State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Water Resources Application for Project Permits

Form 3500-053 (R 3/14)

Notice: Pursuant to chs. 30 and 31, Wis. Stats., ch. 281, Wis. Stats, and s. 283.33, Wis. Stats., this form is used to apply for coverage under the state construction site storm water runoff general permit, and to apply for a state or federal permit or certification for waterway and wetland projects or dam projects. This form and any required attachments constitute the permit application. Failure to complete and submit this application form may result in a fine and/or imprisonment or forfeiture under the provisions of applicable laws including s. 283.91, Wis. Stats. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records Laws (ss. 19.31-19.39, Wis. Stats.).

Use this form for (select all that apply):

- ☐ Waterway General Permit
- ☐ Waterway Individual Permit
- ☒ Wetland General Permit
- ☐ Wetland Individual Permit
- ☐ Storm water NOI - New land disturbing construction activity
- ☐ Storm water NOI - Renewal FIN # _____
- ☐ Work in waters of the U.S. (Army Corps of Engineers)
- ☐ Dam projects (DNR-ch. 31, Wis. Stats., or Army Corps of Engineers)

Read all instructions provided before completing. If additional space is needed, attach additional pages.

Section 1: Landowner Information

Landowner Name (first and last name, org. or entity)	Authorized Representative		
Wisconsin DOT	Matt Dickenson		
Mailing Address	**City**	**State**	**ZIP Code**
1701 N. 4th St	Superior	WI	54880
Email Address	**Phone Number (include area code)**	**Alternate Phone Number**	
matthew.dickenson@dot.wi.gov	(715) 395-3022		

Section 2: Applicant Information ☒ Select if same as landowner

Applicant Name (first and last name, org. or entity)	Contact Person		
Mailing Address	**City**	**State**	**ZIP Code**
Email Address	**Phone Number (include area code)**	**Alternate Phone Number**	

Section 3: Primary Project Contact ☒ Select if same as landowner

○ Consultant ○ Contractor ○ Other – Specify: _____

Name (Ind., Org. or Entity)	Contact Person (first and last name)		
Mailing Address	**City**	**State**	**ZIP Code**
Email Address	**Phone Number (include area code)**	**Alternate Phone Number**	

Section 4: Project or Site Location

Project Name	County	
USH 63, Hayward - Drummond (Project: 1560-02-01)	Sawyer	○ City ◉ Town ○ Village of Hayward

Location Address/Description

Along USH 63 from 1340' north of STH 27 to 1120' south of Larsen Rd.

Public Land Survey System (PLSS) – Provide the section, range, township information and latitude and longitude in decimal degrees, if available.

_____ ¼ of _____ ¼ of Section _____, Township 41 N, Range 9 ○ E ◉ W _____ Latitude _____ Longitude

If this site is not wholly contained in the quarter-quarter section, more description:

See Attachment 2 for a Sawyer County Map illustrating the location of the project. Refer to Attachment 8 for plan sheets presenting additional detail.

Section 5: Pre-Application Resource Screening

Screening your project site for the presence of sensitive natural or cultural resources before applying for a permit can assist you in planning and designing your project to avoid or minimize impacts to these resources. Please identify any screening you have already completed and attach any supporting documentation to your application. If sensitive resources are identified during the permit review, it may result in delays in processing your application and/or project re-design.

Waterways: Provide the name(s) of closest waterbodies:

Namekagon River

Wetlands: Has the project site been assessed for the presence of wetlands? ◉ Yes ○ No

If yes, select all sources of information used and attach supporting report or documentation:

- ☒ Wisconsin Wetland Inventory
- ☐ Wetland Locator Tool - http://dnr.wi.gov/topic/wetlands/locating.html
- ☐ Wetland Delineation by consultant
- ☒ NRCS Soils Map
- ☐ DNR Wetland Identification letter - http://dnr.wi.gov/topic/wetlands/identification.html
- ☐ DNR Wetland Confirmation letter - http://dnr.wi.gov/topic/wetlands/identification.html
- ☐ Army Corps of Engineers Concurrence letter
- ☒ Other: Wetland Delineation by WisDOT

Are wetlands proposed to be filled, excavated or disturbed during construction or as part of this project? ◉ Yes ○ No

Endangered or Threatened Resources:

Has the presence of endangered or threatened resources been evaluated according to the protocols developed by the DNR Bureau of Natural Heritage Conservation (BNHC)? dnr.wi.gov/topic/ERReview/ ◉ Yes ○ No

If yes, select how evaluation was completed and attach supporting report or documentation:

- ☒ DNR BNHC ER Review Letter
- ☐ Certified ER Review Letter
- ☐ Broad Incidental Take Permit/Authorization - specify (e.g. No/Low Impact Activities, Grassland and Savanna Management, etc.)
- ☒ Other: Fish and Wildlife Official Species List, 02/29/2016

Section 6: Project Information (attach additional sheets as necessary)

Duration: 05/06/2019 (Anticipated Project Start Date (mm/dd/yyyy)) 07/26/2019 (Anticipated Project End Date (mm/dd/yyyy))

Photos: Provide photographs of the "before" condition. See Attachment 6, Appendix C for photos taken on 6/15/2017 (Date of Photographs)

Project Purpose and Need: Provide a one to two paragraph description of the proposed project, including land and water alterations and intended use(s) of the project.

See the cover letter submitted with this form for a statement of the project's purpose and need. The cover letter also lists all attachments submitted with this form.

Section 7: Certification and Permission

Certification: I hereby certify that I am the owner or authorized representative of the owner of the property which is the subject of this Permit Application. I certify that the information contained in this form and attachments is true and accurate. I certify that the project will be in compliance with all permit conditions. I understand that failure to comply with any or all of the provisions of the permit may result in permit revocation and a fine and/or imprisonment or forfeiture under the provisions of applicable laws.

Permission: I hereby give the Department permission to enter and inspect the property at reasonable times, to evaluate this notice and application, and to determine compliance with any resulting permit coverage.

Signature of Landowner / Authorized Representative – **For Stormwater applications, signature of landowner is required. Authorized representative is not sufficient.**

10/13/17
Date Signed

Matt Dickenson
Printed Name of Landowner / Authorized Representative

WisDOT Project Manager
Title

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

October 12, 2017

RE: WISDOT Project 1560-02-01/70, (Sawyer County)
USH 63, Hayward –Drummond; STH 27 – Larsen Road

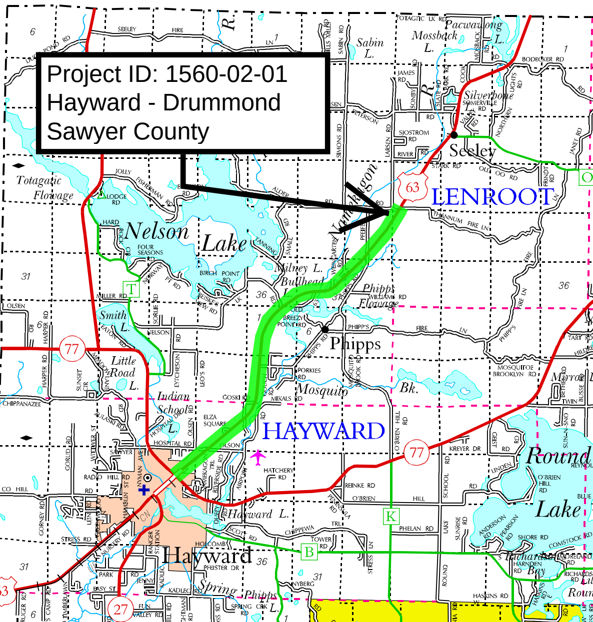
Project Description:
This miscellaneous reconstruction project involves replacing an existing concrete pavement with HMA pavement in order to maintain the safe and efficient movement of traffic on USH 63. This project will involve: crushing the existing concrete pavement and asphalt shoulders to be used as base, placing new HMA pavement, re-grading shoulders to a maximum of 5:1 slope, replacing select culverts, replacing select beam guard and the realignment of Hospital Road and Airport Road. All real estate and permits will be acquired before the start of construction. A total of 0.75 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 November 13, 2018 and will be constructed under detour during the summer of 2019.

Purpose & Need:
Existing concrete pavement exhibits longitudinal cracking, transverse cracking, and failing partial depth repairs and requires a new surface. A small portion of the culverts are in bad condition and require replacement.

A traffic safety analysis identified a significant crash pattern at the intersection of Hospital Road and USH 63. A possible contributing factor is the skew at the intersection.

Travis Jensen, E.I.T.
Project Leader

Attachments:
- Attachment 2: County Map
- Attachment 3: DNR Initial Concurrence
- Attachment 4: Section 106 Screening List
- Attachment 5: USFWS Threatened and Endangered Species List
- Attachment 6: Wetland Delineation Report
- Attachment 7: Typical Sections
- Attachment 8: Plan & Profile



Project ID: 1560-02-01
Hayward - Drummond
Sawyer County
LENROOT
HAYWARD
Seeley
Phipps
Hayward
Nelson Lake
Round Lake
Totagatic Flowage

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
810 W. Maple St.
Spooner WI 54801

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

September 24, 2015

Kyle Bassett
DOT NW Region – Superior
1701 N. 4th St.
Superior WI 54880

Subject: DNR Initial Project Review
Project I.D. 1560-02-01
USH 63(STH 27 – Larsen Rd.)
Sawyer County
Sec. 22, T41N, R9W through Sec. 29, T42N, R8W

Dear Kyle:

The Wisconsin Department of Natural Resources (DNR) has received the information you provided for the proposed above-referenced project on August 14, 2015. According to your proposal, the purpose of this project is to crush the existing concrete pavement and as a base, overlay with HMA, replace or clean culvert pipes as necessary, sign replacement, intersection improvement at Hospital Road and Airport Road, and curb and gutter replacement.

Preliminary information has been reviewed by DNR staff for the project under the DNR/DOT (Wisconsin Department of Transportation) Cooperative Agreement. Initial comments on the project as proposed are included below, and assume that additional information will be provided that addresses all resource concerns identified. In addition to the project specific resource concerns highlighted below, it is DNR's expectation that the full range of DOT roadway standards will be applied throughout the design process.

A. Project-Specific Resource Concerns

Section 4(f) Requirement:
Public lands are present in the vicinity of this project. If there is potential for impacts to these lands, please begin coordination with us as soon as possible. *First and foremost, every effort should be taken to avoid impacts to these lands*.

There is a U.S. Dept. of Transportation "Section 4(f)" process for federally funded transportation projects that impact various types of public parks, wildlife refuges, and recreation areas. This requirement is coordinated by state and federal transportation departments. Please ensure the 4f process as described in DOT FDM Chapter 21-25-1 is followed.

Wetlands:

There is potential for wetland impacts to occur as a result of this project. Wetland impacts must be avoided and/or minimized to the greatest extent practicable. Unavoidable wetland losses must be compensated for in accordance with the DNR/DOT Cooperative Agreement and the DOT Wetland Mitigation Banking Technical Guideline. Per

the Cooperative Agreement, mitigation banking is the preferred compensation option, however DOT and DNR agree that other practicable and ecologically valuable project specific opportunities may be pursued on a case-by-case basis. DNR requests information regarding the amount and type of unavoidable wetland impacts.

Endangered Resources:

Based upon a review of the Natural Heritage Inventory (NHI) and other DNR records dated September 24, 2015, the following Endangered Resources are known to occur in the project area or its vicinity and could be impacted by this project.

Wood turtles (state threatened) are known to inhabit the Namekagon River and its riparian corridor. It is reasonable to assume that wood turtles may be present at or near the project site, primarily STA 570+00 through 578+00. If any disturbance will take place in this area (i.e. beam guard replacement), the following measures should be incorporated into the project to minimize the chance of impacting this species: If project construction will start in the spring, the perimeter of the area to be disturbed should be protected with properly installed silt fence prior to May 15 to discourage turtles from entering the work area. If the construction area cannot be silt-fenced by May 15, the construction start date should be delayed until Sept. 1 or later. The latter requirement can be waived as early as July 1 if the site is surveyed by a qualified biologist and no evidence of turtle nesting is found.

Invasive Species and Viral Hemorrhagic Septicemia (VHS):

Adequate precautions should be taken to prevent transporting or introducing invasive species via construction equipment, as provided under chapter NR 40 Wis. Adm. Code. Further information on species classified as Restricted or Prohibited under NR 40 can be found at: http://dnr.wi.gov/topic/Invasives/classification.html.

DNR will work with project managers to help identify specific problem areas across the project site and recommend preventive measures. The following Best Management Practices (BMPs) for rights-of-way provide a series of measures that will ensure reasonable precautions are taken throughout the stages of construction: http://www.wisconsinforestry.org/files/invasiveBMPs/TransportationRoW-BMPs.pdf .

Any equipment coming into contact with surface waters must be properly cleaned and disinfected to address the spread of invasive species and viruses. Special provisions must require contractors to implement the following measures before and after mobilizing in-water equipment to prevent the spread of VHS, Zebra Mussel, and other invasive species. Contractors should follow ***STSP 107-055*** *Environmental Protection, Aquatic Exotic Species Control*, or protocol found here: http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf .

Additional information on invasive species and infested waters can be found at:
http://dnr.wi.gov/lakes/invasives/AISByWaterbody.aspx

B. Project Specific Construction Site Considerations

The following issues should be addressed in the Special Provisions, and the contractor will be required to outline their construction methods in the Erosion Control Implementation Plan (ECIP). An adequate ECIP for the project must be developed by the contractor and submitted to this office for review at least 14 days prior to the preconstruction conference. Erosion control and stormwater measures must adhere to the DNR/DOT Cooperative Agreement, Trans 401, and applicable federal laws.

Erosion Control and Storm Water Management:

- Erosion control devices should be specified on the construction plans. All disturbed bank areas should be adequately protected and restored as soon as feasible.

- If erosion mat is used along stream banks, DNR recommends that biodegradable non-netted mat be used (e.g. Class I Type A Urban, Class I Type B Urban, or Class II Type C). Long-term netted mats may cause animals to become entrapped while moving in and out of the stream. Avoid the use of fine mesh matting that is tied or bonded at the mesh intersection such that the openings in the mesh are fixed in size.

- If dewatering is required for any reason, the water must be pumped into a properly selected and sized dewatering basin before the clean/filtered water is allowed to enter any waterway or wetland. The basin must remove suspended solids and contaminants to the maximum extent practicable. A properly designed and constructed dewatering basin must take into consideration maximum pumping volume (gpm or cfs) and the sedimentation rate for soils to be encountered. Do not house any dewatering technique in a wetland.

- The contractor should restrict the removal of vegetative cover and exposure of bare ground to the minimum amounts necessary to complete construction. Restoration of disturbed soils should take place as soon as conditions permit. If sufficient vegetative cover will not be achieved because of late season construction, the site must be properly winterized.

- All temporary stock piles must be in an upland location and protected with erosion control measures (e.g. silt fence, rock filter-bag berm, etc.). Do not stockpile materials in wetlands, waterways, or floodplains.

This project may require a permit from the U.S. Army Corps of Engineers (ACOE). For further details you will need to contact Bill Sande of the ACOE located in the Hayward office, at 715-934-2170. All local, state, and federal permits and/or approvals must be obtained prior to commencing construction activities.

The above comments represent the DNR's initial concerns for the proposed project and do not constitute final concurrence. Final concurrence will be granted after further review of refined project plans, and additional consultation if necessary. If any of the concerns or information provided in this letter requires further clarification, please contact this office at 715-635-4228, or email at shawn.haseleu@wi.gov.

Sincerely,

Shawn Haseleu

Shawn Haseleu
Environmental Analysis & Review Specialist

cc: Amy Adrihan, DOT NW Region – Superior
Bill Sande, ACOE

Pursuant to 36 CFR 800.3 (a)(1) WisDOT (Cultural Resources) has determined the proposed actions for these undertakings (projects) will have no potential to cause effects to historic properties. No further section 106 obligations are required. However, if the proposed actions for an undertaking (project) should change in any way that would involve ground disturbing activities, additional section 106 coordination is required for that undertaking (project).

County	Main ID	Notification Date	Project Put on Screening List for	Route	Title	Bridge ID
Rusk	8797-00-00	09/09/2009	Both Archaeology and History	CTH F (Town of Rusk)	CTH W - North Potato Lake Road	
Rusk	8797-00-01	01/29/2013	Both Archaeology and History	CTH F	Soft Maple Creek Bridge	b540117
Rusk	8798-00-01	02/04/2013	History Only	CTH D	Ten Mile Creek Bridge	b540118
Sawyer	1560-00-32	04/13/2015	Both Archaeology and History	USH 63	Florida Ave to North Junct STH 27	
Sawyer	1560-02-33	03/06/2015	Both Archaeology and History	USH 63	Hayward - Drummond STH 27 to Larsen	
Sawyer	1560-29-00	05/22/2007	Both Archaeology and History	USH 63	Namekegon River Bridge Rehabilitation	
Sawyer	1560-30-00	10/05/2011	History Only	USH 63	Spooner - hayward CTH M To Vermont	
Sawyer	1560-30-30	01/23/2007	Both Archaeology and History	USH 63	Spooner-hayward Rd CTH M-STH 27 S	
Sawyer	8140-25-01	10/01/2014		STH 27	Namekagon River Bridge Replacement	B-57-0058
Sawyer	8140-26-00	06/30/2008	Both Archaeology and History	STH 27	Hyward - Brule Road USH 63 - STH 77	
Sawyer	8145-25-01	01/30/2013	Both Archaeology and History	STH 27	Namekagon river Bridge Replacment	B57-0058
Sawyer	8150-20-00	09/08/2010	Both Archaeology and History	STH 27	Ladysmith - Ojibwa Brunet River to STH	
Sawyer	8170-01-32	01/03/2008	Both Archaeology and History	STH 70	Ojibwa-Oxbo Rd CTH GG-Flambeau Rvr	
Sawyer	8170-01-33	12/16/2013	Both Archaeology and History	STH 70	Ojibwa-Oxbo CTH W to CTH GG	
Sawyer	8170-08-31	01/03/2008	Both Archaeology and History	STH 27	Ojibwa-Stone Lake Road Radisson-CTH	B57-00430
Sawyer	8170-08-32	01/03/2008	Both Archaeology and History	STH 27	Ojibwa - Stone Lake Road CTH C - ST 2	B5700430
Sawyer	8448-00-00	08/19/2009	Both Archaeology and History	CTH EE	STH 70 - County Line	
Sawyer	8448-00-01	11/20/2012	Both Archaeology and History	CTH GG	Brunet River Bridge (Loretta-NCL)	
Sawyer	8449-00-00	08/25/2015	Both Archaeology and History	Harvest Lane	Thirty Three Creek Bridge P-57-0066	P-57-0066
Sawyer	8450-00-00	09/16/2009	History Only	City of Hayward, CTH	STH 27 to CTH K, Bike & Ped trail Syste	
Sawyer	8450-00-01	05/21/2010	Both Archaeology and History	City of Hayward, Variou	Bike & Ped System - Phase 2	
Sawyer	8450-00-02	10/02/2009	Both Archaeology and History	Hayward Area bike/ped		
Sawyer	8452-05-01	09/02/2009	History Only	CTH T	Hard Rock Circle (S) - STH 27	
Sawyer	8456-00-00	01/29/2013	Both Archaeology and History	T Radisson Townline R	Kenyon Creek Bridge	b570084
Sawyer	8457-03-00	10/30/2007	History Only	Moose Lake Rd	W fork Chippewa River Bridge	
Sawyer	8461-00-00	01/13/2012	Both Archaeology and History	Village of Winter, Railro	CNW RR Depot Welcome Center	
Sawyer	8520-01-04	02/03/2014	History Only	STH 77	Hayward - Clam Lake (CTH K/Mosquito	
Sawyer	8520-08-00	01/06/2009	Both Archaeology and History	STH 77	GHOST LAKE - CLAM LAKE	
Sawyer	8520-16-00	10/02/2008	Both Archaeology and History	STH 77	Hayward - Clam Lake CTH K to Lower T	
Sawyer	8570-00-30	01/27/2011	Both Archaeology and History	STH 48	V Exeland, 2nd St Weirgor Creek bridge	
Sawyer	8590-01-04	02/11/2013	Both Archaeology and History	STH 40	Bruce Radisson Couderay River Bridge	
Sawyer	8590-01-05	10/03/2013	Both Archaeology and History	B57-72 (Emergency Re	STH 40 over Couderay River	
Sawyer	8590-01-06	09/29/2014	Both Archaeology and History	STH 40	Bruce-Radisson; Couderay River Bridge	B-57-0072
Sawyer	8773-00-00	05/07/2010	History Only	CTH E	Norwis Road - CTH K	
Sawyer	8780-00-00	04/19/2012	History Only	CTH S	CTH B - STH 77 (Moose Lake Rd to ST	
Sawyer	8782-00-00	12/14/2012	Both Archaeology and History	CTH F	STH 48-STH 27/70; Strand Rd-STH 27/	
St. Croix	1020-00-08	08/04/2009	Both Archaeology and History	IH 94	Hudson - Baldwin Carmichael Rd to US	
St. Croix	1020-00-32	03/19/2008	Both Archaeology and History	IH 94	Baldwin - Menomonie STH 128-Wilson	b5500200
St. Croix	1020-00-32	03/19/2008	Both Archaeology and History	IH 94	Baldwin - Menomonie STH 128-Wilson	b1700210
St. Croix	1020-00-32	03/19/2008	Both Archaeology and History	IH 94	Baldwin - Menomonie STH 128-Wilson	b1700200
St. Croix	1020-00-32	03/19/2008	Both Archaeology and History	IH 94	Baldwin - Menomonie STH 128-Wilson	B1700180
St. Croix	1020-00-32	03/19/2008	Both Archaeology and History	IH 94	Baldwin - Menomonie STH 128-Wilson	b5500220
St. Croix	1020-00-32	03/19/2008	Both Archaeology and History	IH 94	Baldwin - Menomonie STH 128-Wilson	b5500190

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Green Bay Ecological Services Field Office
2661 SCOTT TOWER DRIVE
NEW FRANKEN, WI 54229
PHONE: (920)866-1717 FAX: (920)866-1710

Consultation Code: 03E17000-2016-SLI-0402 February 29, 2016
Event Code: 03E17000-2016-E-00384
Project Name: 1560-02-01

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project “may affect” listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website http://ecos.fws.gov/ipac/ at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/s7process/index.html. This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height (*e.g.*, communication towers)**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act *(*16 U.S.C. 703 *et seq*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: 1560-02-01

Official Species List

Provided by:

Green Bay Ecological Services Field Office
2661 SCOTT TOWER DRIVE
NEW FRANKEN, WI 54229
(920) 866-1717

Consultation Code: 03E17000-2016-SLI-0402
Event Code: 03E17000-2016-E-00384

Project Type: TRANSPORTATION

Project Name: 1560-02-01
Project Description: USH 63, STH 27 - Larsen Rd

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:

Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Sawyer, WI

United States Department of Interior
Fish and Wildlife Service

Project name: 1560-02-01

Endangered Species Act Species List

There are a total of 3 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Mammals	**Status**	**Has Critical Habitat**	**Condition(s)**
Canada Lynx *(Lynx canadensis)* Population: Contiguous U.S. DPS	Threatened	Final designated	
Gray wolf *(Canis lupus)* Population: U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.	Endangered		
Northern long-eared Bat *(Myotis septentrionalis)*	Threatened		

Critical habitats that lie within your project area

There are no critical habitats within your project area.

Wetland Delineation Report

Project ID# 1560-02-01/70

Hayward – Drummond
STH 27 to Larsen Rd.
USH 63
Sawyer County

Prepared by the Wisconsin Department of Transportation
Northwest Region
Daniel Fuller
1701 N 4th Street
Superior, WI 54880
October 2017

Contents

Project Summary

The Wisconsin Department of Transportation (WisDOT) has proposed a resurfacing project along with an intersection realignment between Hayward and Drummond in Sawyer County. As part of the resurfacing project. The intersection of USH 63, Hospital rd. and Airport will be realigned.

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 Northcentral and Northeast 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 1560-02-01/70 was conducted on 6/15/2017 by Dave Runquist and Daniel Fuller. Mr. Runquist was an intern with WisDOT and attended the University of Wisconsin-Superior. He graduated with a BS majoring in biology with a plant emphasis and a minor in Earth sciences in May 17. He attended the basic and advanced wetland delineation training in July 2015. Mr. Fuller is currently an intern with the WisDOT and is attending the University of Wisconsin – Superior, majoring in broad field science and biology education. He will graduate with a B.S. in May 2018. In 2013, Mr. Fuller graduated from UW-Superior with a B.S. in biology and continued his education at Royal Botanic Garden in Edinburgh, receiving a M.S. in biodiversity and taxonomy of plants. He attended the basic and advanced wetland delineation training in June 2017.

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 Viewer
  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 resurfacing and intersection realignment will permanently impact nine 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 Slender

willow *(Salix petiolaris)*, Red-osier dogwood *(Cornus alba)*, Lake sedge *(Carex lacustris)*, Quaking aspen *(Populus tremuloides)*, Speckled alder *(Alnus incana)*, Woodland horsetail *(Equisetum sylvaticum)*, and Barren strawberry *(Waldsteinia fragarioides)*, Meadow sweet *(Spirea alba)*, Reed canary grass *(Phalaris arundinacea)*, Canada Bluejoint *(Calamagrostis canadensis)*, Hummock sedge *(Carex stricta)*, Tamarack *(Larix laricina)*, Red maple *(Acer rubrum)*, Winterberry *(Ilex verticillata)*, Bunchberry *(Cornus canadensis)*, and Low-bush blueberry *(Vaccinium angustifolium).* The hydrophytic vegetation present at these plots is similar to common species found among Wet Meadow (M), Shrub Scrub (SS), and Riparian Forest (RPF) 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. Primary indicators of observed were Surface water (A1), High water table (A2), and Saturation (A3). Secondary indicators observed were Moss trim line (B16), Geomorphic position (D2), Microtopographic relief (D4), and FAC-neutral test (D5).

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 Sawyer County were obtained from the United States Department of Agriculture (USDA). The soil type listed for the areas impacted by this project is muck and sandy soils. This soil is listed on the USDA Hydric Soils List as soils that are very poorly drained to moderately well drained.

1. Wetlands 1,2,5-9

Seelyeville and Markey soils: Soils are listed on the NRCS Web Soil Survey as having a very poorly drained drainage class, with frequent ponding. Depth to water table is about 0 inches.
Map unit symbol: 407A
Wetland type: Wet Meadow (M), Shrub Scrub (SS), Riparian Forest (RPF)

2. Wetland 3 & 4

Lenroot loamy sand: Soils are listed on the NRCS Web Soil Survey as having a moderately well drained drainage class, with no frequency to ponding or flooding. Depth to the water table is about 24 inches.
Map unit symbol: 711A
Wetland type: Wet Meadow (M) & Riparian Forest (RPF)

- Soil samples were taken at all data plots to 20 inches or to an unavoidable resistance. Hydric soil indicators present throughout this project were Sandy mucky mineral (S1), Redox dark surface (F6), Coast prairie redox (A16) Dark surface (S7) were the hydric soil indicators present. Full soil profiles are included in the Routine Wetland Delineation Forms in Appendix B.

Delineation

Nine different wetlands have been determined to be within the limits of the project. The delineation of the wetlands included the establishment of six upland monitoring sites as well as nine wetland sites. All sites will be affected by the proposed project. 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 east side of USH 63 and north of Airport rd. and is associated with a Wet Meadow (M) wetland type. Dominant hydrophytic species in this area was Slender willow *(Salix petiolaris)*, Red-osier dogwood *(Cornus alba)*, and Lake sedge *(Carex lacustris)*; non-dominant species include Quaking aspen *(Populus tremuloides)*, Meadow sweet *(Spirea alba)*, Blue-flagged iris *(Iris versicolor)*, and Bristly-dew berry *(Rubus hispidus)*. At this site, sandy soil was found. The soils were completely saturated and the hydric soil indicators found were Sandy mucky mineral (S1), Redox dark surface (F6), and Coast prairie redox (A16). 1 ¾ inches of surface water was found at this site.
  - Monitoring form 2 (Upland 1): The upland portion of this site was dominated by Poverty oats grass *(Danthonia spicata)* and red fescue *(Festuca rubra)*. Soils were not obtained due to refusal at the surface.
- Wetland 2- Shrub Scrub (SS) (Monitoring Forms 3-4)
  - Monitoring form 3 (Wetland 2): This wetland lies on the east side of USH 63 and north of Airport rd. and is associated with a Shrub Scrub (SS) wetland type. Dominant hydrophytic species in this area were Slender willow *(Salix petiolaris)* and Lake sedge *(Carex lacustris)*; non-dominant species include Speckled alder *(Alnus incana)* and Hummock sedge *(Carex stricta)*. At this site, sandy soil was found. The soils were completely saturated and the hydric soil indicator found was Sandy mucky mineral (S1). Ten inches of surface water was found at this site.
  - Monitoring form 4 (Upland 2): The upland portion of this site was dominated by Quaking aspen *(Populus tremuloides)*, Paper birch *(Betula papyrifera)*, Bracken fern *(Pteridium aquilinum)*, and Bristly dewberry *(Rubus hispidus)*. Soils were not obtained due to refusal at the surface.
- Wetland 3- Riparian Forest (RPF) (Monitoring Forms 5-6)

- Monitoring form 5 (Wetland 3): This wetland lies on the north and south sides of Airport rd. and is associated with a Riparian Forest (RPF) wetland type. Dominant hydrophytic species in this area were Quaking aspen *(Populus tremuloides)*, Speckled alder *(Alnus incana)*, Woodland horsetail *(Equisetum sylvaticum)*, and Barren strawberry *(Waldsteinia fragarioides)*; non-dominant species include Red maple *(Acer rubrum)*, Boxelder *(Acer negundo)*, Meadow sweet *(Spirea alba)*, Beaked hazel *(Corylus cornuta)*, Canada Bluejoint *(Calamagrostis canadensis)*, Quill sedge *(Carex tenera)*, Velvet-leaf blueberry *(Vaccinium myrtilloides)*, Bristly-dew berry *(Rubus hispidus)*, Common sow thistle *(Sonchus oleraceus)*, and Early-meadow rue *(Thalictrum dioicum)*. At this site, sandy soil was found. The soils were saturated at a depth of 2 ½ inches. No hydric soil indicator was found here.
- Monitoring form 6 (Upland 3): The upland portion of this site was dominated by Kentucky bluegrass *(Poa pratensis)* and Sheep sorrel *(Rumex acetosella)*. 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 Airport rd. and is associated with a Wet Meadow (M) wetland type. Dominant hydrophytic species in this area were Meadow sweet *(Spirea alba)*, Speckled alder *(Alnus incana)*, and Reed canary grass *(Phalaris arundinacea)*; non-dominant species include Sensitive fern *(Onoclea sensibilis)*, Raspberry *(Rubus idaeus)*, Lake sedge *(Carex lacustris)*, and Canada Bluejoint *(Calamagrostis canadensis)*. At this site, sandy soil was found. The soils were saturated at a depth of 5 inches and the hydric soil indicator found was Sandy mucky mineral (S1).
  - Monitoring form 8 (Upland 4): The upland portion of this site was dominated by Red maple *(Acer rubrum)*, Jack pine *(Pinus banksiana)*, Quaking aspen *(Populus tremuloides)*, Bush honeysuckle *(Diervilla lonicera)*, Kentucky bluegrass *(Poa pratensis)*, and Bracken fern *(Pteridium aquilinum)*. 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 Airport rd. and is associated with a Wet Meadow (M) wetland type. Dominant hydrophytic species in this area was Reed canary grass *(Phalaris arundinacea)*, Lake sedge *(Carex lacustris)*, and Canada Bluejoint *(Calamagrostis canadensis)*; there were no non-dominant species at this site. At this site, sandy soil was found. The soils were completely saturated and the hydric soil indicator found was Sandy mucky mineral (S1).
  - 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 USH 63 and on the north side of Hospital rd. and is associated with a Wet Meadow (M) wetland type. Dominant hydrophytic species in this area were Hummock sedge *(Carex stricta)* and Lake sedge *(Carex lacustris)*; non-dominant species include Canada goldenrod *(Solidago canadensis)*. At this site, sandy soil was found. The

soils were completely saturated and the hydric soil indicator found was Dark surface (S7).

- Monitoring form 12 (Upland 6): The upland portion of this site was dominated by Kentucky bluegrass *(Poa pratensis)* and Smooth brome *(Bromus inermis)*. Soils were not obtained due to refusal at the surface

- Wetland 7- Shrub Scrub (SS) (Monitoring Forms 13-14)
  - Monitoring form 13 (Wetland 7): This wetland lies on the north side of USH 63 and on the north side of Hospital rd. and is associated with a shrub scrub (SS) wetland type. Dominant hydrophytic species in this area were Slender willow *(Salix petiolaris)*, Lake sedge *(Carex lacustris)*, and Hummock sedge *(Carex stricta)*; non-dominant species include Meadowsweet *(Spirea alba)*, Slender willow *(Salix petiolaris)*, Field horsetail *(Equisetum arvense)*, and Flat-leaf bladderwort *(Utricularia intermedia)*. No soil was obtained due to 16" of surface water.
  - Monitoring form 14 (Upland 7): The upland portion of this site was dominated by Kentucky bluegrass *(Poa pratensis)*. Soils were not obtained due to refusal at the surface.
- Wetland 8- Wet Meadow (M) (Monitoring Form 15)
  - Monitoring form 15 (Wetland 8): This wetland lies on the north side of USH 63 and on the south side of Hospital rd. and is associated with a Wet Meadow (M) wetland type. Dominant hydrophytic species in this area were Hummock sedge *(Carex stricta)*; non-dominant species include Lake sedge *(Carex lacustris)*, Canada thistle *(Cirsium arvense)*, Purple-stemmed aster *(Symphyotrichum puniceum)*. At this site, clay soil was found. The soils were saturated at a depth of 11 inches and the hydric soil indicator found was Redox dark surface (F6). No surface water was found at this site.
- Wetland 9- Riparian Forest (RPF) (Monitoring Form 16)
  - Monitoring form 16 (Wetland 9): This wetland lies on the south side of Hospital rd. and is associated with a Riparian Forest (RPF) wetland type. Dominant hydrophytic species in this area were Tamarack *(Larix laricina)*, Red maple *(Acer rubrum)*, Winterberry *(Ilex verticillata)*, Bunchberry *(Cornus canadensis)*, and Low-bush blueberry *(Vaccinium angustifolium)*; non-dominant species include Quaking aspen *(Populus tremuloides)*, Paper birch *(Betula papyrifera)*, Beaked hazel *(Corylus cornuta)*, Speckled alder *(Alnus incana)*, Cinnamon fern *(Osmundastrum cinnamomeum)*, Canada Bluejoint *(Calamagrostis canadensis)*, Stalked-grained sedge *(Carex stipata)*, Quill sedge *(Carex tenera)*, Canada mayflower *(Maianthemum canadense)*, and Red maple *(Acer rubrum)*. At this site, sandy soils were found. The soils were completely saturate. No hydric soil was found.

Wetland Impacts

The cumulative **permanent** wetland impacts for the USH 63 project in Sawyer County are 0.750 acres. The impacted acreage consists of:

- 0.120 acres of Shrub Scrub (SS) from the resurfacing and realignment on USH 63.
- 0.490 acres of Riparian Forest (RPF) from the resurfacing and realignment on USH 63.

- 0.140 acres of Wet Meadow (M) from the resurfacing and realignment on USH 63.

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 (Photos 1-16).

Wetland Mitigation

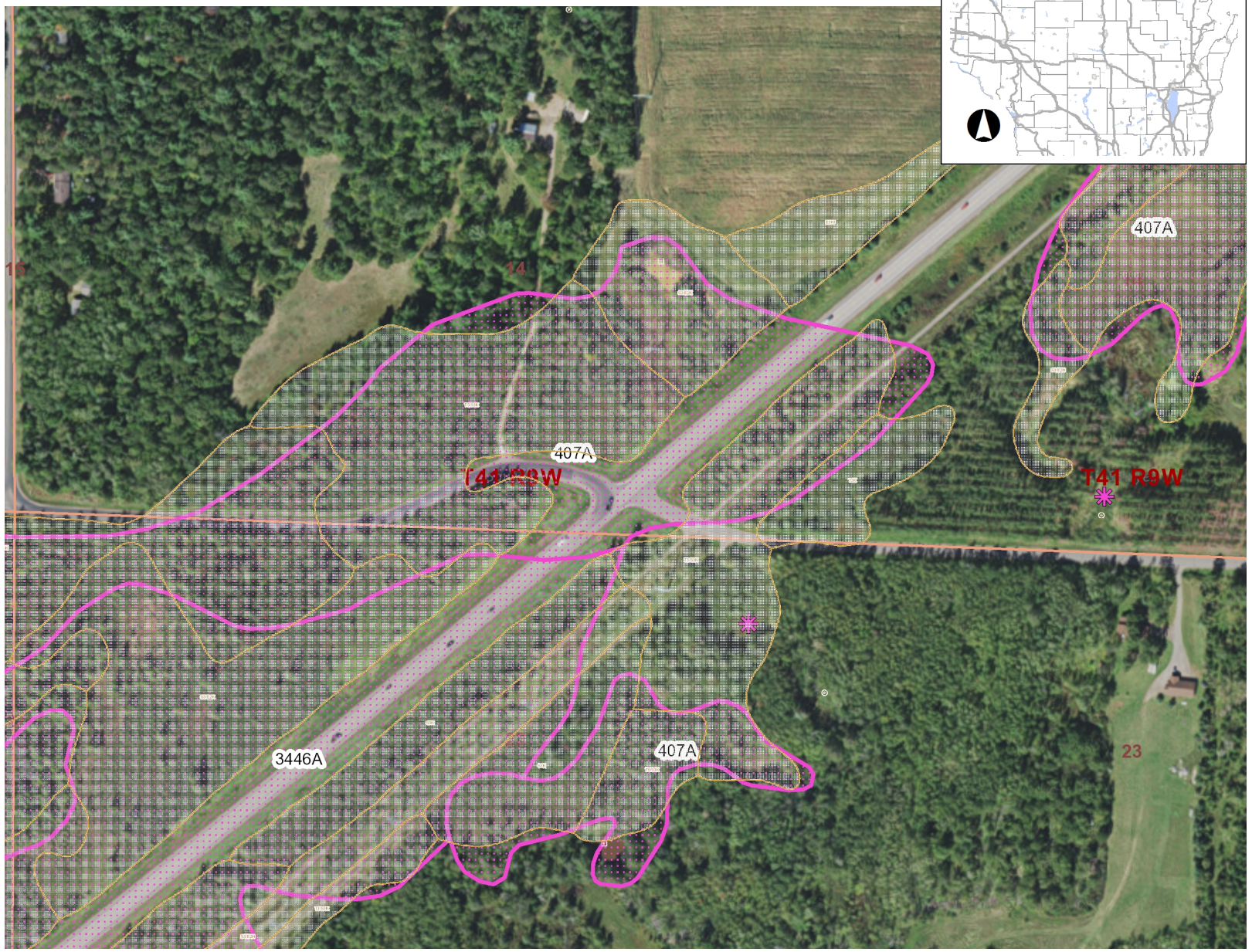
According to the NRCS, "mitigation is compensation through wetland restoration, enhancement, or creation for functions and values that are lost on a converted wetland". The total permanent wetland impact for the USH 63 project located in Sawyer County is 0.750 acres. The permanent losses will be mitigated by debiting them to the WisDOT Eitenmiller Wetland Mitigation Bank Site in Rusk County at a ratio consistent with the Wisconsin DOT Wetland Mitigation Banking Technical Guideline (2002 revision). The 0.120 acres of Shrub Scrub (SS) wetland will be mitigated at a 1:1.2 compensation ratio to Shallow Marsh (SM) totaling 0.145 acres; the 0.490 acres of Riparian Forest (RPF) wetland will be mitigated at a 1:1.5 compensation ratio to Shallow Marsh (SM) totaling 0.745 acres; the 0.140 acres of Wet Meadow (M) wetland will be mitigated at a 1:1 compensation ratio to Wet Meadow (M) totaling 0.140 acres. A Wetland Impact Tracking Form (WITF) is included at the end of Appendix A, summarizing the wetland losses and mitigation plans.

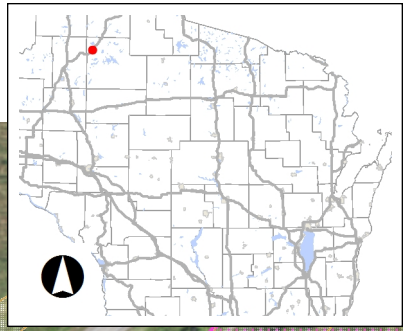
Appendix A

Tables and Figures

Project Location Map

1560-02-01





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
- Township
- Section
- County Boundary
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water

Notes

North of Hospital rd. - T41N R9W S14
South of Hospital rd. - T41N R9W S 23

0.1 0 0.06 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

1: 3,960

Soil Map—Sawyer County, Wisconsin
(1560-02-01)

Map Scale: 1:3,970 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

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 1:12,000.

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:
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: Sawyer County, Wisconsin
Survey Area Data: Version 14, Sep 27, 2016

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

Date(s) aerial images were photographed: Sep 9, 2011—Oct 2, 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

Sawyer County, Wisconsin (WI113)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
383B	Mahtomedi loamy sand, 0 to 6 percent slopes	7.3	11.6%
383C	Mahtomedi loamy sand, 6 to 12 percent slopes	1.0	1.6%
407A	Seelyeville and Markey soils, 0 to 1 percent slopes	20.0	31.9%
771A	Lenroot loamy sand, 0 to 3 percent slopes	24.6	39.3%
3446A	Newson muck, 0 to 2 percent slopes	9.8	15.6%
Totals for Area of Interest		**62.7**	**100.0%**

1560-02-01

USH 63
Hayward - Drummond
STH 27 to Larson Road
Sawyer County

Legend

- Plots
- Wetland Boundary

Wetland 6 - Wet Meadow
Wetland 1 - Wet Meadow
Up Plot 1
Wet Plot 1
Wetland 7 - Shrub Scrub
Wet Plot 7
Wet Plot 6
Up Plot 6
Hwy 63
Wetland 9 - RPF
Wetland 2 - Shrub Scrub
Wetland 2 - Shrub Scrub
Wet Plot 2
Wetland 3 - RPF
Wetland 8 - Wet Meadow
Wet Plot 9
Wet Plot 8
Up Plot 8
Wet Plot 3
Wetland 5 - Wet Meadow
Up Plot 2
Up Plot 5
Up Plot 3
Wetland 9 - RPF
Wet Plot 5
W Hospital Rd
Wetland 4 - Wet Meadow
Up Plot 4
Wetland 3 - RPF
Wet Plot 4

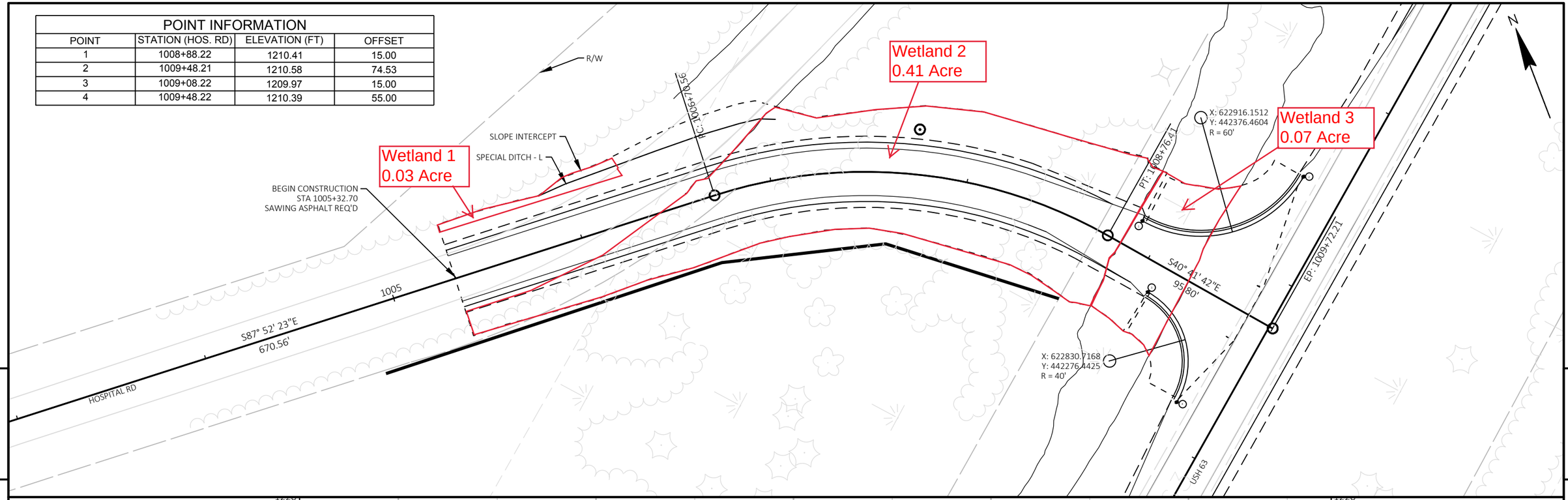
Google earth
© 2017 Google

N

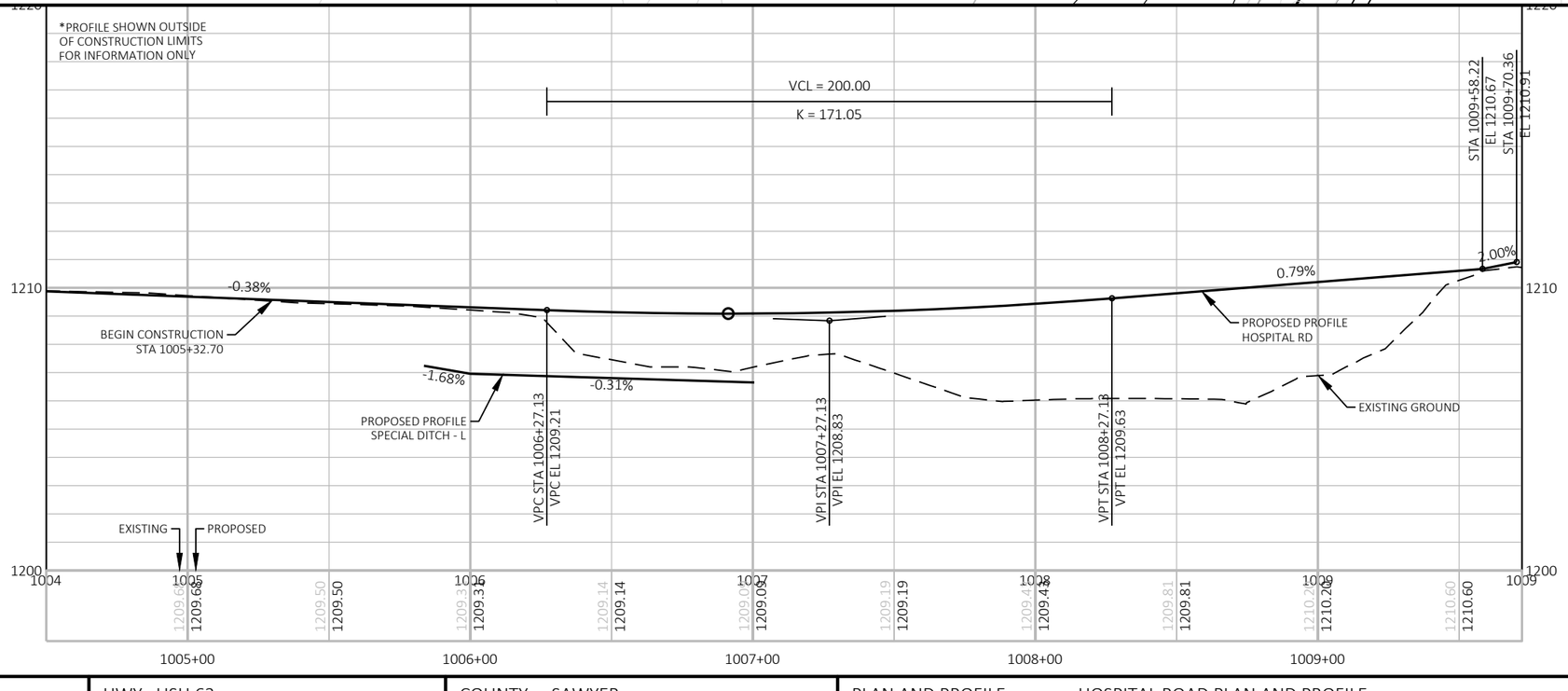
200 ft

Wetland Impact Map

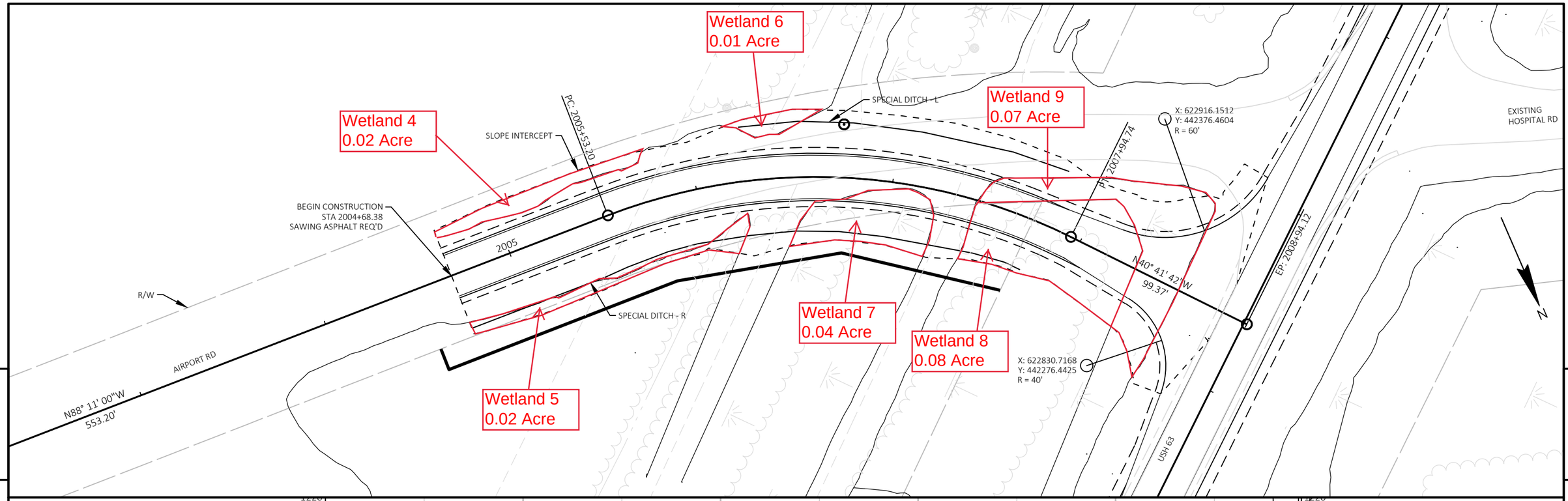
POINT INFORMATION			
POINT	STATION (HOS. RD)	ELEVATION (FT)	OFFSET
1	1008+88.22	1210.41	15.00
2	1009+48.21	1210.58	74.53
3	1009+08.22	1209.97	15.00
4	1009+48.22	1210.39	55.00

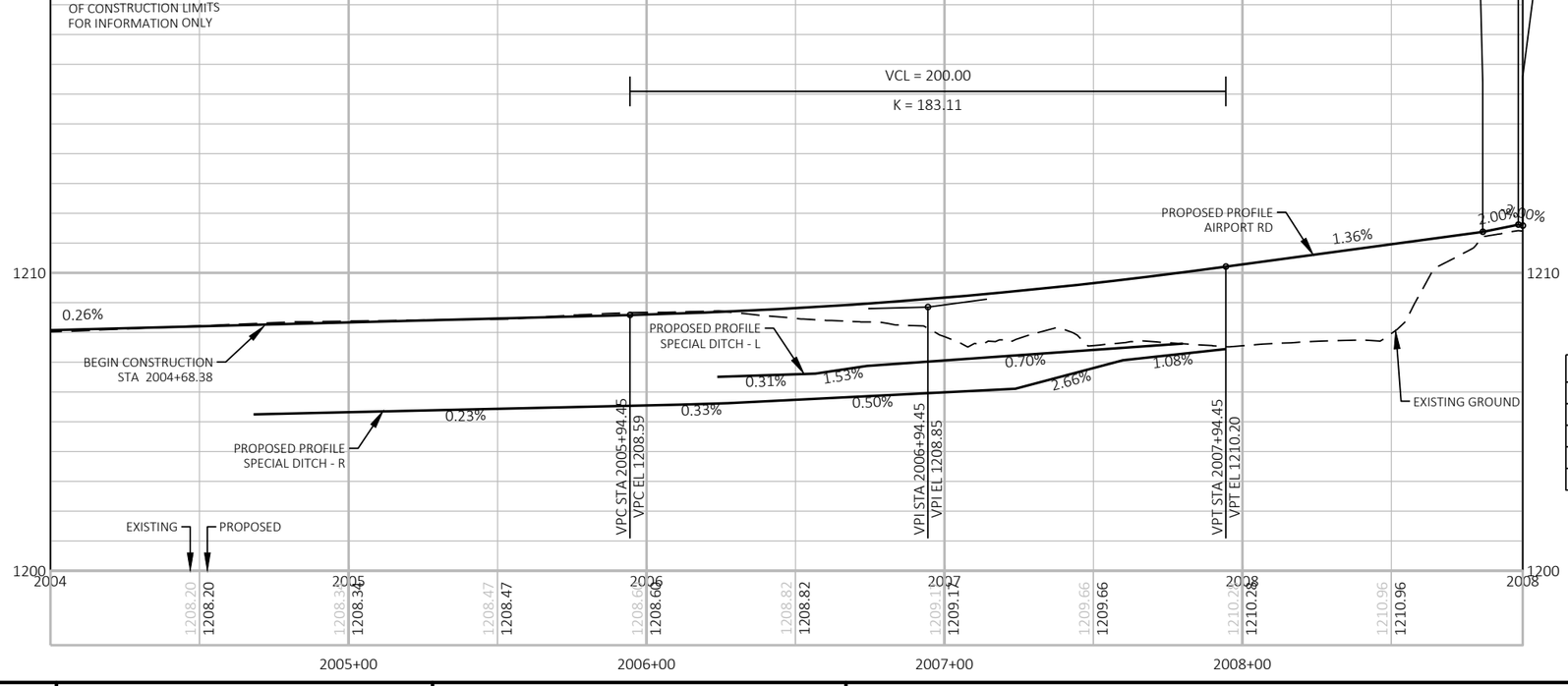


SPECIAL DITCH - L	
STATION	ELEVATION (FT)
1005+83.64	1207.24
1006+00.06	1206.96
1007+00.50	1206.65



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: HOSPITAL ROAD PLAN AND PROFILE	SHEET	E





SPECIAL DITCH - R	
STATION	ELEVATION (FT)
2004+68.38	1205.25
2006+11.04	1205.57
2006+27.34	1205.63
2007+23.77	1206.11
2007+59.91	1207.07
2007+94.45	1207.44

SPECIAL DITCH - L	
STATION	ELEVATION (FT)
2006+23.77	1206.51
2006+56.73	1206.61
2006+73.97	1206.88
2007+80.00	1207.50

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: AIRPORT ROAD PLAN AND PROFILE	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP-HOSPITAL RD.DWG
LAYOUT NAME - AIRPORT RD

PLOT DATE : 9/21/2017 11:25 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:50 FT

Wisconsin Department of Transportation
Division of Transportation System Development
Northwest 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 St
Superior, WI 54880
Phone: (715)-392-7972
amy.adrihan@dot.wi.gov

Please Complete All Information Highlighted In Yellow

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

Project Design I.D. #:	1560-02-01
Project Construction I.D. #:	1560-02-70
Hwy/ Project Title :	Hayward - Drummond
	STH 27 - Larsen Rd
County :	Sawyer
Construction Year :	2019
Date this form is completed:	09/21/2017
Date this form is approved:	10/3/2017

	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 ☐ ➡ **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.

Wetland Delineation/ Determination completed by:	David Runquist (NAME)
	Basic and Advanced Wetland Delineation Course, UW-La Crosse (QUALIFICATIONS)

Describe methods used to avoid and minimize impacts to wetlands:

Wetland impacts were discussed and considered during alternatives analysis. Wetlands will be protected by silt fence to prevent disturbance beyond what is required.

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	0.14	M	0.14
RPE	-	RPE	-
RPF	0.49	RPF	-
SM	-	SM	0.88
SS	0.12	SS	-
WS	-	WS	-
AB(D)	-	**TOTAL**	**1.02**
DM(D)	-		
M(D)	-		
RPE(D)	-		
RPF(D)	-		
SM(D)	-		
SS(D)	-		
WS(D)	-		
TOTAL	**0.75**		

Wisconsin Department of Transportation

Project Design ID #: 1560-02-01

Division of Transportation System Development
Northwest 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	Wetland 1	HOSPITAL RD 1005+33 - 1006+25	Lat: 46.026685 Long: -94.464713	RPF	0.030	1.500	SM	0.045
2	Wetland 2	HOSPITAL RD 1005+33 - 1008+84	Lat: 46.026491 Long: -91.463964	RPF	0.410	1.500	SM	0.615
3	Wetland 3	HOSPITAL RD 1008+84 - 1009+24	Lat: 46.026285 Long: -91.463672	M	0.070	1.000	M	0.070
4	Wetland 4	AIRPORT RD 2004+68 - 2006+25	Lat: 46.026604 Long: -91.460788	RPF	0.020	1.500	SM	0.030
5	Wetland 5	AIRPORT RD 2004+68 - 2005+80	Lat: 46.026631 Long: -91.460980	RPF	0.020	1.500	SM	0.030
6	Wetland 6	AIRPORT RD 2006+19 - 2006+64	Lat: 46.026489 Long: -91.460902	RPF	0.010	1.500	SM	0.015
7	Wetland 7	AIRPORT RD 2006+46 - 2007+24	Lat: 46.026509 Long: -91.461290	SS	0.040	1.200	SM	0.048
8	Wetland 8	AIRPORT RD 2007+42 - 2008+33	Lat: 46.026846 Long: -91.461732	SS	0.080	1.200	SM	0.096
9	Wetland 9	AIRPORT RD 2007+43 - 2008+55	Lat: 46.026892 Long: -91.461846	M	0.070	1.000	M	0.070
			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)** Eitenmiller 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 SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T14N R9W S14

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'37.68"N Long: 91°27'41.81"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seelyeville and Markey soils NWI classification: T3/S3K

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 1.75
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **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. *Salix petiolaris*	25	Yes	FACW
2. *Populus tremuloides*	10	No	FAC
3. *Cornus alba*	50	Yes	FACW
4. *Spiraea alba*	10	No	FACW
5.			
6.			
7.			
	95 =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Carex lacustris*	95	Yes	OBL
2. *Iris versicolor*	5	No	OBL
3. *Rubus hispidus*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	90	x 2 =	180
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	200 (A)		310 (B)

Prevalence Index = B/A = 1.55

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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** X **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	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10yr 2/2	100					Mucky Sand	
5-13	10yr 2/1	88	7.5yr 4/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
			10yr 5/6	3	C	M		Prominent redox concentrations
			10yr 4/6	3	C	PL		Prominent redox concentrations
			10yr 6/8	2	C	M		Prominent redox concentrations
			10yr 3/2	2	D	M		
13-19	10yr 2/2	100					Mucky Sand	

[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)
- X Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- X Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X **No** ___

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T14N R9W S14

Landform (hillside, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'37.70"N Long: 91°21'41.76"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seelyville & Markey Soils NWI classification: None

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

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

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 X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Up 1

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5')			
1. *Danthonia spicata*	80	Yes	UPL
2. *Bromus inermis*	20	No	UPL
3. *Festuca rubra*	40	Yes	FACU
4. *Elymus repens*	10	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	150 =Total Cover		
Woody Vine Stratum (Plot size:)			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	100	x 5 =	500
Column Totals:	150 (A)		700 (B)

Prevalence Index = B/A = 4.67

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** X

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	Matrix		Redox Features					
(inches)	Color (moist)	%	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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

Unable to dig due to refusal at surface

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

Applicant/Owner: WisDOT State: WI Sampling Point: Wet

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S14

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'36.42"N Long: 91°27'41.85"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seelyeville and Markey Soils NWI classification: T3/S3K

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 10
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet

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. *Salix petiolaris*	90	Yes	FACW
2. *Alnus incana*	10	No	FACW
3.			
4.			
5.			
6.			
7.			
	100 =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Carex lacustris*	75	Yes	OBL
2. *Carex stricta*	15	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	190 (A)		290 (B)

Prevalence Index = B/A = 1.53

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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** X **No** ___

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

SOIL

Sampling Point Wet

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10yr 2/2	100					Mucky Sand	

[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)
- X Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X **No** ___

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

>5" too wet

Soil sample obtained from soil probe. Unable to get full soil profile with a soil pit.

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S14

Landform (hillside, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope %: 0-3

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'35.95"N Long: 91°27'40.18"W Datum: WCCS-Sawyer

Soil Map Unit Name: 771A Lenroot Loamy Sand NWI classification: T3S3k

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

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

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 X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Up 2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus tremuloides*	25	Yes	FAC
2. *Betula papyrifera*	60	Yes	FACU
3. *Pinus banksiana*	10	No	FACU
4. *Picea glauca*	5	No	FACU
5. *Prunus virginiana*	5	No	FACU
6. *Acer rubrum*	10	No	FAC
7.			
	115	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. *Betula papyrifera*	20	Yes	FACU
2. *Populus tremuloides*	20	Yes	FAC
3. *Prunus virginiana*	5	No	FACU
4. *Alnus incana*	5	No	FACW
5. *Acer rubrum*	5	No	FAC
6. *Pinus strobus*	2	No	FACU
7.			
	57	=Total Cover	

Herb Stratum (Plot size: 5')			
1. *Pteridium aquilinum*	75	Yes	FACU
2. *Rubus hispidus*	20	Yes	FACW
3. *Hieracium spp.*	15	No	UPL
4. *Diervilla lonicera*	15	No	UPL
5. *Vaccinium myrtilloides*	10	No	FACW
6. *Fragaria virginiana*	10	No	FACU
7. *Equisetum sylvaticum*	10	No	FACW
8. *Galium triflorum*	5	No	FACU
9. *Maianthemum canadense*	2	No	FACU
10.			
11.			
12.			
	162	=Total Cover	

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

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	60	x 3 =	180
FACU species	199	x 4 =	796
UPL species	30	x 5 =	150
Column Totals:	334 (A)		1216 (B)

Prevalence Index = B/A = 3.64

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** X

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	Matrix		Redox Features					
(inches)	Color (moist)	%	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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

Unable to dig due to refusal at surface

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S14

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope %: 0-3

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'36.20"N Long: 91°27'38.98"W Datum: WCCS-Sawyer

Soil Map Unit Name: 771A Lenroot Loamy Sand NWI classification: T3K

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 9.5
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 2.5

Wetland Hydrology Present? **Yes** X **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. *Populus tremuloides*	60	Yes	FAC
2. *Acer rubrum*	10	No	FAC
3.			
4.			
5.			
6.			
7.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Acer negundo*	5	No	FAC
2. *Populus tremuloides*	50	Yes	FAC
3. *Spiraea alba*	20	No	FACW
4. *Alnus incana*	40	Yes	FACW
5. *Corylus cornuta*	2	No	FACU
6.			
7.			
	117	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Calamagrostis canadensis*	15	No	OBL
2. *Carex tenera*	20	No	FAC
3. *Vaccinium myrtilloides*	10	No	FACW
4. *Rubus hispidus*	15	No	FACW
5. *Equisetum sylvaticum*	30	Yes	FACW
6. *Waldsteinia fragarioides*	80	Yes	UPL
7. *Sonchus oleraceus*	2	No	FACU
8. *Thalictrum dioicum*	20	No	FACU
9.			
10.			
11.			
12.			
	192	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	115	x 2 =	230
FAC species	145	x 3 =	435
FACU species	24	x 4 =	96
UPL species	80	x 5 =	400
Column Totals:	379 (A)		1176 (B)

Prevalence Index = B/A = 3.10

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 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** X **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	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10yr 2/2	100					Sandy	
8-16	10yr 2/2	87	5yr 5/8	7	C	M	Sandy	Prominent redox concentrations
			5yr 3/3	3	C	M		Distinct redox concentrations
			10yr 4/6	3	C	M		Prominent redox concentrations

[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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

>16" too wet

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S14

Landform (hillside, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope %: 0-3

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'35.71"N Long: 91°27'39.51"W Datum: WCCS-Sawyer

Soil Map Unit Name: 771A Lenroot Loam Sand NWI classification: T3K

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

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

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 X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

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. *Poa pratensis*	80	Yes	FACU
2. *Phalaris arundinacea*	20	No	FACW
3. *Rumex acetosella*	25	Yes	FACU
4. *Lotus corniculatus*	15	No	FACU
5. *Barbarea vulgaris*	10	No	FAC
6. *Leucanthemum vulgare*	5	No	UPL
7. *Plantago major*	5	No	FACU
8. *Matricaria discoidea*	20	No	FACU
9.			
10.			
11.			
12.			
	180 =Total Cover		
Woody Vine Stratum (Plot size:)			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	145	x 4 =	580
UPL species	5	x 5 =	25
Column Totals:	180 (A)		675 (B)

Prevalence Index = B/A = 3.75

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** X

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	Matrix		Redox Features					
(inches)	Color (moist)	%	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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

Unable to dig due to refusal at surface

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S23

Landform (hillside, terrace, etc.): Footslope Local relief (concave, convex, none): Convex Slope %: 0-3

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'35.01"N Long: 91°27'43.40"W Datum: WCCS-Sawyer

Soil Map Unit Name: 771A Lenroot Loamy Sand NWI classification: T3/S3K

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 2
Water Table Present?	Yes X	No ____	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 5

Wetland Hydrology Present? **Yes** X **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. *Spiraea alba*	25	Yes	FACW
2. *Alnus incana*	10	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	35 =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	90	Yes	FACW
2. *Onoclea sensibilis*	10	No	FACW
3. *Rubus idaeus*	25	No	FAC
4. *Carex lacustris*	25	No	OBL
5. *Calamagrostis canadensis*	15	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	165 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	135	x 2 =	270
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	200 (A)		385 (B)

Prevalence Index = B/A = 1.93

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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** X **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	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10yr 2/2	100					Mucky Sand	
5-9.5	10yr 2/2	100					Sandy	
9.5-19	10yr 4/2	70	7.5yr 5/6	25	C	M	Sandy	Prominent redox concentrations
			10yr 3/6	5	C	M		Prominent redox concentrations

[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)
- X Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X **No** ___

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

>19" too wet

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S23

Landform (hillside, terrace, etc.): Summit Local relief (concave, convex, none): None Slope %: 0-3

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'35.03"N Long: 91°27'43.50"W Datum: WCCS-Sawyer

Soil Map Unit Name: 771A Lenroot Loamy Sand NWI classification: T3/S3K

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

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

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 X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Up 4

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	15	Yes	FAC
2. *Pinus banksiana*	10	Yes	FACU
3. *Populus tremuloides*	20	Yes	FAC
4.			
5.			
6.			
7.			
	45	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Alnus incana*	2	No	FACW
2. *Diervilla lonicera*	40	Yes	UPL
3.			
4.			
5.			
6.			
7.			
	42	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Poa pratensis*	80	Yes	FACU
2. *Pteridium aquilinum*	40	Yes	FACU
3. *Rubus hispidus*	25	No	FACW
4. *Lotus corniculatus*	5	No	FACU
5. *Comptonia peregrina*	15	No	UPL
6. *Fragaria virginiana*	2	No	FACU
7. *Equisetum arvense*	10	No	FAC
8. *Onoclea sensibilis*	2	No	FACW
9.			
10.			
11.			
12.			
	179	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	29	x 2 =	58
FAC species	45	x 3 =	135
FACU species	137	x 4 =	548
UPL species	55	x 5 =	275
Column Totals:	266 (A)		1016 (B)

Prevalence Index = B/A = 3.82

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** X

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	Matrix		Redox Features					
(inches)	Color (moist)	%	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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

Unable to dig due to refusal at surface

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S23

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope %: 0-3

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'35.72" Long: 91°27'44.28" Datum: WCCS-Sawyer

Soil Map Unit Name: 771A Lenroot Loamy Sand NWI classification: None

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **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. *Phalaris arundinacea*	50	Yes	FACW
2. *Carex lacustris*	25	Yes	OBL
3. *Calamagrostis canadensis*	30	Yes	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		155 (B)

Prevalence Index = B/A = 1.48

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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** X **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	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10yr 2/2	100					Mucky Sand	
2-26	10yr 2/1	95	10yr 5/1	5	D	M	Loamy/Clayey	

[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)
- X Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X **No** ___

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S23

Landform (hillside, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'35.83"N Long: 91°27'44.61"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seelyeville and markey soils NWI classification: None

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

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

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 X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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. *Poa pratensis*	45	Yes	FACU
2. *Hieracium aurantiacum*	5	No	UPL
3. *Cirsium arvense*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
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: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	5	x 5 =	25
Column Totals:	55 (A)		225 (B)

Prevalence Index = B/A = 4.09

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** X

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	Matrix		Redox Features					
(inches)	Color (moist)	%	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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

Unable to dig due to refusal at surface

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S14

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'37.08"N Long: 90°27'44.58"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seelyeville and Markey soil NWI classification: T5/S3K

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 5
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **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. *Carex stricta*	60	Yes	OBL
2. *Carex lacustris*	40	Yes	OBL
3. *Solidago canadensis*	2	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	102 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	102 (A)		108 (B)

Prevalence Index = B/A = 1.06

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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** X **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	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10yr 2/1	100					Sandy	
10-14	10yr 4/2	100					Sandy	
14-25	10yr 2/1	87	7.5yr 3/3	3	C	M	Mucky Loam/Clay	Distinct redox concentrations
			10yr 4/2	10	D	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)
- X Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X **No** ___

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/19/2017

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

Investigator(s): Dave Runquist Section, Township, Range: T14N R9W S14

Landform (hillside, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'36.82"N Long: 91°27'46.13"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seelyville & Markey Soil NWI classification: None

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

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

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 X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

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. *Poa pratensis*	65	Yes	FACU
2. *Bromus inermis*	25	Yes	UPL
3. *Centaurea stoebe*	10	No	UPL
4. *Phalaris arundinacea*	2	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	102 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	2	x 2 =	4
FAC species	0	x 3 =	0
FACU species	65	x 4 =	260
UPL species	35	x 5 =	175
Column Totals:	102 (A)		439 (B)

Prevalence Index = B/A = 4.30

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** X

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	Matrix		Redox Features					
(inches)	Color (moist)	%	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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

Unable to dig due to refusal at surface

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

Applicant/Owner: WisDOT State: WI Sampling Point: Wet 7

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S14

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'37.30"N Long: 91°27'44.71"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seelyeville and Markey Soils NWI classification: T5/S3K

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 16
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Wet 7

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. *Salix petiolaris*	75	Yes	FACW
2. *Spiraea alba*	5	No	FACW
3.			
4.			
5.			
6.			
7.			
	80 =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Carex lacustris*	40	Yes	OBL
2. *Carex stricta*	30	Yes	OBL
3. *Salix petiolaris*	20	No	FACW
4. *Spiraea alba*	5	No	FACW
5. *Equisetum arvense*	1	No	FAC
6. *Utricularia intermedia*	5	No	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	101 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	75	x 1 =	75
FACW species	105	x 2 =	210
FAC species	1	x 3 =	3
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	181 (A)		288 (B)

Prevalence Index = B/A = 1.59

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 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** X **No** ___

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

SOIL

Sampling Point Wet 7

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

Unable to dig soil pit due to standing water. Too wet for soil probe sample.

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/19/2017

Applicant/Owner: WisDOT State: WI Sampling Point: Up 7

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S14

Landform (hillside, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'36.30"N Long: 91°27'45.50"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seelyeville and Markey soils NWI classification: None

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

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

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 X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Up 7

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. *Poa pratensis*	85	Yes	FACU
2. *Carex lacustris*	5	No	OBL
3. *Lotus corniculatus*	5	No	FACU
4. *Phalaris arundinacea*	5	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
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: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		375 (B)

Prevalence Index = B/A = 3.75

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** X

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

SOIL

Sampling Point Up 7

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

Unable to dig due to refusal at surface

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

Applicant/Owner: WisDOT State: WI Sampling Point: Wet 8

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S14

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'36.32"N Long: 91°27'45.68"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seeleyville and Markey soils NWI classification: None

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 13
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 11

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet 8

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. *Carex stricta*	80	Yes	OBL
2. *Carex lacustris*	20	No	OBL
3. *Cirsium arvense*	10	No	FACU
4. *Symphyotrichum puniceum*	10	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	120 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	110	x 1 =	110
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	120 (A)		150 (B)

Prevalence Index = B/A = 1.25

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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** X **No** ___

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

SOIL

Sampling Point Wet 8

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10yr 2/2	100					Loamy/Clayey	
7-13	10yr 2/2	93	7.5yr 4/6	3	C	M	Loamy/Clayey	Prominent redox concentrations
			7.5yr 5/8	2	C	M		Prominent redox concentrations
			5yr 4/6	2	C	M		Prominent redox concentrations
13-23	10yr 2/1	80	7.5yr 5/8	3	C	M	Loamy/Clayey	Prominent redox concentrations
			10yr 5/2	15	D	M		
			7.5yr 5/6	2	C	M		Prominent redox concentrations
23-25	10yr 2/1	100					Sandy	

[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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X **No** ___

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: 1560-02-01 City/County: Sawyer Sampling Date: 06/15/2017

Applicant/Owner: WisDOT State: WI Sampling Point: Wet 9

Investigator(s): Dave Runquist Section, Township, Range: T41N R9W S14

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope %: 0-1

Subregion (LRR or MLRA): LRR K, MLRA 90A Lat: 46°01'36.34"N Long: 91°27'48.40"W Datum: WCCS-Sawyer

Soil Map Unit Name: 407A Seelyeville and Markey soils NWI classification: T5/S3K

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- X Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 8.5
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet 9

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Larix laricina*	40	Yes	FACW
2. *Populus tremuloides*	5	No	FAC
3. *Acer rubrum*	15	Yes	FAC
4. *Betula papyrifera*	5	No	FACU
5.			
6.			
7.			
	65	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Ilex verticillata*	80	Yes	FACW
2. *Corylus cornuta*	5	No	FACU
3. *Alnus incana*	5	No	FACW
4.			
5.			
6.			
7.			
	90	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Osmundastrum cinnamomeum*	5	No	FACW
2. *Calamagrostis canadensis*	10	No	OBL
3. *Carex stipata*	5	No	OBL
4. *Cornus canadensis*	40	Yes	FAC
5. *Carex tenera*	5	No	FAC
6. *Maianthemum canadense*	15	No	FACU
7. *Acer rubrum*	5	No	FAC
8. *Vaccinium angustifolium*	20	Yes	FACU
9.			
10.			
11.			
12.			
	105	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	130	x 2 =	260
FAC species	70	x 3 =	210
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	260 (A)		665 (B)

Prevalence Index = B/A = 2.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 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** X **No** ___

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

SOIL Sampling Point Wet 9

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10yr 5/2	100					Sandy	
3-6	10yr 2/2	100					Sandy	

[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)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ 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)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

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**)
- ___ 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**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ 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** X

Remarks:

This data sheet is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

>6" too wet. Sample obtained with soil probe. Unable to view soil profile with soil pit.

Appendix C

Photos

Photo 1- Wetland Plot 1

Photo 2 - Upland Plot 1

Photo 3 - Wetland Plot 2

Photo 4 - Upland Plot 2

Photo 5 - Wetland Plot 3

Photo 6 - Upland Plot 3

Photo 7 - Wetland Plot 4

Photo 8 - Upland Plot 4

Photo 9 - Wetland Plot 5

Photo 10 - Upland Plot 5

Photo 11 - Wetland Plot 6

Photo 12 - Upland Plot 6

Photo 13 - Wetland Plot 7

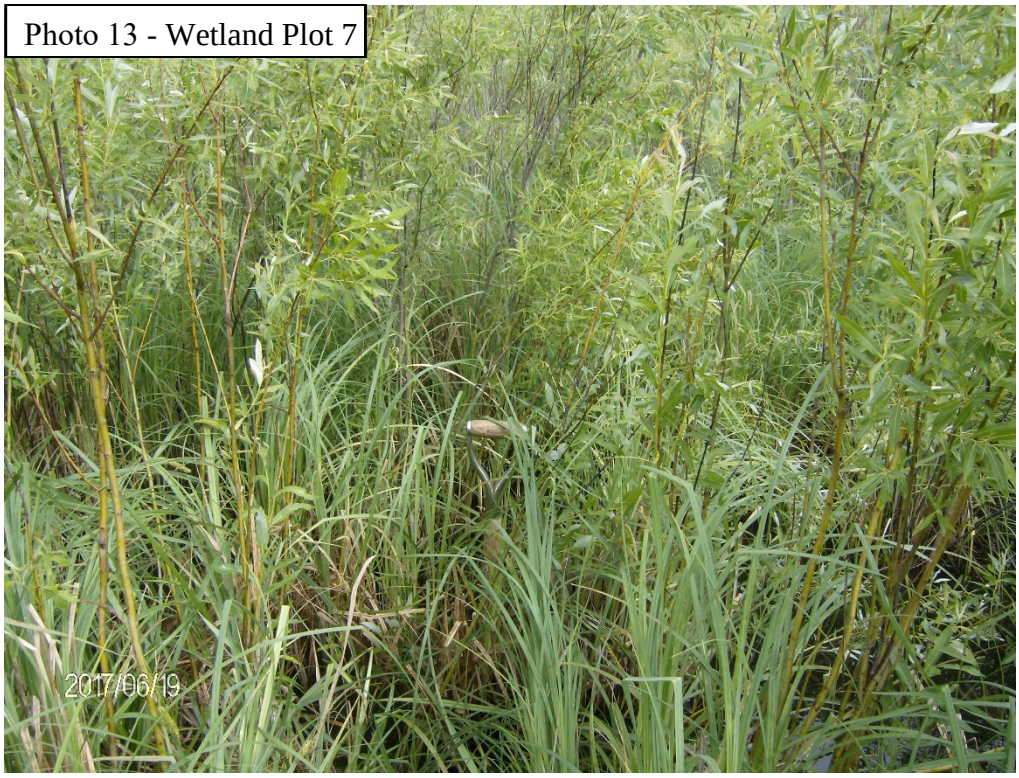
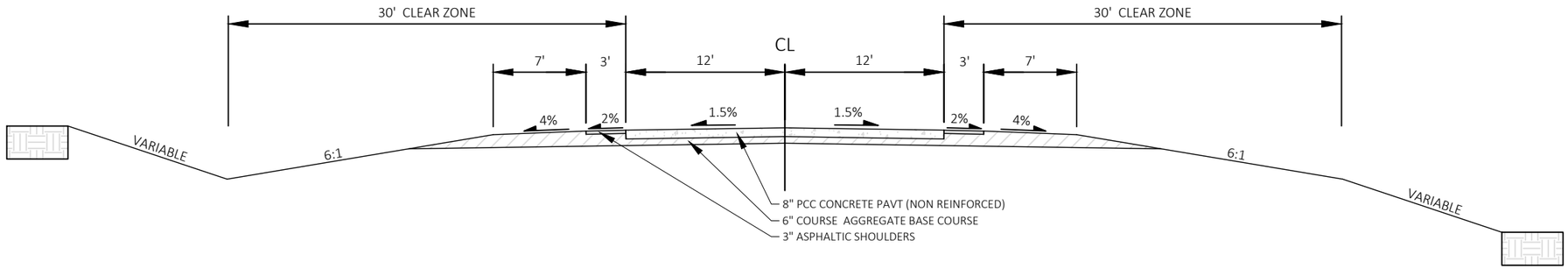


Photo 14 - Upland Plot 7

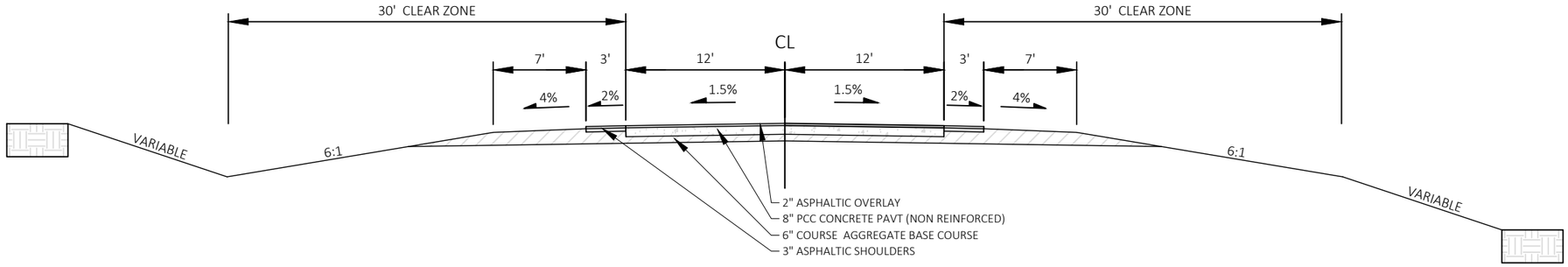
Photo 15 - Wetland Plot 8

Photo 16 - Wetland Plot 9



TYPICAL EXISTING SECTION - USH 63

STA: 314+54 - 544+00
STA: 576+50 - 687+65

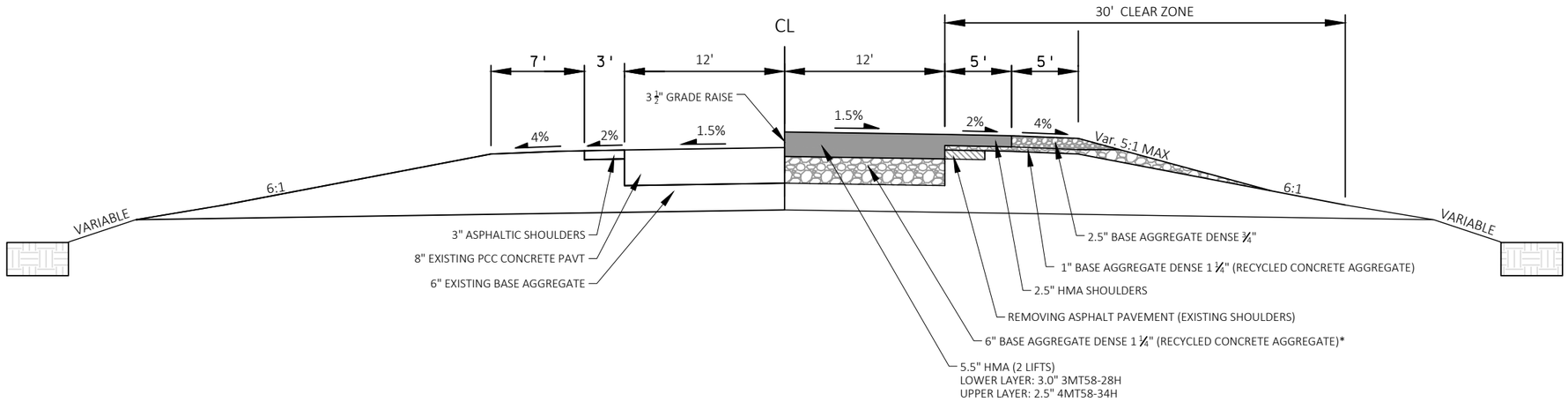


TYPICAL EXISTING SECTION - USH 63

STA: 544+00 - 576+50

NTS

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	TYPICAL SECTIONS	SHEET	E

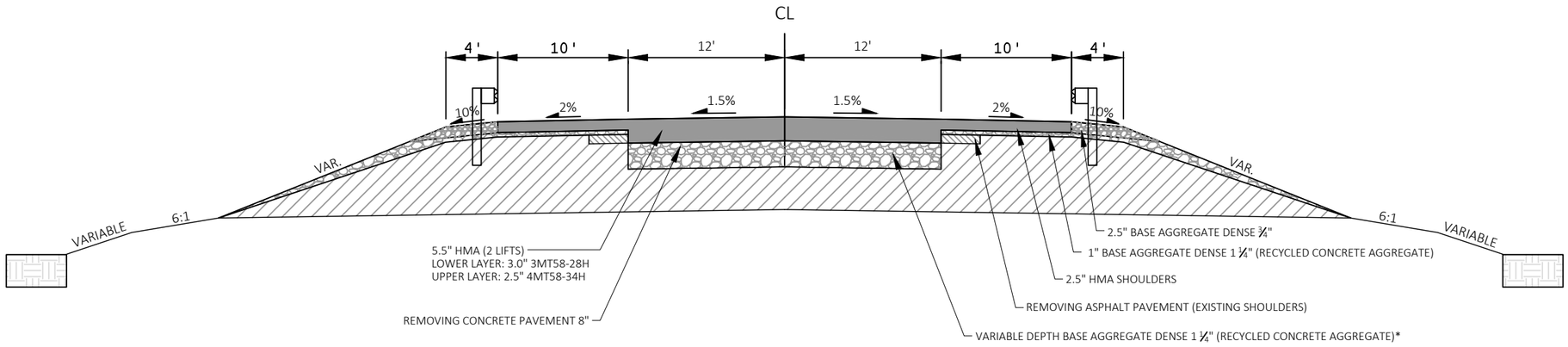


TYPICAL FINISHED HALF SECTION - USH 63

NTS

STA: 314+54 - 687+65

* NOTE: ML BAD DEPTH WILL VARY TO MATCH BEGINNING, END, AND BRIDGE DECK PROFILES AT THE FOLLOWING STATIONS:
STA 314+53.82 - 315+54
STA 573+73 - 574+73.13
STA 576+50.65 - 577+51
STA 686+65 - 687+65.44

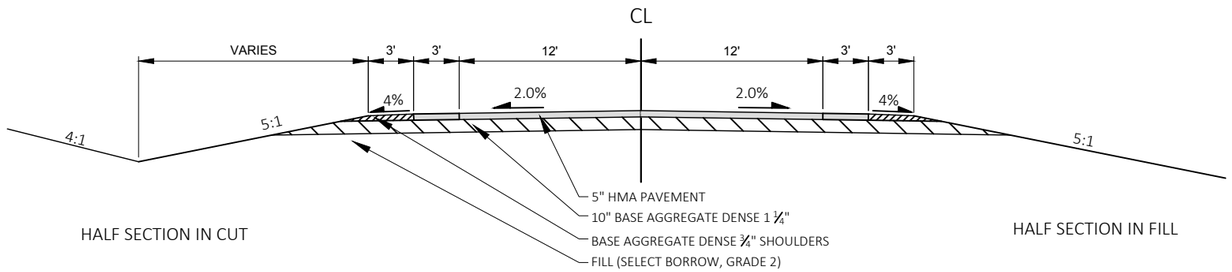


TYPICAL FINISHED SECTION - USH 63

STA: 523+47 - 533+63*
STA: 570+18 - 577+68*

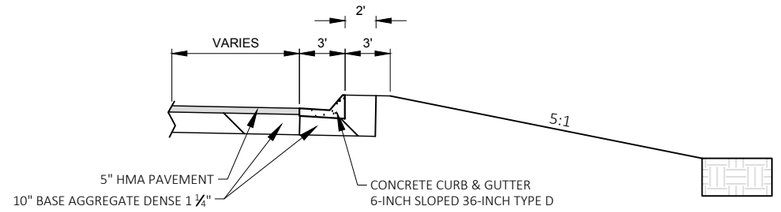
*NOTE: SEE PLAN SHEETS FOR DETAILED STATION LAYOUT OF BEAMGUARD

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	TYPICAL SECTIONS	SHEET	E



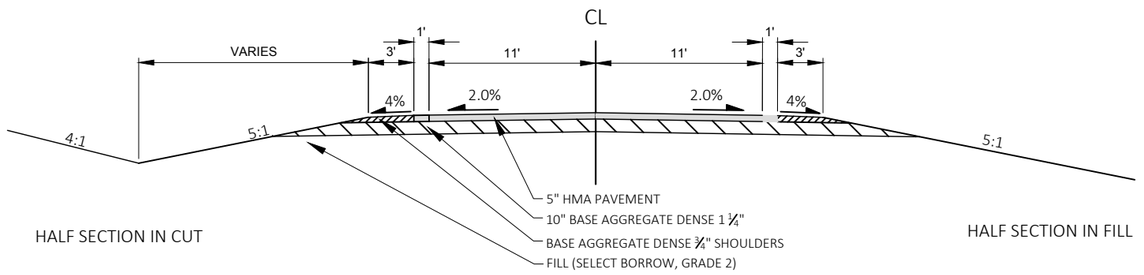
TYPICAL FINISHED SECTION - HOSPITAL ROAD

STA: 314+54 - 687+65



TYPICAL FINISHED RADIUS SECTION - HOSPITAL ROAD

CURB AND GUTTER SECTION
NW & NE RADIUS



TYPICAL FINISHED SECTION - AIRPORT ROAD

STA: 314+54 - 687+65

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN: TYPICAL SECTIONS	SHEET	E

BEGIN PROJECT 1560-02-70
STA 314+53.82

BP: 314+53.82

WINDROSE LN

STA 315+34
WINDROSE LANE
BUTT JOINT REQ'D

STA 315+33.83 USH 63 =
STA 3+80.75 WINDROSE LN

STA 315+69.38 USH 63 =
STA 1+00 PARK LN

STA 315+34
PARK LANE
BUTT JOINT REQ'D

PARK LN

STA 324+00
EXISTING 24"x106' CSCP TO REMAIN

N 50°40'47.28" E

316+00 318+00 320+00 322+00 324+00 326+00 328+00

326+28.82 MATCH LINE

USH 63

SIGN RIPRAP SEPC SEPV

STA 314+53.86
EL 1206.82

FINISHED ℄ PROFILE

+0.14%

EXISTING ℄ PROFILE

EXISTING ℄ ELEVATIONS

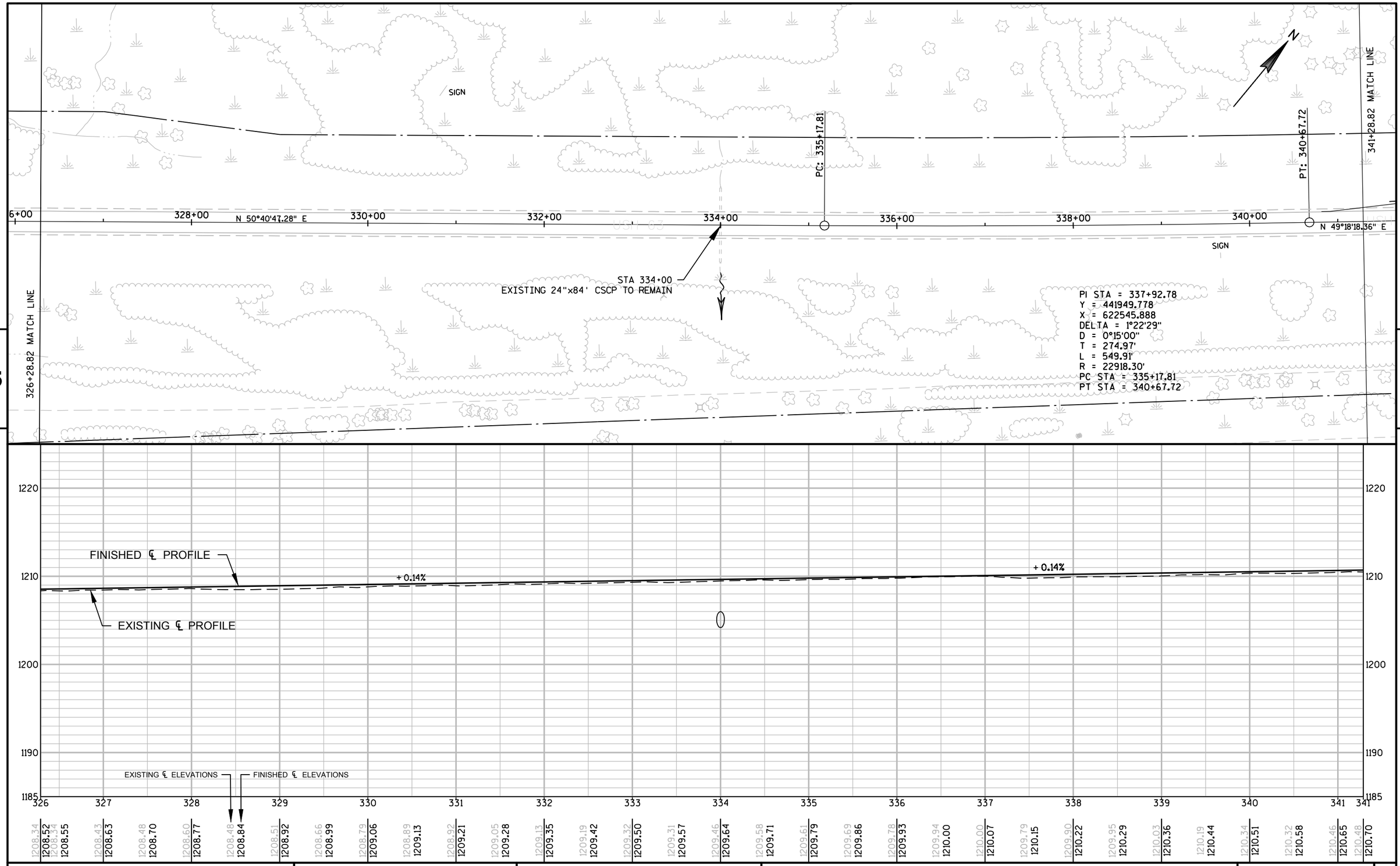
FINISHED ℄ ELEVATIONS

314	315	316	317	318	319	320	321	322	323	324	325	326	326
1206.53	1206.63	1206.69	1206.78	1206.75	1206.90	1206.99	1207.09	1207.10	1207.17	1207.17	1207.27	1207.32	1207.47	1207.57	1207.57	1207.78	1207.87	1207.88	1207.97	1208.09	1208.06	1208.18	1208.25	1208.34	1208.34
	1206.89	1206.96	1207.03	1207.11	1207.18	1207.25	1207.32	1207.39	1207.47	1207.54	1207.61	1207.68	1207.76	1207.83	1207.90	1207.97	1208.05	1208.12	1208.19	1208.26	1208.34	1208.41	1208.48	1208.52	

1220 1210 1200 1190 1185

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-1
PLOT DATE : 10/9/2017 4:14 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-2
PLOT DATE : 10/9/2017 4:14 PM
PLOT BY : JENSEN, TRAVIS G
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

HOSPITAL RD

HOSPITAL ROAD
STA 342+80
CONSTRUCT INTERSECTION, TYPE D LT
SEE HOSPITAL ROAD PLAN/PROFILE
FOR DETAILS

1008+00

PT: 1008+76.41

CONCRETE C&G
6-INCH SLOPED
36-INCH TYPE D

1009+00

342+00

344+00

EP: 1009+72.41

STA 342+76.57 USH 63 =
STA 1009+70.36 HOSPITAL RD

341+28.82 MATCH LINE

OBLITERATE OLD
HOSPITAL RD

CP 302

346+00

EP: 2008+94.12

STA 347+61.65 USH 63 =
STA 2008+92.46 AIRPORT RD

STA 348+00
EXISTING 24"x84' CSCP TO REMAIN

348+00

SIGN

350+00

352+00

354+00

356+00

N 49°18'18.36" E

356+28.82 MATCH LINE

AIRPORT RD

AIRPORT ROAD
STA 347+62
CONSTRUCT INTERSECTION, TYPE C RT
SEE AIRPORT ROAD PLAN/PROFILE
FOR DETAILS

PT: 2007+94.74

2008+00

2007+00

OBLITERATE OLD
AIRPORT RD

BENCH MARKS AND CONTROL POINTS

NO.	STA./OFFSET	DESCRIPTION	NORTHING	EASTING	ELEV.
CP 302	346+40 67' LT	REBAR W/CAP	442552.68	623144.88	1209.35

1230

1220

1210

1200

1190

FINISHED ℄ PROFILE

+0.14%

EXISTING ℄ PROFILE

EXISTING ℄ ELEVATIONS

FINISHED ℄ ELEVATIONS

341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	356
1210.48	1210.70	1210.73	1210.57	1210.80	1210.64	1210.87	1210.75	1210.94	1210.79	1211.02	1210.84	1211.09	1210.91	1211.16	1211.01	1211.23	1211.11	1211.31	1211.13	1211.38	1211.21	1211.45	1211.19	1211.52	1210.83	1211.60	1211.32	1211.67	1211.54	1211.74	1211.61	1211.81	1211.62	1211.89	1211.71	1211.96	1211.72	1212.03	1211.86	1212.10	1211.92	1212.18	1211.94	1212.25	1212.07	1212.32	1212.12	1212.39	1212.19	1212.46	1212.28	1212.54	1212.28	1212.61	1212.33	1212.68	1212.32	1212.75	1212.38	1212.83	1212.52	1212.87

5

5

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-3

PLOT DATE : 10/9/2017 4:14 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT

STA 363+95
MAINTAIN AGGREGATE P.E. LT
SEE ENTRANCE DETAIL

N

356+28.82 MATCH LINE

371+28.82 MATCH LINE

6+00 358+00 360+00 362+00 N 49°18'18.36" E 364+00 366+00 368+00 370+00

STA 361+00
REMOVE EXISTING 24"x64' CSCP

STA 366+00
REMOVE EXISTING 24"x104' CSCP

5

5

STA 361+00.00
EL 1213.55

FINISHED ℄ PROFILE

+ 0.14%

EXISTING ℄ PROFILE

INSTALL: 1-24"x64' RCCP
2 AEWs REQ'D

INSTALL: 1-24"x100' RCCP
2 AEWs REQ'D

EXISTING ℄ ELEVATIONS

FINISHED ℄ ELEVATIONS

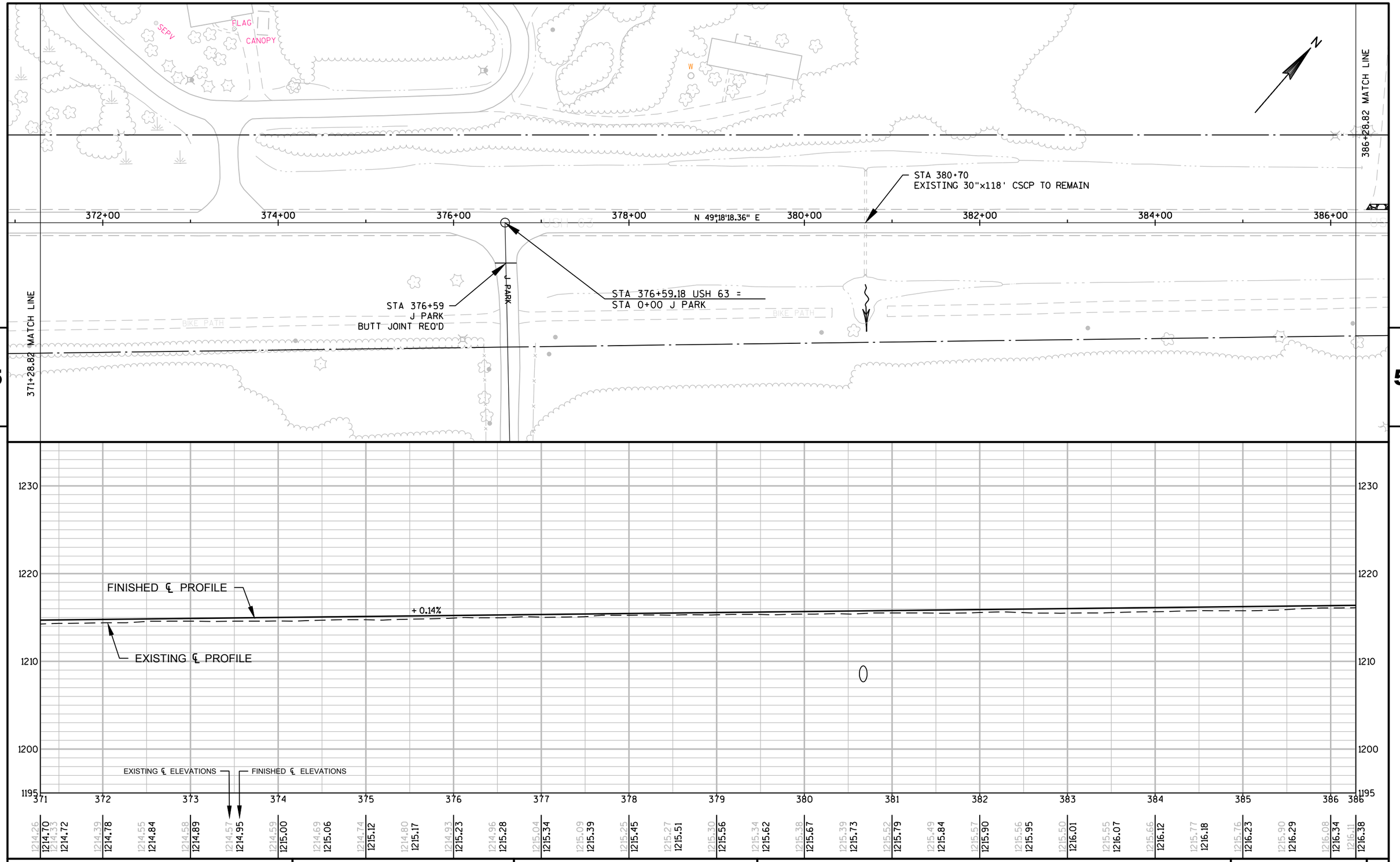
1250 1220 1210 1200 1190

356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	371
1212.52	1212.87	1212.90	1212.59	1212.97	1212.71	1213.04	1212.74	1213.12	1212.87	1213.19	1212.96	1213.26	1213.15	1213.33	1213.18	1213.41	1213.20	1213.48	1213.26	1213.55	1213.31	1213.61	1213.35	1213.66	1213.42	1213.72	1213.50	1213.77	1213.60	1213.83	1213.66	1213.89	1213.59	1213.94	1213.64	1214.00	1213.70	1214.05	1213.76	1214.11	1213.80	1214.17	1213.80	1214.22	1213.99	1214.28	1214.00	1214.33	1214.01	1214.39	1214.14	1214.45	1214.19	1214.50	1214.27	1214.56	1214.25	1214.61	1214.35	1214.67	1214.26	1214.70

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-4

PLOT DATE : 10/9/2017 4:14 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT



5

5

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-5

PLOT DATE : 10/9/2017 4:14 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT

STA 386+55
MAINTAIN AGGREGATE F.E. LT
SEE ENTRANCE DETAIL

STA 397+49.91 USH 63 =
STA 0+00 RISBERG RD

PC: 397+70.81

GORSKI RD

STA 398+00
GORSKI RD
BUTT JOINT REQ'D

401+28.82 MATCH LINE

386+28.82 MATCH LINE

6+00 388+00 N 49°18'18.36" E 390+00 392+00 394+00 396+00 398+00 400+00

USH 63

SIGN

CP 303

BIKE PATH

RISBERG RD

STA 397+50
RISBERG RD
BUTT JOINT REQ'D

STA 398+00.44 USH 63 =
STA 5+07.50 GORSKI RD

BENCH MARKS AND CONTROL POINTS

NO.	STA./OFFSET	DESCRIPTION	NORTHING	EASTING	ELEV.
CP 303	394+97 45' RT	WDOT SURV. MARK 8R09	445635.02	626900.04	1214.68

5

5

1230
1220
1210
1200
1195

FINISHED ℄ PROFILE

+0.11%

EXISTING ℄ PROFILE

EXISTING ℄ ELEVATIONS

FINISHED ℄ ELEVATIONS

386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 401

1216.11 1216.38 1216.15 1216.40 1216.16 1216.46 1216.20 1216.51 1216.21 1216.57 1216.26 1216.62 1216.29 1216.68 1216.31 1216.74 1216.38 1216.79 1216.44 1216.85 1216.52 1216.90 1216.48 1216.96 1216.48 1217.01 1216.65 1217.07 1216.62 1217.13 1216.63 1217.18 1216.74 1217.24 1216.85 1217.29 1217.01 1217.35 1216.96 1217.41 1216.98 1217.46 1217.17 1217.52 1217.28 1217.57 1217.39 1217.63 1217.41 1217.68 1217.34 1217.74 1217.47 1217.80 1217.48 1217.85 1217.57 1217.91 1217.68 1217.96 1217.79 1218.02 1217.77 1218.05

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-6

PLOT DATE : 10/9/2017 4:14 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME :

PLOT SCALE : 1 IN:100 FT

PI STA = 413+67.23
Y = 446888.579
X = 628288.801
DELTA = 45°15'56"
D = 1°29'47"
T = 1596.43'
L = 3025.03'
R = 3829.00'
PC STA = 397+70.81
PT STA = 427+95.84
SE = 3.7%

N

402+00 MATCH LINE

416+28.82 MATCH LINE

402+00 404+00 406+00 408+00 410+00 412+00 414+00 416+00

SIGN

SIGN

STA 406+00
EXISTING 24"x128' CSCP TO REMAIN

SEPC

5

5

FINISHED ℄ PROFILE

+0.11%

EXISTING ℄ PROFILE

EXISTING ℄ ELEVATIONS

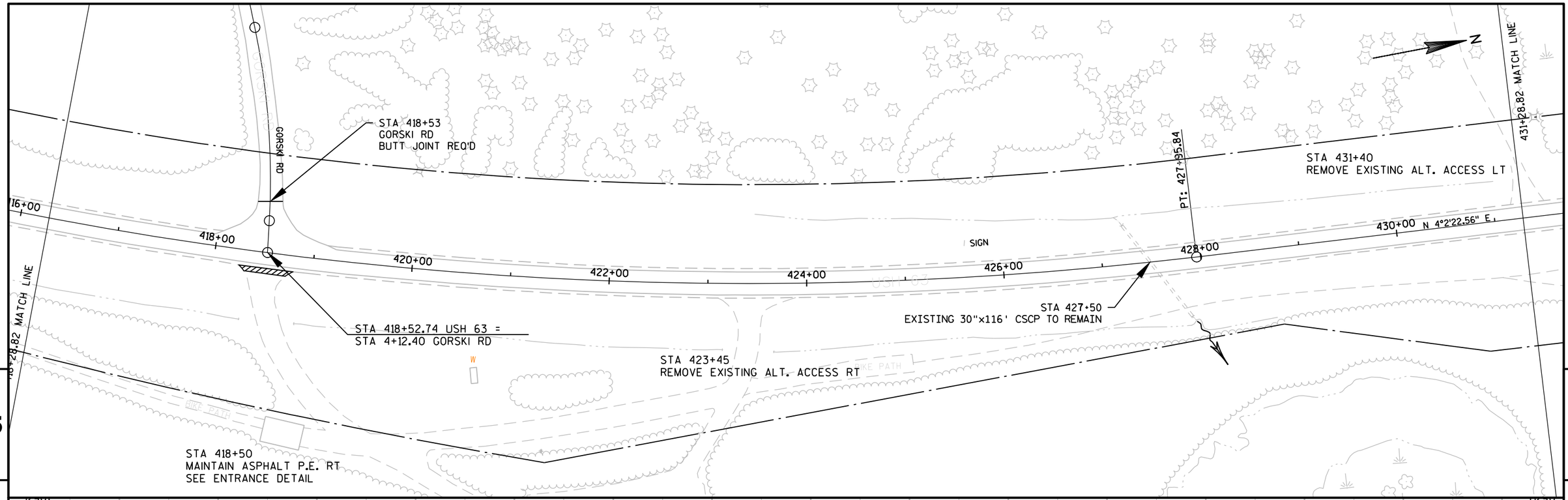
FINISHED ℄ ELEVATIONS

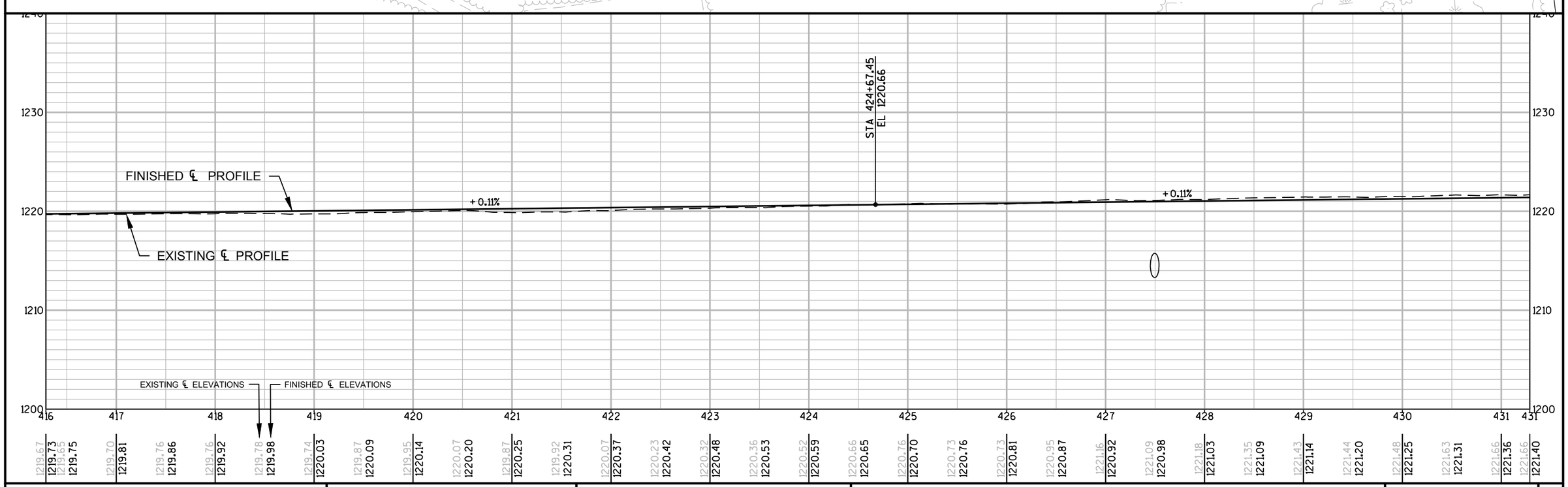
1230	1220	1210	1200	1195

401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	416
1217.77	1217.87	1217.98	1217.96	1217.97	1218.07	1218.10	1218.15	1218.17	1218.23	1218.30	1218.35	1218.46	1218.50	1218.53	1218.61	1218.65	1219.33	1219.48	1219.52	1219.41	1219.48	1219.57	1219.49	1219.50	1219.57	1219.62	1219.57	1219.58	1219.71	1219.67
1218.05	1218.13	1218.19	1218.24	1218.30	1218.36	1218.41	1218.47	1218.52	1218.58	1218.63	1218.69	1218.75	1218.80	1218.86	1218.91	1218.97	1219.03	1219.08	1219.14	1219.19	1219.25	1219.30	1219.36	1219.42	1219.47	1219.53	1219.58	1219.64	1219.70	1219.73

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

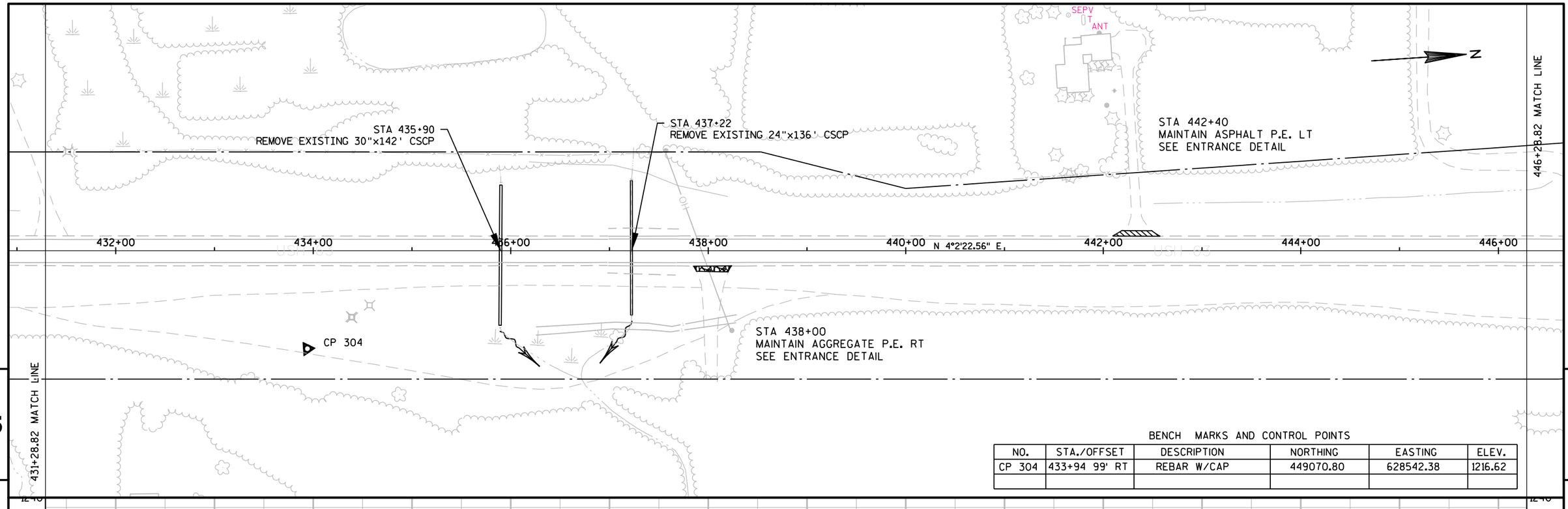
FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-7
PLOT DATE : 10/9/2017 4:15 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME :
PLOT SCALE : 1 IN:100 FT





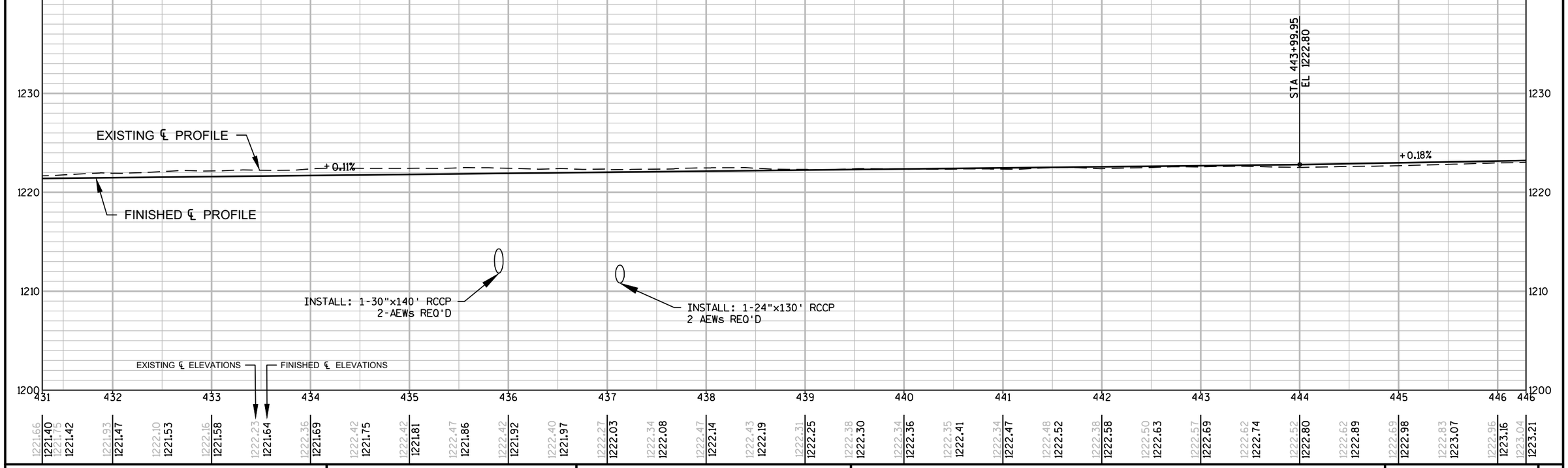
PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-8
PLOT DATE : 10/9/2017 4:15 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME :
PLOT SCALE : 1 IN:100 FT



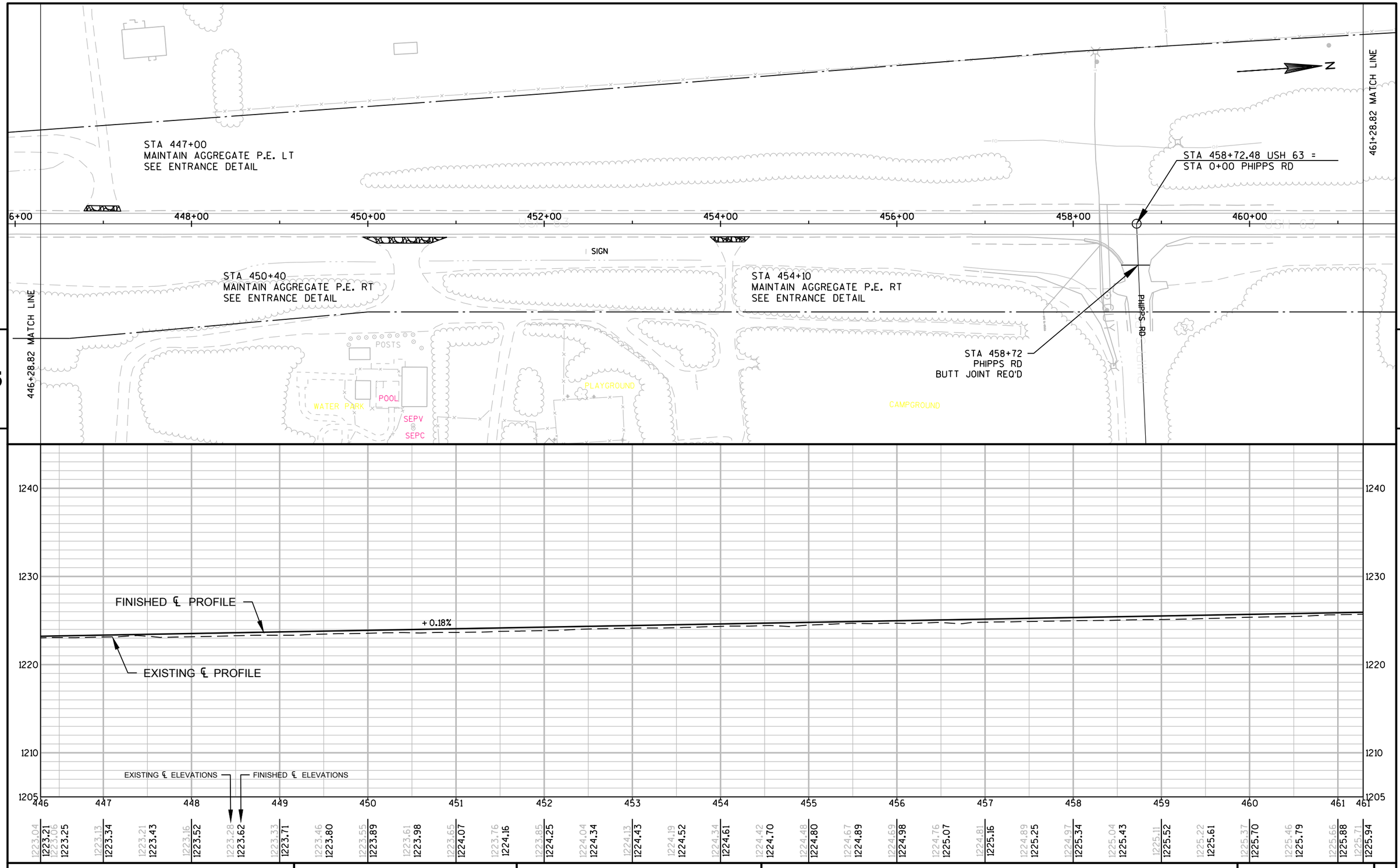
BENCH MARKS AND CONTROL POINTS

NO.	STA./OFFSET	DESCRIPTION	NORTHING	EASTING	ELEV.
CP 304	433+94 99' RT	REBAR W/CAP	449070.80	628542.38	1216.62



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

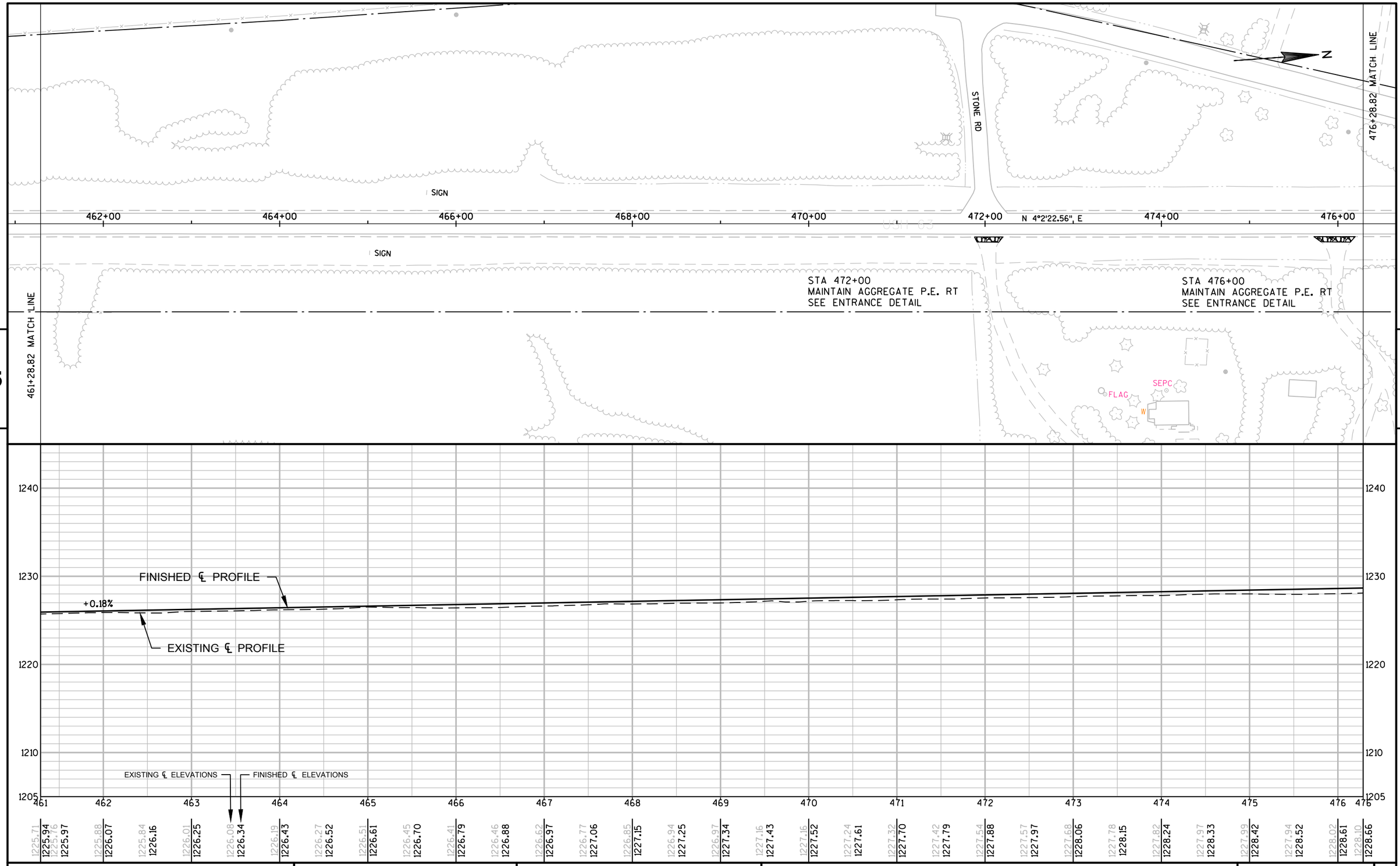
FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-9
PLOT DATE : 10/9/2017 4:15 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-10

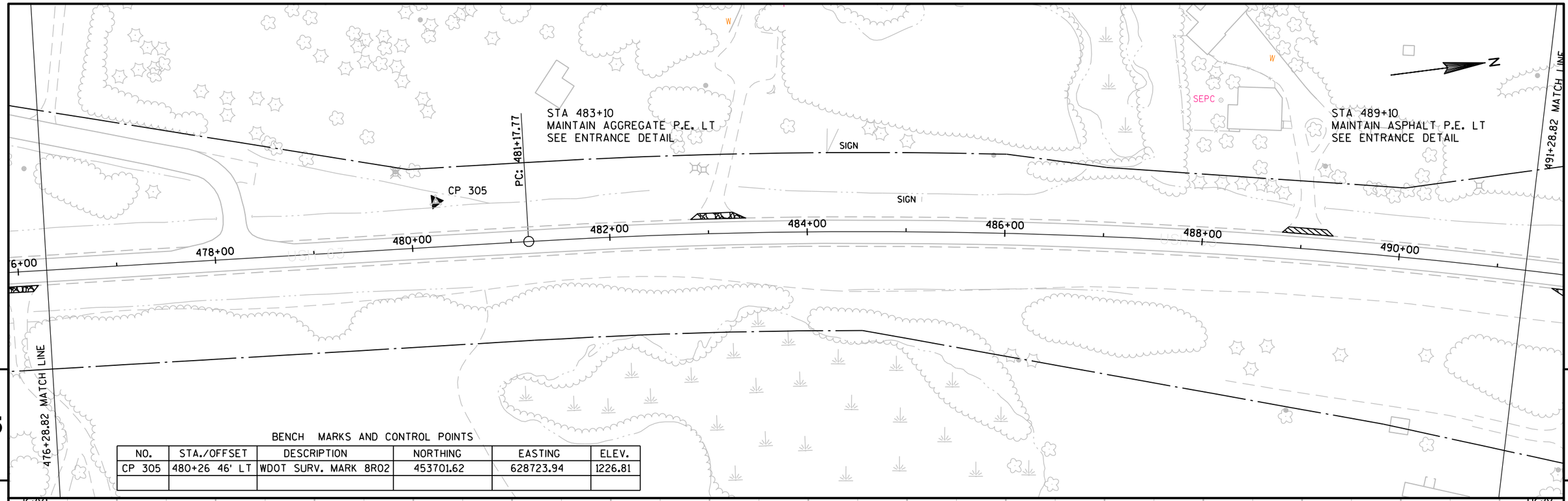
PLOT DATE : 10/9/2017 4:15 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

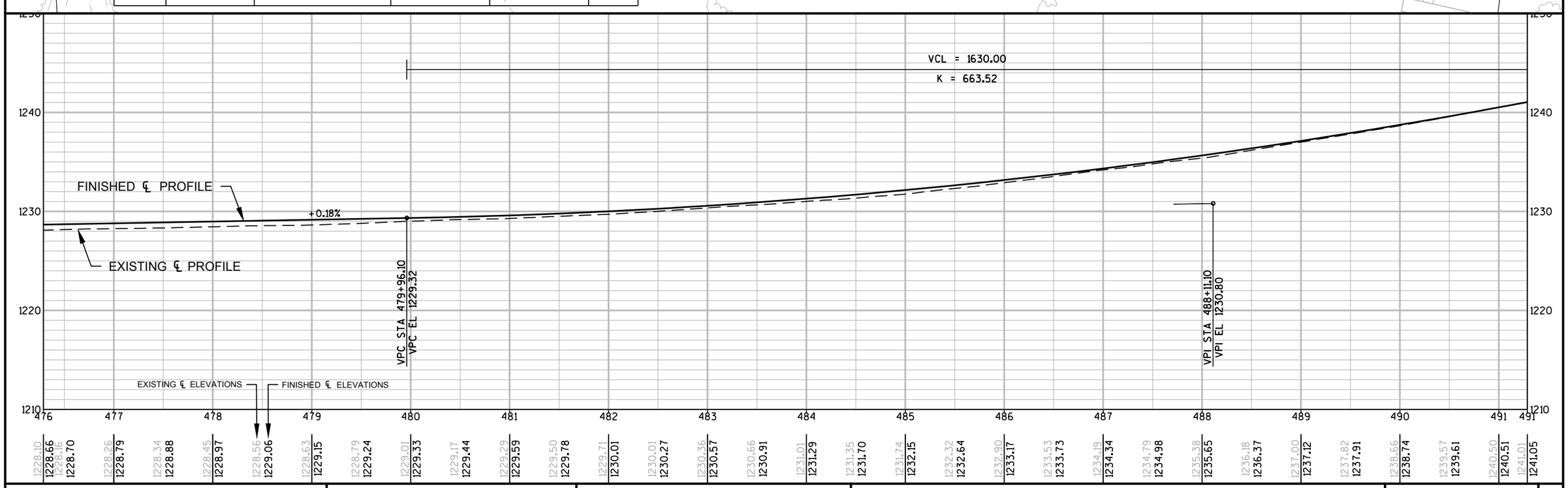
FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-11

PLOT DATE : 10/9/2017 4:15 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT

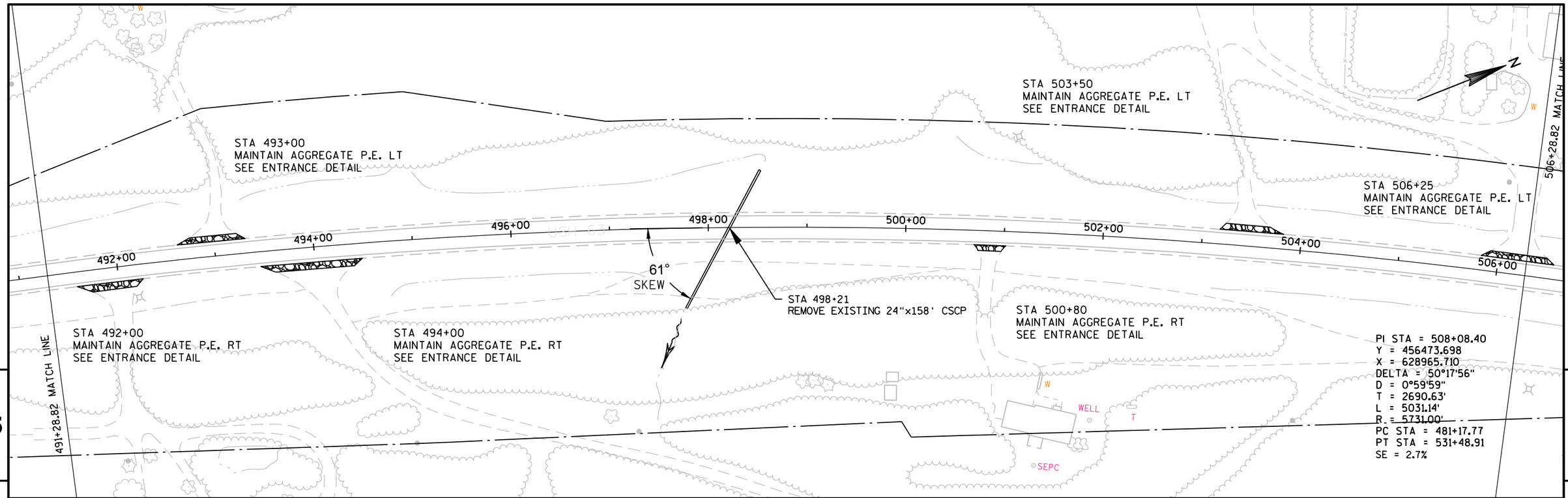


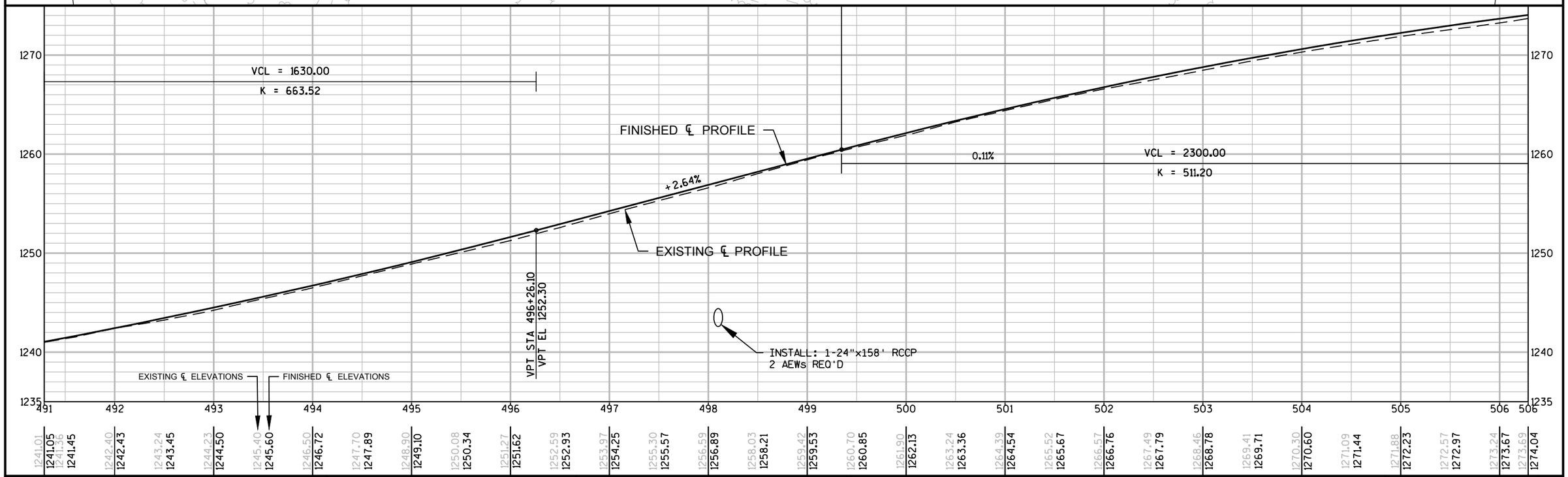
BENCH MARKS AND CONTROL POINTS

NO.	STA./OFFSET	DESCRIPTION	NORTHING	EASTING	ELEV.
CP 305	480+26 46' LT	WDOT SURV. MARK 8R02	453701.62	628723.94	1226.81

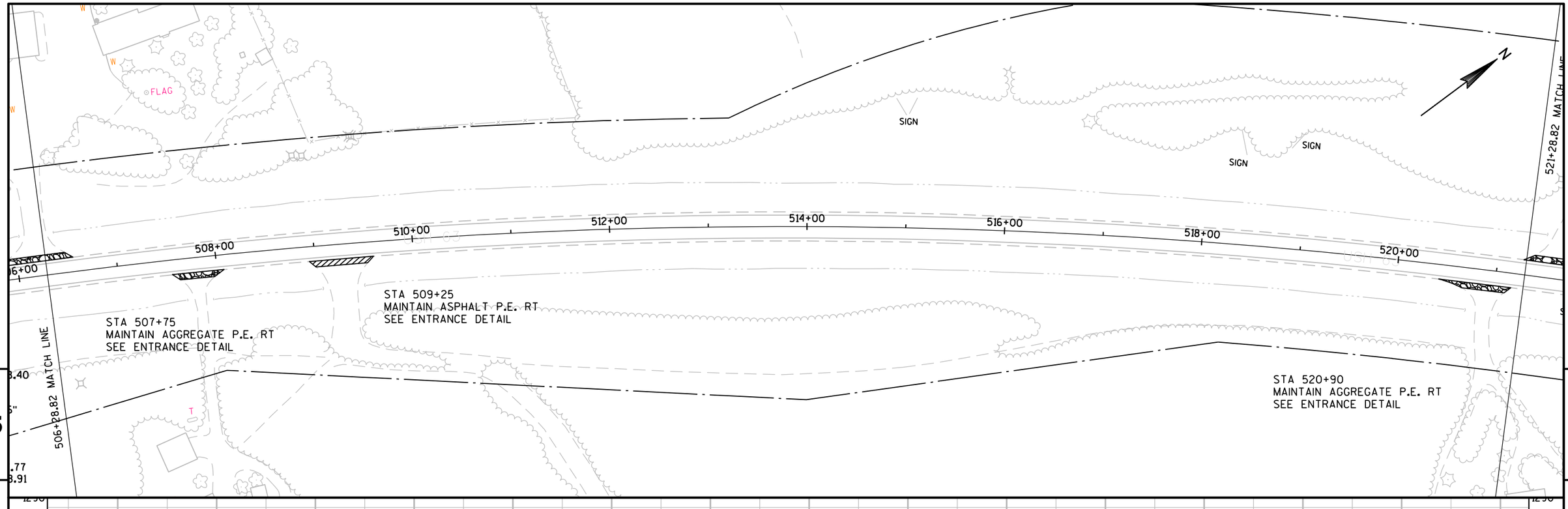


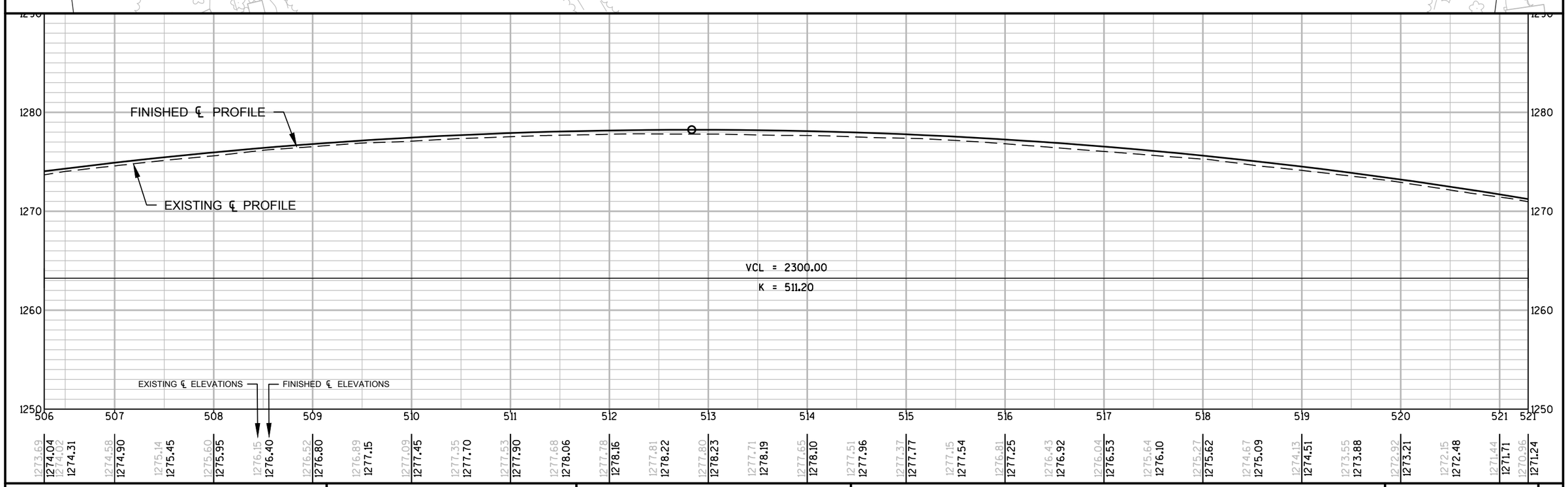
PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E





PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E





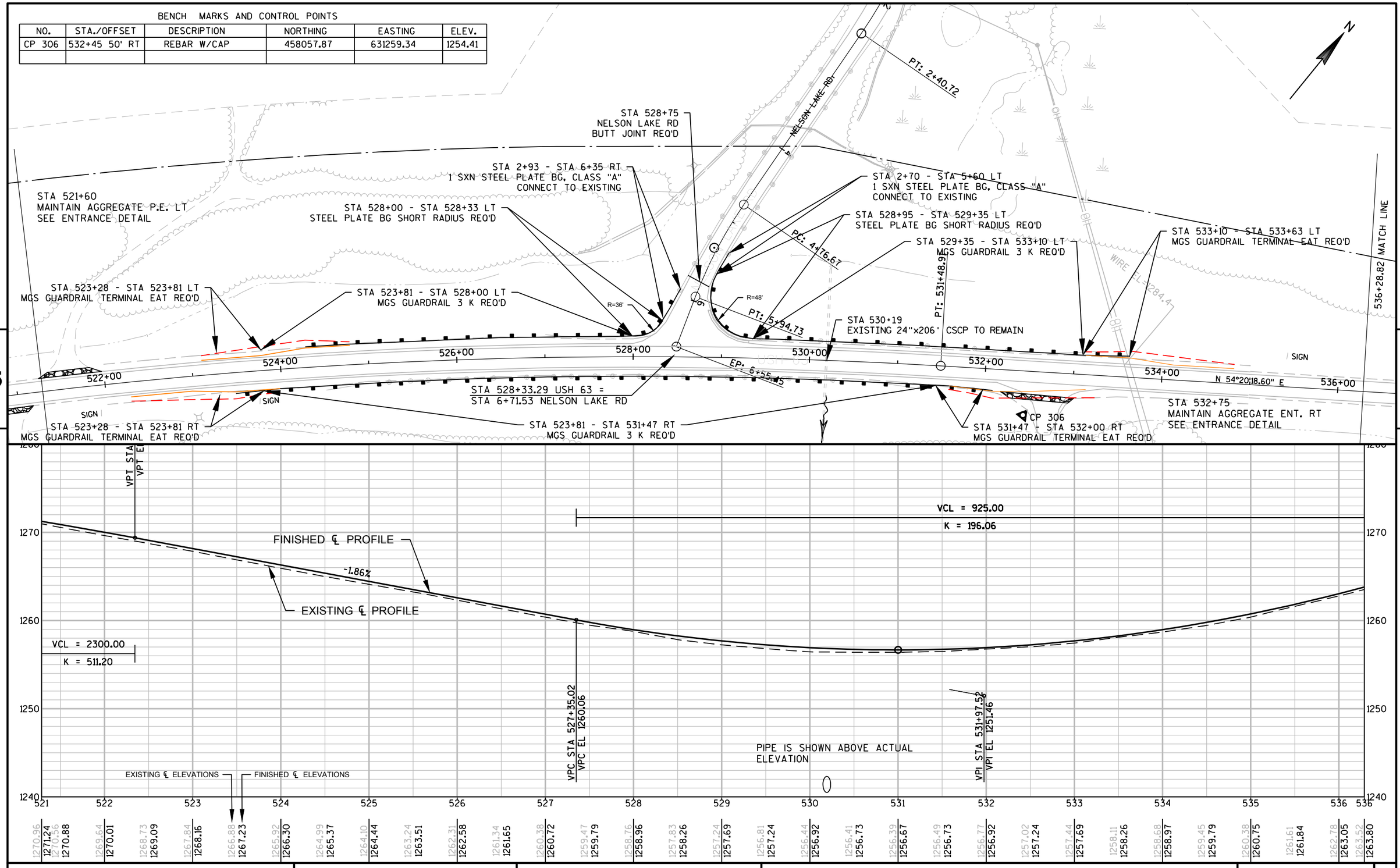
PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-14

PLOT DATE : 10/9/2017 4:16 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT

BENCH MARKS AND CONTROL POINTS

NO.	STA./OFFSET	DESCRIPTION	NORTHING	EASTING	ELEV.
CP 306	532+45 50' RT	REBAR W/CAP	458057.87	631259.34	1254.41



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

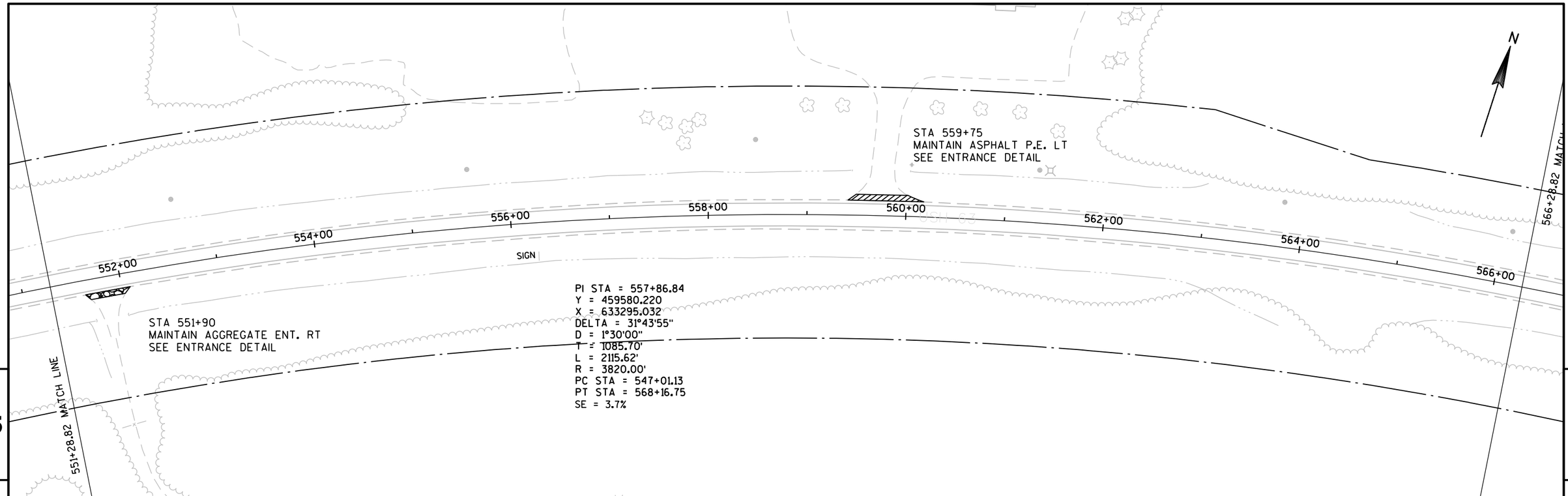
FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-15

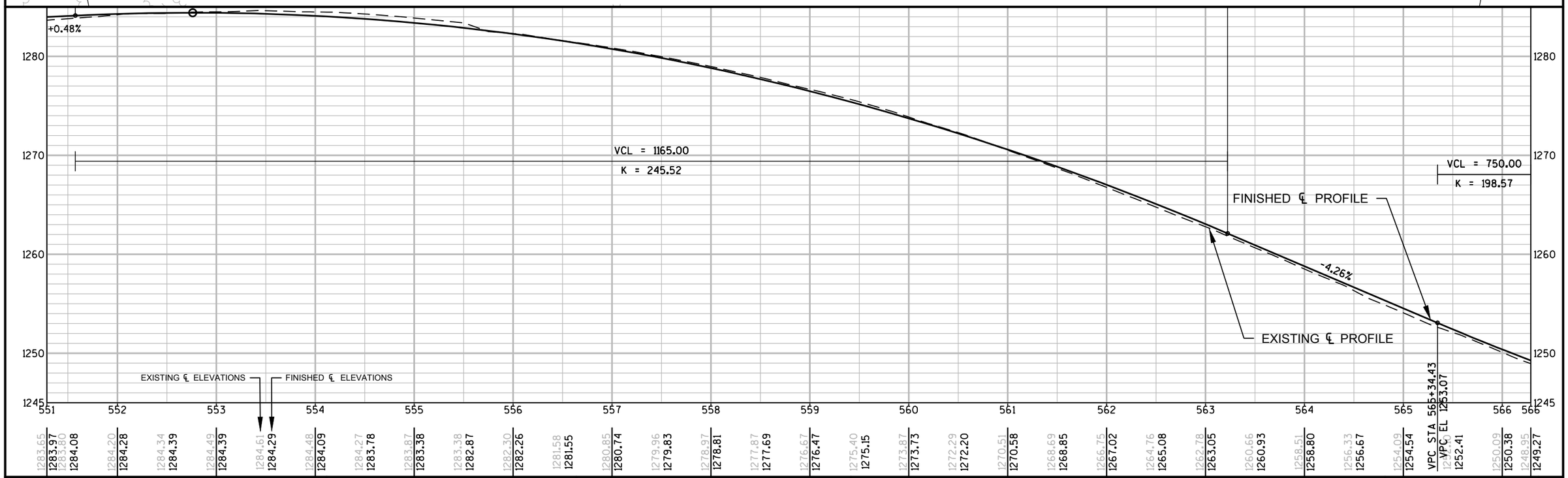
PLOT DATE : 10/9/2017 4:16 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT

PROJECT NO:1560-02-70	HWY:USH 63	COUNTY:SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-16

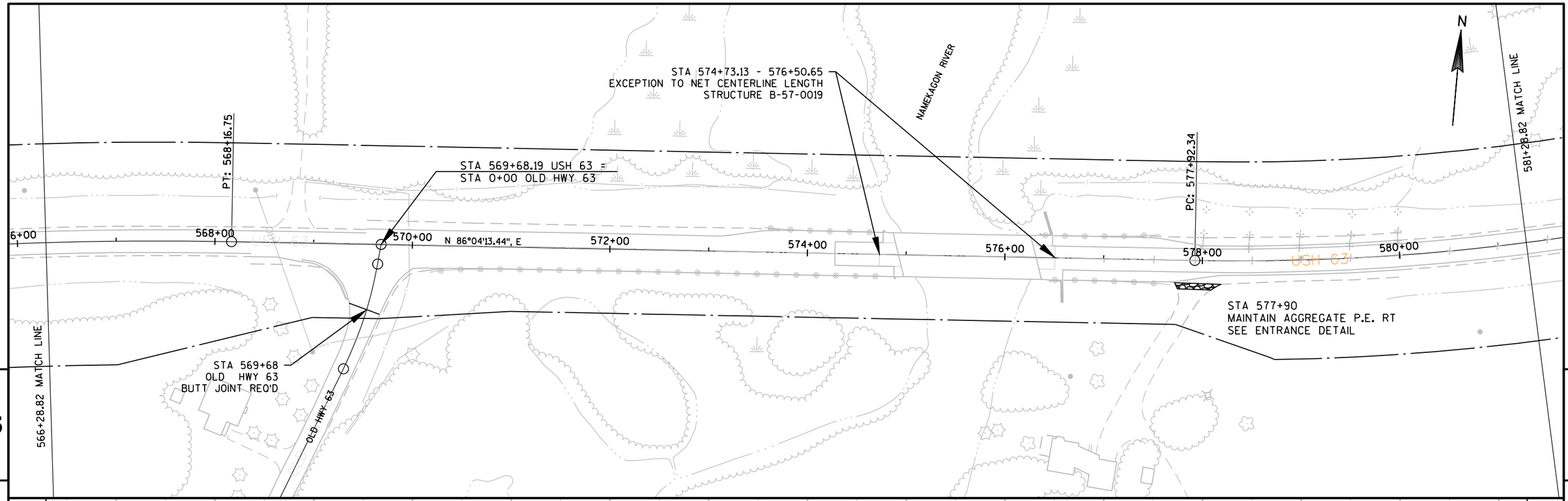
PLOT DATE : 10/9/2017 4:16 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT

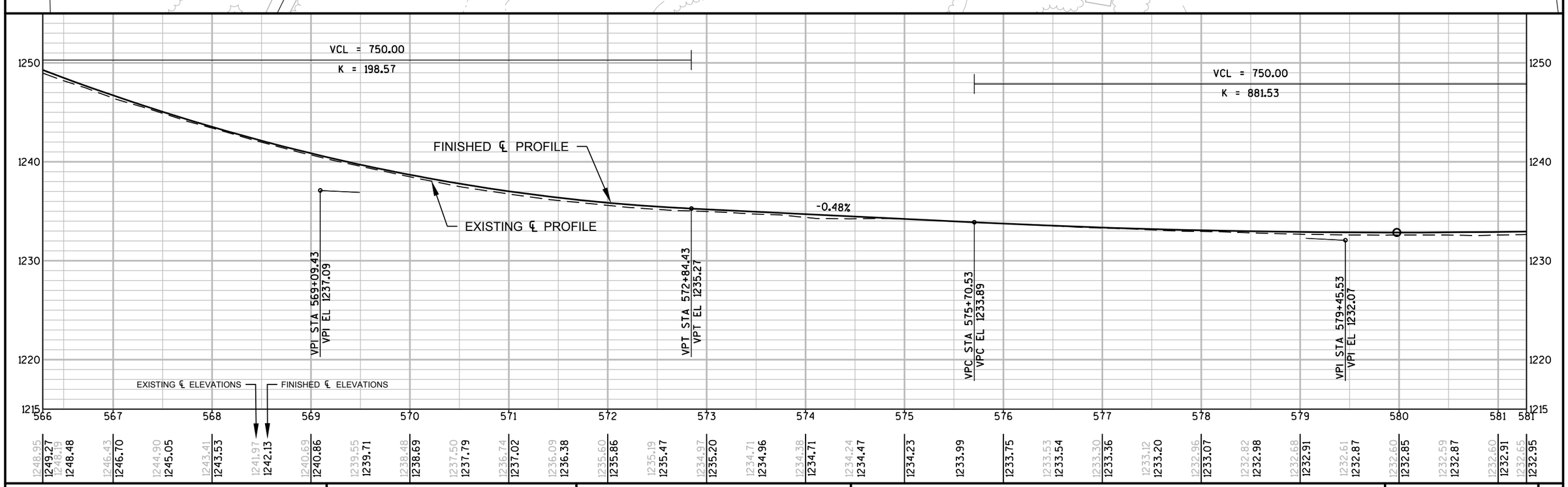




PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-17
PLOT DATE : 10/9/2017 4:16 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

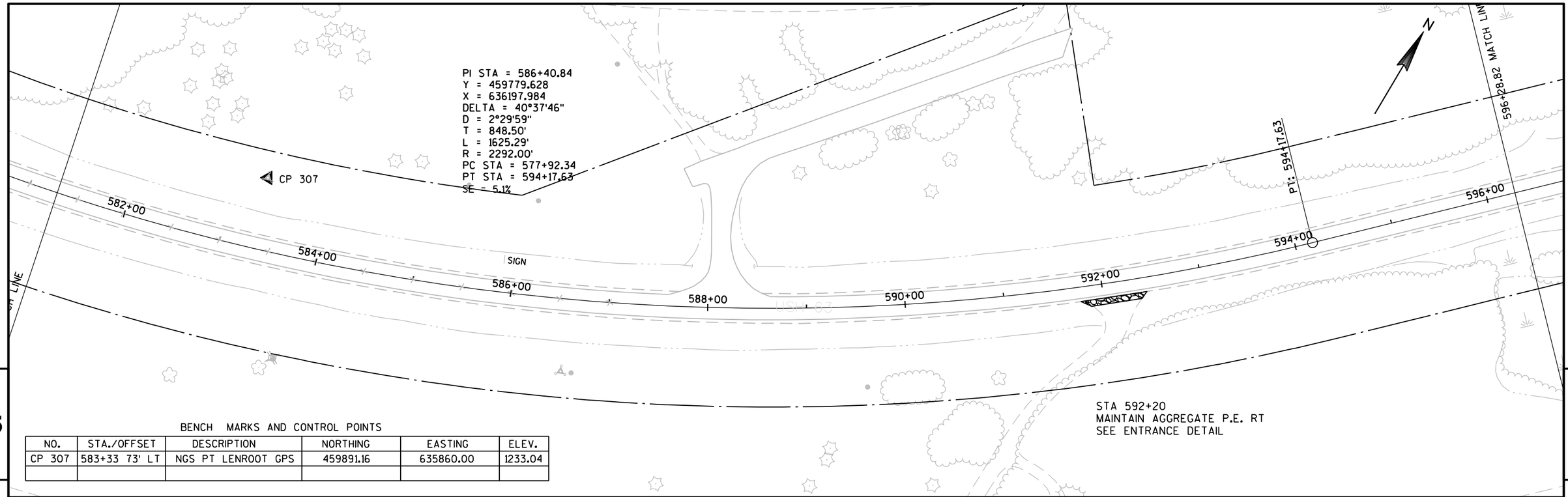




PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

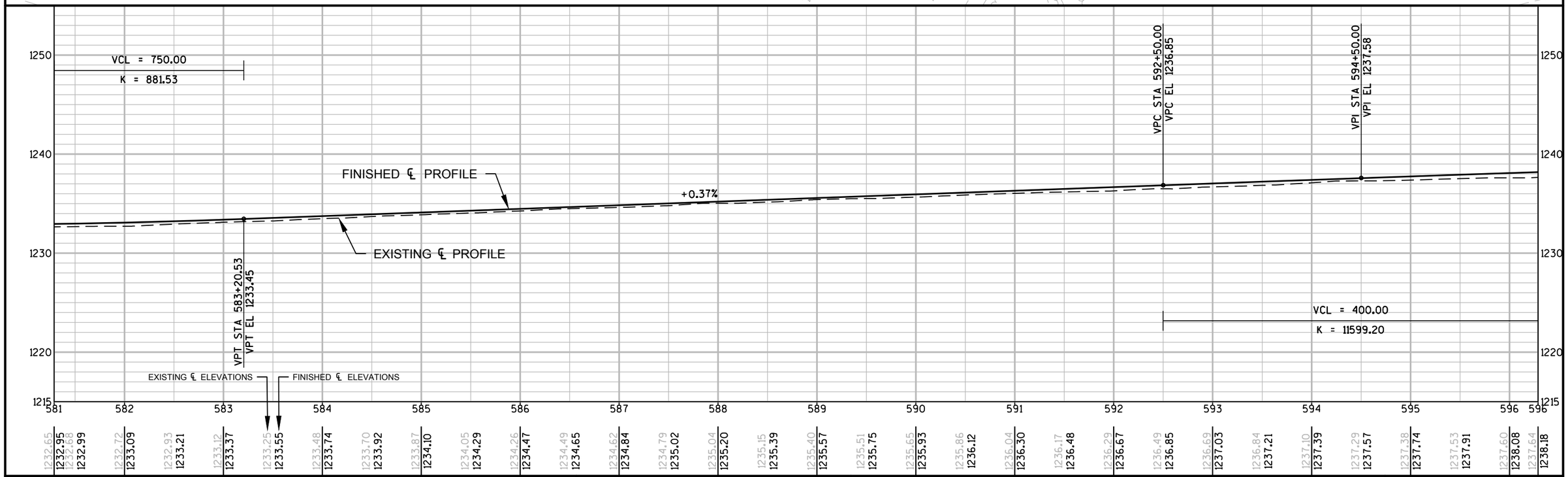
FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-18

PLOT DATE : 10/9/2017 4:16 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT

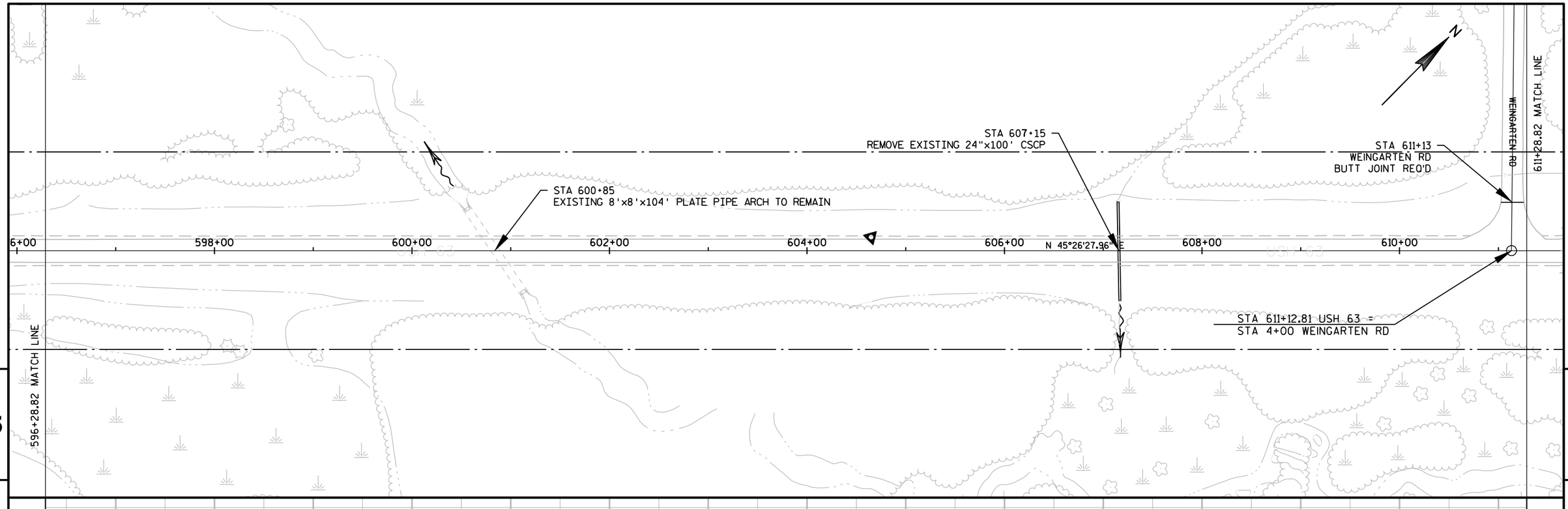


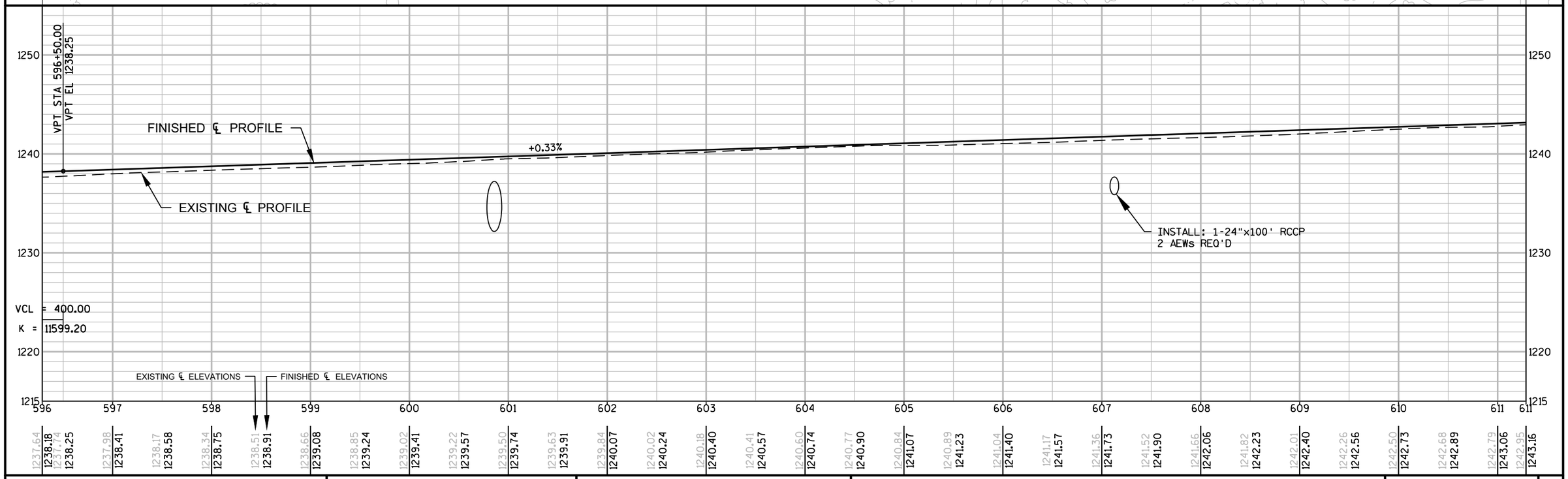
BENCH MARKS AND CONTROL POINTS

NO.	STA./OFFSET	DESCRIPTION	NORTHING	EASTING	ELEV.
CP 307	583+33 73' LT	NGS PT LENROOT GPS	459891.16	635860.00	1233.04



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

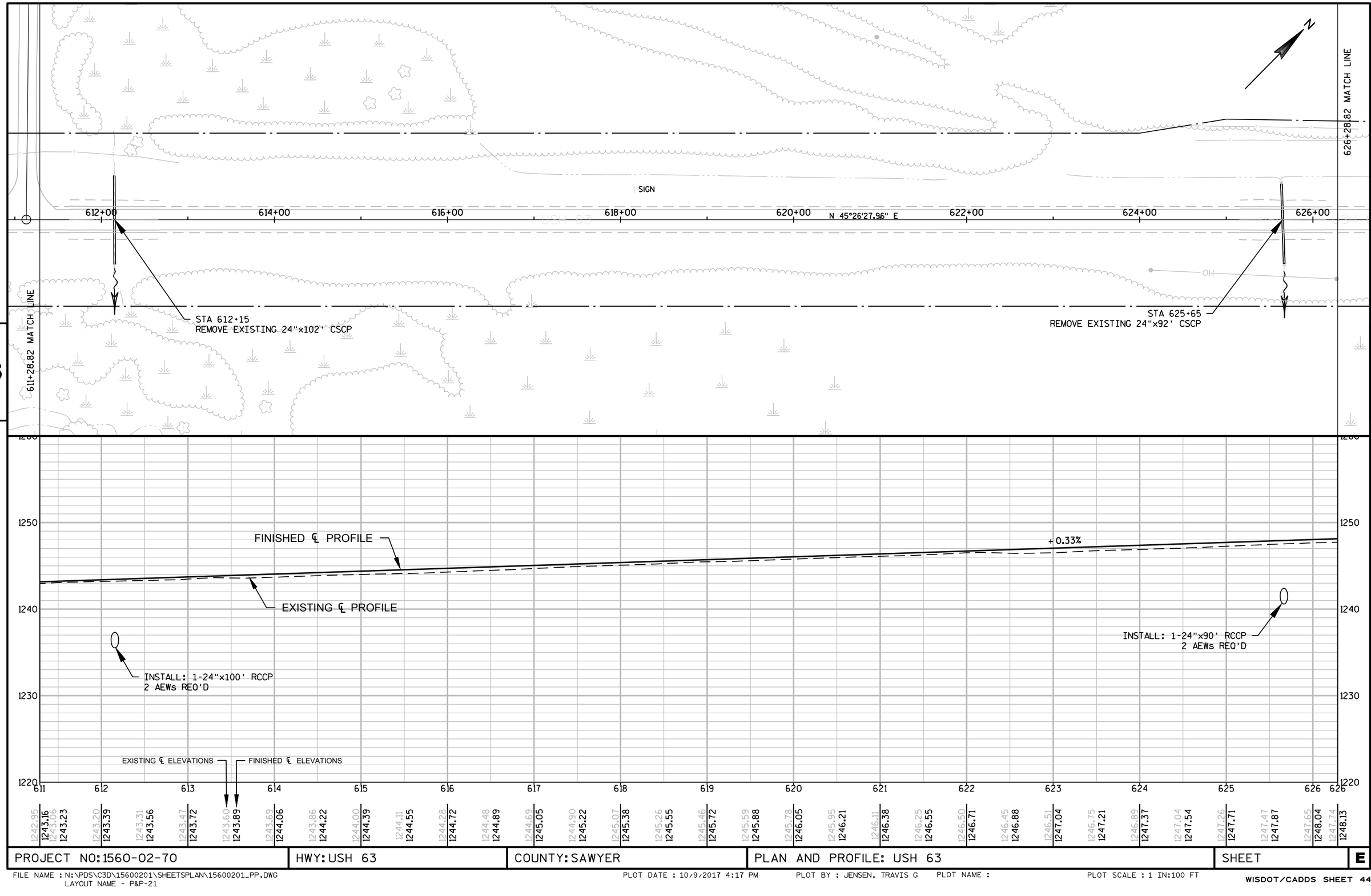




PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-20

PLOT DATE : 10/9/2017 4:17 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-21

PLOT DATE : 10/9/2017 4:17 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT

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BENCH MARKS AND CONTROL POINTS

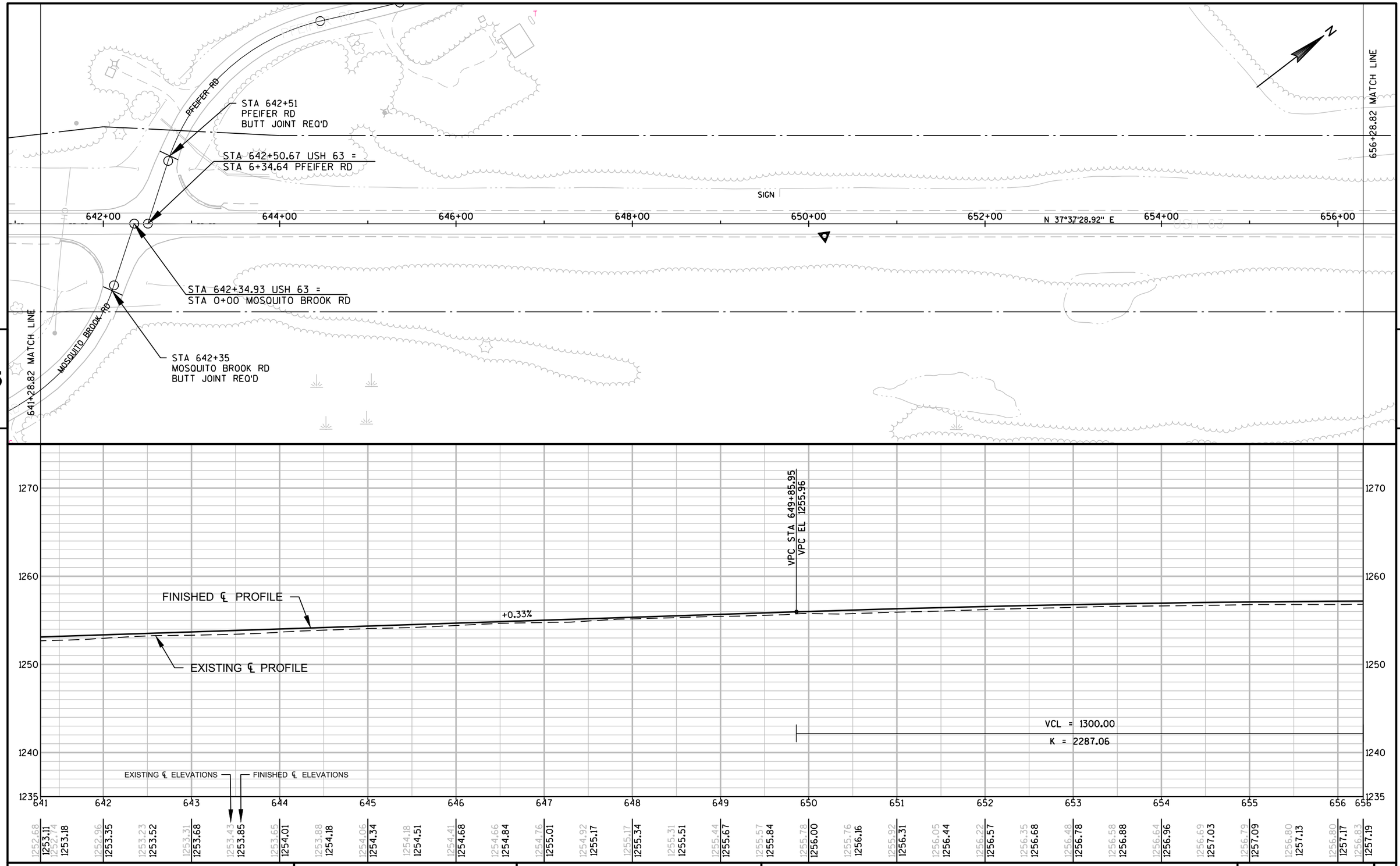
NO.	STA./OFFSET	DESCRIPTION	NORTHING	EASTING	ELEV.
CP 308	634+59 46' LT	REBAR W/CAP	463258.13	639627.97	1246.51

5

PROJECT NO:1560-02-70	HWY:USH 63	COUNTY:SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

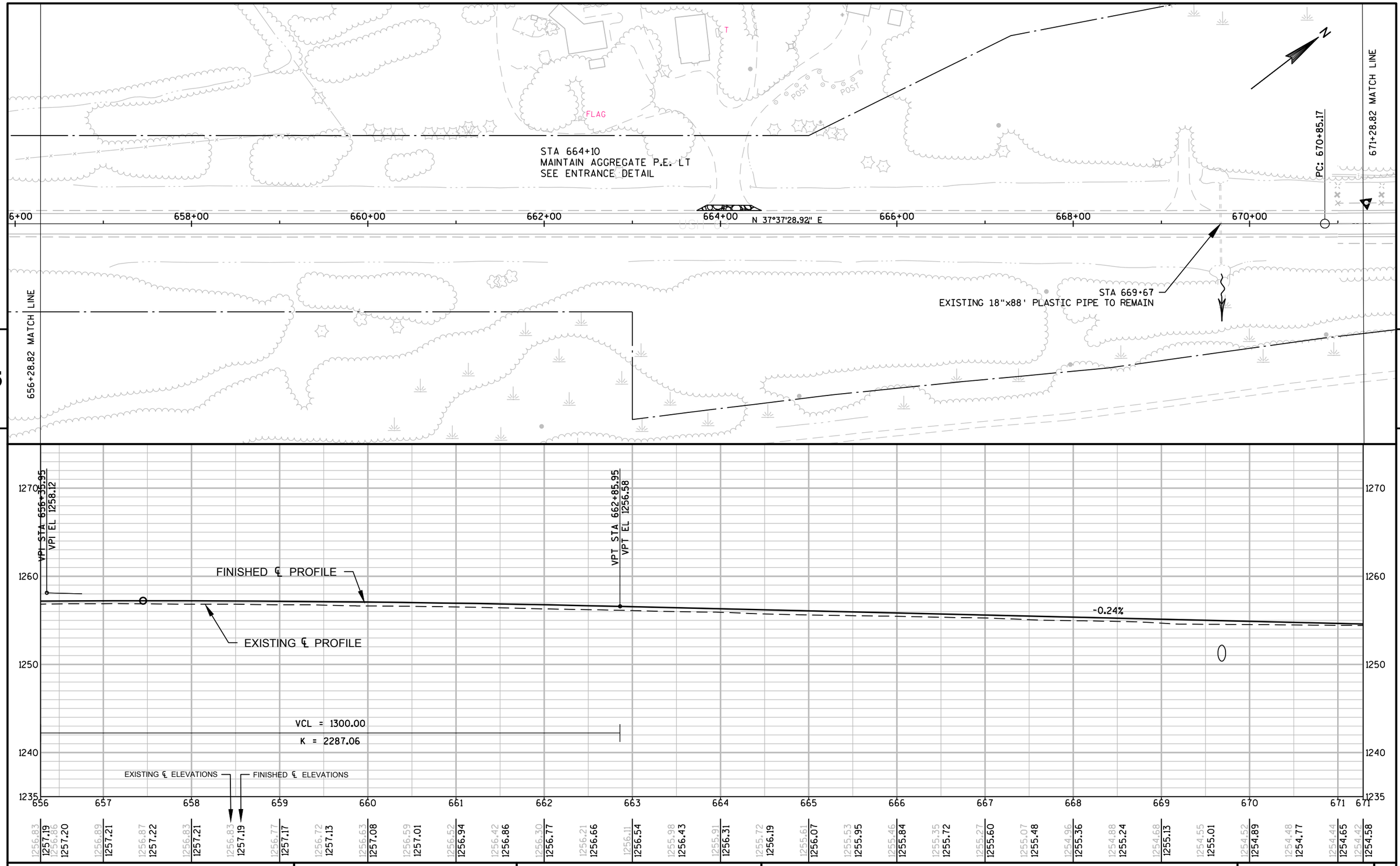
FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-22

PLOT DATE : 10/9/2017 4:17 PM   PLOT BY : JENSEN, TRAVIS G   PLOT NAME :   PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-23
PLOT DATE : 10/9/2017 4:17 PM
PLOT BY : JENSEN, TRAVIS G
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



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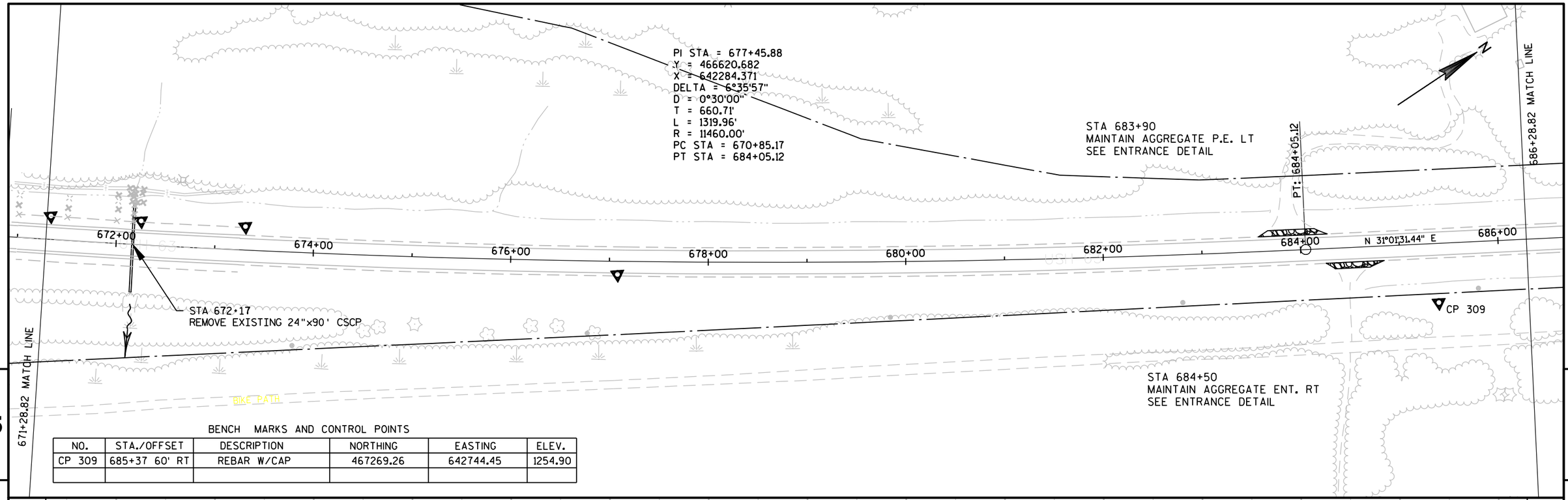
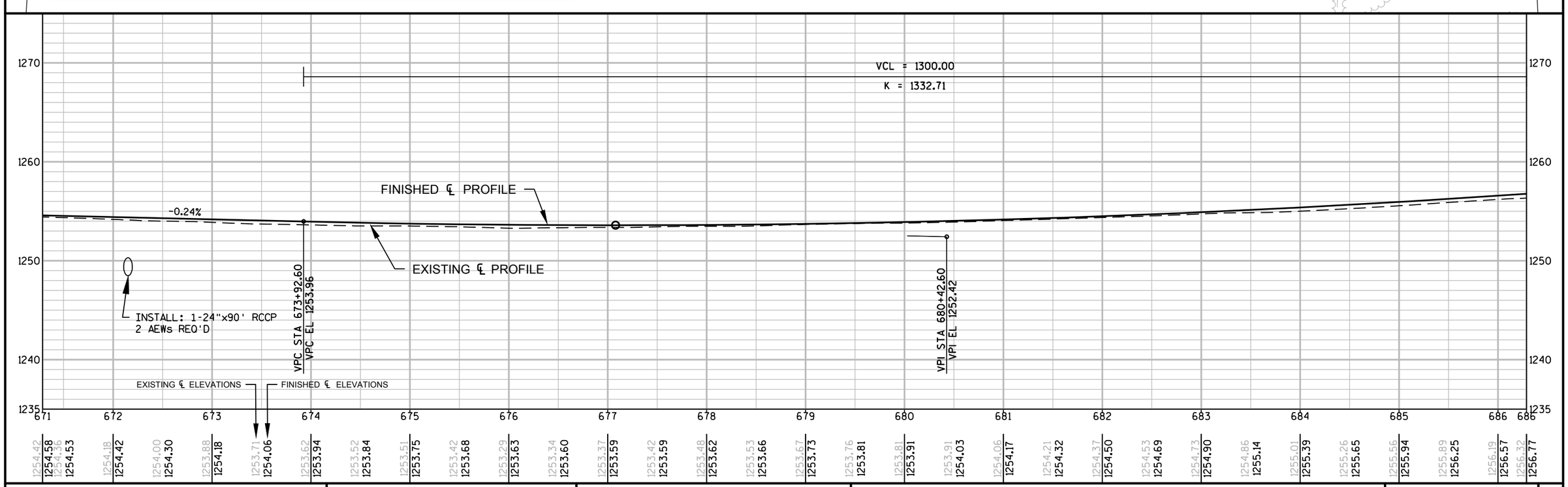
PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP.DWG
LAYOUT NAME - P&P-24
PLOT DATE : 10/9/2017 4:17 PM
PLOT BY : JENSEN, TRAVIS G
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

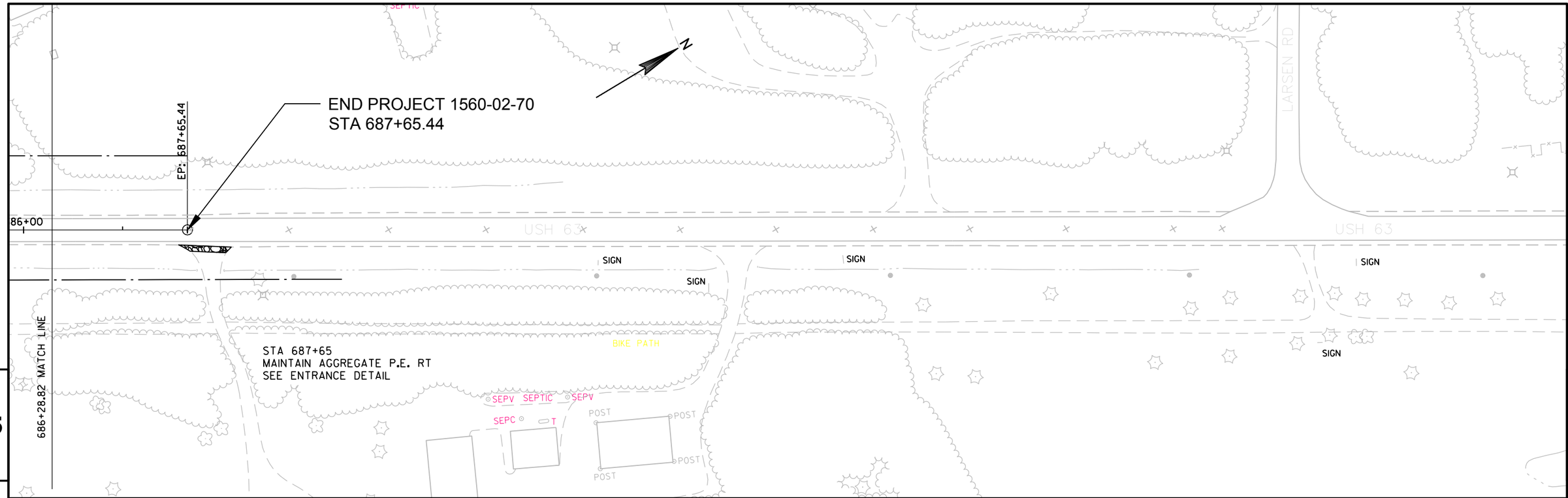


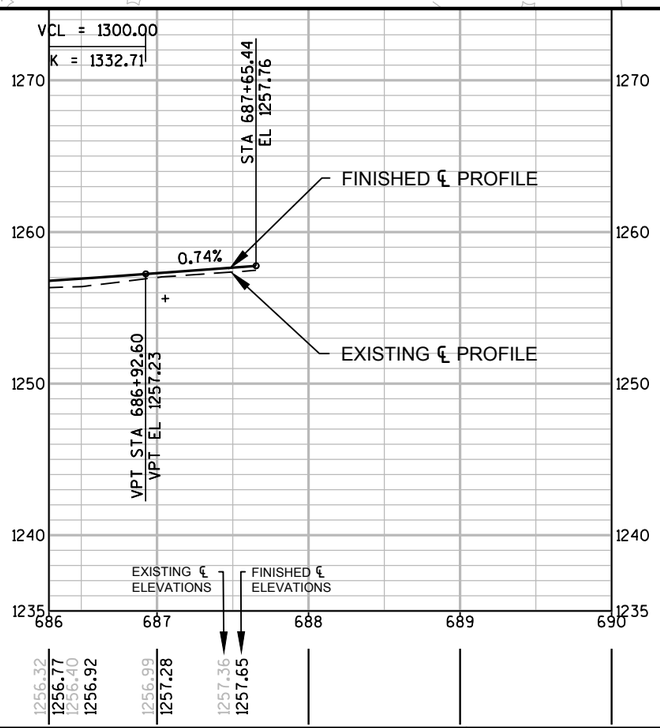
BENCH MARKS AND CONTROL POINTS

NO.	STA./OFFSET	DESCRIPTION	NORTHING	EASTING	ELEV.
CP 309	685+37 60' RT	REBAR W/CAP	467269.26	642744.45	1254.90

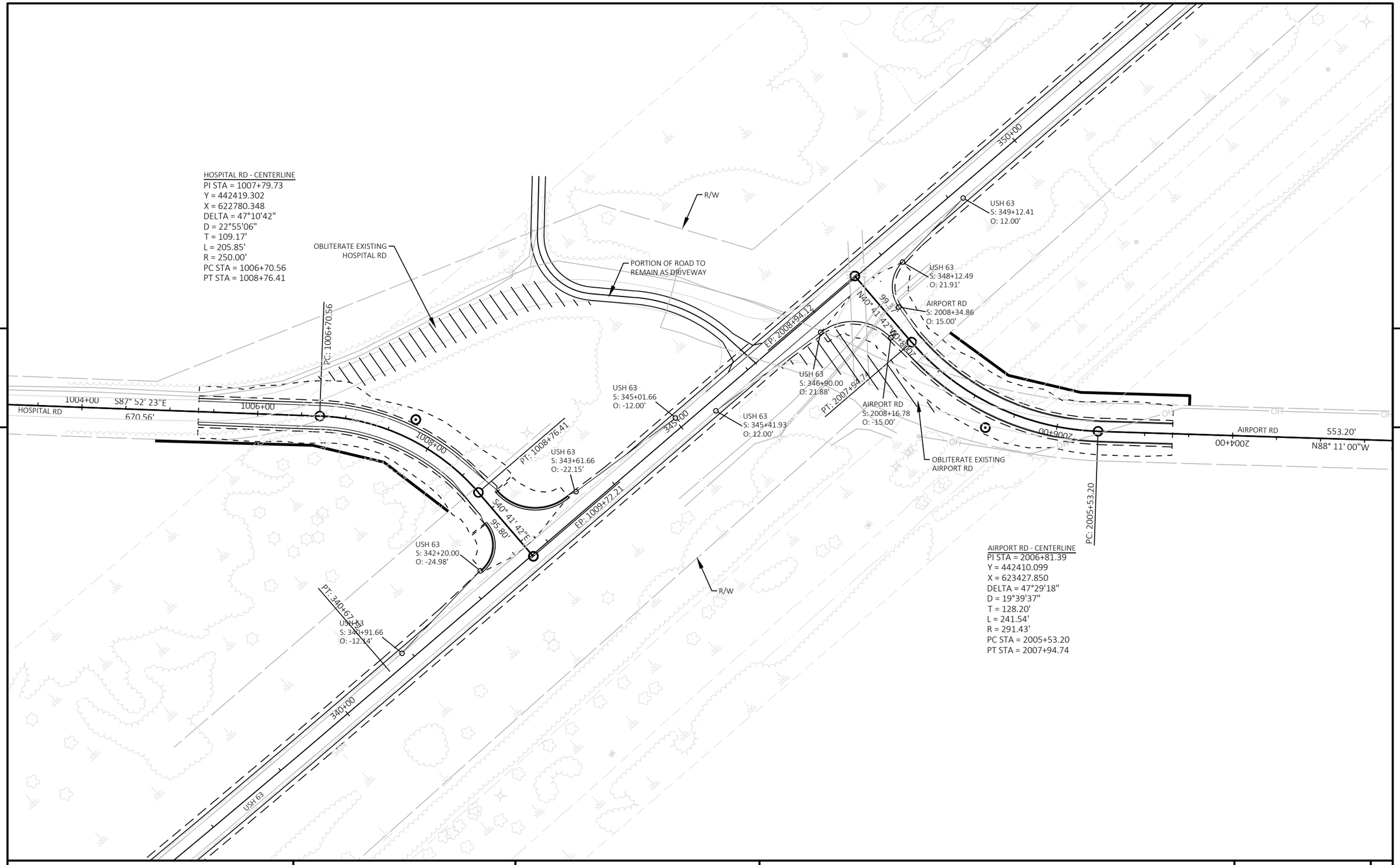


PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E





PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: USH 63	SHEET	E

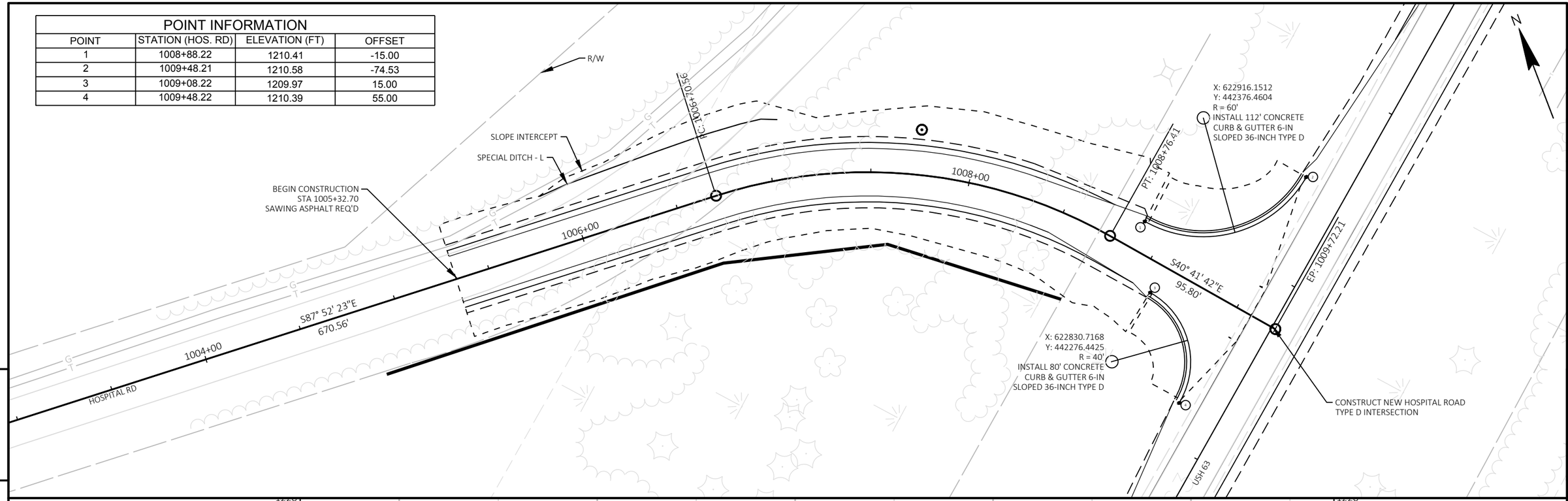


PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	HOSPITAL ROAD & AIRPORT ROAD ALIGNMENT OVERVIEW	SHEET	E

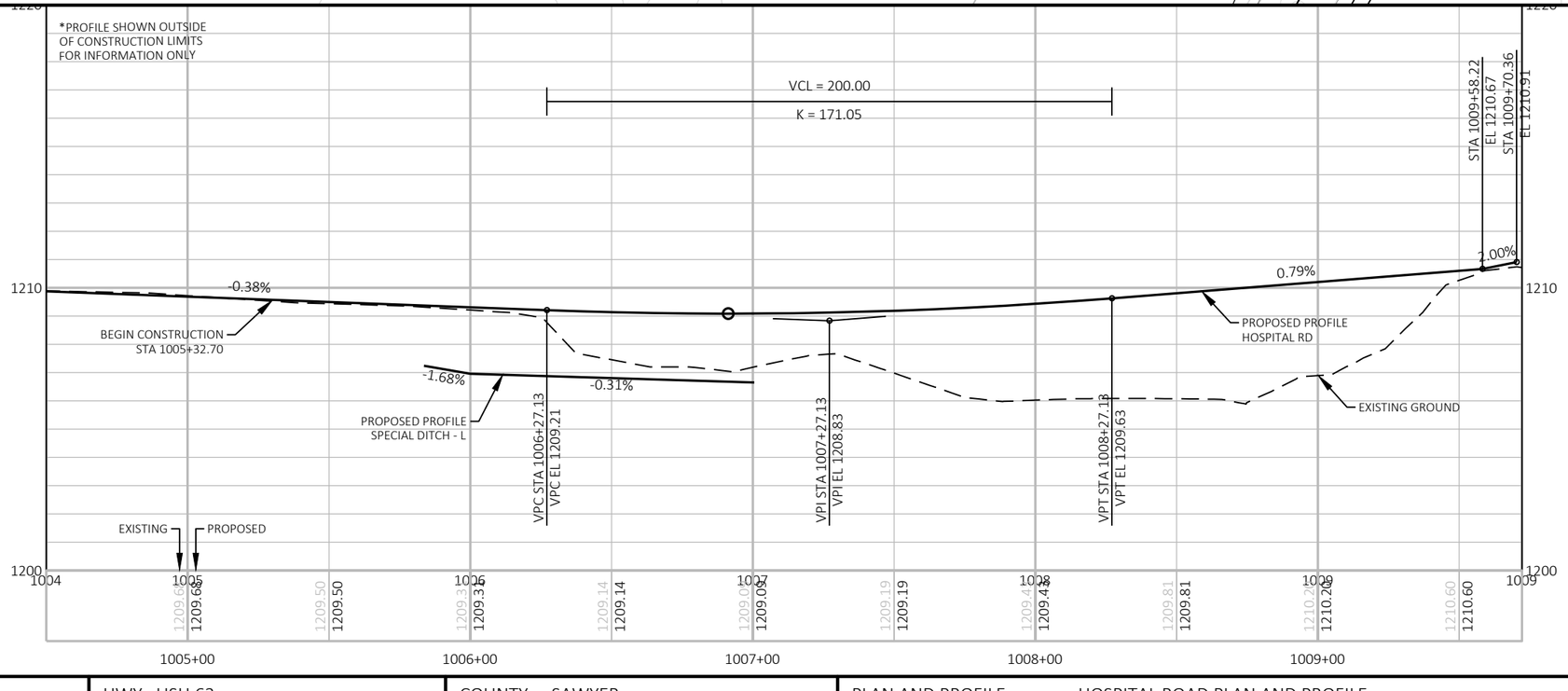
FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP-HOSPITAL RD.DWG
LAYOUT NAME - OVERVIEW

PLOT DATE : 10/10/2017 11:18 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:100 FT

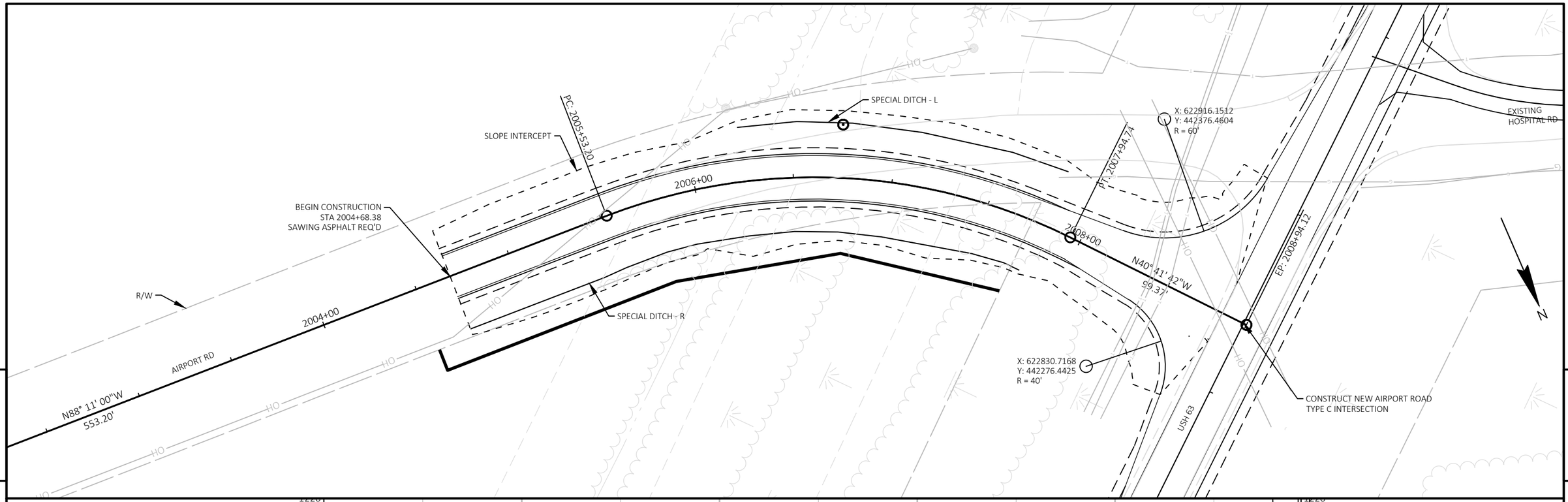
POINT INFORMATION			
POINT	STATION (HOS. RD)	ELEVATION (FT)	OFFSET
1	1008+88.22	1210.41	-15.00
2	1009+48.21	1210.58	-74.53
3	1009+08.22	1209.97	15.00
4	1009+48.22	1210.39	55.00



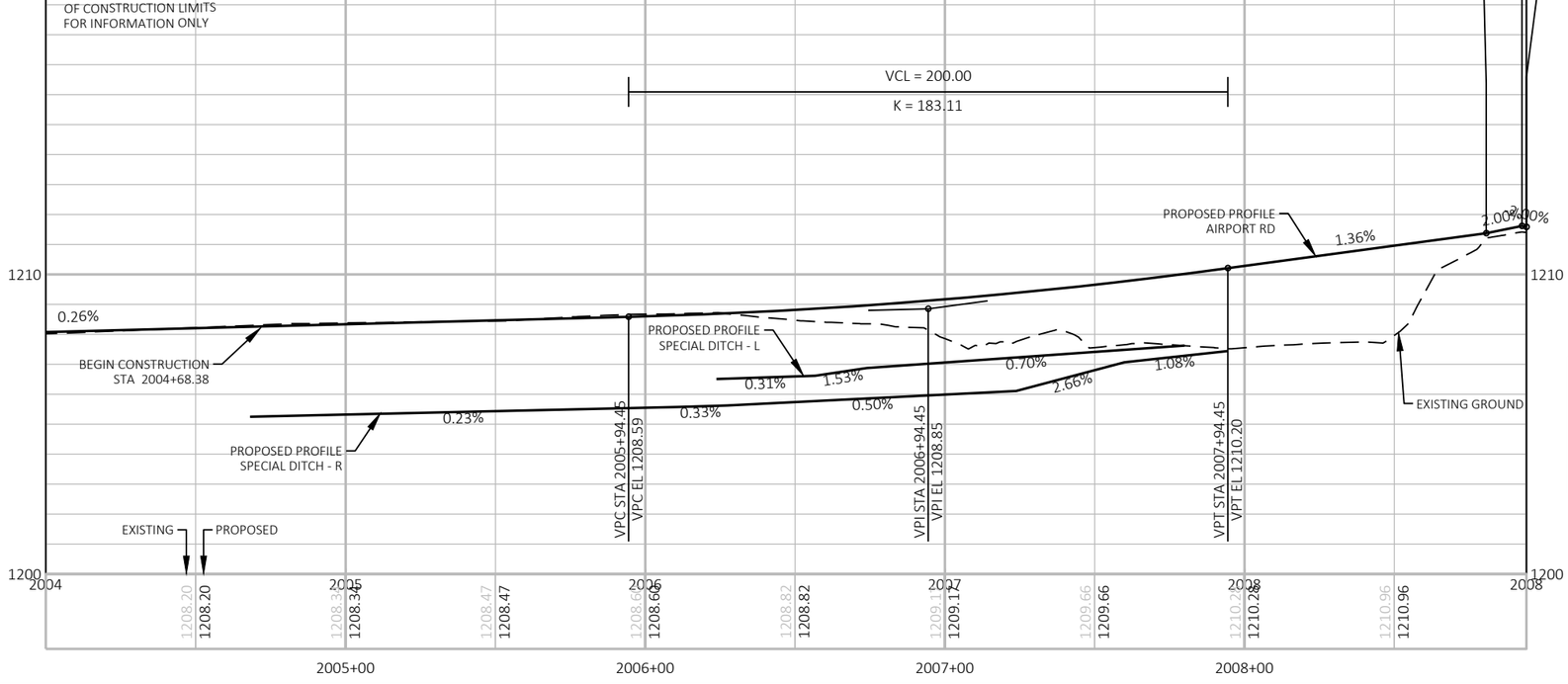
SPECIAL DITCH - L	
STATION	ELEVATION (FT)
1005+83.64	1207.24
1006+00.06	1206.96
1007+00.50	1206.65



PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: HOSPITAL ROAD PLAN AND PROFILE	SHEET	E



*PROFILE SHOWN OUTSIDE OF CONSTRUCTION LIMITS FOR INFORMATION ONLY



SPECIAL DITCH - R	
STATION	ELEVATION (FT)
2004+68.38	1205.25
2006+11.04	1205.57
2006+27.34	1205.63
2007+23.77	1206.11
2007+59.91	1207.07
2007+94.45	1207.44

SPECIAL DITCH - L	
STATION	ELEVATION (FT)
2006+23.77	1206.51
2006+56.73	1206.61
2006+73.97	1206.88
2007+80.00	1207.50

PROJECT NO: 1560-02-70	HWY: USH 63	COUNTY: SAWYER	PLAN AND PROFILE: AIRPORT ROAD PLAN AND PROFILE	SHEET	E

FILE NAME : N:\PDS\C3D\15600201\SHEETSPLAN\15600201_PP-HOSPITAL RD.DWG
LAYOUT NAME - AIRPORT RD
PLOT DATE : 10/10/2017 11:18 AM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1 IN:50 FT