



SECTION 401 WQC REGIONAL GENERAL PERMIT NOTIFICATION

State Form 51937 (R5 / 7-18)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (IDEM) and U.S. ARMY CORPS OF ENGINEERS (USACE)

Authorities: Section 401 Water Quality Certification, Section 404 of the Clean Water Act, and Section 10 of the Rivers and Harbor Act

INSTRUCTIONS: 1. Familiarize yourself with the terms and conditions of this permit.
2. Read the instructions before filling out this form.
3. All applicable sections of this two (2) page form must be completed.

AGENCY USE ONLY

Date Received (mm/dd/yyyy)

2-3-23

IDEM ID 2023-116-41-JWR-X

Processing Date (mm/dd/yyyy)

2-8-23

APPLICANT INFORMATION

Name of Project: Harmony of Greenwood	Designation Number:
Applicant: Greenwood IL-AL Investors, LLC C/O Smith/Packett Med-Com, LLC	Agent (Name of Company): Meristem, LLC
Contact Person: Bruce Hedrick, VP of Development and Construction	Contact Person: Marc Woernle
Address (number and street): 4423 Pheasant Ridge Road, Suite 301	Address (number and street) : 877 Port Drive
City: Roanoke State: VA ZIP Code: 24014	City: Avon State: IN ZIP Code: 46123
Telephone Number: 540-774-7762	Telephone Number: (317) 324-8542
E-mail Address: bhedrick@smithpacket.com	E-mail Address: mac.woernle@meristem.life

PROJECT LOCATION

County: Johnson	Nearest Town: Greenwood		
Quad Name: Beech Grove	Section: 28	Township: 14N	Range: 4E
Latitude: 39.633550 N	Longitude: 86.090923 W		

Project Address and Driving Directions:

From Indianapolis, take I-64 S/I-70 W towards Louisville/St. Louis, keeping left to continue onto I-65 S and continue for 9.3 miles. Take exit 101 for County Line Road and turn right and keep right at the fork, turning right onto E County Line Rd. Proceed for 0.7 mile, then turn left onto Wheatcraft Way. Proceed until the road reaches a dead end and park along the cul-de-sac at the end of the road. The site is located to the south of the parking area.

EXISTING CONDITIONS ON THE PROJECT SITE

Lake: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Name of Lake:		
Stream: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name of Stream: Merry Branch	Stream Type: <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral	
Wetlands: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Acreage on the site by Wetland Type(s): _____ Emergent _____ Scrub-Shrub _____ Forested		
	Date (mm/dd/yyyy) of Wetland Delineation: 11/21/2022		
	Date (mm/dd/yyyy) of the U.S. Army Corps of Engineers Jurisdiction Correspondence: N/A		

PROJECT IMPACTS

Activity Description:

Construction of a senior living facility on the site, including installation of one stormwater outfall and riprap apron along the south bank of Merry Branch. The outfall pipe will be 42 inches in diameter with an associated riprap apron and bank impact of 23 LF.

Purpose of Project:

Development of senior living facility to meet property demands, installation of outlet to manage runoff and storm water from the proposed facility.

For Lake Impact (Acceptable fill is defined in the instructions):

- (1) Linear feet of shoreline impact (Example – Seawall): _____
- (2) Type of fill below the Ordinary High Water Mark: _____ Volume (Cubic Yards): _____ Acres: _____
- (3) Does the shoreline or open water area have vegetation present? Yes No
If Yes, are you proposing natural shoreline stabilization? Yes No Description: _____
- (4) Open water fill beyond shoreline (Examples – Boat Well, Underwater Beach): Type of Fill: _____ Acres: _____

For Stream Impact (*Acceptable fill is defined in instructions*):

- (1) Total linear feet of stream impact (*Examples - bank stabilization, bridge construction or culvert placement, seawall work*): 23 LF (riprap for outfall)
- (2) Total acre(s) of stream impact: 0.0031
- (3) Type of fill below the Ordinary High Water Mark: clean earthen fill (riprap apron) Volume (*Cubic Yards*): 7.5
- (4) Proposed start date of work in the stream (*mm/dd/yyyy*): March 2023 Proposed end date of work in the stream (*mm/dd/yyyy*): December 2023
- (5) Channel width in feet (*See instructions*): 6 Channel depth in feet (*See instructions*): 0.67
- (6) Cross-sectional area below the Ordinary High Water Mark: 4.02 square feet
- (7) For stream crossings, type of structure proposed to be installed (*Examples: three-sided or four-sided culvert, bridge, pipe*): N/A
- (8) For stream crossings, width of culvert structure/diameter of pipe to be installed (*feet*): N/A Length of culvert structure/pipe (*feet*): N/A
- (9) For stream crossings, substrate type (i.e. sand, soil or unconsolidated till, bedrock or consolidated till): N/A
- (10) Open water fill that projects beyond the stream bank: Type of fill: N/A Acre(s) of open water impact: N/A

For Wetland Impact (*Acceptable fill is defined in instructions*):

- (1) Type of fill: _____
- (2) Acre(s) of Impact: _____ Emergent _____ Scrub-Shrub _____ Forested

SIGNATURE OF APPLICANT – STATEMENT OF AFFIRMATION

I swear or affirm, under penalty of perjury as specified by IC 35-44.1-2-1 and other penalties specified by IC 13-30-10, that the statements and representations in this notification are true, accurate, and complete.

I certify that I have the authority to undertake and will undertake the activities exactly as described in this notification form. I am aware that there are penalties for submitting false information. I understand that any changes in project design subsequent to IDEM's and the USACE's granting of authorization to discharge to a water of the U.S. are not authorized, and that I may be subject to civil and criminal penalties for proceeding without proper authorization. I agree to allow representatives of IDEM and the USACE 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.

Signature of Applicant: _____

Date (*mm/dd/yyyy*): 01/05/23

Printed Name of Applicant: Bruce Hedrick

Title: Project Development/Construction

Enclose copies of the following documents (*all enclosures must be on 8.5" by 11" paper*). Failure to provide all applicable documents and information may result in a determination that the proposed project is out of scope.

- (1) Location Map
- (2) Drawings of existing site and proposed project
- (3) Cross sections of proposed activities showing extent of fill waterward (*for seawall, shoreline, and stream bank stabilization impacts*)
- (4) Cross sections of proposed activities showing the bankfull width or Ordinary High Water Mark of the stream
- (5) At least three photos of the site, labeled
- (6) Copy of wetland delineation report (*for projects with wetland impacts*)
- (7) Copies of all correspondence from the USACE (*for projects with wetland impacts*)
- (8) Copies of all correspondence from the Indiana Department of Natural Resources, Division of Nature Preserves (*required*)

Please Note:

- (1) It is recommended that you send this form and the attachments **via certified mail**. The agencies will **not** notify you when this form is received.
- (2) IDEM and the USACE will review this form and all attachments for completeness and accuracy. You will not be contacted during the application process unless deficiencies are identified at which time the agencies may require additional information to verify that the project meets all conditions of the Regional General Permit and the Section 401 Water Quality Certification (WQC). If you are not contacted by IDEM within thirty (30) days of the date IDEM receives this notification form, your project is authorized, subject to the terms and conditions of the Section 401 Water Quality Certification and its conditions. You will not receive a written confirmation of authorization from IDEM, however the USACE will issue written authorization.
- (3) Read all the terms and conditions of the IDEM Regional General Permit, including all USACE and IDEM conditions. The terms and conditions of this general permit as instituted by IDEM can be found at: <http://www.in.gov/idem/wetlands/2353.htm>. Do not submit this notification form or commence work on the proposed project until you understand and are familiar with the limitations and restrictions of the IDEM Regional General Permit Notification Form.
- (4) Consult this webpage for more information: <http://www.in.gov/idem/wetlands/index.htm>

Upon completion of the application, mail this form and all enclosures to:

Indiana Department of Environmental Management
Office of Water Quality, Wetlands and Stormwater Section
Section 401 WQC/Isolated Wetlands Program
100 North Senate Avenue, IGCN, Room 1255
Indianapolis, Indiana 46204-2251

U.S. Army Corps of Engineers
Regulatory Branch

For office locations serving Indiana, please visit:
<http://www.usace.army.mil/Locations.aspx>



MERISTEM
Where New Growth Happens

877 Port Drive
Avon, Indiana 46123
317-324-8542

January 6, 2022

Jason Randolph
Project Manager
Indiana Department of Environmental Management
100 N Senate Ave
Indianapolis, IN 46204

Regional General Permit (RGP) Notification
Harmony of Greenwood, S of Wheatcraft Way and E County Line Road
Johnson County, Indiana

Dear Jason Randolph,

Meristem is submitting a Regional General Permit (RGP) notification on behalf of Greenwood IL-AL Investors, LLC and Smith/Packett Med-Com, LLC for stream impacts at the Harmony project property located south of the intersection of Wheatcraft Way and E County Line Road in Section 31, Township 17 North, Range 1 East, in Greenwood in Johnson County, Indiana (see Attachment 1). A map showing the location of the site on an aerial photograph is located in Attachment 2. The Indiana Department of Environmental Management (IDEM) RGP notification form 41937 is included in Attachment 1.

Impacts will occur in one location along perennial Stream 1 (Merry Branch). Along the boundary of the subject property, Stream 1 has an ordinary high-water mark (OHWM) width averaging 6 feet, and an OHWM depth averaging 0.67 feet, with substrates primarily consisting of cobble and gravel with interspersed areas of silt. The proposed impact will comprise the installation of a stormwater outfall pipe made of reinforced concrete, and installation of one riprap apron for erosion control. The total linear feet of impact to Stream 1 from the outfall and riprap apron will be **23 LF**.

Impact Type	Linear Feet	Acres of Impact	Impacted Water Resource(s)
Stormwater Outfall and Riprap Apron	23	0.0031	Stream 1 (Merry Branch)

Because the proposed stream impacts do not exceed the threshold of 150 LF, no mitigation will be included as part of the scope of the proposed activities. Please see Attachment 4 for additional details regarding the location, dimensions, and cross-section of the proposed stormwater outfall and riprap apron.

Best management practices for erosion and sediment control will be utilized to prevent additional impacts to the stream.

If you have any questions or need any additional information, please do not hesitate to contact me at 317-617-4796 or marc.woernle@meristem.life.

Sincerely,



Marc Woernle, PWS, LEED AP
Principal Ecologist
Meristem, LLC

CC:

Bruce Hedrick, Smith/Packett Med-Com
Ryan Lindley, Banning Engineering
Tomás Fuentes-Rohwer, Meristem
U.S. Army Corps of Engineers

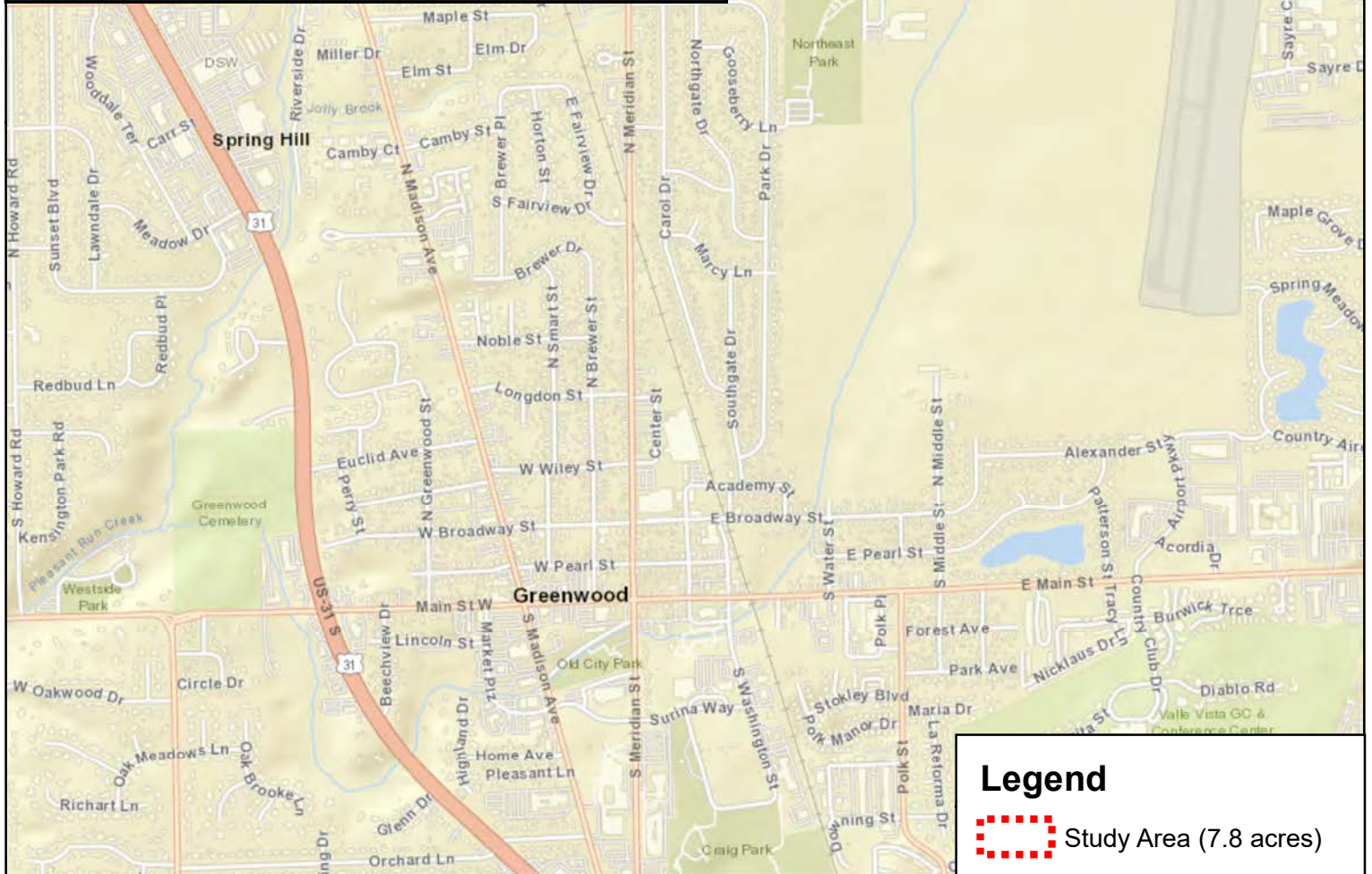
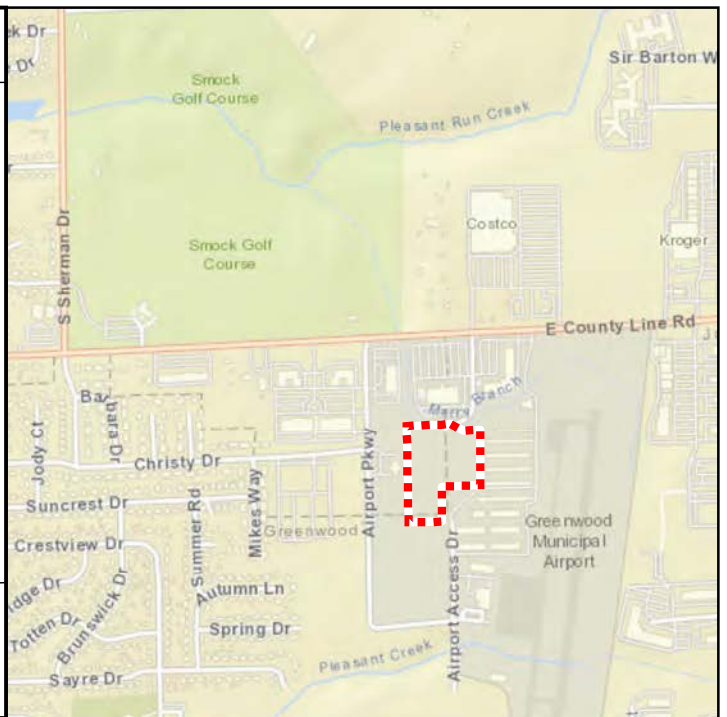
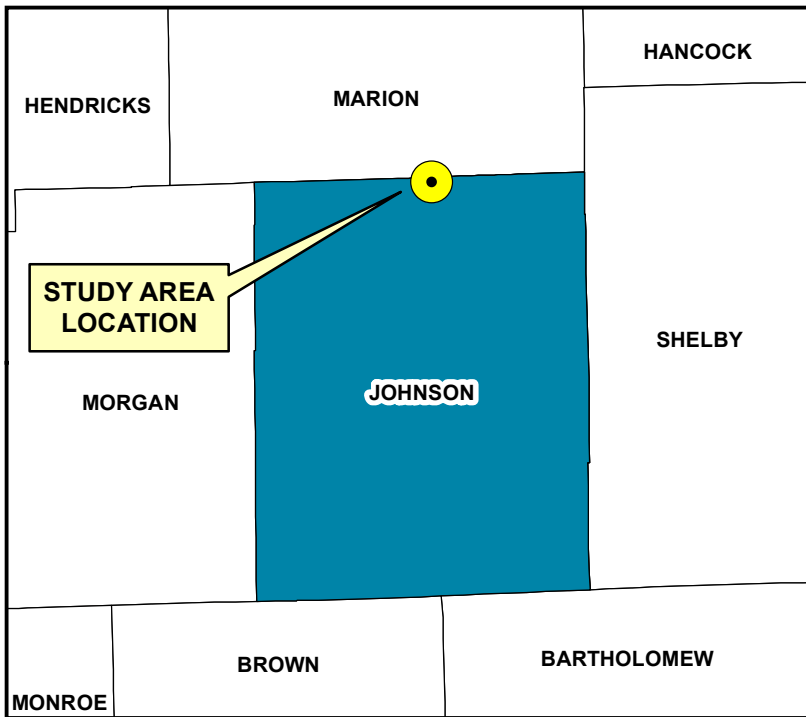
Enclosed:

Attachment 1: Section 401 WQC Regional General Permit Notification
Attachment 2: Project Location on Highway Map
Attachment 3: Project Location on Aerial Photograph (2021)
Attachment 4: Engineering Design Plans
Attachment 5: Water Resources Delineation Report
Attachment 6: Indiana Department of Natural Resources Heritage Database Correspondence




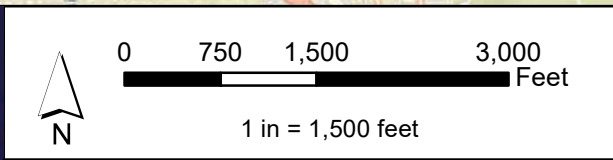
Attachment 1: Section 401 WQC Regional General Permit Notification





Legend

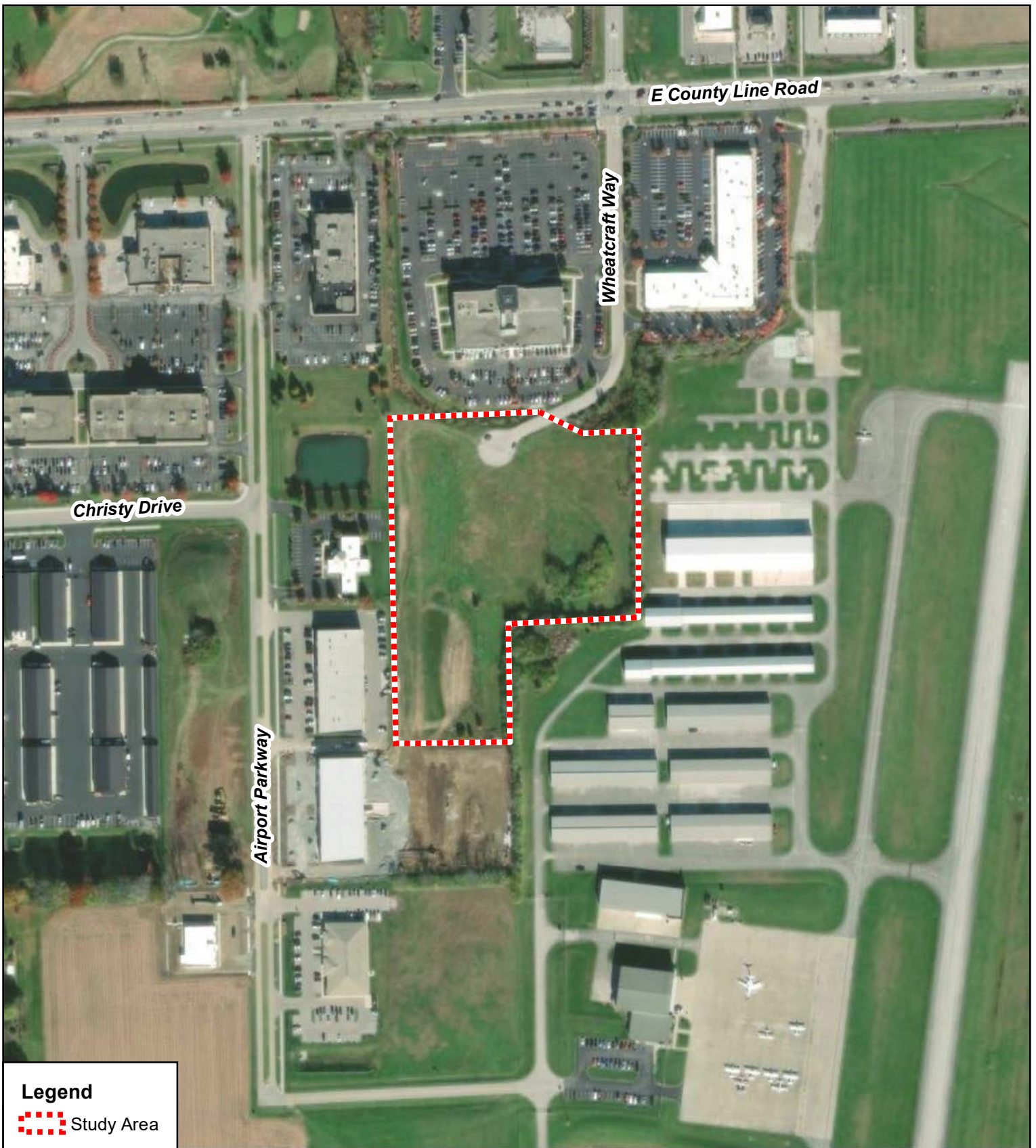
 Study Area (7.8 acres)



Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Attachment 2:
Study Area Location Map

Harmony Site - Greenwood
 S of Wheatcraft Way and County Line RD
 Pleasant Township
 Johnson County, Indiana




E County Line Road


Wheatcraft Way

Christy Drive

Airport Parkway

Legend
 Study Area



0 150 300 600 Feet

 1 in = 300 feet

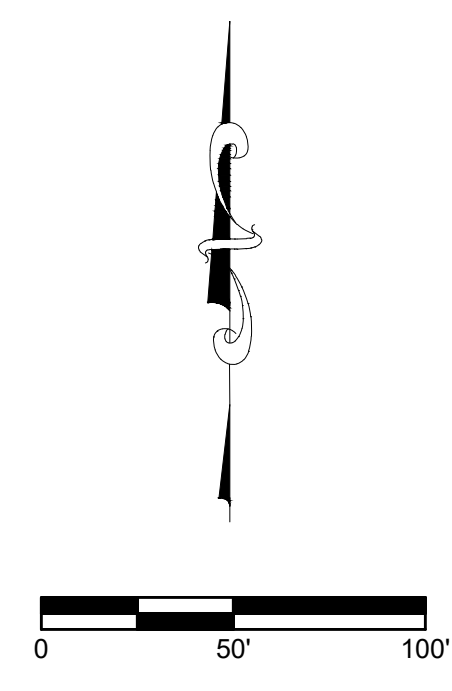
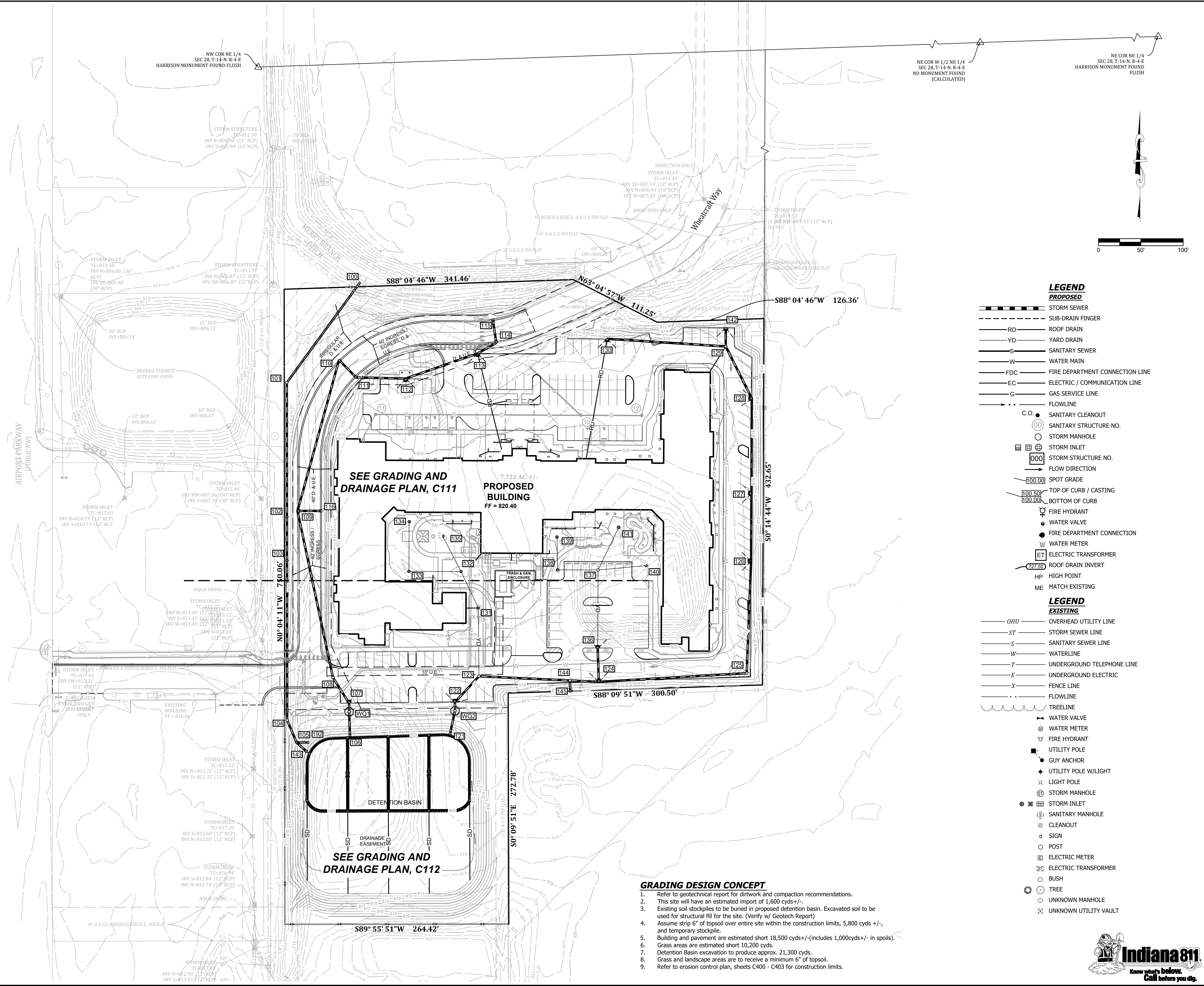
Indiana Office of Information Technology, Indiana University Spatial Data Portal, UIITS, Woolpert Inc.; Esri, Redlands CA
 Imagery Date: 2021

Attachment 3
Project Location on Aerial Photograph
 Harmony of Greenwood
 S of Wheatcraft Way and E County Line Road
 Pleasant Township
 Johnson County, Indiana

Attachment 4: Engineering Design Plans



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- LEGEND**
PROPOSED
- STORM SEWER
 - SUB-DRAIN FINGER
 - RD ROOF DRAIN
 - YD YARD DRAIN
 - S SANITARY SEWER
 - W WATER MAIN
 - FDC FIRE DEPARTMENT CONNECTION LINE
 - EC ELECTRIC / COMMUNICATION LINE
 - G GAS SERVICE LINE
 - FLOWLINE
 - C.O. SANITARY CLEANOUT
 - SANITARY STRUCTURE NO.
 - STORM MANHOLE
 - ⊞ STORM INLET
 - ⊞ STORM STRUCTURE NO.
 - FLOW DIRECTION
 - 100.00 SPOT GRADE
 - 100.50 TOP OF CURB / CASTING
 - 100.00 BOTTOM OF CURB
 - ⊙ FIRE HYDRANT
 - ⊙ WATER VALVE
 - ⊙ FIRE DEPARTMENT CONNECTION
 - ⊙ WATER METER
 - ⊞ ET ELECTRIC TRANSFORMER
 - ⊞ ROOF DRAIN INVERT
 - HP HIGH POINT
 - ME MATCH EXISTING
- LEGEND**
EXISTING
- OHU OVERHEAD UTILITY LINE
 - ST STORM SEWER LINE
 - S SANITARY SEWER LINE
 - W WATERLINE
 - T UNDERGROUND TELEPHONE LINE
 - E UNDERGROUND ELECTRIC
 - X FENCE LINE
 - FLOWLINE
 - TREELINE
 - ⊙ WATER VALVE
 - ⊙ WATER METER
 - ⊙ FIRE HYDRANT
 - ⊙ UTILITY POLE
 - ⊙ GUY ANCHOR
 - ⊙ UTILITY POLE W/LIGHT
 - ⊙ LIGHT POLE
 - ⊙ STORM MANHOLE
 - ⊞ STORM INLET
 - ⊞ SANITARY MANHOLE
 - ⊙ CLEANOUT
 - ⊙ SIGN
 - ⊙ POST
 - ⊙ ELECTRIC METER
 - ⊞ ELECTRIC TRANSFORMER
 - BUSH
 - TREE
 - UNKNOWN MANHOLE
 - ⊞ UNKNOWN UTILITY VAULT

SEE GRADING AND DRAINAGE PLAN, C111

PROPOSED BUILDING
FF = 820.40

SEE GRADING AND DRAINAGE PLAN, C111

- GRADING DESIGN CONCEPT**
- Refer to geotechnical report for dirtwork and compaction recommendations.
 - This site will have an estimated import of 1,600 cyds +/-.
 - Existing soil stockpiles to be buried in proposed detention basin. Excavated soil to be used for structural fill for the site. (Verify w/ Geotech Report)
 - Assume strip 6" of topsoil over entire site within the construction limits, 5,800 cyds +/-, and temporary stockpile.
 - Building and pavement are estimated short 18,500 cyds +/- (includes 1,000cyds +/- in spoils).
 - Grass areas are estimated short 10,200 cyds.
 - Detention Basin excavation to produce approx. 21,300 cyds.
 - Grass and landscape areas are to receive a minimum 6" of topsoil.
 - Refer to erosion control plan, sheets C400 - C403 for construction limits.

Date	
Revisions	
Designed:	SJH/REL
Drawn:	SJH
Checked:	RLL
Scale:	1"=50'
Date:	12-22-2022

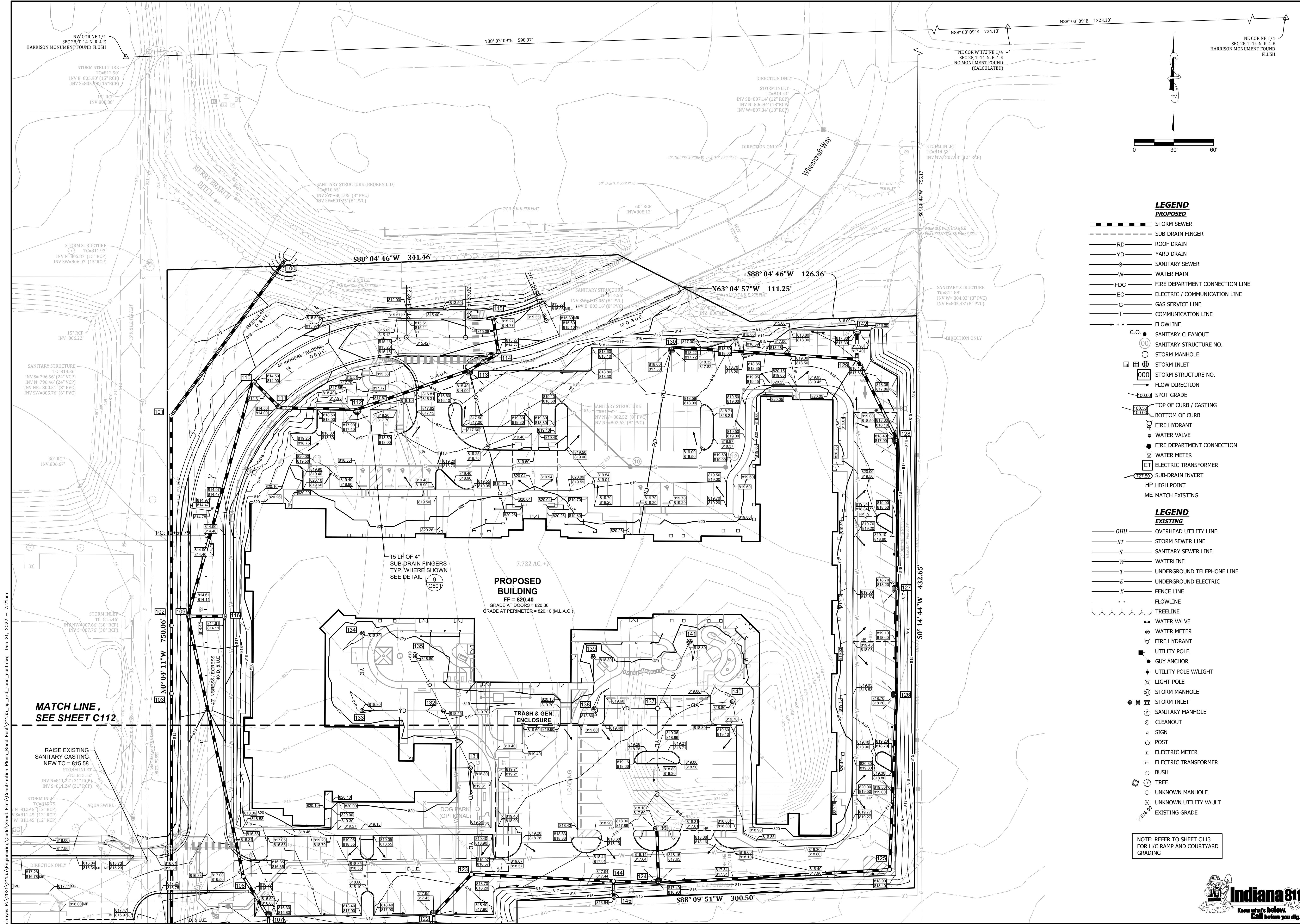
OVERALL GRADING PLAN
HARMONY OF GREENWOOD
JOHNSON COUNTY
GREENWOOD, INDIANA

W. Chad Ziegler
Professional Engineer

BANNING ENGINEERING
653 COLUMBIA ROAD, SUITE #101
PLAINFIELD, IN 46166
BUS: (317) 707-3700 FAX: (317) 707-3800
E-MAIL: Banning@BanningEngineering.com
WEB: www.BanningEngineering.com

Project No: 21135
Sheet No: C110





- LEGEND**
PROPOSED
- STORM SEWER
 - SUB-DRAIN FINGER
 - RD ROOF DRAIN
 - YD YARD DRAIN
 - SANITARY SEWER
 - W WATER MAIN
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 - ME MATCH EXISTING

- LEGEND**
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 - ⊕ POST
 - ⊕ ELECTRIC METER
 - ⊕ ELECTRIC TRANSFORMER
 - ⊕ BUSH
 - ⊕ TREE
 - ⊕ UNKNOWN MANHOLE
 - ⊕ UNKNOWN UTILITY VAULT
 - EXISTING GRADE

NOTE: REFER TO SHEET C113 FOR H/C RAMP AND COURTYARD GRADING

Date	
Revisions	
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Designed: S.H.R.E.L.	Drawn: S.J.H.
Checked: R.R.L.	Scale: 1"=30'
Date:	12-22-2022

GRADING AND DRAINAGE PLAN
HARMONY OF GREENWOOD
JOHNSON COUNTY
GREENWOOD, INDIANA

W. Chad Ziegler

BANNING ENGINEERING
653 COLUMBIA ROAD, SUITE #101
PLAINFIELD, IN 46166
BUS: (317) 707-3700 FAX: (317) 707-3800
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Project No: 21135
Sheet No: C111

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**MATCH LINE ,
SEE SHEET C112**

RAISE EXISTING
SANITARY CASTING
NEW TC = 815.58

STORM INLET
TC=815.12
INV N=811.22' (21" RCP)
INV S=814.24' (21" RCP)

STORM INLET
TC=815.75
INV N=811.45' (12" RCP)
INV S=814.45' (12" RCP)

STORM INLET
TC=815.46
INV NW=807.66' (30" RCP)
INV S=807.76' (30" RCP)

STORM STRUCTURE
TC=812.50
INV E=805.90' (15" RCP)
INV S=805.90' (15" RCP)

STORM STRUCTURE
TC=811.97
INV N=805.87' (15" RCP)
INV SW=806.07' (15" RCP)

STORM STRUCTURE
TC=814.36
INV S=796.56' (24" VCP)
INV N=796.46' (24" VCP)
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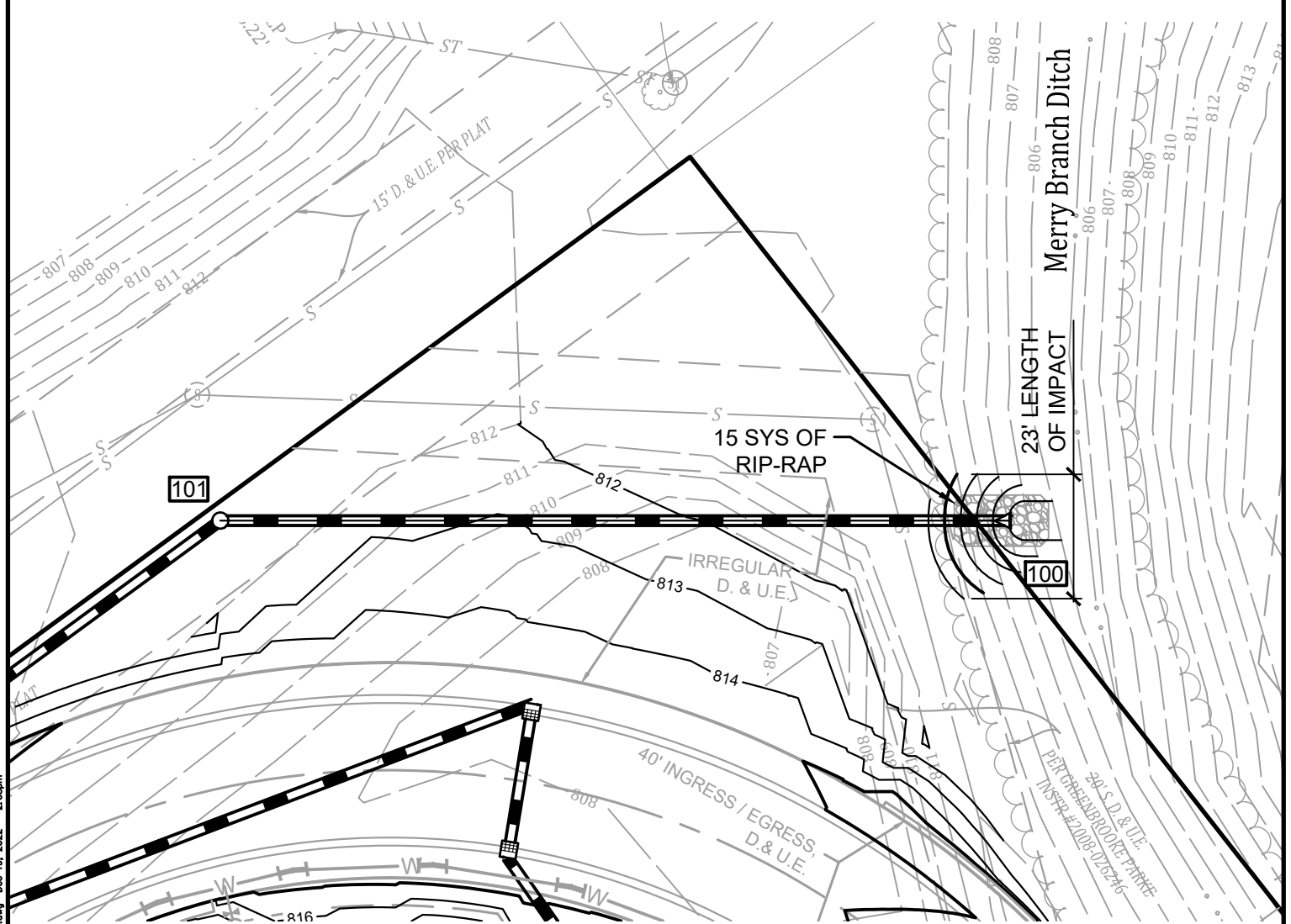
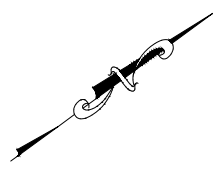
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 DATE: 12-19-2022
 JOB #: 21135
 SCALE: 1" = 30'
 PAGE: 1 of 3

STORM SEWER PLAN
HARMONY OF GREENWOOD
PLEASANT TOWNSHIP, JOHNSON COUNTY
GREENWOOD, INDIANA


 853 COLUMBIA ROAD, SUITE #101
 PLAINFIELD, IN 46168
 BUS: (317) 707-3700, FAX: (317) 707-3800
 E-MAIL: Banning@BanningEngineering.com
 WEB: www.BanningEngineering.com

101
 72" DIA. MANHOLE
 W/ SOLID CASTING
 TC: 812.79
 INV IN: 806.17 42" RCP (S)
 INV OUT: 806.07 42" RCP (NE)

100
 42" CONCRETE END SECTION
 INV. 805.90 42" RCP (SW)

830

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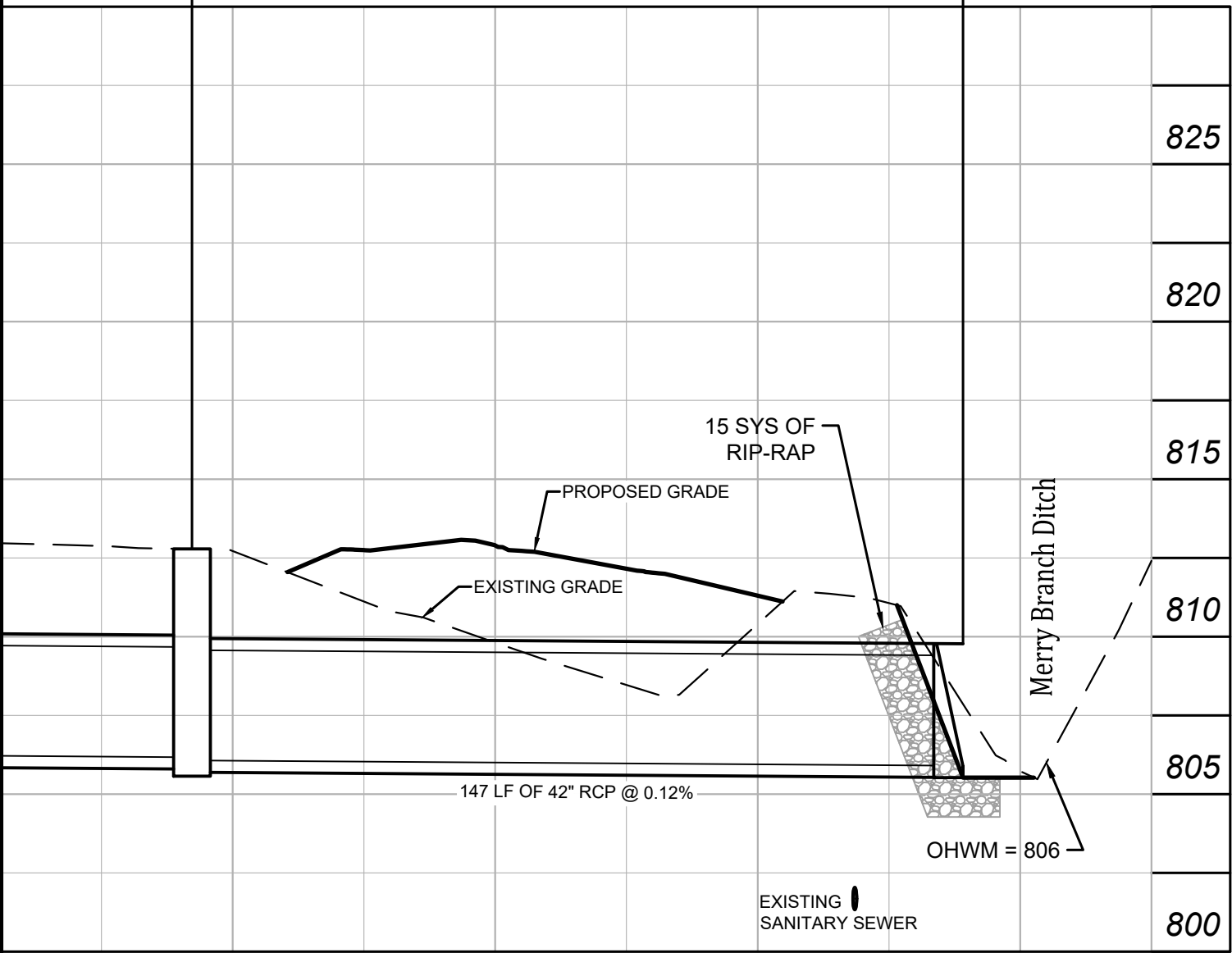
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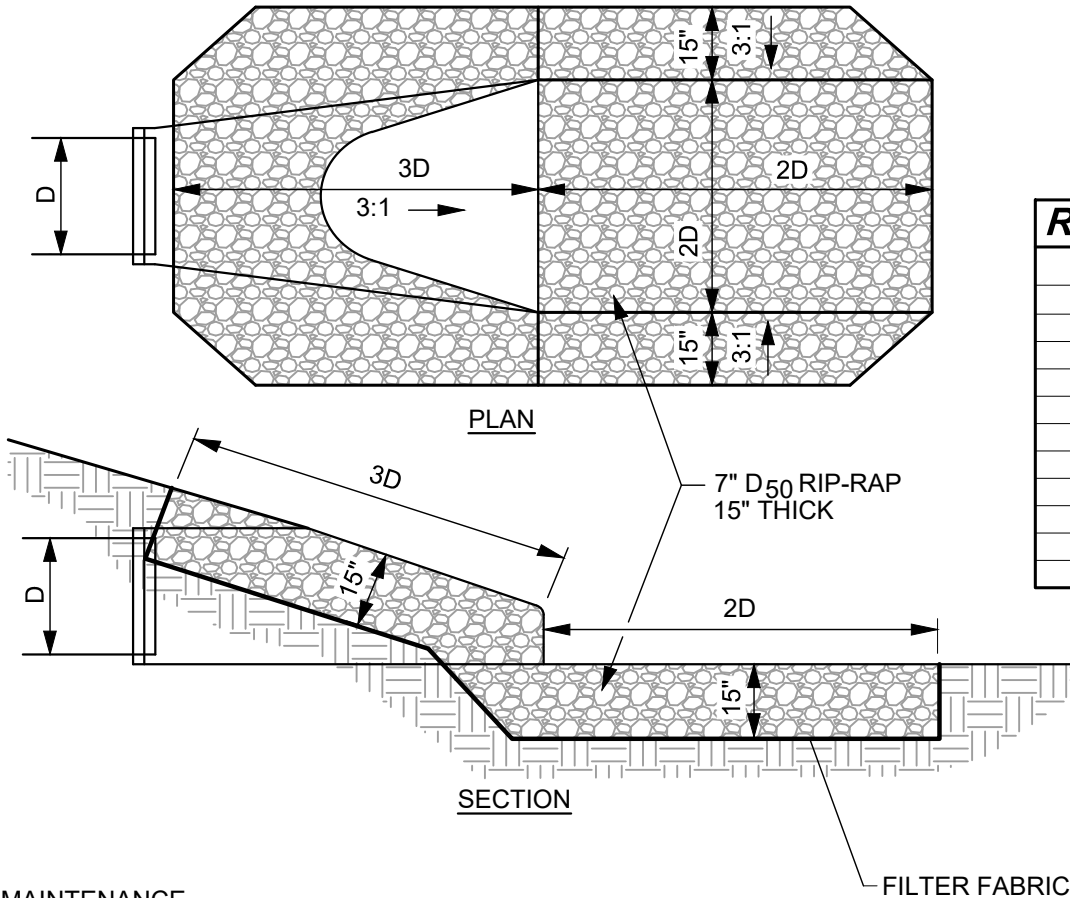
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STORM SEWER PLAN
 HARMONY OF GREENWOOD
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BANNING
 ENGINEERING
 853 COLUMBIA ROAD, SUITE #101
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RIP-RAP SCHEDULE	
PIPE	SYS
12	2
15	3
18	4
21	5
24	6
27	7
30	8.5
33	10
36	11.5
42	15
48	19

MAINTENANCE

*Inspect rock chutes weekly and after each 1/2" rainfall event for stone displacement and for erosion at the sides and ends of the apron

*Make needed repairs immediately; use appropriate size stone, do not place them above the finished grade.

RIP-RAP @ PIPE OUTLET
NO SCALE

DRAWN BY: SJH
 DATE: 12-19-2022
 JOB #: 21135
 SCALE: NONE
 PAGE: 3 of 3

STORM SEWER PIPE OUTLET DETAIL
HARMONY OF GREENWOOD
PLEASANT TOWNSHIP, JOHNSON COUNTY
GREENWOOD, INDIANA


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Attachment 5: Water Resources Delineation Report





Meristem

Where New Growth Happens



Harmony of Greenwood

±7.8 Acres

Johnson County, IN

Water Resources
Delineation
Report

November 21st, 2022

Prepared for:



Banning Engineering
Plainfield, IN

Prepared by:



Meristem, LLC
Avon, Indiana

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Appendix A, Figure 3	Study Area on Elevation Map
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1.0 INTRODUCTION

1.1 Introduction

The Study Area is located within Section 28; Township 14 North; and Range 4 East in Pleasant Township, Johnson County, Indiana in the City of Greenwood (see Appendix A, Figure 1). The Study Area was delineated by Meristem on November 16th, 2022. One (1) 212 linear foot intermittent stream (Stream 1, Merry Branch) was identified and delineated within the Study Area (see Appendix A, Figure 6). The intermittent stream appears to be connected to traditionally navigable waters (TNWs) and thus should be considered a “waters of the U.S.” (WOTUS) jurisdictional by the U.S. Army Corps of Engineers (USACE).

1.2 Project Area Description

1.2.1 General Land Use

The land use within the Study Area is predominantly a mowed grassy area, with a small patch of forested land located near the southeastern boundary. Stream 1, Merry Branch, runs along the northern boundary of the Study Area, and a small portion of road, Wheatcraft Way, lies in the northern portion of the Study Area. Land use adjacent to the Study Area is predominantly commercial in all directions with some residential properties to the west. Greenwood Municipal Airport lies just east of the Study area, and Airport Parkway lies just west of the Study Area.

1.2.2 National Wetland Inventory Mapped Wetlands

The U.S. Fish and Wildlife Service’s (USFWS) National Wetland Inventory (NWI) map was reviewed to determine the presence of any NWI polygons within or adjacent to the site. There was one (1) NWI wetland polygon observed within the Study Area boundaries (see Appendix A, Figure 2).

Table 1: NWI Polygons within the Study Area

<i>NWI Wetland</i>	<i>Description</i>	<i>Number within Study Area</i>
R4SBC	Riverine, Intermittent, Streambed, Seasonally Flooded	1

NWI maps are published by the United States Fish and Wildlife Service (USFWS) to identify potential wetlands and their characteristics. Wetlands published through this service are not always confirmed through field sampling and are not always accurate in identifying water resources.



1.2.3 Topography and Drainage

The Study Area has significant microtopography. There are two hills within the Study Area with one located near the eastern/ southeastern corner, and the other located near the southwestern corner. The highest point is approximately 833 feet above sea level (ASL) and is located on top of the forested hill in the eastern portion of the Study Area; the lowest point in the Study Area is approximately 807 feet ASL and lies near the northern boundary (see Appendix A, Figure 3).

1.2.4 Soil Associations and Series Types

The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey identifies four (4) Soil Mapping Unit types within the Study Area. The site is predominantly a mosaic of the hydric Urban land- Brookston complex (UbaA) soil series and the non-hydric Crosby silt loam, fine loamy subsoil- Urban land complex (YclA) soil series, with small polygons of two other soil series types along the north and south boundaries (see Appendix A, Figure 4).

Hydric soils are soils that have formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper layer of the soil.

Table 2: Soil Mapping Units Within the Study Area

<i>Symbol</i>	<i>Description</i>	<i>Hydric</i>
YclA	Crosby Silt Loam, Fine-Loamy Subsoil- Urban Land Complex 2 to 6 percent slopes	NO
YmsB2	Miami Silt Loam- Urban Land Complex, 2 to percent slopes, eroded	NO
YmsC2	Miami Silt Loam- Urban Land Complex, 6 to 12 percent slopes, eroded	YES
UbaA	Urban Land- Brookston Complex, 0 to 2 percent slopes	YES

1.2.5 Environmental Protection Agency Level IV Ecoregion

The Study Area is located within the Loamy High Lime Till Plains (55b) Level IV Ecoregion designated by the U.S. Environmental Protection Agency (EPA). This ecoregion historically contained nearly-level topography and soils developed from loamy, limy, glacial deposits of Wisconsinan age, with higher fertility and better natural drainage than surrounding Eastern Corn Belt Plains Level IV ecoregions. Much of the original land use has been converted to agriculture.



2.0 REGULATORY BACKGROUND

2.1 Regulatory Agencies

Agencies that regulate impacts to the nation's surface water resources within Indiana include USACE and the Indiana Department of Environmental Management (IDEM). Jurisdictional waters of the U.S. are protected under Sections 401 and 404 of the Clean Water Act (CWA) and Executive Order 11990 (Protection of Wetlands). USACE has the primary regulatory authority for enforcing Section 404 requirements for waters of the U.S., including wetlands. The Indiana Department of Natural Resources (IDNR) also requires permits for impacts to wetlands and waterways within regulated floodways.

2.2 Definitions

2.2.1 Federal

Waters of the U.S. are defined by the USACE, 33 Code of Federal Regulations (CFR) 328.3

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) which are used or could be used for industrial purpose by industries in interstate commerce;
- All impoundments of waters otherwise defined as waters of the U.S. under the definition;
- Tributaries of waters of the U.S. identified above;
- The territorial seas;
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified above. The term adjacent means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by manmade dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."



Wetlands are a category of waters of the U.S. and are defined by the USACE as “areas that are inundated or saturated by surface or ground water 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” (33 CFR 328.3, USACE; Section 8b). Typical wetlands include bogs, marshes, swamps, and other similar areas. However, temporarily or seasonally flooded depressions that receive overland storm water runoff or overbank floodwaters can meet the criteria for wetlands. This is often due to the prevalence of clay soils that hold water or have a high water table that causes soils to remain saturated for long periods.

Based upon current guidance by the Environmental Protection Agency (EPA), only those wetlands that are adjacent to traditional navigable waters or wetlands that directly abut to non-navigable tributaries having a seasonal (3-month minimum) flow are now considered jurisdictional under the CWA (June 5, 2007 EPA Memo regarding Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in *Rapanos v. United States & Carabell v. United States*) Following are key points from the EPA memo and are at times referred to as “Rapanos Guidance”.

“The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)
- Wetlands that directly abut such tributaries

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors”



2.2.2 State

“Waters” within the State of Indiana are defined as surface and underground waterbodies; natural and artificial; public or private, which are partially or wholly within, flow through or border upon Indiana. The term includes all waters of the United States, as defined in Section 502(7) of the federal Clean Water Act (33 U.S.C. 1362(7)), that are located in Indiana. (As added by P.L.1-1996, SEC.1. Amended by P.L.183-2002, SEC.1; P.L.282-2003, SEC.31; P.L.52-2004, SEC.4.)

Although not specifically mentioned within the Indiana Code’s definition of state “waters”, Indiana “waters” do include and are not limited to streams and wetlands (both isolated and non-isolated). State of Indiana “waters” do not include exempt isolated wetlands, private ponds, or off-stream ponds, reservoirs, wetlands, or other facilities **built for** reduction or control of pollution or cooling of water before discharge. (IC 13-11-2-265). The State of Indiana also excludes isolated ephemeral streams from their jurisdiction (SEA No. 389: Sect. 7. IC 13-18-22-1, as amended by P.L.166-2020).

The State of Indiana relies on the Corps’ (USACE) decision regarding wetland determinations and delineations including whether or not a wetland is isolated or non-isolated.

3.0 DETERMINATION OF WATERS OF THE U.S.

3.1 Methods

3.1.1 Wetlands

The water resources delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the appropriate regional supplement. The presence of potentially jurisdictional wetlands is determined by the positive indication of three criteria: the dominance of hydrophytic (wetland) vegetation, one positive hydric soil indicator, and a minimum of one primary or two secondary indicators for hydrology. A “Wetland Determination Form” was completed for each survey point to record the presence or absence of each criterion.

Wetlands were delineated using a Trimble TDC-600 and/or Trimble R1, and mapped using ArcMap 10.8.2. The final determination on the presence of and jurisdiction of wetlands and “waters of the U.S.” is determined by the USACE.

3.2.3.3 Hydrophytic Vegetation

Areal coverage of individual herb, shrub, tree, and vine species were assessed and recorded at each survey point to determine dominance. Plant species are assigned an indicator status based on probability of occurring in wetland conditions regionally. The indicator status of each plant is determined by USACE and is published on the National Wetland Plant List (2020). Definitions of the five primary indicator statuses are:



Obligate (OBL): Occur almost always under natural conditions in wetlands (estimated > 99% probability of occurrence).

Facultative Wetland (FACW): Usually occur in wetlands but occasionally found in non-wetlands (estimated 67% - 99% probability of occurrence).

Facultative (FAC). Equally likely to occur in wetlands and non-wetlands (estimated 34% - 66% probability of occurrence).

Facultative Upland (FACU): Occasionally occur in wetlands, but usually occur in non-wetlands (estimated 1% - 33% probability of occurrence).

Upland (UPL). Occur almost always under natural conditions in non-wetlands in the region specified. (estimated < 1% probability of occurrence).

3.1.1.2 Hydric Soil

Soil samples were taken in areas believed to be potential wetlands such as areas that are indicated as wetlands on the National Wetland Inventory maps; areas that exhibited wetland flora or had signs of hydrology. These soil samples were taken to determine the presence of hydric soils by examining the hue, value, and chroma of the soil using a Munsell color chart. An upland soil sample was also taken near the edge of the wetlands to determine the boundary and surrounding conditions for the wetland.

3.1.1.3 Wetland Hydrology

Evidence of hydrology can often be associated when the soil sample is dug. Saturated soils within the upper 12 inches is documented in addition to the presence of the water table within 12 inches of the surface. Other signs of hydrology may include but are not limited to drainage patterns, surface water, rafted debris, and crayfish chimneys.

3.1.2 Streams

Potential boundaries for streams were delineated in the field at the ordinary high water mark (OHWM). The OHWM is the line on the shore or bank established by flowing and/or standing water, marked by characteristics such as a clear, natural line impressed on the bank, erosion shelving, changes in the character of soil, destruction of terrestrial vegetation, presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas [(33 CFR Part 328.3)].

All waterways with an OHWM were identified as perennial, intermittent, or ephemeral. Determination was made based off field observations, the antecedent precipitation tool (APT) developed by USACE, National Hydrography Dataset (NHD), and other available resources.



3.2.3 Ponds

Water bodies such as lakes, ponds, dammed streams, retention ponds, borrow pits, and similar open water systems are defined by the OHWM near the shoreline or the edge of its littoral fringe.

Ponds lacking vegetation were considered open water systems during the delineation. Ponds that are human made are not considered jurisdictional by USACE.

3.2 Delineation Results

Table 3 summarizes the characteristics of the water resources delineated.

Table 3: Waterbodies Located Within the Study Area

Field Name	Water Resource Type ¹	Area within Study Area (acres)	Length within Study Area (linear feet)	Average Width at OHWM (feet)	Average Depth at OHWM (inches)	USACE-Jurisdictional	IDEM-Jurisdictional ²
Stream 1	INT	N/A	212	6	8	YES	YES

¹ INT = Intermittent

² Additional exemptions may apply

3.2.1 Wetlands

A 2021 aerial image of the Study Area is included in Appendix A, Figure 5. There were no wetlands identified within the Study Area during the investigation.

3.2.2 Streams

One (1) intermittent stream (Stream 1, Merry Branch) totaling 212 linear feet was identified within the Study Area. Stream 1 enters the Study Area near the northeastern corner and runs along the Study Area's northern boundary before exiting the Study Area near the northwest corner. Stream 1 then continues north-northwest for approximately 0.4-miles before outflowing into Pleasant Run Creek.

Stream 1 has an ordinary high-water mark (OHWM) width of 6 feet and an OHWM depth of 8 inches; however, only approximately 3 inches of water was present in the stream during the investigation. The substrate of Stream 1 was primarily comprised of cobble with some gravel throughout, though substrate in some portions of stream 1 consisted almost entirely of leaf litter and mud. Riprap was also present near the culvert. Stream 1 appears to have a significant nexus (SNE) to traditionally navigable waters (TNWs) and thereby should be considered a WOTUS under the jurisdictional scope of the USACE.

3.2.3 Ponds

No ponds were identified during the investigation.



4.0 Conclusions

The Study Area located in Johnson County, Indiana was delineated by Meristem, LLC on November 16th, 2022. One (1) intermittent stream, Merry Branch (212 LF), was identified and delineated within the Study Area. The intermittent stream appears to have a significant nexus (SNE) to TNWs and thereby should be considered WOTUS under the jurisdictional scope of the USACE.

This report is based on Meristem's best professional opinion and is limited to the time frame when field work was conducted. Meristem is not responsible for the interpretation or use by others of conclusions described in this report. The U.S. Army Corps of Engineers (USACE) and the Indiana Department of Environmental Management (IDEM) have final determination of wetland boundaries and connectivity to WOTUS.



5.0 BIBLIOGRAPHY

33 CFR 328.3, Definition of Waters of the United States.

Bailey, R.G., Avers, P.E., King, T., and McNab, W.H., eds., 1994, Ecoregions and subregions of the United States (map) (supplementary table of map unit descriptions compiled and edited by McNab, W.H. and Bailey, R.G.): Washington, D.C., U.S. Department of Agriculture - Forest Service, scale 1:7,500,000.

Cowardin, L.M., V. Carter, F.C. Golet, E.T. LaRoe 1985. *Classification of Wetlands and the Deepwater Habitats of the United States*. U.S. Department of the Interior. Fish and wildlife Service, Office of Biological Services, Washington, D.C.

Deam, Charles C. 1940. *Flora of Indiana*. Indiana Department of Conservation.

Deam, Charles C. 1929. *Grasses of Indiana*. Indiana Department of Conservation.

Deam, Charles C. 1932. *Shrubs of Indiana*. Indiana Department of Conservation.

Deam, Charles C. 1921. *Trees of Indiana*. Indiana Department of Conservation.

Gleason, Henry A., A. Cronquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada, Second Edition*. The New York Botanical Press.

Holmgren, Noel H., P. K. Holmgren, A. Cronquist. 1998. Illustrated Companion to Gleason and Cronquist's Manual: Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada, *Second Edition*. The New York Botanical Press.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, Department of the Army, Waterways Experiment Station.

Indiana Department of Environmental Management. April 24, 2007. Letter to James Townsend Regarding 2007 Reissuance of Nationwide Permits and Renewal of Regional General Permit for Indiana.

Indiana Senate Enrolled Act No. 389

Natural Resources Conservation Service. 1979. *Soil Survey of Johnson County, Indiana*. U.S. Department of Agriculture, Natural Resources Conservation Service, in cooperation with Iowa Agricultural and Home Economics Experiment Station, and other local agencies.

Natural Resources Conservation Service. U.S. Department of Agriculture. Web site: <http://soils.usda.gov/education/> and <http://soildatamart.nrcs.usda.gov/State.aspx>

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: <http://websoilsurvey.sc.egov.usda.gov/>

U.S. Army Corps of Engineers. 2020. National Wetland Plant List Version 3.5.

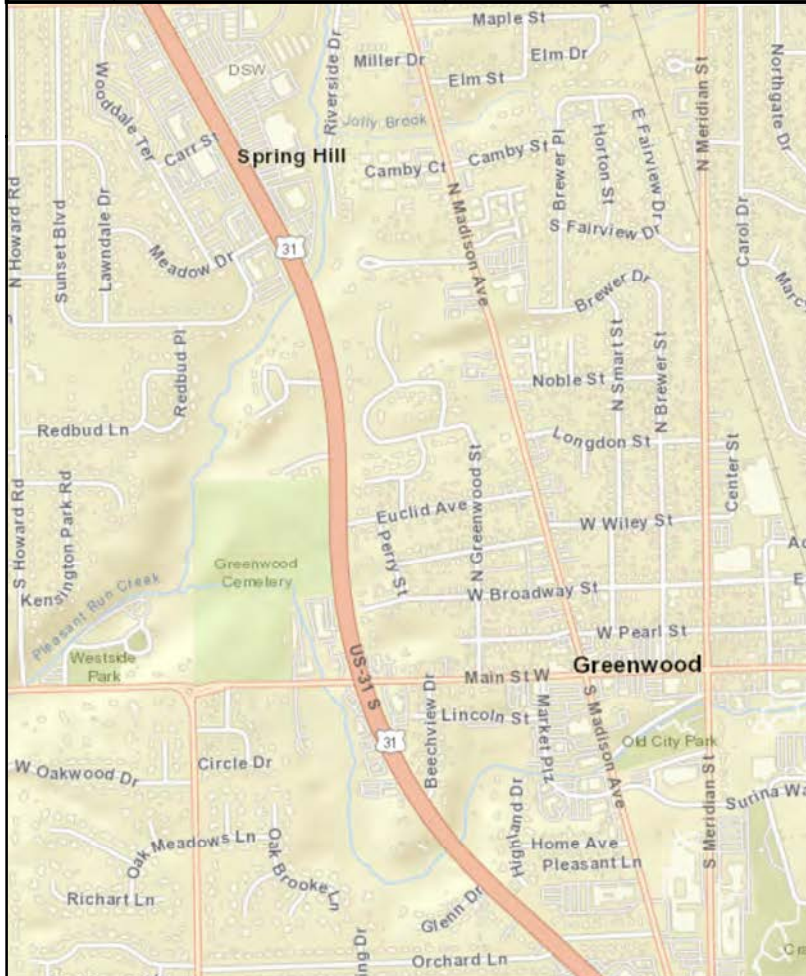
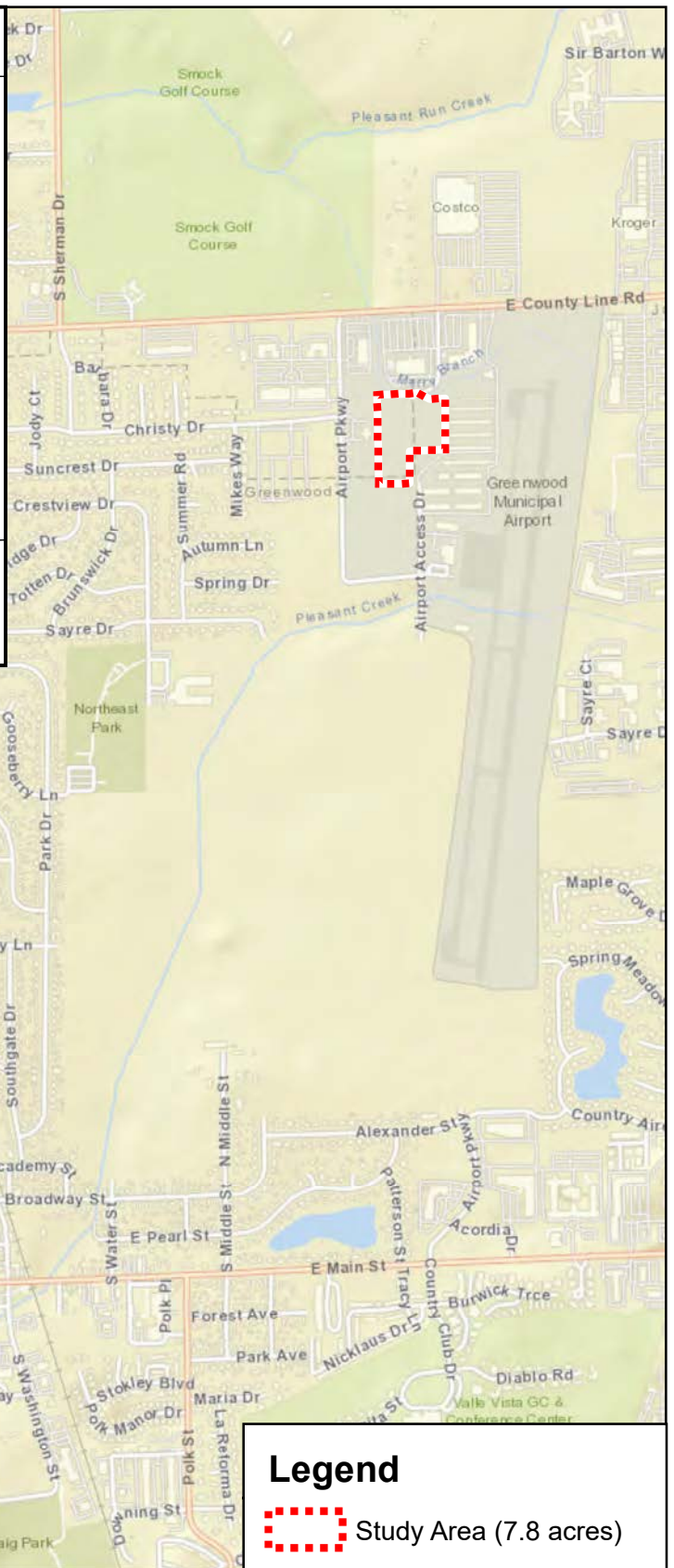
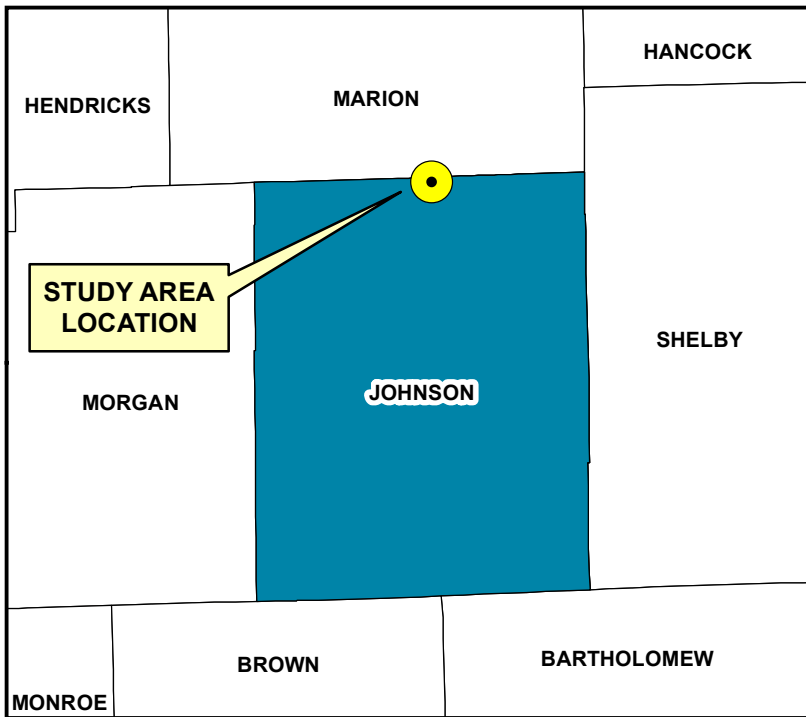
U.S. Army Corps of Engineers. *Reissuance of Nationwide Permits and Final Regional Conditions in Indiana; Public Notice*. March 12, 2007. Federal Register, Vol. 72, No 47, Part II.

U. S. Fish and Wildlife Service. 2005. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands/>


Woods, A.J, Omernik, J.M., Brockman, C.S., Gerber, T.D., Hosteter, W.D., Azevedo, S.H. "[Ecoregions of Indiana and Ohio \(Poster\)](#)", US Geological Survey (1998) Web.

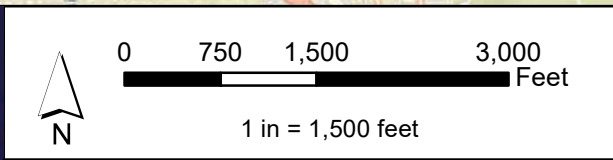
Yatskievych, Kay. 2000. *Field Guide to Indiana Wildflowers*. Indiana University Press.





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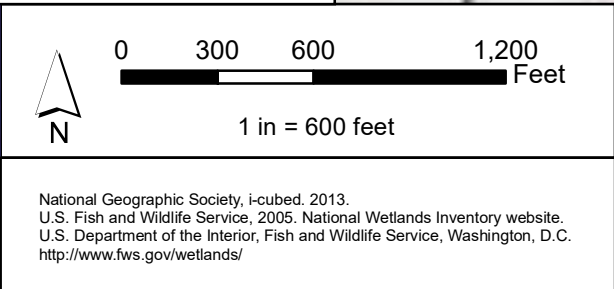
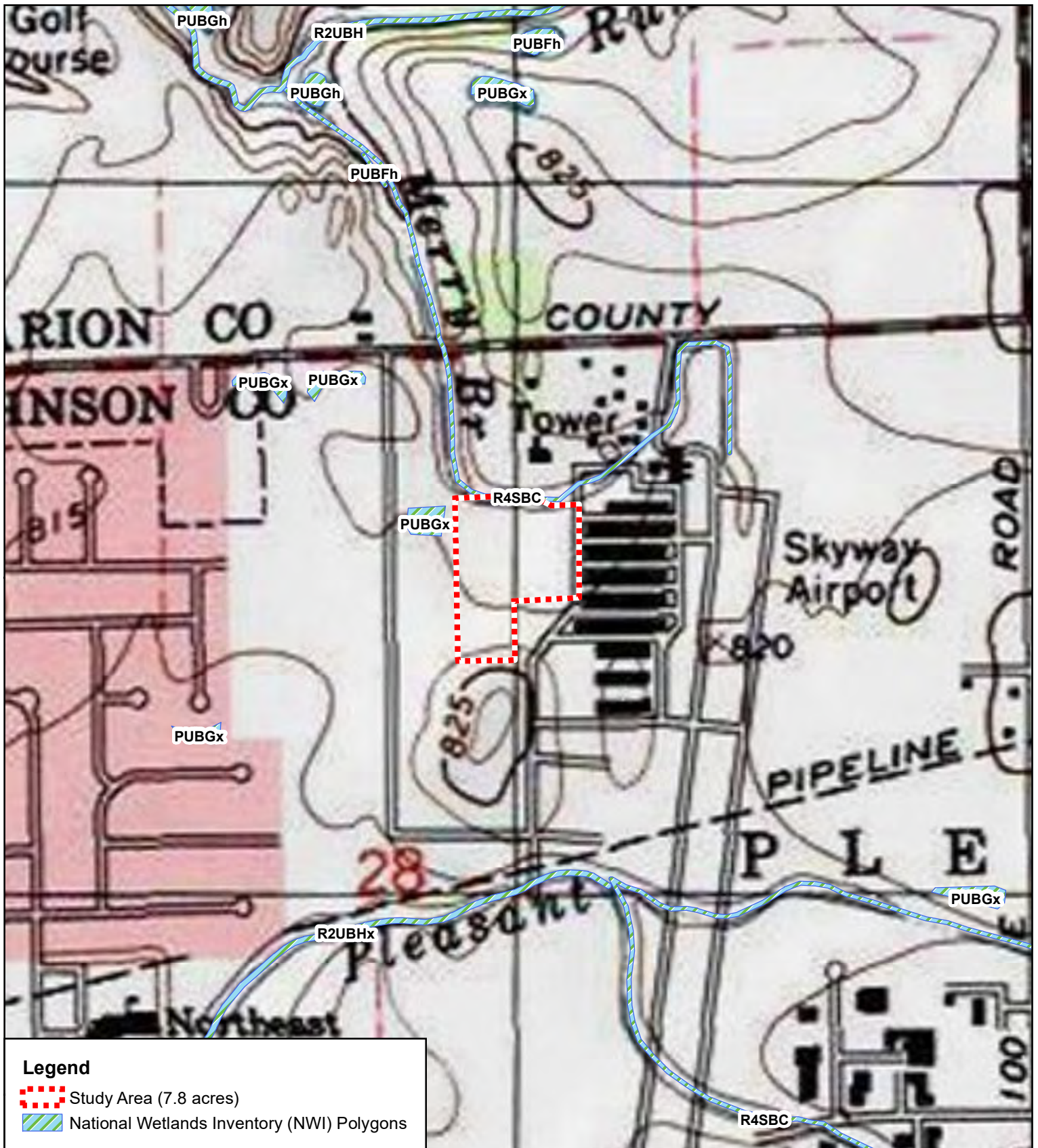
 Study Area (7.8 acres)



Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

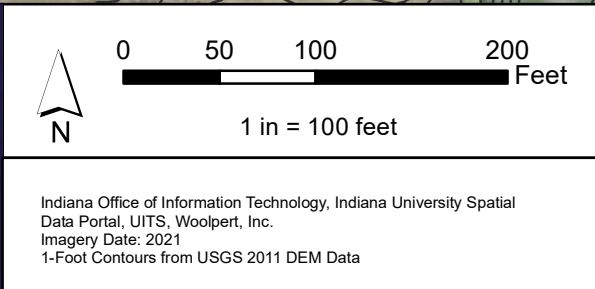
**Appendix A, Figure 1:
Study Area Location Map**

Harmony Site - Greenwood
S of Wheatcraft Way and County Line RD
Pleasant Township
Johnson County, Indiana




Appendix A, Figure 2:
Topographic and NWI Map

Harmony Site - Greenwood
 S of Wheatcraft Way and E County Line RD
 Pleasant Township
 Johnson County, Indiana

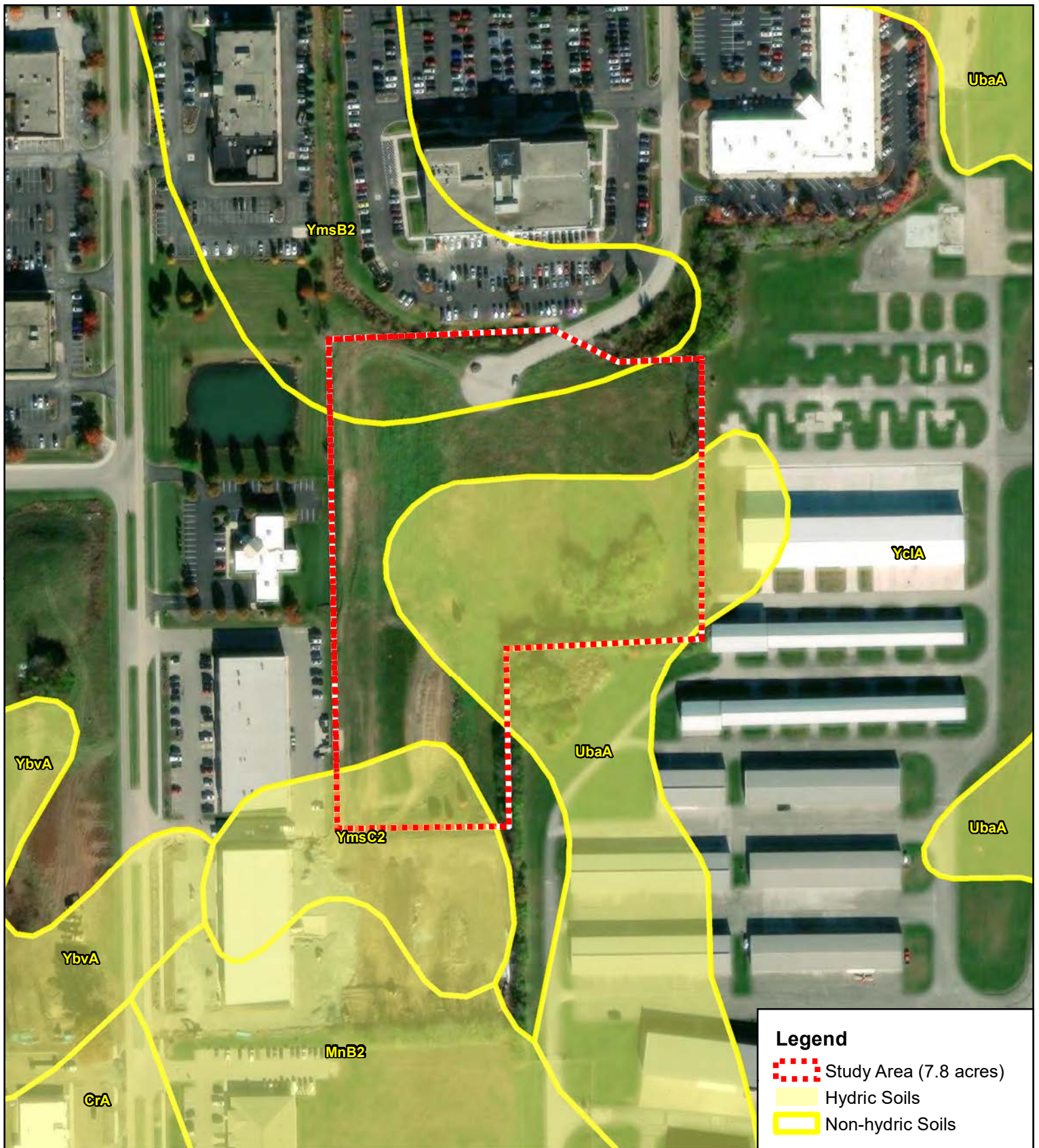


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

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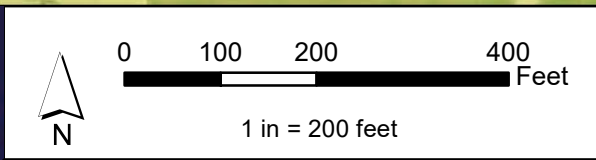
**Appendix A, Figure 3:
Study Area on Elevation Map**

Harmony Site - Greenwood
S of Wheatcraft Way and E County Line RD
Pleasant Township
Johnson County, Indiana



Legend

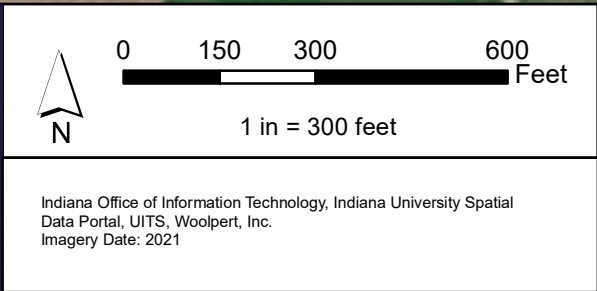
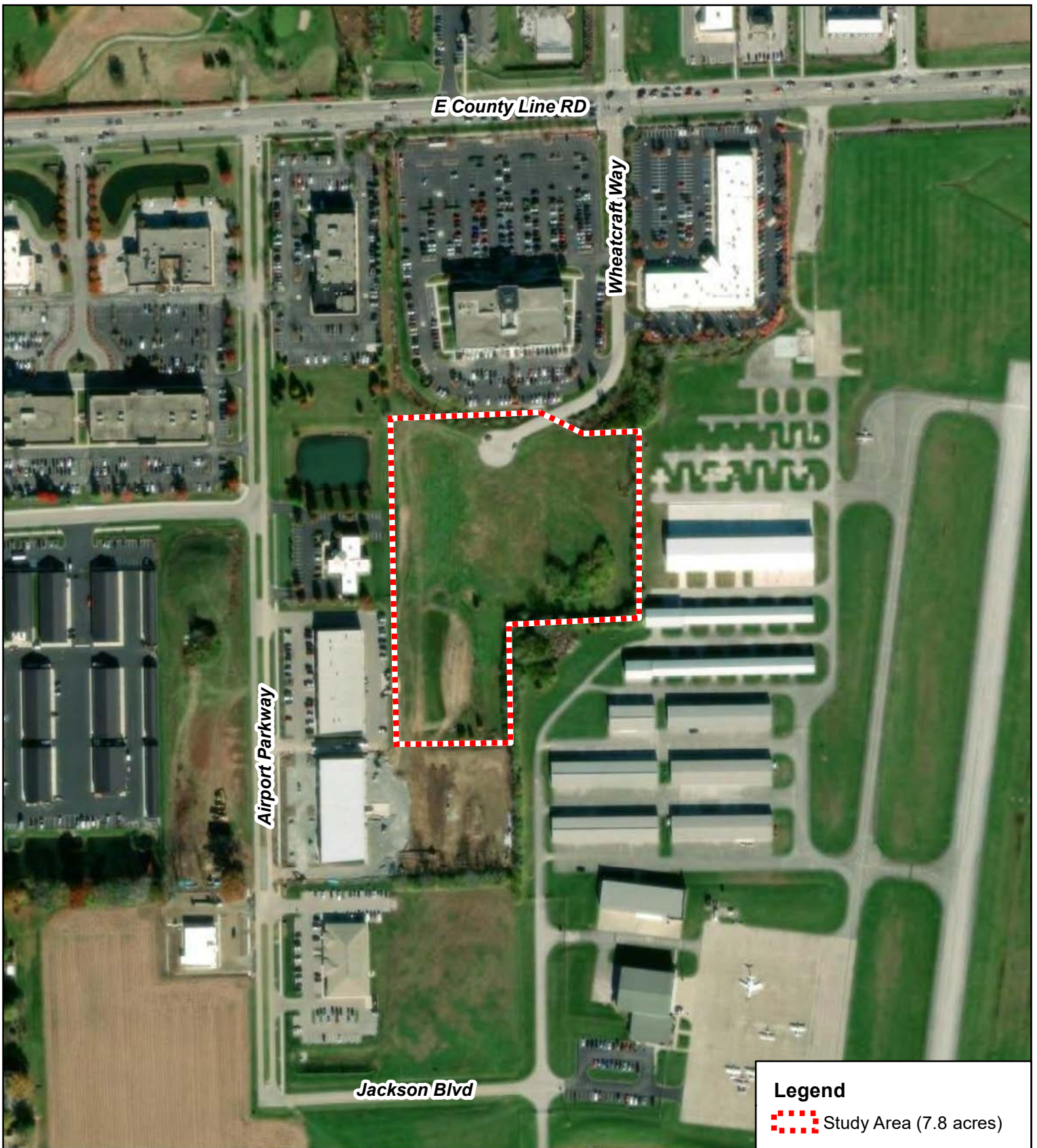
-  Study Area (7.8 acres)
-  Hydric Soils
-  Non-hydric Soils



Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: <https://websoilsurvey.sc.egov.usda.gov/>. Imagery Date: 2021

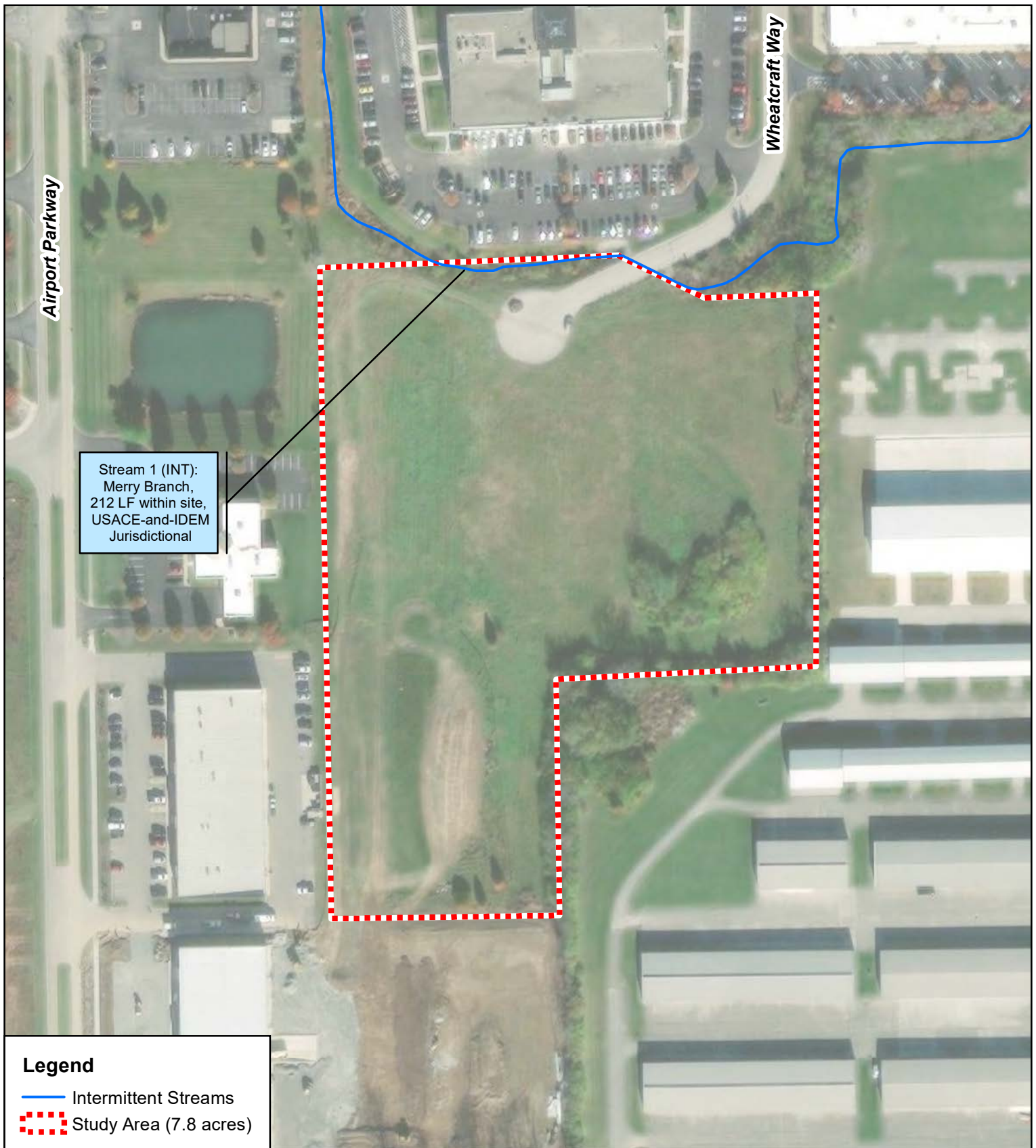
Appendix A, Figure 4:
Study Area on Johnson County Soil Map

Harmony Site - Greenwood
 S of Wheatcraft Way and E County Line RD
 Pleasant Township
 Johnson County, Indiana





Appendix A, Figure 5:
Study Area on Aerial Photograph (2021)

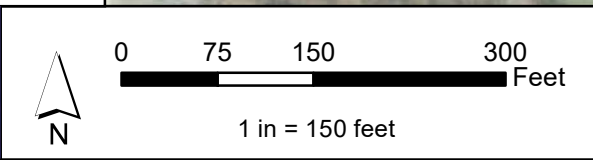
Harmony Site - Greenwood
S of Wheatcraft Way and E County Line RD
Pleasant Township
Johnson County, Indiana



Stream 1 (INT):
 Merry Branch,
 212 LF within site,
 USACE-and-IDEM
 Jurisdictional

Legend

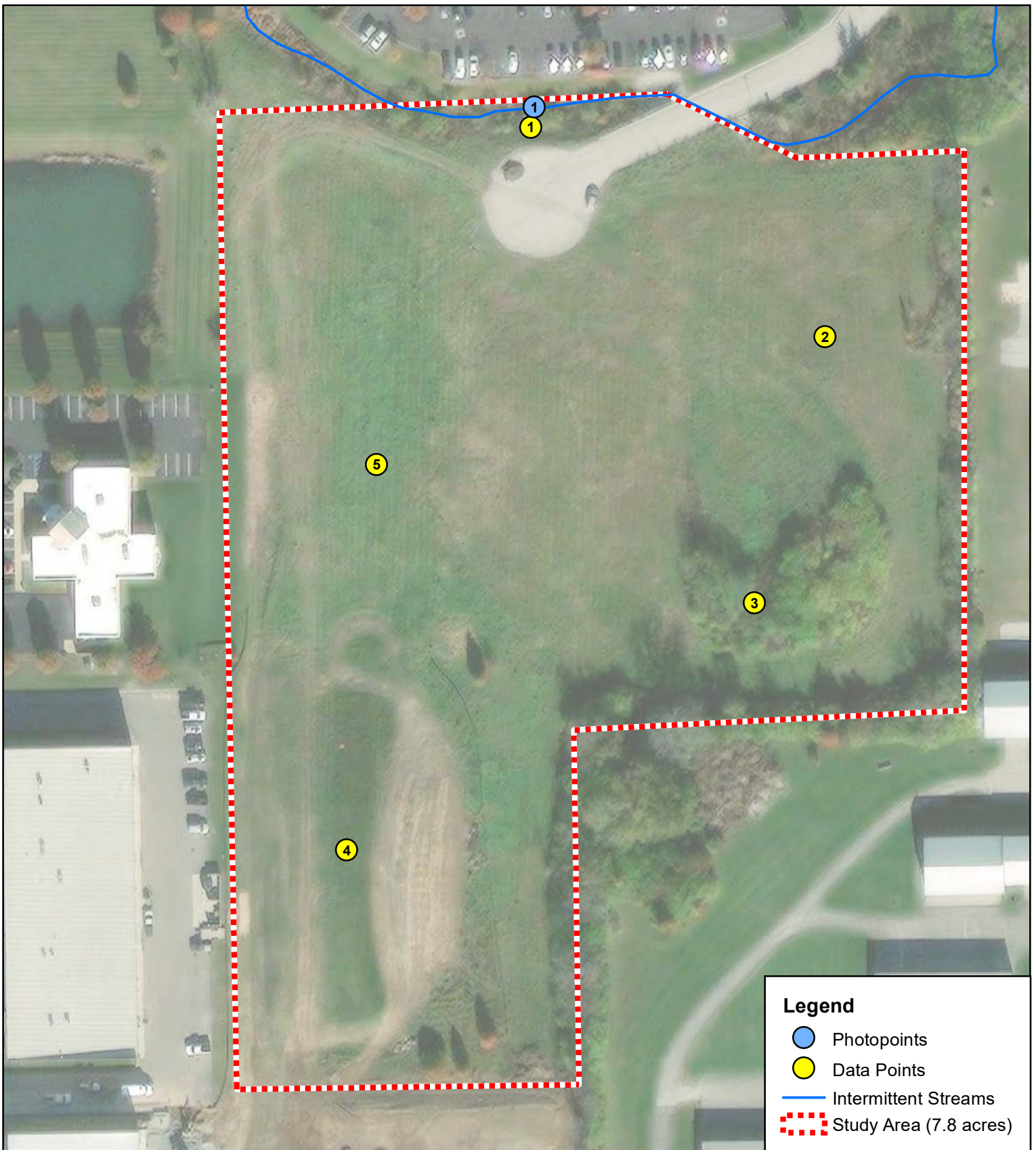
-  Intermittent Streams
-  Study Area (7.8 acres)







Indiana Office of Information Technology, Indiana University Spatial Data Portal, UIITS, Woolpert Inc.; Esri, Redlands CA
 Imagery Date: 2021

Appendix A, Figure 6:
Water Resources Delineation Map


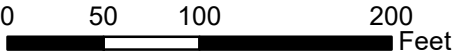
Harmony Site - Greenwood
 S of Wheatcraft Way and E County Line RD
 Pleasant Township
 Johnson County, Indiana



Legend

-  Photopoints
-  Data Points
-  Intermittent Streams
-  Study Area (7.8 acres)



 1 in = 100 feet

Indiana Office of Information Technology, Indiana University Spatial Data Portal, UIITS, Woolpert Inc.; Esri, Redlands CA
 Imagery Date: 2021

Appendix A, Figure 7:
Photo and Data Point Locations Map

Harmony Site - Greenwood
 S of Wheatcraft Way and E County Line RD
 Pleasant Township
 Johnson County, Indiana

APPENDIX B: Wetland Determination Data Forms (Midwest Region)

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Harmony of Greenwood City/County: Greenwood/ Johnson Sampling Date: 11/18/2022
 Applicant/Owner: Banning Engineering State: IN Sampling Point: 1
 Investigator(s): Tomas Fuentes-Rohwer, Kat Pain Section, Township, Range: S28, T14N R4E
 Landform (hillslope, terrace, etc.): till plains Local relief (concave, convex, none): None
 Slope (%): 2% Lat: 39.634201 Long: 86.091181 Datum: NAD83
 Soil Map Unit Name: Miami Silt Loam- Urban Land Complex (YmsB2) NWI 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 Y, 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 <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			

<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Elaeagnus umbellata</u>	15%	Yes	FACU
2. <u>Lonicera maackii</u>	7%	No	UPL
3. <u>Pyrus calleryana</u>	15%	Yes	UPL
4. <u>Cornus racemosa</u>	5%	No	FAC
5. _____	_____	_____	_____
42% = Total Cover			

<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Solidago canadensis</u>	20%	Yes	FACU
2. <u>Schedonorus arundinaceus</u>	5%	No	FACU
3. <u>Setaria faberi</u>	10%	No	FACU
4. <u>Andropogon virginicus</u>	7%	No	FACU
5. <u>Festuca rubra</u>	50%	Yes	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____
92% = Total Cover			

<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
= 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: 4 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x1 = _____
FACW species	x2 = _____
FAC species	x3 = <u>0.15</u>
FACU species	x4 = <u>4.28</u>
UPL species	x5 = <u>1.1</u>
Column Totals:	<u>1.34</u> (A) <u>5.53</u> (B)
Prevalence Index = B/A = <u>4.13</u>	

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation
 ____ 2-Dominance Test is >50%
 ____ 3-Prevalence Index is ≤3.0¹
 ____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

US Army Corps of Engineers

Midwest Region version 2.0

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2"	10YR 3/2	100%					Silt Loam	
2-16"	10YR 5/1	30%					Silt Loam	mixed matrix
2-16"	10YR 4/4	70%					Silt Loam	mixed matrix

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Field Observations:		Wetland Hydrology Present? Yes _____ No <u>X</u>
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u>	Depth (inches): _____	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Harmony of Greenwood City/County: Greenwood/ Johnson Sampling Date: 11/18/2022
 Applicant/Owner: Banning Engineering State: IN Sampling Point: 2
 Investigator(s): Tomas Fuentes-Rohwer, Kat Pain Section, Township, Range: S28, T14N R4E
 Landform (hillslope, terrace, etc.): recessional moraines Local relief (concave, convex, none): None
 Slope (%): 2% Lat: 39.633752 Long: 86.090384 Datum: NAD83
 Soil Map Unit Name: Crosby silt loam, fine-loamy subsoil- urban land complex (YcIA) NWI 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 Y, 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 <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			

Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			

Herb Stratum (Plot size: <u>5'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Trifolium hybridum</i>	5%	No	FACU
2. <i>Schedonorus arundinaceus</i>	45%	Yes	FACU
3. <i>Setaria faberi</i>	10%	No	FACU
4. <i>Festuca rubra</i>	40%	Yes	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____
100% = Total Cover			

Woody Vine Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
= 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: 2 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species <u>100%</u>	x4 = <u>4</u>
UPL species _____	x5 = _____
Column Totals: <u>1.00</u> (A)	<u>4</u> (B)
Prevalence Index = B/A = <u>4.00</u>	

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation
 ____ 2-Dominance Test is >50%
 ____ 3-Prevalence Index is ≤3.0¹
 ____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5"	10YR 3/2	95%	7.5YR 3/4	5%	C	M	Silty Clay Loam	disturbed past 5"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators:</p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<p> <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </p>	<p>Indicators for Problematic Hydric Soils³:</p> <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
<p>Primary Indicators (minimum of one is required: check all that apply)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p>Secondary Indicators (minimum of two required)</p> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)

<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>(includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <u>X</u></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Harmony of Greenwood City/County: Greenwood/ Johnson Sampling Date: 11/18/2022
 Applicant/Owner: Banning Engineering State: IN Sampling Point: 3
 Investigator(s): Tomas Fuentes-Rohwer, Kat Pain Section, Township, Range: S28, T14N R4E
 Landform (hillslope, terrace, etc.): till plains Local relief (concave, convex, none): None
 Slope (%): 2% Lat: 39.633192 Long: 86.090586 Datum: NAD83
 Soil Map Unit Name: Urban land- Brookstone complex (UbaA) NWI 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 Y, 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 <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Morus alba</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Robinia pseudoacacia</u>	<u>45%</u>	<u>Yes</u>	<u>FACU</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>70%</u>	<u>= Total Cover</u>	

Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera maackii</u>	<u>20%</u>	<u>Yes</u>	<u>UPL</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>20%</u>	<u>= Total Cover</u>	

Herb Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Glechoma hederacea</u>	<u>50%</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Schedonorus arundinaceus</u>	<u>30%</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Arctium minus</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>
12. <u> </u>	<u> </u>	<u> </u>	<u> </u>
13. <u> </u>	<u> </u>	<u> </u>	<u> </u>
14. <u> </u>	<u> </u>	<u> </u>	<u> </u>
15. <u> </u>	<u> </u>	<u> </u>	<u> </u>
16. <u> </u>	<u> </u>	<u> </u>	<u> </u>
17. <u> </u>	<u> </u>	<u> </u>	<u> </u>
18. <u> </u>	<u> </u>	<u> </u>	<u> </u>
19. <u> </u>	<u> </u>	<u> </u>	<u> </u>
20. <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>100%</u>	<u>= Total Cover</u>	

Woody Vine Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u>= Total Cover</u>	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 17% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u> </u>	x1 = <u> </u>
FACW species <u> </u>	x2 = <u> </u>
FAC species <u>25%</u>	x3 = <u>0.75</u>
FACU species <u>145%</u>	x4 = <u>5.8</u>
UPL species <u>20%</u>	x5 = <u>1</u>
Column Totals: <u>1.90</u> (A)	<u>7.55</u> (B)
Prevalence Index = B/A = <u>3.97</u>	

Hydrophytic Vegetation Indicators:

 1-Rapid Test for Hydrophytic Vegetation
 2-Dominance Test is >50%
 3-Prevalence Index is ≤3.0¹
 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

US Army Corps of Engineers Midwest Region version 2.0

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Harmony of Greenwood City/County: Greenwood/ Johnson Sampling Date: 11/18/2022
 Applicant/Owner: Banning Engineering State: IN Sampling Point: 4
 Investigator(s): Tomas Fuentes-Rohwer, Kat Pain Section, Township, Range: S28, T14N R4E
 Landform (hillslope, terrace, etc.): recessional moraines Local relief (concave, convex, none): None
 Slope (%): 2% Lat: 39.63268 Long: 86.091706 Datum: NAD83
 Soil Map Unit Name: Crosby silt loam, fine-loamy subsoil- urban land complex (YcIA) NWI 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 Y, 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 <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			

<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			

<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Trifolium hybridum</u>	<u>25%</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Schedonorus arundinaceus</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Setaria faberi</u>	<u>15%</u>	<u>No</u>	<u>FACU</u>
4. <u>Cirsium arvense</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>
5. <u>Plantago lanceolata</u>	<u>7%</u>	<u>No</u>	<u>FACU</u>
6. <u>Melilotus officinalis</u>	<u>20%</u>	<u>No</u>	<u>FACU</u>
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____
109% = Total Cover			

<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
= 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: 2 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x1 = _____
FACW species	x2 = _____
FAC species	x3 = _____
FACU species	x4 = <u>4.36</u>
UPL species	x5 = _____
Column Totals:	<u>1.09</u> (A) <u>4.36</u> (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation
 ____ 2-Dominance Test is >50%
 ____ 3-Prevalence Index is ≤3.0¹
 ____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

SOIL

Sampling Point: 4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5"	10YR 3/2	95%	7.5YR 3/4	5%	C	M	Silty Clay Loam	disturbed past 5"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:		Wetland Hydrology Present? Yes _____ No <u> X </u>
Surface Water Present? Yes _____ No <u> X </u>	Depth (inches): _____	
Water Table Present? Yes _____ No <u> X </u>	Depth (inches): _____	
Saturation Present? Yes _____ No <u> X </u>	Depth (inches): _____	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Harmony of Greenwood City/County: Greenwood/ Johnson Sampling Date: 11/18/2022
 Applicant/Owner: Banning Engineering State: IN Sampling Point: 5
 Investigator(s): Tomas Fuentes-Rohwer, Kat Pain Section, Township, Range: S28, T14N R4E
 Landform (hillslope, terrace, etc.): Till plains Local relief (concave, convex, none): None
 Slope (%): 2% Lat: 39.633493 Long: 86.091613 Datum: NAD83
 Soil Map Unit Name: Urban-land Brookston complex (UbaA) NWI 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 Y, 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 <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			

<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			

<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cirsium arvense</u>	40%	Yes	FACU
2. <u>Solidago canadensis</u>	10%	No	FACU
3. <u>Festuca rubra</u>	50%	Yes	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____
100% = Total Cover			

<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
= 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: 2 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species <u>100%</u>	x4 = <u>4</u>
UPL species _____	x5 = _____
Column Totals: <u>1.00</u> (A)	<u>4</u> (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation
 ____ 2-Dominance Test is >50%
 ____ 3-Prevalence Index is ≤3.0¹
 ____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

US Army Corps of Engineers Midwest Region version 2.0

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	10YR 3/3	100%						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Field Observations:		Wetland Hydrology Present? Yes _____ No <u>X</u>
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u>	Depth (inches): _____	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX C: Study Area Photographs

APPENDIX C: Study Area Photographs



DP1, Looking north (11/16/22)



DP1, Looking east (11/16/22)



DP1, Looking south (11/16/22)



DP1, Looking west (11/16/22)



DP2, Looking north (11/16/22)



DP2, Looking east (11/16/22)



APPENDIX C: Study Area Photographs



DP2, Looking south (11/16/22)



DP2, Looking west (11/16/22)



DP3, Looking north (11/16/22)



DP3, Looking east (11/16/22)



DP3, Looking south (11/16/22)



DP3, Looking west (11/16/22)



APPENDIX C: Study Area Photographs



DP4, Looking north (11/16/22)



DP4, Looking east (11/16/22)



DP4, Looking south (11/16/22)



DP4, Looking west (11/16/22)



DP5, Looking north (11/16/22)



DP5, Looking east (11/16/22)



APPENDIX C: Study Area Photographs



DP5, Looking south (11/16/22)



DP5, Looking west (11/16/22)



PP1, Upstream of Stream 1 (11/16/22)



PP1, Downstream of Stream 1 (11/16/22)



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Attachment 6: IDNR Heritage Database Correspondence





Division of Nature Preserves
402 W. Washington St., Rm W267
Indianapolis, IN 46204-2739

December 29, 2022

Tomas Fuentes-Rohwer
Meristem, LLC
877 Port Avenue
Avon, IN 46123

Dear Tomas Fuentes-Rohwer:

I am responding to your request for information on the threatened or endangered (T&E) species, high quality natural communities, and natural areas for the Harmony of Greenwood Senior Living Facility located within Johnson County, Indiana. The Indiana Natural Heritage Data Center has been checked and there are no T&E species or significant areas documented within 0.5 mile of the project area.

If you need a general environmental review of the project from DNR, you can submit the project information to Christie Stanifer, DNR Environmental Coordinator, at environmentalreview@dnr.in.gov (preferred) or send to the street address below. For more help or guidance contact Christie Stanifer at cstanifer@dnr.in.gov.

Department of Natural Resources
Environmental Review
Division of Fish and Wildlife
402 W. Washington Street, Room W273
Indianapolis, IN 46204

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. If you have concerns about potential Endangered Species Act issues you should contact the Service at their Bloomington, Indiana office.

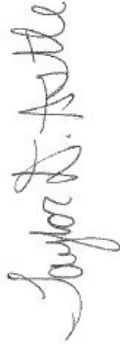
U.S. Fish and Wildlife Service
620 South Walker St.
Bloomington, Indiana 47403-2121
(812)334-4261

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)233-2558 you have any questions or need additional information.

Sincerely,

A handwritten signature in cursive script that reads "Taylor D. Astle".

Taylor Davis Astle
Indiana Natural Heritage Data Center

Enclosure: Invoice