



Prepared For:

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Johnson County Planning Development &
Sustainability

Prepared By:

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MMS Project No. 10945-002
September 14, 2026

SENSITIVE AREAS REPORT for
JORDAN CREEK CHURCH
NE1/2 SECTION 22 & SE/12 SECTION 15
TOWNSHIP 81 NORTH, RANGE 6 WEST
JOHNSON COUNTY, IOWA

MMS Consultants, Inc.

Experts in Planning and Development Since 1975

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Civil Engineers
Land Surveyors
Land Planners
Landscape Architects
Environmental Specialists

Signed this ____ day of _____, 20__.

(_____)

Approved by, this ____ day of _____, 20__

(Johnson Co. Planning, Development & Sustainability)

SENSITIVE AREAS STUDY

EXECUTIVE SUMMARY

The following sensitive areas study has been conducted for the approximately 11.23-acre parcel located south of Highway 382 NE and approximately 750 feet southeast of the intersection of Polk Ave NE and Highway 382 NE, in Solon, IA. The parcel is located within a portion of the NE1/2 of Section 22 and a portion of the SE1/2 of Section 15, all within Township 81 North, Range 6 West of Johnson County, Iowa. A Site Location and Vicinity Map are presented in Appendix A as Figure 1.

The applicant proposes to construct a church along with associated infrastructure. In accordance with the requirements of Chapter 8:3 of the Unified Development Ordinance (UDO) of Johnson County, a sensitive areas study is required. Background and supporting information in this study are presented in order as outlined in the UDO 8:3.5 Sensitive Areas Regulations section. The study area includes the property mentioned above.

MMS Consultants Inc. performed assessments for Critical Wildlife Habitat, Floodplain/Floodway, Prairies, Savannas, Significant Slopes, Stream Corridors/Watercourses/Surface Water Bodies, and Woodlands. MMS conducted field survey for this work on March 9th and September 14th, 2026. A wetland delineation was conducted by EB Solutions Inc. during September of 2024. Tallgrass Archeology completed the historic properties portion of the sensitive areas study in March of 2024. A copy of the wetland and archeology report has been provided to Johnson County Planning and Zoning as part of the development application. As a result of the surveys, Critical Wildlife Habitat, Wetlands and Woodlands are the sensitive areas present within the study area. The sensitive areas have been protected with a conservation easement.

SITE DESCRIPTION

At present day, the study area is a mix of treed area, wetland, and hay field. Historical photos indicate the site was utilized for row crop production for the majority of the last century. A barn was present at the northeast corner of the site until around 2003 when it was torn down. The area around the barn has been maintained as a grass/pasture for the last century. In 2025 the row crop field was converted to hayfield.

CRITICAL WILDLIFE HABITAT

The U.S. Fish & Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website was utilized to review federally listed plant and animal species that might be present within the study area. According to the IPaC Website, the Indiana Bat and the Northern Long-Eared Bat (NLEB) are the two species that could potentially be affected by the project. In addition, the IDNR was consulted to provide an environmental review of the study area. Based on their evaluation, no site-specific records of rare species or significant natural communities were identified in the study area. A copy of their response letter has been included in Appendix B.

The study area was investigated to determine if suitable habitat for the Indiana Bat or the NLEB was present. There is a small pocket of trees at the southeast corner of the site. Although the number of trees within the project area is small, the treed area is contiguous with a larger tract of trees around Lake MacBride via treed fencelines and stream corridors. While shagbark hickory trees were not identified within the study area, dead trees with loose bark were identified, as well as trees with platy bark structure such as silver maple and black cherry. It is also possible that the bats could utilize the trees as stop-over habitat if not utilized for roosting trees. Based on the aforementioned factors, it was determined the wooded areas of the site could be suitable habitat for the endangered Indiana Bat, and threatened NLEB. According to federal guidelines potential roost trees can only be removed outside of the summer roosting season of April 1st to Sept 30th. Future tree removal shall follow these federal guidelines.

The Rusty Patched Bumble Bee (RPBB) map from the Fish and Wildlife Service (USFWS) was also reviewed to determine if the study area lies within any 'High Potential Zones'. The map, presented in Appendix A as Figure 6,

shows that the parcel falls within a Low Potential Zone. In accordance with USFWS, further consultation with their office is not required at this time.

FLOODPLAIN/FLOODWAY

The FEMA National Flood Hazard Map was reviewed to determine if any mapped floodplain or floodway is present within the study area. The map, presented as Figure 5 of Appendix A, does not indicate the presence of floodplain or floodway within the project area.

HISTORIC PROPERTIES

Tallgrass Archaeology was contracted to provide a Phase I Archeological Survey for the property. Their report dated March 2026 indicated that no further archaeological work was recommended for the project area.

A full copy of the Archaeological report has been submitted to the county. Information contained in their report relating to the nature and location of archeological sites is considered private and confidential and not for public disclosure in accordance with Section 304 of the National Historic Preservation Act (54 U.S.C § 307103); 36CFR Part 800.6(a)(5) of the Advisory Council on Historic Preservation's rules implementing Sections 106 and 110 of the National Historic Preservation Act; Section 9(a) of the Archaeological Resource Protection Act (54 U.S.C. § 100707), and Chapter 22.7 subsection 20 of the Iowa Code.

PRAIRIES

Aerial photos ranging from 1930-2026 were obtained from the Johnson County Property Information Viewer website and are presented chronologically in Appendix C. Aerial photos indicate the majority of the site was in row crop production for the majority of the last century. This area was converted to hay production in 2025. The area along the train tracks at the southwest side of the property and a portion of the northeast corner do not appear to have a history of row cropping.

During the site visits in March and September, the non-wooded areas of the site were inspected for the presence of native prairie species. Prevalent species were inventoried and are presented in Table 1 below. The site has been divided into two vegetative areas. One area is the "hay field", and the other is the "wetland and woodland fringe". The hayfield appears to have been left fallow and unplanted during the 2026 growing season as it was dominated by Mares Tail. The Wetland and Woodland fringe is dominated by brome grass and solidago species.

Packard and Mutels's, *The Tallgrass Restoration Handbook* was utilized to further categorize the vegetation identified within the non-row cropped areas. Coefficients of Conservatism (C-Values), as listed within Table 3 of *The Tallgrass Restoration Handbook*, were provided for each species identified. Only six species identified have a listed C-value. None of which have a C-value of five or more. The UDO defines a prairie as "areas at least 0.3 acres in size that have at least 4 prairie grass species and 10 broadleaf plant species with a coefficient of conservatism of 5 or greater in either Illinois or Missouri...". Considering the vegetation of the hayfield and woodland and wetland fringe areas did not exhibit such species diversity or meet the species criteria, the study area does not contain vegetation that meets the UDO's definition of prairie or prairie remnant.

Table 1. Identified Plant List			C-VALUES	
	Species Name	Common Name	ILLINOIS	MISSOURI
HAYFIELD	<i>Ambrosia artemisiifolia</i>	Common Ragweed	-	-
	<i>Asclepias syriaca</i>	Common Milkweed	-	-
	<i>Chloris verticillata</i>	Windmill Grass	0	-
	<i>Cirsium altissimum</i>	Tall Thistle	3	4
	<i>Cirsium vulgare</i>	Bull Thistle	-	-

	<i>Dactylis glomerata</i>	Orchard Grass	-	-
	<i>Erigeron annuus</i>	Eastern Daisy Fleabane	1	1
	<i>Erigeron canadensis</i>	Horseweed	0	-
	<i>Festuca arundinacea</i>	Tall Fescue	-	-
	<i>Lolium perenne</i>	Perennial Ryegrass	-	-
	<i>Plantago lanceolata</i>	Narrow Leaved Plantain	-	-
	<i>Poa Pratensis</i>	Blue Grass	-	-
	<i>Setaria faberi</i>	Japanese Foxtail	0	-
	<i>Setaria pumila</i>	Yellow Foxtail	0	-
	<i>Solanum carolinense</i>	Horse Nettle	-	-
	<i>Taraxacum officinale</i>	Dandelion	-	-
	<i>Trifolium pratense</i>	Red Clover	-	-
	<i>Trifolium repens</i>	White Clover	-	-
WETLAND AND WOODLAND FRINGE	<i>Bromus inermis</i>	Smooth Brome	-	-
	<i>Cirsium arvense</i>	Canada Thistle	-	-
	<i>Daucus carota</i>	Queen Anne's Lace	-	-
	<i>Helianthus grosseserratus</i>	Sawtooth Sunflower	2	4
	<i>Eupatorium rugosum</i>	White Snakeroot	-	-
	<i>Phalaris arundinacea</i>	Reed Canary Grass	-	-
	<i>Rubus allegheniensis</i>	Common blackberry	2	4
	<i>Solidago altissima</i>	Tall Goldenrod	1	1
	<i>Solidago gigantea</i>	Giant goldenrod	3	4
	<i>Verbena urticifolia</i>	White Vervain	-	-

- Species not listed in Packard & Mutel *The Restoration Handbook* were given a C-value of (-).

SAVANNA

Savannas are characterized as native plant species associated with large open grown Oak or Hickory trees widely spaced in grassland (originally prairie). No Oak or Hickory trees were identified within the study area.

SIGNIFICANT SLOPES

The topography of the study area was analyzed utilizing Johnson County LIDAR data to determine if Critical (25%-35%) or Protected (>35%) slopes are present. The average slope across the site is between 8-10%, as a result of the analysis, no critical or protected slopes are present.

STREAM CORRIDORS/WATERCOURSES/SURFACE WATER BODIES

The USGS Topographic Map provided in Appendix A, indicates the presence of a blue line stream outside of the study area. It also indicates wetlands along the southeast lot line and outside of the northwest corner of the study area.

During the site visits in March and September, the property was investigated to determine if any features were present that may classify as a Stream Corridor, Watercourse, or Waterbody. A wetland is present outside of the study area at the northwest corner, as indicated on the USGS quad map. It appears that this wetland may also include a surface water body. This feature is outside of the study/project area. An additional wetland is mapped on the USGS quad map along the southeast property line. This wetland is discussed further in the wetlands section of this report. South of the wetland is the mapped blue line stream. This feature runs along the toe of the slope of the

multi-use recreation trail south of the study area. The blue line stream is outside of the study boundary by 20' on average. No other aquatic features were identified within the project area.

WETLANDS

The wetland delineation study conducted by EB Solutions in September of 2024 indicates that approximately 1.42 acres of wetland are present along the southwest boundary of the study area. The report also describes 0.69 acres of wetland, but this area is associated with the feature northwest of the study area, completely outside of project boundaries. A full copy of this report has been included with submittal to Johnson County as part of the development application.

The report by EB Solutions identifies the wetland within the project area as "Area 1". According to their report, "The wetland identified (area 1) is located on the south boundary of the Site along a drainageway. The wetland is approximately 1.42 acres. It starts approximately at the culvert at Highway 382 and is along the entire south boundary of the site. The wetland is bordered on the south and west by the Hoover Nature Trail. The east and north sides are bordered by the sloped farm field. The wetlands are along a drainage feature that is at the bottom hill of the farm field. The wetlands are along a drainage that connects to Mills Creek to the southeast and appear to be jurisdictional because there is a continuous surface connection. Based on the Wetlands and Deepwater Habitats of the United States (USFWS Publication 79/31; Cowardin et al.) wetland classification system, the wetland observed is classified as Palustrine, emergent, persistent, seasonally flooded (PEM1C) wetlands." As described in their report, the 1.42 acres of wetland includes area outside of the parcel boundary and proposed project area. The mapped Area 1 wetland, as illustrated on the delineation map provided by EB Solutions and included in the Appendix of this report, extends to the toe of the slope along the Hoover Nature Trail. The toe of the slope is located outside the parcel boundary by at least 28 feet, on average.

Data from EB Solutions was used to prepare a wetland exhibit illustrating the wetlands within the study area. Approximately 0.48 acres of wetland are located within the parcel boundary. The Area 1 wetland is classified as a Class 2 wetland under the UDO because the wetland, in its entirety, is greater than 1 acre in size. The wetland is subject to a 50-foot wetland buffer and is protected by a conservation easement, as indicated on the wetland exhibit. A portion of the 50-foot wetland buffer is proposed to be impacted by construction of the stormwater management basin and septic system associated with the development. This impact is considered a permitted buffer use under the UDO.

WOODLANDS

Aerial photo interpretations throughout the last century determined the majority of the property has been in pasture or row crop production since at least the 1930s. A portion of the site at the northeast corner was excluded from production, as well as area at the southeast corner and along the southwest property line. The uncultivated area at the northeast corner of the project area has remained un-treed for the last century. One tree is present in the 1930s aerial at the southeast corner of the study area. Starting in the 1970s, additional trees started to populate this area. The boundary of the wooded area appears relatively unchanged since 2003, while the density of trees within the woodland boundary increased over the subsequent decades.

During the site visit in March and September, the treed areas of the site were investigated to determine if they met the definition of a sensitive woodland. The wooded areas of the site are dominated by Walnut. Other species observed include Hackberry, Mulberry, Silver Maple, Black Cherry, River Birch, and Cedar. The composition of the tree species is typical of an association of native forest trees of Iowa. The understory vegetation was also inventoried and is presented in Table 2 below. The understory vegetation was generally reflective of typical Iowa woodlands. *Wildflowers of Iowa Woodlands* by Runkle and Bull (1979) was referenced to assist with classification of the understory vegetation within the wooded areas. Table 2 indicates whether each species identified during the survey is included in *Wildflowers of Iowa Woodlands*.

The UDO defines a woodland as “an association of native forest trees...with a mix of understory wildflower species, such as those listed in *Wildflowers of Iowa Woodlands* by Runkle and Bull, 1979.” One of the defining criteria for a woodland under the UDO is the identification of a minimum of four understory wildflower species. Nine understory wildflower species listed by Runkle and Bull were identified during the survey. Based on the composition of the trees and understory vegetation, the wooded areas of the site meet the UDO definition of a Sensitive Woodland.

SUMMARY AND CONCLUSIONS

Preliminary site data research as well as field observations were conducted for sensitive area assessments as required by the Johnson County Unified Development Ordinance to protect sensitive areas within Johnson County. The sensitive areas assessment was conducted for the study area as required due to the development request.

Historical land use and management practices of the study area have mainly consisted of agricultural use, by way of row cropping and hayfield. Collected data and field observations by MMS Consultants Inc. during the months of March and September 2026, and the wetland report prepared by EB Solutions in September of 2024 confirmed that Critical Wildlife Habitat, Wetlands and Woodlands are present within the study area. The location and extent of each of the documented sensitive areas have been presented in Appendix E of this report. Any future impacts to the listed sensitive areas shall follow the regulations as outlined within the UDO and adhere to the limits of disturbance as outlined in this report.

Table 2: Woodland Understory Vegetation

	Species Name	Common Name	Runkle & Bull ID	C-VALUES	
				ILLINOIS	ILLINOIS
WOODLAND	<i>Carex blanda</i>	Common Woodland Sedge	0	-	-
	<i>Cornus racemosa</i>	Gray Dogwood	0	1	3
	<i>Cryptotaenia canadensis</i>	Canadian Honewort	0	-	-
	<i>Eupatorium rugosum</i>	White Snakeroot	1	-	-
	<i>Gallium triflorum</i>	Fragrant Bedstraw	1	-	-
	<i>Hackelia virginiana</i>	Beggar's-Lice	0	-	-
	<i>Lonicera maackii</i>	Bush Honeysuckle	0	-	-
	<i>Osmorhiza longistylis</i>	Sweet cicely	1	-	-
	<i>Parthenocissus quinquefolia</i>	Virginia Creeper	1	-	-
	<i>Pilea pumila</i>	Canadian Clearweed	0	-	-
	<i>Ribes uva-crispa</i>	Gooseberry	0	-	-
	<i>Rubus occidentalis</i>	Black Raspberry	0	-	-
	<i>Sanicula odorata</i>	Clustered Black Snakeroot	1	-	-
	<i>Solidago altissima</i>	Tall Goldenrod	1	-	-
	<i>Urtica dioica</i>	Stinging Nettle	1	-	-
	<i>Viola sororia</i>	Blue Violet	1	3	2
	<i>Vitis riparia</i>	Wild Grape	1	-	-

- Species identified in Table 1 are given a value of (1) if they are listed in *Wildflowers of Iowa Woodlands* by Runkle and Bull, 1979, and a value of (0) if they are not listed. A total value of 4 is needed to meet the definition of a Woodland as defined by the UDO 8:3.3 Definitions section
- Species not listed in Packard & Mutel *The Restoration Handbook* were given a C-value of (-).

Appendix A

FIGURE 1: SITE LOCATION & VICINITY MAP

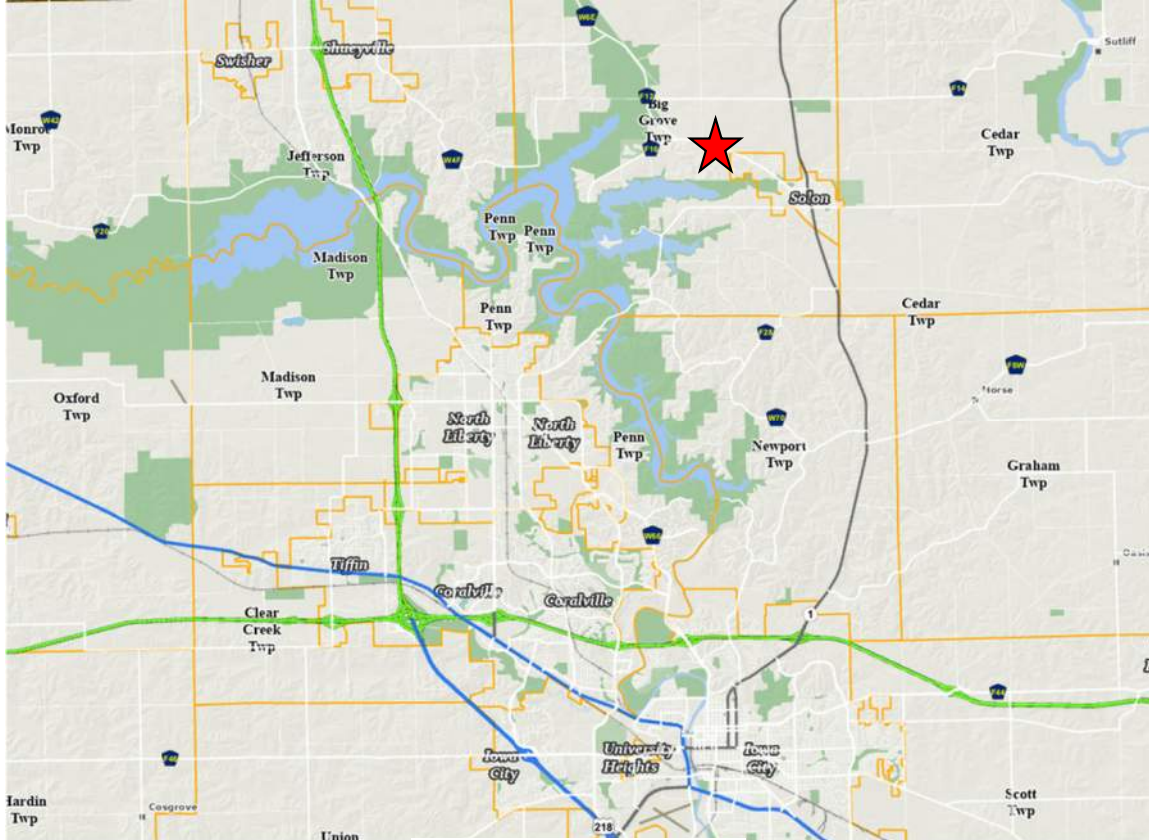
FIGURE 2: USGS TOPOGRAPHIC MAP

FIGURE 3: USDA NRCS WEBSOIL SURVEY HYDRIC SOILS MAP

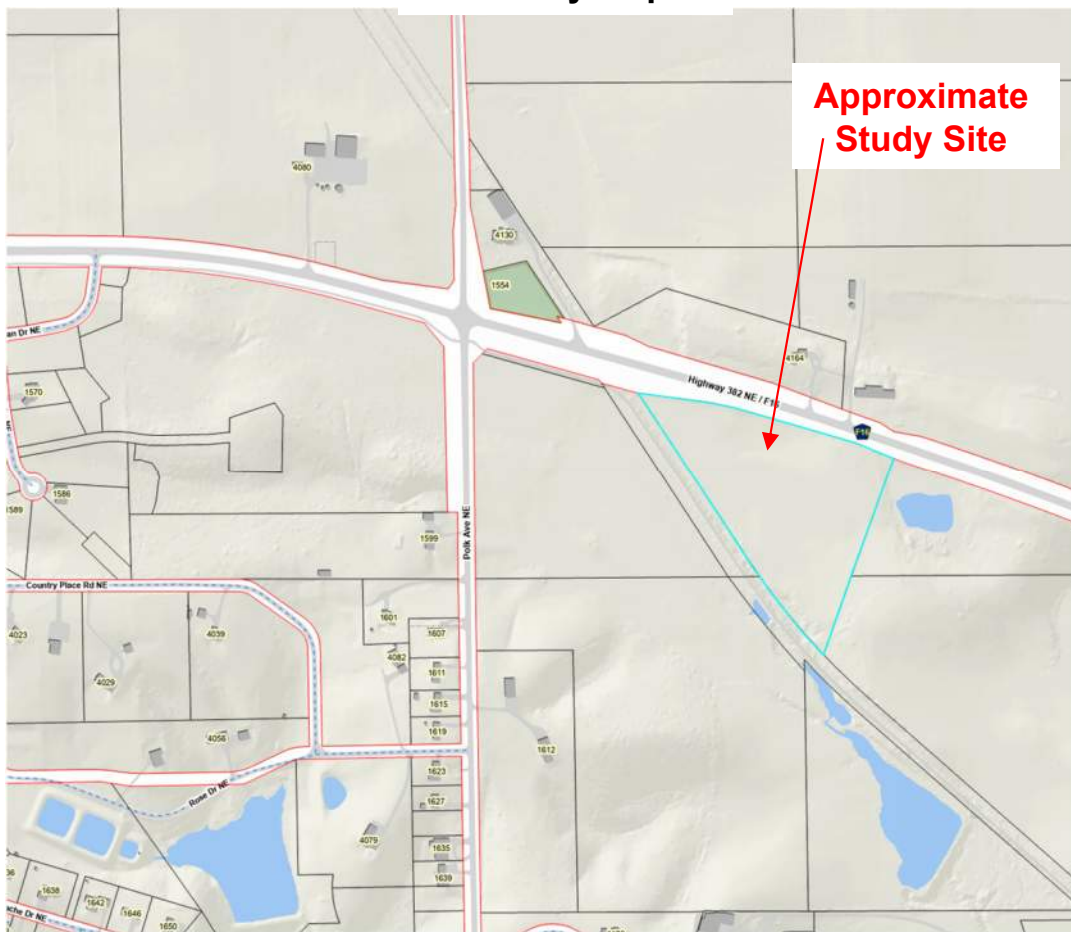
FIGURE 4: US FWS NATIONAL WETLAND INVENTORY MAP

FIGURE 5: FEMA FLOOD MAP

FIGURE 6: RUSTY PATCHED BUMBLE BEE MAP



Vicinity Map



LOCATION MAP

Designed by:	Scale:
LRS	N.T.S.
Drawn by:	Date:
LRS	09/11/2026
Checked by:	Project No:
LRS	IC 10945-002

FIGURE 1: SITE LOCATION & VICINITY MAPS

JORDAN CREEK CHURCH SITE PLAN

4237 HWY 382 NE, SOLON IA

SE1/2 SEC.15; NE1/2 SEC.22 all within T81N-R6W

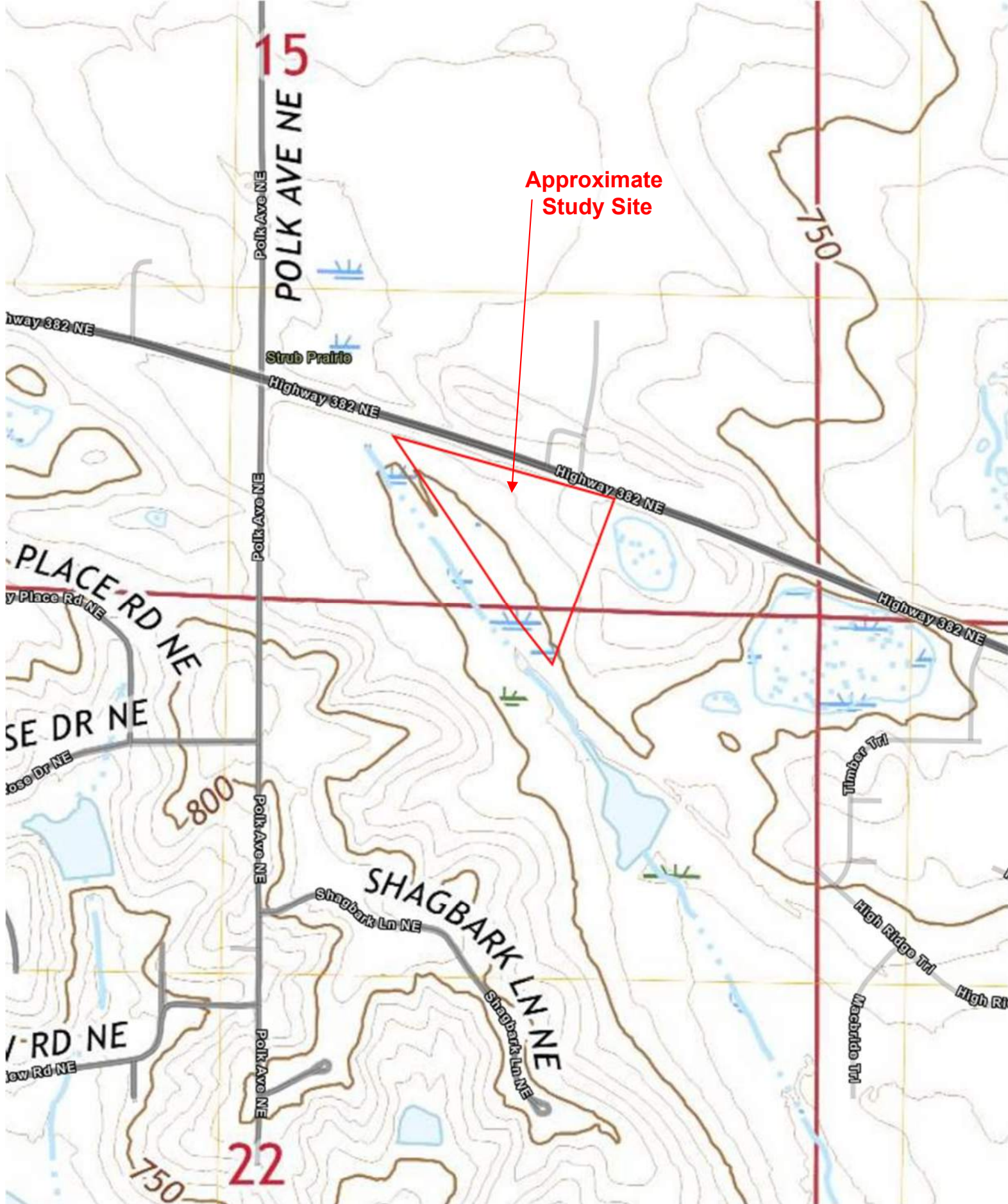
Maps source: Johnson Co. Property Information Viewer

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Designed by:	Scale:
LRS	Unknown
Drawn by:	Date:
LRS	09/11/2026
Checked by:	Project No.:
LRS	IC 10945-002

FIGURE 2: USGS TOPOGRAPHIC MAP

JORDAN CREEK CHURCH SITE PLAN

4237 HWY 382 NE, SOLON IA

SE1/2 SEC.15; NE1/2 SEC.22 all within T81N-R6W

Source: National Map Viewer- <http://viewer.nationalmap.gov/viewer/>

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Hydric Rating by Map Unit—Johnson County, Iowa



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Soil Rating Lines

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Soil Rating Points

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Water Features

 Streams and Canals

Transportation

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

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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

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

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

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

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

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

Soil Survey Area: Johnson County, Iowa
Survey Area Data: Version 28, Sep 8, 2025

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

Date(s) aerial images were photographed: Jul 1, 2020—Nov 18, 2020

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

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
11B	Colo-Ely complex, 0 to 5 percent slopes	55	0.4	3.6%
293C2	Chelsea-Fayette-Lamont complex, 5 to 9 percent slopes, eroded	0	4.7	43.7%
428B	Ely silty clay loam, 2 to 5 percent slopes	5	2.7	24.8%
621	Houghton muck, 1 to 4 percent slopes	100	0.0	0.1%
761	Franklin silt loam, 1 to 3 percent slopes	5	3.0	27.7%
2133	Colo silty clay loam, 0 to 2 percent slopes, ponded, occasionally flooded	100	0.0	0.2%
Totals for Area of Interest			10.9	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

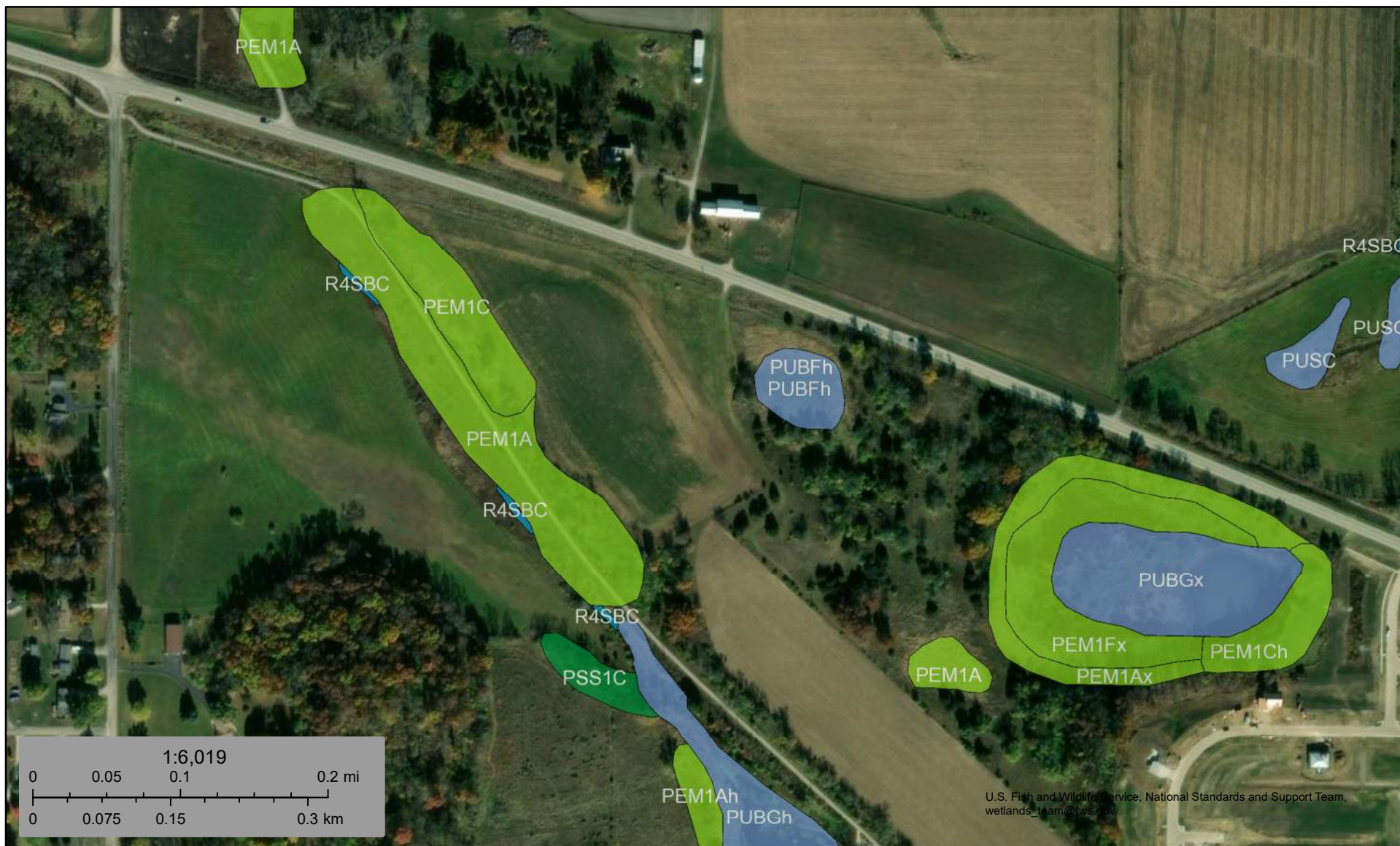
Tie-break Rule: Lower



U.S. Fish and Wildlife Service

National Wetlands Inventory

Wetlands



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

September 13, 2026

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.



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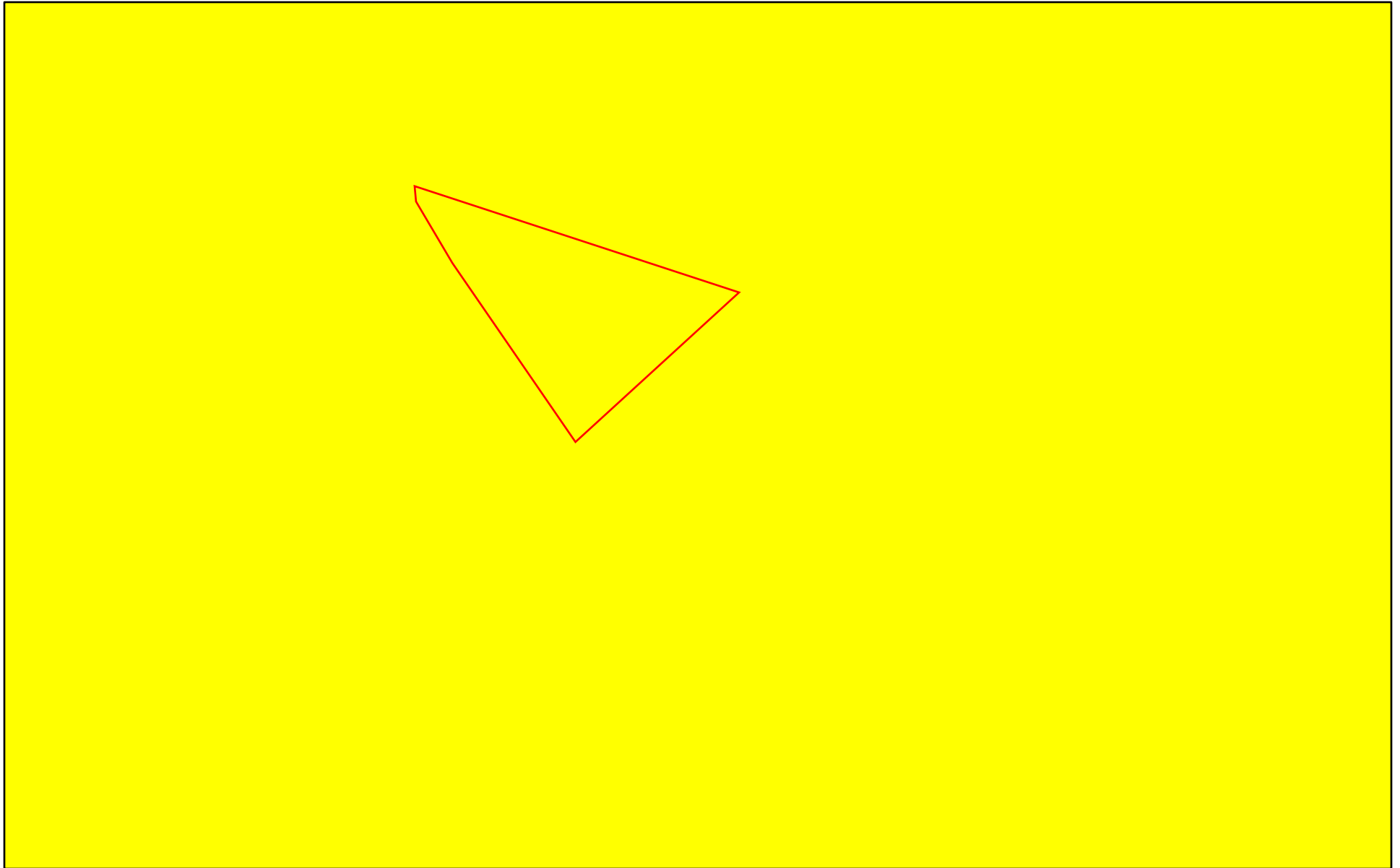
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SRLQW VHOHFWHG E\ WKH XV
DQ DXWKRULWDWLYH SURSHU

7KLV PDS FRPSOLHV ZLWK)(0\$ V VWDQ
GLJLWDO IORRG PDSV LI LW LV QRW YR
7KH EDVHPDS VKRZQ FRPSOLHV ZLWK)(0
DFFXUD\ VWDQGDUGV

7KH IORRG KD]DUG LQIRUPDWLRQ LV GH
DXWKRULWDWLYH 1)+/ ZHE VHU\LFHV S
ZDV H[SRUWHG RQ W DQG GRHV QRW
UHIOHFW FKDQJHV RU DPHQGPHQWV VX
WLPH 7KH 1)+/ DQG HIIHFWLYH LQIRUP
EHFRPH VXSHUVHG HG E\ QHZ GDWD RYH

7KLV PDS LPDJH LV YRLG LI WKH RQH R
HOHPHQWV GR QRW DSSHDU EDVHPDS
OHJHQ VFDODU PDS FUDWLRQ G
,50 SDQHO QXPEHU DQG),50 HIIHFWLY
XQPDSSHG DQG XQPRGHUQLJHG DUHDV
UHJXODWRU\ SXUSRVHV

5XVW\ 3DWFKHG %XPEOH %HH 0DS



53%%B+3=0RGHOB8SGDWH

 /RZ 3RWHQWLDO =RQHV LGHQWLILHG IRU VFLHQWLILF UHFRYHU\ SHUPLWV DQG DGGLWLRQDONRQVHU

 53%%B&RXQW\B5DQJHB

 86\$ 6WDWHV *HQHUDOLJHG %RXQGDULHV

PL

VWHYHQBFKR\#IZV JRY 6RXUFHV (VUL 8 6 'HSDUW
&HQVXV %XUHDV 8 6 'HSDUWPHQW RI &RPPHUFH '2



LEGEND

-  EMERGENT WETLANDS
-  1 SAMPLING POINT

Title: FIGURE 2 - WETLAND BOUNDARIES	
 EB Solutions, Inc. 5060 4th Street SW Cedar Rapids, IA 52404 Phone: (319) 531-8487	Project:
	PROPOSED JORDAN CREEK CHURCH SOUTHEAST CORNER OF HWY 382 & HOOVER NATURE TRAIL SOLON, IOWA
Scale:	Date:
1 INCH = 180 FEET	11/7/2024
Drawn By:	Project No.:
EDB	EB91724051

Appendix B

Iowa DNR

Response Letter

Dated

Appendix C

1930's & 1950's AERIAL IMAGES
1970's & 1990's AERIAL IMAGES
2010 & 2019 AERIAL IMAGES
2025 & 2026 AERIAL IMAGES



1930's AERIAL



1950's AERIAL

1950's AERIAL

Designed by:	Scale:
LRS	Unknown
Drawn by:	Date:
LRS	09/11/2026
Checked by:	Project No:
LRS	IC 10945-002

1930's & 1950's AERIALS	
JORDAN CREEK CHURCH SITE PLAN	
4237 HWY 382 NE, SOLON IA	
SE1/2 SEC.15; NE1/2 SEC.22 all within T81N-R6W	
Photo Source: Johnson County Property Information Viewer	

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1970's AERIAL



1990's AERIAL

Designed by:	Scale:
LRS	Unknown
Drawn by:	Date:
LRS	09/11/2026
Checked by:	Project No:
LRS	IC 10945-002

1970's & 1990's AERIALS	
JORDAN CREEK CHURCH SITE PLAN	
4237 HWY 382 NE, SOLON IA	
SE1/2 SEC.15; NE1/2 SEC.22 all within T81N-R6W	
Photo Source: Johnson County Property Information Viewer	

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(319) 351-8282
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2010 AERIAL



2019 AERIAL

Designed by:	Scale:
LRS	Unknown
Drawn by:	Date:
LRS	09/11/2026
Checked by:	Project No:
LRS	IC 10945-002

2010 & 2019 AERIAL

JORDAN CREEK CHURCH SITE PLAN
 4237 HWY 382 NE, SOLON IA
 SE1/2 SEC.15; NE1/2 SEC.22 all within T81N-R6W
 Photo Source: Johnson County Property Information Viewer

MMS CONSULTANTS, INC.

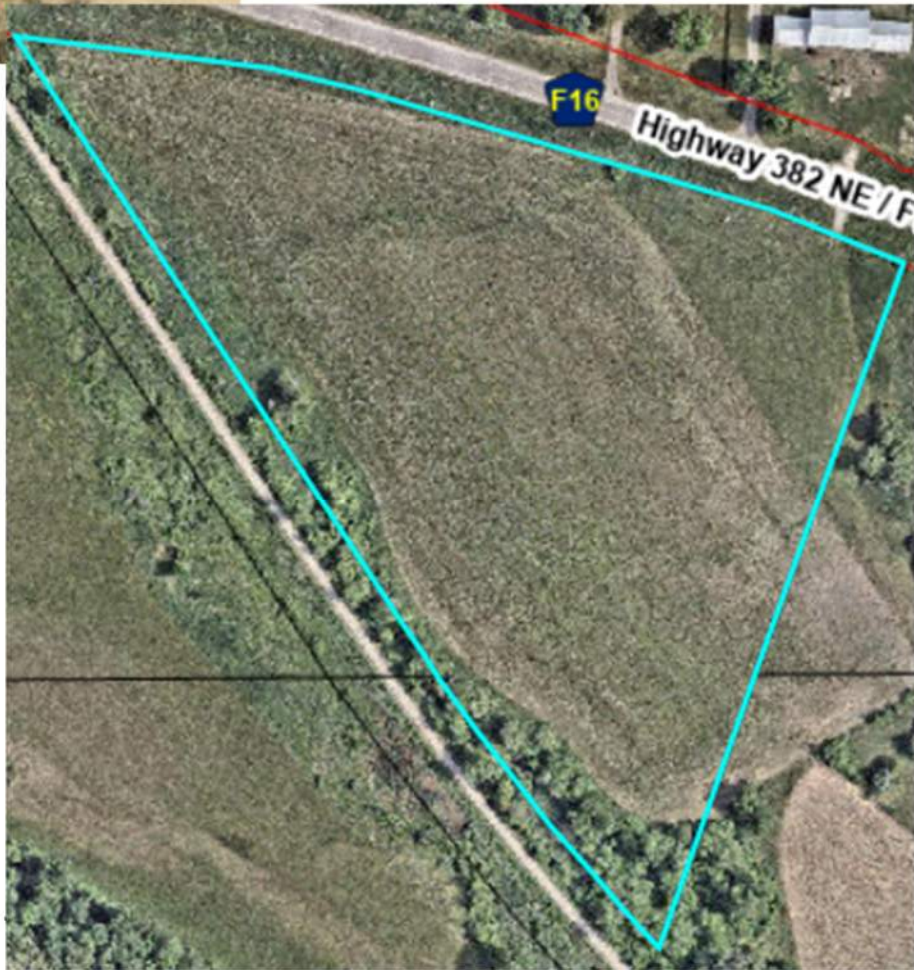
IOWA CITY, IOWA 52240
 (319) 351-8282

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2025 AERIAL



2026 AERIAL

Designed by:	Scale:
LRS	Unknown
Drawn by:	Date:
LRS	09/11/2026
Checked by:	Project No:
LRS	IC 10945-002

2025 & 2026 AERIALS

JORDAN CREEK CHURCH SITE PLAN
 4237 HWY 382 NE, SOLON IA
 SE1/2 SEC.15; NE1/2 SEC.22 all within T81N-R6W
 Photo Source: Johnson County Property Information Viewer

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Appendix D

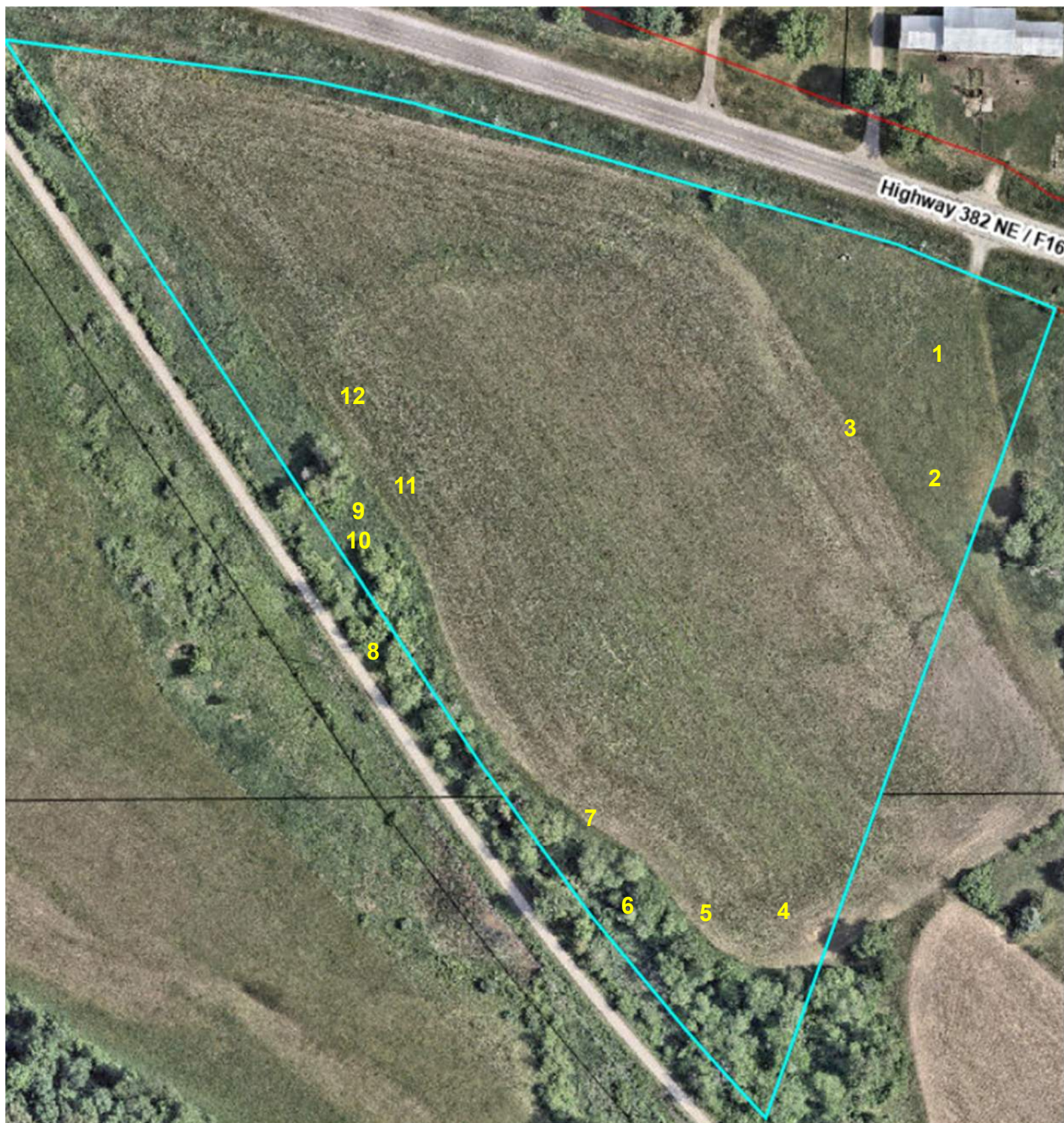
PHOTO LOCATION MAP

PHOTOS 1 - 3

PHOTOS 4 - 6

PHOTOS 7 - 9

PHOTOS 10 – 12



Designed by:	Scale:
LRS	Unknown
Drawn by:	Date:
LRS	09/11/2026
Checked by:	Project No:
LRS	IC 10945-002

PHOTO LOCATION MAP (locations are approximate)
JORDAN CREEK CHURCH SITE PLAN
4237 HWY 382 NE, SOLON IA
SE1/2 SEC.15; NE1/2 SEC.22 all within T81N-R6W
Aerial Photo: Johnson Co. Property Information Viewer

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(319) 351-8282
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Photo 1 (left):
Standing at the
northeast corner
of study area
looking
southwest.

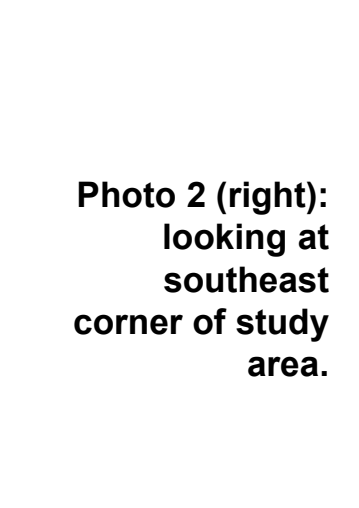


Photo 2 (right):
looking at
southeast
corner of study
area.



Photo 3 (left):
Looking at
transition between
fallow hayfield
and pasture area
around old barn.





**Photo 4 (left):
Looking at
woodland at
southeast
corner of study
area.**



**Photo 5 (right):
Looking at
boundary
between
woodland and
fallow pasture.**



**Photo 6 (left):
Looking at
typical
understory of
woodland.**

Designed by:	Scale:
LRS	Unknown
Drawn by:	Date:
LRS	09/11/2026
Checked by:	Project No:
LRS	IC 10945-002

PHOTOS 4 - 6	
JORDAN CREEK CHURCH SITE PLAN	
4237 HWY 382 NE, SOLON IA	
SE1/2 SEC.15; NE1/2 SEC.22 all within T81N-R6W	
Photo Source: MMS Consultants Inc.	

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Photo 7 (left):
Looking at
woodland
boundary with
lots of
honeysuckle.



Photo 8 (right):
Looking at
stream channel
as it relates to
trail picture in
right of image.



Photo 9 (left):
Looking at
wetland and
wetland fringe
vegetation. And
break in tree
canopy,
marking end of
woodland.



**Photo 10 (left):
Looking at
wetland
boundary.**



**Photo 11 (right):
Looking at break
in tree canopy
marking end of
woodland.**



**Photo 12 (left)
Standing at
southwest side of
study area,
looking northeast.**



Designed by:	Scale:
LRS	Unknown
Drawn by:	Date:
LRS	09/11/2026
Checked by:	Project No:
LRS	IC 10945-002

PHOTOS 10 - 12

JORDAN CREEK CHURCH SITE PLAN

4237 HWY 382 NE, SOLON IA

SE1/2 SEC.15; NE1/2 SEC.22 all within T81N-R6W

Photo Source: MMS Consultants Inc.

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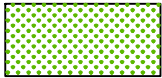


Appendix E

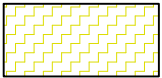
WETLANDS EXHIBIT
WOODLANDS EXHIBIT
SENSITIVE AREAS PLAT EXHIBIT

WETLAND DELINEATION COMPLETED BY E.B. SOLUTIONS INC. IN SEPTEMBER OF 2024. THIS EXHIBIT WAS CREATED UTILIZING DATA FROM THEIR REPORT.

AREA 1
(0.48 ACRES)



CLASS 3 EMERGENT
WETLANDS (0.48 ACRES)



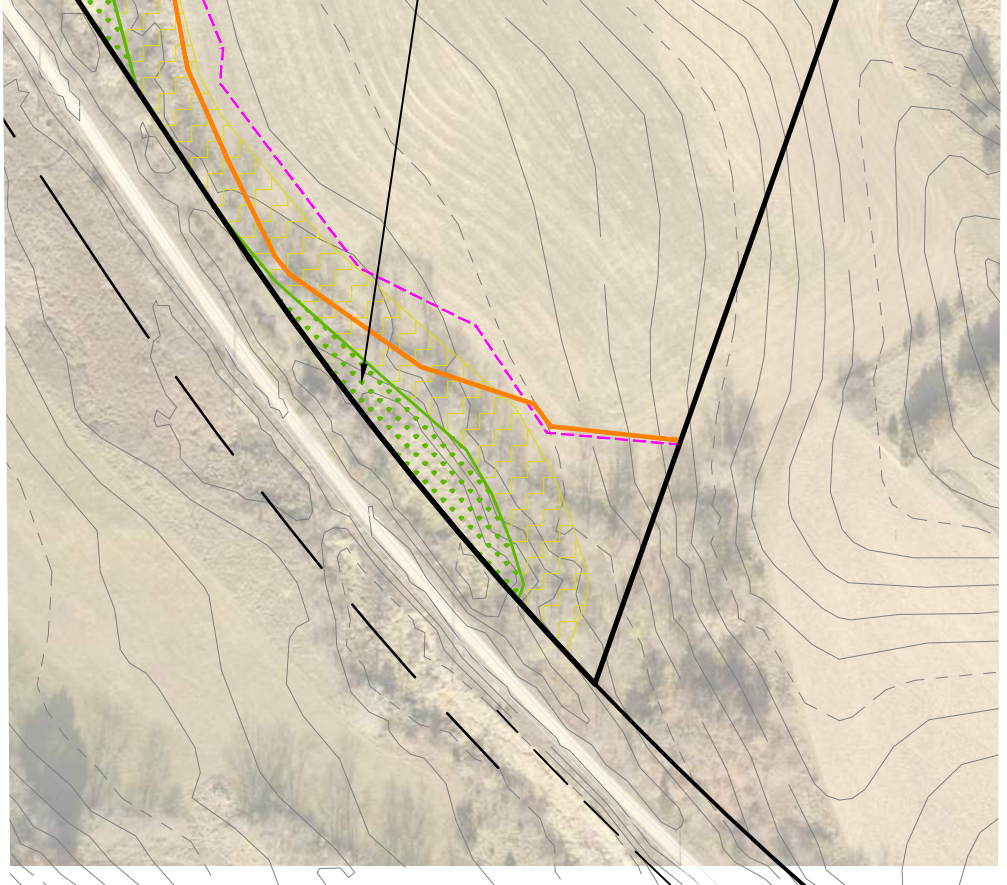
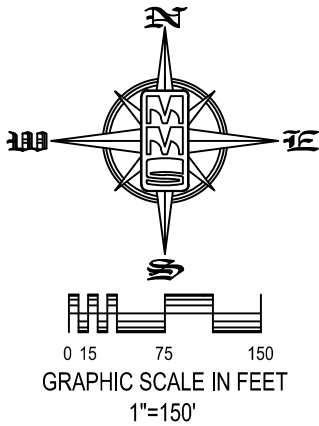
50' CLASS THREE WETLAND BUFFER



CONSERVATION EASEMENT



LIMIT OF DISTURBANCE



Designed by:	Scale:
LRS	1"=150'
Drawn by:	Date:
LRS	09/14/2026
Checked by:	Project No:
LRS	10945-002

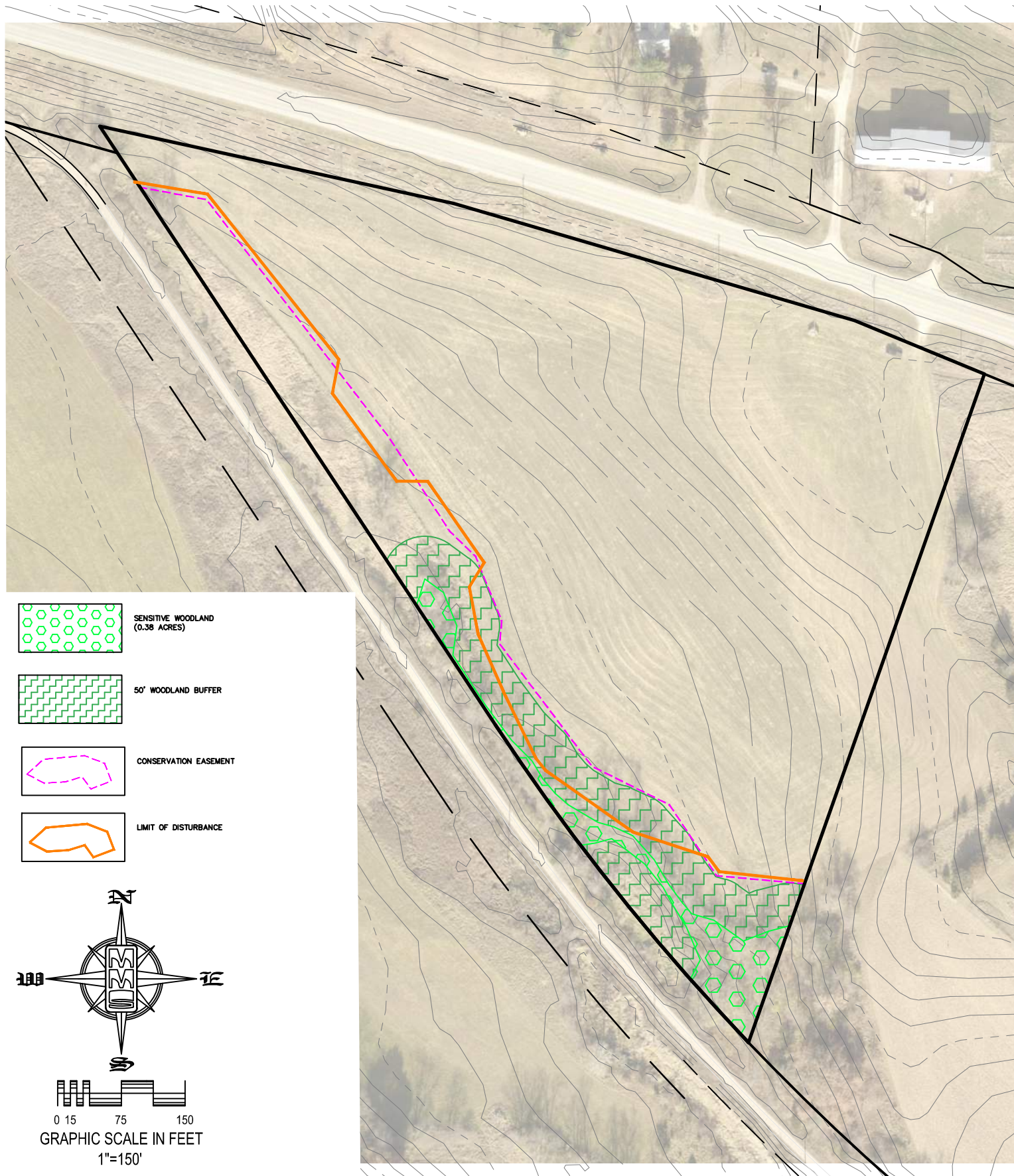
WETLANDS

JORDAN CREEK CHURCH
HIGHWAY 382 NE
SOLON
JOHNSON COUNTY, IOWA

MMS CONSULTANTS, INC.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net



Field Book No: FIELDBOOK	
Date	Revision



Designed by:	Scale:
LRS	1"=150'
Drawn by:	Date:
LRS	09/14/2026
Checked by:	Project No:
LRS	10945-002

SENSITIVE WOODLANDS

JORDAN CREEK CHURCH
HIGHWAY 382 NE
SOLON
JOHNSON COUNTY, IOWA

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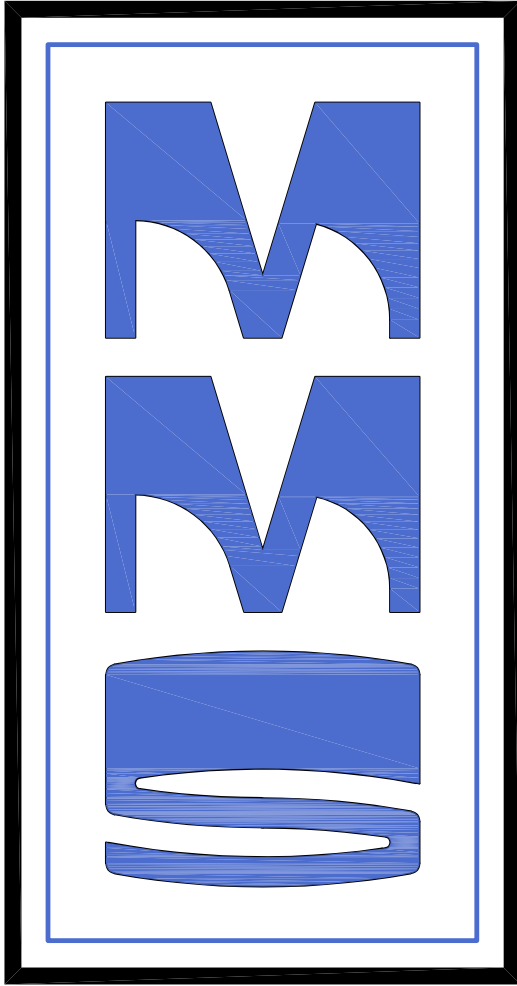
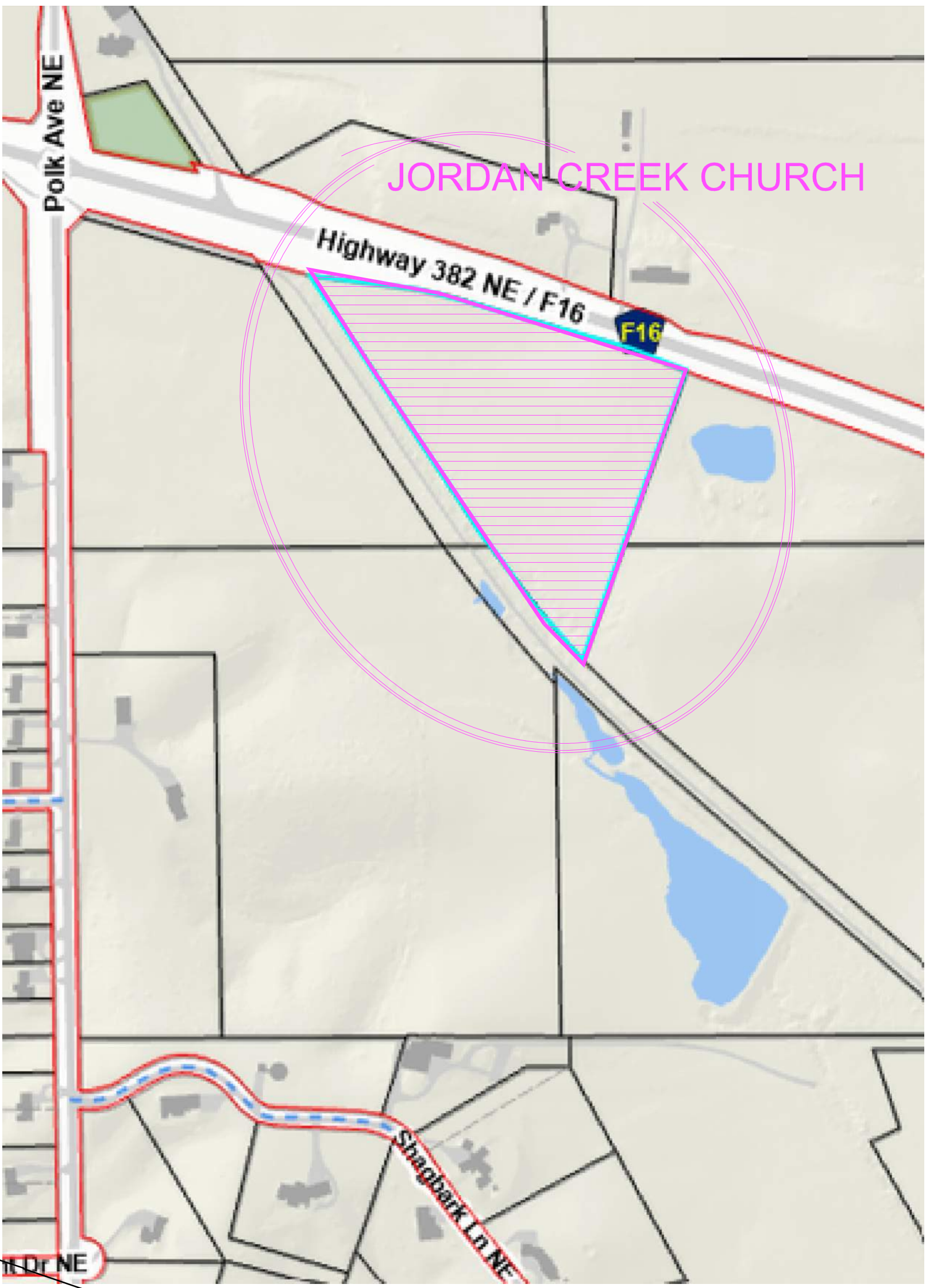
Field Book No: FIELDBOOK	
Date	Revision

SENSITIVE AREAS EXHIBIT

JORDAN CREEK CHURCH

JOHNSON COUNTY, IOWA

LOCATION MAP - NOT TO SCALE



CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS

1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision

SENSITIVE AREAS EXHIBIT

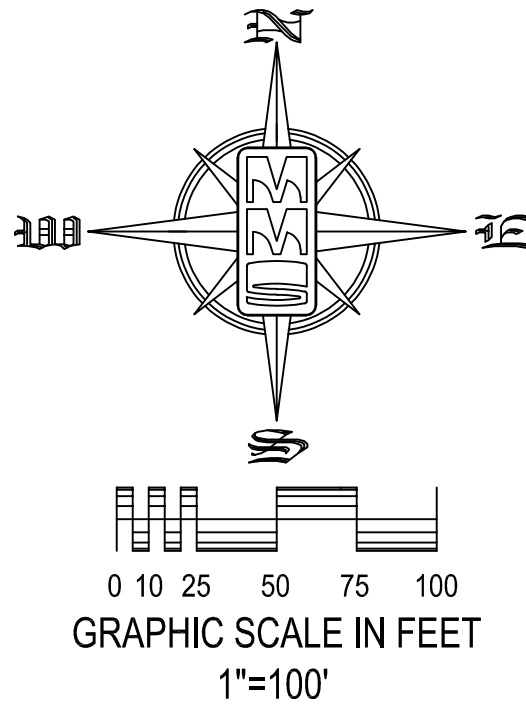
JORDAN CREEK CHURCH

JOHNSON COUNTY
IOWA

MMS CONSULTANTS, INC.

Date: 09/14/2026

Designed by:	LRS	Scale:	1"=100'
Drawn by:	LRS	Sheet No:	1
Checked by:	LRS	Project No:	10945-002
			of: 1



LEGEND AND NOTES

- CONGRESSIONAL CORNER, FOUND
 - PROPERTY CORNER(S), FOUND (as noted)
 - PROPERTY CORNERS SET (5/8" Iron Pin w/ yellow, plastic LS Cap embossed with "MMS")
 - CUT "x"
 - PROPERTY &/or BOUNDARY LINES
 - CONGRESSIONAL SECTION LINES
 - RIGHT-OF-WAY LINES
 - CENTER LINES
 - LOT LINES, INTERNAL
 - LOT LINES, PLATTED OR BY DEED
 - EASEMENT LINES, WIDTH & PURPOSE NOTED
 - EXISTING EASEMENT LINES, PURPOSE NOTED
 - RECORDED DIMENSIONS
 - MEASURED DIMENSIONS
 - CURVE SEGMENT NUMBER
- UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE IN FEET AND HUNDREDTHS

SENSITIVE AREAS NOTES

- A CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO PROTECT SENSITIVE AREAS AND ASSOCIATED BUFFERS. PLEASE REFER TO THE CONSERVATION EASEMENT AGREEMENT RECORDED WITH THIS SUBDIVISION FOR A LIST OF ALLOWED AND PROHIBITED USES WITHIN THE CONSERVATION EASEMENT.
- THE CONSERVATION EASEMENT AND LIMITS OF DISTURBANCE SHALL BE FLAGGED ON SITE PRIOR TO ANY CONSTRUCTION ACTIVITIES. AN ONSITE PRE-CONSTRUCTION MEETING SHALL BE HELD PRIOR TO THE COMMENCEMENT OF ANY GROUND DISTURBING ACTIVITIES.
- PRIOR APPROVAL FROM THE COUNTY IS REQUIRED FOR ANY MODIFICATION TO THE CONSERVATION EASEMENT.
- CRITICAL WILDLIFE HABITAT IS PRESENT FOR THE ENDANGERED INDIANA BAT AND THREATENED NLEB. POTENTIAL ROOST TREES FOR THE BAT SHALL ONLY BE REMOVED DURING THE DATES OF OCTOBER 1ST TO MARCH 31ST.
- COLOR VERSIONS OF THIS EXHIBIT ARE AVAILABLE ON FILE AT JOHNSON COUNTY PDS, ALONG WITH THE ACCOMPANYING SENSITIVE AREAS REPORT.

AUDITOR PARCEL 2025023
11.23 ACRES

SENSITIVE AREAS LEGEND

- CLASS 3 EMERGENT WETLANDS (0.48 ACRES)
- 50' CLASS THREE WETLAND BUFFER
- SENSITIVE WOODLAND (0.38 ACRES)
- 50' WOODLAND BUFFER
- CONSERVATION EASEMENT
- LIMIT OF DISTURBANCE