. 3104 and that part of vacated South 116th Street in the Northeast 1/4 of the Northwest 1/4 of Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin

CONSERVATION EASEMENT		
LINE NO.	BEARING	DISTANCE
L1	S01°30'39"E	111.00'
L2	S63°39'50"W	31.19'
L3	N33°25'28"E	37.74'
L4	N38°09'26"E	33.67'
L5	N64°04'42"E	29.09'
L6	N74°23'03"E	21.49'
L7	N87°48'42"E	23.44'
L8	S86°28'03"E	30.49'
L9	S82°39'13"E	28.07'

CONSERVATION EASEMENT		
LINE NO.	BEARING	DISTANCE
L10	S62°45'21"E	47.39'
L11	S71°22'38"E	19.21'
L12	S86°11'17"E	44.08'
L13	S00°00'43"W	81.61'
L14	S05°00'16"W	167.14'
L15	S09°51'52"E	64.12'
L16	N14°41'30"E	25.95'
L17	N33°57'09"E	52.33'
L18	N48°22'58"E	30.01'

CONSERVATION EASEMENT		
LINE NO.	BEARING	DISTANCE
L19	N55°16'04"E	36.68'
L20	N46°39'10"W	45.89'
L21	N32°17'24"E	19.92'
L22	N79°02'18"E	6.05'
L23	S87°51'52"E	48.02'
L24	N41°22'16"E	49.31'



WISCONSIN
JOHN P. KONOPACKI
S-2461
SUMMIT, WI
LAND SURVEYOR

FEBRUARY 19, 2024

LEGEND:
- Denotes Found 1" Iron Pipe
- Denotes Set 3/4" X 18" Iron Rebar, 1.5 LBS./FT.

GRAPHICAL SCALE (FEET)

0 1" = 150' 300'

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CERTIFIED SURVEY MAP NO. _____

Being a part of Parcel 2 of Certified Survey Map No. 3104 and that part of vacated South 116th Street in the Northeast 1/4 of the Northwest 1/4 of Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin

SURVEYOR'S CERTIFICATE

STATE OF WISCONSIN)
WAUKESHA COUNTY) SS

I, John P. Konopacki, Professional Land Surveyor, do hereby certify:

That I have surveyed, mapped and divided that part of Parcel 2 of Certified Survey Map No. 3104, as recorded in the Register of Deeds office for Milwaukee County as Document No. 5115896 and that part of vacated South 116th Street, as recorded in Resolution 2018-7377 recorded in the Register of Deeds office for Milwaukee County as Document No. 10795901, in the Northeast 1/4 of the Northwest 1/4 of Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin, described as follows:

Commencing at the northeast corner of the Northwest 1/4 of said Section 30; thence North 89°31'45" West along the north line of said Northwest 1/4, 682.00 feet; thence South 00°28'15" West, 45.00 feet to the south right of way line of West Ryan Road and the Point of Beginning;

Thence South 89°31'45" East along said south right of way line, 682.82 feet to the east line of said Northwest 1/4;
Thence South 00°34'43" East along said east line, 144.95 feet to the north right of way line of West Loomis Road;
Thence South 41°23'51" West along said north right of way line, 146.99 feet to a point of curvature;
Thence southwesterly 445.24 feet along the arc of said curve to the right, whose radius is 1789.86 feet and whose chord bears South 48°31'25" West, 444.09 feet;
Thence North 05°53'30" East, 329.31 feet;
Thence North 89°31'45" West, 290.00 feet to the east line of Parcel 1 of Certified Survey Map No. 3104;
Thence North 00°28'15" East along said east line, 225.00 feet to the Point of Beginning.

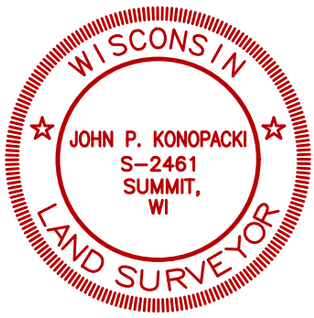
Containing 209,930 square feet (4.8193 acres) of land Gross, more or less.

That I have made such survey, land division and map by the direction of BOOMTOWN, LLC, owner of said land.

That such map is a correct representation of all the exterior boundaries of the land surveyed and the land division thereof made.

That I have fully complied with the provisions of s.236.34 of the Wisconsin State Statutes and the City of Franklin Unified Development Ordinance Division - 15 in surveying, mapping and dividing the same.

Date: FEBRUARY 19, 2024



John P. Konopacki
Professional Land Surveyor S-2461

CURVE DATA							
CURVE NO.	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH	TANGENT IN	TANGENT OUT
C1	445.24'	1789.86'	014°15'10"	S48°31'25"W	444.09'	S41°23'51"W	S55°39'00"W

Prepared By:
PINNACLE ENGINEERING GROUP
20725 WATERTOWN ROAD I SUITE 100
BROOKFIELD, WI 53186
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This instrument drafted by John P. Konopacki, PLS-License No. S-2461

CERTIFIED SURVEY MAP NO. _____

Being a part of Parcel 2 of Certified Survey Map No. 3104 and that part of vacated South 116th Street in the Northeast 1/4 of the Northwest 1/4 of Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin

OWNER'S CERTIFICATE

BOOMTOWN, LLC, a Limited Liability Company duly organized and existing under and by virtue of the laws of the State of Wisconsin, as owner, does hereby certify that said limited liability company caused the land described on this certified survey map to be surveyed, divided and mapped as represented on this certified survey map.

BOOMTOWN, LLC, as owner, does further certify that this certified survey map is required by Chapter 236 of the Wisconsin State Statutes and the Unified Development Ordinance Division -15 of the City of Franklin to be submitted to the following for approval or objection:

1. City of Franklin

IN WITNESS WHEREOF, the said BOOMTOWN, LLC, has caused these presents to be signed by (name - print) _____, (title) _____, at (city)_____, _____ County, Wisconsin, on this _____ day of _____ , 2024.

In the presence of: BOOMTOWN, LLC,

_____
Stephen R. Mills, Authorized Member

STATE OF _____)
_____ COUNTY) SS

Personally came before me this _____ day of _____ , 2024, Stephen R. Mills, Authorized Member, of the above named limited liability company, to me known to be the person who executed the foregoing instrument, and to me known to be such Authorized Member of said limited liability company, and acknowledged that they executed the foregoing instrument as such officer as the deed of said limited liability, by its authority.

_____
Notary Public
Name:_____
State of Wisconsin
My Commission Expires: _____

CITY OF FRANKLIN COMMON COUNCIL APPROVAL

Approved and Accepted by the Common Council of the City of Franklin by Resolution No. _____.
Signed this _____ day of _____ , 2024.

_____ _____
Date

_____
John R. Nelson, Mayor

_____ _____
Date

_____
Shirley Roberts, City Clerk

FEBRUARY 19, 2024

Prepared By:
PINNACLE ENGINEERING GROUP
20725 WATERTOWN ROAD I SUITE 100
BROOKFIELD, WI 53186
OFFICE: (262) 754-8888

This instrument drafted by John P. Konopacki, PLS-License No. S-2461

SECTION 15-3.0502 CALCULATION OF BASE SITE AREA

The ***base site area*** shall be calculated as indicated in Table 15-3.0502 for each parcel of land to be used or built upon in the City of Franklin as referenced in Section 15-3.0501 of this Ordinance.

Table 15-3.0502

WORKSHEET FOR THE CALCULATION OF BASE SITE AREA FOR BOTH RESIDENTIAL AND NONRESIDENTIAL DEVELOPMENT

STEP 1:	Indicate the total gross site area (in acres) as determined by an actual on-site boundary survey of the property.	4.82 acres
STEP 2:	Subtract (-) land which constitutes any existing dedicated public street rights-of-way, land located within the ultimate road rights-of-way of existing roads, the rights-of-way of major utilities, and any dedicated public park and/or school site area.	- 0.97 acres
STEP 3:	Subtract (-) land which, as a part of a previously approved development or land division, was reserved for open space.	- 0 acres
STEP 4:	In the case of ***"Site Intensity and Capacity Calculations" for a proposed residential use***, subtract (-) the land proposed for nonresidential uses; *or* In the case of ***"Site Intensity and Capacity Calculations" for a proposed nonresidential use***, subtract (-) the land proposed for residential uses.	- 0 acres
STEP 5:	Equals "Base Site Area"	= 3.85 acres

SECTION 15-3.0503 CALCULATION OF THE AREA OF NATURAL RESOURCES TO BE PROTECTED

All land area with those natural resource features as described in Division 15-4.0100 of this Ordinance and as listed in Table 15-3.0503 and lying within the ***base site area*** (as defined in Section 15-3.0502), shall be measured relative to each natural resource feature present. The actual land area encompassed by each type of resource is then entered into the column of Table 15-3.0503 titled "Acres of Land in Resource Feature." The acreage of each natural resource feature shall be multiplied by its respective ***natural resource protection standard*** (to be selected from Table 15-4.0100 of this Ordinance for applicable agricultural, residential, or nonresidential zoning district) to determine the amount of resource protection land or area required to be kept in open space in order to protect the resource or feature. The sum total of all resource protection land on the site equals the ***total resource protection land***. The ***total resource protection land*** shall be calculated as indicated in Table 15-3.0503.

Table 15-3.0503

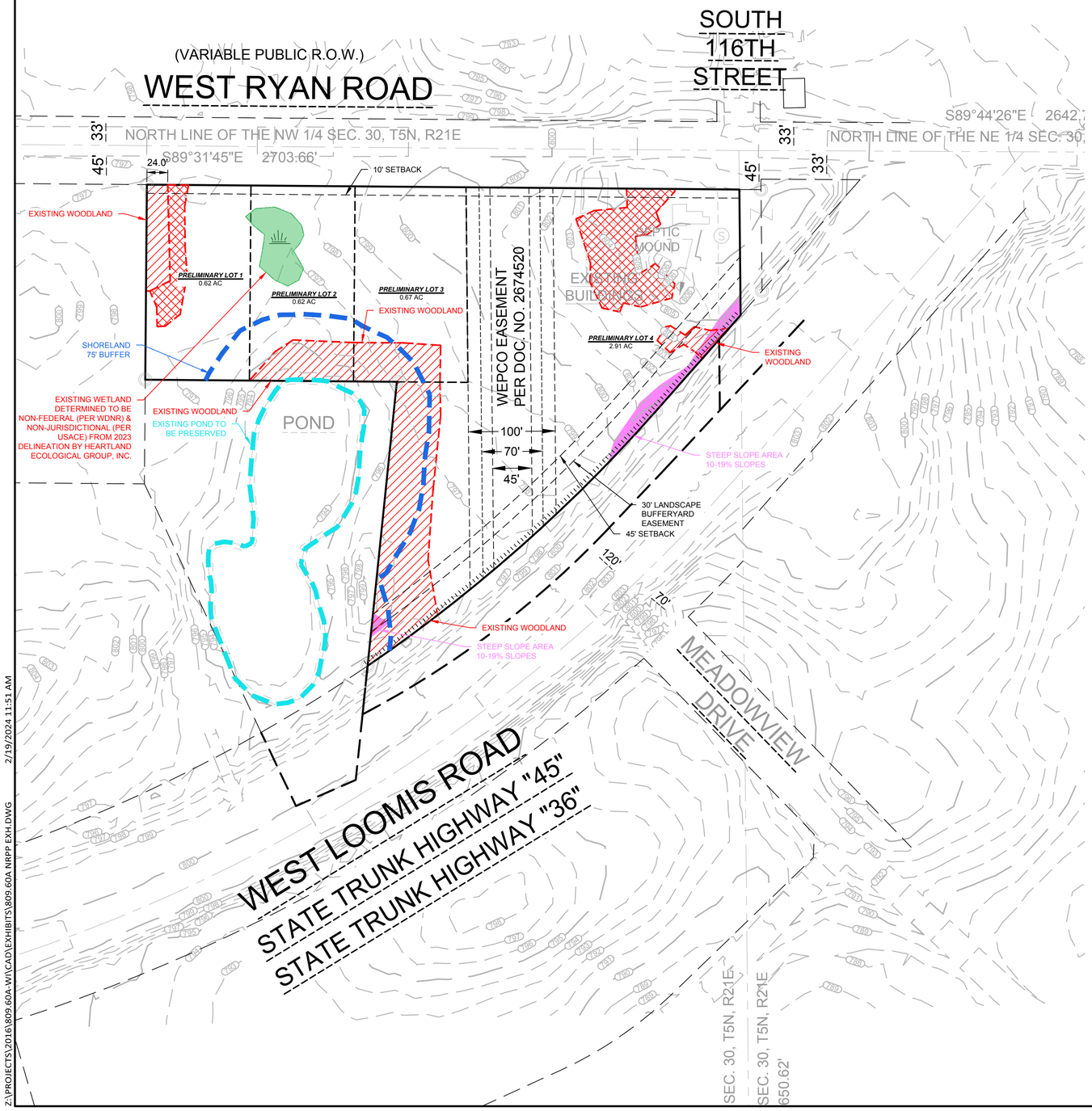
WORKSHEET FOR THE CALCULATION OF RESOURCE PROTECTION LAND

Natural Resource Feature	Protection Standard Based Upon Zoning District Type (circle applicable standard from Table 15-4.0100 for the type of zoning district in which the parcel is located)			Acres of Land in Resource Feature	
	Agricultural District	Residential District	Non-Residential District.		
Steep Slopes:					
10-19%	0.00	0.60	0.40	X 0.08 =	0.05
20-30%	0.65	0.75	0.70	X 0 =	0
+ 30%	0.90	0.85	0.80	X 0 =	0
Woodlands & Forests:					
Mature	0.70	0.70	0.70	X 1.02 =	0.72
Young	0.50	0.50	0.50	X 0 =	0
Lakes & Ponds	1	1	1	X 0.001 =	0.001
Streams	1	1	1	X 0 =	0
Shore Buffer	1	1	1	X 0.53 =	0.53
Floodplains	1	1	1	X 0 =	0
Wetland Buffers	1	1	1	X 0 =	0
Wetlands & Shoreland Wetlands	1	1	1	X 0 =	0
TOTAL RESOURCE PROTECTION LAND (Total of Acres of Land in Resource Feature to be Protected)					1.291

***Note**: In conducting the calculations in Table 15-3.0503, if two or more natural resource features are present on the same area of land, only the most restrictive resource protection standard shall be used. For example, if floodplain and young woodlands occupy the same space on a parcel of land, the resource protection standard would be 1.0 which represents the higher of the two standards.*

In order to determine the maximum number of dwelling units which may be permitted on a parcel of land zoned in a residential zoning district, the site intensity and capacity calculations set forth in Table 15-3.0504 shall be performed.

Table 15-3.0504		
Worksheet for the Calculation of Site Intensity and Capacity for Residential Development		
STEP 1:	**CALCULATE MINIMAL REQUIRED ON-SITE OPEN SPACE**	0 acres
	Take Base Site Area (from Step 5 in Table 15-3.0502): 3.85	
	Multiple by Minimum Open Space Ratio (OSR) (see specific residential zoning district OSR standard): X 0	
	Equals **MINIMUM REQUIRED ON-SITE OPEN SPACE** =	
STEP 2:	**CALCULATE NET BUILDABLE SITE AREA:**	2.559 acres
	Take Base Site Area (from Step 5 in Table 15-3.0502): 3.85	
	Subtract Total Resource Protection Land from Table 15-3.0503) or Minimum Required On-Site Open Space (from Step 1 above), whichever is greater:- 1.291	
	Equals **NET BUILDABLE SITE AREA** =	
STEP 3:	**CALCULATE MAXIMUM NET DENSITY YIELD OF SITE:**	4.40 D.U.s
	Take Net Buildable Site Area (from Step 2 above): 2.559	
	Multiply by Maximum Net Density (ND) (see specific residential zoning district ND standard): X 1.718 R-3	
	Equals **MAXIMUM NET DENSITY YIELD OF SITE** =	
STEP 4:	**CALCULATE MAXIMUM GROSS DENSITY YIELD OF SITE:**	6.61 D.U.s
	Take Base Site Area (from Step 5 of Table 15-3.0502): 3.85	
	Multiple by Maximum Gross Density (GD) (see specific residential zoning district GD standard): X 1.718 R-3	
	Equals **MAXIMUM GROSS DENSITY YIELD OF SITE** =	
STEP 5:	**DETERMINE MAXIMUM PERMITTED D.U.s OF SITE:**	4.40 D.U.s
	Take the lowest of Maximum Net Density Yield of Site (from Step 3 above) or Maximum Gross Density Yield of Site (from Step 4 above):	



NORTH

GRAPHICAL SCALE (FEET)

0 1" = 80' 160'

SITE DATA

PROJECT NAME	FRANKLIN BUSINESS PARK PARCEL 2
LOCATION/ADDRESSES	11607 W RYAN RD FRANKLIN, WI 53132
OWNER CONTACT INFORMATION	DAN SZCZAP 4011 80TH ST KENOSHA WI, 53142 DAN@BEARDEVELOPMENT.COM (262) 842-0556

NATURAL RESOURCE FEATURE AREAS

RESOURCE TYPE	AREAS OF RESOURCE (4.82 AC)	ACRES OF LAND REQUIRED TO BE PROTECTED	ACRES OF LAND IMPACTED
STEEP SLOPES AREA - 10-19% SLOPES - PER PEG SURVEYED CONTOURS	3,470 S.F. 0.08 ACRES	2,082 S.F. 0.05 ACRES	0 S.F.
STEEP SLOPES AREA - 20-30% SLOPES - PER PEG SURVEYED CONTOURS	N/A	N/A	N/A
LAKES & PONDS -FIELD DELINEATED BY PEG SURVEY	61 S.F. ONSITE	61 S.F. ONSITE	0 S.F.
SHORE BUFFER -75' OFFSET	22,915 S.F. 0.53 ACRES	22,915 S.F. 0.53 ACRES	0 S.F.
MATURE WOODLANDS & FORESTS	44,577 S.F. 1.02 ACRES	31,204 S.F. 0.72 ACRES	13,373 S.F. 0.31 ACRES
STREAMS (NOT PRESENT ON SITE)	N/A	N/A	N/A
FLOODPLAINS (NOT PRESENT ON SITE)	N/A	N/A	N/A
WETLANDS (NOT PRESENT ON SITE SEE NOTE THIS SHEET)	N/A	N/A	N/A
WETLAND BUFFER (NOT PRESENT ON SITE)	N/A	N/A	N/A
WETLAND SETBACK (NOT PRESENT ON SITE)	N/A	N/A	N/A

MATURE WOODLANDS & FORESTS IMPACT AREA

* EXISTING CONTOURS PULLED FROM INFRAWORKS 2024

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FRANKLIN DEVELOPMENT - NATURAL RESOURCES PROTECTION PLAN

02/19/24

Assured Wetland Delineation Report

4.75 Acre Parcel

City of Franklin, Milwaukee County, Wisconsin

July 7, 2023

Project Number: 20231016

506 Springdale Street | Mount Horeb, WI 53572 | www.heartlandecological.com

4.75 Acre Parcel

City of Franklin, Milwaukee County, Wisconsin

July 7, 2023

Prepared for:

Mr. Dan Szczap

Bear Development, LLC.

4011 80th Street

Kenosha, WI 53142

Prepared by:

Heartland Ecological Group, Inc.

506 Springdale Street

Mount Horeb, WI 53572

608-490-2450

www.heartlandecological.com

Prepared by: Mikayla Datka

Environmental Intern

Reviewed by: Eric C. Parker, SPWS

Principal Scientist

Table of Contents

1.0 Introduction

Heartland Ecological Group, Inc. ("Heartland") completed an assured wetland determination and delineation on the 4.75 Acre Parcel site on June 22 and July 5, 2023 at the request of Bear Development, LLC. Fieldwork was completed by Eric C. Parker, SPWS, an assured delineator qualified via the Wisconsin Department of Natural Resources' (WDNR's) Wetland Delineation Assurance Program (Appendix E, Qualifications), assisted by Mikayla Datka, also of Heartland. The 4.84-acre site (the "Study Area") is southeast of the intersection of US Highway (USH) 45 and Ryan Road, in the northwest ¼ of Section 30, T5N, R21E, City of Franklin, Milwaukee County, WI (Figure 1, Appendix A). The purpose of the wetland delineation was to determine the location and extent of wetlands within the Study Area.

One (1) wetland area totaling approximately 0.09 acres was delineated and mapped within the Study Area (Figure 7, Appendix A). One (1) pond was mapped partially within the Study Area. No waterways were observed within or near the Study Area. Wetlands, waterways, and water bodies discussed in this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers (USACE), state regulation under the jurisdiction of the WDNR, and local zoning authorities. Heartland recommends this report be submitted to local authorities, the WDNR, and USACE for final jurisdictional review and concurrence.

2.0 Methods

2.1 Wetlands

Wetlands were determined and delineated using the criteria and methods described in the USACE Wetland Delineation Manual, T.R. Y-87-1 ("1987 Corps Manual") and the applicable *Regional Supplement to the Corps of Engineers Wetland Delineation Manual*. In addition, the *Guidance for Submittal of Delineation Reports to the St. Paul District USACE and the WDNR* (WDNR, 2015) was followed in completing the wetland delineation and report.

Determinations and delineations utilized available resources including the U.S. Geological Survey's (USGS) *WI 7.5 Minute Series (Topographic) Map* (Figure 2, Appendix A), the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service's (NRCS) Soil Survey Geographic Database (SSURGO) *Web Soil Survey* (Figure 3, Appendix A), the WDNR's *Wetland Indicator* data layer (Figure 4, Appendix A), the WDNR's *Wisconsin Wetland Inventory* data layer (Figure 5, Appendix A), the WNDR's *24k Hydro Flowlines (Rivers and Streams)* data layer (Figure 2 and 5, Appendix A), the WDNR's *Color-Stretch LiDAR and Hillshade Image Service Layer* (Figure 6, Appendix A), and aerial imagery available through the USDA Farm Service Agency's (FSA) National Agriculture Imagery Program (NAIP).

Wetland determinations were completed on-site at sample points, often along transects, using the three (3) criteria (vegetation, soil, and hydrology) approach per the 1987 Corps Manual and the Regional Supplement. Procedures in these sources were followed to demonstrate that, under normal circumstances, wetlands were present or not present based on a predominance of hydrophytic vegetation, hydric soils, and wetland hydrology.

Atypical conditions were encountered within the Study Area due to the presence of agricultural fields including row-cropping and hay fields in areas with soils that may be hydric based on the *Web Soil Survey* and the WDNR *Surface Water Data Viewer's* wetland indicator data layer. Therefore, procedures for managed plant communities in the *Problematic hydrophytic vegetation* section described in Chapter 5 of the Regional Supplement were used. NAIP imagery were reviewed for evidence of crop stress, saturation, or inundation signatures. Sample point placements for the wetland delineation were partially determined based on such signatures.

In actively farmed areas within the Study Area where hydric soils may be present, methods described in Chapter 5 (Difficult Wetland Situations) of the Regional Supplement were followed. Available aerial imagery was analyzed using procedures described in the *Guidance for Offsite Hydrology/Wetland Determinations* (USACE and Minnesota Board of Water and Soil Resources, July 2016 – "July 2016 Guidance"). An off-site aerial imagery analysis (Off-Site Analysis) was completed to document the presence or absence of wetland signatures and assist in the wetland determination. A wetland signature is evidence, recorded by aerial imagery, of ponding, flooding, or impacts of saturation for sufficient duration to meet wetland hydrology and possibly wetland vegetation criteria. Wetland signatures often vary based on the type and seasonal date of the aerial imagery. For example, there are seven (7) standardized signature types in actively farmed settings described in the July 2016 Guidance. To assist in interpretations of wetland signatures, a WETS analysis was used to compare antecedent precipitation in the three (3) months leading up to each aerial image to the long-term (30-year) precipitation averages and standard deviation to determine if antecedent precipitation conditions for each image was normal, wet, or dry. Areas within agricultural fields are typically determined to be wetland if hydric soils and wetland hydrology indicators are present and aerial images taken in the five (5) (or more) most recent normal antecedent precipitation images show at least one (1) of the wetland signatures per the July 2016 Guidance. Although the off-site analysis concentrates on imagery taken under normal antecedent precipitation conditions, the images determined to be taken under wet and dry antecedent precipitation conditions were also analyzed and considered. Determinations and delineation of wetlands in agricultural areas are typically based on an outline of the largest wetland signature on an image taken under "normal" antecedent conditions and based on the consistency of the signatures (USDA, NRCS 1998).

Recent weather conditions influence the visibility or presence of certain wetland hydrology indicators. An assessment of recent precipitation patterns helps to determine if climatic/hydrologic conditions were typical when the field investigation was completed. Therefore, a review of antecedent precipitation in the 90 days leading up to the field investigation was completed. Using an Antecedent Precipitation Tool (APT) analysis developed by the USACE (Deters & Gutenson 2021), the amount of precipitation over these 90 days was compared to averages and standard deviation thresholds observed over the past 30 years to generally represent if conditions encountered during the investigation were

normal, wet, or dry. Recent precipitation events in the weeks prior to the investigation were also considered while interpreting wetland hydrology indicators. Additionally, the Palmer Drought Severity Index was checked for long-term drought or moist conditions (NOAA, 2018).

The uppermost wetland boundary and sample points were identified and marked with wetland flagging and located with a Global Navigation Satellite System (GNSS) receiver capable of sub-meter accuracy. In some cases, wetland flagging was not utilized to mark the boundary and the location was only recorded with a GNSS receiver, particularly in active agricultural areas. The GNSS data was then used to map the wetlands using ESRI ArcGIS Pro™ software.

3.0 Results and Discussion

3.1 Desktop Review

Climatic Conditions

According to the APT analysis using the previous 90 days of precipitation data, conditions encountered at the time of the fieldwork were expected to be normal for the time of year (Appendix B). The Palmer Drought Severity Index was checked as part of the APT analysis, and the long-term conditions at the time of the fieldwork were in the mild wetness range. Fieldwork was completed within the dry season based on long-term regional hydrology data utilized in the WebWIMP Climatic Water Balance and computed as part of the APT analysis.

General Topography and Land Use

The topography within the Study Area was rolling, with various hills, depressions, and slopes and a topographic high of approximately 809 feet above mean sea level (msl) near the northeast corner, and a topographic low of approximately 797 feet above msl in the southwest corner (Figures 2 and 6, Appendix A). Land uses within the Study Area and surrounding areas are primarily agricultural row cropping with meadow and woodland areas also present. General drainage is to the south toward an excavated pond mostly outside the Study Area.

Soil Mapping

Soils mapped by the NRCS Soil Survey within the Study Area, and their hydric status are summarized in Table 1. Wetlands identified during the field investigation are located primarily within areas mapped as hydric or partially hydric soils including wetland indicator soils (Figures 3 and 4, Appendix A).

Table 1. Summary of NRCS Mapped Soils within the Study Area

Soil symbol: Soil Unit Name	Soil Unit Component	Soil Unit Component Percentage	Landform	Hydric status
AsA: Ashkum silty clay loam, 0-2% slopes	Ashkum-Drained	85-100	End and ground moraines	Yes
	Peotone-Drained	0-9	Depressions on ground moraines	Yes
	Orthents, clayey	0-3	Ground moraines, lake plains	No
	Urban land	0-3	Ground moraines	No
BlA: Blount silt loam, 1-3% slopes	Blount	90	Moraines	No
	Ashkum	10	Depressions	Yes
EsA: Elliott silt loam, 1-3% slopes	Elliott	90	Ground moraines	No
	Ashkum	10	Depressions	Yes
MeB: Markham silt loam, 2-6% slopes	Markham	85-100	End and ground moraines	No
	Ashkum-Drained	0-9	Ground and end moraines	Yes
	Pewamo	0-6	End and ground moraines	Yes

Wetland Mapping

The Wisconsin Wetlands Inventory (WWI) mapping (Figure 5, Appendix A) depicts two (2) wetland areas within the Study Area. Both are forested/wet soil (T3K) wetlands located adjacent to Pond 1 along the southwestern boundary.

Waterway Mapping

The WDNR's Rivers and Streams data layer (Figure 5, Appendix A) depicts one (1) waterbody and no waterways within the Study Area. This water body is mapped along and just outside of the southwestern boundary of the Study Area.

Previous Delineations and Landowner Contacts

A wetland delineation was completed by Heather D. Patti, PWS, of R.A. Smith National on March 19th, 2015. Two (2) wetlands were delineated within the study area. "Wetland 8" (W-8) and "Wetland 9" (W-9) are depicted on the mapping from this report (Appendix G).

Aerial Photography

An Off-Site Analysis (OSA) was completed as part of this investigation and image interpretations are described in the next section. Available NAIP imagery of the Study Area from the period of 2005-2022 (Appendix F) was reviewed for evidence of wetland signatures and to gain insight into the site's recent history. This imagery is included in the OSA (Appendix F) and described in detail in the next section.

Off-Site Analysis

Agricultural fields within the Study Area have significant mapped hydric or potentially hydric soils and were the focus of the off-site aerial imagery analysis (OSA) (Appendix F). From the aerial imagery, the secondary wetland hydrology indicator "Saturation Visible on Aerial Imagery" (C9) was noted.

A total of ten (10) most recent aerial images were selected and reviewed based on availability and quality of the imagery. Of these images, three (3) were taken under normal antecedent precipitation conditions. Signatures were noted in two (2) areas within the Study Area within landscape positions described by the NRCS to support hydric soil components and were the focus of the OSA. At least one (1) of the seven (7) described wetland signatures per the July 2016 Guidance were consistently noted in both of these areas on imagery taken under normal antecedent precipitation conditions. In imagery taken under wet antecedent precipitation conditions, such wetland signatures were noted in five (5) of the five (5) images. In imagery taken under dry antecedent precipitation conditions, there were wetland signatures noted in two (2) of the two (2) images.

Based on the off-site analysis, one (1) area was likely to be wetland prior to the fieldwork. Another area was determined to potentially be wetland based on field review. Both areas appeared to be isolated depressions. Although there were no drain tile signatures observed in the off-site analysis, drain tiles were thought to be present.

3.2 Field Review

One (1) wetland was identified and delineated within the Study Area. Wetland determination data sheets (Appendix C) were completed at seven (7) sample points that were representative of the wetland and upland conditions near the boundary and where potential wetlands may be present based on the desktop review and field reconnaissance. Appendix D provides photographs, typically at the sample point locations of the wetlands and adjacent uplands. The wetland boundary and sample point locations are shown on Figure 7 (Appendix A) and the wetlands are summarized in Table 2 and detailed in the following sections.

Table 2. Summary of Wetlands Identified within the Study Area

Wetland ID	Wetland Description	*Surface Water Connections	*NR151 Protective Area	Acreage (on-site)
W-1	Farmed Wet Meadow	Potentially Isolated in the Landscape	Low susceptible, 10-30 feet	0.09
Classification based on Heartland's professional opinion. Jurisdictional authority of wetland and waterway protective areas under NR 151 lies with the WDNR. Local zoning authorities may have additional restrictions. USACE has authority for determining federal jurisdiction of wetlands and waterways.				**0.09**

Wetland 1 (W-1)

Wetland 1 (W-1) is a 0.09-acre area of farmed wet meadow located in a depression within the northwestern portion of the Study Area. The boundary of W-1 generally followed a moderately-defined topographic break.

Dominant vegetation observed in W-1 included horseweed (*Erigeron canadensis*, FACU), common buckthorn (*Rhamnus cathartica*, FAC), and common amaranth (*Amaranthus retroflexus*, FACU). Weed vegetation was sparse and non-hydrophytic, however, it was notable that purslane speedwell (*Veronica peregrina*, FACW) was formerly dominant but had recently senesced. Given these circumstances, it was judged that the vegetation was problematic and would be hydrophytic under normal circumstances. Therefore, the wetland vegetation parameter was met.

The Thick Dark Surface (A12) hydric soil indicator was noted in W-1, which is somewhat consistent with hydric soil inclusions within the mapped Blount silt loam soil type. Thus, the hydric soil parameter was met based on meeting the indicator.

No primary wetland hydrology indicators were noted within W-1, however the secondary indicators included Surface Soil Cracks (B6), Saturation Visible on Aerial Imagery (C9), and Geomorphic Position (D2). Therefore, the wetland hydrology parameter was met.

Waterways

No waterways were observed within or immediately adjacent to the Study Area.

3.3 Other Considerations

This report is limited to the identification and delineation of wetlands within the Study Area. Other regulated environmental resources that result in land use restrictions may be present within the Study Area that were not evaluated by Heartland (e.g. navigable waterways, floodplains, cultural resources, and threatened or endangered species).

Wisconsin Act 183 provides exemptions to permitting requirements for certain nonfederal wetlands. Nonfederal wetlands are wetlands that are not subject to federal jurisdiction. Exemptions apply to projects in urban areas with wetland impacts up to 1-acre per parcel. An urban area is defined as an incorporated area; an area within ½ mile of an incorporated area; or an area served by a sewerage system. Exemptions for nonfederal wetlands also apply to projects in rural areas with wetland impacts up to three (3) acres per parcel. Exemptions in rural areas only apply to structures with an agricultural purpose such as buildings, roads, and driveways. The determination of federal and nonfederal wetlands MUST be made by the USACE through an Approved Jurisdictional Determination (AJD). This report may be submitted to the USACE to assist with their determination.

Wis. Adm. Code NR 151 ("NR 151") requires that a "protective area" (buffer) be determined from the Ordinary High-Water Mark (OHWM) of lakes, streams and rivers, or at the delineated boundary of wetlands. Per NR 151.12, the protective area width for "less susceptible" wetlands is determined by using 10% of the average wetland width, no less than 10 feet or more than 30 feet. "Moderately susceptible" wetlands, lakes, and perennial and intermittent streams identified on recent mapping require a protective area width of 50

feet; while "highly susceptible wetlands" are associated with outstanding or exceptional resource waters in areas of special natural resource interest and require protective area width of 75 feet. Table 2 above lists the potential wetland buffers per NR 151 for each wetland identified based on Heartland's professional opinion. Please note that jurisdictional authority on wetland and waterway protective areas under NR 151 lies with the WDNR. Local zoning authorities and regional planning organizations may have additional land use restrictions within or adjacent to wetlands.

4.0 Conclusion

Heartland completed an assured wetland determination and delineation within the 4.75 Acre Parcel on June 22 and July 5, 2023 at the request of Bear Development, LLC. Fieldwork was completed by Eric C. Parker, SPWS, an assured delineator qualified via the WDNR Wetland Delineation Assurance Program (Appendix E), assisted by Mikayla Datka. The Study Area lies in Section 30, T5N, R21E, City of Franklin, Milwaukee County (Figure 1, Appendix A).

One (1) wetland area was delineated and mapped within the 4.84-acre Study Area (Figure 7, Appendix A). The wetland, which may be classified as farmed wet meadow, totals approximately 0.09 acres within the Study Area. A pond was observed adjacent to and within the Study Area. No waterways were observed within or adjacent to the Study Area.

Wetlands, waterways, and water bodies discussed in this report may be subject to federal regulation under the jurisdiction of the USACE, state regulation under the jurisdiction of the WDNR, and the local zoning authority. Heartland recommends this report be submitted to the USACE and WDNR for final jurisdictional review and concurrence. Review by local authorities may be necessary for determination of any applicable zoning and setback restrictions.

Heartland recommends that all applicable regulatory agency reviews and permits are obtained prior to beginning work within the Study Area or within or adjacent to wetlands or waterways. Heartland can assist with evaluating the need for additional environmental reviews, surveys, or regulatory agency coordination in consideration of the proposed activity and land use as requested but is outside of the scope of the wetland delineation.

Experienced and qualified professionals completed the wetland determination and delineation using standard practices and professional judgment. Wetland boundaries may be affected by conditions present within the Study Area at the time of the fieldwork. All final decisions on wetlands and their boundaries are made by the USACE, the WDNR, and/or sometimes a local unit of government. Wetland determination and boundary reviews by regulatory agencies may result in modifications to the findings presented to the Client. These modifications may result from varying conditions between the time the wetland delineation was completed and the time of the review. Factors that may influence the findings may include but not limited to precipitation patterns, drainage modifications, changes or modification to vegetation, and the time of year.

5.0 References

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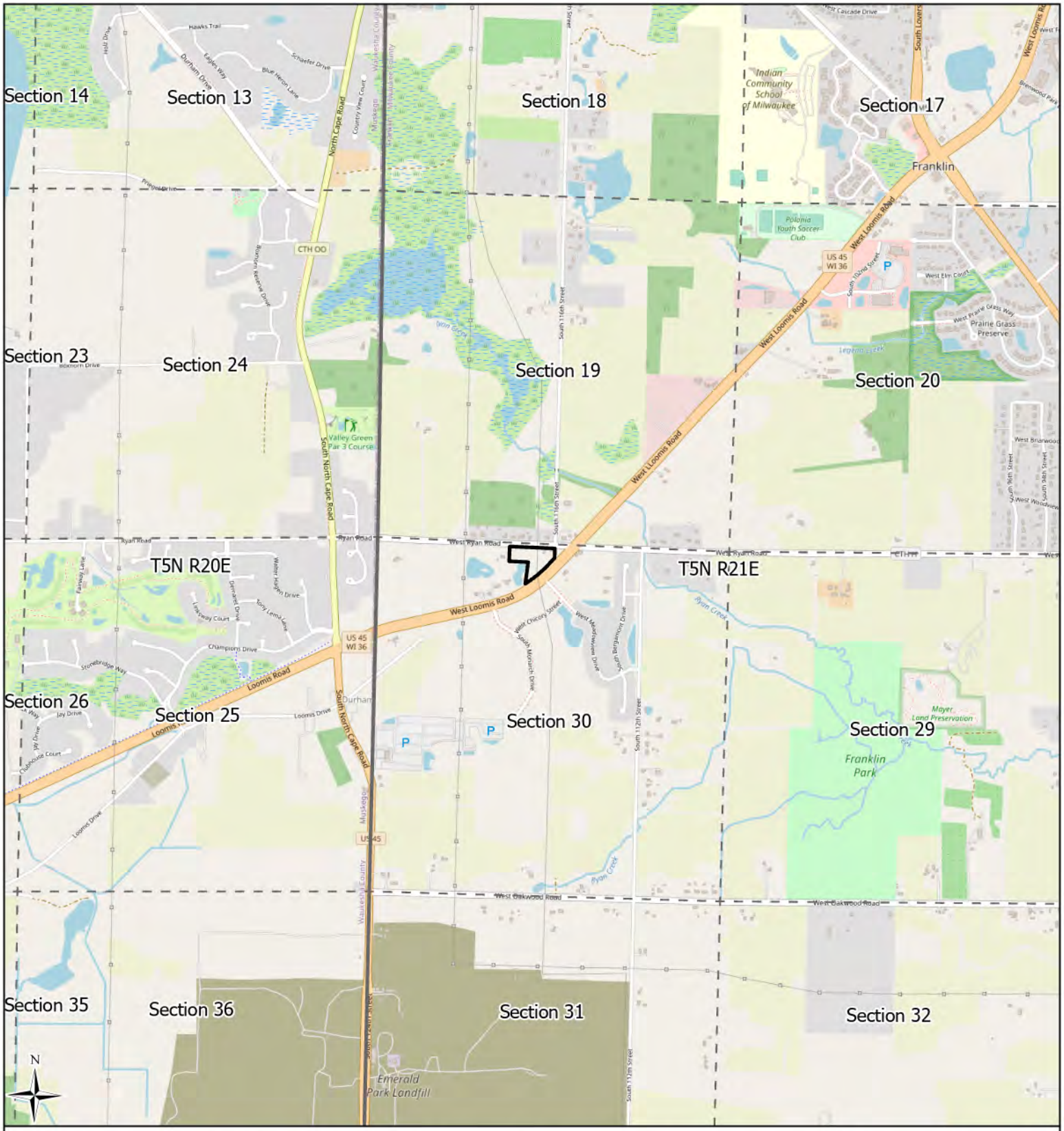
Mr. Dan Szczap
4.75 Acre Parcel
Project #: 20231016
July 7, 2023

Appendix A | Figures



Study Area (4.84 ac)

Township

Section

0 1,000 2,000 Ft

Heartland ECOLOGICAL GROUP INC

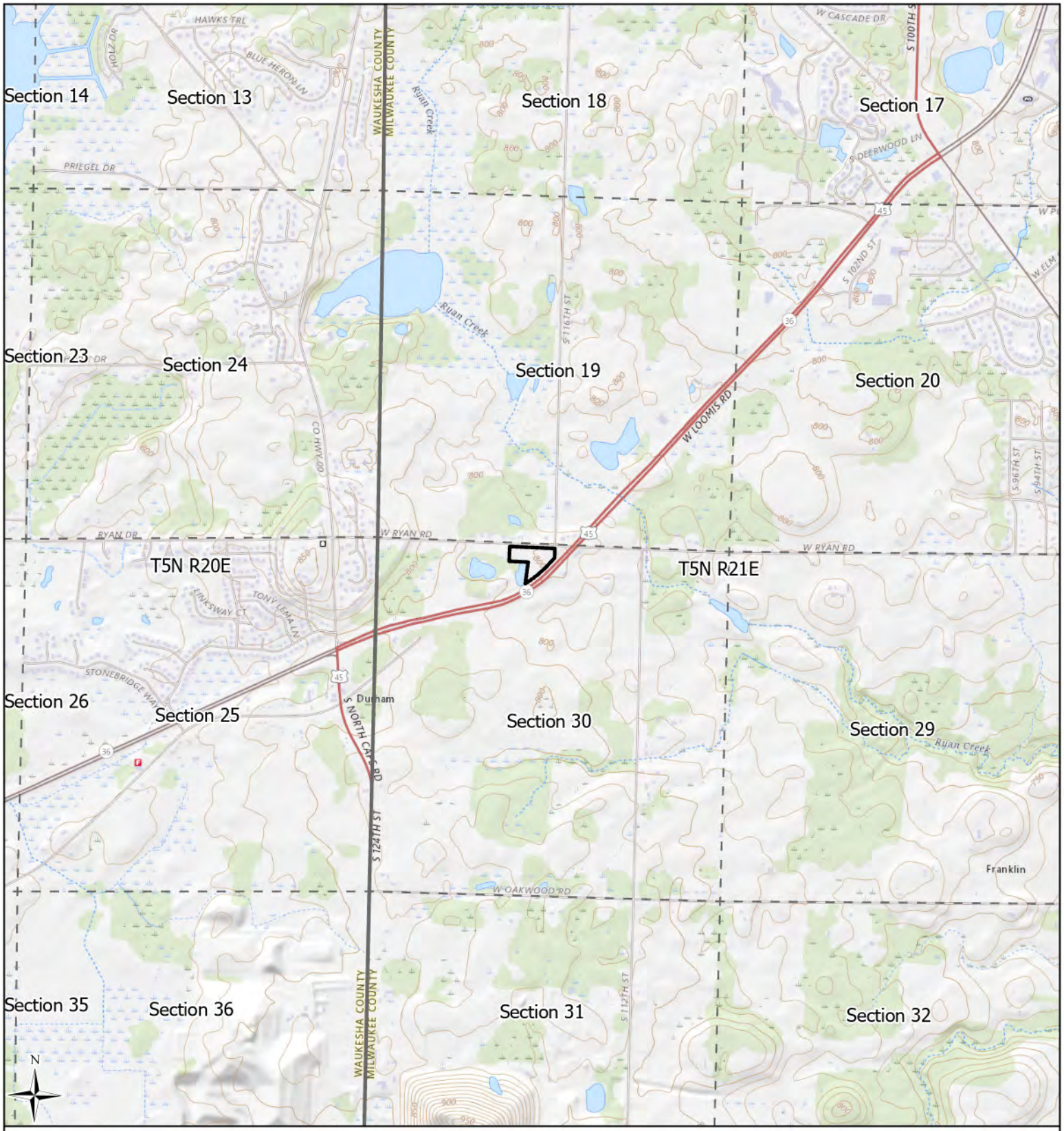
Figure 1. Project Location

4.75-Acre Parcel
Project #20231016
T5N, R21E, S30
C Franklin, Milwaukee Co

OpenStreetMap
ESRI

LRR: MW

Figure Created: 6/14/2023



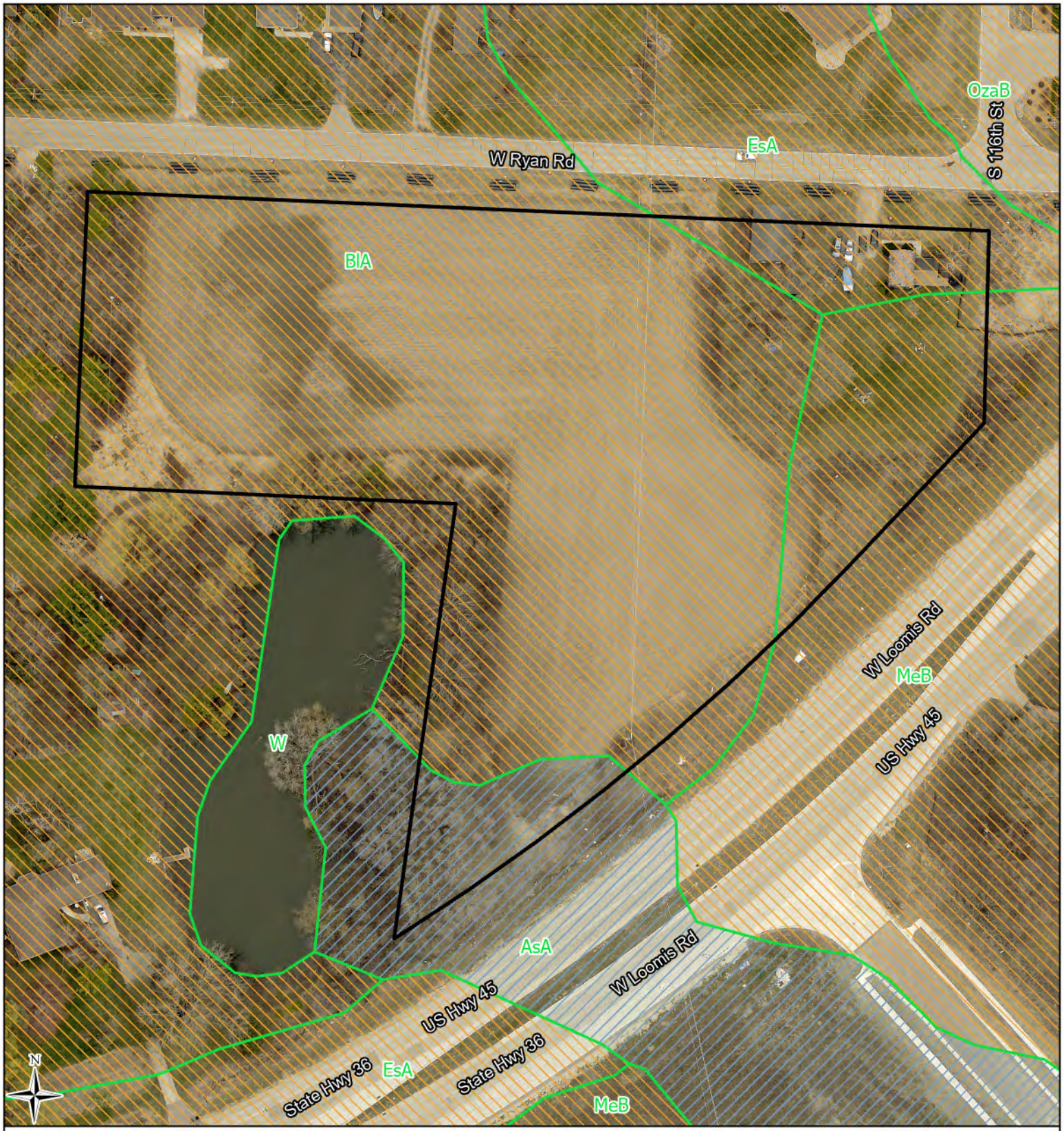
Heartland ECOLOGICAL GROUP INC

Figure 2. USGS Topography

4.75-Acre Parcel
Project #20231016
T5N, R21E, S30
C Franklin, Milwaukee Co

USGSTopo
USGS, WDNR
LRR: MW

Figure Created: 6/14/2023



Study Area (4.84 ac)

NRCS Soil Survey Data

- Hydric (100%)
- Predominantly Hydric (85-99%)
- Partially Hydric (16-84%)
- Predominantly Non-Hydric (1-15%)
- Non-Hydric (0%)

0 100 Ft

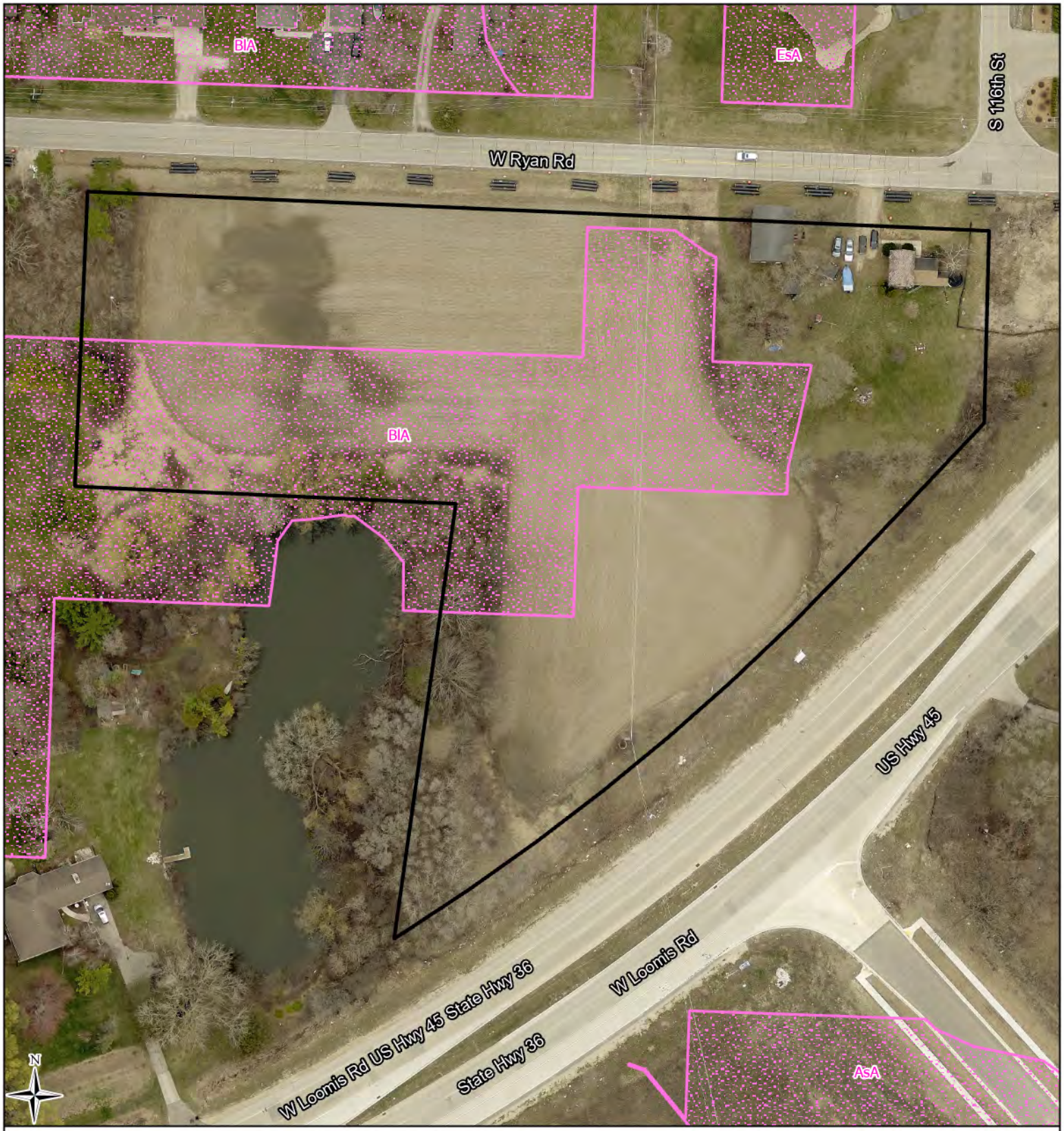
Heartland ECOLOGICAL GROUP INC

Figure 3. NRCS Hydric Soils

4.75-Acre Parcel
Project #20231016
T5N, R21E, S30
C Franklin, Milwaukee Co

2022 Dane Co Orthophoto
NRCS LRR: MW

Figure Created: 6/14/2023



Study Area (4.84 ac)

SWDV Wetland Indicators

0 100 Ft

Heartland
ECOLOGICAL GROUP INC

Figure 4. SWDV Wetland Indicators

4.75-Acre Parcel
Project #20231016
T5N, R21E, S30
C Franklin, Milwaukee Co

2022 Milwaukee Co Orthophoto
WDNR LRR: MW

Figure Created: 6/14/2023

- Study Area (4.84 ac)
- Perennial Streams (None in Map Extent)
- Intermittent Streams (None in Map Extent)
- Waterbodies
- WWI Wetland Polygons
- WWI Wetland Points (None in Map Extent)

0 100 Ft

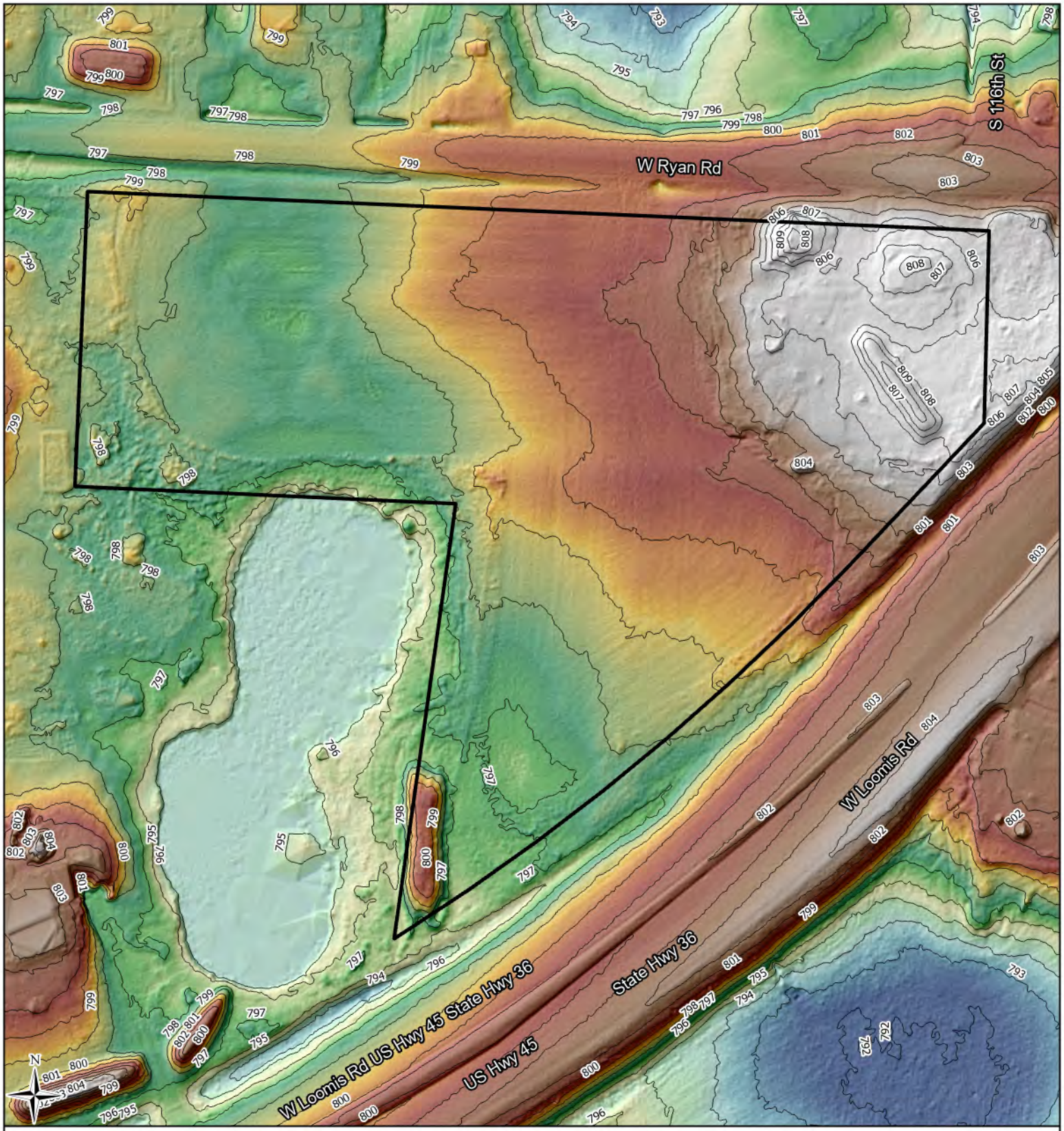
Heartland
ECOLOGICAL GROUP INC

Figure 5. Wisconsin Wetland Inventory

4.75-Acre Parcel
Project #20231016
T5N, R21E, S30
C Franklin, Milwaukee Co

2022 Milwaukee Co Orthophoto
WDNR, USGS
LRR: MW

Figure Created: 6/14/2023



Study Area (4.84 ac)

Milwaukee Co 1' Contours

0 100 Ft

Heartland
ECOLOGICAL GROUP INC

Figure 6. Color-Stretch Digital Elevation Model

4.75-Acre Parcel
Project #20231016
T5N, R21E, S30
C Franklin, Milwaukee Co

DNR Lidar Service
WDNR, Milwaukee Co LRR: MW

Figure Created: 6/14/2023

Study Area (4.84 ac)
Milwaukee Co 1' Contours
Field Delineated Wetlands (0.09 ac)
Pond 1 OHWM

Sample Points

Upland
Wetland

0 100 Ft

Heartland ECOLOGICAL GROUP INC

Figure 7. Field Delineated Wetlands

4.75-Acre Parcel
Project #20231016
T5N, R21E, S30
C Franklin, Milwaukee Co

2022 Milwaukee Co Orthophoto
Milwaukee Co, HEG LRR: MW

Figure Created: 6/29/2023

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1 2 W St. Paul Ave.
Milwaukee, WI 2

Tony Evers, Governor
Adam N. Payne, Secretary
Telephone 6 8 266 2621
Toll Free 1 888 6 46
TTY Access via relay 11

November 7th, 2023 WIC-SE-2023-41-03565

Daniel Szczap
4011 80th Street
Kenosha, WI 53142

RE: Nonfederal Wetland Exemption Determination for an area described as W-1 located in Section 30, Township 5 North, Range 21 East in the City of Franklin, Milwaukee County

Dear Mr. Szczap:

This letter is in response to your request for a nonfederal wetland exemption determination for the above mentioned wetlands.

According to 281.36 (4n), Wis. Stats., a nonfederal urban wetland is a wetland that is not federally jurisdictional. Projects impacting nonfederal wetlands in urban areas must be less than 1 acre of total impact per parcel. Mitigation will be required for impacts greater than 10,000 sq ft up to 1 acre. The applicant must have a nonfederal jurisdictional determination from the Army Corps of Engineers along with a map of the wetland(s) involved. In addition, DNR must also consider whether the nonfederal wetland is a rare and high quality wetland as defined in s 281.36(4n), Wis. Stat.

The Department reviewed the following materials to aid in our exemption determination:

- The request narrative including project scope and purpose
- Site location map and photographs that show different angles and views of the wetland
- Botanical survey results
- Wetland delineation information

Below is a summary of our findings:

Request Narrative
According to the request narrative the total wetland impacts will be 0.09 acres (3,920 SF) in size. The purpose of this project is to develop residential properties in the City of Franklin, and future residential driveways and utility laterals my impact the identified wetland.

Site Location and Photographs
The site location confirms that the wetland is located in an urban area. Wetland photographs showed the area is currently utilized as a farmed wet meadow.

Botanical Survey
The botanical survey demonstrations that the wetland is not a rare and high quality wetland.

Wetland Delineation Information
The wetland delineation shows that W-1 is a 0.09-acre area of farmed wet meadow located in a depression within the northwestern portion of the study area.

Stormwater Compliance Information
The documentation demonstrated that the project will be completed in compliance with applicable WPDES stormwater permits and stormwater ordinances adopted under s. 59.693, 60.627, 61.354, or 62.234, Wis. Stats.

Mitigation
The documentation showed that the nonfederal exemption request is for less than 10,000 SF of impact in an urban area, therefore mitigation is not required.

Conclusion:

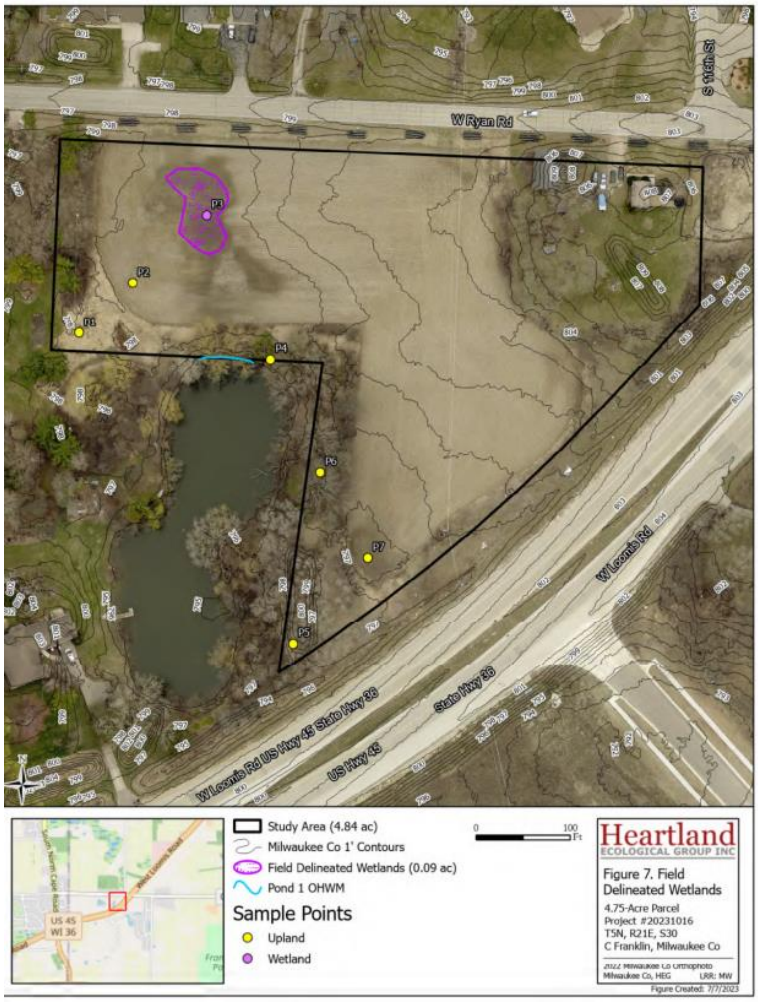
Based upon the documentation provided above, the project meets the eligibility criteria pursuant to s. 281.36 (4n), State Stat., and no mitigation is required. You are able to proceed with this project. If you have any questions or would like to schedule a meeting to discuss this approval, please call me at (414) 430-7129 or email michelle.soderling@wisconsin.gov.

Sincerely,

Michelle Soderling
Water Management Specialist

Email CC: Tim Orlowski, USACE Project Manager
Kelly Hersh, City of Franklin Administrator

Enclosure: Site map with W-1 boundary:



DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
332 MINNESOTA STREET, SUITE E1500
ST. PAUL, MN 55101-1323

OCTOBER 11, 2023

Regulatory File No. MVP-2015-00973-TKO

Bear Development, LLC
Attn: Daniel Szczap
4011 80th Street
Kenosha, WI 53142

Dear Mr. Szczap:

This letter is in regard to an approved jurisdictional determination for the property located southwest of the intersection of West Ryan Road and South 116th Street in Franklin. The project site is in Section 30, Township 05 North, Range 21 East, Milwaukee County, Wisconsin. The review area for our jurisdictional determination is identified on the enclosed figures, labeled 2015-00973-TKO Figures 1-4 of 4.

The review area contains no waters of the United States subject to Corps of Engineers (Corps) jurisdiction Therefore, you are not required to obtain Department of the Army authorization to discharge dredged or fill material within this area. The rationale for this determination is provided in the enclosed Approved Jurisdictional Determination form. This determination is only valid for the review area described. You are also cautioned that the area of waters described on the enclosed Jurisdictional Determination form is approximate and is not based on a precise delineation of aquatic resources.

If you object to this approved jurisdictional determination, you may request an administrative appeal under Corps regulations at 33 CFR 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Mississippi Valley Division Office at the address shown on the form.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the enclosed NAP. It is not necessary to submit an RFA form to the division office if you do not object to the determination in this letter

This approved jurisdictional determination may be relied upon for five years from the date of this letter. However, the Corps reserves the right to review and revise the determination in response to changing site conditions, information that was not considered during our initial review, or off-site activities that could indirectly alter the extent of wetlands and other resources on-site. This determination may be renewed at the end of the five year period provided you submit a written request and our staff are able to verify that the limits established during the original determination are still accurate.

Regulatory Division (File No. 2015-00973-TKO)

If you have any questions, please contact me in our Green Bay office at (920) 912-5427 or timothy.k.orlowski@usace.army.mil. In any correspondence or inquiries, please refer to the Regulatory file number shown above.

Sincerely,

Tim Orlowski
Project Manager

Enclosures

cc:
Michelle Soderling - WI DNR