

# Information for File # 2015-02586-WAB

**Applicant:** Laura Hadrava, Cass County Highway Department

**Corps Contact:** William Baer

**Address:** 4111 Technology Drive, Suite 295, Bemidji, Minnesota 56601

**E-Mail:** William.A.Baer@usace.army.mil

**Phone:** (651) 290-5338

**Primary County:** Cass

**Location S/T/R:** Extends from the NW corner of Section 28, T135N, R30W, to the NW corner of the SE ¼ of the NE ¼, Section 28, T136N, R30W

**Information Complete On:** August 21, 2015

**Posting Expires On:** October 6, 2015

**Authorization Type:** LOP-05-MN(A)

This application is being reviewed in accordance with current practices for documenting Corps jurisdiction under Section(s) 9 & 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act.

We have made a preliminary determination that the aquatic resources that would be impacted by the proposed project are subject to Corps of Engineers jurisdiction under Section(s) 9 & 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act. If an approved jurisdictional determination is completed as part of the review process for this application, a copy will be posted on the St. Paul District web page at the following link:  
<http://www.mvp.usace.army.mil/Missions/Regulatory.aspx>.

**Project Purpose:** The purpose of the project is to upgrade a 5.75 mile long segment of CSAH 1 to meet current design standards for its current traffic volume, including reconstruction of the degraded driving surface and replacement of structurally deficient box culverts.

**Project Description:** The work would involve reconstruction of a 5.75 mile segment of Cass County State Aid Highway 1 (CSAH 1) beginning at its intersection with CSAH 107, extending north to the point where CSAH 1 was previously improved. The project involves removing the road overlay, re-grading the roadbed along its current alignment to achieve wider shoulders and meet current design standards, replacement of failing box-culverts at two of the three crossings along Cory Brook and one at a tributary to Cory Brook, and placement of an aggregate base and new bituminous driving surface.

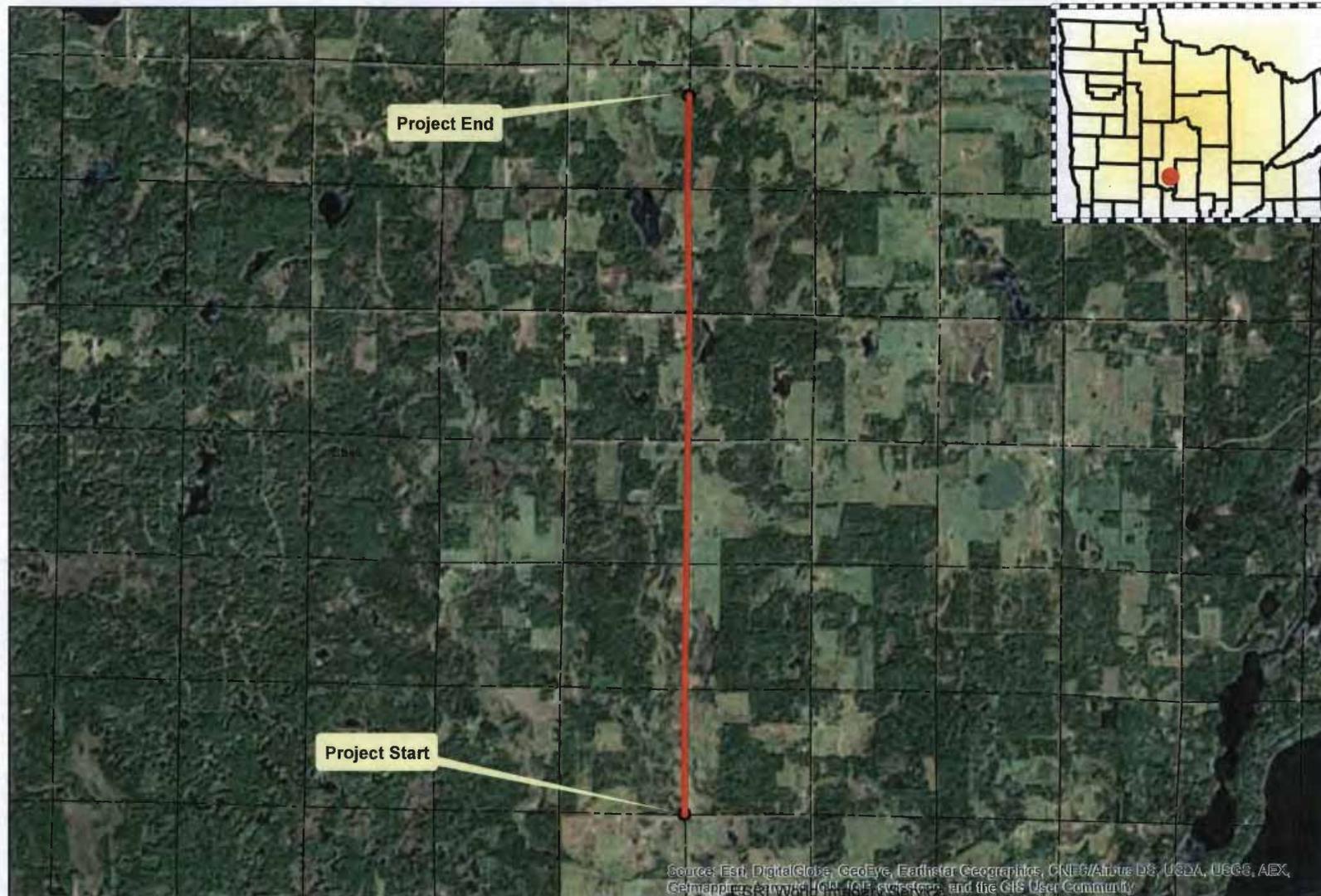
**Name, Area, and Types of Waters (including wetlands) Subject to Loss:** The road reconstruction and widening would impact 14 wetland basins and three stream crossings along the route. Permanent wetland impacts would total 1.96 acres, with temporary impacts totaling 1.73 acres and permanent stream impacts totaling 140 linear feet. See attached aquatic resource impact summary: MVP-2015-02586-WAB, pages 2 of 15 through 3 of 15.

**Alternatives Considered:** The applicant considered and dismissed the no build alternative as not meeting the project purpose and need. The applicant considered rerouting the roadway to minimize wetland impacts, but such a reroute would be cost prohibitive, require numerous

easements, and result in more road hazards as a result of an increased number of turns.

**Compensatory Mitigation:** The applicant has proposed compensatory mitigation for unavoidable permanent wetland impacts through the purchase of mitigation credits from a Local Government Road Wetland Replacement Program (LGRWRP) approved bank.

**Drawings:** See attached. MVP-2015-02586-WAB, pages 1 of 18 through 18 of 18.



US Army Corps  
of Engineers®  
St. Paul District

**MVP-2015-02586-WAB**  
**CSAH 1 Reconstruction**  
**Cass County, Minnesota**  
Locator Map

UTM 15N 388,132.6037 5,153,704.5343



Legend	
	Section_Lines
	County

## AQUATICE RESOURCE IMPACT SUMMARY

### AQUATIC IMPACTS - WETLANDS

#### AQUATIC IMPACT SUMMARY - PERMANENT IMPACTS

ID of Wetland Basin Impacted	Existing Plant Community Types	Type of Impact	Size of Wetland Impact (AC)	Size of Aquatic Resource (AC)	County, Major Watershed #, and Bank Service Area #
0	Sedge Meadow	Fill	0.01	Unknown	Cass; Crow Wing River (12); BSA 5
1	Sedge Meadow	Fill	--	Unknown	Cass; Crow Wing River (12); BSA 5
2	Sedge Meadow	Fill	82 SF	Unknown	Cass; Crow Wing River (12); BSA 5
3	Sedge Meadow	Fill	0.35	Unknown	Cass; Crow Wing River (12); BSA 5
4	Sedge Meadow/Shrub Swamp	Fill	0.14	12.77	Cass; Crow Wing River (12); BSA 5
5	Sedge Meadow/Shrub Swamp	Fill	0.06	17.86	Cass; Crow Wing River (12); BSA 5
6	Sedge Meadow/Shrub Swamp	Fill	0.05	Unknown	Cass; Crow Wing River (12); BSA 5
7	Sedge Meadow	Fill	0.02	Unknown	Cass; Crow Wing River (12); BSA 5
8	Shrub Swamp	Fill	0.07	Unknown	Cass; Crow Wing River (12); BSA 5
9	Sedge Meadow/Shrub Swamp/Shallow Marsh	Fill	1.19	157.50	Cass; Crow Wing River (12); BSA 5
10	Shrub Swamp	Fill	0.02	105.02	Cass; Crow Wing River (12); BSA 5
11	Shrub Swamp	Fill	--	0.77	Cass; Crow Wing River (12); BSA 5
12	Sedge Meadow	Fill	--	Unknown	Cass; Crow Wing River (12); BSA 5
13	Sedge Meadow	Fill	0.05	Unknown	Cass; Crow Wing River (12); BSA 5
14	Sedge Meadow	Fill	0.01	Unknown	Cass; Crow Wing River (12); BSA 5

Total Impacts - Permanent (AC)

1.96

#### AQUATIC IMPACT SUMMARY - TEMPORARY IMPACTS

ID of Wetland Basin Impacted	Existing Plant Community Types	Type of Impact	Size of Wetland Impact (AC)	Size of Aquatic Resource (AC)	County, Major Watershed #, and Bank Service Area #
0	Sedge Meadow	Fill	0.01	Unknown	Cass; Crow Wing River (12); BSA 5
1	Sedge Meadow	Fill	0.02	Unknown	Cass; Crow Wing River (12); BSA 5
2	Sedge Meadow	Fill	175 SF	Unknown	Cass; Crow Wing River (12); BSA 5
3	Sedge Meadow	Fill	0.26	Unknown	Cass; Crow Wing River (12); BSA 5
4	Sedge Meadow/Shrub Swamp	Fill	0.12	12.77	Cass; Crow Wing River (12); BSA 5
5	Sedge Meadow/Shrub Swamp	Fill	0.06	17.86	Cass; Crow Wing River (12); BSA 5
6	Sedge Meadow/Shrub Swamp	Fill	0.06	Unknown	Cass; Crow Wing River (12); BSA 5
7	Sedge Meadow	Fill	0.07	Unknown	Cass; Crow Wing River (12); BSA 5
8	Shrub Swamp	Fill	0.14	Unknown	Cass; Crow Wing River (12); BSA 5
9	Sedge Meadow/Shrub Swamp/Shallow Marsh	Fill	0.92	157.50	Cass; Crow Wing River (12); BSA 5
10	Shrub Swamp	Fill	0.04	105.02	Cass; Crow Wing River (12); BSA 5
11	Shrub Swamp	Fill	0.02	0.77	Cass; Crow Wing River (12); BSA 5
12	Sedge Meadow	Fill	--	Unknown	Cass; Crow Wing River (12); BSA 5
13	Sedge Meadow	Fill	0.03	Unknown	Cass; Crow Wing River (12); BSA 5
14	Sedge Meadow	Fill	0.01	Unknown	Cass; Crow Wing River (12); BSA 5

Total Impacts - Temporary (AC)

1.73

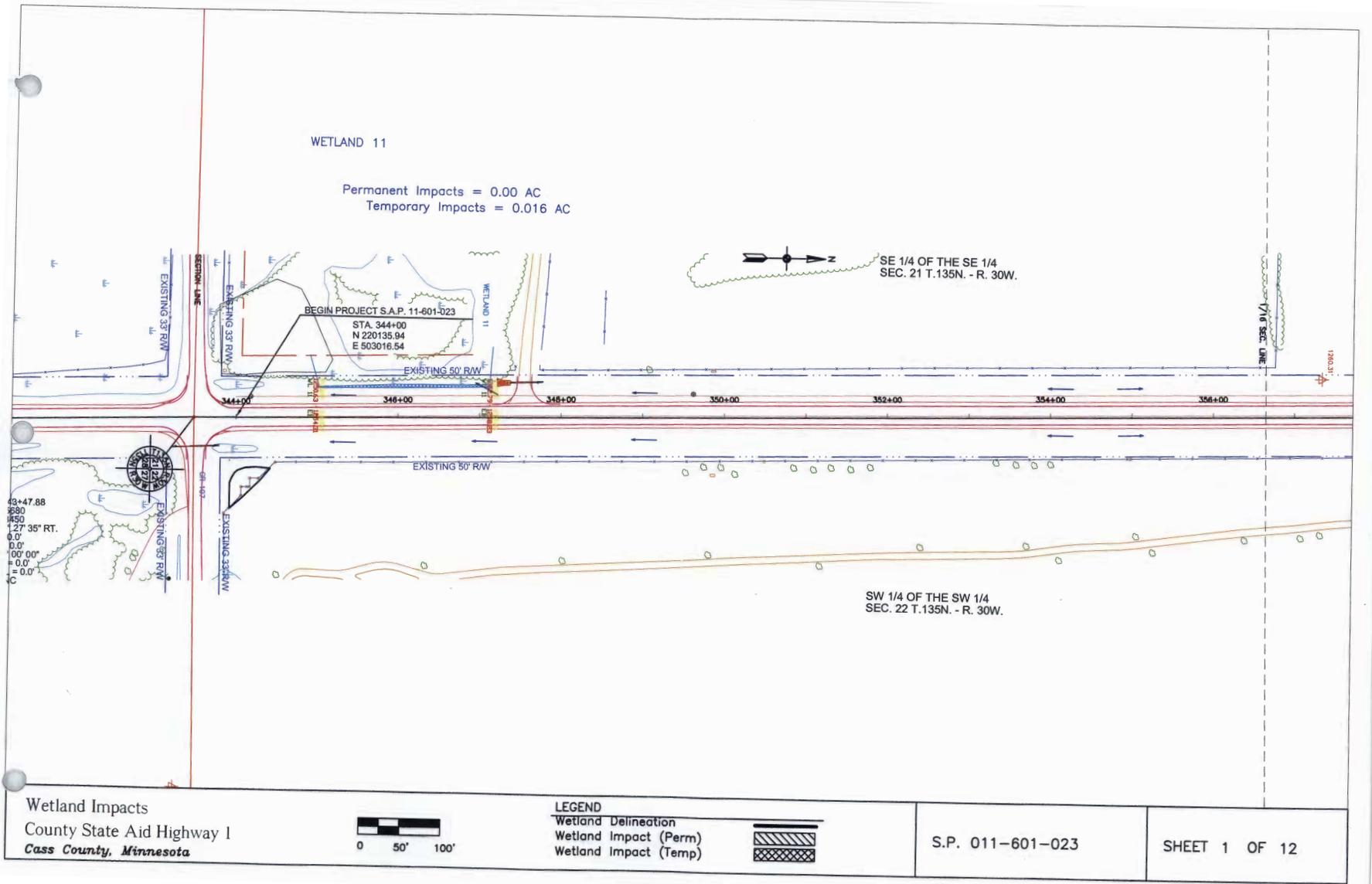
## AQUATICE RESOURCE IMPACT SUMMARY, CONT.

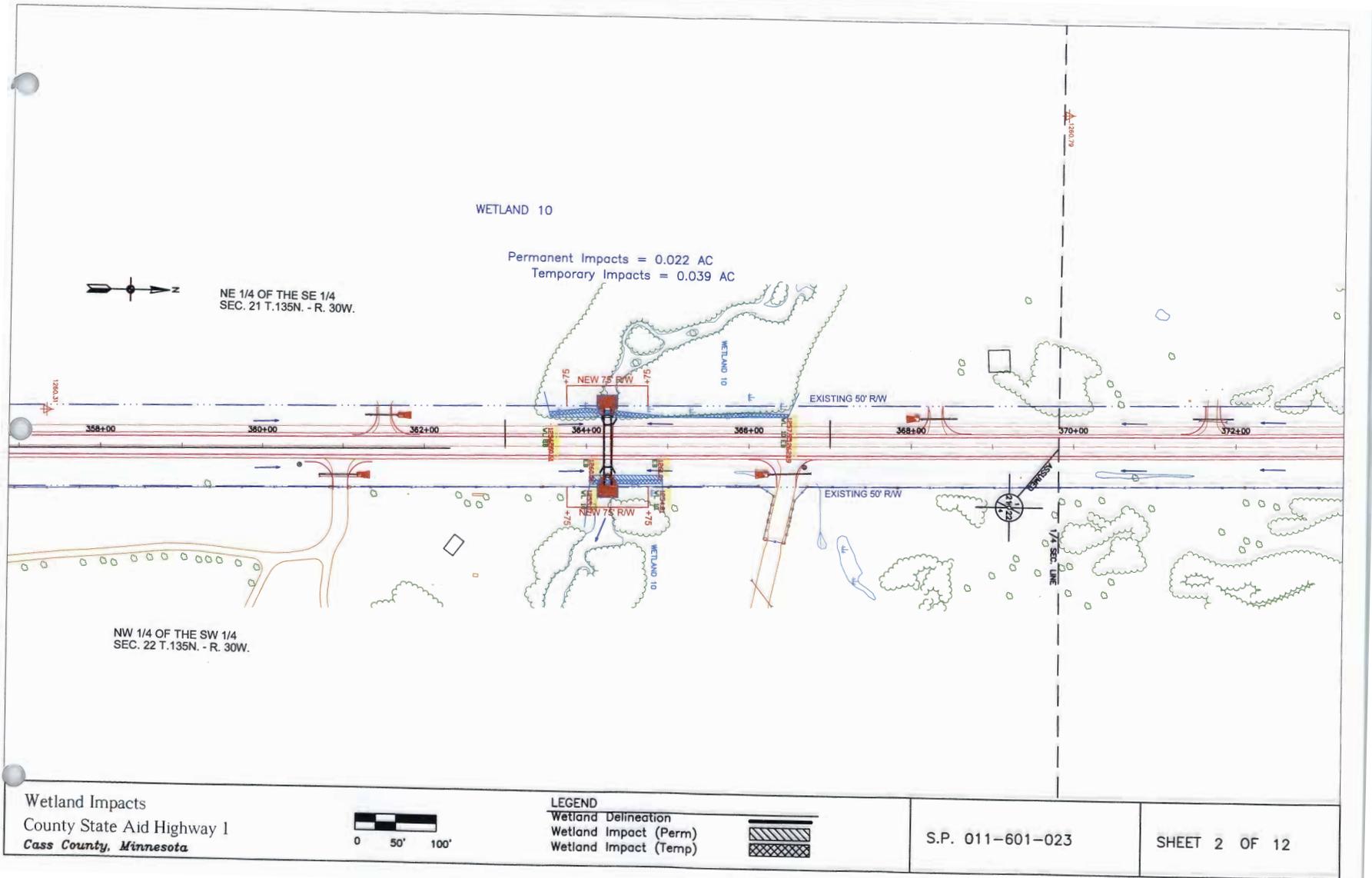
### AQUATIC IMPACTS - STREAMS

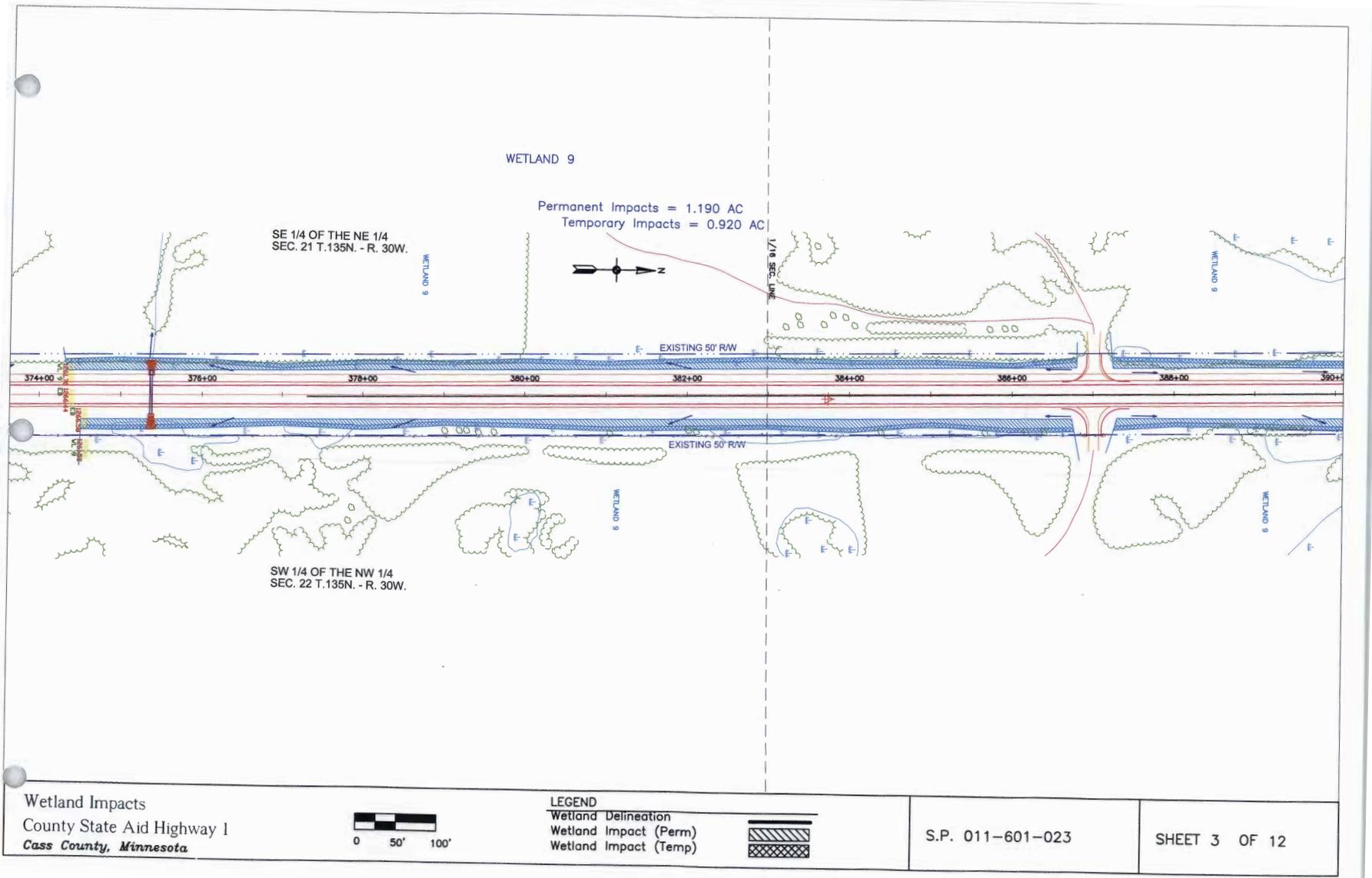
ID of Waterway Impacted	Existing Plant Community Types	Type of Impact	Size of Impact (AC)	Size of Aquatic Resource (AC)	County, Major Watershed #, and Bank Service Area #
Cory Brook	Sedge Meadow/Shrub Swamp	Fill/ Riprap	45 LF (1210 SF)	Unknown	Cass; Crow Wing River (12); BSA 5
Tributary to Cory Brook	Sedge Meadow/Shrub Swamp/Shallow Marsh	Fill/ Riprap	50 LF (1110 SF)	Unknown	Cass; Crow Wing River (12); BSA 5
Cory Brook	Shrub Swamp	Fill/ Riprap	45 LF (1070 SF)	Unknown	Cass; Crow Wing River (12); BSA 5

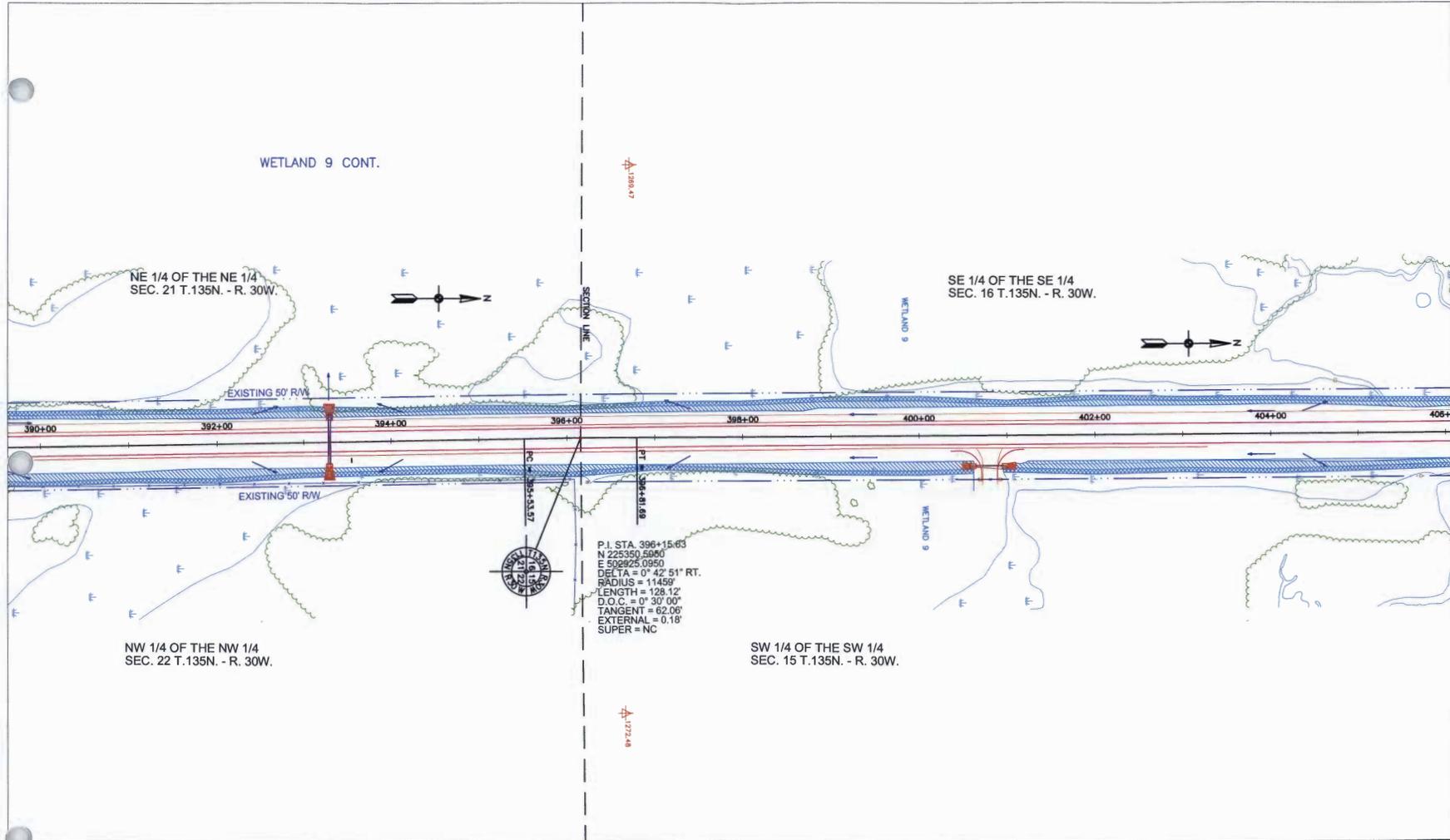
Total Permanent Linear Impacts

140.00









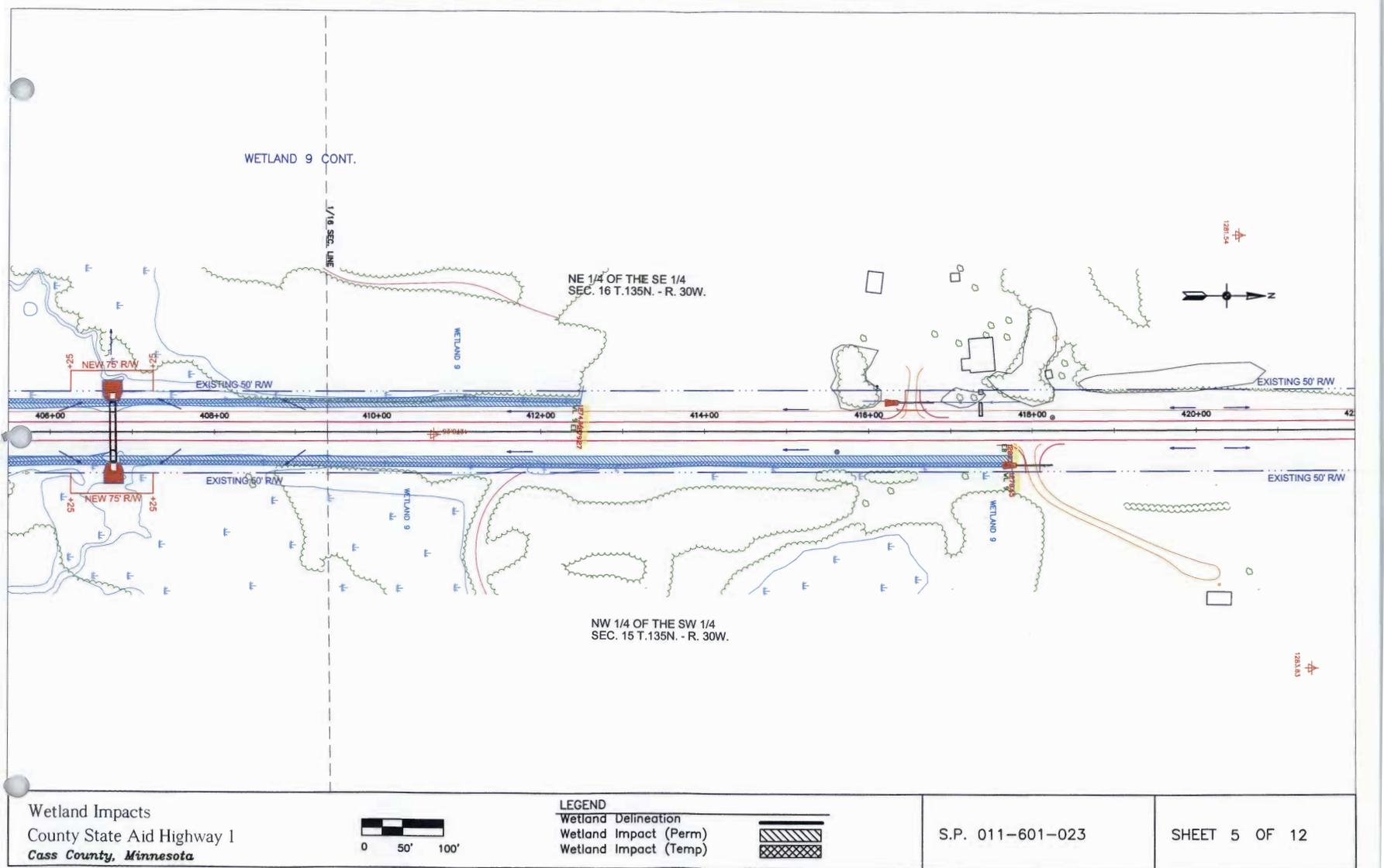
Wetland Impacts  
 County State Aid Highway 1  
 Cass County, Minnesota

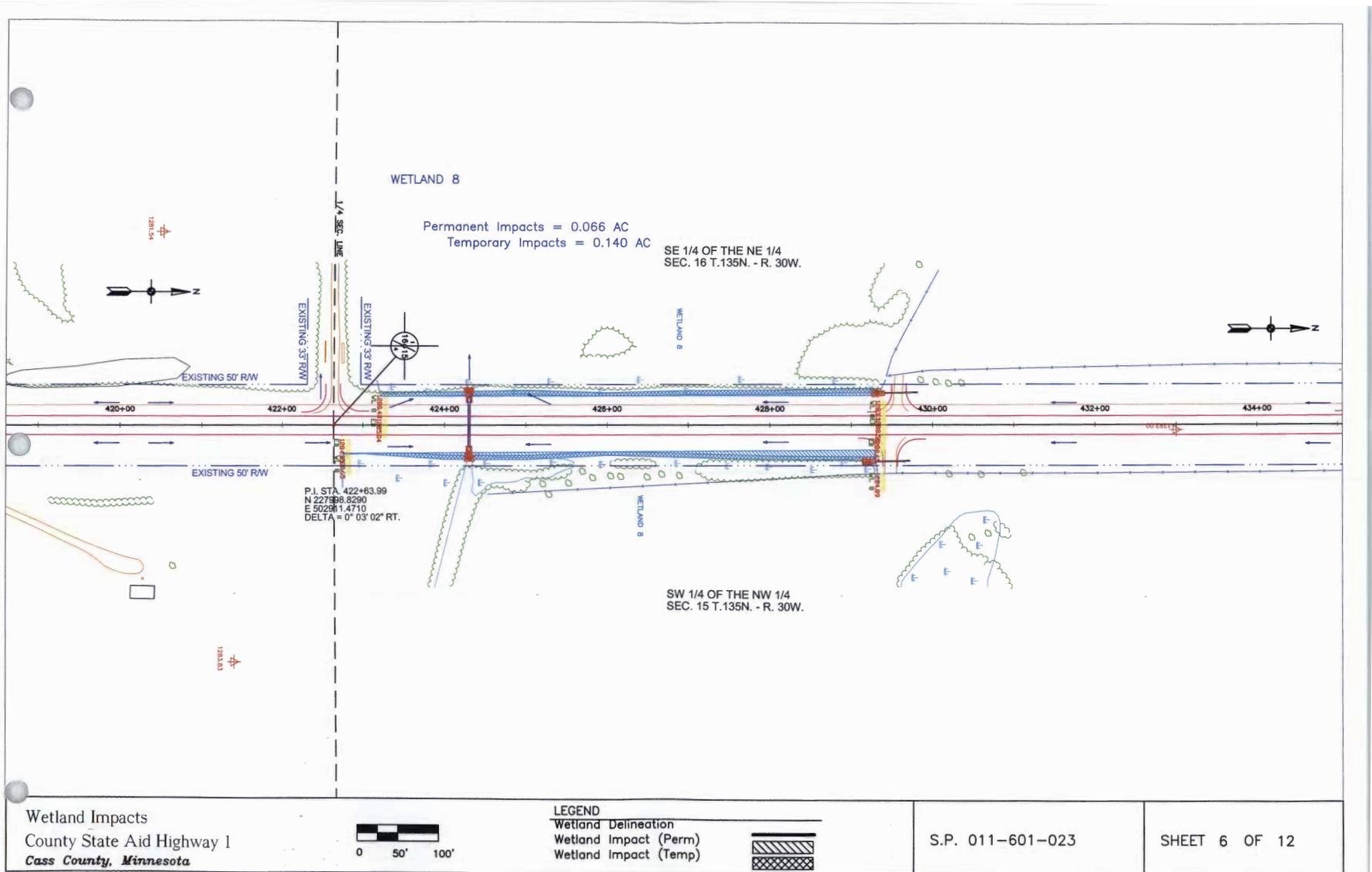


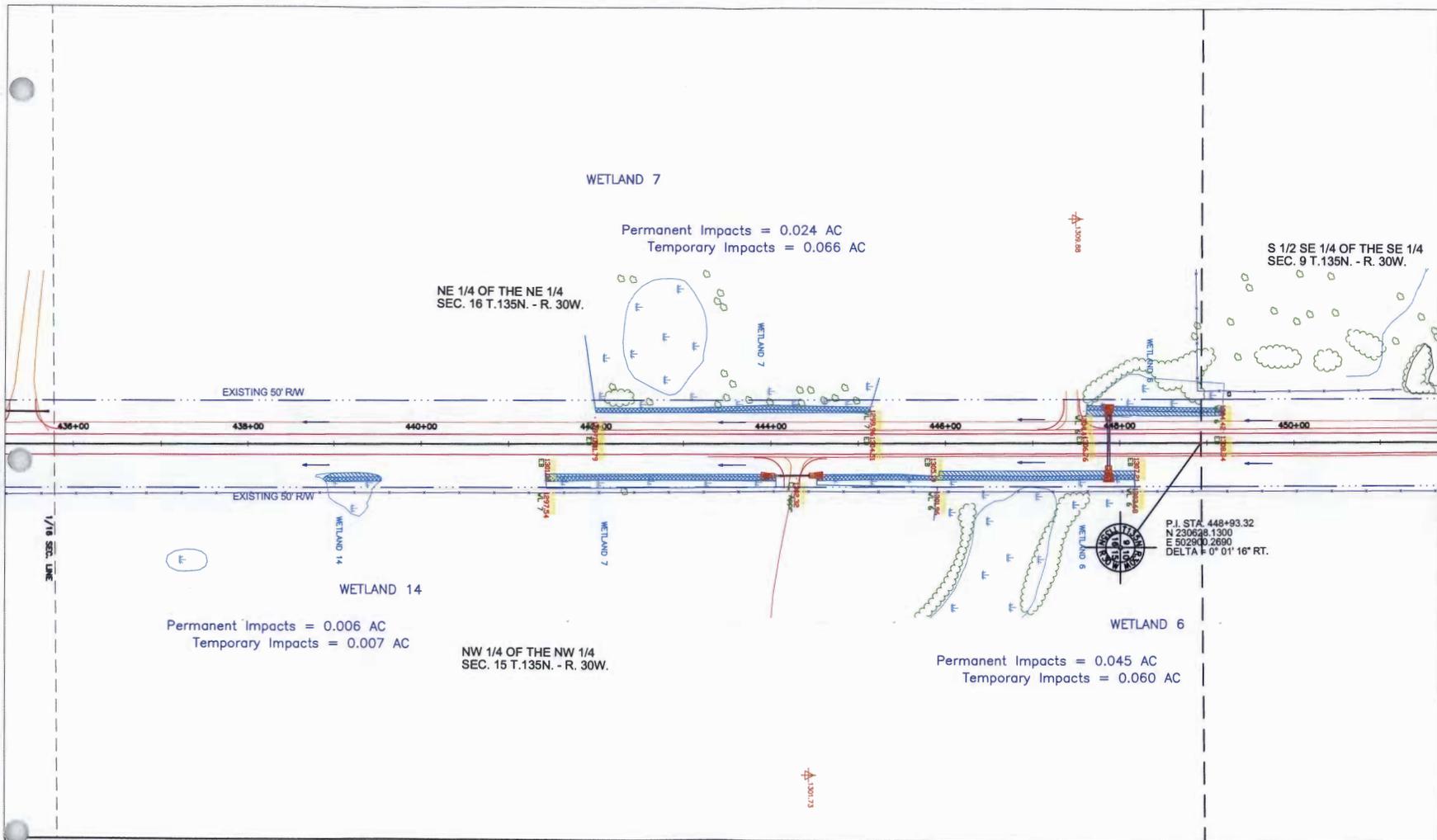
LEGEND	
Wetland Delineation	
Wetland Impact (Perm)	
Wetland Impact (Temp)	

S.P. 011-601-023

SHEET 4 OF 12







S 1/2 SE 1/4 OF THE SE 1/4  
SEC. 9 T.135N. - R. 30W.

NE 1/4 OF THE NE 1/4  
SEC. 16 T.135N. - R. 30W.

NW 1/4 OF THE NW 1/4  
SEC. 15 T.135N. - R. 30W.

WETLAND 7

Permanent Impacts = 0.024 AC  
Temporary Impacts = 0.066 AC

Permanent Impacts = 0.006 AC  
Temporary Impacts = 0.007 AC

WETLAND 14

WETLAND 6

Permanent Impacts = 0.045 AC  
Temporary Impacts = 0.060 AC

P.I. STA. 448+93.32  
N 23°06'38.1300  
E 50°29'00.2690  
DELTA = 0° 01' 16\"/>

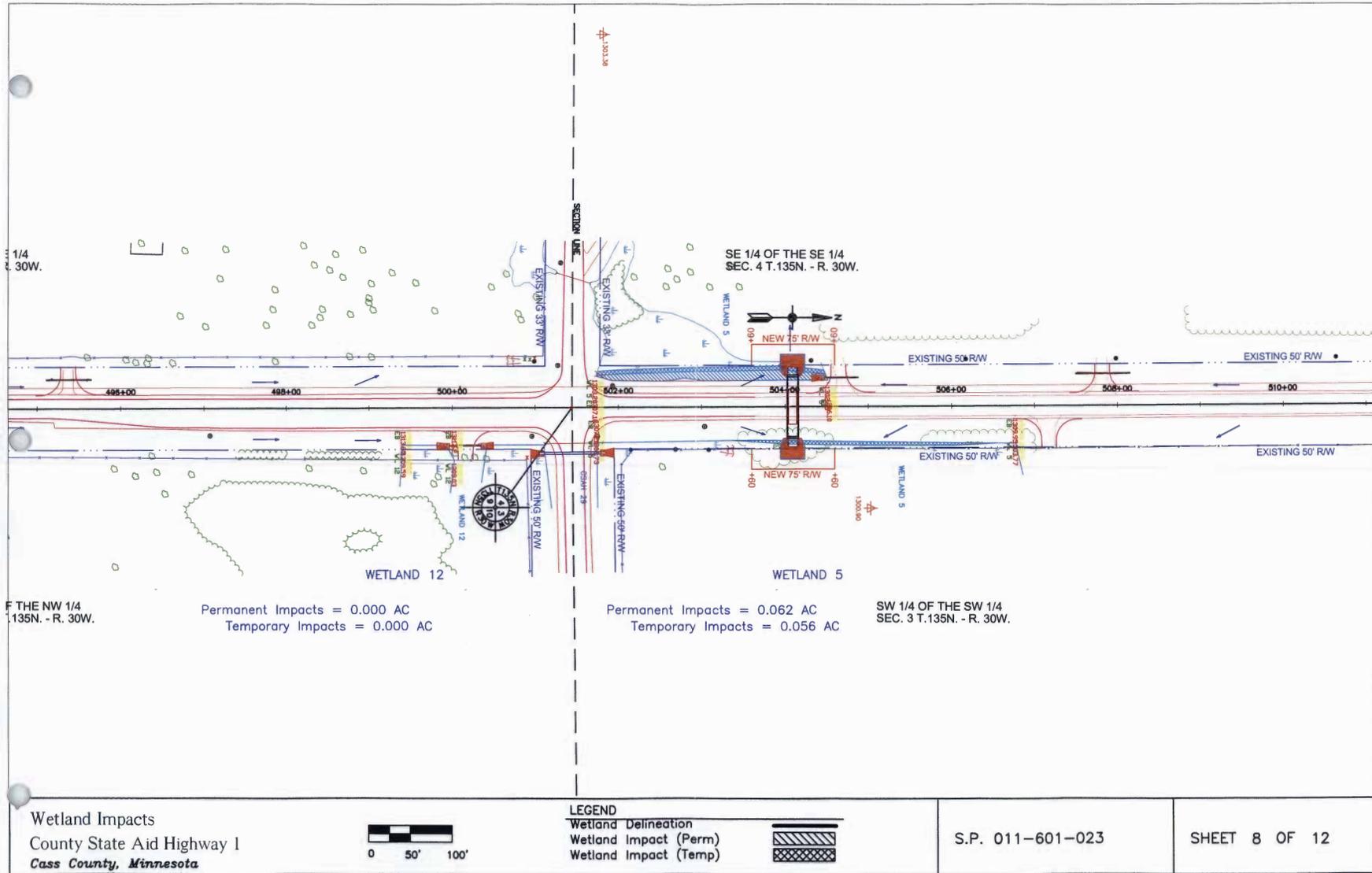
Wetland Impacts  
County State Aid Highway 1  
Cass County, Minnesota

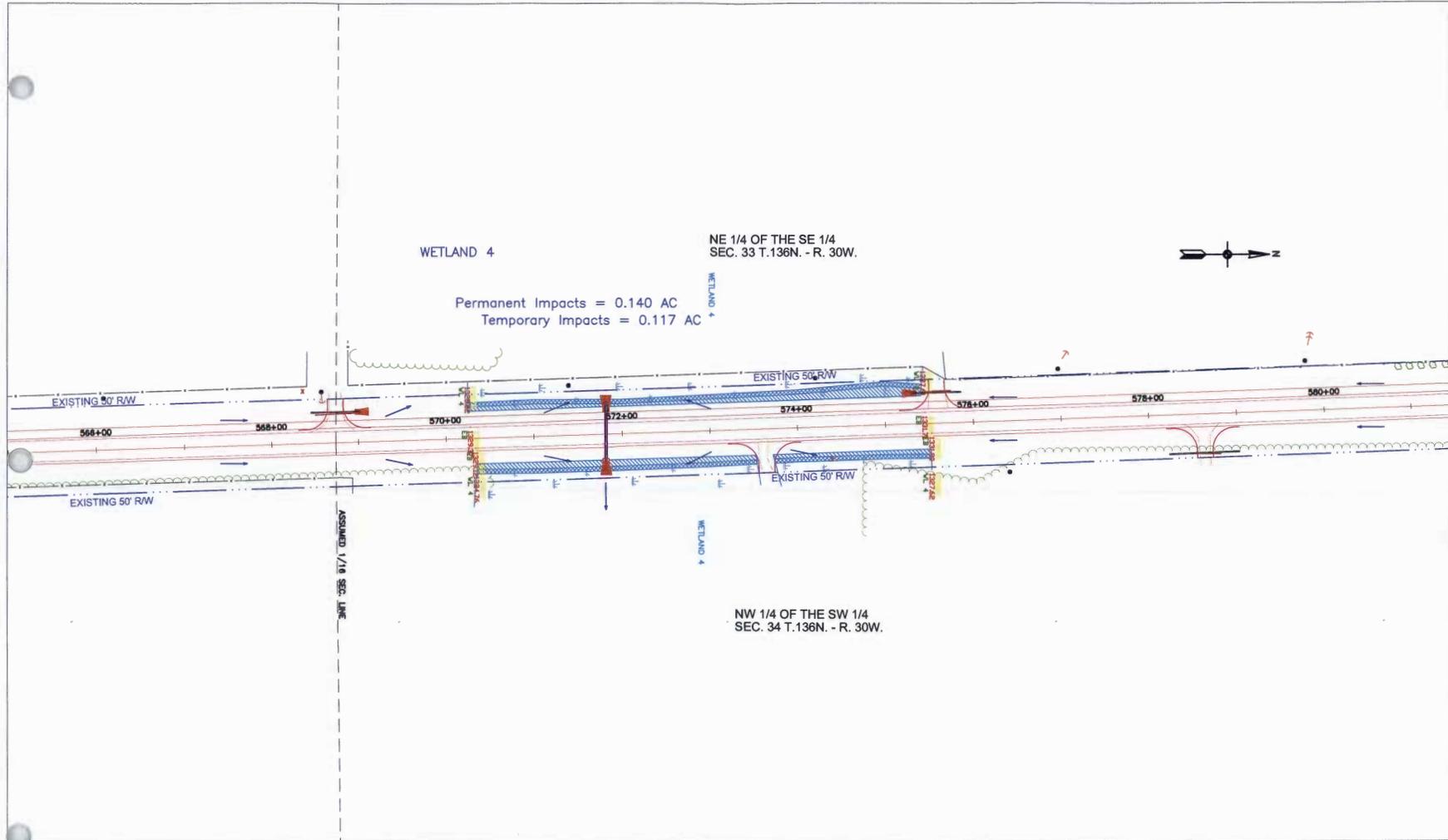


LEGEND	
Wetland Delineation	
Wetland Impact (Perm)	
Wetland Impact (Temp)	

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Wetland Impacts  
 County State Aid Highway 1  
 Cass County, Minnesota

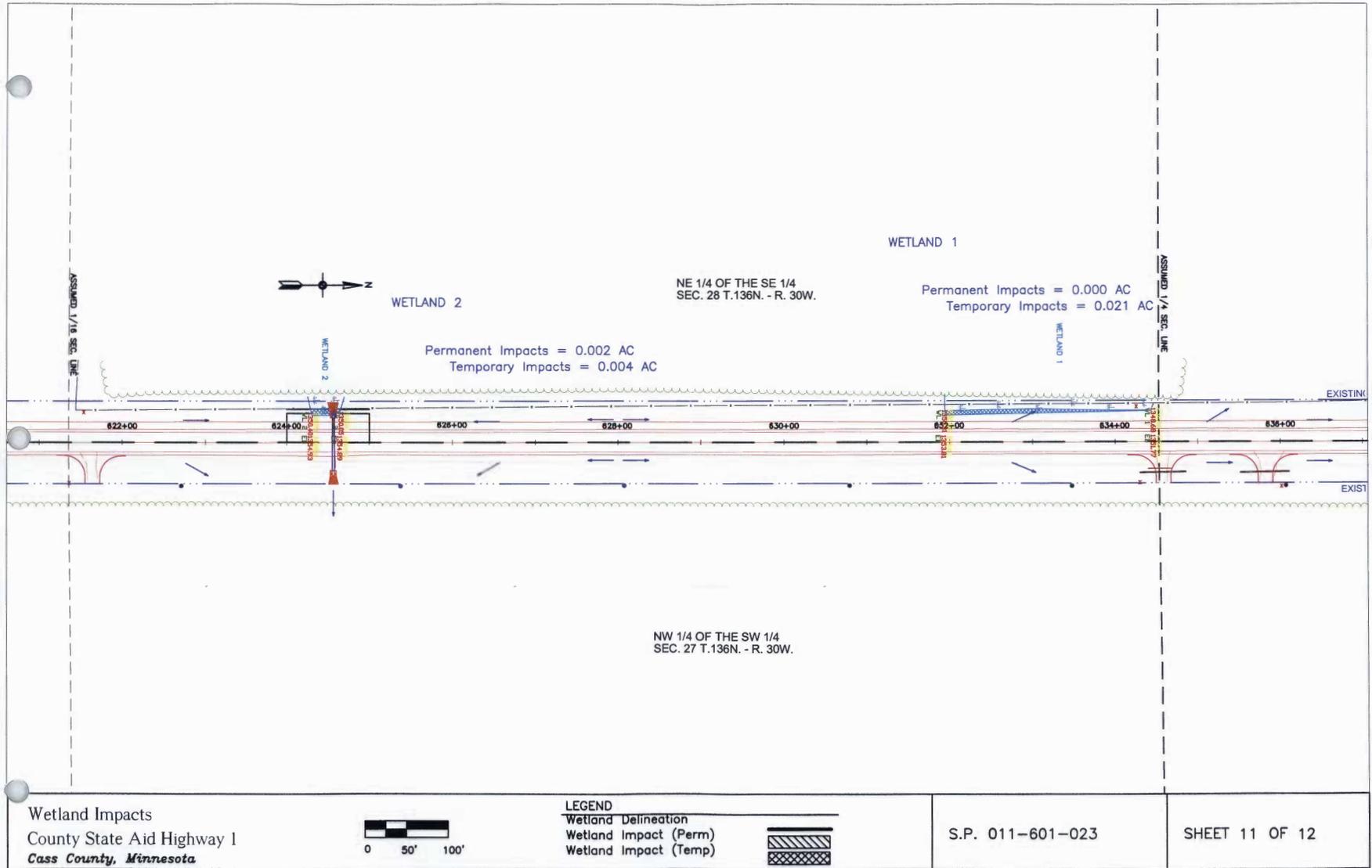


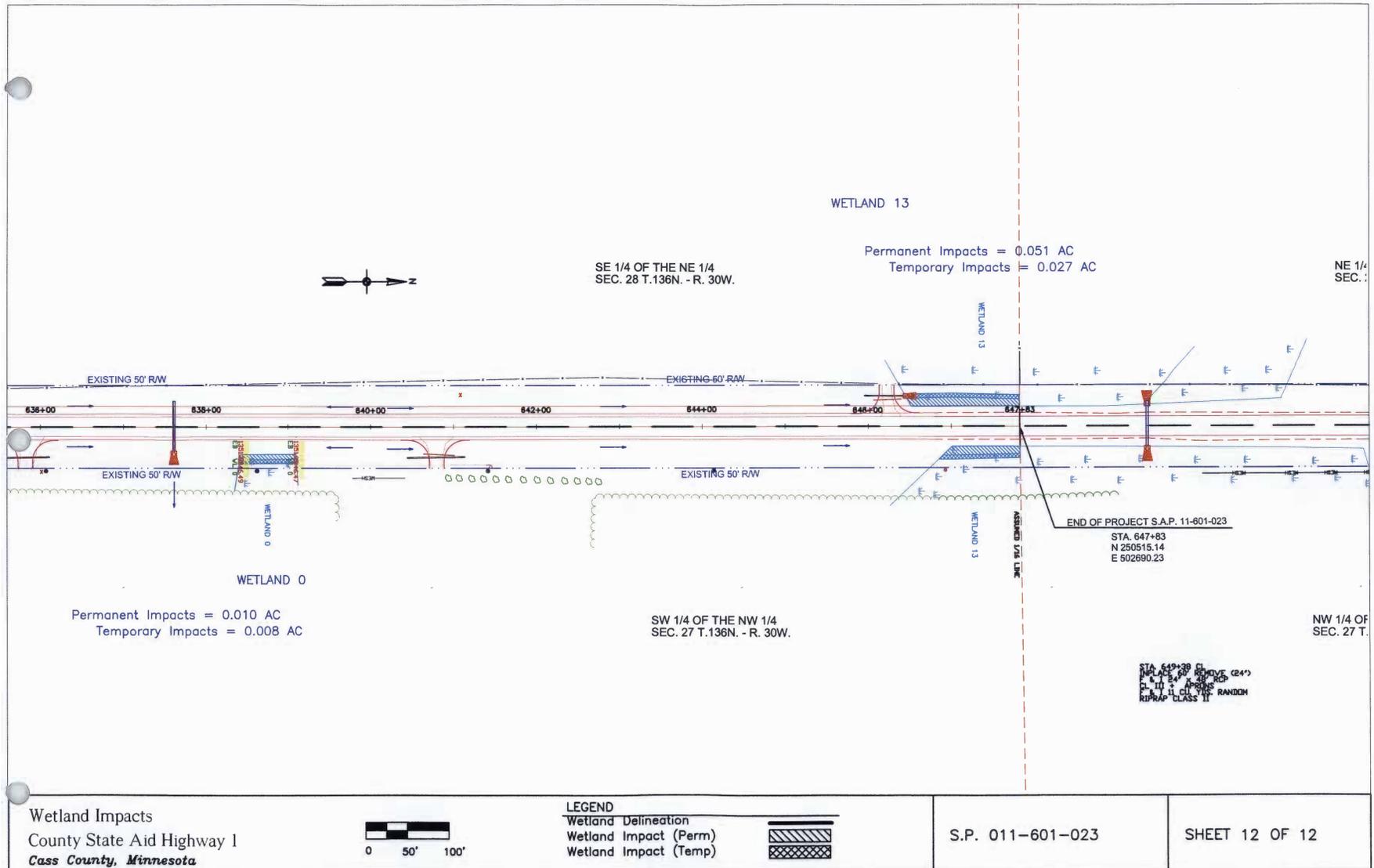
LEGEND	
Wetland Delineation	
Wetland Impact (Perm)	
Wetland Impact (Temp)	

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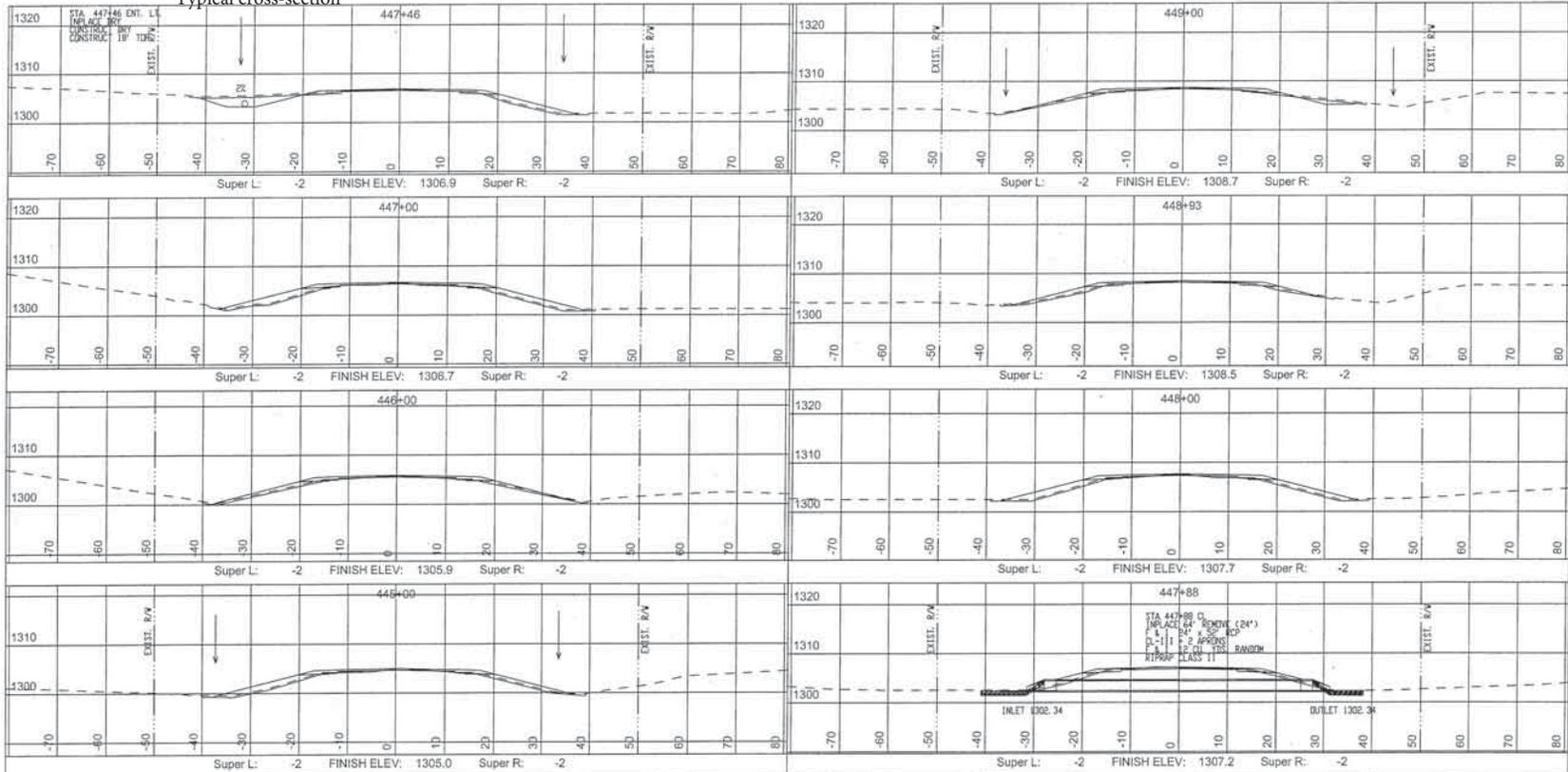








Typical cross-section



STATION	COMMON EXC. Sq. ft.	EMBANKMENT Sq. ft.	TOPSOIL Sq. ft.	COMMON EXC. Cu. Yd.	EMBANKMENT Cu. Yd.	TOPSOIL Cu. Yd.	Mass H. Cu. Yd.
445+00	1	54	17			63	-17114
446+00	1	33	17	2	160	63	-17272
447+00	1	66	17	2	182	63	-17452
448+00	0	59	17	49	153	56	-17556
449+00	6	16	16	5	154	58	-17705
450+00				13	104		
Pg. Tot.				71	753	303	
Cum. Tot.				1348	19145	6289	

CROSS SECTIONS

STA.

444+62

TO

STA.

449+50

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