

MINNESOTA DEPARTMENT OF TRANSPORTATION
 ANOKA COUNTY DEPT. OF PARKS AND RECREATION
 CONSTRUCTION PLAN FOR **02-590-02**
 PEDESTRIAN/BICYCLE TRAIL
 37TH AVENUE N.E. AND CAMDEN BRIDGE TRAIL CONNECTION
 IN THE CITY OF MINNEAPOLIS

FEDERAL PROJECT NO. TEA FN 93 (014)
 GOVERNING SPECIFICATIONS
 THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
 "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AS AMENDED BY THE
 MAY 02, 1994 SUPPLEMENTAL SPECIFICATION SHALL GOVERN.

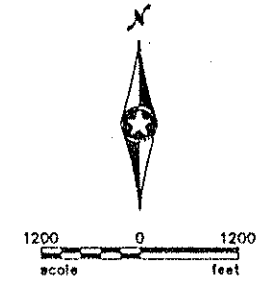
PLAN SYMBOLS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT-OF-WAY LINE
- PRESENT RIGHT-OF-WAY LINE
- CONTROL OF ACCESS LINE
- PROPERTY LINE (Except Land Lines)
- VACATED PLATTED PROPERTY
- CORPORATE OR CITY LIMITS
- TRUNK HIGHWAY CENTER LINE
- RETAINING WALL
- RAILROAD
- RAILROAD RIGHT-OF-WAY LINE
- RIVER OR CREEK
- CRAY RUN
- DRAINAGE DITCH
- DRAIN TIE
- CULVERT
- DROP PILE
- QUARD PILE
- BARBED WIRE FENCE
- WOOLY WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SHOW FENCE
- STONE WALL OR FENCE
- HEDGE
- RAILROAD CROSSING SIGN
- RAILROAD CROSSING BELL
- ELECTRIC WARNING SIGN
- CROSSING GATE
- MEANDER CORNER
- SPRINGS
- MARSH
- TIMBER
- ORCHARD
- BRUSH
- NURSERY
- CATCH BASIN
- FIRE HYDRANT
- CATTLE GUARD
- OVERPASS (Highway Over)
- UNDERPASS (Highway Under)
- BRIDGE
- BUILDING (One Story Frame)
- F-FRAME
- C-CONCRETE
- S-STONE
- T-TILE
- N-BRICK
- ST-STUCCO
- IRON PIPE OR ROD
- MONUMENT (STONE, CONCRETE, OR METAL)
- WOODEN PILE
- GRAVEL PIT
- SAND PIT
- BORROW PIT
- ROCK QUARRY
- UTILITY SYMBOLS
- POWER POLE LINE
- TELEPHONE OR TELEGRAPH POLE LINE
- JOINT TELEPHONE AND POWER ON POWER POLES
- ON TELEPHONE POLES
- 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 ELECTRIC CABLE
- AERIAL TELEPHONE CABLE
- SEWER (SANITARY)
- SEWER (STORM)
- SEWER MANHOLE
- HANDHOLE



STATE PROJ. NO. 02-590-02
 BETWEEN EAST RIVER ROAD AND A PT. 300 FT. SOUTH OF CAMDEN BRIDGE
 FROM A PT. 1290 FEET WEST AND 880 FEET SOUTH OF THE NORTHEAST CORNER OF THE NORTHWEST QUARTER OF SECTION 3, TOWNSHIP 29, RANGE 24, HENNEPIN COUNTY, MINNESOTA TO A PT. 40 FEET EAST AND 10 FEET NORTH OF THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF SECTION 34, TOWNSHIP 30, RANGE 24, ANOKA COUNTY, MINNESOTA

GROSS LENGTH	1930	FEET	0.366	MILES
BRIDGES-LENGTH	0	FEET	0	MILES
EXCEPTIONS-LENGTH	0	FEET	0	MILES
NET LENGTH	1930	FEET	0.366	MILES



END S.P. NO. 02-590-02
 STA. 29+02

BEGIN S.P. NO. 02-590-02
 STA. 9+72

DESIGN DESIGNATION

FUNCTIONAL CLASSIFICATION	N/A
NO. OF TRAFFIC LANES	N/A
NO. OF PARKING LANES	N/A
STRUCTURAL DESIGN	N/A
R VALUE	N/A
DESIGN SPEED	20 MPH
BASED ON SIGHT DISTANCE	STOPPING
HEIGHT OF EYE	3.75'
HEIGHT OF OBJECT	0.0'

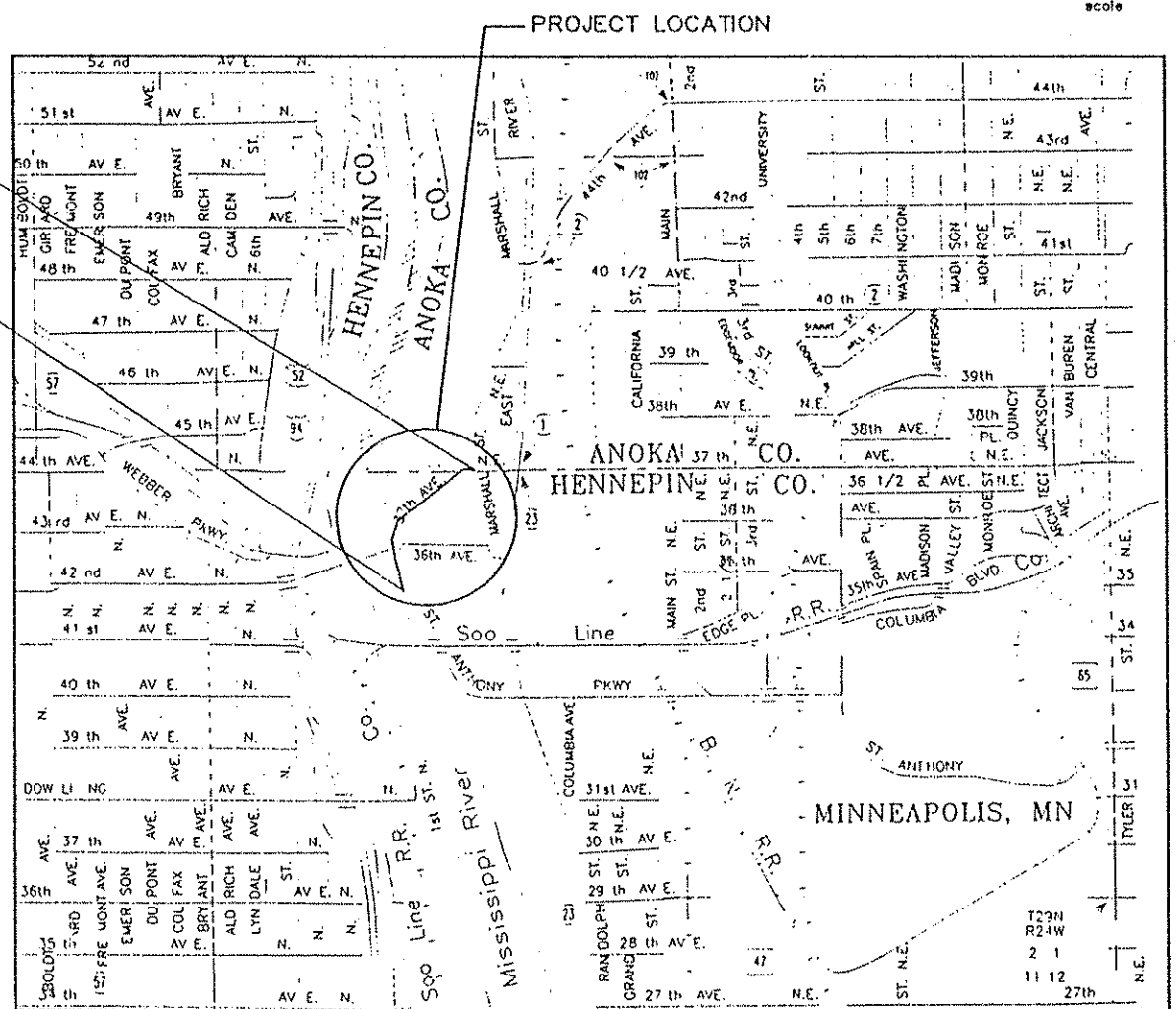
DESIGN SPEED NOT ACHIEVED AT:
 STA. 10+00 TO STA. 10+50 (STOP CONDITION)
 STA. 12+20 TO STA. 13+35 (DESIGN EXCEPTION)
 CONN. AA STA. 2+00 TO STA. 2+93.71 (YIELD INTERSECTION)
 CONN. BB STA. 7+00 TO STA. 7+63.53 (YIELD INTERSECTION)

SCALES

PLAN	50'
PROFILE	50' V
INDEX MAP	1200'
GENERAL LAYOUT	60'
X-SECTION	10' V

PLAN REVISIONS

DATE	SHEET NO.	APPROVED BY



ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS - APRIL 1995".

SRF STRGAR-ROSCOE-FAUSCH, INC.
 CONSULTING ENGINEERS ■ LAND SURVEYORS

INDEX

SHEET NO.	SHEET DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	GENERAL LAYOUT
4	CONST./SOILS NOTES, STANDARD PLATES AND EARTHWORK TABULATIONS
5	DETAILS
6	RETAINING WALL ELEVATIONS
7	TYPICAL SECTIONS AND RETAINING WALL DETAILS
8	ALIGNMENT TABULATIONS AND CULVERT PROFILES
9 - 10	PLAN AND PROFILE
11 - 13	EROSION CONTROL
14 - 16	CROSS SECTIONS

THIS PLAN CONTAINS 16 SHEETS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 ENGR. *J. J. Shue* Reg. No. 18966 Date 3-13-95

STRGAR-ROSCOE-FAUSCH INC.
 CONSULTING ENGINEERS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.
 L. ARCH. *Thomas A. Thayer* Reg. No. 14021 Date 3/14/95

STRGAR-ROSCOE-FAUSCH INC.
 CONSULTING ENGINEERS

Approved *Ronald G. Carl* 3/14 1995
 ANOKA COUNTY DEPARTMENT OF PARKS AND RECREATION

Approved *James E. ...* 3/14 1995
 ANOKA COUNTY ENGINEER

Recommended For Approval *...* 3/15 1995
 MINNEAPOLIS PARKS AND RECREATION BOARD

Recommended For Approval *Mary L. Beringer* 3/17 1995
 METRO ASSISTANT DIVISION ENGINEER-STATE AID

Recommended For Approval *Paul H. ...* 10/5 1995
 FOR STATE AID DIVISION

Approved *Peter B. Murphy* 10-5 1995
 STATE AID ENGINEER

I HEREBY CERTIFY THAT THE FINAL REVISIONS, IF ANY, OF THIS PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE _____ REG. NO. _____

STATEMENT OF ESTIMATED QUANTITIES									
NOTES	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	S.P. 02-590-02			PROJECT TOTAL	
					PARTICIPATING	STORM SEWER	NON-PARTICIP.	ESTIMATED QUANTITY	FINAL QUANTITY
					ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY		
		2101.511	CLEARING AND GRUBBING	LUMP SUM	1			1	
	9	2104.521	SALVAGE CHAIN LINK FENCE	LIN. FT.	220			220	
		2105.501	COMMON EXCAVATION	CU. YD.	976			976	
		2105.523	COMMON BORROW (CV)	CU. YD.	667			667	
	7	2211.503	AGGREGATE BASE (CV) CL 5	CU. YD.	330			330	
	5	0232.603	MILL CURB	LIN. FT.	30			30	
	5	2402.583	ORNAMENTAL RAILING TYPE SPECIAL	LIN. FT.	430			430	
(3)	5	2411.507	CONCRETE FOOTING	EACH			3	3	
	6,7	0411.603	MODULAR BLOCK RETAINING WALL	SQ. FT.	5000			5000	
	5	0412.602	KIOSK	EACH			1	1	
	5	0412.602	BICYCLE RACKS	EACH			1	1	
	5	0412.602	BENCH (6 FT. LENGTH)	EACH			5	5	
	5	0412.602	INFORMATION SIGN (SPECIAL)	EACH			3	3	
	8	2501.511	15" RC PIPE CULVERT CLASS III	LIN. FT.	53			53	
(1)	8	2501.515	15" RC PIPE APRON	EACH	4			4	
	8	2501.569	LT DUTY SAFETY GRATE FOR 15" RC PIPE APRON	EACH	4			4	
	8	2502.541	4" PE CORR PERF PIPE DRAIN	LIN. FT.	550			550	
(1)(4)	6,9	2511.501	RANDOM RIPRAP CLASS III	CU. YD.	44			44	
	7	2521.511	2.5" BITUMINOUS WALK	SQ. FT.	22600			22600	
	9	0557.603	INSTALL CHAIN LINK FENCE	LIN. FT.	120			120	
	9,10	2564.531	F & T SIGN PANELS TYPE C	SQ. FT.	23			23	
	9	0564.603	4" BROKEN LINE WHITE-PAINT	LIN. FT.	670			670	
		0563.601	TRAFFIC CONTROL	LUMP SUM	1			1	
	9	2573.501	BALE CHECK	EACH	2			2	
	9	2573.502	SILT FENCE HEAVY DUTY	LIN. FT.	600			600	
(2)	9	2575.501	SEEDING	ACRE	2			2	
	7	2575.505	SODDING TYPE LAWN	SQ. YD.	1040			1040	
(2)		2575.511	MULCH MATERIAL TYPE 1	TON	4			4	

NOTES:

- ① SEE MN/DOT STANDARD PLATES ON SHEET NO. 4.
- ② QUANTITIES BASED ON THE FOLLOWING:
SEEDING MIXTURE NO. 500 = 50 LB/ACRE
MULCH MATERIAL TYPE 1 = 2.0 TON/ACRE
- ③ SEE CONCRETE FOOTING (FOR BENCH) DETAIL ON SHEET NO. 5
- ④ GRANULAR FILTER FABRIC SHALL BE INCIDENTAL TO RANDOM RIPRAP.

NO	DATE	BY	CKD	APPR	REVISION

SRF STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS ■ LAND SURVEYORS

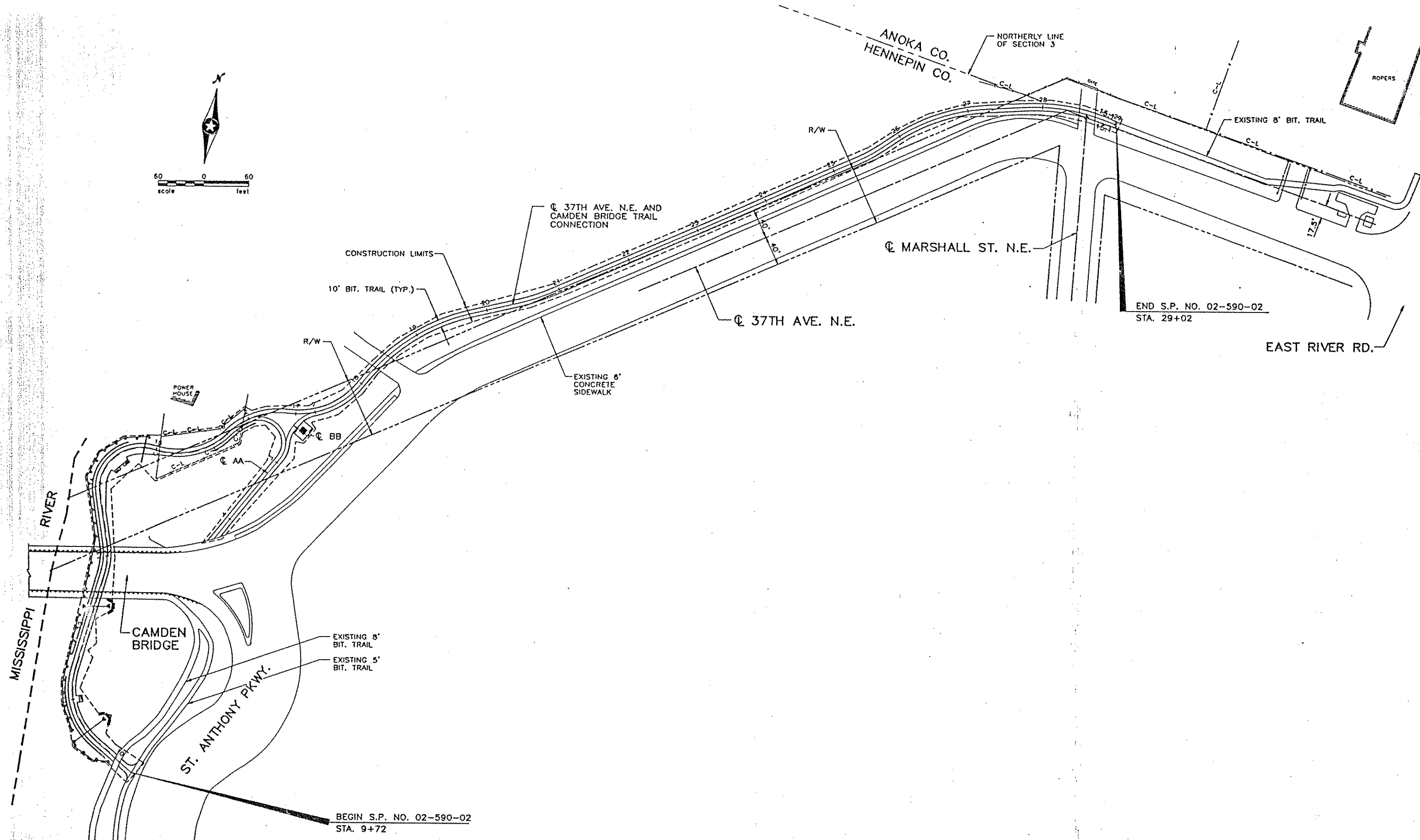
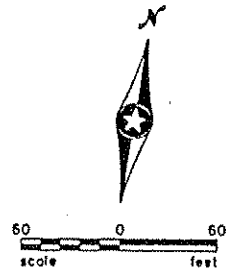
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
J. Thiesse
Date 5-8-95 Reg. No. 18966a

ANOKA COUNTY DEPT. OF PARKS & REC.
STATEMENT OF ESTIMATED QUANTITIES
37TH AVENUE N.E. AND
CAMDEN BRIDGE TRAIL CONNECTION

S.P. 02-590-02

DRAWN BY: C. SCHMIDT DATE: 1-95
DESIGNED BY: C. SCHMIDT DATE: 1-95
CHECKED BY: J. THIESSE DATE: 1-95

SHEET 2
OF 16
COMM. NO. 0942018



BEGIN S.P. NO. 02-590-02
STA. 9+72

END S.P. NO. 02-590-02
STA. 29+02

NO	DATE	BY	CHKD	APPR	REVISION

SRF STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS ■ LAND SURVEYORS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
J. Thiesse
Date 3-13-95 Reg. No. 10866

ANOKA COUNTY DEPT. OF PARKS & REC.
GENERAL LAYOUT
37TH AVENUE N.E. AND
CAMDEN BRIDGE TRAIL CONNECTION

S.P. 02-590-02	DRAWN BY C. SCHMIDT	DATE 1-95	SHEET 3
	DESIGNED BY C. SCHMIDT	1-95	OF 16
	CHECKED BY J. THIESSE	1-95	COMM. NO. 0942018

THE FOLLOWING STANDARD PLATES APPROVED BY THE DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

MN/DOT STANDARD PLATES	
PLATE NO.	DESCRIPTION
0005 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 L	REINFORCED CONCRETE PIPE
3100 G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3133 B	RIPRAP AT RCP OUTLETS
4108 F	ADJUSTING RINGS FOR CATCH BASINS AND MANHOLES
8000 I	STANDARD BARRICADES
9102 D	TURF ESTABLISHMENT AREAS
9322 J	CHAIN LINK FENCE

EARTHWORK TABULATION		
ALIGNMENT	EXCAVATION (CU. YDS.)	EMBANKMENT (CV) ① (CU. YDS.)
9+72-10+32	0	89
10+32-10+50	0	150
10+50-11+00	53	398
11+00-11+50	39	41
11+50-12+00	0	126
12+00-12+50	0	165
12+50+13+00	0	100
13+00-13+50	6	52
13+50-14+00	6	100
14+00-14+25	0	109
14+25-14+50	0	134
14+50-14+75	0	71
14+75-15+00	31	4
15+00-15+50	222	0
15+50-16+00	209	0
16+00-16+50	81	0
16+50-17+00	37	0
17+00-18+00	26	0
18+00-19+00	19	15
19+00-20+00	19	15
20+00-21+00	37	0
21+00-22+00	37	0
22+00-23+00	37	0
23+00-24+00	30	15
24+00-25+00	11	37
25+00-26+00	15	22
26+00-27+00	30	0
27+00-29+02	31	0
TOTALS	976	1643

EARTHWORK NOTES

① 125% SHRINKAGE FACTOR USED FROM EXCAVATED VOLUME (EV) TO COMPACTED VOLUME (CV). 140% SHRINKAGE FACTOR USED FROM LOOSE VOLUME (LV) TO COMPACTED VOLUME (CV). SHRINKAGE FACTORS ARE ASSUMED VALUES, USED ONLY FOR THE PURPOSES OF ESTIMATING QUANTITIES. IT SHALL BE UNDERSTOOD THAT NO WARRANTY IS MADE OR IMPLIED AS TO THE ACCURACY, SUFFICIENCY, OR RELIABILITY OF THESE SHRINKAGE FACTORS.

CONSTRUCTION/SOILS NOTES

- SUITABLE GRADING MATERIAL ON THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF SLOPE DRESSING, DEBRIS, ORGANIC MATERIAL, MUCK AND OTHER UNSTABLE MATERIAL.
- OTHER GRADING MATERIAL ON THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED ON THIS PROJECT EXCEPT DEBRIS.
- CLEARING AND GRUBBING SHALL BE RESTRICTED TO AREAS IDENTIFIED WITHIN THE GRADING LIMITS OF THE PROJECT.
- BITUMINOUS SURFACING REMOVED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED IN THE BITUMINOUS BASE OR DISPOSED OF OFF THE PROJECT, IN ACCORDANCE WITH THE PROVISIONS OF SPEC. 2104.3C3.
- GRADING GRADE (TOP OF THE GRADING SUBGRADE) IS DEFINED AS THE BOTTOM OF THE CLASS 5 AGGREGATE BASE AS SHOWN ON THE TYPICAL SECTIONS.
- OTHER GRADING MATERIAL SHALL BE PLACED IN THE BERM AREAS OF THE GRADING LIMITS OF THE PROJECT OR AS DIRECTED BY THE ENGINEER.
- COMPACTION OF THE GRADING PORTION OF THE PROJECT SHALL BE BY THE QUALITY COMPACTION METHOD.
- COMPACTION OF AGGREGATE BASE AND AGGREGATE SHOULDERING SHALL BE BY THE QUALITY COMPACTION METHOD.
- COMPACTION OF ALL BITUMINOUS MIXTURES SHALL BE BY THE ORDINARY COMPACTION METHOD.
- STRIP AND REUSE AS SLOPE DRESSING ALL EXISTING SLOPE DRESSING WHERE PRESENT IN AREAS TO BE DISTURBED BY CONSTRUCTION. ALL SUCH STRIPPING IS CONSIDERED TO BE COMMON EXCAVATION.
- PLACE A MINIMUM OF 6 INCHES OF SLOPE DRESSING AND SEEDING (PER SPEC. 2575) ON ALL AREAS DISTURBED BY CONSTRUCTION UNLESS SHOWN OTHERWISE ON THE TYPICAL SECTIONS.
- TURF ESTABLISHMENT SHALL MEET THE REQUIREMENTS OF SPEC. 2575.
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING APPENDIX 'B', DATED NOVEMBER 1992.
- BITUMINOUS MATERIALS OF AN OLD ROADWAY MAY BE ENCOUNTERED NEAR STA. 15+00. REMOVAL OF THE MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THE EXCAVATION FOR WALL AND TRAIL CONSTRUCTION.

SRF STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS ■ LAND SURVEYORS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
J. Thiesse
Date: 3-15-95, Reg. No. 13866

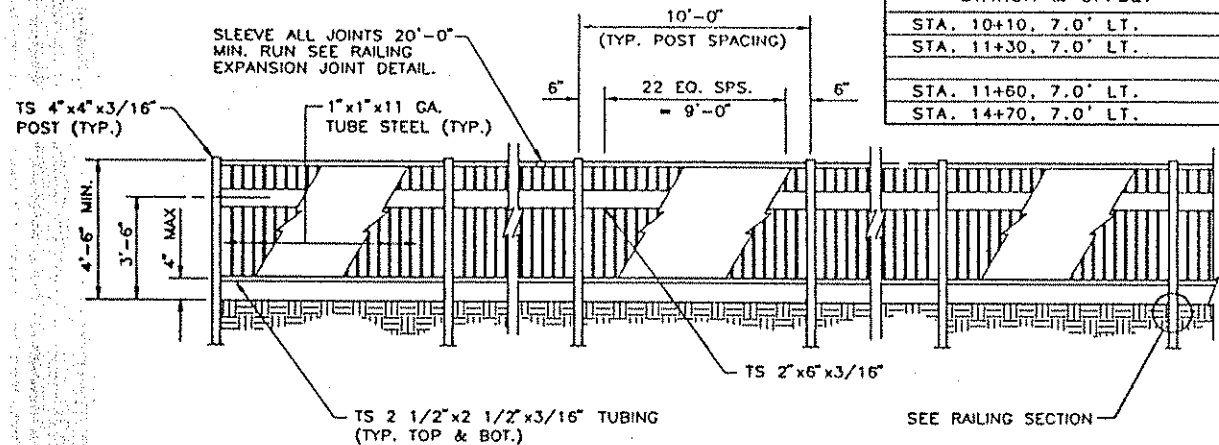
ANOKA COUNTY DEPT. OF PARKS & REC.
CONSTRUCTION/SOILS NOTES, STANDARD PLATES AND EARTHWORK TABULATION
37TH AVENUE N.E. AND
CAMDEN BRIDGE TRAIL CONNECTION

S.P. 02-590-02	DRAWN BY C. SCHMIDT	DATE 1-95	SHEET 4
	DESIGNED BY C. SCHMIDT	DATE 1-95	OF 16
	CHECKED BY J. THIESSE	DATE 1-95	COMM. NO. 0942018

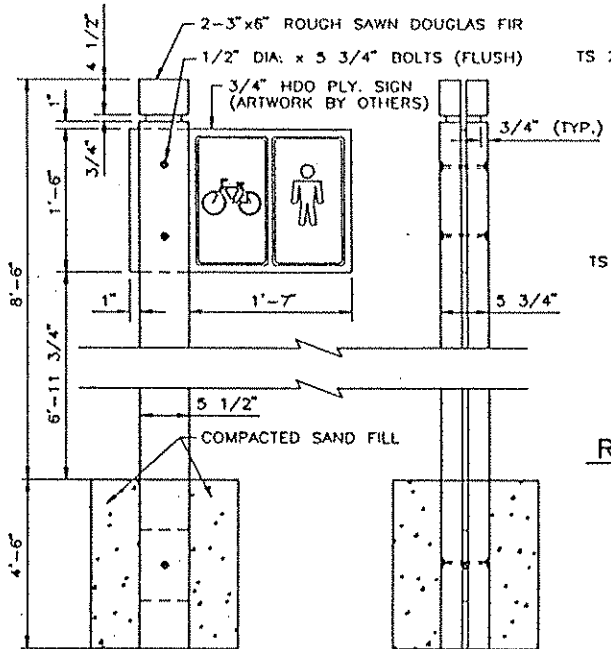
NO	DATE	BY	CKD	APPR	REVISION

HANDRAIL LOCATION INFORMATION

STATION & OFFSET	REMARK
STA. 10+10, 7.0' LT.	BEGIN WALL "A"
STA. 11+30, 7.0' LT.	END WALL "A"
STA. 11+60, 7.0' LT.	BEGIN WALL "B"
STA. 14+70, 7.0' LT.	END WALL "B"

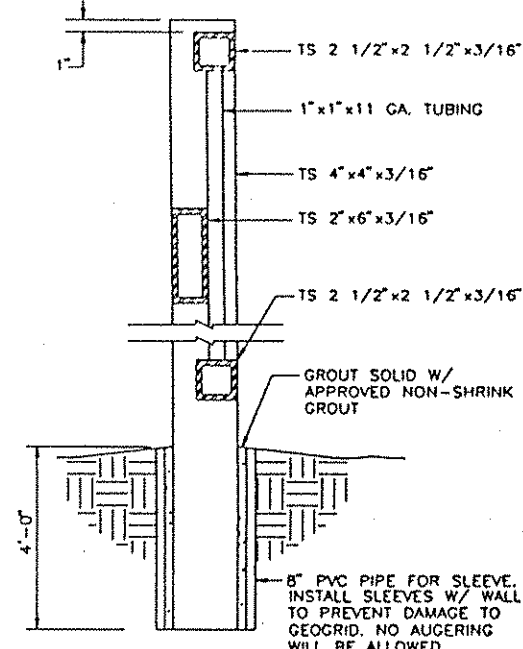


PARTIAL ORNAMENTAL RAILING TYPE SPECIAL ELEVATION

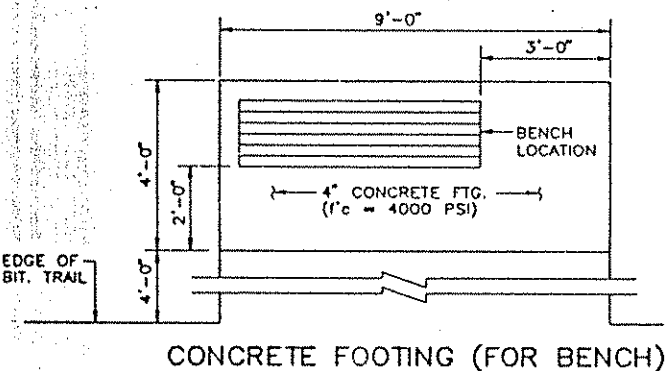


INFORMATION SIGN (SPECIAL)-PED/BIKE

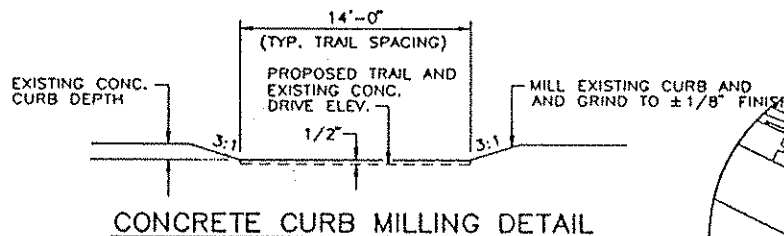
RAILING EXPANSION JOINT DETAIL



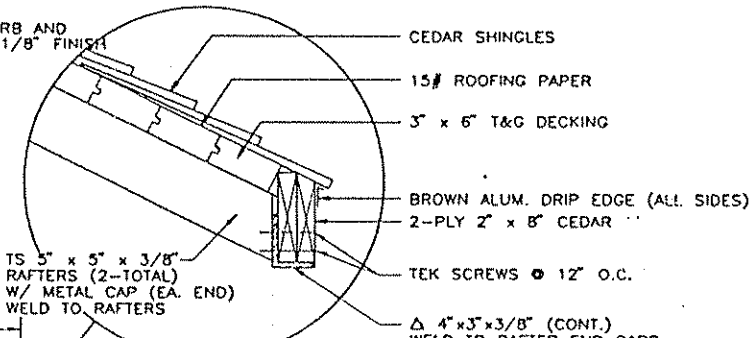
RAILING SECTION



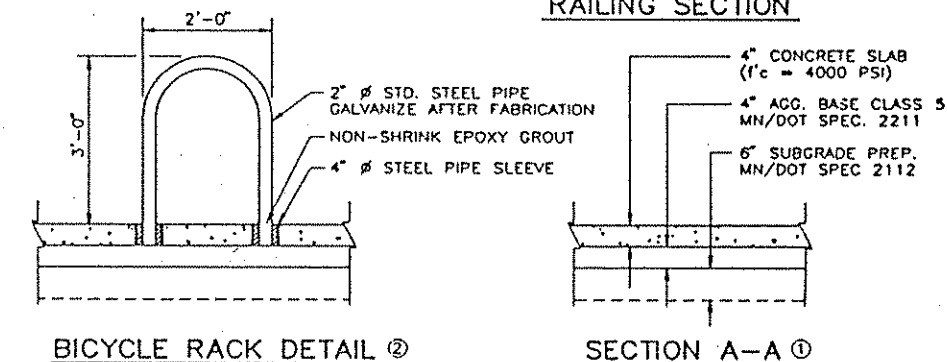
CONCRETE FOOTING (FOR BENCH)



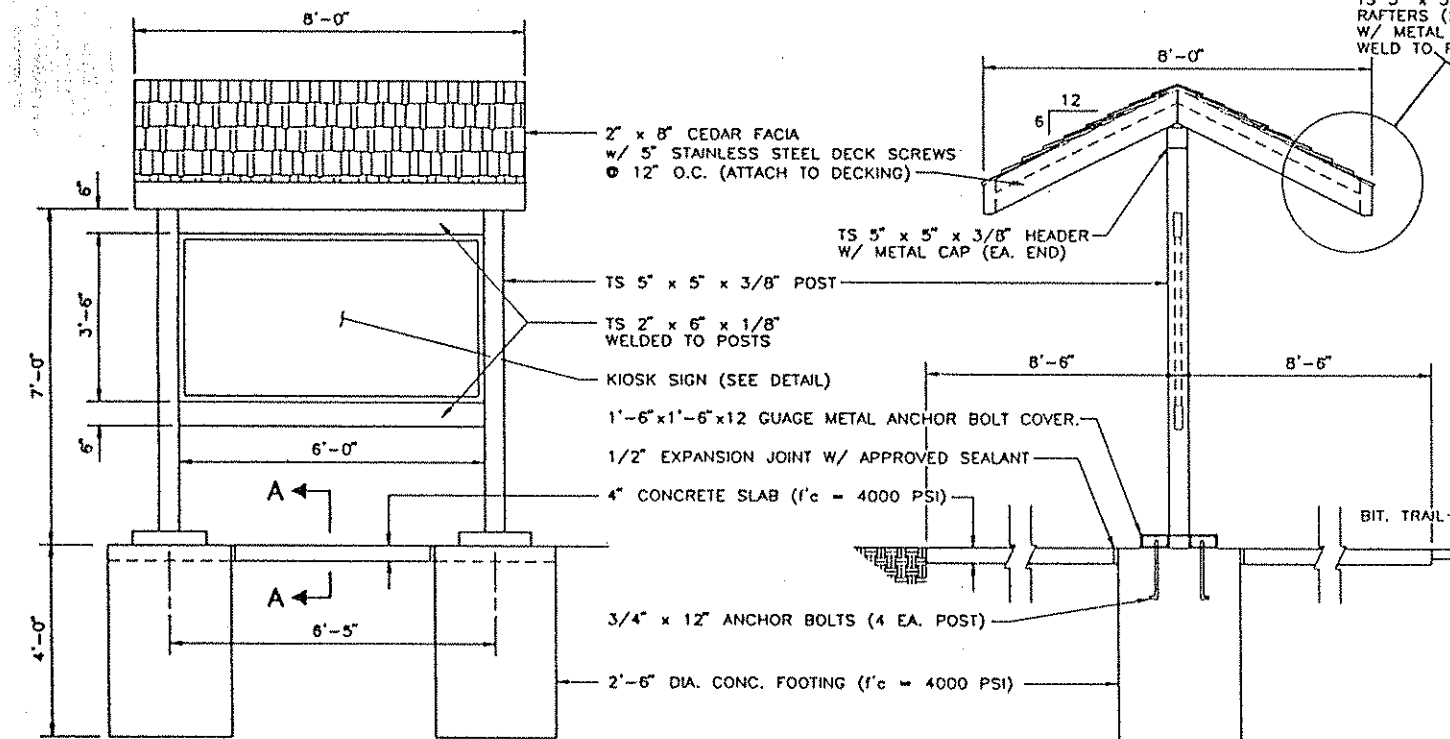
CONCRETE CURB MILLING DETAIL



BICYCLE RACK DETAIL 2

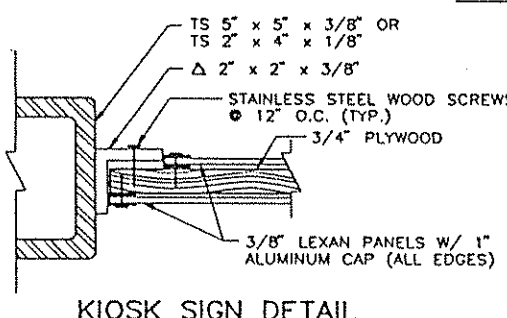


SECTION A-A 1

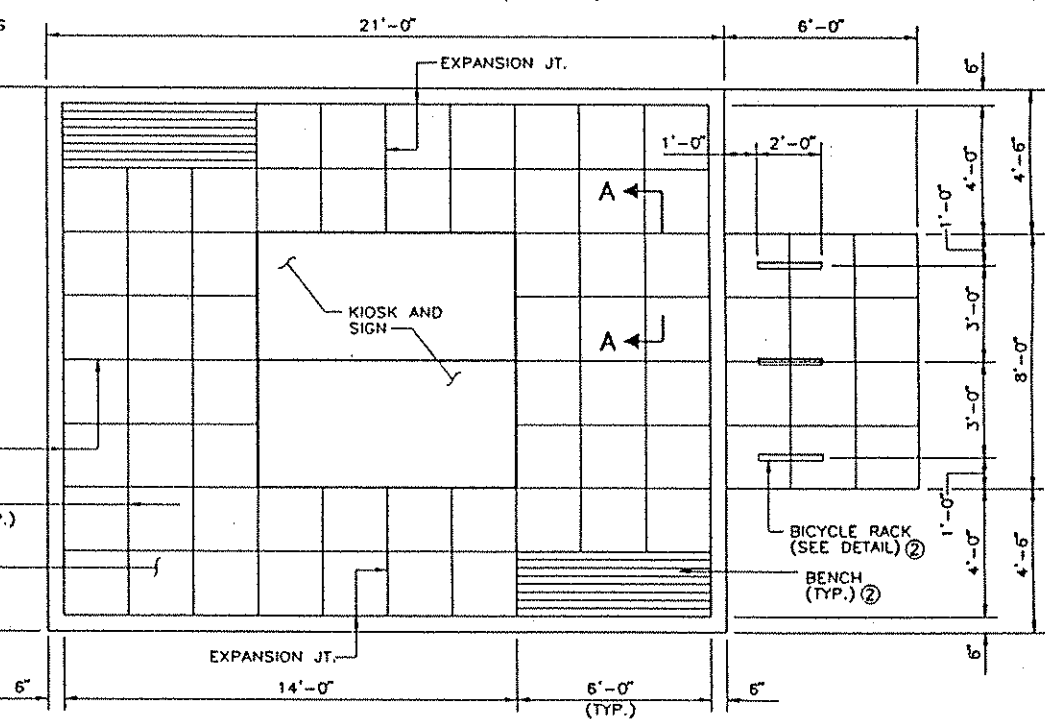


KIOSK ELEVATION

KIOSK SECTION



KIOSK SIGN DETAIL



KIOSK PLAN

- NOTES:
- PAYMENT FOR CONCRETE SLAB AT KIOSK AREA IS INCLUDED IN PAYMENT FOR KIOSK.
 - PAYMENT FOR BICYCLE RACK AND BENCHES ARE SEPARATE FROM PAYMENT FOR KIOSK.

SRF STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS ■ LAND SURVEYORS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
J. Thiesse
Dec. 3-15-95 Reg. No. 18946

ANOKA COUNTY DEPT. OF PARKS & REC.
DETAILS
37TH AVENUE N.E. AND
CAMDEN BRIDGE TRAIL CONNECTION

DRAWN BY C. SCHMIDT DATE 1-95 SHEET 5
DESIGNED BY C. SCHMIDT 1-95 OF 16
CHECKED BY J. THIESSE 1-95 COMM. NO. 0942018
S.P. 02-590-02

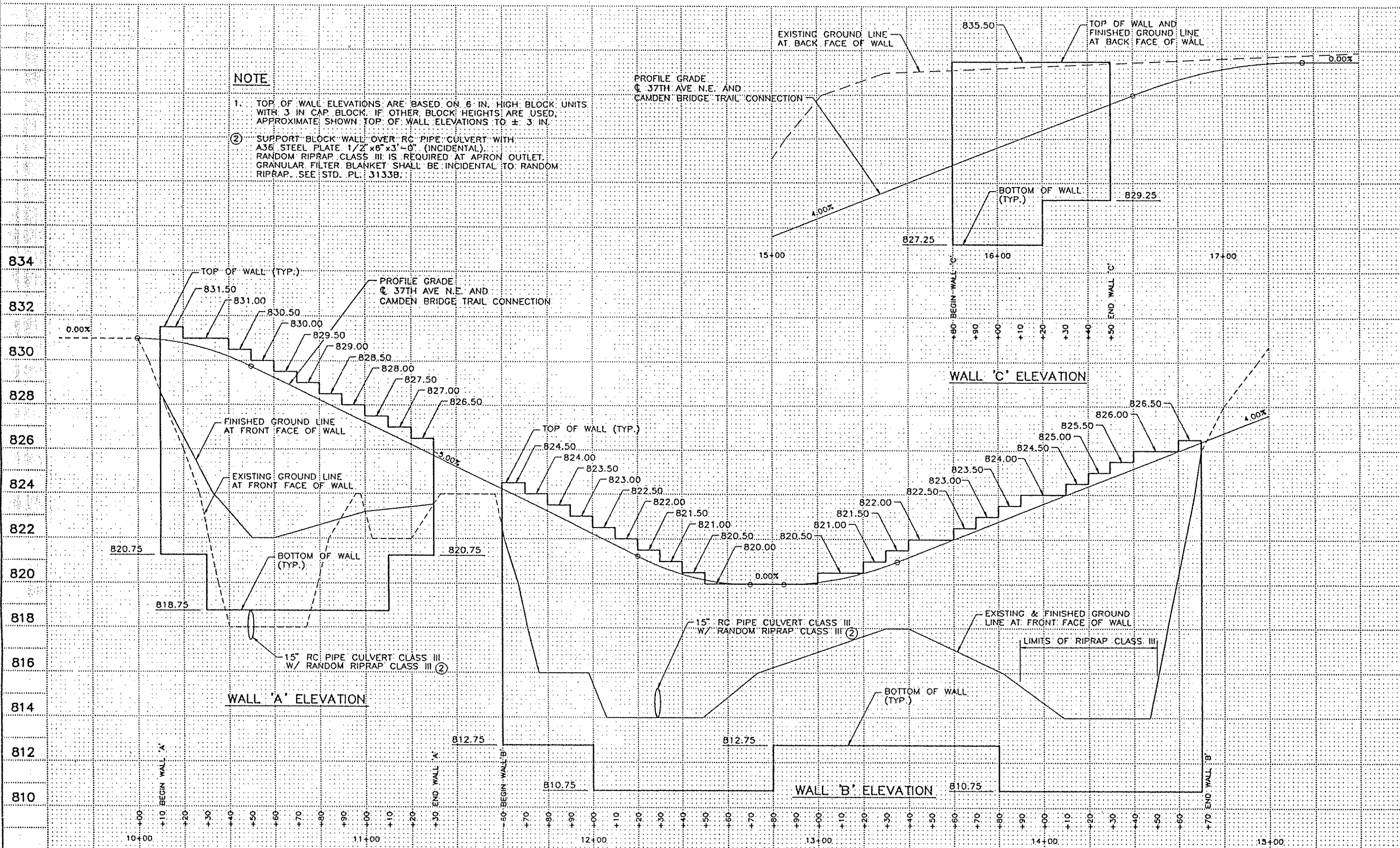
NOTE

1. TOP OF WALL ELEVATIONS ARE BASED ON 6 IN. HIGH BLOCK UNITS WITH 3 IN. CAP BLOCK. IF OTHER BLOCK HEIGHTS ARE USED, APPROXIMATE SHOWN TOP OF WALL ELEVATIONS TO ± 3 IN.
2. SUPPORT BLOCK WALL OVER RC PIPE CULVERT WITH A36 STEEL PLATE 1/2" x 6" x 3'-0" (INCIDENTAL). RANDOM RIPRAP CLASS III IS REQUIRED AT APRON OUTLET. GRANULAR FILTER BLANKET SHALL BE INCIDENTAL TO RANDOM RIPRAP. SEE STD. PL. 3133B.

PROFILE GRADE
 C 37TH AVE N.E. AND
 CAMDEN BRIDGE TRAIL CONNECTION

EXISTING GROUND LINE
 AT BACK FACE OF WALL

TOP OF WALL AND
 FINISHED GROUND LINE
 AT BACK FACE OF WALL



WALL 'A' ELEVATION

WALL 'C' ELEVATION

WALL 'B' ELEVATION

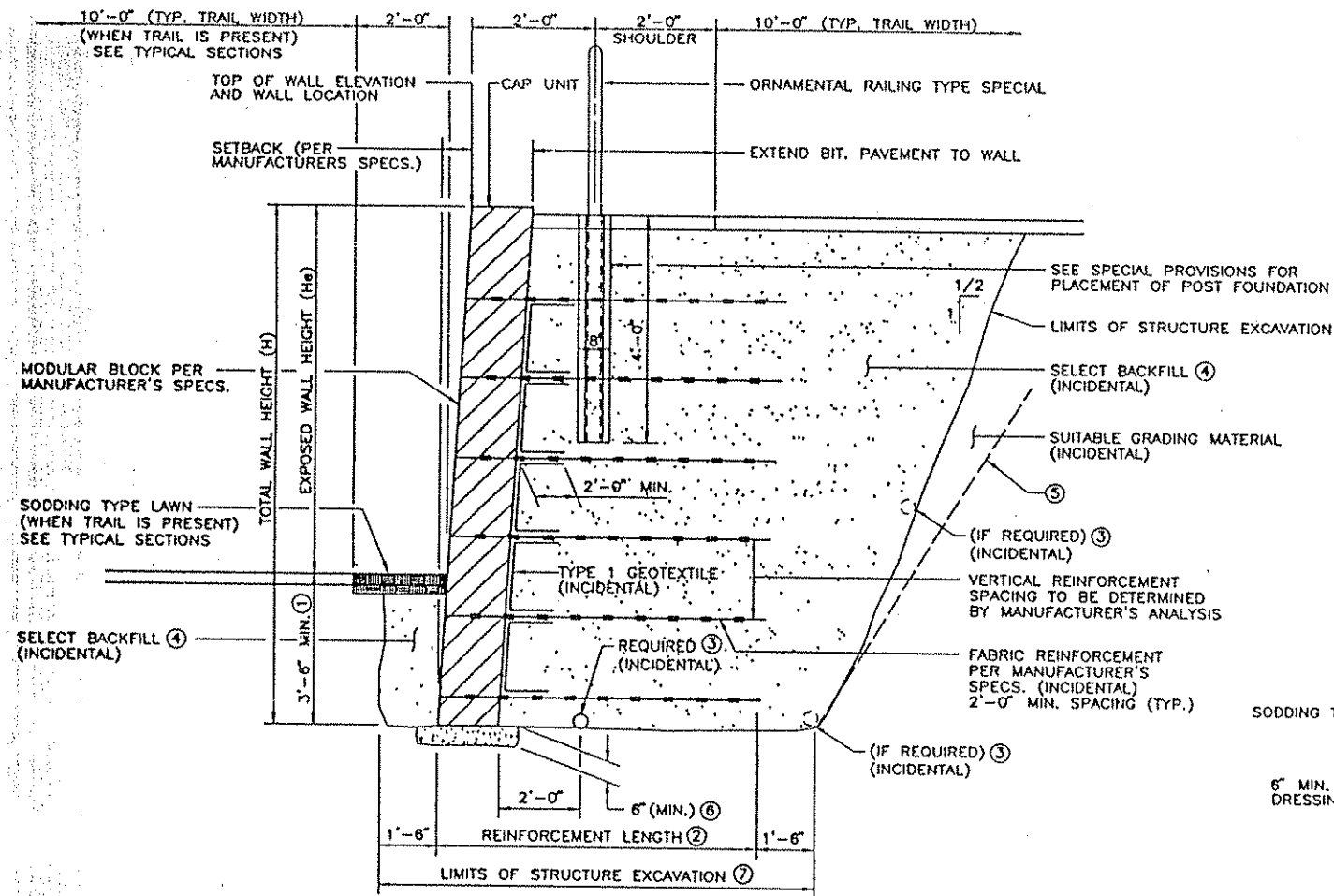
NO	DATE	BY	CKD	APPR	REVISION

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 CONSULTING ENGINEERS ■ LAND SURVEYORS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
J. Thiesse
 Date: 3-13-95 Reg. No. 18926a

ANOKA COUNTY DEPT. OF PARKS & REC.
 RETAINING WALL ELEVATIONS
 37TH AVENUE N.E. AND
 CAMDEN BRIDGE TRAIL CONNECTION

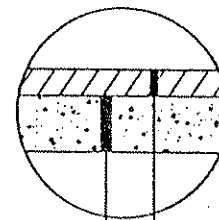
S.P. 02-590-02	DRAWN BY C. SCHMIDT	DATE 5-94	SHEET 6
	DESIGNED BY C. SCHMIDT	5-94	OF 16
	CHECKED BY J. THIESSE	5-94	COMM. NO. 0942018



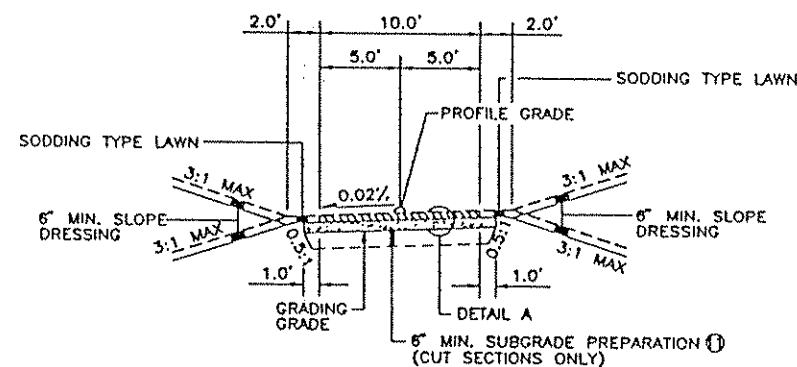
MODULAR BLOCK RETAINING WALL DETAIL

NOTES:

- ① MINIMUM DEPTH OF BLOCK EMBEDMENT IS MEASURED PERPENDICULAR TO SLOPE OF EMBANKMENT OR TRAIL UNLESS A DETAILED ANALYSIS SHOWS A GREATER DEPTH IS REQUIRED (AASHTO 5.8). FOR WALLS WITH (H_e) LESS THAN 3 FT., MIN. DEPTH MAY BE REDUCED TO (H_e).
- ② MIN. REINFORCEMENT LENGTH SHALL BE 8 FT. UNLESS A DETAILED ANALYSIS BY THE CONTRACTOR SHOWS A LONGER LENGTH IS REQUIRED FOR LOCAL AND GLOBAL STABILITY (AASHTO 5.8). FOR WALLS WITH (H_e) LESS THAN 4 FT., MIN. REINFORCEMENT LENGTH MAY BE REDUCED TO GREATER OF 2(H_e) OR 3 FT.
- ③ A 4 IN. DRAIN PIPE, MN/DOT 3278, WRAPPED IN TYPE 1 GEOTEXTILE, MN/DOT 3733, IS RECOMMENDED. THE PROJECT ENGINEER HAS THE OPTION OF HAVING ADDITIONAL DRAINS PLACED TO INTERCEPT ANY WATER-BEARING SOIL STRATA DISCOVERED DURING CONSTRUCTION.
- ④ SELECT BACKFILL TO MEET MN/DOT 3149.2B MODIFIED TO 10% OR LESS PASSING THE NO. 200 SIEVE, IN ADDITION, 100% MUST PASS THE 4 IN. SIEVE. COMPACTION TO MEET MN/DOT 2451.3D.
- ⑤ SLOPE IS DETERMINED BY OSHA REGULATIONS AND IN-SITU SOILS; EXCAVATION BEYOND "LIMITS OF STRUCTURE EXCAVATION" SHALL BE PAID FOR AT CONTRACTOR'S EXPENSE.
- ⑥ LEVELING PAD SHALL BE EITHER NON-REINFORCED CONCRETE OR COMPACTED AGGREGATE.
- ⑦ STRUCTURE EXCAVATION FOR RETAINING WALL SHALL BE CONSIDERED INCIDENTAL TO WALL CONSTRUCTION.
- ⑧ THE WALL SHALL BE DESIGNED AND THE DETAILED SHOP DRAWINGS PREPARED BY A PROFESSIONAL ENGINEER EXPERIENCED IN RETAINING WALL DESIGN WHO IS REGISTERED IN THE STATE OF MINNESOTA. THE DESIGN COMPUTATIONS AND THE PLANS SHALL BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE OWNER FOR THEIR REVIEW, APPROVAL AND PERMANENT RECORD. THE DESIGN SHALL BE PER AASHTO AND THE MN/DOT ROADWAY DESIGN MANUAL EXCEPT AS NOTED.
- ⑨ THE DETAILED SHOP DRAWINGS SHALL CONTAIN ALL THE NECESSARY INFORMATION FOR THE CONSTRUCTION OF THE WALL. INCLUDED SHALL BE A TYPICAL SECTION DETAILING EXCAVATION LIMITS, GEOTEXTILE LOCATIONS, BLOCK EMBEDMENTS, LEVELING PAD DIMENSIONS, BACKFILL, ETC., INCLUDE AS MANY SECTIONS AND OTHER VIEWS AS NECESSARY FOR THE CONSTRUCTION AND INSPECTION OF THE WALL. THE INFORMATION ON EMBEDMENT, GEOTEXTILE LOCATIONS AND GEOTEXTILE LENGTHS AS THEY RELATE TO WALL HEIGHTS MAY BE SHOWN IN TABULAR FORM. ALSO INCLUDED SHALL BE THE PERTINENT INFORMATION ON THE INDIVIDUAL BLOCKS AND THE GEOTEXTILE MATERIAL.
- ⑩ ALL SHOP DRAWINGS SHALL CLEARLY IDENTIFY THE NAME OF THE RESPONSIBLE ENGINEERING FIRM AND THE NAME OF THE ENGINEER CERTIFYING THE PLAN. EACH SHEET SHALL BE CERTIFIED.

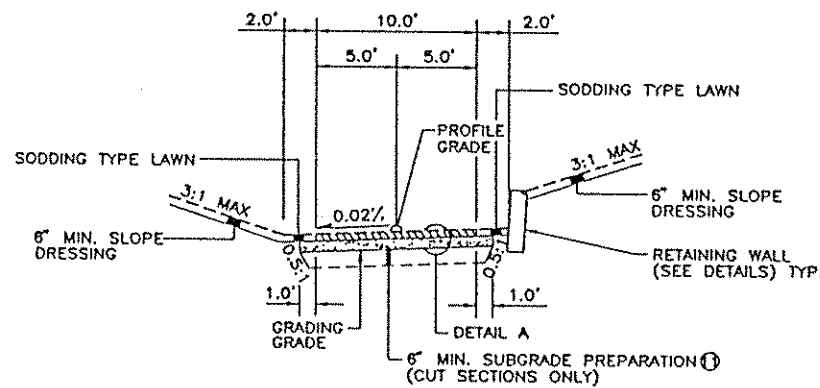


DETAIL A



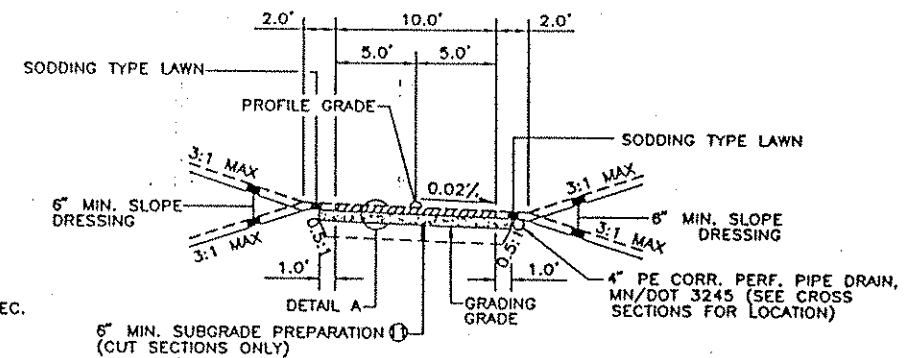
TYPICAL SECTION

STA. 15+46 TO STA. 15+80
 STA. 16+50 TO STA. 29+02
 STA. 2+00 TO STA. 4+35 (Q AA)



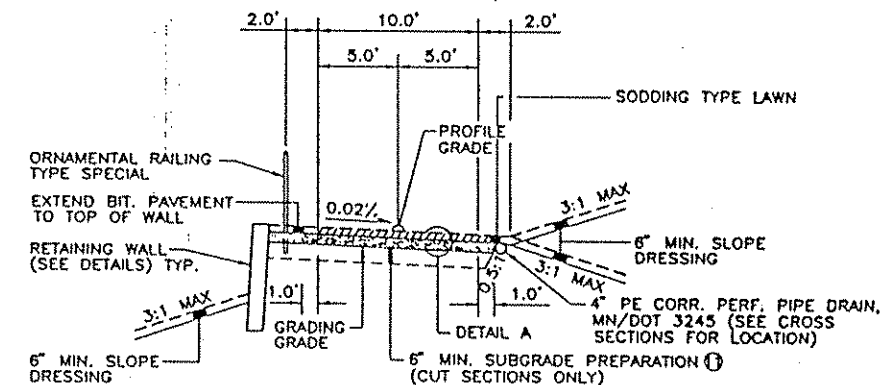
TYPICAL SECTION

STA. 15+80 TO STA. 16+50



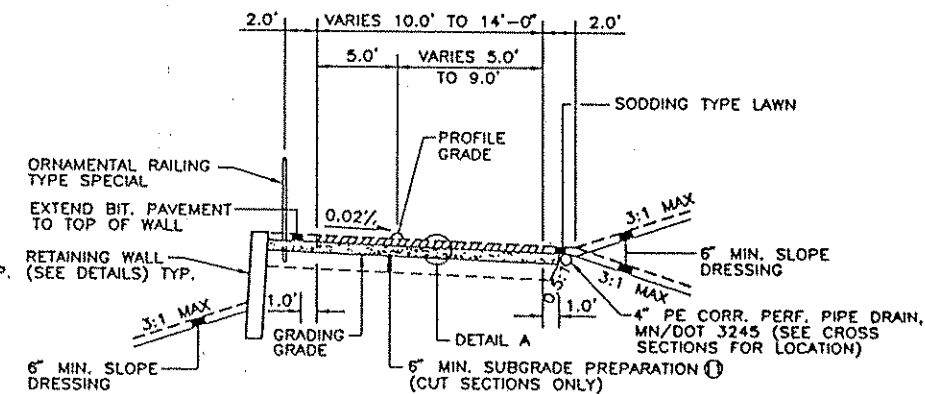
TYPICAL SECTION

STA. 9+72 TO STA. 10+10
 STA. 11+30 TO STA. 11+60
 STA. 14+70 TO STA. 15+46



TYPICAL SECTION

STA. 10+10 TO STA. 11+30
 STA. 11+60 TO STA. 13+80



TYPICAL SECTION

STA. 13+80 TO STA. 14+70

⑩ SUBGRADE PREPARATION AND MODIFIED DEPTH WILL BE CONSIDERED INCIDENTAL TO COMMON EXCAVATION.

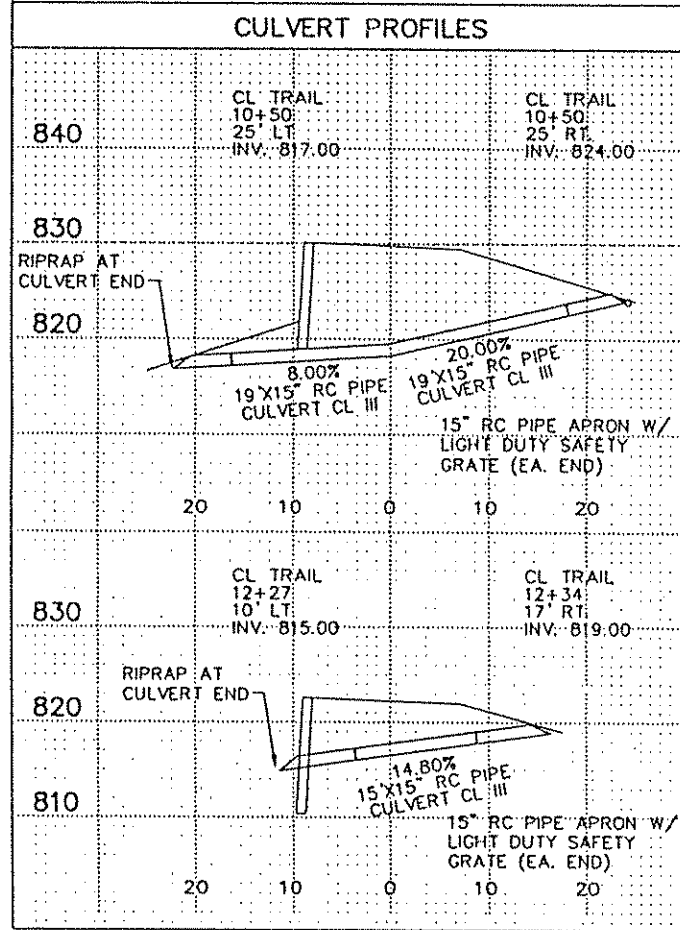
NO	DATE	BY	CHKD	APPR	REVISION

SRF STRGAR-ROSCOE-FAUSCH, INC.
 CONSULTING ENGINEERS ■ LAND SURVEYORS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
[Signature]
 Date 5-8-95, Reg. No. 18966

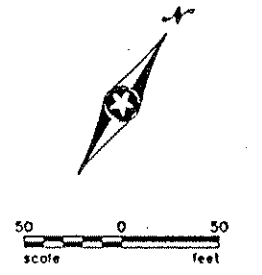
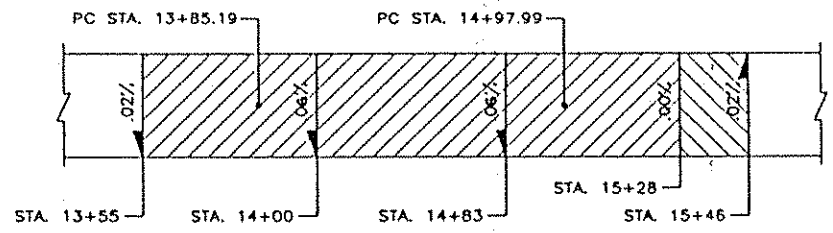
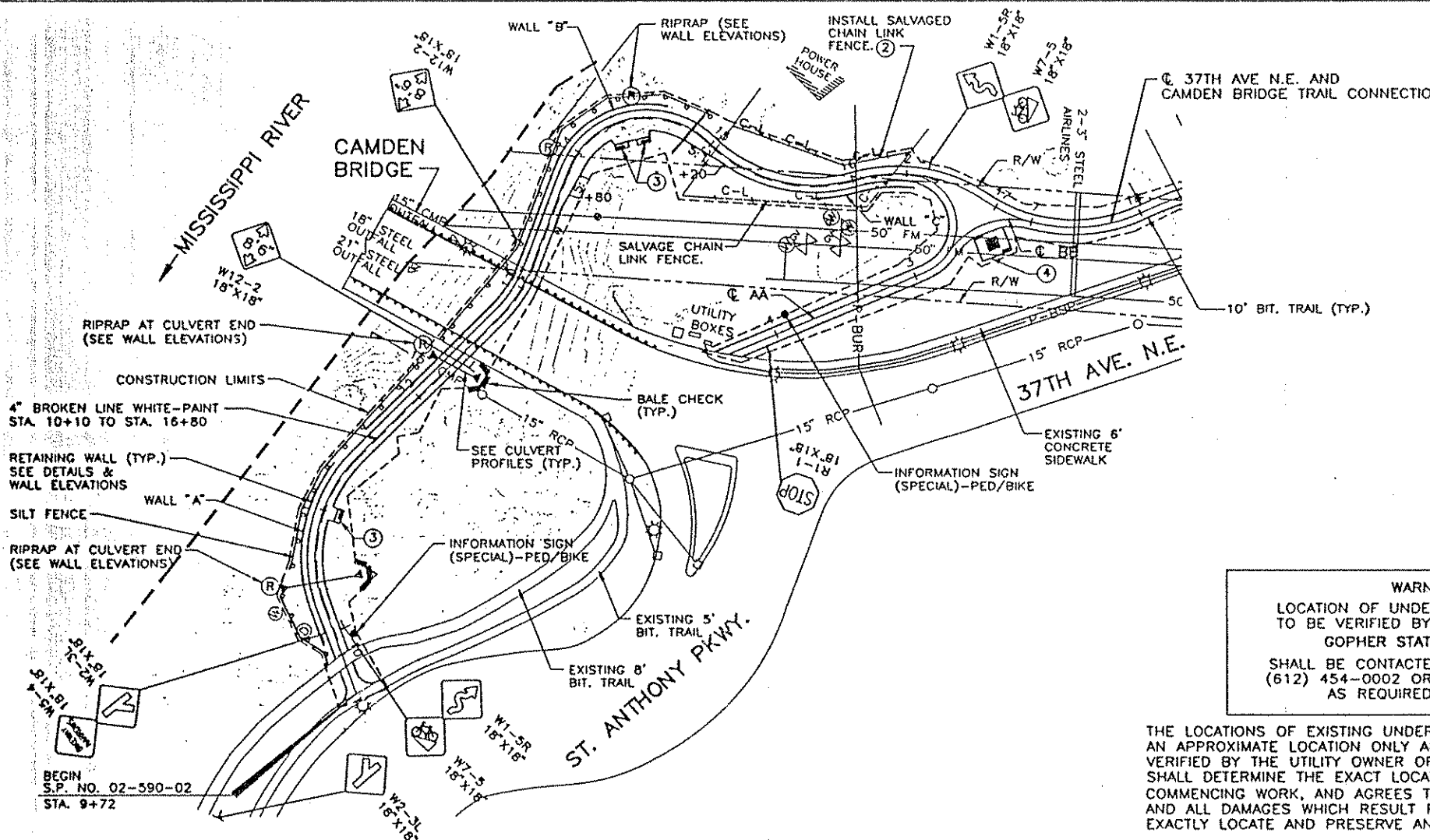
ANOKA COUNTY DEPT. OF PARKS & REC.
 TYPICAL SECTIONS AND RETAINING WALL DETAILS
 37TH AVENUE N.E. AND
 CAMDEN BRIDGE TRAIL CONNECTION

DESIGNED BY C. SCHMIDI	DATE 1-95	SHEET 7 OF 16 COMM. NO. 0942018
CHECKED BY J. THIESSE	DATE 1-95	
S.P. 02-990-02		
DRAWN BY C. SCHMIDI		



PT. NO.	POINT	STATION	CURVE DATA				COORDINATES		AZIMUTH		
			Δ	D	R	T	L	X		Y	
☉ 37TH AVE. N.E. AND CAMDEN BRIDGE TRAIL CONNECTION											
	P.O.T.	BEGIN CL TRAIL	10+00.00					274.798	906.322	312°-27'-59"	
	P.C.		10+34.84					249.094	929.848		
TRAIL-1	P.I.		10+94.71	64°-26'-07"	60°-18'-41"	95.00	59.86	106.84	204.933	970.266	P.I.
	P.T.		11+41.68						222.338	1027.546	16°-54'-05"
	P.C.		12+76.32						261.482	1156.372	
TRAIL-2	P.I.		12+96.81	24°-20'-09"	60°-18'-41"	95.00	20.48	40.35	267.437	1175.971	P.I.
	P.T.		13+16.67						264.786	1196.283	352°-33'-57"
	P.C.		13+85.19						255.921	1264.227	
TRAIL-3	P.I.		14+73.80	115°-24'-37"	102°-18'-50"	56.00	88.60	112.80	244.457	1352.083	P.I.
	P.T.		14+97.99						328.733	1324.739	107°-58'-34"
	P.C.		14+97.99						328.733	1324.739	
TRAIL-4	P.I.		15+55.54	62°-24'-38"	60°-18'-41"	95.00	57.54	103.48	383.467	1306.980	P.I.
	P.T.		16+01.47						424.557	1347.264	45°-34'-05"
	P.C.		16+01.47						424.557	1347.264	
TRAIL-5	P.I.		16+49.37	51°-01'-04"	57°-17'-45"	100.00	47.72	89.04	458.943	1380.606	P.I.
	P.T.		16+90.69						506.314	1374.873	96°-54'-02"
	P.C.		16+90.69						506.314	1374.873	
TRAIL-6	P.I.		17+51.82	60°-24'-48"	54°-34'-03"	105.00	61.13	110.71	566.999	1367.528	P.I.
	P.T.		18+01.41						603.349	1416.675	36°-29'-14"
	P.C.		18+01.41						603.349	1416.675	
TRAIL-7	P.I.		18+93.48	40°-26'-12"	22°-55'-06"	250.00	92.07	176.44	658.099	1490.700	P.I.
	P.T.		19+77.84						747.785	1511.531	76°-55'-27"
	P.C.		20+43.32						811.559	1526.344	
TRAIL-8	P.I.		20+67.76	11°-10'-06"	22°-55'-06"	250.00	24.43	48.73	835.368	1531.874	P.I.
	P.T.		20+92.05						857.655	1541.911	65°-45'-20"
	P.C.		25+35.59						1262.078	1724.042	
TRAIL-9	P.I.		25+52.96	09°-55'-30"	28°-38'-52"	200.00	17.37	34.64	1277.912	1731.173	P.I.
	P.T.		25+70.24						1292.281	1740.927	55°-49'-50"
	P.C.		25+91.72						1310.057	1752.994	
TRAIL-10	P.I.		26+61.71	31°-16'-48"	22°-55'-06"	250.00	69.99	136.48	1367.965	1792.303	P.I.
	P.T.		27+28.20						1437.866	1795.831	87°-06'-38"
	P.C.		27+78.29						1487.888	1798.356	
TRAIL-11	P.I.		28+31.25	23°-55'-13"	22°-55'-06"	250.00	52.96	104.37	1540.778	1801.026	P.I.
	P.T.		28+82.66						1590.208	1782.021	111°-01'-51"
	P.O.T.	END CL TRAIL	29+02.00						1608.802	1774.871	
☉ AA											
	P.C.	BEGIN CL AA =	2+00.00						453.131	1366.730	65°-41'-22"
		CL TRAIL	16+36.22								
AA-1	P.I.		3+48.06	153°-23'-56"	163°-42'-08"	35.00	148.06	93.71	588.058	1427.681	P.I.
	P.T.		2+93.71						494.706	1312.765	219°-05'-19"
	P.O.T.	END CL AA	4+34.52						405.923	1203.473	
☉ BB											
	P.C.	BEGIN CL BB =	7+00.00						541.497	1376.566	257°-35'-20"
		CL TRAIL	17+26.08								
BB-1	P.I.		7+36.86	72°-47'-53"	114°-35'-30"	50.00	36.86	63.53	505.496	1368.643	P.I.
	P.T.	END CL BB =	7+63.53						502.418	1331.910	184°-47'-27"
		CL AA	2+72.76								

		I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota. <i>J. Thiesse</i> 3-15-95 Reg. No. 18966	ANOKA COUNTY DEPT. OF PARKS & REC. ALIGNMENT TABULATION AND CULVERT PROFILES 37TH AVENUE N.E. AND CAMDEN BRIDGE TRAIL CONNECTION	S.P. 02-590-02 DRAWN BY C. SCHMIDT 1-95 DESIGNED BY C. SCHMIDT 1-95 CHECKED BY J. THIESSE 1-95	SHEET 8 OF 16 COMM. NO. 0942018
NO DATE BY CKD APPR REVISION	NAME: G:\ACAD11\DWG\2018\2018ATAS.DWG DATE: JAN 21, 1995 TIME: 1:04 PM				



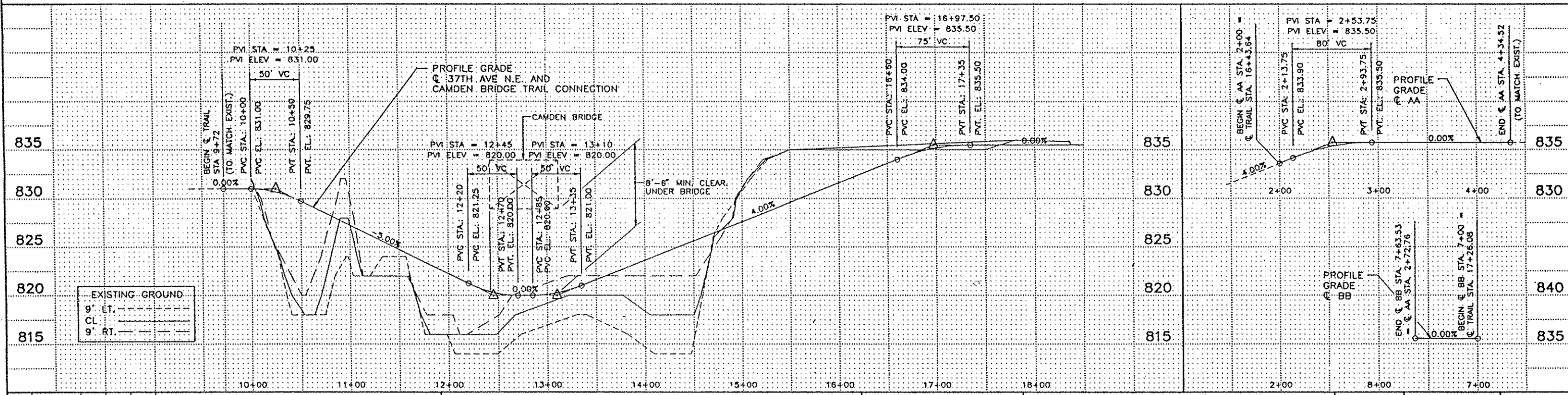
SUPERTRANSITION LAYOUT

- NOTES**
- 1 ALL UTILITIES SHOWN ARE EXISTING AND SHALL REMAIN IN PLACE.
 - 2 INSTALL CHAIN LINK FENCE AT THE GRADING MATCH LINE. SEE CROSS SECTIONS.
 - 3 FOR CONCRETE FOOTING (FOR BENCH) DETAILS, SEE SHEET 5. FINAL LOCATION TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT.
 - 4 FOR KIOSK DETAILS, SEE SHEET 5.

WARNING
 LOCATION OF UNDERGROUND UTILITIES TO BE VERIFIED BY THE CONTRACTOR
 GOPHER STATE ONE CALL
 SHALL BE CONTACTED BEFORE DIGGING
 (612) 454-0002 OR 1-800-252-1166
 AS REQUIRED BY LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE UTILITY OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH RESULT FROM THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

B.M. ELEV. 831.85
 BRASS MONUMENT IN CONCRETE 1.5' BELOW GRADE IN CAST IRON CASING WITH REMOVABLE COVER LOCATED NORTH OF THE INTERSECTION OF MARSHAL STREET AND 37TH AVE N.E. N.W. CORNER OF N.E. 1/4 SEC. 3, T 29, R 24



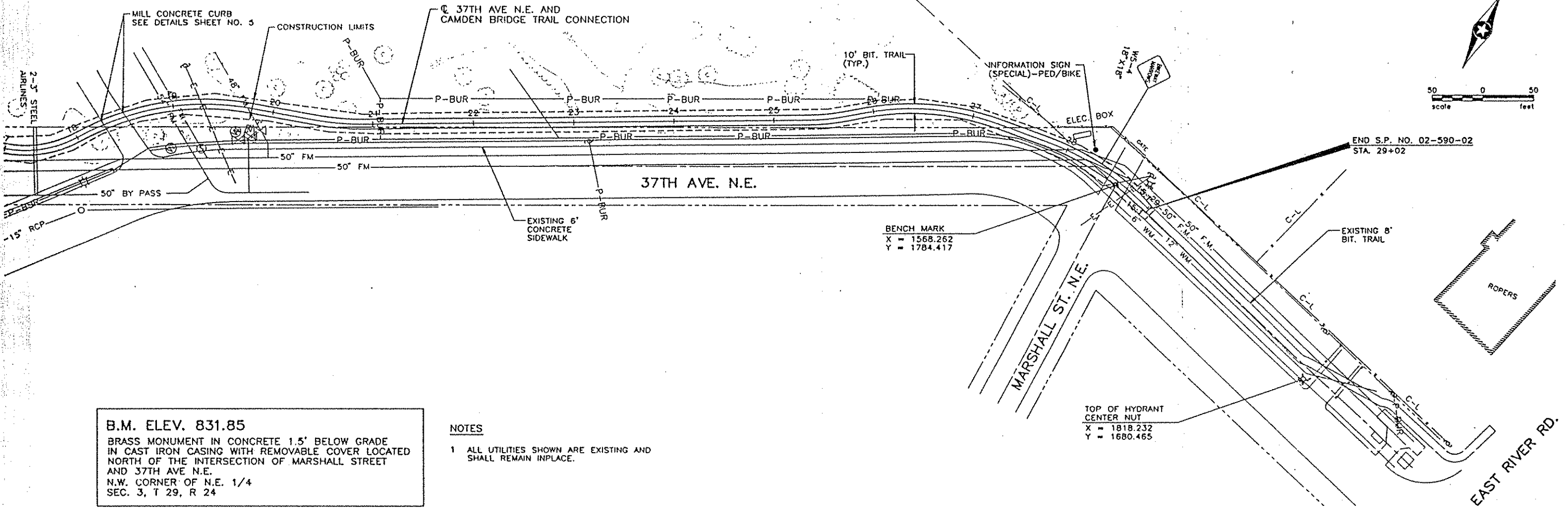
NO	DATE	BY	CKD	APPR	REVISION

SRF STRGAR-ROSCOE-FAUSCH, INC.
 CONSULTING ENGINEERS ■ LAND SURVEYORS

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J. Thiesse
 Date: 3-13-95 Reg. No. 16966a

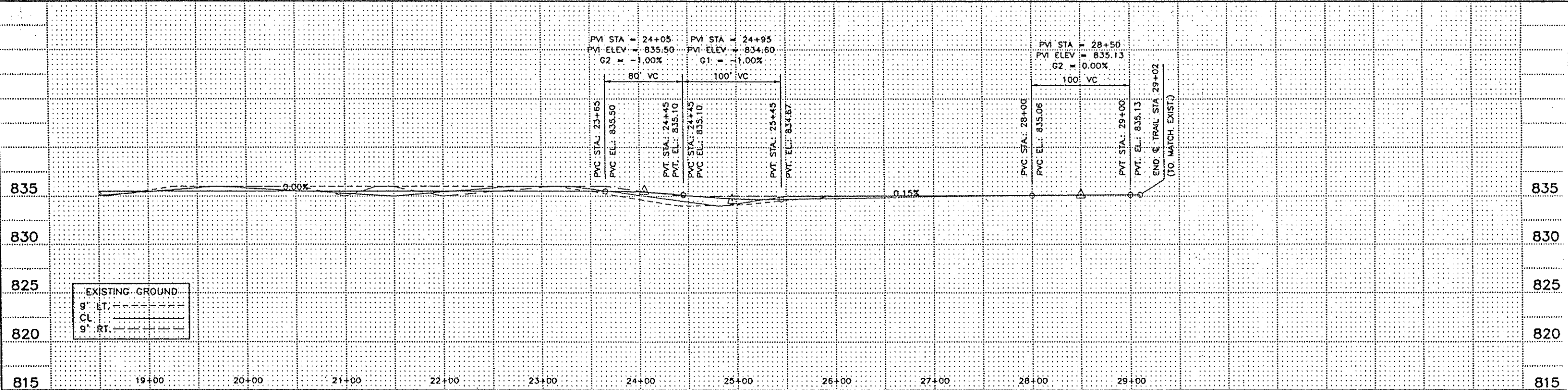
ANOKA COUNTY DEPT. OF PARKS & REC.
 PLAN AND PROFILE
 37TH AVENUE N.E. AND
 CAMDEN BRIDGE TRAIL CONNECTION

S.P. 02-590-02	DRAWN BY C. SCHMIDT DESIGNED BY C. SCHMIDT CHECKED BY J. THIESSE	DATE 1-95 1-95 1-95	SHEET 9 OF 16 COMM. NO. 0942018
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B.M. ELEV. 831.85
 BRASS MONUMENT IN CONCRETE 1.5' BELOW GRADE
 IN CAST IRON CASING WITH REMOVABLE COVER LOCATED
 NORTH OF THE INTERSECTION OF MARSHALL STREET
 AND 37TH AVE N.E.
 N.W. CORNER OF N.E. 1/4
 SEC. 3, T 29, R 24

NOTES
 1 ALL UTILITIES SHOWN ARE EXISTING AND
 SHALL REMAIN INPLACE.



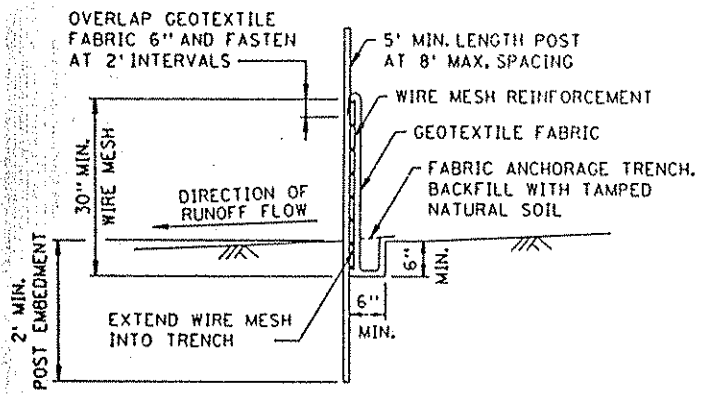
NO	DATE	BY	CHKD	APPR	REVISION

SRF STRGAR-ROSCOE-FAUSCH, INC.
 CONSULTING ENGINEERS ■ LAND SURVEYORS

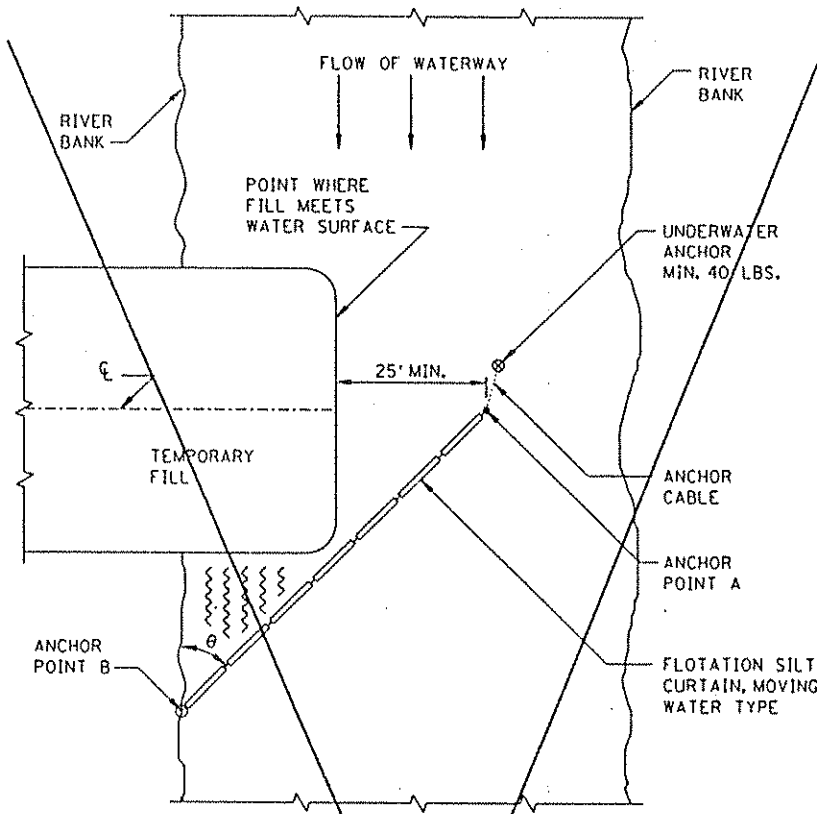
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J. Thiesse
 3-13-95 Reg. No. 18966

ANOKA COUNTY DEPT. OF PARKS & REC.
 PLAN AND PROFILE
 37TH AVENUE N.E. AND
 CAMDEN BRIDGE TRAIL CONNECTION

S.P. 02-590-02	DRAWN BY C. SCHMIDT	DATE 1-94	SHEET 10
	DESIGNED BY C. SCHMIDT	1-94	OF 16
	CHECKED BY J. THIESSE	1-94	COMM. NO. 0942018

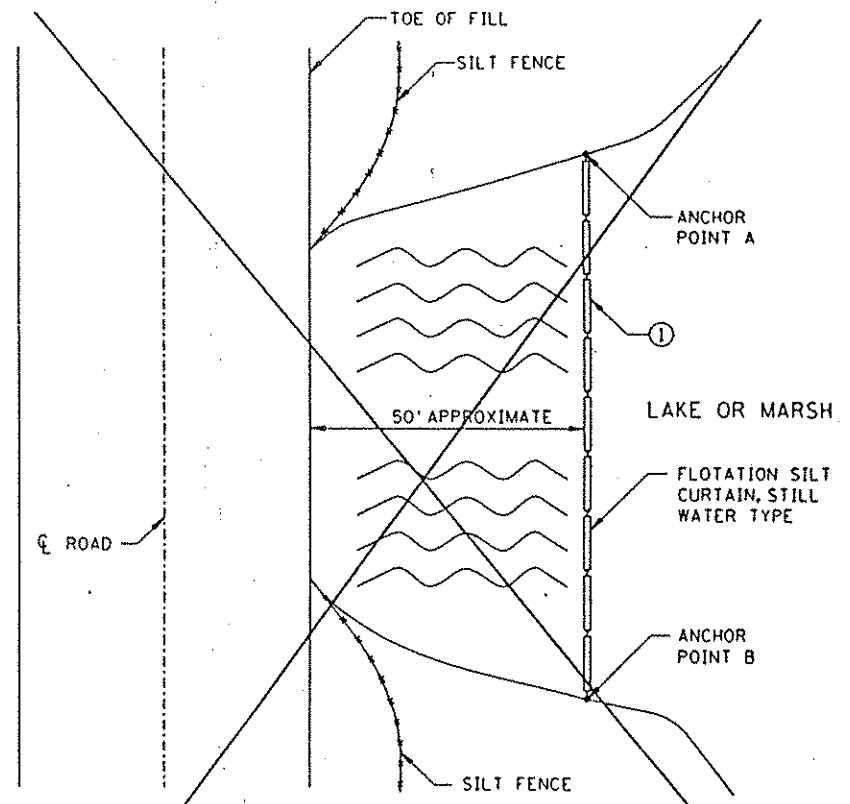


SILT FENCE DETAIL

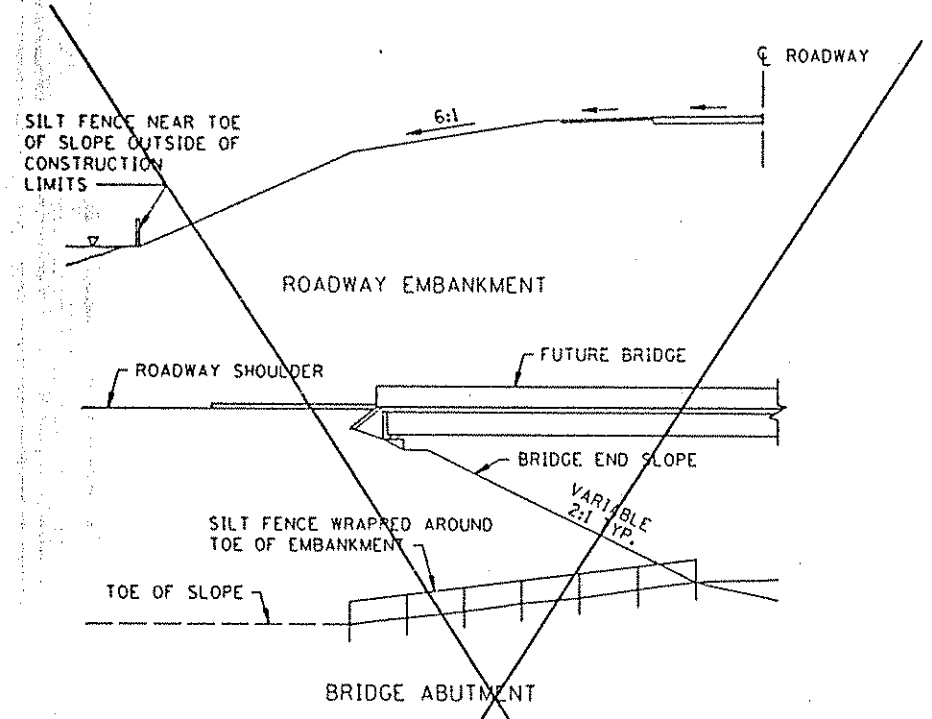


PLAN VIEW OF SILT CURTAIN - MOVING WATER

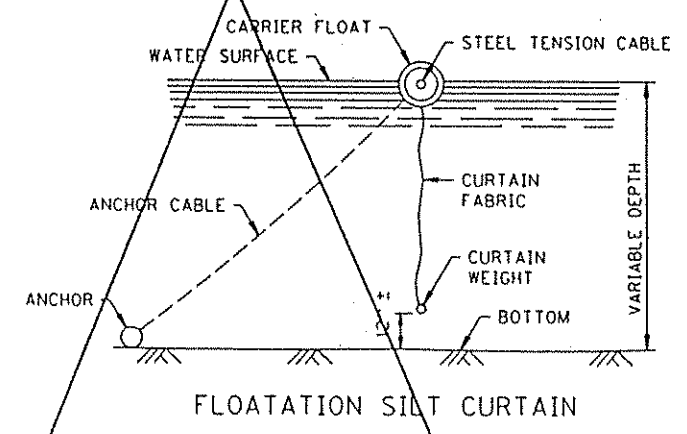
∠ θ	RIVER VELOCITY
45°	SLOW, LESS THAN 5 FT./SEC.
35°	MODERATE, 5 TO 7 FT./SEC.



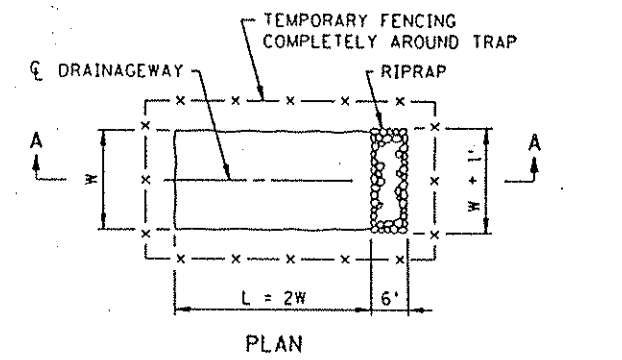
PLAN VIEW OF SILT CURTAIN - STILL WATER
 ① CURTAIN 1 FT. FROM BOTTOM



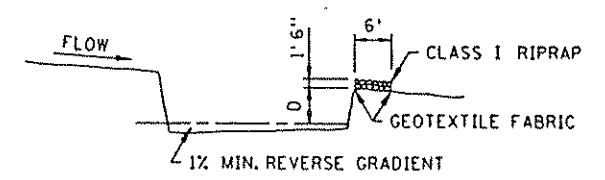
SILT FENCE OR BALE CHECK TO PROTECT ADJACENT CRITICAL AREAS



FLOTATION SILT CURTAIN

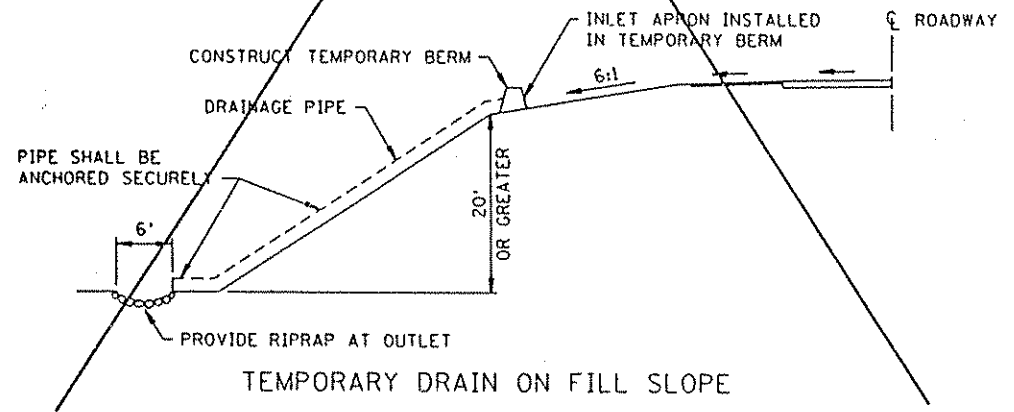


PLAN

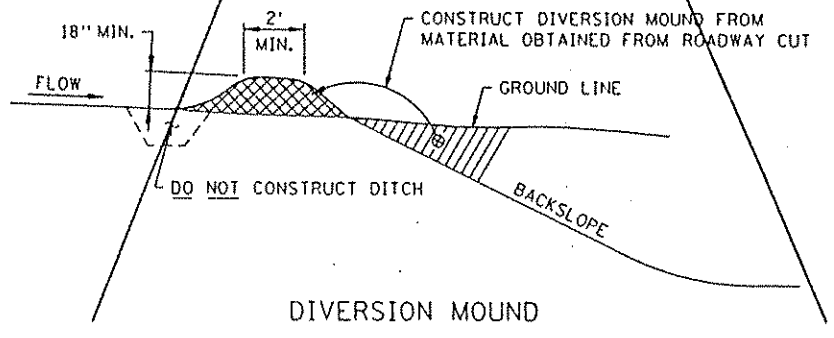


NOTE:
 D = 3' MIN., 6' MAX.
 W = 10' MIN., 20' MAX.

SECTION A-A
 TEMPORARY SEDIMENT TRAP

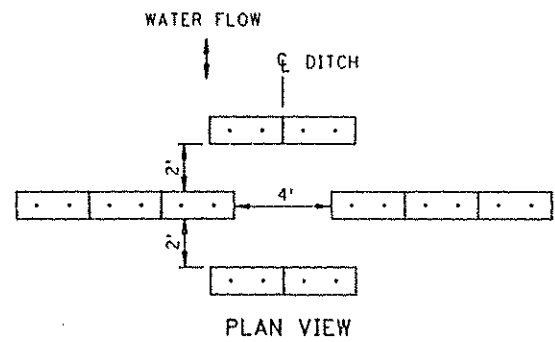


TEMPORARY DRAIN ON FILL SLOPE

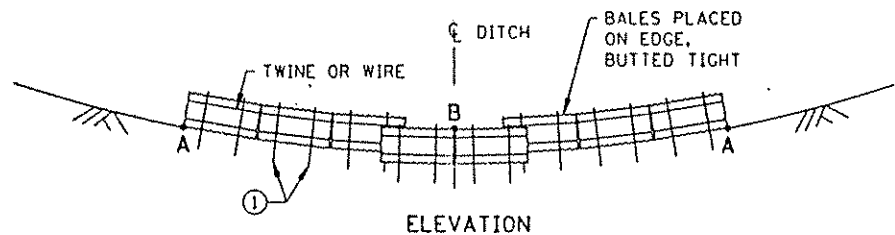


DIVERSION MOUND

STANDARD SHEET NO. 5-297.405 (1 OF 2)	TITLE: TEMPORARY EROSION CONTROL
STANDARD APPROVED: AUGUST 2, 1993	
STATE PROJ. NO. 02-590-02	SHEET NO 11 OF 16 SHEETS



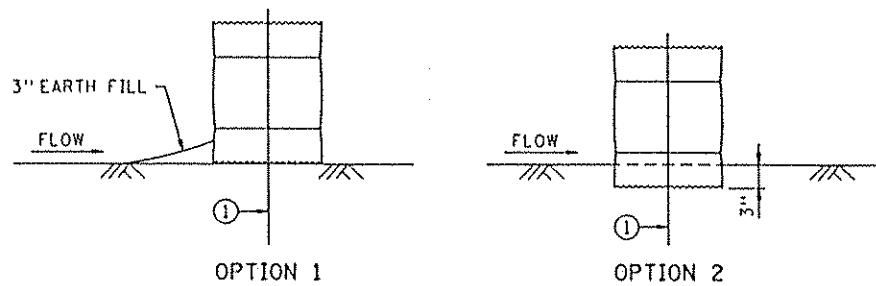
PLAN VIEW



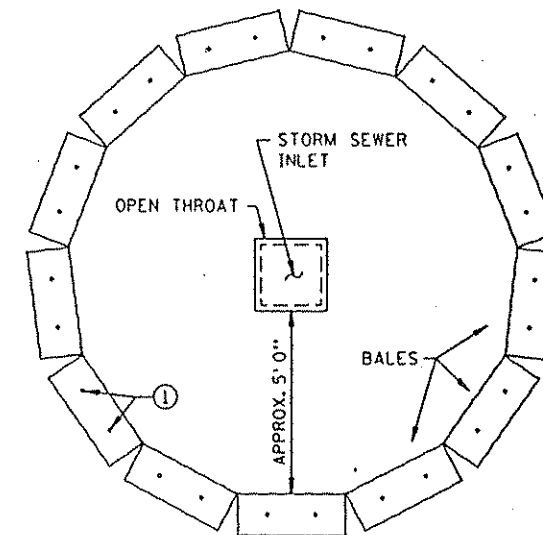
ELEVATION

NOTE:
POINT A MUST BE HIGHER THAN POINT B

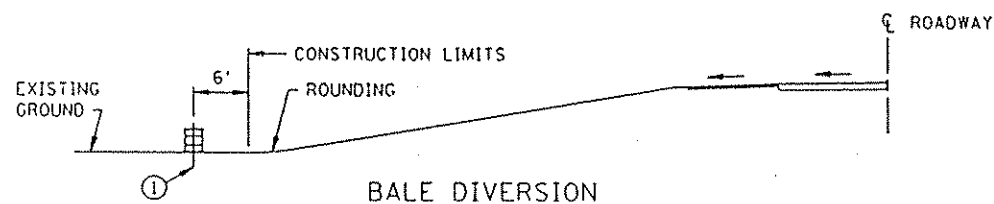
BALE DITCH VELOCITY CHECKS
(WILL REQUIRE A MINIMUM OF 10 BALES PER SITE)



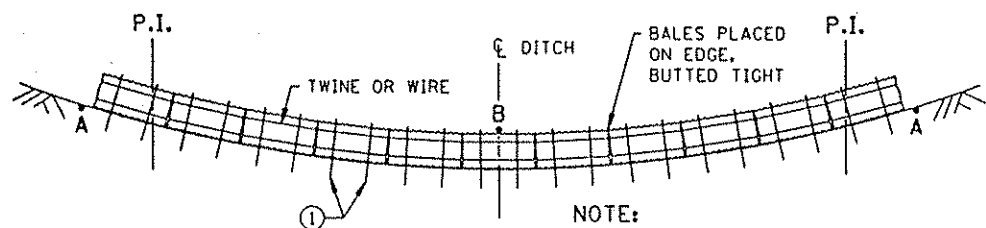
BALE CHECK DETAILS



BALE CHECK
TO PROTECT STORM SEWER INLETS



BALE DIVERSION



BALE DITCH SEDIMENT CHECK

NOTE:
POINT A MUST BE HIGHER THAN POINT B

RECOMMENDED SPACING BETWEEN BALE DITCH CHECKS	
DITCH GRADE (%)	SPACING (FT.)
2	100
4	75
6	50
8	40
10	25

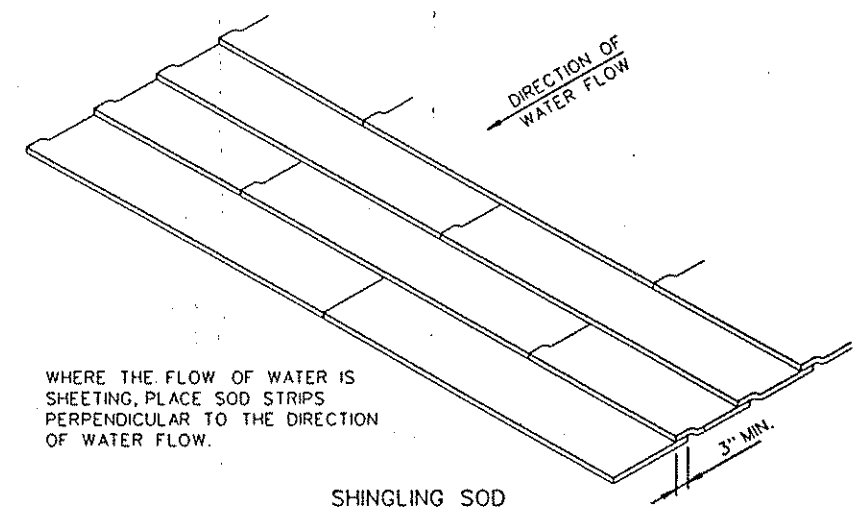
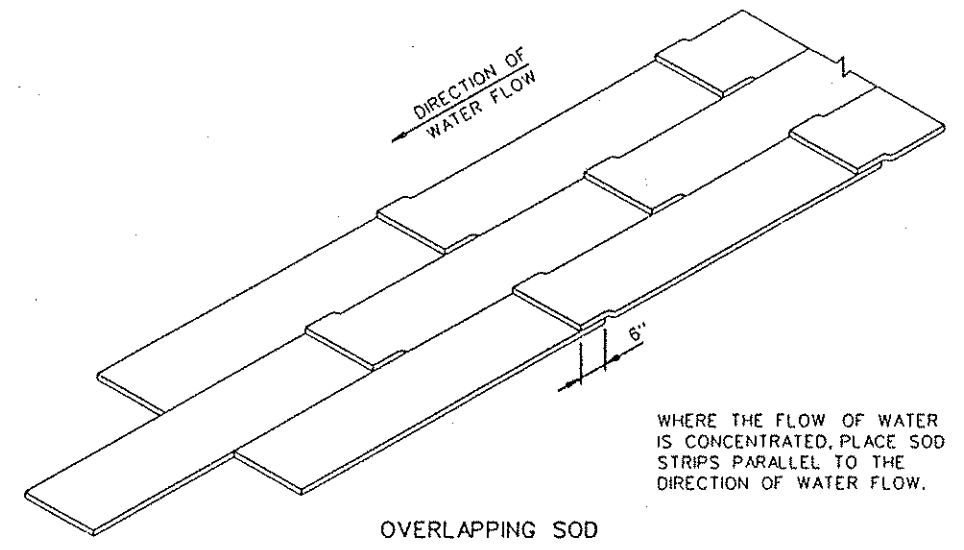
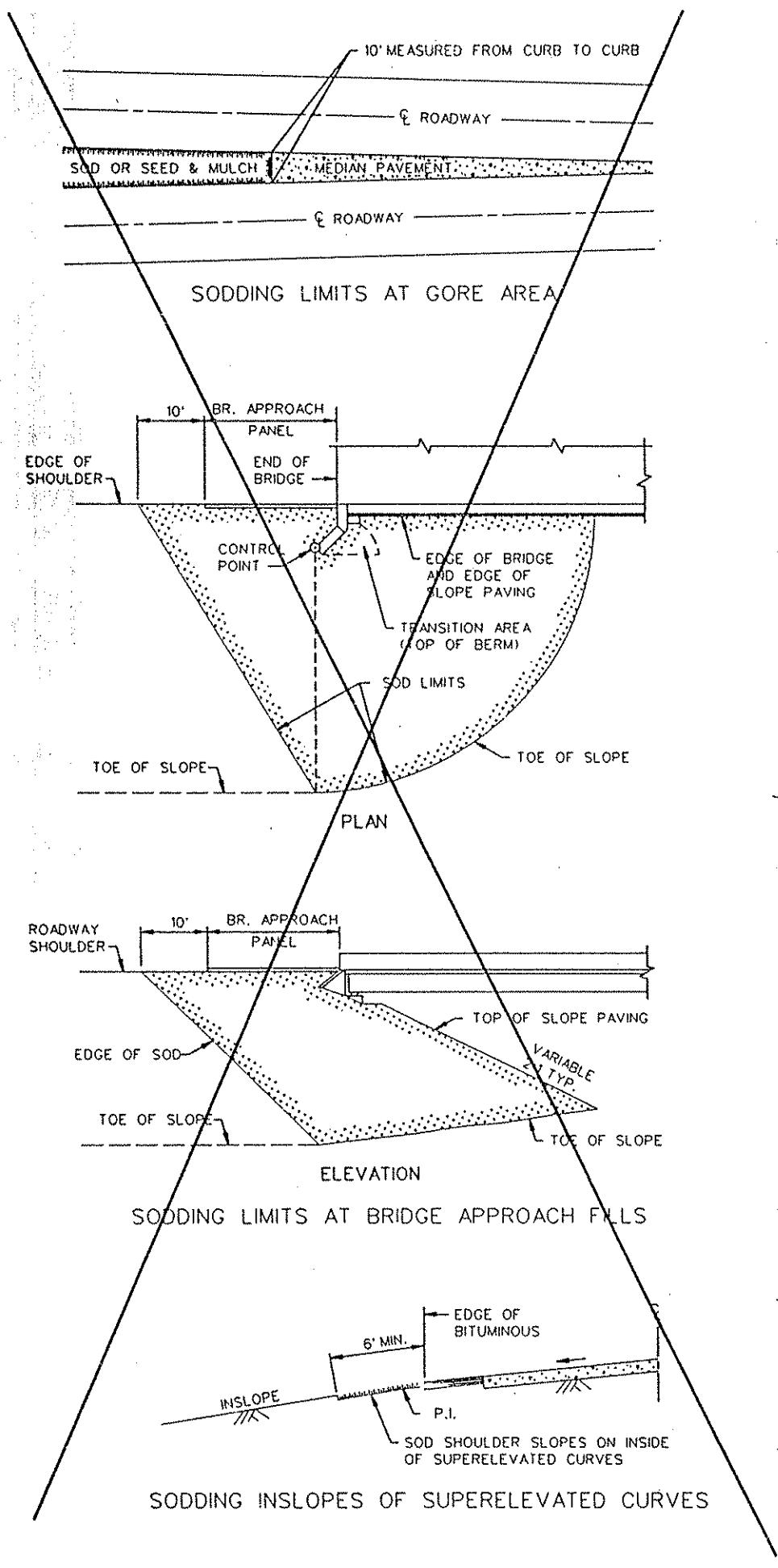
NOTE:
① TWO 2" X 2" WOOD STAKES OR REINFORCING BARS IN EACH BALE AND EMBEDDED IN THE GROUND 10" MINIMUM.

STANDARD SHEET NO.
5-297.405 (2 OF 2)
STANDARD APPROVED:
AUGUST 2, 1993

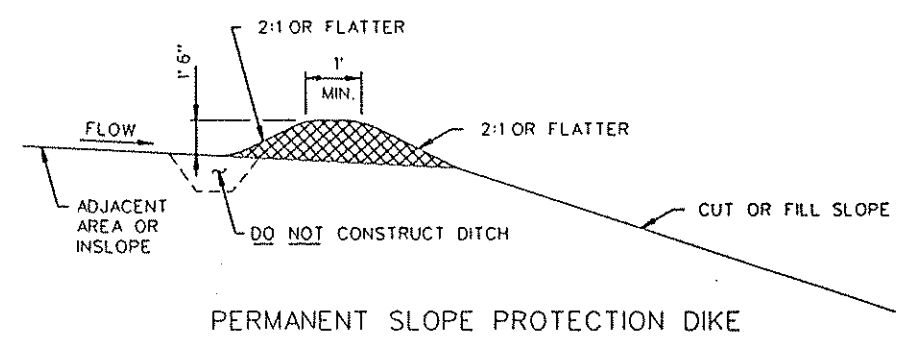
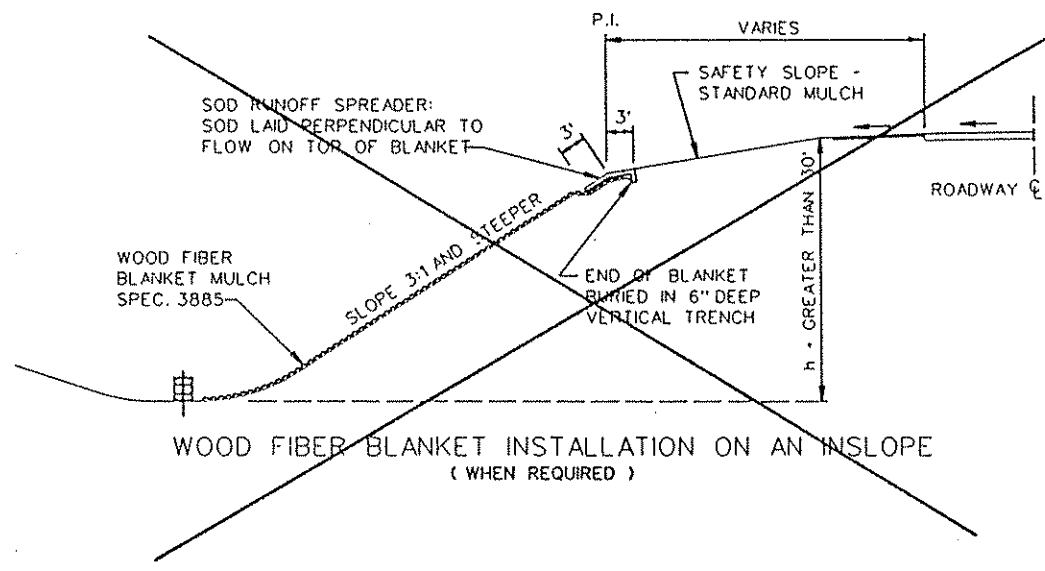
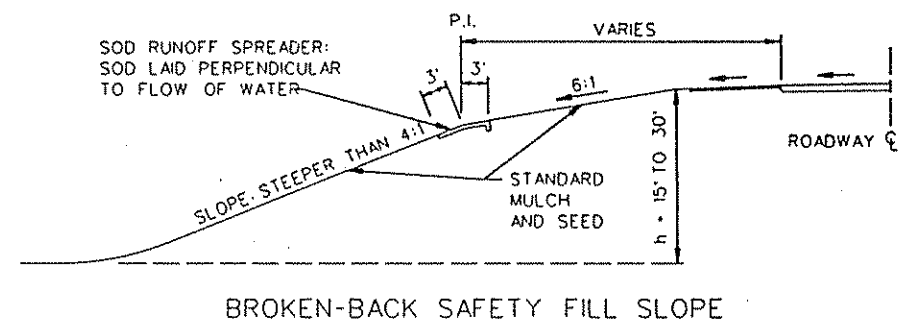
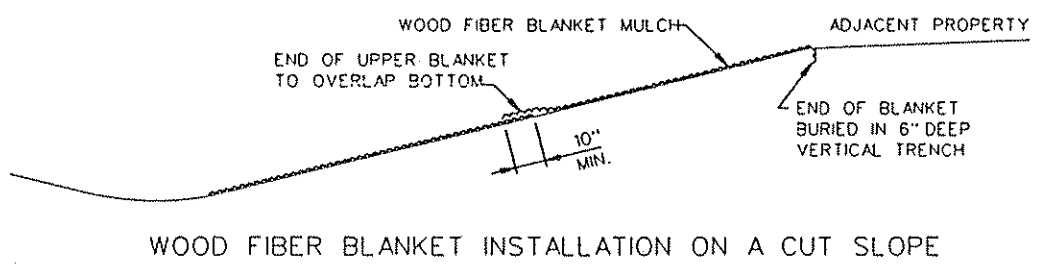
TITLE:
TEMPORARY EROSION CONTROL

STATE PROJ. NO. 02-590-02

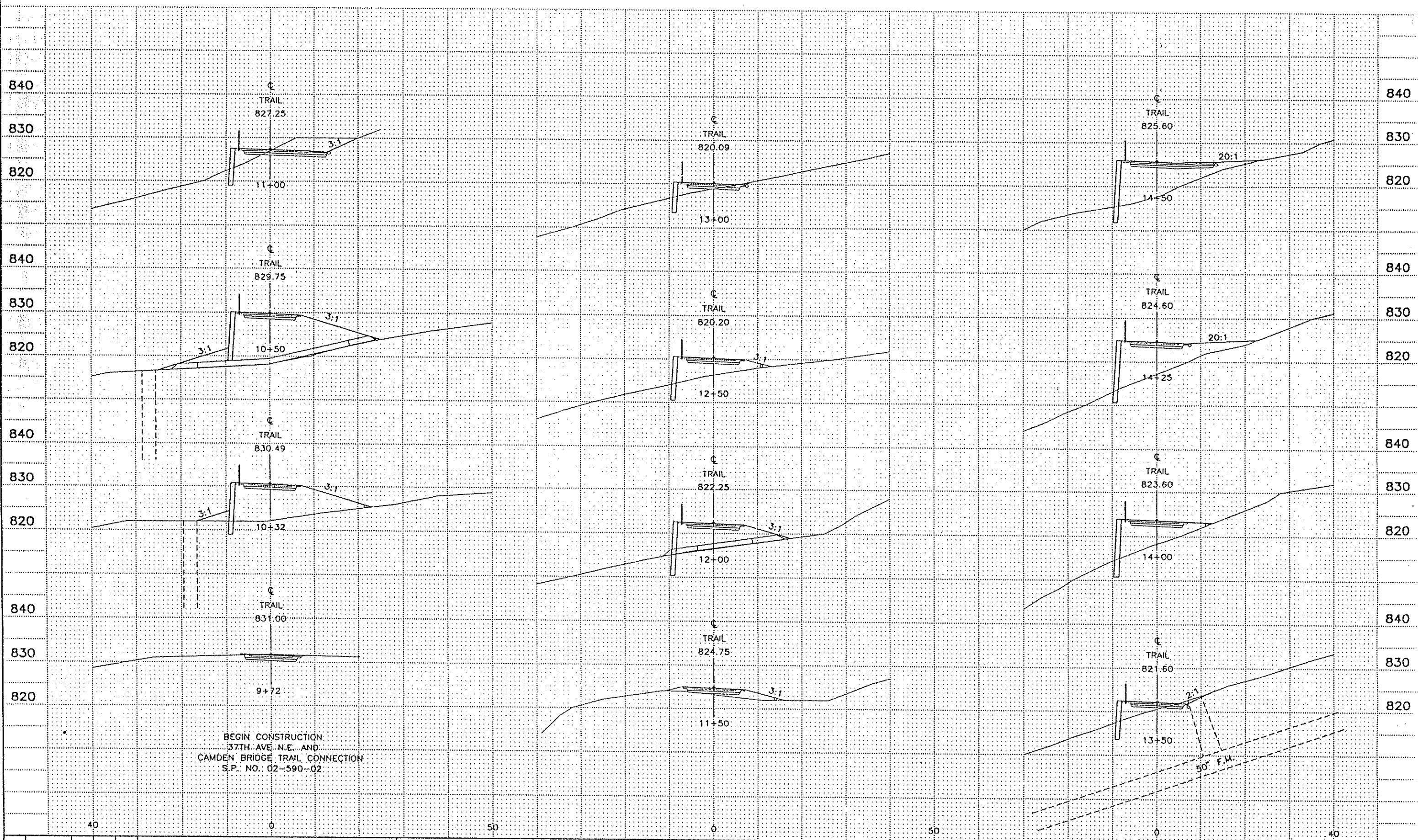
SHEET NO 12 OF 16 SHEETS



SPECIAL SOD PLACEMENT TECHNIQUES



STANDARD SHEET NO. 5-297.406	TITLE: PERMANENT EROSION CONTROL ALONG ROADWAYS AND AT GORE AREAS & BRIDGE APPROACH FILLS
STANDARD APPROVED: JANUARY 31, 1985	
STATE PROJ. NO. 02-590-02	SHEET NO. 13 OF 16 SHEETS



NO	DATE	BY	CHKD	APPR	REVISION

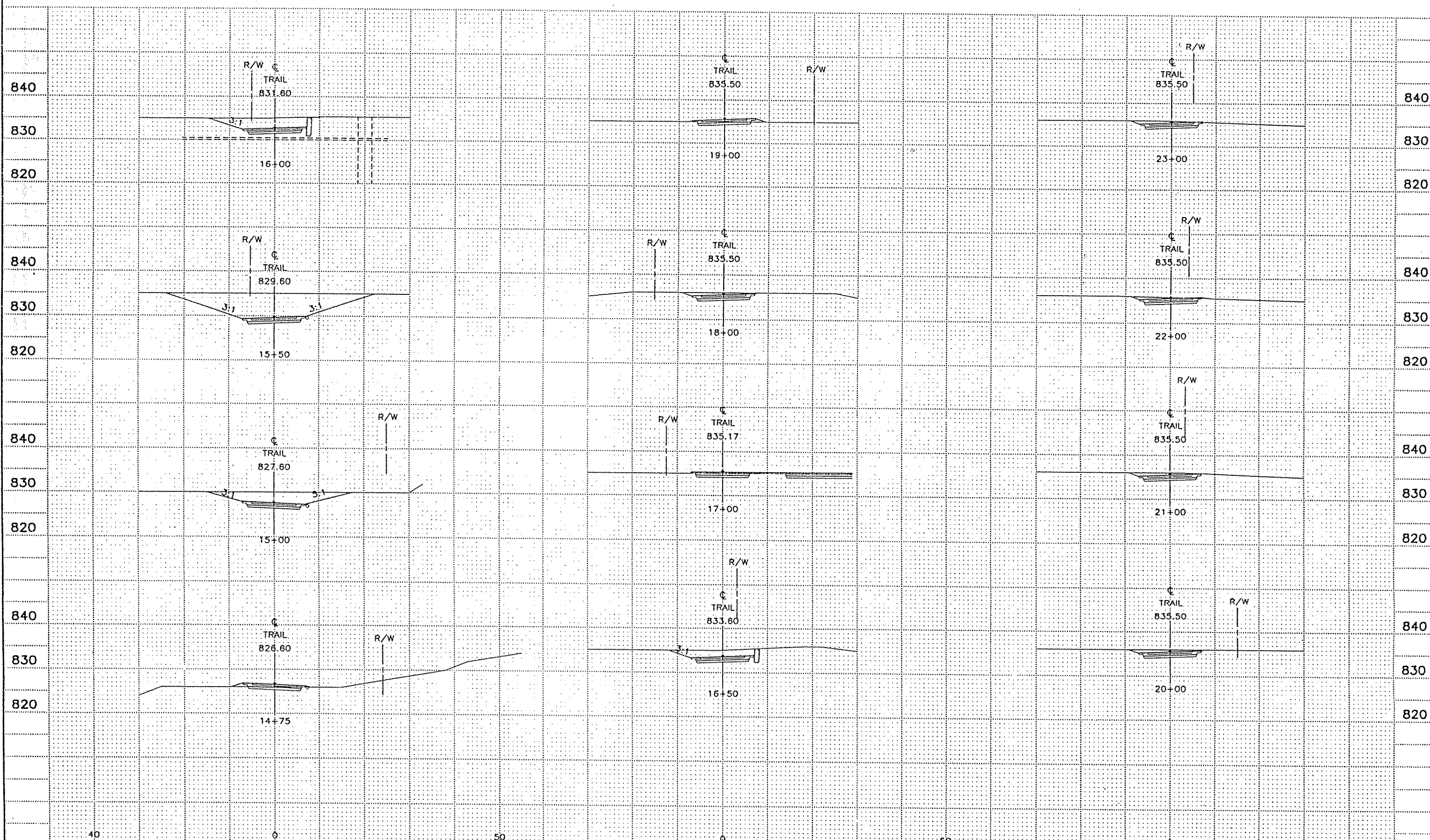
SRF STRGAR-ROSCOE-FAUSCH, INC.
 CONSULTING ENGINEERS ■ LAND SURVEYORS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
J. Thiesse
 Date: 2-15-95, Reg. No. 18966

ANOKA COUNTY DEPT. OF PARKS & REC.
 CROSS SECTIONS
 37TH AVENUE N.E. AND
 CAMDEN BRIDGE TRAIL CONNECTION

S.P. 02-590-02
 DRAWN BY: C. SCHMIDT
 DESIGNED BY: C. SCHMIDT
 CHECKED BY: J. THIESSE
 DATE: 1-95
 DATE: 1-95
 DATE: 1-95

SHEET 14
 OF 16
 COMM. NO.
 0942018



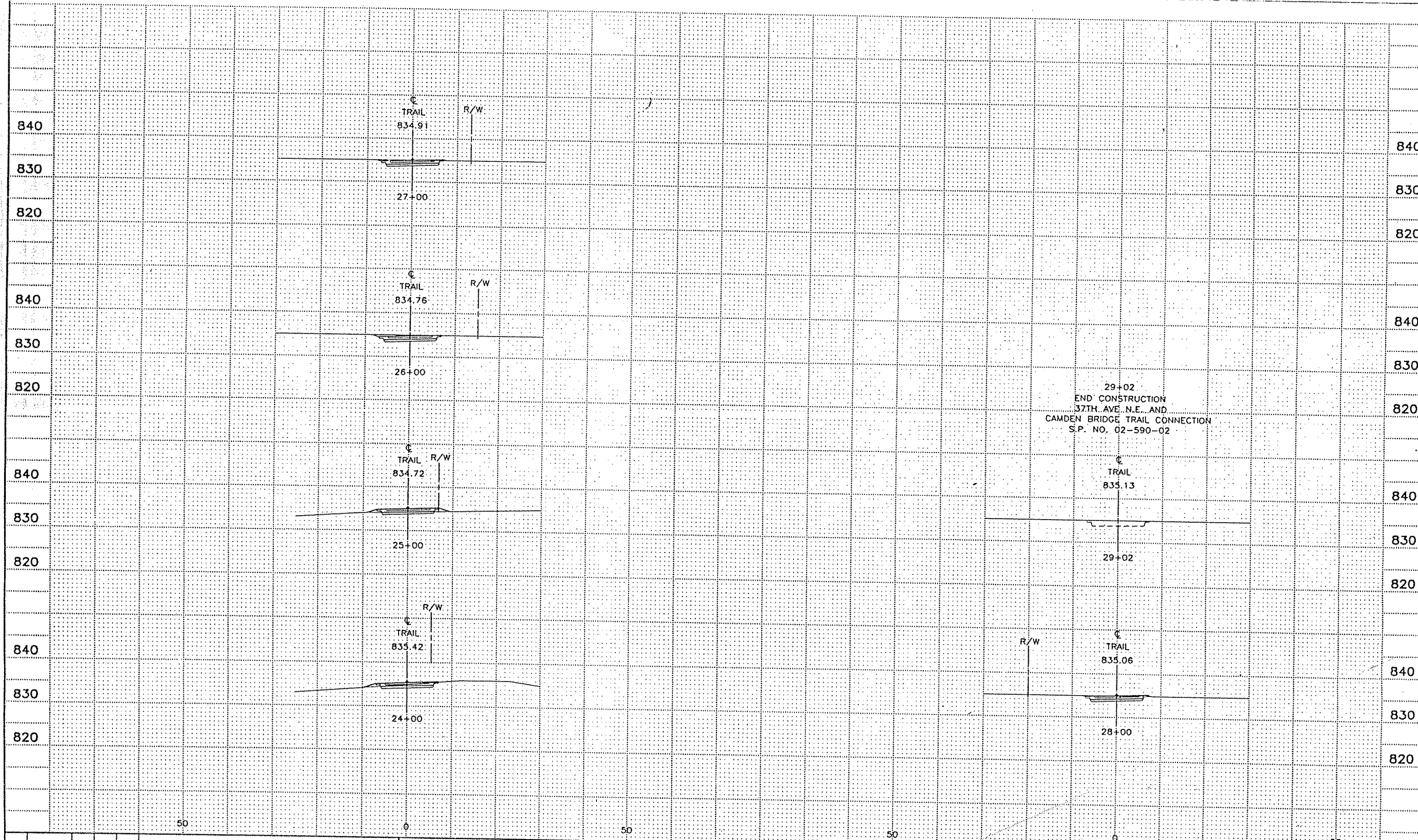
NO	DATE	BY	CKD	APPR	REVISION

SRF STRGAR-ROSCOE-FAUSCH, INC.
 CONSULTING ENGINEERS ■ LAND SURVEYORS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
J. Thiesse
 Date 3-13-95 Reg. No. 18962

ANOKA COUNTY DEPT. OF PARKS & REC.
 CROSS SECTIONS
 37TH AVENUE N.E. AND
 CAMDEN BRIDGE TRAIL CONNECTION

S.P. 02-590-02	DRAWN BY C. SCHMIDT	DATE 1-95	SHEET 15
	DESIGNED BY C. SCHMIDT	1-95	OF 16
	CHECKED BY J. THIESSE	1-95	COMM. NO. 0942018



29+02
 END CONSTRUCTION
 37TH AVE. N.E. AND
 CAMDEN BRIDGE TRAIL CONNECTION
 S.P. NO. 02-590-02

NO	DATE	BY	CKD	APPR	REVISION

SRF STRGAR-ROSCOE-FAUSCH, INC.
 CONSULTING ENGINEERS ■ LAND SURVEYORS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
C. Schmidt
 Date 3-13-95 Reg. No. 18966

ANOKA COUNTY DEPT. OF PARKS & REC.
 CROSS SECTIONS
 37TH AVENUE N.E. AND
 CAMDEN BRIDGE TRAIL CONNECTION

S.P. 02-590-02	DRAWN BY C. SCHMIDI	DATE 1-95	SHEET 16
	DESIGNED BY C. SCHMIDI	DATE 1-95	OF 16
	CHECKED BY J. THIESSE	DATE 1-95	COMM. NO. 0942018