

Information for File #2014-02823-EMN

Applicant: Waupaca County Highway Department

Corps Contact: Eric Norton

Address: 1314 Contractors Blvd., Plover, Wisconsin 54467

E-Mail: eric.m.norton@usace.army.mil

Phone: (651) 290-5879

Primary County: Waupaca

Project Location: Sections 28 and 33, T. 25N, R. 15E

Information Complete On: February 9, 2015

Posting Expires On: March 10, 2015

Authorization Type: Section 404 – LOP-06-WI

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

Project

PROJECT DESCRIPTION: The Waupaca County Highway Department has proposed to reconstruct approximately 0.81-mile of CTH I from Paape Road to CTH Y for road maintenance and safety purposes. The proposed project would consist of reconstructing CTH I with a rural roadway section consisting of two 12-foot travel lanes and 6-foot shoulders (3-foot paved and 3-foot gravel), flattening road slopes to 4:1 in uplands and 3:1 in wetlands, and reconstructing roadside ditches to allow the roadway to meet current WisDOT design class 3RC2 standards.

PURPOSE AND NEED: The purpose and need of the proposed project is to improve safety on the existing roadway. Poor pavement conditions are causing an unsafe roadway and are in need of rehabilitation. In addition, the existing geometry and accident rates at the current 40 mph design speed indicated a need to upgrade the existing roadway to a 50 mph design speed while reconstructing the two intersections at each of the highway curves.

ALTERNATIVES CONSIDERED: Three design alternatives were considered in the practicable alternatives analysis along with the no build alternative. These alternatives are described below.

No build – This alternative would not address the deteriorating pavement conditions or safety issues with the existing highway curves/intersections on CTH I.

Reconstruct the Existing Roadway (50 mph) – The proposed horizontal and vertical alignments would be constructed to the 50 mph 3RC2 design criteria and sight distance criteria. Approximately 3.85 acres of new right-of-way (ROW) would be acquired under this alternative and it would permanently impact 1.21 acres of wetlands within the project area. This alternative meets the project purpose and need and is the preferred alternative.

Reconstruct the Existing Roadway (55 mph) – The proposed horizontal and vertical alignments would be constructed to the 55 mph 3RC2 design criteria and sight distance criteria. Approximately 7.47 acres of new ROW would be acquired under this alternative and it would permanently impact 1.91 acres of wetlands within the project area. This alternative meets the project purpose and need, but would impact more wetland acreage and acquire more ROW than the preferred alternative.

Reconstruct the Existing Roadway (60 mph) – The proposed horizontal and vertical alignments would be constructed to the 60 mph 3RC2 design criteria and sight distance criteria. Approximately 12.94 acres of new ROW would be acquired under this alternative and it would permanently impact 2.04 acres of wetlands within the project area. This alternative meets the project purpose and need, but would impact more wetland acreage and acquire more ROW than the preferred alternative.

AREA OF IMPACT: Thirteen wetlands were delineated within the proposed project area. Approximately 0.73-acre of fresh wet meadow and 0.47-acre of hardwood forested wetlands would be permanently impacted by the proposed road reconstruction work. In addition, 0.56-acre of fresh wet meadow would be temporarily impacted during the reconstruction of the Paape Road and CTH Y intersections at each end of the project area. All temporary impacts would be restored to their pre-existing condition upon completion of the project.

MITIGATION: The applicant has proposed to provide compensatory mitigation for all unavoidable wetland impacts by providing permittee responsible mitigation at the O'Brien Mitigation Site located in the SE ¼ SE ¼ of Section 8, T. 23N, R. 14E, Waupaca County, Wisconsin. The mitigation plan for the proposed O'Brien Mitigation Site is currently being reviewed by Corps staff and the Wisconsin Department of Natural Resources and proposes to create and restore a minimum of 1.98 acres of fresh wet meadow wetlands within the mitigation site to compensate for the proposed 1.21 acres of permanent wetland impacts described above.

Drawings

See attached maps and plans.

PROJECT ID: 6837-04-00
 WITH: N/A

COUNTY: WAUPACA

ORDER OF SHEETS

Sheet No. 1	Title
Sheet No. 2	Typical Sections and Details
Sheet No. 3	Estimate of Quantities
Sheet No. 3	Miscellaneous Quantities
Sheet No. 4	Right of Way Plat
Sheet No. 5	Plan and Profile
Sheet No. 6	Standard Detail Drawings
Sheet No. 9	Computer Earthwork Data
Sheet No. 9	Cross Sections

WAUPACA COUNTY HIGHWAY DEPARTMENT

PLAN OF PROPOSED IMPROVEMENT

C.T.H. Y - PAAPE ROAD

C.T.H. I

WAUPACA COUNTY

PRINTED ON
 AUG 19 2014



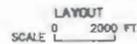
DESIGN DESIGNATION

C.T.H. D	
A.A.D.T. (2015)	640 VPD
A.A.D.T. (2035)	740 VPD
TRUCK % OF ADT	3.8%
DESIGN SPEED	50 MPH
ESALS	51,100



CONVENTIONAL SYMBOLS

■ 1" x 16" IRON PIPE SET	—O— OVERHEAD POWER LINES	OO GAS VALVE
▲ 1-1/4" x 30" REBAR SET	—E— UNDERGROUND ELECTRIC	O EXIST. STORM MANHOLE
X CHISELED "Y" SET	—T— UNDERGROUND TELEPHONE	□ STORM INLET
○ 3/4" REBAR FOUND	—F— UNDERGROUND FIBEROPTIC	□ YARD DRAIN
○ 1" IRON PIPE FOUND	—G— UNDERGROUND GAS	○ EXIST. SANITARY MANHOLE
▲ 1-1/4" REBAR FOUND	—CATV— UNDERGROUND CABLE TV	—S— EXIST. SAN. SEWER
■ 2" IRON PIPE FOUND	—F— EXIST. FENCE LINE	—S— EXIST. STO. SEWER
● CHISELED "Y" FOUND	—S— SIGN	—S— EXIST. WATER MAIN
○ CONCRETE CORNER	● POWER POLE	—S— EXIST. SPOT ELEVATION
○ RECORDED AS	○ CUT	—S— EXIST. TOP OF CURB ELEV.
○ CONCRETE SHOULDER	○ LIGHT POLE	—S— EXIST. FARM LANE ELEV.
○ RECONSTRUCT SHOULDER	○ TELEPHONE PEDESTAL	—S— FIRST FLOOR = 800.00
○ 1" IRON PIPE FOUND	○ ELECTRIC PEDESTAL	—S— FLOOR DEPTH
○ 2" IRON PIPE FOUND	○ CABLE PEDESTAL	—S— REPLENISH SOIL BORING
○ 3" IRON PIPE FOUND	○ EXIST. ASPHALT	
○ 4" IRON PIPE FOUND	○ SLEEP WALK	
○ 6" IRON PIPE FOUND	○ SLEEP STOP END	



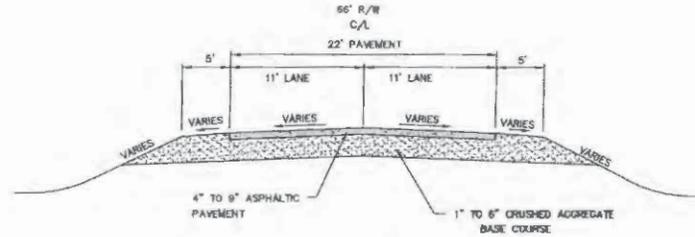
TOTAL NET LENGTH OF CENTERLINE = 0.71 MI

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATES. (WAUPACA COUNTY) NAD83 (95)."

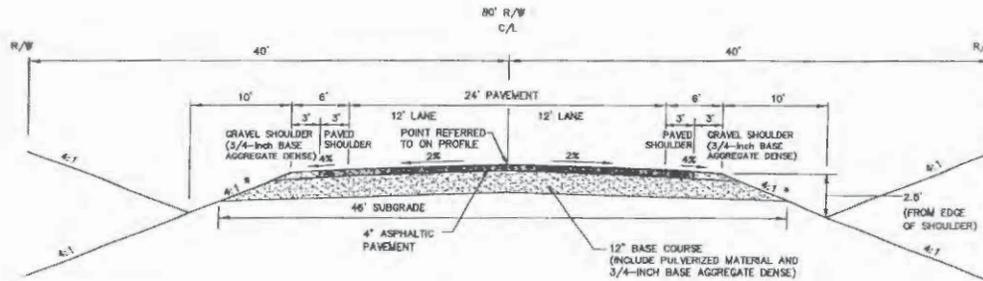
ORIGINAL PLANS PREPARED BY:
Martenson & Eisele, Inc.
 1377 Midway Road
 Menasha, WI 54952
 www.martenson-eisele.com
 info@martenson-eisele.com
 920.731.0381 1.800.236.0351

Planning
 Environmental
 Surveying
 Engineering
 Architecture

(DATE) _____ (CONSULTING ENGINEER)
 ACCEPTED FOR
 COUNTY OF WAUPACA
 (Date) _____ (Signature) _____



EXISTING TYPICAL SECTION



* 3:1 FORESLOPES PROPOSED IN WETLAND AREAS.

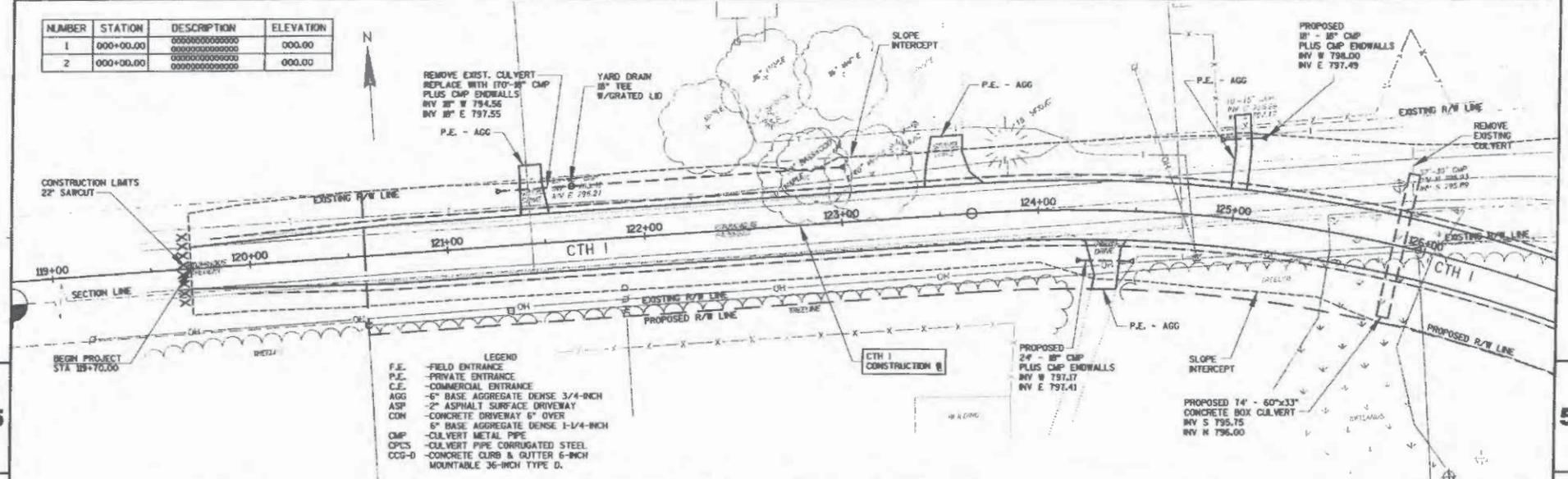
PROPOSED TYPICAL SECTION

C.T.H. "I", C.T.H. "Y" & PAAPE ROAD

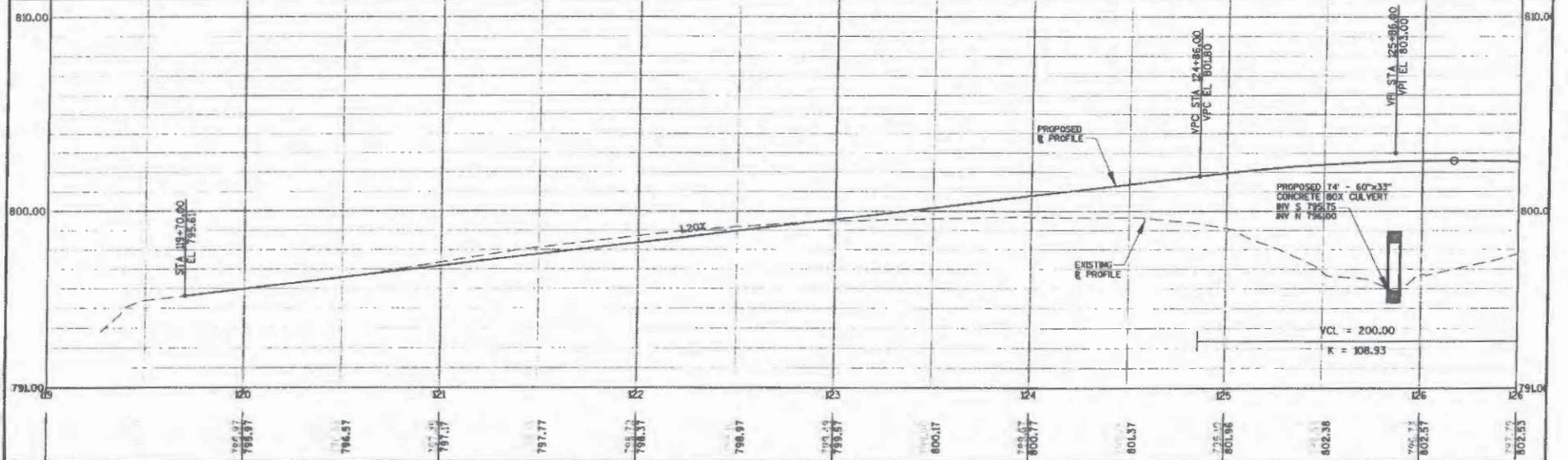
NOTES:

- 10-INCHES OF THE EXISTING PAVEMENT AND BASE COURSE IN THE AREAS OF C.T.H. "I", C.T.H. "Y", AND PAAPE ROAD SHALL BE PULVERIZED, REMOVED, AND MICROFILLED.
- PULVERIZED MATERIAL, ALONG WITH 3/4"-INCH BASE AGGREGATE DENSE SHALL BE LAD AND COMPACTED IN TWO LIFTS TO PROVIDE THE 12-INCHES OF BASE FOR THE RECONSTRUCTED ROADWAY.
- PROVIDE 4-INCHES ASPHALTIC PAVEMENT (HMA TYPE E-1)
 - 1.75 INCHES UPPER LAYER (NOMINAL AGGREGATE SIZE OF 12.5mm)
 - 2.25 INCHES LOWER LAYER (NOMINAL AGGREGATE SIZE OF 19.0mm)

NUMBER	STATION	DESCRIPTION	ELEVATION
1	000+00.00	0000000000000000 0000000000000000	000.00
2	000+00.00	0000000000000000 0000000000000000	000.00

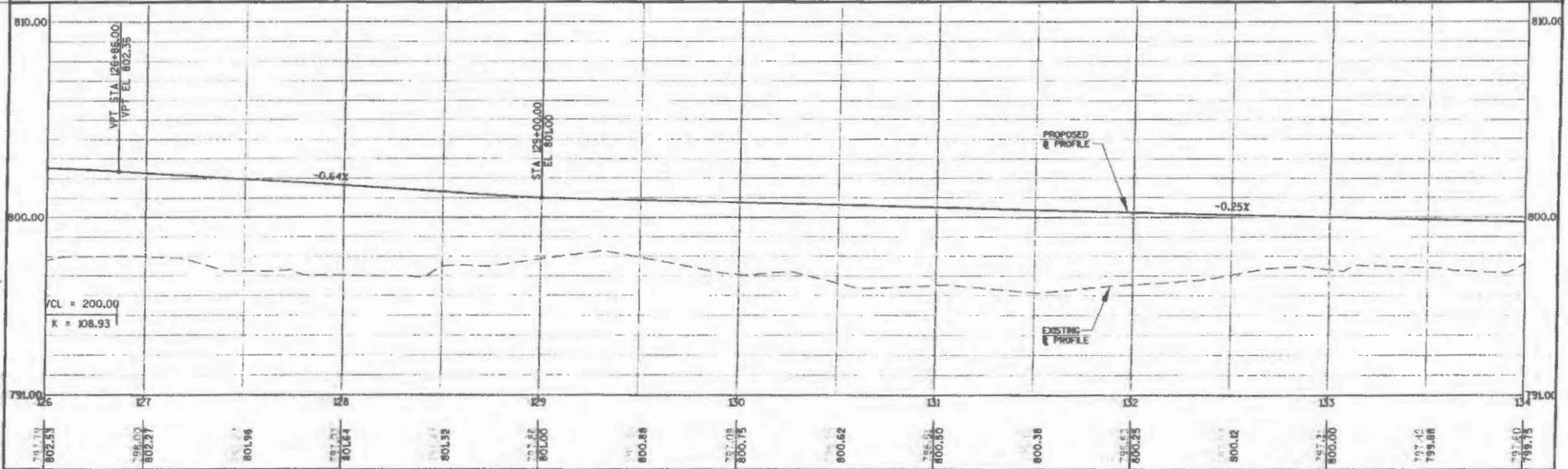
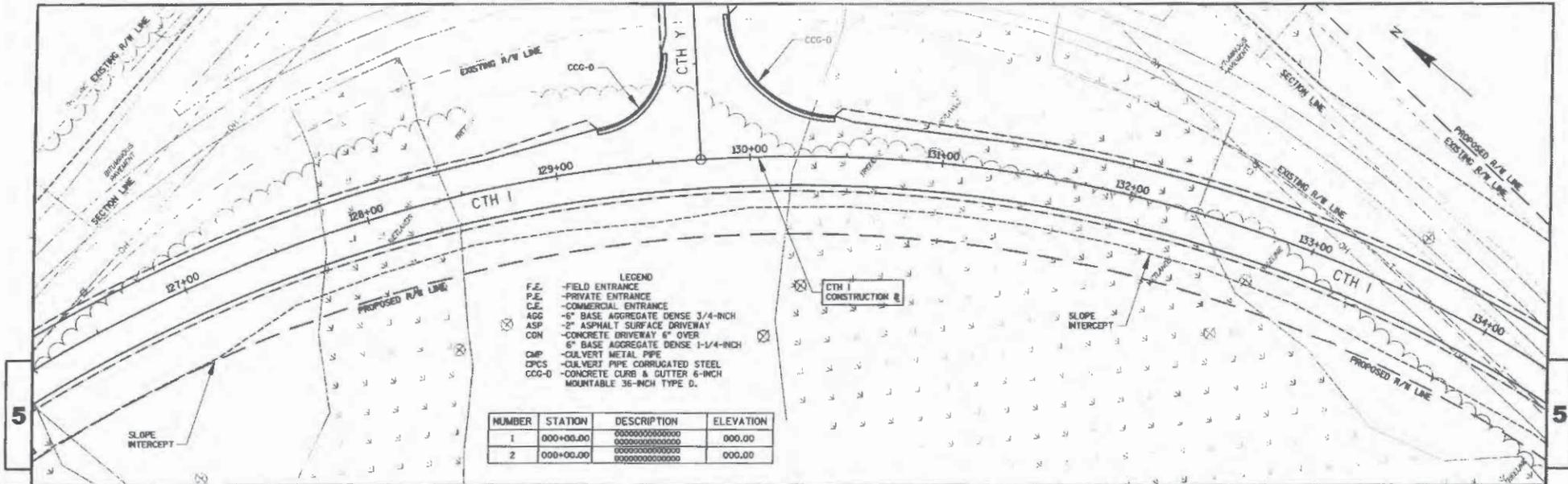


- LEGEND**
- F.E. - FIELD ENTRANCE
 - P.E. - PRIVATE ENTRANCE
 - C.E. - COMMERCIAL ENTRANCE
 - AGG - 6" BASE AGGREGATE DEWISE 3/4-INCH
 - ASP - 2" ASPHALT SURFACE DRIVEWAY
 - CON - CONCRETE DRIVEWAY 6" OVER
 - 6" BASE AGGREGATE DENSE 1-1/4-INCH
 - CULV - CULVERT METAL PIPE
 - CPCS - CULVERT PIPE CORRUGATED STEEL
 - CCG-D - CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D.



PROJECT NO: I-0242-002 HWY: CTH 1 COUNTY: WAUPACA PLAN AND PROFILE: SHEET 5.01

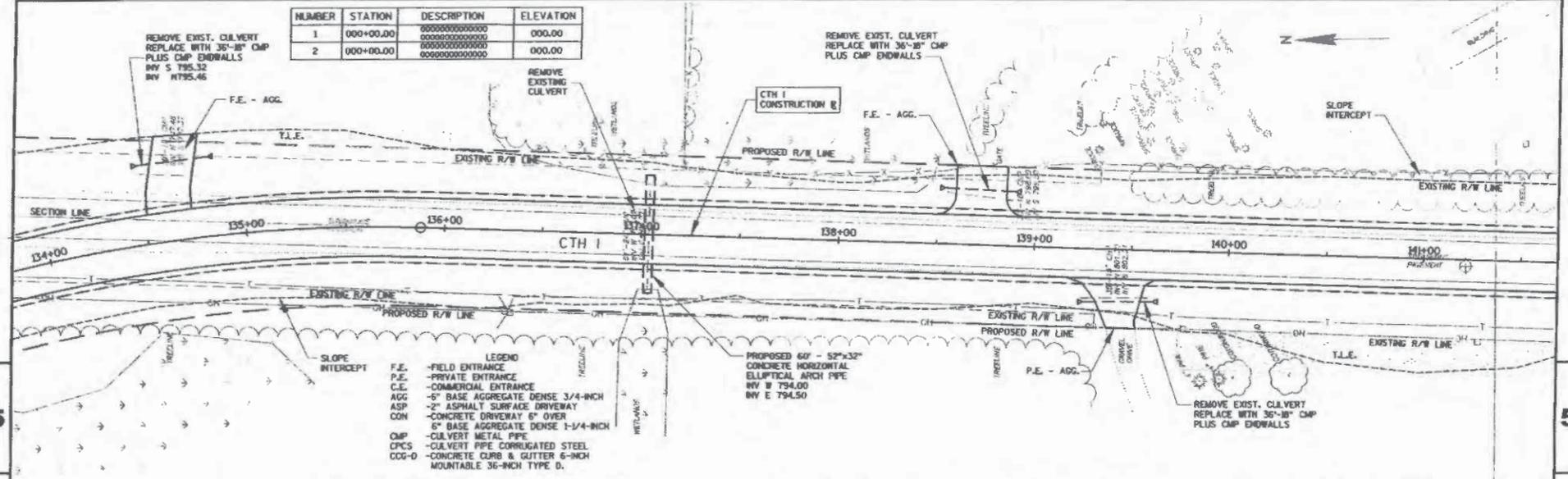
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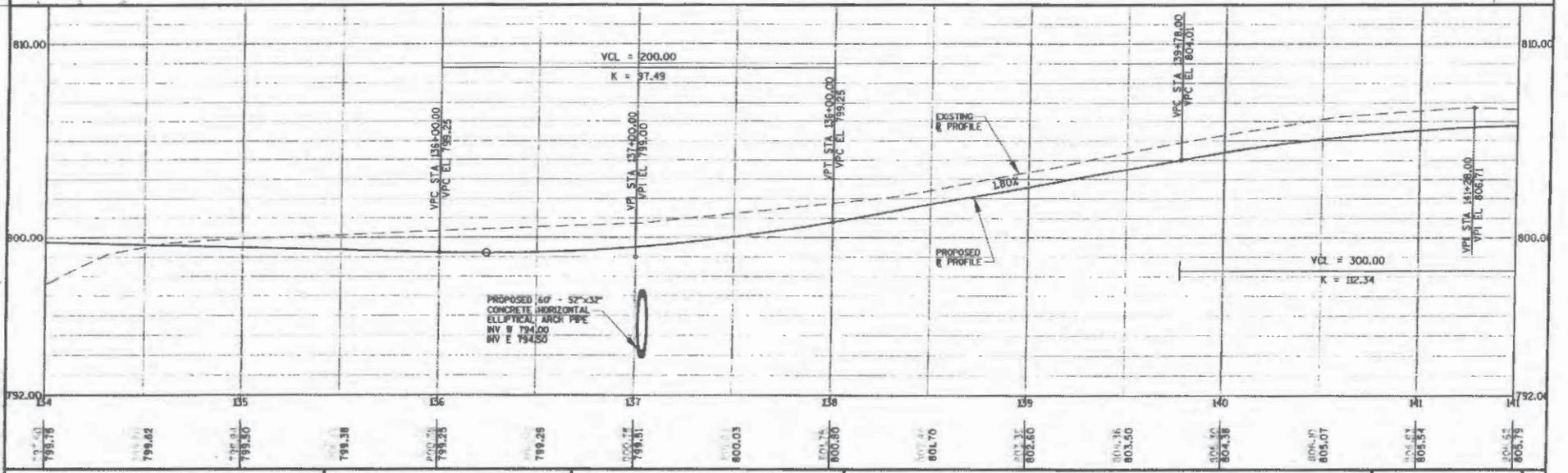
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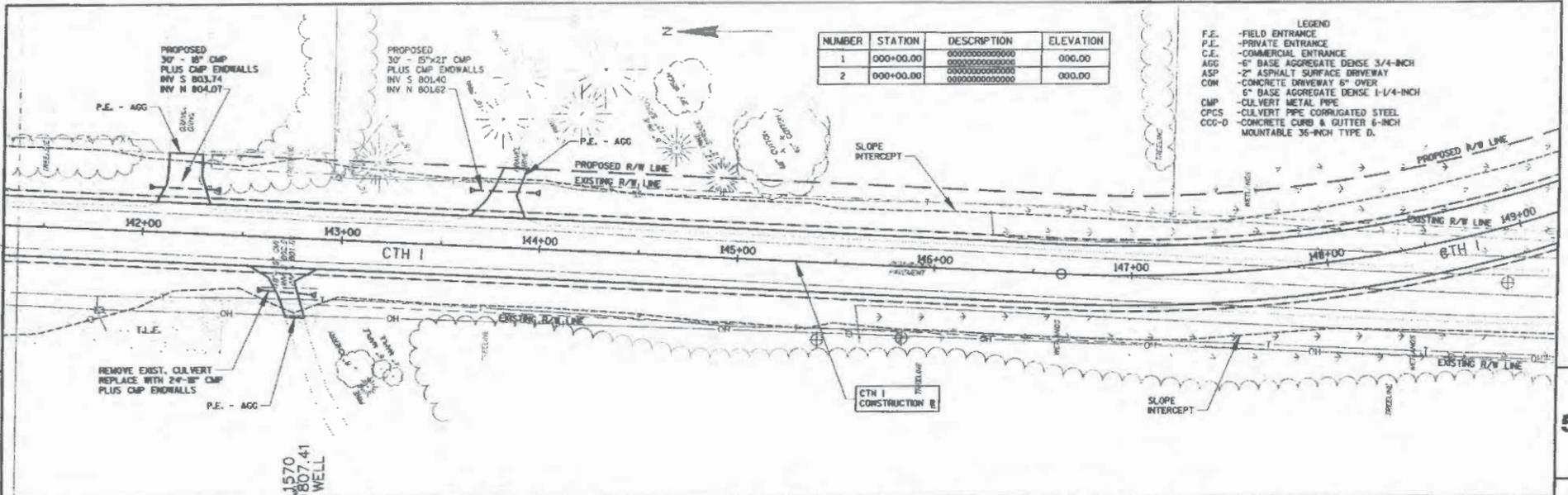


- LEGEND**
- F.E. - FIELD ENTRANCE
 - P.E. - PRIVATE ENTRANCE
 - C.E. - COMMERCIAL ENTRANCE
 - AGG - 5" BASE AGGREGATE DENSE 3/4-INCH ASP
 - CON - CONCRETE DRIVEWAY 6" OVER 6" BASE AGGREGATE DENSE 1-1/4-INCH
 - CMP - CULVERT METAL PIPE
 - CPCS - CULVERT PIPE CORRUGATED STEEL
 - CCG-D - CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D.

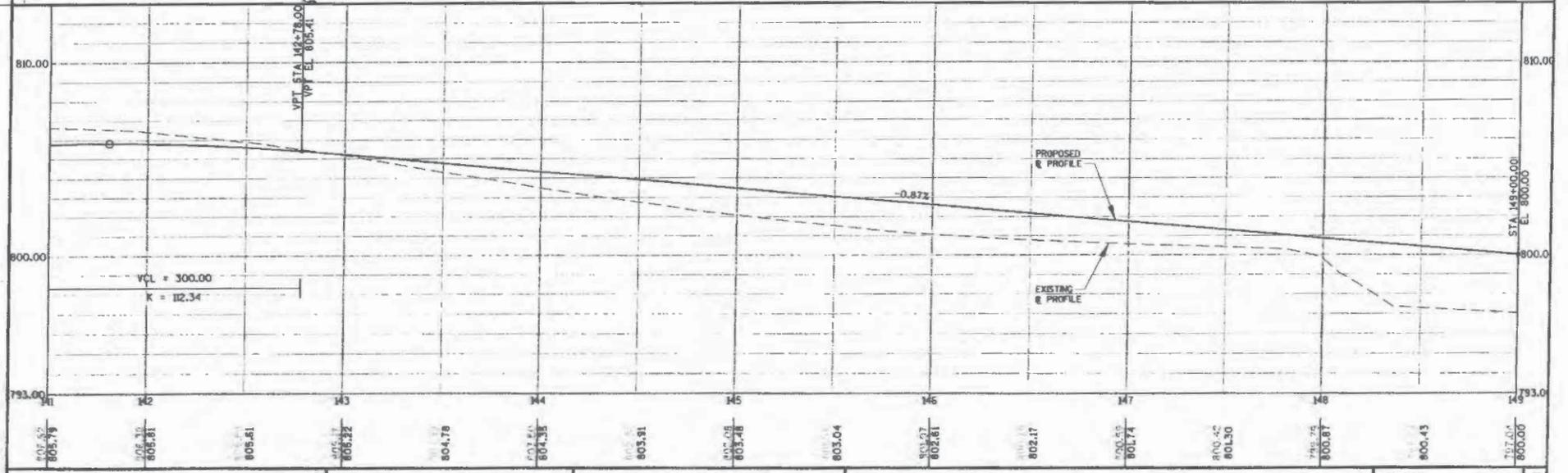


PROJECT NO: I-0242-002	HWY: CTH I	COUNTY: WAUPACA	PLAN AND PROFILE:	SHEET 5.03	E
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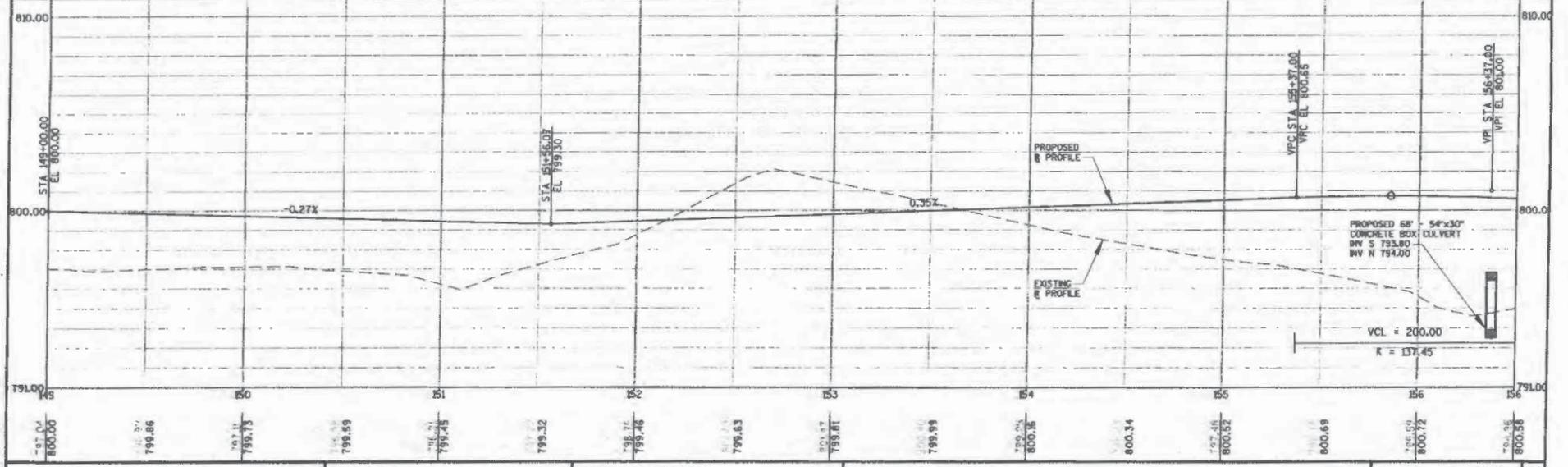
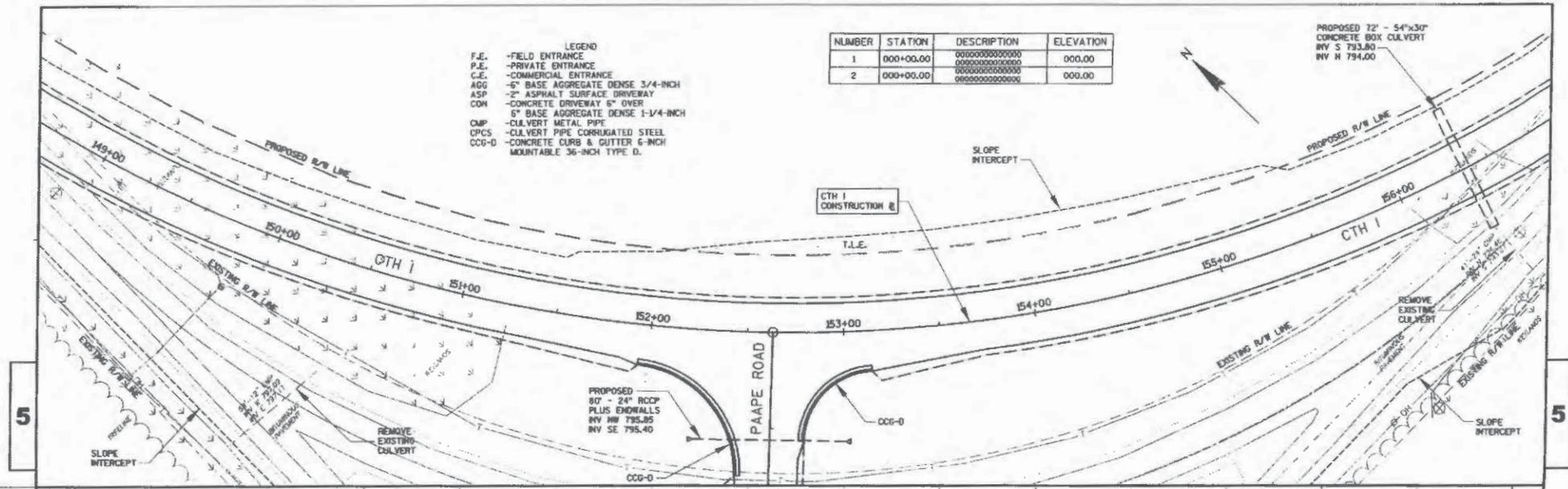


- LEGEND
- F.E. - FIELD ENTRANCE
 - P.E. - PRIVATE ENTRANCE
 - C.E. - COMMERCIAL ENTRANCE
 - AGG - 6" BASE AGGREGATE DENSE 3/4-INCH
 - ASP - 2" ASPHALT SURFACE DRIVEWAY
 - CON - CONCRETE DRIVEWAY 6" OVER
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 - CMP - CULVERT METAL PIPE
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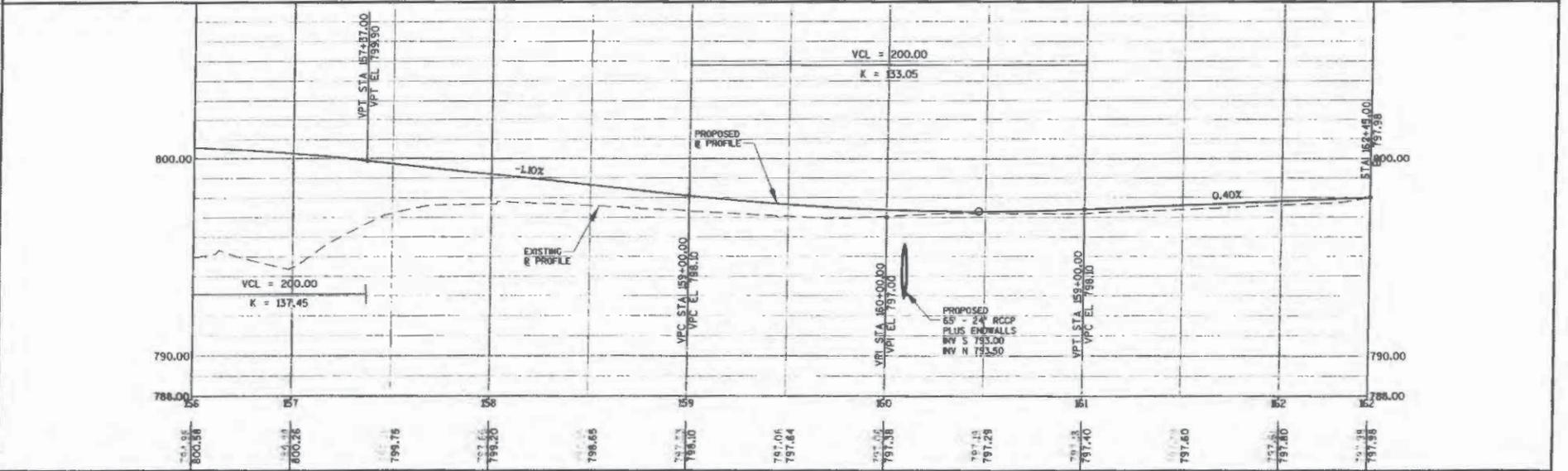
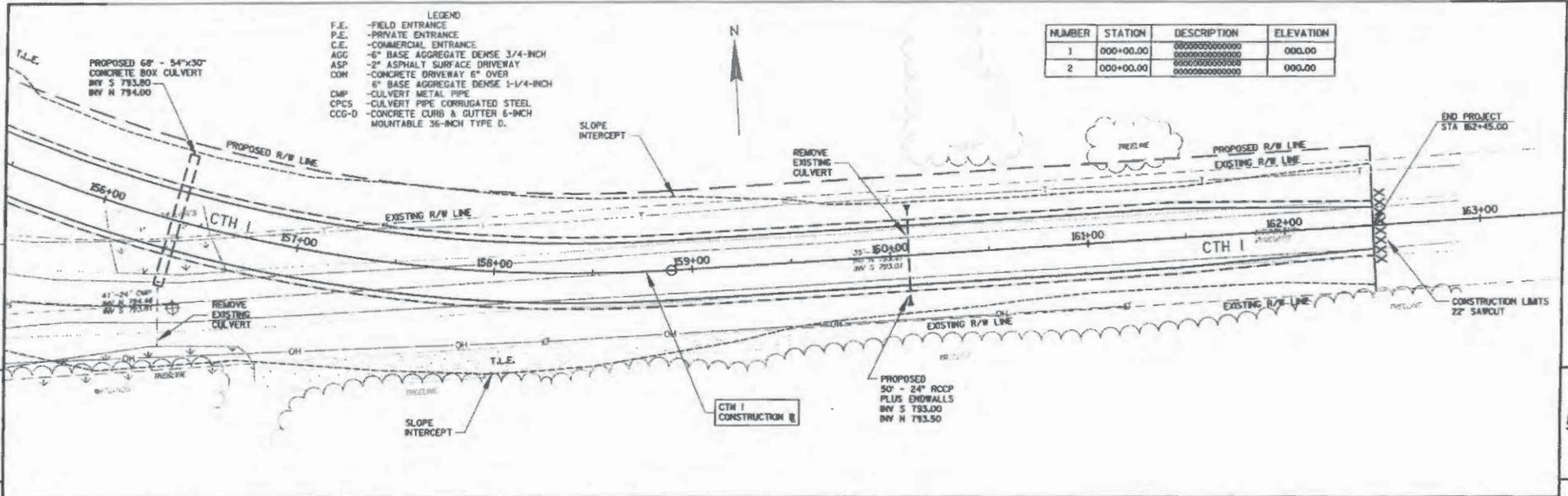
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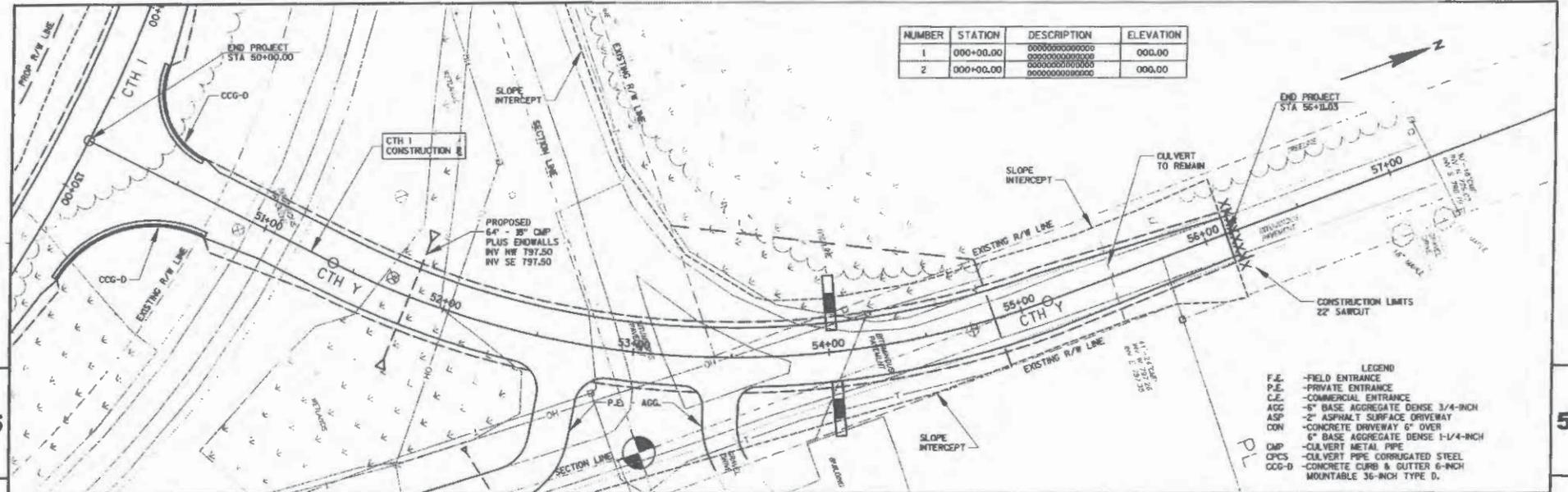
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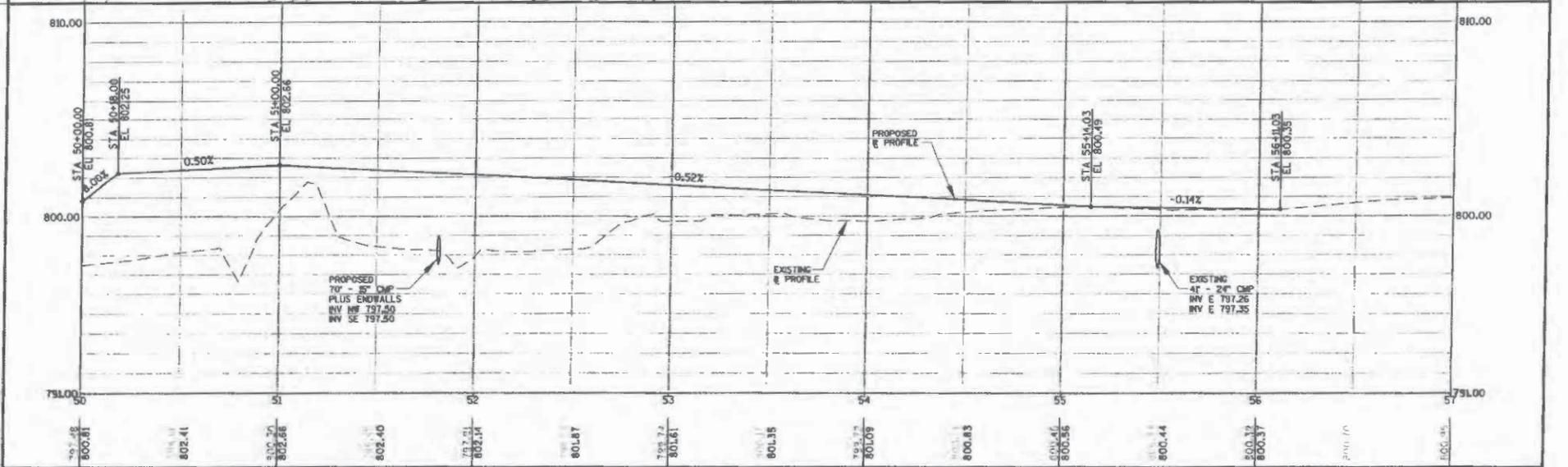
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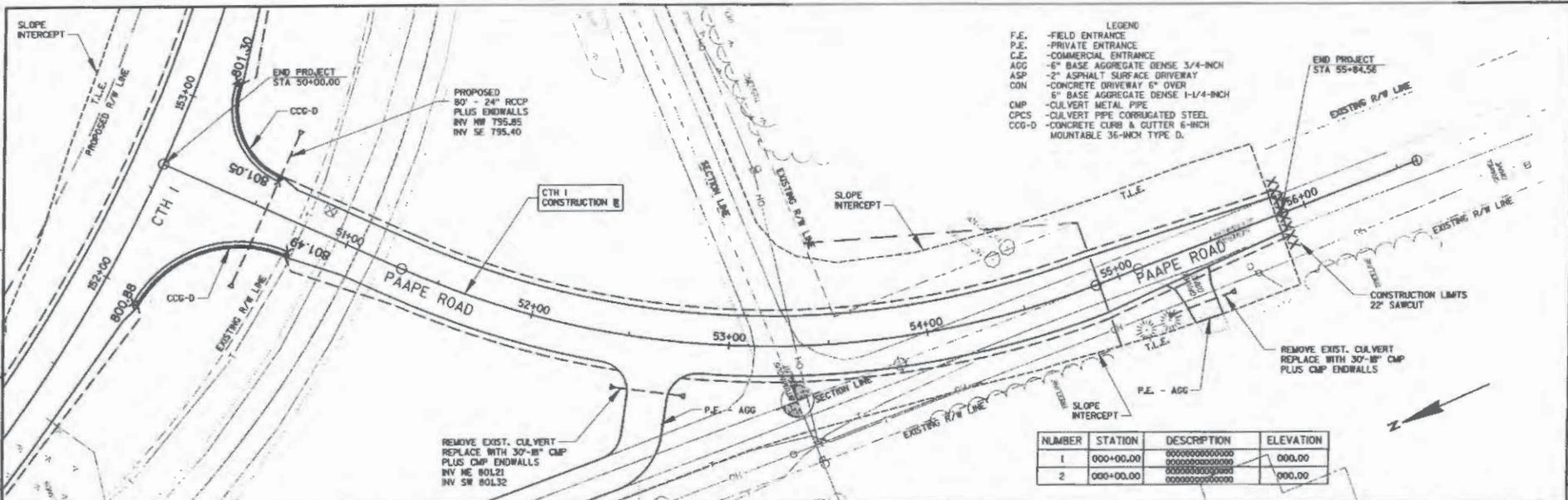


- LEGEND
- F.E. - FIELD ENTRANCE
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 - C.E. - COMMERCIAL ENTRANCE
 - AGG - 6" BASE AGGREGATE DENSE 3/4-INCH
 - ASP - 2" ASPHALT SURFACE DRIVEWAY
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 - CMP - 6" BASE AGGREGATE DENSE 1-1/4-INCH
 - CPCS - CULVERT PIPE CORRUGATED STEEL
 - CCC-D - CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D.

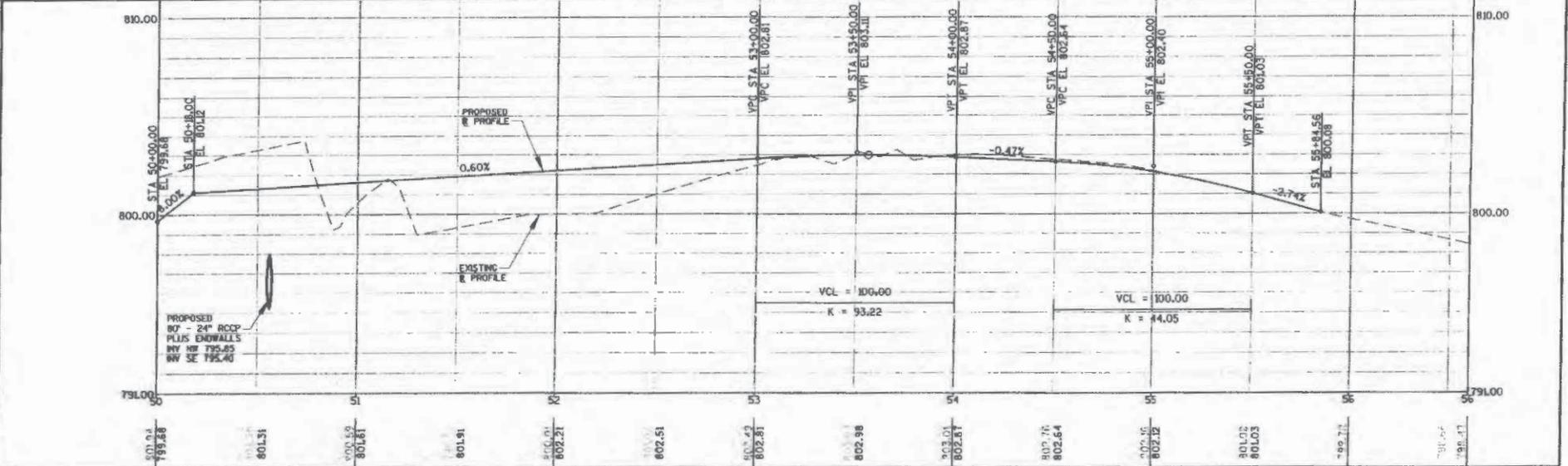


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NUMBER	STATION	DESCRIPTION	ELEVATION
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PROJECT NO: I-0242-002 HWY: PAAPE ROAD COUNTY: WAUPACA PLAN AND PROFILE: SHEET 5.08

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Appendix D

Martenson & Eisele, Inc.
 Planning
 1377 Mainway Road
 Menasha, WI 54952
 Environmental
 www.martenson-eisele.com
 920.731.0381 1.800.236.0381

DATE	BY	REVISION	APPROVED

WETLAND LOCATION MAP
 TOWN OF MATTESON, WAUPACA COUNTY, WISCONSIN.

SCALE	DATE
BAR SCALE	01-24-2014
COMPUTER FILE	1-0243-002.dwg

DRAWING NO.
 1-0243-002

Calculation of Wetland Credits Needed From O'Brien Compensation Site
To Compensate for Wetland Impacts on CTH I Reconstruction Project

Wetland Types Lost	Impacts		Replacement Wetland Type	Compensation Ratio Calculation				Credits Required (Acres)
	Sq. Ft. Lost	Acres Lost		Starting Compensation Ratio	Reduction for No Temporal Loss*	Reduction for In-Kind Compensation	Final Compensation Ratio	
M	-	0.73	M	1.7	-0.25	-0.25	1.5	1.059
WS	-	0.47	M	1.95	-0.50	-	1.95	0.917
		1.20						1.98

*Note: This does not apply.

Calculation of Available Wetland Credits
From O'Brien Compensation Site

CTH I
Portion

Area	Wetland Activity	Actual Acres	X Conversion Factor	Creditable Acreage Available
A. upland area	creation	-	0.50	-
B. prior-converted wetland area	restoration	0.46	1.00	0.46
C. severely degraded wetland area	enhancement	2.12	0.75	<u>1.59</u>
Creditable Acreage Available (1.98 acres required)				2.05

CTH T
Portion

Area	Wetland Activity	Actual Acres	X Conversion Factor	Creditable Acreage Available
A. upland area	creation	3.87	0.50	1.94
B. prior-converted wetland area	restoration	2.38	1.00	2.38
C. severely degraded wetland area	enhancement	3.44	0.75	<u>2.58</u>
Creditable Acreage Available (6.63 acres required)				6.90

Total Site

Area	Wetland Activity	Actual Acres	X Conversion Factor	Creditable Acreage Available
A. upland area	creation	3.87	0.50	1.94
B. prior-converted wetland area	restoration	2.84	1.00	2.84
C. severely degraded wetland area	enhancement	5.57	0.75	<u>4.18</u>
Creditable Acreage Available				8.95

Aerial View of CTH I Reconstruction Project Limits
and Proposed Wetland Compensation Site Location



Proposed Wetland
Compensation Site
Location

