DNR / DOT PROJECT REVIEW

State of Wisconsin – Department of Natural Resources (DNR) and Department of Transportation (WisDOT)
DTNR0002 12/2012

DNR Internet: http://dnr.wi.gov/	WisDOT Internet: http://www.dot.wisconsin.gov/
AMY CRONK WISCONSIN DEPARTMENT OF NATURAL RESOURCES NORTHERN REGION HDQRS 810 W. MAPLE ST. SPOONER, WI 54801	**Wisconsin Department of Transportation** **Division of Transportation Systems Development** NORTHWEST REGION- SUPERIOR OFFICES 1701 N. 4TH ST. SUPERIOR, WI 54880-1068

Inform WisDOT Regional Environmental Coordinator, if more than 45 days is needed.

Design Project ID	Project Highway	Review Submittal Date (m/d/yy)
8120-07-03	STH 48	6/5/17
Construction Project ID	**Estimated Project Cost (range)**	**Construction Year (yyyy)**
8120-07-73	$1,000,000.00 to $1,500,000.00	2018

Project Name	Project Limits
MCKINLEY - RICE LAKE	C-03-0002, C-03-0003, C-03-0004
County	**Project on Tribal Land**
BARRON	☐ Yes ☒ No
Contact Name	**Contact (Area Code) Phone Number**
BETH A. CUNNINGHAM, PE	(715) 635-4973

Section/Township/Range
14,15,22 &23, T.35N. - R 12W

Type of Review Requested

- ☐ Initial Review
- ☒ Final Concurrence
- ☐ Scope Change
- ☐ Other:

Document Type

- ☐ Environmental Assessment (EA)
- ☐ Environmental Report (ER)
- ☒ Programmatic Environmental Report (pER)

WisDOT Project Classification

- ☐ Bridge Rehabilitation, FDM 3-5-2
- ☐ Bridge Replacement , FDM 3-5-2
- ☐ Expansion, FDM 3-5-2
- ☐ Pavement Replacement, FDM 3-5-2
- ☐ Preventive Maintenance, FDM 3-1-5
- ☐ SHRM (State Hwy Rehab/Maint), Maintenance Manual 13.08
- ☐ Recondition, FDM 3-5-2
- ☐ Reconstruction, FDM 3-5-2
- ☐ Resurface, FDM 3-5-2
- ☐ Safety (HSIP), PMM 4-1-10
- ☒ Other: Miscellaneous. Replace three existing bridges with new Box Culverts at Engle Creek and a triburary to Engle Creek.

Work Involved

- ☐ Beam Guard Replacement
- ☐ Borrow and/or Waste Site Required
- ☒ Channel Change/Stream Relocation
- ☒ Clearing and Grubbing
- ☒ Culvert Replacement or Extensions
- ☐ Dredging
- ☒ Grading
- ☒ Fill Outside Toe of Slope
- ☐ Intersection Improvement
- ☒ Right of Way Acquisition
- ☒ Shoulder Work
- ☐ Storm Sewer
- ☐ Other:

Storm Water Management (check all that apply)

- ☒ Trans 401 post construction requirements
- ☐ NPDES MS4/Urbanized Area
- ☐ TMDL Implementation Area

For more information and directions, please see the back of this form.

Project Description and Reason for Project:
(include project location map with limits and necessary attachments; attach additional sheets if needed)

See Attachment 1.

Division of Transportation
System Development
Northwest Region – Superior Office
1701 North 4th Street
Superior, WI 54880

Scott Walker, Governor
Mark Gottlieb, P.E., Secretary
Internet: www.dot.wisconsin.gov

Telephone: 715-392-7925
Facsimile (FAX): 715-392-7863

E-mail: nwr.dtsd@dot.wi.gov

Attachment 1: Description & Need

June 5, 2017

RE: WISDOT Project 8120-07-73, (Barron County)
STH 48, McKinley – Rice Lake; C-03-0002, C-03-0003, C-03-0004

Project Description:
This miscellaneous reconstruction project involves replacing three existing structures with three new structures in order to maintain the safe and efficient movement of traffic on STH 48. This project will involve: removing three old structures (with minimal debris, per WisDNR), preparing the foundation, constructing three new box culverts, adding fill material for the transition regions, grading, gravel, and new HMA Pavement. This project will also include approximately 200 feet of stream relocation. All real estate and permits will be acquired before the start of construction. A total of 0.86 acres of wetland impacts are expected during construction and will be mitigated at an approved wetland bank site. This project is scheduled to be let on December 12, 2017 and will be constructed under detour during the summer of 2018.

Purpose & Need:
The purpose of this miscellaneous reconstruction project is to replace three, structurally and functionally deficient, structures. The existing structures are at the end of their service life and need to be replaced for the safety of the traveling public.

Travis Jensen, E.I.T.
Project Leader

Attachments:
Attachment 1: Description & Need
Attachment 2: Project Location Map
Attachment 3: Wetland Delineation Report
Attachment 4: Special Provisions
Attachment 5: Plan Set

ID 8120-07-03/73
McKinley - Rice Lake
STH 48
Barron County

Replace structure
C-03-0003
Engle Creek
Sta. 563+25

Replace structure
C-03-0002
Tributary to Engle
Creek Sta. 530+75

Replace structure
C-03-0004
Tributary to Engle
Creek
Sta. 576+30

BURNETT CO.
R–14–W
R–12–W
R–11–W
R–10–W
WASHBURN CO.
1,440,000' E
1,450,000'
1,550,000'
1,600,000'
1,610,000' E
670,000' N
91° 45'
BARRON 3–NW
POLK CO.
RUSK CO.
T–36–N
650,000'
Town of Roosevelt
Town of Barronett
Town of Sarona
Town of Long Lake
Town of Birchwood
Town of McKinley
Town of Wilson
T–35–N
45° 30'
Town of Johnstown
600,000'
T–34–N
Town of Beaver
Town of Strickland
T–33–N
550,000'
Town of Clayton
Town of Rusk
T–32–N
45° 15'
Town of Clear Lake
Town of Sampson
500,000' N
92° 00'
Town of New Haven
Town of Sheridan
Town of Wilson
Town of Sand Creek
Town of Auburn
R–13–W
1,500,000'
DUNN CO.
CHIPPEWA CO.
CHIPPEWA CO.

Barronett
Cumberland
Rice Lake
Comstock
Barron
Almena
Turtle Lake
Arland
Hillsdale
Prairie Farm
Dallas
Reeve
Poskin
Haugen
Brill
Angus
Mikana
Campia
Horseman
Canton
Cameron
Chetek
New Auburn

MAPLE PLAIN
LAKELAND
BEAR LAKE
OAK GROVE
CEDAR LAKE
CRYSTAL LAKE
CUMBERLAND
STANFOLD
RICE LAKE
DOYLE
ALMENA
CLINTON
BARRON
STANLEY
SUMNER
TURTLE LAKE
ARLAND
MAPLE GROVE
PRAIRIE LAKE
CHETEK
VANCE CREEK
PRAIRIE FARM
DALLAS
SIOUX CREEK
DOVRE

LEGEND

- Freeway
- Multilane Divided
- U.S. or State Hwy
- County Trunk Hwy
- Town Road
- Firelane
- Railroad
- State Trail
- Interchange
- Highway Separation
- Interstate Highway No. (94)
- U.S. Highway No. (18)
- State Highway No. (59)
- County Highway Letter (T)
- State Boundary
- County Boundary
- Civil Town Boundary
- Section Line
- Dam
- Hospital
- Schools
- Airport
- County Seat
- Unincorporated Village
- Fish Hatchery
- Game Farm
- Public Hunt. or Fish. Grds.
- Public Camp & Picnic Grds.
- Ranger Station
- State Park
- County Park — With Facilities / Without Facilities
- Rest Area — Modern Facilities
- Wayside — Rustic Facilities
- *Univ. of Wis. – Barron Co.* (1)

CIVIL TOWNS

MAPLE PLAIN	LAKELAND	BEAR LAKE	OAK GROVE	CEDAR LAKE
CRYSTAL LAKE	CUMBER-LAND	STANFOLD	RICE LAKE	DOYLE
ALMENA	CLINTON	BARRON	STANLEY	SUMNER
TURTLE LAKE	ARLAND	MAPLE GROVE	PRAIRIE LAKE	CHETEK
VANCE CREEK	PRAIRIE FARM	DALLAS	SIOUX CREEK	DOVRE

SECTION NUMBERING OF A TOWNSHIP

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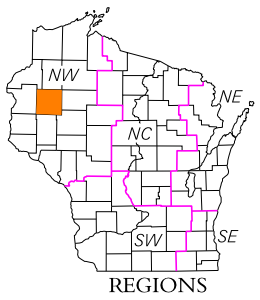
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36



REGIONS

For boundaries of public hunting and fishing grounds please contact the Department of Natural Resources

Grid based on the state plane coordinate system central zone and the NAD 27

MILES OF HIGHWAY
as of Dec. 31, 2012

STATE	142
COUNTY	291
LOCAL ROADS	1,563
OTHER ROADS	0
TOTAL FOR COUNTY	1,996

Land Area (2000 Census) ..... 863 sq mi
Population (2000 Census) 44,963
County Seat ..... Barron

BARRON CO.

DEPARTMENT OF TRANSPORTATION
STATE OFFICE BUILDING
Madison, Wisconsin

SCALE 0 1 2 MILES

Corrected for
JAN. 2014

Base compiled from U.S.G.S. Quadrangles
1:100,000 Series

BARRON 3–NW

Wetland Delineation Report

Project ID# 8120-07-03/73

McKinley – Rice Lake
STH 25 to West Avenue
STH 48
Barron County

Prepared by the Wisconsin Department of Transportation
Northwest Region
Dave Runquist
1701 N 4th St.
Superior, Wi 54880
March 2016

Contents

Project Summary

The Wisconsin Department of Transportation (WisDOT) has proposed a culvert replacement and stream realignment project on STH 48 between McKinley and Rice Lake in Barron County. As part of the culvert replacement the existing culverts (C-03-0002, -0003 & -0004) will be replaced with new culverts and the structures will be widened in the same locations on STH 48. Widening the structures will eliminate the need for beam guard.

There are unavoidable wetland impacts associated with this project. The area surrounding construction has been delineated according to the US Army Corps of Engineers 1987 Wetland Delineation Manual and the US Army Corps of Engineers 2012 Midwest Supplement and the impacted wetland type and acreage have been determined based on three criteria—vegetation, hydrology, and soils.

Wetland Delineators

The delineation for project 8120-07-03/73 was conducted on 6/12/2015 by Katie Lueth and Dave Runquist. Ms. Lueth is currently an intern with WisDOT and attending the University of Wisconsin-Eau Claire, majoring in ecology and environmental biology with a certificate in geospatial information systems. She will graduate with a BS in May 2016. She attended the basic and advanced wetland delineation training in July 2014 through the University of Wisconsin-La Crosse. Mr. Runquist is currently an intern with WisDOT and attending the University of Wisconsin-Superior, majoring in biology with a plant emphasis and a minor in Earth sciences. He will graduate with a BS in May 17. He attended the basic and advanced wetland delineation training in July 2015.

Equipment

In order to conduct the delineation, several pieces of field equipment were used, including:

- Trimble Geo XH Global Positioning System Unit 6000 Series
- Munsell® Soil Color Chart 2010 edition
- 20 inch WSA soil boring tool
- Field identification books:
  - "Wetland Plants and Plant Communities of Minnesota and Wisconsin" 2nd Ed.
  - "Wildflowers of Wisconsin and the Great Lakes Region; A Comprehensive Field Guide" 2nd Ed.
  - "A Great Lakes Wetland Flora" 3rd Ed.

In the office, software programs were used, including:

- GPS Pathfinder Office Software version 4.10
- Microstation V8i 2010 Edition
- Microsoft Office Series 2007

Pre-Delineation Resources

- *United States Agriculture Department- Natural Resource Conservation Service* Web Soil Survey Hydric soil map

- *Department of Natural Resources*
  - Surface Water Data Finder
    WI Wetland Inventory Map

Delineation Methods

Wetlands are delineated by examining an area for the presence of wetland indicators. There are three categories of indicators used to determine if an area is a wetland: vegetation, hydrology, and soils. Samples and observations of these wetland indicators are necessary for proper delineation. First, a site walk of the project area is completed in order to identify areas that may fit the wetland criteria. Second, transects are set up perpendicular to the proposed wetland boundary and data plots are taken. Data plots are usually taken in reference to obvious changes in topography and/or vegetation. At each of the data plots, criteria for hydrophytic vegetation, hydric soils, and hydrology is checked for.

A list of the most prevalent plant species is made and then compared to the *National List of Plant Species that Occur in Wetlands*, published by the U.S. Fish and Wildlife Service, in order to determine the likelihood of that species occurring in a wetland by defining their wetland indicator status.

Soil samples are collected using a soil probe or shovel to collect the first 20 inches of soil. Examination of the sample is then conducted for evidence of saturation, as well as other soil indicators listed in the US Army Corps of Engineers 1987 Wetland Delineation Manual. This manual is used as a reference guide to compare our methods, observations, and data with proper delineation techniques and information.

Field observation of the soils, vegetation, and the general area are used determine the presence of hydrology indicators.

After soil samples, lists of vegetation, and on-site hydrology observations are made and recorded, in conjunction with using reference materials and on site observations, wetland areas are confirmed. After verifying the wetland area, the wetland boundary is delineated between upland and wetland plots.

The culvert replacement on STH 48 will permanently impact six wetland areas. The area surrounding construction has been delineated and the impacted wetland type and acreage have been determined.

Vegetation:

- It is stated in the US Army Corps of Engineers 1987 Wetland Delineation Manual that "hydrophytic species, due to morphological, physiological, and/or reproductive adaptation(s), have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions". These species are labeled FAC, FACW, and/or OBL. Accordingly, if an area is dominated by ≥50% of these species, it meets the wetland vegetation requirement.
- Through species identification, the impacted wetlands were all determined to have hydrophytic dominance in proportions ≥50%. Dominant species include Black elderberry *(Sambucus nigra)*, Reed canary grass *(Phalaris arundinacea)*, Stinging nettle *(Urtica diocia)*, Common tansy *(Tanacetum vulgare)*, Spotted touch-me-not *(Impatiens capensis)*.The hydrophytic vegetation present at these plots is similar to common species found among wet meadow (M) wetland environments. The species found in these plots are listed in the vegetation section of the Routine Wetland Delineation Forms located in Appendix B.

Hydrology:

- Paragraph 55 of the US Army Corps of Engineers 1987 Wetland Delineation Manual states, "an area has wetland hydrology if it is inundated or saturated to the surface continuously for at least 5% of the growing season in most years (50% probability of recurrence)." The growing season for this definition is determined based on the number of frost-free days for a certain area.
- Hydrology of the impacted wetland areas was determined using several indicators. All sites had a primary indicator of saturation (A3) within 12 inches of the surface, five sites had indicators of high water table (A2), and two sites had indicators of surface water (A1). Secondary indicator observed at all sites was FAC-Neutral test (D5), while five sites had indicators of the geomorphic position (D2).

Soils:

- According to the U.S.D.A Natural Resources Conservation Service (NRCS) a hydric soil is, "A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part."
- The Soil Survey and the Hydric Soils List for Barron County were obtained from the United States Department of Agriculture (USDA). The soil type listed for the areas impacted by this project is silt loam soils. This soil is listed on the USDA Hydric Soils List as soils that are poorly drained.

1. Wetlands 1-2

Mangor silt loam: Soils are listed on the NRCS Web Soil Survey as having a somewhat poorly drained drainage class. Depth to water table is about 0 inches.

Map Unit symbol: MaB

2. Wetland Type: Floodplains: wet meadow (M)**Wetland 3-6**

Rib silt loam: Soils are listed on the NRCS Web Soil Survey as having a poorly drain drainage class with occasional flooding and frequent ponding. Depth to water table is about 0 inches.

Map unit symbol: Rb

Wetland type: wet meadow (M)

- Soil samples were taken at all data plots to 20 inches or to an unavoidable resistance. Hydric soil indicators were present among all wetland sites for this project. Loamy mucky mineral (F1), Coast prairie redox (A16), 2cm muck (A10), were the hydric soil indicators present. Full soil profiles are included in the Routine Wetland Delineation Forms in Appendix B.

Delineation

Five different wetlands have been determined to be within the limits of the projects, but only ten will be impacted. The delineation of the wetlands included the establishment of five upland monitoring sites as well as five wetland sites, but only ten wetland and upland sites will be impacted. Below is the summary for the wetlands that will be impacted.

- Wetland 1- wet meadow (M) (Monitoring Forms 1-2)
    - Monitoring form 1 (Wetland 1): This wetland lies on the north side of STH 48 in the northwest and northeast corner of culvert C-03-0004 where the culvert replacement project is taking place and is associated with a wet meadow (M) wetland type. Dominant hydrophytic species in this area was Black elderberry *(Sambucus nigra)* and Reed canary grass *(Phalaris arundinacea)*; non-dominant species include Canada goldenrod *(Solidago gigantea)* and Fringed sedge *(Carex crinita)*. At this site, loam soil was found. The soils were completely saturated and the hydric soil indicators found were loamy mucky mineral (F1).
- Monitoring form 2 (Upland 1): The upland portion of this site was dominated by Reed canary grass *(Phalaris arundinacea)*. Soils were not obtained due to refusal at the surface.

Wetland 2- wet meadow (M) (Monitoring Forms 3-4)

- Monitoring form 3 (Wetland 2): This wetland lies on the south side of STH 48 in the southwest and southeast corner of culvert C-03-0004 where the culvert replacement project is taking place and is associated with a wet meadow (M) wetland type. Dominant hydrophytic species in this area were Reed canary grass *(Phalaris arundinacea)*; non-dominant species include Canada goldenrod *(Solidago canadensis)*. At this site, silty clay loam soil was found. The soils were saturated under 12 inches and the hydric soil indicator found was coast prairie redox (A16).
- Monitoring form 4 (Upland 2): The upland portion of this site was dominated by Reed canary grass *(Phalaris arundinacea)*. Soils were not obtained due to refusal at the surface.

- Wetland 3-wet meadow (M) (Monitoring Forms 5-6)
    - Monitoring form 5 (Wetland 3): This wetland lies on the north side of STH 48 in the northeast and northwest corner of culvert C-03-0003 where the culvert replacement project is taking place and is associated with a wet meadow (M) wetland type. Dominant hydrophytic species in this area was Reed Canary Grass *(Phalaris arundinacea),* muck soil was found. The soils were completely saturated and the hydric soil indicator found was 2cm muck (A10). No surface water was found at this site.
- Monitoring form 6 (Upland 3): The upland portion of this site was dominated by Kentucky bluegrass *(Poa pratensis),* Reed canary grass *(Phalaris arundinacea),* Woolgrass *(Scirpus cyperinus).* Soils were not obtained due to refusal at the surface. Wetland 4-wet meadow (M) (Monitoring Forms 7-8)
    - Monitoring form 7 (Wetland 4): This wetland lies on the south side of STH 48 in the southwest and southeast corner of culvert C-03-0003 and is associated with an wet meadow (M) wetland type. Dominant hydrophytic species in this area were Reed canary grass *(Phalaris arundinacea)*; non-dominant species include Canada goldenrod *(Solidago canadensis),* Rice cut grass *(Leersia oryzoides)* and Spotted-touch-me-not *(Impatiens capensis).* At this site, muck soil was found. The soils were completely saturated and the hydric soil indicator found was 2cm muck (A10).
- Monitoring form 8 (Upland 4): The upland portion of this site was dominated by Common tansy *(Tanacetum vulgare)* and Reed canary grass *(Phalaris arundinacea).* Soils were not obtained due to refusal at the surface. Wetland 5-wet meadow (M) (Monitoring Forms 9-10)
    - Monitoring form 9 (Wetland 5): This wetland lies on the south side of STH 48 in the southwest and southeast corner of culver C-02-0002 and is associated with a wet meadow (M) wetland type. Dominant hydrophytic species in this area was Stinging nettle *(Urtica diocia)* and Common tansy *(Tanacetum vulgare)*; non-dominant species include Broad lead cattail *(Typha latifolia),* Canada goldenrod *(Solidago canadensis),* Tall meadow rue *(Thalictrum dasycarpum)* and Kentucky bluegrass *(Poa pratensis).* At this site, mucky loam soil was found. The soils were saturated below 3 inches and the hydric soil indicator found was loamy muck mineral (F1).
- Monitoring form 10 (Upland 5): The upland portion of this site was dominated by Kentucky bluegrass *(Poa pratensis).* Soils were not obtained due to refusal at the surface. Wetland 6 –wet meadow (M) (Monitoring forms 11-12)
    - Monitoring form 11 (Wetland 6): This wetland lies on the north side of STH 48 in the northwest and northeast corner of culvert C-02-0002 and is associated with a met meadow (M) wetland type. Dominant hydrophytic species in the area was Smooth brome *(Bromus inermis)* and Spotted-touch-me-not *(Impatiens capensis)*; non-dominant species include Reed canary grass *(Phalaris arundinacea),* Tall meadow rue *(Thalictrum dasycarpum),* Canada goldenrod *(Solidago canadensis)* and Broad leaf cattail *(Typha latifolia).* At this site, mucky loam soil was found. The soils were saturated below 3 inches and the hydric soil indicator present was loamy mucky mineral (F1).

- Monitoring form 12 (Upland 6): The upland portion of this site was dominated by Kentucky bluegrass *(Poa pratensis)* and Reed canary grass *(Phalaris arundinacea)*. Soils were not obtained due to refusal at the surface.

Wetland Impacts

The cumulative **permanent** wetland impacts for the STH 48 project in Barron County are 0.86 acres. The impacted acreage consists of:

- 0.86 acres of wet meadow (M) from the culvert replacement and stream realignment on STH 48.

The permanent losses will be mitigated according to and at a ratio consistent with the Wisconsin DOT Wetland Mitigation Banking Technical Guideline (2002 revision). Delineation monitoring forms demonstrating wetland criteria in each sampling area can be found in Appendix B of this report. Photos of the delineated areas for these projects are located in Appendix C (Fig.1-12).

Wetland Mitigation

According to the NRCS, "mitigation is compensation through wetland restoration, enhancement, or creation for functions and values that are lost on a converted wetland". The total permanent wetland impact for the STH 48 project located in Barron County is 0.55 acres. The permanent losses will be mitigated by debiting them to the WisDOT Branca Wetland Mitigation Bank Site in Barron County at a ratio consistent with the Wisconsin DOT Wetland Mitigation Banking Technical Guideline (2002 revision). The 0.86 acres of wet meadow (M) wetland will be mitigated at a 1:1 compensation ratio to wet meadow (M) totaling 0.86 acres. A Wetland Mitigation Bank Accounting Sheet (WMBAS) is included at the end of Appendix A, summarizing the wetland losses and mitigation plans.

Appendix A

Tables and Figures

Project Location Map

ID 8120-07-03/73
McKinley - Rice Lane
STH 48
Barron County

Replace structure
C-03-0003
Engle Creek
Sta. 563+25

Replace structure
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Tributary to Engle
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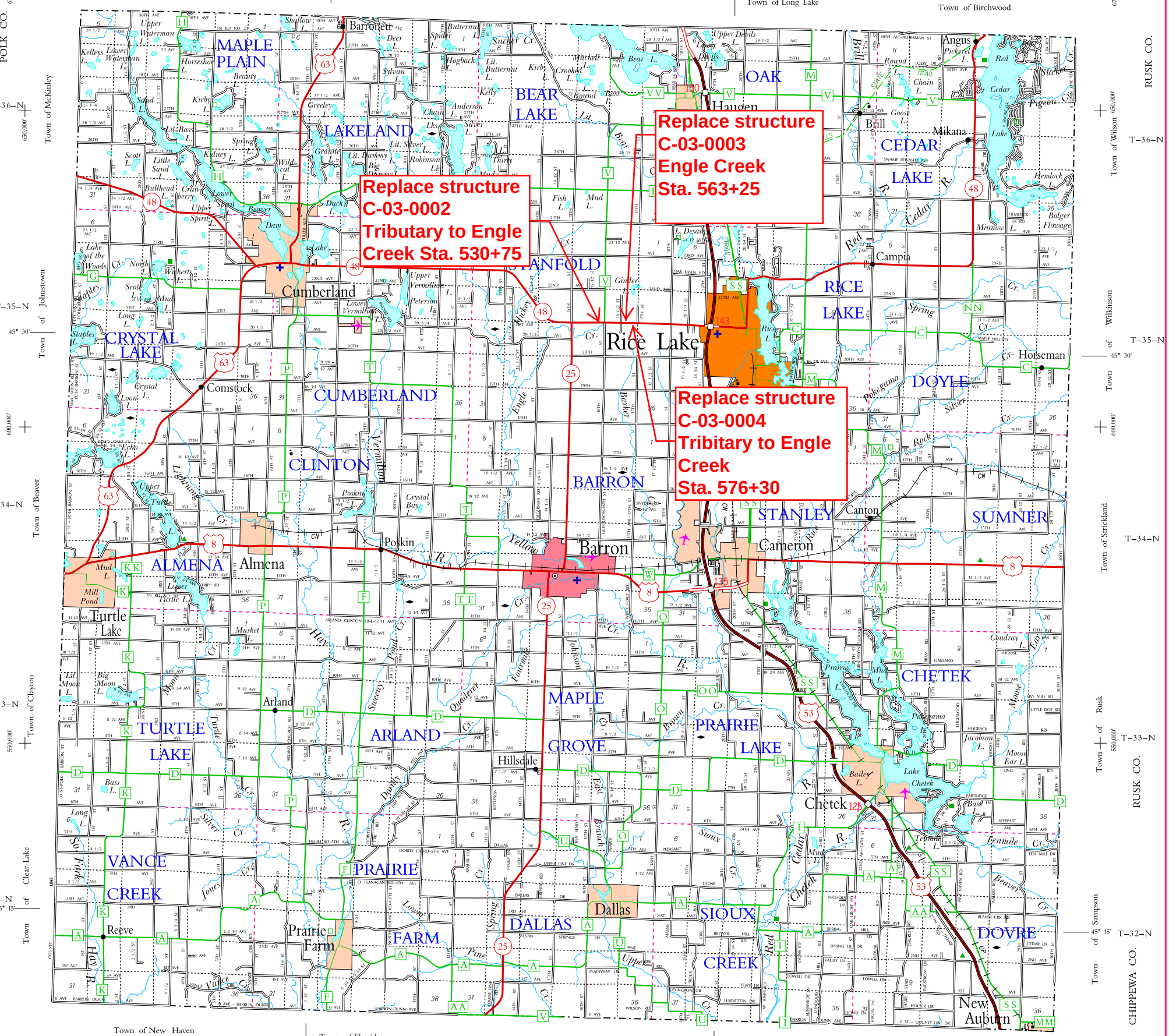

LEGEND

- Freeway
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- Highway Separation
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CIVIL TOWNS

MAPLE PLAIN	LAKELAND	BEAR LAKE	OAK GROVE	CEDAR LAKE
CRYSTAL LAKE	CUMBER-LAND	STANFOLD	RICE LAKE	DOYLE
ALMENA	CLINTON	BARRON	STANLEY	SUMNER
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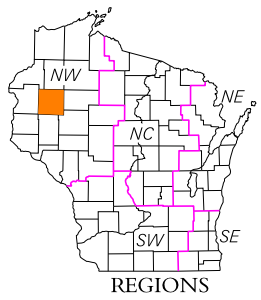

REGIONS

◂▸ For boundaries of public hunting and fishing grounds please contact the Department of Natural Resources

Grid based on the state plane coordinate system central zone and the NAD 27

MILES OF HIGHWAY
as of Dec. 31, 2012

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BARRON CO.

DEPARTMENT OF TRANSPORTATION
STATE OFFICE BUILDING
Madison, Wisconsin

SCALE 0 1 2 MILES

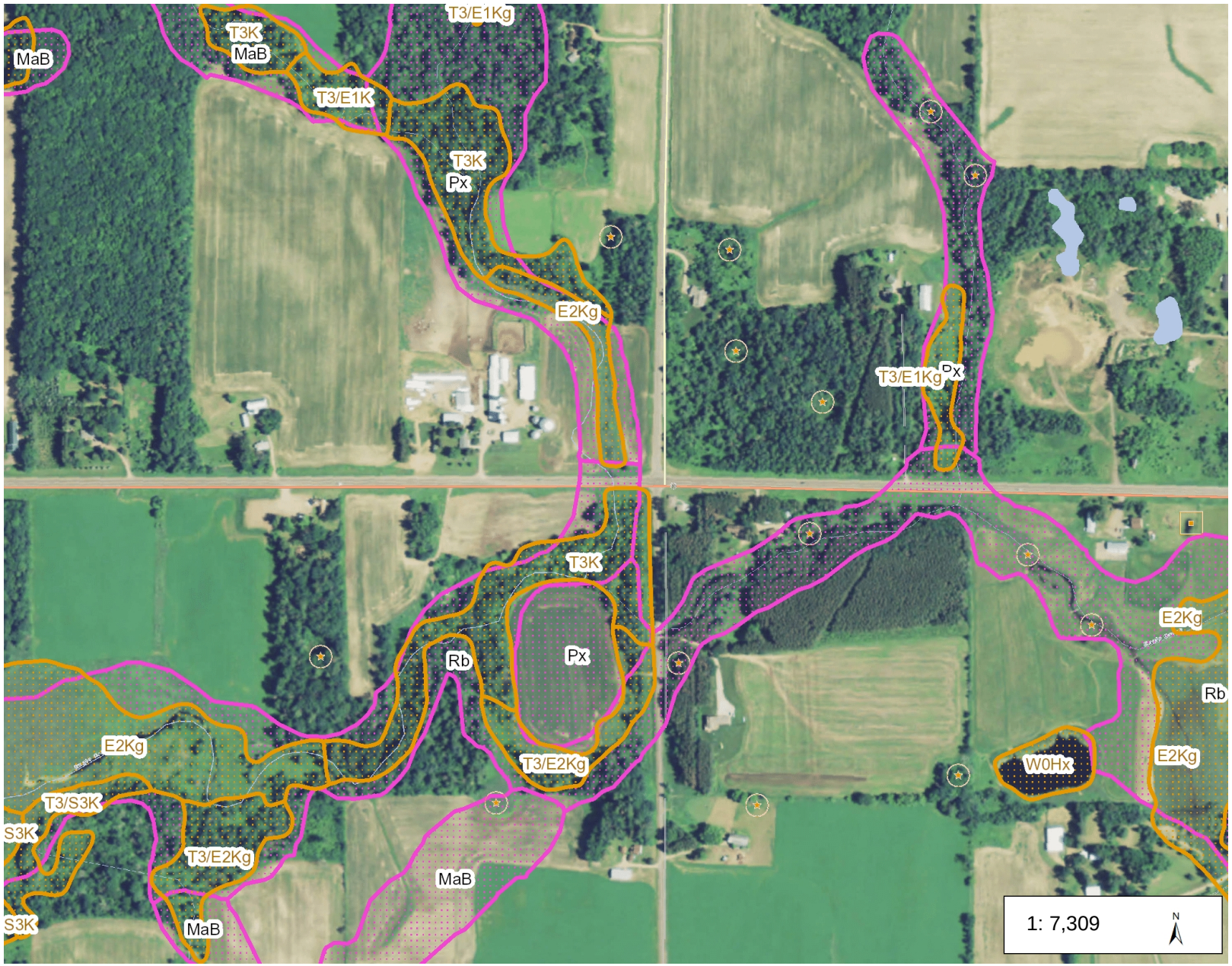
Corrected for
JAN. 2014

Base compiled from U.S.G.S. Quadrangles
1:100,000 Series

BARRON 3–NW

Wisconsin Wetland Inventory Map

8120-07-03



Legend

- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- NRCS Wetspots
- Wetland Indicators
- Rivers and Streams
- Open Water

Notes

S15 T35N R12W (Wet 6)
S22 T35N R12W (Wet 5)
Structure
C-03-0002

0.2 0 0.12 0.2 Miles

NAD_1983_HARN_Wisconsin_TM

Wisconsin Wetland Inventory Map

8120-07-03

Legend

- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
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- NRCS Wetspots
- Wetland Indicators
- Rivers and Streams
- Open Water

Notes

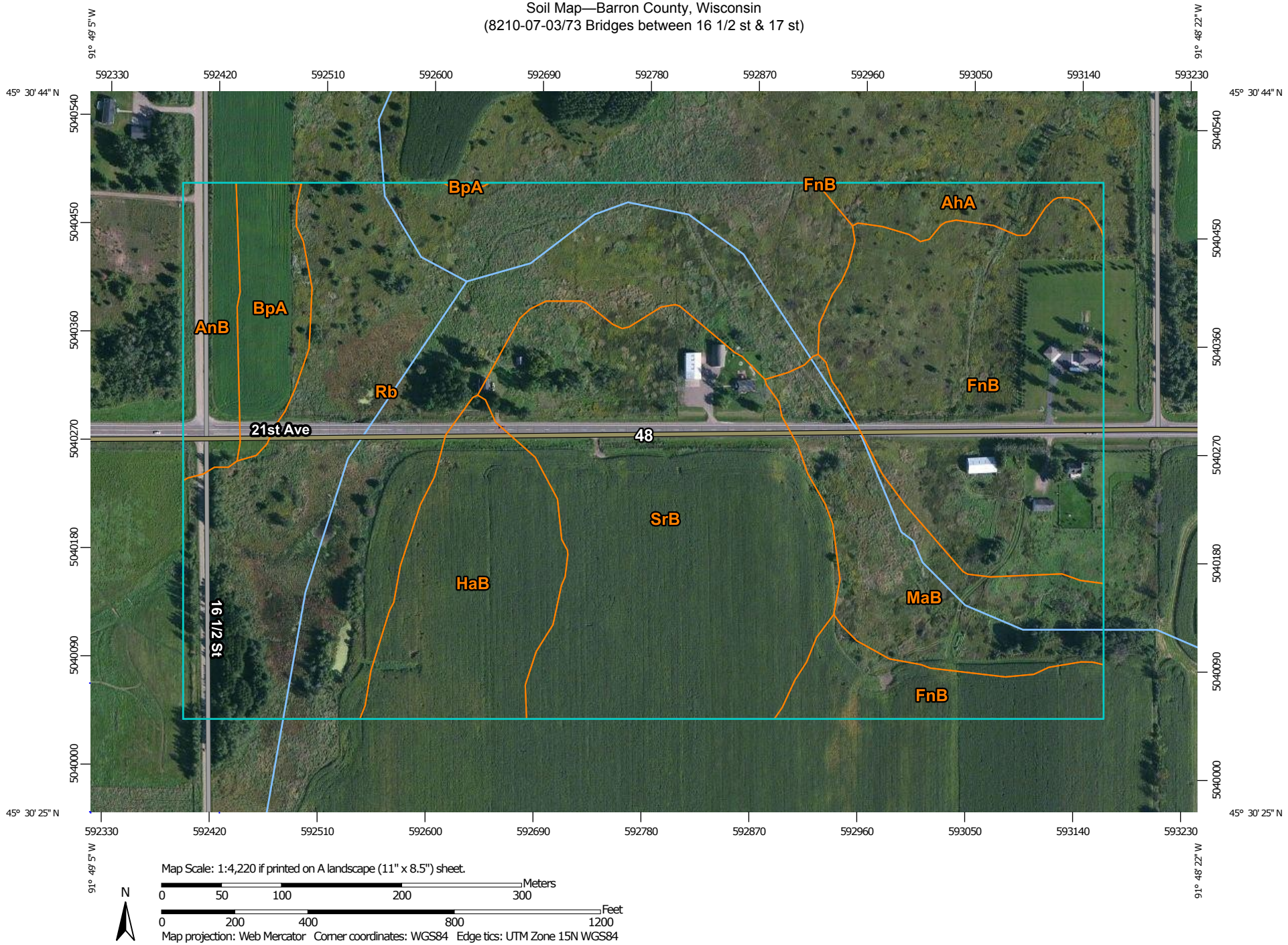
S14 T35N R12W (Wet 1 & 3)
S23 T35N R12W (Wet 2 & 4)
Structures:
C-03-0003
C-03-0004

0.2 0 0.08 0.2 Miles

NAD_1983_HARN_Wisconsin_TM

NRCS Hydric Soils Map
Structures: C-03-0003 & C-03-0004

Soil Map—Barron County, Wisconsin
(8210-07-03/73 Bridges between 16 1/2 st & 17 st)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 1:20,000.

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: http://websoilsurvey.nrcs.usda.gov
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: Barron County, Wisconsin
Survey Area Data: Version 13, Sep 8, 2014

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

Date(s) aerial images were photographed: Sep 6, 2011—Sep 10, 2011

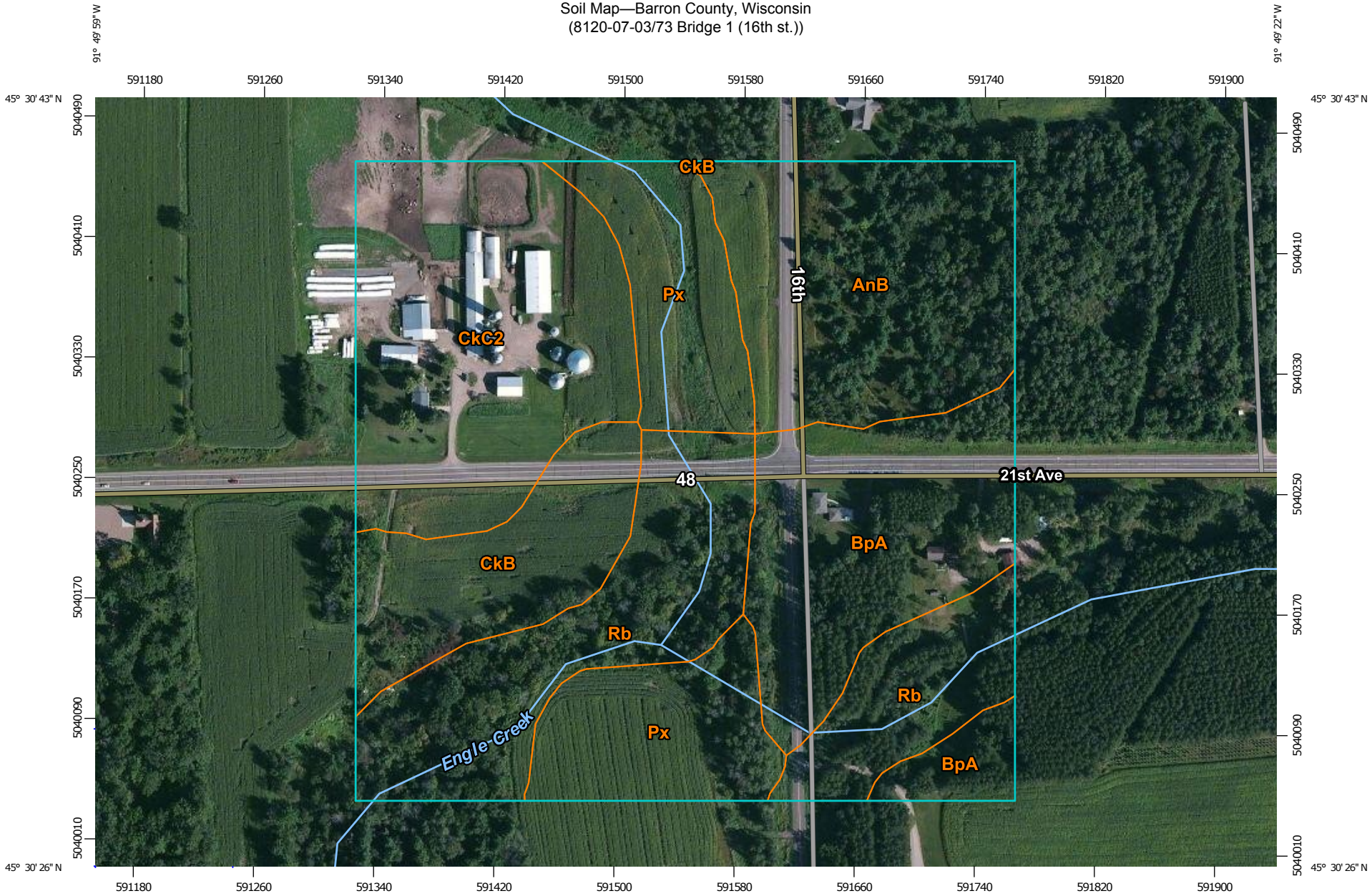
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Barron County, Wisconsin (WI005)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
AhA	Almena silt loam, 0 to 3 percent slopes	1.9	2.2%
AnB	Anigon silt loam, 2 to 6 percent slopes	2.7	3.2%
BpA	Brill silt loam, 0 to 3 percent slopes	2.9	3.4%
FnB	Freeon silt loam, 2 to 6 percent slopes	17.6	20.7%
HaB	Haugen sandy loam, 2 to 6 percent slopes	7.4	8.7%
MaB	Magnor silt loam, 0 to 4 percent slopes	6.9	8.2%
Rb	Rib silt loam, 0 to 2 percent slopes	27.0	31.8%
SrB	Spencer silt loam, 2 to 6 percent slopes	18.6	21.9%
Totals for Area of Interest		**84.9**	**100.0%**

NRCS Hydric Soils Map
Structure C-03-0002

Soil Map—Barron County, Wisconsin
(8120-07-03/73 Bridge 1 (16th st.))



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 1:20,000.

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: http://websoilsurvey.nrcs.usda.gov
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: Barron County, Wisconsin
Survey Area Data: Version 13, Sep 8, 2014

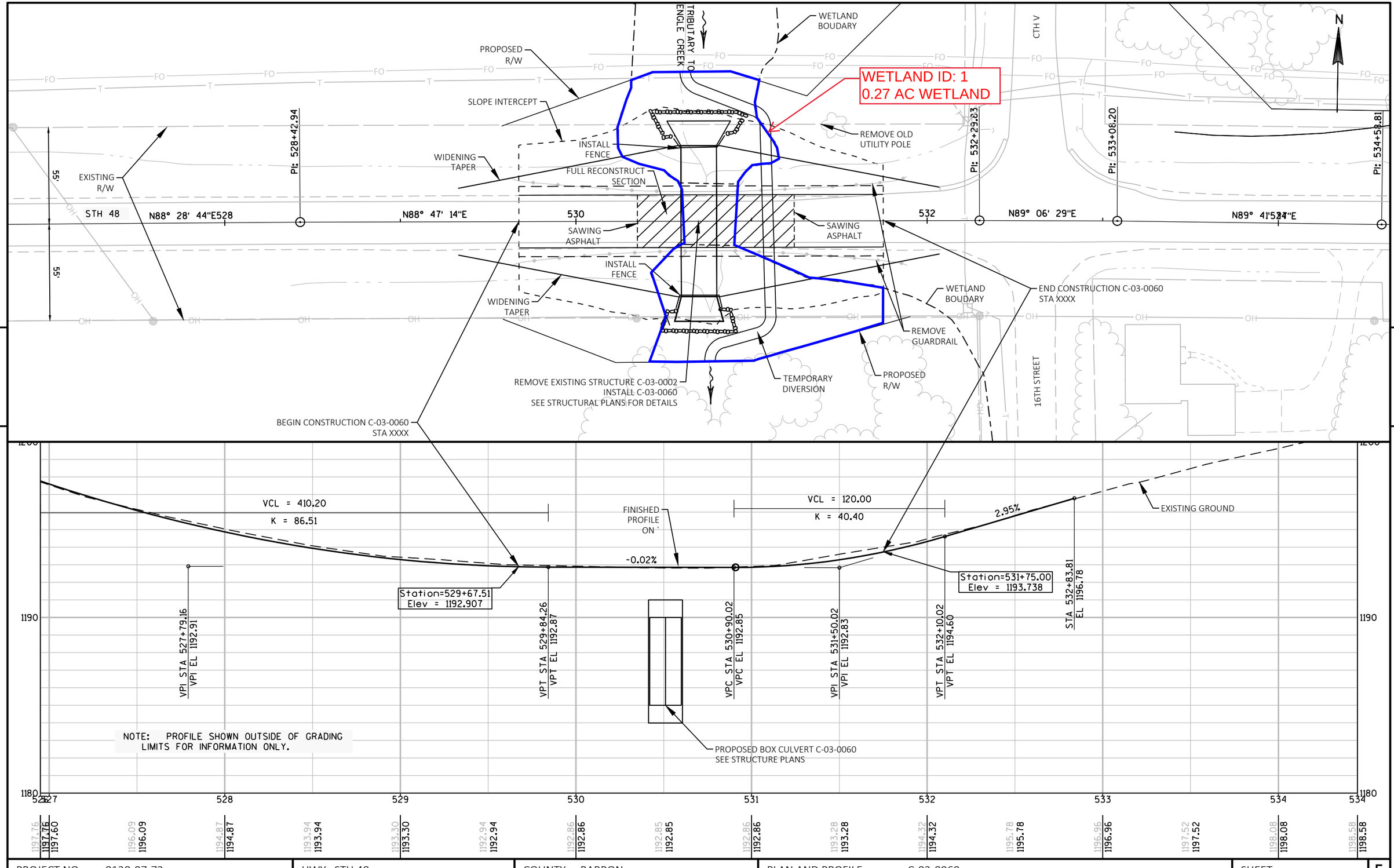
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 6, 2011—Sep 10, 2011

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.

Map Unit Legend

Barron County, Wisconsin (WI005)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
AnB	Anigon silt loam, 2 to 6 percent slopes	7.9	17.1%
BpA	Brill silt loam, 0 to 3 percent slopes	7.8	16.9%
CkB	Chetek sandy loam, 2 to 6 percent slopes	4.3	9.4%
CkC2	Chetek sandy loam, 6 to 12 percent slopes, eroded	9.8	21.2%
Px	Poskin silt loam, 0 to 2 percent slopes	7.0	15.0%
Rb	Rib silt loam, 0 to 2 percent slopes	9.4	20.4%
Totals for Area of Interest		**46.3**	**100.0%**

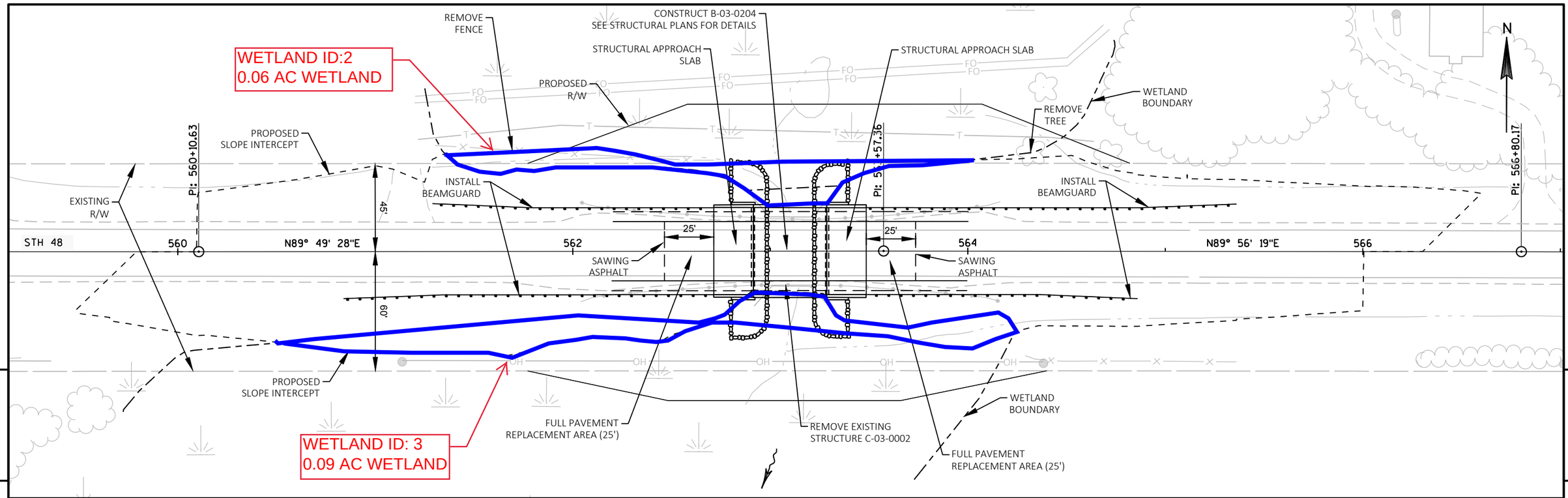


5

5

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	PLAN AND PROFILE: C-03-0060	SHEET E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_PLAN-PROFILE.DWG
LAYOUT NAME - B1-PP(50sc)
PLOT DATE : 4/6/2017 8:48 AM
PLOT BY : JENSEN, TRAVIS G
PLOT NAME :
PLOT SCALE : 1 IN:50 FT



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	PLAN AND PROFILE: B-03-0204	SHEET	E

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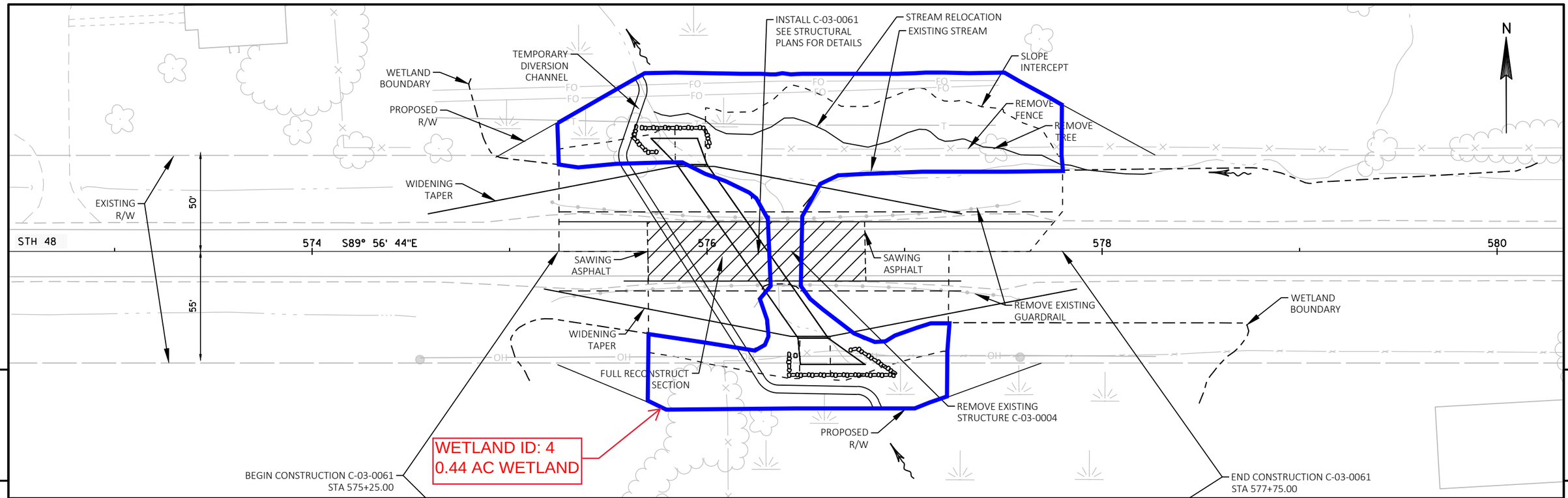
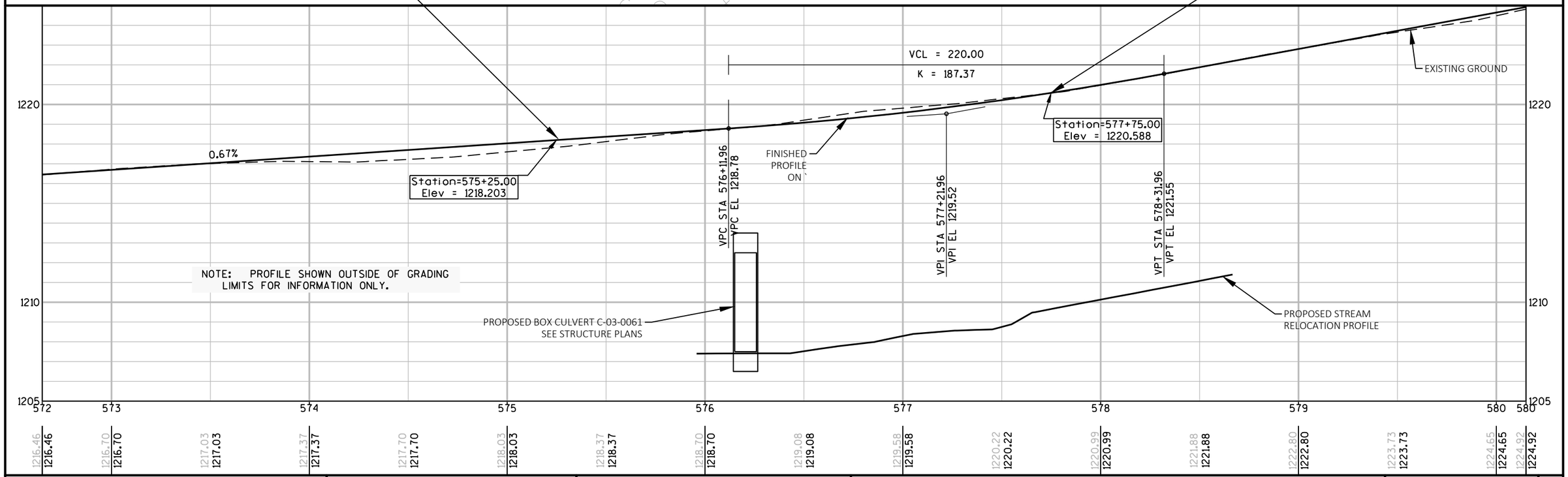
LAYOUT NAME - B2-PP(50sc)
PLOT DATE : 4/6/2017 8:48 AM
PLOT BY : JENSEN, TRAVIS G
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	PLAN AND PROFILE: C-03-0061	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_PLAN-PROFILE.DWG
LAYOUT NAME - B3-PP(50sc)
PLOT DATE : 4/6/2017 8:48 AM
PLOT BY : JENSEN, TRAVIS G
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

Wisconsin Department of Transportation
Division of Transportation System Development
NW Region

WETLAND IMPACT TRACKING FORM

This form must be filled out for all projects.

Return This Completed Form to:
Amy Adrihan
Environmental Coordinator
WisDOT - NW Region
1701 N 4th Street
Superior, WI 54880
Phone: (715) 392-7925
Amy.Adrihan@dot.wi.gov

Please Complete All Information Highlighted In Yellow

WisDOT Regional Environmental Coordinator (REC) Will Complete Sections Highlighted In Green

Hwy/

Project Design I.D. #:	8120-07-03
Project Construction I.D. #:	8120-07-73
Project Title :	STH 48: McKinley - Rice Lake: C-03-0002, C-03-0003, C-03-0004
County :	Barron
Construction Year :	2018
Date this form is completed:	April 12, 2017
Date this form is approved:	4/12/2017

	NAME	PHONE	EMAIL
This Form Prepared by:	Travis Jensen	715-395-3025	travis.jensen@dot.wi.gov
This Form Approved by:	Amy Adrihan	715-392-7972	amy.adrihan@dot.wi.gov

Is a discharge of dredged or fill material into wetlands anticipated?

NO [ ] ➡ **Form complete; no further information is required (RETURN FORM TO REC).**

YES [X] ➡ **1. Complete remainder of form:**

- After final wetland impacts are determined, complete yellow portions on both pages of this form and submit to REC for finalization and approval.

2. Include this final APPROVED form with DNR 401 and USACE 404 permit applications.

3. After receiving USACE 404 permit and DNR 401 final concurrence, return this final APPROVED form to REC along with copy of USACE 404 permit, DNR 401 final concurrence letter, and D size plan sheet showing wetland impact areas.

	NAME	PHONE	EMAIL
Wetland Delineation/ Determination completed by:	Dave Runquist	715-392-7950	david.runquist@dot.wi.gov

QUALIFICATIONS: Basic and advanced wetland training

Describe methods used to avoid and minimize impacts to wetlands:

Fill slopes outside of the clear zone were minimized.

Was professional discretion used to determine debit ratio?

No [ ]
Yes [ ] ➡ Describe discretionary rationale below:

WETLAND IMPACT / REPLACEMENT SUMMARY

Type Impacted	Area Impacted	Type Mitigated	Area Mitigated
AB	-	AB	-
BOG	-	BOG	-
DM	-	DM	-
M	0.86	M	0.86
RPE	-	RPE	-
RPF	-	RPF	-
SM	-	SM	-
SS	-	SS	-
WS	-	WS	-
AB(D)	-	**TOTAL**	**0.86**
DM(D)	-		
M(D)	-		
RPE(D)	-		
RPF(D)	-		
SM(D)	-		
SS(D)	-		
WS(D)	-		
TOTAL	**0.86**		

Wisconsin Department of Transportation Project Design ID #: 8120-07-03/73

Division of Transportation System Development
[Enter Region Name] Region

WETLAND IMPACT TRACKING FORM - PAGE 2
DETAILED TABLE OF WETLAND IMPACTS

Directions to complete Page 2:

1. One location may be made up of several different wetland types. List each type of wetland impacted from each location on the project corridor separately in the table below.
2. The Environmental Coordinator will enter the appropriate ratio and bank information.
3. Use Department of Transportation Wetland Classification System:
   http://roadwaystandards.dot.wi.gov/standards/fdm/24-05-010att.pdf#fd24-5a10.2
4. **Total areas should be reported to the nearest 0.01 acre. Any impacts less than 0.01 acre should be rounded up to 0.01 acre.**

						DOT REC will provide this information.		
Point #	Wetland ID	Impact Location (project station)	Lat/Long	Type Impacted	Area Impacted	Debit Ratio	Type Mitigated	Area Mitigated
	1	529+67 - 531+75	Lat: 45.510020 Long: -91.827930	M	0.270	1.000	M	0.270
	2	559+48.50 - 566+60	Lat: 45.510060 Long: -91.815290	M	0.060	1.000	M	0.060
	3	559+48.50 - 566+60	Lat: 45.509770 Long: -91.815290	M	0.090	1.000	M	0.090
	4	575+25+577+75	Lat: 45.510060 Long: -91.810310	M	0.440	1.000	M	0.440
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000
			Lat: Long:					0.000

Is there potential for onsite mitigation? If unknown, check with the REC.

YES ☐ Where is it located? (T/R, station, map)

NO ☐ List bank site to be used. **(Determined by REC)** Branca Wetland Mitigation Bank Site

Please attach another sheet if the space provided is not adequate for all impacts or to add any additional comments.

Appendix B

Monitoring Forms

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Wet 1

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S14 T35N R12W

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (%): 0-4%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 36.18" Long: 91° 48' 38.45" Datum: WCCS - Barron

Soil Map Unit Name: Magnor silt loam NWI classification: E2Kg

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [✔]	No [ ]	**Is the Sampled Area within a Wetland?**	Yes [✔]	No [ ]
Hydric Soil Present?	Yes [✔]	No [ ]			
Wetland Hydrology Present?	Yes [✔]	No [ ]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [✔] Surface Water (A1)
- [✔] High Water Table (A2)
- [✔] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [✔] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [✔]	No [ ]	Depth (inches):
Water Table Present?	Yes [✔]	No [ ]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [✔]	No [ ]	Depth (inches):

Wetland Hydrology Present? Yes [✔] No [ ]

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet 1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Sambucus nigra	20	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	20 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	100	Y	FACW
2. Solidage canadensis	2		FACU
3. Carex crinitia	1		OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	103 = Total Cover		
Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Wet 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20"	10YR 3/2	100	5YR 3/4	20	C	M	loamy clay	mucky, prominent redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☑ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Up 1

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S14 T35N R12W

Landform (hillslope, terrace, etc.): Backslope Local relief (concave, convex, none): none Slope (%): 0-4%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 36.18" Long: 91° 48' 38.45" Datum: WCCS - Barron

Soil Map Unit Name: Magnor silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [✔]	No [ ]	**Is the Sampled Area within a Wetland?**	Yes [ ]	No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]			
Wetland Hydrology Present?	Yes [ ]	No [✔]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [ ]	No [✔]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches):

Wetland Hydrology Present? Yes [ ] No [✔]

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

Remarks:
No hydrology data was taken due to road fill.

VEGETATION – Use scientific names of plants.

Sampling Point: Up 1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	95	Y	FACW
2. Cirsium vulgaris	15		FACU
3. Poa pratensis	20		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	130 = Total Cover		

Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Up 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☑

Remarks:

No soil data was taken due to road fill.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Wet 2

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S23 T35N R12W

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): none Slope (%): 0-4%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 35.21" Long: 91° 48' 38.29" Datum: WCCS - Barron

Soil Map Unit Name: Magnor silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [✔]	No [ ]	**Is the Sampled Area within a Wetland?**	Yes [✔]	No [ ]
Hydric Soil Present?	Yes [✔]	No [ ]			
Wetland Hydrology Present?	Yes [✔]	No [ ]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [✔] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [✔] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [✔] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [✔]	No [ ]	Depth (inches): 12"
Saturation Present? (includes capillary fringe)	Yes [✔]	No [ ]	Depth (inches): 0"

Wetland Hydrology Present? Yes [✔] No [ ]

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet 2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	90	Y	FACW
2. Solidago canadensis	20		FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110 = Total Cover		

Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Wet 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20"	10YR 3/2	90	5YR 3/4	10	C	M	silty clay loam	Prominent redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☑ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Up 2

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S23 T35N R12W

Landform (hillslope, terrace, etc.): Backslope Local relief (concave, convex, none): none Slope (%): 0-4%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 35.21" Long: 91° 48' 38.29" Datum: WCCS - Barron

Soil Map Unit Name: Magnor silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [✔]	No [ ]	**Is the Sampled Area within a Wetland?**	Yes [ ]	No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]			
Wetland Hydrology Present?	Yes [ ]	No [✔]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [ ]	No [✔]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches):

Wetland Hydrology Present? Yes [ ] No [✔]

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

Remarks:

No hydrology data was taken due to road fill.

VEGETATION – Use scientific names of plants.

Sampling Point: Up 2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	90	Y	FACW
2. Solidago canadensis	10		FACU
3. Poa pratensis	5		FACU
4. Cirsium vulgaris	5		FACU
5. Tanacetum vulgare	10		FACU
6. Scripus cyperinus	10		OBL
7.			
8.			
9.			
10.			
11.			
12.			
	130 = Total Cover		

Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Up 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☑

Remarks:

No soil data was taken due to road fill.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Wet 3

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S14 T35N R12W

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): none Slope (%): 0-2%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 36.11" Long: 91° 48' 57.29" Datum: WCCS - Barron

Soil Map Unit Name: Rib silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [✔]	No [ ]	**Is the Sampled Area within a Wetland?**	Yes [✔]	No [ ]
Hydric Soil Present?	Yes [✔]	No [ ]			
Wetland Hydrology Present?	Yes [✔]	No [ ]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [✔] High Water Table (A2)
- [✔] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [✔]	No [ ]	Depth (inches): 5"
Saturation Present? (includes capillary fringe)	Yes [✔]	No [ ]	Depth (inches): 0"

Wetland Hydrology Present? Yes [✔] No [ ]

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet 3

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	100	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Wet 3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4"	10YR 3/2	100					Muck silt	Organic
4-8"	10YR 4/3	70	10YR 2/1	30	D	M	Clay loam	
6-20"	10YR 4/2	80	7.5YR 4/6	20	C	M	Clay loam	
			10YR 2/1	5	D	M		
			7.5YR 4/6	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☑ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Up 3

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S14 T35N R12W

Landform (hillslope, terrace, etc.): Backslope Local relief (concave, convex, none): none Slope (%): 0-2%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 36.11" Long: 91° 48' 57.29" Datum: WCCS - Barron

Soil Map Unit Name: Rib silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [✔]	No [ ]	**Is the Sampled Area within a Wetland?**	Yes [ ]	No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]			
Wetland Hydrology Present?	Yes [ ]	No [✔]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [ ]	No [✔]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches):

Wetland Hydrology Present? Yes [ ] No [✔]

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

Remarks:
No hydrology data was taken due to road fill.

VEGETATION – Use scientific names of plants.

Sampling Point: Up 3

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Geranium maculatum	10		FACU
2. Vicia cracca	10		UPL
3. Poa pratensis	30	Y	FACU
4. Tanacetum vulgare	15		FACU
5. Pharlis arundinacea	25	Y	FACW
6. Scripus cyperinus	20	Y	OBL
7. Bromus ciliatus	2		FACW
8.			
9.			
10.			
11.			
12.			
	112 = Total Cover		
Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.6% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Up 3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☑

Remarks:

No soil data was taken due to road fill.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Wet 4

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S23 T35N R12W

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): none Slope (%): 0-2%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 35.30" Long: 91° 48' 54.59" Datum: WCCS - Barron

Soil Map Unit Name: Rib silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [✔]	No [ ]	**Is the Sampled Area within a Wetland?**	Yes [✔]	No [ ]
Hydric Soil Present?	Yes [✔]	No [ ]			
Wetland Hydrology Present?	Yes [✔]	No [ ]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [✔] Surface Water (A1)
- [✔] High Water Table (A2)
- [✔] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [✔] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [✔]	No [ ]	Depth (inches):
Water Table Present?	Yes [✔]	No [ ]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [✔]	No [ ]	Depth (inches):

Wetland Hydrology Present? Yes [✔] No [ ]

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet 4

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	95	Y	FACW
2. Solidago canadensis	20		FACU
3. Leersia oryzoides	20		OBL
4. Impatiens capensis	8		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	143 = Total Cover		
Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Wet 4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4"	10YR 3/2	100					Muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☑ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☐

Remarks:

>4" too wet

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Up 4

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S23 T35N R12W

Landform (hillslope, terrace, etc.): Backslope Local relief (concave, convex, none): none Slope (%): 0-2%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 35.30" Long: 91° 48' 54.59" Datum: WCCS - Barron

Soil Map Unit Name: Rib silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [ ]	No [✔]	**Is the Sampled Area within a Wetland?**	Yes [ ]	No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]			
Wetland Hydrology Present?	Yes [ ]	No [✔]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [ ]	No [✔]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches):

Wetland Hydrology Present? Yes [ ] No [✔]

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

Remarks:

No hydrology data was taken due to road fill.

VEGETATION – Use scientific names of plants.

Sampling Point: Up 4

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Tanacetum vulgare	60	Y	FACU
2. Asceclepias syriaca	15		UPL
3. Phalaris arundinacea	40	Y	FACW
4. Solidago canadensis	10		FACU
5. Poa pratensis	20		FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	145 = Total Cover		
Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Up 4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☑

Remarks:

No soil data was taken due to road fill.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Wet 5

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S22 T35N R12W

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 35.20" Long: 91° 49' 40.94" Datum: WCCS - Barron

Soil Map Unit Name: Rib silt loam NWI classification: T3K

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [✔]	No [ ]	**Is the Sampled Area within a Wetland?**	Yes [✔]	No [ ]
Hydric Soil Present?	Yes [✔]	No [ ]			
Wetland Hydrology Present?	Yes [✔]	No [ ]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [✔] High Water Table (A2)
- [✔] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [✔] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [✔]	No [ ]	Depth (inches): 10"
Saturation Present? (includes capillary fringe)	Yes [✔]	No [ ]	Depth (inches): 3"

Wetland Hydrology Present? Yes [✔] No [ ]

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet 5

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Urtica dioca	50	Y	FAC
2. Tanacetum vulgare	40	Y	FACU
3. Typha latifolia	15		OBL
4. Solidago canadensis	5		FACU
5. Phalaris arundinacea	15		FACW
6. Thalictrum dasycarpum	5		FACW
7. Poa pratensis	5		FACU
8.			
9.			
10.			
11.			
12.			
	135 = Total Cover		

Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	20	x 2 =	40
FAC species	50	x 3 =	150
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	135 (A)		405 (B)

Prevalence Index = B/A = 3.0

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☑ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Wet 5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20"	10YR 3/2	95	5YR 4/6	5	C	M	Mucky loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☑ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Up 5

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S22 T35N R12W

Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%): 0-2%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 35.20" Long: 91° 49' 40.94" Datum: WCCS - Barron

Soil Map Unit Name: Rib silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [ ]	No [✔]	**Is the Sampled Area within a Wetland?**	Yes [ ]	No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]			
Wetland Hydrology Present?	Yes [ ]	No [✔]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [ ]	No [✔]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches):

Wetland Hydrology Present? Yes [ ] No [✔]

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Up 5

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Bromus ciliatus	10		FACW
2. Poa pratensis	80	Y	FACU
3. Phalaris arundinacea	10		FACW
4. Tanacetum vulgare	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105 = Total Cover		

Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= 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: 1 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Up 5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☑

Remarks:

No soil data was taken due to road fill.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Wet 6

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S15 T35N R12W

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 35.20" Long: 91° 49' 40.94" Datum: WCCS - Barron

Soil Map Unit Name: Rib silt loam NWI classification: E2Kg

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [ ]	No [✔]	**Is the Sampled Area within a Wetland?**	Yes [✔]	No [ ]
Hydric Soil Present?	Yes [✔]	No [ ]			
Wetland Hydrology Present?	Yes [✔]	No [ ]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
WETS table data indicates a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [✔] High Water Table (A2)
- [✔] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [✔] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [✔]	No [ ]	Depth (inches): 10"
Saturation Present? (includes capillary fringe)	Yes [✔]	No [ ]	Depth (inches): 3"

Wetland Hydrology Present? Yes [✔] No [ ]

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet 6

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Phalaris arundinacea	20		FACW
2. Bromus inermis	90	Y	UPL
3. Impatiens capensis	40	Y	FACW
4. Thalictrum dasycarpum	5		FACW
5. Solidago canadensis	40		UPL
6. Typha latifolia	10		OBL
7.			
8.			
9.			
10.			
11.			
12.			
	205 = Total Cover		

Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	20
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	130	x 5 =	650
Column Totals:	205 (A)		800 (B)

Prevalence Index = B/A = 3.9

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Wet 6

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20"	10YR 3/2	95	7.5YR 3/4	5	C	M	Mucky loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☑ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 8120-07-03 City/County: Barron county Sampling Date: 6/12/2015

Applicant/Owner: WisDOT State: Wi Sampling Point: Up 6

Investigator(s): Katie Lueth & Dave Runquist Section, Township, Range: S15 T35N R12W

Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%): 0-2%

Subregion (LRR or MLRA): LRR Lat: 45° 30' 35.20" Long: 91° 49' 40.94" Datum: WCCS - Barron

Soil Map Unit Name: Rib silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [✔] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] 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 [ ]	No [✔]	**Is the Sampled Area within a Wetland?**	Yes [ ]	No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]			
Wetland Hydrology Present?	Yes [ ]	No [✔]	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

WETS table data indiacte a wetter than normal time of year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [ ]	No [ ]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches):

Wetland Hydrology Present? Yes [ ] No [✔]

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

Remarks:

No hydrology data was taken due to road fill.

VEGETATION – Use scientific names of plants.

Sampling Point: Up 6

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Equisetum arvense	2		FAC
2. Poa pratensis	40	Y	FACU
3. Tanacetum vulgare	20		FACU
4. Phalaris arundinacea	40	Y	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	102 = Total Cover		

Woody Vine Stratum (Plot size: 60')			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Up 6

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
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- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
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Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
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- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators 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 ☑

Remarks:

No soil data was taken due to road fill.

Appendix C

Photos

Fig. 1 - Wet 1

Fig. 2 - Up 1

Fig. 3 - Wet 2

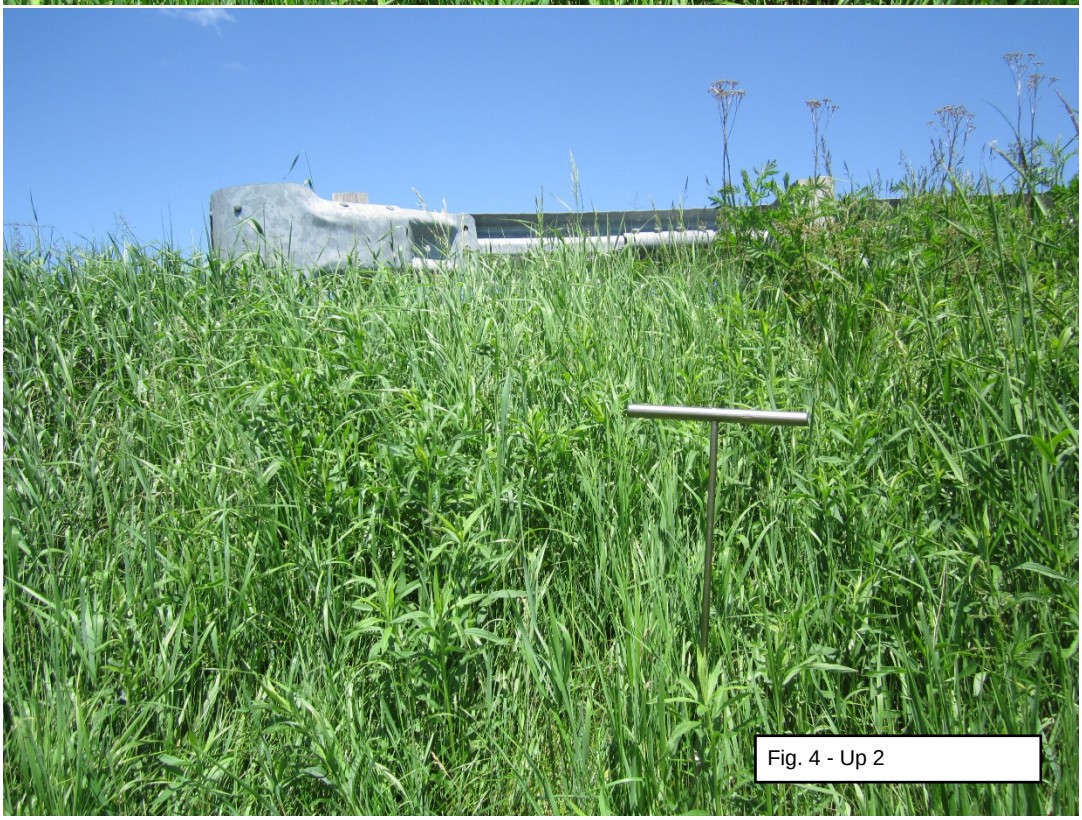


Fig. 4 - Up 2

Fig. 5 - Wet 3

Fig. 6 - Up 3

Fig. 7 - Wet 4

Fig. 8 - Up 4

Fig. 9 - Wet 5

Fig. 10 - Up 5

Fig. 11 - Wet 6

Fig. 12 - Up 6

Special Provisions

Table of Contents

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 8120-07-03, McKinley – Rice Lake; C-03-0002, C-03-0003, C-03-0004, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2018 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.
100-005 (20160607)

2. Scope of Work.

The work under this contract shall consist of grading, HMA pavement, bridge removal, bridge and box culvert construction, stream relocation, base aggregate, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

Begin work within ten calendar days after the engineer issues a written notice to do so.

Provide the time frame for construction of the project within the 2018 construction season to the engineer in writing within a month of executing the contract but at least 14 calendar days before the preconstruction meeting. Assure that the construction time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within 10 calendar days from the beginning of the approved time frame.

After construction of the stream relocation, the contractor shall provide at least three (3) weeks for the permanent erosion control items to grow and establish within the stream before diverting water into the stream relocation. Water shall not be routed into the stream relocation without engineer approval.

The proposed construction staging may require periods of accelerated work with above normal production rates and multiple construction operations occurring simultaneously in order to meet the final completion date.

Fish Spawning

There shall be no instream disturbance of Engle Creek or its tributaries as a result of construction activity under or for this contract, from September 15 to April 15, both dates inclusive, in order to avoid adverse impacts upon the spawning of trout.

Any change to this limitation will require submitting a written request by the contractor to the engineer, subsequent review and concurrence by the Department of Natural Resources in the request, and final approval by the engineer. The approval will include all conditions to the request as mutually agreed upon by WisDOT and DNR.
Fish (20090901)

Migratory Birds
Swallow and other migratory birds' nests have been observed on or under the existing bridges. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

The nesting season for swallows and other birds is usually between May 1 and August 30. Either prevent active nests from becoming established, or apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds, or clearing nests from all structures before the nests become active in early spring. As a last resort, prevent birds from nesting by installing a suitable netting device on the remaining structure prior to nesting activity. Include the cost for preventing nesting in the cost of Removing Old Structure Over Waterway with Minimal Debris.
Birds (20090901)

Northern Long-eared Bat (*Myotis septentrionalis*)
Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

In accordance to the final 4(d) rule issued for the NLEB, the department has determined that the proposed activity may affect, but will not result in prohibited take of the NLEB. The activity involves tree removal, but will not occur within 0.25 miles of a known hibernacula, nor will the activity remove a known maternity roost tree or any other tree within 150 feet of a known maternity roost tree.

If additional trees need to be removed, no Clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the United States Fish and Wildlife Service (USFWS) and may require a bat presence/absence survey. Notify the engineer if additional Clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary.

Submit a schedule and description of Clearing operations with the ECIP 14 days prior to any Clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of Clearing operations, and list those additional measures in the ECIP.

4. Traffic.

STH 48 will be closed to through traffic during the project's construction. Access will be provided for local traffic and emergency vehicles only. The proposed detour route will follow STH 25 southerly for 8 miles to the intersection of USH 8. The route will then proceed easterly on USH 8 for 4 miles to the intersection of USH 53. Then northerly on USH 53 for 8 miles. The contractor shall be responsible for maintaining all detour signs.

Wisconsin Lane Closure System Advance Notification
Provide the following advance notification to the engineer for incorporation into the Wisconsin Lane Closure System (LCS).

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

Closure type with height, weight, or width restrictions (available width, all lanes in one direction < 16')	MINIMUM NOTIFICATION
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Ramp closures	7 calendar days
Full ramp closures	7 calendar days
Detours	7 calendar days
Closure type without height, weight, or width restrictions (available width, all lanes in one direction >16')	MINIMUM NOTIFICATION
Lane and shoulder closures	3 business days
System and service ramp closures	3 business days
Modifying all closure types	3 business days

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date. The contractor shall notify the engineer 14 calendar days prior to implementing the detour route.
108-057 (20160607)

5. Holiday Work Restrictions.

Do not perform work on, or haul materials of any kind along or across any portion of the highway carrying STH 48 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

From noon Friday, May 25, 2018 to 6:00 AM Tuesday, May 29, 2018 for Memorial Day;
From noon Tuesday, July 3, 2018 to 6:00 AM Thursday, July 5, 2018 for Independence Day;
From noon Friday, August 31, 2018 to 6:00 AM Tuesday, September 4, 2018 for Labor Day.

Work may be performed only within the limits of the highway closed to traffic.
107-005 (20050502)

6. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.
107-065 (20080501)

7. Railroad Insurance and Coordination.

A Description
Comply with standard spec 107.17 for all work affecting Wisconsin Central Ltd (CN) property and any existing tracks.

A.1 Railroad Insurance Requirements
In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of Wisconsin Central Ltd and Its Parents (CN)

Notify evidence of the required coverage, and duration to Jackie Macewicz, CN Manager Public Works, 1625 Depot Street, Stevens Point, WI 54481; Telephone (715) 345-2503; E-mail: Jackie.macewicz@cn.ca and also send to the following: Anna Davey, NW Region Railroad Coordinator, 1701 N 4th Street, Superior, WI, 54880, Telephone (715) 392-7960, E-mail: anna.davey@dot.wi.gov

Include the following information on the insurance document:
Project ID: 8120-07-03
Project Location: Barron, WI
Route Name: STH 25, Barron County
Railroad Subdivision Barron Sub
Crossing ID: 691152C
Railroad Milepost: 91.0
Work Performed: Signing for detour route

A.2 Train Operation
Approximately two (2) through freight trains operate daily at up to 10 mph.

A.3 Names and Addresses of Railroad Representatives for Consultation and Coordination
Construction Contact
Jackie Macewicz, CN Manager Public Works, 1625 Depot St., Stevens Point, WI, 54481; Telephone (715) 345-2503; E-mail jackie.macewicz@cn.ca for consultation on railroad requirements during construction.

Amend standard spec 108.4 to include the railroad in the distribution of the initial bar chart, and monthly schedule updates. The bar chart shall specifically show work involving coordination with the railroad.

Flagging Contact
Submit by US Mail a "Request for Flagging Services and Cable Location" form with prepayment to: Mary Ellen Carmody, CN, 24002 Vreeland Road, Flat Rock, MI., 48134. The form can be obtained at https://www.cn.ca/en/delivering-responsibly/safety/erailsafe/utility-installations. Requests for flagging and cable locates can take up to five (5) business days after the railroad receives the paperwork. Reference the Wisconsin Milepost and Subdivision located in A.1. Advise Ms. Carmody that the flagging services are to be billed at the rate for a public highway project.

Cable Locate Contact
In addition to contacting Diggers Hotline, follow the procedure listed under Flagging Contact.

Wisconsin Central Ltd (CN) will only locate railroad owned facilities buried in the railroad right of way. The railroad does not locate any other utilities.

A.4 Work by Railroad
The railroad will perform the work described in this section, except for work described in other special provisions and will be accomplished without cost to the contractor. None

A.5 Temporary Grade Crossing
If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.2 at least 40 days prior to the time needed. Approval is subject to the discretion of the railroad. The department has made no arrangements for a temporary grade crossing.

8. Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A

copy of the permit is available from the NW regional office by contacting Beth Cunningham at 715-635-4973.
107-054 (20080901)

9. Dewatering.

Any dewatering required during construction shall be properly treated before it is allowed to enter any wetlands or surface waters. Prepare a dewatering plan as part of the Erosion Control Implementation Plan (ECIP) and provide to the engineer for review and approval prior to starting dewatering operations. The plan shall include a description of the proposed dewatering methods and maps or drawings indicating the location of the dewatering facilities and points of discharge of the water.

Dewater according to Wisconsin Standard Specifications and Trans 401 of the Wisconsin Administrative Code. As part of the Erosion Control Implementation Plan (ECIP) submittal, supply all pertinent information and calculations used to determine the best management practice for dewatering at each location it is required. Prior to construction, obtain approval from the engineer for the proposed method of treatment including supporting calculations.

Work under this item shall include all work, materials, equipment, permitting and incidentals required to dewater the site during construction or to work with the water on-site in a manner that allows the project to be constructed in accordance to the plans and specifications. This provision includes the dewatering of groundwater, surface water runoff, and trench dewatering. The contractor is responsible for all work, materials and equipment required to comply with permit conditions to dewater the site.

Any polymers or other materials included in the dewatering plan for sediment coagulation are incidental to the dewatering and shall be on the Wisconsin Department of Natural Resource approved list for these projects.

Dewatering will be incidental to the contract. Dewatering will include all work necessary for constructing temporary settling basins, pumping, settling, and discharging water; for any permit fees required; and for furnishing all labor, tools, equipment, and incidentals necessary to complete work.

10. Environmental Protection, Aquatic Exotic Species Control.

Exotic invasive organisms such as VHS, zebra mussels, purple loosestrife, and Eurasian water milfoil are becoming more prolific in Wisconsin and pose adverse effects to waters of the state. Wisconsin State Statutes 30.07, “Transportation of Aquatic Plants and Animals; Placement of Objects in Navigable Waters”, details the state law that requires the removal of aquatic plants and zebra mussels each time equipment is put into state waters.

At construction sites that involve navigable water or wetlands, use the follow cleaning procedures to minimize the chance of exotic invasive species infestation. Use these

procedures for all equipment that comes in contact with waters of the state and/or infested water or potentially infested water in other states.

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels prior to being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Use the following inspection and removal procedures (guidelines from the Wisconsin Department of Natural Resources http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf for disinfection:

1. Prior to leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can prior to leaving the area or invested waters; and
4. Disinfect your boat, equipment and gear by either:
    a. Washing with ~212º F water (steam clean), or
    b. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
    c. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore this disinfect should be used in conjunction with a hot water (>104º F) application.

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.
107-055 (20130615)

11. Erosion Control Structures.

Within seven calendar days after the commencement of work on the bridge superstructure, place all permanent erosion control devices, including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, soil stabilizer, or any other item required by the contract or deemed necessary by the engineer. These devices shall be in place in the area under the bridge and on both sides of the roadway, from the waterway to a point 100-feet behind the backwall of the abutment. Within said limits, place these devices to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the plan, or as directed by the engineer. Prior to initial construction operations, place turbidity barriers, silt screens, and other temporary erosion control

measures as shown on the plans, and remove them after the permanent erosion control devices are in place unless directed otherwise by the engineer.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.
107-070 (20030820)

12. Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found.

John Roelke, License Number All-119523, inspected Structure C-03-0002, C-03-0003, and C-03-0004 for asbestos on September 16, 2015. No regulated Asbestos Containing Material (RACM) was found on these structures. A copy of the inspection report is available from: Beth Cunningham, NW region project manager, 715-635-4973.

In accordance with NR447 and DHS159 , ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days prior to beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Beth Cunningham, NW region project manager, 715-635-4973 and DOT BTS-ESS attn: Hazardous Materials Specialist PO Box 7965, Madison, WI. 53707-7965. In addition, comply with all local or municipal asbestos requirements.
Use the following information to complete WisDNR form 4500-113 :
C-03-0002

- Site Name: Structure C-03-0002, STH 48 over Engles Creek
- Site Address: Town of Stanfold, Lat: 453035.42, Long: 914940.52
- Ownership Information: WisDOT Transportation NW Region, 1701 N 4th Street, Superior, WI, 54880
- Contact: Beth Cunningham
- Phone: 715-635-4973
- Age: 97 years old. This structure was constructed in 1920
- Area: 600 SF of deck

C-03-0003

- Site Name: Structure C-03-0003, STH 48 over Engles Creek
- Site Address: Town of Stanfold, Lat: 453035.58, Long: 914855.14
- Ownership Information: WisDOT Transportation NW Region, 1701 N 4th Street, Superior, WI, 54880
- Contact: Beth Cunningham
- Phone: 715-635-4973
- Age: 67 years old. This structure was constructed in 1950
- Area: 690 SF of deck

C-03-0004

- Site Name: Structure C-03-0004, STH 48 over Engles Creek
- Site Address: Town of Stanfold, Lat: 453035.58, Long:914836.42
- Ownership Information: WisDOT Transportation NW Region, 1701 N 4th Street, Superior, WI, 54880
- Contact: Beth Cunningham
- Phone: 715-635-4973
- Age: 67 years old. This structure was constructed in 1950
- Area: 552 SF of deck

Insert the following paragraph in Section 6.g.:

- If asbestos not previously identified is found or previously non-friable asbestos becomes crumbled, pulverized, or reduced to a powder, stop work immediately, notify the engineer, and the engineer will notify the department's Bureau of Technical Services at 608-266-1476 for an emergency response in accordance to standard spec 107.24. Keep material wet until it is abated or until it is determined to be non-asbestos containing material.

107-125 (20120615)

13. Removing Old Structure Over Waterway With Minimal Debris C-03-0002, Item 203.0600.S.01; C-03-0003, Item 203.0600.S.02; & C-03-0004, Item 203.0600.S.03.

Conform to standard spec 203 as modified in this special provision.

Add the following to standard spec 203:

203.3.6 Removals Over Waterways and Wetlands

203.3.6.2 Removing Old Structure Over Waterway with Minimal Debris

(1) Remove the existing structures C-03-0002, C-03-0003, & C-03-0004 over the Engle Creek or a Tributary to Engle Creek in large sections and conforming to the contractor's approved structure removal and clean-up plan. During superstructure removal, prevent all large pieces and minimize the number of small pieces from entering the waterway or wetland. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.

(2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department's written approval of the plan. Include the following information in the structure removal and clean-up plan:

- Methods and schedule to remove the structure.
- Methods to control potentially harmful environmental impacts.

- Methods for superstructure removal that prevent all large pieces and minimize the number of small pieces from entering the waterway or wetlands.
- Methods to control dust and contain slurry.
- Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
- Methods for cleaning the waterway or wetlands.

(3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

Add the following Removing Old Structure bid item to standard spec 203.5.1:

ITEM NUMBER	DESCRIPTION	UNIT
203.0600.S.01	Removing Old Structure Over Waterway With Minimal Debris C-03-0002	LS
203.0600.S.02	Removing Old Structure Over Waterway With Minimal Debris C-03-0003	LS
203.0600.S.03	Removing Old Structure Over Waterway With Minimal Debris C-03-0004	LS

203-020 (20080902)

14. QMP Base Aggregate.

A Description

A.1 General

(1) This special provision describes contractor quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

(2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

(3) Do not apply this special provision to material placed under the Aggregate Detours, Salvaged Asphaltic Pavement Base, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
1. Production and placement control and inspection.
2. Material sampling and testing.

(5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at: http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/default.aspx

A.2 Contractor Testing for Small Quantities

(1) The department defines a small quantity, for each individual Base Aggregate bid item, as a plan quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:

1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.
2. Divide the aggregate into uniformly sized sublots for testing as follows:

Plan Quantity	Minimum Required Testing
≤ 1500 tons	One test from production, load-out, or placement at the contractor's option[1]
> 1500 tons and ≤ 6000 tons	Two tests of the same type, either from production, load-out, or placement at the contractor's option[1]
> 6000 tons and ≤ 9000 tons	Three placement tests[2] [3]

[1] If using production tests for acceptance, submit test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

[2] For 3-inch material, obtain samples at load-out.

[3] If the actual quantity overruns 9000 tons, create overrun sublots to test at a rate of one additional placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

3. No control charts are required. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
4. Department verification testing is optional for quantities of 6000 tons or less.

(3) Material represented by a sublot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B Materials

B.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.

(2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
5. Descriptions of stockpiling and hauling methods.
6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

(1) Have personnel certified under the department's highway technician certification program (HTCP) perform sampling, testing, and documentation as follows:

Required Certification Level:	Sampling or Testing Roles:
Aggregate Technician IPP Aggregate Sampling Technician Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling[1]
Aggregate Technician IPP Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing

[1] Plant personnel under the direct observation of an aggregate technician certified at level one or higher may operate equipment to obtain samples.

(2) A certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed

correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

B.3 Laboratory

(1) Perform QC testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Management Section
3502 Kinsman Blvd.
Madison, WI 53704
Telephone: (608) 246-5388

http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/qual-labs.aspx

B.4 Quality Control Documentation

B.4.1 General

(1) Submit base aggregate placement documentation to the engineer within 10 business days after completing base placement. Ensure that the submittal is complete, neatly organized, and includes applicable project records and control charts.

B.4.2 Records

(1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

B.4.3 Control Charts

(1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.

(2) Provide control charts to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

1. Contractor individual QC tests.
2. Department QV tests.
3. Department IA tests.
4. Four-point running average of the QC tests.

(3) Except as specified under B.8.2.1 for nonconforming QV tests, include only QC tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

B.5 Contractor Testing

(1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.

(2) Test gradation once per 3000 tons of material placed. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.

(3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

(4) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.

(5) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.

(6) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

B.6 Test Methods

B.6.1 Gradation

(1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:

Gradation..... AASHTO T 27
Material finer than the No. 200 sieve..... AASHTO T 11

(2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.

(3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:

1. Control limits are at the upper and lower specification limits.

2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

(1) Test fracture conforming to CMM 8.60. The engineer will waive fractured particle testing on quarried stone.

(2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec 301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

B.6.3 Liquid Limit and Plasticity

(1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.

(2) Ensure the material conforms to the limits specified in standard spec table 301-2.

B.7 Corrective Action

B.7.1 General

(1) Consider corrective action when the running average trends toward a warning limit. Take corrective action if an individual test exceeds the contract specification limit. Document all corrective actions both in the project records and on the appropriate control chart.

B.7.2 Placement Corrective Action

(1) Do not blend additional material on the roadbed to correct gradation problems.

(2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
2. For fracture, increase the QC testing frequency to at least one test per gradation test.

(3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

(4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within two business days after the department obtains the sample.

B.8.2 Verification Testing

B.8.2.1 General

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:

1. One non-random test on the first day of placement.
2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

(3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates, the department will collect samples from the stockpile at load-out. The department will split each sample, test half for QV, and retain half.

(4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

B.8.3 Independent Assurance

(1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) Production test results, and results from other process control testing, may be considered when resolving a dispute.

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material

or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C (Vacant)

D (Vacant)

E Payment

(1) Costs for all sampling, testing, and documentation required under this special provision are incidental to this work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the non-performance of QMP administrative item.

(2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

301-010 (20151210)

15. Mobilizations, Emergency Stream Restoration, Item SPV.0060.01

A Description

This special provision describes the staged moving of personnel, moving equipment, and moving materials associated with emergency mobilizations for stream restoration.

B Materials

Provide all materials in accordance with standard specification 628.2.

C Construction

Mobilizations, Emergency Stream Restoration shall be in accordance with standard specification 628.3.8 and as herein provided.

Replace standard spec 628.3.8(1) with the following:

Move personnel, equipment, and materials to the project site to install temporary or permanent erosion control items in the stream relocation area on an emergency basis as the engineer directs.

A stream relocation establishment period of 2 growing seasons shall follow the completion of construction of the stream relocation. The establishment period shall extend until October 15, 2019.

D Measurement

The department will measure Mobilizations, Emergency Stream Restoration by each individual mobilization acceptably completed. The department will not include delivering and installing temporary or permanent erosion control materials provided for in specific contract bid items.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.01	Mobilizations, Emergency Stream Restoration	EA

Payment for Mobilizations, Emergency Stream Restoration is full compensation for the staged moving of personnel, moving equipment, and moving materials. The department will pay separately for delivery and installation of temporary or permanent erosion control devices under the other bid items in section 628 of the standard specification.

Failure to mobilize within 8 hours will result in a $500 per calendar day deduction from money due under the contract. The engineer may extend the 8-hour period for delays not the contractor's fault.

16. Seeding Mixture Wetland, Item SPV.0085.01

A Description

This work consists of preparing seed beds, furnishing, and sowing Seeding Mixture Wetland in accordance to the provisions of standard specification 630, as shown on the plan, as directed by the engineer, and as hereinafter provided.

B Materials

Provide all seed in accordance with standard spec 630.2. Provide documentation of seed source (supplier) and final proposed seed mixtures to the Engineer a minimum of 14 calendar days prior to use for review. Obtain Engineer's approval of each of the supplier(s) and mixes, in writing, prior to installation on this project.

The Seeding Mixture Wetland composition shall conform to the requirements presented in the table below.

Table 1: Wetland Seed Mix

Common Name	Scientific Name	Rate (lb/ac)	Rate (kg/ha)	% of Mix (by weight)	Seeds/ sq ft
fringed brome	*Bromus ciliatus*	1.10	1.23	9.18%	4.45
Virginia wild rye	*Elymus virginicus*	1.00	1.12	8.37%	1.55
fowl bluegrass	*Poa palustris*	0.35	0.39	2.88%	16.50
rice cut grass	*Leersia oryzoides*	0.25	0.28	2.07%	3.10
tall manna grass	*Glyceria grandis*	0.15	0.17	1.26%	3.90
fowl manna grass	*Glyceria striata*	0.10	0.11	0.83%	3.30
bluejoint	*Calamagrostis canadensis*	0.05	0.06	0.41%	5.00
	Grasses Subtotal	3.00	3.36	25.00%	37.80
bristly sedge	*Carex comosa*	0.21	0.24	1.78%	2.36
dark green bulrush	*Scirpus atrovirens*	0.18	0.20	1.48%	30.00
awl-fruited sedge	*Carex stipata*	0.17	0.19	1.40%	2.10
fox sedge	*Carex vulpinoidea*	0.14	0.16	1.13%	5.00
woolgrass	*Scirpus cyperinus*	0.08	0.09	0.67%	50.00
pointed broom sedge	*Carex scoparia*	0.05	0.06	0.43%	1.60
path rush	*Juncus tenuis*	0.04	0.04	0.34%	15.00
tussock sedge	*Carex stricta*	0.03	0.03	0.21%	0.50

	Sedges & Rushes Subtotal	0.90	1.01	7.44%	106.56
golden alexanders	*Zizia aurea*	0.25	0.28	2.06%	1.00
marsh milkweed	*Asclepias incarnata*	0.24	0.27	2.03%	0.43
red-stemmed aster	*Symphyotrichum puniceum*	0.17	0.19	1.42%	5.00
blue vervain	*Verbena hastata*	0.13	0.15	1.12%	4.61
Virginia mountain mint	*Pycnanthemum virginianum*	0.06	0.07	0.53%	5.10
sawtooth sunflower	*Helianthus grosseserratus*	0.04	0.04	0.30%	0.20
autumn sneezeweed	*Helenium autumnale*	0.03	0.03	0.23%	1.30
eastern panicled aster	*Symphyotrichum lanceolatum*	0.03	0.03	0.22%	1.50
bunched ironweed	*Vernonia fasciculata*	0.03	0.03	0.28%	0.30
common boneset	*Eupatorium perfoliatum*	0.02	0.02	0.18%	1.30
spotted Joe pye weed	*Eutrochium maculatum*	0.02	0.02	0.18%	0.75
great lobelia	*Lobelia siphilitica*	0.02	0.02	0.13%	2.90
giant goldenrod	*Solidago gigantea*	0.02	0.02	0.14%	1.50
grass-leaved goldenrod	*Euthamia graminifolia*	0.01	0.01	0.06%	1.00
blue monkey flower	*Mimulus ringens*	0.01	0.01	0.07%	6.80
tall meadow-rue	*Thalictrum dasycarpum*	0.01	0.01	0.12%	0.11
Culver's root	*Veronicastrum virginicum*	0.01	0.01	0.12%	4.20
	Forbs Subtotal	1.10	1.23	9.19%	38.00
Oats	*Avena sativa*	7.00	7.85	58.37%	3.12
	Cover Crop Subtotal	7.00	7.85	58.37%	3.12
	Total	12.00	13.45	100.00%	185.48
Purpose:	Wet meadow / Sedge meadow reconstruction for wetland mitigation or ecological restoration projects				

C Construction

Construction shall be in accordance to standard specification 630.3 and as herein provided.

The seeding rate for Seeding Mixture Wetland shall be 0.275 pounds per 1000 square feet.

Sow seeding mixture in accordance to standard spec 630.3.3.3.

D Measurement

The department will measure Seeding Mixture Wetland by the pound, acceptably completed, and in accordance to standard specifications 630.4.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0085.01	Seeding Mixture Wetland	LB

Payment is full compensation for providing, handling, and storing all seed; for providing the required culture and inoculating seed as specified; for preparing the seed bed, sowing, covering and firming the seed, and for all labor, tools, equipment and incidentals necessary to complete the work.

17. Temporary Water Diversion, C-03-0060, Item SPV.0105.01; C-03-0061, Item SPV.0105.02.

A Description

This special provision describes providing temporary water diversions for the flow of Engle Creek during the installation of structure C-03-0061 and for the temporary water diversion for the flow of a tributary to Engle Creek during the installation of structure C-03-0060 as hereinafter described.

Notify the engineer 3 working days prior to installation of the diversion method. Do not commence diversion without engineer approval.

B Materials

Furnish material subject to engineer approval with the Erosion Control Implementation Plan (ECIP) prior to use in order to temporarily divert stream flow according to the applicable sections of the 2018 edition of WisDOT Standard Specifications.

C Construction

Flow is to be maintained through each of the stream crossings during replacement of the corresponding structure. All materials used must be non-erodible; this includes all materials used for constructing cofferdams which are to be installed upstream and downstream of the work areas. Check and evaluate temporary diversion at regular intervals to ensure the diversion is functioning adequately and not creating any erosion. Submit to the engineer a detailed plan (narrative, plans, details, etc.) of the proposed diversion in the ECIP.

The water diversion must be capable of diverting the 10-year recurrence interval stream discharge (Q_{10}) of the feature being diverted. See the table below for the Q_{10} discharge rates at each structure/feature location.

STRUCTURE	FEATURE	Q_{10} Flow (cfs)
C-03-0060	Tributary to Engle Creek	221
C-03-0061	Engle Creek	245

Divert the existing flow of Engle Creek and/or its tributary through a temporary diversion channel lined with polyethylene sheeting or other approved plastic. The bottom of the channel shall have a 3 inch minimum depth of coarse aggregate size No. 2 (Standard Specifications 501.2.5.4). The channel shall maintain a suitable depth and velocity to allow for the passage of migrating fish and aquatic species. Divert flow into the temporary diversion channel utilizing barriers made of non-erodible materials, such as rock bags and polyethylene sheets, so as to prevent siltation into the live stream. Fish that become stranded in dewatered areas or the temporary channel should be captured and returned to the active channel immediately. Ensure that the diversion remains contained within the right-of-way, unless a separate agreement is obtained with the applicable land owner prior to construction. Details of the temporary diversion channels and the non-erodible barrier system shall be detailed in the contractor's ECIP.

Prior to reestablishing flow into the new box culvert, the rip rap at each end of the new box culvert shall be in place. Remove the temporary diversion channel after flow through the new box culvert

structure is established. Restore the area outside of the proposed roadbed and slopes to natural surrounding conditions and elevations.

D Measurement
The department will measure Temporary Water Diversion, C-03-0060 and Temporary Water Diversion, C-03-0061 each as a single unit of work acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Temporary Water Diversion, C-03-0060	LS
SPV.0105.02	Temporary Water Diversion, C-03-0061	LS

Payment is full compensation for providing, installing, removing, and disposing of all materials used to divert flow, maintaining such materials during use, all excavation required, and for restoration of the area to original conditions except as follows: the department will pay separately for finishing items including: topsoil, seed, fertilizer, mulch, and erosion control mats.

18. Salvaged Topsoil Wetland, Item SPV.0180.01

A Description
This work shall consist of removal of wetland topsoil from the surface of wetlands that are to be excavated for the stream relocation as noted on the plans. This special provision describes removing topsoil from the site of proposed excavations and embankments in quantities and depths available and necessary to cover the work slopes. This work also includes reclamation, placing, spreading, and finishing the topsoil according to standard spec 627, as shown on the plan, and as hereinafter provided. This material shall be salvaged and used to re-surface the stream relocation area as shown on the plans.

B Materials
(Vacant)

C Construction
Under the Salvaged Topsoil Wetland item, perform work according to standard spec 625.3 and as hereinafter described. Topsoil within areas shown on the plan as Salvaged Topsoil Wetland shall be removed and stockpiled separately. This material shall then be reclaimed, placed, spread, and finished back in its original location. This material shall not be mixed with any topsoil stripped from upland areas.

The Salvaged Topsoil Wetland shall be placed using equipment types that will minimize compaction.

D Measurement

The department will measure Salvaged Topsoil Wetland buy the square yard, acceptably completed, in accordance with standard specification 625.4.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Salvaged Topsoil Wetland	SY

Payment is full compensation for removing, stockpiling, reclaiming, hauling, and placing this material; and for undercutting excavations, or underfilling embankments necessary to receive this material. The department will make no deductions from the Excavation bid items for the quantities of Salvaged Topsoil Wetland material obtain from areas of cut sections. Additionally, the department will not measure or pay for the volumes of Salvaged Topsoil Wetland removed from sites of proposed embankments under the Excavation bit items, or make any allowance, adjustment, or measurement for payment under the Excavation bid items for undercutting cut sections, or underfilling embankments.

If an area is damaged by erosion after partial acceptance, the department will pay for restoring topsoil in these areas at a unit price determined by multiplying the contract unit price big for Salvaged Topsoil Wetland by 3, or absent that bid item in the contract, as the contract unit price bid for Topsoil multiplied by 3, The Department will pay for restoration under the Restoration Post Acceptance Topsoil administrative item.

The department will not pay for removing topsoil from outside the roadway foundation in embankment areas unless that material is necessary to cover the slopes.

19. Certified Weed-Free Mulch, Item SPV.0180.02

A Description

This special provision describes placing mulch according to standard spec 627 and as hereinafter provided.

B Materials

Certified mulching material consists of clean grain straw or hay that has been harvested from native grass production fields that has been certified to be weed-free according to Wisconsin Department of Transportation requirements and the standards of the North American Weed Free Forage Certification Program by the Wisconsin Crop Improvement Association (WCIA) or crop certification agencies in adjoining states. A certification tag from the certifying agency indicating that the mulching material meets department standards shall be attached to each bale delivered to the site.

C Construction

If anchoring by Method A, only biodegradable netting shall be approved. If anchoring by Method B wood fiber, wood chips, or similar material will not be allowed.

D Measurement
The department will measure Certified Weed-Free Mulch in area by the square yard, acceptable completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.02	Certified Weed-Free Mulch	SY

Payment is full compensation for providing all materials, for all hauling, treating, placing, spreading, and anchoring of the mulch material; for maintaining the work and repairing all damaged areas; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

PROJECT ID: 8120-07-73
WITH: 8120-07-73

COUNTY: BARRON

ORDER OF SHEETS

TOTAL SHEETS =

N

DESIGN DESIGNATION 8120-07-03

A.A.D.T.	2018	=	4900
A.A.D.T.	2038	=	6050
D.H.V.		=	550
D.D.		=	60/40
T.		=	12.3%
DESIGN SPEED		=	55 MPH
ESALS		=	1,100,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- OVERHEAD UTILITY (OH)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8120-07-73		

MCKINLEY - RICE LAKE

C-03-0002, C-03-0003, C-03-0004

STH 48

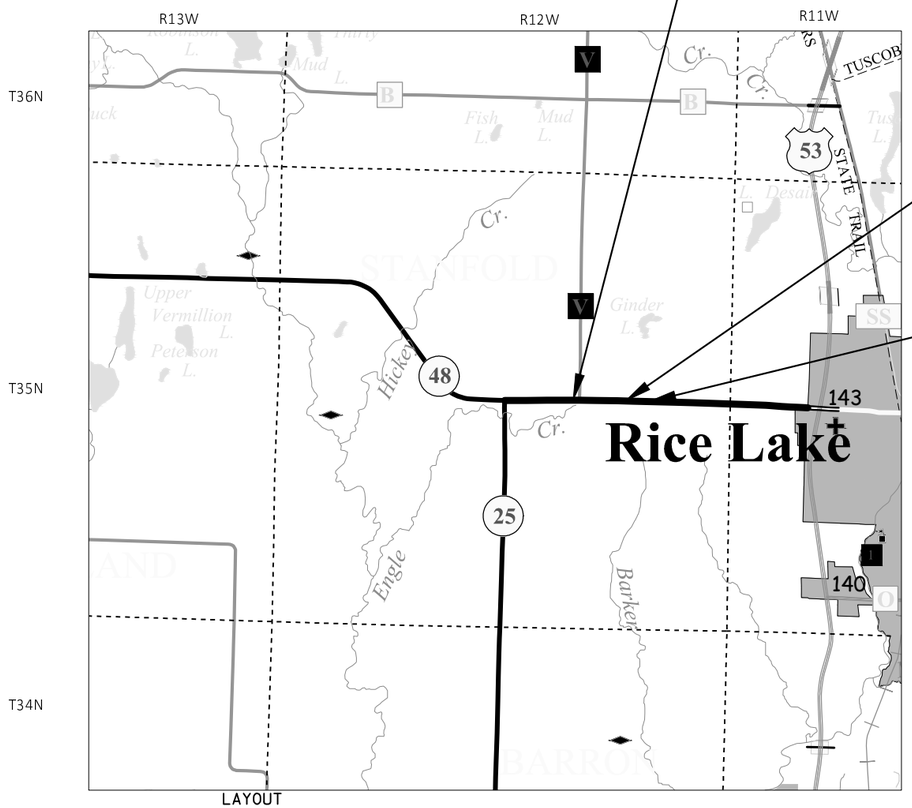
BARRON

STATE PROJECT NUMBER
8120-07-73

C-03-0060
STA. 529+67 - STA. 531+75
N: 137302.3376
E: 311270.6786

B-03-0204
STA. 559+48.50 - STA. 566+60
N: 137319.6900
E: 314507.8841

C-03-0061
STA. 575+25 - STA. 577+80
N: 137319.2667
E: 315827.9345



LAYOUT
SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE =

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BARRON COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	TRAVIS JENSEN
Project Manager	BETH CUNNINGHAM, PE
Regional Examiner	TOU YANG
Regional Supervisor	ANDREW STENSLAND, PE

APPROVED FOR THE DEPARTMENT

DATE:_____ _____ (Signature)

E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_TITLE SHEET.DWG
LAYOUT NAME - TITLE

PLOT DATE : 5/17/2017 11:03 AM

PLOT BY : JENSEN, TRAVIS G PLOT NAME :

WISDOT/CADDS SHEET 10

LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
APPROX.	APPROXIMATE
A.E.W.	APRON ENDWALL
ASPH.	ASPHALTIC
A.D.T.	AVERAGE DAILY TRAFFIC
AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L	CENTER LINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CFS	CUBIC FEET/SECOND
C.Y., CU. YD.	CUBIC YARD
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS.	DISCHARGE
EA.	EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	FOOT
F.L.	FLOW LINE
GA.	GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MI.	MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W.	NORTH WEST
PAV'T	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
LB.	POUND
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD.	STANDARD
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT.	STRUCTURE
SURF.	SURFACE
TEL.	TELEPHONE
TN.	TOWN
T.	TRUCKS (PERCENT OF)
UNCL.	UNCLASSIFIED
U.G.	UNDERGROUND
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. THE LOCATION OF EBS SHALL BE DETERMINED BY THE ENGINEER.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

OTHER WETLANDS MAY EXIST IN LOCATIONS THAT ARE NOT SHOWN ON THE PLANS. DO NOT STAGE IN OR DISTURB WETLAND AREAS.

VERTICAL DATUM ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NAVD 88 (91) GEOID 12A.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

THE 7" ASPHALTIC SURFACE SHALL CONSIST OF A 1.75" UPPER LAYER (4LT5834S) AND A 5.25" LOWER LAYER (3LT5828S) PLACED IN 2 LIFTS.

DIGGERS HOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

CENTURY LINK

20 S WILSON AVE
RICE LAKE, WI 54868
715-234-5528
ATTN: MONTY PARKER
MONTY.PARKER@CENTURYLINK.COM

BARRON ELECTRIC COOPERATIVE

1434 STATE HIGHWAY 25 NORTH
P.O. BOX 40
BARRON, WI 54812
800-322-1008
ATTN: AL GRAVESEN

WISCONSIN DNR-LIASON

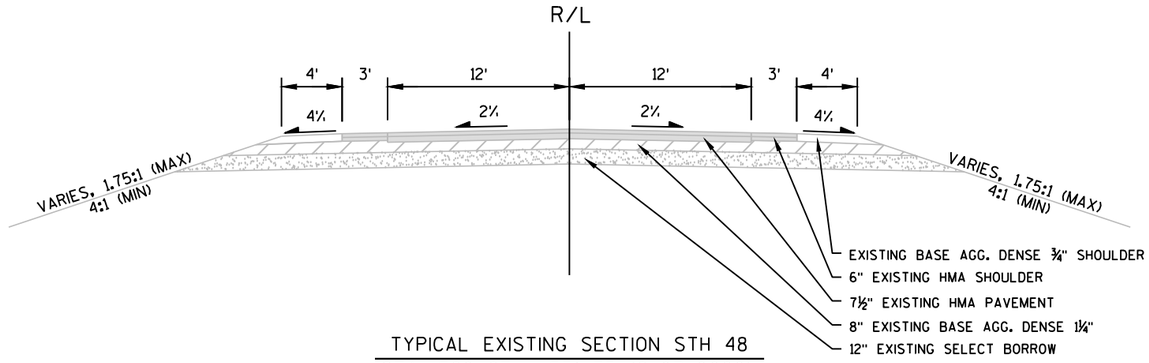
DNR-NORTHERN REGION
810 W. MAPLE ST.
SPOONER, WI 54801
PHONE: 715-635-4229
ATTN: AMY CRONK

DESIGN CONTACT

WISDOT - NORTHWEST REGION
1701 N. 4TH ST
SUPERIOR, WI 54880
715-392-7996
ATTN: ZACHARY ERICKSON

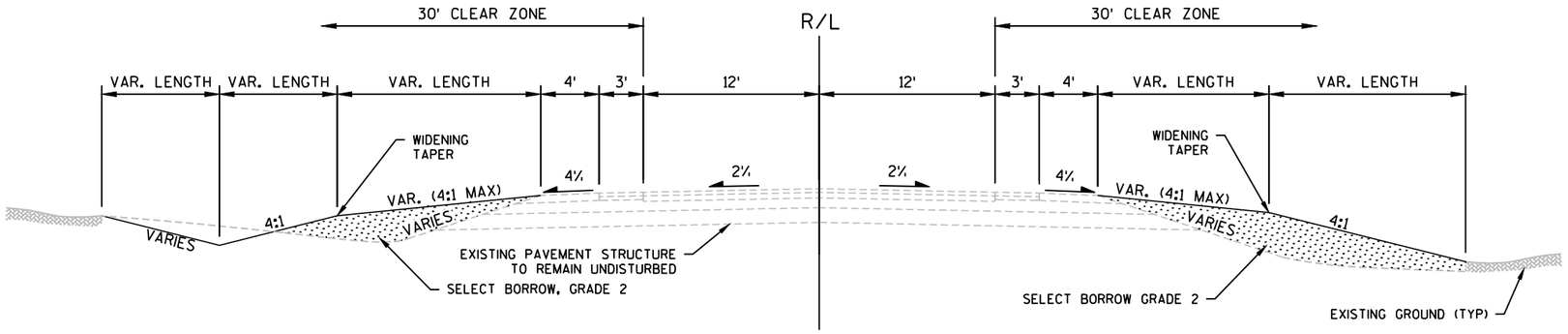
PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	GENERAL NOTES	SHEET	E

2



TYPICAL EXISTING SECTION STH 48

STA. 529+67 - 531+75 (C-03-0060)
STA. 559+48.50 - 566+59.50 (B-03-0204)
STA. 575+25 - 577+80 (C-03-0061)

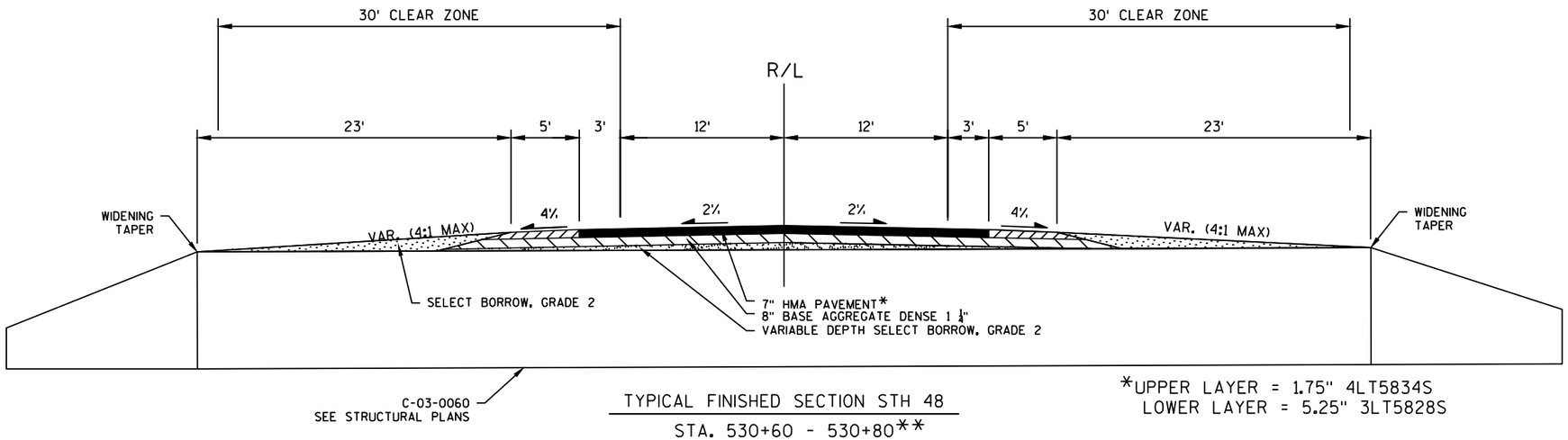


HALF SECTION IN CUT HALF SECTION IN FILL

TRANSITIONAL
TYPICAL FINISHED SECTION STH 48

STA. 529+67.50 - 530+35
STA. 531+23 - 531+75
STA. 575+25 - 575+70 (LEFT SIDE ONLY)

PROJECT NO: 8120-07-73	HWY: 48	COUNTY: BARRON	EXISTING TYPICAL SECTION	SHEET	E

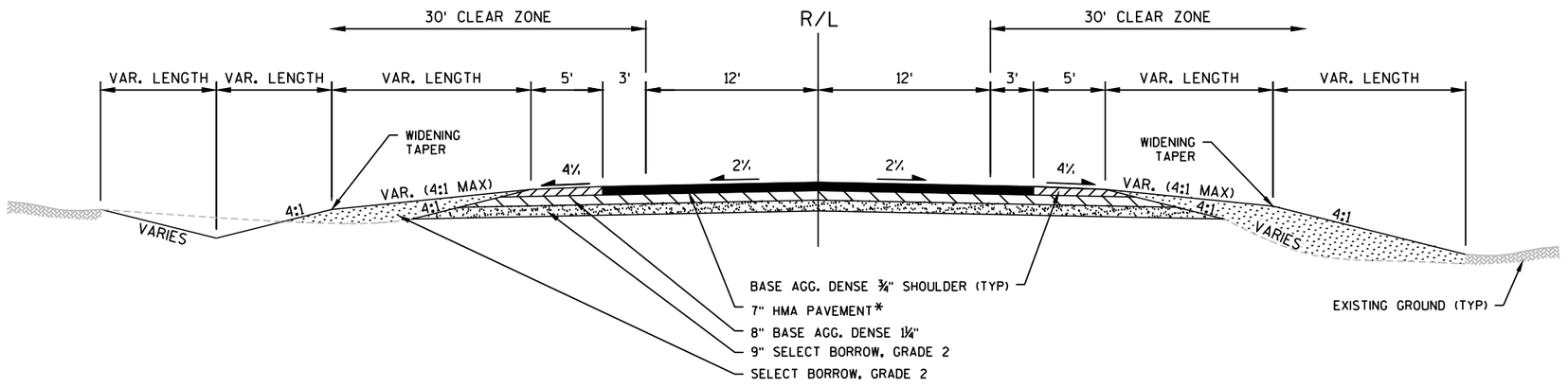


TYPICAL FINISHED SECTION STH 48

STA. 530+60 - 530+80**

*UPPER LAYER = 1.75" 4LT5834S
LOWER LAYER = 5.25" 3LT5828S

**THIS SECTION IS ON TOP
OF BOX CULVERT C-03-0060



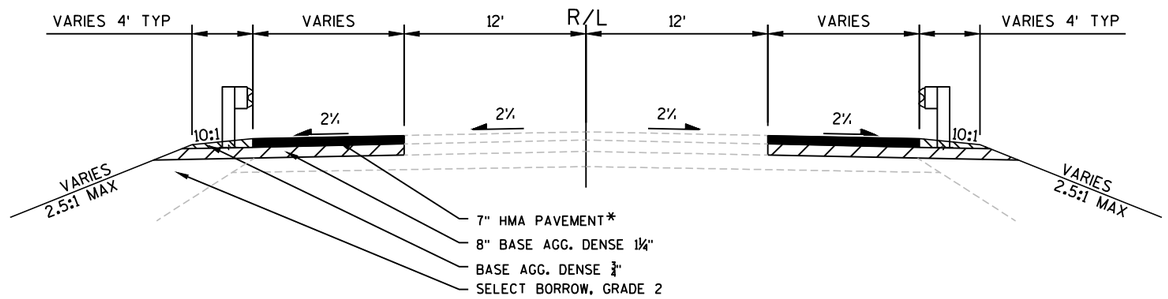
HALF SECTION IN CUT HALF SECTION IN FILL

TYPICAL FINISHED SECTION STH 48

STA. 530+35 - 530+60
STA. 530+80 - 531+23

*UPPER LAYER = 1.75" 4LT5834S
LOWER LAYER = 5.25" 3LT5828S

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	FINISHED TYPICAL SECTIONS	SHEET	E



TYPICAL EXISTING SECTION STH 48
STA. 559+48 - 562+47
STA. 563+75 - 566+60

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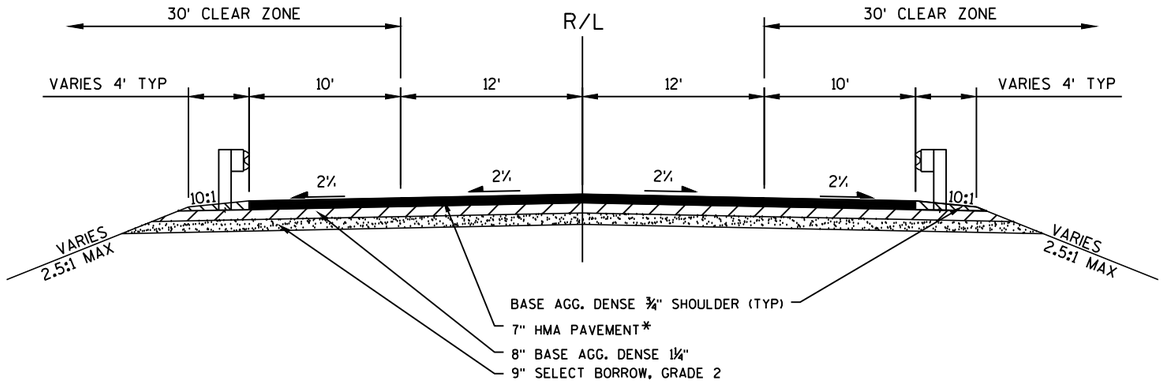
LOWER LAYER = 5.25" 3LT5828S



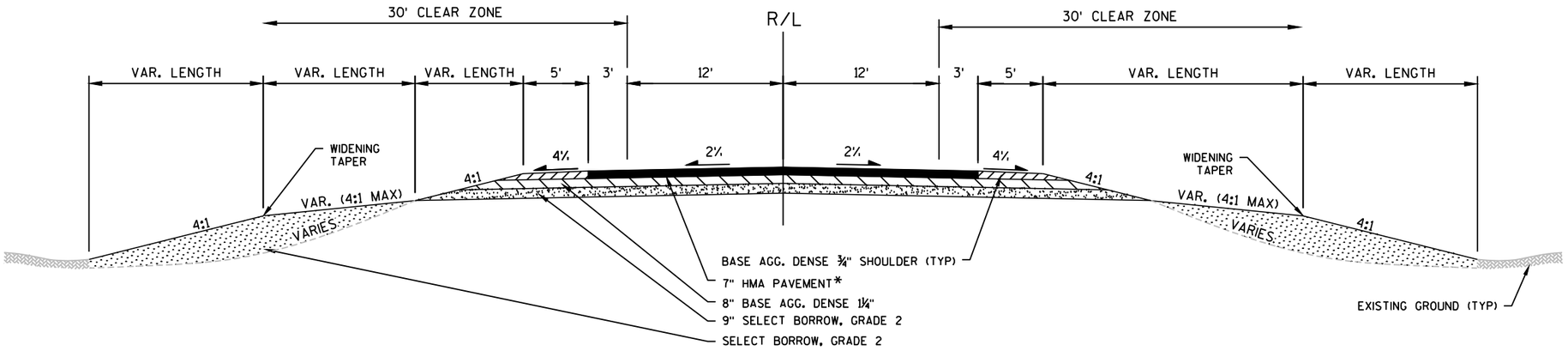
TYPICAL FINISHED SECTION STH 48
STA. 562+47 - 562+72
STA. 563+50 - 563+75

NOTE: BRIDGE (B-03-0204) AND APPROACHES TO BE CONSTRUCTED BETWEEN STA 562+71.50 - 563+48.50

*UPPER LAYER = 1.75" 4LT5834S
LOWER LAYER = 5.25" 3LT5828S

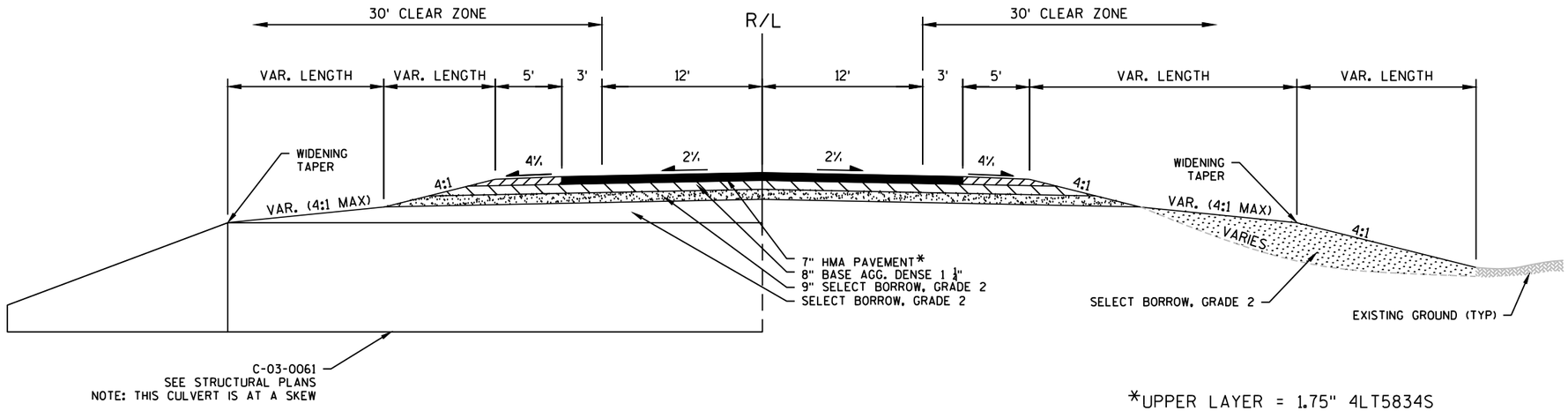
PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	FINISHED TYPICAL SECTIONS	SHEET	E

2



*UPPER LAYER = 1.75" 4LT5834S
LOWER LAYER = 5.25" 3LT5828S

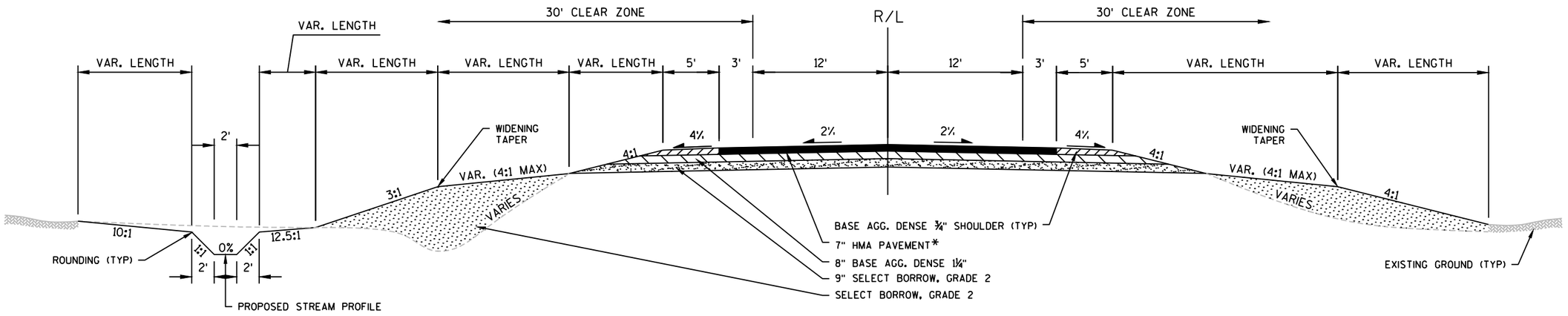
TYPICAL FINISHED SECTION STH 48
STA. 575+70 - 575+84



*UPPER LAYER = 1.75" 4LT5834S
LOWER LAYER = 5.25" 3LT5828S

TYPICAL FINISHED SECTION STH 48
STA. 575+84 - 575+99

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	FINISHED TYPICAL SECTIONS	SHEET	E



TYPICAL FINISHED SECTION STH 48
STA. 575+99 - 576+47
STA. 576+62.50 - 576+80

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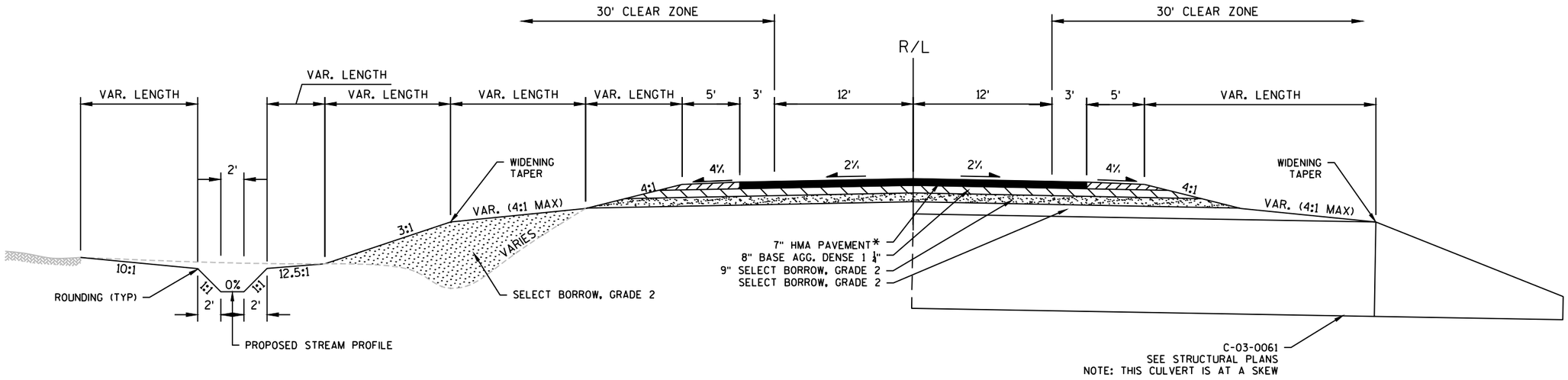
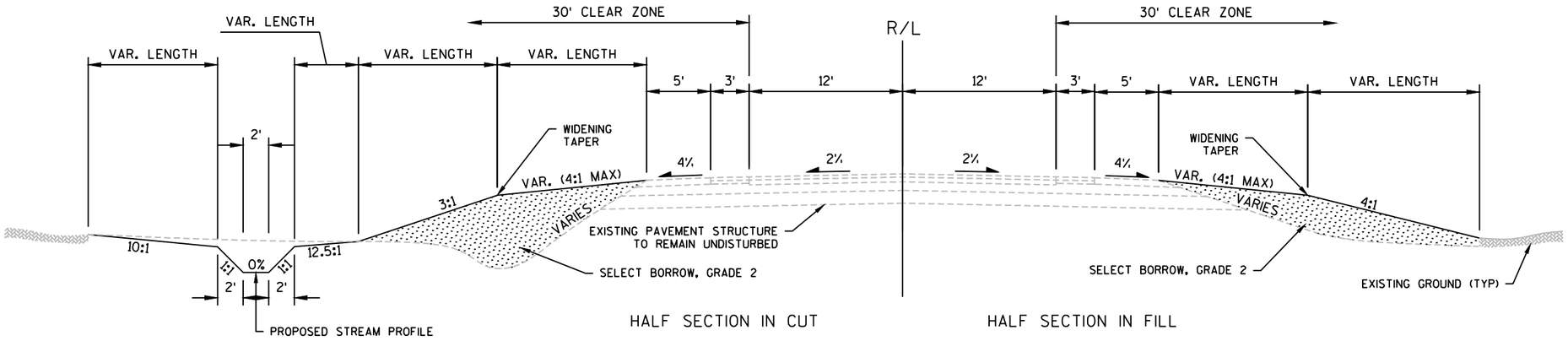
LOWER LAYER = 5.25" 3LT5828S



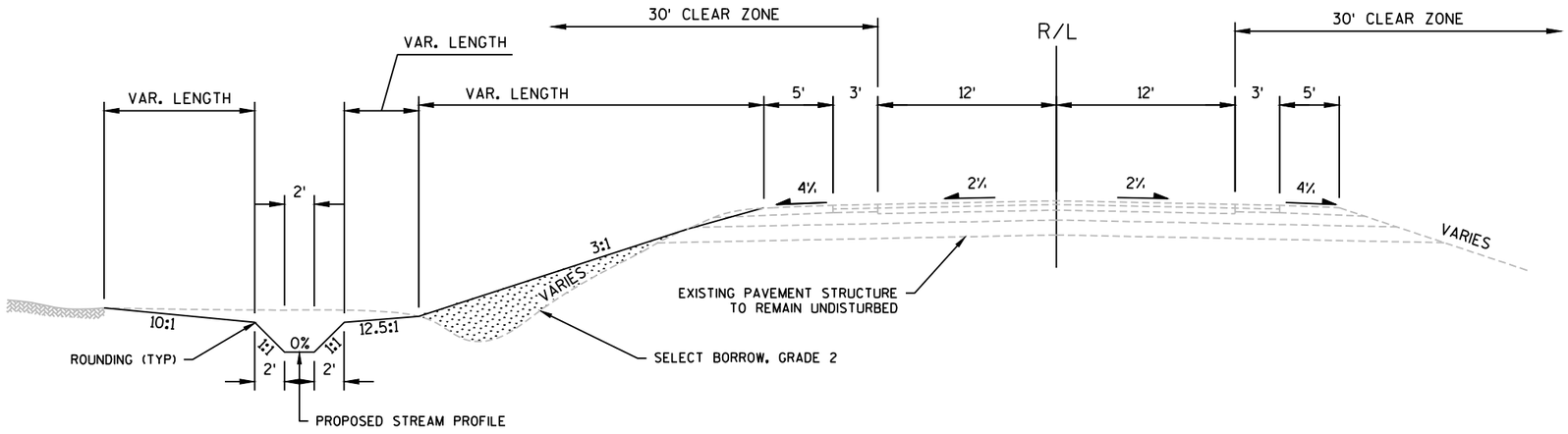
TYPICAL FINISHED SECTION STH 48
STA. 576+47 - 576+62.50

*UPPER LAYER = 1.75" 4LT5834S
LOWER LAYER = 5.25" 3LT5828S

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	FINISHED TYPICAL SECTIONS	SHEET	E

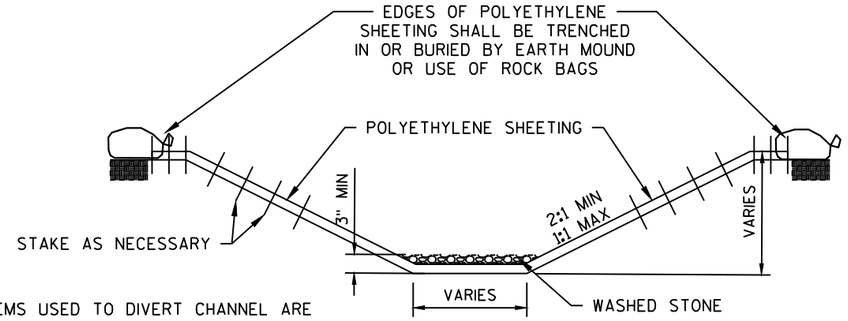


TRANSITIONAL
TYPICAL FINISHED SECTION STH 48
STA. 576+80 - 577+22



TRANSITIONAL
TYPICAL FINISHED SECTION STH 48
STA. 577+22 - 577+80

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	FINISHED TYPICAL SECTIONS	SHEET	E

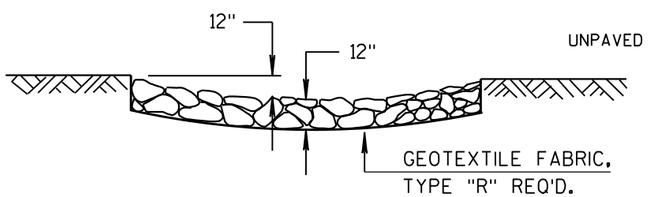


NOTE:
ALL ITEMS USED TO DIVERT CHANNEL ARE INCIDENTAL TO THE BID ITEM "TEMPORARY WATER DIVERSION, C-03-0060" AND TEMPORARY WATER DIVERSION, C-03-0061".

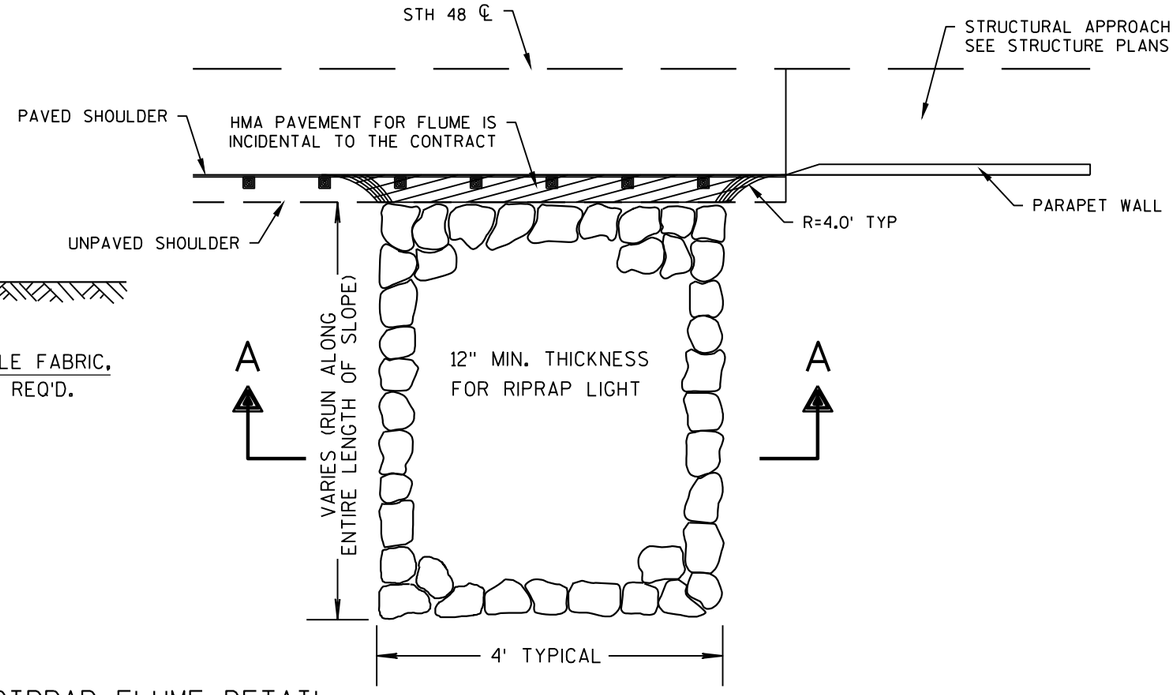
SECTION A-A

TEMPORARY WATER DIVERSION, C-03-0060
TEMPORARY WATER DIVERSION, C-03-0061

LOCATION:
C-03-0060
C-03-0061



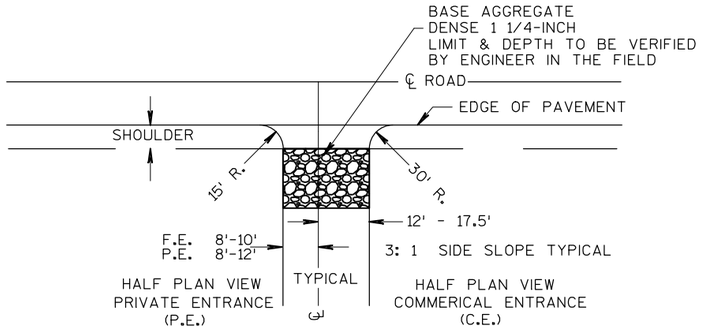
SECTION A-A



RIPRAP FLUME DETAIL

STA 562+70 LEFT & RIGHT

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CONSTRUCTION DETAILS	SHEET	E



PLAN VIEW

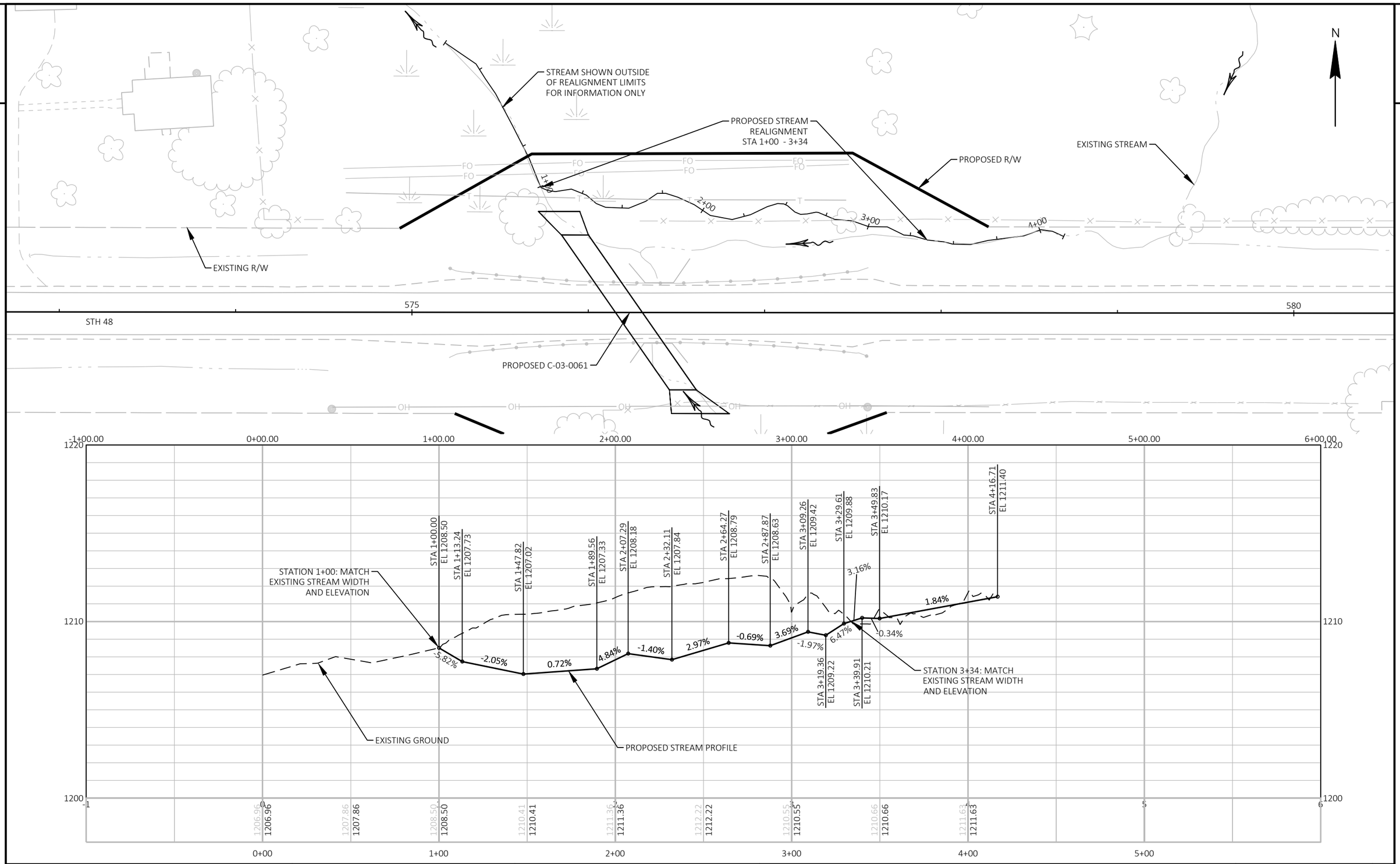
RURAL DRIVEWAY DETAIL

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = _____ ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = _____ACRES

2



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CONSTRUCTION DETAILS - STREAM REALIGNMENT	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_CONST DETAILS.DWG
LAYOUT NAME - CD-3
PLOT DATE : 5/18/2017 12:14 PM
PLOT BY : JENSEN, TRAVIS G
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

C-03-0060 EROSION CONTROL PHASE 1:

- INSTALL EROSION CONTROL
- CONSTRUCT TEMPORARY DIVERSION CHANNEL
- DIVERT WATER INTO TEMPORARY DIVERSION CHANNEL
- REMOVE EXISTING STRUCTURE C-03-0002
- CONSTRUCT STRUCTURE C-03-0060

TRIBUTARY TO ENGLE CREEK

WETLAND BOUDARY

CTH V

N

R/W

TEMPORARY WATER DIVERSION, C-03-0060 (SEE CONST. DETAILS)

PI: 528+42.94

PI: 532+29.83

PI: 533+08.20

528

530

532

STH 48

BEGIN CONSTRUCTION C-03-0060
STA 529+67.50

END CONSTRUCTION C-03-0060
STA 531+75.00

REMOVE EXISTING STRUCTURE
INSTALL C-03-0060

WETLAND BOUDARY

R/W

16TH STREET

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	EROSION CONTROL C-03-0060 - PHASE 1	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_EROSION CONTROL.DWG
LAYOUT NAME - EC-B1-P1

PLOT DATE : 5/18/2017 12:57 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

C-03-0060 EROSION CONTROL PHASE 2:

- DIVERT WATER BACK INTO C-03-0060
- REMOVE TEMPORARY DIVERSION CHANNEL
- STABILIZE TEMPORARY DIVERSION BEYOND SLOPE INTERCEPT
- CONSTRUCT AND FINISH ROADWAY
- INSTALL PERMANENT EROSION CONTROL

TRIBUTARY TO ENGLE CREEK

WETLAND BOUDARY

CTH V

N

R/W

SPECIAL DITCH

TEMPORARY WATER DIVERSION, C-03-0060 SEE CONST. DETAILS

SPECIAL DITCH

PI: 528+42.94

PI: 532+29.83

PI: 533+08.20

528

530

532

STH 48

SPECIAL DITCH

REMOVE EXISTING STRUCTURE INSTALL C-03-0060

R/W

WETLAND BOUDARY

16TH STREET

LEGEND

- SEED, FERTILIZE, AND MULCH
- SALVAGED TOPSOIL WETLAND, SEEDING MIXTURE WETLAND, CERTIFIED WEED-FREE MULCH
- EROSION MAT CLASS I TYPE A
- SILT FENCE
- EROSION BALES
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT
- TURBIDITY BARRIER
- SURFACE WATER FLOW

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	EROSION CONTROL C-03-0060 - PHASE 2	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_EROSION CONTROL.DWG
LAYOUT NAME - EC-B1-P2

PLOT DATE : 5/18/2017 12:57 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

2

TRIBUTARY TO
ENGLE CREEK

N

WETLAND
BOUDARY

BEGIN CONSTRUCTION C-03-0060
STA 529+67.50

R/W

PI: 560+10.63

PI: 563+57.30

PI: 566+80.17

560

562

564

566

STH 48

END CONSTRUCTION C-03-0060
STA 531+75.00

R/W

WETLAND
BOUDARY

LIMITS OF TURBIDITY
BARRIER & SILT FENCE FOR
ALL FOUR QUADRANTS
TO BE DETERMINED
BY ENGINEER IN THE FIELD

REMOVE EXISTING STRUCTURE
INSTALL B-02-0304

B-02-0304 EROSION CONTROL:

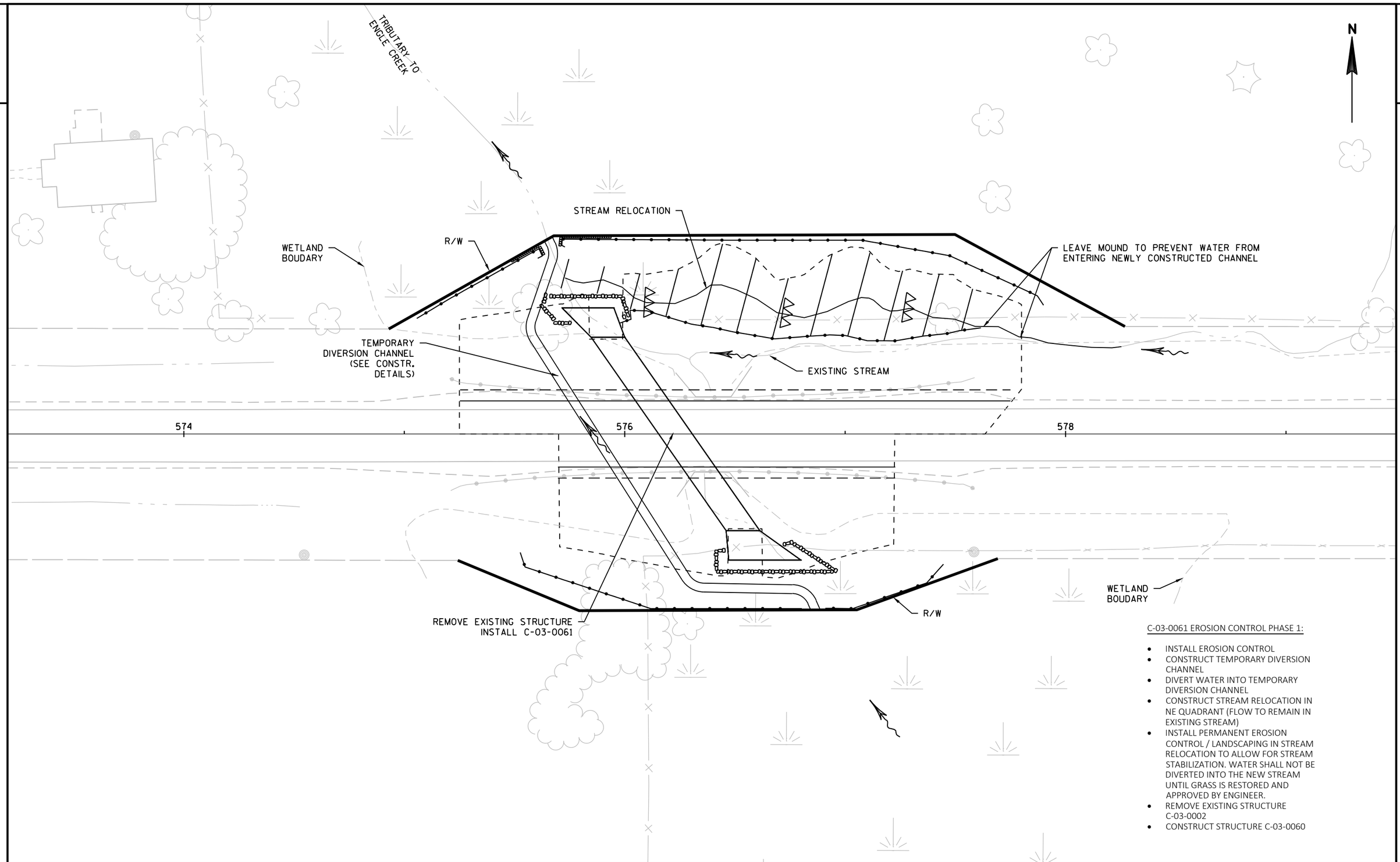
- INSTALL EROSION CONTROL
- REMOVE EXISTING STRUCTURE C-03-0002
- CONSTRUCT STRUCTURE B-02-0304
- CONSTRUCT & FINISH ROADWAY
- INSTALL PERMANENT EROSION CONTROL

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	EROSION CONTROL B-03-0204	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_EROSION CONTROL.DWG
LAYOUT NAME - EC-B2-P1

PLOT DATE : 5/18/2017 12:57 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:50 FT

2



C-03-0061 EROSION CONTROL PHASE 1:

- INSTALL EROSION CONTROL
- CONSTRUCT TEMPORARY DIVERSION CHANNEL
- DIVERT WATER INTO TEMPORARY DIVERSION CHANNEL
- CONSTRUCT STREAM RELOCATION IN NE QUADRANT (FLOW TO REMAIN IN EXISTING STREAM)
- INSTALL PERMANENT EROSION CONTROL / LANDSCAPING IN STREAM RELOCATION TO ALLOW FOR STREAM STABILIZATION. WATER SHALL NOT BE DIVERTED INTO THE NEW STREAM UNTIL GRASS IS RESTORED AND APPROVED BY ENGINEER.
- REMOVE EXISTING STRUCTURE C-03-0002
- CONSTRUCT STRUCTURE C-03-0060

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	EROSION CONTROL C-03-0061 - PHASE 1	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_EROSION CONTROL.DWG
LAYOUT NAME - EC-B3-P1
PLOT DATE : 5/18/2017 12:58 PM
PLOT BY : JENSEN, TRAVIS G
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

C-03-0061 EROSION CONTROL PHASE 2:

- DIVERT WATER BACK INTO C-03-0061
- REMOVE TEMPORARY DIVERSION CHANNEL
- STABILIZE TEMPORARY DIVERSION BEYOND SLOPE INTERCEPT
- DIVERT WATER FROM EXISTING STREAM TO PROPOSED STREAM RELOCATION IN NE QUADRANT.
- CONSTRUCT AND FINISH ROADWAY
- INSTALL PERMANENT EROSION CONTROL

N

TRIBUTARY TO ENGLE CREEK

STREAM RELOCATION

WETLAND BOUDARY

R/W

574

576

578

R/W

REMOVE EXISTING STRUCTURE
INSTALL C-03-0061

WETLAND BOUDARY

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	EROSION CONTROL C-03-0061 - PHASE 2	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_EROSION CONTROL.DWG
LAYOUT NAME - EC-B3-P2

PLOT DATE : 5/18/2017 12:58 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

PI: 528+42.94

PI: 532+29.83

PI: 533+08.20

PI: 534+58.81

PI: 536+78.01

525

530

535

REMOVE 1

REMOVE 2

REMOVE 3

REMOVE 4

PAVEMENT MARKING PER SDD "LONGITUDINAL MARKING (MAINLINE)"

1M

COUNTY V

PI: 560+10.63

PI: 563+57.36

PI: 566+80.17

SIGN

560

565

570

REMOVE 5

REMOVE 6

REMOVE 7

REMOVE 8

PAVEMENT MARKING PER SDD "LONGITUDINAL MARKING (MAINLINE)" AND SDD "SIGNING AND MARKING FOR TWO LANE BRIDGES"

2M

NO PASSING ZONE

W14-3

LEGEND

REMOVE SIGN & POST — X

MOVE SIGN & POST (SEE NOTE) — YM

NOTE: SIGNS & POSTS DESIGNATED AS MOVE SHALL BE MOVED AND THEN PUT BACK INTO THEIR ORIGINAL LOCATION

570

575

580

REMOVE 9

REMOVE 10

REMOVE 11

REMOVE 12

SIGN

SIGN

PAVEMENT MARKING PER SDD "LONGITUDINAL MARKING (MAINLINE)"

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	PERMANENT SIGNING & MARKING	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_S&M.DWG
LAYOUT NAME - SIGNING & MARKING

PLOT DATE : 5/18/2017 11:09 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE A WARNING LIGHT (FLASHING)
- 48 EXISTING SIGN (GRAY)
- M1-6 24"X24" 48 PROPOSED SIGN (BLACK)
- **L1: S1** LOCATION 1: STAGE 1
- (DT#) DETOUR SIGN GROUP #
- (TC#) TRAFFIC CONTROL SIGN GROUP #

CONSTRUCTION AND DETOUR STAGING

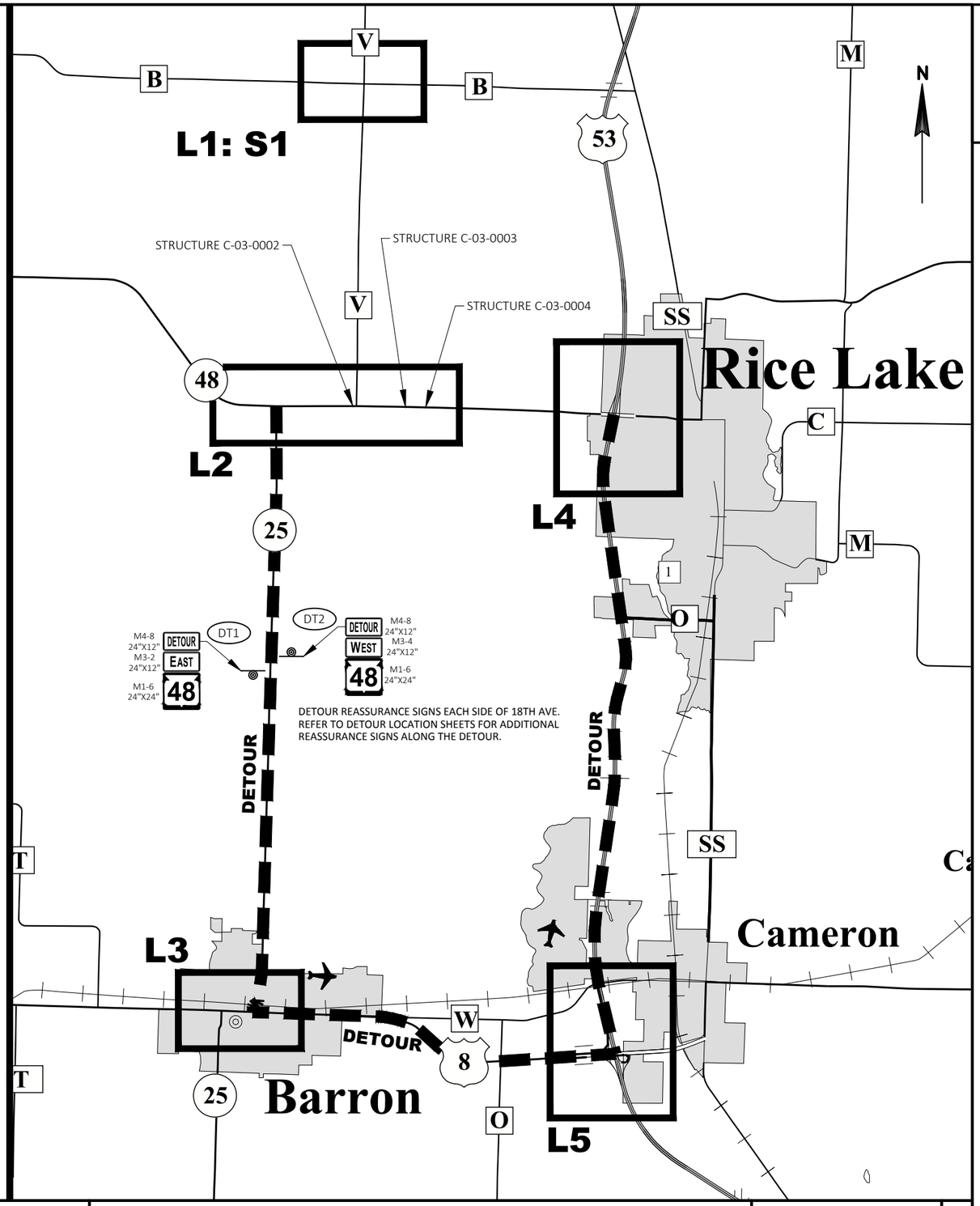
STAGE 1 (S1) INCLUDES THE SIMULTANEOUS REPLACEMENT OF STRUCTURES C-03-0002 AND C-03-0004. DURING THIS STAGE, THERE WILL BE NO ACCESS VIA STH 48 BETWEEN STH 25 AND CTH V. ONCE C-03-0002 and C-03-0004 HAVE BEEN REPLACED AND ARE REOPENED TO TRAFFIC, ADJUST DETOUR SIGNS FOR STAGE 2 AT LOCATIONS L1, L2-1:S1, AND L2-1:S2.

STAGE 2 (S2) INCLUDES THE REPLACEMENT OF STRUCTURE C-03-0003. NO ROAD CLOSURES ARE ALLOWED FOR C-03-0003 UNTIL C-03-0002 AND C-03-0004 ARE REPLACED AND REOPENED TO TRAFFIC.

AFTER PROJECT COMPLETION, REMOVE ALL DETOUR SIGNS AND REESTABLISH PREVIOUSLY EXISTING PERMANENT SIGNS.

GENERAL NOTES

REFER TO STANDARD DETAIL DRAWINGS (SDD) "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DETAIL AND GENERAL NOTES.



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	DETOUR OVERVIEW & GENERAL NOTES	SHEET	E

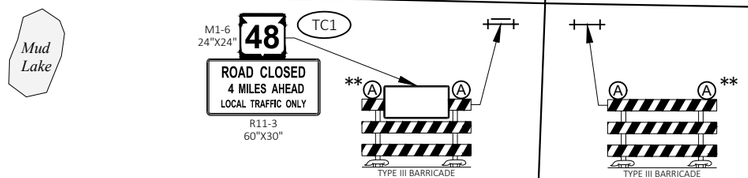
FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_TRAFFIC CONTROL.DWG
LAYOUT NAME - DETOUR OVERVIEW

PLOT DATE : 5/12/2017 3:19 PM PLOT BY : ERICKSON, ZACHARY A PLOT NAME : PLOT SCALE : 1 IN:1.5 MI

2

L1: S1

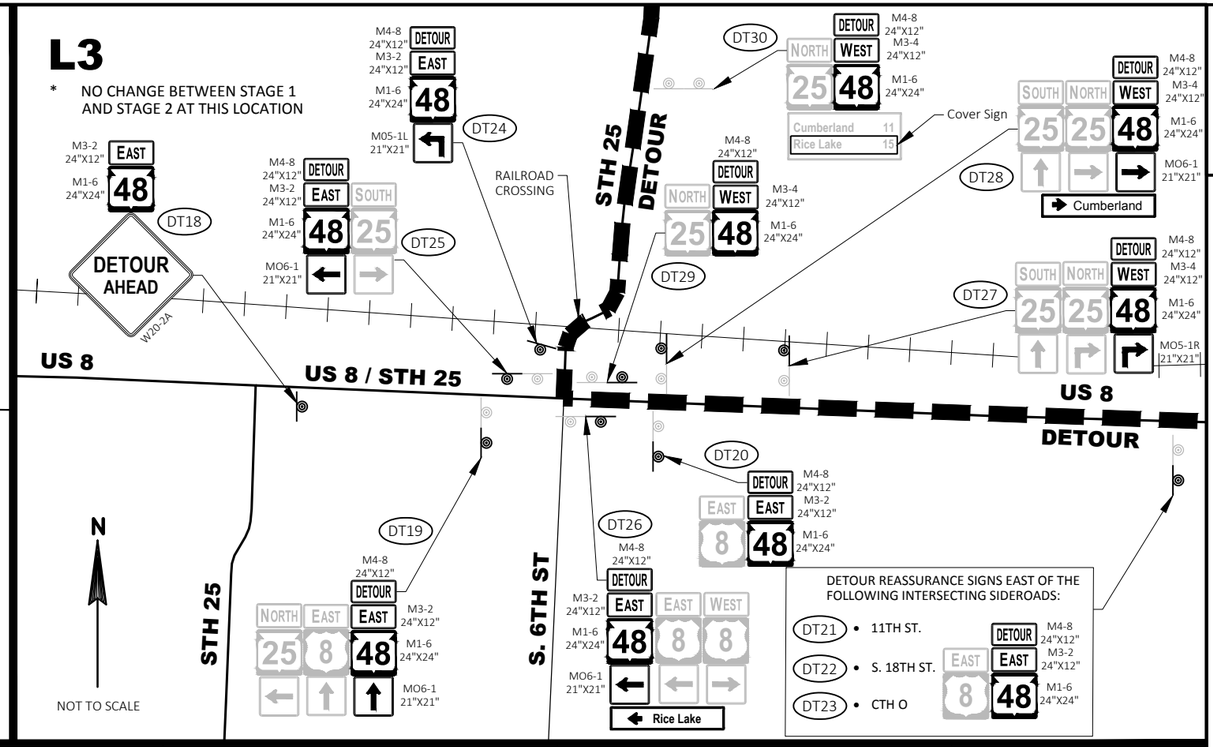
* REMOVE ALL DETOUR SIGNS AND BARRICADES FROM THIS LOCATION FOR STAGE 2



** PLACE BARRICADES OUTSIDE OF DRIVE LANES PER "DETAIL A" OF SDD "BARRICADES AND SIGNS FOR MAIN LINE CLOSURES".

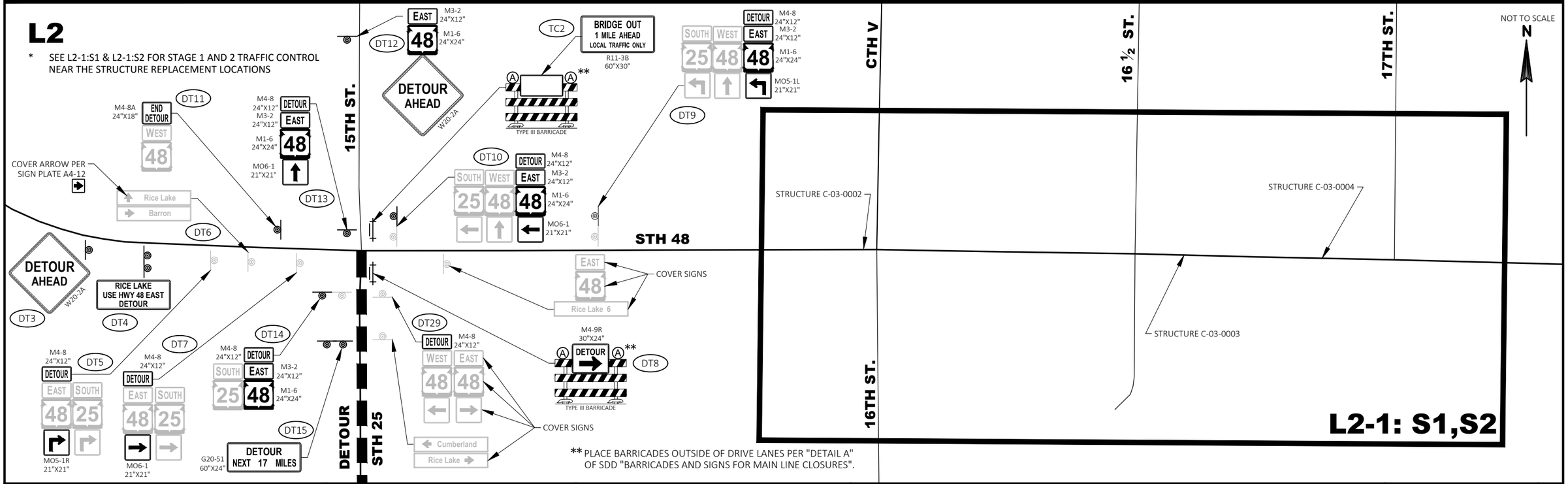
L3

* NO CHANGE BETWEEN STAGE 1 AND STAGE 2 AT THIS LOCATION



L2

* SEE L2-1:S1 & L2-1:S2 FOR STAGE 1 AND 2 TRAFFIC CONTROL NEAR THE STRUCTURE REPLACEMENT LOCATIONS



** PLACE BARRICADES OUTSIDE OF DRIVE LANES PER "DETAIL A" OF SDD "BARRICADES AND SIGNS FOR MAIN LINE CLOSURES".

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	DETOUR LOCATIONS: L1, L2, AND L3	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_TRAFFIC CONTROL.DWG
LAYOUT NAME - L1-L2-L3

PLOT DATE : 5/12/2017 3:19 PM PLOT BY : ERICKSON, ZACHARY A PLOT NAME : PLOT SCALE : ######

L2-1: S1

NOT TO SCALE

N

CTH V

16 1/2 ST

17TH ST

16TH ST

STH 48

TC7 ROAD WORK AHEAD W20-1A

END JCT COUNTY V 48

TC13 ROAD WORK AHEAD W20-1A

TC22 ROAD WORK AHEAD W20-1A

TYPE III BARRICADE

R11-2 48" X 30" ROAD CLOSED

TC6

TC12 ROAD CLOSED 500 FT W20-3D

TC11 ROAD CLOSED 1000 FT W20-3C

TC10 ROAD CLOSED AHEAD W20-3A

TC18

TC19 ROAD CLOSED AHEAD W20-3A

TC20 ROAD CLOSED 1000 FT W20-3C

TC21 ROAD CLOSED 500 FT W20-3D

48

COUNTY V

JCT COUNTY V

STRUCTURE C-03-0003 WORK ZONE

STRUCTURE C-03-0002 WORK ZONE

STRUCTURE C-03-0004 WORK ZONE

JCT COUNTY V

Cover Signs

COUNTY V

TC9 ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60"X30"

TC3 ROAD CLOSED AHEAD W20-3A

TC4 ROAD CLOSED 1000 FT W20-3C

TC5 ROAD CLOSED 500 FT W20-3D

TC15 ROAD CLOSED AHEAD W20-3A

TC16 ROAD CLOSED 1000 FT W20-3C

TC17 ROAD CLOSED 500 FT W20-3D

TC14 ROAD WORK AHEAD W20-1A

TC8 ROAD WORK AHEAD W20-1A

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	DETOUR LOCATION: L2-1:S1	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_TRAFFIC CONTROL.DWG
LAYOUT NAME - L2-1_S1

PLOT DATE : 5/12/2017 3:19 PM PLOT BY : ERICKSON, ZACHARY A PLOT NAME : PLOT SCALE : 1 IN: 600 FT

L2-1: S2

NOT TO SCALE

N

STH 48

CTH V

16 1/2 ST

17TH ST

16TH ST

ROAD WORK AHEAD W20-1A TC7

END JCT COUNTY V 48

M3-2 24"X12" EAST
M1-6 24"X24" 48
DETOUR AHEAD W20-2A DT16

M4-8 24"X12" DETOUR
M3-2 24"X12" EAST
48
MO6-1 21"X21" DT17

COUNTY V

STRUCTURE C-03-0002 WORK ZONE

JCT COUNTY V

ROAD CLOSED AHEAD W20-3A TC23

COUNTY V

ROAD WORK AHEAD W20-1A TC8

TYPE III BARRICADE

R11-2 48" X 30" ROAD CLOSED

ROAD CLOSED 1000 FT W20-3C TC24

ROAD CLOSED 500 FT W20-3D TC25

ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60"X30" TC26 TC27

** PLACE BARRICADES OUTSIDE OF DRIVE LANES PER "DETAIL A" OF SDD "BARRICADES AND SIGNS FOR MAIN LINE CLOSURES".

ROAD WORK AHEAD W20-1A TC13

ROAD WORK AHEAD W20-1A TC22

TC28

STRUCTURE C-03-0003 WORK ZONE

ROAD CLOSED 500 FT W20-3D TC31

ROAD CLOSED 1000 FT W20-3C TC30

ROAD CLOSED AHEAD W20-3A TC29

STRUCTURE C-03-0004 WORK ZONE

ROAD WORK AHEAD W20-1A TC14

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	DETOUR LOCATION: L2-1:S2	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_TRAFFIC CONTROL.DWG
LAYOUT NAME - L2-1_S2

PLOT DATE : 5/12/2017 3:19 PM PLOT BY : ERICKSON, ZACHARY A PLOT NAME : PLOT SCALE : 1 IN: 600 FT

WISDOT/CADDS SHEET 42

2

L4

* NO CHANGE BETWEEN STAGE 1 AND 2 AT THIS LOCATION

DT39
CUMBERLAND USE HWY 48 WEST DETOUR

US 53

DT38
WEST 48 M3-4 36"X18" M1-6 36"X36"
DETOUR AHEAD W20-2A

DT40
DETOUR WEST 48 M4-8 36"X18" M3-4 36"X18" M1-6 36"X36" MO6-1 30"X30"

DT41

EXIT 143 48 Rice Lake Cumberland 1 MILE

EXIT 143 48 Rice Lake Cumberland

Cover "Cumberland"

Rice Lake
Cumberland

WEST 48 M3-4 24"X12" M1-6 24"X24"
TC32
BRIDGE OUT 2 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3B 60"X30"

TYPE III BARRICADE

DETOUR EAST 48 48 M4-8 24"X12" MO6-1 21"X21"
DT42

SOUTH 53 DETOUR WEST 48 M4-8 24"X12" M3-4 24"X12" M1-6 24"X24" MO6-1 21"X21"
DT37

SOUTH 53 DETOUR WEST 48 M4-8 24"X12" M3-4 24"X12" M1-6 24"X24" MO5-1L 21"X21"
DT36

SOUTH 53 WEST 48 NORTH 53 DETOUR M4-8 24"X12" MO5-1L 21"X21"

DT35

NORTH 53

WEST 48
Cumberland 14
COVER SIGNS

STH 48

NORTH 53 EAST 48 SOUTH 53 DETOUR WEST 48 M4-8 24"X12" M3-4 24"X12" M1-6 24"X24" MO5-1R 21"X21"
DT31

DT50 END DETOUR EAST 48 M4-8A 24"X18"

DT49 DETOUR WEST 48 M4-8 24"X12"

DT34
DETOUR AHEAD W20-2A

SOUTH 53 DETOUR WEST 48 M4-8 24"X12" M3-4 24"X12" M1-6 24"X24" MO6-1 21"X21"
DT32

DETOUR WEST 48 M4-8 24"X12" M3-4 24"X12" M1-6 24"X24" MO6-1 21"X21"
DT33

DETOUR (WEST)
DETOUR (EAST)
WEST AVE.

Cumberland
Rice Lake

Cover "Cumberland"

EXIT 143 48 Rice Lake Cumberland DETOUR EAST 48 M4-8 36"X18" M3-2 36"X18" M1-6 36"X36" MO6-2 30"X30"

DT48
Sign located on August St. bridge

WEST 48 M3-4 36"X18" M1-6 36"X36"
DT43
G20-51 60"X24"
DETOUR NEXT 17 MILES

DT47
DETOUR EAST 48 M4-8 36"X18" M3-2 36"X18" M1-6 36"X36" MO5-2R 30"X30"

N

NOT TO SCALE

DT44
DETOUR WEST 48 NORTH 53 M4-8 36"X18" M3-4 36"X18" M1-6 36"X36"
DETOUR REASSURANCE SIGN SOUTH OF MILE MARKER 141

EXIT 143 48 Rice Lake Cumberland 3/4 MILE DETOUR EAST 48 M4-8 36"X18" M3-2 36"X18" M1-6 36"X36"
DT46
Cover "Cumberland"

DT45
NORTH 53 DETOUR EAST 48 M4-8 36"X18" M3-2 36"X18" M1-6 36"X36"
DETOUR REASSURANCE SIGN NORTH OF MILE MARKER 141

L5

* NO CHANGE BETWEEN STAGE 1 AND STAGE 2 AT THIS LOCATION

CTH W

DETOUR (EAST)
DETOUR (WEST)

DT51
EXIT 135 8 Barron Cameron 1 MILE DETOUR WEST 48 M4-8 36"X18" M3-4 36"X18" M1-6 36"X36"

EXIT 135 8 Barron Cameron CUMBERLAND EXIT 135
DT52

69
NORTH 53 DETOUR EAST 48 M4-8 36"X18" M3-2 36"X18" M1-6 36"X36"
DETOUR REASSURANCE SIGN NORTH OF MILE MARKER 136

DETOUR WEST 48 M4-8 36"X18" M3-4 36"X18" M1-6 36"X36" MO6-2 30"X30"
DT53

EAST 8 WEST 8 DETOUR WEST 48 M4-8 24"X12" M3-4 24"X12" M1-6 24"X24" MO6-2 21"X21"
DT55

Cameron
Barron
Cumberland
DT54

Barron
Cumberland
DT64

SOUTH 53 Eau Claire
NORTH 53 Rice Lake

WEST 8 DETOUR WEST 48 M4-8 24"X12" M3-4 24"X12" M1-6 24"X24" MO6-1 21"X21"
DT63

DETOUR WEST 48 M4-8 24"X12" M3-4 24"X12" M1-6 24"X24" MO6-1 21"X21"
DT62

WEST 8 DETOUR WEST 48 M4-8 24"X12" M3-4 24"X12" M1-6 24"X24" MO6-1 21"X21"
DT56

DETOUR (WEST)
US 8
DETOUR (EAST)

DETOUR EAST NORTH 53 48 M4-8 24"X12" M3-2 24"X12" M1-6 24"X24" MO6-1 21"X21"
DT60

DETOUR AHEAD W20-2A
DT61

DETOUR WEST 48 M4-8 24"X12" M3-2 24"X12" M1-6 24"X24" MO6-1 21"X21"
DT57

DETOUR EAST 48 M4-8 24"X12" M3-2 24"X12" M1-6 24"X24" MO6-1 21"X21"
DT58

DETOUR EAST 48 M4-8 24"X12" M3-2 24"X12" M1-6 24"X24" MO6-2 21"X21"
DT59

NORTH 53 Rice Lake
SOUTH 53 Eau Claire

EAST NORTH 53 Rice Lake

EAST 48 NORTH 53 SOUTH 53 M4-8 24"X12" M3-2 24"X12" M1-6 24"X24" MO6-1 21"X21"

US 53

EXIT 135 8 Barron Cameron CUMBERLAND EXIT 135 DETOUR WEST 48 M4-8 36"X18" M3-4 36"X18" M1-6 36"X36" MO6-2 30"X30"
68

EXIT 135 8 Barron Cameron 1 MILE DETOUR WEST 48 M4-8 36"X18" M3-4 36"X18" M1-6 36"X36"
67

CUMBERLAND USE HWY 48 WEST DETOUR
66

48 M1-6 36"X36"
DETOUR AHEAD W20-2A
65

N

NOT TO SCALE

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	DETOUR LOCATIONS: L4 & L5	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_TRAFFIC CONTROL.DWG
LAYOUT NAME - L4-L5

PLOT DATE : 5/12/2017 3:19 PM PLOT BY : ERICKSON, ZACHARY A PLOT NAME : PLOT SCALE : ######

CLEARING

LOCATION	201.0105 STA
TREE: 564+32L, 564+71L, 575+62L, 577+45L	1
TOTAL 0010	1

GRUBBING

LOCATION	201.0205 STA
TREE: 564+32L, 564+71L, 575+62L, 577+45L	1
TOTAL 0010	1

REMOVING GUARDRAIL

STATION	TO	STATION	LOCATION	204.0165 LF	REMARKS
529+63	-	531+87	L & R	456	C-03-0002
562+10	-	564+16	L & R	427	C-03-0003
575+23	-	577+56	L & R	478	C-03-0004
			TOTAL 0010	1361	

REMOVING FENCE

STATION	TO	STATION	LOCATION	204.0170 LF
561+30	-	562+72	LEFT	142
576+08	-	577+50	RIGHT	142
576+28	-	578+00	LEFT	172
			TOTAL 0010	456

EARTHWORK SUMMARY TABLE

ROADWAY	(1) UNCLASSIFIED EXCAVATION CY	(2) USEABLE MATERIAL CY	(3) EXPANDED FILL CY	(4) 208.0100 BORROW CY	(5) UNSUITABLE WASTE CY	205.0400 EXCAVATION MARSH CY	(6) EXCAVATION BELOW SUBGRADE CY	(7) 208.1100 SELECT BORROW, GRADE 2 CY
48: C-03-0060	280	233	828	0	47	0	0	728
48: B-02-0304	597	508	888	0	89	0	0	462
48: C-03-0061	577	501	1153	0	76	0	0	825
PROJECT TOTALS:	1454	1242	2868	0	212	0	0	2014

(1) UNCLASSIFIED EXCAVATION FROM C3D SURFACES (INCLUDES EXISTING PAVEMENT IF WITHIN CUT LIMIT)
(2) USEABLE MATERIAL = USEABLE UNCLASSIFIED EXCAVATION + EBS
(3) EXPANDED FILL = REQUIRED FILL MATERIAL = FILL + EBS FILL (VOLUMES ARE EXPANDED)
(4) ?????BORROW EXCAVATION = EXPANDED FILL - USEABLE MATERIAL??????
(5) UNSUITABLE WASTE IS SURPLUS PAVEMENT MATERIAL UNSUITABLE FOR USE AS FILL (QUANTITY INCLUDED IN UNCLASSIFIED).
(6) EXCAVATION BELOW SUBGRADE IS NOT USED TO BALANCE EARTHWORK. QUANTITY IS INCLUDED AND PAID FOR IN THE ITEM OF COMMON EXCAVATION. IT IS USED FOR PREPARING ROADWAY FOUNDATION (REMOVING PAVEMENT WITHIN 2' OF FG THAT IS NOT REMOVED UNDER UNCLASSIFIED.
(7) SELECT BORROW = REQUIRED EMBANKMENT MATERIAL (EXPANDED FILL - USEABLE MATERIAL) + PAVEMENT SUBBASE MATERIAL

FINISHING ROADWAY (8120-07-73)

LOCATION	213.0100 EACH
STH 48	1
TOTAL 0010	1

BASE AGGREGATE DENSE 3/4-INCH

STATION	TO	STATION	LOCATION	305.0110 TON
530+35	-	531+24	C-03-0060	23
559+48.5	-	566+60	B-02-0304	310
575+70	-	576+80	C-03-0061	28
			TOTAL 0010	361

BASE AGGREGATE DENSE 1 1/4-INCH

STATION	TO	STATION	LOCATION	305.0120 TON
530+35	-	531+24	C-03-0060	205
559+49	-	566+60	B-02-0304	724
		561+15	FIELD ENTRANCE - L	14
575+70	-	576+80	C-03-0061	253
			TOTAL 0010	1196

ADDITIONAL QUANTITY SHOWN IN STRUCTURE PLANS

TACK COAT

STATION	TO	STATION	LOCATION	455.0605 GAL
530+35	-	531+24	C-03-0060	53
559+49	-	566+60	B-03-0204	215
575+70	-	576+80	C-03-0061	66
			TOTAL 0010	335

HMA PAVEMENT 3 LT 58-28 S

STATION	TO	STATION	LOCATION	460.5223 TON
530+35	-	531+24	C-03-0060	87
559+49	-	566+60	B-03-0204	352
575+70	-	576+80	C-03-0061	108
			TOTAL 0010	547

HMA PAVEMENT 4 LT 58-34 S

STATION	TO	STATION	LOCATION	460.5244 TON
530+35	-	531+24	C-03-0060	29
559+49	-	566+60	B-03-0204	117
575+70	-	576+80	C-03-0061	36
			TOTAL 0010	182

RIPRAP LIGHT

STATION	LOCATION	606.0100 CY	REMARKS
562+70	B-02-0304 WING 1	2	RIPRAP FLUME
562+70	B-02-0304 WING 2	3	RIPRAP FLUME
	TOTAL 0010	6	

3

MGS GUARDRAIL 3

LOCATION	614.2300 LF	REMARKS
B-02-0304	54	NW QUAD
B-02-0304	99	SW QUAD
B-02-0304	99	NE QUAD
B-02-0304	54	SE QUAD
TOTAL 0010	306	

MGS THRIE BEAM TRANSITION

LOCATION	614.2500 LF	REMARKS
B-02-0304	39	NW QUAD
B-02-0304	39	SW QUAD
B-02-0304	39	NE QUAD
B-02-0304	39	SE QUAD
TOTAL 0010	156	

MGS GUARDRAIL TERMINAL EAT

LOCATION	614.2610 EACH	REMARKS
B-02-0304	1	NW QUAD
B-02-0304	1	SW QUAD
B-02-0304	1	NE QUAD
B-02-0304	1	SE QUAD
TOTAL 0010	4	

3

FENCE CHAIN LINK 6-FT

LOCATION	616.0206 LF	REMARKS
C-03-0060	73	N & S ENDWALL
C-03-0061	70	N & S ENDWALL
TOTAL 0010	143	

MAINTENANCE AND REPAIR OF HAUL ROADS (8120-07-73)

LOCATION	618.0100 EACH
8120-07-73	1
TOTAL 0010	1

MOBILIZATION

LOCATION	619.1000 EACH
8120-07-73	1
TOTAL 0010	1

WATER

LOCATION	624.0100 MGAL
8120-07-73	23
UNDISTRIBUTED	2
TOTAL 0010	25

TOPSOIL SUMMARY

STATION	TO	STATION	LOCATION	SALVAGED TOPSOIL 625.0500 SY	SALVAGED TOPSOIL WETLAND SPV.0180.01 SY	REMARKS
530+35		531+24	C-03-0060	1568		
559+49		566+60	B-02-0304	1850		
575+70		576+80	C-03-0061	1743	626	STREAM RELOCATION AREA
			TOTAL 0010	5162	626	

EROSION BALES

LOCATION	628.1104 EACH	EC PHASE	REMARKS
C-03-0060	18	1	SOUTH SIDE
B-02-0304		--	
C-03-0061	19	1	NORTH SIDE
UNDISTRIBUTED	10	--	
TOTAL 0010	47		

SEED & FERTILIZER

STATION	TO	STATION	LOCATION	MULCHING 627.0200 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 10 630.0110 LB	SEEDING MIXTURE NO. 60 630.0160 LB	SEEDING MIXTURE WETLAND SPV.0085.01 LB	CERTIFIED WEED-FREE MULCH SPV.0180.02 SY
530+35		531+24	C-03-0060	1568	1	21			
559+49		566+60	B-02-0304	1612	1	27			
575+70		576+80	C-03-0061	1743	1	24	8	2	626
			UNDISTRIBUTED	100	1	10	2	1	25
			TOTAL 0010	5024	5	82	10	3	651

SILT FENCE SUMMARY

STATION	TO	STATION	LOCATION	SILT FENCE 628.1504 LF	SILT FENCE MAINTENANCE 628.1520 LF	EC PHASE	REMARKS
526+60	-	531+82	LEFT	227	227	1	C-03-0060
526+60	-	531+82	RIGHT	245	245	1	C-03-0060
526+90	-	531+82	LEFT	102	102	2	C-03-0060
526+90	-	531+82	RIGHT	103	103	2	C-03-0060
526+90	-	531+82	UNDISTRIBUTED	47	47	--	C-03-0060
559+43	-	566+62	LEFT	489	489	--	B-02-0304
559+43	-	566+62	RIGHT	607	607	--	B-02-0304
559+43	-	566+62	UNDISTRIBUTED	77	77	--	B-03-0204
575+10	-	577+90	LEFT	471	471	1	C-03-0061
575+10	-	577+90	RIGHT	195	195	1	C-03-0061
575+10	-	577+90	UNDISTRIBUTED	47	47	--	C-03-0061
			TOTAL 0010	2610	2610		

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 EACH
C-03-0060	2
B-02-0304	2
C-03-0061	2
UNDISTRIBUTED	1
TOTAL 0010	7

MOBILIZATIONS EMERGENCY EROSION CONTROL

LOCATION	628.1910 EACH
C-03-0060	1
B-02-0304	1
C-03-0061	1
UNDISTRIBUTED	1
TOTAL 0010	4

EROSION MAT CLASS I TYPE A

LOCATION	628.2002 SY	REMARKS
B-02-0304	380	BEHIND TURBIDITY BARRIER
UNDISTRIBUTED	40	
TOTAL 0010	420	

TURBIDITY BARRIERS

LOCATION	628.6005 SY
B-02-0304	236
UNDISTRIBUTED	30
TOTAL 0010	266

MOVING SIGNS TYPE II

MESSAGE	STATION	SIGN NUMBER	638.2102 EACH	SIDE
COUNTY V, LEFT ARROW	532+30	1M	1	R
NO PASSING ZONE	563+80	2M	1	R
		TOTAL 0010	2	

REMOVING SMALL SIGN SUPPORTS

STATION	SIGN NUMBER	638.3000 EACH	SIDE
530+60	1	1	L
530+90	2	1	L
530+60	3	1	R
530+90	4	1	R
562+96	5	1	L
563+26	6	1	L
562+96	7	1	R
563+26	8	1	R
576+25	9	1	L
576+55	10	1	L
576+25	11	1	R
576+55	12	1	R
	TOTAL 0010	12	

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 LF	REMARKS
530+05	L & R	16	C-03-0060
530+45	L & R	16	C-03-0060
530+98	L	8	C-03-0060
531+40	L	8	C-03-0060
576+10	L	8	C-03-0061
576+72	L	8	C-03-0061
577+30	L	8	C-03-0061
UNDISTRIBUTED	--	16	--
	TOTAL 0010	88	

REMOVING SIGNS TYPE II

STATION	SIGN NUMBER	638.2602 EACH	SIDE
530+60	1	1	L
530+90	2	1	L
530+60	3	1	R
530+90	4	1	R
562+96	5	1	L
563+26	6	1	L
562+96	7	1	R
563+26	8	1	R
576+25	9	1	L
576+55	10	1	L
576+25	11	1	R
576+55	12	1	R
	TOTAL 0010	12	

MOVING SMALL SIGN SUPPORTS

MESSAGE	STATION	SIGN NUMBER	638.4000 EACH	SIDE
COUNTY V, LEFT ARROW	532+30	1M	1	R
NO PASSING ZONE	563+80	2M	1	R
		TOTAL 0010	2	

FIELD OFFICE TYPE C

LOCATION	642.5201 EACH
8120-07-73	1
TOTAL 0010	1

TRAFFIC CONTROL (8120-07-73)

LOCATION	643.0100 EACH
Project 8120-07-73	1
TOTAL 0010	1

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BARRICADES & LIGHTS

DETOUR LAYOUT	STAGE	DAYS	BARRICADES	LIGHTS	TRAFFIC CONTROL BARRICADES TYPE III 643.0420 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 DAY	LOCATION
L1	S1	73	2	4	146	292	INTERSECTION OF CTH V/CTH B
L2	S1, S2	138	2	4	276	552	INTERSECTION OF STH 48/STH 25
L2-1	S1	73	14	20	1022	1460	INTERSECTION OF STH 48/CTH V (C-03-0060)
L2-1	S1	73	14	20	1022	1460	W OF INTERSECTION OF STH 48/17TH ST (C-03-0061)
L2-1	S2	65	2	4	130	260	INTERSECTION OF STH 48/CTH V
L2-1	S2	65	14	20	910	1300	INTERSECTION OF STH 48/16½ ST (B-03-0204)
L4	S1, S2	138	1	2	138	276	INTERSECTION OF STH 48/WEST AVENUE
				TOTAL 0010	3644	5600	

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TRAFFIC CONTROL SIGNS

TRAFFIC CONTROL SIGN GROUP #	DETOUR LAYOUT	STAGE	SIGNS	DAYS	SIGN CODES(S)	DESCRIPTION	643.0900 DAY	LOCATION
TC1	L1	S1	1	73	M1-6	48	73	SOUTH OF INT OF CTH B/CTH V ON BARRICADE
			1	73	R11-3	ROAD CLOSED 4 MILES AHEAD	73	
TC2	L2	S1, S2	1	138	R11-3B	BRIDGE OUT 1 MILE AHEAD	138	EAST OF INT OF STH 48/STH 25 ON BARRICADE
TC3			1	73	W20-3A	ROAD CLOSED AHEAD	73	
TC4	L2-1	S1	1	73	W20-3C	ROAD CLOSED 1000 FT	73	ROAD CLOSED AHEAD SERIES WEST OF C-03-0060 CLOSURE
TC5			1	73	W20-3D	ROAD CLOSED 500 FT	73	
TC6	L2-1	S1	4	73	R11-2	ROAD CLOSED	292	ON BARRICADE SETS (4 TOTAL) EACH SIDE OF C-03-0060
TC7	L2-1	S1, S2	1	138	W20-1A	ROAD WORK AHEAD	138	CTH V
TC8	L2-1	S1, S2	1	138	W20-1A	ROAD WORK AHEAD	138	16TH ST
TC9	L2-1	S1	1	73	R11-3	ROAD CLOSED 0.5 MILES AHEAD	73	EAST OF INT OF STH 48/CTH V, ON BARRICADES
TC10			1	73	W20-3A	ROAD CLOSED AHEAD	73	
TC11	L2-1	S1	1	73	W20-3C	ROAD CLOSED 1000 FT	73	ROAD CLOSED AHEAD SERIES EAST OF C-03-0060 CLOSURE
TC12			1	73	W20-3D	ROAD CLOSED 500 FT	73	
TC13	L2-1	S1, S2	1	138	W20-1A	ROAD WORK AHEAD	138	16 1/2 STREET, NORTH OF STH 48
TC14	L2-1	S1, S2	1	138	W20-1A	ROAD WORK AHEAD	138	16 1/2 STREET, SOUTH OF STH 48
TC15			1	73	W20-3A	ROAD CLOSED AHEAD	73	
TC16	L2-1	S1	1	73	W20-3C	ROAD CLOSED 1000 FT	73	ROAD CLOSED AHEAD SERIES WEST OF C-03-0061 CLOSURE
TC17			1	73	W20-3D	ROAD CLOSED 500 FT	73	
TC18	L2-1	S1	4	73	R11-2	ROAD CLOSED	292	ON BARRICADE SETS (4 TOTAL) EACH SIDE OF C-03-0061
TC19			1	73	W20-3A	ROAD CLOSED AHEAD	73	
TC20	L2-1	S1	1	73	W20-3C	ROAD CLOSED 1000 FT	73	ROAD CLOSED AHEAD SERIES EAST OF C-03-0061 CLOSURE
TC21			1	73	W20-3D	ROAD CLOSED 500 FT	73	
TC22	L2-1	S1, S2	1	138	W20-1A	ROAD WORK AHEAD	138	17TH STREET
TC23			1	65	W20-3A	ROAD CLOSED AHEAD	65	
TC24	L2-1	S2	1	65	W20-3C	ROAD CLOSED 1000 FT	65	ROAD CLOSED AHEAD SERIES WEST OF B-03-0204 CLOSURE
TC25			1	65	W20-3D	ROAD CLOSED 500 FT	65	
TC26	L2-1	S2	1	65	R11-2	ROAD CLOSED	65	EAST OF INT OF STH 48/CTH V ON BARRICADES
TC27	L2-1	S2	1	65	R11-3	ROAD CLOSED 0.5 MILES AHEAD	65	
TC28	L2-1	S2	4	65	R11-2	ROAD CLOSED	260	ON BARRICADES SETS (4 TOTAL) EACH SIDE OF B-03-0204
TC29			1	65	W20-3A	ROAD CLOSED AHEAD	65	
TC30	L2-1	S2	1	65	W20-3C	ROAD CLOSED 1000 FT	65	ROAD CLOSED AHEAD SERIES EAST OF B-03-0204 CLOSURE
TC31			1	65	W20-3D	ROAD CLOSED 500 FT	65	
			1	138	M3-4	WEST	138	
TC32	L4	S1, S2	1	138	M1-6	48	138	EAST OF INT OF 48/WEST AVE ON BARRICADE
			1	138	M3-4	BRIDGE OUT 2 MILES AHEAD	138	

TOTAL 0010 3701

TRAFFIC CONTROL COVERING SIGNS TYPE I

LAYOUT	STAGE	SIGN	LOCATION	643.0910 EACH
L4	S1, S2	CUMBERLAND	ON SOUTHBOUND US 53, AHEAD OF EXIT 143	2
L4	S1, S2	CUMBERLAND	ON NORTHBOUND US 53, AHEAD OF EXIT 143	2
			TOTAL 0010	4

TRAFFIC CONTROL COVERING SIGNS TYPE II

LAYOUT	STAGE	SIGN	LOCATION	643.0920 EACH
L2	S1, S2	J2-1 (EAST, 48, RIGHT ARROW)	NB STH 25, SOUTH OF STH 48/STH 25 INT	1
L2	S1, S2	D1-1 (RICE LAKE, RIGHT ARROW)	NB STH 25, SOUTH OF STH 48/STH 25 INT	1
L2	S1, S2	J4-1, D2-1 (EAST, 48, RICE LAKE 6)	EB STH 48, EAST OF STH 48/STH 25 INT	2
L3	S1, S2	D2-2 BOTTOM LINE ONLY (RICE LAKE 15)	NB STH 25, NORTH OF US 8/STH 25 INT	1
L4	S1, S2	J4-1, D2-1 (WEST,48,CUMBERLAND 14)	WB STH 48, WEST OF STH 48/WEST AVE INT	2
L4	S1, S2	D1-1, (CUMBERLAND, RIGHT ARROW)	ON SB US 53 OFF RAMP TO EXIT 143	1
L4	S1, S2	D1-1, (CUMBERLAND, LEFT ARROW)	ON NB US 53 OFF RAMP TO EXIT 143	1
			TOTAL 0010	9

TRAFFIC CONTROL DETOUR (8120-07-73)

LOCATION	643.2000 EACH
Project 8120-07-73	1
TOTAL 0010	1

TRAFFIC CONTROL DETOUR SIGNS

CATEGORY	DETOUR SIGN GROUP #	DETOUR LAYOUT	LOCATION	STAGE	SIGNS	DAYS	SIGN CODE	MESSAGE	SIZE (IN)	643.3000 DAY
0010	DT1	OVERVIEW	STH 25 SB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S3	1	138	M3-2	EAST	24 X 12	138
				S1, S4	1	138	M1-6	48	24 X 24	138
0010	DT2	OVERVIEW	STH 25 NB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S3	1	138	M3-4	WEST	24 X 12	138
				S1, S4	1	138	M1-7	48	24 X 24	138
0010	DT3	L2	STH 48 EB	S1, S2	1	138	W20-2A	DETOUR AHEAD	48 X 48	138
0010	DT4	L2	STH 48 EB	S1, S2	1	138	--*	RICE LAKE USE HWY 48 EAST DETOUR	90 X 36	138
0010	DT5	L2	STH 48 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	MO5-1R	ADV. ARROW (RIGHT TURN)	21 X 21	138
0010	DT6	L2	STH 48 EB	S1, S2	1	138	A4-12	COVER ARROW	9.5 X 9.5	138
0010	DT7	L2	STH 48 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
0010				S1, S2	1	138	MO6-1	ARROW (RIGHT)	21 X 21	138
0010	DT8	L2	STH 48 EB	S1, S2	1	138	M4-9R	DETOUR (RA)	30 X 24	138
0010	DT9	L2	STH 48 WB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
0010				S1, S2	1	138	M3-2	EAST	24 X 12	138
0010				S1, S2	1	138	M1-6	48	24 X 24	138
0010				S1, S2	1	138	MO5-1L	ADV. ARROW (LEFT TURN)	21 X 21	138
0010	DT10	L2	STH 48 WB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
0010				S1, S2	1	138	M3-2	EAST	24 X 12	138
0010				S1, S2	1	138	M1-6	48	24 X 24	138
0010				S1, S2	1	138	MO6-1	ARROW (LEFT)	21 X 21	138
0010	DT11	L2	STH 48 WB	S1, S2	1	138	M4-8A	END DETOUR	24 X 18	138

TRAFFIC CONTROL DETOUR SIGNS

CATEGORY	DETOUR SIGN GROUP #	DETOUR LAYOUT	LOCATION	STAGE	SIGNS	DAYS	SIGN CODE	MESSAGE	SIZE (IN)	643.3000 DAY
0010	DT12	L2	15TH ST SB	S1, S2	1	138	M3-2	EAST	24 X 12	138
0010				S1, S2	1	138	M1-6	48	24 X 24	138
0010				S1, S2	1	138	W20-2A	DETOUR AHEAD	48 X 48	138
0010	DT13	L2	15TH ST SB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
0010				S1, S2	1	138	M3-2	EAST	24 X 12	138
0010				S1, S2	1	138	M1-6	48	24 X 24	138
0010				S1, S2	1	138	MO6-1	ARROW (UP)	21 X 21	138
0010	DT14	L2	STH 25 SB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
0010				S1, S2	1	138	M3-2	EAST	24 X 12	138
0010				S1, S2	1	138	M1-6	48	24 X 24	138
0010	DT15	L2	STH 25 SB	S1, S2	1	138	G20-51	DETOUR NEXT 17 MILES	60 X 24	138
0010	DT16	L2-1	CTH V SB	S2	1	65	M3-2	EAST	24 X 12	65
				S2	1	65	M1-6	48	24 X 24	65
				S2	1	65	W20-2A	DETOUR AHEAD	48 X 48	65
0010	DT17	L2-1	CTH V SB	S2	1	65	M4-8	DETOUR	24 X 12	65
				S2	1	65	M3-2	EAST	24 X 12	65
				S2	1	65	MO6-1	ARROW (RIGHT)	21 X 21	65
0010	DT18	L3	US 8 EB,	S1, S2	1	138	M3-2	EAST	24 X 12	138
			STH 25 NB	S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	W20-2A	DETOUR AHEAD	48 X 48	138
0010	DT19	L3	US 8 EB,	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
			STH 25 NB	S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO6-1	ARROW (UP)	21 X 21	138
0010	DT20	L3	US 8 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
0010	DT21	L3	US 8 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
0010	DT22	L3	US 8 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
0010	DT23	L3	US 8 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
0010	DT24	L3	STH 25 SB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO5-1L	ADV. ARROW (LEFT TURN)	21 X 21	138
0010	DT25	L3	STH 25 SB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO6-1	ARROW (LEFT)	21 X 21	138
0010	DT26	L3	STH 25 SB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO6-1	ARROW (LEFT)	21 X 21	138
				S1, S2	1	138	D1-1*	RICE LAKE (LA)	48 X 12	138
0010	DT27	L3	US 8 WB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO5-1R	ADV. ARROW (RIGHT TURN)	21 X 21	138

TRAFFIC CONTROL DETOUR SIGNS

CATEGORY	DETOUR SIGN GROUP #	DETOUR LAYOUT	LOCATION	STAGE	SIGNS	DAYS	SIGN CODE	MESSAGE	SIZE (IN)	643.3000 DAY
0010	DT28	L3	US 8 WB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO6-1	ARROW (RIGHT)	21 X 21	138
				S1, S2	1	138	D1-1*	CUMBERLAND (RA)	54 X 12	138
0010	DT29	L3	STH 25 NB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
0010	DT30	L3	STH 25 NB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
0010	DT31	L4	STH 48 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO5-1R	ADV. ARROW (RIGHT TURN)	21 X 21	138
0010	DT32	L4	STH 48 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO6-1	ARROW (RIGHT)	21 X 21	138
0010	DT33	L4	ON RAMP TO SB US 53	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO6-1	ARROW (UP)	21 X 21	138
0010	DT34	L4	STH 48 WB	S1, S2	1	138	W20-2A	DETOUR AHEAD	48 X 48	138
0010	DT35	L4	STH 48 WB	S1, S2	1	138	M4-8	DETOUR	X	138
				S1, S2	1	138	MO5-1L	ADV. ARROW (LEFT TURN)	X	138
0010	DT36	L4	STH 48 WB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO5-1L	ADV. ARROW (LEFT TURN)	21 X 21	138
0010	DT37	L4	STH 48 WB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	MO6-1	ARROW (LEFT)	21 X 21	138
0010	DT38	L4	US 53 SB	S1, S2	1	138	M3-4	WEST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
				S1, S2	1	138	W20-2A	DETOUR AHEAD	48 X 48	138
0010	DT39	L4	US 53 SB	S1, S2	1	138	--*	CUMBERLAND USE HWY 48 WEST DETOUR	90 X 36	138
0010	DT40	L4	US 53 SB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-4	WEST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
				S1, S2	1	138	MO6-1	ARROW (UP)	30 X 30	138
0010	DT41	L4	US 53 SB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-4	WEST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
				S1, S2	1	138	MO6-1	ARROW (UP)	30 X 30	138
0010	DT42	L4	OFF RAMP FROM SB US 53	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	MO6-1	ARROW (UP)	21 X 21	138

TRAFFIC CONTROL DETOUR SIGNS

CATEGORY	DETOUR SIGN GROUP #	DETOUR LAYOUT	LOCATION	STAGE	SIGNS	DAYS	SIGN CODE	MESSAGE	SIZE (IN)	643.3000 DAY
0010	DT43	L4	US 53 SB	S1, S2	1	138	M3-4	WEST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
				S1, S2	1	138	G20-51	DETOUR NEXT 17 MILES	60 X 24	138
0010	DT44	L4	US 53 SB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-4	WEST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
0010	DT45	L4	US 53 NB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-2	EAST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
0010	DT46	L4	US 53 NB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-2	EAST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
0010	DT47	L4	US 53 NB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-2	EAST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
				S1, S2	1	138	M05-2R	ADV. ARROW (RIGHT BENT)	30 X 30	138
0010	DT48	L4	US 53 NB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-2	EAST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
				S1, S2	1	138	M06-2	ADV. ARROW (TILT RIGHT)	30 X 30	138
0010	DT49	L4	OFF RAMP FROM SB US 53	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
0010	DT50	L4	STH 48 EB	S1, S2	1	138	M4-8A	END DETOUR	24 X 18	138
0010	DT51	L5	US 53 SB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-4	WEST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
0010	DT52	L5	US 53 SB	S1, S2	1	138	--*	CUMBERLAND EXIT 135	90 X 36	138
0010	DT53	L5	US 53 SB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-4	WEST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
				S1, S2	1	138	M06-2	ADV. ARROW (TILT RIGHT)	30 X 30	138
0010	DT54	L5	OFF RAMP FROM SB US 53	S1, S2	1	138	D1-1*	CUMBERLAND (RA)	54 X 12	138
0010	DT55	L5	OFF RAMP FROM SB US 53	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	M06-2	ADV. ARROW (TILT RIGHT)	21 X 21	138
0010	DT56	L5	US 8 WB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
0010	DT57	L5	US 8 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	M06-1	ARROW (UP)	21 X 21	138
0010	DT58	L5	US 8 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	M06-1	ARROW (UP)	21 X 21	138

TRAFFIC CONTROL DETOUR SIGNS

CATEGORY	DETOUR SIGN GROUP #	DETOUR LAYOUT	LOCATION	STAGE	SIGNS	DAYS	SIGN CODE	MESSAGE	SIZE (IN)	643.3000 DAY
0010	DT59	L5	US 8 EB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-2	EAST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	M06-2	ARROW (TILT RIGHT)	21 X 21	138
0010	DT60	L5	ON RAMP	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
			TO NB US	S1, S2	1	138	M3-2	EAST	24 X 12	138
			53	S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	M06-1	ARROW (UP)	21 X 21	138
0010	DT61	L5	US 8 WB	S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	W20-2A	DETOUR AHEAD	48 X 48	138
0010	DT62	L5	US 8 WB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	M06-2	ARROW (UP)	21 X 21	138
0010	DT63	L5	US 8 WB	S1, S2	1	138	M4-8	DETOUR	24 X 12	138
				S1, S2	1	138	M3-4	WEST	24 X 12	138
				S1, S2	1	138	M1-6	48	24 X 24	138
				S1, S2	1	138	M06-1	ARROW (LEFT)	21 X 21	138
0010	DT64	L5	US 8 WB	S1, S2	1	138	D1-1*	CUMBERLAND (UA)	54 X 12	138
0010	DT65	L5	US 53 NB	S1, S2	1	138	M1-6	48	36 X 36	138
				S1, S2	1	138	W20-2A	DETOUR AHEAD	48 X 48	138
0010	DT66	L5	US 53 NB	S1, S2	1	138	--*	CUMBERLAND USE HWY 48 WEST DETOUR	90 X 36	138
0010	DT67	L5	US 53 NB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-4	WEST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
0010	DT68	L5	US 53 NB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-4	WEST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138
				S1, S2	1	138	M06-2	ADV. ARROW (TILT RIGHT)	30 X 30	138
				S1, S2	1	138	--*	CUMBERLAND EXIT 135	90 X 36	138
0010	DT69	L5	US 53 NB	S1, S2	1	138	M4-8	DETOUR	36 X 18	138
				S1, S2	1	138	M3-2	EAST	36 X 18	138
				S1, S2	1	138	M1-6	48	36 X 36	138

* SEE TEMPORARY SIGNING DETAIL SHEET

TOTAL 0010 27576

3

GEOTEXTILE FABRIC TYPE R

STATION	LOCATION	645.0130 SY	REMARKS
562+70	B-02-0304 WING 1	7	RIPRAP FLUME
562+70	B-02-0304 WING 2	10	RIPRAP FLUME
	TOTAL 0010	17	

CONSTRUCTION STAKING SUBGRADE

STATION	TO	STATION	LOCATION	650.4500 LF
530+35	-	531+24	C-03-0060	89
562+46	-	562+91	B-02-0204	45
563+28	-	563+74	B-02-0304	46
575+70	-	576+80	C-03-0061	110
			TOTAL 0010	290

CONSTRUCTION STAKING STRUCTURE LAYOUT (C-03-0060, B-03-0204, C-03-0061)

LOCATION	650.6500 LS
C-03-0060, B-03-0204, C-03-0061	1
TOTAL 0010	1

PAVEMENT MARKING EPOXY 4-INCH

STATION	TO	STATION	LOCATION	646.0106 LF	WHITE	YELLOW
529+67	-	531+75	C-03-0060	832	416.00	416.00
559+48	-	566+60	B-02-0304	2314	1424.00	890.00
575+25	-	577+80	C-03-0061	574	510.00	63.75
			UNDISTRIBUTED	300		
			TOTAL 0010	4020		

CONSTRUCTION STAKING BASE

STATION	TO	STATION	LOCATION	650.5000 LF
530+35	-	531+24	C-03-0060	89
562+46	-	562+91	B-02-0204	45
563+28	-	563+74	B-02-0304	46
575+70	-	576+80	C-03-0061	110
			TOTAL 0010	290

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (8120-07-73)

LOCATION	650.9910 LS
	1
TOTAL 0010	1

CONSTRUCTION STAKING SLOPE STAKES

STATION	TO	STATION	LOCATION	650.9920 LF
529+67	-	531+75	C-03-0060	208
559+48	-	562+91	B-02-0204	343
563+28	-	566+60	B-02-0304	332
575+25	-	577+80	C-03-0061	255
			TOTAL 0010	1138

3

SAWING ASPHALT

STATION	TO	STATION	LOCATION	690.0150 LF	REMARKS
		530+35	C-03-0060	30	
		531+24	C-03-0060	30	
559+48	-	562+74	B-02-0304	652	ALONG LANE EDGE R & L
		559+49	B-02-0304	30	
		566+60	B-02-0304	30	
563+50	-	566+60	B-02-0304	620	ALONG LANE EDGE R & L
		575+70	C-03-0061	30	
		576+80	C-03-0061	30	
			UNDISTRIBUTED	50	
			TOTAL 0010	1502	

MOBILIZATION, EMERGENCY STREAM RESTORATION

LOCATION	SPV.0060.01 EACH
STREAM RELOCATION	2
TOTAL 0010	2

TEMPORARY WATER DIVERSION, C-03-0060

STRUCTURE	LOCATION	SPV.0105.01 LS
C-03-0060	DIVERSION CHANNEL	1
	TOTAL 0010	1

TEMPORARY WATER DIVERSION, C-03-0061

STRUCTURE	LOCATION	SPV.0105.02 LS
C-03-0061	DIVERSION CHANNEL	1
	TOTAL 0010	1

TRANSPORTATION PROJECT PLAT NO: 8120-07-23-4.01

THAT PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 15, PART OF THE SW 1/4 OF THE SW 1/4 OF SECTION 14 AND PART OF THE NE 1/4 OF THE NE 1/4 OF SECTION 22, ALL BEING LOCATED IN TOWNSHIP 35 NORTH, RANGE 12 WEST, TOWN OF STANFOLD, BARRON COUNTY, WISCONSIN.

RELOCATION ORDER STH 48 MCKINLEY - RICE LAKE (B-03-0203, B-03-0204, B-03-0205)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK	RELEASE OF RIGHTS
201	BARRON ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
100	529+58.08	0.58'
101	529+58.08	0.00'
102	532+61.67	-160.46'
103	536+46.90	0.00'
104	536+46.90	1.14'
105	536+46.64	56.14'
106	534+56.91	55.25'
107	534+56.97	33.26'
108	532+92.72	32.61'
109	532+93.12	53.22'
110	532+60.12	53.85'
111	532+26.82	54.47'
PRW120	529+57.86	-54.42'
PRW121	530+43.73	-84.78'
PRW122	531+45.97	-85.20'
PRW124	532+22.56	-160.45'
PRW125	533+01.68	-160.51'
PRW126	533+95.24	-64.93'
PRW127	536+06.16	-64.05'
PRW128	536+47.16	-53.86'
PRW129	531+90.31	54.62'
PRW130	531+00.41	79.99'
PRW131	530+22.42	80.31'
PRW132	529+58.31	55.58'

COURSE TABLE

COURSE	BEARING	DISTANCE
100-101	N01°26'59"W	0.58'
101-PRW120	N01°26'59"W	54.42'
PRW120-PRW121	N69°19'11"E	91.08'
PRW121-PRW122	N88°33'01"E	102.24'
PRW122-PRW124	N44°17'40"E	107.37'
PRW124-102	N89°01'59"E	40.01'
102-PRW125	N89°01'59"E	40.01'
PRW125-PRW126	S45°12'50"E	134.85'
PRW126-PRW127	N89°51'40"E	210.81'
PRW127-PRW128	S76°26'50"E	42.25'
PRW128-103	S00°08'20"E	53.86'
103-104	S00°08'20"E	1.14'
104-105	S00°08'20"E	55.00'
105-106	S89°51'40"W	189.83'
106-107	N00°08'20"W	22.00'
107-108	S89°51'40"W	163.92'
108-109	S01°59'05"E	20.61'
109-110	S88°00'55"W	33.00'
110-111	S88°00'55"W	33.00'
111-PRW129	S88°33'01"W	36.51'
PRW129-PRW130	S73°01'34"W	93.41'
PRW130-PRW131	S88°33'01"W	78.00'
PRW131-PRW132	N70°06'46"W	68.71'
PRW132-100	N01°26'59"W	55.00'

Document Number: 832390
MARGO KATTERHAGEN
Barron County, Wisconsin
Register of Deeds
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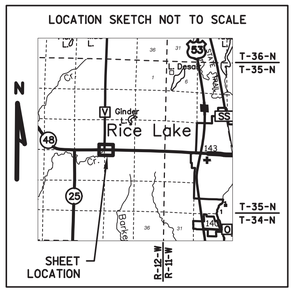
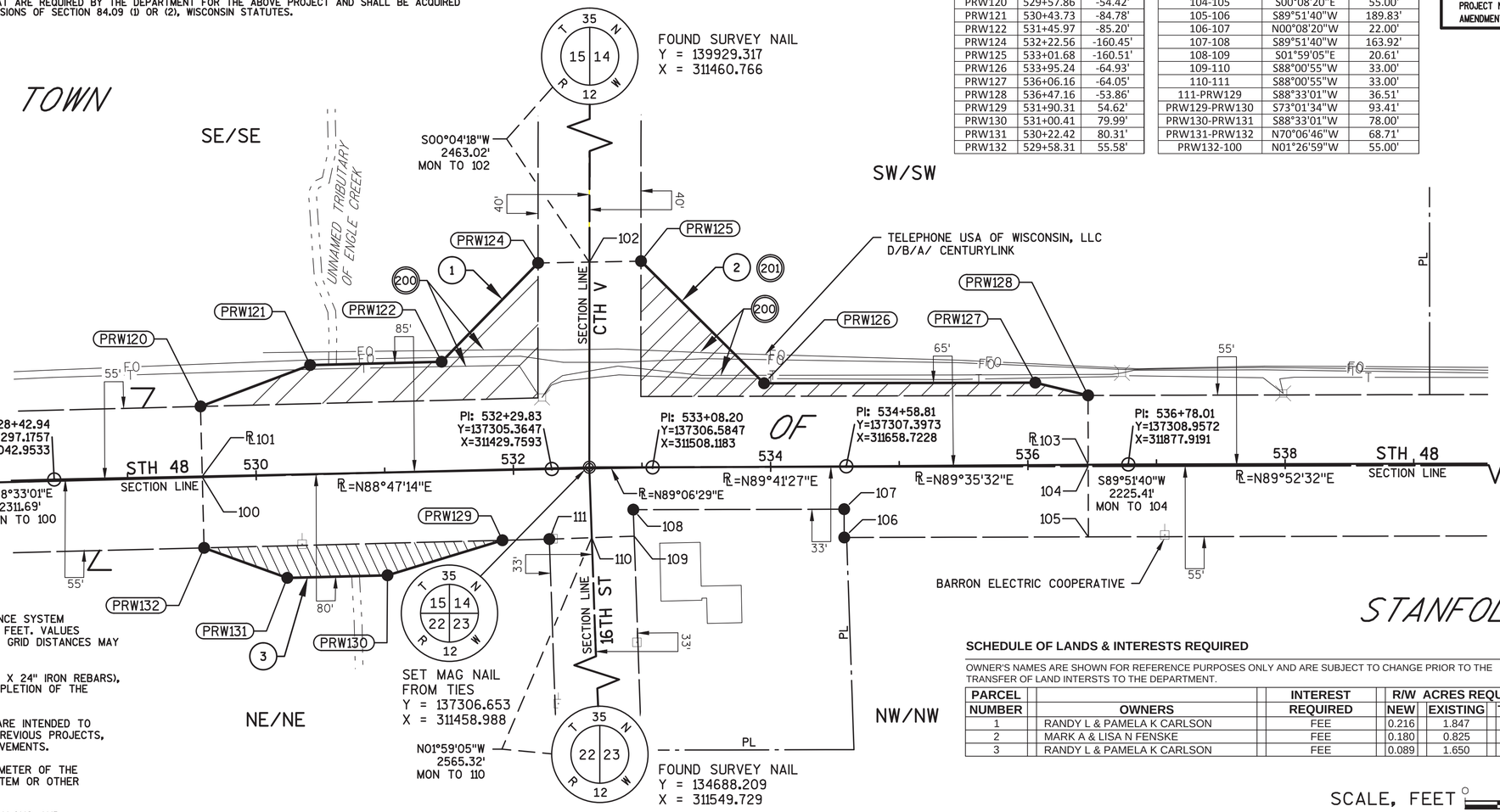
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8120-07-23-4.01
AMENDMENT NO:

LOCATION SKETCH NOT TO SCALE





NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), BARRON COUNTY,NAD 83 (1991) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE EXISTING & NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE SECTION LINE, NOT ℞.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SUPERIOR.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

NO EXISTING ACCESS CONTROL

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 48 ESTABLISHED FROM PREVIOUS PROJECT S 0162(4), PLAT OF SURVEY DATED 11/16/82 VOL 2255 P881, AND EXISTING CENTERLINE.
EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH V ESTABLISHED FROM EXISTING CENTERLINE

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL
1	RANDY L & PAMELA K CARLSON	FEE	0.216	1.847	2.063
2	MARK A & LISA N FENSKE	FEE	0.180	0.825	1.005
3	RANDY L & PAMELA K CARLSON	FEE	0.089	1.650	1.739

SCALE, FEET 0 50 100

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.	**CURVE DATA**	
EASEMENT	EASE.	LONG CHORD	LCH
HIGHWAY EASEMENT	H.E.	LONG CHORD BEARING	LCB
LAND CONTRACT	LC	RADIUS	R
MONUMENT	MON.	DEGREE OF CURVE	D
PAGE	P.	CENTRAL ANGLE OR DELTA	DELTA
PERMANENT LIMITED EASEMENT	PLE	LENGTH OF CURVE	L
PROPERTY LINE	PL	TANGENT	TAN
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN (1" UNLESS NOTED)	PROPOSED R/W LINE
R/W MONUMENT	EXISTING H.E. LINE
R/W STANDARD	PROPERTY LINE
SIGN	LOT & TIE LINES
SECTION CORNER MONUMENT	SLOPE INTERCEPTS
SECTION CORNER SYMBOL	CORPORATE LIMITS
FEE (HATCH VARIES)	NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
TEMPORARY LIMITED EASEMENT	NO ACCESS (BY ACQUISITION)
PERMANENT LIMITED EASEMENT	NO ACCESS (BY STATUTORY AUTHORITY)
R/W BOUNDARY POINT	SECTION LINE
PARCEL NUMBER	QUARTER LINE
UTILITY PARCEL NUMBER	SIXTEENTH LINE
SIGN NUMBER (OFF PREMISE)	EXISTING CENTERLINE
BUILDING	PROPOSED REFERENCE LINE
	PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD	OH	
TRANSMISSION LINES ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

emcs.inc

I, TIMOTHY G. RUTZEN JR. PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT COMPLIANCE WITH IN FULL THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8120-07-23-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

DATE: 11-17-2016
TIMOTHY G. RUTZEN JR.
PROFESSIONAL LAND SURVEYOR NUMBER 2994

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 11-17-2016
(PRINTED NAME) MICHAEL PILLER

TRANSPORTATION PROJECT PLAT NO: 8120-07-23-4.02 AMENDMENT NO.1

AMENDMENT REVISES PARCEL 4 AND REMOVES PARCEL 6 OF TRANSPORTATION PROJECT PLAT 8120-07-23-4.02, RECORDED AS DOC. 832398

THAT PART OF THE SW 1/4 OF THE SE 1/4 OF SECTION 14 AND PART OF THE NW 1/4 OF THE NE 1/4 OF SECTION 23, ALL BEING LOCATED IN TOWNSHIP 35 NORTH, RANGE 12 WEST, TOWN OF STANFOLD, BARRON COUNTY, WISCONSIN.

RELOCATION ORDER STH 48 MCKINLEY - RICE LAKE (B-03-0203, B-03-0204, B-03-0205)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

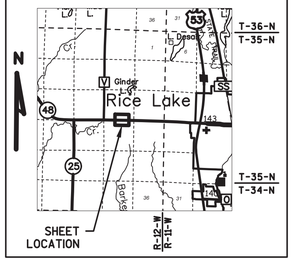
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL
4	DONALD J MICHNA, PERSONAL REPRESENTITIVE OF THE ESTATE OF JOSEPH MICHNA, DECEASED	FEE	0.181	1.500	1.681

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK	RELEASE OF RIGHTS
201	BARRON ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

LOCATION SKETCH NOT TO SCALE



Document Number: 836206
MARGO KATTERHAGEN
Barron County, Wisconsin
Register of Deeds
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05/04/2017 8:48:42 AM
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Vol: 0Page: 0
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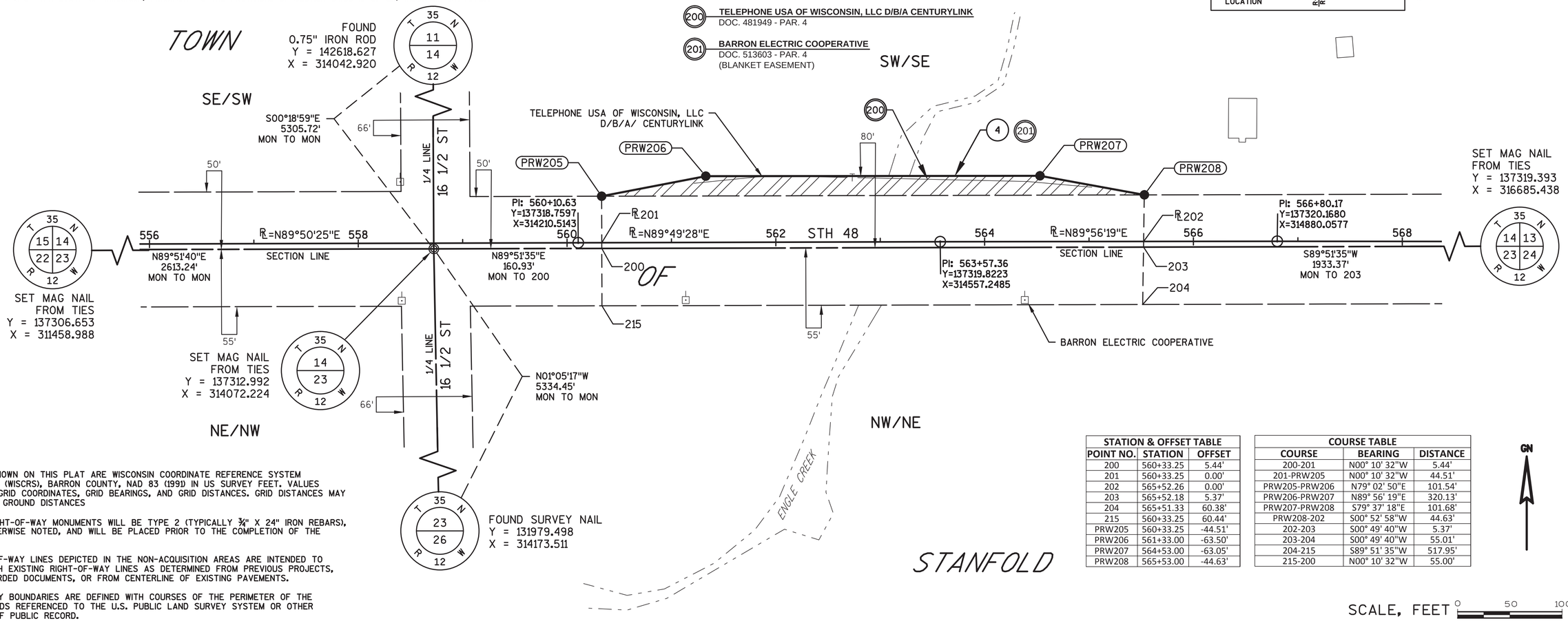
PROJECT NUMBER 8120-07-23-4.02-A1
AMENDMENT NO: 1



200 TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK
DOC. 481949 - PAR. 4

201 BARRON ELECTRIC COOPERATIVE
DOC. 513603 - PAR. 4
(BLANKET EASEMENT)

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
200	560+33.25	5.44'
201	560+33.25	0.00'
202	565+52.26	0.00'
203	565+52.18	5.37'
204	565+51.33	60.38'
215	560+33.25	60.44'
PRW205	560+33.25	-44.51'
PRW206	561+33.00	-63.50'
PRW207	564+53.00	-63.05'
PRW208	565+53.00	-44.63'

COURSE TABLE		
COURSE	BEARING	DISTANCE
200-201	N00° 10' 32"W	5.44'
201-PRW205	N00° 10' 32"W	44.51'
PRW205-PRW206	N79° 02' 50"E	101.54'
PRW206-PRW207	N89° 56' 19"E	320.13'
PRW207-PRW208	S79° 37' 18"E	101.68'
PRW208-202	S00° 52' 58"W	44.63'
202-203	S00° 49' 40"W	5.37'
203-204	S00° 49' 40"W	55.01'
204-215	S89° 51' 35"W	517.95'
215-200	N00° 10' 32"W	55.00'

GN

SCALE, FEET 0 50 100

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), BARRON COUNTY, NAD 83 (1991) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE SECTION LINE, NOT ℞.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SUPERIOR.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

NO EXISTING ACCESS CONTROL

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 48 ESTABLISHED FROM PREVIOUS PROJECT S 0162(4) AND EXISTING CENTERLINE.
EXISTING HIGHWAY RIGHT-OF-WAY FOR 16 1/2 ST ESTABLISHED FROM EXISTING CENTERLINE

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN
REFERENCE LINE	R/L		

CONVENTIONAL SYMBOLS

- FOUND IRON PIPE/PIN (1" UNLESS NOTED)
- R/W MONUMENT
- R/W STANDARD
- SIGN
- SECTION CORNER MONUMENT
- SECTION CORNER SYMBOL
- FEE (HATCH VARIES)
- TEMPORARY LIMITED EASEMENT
- PERMANENT LIMITED EASEMENT
- R/W BOUNDARY POINT
- PARCEL NUMBER
- UTILITY PARCEL NUMBER
- SIGN NUMBER (OFF PREMISE)
- BUILDING
- PROPOSED R/W LINE
- EXISTING H.E. LINE
- PROPERTY LINE
- LOT & TIE LINES
- SLOPE INTERCEPTS
- CORPORATE LIMITS
- NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
- NO ACCESS (BY ACQUISITION)
- NO ACCESS (BY STATUTORY AUTHORITY)
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- EXISTING CENTERLINE
- PROPOSED REFERENCE LINE
- PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD	OH	
TRANSMISSION LINES ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

emcs, LLC

I, TIMOTHY G. RUTZEN JR. PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT COMPLIANCE WITH IN FULL THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8120-07-23-4.02-A1 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN — TIMOTHY G. RUTZEN, JR. — S-2994 — MOSINEE, WISCONSIN — LAND SURVEYOR

5-1-2017
TIMOTHY G. RUTZEN JR.
PROFESSIONAL LAND SURVEYOR NUMBER 2994

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 5-2-2017
(PRINTED NAME) MICHAEL PILLER

FILE NAME : P:\48XX\4890.4818WO15.SP.14.STH48.BAR\CADDS\81200701\SHEETSPLAN\TPP\040102-A1-RP.DWG
PLOT DATE : 5/1/2017 4:12 PM
PLOT BY : TIM RUTZEN
PLOT NAME :
PLOT SCALE : **********
APPRAISAL PLAT DATE : ----------

----------8120-07-23-4.02-A1

TRANSPORTATION PROJECT PLAT NO: 8120-07-23-4.02

THAT PART OF THE SW 1/4 OF THE SE 1/4 OF SECTION 14 AND PART OF THE NW 1/4 OF THE NE 1/4 OF SECTION 23, ALL BEING LOCATED IN TOWNSHIP 35 NORTH, RANGE 12 WEST, TOWN OF STANFOLD, BARRON COUNTY, WISCONSIN.

RELOCATION ORDER STH 48 MCKINLEY - RICE LAKE (B-03-0203, B-03-0204, B-03-0205)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

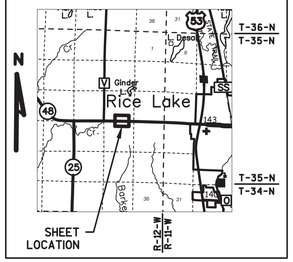
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL
4	DONALD J MICHNA, PERSONAL REPRESENTITIVE OF THE ESTATE OF JOSEPH MICHNA, DECEASED	FEE	0.156	1.500	1.656
6	JOHN P NELSEN	FEE	0.066	1.650	1.716

THE AREA SHOWN IN THE SCHEDULE OF LANDS AND INTERESTS IS ONLY THE AREA OF THE PARCEL SHOWN ON THIS SHEET. IF THE PARCEL IS ON MULTIPLE SHEETS, REFERENCE THE OTHER SHEET(S) FOR ADDITIONAL PARCEL AREAS.

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK	RELEASE OF RIGHTS
201	BARRON ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

LOCATION SKETCH NOT TO SCALE



Document Number: 832398
MARGO KATTERHAGEN
Barron County, Wisconsin
Register of Deeds
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11/22/2016 2:24:37 PM
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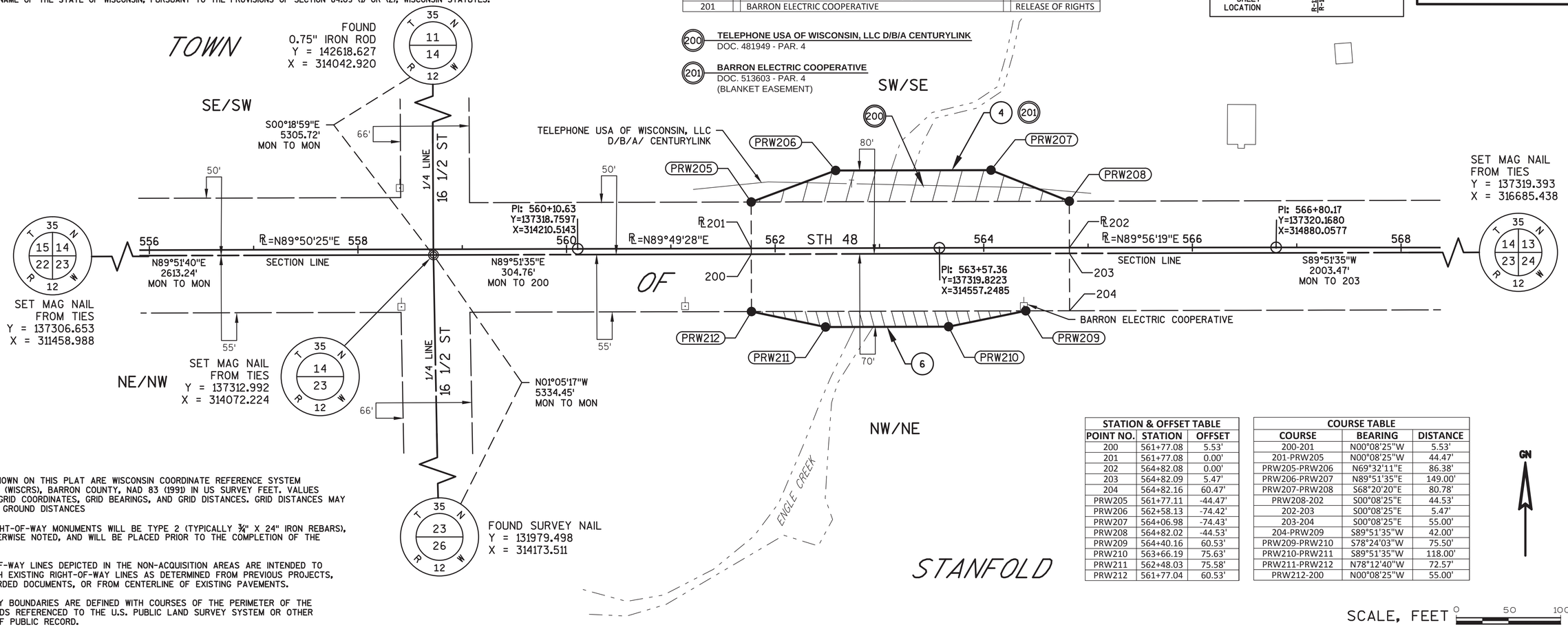

200 TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK
DOC. 481949 - PAR. 4

201 BARRON ELECTRIC COOPERATIVE
DOC. 513603 - PAR. 4
(BLANKET EASEMENT)

STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
200	561+77.08	5.53'
201	561+77.08	0.00'
202	564+82.08	0.00'
203	564+82.09	5.47'
204	564+82.16	60.47'
PRW205	561+77.11	-44.47'
PRW206	562+58.13	-74.42'
PRW207	564+06.98	-74.43'
PRW208	564+82.02	-44.53'
PRW209	564+40.16	60.53'
PRW210	563+66.19	75.63'
PRW211	562+48.03	75.58'
PRW212	561+77.04	60.53'

COURSE TABLE

COURSE	BEARING	DISTANCE
200-201	N00°08'25"W	5.53'
201-PRW205	N00°08'25"W	44.47'
PRW205-PRW206	N69°32'11"E	86.38'
PRW206-PRW207	N89°51'35"E	149.00'
PRW207-PRW208	S68°20'20"E	80.78'
PRW208-202	S00°08'25"E	44.53'
202-203	S00°08'25"E	5.47'
203-204	S00°08'25"E	55.00'
204-PRW209	S89°51'35"W	42.00'
PRW209-PRW210	S78°24'03"W	75.50'
PRW210-PRW211	S89°51'35"W	118.00'
PRW211-PRW212	N78°12'40"W	72.57'
PRW212-200	N00°08'25"W	55.00'

GN

SCALE, FEET 0 50 100

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), BARRON COUNTY, NAD 83 (1991) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

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FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SUPERIOR.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

NO EXISTING ACCESS CONTROL

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 48 ESTABLISHED FROM PREVIOUS PROJECT S 0162(4) AND EXISTING CENTERLINE.
EXISTING HIGHWAY RIGHT-OF-WAY FOR 16 1/2 ST ESTABLISHED FROM EXISTING CENTERLINE

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP
ACCESS RIGHTS	AR
ACRES	AC.
AND OTHERS	ET.AL.
CENTERLINE	C/L
CERTIFIED SURVEY MAP	CSM
CORNER	COR.
DOCUMENT	DOC.
EASEMENT	EASE.
HIGHWAY EASEMENT	H.E.
LAND CONTRACT	LC
MONUMENT	MON.
PAGE	P.
PERMANENT LIMITED EASEMENT	PLE
PROPERTY LINE	PL
RECORDED AS	(100')
REFERENCE LINE	R/L
RELEASE OF RIGHTS	ROR
REMAINING	REM.
RIGHT-OF-WAY	R/W
SECTION	SEC.
STATION	STA.
TEMPORARY LIMITED EASEMENT	TLE
VOLUME	V.

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN (1" UNLESS NOTED)
R/W MONUMENT
R/W STANDARD
SIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT
PARCEL NUMBER
UTILITY PARCEL NUMBER
SIGN NUMBER (OFF PREMISE)
BUILDING
PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
NO ACCESS (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD	OH	
TRANSMISSION LINES ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

emcs.inc

I, TIMOTHY G. RUTZEN JR. PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT COMPLIANCE WITH IN FULL THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8120-07-23-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

DATE: 11-17-2016
TIMOTHY G. RUTZEN JR.,
PROFESSIONAL LAND SURVEYOR NUMBER 2994

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 11-17-2016
(PRINTED NAME) MICHAEL PILLER

FILE NAME : P:\48XX\4890.4818WO15.SP.14.STH48.BAR\CADDS\81200701\SHEETSPLAN\TPP\040102-RP.DWG
APPRAISAL PLAT DATE : ----------
PLOT DATE : 11/17/2016 4:04 PM PLOT BY : TIM RUTZEN PLOT NAME : PLOT SCALE : **********

---------- 8120-07-23-4.02

TRANSPORTATION PROJECT PLAT NO: 8120-07-23-4.03

THAT PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 14 AND PART OF THE NE 1/4 OF THE NE 1/4 OF SECTION 23, ALL BEING LOCATED IN TOWNSHIP 35 NORTH, RANGE 12 WEST, TOWN OF STANFOLD, BARRON COUNTY, WISCONSIN.

RELOCATION ORDER STH 48 MCKINLEY - RICE LAKE (B-03-0203, B-03-0204, B-03-0205)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

COURSE TABLE		
COURSE	BEARING	DISTANCE
300-301	N00°08'25"W	2.43'
301-PRW310	N00°08'25"W	47.57'
PRW310-PRW311	N60°36'39"E	85.96'
PRW311-PRW312	N89°51'35"E	182.00'
PRW312-PRW313	S61°31'48"E	87.71'
PRW313-302	S00°08'25"E	48.70'
302-303	S00°08'25"E	1.30'
303-304	S00°08'25"E	55.00'
304-PRW314	S89°51'35"W	58.00'
PRW314-PRW315	S70°05'33"W	68.01'
PRW315-PRW316	S89°51'35"W	126.00'
PRW316-PRW317	N67°26'48"W	59.62'
PRW317-305	S89°51'35"W	31.00'
305-300	N00°08'25"W	55.00'

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL
6	JOHN P NELSEN	FEE	0.098	1.575	1.673
7	RICHARD & JULIA LEFEBVRE	FEE	0.249	1.500	1.749

THE AREA SHOWN IN THE SCHEDULE OF LANDS AND INTERESTS IS ONLY THE AREA OF THE PARCEL SHOWN ON THIS SHEET. IF THE PARCEL IS ON MULTIPLE SHEETS, REFERENCE THE OTHER SHEET(S) FOR ADDITIONAL PARCEL AREAS.

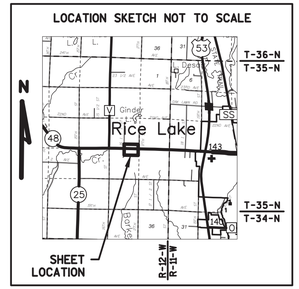
UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK	RELEASE OF RIGHTS
201	BARRON ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

200 **TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK**
DOC. 374279 - PAR. 7
DOC. 292023 - PAR. 7
DOC. 481887 - PAR. 7
(BLANKET EASEMENT)

201 **BARRON ELECTRIC COOPERATIVE**
DOC. 569525 - PAR. 7
(BLANKET EASEMENT)

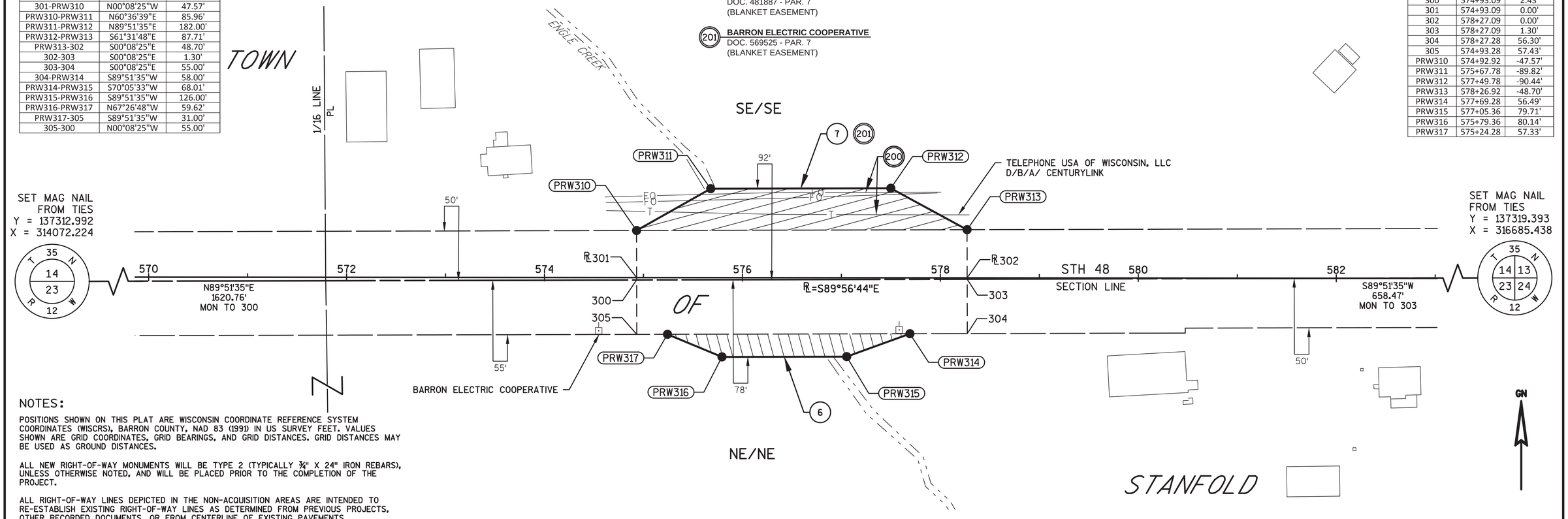
LOCATION SKETCH NOT TO SCALE



Document Number: 832399
MARGO KATTERHAGEN
Barron County, Wisconsin
Register of Deeds
Recorded On:
11/22/2016 2:26:28 PM
Number of Pages: 1
Vol: 0Page: 0
SUBMITTER: WI DOT
The above recording information verifies that this document has been electronically recorded and returned to the submitter.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8120-07-23-4.03
AMENDMENT NO:

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
300	574+93.09	2.43'
301	574+93.09	0.00'
302	578+27.09	0.00'
303	578+27.09	1.30'
304	578+27.28	56.30'
305	574+93.28	57.43'
PRW310	574+92.92	-47.57'
PRW311	575+67.78	-89.82'
PRW312	577+49.78	-90.44'
PRW313	578+26.92	-48.70'
PRW314	577+69.28	56.49'
PRW315	577+05.36	79.71'
PRW316	575+79.36	80.14'
PRW317	575+24.28	57.33'



SCALE, FEET 0 50 100

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), BARRON COUNTY, NAD 83 (1991) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE SECTION LINE, NOT ℄.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SUPERIOR.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

NO EXISTING ACCESS CONTROL

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 48 ESTABLISHED FROM PREVIOUS PROJECT S 0162(4) AND EXISTING CENTERLINE.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.	CURVE DATA	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN
REFERENCE LINE	R/L		

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN (1" UNLESS NOTED)
R/W MONUMENT
R/W STANDARD
SIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT
PARCEL NUMBER
UTILITY PARCEL NUMBER
SIGN NUMBER (OFF PREMISE)
BUILDING

PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
NO ACCESS (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD	OH	
TRANSMISSION LINES ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

emcs, inc

I, TIMOTHY G. RUTZEN JR. PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT COMPLIANCE WITH IN FULL THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8120-07-23-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

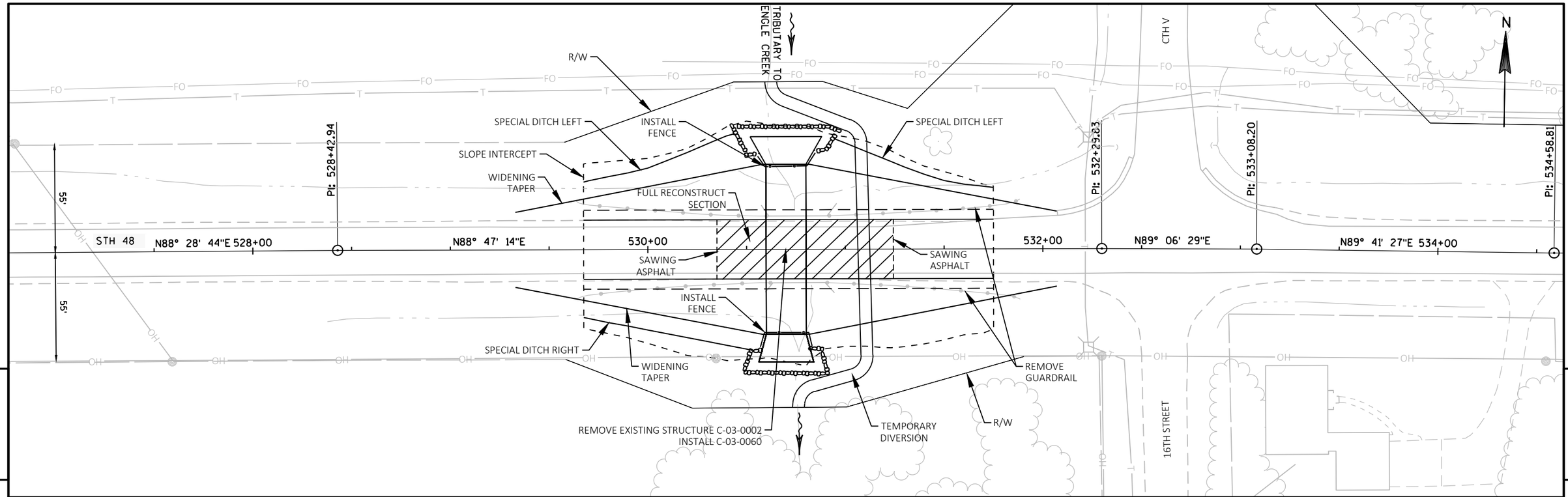
DATE: 11-17-2016
TIMOTHY G. RUTZEN JR.
PROFESSIONAL LAND SURVEYOR NUMBER 2994

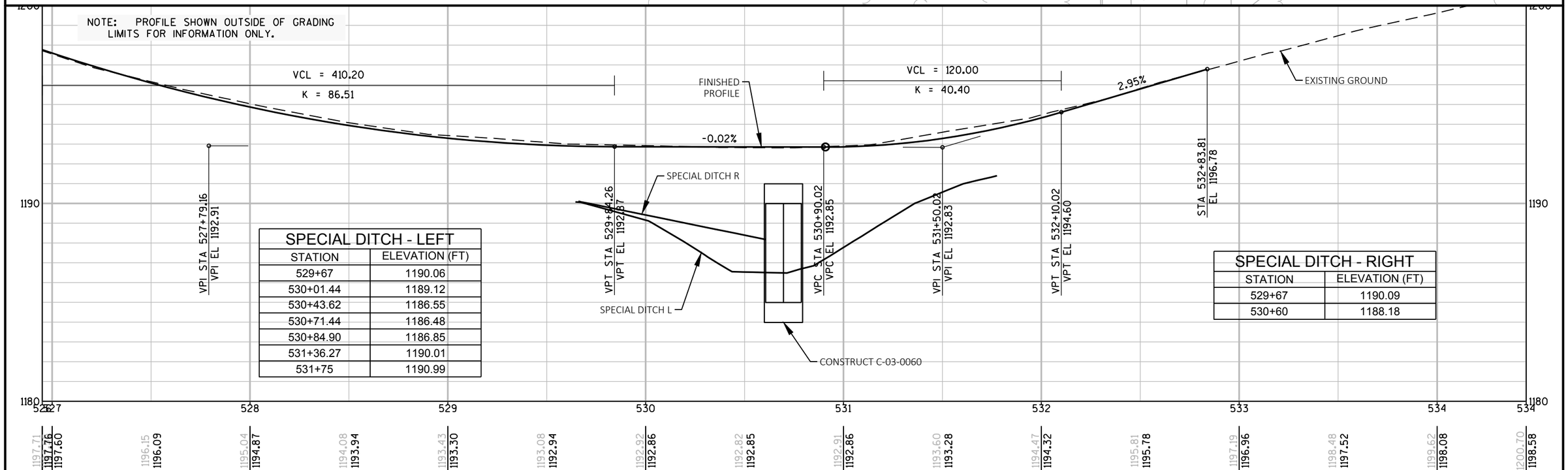
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 11-17-2016
(PRINTED NAME) MICHAEL PILLER

FILE NAME : P:\48XX\4890.4818WO15.SP.14.STH48.BAR\CADDS\81200701\SHEETSPLAN\TPP\040103-RP.DWG
APPRAISAL PLAT DATE : ----------
PLOT DATE : 11/17/2016 4:04 PM PLOT BY : TIM RUTZEN PLOT NAME : PLOT SCALE : **********

---------- 8120-07-23 4.03





SPECIAL DITCH - LEFT	
STATION	ELEVATION (FT)
529+67	1190.06
530+01.44	1189.12
530+43.62	1186.55
530+71.44	1186.48
530+84.90	1186.85
531+36.27	1190.01
531+75	1190.99

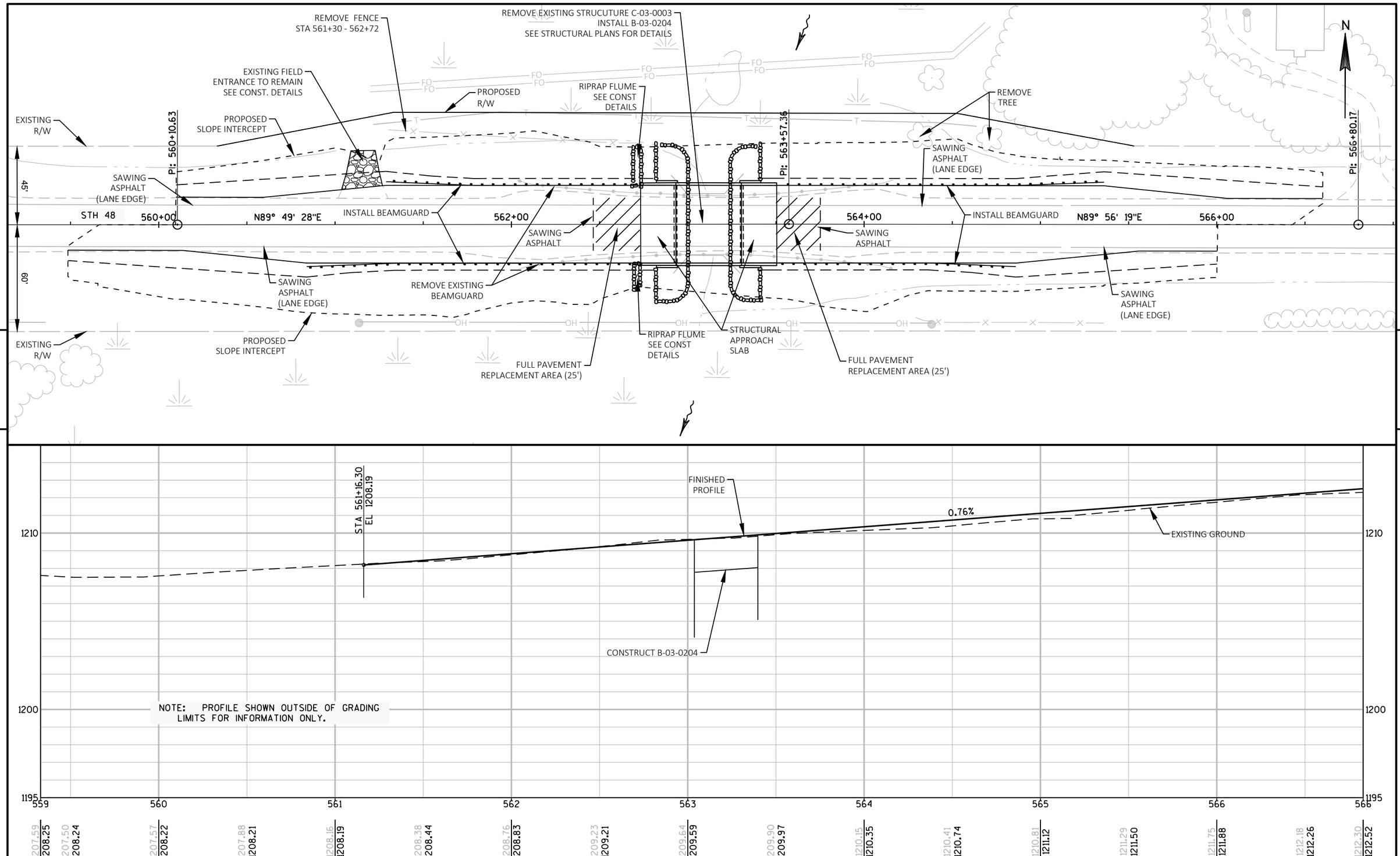
SPECIAL DITCH - RIGHT	
STATION	ELEVATION (FT)
529+67	1190.09
530+60	1188.18

1197.71	1197.76	1197.60	1196.15	1196.09	1195.04	1194.87	1194.08	1193.94	1193.43	1193.30	1193.08	1192.94	1192.92	1192.86	1192.82	1192.85	1192.91	1192.86	1193.60	1193.28	1194.47	1194.32	1195.81	1195.78	1197.19	1196.96	1198.48	1197.52	1199.62	1198.08	1200.70	1198.58

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	PLAN AND PROFILE: STH 48 AT C-03-0060	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_PLAN-PROFILE.DWG
LAYOUT NAME - B1-PP(50sc)

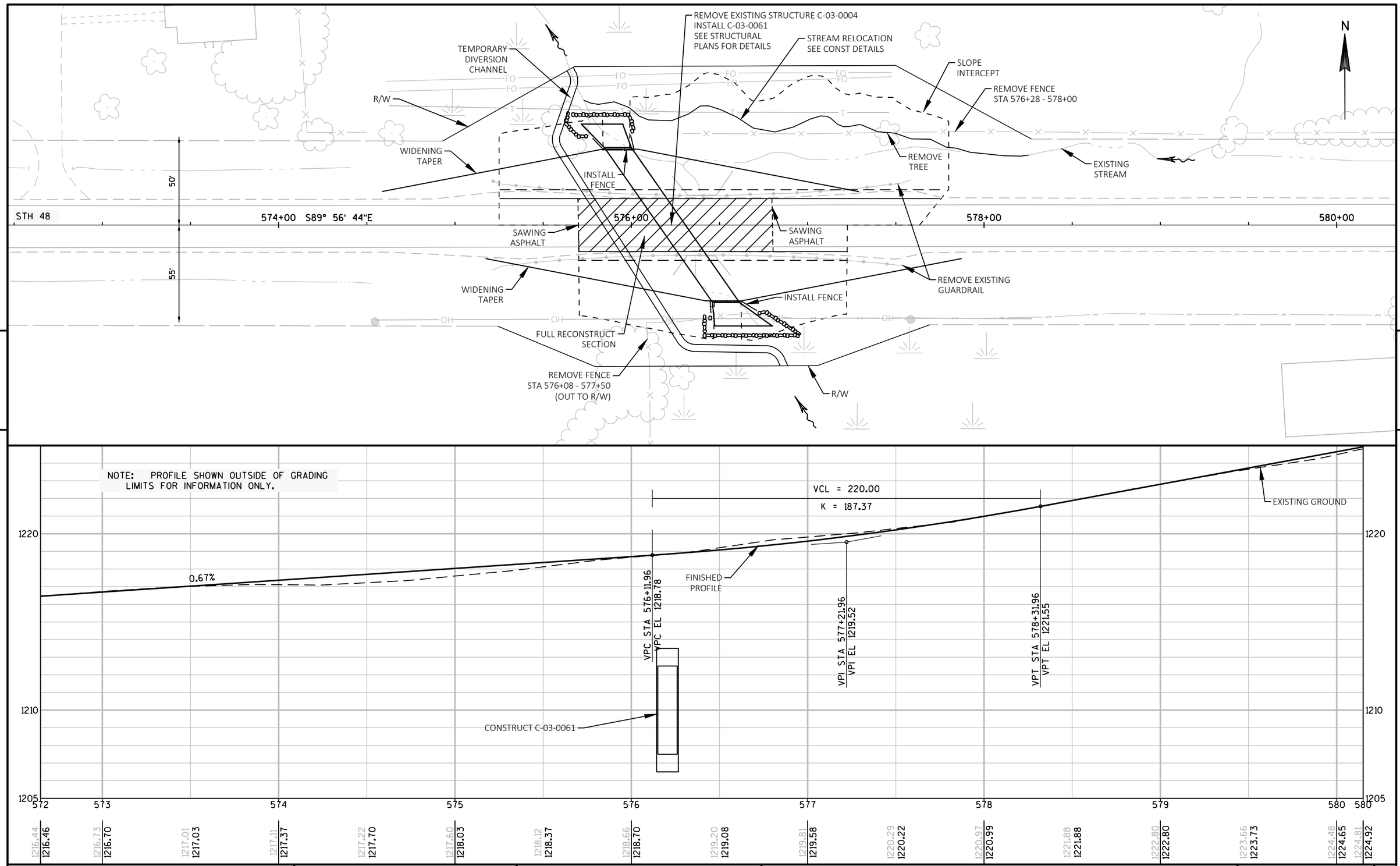
PLOT DATE : 5/23/2017 7:46 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:50 FT



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	PLAN AND PROFILE: STH 48 AT B-03-0204	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_PLAN-PROFILE.DWG
LAYOUT NAME - B2-PP(50sc)

PLOT DATE : 5/23/2017 7:46 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:50 FT



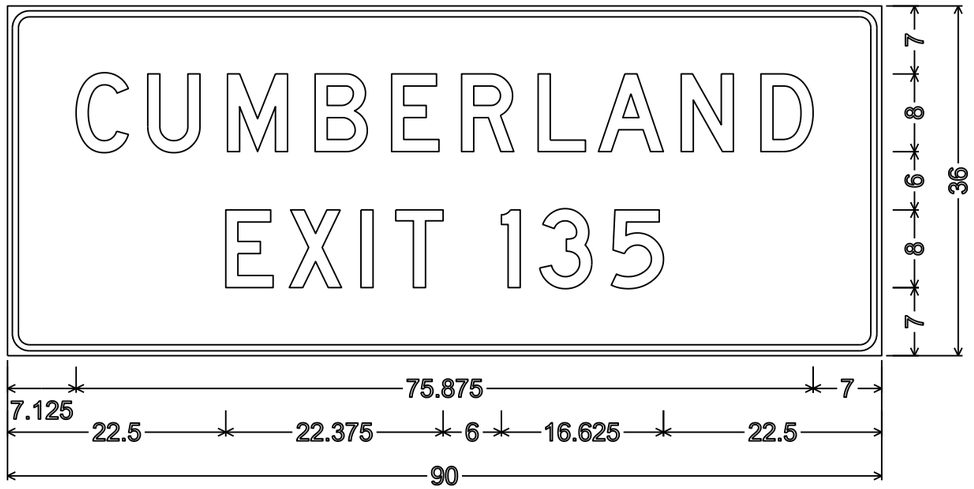
PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	PLAN AND PROFILE: STH 48 AT C-03-0061	SHEET E

FILE NAME : N:\PDS\C3D\81200703\SHEETSPLAN\81200703_PLAN-PROFILE.DWG
LAYOUT NAME - B3-PP(50sc)

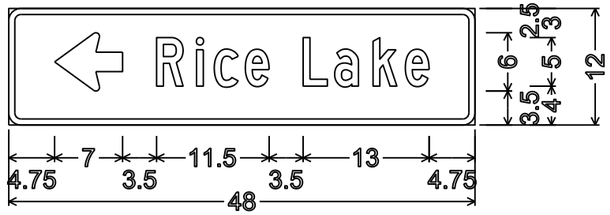
PLOT DATE : 5/23/2017 7:46 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:50 FT

NOTES

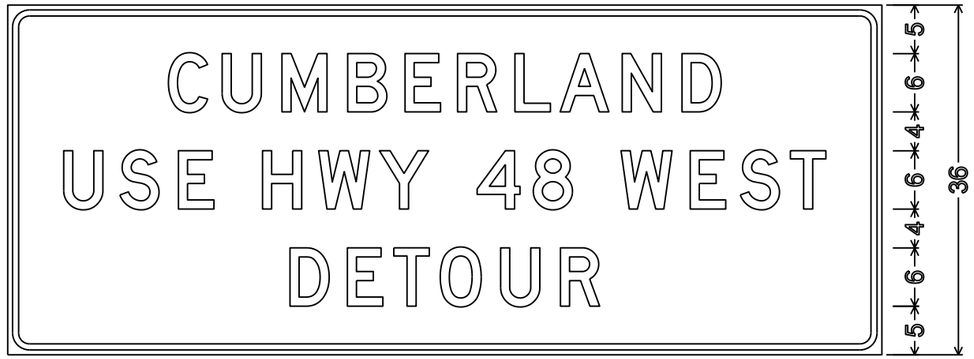
1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D except as noted



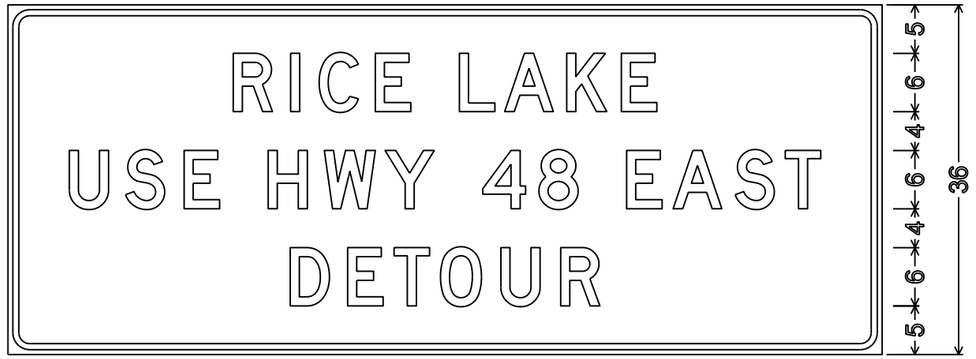
2.250" Radius, 0.625" Border, 0.500" Indent



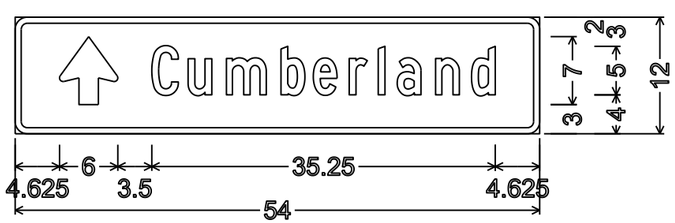
1.250" Radius, 0.625" Border,
"Rice" C; "Lake" C



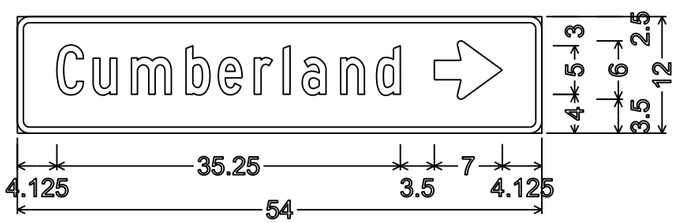
2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent



1.250" Radius, 0.625" Border,
"Cumberland" C

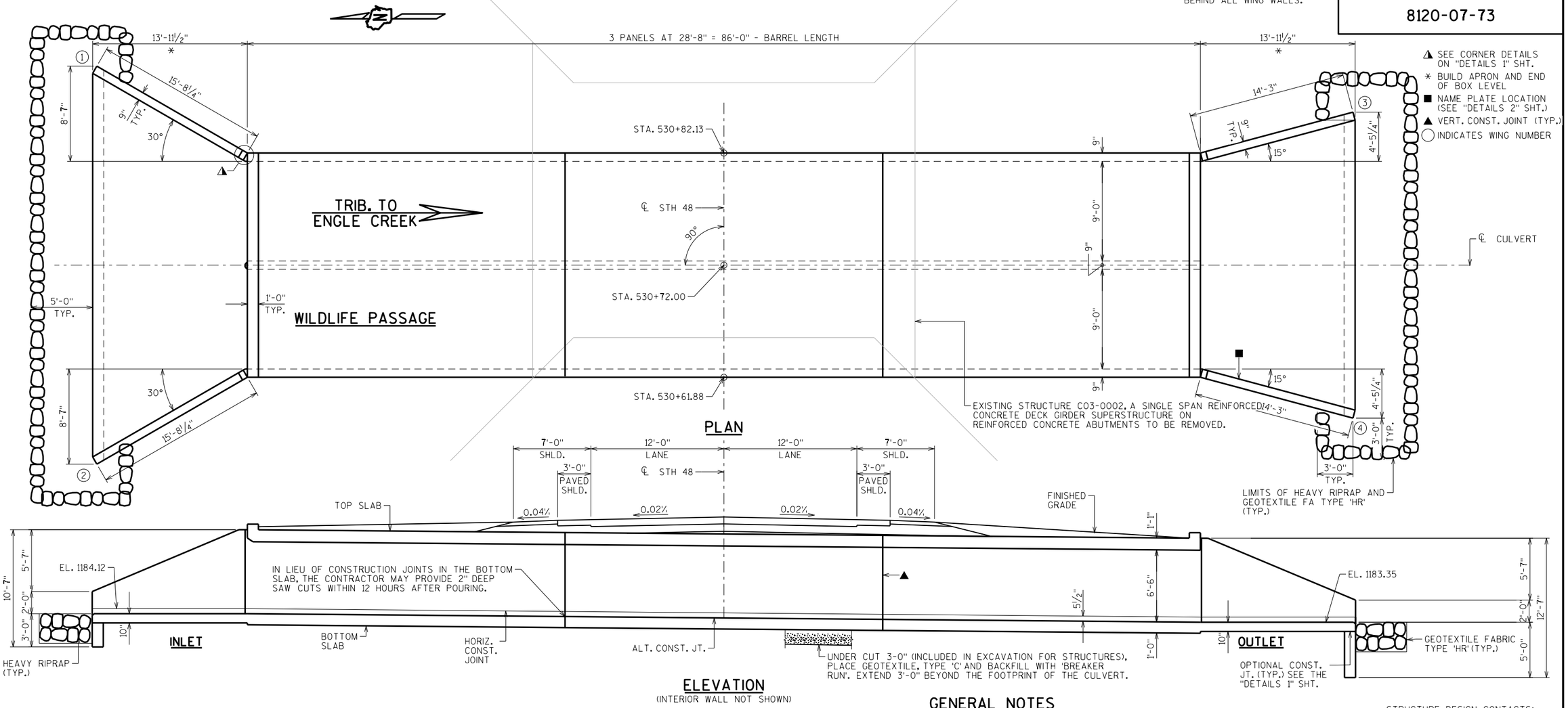


1.250" Radius, 0.625" Border
"Cumberland" C

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	TEMPORARY SIGNING	SHEET NO:	E

NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS.

STATE PROJECT NUMBER
8120-07-73



ELEVATION
(INTERIOR WALL NOT SHOWN)

- ▲ SEE CORNER DETAILS ON "DETAILS 1" SHT.
- * BUILD APRON AND END OF BOX LEVEL
- ■ NAME PLATE LOCATION (SEE "DETAILS 2" SHT.)
- ▲ VERT. CONST. JOINT (TYP.)
- ◯ INDICATES WING NUMBER

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF=1.05
OPERATING RATING FACTOR: RF=1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255 (KIPS)
EARTHLOAD: DESIGNED FOR 0.5 TO 2.0 FT. OF FILL.

MATERIAL PROPERTIES:
CONCRETE MASONRY ——— f'_c = 3500 P.S.I.
BAR STEEL REINFORCEMENT — f_y = 60000 P.S.I.

HYDRAULIC DATA

100 YEAR FREQUENCY
Q_{100} =410 C.F.S.
VEL. =5.2 F.P.S.
HW.= EL. 1190.24
WATERWAY AREA= 54 SQ. FT.
DRAINAGE AREA= 2.30 SQ. MI.
SCOUR CRITICAL CODE = 8
OVERTOPPING RDWY. = N.A.
2 YEAR FREQUENCY
Q_2 =95 C.F.S.
HW_2 = EL. 1188.45

TRAFFIC VOLUME

STH 48
A.D.T. = 6,200 (2016)
R.D.S. = 55 M.P.H.

LIST OF DRAWINGS

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 530+75.00	LS	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-03-60	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	405
311.0115	BREAKER RUN	CY	360
312.0110	SELECT CRUSHED MATERIAL	TON	473
504.0100	CONCRETE MASONRY CULVERTS	CY	220
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	33427
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1692
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	27
606.0300	RIPRAP HEAVY	CY	35
645.0105	GEOTEXTILE TYPE C	SY	485
645.0120	GEOTEXTILE TYPE HR	SY	100
SPV.0195	COARSE AGGREGATE SIZE NO. 1 FOR AOP BOX CULVERT	TON	34
	NON-BID ITEMS		
	FILLER	EACH	¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-03-60" SHALL BE THE EXISTING GROUNDLINE.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE A 18" (MIN.) WIDE SHEET OF 'RUBBERIZED MEMBRANE WATERPROOFING' ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS ON CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

STRUCTURE DESIGN CONTACTS:
AIHAM ALSKIF (608) 261-6113
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURES

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-03-60

STH 48 OVER TRIBUTARY TO ENGLE CREEK

COUNTY	TOWN
BARRON	STANFOLD

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	AA	DESIGNED CK'D.	NAR	DRAWN BY	AA	PLANS CK'D.	NAR

LAYOUT

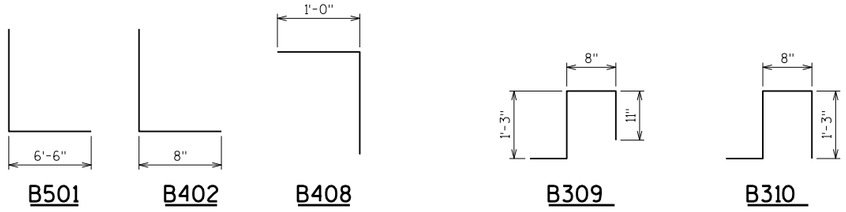
SHEET 1 OF 6

I.D. 8120-07-03A DATE: JUN 2017

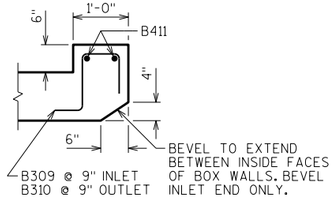
SCALE = 4.50

STATE PROJECT NUMBER

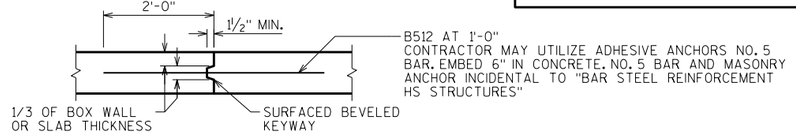
8120-07-73



B501 B402 B408 B309 B310



SECTION THRU HEADER



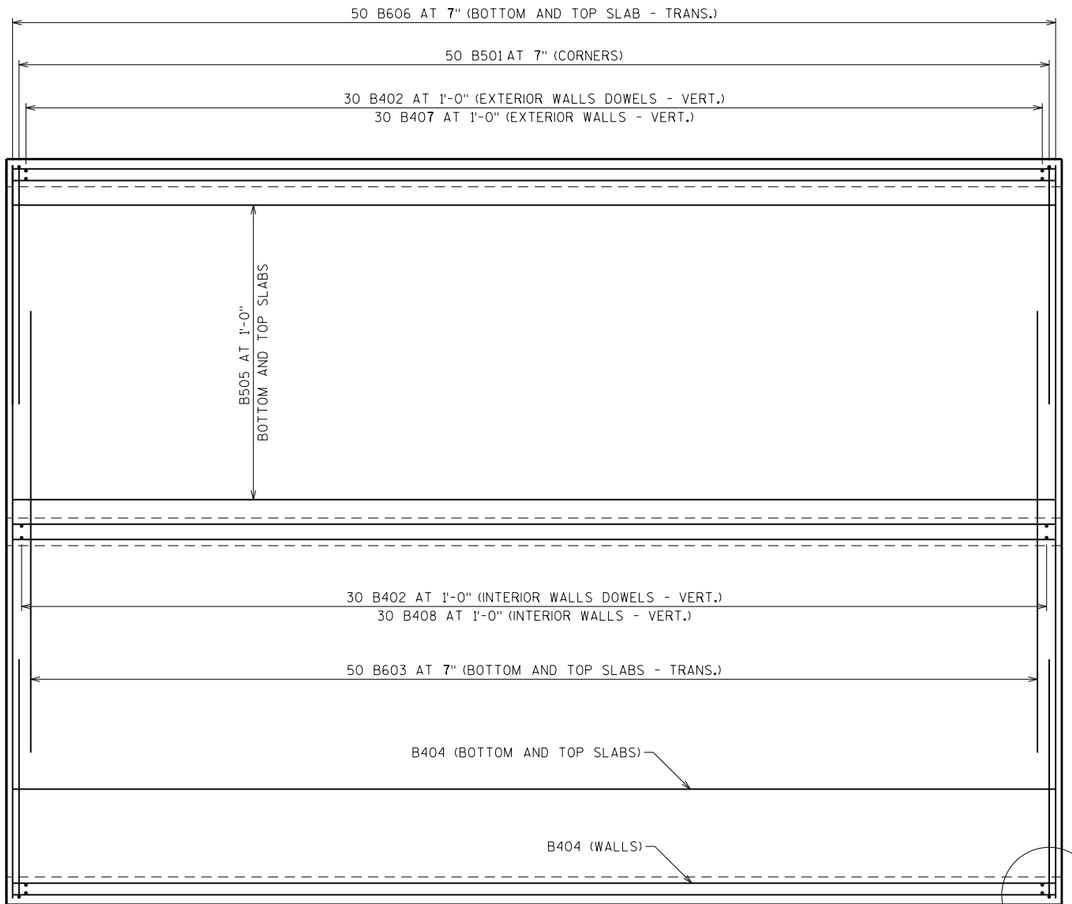
VERTICAL CONSTRUCTION JOINT

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

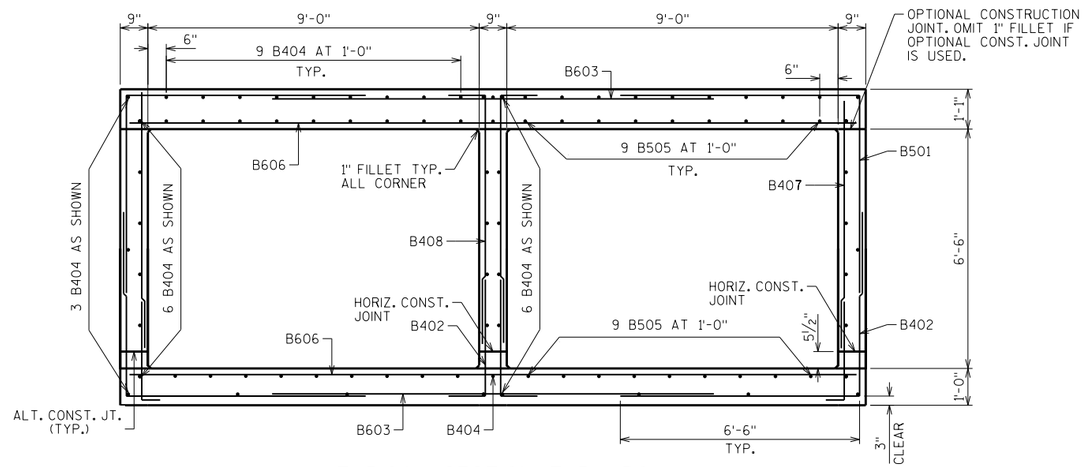
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		600	12'-0"	X	NO	CORNERS
B402		360	3'-6"	X	NO	WALLS-DOWELS - VERT.
B603		300	12'-0"		NO	BOTTOM AND TOP SLABS - TRANS.
B404		165	28'-4"		NO	BOTTOM & TOP SLABS & WALLS - LONGIT.
B505		108	28'-4"		NO	BOTTOM AND TOP SLABS - LONGIT.
B606		300	19'-11"		NO	BOTTOM AND TOP SLABS - TRANS.
B407		180	6'-10"		NO	EXTERIOR WALLS- VERTICAL
B408		180	7'-10"	X	NO	INTERIOR WALLS- VERTICAL
B309		28	3'-1"	X	NO	INLET HEADER STIRRUPS - VERT.
B310		28	3'-5"	X	NO	OUTLET HEADER STIRRUPS - VERT.
B411		4	19'-11"		NO	HEADERS - HORIZ.
B512		122	4'-0"		NO	VERT. CONST. JT.



PLAN VIEW OF EXTERIOR PANEL

INTERIOR PANEL IS SIMILAR. HEADERS REINF. NOT SHOWN FOR CLARITY

SEE "DETAILS 1" SHEET FOR CORNER DETAILS



TYPICAL SECTION THRU BOX INTERIOR AND EXTERIOR PANEL

(ALL LONGITUDINAL BARS NOT IDENTIFIED ARE B404 BARS AS SHOWN)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-03-60

DRAWN BY AA | PLANS CK'D. NAR

BOX DETAILS

SHEET 2

SCALE = 4.00

8

8

STATE PROJECT NUMBER

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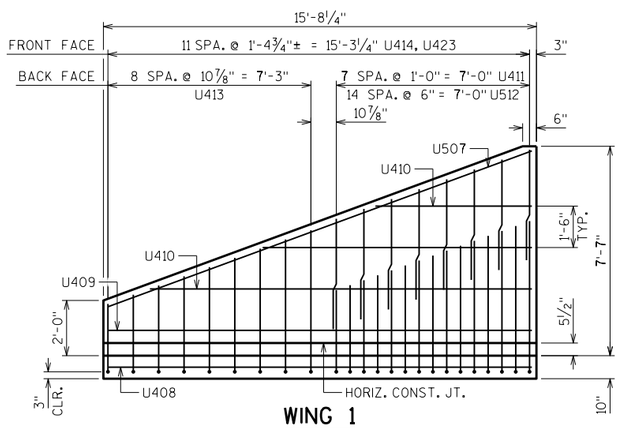
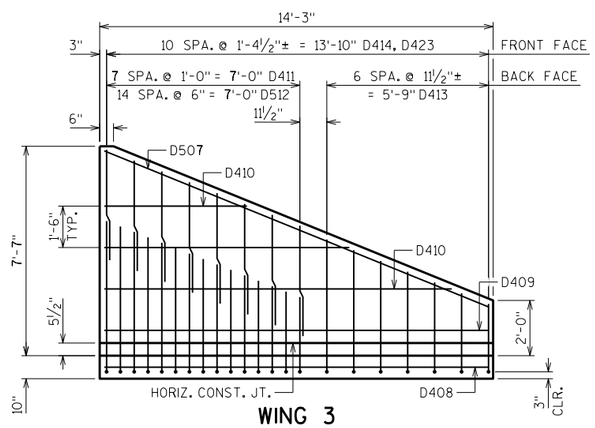


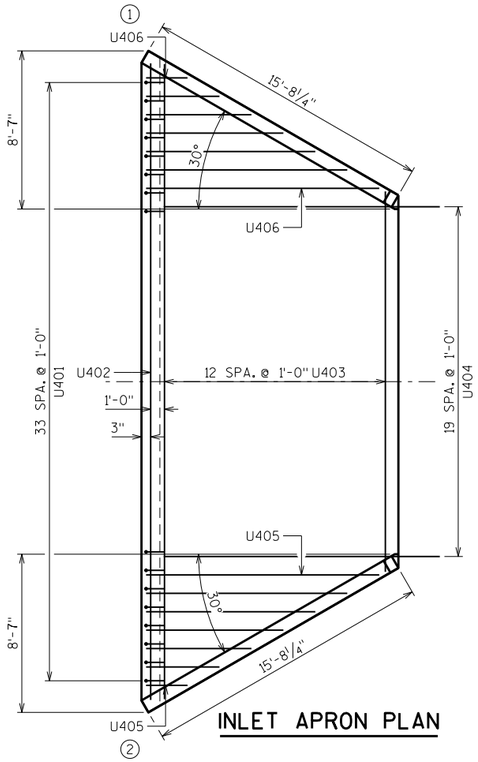
WING 1

SHOWING BACK FACE REINFORCEMENT

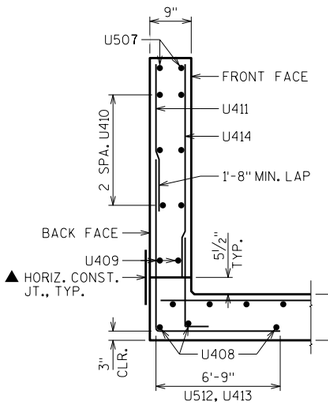


WING 3

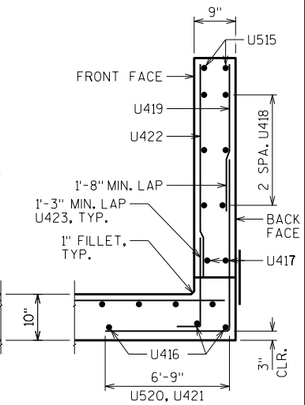
SHOWING BACK FACE REINFORCEMENT



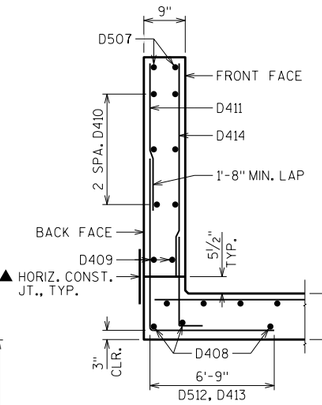
INLET APRON PLAN



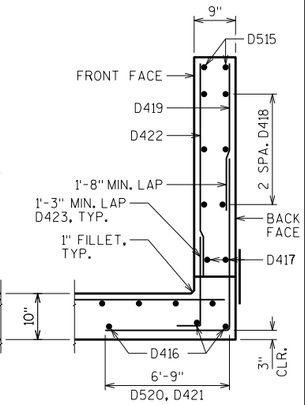
WING 1 SECTION



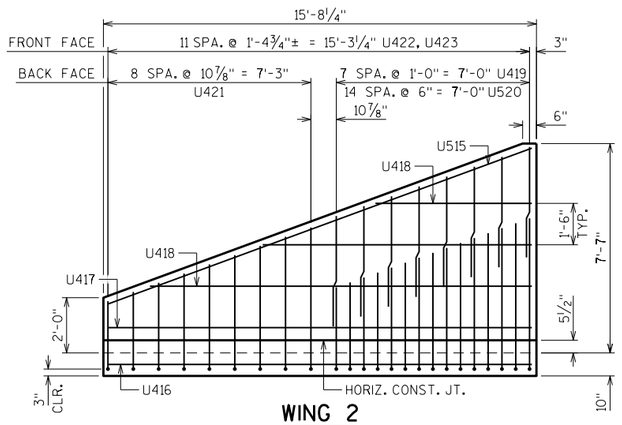
WING 2 SECTION



WING 3 SECTION

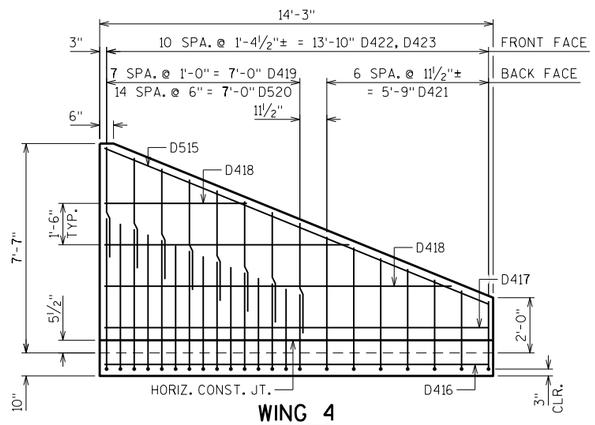


WING 4 SECTION



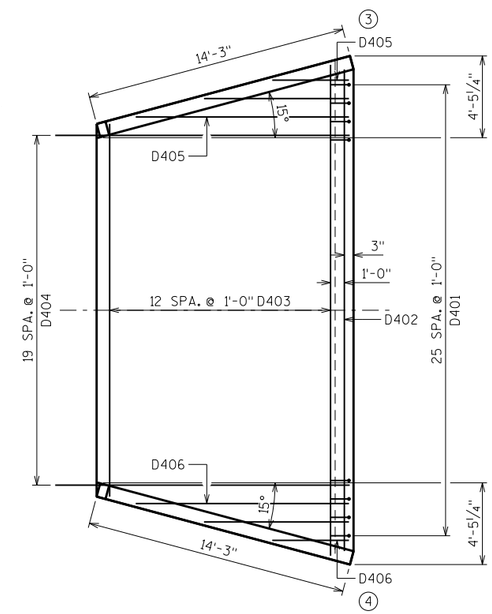
WING 2

SHOWING BACK FACE REINFORCEMENT



WING 4

SHOWING BACK FACE REINFORCEMENT



OUTLET APRON PLAN

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH, TYP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-03-60

DRAWN BY AA | PLANS CK'D. NAR

APRON DETAILS

SHEET 3

SCALE = 4.00

8

8

STATE PROJECT NUMBER

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BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

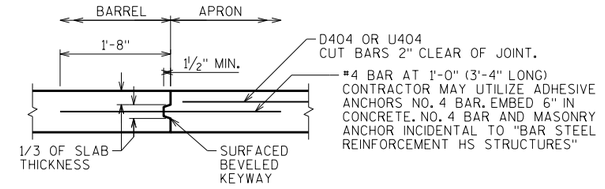
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
U401		34	3'-6"	X		INLET APRON AND CUTOFF WALL VERT.
U402		3	34'-7"			INLET APRON AND CUTOFF WALL HORIZ.
U403		13	27'-7"		⚠	INLET APRON SLAB HORIZ.
U404		20	16'-0"			INLET APRON AND BOX SLAB HORIZ.
U405		7	7'-6"		⚠	INLET APRON SLAB HORIZ.
U406		7	7'-6"		⚠	INLET APRON SLAB HORIZ.
U507	X	2	16'-0"			WING 1 HORIZ. TOP BOTH FACES
U408	X	3	15'-3"			WING 1 HORIZ. APRON SLAB
U409	X	2	15'-3"			WING 1 HORIZ. BOTTOM BOTH FACES
U410	X	6	9'-9"		⚠	WING 1 HORIZ.
U411	X	8	4'-0"			WING 1 VERT. BACK FACE
U512	X	15	11'-1"	X	⚠	WING 1 VERT. BACK FACE
U413	X	9	10'-5"	X	⚠	WING 1 VERT. BACK FACE
U414	X	12	4'-2"		⚠	WING 1 VERT. FRONT FACE
U515	X	2	16'-0"			WING 2 HORIZ. TOP BOTH FACES
U416	X	3	15'-3"			WING 2 HORIZ. APRON SLAB
U417	X	2	15'-3"			WING 2 HORIZ. BOTTOM BOTH FACES
U418	X	6	9'-9"		⚠	WING 2 HORIZ.
U419	X	8	4'-0"			WING 2 VERT. BACK FACE
U520	X	15	11'-1"	X	⚠	WING 2 VERT. BACK FACE
U421	X	9	10'-5"	X	⚠	WING 2 VERT. BACK FACE
U422	X	12	4'-2"		⚠	WING 2 VERT. FRONT FACE
U423	X	24	3'-0"	X		WINGS 1 & 2 DOWELS FRONT FACE
D401		26	5'-6"	X		OUTLET APRON AND CUTOFF WALL VERT.
D402		5	26'-2"			OUTLET APRON AND CUTOFF WALL HORIZ.
D403		13	23'-5"		⚠	OUTLET APRON SLAB HORIZ.
D404		20	16'-0"			OUTLET APRON AND BOX SLAB HORIZ.
D405		3	7'-11"		⚠	OUTLET APRON SLAB HORIZ.
D406		3	7'-11"		⚠	OUTLET APRON SLAB HORIZ.
D507	X	2	14'-8"			WING 3 HORIZ. TOP BOTH FACES
D408	X	3	13'-10"			WING 3 HORIZ. APRON SLAB
D409	X	2	13'-10"			WING 3 HORIZ. BOTTOM BOTH FACES
D410	X	6	8'-11"		⚠	WING 3 HORIZ.
D411	X	8	4'-0"			WING 3 VERT. BACK FACE
D512	X	15	11'-1"	X	⚠	WING 3 VERT. BACK FACE
D413	X	7	10'-3"	X	⚠	WING 3 VERT. BACK FACE
D414	X	11	4'-2"		⚠	WING 3 VERT. FRONT FACE
D515	X	2	14'-8"			WING 4 HORIZ. TOP BOTH FACES
D416	X	3	13'-10"			WING 4 HORIZ. APRON SLAB
D417	X	2	13'-10"			WING 4 HORIZ. BOTTOM BOTH FACES
D418	X	6	8'-11"		⚠	WING 4 HORIZ.
D419	X	8	4'-0"			WING 4 VERT. BACK FACE
D520	X	15	11'-1"	X	⚠	WING 4 VERT. BACK FACE
D421	X	7	10'-3"	X	⚠	WING 4 VERT. BACK FACE
D422	X	11	4'-2"		⚠	WING 4 VERT. FRONT FACE
D423	X	22	3'-0"	X		WINGS 3 & 4 DOWELS FRONT FACE

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
U403	1 SERIES OF 13	20'-8" TO 34'-6"
U405	1 SERIES OF 7	2'-3" TO 12'-8"
U406	1 SERIES OF 7	2'-3" TO 12'-8"
U410	2 SERIES OF 3	5'-8" TO 13'-10"
U512	1 SERIES OF 15	9'-10" TO 12'-4"
U413	1 SERIES OF 9	9'-1" TO 11'-9"
U414	1 SERIES OF 12	1'-5" TO 6'-11"
U418	2 SERIES OF 3	5'-8" TO 13'-10"
U520	1 SERIES OF 15	9'-10" TO 12'-4"
U421	1 SERIES OF 9	9'-1" TO 11'-9"
U422	1 SERIES OF 12	1'-5" TO 6'-11"
D403	1 SERIES OF 11	20'-3" TO 26'-8"
D405	1 SERIES OF 3	4'-2" TO 11'-7"
D406	1 SERIES OF 3	4'-2" TO 11'-7"
D410	2 SERIES OF 3	5'-2" TO 12'-7"
D512	1 SERIES OF 15	9'-7" TO 12'-4"
D413	1 SERIES OF 7	9'-1" TO 11'-5"
D414	1 SERIES OF 11	1'-5" TO 6'-11"
D418	2 SERIES OF 3	5'-2" TO 12'-7"
D520	1 SERIES OF 15	9'-7" TO 12'-4"
D421	1 SERIES OF 7	9'-1" TO 11'-5"
D422	1 SERIES OF 11	1'-5" TO 6'-11"

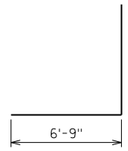
BUNDLE AND TAG EACH SERIES SEPARATELY



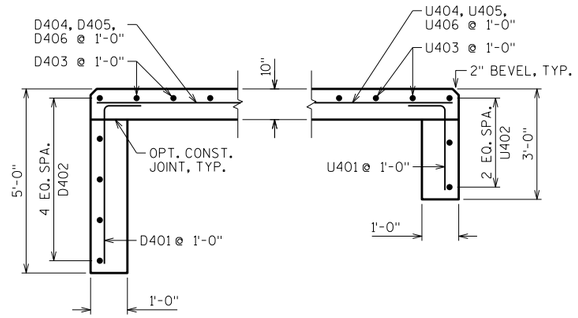
OPTIONAL CONSTRUCTION JOINT

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.

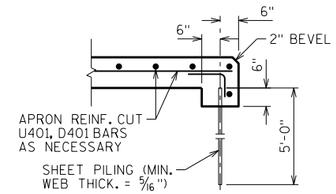
U401, D401 U423, D423



U512, U413, U520, U421,
D512, D413, D520, D421

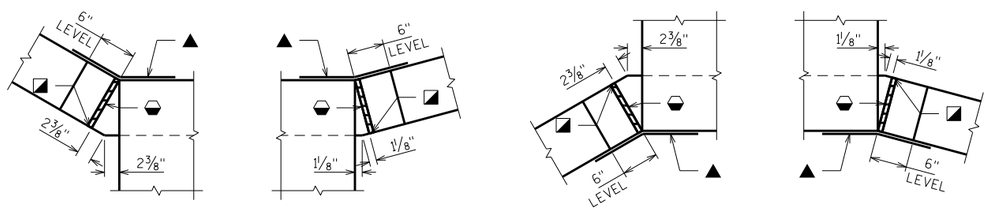


CUT-OFF WALLS



ALTERNATE CUT-OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



CORNER DETAILS

- 3/4" FILLER, TYP. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.
- 1" BEVEL, TYP.
- ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-03-60

DRAWN BY AA | PLANS CK'D. NAR

DETAILS 1

SHEET 4

SCALE = 1.00

8

8

STATE PROJECT NUMBER

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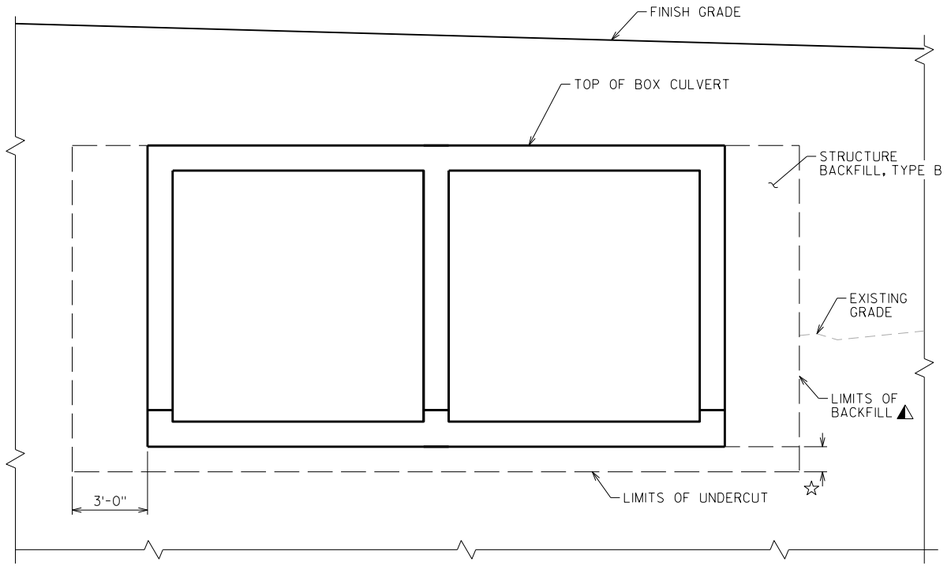
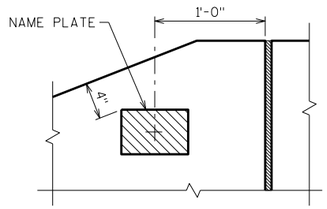
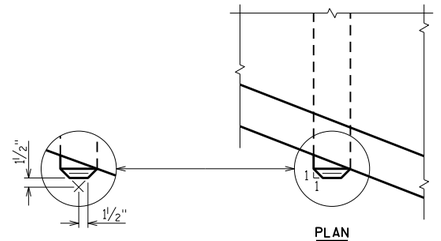


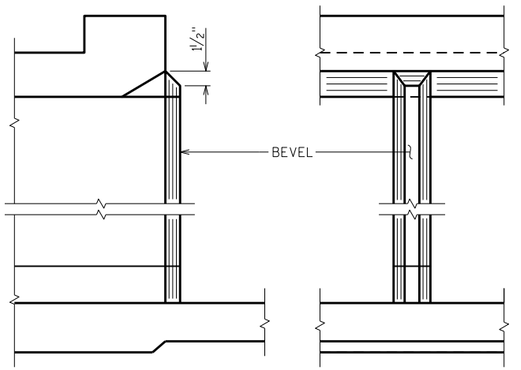
TYPICAL SECTION
THRU BOX CULVERT



NAME PLATE LOCATION
WING 4

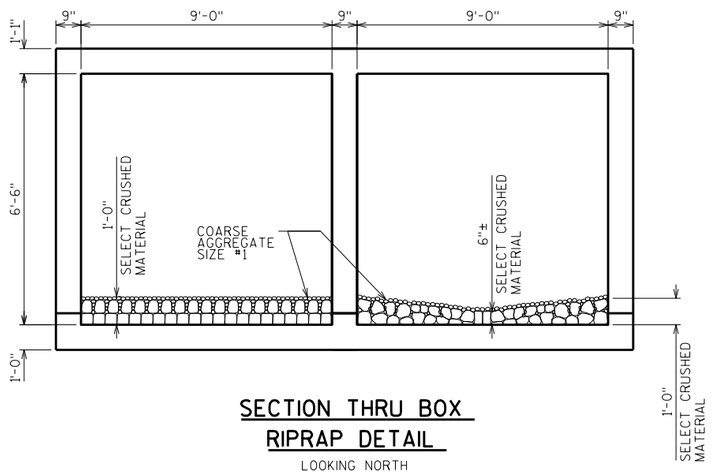


PLAN



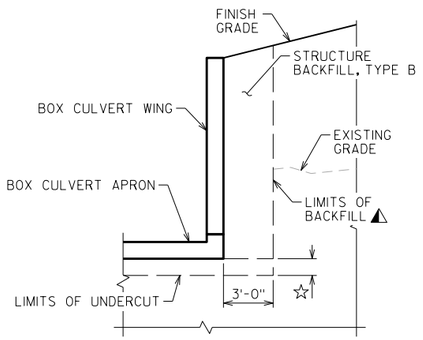
SECTION ELEVATION

INLET NOSE DETAILS



SECTION THRU BOX
RIPRAP DETAIL

LOOKING NORTH



TYPICAL SECTION
THRU BOX CULVERT WING

◭ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

☆ UNDER CUT 3'-0". EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "STRUCTURE BACKFILL TYPE B".

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-03-60

DRAWN BY AA | PLANS CK'D. NAR

DETAILS 2

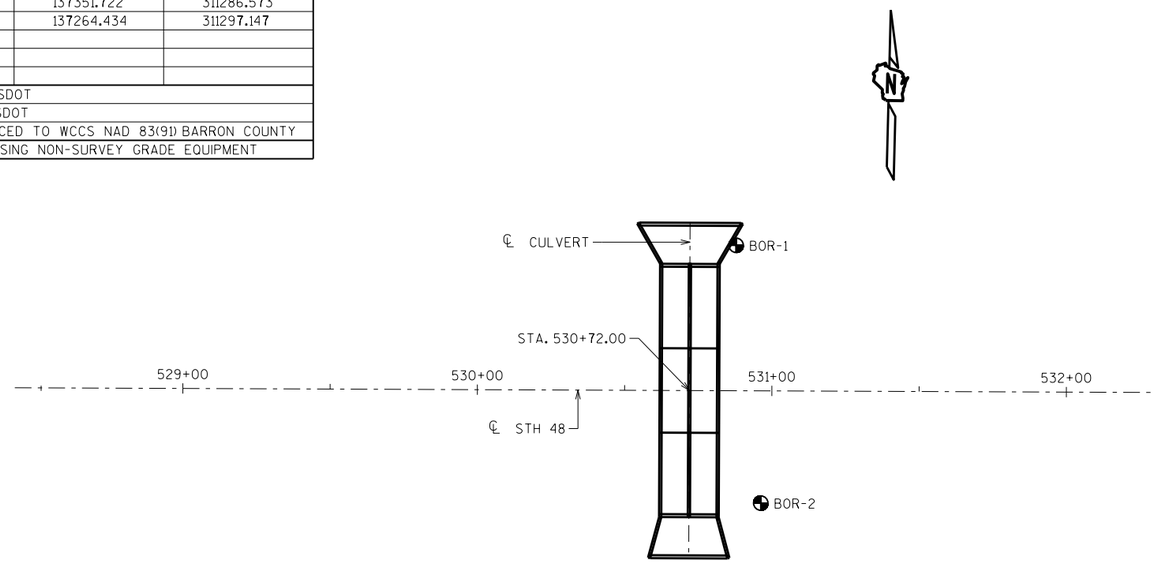
SHEET 5

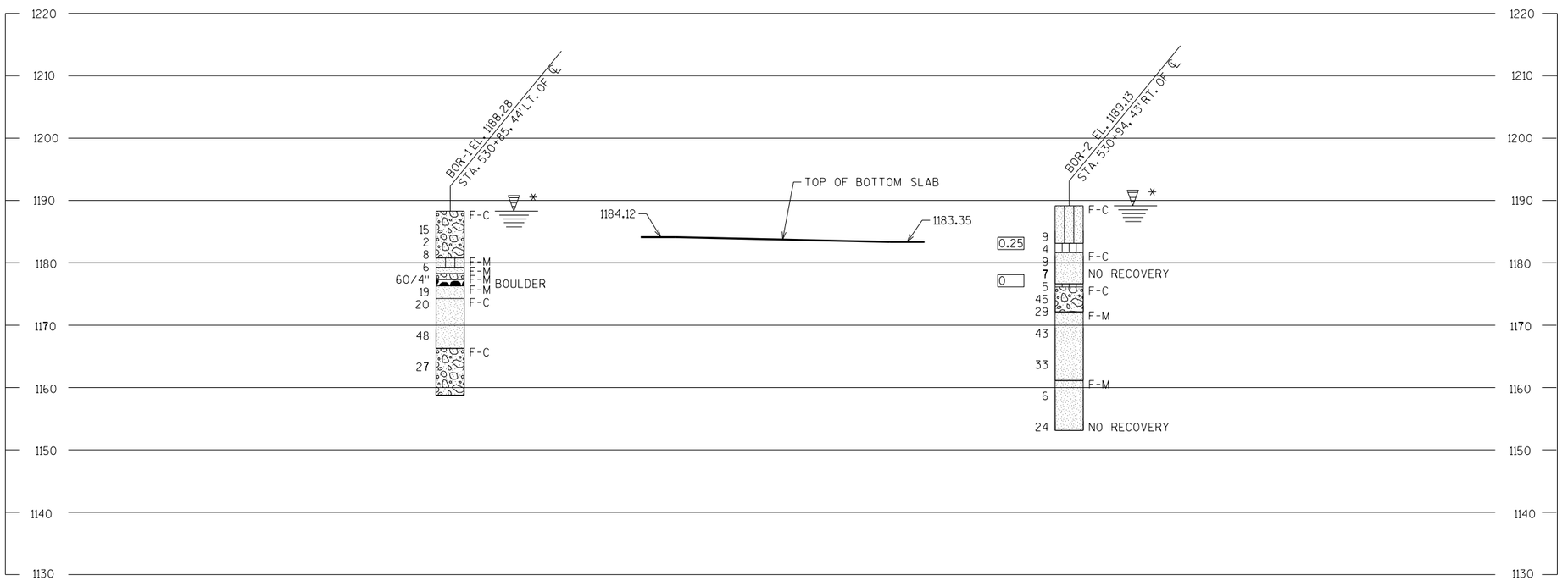
8

8

SCALE = 1.00

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	1/24/2017	137351.722	311286.573
2	1/25/2017	137264.434	311297.147
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BARRON COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

STATE PROJECT NUMBER

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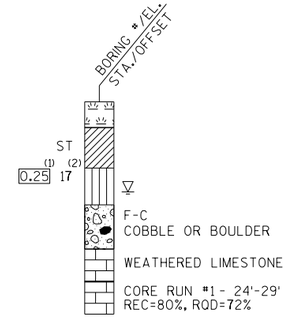
MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▼ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-03-60

DRAWN BY TLP/AA | PLANS CK'D. NAR

SUBSURFACE EXPLORATION

SHEET 6

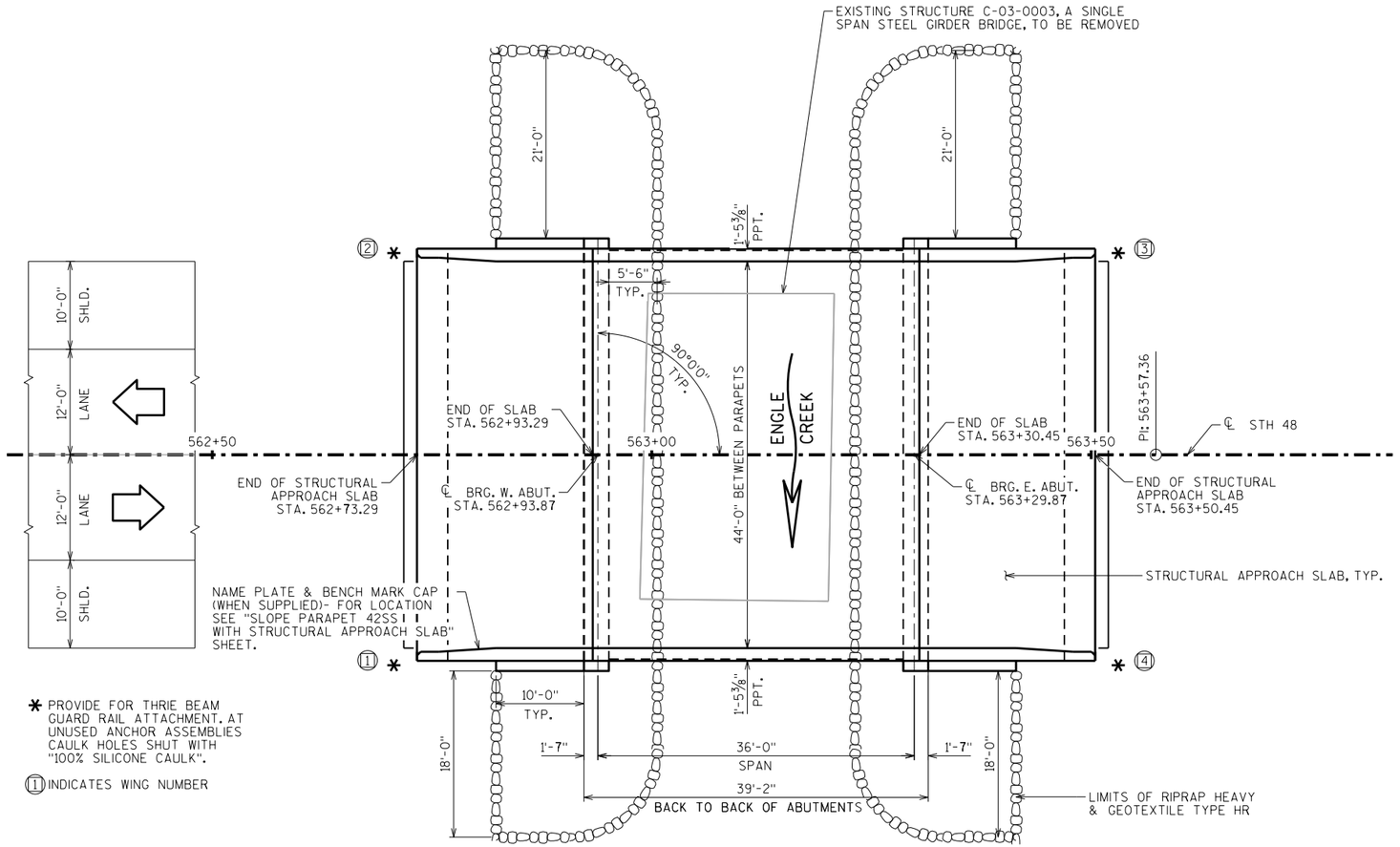
SCALE = 25

8

8

STATE PROJECT NUMBER

8120-07-73

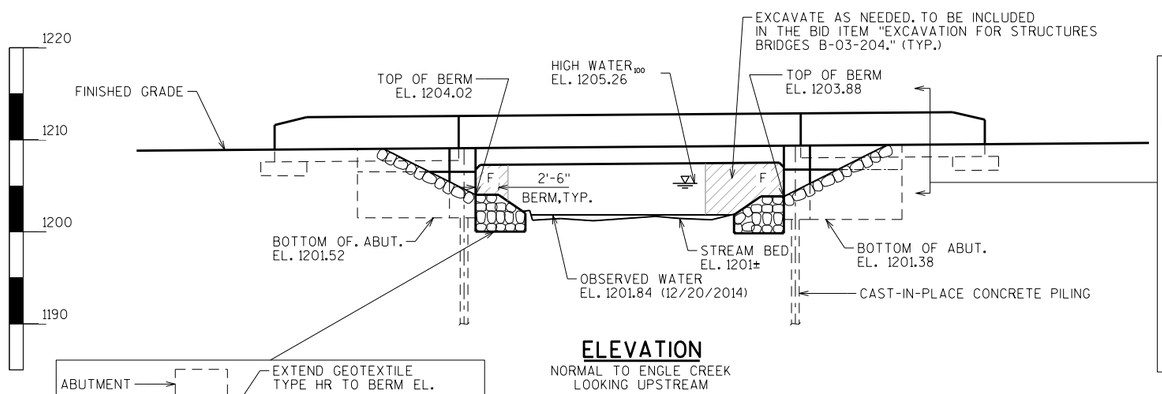


✱ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

① INDICATES WING NUMBER

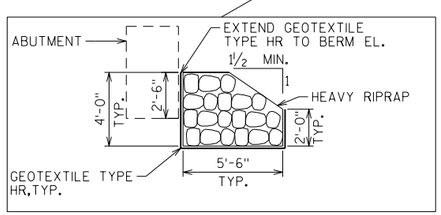
PLAN

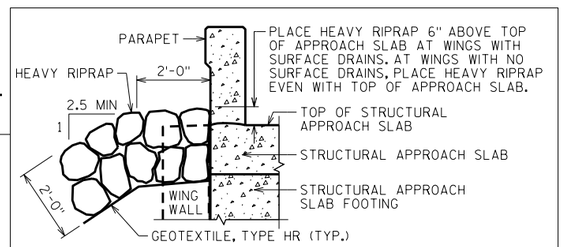
SINGLE SPAN - FLAT SLAB



ELEVATION

NORMAL TO ENGLE CREEK
LOOKING UPSTREAM





TYPICAL FILL SECTION AT END OF STRUCTURAL APPROACH SLABS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.47
OPERATING RATING FACTOR: RF = 1.90
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.
STAINLESS, GRADE 60 — fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON CAST-IN-PLACE (CIP) 10¾" DIA X 0.500" WALL CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS ✱✱ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 65'-0" LONG AT ABUTMENTS.

✱✱ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} = 470 C.F.S.
VEL. = 8.2 F.P.S.
$HW._{100}$ = EL. 1205.26
WATERWAY AREA = 58 SQ. FT.
DRAINAGE AREA = 1.8 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

2 YEAR FREQUENCY

Q_2 = 101 C.F.S.
$HW._2$ = EL. 1202.97
$VEL._2$ = 3.8 F.P.S.

TRAFFIC VOLUME

STH 48

ADT = 6200 (2016)
R.D.S. = 55 M.P.H.

LIST OF DRAWINGS

STRUCTURE DESIGN CONTACTS:
AIHAM ALSKIF (608) 261-6113
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-03-204

STH 48 OVER ENGLE CREEK

COUNTY	TOWN
BARRON	STANFOLD

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
AA	ABS	AA	ABS

GENERAL PLAN

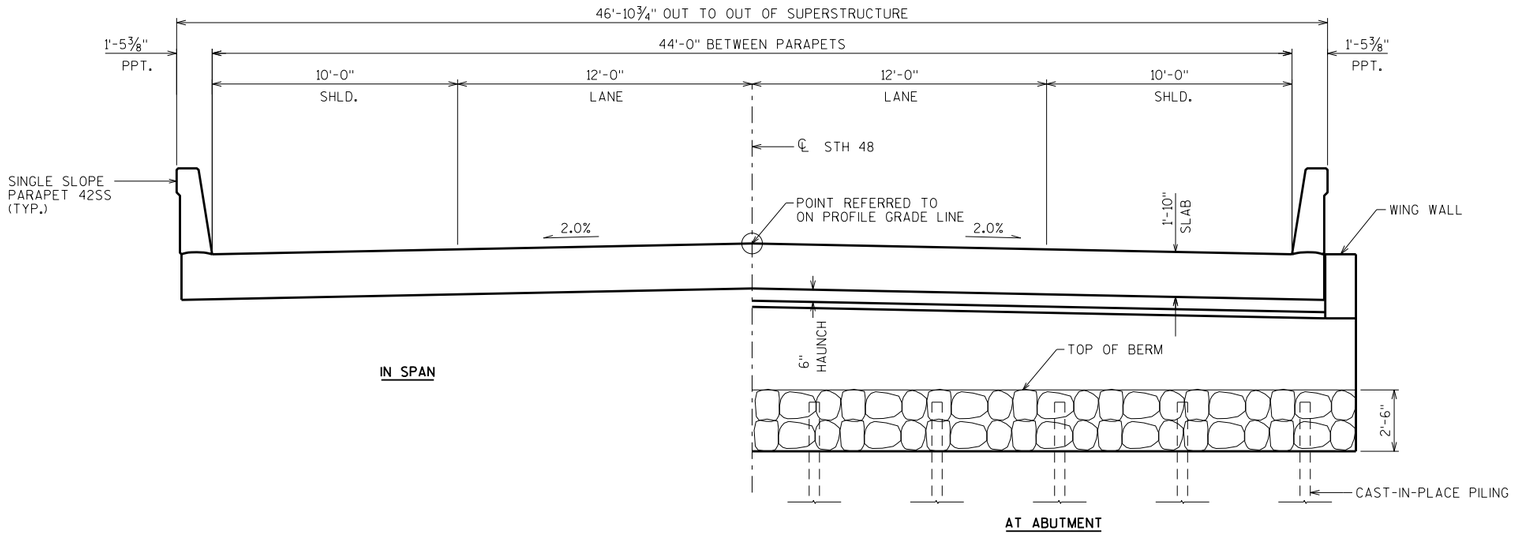
SHEET 1 OF 11

I.D. 8120-07-03B DATE: MAY 2017

SCALE = 8.00

8

8



CROSS SECTION THRU ROADWAY LOOKING EAST

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST APPROACH	WEST ABUT.	EAST ABUT.	EAST APPROACH	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 563+10	LS	———	———	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-03-204	LS	———	———	———	———	———	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	———	———	96	110	———	206
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	———	147	———	———	147	294
502.0100	CONCRETE MASONRY BRIDGES	CY	139	64	42	45	64	354
502.3200	PROTECTIVE SURFACE TREATMENT	SY	207	98	———	———	98	403
502.3210	PIGMENTED SURFACE SEALER	SY	36	19	———	———	19	74
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	———	———	2805	2860	———	5,665
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	25890	10875	1330	1365	10875	50,335
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	425	———	———	———	———	425
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	———	12	12	———	24
550.2108	PILING CIP CONCRETE 10 3/4" X 0.50-INCH	LF	———	———	520	520	———	1,040
606.0300	RIPRAP HEAVY	CY	———	———	100	100	———	200
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	———	110	110	———	220
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	———	———	———	———	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	———	———	68	68	———	136
645.0120	GEOTEXTILE TYPE HR	SY	———	———	180	180	———	360
	NON-BID ITEMS							
	FILLER	SIZE	———	———	———	———	———	½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL. ALSO EXCLUDED IS THE "BASE AGGREGATE DENSE 1 1/4-INCH" AS DETAILED ON THE STRUCTURAL APPROACH SLAB SHEETS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

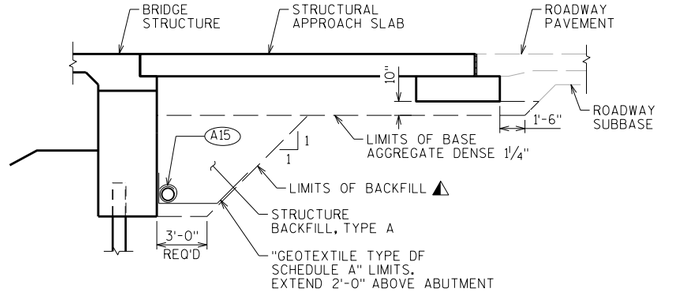
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK AND APPROACH SLAB SURFACES AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON APPROACH SLABS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

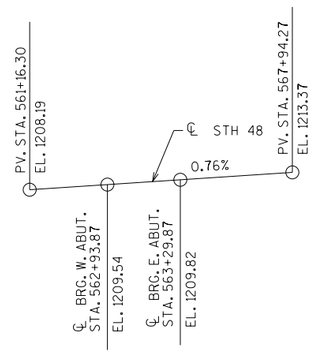
SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.



TYPICAL SECTION THRU ABUTMENT

(A1 ABUTMENT WITH STRUCTURAL APPROACH)



PROFILE GRADE LINE - ℄ STH 48

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. PIPE UNDERDRAIN TO DAYLIGHT NO LOWER THAN EL. 1202.40.

STATE PROJECT NUMBER

8120-07-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-03-204

DRAWN BY AA | PLANS CK'D. ABS

CROSS SECTION & QUANTITIES

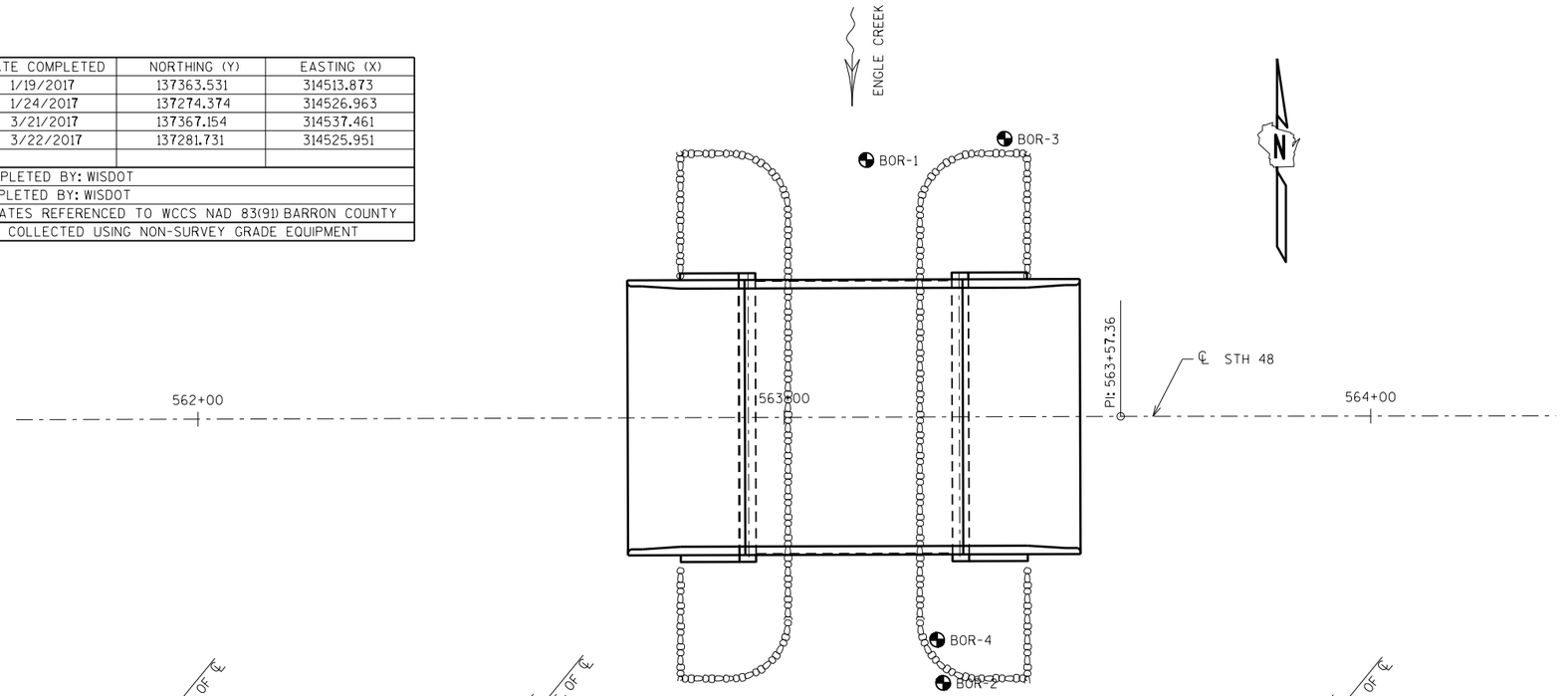
SHEET 2

8

8

SCALE = 3.00

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	1/19/2017	137363.531	314513.873
2	1/24/2017	137274.374	314526.963
3	3/21/2017	137367.154	314537.461
4	3/22/2017	137281.731	314525.951
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BARRON COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			



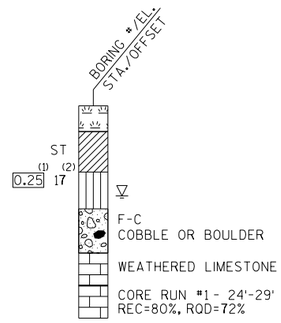
STATE PROJECT NUMBER

8120-07-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-3-204

DRAWN BY TLP/AA | PLANS CK'D. ABS

SUBSURFACE EXPLORATION

SHEET 3

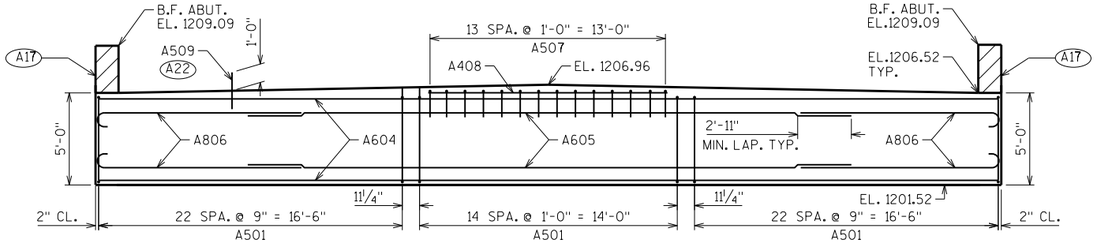
SCALE = 1.25

8

8

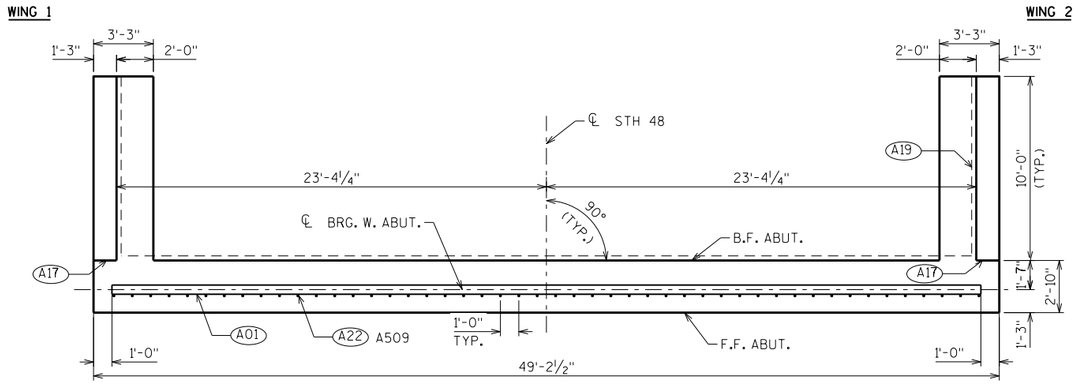
STATE PROJECT NUMBER

8120-07-73

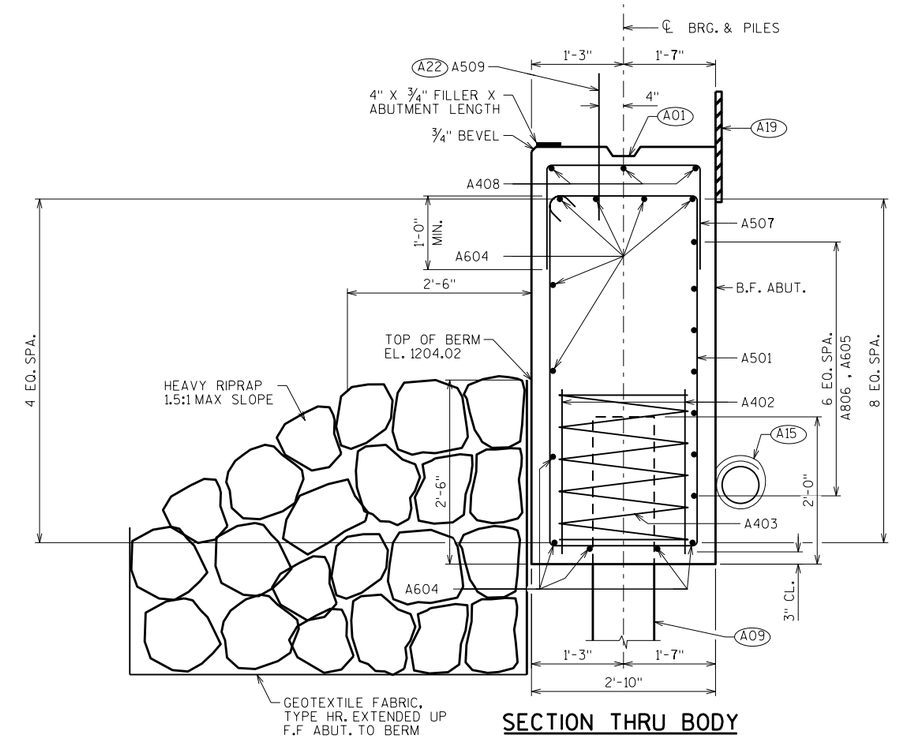


ELEVATION

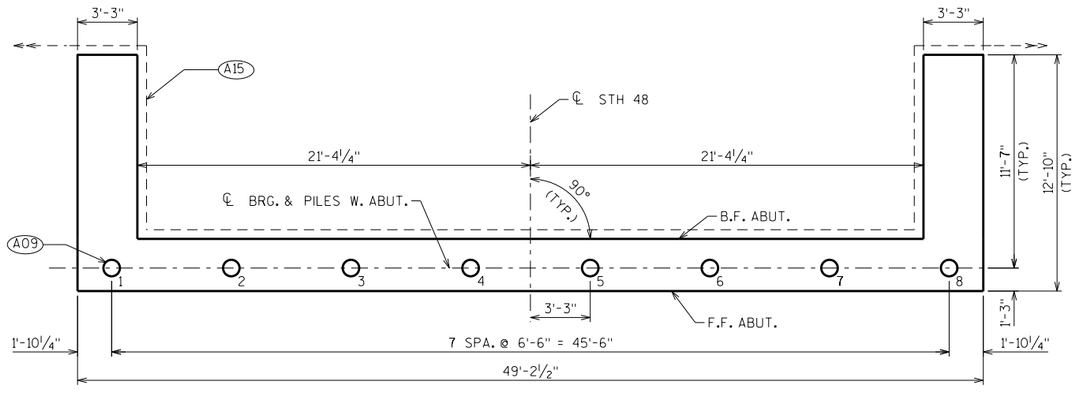
LOOKING WEST



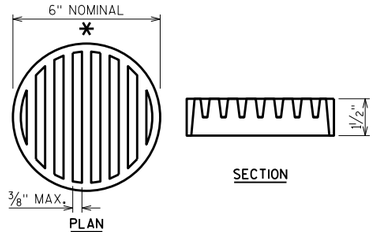
PLAN



SECTION THRU BODY



PILE PLAN



RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

(A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.

(A09) SUPPORT ABUTMENT ON 10 3/4" DIA. X 0.500" CIP CONCRETE PILING, ESTIMATED 65'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. PIPE UNDERDRAIN TO DAYLIGHT NO LOWER THAN EL. 1202.40.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A22) A509 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-03-204

DRAWN BY AA | PLANS CK'D. ABS

WEST ABUTMENT

SHEET 4

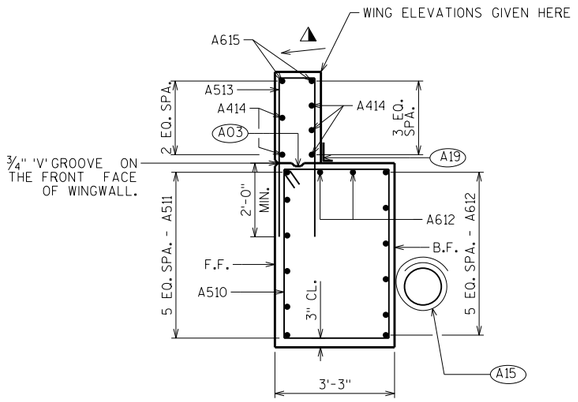
SCALE = 4.00

8

8

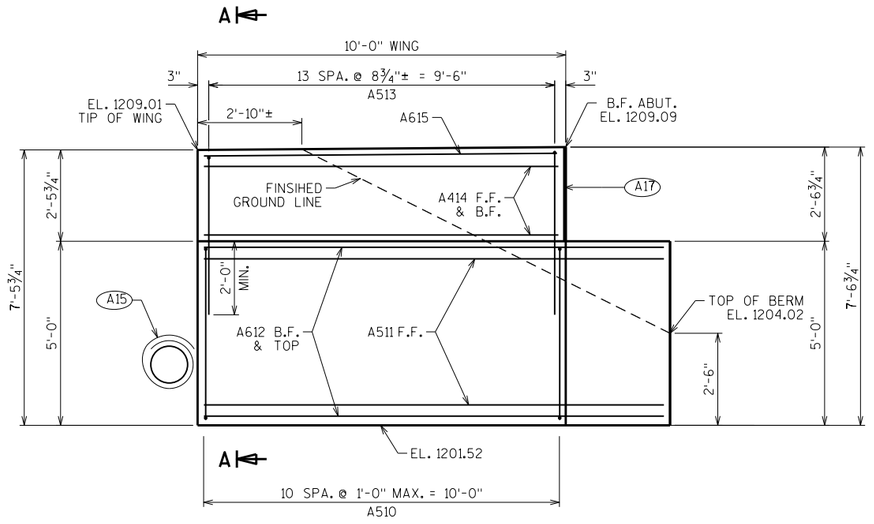
STATE PROJECT NUMBER

8120-07-73



WING 1 AND 2 SECTION A-A

(WING 1 SHOWN, WING 2 SIMILAR)



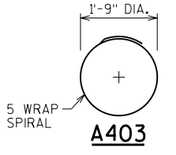
WING 1 AND 2 ELEVATION

(F.F. WING 1 SHOWN, WING 2 SIMILAR)

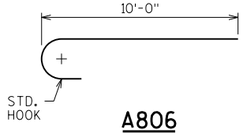
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

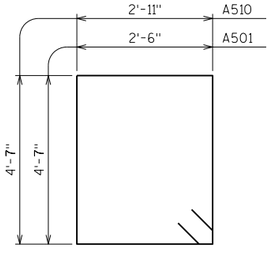
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		61	14'-10	X		BODY- STIRRUP
A402		16	2'-3"			BODY- 2 PER BODY PILE- VERT.
A403		8	28'-0"	X		BODY- 1 PER BODY PILE-VERT.
A604		11	48'-10"			BODY- HORIZONTAL
A605		7	35'-0"			BODY- HORIZ. B.F.
A806		14	10'-11"	X		BODY- HORIZ. B.F. - HOOK ENDS
A507		14	5'-3"	X		BODY- VERT.
A408		3	14'-0"			BODY- HORIZONTAL- TOP
A509	X	48	2'-0"			BODY- VERT. DOWELS
A510	X	22	15'-8"	X		WINGS 1 & 2 - STIRRUP
A511	X	12	12'-6"			WINGS 1 & 2 - HORIZ. F.F.
A612	X	16	12'-6"			WINGS 1 & 2 - HORIZ. TOP & B.F.
A513	X	28	10'-0"	X		WINGS 1 & 2 - VERT.
A414	X	10	9'-7"			WINGS 1 & 2 - HORIZ. B.F. & F.F.
A615	X	4	9'-7"			WINGS 1 & 2 - HORIZ. - TOP.



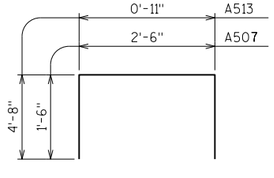
A403



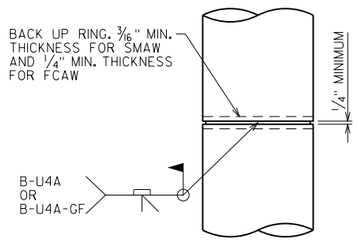
A806



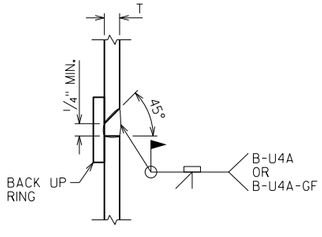
A501, A510



A507, A513



CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL

PILE DETAILS

▲ SLOPE TOP OF WINGS 1/8" PER FOOT TO DRAIN.

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. PIPE UNDERDRAIN TO DAYLIGHT NO LOWER THAN EL. 1202.40.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-03-204

DRAWN BY AA | PLANS CK'D. ABS

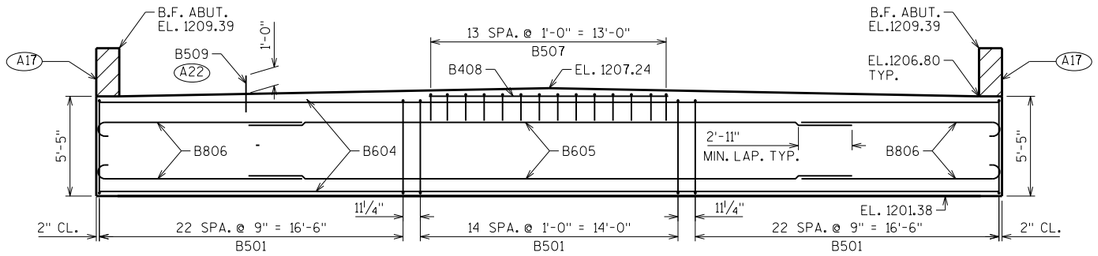
WEST ABUTMENT DETAILS

SHEET 5

SCALE = 2.00

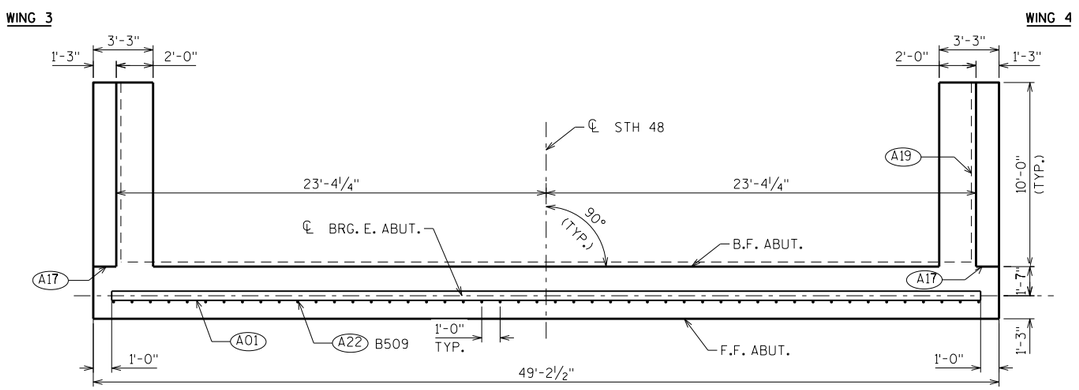
STATE PROJECT NUMBER

8120-07-73

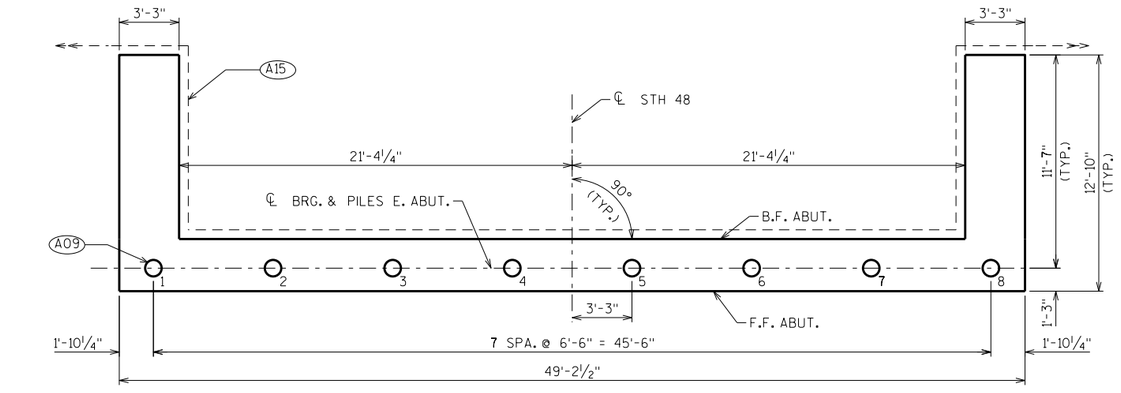


ELEVATION

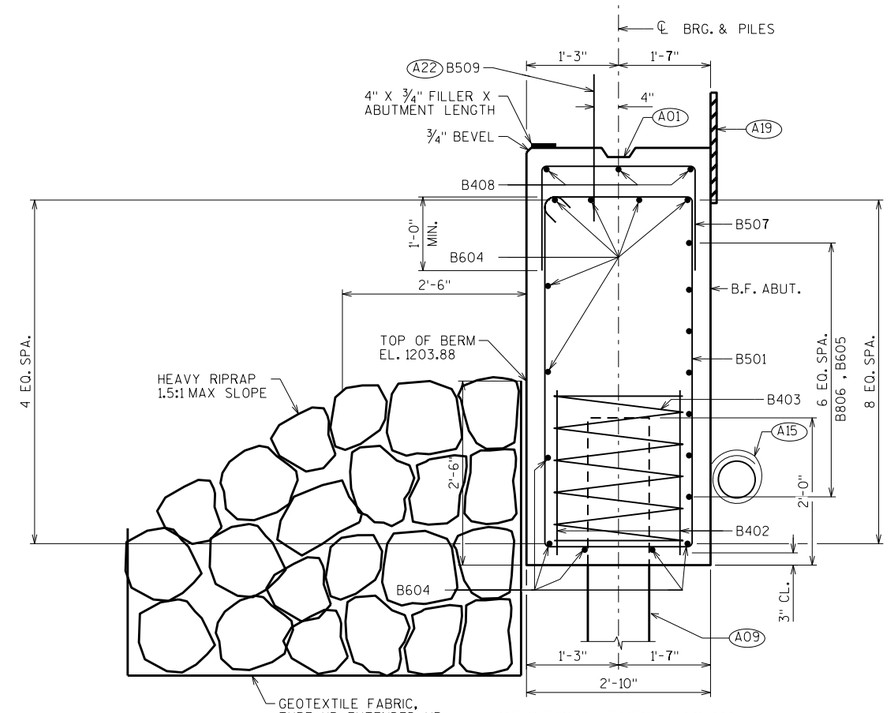
LOOKING EAST



PLAN



PILE PLAN



SECTION THRU BODY

(A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.

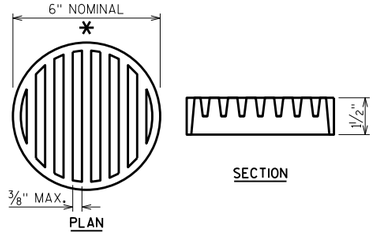
(A09) SUPPORT ABUTMENT ON 10 3/4" DIA. X 0.500" CIP CONCRETE PILING, ESTIMATED 65'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. PIPE UNDERDRAIN TO DAYLIGHT NO LOWER THAN EL. 1202.40.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH); SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A22) B509 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)



RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-03-204

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EAST ABUTMENT

SHEET 6

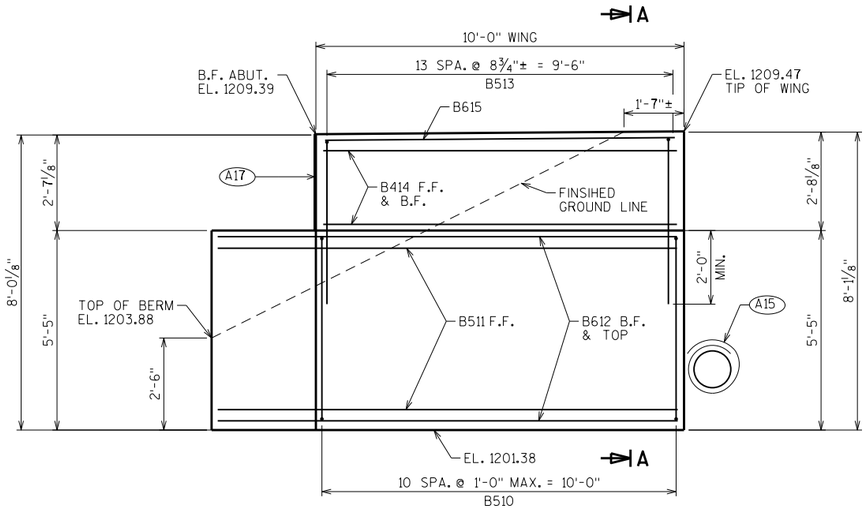
8

8

SCALE = 4.00

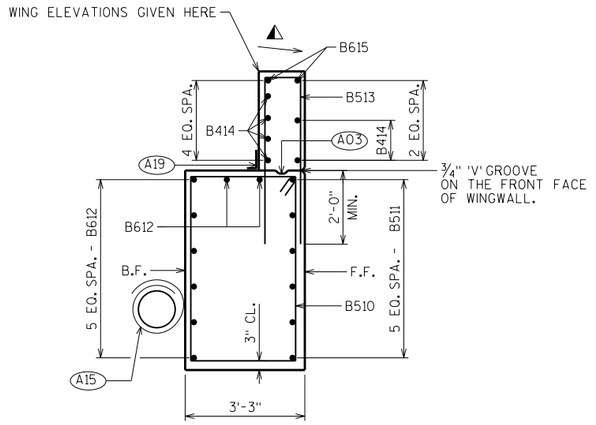
STATE PROJECT NUMBER

8120-07-73



WING 3 AND 4 ELEVATION

(F.F. WING 4 SHOWN, WING 3 SIMILAR)



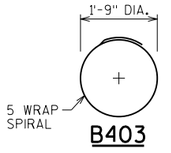
WING 3 AND 4 SECTION A-A

(F.F. WING 4 SHOWN, WING 3 SIMILAR)

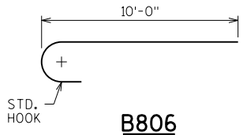
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		61	15'-8"	X		BODY- STIRRUP
B402		16	2'-3"			BODY- 2 PER BODY PILE- VERT.
B403		8	28'-0"	X		BODY- 1 PER BODY PILE-VERT.
B604		11	48'-10"			BODY- HORIZONTAL
B605		7	35'-0"			BODY- HORIZ. B.F.
B806		14	10'-11"	X		BODY- HORIZ. B.F. - HOOK ENDS
B507		14	5'-3"	X		BODY- VERT.
B408		3	14'-0"			BODY- HORIZONTAL- TOP
B509	X	48	2'-0"			BODY- VERT. DOWELS
B510	X	22	16'-6"	X		WINGS 3 & 4 - STIRRUP
B511	X	12	12'-6"			WINGS 3 & 4 - HORIZ. F.F.
B612	X	16	12'-6"			WINGS 3 & 4 - HORIZ. TOP & B.F.
B513	X	28	10'-0"	X		WINGS 3 & 4 - VERT.
B414	X	12	9'-7"			WINGS 3 & 4 - HORIZ. B.F. & F.F.
B615	X	4	9'-7"			WINGS 3 & 4 - HORIZ. - TOP



B403



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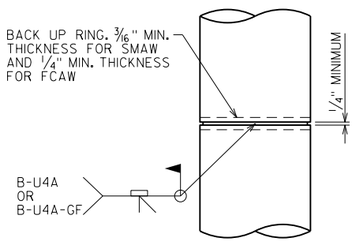
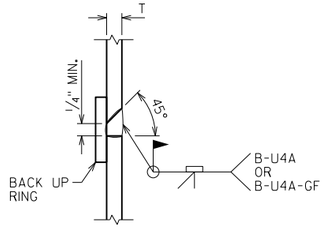
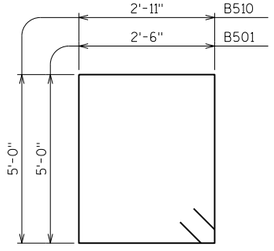


CAST-IN-PLACE 'PIPE PILE'

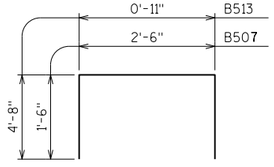


C.I.P. PILE WELD DETAIL

PILE DETAILS



B501, B510



B507, B513

▲ SLOPE TOP OF WINGS ⅛" PER FOOT TO DRAIN.

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. PIPE UNDERDRAIN TO DAYLIGHT NO LOWER THAN EL. 1202.40.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-03-204

DRAWN BY AA | PLANS CK'D. ABS

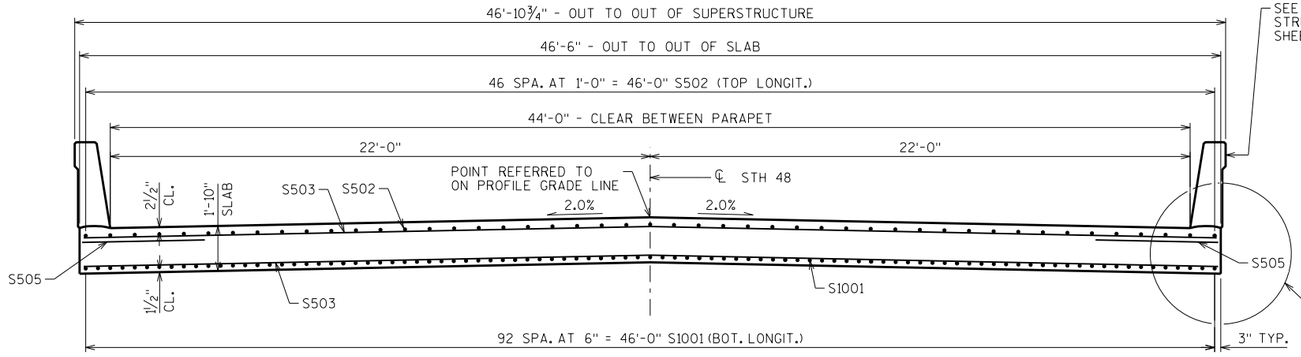
EAST ABUTMENT DETAILS

SHEET 7

SCALE = 2.00

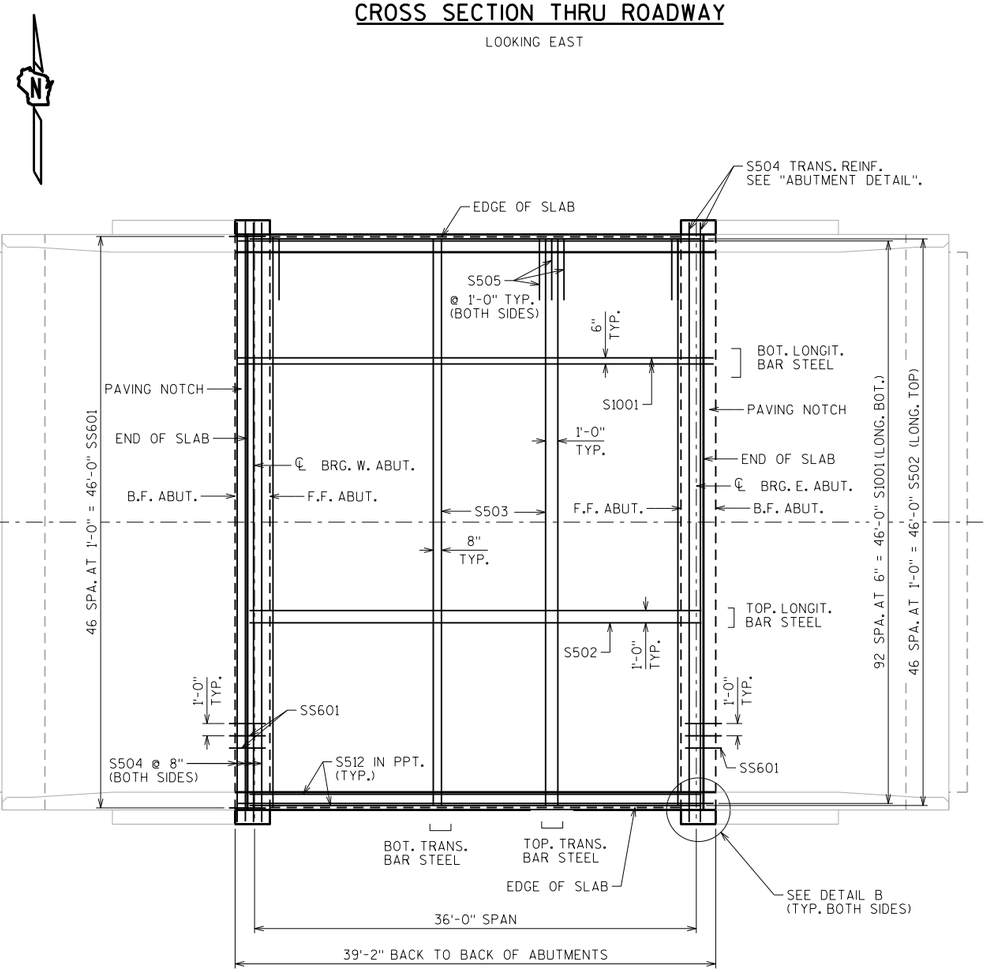
STATE PROJECT NUMBER

8120-07-73

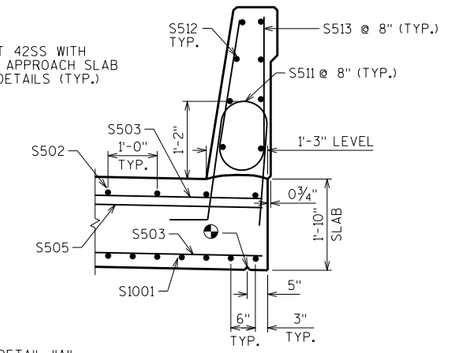


CROSS SECTION THRU ROADWAY

LOOKING EAST



PLAN



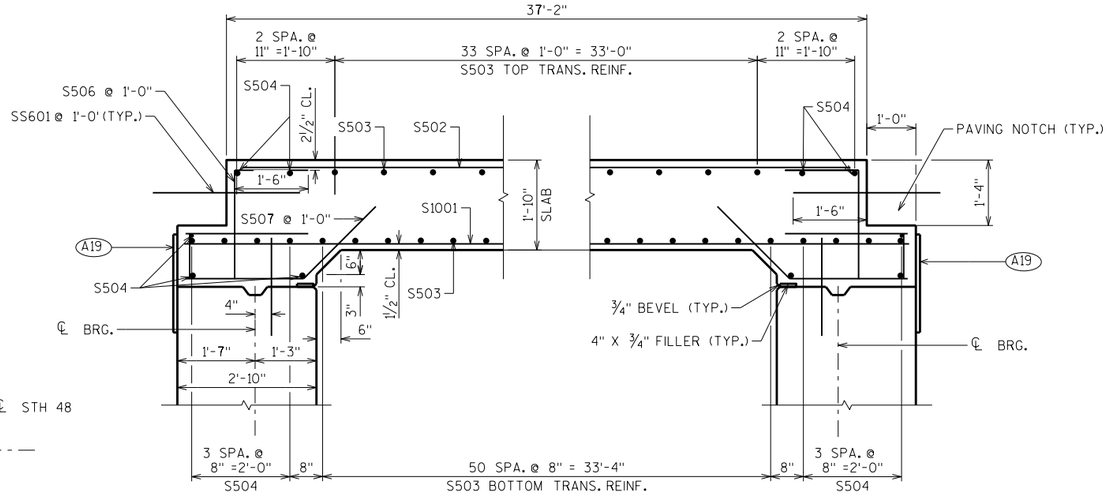
DETAIL A

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

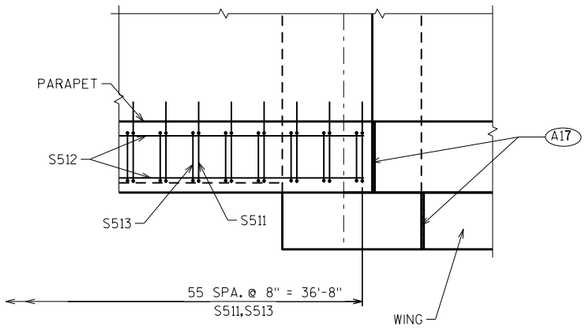
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER THE FALSEWORK HAS BEEN RELEASED.



LONGITUDINAL SECTION

LOOKING NORTH



DETAIL B

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH); SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

¾" V-GROOVE. EXTEND V-GROOVE TO 6" FROM F.F. OF ABUT. TYP.
V-GROOVES ARE REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-03-204

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SUPERSTRUCTURE

SHEET 8

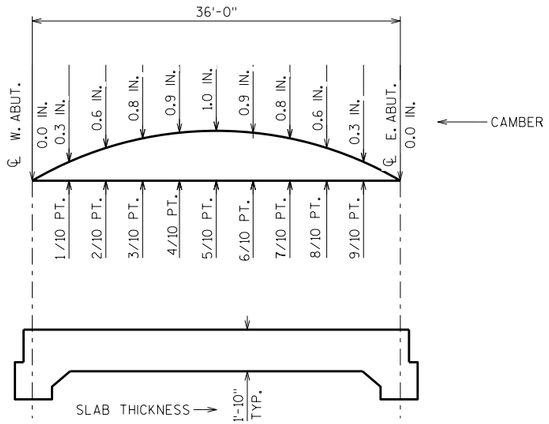
8

8

SCALE = 6.00

STATE PROJECT NUMBER

8120-07-73



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.
PARAPET PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION.

SURVEY TOP OF SLAB ELEVATIONS

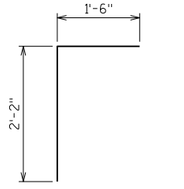
	WEST ABUTMENT	5/10 PT.	EAST ABUTMENT
N. GUTTER			
℄ STH 48			
S. GUTTER			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE ℄ OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

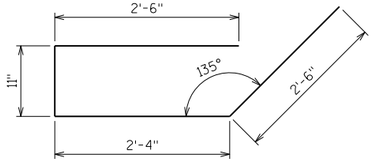
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S1001	X	93	38'-10"			SLAB-LONG. BOT
S502	X	47	36'-10"			SLAB-LONG. TOP
S503	X	85	46'-2"			SLAB-TRANS. BOT. & TOP
S504	X	18	48'-10"			SLAB-TRANS. BOT. & TOP AT ABUTS.
S505	X	74	5'-0"			SLAB-TRANS. TOP EDGES
S506	X	94	3'-7"	X		SLAB-VERTICAL
S507	X	94	7'-10"	X		SLAB AT ABUTMENT
S508	X	8	10'-0"	X		SLAB-VERT. AT ABUTMENTS END
S509	X	4	7'-0"	X		SLAB- VERT. AT ABUTMENTS END
S510	X	4	0'-11"			SLAB-HORIZ. AT ABUTMENTS END
S511	X	112	4'-5"	X		42SS PARAPET-VERT.
S512	X	16	36'-10"			42SS PARAPET- LONG.
S513	X	112	6'-8"	X		42SS PARAPET- VERT.
STAINLESS STEEL → S601	X	94	3'-0"			STRUCTURAL SLAB TO APPROCH SLAB



S506



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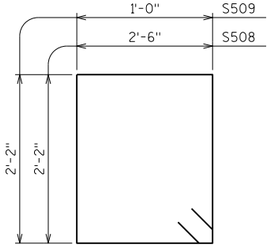
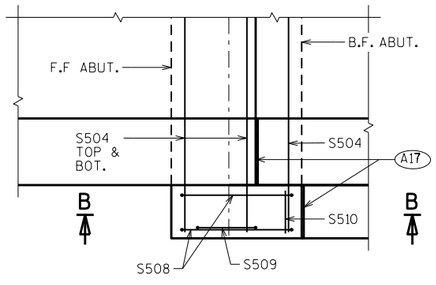
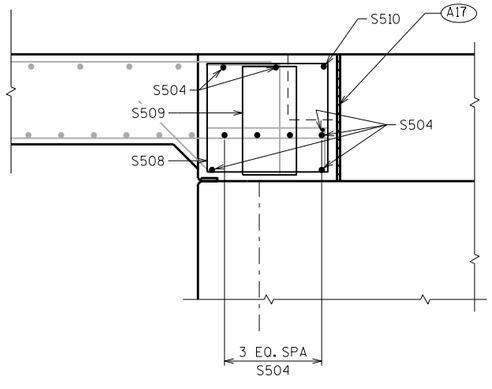


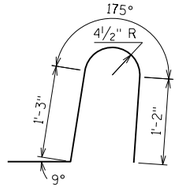
S508, S509



PLAN



SECTION B-B



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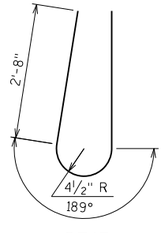


S513

TOP OF SLAB ELEVATIONS

LOCATION	℄ BRG. W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ BRG. E. ABUT.
N. EDGE OF DECK	1209.10	1209.13	1209.16	1209.19	1209.21	1209.24	1209.27	1209.30	1209.32	1209.35	1209.38
CROWN	1209.54	1209.57	1209.60	1209.63	1209.65	1209.68	1209.71	1209.74	1209.76	1209.79	1209.82
S. EDGE OF DECK	1209.10	1209.13	1209.16	1209.19	1209.21	1209.24	1209.27	1209.30	1209.32	1209.35	1209.38

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-03-204

DRAWN BY AA | PLANS CK'D. ABS

SUPERSTRUCTURE DETAILS

SHEET 9

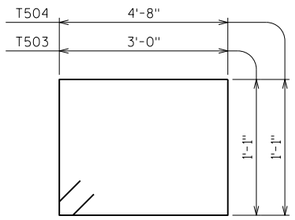
SCALE = 1.00

8

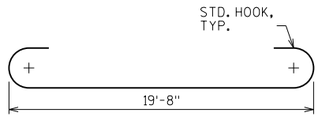
8

STATE PROJECT NUMBER

8120-07-73



T503, T504



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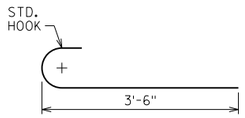
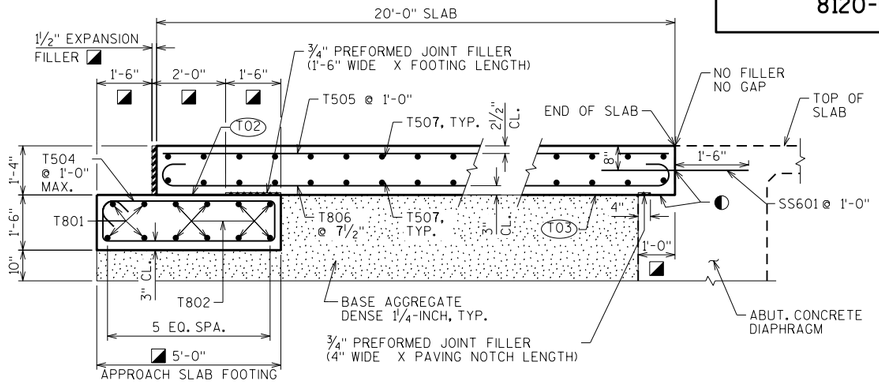
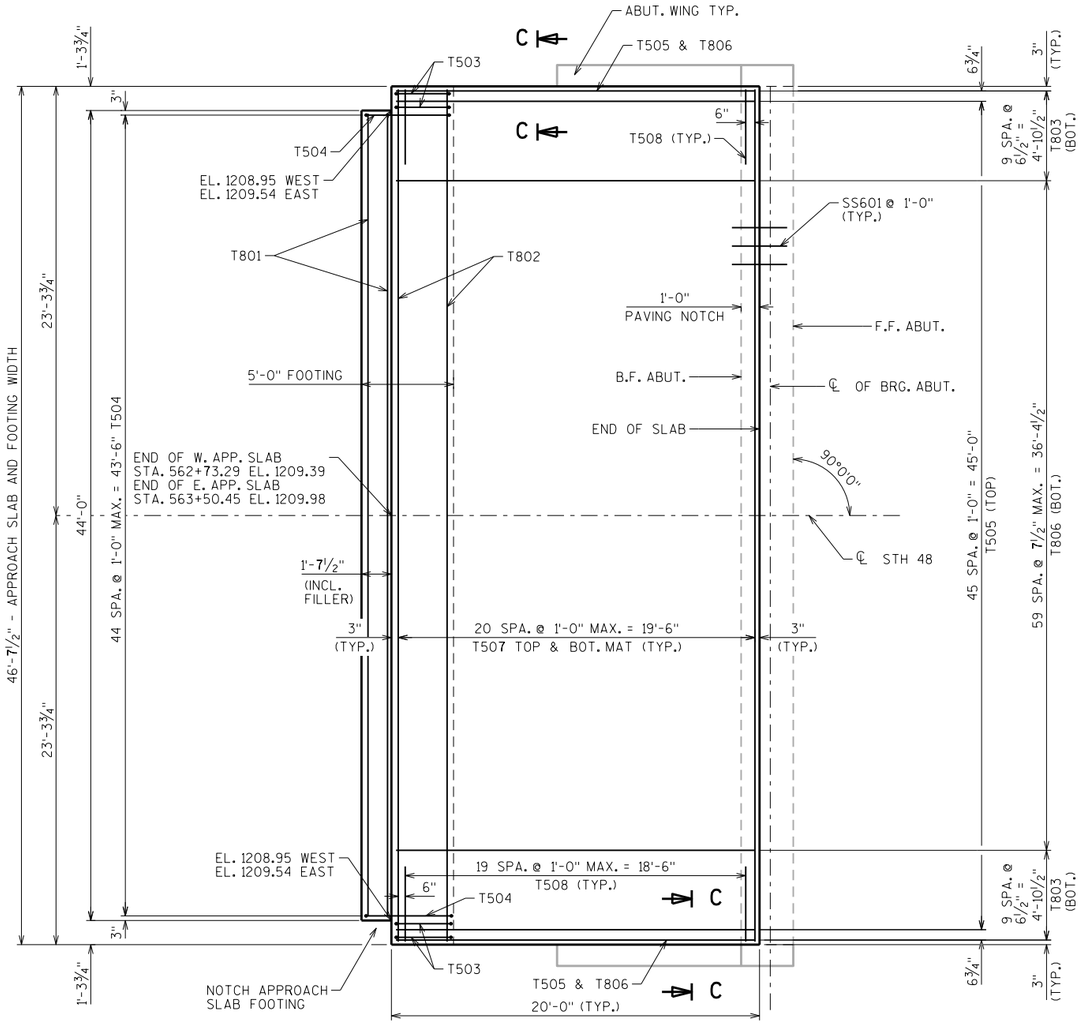


T508

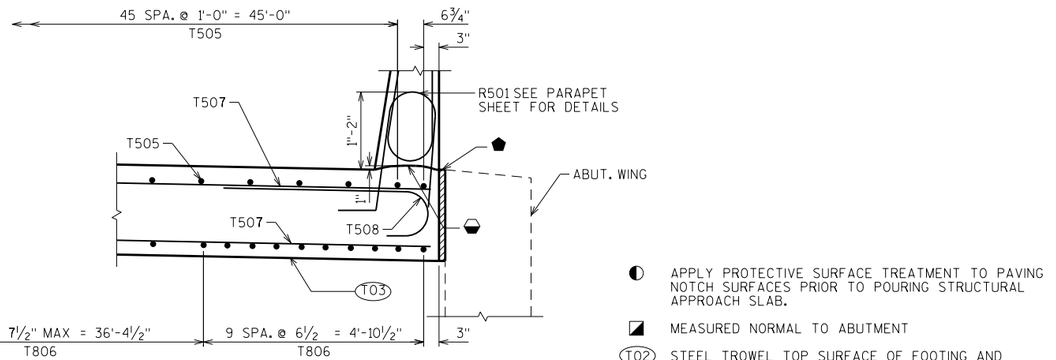


SECTION THRU APPROACH SLAB



PLAN

WEST SHOWN, EAST IS SIMILAR



DETAIL C-C

◐ APPLY PROTECTIVE SURFACE TREATMENT TO PAVING NOTCH SURFACES PRIOR TO POURING STRUCTURAL APPROACH SLAB.

◪ MEASURED NORMAL TO ABUTMENT

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE LENGTH OF THE SUBGRADE.

⬟ SEE ALL EXPOSED HORIZONTAL AND VERTICAL SURFACE OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE) EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

⬭ CONST. JOINT - STRIKE OFF AS SHOWN

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.		LENGTH	BENT	LOCATION
		E. SLAB	W. SLAB			
T801	X	4	4	43'-8"		FOOTING - HORIZONTAL
T802	X	8	8	46'-3"		FOOTING - HORIZONTAL
T503	X	4	4	8'-10"	X	FOOTING - STIRRUP
T504	X	45	45	12'-2"	X	FOOTING - STIRRUP
T505	X	48	48	19'-8"		APPROACH SLAB - LONGITUDINAL - TOP
T806	X	78	78	21'-6"	X	APPROACH SLAB - LONGITUDINAL - BOTTOM
T507	X	42	42	46'-3"		APPROACH SLAB - TRANSVERSE - TOP & BOTTOM
T508	X	40	40	4'-1"	X	APPROACH SLAB - TRANSVERSE - TOP EDGES OF SLAB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-03-204

DRAWN BY AA | PLANS CK'D. ABS

STRUCTURAL APPROACH SLABS

SHEET 10

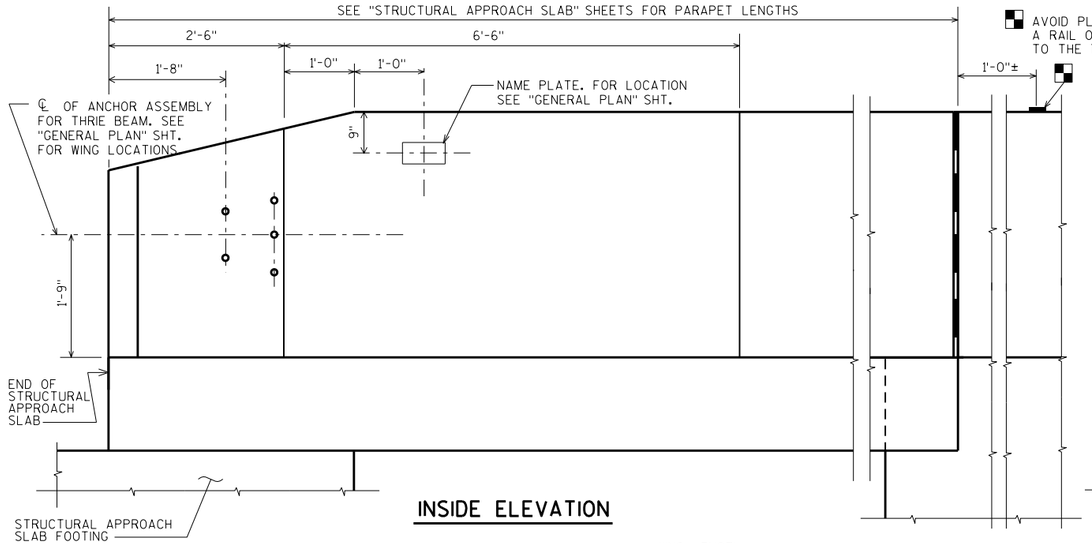
8

8

SCALE = 4.00

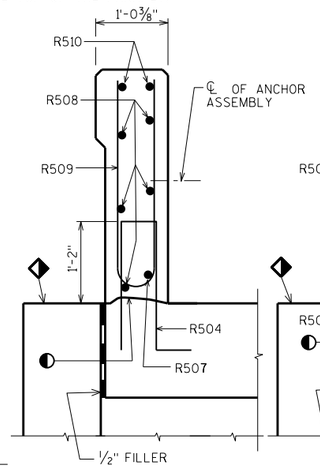
STATE PROJECT NUMBER

8120-07-73

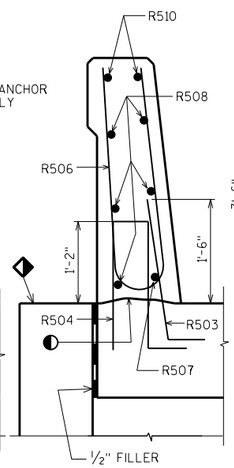


INSIDE ELEVATION

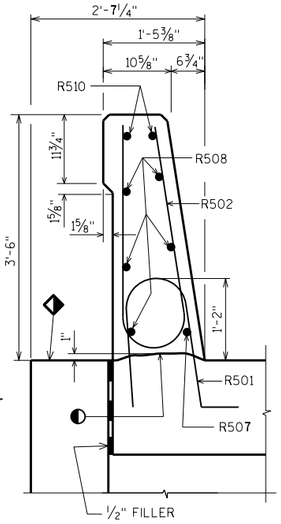
AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.



SECTION A



SECTION B



SECTION C

BILL OF BARS

FOR STRUCTURAL APPROACH SLAB PARAPETS

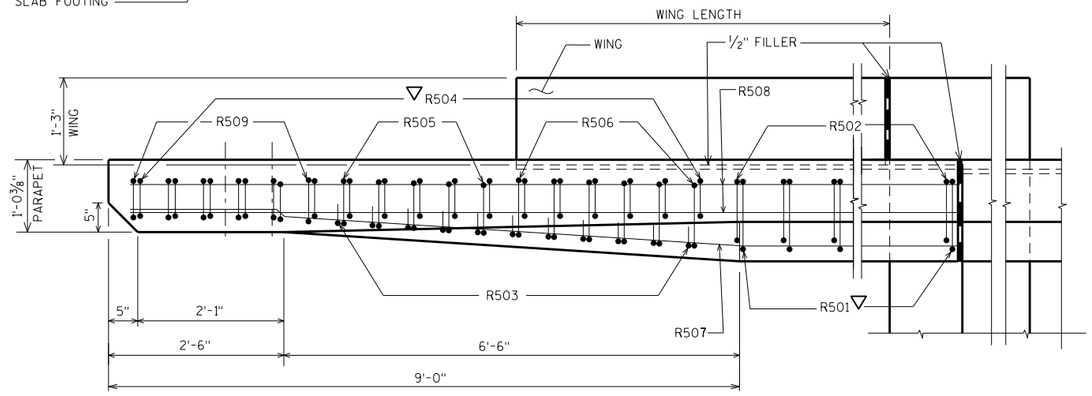
BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4'-5"	X		PARAPET VERT.
R502	X	34	34	6'-8"	X		PARAPET VERT.
R503	X	22	22	2'-9"	X		PARAPET VERT.
R504	X	34	34	4'-4"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	19'-7"	X		PARAPET HORIZ.
R508	X	10	10	19'-7"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	⚠	PARAPET VERT.
R510	X	4	4	19'-7"	X		PARAPET HORIZ

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

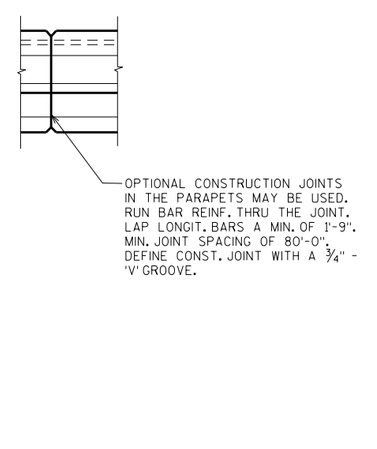
BAR SERIES TABLE

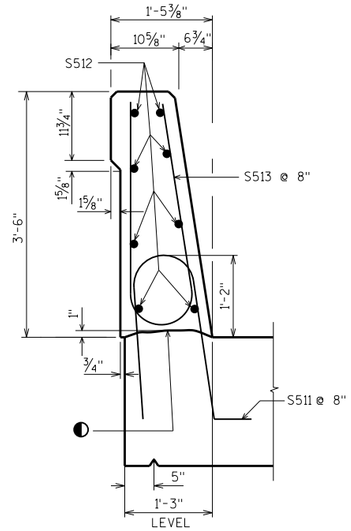
MARK	NO. REQD.	LENGTH
S509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

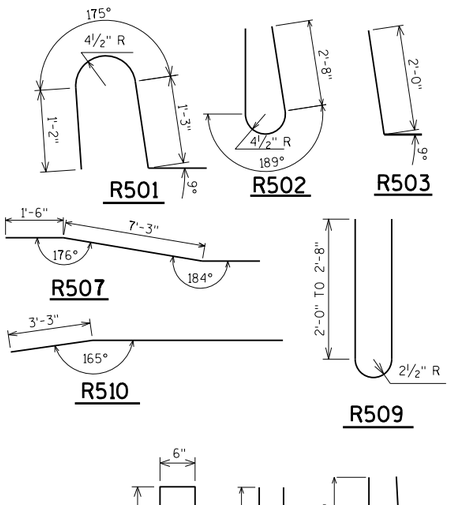


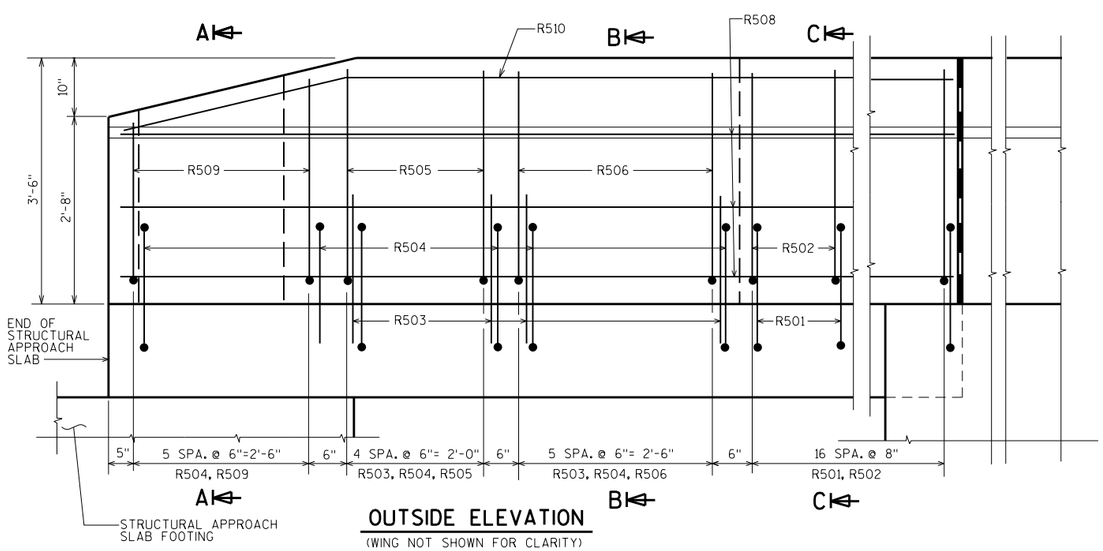
PLAN





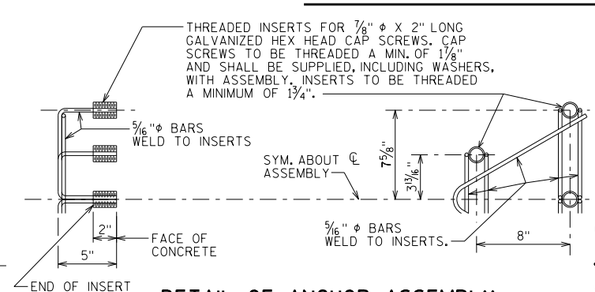
SECTION THROUGH PARAPET ON THE BRIDGE





OUTSIDE ELEVATION

(WING NOT SHOWN FOR CLARITY)



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◆ SLOPE FOR DRAINAGE

▽ R501 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-03-204

DRAWN BY AA | PLANS CK'D. ABS

PARAPET 42SS WITH STRUCTURAL APPROACH SLAB

SHEET 11

SCALE = 1:1

8

8

STATE PROJECT NUMBER

8120-07-73

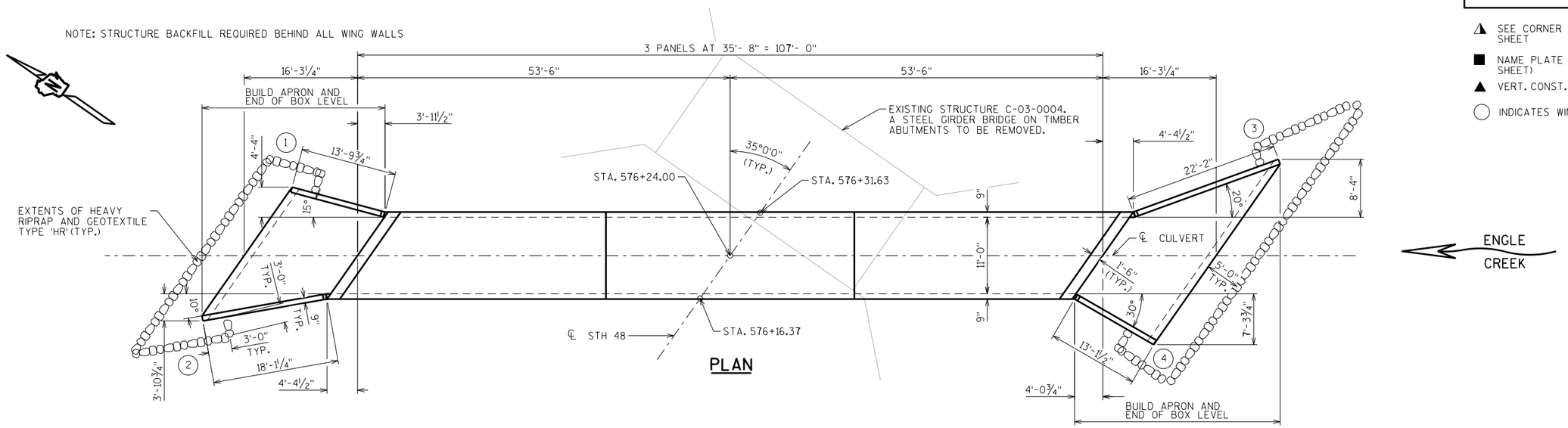
▲ SEE CORNER DETAILS ON "DETAILS" SHEET

■ NAME PLATE LOCATION (SEE "DETAILS" SHEET)

▲ VERT. CONST. JOINT (TYP.)

◯ INDICATES WING NUMBER

NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS



ELEVATION

LIST OF DRAWINGS

STRUCTURE DESIGN CONTACTS:

AIHAM ALSKIF (608) 261-6113

AARON BONK (608) 261-0261

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.05
OPERATING RATING FACTOR: RF = 1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255(KIPS)

EARTHLOAD:

DESIGNED FOR 3 TO 4 FT. OF FILL.

MATERIAL PROPERTIES:

CONCRETE MASONRY: ——— f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT: ——— fy = 60,000 P.S.I.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} = 260 C.F.S.
VEL. = 8.5 F.P.S.
HW_{100} = EL. 1213.04
WATERWAY AREA = 71.5 SQ. FT.
DRAINAGE AREA = 0.5 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

2 YEAR FREQUENCY

Q_2 = 53 C.F.S.
HW_2 = EL. 1210.99

TRAFFIC VOLUME

STH 48

ADT = 6200 (2016)
R.D.S. = 55 M.P.H.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 576+40.00	LS	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-03-61	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	620
311.0115	BREAKER RUN	CY	430
504.0100	CONCRETE MASONRY CULVERTS	CY	156
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	29795
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1910
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	27
606.0300	RIPRAP HEAVY	CY	25
645.0105	GEOTEXTILE TYPE C	SY	500
645.0120	GEOTEXTILE TYPE HR	SY	75
	NON-BID ITEMS		
	FILLER	EACH	¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-3 -61 " SHALL BE THE EXISTING GROUNDLINE.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND 6" MIN. BELOW THE TOP OF THE BOTTOM SLAB.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS ON CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-03-61

STH 48 OVER ENGLE CREEK

COUNTY: BARRON | TOWN: STANFOLD

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
AA	NAR	AA	NAR

LAYOUT

SHEET 1 OF 5

I.D. 8120-07-03C DATE: MAY 2017

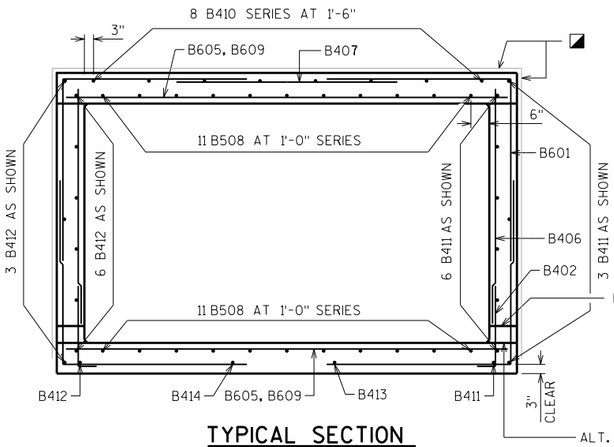
SCALE = 8.00

8

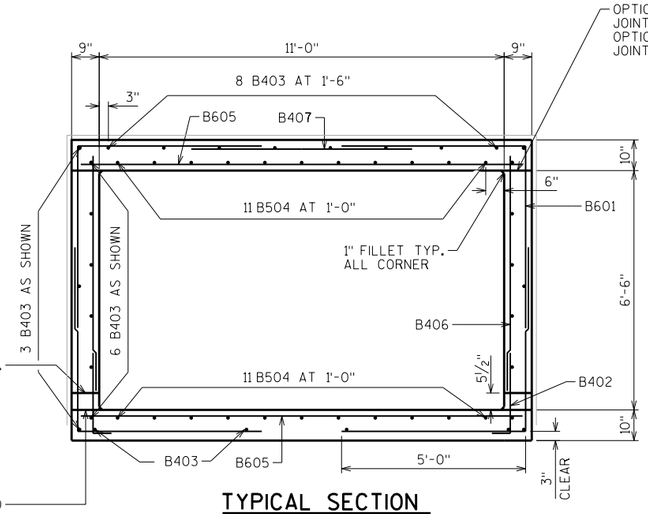
8

STATE PROJECT NUMBER

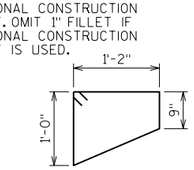
8120-07-73



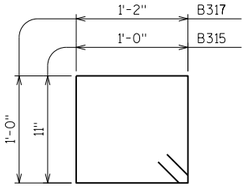
TYPICAL SECTION THRU BOX-EXTERIOR PANEL



TYPICAL SECTION THRU BOX-INTERIOR PANEL



B316



B315, B317

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

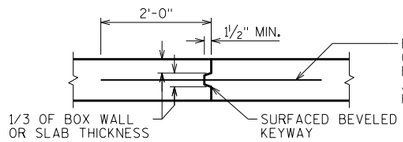
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B601		864	10'-0"	X	NO	CORNER
B402		220	3'-0"	X	NO	WALLS-DOWELS - VERT.
B403		30	35'-4"		NO	WALLS- TOP AND BOTTOM SLAB - LONGIT.
B504		22	35'-4"		NO	BOTTOM AND TOP SLABS - LONGIT.
B605		396	12'-2"		NO	BOTTOM AND TOP SLABS - TRANS.
B406		220	6'-8"		NO	WALLS- VERTICAL
B407		71	5'-10"		NO	TOP SLAB - TRANS.
B508		44	35'-3"		YES	BOTTOM AND TOP SLABS - LONGIT.
B609		48	7'-4"		YES	BOTTOM AND TOP SLABS - TRANS.
B410		16	35'-3"		YES	TOP SLAB - LONGIT.
B411		20	31'-6"		NO	SHORT WALL - LONGIT.
B412		20	39'-8"		NO	LONG WALL - LONGIT.
B413		2	34'-0"		NO	BOT. SLAB - LONGIT.
B414		2	36'-2"		NO	BOT. SLAB - LONGIT.
B315		42	4'-3"	X	NO	BOT. HEADER INLET AND OUTLET
B316		21	4'-6"	X	NO	TOP HEADER INLET
B317		21	4'-9"	X	NO	TOP HEADER OUTLET
B918		24	14'-10"		NO	HEADERS INLET & OUTLET
B519		72	4'-0"		NO	VERT. CONST. JT.

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

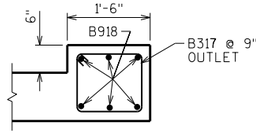
BAR MARK	NO. REQ'D.	LENGTH
B609	4 SERIES OF 12	3'-4" TO 11'-3"
B508	4 SERIES OF 11	31'-9" TO 38'-9"
B410	2 SERIES OF 8	31'-7" TO 38'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.

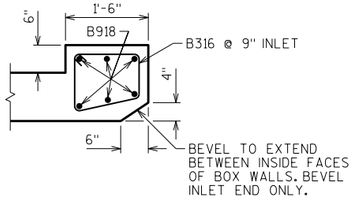


VERTICAL CONSTRUCTION JOINT

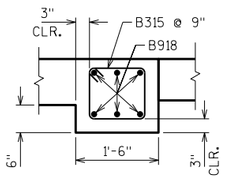
2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.



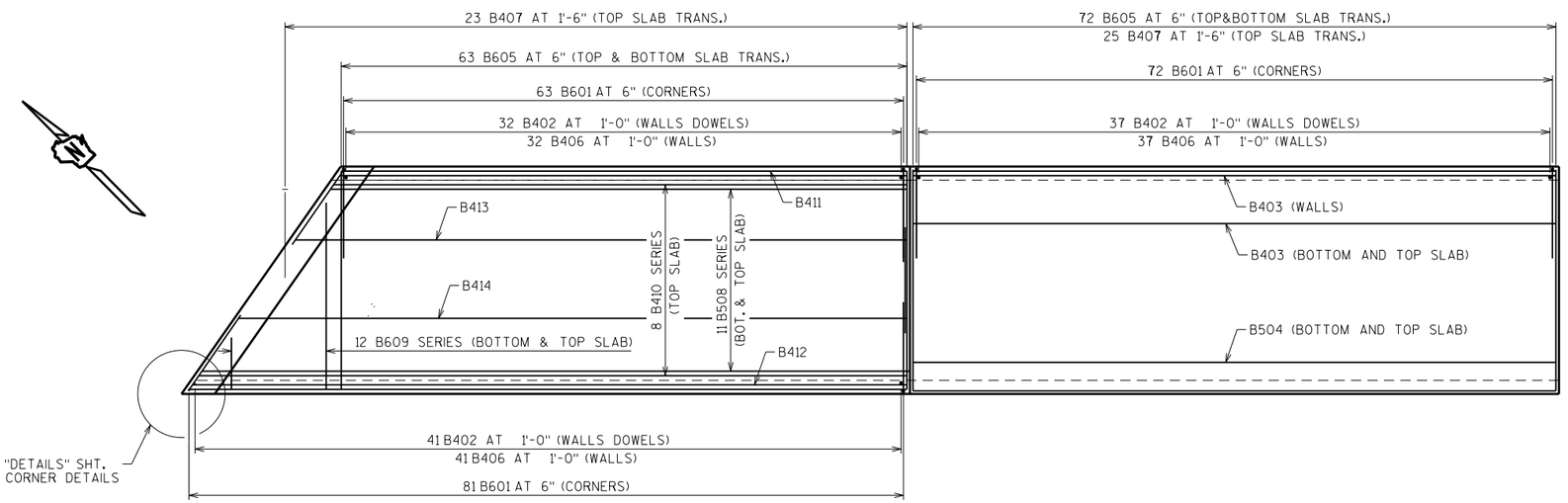
SECTION THRU TOP SLAB OUTLET HEADER



SECTION THRU TOP SLAB INLET HEADER

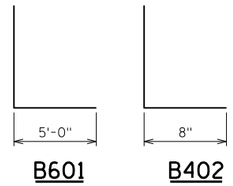


SECTION THRU BOTTOM SLAB HEADER



PLAN VIEW OF EXTERIOR PANEL

PLAN VIEW OF INTERIOR PANEL



B601

B402

◪ 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.) UP WALLS AND ACROSS TOP OF SLAB AT VERTICAL CONST. JOINTS. EXTEND R.M.W. 6" MIN. BELOW THE TOP OF THE BOTTOM SLAB.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-03-61

DRAWN BY AA | PLANS CK'D. NAR

BOX DETAILS

SHEET 2

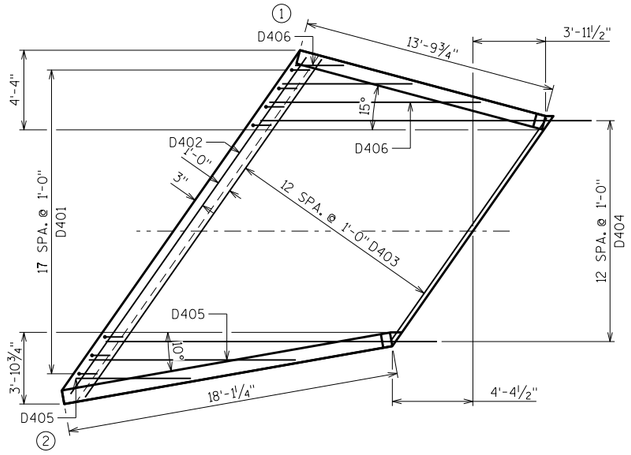
SCALE = 4.00

8

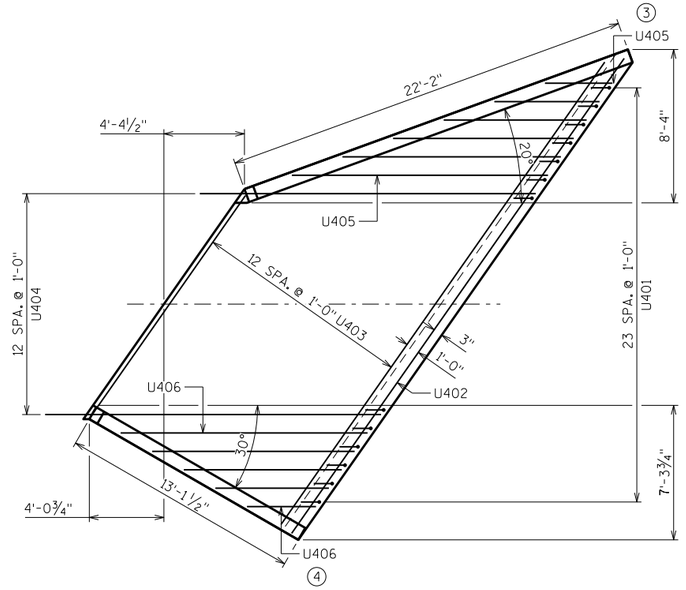
8

STATE PROJECT NUMBER

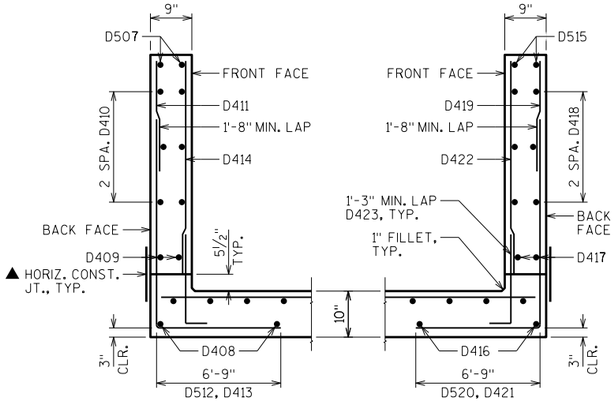
8120-07-73



OUTLET APRON PLAN

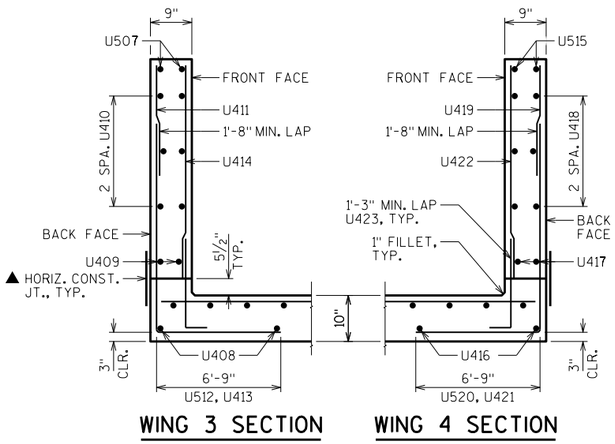


INLET APRON PLAN



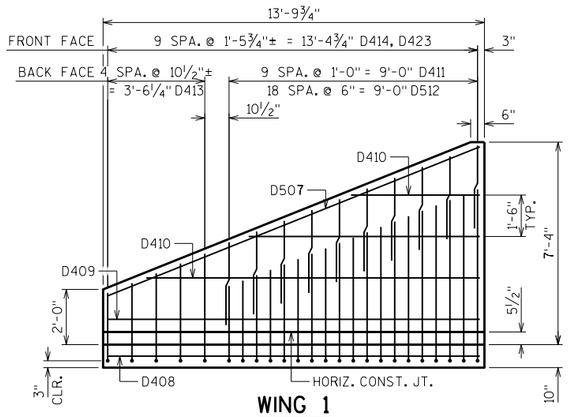
WING 1 SECTION

WING 2 SECTION



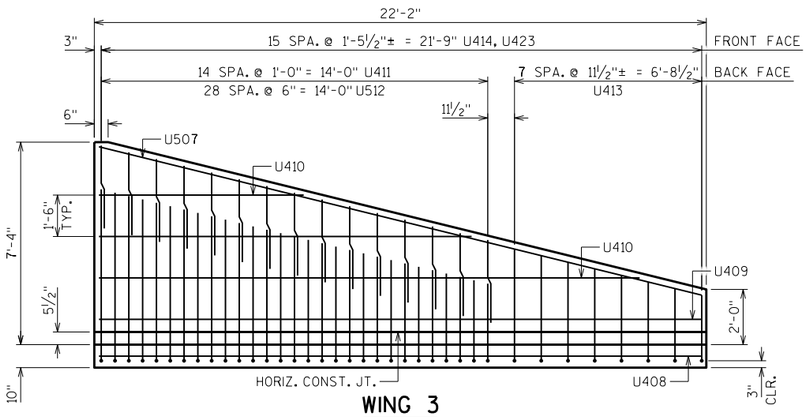
WING 3 SECTION

WING 4 SECTION



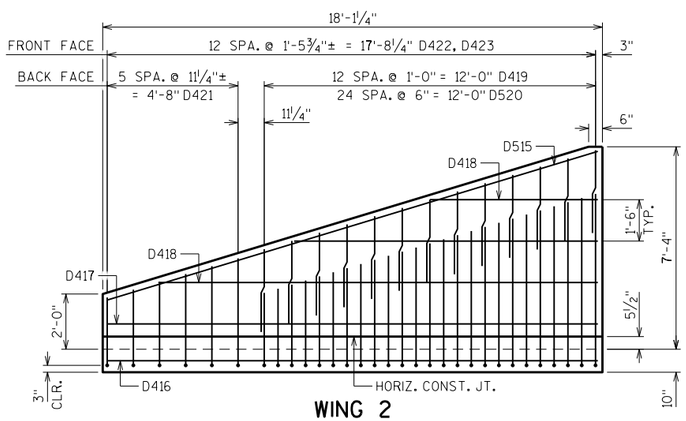
WING 1

SHOWING BACK FACE REINFORCEMENT



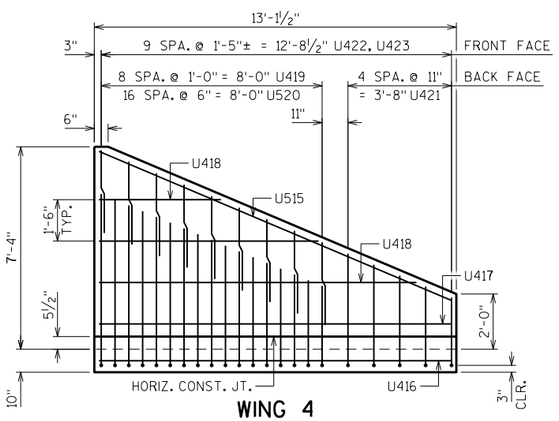
WING 3

SHOWING BACK FACE REINFORCEMENT



WING 2

SHOWING BACK FACE REINFORCEMENT



WING 4

SHOWING BACK FACE REINFORCEMENT

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH, TYP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-03-61

DRAWN BY AA | PLANS CK'D. NAR

APRON DETAILS

SHEET 3

SCALE = 4.00

8

8

STATE PROJECT NUMBER

8120-07-73

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
D401		18	5'-6"	X		OUTLET APRON AND CUTOFF WALL VERT.
D402		5	22'-4"			OUTLET APRON AND CUTOFF WALL HORIZ.
D403		13	18'-8"		⚠	OUTLET APRON SLAB HORIZ.
D404		13	18'-3"			OUTLET APRON AND BOX SLAB HORIZ.
D405		2	8'-9"		⚠	OUTLET APRON SLAB HORIZ.
D406		3	7'-1"		⚠	OUTLET APRON SLAB HORIZ.
D507		2	14'-2"			WING 1 HORIZ. TOP BOTH FACES
D408		2	13'-4"			WING 1 HORIZ. APRON SLAB
D409		2	13'-4"			WING 1 HORIZ. BOTTOM BOTH FACES
D410		6	8'-5"		⚠	WING 1 HORIZ.
D411		10	3'-0"			WING 1 VERT. BACK FACE
D512	X	19	11'-4"	X	⚠	WING 1 VERT. BACK FACE
D413	X	5	9'-10"	X	⚠	WING 1 VERT. BACK FACE
D414	X	10	4'-1"		⚠	WING 1 VERT. FRONT FACE
D515	X	2	18'-4"			WING 2 HORIZ. TOP BOTH FACES
D416	X	2	17'-8"			WING 2 HORIZ. APRON SLAB
D417	X	2	17'-8"			WING 2 HORIZ. BOTTOM BOTH FACES
D418	X	6	11'-0"		⚠	WING 2 HORIZ.
D419	X	13	3'-0"			WING 2 VERT. BACK FACE
D520	X	25	11'-4"	X	⚠	WING 2 VERT. BACK FACE
D421	X	6	9'-11"	X	⚠	WING 2 VERT. BACK FACE
D422	X	13	4'-1"		⚠	WING 2 VERT. FRONT FACE
D423	X	23	3'-0"	X		WINGS 1 & 2 DOWELS FRONT FACE
U401		24	3'-6"	X		INLET APRON AND CUTOFF WALL VERT.
U402		3	31'-4"			INLET APRON AND CUTOFF WALL HORIZ.
U403		13	22'-10"		⚠	INLET APRON SLAB HORIZ.
U404		13	18'-3"			INLET APRON AND BOX SLAB HORIZ.
U405		6	8'-10"		⚠	INLET APRON SLAB HORIZ.
U406		5	8'-7"		⚠	INLET APRON SLAB HORIZ.
U507	X	2	22'-3"			WING 3 HORIZ. TOP BOTH FACES
U408	X	2	21'-9"			WING 3 HORIZ. APRON SLAB
U409	X	2	21'-9"			WING 3 HORIZ. BOTTOM BOTH FACES
U410	X	6	13'-6"		⚠	WING 3 HORIZ.
U411	X	15	3'-0"			WING 3 VERT. BACK FACE
U512	X	29	11'-4"	X	⚠	WING 3 VERT. BACK FACE
U413	X	8	10'-0"	X	⚠	WING 3 VERT. BACK FACE
U414	X	16	4'-1"		⚠	WING 3 VERT. FRONT FACE
U515	X	2	13'-6"			WING 4 HORIZ. TOP BOTH FACES
U416	X	2	12'-8"			WING 4 HORIZ. APRON SLAB
U417	X	2	12'-8"			WING 4 HORIZ. BOTTOM BOTH FACES
U418	X	6	8'-0"		⚠	WING 4 HORIZ.
U419	X	9	3'-0"			WING 4 VERT. BACK FACE
U520	X	17	11'-5"	X	⚠	WING 4 VERT. BACK FACE
U421	X	5	10'-0"	X	⚠	WING 4 VERT. BACK FACE
U422	X	10	4'-1"		⚠	WING 4 VERT. FRONT FACE
U423	X	26	3'-0"	X		WINGS 3 & 4 DOWELS FRONT FACE

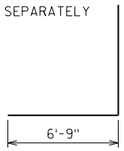
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
D403	1 SERIES OF 13	14'-10" TO 22'-5"
D405	1 SERIES OF 2	6'-3" TO 11'-3"
D406	1 SERIES OF 3	2'-8" TO 11'-6"
D410	2 SERIES OF 3	4'-8" TO 12'-1"
D512	1 SERIES OF 19	9'-6" TO 13'-1"
D413	1 SERIES OF 5	9'-1" TO 10'-6"
D414	1 SERIES OF 10	1'-5" TO 6'-8"
D418	2 SERIES OF 3	6'-1" TO 15'-11"
D520	1 SERIES OF 25	9'-5" TO 13'-1"
D421	1 SERIES OF 6	9'-2" TO 10'-8"
D422	1 SERIES OF 13	1'-5" TO 6'-8"
U403	1 SERIES OF 13	14'-9" TO 30'-10"
U405	1 SERIES OF 6	3'-8" TO 13'-11"
U406	1 SERIES OF 5	3'-9" TO 13'-5"
U410	2 SERIES OF 3	7'-5" TO 19'-7"
U512	1 SERIES OF 29	9'-8" TO 13'-1"
U413	1 SERIES OF 8	9'-1" TO 10'-10"
U414	1 SERIES OF 16	1'-5" TO 6'-8"
U418	2 SERIES OF 3	4'-5" TO 11'-6"
U520	1 SERIES OF 17	9'-9" TO 13'-1"
U421	1 SERIES OF 5	9'-3" TO 10'-10"
U422	1 SERIES OF 10	1'-5" TO 6'-8"

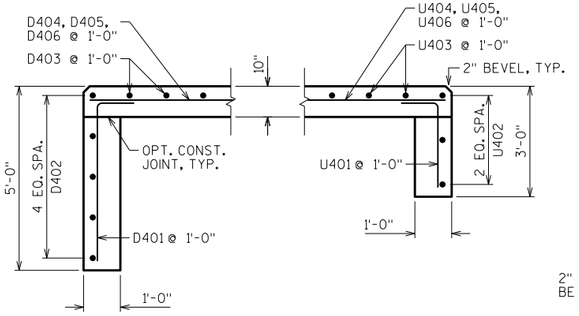
BUNDLE AND TAG EACH SERIES SEPARATELY

D401, U401



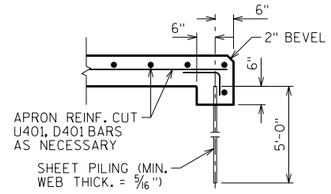
D512, D413, D520, D421, U512, U413, U520, U421

D423, U423



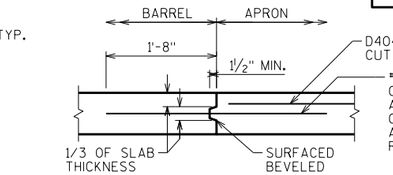
OUTLET INLET

CUT-OFF WALLS



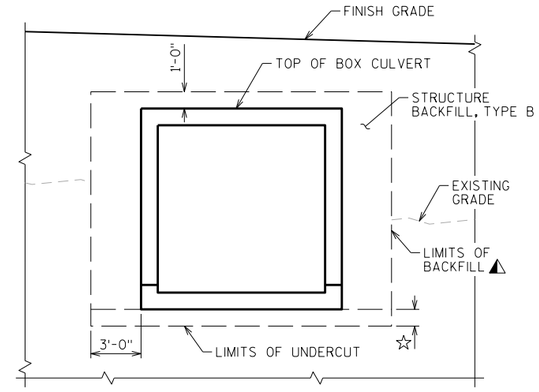
ALTERNATE CUT-OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

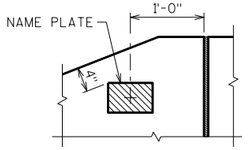


OPTIONAL CONSTRUCTION JOINT

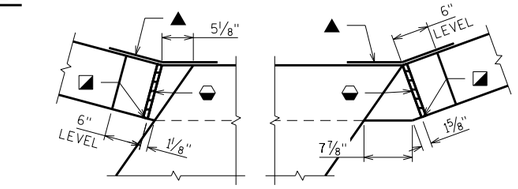
2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.



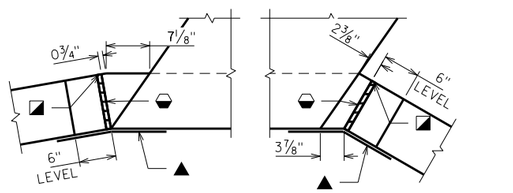
TYPICAL SECTION THRU BOX CULVERT



NAME PLATE LOCATION WING 4

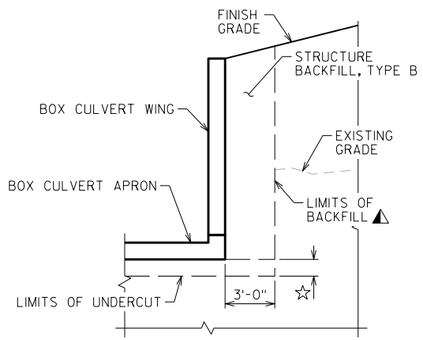


CORNER 1 CORNER 3



CORNER 2 CORNER 4

CORNER DETAILS



TYPICAL SECTION THRU BOX CULVERT WING

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

☆ UNDER CUT 4'-0". EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

◒ 3/4" FILLER, TYP. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.

◪ 1" BEVEL, TYP.

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-03-61

DRAWN BY AA | PLANS CK'D. NAR

DETAILS

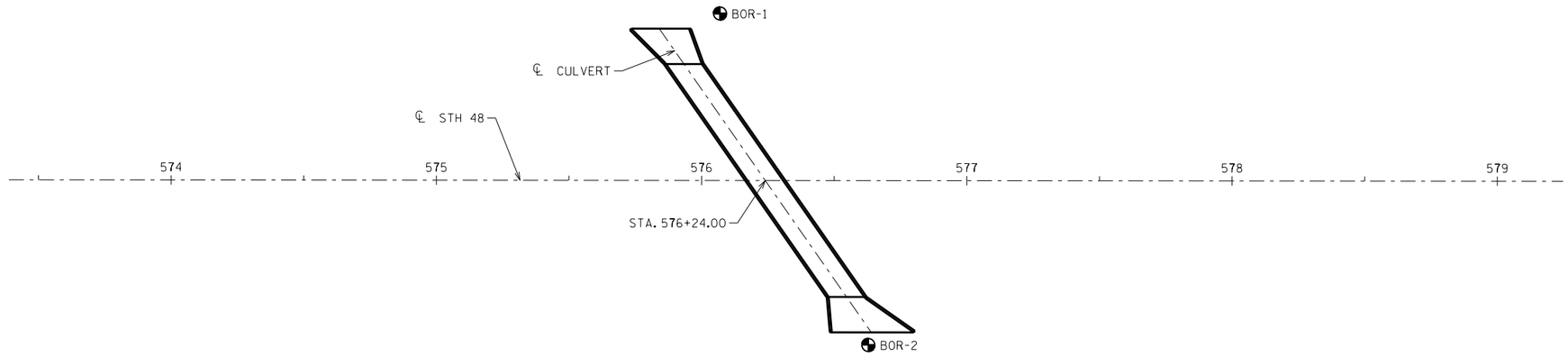
SHEET 4

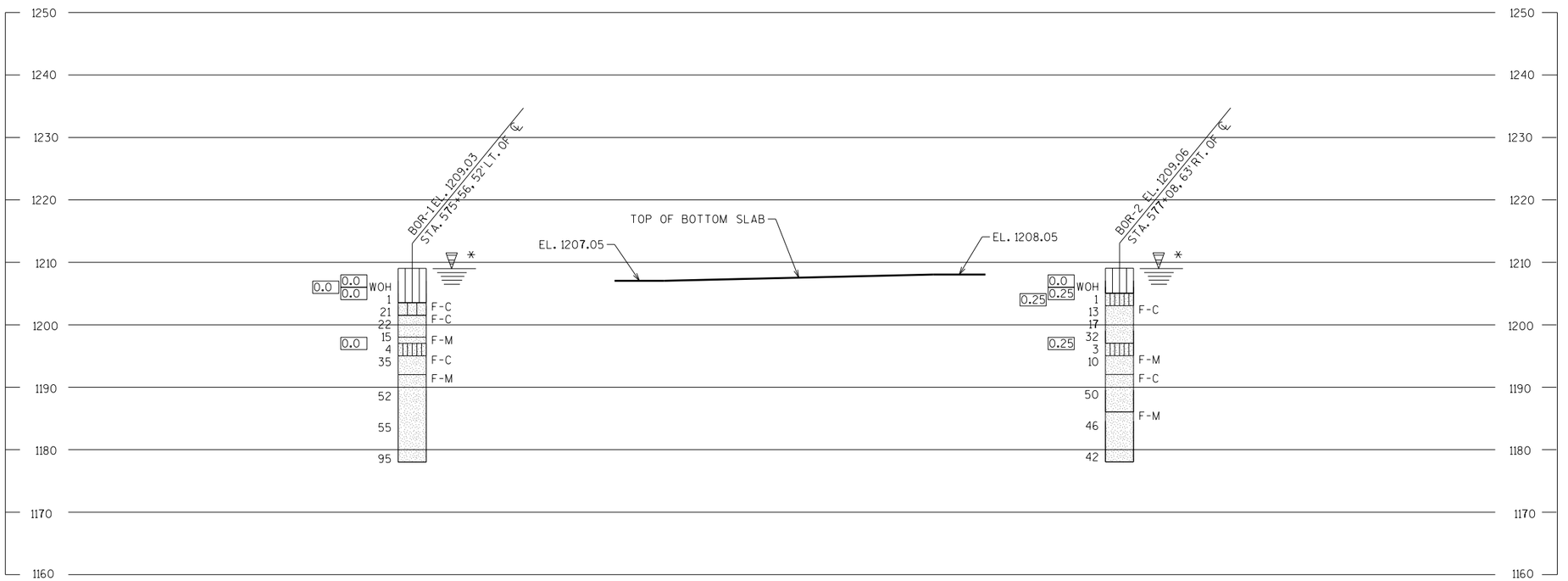
8

8

SCALE = 1.00

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	1/18/2017	137382.173	315806.831
2	1/18/2017	137257.331	315862.735
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BARRON COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





WOH=WEIGHT OF HAMMER

* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

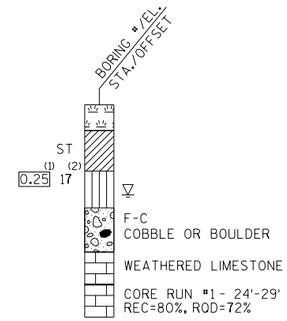
STATE PROJECT NUMBER

8120-07-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-03-61

DRAWN BY TLP/AA | PLANS CK'D. NAR

SUBSURFACE EXPLORATION

SHEET 5

SCALE = 25

8

8

EARTHWORK DATA: STH 48 - C-03-0060

	STATION	AREA		VOLUME			
		UNCLASS. SF	FILL SF	UNCLASS. CY	EXPANDED FILL CY	MASS HAUL CY	(1) USEABLE UNCLASSIFIED MATERIAL CY
	529+40	--	--	--	--	--	--
*	529+68	9.39	3.10	0.00	0.00	0.00	0.00
	530+00	19.84	27.89	17.59	24.81	-7.21	17.59
	530+35	29.09	72.86	31.26	85.61	-61.56	31.26
***	530+35	111.74	75.92	1.30	1.83	-62.09	1.13
	530+60	77.68	211.41	87.34	176.21	-150.96	70.09
C-03-0060 ***	530+60	0.00	36.80	0.00	0.61	-62.70	0.00
C-03-0060	530+80	0.00	35.51	0.00	35.62	-98.32	0.00
***	530+80	69.60	321.96	0.13	0.88	-99.07	0.00
	531+23	98.05	61.55	133.19	405.22	-370.35	104.07
***	531+24	9.44	61.55	1.00	1.52	-370.87	0.83
	531+50	3.72	37.01	6.46	64.33	-428.75	6.46
**	531+75	0.00	14.34	1.69	30.99	-458.04	1.69
	532+00	--	--	--	--	--	--
	TOTAL	428.55	959.90	279.96	827.62		233.12

-- *=ABRUPT START, **=ABRUPT END, ***ABRUPT SECTION CHANGE

-- FILL QUANTITIES ARE EXPANDED, NATIVE &

SELECT BORROW FILL EXPANSION FACTOR = 1.33 & 1.18 RESPECTIVELY

-- BOX CULVERT C-03-0060 EXTENDS FROM STA 530+60 - STA 530+80.

-- (1) USEABLE UNCLASSIFIED MATERAL REPRESENTS UNCLASSIFIED MATERIAL AVAILABLE FOR USE IN CONSTRUCTION OF THE ROADBED.

EARTHWORK DATA: STH 48 - B-03-0204

	STATION	AREA UNCLASS. SF	AREA FILL SF	VOLUME UNCLASS. CY	VOLUME EXPANDED FILL CY	VOLUME MASS HAUL CY	VOLUME (1) USEABLE UNCLASSIFIED MATERIAL CY
*	559+49	9.56	0.31	0.00	0.00	0.00	0.00
	560+00	10.14	12.81	18.61	16.48	2.13	15.77
	560+10	10.24	15.02	3.77	6.85	-0.95	3.22
***	560+11	22.93	15.81	0.61	0.76	-1.10	0.53
	560+14	22.93	16.25	2.55	2.37	-0.92	2.21
	560+50	23.43	25.21	30.91	36.76	-6.78	26.91
	560+59	23.54	27.46	7.83	11.68	-10.62	6.83
	560+84	24.58	43.51	22.28	43.70	-32.04	19.50
	561+09	29.31	32.27	24.95	46.66	-53.76	22.17
	561+30	25.42	48.13	21.28	41.58	-74.06	18.95
	561+34	25.00	55.36	3.73	10.20	-80.52	3.29
	561+54	25.52	55.84	18.71	54.78	-116.58	16.49
	561+79	26.51	54.61	24.09	68.01	-160.50	21.31
	562+00	33.22	47.44	23.23	52.78	-190.06	20.90
	562+46	25.30	37.28	49.85	95.98	-236.19	44.74
***	562+48	57.92	33.73	3.08	3.50	-236.61	2.34
**	562+71	57.66	34.14	49.23	38.45	-225.83	34.75
	B-02-0304	-	-	-	-	-	-
*	563+50	54.70	52.37	0.00	0.00	0.00	0.00
	563+74	58.23	47.34	50.19	58.94	-8.75	35.08
***	563+75	29.30	50.54	1.62	2.41	-9.54	1.25
	564+00	32.55	50.24	28.63	62.05	-42.96	25.86
	564+36	26.98	30.05	39.69	71.19	-74.46	35.69
	564+50	26.23	30.43	13.80	20.85	-81.52	12.24
	564+61	24.98	28.33	10.43	15.92	-87.01	9.21
	564+86	24.24	24.50	22.79	32.53	-96.75	20.01
	565+00	23.22	22.93	12.30	16.35	-100.80	10.75
	565+11	22.81	21.61	9.38	12.07	-103.49	8.15
	565+36	23.57	16.24	21.47	23.31	-105.33	18.69
	565+50	23.67	12.62	12.25	9.95	-103.03	10.69
	565+56	23.40	11.24	5.23	3.53	-101.33	4.56
	566+00	23.09	5.85	37.88	18.52	-81.97	32.99
***	566+06	11.41	5.10	3.83	1.62	-79.75	3.33
**	566+60	11.40	0.95	22.81	8.05	-64.99	19.81
	TOTAL	892.99	965.52	597.01	887.83		508.23

*=ABRUPT START, **=ABRUPT END, ***=ABRUPT CHANGE OF SECTION
-- FILL QUANTITIES ARE EXPANDED, NATIVE &
SELECT BORROW FILL EXPANSION FACTOR = 1.33 & 1.18 RESPECTIVELY
-- (1) USEABLE UNCLASSIFIED MATERAL REPRESENTS UNCLASSIFIED MATERIAL
AVAILABLE FOR USE IN CONSTRUCTION OF THE ROADBED.

EARTHWORK DATA: STH 48 - C-03-0061

	STATION	AREA UNCLASS. SF	AREA FILL SF	VOLUME UNCLASS. CY	VOLUME EXPANDED FILL CY	VOLUME MASS HAUL CY	VOLUME (3) USEABLE UNCLASSIFIED MATERIAL CY
	575+00	--	--	--	--	--	--
*	575+25	0.00	23.47	0.00	0.00	0.00	0.00
	575+70	0.00	58.84	0.00	91.23	-91.23	0.00
***	575+71	90.12	83.41	1.67	3.50	-93.06	1.33
	575+84	91.96	108.93	43.83	61.58	-110.81	34.91
***,^	575+84	91.96	41.59	0.34	0.37	-110.84	0.27
^	576+00	91.70	52.06	54.08	36.67	-93.44	42.99
***	576+01	107.01	137.08	3.68	4.66	-94.42	3.00
	576+25	110.95	193.12	96.87	195.18	-192.73	80.44
	576+46	112.92	349.48	87.06	280.64	-386.32	72.33
***,^	576+46	112.92	145.78	0.42	1.22	-387.12	0.35
^	576+62	128.51	75.46	71.09	86.64	-402.67	60.07
	576+62	128.51	193.24	0.48	0.66	-402.86	0.41
	576+80	135.04	117.72	87.36	137.09	-452.59	75.25
***	576+82	33.44	119.69	6.24	11.69	-458.04	5.57
	577+22	41.12	49.96	55.23	167.14	-569.95	55.23
***	577+22	38.26	30.45	0.15	0.20	-570.00	0.15
	577+50	38.56	29.20	39.69	40.99	-571.30	39.69
**	577+80	13.38	15.79	28.86	33.24	-575.69	28.86
	578+00	--	--	--	--	--	--
	TOTAL	1366.36	1825.27	577.04	1152.72		500.84

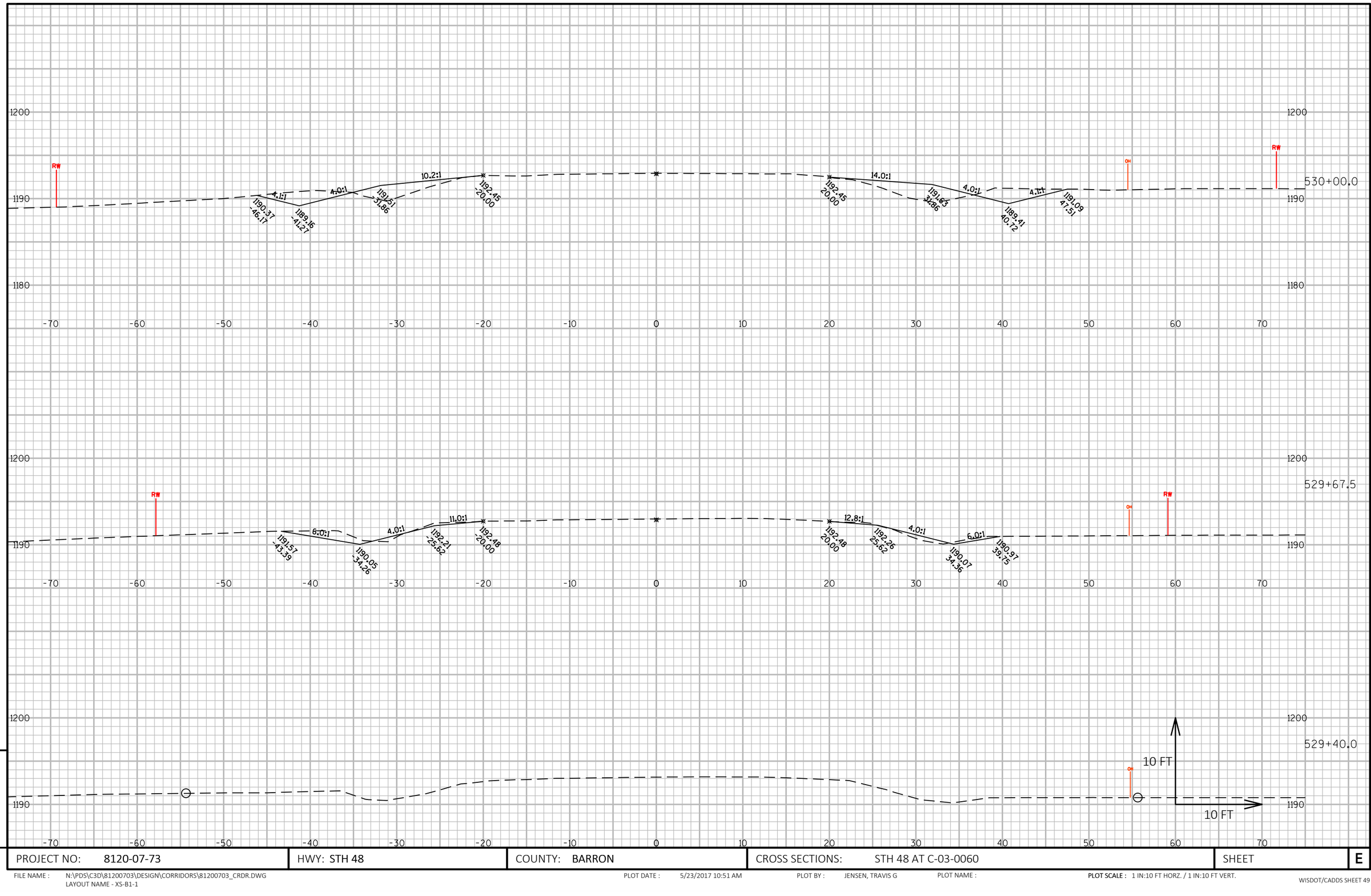
-- *=ABRUPT START, **=ABRUPT END. ***=ABRUPT SECTION CHANGE

-- ^= CROSS SECTION NOT SHOWN

-- FILL QUANTITIES ARE EXPANDED, NATIVE

& SELECT BORROW FILL EXPANSION FACTOR = 1.33 & 1.18 RESPECTIVELY

-- (1) USEABLE UNCLASSIFIED MATERAL REPRESENTS UNCLASSIFIED MATERIAL AVAILABLE FOR USE IN CONSTRUCTION OF THE ROADBED.



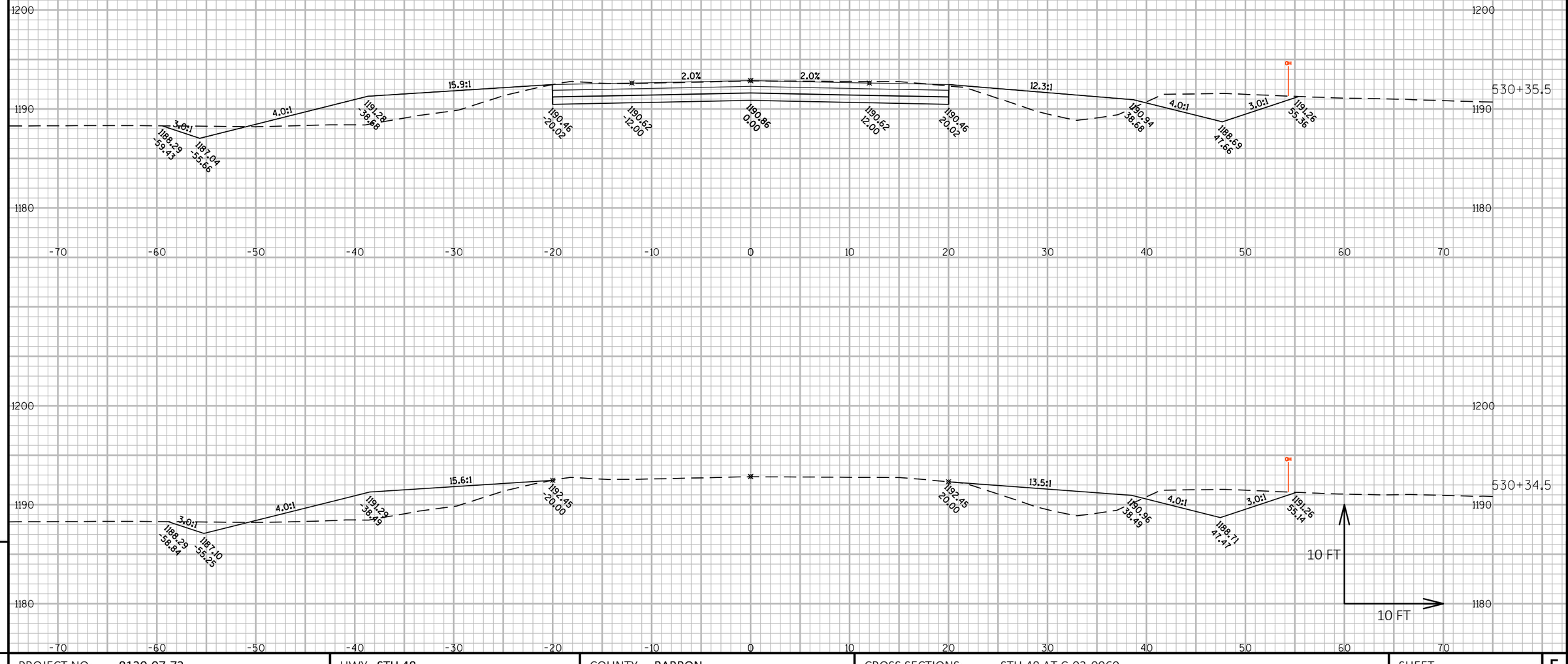
PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0060	SHEET E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B1-1

PLOT DATE : 5/23/2017 10:51 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

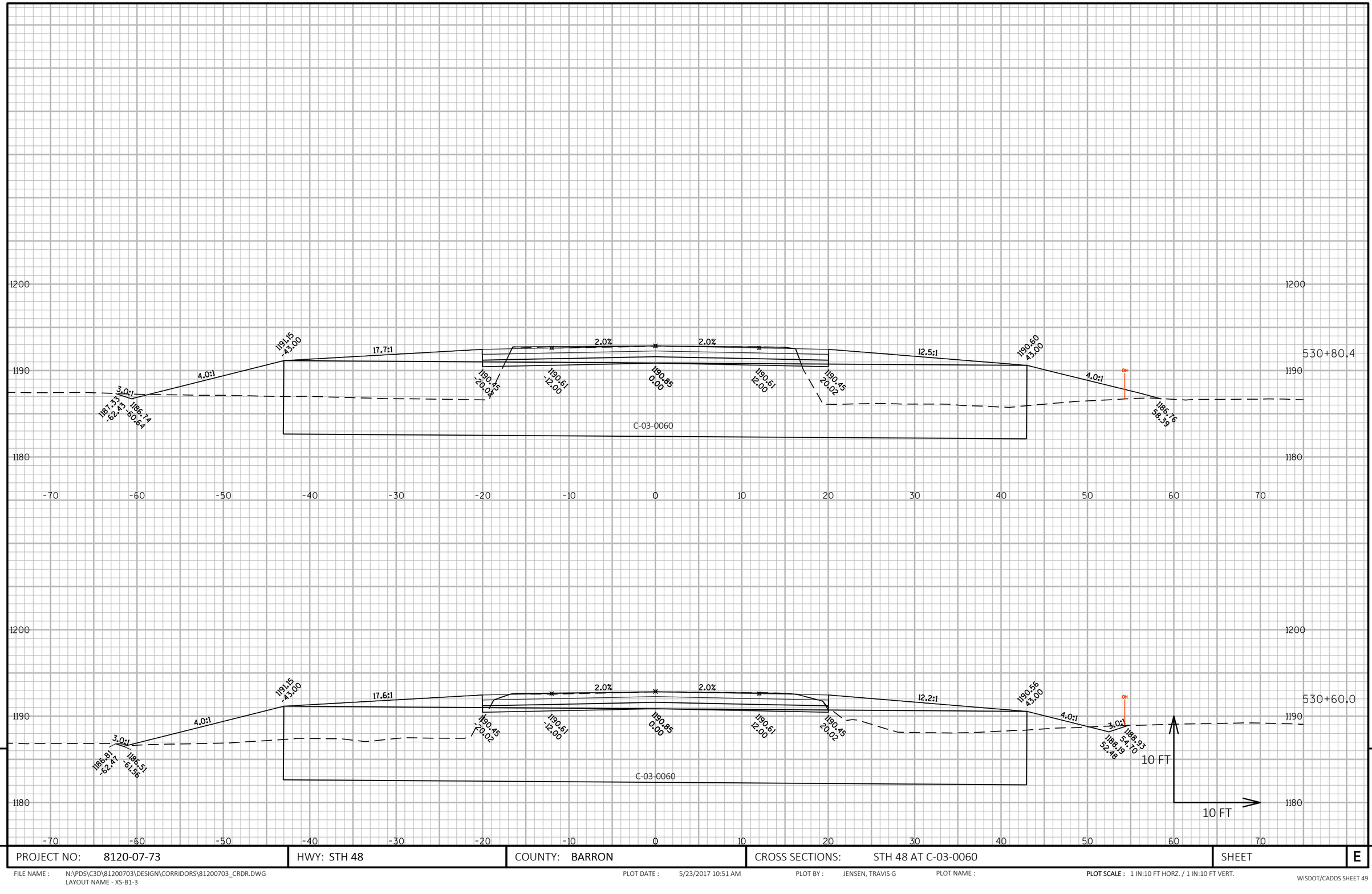
WISDOT/CADDS SHEET 49



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0060	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B1-2

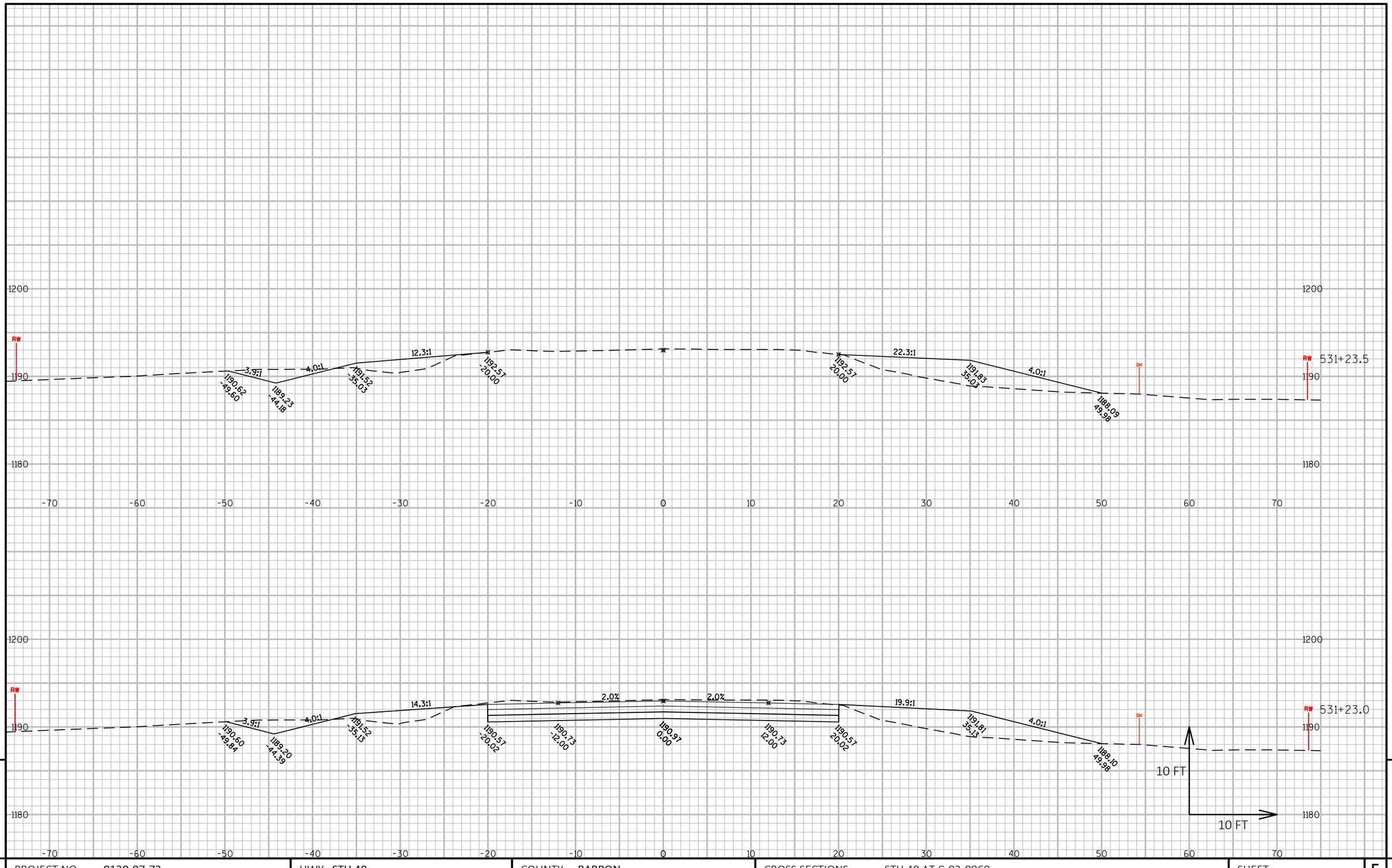
PLOT DATE : 5/23/2017 10:51 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0060	SHEET E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B1-3

PLOT DATE : 5/23/2017 10:51 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0060	SHEET	E

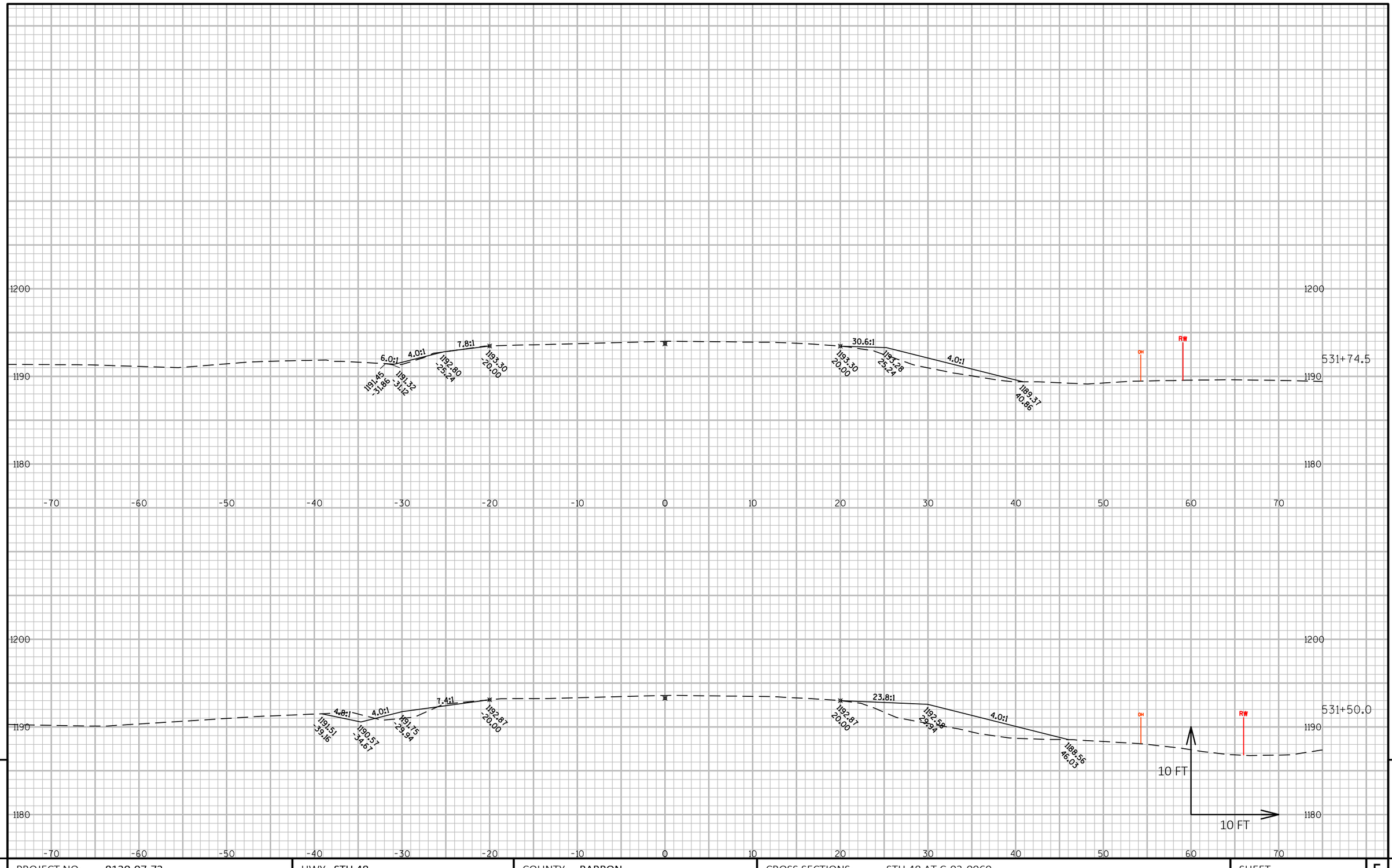
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B1-4

PLOT DATE : 5/23/2017 10:51 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

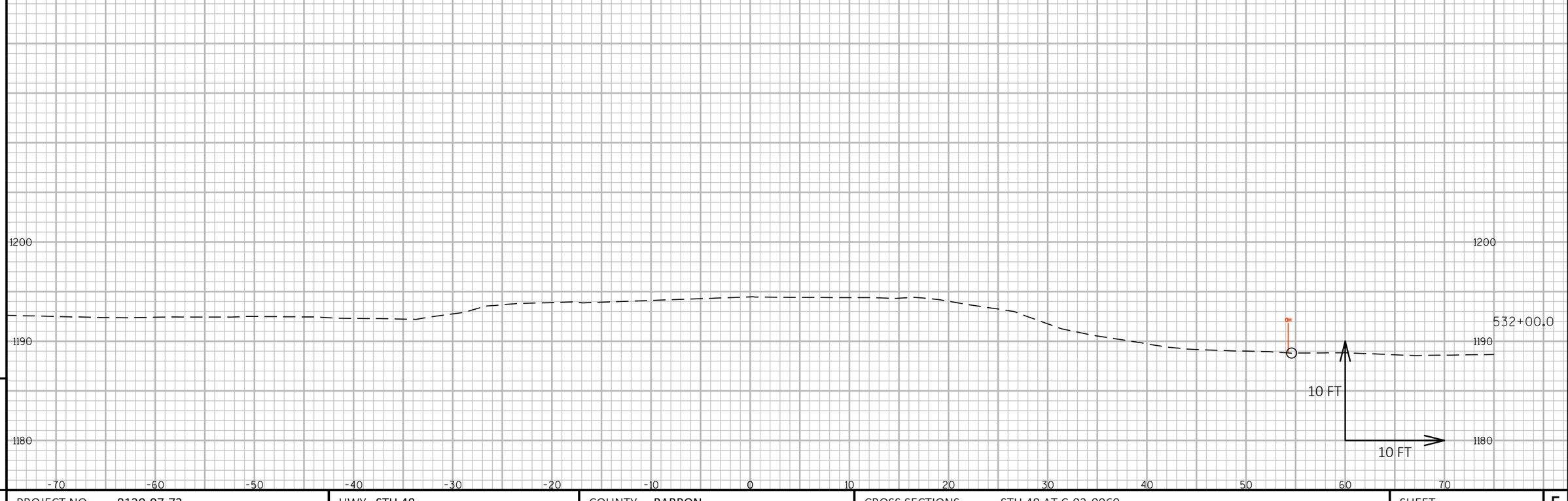


PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0060	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B1-5

PLOT DATE : 5/23/2017 10:51 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0060	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B1-6

PLOT DATE : 5/23/2017 10:51 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

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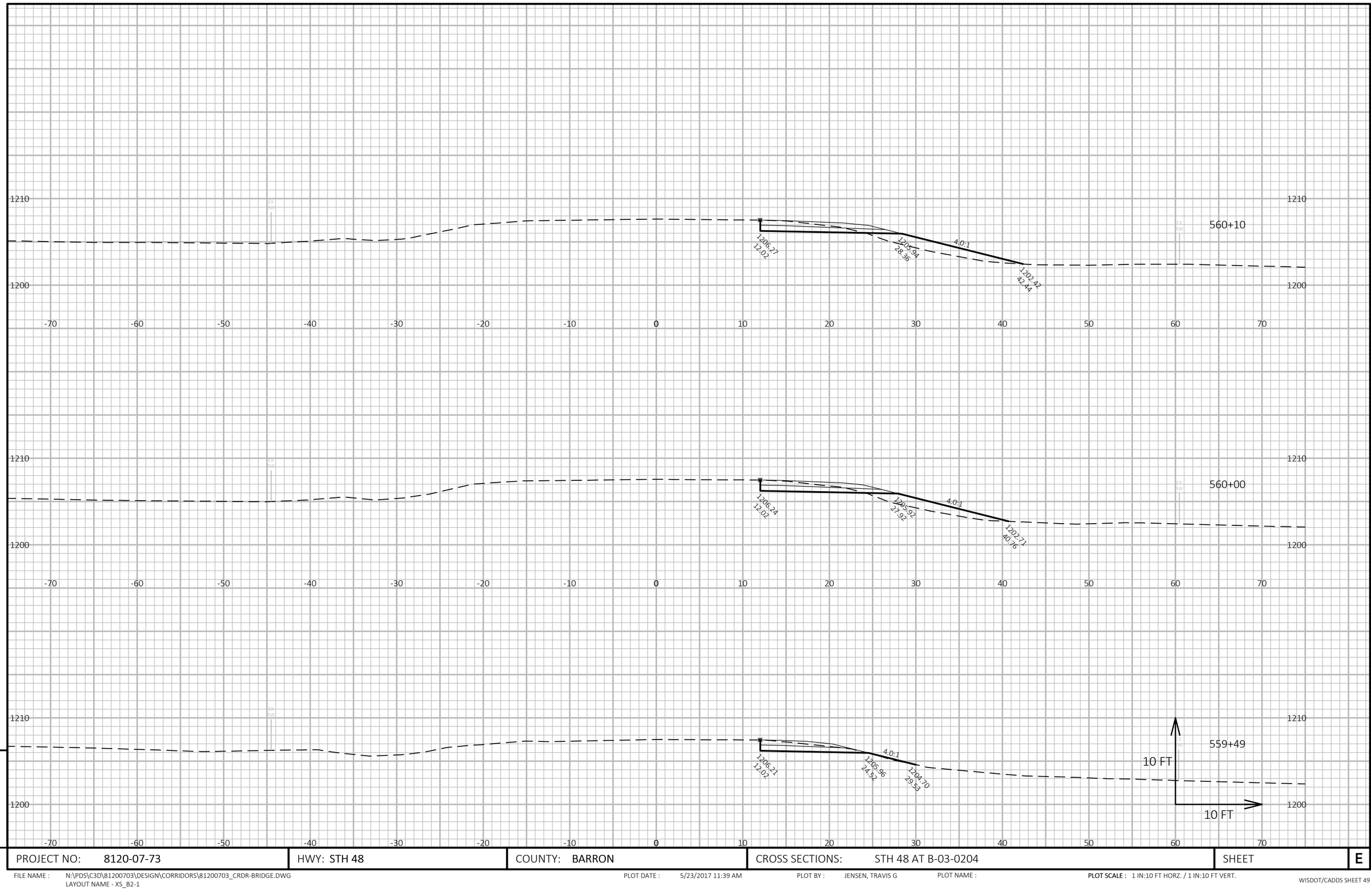

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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-1

PLOT DATE : 5/23/2017 11:39 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

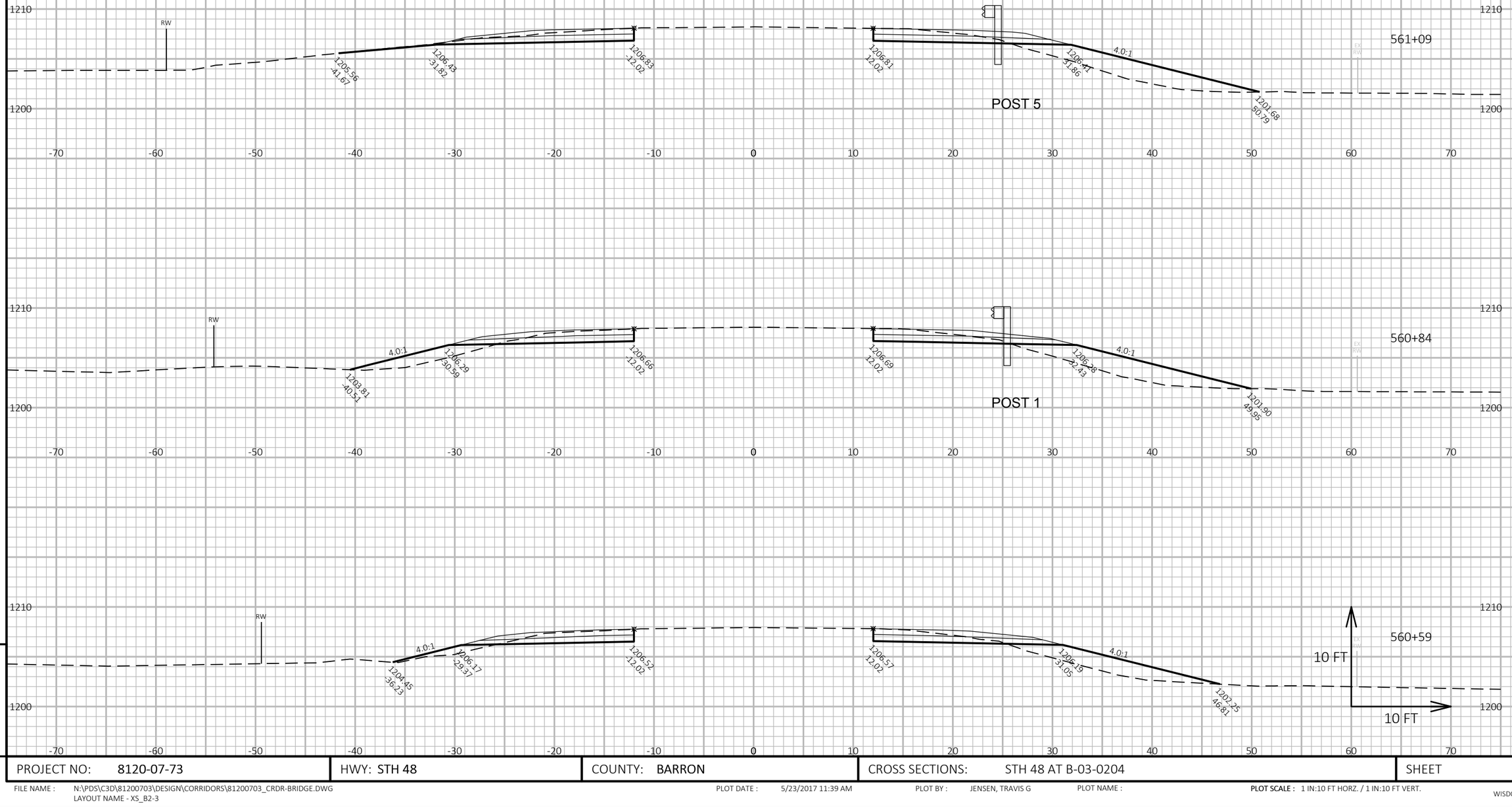
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-2

PLOT DATE : 5/23/2017 11:39 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET E

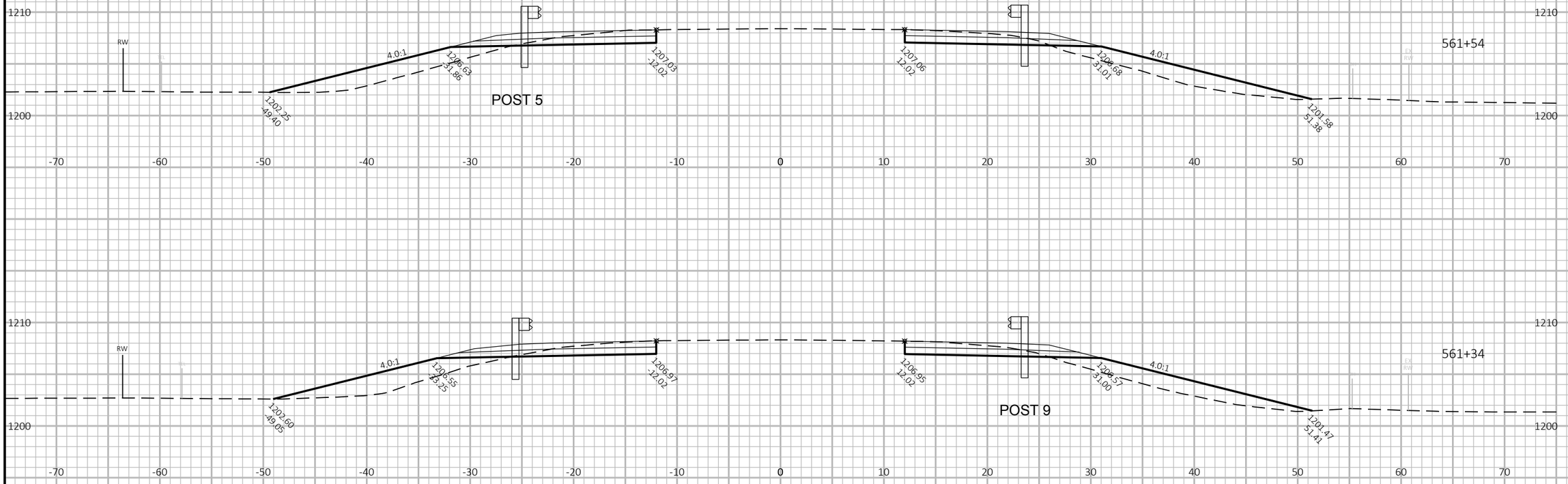
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-3

PLOT DATE : 5/23/2017 11:39 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

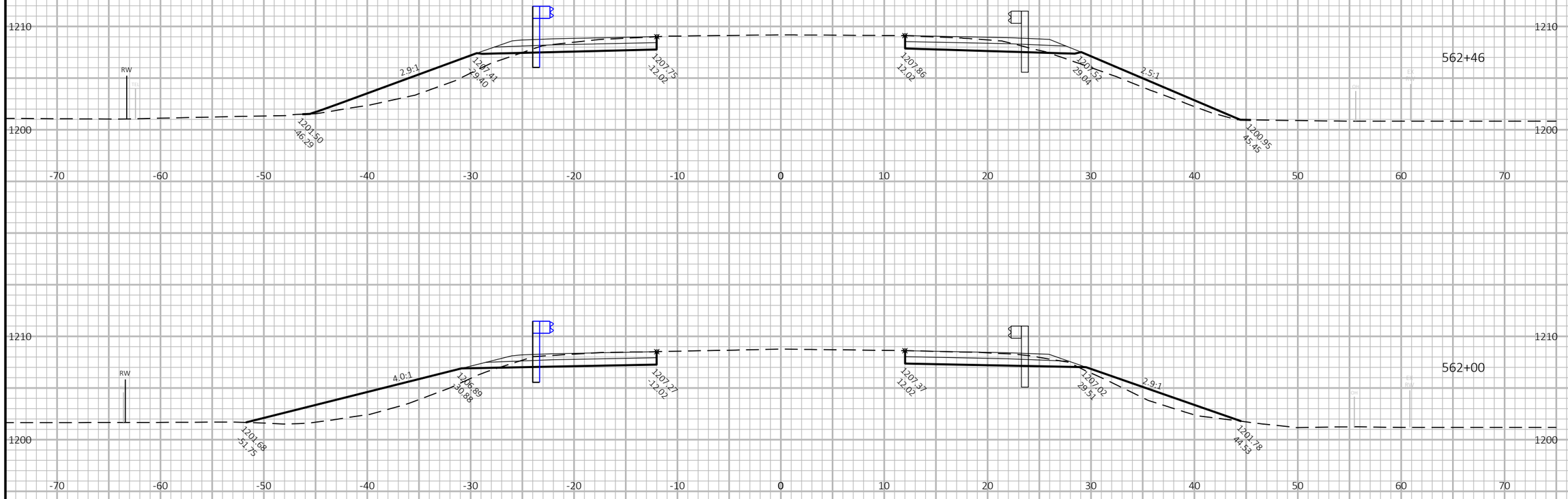
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-4

PLOT DATE : 5/23/2017 11:39 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

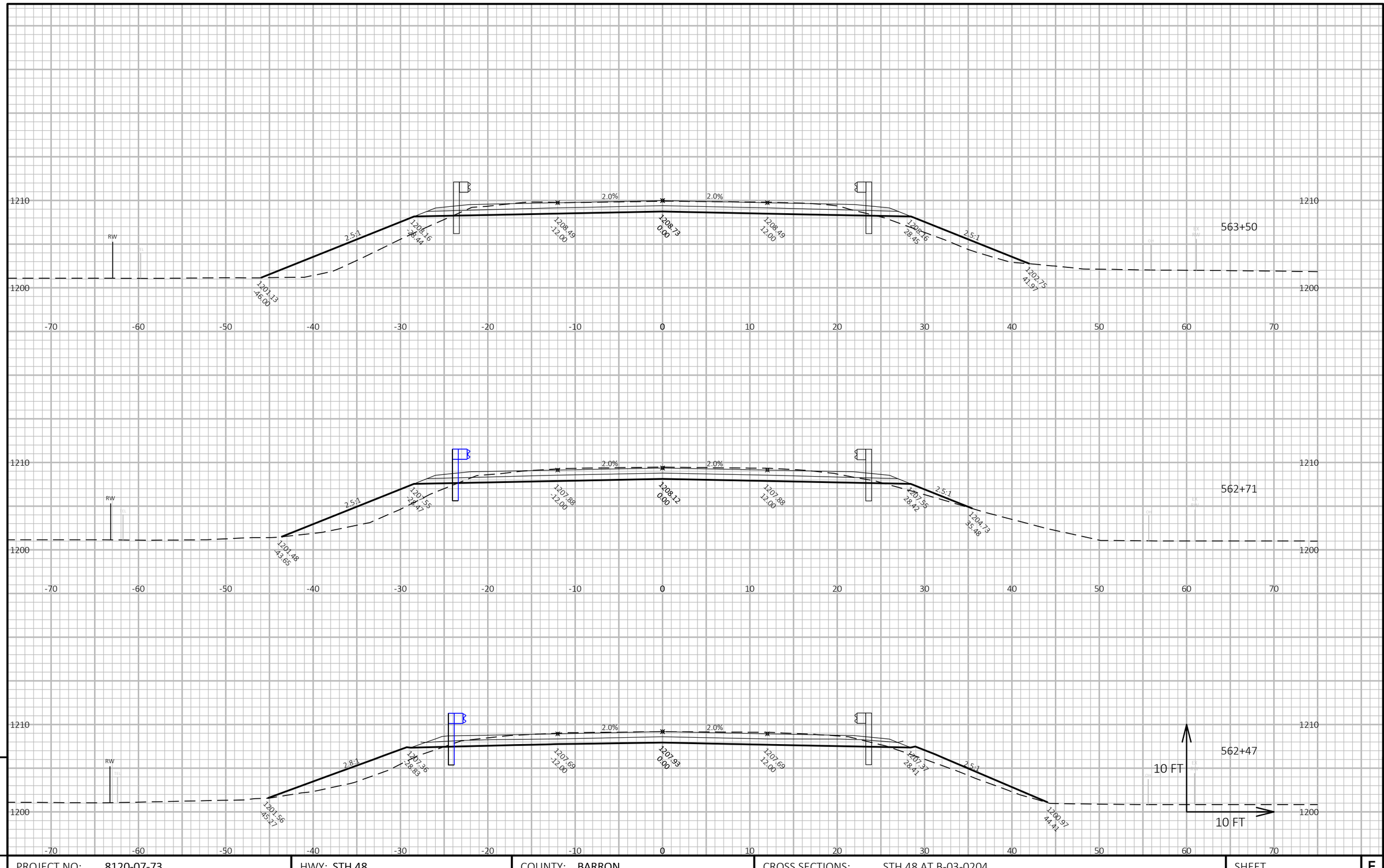
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-5

PLOT DATE : 5/23/2017 11:39 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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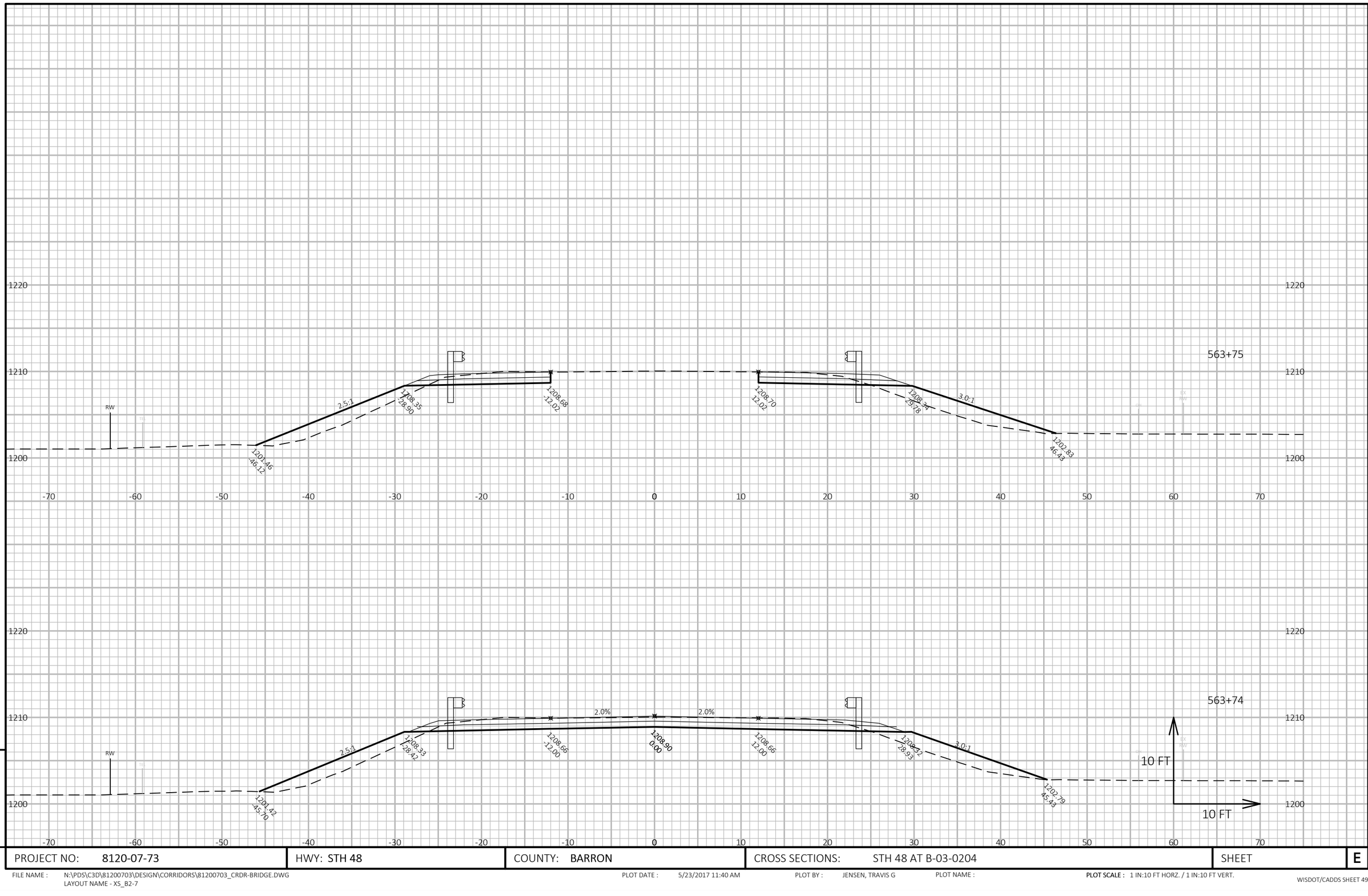
PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-6

PLOT DATE : 5/23/2017 11:39 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

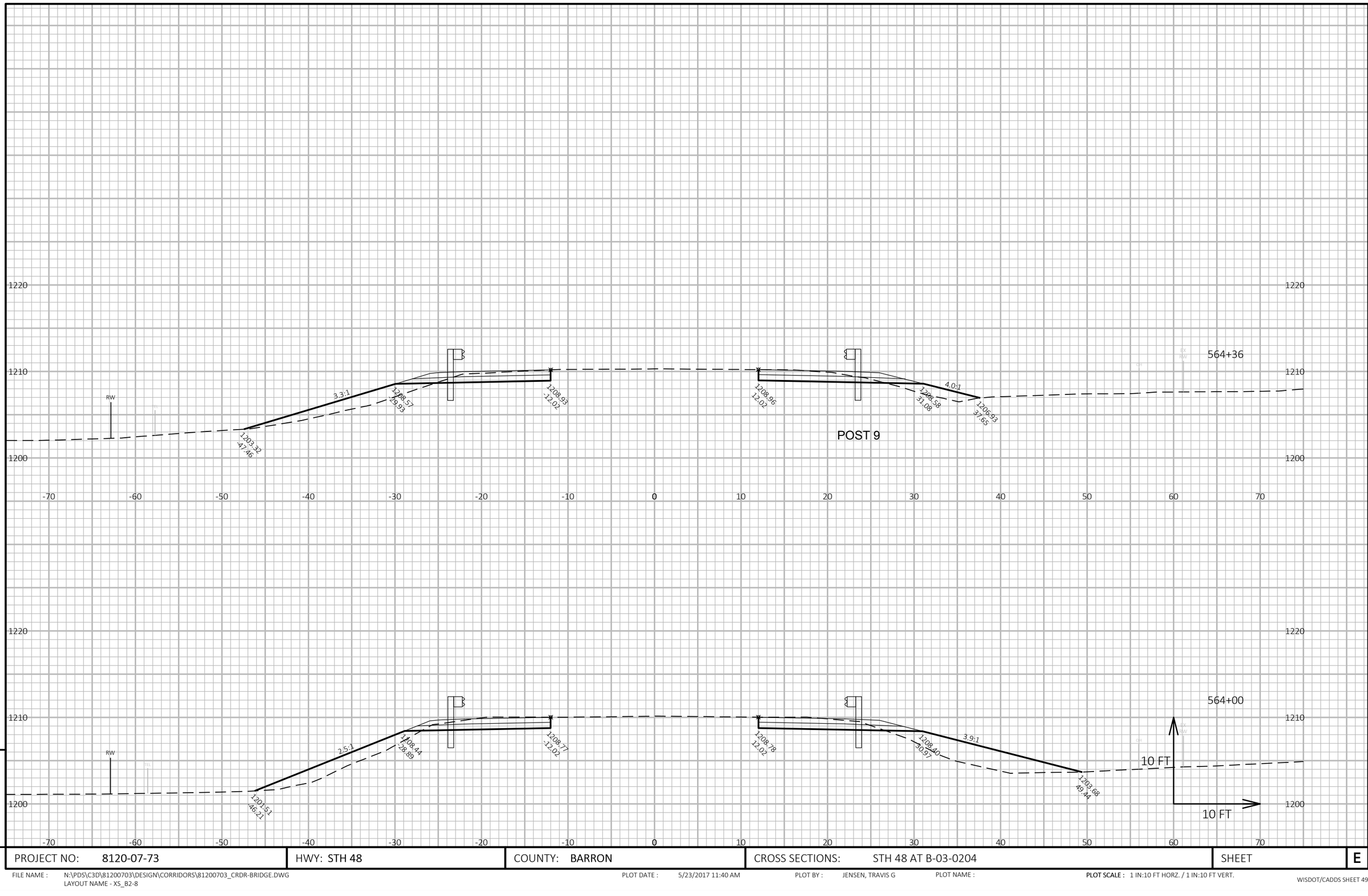


PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-7

PLOT DATE : 5/23/2017 11:40 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME :

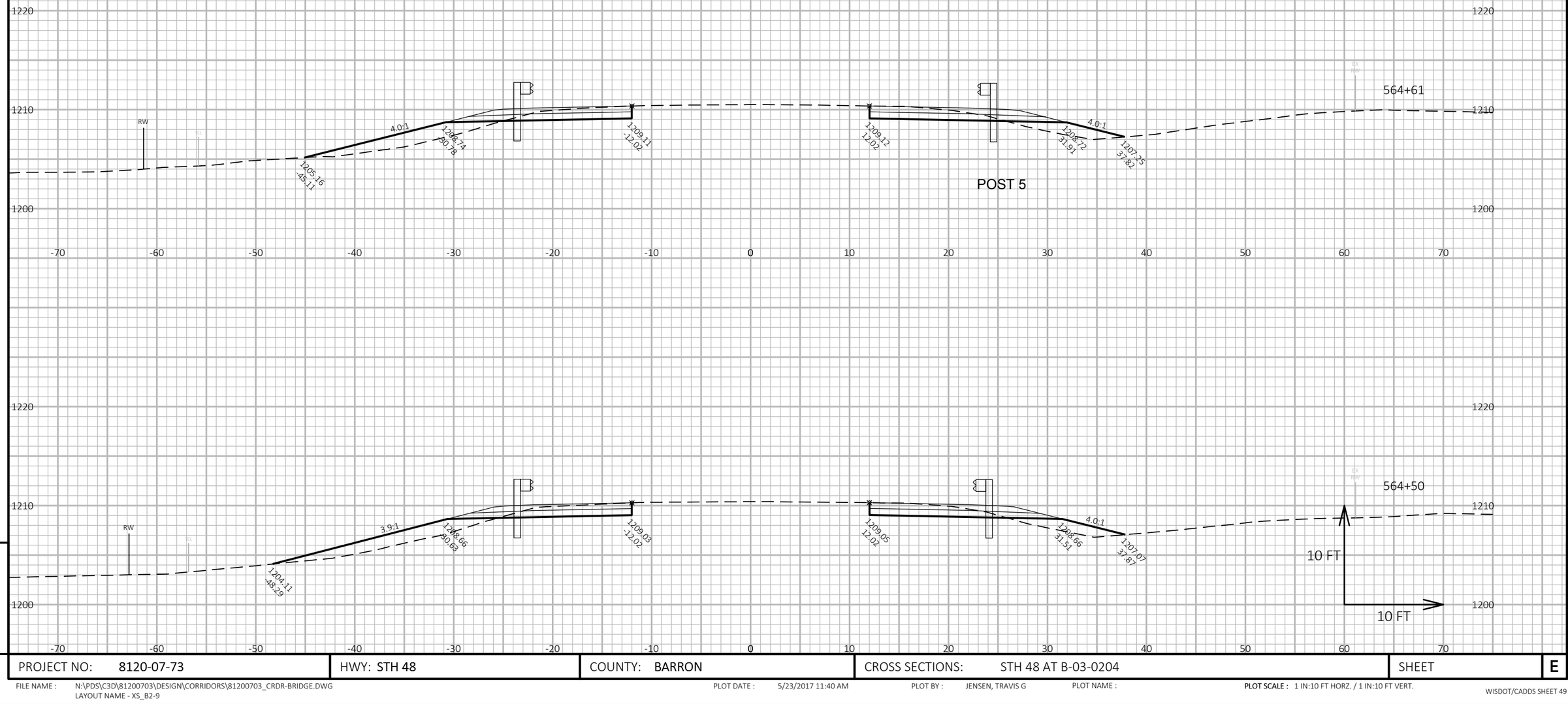
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-8

PLOT DATE : 5/23/2017 11:40 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-9

PLOT DATE : 5/23/2017 11:40 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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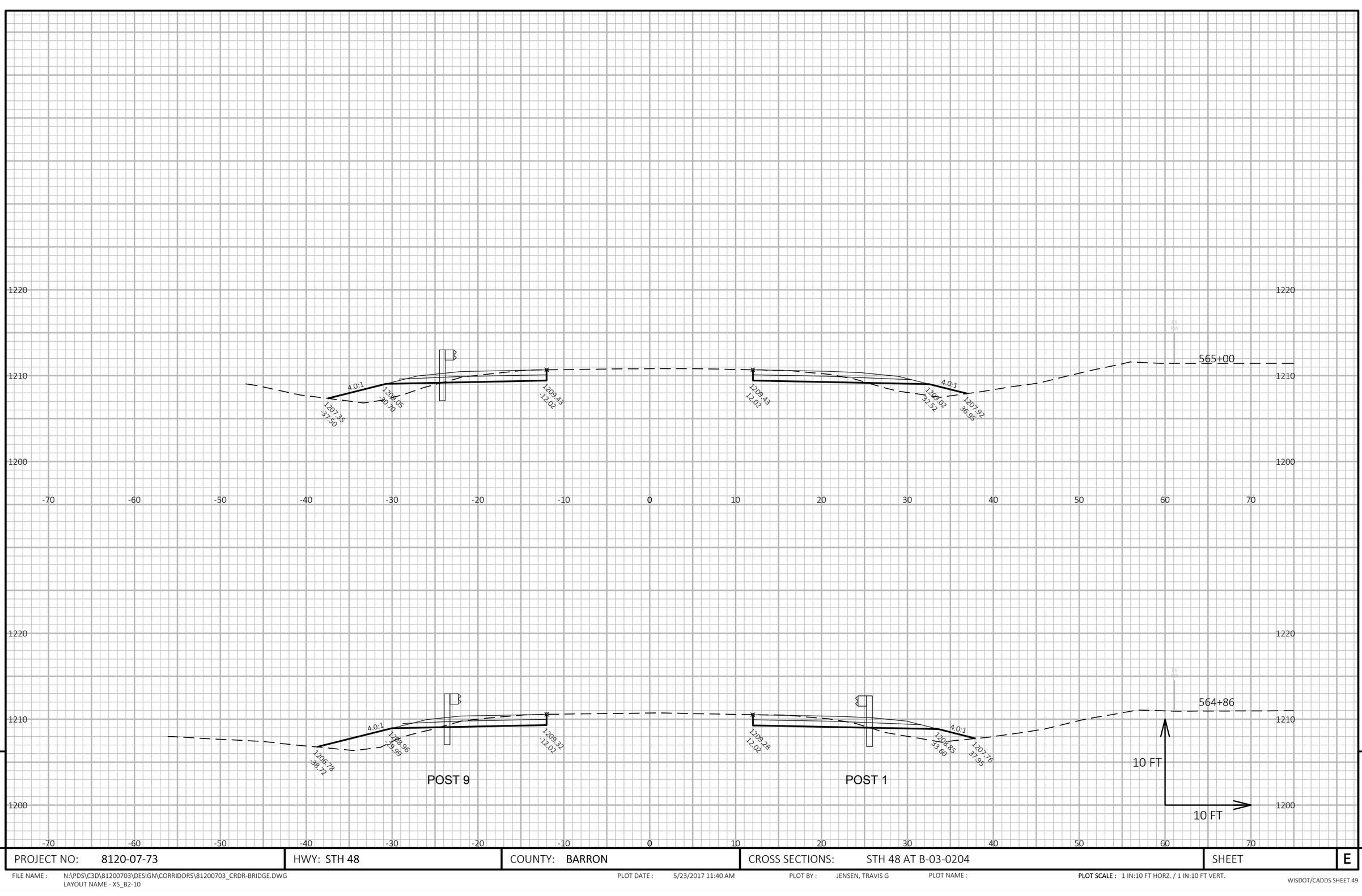

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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

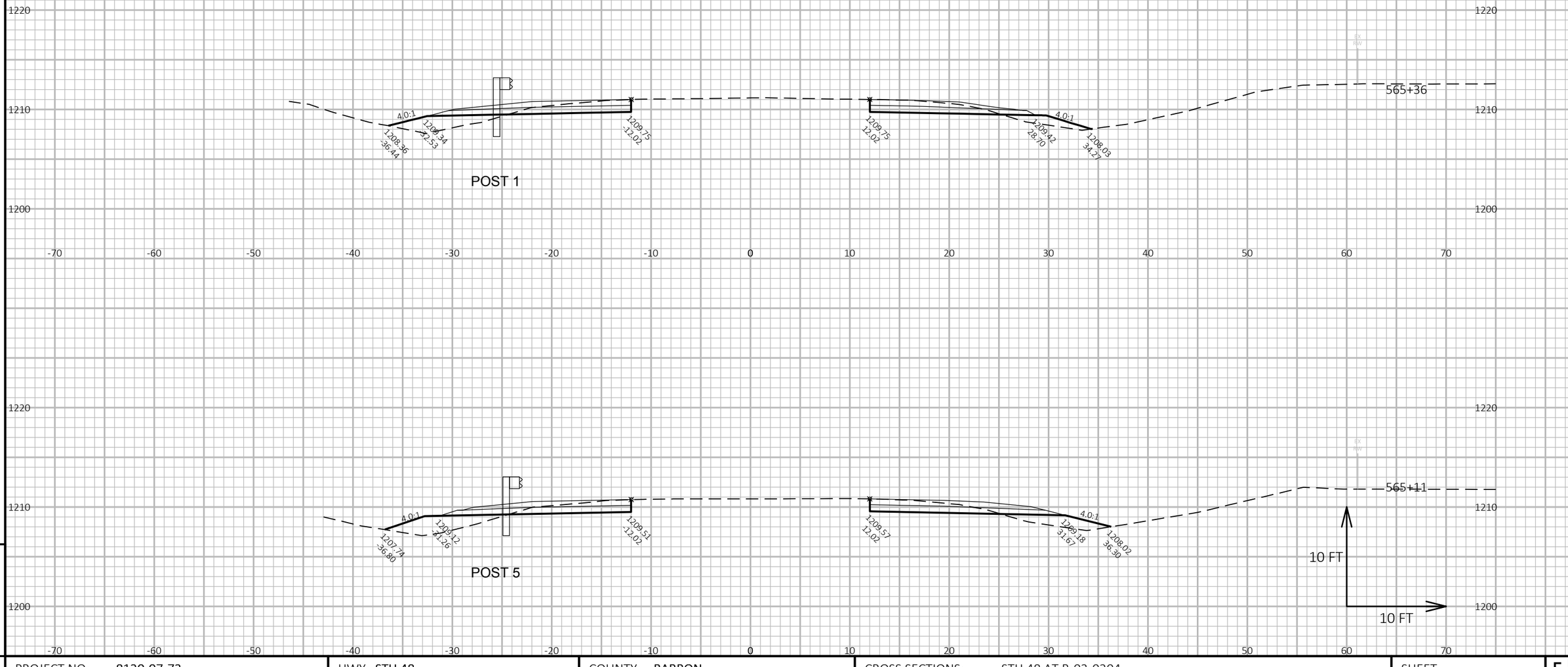
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-10

PLOT DATE : 5/23/2017 11:40 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

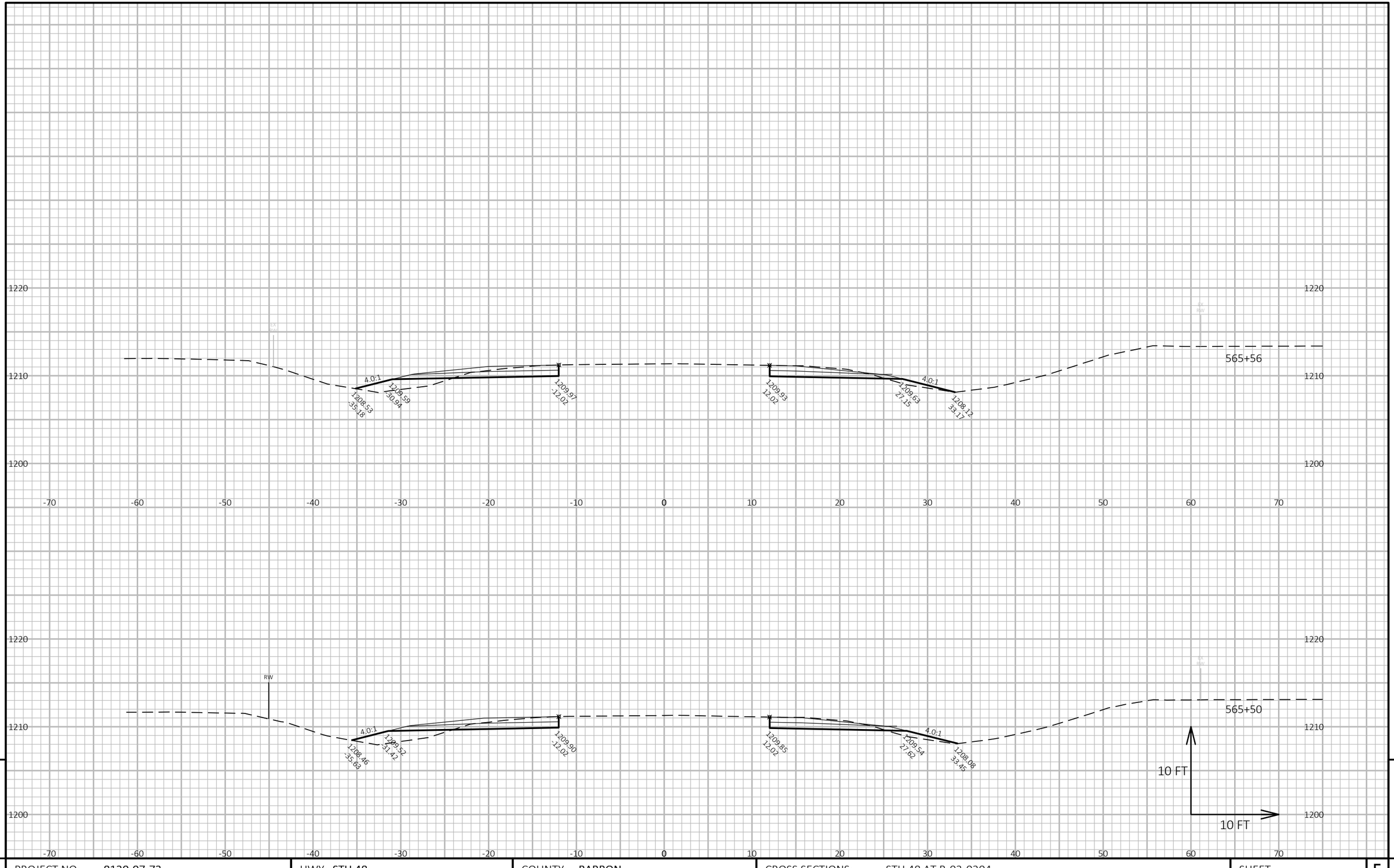
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-11

PLOT DATE : 5/23/2017 11:40 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

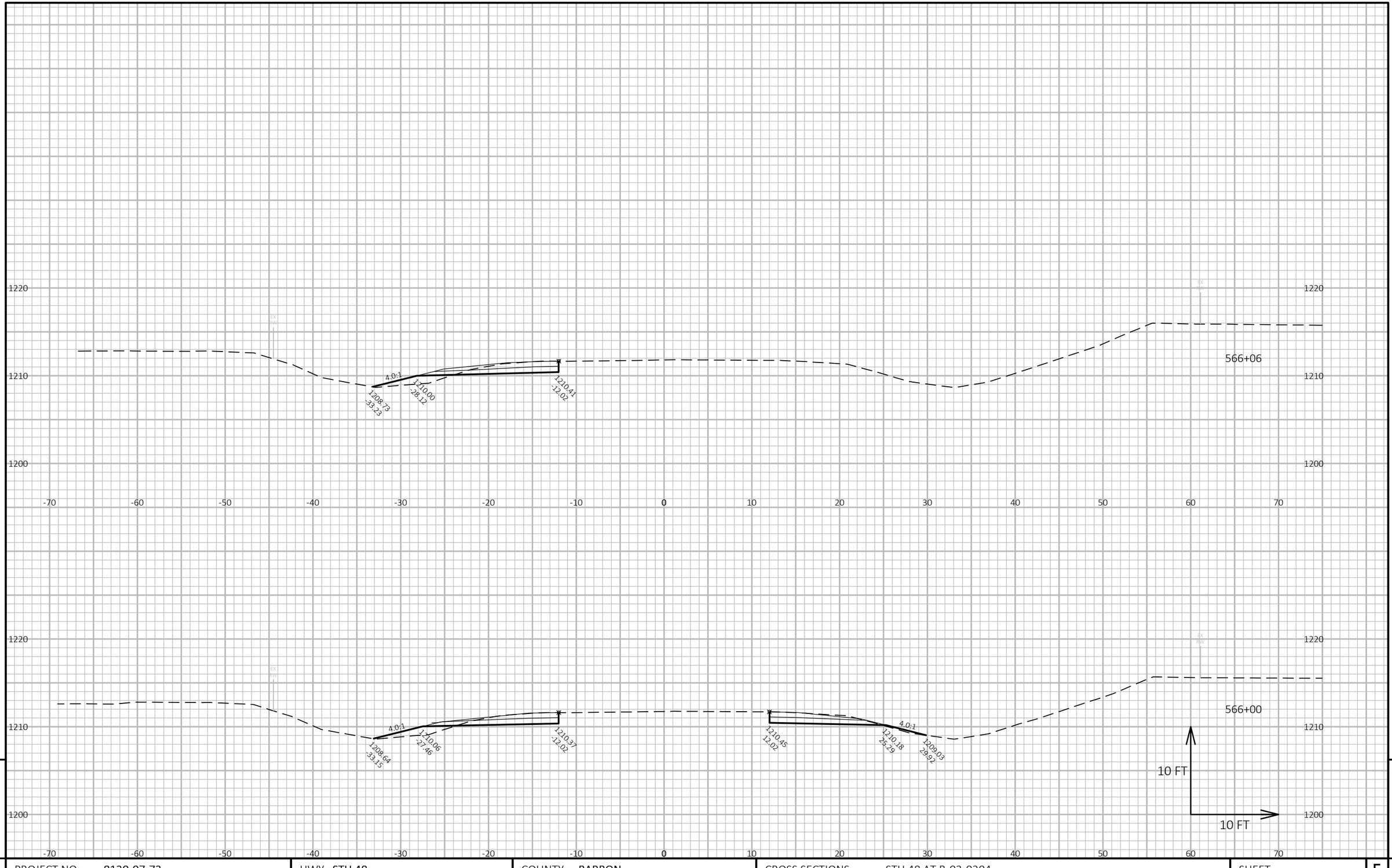
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-12

PLOT DATE : 5/23/2017 11:40 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

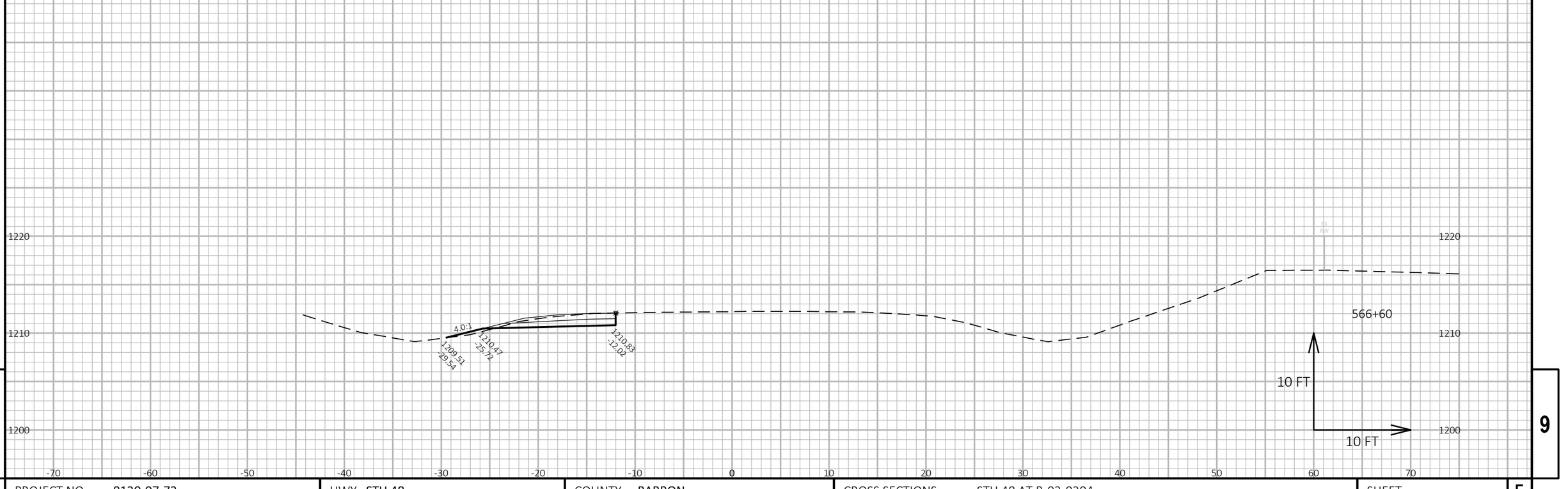
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR-BRIDGE.DWG
LAYOUT NAME - XS_B2-13

PLOT DATE : 5/23/2017 11:40 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT B-03-0204	SHEET	E

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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0061	SHEET	E

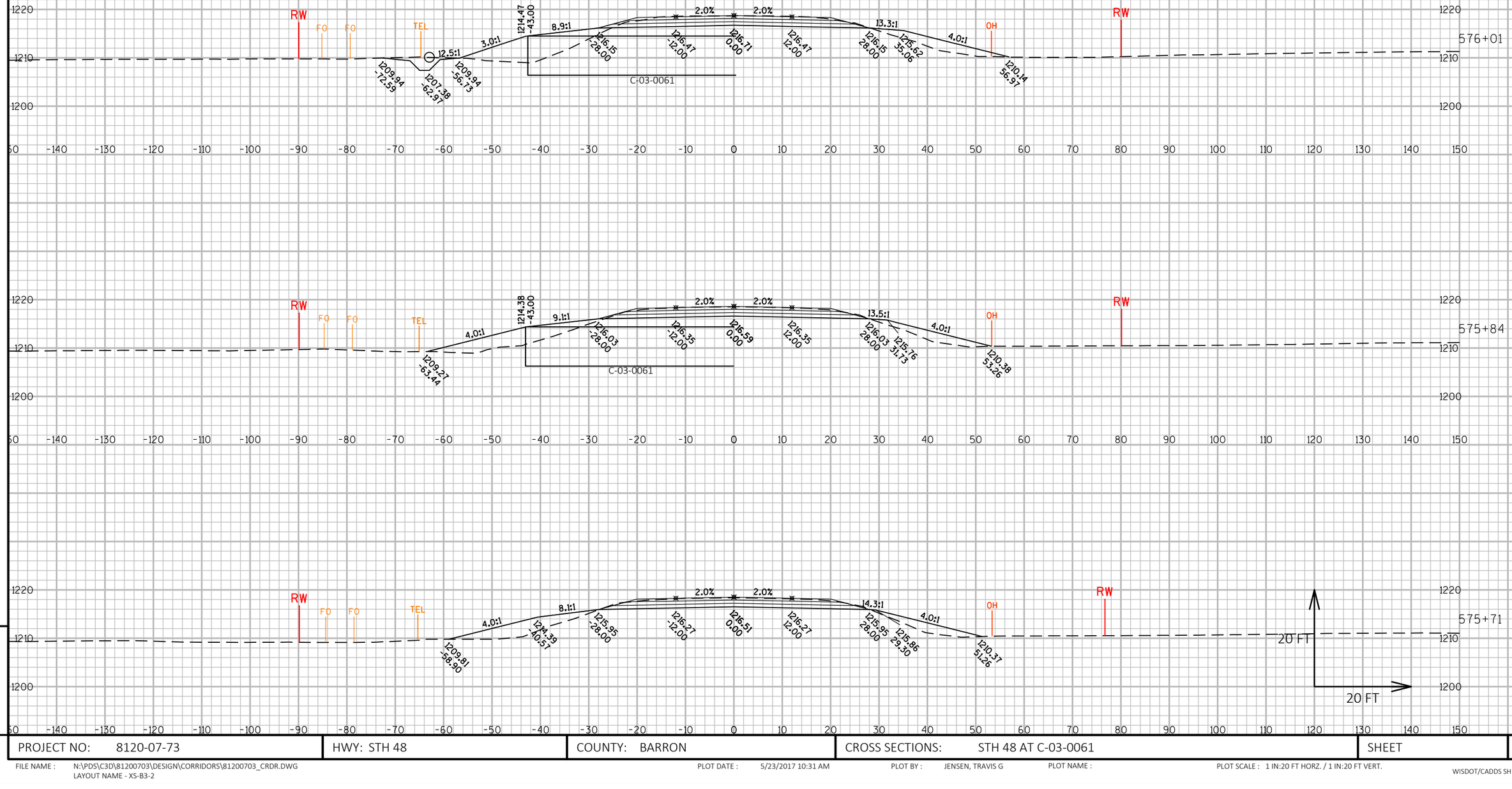
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B3-1

PLOT DATE : 5/23/2017 10:31 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0061	SHEET	E

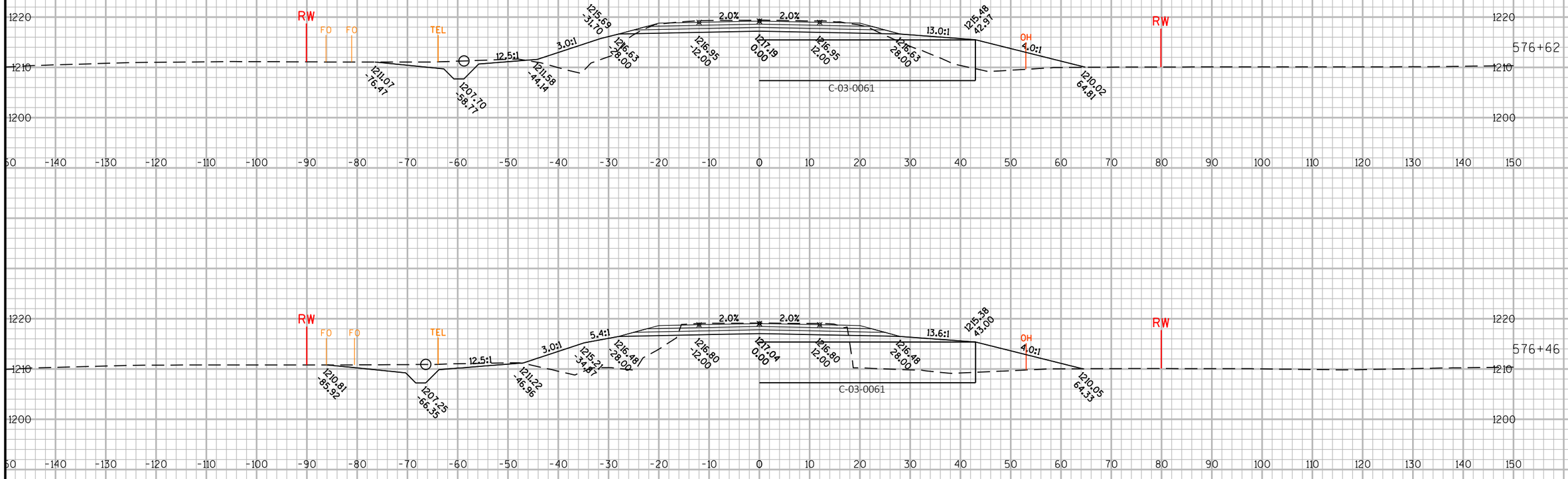
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B3-2

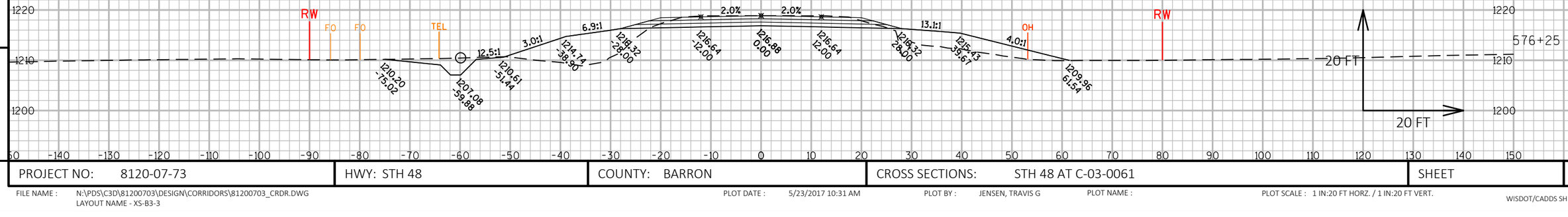
PLOT DATE : 5/23/2017 10:31 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.





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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0061	SHEET	E

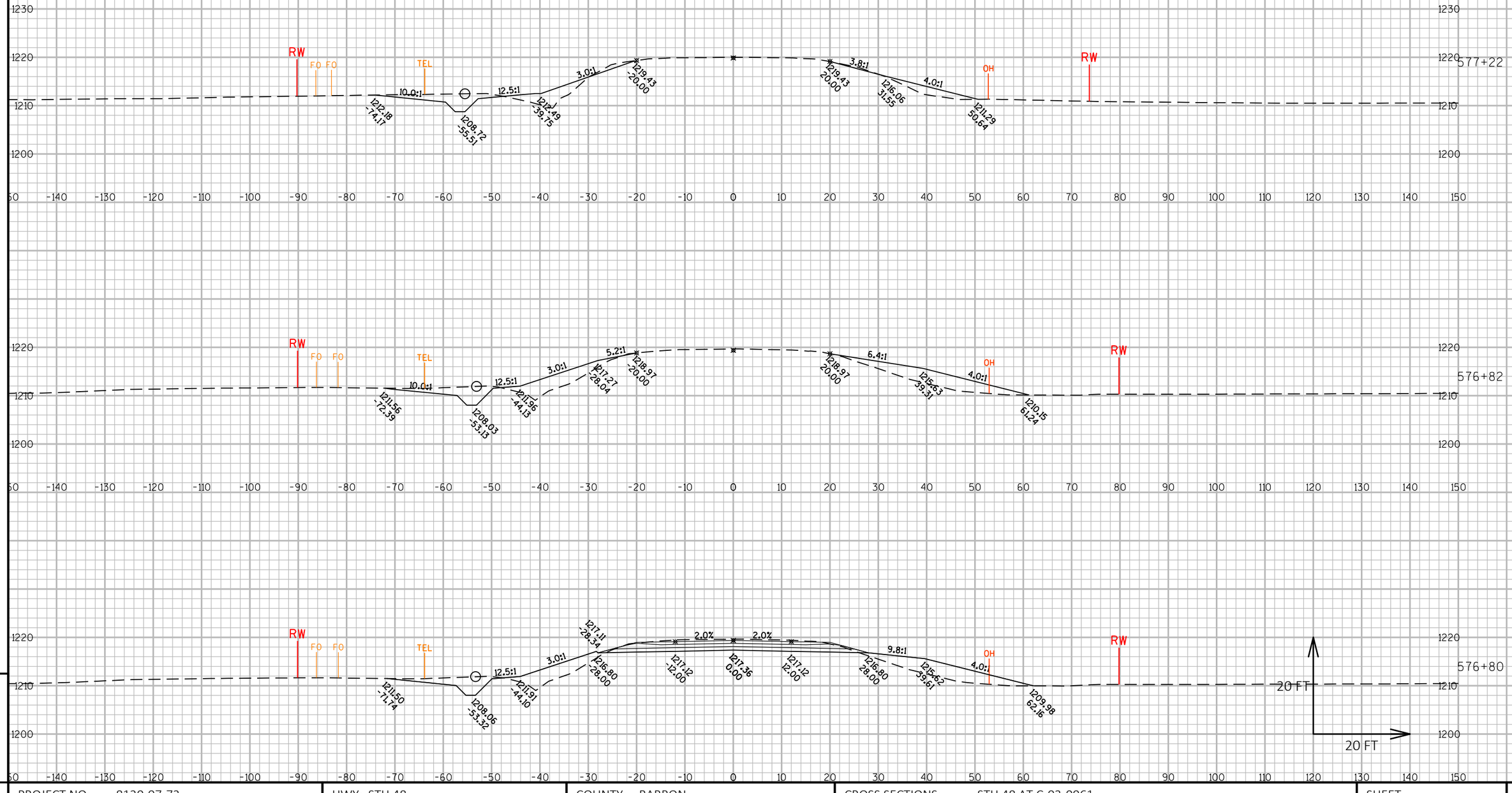
FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B3-3

PLOT DATE : 5/23/2017 10:31 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0061	SHEET E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B3-4

PLOT DATE : 5/23/2017 10:31 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0061	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B3-5

PLOT DATE : 5/23/2017 10:31 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

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PROJECT NO: 8120-07-73	HWY: STH 48	COUNTY: BARRON	CROSS SECTIONS: STH 48 AT C-03-0061	SHEET	E

FILE NAME : N:\PDS\C3D\81200703\DESIGN\CORRIDORS\81200703_CRDR.DWG
LAYOUT NAME - XS-B3-6

PLOT DATE : 5/23/2017 10:31 AM

PLOT BY : JENSEN, TRAVIS G

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.