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

PLAN COMMISSION MEETING AGENDA
Thursday, September 4, 2025 at 6:00 P.M.

A. Call to Order and Roll Call

B. Approval of Minutes

1. Approval of the regular meeting of August 21, 2025.

C. Public Hearing Business Matters.

None.

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

E. Business Matters

1. **Bear Development, Certified Survey Map.** Request for recommendation of a Certified Survey Map for the creation of two lots upon property located at the southeast corner of Chicory Street and Monarch Lane (Tax Key No. 891 9013 000).

2. **I-Forest, Site Plan.** Request to approve a resolution to approve a site plan for the development of a single-story medical office building with general parking, and accessory structures, upon property located at 5414 West Rawson Avenue (TAX KEY NO. 741 9004 000)

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: September 18, 2025.

City of Franklin unapproved
Plan Commission Meeting
August 21, 2025
Minutes

A. Call to Order and Roll Call

Mayor John Nelson called the August 21, 2025 Plan Commission meeting to order at 6:04 p.m. in the Council Chambers at Franklin City Hall, 9229 West Loomis Road, Franklin, Wisconsin.

Present were Mayor John Nelson, Alderwoman Courtney Day, Alderman Nabil Salous, Commissioners Kevin Haley, Rebecca Specht and Michael Shawgo. Excused was Commissioner Patrick Leon. Also present were City Attorney Jesse Wesolowski, Planning Manager Regulo Martinez-Montilva, Director of Administration Kelly Hersh, and Alderwoman Michelle Eichmann. Commissioner Specht left the meeting at 9:26 pm.

B. Approval of Minutes – Regular Meeting of August 7, 2025.

Commissioner Haley moved and Alderwoman Day seconded a motion to approve the August 7, 2025 meeting minutes. On voice vote, all voted 'aye'; motion carried (5-0-1).

C. Public Hearing Business Matters

1. **Franklin High School, Conditional Use.** Request to approve a resolution imposing conditions and restrictions for a Conditional Use for the Franklin High School, an educational facility use, upon property located at 8222 South 51st Street (Tax Key No. 807 9999 001) [The Plan Commission opened a public hearing on August 7 and continued the hearing to this meeting].

   Planning Manager Regulo Martinez-Montilva presented the Conditional Use request. Applicant Annalee Bennin, Superintendent, was present.

   The Official Notice of Public Hearing was read in to the record by Planning Manager Martinez and the Public Hearing opened at 6:08 pm and closed at 6:59 pm.

   Alderwoman Day moved and Alderman Salous seconded a motion to recommend approval of a resolution imposing conditions and restrictions for a Conditional Use for the Franklin High School, an educational facility use, upon property located at 8222 South 51st Street, with the following amendments: (1) this Conditional Use is approving access to High View Drive only for emergency vehicles, (2) Tennis court lighting shall be shut off by dusk or 8:00 p.m., with the exception of school sponsored activities or tournaments. On roll call, 4 voted aye, 1 vote nay; motion carried (4-1-1).

2. **Franklin High School, Natural Resource Special Exception.** Natural Resource Special Exception (NRSE) for proposed impacts and disturbance of approximately 0.27 acres of wetland, 0.66 acres of wetland buffer, 0.55 acres of wetland setback, and 6.74 acres of woodland to allow for the construction of a building addition, a concession building, parking lot and drive additions, tennis courts, and soccer field at Franklin High School located at 8222 South 51st Street (Tax Key No. 807 9999 001) [The Plan Commission opened a public hearing on July 17 and continued the hearing to this meeting].

Planning Manager Regulo Martinez-Montilva presented the Natural Resource Special Exception request. Applicant Annalee Bennin, Superintendent, was present.

The Official Notice of Public Hearing was read in to the record by Planning Manager Martinez and the Public Hearing opened at 9:03 pm and closed at 9:11 pm.

Alderman Salous moved and Alderwoman Day seconded a motion to approve a Natural Resource Special Exception for proposed impacts and disturbance of approximately 0.27 acres of wetland, 0.66 acres of wetland buffer, 0.55 acres of wetland setback, and 6.74 acres of woodland to allow for the construction of a building addition, a concession building, parking lot and drive additions, tennis courts, and soccer field at Franklin High School located at 8222 South 51st Street, with the following amendment: this Natural Resource Special Exception is not approving impacts to natural resources within 150 feet from the south and east property lines, with the exception of emergency access to High View Drive and stormwater management facilities. On roll call, 4 voted aye, 1 vote nay; motion carried (4-1-1).

D. **Citizen comment period.** Citizens may comment upon the Business Matter items set forth on this meeting agenda.

The citizen comment period opened at 10:10 p.m. and closed at 10:10 p.m.

E. Business Matters

1. Franklin High School, Site Plan Amendment. Request to approve a resolution to approve a Site Plan Amendment to allow for building and site modifications at the Franklin High School located at 8222 South 51st Street (Tax Key No. 807 9999 001).

Commissioner Haley moved and Alderwoman Day seconded a motion to table the Site Plan to a regular meeting that accommodates the applicant's schedule. On voice vote, all voted 'aye'; motion carried (5-0-1).

F. Adjournment

Commissioner Haley moved and Commissioner Specht seconded to adjourn the meeting at 10:14 pm. On voice vote, all voted 'aye'; motion carried (5-0-1).

CITY OF FRANKLIN

REPORT TO THE PLAN COMMISSION

Item E.1.

Meeting of September 4, 2025

Certified Survey Map

RECOMMENDATION: City Development Staff recommends approval of this 2-Lot Certified Survey Map to subdivide property located at the southeast corner of Chicory Street and Monarch Drive, subject to the conditions set forth in this report and the attached resolution.

Project name:	Bear Development Monarch Avenue Certified Survey Map
Property Owner:	Loomis & Ryan, Inc.
Applicant:	Dan Szczap, Bear Development, LLC
Property Address/TKN:	0 S. Monarch Drive / 891 9013 000
Aldermanic District:	District 6
Zoning District:	LI Limited Industrial District
Staff Planner:	Nick Fuchs, Associate 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 2-Lot Certified Survey Map (CSM) to subdivide property located at the southeast corner of Chicory Street and Monarch Drive, bearing Tax Key No. 891 9013 000. The subject property is currently vacant and has an area of approximately 9.39-acres.

Lot 1 has an area of approximately 7.47 acres and Lot 2 has an area of 1.92 acres. The applicant has indicated that Lot 2 is being created for a potential future user of the site. Any proposed development of this lot will require use approval and Plan Commission approval of a Site Plan Application.

The property is zoned LI Limited Industrial District, which does not have a required minimum lot area. The minimum lot width and depth of the LI District is 50-feet and 110-feet, respectively. Both lots conform to these standards.

The applicant provided a Natural Resource Protection Plan. The NRPP shows a wetland to the south. It appears the wetland setback may extend onto the south end of Lot 2. As such, *staff recommends that the applicant illustrate the wetland, wetland buffer, and wetland setback delineations on the CSM. Alternatively, the applicant may demonstrate, to the satisfaction of the Planning Manager, that no protected natural resources extend onto Lot 2*.

Staff Recommendation

City Development Staff recommends approval of this 2-Lot Certified Survey Map to subdivide property located at the southeast corner of Chicory Street and Monarch Drive, subject to the conditions set forth in this report and the attached resolution.

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY

RESOLUTION NO. 2025-_____

A RESOLUTION CONDITIONALLY APPROVING A 2-LOT CERTIFIED SURVEY MAP, BEING LOT 1 OF CERTIFIED SURVEY MAP NO. 9421, LOCATED IN THE SOUTHWEST 1/4 AND NORTHWEST 1/4 OF THE NORTHEAST 1/4 AND THE NORTHEAST 1/4 AND THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 ALL IN SECTION 30, TOWNSHIP 5 NORTH, RANGE 21 EAST, IN THE CITY OF FRANKLIN, MILWAUKEE COUNTY, WISCONSIN
(LOOMIS & RYAN, INC., PROPERTY OWNER)
(TAX KEY NO. 891-9013-000)

WHEREAS, the City of Franklin, Wisconsin, having received an application for approval of a certified survey map, such map being a redivision of a parcel of land being Lot 1 of Certified Survey Map No. 9421, located in the Southwest 1/4 and Northwest 1/4 of the Northeast 1/4 AND the Northeast 1/4 and the Southeast 1/4 of the Northwest 1/4 all in Section 30, Township 5 North, Range 21 East, in the City of Franklin, Milwaukee County, Wisconsin, now being more particularly bounded and described and follows:

Commencing at the northwest corner of the Northeast 1/4 of said Section 30; Thence South 00°34’43” East along the west line of said Northeast 1/4, 986.00 feet to the Point of Beginning; Thence South 44°24’10” East along the west line of Outlot 3 of Ryan Meadows, a recorded subdivision, 200.97 feet; Thence South 00°34’43” East along said west line, 365.13 feet; Thence South 89°25’17” West along said west line, 116.04 feet; Thence South 01°10’06” East along said west line, 600.00 feet to the north line of Lot 2 of Certified Survey Map No. 9421; Thence South 88°49’54” West along said north line, 273.89 feet to the east right of way line of Monarch Drive; Thence North 07°48’36” West along said right of way line, 514.75 feet to a point of curvature; Thence northwesterly 241.78 feet along the arc of said curve to the left and said right of way line, whose radius is 270.00 feet and whose chord bears North 33°27’51” West, 233.79 feet; Thence North 59°07’06” West along said right of way line, 82.77 feet; Thence North 14°02’32” West along said right of way line, 27.27 feet to the south right of way line of Chicory Street; Thence North 30°52’54” East along said right of way line, 29.00 feet to a point of curvature; Thence northeasterly 114.43 feet along the arc of said curve to the right and said right of way line, whose radius is 190.00 feet and whose chord bears North 48°08’09” East, 112.71 feet; Thence North 65°23’24” East along said right of way line, 245.97 feet to a point of curvature; Thence northeasterly 181.45 feet along the arc of said curve to the left and said right of way line, whose radius is 535.00 feet and whose chord bears North 55°40’26” East, 180.58 feet; Thence North 45°57’27” East along said right of way line, 53.22 feet to the Point of Beginning. Containing 409,070 square feet (9.3910 acres) of land Gross, more or less; 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 Bear Development, 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 §15-8-10 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. Loomis & Ryan, Inc., successors and assigns, and any developer of the Loomis & Ryan, Inc. two (2) 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 §15-9-14.E. 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 Loomis & Ryan, Inc. and the 2 lot certified survey map project for the property bearing Tax Key No. 891 9013 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.

6. Applicant shall illustrate the wetland, wetland buffer, and wetland setback delineations on the CSM. Alternatively, the applicant may demonstrate, to the satisfaction of the Planning Manager, that no protected natural resources extend onto Lot 2.

7. 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,

Loomis & Ryan, Inc., 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, Loomis & Ryan, Inc., 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 16th day of September, 2025.

Passed and adopted at a regular meeting of the Common Council of the City of Franklin this 16th day of September, 2025.

APPROVED:

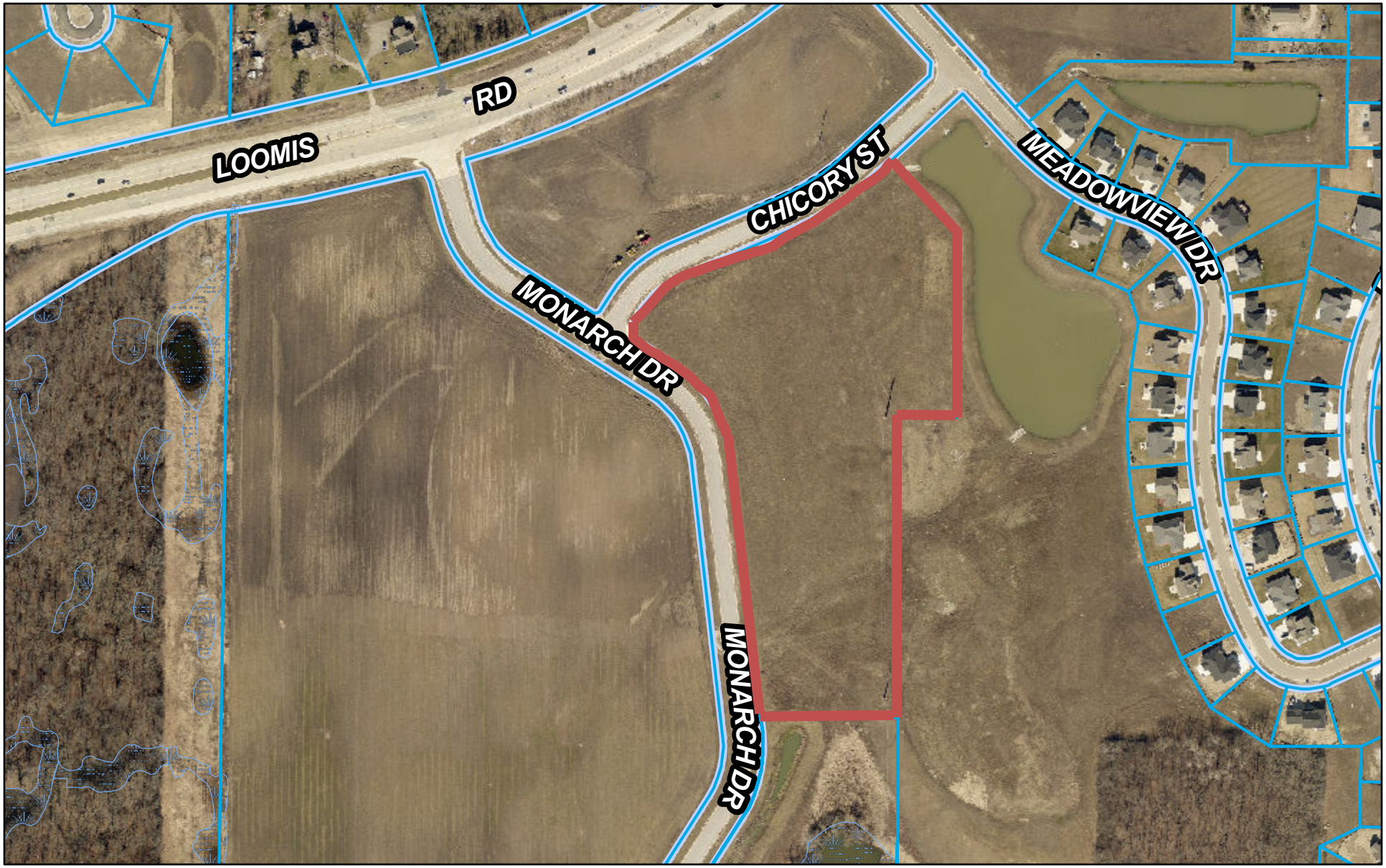
_____
John R. Nelson, Mayor

ATTEST:

_____
Shirley J. Roberts, City Clerk

AYES _____ NOES _____ ABSENT _____

City of Franklin Property Viewer



8/28/2025, 1:31:40 PM

Parcel

1:4,514

0 0.03 0.06 0.11 mi

0 0.04 0.09 0.17 km

SE Wisc Reg Planning Comm, SEWRPC, Maxar

Guest

Earthstar Geographics | City of Franklin, WI |

MEMORANDUM

Date:	August 1, 2025
To:	Dan Szczap, Bear Development
From:	Department of City Development Nick Fuchs, Associate Planner
RE:	Application for Certified Survey Map (CSM) O South Monarch Drive (Tax Key No. 891 9013 000)

Staff comments are as follows for the above-referenced application received on June 17, 2025.

City Development Department

1. Does the wetland buffer to the south extend onto Lot 2?
2. Is any land being dedicated to the City? If not, the "dedication accepted" language on Sheet 8 may be removed.
3. Please address the following requirements per Section 15-7.0702 of the UDO.
    - Owner, Subdivider, Land Surveyor. Name and address of the owner, Subdivider, and Land Surveyor.
    - Existing Zoning. The Certified Survey Map shall indicate on its face the current zoning and zoning boundary lines of all parcels, lots or outlots proposed to be created by the Certified Survey Map.
4. Is there a timeframe anticipated for development applications being submitted for Lot 2? Staff recommends providing a conceptual site plan for reference. Note that in proposing the land division in advance of plans for the development, staff is not able to provide comments regarding the site plan, landscaping, storm water management and other requirements that may impact the lot size needs of the development.

Milwaukee County Register of Deeds

Milwaukee County Register of Deeds comments will be forwarded as soon as they are received.

Engineering Department

1. Show the coordinates of the south monument.
2. Show property ownership north of Chicory Street.
3. Show the width of the right of way below the street name for Chicory and Monarch.
4. Page 4 of 8 – Show the tax key number (TKN) for the property north of Chicory Street.
5. Page 8 of 8 – Under City of Franklin Council Approval remove dedication.
6. Insert the middle initial for the Mayor (R) and the City Clerk (J).

BEAR DEVELOPMENT

Providing Creative Real Estate Solutions to Build Better Communities

June 5, 2025

Regulo Martinez-Montilva
City of Franklin
9229 W. Loomis Road
Franklin, WI 53132

RE: Certified Survey Map Application

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 owners of record, Loomis & Ryan, Inc.

Property Summary
Loomis & Ryan, Inc. is the owner of record of 9.39 acres of vacant land in the City of Franklin. The property is Lot 1 of CSM No. 9421 in Ryan Meadows Subdivision.

Tax Key No: 891-9013-000
Address: Monarch Drive, Franklin, WI
Existing Zoning: M-1 Limited Industrial

The property is located on the east side of Monarch Drive, south of Chicory Street. The subject property is vacant.

Project Summary
Bear Development, LLC respectfully requests review and approval of the enclosed Certified Survey Map to create a 1.92 acre lot to accommodate a land sale/purchase.

We feel the requested land division will create separate parcels with future land use which is consistent and compatible with the properties in the general area.

Should you have any questions regarding this request, please do not hesitate to contact me. I can be reached at (262) 842-0556 or by email, dan@beardevelopment.com

Sincerely,

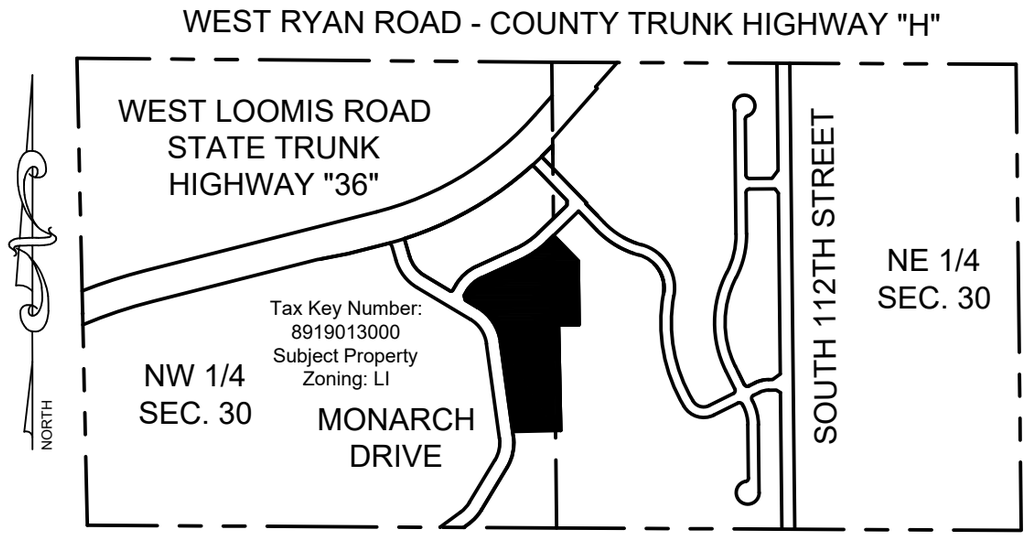
Daniel Szczap
Bear Development, LLC

Phone: 262.694.2327 www.beardevelopment.com 4011 80th Street, Kenosha, WI 53142

CERTIFIED SURVEY MAP NO. _____

Being Lot 1 of Certified Survey Map No. 9421, located in the Southwest 1/4 and Northwest 1/4 of the Northeast 1/4 AND the Northeast 1/4 and the Southeast 1/4 of the Northwest 1/4 all in Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin

VICINITY SKETCH
SCALE 1"=1000'



WISCONSIN
JOHN P. KONOPACKI
S-2461
SUMMIT,
WI
LAND SURVEYOR

AUGUST 13, 2025

Prepared for:
LOOMIS & RYAN, INC.
4011 80th Street
Kenosha, WI 53142

NOTES:

1. Flood Zone Classification: The property lies with in Zone "X" of the Flood Insurance Rate Map Community Panel No. 55079C0206F Dated OCTOBER 24, 2024. Zone "X" areas are determined to be outside the 0.2% annual chance floodplain.
2. Bearings referenced to the Wisconsin State Plane Coordinate System, South Zone (N.A.D. 1927). The north line of the Northeast 1/4 of Section 30, Township 5 North, Range 21 East bears S89°44'26"E.
3. VISION CORNER EASEMENTS: No Obstructions Permitted. No visual obstructions, such as structures, parking, or vegetation, shall be permitted between the heights of 2.5 feet and 10 feet above the plane through the mean curb grades within the Vision Corner Easement.
4. Lots 1 and Lot 2 are served by Public Sewer and Water.

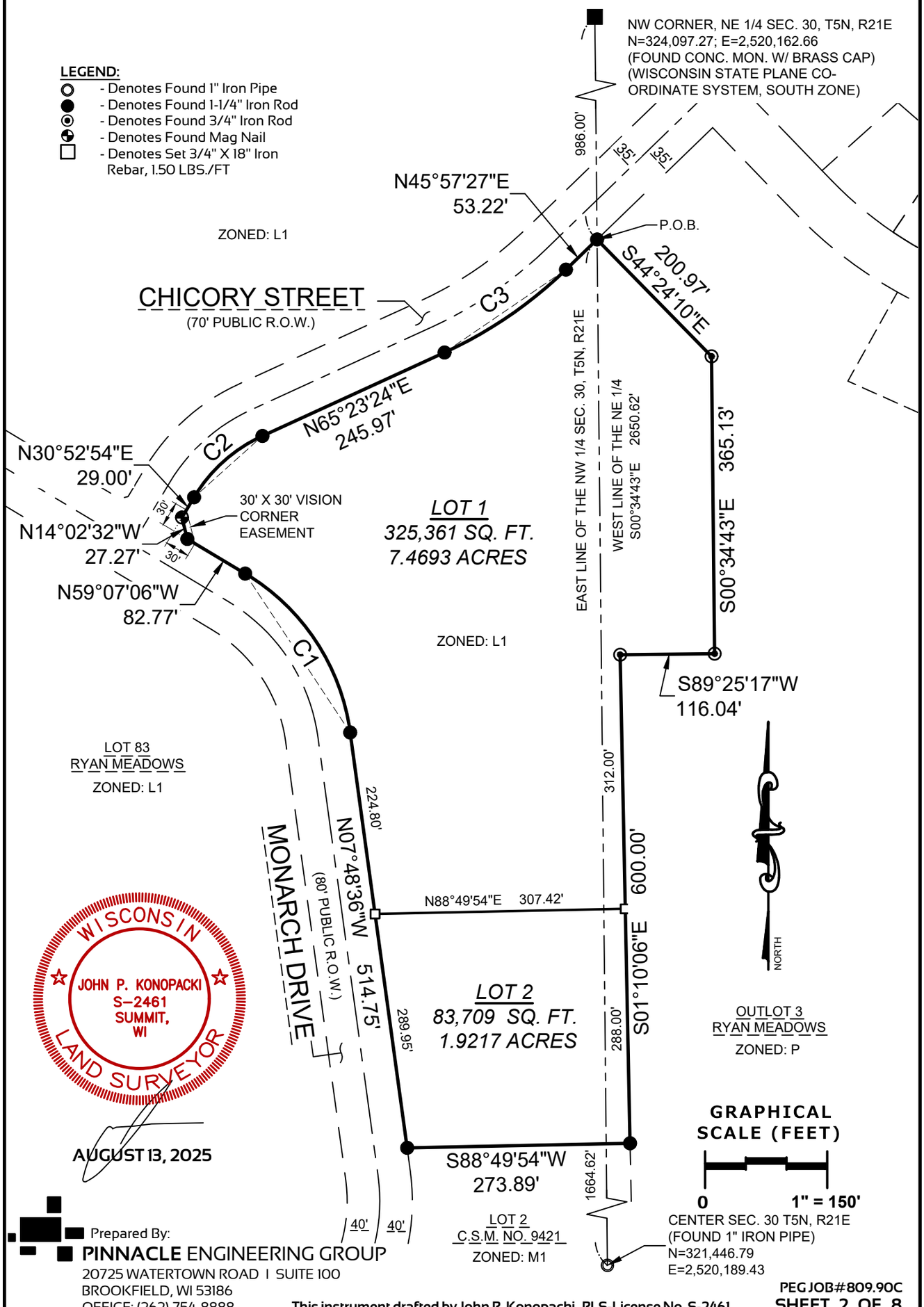
Prepared By:
PINNACLE ENGINEERING GROUP
20725 WATERTOWN ROAD I SUITE 100
BROOKFIELD, WI 53186
OFFICE: (262) 754-8888

This instrument drafted by John P. Konopacki, PLS-License No. S-2461

PEG JOB#809.90C

CERTIFIED SURVEY MAP NO. _____

Being Lot 1 of Certified Survey Map No. 9421, located in the Southwest 1/4 and Northwest 1/4 of the Northeast 1/4 AND the Northeast 1/4 and the Southeast 1/4 of the Northwest 1/4 all in Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin



WISCONSIN
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LAND SURVEYOR

AUGUST 13, 2025

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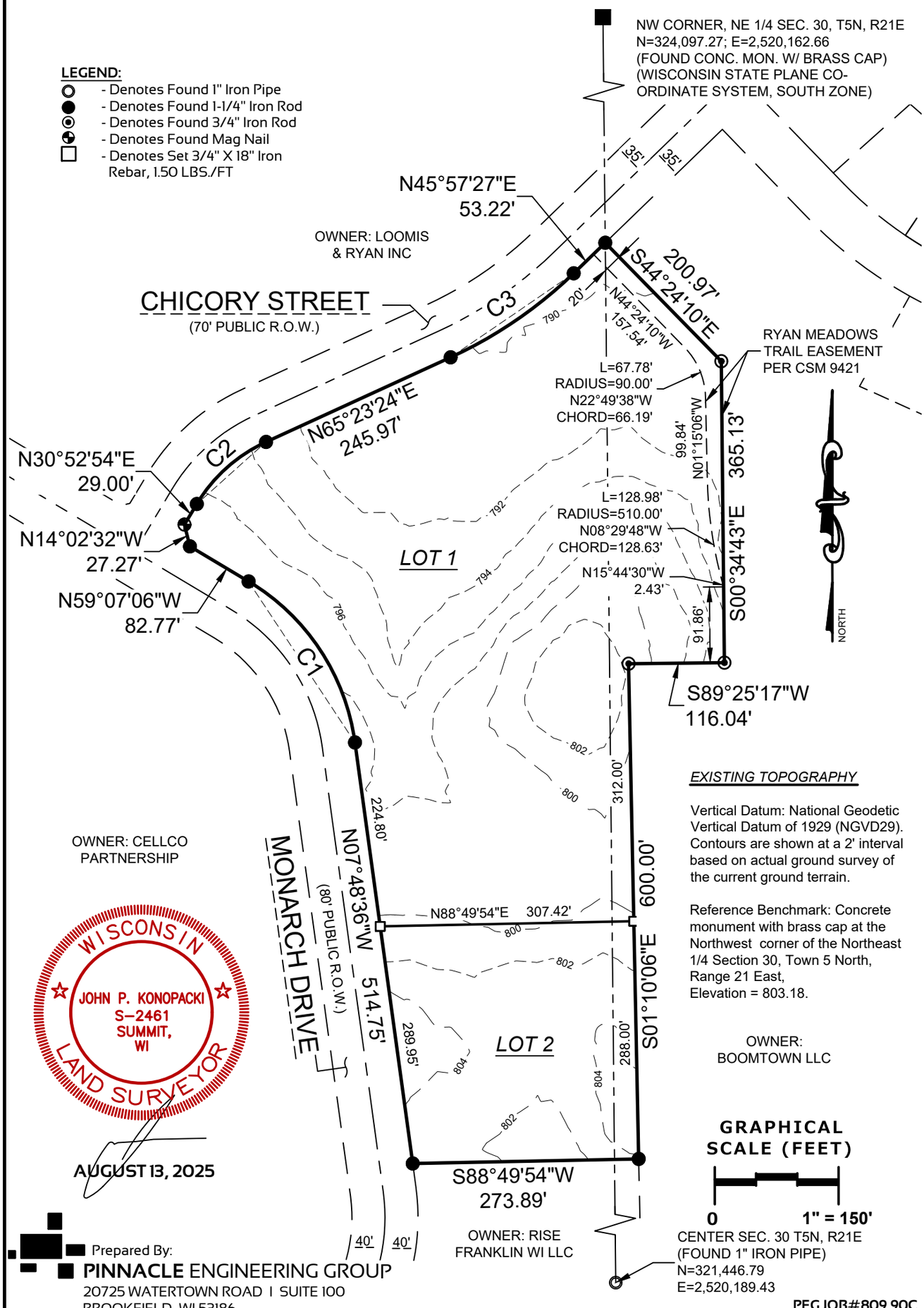

EXISTING TOPOGRAPHY

Vertical Datum: National Geodetic Vertical Datum of 1929 (NGVD29). Contours are shown at a 2' interval based on actual ground survey of the current ground terrain.

Reference Benchmark: Concrete monument with brass cap at the Northwest corner of the Northeast 1/4 Section 30, Town 5 North, Range 21 East, Elevation = 803.18.

GRAPHICAL SCALE (FEET)

0 1" = 150'

WISCONSIN
JOHN P. KONOPACKI
S-2461
SUMMIT, WI
LAND SURVEYOR

AUGUST 13, 2025

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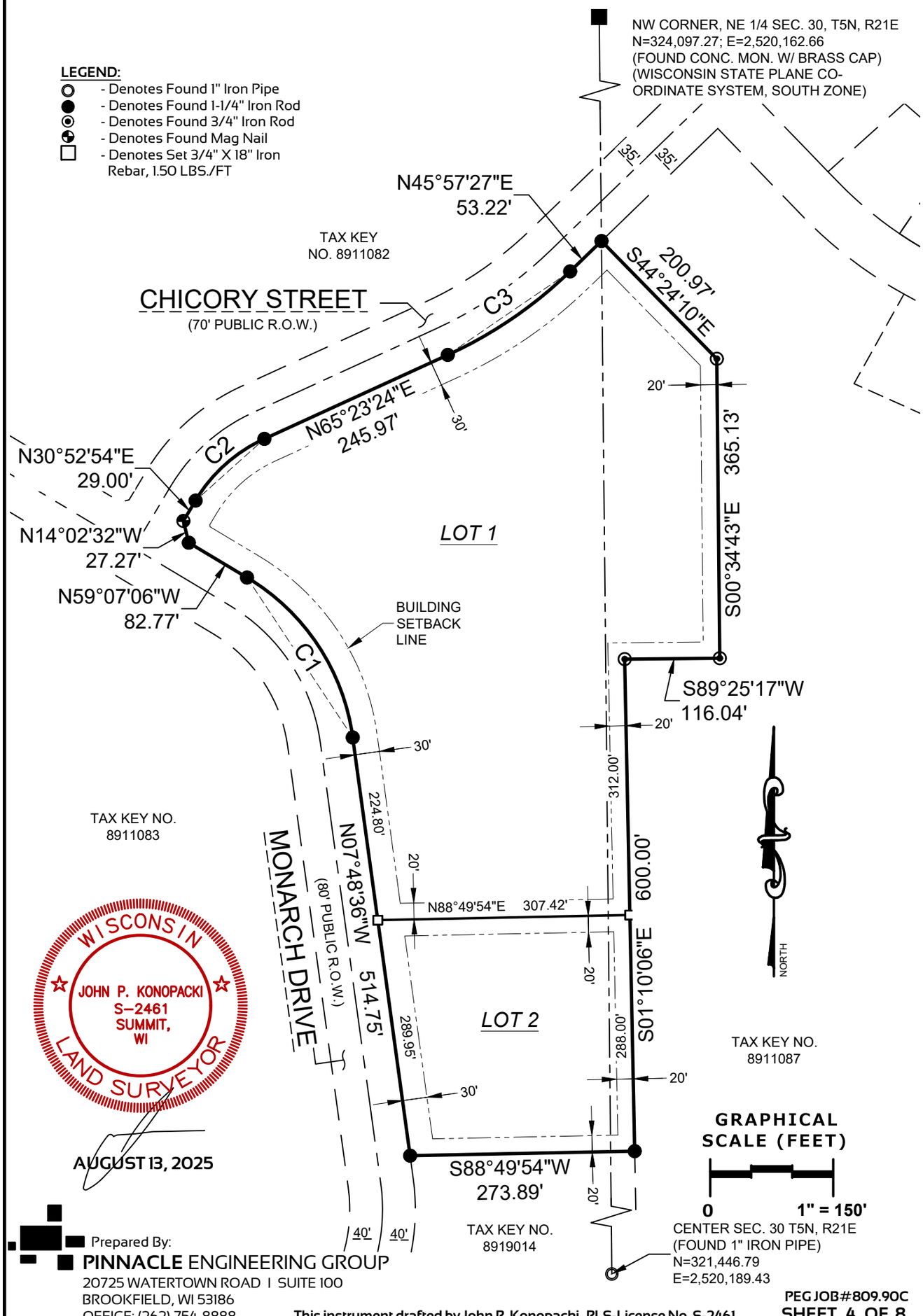

WISCONSIN
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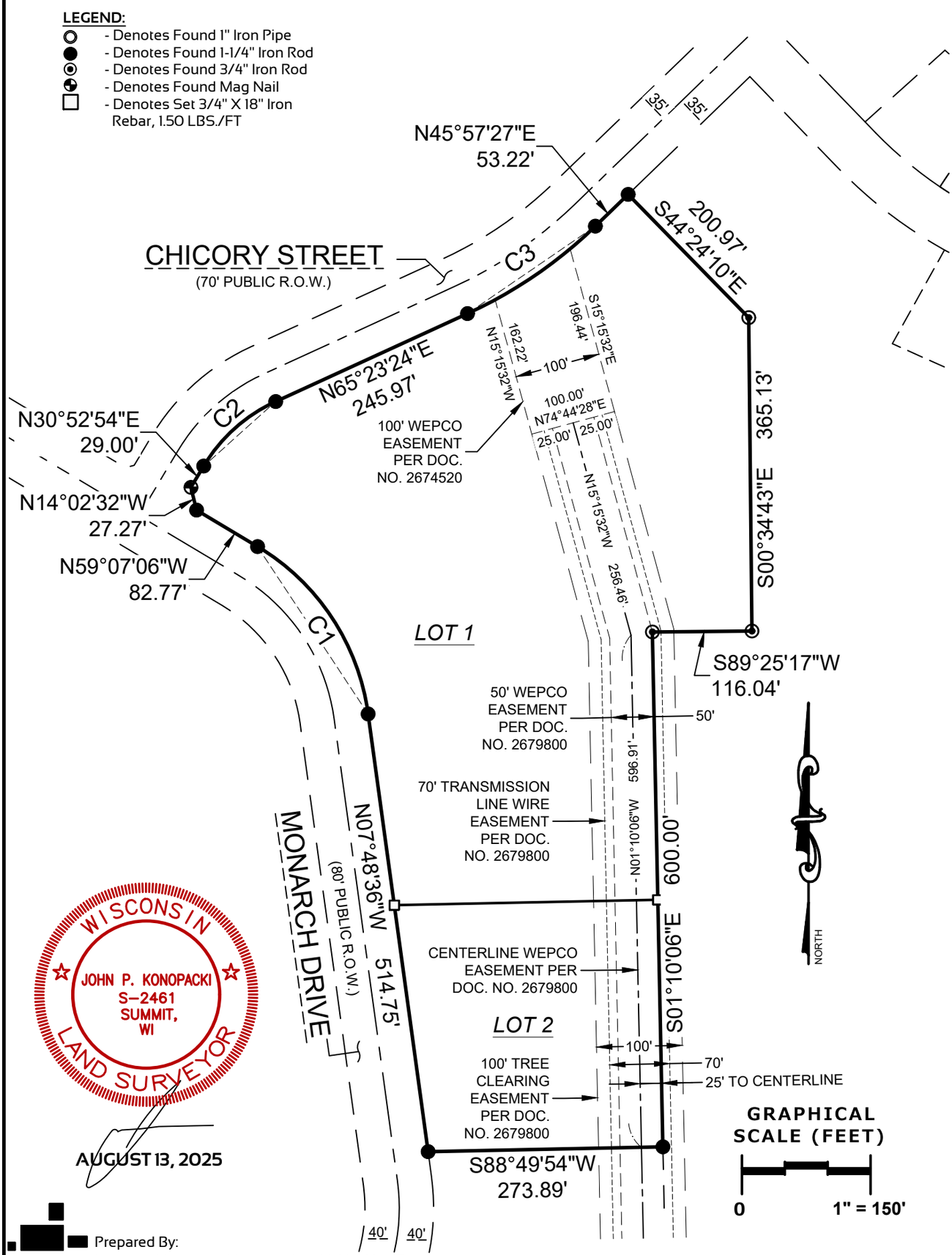

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SURVEYOR'S CERTIFICATE

STATE OF WISCONSIN)
WAUKESHA COUNTY) SS

I, John P. Konopacki, Professional Land Surveyor, do hereby certify:

That I have surveyed, mapped and divided all of Lot 1 of Certified Survey Map No. 9421, located in the Southwest 1/4 and Northwest 1/4 of the Northeast 1/4 AND the Northeast 1/4 and the Southeast 1/4 of the Northwest 1/4 all in Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin, described as follows:

Commencing at the northwest corner of the Northeast 1/4 of said Section 30;
Thence South 00°34'43" East along the west line of said Northeast 1/4, 986.00 feet to the Point of Beginning;

Thence South 44°24'10" East along the west line of Outlot 3 of Ryan Meadows, a recorded subdivision, 200.97 feet;
Thence South 00°34'43" East along said west line, 365.13 feet;
Thence South 89°25'17" West along said west line, 116.04 feet;
Thence South 01°10'06" East along said west line, 600.00 feet to the north line of Lot 2 of Certified Survey Map No. 9421;
Thence South 88°49'54" West along said north line, 273.89 feet to the east right of way line of Monarch Drive;
Thence North 07°48'36" West along said right of way line, 514.75 feet to a point of curvature;
Thence northwesterly 241.78 feet along the arc of said curve to the left and said right of way line, whose radius is 270.00 feet and whose chord bears North 33°27'51" West, 233.79 feet;
Thence North 59°07'06" West along said right of way line, 82.77 feet;
Thence North 14°02'32" West along said right of way line, 27.27 feet to the south right of way line of Chicory Street;
Thence North 30°52'54" East along said right of way line, 29.00 feet to a point of curvature;
Thence northeasterly 114.43 feet along the arc of said curve to the right and said right of way line, whose radius is 190.00 feet and whose chord bears North 48°08'09" East, 112.71 feet;
Thence North 65°23'24" East along said right of way line, 245.97 feet to a point of curvature;
Thence northeasterly 181.45 feet along the arc of said curve to the left and said right of way line, whose radius is 535.00 feet and whose chord bears North 55°40'26" East, 180.58 feet;
Thence North 45°57'27" East along said right of way line, 53.22 feet to the Point of Beginning.

Containing 409,070 square feet (9.3910 acres) of land Gross, more or less.

That I have made such survey, land division and map by the direction of LOOMIS & RYAN INC. owner of said land.

That such plat 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 requirements of Chapter 236 of the Wisconsin State Statutes and the City of Franklin Land Division Ordinance and the Unified Development Ordinance Division - 15 of the City of Franklin in surveying the certified survey map.

Date: AUGUST 13, 2025

John P. Konopacki
Professional Land Surveyor S-2461

BOUNDARY CURVE TABLE							
CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH	TANGENT	TANGENT
C1	241.78'	270.00'	051°18'30"	N33°27'51"W	233.79'	N07°48'36"W	N59°07'06"W
C2	114.43'	190.00'	034°30'30"	N48°08'09"E	112.71'	N30°52'54"E	N65°23'24"E
C3	181.45'	535.00'	019°25'57"	N55°40'26"E	180.58'	N65°23'24"E	N45°57'27"E

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

CERTIFIED SURVEY MAP NO. _____

Being Lot 1 of Certified Survey Map No. 9421, located in the Southwest 1/4 and Northwest 1/4 of the Northeast 1/4 AND the Northeast 1/4 and the Southeast 1/4 of the Northwest 1/4 all in Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin

OWNER'S CERTIFICATE

LOOMIS & RYAN INC, a corporation duly organized and existing under and by virtue of the laws of the State of Wisconsin, as owner, does hereby certify that said corporation caused the land described on this certified survey map to be surveyed, divided and mapped as represented on this certified survey map.

LOOMIS & RYAN INC, as owner, also certifies that this map is required by s.236.10 or s.236.12 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 LOOMIS & RYAN INC has caused these presents to be signed by (name - print) _____, (title) _____, at (city)_____, _____ County, Wisconsin, on this _____ day of _____ , 2025.

In the presence of: LOOMIS & RYAN INC.

_____
Name (signature) - Title

STATE OF WISCONSIN)
_____ COUNTY) SS

Personally came before me this _____ day of _____ , 2025, (name) _____, (title) _____, of the above named LOOMIS & RYAN INC, to me known to be the persons who executed the foregoing instrument, and to me known to be such _____(title) of said corporation and acknowledged that they executed the foregoing instrument as such officer as the deed of said corporation, by its authority.

_____
Notary Public
Name:_____
State of Wisconsin
My Commission Expires: _____

CONSENT OF CORPORATE MORTGAGEE -

_____ , a corporation duly organized and existing under and by virtue of the laws of the State of Wisconsin, mortgagee of the above described land, does hereby consent to the surveying, dividing, dedication and mapping of the land described in the forgoing affidavit of John P. Konopacki, surveyor, and does hereby consent to the above certification of owners.

IN WITNESS WHEREOF, the said _____ , has caused these presents to be signed by _____ , its President, and its corporate seal to be hereunto affixed this _____ day of _____ , 2022.

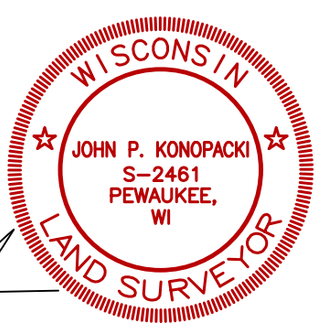
_____ _____
Date

_____
President

STATE OF WISCONSIN)
_____ COUNTY) SS

Personally came before me this _____ day of _____ , 2022, _____ , to me known to be the person who executed the foregoing instrument and to me known to be such officer of said corporation and acknowledged the same.

_____
Notary Public
Name:_____
State of Wisconsin
My Commission Expires: _____



AUGUST 13, 2025

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

CERTIFIED SURVEY MAP NO. _____

Being Lot 1 of Certified Survey Map No. 9421, located in the Southwest 1/4 and Northwest 1/4 of the Northeast 1/4 AND the Northeast 1/4 and the Southeast 1/4 of the Northwest 1/4 all in Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin

CITY OF FRANKLIN COMMON COUNCIL APPROVAL

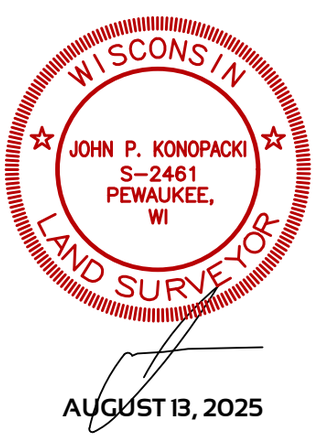
Approved and accepted by the Common Council of the City of Franklin by Resolution No. _____.
Signed this _____ day of _____ , 2025.

_____ _____
Date

_____
John R. Nelson, Mayor

_____ _____
Date

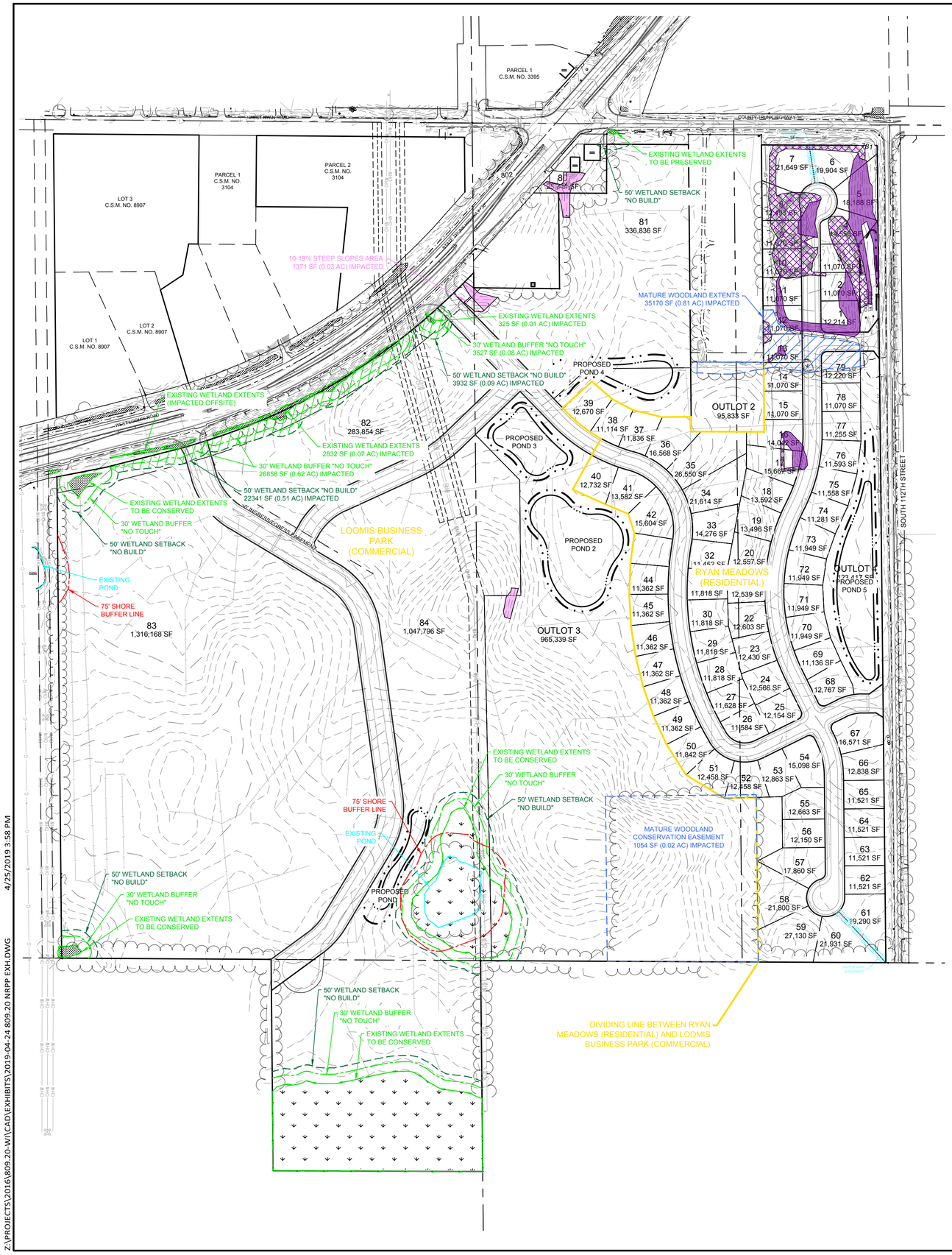
_____
Shirley J. Roberts, City Clerk



AUGUST 13, 2025

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



NORTH

GRAPHICAL SCALE (FEET)

0 1" = 200' 400'

NATURAL RESOURCE FEATURE AREAS

RESOURCE TYPE	RYAN MEADOWS (RESIDENTIAL) LOTS 1-79, OUTLOTS 1 & 4 (27.97 AC)	LOOMIS BUSINESS PARK (COMMERCIAL) LOTS 80-84, OUTLOTS 2 & 3 (105.43 AC)	ENTIRE BASE SITE (133.40 AC)
STEEP SLOPES AREA - 10-19% SLOPES - PER PEG SURVEYED CONTOURS	N/A	13,461 SF (0.31 AC)	13,461 SF (0.31 AC)
STEEP SLOPES AREA - 20-30% SLOPES - PER PEG SURVEYED CONTOURS	N/A	N/A	N/A
STEEP SLOPES - MAN-MADE - 10-19% SLOPES - PER PEG SURVEYED CONTOURS	N/A	N/A	N/A
STEEP SLOPES - MAN-MADE - 20-30% SLOPES - PER PEG SURVEYED CONTOURS	N/A	N/A	N/A
PONDS -FIELD DELINEATED BY PEG SURVEY IN JANUARY OF 2019	N/A	28,733 SF (0.66 AC)	28,733 SF (0.66 AC)
WETLANDS -SEE DELINEATION NFORMATION BELOW**	N/A	251,003 SF (5.76 AC)	251,003 SF (5.76 AC)
WETLAND BUFFER "NO TOUCH" - 30' OFFSET, BASED OFF WETLAND DELINEATION	N/A	104,124 SF (2.39 AC)	104,124 SF (2.39 AC)
WETLAND SETBACK "NO BUILD" - 50' OFFSET, BASED OFF WETLAND DELINEATION	N/A	79,308 SF (1.82 AC)	79,308 SF (1.82 AC)
SHORE BUFFER - 75' OFFSET, BASED OFF FIELD VERIFIED POND LOCATION	N/A	14,983 SF (0.34 AC)	14,983 SF (0.34 AC)
MATURE WOODLAND - BASED OFF PEG SURVEY AND CHAPUT CSM	36,224 SF (0.83 AC)	268,151 SF (6.16 AC)	304,375 SF (6.99 AC)

* ADDITIONAL INFORMATION IS INCLUDED IN THE ATTACHED SITE INTENSITY CALCULATIONS
**FIELD DELINEATED BY RA SMITH NATIONAL ON 10-29-14 & 10-30-14 (SEE "WETLAND DELINEATION REPORT" DATED 03-19-15)
RE-DELINEATED ALONG LOOMIS BY HEARTLAND ECOLOGICAL GROUP ON 08-15-18, 08-19-18 & 08-22-18
(SEE "WETLAND DELINEATION REPORT" DATED 09-11-18)

Z:\PROJECTS\2016\809.20-WI\CAD\EXHIBITS\2019-04-24 809.20 NRPP EXH.DWG 4/25/2019 3:58 PM

FRANKLIN DEVELOPMENT - NATURAL RESOURCES PROTECTION PLAN

04/25/19

PINNACLE ENGINEERING GROUP
5850 W. BLUEMOUND ROAD | SUITE 210 | BROOKFIELD, WI 53005 | WWW.PINNACLE-ENGR.COM |

PLAN | DESIGN | DELIVER **PEG JOB#** 809.20

Bing all of Lot 1 of Certified Survey Map No. 9421, located in the Southwest 1/4 and Northwest 1/4 of the Northeast 1/4 AND the Northeast 1/4 and the Southeast 1/4 of the Northwest 1/4 all in Section 30, Township 5 North, Range 21 East, City of Franklin, Milwaukee County, Wisconsin, described as follows:

Commencing at the northwest corner of the Northeast 1/4 of said Section 30; Thence South 00°34'43" East along the west line of said Northeast 1/4, 986.00 feet to the Point of Beginning;

Thence South 44°24'10" East along the west line of Outlot 3 of Ryan Meadows, a recorded subdivision, 200.97 feet; Thence South 00°34'43" East along said west line, 365.13 feet; Thence South 89°25'17" West along said west line, 116.04 feet; Thence South 01°10'06" East along said west line, 600.00 feet to the north line of Lot 2 of Certified Survey Map No. 9421; Thence South 88°49'54" West along said north line, 273.89 feet to the east right of way line of Monarch Drive; Thence North 07°48'36" West along said right of way line, 514.75 feet to a point of curvature; Thence northwesterly 241.78 feet along the arc of said curve to the left and said right of way line, whose radius is 270.00 feet and whose chord bears North 33°27'51" West, 233.79 feet; Thence North 59°07'06" West along said right of way line, 82.77 feet; Thence North 14°02'32" West along said right of way line, 27.27 feet to the south right of way line of Chicory Street; Thence North 30°52'54" East along said right of way line, 29.00 feet to a point of curvature; Thence northeasterly 114.43 feet along the arc of said curve to the right and said right of way line, whose radius is 190.00 feet and whose chord bears North 48°08'09" East, 112.71 feet; Thence North 65°23'24" East along said right of way line, 245.97 feet to a point of curvature; Thence northeasterly 181.45 feet along the arc of said curve to the left and said right of way line, whose radius is 535.00 feet and whose chord bears North 55°40'26" East, 180.58 feet; Thence North 45°57'27" East along said right of way line, 53.22 feet to the Point of Beginning.

Containing 409,070 square feet (9.3910 acres) of land Gross, more or less.

Heartland
ECOLOGICAL GROUP INC
506 Springdale Street, Mount Horeb, WI 53572

April 23, 2025

Mr. Dan Szczap
Bear Development, LLC
4011 80th Street
Kenosha, WI, 53142

RE: Wetland Determination Summary – Ryan Meadows CSM Parcels, City of Franklin, Milwaukee County, Wisconsin

Dear Dan:

Heartland Ecological Group, Inc. ("Heartland") completed a(n) assured wetland determination at the Project Site on April 21, 2025 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) Wetland Delineation Assurance Program (Attachment 5, Delineator Qualifications). The 17.11-acre site (the "Study Area") lies in the north-central portion of Section 30, T5N, R21E, City of Franklin, Milwaukee County, Wisconsin (Attachment 1, Figure 1). This Study Area was split into two parcels. The north parcel is 7.73 acres and located immediately southeast of the intersection of State Trunk Highway (STH) 36 (Loomis Road) and County Trunk Highway (CTH) H (Ryan Road). The southern parcel is 9.39 acres and is located 1,000 feet south of the intersection of STH 36 and CTH H. The purpose of the wetland delineation was to determine the location and extent of wetlands within the Study Area. There were no wetlands identified within the Study Area (Attachment 1, Figure 7). These findings are consistent with the previous assured wetland delineation completed by RA Smith in October 2014 (Attachment 7).

Methods

Wetland determinations were based upon 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 determination and report.

Wetland determinations 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) and Milwaukee County's Land Information Office.

Wetland determinations were completed on-site at sample points, often along transects if wetlands were determined to be present, 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.

Fieldwork was completed in the spring when conditions are typically wet in most types of wetlands in southern Wisconsin. Typically, primary indicators such as High-Water Table (A2) and Saturation (A3) are expected to be present in seasonal wetlands at this time of year. The growing season was reviewed to determine it was underway based on the emergence of non-evergreen perennial plant species, buds opening on shrubs and trees, and/or the soil temperature at 12 inches depth being at 41 degrees Fahrenheit or higher within the Study Area. Sample point placement(s) for the wetland determination(s) were based on topography and the presence of potentially hydric soils as indicated by NRCS-mapped soil units and the previous wetland delineation.

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 sample point locations were recorded with a Global Navigation Satellite System (GNSS) receiver capable of sub-meter accuracy. Wetland flagging was not utilized and sample point locations were only recorded with a GNSS receiver. The GNSS data was then used to map the sample point locations using ESRI ArcGIS Pro™ software.

Results

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 drought range. Fieldwork was completed outside 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. The growing season was determined to be underway based on several non-evergreen perennial plant species greening-emerging.

The topography within the northern parcel was rolling, with various hills, depressions, and slopes and a topographic high of approximately 802 feet mean sea level (msl) on the west side, and a topographic low of approximately 787 feet msl within a depression on the east side. In the southern parcel, the topography consisted of a ridge in the southern portion of the parcel, grading down towards a depression in the north (Attachment 1, Figures 2 and

7). Topography had been graded since the 2014 wetland delineation. Land uses within the Study Area and surrounding areas are primarily agricultural row cropping and residential, with industrial and woodland areas also present.

Soils mapped by the NRCS Soil Survey within the Study Area and their hydric status are summarized in Table 1 and illustrated on Figure 3. Those areas of the Study Area with hydric or potentially hydric soils mapped by the NRCS were the primary focus of the field wetland determination.

The Wisconsin Wetland Inventory (WWI) mapping (Attachment 1, Figure 5) does not identify wetlands within the Study Area.

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	Ground moraines, end 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	Ground moraines, end moraines	No
	Ashkum-Drained	0-9	Ground moraines, end moraines	Yes
	Pewamo	0-6	Ground moraines, end moraines	Yes
OzaB: Ozaukee silt loam, 2-6% slopes	Ozaukee	88-100	Ground moraines, end moraines	No
	Pewamo-Drained	0-7	Drainageways on ground moraines, depressions on ground moraines	Yes
	Ashkum-Drained	0-7	Ground moraines, end moraines	Yes
	Urban land	0-5	Ground moraines	No

Soil symbol: Soil Unit Name	Soil Unit Component	Soil Unit Component Percentage	Landform	Hydric status
OzaB2: Ozaukee silt loam, 2-6% slopes, eroded	Ozaukee-Eroded	88-100	Ground moraines, end moraines	No
	Ashkum-Drained	0-7	End moraines, ground moraines	Yes
	Pewamo-Drained	0-7	Drainageways on ground moraines, depressions on ground moraines	Yes
	Urban land	0-5	Ground moraines	No

Available NAIP imagery of the Study Area from the period of 2004-2020 (Attachment 5) was reviewed for evidence of wetland signatures and to gain insight into the site's recent history. NAIP imagery indicates that both parcels within the study area were row-cropped until at least 2018. In imagery from 2020, both parcels were no longer being cropped. Both parcels were graded to prepare for development in 2020. These areas have remain uncropped in the 2022 and 2024 imagery.

Field data used for wetland determination were collected at two (2) sample points. Their locations are depicted on Figure 7, Attachment 1. Vegetation at the sample point locations was comprised of old field plant communities dominated by Queen Anne's lace (*Daucus carota*, UPL), frost aster (*Symphyotrichum pilosum*, FACU), and reed canary grass (*Phalaris arundinacea*, FACW). Vegetation observed at all sample points failed to satisfy any indicators of hydrophytic vegetation. No field indicators of hydric soils or indicators of wetland hydrology were observed within any sample points.

Based on the results of the wetland determination, no wetlands are present within the limits of the Study Area. These findings concur with the previously performed assured delineation performed in 2014 (Attachment 7).

Heartland recommends that all applicable regulatory agency reviews and permits are obtained prior to beginning work within the Study Area. 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 determination.

Experienced and qualified professionals completed the wetland determination using standard practices and professional judgment. Wetland determinations may be affected by conditions present within the Study Area at the time of the fieldwork. All final decisions on wetlands are made by the USACE, the WDNR, and/or sometimes a local unit of government. Wetland determination 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 determination was completed and the time of the review. Factors that may influence the findings may include but are not limited to precipitation patterns, drainage modifications, changes or modification to vegetation, and the time of year.

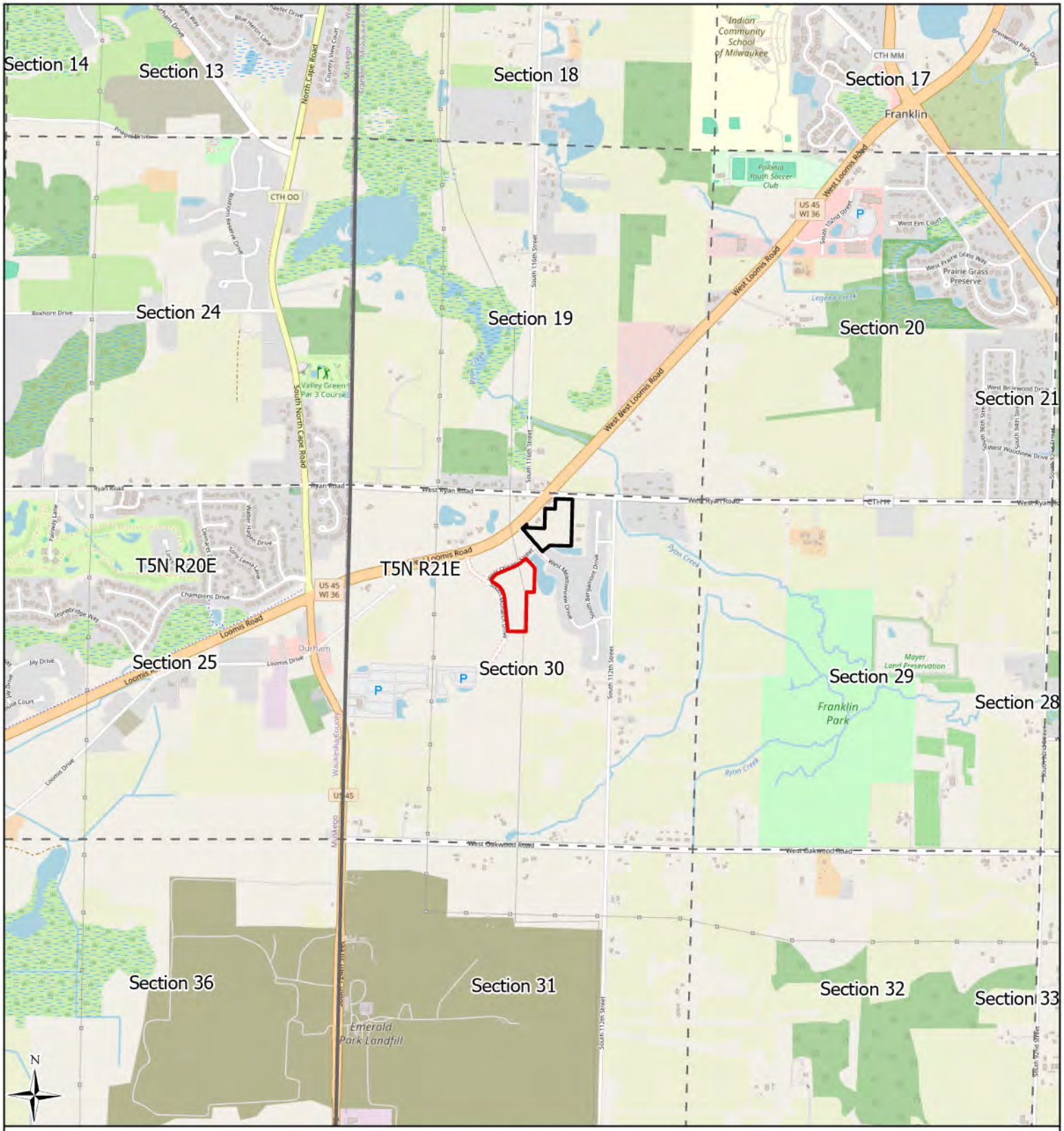
Please feel free to contact me if you have any questions regarding this wetland determination.

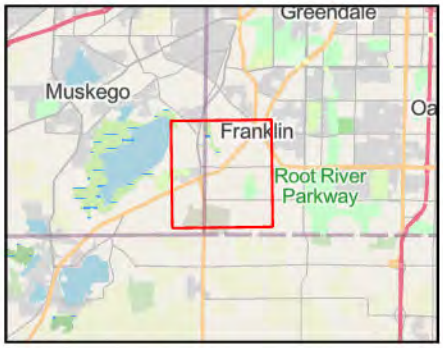
Regards,

Eric C. Parker, SPWS
Principal Scientist
Heartland Ecological Group, Inc.
eric@heartlandecological.com
414-380-0269

Attachments:
1 – Figures 1-7
2 – APT Analysis
3 – Wetland Determination Data Sheets
4 – Site Photographs
5 – NAIP Imagery
6 – Delineator Qualifications
7 - RAS 2014 Assured Wetland Delineation Report

Attachment 1 | Figures





North Parcel (7.73 ac)
South Parcel (9.39 ac)
Township
Section

0 1,000 2,000 Ft

Heartland ECOLOGICAL GROUP INC

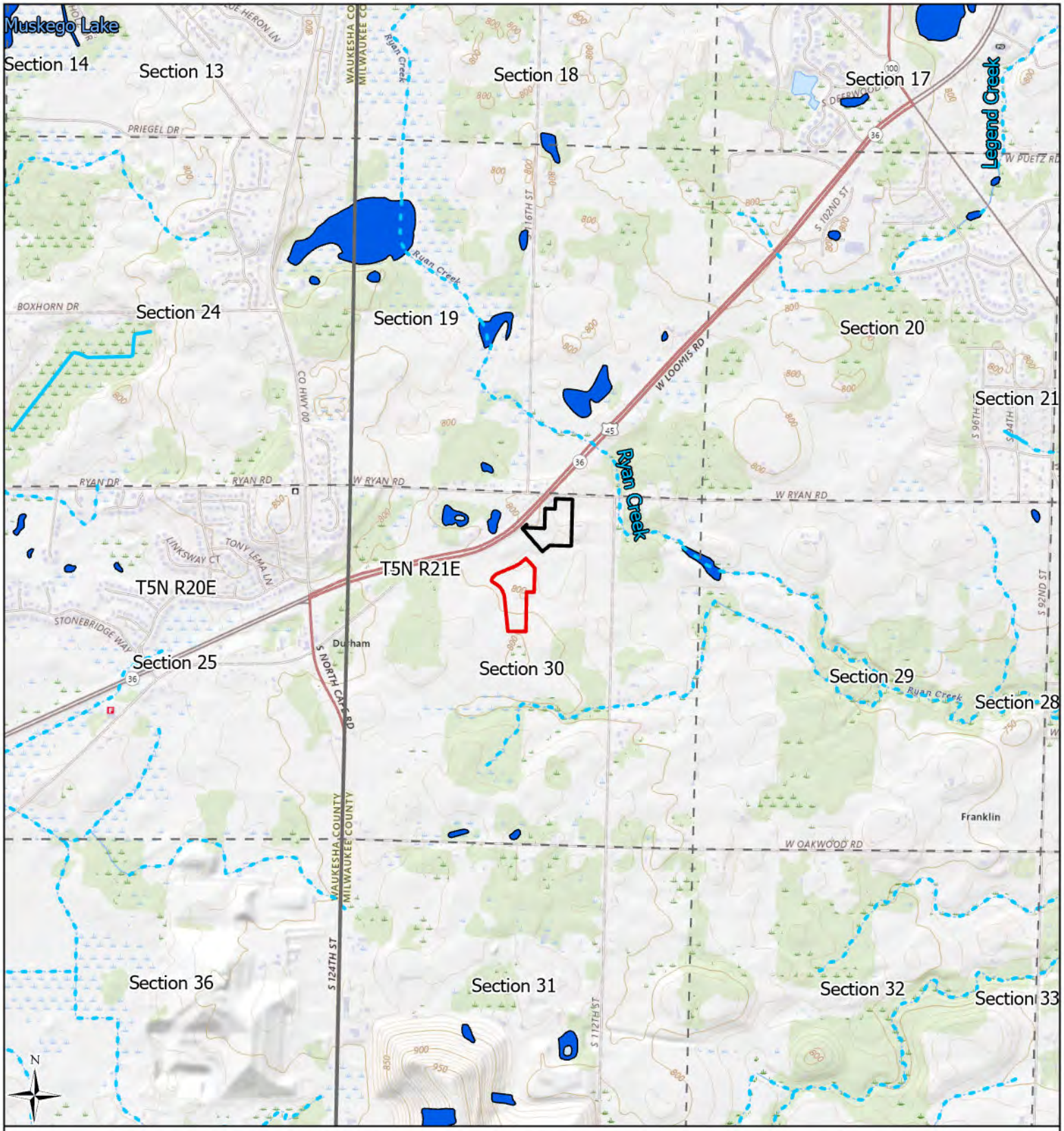
Figure 1. Project Location

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

OpenStreetMap
ESRI

LRR: MW

Figure Created: 4/23/2025



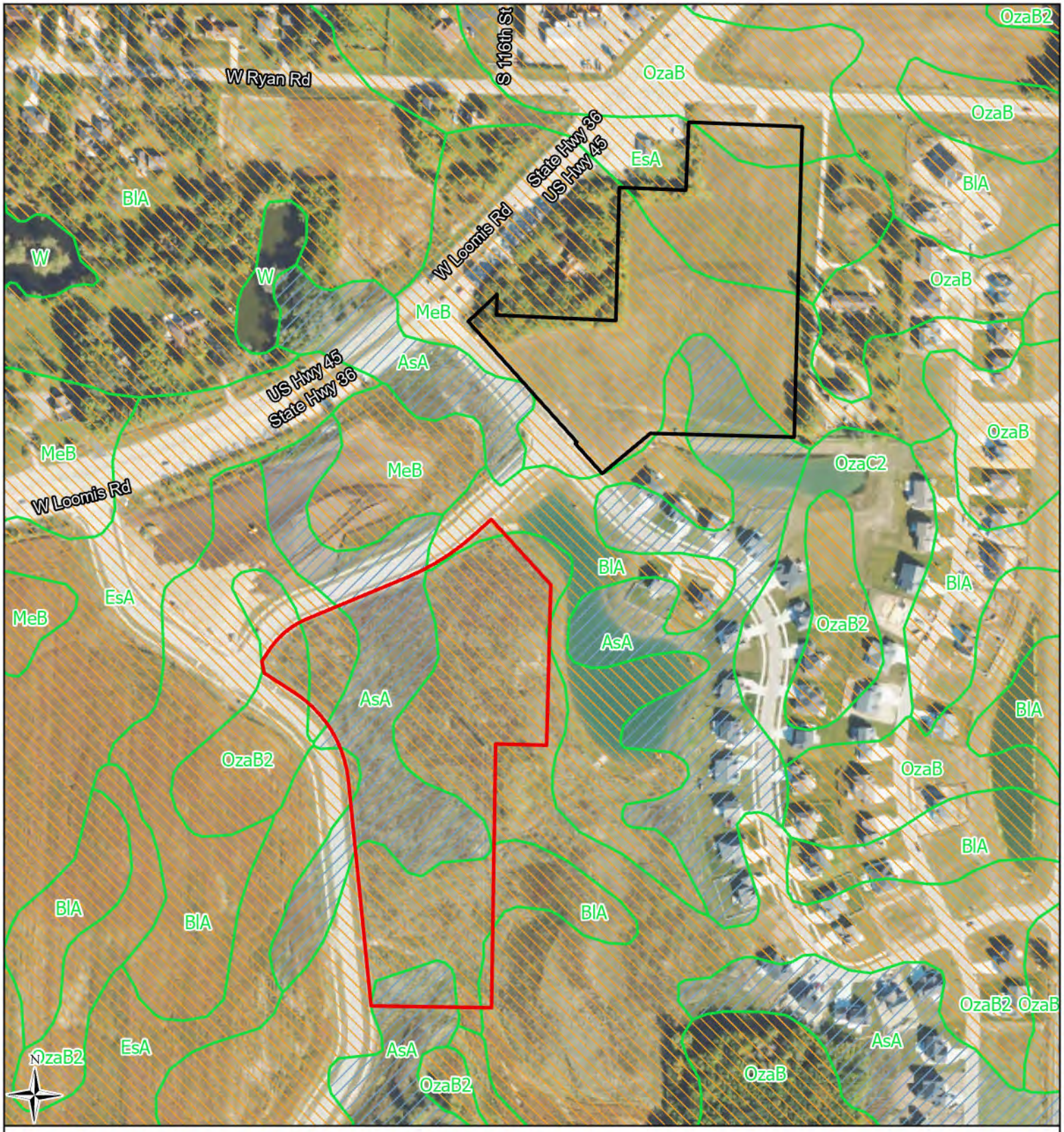
Heartland ECOLOGICAL GROUP INC

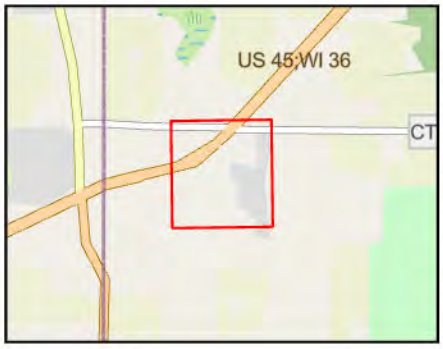
Figure 2. USGS Topography

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

USGSTopo
USGS, WDNR
LRR: MW

Figure Created: 4/23/2025





North Parcel (7.73 ac)

South Parcel (9.39 ac)

NRCS Soil Survey Data

- Hydric (100%)
- Predominantly Hydric (85-99%)
- Partially Hydric (16-84%)
- Predominantly Non-Hydric (1-15%)
- Non-Hydric (0%)

0 300 Ft

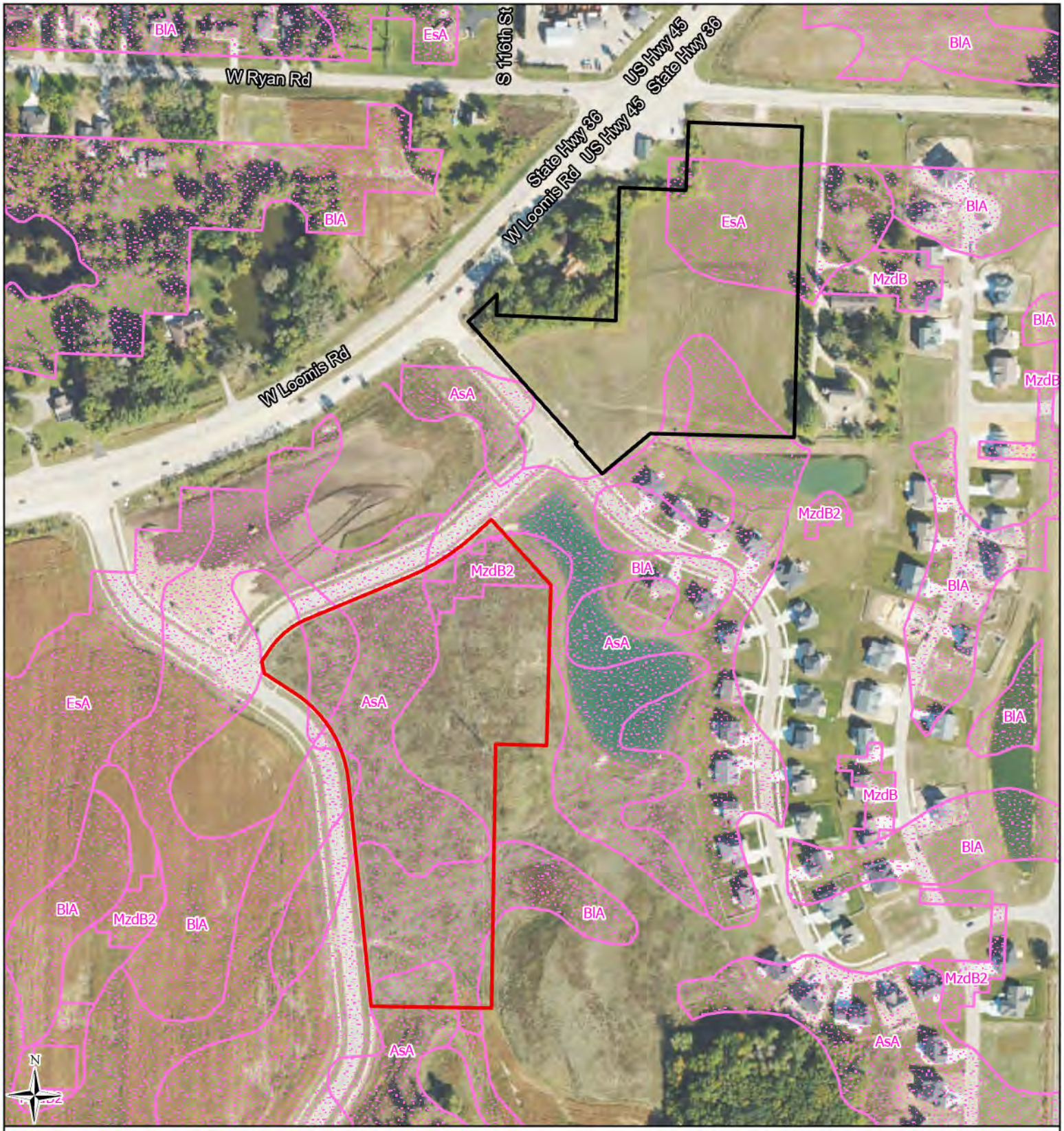
Heartland ECOLOGICAL GROUP INC

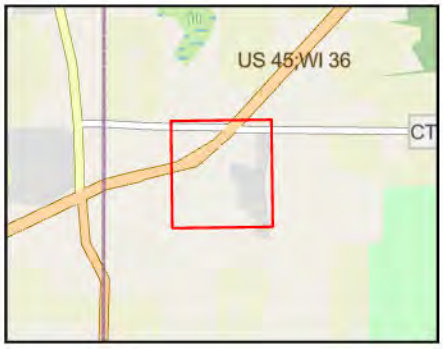
Figure 3. NRCS Hydric Soils

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2024 NAIP
NRCS LRR: MW

Figure Created: 4/23/2025





North Parcel (7.73 ac)

South Parcel (9.39 ac)

SWDV Wetland Indicators

0 300 Ft

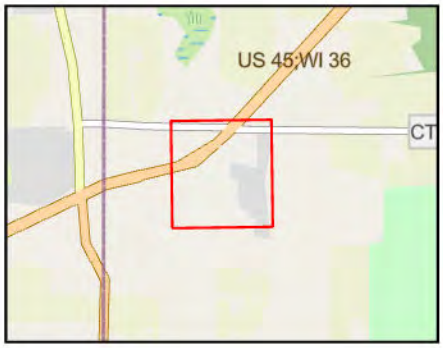
Heartland
ECOLOGICAL GROUP INC

Figure 4. SWDV Wetland Indicators

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2024 NAIP
WDNR
LRR: MW

Figure Created: 4/23/2025



North Parcel (7.73 ac)

South Parcel (9.39 ac)

Perennial Streams (None in Map Extent)

Intermittent Streams (Non in Map Extent)

Waterbodies

0 300 Ft

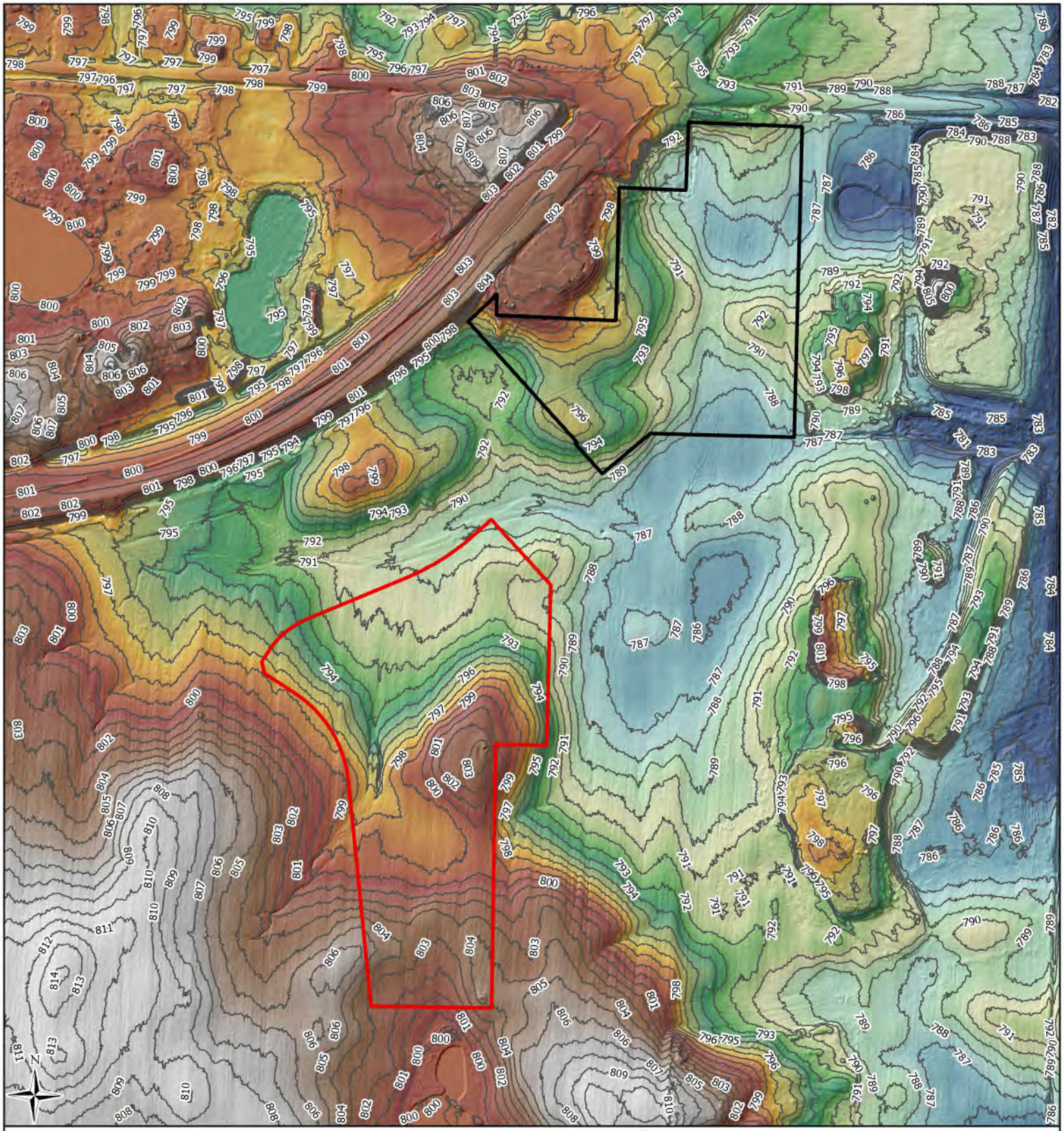
Heartland
ECOLOGICAL GROUP INC

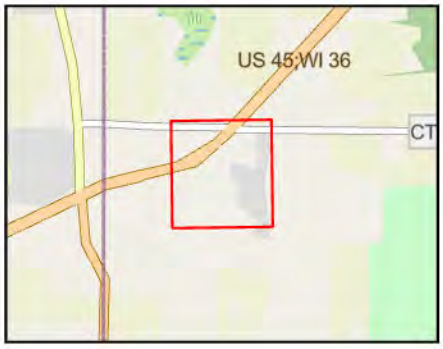
Figure 5. Wisconsin Wetland Inventory

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2024 NAIP
WDNR, USGS
LRR: MW

Figure Created: 4/23/2025





North Parcel (7.73 ac)

South Parcel (9.39 ac)

Milwaukee Co 1ft Contours

0 300 Ft

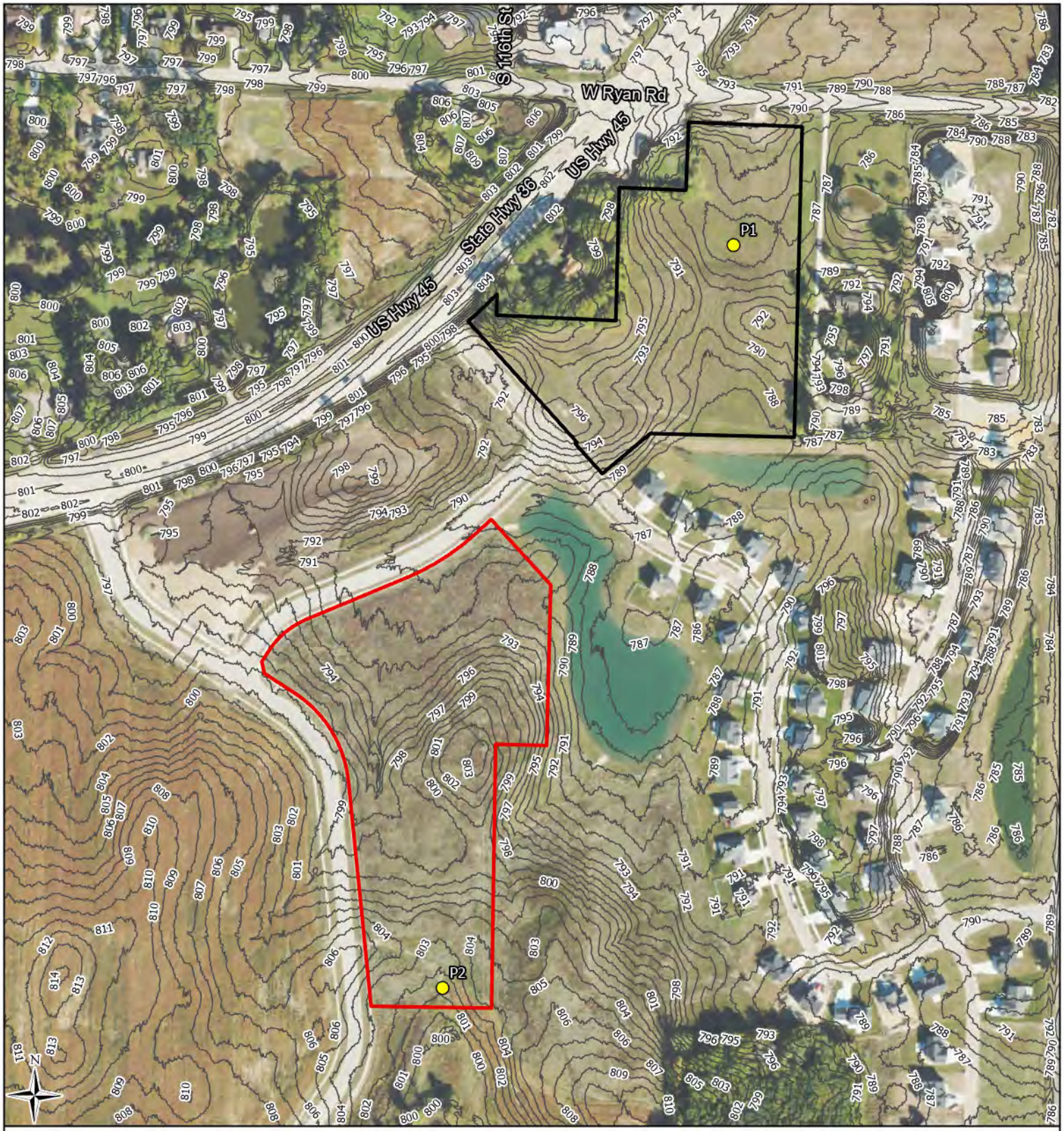
Heartland
ECOLOGICAL GROUP INC

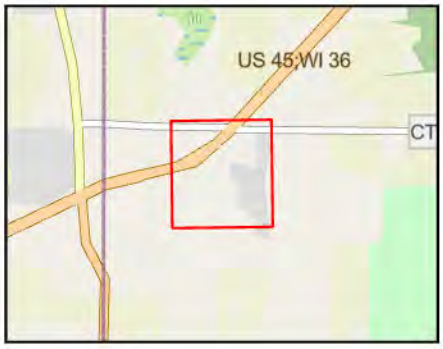
Figure 6. Color-Stretch Digital Elevation Model

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

DNR Lidar Service
WDNR LRR: MW

Figure Created: 4/23/2025





North Parcel (7.73 ac)

South Parcel (9.39 ac)

Milwaukee Co 1ft Contours

Sample Points

Upland

0 300 Ft

Heartland ECOLOGICAL GROUP INC

Figure 7. No Wetlands Determination

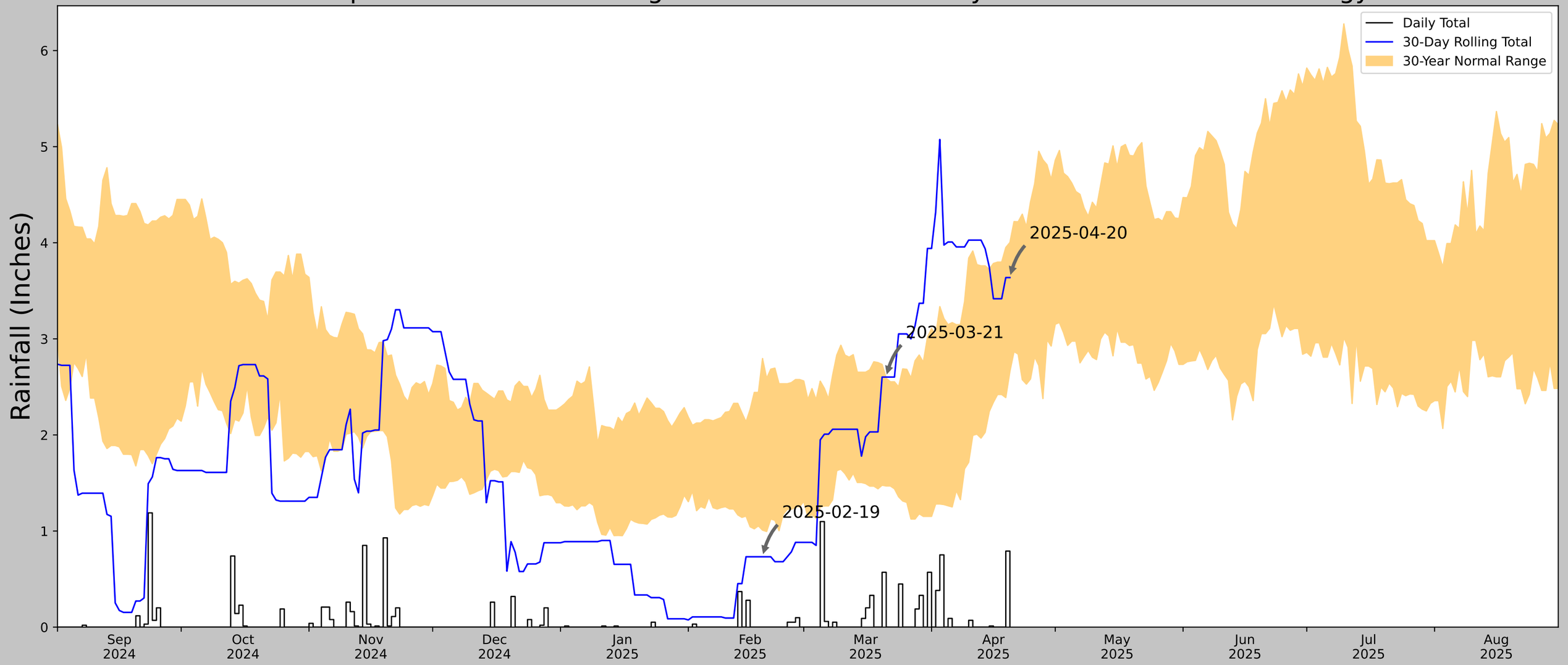
Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2024 NAIP
Milwaukee Co, HEG LRR: MW

Figure Created: 4/23/2025

Attachment 2 | APT Analysis

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	42.871952, -88.057198
Observation Date	2025-04-20
Elevation (ft)	787.506
Drought Index (PDSI)	Mild drought (2025-03)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-04-20	2.661024	4.002756	3.637795	Normal	2	3	6
2025-03-21	1.468898	2.589764	2.602362	Wet	3	2	6
2025-02-19	1.009055	2.795276	0.732283	Dry	1	1	1
Result							Normal Conditions - 13

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
HALES CORNERS/WHITNALL PARK/BO	42.9375, -88.0297	773.95	4.738	13.556	2.196	7268	78
HALES CORNERS 0.7 SE	42.9328, -88.0412	788.058	0.666	14.108	0.309	8	1
GREENDALE 1.5 NW	42.9485, -88.0252	724.081	0.793	49.869	0.396	1	11
HALES CORNERS 0.7 NNE	42.9492, -88.0439	797.9	1.081	23.95	0.512	2	0
GREENFIELD 0.7 SW	42.9559, -88.0151	765.092	1.47	8.858	0.675	2	0
GREENDALE 1.0 ENE	42.9409, -87.9823	801.837	2.409	27.887	1.151	8	0
W ALLIS	42.9981, -88.0242	772.966	4.196	0.984	1.892	2052	0
WEST ALLIS 0.7 SSE	42.998, -88.0238	768.045	4.191	5.905	1.911	2	0
MILWAUKEE MITCHELL AP	42.955, -87.9044	666.995	6.451	106.955	3.593	2010	0

Attachment 3 | Wetland Determination Data Sheets

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16 for the document agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: 20251512 Roan Meadows CSMs | City/County: Milwaukee County | Sampling Date: 2025-04-21
Applicant/Owner: Bear Development | State: Wisconsin | Sampling Point: P1
Investigator(s): Eric C Parker, SPWS | Section, Township, Range: sec 30 T005N R021E
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 42.871952 | Long: -88.057198 | Datum: WGS84
Soil Map Unit Name: Elliott silt loam, 1 to 3 percent slopes | NWI classification: None Depicted
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓
Hydric Soil Present?	Yes ____	No ✓
Wetland Hydrology Present?	Yes ____	No ✓

Is the Sampled Area within a Wetland? Yes ____ No ✓

Remarks:
APT analysis indicates climatic conditions are in the normal range. Refer to 2014 assured delineation confirms this parcel still does not have wetlands.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. DAUCUS CAROTA	30	Y	UPL
2. Erigeron canadensis	10	N	FACU
3. Taraxacum officinale	5	N	FACU
4. Festuca rubra	5	N	FACU
5. Symphyotrichum pilosum	3	N	FACU
6. Rumex crispus	3	N	FAC
7.			
8.			
9.			
10.			
	56.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	3	x 3 =	9
FACU species	23	x 4 =	92
UPL species	30	x 5 =	150
Column Totals:	56 (A)		251.00 (B)

Prevalence Index = B/A = 4.48

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)
Weed community

SOIL

Sam□ling P□int: P1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-21	10YR 3□1	100					SICL	N□ red□x
21-24	2.5Y 2.5□1	100					SIL	N□ red□x

[1]T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, MS=Mas□ed Sand Grains.

[2]L□cati□n: PL=P□re Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□ Sur□ace (A11)
- ___ T□ic□ Dar□ Sur□ace (A12)
- ___ Iron Monosulfide (A18)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ 5 cm Muc□□ Peat □r Peat (S3)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ Dar□ Sur□ace (S7)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Ir□n-Manganese Masses (F12)
- ___ Red Parent Material (F21) Ver□
- ___ S□all□□ Dar□ Sur□ace (F22)
- ___ Ot□er (Ex□lain in Remar□s)

[3]Indicat□rs □□□□dr□□□□tic □egetati□n and □etland □□dr□l□g□ must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: _____

De□t□ (inc□es): _____

Hydric Soil Present? Yes ____ No ✓

Remar□s:

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Drift De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□fis□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ____ N□ ✓ De□t□ (inc□es): ____

Water Ta□le Present□ Yes ____ N□ ✓ De□t□ (inc□es): ____

Saturati□n Present□ Yes ____ N□ ✓ De□t□ (inc□es): ____

(includes ca□illar□ □inge)

Wetland Hydrology Present? Yes ____ No ✓

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:
2005-2024 NAIP imager□

Remar□s:

Standing □ater and saturated s□ils in t□e u□□er 3 inc□es □□s□il are □erc□ed and □resent due t□ signi□icant rain □□er t□e last 2-3 da□s and are NOT ass□ciated □it□ a □ater ta□le.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16 for the appropriate regional agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: 20251512 Roan Meadows CSMs | City/County: Milwaukee County | Sampling Date: 2025-04-21
Applicant/Owner: Bear Development | State: Wisconsin | Sampling Point: P2
Investigator(s): Eric C Parker, SPWS | Section, Township, Range: sec 30 T005N R021E
Landform (hillside, terrace, etc.): Sideslope | Local relief (concave, convex, none): None
Slope (%): 3-7 | Lat: 42.867031 | Long: -88.059976 | Datum: WGS84
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes | NWI classification: None Depicted
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:
APT analysis indicates climatic conditions are in the normal range. Relied on 2014 assured delineation confirms this parcel still does not have wetlands.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. DAUCUS CAROTA	20	Y	UPL
2. Symphyotrichum lilsum	15	Y	FACU
3. PHALARIS ARUNDINACEA	15	Y	FACW
4. Solidago canadensis	10	N	FACU
5. Taraxacum officinale	7	N	FACU
6. Festuca rubra	5	N	FACU
7. Juncus dudleyi	5	N	FACW
8. Erigeron canadensis	3	N	FACU
9. Rumex crispus	3	N	FAC
10.			
	83.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	3	x 3 =	9
FACU species	40	x 4 =	160
UPL species	20	x 5 =	100
Column Totals:	83 (A)		309.00 (B)

Prevalence Index = B/A = 3.72

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)
Weed community

SOIL

Sam□ling P□int: P2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-12	10YR 3□1	100					SIL	N□ red□x
12-16	10YR 2□1	100					SIL	N□ red□x
16-20	2.5Y 2.5□1	100					SICL	N□ red□x
20-24	2.5Y 4□1	100					SIC	N□ red□x

[1]T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, MS=Mas□ed Sand Grains. [2]L□cati□n: PL=P□re Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□ Sur□ace (A11)
- ___ T□ic□ Dar□ Sur□ace (A12)
- ___ Iron Monosulfide (A18)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ 5 cm Muc□□ Peat □r Peat (S3)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ Dar□ Sur□ace (S7)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Ir□n-Manganese Masses (F12)
- ___ Red Parent Material (F21) Ver□
- ___ S□all□□ Dar□ Sur□ace (F22)
- ___ Ot□er (Ex□lain in Remar□s)

[3]Indicat□rs □□□□dr□□□□tic □egetati□n and □etland □□dr□l□g□ must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: _____

De□t□ (inc□es): _____

Hydric Soil Present? Yes ___ No ✓

Remar□s:

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Drift De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□fis□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ ✓ De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ ✓ De□t□ (inc□es): ___

Saturati□n Present□ Yes ___ N□ ✓ De□t□ (inc□es): ___

(includes ca□illar□ □inge)

Wetland Hydrology Present? Yes ___ No ✓

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:
2005-2024 NAIP imager□

Remar□s:

N□ □etland □□dr□l□g□ indicat□rs □□ser□ed, n□ saturati□n.

Attachment 4 | Site Photographs

Photo #1 Sample point P1

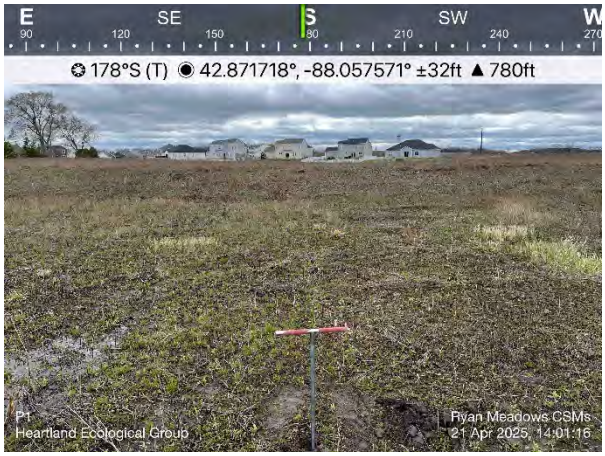


Photo #2 Sample point P1

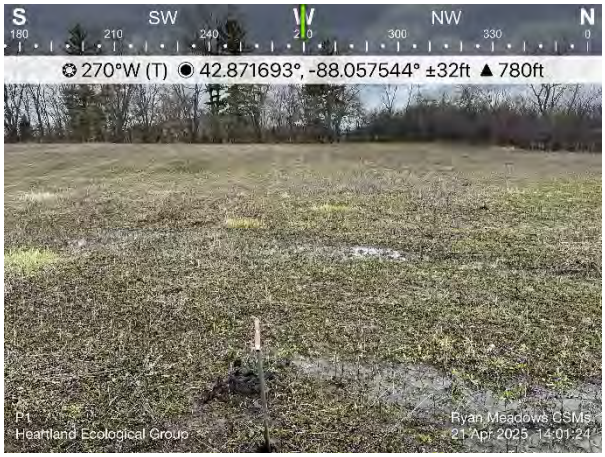


Photo #3 Sample point P1

Photo #4 Sample point P1

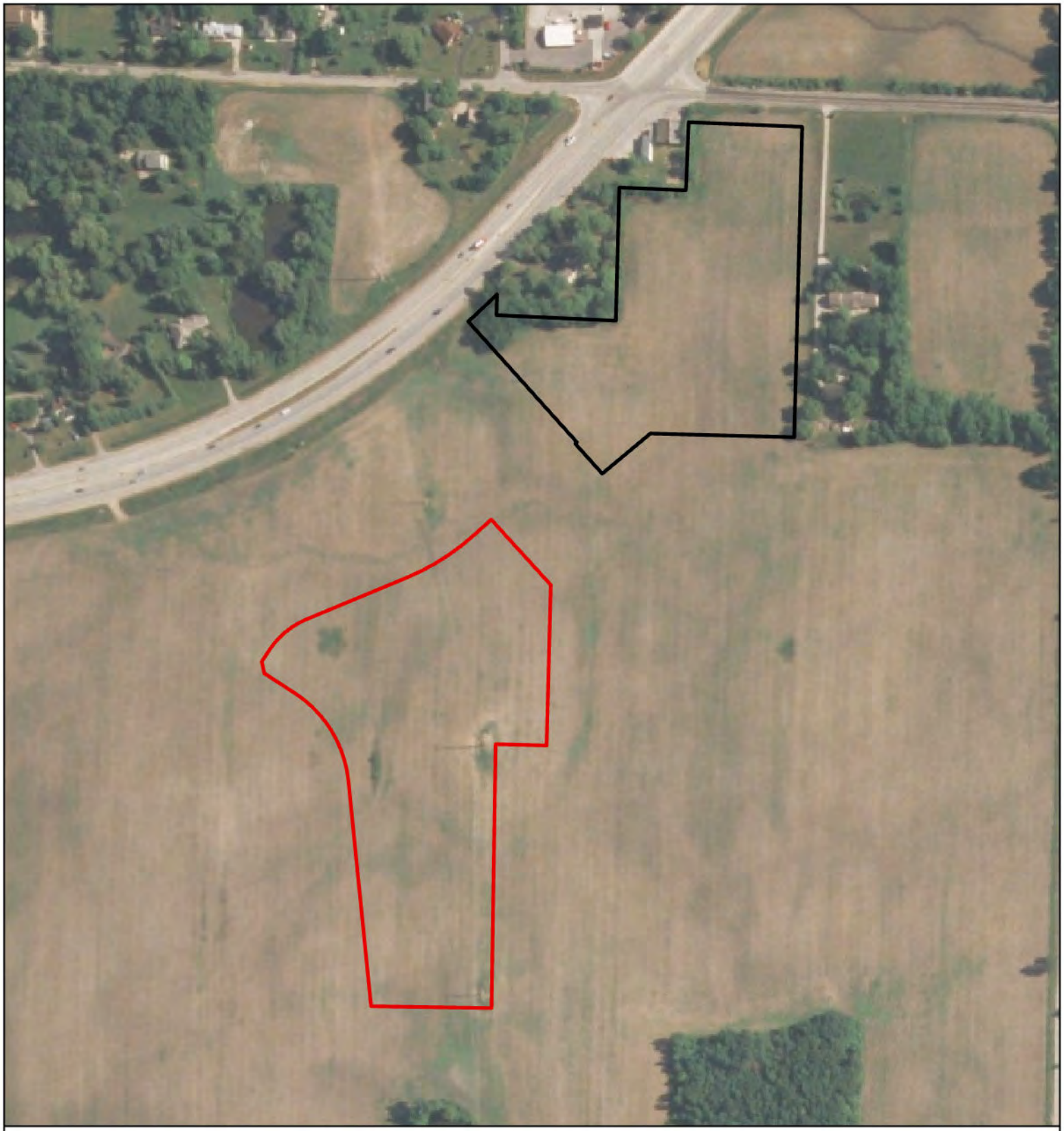
Photo #5 Sample point P2

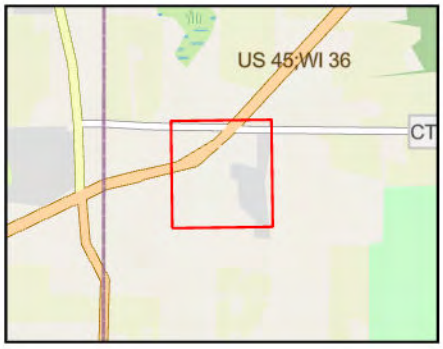
Photo #6 Sample point P2

Photo #7 Sample point P2

Photo #8 Sample point P2

Attachment 5 | NAIP Imagery





North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

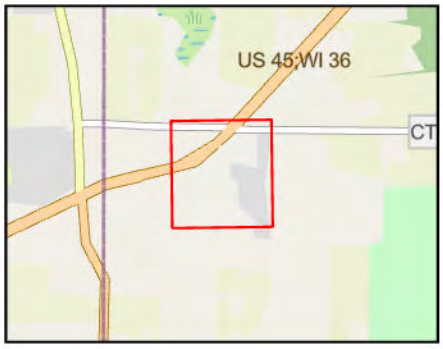
Heartland
ECOLOGICAL GROUP INC

2005-06-16 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2005 NAIP
USDA

Figure Created: 4/23/2025



North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

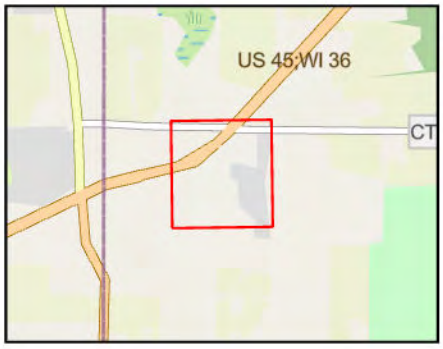
Heartland
ECOLOGICAL GROUP INC

2006-06-12 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2006 NAIP
USDA

Figure Created: 4/23/2025



North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

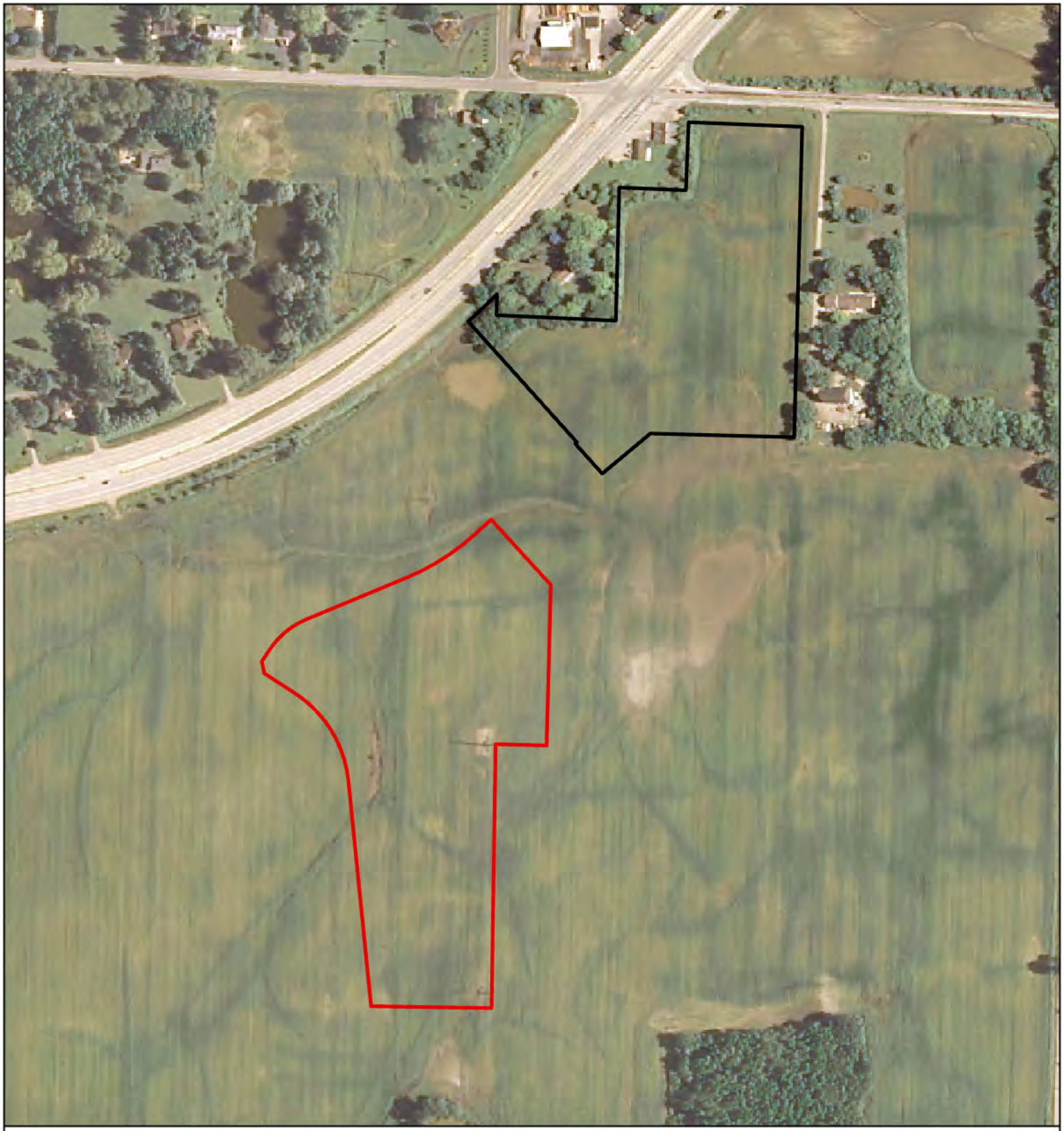
Heartland
ECOLOGICAL GROUP INC

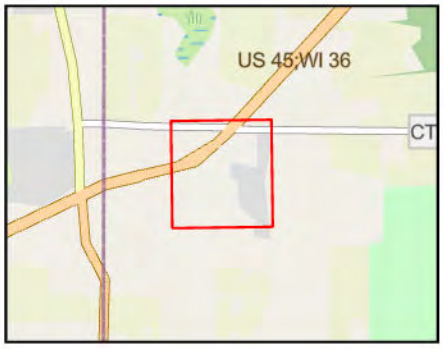
2008-07-05 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2008 NAIP
USDA

Figure Created: 4/23/2025





North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

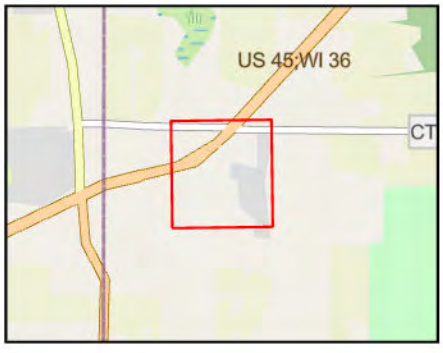
Heartland
ECOLOGICAL GROUP INC

2010-06-28 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2010 NAIP
USDA

Figure Created: 4/23/2025



North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

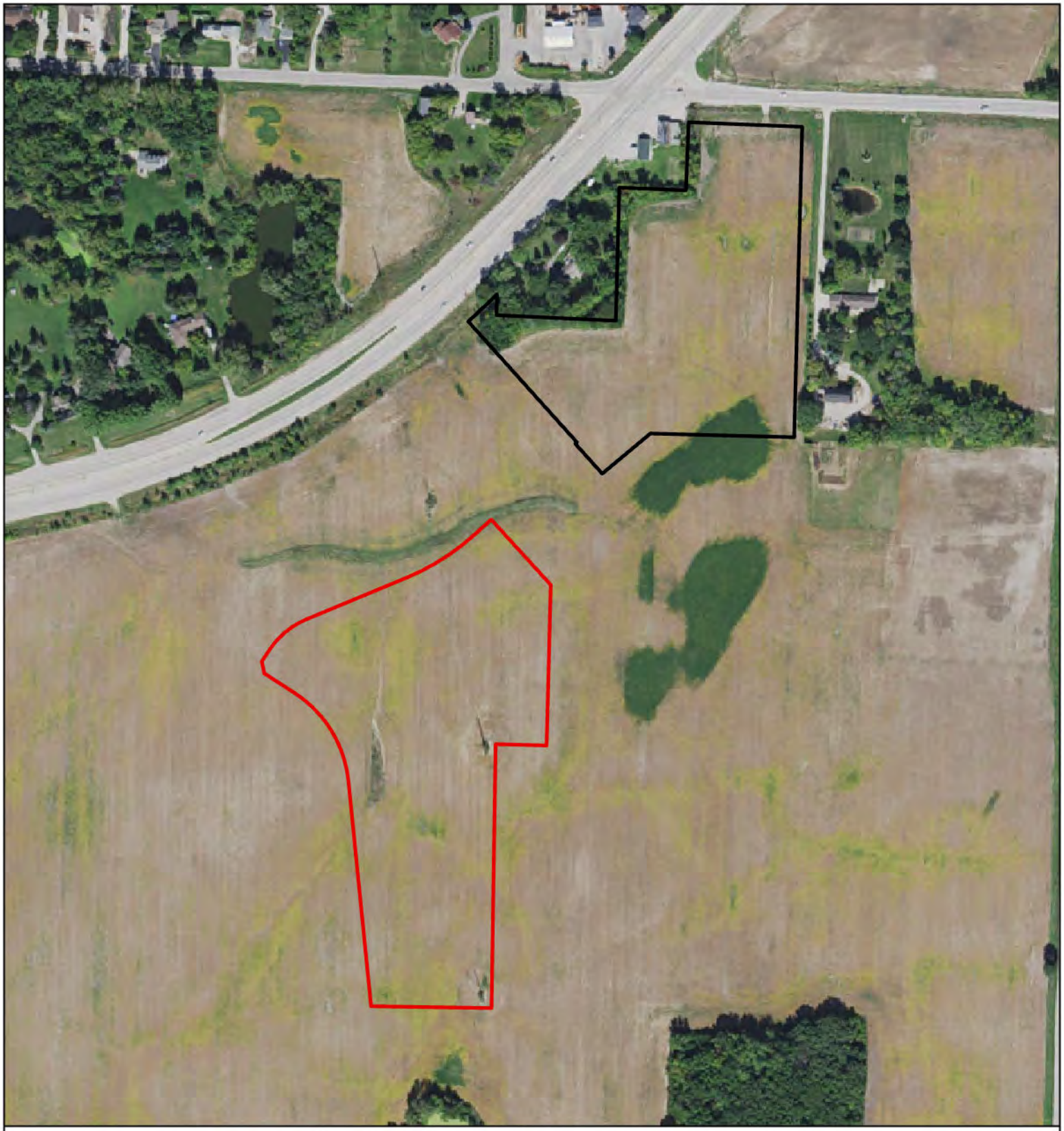
Heartland
ECOLOGICAL GROUP INC

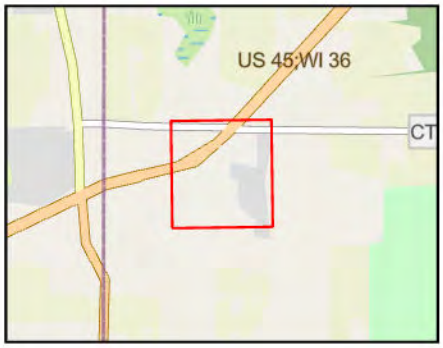
2013-06-24 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2013 NAIP
USDA

Figure Created: 4/23/2025





North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

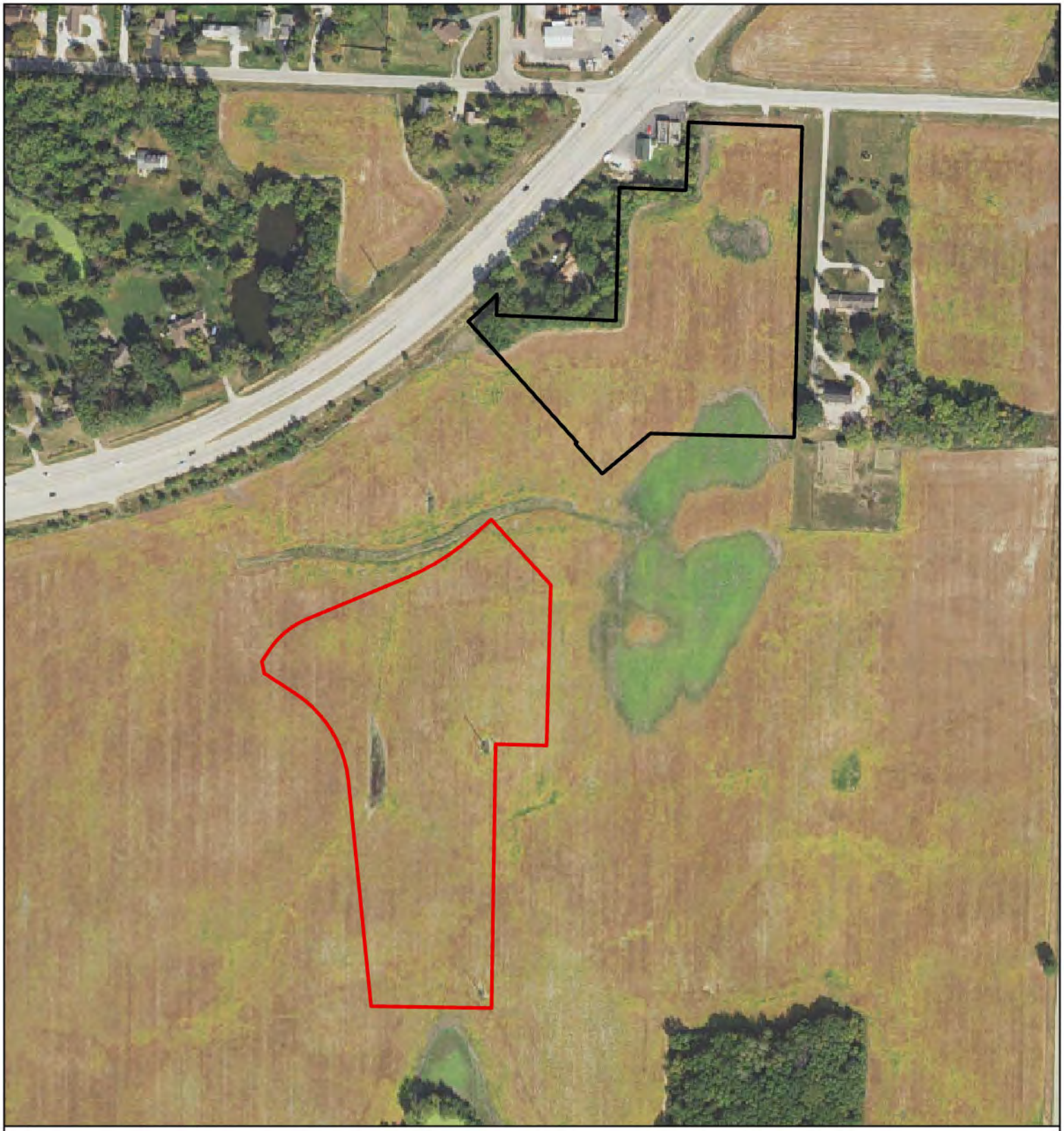
Heartland
ECOLOGICAL GROUP INC

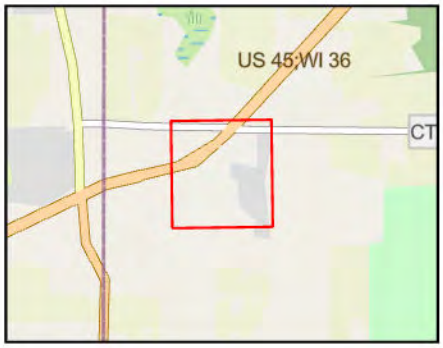
2015-09-22 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2015 NAIP
USDA

Figure Created: 4/23/2025





North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

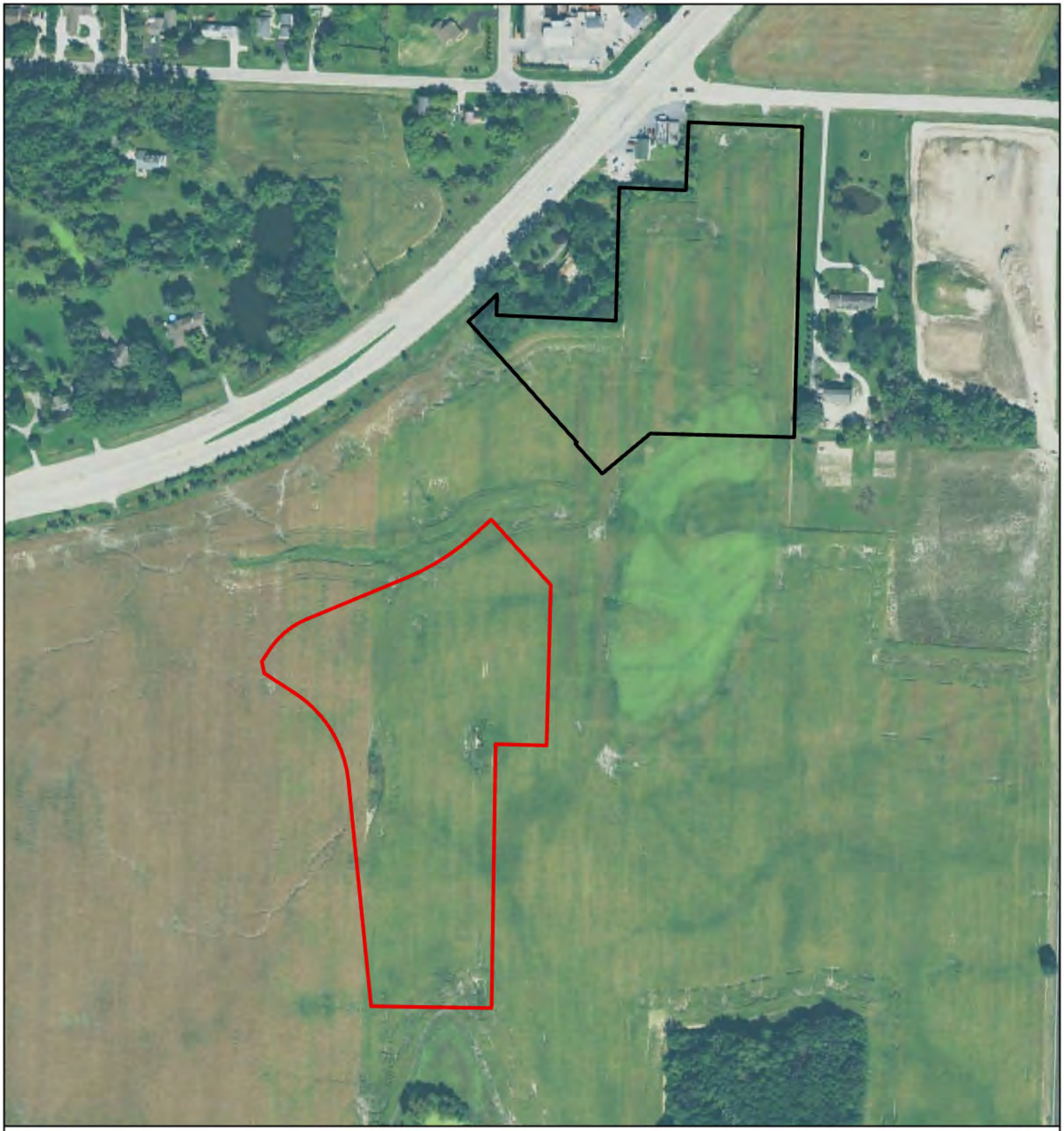
Heartland
ECOLOGICAL GROUP INC

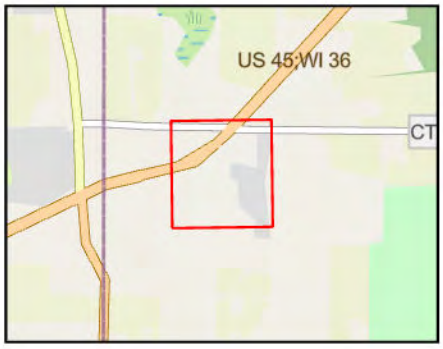
2017-09-23 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2017 NAIP
USDA

Figure Created: 4/23/2025





North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

Heartland
ECOLOGICAL GROUP INC

2018-09-14 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2018 NAIP
USDA

Figure Created: 4/23/2025

North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

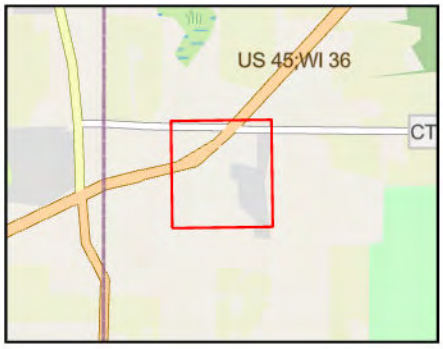
Heartland
ECOLOGICAL GROUP INC

2020-07-24 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2020 NAIP
USDA

Figure Created: 4/23/2025



North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

Heartland
ECOLOGICAL GROUP INC

2022-06-23 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2022 NAIP
USDA

Figure Created: 4/23/2025

North Parcel (7.73 ac)
South Parcel (9.39 ac)

0 300 Ft

Heartland
ECOLOGICAL GROUP INC

2024-10-02 NAIP
Aerial Imagery

Ryan Meadows CSM
Project #20251512
T5N, R21E, S30
C Franklin, Milwaukee Co

2024 NAIP
USDA

Figure Created: 4/23/2025

Attachment 6 | Delineator Qualifications

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1027 W. Saint Paul Avenue
Milwaukee WI 53233

Tony Evers, Governor
Karen Hyun, Ph.D., Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

April 1, 2025

Eric Parker, SPWS, CWS
Heartland Ecological Group, Inc.
4821 Elm Island Circle
Waterford, WI 53185

Subject: 2025 Assured Wetland Delineator Confirmation

Dear Eric Parker:

This letter provides Wisconsin Department of Natural Resources (WDNR) confirmation for the wetland delineations you conduct during the 2025 growing season. You and your clients will not need to wait for the WDNR to review your wetland delineations before moving forward with project planning. This will help expedite the review process for WDNR's wetland regulatory program. Your name and contact information will continue to be listed on our website at: http://dnr.wi.gov/topic/wetlands/assurance.html.

In the instance where a municipality may require a letter of confirmation for your work prior to moving forward in the local regulatory process, this letter shall serve as that confirmation. Although your wetland delineations do not require WDNR field review, inclusion of a Wetland Delineation Report is required for projects needing State authorized wetland, waterway and/or storm water permit approvals.

To comply with Chapter 23.321, State Statutes, please supply the department with a polygon shapefile of the wetland boundaries delineated within the project area. Please do not include data such as parcel boundaries, project limits, wetland graphic representation symbols, etc. If internal upland polygons are found within a wetland polygon, then please label as UPLAND. The shapefile should utilize a State Plane Projection and be overlain onto recent aerial photography. If a different projection system is used, please indicate in which system the data are projected. In the correspondence sent with the shapefile, please supply a brief description of each wetland's plant community (eg: wet meadow, floodplain forest, etc.). Please send these data to Calvin Lawrence (608-266-0756 or email at calvin.lawrence@wisconsin.gov).

If you or any client has a question regarding your status in the Wetland Delineation Professional Assurance Program, contact me by email at kara.brooks@wisconsin.gov or phone at 414-308-6780. Thank you for all your hard work and best wishes for the upcoming field season.

Sincerely,

Kara Brooks
Wetland Identification Coordinator
Bureau of Watershed Management

Eric C. Parker, SPWS

Principal Scientist

4821 Elm Island Circle, Waterford, WI 53185
eric@heartlandecological.com
(414) 380-0269

Heartland ECOLOGICAL GROUP INC

Eric is a Senior Professional Wetland Scientist and Professionally Assured Wetland Delineator in Wisconsin with 35 years of experience assisting public and private clientele. He has completed wetland projects in other states including IL, IN, OH, MI, ND, MO, PA, TX, MD, VA, and NC. His work has supported thousands of institutional, commercial, utility, residential, industrial & transportation projects. Eric's natural resource specialties include botanical surveys, wetland science, restoration and mitigation, and environmental corridor mapping. He has a widespread understanding of the scientific, technical, and regulatory aspects of natural resources projects. His interests also include floristic quality assessment (FQA) and wetness categorization of plant species.

Eric's experience includes the following: Botanical / Biological Surveys and Natural Resource Inventories; Rare Species Surveys, Conservation Plans and Monitoring; Wetland Determination, Delineation and Functional Assessment; Wetland Exemptions; Environmental Corridor Determinations/Mapping; Wetland Restoration, Mitigation, Banking and Monitoring; Habitat Restoration, Wildlife Surveys, SCAT surveys, Environmental Assessments; Local, state, federal permit applications; Expert Witness testimony; and Regulatory permit compliance.

Education

Wetland Ecosystems (including delineation & assessment), USEPA Graduate School, Washington DC, 1988

US Army Terrain Analysis Course, Distinguished Graduate, Defense Mapping School, Fort Belvoir, VA, 1984

BS, Watershed Management, Soils Minor, University of Wisconsin – Stevens Point, Stevens Point, WI, 1983

Certifications and Licensing

Senior Professional Wetland Scientist #838, Society of Wetland Scientists Professional Certification Program, 1995 - present

Certified Wetland Scientist #C-058, Stormwater Management Commission Lake County, IL, 2002 - present

Qualified Wetland Review Specialist #W-057, Kane County, IL, 2006 – present

Professional Development

Critical Methods in Wetland Delineation, University of Wisconsin - La Crosse Continuing Education and Extension, Madison, WI, 2006, 2008, 2010, 2014, 2016-2022

Sedges ID & Ecology, University of Wisconsin – Milwaukee, Cedarburg Bog Field Station, Saukville, WI, 2002, 2006, 2010

Advanced Wetland Delineation, University of Wisconsin - La Crosse, Bayfield County, WI, 2001

Vegetation Description, University of Wisconsin – Milwaukee, Cedarburg Bog Field Station, Saukville, WI, 1998

Mosses ID & Ecology, University of Wisconsin – Milwaukee, Cedarburg Bog Field Station, Saukville, WI, 1998

Grasses ID & Ecology, University of Wisconsin – Milwaukee, Cedarburg Bog Field Station, Saukville, WI, 1998

Basic Wetland Delineation Training, Wisconsin Department of Administration, Waukesha, WI, 1997

Field Oriented Wetland Delineation Course (1987 Corps Manual), Wetlands Training Institute (WTI), St. Paul, MN, 1994

Project Experience

Wetland Delineation & Regulatory Support

2022 Wetland Delineations, Exemption Submittals, and Permitting (104 sites)

Capitol Dr Property, Waukesha Co., WI (Jan); Puetz Rd Property, Milwaukee Co., WI (Jan); Glas Driveway Wetlands and GP, Kenosha Co., (Mar); 19555 W Lincoln Ave GP, Waukesha Co., WI (Mar); Northern Oaks Subd GP-AWER, Waukesha Co., WI (Mar);Workman Properties, Waukesha Co., WI (Apr); 5732 W Rawson Av, Milwaukee Co., WI (Apr); 2705 West Rd, Racine Co., WI (Apr); CTH CW Site, Dodge Co., WI (Apr); 4-Mile Rd Property, Racine Co., WI (Apr); Kurtze Ln Property, Waukesha Co., WI (Apr); 128th St Parcel, Kenosha Co., WI (Apr); Thomas Property Wetlands-PEC-Navigability, Waukesha Co., WI (Apr); Ament Property, Racine Co., WI (Apr); W3970 South Shore Dr, Walworth Co., WI (Apr); N2280 Temperance Tr, Walworth Co., WI (Apr); S Clark St Parcel, Dodge Co., WI (Apr); Deer Haven GC, Waukesha Co., WI (May); Petrie Rd 7.5 Ac Parcel, Walworth Co., WI (Apr); 5.5Ac Parcel Mukwonago, Waukesha Co., WI (Apr); S107 W16311 Loomis Rd Parcel, Waukesha Co., WI (Apr); CTH A & USH 12 Property, Walworth Co., WI (Apr); Cape Crossing NFE, Milwaukee Co., WI (Apr); Teipner Parcel, Waukesha Co., WI (Apr); Lichner Parcel, Waukesha Co., WI (Apr); Biocut Systems Site AWER, Waukesha Co., WI (Apr); Spring St Parcels, Racine Co., WI (May); US41 Corridor, Waukesha Co., WI (Apr); Reddelien Rd Parcel, Waukesha Co., WI (May); Watertown Rd Property, Waukesha Co., WI (May); 10027 Camelot Dr, Racine Co., WI (May); Koller Property, Ozaukee Co., WI (May); Altschaefl Property, Waukesha Co., WI (May); Pipito Property Pond, Dodge Co., WI (May); Kenora Rd Parcels, Waukesha Co., WI (May); Moorland & Greenfield Wetlands-AWER, Waukesha County, WI (May); Alliant Edgewater GS, Sheboygan Co., WI (May); Arbet North Parcel, Kenosha Co., WI (May); Pleasant Prairie Police Station, Kenosha Co., WI (May); 3rd Ave Pleasant Prairie Site, Kenosha Co., WI (May); 10766 N Torrey Dr Property, Ozaukee Co., WI (Jun); Kolnik Parcel, Kenosha Co., WI (Jun); Gateway Dr Watertown, Jefferson Co., WI (Jun); Green Bay Gardens Site, Kenosha Co., WI (Jun); DuCharme Property Wetlands-PEC, Waukesha Co., WI (Jun); 2301 Lakeshore Dr. GP-Tree Survey, Ozaukee Co., WI (Jun); 641 Drexel Wetlands-GP, Milwaukee Co., WI (Jun); Quigley Farm, Washington Co., WI (Jun); Big Bend Business Park, Waukesha Co., WI (Jun); Lad Lake Property, Waukesha Co., WI (Jun); Pleasant Prairie PP Utility Corridor, Kenosha Co., WI (Jul); Pleasant Prairie Fire Station 3, Kenosha Co., WI (Jul); CTH H Parcels, Walworth Co., WI (Jul); Oakwood Rd Parcels, Milwaukee Co., WI (Jul); Big Bend Rd Property, Waukesha Co., WI (Jul); Heartland Communities, Racine Co., WI (Jul); Leo Living Bristol Wetlands-PEC, Kenosha Co., WI (Jul); Stream Conservation Union Grove, Racine Co., WI (Jul); 8979 S 42nd St Franklin, Milwaukee Co., WI (Jul); 2205 Silvernail Rd, Waukesha Co., WI (Jul); East Wolf Run Mukwonago, Waukesha Co., WI (Jul); 1302 Roundtable Dr, Racine Co., WI (Jul); Corporation Parcel Dover, Racine Co., WI (Jul); 11925 W Lake Park Dr, Milwaukee Co., WI (Jul); 17905 W Capitol Dr Parcel, Waukesha Co., WI (Jul); Mosconi West Property, Kenosha Co., WI (Jul); Promise Builders Site, Kenosha Co., WI (Jul); Highland Dr Menomonee Falls Botanical Survey, Waukesha Co., WI (Aug); METRO RDF Expansion, Milwaukee Co., WI (Aug); 5.53 Ac Mukwonago Site, Waukesha Co., WI (Aug); Northstar Beloit Site, Rock Co., WI (Aug); Wirth Farm PEC-AWER-Tree Survey, Ozaukee Co., WI (Aug); Olympia Fields Wetlands-AWER, Waukesha Co., WI (Aug); Maple Rd Softball Field, Washington Co., WI (Aug); Blise Property Pond, Washington Co., WI (Aug); St. Johns NW Military Academy Wetlands-PEC, Waukesha Co., WI (Aug); Wildwood Property Wetlands-Navigability, Walworth Co., WI (Aug); Goldendale Rd Property, Washington Co., WI (Aug); 6951 S Lovers Lane, Milwaukee Co., WI (Aug); Klumb Property Wetlands-Corridor, Waukesha Co., WI (Aug); Highland Meadows Residential, Ozaukee Co., WI (Sep); Grand Hills Castle Expansion GP, Waukesha Co., WI (Sep); 31110 82nd St Property, Kenosha Co., WI (Sept); Miller Property Wetlands-SEC, Waukesha Co., WI (Sep); Townline Rd Water Main Wetlands-GP, Waukesha Co., WI (Sep); Sanctuary at Good Hope East PEC, Waukesha Co., WI (Oct); Kutzler Express Property, Kenosha Co., WI (Oct); 47th Ave Property, Kenosha Co., WI (Oct); Steinbrink Property, Kenosha Co., WI (Oct); Caledonia Developments, Racine Co., WI (Oct); DeGrave Farm, Racine Co., WI (Oct); Nettesheim Farm Pewaukee, Waukesha Co., WI (Oct); Fisher-Barton Property, Waukesha Co., WI (Oct); BRP shipyard Sturtevant, Racine Co., WI (Oct); CTH C Site Sheboygan Falls, Sheboygan Co., WI (Oct); Willabay Meadows Residential, Walworth Co., WI (Oct); Thode Dr Property, Waukesha Co., WI (Oct); Middle Rd Property Wetlands-AWER, Racine Co., WI (Oct); Three Pillars Dousman Ph1A, Waukesha Co., WI (Oct); Primrose School Site Brookfield, Waukesha Co., WI (Oct); Grand Geneva Housing Site, Walworth Co., WI (Nov); 2651 Fuller Rd Site, Rock Co., WI (Nov); Willis Ray Rd Property, Walworth Co., WI (Nov); Harding Dr Menomonee Falls Site, Waukesha Co., WI (Nov).

2021 Wetland Delineations, Exemption Submittals, and Permitting (95 sites)

CTH CW Property Exemption, Jefferson Co., WI (Jan); BP Parcel Determination, Kenosha Co., WI (Mar); Narula Property, Kenosha Co., WI (Apr); So Wi Veterans Mem Cemetery, Racine Co., WI (Apr); N. 70th St. Site, Milwaukee Co., WI (Apr); 6th & Grange Site, Milwaukee Co., WI (Apr); North Lake Dr Site, Racine Co., WI (Apr); E. Lakeshore Dr Property, Kenosha Co., WI (Apr); Deaton Parcel Exemption, Kenosha Co., WI (Apr); Alliant Energy Solar Site, Sheboygan Co., WI (Apr); Breg-3 Site Exemptions, Milwaukee Co., WI (Feb); Bristol Highlands, Kenosha Co., WI (Apr); Sandalwood Lot 20, Oconto Co., WI (Apr); Martin Rd Parcels, Waukesha Co., WI (Apr); Fair Meadow Subd Exemption, Walworth Co., WI (Apr); Will Rose Haven GP, Waukesha Co., WI (Apr); Bristol Property Wetlands & Exemption, Kenosha Co., WI (Apr); 11900 N Port Washington Rd, Ozaukee Co., WI (Apr); Gibbs Parcel, Kenosha Co., WI (May); Schaefer Farm, Racine Co., WI (May); Lisbon 12-Ac Parcel, Waukesha Co., WI (May); Coach Hills Exemptions, Racine Co., WI (May); Ventimiglia Property, Oconto Co., WI (May); Case HS Property, Racine Co., WI (May); Warntjes North-South Parcels, Kenosha Co., WI (May/Jul); CSM 3325 Dover, Racine Co., WI (May); STH 175 Parcel, Washington Co., WI (May); Holy Hill Rd Property, Washington Co., WI (May); Lyons Parcel Determination, Walworth Co., WI (May); CSM 3591 Mequon, Ozaukee Co., WI (May); Parcel 293-0965 Pleasant Prairie, Kenosha County, WI (May); Denoon Country Estates Muskego, Waukesha Co., WI (May); Blaze Landscaping Lisbon Parcel Wetlands-Exemption, Waukesha Co., WI (Jun); Hughes Parcel wetlands-Woodlands-PEC, Racine Co., WI (Jun); Logan Parcel, Washington Co., WI (May); CTH LL Property, Ozaukee Co., WI (Jun); Steenburg Farm Oakridge, Fond du Lac Co., WI (Jun); Steenburg Farm Dallman, Fond du Lac Co., WI (Jun); UW Parkside Utility Renovations, Kenosha County, WI (May); Salem Lakes Parcel 70412, Kenosha County, WI (Jun); Russet Ct Muskego Site, Waukesha Co., WI (Jun); Kazmierczak Property, Washington Co., WI (Jun); Parcel 152-0100 Pleasant Prairie, Kenosha Co., WI (Jun); 59-Acre Parcel Lisbon Property, Waukesha Co., WI (Jun); 98th St Parcel Randall, Kenosha Co., WI (Jun); Ryan Rd 80-Ac Site, Milwaukee Co., WI (Jul); Hickory Hill West Wetland-PEC Lisbon, Waukesha Co. WI (Jun); Cranberry Creek Landfill, Wood Co., WI (Jul); Christina Estates Outlot 1 Exemption, Racine Co., WI (Jul); LG House of Music Property, Walworth Co., WI (Jul); STH 158-I94 Property, Kenosha Co., WI (Aug); 3-Mile Rd Property, Racine Co., WI (Jul); Price Parcel Ottawa, Waukesha Co., WI (Jul); Lot 1 Lilac Rd Rubicon, Dodge Co., WI (Aug); 633 Progress Dr Determination, Ozaukee Co., WI (Jul); I41 & STH60 Property Slinger, Washington Co., WI (Aug); Summit Parcel 0708985 Determination, Waukesha Co., WI (Aug); Timberline Trail Landfill Wetlands and Exemption, Rusk Co., WI (Aug); Seasons at Mt Pleasant Sewer, Racine Co., WI (Aug); Kenny Dr Lots 1-2, Washington Co., WI (Aug); Bliffert Lumber Germantown, Washington Co., WI (Aug); Gibson Parcels Eagle Site, Waukesha Co., WI (Aug); Clover Run Stables, Racine Co., WI (Sep); Pink Property Salem Lakes GP, Kenosha Co., WI (Sep); Albano Property Carol Beach, Kenosha Co., WI (Sep); Mosconi Parcel Somers, Kenosha Co., WI (Sep); Petrie Rd Property Geneva, Walworth Co., WI (Sep); NML Property Oak Creek, Milwaukee Co., WI (Sep); Carol Beach Estates, Kenosha Co., WI (Sep); Mt. Pleasant Business Ctr Site, Racine Co., WI (Sep); Pleasant Prairie Power Plant, Kenosha Co., WI (Sep); STH 31 Property, Racine Co., WI (Sep); 112th St Expansion Parcel, Milwaukee Co., WI (Oct); Glacier Ridge Landfill EC Site, Dodge Co., WI (Sep); City-View Subdivision Horicon, Dodge Co., WI (Sep); Rock Rd Co Beloit, Rock Co., WI (Oct); Glass Parcels Richfield, Washington Co., WI (Oct); Alliant Clinton Substation, Rock Co., WI (Oct); Triggs Property Delafield, Waukesha Co., WI (Oct); Singh Parcel Franklin, Milwaukee Co., WI (Oct); Hilmer Property Muskego, Waukesha Co., WI (Oct); Baseler Property Muskego, Waukesha Co., WI (Oct); ALDI Property Oak Creek, Milwaukee Co., WI (Oct); Plank Rd Property Burlington, Racine Co., WI (Oct); Jackson Marsh Restoration Site, Washington Co., WI (Oct); Pilgrim Rd Parcel Brookfield, Waukesha Co., WI (Oct); Henneberry Parcel Muskego, Waukesha Co., WI (Oct); Ewig Parcel Franklin, Milwaukee Co., WI (Oct); STH 120 Site L Geneva, Walworth Co., WI (Oct); KMHS Wales, Waukesha Co., WI (Oct); 184th Ave Bristol Property, Kenosha Co., WI (Oct); 144th Ave Bristol Property, Kenosha Co., Pabst Rd Oconomowoc Site, Waukesha County, WI (Oct); N Lake Shore Dr Mequon, Ozaukee Co., WI (Nov); 28414 Wilmot Rd Salem Lakes, Kenosha Co., WI (Nov); 819 E Drexel Site, Milwaukee Co., WI (Nov).

2020 Wetland Delineations, Exemption Submittals, and Permitting (90 sites)

Courtney Street Storage Buildings, Racine Co., WI (Feb); 86th Ave & STH 165 Parcel, Kenosha Co., WI (Feb-Apr); Harris Gravel Pit, Dane Co., WI (Mar-Apr); Alliant Birnamwood Substation, Shawano Co., WI (Apr); Rolling Meadows Drive Parcel, Fond du Lac Co., WI (Apr); Lieds Nursery Site, Waukesha Co., WI (Apr); Plas-Tech Engineering Site, Walworth Co., WI (Apr); Fink Parcel, Racine Co., WI (Apr); Lot 1 Proposed CSM 3258, Racine Co., WI (Apr); Harris Gravel Pit, Dane Co., WI (May); Schumacher Rd Reconstruction, Dane Co., WI (Apr); Whitetail Ridge Ph2, Kenosha Co., WI (Apr), Kelly Pit Addition, Dane Co., WI (Apr); Myrtle Way Road Improvements, Rock Co., WI (Apr); Pewaukee Industrial Park South, Waukesha Co., WI (May); Mueller Property, Fond du Lac Co., WI (Apr); 3901 Kipp Street Site,

Dane Co., WI (Apr); Witte Parcels, Dane Co., WI (Apr); Sandalwood Lots 7-8, Oconto Co., WI (Apr); Yellowstone Outdoor Resort, Lafayette Co., WI (Apr); S&L Underground Expansion, Columbia Co., WI (May); 200 Baraboo Street, Sauk Co., WI (May); Jefferson Pit, Jefferson Co., WI (May); Rock Point Village, Waukesha Co., WI (May); Blanchardville Coop Oil & NGSD Parcels, Green Co., WI (May); Logtown Development, Sauk Co., WI (Jun); Maple Ave Property, Waukesha Co., WI (May); Wanasek Property, Racine Co., WI (May); Meier Farms, Dane Co., WI (Jun); 76th & Ryan Site, Sauk Co., WI (May); Milton Townline Road Site, Rock County, WI (May); Somers Multi-family Site, Kenosha Co., WI (May); Cazenovia WWTP Expansion, Waukesha Co., WI (Jun); Waukegan Property, Lake Co., IL (Jun); Ozaukee Christian School, Washington Co., WI (Jun); Kohler Distribution Center, Sheboygan Co., WI (Jun); Veterans Memorial Park West Site, Kenosha County, WI (Jun); Veterans Memorial Park East Site, Kenosha County, WI (Oct); Bristol Commons Site, Kenosha Co., WI (Jun); Barels Property, Racine Co., WI (Jun); Rogich Property, Milwaukee Co., WI (Jun); CTH MM Intersection Reconstruction, Dane Co., WI (Jul); Rose Property, Racine Co., WI (Jun); Baldev Court Property, Ozaukee Co., WI (Jul); Paul-Meghan Dominie Property, Dane Co., WI (Jul); Union Court Site, Kenosha Co., WI (Jul); Webcrafters Parcels, Dane Co., WI (Jul); Site Security Upgrades Site, Waukesha Co., WI (Jul); Scuppernong Creek Site, Waukesha Co., WI (Jul); W9030 Oak Ridge Road Property, Jackson Co., WI (Jul); Cherokee Golf Course, Dane Co., WI (Aug); W3948 South Shore Drive, Walworth Co., WI (Aug); Caledonia Multifamily Site, Racine Co., WI (Aug), Mittelstaedt Property, Sauk Co., WI (Aug); 1525 Bryce Drive Parcel, Winnebago Co., WI (Sep); Platten Property, Outagamie Co., WI (Sep); St. Mary's Springs Site, Fond du Lac Co., WI (Sep); Fairway Village Site, Ozaukee Co., WI (Sep); Quarry Park Site, Waukesha Co., WI (Sep); CTH F-Concord Site, Jefferson Co., WI (Sep); HJ Williams Farm, Adams Co., WI (Oct); STH 16-Lisbon Rd Parcel, Waukesha Co., WI (Sep); Golden Lake Road Property, Waukesha Co., WI (Sep); 4522 CTH P Parcel, Washington Co., WI (Sep); Darby Farms, Kenosha Co., WI (Sep); 227 Sussex Street, Waukesha Co., WI (Sep); Lexus of Brookfield Site, Milwaukee Co., WI (Sep); Wesner Greenfield Ave Parcels, Waukesha Co., WI (Sep); Oriole Lane Parcels, Ozaukee Co., WI (Oct); Wayside Parkview Estates, Brown Co., WI (Sep); Wind Point Parcel, Racine Co., WI (Oct); Geneva National Lot 18-23, Walworth Co., WI (Oct); Badger Farm, Racine Co., WI (Oct); Dorset Corners Substation, Monroe Co., WI (Sep); Covered Bridge Rd Site, Ozaukee Co., WI (Oct); Trek Distribution Center, Jefferson Co., WI (Oct); Craftsman Drive Parcel, Waukesha Co., WI (Oct); Village Green Subdivision, Ozaukee Co., WI (Oct); Ansay Farm, Ozaukee Co., WI (Oct); Zenner Farm Property, Racine Co., WI (Oct); West Snell Rd Site, Winnebago Co., WI (Oct); Kenosha County Bridges, Kenosha Co., WI (Oct); Confidential Site Janesville, Rock Co., WI (Oct); Janesville Airport Site, Rock Co., WI (Oct); 10920 West Liberty Drive, Milwaukee Co., WI (Oct); V of River Hills 53-Acre Site, Milwaukee Co., WI (Oct); Hwy 14 & Lacy Rd Site, Dane Co., WI (Oct); Wilderness Way Parcel, Waukesha County, WI (Oct); Hummingbird Lane Parcel, Sheboygan Co., WI (Oct); Plainview Rd Site, Waukesha Co., WI (Nov); Delimat Property, Kenosha Co., WI (Nov); 11900 N Port Washington Rd Parcel, Ozaukee Co., WI (Nov); Canopy Hills Artificial Wetland, Racine Co., WI (Dec); Strauss Brands Facility, Milwaukee County, WI (Dec).

2019 Wetland Delineations, Exemption Submittals, and Permitting (39 sites)

North Hills Subdivision, Waukesha Co., WI (Jan); Prairie Walk Subdivision, Waukesha Co., WI (Apr); Loomis Parcel Determination, WI (Mar-Apr); Lamminem Parcel, Kenosha Co., WI (Apr); Lot 103 Burlington, Racine Co., WI (Apr); 7220 Ryan Rd Parcel, Milwaukee Co., WI (Apr); 1-Acre Franklin Parcel, Milwaukee Co., WI (June); 256th Ave Site, Kenosha Co., WI (May); 915 Main St Mukwonago, Waukesha Co., WI (May); Muskego Lakes CC, Muskego, Waukesha Co., WI (June), Bonniwell Road Parcel, Ozaukee Co., WI (July); 333 Portland Rd Site, City of Waterloo, Jefferson Co., WI (May); Thompson Lane Parcel, Village of Chenequa, Waukesha Co., WI (May); Schmitz Redi-Mix Site, Village of Mt. Pleasant, Racine Co., WI (June); New Berlin Redi-Mix Site, City of New Berlin, Waukesha Co., WI (May); Elm Grove Road Basin, City of New Berlin, Waukesha Co., WI (May); Lathrop-Meacham Parcels Mitigation Site, Village of Mt. Pleasant, Racine Co., WI (May-July); Lot 18-31 Geneva National Site, Town of Geneva, Walworth Co., WI (July); Bohner's Lake Parcel, Town of Burlington, Racine Co., WI (Sept); 6970 South 6th St., City of Oak Creek, Milwaukee Co., WI (Aug); Weatherstone Meadows site, City of New Berlin, Waukesha Co., WI (Aug); Parkview Apartments site, Village of Somers, Kenosha Co., WI (Aug); Volkswagen Expansion site, Village of Pleasant Prairie, Kenosha Co., WI (Aug); Pewaukee-Brookfield Trail, Waukesha Co., WI (Aug-Sept); Parcel 1268-993, City of New Berlin, Waukesha Co., WI (Aug); Germantown Industrial Business Park, Washington Co., WI (Oct); Haasch- Finger site, City of Brookfield, Waukesha Co., WI (Oct); Kennedy Property, Village of Waunakee, Dane Co., WI (Oct); Jefferson County Interurban Trail, Towns of Watertown and Ixonia, Jefferson Co., WI (Oct); Mukwonago Residential Parcel, Village of Mukwonago, Waukesha Co., WI (Oct); Pine Ridge Estates, City of Oconomowoc, Waukesha Co., WI (Oct); Silver Lake Parcels, Village of Salem Lakes, Kenosha Co., WI (Oct); New Berlin Trail Phase II, City of Waukesha, Waukesha Co., WI (Oct); 1910 W Puetz Road site, City of Oak Creek, Milwaukee County, WI (Oct); Project Redline, Village of Menomonee Falls,

WI (Oct); CSM 3232 Outlot 1, Village of Mt. Pleasant, Racine Co., WI (Oct); Plant Community Mapping and Assessment, City of Oak Creek, Milwaukee Co., WI (Nov); Faber Property, Village of Williams Bay, Walworth Co., WI (Nov); Campus Drive Property, Village of Hartland, Waukesha Co., WI (Dec).

Example 2018 Wetland Delineations in WI and IL (50 sites)

Homestead Acres, Racine Co., WI (Apr); Greenmeadows, Racine Co., WI (Apr), Wind Point School, Racine Co., WI (Apr); Vintage Parc East, Kenosha Co., WI (Apr); Nelson-Heckel, Kenosha Co., WI (Apr); Caledonia Storage, Racine Co., WI (Apr); New Berlin Storage, Waukesha Co., WI (Mar); Manke Gravel Pit, Columbia Co., WI (May); Drissel-Wallace, Kenosha Co., WI (May); LaBelle Golf Course, Waukesha Co., WI (May); Waterloo Aluminum, Jefferson Co., WI (May); Salem Business Park, Kenosha Co., WI (May); Audubon Arboretum, Racine Co., WI (May); Briarwood, Racine Co., WI (May); Basting-Brown Parcels, Waukesha Co., WI (May); 84-Acre Site, Racine Co., WI (May); Jolenta Lane, Waukesha Co., WI (Apr); Rock Road Storage, Walworth Co., WI (May); Wildwood Creek, Winnebago Co., WI (Jun); Green Bay Site, Brown Co., WI (Jun); Main Street Market, Kenosha Co., WI (Jul), Armstrong Eddy Park, Rock Co., WI (May), Hickory St Site, Ozaukee Co., WI (Jun), Parcel DW 800004, Walworth Co. (Jun); Lot 8 Parcel WCA-0003, Walworth Co., WI (Jun); RRR Grundy, Kane Co., IL (Jul); Coleman Norris Parcel, Waukesha Co., WI (Jul); Deaton Parcel, Kenosha Co., WI (Aug); Hintz Parcel, Washington Co., WI (Aug); Loomis-Ryan Rds Site, Milwaukee Co., WI (Aug); Grass Parcels, Waukesha Co., WI (Sep); Mallard Ridge Landfill Pipeline, Walworth Co., WI (Sep); Glacier Ridge Landfill Pipeline, Dodge Co., WI (Sep); Ravenwoods, Waukesha Co., WI (Aug); Canopy Hills, Racine Co., WI (Sep); Duck Pond, Kenosha Co., WI (Sep); Splinter Parcels, Racine Co., WI (Oct); Berget Parcel, Walworth Co., WI (Sep); Saylesville Rd Parcel, Waukesha Co., WI (Oct); Racine Ave-Lawnsdale Rd Parcel, Waukesha Co., WI (Oct); Braun Rd-90th St Parcel, Racine Co., WI (Oct); Grafton Parcels, Ozaukee Co., WI (Dec); Crawford Parcel, Racine Co., WI (Nov); Kotas Parcels, Racine Co., WI (Nov); Altamount Acres South, Racine Co., WI (Dec); Christina Estates, Racine Co., WI (Dec); Christina Estates NE, Racine Co., WI (Dec); Lathrop Parcel, Racine Co., WI (Dec); Hillside Ridge, Waukesha Co., WI (Dec); Stolz Property, Waukesha Co., WI (Dec).

Example 2017 Wetland Delineations in WI, MI, IN, and IL (31 Sites)

Back 40 Mine, Menominee Co., MI (Jan); Oakdale Rd Site, Waukesha Co., WI (Sep), Birds Eye Foods, Walworth Co., WI (Sep); Boss Property, Leelanau Co., MI (Jul); Brighton Estates, Waukesha Co., WI (Sep); Saltzman North, Waukesha Co., WI (Sep); Susnar Parcel, Waukesha Co., WI (Sep); Wrenwood Site, Washington Co., WI; Chorneyko Site, Walworth Co., WI (Apr); CN Railroad Bridges-6 Sites, Fond du Lac & Winnebago Co's, WI; CN Railroad Freeport Culvert, Kane Co., IL (May); Herrling Site, Dane Co., WI (Sep); MMSD Sewerage Project, Milwaukee Co., WI (May); Spring St Site, Racine Co., WI (Oct); Goshen Midway Cell Tower, Elkhart Co., IN (Apr); Two Creeks Utility Site, Manitowoc Co., WI (Nov); Suncast Site, Kane Co., IL (Dec); Lot 51 Lakeview Corp Park, Kenosha Co., WI (Oct); Lakefront Gun Range, Racine Co., WI (Oct); WI Club Golf Course, Milwaukee Co., WI (Apr); WisDOT Improvements, STH 32 Racine Co (Aug), STH 67 Walworth Co. (Sep), STH 20, Racine Co. (Oct), 27th St, Milwaukee Co. (Sep); Conference Point Boat Launch, Walworth Co., WI (Oct); Lake View RR Corridor, Portage Co., WI (Sep).

Example 2016 Wetland Delineations in WI, OH, MI and IL (Mostly Large Projects)

AEP Wavery-Adams-Seaman 138 kV Trans. Line Rebuild, Adams & Pike Co's, OH (Dec); Kansas West- Faraday Trans. Line Rebuild-Macon, Moultrie, & Coles Co's, IL (Jan), Riveredge Nature Center Preliminary, Ozaukee Co., WI (Feb); Lost Creek Mitigation Site, Portage Co., WI (Jun); I-41 Burleigh to Good Hope Corridor WisDOT, Milwaukee Co., WI (Jul); STH 60 Corridor, Ozaukee & Washington Co's, WI (Aug–Oct); Erin Hills Golf Course, Washington Co., WI (Sep); Back 40 Mine, Menominee Co., MI; Lake Zurich SW Cell Tower, Lake Co., IL (Oct); Acme Steel Coke Site, Cook Co., IL (Dec).

Example 2015 Wetland Delineations in WI, IL, and MO (Mostly Large Projects)

Bolser Street MO33211-M Cell Tower Site, Grundy Co., MO (Sep); Section 9 Site, Dane Co., WI (Apr); Franzel Rd Site, Bayfield Co., WI (Apr); Big Eau Pleine Mitigation Site, Marathon Co., WI (Aug); Taylor Road Siding Track, Jackson Co., WI (Nov); UPS-CACH Site, Cook Co., IL (Jun); Eggers Woods Forest Preserve, Cook Co., IL (Mar).

Example 2014 Wetland Delineations in WI, IL, and MI (Mostly Large Projects)

Emerald Park Western Expansion, Waukesha Co., WI (Oct); Arcadia Mining Site-Trempealeau Co., WI (Apr);

Kalamazoo River Parcel, Kalamazoo and Calhoun Co's, MI (Jul); G2 Mitigation Site - Winnebago Co., WI (May); Line 6A MP 378.94, McHenry Co., IL (Sep); Geneva National Site, Walworth Co., WI (Nov); Nortrax Site -Lincoln Co., WI (Oct); Toberman Parcel- Crawford Co., WI (Oct).

Example 2013 Wetland Delineations in WI, IL, OH, and MI (Mostly Large Projects)

West Central Lateral - Eau Claire, Clark, Jackson & Monroe Co's, WI (Apr-May); Walker Cranberry 80- acre Parcel – Jackson Co., WI (Sept - Oct); Berne to Natrium Pipeline, Monroe Co., OH (Oct); CNX Noble Pipeline – Noble Co., OH (Oct); Deer Grove Forest Preserve, Cook Co., IL (Nov).

Example 2012 Wetland Delineations in WI, IL, IN, and TX (Mostly Large Projects)

West Central Lateral (190 miles), Eau Claire, Clark, Jackson & Monroe Co's, WI (Sep-Nov); Morrison Creek Cranberry Parcel, Jackson Co., WI (Aug); London Mitigation Site, Jefferson Co., WI (July); Southern Access Pipeline, Sawyer & Washburn Co's, WI (Jun); I-80 Interchange, LaPorte Co., IN (Mar); Eagle-Ford Shale Plays, LaSalle & McMullen Co's, TX (Jan-Feb).

Previous Example Projects

I-94 Corridor Wetland and Primary Environmental Corridor Mapping and Endangered Species Study, Milwaukee, Racine, and Kenosha Counties, WI (Project Manager and Lead Scientist)

Primary Environmental Corridor Delineation Parkview Site, Village of Somers, WI (Lead Scientist)

Elm Road Generating Station, Oak Creek & Caledonia, WI (Project Manager & Lead Scientist)

Tri-State Tollway, Deerfield Plaza Wetland and Endangered Species Investigation, Lake and Cook Counties, IL (Lead Scientist)

Guardian II Laterals, Fox Valley, Hartford and West Bend, WI (Project Manager and Lead Scientist)

ATC Paris to St. Martins (KK3025) 138KV Line Rebuild, Kenosha, Racine and Milwaukee Counties, WI (Project Manager and Lead Scientist)

Attachment 7 | RAS 2014 Assured Wetland Delineation Report

Wetland Delineation Report

Approximately 112-Acre Loomis Rd. Parcels

City of Franklin, Milwaukee County, Wisconsin

RASN Project No. 1140273

March 19th, 2015

Wetland Delineation Report

Approximately 112-Acre Loomis Rd. Parcels City of Franklin, Milwaukee County, Wisconsin

Prepared by:

Heather D. Patti, PWS
Senior Wetland Ecologist/ Project Manager

Reviewed by:

Tina M. Myers, PWS
Senior Wetland Ecologist

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Prepared for:

Bear Development, LLC
4011 80th Street
Kenosha, WI 53142

March 19th, 2015

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March 19th, 2015

INTRODUCTION

R.A. Smith National, Inc. (RASN) is pleased to provide this Wetland Delineation Report for a an approximately 112-acre Study Area split into 4 sections located north and south of West Loomis Road, south of West Ryan Road, and west of South 112th Street in the City of Franklin, Milwaukee County, Wisconsin (Appendix 1, Figure 1). The Study Area is more specifically located in the Northwest and Northeast ¼'s of Section 30, Township 5 North, Range 21 East. The delineation was completed at the request of Bear Development, LLC.

The purpose of the wetland delineation was to identify the proximity and extent of wetlands within the Project Area in association with a proposed development project. Eleven (11) wetlands totaling 13.17 acres (573,871 square feet), hereby referred to as "W-1 through W-11", were identified within the Study Area (Figure 2, Appendix 1). Only one of these wetlands, W-7, appears to have an obvious connection to a navigable waterway, while the other wetlands may be considered isolated. The final jurisdictional determination of the wetlands, however, lies with the US Army Corps of Engineers (USACE). The delineation is presented here in terms of qualifications, methodology, results, and conclusions.

STATEMENT OF QUALIFICATIONS

RASN provides wetland and ecological services including wetland delineation, assessment, permitting, and restoration. RASN ecologists offer a wide variety of technical experience in the natural resource field, and have successfully completed projects throughout the Midwestern and Northeastern United States.

Ms. Heather Patti, PWS and Ecologist with RASN, was the technical lead on this delineation project. Heather earned a Masters Degree in Botany and a minor in Ecology from North Carolina State University. Ms. Patti is experienced with a variety of aspects of ecological restoration, including wetland, mixed hardwood, and prairie restoration. She provides over 15 years of experience in wetland delineation, assessment, and mitigation. Ms. Patti attended the Basic & Advanced Wetland Delineation course offered by UW-LaCrosse in 2005 & 2013, became a WDNR Assured Wetland Delineator in 2009, and recently attended the Hydric Soil Identification Course offered by UW-LaCrosse in 2011.

Ms. Tina Myers has over 15 years of multidisciplinary ecological experience and has been recognized as a Professional Wetland Scientist (PWS) by the Society of Wetland Scientists (SWS) since 2004. She is also recognized as a Certified Wetland Specialist (CWS) in Illinois. Tina earned a Bachelor's degree in Conservation Biology from the University of Milwaukee in 1998 and has taken a multitude of ongoing educational courses including the Corps Wetland Delineation Training which she took in 2006, Regional Supplement and Field Practicum which she took in 2012, Advanced Wetland Delineation Training which she took in 2013, and Critical Methods in Wetland Delineation which she takes annually. She has performed hundreds of wetlands delineations throughout Wisconsin and Illinois and is also experienced in wetland restoration, wetland and waterway permitting, wetland assessment, vegetation surveys including rare species surveys, wildlife surveys, and environmental monitoring.

Ms. Nancy Wilson, Staff Ecologist and Landscape Architect with RASN, earned a Bachelor of Science Degree in Agronomy with an emphasis in Soil Science from Oklahoma State University. She also earned an Associate of Science Degree in Conservation Technology from Fox Valley Technical College in Appleton, Wisconsin, and an additional Associate of Science Degree in Landscape Horticulture from Milwaukee Area Technical College. Ms.

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Wilson attended the Basic Plant Identification, Hydric Soils and Wetland Delineation courses offered by UW-LaCrosse in 2009, and Wetland Delineation Critical Methods Workshops in 2010, 2011, 2013 and 2014. Ms. Wilson began assisting with wetland delineation projects in 2011.

Mr. Mike Al-wathiqui, wetland ecologist co-op with RASN, earned his Bachelor's of Science degree from the University of Wisconsin-Milwaukee in Biology and Conservation and Environmental Science. He is currently pursuing his Master's degree in Freshwater Sciences and Technology at the University of Wisconsin-Milwaukee's School of Freshwater Science. Mike has over four years of multidisciplinary, ecological experience including working as a natural areas technician with the WDNR and as a forestry intern with the City of Milwaukee.

METHODOLOGY

The wetland delineation consisted of a map review followed by fieldwork to delineate the on-site wetlands. The fieldwork documented the presence and absence of hydrophytic vegetation, wetland hydrology, and hydric soil indicators outlined in the *U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual*, Technical Report Y-87-1 (1987) and subsequent guidance documents (USACE 1991, 1992), Guidelines for Submitting Wetland Delineations in Wisconsin to the St. Paul District Corps of Engineers (USACE 1996), the *Basic Guide to Wisconsin's Wetlands and Their Boundaries* (Wisconsin Department of Administration Coastal Management Program, 2005), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, Version 2.0*, the guide for the USDA Natural Resources Conservation Services (NRCS) Field Indicators of Hydric Soils (version 7.0) in the United States, and in general accordance with Wisconsin Department of Natural Resources (WDNR) guidelines. The Midwest Regional USACE supplement was drafted in August 2010 for the purpose of bringing the existing 1987 Manual up to date for wetland delineations. This supplement is intended to be used as an additional guidance to the 1987 Manual and is not its replacement.

Prior to conducting fieldwork, RASN reviewed several maps for the property, including the United States Geological Survey (USGS) 7.5-minute quadrangle topographic map (Appendix 1, Figure 1), the NRCS Soil Survey Report for Milwaukee County (Appendix 1, Figure 3), the United States Geological Service (USGS) historical aerial photographs dated 2000, 2005, 2010, and 2013 (Appendix 1, Figures 4A-D), the Wisconsin Wetland Inventory Map (Appendix 1, Figure 5), and NOAA's Advanced Hydrologic Prediction Service Map (Appendix 1, Figure 6). Farm Service Agency (FSA) crop slides were also reviewed to determine the potential presence of farmed wetlands. The results of the FSA review are presented in Appendix 2 along with the FSA slides on CD.

Areas having wetland field indicators were evaluated in the field by RASN wetland scientists Ms. Heather D. Patti and Ms. Tina Myers with assistants Nancy Wilson and Mike Al-wathiqui during site visits on October 29th and 30th, 2014 and photo documented (Appendix 3). According to guidance described in the 1987 Manual and Midwest Regional Supplement, areas that under normal circumstances reflect a predominance of hydrophytic vegetation, hydric soils, and wetland hydrology are considered wetlands. RASN collected field data at thirty-two (32) sample points, using a transect and data point approach following the USACE Midwest Supplement wetland determination forms (Appendix 4). A sharpshooter shovel was used to dig the soil pits and to refine the wetland boundary. Cursory soil samples were also taken in areas that contained transitional hydric vegetation. The delineated wetland areas were flagged and then surveyed by RASN. Pink wire flags with the words "Wetland Delineation" were used to stake the wetland boundaries and orange flags were used to stake the data point locations. The wetland boundaries and data point locations are depicted on Appendix 1, Figure 2. Observations were made at representative sample points along transects extending through upland and wetland areas and photo documented (Appendix 3).

RESULTS

The USGS topographic map (Appendix 1, Figure 1) shows the location of the property and the Wetland Boundary Map (Appendix 1, Figure 2) depicts the wetland boundaries overlaid onto a recent aerial photograph. Additionally, a one-foot contour map was overlain onto the most recent 2013 aerial map (Appendix 1, Figure 4D) to help determine where depressional areas area located within the landscape and thus where wetlands were most likely to be found. The topography throughout much of the Study Area is gently rolling, with elevations ranging from approximately 779-810 feet above mean sea level (msl). In general, the landscape positions of the wetlands vary and their elevations range from approximately 784 feet to 810 feet above msl.

According to the NRCS Soil Survey Report of Milwaukee County, Wisconsin (Appendix 1, Figure 3), mapped soils within the parcel consist of Ashkum silty clay loam with 0-2% slopes (AsA), Blount silt loam with 1-3% slopes (BlA), Elliott silt loam with 1-3% slopes (EsA), Markham silt loam with 2-6% slopes (MeB), Morley silt loam with 2-6% slopes (MzdB), Morley silt loam with 2-6% eroded slopes (MzdB2), and Morley silt loam with 6-12% eroded slopes (MzdC2). Of these soil types, the NRCS hydric soil list classifies the Ashkum silty clay loam as a poorly drained hydric soil, while the Blount and Elliott silt loams are classified as somewhat poorly drained soils with hydric inclusions. The vast majority of the Study Area contains either mapped hydric soil or soils with hydric inclusions as shown on both the NRCS Soil Survey map (Appendix 1, Figure 3) and the Wisconsin Wetland Inventory map (Appendix 1, Figure 5). The Wetland Summary Table (after this report) lists the mapped soils associated with each wetland. Most of the wetlands were delineated within mapped hydric or partially hydric soils with the exception of W-4 and W-10, which were delineated within non-hydric mapped soils. The fact that the vast majority of the site supports a healthy agricultural crop indicates that hydric and partially hydric soils within this site were likely historically drained via tiling.

A review of aerial photographs from the years 2000, 2005, 2010, and 2013 (Appendix 1, Figures 4-D) was completed by RASN prior to the site visit. During this timeframe, the majority of the land with the Study Area has been used as agricultural cropland with the exception of the upland wooded areas, wetlands, and the existing residential parcel. Wetlands W-1, W-2, W-6 and W-7 are all visible as non-farmed, mottled tones with black tones indicting open water. Wetland W-6 contains a more intermittent fresh (wet) meadow perimeter which is sometimes farmed. This perimeter is not highly visible on the 2000 through 2010 aerials, but is evident on the 2013 aerials perhaps due to a wet year. Farmed wetlands W-4, W-8, and W-9 are visible on most aerials as dark tones, indicating saturation. The remaining wetlandsW-3, W-5, W-10, and W-11 are generally indiscernible on the aerials due to their small sizes, locations within wooded areas, or their narrow width as is the case with W-11.

The Wisconsin Wetland Inventory (WWI) Map depicts seven (7) mapped wetland cover types within the Project Area which are classified as follows:

- E1K = Emergent/ Wet Meadow (E), Persistent (1), Wet Soil, Palustrine (K)
- E2K = Emergent/ Wet Meadow (E), Narrow-leaved Persistent (2), Wet Soil, Palustrine (K)
- E2H = Emergent/ Wet Meadow (E), Narrow-leaved Persistent (1), Standing Water, Palustrine (H)
- S3K = Scrub/shrub (S), Broad-leaved Deciduous (3), Wet Soil, Palustrine (K)
- T3K = Forested (T), Broad-leaved Deciduous (3), Wet Soil, Palustrine (K)
- W0Hx = Open Water (W), Subclass Unknown (0), Standing Water, Palustrine (H), Excavated (x)
- T3/W0Hx = Forested (T), Broad-leaved Deciduous (3) / Open Water (W), Subclass Unknown (0), Standing Water, Palustrine (H), Excavated (x)

Of the eleven wetlands delineated, only five are mapped on the WWI map including W-1, W-2, W-6, W-7, and W-8. Please also refer to the Wetland Summary Table (follows this report) which lists each wetland and its associated

WWI-mapped wetland cover types. The remaining wetlands are not mapped probably due to their small sizes.

Recent precipitation data are used to assess the current season's hydrology. Precipitation data can help make determinations as to whether or not the wetland hydrology criterion has been met at recorded data points. Rainfall data recorded by the local WETS table and the National Weather Service's Advanced Hydrologic Prediction Service (AHPS) were used to evaluate the hydrology of the site prior to the October 29th and 30th site visits (Appendix 1, Figure 6). According to the local WETS table (MILWAUKEE MITCHELL AP, WI839), average precipitation in the Milwaukee County area for the three months prior to the fieldwork is 9.82 inches. Average rainfall for the month of October is typically 2.49 inches. According to the AHPS map (Appendix 1, Figure 7), the late summer/autumn precipitation in the City of Franklin for the end of October fieldwork was within the normal range. This suggests that the surface or near-surface hydrology at the time of the site visits was probably in the normal range for this time of year.

FSA Crop Slide Review

Due to the presence of mapped hydric/partially hydric soil within a major portion of the Project Area, RASN conducted a review of Farm Service Agency (FSA) crop slides to evaluate the potential presence of farmed wetlands in areas that were particularly difficult to interpret due to the presence of a healthy corn crop. Crop slides for the years of 1980 through 2013 (except 2007, 2009, 2011, and 2012) were obtained from the Milwaukee County NRCS/FSA office. Four spreadsheets referred to as "FSA Crop Slide Review Data Sheets" can be found in Appendix 2 which analyze four potential farmed wetland areas that were located within mapped Ashkum hydric soil units that were normally cropped. These spreadsheets summarize interpretations made from viewing the crop slides as well as a climate summary based on a WETS Analysis. The WETS Analysis was used to determine normality of precipitation for the three months prior to the photograph date and conclude whether conditions were considered "dry", "normal", or "wet" during that period of time. If the date of the photograph was not provided, then it was presumed that the photograph was taken during the month of July, which is the most common month for these slides to be taken.

Of the thirty years analyzed, nineteen (19) were considered "normal", five (5) were "dry", and six (6) were "wet". The analysis of the FSA slides during the thirty year period lead indicated that none of the four areas evaluated contained wetland signatures in 50% or greater of the total years evaluated. In general, most of the signatures identified were present during wet years or during a month when a significant amount of rainfall had been recorded. All other farmed wetland areas visible on aerial photography and FSA slides were evaluated in the field and data points taken to confirm that wetland criteria were met.

Field Investigation

All areas on the above-mentioned maps as being wetland or having wetland characteristics were evaluated in the field. A total of thirty-five (35) data points were examined and eleven (11) wetlands totaling 13.17 acres (573,871 square feet), were delineated and surveyed by RASN (Appendix 1, Figure 2). Site photographs were taken of each wetland and are included in Appendix 3. Cursory soil samples and data points in both upland and wetland areas were sampled in the field to determine the wetland boundaries. The data sheets were compiled and are included in Appendix 4. Please refer to the Wetland Summary Table following this report for information about each wetland.

CONCLUSION

Based on the wetland assessment completed by RASN, eleven (11) wetlands totaling 13.17 acres (573,871 square feet), were identified within the Study Area (Figure 2, Appendix 1). Only one of these wetlands, W-7, appears to have an obvious connection to a navigable waterway, while the other wetlands may be considered isolated. The final jurisdictional determination of the wetlands lies with the US Army Corps of Engineers (USACE).

This report is limited to the delineation of state and/or federally regulated wetlands on the property. However, there may be other regulated environmental features within the property (e.g., historical, archaeological, threatened or endangered species). Federal, state and/or local units of government may have regulatory authority to restrict land use within or close in proximity to other environmental features. For example, Wisconsin Adm. Code NR 151.12 requires buffers or a "protective area" from the top of the channel of streams, rivers and lakes, or at the delineated boundary of wetlands. The jurisdictional decision on the width of wetland buffers rests with the WDNR. The local unit(s) of government may also have protective area buffers from wetlands than that imposed under NR 151.

The U.S. Army Corps of Engineers has regulatory authority over waters of the U.S. including adjacent wetlands, and the WDNR has regulatory authority over wetlands, navigable waters, and adjacent lands under Ch. 30 Wisconsin State Statues, Act 6, and NR 103 Wisconsin Administrative Code. Local jurisdictions may also have regulations through zoning ordinances. Our client, Bear Development, LLC., respectfully requests verification of the delineated wetlands by the USACE.

APPENDICES

Appendix 1: Figures
- **Figure 1: USGS Map/Site Location Map**
- **Figure 2: Wetland Boundary Map**
- **Figure 3: NRCS Soil Survey of Milwaukee County**
- **Figures 4 A-D: Aerial Photographs (2000, 2005, 2010, & 2013)**
- **Figure 5: Wisconsin Wetland Inventory Map**
- **Figure 6: NOAA Advanced Hydrologic Prediction Service Map**

Appendix 2: FSA Slide Analysis
Appendix 3: Site Photos
Appendix 4: Wetland Delineation Data Forms – Midwest Region

LOOMIS ROAD PARCELS WETLAND SUMMARY TABLE

Wetland ID	Dominant Community Type*	Size (SF)	Dominant Plant Species	Mapped Waterway	WWI Classification	Mapped Soil Types**	Comments
W-1	SM / ShM / FW	109,069	*Phalaris arundinacea, Calamogrostis canadensis, Typha latifolia, Carex stricta, Spartina pectinata*	none	E2K	Ashkum silty clay loam, 0-2% slopes (C) & Blount silt loam 1-3 % slopes (I)	W-1 is contains predominantly native sedge meadow and shallow marsh communities. However, portions of W-1 are degraded due to farming activities and prior manipulations to wetland hydrology. Evidence of wetland hydrology included a high water table, saturation at or near the surface, geomorphic position, and a positive FAC-Neutral Test in Transect T-1 and T-3. In Transect T-2 where farming occurs regularly, evidence of wetland hydrology included a sparsely vegetated concave surface, saturation visible on aerials, stunted or stressed plants, and geomorphic position; however, hydrology is seasonal as a water table and saturation were absent at the time of the site visit. Soils were observed as hydric in all three data points meeting the A2 and F6 Hydric Soil Indicators.
W-2	FWM / OW / FW	155,164	*Phalaris arundinacea, Salix alba, Salix interior*	none	E1K, W0Hx, S3K	Morley silt loam 2-6% slopes & Blount silt loam 1-3 % slopes (I)	W-2 is located north of Loomis Road and is surrounded by mesic forest to the north, mowed lawn with planted spruces and pines to the east and south, and an active farm field to the west. The open water pond is evident on all aerials as a black tone and covers the major portion of this wetland. The pond appears to have been excavated many years ago (prior to 1951 per Milwaukee County GIS aerials). The remainder of the wetland includes fresh (wet) meadow and farmed wetland areas with seasonal hydrology. Evidence of wetland hydrology included a sparsely vegetated concave surface, surface soil cracks, saturation visible on aerial imagery, stunted or stressed plants, geomorphic position, and a positive FAC-Neutral Test. The soil profiles met the F3 and F6 Hydric Soil Indicators.
W-3	SC	1,413	*Fraxinus pennsylvanica, Rhamnus cathartica*	none	none	Elliott silt loam, 1-3% slopes (I)	W-3 is a small concave depression with seasonal hydrology. It is located in the small triangular area between Loomis Rd and Loomis Ct. Evidence of wetland hydrology included surface soil cracks, crayfish burrows, geomorphic position, and a positive FAC-Neutral Test. The observed soil profile met the A11 and F6 Hydric Soil Indicators. Due to its small size, W-3 was not evident on aerial photography.
W-4	FW	3,137	*n/a – mostly bare ground*	none	none	Markham silt loam, 2-6% slopes	W-4 is a small farmed wetland with seasonal hydrology and is located just south of Loomis Road. The wetland was mostly void of vegetation, with *Echinochloa crus galli* (FACW) as the most common plant observed. Evidence of wetland hydrology included a sparsely vegetated concave surface, surface soil cracks, saturation visible on aerial imagery, stunted or stressed plants, geomorphic position, and a positive FAC-Neutral Test. Shovel refusal occurred within 15" of the surface due to a hard clay layer. It is possible that water becomes perched in this area early in the spring due to the presence of the hard clay. The soil profile observed met the A11 and F6 Hydric Soil Indicators.
W-5	OW	860	*Typha latifolia, Bidens frondosa*	none	none	Blount silt loam 1-3 % slopes (I)	W-5 is a man-made pond with a tile outlet on its north end. The wetland was excavated along the southern edge of a small wooded area just west of 112th St. There is a strong topographic break along the entire wetland boundary and the hydroperiod is long with a surface water depth of 6 inches. Other evidence of hydrology included water-stained leaves, geomorphic position, and a positive FAC-Neutral Test. Soils met the F3 Hydric Soil Indicator.
W-6	OW / FWM	85,253	*Phalaris arundinacea, Echinochloa crus galli*	none	T3/W0Hx	Ashkum silty clay loam, 0-2% slopes (C), Elliott silt loam, 1-3% slopes (I), & Morley silt loam with 2-6% eroded slopes	W-6 contains an open water pond with permanent inundation surrounded by a fresh (wet) meadow with seasonal hydrology. The uplands are actively farmed. During dry years, the fresh (wet) meadow of W-6 may be farmed as observable on historical aerials and FSA crop slides. At the time of RASN's site visit, the fresh (wet) meadow was fairly densely vegetated with reed canary and barnyard grasses. Evidence of wetland hydrology within the two wetland data points (DP-18 & DP-20) included saturation at 12 inches, inundation visible on aerial imagery, surface soil cracks, saturation visible on aerial imagery, geomorphic position, and a positive FAC-Neutral Test. The soils observed met the A11, A12 and F6 Hydric Soil Indicators.

***Community Types: FW = Farmed Wetland, FWM = Fresh (wet) Meadow, SM= Sedge Meadow, HS = Hardwood Swamp, SC=Shrub Carr, OW=Open Water Pond ** Soil Types: (C) = hydric, (I) = hydric via inclusions ShM = Shallow Marsh. Note: Refer to Site Photographs of each wetland.**

LOOMIS ROAD PARCELS WETLAND SUMMARY TABLE

W-7	ShM	185,571	*Typha spp., Phalaris arundinacea*	Yes	E2H	Ashkum silty clay loam, 0-2% slopes (C)	W-7 is located at the southernmost extent of the Project Area. It is part of a larger wetland complex that extends off-site providing baseflow to a tributary to Ryan Creek. A distinct vegetative break was observed along this wetland boundary where healthy corn gave way to primarily FACW and OBL vegetation with saturated hydric soils. Evidence of wetland hydrology included saturation, a drainage pattern, geomorphic position, and a positive FAC-Neutral Test. The soils contained a thick dark muck (with some clay content) which met the A1 (Histosol) Hydric Soil Indicator.
W-8	FW	17,995	*n/a – mostly bare ground*	none	T3K	Ashkum silty clay loam, 0-2% slopes (C)	W-8 is a small farmed wetland with seasonal hydrology and is located just south of Ryan Road. The wetland contained predominantly bare soil due to seasonal standing water or saturation. Evidence of wetland hydrology included a sparsely vegetated concave surface, water-stained leaves, surface soil cracks, saturation visible on aerial imagery, stunted or stressed plants, and geomorphic position. It did not meet a positive FAC-Neutral Test due to the presence of some widely scattered, opportunistic upland weed species that may have grown late in the season as the water receded. The soil profile observed met the F6 Hydric Soil Indicator.
W-9	FW	5,084	*n/a – mostly bare ground*	none	none	Blount silt loam 1-3 % slopes (I)	W-9 is a small farmed wetland with seasonal hydrology and is located within the portion of the Project Area that is located just north of Loomis Road. The wetland contained predominantly bare soil due to seasonal standing water or saturation. Evidence of wetland hydrology included a sparsely vegetated concave surface, surface soil cracks, saturation visible on aerial imagery, stunted or stressed plants, geomorphic position, and a positive FAC-Neutral Test. The soil profile observed met the F6 Hydric Soil Indicator.
W-10	SM / FWM	2,108	*Carex stricta, Phalaris arundinacea*	none	none	Morley silt loam 2-6% slopes	W-10 is a small, concave depression located in the southwest portion of the Project Area between an active farm field and a treeline. A topographic and vegetative break were the determining factors for the delineated boundary. The wetland appears to extend slightly off-site towards the west into the transmission line right-of-way. Although soils are mapped as non-hydric, a deep dark soil (10YR 2/1) was observed which contained redox depletions and concentrations starting within 8 inches of the surface, meeting the F6 Hydric Soil Indicator. Evidence of wetland hydrology included a high water table at 12 inches, saturation to the surface, water-stained leaves, geomorphic position, and a positive FAC-Neutral Test.
W-11	ShM	8,217	*Typha x glauca, Phalaris arundinacea*	none	none	Ashkum silty clay loam, 0-2% slopes (C) & Blount silt loam 1-3 % slopes (I,) Elliott silt loam, 1-3% slopes (I), & Markham silt loam, 2-6% slopes	W-11 is a cattail-dominated drainage ditch that lies directly along the south side of Loomis Road. It receives water from the road embankment and also via a culvert along Loomis Road. The soils contained extensive gravel and compacted clay and there was shovel refusal at 10 inches; however the soils met the F6 Hydric Soil Indicator. Evidence of wetland hydrology included saturation within W-11 included saturation within 6 inches of the surface, drift deposits, water-stained leaves, a drainage pattern, saturation visible on aerial imagery, geomorphic position, and a positive FAC-Neutral Test.

***Community Types: FW = Farmed Wetland, FWM = Fresh (wet) Meadow, SM= Sedge Meadow, HS = Hardwood Swamp, SC=Shrub Carr, OW=Open Water Pond ** Soil Types: (C) = hydric, (I) = hydric via inclusions ShM = Shallow Marsh. Note: Refer to Site Photographs of each wetland.**

Appendices

Appendix 1: Figures

Appendix 2: FSA Slide Review

Appendix 3: Site Photographs

Appendix 4: Wetland Determination Data Forms – Midwest Region

Appendix 1: Figures

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Figure 2: Wetland Boundary Map

Figure 3: NRCS Soil Survey of Milwaukee County

Figures 4A-D: Aerial Photographs (2000, 2005, 2010, & 2013)

Figure 5: Wisconsin Wetland Inventory Map

Figure 6: 90-day Departure from Normal Precipitation Map

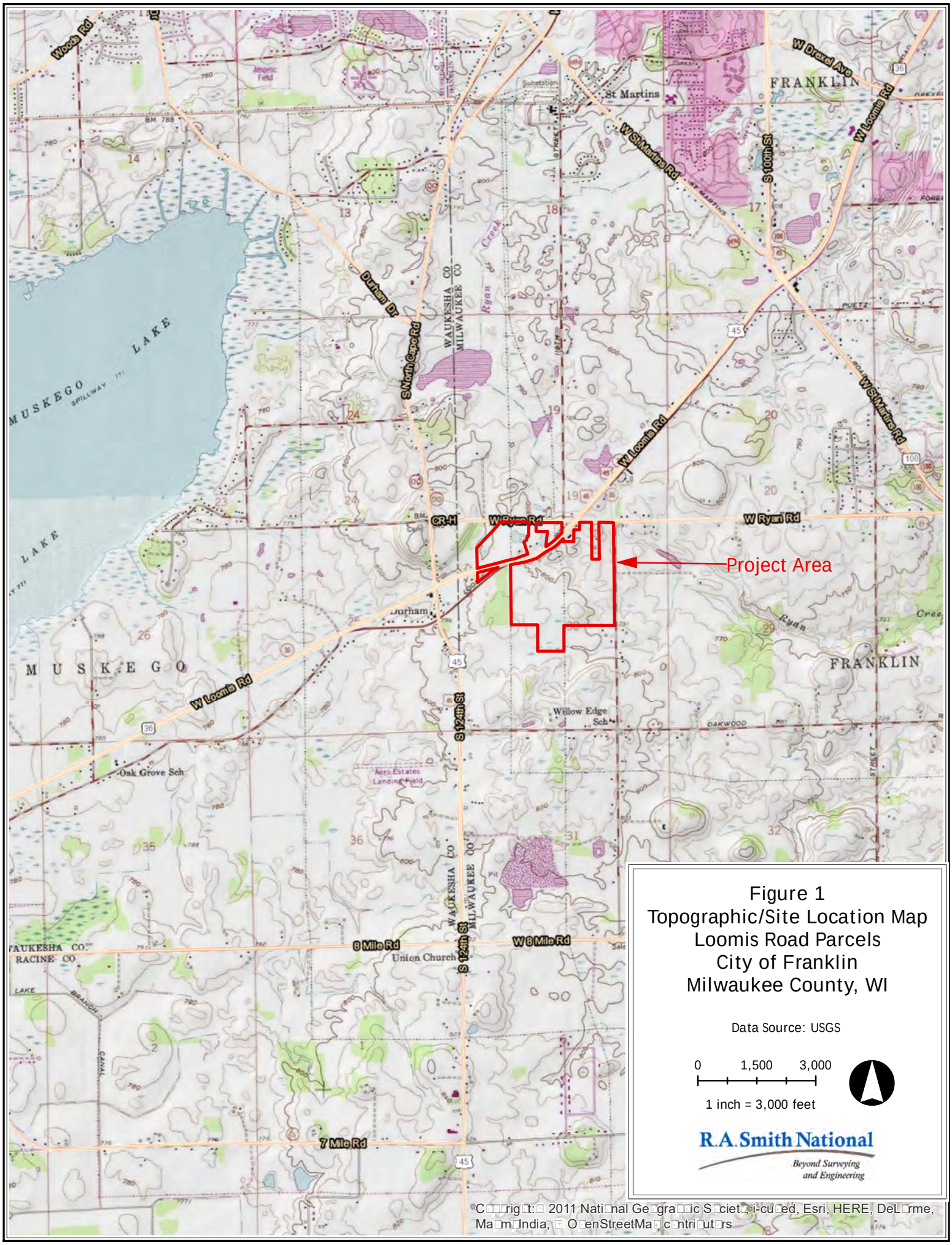


Figure 1
Topographic/Site Location Map
Loomis Road Parcels
City of Franklin
Milwaukee County, WI

Data Source: USGS

0 1,500 3,000

1 inch = 3,000 feet

R.A. Smith National
Beyond Surveying and Engineering

WETLAND BOUNDARY MAP

Situated on West Loomis Road, in the City of Franklin, Milwaukee County, Wisconsin.

Part of the Northwest 1/4 and Northeast 1/4 of Section 30, Township 5 North, Range 21 East, in the City of Franklin, Milwaukee County, Wisconsin.

December 1, 2014 Bear Development Survey No.166226-BMJ

R.A. Smith National, Inc.

PROJECT AREA BOUNDARY
W. RYAN RD.
W. LOOMIS RD.
S. 112th ST.
PROJECT AREA BOUNDARY
W-1 109,069 sq.ft.
W-2 155,164 sq.ft.
W-3 1,413 sq.ft.
W-4 3,137 sq.ft.
W-5 860 sq.ft.
W-6 85,253 sq.ft.
W-7 185,571 sq.ft.
W-8 17,995 sq.ft.
W-9 5,084 sq.ft.
W-10 2,108 sq.ft.
W-11 8,217 sq.ft.
T-1 DP-1
T-1 DP-2
T-2 DP-3
T-2 DP-4
T-3 DP-5
T-3 DP-6
T-4 DP-7
T-4 DP-8
T-5 DP-9
T-5 DP-10
T-6 DP-11
T-6 DP-12
T-7 DP-13
T-7 DP-14
T-8 DP-15
T-8 DP-16
T-9 DP-17
T-9 DP-18
T-10 DP-19
T-10 DP-20
T-11 DP-22
T-11 DP-23
T-12 DP-24
T-12 DP-25
T-13 DP-27
T-13 DP-28
T-14 DP-29
T-14 DP-30
T-15 DP-31
T-15 DP-32
DP-21
DP-26
DP-33
DP-34
DP-35

LEGEND

- DP-1 DATA POINT
- WETLAND AREA
- WETLAND BOUNDARY
- PROJECT AREA BOUNDARY

0 350 700 Feet

GRAPHIC SCALE

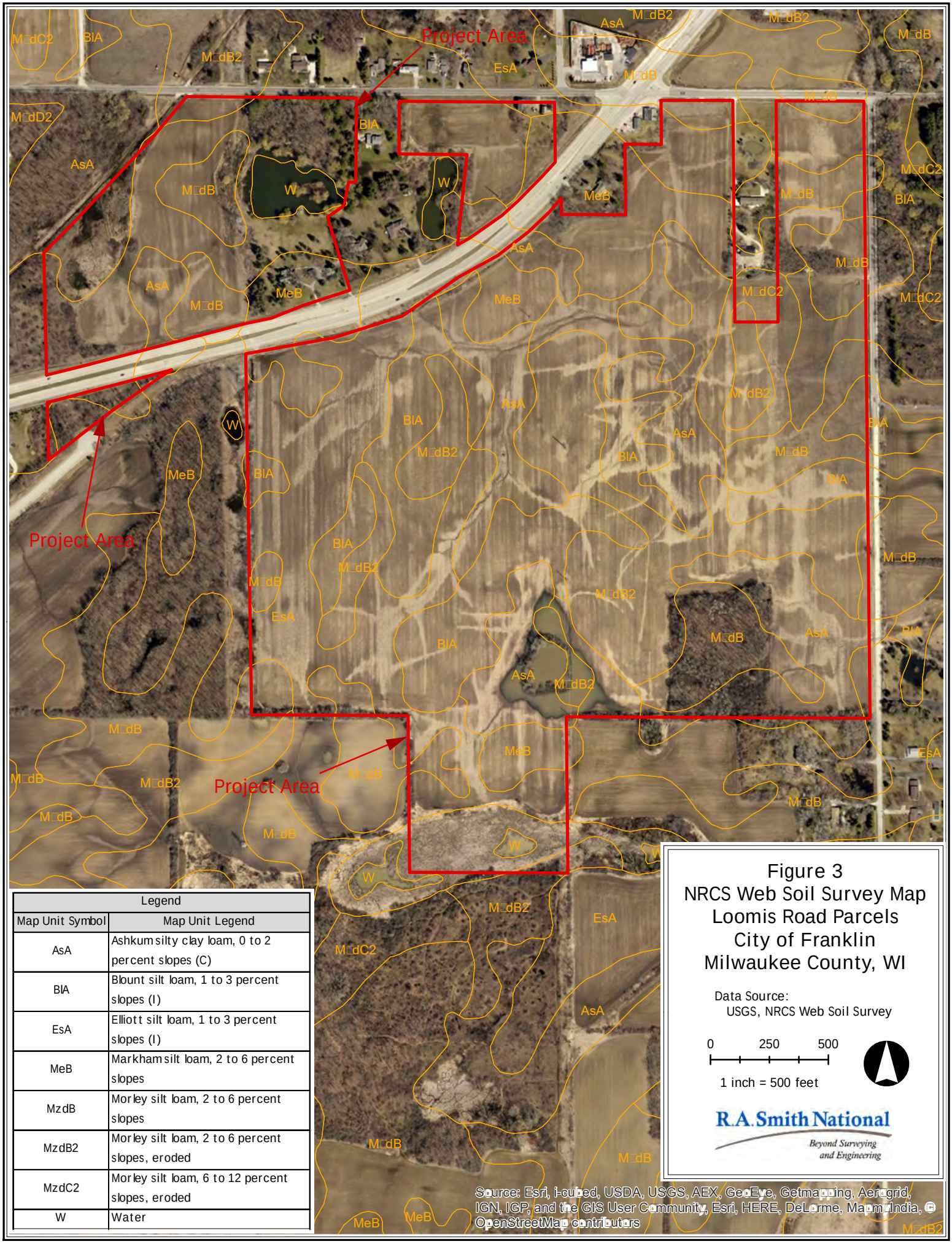
FIGURE 2.
WETLAND BOUNDARY MAP

R.A. Smith National, Inc.

Beyond Surveying and Engineering

16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-797-7373 www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

S:\5166226\dwg\WX101B.dwg\W LOOMIS RD



Legend	
Map Unit Symbol	Map Unit Legend
AsA	Ashkum silty clay loam, 0 to 2 percent slopes (C)
BlA	Blount silt loam, 1 to 3 percent slopes (I)
EsA	Elliott silt loam, 1 to 3 percent slopes (I)
MeB	Markham silt loam, 2 to 6 percent slopes
MzdB	Morley silt loam, 2 to 6 percent slopes
MzdB2	Morley silt loam, 2 to 6 percent slopes, eroded
MzdC2	Morley silt loam, 6 to 12 percent slopes, eroded
W	Water

Figure 3
NRCS Web Soil Survey Map
Loomis Road Parcels
City of Franklin
Milwaukee County, WI

Data Source:
USGS, NRCS Web Soil Survey

0 250 500

1 inch = 500 feet

R.A. Smith National
Beyond Surveying and Engineering

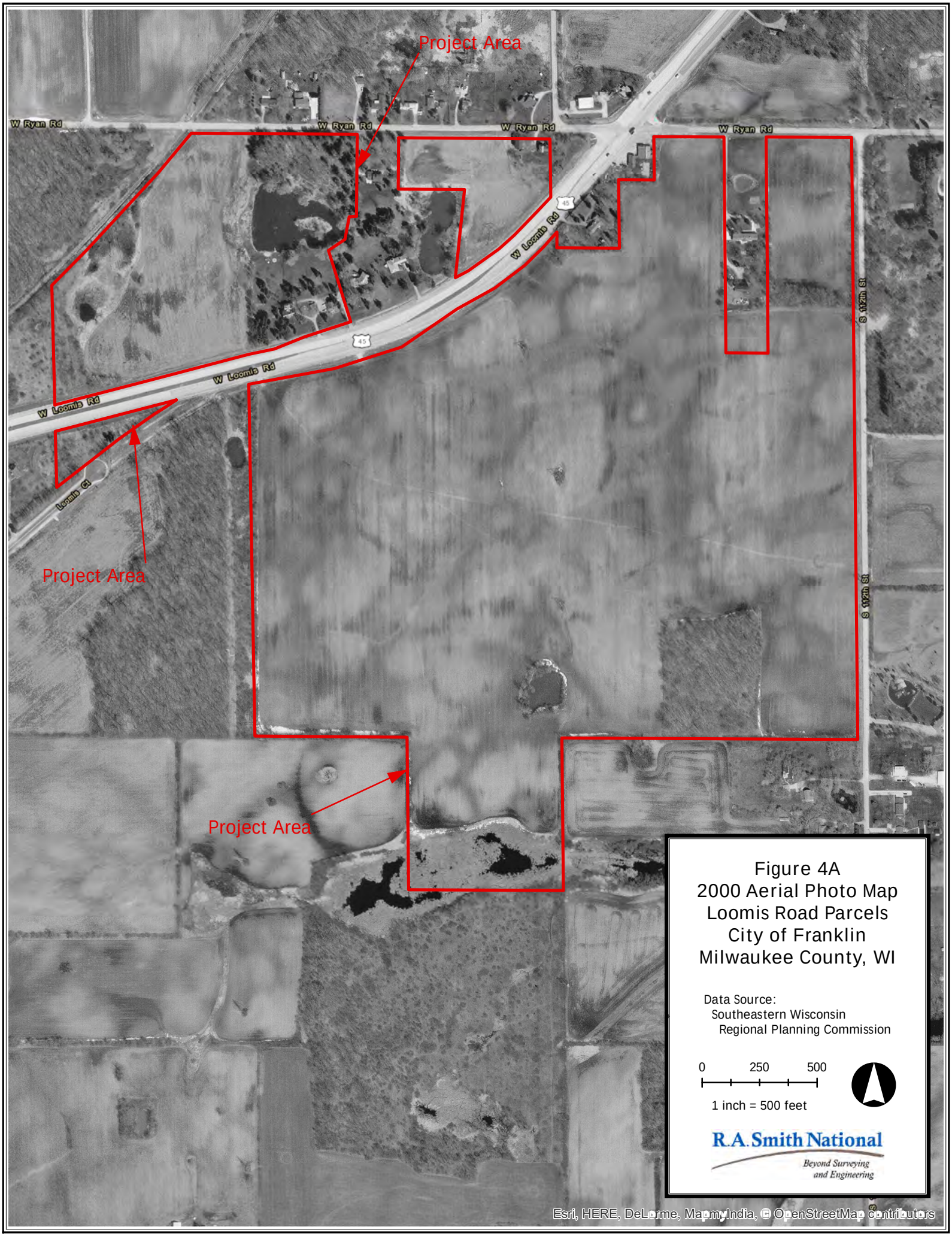


Figure 4A
2000 Aerial Photo Map
Loomis Road Parcels
City of Franklin
Milwaukee County, WI

Data Source:
Southeastern Wisconsin
Regional Planning Commission

0 250 500

1 inch = 500 feet

R.A. Smith National
Beyond Surveying and Engineering

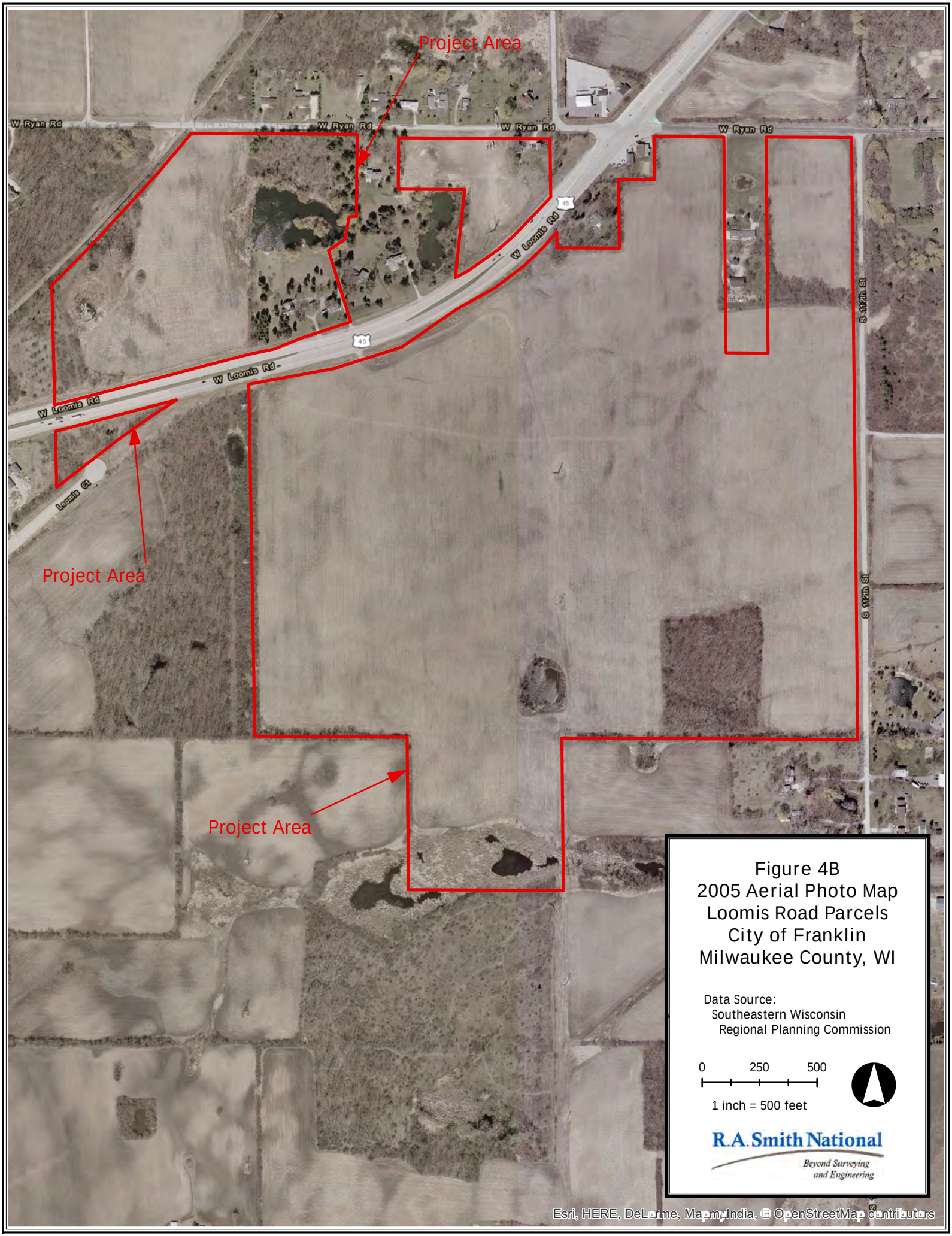


Figure 4B
2005 Aerial Photo Map
Loomis Road Parcels
City of Franklin
Milwaukee County, WI

Data Source:
Southeastern Wisconsin
Regional Planning Commission

0 250 500

1 inch = 500 feet

R.A. Smith National
Beyond Surveying and Engineering

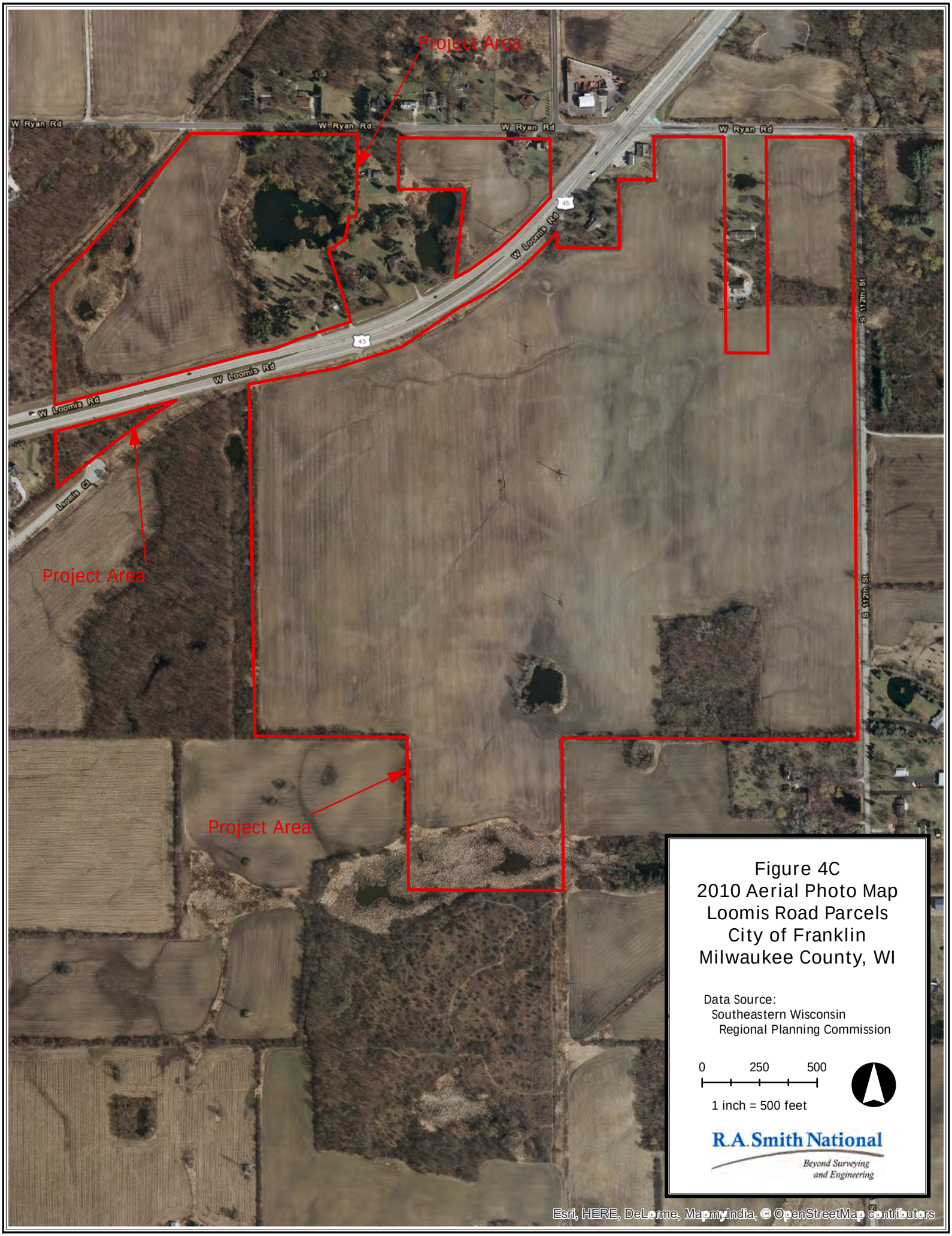


Figure 4C
2010 Aerial Photo Map
Loomis Road Parcels
City of Franklin
Milwaukee County, WI

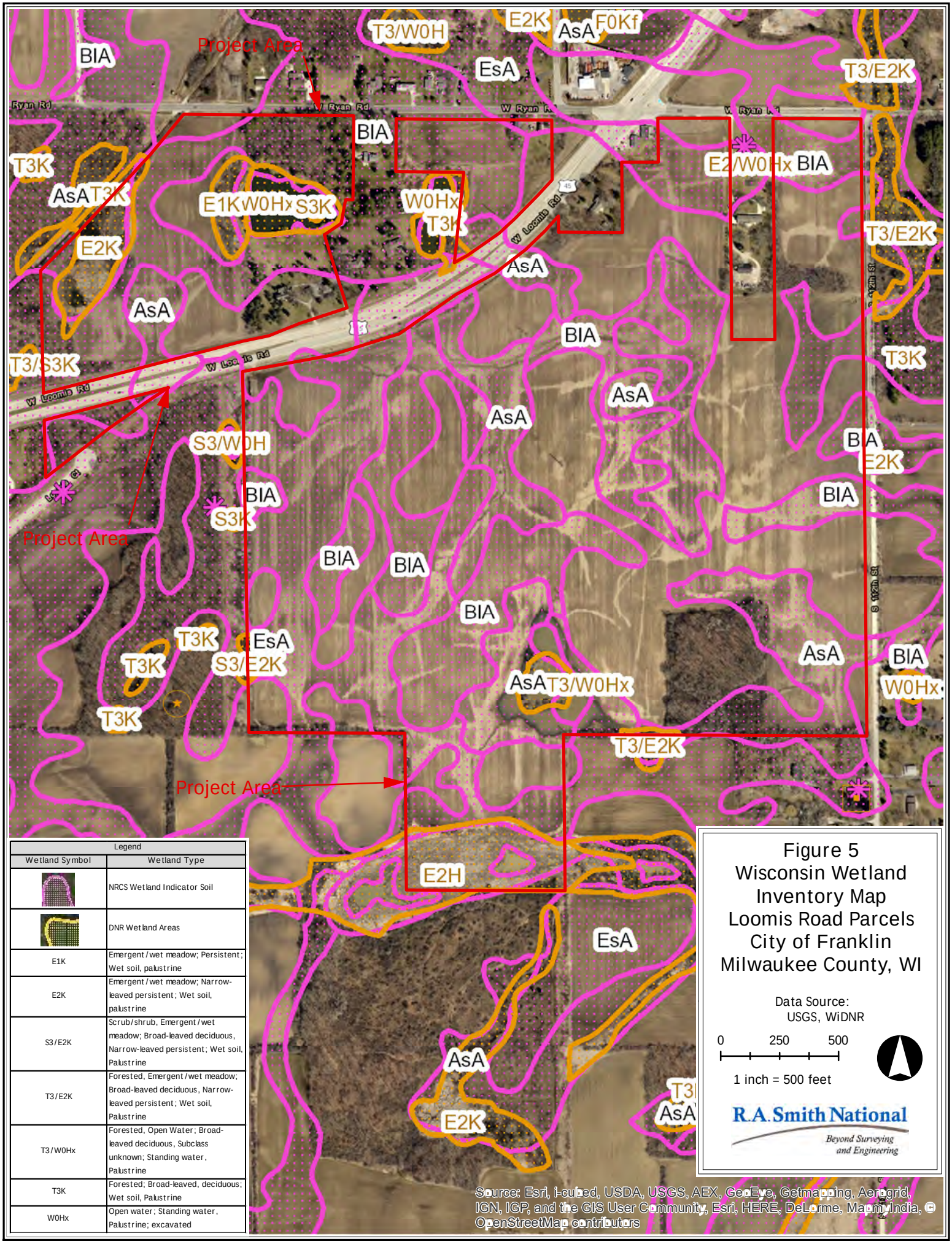
Data Source:
Southeastern Wisconsin
Regional Planning Commission

0 250 500

1 inch = 500 feet

R.A. Smith National
Beyond Surveying and Engineering


S 112th St
780
782
778
777
779
784
789
787
783
785



Legend	
Wetland Symbol	Wetland Type
	NRCS Wetland Indicator Soil
	DNR Wetland Areas
E1K	Emergent/wet meadow; Persistent; Wet soil, palustrine
E2K	Emergent/wet meadow; Narrow-leaved persistent; Wet soil, palustrine
S3/E2K	Scrub/shrub, Emergent/wet meadow; Broad-leaved deciduous, Narrow-leaved persistent; Wet soil, Palustrine
T3/E2K	Forested, Emergent/wet meadow; Broad-leaved deciduous, Narrow-leaved persistent; Wet soil, Palustrine
T3/W0Hx	Forested, Open Water; Broad-leaved deciduous, Subclass unknown; Standing water, Palustrine
T3K	Forested; Broad-leaved, deciduous; Wet soil, Palustrine
W0Hx	Open water; Standing water, Palustrine; excavated

Figure 5
Wisconsin Wetland Inventory Map
Loomis Road Parcels
City of Franklin
Milwaukee County, WI

Data Source:
USGS, WiDNR

0 250 500

1 inch = 500 feet

R.A. Smith National
Beyond Surveying and Engineering

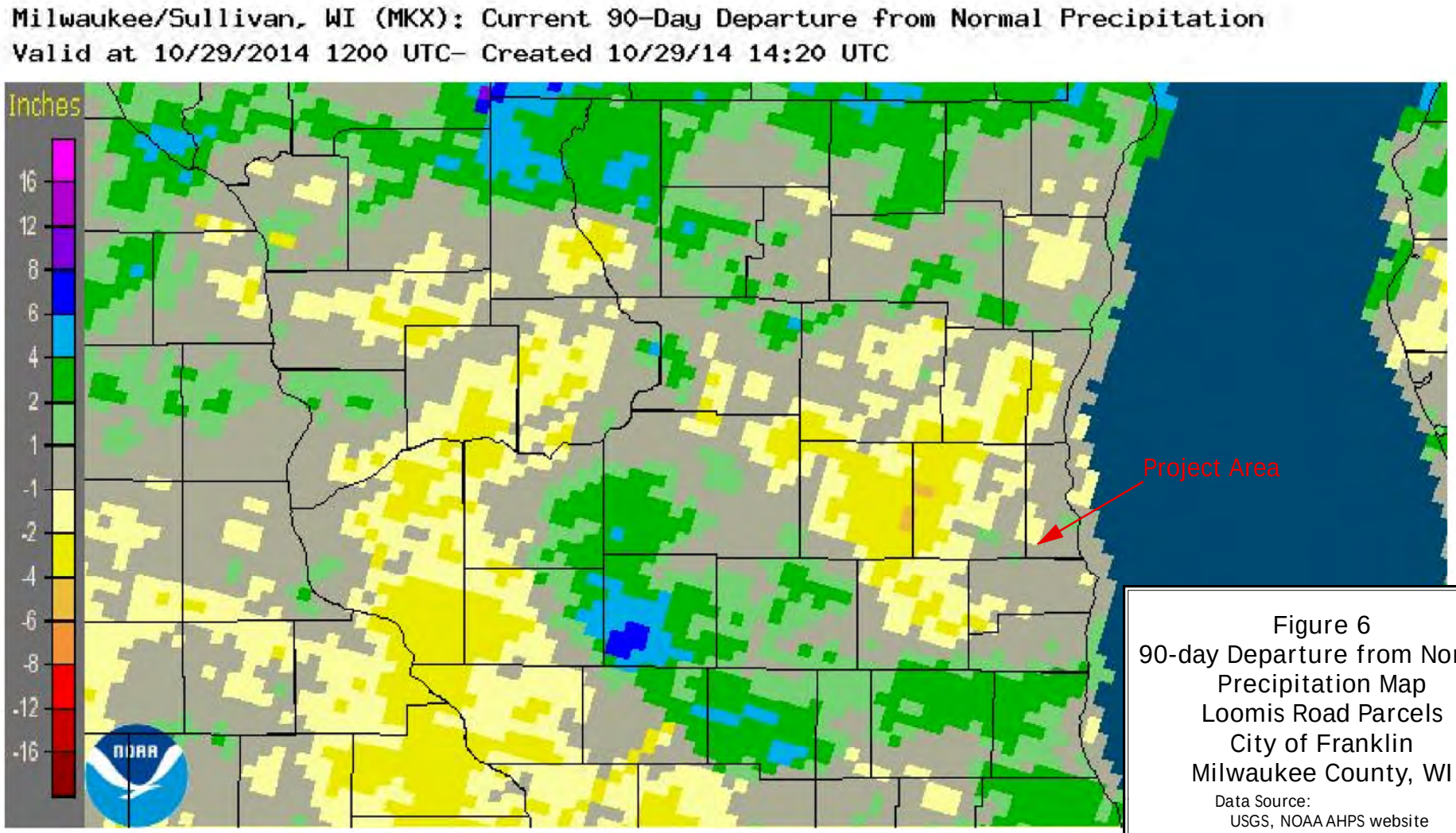


Figure 6
90-day Departure from Normal Precipitation Map
Loomis Road Parcels
City of Franklin
Milwaukee County, WI

Data Source:
USGS, NOAA AHPS website

NOT TO SCALE

R.A. Smith National
Beyond Surveying and Engineering

The project area falls within -1" to 1" of the normal precipitation range.

Appendix 2:

FSA Slide Review

Table 1. FSA Crop Slide Review Datasheet

F□rm □ased □n NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

O□ner□O□erat□r: Bear Cree□ De□el□□ment, LLC C□unt□: Mil□au□ee State: WI

Slide Re□ie□er: Heat□er Patti & Tina M. M□ers Date: 10□28□2014

Site Identi□icati□n: L□□mis Rd Parcels - AsA Unit east □□W-1 (Area 1) L□cati□n: Cit□ □□Fran□lin

Farm Service Agency Aerial Color Slide Data

Date (M□.□Yr)	A□g.Rain□all (in) 3 m□nt□s □ri□r	Dr□, N□rmal, □r Wet□ (D□N□W)	Inter□retati□n - (c□des listed in □□x □el□□)	
Aug 1980	3.29	N	N, CR	
Jul□1981	3.44	N	N, CR	
June 1982	3.48	N	N, CR	
Jul□1983	3.97	N	N, CR	slide is dar□
Jul□1984	4.44	N	N, CR	
Aug 1985	2.06	D	N, CR	
Aug 1986	4.47	N	N, CR	
Aug 1987	3.40	N	N, CR	
Jul□1988	1.77	D	N, NC	
Jul□1989	2.03	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Aug 1990	5.18	N	N, NC	
June 1991	4.00	N	N, NC	
Jul□1992	2.05	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1993	4.86	W	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures (slide is □er□grain□)
Jul□1994	2.03	N	N, CR	slide is t□□ dar□and grain□
June 1995	2.91	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Aug 1996	3.32	N	N, CR	slide is t□□ grain□
Jul□1997	4.70	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures (slide is □er□grain□)
Jul□1998	3.16	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1999	5.61	W	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□2000	5.16	W	Y□, NC, 6e	slide is generall□ □□□r □ualit□
Jul□2001	4.09	W	N, CR	
Jul□2002	2.96	N	Y-, NC, 6d	
Jul□2003	2.58	N	N, NC	
Jul□2004	4.71	W	N, CR	
Jul□2005	2.09	D	Y-, NC, 6d	
Jul□2006	3.50	N	N, NC	
2007	na	na	na	
Jul□2008	6.54	N	N, NC	□□er 12" □□rain□all in June 2008
2009	na	na	na	
Jul□2010	4.61	N	N, CR	□11" □□rain in Jul□
2011	na	na	na	
2012	na	na	na	
Jul□2013	5.83	W	Y-, NC, 6d	

Y = signal indicates □etness (□ = str□ng, - = □ea□) N = NO □etness signature
CR = cr□□□ed (r□□ cr□□ □r tilled) NC = n□t cr□□□ed (□a□, □asture, idle, etc.)

Feature	**Color**	**Manipulation**	**Other**
1 = □ater	6a = dar□green	7a = ditc□ed	□rite ex□lanati□n
2 = mud □lat	6□ = lig□t green	7□ = tiled	
3 = □are s□□t	6c = □ell□□	7c = □illed	
4 = dr□□ned cr□□	6d = □r□□n	7d = tree□□rus□ rem□□al	
5 = □lanted late	6e = □lac□	8 = □l□□ed□tilled	

□Data n□t a□aila□le at t□is time □r□m NRCS □r USGS

D□es slide□air □□□t□ data indicate t□e site is a □etland□ Yes **No** Indiscerni□le

All Years: 4 □ears □ut □□ 30 □ears □a□e □et (W) signatures Percentage = 13□
N□rmal Years: 1 □ears □ut □□ 19 □ears □a□e □et (W) signatures Percentage = 5□

C□mments: Onl□ □ne str□ng signature □□ser□ed during a □et □ear□□□□e□er, t□e slide □as □□□r □ualit□ T□is □ield a□□ears t□ □e e□ecti□el□drained □□r agricultural □ur□□ses.

Table 1. FSA Crop Slide Review Datasheet

F□rm □ased □n NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

O□ner□O□erat□r: Bear Cree□ De□el□□ment, LLC C□unt□: Mil□au□ee State: WI

Slide Re□ie□er: Heat□er Patti & Tina M. M□ers Date: 10□28□2014

Site Identi□icati□n: L□□mis Rd Parcels - AsA ma□□ed unit □ust s□ut□ □□L□□mis Rd (Area 2) L□cati□n: Cit□ □□Fran□lin

Farm Service Agency Aerial Color Slide Data

Date (M□.□Yr)	A□g.Rain□all (in) 3 m□nt□s □ri□r	Dr□, N□rmal, □r Wet□ (D□N□W)	Inter□retati□n - (c□des listed in □□x □el□□)	
Aug 1980	3.29	N	N, CR	
Jul□1981	3.44	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
June 1982	3.48	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1983	3.97	N	N, CR	slide is dar□
Jul□1984	4.44	N	N, NC	
Aug 1985	2.06	D	N, CR	dar□s□il t□ne, □ut n□ □□□i□us signatures
Aug 1986	4.47	N	N, CR	
Aug 1987	3.40	N	N, CR	
Jul□1988	1.77	D	N, NC	
Jul□1989	2.03	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Aug 1990	5.18	N	N, CR	
June 1991	4.00	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1992	2.05	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1993	4.86	W	N, NC	dar□s□il t□ne, □ut n□ □□□i□us □etland signatures (slide is grain□)
Jul□1994	2.03	N	N, NC	slide is □er□grain□
June 1995	2.91	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Aug 1996	3.32	N	Y-, CR, 6□	□□ssi□le signature, □ut slide is □er□ □□□r □ualit□(t□□ grain□)
Jul□1997	4.70	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us □etland signatures (slide is grain□)
Jul□1998	3.16	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1999	5.61	W	Y-, NC, 2	□□ssi□le signature, □ut slide is □er□ □□□r □ualit□(t□□ grain□)
Jul□2000	5.16	W	N, NC	dar□s□il t□ne, □ut n□ □□□i□us □etland signatures (slide is grain□)
Jul□2001	4.09	W	Y-, NC, 2	□□ssi□le signature, □ut slide is □er□ □□□r □ualit□(t□□ grain□)
Jul□2002	2.96	N	Y-, NC, 2	
Jul□2003	2.58	N	N, NC	
Jul□2004	4.71	W	Y□, CR, 4	
Jul□2005	2.09	D	Y-, NC, 6□	
Jul□2006	3.50	N	Y□, NC, 6d	
2007	na	na	na	
Jul□2008	6.54	N	Y□, CR, 6d	□□er 12" □□rain□all in June 2008
2009	na	na	na	
Jul□2010	4.61	N	Y□, CR, 4	□11" □□rain in Jul□
2011	na	na	na	
2012	na	na	na	
Jul□2013	5.83	W	N, NC	

Y = signal indicates □etness (□ = str□ng, - = □ea□) N = NO □etness signature
CR = cr□□□ed (r□□ cr□□ □r tilled) NC = n□t cr□□□ed (□a□, □asture, idle, etc.)

Feature	Color	Manipulation	Other
1 = □ater	6a = dar□green	7a = ditc□ed	□rite ex□lanati□n
2 = mud □at	6□ = lig□t green	7□ = tiled	
3 = □are s□□t	6c = □ell□□	7c = □illed	
4 = dr□□ned cr□□	6d = □r□□n	7d = tree□□rus□ rem□□al	
5 = □lanted late	6e = □lac□	8 = □l□□ed□tilled	

□Data n□t a□aila□le at t□is time □r□m NRCS □r USGS

D□es slide□air □□□t□ data indicate t□e site is a □etland□ Yes **No** Indiscerni□le

All Years: 9 □ears □ut □□ 30 □ears □a□e □et (W) signatures Percentage = 30□
N□rmal Years: 5 □ears □ut □□ 19 □ears □a□e □et (W) signatures Percentage = 26□

C□mments: Based □n t□e slide re□ie□, t□is area generall□tends t□ □□nd □nl□under t□e m□st extreme □et circumstances.
Fi□e □ut □□nine signatures □ere □ea□

Table 1. FSA Crop Slide Review Datasheet

F□rm □ased □n NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

O□ner□O□erat□r: Bear Cree□ De□el□□ment, LLC C□unt□: Mil□au□ee State: WI

Slide Re□ie□er: Heat□er Patti & Tina M. M□ers Date: 10□28□2014

Site Identi□icati□n: L□□mis Rd Parcels - AsA unit □est □□112t□ St - □ield center (Area 3) L□cati□n: Cit□ □□Fran□lin

Farm Service Agency Aerial Color Slide Data

Date (M□./□r)	A□g.Rain□all (in) 3 m□nt□s □ri□r	Dry, N□rmal, □r Wet? (D□N□W)	Inter□retati□n - (c□des listed in box □el□□)	
Aug 1980	3.29	N	Y-, CR, 6c	2 areas □it□ □□ssi□le cr□□ stress, □ut neiter is v□y str□ng
Jul□1981	3.44	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
June 1982	3.48	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1983	3.97	N	N, NC	slig□tl□dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1984	4.44	N	Y-, CR, 3	2 areas □it□ □□ssi□le cr□□ stress
Aug 1985	2.06	D	N, CR	
Aug 1986	4.47	N	N, CR	
Aug 1987	3.40	N	N, CR	
Jul□1988	1.77	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1989	2.03	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Aug 1990	5.18	N	N, CR	
June 1991	4.00	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1992	2.05	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1993	4.86	W	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures (slide is □er□grain□)
Jul□1994	2.03	N	N, CR	slide is □er□grain□
June 1995	2.91	N	N, NC	
Aug 1996	3.32	N	N CR	slide is □er□ poo r □ualit□ (t□□ grain□)
Jul□1997	4.70	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures (slide is grain□)
Jul□1998	3.16	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1999	5.61	W	Y-, NC, 2	□□ssi□le signature, □ut n□t str□ng, slide is □□□r □ualit□ (t□□ grain□)
Jul□2000	5.16	W	Y-, NC, 2	□□ssi□le signature, □ut n□t str□ng, slide is □□□r □ualit□ (t□□ grain□)
Jul□2001	4.09	W	Y+, NC, 1	a□□ears t□ □e a□□ut 5 □□nded areas
Jul□2002	2.96	N	Y-, NC, 2	□□ssi□le signature, alt□□ug□ slide is □□□r □ualit□
Jul□2003	2.58	N	N, NC	
Jul□2004	4.71	W	N, CR	
Jul□2005	2.09	D	N, NC	
Jul□2006	3.50	N	N, NC	
2007	na	na	na	
Jul□2008	6.54	N	Y+, CR, 4	□□er 12" □□rain□all in June 2008
2009	na	na	na	
Jul□2010	4.61	N	Y+, CR, 1,3	4 areas □it□ eit□er □□nding and□□r stressed cr□□, ~11" □□rain in Jul□
2011	na	na	na	
2012	na	na	na	
Jul□2013	5.83	W	N, NC	

Y = signal indicates □etness (+ = str□ng, - = □ea□) N = NO □etness signature
CR = cr□□□ed (row cr□□ □r tilled) NC = n□t cr□□□ed (□a□, □asture, idle, etc.)

Feature	Color	Manipulation	Other
1 = □ater	6a = dar□green	7a = ditc□ed	□rite ex□lanati□n
2 = mud □at	6□ = lig□t green	7b = tiled	
3 = □are s□□t	6c = □ell□□	7c = □illed	
4 = dr□□ned cr□□	6d = □r□□n	7d = tree/□rus□ rem□□al	
5 = □lanted late	6e = □lac□	8 = □l□□ed□tilled	

□Data n□t a□aila□le at t□is time □r□m NRCS □r USGS

D□es slide□air ph□to data indicate t□e site is a □etland? Yes **No** Indiscerni□le

All Years: 8 □ears □ut of 30 □ears □a□e □et (W) signatures Percentage = 27%
N□rmal Years: 5 □ears □ut □□ 19 □ears □a□e □et (W) signatures Percentage = 26%

C□mments: Based □n t□e slide re□ie□, t□is area generall□ tends t□ □□nd □nl□ under t□e □ettest circumstances.

Table 1. FSA Crop Slide Review Datasheet

F□rm □ased □n NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

O□ner□O□erat□r: Bear Cree□ De□el□□ment, LLC C□unt□: Mil□au□ee State: WI

Slide Re□ie□er: Heat□er Patti & Tina M. M□ers Date: 10□28□2014

Site Identi□icati□n: L□□mis Rd Parcels - AsA unit SE c□rner (Area 4) L□cati□n: Cit□ □□Fran□lin

Farm Service Agency Aerial Color Slide Data

Date (M□./□r)	A□g.Rain□all (in) 3 m□nt□s □ri□r	Dry, N□rmal, □r Wet? (D□N□W)	Inter□retati□n - (c□des listed in box □el□□)	
Aug 1980	3.29	N	N, CR	
Jul□1981	3.44	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
June 1982	3.48	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures, slide is □er□dar□
Jul□1983	3.97	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1984	4.44	N	Y-, CR, 3	2 small areas □it□ □□ssi□le cr□□ stress, □ut inc□nclusi□e
Aug 1985	2.06	D	N, CR	
Aug 1986	4.47	N	N, CR	
Aug 1987	3.40	N	N, CR	dar□slide
Jul□1988	1.77	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1989	2.03	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Aug 1990	5.18	N	N, CR	
June 1991	4.00	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1992	2.05	D	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1993	4.86	W	N, NC	
Jul□1994	2.03	N	N, CR	slide is □er□grain□
June 1995	2.91	N	N, NC	
Aug 1996	3.32	N	N CR	slide is □er□ poo r □ualit□ (t□□ grain□)
Jul□1997	4.70	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures (slide is grain□)
Jul□1998	3.16	N	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□1999	5.61	W	N, NC	dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□2000	5.16	W	Y-, NC,6d	□□ssi□le signature, □ut n□t str□ng, slide is □□□r □ualit□ (t□□ grain□)
Jul□2001	4.09	W	N, NC	slig□tl□dar□s□il t□ne, □ut n□ □□□i□us signatures
Jul□2002	2.96	N	Y-, NC, 6d	□□ssi□le signature, alt□□ug□ slide is □□□r □ualit□
Jul□2003	2.58	N	N, NC	
Jul□2004	4.71	W	N, CR	
Jul□2005	2.09	D	N, NC	
Jul□2006	3.50	N	N, NC	
2007	na	na	na	
Jul□2008	6.54	N	N, CR	slig□tl□dar□s□il t□ne, □ut n□ □□□i□us signatures, slide is grain□
2009	na	na	na	
Jul□2010	4.61	N	N, CR	
2011	na	na	na	
2012	na	na	na	
Jul□2013	5.83	W	N, NC	

Y = signal indicates □etness (+ = str□ng, - = □ea□) N = NO □etness signature
CR = cr□□□ed (row cr□□ □r tilled) NC = n□t cr□□□ed (□a□, □asture, idle, etc.)

Feature	Color	Manipulation	Other
1 = □ater	6a = dar□green	7a = ditc□ed	□rite ex□lanati□n
2 = mud □at	6□ = lig□t green	7b = tiled	
3 = □are s□□t	6c = □ell□□	7c = □illed	
4 = dr□□ned cr□□	6d = □r□□n	7d = tree/□rus□ rem□□al	
5 = □lanted late	6e = □lac□	8 = □l□□ed□tilled	

□Data n□t a□aila□le at t□is time □r□m NRCS □r USGS

D□es slide□air ph□to data indicate t□e site is a □etland? Yes **No** Indiscerni□le

All Years: 3 □ears □ut of 30 □ears □a□e □et (W) signatures Percentage = 10%
N□rmal Years: 2 □ears □ut □□ 19 □ears □a□e □et (W) signatures Percentage = 11%

C□mments: Based □n t□e slide re□ie□, t□is area a□□ear t□ □e e□ecti□el□drained. Onl□ □ea□signatures □□ser□ed in a □e□ □ears.

Appendix 3:

Site Photographs

Photograph 1 (10/29/14): Northeast facing view of the sedge (wet) meadow portion of W-1. W-1 contains predominantly native sedge (wet) meadow that transitions to a shallow marsh, although there are smaller portions of degraded fresh (wet) meadow and farmed wetland as well.

Photograph 2 (10/29/14): Northwest facing view of a shallow marsh and open water portions of W-1 from south end of wetland.

Photograph 3 (10/29/14): General view of the open water pond located within W-2.

Photograph 4 (10/29/14): North facing view of the fresh (wet) meadow on the west side of W-2 underneath the transmission line right-of-way.

Photograph 5 (10/29/14): General view of W-3.

Photograph 6 (10/29/14): General view of W-4, a farmed wetland, and wetland data point DP-14.

Photograph 7 (10/29/14): Southwest facing view of W-5.

Photograph 8 (10/29/14): Tile outlet located at the north end of W-5.

Photograph 9 (10/29/14): View of the open pond located within the interior of W-6.

Photograph 10 (10/29/14): General view of the fresh (wet) meadow community that surrounds the open water pond within W-6. This area is sometimes farmed during drier years.

Photograph 11 (10/30/14): South facing view of the shallow marsh community within W-7 near wetland data point DP-28.

Photograph 12 (10/30/14): North facing view of the transition from shallow marsh wetland to upland with a healthy corn crop with wetland data point DP-28 shown in the foreground.

Photograph 13 (10/30/14): South facing view of W-8 with wetland data point DP-23 shown in the background.

Photograph 14 (10/30/14): General view of wetland data point DP-25 in W-9. Note the crop stress in this area.

Photograph 15 (10/30/14): View of upland data point DP-21 located south of W-9. Some crop stress was observed, but soils were non-hydric.

Photograph 16 (10/30/14): West facing view of W-10 with wetland data point DP-30 shown in the photo.

Photograph 17 (10/30/14): General view of the upland adjacent to W-10 where a healthy corn crop was present. Upland data point DP-29 is observable in the photo.

Photograph 18 (10/30/14): General south facing view of W-11, a shallow marsh ditch along the south side of Loomis Road.

Appendix 4:

Wetland Determination Data Forms – Midwest Region

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-1 DP-1UPL**

Investigator(s): **Heather D. Patti, PWS & Tina M. Myers, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **convex**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Blount silt loam, 1-3% slopes (BIA), Hydric Inclsuions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Edge of a corn field - corn is healthy** **None of the wetland critera have been met.**

VEGETATION - Use scientific names for plants.

Sampling Point: **T-1 DP-1UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Rhamnus cathartica***	**10%**	**Y**	**FAC**
2. ***Ulmus pumila***	**5%**	**Y**	**UPL**
3.			
4.			
5.			
6.			
7.			
	15% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**40%**	**Y**	**UPL**
2. ***Solidago canadensis***	**40%**	**Y**	**FACU**
3. ***Phalaris arundinacea***	**20%**	**N**	**FACW**
4. ***Daucus carota***	**10%**	**N**	**UPL**
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	110% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **25%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is not met.

SOIL Sam□ling P□int: **T-1 DP-1UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□	Matrix		Red□x Features					
(inc□es)	C□l□r (m□ist)	□	C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Rema□s
0-13	**10YR 3/2**	**100%**					**si cl loam**	
13-15	**10YR 3/2**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**si cl loam**	
15-20	**10YR 4/3**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12)**(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Rema□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Rema□s: **Hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Rema□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□□is□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Rema□s: **Wetland hydrology criterion is not met.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-1 DP-2 WTD**

Investigator(s): **Heather D. Patti, PWS & Tina M. Myers, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam 0-2% slopes (AsA), Hydric** WWI Classification: **E2K**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area
Hydric Soil Present?	Yes **X**	No ____	within a Wetland? Yes **X** No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID: **W-1**

Remarks:

VEGETATION - Use scientific names for plants.

Sampling Point: **T-1 DP-2 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Malus pumila***	**10%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Viburnum lentago***	**5%**	**Y**	**FAC**
2.			
3.			
4.			
5.			
6.			
7.			
	5% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Calamagrostis canadensis***	**60%**	**Y**	**OBL**
2. ***Phalaris arundinacea***	**30%**	**Y**	**FACW**
3. ***Carex stricta***	**20%**	**N**	**OBL**
4. ***Solidago canadensis***	**5%**	**N**	**FACU**
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	115% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***Vitis riparia***	**3%**	**N**	**FACW**
2.			
3.			
4.			
	3% = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **75%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Plant community is a native sedge meadow transitioning to shallow marsh.

SOIL

Sam□ling P□int: **T-1 DP-2 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Rema□s
0-12	**10YR 3/1**	**90%**	**7.5YR 5/6**	**10%**	**C**	**M**	**si cl loam**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- **X** Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Rema□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Rema□s: **Hydric soil criterion is met. Hydric soil criterion was met in upper 12 inches - below that too much water and profile was difficult to observe.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- **X** Hig□ Water Ta□le (A2)
- **X** Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□(B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Rema□s)

Sec□ndar□Indicat□rs (minimum □□t□□re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□(C9)
- ___ Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- **X** FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	___	N□	**X**	De□t□ (inc□es): ___
Water Ta□le Present□	Yes	**X**	N□	___	De□t□ (inc□es): **3"**
Saturati□n Present□ (includes ca□illar□ □ringe)	Yes	**X**	N□	___	De□t□ (inc□es): **0"**

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Rema□s: **Wetland hydrology criterion is met. Hydroperiod Is long - high water table maintained throughout the growing season.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-2 DP-3 UPL**

Investigator(s): **Heather D. Patti, PWS & Tina M. Myers, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **slightly convex**

Slope (%): **5%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam 0-2% slopes (AsA), Hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**
None of the wetland critera have been met.

VEGETATION - Use scientific names of plants.

Sampling Point: **T-2 DP-3 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**90%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	90% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number Of Dominant Species Across All Strata: **4** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **25%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met.

SOIL Sam□ling P□int: **T-2 DP-3 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-10	**10YR 3/1**	**100%**					**si cl loam**	
10-12	**10YR 3/1**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**si cl loam**	
12-20	**10YR 5/1**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-2 DP-4 WTD**

Investigator(s): **Heather D. Patti, PWS & Tina M. Myers, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **slightly concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Blount silt loam, 1-3% slopes (BIA), Hydric Inclsuions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology ****Y** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ***X**	Is the Sampled Area		
Hydric Soil Present?	Yes **X**	No ____	within a Wetland?	Yes **X**	No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID:	**W-1**	

Remarks: ***Active agricultural field - corn planted this year which is stressed due to wetness**

****Seasonal hydrology**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-2 DP-4 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**80%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	80% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ***X**

Remarks: (Include photo numbers here or on a separate sheet.)

Atypical situatuion - corn is planted here, but is stressed and stunted due to wetness.

SOIL

Sam□ling P□int: **T-2 DP-4 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-6	**10YR 3/1**	**100%**					**si cl loam**	
6-12	**10YR 3/1**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**silty clay**	
12-20	**10YR 5/1**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- **X** Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□(B7)
- **X** S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□Indicat□rs (minimum □□t□□re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- **X** Saturati□n Visi□le □n Aerial Imager□(C9)
- **X** Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is met. Farmed wetland portion of W-1. Visible on most FSA slides and spring aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-3 DP-5 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **convex**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam 0-2% slopes (AsA), Hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area	
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____ No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**

Remarks: **Does not meet all three wetland criteria.**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-3 DP-5 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Fraxinus pennsylvanica***	**5%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
	5%	= Total Cover	

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Rhus typhina***	**40%**	**Y**	**UPL**
2. ***Cornus racemosa***	**20%**	**Y**	**FAC**
3. ***Crataegus crus galli***	**10%**	**N**	**FAC**
4. ***Rhamnus cathartica***	**3%**	**N**	**FAC**
5.			
6.			
7.			
	73%	= Total Cover	

Herb Stratum (Plot size: **5'R**)			
1. ***Fragaria virginiana***	**20%**	**Y**	**FACU**
2. ***Poa pratensis***	**10%**	**Y**	**FAC**
3. ***Potentilla simplex***	**10%**	**Y**	**FACU**
4. ***Spartina pectinata***	**10%**	**Y**	**FACW**
5. ***Gentiana andrewsii***	**5%**	**N**	**FACW**
6. ***Lonicera x bella***	**5%**	**N**	**FACU**
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	60%	= Total Cover	

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
		= Total Cover	

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **4** (A)

Total Number Of Dominant Species Across All Strata: **7** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **57%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is not met. Plant community is an upland shrub thicket with prairie understory.

SOIL Sam□ling P□int: **T-3 DP-5 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-12	**10YR 3/1**	**100%**					**si cl loam**	
12-20	**10YR 5/1**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-3 DP-6 WTD**

Investigator(s): **Heather D. Patti, PWS & Tina M. Myers, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam 0-2% slopes (AsA), Hydric** WWI Classification: **E2K**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (if no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (if needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area
Hydric Soil Present?	Yes **X**	No ____	within a Wetland? Yes **X** No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID: **W-1**

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: **T-3 DP-6 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Cornus alba***	**10%**	**Y**	**FACW**
2. ***Cornus racemosa***	**10%**	**Y**	**FAC**
3. ***Viburnum lentago***	**5%**	**N**	**FAC**
4. ***Rhamnus cathartica***	**3%**	**N**	**FAC**
5.			
6.			
7.			
	28% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Spartina pectinata***	**95%**	**Y**	**FACW**
2. ***Carex stricta***	**10%**	**N**	**OBL**
3. ***Juncus torreyi***	**5%**	**N**	**FACW**
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	110% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Plant community is a native wet meadow transitioning to shallow marsh.

SOIL

Sam□ling P□int: **T-3 DP-6 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□	Matrix		Red□x Features					
(inc□es)	C□l□r (m□ist)	□	C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-10	**N 2.5/0**	**100%**					**muck**	
10-20	**10YR 5/1**	**80%**	**10 YR 5/8**	**20%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- X Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□ Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? Yes **X** No ___

Remar□s: **Hydric soil criterion is met. Hydric soil criterion was met in upper 12 inches - below that too much water and profile was difficult to observe.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- X Hig□ Water Ta□le (A2)
- X Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□(B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□(C9)
- ___ Stunted □r Stressed Plants (D1)
- X Ge□m□r□□ic P□siti□n (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	___	N□	X	De□t□ (inc□es):
Water Ta□le Present□	Yes	X	N□	___	De□t□ (inc□es): 4"
Saturati□n Present□ (includes ca□illar□ □ringe)	Yes	X	N□	___	De□t□ (inc□es): 0"

Wetland Hydrology Present? Yes **X** No ___

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is met. Hydroperiod Is long - high water table maintained throughout the growing season.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-4 DP-7 UPL**

Investigator(s): **Heather D. Patti, PWS & Tina M. Myers, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **slightly convex**

Slope (%): **2-3%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Blount silt loam, 1-3% slopes (BIA), Hydric Inclsuions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil ***Y** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area		
Hydric Soil Present?	Yes **X**	No ____	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: **Does not meet all three wetland criteria. Significant historical alteration to hydrology - excavated pond which has been present since at least 1951 per historical aerials. *Problem soil - drained hydric soil**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-4 DP-7 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Quercus macrocarpa***	**90%**	**Y**	**FAC**
2.			
3.			
4.			
5.			
6.			
7.			
	90% = Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Rhamnus cathartica***	**100%**	**Y**	**FAC**
2. ***Lonicera x bella***	**20%**	**N**	**FACU**
3.			
4.			
5.			
6.			
7.			
	120% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Alliaria petiolata***	**30%**	**Y**	**FAC**
2. ***Rhamnus cathartica***	**20%**	**Y**	**FAC**
3. ***Cornus alba***	**5%**	**N**	**FACW**
4. ***Fragaria virginiana***	**5%**	**N**	**FACU**
5. ***Geum canadense***	**5%**	**N**	**FAC**
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	65% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **4** (A)

Total Number Of Dominant Species Across All Strata: **4** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Plant community is a mature oak forest with a dense buckthorn understory. Dominant species are all FAC which occur in both uplands and wetlands.

SOIL Sam□ling P□int: **T-4 DP-7 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Rema□s
0-5	**10YR 3/1**	**100%**					**si cl loam**	
5-20	**10YR 4/1**	**90%**	**10YR 5/8**	**10%**	**C**	**M**	**silty clay**	**gravel present**

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□ Dar□Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- **X** De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Rema□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Rema□s: **Hydric soil criterion is met; however, the hydrology in this area has changed (become drained) due to the excavation of the adjacent pond. Pond dates back to at least 1951 per Milwaukee County GIS website.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Rema□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	___	N□	**X**	De□t□ (inc□es): ___
Water Ta□le Present□	Yes	___	N□	**X**	De□t□ (inc□es): ___
Saturati□n Present□ (includes ca□illar□ □inge)	Yes	___	N□	**X**	De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes ___** **No X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Rema□s: **Wetland hydrology criterion is not met.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-4 DP-8 WTD**

Investigator(s): **Heather D. Patti, PWS & Tina M. Myers, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Blount silt loam, 1-3% slopes (BIA), Hydric Inclsuions** WWI Classification: **W0Hx**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology ***Y** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area
Hydric Soil Present?	Yes **X**	No ____	within a Wetland? Yes **X** No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID: **W-2**

Remarks: ***Seasonal hydrology**

VEGETATION - Use scientific names for plants.

Sampling Point: **T-4 DP-8 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Quercus macrocarpa***	**10%**	**Y**	**FAC**
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Rhamnus cathartica***	**20%**	**Y**	**FAC**
2.			
3.			
4.			
5.			
6.			
7.			
	20% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Phalaris arundinacea***	**100%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **3** (A)

Total Number Of Dominant Species Across All Strata: **3** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Plant community is a degraded fresh (wet) meadow fringe along an excavated pond.

SOIL

Sam□ling P□int: **T-4 DP-8 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-2	**10YR 3/1**	**100%**					**si cl loam**	
2-10	**10YR 3/1**	**90%**	**10 YR 5/6**	**10%**	**C**	**M**	**silty clay**	
10-20	**10YR 4/1**	**70%**	**10YR 5/8**	**30%**	**C**	**M**	**silty clay**	**gravel present**

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains.

[2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□ Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- **X** De□leted Matrix (F3)
- **X** Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□□eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12)**(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□(B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□(C9)
- ___ Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- **X** FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	___	N□	**X**	De□t□ (inc□es): ___
Water Ta□le Present□	Yes	**X**	N□	___	De□t□ (inc□es): **17"**
Saturati□n Present□ (includes ca□illar□ □ringe)	Yes	**X**	N□	___	De□t□ (inc□es): **13"**

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is met. Hydroperiod Is long - high water table maintained throughout the growing season.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-5 DP-9 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **slightly convex**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% slopes (MzdB), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**
None of the wetland critera have been met.

VEGETATION - Use scientific names of plants.

Sampling Point: **T-5 DP-9 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**100%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met. No crop stress observed.

SOIL Sam□ling P□int: **T-5 DP-9 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-10	**10YR 3/1**	**100%**					**si cl loam**	
10-13	**10YR 3/1**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**si cl loam**	
13-20	**10YR 5/3**	**85%**	**10YR 5/6**	**15%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met. No indication of consistent wetness on FSA crop slides or aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-5 DP-10 WTD**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% slopes (MzdB), Non-hydric** WWI Classification: **E1K**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes _____ No **X**

Are Vegetation **N** Soil **N** or Hydrology ****Y** naturally problematic? (if needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	Is the Sampled Area within a Wetland? Yes **X** No _____
Hydric Soil Present?	Yes **X**	No _____	If yes, optional Wetland site ID: **W-2**
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks: ***Farmed portion of W-2 - no crops in this area due to spring wetness.**
****Seasonal hydrology**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-5 DP-10 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Salix interior***	**10%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Cyperus esculentus***	**10%**	**Y**	**FACW**
2. ***Portulaca grandiflora***	**10%**	**Y**	**FACU**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	20% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
_____ Prevalence Index is ≤ 3.0[1]
_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No _____

Remarks: (Include photo numbers here or on a separate sheet.)
Atypical situatuion - Farmed wetland, but no crop growing presumably due to spring wetness - mostly bare ground.

SOIL

Sam□ling P□int: **T-5 DP-10 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-6	**10YR 3/1**	**100%**					**si cl loam**	
6-12	**10YR 3/1**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**si cl loam**	
12-20	**10YR 5/2**	**80%**	**10YR 5/6**	**20%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains.

[2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- **X** Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□□eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□(B7)
- **X** S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed Ri□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□re□uired)

- **X** Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- **X** Saturati□n Visi□le □n Aerial Imager□(C9)
- **X** Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- **X** FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes ___	N□ **X**	De□t□ (inc□es):	___
Water Ta□le Present□	Yes ___	N□ **X**	De□t□ (inc□es):	___
Saturati□n Present□ (includes ca□illar□ □ringe)	Yes ___	N□ **X**	De□t□ (inc□es):	___

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is met. Farmed wetland portion of W-2. Visible on most FSA slides and spring aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-6 DP-11 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **slightly convex**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Elliott silt loam 1-3% slopes (AsA), Hydric Inclusions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: **Does not meet all any of the three wetland criteria.**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-6 DP-11 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Fraxinus pennsylvanica***	**30%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
	30%	= Total Cover	

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Rhamnus cathartica***	**80%**	**Y**	**FAC**
2. ***Lonicera tatarica***	**40%**	**Y**	**FACU**
3.			
4.			
5.			
6.			
7.			
	120%	= Total Cover	

Herb Stratum (Plot size: **5'R**)			
1. ***Poa pratensis***	**20%**	**Y**	**FACU**
2. ***Symphyotrichum pilosum***	**10%**	**Y**	**FAC**
3. ***Rosa caroliniana***	**10%**	**Y**	**FACU**
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	40%	= Total Cover	

Woody Vine Stratum (Plot size: **30'R**)			
1. ***Vitis riparia***	**3%**	**N**	**FACW**
2.			
3.			
4.			
	3%	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **6** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**30**	x 2 =	**30**
FAC species	**90**	x 3 =	**270**
FACU species	**70**	x 4 =	**280**
UPL species	**0**	x 5 =	**0**
Column Totals:	**190** (A)		**580** (B)

Prevalence Index B/A = **3.1**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is not met. Plant community is an upland shrub thicket including many non-native aggressive species.

SOIL Sam□ling P□int: **T-6 DP-11 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-10	**10YR 3/1**						**si cl loam**	
10-13	**10YR 3/1**	**95%**	**7.5YR 4/6**	**5%**	**C**	**M**	**si cl loam**	
13-20	**10YR 5/2**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Remar□s: **Wetland hydrology criterion is not met.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-6 DP-12 WTD**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Elliott silt loam 1-3% slopes (EsA), Hydric Inclusions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (if no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology ***Y** naturally problematic? (if needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area
Hydric Soil Present?	Yes **X**	No ____	within a Wetland? Yes **X** No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID: **W-3**

Remarks: ***Seasonal hydrology**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-6 DP-12 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Fraxinus pennsylvanica***	**20%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
	20% = Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Fraxinus pennsylvanica***	**50%**	**Y**	**FACW**
2. ***Rhamnus cathartica***	**30%**	**Y**	**FAC**
3.			
4.			
5.			
6.			
7.			
	80% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Carex stricta***	**10%**	**Y**	**OBL**
2. ***Carex granularis***	**10%**	**Y**	**FACW**
3. ***Phalaris arundinacea***	**5%**	**N**	**FACW**
4. ***Cornus alba***	**5%**	**N**	**FACW**
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	30% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **5** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Plant community is a shrub carr.

SOIL Sam□ling P□int: **T-6 DP-12 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□	Matrix		Red□x Features					
(inc□es)	C□l□r (m□ist)	□	C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Rema□s
0-4	**10YR 3/1**	**100%**					**si cl loam**	
4-10	**10YR 3/1**	**90%**	**10 YR 5/6**	**10%**	**C**	**M**	**si cl loam**	
10-20	**10YR 5/1**	**85%**	**10 YR 5/6**	**15%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- **X** De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- **X** Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12)**(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Rema□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** **X** **No** ___

Rema□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□(B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Rema□s)

Sec□ndar□Indicat□rs (minimum □□t□□re□uired)

- **X** Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- **X** Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□(C9)
- ___ Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- **X** FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes ___	N□ **X**	De□t□ (inc□es):	
Water Ta□le Present□	Yes ___	N□ **X**	De□t□ (inc□es):	
Saturati□n Present□ (includes ca□illar□ □ringe)	Yes ___	N□ **X**	De□t□ (inc□es):	

Wetland Hydrology Present? **Yes** **X** **No** ___

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Rema□s: **Wetland hydrology criterion is met. Hydroperiod is seasonal.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-7 DP-13 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **slightly convex**

Slope (%): **5%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Elliott silt loam 1-3% slopes (AsA), Hydric Inclusions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes **X**	No ____	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**

Does not meet all three wetland criteria. There is a slight topographic break along the wetalnd boundary.

VEGETATION - Use scientific names of plants.

Sampling Point: **T-7 DP-13 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**90%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	90% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is not met. No crop stress observed.

SOIL Sam□ling P□int: **T-7 DP-13 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-7	**10YR 2/1**	**100%**					**si cl loam**	
7-12	**10YR 2/1**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**si cl loam**	
12-15	**10YR 5/2**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□ Sur□ace (A11)
- ***X** T□ic□ Dar□ Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- **X** Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□ Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□ S□all□□ Dar□ Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **hard clay**

De□t□ (inc□es): **15"**

Hydric Soil Present? **Yes X** **No ___**

Remar□s: **Hydric soil criterion is met. Meets F6 and likley to meet A12, but could only dig to 15" due to hard clay.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes ___** **No X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met. No indication of consistent wetness on FSA crop slides or aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-7 DP-14 WTD**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Markham silt loam 2-6% slopes (MeB), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology ****Y** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area within a Wetland?	Yes **X** No ____
Hydric Soil Present?	Yes **X**	No ____	If yes, optional Wetland site ID:	**W-4**
Wetland Hydrology Present?	Yes **X**	No ____		

Remarks: ***Active agricultural field - crop failure in this corner due to wetness. Wetness signatures are visible on recent aerials especially 2000 & 2013.**

****Seasonal hydrology**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-7 DP-14 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Echinochloa crus galli***	**20%**	**Y**	**FACW**
2. ***Xanthium strumarium***	**5%**	**N**	**FAC**
3. ***Hibiscus trinonium***	**5%**	**N**	**UPL**
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	30% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Atypical situation - Farmed wetland, but no crop growing presumably due to spring wetness - mostly bare ground.

SOIL Sam□ling P□int: **T-7 DP-14 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-5	**10YR 2/1**	**100%**					**si cl loam**	
5-10	**10YR 2/1**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**si cl loam**	
10-15*	**10YR 5/2**	**85%**	**10YR 5/6**	**15%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- X De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- X Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□□eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12)**(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **hard clay**

De□t□ (inc□es): **15"**

Hydric Soil Present? **Yes** X **No** ___

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□(B7)
- X S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□re□uired)

- X Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- X Saturati□n Visi□le □n Aerial Imager□(C9)
- X Stunted □r Stressed Plants (D1)
- X Ge□m□r□□ic P□siti□n (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes ___	N□ X	De□t□ (inc□es):	
Water Ta□le Present□	Yes ___	N□ X	De□t□ (inc□es):	
Saturati□n Present□ (includes ca□illar□ □ringe)	Yes ___	N□ X	De□t□ (inc□es):	

Wetland Hydrology Present? **Yes** X **No** ___

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Remar□s: **Wetland hydrology criterion is met. Visible primarily on spring aerials, especially 2000 and 2013. Wetland was too small to interpret on poor quality FSA slides.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-8 DP-15 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **convex**

Slope (%): **20%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% slopes (MzdB), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: **Does not meet the three wetland criteria.**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-8 DP-15 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Quercus macrocarpa***	**20%**	**Y**	**FAC**
2. ***Quercus alba***	**20%**	**Y**	**FACU**
3.			
4.			
5.			
6.			
7.			
	40%	= Total Cover	

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Lonicera x bella***	**30%**	**Y**	**FACU**
2. ***Rhamnus cathartica***	**10%**	**Y**	**FAC**
3.			
4.			
5.			
6.			
7.			
	40%	= Total Cover	

Herb Stratum (Plot size: **5'R**)			
1. ***Elymus repens***	**50%**	**Y**	**FACU**
2. ***Barbarea vulgaris***	**20%**	**Y**	**FAC**
3. ***Cirsium vulgare***	**10%**	**N**	**FACU**
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	80%	= Total Cover	

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
		= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **6** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**50**	x 3 =	**150**
FACU species	**110**	x 4 =	**440**
UPL species	**0**	x 5 =	**0**
Column Totals:	**160** (A)		**590** (B)

Prevalence Index B/A = **3.7**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is not met. Old field edge around man-made pond.

SOIL Sam□ling P□int: **T-8 DP-15 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-12	**10YR 3/2**	**100%**					**si cl loam**	
12-15	**10YR 3/2**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**si cl loam**	
15-20	**10YR 4/3**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Remar□s: **Wetland hydrology criterion is not met.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-8 DP-16 WTD**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Blount silt loam, 1-3% slopes (BIA), Hydric Inclusions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area
Hydric Soil Present?	Yes **X**	No ____	within a Wetland? Yes **X** No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID: **W-5**

Remarks: **Man-made pond with tile outlet on north end - there is a strong topographic break along the entire wetland boundary.**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-8 DP-16 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Typha latifolia***	**60%**	**Y**	**OBL**
2. ***Bidens frondosa***	**30%**	**Y**	**FACW**
3. ***Dactylis glomerata***	**20%**	**N**	**FACU**
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	110% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***Vitis riparia***	**3%**	**N**	**FACW**
2.			
3.			
4.			
	3% = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

- **X** Rapid Test for Hydrophytic Vegetation
- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Man-made pond with tile outlet depression on north end.

SOIL Sam□ling P□int: **T-8 DP-16 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Rema□s
0-10	**10YR 4/1**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**clay loam**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□ Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- **X** De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Rema□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Rema□s: **Hydric soil criterion is met. Hydric soil criterion was met in upper 10 inches, but in general the inundation is preventing observation of a deeper profile.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- **X** Sur□ace Water (A1)
- **X** Hig□ Water Ta□le (A2)
- **X** Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□(B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- **X** Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Rema□s)

Sec□ndar□ Indicat□rs (minimum □□t□□re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□(C9)
- ___ Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- **X** FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	**X**	N□ ___	De□t□ (inc□es):	**6"**
Water Ta□le Present□	Yes	**X**	N□ ___	De□t□ (inc□es):	**0"**
Saturati□n Present□ (includes ca□illar□ □inge)	Yes	**X**	N□ ___	De□t□ (inc□es):	**0"**

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Rema□s: **Wetland hydrology criterion is not met. Hydroperiod Is long - surface water maintained throughout the growing season.**

Note: not visible on FSA slides or aerials.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-9 DP-17 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **convex**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam 0-2% slopes (AsA), Hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**
None of the wetland criteria have been met.

VEGETATION - Use scientific names of plants.

Sampling Point: **T-9 DP-17 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**90%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	90% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met. No crop stress observed.

SOIL Sam□ling P□int: **T-9 DP-17 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-8	**10YR 4/2**	**100%**					**si cl loam**	
8-13	**10YR 3/2**	**100%**					**si cl loam**	
13-20	**10YR 5/2**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met. No indication of consistent wetness on FSA crop slides or aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-9 DP-18 WTD**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam 0-2% slopes (AsA), Hydric** NWI Classification: **T3/W0Hx**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area
Hydric Soil Present?	Yes **X**	No ____	within a Wetland? Yes **X** No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID: **W-6**

Remarks: **Pond with outer farmed perimeter**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-9 DP-18 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Salix nigra***	**60%**	**Y**	**OBL**
2.			
3.			
4.			
5.			
6.			
7.			
	60% = Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Fraxinus pennsylvanica***	**10%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Phalaris arundinacea***	**100%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***Vitis riparia***	**10%**	**Y**	**FACW**
2.			
3.			
4.			
	10% = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

- **X** Rapid Test for Hydrophytic Vegetation
- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is met.

SOIL

Sam□ling P□int: **T-9 DP-18 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-10	**10YR 2/1**	**100%**					**si cl loam**	
10-12	**10YR 2/1**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**si cl loam**	
12-18	**10YR 5/1**	**70%**	**10YR 5/6**	**30%**	**C**	**M**	**si cl loam**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains.

[2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- **X** T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- **X** Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- **X** Inundati□n Visi□le □n Aerial Imager□(B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□Indicat□rs (minimum □□t□□re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- **X** Saturati□n Visi□le □n Aerial Imager□(C9)
- ___ Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- **X** FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	___	N□	**X**	De□t□ (inc□es): ___
Water Ta□le Present□	Yes	**X**	N□	___	De□t□ (inc□es): **17"**
Saturati□n Present□ (includes ca□illar□ □ringe)	Yes	**X**	N□	___	De□t□ (inc□es): **12"**

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Remar□s: **Wetland hydrology criterion is met. Visible on most FSA slides and spring aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-10 DP-19 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **convex**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% eroded slopes (MzdB2), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**
None of the wetland criteria have been met.

VEGETATION - Use scientific names of plants.

Sampling Point: **T-10 DP-19 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**90%**	**Y**	**UPL**
2. ***Sinapsis arvensis***	**10%**	**N**	**UPL**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met. No crop stress observed.

SOIL Sam□ling P□int: **T-10 DP-19 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-10	**10YR 3/1**	**100%**					**si cl loam**	
10-15	**10YR 3/1**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**si cl loam**	
15-20	**10YR 5/2**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Remar□s: **Wetland hydrology criterion is not met. No indication of consistent wetness on FSA crop slides or aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 29, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-10 DP-20 WTD**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **slightly concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% eroded slopes (MzdB2), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology ***Y** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area within a Wetland? Yes **X** No ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID: **W-6**

Remarks: **Pond with fresh (wet) meadow perimeter. *Hydrology is seasonal**

VEGETATION - Use scientific names for plants.

Sampling Point: **T-10 DP-20 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Salix interior***	**5%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
	5% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Phalaris arundinacea***	**60%**	**Y**	**FACW**
2. ***Echinochloa crus-galli***	**50%**	**Y**	**FACW**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	110% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **3** (A)

Total Number Of Dominant Species Across All Strata: **3** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

- **X** Rapid Test for Hydrophytic Vegetation
- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Plant community is a degraded fresh (wet) meadow fringe around the pond.

SOIL Sam□ling P□int: **T-10 DP-20 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-4	**10YR 2/1**	**100%**					**si cl loam**	
4-11	**10YR 2/1**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**si cl loam**	
11-20	**10YR 5/2**	**75%**	**10YR 5/6**	**30%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- **X** De□leted Bel□□ Dar□ Sur□ace (A11)
- ___ T□ic□ Dar□ Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- **X** Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□ Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□ S□all□□ Dar□ Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□ must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- **X** Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- **X** Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□□is□ Burr□□s (C8)
- **X** Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- **X** FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□t□s, □re□□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is met. Visible on most FSA slides and spring aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **DP-21 UPL**

Investigator(s): **Heather D. Patti, PWS & Mike Al-Wathiqui** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **slight depression** Local relief (concave, convex, none): **slightly concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% eroded slopes (MzdB2), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ****X**	No ____	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field **Some crop stress observed but it is attributed to a wetter than normal spring.**
None of the wetland criteria have been met.

VEGETATION - Use scientific names of plants.

Sampling Point: **DP-21 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**20%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	20% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met, but corn is stressed due to a wet year.

SOIL Sam□ling P□int: **DP-21 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Rema□s
0-6	**10YR 3/3**	**100%**					**si cl loam**	
6-12	**10YR 3/3**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**silty clay**	
12-15*	**10YR 5/3**	**85%**	**10YR 5/6**	**15%**	**C**	**M**	**silty clay**	**some gravel present**

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Rema□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **hard clay**

De□t□ (inc□es): **15"**

Hydric Soil Present? Yes ___ **No X**

Rema□s: **Hydric soil criterion is not met. Could not dig deeper than 15" due to hard dry clay.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Rema□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ***X** Stunted □r Stressed Plants (D1)
- ***X** Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? Yes ___ **No X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Rema□s: **Wetland hydrology criterion is not met. *The data point is located in a slight topographic depression where corn is stressed, but the soils are not hydric. The crop stress is attributed to a wetter than normal spring. FSA slides were generally unreliable for this small area due to poor quality of slides.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-11 DP-22 UPL**

Investigator(s): **Heather D. Patti, PWS & Mike Al-Wathiqui** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **convex**

Slope (%): **5%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Blount silt loam, 1-3% slopes (BIA), Hydric Inclusions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**
None of the wetland criteria have been met.

VEGETATION - Use scientific names of plants.

Sampling Point: **T-11 DP-22 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**90%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	90% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met. No crop stress observed.

SOIL Sam□ling P□int: **T-11 DP-22 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-7	**10YR 3/3**	**100%**					**si cl loam**	
7-18	**10YR 3/4**	**95%**	**10YR 5/4**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met. No indication of consistent wetness on FSA crop slides or aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-11 DP-23 WTD**

Investigator(s): **Heather D. Patti, PWS & Mike Al-Wathiqui** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam 0-2% slopes (AsA), Hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology ****Y** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area within a Wetland?	Yes **X**	No ____
Hydric Soil Present?	Yes **X**	No ____			
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID:	**W-8**	

Remarks: ***Farmed wetland **Hydrology is seasonal**

VEGETATION - Use scientific names for plants.

Sampling Point: **T-11 DP-23 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Ulmus americana***	**5%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
	5% = Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Setaria faberi***	**5%**	**Y**	**FACU**
2. ***Hibiscus trinonium***	**5%**	**Y**	**UPL**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	10% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **1** (A)

Total Number Of Dominant Species Across All Strata: **3** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

X Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ***X**

Remarks: (Include photo numbers here or on a separate sheet.)

Predominantly bare ground due to seasonal standing water/saturation. Species present may have grown in later during drier conditions.

SOIL Sam□ling P□int: **T-11 DP-23 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Rema□s
0-12	**10YR 3/1**	**90%**	**10YR 3/4**	**10%**	**C**	**M**	**si cl loam**	
12-20	**10YR 5/2**	**60%**	**10YR 5/6**	**40%**	**C**	**M**	**silty clay**	**mixing - some sand pockets**

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□ Sur□ace (A11)
- ___ T□ic□ Dar□ Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- **X** Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□ Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□ S□all□□ Dar□ Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Rema□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□ must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Rema□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- **X** S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- **X** Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Rema□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- **X** Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□fis□ Burr□□s (C8)
- **X** Saturati□n Visi□le □n Aerial Imager□ (C9)
- **X** Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Rema□s: **Wetland hydrology criterion is met. Visible on most FSA slides and spring aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-12 DP-24 UPL**

Investigator(s): **Heather D. Patti, PWS & Mike Al-Wathiqui** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **convex**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Blount silt loam, 1-3% slopes (BIA), Hydric Inclusions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**

None of the wetland criteria have been met. Topography and lack of crop stress indicate upland.

VEGETATION - Use scientific names of plants.

Sampling Point: **T-12 DP-24 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**90%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	90% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is not met. No crop stress observed.

SOIL Sam□ling P□int: **T-12 DP-24 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-3	**10YR 3/3**	**100%**					**si cl loam**	
3-16	**10YR 3/3**	**90%**	**7.5YR 4/6**	**10%**	**C**	**M**	**si cl loam**	
16-20	**10YR 5/3**	**85%**	**10YR 5/6**	**15%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met. No indication of consistent wetness on FSA crop slides or aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-12 DP-25 WTD**

Investigator(s): **Heather D. Patti, PWS & Mike Al-Wathiqui** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **slightly concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Blount silt loam, 1-3% slopes (BlA), Hydric Inclusions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology ****Y** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes **X**	No ____	within a Wetland?	Yes **X**	No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID:	**W-9**	

Remarks: ***Farmed wetland with crop failure **Hydrology is seasonal**

VEGETATION - Use scientific names for plants.

Sampling Point: **T-12 DP-25 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Alisma subcordatum***	**5%**	**Y**	**OBL**
2. ***Echinochloa crus-galli***	**5%**	**Y**	**FACW**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	10%	= Total Cover	

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **2** (A)

Total Number Of Dominant Species Across All Strata: **2** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

- **X** Rapid Test for Hydrophytic Vegetation
- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **x** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Predominantly bare ground due to seasonal standing water/saturation.

SOIL Sam□ling P□int: **T-12 DP-25 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-15	**10YR 3/2**	**80%**	**7.5YR 4/6**	**20%**	**C**	**M**	**si cl loam**	
15-20	**10YR 5/2**	**70%**	**7.5YR 4/6**	**30%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□ Sur□ace (A11)
- ___ T□ic□ Dar□ Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- **X** Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□ Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□ S□all□□ Dar□ Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□ must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- **X** Inundati□n Visi□le □n Aerial Imager□ (B7)
- **X** S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- **X** Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□fis□ Burr□□s (C8)
- **X** Saturati□n Visi□le □n Aerial Imager□ (C9)
- **X** Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- **X** FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□t□s, □re□□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is met. Visible on most FSA slides and spring aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **DP-26 UPL**

Investigator(s): **Tina M. Myers, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **convex**

Slope (%): **2-3%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam 0-2% slopes (AsA), Hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil ***Y** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes **X**	No ____	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: **Does not meet all three wetland criteria.**
***Drained hydric soil**

VEGETATION - Use scientific names of plants.

Sampling Point: **DP-26 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Rhamnus cathartica***	**40%**	**Y**	**FAC**
2. ***Lonicera x bella***	**5%**	**N**	**FACU**
3. ***Cornus racemosa***	**5%**	**N**	**FAC**
4. ***Viburnum lentago***	**3%**	**N**	**FAC**
5. ***Frangula alnus***	**3%**	**N**	**FAC**
6.			
7.			
	56% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Poa pratensis***	**80%**	**Y**	**FAC**
2. ***Fragaria virginiana***	**40%**	**Y**	**FACU**
3. ***Solidago nemoralis***	**40%**	**Y**	**UPL**
4. ***Carex grisea***	**10%**	**N**	**FAC**
5. ***Taraxacum officinale***	**5%**	**N**	**FACU**
6. ***Euthamia graminifolia***	**5%**	**N**	**FACW**
7. ***Daucus carota***	**3%**	**N**	**UPL**
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	183% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**5**	x 2 =	**10**
FAC species	**141**	x 3 =	**423**
FACU species	**50**	x 4 =	**200**
UPL species	**43**	x 5 =	**215**
Column Totals:	**239** (A)		**838** (B)

Prevalence Index B/A = **3.5**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met. Plant community is an upland meadow between a corn field and a dense upland shrub thicket.

SOIL Sam□ling P□int: **DP-26 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-9	10YR 2/1	100%					si cl loam	
9-24	10YR 4/2	60%	10YR 5/6	40%	C	M	silty clay	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□ Dar□Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- X De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Remar□s: **Hydric soil criterion is met; however, based on plant community and lack of hydrology, this appears to be a relict hydric soil from a former hydrologic regime.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes ___	N□ X	De□t□ (inc□es):	
Water Ta□le Present□	Yes ___	N□ X	De□t□ (inc□es):	23
Saturati□n Present□ (includes ca□illar□ □inge)	Yes ___	N□ X	De□t□ (inc□es):	20

Wetland Hydrology Present? **Yes ___** **No X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Remar□s: **Wetland hydrology criterion is not met.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-13 DP-27 UPL**

Investigator(s): **Tina M. Myers, PWS & Nancy Wilson** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **slight hilllslope** Local relief (concave, convex, none): **slightly convex**

Slope (%): **1-2%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Elliott silt loam, 1-3% slopes (EsA), Hydric Inclusions** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil ****Y** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ****X**	No ____	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**

****Relict hydric soils underneath 4 inches of sediment.**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-13 DP-27 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**75%**	**Y**	**UPL**
2. ***Daucus carota***	**5%**	**N**	**UPL**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	80% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is not met. No crop stress observed.

SOIL Sam□ling P□int: **T-13 DP-27 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-4	**10YR 3/1**	**100%**					**si cl loam**	
4-15	**10YR 2/1**	**100%**					**si cl loam**	
15-24	**10YR 5/1**	**60%**	**10YR 5/6**	**40%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ***X** De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□essi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: ***Top 4" is likely sediment from agricultural practices. The profile would otherwise meet the A11 indicator. Since the corn is healthy and the area lacks hydrology indicators, it is possible that the field is tiled and the soil is now relict hydric soil. The soils were dry and compacted due to farming practices.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met. No indication of consistent wetness on FSA crop slides or aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-13 DP-28 WTD**

Investigator(s): **Tina M. Myers, PWS & Nancy Wilson** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam 0-2% slopes (AsA), Hydric** WWI Classification: **E2H**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area
Hydric Soil Present?	Yes **X**	No ____	within a Wetland? Yes **X** No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID: **W-7**

Remarks: **Wetland is a large shallow marsh including areas of open water.**

VEGETATION - Use scientific names for plants.

Sampling Point: **T-13 DP-28 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Phalaris arundinacea***	**100%**	**Y**	**FACW**
2. ***Typha angustifolia***	**20%**	**N**	**OBL**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	120% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

- **X** Rapid Test for Hydrophytic Vegetation
- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Plant community is a fresh (wet) meadow transitioning to a shallow marsh.

SOIL Sam□ling P□int: **T-13 DP-28 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-24	**10YR 2/1**	**100%**					**muck**	**some clay content as well**

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- **X** Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□ Sur□ace (A11)
- ___ T□ic□ Dar□ Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□ Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□ S□all□□ Dar□ Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□ must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes X** **No ___**

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- **X** Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ***X** Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- **X** Ge□m□r□□ic P□siti□n (D2)
- **X** FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	___	N□	**X**	De□t□ (inc□es): ___
Water Ta□le Present□	Yes	**X**	N□	___	De□t□ (inc□es): **16**
Saturati□n Present□ (includes ca□illar□ □inge)	Yes	**X**	N□	___	De□t□ (inc□es): **12**

Wetland Hydrology Present? **Yes X** **No ___**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is met. Shallow marsh with a long hydroperiod. *Wetland supports baseflow to a tributary to Ryan Creek (located off-site).**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-14 DP-29 UPL**

Investigator(s): **Tina M. Myers, PWS & Nancy Wilson** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **slight hilllslope** Local relief (concave, convex, none): **slightly convex**

Slope (%): **2-3%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% slopes (MzdB), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**

VEGETATION - Use scientific names for plants.

Sampling Point: **T-14 DP-29 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**75%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	75% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is not met. No crop stress observed.

SOIL Sam□ling P□int: **T-14 DP-29 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-15	**10YR 3/2**	**100%**					**silt loam**	**compacted from farm equipment**
15-24	**10YR 5/2**	**60%**	**10YR 5/6**	**40%**	**C**	**M**	**si cl loam**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□ Sur□ace (A11)
- ___ T□ic□ Dar□ Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□ Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□ S□all□□ Dar□ Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□dr□□□tic e□egetati□n and □etland □□dr□l□g□ must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Does not meet hydric soil criterion.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □ringe) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met. No indication of consistent wetness on FSA crop slides or aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-14 DP-30 WTD**

Investigator(s): **Tina M. Myers, PWS & Nancy Wilson** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **wetland depression** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% slopes (MzdB), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area within a Wetland? Yes **X** No ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID: **W-10**

Remarks: **Wetland is a large shallow marsh including areas of open water.**

VEGETATION - Use scientific names for plants.

Sampling Point: **T-14 DP-30 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Cornus alba***	**20%**	**Y**	**FACW**
2. ***Cornus racemosa***	**20%**	**Y**	**FAC**
3.			
4.			
5.			
6.			
7.			
	40% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Carex stricta***	**50%**	**Y**	**OBL**
2. ***Phalaris arundinacea***	**20%**	**Y**	**FACW**
3. ***Cornus alba***	**3%**	**N**	**FACW**
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	73% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **4** (A)

Total Number Of Dominant Species Across All Strata: **4** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Plant community is a small sedge meadow/ fresh(wet) meadow that is located in a small depression at the far southwest corner of the field.

SOIL Sam□ling P□int: **T-14 DP-30 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-8	10YR 2/1	100%					silt loam	
8-24	10YR 2/1	85%	10YR 5/1	10%	D	M	si cl loam	
			10YR 5/6	5%	C	M		

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□ Sur□ace (A11)
- ___ T□ic□ Dar□ Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- X Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□ Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□ S□all□□ Dar□ Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□ must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? Yes **X** No ___

Remar□s: **Hydric soil criterion is met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- X Hig□ Water Ta□le (A2)
- X Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- X Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□fis□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- X Ge□m□r□□ic P□siti□n (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	___	N□	X	De□t□ (inc□es):
Water Ta□le Present□	Yes	X	N□	___	De□t□ (inc□es): 12
Saturati□n Present□ (includes ca□illar□ □ringe)	Yes	X	N□	___	De□t□ (inc□es): surface

Wetland Hydrology Present? Yes **X** No ___

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is met.**

Note: Too small to be detected on FSA crop slides or aerials maps and ocated near a treeline which also makes detection difficult.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-15 DP-31 UPL**

Investigator(s): **Heather Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **slight hilllslope** Local relief (concave, convex, none): **slightly convex**

Slope (%): **10-15%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% slopes (MzdB), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: **This is an old field community along a drainage ditch. None of the 3 wetland criteria are present.**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-15 DP-31 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Populus tremuloides***	**10%**	**Y**	**FAC**
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	0% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Poa pratensis***	**50%**	**Y**	**FAC**
2. ***Solidago canadensis***	**40%**	**Y**	**FACU**
3. ***Daucus carota***	**30%**	**Y**	**UPL**
4. ***Taraxacum officinale***	**5%**	**N**	**FACU**
5. ***Geum canadense***	**3%**	**N**	**FAC**
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	128% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	= Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number Of Dominant Species Across All Strata: **4** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**53**	x 3 =	**159**
FACU species	**45**	x 4 =	**180**
UPL species	**30**	x 5 =	**150**
Column Totals:	**128** (A)		**489** (B)

Prevalence Index B/A = **3.8**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met.

SOIL Sam□ling P□int: **T-15 DP-31 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-14	**10YR 3/2**	**100%**	**-**				**silt loam**	
14-24	**10YR 5/2**	**60%**	**10YR 5/6**	**40%**	**C**	**M**	**si cl loam**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□ Sur□ace (A11)
- ___ T□ic□ Dar□ Sur□ace (A12)
- ___ Sand□ Muc□□ Mineral (S1)
- ___ Sand□ Gle□ed Matrix (S4)
- ___ Sand□ Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□ Muc□□ Mineral (F1)
- ___ L□am□ Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□ Sur□ace (F6)
- ___ De□leted Dar□ Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□ Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□ S□all□□ Dar□ Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□dr□□□tic e□egetati□n and □etland □dr□l□g□ must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **Does not meet hydric soil criterion.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□ Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□ Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□fis□ Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	___	N□	**X**
Water Ta□le Present□	Yes	___	N□	**X**
Saturati□n Present□ (includes ca□illar□ □ringe)	Yes	___	N□	**X**

De□t□ (inc□es): ___

De□t□ (inc□es): ___

De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Remar□s: **Wetland hydrology criterion is not met.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **T-15 DP-32 WTD**

Investigator(s): **Heather Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **drainage ditch** Local relief (concave, convex, none): **concave**

Slope (%): **0%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Morley silt loam 2-6% slopes (MzdB), Non-hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation **N** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	Is the Sampled Area		
Hydric Soil Present?	Yes **X**	No ____	within a Wetland?	Yes **X**	No ____
Wetland Hydrology Present?	Yes **X**	No ____	If yes, optional Wetland site ID:	**W-11**	

Remarks: **This is a roadside drainage ditch that receives water from the road embankment and also via a culvert along W. Loomis Rd. Please refer to the site photographs in Appendix 2.**

VEGETATION - Use scientific names of plants.

Sampling Point: **T-15 DP-32 WTD**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***Cornus alba***	**10%**	**Y**	**FACW**
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Typha x glauca***	**50%**	**Y**	**OBL**
2. ***Phalaris arundinacea***	**30%**	**Y**	**FACW**
3. ***Epilobium coloratum***	**5%**	**N**	**FACW**
4. ***Impatiens capensis***	**5%**	**N**	**FACW**
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	90% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	0% = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is met. Plant community is a cattail-dominated drainage ditch along W. Loomis Rd.

SOIL Sam□ling P□int: **T-15 DP-32 WTD**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-3	10YR 3/1	100%	-				silt loam	some small gravel present from runoff
3-8	10YR 3/1	85%	10YR 5/6	15%	C	M	si cl loam	
8-10*	10YR 5/3	80%	10YR 5/6	20%	C	M	clay	compacted

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ied La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- X Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3)**(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **compacted clay & gravel**

De□t□ (inc□es): **10"**

Hydric Soil Present? **Yes** X **No** ___

Remar□s: **Shovel refusal at 10" due to presence of gravel and compacted clay. Hydric soil criterion F6 is met, however.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□Water Ta□le (A2)
- X Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- X Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□(B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- X Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□Indicat□rs (minimum □□t□□re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- X Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□□is□Burr□□s (C8)
- X Saturati□n Visi□le □n Aerial Imager□(C9)
- ___ Stunted □r Stressed Plants (D1)
- X Ge□m□r□□ic P□siti□n (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□	Yes	___	N□	X	De□t□ (inc□es):
Water Ta□le Present□	Yes	___	N□	X	De□t□ (inc□es):
Saturati□n Present□ (includes ca□illar□ □inge)	Yes	X	N□	___	De□t□ (inc□es): 6"

Wetland Hydrology Present? **Yes** X **No** ___

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **The wetland hydrology criterion is met.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **DP-33 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **terrace** Local relief (concave, convex, none): **none-flat**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam (AsA), hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress**
None of the wetland criteria have been met.

VEGETATION - Use scientific names of plants.

Sampling Point: **DP-33 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**90%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	90% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	0% = Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met. No crop stress observed in this area.

SOIL Sam□ling P□int: **DP-33 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-10	**10YR 3/1**	**100%**	**-**				**si cl loam**	
10-15	**10YR 3/1**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**si cl loam**	
15-20	**10YR 5/2**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **There is a dark A horizon characteristic of Ashkum silty clay loam, but the hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □ringe) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met. Not a strong indication of consistent wetness on FSA crop slides or aerials.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **DP-34 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **slightly concave**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Ashkum silty clay loam (AsA), hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress. Evidence of soil erosion here after storm events. None of the wetland criteria have been met.**

VEGETATION - Use scientific names of plants.

Sampling Point: **DP-34 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	0%	= Total Cover	

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**100%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	100%	= Total Cover	

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	0%	= Total Cover	

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation criterion is not met. No crop stress observed in this area.

SOIL Sam□ling P□int: **DP-34 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-11	**10YR 3/1**	**100%**	**-**				**si cl loam**	
11-16	**10YR 3/1**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**si cl loam**	
16-20	**10YR 5/2**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **There is a dark A horizon characteristic of Ashkum silty clay loam, but the hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
- ___ Oxidi□ed R□i□□s□□eres □n Li□ing R□□ts (C3)
- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slides

Remar□s: **Wetland hydrology criterion is not met. Not a strong indication of consistent wetness on FSA crop slides or aerials. There is evidence of soil erosion/gullying in the area after storm events, but water is not standing here for periods of time.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **Loomis Road Parcels** City/County: **Franklin / Milwaukee** Sampling Date: **October 30, 2014**

Applicant/Owner: **Bear Development, LLC** State: **WI** Sampling Point: **DP-35 UPL**

Investigator(s): **Heather D. Patti, PWS** Section, Township, Range: **Section 30, T5N R21E**

Landform (hillslope, terrace, etc.): **backslope** Local relief (concave, convex, none): **slightly concave**

Slope (%): **10%** Lat: **See Figure 2** Long: **See Figure 2** Datum: **See Figure 2**

Soil Map Unit Name: **Blount silt loam (BIA), hydric** WWI Classification: **none**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks)

Are Vegetation ***Y** Soil **N** or Hydrology **N** significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X**

Are Vegetation **N** Soil **N** or Hydrology **N** naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	Is the Sampled Area		
Hydric Soil Present?	Yes ____	No **X**	within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	If yes, optional Wetland site ID:	**N/A**	

Remarks: ***Active corn field - corn is healthy, no crop stress. Evidence of soil erosion here after storm events like DP-34.**
None of the wetland criteria have been met.

VEGETATION - Use scientific names of plants.

Sampling Point: **DP-35 UPL**

Tree Stratum (Plot size: **30'R**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	0% = Total Cover		

Sapling/Shrub Stratum (Plot size: **15'R**)			
1. ***n/a***			
2.			
3.			
4.			
5.			
6.			
7.			
	0% = Total Cover		

Herb Stratum (Plot size: **5'R**)			
1. ***Zea mays***	**100%**	**Y**	**UPL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: **30'R**)			
1. ***n/a***			
2.			
3.			
4.			
	0% = Total Cover		

Dominance Test Worksheet:

Number Of Dominant Species That Are OBL, FACW, Or FAC: **0** (A)

Total Number Of Dominant Species Across All Strata: **1** (B)

Percent Of Dominant Species That Are OBL, FACW, Or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover Of:		Multiply By:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index B/A = **n/a**

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criterion is not met. No crop stress observed in this area.

SOIL Sam□ling P□int: **DP-35 UPL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

De□t□ (inc□es)	Matrix C□l□r (m□ist)	□	Red□x Features C□l□r (m□ist)	□	T□□e[1]	L□c[2]	Texture	Remar□s
0-11	**10YR 3/2**	**100%**	**-**				**si cl loam**	
11-16	**10YR 3/2**	**95%**	**10YR 5/6**	**5%**	**C**	**M**	**si cl loam**	
16-20	**10YR 5/2**	**90%**	**10YR 5/6**	**10%**	**C**	**M**	**silty clay**	

[1] T□□e: C=C□ncentrati□n, D=De□leti□n, RM=Reduced Matrix, CS=C□□ered □r C□ated Sand Grains. [2] L□cati□n: PL=P□re Lining, M=Matrix

Hydric Soil Indicators:

- ___ Hist□s□l (A1)
- ___ Histic E□i□ed□n (A2)
- ___ Blac□ Histic (A3)
- ___ H□dr□gen Sul□ide (A4)
- ___ Strati□ed La□ers (A5)
- ___ 2 cm Muc□ (A10)
- ___ De□leted Bel□□ Dar□Sur□ace (A11)
- ___ T□ic□Dar□Sur□ace (A12)
- ___ Sand□Muc□□Mineral (S1)
- ___ Sand□Gle□ed Matrix (S4)
- ___ Sand□Red□x (S5)
- ___ Stri□□ed Matrix (S6)
- ___ L□am□Muc□□Mineral (F1)
- ___ L□am□Gle□ed Matrix (F2)
- ___ De□leted Matrix (F3)
- ___ Red□x Dar□Sur□ace (F6)
- ___ De□leted Dar□Sur□ace (F7)
- ___ Red□x De□ressi□ns (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ C□ast Prairie Red□x (A16) **(LRR,K,L,R)**
- ___ Dar□Sur□ace (S7) **(LRR,K,L)**
- ___ 5 cm muc□□ □eat □r □eat (S3) **(LRR,K,L)**
- ___ Ir□n-Manganese Masses (F12) **(LRR,K,L,R)**
- ___ Ver□S□all□□ Dar□Sur□ace (TF12)
- ___ Ot□er (Ex□lain in Remar□s)

[3] Indicat□rs □□□□dr□□□□tic e□egetati□n and □etland □□dr□l□g□must □e □resent, unless distur□ed □r □r□□lematic.

Restrictive Layer (if observed):

T□□e: **none**

De□t□ (inc□es): **n/a**

Hydric Soil Present? **Yes** ___ **No** **X**

Remar□s: **There is a dark A horizon characteristic of Blount silt loam, but the hydric soil criterion is not met.**

HYDROLOGY

Wetland Hydrology Indicators:

Primar□ Indicat□rs (minimum □□□ne is re□uired□c□ec□all t□at a□□l□)

- ___ Sur□ace Water (A1)
- ___ Hig□ Water Ta□le (A2)
- ___ Saturati□n (A3)
- ___ Water Mar□s (B1)
- ___ Sediment De□□sits (B2)
- ___ Dri□t De□□sits (B3)
- ___ Algal Mat □r Crust (B4)
- ___ Ir□n De□□sits (B5)
- ___ Inundati□n Visi□le □n Aerial Imager□ (B7)
- ___ S□arsel□Vegetated C□nca□e Sur□ace (B8)
- ___ Water-Stained Lea□es (B9)
- ___ A□uatic Fauna (B13)
- ___ True A□uatic Plants (B14)
- ___ H□dr□gen Sul□ide Od□r (C1)
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- ___ Presence □□Reduced Ir□n (C4)
- ___ Recent Ir□n Reducti□n in Tilled S□ils (C6)
- ___ T□in Muc□Sur□ace (C7)
- ___ Gauge □r Well Data (D9)
- ___ Ot□er (Ex□lain in Remar□s)

Sec□ndar□ Indicat□rs (minimum □□t□□ re□uired)

- ___ Sur□ace S□il Crac□s (B6)
- ___ Drainage Patterns (B10)
- ___ Dr□-Seas□n Water Ta□le (C2)
- ___ Cra□is□Burr□□s (C8)
- ___ Saturati□n Visi□le □n Aerial Imager□ (C9)
- ___ Stunted □r Stressed Plants (D1)
- ___ Ge□m□r□□ic P□siti□n (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Sur□ace Water Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Water Ta□le Present□ Yes ___ N□ **X** De□t□ (inc□es): ___

Saturati□n Present□ (includes ca□illar□ □inge) Yes ___ N□ **X** De□t□ (inc□es): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Descri□e Rec□rded Data (stream gauge, m□nit□ring □ell, aerial □□□t□s, □re□i□us ins□ecti□ns), i□a□aila□le:

USGS topo map (Figure 1), 1-foot contour map (Figure 2), NRCS Soils Map (Figure 3), Aerial Maps from 2000, 2005, 2010, and 2013 (Figures 4A-D), WWI map (Figure 5), NOAA's AHPS map (Figure 6), Local WETS table, and FSA Crop Slide

Remar□s: **Wetland hydrology criterion is not met. Not a strong indication of consistent wetness on FSA crop slides or aerials. There is evidence of soil erosion/gullying in the area after storm events, but water is not standing here for periods of time.**

CITY OF FRANKLIN

REPORT TO THE PLAN COMMISSION

Meeting of September 4, 2025
Site Plan

RECOMMENDATION: City Development Staff recommends approval of the proposed Site Plan, subject to the conditions of approval in the attached draft resolution.

Project Name:	ICAP Site Plan
Property Owner:	DEVO Properties / Rawson LLC
Applicant:	Brian Adamson, I-Forest LLC
Property Address/Tax Key Number:	5414 W Rawson Ave. / 741 9004 000
Aldermanic District:	District 5
Agent:	Brian Adamson, I-Forest LLC
Zoning District:	B-R - Regional Business District
Use of Surrounding Properties:	B-R - Regional Business District
Application Request:	Site Plan
Staff Planner:	Marion Ecks, AICP

The applicants request is for approval of a Site Plan to allow for a commercial development consisting of a single-story 22,000 square foot building, 97 parking spaces, bicycle parking, and extensive landscaping which includes green infrastructure to allow for a parking increase. Developments over 20,000 square feet of floor area require Plan Commission approval.

CHARACTER OF THE SITE AND SURROUNDING AREA
The subject property is zoned B-R - Regional Business District. The surrounding properties share the same zoning. The properties to the east have been developed as a Sendik's, a CVS, and a bank. To the west is the new Jilly's Car Wash, to the south is the new Dunkin and to the north is an outlot which contains the stormwater facilities for this parcel, as well as the overall Sendik's development. The site is accessed by internal roads. One of the entrances to the quarry is located to the south across Rawson.

This property is currently vacant.

PROJECT ANALYSIS
The applicant has submitted all required elements for site plan review. Staff provided the applicant with staff comments on August 7, 2025. The structure meets the dimensional and architectural requirements of the B-R zoning district.

The Site Plan proposes a 22,000 square foot single-story office building designed for a medical user, with related parking and landscaping. The structure meets or exceeds glazing and articulation standards on major façades, and complies with lighting and landscaping criteria. Stormwater will be conveyed to the existing shared pond immediately north of this lot. There are no protected natural resources on the lot.

Request for parking increase:

The new UDO establishes parking maximums, a best practice for development standards. The ordinance (Section 15-5-01) allows for 75 parking spaces for developments of this type, with the possibility of an increase of up to 30% additional spaces. This request is subject to the approval of the Zoning Administrator, and must meet the standards of the UDO:

Section 15-5-01.B.2. Parking Increases Allowed. The Zoning Administrator may allow an increase in the number of off-street parking spaces allowed of up to thirty (30) percent of the spaces provided above the maximum when the following provisions are met.

a. The additional spaces over the maximum are surfaced with a permeable paving system or one hundred (100) percent of the first half (1/2) inch of runoff from the additional parking area is treated with green infrastructure.
b. Additional parking area landscaping equivalent to an area fifteen (15) percent greater the minimum square feet of parking area landscaping specified in Article 5 is provided.
c. The parking lot perimeter landscape zone required in Article 5 is at least ten (10) feet in width.
d. No more than fifty (50) percent of the parking spaces over the maximum parking allowed shall be located in the front yard.

The applicant proposes 97 parking spaces, which is an increase of 30%. Their design has incorporated all necessary elements to meet the provisions of the UDO for a increase in required parking.

STAFF RECOMMENDATION

City Development Staff recommends approval of the proposed Site Plan, subject to the conditions of approval in the attached draft resolution.

Attachments:

- Site Plan RES
- Applicant Plan Commission Package

City of Franklin Property Viewer

8/25/2025, 3:00:53 PM

Parcel

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.08 km

SE Wisc Reg Planning Comm, SEWRPC, Maxar, Microsoft

Guest

Earthstar Geographics | City of Franklin, WI |

STATE OF WISCONSIN CITY OF FRANKLIN MILWAUKEE COUNTY
PLAN COMMISSION *[Draft 08-25-2025]*

RESOLUTION NO. 2025-____

A RESOLUTION APPROVING A SITE PLAN FOR THE DEVELOPMENT OF A SINGLE-STORY MEDICAL OFFICE BUILDING WITH ADJACENT PARKING LOCATED AT 5414 WEST RAWSON AVENUE (TAX KEY NO. 741 9004 000)
(BRIAN ADAMSON, I-FOREST LLC, APPLICANT,
DEVO PROPERTIES/RAWSON LLC, PROPERTY OWNER)

WHEREAS, Brian Adamson, I-Forest LLC having applied for approval of a proposed site plan for the development of a single-story medical office building with general parking, and accessory structures, upon property located at 5414 West Rawson Avenue; and

WHEREAS, the Plan Commission having reviewed such proposal and having found same to be in compliance with the applicable terms and provisions of the Unified Development Ordinance and in furtherance of those express standards and purposes of a site plan review pursuant to §15-9-03.B 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 development of a single-story medical office building, as depicted upon the plans dated August 25, 2025, attached hereto and incorporated herein, is hereby approved, subject to the following terms and conditions:

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 Brian Adamson, I-Forest LLC dated August 25, 2025.

2. Brian Adamson, I-Forest LLC, successors and assigns, and any developer of the 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 Brian Adamson, I-Forest LLC development 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 §15-9-14 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 Brian Adamson, I-Forest LLC development project for the property located at 5414 West Rawson 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. That the Brian Adamson, I-Forest LLC Site Plan 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. The site plan complies with the development standards of Section 15-5-01.B.2 of the Franklin UDO, to allow for a 30 percent increase in the allowable quantity of parking spaces from 75 to 97.

Introduced at a regular meeting of the Common Council of the City of Franklin this _____ day of _____, 2025.

Passed and adopted at a regular meeting of the Common Council of the City of Franklin this _____ day of _____, 2025.

APPROVED:

ATTEST: _____
John R. Nelson, Mayor

_____
Shirley J. Roberts, City Clerk

AYES _____ NOES _____ ABSENT _____

August 25, 2025

Marion Ecks, AICP
Principal Planner
Department of City Development
City of Franklin

SUBJECT: REVISED Site Plan Review Submittal
Sendik's Commons Shopping Center
5414 West Rawson Ave.

Property and Location:

The 3.47 acre lot commonly known as 5414 West Rawson Ave (Parcel ID: 741-9004-000). A legal description is included on the survey provided with this submittal (the "Property"). The Property is the last undeveloped lot located in the Sendik's Commons Shopping Center at the intersection of Rawson Ave and 51st. Street. The Property is surrounded by high traffic regional users including a grocery store, pharmacy, coffee shop, and car wash. The Applicant currently has a contractual agreement with the owner to purchase the Property for the purpose of developing the Project (defined below).

Project Description:

I-Franklin LLC, d/b/a ICAP Development (the "Applicant") seeks to construct on the Property a 22,000 square foot multi-service medical building (the "Project"). The single-story building will be leased and operated by Children's Wisconsin, a regional medical provider in the Milwaukee area.

The proposed Project may provide the full spectrum of healthcare services including (a) medical offices, medical clinics and uses related to the provision of medical services, including without limitation, dental care, optical care, physical therapy, physical fitness and health centers, occupational therapy, clinical uses, labs, diagnostic testing, outpatient departments of a hospital, specialty care, primary care, urgent care, mental and behavioral health services, and a day hospital, (b) community and social service uses, including without limitation, counseling, therapy, child advocacy services and foster care services (c) general offices, and (d) any accompanying ancillary uses reasonably related to medical uses, social service uses, or general office uses (including, without limitation, retail sales of prosthetics and/or other products that are related to the medical use).

Additionally, the Project includes high-ceiling gymnasium space which will provide opportunities for physical fitness and physical/occupational therapy.

The Project is anticipated to employ over 48 staff members and host approximately 240+ visitors to the facility per day.

The anticipated hours of operations are 8:30am - 5:00pm Monday – Friday but may vary based on need.

The exterior of the proposed building consists of a mixture of materials including masonry, architectural panels and glass which is meant to complement the surrounding buildings within the shopping center. A comparison of the Project's materials to the adjacent Sendik's building is included in this submittal. Additionally, brick detailing, roofline changes, and window features add further interest to the building design.

The Project is the last remaining lot within the Sendik's Commons Shopping Center and is directly adjacent to Sendik's Food Market. While not directly connected to public right-of-way, access to the Property is granted through vehicular and pedestrian easement agreements with all properties within Sendik's Commons. Two access points from a common private drive aisle are proposed into the Property. This provides multiple ways of ingress/egress for the City's emergency vehicles.

The site layout for the Project consists of the 22,000 square foot building, 97 parking spaces (including eight ADA stalls), six bicycle spaces, and extensive landscaping which includes screening along the rear of the building for the benefit of the residential properties to the north. Stormwater is managed via a common pond off site.

The layout of the Project creates continuity and consistency with other users within Sendik's Commons.

Zoning & Use:

The Property is currently zoned B-R Regional Business. Applicant's proposed use includes 22,000 square feet of medical/wellness space that will house a full spectrum of healthcare services including (a) medical offices, medical clinics and uses related to the provision of medical services, including without limitation, dental care, optical care, physical therapy, physical fitness and health centers, occupational therapy, clinical uses, labs, diagnostic testing, outpatient departments of a hospital, specialty care, primary care, urgent care, mental and behavioral health services, and a day hospital, (b) community and social service uses, including without limitation, counseling, therapy, child advocacy services and foster care services (c) general offices, and (d) any accompanying ancillary uses reasonably related to medical uses, social service uses, or general office uses (including, without limitation, retail sales of prosthetics and/or other products that are related to the medical use).

The proposed Project is a mixture of several uses permitted under zoning and is consistent with the original plans for the Sendik's Commons Shopping Center. Based on discussions with Franklin Planning Staff, it was determined the Project will be considered a mixture of Office and Healthcare Facility from a use standpoint. A summary of the site requirements and the proposed Project conditions is below:

Requirement	Standard in B-R District	PROJECT
Minimum Lot Width	50 Feet	389 Feet
Minimum Lot Depth	110 Feet	421 Feet
Minimum Front Setback	40 Feet	175 Feet
Street Side Setback	40 Feet	NA
Interior Side Setback	10 Feet	40 Feet
Rear Setback	20 Feet	25 Feet
Maximum Building Height	50 Feet	28 Feet
Max Impervious Surface	70%	44.8%
Max Parking Stalls	75	97

Parking Increase:

The Project is anticipated to employ over 48 staff members and host approximately 240+ visitors to the facility per day. As such, the code-allowed parking count of 75 parking spaces would not adequately service this facility, and cross-parking is specifically prohibited within the Sendik's Commons Shopping Center.

Pursuant to Section 15-5-01.B.2 of the Franklin UDO, the Applicant seeks a parking lot increase of 30% and has adjusted the design of the Project to adhere to the four (4) conditions of approval required under this section.

Environmental Considerations:

No Natural Resource Feature Areas were identified. The Natural Resource Protection Plan is included in this submittal. Additionally, no Recognized Environmental Conditions were identified during Applicant's investigation.

Schedule:

Applicant desires to begin development on the Property immediately upon receiving all site and building approvals from the City of Franklin and other authorities having jurisdiction. The Project is estimated to be fully open and operational by the end of 2026.

Request: ICAP Development is very excited to present this development plan to the City of Franklin Planning Staff and respectfully requests review of the Project and Building.

The following documents are included with this submittal:

- Existing Survey of Property
- Site plan of the Project, preliminary grading, paving and utility plans, and a photometric plan
- Detailed Landscaping Plan
- Colored Elevations of Building
- Renderings of Building

Respectfully Submitted,

Brian R Adamson
Manager
I-Franklin LLC d/b/a ICAP Development LLC

City of Franklin
Department of City Development

Date: August 7, 2025 **Applicant Response 8.22.25**
To: Brian Adamson, I-Forest LLC
From: Department of City Development. Marion Ecks, AICP, Principal Planner.
RE: Staff Comments, Site Plan
5414 W Rawson Ave. / 741 9004 000

Please be advised that city staff has reviewed the above application received on June 16, 2025. The following comments are for your review and consideration. The property is zoned B-R - Regional Business District.

Site Plan:

1. Note that approval of a Zoning Compliance application is required prior to final occupancy. **Understood**
2. Will there be a trash enclosure or waste management area? This should be shown on plans and screened. **A trash enclosure is shown on the site plan (sheet C-4) and a rendering of same is included in the submittal. The enclosure will be built from the same materials as the building.**
3. Natural Resources: no comments / not applicable. **Understood**
4. Glazing and materials requirements appear to be met; please provide a table with percentages in Plan Commission materials. **Percentages have been added to the materials.**
5. Signage requires separate permitting. **Understood**

Landscaping

6. **Ground Cover.** All areas not covered by buildings or paving shall be covered with landscaping. The use of conventional sod or turf grass as ground cover should be limited to those areas planned for active or passive recreation use, or other areas where substantial use of the area is anticipated. **Standard turf areas have been decreased and no mow turf will be utilized instead. Shortgrass prairie seed mix will be used for the western portion of the site where grading disturbance will not occur.**
7. What is the area of the parking lot? Please include this information in the table provided. A minimum of ten (10) percent of the interior area of the parking lot shall be landscaped. **Parking Lot landscaping calculations are shown on Sheet L-2. The total parking lot area is 38,427 square feet. Interior parking lot landscaping provided is 5,485 square feet.**
8. Please include the name of the landscape architect on the landscape plan sheets. **Included.**

Parking

9. The count of 110 parking spaces uses the standard for multitenant retail. The Zoning Administrator has determined that the proposed use to be office and healthcare facility, so the relevant standards (Table 15-5-01(B)) apply. Please recalculate parking accordingly. Note the following:

   Parking Increases Allowed (§15-5-01.B.2). The Zoning Administrator may allow an increase in the number of off-street parking spaces allowed of up to thirty (30) percent of the spaces provided above the maximum when the following provisions are met. **The Applicant seeks an increase in the allowed parking spaces from 75 parking stalls to 97 parking stalls. The code-allowed parking count of 75 stalls was calculated as follows:**

Parking Calculations	
Health Care Facility	
0.5	Stalls Per Examining Rooms for Out-Patient Facilities
25	Number of Examining Rooms for Out-Patient Facilities
13	Maximum Number of Stalls for Health Care Facilities
Office, 50,000 sqft or less	
1/300sf	Number of Stalls for Office
18,730	Square Footage of Office Spaces (NET of Exam Rooms above)
62	Maximum Number of Stalls for Office
75	**Maximum Number of Parking Stalls Allowed**

a. The additional spaces over the maximum are surfaced with a permeable paving system or one hundred (100) percent of the first half (1/2) inch of runoff from the additional parking area is treated with green infrastructure. **The Additional Parking is twenty-two 22 stalls. The current design contemplates thirty (30) stalls being directed to a biofiltration basin. This significantly exceeds the requirement of this condition.**

b. Additional parking area landscaping equivalent to an area fifteen (15) percent greater the minimum square feet of parking area landscaping specified in Article 5 is provided. **The minimum parking area landscaping required is 3,843 square feet. A 15% increase would result in 4,420 square feet of parking lot landscaping. The current design contemplates 5,485 square feet. This significantly exceeds the requirement of this condition.**

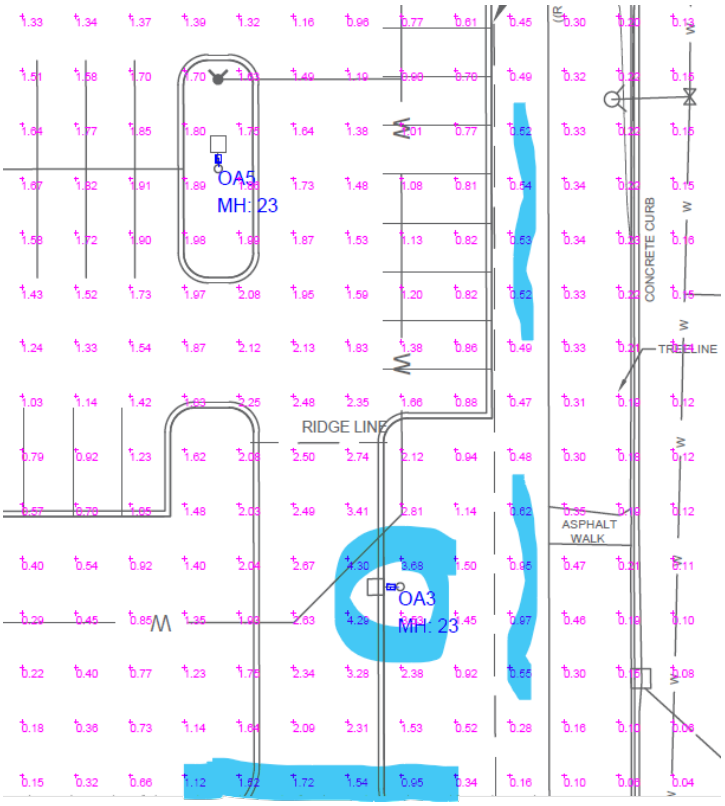
c. The parking lot perimeter landscape zone required in Article 5 is at least ten (10) feet in width. **This is achieved.**

d. No more than fifty (50) percent of the parking spaces over the maximum parking allowed shall be located in the front yard. **More than 100% of the additional parking spaces are located in the side yard. This significantly exceeds the requirement of this condition**

Alternatively, you may request a variance from parking standards.

Lighting

10. What is the color temperature? It must be between four thousand (4,000) and five thousand (5,000) degrees Kelvin. **Four thousand (4,000) Kelvin is use in the revised calculations.**
11. Lighting may not exceed 0.5 footcandles at property lines. Staff recommends relocation or removal of lightpole OA3 or additional shielding. **A maximum of 0.5 footcandles at the property lines is shown in the revised plans.**



Engineering Department Comments:

- Engineering has no comments on the site plan
- A review of the civil plans are in process
- Storm water run off will be reviewed

Fire Department Comments:

1. Follow all relevant WI DSPS and IBC code requirements for fire protection systems for given occupancy, use, and construction types.
2. Fire Department Connection (FDC), and hydrant placement and density must be acceptable to AHJ.
3. Master Key set required for placement in Knox Box.
4. Permitting and submittal instructions for fire protection system review and inspection can be found at: https://www.franklinwi.gov/Departments/Fire.htm

Inspection Services Department Comments:

- Building must be constructed per the Wisconsin Commercial Building Code SPS 361-366

Recommended Conditions of Approval

Note that all resolutions and ordinances are drafted with a standard set of condition relating to development timelines and requirements, approvals from other jurisdictions and departments, etc. Staff may recommend additional conditions based on review of these applications for compliance with the Unified Development Ordinance.

Attachments:

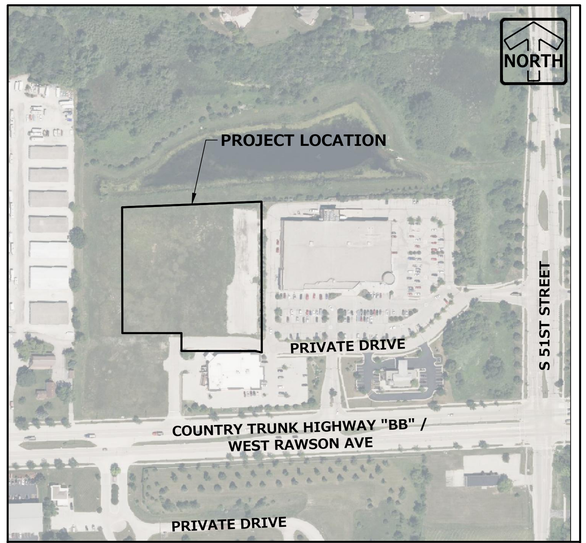
1. Variance application form.
2. Zoning Compliance application form.

Lot 3 of Certified Survey Map No. 9488, recorded in the office of the Register of Deeds for Milwaukee County, Wisconsin, on May 12, 2023, as Document No. 11336892, being a redivision of all of Lot 1 of Certified Survey Map No. 8120, located in the Southeast 1/4 of the Southwest 1/4 of Section 2, Township 5 North, Range 21 East, in the City of Franklin, County of Milwaukee, State of Wisconsin.

Tax Key No. 741-9004-000

ONSITE CIVIL ENGINEERING INFRASTRUCTURE PLANS
FOR
ICAP DEVELOPMENT - FRANKLIN MEDICAL OFFICE
CITY OF FRANKLIN, MILWAUKEE

PLANS PREPARED FOR
ICAP DEVELOPMENT
1830 N. HUBBARD ST
MILWAUKEE, WI



LOCATION MAP
SCALE 1" = 150'

INDEX OF SHEETS

REQUIRED SUBMITTALS FOR APPROVAL

1. ASPHALT PAVEMENTS
2. CONCRETE PAVEMENTS (EXTERIOR)
3. STONE BASE COURSE
4. TRENCH BACKFILL
5. PIPE BEDDING
6. TIE BARS
7. DOWEL BARS
8. DOWEL BAR BASKETS

REQUIRED SUBMITTALS FOR RECORDS

1. WATER MAIN PIPE FITTINGS
2. SANITARY SEWER
3. STORM SEWER
4. SUBGRADE STABILIZATION (IF APPLICABLE)

PROJECT TEAM CONTACTS

CIVIL ENGINEER:
TODD G. MUELLER, P.E.,
PINNACLE ENGINEERING GROUP
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ARCHITECT:
THOMAS SCHNEIDER, AIA
GROTH DESIGN GROUP
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tschneider@gdg-architects.com

SURVEYOR:
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John.Konopacki@pinnacle-engr.com

APPLICANT:
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MILWAUKEE, WI 53212
(414) 412-8633
brian.adamson@icap-dev.com

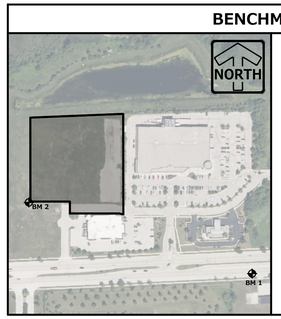
LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE		
STORM MANHOLE		
CATCH BASIN		
INLET		
PRECAST FLARED END SECTION		
CONCRETE HEADWALL		
VALVE VAULT		
VALVE BOX		
FIRE HYDRANT		
BUFFALO BOX		
CLEANOUT		
SANITARY SEWER		
FORCE MAIN		
STORM SEWER		
WATER MAIN		
UTILITY CROSSING		
GRANULAR TRENCH BACKFILL		
LIGHTING		
ELECTRICAL CABLE		
ELECTRICAL TRANSFORMER OR PEDESTAL		
POWER POLE		
POWER POLE WITH LIGHT		
GUY WIRE		
STREET SIGN		
GAS MAIN		
TELEPHONE LINE		
CONTOUR	749	749
SPOT ELEVATION	× (750.00)	× 750.00
WETLANDS		
FLOODWAY		
FLOODPLAIN		
HIGH WATER LEVEL (HWL)		
NORMAL WATER LEVEL (NWL)		
DIRECTION OF SURFACE FLOW		
DITCH OR SWALE		
DIVERSION SWALE		
OVERFLOW RELIEF ROUTING		
TREE WITH TRUNK SIZE		
SOIL BORING		
TOPSOIL PROBE		
FENCE LINE, TEMPORARY SILT		
FENCE LINE, WIRE		
FENCE LINE, CHAIN LINK OR IRON		
FENCE LINE, WOOD OR PLASTIC		
CONCRETE SIDEWALK		
CURB AND GUTTER		
DEPRESSED CURB		
REVERSE PITCH CURB & GUTTER		
EASEMENT LINE		
PROPERTY LINE		

ABBREVIATIONS

BL	BASE LINE	NSI	NATIVE SOIL INTERFACE
C	LONG CHORD OF CURVE	NWL	NORMAL WATER LEVEL
C & G	CURB AND GUTTER	PC	POINT OF CURVATURE
CB	CATCH BASIN	PT	POINT OF TANGENCY
CL	CENTERLINE	PVI	POINT OF VERTICAL INTERSECTION
D	DEGREE OF CURVE	R	RADIUS
EP	EDGE OF PAVEMENT	ROW	RIGHT-OF-WAY
FF	FINISHED FLOOR	SAN	SANITARY SEWER
FG	FINISHED GRADE	ST	STORM SEWER
FL	FLOW LINE	T	TANGENCY OF CURVE
FP	FLOODPLAIN	TB	TOP OF BANK
FR	FRAME	TC	TOP OF CURB
FW	FLOODWAY	TF	TOP OF FOUNDATION
HWL	HIGH WATER LEVEL	TS	TOP OF SIDEWALK
INV	INVERT	TW	TOP OF WALK
L	LENGTH OF CURVE	WM	WATER MAIN
MH	MANHOLE	Δ	INTERSECTION ANGLE

BENCHMARKS



REFERENCE BENCHMARK

CONCRETE MONUMENT WITH BRASS CAP AT THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 SECTION 2, TOWN 5 NORTH, RANGE 21 EAST,
ELEV = 723.32

SITE BENCHMARK

NORTHWEST UPPER FLANGE ON HYDRANT BOLT
ELEV = 717.93

DATUM

NORTH AMERICAN VERTICAL DATUM OF 1988(12).

GENERAL NOTES

1. THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
2. A GEOTECHNICAL REPORT FOR THIS SITE HAS NOT BEEN PREPARED AT THIS TIME. THE DATA ON SUB-SURFACE SOIL CONDITIONS IS NOT INTENDED AS A REPRESENTATION OR WARRANTY OF THE CONTINUITY OF SUCH CONDITIONS BETWEEN BORINGS OR INDICATED SAMPLING LOCATIONS. IT SHALL BE EXPRESSLY UNDERSTOOD THAT OWNER WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS DRAWN THERE FROM BY THE CONTRACTOR. DATA IS MADE AVAILABLE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY ADDITIONAL SOILS INVESTIGATIONS THEY FEEL IS NECESSARY FOR THE PROPER EVALUATION OF THE SITE FOR PURPOSES OF PLANNING, BIDDING, OR CONSTRUCTING THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
4. THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES LEARNED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON ITS OWN COMPUTATIONS AND IN NO SUCH INSTANCE RELY ON THE ENGINEER'S ESTIMATE.
6. QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
7. PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.
8. COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
9. SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
10. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
11. THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND DIGGER'S HOTLINE IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS.
12. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
13. CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
14. THE CONTRACTOR SHALL INDEMNIFY THE VILLAGE, VILLAGE ENGINEER, VILLAGE BUILDING INSPECTOR, OWNER, ENGINEER, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
15. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING MUST BE HELD AT THE VILLAGE OFFICES. THE PRECONSTRUCTION MEETING SHALL BE SCHEDULED AND MODERATED BY THE DESIGN ENGINEER OF RECORD.

EXPIRATION DATE: JULY 31, 2026

PINNACLE ENGINEERING GROUP, LLC
ENGINEER'S LIMITATION

PINNACLE ENGINEERING GROUP, LLC AND THEIR CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED PRIOR TO BID SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

FURTHERMORE, PINNACLE ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY OR THE MEANS AND METHODS OF CONSTRUCTION.

REVIEWED: TGM
DESIGNED: TGM
DRAFTED: APH

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
20725 WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO | MILWAUKEE : NATIONWIDE

ICAP DEVELOPMENT - FRANKLIN
5414 WEST RAWSON AVE
CITY OF FRANKLIN, MILWAUKEE

COVER SHEET

REVISIONS

1	PC SUBMITTAL	06/12/25	
2	CITY REVIEW COMMENTS	08/22/25	

PEG JOB No. 6308.00
PEG PM TGM
START DATE 04-09-25
SCALE NTS

SHEET
C-1
OF
C-9

COVER SHEET

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SITE AND DIMENSIONAL PLAN NOTES

1. ALL DIMENSIONS ARE EDGE OF PAVEMENT, FACE OF CURB, SHOULDER, OR CENTER OF LANE LINE UNLESS NOTED OTHERWISE. ALL UTILITY DIMENSIONS ARE TO OUTSIDE OF PIPE OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL PROPOSED CURB AND GUTTER SHALL BE 18" STANDARD CURB AND GUTTER (SEE DETAIL). UNLESS OTHERWISE NOTED. CURB AND GUTTER DRAINING AWAY FROM THE FACE OF CURB IS NOTED AS REVERSE CURB AND GUTTER.
3. BUILDING DIMENSIONS AND ADJACENT PARKING AND UTILITY LAYOUT HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL CONTACT DIGGERS HOTLINE (1-800-242-8511) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
5. IMPROVEMENTS ADJACENT TO BUILDING IF SHOWN SUCH AS TRUCK DOCK, RETAINING WALLS, SIDEWALKS, CURBING, FENCES, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, AND TRANSFORMERS ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS, AND DETAILS.
6. REFER TO ELECTRICAL PLANS FOR LIGHTING LOCATIONS, SPECIFICATIONS, AND DETAILS.
7. SEE ADDITIONAL NOTES AND DETAILS ON CONSTRUCTION DETAILS.
8. ALL PAVING SHALL CONFORM TO STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION, LATEST EDITION AND APPLICABLE CITY OF FRANKLIN ORDINANCES, AND SPECIFICATIONS CONTAINED WITHIN THIS PLAN SET.
9. PAVEMENT DESIGN SHALL BE AS INDICATED ON TEMPLATE EXHIBIT DRAWINGS, TENANTS PAVEMENT DESIGN GUIDELINES, AND PROTOTYPICAL DETAILS PROVIDED CONTRACTOR SHALL USE WHITE EPOXY STRIPING ON ASPHALT AND YELLOW EPOXY STRIPING ON CONCRETE.
10. PROVIDE CONTRACTOR GRADE ACRYLIC, STRIPING EPOXY FOR NEW ASPHALT OR COATED ASPHALT. APPLY MARKING EPOXY AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300-400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES OR TO MANUFACTURER'S SPECIFICATION, WHICHEVER IS GREATER.
11. THOROUGHLY CLEAN SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE TO INSPECT EXISTING PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK, AND WHICH CANNOT BE PUT INTO AN ACCEPTABLE CONDITION THROUGH NORMAL PREPARATORY WORK AS SPECIFIED.
12. DO NOT PLACE MARKING OVER UNSOUND PAVEMENTS. IF THESE CONDITIONS EXIST, NOTIFY OWNER. STARTING INSTALLATION CONSTITUTES CONTRACTOR'S ACCEPTANCE OF SURFACE AS SUITABLE FOR INSTALLATION.
13. LAYOUT MARKINGS USING GUIDE LINES, TEMPLATES AND FORMS. STENCILS AND TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS. "FREE HAND" PAINTING OF ARROWS, SYMBOLS, OR WORDING SHALL NOT BE ALLOWED. APPLY STRIPES STRAIGHT AND EVEN.
14. PROTECT ADJACENT CURBS, WALKS, FENCES, AND OTHER ITEMS FROM RECEIVING PAINT.
15. BARRICADE MARKED AREAS DURING INSTALLATION AND UNTIL THE MARKING PAINT IS DRIED AND READY FOR TRAFFIC.
16. ASPHALTIC CONCRETE PAVING SPECIFICATIONS
    - 16.1. CODES AND STANDARDS: THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION. HEREAFTER,THIS PUBLICATION WILL BE REFERRED TO AS THE STATE HIGHWAY SPECIFICATIONS.
    - 16.2. WEATHER LIMITATIONS: APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE.CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° (4°C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (-1° C).
    - 16.3. GRADE CONTROL: ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.
    - 16.4. CRUSHED AGGREGATE BASE COURSE: THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS.
    - 16.5. BINDER COURSE AGGREGATE: THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 315, STATE HIGHWAY SPECIFICATIONS.
    - 16.6. SURFACE COURSE AGGREGATE: THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 465, STATE HIGHWAY SPECIFICATIONS.
    - 16.7. ASPHALTIC MATERIALS: THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.
    - 16.8. SURFACE PREPARATION: NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
17. TRAFFIC CONTROL SHALL BE PER M.U.T.C.D.
18. PUBLIC CURB & GUTTER REPLACEMENT SHALL BE TIED TO EXISTING CURB & GUTTER WITH #4 TIE BARS. PUBLIC CURB & GUTTER SHALL BE A 6-BAG MIX.
19. TIE BARS: PLACE AT ALL LONGITUDINAL JOINTS IN ENTRANCE AREAS/ROADS PER WISDOT 13C01. PLACE IN CURB AND GUTTER PER WISDOT 8D01.

GRADING NOTES

1. CONTRACTOR SHALL VERIFY ALL GRADES, ENSURE ALL AREAS DRAIN PROPERLY AND REPORT ANY DISCREPANCIES TO PINNACLE ENGINEERING GROUP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
2. ALL EXISTING CONTOURS REPRESENT EXISTING SURFACE GRADES UNLESS OTHERWISE NOTED. ALL PROPOSED GRADES SHOWN ARE FINISH SURFACE GRADES UNLESS OTHERWISE NOTED.
3. SPOT ELEVATIONS REPRESENT THE GRADE ALONG THE CURB AND GUTTER FLANGELINE UNLESS OTHERWISE NOTED.
4. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.
    - 4.1. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATION(S) OF ALL GRADING QUANTITIES. WHILE PEG ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARD OF CARE, THEREFORE NO GUARANTEE CAN BE MADE FOR A BALANCED SITE. THE CONTRACTOR MAY SOLICIT APPROVAL FROM ENGINEER/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
5. GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENCING. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
6. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
7. IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
8. WITH THE AUTHORIZATION OF THE ENGINEER/OWNER, MATERIAL THAT IS TOO WET TO PERMIT PROPER COMPACTION MAY BE SPREAD ON FILL AREAS IN AN EFFORT TO DRY. CONTRACTOR SHALL CLEARLY FIELD MARK THE EXTERIOR LIMITS OF SPREAD MATERIAL WITH PAINTED LATH AND SUBMIT A PLAN TO THE ENGINEER/OWNER THAT IDENTIFIES THE LIMITS. UNDER NO CONDITION SHALL THE SPREAD MATERIAL DEPTH EXCEED THE MOST RESTRICTIVE OF: THE EFFECTIVE TREATMENT DEPTH OF MACHINERY THAT WILL BE USED TO TURNOVER THE SPREAD MATERIAL; OR THE MAXIMUM COMPACTION LIFT DEPTH.
9. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
10. THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
11. CONTRACTOR SHALL CONTACT "DIGGER'S HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
12. CONTRACTOR SHALL PROTECT INLETS AND ADJACENT PROPERTIES WITH SILT FENCING OR APPROVED EROSION CONTROL METHODS UNTIL CONSTRUCTION IS COMPLETED. CONTRACTOR SHALL PLACE SILT FENCING AT DOWN SLOPE SIDE OF GRADING LIMITS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING FACILITIES OR UTILITIES. ANY DAMAGE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
14. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPAL OFFICIAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
15. CONTRACTOR SHALL COMPLY WITH ALL CITY OF FRANKLIN AND MILWAUKEE COUNTY CONSTRUCTION STANDARDS/ORDINANCES.
16. LANDSCAPE AND TURF AREAS SHALL HAVE A MINIMUM OF 4-INCH TOPSOIL REPLACEMENT, UNLESS OTHERWISE SPECIFIED ON THE LANDSCAPE PLANS.
17. TOPSOIL BERMING SHALL ACHIEVE 90% STANDARD PROCTOR DENSITY AT 3%(±) OPTIMUM MOISTURE CONTENT.
18. SURVEY BENCHMARKS AND MAPPING HAS BEEN PROVIDED BY PINNACLE ENGINEERING GROUP. IN NO WAY DOES PEG WARRANT THE BASEMAP IS ALL INCLUSIVE OR REPRESENTATIVE OF ACTUAL CONDITIONS. CONTRACTOR SHALL PROVIDE CHECKS AS NECESSARY TO VERIFY THE BASEMAP CONTENT AND ACCURACY.

GENERAL UTILITY NOTES

1. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY FOR PROPOSED UTILITY CONNECTIONS AND/OR TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
2. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (LATEST EDITION AND ADDENDUM) AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
3. UTILITY CONSTRUCTION AND SPECIFICATIONS SHALL COMPLY WITH THE CITY OF FRANKLIN STANDARDS AND SPECIFICATIONS AND WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES SPS 382.
4. LENGTHS OF PROPOSED UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
5. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT EXISTING UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH FINISHED GRADES OF THE AREAS DISTURBED DURING CONSTRUCTION.
6. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
7. ALL NEW ON-SITE SANITARY, STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER, EXCEPT FOR THOSE UTILITIES IDENTIFIED AS PUBLIC.
8. THE CONTRACTOR SHALL CONTACT THE CITY OF FRANKLIN PUBLIC WORKS DEPARTMENT 48-HOURS IN ADVANCE OF SANITARY, WATER AND STORM CONNECTIONS TO THE VILLAGE-OWNED SYSTEM TO SCHEDULE INSPECTIONS.
9. ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES ARE SHOWN ON THE ARCHITECTURAL PLANS AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPER AUTHORITIES FOR ANY REQUIRED PERMITS, AUTHORIZATIONS, TRAFFIC CONTROL AND ANY PERMIT FEES REQUIRED.
11. FIELD TILE CONNECTION - ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER. TILE LINES CROSSED BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE SIZE, TYPE AND NUMBER OF WATER MAIN BENDS, HORIZONTAL AND VERTICAL, REQUIRED TO COMPLETE CONSTRUCTION. COST FOR BENDS, HORIZONTAL AND VERTICAL, SHALL BE INCIDENTAL AND INCLUDED IN THE OVERALL COST OF THE CONTRACT.
13. TRACER WIRE: COPPERHEAD TRACER WIRE #10 SOLID CCS SUPERFLEX (BLUE). WIRE CONNECTORS SHALL BE SNAKEBITE (BLUE) MADE BY COPPERHEAD INDUSTRIES, LLC. THE TRACER WIRE FOR THE SANITARY SEWER LATERAL (GREEN) SHALL BE CONTINUOUS AND SHALL BE EXTENDED ABOVE GRADE VIA A 4-INCH PVC PIPE WITH SCREW-ON CAP ADJACENT TO THE PROPOSED TERMINATION POINT OF THE LATERAL FOR THE PROPOSED BUILDING. TRACER WIRE FOR WATER MAIN SHALL BE INSTALLED WITH #12-GAUGE TRACER WIRE AND SHALL TERMINATE IN TRACER WIRE ACCESS BOXES AT ALL FIRE HYDRANTS.
14. WATER MAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6.5 FEET. INSULATION AND PLACING OF INSULATION SHALL CONFORM TO CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).
15. SEE UTILITY PLANS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.

STORM SEWER NOTES

1. PIPE - REINFORCED CONCRETE PIPE (RCP) SHALL MEET THE REQUIREMENTS OF ASTM CLASS C-76 WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C-443. STRENGTH CLASSIFICATIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

HEIGHT OF COVER (FEET):	0-2	2-3	3-6	6-15	15-25	25+
MINIMUM CONCRETE PIPE CLASSIFICATION:	IV	III	II	III	IV	ENGINEER TO SPECIFY

2. HIGH DENSITY DUAL-WALL POLYETHYLENE N-12 CORRUGATED PIPE (HDPE) SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE "S", OR POLYVINYL CHLORIDE (PVC) - CLASS PS46 MEETING AASHTO M278, AS NOTED. IF HDPE PIPE IS USED FOR POND OUTFALLS, A MINIMUM OF THREE (3) SECTIONS (2 STRAPS) SHALL BE STRAPPED TOGETHER.
3. INLETS - INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NO. 25 OF THE "STANDARD SPECIFICATIONS" WITH A 1'-8" X 2'-6" MAXIMUM OPENING. SEE CONSTRUCTION DETAILS FOR FRAME AND GRATE TYPES. STRUCTURE SHOP DRAWINGS SHALL BE SUBMITTED TO PINNACLE ENGINEERING GROUP FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION.
4. BACKFILL AND BEDDING - STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL.
5. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS". MANHOLE FRAMES AND COVERS - SEE CONSTRUCTION DETAILS.
6. IF HDPE PIPE IS USED FOR POND OUTFALLS, A MINIMUM OF THREE (3) SECTIONS (2 STRAPS) SHALL BE STRAPPED TOGETHER. 15. TRACER WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THESE CODE SECTIONS AS PER 182.0715(2R) OF THE STATUTES.

WATER MAIN NOTES

1. PIPE - WATER MAIN SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 235, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS.
2. VALVES AND VALVE BOXES - GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.
3. HYDRANTS - HYDRANTS SHALL CONFORM TO THE CITY OF FRANKLIN STANDARDS AND SPECIFICATIONS AND IN ACCORDANCE WITH FILE NO. 38 OF THE "STANDARD SPECIFICATIONS." THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 24-INCHES. HYDRANT MANUFACTURE: WATEROUS PACER WITH WATER SERIES 2500 VALVES.
4. BEDDING AND COVER MATERIAL - PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".
5. ALL DUCTILE FITTINGS, VALVES, AND VALVE BOXES SHALL CONFORM WITH ALL CITY OF FRANKLIN STANDARD SPECIFICATIONS FOR DEVELOPMENT AND SHALL BE TRIPLE WRAPPED AND SECURELY TAPED AROUND WITH POLYETHYLENE AS SPECIFIED IN CHAPTER 4.4.4 AND 8.21.0 OF THE "STANDARD SPECIFICATIONS".
6. BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS".
7. GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL.
8. SLURRY BACK FILL UNDER PUBLIC ROAD PAVEMENT. SLURRY LIMITS: FROM TOP OF COVER STONE TO PAVEMENT. SLURRY TO BE 1-BAG PORTLAND MIX.
9. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

SANITARY SEWER NOTES

1. PIPE - SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35 (UP TO 15' OF COVER) & SDR-26 (GREATER THAN 15'), WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.
2. BEDDING AND COVER MATERIAL - BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A).
3. BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."
4. BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS."
5. SLURRY BACK FILL UNDER PUBLIC ROAD PAVEMENT. SLURRY LIMITS: FROM TOP OF COVER STONE TO PAVEMENT. SLURRY TO BE 1-BAG PORTLAND MIX.
6. GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL.
7. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS."
8. MANHOLES - MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL STANDARDS AND SPECIFICATIONS OF THE CITY OF FRANKLIN. STRUCTURE SHOP DRAWINGS SHALL BE SUBMITTED TO PINNACLE ENGINEERING GROUP FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION.
9. MANHOLE FRAMES AND COVERS - MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1661.

EROSION & SEDIMENT CONTROL NOTES

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT ("WPDES" PERMIT NO. WI-S067831-4) FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL TECHNICAL STANDARDS AND PROVISIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMP'S). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THE BMP'S PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY OWNER/ENGINEER OR GOVERNING AGENCIES SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED SWPPP IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO BMP'S. ALL MODIFICATIONS MUST BE APPROVED BY OWNER/ENGINEER/GOVERNING AGENCY PRIOR TO DEVIATION OF THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITIES, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE APPROVED BY THE APPLICABLE GOVERNING AGENCIES PRIOR TO INSTALLATION.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST IMMEDIATELY AND AS REQUESTED BY THE GOVERNING AGENCIES.
7. ALL EXISTING STORM SEWER FACILITIES THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND SILT FENCE SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS . ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
    - 8.1. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    - 8.2. BACKFILL, COMPACT AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    - 8.3. DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH BMP'S PRIOR TO RELEASE INTO STORM SEWER OR DITCHES.
9. AT A MINIMUM, SEDIMENT BASINS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
10. ALL WATERCOURSES AND WETLANDS SHALL BE PROTECTED WITH SILT FENCE TO PREVENT ANY DIRECT DISCHARGE FROM DISTURBED SOILS.
11. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
12. TOPSOIL STOCKPILES SHALL HAVE A BERM OR TRENCH AROUND THE CIRCUMFERENCE AND PERIMETER SILT FENCE TO CONTROL SILT. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
13. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER IMMEDIATELY FOLLOWING COMPLETION OF SUCH ACTIVITIES OR PRIOR TO THE COMPLETION OF EACH WORK DAY, WHICH EVER OCCURS FIRST.
14. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCES ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
15. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS. PUMP DISCHARGE SHALL BE DIRECTED INTO AN APPROVED FILTER BAG OR APPROVED SETTLING DEVICE.
16. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH TECHNICAL STANDARDS.
17. ALL DISTURBED SLOPES 4:1 OR GREATER, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND ALL CHANNELS SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
18. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE.THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE.
19. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
20. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH OF THE GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
21. SEE ADDITIONAL DETAILS AND NOTES ON SITE STABILIZATION AND CONSTRUCTION DETAILS.

DRAFTED: AFH
DESIGNED: TGM
REVIEWED: TGM

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5414 WEST RAWSON AVE
CITY OF FRANKLIN, MILWAUKEE

GENERAL NOTES

REVISIONS

1	PC SUBMITTAL	06/12/25
2	CITY REVIEW COMMENTS	08/22/25

PEG JOB No. 6308.00
PEG PM TGM
START DATE 04-09-25
SCALE NTS

SHEET
C-2
OF
C-9

GENERAL NOTES

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LEGEND

SANITARY MANHOLE		STORM SEWER	
STORM MANHOLE		WATER MAIN	W
CATCH BASIN		LIGHTING	
INLET		ELECTRICAL CABLE	E
PRECAST FLARED END SECTION		ELECTRICAL TRANSFORMER OR PEDESTAL	
CONCRETE HEADWALL		POWER POLE	
VALVE VAULT		POWER POLE WITH LIGHT	
VALVE BOX		GUY WIRE	
FIRE HYDRANT		STREET SIGN	
BUFFALO BOX		GAS MAIN	G
CLEANOUT		TELEPHONE LINE	T
SANITARY SEWER		CONTOUR	749
FORCE MAIN		TREE	
CONCRETE SIDEWALK		EASEMENT LINE	

EXISTING CONDITIONS SURVEY:

EXISTING CONDITIONS SURVEY PROVIDED BY PINNACLE ENGINEERING GROUP. ALTHOUGH PEG HAS NO REASON TO BELIEVE THE SURVEY IS INACCURATE, PEG MAKES NO WARRANTS THAT EXISTING INFORMATION CONTAINED WITHIN THESE PLANS IS ALL-INCLUSIVE OR ACCURATE. CONTRACTOR SHALL UNDERTAKE NECESSARY EFFORTS TO VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF MATERIAL PROCUREMENT AND CONSTRUCTION EFFORTS/ACTIVITIES.

CONTRACTOR RESPONSIBILITY:

THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE.

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2

DEMOLITION LEGEND

- REMOVE EXISTING ASPHALT
- REMOVE EXISTING CURB AND GUTTER
- REMOVE EXISTING UTILITY
- SAWCUT EXISTING PAVEMENT
- REMOVE EXISTING TREES

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 20' 40'

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DRAFTED: AFH DESIGNED: TGM REVIEWED: TGM

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ICAP DEVELOPMENT - FRANKLIN

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CITY OF FRANKLIN, MILWAUKEE

EXISTING CONDITIONS & DEMOLITION PLAN

REVISIONS

No.	Description	Date
1	PC SUBMITTAL	06/12/25
2	CITY REVIEW COMMENTS	08/22/25

PEG JOB No. 6308.00
PEG PM TGM
START DATE 04-09-25
SCALE 1" = 20'

SHEET C-3 OF C-9

EXISTING CONDITIONS & DEMOLITION PLAN

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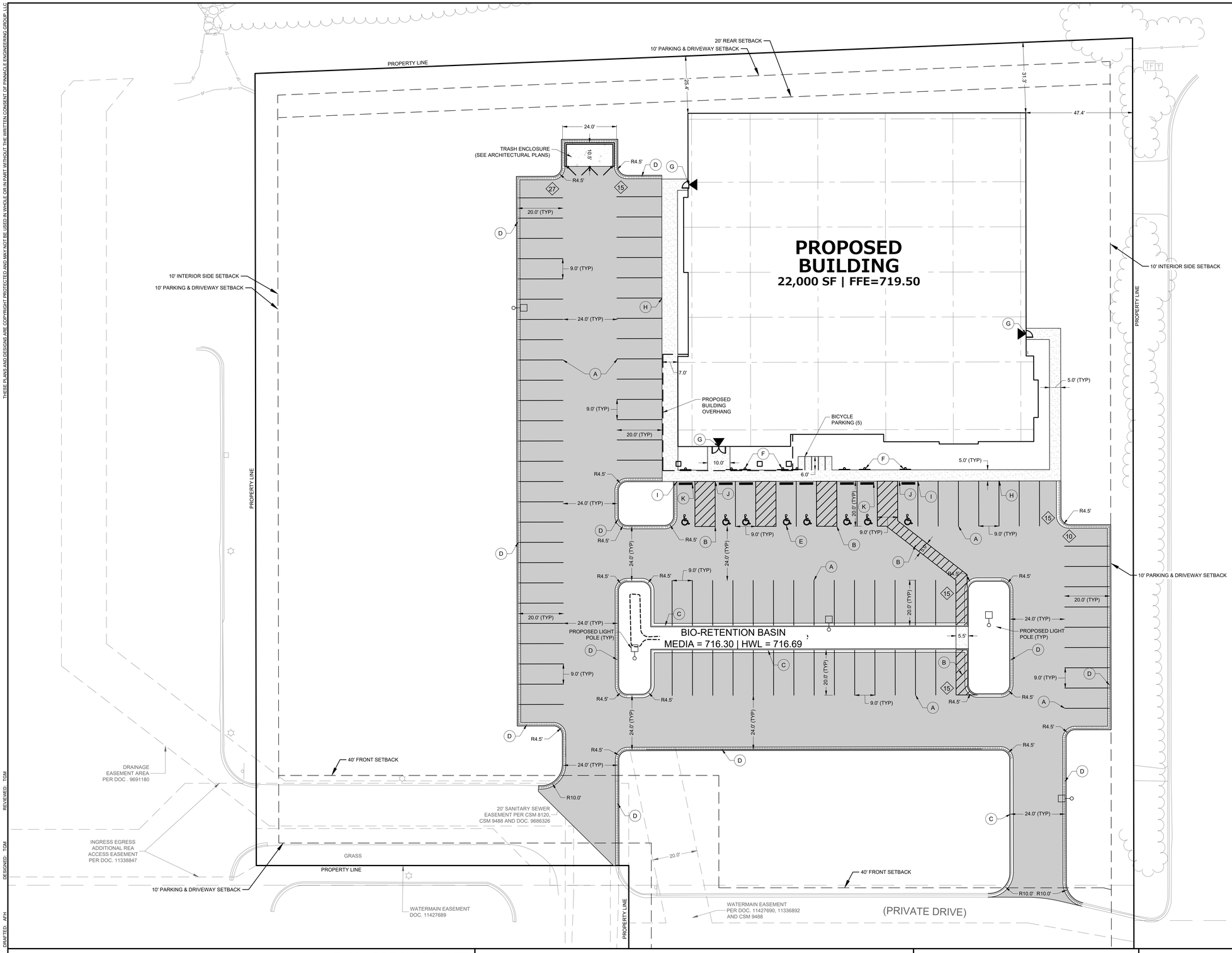

LEGEND

- **LIGHT DUTY ASPHALT PAVEMENT**
  - 9" - 1 ¼" CRUSHED AGGREGATE TB BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OF WISDOT STANDARD SPECIFITCATIONS, SECTION 301 AND 305.
  - 4" HMA PAVEMENT (2 LIFTS)
    - 2" BINDER COURSE - 3 LT 58-28 S
    - 2" SURFACE COURSE - 5 LT 58-28 S
- **CONCRETE BUILDING SIDEWALK**
  - 6" CRUSHED AGGREGATE BASE COURSE (1 ¼" DENSE GRADED LIMESTONE)
  - 4" PCC
- **CONCRETE PAVEMENT**
  - 7" CRUSHED AGGREGATE BASE COURSE (1 ¼" DENSE GRADED LIMESTONE)
  - 6" PCC
- **CURB AND GUTTER**
- **REVERSE PITCH CURB & GUTTER**
- (A) **4" SOLID STRIPE**
- (B) **4" DIAGONAL AT 45° SPACED 2' O.C.**
- (C) **18" CURB & GUTTER (SEE DETAIL)**
- (D) **18" REVERSE PITCH CURB & GUTTER (SEE DETAIL)**
- (E) **ADA STALL INSIGNIA**
- (F) **ADA SIGN (SEE DETAIL)**
- (G) **BUILDING DOOR SLAB (2% MAX SLOPE WITHIN 5-FT OF DRIVE IN OR MAN DOOR)**
- (H) **INTEGRAL CURB AND GUTTER (SEE DETAIL)**
- (I) **TAPER CURB HEAD (SEE DETAIL)**
- (J) **WALK FLUSH WITH PAVEMENT (SEE DETAIL)**
- (K) **CONCRETE WHEEL STOP (SEE DETAIL)**
- ◇16◇ **PARKING COUNT (FOR INFORMATION ONLY, NOT TO BE PAINTED)**

SITE DATA

CITY ZONING:	**OFFICE & HEALTHCARE FACILITY**
PARCEL SIZE:	**±3.47 AC (151,337 S.F.)**
DISTURBANCE LIMITS:	**2.56 AC (111,554 S.F.)**
MINIMUM LOT WIDTH:	**50 FT**
MINIMUM LOT DEPTH:	**110 FT**
MAXIMUM BUILDING HEIGHT:	**50 FT**
MAXIMUM CITY PARKING REQUIREMENT:	**75 STALLS (MAX) = 30% (22 STALLS) =97 STALLS**
PROPOSED PARKING STALLS:	**97 STALLS (INCLUDING 8 ADA)**
REQUIRED SETBACKS:	
MIN FRONT BUILDING SETBACK:	**40 FT**
MIN REAR BUILDING SETBACK:	**20 FT**
MIN STREET SIDE BUILDING SETBACK:	**40 FT**
MIN INTERIOR SIDE BUILDING SETBACK:	**10 FT**
MIN PARKING/DRIVEWAY SETBACK:	**10 FT**
MAX IMPERVIOUS SURFACE:	**70.0%**
PROPOSED IMPERVIOUS SURFACE:	**51.0%**

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 20' 40'

REVIEWED: TGM
DESIGNED: TGM
DRAFTED: AFH

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CHICAGO | MILWAUKEE : NATIONWIDE

ICAP DEVELOPMENT - FRANKLIN

5414 W RAWSON AVE
CITY OF FRANKLIN, MILWAUKEE

SITE DIMENSONAL & PAVING PLAN

REVISIONS

1	PC SUBMITTAL	06/12/25	
2	CITY REVIEW COMMENTS	08/22/25	

PEG JOB No. 6308.00
PEG PM TGM
START DATE 04-09-25
SCALE 1" = 20'

SHEET
C-4
OF
C-9

SITE DIMENSONAL & PAVING PLAN

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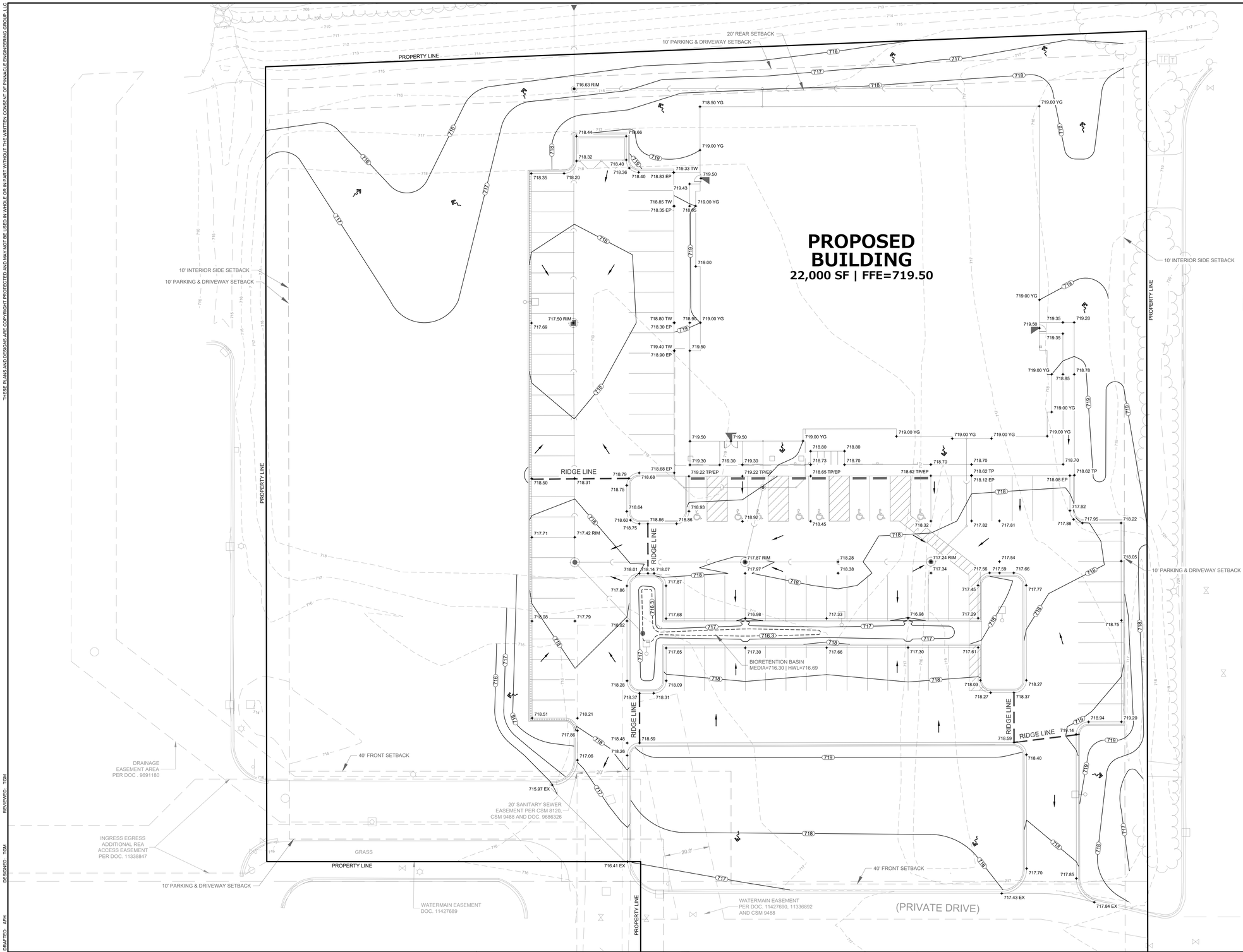

LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM STORM CATCH BASIN (ROUND CASTING)
- STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
- PRECAST FLARED END SECTION
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- PROPOSED CONTOUR
- 750.0 PROPOSED SPOT ELEVATION
- WETLANDS
- FLOODPLAIN
- HIGH WATER LEVEL (HWL)
- DIRECTION OF SURFACE FLOW
- NORMAL WATER LEVEL (NWL)
- DITCH OR SWALE
- DIVERSION SWALE

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2

ALL GRADING SHALL MEET ADA REQUIREMENTS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 20' 40'

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GRADING PLAN

REVISIONS

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PEG JOB No. 6308.00
PEG PM TGM
START DATE 04-09-25
SCALE 1" = 20'

SHEET
C-5
OF
C-9

GRADING PLAN

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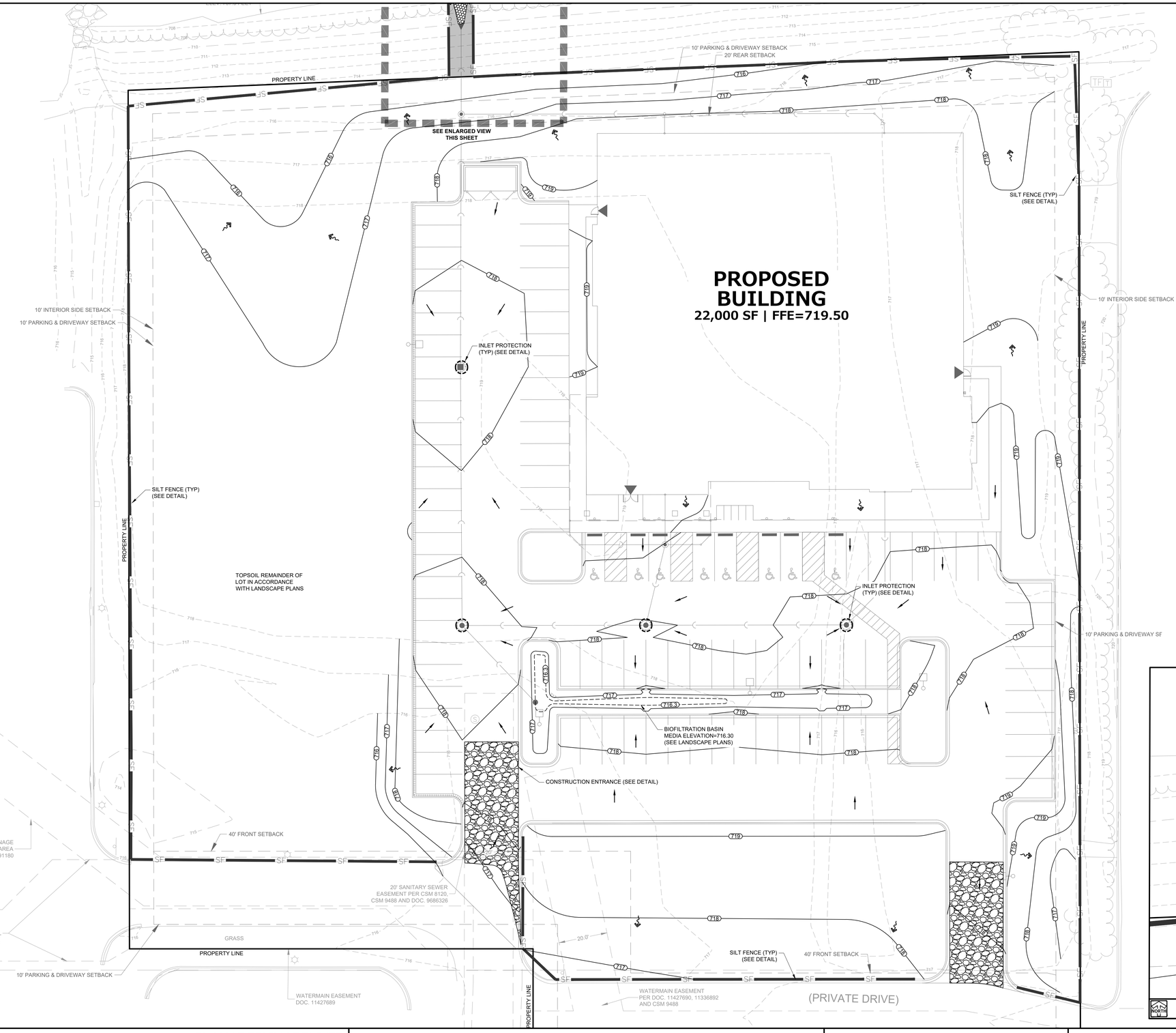


LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM STORM CATCH BASIN (ROUND CASTING)
- STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
- PRECAST FLARED END SECTION
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- PROPOSED CONTOUR
- 750.0 PROPOSED SPOT ELEVATION
- WETLANDS
- FLOODPLAIN
- HIGH WATER LEVEL (HWL)
- DIRECTION OF SURFACE FLOW
- NORMAL WATER LEVEL (NWL)
- DITCH OR SWALE
- DIVERSION SWALE
- SF SILT FENCE
- TYPE D INLET PROTECTION
- EROSION CONTROL BLANKET
- CONSTRUCTION ENTRANCE

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 20' 40'

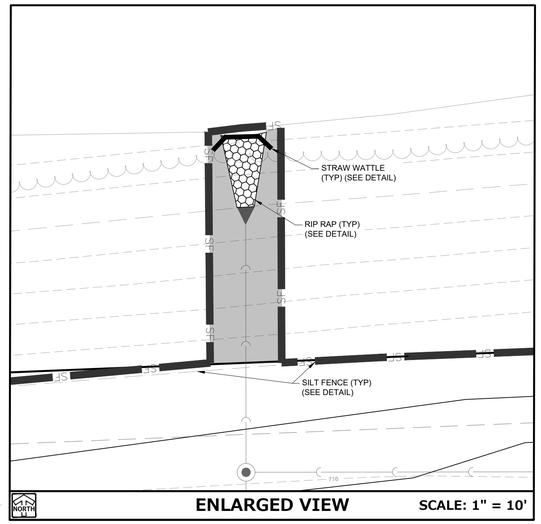
CONSTRUCTION SITE SEQENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION, TEMPORARY CONSTRUCTION ENTRANCE AND ANY OTHER EROSION CONTROL MEASURES.
2. DEMOLITION AND REMOVALS OF BUILDING(S), PAVEMENTS, AND LANDSCAPING.
3. CONDUCT ROUGH GRADING EFFORTS.
4. CONSTRUCTION OF FOUNDATIONS AND BUILDING.
5. INSTALL UTILITY PIPING & STRUCTURES.
6. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
7. INSTALL TOPSOIL AND LANDSCAPING. IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROLS.
8. EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER.

   CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2

ALL DISTURBED AREAS WITHIN THE PARCEL AREA SHALL BE STABILIZED WITH HYDROSEED (PER MANUFACTURER SPECIFICATIONS)



ENLARGED VIEW SCALE: 1" = 10'

DRAFTED: APH DESIGNED: TGM REVIEWED: TGM

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EROSION CONTROL PLAN

REVISIONS

1	PC SUBMITTAL	06/12/25
2	CITY REVIEW COMMENTS	08/22/25

PEG JOB No. 6308.00 TGM
PEG PM 04-09-25
START DATE
SCALE 1" = 20'

SHEET C-6 OF C-9

EROSION CONTROL PLAN

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PROPOSED BUILDING
22,000 SF | FFE=719.50

FES 7.0
48" DIA
RIM= 712.06
INV=710.00 (18" S)

37.1 L.F. 18" HDPE
@ S=1.19%

MH 6.0
48" DIA
RIM= 716.63
INV=710.44 (18" S)
INV=713.44 (10" E)
INV=710.44 (18" N)

TEE 8.1
INV=714.31 (10")
INV=714.48 (6")

86.0 L.F. 10" SCH-40 PVC
@ S=1.04%

45° BEND 9.2
INV=715.20 (10")
INV=715.20 (10")

5.7 L.F. 10" SCH-40 PVC
@ S=1.04%

45° BEND 9.1
INV=715.26 (10")

4.0 L.F. 10" SCH-40 PVC
@ S=1.04%

83.3 L.F. 10" SCH-40 PVC
@ S=1.04%

BC 8.0
INV=714.88 (6")

8.0 L.F. 6" SCH-40 PVC
@ S=5.00%

BC 9.0
INV=715.30 (10")

103.6 L.F. 18" HDPE
@ S=0.80%

23.5 L.F. 6" SDR-35
@ S=1.04%

45° BEND 102
INV=710.83 (6")

SAN BC 103
INV=711.07 (6")

INL 5.0
48" DIA
RIM= 717.50
INV=711.27 (18" S)
INV=711.27 (18" N)

20.0 L.F. 6" SDR-35
@ S=1.04%

45° BEND & CLEANOUT 101
INV=710.62 (6")

WM BC (6")

PROPOSED FDC

105.9 L.F. 18" HDPE
@ S=0.70%

BC 10.0
INV=716.20 (8")

20.5 L.F. 8" SCH-40 PVC
@ S=2.04%

BC 11.0
INV=715.59 (8")

BC 12.0
INV=716.39 (6")

5.9 L.F. 6" SCH-40 PVC
@ S=1.04%

BC 13.0
INV=716.12 (6")

5.8 L.F. 6" SCH-40 PVC
@ S=1.04%

35.0 L.F. 6" SCH-40 PVC
@ S=1.04%

38.7 L.F. 8" SCH-40 PVC
@ S=2.08%

45° BEND 13.1
INV=716.06 (6")

45° BEND 12.1
INV=716.33 (6")

5.7 L.F. 6" SCH-40 PVC
@ S=1.04%

5.7 L.F. 6" SCH-40 PVC
@ S=1.04%

45° BEND 13.2
INV=716.00 (6")

10.1
48" DIA
RIM= 719.99
INV=715.85 (6" E)
INV=715.78 (8" N)
INV=715.90 (6" W)
INV=715.78 (8" S)

45° BEND 12.2
INV=716.27 (6")

14.7 L.F. 6" SCH-40 PVC
@ S=1.04%

45° BEND 11.1
INV=714.79 (8")

INL 4.0
60" DIA
RIM= 717.53
INV=712.01 (12" E)
INV=712.87 (8" SE)
INV=712.01 (18" N)

122.4 L.F. 6" SDR-35
@ S=1.04%

33.9 L.F. 8" HDPE
@ S=4.00%

82.2 L.F. 12" HDPE
@ S=1.00%

22.3 L.F. 8" SCH-40 PVC
@ S=2.08%

43.5 L.F. 8" HDPE
@ S=1.00%

75.3 L.F. 12" HDPE
@ S=1.18%

INL 3.0
48" DIA
RIM= 717.87
INV=712.90 (12" E)
INV=714.42 (8" N)
INV=712.90 (12" W)

2.0
48" DIA
RIM= 717.24
INV=714.33 (8" NE)
INV=713.72 (12" W)

HYDRANT ASSEMBLY 1.0

45° BEND 1.0
INV=709.35 (6")

14.0 L.F. 6" SDR-35
@ S=1.04%

96 LF OF 6" PERFORATED
UNDERDRAIN (SEE DETAIL
ON SHEET C-9)

CONNECTION TO EXISTING SANITARY STUB
INV=709.20 (6")

ADJUST RIM TO PROPOSED ELEVATION
EX. RIM=716.30
PR RIM=718.71

SANITARY
MANHOLE
RIM=716.30
6" PVC NE = 709.20
6" PVC N = 709.10
8" PVC S= 709.58

BIORETENTION OULET
CONTROL STRUCTURE
(SEE DETAILS ON
SHEET C-9)

BIORETENTION BASIN
MEDIA=716.30 | HWL=716.69

403.3 L.F OF 6"
C-900 PVC WM

CONNECTION TO
EXISTING 6" WM STUB

ADJUST EXISTING STRUCTURE
EX. RIM=716.34
PR. RIM=717.18
REPLACE CASTING WITH
NEENAH R-1660 W/ VENTED LID

20' SANITARY SEWER
EASEMENT PER CSM 8120,
CSM 9488 AND DOC. 9686326

WATERMAIN EASEMENT
PER DOC. 11427690, 11336892
AND CSM 9488

WATERMAIN EASEMENT
DOC. 11427689

(PRIVATE DRIVE)

PROPERTY LINE

20' REAR SETBACK

10' PARKING & DRIVEWAY SETBACK

10' INTERIOR SIDE SETBACK

40' FRONT SETBACK

DRIVE
OPENING

GRASS

18" CPP CULVERT
INV = 707.29

CATCH BASIN
RIM=714.96

CATCH BASIN
RIM=714.92

CATCH BASIN
RIM = 716.10
15" CPP S = 709.67
18" CPP SE = 709.82
24" CPP N = 709.64

CATCH BASIN
RIM=714.96
12" CPP E = 710.35

CATCH BASIN
RIM=713.93
12" CPP W = 710.35

CATCH BASIN
RIM=715.27
18" CPP NW = 710.17
18" CPP E = 710.17

CATCH BASIN
RIM=715.85
15" CPP N = 710.58
15" CPP S = 710.58
15" CPP E = 710.58

CATCH BASIN
RIM=716.04
15" CPP S = 710.72
15" CPP W = 710.72

CATCH BASIN
RIM=716.34
18" CPP W = 710.40
15" CPP S = 710.42
12" CPP E = 713.42

CATCH BASIN
RIM=718.06
6" PVC NE = 713.66
15" CONC. SE = 713.56

CATCH BASIN
RIM=718.28
15" CONC SW = 713.33
15" CONC NW = 713.33
18" CONC E = 713.03

DRAINAGE
EASEMENT AREA
PER DOC . 9691180

INGRESS EGRESS
ADDITIONAL REA
ACCESS EASEMENT
PER DOC. 11338847

SITE BENCHMARK
NW UPPER FLANGE
BOLT HYDRANT
EL = 717.93

LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER CATCH BASIN (ROUND CASTING)
- STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
- PRECAST CONCRETE FLARED END SECTION
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- CATCH BASIN UNDERDRAIN
- SANITARY SEWER
- FORCE MAIN
- STORM SEWER
- DRAIN TILE
- W — WATER MAIN
- FP — FIRE PROTECTION
- UTILITY CROSSING
- ELECTRICAL CABLE
- GAS MAIN
- TELEPHONE LINE
- OVERHEAD WIRES
- LIGHTING
- ELECTRICAL TRANSFORMER OR PEDESTAL
- POWER POLE
- POWER POLE WITH LIGHTS
- STREET SIGN

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2

NORTH

GRAPHICAL SCALE (FEET)

0 — 1" = 20' — 40'

REVIEWED: TGM
DESIGNED: TGM
DRAFTED: APH

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UTILITY PLAN

REVISIONS

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PEG PM TGM
START DATE 04-09-25
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SHEET
C-7
OF
C-9

UTILITY PLAN

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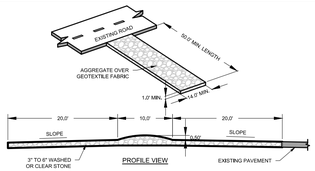

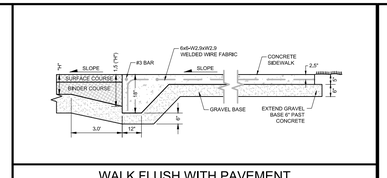

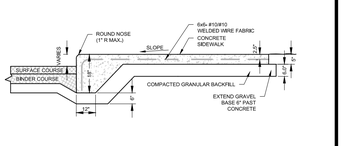

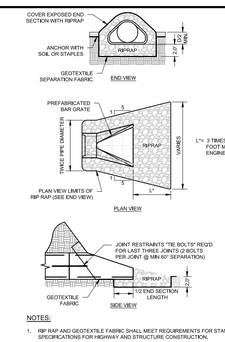

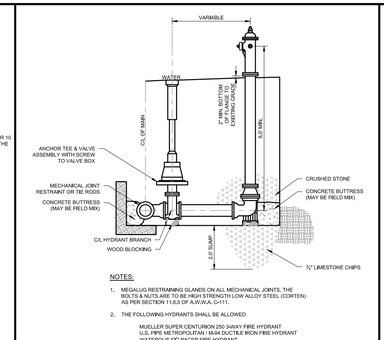

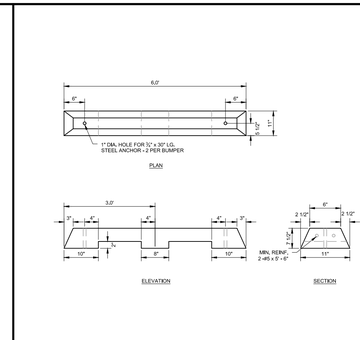

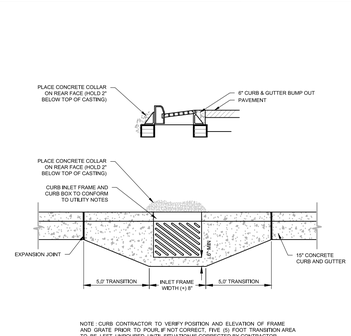

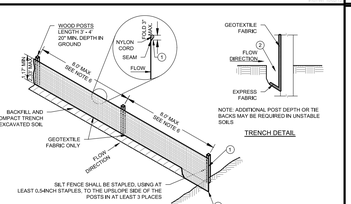

1.0 POTENTIAL POLLUTANT SOURCES

GIVEN THE PROPOSED ACTIVITY ON THE PROJECT SITE, THE PRIMARY POTENTIAL POLLUTANT SOURCE ASSOCIATED WITH THIS CONSTRUCTION PROJECT IS SOIL EROSION AND TRANSPORTATION; REFER TO SECTION 4 OF THIS PLAN. ADDITIONAL POTENTIAL SOURCES OF POLLUTION MAY INCLUDE: FUEL TANKS, WASTE CONTAINERS, OIL OR OTHER PETROLEUM PRODUCTS, DETERGENTS, PAINTS, CONSTRUCTION DEBRIS, SANITARY STATIONS, FERTILIZERS, AND DUST; REFER TO SECTION 5 OF THIS PLAN.

2.0 EROSION AND SEDIMENT CONTROL IMPLEMENTATION

THE FOLLOWING ARE DESCRIPTIONS OF THE EROSION AND SEDIMENT CONTROL PRACTICES THAT SHALL BE IMPLEMENTED DURING CONSTRUCTION OF THIS PROJECT. IN ADDITION TO THESE MEASURES, CONTRACTOR SHALL DISTURB ONLY AREAS NECESSARY TO COMPLETE THE CONSTRUCTION PROJECT. ALL PRACTICES SHALL BE CONDUCTED IN ACCORDANCE WITH THE BEST MANAGEMENT PRACTICES (BMP).

2.1 CONSTRUCTION AND EROSION CONTROL SEQUENCING

CONSTRUCTION SEQUENCING WILL BE UTILIZED AS A MEANS OF CONTROLLING EROSION AND LIMITING SEDIMENT TRANSPORT. SEQUENCING AS LISTED BELOW IS GENERAL IN NATURE AND MAY VARY DEPENDING ON WEATHER CONDITIONS AND/OR PHASING OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED SITE SEQUENCING PLAN TO OWNER FOR APPROVAL AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 6 AS NEEDED TO COMPLETE CONSTRUCTION ONLY IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL REQUIREMENTS.

1. INSTALL TEMPORARY CONSTRUCTION ENTRANCES, INLET PROTECTION ON EXISTING STORM SEWER AND CULVERT INLET LOCATIONS, AND PERIMETER SILT FENCING.
2. INSTALL SILT FENCING ALONG THE PERIMETER OF PROPOSED TOPSOIL STOCKPILE LOCATIONS. THE FIRST TOPSOIL DEPOSITED WITHIN THE STOCKPILE LIMITS SHALL BE PLACED TO CREATE TEMPORARY BERMING ALONG THE SILT FENCE TO PREVENT DIRECT STORMWATER RUNOFF AGAINST SILT FENCING. CONTRACTOR SHALL LIMIT LAND DISTURBING ACTIVITIES ASSOCIATED WITH TEMPORARY BERMING TO A MINIMUM.
3. STRIP TOPSOIL WITHIN THE LIMITS OF THE SEDIMENT TRAPS THAT WILL BE USED FOR TEMPORARY SEDIMENT CONTROL. STRIPPED TOPSOIL SHALL BE PLACED TO CONSTRUCT DIVERSION BERMING OR PLACED WITHIN THE STOCKPILE LIMITS.
4. STRIP TOPSOIL ALONG THE REMAINDER OF DIVERSION BERMING AND IMMEDIATELY PLACE TOPSOIL TO CREATE THE BERMING. MASS TOPSOIL STRIPPING SHALL NOT OCCUR UNTIL ALL DOWNSTREAM SEDIMENT CONTROLS ARE IN PLACE.
5. CONDUCT ROUGH GRADING OPERATIONS AND UTILITY PIPING INSTALLATION. DRAIN TILE SHALL NOT BE INSTALLED UNTIL UPLAND AREAS CONTRIBUTING STORMWATER RUNOFF ARE STABILIZED. DITCH CHECKS SHALL BE INSTALLED WITHIN DRAINAGE DITCHES IMMEDIATELY FOLLOWING CREATION OF DITCHES AND INLET PROTECTION SHALL BE INSTALLED TO PROTECT ANY STORM SEWER OR CULVERTS THAT WILL FUNCTION DURING CONSTRUCTION.
6. FINE GRADE SUB-GRADE SOILS WITHIN PAVEMENT AND BUILDING LIMITS. PLACE STONE BASE MATERIAL AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
7. FINE GRADE REMAINING DISTURBED AREAS. PLACE SALVAGED TOPSOIL, EROSION BLANKETS/MATTING, AND SEED/MULCH AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
8. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF SILT FENCE, TEMPORARY FENCING/PRETECTION, DITCH CHECKS, AND OTHER TEMPORARY CONTROLS, AND RESTORATION PRACTICES AS NECESSARY, TO THE SATISFACTION OF THE OWNER.

2.2 STABILIZATION PRACTICES

THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED, SHALL BE RECORDED ON THE STABILIZATION SCHEDULE FOR MAJOR GRADING ACTIVITIES.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED UNLESS:

> THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION MEASURE SHALL BE INITIATED AS SOON AS PRACTICABLE.
>
> CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITIES CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS). IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED. SEE THE SOIL PROTECTION CHART PRESENTED IN THE CONSTRUCTION DOCUMENTS FOR RATES OF PERMANENT AND TEMPORARY VEGETATION.

STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES.

PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED LANDSCAPING PLAN
TEMPORARY SEEDING MAY CONSIST OF SPRING OATS (100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LBS/ACRE)
HYDRO-MULCHING WITH A TACKIFIER
GEOTEXTILE EROSION MATTING
SODDING

2.3 STRUCTURAL PRACTICES

THE FOLLOWING ARE DESCRIPTIONS OF STRUCTURAL PRACTICES TO BE IMPLEMENTED TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS, OR OTHERWISE LIMIT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE INCLUDING THE PROPOSED AND EXISTING WETLAND AREAS. SUCH PRACTICES COULD INCLUDE SILT FENCE, PROTECTION FENCE, CONSTRUCTION ENTRANCE, DITCH CHECK, EROSION CONTROL MATTING, DIVERSION BERM/SWALE, SEDIMENT TRAP, LEVEL SPREADER, INLET PROTECTION, OUTLET PROTECTION, AND TEMPORARY OR PERMANENT SEDIMENT BASIN. THE FOLLOWING STRUCTURAL PRACTICES ARE TO BE UTILIZED DURING THIS PROJECT.

SILT FENCE SHALL BE PLACED DOWN SLOPE OF DISTURBED AREAS OF THE CONSTRUCTION SITE AND AROUND THE PERIMETER OF THE TOPSOIL STOCKPILE. THIS INCLUDES PROTECTION OF EXISTING WETLAND AREAS TO BE MAINTAINED. SILT FENCE MAY ALSO BE USED AS A TEMPORARY CONTROL DEVICE WHERE SEDIMENTATION RUNOFF IS DISCOVERED.

CONSTRUCTION ENTRANCE SHALL BE INSTALLED TO REDUCE SOIL EROSION POLLUTANTS FROM LEAVING THE SITE DURING CONSTRUCTION ACTIVITIES. IF THE CRUSHED STONE DOES NOT ADEQUATELY REMOVE MUD FROM VEHICLE TIRES, THEY SHALL BE HOSED OFF BEFORE ENTERING A PAVED ROADWAY. ANY SOIL DEPOSITED ON THE PUBLIC PAVED ROAD WAY SHALL BE REMOVED IMMEDIATELY.

DITCH CHECK (STRAW BALES) SHALL BE INSTALLED IN DRAINAGE CHANNELS AS NEEDED.

EROSION CONTROL MATTING SHALL BE PLACED ON AREAS OR EMBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V, BEFORE VEGETATION IS ESTABLISHED.

DIVERSION BERM/SWALE SHALL BE CONSTRUCTED TO DIVERT RUNOFF AROUND THE SITE AND TO DIVERT RUNOFF FROM THE DISTURBED AREA TO A SEDIMENT TRAP OR OTHER CONTROL. BERMS/SWALES SHALL BE STABILIZED WITH EQUIPMENT TRACKING AND TEMPORARY SEEDING.

SEDIMENT TRAPS/BASIN SHALL BE CONSTRUCTED TO COLLECT RUNOFF AND RUNOFF FROM SITE DIVERSION BERMS/SWALES.

INLET PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE INLETS TO REDUCE SEDIMENT WITHIN STORM SEWER CONVEYANCE FEATURES.

OUTLET SCOUR PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE OUTLETS TO DIFFUSE FLOWS.

3.0 ADDITIONAL PRACTICES

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING.

CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.

DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:

> COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON-ERODIBLE MATERIAL.
>
> ROUGHENING (EQUIPMENT TRACKING) THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.
>
> FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
>
> PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.

STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

4.0 EROSION AND SEDIMENT STRUCTURAL PRACTICE MAINTENANCE

THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THE BELOW.

SILT FENCE - REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

CONSTRUCTION ENTRANCE - AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.

DITCH CHECK (STRAW BALES) - RE-SECURE STAKES; ADJUST OR REPOSITION BALES TO ADDRESS PROPER FLOW OF STORMWATER; AND REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE HEIGHT OF THE BALE.

EROSION CONTROL MATTING - REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE-GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.

DIVERSION BERM/SWALE - REPLACE OR RE-COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.

SEDIMENT TRAP - REMOVE AND DISPOSE OF THE ACCUMULATED SEDIMENT WHEN IT HAS REACHED THE SEDIMENT STORAGE ELEVATION.

INLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE ONE-HALF FULL OF SEDIMENT.

OUTLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC, TURF REINFORCEMENT MATTING AND/OR STONE WHEN CONTROL MEASURE IS ONE-HALF FULL OF SEDIMENT.

SEDIMENT BASIN - AT THE END OF CONSTRUCTION, CONTRACTOR SHALL REMOVE AND DISPOSE OF THE ACCUMULATED SEDIMENT AND RESTORE BASIN AREA TO INTENDED POST-CONSTRUCTION DESIGN GRADES.

5.0 INSPECTION

INSPECTIONS SHALL BE COMPLETED WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A RAINFALL EVENT THAT IS ONE-HALF INCH OR GREATER OR EQUIVALENT SNOWFALL, OR AT A MINIMUM ONCE EVERY SEVEN (7) CALENDAR DAYS. INSPECTIONS SHALL BE UNDERTAKEN BY QUALIFIED PERSONNEL PROVIDED BY THE CONTRACTOR, AND SHALL INCLUDE: DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. A STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT SHALL BE COMPLETED AND ADDED TO THE SWPPP. RAINFALL SHALL BE RECORDED ON THE SWPPP RAINFALL LOG. CONTRACTOR SHALL IMMEDIATELY ARRANGE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED OR DEFICIENT CONTROL MEASURES OBSERVED DURING THE INSPECTION.

QUALIFIED PERSONNEL MEANS A PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS A LICENSED PROFESSIONAL ENGINEER, A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL, A CERTIFIED EROSION SEDIMENT OR STORMWATER INSPECTOR, OR OTHER TRAINED INDIVIDUAL.

6.0 SPILL PREVENTION

6.1 GENERAL MATERIAL MANAGEMENT PRACTICES

THE GOOD HOUSEKEEPING PRACTICES LISTED BELOW SHALL BE FOLLOWED THROUGHOUT THE CONSTRUCTION PROJECT.

1. CONTRACTOR SHALL STORE ONLY ENOUGH PRODUCTS REQUIRED TO COMPLETE THIS PROJECT.
2. ALL MATERIAL SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR ORIGINAL CONTAINERS CONTAINING MANUFACTURER'S LABEL.
3. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
4. MATERIALS REQUIRED TO HAVE A MATERIAL SAFETY DATA SHEET (MSDS) SHALL HAVE A COPY STORED IN THE PROJECT'S MSDS DATABASE.

6.2 SPILL CONTROL PRACTICES

THE PRACTICES LISTED BELOW SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP.

1. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE MAINTAINED ONSITE.
2. IMMEDIATELY UPON DISCOVERY, ALL SPILLS SHALL BE CLEANED UP ACCORDING TO THE MANUFACTURERS' RECOMMENDED METHODS.
3. PERSONNEL CLEANING UP A SPILL SHALL USE PERSONAL PROTECTIVE EQUIPMENT.
4. IMMEDIATELY UPON DISCOVERY, SPILLS OF TOXIC OR HAZARDOUS MATERIALS SHALL BE REPORTED TO THE OWNER AND GENERAL CONTRACTOR.
5. NOTIFICATION AND REPORTING TO THE APPROPRIATE FEDERAL, STATE, AND LOCAL GOVERNMENT AGENCIES SHALL BE MADE AS REQUIRED.

GENERAL INFORMATION:

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO FULFILL ONE OF THE REQUIREMENTS OF THE GENERAL ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (WISCONSIN POLLUTION DISCHARGE ELIMINATION SYSTEM "WPDES" PERMIT NO. WI-S067831-4) FOR THE DISCHARGE OF STORMWATER ASSOCIATED WITH CONSTRUCTION PROJECTS DISTURBING ONE ACRE OR MORE. THE OWNER AND CONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF THE WPDES FOR ALL SUCH CONSTRUCTION PROJECTS. THE STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY FROM THIS SITE ARE SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE PERMITS.

THE EXECUTED OWNER CERTIFICATION AND THE CONTRACTOR CERTIFICATIONS SHALL BE KEPT ONSITE WITH THE APPROVED PLANS.

SWPPP AVAILABILITY:

THE OWNER SHALL RETAIN A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF THE PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

KEEPING PLANS CURRENT:

THE CONTRACTOR SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE PLAN OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SITE ACTIVITY. IN ADDITION, THE THE PLAN SHALL BE AMENDED TO IDENTIFY ANY NEW CONTRACTOR AND/OR SUBCONTRACTOR THAT WILL IMPLEMENT A MEASURE OF THE PLAN. AMENDMENTS TO THE PLAN MAY BE REQUIRED BY THE MUNICIPALITY, OWNER, OR OTHER REVIEWING AGENCY. COPIES OF THE AMENDMENTS SHALL BE KEPT ONSITE AS PART OF THE SWPPP.

RETENTION OF RECORDS:

THE OWNER SHALL RETAIN COPIES OF THIS AND ALL REPORTS AND NOTICES REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE PERMIT COVERAGE EXPIRES OR IS TERMINATED. THIS PERIOD MAY BE EXTENDED BY THE REQUEST OF THE AGENCY AT ANY TIME. IN ADDITION, THE OWNER SHALL RETAIN A COPY OF THE PLAN REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

A NOTICE OF INTENT (NOI) APPLICATION MUST BE COMPLETED AND INCORPORATED INTO THE SWPPP.

WPDES NOTICE OF TERMINATION GUIDANCE:

WHEN A SITE HAS BEEN FINALLY STABILIZED AND ALL STORMWATER DISCHARGES FROM CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED, THE OWNER OF THE FACILITY MUST SUBMIT A COMPLETED NOTICE OF TERMINATION THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT. CONTRACTOR SHALL SUBMIT A COMPLETED NOTICE OF TERMINATION TO OWNER FOR EXECUTION PRIOR TO THEIR FINAL PAY APPLICATION REQUEST.

CONTROL MEASURE GROUP	CONTROL MEASURE	CONTROL MEASURE CHARACTERISTICS
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.
	PERMANENT SEEDING	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.
NON VEGETATIVE SOIL COVER	AGGREGATE COVER	PROVIDES TEMPORARY COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.
	PAVING	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.
DIVERSIONS	DIVERSION BERM / SWALE	DIVERTS RUNOFF TO A SEDIMENT TRAP OR OTHER CONTROL.
ENCLOSED DRAINAGE	STORM SEWER	CONVEYS SEDIMENT LADEN WATER TO A SEDIMENT BASIN.
OUTLETS	APRON ENDWALL OR RIPRAP	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURE.
SEDIMENT BASINS	TEMPORARY SEDIMENT TRAP	CONSTRUCTED TO REMOVE SILTATION FROM RUNOFF FROM SITE DIVERSION BERMS/SWALES AND IN OVERLAND FLOOD ROUTE. CAN BE CONVERTED TO PERMANENT SEDIMENT BASIN.
SEDIMENT FILTERS	SILT FENCE	PLACED DOWN SLOPE OF DISTURBED AREA TO KEEP RUNOFF CONTAINED ON-SITE.
	INLET PROTECTION	INSTALLED IN OPEN GRATE STRUCTURES TO COLLECT SEDIMENT.
	DITCH CHECK	PLACED IN DRAINAGE CHANNELS TO FILTER SEDIMENT FROM RUNOFF.
MUD AND DUST CONTROL	CONSTRUCTION ENTRANCE	REDUCES SOIL EROSION POLLUTANTS BEING TRANSPORTED OFF-SITE.
	STREET SWEEPING	REDUCES POLLUTANTS TRACKED FROM CONSTRUCTION SITE.
	DUST CONTROL	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.

STABILIZATION EFFECTIVENESS (TIME OF YEAR)

STABILIZATION TYPE	STABILIZATION UTILIZATION PERIODS											
	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A ⟶	*	*	*	*	*	* →			
DORMANT SEEDING	B ⟶	⟶	→								B ⟶	→
TEMPORARY SEEDING			C ⟶	*	*	* →	D *	*	* →			
SODDING			E ⟶	*	*	*	*	*	* →			

A. KENTUCKY BLUEGRASS 90 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE.
B. KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 45 LBS/ACRE + 2 TONS STRAW MULCH/ACRE.
C. SPRING OATS 100 LBS/ACRE.
D. WHEAT OR CEREAL RYE 150 LBS/ACRE.
E. SOD.
F. STRAW MULCH 2 TONS/ACRE.

* IRRIGATION/WATERING REQUIRED TO SUPPORT ESTABLISHMENT AS NEEDED.

NOTES:

1. ALL TRACKING PAD MATERIALS AND INSTALLATION SHALL BE IN CONFORMANCE WITH WI DNR TECHNICAL STANDARD 1057.
2. TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE. CONTRACTOR SHALL VERIFY LOCATION WITH OWNER.
3. THE AGGREGATE FOR TRACKING PADS SHALL BE 3 TO 6 INCH CLEAR OR WASHED STONE. ALL MATERIALS TO BE RETAINED ON A 3-INCH SIEVE
4. THE AGGREGATE SHALL BE PLACED IN A LAYER AT LEAST 12-INCHES THICK. ON SITES WHERE SATURATED CONDITIONS ARE EXPECTED DURING THE LIFE OF THE PAD, THE PAD SHALL BE UNDERLAIN WITH GEOTEXTILE FABRIC WHICH MEETS MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1 OR 2, CLASS I, II OR IV, TO PREVENT MIGRATION OF UNDERLYING SOILS INTO THE STONE LAYER.
5. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT. MINIMUM WIDTH IS 14 FEET FOR ONE-WAY TRAFFIC AND 20 FEET FOR TWO-WAY TRAFFIC, WITH AN ADDITIONAL INCREASE OF 4 FEET FOR TRAILER TRAFFIC. THE TRACKING PAD SHALL BE A MINIMUM 50-FEET LONG.
6. ANY SEDIMENT TRACKED ONTO A PUBLIC OR PRIVATE ROAD SHOULD BE REMOVED BY STREET CLEANING, NOT FLUSHING, AT THE END OF EACH WORKING DAY.
7. TRACKING PADS SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24-HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5-INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
8. THE TRACKING PAD PERFORMANCE SHALL BE MAINTAINED BY SCRAPING OR TOP-DRESSING WITH ADDITIONAL AGGREGATE.

CONSTRUCTION ENTRANCE

#107-WI 10-02-12

WALK FLUSH WITH PAVEMENT

INTEGRAL CURB AND SIDEWALK

NOTES:

1. RIP RAP AND GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS FOR STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

RIP RAP AT END SECTIONS

#124A 12/26/12

NOTES:

1. MEGALUG RESTRAINING GLANDS ON ALL MECHANICAL JOINTS, THE BOLTS & NUTS ARE TO BE HIGH STRENGTH LOW ALLOY STEEL (CORTEN) AS PER SECTION 11.6.5 OF A.W.W.A. C-111.
2. THE FOLLOWING HYDRANTS SHALL BE ALLOWED:

   MUELLER SUPER CENTURION 250 3-WAY FIRE HYDRANT
   U.S. PIPE METROPOLITAN / M-94 DUCTILE IRON FIRE HYDRANT
   WATEROUS 5¼" PACER FIRE HYDRANT

FIRE HYDRANT

#501 10-10-12

CONCRETE WHEEL STOP

NOTE: CURB CONTRACTOR TO VERIFY POSITION AND ELEVATION OF FRAME AND GRATE PRIOR TO POUR. IF NOT CORRECT, FIVE (5) FOOT TRANSITION AREA TO BE LEFT UNPOURED UNTIL SITUATION IS CORRECTED BY CONTRACTOR.

CURB AND GUTTER BUMP OUT

NOTES:

1. ALL SILT FENCE MATERIALS AND INSTALLATION SHALL BE IN CONFORMANCE WITH WI DNR TECHNICAL STANDARD 1056.
2. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
3. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
4. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
5. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
6. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE, WHERE APPLICABLE.
7. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN AND 3-FEET FOR NON-WOVEN).

SILT FENCE

#100-C 07-31-14

INLET PROTECTION - TYPE "A"

NOTES:

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I, WITH AN EOS OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKET WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18 INCHES OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.

INLET PROTECTION - TYPE "B"
(WITHOUT CURB BOX)

TYPE "B" & "C" INSTALLATION NOTES

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

INLET PROTECTION, TYPE "C"
(WITH CURB BOX)

INLET PROTECTION

INLET - UNDERDRAIN

STRAW WATTLE

#137 06/01/15

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION MATTING - SLOPE INSTALLATION

139- 11/19/19

REVIEWED: TGM
DESIGNED: TGM
DRAFTED: AFH

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5414 W RAWSON AVE
CITY OF FRANKLIN, MILWAUKEE

CONSTRUCTION DETAILS

REVISIONS

1	PC SUBMITTAL	06/12/25
2	CITY REVIEW COMMENTS	08/22/25

PEG JOB No. 6308.00
PEG PM TGM
START DATE 04-09-25
SCALE NTS

SHEET
C-8
OF
C-9

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CONSTRUCTION DETAILS

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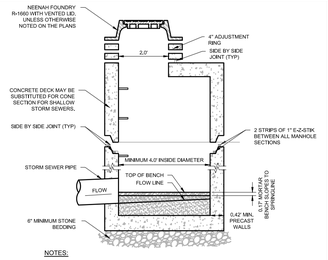
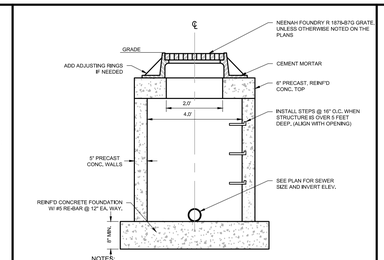


NOTES:

1. CLEAN UNDERSIDE OF ADJUSTING RING OR CAST IRON FRAME AND SET IN PLACE.
2. TUCK POINT MORTAR INTO ANNULAR CRACK AND BACKPLASTERED INSIDE AND OUTSIDE OF ALL JOINTS.
3. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT THE USE OF A FLAT TAPERED TOP.
4. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
5. ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR EDGE OF ROADWAY.

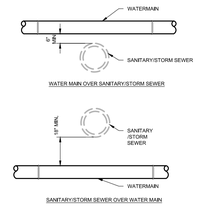
STORM SEWER MANHOLE



NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM INLETS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.
3. STRUCTURE TO BE 4.0' DIA, OR AS INDICATED ON THE PLANS.

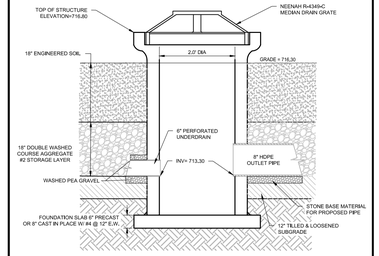
INLET



NOTES:

1. AT CROSSING, ONE FULL 18 FOOT LENGTH OF WATERMAIN SHALL BE CENTERED ON THE SEWER, MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF 9 FEET.

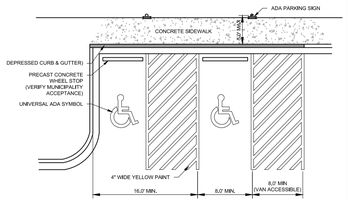
UTILITY SEPARATION



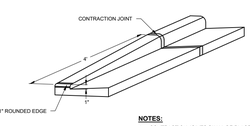
NOTES:

1. PRECAST REINFORCED CONCRETE OUTLET STRUCTURE IS MANUFACTURED TO MEET ASTM C-478 AND AASHTO M199 SPECIFICATIONS.
2. OUTLET STRUCTURE JOINT MATERIAL: CONSEAL CS-102 AND/OR CS-202 AS MANUFACTURED BY CONCRETE SEALANTS, INC. WHICH MEETS OR EXCEEDS REQUIREMENTS OF FEDERAL SPECIFICATIONS SS-S-210210A) AASHTO M-198B AND ASTM C-990.

BIORETENTION OUTLET STRUCTURE



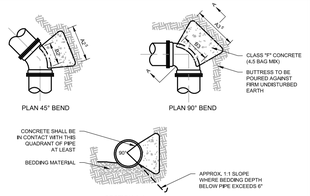
ADA PARKING STRIPING



NOTES:

1. CONTRACTION JOINTS SHALL BE PLACED EVERY 10 FEET
2. EXPANSION JOINTS (3/4" EXPANSION FIBER MATERIAL) SHALL BE PLACED EVERY 300 FEET AND AT EVERY PC/PT AND 3 FEET FROM STRUCTURES

TAPER CURB HEAD

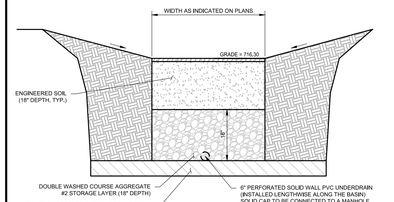


PIPE SIZE	22 1/2° BENDS A1	B1	45° BENDS A2	B2	90° BENDS A3	B3
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-6"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	3'-5"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

NOTES:

1. PROVIDE THRUST BLOCKING TO PREVENT MOVEMENT OF UNES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, AND AT POINTS SPECIFIED BY THE ENGINEER
2. ALL BLOCKING SHALL BE WITH POURED CLASS 59 CONCRETE AGAINST UNDISTURBED VERTICAL EARTH SURFACE
3. THRUST BLOCKS TO BE AT ALL BENDS 11½° OR GREATER
4. THE COST OF INSTALLING THE THRUST BLOCK SHALL BE INCIDENTAL TO THE CONSTRUCTION OF THE WATER
5. DIMENSION A2 & A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH M.J BOLTS

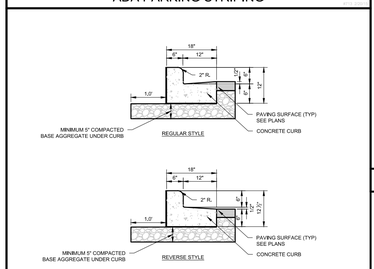
THRUST BLOCK



NOTES:

1. SEE LANDSCAPE PLAN FOR BASIN PLANTINGS AND STABILIZATION METHODS NOT SHOWN IN THIS DETAIL.

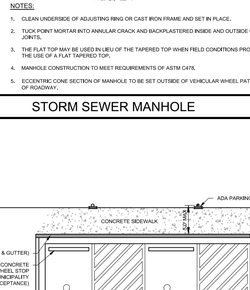
PROPOSED BIORETENTION BASIN DETAIL



NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200 FEET OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINTS FILLER SHALL BE A ONE PIECE FIBERBOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.
4. REVERSE STYLE CURB LOCATIONS ARE NOTED ON THE PLANS.

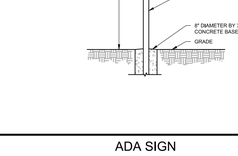
18" VERTICAL FACE CURB



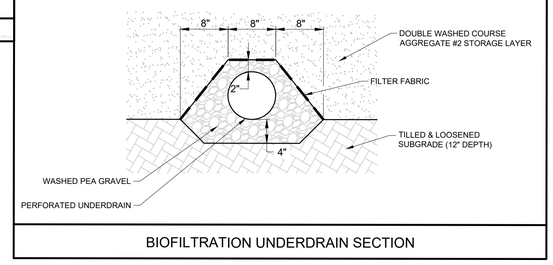
NOTES:

1. CLEANOUT PIPING AND FITTINGS SHALL MATCH SANITARY SEWER LATERAL MATERIAL.

SANITARY SEWER CLEANOUT IN PAVEMENT

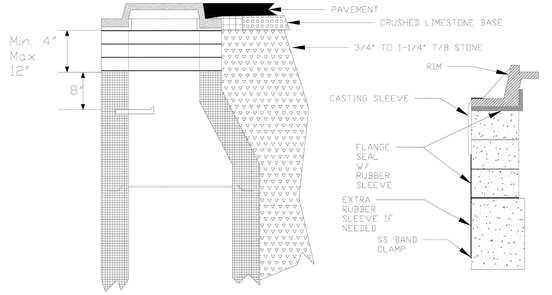


ADA SIGN



BIOFILTRATION UNDERDRAIN SECTION

FIGURE 28 A



TYPICAL SANITARY SEWER MANHOLE PAVEMENT EXTERNAL SEAL

FRANKLIN ENGINEERING DEPT **FIGURE 28A**

REVIEWED: TGM
DESIGNED: TGM
DRAFTED: AFH

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CONSTRUCTION DETAILS

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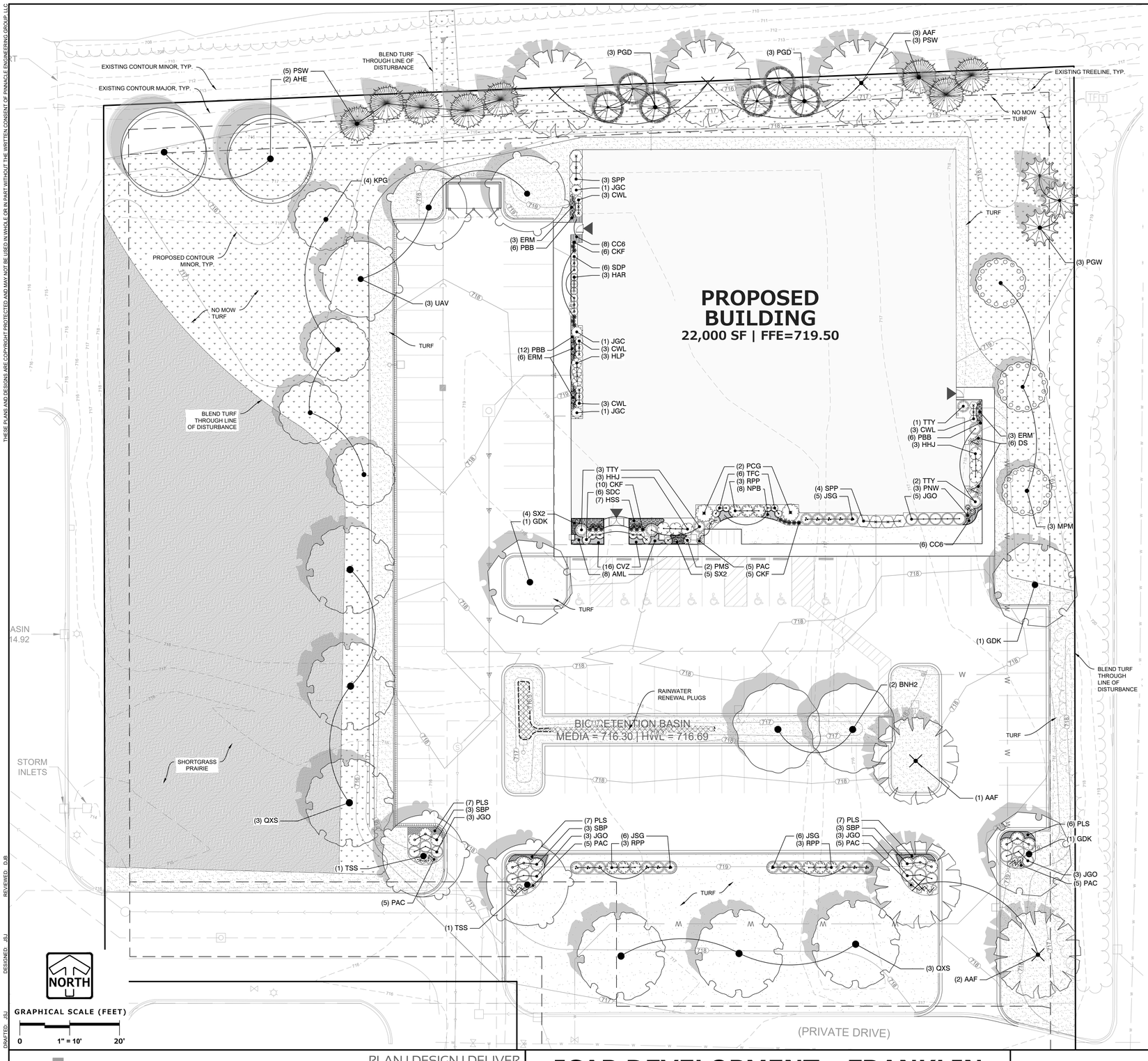

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE		REMARKS
TREES						
AAF	6	Acer freemanii 'Autumn Fantasy'	Autumn Fantasy Maple	2.5" Cal.		50' T x 45' W
AHE	2	Aesculus hippocastanum	European Horsechestnut	2.5" Cal.		65' T x 55' W
BNH2	2	Betula nigra 'Heritage'	Heritage River Birch	2.5" Cal.		50' T x 50' W
GDK	3	Gymnocladus dioicus	Kentucky Coffee Tree	2.5" Cal.		70' T x 45' W
QXS	6	Quercus x schuetti	Swamp Bur Oak	2.5" Cal.		70' T x 65' W
TSS	2	Tilia tomentosa 'Sterling'	Sterling Silver Linden	2.5" Cal.		45' T x 45' W
UAV	3	Ulmus americana 'Valley Forge'	Valley Forge Elm	2.5" Cal.		80' T x 60' W
EVERGREEN TREES						
PGW	3	Picea glauca	White Spruce	4` Ht.		50' T x 15' W
PGD	6	Picea glauca 'Densata'	Black Hills Spruce	4` Ht.		30' T x 15' W
PSW	8	Pinus strobus	White Pine	4` Ht.		65' T x 30' W
ORNAMENTAL TREES						
KPG	4	Koelreuteria paniculata	Golden Rain Tree	1.5" Cal.		30' T x 30' W
MPM	3	Malus x 'Prairie Maid'	Prairie Maid Crabapple	1.5" Cal.		20' T x 25' W
DECIDUOUS SHRUBS						
CWL	12	Cotinus coggygria 'Lilla'	Lilla Dwarf Smoke Tree	3 gal.		4` T x 3` W
HAR	3	Hydrangea paniculata 'SMHPS'	Razzleberri Hydrangea	3 gal.		3` T x 3` W
HLP	3	Hydrangea paniculata 'SMNHPH'	Little Lime Punch Hydrangea	5 gal.		4` T x 4` W
HHJ	6	Hydrangea quercifolia 'PIIHQ-I'	Jetstream Oakleaf Hydrangea	5 gal.		5` T x 5` W
PCG	2	Physocarpus opulifolius 'Center Glow'	Center Glow Ninebark	7 gal.		6` T x 8` W
RPP	9	Rosa rugosa 'Purple Pavement'	Purple Pavement Rugosa Rose	5 gal.		5` T x 5` W
SDC	6	Spiraea japonica 'NCSX1'	Double Play Candy Corn Spirea	3 gal.		2` T x 3` W
SPP	7	Syringa x 'Pink Perfume'	Bloomerang Pink Perfume Lilac	5 gal.		5` T x 5` W
SDP	6	Syringa x 'SMNJRPU'	Bloomerang Dwarf Purple Lilac	3 gal.		3` T x 3` W
SBP	12	Syringa x 'SMSJBP7'	Bloomerang Dark Purple Lilac	5 gal.		5` T x 5` W
EVERGREEN SHRUBS						
JGC	3	Juniperus chinensis 'Gold Coast'	Gold Coast Juniper	5 gal.		3` T x 5` W
JSG	17	Juniperus chinensis 'Sea Green'	Sea Green Juniper	5 gal.		5` T x 6` W
JGO	17	Juniperus virginiana 'Grey Owl'	Grey Owl Juniper	5 gal.		5` T x 5` W
PMS	2	Pinus mugo 'Slowmound'	Slowmound Mugo Pine	3 gal.		3` T x 3` W
TTY	6	Taxus x media 'Tauntonii'	Tauton Yew	5 gal.		4` T x 5` W
TFC	6	Thuja occidentalis 'Congabe'	Fire Chief Arborvitae	3 gal.		2` T x 3` W
ORNAMENTAL GRASSES						
CKF	21	Calamagrostis x a 'Karl Foerster'	Karl Foerster Reed Grass	1 gal.		36" T x 24" W
DS	6	Deschampsia cespitosa 'Schottland'	Schottland Tufted Hair Grass	1 gal.		36" T x 30" W
PNW	3	Panicum virgatum 'Northwind'	Northwind Switch Grass	1 gal.		42" T x 28" W
PBB	24	Pennisetum alopecuroides 'B B'	Burgundy Bunny Dwarf Fountain Grass	1 gal.		12" T x 15" W
PAC	25	Pennisetum alopecuroides 'Cassian'	Cassian Fountain Grass	1 gal.		20" T x 30" W
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS
PERENNIALS						
AML	8	Aruncus x 'Misty lace'	Misty Lace Goatsbeard	4.5" Cont.	24" o.c.	20" T x 24" W
CC6	14	Coreopsis verticillata 'Route 66'	Route 66 Threadleaf Tickseed	4.5" Cont.	20" o.c.	20" T x 20" W
CVZ	16	Coreopsis verticillata 'Zagreb'	Zagreb Coreopsis	4.5" cont.	16" o.c.	20" T x 16" W
ERM	12	Echinacea p 'Rainb299'	Butterfly Rainbow Marcella Coneflower	4.5" cont.	24" o.c.	15" T x 24" W
HSS	7	Hosta x 'Sum & Substance'	Sum & Substance Hosta	4.5" cont.	40" o.c.	30" T x 60" W
NPB	8	Nepeta x faassenii 'Purrsian Blue'	Purrsian Blue Catmint	4.5" cont.	24" o.c.	14" T x 24" W
PLS	27	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage	4.5" cont.	22" o.c.	24" T x 24" W
SX2	9	Salvia x 'Back to the Fuchsia'	Color Spires® Back to the Fuchsia Sage	4.5" cont.	24" o.c.	24" T x 24" W
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE		REMARKS
NATIVE						
	19,622 sf	Agrecol Shortgrass Prairie	Agrecol Shortgrass Prairie Seed Mix	seed		
TURF						
	24,183 sf	Turf Hydroseed	Reinders - Cadet 70/30 Fescue/Blue Mix	seed		
	24,736 sf	Turf Hydroseed Low Grow	Reinders No Mow/Low Grow Mix	seed		

		RAINWATER RENEWAL PLUGS	
	2	Asclepias incarnata / Swamp Milkweed	2% @ 21" o.c.
	1	Aster novae-angliae / New England Aster	1% @ 21" o.c.
	3	Baptisia leucantha / White False Indigo	3% @ 21" o.c.
	15	Bromus ciliatus / Fringed Brome	16% @ 21" o.c.
	1	Calamagrostis canadensis / Bluejoint Reed Grass	1% @ 21" o.c.
	1	Carex annectens / Yellow-fruited Sedge	1% @ 21" o.c.
	2	Carex bebbii / Bebbs Sedge	2% @ 21" o.c.
	1	Carex crinita / CaterpillarSedge	1% @ 21" o.c.
	1	Carex stipata / Sawbeak Sedge	1% @ 21" o.c.
	1	Carex vulpinoidea / Brown Fox Sedge	1% @ 21" o.c.
	18	Elymus riparius / Riverbank Wild Rye	19% @ 21" o.c.
	23	Elymus virginicus / Virginia Wild Rye	24% @ 21" o.c.
	1	Eupatorium maculatum / Joe Pye Weed	1% @ 21" o.c.
	1	Glyceria grandis / Reed Manna Grass	1% @ 21" o.c.
	2	Liatris pycnostachya / Gayfeather	2% @ 21" o.c.
	4	Liatris spicata / Spike Gayfeather	4% @ 21" o.c.
	1	Monarda fistulosa / Bergamot	1% @ 21" o.c.
	3	Panicum virgatum / Switch Grass	3% @ 21" o.c.
	1	Physostegia virginiana / Obedient Plant	1% @ 21" o.c.
	2	Ratibida pinnata / Yellow Coneflower	2% @ 21" o.c.
	2	Rudbeckia hirta / Black-eyed Susan	2% @ 21" o.c.
	2	Rudbeckia subtomentosa / Sweet Black-eyed Susan	2% @ 21" o.c.
	4	Sorghastrum nutans / Indian Grass	4% @ 21" o.c.
	2	Spartina pectinata / Prairie Cordgrass	2% @ 21" o.c.
	1	Tradescantia ohiensis / Blue Jacket	1% @ 21" o.c.
	1	Verbena hastata / Blue Vervain	1% @ 21" o.c.
	1	Vernonia fasciculata / Ironweed	1% @ 21" o.c.

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DESIGNED: JSJ
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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 5A. 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. OAK TREES SHALL BE TREATED FOR TWO-LINE CHESTNUT BORER BOTH AT THE TIME OF INSTALLATION AND DURING THE SECOND GROWING SEASON.
18. 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.
19. 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.
20. 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.
21. 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).
22. 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.
23. FOLLOWING ESTABLISHMENT, STANDARD TURF TO BE MOWED WEEKLY AS NEEDED THROUGHOUT THE GROWING SEASON. No MOW TURF SHALL BE MOWED ONE TO TWO TIMES THROUGHOUT THE GROWING SEASON AS NEEDED.
24. ALL FINISH GRADING AND LAWN AREAS TO BE INSTALLED BY LANDSCAPE CONTRACTOR.
25. ALL DISTURBED AREAS WITHIN THE PROJECT SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
26. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
27. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INCLUDING ANY IRRIGATION LINES, PRIOR TO DIGGING. CONSULT DIGGERS HOTLINE.
28. TREES SHALL BE INSTALLED NO CLOSER THAN:
    - -10 FEET FROM ANY FIRE HYDRANT
    - - 7 FEET FROM STORM SEWER, SANITARY SEWER LATERALS, DRIVEWAYS, AND WATER SERVICE
29. 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
30. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, AND LICENSES NECESSARY FOR THE INSTALLATION OF THIS PLAN.
31. 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.
32. 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.
33. 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.
34. 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.

NATIVE SEEDING & PLUG PLANTINGS

ESTABLISHMENT OF A VIABLE VEGETATION COMMUNITY WILL BE COMPLETED BY HAND-BROADCASTING OF PRE-DESIGNED SEED MIXES AND PLANTING OF PERENNIALS TO CREATE A DYNAMIC PLANTING.

PRIOR TO SEEDING/PLUG PLANTING:

A. ALL WEEDS AND EXISTING VEGETATION SHALL BE REMOVED. EXISTING VEGETATION SHALL BE TREATED WITH GLYPHOSATE OR SIMILAR HERBICIDE BY A LICENSED PROFESSIONAL. TREATMENT SHALL OCCUR A MINIMUM OF 10 DAYS PRIOR TO SEEDING/PLANTING. VEGETATION STILL ALIVE AFTER INITIAL HERBICIDE TREATMENT SHALL BE TREATED A SECOND TIME PRIOR TO TILLING INTO THE SOIL.TREATED VEGETATION SHALL BE TILLED INTO THE SOIL NO EARLIER THAN 1 DAY PRIOR TO SEEDING.

B. PREPARATION OF SOIL PRIOR TO SEEDING
   1. REFER TO CIVIL PLANS FOR SOIL MIXTURE.
   2. ALL FOREIGN MATERIALS LARGER THAN 1-INCH SHALL BE REMOVED FROM THE SOIL PRIOR TO SEEDING OR PLANTING.
   3. AREA SHOULD BE FREE FROM UNSIGHTLY VARIATIONS, RIDGES, AND DEPRESSIONS.
   4. AVOID DRIVING OVER THE SPECIFIED AREA WITH MACHINERY.

SPECIFICATIONS FOR HAND BROADCASTING:

SEEDING SHALL BE CONDUCTED IN LATE FALL (SEPTEMBER 1- SOIL FREEZE) SO THAT SEEDS MAY LIE DORMANT DURING THE WINTER, ALLOWING FOR STRATIFICATION, OR SPRING (MARCH 1-JUNE 1) TO ALLOW A COMPLETE GROWING SEASON TO BECOME ESTABLISHED.

A. COVER CROP
   1. ANNUAL RYE SHALL BE SPREAD AT A DENSITY OF 20 POUNDS PER ACRE DURING THE PLANTING OR SEEDING OF THE NATIVE PLANT SPECIES TO STABILIZE THE SOIL AND REDUCE THE GROWTH OF UNWANTED VEGETATION. THIS ANNUAL GRASS GROWS RAPIDLY WITHOUT COMPETING WITH THE WILDFLOWERS AND GRASSES THAT ARE PLANTED IN THE TARGET AREAS.
   2. WINTER WHEAT OR PERENNIAL RYE SHALL NOT BE USED AS A COVER CROP. THESE GRASSES MAY OUT COMPETE PRAIRIE SEEDLINGS, LEADING TO A REDUCTION IN THE SUCCESS OF THE PLANTINGS.

B. SEED MIX:
   1. MIX ALL NATIVE SEED WITH VERMICULITE ACCORDING TO AGRECOL RECOMMENDATIONS AND INSTALLATION GUIDELINES.
   2. BROADCAST HALF THE SEED OVER THE ENTIRE SITE OR TARGET AREA.
   3. BROADCAST THE OTHER HALF OF SEED PERPENDICULAR TO THE DIRECTION THAT THE FIRST HALF OF THE SEED WAS BROADCAST.
   4. COVER SEED WITH ¼ -INCH TO ½ -INCH OF SOIL (USE ANY EXCESS SOIL FROM THE SITE) WITH RAKE OR DRAG.
   5. ROLL SITE TO ENSURE FIRM SEED-TO-GROUND CONTACT.
   6. KEEP SEED CONSTANTLY WET THROUGH GERMINATION PERIOD. GENERALLY 3 WEEKS.

ALL SEEDING SHALL BE COVERED WITH 1-INCH OF CLEAN, NON-INVASIVE STRAW (NO MARSH HAY, OR REED CANARY GRASS) WITHOUT SEEDS, WITHIN SEVEN DAYS. WHEAT, RYE, OATS, OR BARLEY ARE ACCEPTABLE FORMS OF STRAW. THOSE AREAS OF SLOPES STEEPER THAN 8:1 (EIGHT FEET HORIZONTAL TO ONE FOOT VERTICAL) SHALL BE PLANTED NO LATER THAN OCTOBER 1 AND STAKED WITH AN EROSION CONTROL BLANKET TO PREVENT EROSION.

NATIVE PLUGS INSTALLATION

INSTALLATION OF PLUGS SHOULD OCCUR ON A CLOUDY, COOL DAY IN EITHER THE MORNING OR AFTERNOON. PLANTING SHOULD ALSO OCCUR AS EARLY IN THE SEASON AS POSSIBLE ONCE THE RISK OF FREEZING HAS PASSED.

IF INSTALLING PLUGS IN COMBINATION WITH SEEDING, INSTALL PLUGS AFTER SEED HAS BEEN PLACED. INSTALL PLUGS PRIOR TO PLACEMENT OF STRAW MULCH EXCEPT WHERE AN EROSION CONTROL BLANKET WILL BE UTILIZED. ENSURE THAT NEWLY PLANTED PLUGS HAVE ADEQUATE STRAW MULCH COVERAGE FOLLOWING INSTALLATION.

A. DIG A HOLE IN YOUR FRESHLY WORKED SOIL ABOUT TWICE THE DIAMETER AND THE SAME HEIGHT OF THE ROOT BALL OF THE PLANT. PUT THE SOIL ASIDE TO FILL THE HOLE BACK IN LATER. GENTLY REMOVE THE PLANT FROM ITS CONTAINER, AND BRUSH YOUR HAND OVER THE ROOT BALL TO STIMULATE THE ROOTS.
B. PLACE THE PLANT IN THE HOLE. PLACE THE ROOTS AT THE PROPER LEVEL SO THAT THE PLANTS ROOTS AREN'T EXPOSED AND THE FOLIAGE OF LOW-LYING PLANTS DOESN'T GET TOO WET. FILL THE HOLE ABOUT HALF-WAY WITH THE ORIGINAL SOIL. GENTLY PACK THE SOIL TO REMOVE ANY TRAPPED AIR. WATER PLANT THOROUGHLY.
C. FINISH FILLING IN WITH SOIL AROUND THE PLANT, GENTLY PACK, AND WATER THOROUGHLY AGAIN.
D. COVER THE BASE OF THE PLANT WITH 1" OF STRAW MULCH.
E. AFTER PLANTING, KEEP YOUR PLANTS WELL WATERED FOR THE FIRST YEAR UNTIL THEY ESTABLISH A GOOD ROOT SYSTEM.

NATIVE PLANTINGS:

WEED SUPPRESSION MEASURES:

1st YEAR - PERFORM SPOT SPRAY WITH HERBICIDE TO SUPPRESS WEEDS. THIS SHOULD OCCUR APPROXIMATELY EVERY MONTH OF THE GROWING SEASON AFTER NATIVE PLANTINGS HAVE BEEN ROUGH GRADED.

2nd YEAR - IN MAY/JUNE MOW NATIVE PLANTINGS AT 6" HEIGHT TO SUPPRESS THE WEEDS. PERFORM SPOT SPRAY WITH HERBICIDE TO SUPPRESS WEEDS. HAVE PROFESSIONAL ASSESS PLANTINGS. REPEAT MOWING NATIVE PLANTINGS AND SPOT-SPRAY IN EARLY JULY.

3rd YEAR - IN MAY/JUNE MOW NATIVE PLANTINGS AT 8" HEIGHT TO SUPPRESS THE WEEDS. PERFORM SPOT SPRAY WITH HERBICIDE TO SUPPRESS WEEDS.

4th YEAR - IN MAY PERFORM A PRESCRIBED BURN. IN JUNE HAVE A QUALIFIED PROFESSIONAL ASSESS PLANTINGS. IF A PRESCRIBED BURN CAN NOT BE UTILIZED, NATIVE PLANTINGS SHALL BE CUT TO THE GROUND AND ALL CUT MATERIAL SHALL BE REMOVED AND DISPOSED OF OFF SITE.

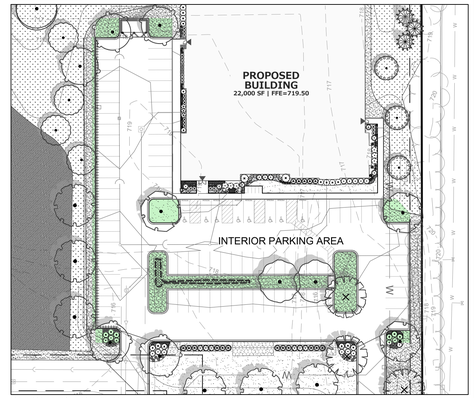
LANDSCAPE IMPROVEMENT TABLE	REQUIRED	PROVIDED
FOUNDATION PLANTINGS 630 FT		
• SHRUBS		75
• PERENNIALS		133
PARKING 100 SPACES + 20% PER BUFFER CODE		
• SHADE TREES 1/5 SPACES	20 + 4	24
• EVERGREEN OR ORNAMENTAL TREES 1/5 SPACES	20 + 4	24
• EVERGREEN OR LG. DEC. SHRUBS 1/5 SPACES	20 + 4	45
• SMALL SHRUBS OR NATIVE GRASS 1/5 SPACES	20 + 4	60
PARKING SCREENING 160 FT		
• SHRUBS 1/15 FT	11	18
INTERIOR PARKING PLANTING AREA		
INTERIOR PARKING AREA W/DRIVE ISLES= 38,427 SF		
• 10% INTERIOR PARKING AREA	3,843 sf	
• WITH ADDITIONAL 15% OF THE INITIAL 10%	4,420 sf	5,485 sf (14%)

NOTES

- IRRIGATION SYSTEM IS REQUIRED BY THE CITY

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY
	SNOW STORAGE AREAS	5,606 sf
	PARKING INTERIOR PLANTING AREA	3,232 sf



SNOW STORAGE AREAS & PARKING INTERIOR PLANTING

SCALE: 1"=60'

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 60' 120'

LANDSCAPE GENERAL NOTES

REVIEWED: DJB
DESIGNED: JSJ
DRAFTED: JSJ

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5414 W RAWSON AVE
CITY OF FRANKLIN, MILWAUKEE

LANDSCAPE GENERAL NOTES

REVISIONS

1	PC SUBMITTAL	06/12/25	
2	CITY REVIEW COMMENTS	08/22/25	

PEG JOB No. 6308.00
PEG PM TGM
START DATE 04-09-25
SCALE VARIES

SHEET
L-2
OF
L-3

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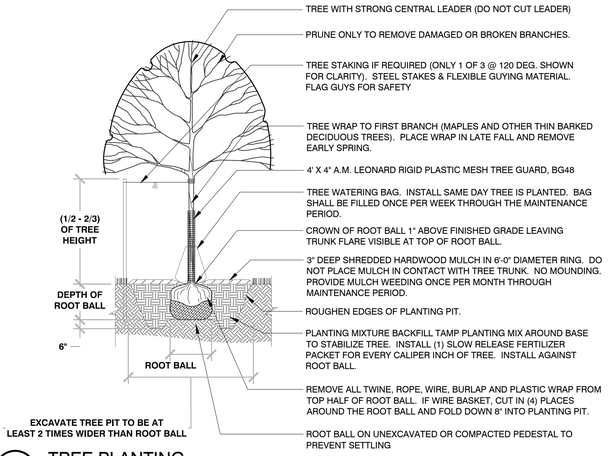
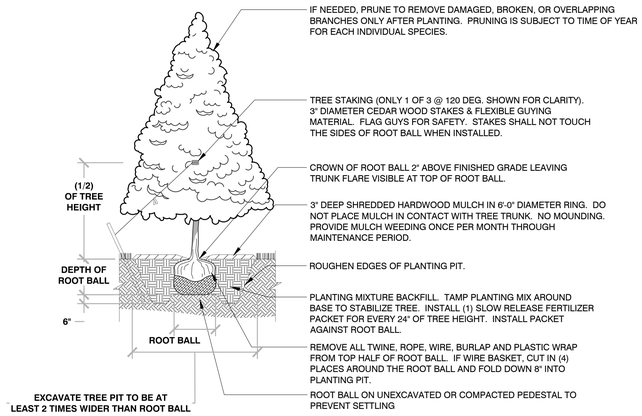
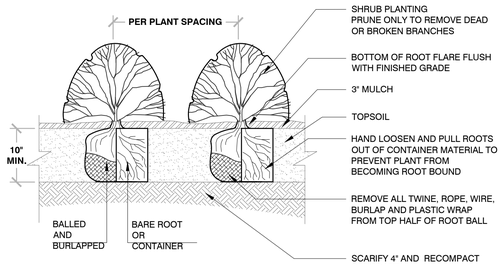


1 TREE PLANTING
1/4" = 1'-0" 329343-01

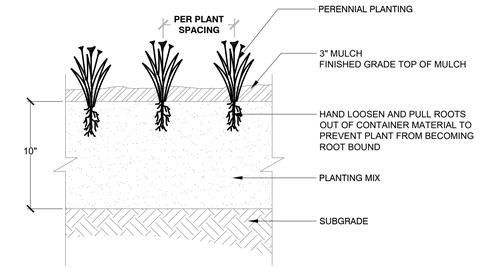


2 EVERGREEN TREE PLANTING
1/4" = 1'-0" 329343-03

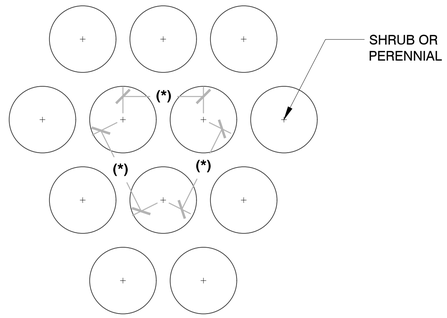


BAREROOT PLANTING NOTES:
1. SOAK ROOTS IN WATER FOR AT LEAST ONE HOUR BUT NOT MORE THAN 24 HOURS PRIOR TO PLANTING.
2. SCARIFY SIDES AND BOTTOMS OF HOLE.
3. PROCEED WITH CORRECTIVE PRUNING OF THE TOP AND BOTTOM ROOTS.
4. TRANSFER PLANT DIRECTLY FROM WATER TO HOLE. SET PLANT SO THE ROOT FLARE IS APPROXIMATELY 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.

3 SHRUB PLANTING
1/2" = 1'-0" 329333-02

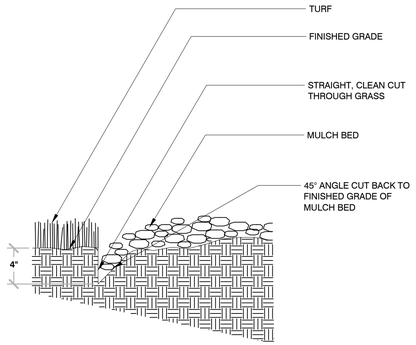


4 PERENNIAL PLANTING
1" = 1'-0" 3293-01

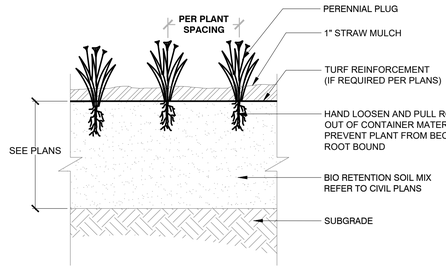


(*) = SPECIFIED PLANT SPACING PER PLANTING LIST

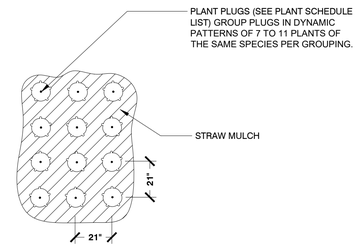
5 PLANT SPACING
3/4" = 1'-0" 3293-02



6 TRENCHED BED EDGE
3/4" = 1'-0" 3293-03



7 NATIVE PLUG PLANTING
1" = 1'-0" 3293-15



PLANT PLUG SPACING:
1 PLUG PER 3 SQUARE FEET
21" SPACING O.C.

8 NATIVE PLUG SPACING WITH STRAW MULCH
N.T.S. 3293-16

REVIEWED: DJB
DESIGNED: JSJ
DRAFTED: JSJ

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CITY OF FRANKLIN, MILWAUKEE

LANDSCAPE DETAILS

REVISIONS

1	PC SUBMITTAL	06/12/25	
2	CITY REVIEW COMMENTS	08/22/25	

PEC JOB NO. 6308.00
PEC PM TGM
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SCALE VARIES

SHEET
L-3
OF
L-3

LANDSCAPE DETAILS

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NATURAL RESOURCE FEATURE AREAS

RESOURCE TYPE	AREAS OF RESOURCE (0.0AC)	ACRES OF LAND REQUIRED TO BE PROTECTED	ACRES OF LAND IMPACTED
STEEP SLOPES AREA - 10-19% SLOPES - PER PEG SURVEYED CONTOURS	N/A	N/A	N/A
STEEP SLOPES AREA - 20-30% SLOPES - PER PEG SURVEYED CONTOURS	N/A	N/A	N/A
LAKES & PONDS	N/A	N/A	N/A
SHORE BUFFER -75' OFFSET	N/A	N/A	N/A
WOODLANDS & FORESTS	N/A	N/A	N/A
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

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 20' 40'

REVIEWED: TGM
DESIGNED: DJB
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NATURAL RESOURCE PROTECTION PLAN

REVISIONS

1	PC SUBMITTAL	06/12/25	
2	CITY REVIEW COMMENTS	08/22/25	

PEG JOB No: 6308.00
PEG PM: TGM
START DATE: 04-09-25
SCALE: 1" = 20'

SHEET 1 OF 1

NATURAL RESOURCE PROTECTION PLAN

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NATURAL RESOURCE FEATURE AREAS

RESOURCE TYPE	AREAS OF RESOURCE (0.0AC)	ACRES OF LAND REQUIRED TO BE PROTECTED	ACRES OF LAND IMPACTED
STEEP SLOPES AREA - 10-19% SLOPES - PER PEG SURVEYED CONTOURS	N/A	N/A	N/A
STEEP SLOPES AREA - 20-30% SLOPES - PER PEG SURVEYED CONTOURS	N/A	N/A	N/A
LAKES & PONDS	N/A	N/A	N/A
SHORE BUFFER -75' OFFSET	N/A	N/A	N/A
WOODLANDS & FORESTS	N/A	N/A	N/A
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

LOT 3
C.S.M. NO. 9488
151,327 SQ. FT.
3.4740 ACRES

NO BUILDINGS OBSERVED

TAX KEY # 7419002000

GRASS

TAX KEY #7419002000
LOT 1
C.S.M. NO. 9488
OWNER: JILLY'S, LLC

TAX KEY #7419990001
LOT 1
C.S.M. NO. 7931
OWNER: RAWSON DEVELOPMENT

PROPERTY LINE
((R) N87°40'52"E 389.88')
20' REAR SETBACK PER CSM 8120 AND CSM 9488
CONSTRUCTION FENCE
WOOD FENCE
TREELINE
ASPHALT
EDGE OF PAVEMENT
20' SIDE SETBACK PER CSM 9488
14.1'
20'
((R) S00°05'10"E 351.74')
CONCRETE CURB
SANITARY MANHOLE
RIM=716.30
6" PVC NE = 709.20
6" PVC N = 709.10
8" PVC S= 709.58
((R) S00°05'10"E 421.65')
15' SIDE SETBACK PER CSM 8120
ASPHALT WALK
DRAINAGE EASEMENT AREA PER DOC . 9691180
INGRESS EGRESS ADDITIONAL REA ACCESS EASEMENT PER DOC. 11338847
30' FRONT SETBACK PER CSM 9488
20' SANITARY SEWER EASEMENT PER CSM 8120, CSM 9488 AND DOC. 9686326
GRASS
((R) WEST 165.36')
WATERMAIN EASEMENT DOC. 11427689
WATERMAIN EASEMENT PER DOC. 11427690, 11336892 AND CSM 9488
(PRIVATE DRIVE)
ASPHALT DRIVE
15' SIDE SETBACK PER CSM 8120

NORTH

GRAPHICAL SCALE (FEET)
0 1" = 20' 40'

DRAFTED: DJB
DESIGNED: DJB
REVIEWED: TGM

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NATURAL RESOURCE PROTECTION PLAN

REVISIONS

1	PC SUBMITTAL	05/28/25			

PEG JOB No. 6308.00
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START DATE 04-09-25
SCALE 1" = 20'

SHEET 1 OF 1

NATURAL RESOURCE PROTECTION PLAN

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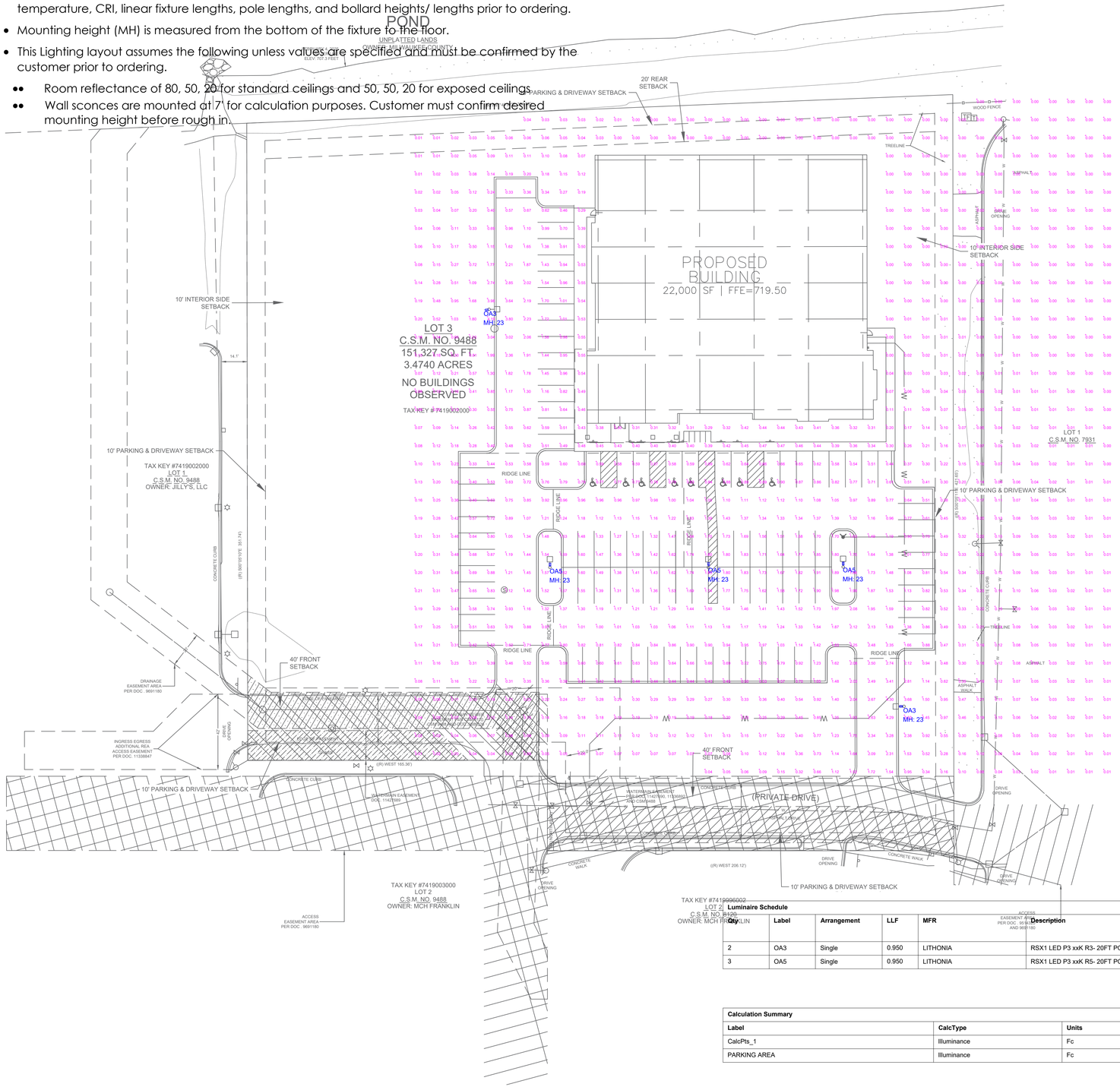
NOTES:

- Customers are responsible for confirming mounting heights, fixture suspension types/ lengths, color temperature, CRI, linear fixture lengths, pole lengths, and bollard heights/ lengths prior to ordering.
- Mounting height (MH) is measured from the bottom of the fixture to the floor.
- This Lighting layout assumes the following unless values are specified and must be confirmed by the customer prior to ordering.
  - Room reflectance of 80, 50, 20 for standard ceilings and 50, 50, 20 for exposed ceilings.
  - Wall sconces are mounted at 7' for calculation purposes. Customer must confirm desired mounting height before rough in.



Luminaire Schedule

Qty	Label	Arrangement	LLF	MFR	Description	Lum. Watts	Total Watts	Lum. Lumens
2	OA3	Single	0.950	LITHONIA	RSX1 LED P3 xxK R3- 20FT POLE 3 FT BASE	109.44	218.88	14022
3	OA5	Single	0.950	LITHONIA	RSX1 LED P3 xxK R5- 20FT POLE 3 FT BASE	109.44	328.32	14394

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	Illuminance	Fc	0.54	4.30	0.00	N.A.	N.A.
PARKING AREA	Illuminance	Fc	1.17	3.8	0.3	3.90	12.67

ENTERPRISE
Lighting & Control

#	DATE	COMMENTS

REVISIONS

DRAWN BY : AD

DATE : JUNE 13, 2025

SCALE : 1" =30'- 0"

MEDICAL OFFICE BUILDING

FRANKIN, WISCONSIN

LIGHTING LAYOUT

KEYED EXTERIOR ELEVATIONS - CITY SUBMITTAL	
TAG #	DESCRIPTION
A	BURNISHED BLOCK
B	SPLITFACE BLOCK
C	WOOD GRAIN - FIBER CEMENT PANEL
D	SOLID COLOR METAL PANEL
E	MASONRY SILL
F	THERMALLY BROKEN ALUMINUM STOREFRONT SYSTEM
G	PREFINISHED ALUMINUM COPING
H	PROPOSED BUILDING SIGNAGE LOCATION
I	PREFINISHED ALUMINUM SUNSHADE
J	PREFINISHED ALUMINUM EQUIPMENT SCREEN
K	TRASH ENCLOSURE GATE

GLAZING KEY

IG-1 & IG-1T	INSULATED CLEAR VISION GLAZING
IG-2 & IG-2T	INSULATED SPANDREL GLAZING

FRONT ELEVATION MATERIAL REQUIREMENTS

SOUTH ELEVATION TOTAL SF: 3,734SF
MASONRY: MINIMUM 50% OF FACADE
SOUTH ELEVATION TOTAL SF LESS GLAZING AREA: 2,598SF
2,598SF x 50% = 1,299SF MINIMUM OF MASONRY MATERIAL
PROVIDED MASONRY MATERIAL: 2,105SF = 81% OF SOUTH ELEVATION

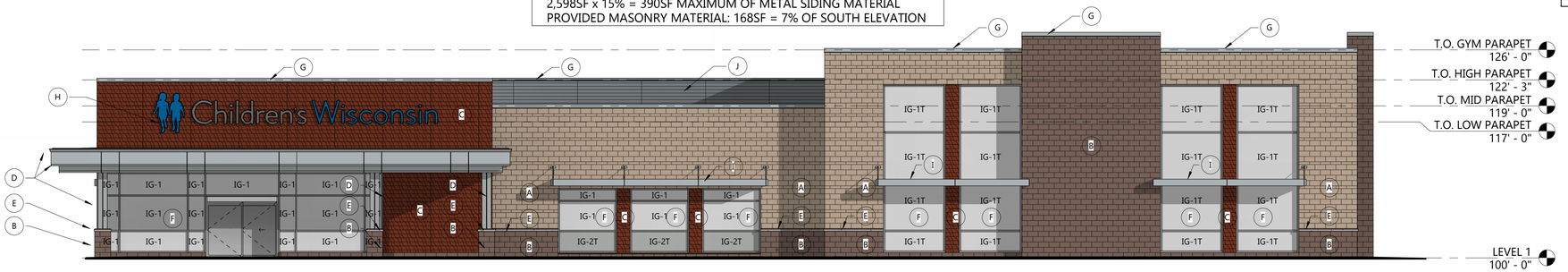
LAP SIDING: MAXIMUM 50% OF FACADE
SOUTH ELEVATION TOTAL SF LESS GLAZING AREA: 2,598SF
2,598SF x 50% = 1,299SF MAXIMUM OF LAP SIDING MATERIAL
PROVIDED LAP SIDING MATERIAL: 661SF = 26% OF SOUTH ELEVATION

ARCHITECTURAL METAL SIDING: MAXIMUM 15% OF FACADE
SOUTH ELEVATION TOTAL SF LESS GLAZING AREA: 2,598SF
2,598SF x 15% = 390SF MAXIMUM OF METAL SIDING MATERIAL
PROVIDED MASONRY MATERIAL: 168SF = 7% OF SOUTH ELEVATION

FRONT ELEVATION GLAZING REQUIREMENTS

MINIMUM REQUIRED GLAZED AREA: 30%
SOUTH ELEVATION TOTAL SQUARE FOOTAGE: 3,734SF
3,734SF x 30% = 1,120SF OF GLAZED AREA

PROVIDED GLAZED AREA: 31%
SOUTH ELEVATION GLAZED AREA: 1,136SF



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

INTERIOR SIDE ELEVATION MATERIAL REQUIREMENTS

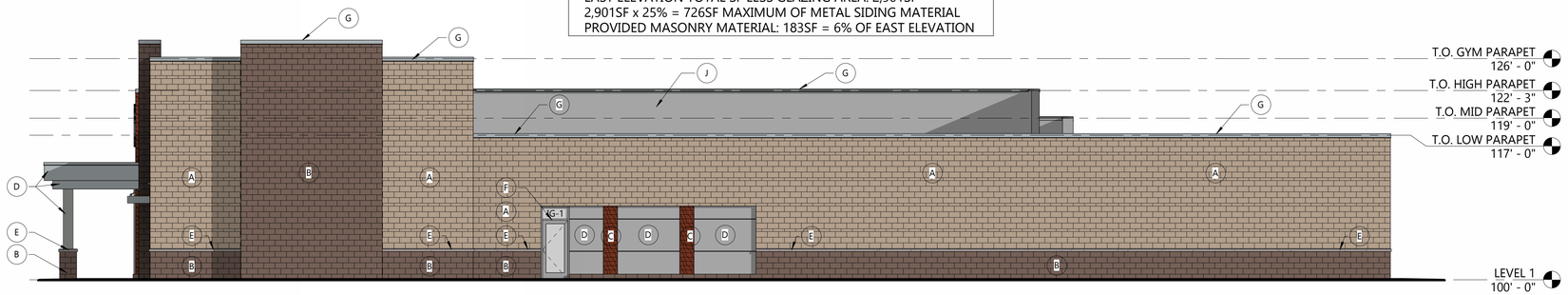
EAST ELEVATION TOTAL SF: 2,931SF
MASONRY: MINIMUM 25% OF FACADE
EAST ELEVATION TOTAL SF LESS GLAZING AREA: 2,901SF
2,901SF x 25% = 726SF MINIMUM OF MASONRY MATERIAL
PROVIDED MASONRY MATERIAL: 2,691SF = 93% OF EAST ELEVATION

LAP SIDING: MAXIMUM 75% OF FACADE
EAST ELEVATION TOTAL SF LESS GLAZING AREA: 2,901SF
2,901SF x 75% = 2,176SF MAXIMUM OF LAP SIDING MATERIAL
PROVIDED LAP SIDING MATERIAL: 27SF = 1% OF EAST ELEVATION

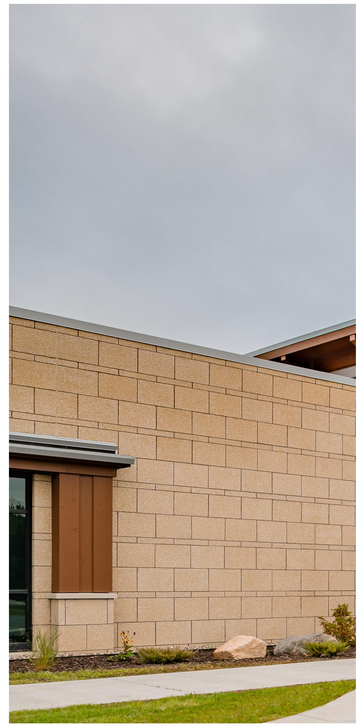
ARCHITECTURAL METAL SIDING: MAXIMUM 25% OF FACADE
EAST ELEVATION TOTAL SF LESS GLAZING AREA: 2,901SF
2,901SF x 25% = 726SF MAXIMUM OF METAL SIDING MATERIAL
PROVIDED MASONRY MATERIAL: 183SF = 6% OF EAST ELEVATION

INTERIOR SIDE ELEVATION GLAZING REQUIREMENTS

MINIMUM REQUIRED GLAZED AREA: NO REQUIREMENT
EAST ELEVATION GLAZED AREA: 30SF



EAST ELEVATION
SCALE: 1/8" = 1'-0"



BURNISHED BLOCK PATTERN PRECEDENT

PLAN COMMISSION
09.04.2025

ICAP DEVELOPMENT - CHILDREN'S WISCONSIN FRANKLIN MEDICAL OFFICE BUILDING

ICAP DEVELOPMENT

Children's Wisconsin

GROTH Design Group

KEYED EXTERIOR ELEVATIONS - CITY SUBMITTAL	
TAG #	DESCRIPTION
A	BURNISHED BLOCK
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GLAZING KEY

IG-1 & IG-1T	INSULATED CLEAR VISION GLAZING
IG-2 & IG-2T	INSULATED SPANDREL GLAZING

REAR ELEVATION MATERIAL REQUIREMENTS

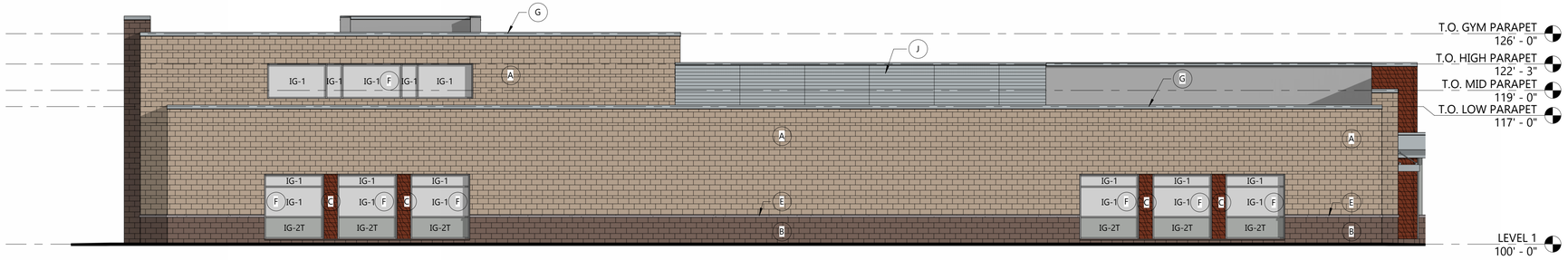
NORTH ELEVATION TOTAL SF: 3,365SF
MASONRY: ANY % ALLOWED
SOUTH ELEVATION TOTAL SF LESS GLAZING AREA: 3,018SF
PROVIDED MASONRY MATERIAL: 2,906SF = 96% OF NORTH ELEVATION

LAP SIDING: ANY % ALLOWED
NORTH ELEVATION TOTAL SF LESS GLAZING AREA: 3,018SF
PROVIDED LAP SIDING MATERIAL: 112SF = 4% OF NORTH ELEVATION

ARCHITECTURAL METAL SIDING: MAXIMUM 25% OF FACADE
SOUTH ELEVATION TOTAL SF LESS GLAZING AREA: 3,018SF
3,018SF x 25% = 755SF MAXIMUM OF METAL SIDING MATERIAL
PROVIDED MASONRY MATERIAL: NONE

REAR ELEVATION GLAZING REQUIREMENTS

MINIMUM REQUIRED GLAZED AREA: NO REQUIREMENT
NORTH ELEVATION GLAZED AREA: 347SF



NORTH ELEVATION
SCALE: 1/8" = 1'-0"

INTERIOR SIDE ELEVATION MATERIAL REQUIREMENTS

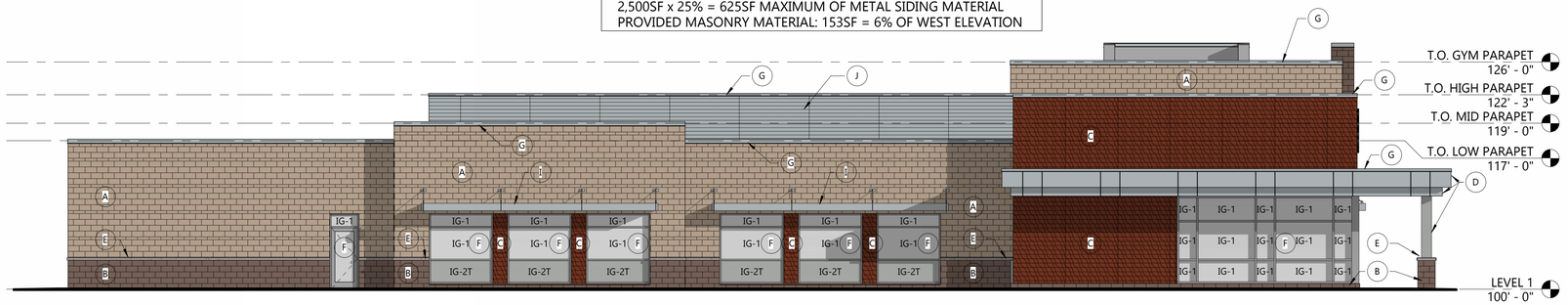
WEST ELEVATION TOTAL SF: 2,966SF
MASONRY: MINIMUM 25% OF FACADE
WEST ELEVATION TOTAL SF LESS GLAZING AREA: 2,500SF
2,500SF x 25% = 625SF MINIMUM OF MASONRY MATERIAL
PROVIDED MASONRY MATERIAL: 1,765SF = 70% OF WEST ELEVATION

LAP SIDING: MAXIMUM 75% OF FACADE
WEST ELEVATION TOTAL SF LESS GLAZING AREA: 2,500SF
2,500SF x 75% = 1,875SF MAXIMUM OF LAP SIDING MATERIAL
PROVIDED LAP SIDING MATERIAL: 582SF = 24% OF WEST ELEVATION

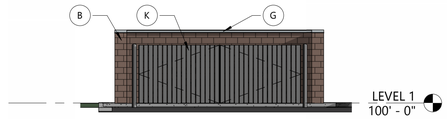
ARCHITECTURAL METAL SIDING: MAXIMUM 25% OF FACADE
WEST ELEVATION TOTAL SF LESS GLAZING AREA: 2,500SF
2,500SF x 25% = 625SF MAXIMUM OF METAL SIDING MATERIAL
PROVIDED MASONRY MATERIAL: 153SF = 6% OF WEST ELEVATION

INTERIOR SIDE ELEVATION GLAZING REQUIREMENTS

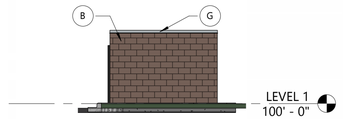
MINIMUM REQUIRED GLAZED AREA: NO REQUIREMENT
WEST ELEVATION GLAZED AREA: 466SF



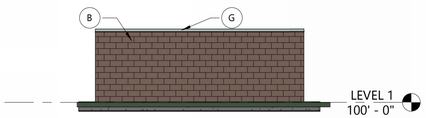
WEST ELEVATION
SCALE: 1/8" = 1'-0"



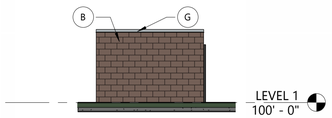
TRASH ENCLOSURE - SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



TRASH ENCLOSURE - EAST ELEVATION
SCALE: 1/8" = 1'-0"



TRASH ENCLOSURE - NORTH ELEVATION
SCALE: 1/8" = 1'-0"



TRASH ENCLOSURE - WEST ELEVATION
SCALE: 1/8" = 1'-0"

ICAP DEVELOPMENT

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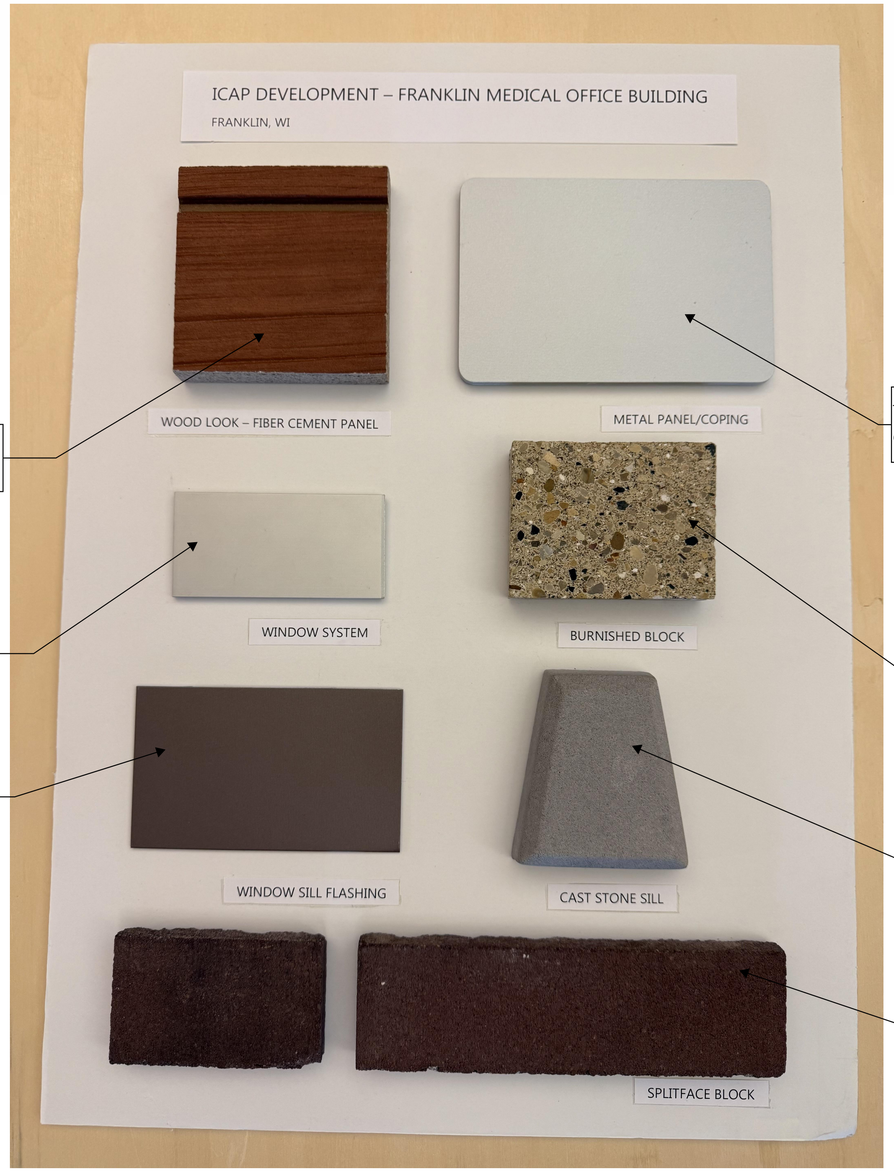
PLAN COMMISSION 09.04.2025



WOOD LOOK PANEL
NICHIHA | VINTAGE WOOD
COLOR: REDWOOD

WINDOW SYSTEM
KAWNEER | PERMADIZE
COLOR: CLEAR

WINDOW SILL FLASHING
CENTRIA
COLOR: BRONZE II

METAL PANEL/COPING/SUNSHADE
REYNOBOND | COLORWELD 500
COLOR: SILVERSMITH

BURNISHED BLOCK
COUNTY MATERIALS |
PREMIER ULTRA
COLOR: DAWN

CAST STONE SILL
ROCKRIDGE
COLOR: 2410

SPLITFACE BLOCK
COUNTY MATERIALS |
HERITAGE COLLECTION
COLOR: COFFEE BLEND

PROPOSED MATERIALS

PROPOSED MATERIALS AGAINST
ADJACENT SENDIK'S BUILDING

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PERSPECTIVE LOOKING NORTHWEST

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PERSPECTIVE LOOKING NORTHEAST

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