

Information for File #2014-04398-BGO

Applicant: Lincoln County Highway Department

Corps Contact: Benjamin Orne

Address: 180 Fifth Street East, Suite 700, St. Paul, Minnesota 55101-1678

E-Mail: benjamin.g.orne@usace.army.mil

Phone: (651) 290-5280

Project Location: S 1/2 Sec. 30 and N 1/2 Sec. 31, T. 109N., R. 45W. and S 1/2 Sec. 25, SE 1/4 Sec. 26, NE 1/4 Sec. 35, and N 1/2 Sec. 36, T. 109N., R. 46W., Lincoln County, Minnesota.

Information Complete On: January 20, 2015

Posting Expires On: January 30, 2015

Authorization Type: LOP-05-MN

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 below.

Project Description:

The Lincoln County Highway Department proposes to discharge dredged or fill material into 3,028 square feet of sedge meadow (Type 2) wetlands, 9,669 square feet of fresh (wet) meadow (Type 2) wetlands, 13,857 square feet of shallow marsh (Type 3) wetlands, and below the plane of the ordinary high water mark along 68 linear feet (1,360 square feet) of Flandreau Creek. The work will be conducted in association with the reconstruction of an approximately 2.48-mile segment of County State Aid Highway 9, including the replacement of 2-lines of 60-inch RCP culvert with 1-line of 10-foot by 5-foot RCB culvert with end sections and riprap protection at the Flandreau Creek crossing (SAP 041-609-016).

The existing facility does not meet current design standards and has several infrastructure (poor pavement) and geometric deficiencies (sight distance, narrow shoulders and steep inslopes). The proposed improvement work would widen the existing road surface to 12-foot-wide paved driving lanes and 5-foot-wide aggregate shoulders. The minimum design standard for shoulders on this roadway is 4 feet wide. However, 5-foot-wide shoulders are being proposed to provide additional width for large agricultural equipment and to accommodate for future pavement overlay.

Federally Listed Threatened and Endangered Species

According to the USFWS Midwest Region website, which was checked on January 13, 2015, the Topeka shiner (endangered), Dakota skipper (threatened), Poweshiek skipperling (endangered), and Western prairie fringed orchid (threatened) are found in Lincoln County,

Minnesota. Flandreau Creek is identified as critical habitat for the Topeka shiner. The project area is also located within the designated critical habitat (Minnesota Unit 7) for the Dakota skipper and Poweshiek skipperling.

Historic Properties

The latest version of the National Register of Historic Places has been consulted and no listed properties (known to be eligible for inclusion, or included in the Register) are located in the project area.

State Listed Impaired (Section 303(d)) Waters

According to the Minnesota Pollution Control Agency's Impaired Waters Viewer, which was checked on January 20, 2015, there are no state listed impaired waters located within 1-mile of the project area.

Mitigation

The applicant proposes to satisfy wetland compensatory mitigation requirements by debiting wetland credits from a Corps-approved, Board of Water and Soil Resources Local Government Roads Wetland Replacement Program mitigation bank.

Drawings

See attached MVP-2014-04398-BGO, Page 1 of 12 through Page 12 of 12.

MINNESOTA DEPARTMENT OF TRANSPORTATION

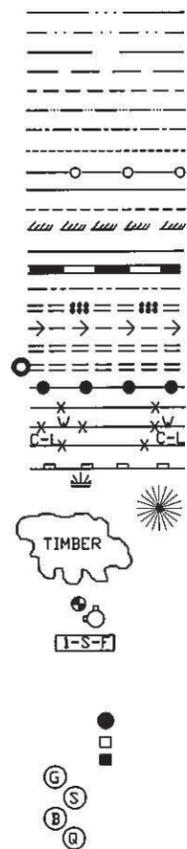
LINCOLN COUNTY

CONSTRUCTION PLAN FOR _____ GRADING, BRIDGE REPLACEMENT, CULVERTS, AND AGGREGATE BASE

LOCATED ON C.S.A.H. 9 BETWEEN INTERSECTION OF CENTER ST./C.R. 129 AND THE INTERSECTION OF U.S. HIGHWAY 75 (Geographic description)
 FROM A POINT 335.0' EAST AND 1048.3' SOUTH OF THE N1/4 CORNER OF SECT. 35-T109N-R46W
 TO A POINT 761.1' WEST AND 7.5' SOUTH OF THE NE CORNER OF SECT. 31-T109N-R45W (Legal description)

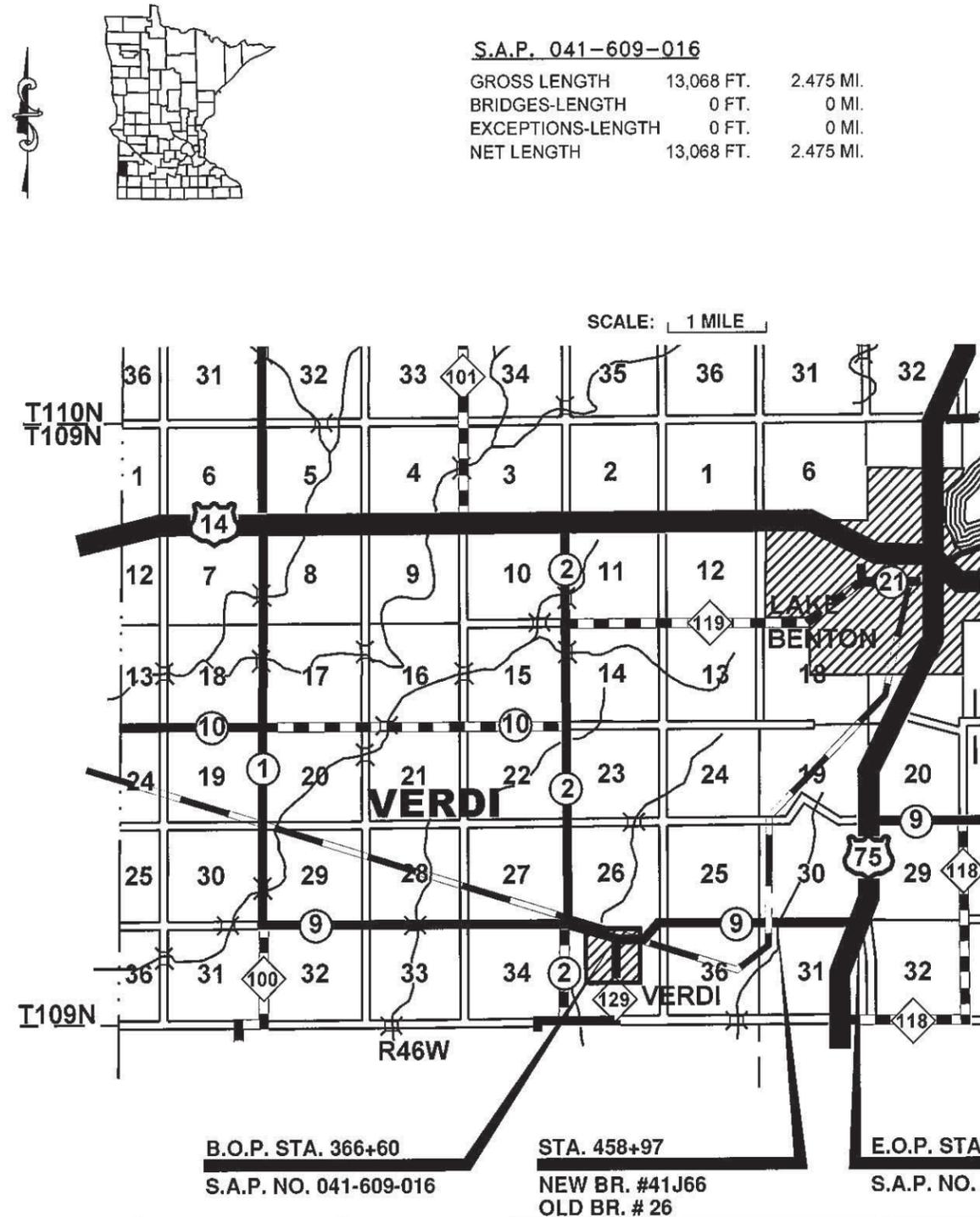
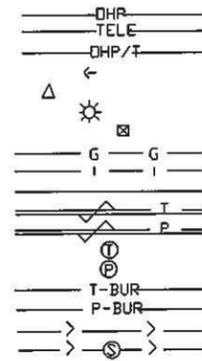
PLANS SYMBOLS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- PRESENT ROW
- NEW ROW
- TEMPORARY EASEMENT
- CONTROL OF ACCESS LINE
- PROPERTY LINES
- VACATED PLATTED PROPERTY
- CORPORATE OR CITY LIMITS
- RETAINING WALL
- RAILROAD
- RAILROAD RIGHT-OF-WAY
- DRAINAGE DITCH
- DRAIN TILE
- CULVERT
- DROP INLET
- GUARD RAIL
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SNOW FENCE
- SWAMP
- TREE
- TIMBER
- ORCHARD
- BRUSH
- NURSERY
- CATCH BASIN
- FIRE HYDRANT
- BUILDING (ONE STORY FRAME)
- F - FRAME C - CONCRETE
- S - STONE T - TILE
- B - BRICK ST - STUCCO
- IRON PIPE OR ROD
- MONUMENT (STONE, CONC. OR METAL)
- WOODEN HUB
- GRAVEL PIT
- SAND PIT
- BORROW PIT
- ROCK QUARRY



UTILITIES SYMBOLS

- POWER POLE LINE
- TELEPHONE LINE
- JOINT TELEPHONE AND POWER LINE
- ANCHOR
- STEEL TOWER
- STREET LIGHT
- PEDESTAL (TELEPHONE CABLE TERMINAL)
- GAS MAIN
- WATER MAIN
- CONDUIT
- TELEPHONE CABLE IN CONDUIT
- ELECTRIC CABLE IN CONDUIT
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- BURIED TELEPHONE CABLE
- BURIED TELEPHONE CABLE
- SEWER (SANITARY OR STORM)
- SEWER MANHOLE



S.A.P. 041-609-016

| | | |
|-------------------|------------|-----------|
| GROSS LENGTH | 13,068 FT. | 2.475 MI. |
| BRIDGES-LENGTH | 0 FT. | 0 MI. |
| EXCEPTIONS-LENGTH | 0 FT. | 0 MI. |
| NET LENGTH | 13,068 FT. | 2.475 MI. |

FEDERAL PROJECT NO. _____

SPECIFICATIONS

THE 2014 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE 2014 EDITION OF THE "MATERIALS LAB SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

INDEX

- 1.) TITLE SHEET
- 2-3.) ESTIMATED QUANTITIES & TYPICAL SECTIONS
- 4.) QUANTITY TABLES / STANDARD PLATES
- 5-6.) EARTHWORK QUANTITIES
- 7-8.) CULVERT / TILE LOCATIONS
- 9-11.) TYPICAL SECTIONS
- 12.) ALIGNMENT TABULATION
- 13-14.) TRAFFIC CONTROL PLAN
- 15-16.) EROSION CONTROL & CULVERT DETAILS
- 17-23.) BRIDGE DETAILS (BR. #41J66)
- 24-29.) SEEDING TABLE / MAP
- 30-37.) EROSION CONTROL & FENCING TABLE / MAP
- 38.) STORM WATER POLLUTION PROTECTION PLAN (SWPPP)
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- 44-65.) CROSS SECTION SHEETS

DESIGN DESIGNATION

| | |
|----------------------------------|-------------------------------------|
| DESIGN | 10 TON |
| ADT (2015) | 188 |
| Proj. ADT (2035) | 206 |
| Proj. HCADT (2035) | 12 (6%) |
| Soil Factor | 130 % |
| R-VALUE | |
| FUNCTIONAL CLASSIFICATION | MAJOR COLLECTOR |
| NO. OF TRAFFIC LANES | 2 SHOULDER WIDTH 5.0 FT. |
| DESIGN SPEED | 55 MPH |
| BASED ON STOPPING SIGHT DISTANCE | |
| HEIGHT OF EYE | 3.5 FT. HEIGHT OF OBJECT 2.0 FT. |
| DESIGN SPEED NOT ACHIEVED AT: | |
| STA. 369+00 | TO STA. 377+00, DESIGN SPEED 45 MPH |
| STA. 442+00 | TO STA. 468+00, DESIGN SPEED 40 MPH |
| STA. 468+00 | TO STA. 495+00, DESIGN SPEED 45 MPH |

LOCAL AGENCY SIGNATURES:

Signature: _____ Typed or Printed Name: David J. Halbersma,
 Design Engineer: I hereby certify that this plan was prepared by me or
 under my direct supervision, and that I am a duly Licensed
 Professional Engineer under the laws of the State of Minnesota.

Date: _____

License Number 19952

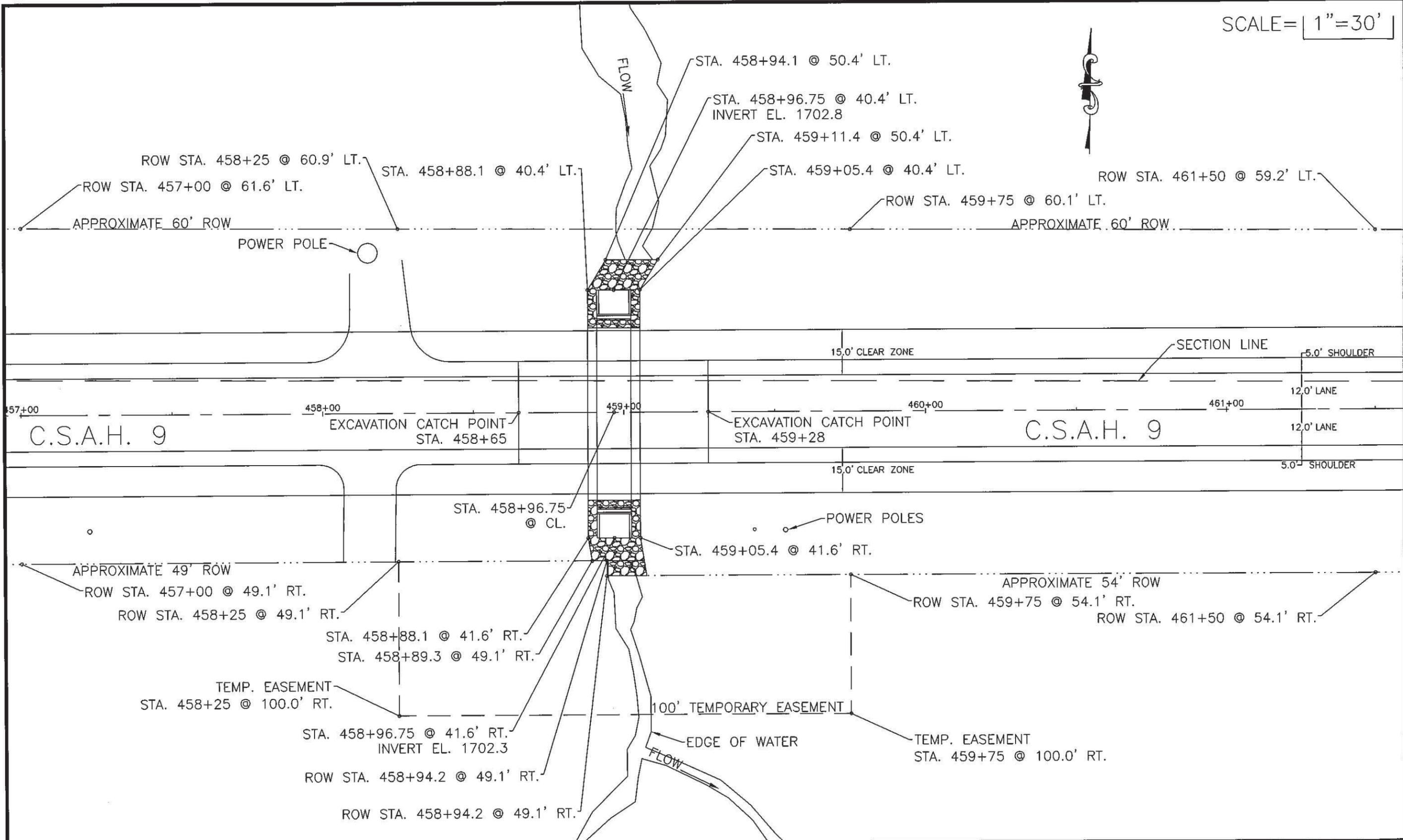
Approved: Lincoln County Engineer _____ Date: _____

District State-Aid Engineer: Reviewed for Compliance with State-Aid Rules/Policy _____ Date: _____

State-Aid Engineer: Approved for State Aid Funding _____ Date: _____

S.A.P. NO. 041-609-016 SHEET NO. 1 OF 65

SCALE = 1" = 30'



STAKEOUT

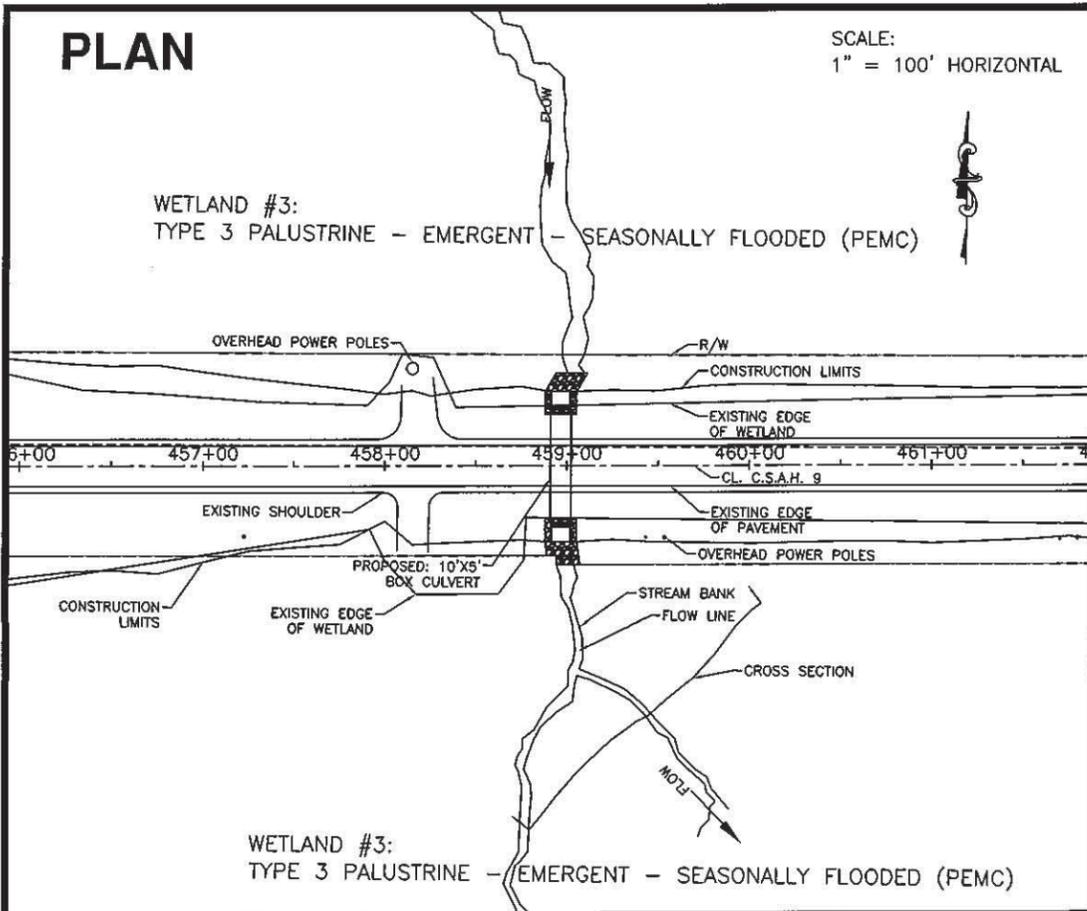
CERTIFIED BY _____ LIC. NO. 19952 DATE: _____
LICENSED ENGINEER

S.A.P. NO. 041-609-016 SHEET NO. 18 OF 65

DATE: 1-9-2015 MVP-2014-04398-BGO, Page 3 of 12

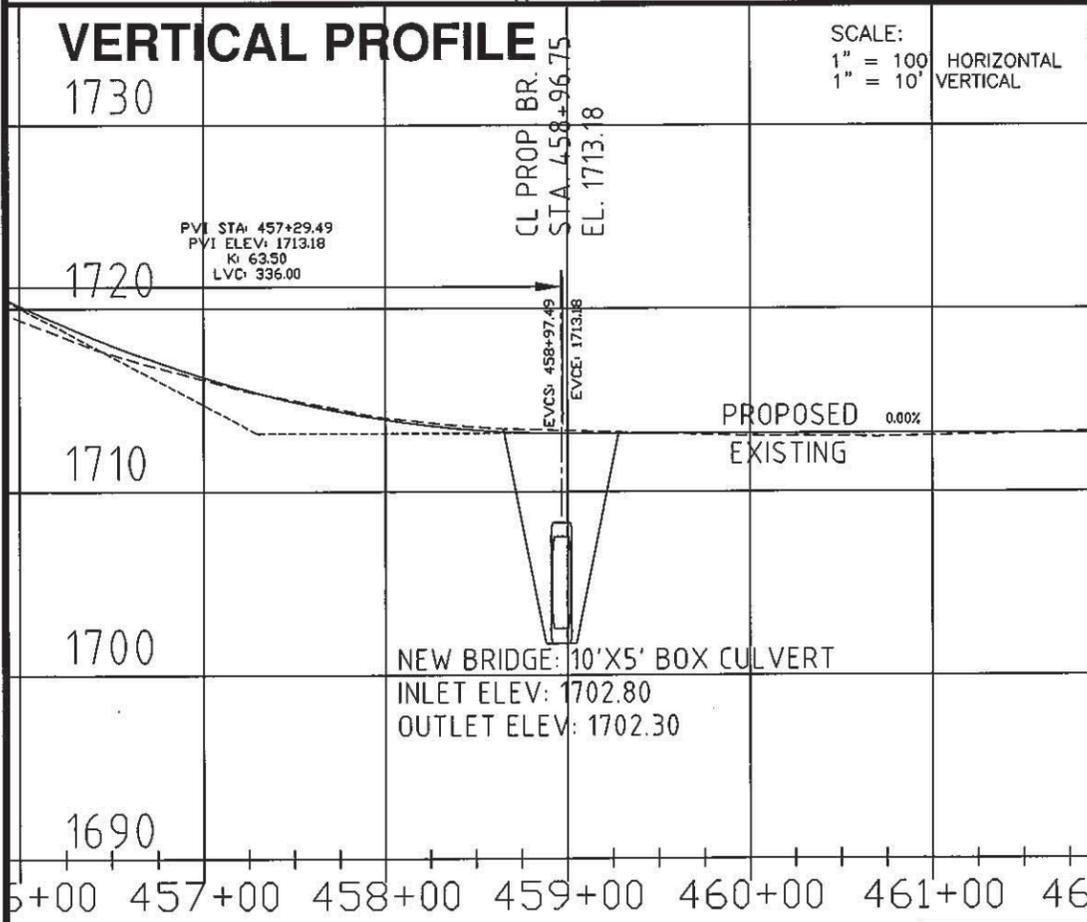
PLAN

SCALE:
1" = 100' HORIZONTAL



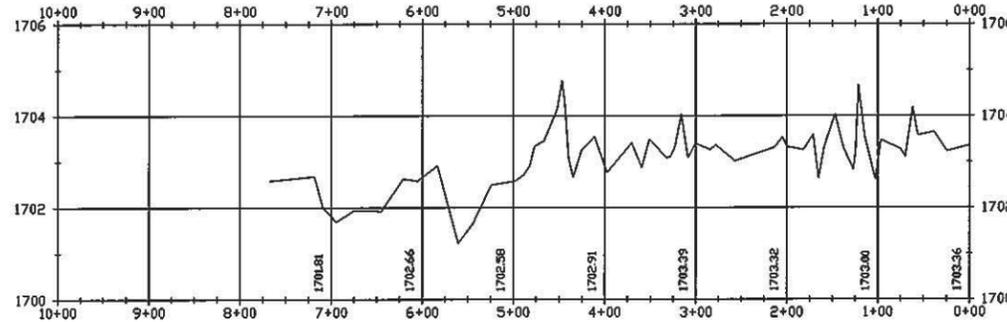
VERTICAL PROFILE

SCALE:
1" = 100' HORIZONTAL
1" = 10' VERTICAL



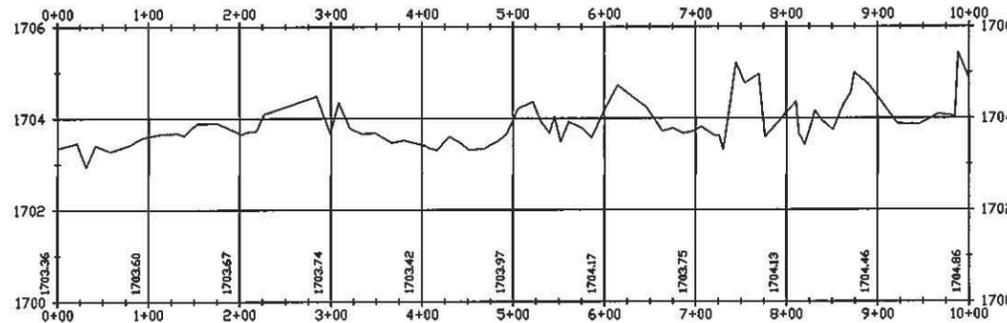
DOWNSTREAM PROFILE

SCALE:
1" = 200' HORIZONTAL
1" = 4' VERTICAL

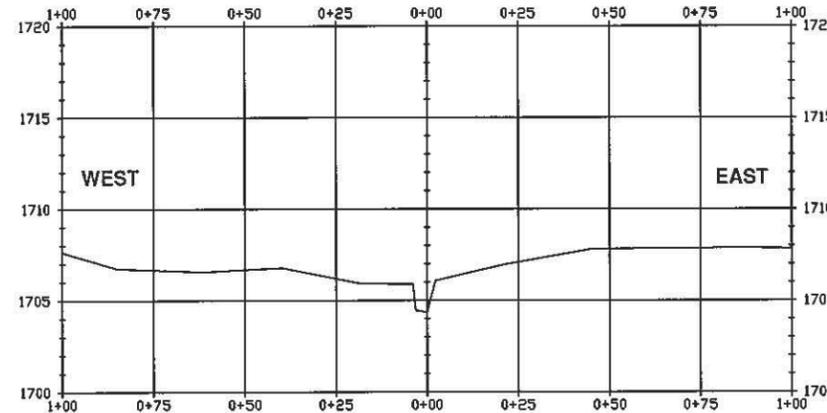


UPSTREAM PROFILE

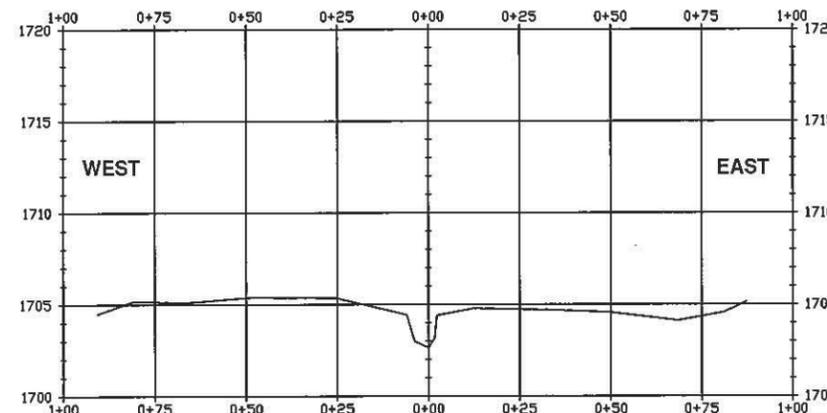
SCALE:
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1" = 4' VERTICAL



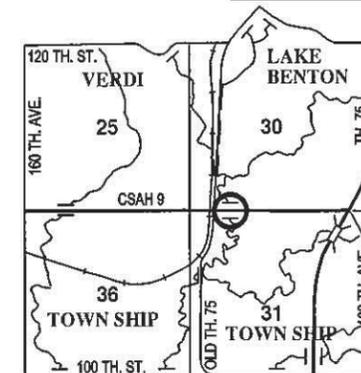
CROSS SECTION - UPSTREAM STA. -8+10



CROSS SECTION - DOWNSTREAM STA. 1+65



VICINITY MAP NO SCALE



FEDERAL PROJ. NO.

LOCATION ENGINEER'S OBSERVATION AT BRIDGE SITE

- SPECIAL FEATURES: WATERFALLS, DAMS, FLOODS, ICE DEBRIS, ETC...
NONE
- OTHER BRIDGES OR CULVERTS OVER THE SAME STREAM. GIVEN LOCATION, TYPE, ETC...
NONE
- APPARENT HIGH WATER ELEVATION ? OBTAINED FROM UNKNOWN
- OTHER DATA: APPROX. VELOCITY OF WATER AT TIME OF SURVEY UNKNOWN

HYDRAULIC ENGINEER'S RECOMMENDATION

DATE: 12-5-2014

STREAM OR DITCH DESIGNATION FLANDREAU CREEK

DRAINAGE AREA 7.5 SQ.MI.

MAX. FLOOD ON RECORD ? DESIGN FLOOD (25 YR. FREQ.) 1020 CFS

MAX. OBSERVED HIGHWATER ELEV. ? DESIGN HIGHWATER ELEV. 1707.4

DESIGN MEAN VELOCITY THROUGH STRUCTURE 13.9 FPS (AVG.)

LOW SUPERSTRUCTURE AT OR ABOVE ELEVATION 1707.3

FLOWLINE ELEVATION 1702.8 TO 1702.3 SKEW ANGLE 0°

BASIC FLOOD (100 YR. FREQ.): 1650 CFS

GREATEST (500 YR. FREQ.) FLOOD: ? CFS

ENGINEER'S RECOMMENDATION

1 LINE OF 10'X5' BOX CULVERT

BRIDGE SURVEY SHEETS MADE FROM LINCOLN COUNTY HIGHWAY DEPARTMENT SURVEY

BENCHMARK ELEVATION 1765.55

LOCATION PICARD MNDT, 0.05 MI. NORTH OF THE INTERSECTION OF C.S.A.H. 2 AND C.S.A.H. 9

STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION

BRIDGE SURVEY

AT STATION 458+97 ON C.S.A.H. 9

PROPOSED BRIDGE LOCATION 0.73 MILES WEST OF INTERSECTION OF C.S.A.H. 9 AND U.S. HIGHWAY 75

SEC. 30&31 TWP. 109N RING. 45W

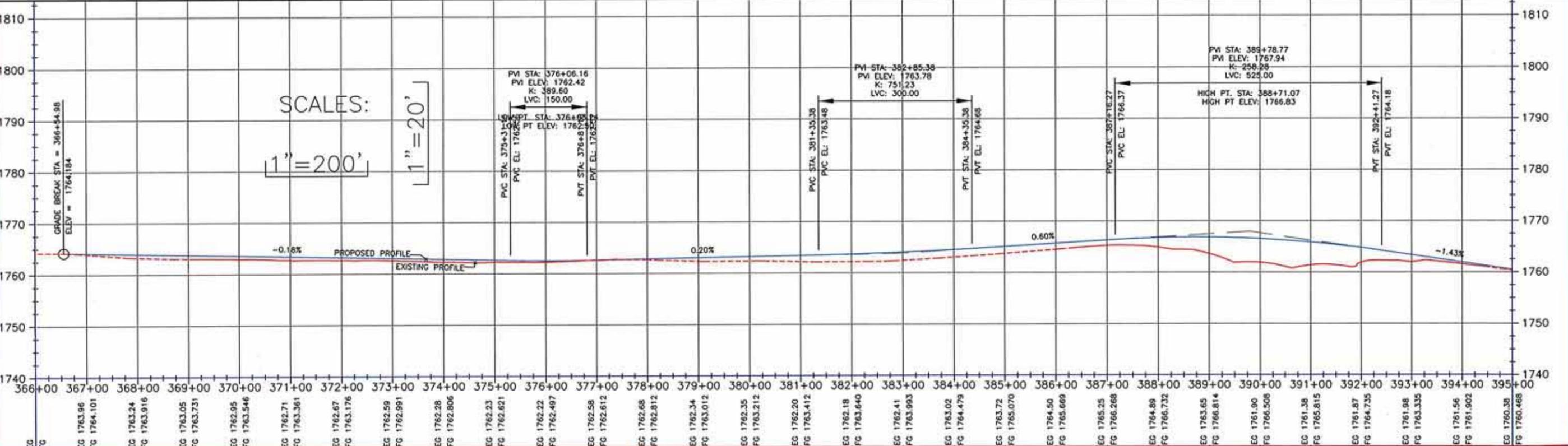
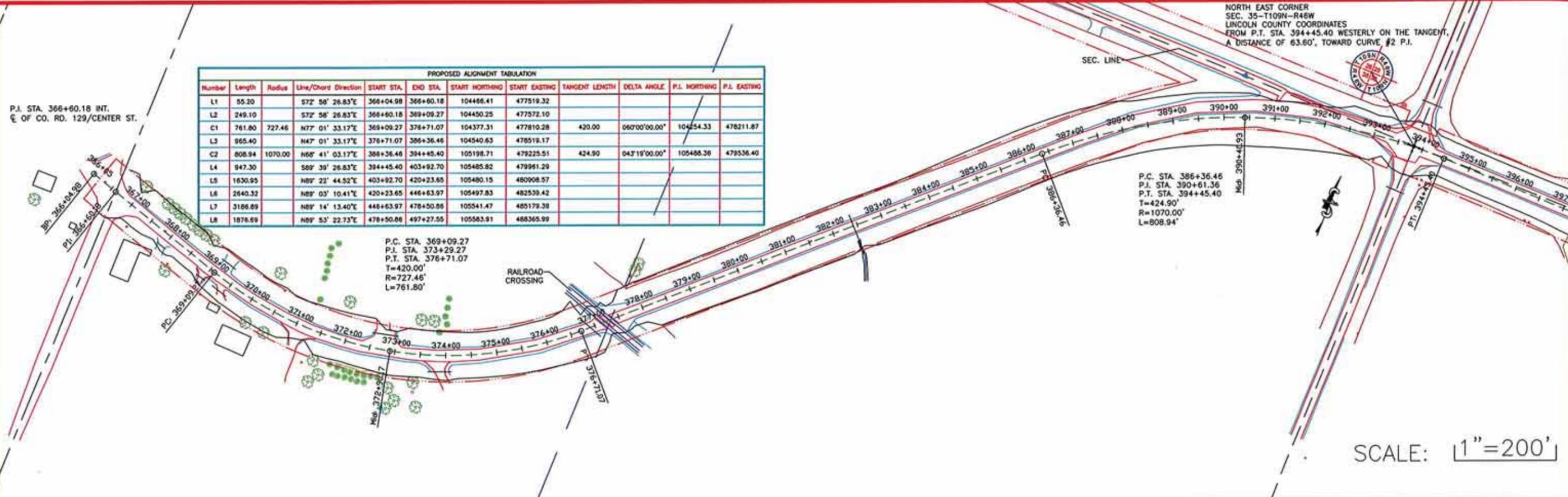
TOWNSHIP: LAKE BENTON COUNTY: LINCOLN

EXISTING BRIDGE NO. 26

PROPOSED BRIDGE NO. 41J66

CERTIFIED BY _____ LIC. NO. 19952 DATE: _____
LICENSED ENGINEER

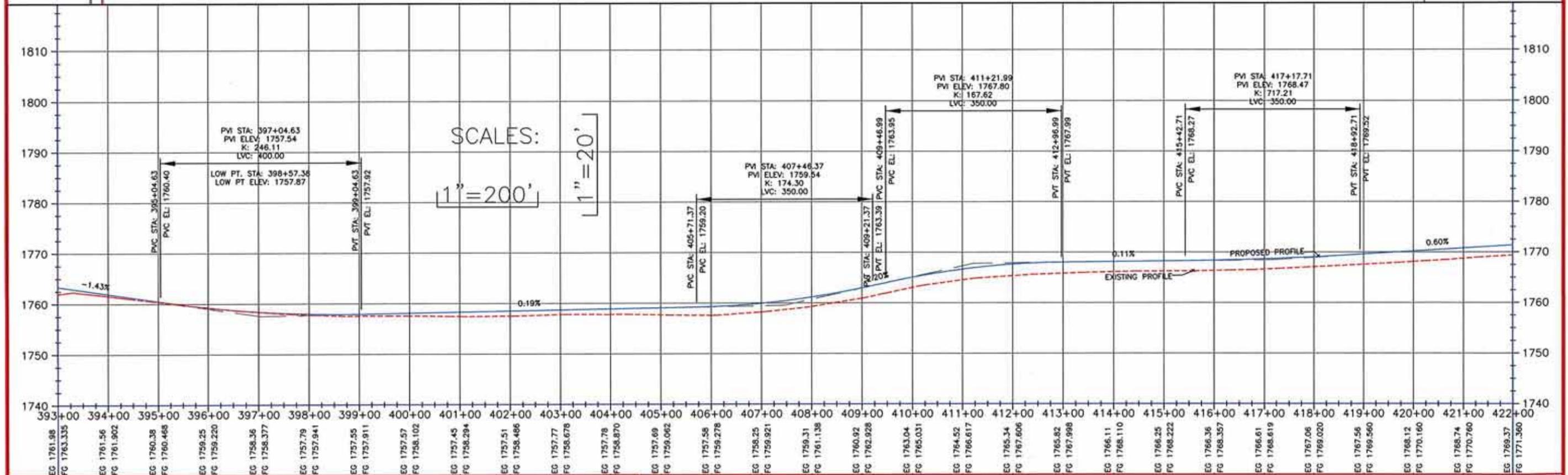
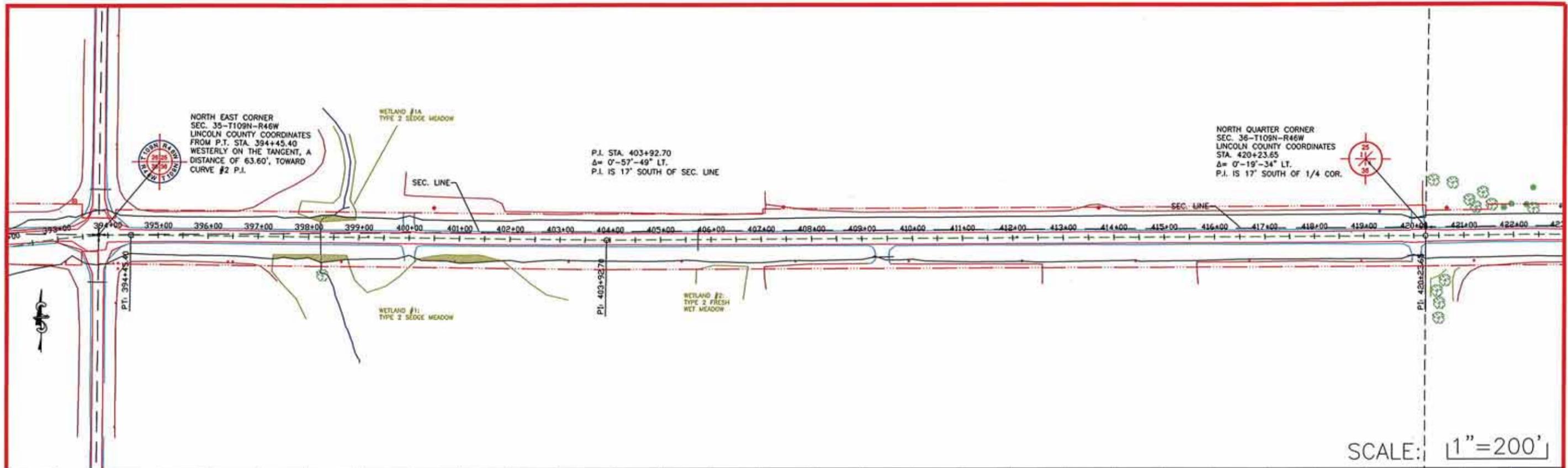
S.A.P. NO. 041-609-016 SHEET NO. 23 OF 65



PLAN & PROFILE

CERTIFIED BY _____ LIC. NO. 19952 DATE: _____
 LICENSED ENGINEER

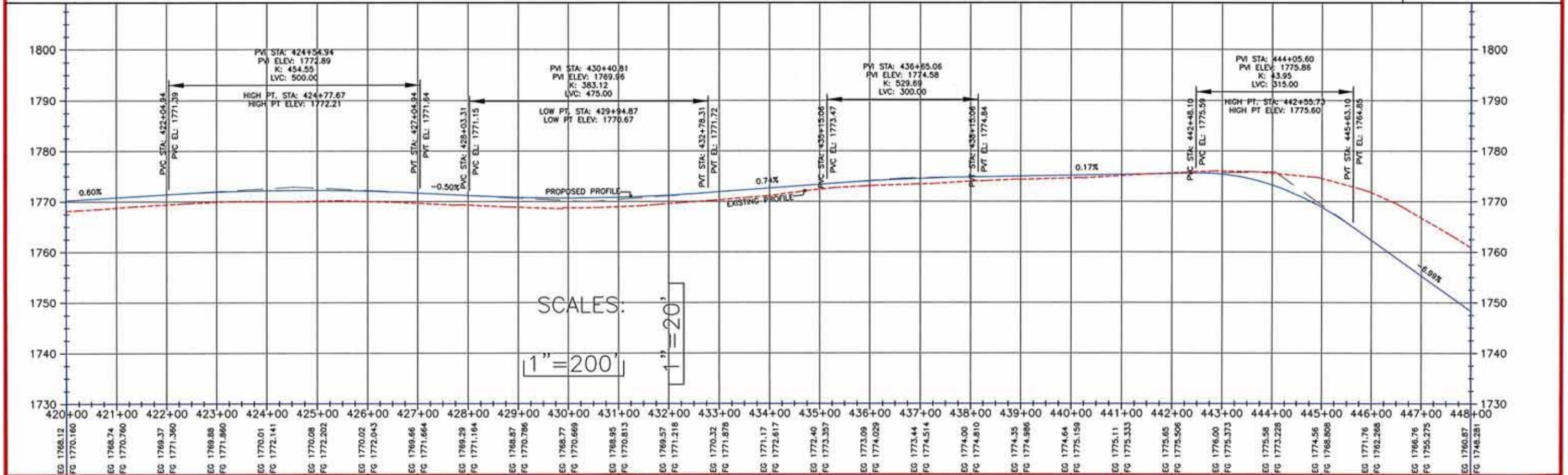
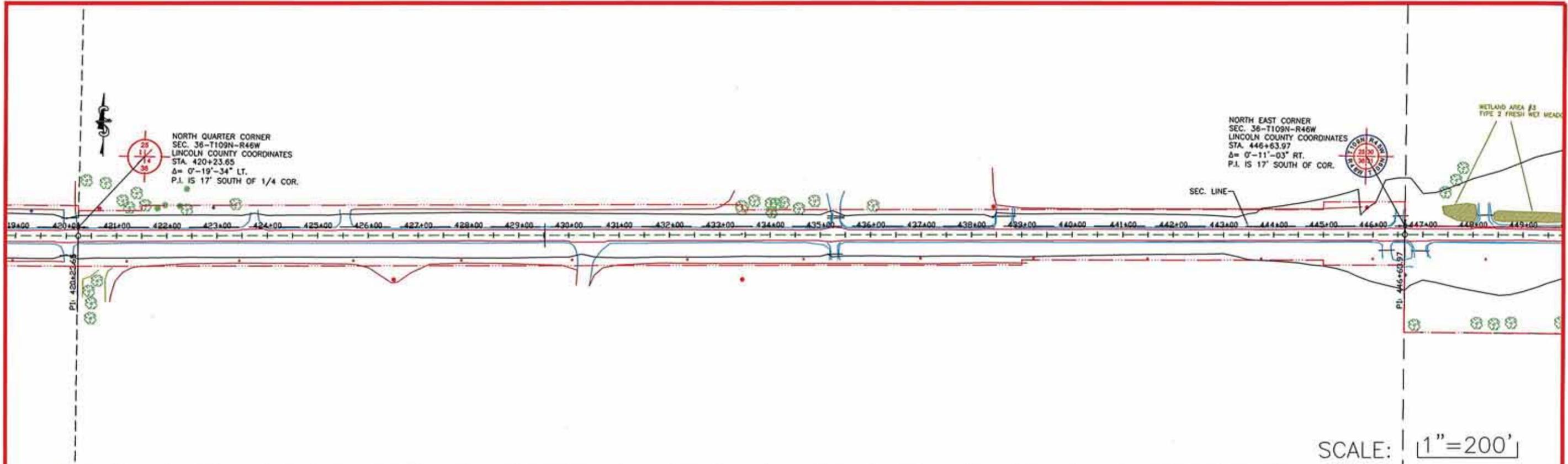
S.A.P. NO. 041-609-016 SHEET NO. 1 OF 5



PLAN & PROFILE

CERTIFIED BY _____ LIC. NO. 19952 DATE: _____
LICENSED ENGINEER

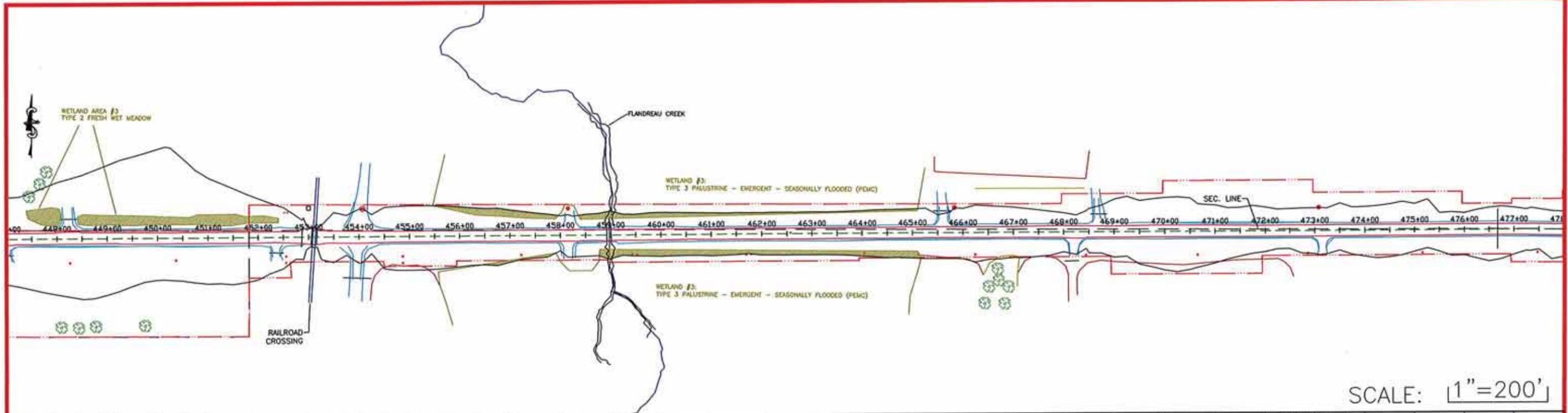
S.A.P. NO. 041-609-016 SHEET NO. 2 OF 5



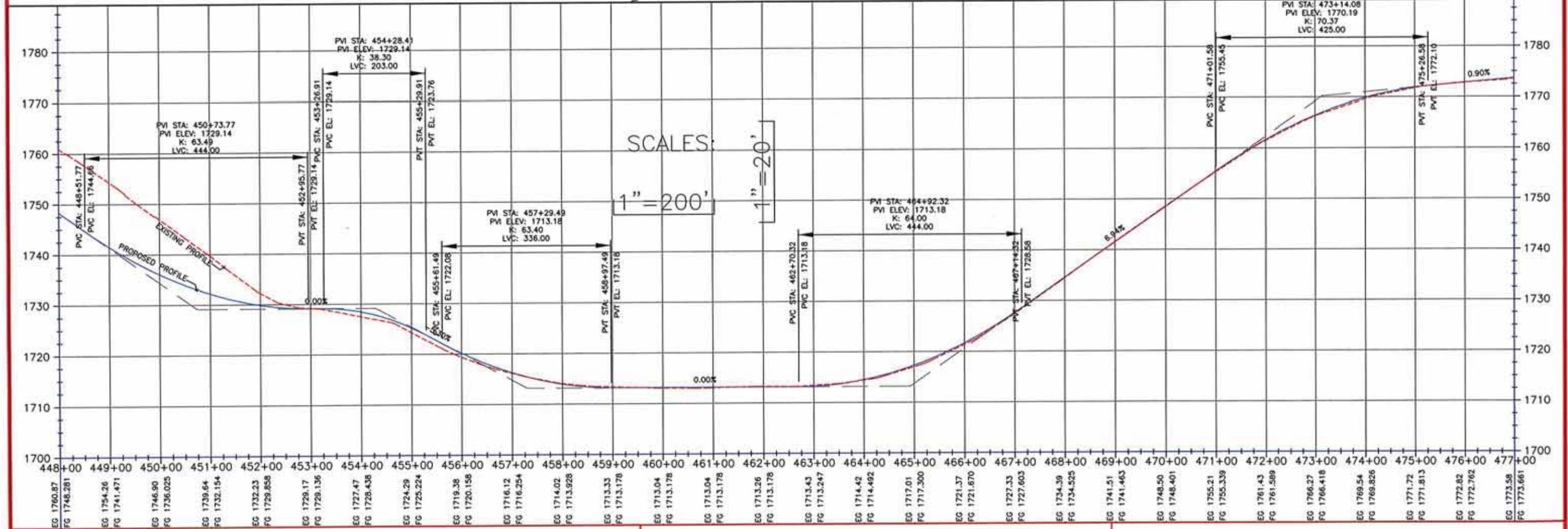
PLAN & PROFILE

CERTIFIED BY _____ LIC. NO. 19952 DATE: _____
LICENSED ENGINEER

S.A.P. NO. 041-609-016 SHEET NO. 3 OF 5



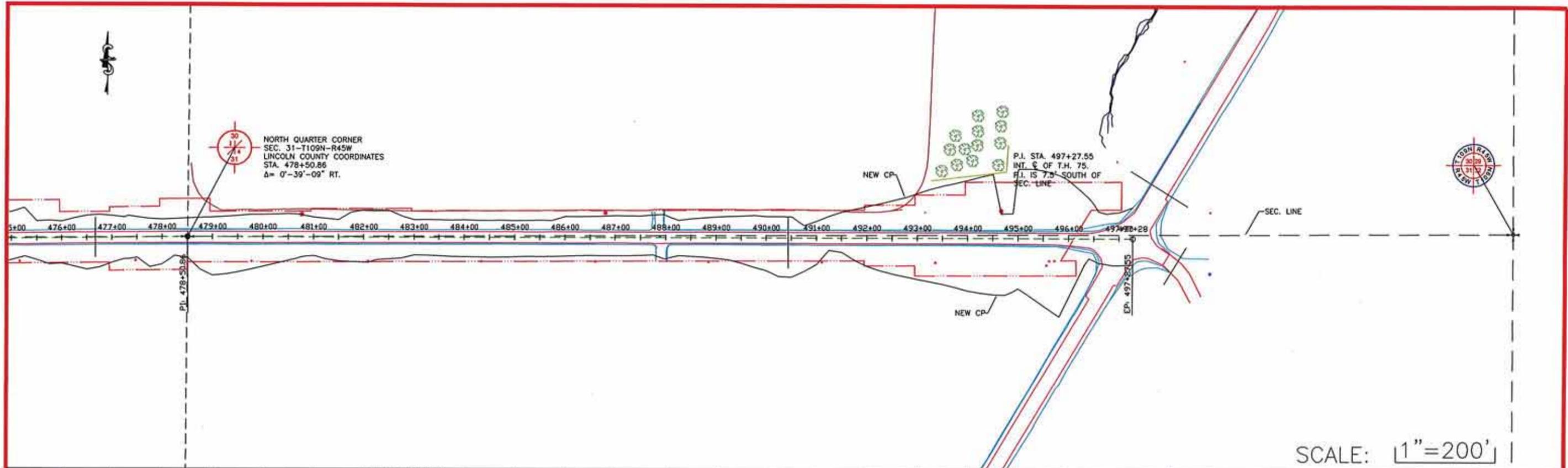
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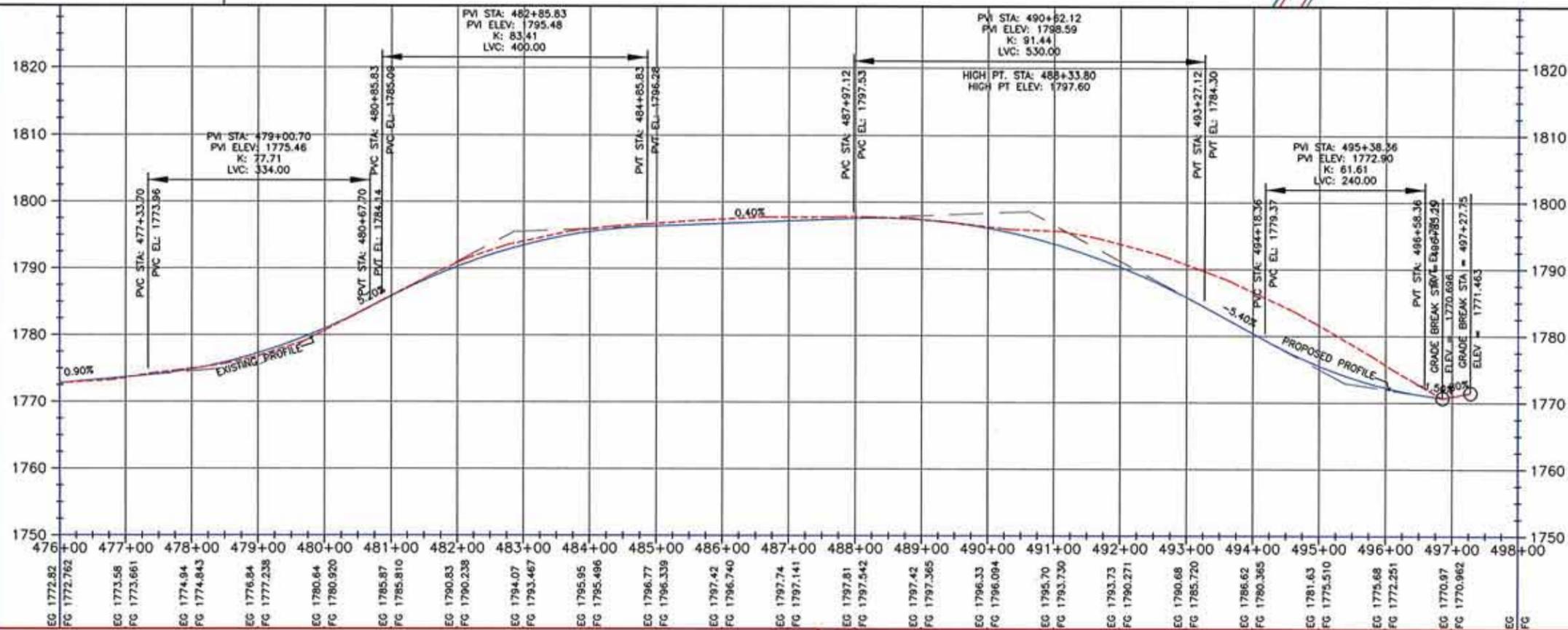
PLAN & PROFILE

CERTIFIED BY _____ LIC. NO. 19952 DATE: _____
LICENSED ENGINEER

S.A.P. NO. 041-609-016 SHEET NO. 4 OF 5



SCALE: 1"=200'

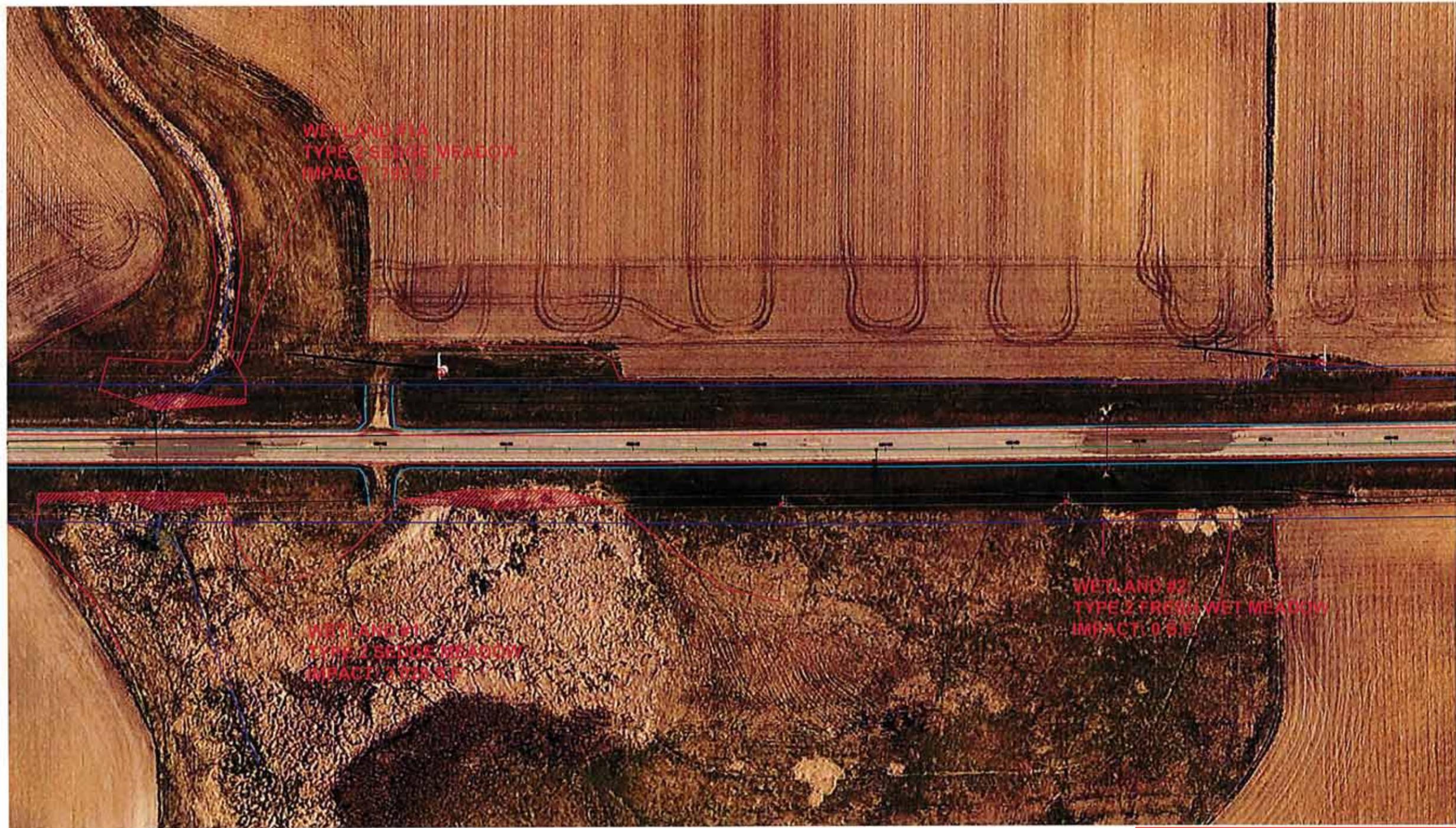


SCALES:
1"=200'
1"=20'

PLAN & PROFILE

CERTIFIED BY _____ LIC. NO. 19952 DATE: _____
LICENSED ENGINEER

S.A.P. NO. 041-609-016 SHEET NO. 5 OF 5

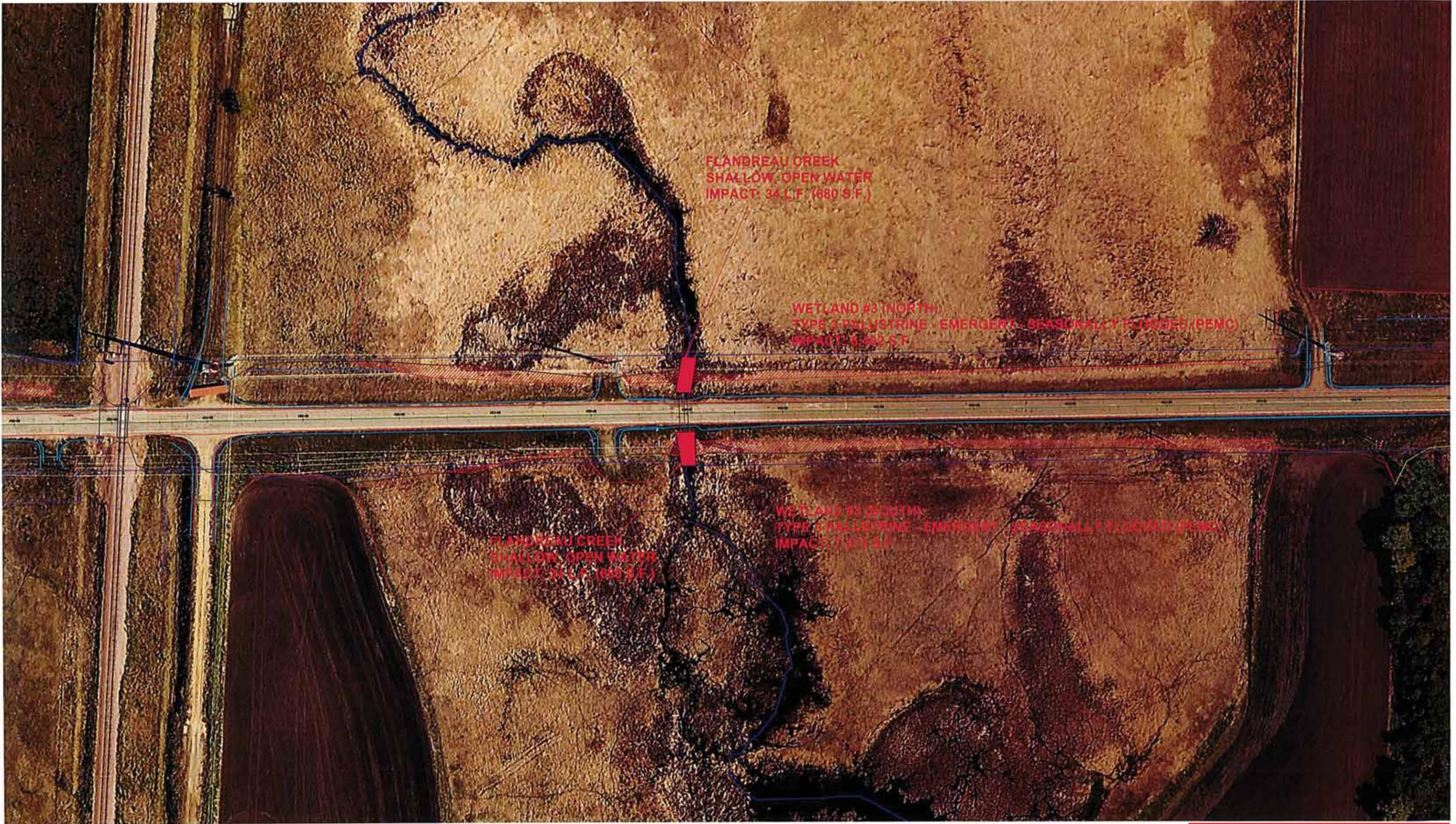


WETLAND #1A
TYPE 2 SEDGE MEADOW
IMPACT: 799 S.F.

WETLAND #1
TYPE 2 SEDGE MEADOW
IMPACT: 1,118 S.F.

WETLAND #2
TYPE 2 FRESH WET MEADOW
IMPACT: 0 S.F.

WETLAND AREA #3
TYPE 2 FRESH WET MEADOW
IMPACT: 8,877 S.F.



FLANDREAU CREEK
SHALLOW OPEN WATER
IMPACT: 34 L.F. (680 S.F.)

WETLAND #3 (NORTH)
TYPE 3 PULVSTRINE - EMERGENT - SEASONALLY FLOODED (PEM)
IMPACT: 6,983 S.F.

FLANDREAU CREEK
SHALLOW OPEN WATER
IMPACT: 34 L.F. (680 S.F.)

WETLAND #3 (SOUTH)
TYPE 3 PULVSTRINE - EMERGENT - SEASONALLY FLOODED (PEM)
IMPACT: 7,375 S.F.