

## Information for File # 2015-01952-TJH

**Applicant:** Chisago County

**Corps Contact:** Tom Hingsberger

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**Phone:** (651) 290-5367

**Primary County:** Chisago County

**Sections:** 34, 35

**Township:** 34N

**Range:** 19W

**Information Complete On:** July 18, 2015

**Posting Expires On:** August 17, 2015

**Authorization Type:** LOP-05-MN

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act identified in Regulatory Guidance Letter 07-01. We have made a preliminary determination that the aquatic resources proposed to be impacted by the proposed project are regulated by the Corps of Engineers under Section 10 of the Rivers and Harbors Act. Our jurisdictional review could result in modifications to the scope of the project's regulated waterbody/wetland impacts and compensatory mitigation requirements identified above. An approved jurisdictional determination will be made prior to reaching a permit decision, and will be posted on the St. Paul District web page at <http://www.mvp.usace.army.mil/>.

**Project Includes:** Construction of a multi-use bituminous trail with three span bridges between 975 feet south of CSAH 37 and Tern Avenue.

**PROJECT DESCRIPTION AND PURPOSE:** The purpose of the proposed eastern terminus of the multi-use Swedish Immigrant Trail is to connect with the existing Sunrise Prairie and Hardwood Creek Trails from North Branch, MN, to Hugo, MN, with a potential connection to the Gandy-Dancer Trail system in Wisconsin. The trail is intended for pedestrians and bicyclists, and potentially horseback riding and snowmobiling, and it is a component of a plan to connect with Interstate Park in Taylors

Falls, MN. It would provide a connection between communities, provide recreational opportunities, and address safety needs posed by pedestrian use of highways that parallel the proposed trail route. It would also afford improved access to the system by persons with disabilities through standard design measures and provide direct access to the trail system by adjacent property owners.

The project would be constructed within a 100-foot wide easement for the trail corridor. It would involve construction of a 10-foot wide bituminous trail surface, three bridges, a temporary culvert bypass of Lawrence Creek, and a 6-foot wide ditch along the entire length. The total length of this project is approximately 2.0 miles, or 10,547 ft.

NAME, AREA AND TYPES OF WATERS (INCLUDING WETLANDS) SUBJECT TO LOSS: The amounts and areas of fill material that would be discharged into wetlands and into Lawrence Creek are summarized in Table 1 and shown on the attached drawings. All of the impact locations are located in Chisago County, Watershed No. 37, and in Bank Service Area No. 6.

**TABLE 1: Aquatic Resource Impact Summary**

<b>Aquatic Resource ID (as noted on overhead view)</b>	<b>Aquatic Resource Type</b>	<b>Type of Impact</b>	<b>Duration of Impact Permanent (P) or Temporary (T)</b>	<b>Size of Impact in Acres (ft<sup>2</sup> where indicated)</b>	<b>Existing Plant Community Type(s) in Impact Area</b>
A	Wetland	Cut/Fill	P	0.29	Type 1
B	Wetland	Cut/Fill	P	0.02	Type 1
C	Wetland	Fill	P	0.05	Type 3
D	Wetland	Fill	P	0.06	Type 7
E	Wetland	Fill	P	0.04	Type 1
F	Wetland	Fill	P	0.03	Type 1
G	Wetland	Fill	P	0.03	Type 1
H	Wetland	Fill	P	0.06	Type 2
I	Wetland	Fill	P	0.04	Type 2
J	Wetland	Fill	P	104 ft <sup>2</sup>	Type 2
K	Wetland	Fill	P	0.04	Type 7
Lawrence Creek	Tributary	Fill	T (60 Days)	64 ft <sup>2</sup>	NA
M	Wetland	Fill/Excavate	P	0.19	Type 2

Project impacts would involve placing fill material in Wetlands A through M to bring those areas to grade, and in one public watercourse (Lawrence Creek) for the construction of a temporary crossing and culvert bypass to facilitate construction of a permanent span bridge at that location. The temporary crossing would consist of four separate 36-inch CMP culverts to allow for continuous flow of Lawrence Creek during project construction. The culverts would be removed within 60 days of placement.

The wetland communities found within the corridor include Seasonally flooded basins (Type 1) that support various bottomland hardwood and coniferous trees. The Wet meadow (Type 2) wetlands support a variety of sedges, grasses, rushes, and broad-leaved plants. Shallow marsh (Type 3) wetlands typically support cattails, bulrushes, water plantains, arrowhead, and lake sedge. Hardwood/Coniferous swamp (Type 7) wetlands typically support tamarack, northern white cedar, black spruce, balsam fir, balsam poplar, and black ash. Aspen, box elder, elm, and sugar maple trees dominate the fringe areas along the trail corridor.

ALTERNATIVES: The No Build alternative considers not initiating the project, which would not address the safety needs of pedestrian and bicycle traffic that currently utilizes State Highway 8 or County Highway 37. It would result in a disconnect in the trail system between Wyoming, Minnesota, and Taylors Falls, Minnesota, and to other trail systems in Wisconsin and Minnesota.

A second alternative explored rerouting the trail along the eastern length of County Highway 37 and then turning south to follow Herberg Road. This alternative was dismissed since it would push the trail route to the road along Highway 37 and through additional wetland areas east of Herberg Road. While avoiding other surrounding roads, trail users would still be required to use portions of County Highway 37, Herberg Road, and Tern Road. While wetlands would be avoided between Herberg Road and Lawrence Creek, the likelihood of landowners allowing right of way acquisition that would split residential and agricultural parcels is unlikely. The alternative route is also lengthier and more circuitous, which would increase the impervious surface area and require additional mitigation for water quality.

AVOIDANCE AND MINIMIZATION: Wetland A impacts were minimized through the use of an elevated span bridge to cross Lawrence Creek instead of a series of culverts as what was originally proposed. The span bridge reduces impacts in Wetland A by as much as 9,500 ft<sup>2</sup>. Wetland B impacts were minimized through the use of a span bridge to cross the drainage area rather than installing a culvert, reducing impacts by as much as 4,200 ft<sup>2</sup>. The rail route was shifted south and east to reduce impacts to Wetland C. Wetland D runs along a north/south axis and would therefore require crossing at some point. The original trail route was shifted south to cross Wetland D at its narrowest width and still remain within the right of way corridor. Wetland E runs along a north/south axis and widens towards its southern terminus. To reduce impacts, the trail route was shifted north to cross at the narrowest portion.

The private property line to the north dictated the northernmost extent of the trail route. The rail route was shifted eastward to avoid bisecting Wetland F. The fill area within the right of way could not be totally avoided, but the impact was minimized as much as possible. The rail route was shifted eastward to avoid bisecting Wetland G. The narrow right of way forced the trail to cause some impact, but resulting impacts are less than the original design. The original design proposed routing the trail along the west side of Wetland H. Neighboring private property owners were opposed to the trail being

constructed in close proximity to their residences, so the trail route was shifted along the east side of Wetland H. This resulted in additional impact, but the route was shifted as far eastward as possible for minimization purposes. Impacts to Wetland I were reduced by changing the trail route to travel along the east side of Wetland H. This allowed the turn to the east to be shifted south and east to cross Herberg Road, rather than towards the center of Wetland I. The original trail route crossing Wetland J was dictated by the southern extreme of the existing right of way. To avoid impacts to Wetland J, the county was able to purchase additional right of way and shift the trail alignment southward. Wetland K's axis runs north and south, and widens towards in northern terminus. The trail was routed through the narrowest width of Wetland K to reduce wetland impacts. The original design called for the trail to cross Wetland L before it intersected CSAH 37. The new design eliminates this section of the trail, therefore Wetland L will be entirely avoided. A stormwater pond is planned to be constructed partially in Wetland M to treat runoff from impervious surface along the trail route. Multiple locations were examined along the trail route for placement of this pond, but none existed that would be able to efficiently collect the necessary quantity of stormwater. The trail was shifted to the east to minimize stormwater pond impacts to Wetland M. Lawrence Creek would need to be crossed at some point to continue trail development to the west, and the proposed route crosses the creek in a narrow location where slopes are not as steep and the potential for significant erosion or sediment impacts are not as high.

COMPENSATORY MITIGATION: Compensation for the permanent loss of 0.85 acre of wetlands would be provided by purchasing a minimum of 1.70 acres of wetland bank credits from an approved wetland bank located in Bank Service Area 6.

**Drawings:** See attached.

# MINNESOTA DEPARTMENT OF TRANSPORTATION

## CHISAGO COUNTY PARKS & TRAILS

CONSTRUCTION PLAN FOR GRADING, BITUMINOUS TRAIL, BRIDGES AND APPURTENANT WORK

LOCATED IN CHISAGO COUNTY FROM TERN AVENUE TO CSAH 37 (Geographic Description)

### SWEDISH IMMIGRANT TRAIL - SEGMENT 1 C.P. L003-13-3B

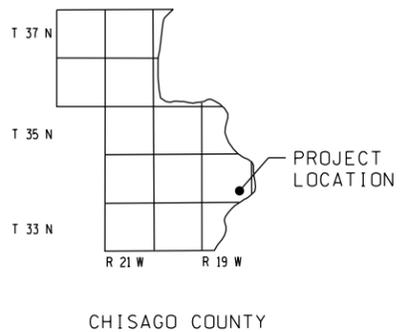
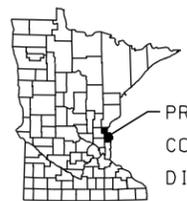
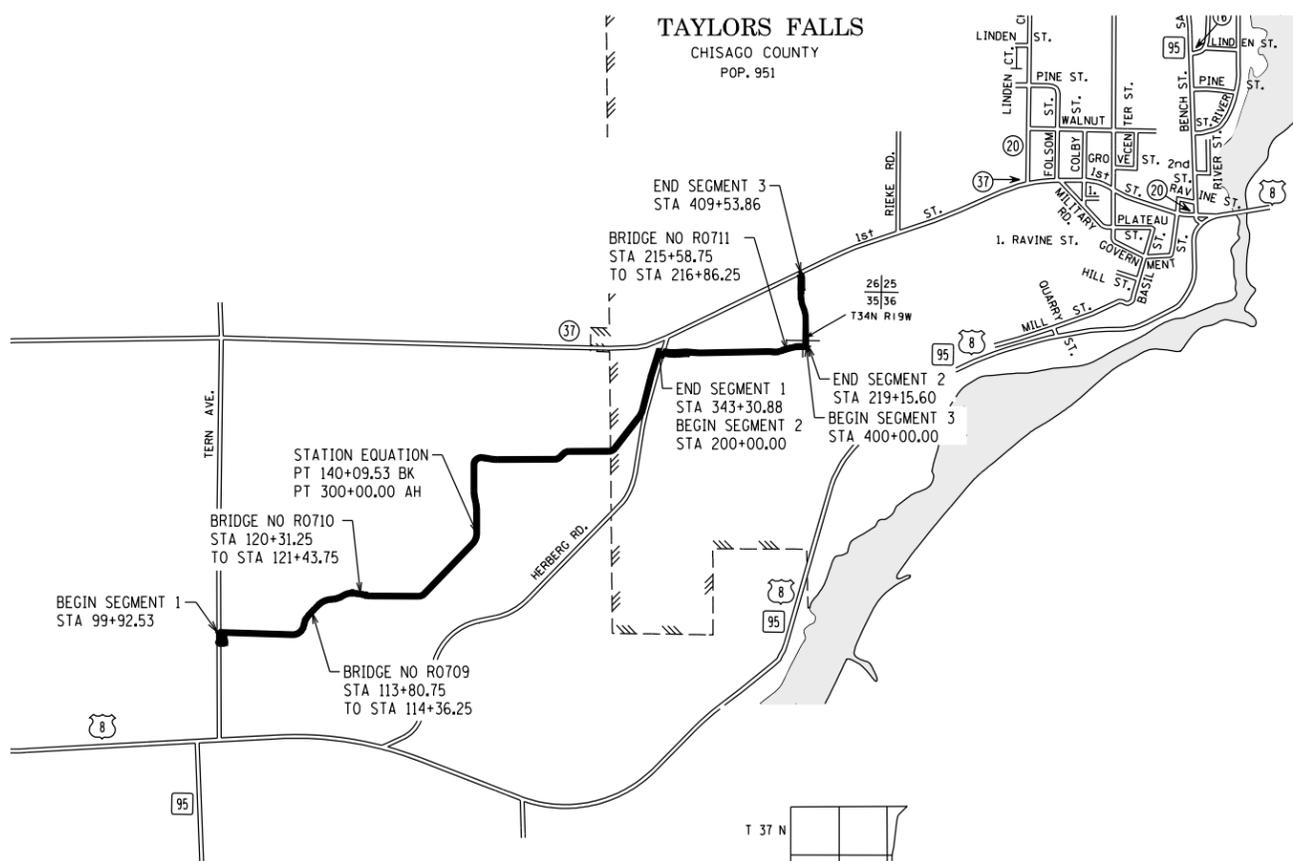
GROSS LENGTH 8347.88 ft 0.192 miles  
 BRIDGES-LENGTH 235.00 ft 0.005 miles  
 EXCEPTIONS-LENGTH 0.00 ft 0.000 miles  
 NET LENGTH 8347.88 ft 0.192 miles

### SWEDISH IMMIGRANT TRAIL - SEGMENT 2 C.P. L003-13-3B

GROSS LENGTH 1915.60 ft 0.044 miles  
 BRIDGES-LENGTH 125.00 ft 0.003 miles  
 EXCEPTIONS-LENGTH 0.00 ft 0.000 miles  
 NET LENGTH 1915.60 ft 0.044 miles

### SWEDISH IMMIGRANT TRAIL - SEGMENT 3 C.P. L003-13-3B

GROSS LENGTH 953.86 ft 0.022 miles  
 BRIDGES-LENGTH 0.00 ft 0.000 miles  
 EXCEPTIONS-LENGTH 0.00 ft 0.000 miles  
 NET LENGTH 953.86 ft 0.022 miles



### DESIGN DESIGNATION

DESIGN SPEED 20 MPH  
 BASED ON STOPPING SIGHT DISTANCE  
 HEIGHT OF EYE 4.5 HEIGHT OF OBJECT 0.0

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38/02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

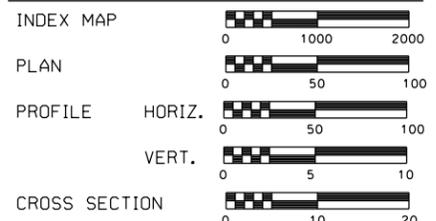
### PLAN SYMBOLS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT-OF-WAY LINE
- SLOPE EASEMENT
- PRESENT RIGHT-OF-WAY
- CONTROL OF ACCESS LINE
- PROPERTY LINES (EXCEPT LAND LINES)
- VACATED PLATTED PROPERTY
- CORPORATE OR CITY LIMITS
- TRUNK HIGHWAY CENTER LINE
- RETAINING WALL
- RAILROAD
- RAILROAD RIGHT-OF-WAY
- RIVER OR CREEK
- DRY RUN
- DRAINAGE DITCH
- DRAIN TILE
- CULVERT
- DROP INLET
- GUARD RAIL
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SNOW FENCE
- STONE WALL OR FENCE
- HEDGE
- RAILROAD CROSSING SIGN
- RAILROAD CROSSING BELL
- ELECTRIC WARNING SIGN
- CROSSING GATE
- MEANDER CORNER
- SPRINGS
- MARSH
- TIMBER
- ORCHARD
- BRUSH
- NURSERY
- CATCH BASIN
- FIRE HYDRANT
- CATTLE GUARD
- OVERPASS (HIGHWAY OVER)
- UNDERPASS (HIGHWAY UNDER)
- BRIDGE
- BUILDING (ONE STORY FRAME)
- F - FRAME C - CONCRETE
- S - STONE T - TILE
- B - BRICK ST - STUCCO
- IRON ROD OR PIPE
- MONUMENT (STONE, CONCRETE, OR METAL)
- WOODEN HUB
- GRAVEL PIT
- SAND PIT
- BORROW PIT
- ROCK QUARRY

### UTILITY SYMBOLS

- POWER POLE LINE
- TELEPHONE OR TELEGRAPH POLE LINE
- JOINT TELEPHONE AND POWER ON POWER POLE
- ON TELEPHONE POLES
- ANCHOR
- STREET LIGHT
- PEDESTAL (TELEPHONE CABLE TERMINAL)
- GAS MAIN
- WATER MAIN
- CONDUIT
- TELEPHONE CABLE IN CONDUIT
- ELECTRIC CABLE IN CONDUIT
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- BURIED TELEPHONE CABLE
- BURIED ELECTRIC CABLE
- AERIAL TELEPHONE CABLE
- SEWER (SANITARY OR STORM)
- SEWER MANHOLE

### SCALES



MINN. PROJECT NO. \_\_\_\_\_

### GOVERNING SPECIFICATIONS

THE 2014 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE 2014 EDITION OF THE "MATERIAL LAB SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST EDITION OF THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2 - 3	GENERAL LAYOUT
4 - 5	ESTIMATED QUANTITIES
6 - 10	QUANTITY TABULATIONS
11 - 14	EARTHWORK TABULATION & SUMMARY
15	CONSTRUCTION NOTES & STANDARD PLATES
16 - 28	MISCELLANEOUS DETAILS
29 - 30	TYPICAL SECTIONS
31 - 34	CONSTRUCTION STAGING & TRAFFIC CONTROL
35 - 36	ALIGNMENT PLAN & TABULATIONS
37 - 42	MISCELLANEOUS REMOVAL PLAN
43 - 56	CONSTRUCTION PLAN & PROFILE
57 - 76	SWPPP & TURF ESTABLISHMENT
77 - 94	CROSS SECTIONS - SEGMENT 1
95 - 98	CROSS SECTIONS - SEGMENT 2
99 - 100	CROSS SECTIONS - SEGMENT 3
B1 - B4	BRIDGE NO. R0709
B1 - B4	BRIDGE NO. R0710
B1 - B4	BRIDGE NO. R0711

THIS PLAN CONTAINS 112 SHEETS.

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

**WSB** 701 Xerxes Avenue South, Suite 300 • Minneapolis, MN 55416 • 763-541-4800 • Fax 763-541-1700 • www.wsbeng.com  
 INFRASTRUCTURE • ENGINEERING • PLANNING • CONSTRUCTION

SIGNATURE: *Donald W. Sterna* TYPED OR PRINTED NAME: DONALD W. STERNA, PE

ROADWAY DESIGN ENGINEER: I HEREBY CERTIFY THAT THE ROADWAY PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 5/20/2015 LICENSE NUMBER 19103

APPROVED: CITY OF TAYLORS FALLS DATE: \_\_\_\_\_

APPROVED: CHISAGO COUNTY ENGINEER DATE: \_\_\_\_\_

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THE PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

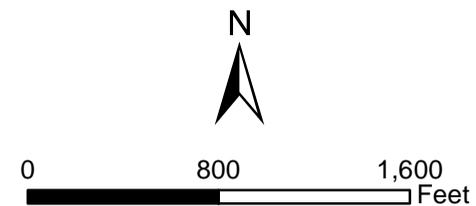
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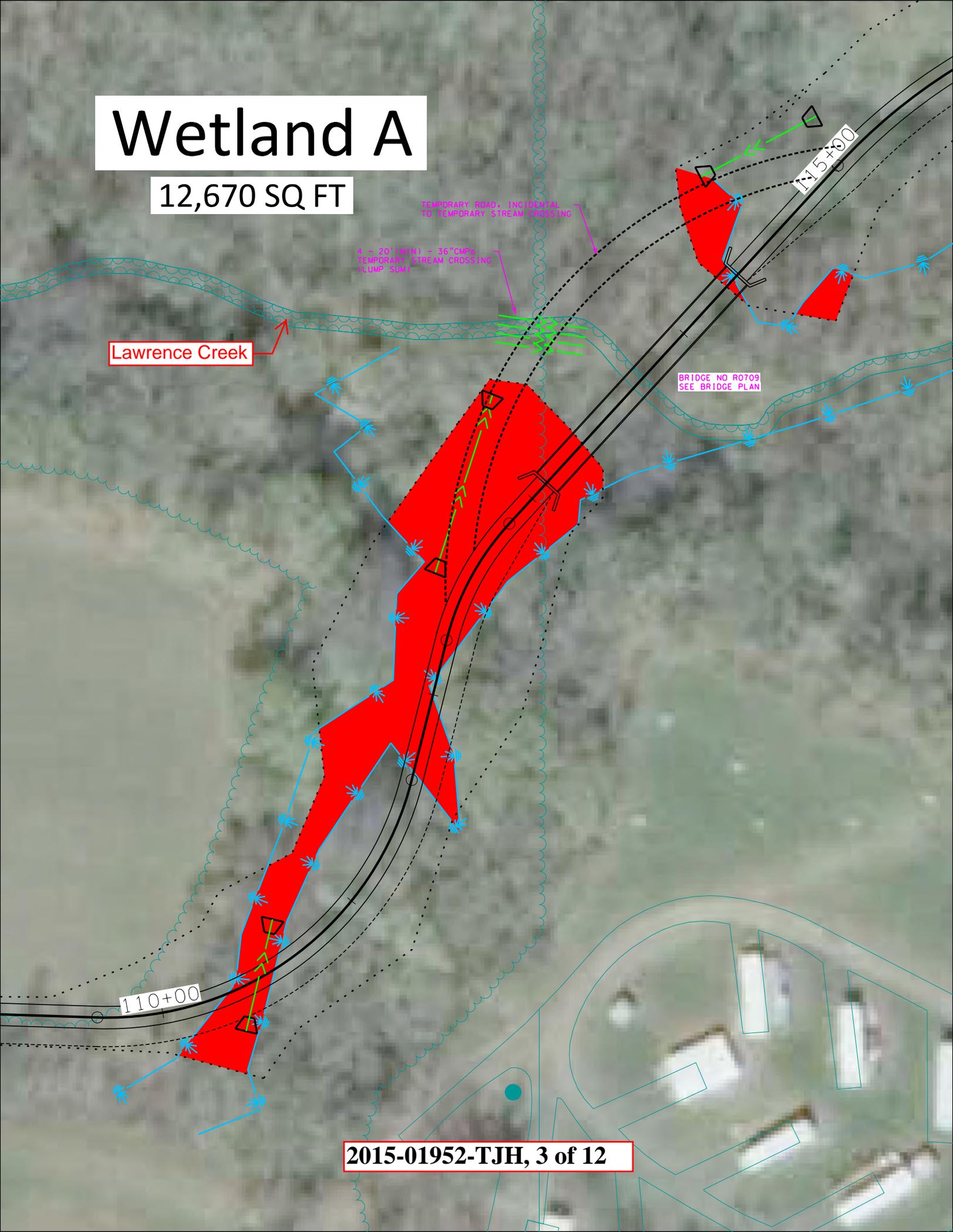
**Figure 1. Wetland Locations  
Swedish Immigrant Trail  
Chisago County, MN**

2015-01952-TJH, 2 of 12



# Wetland A

12,670 SQ FT

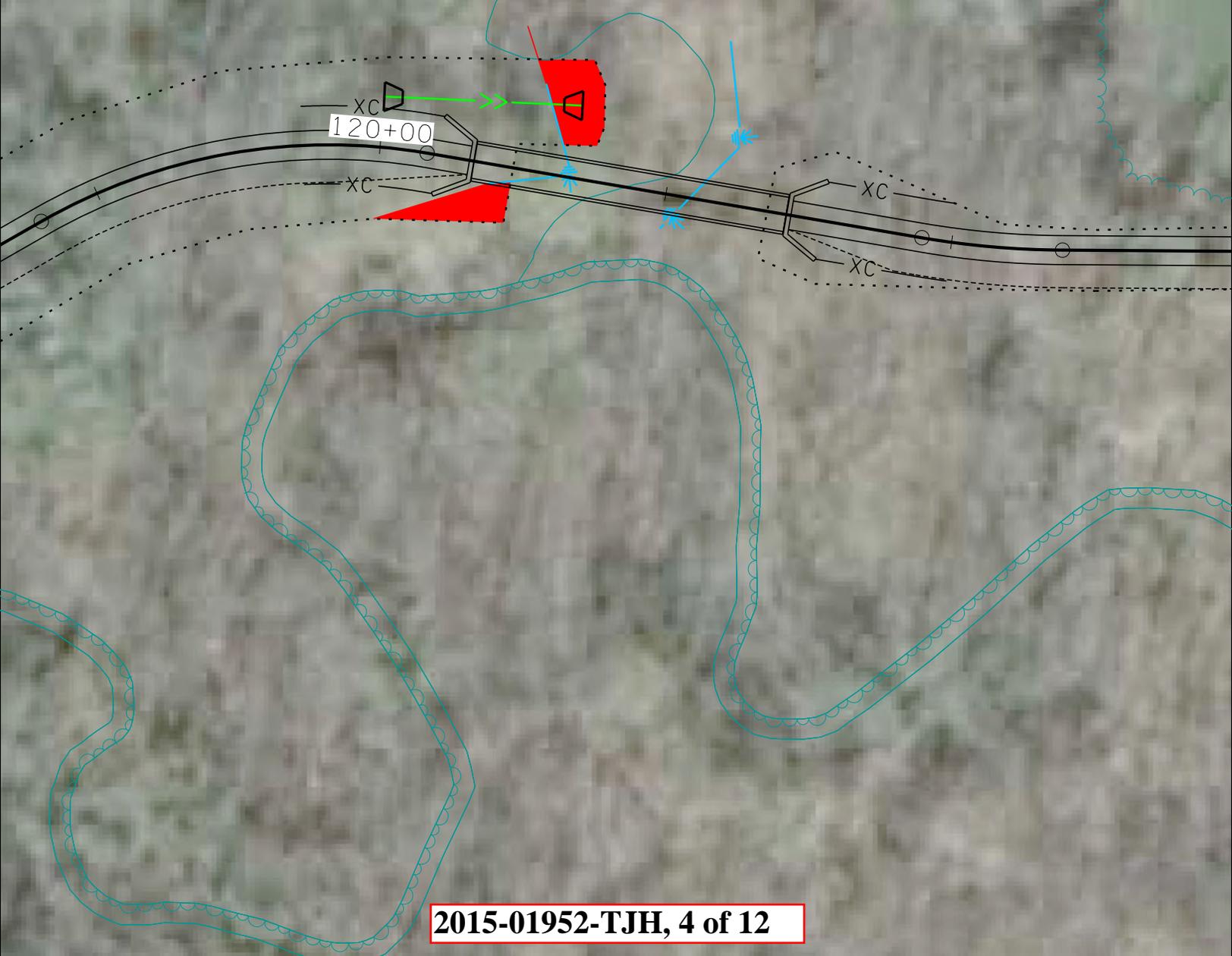


Lawrence Creek

BRIDGE NO R0709  
SEE BRIDGE PLAN

# Wetland B

877 SQ FT



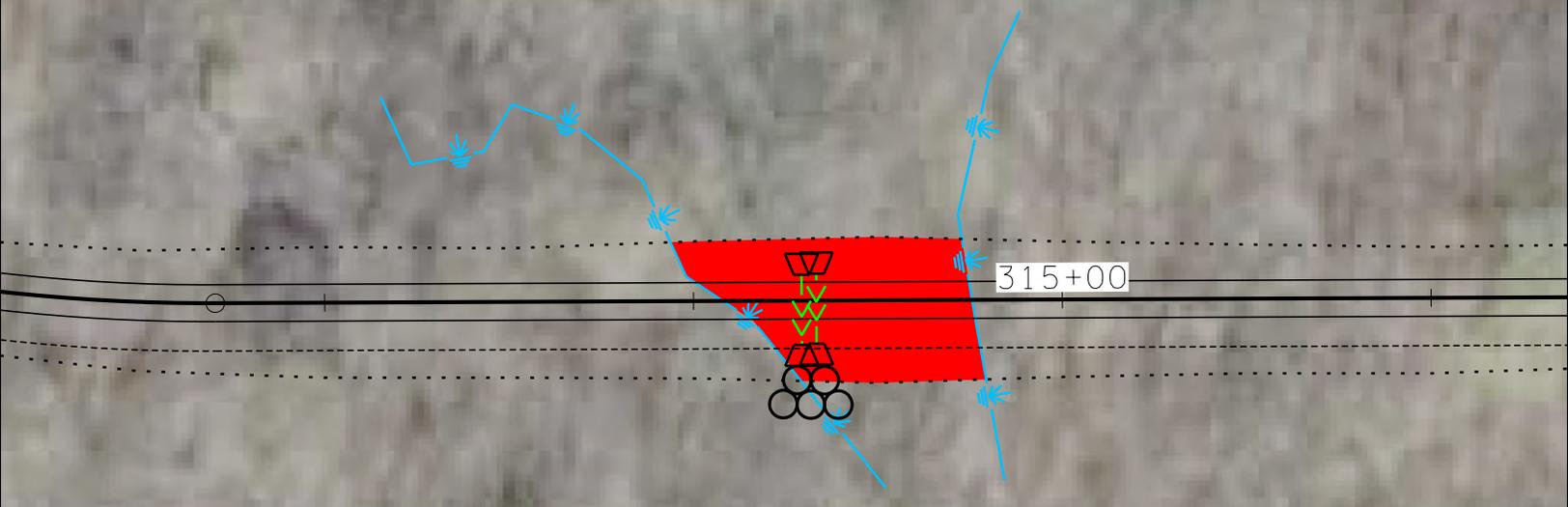
# Wetland C

1961 SQ FT



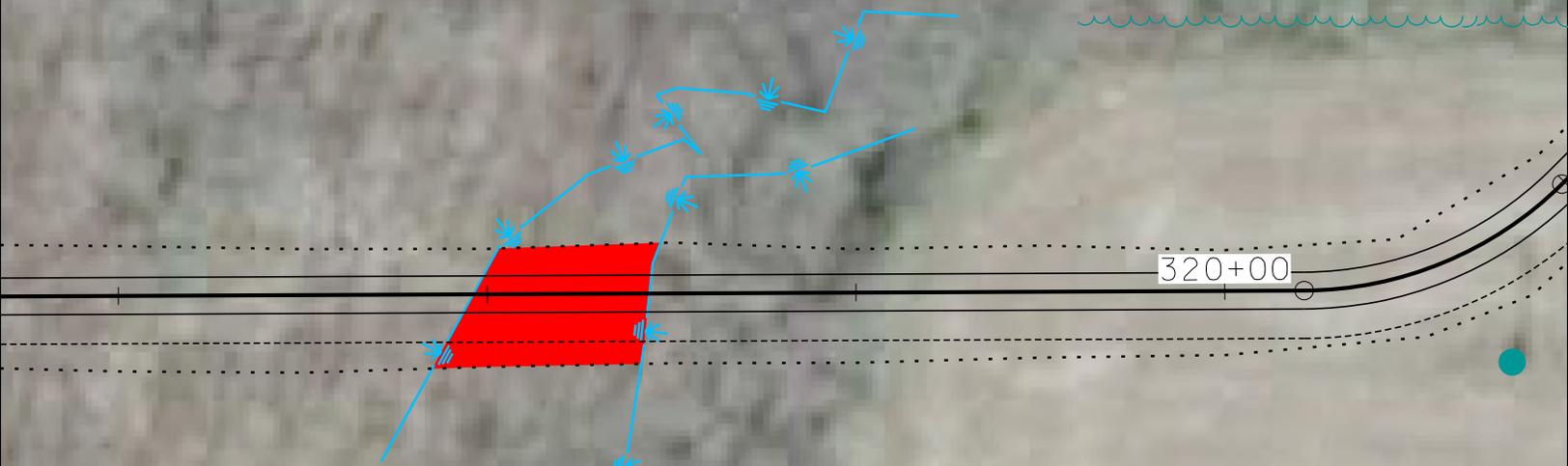
# Wetland D

2524 SQ FT



# Wetland E

1610 SQ FT

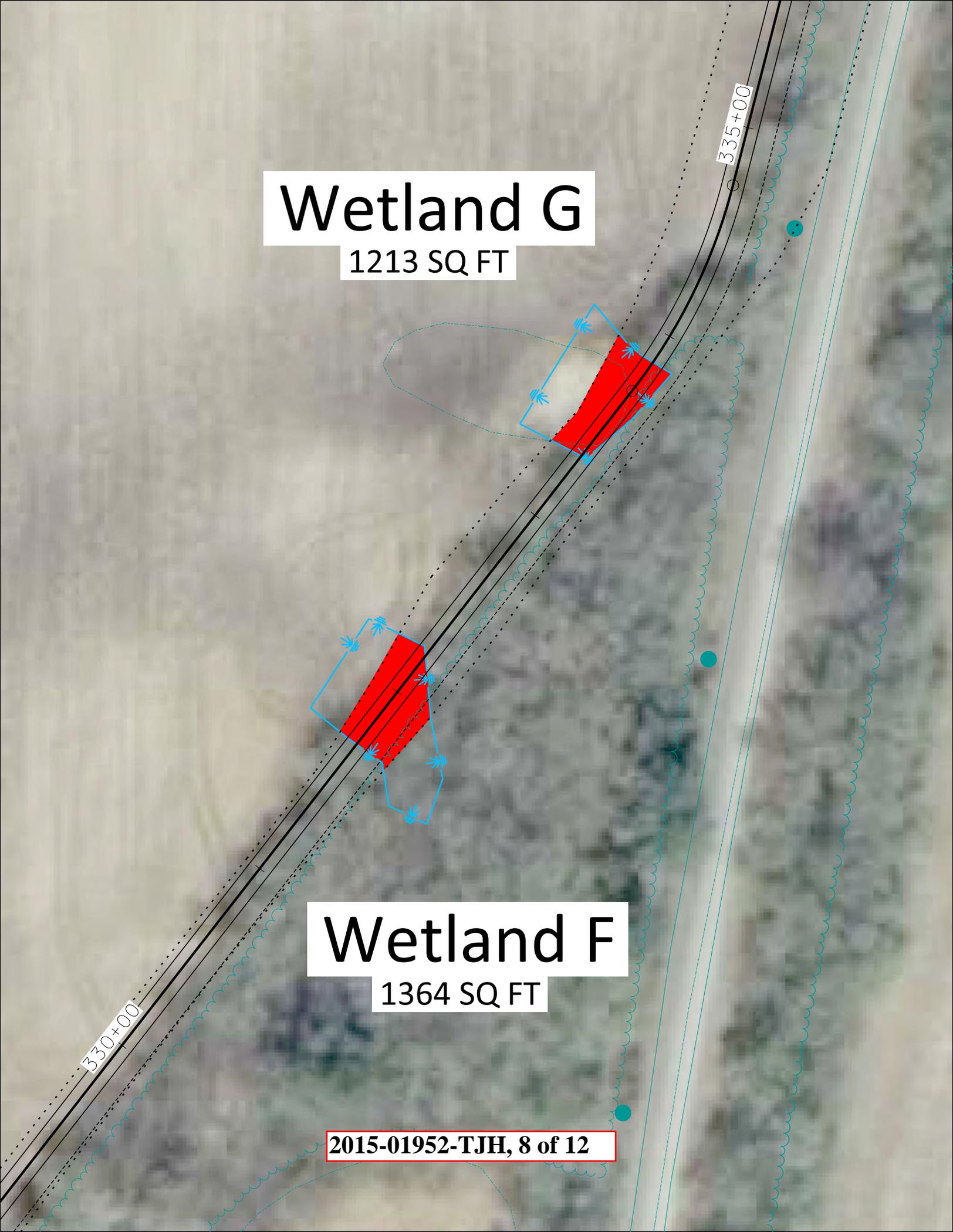


# Wetland G

1213 SQ FT

# Wetland F

1364 SQ FT



# Wetland H

2798 SQ FT

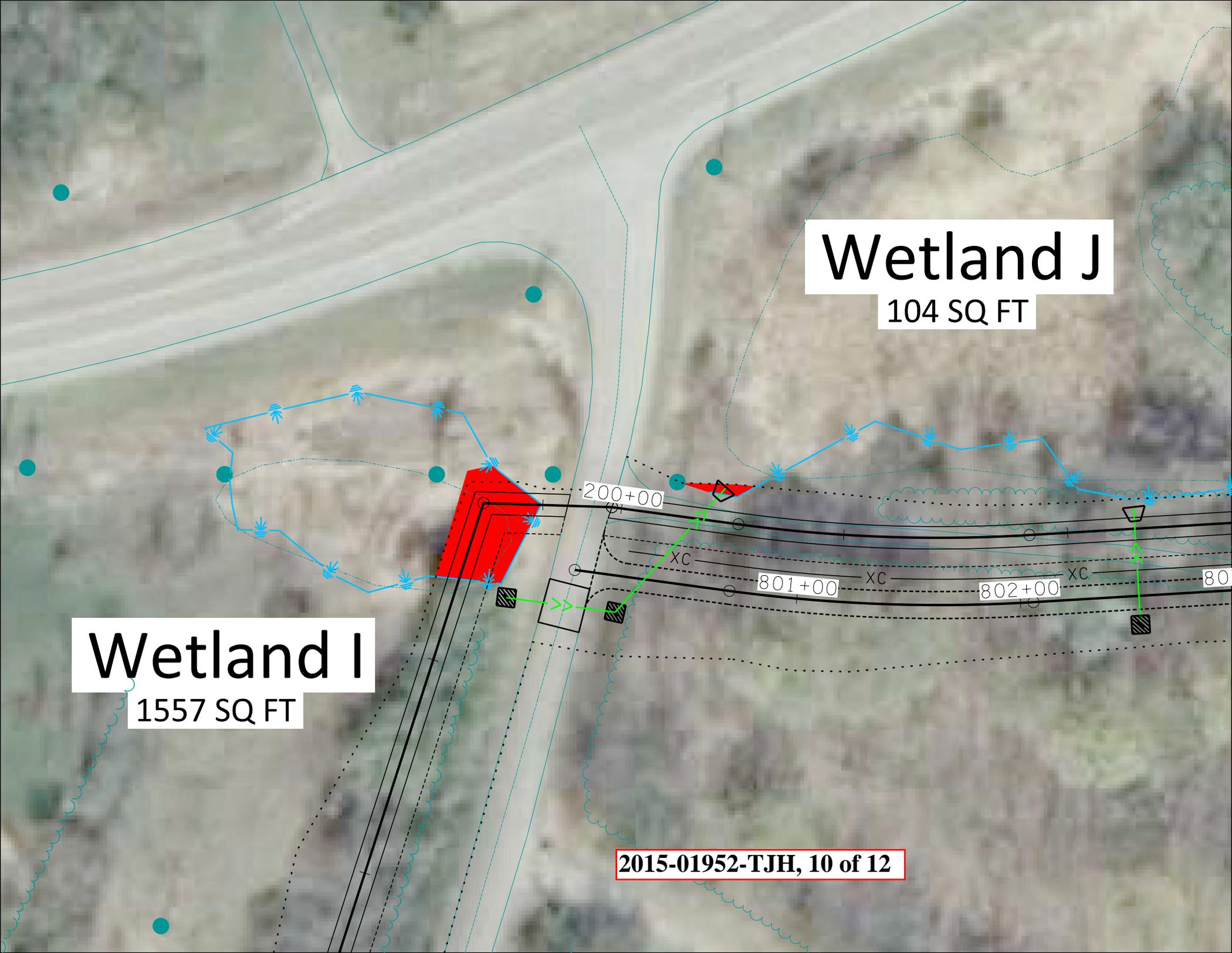
2015-01952-TJH, 9 of 12

**Wetland J**

104 SQ FT

**Wetland I**

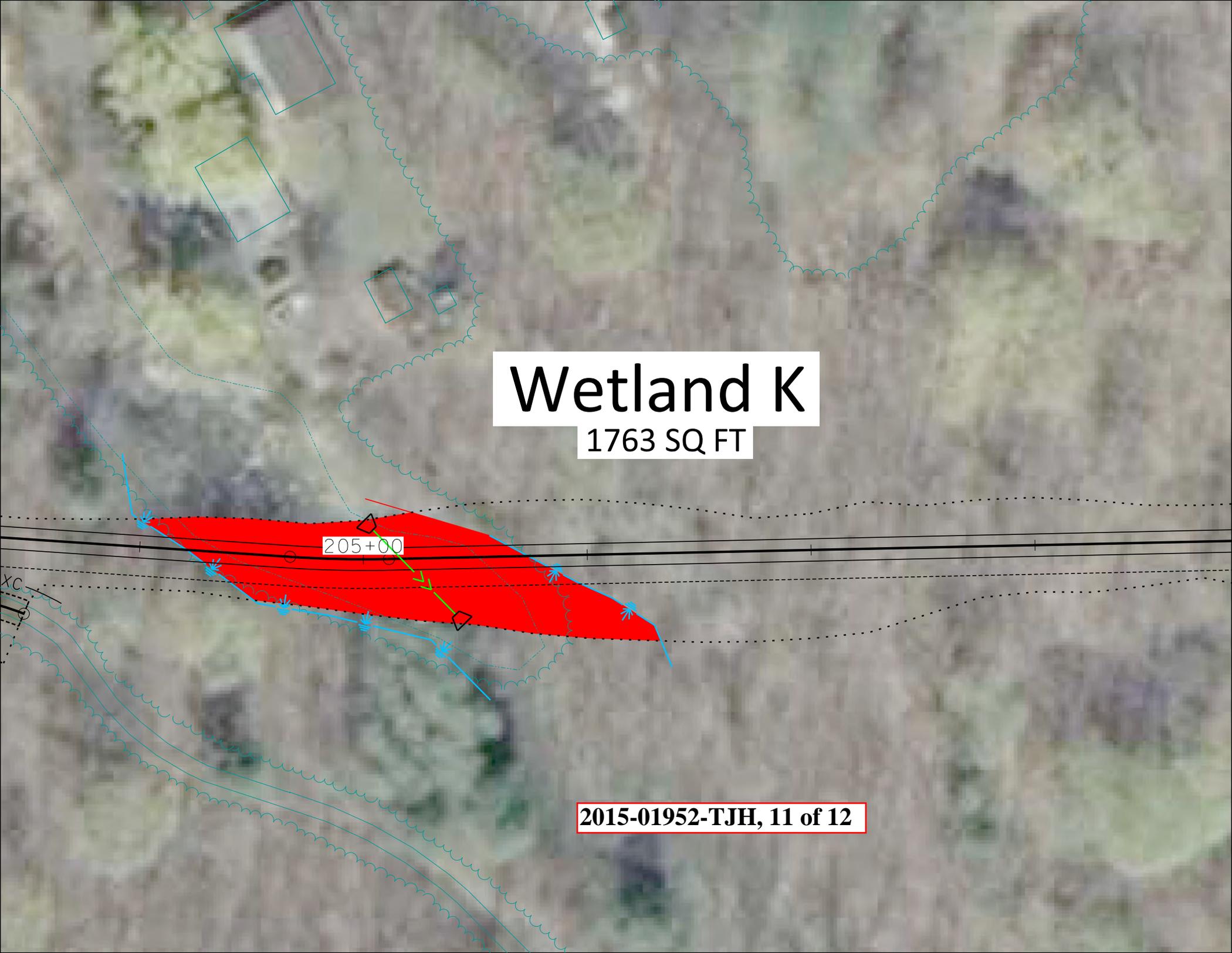
1557 SQ FT



# Wetland K

1763 SQ FT

205+00



# Wetland M

8387 SQ FT

2015-01952-TJH, 12 of 12

PT 300+00.00 AH

PT 140+09.53 BK

STATION EQUATION

140+00

