

October 24, 2014

Mr. Joe Loucek
Ohio Environmental Protection Agency
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087

Re: 401 Water Quality Certification Application Response to Technical Comments
Vrooman Road
Corps Public Notice No. NA
Ohio EPA ID No. 144408

Dear Mr. Loucek:

On behalf of the Lake County Engineer's Office (LCEO), Michael Baker Jr., Inc. is formally submitting a response to your two e-mails dated October 10, 2014 regarding the Vrooman Road project. The intent of this submittal is to provide a technically sound and thorough permit application for your continued review and approval. Your comments followed by our responses are provided below.

- 1. Being persnickety, on the preferred and minimum deg alternatives, aren't there impacts from I-90 north to the bridge on Vrooman where the road will be straightened, or is all that flat and gentle-curved enough not to be a problem? If that is the case, could you please resend the alternatives maps zooming more into the project?**

There will be no straightening along Vrooman Road. The only impacts to aquatic resources from I-90 north to the bridge on Vrooman Road include the replacement and extension of three existing culverts on Stream 3. A schematic plan with these locations highlighted is attached. Plan and profile sheets for each of the culvert extensions were included in Figure 4 of Appendix B of the Section 401 Application submitted August 7, 2014. The impacts to Stream 3 are the same for both the Preferred and Minimal Degradation Alternatives.

- 2. With regard to the preferred and minimum degradation alternative, given that both are within the same corridor, please provide detailed description of how and why the impacts are different.**

Section 10a of the Section 401 Water Quality Certification requires a detailed description of any construction work, fill or other structures to occur or be placed in or near the surface water. Please see pages 6 and 7 of the Section 401 Application submitted August 7, 2014 for detailed descriptions of how and why the impacts are different for each alternative.

3. I lost track on the status of the application fees. Has County sent in the check?

On October 20, 2014, LCEO submitted check #00330396 in the amount of \$5,200.00 to the Ohio EPA office in Twinsburg, Ohio.

4. I have spent a few more moments looking at the Preferred and Minimum Degradation drawings. The purpose of these drawings are to demonstrate pictorially the project, and to draw attention to the differences between the two options. I really cannot see a difference between the two. If you need to provide a cross-section or two to tell the story, that's fine. But I really need to be able to differentiate pictorially between the preferred and minimum deg alternatives.

The only differences between the two alternatives include the removal of the Northern Haul Road and the addition of a river causeway in the Minimal Degradation Alternative. We have edited the previous figures highlighting these differences between the two alternatives. Please note that plan and profile sheets for the Preferred Alternative are included as Figure 3 in Appendix B of the Section 401 Application. Plan and profile sheets for the Minimal Degradation Alternative are included as Figure 5 in Appendix B of the Section 401 Application.

Please let me know if you have any questions regarding this submittal or questions during your review. I can be reached at 216.776.6612 or via email at dewwhite@mbakerintl.com. Thank you in advance for your consideration of this matter.

Sincerely,

MICHAEL BAKER JR., INC.



Debra E. White
Project Manager

Enclosures

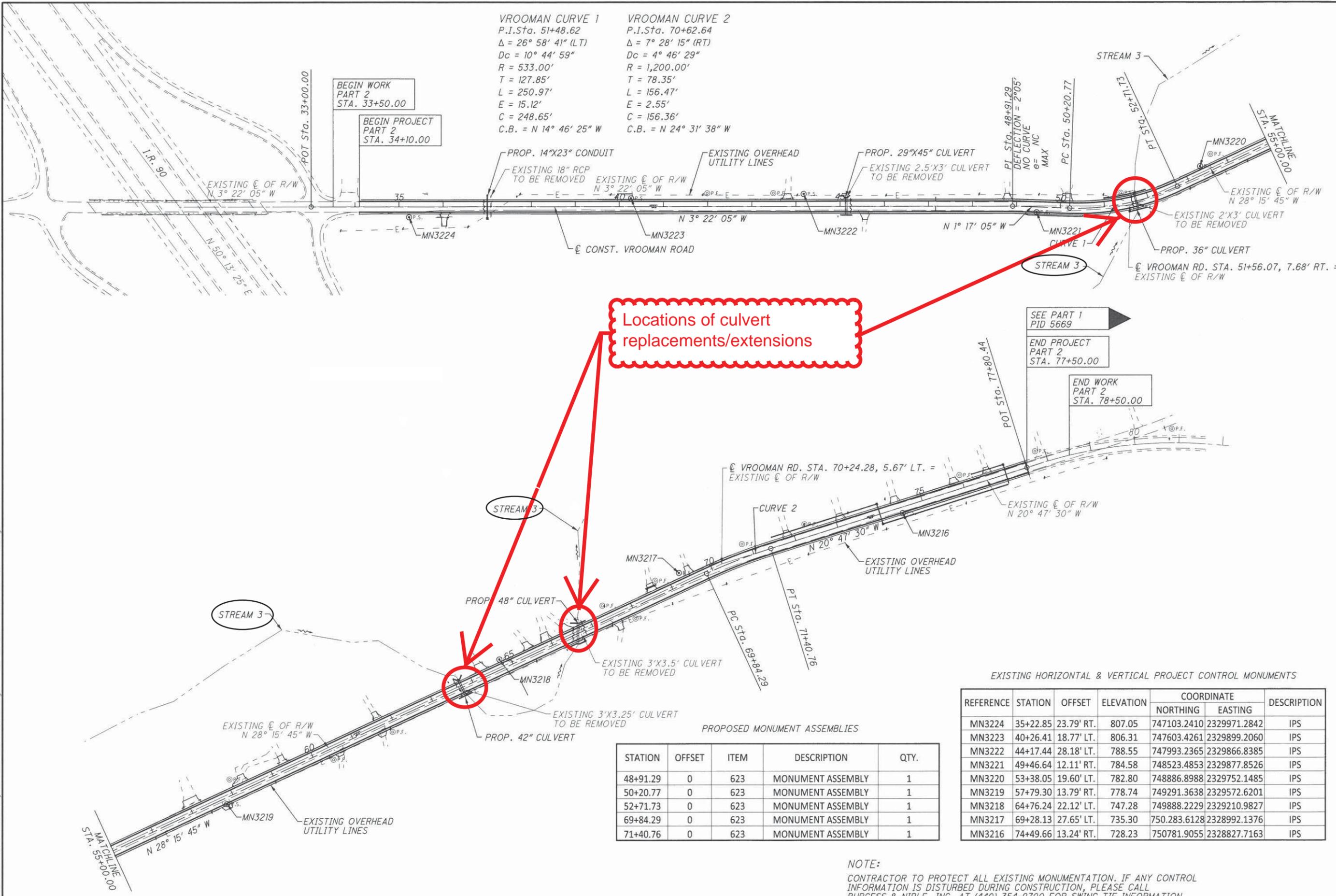
cc: James R. Gills, Lake County Engineer's Office
Chantelle Carroll, USACE Orwell Field Office
Rick Queen, Ohio EPA
T. Sorge, ODOT
L. Ciborek, Baker

Drawings

P:\PR52085\ok\85131\roadway\sheet\85131G001.dgn 10/10/2014 10:04:40 AM burger

VROOMAN CURVE 1
 P.I.Sta. 51+48.62
 $\Delta = 26^\circ 58' 41''$ (LT)
 $Dc = 10^\circ 44' 59''$
 $R = 533.00'$
 $T = 127.85'$
 $L = 250.97'$
 $E = 15.12'$
 $C = 248.65'$
 C.B. = N 14° 46' 25" W

VROOMAN CURVE 2
 P.I.Sta. 70+62.64
 $\Delta = 7^\circ 28' 15''$ (RT)
 $Dc = 4^\circ 46' 29''$
 $R = 1,200.00'$
 $T = 78.35'$
 $L = 156.47'$
 $E = 2.55'$
 $C = 156.36'$
 C.B. = N 24° 31' 38" W



Locations of culvert replacements/extensions

SEE PART 1
PID 5669

END PROJECT
PART 2
STA. 77+50.00

END WORK
PART 2
STA. 78+50.00

EXISTING HORIZONTAL & VERTICAL PROJECT CONTROL MONUMENTS

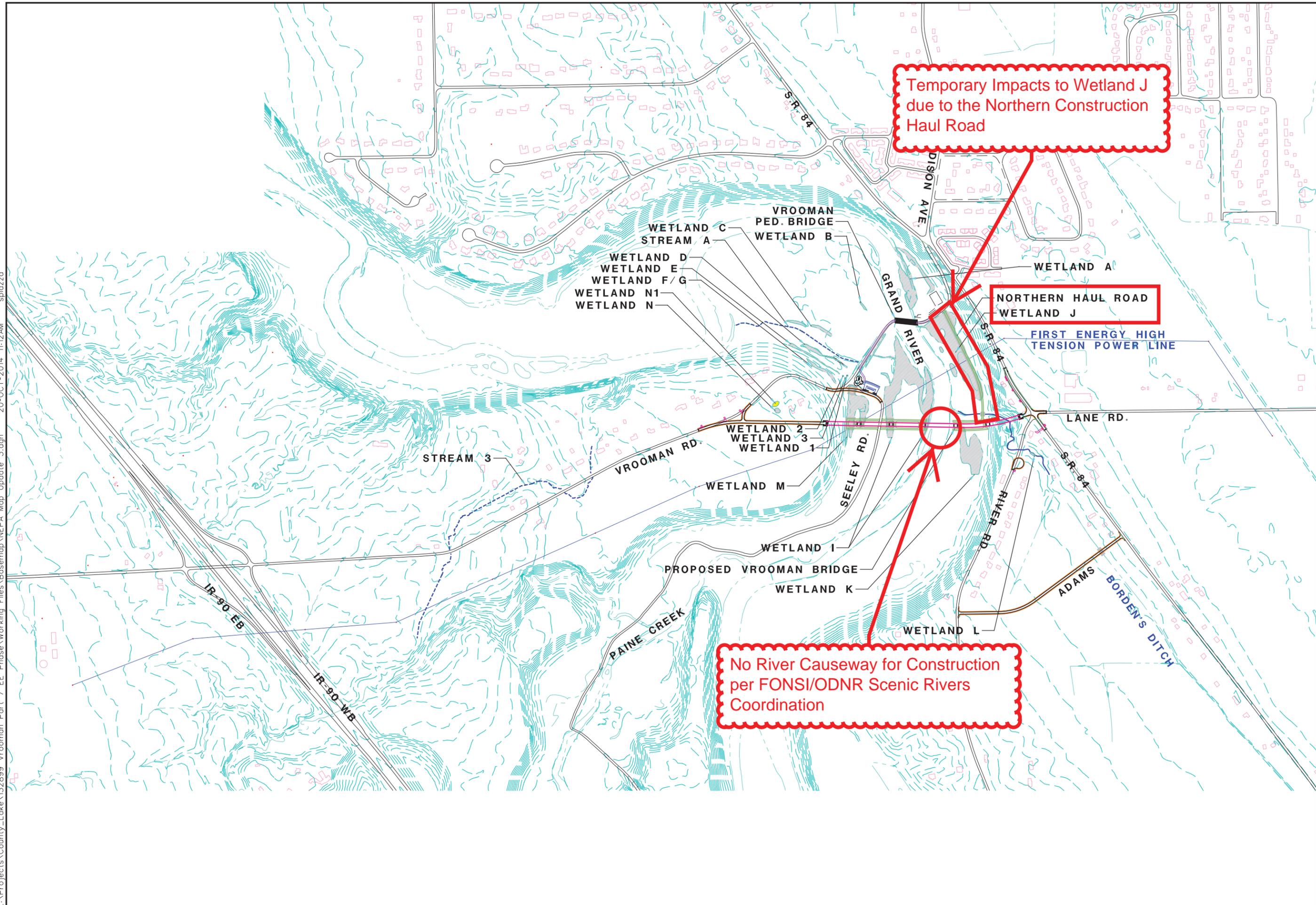
REFERENCE	STATION	OFFSET	ELEVATION	COORDINATE		DESCRIPTION
				NORTHING	EASTING	
MN3224	35+22.85	23.79' RT.	807.05	747103.2410	2329971.2842	IPS
MN3223	40+26.41	18.77' LT.	806.31	747603.4261	2329899.2060	IPS
MN3222	44+17.44	28.18' LT.	788.55	747993.2365	2329866.8385	IPS
MN3221	49+46.64	12.11' RT.	784.58	748523.4853	2329877.8526	IPS
MN3220	53+38.05	19.60' LT.	782.80	748886.8988	2329752.1485	IPS
MN3219	57+79.30	13.79' RT.	778.74	749291.3638	2329572.6201	IPS
MN3218	64+76.24	22.12' LT.	747.28	749888.2229	2329210.9827	IPS
MN3217	69+28.13	27.65' LT.	735.30	750.283.6128	2328992.1376	IPS
MN3216	74+49.66	13.24' RT.	728.23	750781.9055	2328827.7163	IPS

PROPOSED MONUMENT ASSEMBLIES

STATION	OFFSET	ITEM	DESCRIPTION	QTY.
48+91.29	0	623	MONUMENT ASSEMBLY	1
50+20.77	0	623	MONUMENT ASSEMBLY	1
52+71.73	0	623	MONUMENT ASSEMBLY	1
69+84.29	0	623	MONUMENT ASSEMBLY	1
71+40.76	0	623	MONUMENT ASSEMBLY	1

NOTE:
 CONTRACTOR TO PROTECT ALL EXISTING MONUMENTATION. IF ANY CONTROL INFORMATION IS DISTURBED DURING CONSTRUCTION, PLEASE CALL BURGESS & NIPLE, INC. AT (440) 354-9700 FOR SWING TIE INFORMATION. EXISTING PROJECT CONTROL SET BY T-K ENGINEERING.

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Temporary Impacts to Wetland J due to the Northern Construction Haul Road

NORTHERN HAUL ROAD
WETLAND J

No River Causeway for Construction per FONSI/ODNR Scenic Rivers Coordination

CALCULATED
SM
CHECKED
CBO

0 10 20
NO SCALE

N

PREFERRED ALTERNATIVE
PROJECT STUDY AREA

LAK-VROOMAN RD.

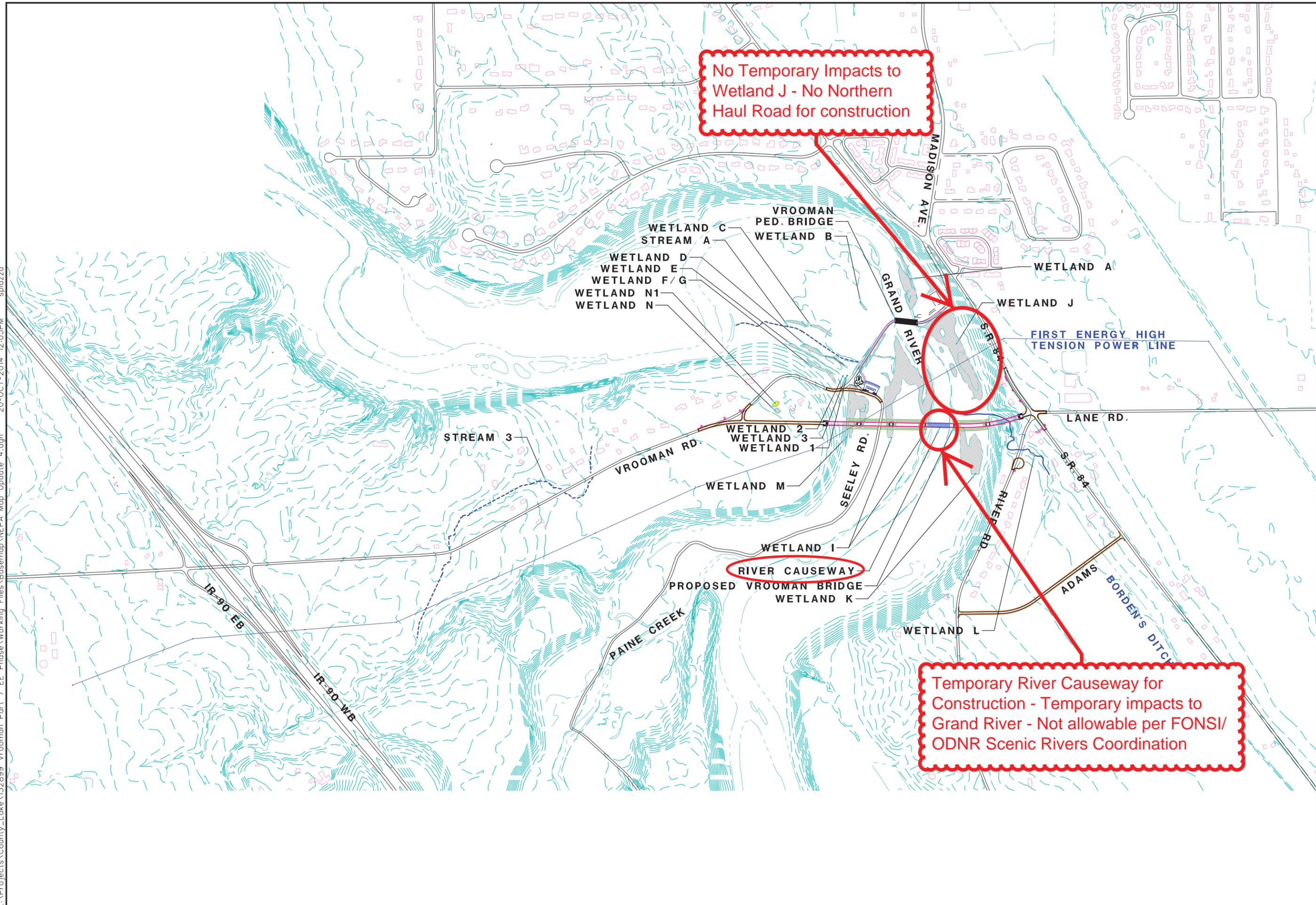
DWG NO.

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L:\Projects\County_Lake\132899_Vrooman Part 7 EE_Phase\Working Files\Bosemap\NEPA Map Update 4.dgn 20-OCT-2014 12:05PM splozza

No Temporary Impacts to Wetland J - No Northern Haul Road for construction

Temporary River Causeway for Construction - Temporary impacts to Grand River - Not allowable per FONSI/ODNR Scenic Rivers Coordination



CALCULATED
SM
CHECKED
CBO

NO SCALE

MINIMUM DEGRADATION ALTERNATIVE PROJECT STUDY AREA

LAK-VROOMAN RD.

DWG NO.