



Indiana Department of Environmental Management
Office of Water Quality
Wetlands Section

Publication Date:
May 6, 2024

IDEM ID Number:
2024-357-46-MTM-A

Closing Date:
May 27, 2024

Corps of Engineers ID Number:

PUBLIC NOTICE

To all interested parties: This letter shall serve as a formal notice of the receipt of an application for a **State Isolated Wetland Individual Permit** by the Indiana Department of Environmental Management (IDEM). The purpose of the notice is to inform the public of active applications submitted for permits required under IC 13-18-22 and to solicit comments and information on any impacts to water quality related to the proposed project. IDEM will evaluate whether the project complies with Indiana's water quality standards as set forth at 327 IAC 2 and all applicable provisions of IC 13-18-22.

1. Applicant: Love's Travel Stop
10601 N. Pennsylvania Ave.
Oklahoma City, OK 73120

2. Agent: CESO
965 GreenTree Rd., Suite 100
Pittsburgh, PA 15220

3. Project location: La Porte County

Southwest quadrant of the intersection of I-80/94 and US 241.

Latitude: 41.65543, Longitude: -86.89899

4. Affected waterbody: Isolated Wetlands

5. Project Description: The applicant proposes to construct a road and high-rise sign on 0.36 acre of an existing 0.84 acre forested wetland. The entire wetland, without authorization, was mechanically cleared by the previous owner. The applicant proposes to mitigate their portion of the impacted wetland by purchasing 1.08 acre of forested wetland credit from the Indiana Stream and Wetland Mitigation Program.

Comment period: Any person or entity who wishes to submit comments or information relevant to the aforementioned project may do so by the closing date noted above. Only comments or information related to water quality or potential impacts of the project on water quality can be considered by IDEM in the state isolated wetland permit review process.

Public Hearing: Any person may submit a written request that a public hearing be held to consider issues related to water quality in connection with the project detailed in this notice. The request for a hearing should be submitted within the comment period to be considered timely. The request should also state the reason for the public hearing as specifically as possible to assist IDEM in determining whether a public hearing is warranted.

Questions? Additional information may be obtained from Marty Maupin, Project Manager, at 317-233-2471 or by email at mmaupin@idem.in.gov. Please address all correspondence to the project manager and reference the IDEM project identification number listed on this notice. Indicate if you wish to receive a copy of IDEM's final decision. Written comments and inquiries may be forwarded to -

Indiana Department of Environmental Management
100 North Senate Avenue
MC65-42 WQS IGCN 1255
Indianapolis, Indiana 46204-2251

April 19, 2024

Marty Maupin
Office of Water Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204-2251

RE: Love's Travel Stops and Country Stores – Road to High Rise Sign
CESO Project Number: 755445

Dear Mr. Maupin,

Love's Travel Stops and Country Stores Inc. (Love's) is proposing to construct a new roadway to put up their high rise sign. On behalf of Love's, CESO Inc. (CESO) is applying for an Isolated Wetland Individual Permit (IWIP) for the project located in LaPorte County, Michigan City, Indiana from the Indiana Department of Environmental Management (IDEM) for the construction of the new roadway for this project. The Project's approximate coordinates are 41.655438, -86.898994 (NAD83).

Approximately, 0.36 acres of palustrine forested wetlands (PFO) are proposed to be permanently impacted, and a total of 433 cubic yards of cut. Then the wetland would be filled with BaA-Blount silt loam, Lake Michigan Lobe, 0-2% slopes soil, an aggregate base, and asphalt pavement will be placed in the wetland to accommodate the construction of the new roadway in order to put up the high rise sign. No streams or additional aquatic resources are proposed to be impacted by this project.

Should you have any further questions, please do not hesitate to contact me at (724) 355-3024 or christopher.winkler@cesoinc.com.

Respectfully,



Chris Winkler
Project Scientist

Enclosures:

- Attachment 1: Isolated Wetland Individual Permit Application
- Attachment 2: Approved Jurisdictional Determination
- Attachment 3: Project Location Map and Existing Environmental Conditions Map
- Attachment 4: Engineering Plans
- Attachment 5: Environmental Impact Exhibit
- Attachment 6: Natural Resources Technical Report



APPLICATION FOR AUTHORIZATION TO DISCHARGE DREDGED OR FILL MATERIAL TO ISOLATED WETLANDS AND/OR WATERS OF THE STATE

State Form 51821 (R2 / 11-15)

Indiana Department of Environmental Management

- INSTRUCTIONS:**
1. Read the instruction sheet before filling out this form.
 2. You must complete all applicable sections of this form

1. Applicant Information		2. Agent Information	
Name of Applicant Frank Ille		Name of Agent Chris Winkler	
Mailing address (<i>Street/ PO Box/ Rural Route, City, State, ZIP Code</i>) 10601 N Pennsylvania Ave. Oklahoma City, OK 73120		Mailing address (<i>Street/ PO Box/ Rural Route, City, State, ZIP Code</i>) 965 Greentree Rd., Suite 100 Pittsburgh, Pennsylvania 15220	
Daytime Telephone Number 405-302-6633		Daytime Telephone Number 724-355-3024	
Fax Number N/A		Fax Number N/A	
E-mail address (<i>optional</i>) Frank.Ille@loves.com		E-mail address (<i>optional</i>) christopher.winkler@cesoinc.com	
Contact person (<i>required</i>) Frank Ille		Contact person Chris Winkler	
3. Project / Tract Location			
County LaPorte County		Nearest city or town Michigan City	
U.S.G.S. Quadrangle map name (<i>Topographic map</i>) Michigan City-West		Project street address (<i>if applicable</i>) Approximate location of the proposed project (41.655438, -86.898994).	
Quarter Southeast	Section 17	Township 37 North	Range 4 West
Type of aquatic resource(s) to be impacted (<i>Attach Worksheet One.</i>) Wetland F (PF0)		Project name or title (<i>if applicable</i>) Love's Michigan City, IN - Road to High Rise Sign	
Other location descriptions or driving directions The proposed project is approximately 1,970 feet northwest of the intersection of US 421 and W 300 N Street.			
4. Project Purpose and Description (<i>Use additional sheet(s) if required.</i>)			
Has any construction been started? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Anticipated start date (<i>month, day, year</i>) 05/13/2024	
If yes, how much work is completed? Tree clearing and some grading/construction activities were performed prior to the applicant purchasing the property.			
Purpose of project and overview of activities Love's Travel Stops and Country Stores Inc. (Love's) is proposing to construct a new roadway to hang their high rise sign. On behalf of Love's, CESO Inc. (CESO) is applying for an Isolated Wetland Individual Permit (IWIP) for the project located in LaPorte County, Michigan City, Indiana from the Indiana Department of Environmental Management (IDEM) for the construction of the new roadway for this project. The proposed impacts to forested Wetland F are 15,829 square feet (0.36 acres) for the construction of the new roadway. The new road construction is anticipated to start on May 13, 2024. Forested in lieu fee wetland mitigation credits will be purchased at a 3:1 ratio because this is an after the fact permit, totaling 1.08 acres.			

5. Avoidance, Minimization, and Mitigation Information: Applicants must answer all of the following questions

(Use additional sheet(s) if necessary - provide a detailed response to all applicable questions.)

A. For projects with Class II isolated wetlands –

1. Is there a reasonable alternative to the proposed activity?

N/A

2. Is the proposed activity reasonably necessary or appropriate?

N/A

B. For projects with Class III wetlands, adjacent wetlands, and/or streams, rivers, lakes or other water bodies –

1. Is there a practicable alternative to the proposed activity?

No, this proposed engineering plan is the only option because the applicant does not own the surrounding parcels. The applicant only owns the small parcel that they are proposing to construct their road on in order to hang their high rise sign. The adjacent parcels contain additional wetlands and ponds which would result in more impacts.

2. Have practicable and appropriate steps to minimize impacts to water resources been taken?

Yes, impacts to wetland F have been minimized as much as possible in order to complete the proposed project. Proper E&S BMPs will be installed before earth disturbance activities occur, and will be removed once construction is complete and 70% of vegetation is re-established. Rock check dams will be installed in areas of disturbed ditches if applicable to the project. Filter socks will also be installed around some work areas. The contractor will follow the permit requirements and all E&S controls established.

Describe all compensatory mitigation required for unavoidable impacts.

The proposed impacts to forested Wetland F are 15,829 square feet (0.36 acres) for the construction of the new road. Forested in lieu fee wetland mitigation credits will be purchased at a 3:1 ratio because this is an after the fact permit, totaling 1.08 acres.

6. Drawing / Plan Requirements (Applicants must provide the following.)

- Top/aerial/overhead views of the project site showing existing conditions and proposed construction.
- Cross sectional view of areas of fill or alterations to streams and other waters.
- North arrow, scale, property boundaries.
- Include wetland delineation boundary *(if applicable)*. Label all wetlands (jurisdictional, isolated and exempt) as I-1, I-2, I-3, etc. and the mitigation areas as M-1, M-2, etc.
- Location of all surface waters, including wetlands, erosion control measures, existing and proposed structures, fill and excavation locations, disposal area for excavated material, including quantities, and wetland mitigation site *(if applicable)*.
- Approximate water depths and bottom configurations *(if applicable)*.

7. Supplemental Application Materials (Applicants must provide the following.)

- A wetland delineation of all wetlands on the project site *(for projects with wetland impacts)*.
- At least three photographs of the project site. Indicate the photo locations on the project plans.
- If isolated wetlands are present, a letter from the Corps of Engineers verifying this statement.
- Wetland mitigation plan and monitoring report.
- Classification of all isolated wetlands on the tract *(if isolated wetlands are present onsite)*.
- Copies of all applicable local permits and/or resolutions pertaining to the project or tract.
- Tract history *(see instructions)*.

8. Additional information that MAY be required (IDEM will notify you if needed.)

- Erosion control and/or storm water management plans.
- Sediment analysis.
- Species surveys for fish, mussels, plants and threatened or endangered species.
- Stream habitat assessment.
- Any other information IDEM deems necessary to review the proposed project.

11. Signature - Statement of Affirmation

I certify that I am familiar with the information contained in this application and, to the best of my knowledge and belief, such information is true and accurate. I certify that I have the authority to undertake and will undertake the activities as described in this application. I am aware that there are penalties for submitting false information. I understand that any changes in project design subsequent to IDEM's granting of authorization to discharge to a water of the state are not authorized and I may be subject to civil and criminal penalties for proceeding without proper authorization. I agree to allow representatives of the IDEM to enter and inspect the project site. I understand that the granting of other permits by local, state, or federal agencies does not release me from the requirement of obtaining the authorization requested herein before commencing the project.

Applicant's Signature: Frank Ilke

Date: 04/24/2024
(mm/dd/yyyy)

Print Name: Frank Ilke

Title: Director of Dev.

D. Bank Stabilization – provide the following information for EACH segment (Use additional sheet(s) if required.)

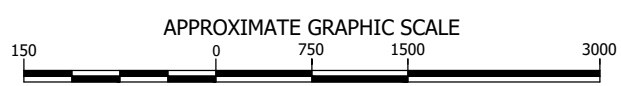
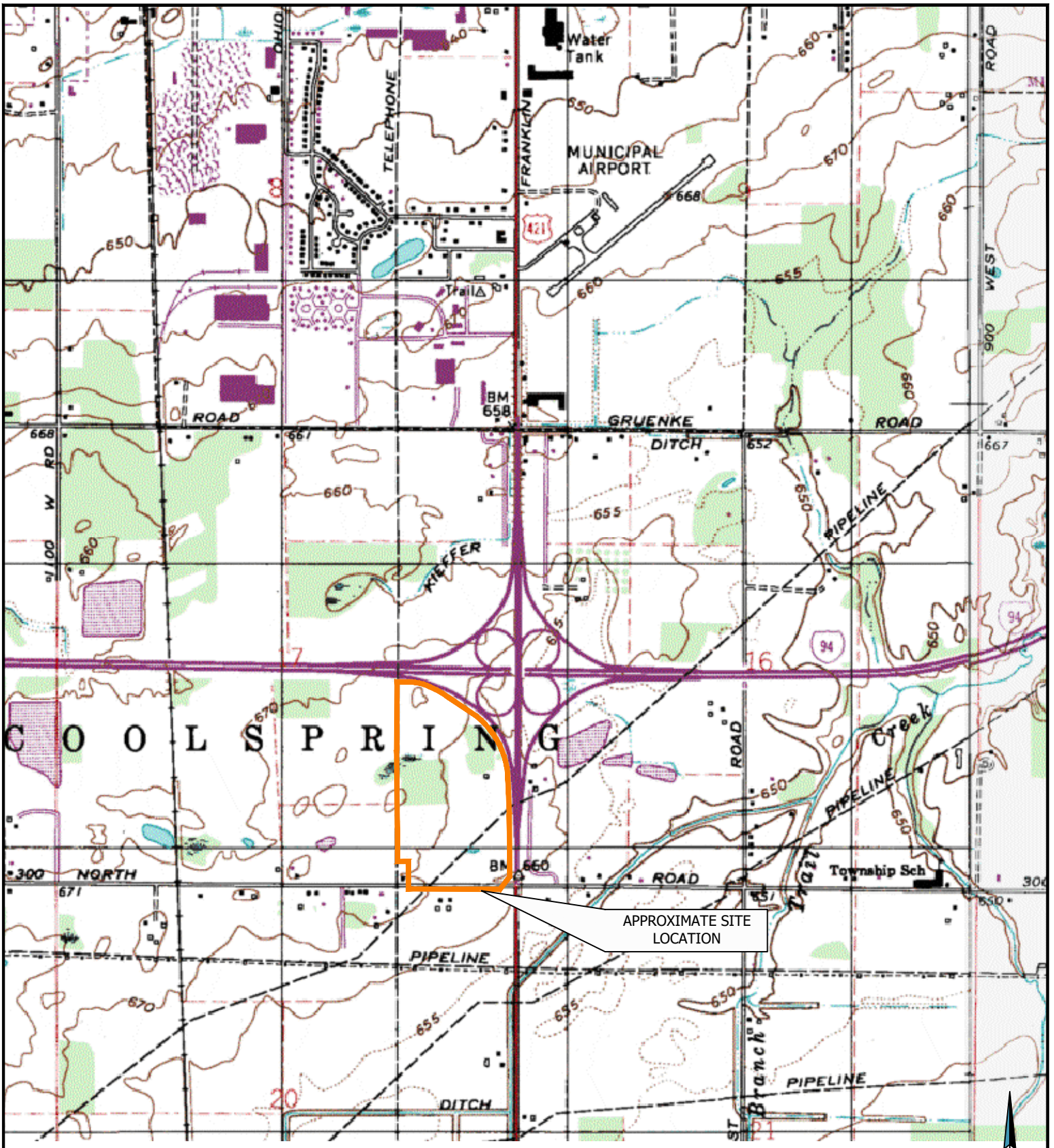
Water body name
Description of impacts
Length of shoreline or bank protection
Volume (<i>cubic yards</i>) of bank protection fill placed below the Ordinary High Water Mark per running foot
Area (<i>square feet</i>) of bank protection fill placed below the Ordinary High Water Mark

E. Stream Relocation


Water body name	
Description of impacts	
Length of existing channel to be relocated (<i>linear feet</i>)	
Length of new channel to be constructed (<i>linear feet</i>)	
Existing channel to be backfilled? <input type="checkbox"/> Yes <input type="checkbox"/> No	Type of relocation <input type="checkbox"/> Piping <input type="checkbox"/> Open <input type="checkbox"/> Channel <input type="checkbox"/> Other:_____
Type of fill and volume (<i>cubic yards</i>)	

F. Open Water Fill

Water body name
Description of impacts
Area of water body to be filled (<i>acres</i>)
Type of fill and volume (<i>cubic yards</i>)











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 COPYRIGHT © 2017 WEAVER CONSULTANTS GROUP. ALL RIGHTS RESERVED.

<p>PREPARED FOR:</p> <p>JIM LYONS</p>	<p align="center">SITE LOCATION MAP</p> <p align="center">U.S. 421 & CR 300 NORTH MICHIGAN CITY, IN</p> <p align="center"><small>REUSE OF DOCUMENTS THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER CONSULTANTS GROUP, AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER CONSULTANTS GROUP.</small></p>	 <p>Weaver Consultants Group</p> <p>GRANGER, INDIANA (574) 271-3447 www.wcgrp.com</p>	<p>DRAWN BY: RMD REVIEWED BY: JLES DATE: 5/22/2017 FILE: 4408-352-22 CAD: SITELOC.dwg</p> <p align="center">FIGURE 1</p>
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May 24, 2017

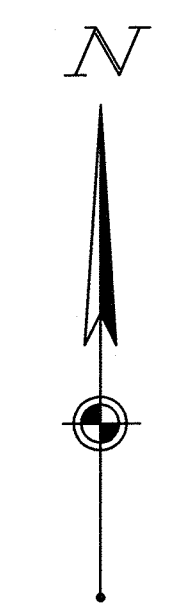
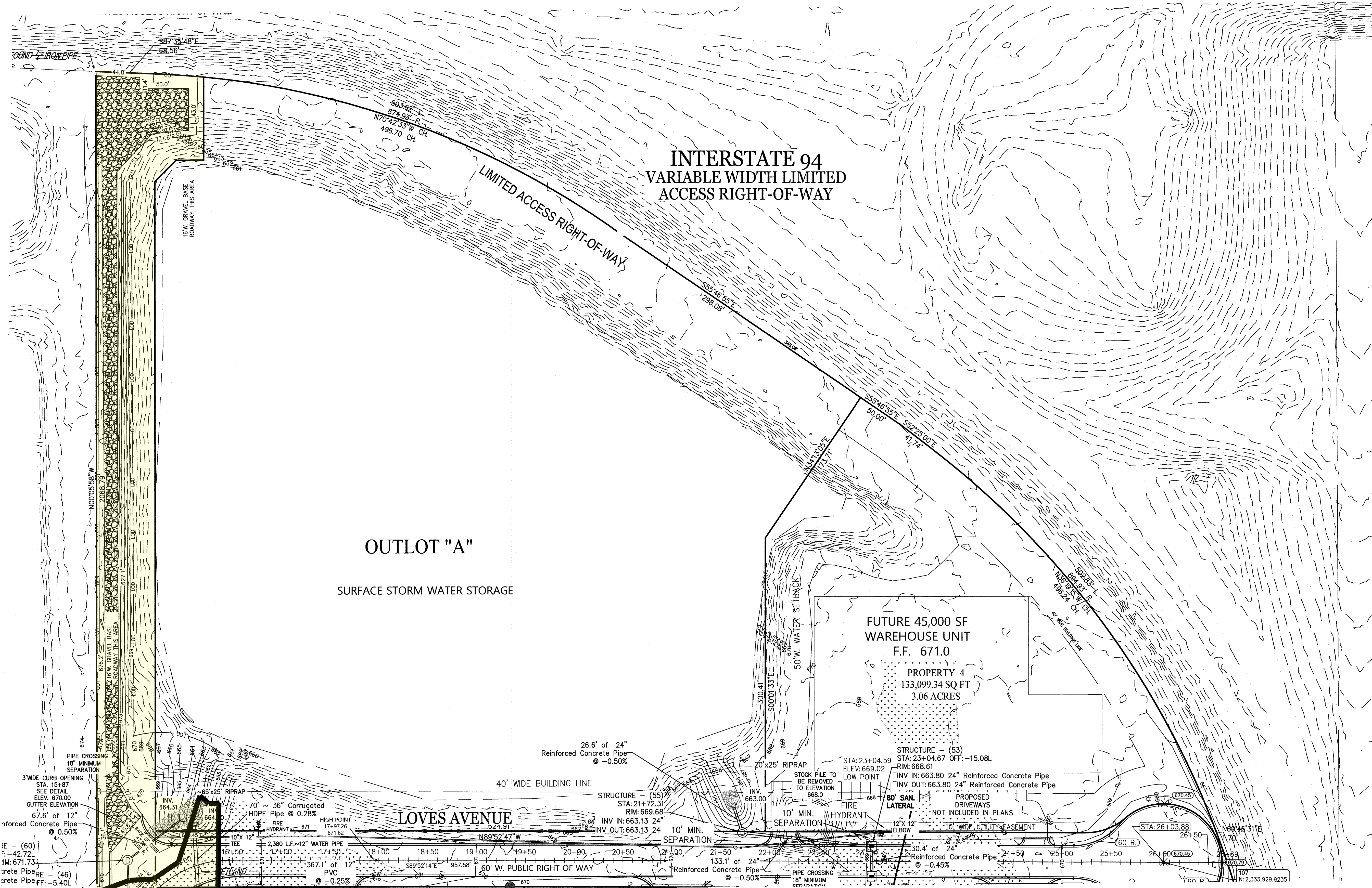
Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

US 421/300 NORTH NORTHWEST SUBDIVISION

- LEGEND:**
- DENOTES STRIPED PARKING ARROW
 - DENOTES SURFACE STORM WATER FLOW
 - DENOTES TOP OF PAVEMENT PROPOSED ELEVATION
 - DENOTES PAVEMENT STRIPING FOR NON PARKING ISLANDS
 - DENOTES STANDARD BARRIER CURB SEE DETAIL
 - DENOTES PARKING STOP SEE DETAIL
 - GUTTER ROOF DRAINS SIZE AND LOCATION PER ARCHITECTURAL PLANS
 - DENOTES STORM SEWER STRUCTURE
 - DENOTES SANITARY SEWER STRUCTURE
 - DENOTES LIGHT POLE
 - DENOTES UNDERGROUND ELECTRIC
 - DENOTES UNDERGROUND GAS
 - DENOTES HANDICAP PARKING PAVEMENT MARKING
 - M.E. DENOTES MATCH EXISTING



- LEGEND:**
- DENOTES SURFACE STORM WATER FLOW
 - DENOTES EXISTING CONTOURS
 - DENOTES PROPOSED CONTOURS
 - DENOTES EROSION SILTATION CONTROL

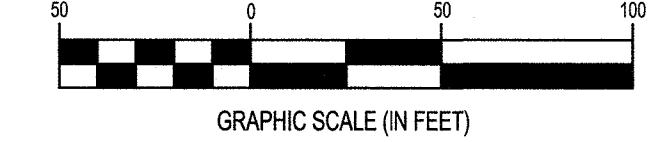
UTILITIES GAS, ELECTRIC, PHONE, CABLE ETC. BY OTHERS DEVELOPER TO COORDINATE WITH SPECIFIC UTILITIES

DELINEATED WETLANDS SHOWN FROM OTHERS MITIGATION, REMEDIATION, IMPACTS, REMOVALS, REPLACEMENTS TO BE DETERMINED BY OTHERS. SOIL REMOVAL AND REPLACEMENT FOR STABILIZATION TO INSTALL IMPROVEMENTS TO BE DETERMINED BY OTHERS PERMITTING, APPROVALS, ETC. BY OTHERS

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REV. 11.13.23 ACH MOVED SANITARY SEWER AND WATER LINES FOR LOVE'S ROAD OWNERSHIP
 REV. 3/4/24 ACH ADDED GRAVEL ROAD TO SIGN



OVERALL SITE PLAN SHEET
NORTH
SHEET NO. 3

CHAAPC CHARLES HENDRICKS AND ASSOCIATES P.C.
 ENGINEERING AND LAND SURVEYING
 512 Lincolnway LaPorte, Indiana 46350
 LaPorte Ph. (219) 326-1750 Fax (219) 324-5158

A FOUR LOT SUBDIVISION IN THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 4 WEST, COOLSPRING TOWNSHIP, LA PORTE COUNTY, INDIANA

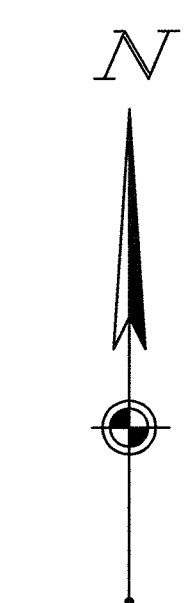
ROUTE 421 PARTNERS LLC, GANZ

Scale: 1"=50'	Date: 2/1/23	Drawn By: ACH	Chk'd By: _____	Job No. 14279
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US 421/300 NORTH NORTHWEST SUBDIVISION

- LEGEND:**
- DENOTES STRIPED PARKING ARROW
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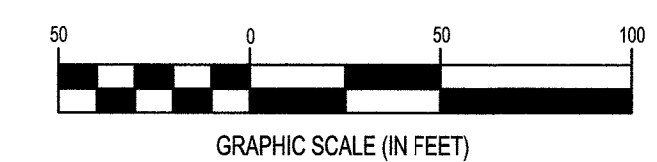
UTILITIES
GAS, ELECTRIC, PHONE, CABLE ETC. BY OTHERS
DEVELOPER TO COORDINATE WITH SPECIFIC UTILITIES

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SOIL REMOVAL AND REPLACEMENT FOR STABILIZATION TO
INSTALL IMPROVEMENTS TO BE DETERMINED BY OTHERS
PERMITTING, APPROVALS, ETC. BY OTHERS

REV. 3.4.24 ACH ADDED ROADWAY BASE FOR ROAD EXTENDING
NORTH FROM NORTH TEE INTERSECTION
REV. 11.13.23 ACH MOVED SANITARY SEWER AND WATER LINES
FOR LOVE'S ROAD OWNERSHIP

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SURVEY, OR A SURVEYOR LOCATION REPORT

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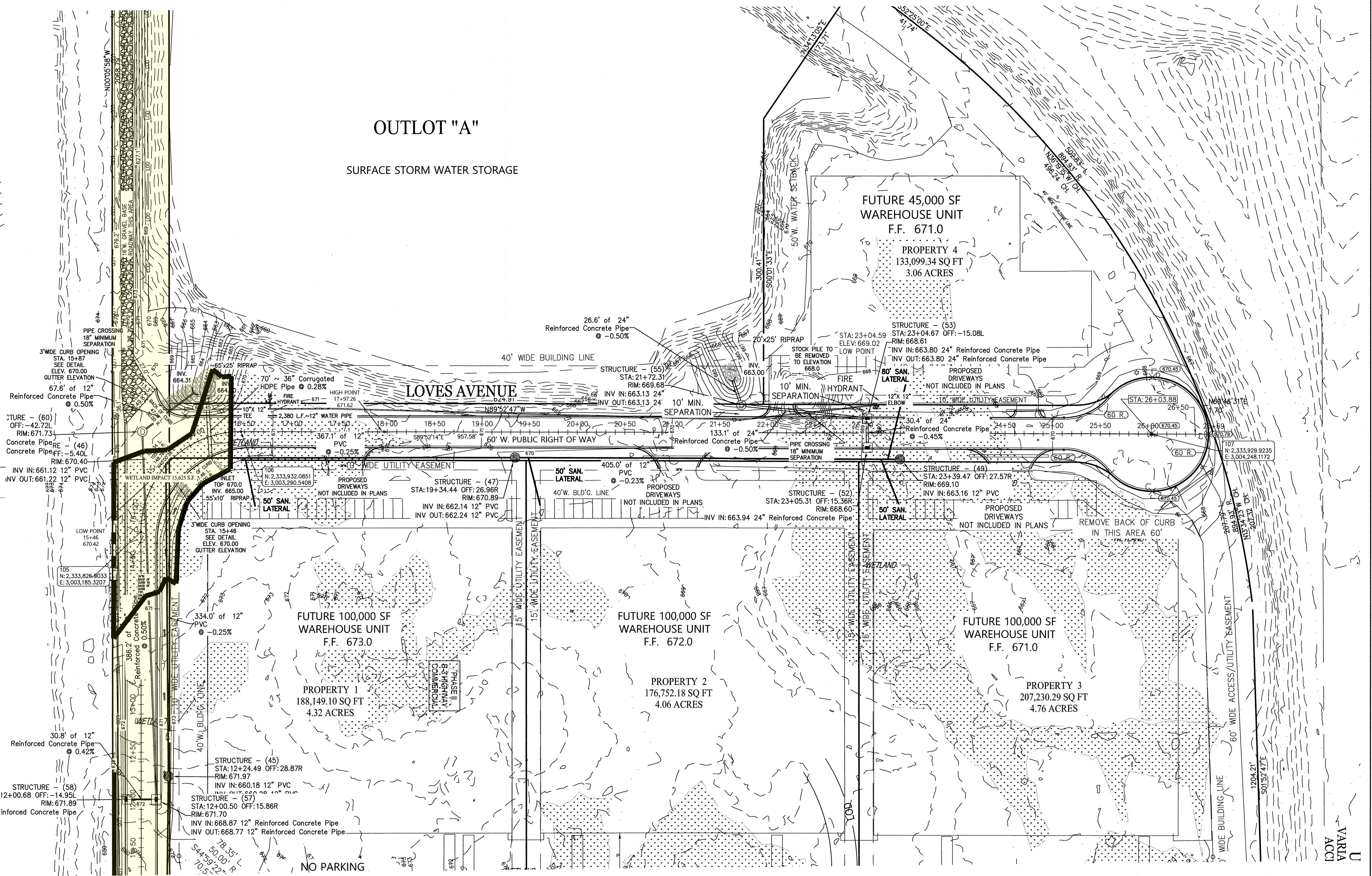
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MIDDLE
SHEET NO. 4

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A FOUR LOT SUBDIVISION IN THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 37 NORTH,
RANGE 4 WEST, COOLSPRING TOWNSHIP, LA PORTE COUNTY, INDIANA

ROUTE 421 PARTNERS LLC, GANZ

Scale: 1"=50'	Date: 2/1/23	Drawn By: ACH	Chk'd By: _____	Job No. 14279
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LEGEND

EXISTING
REFER TO ALTA/NSPS TOPOGRAPHIC SURVEY

PROPOSED

- CONCRETE CURB AND GUTTER
- PAVEMENT
- 6' TREX FENCE
- 5' CHAIN-LINK FENCE
- UTILITY EASEMENT
- RIGHT-OF-WAY
- EXISTING WETLAND
- WETLAND TO BE REMOVED

INTERSTATE 44
VARIABLE WIDTH LIMITED ACCESS RIGHT-OF-WAY



CONTINUATION OF LOVE'S AVENUE AND FUTURE DEVELOPMENT TO THE EAST WILL BE PERMITTED AND CONSTRUCTED UNDER SEPARATE PERMIT BY PROPERTY OWNER.

AREA OF DISTURBANCE FOR WETLAND-F BY LOVE'S TRAVEL STOPS

WETLAND-F
AREA = 0.84 ACRES
AREA DISTURBED = 0.36 ACRES / 15829 SF
EARTHWORK = 433 CY CUT



NO.	DATE	REVISION DESCRIPTION
6	09/18/2023	• CDD 6

LOVE'S TRAVEL STOP
MICHIGAN CITY, IN
10157 N. LOVE'S AVENUE
COOLSPRING TOWNSHIP, LA PORTE COUNTY, INDIANA 46360

WETLAND EXHIBIT
ISSUE: EXHIBIT
DATE: 04/18/2024
JOB NO.: 755445
DESIGN: BTD
DRAWN: CDR
CHECKED: MJG
SHEET NO. 1 OF 1



May 24, 2017
Project Number 4408352-22

Mr. Jim Lyons
15 E. Lake Front
Beverly Shores, IN 46301

**Re: Wetland Delineation Report
Proposed Commercial Development
Southwest Corner of I-94 and US Highway 421
Michigan City, Indiana**

Dear Mr. Lyons:

Weaver Consultants Group, LLC (WCG) has completed the updated wetland delineation of potential wetlands on the above referenced Property which is approximately 57 acres. The report is enclosed.

We appreciate this opportunity to be of service and are looking forward to working with you on this project. If you should have any questions or comments concerning this report, please do not hesitate to contact our office at 574-271-3447.

Sincerely,

Weaver Consultants Group, LLC

A handwritten signature in blue ink that reads 'Edward B. Stefanek'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Edward B. Stefanek
Senior Project Manager

Attachments: Wetland Delineation Report – May 24, 2017

May 24, 2017

Project Number: 0013-001-22-01

PROPOSED DEVELOPMENT

WETLAND DELINEATION REPORT

**SOUTHWEST CORNER OF I-94 AND US HIGHWAY 421
MICHIGAN CITY, INDIANA**

Prepared For:

**Mr. Jim Lyons
15 East Lake Front
Beverly Shores, Indiana 46301**

PREPARED BY



7121 Grape Road
Granger, Indiana 46530
574.271.3447 • wcgrp.com

1. INTRODUCTION.....	1-1
2. BACKGROUND INFORMATION.....	2-1
2.1 Existing Data Sources	2-1
2.1.1 Topographical Maps.....	2-1
2.1.2 Historical Aerial Photographs	2-1
2.1.3 National Wetland Inventory Maps	2-3
2.1.4 Soil Survey of LaPorte County.....	2-3
2.1.5 Background Information Summary.....	2-4
3. FIELD OBSERVATIONS	3-1
3.1 Investigative Methodology	3-1
3.1.1 Property Photographs.....	3-1
3.1.2 Data Form – Routine Wetland Determination	3-2
3.1.3 Wetland Boundary Survey	3-2
3.2 General Property Conditions	3-2
3.3 Areas of Investigation	3-3
3.3.1 West-Central Woods.....	3-3
3.3.1.1 Wetland C – 0.13 Acres (Test Sites 3 and 4)	3-3
3.3.1.2 Wetland D – 0.59 Acres (Test Sites 5 and 6).....	3-4
3.3.1.3 Wetland E – 0.09 Acres (Test Sites 7 and 8)	3-5
3.3.1.4 Wetland F – 0.84 Acres (Test Sites 9 and 10)	3-5
3.3.1.5 Wetland J – 0.42 Acres (Test Sites 17 and 18)	3-6
3.3.2 East-Central Woods	3-6
3.3.2.1 Wetland H – 1.46 Acres (Test Sites 15 and 16).....	3-6
3.3.2.2 Wetland I – 0.70 Acres (Test Sites 19 and 20)	3-7
3.3.2.3 Wetland K – 0.37 Acres (Test Sites 21 and 22)	3-8

3.3.3 Open Land East of US-Highway 421..... 3-8

 3.3.3.1 Wetland A - 0.71 acres (Test Sites 1 and 2) 3-8

 3.3.3.2 Wetland B – 0.03 Acres (Test Sites 11 and 12) 3-9

 3.3.3.3 Wetland G – 1.77 Acres (Test Sites 13 and 14)..... 3-9

 3.3.3.4 Wetland L - .02 Acres (Test Sites 23 and 24) 3-10

4. CONCLUSIONS..... 4-1

FIGURES

Figure 1 – Site Location Map

Figure 2 – High-Resolution Aerial Photo Map

Figure 3 – Wetland Delineation Map

APPENDICES

Appendix A – Glossary of Terms

Appendix B – Historical Aerial Photographs

Appendix C – National Wetland Inventory Map

Appendix D – LaPorte County Soil Survey

Appendix E – Data Forms

Appendix F – Property Photographs

Appendix G – Regulatory Documentation

1. INTRODUCTION

Weaver Consultants Group, LLC (WCG) was retained by Mr. Jim Lyons (potential property purchaser) to perform a delineation of possible wetland areas existing on approximately 57.0 acres of property bordered by Interstate 94 to the north, US Highway 421 to the east, County Road 300 North to the south, and a closed landfill (Deercroft) to the west (the Property). Specifically, the Property is located in the southeast quarter of Section 17, Township 37 North, Range 4 West in LaPorte County, Indiana (**Figures 1 and 2**). This delineation is an update of an earlier study completed in the spring of 2007 by Weaver Boos Consultants, LLC (a predecessor of WCG).

The Property currently consists of undeveloped, partially wooded land and is the proposed location of a potential development in the future. Upland areas of the Property have been partially disturbed by the removal of topsoil and creation of a borrow pit (northwest corner of the Property) by the Property Owner, Waste Management, Inc., the operator of the closed Deercroft landfill. One body of water (southwest corner of Property) was created as a mitigation wetland for permitted wetland impacts off-site. In addition, another mitigation wetland, which has become open water, was created at the southeast corner of the Property. Based on historical information, the Property appears to have consisted of undeveloped land or agricultural land since at least 1939. During the wetland study, a dilapidated barn or house and adjacent foundation was observed in the wooded area just west of US Highway 421.

WCG performed this wetland delineation in order to identify the presence and approximate boundary of wetlands on the Property. The United States Army Corps of Engineers (Corps) and the United States Environmental Protection Agency (USEPA) jointly define wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. The Corps system of wetland determinations

generally requires that positive indicators for wetlands be present for the three mandatory wetland criteria of hydric soils, wetland hydrology¹, and hydrophytic vegetation.

In order to identify the presence of wetlands on the Property, WCG reviewed the available background informational publications and performed a field investigation as described in subsequent sections of the report to assist in determining whether the three mandatory wetland criteria are present on the Property using the procedures outlined in the United States Army Corps of Engineers (Corps) *Corps of Engineers Delineation Manual* (Environmental Laboratories, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (August 2010). Based on our professional understanding and interpretation of the *Corps of Engineers Delineation Manual* and Corps guidance documents and regulations, this report describes the wetland identified at the Property, which includes the estimated delineated boundaries of the wetland.

Appendix A includes the regulatory definitions of the terms referred to above and referred to in this report.

¹ Wetland hydrology is present when an area is inundated or saturated to the surface for at least 5% of the growing season (approximately 9 to 12 consecutive days in northern Indiana), during the growing season, in most years.

2. BACKGROUND INFORMATION

2.1 Existing Data Sources

A review of the following data sources was conducted to identify indicators of wetlands on the Property. These data sources include:

1. United States Geological Survey (USGS) 7.5-minute quadrangle topographic maps, Michigan City-West quadrangle (1980) (**Figure 1**),
2. Aerial Photographs from the years 1939, 1958, 1970, 1980, 1987, and 2005 (**Figure 2 and Appendix B**).
3. United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Map (Not Dated) (**Appendix C**), and
4. Natural Resources Conservation Service (NRCS) Soil Survey for LaPorte County, Indiana (**Appendix D**).

2.1.1 Topographical Maps

USGS topographical maps are useful in identifying the general delineation of open water areas, drainage patterns, and general land uses, such as cleared (agricultural or pasture), forested, or urban areas. The USGS topographic maps indicate the Property elevation is approximately 670 above mean sea level with a slight downward gradient to the southeast. In addition, the topographic maps indicate that no open water areas were denoted on the Property. However, two wetland symbols are denoted on the Property as shown on **Figure 1**.

2.1.2 Historical Aerial Photographs

WCG reviewed historical aerial photographs in an effort to assess the historical use and condition of the Property. Aerial photographs provide a detailed view of an area; thus land use and other features (e.g., general type and aerial extent of plant communities and degree of inundation of the area when the photograph was taken) can be determined.

For possible indicators of wetland hydrology and distribution of vegetation, WCG reviewed the 1939, 1958, 1970, 1980, and 1987 aerial photographs obtained from the NRCS and the 2005

aerial photographs provided by the LaPorte County Geographic Information Systems (GIS) Department. Copies of all of the aerial photographs, with the exception of the 2005 are provided in **Appendix B**. The 2005 aerial photograph is included as **Figure 2**.

The 1939, 1958, and 1970 aerial photographs shows the Property consisting predominantly of agricultural land (pasture or crop field), a farmstead (house, barn, and possible outbuildings), and a two area of woods (located north and west of the farmstead). The later aerial photographs (1980, 1987, and 2005) show portions of the earlier pasture or crop field surrounding the farmstead converting into a successional wooded area. Other areas (south and north of the wooded area) remain as field but possibly no longer being used for agricultural purposes. There are visual indications of possible earthwork activities across the southern half of the Property, possibly associated with the adjoining landfill located to the west. There are visual indications (darker areas of soil in contrast to the lighter surrounding areas) of possible soil saturation or ponding in the western wooded area in all of the aerial photographs. In the 1987 and 2005 aerial photographs there are additional areas of possible soil saturation or ponding located along the eastern Property line. Of particular note are the bodies of surface water (ponds) located on the 2005 aerial photograph at the northwest, southwest, and southeast corners of the Property.

It is our understanding from the Property owner that the surface water bodies located across the northwest and southwest corners of the Property were associated with the Deercroft landfill located to the west. This facility is now closed. The body of water located at the northwest corner was originally a borrow pit for the landfill. The body of water located at the southwest corner was created as a mitigation wetland for permitted wetland impacts located off-site. Activities within this mitigation wetland are regulated as outlined in a deed restriction. The body of water located at the southeast corner of the Property was originally created by the Property owner as a 1.5 acre mitigation wetland (also for proposed wetland impacts off-site). Regulatory documentation (**Appendix G**) provided by the Property indicates that the Property owner had obtained permission from both the US Army Corps of Engineers (Corps) and the Indiana Department of Environmental Management (IDEM) to fill this mitigation wetland in return for creating a larger mitigation wetland off-site.

In summary, our review of the aforementioned aerial photographs suggest the presence of potential wetland conditions across the wooded portion of the Property extending southeast

towards the intersection of County Road 300 North and US Route 421. Hydrologic indicators range from areas of soil saturation to possible ponding. Vegetative indicators range from forested wetland vegetation to possible emergent wetland vegetation along US Route 421 towards the southeast corner of the Property. Surface water bodies identified at the northwest, southeast, and southwest corners of the Property were artificially created as part of the facility (Deercroft landfill) located to the west of the Property.

2.1.3 National Wetland Inventory Maps

The USFWS NWI Maps identify potential wetlands on the Property. The wetland boundaries of NWI Maps are based on the presumed presence of at least one of the three parameters required by the Corps. Wetlands are identified on the NWI Map based on stereoscopic analysis of high altitude aerial photography. The NWI Map specifies that there is a margin of error inherent in the use of the aerial photographs and as a result, wetlands are sometimes erroneously identified, missed, or misidentified. Each potential area denoted on the NWI Map should be field checked. In addition, this map is only used as a preliminary screening tool and often times does not identify small wetlands or farmed wetland areas.

Furthermore, the Corps states that wetlands classified on the NWI Map as having a temporarily flooded or intermittently flooded water regime should be viewed with particular caution since this designation is indicative of plant communities that are transitional between wetland and non-wetland.

The NWI Map (**Appendix C**) of the Property identifies two potential wetland areas. The first is located in the western wooded area and is denoted on the NWI Map as a deciduous-leaf forested wetland that is temporarily flooded (PF01A). The second wetland area is located west of US Route 421 and is denoted as an emergent wetland that is temporarily flooded (PEMA).

2.1.4 Soil Survey of LaPorte County

WCG reviewed the current Soil Survey of LaPorte County, Indiana (1982) (**Appendix D**). Soil surveys are prepared by the Natural Resources and Conservation Service (NRCS) of the United States Department of Agriculture (USDA) for political units such as counties. Soil surveys contain several types of information including land usage, soil properties including water table and inundation characteristics (if any), and classification of soils. The specific soil units in the

survey are identified alphanumerically on a soil map.

The NRCS Soil Survey of LaPorte County, Indiana identifies one soil series on the Property. The soil series is the Blount silt loam. The soil is not listed on the Indiana Hydric Soil List. However, the soil is characterized with a high water table during wetter periods of the year (1-3 feet below the ground surface). In addition, permeability is slow to moderately slow and drainage is somewhat poor. As a result, this soil may convert to a hydric soil given the appropriate hydrologic conditions.

The following table summarizes the soil series located on the Property.

Soil Summary		
Soil Series	Soil Series Description/Location	Hydric/Non-Hydric Classification ¹
Blount silt loam (0 to 3 percent slopes) (BaA ²)	<i>Landform:</i> Glacial till plains <i>Parent material:</i> silt or silty clay loam <i>Drainage class:</i> Somewhat poorly drained <i>Permeability to a depth of 40 inches:</i> Slow to moderately slow <i>Apparent seasonal high water table is highest (depth, months):</i> 1-3 feet (January-May) <i>Frequency of ponding:</i> None	Non-Hydric

¹ Hydric and non-hydric soil series listed in the LaPorte County Soil Survey prepared by the NRCS

² Soil Series Identification Code

2.1.5 Background Information Summary

The topographical map includes indicators of two possible wetlands on the Property. Historical aerial photographs show indications of soil saturation and/or ponding across the wooded portion of the Property and along the eastern Property line. The LaPorte County Soil Survey reports that the soil type is not listed on the Indiana Hydric Soils List. However, the soil type,

Blount silt loam, is a somewhat poorly drained soil characterized by a high water table (1-3 feet below the ground surface). These soil characteristics may lead to formation of hydric soil depending on the specific hydrology conditions that are present on-site. The US Fish and Wildlife Service NWI Map identify the areas corresponding to the areas depicted on the topographical map as wetlands.

There are indications based on the documentation briefly described above that a wetland(s) could be present. A field investigation was conducted to verify if a wetland(s) exists

3. FIELD OBSERVATIONS

3.1 Investigative Methodology

The delineation of wetlands on the Property was based on the methodology outlined in the 1987 *Corps of Engineers Delineation Manual* (Environmental Laboratories, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (August 2010). In accordance with this approach, WCG completed the task of gathering preliminary data from potential information sources, extracting pertinent data, and synthesizing the data for use in determining potential wetland areas as summarized in the previous sections. WCG determined that a field investigation was required to locate and characterize potential wetland areas located on the Property. Once a positive determination was made, the wetland(s) identified in the field were delineated, using the methodology identified above. This delineation is an update of an earlier field study completed in the spring of 2007 by Weaver Boos Consultants, LLC (a predecessor of WCG).

Observation points or plots were established in each different plant community along or close to each area under investigation. Vegetation types and indications of hydrology and soil characteristics were identified in each plant community or observation point. Soils were examined to a minimum depth of 12 inches to assess soil characteristics and Property hydrology. Data forms (**Appendix E**) were completed for each observation point. A total of 24 observation points were recorded on May 3, 2017 at the same locations they were recorded on May 3, 7, and 18, 2007. Based on the observations taken, a wetland-nonwetland boundary was identified and staked with either red flags or tape and located using a global-positioning satellite (GPS) unit if the results were different to those described in the 2007 wetland delineation report. The observations points were at the same location to those identified in the 2007 wetland delineation report.

3.1.1 Property Photographs

Photographs of the observation points and portions of the Property are located in **Appendix F**. The photographs are the visual documentation of Property conditions at the time observations were taken. These are intended to provide representative visual samples of wetlands or other

special features found on the Property.

3.1.2 Data Form – Routine Wetland Determination

To determine whether a wetland exists, or to define the approximate boundary of a wetland, data stations or observation points were located as shown on **Figure 3**. The Routine Wetland Determination Data Forms used in the determination and/or delineation process are located in **Appendix E**. These forms are the written documentation of how representative sample locations meet or do not meet each of the three criteria.

3.1.3 Wetland Boundary Survey

Field data stations and delineated wetland boundaries were surveyed using a Sub-meter Trimble GeoXT GPS survey system if different to those findings described in the previous 2007 delineation report. Specifications pertaining to the GPS used can be provided upon request. The survey information is overlain on an aerial photo (**Figure 3**).

3.2 General Property Conditions

WCG completed field investigation activities on the Property on May 3, 2017 (previous field investigation was completed on May 3, 7, and 18, 2007). At the time of the field investigation, the weather conditions were cloudy to partly cloudy with temperatures between 60 and 70 degrees Fahrenheit. Field conditions were observed to be similar to those in 2007.

Access to the Property is from a gravel/dirt drive located outside the western Property line. The Property generally consists of undeveloped open and wooded land as illustrated in **Figure 2**. The wooded land is divided by a narrow lane running north to south. A dilapidated barn or house with adjoining foundation was observed near the eastern Property line fronting US Highway 421. Bodies of open water and adjoining berms of soil were observed at the northwest, southwest, and southeast corners of the Property. According to the Property owner, the body of water located to the northwest was created as a borrow pit. The body of water located at the southwest corner of the Property was created as part of a wetland mitigation project. Activities within this mitigation wetland are regulated as outlined in a deed restriction. The mitigation wetland was used for stormwater detention by the nearby landfill.

The southeastern water body was originally created as part of a second wetland mitigation project. However, the Property owner acquired a permit from the Corps and IDEM to fill the mitigation wetland since a larger mitigation wetland was being created off-site (**Appendix G**). Based on this information and preliminary data discussed in **Section 2.0** these artificially created bodies of water were created in an upland area and excluded from this field study.

At the inception of the study, WCG observed potential wetland conditions in small areas within the two wooded portions of the Property and in an open area south of the wooded land just east of US Highway 421. As a result, the study focused on these three areas of the Property. The remaining areas of the Property, namely the western two thirds of the Property south of the wooded land, did not contain all three wetland indicators. According to the Property owner, the shallow soils were removed in this area for use by the nearby landfill. Based on preliminary data discussed in **Section 2.0** this disturbed area would be considered part of the upland portion of the Property.

Based on our initial observations, WCG focused our field investigation on the wooded land area and the open land area across the eastern third of the Property in accordance with the methodology described in **Section 3.1**. In short summary, WCG observed and delineated the boundaries of the twelve wetlands (totaling approximately 7.13 acres) (see **Figure 3**). The following section describes the conditions observed.

3.3 Areas of Investigation

3.3.1 West-Central Woods

Five wetlands (Wetlands C, D, E, F, and J) were identified entirely within this section of the Property during the investigation. The wetlands are shown in **Figure 3**. A series of test sites (TP-3 through TP-10, TP-17, and TP-18) were made both inside and outside of the boundaries of each wetland.

3.3.1.1 Wetland C – 0.13 Acres (Test Sites 3 and 4)

Test Site 3 was dug within the wetland boundary. The dominant vegetation species observed within Wetland C included *Carex cristatella* (FACW), *Ulmus Americana* (FACW), *Lindera benzoin*

(FACW), *Arisaema triphyllum* (FACW), *Onoclea sensibilis* (FACW), and *Allium canadense* (FACU). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered satisfied. The soil was saturated within 12 inches of the ground surface and the fallen leaves from the previous growing season were water-stained, indicators of wetland hydrology. A-Horizon soils within Test Site 3 exhibited a matrix color of 10YR 3/1. The soils exhibited low chroma colors and loamy gleyed matrix, an indicator of a hydric soil.

Test Site 4 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland C included *Claytonia virginica* (FACU), *Ulmus Americana* (FACW), *Fraxinus pennsylvanica* (FACW), and *Arisaema triphyllum* (FACW). The percent of dominant wetland species is 80%. The wetland vegetation criterion is therefore considered satisfied. The soil was inundated with 2 inches of water. A-Horizon soils within Test Site 4 exhibited a matrix color of 10YR 3/4. No hydric soil indicators were observed.

3.3.1.2 Wetland D – 0.59 Acres (Test Sites 5 and 6)

Test Site 5 was dug within the wetland boundary. The dominant vegetation species observed within Wetland D included *Carex cristatella* (FACW), *Glyceria striata* (OBL), *Lindera benzoin* (FACW), *Arisaema triphyllum* (FACW), and *Quercus palustris* (FACW). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered satisfied. The soil was saturated within 12 inches of the ground surface and inundated, indicators of wetland hydrology. A and B-Horizon soils within Test Site 5 exhibited a matrix color of 10YR 3/3 and 10YR 3/2. The soils exhibited a loamy gleyed matrix, an indicator of a hydric soil.

Test Site 6 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland D included *Allium canadense* (FACU), *Lindera benzoin* (FACW), *Parthenocissus quinquefolia* (FAC), and *Arisaema triphyllum* (FACW). The percent of dominant wetland species is 50% and prevalence index is greater than 3.0. The wetland vegetation criterion is therefore not considered satisfied. No hydrologic indicators were observed. A-Horizon soils within Test Site 4 exhibited a matrix color of 10YR 3/2 in unmottled soils. B-Horizon soils exhibited a matrix color of 10YR 4/3. No hydric soil indicators were observed.

3.3.1.3 Wetland E – 0.09 Acres (Test Sites 7 and 8)

Test Site 7 was dug within the wetland boundary. The dominant vegetation species observed within Wetland E included *Ulmus Americana* (FACW), *Quercus palustris* (FACW), *Carex crinita* (FACW), and *Glyceria striata* (OBL). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered satisfied. The soil was saturated within 12 inches of the ground surface and inundated, indicators of wetland hydrology. A-Horizon soils (0-12 inches) within Test Site 7 exhibited a matrix color of 10YR 3/1. The soils exhibited low chroma colors and a gleyed matrix, indicators of a hydric soil.

Test Site 8 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland E included *Trillium erectum* (UPL), *Lindera benzoin* (FACW-), *Crataegus phaenopyrum* (FACW), *Arisaema triphyllum* (FACW), *Carya ovata* (FACU), and *Toxicodendron radicans* (FAC). The percent of dominant wetland species is 67%. The wetland vegetation criterion is therefore considered satisfied. No hydrologic indicators were observed. A-Horizon soils within Test Site 8 exhibited a matrix color of 10YR 3/3. B-Horizon soils exhibited a matrix color of 10YR5/3. No hydric soil indicators were observed.

3.3.1.4 Wetland F – 0.84 Acres (Test Sites 9 and 10)

Test Site 9 was dug within the wetland boundary. The dominant vegetation species observed within Wetland F included *Cephalanthus occidentalis* (OBL), *Carex lacustris* (OBL), *Onoclea sensibilis* (FACW), *Glyceria striata* (OBL), *Carex crinita* (FACW), *Carex vulpinoidea* (OBL), and *Salix nigra* (OBL). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered satisfied. The soil was saturated within 12 inches of the ground surface, inundated, and water marks were present, all indicators of wetland hydrology. A-Horizon soils (0-12 inches) within Test Site 9 exhibited a matrix color of 10YR 3/1. The soils exhibited low chroma colors and gleyed matrix, indicators of a hydric soil.

Test Site 10 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland F included *Toxicodendron radicans* (FAC), *Solidago altissima* (FACU), *Equisetum hyemale* (FACW), and *Poa pratensis* (FAC). The percent of dominant wetland species is 75%. The wetland vegetation criterion is considered satisfied. No hydrologic indicators were

observed. A-Horizon soils (within 12 inches) within Test Site 10 exhibited a matrix color of 10YR 3/2 with no mottles. No hydric soil indicators were observed.

3.3.1.5 Wetland J – 0.42 Acres (Test Sites 17 and 18)

Test Site 17 was dug within the wetland boundary. The dominant vegetation species observed within Wetland J included *Ulmus Americana* (FACW), *Fraxinus pennsylvanica* (FACW), *Quercus palustris* (FACW), *Carya ovalis* (FACU), *Carex cristatella* (OBL), *Arisaema triphyllum* (FACW), and *Lindera benzoin* (FACW). The percent of dominant wetland species is 80%. The wetland vegetation criterion is therefore considered satisfied. The soil was saturated within 12 inches of the ground surface, inundated with water, and the water stained leaves were observed, all indicators of wetland hydrology. A-Horizon soils (0-12 inches) within Test Site 17 exhibited a matrix color of 10YR 4/1. The soils exhibited low chroma colors and loamy gleyed matrix, an indicator of a hydric soil.

Test Site 18 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland J included *Toxicodendron radicans* (FAC), *Solidago altissima* (FACU), *Elaeagnus umbellata* (FACU), *Melilotus alba* (UPL), and *Crataegus phaenopyrum* (FAC). The percent of dominant wetland species is 40%. The wetland vegetation criterion is not considered satisfied. No hydrologic indicators were observed. A-Horizon soils (within 12 inches) within Test Site 18 exhibited a matrix color of 10YR 4/2 with mottles and a gleyed matrix. As a result of this observation, hydric soil indicators were observed.

3.3.2 East-Central Woods

Three wetlands (Wetlands H, I, and K) were identified entirely within this section of the Property during the investigation. The wetlands are shown in **Figure 3**. A series of test sites (TP-15, TP-16, TP-19, TP-20, TP-21, and TP-22) were made both inside and outside of the boundaries of each wetland.

3.3.2.1 Wetland H – 1.46 Acres (Test Sites 15 and 16)

Test Site 15 was dug within the wetland boundary. The dominant vegetation species observed within Wetland H included *Ulmus Americana* (FACW), *Fraxinus pennsylvanica* (FACW), *Quercus*

palustris (FACW), *Quercus bicolor* (FACW), *Arisaema triphyllum* (FACW), and *Phalaris arundinacea* (FACW). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered satisfied. Surface water was present and the soil was saturated within 12 inches of the ground surface were observed, all indicators of wetland hydrology. A-Horizon soils (0-12 inches) within Test Site 15 exhibited a matrix color of 10YR 4/1. The soils exhibited low chroma colors and a gleyed matrix, indicators of a hydric soil.

Test Site 16 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland H included *Toxicodendron radicans* (FAC), *Solidago altissima* (FACU), *Melilotus alba* (UPL), *Quercus rubra* (FACU), *Cirsium arvense* (UPL), and *Crataegus phaenopyrum* (FAC). The percent of dominant wetland species is 40%. The wetland vegetation criterion is not considered satisfied. No hydrologic indicators were observed. A-Horizon soils (within 12 inches) within Test Site 16 exhibited a matrix color of 10YR 4/3. As a result, no hydric soils were observed.

3.3.2.2 Wetland I – 0.70 Acres (Test Sites 19 and 20)

Test Site 19 was dug within the wetland boundary. The dominant vegetation species observed within Wetland I included *Fraxinus pennsylvanica* (FACW), *Quercus palustris* (FACW), *Carex cristatella* (OBL), *Arisaema triphyllum* (FACW-), *Phalaris arundinacea* (FACW), *Glyceria striata* (OBL), and *Carex vulpinoidea* (OBL). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered satisfied. Surface water was present and the soil was saturated within 12 inches of the ground surface, all indicators of wetland hydrology. A-Horizon soils (0-12 inches) within Test Site 19 exhibited a matrix color of 10YR 4/1. The soils exhibited low chroma colors and a gleyed matrix, an indicator of a hydric soil.

Test Site 20 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland I included *Quercus palustris* (FACW), *Melilotus alba* (UPL), *Rubus allegheniensis* (FACU), *Fraxinus pennsylvanica* (FACW), *Alliaria petiolata* (FAC), and *Arisaema triphyllum* (FACW). The percent of dominant wetland species is 67%. The wetland vegetation criterion is considered satisfied. No hydrologic indicators were observed. A-Horizon soils (within 12 inches) within Test Site 20 exhibited a matrix color of 10YR 4/1 with mottles. The soils

exhibited low chroma colors and a gleyed matrix, an indicator of a hydric soil.

3.3.2.3 Wetland K – 0.37 Acres (Test Sites 21 and 22)

Test Site 21 was dug within the wetland boundary. The dominant vegetation species observed within Wetland K included *Fraxinus pennsylvanica* (FACW), *Quercus palustris* (FACW), *Juncus effusus* (OBL), *Carex vupinoidea* (OBL), and *Arisaema triphyllum* (FACW). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered satisfied. Surface water and the soil was saturated within 12 inches of the ground surface were observed, all indicators of wetland hydrology. A-Horizon soils (0-12 inches) within Test Site 21 exhibited a matrix color of 10YR 4/1. The soils exhibited low chroma colors and a gleyed matrix, an indicator of a hydric soil.

Test Site 22 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland K included *Solidago altissima* (FACU), *Melilotus alba* (UPL), *Juniperus virginiana* (FACU), *Poa patensis* (FAC), *Festuca arundinacea* (FACU), *Toxicodendron radicans* (FAC). The percent of dominant wetland species is 33%. The wetland vegetation criterion is not considered satisfied. No hydrologic indicators were observed. A-Horizon soils (within 12 inches) within Test Site 22 exhibited a matrix color of 10YR 4/1 and a gleyed soil matrix. As a result of this observation, one hydric soil indicator was observed.

3.3.3 Open Land East of US-Highway 421

Four wetlands (Wetlands A, B, L, and G) were identified entirely within this section of the Property during the investigation. The wetlands are shown in **Figure 3**. A series of test sites (TP-1, TP-2, TP-11..TP-14, TP-23, and TP-24) were made both inside and outside of the boundaries of each wetland.

3.3.3.1 Wetland A - 0.71 acres (Test Sites 1 and 2)

Test Site 1 was dug within the wetland boundary. The dominant vegetation species observed within Wetland A included *Phalaris arundinacea* (FACW), *Salix amygdaloides* (FACW), and *Typha angustifolia* (OBL). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered satisfied. The soil was saturated within 12 inches of

the ground surface and inundated with water, all indicators of wetland hydrology. The B-Horizon soils (6-12 inches) within Test Site 1 exhibited a matrix color of 10YR 3/2 with mottles. The soils exhibited low chroma colors, an indicator of a hydric soil along with a gleyed matrix.

Test Site 2 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland A included *Dipsacus sylvestris* (NI), *Festuca arundinacea* (FACU), *Solidago altissima* (FACU), and *Daucus carota* (UPL). The percent of dominant wetland species is 0%. The wetland vegetation criterion is not considered satisfied. No hydrologic indicators were observed. B-Horizon soils (within 12 inches) within Test Site 2 exhibited a matrix color of 10YR 3/4 with no mottles. No indicators of a hydric soil were observed.

3.3.3.2 Wetland B – 0.03 Acres (Test Sites 11 and 12)

Test Site 11 was dug within the wetland boundary. The dominant vegetation species observed within Wetland B included *Carex cristatella* (FACW) and *Phalaris arundinacea* (FACW). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered satisfied. The soil was saturated within 12 inches of the ground surface, an indicator of wetland hydrology. The B-Horizon soils (6-12 inches) within Test Site 11 exhibited a matrix color of 10YR 4/1 with mottles. The soils exhibited low chroma colors and gleyed soil matrix, an indicator of a hydric soil.

Test Site 12 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland B included *Dipsacus fullonum* (FACU), *Festuca arundinacea* (FACU), *Solidago altissima* (FACU), *Fragaria Virginia* (FACU), and *Melilotus umbellata* (UPL). The percent of dominant wetland species is 0%. The wetland vegetation criterion is not considered satisfied. No hydrologic indicators were observed. B-Horizon soils (within 12 inches) within Test Site 12 exhibited a matrix color of 10YR 3/3 with mottles. No indicators of a hydric soil were observed.

3.3.3.3 Wetland G – 1.77 Acres (Test Sites 13 and 14)

Test Site 13 was dug within the wetland boundary. The dominant vegetation species observed within Wetland G included *Phalaris arundinacea* (FACW), *Salix nigra* (OBL), *Fraxinus pennsylvanica* (FACW), *Populus deltoids* (FAC), and *Typha angustifolia* (OBL). The percent of dominant wetland species is 100%. The wetland vegetation criterion is therefore considered

satisfied. The soil was saturated within 12 inches of the ground surface an indicator of wetland hydrology. The A-Horizon soils (0-12 inches) within Test Site 13 exhibited a matrix color of 10YR 4/1 with mottles. The soils exhibited low chroma colors and a loamy gleyed soil matrix, an indicator of a hydric soil.

Test Site 14 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland G included *Solidago altissima* (FACU), *Elaeagnus umbellata* (UPL), *Melilotus altissimum* (UPL), *Juniperus virginia* (FACU), *Toxicodendron radicans* (FAC), and *Crataegus phaenopyrum* (FAC). The percent of dominant wetland species is 40%. The wetland vegetation criterion is not considered satisfied. No hydrologic indicators were observed. B-Horizon soils (within 12 inches) within Test Site 14 exhibited a matrix color of 10YR 4/3 with mottles. No indicators of a hydric soil were observed

3.3.3.4 Wetland L - .02 Acres (Test Sites 23 and 24)

Test Site 23 was dug within the wetland boundary. The dominant vegetation species observed within Wetland L included *Juniperus virginiana* (FACU), *Populus deltoids* (FAC), *Juncus effusus* (OBL), *Echinochloa crus-galli* (FACW), *Festuca arundinacea* (FACU), and *Toxicodendron radicans* (FAC). The percent of dominant wetland species is 67%. The wetland vegetation criterion is therefore considered satisfied. The soil was saturated within 12 inches of the ground surface, an indicator of wetland hydrology. The A-Horizon soils (0-12 inches) within Test Site 23 exhibited a matrix color of 10YR 4/1 with mottles. The soils exhibited low chroma colors and loamy gleyed matrix, an indicator of a hydric soil.

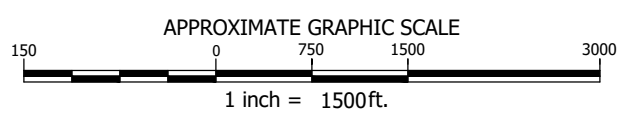
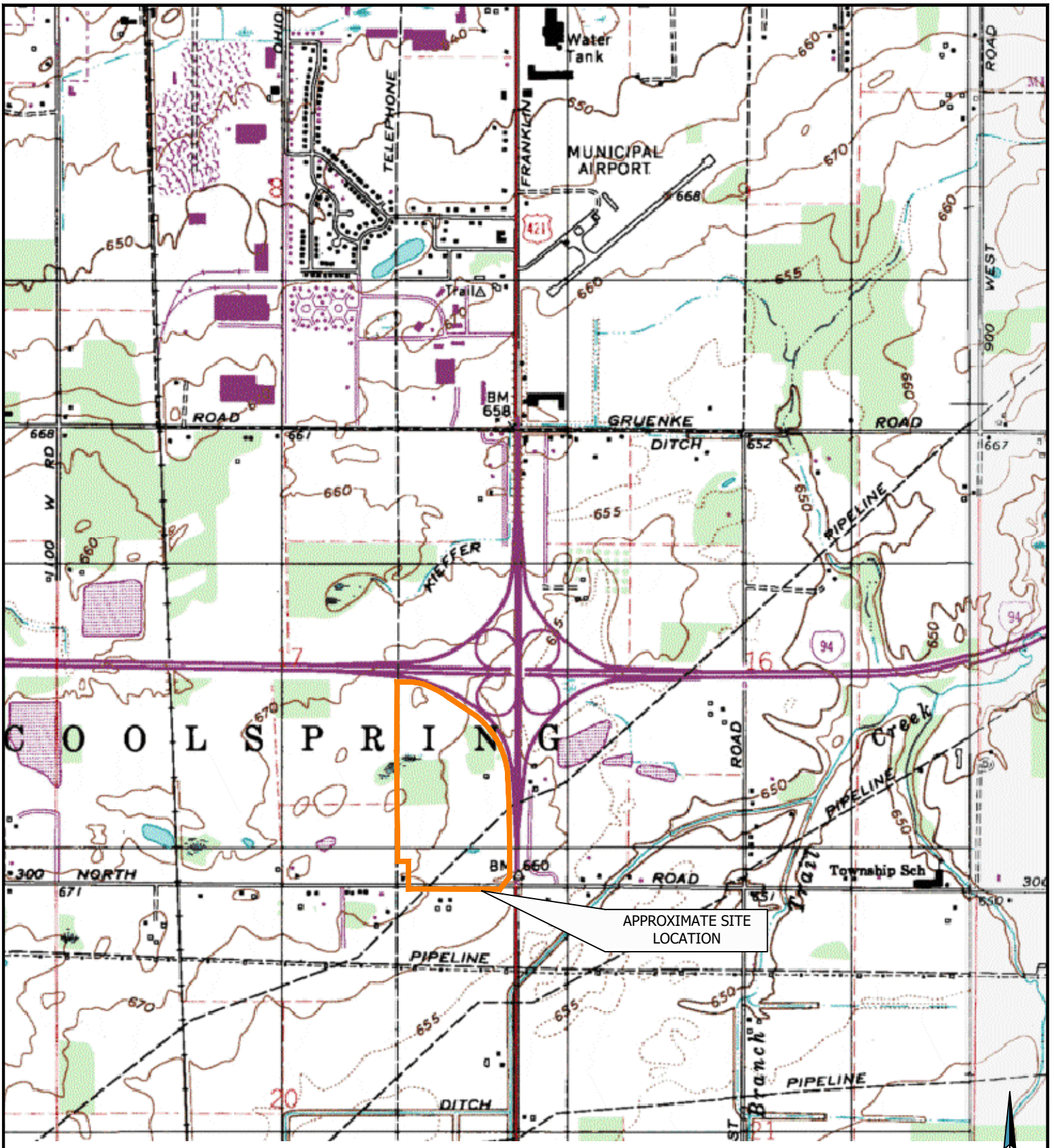
Test Site 24 was dug outside the wetland boundary. The dominant vegetation species observed outside Wetland L included *Solidago altissima* (FACU), *Poa pratensis* (FAC), *Festuca arundnancea* (FACU) and, *Toxicodendron radicans* (FAC). The percent of dominant wetland species is 50% with a prevalence index of greater than 3. The wetland vegetation criterion is not considered satisfied. No hydrologic indicators were observed. B-Horizon soils (within 12 inches) within Test Site 24 exhibited a matrix color of 10YR 4/1 with mottles. No indicators of a hydric soil were observed with the exception of low chroma colors and a gleyed soil matrix.

4. CONCLUSIONS

Based on our review of the background information, the results of the field study completed by WCG, and criteria established by the Corps, twelve wetland areas were identified on the Property (Wetlands A, B, C, D, E, F, G, H, I, J, K, and L) totaling approximately 7.13 acres (see **Figure 3**). The size and number of wetland identified during the study are similar those finding from May 2007. Impacts to these wetlands may be regulated by either:

- Rules promulgated under Sections 401 and 404 of the Federal Clean Water Act and administered by the US Army Corps of Engineers and Indiana Department of Environmental Management.
- Rules promulgated under the Indiana Isolated Wetland Program (Indiana Code 13-18-22 and Article 17 of Title 327 of the Indiana Administrative Code (327 IAC 17)).

Two mitigation wetlands were also identified at the southwest and southeast corners of the Property. These wetlands exist primarily as areas of open water. The Corps and IDEM have permitted the Property owner to fill the mitigation wetland located at the southeast corner of the Property. Activities within the mitigation wetland located at the southwest corner of the Property are restricted per deed restriction.

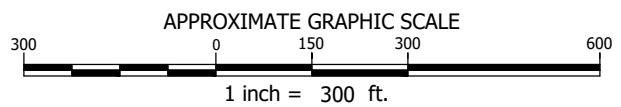



SOURCE: IMAGE ADAPTED FROM MAPCARD MICHIGAN CITY WEST, IN DATED 1999.
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<p>PREPARED FOR:</p> <p>JIM LYONS</p>	<p align="center">SITE LOCATION MAP</p> <p align="center">U.S. 421 & CR 300 NORTH MICHIGAN CITY, IN</p> <p align="center"><small>REUSE OF DOCUMENTS THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER CONSULTANTS GROUP, AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER CONSULTANTS GROUP.</small></p>	 <p>Weaver Consultants Group</p> <p>GRANGER, INDIANA (574) 271-3447 www.wcgrp.com</p>	<p>DRAWN BY: RMD REVIEWED BY: JLES DATE: 5/22/2017 FILE: 4408-352-22 CAD: SITELOC.dwg</p> <p align="center">FIGURE 1</p>
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SOURCE: IMAGE ADAPTED FROM GOOGLE EARTH IMAGERY DATED OCTOBER 2016.
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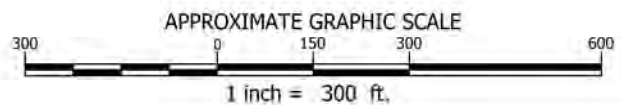
<p>PREPARED FOR:</p> <p>JIM LYONS</p>	<p align="center">SITE LAYOUT MAP</p> <p align="center">U.S. 421 & CR 300 NORTH MICHIGAN CITY, IN</p> <p align="center"><small>REUSE OF DOCUMENTS</small></p> <p align="center"><small>THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER CONSULTANTS GROUP, AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER CONSULTANTS GROUP.</small></p>	 <p>Weaver Consultants Group</p> <p>GRANGER, INDIANA (574) 271-3447 www.wcgrp.com</p>	<p>DRAWN BY: RMD</p> <p>REVIEWED BY: JLES</p> <p>DATE: 5/22/2017</p> <p>FILE: 4408-352-22</p> <p>CAD: SITELOC.dwg</p> <p align="center">FIGURE 2</p>
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LEGEND

-  APPROXIMATE TEST PIT LOCATIONS
-  APPROXIMATE WETLAND AREAS

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<p>PREPARED FOR:</p> <p>JIM LYONS</p>	<p align="center">WETLAND DELINEATION MAP</p> <p align="center">U.S. 421 & CR 300 NORTH MICHIGAN CITY, IN</p> <p align="center"><small>REUSE OF DOCUMENTS</small></p> <p align="center"><small>THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER CONSULTANTS GROUP, AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER CONSULTANTS GROUP.</small></p>	 <p>Weaver Consultants Group</p> <p>GRANGER, INDIANA (574) 271-3447 www.wcgrp.com</p>	<p>DRAWN BY: RMD</p> <p>REVIEWED BY: JLES</p> <p>DATE: 5/22/2017</p> <p>FILE: 4408-352-22</p> <p>CAD: SITELOC.dwg</p> <p align="center">FIGURE 2</p>
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BFK-1V-32



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May 24, 2017

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
|  | Freshwater Pond |  | |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Appendix D

LaPorte County Soil Survey

Soil Map—La Porte County, Indiana
(Soil Survey Map)



Soil Map may not be valid at this scale.

