

**DESIGN DATA**

2007 AND CURRENT INTERIM A.A.S.H.T.O. LRFD DESIGN SPECIFICATIONS AND A.A.S.H.T.O. SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES.

LRFD METHOD  
85 psf LOADING

TIMBER MATERIALS INSTALLED SHALL COMPLY WITH OR EXCEED THE FOLLOWING SCHEDULE:

ITEM	DESCRIPTION
STRINGERS	DOUGLAS FIR, SELECT STRUCTURAL FULL SAWN, Fb=1,450 P.S.I.
DECK PLANKING	DOUGLAS FIR, NO. 1 & BETTER, S4S, Fb=1,150 P.S.I.
RAIL POST & RAIL	SOUTHERN YELLOW PINE, NO. 2 OR BETTER, S4S TREATED .40 RETENTION, Fb=850 P.S.I.
PILE CAPS CURB, SCUPPER AND POST BLOCK	SOUTHERN YELLOW PINE, NO. 2 OR BETTER, FULL SAWN TREATED .60 RETENTION, Fb=850 P.S.I.
DIAPHRAGM & ABUTMENT TIMBER	DOUGLAS FIR, NO. 1 & BETTER, FULL SAWN, Fb=925 P.S.I.

DESIGN SPEED: OVER = 20 M.P.H.  
APPROXIMATE DECK AREA 13013 ft<sup>2</sup>.

**CONSTRUCTION NOTES**

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

CONSTRUCTION REQUIREMENTS SHALL CONFORM TO SPEC. 2403 EXCEPT AS NOTED IN SPECIAL PROVISIONS.

ALL DRILLING AND CUTTING OF TIMBER EXCEEDING 2" IN THICKNESS SHALL BE COMPLETED BEFORE PRESSURE TREATMENT UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

ALL HARDWARE, FASTENERS AND CLIPS ARE TO BE GALVANIZED PER SPEC. 3392.

FIELD VERIFY BEGINNING AND END BOARDWALK COORDINATES BEFORE CONSTRUCTION.

THE SUBSTRUCTURE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DUPLICATION OF EXISTING SUBSURFACE UTILITY DATA".

**LIST OF SHEETS**

B1	GENERAL PLAN & ELEVATION
B2 - B3	MISCELLANEOUS DETAILS
B4	RAILING ELEVATION & DETAILS
B5	DETAILS
B6	AS-BUILT BRIDGE DATA
B7	BRIDGE SURVEY
B8 - B11	BRIDGE SURVEY PLAN & PROFILE
B12	SOIL BORINGS

**ANOKA COUNTY**

**BRIDGE NO. 02579**

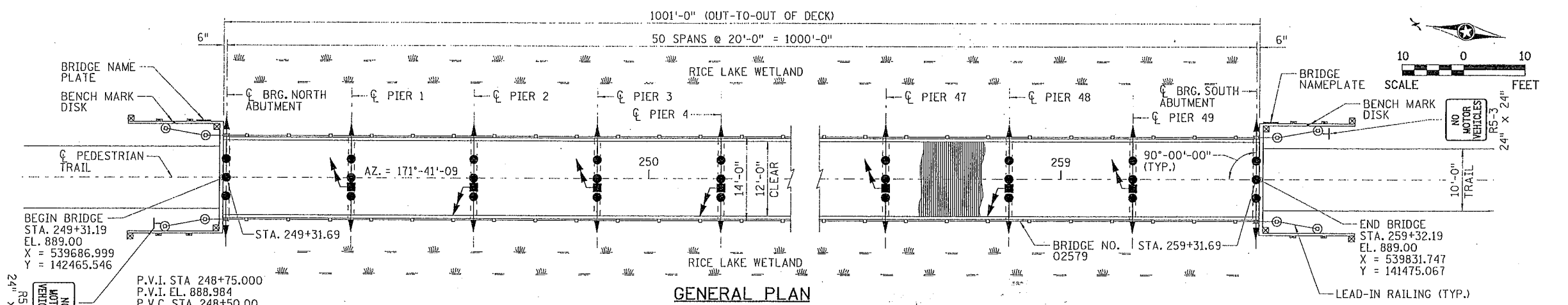
RICE CREEK REGIONAL TRAIL EXPANSION  
2.0 MILES SOUTH OF JCT. I-35W AND C.S.A.H. 23

TIMBER STRINGER:  
50'-20' SPANS  
13'-0" DECK  
BRIDGE I.D. NO. 701

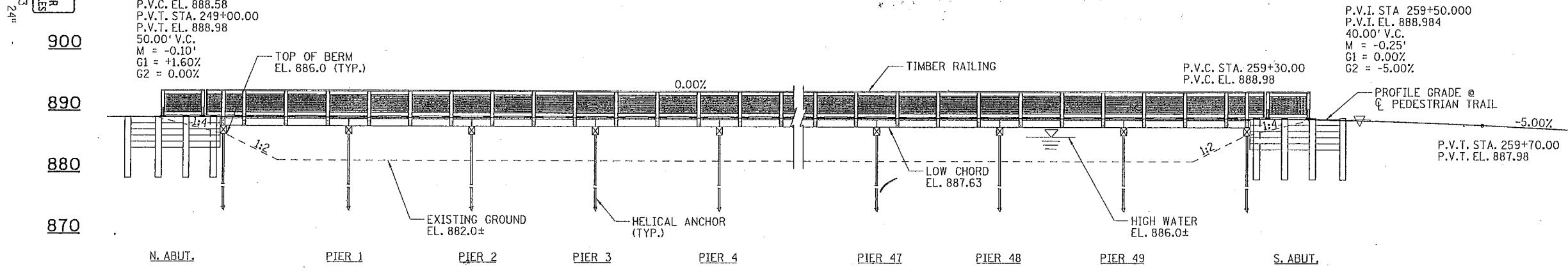
SEC. 29, T31N, R22W,  
ANOKA COUNTY

APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
ANOKA COUNTY ENGINEER

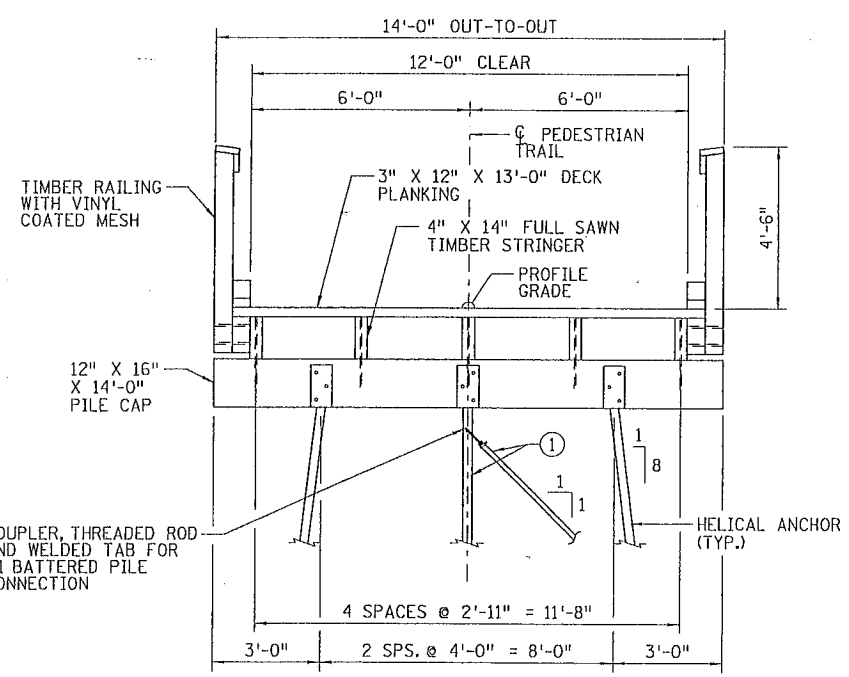
APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
STATE BRIDGE ENGINEER



**GENERAL PLAN**



**GENERAL ELEVATION**



**TYPICAL SECTION**

- NOTES:**
- HELICAL ANCHOR PILE. VERTICAL PILE WITH ATTACHED 1:1 BATTERED PILE SHOWN.
  - INCLUDES ALL PROPOSED TIMBER AND HARDWARE EXCLUDING RAILING AND DECKING.
  - QUANTITY IS BASED ON LENGTH OF ANCHORS FROM TOP CONNECTION POINT TO TIP OF THE LEAD SECTION, REGARDLESS OF ANCHOR SIZE/DIAMETER.

**SCHEDULE OF QUANTITIES FOR BRIDGE NO. 02579**

ITEM NO.	ITEM	UNIT	QUANTITY
2105.522	SELECT GRANULAR BORROW MOD. 10% (CV)	CU. YD.	34
2401.501	STRUCTURAL CONCRETE (1A43)	CU. YD.	3 (P)
2401.601	STRUCTURE EXCAVATION (TYPE A)	LUMP SUM	1
2403.502	TREATED TIMBER	M.B.M.	51
2403.603	TIMBER RAILING	LIN. FT.	2040 (P)
2403.608	TIMBER WALK	SQ. FT.	13013 (P)
2452.601	HELICAL ANCHOR PILING	LIN. FT.	6860
2564.531	SIGN PANEL TYPE C	SQ. FT.	8

**SIGN PANEL TYPE C TABULATION ④**

QUANT.	PANEL		SIGN CODE NO.	PANEL LEGEND	SIGN COLOR	MOUNTING HEIGHT
	SIZE (IN.)	SIZE (SQ. FT.)				
2	24x24	4	R5-3	NO VEHICLES	BLACK ON WHITE	4'

B.M. ELEVATION 929.32 (NAVD88)  
MNDOT DISK NO. 0280 G IN SOUTHEAST CORNER OF  
COUNTY ROAD 53 (SUNSET ROAD) BRIDGE 9831 OVER I35W

NO	DATE	BY	CKD	APPR	REVISION

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2/8/2010  
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I hereby certify that this plan, specification, or report 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.

Pr Int Name: JEREMY A. WEST

Date: 2/8/10 License #: 42039

STATE PROJ. NO.  
91-090-43

BRIDGE NO.  
02579

DRAWN BY  
A. HAUSER

DESIGNED BY  
E. HANSON

CHECKED BY  
J. WEST

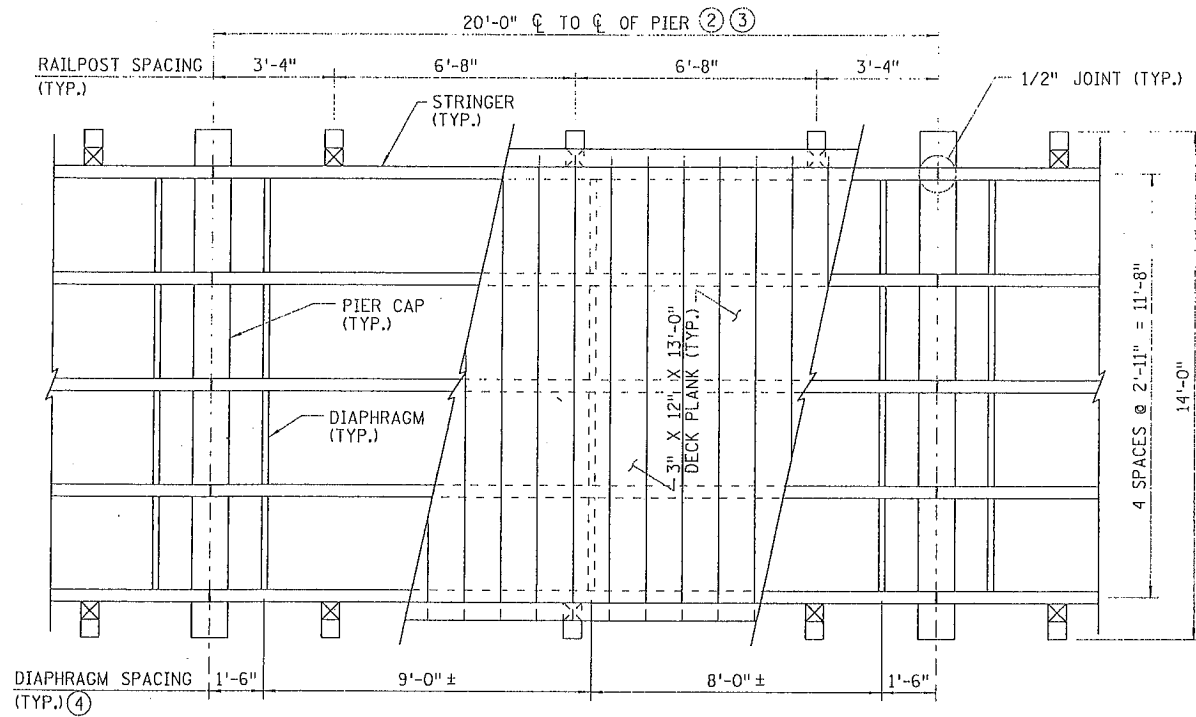
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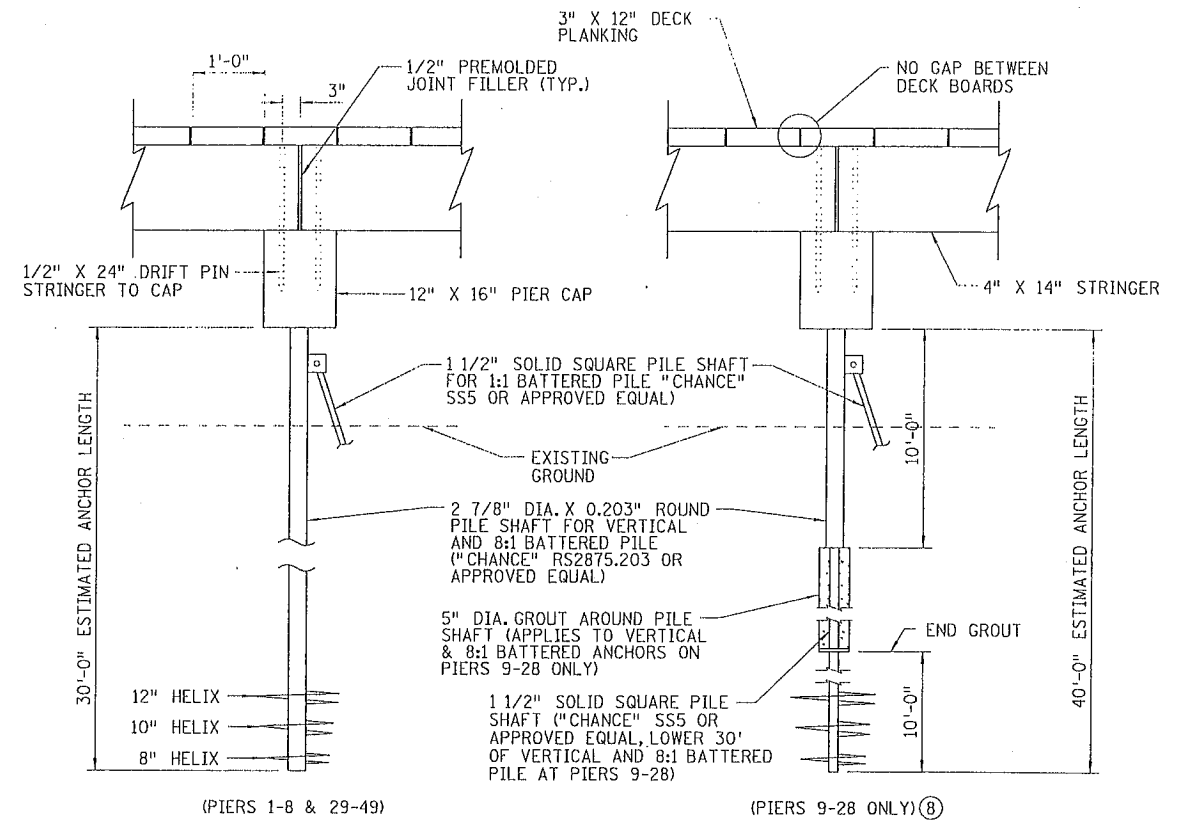
ANOKA COUNTY

RICE CREEK WETLAND BOARDWALK  
GENERAL PLAN AND ELEVATION

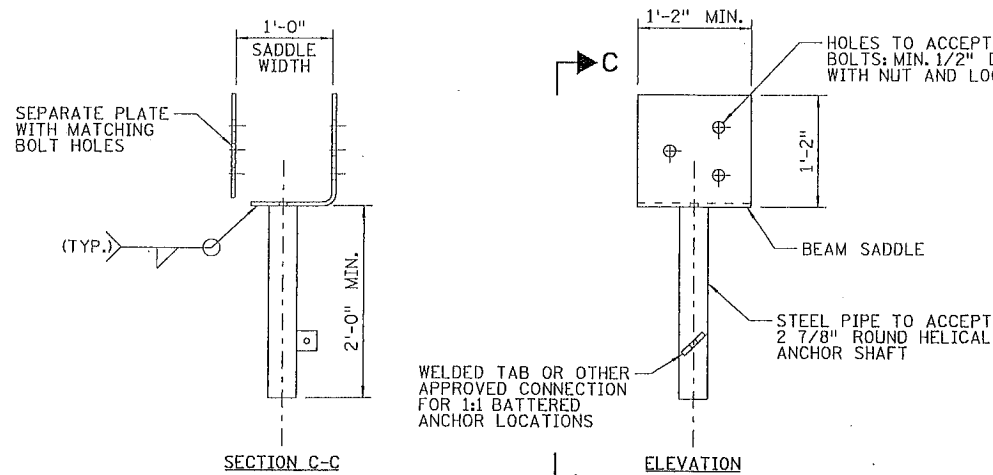
SHEET  
B1  
OF  
B12



**FRAMING PLAN**



**PIER DETAIL**



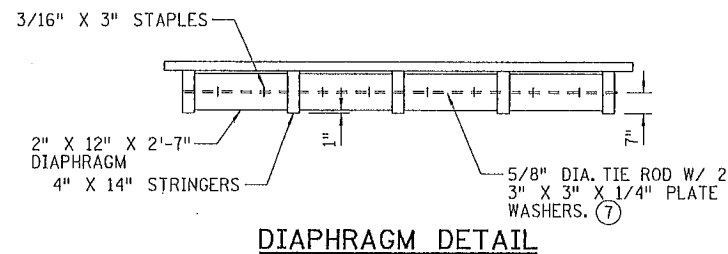
**SUPPORT BRACKET DETAIL ④**

**SUPPORT BRACKET NOTES:**

1. HOT DIPPED GALVANIZED PER ASTM A-153.
2. MATERIAL FOR SADDLE HOT ROLLED STEEL.
3. 10,000 LB MAX. LOAD COMPRESSION ONLY.
- ④ FOR ILLUSTRATION ONLY. OTHER BRACKET TYPES MAY BE CONSIDERED. CONTRACTOR TO SUBMIT CALCULATIONS AND DETAILS OF THE SPECIFIC BRACKET FOR THE ENGINEER'S APPROVAL.

**NOTES:**

1. TIMBER/MESH RAILING TO REFLECT BENDS AT PIER LOCATIONS WHERE APPLICABLE.
- ② MEASURED ALONG  $\phi$  OF TRAIL CHORD AS SHOWN.
- ③ RAILING DIMENSIONS TO BE ADJUSTED AS NECESSARY DUE TO BRIDGE SKEWS.
- ④ SPACE AS NECESSARY TO AVOID RAIL POST CONNECTION.
5. COPE DECK PLANKS AND OTHER TIMBER AS NECESSARY DUE TO BRIDGE SKEWS.
6. DECK PLANKS TO BE INSTALLED "BARK SIDE DOWN".
- ⑦ PLATE WASHERS TO BE ORIENTED PARALLEL TO TIMBER MEMBER.
- ⑧ GROUT COLUMNS INCLUDED IN PRICE BID FOR HELICAL ANCHORS.



**DIAPHRAGM DETAIL**

COMPUTED VERTICAL ANCHOR LOAD - KIPS/PILE	
DEAD LOAD	1.8
LIVE LOAD	6.8
DESIGN LOAD = PILE BEARING RESISTANCE	8.6

\* LOADS SHOWN ARE FOR SERVICE CONDITIONS.  
 \* PILES BATTERED AT 1:1 ARE NOT DESIGNED TO RESIST VERTICAL LOAD.

**PILE NOTES**

- SS5 "CHANCE" ANCHORS OR APPROVED EQUIVALENT - 1 1/2" SQUARE HELICAL ANCHOR PILES.
- 122 30' TOTAL ESTIMATED LENGTH PER ANCHOR (N. ABUT., PIERS 1-8, PIERS 29-49, S. ABUT. PIERS 9-28 1:1 BATTERED)
  - 80 40' TOTAL ESTIMATED LENGTH PER ANCHOR (PIERS 9-28 VERTICAL AND 8:1 BATTERED)
  - 202 TOTAL SS5 ANCHORS
  - 51 PILES SHALL BE VERTICAL AND ARE MARKED AS SHOWN ON SHEET B1.
  - ▲ 102 PILES SHALL BE BATTERED AT A RATIO OF 8:1 AND ARE MARKED AS SHOWN ON SHEET B1.
  - ▲ 49 PILES SHALL BE BATTERED AT A RATIO OF 1:1 AND ARE MARKED AS SHOWN ON SHEET B1. PILES SHALL BE SET AT AN APPROXIMATE HORIZONTAL ANGLE OF 10° FROM PIER CAP TO AVOID CONFLICT WITH OTHER PILES.

ANCHOR SPACING SHOWN IS AT BOTTOM OF BEAM AND MUST BE FIELD VERIFIED AFTER INSTALLATION.

SEE PLAN & PROFILE SHEETS FOR ANCHOR LOCATION, NUMBER, TYPE AND BATTER DIRECTION.

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NO	DATE	BY	CKD	APPR	REVISION

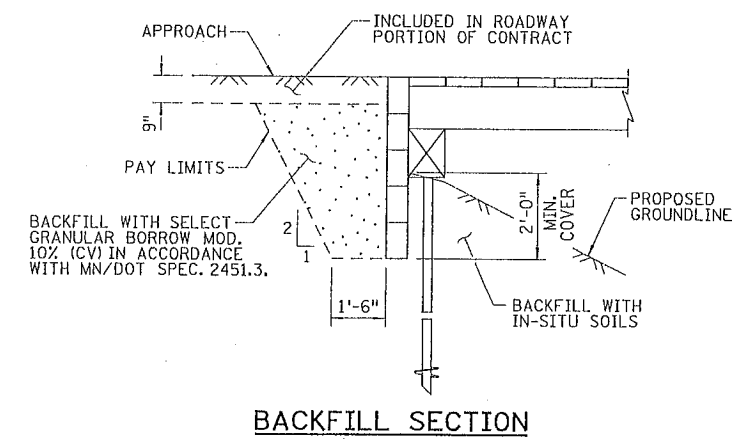
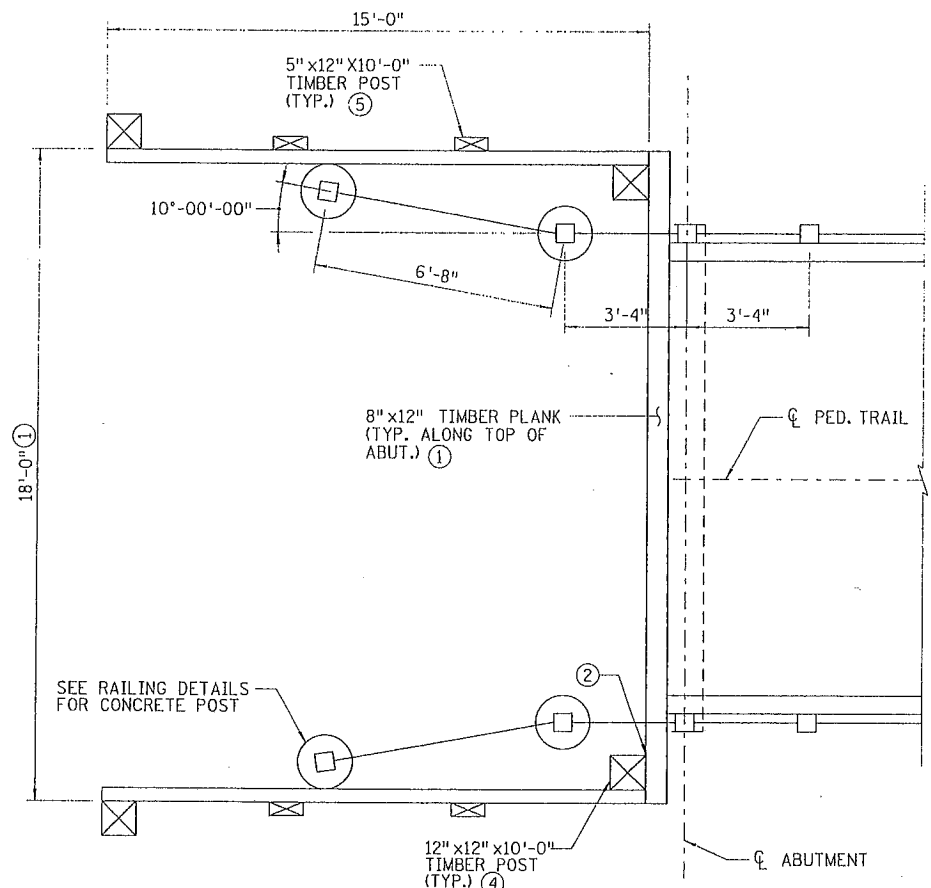
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 Print Name: JEREMY A. WEST  
 Date: 2/8/10 License #: 42039

STATE PROJ. NO. 91-090-43  
 BRIDGE NO. 02579  
 DRAWN BY A. HAUSER  
 DESIGNED BY E. HANSON  
 CHECKED BY J. WEST  
 COMM. NO. 6630

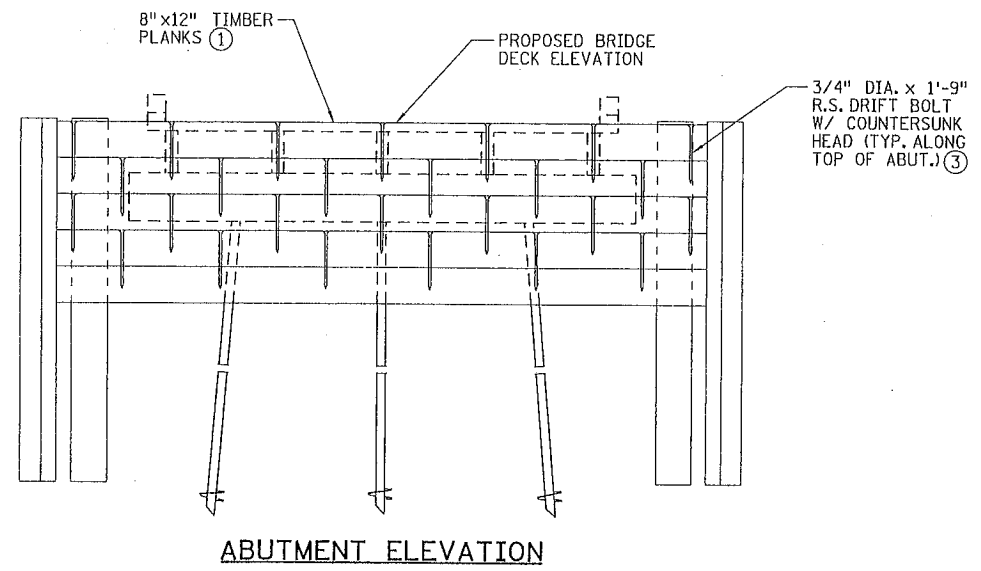
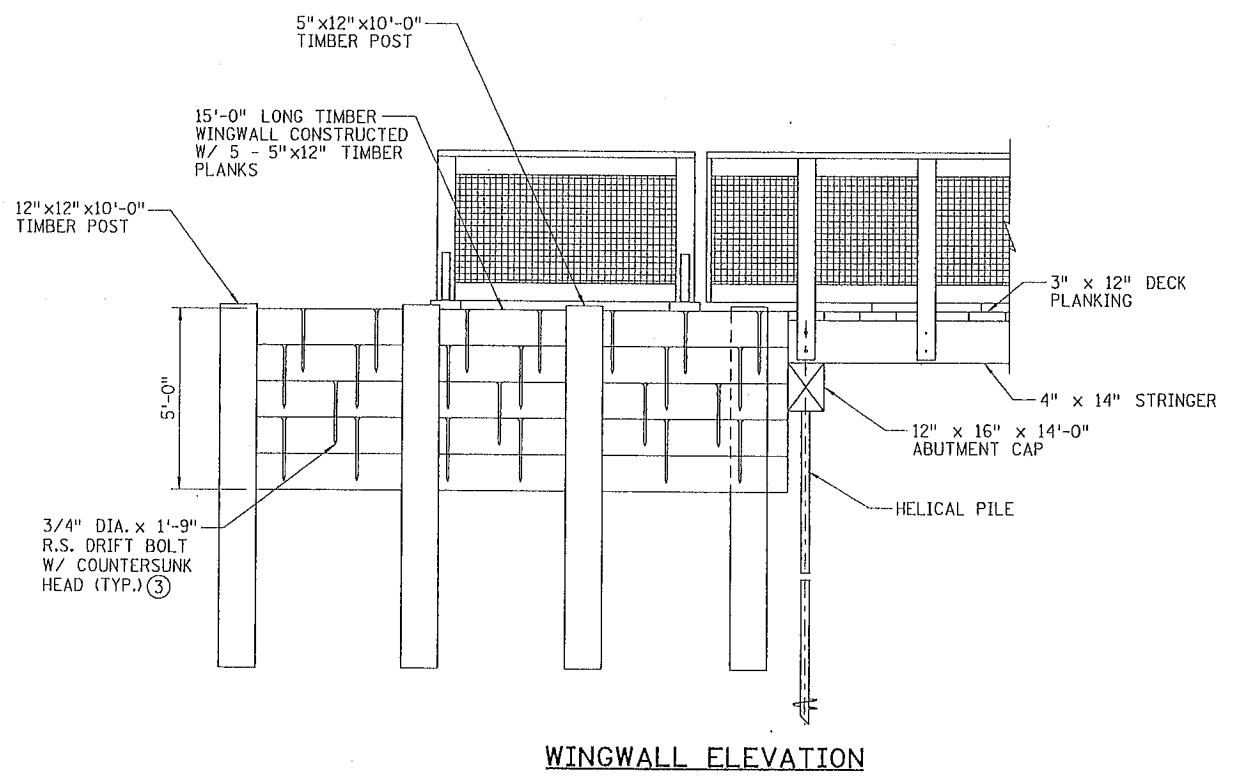


ANOKA COUNTY  
 RICE CREEK WETLAND BOARDWALK  
 MISCELLANEOUS DETAILS  
 (SHEET 1 OF 2)

SHEET B2 OF B12



- NOTES:**
- TIMBER DIMENSIONS SHOWN ARE ACTUAL. CONTRACTOR SHALL VERIFY NECESSARY TIMBER DIMENSIONS.
  - NORTH ABUTMENT WINGWALLS TO BE AS SHOWN ON GENERAL PLAN & ELEVATION SHEET. USE COPED SHIMS AS NECESSARY FOR TIMBER POST CONNECTION AT THE ABUTMENT BACKWALL.
  - CONTRACTOR SHALL STABILIZE TIMBER PLANKS WHILE INSERTING THE DRIFT BOLTS.
  - USE 5 - 3/8" DIA. x 12" R.S. NAILS (SPACED EVERY FOOT OF WALL LENGTH) TO FASTEN POST TO TIMBER WINGWALL OR ABUTMENT WALL. USE 10 - 3/8" DIA. x 2" R.S. NAILS AT CORNER POSTS WHICH WILL BE NAILED TO BOTH WINGWALL AND ABUTMENT WALL. ALL NAILS SHALL BE FLUSH WITH SURFACE.
  - USE 5 - 3/8" DIA. x 8" R.S. NAILS (SPACED EVERY FOOT OF POST LENGTH) TO FASTEN POST TO TIMBER WINGWALL.



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NO	DATE	BY	CHKD	APPR	REVISION

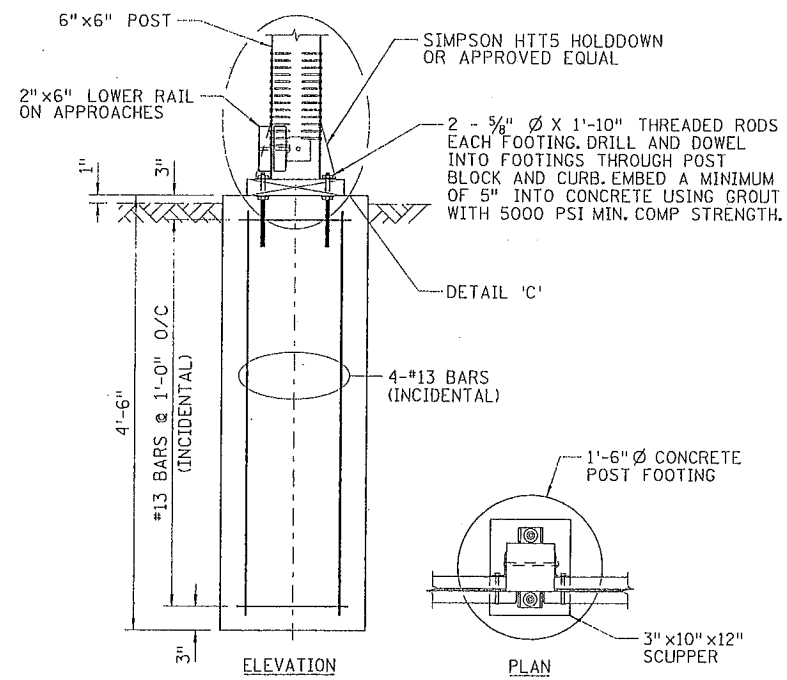
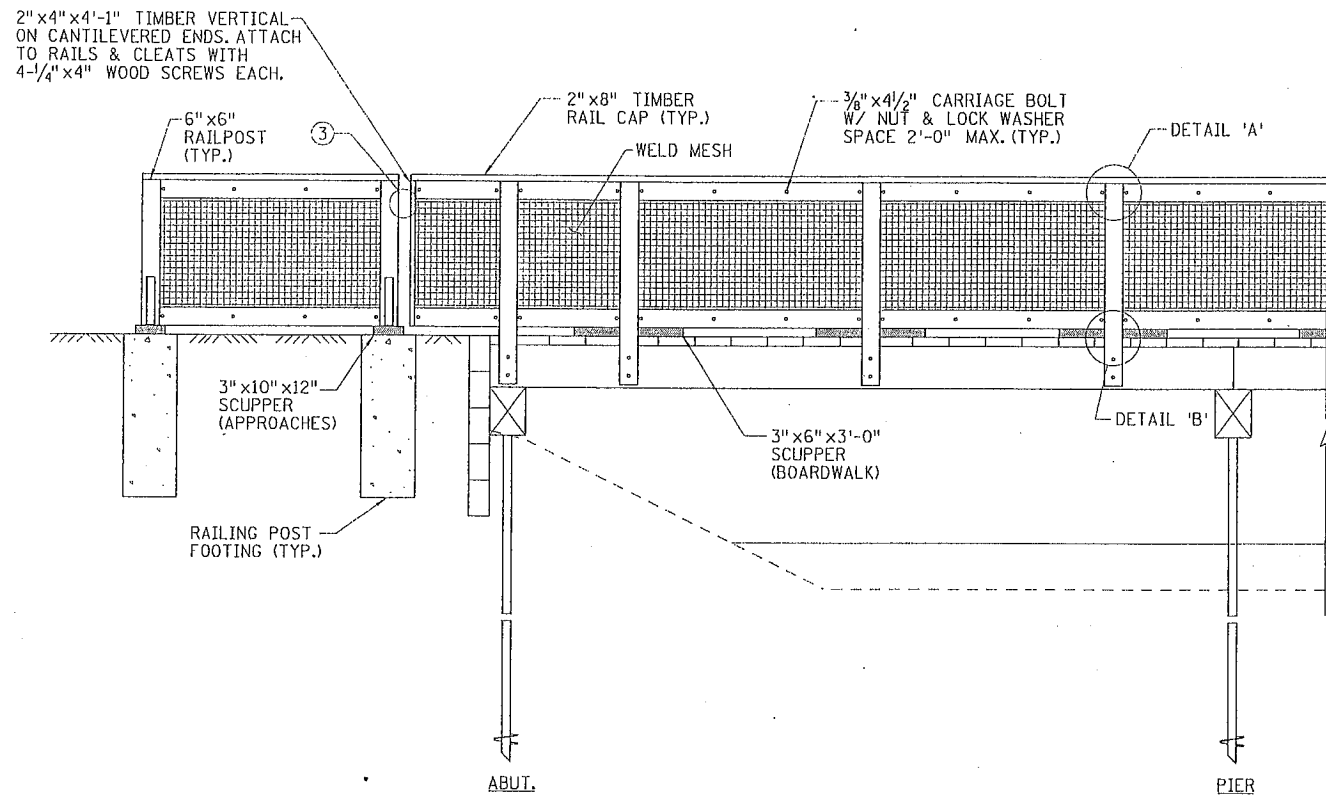
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 Date: 2/2/10 License #: 42039

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 BRIDGE NO. 02579  
 DRAWN BY A. HAUSER  
 DESIGNED BY E. HANSON  
 CHECKED BY J. WEST  
 COMM. NO. 6630

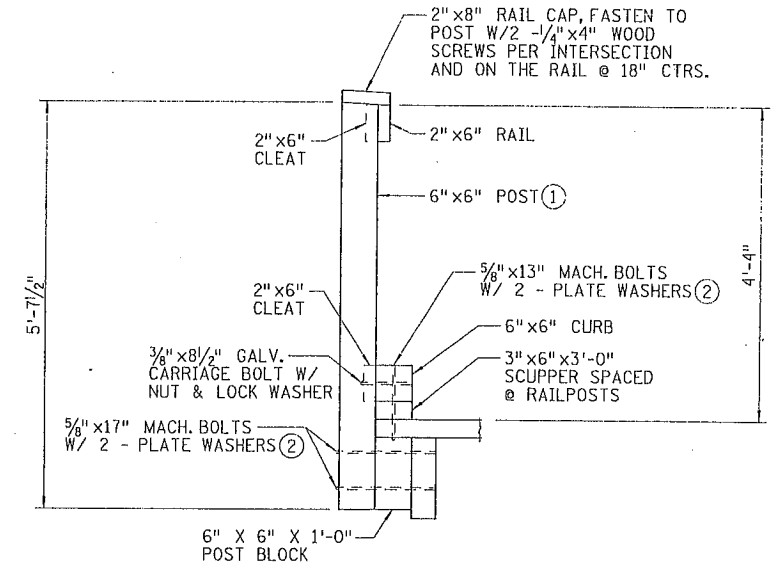


ANOKA COUNTY  
 RICE CREEK WETLAND BOARDWALK  
 MISCELLANEOUS DETAILS  
 (SHEET 2 OF 2)

SHEET B3 OF B12



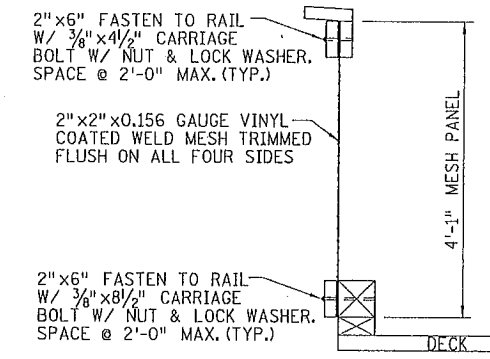
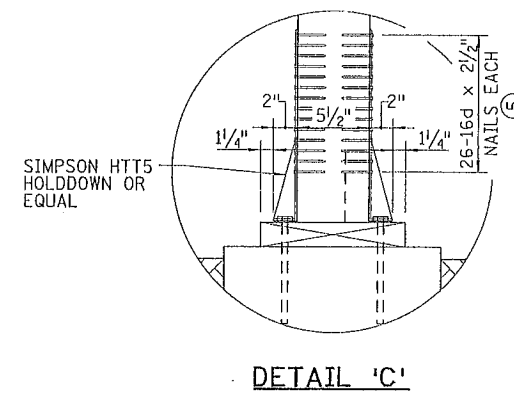
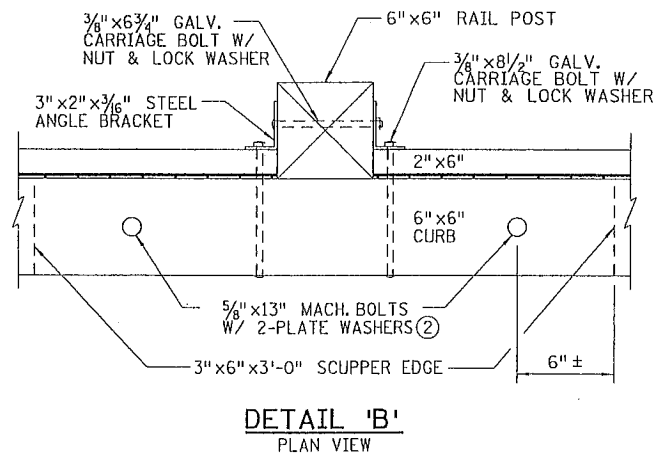
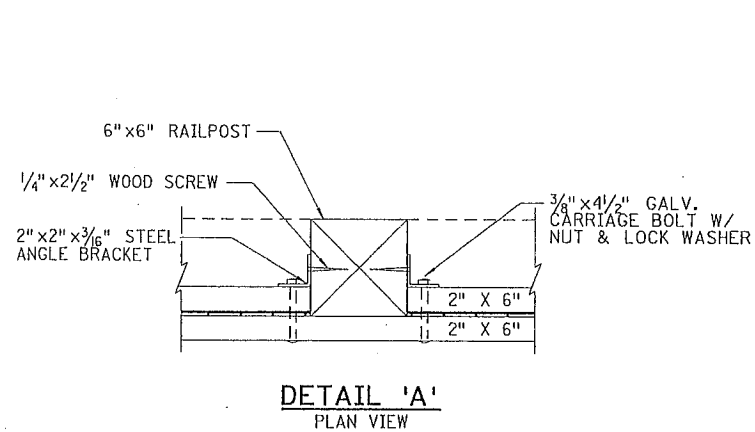
RAIL POST FOOTING



POST AND CURB DETAIL

NOTES:

- ① TOP OF POST SLOPED (1" HEIGHT DIFFERENCE OUTSIDE FACE/INSIDE FACE)
- ② PLATE WASHERS TO BE ORIENTED PARALLEL TO TIMBER MEMBER.
- ③ ALL GAPS BETWEEN APPROACH AND BRIDGE RAILING SHALL BE LESS THAN 4".
4. TOP ELEVATIONS OF APPROACH RAILING AND BOARDWALK RAILING SHALL MATCH.
- ⑤ HOLDDOWNS SHALL BE GALVANIZED PER Mn/DOT 3392. BOLTS/NAILS LISTED ARE BASED ON USE OF THE SIMPSON HTT5 HOLDDOWNS.



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2/5/2010  
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Date: 2/8/10 License #: 42039

STATE PROJ. NO. 91-090-43

BRIDGE NO. 02579

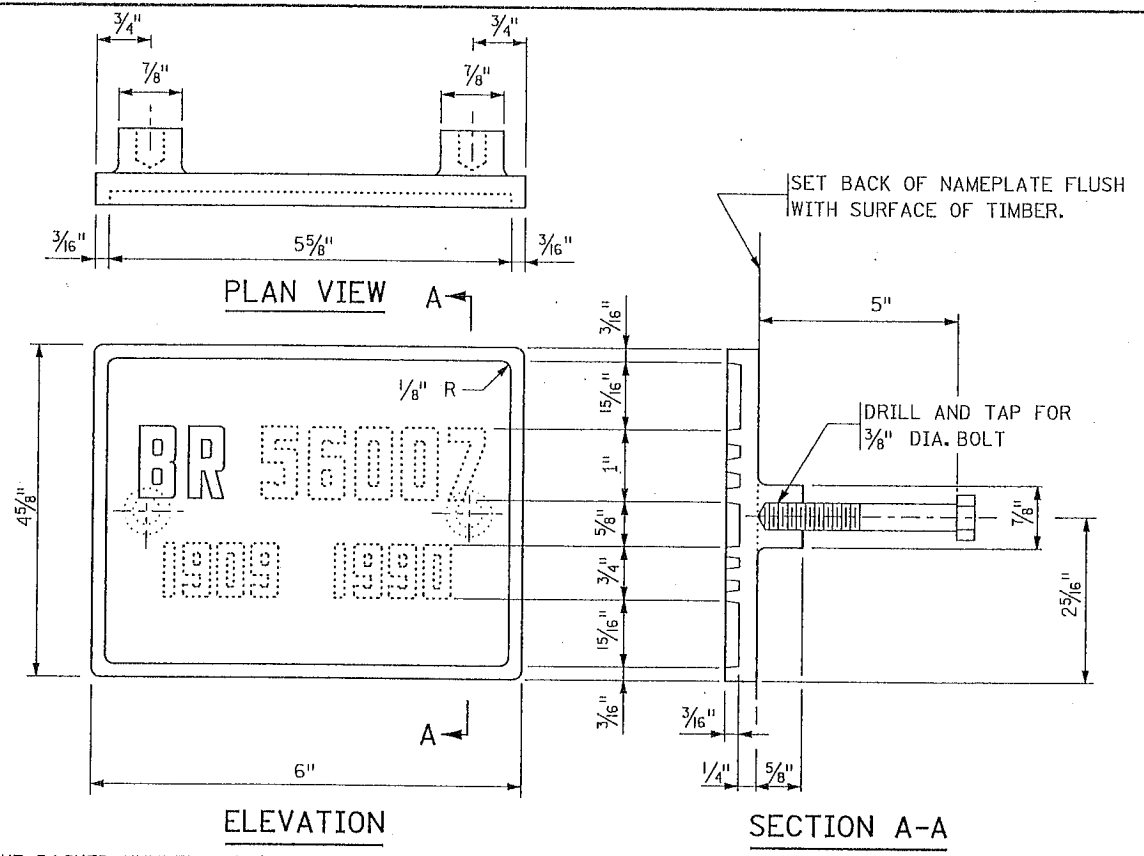
COMM. NO. 6630

DRAWN BY A. HAUSER  
DESIGNED BY E. HANSON  
CHECKED BY J. WEST

**SRF** CONSULTING GROUP, INC.

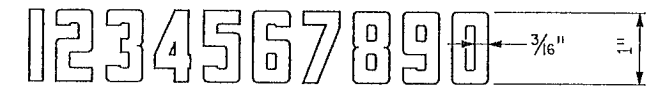
ANOKA COUNTY  
RICE CREEK WETLAND BOARDWALK  
RAILING ELEVATION & DETAILS

SHEET B4 OF B12



THE DASHED NUMBERS SHOWN ABOVE ARE FOR ILLUSTRATION. DATA TO BE SHOWN ON NAMEPLATE IS AS FOLLOWS:

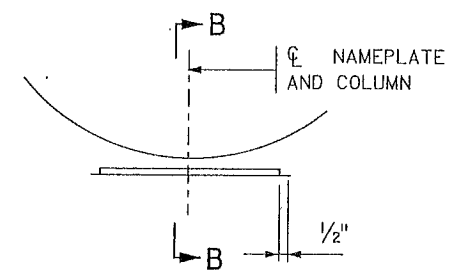
BRIDGE: 02579  
YEAR: 2010



NUMBERS FOR NAMEPLATE

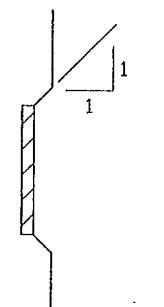
**NOTES:**

- NO SHOP DRAWING REQUIRED.
- MATERIAL SHALL COMPLY WITH Mn/DOT SPEC. 3327.
- LETTERS AND NUMBERS SHALL CONFORM TO THOSE SHOWN.
- DRAFT ON LETTERS AND NUMBERS SHALL NOT BE MORE THAN 3" IN 12".
- HORIZONTAL SPACING OF LETTERS AND NUMBERS SHALL PRODUCE A BALANCED LAYOUT IN PROPORTION TO SPACING SHOWN.
- TOP SURFACE OF LETTERS, NUMBERS AND FRAMES SHALL BE BURNISHED. FOR LENGTH REQUIREMENTS.
- FURNISH 2 STEEL BOLTS 3/8" DIA. WITH EACH PLATE. SEE SECTION A-A FOR LENGTH REQUIREMENTS.
- ALL DIMENSIONS FOR 3/4" HIGH LETTERS AND NUMBERS SHALL BE IN DIRECT PROPORTION TO THOSE SHOWN FOR THE 1" HIGH LETTERS AND NUMBERS.
- TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS.



NAMEPLATE PLACEMENT

(ROUND CONCRETE PIER COLUMNS)



SECTION B-B

MODIFIED

APPROVED: NOVEMBER 22, 2002	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION	REVISION	DETAIL NO.
<i>David J. Hanson</i> STATE BRIDGE ENGINEER	BRIDGE NAMEPLATE (FOR BRIDGE RECONSTRUCTION)		B102

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NO	DATE	BY	CHKD	APPR	REVISION

I hereby certify that this plan, specification, or report 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.  
Print Name: JEREMY A. WEST  
Date: 2/8/10 License #: 42039

STATE PROJ. NO. 91-090-43	DRAWN BY B. SIMON
BRIDGE NO. 02579	DESIGNED BY E. HANSON
	CHECKED BY J. WEST
	COMM. NO. 6630



ANOKA COUNTY  
RICE CREEK WETLAND BOARDWALK  
DETAILS

SHEET  
B5  
OF  
B12

**CONCRETE WEARING COURSE**

LOW SLUMP

OTHER \_\_\_\_\_  
TYPE OR MANUFACTURER

**EXPANSION JOINTS**

JOINT MANUFACTURER \_\_\_\_\_

MANUFACTURER'S IDENTIFICATION \_\_\_\_\_  
MFR'S No. AND/OR LETTER DESIGNATION FOR JOINT USED

GLAND MANUFACTURER \_\_\_\_\_  
NAME AND ADDRESS (CITY, STATE)

SIZE OF GLAND \_\_\_\_\_

MANUFACTURER'S IDENTIFICATION \_\_\_\_\_  
MFR'S No. AND/OR LETTER DESIGNATION FOR GLAND USED

**ELASTOMERIC BEARING PADS**

PAD MANUFACTURER \_\_\_\_\_  
NAME AND ADDRESS (CITY, STATE)

**SPECIAL SURFACE FINISH**

SYSTEM: \_\_\_\_\_ COLOR: \_\_\_\_\_

**FINISHING ROADWAY FACES OF BARRIER RAILING**

TYPE: \_\_\_\_\_ COLOR: \_\_\_\_\_

**ANTI-GRAFFITI COATING**

MANUFACTURER \_\_\_\_\_  
NAME AND ADDRESS (CITY, STATE)

PRODUCT NAME: \_\_\_\_\_ LOCATION: \_\_\_\_\_

**PAINT SYSTEM**

Mn/DOT SPECIFICATION NUMBER \_\_\_\_\_  
2478 OR 2479 OR OTHER

MANUFACTURER \_\_\_\_\_  
NAME AND ADDRESS (CITY, STATE)

PRIME COAT \_\_\_\_\_  
Mn/DOT MATERIAL SPECIFICATION NUMBER

INTERMEDIATE COAT \_\_\_\_\_  
Mn/DOT MATERIAL SPECIFICATION NUMBER

FINISH COAT \_\_\_\_\_  
Mn/DOT MATERIAL SPECIFICATION NUMBER COLOR

**PLAN QUALITY**

RATE 1 (AGREE), 2 (NEUTRAL), OR 3 (DISAGREE, PLEASE COMMENT BELOW)

DIMENSIONING AND DETAILING ADEQUATELY DESCRIBED REQUIRED CONSTRUCTION. \_\_\_\_\_

BAR LISTS AND QUANTITIES WERE TYPICALLY COMPLETE AND FREE OF ERRORS. \_\_\_\_\_

SCALE OF DRAWINGS AND OVERALL LEGIBILITY OF LINES AND TEXT WAS GOOD. \_\_\_\_\_

(SB) SPECIAL PROVISIONS ADEQUATELY DESCRIBED SPECIAL WORK AND PAYMENT. \_\_\_\_\_

COMMENTS: \_\_\_\_\_

NUMBER OF BRIDGE SUPPLEMENTAL AGREEMENTS: \_\_\_\_\_ COST: \$ \_\_\_\_\_

LIST SIGNIFICANT ERRORS OR OMISSIONS IN PLAN DETAILS OR PAY QUANTITIES IN THE SPACE PROVIDED AT RIGHT.

**BRIDGE REMOVAL / BRIDGE OPENING**

NUMBER OF AND DATE OLD BRIDGE WAS REMOVED (IF APPLICABLE):

BRIDGE NUMBER \_\_\_\_\_ DATE REMOVED \_\_\_\_\_

DATE NEW BRIDGE WAS OPENED TO TRAFFIC \_\_\_\_\_

NOTIFY THE BRIDGE OFFICE BRIDGE MANAGEMENT UNIT WITH THIS INFORMATION AS SOON AS POSSIBLE. (651) 366-4557

**OTHER ITEMS ①**

① UTILITIES ADDED DURING CONSTRUCTION AND SPECIALTY ITEMS.

FINAL QUANTITIES ENTERED ON SCHEDULE OF QUANTITIES: YES  NO

**SUMMARY OF SIGNIFICANT AS-BUILT CHANGES**

**THE AS-BUILT INFORMATION WAS ADDED TO THE PLAN BY:**

INSPECTOR(S) SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

CHECKED BY: \_\_\_\_\_ PROJECT ENGINEER/SUPERVISOR SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

AT THE TIME OF THE FINAL, THIS COMPLETED AS-BUILT BRIDGE DATA SHEET MUST BE SUBMITTED TO THE BRIDGE OFFICE - ATTN: REGIONAL CONSTRUCTION ENGINEER (MSG10).

REVISION: 10-28-2008  
APPROVED: SEPTEMBER 26, 2003  
*David A. Heger*  
STATE BRIDGE ENGINEER

**AS-BUILT DETAILS (AS NEEDED)**

FIG. 5-397.900

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Pr/Int Name: JEREMY A. WEST  
Date: 2/8/10 License #: 42039

STATE PROJ. NO. 91-090-43  
BRIDGE NO. 02579

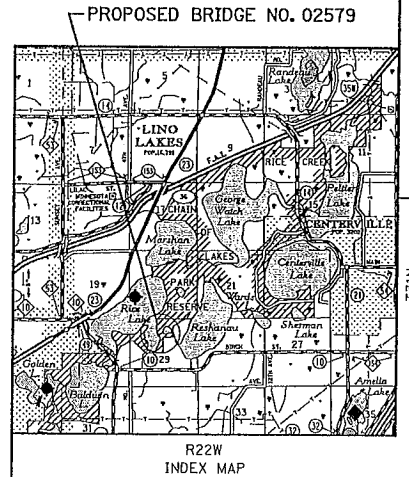
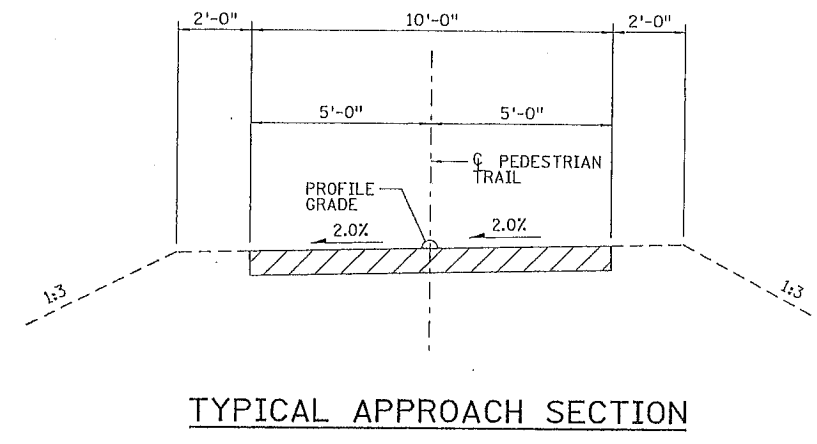
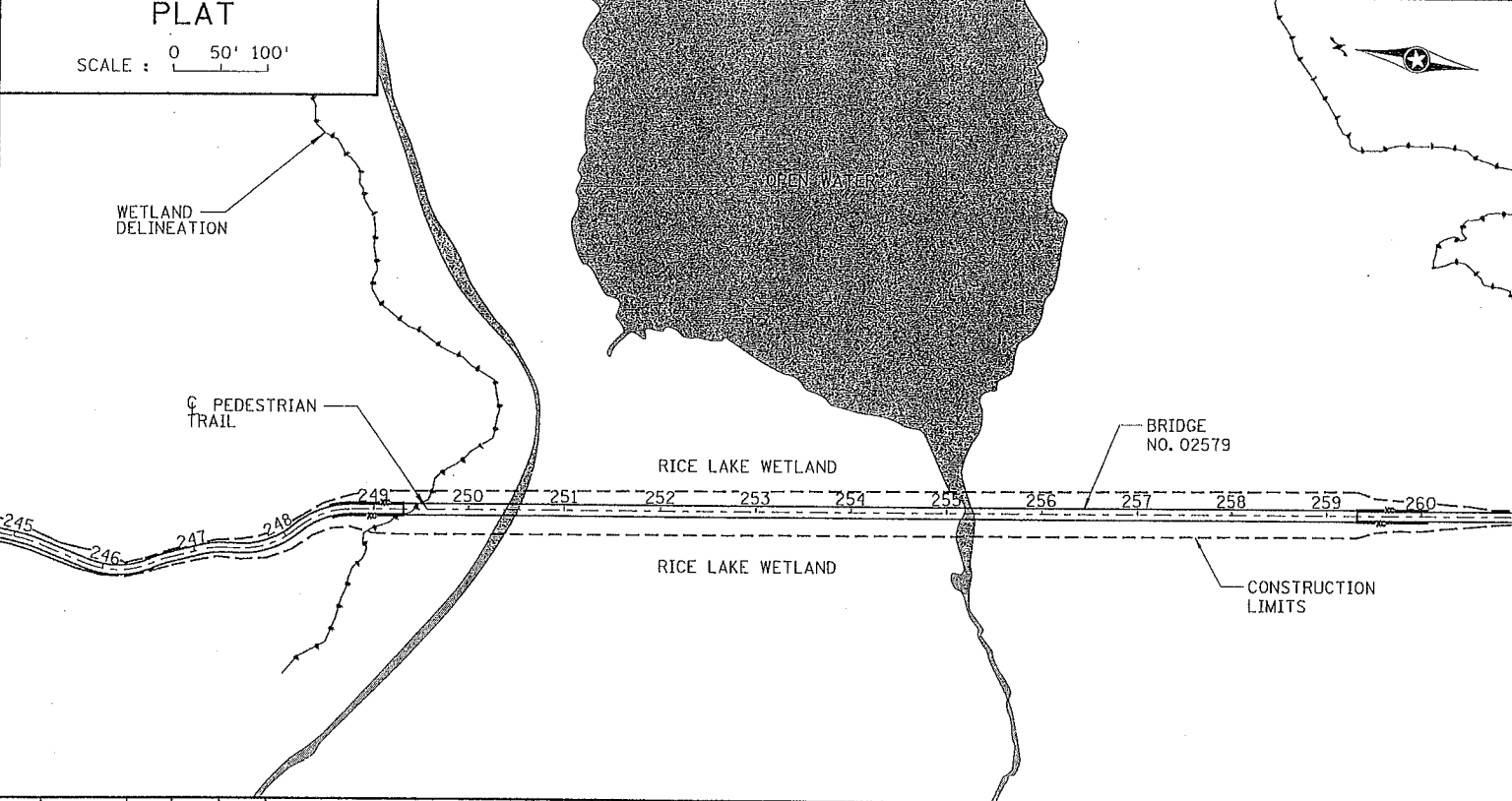
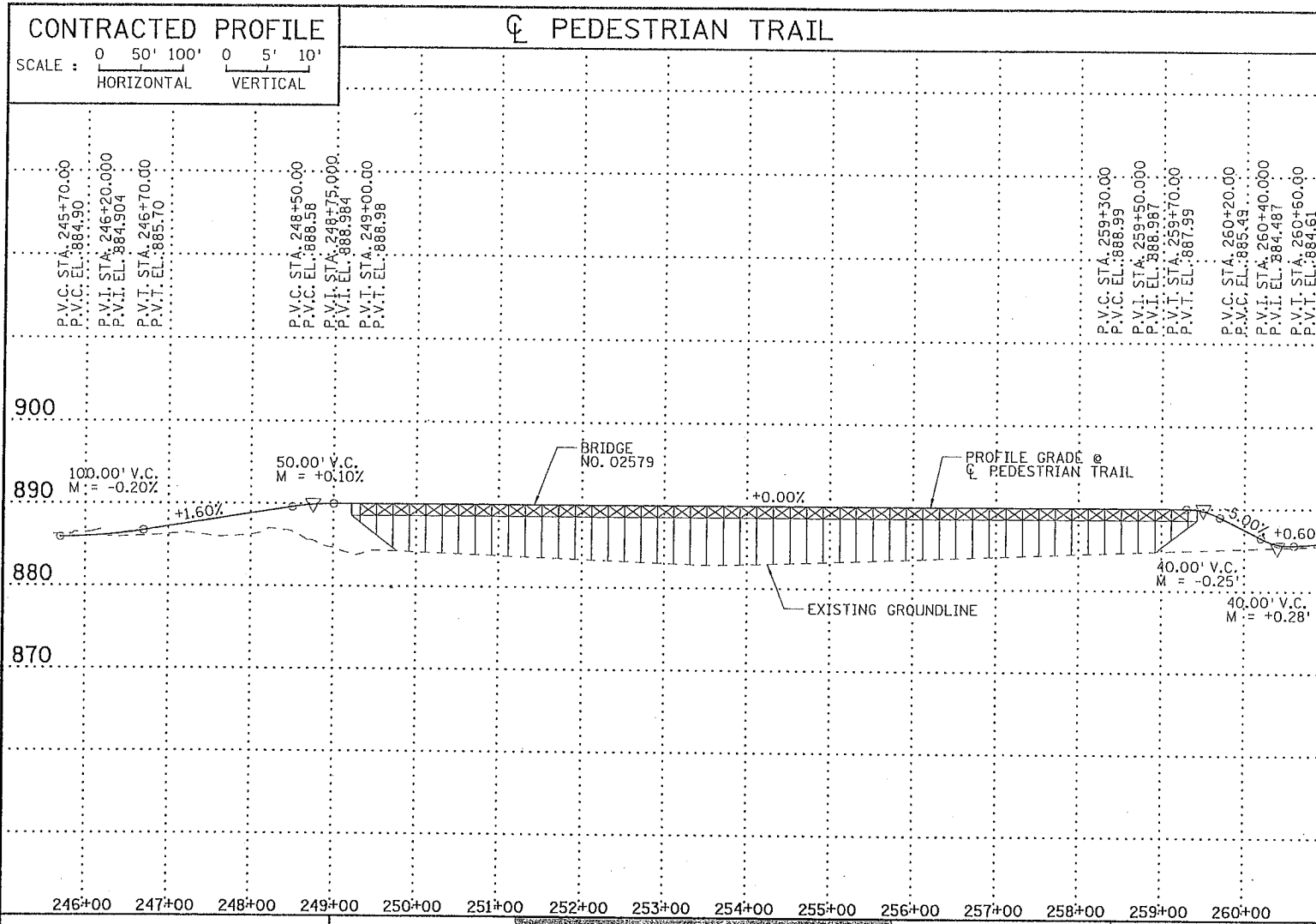
DRAWN BY B. SIMON  
DESIGNED BY E. HANSON  
CHECKED BY J. WEST  
COMM. NO. 6630



ANOKA COUNTY  
RICE CREEK WETLAND BOARDWALK  
AS-BUILT BRIDGE DATA

SHEET B6 OF B12

10:12:02 AM  
2/5/2010  
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**LOCATION ENGINEER'S OBSERVATIONS AT BRIDGE SITE**

- SPECIAL FEATURES: WATERFALLS, DAMS, FLOODS, ICE, DEBRIS, SLIDING BANKS, RECREATIONAL BOATING.
- OTHER BRIDGES OR CULVERTS OVER THE SAME STREAM (PARTICULARLY STRUCTURES WHICH CARRY HIGH WATER WITHOUT OVERFLOW OF ROADWAY): GIVEN LOCATION, TYPE, LENGTH, HEIGHT ABOVE HIGH WATER, CROSS-SECTIONAL AREA ETC.
- APPARENT HIGHWATER ELEVATION OBTAINED FROM:
- OTHER DATA: APPROX. VELOCITY OF WATER AT TIME OF SURVEY.

**HYDRAULIC ENGINEERS RECOMMENDATION**

DATE \_\_\_\_\_

STREAM OR DITCH DESIGNATION \_\_\_\_\_

DRAINAGE AREA \_\_\_\_\_

MAX. FLOOD ON RECORD \_\_\_\_\_

MAXIMUM OBSERVED HIGHWATER ELEVATION \_\_\_\_\_

DESIGN FLOOD ( YR. FREQ. ) C.F.S. \_\_\_\_\_

DESIGN STAGE ELEVATION \_\_\_\_\_

DESIGN MEAN VELOCITY THROUGH STRUCTURE F.P.S. \_\_\_\_\_

TOTAL STAGE INCREASE FT. \_\_\_\_\_

LOW MEMBER AT OR ABOVE ELEVATION \_\_\_\_\_

FLOWLINE ELEVATION \_\_\_\_\_ SKEW ANGLE \_\_\_\_\_

WATERWAY AREA REQUIRED BELOW ELEVATION AT RIGHT ANGLES TO CHANNEL = SQ.FT. \_\_\_\_\_

BASIC FLOOD (100 YR. FREQ.) C.F.S. \_\_\_\_\_

STAGE ELEVATION FT. \_\_\_\_\_

TOTAL STAGE INCREASE FT. \_\_\_\_\_

MEAN VELOCITY THROUGH STRUCTURE F.P.S. \_\_\_\_\_

ESTIMATED DEPTH OF PIER SCOUR = FT. \_\_\_\_\_

SCOUR CODE = \_\_\_\_\_

BRIDGE SURVEY SHEETS MADE FROM : SURVEY BY SRF

BENCH MARK ELEVATION 929.32 ( NAVD88 )

LOCATION MNDOT DISK NO.0280 G IN SE CORNER OF COUNTY ROAD 53 (SUNSET ROAD) BRIDGE 9831 OVER I35W

2nd BENCH MARK ELEVATION (M.S.L. 1929 ADJ.) \_\_\_\_\_

LOCATION \_\_\_\_\_

MINNESOTA  
DEPARTMENT OF TRANSPORTATION

**BRIDGE SURVEY**

AT MILE POINT \_\_\_\_\_ ON \_\_\_\_\_

PROPOSED BRIDGE LOCATED 2.0 MILES SOUTH OF JCT. I-35W AND C.S.A.H. 23

SEC 29 TWP 31N R 22W

TOWNSHIP LINO LAKES COUNTY ANOKA

I hereby certify that this plan, specification, or report 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.

Print Name: JEREMY A. WEST

Date: 2/8/10 License # 42039

STATE PROJ. NO. 91-090-43

BRIDGE NO. 02579

COMM. NO. 6630

**SRF** CONSULTING GROUP, INC.

DRAWN BY A. HAUSER  
DESIGNED BY E. HANSON  
CHECKED BY J. WEST  
COMM. NO. 6630

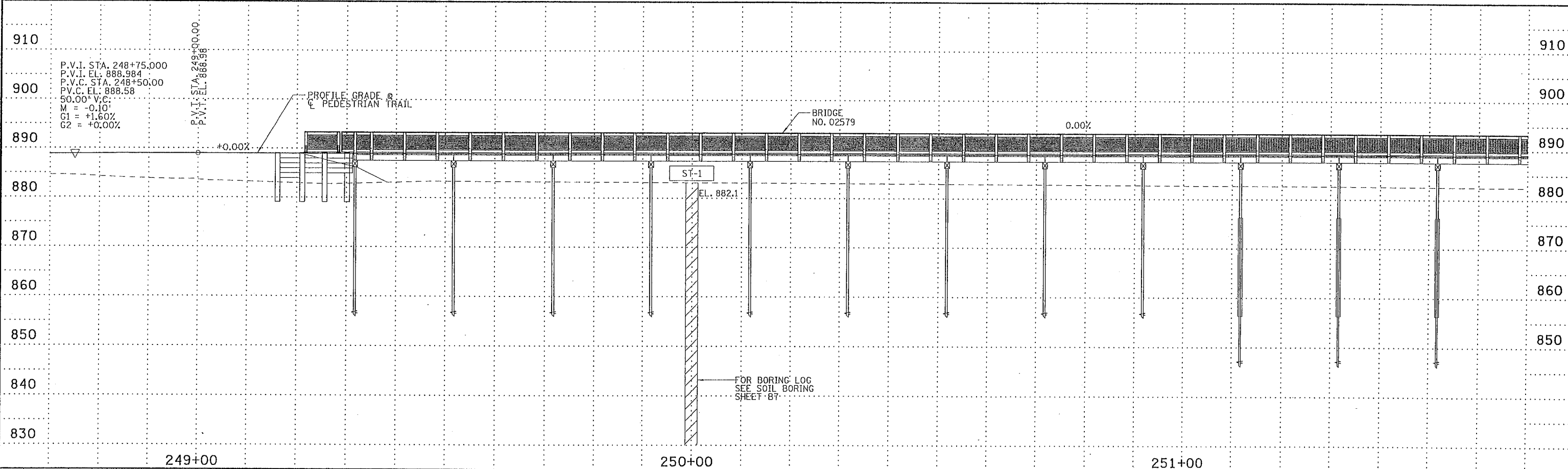
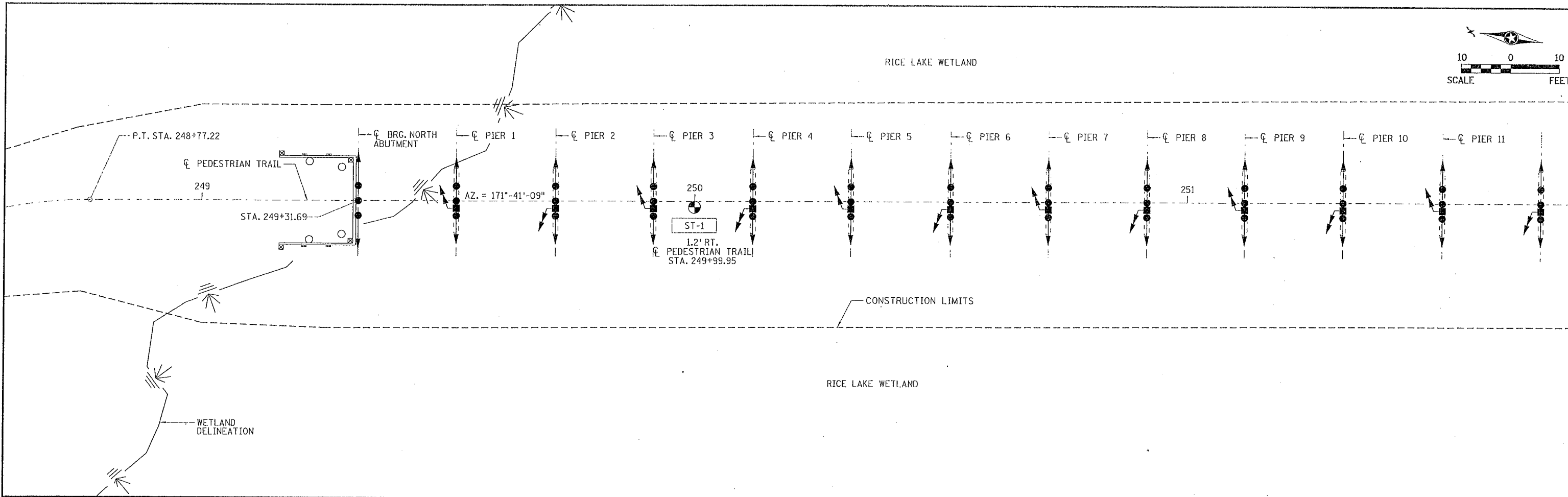
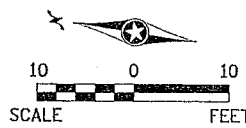
ANOKA COUNTY  
RICE CREEK WETLAND BOARDWALK  
BRIDGE SURVEY

SHEET B7 OF B12

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NO	DATE	BY	CKD	APPR	REVISION

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NO	DATE	BY	CHKD	APPR	REVISION

I hereby certify that this plan, specification, or report 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.  
 Print Name: JEREMY A. WEST  
*Jeremy A. West*  
 Date: 2/8/10 License #: 42039

STATE PROJ. NO.  
 91-090-43  
 BRIDGE NO.  
 02579

DRAWN BY  
 A. HAUSER  
 DESIGNED BY  
 E. HANSON  
 CHECKED BY  
 J. WEST  
 COMM. NO. 6630



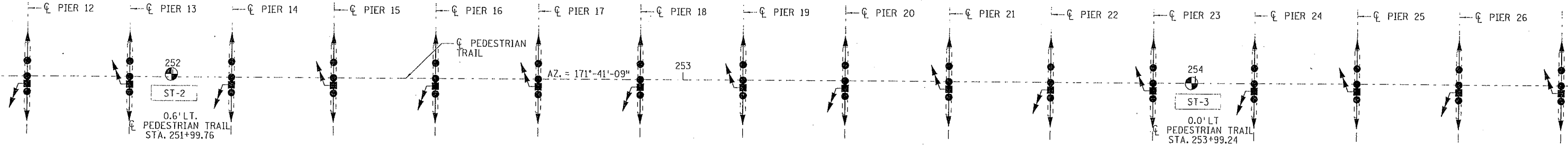
ANOKA COUNTY  
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 (SHEET 1 OF 4)

SHEET  
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 OF  
 B12



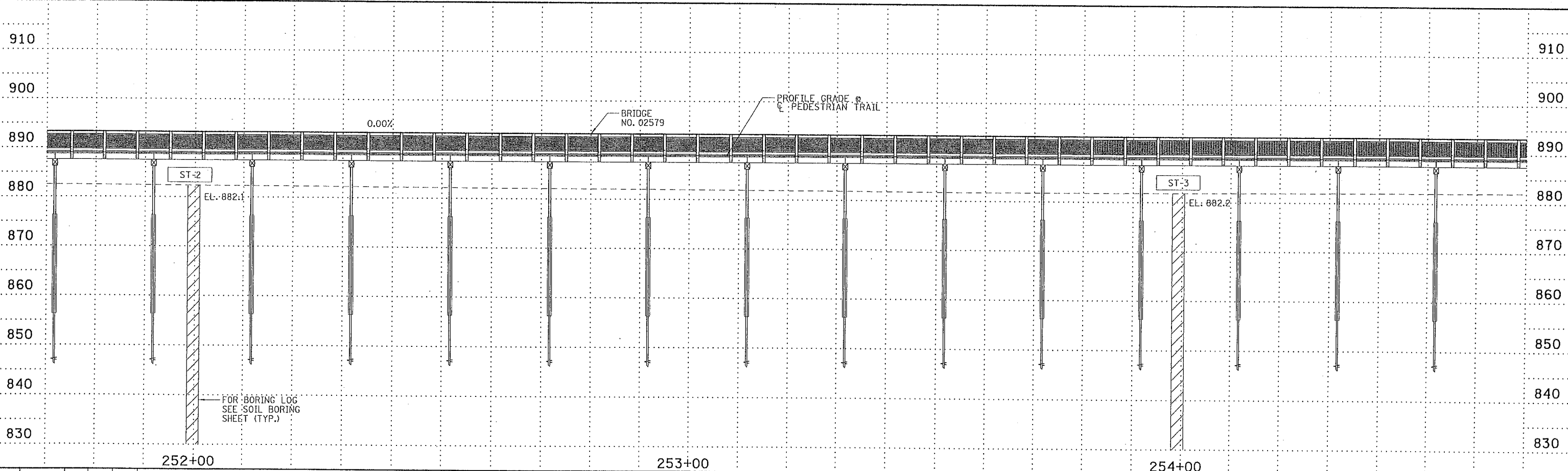


RICE LAKE WETLAND



CONSTRUCTION LIMITS

RICE LAKE WETLAND



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Print Name: JEREMY A. WEST

Date: 2/8/10 License #: 42039

STATE PROJ. NO. 91-090-43

BRIDGE NO. 02579

DRAWN BY A. HAUSER

DESIGNED BY E. HANSON

CHECKED BY J. WEST

COMM. NO. 6630



ANOKA COUNTY

RICE CREEK WETLAND BOARDWALK

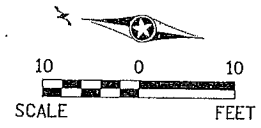
BRIDGE SURVEY PLAN & PROFILE

(SHEET 2 OF 4)

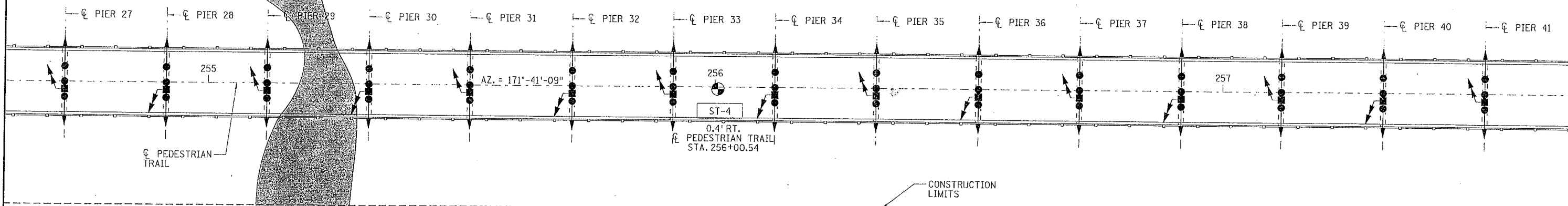
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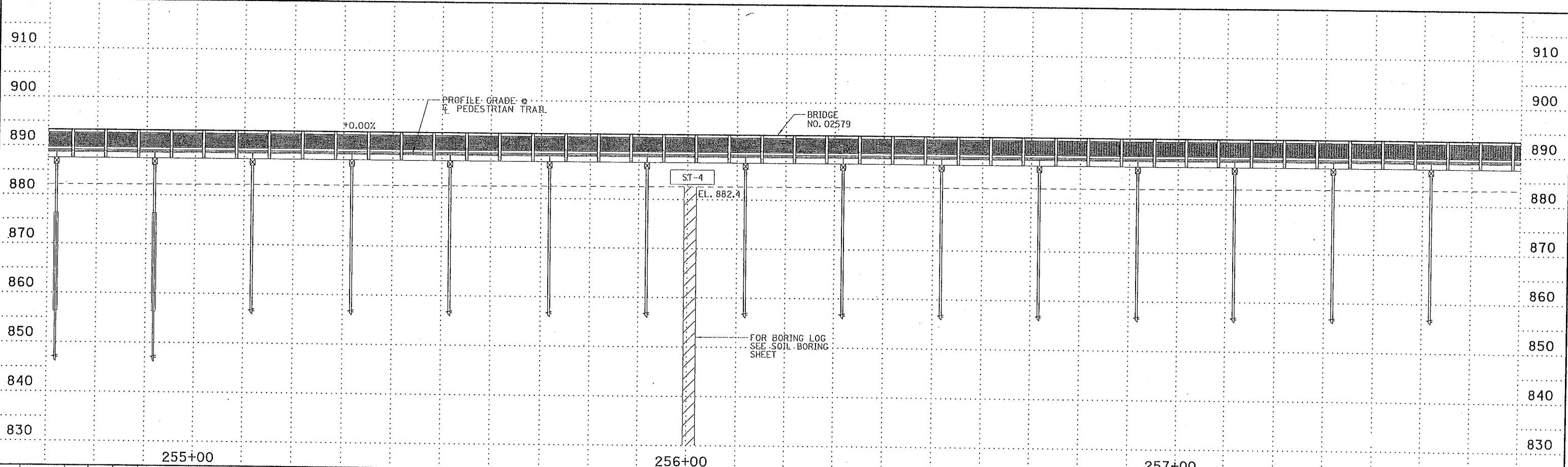
NO	DATE	BY	CHKD	APPR	REVISION



RICE LAKE WETLAND



RICE LAKE WETLAND



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 Print Name: JEREMY A. WEST  
 Date: 2/2/10 License #: 42039

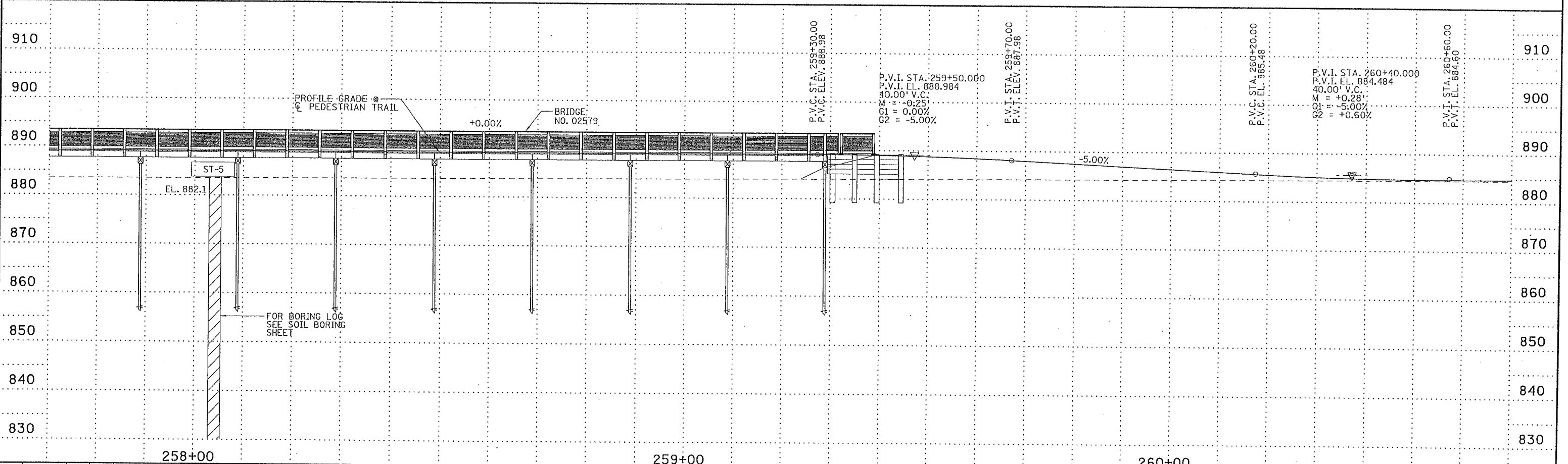
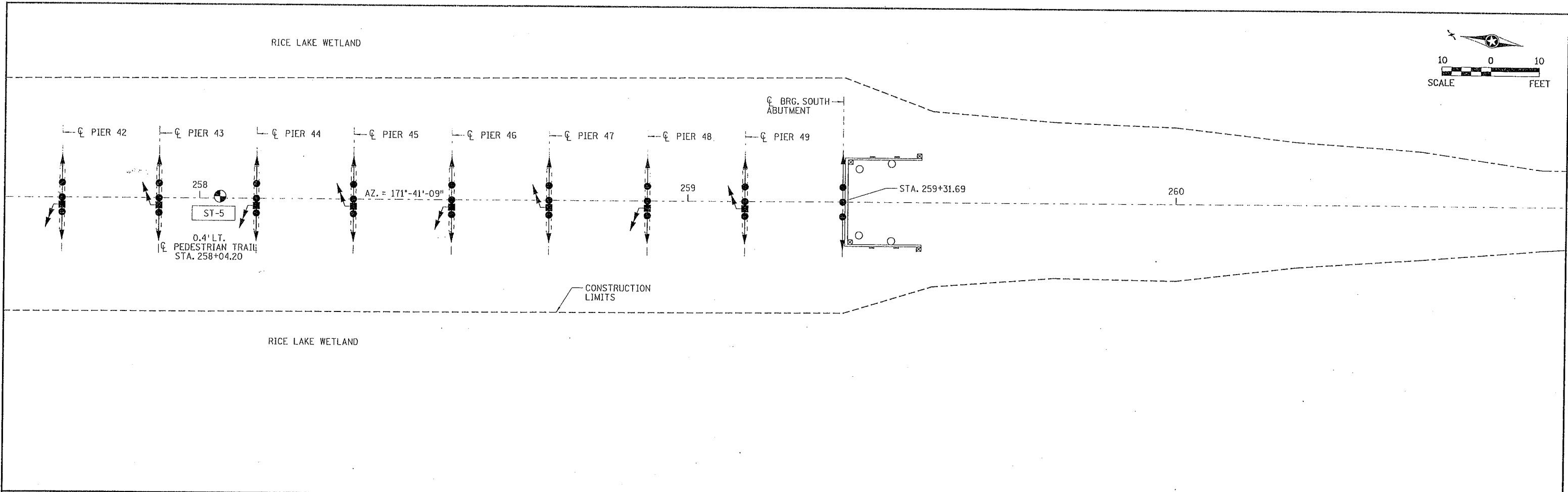
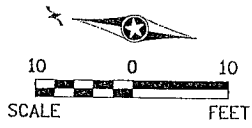
STATE PROJ. NO.  
91-090-43  
 BRIDGE NO.  
02579

DRAWN BY  
A. HAUSER  
 DESIGNED BY  
E. HANSON  
 CHECKED BY  
J. WEST  
 COMM. NO. 6630



ANOKA COUNTY  
 RICE CREEK WETLAND BOARDWALK  
 BRIDGE SURVEY PLAN & PROFILE  
 (SHEET 3 OF 4)

SHEET  
B10  
OF  
B12



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NO	DATE	BY	CHKD	APPR	REVISION

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Print Name: JEREMY A. WEST

Date: 2/3/10 License #: 42039

STATE PROJ. NO. 91-090-43

BRIDGE NO. 02579

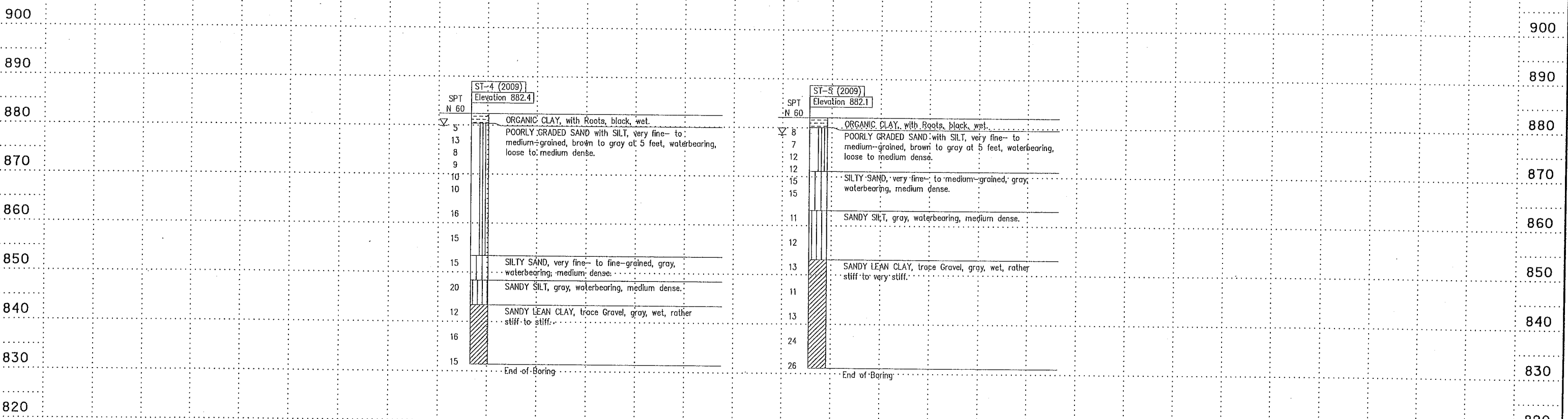
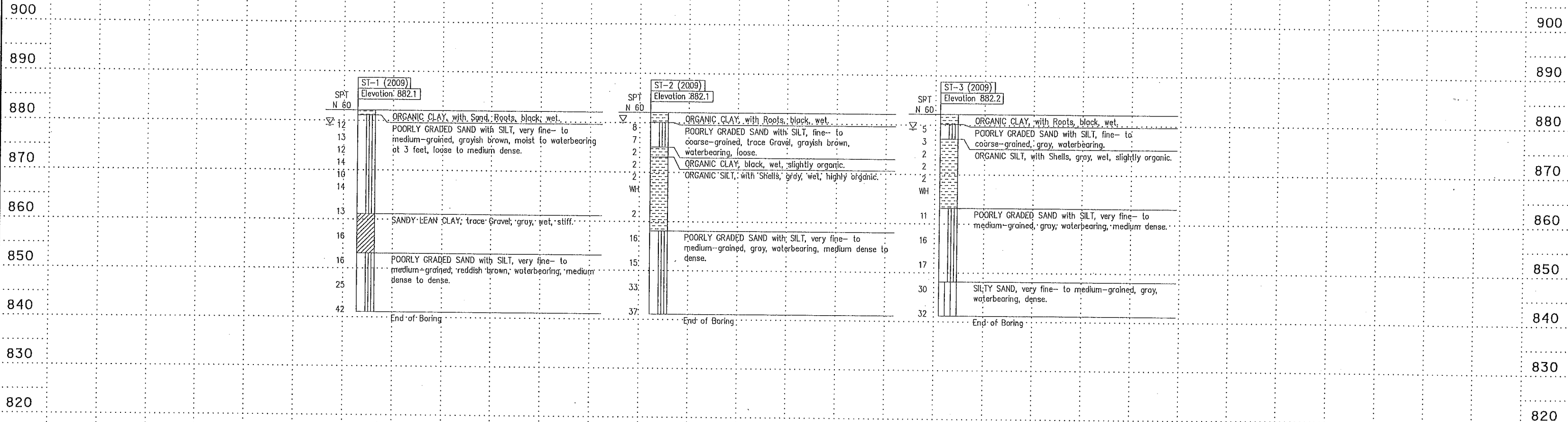
COMM. NO. 6630

DRAWN BY A. HAUSER  
DESIGNED BY E. HANSON  
CHECKED BY J. WEST

ANOKA COUNTY

RICE CREEK WETLAND BOARDWALK  
BRIDGE SURVEY PLAN & PROFILE  
(SHEET 4 OF 4)

SHEET B11 OF B12



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NO	DATE	BY	CHKD	APPR	REVISION

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Print Name: JEREMY A. WEST  
 Date: 2/8/10 License # 42039

STATE PROJ. NO. 91-090-43  
 BRIDGE NO. 02579  
 DRAWN BY A. HAUSER  
 DESIGNED BY E. HANSON  
 CHECKED BY J. WEST  
 COMM. NO. 6630



ANOKA COUNTY  
 RICE CREEK WETLAND BOARDWALK  
 SOIL BORINGS

SHEET B12 OF B12